



Prepared by:

**SINGH** | SINGH & ASSOCIATES, INC.  
CONSULTING ENGINEERS  
[www.singhinc.com](http://www.singhinc.com)

Angela Giovannone, PE

Vytas Pelegrimas, PE

Prepared for:



Division of Facilities Services



## TABLE OF CONTENTS:

### **Monona Terrace Parking Ramp Equipment Evaluation Report**

Project Background.....	1
Project Scope .....	1
Existing Conditions.....	2
Options for Increased Efficiency .....	10
Traffic Flow Options .....	10
Vendor Summaries .....	15
Recommendation .....	21
Additional Upgrades .....	23
Estimated Budget.....	26
<b>Appendix A (Amano McGann) .....</b>	<b>A-1</b>
<b>Appendix B (DataPark).....</b>	<b>A-59</b>
<b>Appendix C (Federal APD).....</b>	<b>A-139</b>
<b>Appendix D (GMG Systems).....</b>	<b>A-179</b>
<b>Appendix E (Parking Products, Inc.) .....</b>	<b>A-209</b>
<b>Appendix F (ParkingSoft) .....</b>	<b>A-227</b>
<b>Appendix G (SKIData).....</b>	<b>A-259</b>
<b>Appendix H (T2 Systems) .....</b>	<b>A-305</b>
<b>Appendix I (Vendor Evaluation Questionnaire) .....</b>	<b>A-315</b>

# SINGH

---

## **Project Background:**

The existing parking and revenue control equipment, manufactured by Federal APD, at Monona Terrace was installed when the building was constructed in 1997. As the building reaches its 15 year anniversary, the equipment is now beyond its 10 to 12 year life expectancy. The existing parking and revenue control equipment suffers from frequent breakdowns and is becoming costly and difficult to repair. Since 2007, \$56,000 has been spent on servicing the aging equipment with \$13,200 of that expended in 2011. Per the parking management company, Central Parking Systems (CPS), parts to service the equipment are no longer available through the equipment vendor TAPCO. Replacement parts have been found on the secondary market, but that source is likely to disappear in the near future.

With the frequency of equipment breakdowns, the patrons of the convention center and parking garage are required to deal with increased delays in entering and exiting the facility. Due to the almost permanent outage of the equipment at Pinckney, the only available egress is via the John Nolan exit, unless you are a monthly parking pass holder.

This report will evaluate the existing conditions and equipment, explore the various options to ameliorate the above issues and provide recommendations.

## **Project Scope:**

SINGH will:

- Investigate traffic patterns to determine if altering patterns would increase efficiencies.
- Evaluate existing communications, IT and electrical systems for capacity and compatibility with new parking entrance system, ITS wayfinding elements and cameras.
- Evaluate possibility of reusing existing conduit where possible.
- Evaluate existing security system for capacity and ability to add new cameras.
- Research various garage entrance systems and recommend a system most appropriate for the site. Selection of system will be based on reliability, maintainability (preferably maintenance free), efficiency, revenue reporting ability and customer service. Part of the entrance system research will be payment options for high volume, special event parking, such as: payment at entrance (flat rate); payment on exit; automated pay via credit card, access card and cash; pay stations inside convention center.
- Investigate ITS technologies to assist in efficient ingress/egress and traffic management inside parking ramp.
- Investigate compatibility of new technology with existing system to ease construction staging. (Potentially rebuild Pinckney exit first compatible with existing system to increase capacity during construction phase.)
- Identify magnitude of invasive construction to concrete components of parking ramp for each alternative and option. Investigate the use of above-ground sensors for queue detection.

# SINGH

## Existing Conditions:

### **Parking Ramp Equipment:**

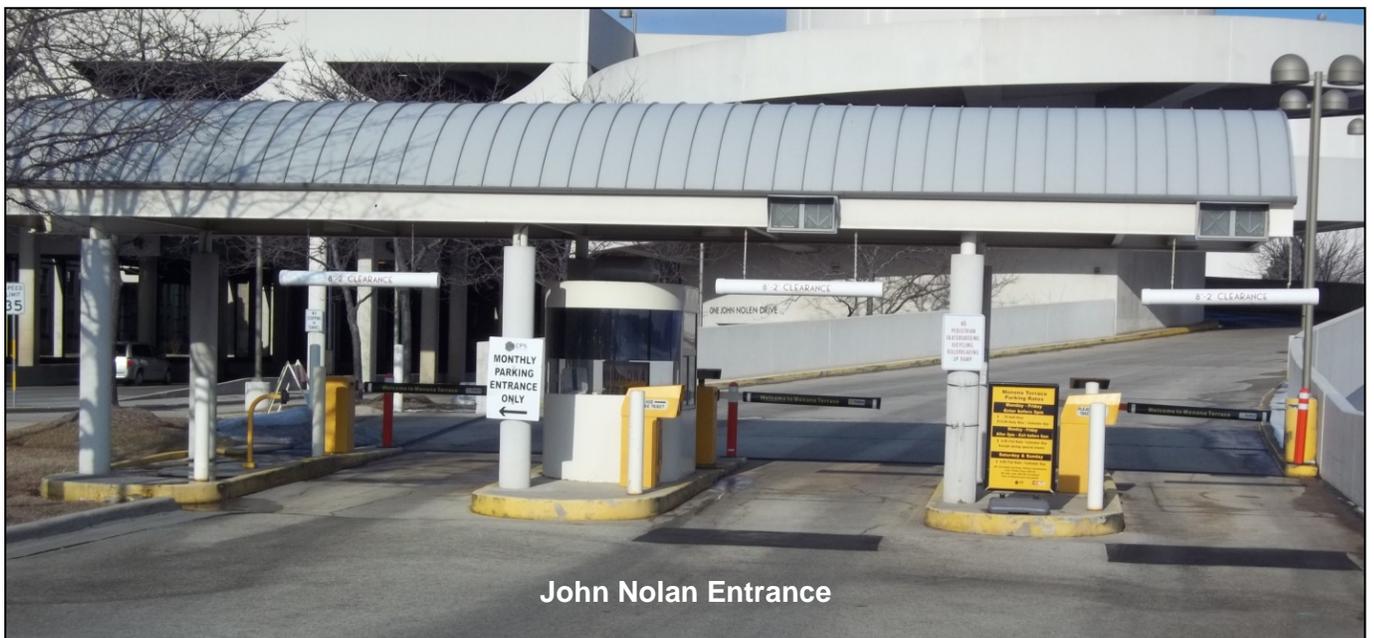
The Monona Terrace Convention Center Parking Garage is a two-level structure with 518 parking spaces available for monthly and transient users. The monthly users are typically state employees working in the governmental offices located within close proximity to the parking garage. Monona Terrace reserves 200 of the available spaces in the garage for the use of the monthly pass holders during business hours from Monday through Friday. The transient users generally consist of one-time users attending the events held at the Convention center or to access other businesses located in the vicinity.

The lower level can accommodate 292 cars and has two entrances: John Nolan Drive and South Carroll Street. The entrance from John Nolan Drive has three lanes for processing arriving cars. One lane is dedicated to monthly pass users while the other two lanes have automated ticket dispensers. There is an attendant booth in one of the automated lanes. At the entrance gates from John



South Carroll Street Entrance

Nolan Drive, cars tend to spill back onto John Nolan Drive causing right lane blockage. The entrance from South Carroll Street has an automated entry ticket dispenser for transient users and a proximity card reader for monthly pass users. Only one exit onto John Nolan Drive exists and is through the northeast helix structure. The exit onto South Pinckney Drive is accessible from the upper level.



John Nolan Entrance



Carroll Street Gate – Upper Level & Pinckney Street Exit

The upper level has a capacity of 226 cars. Both monthly and transient users enter from South Carroll Street through the shared lane and proceed to the gated ticket dispenser located near the South Pinckney Street exit gate. There are two exits from the upper floor: the first exits onto South Pinckney Street and the second onto John Nolan Drive (reachable from the lower level through the northeast helix structure). The exit to South Pinckney Street is intended to be shared by monthly and transient users alike, but currently, the exit to South Pinckney Street is closed to transient users due to equipment failure in the exit gate booth. All cars, except those with monthly passes, have been routed to the John Nolan Drive exit, creating a large bottleneck in the garage.

# SINGH

The exit to John Nolan Drive has three lanes for collecting fees: one lane is for monthly pass users only; the other two lanes have manual booths with attendants for processing cash and credit card payments. From field observation, it takes approximately 30 seconds for a car to clear the lane, with some of the cars spending up to a minute at the gate. After the car approaches the manual exit booth, the payment process is as follows: a driver hands a ticket to the attendant who calculates the fee, the driver then pays either by a credit card or cash and waits for a receipt. Because of the various human factors involved, some drivers might remain longer at the exit gates (e.g. looking for money, locating ticket, lost ticket, asking the attendant for directions or other information), which noticeably slows the traffic flow through the gate.



During special events, the major problem encountered by patrons is the long queues to enter and exit the garage.

## Existing Electrical:

Currently the booths at John Nolan entrance and exit are fed from panels RHW4ELA and RHE4ELA located in the helix maintenance rooms. Each booth has a 125Amp, 120/208V, single phase panel which are fed from 125 Amp/2 pole breakers. The panels in the booths feed the booth loads and the loads of the adjacent entrance and exit equipment. The entrance equipment at Carroll St. (off of Wilson) is fed from panel RW29ELA located in the West electrical rooms on the lower level. The exit booth at Pinckney St. on the upper level of the garage is fed from panel RE29ELB, located in the East electrical rooms on the lower level. All of the panels currently feeding the parking equipment have several spare breakers and multiple spaces. The existing conduits are in good condition and can be reused to feed the new equipment. The existing electrical system has more than sufficient capacity to

handle any additional load from replacement of the existing parking control equipment and any new signage and camera systems.

## **Existing Data:**

The current parking and revenue control equipment is served by dedicated connections to the Monona Terrace Convention Center internet service via RS-422. RS-422 refers to cable made up of two sets of twisted pair and a ground wire.

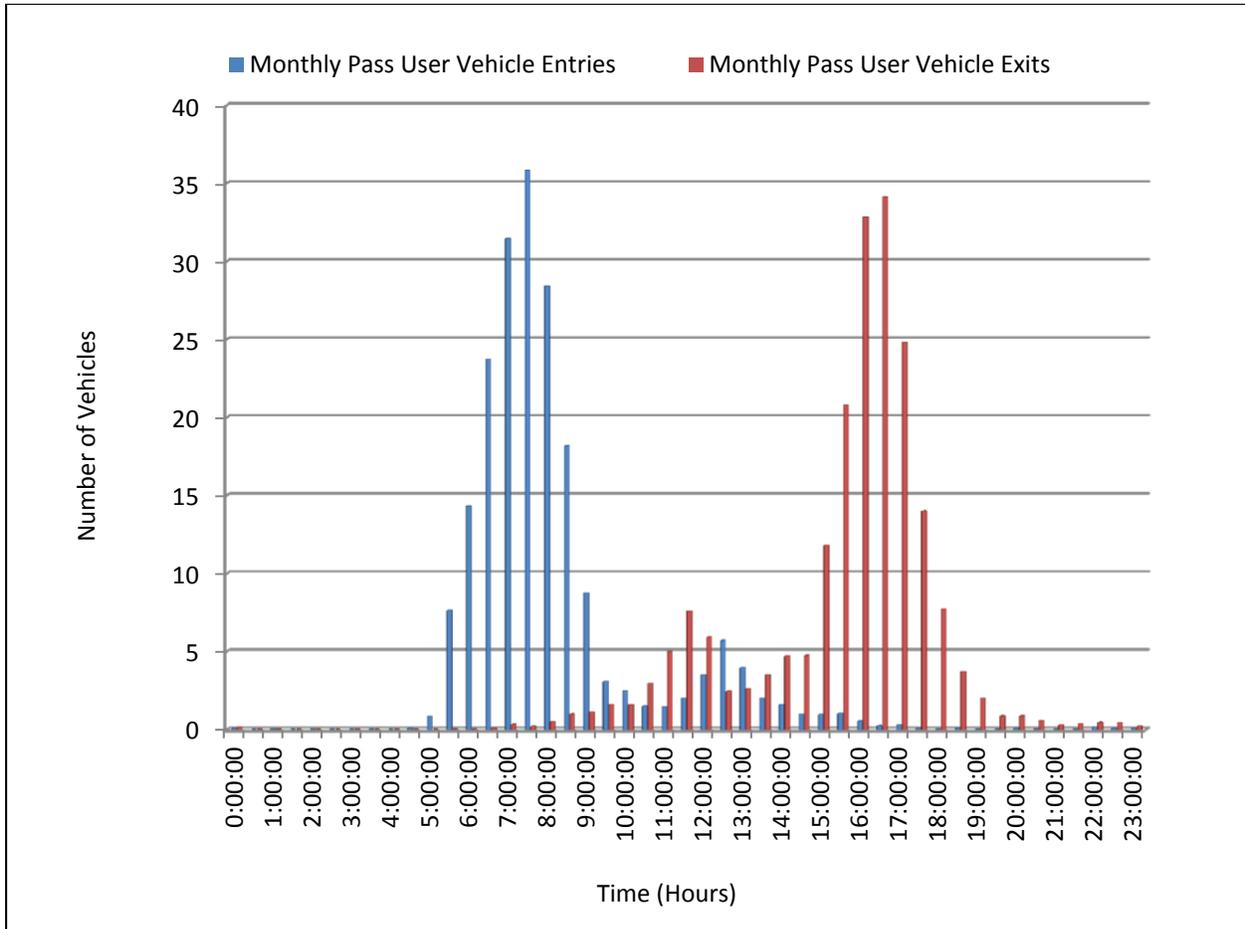
## **Parking Ramp Usage:**

The Lot Count Non-Resettable data collected from August 1<sup>st</sup> to September 1<sup>st</sup> of 2011 was used to analyze the parking flow patterns in and out of the garage. Only the total number of cars arriving and leaving the garage, split into monthly user or transient user category was available. Data did not include the breakdown of cars at each entrance or exit point.

While analyzing the data, it was apparent that the parking garage usage patterns are different on weekdays than on weekends. On weekdays, the average number of cars parking in the garage was 732, while the highest and lowest car numbers recorded were 1,430 and 419 cars, respectively. In addition, 209 monthly users on average parked in the garage on weekdays; the highest count being 231 users and the lowest 167 users. On weekends, 365 cars on average parked in the garage, with the maximum and minimum number being 768 and 87 cars, respectively. Only 3 monthly users parked on average; 11 users being the maximum number recorded and 0 users the lowest.

The monthly users exiting to John Nolan Drive have the benefit of a dedicated exit lane, which translates to more rapid egress from the garage. However, the exit lane to South Pinckney Street is shared with transient users. On weekdays, the recorded entry and exit times for monthly users are consistent throughout the week and correspond with the business hours of the governmental agencies in the area; the largest numbers of cars enter from 6 am to 9 am and exit from 3 pm to 6 pm. Graph 1.1 shows monthly user arrivals and departures throughout the day per 30 minute increment. On weekends, the dedicated lanes become underutilized and are not available for general use during special events.

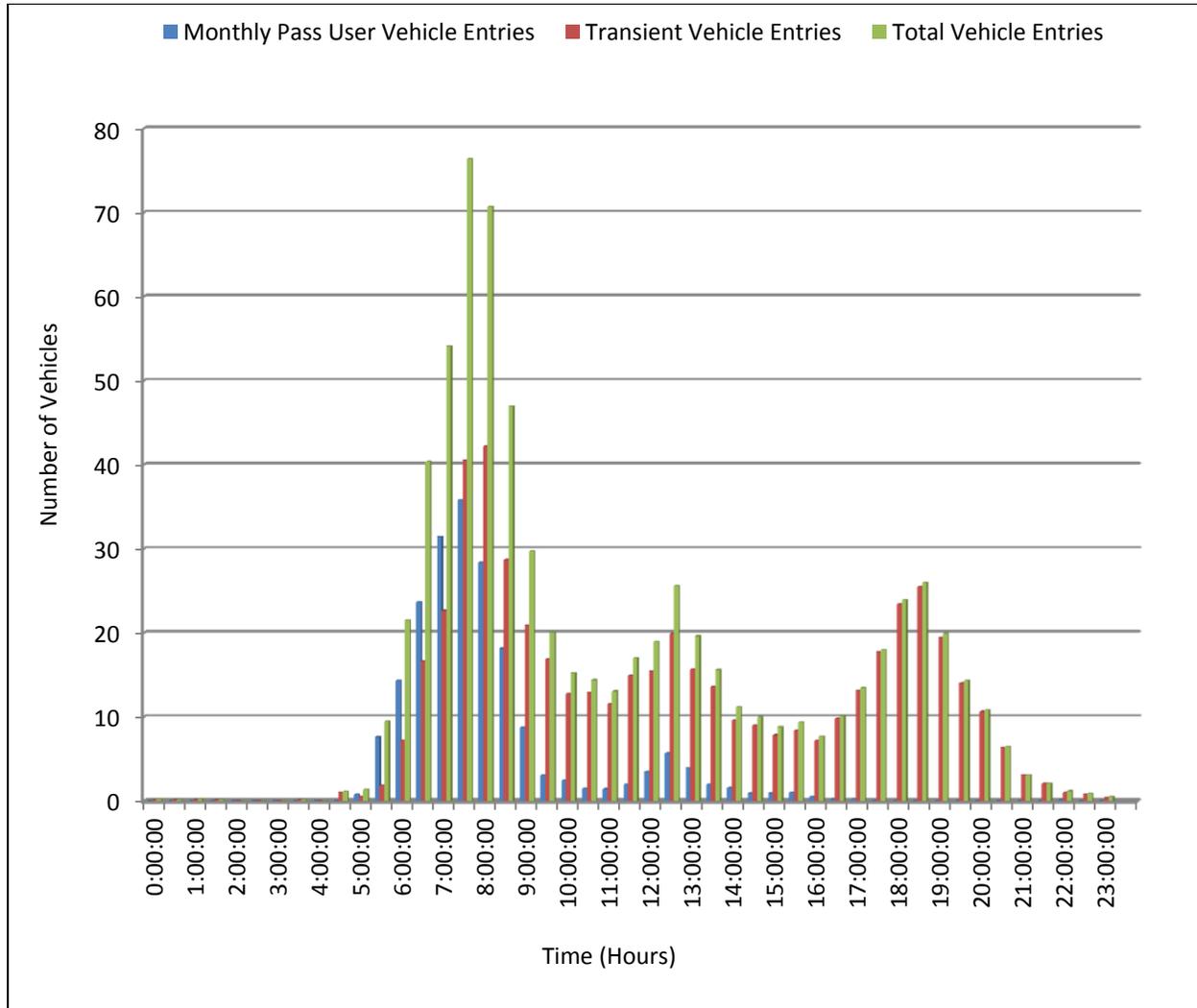
## Average Weekday Monthly-User Entries to and Exits from the Parking Garage recorded from 8/1/2011 to 9/1/2011



**Graph 1.1**

Transient user peak arrival times are similar to monthly users, but are spread out more evenly throughout the day.

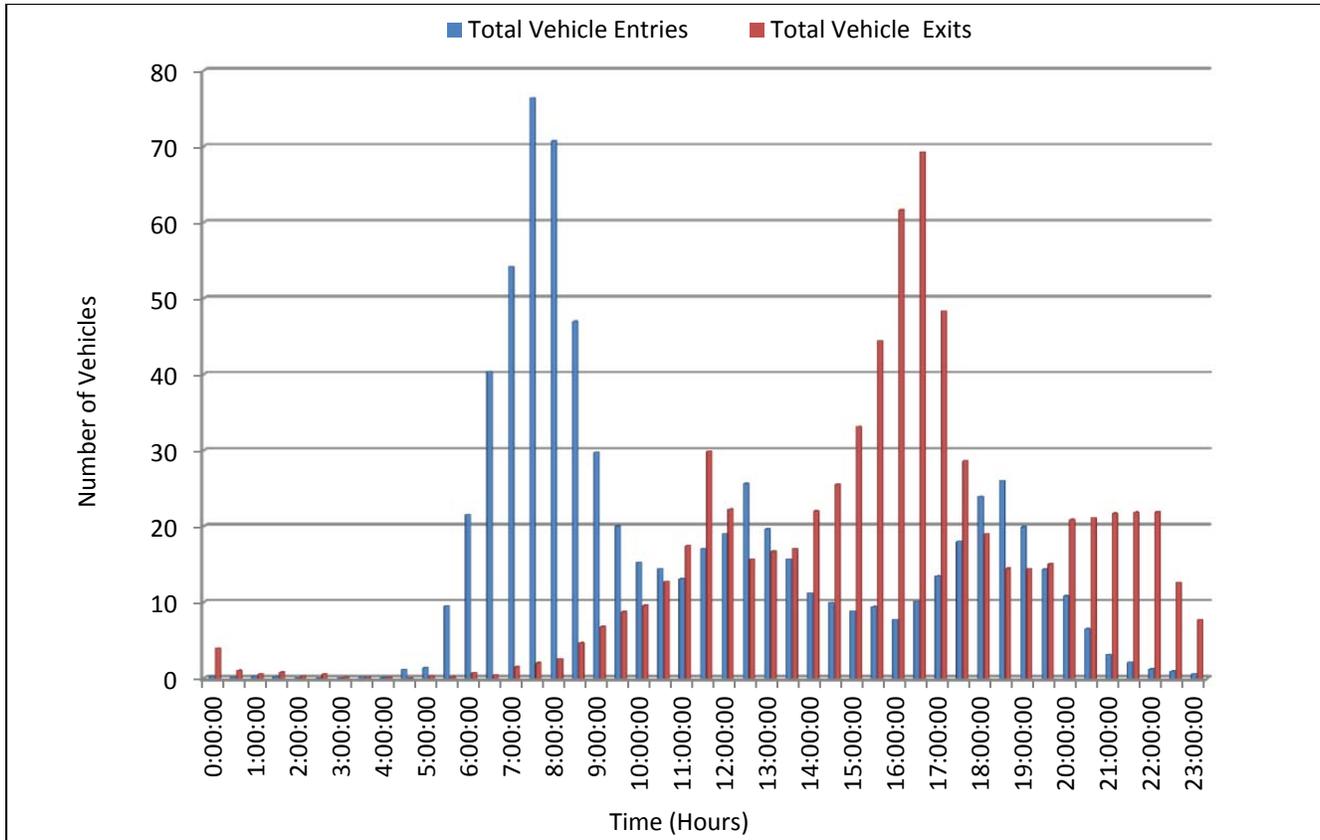
## Average Number of Weekday Transient and Monthly User Entries to the Parking Garage from 8/1/2011 to 9/1/2011



**Graph 1.2**

Graph 1.2 shows transient, monthly, and the total number of cars arriving to the garage throughout the day per 30 minute increment.

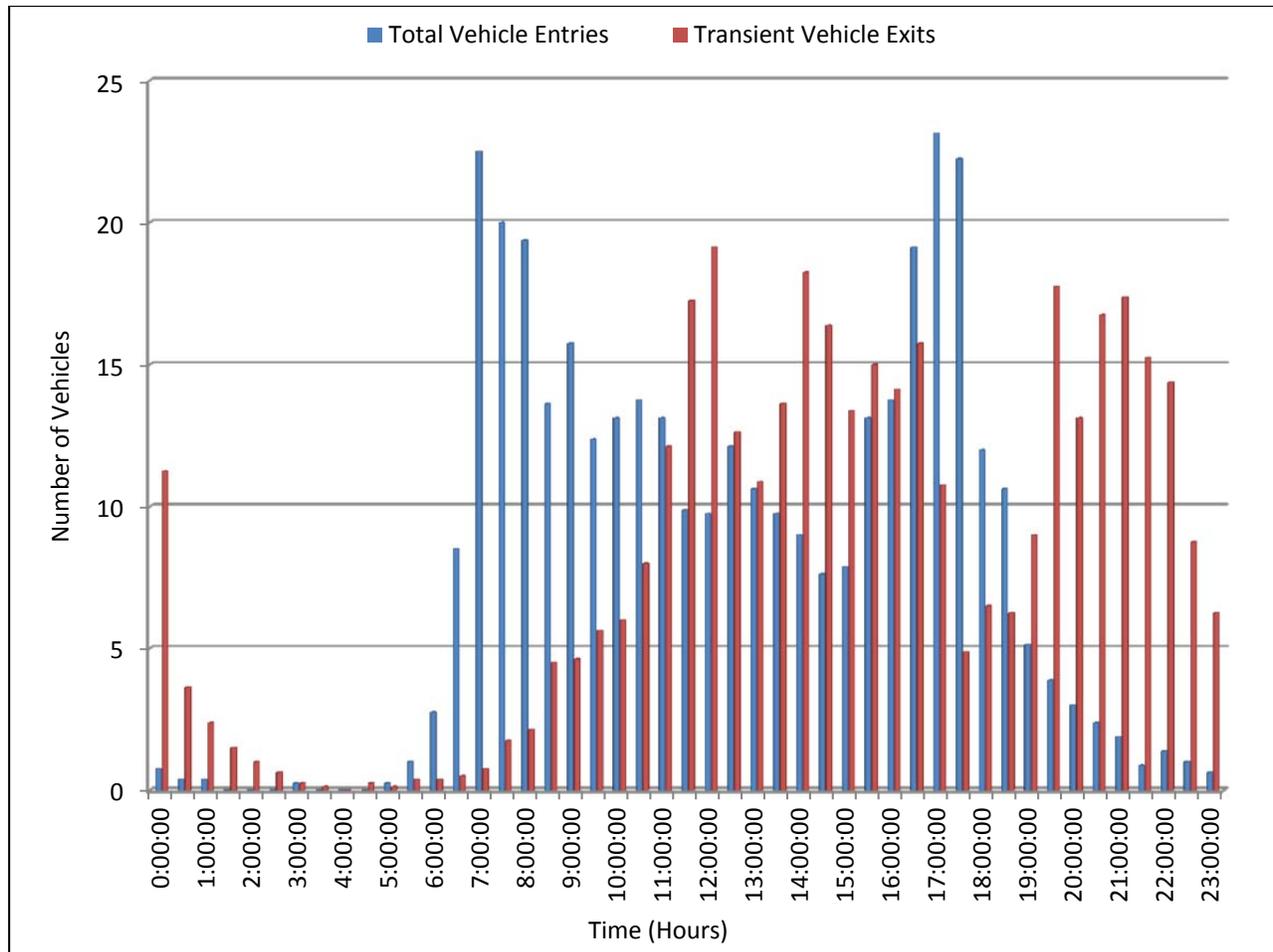
**Average Number of Weekday Total Entries to and Total Exits from the Parking Garage from 8/1/2011 to 9/1/2011**



**Graph 1.3**

Graph 1.3 shows weekday average car numbers arriving at and leaving from the garage throughout the day per 30 minute increment.

**Average Number of Weekend Total Entries to and Total Exits from the Parking Garage from 8/1/2011 to 9/1/2011**



**Graph 1.4**

Graph 1.4 shows weekend average car numbers arriving at and leaving from the garage throughout the day per 30 minute increment.

**Summary:**

From the traffic data analysis, it was observed that the parking garage utilization is less on the weekends than on the weekdays, as very few monthly users use the garage on the weekends. Also, the majority of the monthly and a similar number of transient user’s arrival and departure times are consistent every weekday. They arrive in clusters from early morning to late evening and leave from early evening to late evening; mainly using the garage during regular business hours.

Most transient users tend to enter in groups for the special events held at the convention center or in the city center nearby. On the weekends, the transient users arrive in groups early in the morning or late in the afternoon and leave in groups during lunch hours and in the late evening hours.

## **Options for Increased Efficiency:**

To improve the flow in and out of the structure during special events when cars arrive and leave in clusters, the dedicated monthly pass user entry and exit lanes could be open to all users. In addition, all lanes could be equipped with proximity card readers in order to process monthly pass users. This should not cause delays to ingress and egress for the monthly pass users as their peak arrival and departure times are different from the users parking during the special evening and weekend events.

During the peak morning hours, when the dedicated entry lane is used the most, it could remain exclusively open to monthly pass users. At the entrance gate, a message such as “open to monthly users” could be relayed to the drivers via dynamic message sign (DMS). During non- peak hours, the DMS sign would be programmed to display another message such as “open to all users”. The times when the lane is dedicated or multi-use could be adjusted depending on the demand. Many events are held in the evening and finish after 9 pm or later, which is long after the monthly pass users have left the building. The exit lane dedicated to monthly users at John Nolan Drive has the same issue during evening and weekend special events and could be kept open to all the users by adding a DMS sign at the exit.

## **Pinckney Exit Issues:**

An immediate solution to the situation of the downed equipment at the Pinckney exit is to contact TAPCO and discuss the available options to get the equipment back in operation. The TAPCO representative that Singh contacted said that it would be possible to install a temporary replacement of the failed equipment until a replacement part could be located or until new equipment arrives. This exercise would help with some of the delays by offering the patrons two exit options rather than one.

## **Traffic Flow Options:**

We explored the possibility of transforming the South Carroll Street entrance lane, which leads to the lower level of the garage, into an exit lane. The cars could still enter from South Carroll Street, but they would have to access the garage from the upper level and, during special events, would have to deal with the “drop-off” traffic before entering the paid area of the ramp. This proposition would not require extensive modifications to the existing striping in the garage, as the cars, currently proceeding to John Nolan Drive exit, could potentially use South Carroll Street exit for faster egress. However, the existing concrete island with entrance gates from South Carroll Street would need to be removed and a new island installed in order to function as an exit rather than an entrance. The estimated cost for demolition of the existing island, proposed concrete, installation and striping is \$3,200.00. The existing height restriction structure and signage could be removed. In place of the ticket dispenser and proximity reader, a new exit terminal with credit card, cash and proximity reader could be installed. The lane status signs could also be replaced with new signage in the garage leading to the exit.

This modification would help to reduce the number of cars exiting through John Nolan Drive exit, as the cars parked in the first aisle located by the South Carroll Street entrance, could potentially utilize this exit. This aisle constitutes one third of the total available parking spaces in the garage. The conversion of this entrance to an exit would reduce the number of cars queuing at the exit to John Nolan Drive.

The main drawback would be that the cars exiting to South Carroll Street would queue in the garage by the exit gates, potentially blocking access for the cars proceeding to John Nolan Drive exit or those

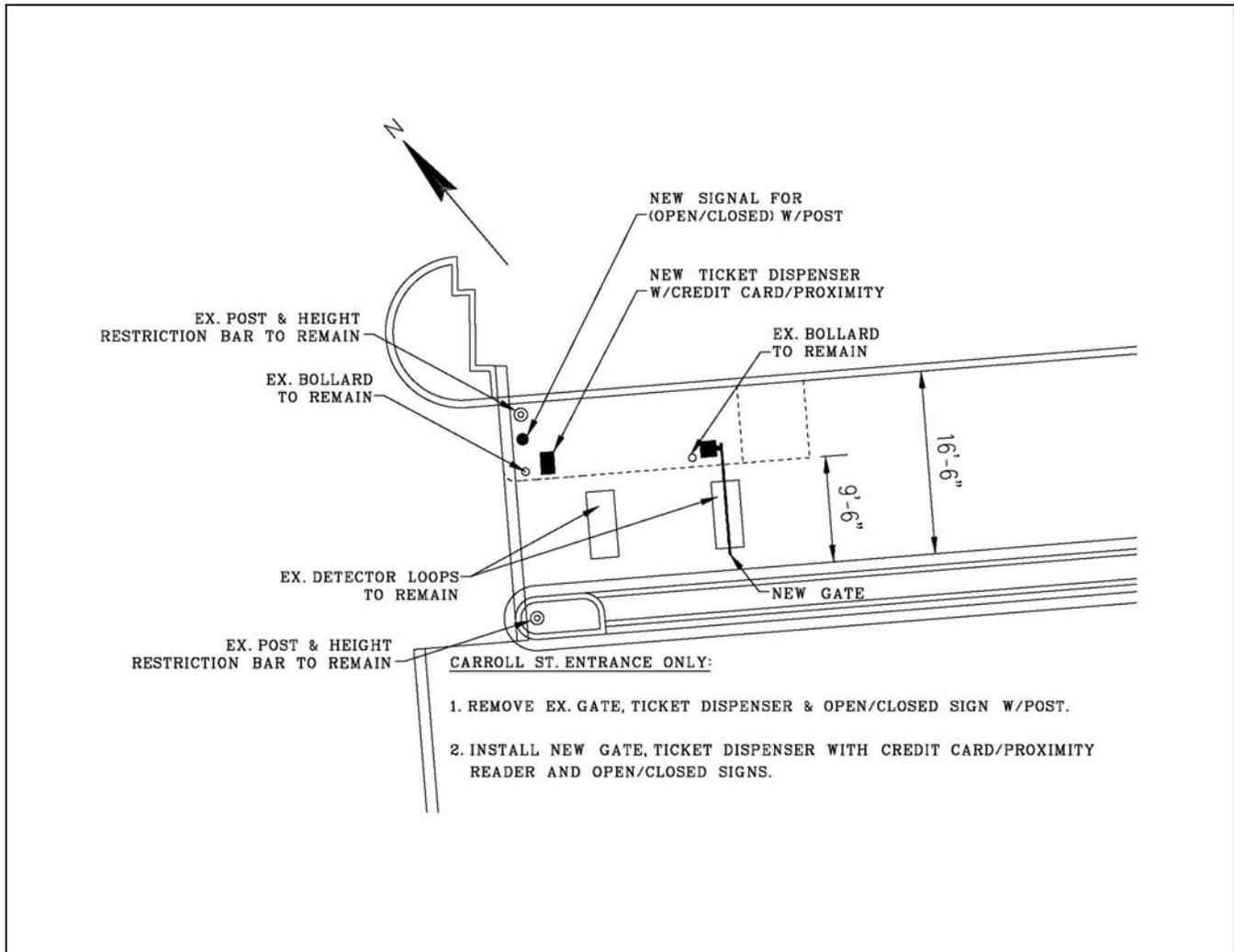
# SINGH

---

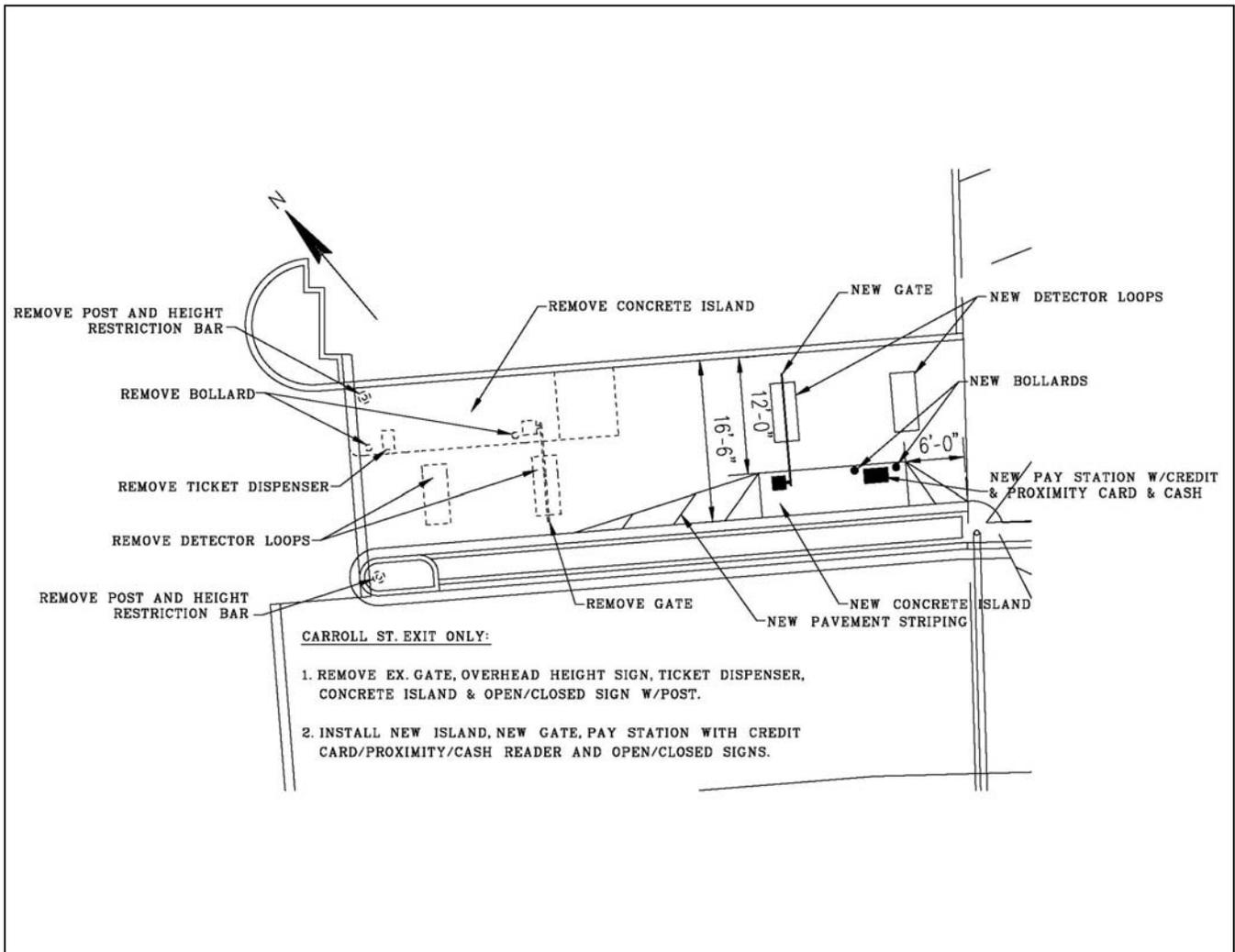
backing out of nearby parking spaces. However, this queue can be avoided by drivers by utilizing one of two existing crossovers in the aisle. Cars using the northern-most crossover could proceed to the upper level and the Pinckney exit. Cars using the second crossover could either proceed to the upper level or could continue in the lower level to a crossover that would take them to the John Nolan exit. As no traffic flow data per entrance or exit was provided for this study, it is not known whether this entrance is currently highly utilized or not and whether this conversion of the traffic patterns would be a feasible solution. Coordination with the City of Madison may be required based on modifications to entries and exits and the impact on local streets.

Singh also explored the feasibility of converting the Carroll Street lower level entrance into a reversible lane, which would provide the parking manager/operator with more flexibility. To accommodate the reversible lane, the entrance equipment would need to be pushed further back to allow more space for the addition of exit equipment on the other side of the lane. The estimated cost to modify the existing entrance, including demolition of the existing island, proposed concrete, installation and striping for the reversible lane is \$4,000.00. Conceptual sketches of the upgraded entrance, exit only and reversible options are in Figures 1, 2 and 3.

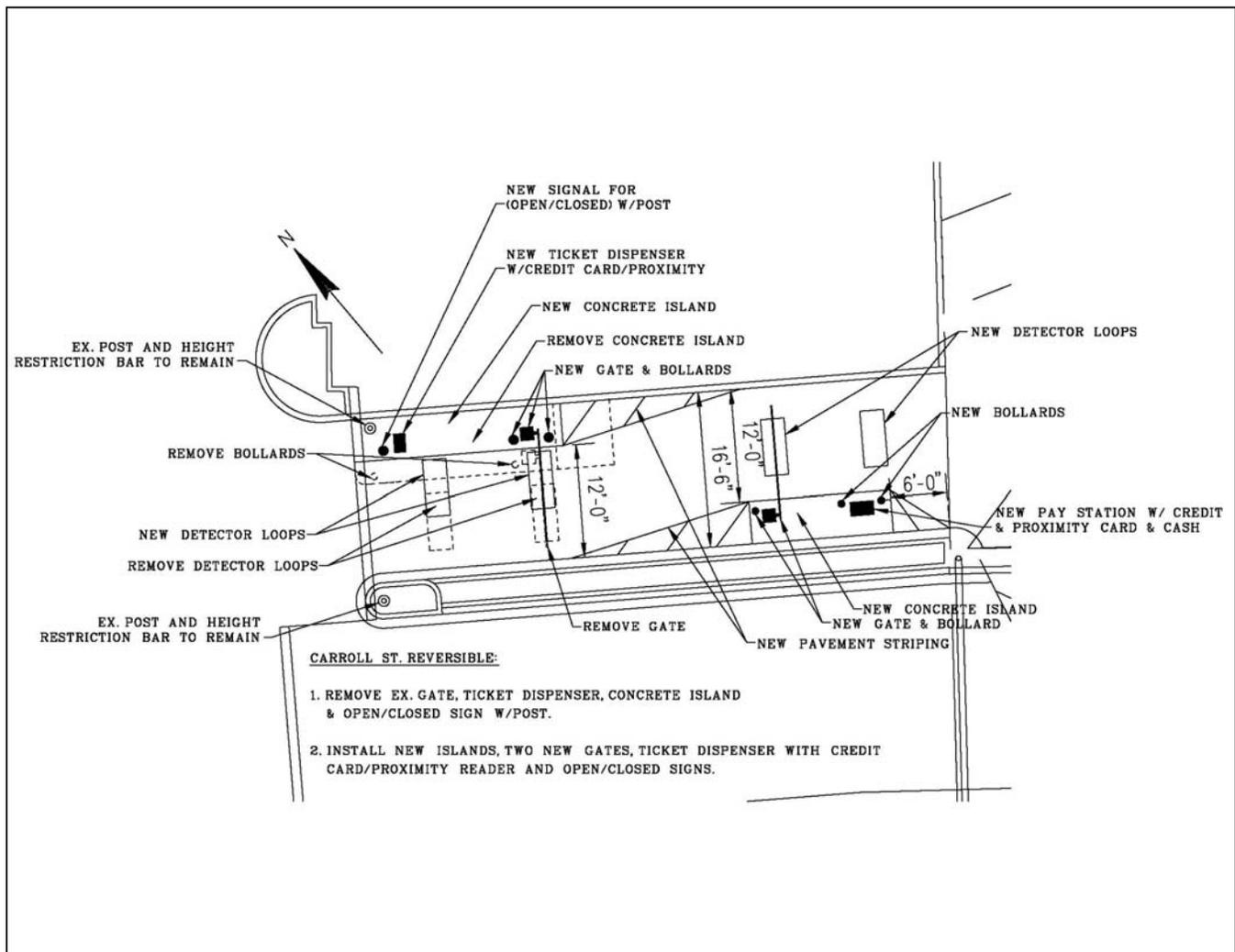
Singh analyzed the possibility of modifying the exit only lanes to South Pinckney Street and creating dual exit and entrance lanes. This would require the gated exit lane be converted to an entrance lane in order for the cars to access from South Pinckney Street left side lane. This would require demolishing the bull-nose island, which currently shifts traffic exiting through the gates to the right side lane, installing new exit /entrance equipment and reconfiguring exit lanes. This might slightly alleviate queues at the entrances as some of the cars will be utilizing this newly added entrance. However, the cars exiting the parking garage would be forced to share the exit lane with the drivers that are only driving through the garage to drop off or pick up passengers, negatively impacting either one. Otherwise, the queues will likely increase in the garage for the cars exiting through John Nolan Drive exit, as some cars will be trying to avoid using this exit. As a result, these modifications would be very costly to implement and will not help to resolve the traffic congestion.



**Figure 1 – Carroll Street Entrance Only, Lower Level (Concept)**



**Figure 2 – Carroll Street Exit Only, Lower Level (Concept)**



**Figure 3 – Carroll Street Reversible, Lower Level (Concept)**

## Vendor Summaries:

In Singh's research for replacement parking access control equipment, multiple vendors were contacted and the results of the inquiries are organized in the vendor matrix (Table 1) below. Product data and itemized cost estimates from each of the vendors is included in Appendices A through H. The cost for each piece of equipment from each of the above vendors is shown in Table 2.

Table 1 – Equipment Options by Vendor						
Service or Equipment Type	Vendors					
	Amano McGann (Appendix A)	DataPark (Appendix B)	Federal APD (Appendix C)	GMG Systems (Appendix D)	Parking Soft (Appendix F)	SKIData (Appendix G)
<b>Service &amp; Support:</b>						
Warranty	2 years	1 year	2 years	2 yr parts, 90 days labor	1 Year	2 yr parts, 1 yr labor
Local Support	Yes	Yes	Yes	Yes	For a fee	Yes
Online Support	Yes	Yes	Yes	Yes	Yes	Yes
Service Plans	Yes	Yes	Yes	Yes	Yes	Yes
Training for equipment use / maintenance	Yes	Yes	Yes	Yes	Yes	Yes
Life Expectancy	10-12 years	10 years	10-15 years	10-25 years	10+ Years	10+ Years
Subscription Fee	N/A	N/A	N/A	No	Yes	N/A
End User License Agreement	Yes	N/A	N/A	Free of Charge	Yes	N/A
<b>Entrance Equipment:</b>						
Ticket Dispenser	Yes	Yes	Yes	Yes	Yes	Yes
With credit card	Yes	Yes	Yes	Yes	No	Yes
With proximity reader	Yes	Yes	Yes	Yes	Yes	Yes
With cash	No	No	No	No	No	No
Barrier Gate	Yes	Yes	Yes	Yes	Yes	Yes
Attendant On Demand-Pay Station Cashier Station	Yes	Yes	Yes	Yes	Yes	Yes
Credit Card / Proximity Card Reader - Pay In Lane Automated Equipment	Yes	Yes	Yes	Yes	Yes	Yes
Read credit cards in two directions	Yes	Yes	Yes	Yes	N/A	Yes
<b>Exit Equipment:</b>						
Barrier Gate	Yes	Yes	Yes	Yes	Yes	Yes
Attendant On Demand-Pay Station Cashier Station	Yes	Yes	Yes	Yes	Yes	Yes
Credit Card / Proximity Card Reader - Pay In Lane Automated Equipment	Yes	Yes	Yes	Yes	Yes	Yes
Credit Card / Cash / Proximity Card Reader - Pay In Lane Automated Equipment	Yes	Yes	Yes	Yes Same as Pay on Foot	Yes Same as Pay on Foot	Yes
Read credit cards in two directions	Yes	Yes	Yes	Yes	Yes	Yes



Table 1 – Equipment Options by Vendor						
Service or Equipment Type	Vendors					
	Amano McGann (Appendix A)	DataPark (Appendix B)	Federal APD (Appendix C)	GMG Systems (Appendix D)	Parking Soft (Appendix F)	SKIData (Appendix G)
<b>Management Hardware &amp; Software:</b>						
Server - Tower	Yes	Yes	Yes	Yes	Yes	Yes
Server - Rack	Yes	Yes	Yes	Yes	Yes	Yes
Management Server (Hardware only)	Yes	Yes	Yes	Yes	Hosted by Vendor	Yes
Reporting Software Package	Yes	Yes	Yes	Yes	Hosted by Vendor	Yes
Access Card Control Software Package	Yes	Yes	Yes	Yes	Hosted by Vendor	Yes
Management Software Compatible with Existing Pinckney Exit Equipment	No	No	Yes	No	No	No
Credit Card Package	Yes	Yes	Yes	Yes	Yes	Yes
<b>Installation Items:</b>						
Equipment Lead Time	6-8 weeks	6-8 weeks	4 weeks	90 days	12-14 weeks	9-12 weeks
Concrete Disruption	Saw-cut	Saw-cut	Saw-cut	Saw-cut	Saw-cut	Saw-cut
Installation Duration	Depends	Depends	7-10 days (not including electrical work)	12-16 days	Phased work	7-10 days (not including electrical work)
<b>Other Miscellaneous Items:</b>						
Intercom	Yes	Yes	Yes	Yes	Yes	Yes
Intercom Software	Yes	Yes	Yes	Yes	Yes	Yes
Intercom Call Station	Yes	Yes	Yes	Yes	Yes	Yes
Intercom Master Station	Yes	Yes	Yes	Yes	Yes	Yes
Differential Counter	Yes	Yes	Yes, Software	Yes	No	Yes
Lane Status signs	Yes	Yes	Yes	Yes	No	Yes
Pay On Foot Station : Dispense coins and notes as change	Yes	Yes	Yes	Yes	Yes	Yes
Pay On Foot Station : Dispense coins only	Yes	Yes	Yes	Yes	No	Yes
Queue Detection System	Yes	Yes	Yes, Option	Yes	Yes, Software	No
Traffic Monitoring External Cameras	Yes	Yes	Yes, Option	Yes	Yes	Yes
<b>Average Overall Customer Satisfaction Rating (Scale of 1 to 5, with 5 being highest) (Based on conversations with various garage operators. See Appendix I for questionnaires.)</b>						
	<b>3.8</b>	<b>4.8</b>	<b>3.13</b>	<b>5</b>	<b>4.5</b>	<b>4</b>

Note: Parking Products Inc. (Appendix E) and T2 Systems (Appendix H) were contacted for quotes, but Singh received little response. Catalog cuts for these vendors are included in the appendices, but prices are not available.



Table 2 – Parking System Cost Estimate						
Systems	Vendors					
	Amano McGann (Appendix A)	DataPark (Appendix B)	Federal APD (Appendix C)	GMG Systems (Appendix D)	Parking Soft (Appendix F)	SKIData (Appendix G)
<b>Recommended System:</b> <i>(See description in “Recommendations” section)</i>	<b>\$356,911.00</b>	<b>\$263,098.36</b>	<b>\$325,702.00</b>	<b>\$321,565.75</b>	<b>\$299,462.79</b>	<b>\$381,322.00</b>
<b>Additional Upgrades:</b>						
Potential Carroll Street Exit	\$40,112.00	\$17,864.39	\$17,922.00	\$20,176.75	\$65,155.41	\$22,136.00
Potential Carroll Street Reversible Entrance/Exit	\$57,112.00	\$17,864.39	\$30,789.00	\$68,952.25	\$85,622.41	\$39,142.00
Lobby Pay Stations (Quantity of 4)	\$158,792.96	\$134,975.00	\$178,192.00	\$180,225.00	\$315,108.00	\$138,376.00
Infrastructure/Network Upgrades	\$12,000.00	\$35,000.00	Need Site Review	\$46,000.00	Need Site Review	Need Site Review
Cameras	\$27,971.00 (9 cameras)	\$40,842.50 (14 cameras)	\$12,001.00 (5 cameras)	\$19,676.25 (9 cameras)	\$32,727.34 (10 cameras)	\$26,794.00 (7 cameras)
Queue Detection	\$26,214.00	\$31,330.47	\$23,072.00	Included, Uses Software	Included, Uses Software	N/A
Signage	\$31,360.00	\$25,000.00	\$17,402.00	\$7,897.50	N/A	\$11,088.00
<b>Additional Fees:</b>						
Software Upgrades	Included in yearly maintenance cost	Included in yearly maintenance cost	\$13,334.00	Included	Included	First two years after commissioning the software upgrades are included. The next two years the software upgrade costs, including labor is \$6,200 per year.
Maintenance Cost	\$37,771.00/year starting on 3 <sup>rd</sup> year	\$19,621.41/year	\$20,000 + (10-15%) /year	\$26,400.00/year	\$3,200/yr	After 1 year warranty the price for years 2 – 3 for basic quarterly preventative maintenance is \$7,240.00 per year. This includes 4 hours per month of remote support via VPN connection.
Subscription Fee	N/A	N/A	N/A	N/A	\$800/m	N/A

Note: Parking Products, Inc. (Appendix E) and T2 Systems (Appendix H) were contacted for quotes, but Singh received little or no response. Catalog cuts for these vendors are included in the appendices, but prices are not available.



## **Recommendation:**

Keeping in mind the various constraints of and requirements for the parking ramp, Singh recommends a system that includes the following:

### **Entrance Recommendations:**

#### **John Nolan Drive Entrance:**

- Three entrance terminals/ticket dispensers with credit card payment option and proximity card reader. One of the terminals will be in combination with the existing manned booth in order to operate when attendant is not present.
- Three barrier gates.
- One payment station for the existing booth. Booth manual pay station shall be equipped to process credit cards, proximity cards and cash.
- Three sets of lane status signs with either text or symbols to tell users if the lane is open or closed. Given that all three lanes will be capable of processing payments automatically, the lane status sign may only be necessary in the lane with the booth.
- Three intercom stations.

During the week, the entrance equipment could be programmed to dispense a ticket without pre-payment to transient users. These users, when ready to depart, would then proceed to any of the exits and pay on exit. Monthly card holders would have the ability to use any of the three lanes. During special events, all three lanes would be open and the equipment could be programmed to accept payment from credit cards and dispense pre-paid tickets. If the booth is not manned during the event, the cash option will not be available. It is recommended that if the parking management company wants to give users the ability to pay with cash on entrance, the booth should be manned and if necessary, additional personnel could be present at the entrance to take cash payments and provide the users with a prepaid ticket.

#### **Carroll Street Entrance(Upper Level):**

- One entrance terminal/ticket dispenser with credit card payment option and proximity card reader.
- One barrier gate.
- One set of lane status signs with either text or symbols to tell users if the lane is open or closed.
- One intercom station.

#### **Carroll Street Entrance(Lower Level):**

- One entrance terminal/ticket dispenser with credit card payment option and proximity card reader.
- One barrier gate.
- One set of lane status signs with either text or symbols to tell users if the lane is open or closed.
- One intercom station.

## Exit Recommendations:

### John Nolan Drive Exit:

- Two exit terminals with credit card payment option and proximity card reader.
- One exit terminal with credit card payment option, cash payment option and proximity card reader.
- Three barrier gates.
- Two payment stations for the existing booths. Manual pay station shall be equipped to process credit cards, proximity cards and cash.
- Three sets of lane status signs with either text or symbols to tell users if the lane is open or closed.
- Three intercom stations.

The credit card/cash/proximity terminal will be in combination with the existing manned booth. When the booth is unmanned, the lane may remain open to process users with cash. In this configuration, all three lanes can be open for all users. This option would require a service for maintaining the cash reserve in the terminals.

Given that all three lanes will be capable of processing payments automatically, the lane status sign may only be necessary in the lane with the booth. Other guidance signs such as “cash/credit lane” may be used to indicate to users which of the lanes can process credit in addition to cash.

On a typical weekday when the entrance equipment is not set for payment at entrance and the terminals are only dispensing tickets, all three lanes at this exit will be set to process payments. During a special event, when the entrance equipment is programmed to process payments and dispense a ticket showing that payment has been made, the exit equipment would be programmed to read the ticket and raise the barrier gate.

### Pinckney Exit:

- One exit terminal with credit card payment option, cash payment option and proximity card reader.
- One barrier gate.
- One payment station for the existing booth. Manual pay station shall be equipped to process credit cards, proximity cards and cash.
- One sets of lane status signs with either text or symbols to tell users if the lane is open or closed.
- One intercom station.

Operations at the Pinckney exit would be similar to the John Nolen exit during weekdays and special events.

## System Recommendations:

System management software will be required in order for the entrance and exit equipment to communicate with one another. The software will also need to have revenue reporting capability and the ability to read inputs from the equipment and track the car counts.

# SINGH

---

Each of the exit and entrance terminals should have an intercom system with a master intercom station. The recommended system may consist of a handsfree speaker phone with a dialer. The system may be set up to call a particular number and if there is no answer, the system may be programmed to dial up to five different numbers. The intercom system may also be voice over IP (VOIP) based where a workstation with a microphone and speakers can receive the call.

Other than the potential conversion of the Carroll Street entrance to an exit or a reversible, Singh's recommendations do not include any geometric changes.

The range of cost for the recommendations is \$263,098 to \$381,322.

See Tables 1 and 2 for vendor options, customer satisfaction ratings and pricing.

One alternative option for the recommended system would be to have only credit card and proximity readers at the exit equipment. Cash would be available at manned booths only. This alternative recommendation developed due to some vendor concerns about potential issues regarding protection for cash equipment from inclement weather. Some vendors require that the cash exit equipment be protected by a canopy from the weather. Other vendors supply protective hoods for the equipment. Still others supply weather resistant equipment. Additional concerns about delays associated with cash on exit machines are valid as well and may not aid the flow of traffic.

The second alternative option is to replace the existing equipment in kind. This option would not change the issues with traffic flow and efficiencies. The cost would range from \$136,264 to \$262,814.

## **Additional Upgrades:**

### **Potential Carroll Street Exit:**

If additional traffic flow is desired, the conversion of the entrance at Carroll Street to an exit is a possibility. The following equipment would be required.

- One exit terminal with credit card payment option, cash payment option and proximity card reader.
- One barrier gate.
- One sets of lane status signs with either text or symbols to tell users if the lane is open or closed.
- One intercom station.

This new exit will be fully automated and has no provision for a booth.

If a reversible lane is desired for added efficiency, the entrance equipment would be upgraded to match the entrance recommendations and exit equipment would be installed as well.

### **Lobby Pay Stations:**

Providing a “pay-on-foot” payment option and having all the three gates at John Nolen Drive exit validating receipts would considerably improve the traffic flow through the exit gates. The time it takes for the driver to insert the paid receipt into the validating machine at the exit gate is about 5 seconds, which is much faster than having manual/credit card processing option provided at the exit gates. Pay

# SINGH

---

at entrance with credit cards would also improve the exit times. Payment at entrance, however, would also increase the entrance times.

According to the document “Design Recommendations for Multi-Storey and Underground Car Parks”, 3<sup>rd</sup> Edition issued by The Institution of Structural Engineers, capacities for exit lanes under ideal conditions are as follows:

Ticket on entry and payment at a manned exit:	240 cars/hour
Ticket on entry and variable payment to a machine linked to the exit barrier:	270 cars/hour
Ticket on entry and operation of the exit barrier by a prepaid ticket or token:	400 cars/hour

Pay-on-foot stations could be located at the entrances to the convention center. Due to concerns with potential vandalism, it is not recommended that stations be located in the garage. Signage could be added to help direct users who are not accessing the convention center, such as visitors to the Capitol and other state buildings. Further investigation of strategic locations for the pay stations is recommended. Pay stations in the convention center lobby will require the installation of new power and data outlets. This would involve the addition of conduit, wiring and Ethernet cable. This upgrade would also require an effort to maintain a cash reserve in each pay station. If pay-on-foot stations are installed, the need for cash payment at the exits is eliminated. With the elimination of cash at exit in the lanes, the cost of the exit equipment is reduced. This savings could go toward the cost of the pay-on-foot stations.

## **Data Upgrades:**

It is Singh’s recommendation that the data connections for all of the parking equipment be upgraded to Ethernet. The pathways exist between the helix maintenance rooms and the parking equipment at the John Nolan entrances and exits. New Category 6 cables may be installed using the existing pathways and may connect to empty ports in the existing switches located in each of the helix maintenance rooms. New conduit and Category 6 cables will need to be installed for the new equipment at the Carroll entrance on the lower level and at the upper level entrance. The cables may be connected to empty ports in the existing switches located either in the helix maintenance rooms or in network closets in the Convention Center. The most direct route is preferred as Ethernet cables have a maximum 300 foot run length. Monona Terrace building maintenance and technical staff indicated that a virtual local area network (VLAN) could be set up on their existing network to connect all of the new parking and revenue control equipment.

## **Cameras:**

It is recommended that a new web-based camera system be installed to monitor the parking and revenue control equipment. The proposed cameras would aid the parking management team in detecting delays due to defective equipment, helping them to remedy the situation promptly. The camera footage could also be viewed by personnel monitoring the intercom calls from the various pay on foot and pay in lane stations to better assist users.

The digital cameras would be located at the entrances and exits. The camera images may be viewed via a website on any computer with internet access. This system will be independent from the Monona Terrace security system. Monona Terrace is willing to provide network access for the new camera

system. The new cameras will be connected to the existing network switches via Ethernet and will have a separate VLAN as proposed with the new parking control equipment. The new cameras may be basic models with pan, tilt and zoom features as their main purpose is for queue detection. It is recommended that the cameras be located at each of the entrances and exits. For the John Nolan Drive exit, the new camera may be mounted on the existing canopy over the exit lanes and may be pointed to face the helix. The camera at the entrance from John Nolan Drive may need to be pole mounted in order to have a clear view of the entrance gates, the payment and ticket dispensing equipment and the lanes leading up to the gates. Cameras would also be located at the Carroll Street entrance/gate and the Pinckney St. exit. Cameras on the upper level may be mounted to a nearby existing light pole.

### **Queue Detection:**

The recommendations for remediating the traffic flow issues discussed in the Recommendations section should be sufficient, but there is another option to assist the garage patrons with exiting quickly. That option is to install queue detection near the exits. Above ground sensors can be installed and can alert the parking management team that there is a delay. The team may then program a dynamic message sign that can tell those leaving the parking garage what the delay time is at each of the exits, resulting in the redirection of ramp users to alternate exits. A simpler alternative would be to have strategically located sensors connected to a static message sign which would display a message such as “10 minute delay at John Nolan, use Pinckney exit”.

### **Signage:**

Additional signage is available to notify users of the garage how many spaces are available on each of the two levels using a level count system. The number of spaces available can be determined by counters installed in the access control equipment. Since cars may move freely between levels of the garage once they have entered the paid area, loop detectors and ramp controllers would be needed to sense how many cars are on the upper level and how many are on the lower level. The signs would be located at the John Nolan Drive and Carroll Street entrances. As the convention center reserves 200 spaces for the monthly users during normal business hours, as part of an agreement with the State of Wisconsin, this number of spaces would need to be deducted from the total number of spaces available. Another possibility is to use a facilities count system which uses the software to determine how many cars are in the garage based on the difference between the number of people entering the garage and those leaving. Since this system need only relay the number of spaces in the entire facility, there is no need for sensors or level controllers. The cost of signage in Table 2 is based on the level count system.

See Table 2 for a breakdown of pricing for the additional upgrades from each vendor.

## Estimated Budget Based on Entrance and Exit Recommendations:

Based on our recommendations on a total system including entrance and exit recommendations and the highest estimate received from multiple vendors, the following budget has been established.

Estimate does not include additional optional upgrades.

<b>Estimated Budget</b>	
Construction *	\$ 438,520.30
A/E Design (10%)	\$ 43,852.00
DSF Fee (4%)	\$ 17,540.81
Contingency (10%)	\$ 43,852.00
<b>Project Total</b>	<b>\$ 543,765.11</b>

\*Includes 15% incidental construction costs in addition to equipment cost

# Appendices A-I



**Milwaukee**  
**CONDITIONS OF WARRANTY AND SERVICE**

Amano McGann, Inc. extends a standard one year parts and labor warranty from the date of installation (or as stipulated in your contract).

All post Warranty service is conducted on a Time and Materials basis, and is covered by a 90 day parts and labor guarantee.

Warranty and Service Agreements cover failure or malfunction of equipment under normal or routine use. Items not covered include, but are not limited to, the following:

misuse, abuse, vandalism, unauthorized or improper service and installation, programming of any kind, credit card acceptance problems relating to (or data recovery resulting from) clearinghouse and/or credit card circuit issues, natural phenomenon, acts of war or riot, equipment damage caused by power surges, vehicles, storms, replacement of consumable items, i.e., light bulbs and ribbons, broken gate arms, removal of broken key cards from card readers, operator functions, turning heaters on and off, and other accidents and defects caused by negligence.”

Warranty and Service Agreements become null and void when a party other than Amano McGann, Inc. performs work on the covered equipment without the prior written consent of Amano McGann, Inc.

**SERVICE CALL RATES - PORTAL TO PORTAL**

Milwaukee County:	Basic Rate	\$ 110.00/Hour + Mileage
	1 1/2 Hour Rate	\$ 165.00/Hour + Mileage
	Double Rate	\$ 220.00/Hour + Mileage
Outside of Milwaukee County:	Basic Rate	\$ 110.00 Hour + Mileage
	1 1/2 Hour Rate	\$ 165.00/Hour + Mileage
	Double Rate	\$ 220.00/Hour + Mileage

**SERVICE CALL HOURS**

Monday - Friday	7:00 AM - 4:30 PM	(1 Hr. Minimum)
Monday - Friday	4:31 PM - 9:00 PM	(1 1/2 Hr. Rate, 2 Hr. Minimum)
Monday - Friday	9:01 PM - 6:59 AM	(Double Rate, 2 Hr. Minimum)
Saturday	8:00 AM - 4:30 PM	(1 1/2 Hr. Rate, 2 Hr. Minimum)
Saturday	4:31 PM	(Double Rate, 2 Hr. Minimum)
Sunday and Holidays	All Day	(Double Rate, 2 Hr. Minimum)

**MILEAGE RATES**

The mileage charge will be calculated as follows:

		<u>Travel Time</u>	<u>Trip Charge</u>
Zone 1:	0 - 12 miles	1/2 Hour	\$30.00
Zone 2:	12 - 24 miles	1 Hour	\$42.00
Zone 3:	24 - 36 miles	1.5 Hour	\$58.00
Zone 4:	over 36 miles	Actual time	\$10.00 plus \$1.50/mile

**SERVICE AND WARRANTY CALLS**

All calls are scheduled in the order in which they are received for the service technician in that area. Service calls not under warranty are billed according to the rate schedule indicated above. Service and warranty calls in Cook County received by 10:30 a.m. are normally scheduled the same day. After 10:30 a.m. service and warranty calls are usually scheduled within 24 hours. Calls outside of Milwaukee County are normally scheduled within two business days.

**CONSULTATION CALLS**

A consultation call for programming information, especially for fee structure changes, and similar requests will be assessed to the customer at the above 1-hour minimum rate.

**Date of Comencement:** \_\_\_\_\_

**Date of Issue:** \_\_\_\_\_

**Portion of Project Designated for use:** All

\_\_\_\_\_  
 John Huprich Operations Manager

**Client:** \_\_\_\_\_

# AMG-2000

Series



**Entry Station**  
with optional Barcode  
Matrix Scanner

**FlexScan™ QR400**



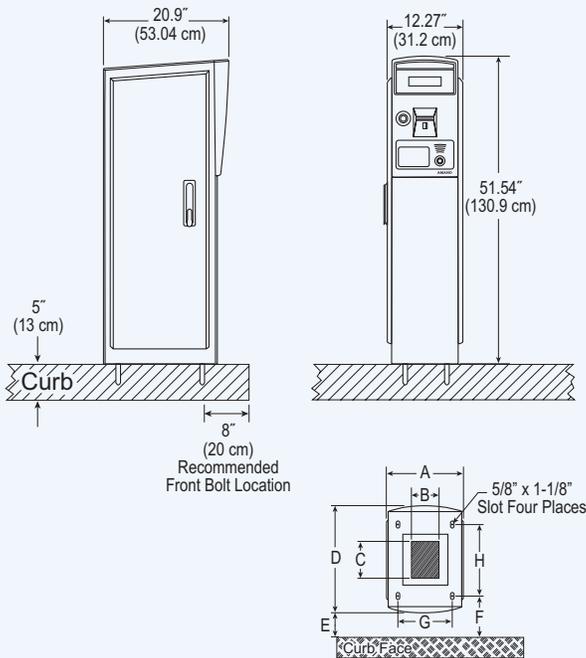
*The AMG-2000 Series Entry Station is designed for multiple uses, typically at the unattended entrances of a parking facility. The entry station dispenses magstripe tickets, accepts access and credit cards for ticket in/card out and card in/card out functionality.*

*The integrated FlexScan™ QR400 extends the functionality of the standard entry station adding the capability to scan linear and QR barcodes. Credentials can be scanned from various printed and electronic media formats including paper, event tickets, ID badges and smartphones.*

*Utilize the iConnect® Interface tool for custom integration with your IT operation. Control the process all the way to the lane.*



Series  
**AMG-2000**



■ CONFINE RIGID CONDUIT NO MORE THAN 2" (5 cm) HIGH IN THIS AREA.

A = 12.27" (31.2 cm)    C = 8" (20.32 cm)    \*E = 5" (13 cm)    G = 7.48" (19 cm)  
 B = 4" (10.16 cm)    D = 20.9" (53.04 cm)    \*F = 8" (20 cm)    H = 11.75" (29.8 cm)

\*Recommendation only. Installation requirements may vary.

## FEATURES

- ▶ **Standalone (AMG-2070 series) or on-line (AMG-2570 series)**
- ▶ **Uses common hardware components (RWPV-based) for fewer inventoried parts and reduced service training**
- ▶ **Field programmable operation utilizing handheld wireless remote control**
- ▶ **Accommodates credit card size magstripe media**
- ▶ **Magstripe access card / credit card acceptance (AMG-2570 series) models optional**
- ▶ **Proximity Technology Reader Integration optional**
- ▶ **Barcode matrix scanner (FlexScan QR400) optional**
- ▶ **Custom IT integration available utilizing iConnect**
- ▶ **Integrated intercom**
- ▶ **Personalized panel option, std. panel – no text**
- ▶ **Dual powder coat finish**

REPRESENTED BY:

## SPECIFICATIONS

### COMPLIANCE

#### PCI PA-DSS (Payment Application Data Security Standard) Compliant

AMG-2570 Series lane equipment does not store credit card data  
 Meets ADA (Americans with Disabilities Act) and  
 ANSI (American National Standards Institute) requirements

### ELECTRICAL

120V AC, 60 Hz  
 220/240V AC, 50/60 Hz  
 10 amp max. (120V) 5 amp max. (240V)  
 Multiple I/O capability for ticket tracking, counts and monitoring

### MECHANICAL

Automatic dual ticket feed; dot matrix printer; cartridge ribbon; exclusive RWPV™ (read, write, print and vault) magstripe mechanism

### TIME CONTROL

Real-time clock synchronization with host computer  
 Built-in crystal controlled perpetual calendar  
 Programmable Daylight Saving Time adjustment

### ENVIRONMENT

**Temperature:** -20°F ~ 120°F (-29°C ~ 49°C)  
 Automatic thermostat-controlled heater included  
**Humidity:** 10% ~ 90% (non-condensing)

### HOUSING

Heavy-duty, 14 gauge steel construction, weather gasketing, lockable door.  
**Dimensions:** 51.54"H x 12.27"W x 20.9"D (130.9 cm x 31.2 cm x 53.04 cm)  
**Ticket throat:** 41" (104 cm)  
**Weight:** 135 lbs. (61 kg)  
**Finish (Standard):** Argento Silver (#305) cabinet / Classic Grey (#314) side panels; White (RAL#9003); custom color available

### BARCODE MATRIX SCANNER

**Opening:** 4"W x 3"H (10.16 cm x 7.62 cm)  
**Barcode Types:** 1D (Linear) & 2D (QR)  
**Ambient Light:** Total darkness to 9000 ft. candles (96.900 LUX)

### PRINTER

Large (7 x 9 dot pattern) dot matrix printer  
 Prints date and time (12 & 24-hour format), ticket number, machine number and rate  
 Marks and voids retracted tickets  
 Self sharpening cutter blade

### TICKETS

Uses fanfold tickets: 5,000 tickets/carton. Holds two cartons.  
 Credit card size tickets: 2-1/8" x 3-3/8" (5.41 cm x 8.59 cm)

### OPTIONS

2nd I/O Rack (passcard readers lockout)  
 Magstripe and proximity access card models optional

### INTERCOM

Aiphone™ LEF series intercom system  
 Standard user recordable voice announcement

*Manufactured by Amano Cincinnati, Inc.'s Ohio factory, an ISO 9001:2000 registered facility. Specifications are approximate and are subject to change without notice. UL approval does not apply to 220/240V AC, 50/60 Hz*



# AMANO McGANN®

Corporate Headquarters 651 Taft Street NE, Minneapolis, MN 55413  
 Tel: (612) 331-2020 [www.amanomcgann.com](http://www.amanomcgann.com)

# AMG-1750

Series

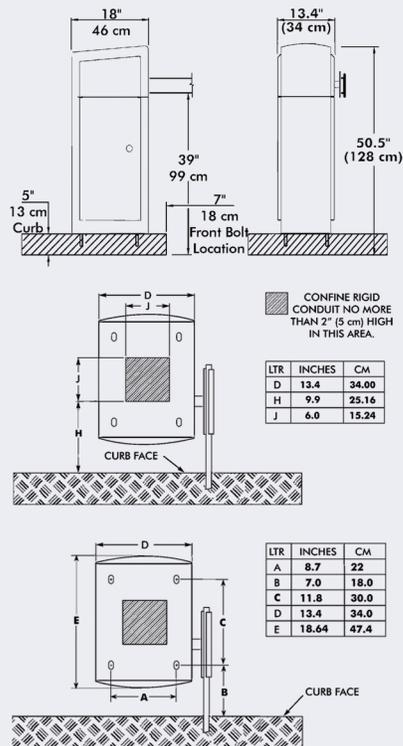
## *Parking Gate*



*Amano McGann's AMG-1750 Series Parking barrier gate is designed to meet all your parking control needs. The microprocessor-based logic and functionality provides the ultimate in reliability, performance, and safety, as well as the flexibility to accommodate four different modes of operation.*

## Parking Gate

# AMG-1750



## FEATURES

- Slim, cabinet-style design* ◀
- Four selectable modes of operation* ◀
- Pre-installed detector harness* ◀
- Microprocessor-based logic and functionality* ◀
- Standard "extra sensory" safety feature* ◀
- Instant reversing motor* ◀
- 1/3 horsepower motor with sealed gear reducer* ◀
- Internal thermal/overload protection* ◀
- Thermostat-controlled heater* ◀
- 12' standard or lighted gate arm, and 11' standard folding gate arm configurations available* ◀
- Dual powdercoat finish* ◀

## SPECIFICATIONS:

### ELECTRICAL

120V AC, 60 Hz

220/240V AC, 50/60 Hz

**Service amps:** 19.6A (120V)

**Connections:**

- Four utility power outlets
- DIN rail terminal blocks including logic
- Main power breakers

**Field wiring:**

- Removable terminal block assembly
- Dry contact input, output
- 12V DC unregulated

### MOTOR CHARACTERISTICS

**Horsepower:** 1/3 single-phase instantly reversing motor

**Speed:** 1625 RPM

**Starting amps:** 10A (120V) maximum

**Running amps:** 4.5A (120V)

Heavy-duty V-belt to drive speed reducer.  
Internal thermal/overload protection

### ENVIRONMENT

**Temperature:** -15°F ~130°F (-26°C ~ 54°C). Automatic thermostat-controlled heater included

**Humidity:** 10% ~ 90% (non-condensing)

### CABINET

Heavy-duty, 14-gauge all-weather steel construction

**Dimensions:** 45.5"H x 13.4"W x 18.6"D (116 cm x 34 cm x 47 cm)

**Weight:** 163.25 lbs. (74.03 kg)

**Access:**

- Removable cover on drive mechanism (360° access)
- Lockable door (access to electrical connections and control box)

**Finish (Std):** Grey Classic (#314) / Argento Silver Metallic (#305); White (RAL#9010); custom color available

### GATE ARM

**Height:** 34" (86 cm) + curb height in DOWN position

**Length:**

- AL12: 12' (365 cm)— aluminum
- AL20: 11' (323 cm) folding gate arm — aluminum
- A10: 10' (304 cm)— wood

**Optional sonic alert:** Audible alarm kit (AGP-0517/A627)

### MICROPROCESSOR-BASED CONTROLLER

Quick, plug-in installation. Gate up/normal/down switch (internal manual override)

**Operation modes:** One way pay

Bi-directional lane

Free direction

Input/output lane controller

**Switch selectable features:** "Extra sensory" timer

Backout timer

Closing loop safety "auto stop"

*Manufactured by Amano Cincinnati, Inc.'s Ohio factory, an ISO 9001:2000 registered facility. Specifications are approximate and are subject to change without notice. UL approval does not apply to 220/240V AC, 50/60 Hz*

C  

REPRESENTED BY:

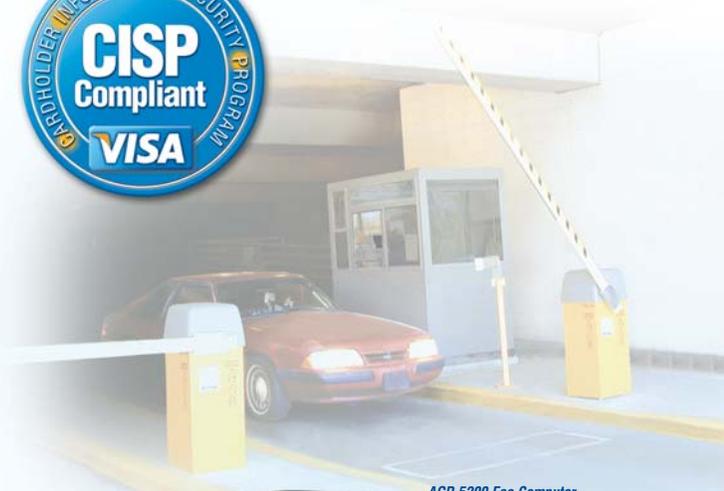
# AMANO McGANN®

Corporate Headquarters 651 Taft Street NE, Minneapolis, MN 55413  
Tel: (612) 331-2020 [www.amanomcgann.com](http://www.amanomcgann.com)

# AGP-5200

Phase III

## *Fee Computer & Validator*



*AGP-5200 Fee Computer shown, displays optional on-line LPI feature on the screen*

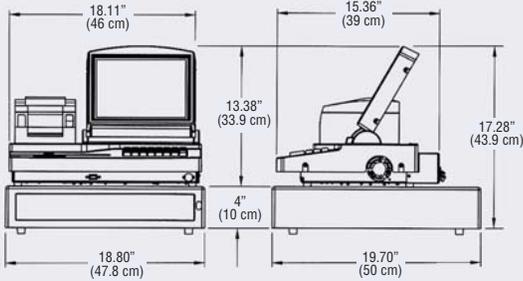


*Amano McGann's AGP-5200 Series Fee Computer and AGP-5600 Series Validator perform automatic parking fee calculations. Multiple Fee Computers and Validators may be utilized in conjunction with the ETP-22 and AGP-2000 Series Ticket Dispenser for a complete on-line parking revenue control system.*

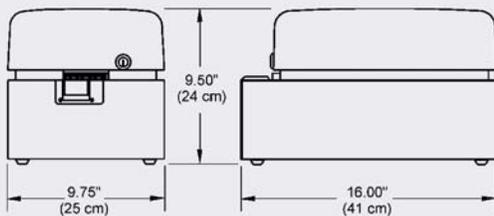
# Fee Computer & Validator

## AGP-5200

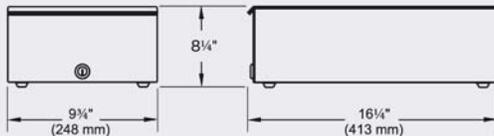
### AGP-5200 Series Fee Computer



### AGP-5600 Series Reader/Validator



### AGP-0500 Series Lock Box



## FEATURES

### Fee Computer:

- PC-based operation for advanced functionality and user friendliness
- Automatic ticket read or manual key-in of transactions
- Calculates parking fees to a maximum of one year
- 8 standard rate structures and 20 manually selected event rate structures
- Payment accepted by cash, credit card, check, and store discount coupons
- Handles two separate currency types and cash drawers
- One cash drawer included
- Comprehensive management reports available on demand
- Provides ticket tracking and alarms
- On-line operation for a complete parking system
- Maintenance-free thermal printer with customizable receipts
- Audited barrier gate control
- Arming function

### Validator:

- Manual — AGP-0505 Slip Printer
- Auto — AGP-5600 Mag-stripe Ticket Reader/Validator

## SPECIFICATIONS

### COMPLIANCE

CISP (Cardholder Information Security Program) compliant, validated by VISA.

### ELECTRICAL

100/120V AC, 50/60 Hz

220/240V AC, 50/60 Hz

### ENVIRONMENT

Temperature: 41°F ~104°F (5°C ~ 40°C)

Humidity: 35% ~ 85% (non-condensing)

### AGP-5200 SERIES FEE COMPUTER

Includes one cash drawer

Dimensions: 17-1/4"H x 18-7/8"W x 19-3/4"D (43.9 cm x 47.8 cm x 50 cm)

Weight: 49-1/2 lbs. (22 kg) with cash drawer  
25-1/4 lbs. (11 kg) without cash drawer

Finish (Standard): Black computer  
Black with metallic silver cash drawer

Keyboard: 5 x 8 matrix, alphanumeric keypad 10 function keys

Display: 10.4" active matrix LCD color monitor

Clock: PC real-time clock, 7-year internal clock retention

### AGP-5600 SERIES READER/VALIDATOR

Dimensions: 9-1/2"H x 9-3/4"W x 16"D (24 cm x 25 cm x 41 cm)

Weight: 20 lbs. (9 kg)

Access: Hinged, lockable top cover for access to top mechanism and communications connections. Removable base housing for access to bottom mechanism.

Finish: Black housing  
Grey polyethylene top cover

### AGP-0500 LOCK BOX

Dimensions: 8-1/4"H x 9-3/4"W x 16-1/4"D (21 cm x 25 cm x 41.275 cm)

Weight: 12 lbs. (5.5 kg)

Access: Secure keyed drawer

Finish (Standard): Black housing

### MODELS AVAILABLE

- Standard 120V model
- Dial-up credit card model

### OPTIONAL

- LPI
- Dial-up credit card
- AmanoCharge
- AmanoCharge/LPI

Manufactured by Amano Cincinnati, Inc.'s Ohio factory, an ISO 9001:2000 registered facility. Specifications are approximate and are subject to change without notice. UL approval does not apply to 220/240V AC, 50/60 Hz



REPRESENTED BY:

# AMANO McGANN®

Corporate Headquarters 651 Taft Street NE, Minneapolis, MN 55413

Tel: (612) 331-2020 [www.amanomcgann.com](http://www.amanomcgann.com)

# AGP-5900

Series

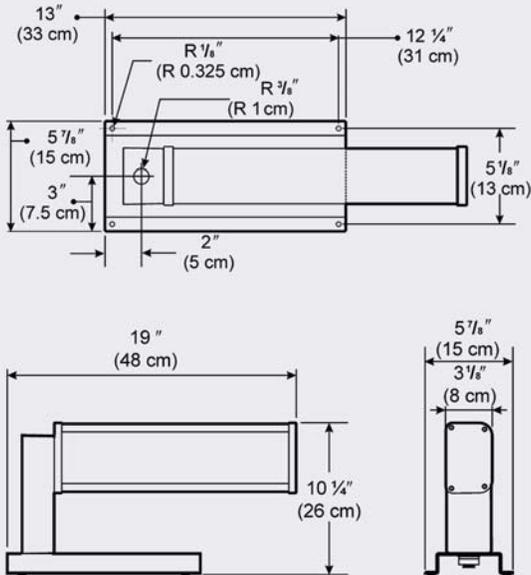
## *Remote Fee Indicator*



*AGP-5900 Series Remote Fee Indicator displays the current time, parking fee and change due, thereby eliminating any manual calculation errors. The various mounting options, adjustable viewing angles and indoor/outdoor use make the AGP-5900 a versatile solution.*

## Remote Fee Indicator

# AGP-5900



## FEATURES

- Large, easy-to-read, high intensity LED readout
- Control brightness from the AGP-5200 Series Fee Computer
- Displays parking fees, change due and current time
- Six-digit display
- Various mounting options, and adjustable viewing angle
- Indoor and outdoor use

## SPECIFICATIONS:

### ELECTRICAL

120 VAC, 50/60 Hz/220/240 VAC, 50/60 Hz

### HOUSING

Dimensions: 10-1/4" h x 19" w x 5-7/8" d (26 cm x 48 cm x 15 cm)

Weight: 5 lbs. (2.2 kg)

### ENVIRONMENT

Temperature: 5°F-122°F (-15°C- 50°C)

Humidity: 10% - 100% (non-condensing)

### DISPLAY

Six-digit display

Light Source: Discrete LED array

### MOUNTING

Wall, pedestal or table top mounting

### FINISH

Brushed aluminum top housing Black (RAL #9011) bottom housing

*Manufactured by Amano Cincinnati, Inc.'s Ohio factory, an ISO 9001:2000 registered facility.*

*Specifications are approximate and are subject to change without notice.*

REPRESENTED BY:

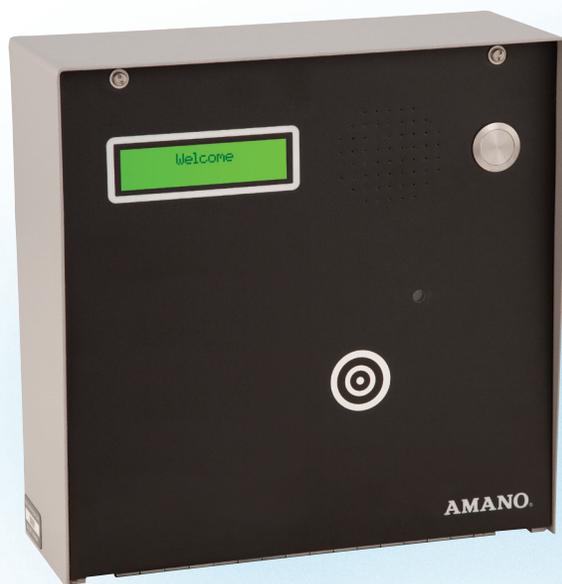
# AMANO McGANN®

Corporate Headquarters 651 Taft Street NE, Minneapolis, MN 55413  
Tel: (612) 331-2020 [www.amanomcgann.com](http://www.amanomcgann.com)

# PROXIMITY

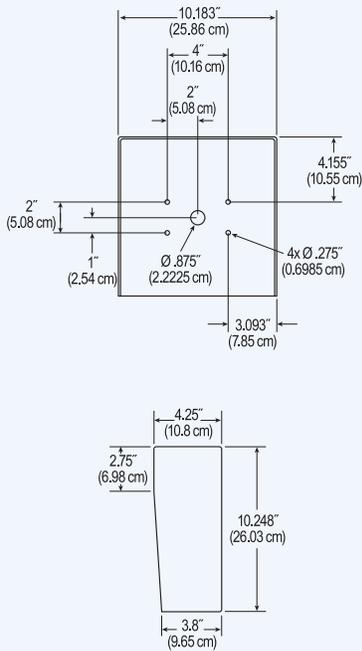
Reader

## *Access Terminal*



*Amano McGann Proximity Readers ensure fast and convenient parking access and egress with up to a 10-inch read range standard. Cards may be presented to the reader at any angle while maintaining speed and accuracy. Non-contact proximity antenna operates reliably indoors or out with minimal maintenance. Audio/visual indicators provide active feedback to patron when a card is presented. Used with Amano McGann Software, these readers are ideal for monthly contract, temporary, visitor, hotel, valet, debit, and credit card on-file applications.*

**Reader**  
**PROXIMITY**



**FEATURES**

- ◀ *Micro-controller technology*
- ◀ *1000 transaction off-line buffer*
- ◀ *Real-time clock with battery backup*
- ◀ *Up to 10' read range, extended range option available*
- ◀ *Automatic switching to stand-alone mode if communications are interrupted*
- ◀ *Built-in diagnostics reports reader performance*
- ◀ *Remote control of gates and peripheral device from Amano McGann Software*
- ◀ *Hard, soft, true or timed anti-passback*
- ◀ *Audible tone and visual LED card read indicator*
- ◀ *Proprietary-encoding format restricts badge counterfeiting*
- ◀ *Reader can accommodate 65,000 to 1 million card IDs based on format*
- ◀ *Optional 2-line (20 character/line) LCD display w/LED backlight*
- ◀ *Optional intercom*

**STANDARD CONFIGURATION**

**PROXIMITY**

- Amano McGann Format (Indala)     Amano McGann Format (HID)

**CONTROLLER BOX**

- Standard Gate Mount

**OPTIONS**

**PROXIMITY CUSTOM FORMAT/TYPE**

- Indala-S     Indala-M     Indala-E     HID-S  
 HID-M     HID-E     Other \_\_\_\_\_

**DISPLAY OPTION**

- Standard Display: 2-Line/40 Character 3.2"W x .7"H  
(Character Size .13"W x .22"H)  
 Large Display: 2-Line/40 Character 5.5"W x .75"H  
(Character Size .24"W x .38"H)

**INTERCOM OPTION**

- Std. Intercom Speaker/Button     Custom Dial-up     Custom \_\_\_\_\_

**FIRMWARE**

- Standard     Custom \_\_\_\_\_

**ENCLOSURE**

- Standard 10x10     Custom \_\_\_\_\_

**ENCLOSURE COLOR**

- White     Silver     Custom \_\_\_\_\_

**ENCLOSURE GRAPHICS**

- Standard     Custom \_\_\_\_\_

**SPECIFICATIONS**

**ENCLOSURE**

10"L x 10"H x 4.25"D

**WEIGHT**

8 lb. (approx)

**POWER**

120 VAC (12 VAC 800mA) power supply    Optional heater supply

**MOUNTING**

Pedestal, wall mount, or counter mount

**ENVIRONMENT**

**Operating Temperature:** -20° to 140°F/-30° to 60°C

**Humidity:** 95% non-condensing

**READER TECHNOLOGY**

Proximity

**SERVICE ACCESS**

Front panel security screws for technician access

*Specifications are approximate and are subject to change without notice.*

REPRESENTED BY:

**AMANO McGANN®**

Corporate Headquarters 651 Taft Street NE, Minneapolis, MN 55413  
Tel: (612) 331-2020 www.amanomcgann.com

# AMG-4000

Series



**Exit Station**  
with optional Barcode  
Matrix Scanner

**FlexScan™ QR400**



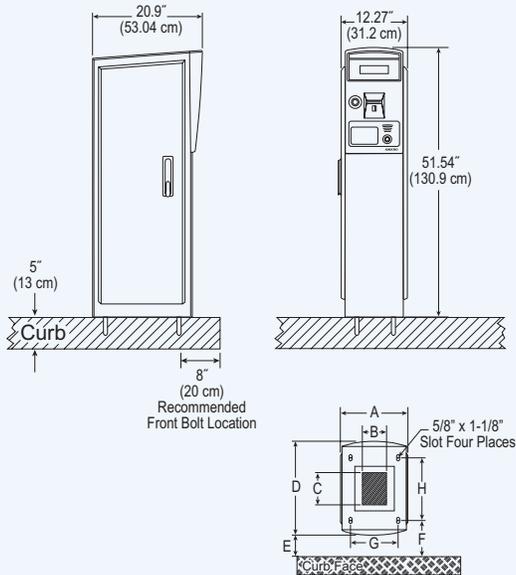
*The AMG-4000 Series Exit Station is designed for multiple uses, typically at the unattended exits of a parking facility. The exit station accepts entry tickets and validation coupons, calculates parking fees, accepts and processes credit cards and issues receipts.*

*The integrated FlexScan™ QR400 extends the functionality of the standard exit station adding the capability to scan linear and QR barcodes. Credentials can be scanned from various printed and electronic media formats including paper, event tickets, ID badges and smartphones.*

*Utilize the iConnect® Interface tool for custom integration with your IT operation. Control the process all the way to the lane.*



Series  
**AMG-4000**



■ CONFINE RIGID CONDUIT NO MORE THAN 2" (5 cm) HIGH IN THIS AREA.

A = 12.27" (31.2 cm)    C = 8" (20.32 cm)    \*E = 5" (13 cm)    G = 7.48" (19 cm)  
 B = 4" (10.16 cm)    D = 20.9" (53.04 cm)    \*F = 8" (20 cm)    H = 11.75" (29.8 cm)  
 \*Recommendation only. Installation requirements may vary.

**FEATURES**

- Increased throughput provides rapid exit from your facility
- Increased exit lanes with no added labor costs
- Field programmable operation utilizing handheld wireless remote control
- Secure – no cash collected, no cash available
- Uses common hardware components (RWPV-based) for fewer inventoried parts and reduced service training
- Barcode matrix scanner (FlexScan QR400) optional
- Custom IT integration available utilizing iConnect
- Built-in intercom
- Personalized panel option, std. panel – "Thank You"
- Dual powder coat finish
- Prox Reader optional

REPRESENTED BY:

**SPECIFICATIONS**

**COMPLIANCE**

**PCI PA-DSS (Payment Application Data Security Standard) Compliant**  
 AMG-4570 Series lane equipment does not store credit card data  
 Meets ADA (Americans with Disabilities Act) and  
 ANSI (American National Standards Institute) requirements

**ELECTRICAL**

120 VAC, 60 Hz  
 220/240 VAC, 50/60 Hz  
 10 amp max. (120V) 5 amp max. (240V)  
 Multiple I/O capability for ticket tracking, count and monitoring

**MECHANICAL**

Automatic dual ticket feed; dot matrix printer; cartridge ribbon;  
 exclusive RWPV™ (read, write, print and vault) magstripe mechanism

**TIME CONTROL**

Real-time clock synchronization with host computer  
 Built-in crystal controlled perpetual calendar  
 Programmable Daylight Saving Time adjustment

**TIME CONTROL**

Quartz oscillated, accurate within ±3 seconds per week at 68°F to 86°F (20°C to 30°C)  
 Programmable Daylight Saving Time adjustment

**Off-Line Operation:** AMG-4575 operates as a stand-alone lag-time reader

**ENVIRONMENT**

**Temperature:** -20°F ~ 120°F (-29°C ~ 49°C)  
 Automatic thermostat-controlled heater included  
**Humidity:** 10% ~ 95% (non-condensing)

**HOUSING**

Heavy-duty, 14-gauge steel construction, weather gasketing, lockable door  
**Dimensions:** 51.54"H x 12.27"W x 20.9"D (130.9 cm x 31.2 cm x 53.04 cm)  
**Ticket throat:** 41" (104 cm)  
**Weight:** 152.5 lbs. (69.17 kg)  
**Finish (standard):** Argento Silver (#305) cabinet / Classic Grey (#314) side panels; White (RAL#9003); custom color available

**BARCODE MATRIX SCANNER**

**Opening:** 4"W x 3"H (10.16 cm x 7.62 cm)  
**Barcode Types:** 1D (Linear) & 2D (QR)  
**Ambient Light:** Total darkness to 9000 ft. candles (96.900 LUX)

**TICKETS**

Credit card size receipt tickets: 2-1/8" x 3-3/8" (5.41 cm x 8.59 cm)  
 Holds 1,000 used tickets in vault  
 AMG-4570 uses fanfold tickets: 5,000 tickets/carton. Holds two cartons.

**COMMUNICATIONS**

Interfaces with iParcProfessional software for complete transaction monitoring and control

**OPTIONS**

2nd I/O Rack (passcard reader lockout)  
 Magstripe and proximity access card models optional

**INTERCOM**

Aiphone LEF™ series intercom system  
 Standard user recordable voice announcement

*Manufactured by Amano Cincinnati, Inc.'s Ohio factory, an ISO 9001:2000 registered facility. Specifications are approximate and are subject to change without notice. UL approval does not apply to 220/240V AC, 50/60 Hz*



**AMANO McGANN®**

Corporate Headquarters 651 Taft Street NE, Minneapolis, MN 55413  
 Tel: (612) 331-2020 www.amanomcgann.com

# AMG-4300

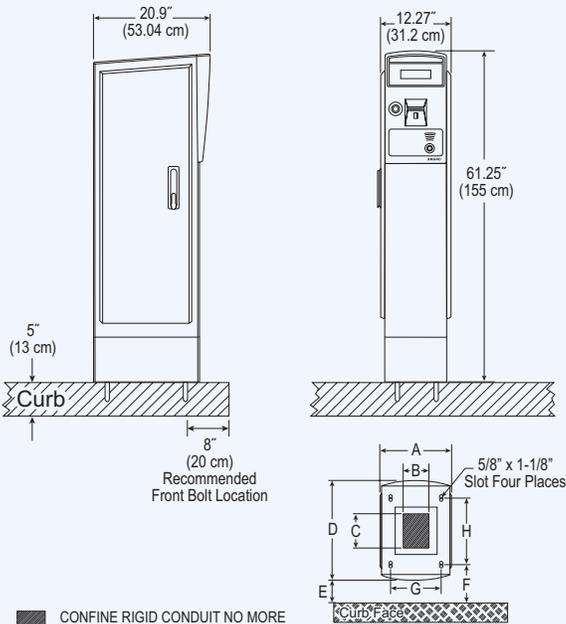
ExpressParc®

## ***Credit Card Only Central Pay Station***



*The AMG-4300 Series ExpressParc Credit Card Only Central Pay Station is typically located at a central location within the parking facility. The system accepts entry tickets, expired exit tickets, validated tickets, and mag-stripe validation coupons, calculates the parking fee, accepts and processes the credit card, prints and issues a receipt on request, and issues a paid exit ticket.*

ExpressParc®  
**AMG-4300**



CONFINE RIGID CONDUIT NO MORE THAN 2" (5 cm) HIGH IN THIS AREA.

A = 12.27" (31.2 cm)    C = 8" (20.32 cm)    \*E = 5" (13 cm)    G = 7.48" (19 cm)  
 B = 4" (10.16 cm)    D = 20.9" (53.04 cm)    \*F = 8" (20 cm)    H = 11.75" (29.8 cm)

\*Recommendation only. Installation requirements may vary.

**FEATURES**

- Increased throughput provides rapid exit from your facility ◀
- Real time authorization or batch processing ◀
- Secure — no cash collected, no cash available ◀
- Large selection of financial processors supported ◀
- Built-in intercom ◀
- Personalized panel option  
 Std. panel – "Credit Card Only" ◀
- Dual powder coat finish ◀
- ADA Compliant ◀

REPRESENTED BY:

**SPECIFICATIONS**

**COMPLIANCE**

AMG-4300 ExpressParc® does not store credit card data.  
 Meets ADA (Americans with Disabilities Act) and ANSI (American National Standards Institute) requirements.

**ELECTRICAL**

120 VAC, 60 Hz  
 220/240 VAC, 50/60 Hz  
 10 amp max. (120V) 5 amp max. (240V)  
 Multiple I/O capability for ticket tracking, count and monitoring

**MECHANICAL**

Automatic dual ticket feed; dot matrix printer; cartridge ribbon;  
 exclusive RWPV™ (read, write, print and vault) mag-stripe mechanism

**TIME CONTROL**

Real-time clock synchronization with host computer  
 Built-in crystal controlled perpetual calendar  
 Programmable Daylight Saving Time adjustment

**ENVIRONMENT**

**Temperature:** -20°F ~ 120°F (-29°C ~ 49°C)  
 Automatic thermostat-controlled heater included  
**Humidity:** 10% ~ 95% (non-condensing)

**HOUSING**

Heavy-duty, 14-gauge steel construction, weather gasketing, lockable door  
**Dimensions:** 61.25"H x 12.27"W x 20.9"D (155 cm x 31.2 cm x 53.04 cm)  
**Ticket throat:** 38-3/4" (98 cm)  
**Weight:** 135 lbs. (61 kg)  
**Finish (Standard):** Grey Classic (#314) / Argento Metallic (#305);  
 White (RAL#9010); custom color available

**PRINTER**

Prints credit card type receipt (entry date and time, exit date and time,  
 parking fee, card type, partial card number, transaction number)

**TICKETS**

Uses fanfold tickets: 5,000 tickets/carton  
 Credit card size tickets: 2-1/8" x 3-3/8" (5.41 cm x 8.59 cm)  
 Holds 1,000 used tickets in vault; holds 5,000 receipts

**COMMUNICATIONS**

Interfaces with an on-line credit card host PC for calculation and credit  
 card processing

**OPTIONS**

2nd I/O Rack (passcard reader lockout)  
 Magstripe and proximity access card models optional

**INTERCOM**

Aiphone™ LEF series intercom system  
 Standard user recordable voice announcement

Manufactured by Amano Cincinnati, Inc.'s Ohio factory, an ISO 9001:2000 registered facility.  
 Specifications are approximate and are subject to change without notice.  
 UL approval does not apply to 220/240V AC, 50/60 Hz



**AMANO McGANN®**

Corporate Headquarters 651 Taft Street NE, Minneapolis, MN 55413  
 Tel: (612) 331-2020 www.amanomcgann.com

# AMG-6800

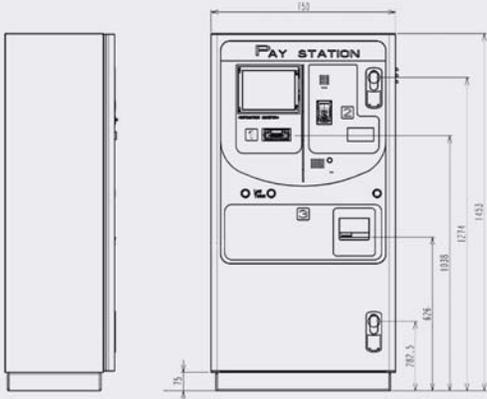
Series

## *Exit Pay Station*



*The AMG-6800 series pay station is finding wide acceptance in unattended facilities. Operating 24/7, the pay station accommodates transient, discount, service store validation and other processes easily and efficiently.*

**Exit Pay Station**  
**AMG-6800**



**FEATURES**

- Unattended exit payment system calculates variable rate or flat rate fees utilizing mag-stripe technology** ◀
- Provides an economical method to offer additional payment locations in the exit lanes of a facility** ◀
- Includes a lighted patron guidance system and easy to read touch screen display** ◀
- Electronic shutter system protects the ticket slot, coin slot, and note slot; activated open by the start of a transaction** ◀
- Accepts entry tickets, exit tickets processed at a central pay location; cancelled tickets, lost tickets, validation coupons and service tickets** ◀

**SPECIFICATIONS:**

**ELECTRICAL**

Power source:	110 - 120 VAC, 50/60 Hz
Power consumption:	11.5 amps with heater
Power reserve:	Clock and program data are protected for 3 years by Li battery

**ENVIRONMENT:**

Temperature:	-12°F to 120°F (-25°C to 50°C)
Relative humidity:	20% to 90% (no water condensation)
Automatic thermostat-controlled heater and fan	

**HOUSING**

Heavy-duty, 14-gauge steel construction, weather gasketing, heavy-duty polyethylene cover, lockable door	
<b>Height:</b>	57.2" (1453 mm)
<b>Width:</b>	29.53" (750 mm)
<b>Depth:</b>	17.52" (445 mm)
<b>Construction:</b>	Sheet steel housing
<b>Finish:</b>	Textured Powder coat finish RAL 9010
<b>Weight:</b>	Approximately 446 lb. (201 kg)

**TIME CONTROL**

Quartz oscillated, accurate within ±3 seconds per week at 68°F to 86°F (20°C to 30°C)	
Programmable Daylight Saving Time adjustment	
<b>Off-Line Operation:</b>	AMG-6800 operates as a stand-alone lag-time reader.

**ON-LINE OPERATION**

Utilizes RS-485 communication with the parking management software host.	
Data sent from the pay station to the Host PC includes individual transaction data, and alarm and event messages. Data sent from the parking management software to pay station includes time synchronization and backout ticket data.	

**SECURITY**

Multi-point safety lock system with concealed hinges	
<b>Voice Guides:</b>	Payment, fee, and receipts.
<b>Accepted Coins:</b>	<b>U.S.</b> \$.05, .10, .25, 1.00; <b>CA</b> .05, .25, 1.00, 2.00
<b>Four Recycling Coin Hoppers:</b>	<b>U.S.</b> \$.05, .10, .25, 1.00; <b>CA</b> .05, .25, 1.00, 2.00
<b>Note Reader:</b>	Four-way note reader accepts <b>U.S.</b> \$1.00, 5.00, 10.00, 20.00 <b>CA</b> 5.00, 10.00, 20.00
<b>Vaults:</b>	Coin vault collects overflow coins; Bank note vault stores collected notes.
<b>Printer:</b>	Thermal printer is used to print receipts and total reports.

*Specifications are approximate and are subject to change without notice.*

REPRESENTED BY:

**AMANO McGANN®**

Corporate Headquarters 651 Taft Street NE, Minneapolis, MN 55413  
Tel: (612) 331-2020 [www.amanomcgann.com](http://www.amanomcgann.com)

# AMG-7800

Series

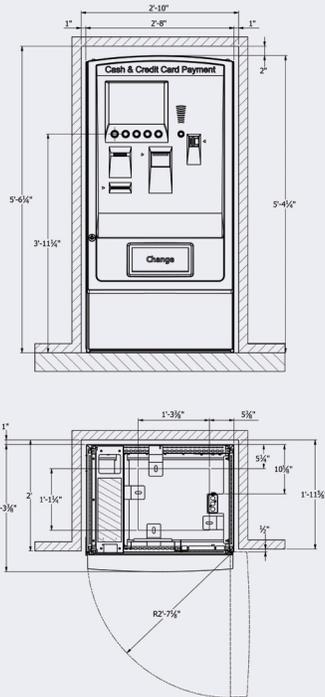
## *Pay-On-Foot Central Pay Station*



*Amano McGann AMG-7800 automatic Central Pay Station is designed as a fast pay-processing unit and is perfect for large-scale 24-hour operations. A large easy-to-read 15-inch flat panel color display and lighted guidance system leads users through easy-to-follow transactions enhanced with screen prompts and voice announcements. Transactions are faster and easier for the user—virtually eliminating long lines and delays.*

## Central Pay Station

# AMG-7800



## FEATURES

- Ergonomic, customer-friendly, compact modular design* ◀
- Large, easy-to-read 15-in. flat panel display* ◀
- Intuitive, easy-to-use lighted guidance system helps patrons make fast transactions* ◀
- Superior detection/rejection technology* ◀
- One-drop change location eliminates confusion* ◀
- Accepts notes and coins. Faster, more reliable electronic self-replenishing coin system eliminates tubes with option for up to three recycling coin hoppers and a fourth non-recycling hopper* ◀
- Dispenses notes (up to 3), coins (up to 4), and receipts* ◀
- Large, 8" receipt roll—saves labor, and improves security* ◀
- Ethernet-based peripheral communications sub-system* ◀
- Uninterruptible power supply* ◀
- Note storage in individual, lockable cassettes* ◀
- Scalable hardware/software* ◀
- Multiple languages are programmable, including English, French and Spanish* ◀

REPRESENTED BY:

## SPECIFICATIONS

### COMPLIANCE

**CISP (Cardholder Information Security Program) compliant, validated by VISA.**  
Meets ADA (Americans with Disabilities Act) and ANSI (American National Standards Institute) requirements.

### ELECTRICAL

**Power Source:** 120VAC, 60HZ  
**Utilization:** 3 amp normal, 10 amp maximum

### AMBIENT ENVIRONMENT

**Temperature:** 14° F to 104° F (-10° C to 40° C)  
**Relative Humidity:** 10% to 90% (non-condensing)  
Automatic thermostat-controlled heaters and fan included

### HOUSING

**Height:** 64.25" (1631.95 mm)  
**Width:** 31.5" (800 mm)  
**Depth:** 27.2" (692 mm)  
**Construction:** Sheet steel housing  
**Cabinet Finish:** Textured powder coat finish Grey Classic 314 (RAL #7016)  
**Door Finish:** Metal door with painted molded plastic overlays  
**Total Weight:** Approximately 800 lbs. (363 kg)

### TIME CONTROL

Quartz oscillated, accurate within ±3 seconds per week at 68° F to 86° F (20° C to 30° C)  
Perpetual calendar  
Programmable Daylight Saving Time adjustment

### ON/OFF-LINE OPERATION

The model AMG-7800 may operate as a stand-alone unit utilizing the reporting functions of the pay station.

**On-Line Operation:** Utilizes RS-485 communication with the parking management software host. Data sent from the pay station to the host PC includes individual transaction data, alarm and event messages. Data sent from the parking management software to pay station includes program data updates, time synchronization, backout ticket data and in/out of service status.

### SECURITY

#### Multi-point safety lock system

**Access Lock:** Secures the main locking mechanism utilizing a plug type lock to be removed in order to gain access to the inner lock.

**Inner Lock:** Secures the pay station door utilizing a T-shaped key

#### Intruder alarm

#### Security locks on money handling compartments

### UNINTERRUPTIBLE POWER SUPPLY (UPS)

Protects the pay station from poor quality AC line power. Protection is provided from surges, low voltage, high voltage and complete power failure. On power fail, UPS will initiate an emergency shutdown. If transaction is in progress, the transaction will be completed prior to shutting down, the display will go blank and the internal PC will power down. UPS also provides protection of software databases.

*Manufactured by Amano Cincinnati, Inc.'s Ohio factory, an ISO 9001:2000 registered facility. Specifications are approximate and are subject to change without notice. UL approval does not apply to 220/240V AC, 50/60 Hz*



# AMANO McGANN®

Corporate Headquarters 651 Taft Street NE, Minneapolis, MN 55413  
Tel: (612) 331-2020 [www.amanomcgann.com](http://www.amanomcgann.com)

# AR-100

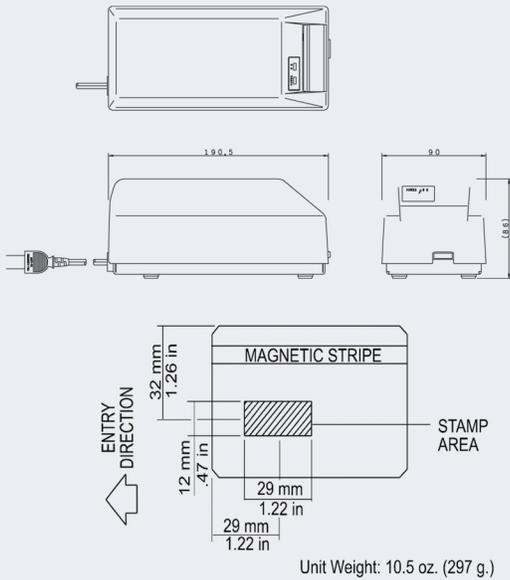


## ***Automatic Encoder For Store Validation***

*Amano McGann's AR-100 Automatic Encoder allows you to attract more customers by offering time, fee and/or percentage discounts for parking at your facility, and rate-switchover for valet and special events. The AR-100 is also compact, automatic and easy to use.*

## Automatic Encoder

# AR-100



Unit Weight: 10.5 oz. (297 g.)

## HOW IT WORKS

The store attendant or patron simply inserts the parking ticket into the unit. The AR-100 will then automatically transport the ticket into the device, stamp, and eject the ticket. The ticket will be encoded with a store number and with the use of a logo stamp, print the store name discount type on the ticket. The store number is encoded to provide a predetermined discount at the parking facility, and the encoded ticket is automatically processed by the AGP-5200 Series Fee Computer, AGP-7800 Series Automatic Pay Stations, AGP-6800 Pay-in-Lane Pay Station, AGP-6000 Lagtime Reader, AGP-4300 and AGP-4400 Series ExpressParc.

If the ticket is inserted incorrectly or already has been encoded with a store number, a red light will illuminate on the AR-100 and the device will reject the ticket.

A summary of discounts and store numbers recorded on the Fee Computer or Pay Station eliminates the need to physically count coupons and makes it easy to bill discounts back to each store participating in your validation program.

## Sample Store Discount Summary

Report generated by AGP-5200 Series Fee Computer.

- 1 Time & date report
- 2 Name of validation account
- 3 Total dollar amount of validations by store
- 4 Store number
- 5 Total number of validations

Additional lists and reports can be generated with a PC-based facility management software system.

## FEATURES

- User-friendly
- Accommodates up to 31 stores
- Optional logo stamp for store identifications
- Lightweight, compact design
- Red light for error notification

## BENEFITS

- Eliminates insertion errors
- Eliminates double stamping
- Eliminates incorrectly encoded tickets

## SPECIFICATIONS

### POWER SUPPLY

120 VAC or 220/240 V ± 10% (50/60 Hz)

### POWER CONSUMPTION

0.1A

### AMBIENT ENVIRONMENTS

Temperature: 0°C ~ 40°C  
Humidity: 10% ~ 90% (non-condensing)

### OUTSIDE DIMENSIONS

90mm (W) x 190mm (D) x 115mm (H)

### MASS (WEIGHT)

1.5 kg

Manufactured by Amano Cincinnati, Inc.'s Ohio factory, an ISO 9001:2000 registered facility. Specifications are approximate and are subject to change without notice.

REPRESENTED BY:



05/01/2006 09:40  
DISCOUNT REPORT  
Detail 1  
From: 06/09/2000 00:00  
To: 06/09/2000 23:59  
Pay station 1

Store Discounts	
001 Fee Discount Store	0
Total # of Charges:	\$0.00
Total Charge Amt:	0
002 30 min Entry Time Sto	0
Total # of Charges:	\$0.00
Total Charge Amt:	0
003 1 HR Exit Time Store	0
Total # of Charges:	\$0.00
Total Charge Amt:	0
004 10 Percent Store	0
Total # of Charges:	\$0.00
Total Charge Amt:	0
005 Rate Switch Store	0
Total # of Charges:	\$0.00
Total Charge Amt:	0
006 \$1 Flat Fee Store	0
Total # of Charges:	\$0.00
Total Charge Amt:	0
Counts of Store Discounts	0
Total # of Coupons:	\$0.00
Total Disc. Amt:	0
Store Charges	
007 \$2.5 Surcharge Store	0
Total # of Charges:	\$0.00
Total Charge Amt:	0
Counts of Store Charges	0
Total # of Coupons:	\$0.00
Total Charge Amt:	0
Service Cards	
Service Card A	0
Total # of Coupons:	\$0.00
Total Disc. Amt:	0
Service Card B	0
Total # of Coupons:	\$0.00
Total Disc. Amt:	0
Service Card C	0
Total # of Coupons:	\$0.00
Total Disc. Amt:	0
Counts of Service Cards	0
Total # of Coupons:	\$0.00
Total Disc. Amt:	0

# AMANO McGANN®

Corporate Headquarters 651 Taft Street NE, Minneapolis, MN 55413  
Tel: (612) 331-2020 [www.amanomcgann.com](http://www.amanomcgann.com)

# CAM-1111-IP

# CAM-1211-IP

# CAM-2211-IP

IP Dome Camera (No heater blower)

## KEY FEATURES

- ◆ Built-in Video Content Analysis
- ◆ H.264 25/30 FPS@D1, 2-way Audio
- ◆ Video Compression: H.264, MPEG-4, MJPEG (Dual Stream)
- ◆ Deinterlacing on DSP
- ◆ Burnt-in Text, Video Motion Detection Support
- ◆ microSD Memory Support



## SPECIFICATIONS

Camera Module	CAM-1111 / 1211-IP	CAM- 2211-IP
<b>Image Sensor</b>	Sony 1/3" SONY Super HAD CCD	Sony 1/3" SONY DS CCD
<b>Effective Pixels</b>	768 x 494 (NTSC) / 752 x 582 (PAL)	768 x 494 (NTSC) / 752 x 582 (PAL)
<b>Scanning System</b>	2 : 1 Interlace	2 : 1 Interlace
<b>Horizontal Resolution</b>	520 TVL (Min.)	COLOR: 560 TVL
<b>Dynamic Range</b>	-	52dB (x128)
<b>Minimum Illumination</b>	0.3 Lux (50 IRE, AGC HIGH, DNR HIGH) 0.002 Lux (Sens-up X 128)	0.3 Lux / F1.2 (Color) 0.002 Lux (Sens-up)
<b>Lens (Option)</b>	2.8~10.5 mm F1.2 DC Auto Iris Board Vari-Focal	2.8-10.5 mm F1.2 DC Auto Iris Board Vari-Focal
<b>Day&amp;Night</b>	S/W (CAM-1111-IP) IR Cut Filter Remove (CAM-1211-IP)	IR Cut Filter Remove

## SPECIFICATIONS

### Video

Compression Format	H.264, MPEG-4, MJPEG
Number of Streams	Dual Stream, Configurable
Resolution	D1, CIF, QCIF
Compression FPS	25/30 fps@D1
Deinterlacing	Support (DSP)
Motion Detection	Support (DSP)
Burnt-in Text (Digital)	Support (DSP)
Output	1 Loop Out (BNC Connector)

### Audio

Input	1 channel
Output	1 channel
Compression Format	G.711

### Function

Digital Input	1 channel
Digital Output	1 channel
RS-485	Support
Network	10 / 100 Base-T
Protocol	TCP/IP, UDP/IP, HTTP, RTSP, RTCP, RTP/UDP, RTP/TCP,SNTP, mDNS, UPnP, SMTP, SOCK, IGMP, DHCP,DDNS, SSL v2/v3, IEEE 802.1X, SSH
USB 2.0	Not Available
SD Memory	Support (microSD, Optional)

### Electrical

Power Source	12V DC (Screw Terminal)
Power over Ethernet	Support (IEEE 802.3af)
Power Consumption (Approx)	300 mA @ +12V

### Environmental

Operating Temperature	32°F-122°F(0°C-50°C )
Operating Humidity	Up to 85% RH (Non-condensing)

### Mechanical

Material	Aluminum Die Casting / Polycarbonate
Color	Ivory
Dimension	Housing: 5.9"(ø) x 4.44"(H) (150 x113mm), Dome: 3.93"(ø)(100 mm)
Weight (Approx)	2.381 lb (1,080 g)

## SPECIFICATIONS

### Video Content Analysis (Included as Standard)

High Performance	Advanced Tracking Algorithm, Low False Alarm Rate
Easy to Use	Intuitive Web Browser Interface
Detection Zones	Multi-segment Polygons and Lines
On-screen Display	Real-time Display of Tracking Data and Events

### Video Content Analysis (Option)

Detection Behavior	Direction, Stopping, Loitering, Entering, Exiting, Appear, and Disappear Filters
3D Behavior	Perspective Corrected Size and Speed Filters
Statistics	Counting Functions and Other Statistics
Meta Data	Binary XML Format

### Image Stabilization (Option)

Electronic Stabilization	Removes Camera Sway
--------------------------	---------------------

## ORDERING INFORMATION

CAM-1111-IP	Amano IP Dome	520TVL	
CAM-1211-IP	Amano IP Dome	520TVL	Day/Night
CAM-2211-IP	Amano IP Dome	560TVL	Day/Night, Wide Dynamic Range

*Amano reserves the right to change specifications without prior notice.*

**WARRANTY:** Amano warrants this product against defects in material and workmanship under normal use and service for 12 months from the date of shipment. Full warranty statement available on request.





# **Amano DVMS DVR/NVR**

## **Absolute Digital Video Control**

- ▶ Manages video and audio surveillance
- ▶ Hybrid operation - simultaneously records network and analog cameras
- ▶ Records up to 50 channels
- ▶ Seamlessly integrates with Amano Access Control Software
- ▶ Stack up to 100 recorders
- ▶ Mega pixel camera support
- ▶ PTZ camera control
- ▶ Bidirectional voice-over-IP audio for door/gate applications

**AMANO**<sup>®</sup>  
Time & Security Division

# Amano DVMS DVR/NVR

## Operational

### Digital Video Management System

DVMS provides optional secure multi-disk recording. The modified RAID 0 recording format, images and audio recordings are divided between disk units in short sequences. This ensures a minimum amount of data loss if disk failure occurs.

Storage capacity: 1.5TB with separate, dedicated OS drive

Archiving format: DVD±RW, optional NAS / RAID

Record modes: Motion detection, sound level-based, continuous or alarm-based all according to calendar masks

Video standard: NTSC/PAL

Operating system: Windows 7

Compression: MJPEG, WM9 (Enhanced MPEG-4), MPEG-4, H.264

DVMS supports bidirectional audio (voice-over-IP).

The system can be used as a door or gate phone between surveillance site and control room.

Channels: 1 stereo/2 mono channel as standard, software supports up to 16 channels

Devices: Support for USB and PCI audio devices

Sampling: 22 kHz

Recording: Compressed/uncompressed

Settings: Event source (motion, digital input, no signal, audio high/low, connected alarm), pre- and post-event recording duration, digital output, dome to preset, storage time

Adjustable duration: Pre- and post-event recording from 5 seconds to 30 minutes

Calendar: Programmable recording with several motion detection masks for each day of the week in one-hour increments. Separate calendar for holidays

## Image Rate, Resolution and Size

	Image Rate		Image Resolution	Average Image Size in WM9 Format
	Maximum (ips)			
	JPEG	WM9	Pixels	kB
CIF	480	256	352x240	4-6
2CIF	240	128	704x240	6-9
4CIF	120	64	704x480	9-12
Single Camera	30	30	-	-

## Remote Client Software

Standard: DVMS Workstation and DVMS System Manager

Optional: 16 Channel Web Viewer

## Data Export

Options: DVD/CD, USB. Single images can be printed

File Formats: .jpg, .gif, .tiff, .png, .bmp, .asf, .avi, .mkv



Authorized Dealer:

**AMANO**<sup>®</sup>  
Time & Security Division

Amano Cincinnati, Inc. 180 Alternate 19 Suite A, Palm Harbor, FL 34683  
Phone: (800) 390-5837 Fax: (727) 786-9400 Email: access@amano.com

A-26  
www.amano.com

# Absolute Digital Video Control

Amano DVMS (Digital Video Management System) is a feature rich video surveillance solution which scales easily to suit the needs of businesses of all sizes.

## Ease of Use

Real-time or playback windows displaying camera views are easily opened by dragging the corresponding camera icons from a list of cameras to the work space. Recorded events can be explored and a particular incident found quickly with the help of the powerful search tools. When found, incidents can be exported as single images or video clips in common file formats and saved. Video clips can be played with Windows Media Player on any standard PC. If there is a need to verify the authenticity of a clip, the stand-alone Amano Media Player can be used for verifying that the clip is original.

## Reliability

Amano DVMS can be set to automatically write back-up copies of recorded data, for instance,

on a network drive, which ensures data is always secure and accessible when you need it. Data can be recorded on multiple hard disks. Should a hard disk fail, a minimal amount of data is lost. In addition, the system will continue recording even if one hard disk fails. Users of DVMS do not need to worry about system malfunctions. Amano software watchdog informs them of any critical situations.

## Effective Cost Control

Amano offers upgrade and maintenance services which help control the costs of the system during its life span and makes sure the system adapts to changing needs and new technologies. Amano supports a wide range of leading camera manufactures. Thanks to the Amano SDK package, the system is also easy to integrate with other systems.

### Recording

- ▶ Multiple-server video surveillance solution
- ▶ Supports recording from IP video servers with analog cameras
- ▶ Supports MJPEG, MPEG-4, and H.264 video compressions
- ▶ Supports for a wide range of IP cameras
- ▶ Recording modes: Continuous, motion-based, event-triggered
- ▶ Advanced motion detection: Adaptive motion detection
- ▶ Recording schedules
- ▶ Recording backup

### Local and Remote Monitoring

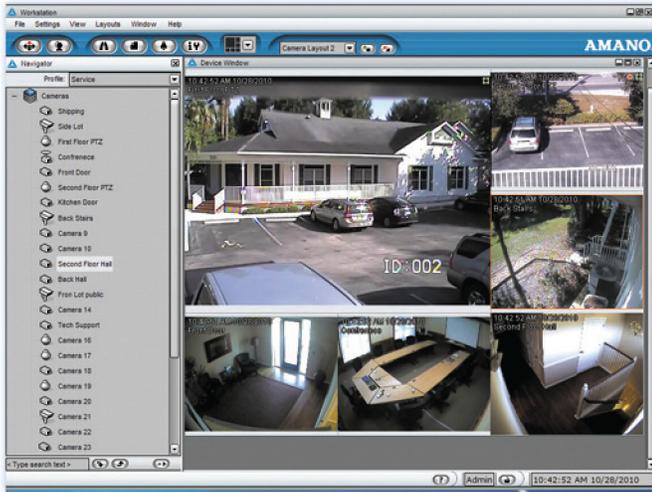
- ▶ Live view and playback
- ▶ Layouts, Maps, Camera tours, PTZ control
- ▶ Input/output control

### Search and Export

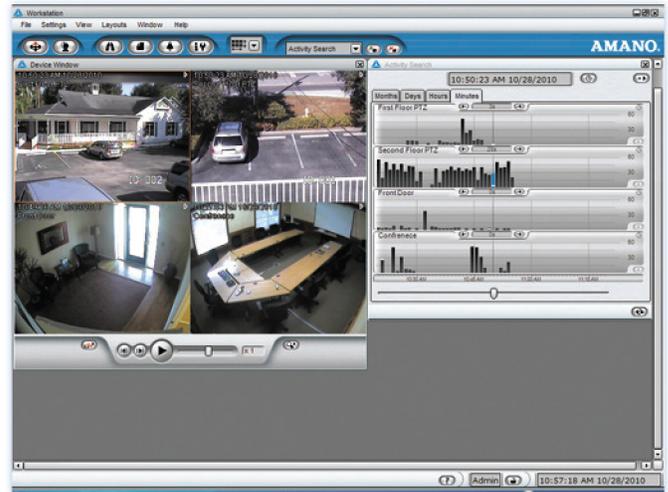
- ▶ Advanced search tools
- ▶ Export
- ▶ Original video clip authentication (With stand-alone Amano Media Player)

### System Diagnostics

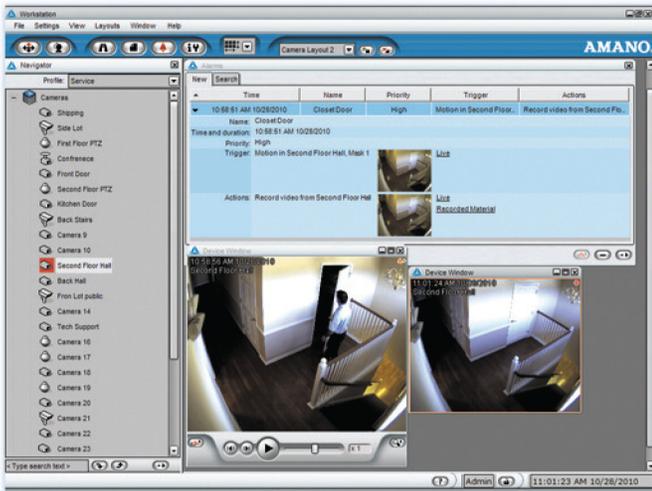
- ▶ Log files
- ▶ Performance scanner
- ▶ Storage display



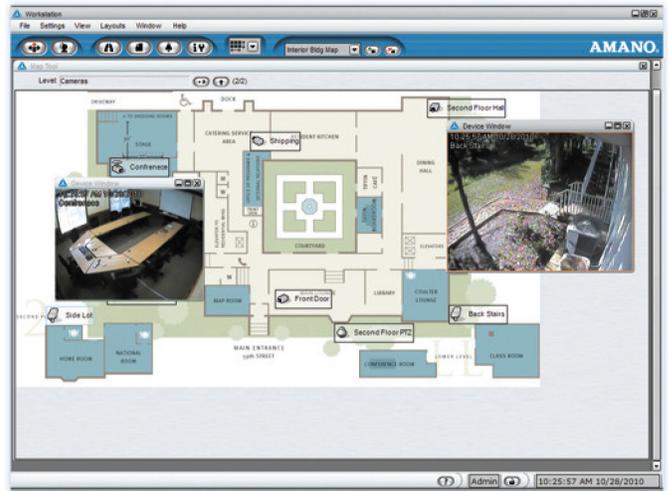
Multiplexed Live Video



Activity Search



Motion Alarm



Live Map Layout

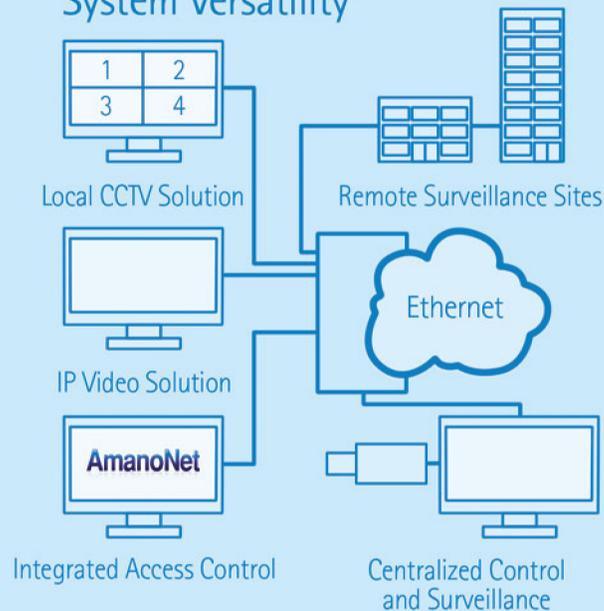
### Alarm Events

- ▶ Event triggers
- ▶ Actions
- ▶ Pre- and post-event recording
- ▶ Storage time
- ▶ Alarm schedules

### Security and Authentication

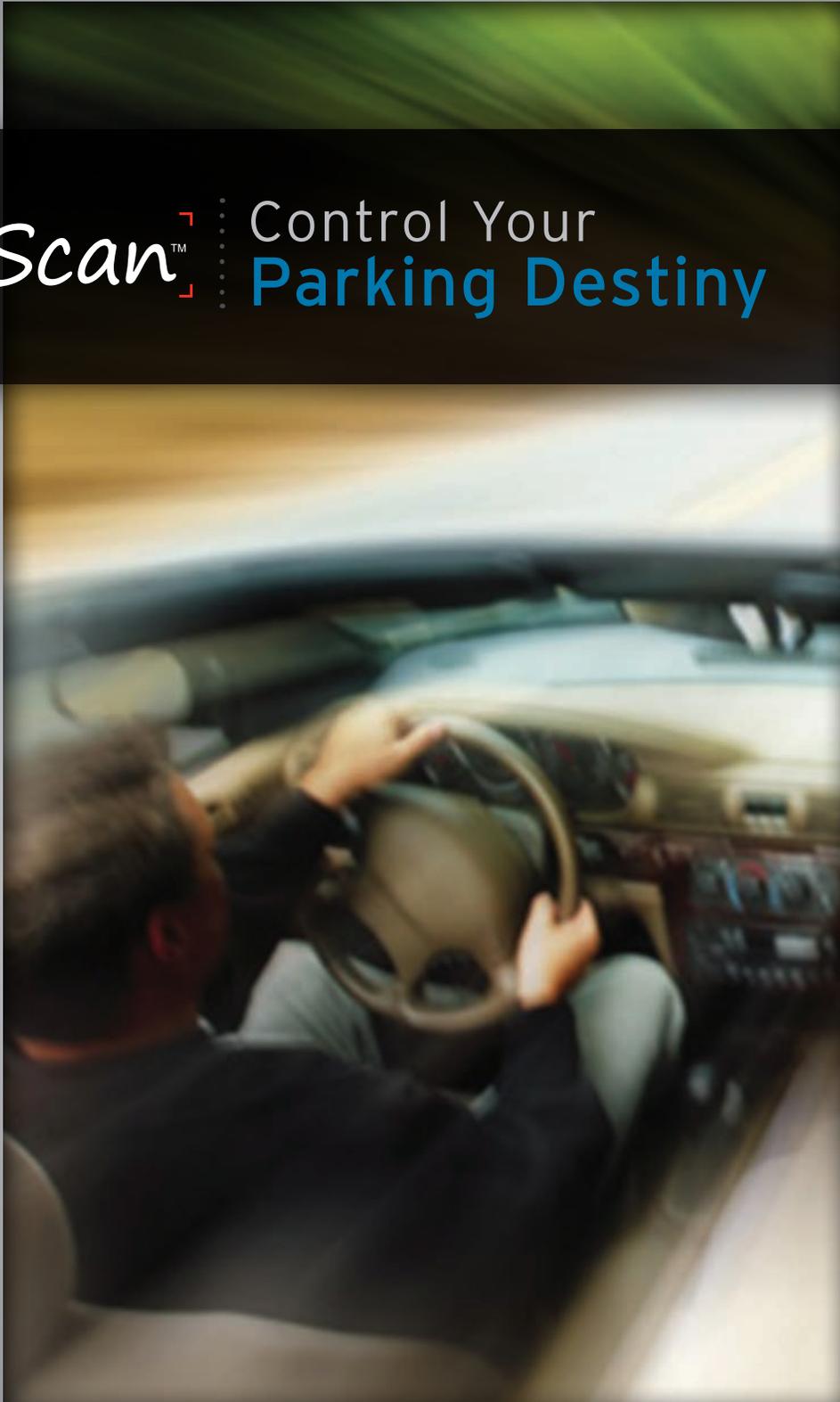
- ▶ User authentication
- ▶ Three user levels
- ▶ Watermarking
- ▶ Modified RAID 0 recording
- ▶ Software watchdog

### System Versatility



FlexScan™

Control Your  
Parking Destiny



AMANO

# Accelerate Your Imagination

## Gain Flexibility and Control

Give your facility a competitive edge by seamlessly integrating the FlexScan™ QR400 optical barcode imager into your in-lane parking solution.



This advanced, omnidirectional barcode image scanner can read both 2D and linear barcodes from a variety of media, ranging from paper to I.D. badges to electronic media presented from a smartphone.

FlexScan's advanced capabilities allow you to add serial numbers, expiration dates and other information to tailor the media to fit your needs. You are no longer limited by swipe technology.

This opens the door to new options where nearly anything is possible. Now, you can offer online parking coupons that customers can print on their own and scan at the exit for a special discount. Go green with an electronic mobile pass or create pre-printed valet passes for weddings, golf tournaments or other special events. You can even utilize your existing barcodes.

Seamless Integration : Customized Credentials  
Validations : Discount Coupons : Valet Tickets : Promotional Passes

## iConnect® Puts You in the Driver's Seat



Gain the ability to create programs on the fly once you qualify for the iConnect Partnership Program. The iConnect Software Development Kit helps you create an interface to the iParcProfessional database that can be used to validate and implement new programs. Create visitor passes charged back to the tenant, or quick specials designed to drive new business. With FlexScan and the iConnect partnership program, you gain endless creativity - without the expense typically associated with program creation.

- » Trial offers
- » Special discounts
- » Pre-purchased online event or valet parking
- » Gift passes/multi-day passes for recurring customers

### Everything Works Together

Experience all the benefits of the latest barcode imaging technology. FlexScan is fully integrated in Amano McGann's full line of lane equipment and central pay stations. Existing facilities can utilize this barcode technology by integrating FlexScan universal barcode readers.

# FlexScan™

## Bringing New Revenue Opportunities to Every Market

No matter what kind of facility you run or what markets you serve, FlexScan can help increase revenue, drive traffic and build customer loyalty at every turn.

### Property Managers

Take action to fill your garages to capacity. Run discount coupons in newspapers, magazines or online to attract new customers. All the patron needs to do is clip and

scan the coupon, or download, display and scan it on their smartphone. The discount is automatically applied at payment. Easy for them, profitable for you.



### Universities

Most universities host thousands of visitors each year and many struggle to direct those patrons to correct parking areas making congestion a prominent issue. With FlexScan,

you can create a Web-based system that both manages faculty parking privileges, and emails visitor passes, maps and specific visitor parking information to parents, boosters and other university guests.



### Hotels

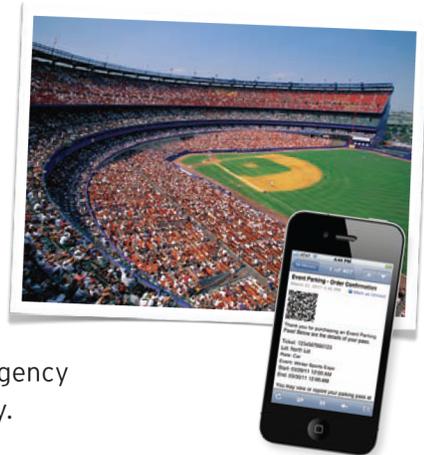
With FlexScan, your event coordinators can create specific event parking passes for tradeshow, conferences or other events. Program the parking system to only accept these passes during specific dates and times, enabling you to continue collecting parking revenue from hotel guests not associated with the specific event. Accommodate all guests while maximizing traffic flow.



### Event Venues

Let your patrons pre-purchase parking passes before the big day, and designate special, automated entry lanes for these prepaid vehicles.

Not only does this strategy reduce traffic congestion and increase customer satisfaction by eliminating long waits, it also reduces the number of cashiers needed to staff the entry plaza. Season passes, VIP passes and documents from the event's ticketing agency can all be used to gain entry.



The opportunities are endless with FlexScan and iConnect. We give you the power to write your own story and gain the revenue results.

# AMANO

## Drive New Applications with FlexScan and iConnect

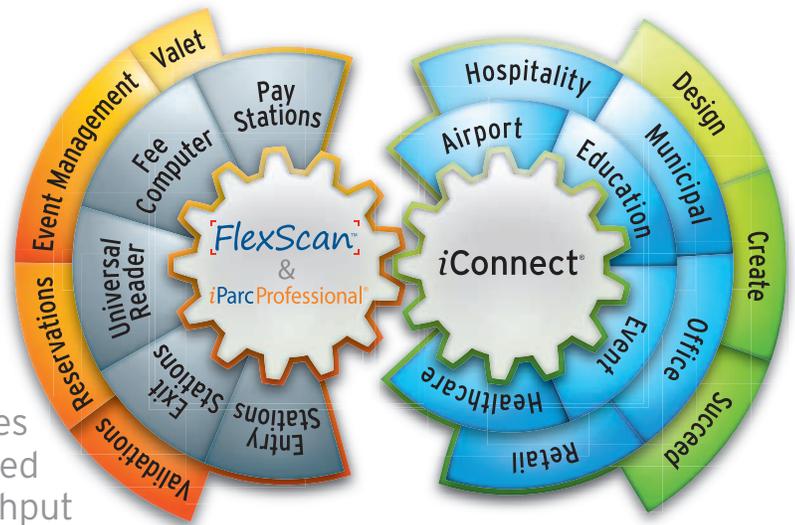
- ❖ Preprinted online passes
- ❖ Barcode ID passes
- ❖ Discount parking programs
- ❖ Valet payment and barcode validations at the pay station
- ❖ Reservation parking
- ❖ Online validations
- ❖ Gift or promotional passes
- ❖ Visitor passes with tenant chargeback
- ❖ Integrated programs with airline, event or car rental programs
- ❖ Imagine the possibilities...

Seamless integration provides more convenience, consolidated credentials and faster throughput

## Wouldn't You Like to Control Your Parking Destiny?

Let Amano McGann show you how

For more information on the FlexScan optical barcode imager, the iConnect Partnership Program or other Amano McGann solutions, contact a representative at (612) 331-2020 Ext. 6188.



## FlexScan™ Available for

### Lane Equipment

- ❖ AMG-2000 Series Entry Station
- ❖ AMG-2500 Series Credit Card Station
- ❖ AMG-4000 Series Exit Station
- ❖ AMG-4500 Series ExpressParc®
- ❖ AGP-5200 Fee Computer

### Central Pay Devices

- ❖ AMG-7800 Central Pay Station
- ❖ AMG-4300 Credit Card Only Central Pay Station
- ❖ AGP-5200 Fee Computer

### Universal Lane Equipment

- ❖ AMT-280 Universal Barcode Reader
- ❖ AMT-280P Universal Barcode Reader with Printer



## AMANO McGANN

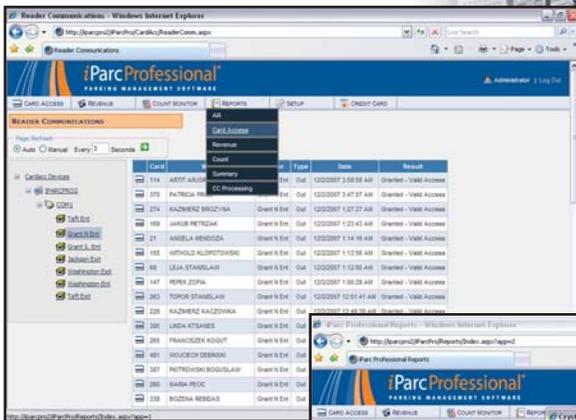
Corporate Headquarters : 651 Taft Street NE : Minneapolis, MN 55413  
Tel: (612) 331-2020 : [www.amanomcgann.com](http://www.amanomcgann.com)

**iParcProfessional®**  
PARKING MANAGEMENT SOFTWARE

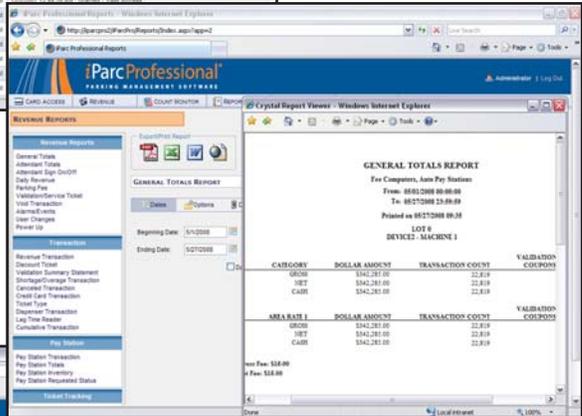


To manage your operation profitably, you need software that helps you control the business both strategically and tactically. And the larger your operation, the more control you need over terminals, transactions and reporting.

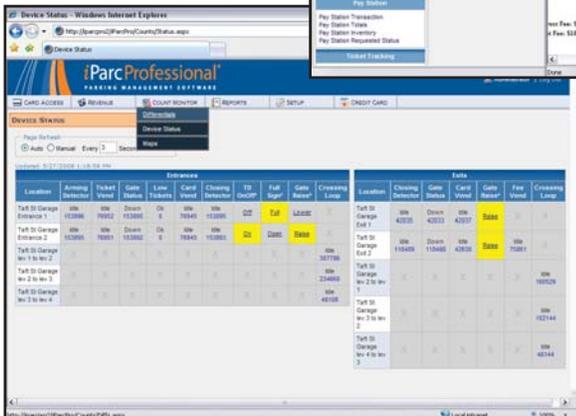
iParcProfessional is the answer for parking operations that need the power of Amano McGann software at every level of the organization. With iParcProfessional, you can understand every aspect of your operation – in real time – and make key decisions that are supported across the business.



Real-time Communications



Complete Reports



Count/Monitoring Statistics

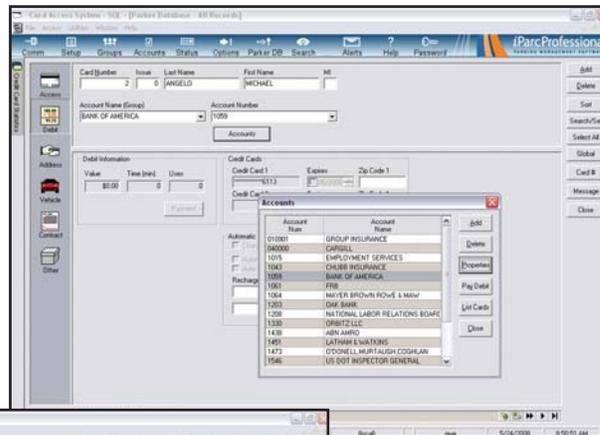
**iConnect™**  
**Web Management**  
Remote Connectivity Made Easy

- Full System Features
- Fast, Comprehensive Reports
- Real-time Transaction Display (Card Access, Counts, and Revenue)
- Proven Amano McGann Platform
- Desktop or Mobile Access
- Enterprise Scalable

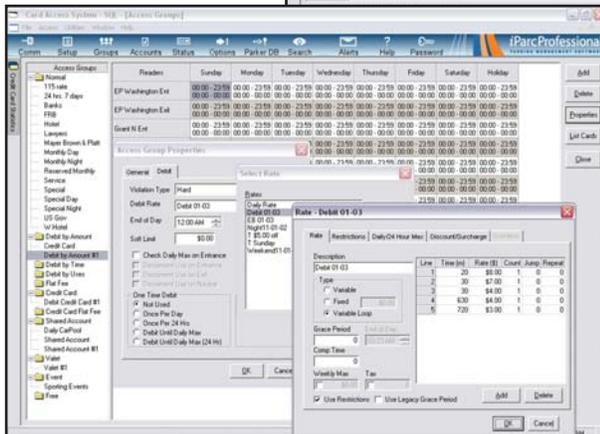
## Access Control

Amano McGann iParcProfessional Access Software is designed to meet the unique requirements of parking facility access – with a depth of features and options you won't find anywhere else. We've simplified programming, enhanced the comprehensive parker database, and increased overall flexibility to make the system more powerful than ever before.

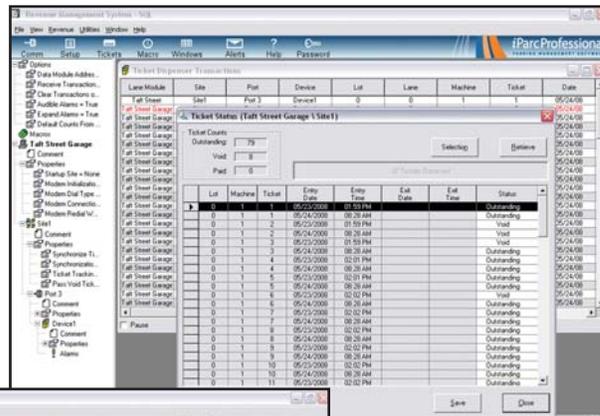
You have immediate access to everything you need. iParcProfessional provides quick, "one click" access to view/edit access groups, lists of account users, debit balances, vehicle/phone/address information, parker quick searches, last card usages, anti-passback and reader result information, and much more.



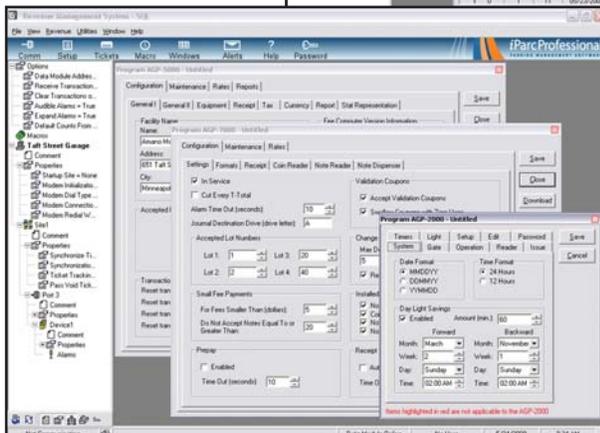
Parker Database



Access Groups/Rates



Device Monitoring



Rate/Device Programming

## Revenue Management

Enforce tight revenue control and increase your audit capabilities with Amano McGann iParcProfessional Revenue Management Software. Real time transaction display from ticket dispensers, fee computers, pay stations and exit devices provides the ability to monitor system operations and alert management of system alarms. Create, store, and edit all revenue system rates from the software – then download them to the devices. There are no interruptions in the lane operation as the system changes and downloads can be processed at user-selected times.

## Count and Monitoring

Amano McGann is the leader in count management solutions. iParcProfessional enhances our already proven solutions and interfacing with a wide variety of existing lane equipment. The software clearly displays space count and monitoring statistics such as differential and non-resettable lane activity counts, lane device status, loop activations, signage conditions, system alerts, and alarm conditions.

Easy control of your space counts and lane devices are provided through hot button driven buttons. You can store several variations of count and monitoring display screens and switch between them quickly.

Lot Name	Differential Name	Occupied	Available	Total	Pct Full	Reset Time	Reset Value	Yellow Alert	Red Alert
1 Long Term A	Facility	790	300	1090	79	12:00:00 AM	0	100	50
2 Long Term B	Public	680	40	720	94	12:00:00 AM	0	100	50
4 Long Term B	Contract	400	100	500	80	12:00:00 AM	0	100	50
5 Short Term	Facility	620	200	820	76	12:00:00 AM	0	100	50
6 Tunnel	Facility	170	230	400	42	12:00:00 AM	0	100	50
7 Economy	Public	290	700	990	29	12:00:00 AM	0	100	50
8 Economy	Public	170	230	400	42	12:00:00 AM	0	100	50
9 Economy	Contract	120	80	200	60	12:00:00 AM	0	100	50

Lot Name	Differential Name	Occupied	Available	Total	Pct Full	Reset Time	Reset Value	Yellow Alert	Red Alert
Long Term A - Facility	Facility	790	300	1090	79	12:00:00 AM	0	100	50
Long Term B - Facility	Facility	680	40	720	94	12:00:00 AM	0	100	50
Long Term B - Public	Public	680	40	720	94	12:00:00 AM	0	100	50
Long Term B - Contract	Contract	400	100	500	80	12:00:00 AM	0	100	50
Short Term - Facility	Facility	620	200	820	76	12:00:00 AM	0	100	50
Tunnel - Facility	Facility	170	230	400	42	12:00:00 AM	0	100	50
Economy - Public	Public	290	700	990	29	12:00:00 AM	0	100	50
Economy - Contract	Contract	120	80	200	60	12:00:00 AM	0	100	50

## Real-time Counts and Statistics

Description	Lane Name	Lane Type	Mode	Count	Max Count	Usage	MT Count	Event Count	Lane Type
Average Camera	L1 8 Entry	Long Term B	Use	100	0	Entrance			Entrance
Taken Vandal	L1 8 Entry	Long Term B	Use	77	0	Entrance			Entrance
State Vandal	L1 8 Entry	Long Term B	Down	0	0	Entrance			Entrance
Lane Vandal	L1 8 Entry	Long Term B	Use	112	0	Entrance			Entrance
Card Vandal	L1 8 Entry	Long Term B	Use	290	0	Entrance			Entrance
Change Camera	L1 8 Entry	Long Term B	Use	0	0	Entrance			Entrance
TO Device	L1 8 Entry	Long Term B	Use	0	0	Entrance			Entrance
Full Sign	L1 8 Entry	Long Term B	Open	0	0	Entrance			Entrance
Average Camera	L1 8 Entry	Long Term B	Use	440	0	Entrance			Entrance
Taken Vandal	L1 8 Entry	Long Term B	Use	30	0	Entrance			Entrance
State Vandal	L1 8 Entry	Long Term B	Down	0	0	Entrance			Entrance
Lane Vandal	L1 8 Entry	Long Term B	Use	274	0	Entrance			Entrance
Card Vandal	L1 8 Entry	Long Term B	Use	70	0	Entrance			Entrance
Change Camera	L1 8 Entry	Long Term B	Use	0	0	Entrance			Entrance
TO Device	L1 8 Entry	Long Term B	Use	0	0	Entrance			Entrance
Lane Vandal	L1 8 Entry	Long Term B	Open	0	0	Entrance			Entrance
Lane Vandal	L1 8 Entry	Long Term B	Open	0	0	Entrance			Entrance
State Vandal	L1 8 Entry	Long Term B	Down	0	0	Entrance			Entrance
Full Sign	L1 8 Entry	Long Term B	Open	0	0	Entrance			Entrance

## Comprehensive Device Programming

## Report Generator

The reporting system that revolutionized parking software is even better and more flexible. Featuring updated report macros, improved selection and sorting features, and convenient/editable data review prior to final printing.

Amano McGann iParcProfessional comprehensive reporting tools provide the best in audit control and statistical reporting.

Amano McGann iParcProfessional is built to leverage the capabilities of Internet connectivity. Although it operates independently of the Worldwide Web, new iConnect Web Management provides full reporting to anywhere in the world with internet connectivity.

Time Interval	Entry	Exit
1:00-1:30	278	278
2:00-2:30	225	225
3:00-3:30	90	90
4:00-4:30	89	89
5:00-5:30	4,592	4,592
6:00-6:30	112,064	112,064
7:00-7:30	26,122	26,122

Time	Entry	Exit
1:00-1:30	278	278
2:00-2:30	225	225
3:00-3:30	90	90
4:00-4:30	89	89
5:00-5:30	4,592	4,592
6:00-6:30	112,064	112,064
7:00-7:30	26,122	26,122

## Summary Reports

Dollar Amounts	Tickets	% of Total Tickets	Total Fee Amount	% of Total Amount	Average Net Value
\$0.00 - \$0.00	51,336	14.25%	\$0.00	0.00%	\$0.00
\$0.05 - \$0.09	9	0.00%	\$0.50	0.00%	\$0.50
\$1.00 - \$1.00	2	0.00%	\$2.00	0.00%	\$1.00
\$2.00 - \$2.99	1	0.00%	\$3.00	0.00%	\$3.00
\$3.00 - \$3.99	1	0.00%	\$3.00	0.00%	\$3.00
\$4.00 - \$4.99	105	0.29%	\$420.00	0.29%	\$4.00
\$5.00 - \$5.99	1	0.00%	\$6.00	0.00%	\$6.00
\$6.00 - \$6.99	1	0.00%	\$7.00	0.00%	\$7.00
\$7.00 - \$7.99	3	0.00%	\$21.00	0.00%	\$7.00
\$8.00 - \$8.99	3,972	1.13%	\$31,776.00	0.87%	\$8.00
\$9.00 - \$9.99	128	0.36%	\$1,280.00	0.29%	\$9.00
\$10.00 - \$10.99	236	0.66%	\$2,360.00	0.65%	\$10.00
\$11.00 - \$11.99	1,004	2.82%	\$10,040.00	2.76%	\$11.00

## Daily Report Macros

## Feature-rich Options

### CARD ACCESS

**Integrated Accounts Receivable** – Features automatic card activation, posting payments and charges, invoicing, custom reporting, data export, ageing accounts, credit card on-file payment option.

**Debit Access Control** – Patrons enter and exit at unattended lanes, no ticket or cash – facility access card based (Proximity, AVI, Magstripe, etc.). Debit based on rate, time, or uses. Ability to “recharge” accounts remotely and automatically with credit card on-file.

**Shared Accounts/Carpool** – Issue access cards to a group of parkers and set an occupancy limit. Once limit is reached, you may either deny access, allow as a violation, or charge them from pre-programmed rate structures. Advanced Shared Accounts allows multiple occupancy thresholds with separate rates.

**Auto Activation** – Allows temporary one-day or multiple-day cards that activate on the first use, then automatically lockout on the expiration date – works with proximity, magstripe, barcode, etc.

### REVENUE MANAGEMENT

**Advanced Ticket Tracking** – Provides real-time access to outstanding and unreconciled ticket reports. For more comprehensive ticket audits, filters and parameters are set to search and review transactions by lot, machine number, ticket number, entry/exit dates or status.

### COUNT MONITORING

**Interactive Facility MAPPING** – Provides an overhead view of your facility and gives you single-point control over it. You see all activity as it happens, and you can control devices just by clicking the image.

**Variable Message Signage Control** – Allows count statistics to activate fixed message signs, digital variable signs and facility or level sign towers. Messages and available space counts can provide instructions and way-finding to patrons.

### SPECIALTY APPLICATIONS

**University Systems** – Departmental budget charge systems, advanced validation tracking systems, way-finding solutions, student card interfaces (several options available), debit card systems and much more.

**Hospital Systems** – Custom Payroll Interfaces, Dr's Registry Interfaces, special patient access solutions – we offer extensive system solutions for the hospital environment.

**Event Systems** – From the small theatre to the large arena, iParcProfessional Event systems are your solution. Wireless technology, exceptionally fast lane transactions, cash/credit card acceptance, complete audit.

**Mass Validation Systems** – Create your own validation coupons for your facilities with the touchscreen based Mass Validation System. Full personnel control, audit reporting and custom printing on tickets.

**Hotel Systems** – Direct tie-in to iParcProfessional using existing hotel cards. Direct PMS interfaces in place for many major hotel chains.

## Software Made Flexible and Efficient

### • Full Functionality –

iParcProfessional delivers all the parking management and reporting capabilities you've come to expect from Amano McGann.

### • Full Scalability –

The solution architecture is specifically designed to accommodate the needs of multi-site parking operations.

### • Capability-rich Interface –

Users can perform more tasks using a robust, Windows-based environment.

### • Easy Remote Connection –

Users can log in from any PC, terminal or remote device – whether they're across the facility, across town or across the world.

### • User Flexibility –

Licenses are not tied to specific PCs, which means as users log off, other users are free to log on.

### • IT Friendly Solution –

A browser-based, client-interface means higher security and low maintenance.

### • Industry-standard Technology –

iParcProfessional is built on a new generation of proven computing and networking technologies, and offers a clear upgrade path. Bottom line: you can have confidence in your investment.

REPRESENTED BY:

# AMANO McGANN®

Corporate Headquarters 651 Taft Street NE, Minneapolis, MN 55413  
Tel: (612) 331-2020 [www.amanomcgann.com](http://www.amanomcgann.com)

# MASS VALIDATION

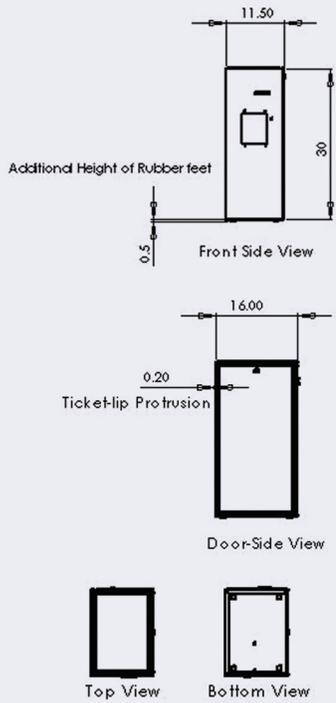
Series

## Production System



*The Amano McGann Mass Validation system allows validation coupons to be made quickly and easily at your facility. This is a stand-alone, touch screen, computer based validation production system. Proximity cards are used to sign-on to the system, and different accounts, values, descriptions, quantities, number of uses, and ticket stocks can be used. All validation coupons are magnetic stripe encoded for maximum security and reliability. All coupons created are linked to specific users in the system, each of which can have a variety of password protected privileges. Typically located in the parking office or other secured location and running independently, the Mass Validation System does not create operational downtime or wear and tear on other lane equipment.*

Production System  
**MASS VALIDATION**



**SPECIFICATIONS:**

**TOUCHMONITOR**

<b>Model:</b>	1529L touch computer
<b>Series:</b>	3000
<b>Availability:</b>	Worldwide
<b>Display Type / Size:</b>	Active matrix TFT LCD; 15" diagonal
<b>Usefulscreen Area:</b>	11.98"H x 8.98"W
<b>Case / Bezel Color:</b>	Dark gray (std)
<b>Dimensions:</b>	13.99"W x 11.27"H x 10.44"D
<b>Optimal resolution:</b>	1024 x 768 at 60, 70 or 75HZ
<b>Colors:</b>	16.2 million colors, 6 bit with dithering
<b>Brightness (LCD Panel):</b>	350 cd/m2
<b>Brightness (LCD Panel w/touchscreen):</b>	AccuTouch: 287 cd/m typical CarrollTouch: 322 cd/m typical IntelliTouch: 322 cd/m typical
<b>Power:</b>	Input (line) voltage: 100-240VAC, 50-60Hz external power supply Type: External brick Output voltage/current: 12 V at 5.0 amps max.
<b>Power dissipation:</b>	30 W typical
<b>Operating Temp. /Humidity:</b>	Operating: 0°C to 35°C; storage: -20°C to 60°C; 5-95% non-condensing
<b>Weight (approx.):</b>	Actual: 17.38lb; shipping: 22.66lb
<b>Other features:</b>	Energy save mode (less than 2 watts) Touchscreen sealed to bezel and LCD Security lock receptacle

**BULK VALIDATOR**

<b>Dimensions:</b>	11.5"W x 30"H x 16"D
<b>Case Color:</b>	Charcoal Gray
<b>Weight (approx):</b>	70 lbs
<b>Power:</b>	120 VAC
<b>Operating Temp. / Humidity:</b>	0°C to 50°C; storage -20°C to 70°C; 90% non-condensing
<b>Communications:</b>	Serial to processing unit, 2 ports req.
<b>Print ribbon Life:</b>	Approx 10,000 tickets

**FEATURES**

- Machine-readable coupon automates validation transaction at fee computers and pay stations*
- Encode coupons on an as-needed basis*
- Select coupon type and quantity per encoding job*
- Uses standard magnetic-stripe coupon stock graphics and copy per facility or validation type*
- Built-in sign-on security requires ID Card with password*
- Audit reports list encoding activity by attendant, coupon type and date range*
- Accommodates up to 999 unique validation codes*
- The greatest flexibility in validation encoding (stores, values, rates, number of tickets, etc.)*
- Highest level of security – Proximity card sign-on and password, plus Supervisor/Administrative functions*
- Full audit trail – Complete accountability for number of coupons generated, stores, values, personnel, etc. – with a printed report at the end of each coupon run (complete with signature line)*
- Stand-Alone System – No lanedowntime, no wear and tear on other lane equipment, and the ability to print coupons in a secured environment.*



Specifications are approximate and are subject to change without notice.

REPRESENTED BY:

**AMANO McGANN**

Corporate Headquarters 651 Taft Street NE, Minneapolis, MN 55413  
 Tel: (612) 331-2020 www.amanomcgann.com

# NowCare™

- With three NowCare service levels, you can choose the plan that best meets the
- needs of your parking facility. You can upgrade to a more comprehensive plan as
- your needs change.

<b>FEATURES</b>	<i>Basic</i>	<i>Plus</i>	<i>Premium</i>
Software Upgrades & Updates	✓	✓	✓
Online and Telephone Technical Support	3 hour Response Time	3 hour Response Time	2 hour Response Time
Priority Status	Software Only	Host System	Complete Facility
Business Alerts and Notifications	✓	✓	✓
Replacement of Host PC Every 3 Years		✓	✓
Online Webinars		✓	✓
Weekly Online System Check up		✓	✓
Discount on all Training Services		25%	Free
All Replacement Parts and Labor			✓
Regularly Scheduled Preventive Maintenance			✓
Unlimited Training of Site Management Personnel			✓
10% Discount on Consumables			✓
25% Discount on After Hours Labor			✓
Free Access to e-Learning			✓

## AMANO McGANN®

Corporate Headquarters  
 651 Taft Street NE  
 Minneapolis, MN 55413  
 Tel: (612) 331-2020  
 www.amanomcgann.com



**NowCare<sup>®</sup>**

**Complete Protection**  
For Your Parking Facility

*Basic*

*Plus*

*Premium*

AMANO

# PROTECT YOUR INVESTMENT

Your parking operation represents a significant investment and an important part of your overall business. Now you can protect that investment and be assured that your parking system is running at peak efficiency with NowCare® from Amano McGann.

Three service levels to choose from

From basic software technical support, to complete end-to-end service and protection.

NowCare *Basic*

NowCare *Plus*

NowCare *Premium*



## Fast Response

Take advantage of unlimited telephone support  
NowCare's guaranteed response time ensures timely support and service for software questions and hardware system maintenance requests.



## No Surprises

Manage your budget with fixed service costs  
Lock in your annual service costs up front and know you are covered no matter what happens. No risks, no worries.



## Stay Current and Compliant

Upgrade to the latest software automatically  
Every level of NowCare support includes automatic software upgrades. You will always have the latest features and your system will always be compliant with industry standards.



## Preventive Care

Maximize the uptime of your operation  
With the proper care and maintenance, you can extend the life span of your entire system.



## Comprehensive Training

Benefit from our advanced features and options  
Use our online and factory training to learn how our advanced features can streamline your operation, increase monitoring, automate reporting, and reduce costs.



## Increase Profits and Productivity

Boost the value of your entire system  
The combination of preventive maintenance, system upgrades and advanced training will keep your operation running at peak performance and increase throughput and revenue.

- With three NowCare service levels, you can choose the plan that best meets the needs of your parking facility. You can upgrade to a more comprehensive plan as your needs change.

<b>FEATURES</b>	<i>Basic</i>	<i>Plus</i>	<i>Premium</i>
Software Upgrades & Updates	✓	✓	✓
Online and Telephone Technical Support	<b>3 hour Response Time</b>	<b>3 hour Response Time</b>	<b>2 hour Response Time</b>
Priority Status	<b>Software Only</b>	<b>Host System</b>	<b>Complete Facility</b>
Business Alerts and Notifications	✓	✓	✓
Replacement of Host PC Every 3 Years		✓	✓
Online Webinars		✓	✓
Weekly Online System Check up		✓	✓
Discount on all Training Services		25%	Free
All Replacement Parts and Labor			✓
Regularly Scheduled Preventive Maintenance			✓
Unlimited Training of Site Management Personnel			✓
10% Discount on Consumables			✓
25% Discount on After Hours Labor			✓
Free Access to e-Learning			✓



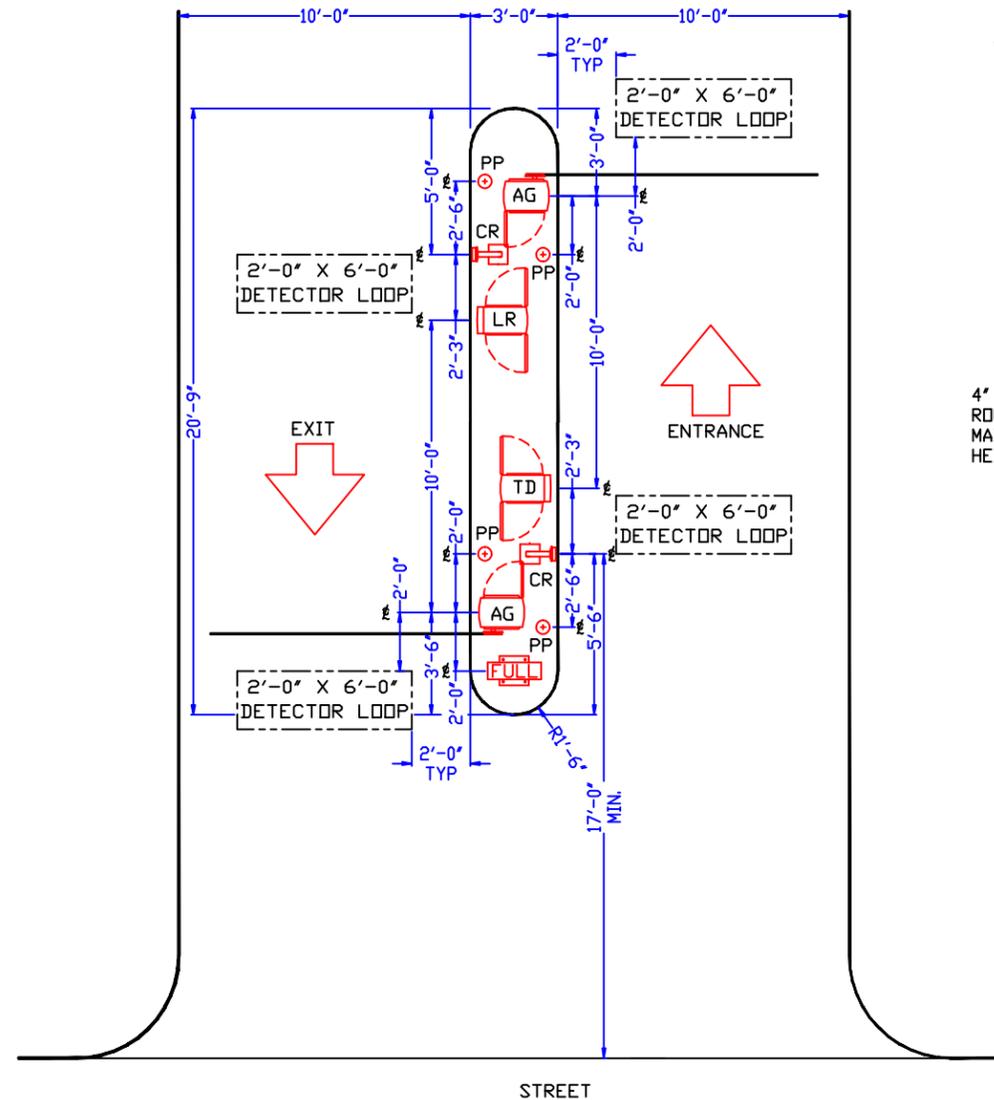
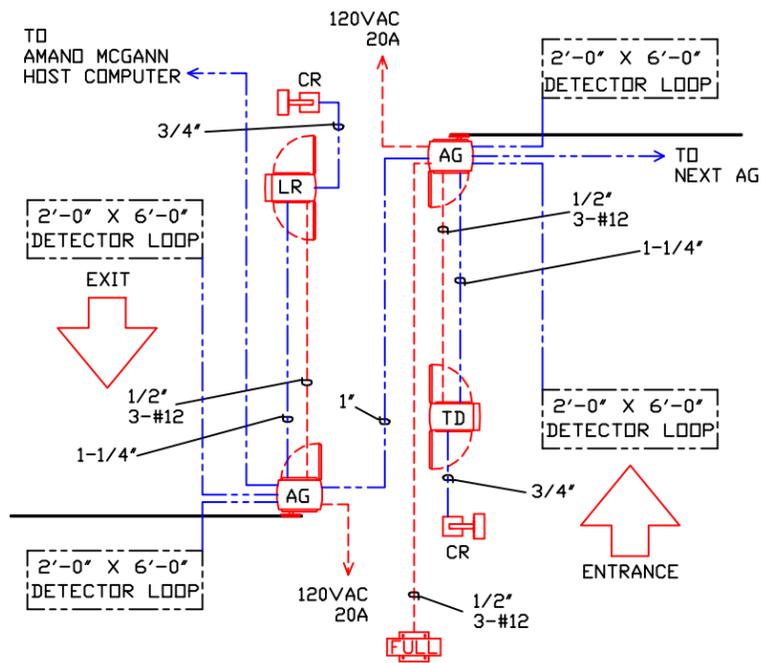
## AMANO McGANN

Corporate Headquarters : 651 Taft Street NE : Minneapolis, MN 55413  
 Tel: (612) 331-2020 : [www.amanomcgann.com](http://www.amanomcgann.com)

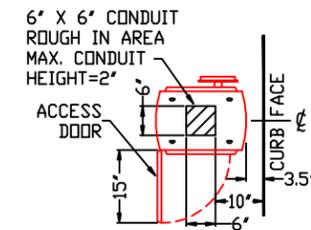
**Spaces  
Available**

8888

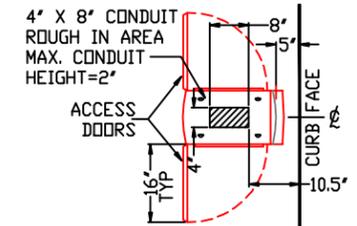




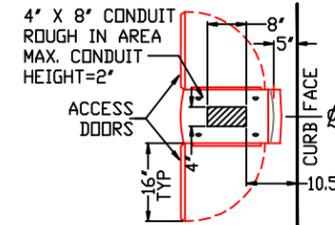
AG = AMG1700 AUTOGATE



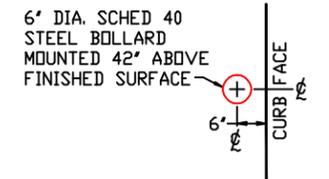
TD = TICKET DISPENSER



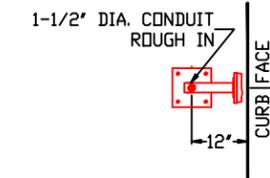
LR = LAG READER/  
EXPRESSPARC



PP = PROTECTION POST



CR = CARD READER  
(PROXIMITY READER)



FULL = PEDESTAL FULL SIGN



**NOTES:**

120VAC TO GATE MUST NOT DROP BELOW 105VAC WITH A 15A LOAD

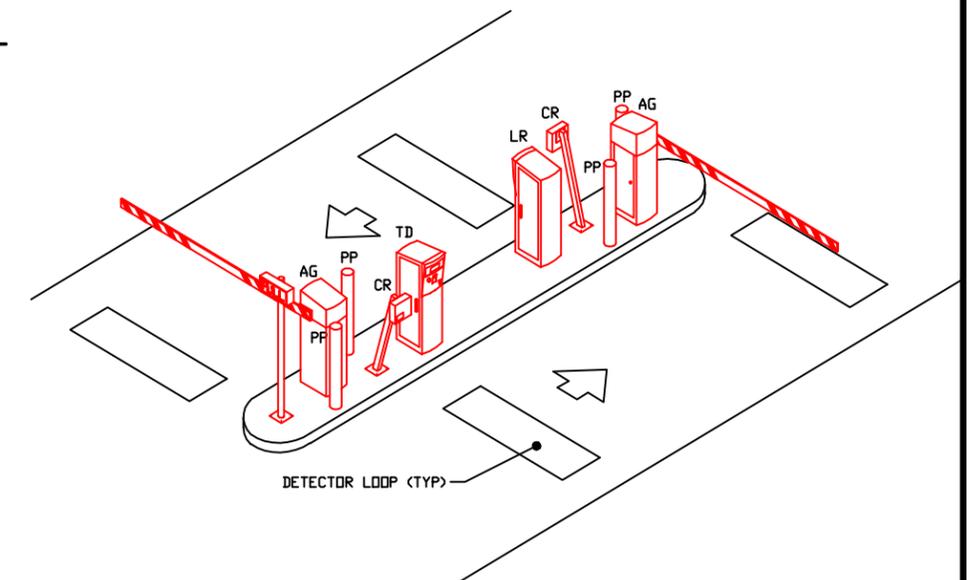
EQUIPMENT IS DESIGNED FOR AUTOMOBILE TRAFFIC ONLY - NO MOTORCYCLES, BICYCLES, OR PEDESTRIANS.

EQUIPMENT IS DESIGNED TO BE MOUNTED ON 6' HIGH LEVEL CONCRETE ISLAND.

THE INFORMATION CONTAINED IN THIS DOCUMENT IS BASED ON TYPICAL CONFIGURATIONS. WE MAKE NO REPRESENTATIONS AS TO ITS ACCURACY, COMPLETENESS OR SUITABILITY FOR A PARTICULAR APPLICATION. IT IS THE RESPONSIBILITY OF THE INSTALLER TO VERIFY ALL INFORMATION CONTAINED HEREIN AS IT RELATES TO THE ACTUAL SYSTEM DESIGN, SITE CONDITIONS, AND CODE REQUIREMENTS.

**LEGEND:**

- AG = AUTOGATE
- CR = CARD READER
- PP = PROTECTION POST
- LR = LAG READER \ EXPRESSPARC
- TD = TICKET DISPENSER



NOTES:

REV DATE

**AMANO McGANN**

PARKING, REVENUE, ACCESS SYSTEMS, AND SOFTWARE

651 TAFT STREET N.E.  
MINNEAPOLIS, MN 55413

(612) 331-2020  
FAX: (612) 331-5187

Copyright 2008, AMANO McGANN Inc. All rights reserved.

PROJECT

**TYPICAL LAYOUT - AMG EQUIPMENT**

TITLE

**CR & TD IN / CR & LR OUT**

DATE

10/24/08

BY

JL

SCALE

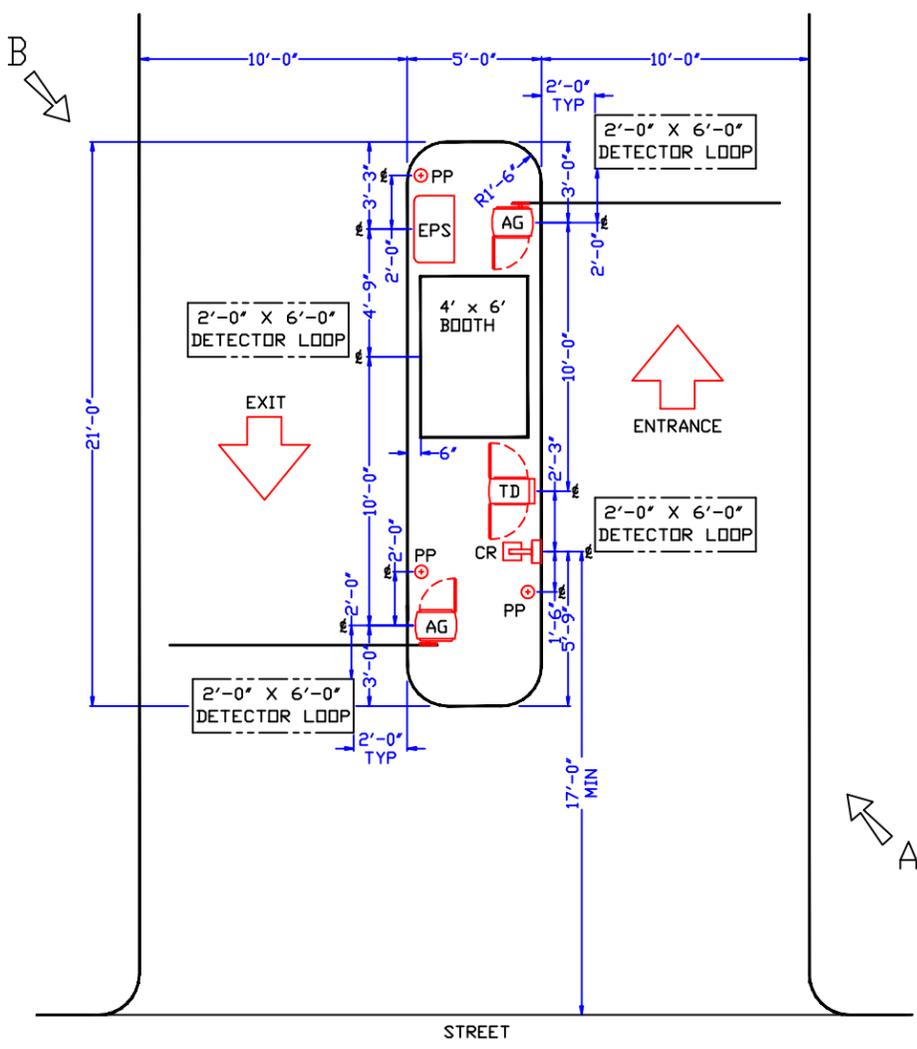
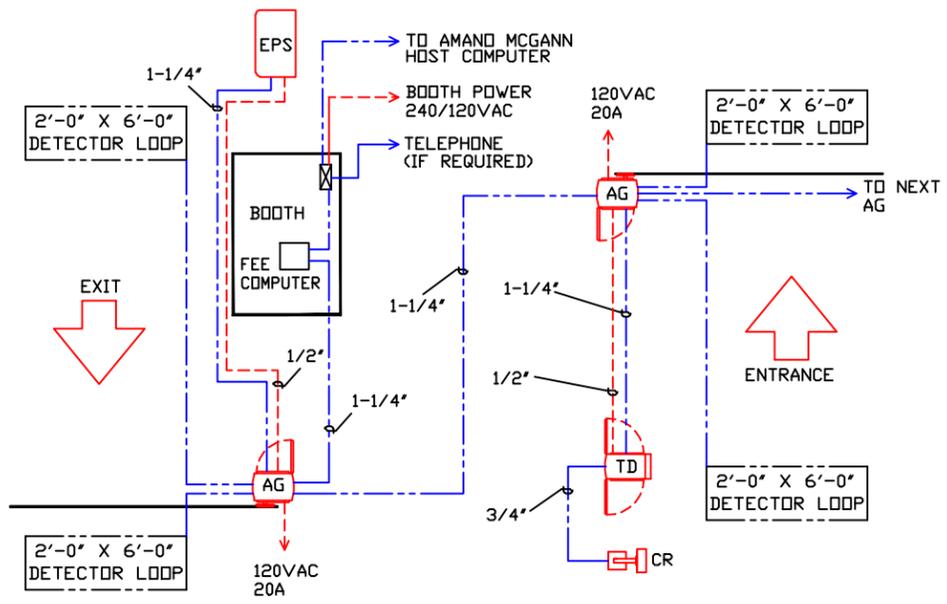
NONE

#

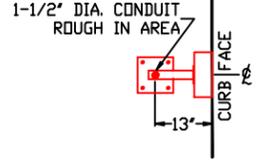
TPM005-01

A-45

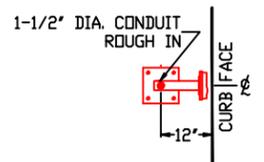




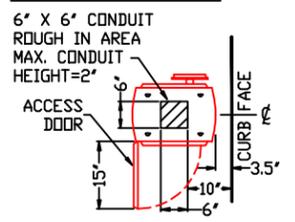
CR = CARD READER  
(10" X 10" ENCLOSURE)



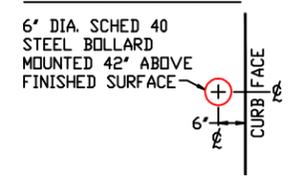
CR = CARD READER  
(PROXIMITY READER)



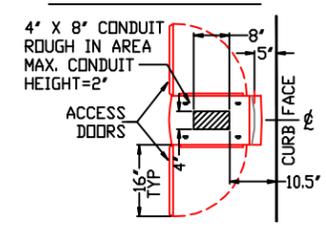
AG = AMG1700 AUTOGATE



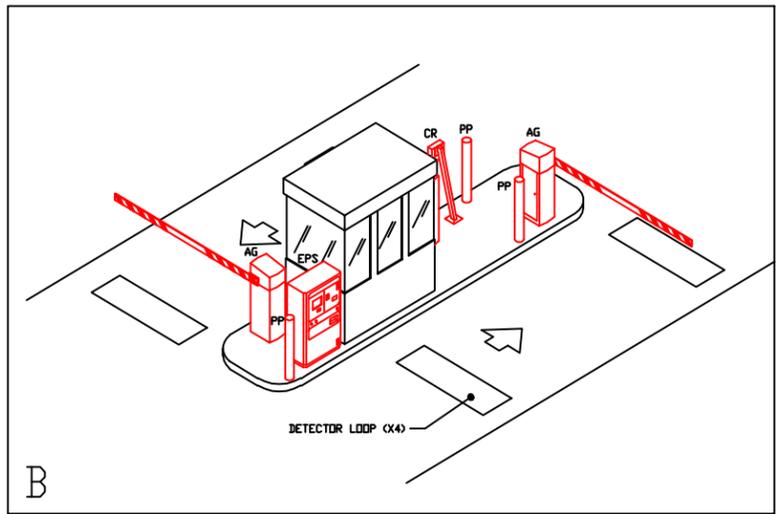
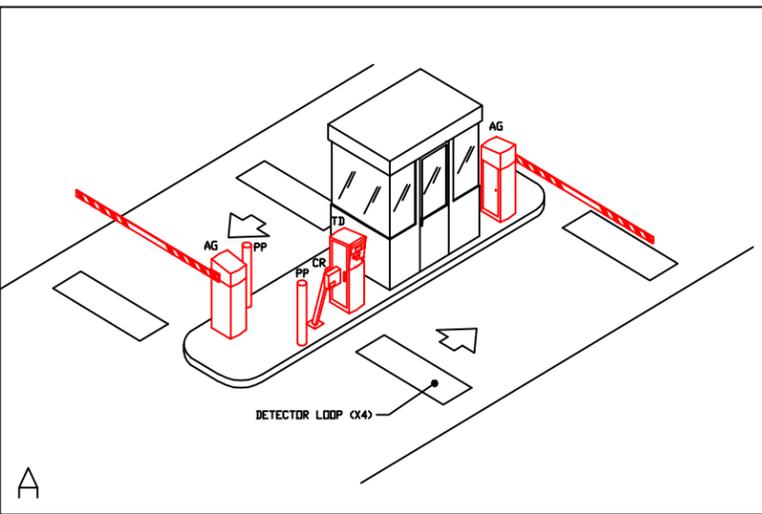
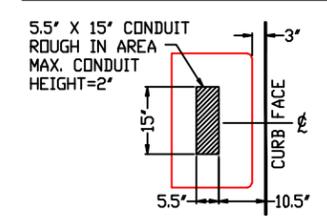
PP = PROTECTION POST



TD = TICKET DISPENSER



EPS = AGP6800 EXIT PAYSTATION



**LEGEND:**

- AG = AUTOGATE
- CR = CARD READER
- PP = PROTECTION POST
- TD = TICKET DISPENSER
- EPS = EXIT PAYSTATION

**NOTES:**

120VAC TO GATE MUST NOT DROP BELOW 105VAC WITH A 15A LOAD

EQUIPMENT IS DESIGNED FOR AUTOMOBILE TRAFFIC ONLY - NO MOTORCYCLES, BICYCLES OR PEDESTRIANS.

EQUIPMENT IS DESIGNED TO BE MOUNTED ON 6" HIGH LEVEL CONCRETE ISLAND.

THE INFORMATION CONTAINED IN THIS DOCUMENT IS BASED ON TYPICAL CONFIGURATIONS. WE MAKE NO REPRESENTATIONS AS TO ITS ACCURACY, COMPLETENESS OR SUITABILITY FOR A PARTICULAR APPLICATION. IT IS THE RESPONSIBILITY OF THE INSTALLER TO VERIFY ALL INFORMATION CONTAINED HEREIN AS IT RELATES TO THE ACTUAL SYSTEM DESIGN, SITE CONDITIONS, AND CODE REQUIREMENTS.

NOTES:

REV	DATE

**AMANO McGANN**

PARKING, REVENUE, ACCESS SYSTEMS, AND SOFTWARE

651 TAFT STREET N.E.  
MINNEAPOLIS, MN 55413

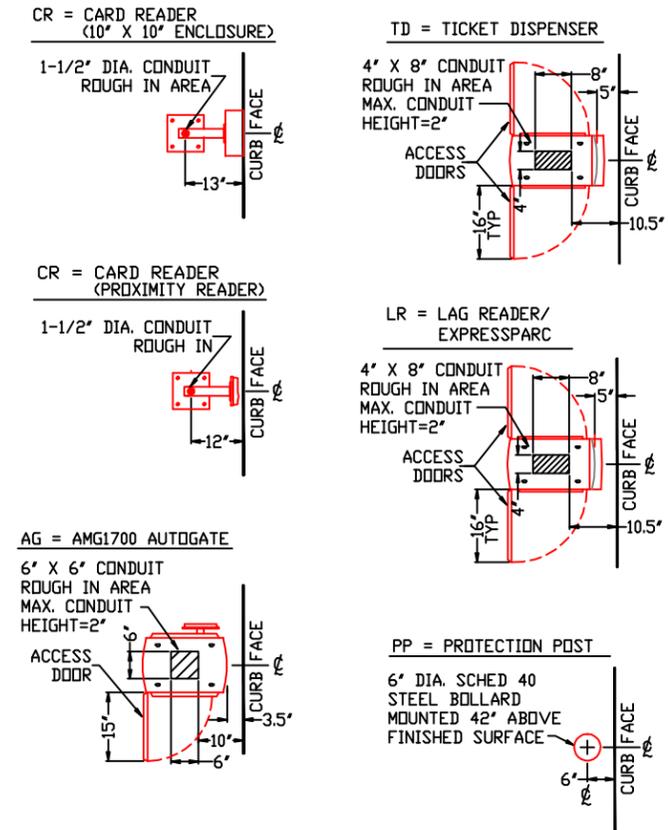
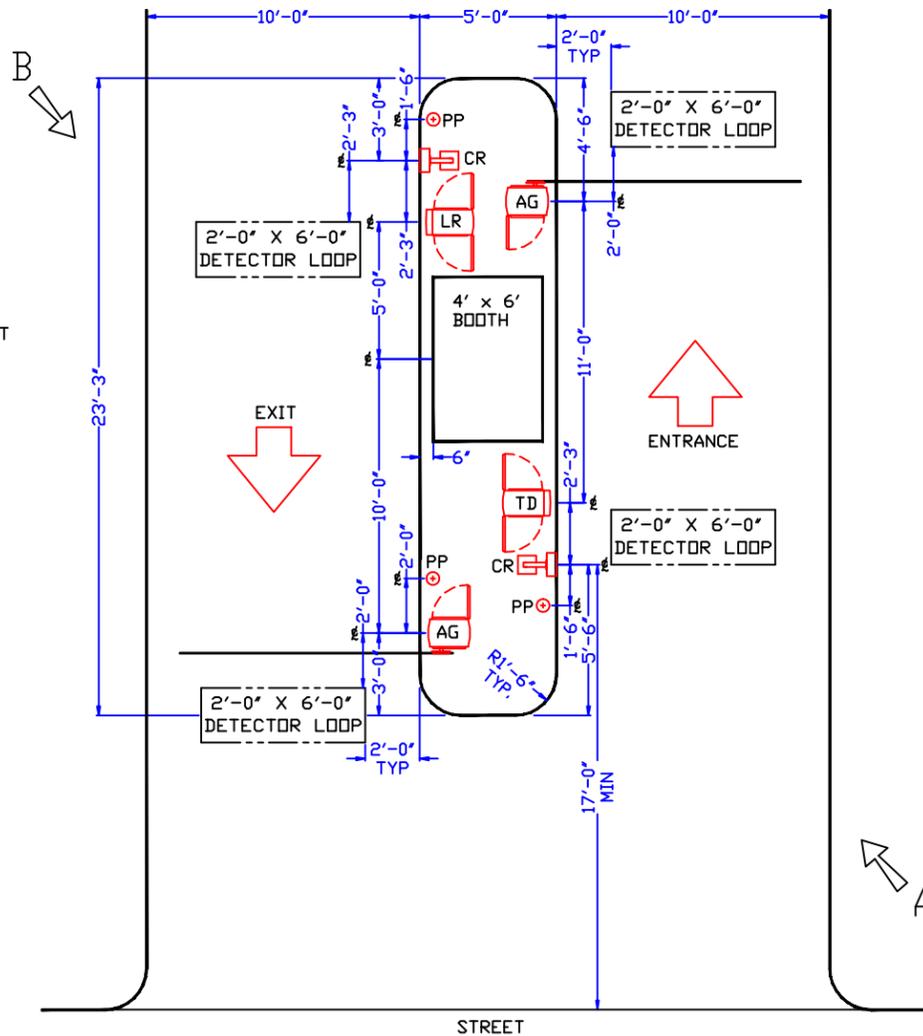
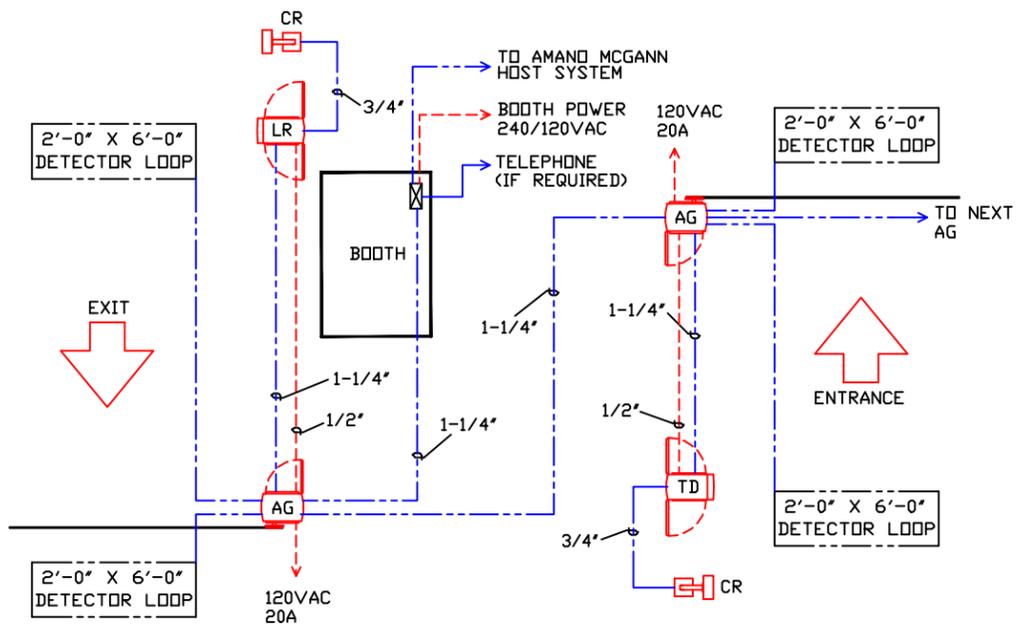
(612) 331-2020  
FAX: (612) 331-5187

Copyright 2011, AMANO McGANN Inc. All rights reserved.

PROJECT **TYPICAL LAYOUT - AMG EQUIPMENT**  
TITLE **CR & TD IN / 4' X 6' BOOTH & EPS OUT**

DATE	BY	SCALE	#
4/6/11	JL	NONE	TPM007-01



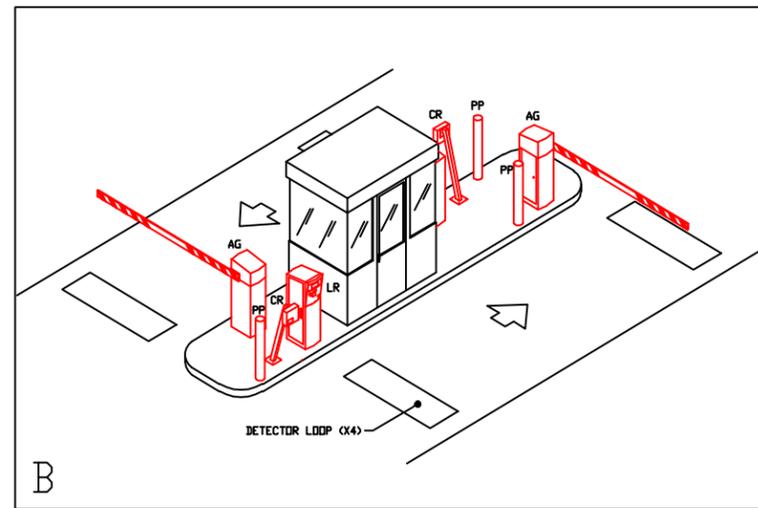
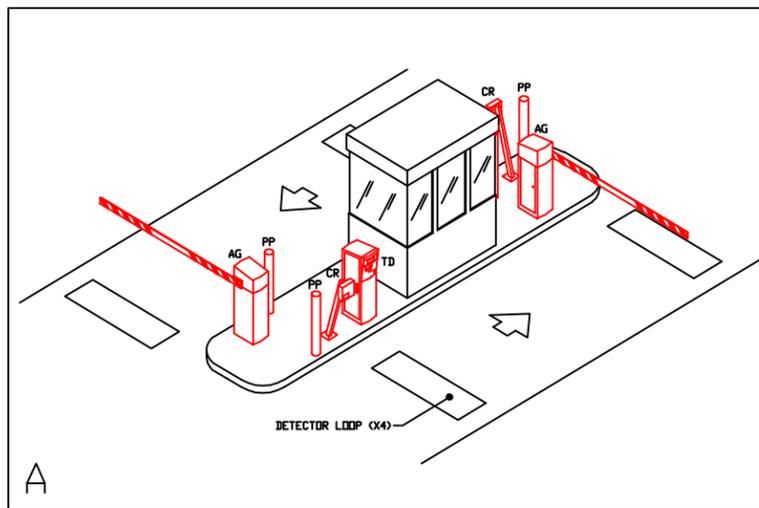


**LEGEND:**

- AG = AUTOGATE
- CR = CARD READER
- LR = LAG READER / EXPRESSPARC
- PP = PROTECTION POST
- TD = TICKET DISPENSER

**NOTES:**

- 120VAC TO GATE MUST NOT DROP BELOW 105VAC WITH A 15A LOAD
- EQUIPMENT IS DESIGNED FOR AUTOMOBILE TRAFFIC ONLY - NO MOTORCYCLES, BICYCLES OR PEDESTRIANS.
- EQUIPMENT IS DESIGNED TO BE MOUNTED ON 6' HIGH LEVEL CONCRETE ISLAND.
- THE INFORMATION CONTAINED IN THIS DOCUMENT IS BASED ON TYPICAL CONFIGURATIONS. WE MAKE NO REPRESENTATIONS AS TO ITS ACCURACY, COMPLETENESS OR SUITABILITY FOR A PARTICULAR APPLICATION. IT IS THE RESPONSIBILITY OF THE INSTALLER TO VERIFY ALL INFORMATION CONTAINED HEREIN AS IT RELATES TO THE ACTUAL SYSTEM DESIGN, SITE CONDITIONS, AND CODE REQUIREMENTS.



NOTES:

REV DATE

**AMANO McGANN**

PARKING, REVENUE, ACCESS SYSTEMS, AND SOFTWARE

651 TAFT STREET N.E.  
MINNEAPOLIS, MN 55413

(612) 331-2020  
FAX: (612) 331-5187

Copyright 2008, AMANO McGANN Inc. All rights reserved.

PROJECT **TYPICAL LAYOUT - AMG EQUIPMENT**  
TITLE **CR & TD IN / 4' X 6' BOOTH, LR & CR OUT**

DATE **10/24/08** BY **JL** SCALE **NONE** # **TPM011**





AMANO McGANN, INC.

405 North Racine Avenue  
Chicago, Illinois 60622

Voice: 312.491.8325

Fax: 312.491.8328

Monona Terrace - Singh & Associates Budget Proposal  
June 28th, 2012

Parking Control System Proposal

John Nolen Drive Entrance Lanes

<u>Model</u>	<u>Qty</u>	<u>Description</u>	<u>Unit Price</u>	<u>Extended</u>
AMG-2570	3	AMI Magnetic Stripe Entry Station w/ CC & Access, Grey	\$ 16,000.00	\$48,000
AMT-570	3	AMI Proximity Reader Kit (AMG-2070 or AMG-4070)	\$ 2,400.00	\$7,200
MAG280MDLP	3	AMI Magnetic Stripe Display Reader with Printer and Power Supply	\$ 11,200.00	\$33,600
MPS3SAT	3	AMI Select Rollover Phone Dialer Intercom	\$ 1,200.00	\$3,600
AMG-1750	3	AMI Autogate with Detector, Two-tone Grey	\$ 3,400.00	\$10,200
AL-12	3	Amano 12' Aluminum Gate Arm	\$ 150.00	\$450
MT-1703	3	AMI Gate Communications Board	\$ 600.00	\$1,800
AGP-5210CC	1	Amano Magnetic Stripe Fee Computer (with credit card)	\$ 12,500.00	\$12,500
AGP-5610	1	Amano Magnetic Stripe Ticket Reader/Validator	\$ 8,500.00	\$8,500
AGP-5910	1	Amano Remote Patron Fee Display, Free Standing	\$ 1,600.00	\$1,600
XML-S	6	2' x 6' Sawed-in Detector Loops Wire/Sealant Kits	***Re-Use***	***Re-Use***
I/O7000	2	AMI Intelligent Lane Controllers	\$ 3,000.00	\$6,000
TC1418	3	SignalTech Neon "LOT FULL" Sign	\$ 950.00	\$2,850

John Nolen Drive Exit Lanes

AMG-4570	2	AMI Magnetic Stripe Exit Station w/ CC, Two-tone Grey	\$ 17,000.00	\$34,000
AMG-6800	1	Amano Exit Lane Paystation Cash/Credit	\$ 41,000.00	\$41,000
AMT-570	2	AMI Proximity Reader Kit (AMG-2070 or AMG-4070)	\$ 2,400.00	\$4,800
PRX-280M	1	AMI Proximity Reader	\$ 2,400.00	\$2,400
MPS3SAT	3	AMI Select Rollover Phone Dialer Intercom	\$ 1,200.00	\$3,600
AMG-1750	3	AMI Autogate with Detector, Two-tone Grey	\$ 3,400.00	\$10,200
AL-12	3	Amano 12' Aluminum Gate Arm	\$ 150.00	\$450
MT-1703	3	AMI Gate Communications Board	\$ 600.00	\$1,800
AGP-5210CC	2	Amano Magnetic Stripe Fee Computer (with credit card)	\$ 12,500.00	\$25,000
AGP-5610	2	Amano Magnetic Stripe Ticket Reader/Validator	\$ 8,500.00	\$17,000
AGP-5910	2	Amano Remote Patron Fee Display, Free Standing	\$ 1,600.00	\$3,200
XML-S	6	2' x 6' Sawed-in Detector Loops Wire/Sealant Kits	***Re-Use***	***Re-Use***
I/O7000	2	AMI Intelligent Lane Controllers	\$ 3,000.00	\$6,000
TCIL	3	SignalTech Red/Green LED Lane Indicator Sign	\$ 415.00	\$1,245

Carroll Street Entrance Lane (Lower Level)

<u>Model</u>	<u>Qty</u>	<u>Description</u>	<u>Unit Price</u>	<u>Extended</u>
AMG-2570	1	AMI Magnetic Stripe Entry Station w/ CC & Access, Grey	\$ 16,000.00	\$16,000
AMT-570	1	AMI Proximity Reader Kit (AMG-2070 or AMG-4070)	\$ 2,400.00	\$2,400
MAG280MDLP	1	AMI Magnetic Stripe Display Reader with Printer and Power Supply	\$ 11,200.00	\$11,200
MPS3SAT	1	AMI Select Rollover Phone Dialer Intercom	\$ 1,200.00	\$1,200
AMG-1750	1	AMI Autogate with Detector, Two-tone Grey	\$ 3,400.00	\$3,400
AL-12	1	Amano 12' Aluminum Gate Arm	\$ 150.00	\$150
MT-1703	1	AMI Gate Communications Board	\$ 600.00	\$600
XML-S	2	2' x 6' Sawed-in Detector Loops Wire/Sealant Kits	***Re-Use***	***Re-Use***
I/O7000	1	AMI Intelligent Lane Controllers	\$ 3,000.00	\$3,000
TC1418	1	SignalTech Neon "LOT FULL" Sign	\$ 950.00	\$950

**AMANO McGANN, INC.**

405 North Racine Avenue  
Chicago, Illinois 60622

**Monona Terrace - Singh & Associates Budget Proposal**  
**June 28th, 2012**

**Pinckney Street Exit Lane**

AMG-6800	1	Amano Exit Lane Paystation Cash/Credit	\$ 41,000.00	\$41,000
PRX-280M	1	AMI Proximity Reader with Pedestal	\$ 2,400.00	\$2,400
MPS3SAT	1	AMI Select Rollover Phone Dialer Intercom	\$ 1,200.00	\$1,200
AMG-1750	1	AMI Autogate with Detector, Two-tone Grey	\$ 3,400.00	\$3,400
AL-12	1	Amano 12' Aluminum Gate Arm	\$ 150.00	\$150
MT-1703	1	AMI Gate Communications Board	\$ 600.00	\$600
AGP-5210CC	1	Amano Magnetic Stripe Fee Computer (with credit card)	\$ 12,500.00	\$12,500
AGP-5610	1	Amano Magnetic Stripe Ticket Reader/Validator	\$ 8,500.00	\$8,500
AGP-5910	1	Amano Remote Patron Fee Display, Free Standing	\$ 1,600.00	\$1,600
XML-S	2	2' x 6' Sawed-in Detector Loops Wire/Sealant Kits	***Re-Use***	***Re-Use***
I/O7000	1	AMI Intelligent Lane Controllers	\$ 3,000.00	\$3,000
TCIL	1	SignalTech Red/Green LED Lane Indicator Sign	\$ 415.00	\$415

**Drop Off Loop Entrance Lane (Carroll Street Upper)**

<u>Model</u>	<u>Qty</u>	<u>Description</u>	<u>Unit Price</u>	<u>Extended</u>
AMG-2570	1	AMI Magnetic Stripe Entry Station w/ CC & Access, Grey	\$ 16,000.00	\$16,000
AMT-570	1	AMI Proximity Reader Kit (AMG-2070 or AMG-4070)	\$ 2,400.00	\$2,400
MAG280MDLP	1	AMI Magnetic Stripe Display Reader with Printer and Power Supply	\$ 11,200.00	\$11,200
MPS3SAT	1	AMI Select Rollover Phone Dialer Intercom	\$ 1,200.00	\$1,200
AMG-1750	1	AMI Autogate with Detector, Two-tone Grey	\$ 3,400.00	\$3,400
AL-12	1	Amano 12' Aluminum Gate Arm	\$ 150.00	\$150
MT-1703	1	AMI Gate Communications Board	\$ 600.00	\$600
XML-S	2	2' x 6' Sawed-in Detector Loops Wire/Sealant Kits	***Re-Use***	***Re-Use***
I/O7000	1	AMI Intelligent Lane Controllers	\$ 3,000.00	\$3,000
TC1418	1	SignalTech Neon "LOT FULL" Sign	\$ 950.00	\$950

**Front End System**

MPS3SQL	2	AMI Software Host SQL Server	\$ 6,800.00	\$13,600
AGP-0509	16	Amano RS232/RS483 Data Converter	\$ 400.00	\$6,400
AMS005IP	1	iParcProfessional Web Workstation 5 User License	***Included**	***Included**
AMS4950IP	1	iParcProfessional MBA Business Alerts	***Included**	***Included**
AMS1156IP	1	iParcProfessional Revenue Software	\$ 9,600.00	\$9,600
AMS4255DIP	1	iParcProfessional Debit Access Control Software	\$ 9,000.00	\$9,000
AMS6958IP	1	iParcProfessional Credit Card Software Suite	\$ 18,600.00	\$18,600
AMS7050IP	1	iParcProfessional Count/Monitor Software	\$ 4,680.00	\$4,680
DIGI	4	DIGI-Port Server	\$ 500.00	\$2,000

**Additional System Components**

MPS4MUI	5	AMI Select Rollover Multi Unit Interface (4 channel)	\$ 500.00	\$2,500
---------	---	--	-----------	---------

System Investment

Summary

Subtotal	\$505,940
<b>System Discount</b>	<b>(\$214,807)</b>
Freight	\$4,310
Electrical Allowance	\$12,000
Concrete (Provided by Client)	\$0
Rigging	\$600
Installation & Technical Services	<u>\$48,868</u>
<b>Total Project Cost</b>	<b>\$356,911</b>

**AMANO McGANN, INC.**

405 North Racine Avenue

Chicago, Illinois 60622

**Monona Terrace - Singh & Associates Budget Proposal**

**June 28th, 2012**

*System Options*

<b>Replace Loops</b>	Option One- Install (18) 2' x 6' Sawed-in Detector Loops Wire/Sealant Kits	<b>ADD</b>	<b>\$11,232</b>
<b>Reversible Lane</b>	Option Two- Convert Carroll Street to a Cash/Credit Reversible Lane Addition of AMG-6800 Pay-In-Lane, Intercom, Gate, 3rd loop, and Red/Green Lights ***Includes \$6,000 Electrical and Concrete Allowance***	<b>ADD</b>	<b>\$40,112</b>
<b>Pay-On-Foot</b>	Option Three- Pay-On-Foot Model- Remove Cash from Lanes  Addition of (4) AMG-7800 Cash/credit Pay-On-Foot Devices, and (4) Intercoms to Pedestrian Entrances **** Includes \$10,000 Electrical Allowance****	<b>ADD</b>	<b>\$141,381</b>
<b>Cameras</b>	Option 4- Addition of IP Addressable Wide Dynamic Cameras and 10 Channel NVR Addition of (9) Amano H.264 IP Outdoor Wide Dynamic Dome Camerasw/ Heater and Blower **** Invludes \$10,000 Electrical Allowance**** Amano can provide software to integrate Parking, CCTV, and Building Access if desired	<b>ADD</b>	<b>\$27,971</b>
<b>Queue Detection</b>	Option 5- Queue Detection with VMS Signage Addition of (3) loops, timers, and relay to main exit with Digital Sign Control Software Module and (1) Programmable VMS Sign **** Allowance not included**** Will require directional boring***	<b>ADD</b>	<b>\$26,214</b>
<b>Level Counts</b>	Option 6- Software Based Level Count Space Available System Addition of (5) 2 level Space Availabe Signs with Software Module, (10) loops, (5) controllers. And (5) Detectors ****Includes \$15,000 electrical allowance****	<b>ADD</b>	<b>\$66,990</b>
<b>Facility Counts</b>	Option 7- Software Based Facility Count Space Available System Addition of (2) Single Level Space Available Signs with Software Module and extra controller	<b>ADD</b>	<b>\$21,360</b>
MPS5150PRO	AMI Bulk Validation Production System (Fanfold Feed)	<b>ADD</b>	<b>\$21,325</b>
AR-100	Amano Electronic Validation Encoder	<b>EACH</b>	<b>\$1,100</b>
AGP-0528	Amano POF Bank Note Acceptor Vault (Spare)	<b>EACH</b>	<b>\$600</b>
AGP-0529	Amano POF Bank Note Dispenser Cassette (Spare)	<b>EACH</b>	<b>\$900</b>
MUP-100126	Amano Exit Pay Bank Note Vault (Spare)	<b>EACH</b>	<b>\$1,134</b>
MN-305000	Amano Exit Pay Coin Vault (Spare)	<b>EACH</b>	<b>\$1,542</b>
BOLLARDS	Bolt-down Protection Bollards (Installed)	<b>EACH</b>	<b>\$275</b>

**AMANO McGANN, INC.**

405 North Racine Avenue  
Chicago, Illinois 60622

**Monona Terrace - Singh & Associates Budget Proposal  
June 28th, 2012**

**TERMS AND CONDITIONS**

**Notes**

*Pricing listed is valid for 60 days  
Delivery is typically 8 to 10 weeks after order, F.O.B. Jobsite  
This proposal does not include sales tax, please provide Tax Exempt Certificate*

**Payment Terms**

*50% deposit with order, project payments due upon receipt of invoice. Net 20 Days  
All Terms and Conditions from attached Purchase Agreement are agreed to with signature below*

**Scope of Work**

**AMANO McGANN, Inc.**

*Mount and make low voltage connections to equipment listed above  
Provide training on operation/maintenance of system  
Two year on-site parts and labor warranty  
Supply and install low voltage communication cable for PARCS equipment  
Make final terminations at all lane and lobby system components*

**To Be Provided By Owner**

*Concrete and Protection Posts per layout diagrams  
Digital Data Connection for Clearinghouse (Satellite, Frame Relay or High Speed Secured IP)  
Analog Phone Lines (Remote Support and Intercoms)  
Communication Link and Modems for remote hosting  
Reliable network connection between parking office and remote locations  
Power circuits with connections to lane equipment as required  
Empty control wire conduit system (with pull string) per our shop drawings  
Provide canopy for pay-in-lane pay station  
Provide construction build-out for pay station lobby  
All necessary switches and networking gear including Firewall*

**Exclusions**

*Integrity of existing conduits, power wiring, and low voltage cable  
Integrity of existing equipment and vehicle detector loops  
Re-bar and post tension cable locating is the responsibility of Owner  
Fiber Optic Communication Cable and Converters  
No Provisions for Bonding & Liquidated Damages  
Database Transfer*

**Proposal Amount Option**

**\$356,911.00**

Please sign below and fax to 312.491.8328 or email to [ryan.nester@amanomcgann.com](mailto:ryan.nester@amanomcgann.com) to initiate an order.

**Proposed By:**

**Amano McGann, Inc.**



**Ryan Nester  
Sales Executive**

**Accepted By:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**P.O.#:** \_\_\_\_\_

*\* Thank you for the opportunity to work with you on this project \**

## **PURCHASE AGREEMENT - TERMS AND CONDITIONS**

These terms and conditions govern the Agreement between Amano McGann, Inc. ("Amano McGann"), and the customer ("Customer") identified on the Proposal documents to which these terms and conditions are attached (collectively the "Purchase Agreement"). All references to the "Proposal" shall include these terms and conditions. The Proposal documents, including without limitation, the pricing of products described therein, constitute confidential and proprietary information of Amano McGann, and shall not be disclosed by Customer to any third party without Amano McGann's express written permission.

All sales by Amano McGann are subject to the terms of this Purchase Agreement, which terms supersede any different or inconsistent terms or conditions submitted by Customer, and also supersedes all understandings, whether written or oral, and other communications between the parties relating to the subject matter of this Agreement. Amano McGann's acceptance of the Customer's order is expressly conditioned upon Customer's acceptance of the terms contained in this Purchase Agreement to the exclusion of all other terms. In the event of a conflict between the terms of this Purchase Agreement and the terms of any other document, the terms of this Purchase Agreement shall control. Customer's retention of any equipment or software delivered by Amano McGann hereunder will be conclusively deemed acceptance of the terms and conditions of this Purchase Agreement.

**Order Acceptance:** All orders must be submitted in writing and are effective only upon acceptance Amano McGann. Amano McGann may reject any proposed Purchase Order or Contract prior to its acceptance by an authorized Officer for any reason. Clerical errors contained in this Purchase Agreement are subject to correction by Amano McGann. Amano McGann reserves the right in its sole discretion to modify, change and/or to discontinue the availability of, or support for, any product. Job-site services such as installation, wiring, system commissioning, startup and training are not included unless otherwise specifically stated in the Proposal. All on-site work by Amano McGann (work listed under our Scope of Work only) assumes the use of non-union personnel unless otherwise stated. No AA/EEO/Union or certified payroll documentation is included unless specifically noted. Additional labor requirements may incur additional cost.

**Delivery; Freight Costs; Partial Shipments:** Quoted delivery dates are approximate, and represent Amano McGann's best estimate based upon current lead times and workload and are not guaranteed. Pricing includes freight to jobsite unless otherwise stated. Amano McGann reserves the right to store or deliver materials in partial shipments. Partial shipments and/or stored materials shall be invoiced separately and paid for when due per invoice.

**Changes:** Prices are subject to adjustment if Customer requests a change in product specifications, quantities or delivery requirements. Any changes are subject to the approval of Amano McGann, and Customer agrees to pay any restocking or reengineering charges resulting from such changes. Any additional or undisclosed customer requirements, policies, forms or procedures not specifically referenced in our proposal are not included in this Purchase Agreement.

**Payment Terms:** Unless otherwise specified on our proposal - standard payment terms are 50% of total project down with order, project payments due upon receipt of invoice, net 10 days. No retainage of any monies due to Amano McGann is authorized unless expressly agreed to in writing in the Proposal. Customer agrees that its obligation to pay Amano McGann for products purchased pursuant to this Purchase Agreement is not contingent upon Customer's receipt of payment from any third party, and that Customer alone is responsible for timely payment of all amounts due Amano McGann. A service charge at the lesser of the rate permitted by law, or 1-1/2% per month will be added to invoices not paid within 30 days. If a shipment is delayed by Customer, payment shall become due 10 days from date Amano McGann is prepared to ship.

**Bonds; Liquidated Damages:** No bonds are included or liquidated damages accepted unless otherwise indicated in the Proposal.

**Security Interest:** Customer hereby grants to Amano McGann a security interest in all equipment and other items described in the Purchase Order to secure payment of all obligations owed by Customer to Amano McGann. Such security interest shall continue until Customer fully performs all its obligations under the Purchase Order, including but not limited to full payment of the purchase price. Customer agrees to execute and deliver to Amano McGann such financing statements and other documentation as may be necessary, desirable, or appropriate to evidence, perfect, and/or maintain the security interest granted hereby by Customer.

**Cancellations And Returns:** Customer may not cancel orders or return goods without the written consent of Amano McGann. If Amano McGann approves a cancellation or return, Customer agrees to pay a minimum 25% cancellation/restocking charge. All sales involving custom products are non-cancelable and are final.

**Software License:** Amano McGann grants Customer a limited, non-exclusive and non-transferable license to the Amano McGann computer software programs in object code form listed in the Proposal (collectively, "the Software"). Customer may sublicense software to an End User (Software Licensee) pursuant to the terms of Amano McGann's software license agreement as included with the Software and provided to Customer by Amano McGann. Customer shall distribute the Software to End User with all warranties disclaimers, license agreements and notices of proprietary rights intact as supplied from Amano McGann.

*Corporate Headquarters 651 Taft Street NE, Minneapolis, MN 55413  
Tel: (612) 331-2020 [www.amanomcgann.com](http://www.amanomcgann.com)*

**Amano McGann Technical Support Services:** Subject to Customer's compliance with the terms of this Purchase Order and payment of the applicable fees, Amano McGann will provide technical support services to Customer in accordance with the terms of the Limited Warranty.

**Proprietary Rights; Reverse Engineering:** All copies of the Software in any form are and shall remain the exclusive property of Amano McGann and shall be treated as Confidential Information by Customer. Customer acknowledges that it: (i) is not acquiring any right, title, or interest, express or implied, in the Software; (ii) shall not use, sell, transfer, or otherwise copy or distribute the Software except as expressly authorized by Amano McGann; and (iii) shall not assert, claim any interest in, or do anything that may adversely affect the validity or enforceability of, any trademark, trade secret, copyright or other proprietary right belonging to Amano McGann (including, without limitation, any act, or assistance to any act, which may infringe or lead to infringement of any copyright in any of the Software), nor attempt to grant any right therein. Customer acknowledges and agrees that: (i) it shall not reverse engineer, disassemble or decompile the Software, nor permit the disassembly, decompilation or reverse engineering of the Software; (ii) that a violation of this Agreement may irreparably harm Amano McGann; and (iii) in addition to any other right or remedy available at law or in equity, Amano McGann shall be entitled to obtain injunctive relief to prevent Customer from continuing any violation of this provision.

**Limited Warranty:** Amano McGann warrants that new equipment listed in the Proposal will be free from defects in material and workmanship for a period of one year from the date of shipment. Amano McGann does not warrant: (i) any software products not manufactured by Amano McGann (which shall carry only the warranty, if any, of the manufacturer); (ii) the Software or documentation provided with the software, except as expressly provided in Amano McGann's Software License Agreement provided with the Software. EXCEPT AS SET FORTH IN THIS PARAGRAPH, AMANO McGANN MAKES NO WARRANTIES OR REPRESENTATIONS WHATSOEVER REGARDING THE EQUIPMENT, SOFTWARE OR SERVICES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. AMANO McGANN SHALL NOT BE LIABLE FOR ANY DAMAGES OF ANY NATURE ARISING OUT OF OR IN CONNECTION WITH THIS PURCHASE ORDER OR ANY EQUIPMENT, SOFTWARE OR SERVICES PROVIDED HEREUNDER. IN NO EVENT SHALL AMANO McGANN BE LIABLE FOR SPECIAL OR CONSEQUENTIAL DAMAGES OR FOR ANY INDIRECT DAMAGES SUCH AS, BUT NOT LIMITED TO, EXEMPLARY OR PUNITIVE DAMAGES OR LOST PROFITS OR DATABASE LOSS, EVEN IF AMANO McGANN HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

**Force Majeure:** Amano McGann shall not be liable for any damages, direct, indirect, incidental or consequential, resulting from delay in performance or nonperformance caused by contingencies, happenings, or causes beyond the control of Amano McGann, including but not limited to fire, flood, storm, power failure, labor trouble or shortage, war, acts of Government, accidents, material shortage, equipment failures, or Acts of God. In the event of the occurrence of any such contingency, Amano McGann may suspend or terminate its performance hereunder without responsibility to Customer for any damages resulting from such suspension or termination.

**Relationship; Non-Solicitation:** Amano McGann and Customer understand and agree that each is an independent company. Customer is not a franchisee, partner, broker, employee, servant, or agent of Amano McGann, and neither has nor will represent that it has any power, right, or authority to bind Amano McGann or to assume or create any obligations or responsibilities, express or implied, on behalf of Amano McGann or in Amano McGann's name. Customer also agrees not to solicit, contract with, hire or otherwise engage the services of any Amano McGann employee rendering services to Customer for a period of one hundred eighty (180) days after the termination of any and all obligations between the parties.

**Governing Law; Attorneys' Fees:** The laws of the State of Minnesota shall govern the validity, interpretation and construction of this Agreement and all rights and obligations of Amano McGann and Customer, respectively, notwithstanding any choice-of-law rules that would otherwise dictate application of the laws of any other jurisdiction. Should any action be instituted to enforce any of the terms, provisions, or conditions of this agreement the prevailing party in such action shall be entitled to the award of reasonable attorney's fees and costs incurred in said action or actions, in addition to any other award made by the court.

**Entire Agreement:** The Purchase Agreement, including these terms and conditions, constitutes the entire agreement between Amano McGann and Customer with respect to the equipment, Software and services described herein and supersedes any and all prior or contemporaneous agreements or contracts, whether written or oral. All negotiations, representations, understandings and correspondence, which have passed between Amano McGann and Customer with reference to the matters covered hereby are merged herein and extinguished and this constitutes the entire agreement between Amano McGann and Customer. This agreement may not be altered, modified, amended or changed, in whole or in part, except in a writing signed by Amano McGann and Customer. If any provision of this Purchase Agreement is found invalid, both parties will endeavor, to the extent possible, to amend this Purchase Agreement in such a manner that the intent of this Purchase Agreement as written is carried out. If both parties cannot agree to amend this Purchase Agreement in such fashion, the invalid provision will be ineffective to the minimum extent necessary to make it valid under applicable law without invalidating the remainder of that provision or any other provisions of this Purchase Agreement.

**Chicago General Contractor's License** – Amano McGann, Inc. is certified by the City of Chicago Department of Buildings as a General Contractor 's License #TGC013400.

**General Contractor "Subcontract Agreements"** – Due to the disproportionate risk and liability associated with a low value subcontract agreements, we will only accept our standard Purchase Agreement terms & conditions for projects under \$30,000.00. If a Subcontract Agreement is required we recommend that an electrical contractor incorporate our work under their Subcontract Agreement.

Ver.013009

Corporate Headquarters 651 Taft Street NE, Minneapolis, MN 55413  
Tel: (612) 331-2020 [www.amanomcgann.com](http://www.amanomcgann.com)

## Amano McGann Unit Pricing- Monona Terrace

<u>Item</u>	<u>Item Description</u>	<u>QTY</u>	<u>UOM</u>	<u>Unit Price w/ Freight and Installation</u>	<u>Total Price</u>
1	Entry Stations - <b>Can do CC in/ CC out in compliant fashion</b>	5	Each	\$ 9,805.29	\$49,026.45
2	CC Only Exit Stations	2	Each	\$ 11,690.00	\$23,380.00
3	Cash/Credit Pay In Lane	2	Each	\$ 26,602.94	\$53,205.88
4	PrePay Credit Swipe On Entrance	5	Each	\$ 6,948.24	\$34,741.20
5	Proximity Only Readers	9	Each	\$ 1,881.76	\$16,935.84
6	Gates	9	Each	\$ 2,750.00	\$24,750.00
7	Gate Arms	9	Each	\$ 218.24	\$1,964.16
8	Gate Communications Board- <b>1 Per Gate</b>	9	Each	\$ 482.94	\$4,346.46
9	Intercom Phone Dialers	9	Each	\$ 973.38	\$8,760.42
10	Rollover Multi Interface Unit- <b>Allows intercoms to share a phone line (4 intercoms per unit)</b>	5	Each	\$ 740.00	\$3,700.00
11	Fee Computer w/CC	4	Each	\$ 7,648.82	\$30,595.28
12	Ticket Reader/Validator- <b>1 Per Fee Computer</b>	4	Each	\$ 4,935.00	\$19,740.00
13	Remote Patron Fee Display- <b>1 Per Fee Computer</b>	4	Each	\$ 1,143.53	\$4,574.12
14	Lot Full Sign	5	Each	\$ 818.82	\$4,094.10
15	Lane Controller- <b>Needed for Counts, typically 1 controller per 2 lanes (Can vary by lane groupings)</b>	7	Each	\$ 2,554.71	\$17,882.97
16	Red/Green Lane Indicator Sign	4	Each	\$ 504.12	\$2,016.48
17	Card Access Software - <b>We have debit card access quoted (You can do ipass tollway style charging with autorecharge)</b>	1	Each	\$ 5,025.29	\$5,025.29
18	Revenue Software	1	Each	\$ 5,307.65	\$5,307.65
19	Count/ Monitor Software	1	Each	\$ 2,992.35	\$2,992.35
20	Central CC Software (Compliant)	1	Each	\$ 9,102.94	\$9,102.94
21	Web Client Software (5 User)	1	Each	Free	Free
22	Business Alert Software	1	Each	Free	Free
23	<b>Monitor, CPU, Mouse, Keyboard, KVM, Windows Server, SQL Server, UPS, Backup</b>	2	Each	\$ 6,586.67	\$13,173.34
24	Data Convertors - <b>Quantities can vary by infrastructure configuration (Home runs vs. Daisy Chain of islands)</b>	16	Each	\$ 355.29	\$5,684.64

25	Port Servers- <b>Networking Device</b> <b>Quantities depend on infrastructure</b> <b>configuration</b>	4	Each	\$ 960.00	\$3,840.00
	Electrical Allowance				\$12,000.00
				<b>TOTAL</b>	<b>\$356,839.57</b>
<i>Other Items</i>					
	2x6 Saw Cut Loops		Each	\$ 624.00	
	AMG-7800 Cash/Credit Pay-On-Foots		Each	\$ 39,698.24	
	Amano H.264 Wide Dynamic Cameras w/ Heater Blowers		Each	\$ 1,305.06	
	Amano 10 channel NVR		Each	\$ 5,736.00	
	Camera Pole Mount Adapters		Each	\$ 192.00	
	Digital Sign Control Software		Each	\$ 7,027.94	
	Single Level Space Available Sign		Each	\$ 2,937.06	
	Two Level Space Available Sign		Each	\$ 4,582.06	
	Post mount for Space Available Sign		Each	\$ 427.06	
	Timer		Each	\$ 737.78	
	VMS Sign		Each	\$ 4,812.94	
	Vehicle Detector		Each	\$ 356.47	

**Parking Access & Revenue Control System  
Project # 20120530  
Parking Equipment & Installation PARCS (Pay of Foot)  
at Monona Terrace Parking Facility  
Proposed By:  
DataPark, Inc.**



June 27<sup>th</sup>, 2012

Attn: Ms. Angela C. Giovannone

Senior Electrical Engineer  
SINGH & ASSOCIATES, INC.  
300 W. Adams Street, Suite 609  
Chicago, IL 60606

**Re: Request for Proposal (RFP) Project # 20120530 Parking Equipment & Installation PARCS ( Pay of Foot) at Monona Terrace Parking Facility**

DataPark is pleased to submit the attached Response to Request for Proposal (RFP) Parking Equipment & Installation PARCS ( Pay of Foot) at Monona Terrace Parking Facility .

We have reviewed the specifications to ensure that we have a sound knowledge of the scope and objectives that are required. We believe our company along with the product that we are submitting for the **Monona Terrace Parking Facilities** satisfies your specifications.

We would like to thank you for inviting DataPark to respond to your Request for Proposal. Should you require any additional information, please contact our office and we will be most pleased to respond.

Respectfully submitted,

---

Lazar Milanov  
Regional Manager  
DataPark, Inc.  
6/27/2012

**TABLE OF CONTENTS**

**1. Introduction and Executive Summary .....5**

**2. Company Overview, Qualifications and Related Experience of the Firm and Experience of Technical Staff.....10**

**3. References.....18**

**4. Completion Schedule.....21**

**5. Cost Proposal .....23**

**6. Specifications and Scope of work.....28**

**7. DataPark PARC System Data Sheets and Facility Management Software.....30**  
**-Parking Guidance System.....39**

**8. Training.....64**

**9. Service Respond Time and Warranty.....66**

**10. DataPark PARC System Report Package.....70**

# Section 1

## Introduction and Executive Summary

## *Introduction and Executive Summary*

Dear Ms. Giovannone

We thank you for giving us the opportunity to participate in the mentioned RFP for procurement of an Automated Parking Access and Revenue Control system.

With established presence in North, South & Central America, Europe, Middle East, Australia and New Zealand, DataPark Group has been successfully involved in designing, manufacturing and implementing automated solutions for Parking Revenue & Access Control systems for over 25 years.

DataPark handles project management, design, installation and field service of projects worldwide.

**DataPark** interfaces directly with parking management companies, municipalities, property management firms and other end-users for the sales, design and implementation of PARCS systems. DataPark can handle a new PARCS system project from all stages including; planning, design, procurement, implementation, commissioning and end user training. As PARCS systems become more complex and interface to other systems such as security, CCTV, building access, DataPark can act as the Integrator to facilitate communications interfaces to the PARCS System. Additionally DataPark handles all post sales support for the entire PARCS system directly to the customer. This includes the on-site repair and maintenance of PARCS hardware. As well as concierge software support over the phone directly to the end-user.

**RFQ requirements and scope:** Based on the details in the RFQ we understand that **the Monona Terrace ownership** is aiming to select qualified companies to implement automated parking access and revenue control systems for their facilities. We have attached details regarding our team, project experience, customer references etc., to prove our qualification to manage and deliver solutions for parking automation.

**Customized Solutions:** Though a system is designed using standard equipment, from years of experience servicing a wide range of operations we clearly understand that each operator / operation may require some specific solutions to address their environment. A vast exposure to technology integration and access to the source design (DataPark is a designer and manufacturer of the proposed system) allows us to consider offering customized solutions to help the operation.

## Specifications / Requirements

We propose to offer DataPark’s integrated parking solution, which is in operation in thousands of parking locations worldwide. Please refer to attached product sheets detailing specifications on proposed devices (entry/exit/pay on foot, cashier stations, gates etc.), Facility Management software, etc. In the proposal we included detailed specification of our equipment.

- DataPark, Inc. has over twenty-five years experience in the parking industry and is eminently qualified to provide and install a fully automated DataPark Parking Access Revenue Control System.  
DP11000 reporting module is part of Datapark Inc. PARCS system and provides network based, filtering report input screens that allow the user to design/select report generation to fit specific needs. Logical access control is applied towards accessing it locally from FMS and/or CMC. Reporting module components (reports) are available at the local FMS shall also be available for review/print at the CMC and remotely over the secured Internet connection (web-based application, VPN). Please refer to the attached sample reporting package in Section 11.
- Our exit and pay on foot stations read tickets and credit cards in two directions.
- DataPark PARC System software and hardware is fully CISP/PCI compliant for credit card processing. The management software and lane hardware meet all PCI/DSS requirements (see web site below for compliancy documents).  
[https://www.pcisecuritystandards.org/security\\_standards/vpa/](https://www.pcisecuritystandards.org/security_standards/vpa/)

The following is a screen shot from the PCI Security Standards web site.

<b>Datapark DP11000 PARCS</b>							
Version #:	<a href="#">4.01</a>						
App Type #:	Payment Back Office	PA-DSS v1.2	Acceptable for new deployments	Dec 28, 2010	Oct 02, 2013	403 Labs	2010-01-19
Target Market:	Parking access and revenue control systems						
Reference #:	10-04.00038.002						
Description Provided by Vendor: Datapark DP11000 PARCS is a complete middleware/front-end/back-end parking access and revenue control solution, integrated with a variety of third-party payment processor modules.							

- DataPark software includes Accounts Receivable module with invoicing capability. In addition we are fully integrated with third party Monthly Accounts Receivable system such as Paris; iPark, CARS (please refer to the attached brochures in Section 8).
- In addition to the Bulk Validation Coupon Unit, DataPark is offering online validation system that provides convenience to clients to validate their customer's tickets on line. This functionality is included as an option in the price list. (Please refer to the attached brochures in Section 8).
- Our staff personnel are factory trained as well as advanced with highly educated engineering staff. Datapark Group also provides 24 hour a day technical support for customers that supply remote access to the management station server.
- DataPark will conduct an on-site training and provide hard-copy manuals on the equipment installation, programming, usage, preventative maintenance, troubleshooting and repair. Training sessions include, Supervisors/Operator, Maintenance Personnel and System Managers/Administrators.
- DataPark warrants it's product to be free of defects in materials and workmanship for a period of one (1) year parts and labor following the date of shipment.
- DataPark Maintenance Contract covers all of the parts, labor and software upgrades (**including PCI**).
- Completion dates – DataPark will meet the installation completion dates. (Please refer to the attached completion schedule for phase one in Section 5).
- Response time – DataPark will respond to any service calls within two (2) hours of notifications. They will be completed by **our local factory trained technicians**.
- Parking Guidance System ( PGS) – We are planning to use TCS Parking Guidance System. The system includes 6 Ultrasonic Directional Sensors, 2 Space Availability Signage and Central PGS Server Hardware and Software. **The Proposed PGS meets all of the RFP Requirements.**

- Our importance is the customers expectation with satisfaction, for that reason, we "customize programs" that will adapt for every single clientele need.

We are confident that our team, a group of hardware and software engineers, which has been involved in countless automated parking solutions in every continent around the globe, has the required expertise and experience to offer suitable solutions to meet **the Monona Terrace Ownership** requirements on system and service. We request you to review the attached details and feel free to contact us if you have any questions.

We thank you in advance and looking forward to a favorable response.

Sincerely,

Lazar Milanov  
Regional Manager  
DataPark, Inc

## Section 2

# **Company Overview, Qualifications and Related Experience of the Firm and Experience of Technical Staff**

## **Company Overview, Qualifications and Related Experience of the Firm and Experience of Technical Staff**

### **Business organization**

- a. DataPark, Inc. an established Company of the DataPark Group serves as the Sales and Installation for DataPark products. Our corporate office is located at 1631 Neptune Drive, San Leandro CA 94577.
- b. The Company interfaces directly with parking management companies, municipalities, property management firms and other end-users for the sales, design and implementation of PARCS systems. DataPark can handle a new PARCS system project from all stages including; planning, design, procurement, implementation, commissioning and end user training. As PARCS systems become more complex and interface to other systems such as security, CCTV, building access, DataPark can act as the Integrator to facilitate communications interfaces to the PARCS System. Additionally DataPark handles all post sales support for the entire PARCS system directly to the customer. This includes the on-site repair and maintenance of PARCS hardware. As well as concierge software support over the phone directly to the end-user.

DataPark, Inc. has over twenty-five years experience in the parking industry and is eminently qualified to provide and install a fully automated DataPark Parking Access Revenue Control System. Founded in 1983, the company has supplied building and parking facilities with a variety of access, counts and revenue control systems.

In the past twenty-five years DataPark and its affiliated company, have grown from a fledging startup company in Northern California to a truly global corporation with our offices and a factory servicing more than two thousand sites in every continent around the globe.

We have successfully installed over 2000 parking systems with equipment ranging from minimal to 60 lanes of equipment and maintain immense systems throughout the United States, Canada, Australia, New Zealand, including most of the large prominent **City of San Francisco garages:** 5<sup>th</sup> & Mission, Sutter Stockton, Ellis O' Farrell, Union Square, Moscone Center, Civic Center, St. Mary's, Performing Arts, Japan Center, Polk/Bush, North Beach/Vallejo Streets,

Lombard Plaza, SF General Hospital, 7<sup>th</sup> & Harrison, 16<sup>th</sup> & Hoff Street,  
Mission/Bartlett and Golden Gateway;

**City of Chicago Garages-** Millennium Park Garages (Grand Park North, Monroe  
Street , Millennium Garage and Grand Park South Garage)

**City of Cleveland Garages** – Willard Garage and Gateway North  
Garage

**City of Evanston IL Garages** – Church Garage, Sherman Plaza and Maple  
Garage

Approximately 90% of the parking garages in Chicago Downtown area have  
DataPark equipment. . DataPark most recent accomplishments include the  
complete installation of PARC's for 120 N LaSalle, Sears Tower Garage, 215 W  
Washington, AT&T Garage, Theater Garage, 203 N LaSalle, Government Center,  
215 W Madison, The AQUA – Lakeshore East; Flair Tower Garage ;

In addition, we have sales and distributor offices in the US West Coast and East  
Coast, Hawaii, Central America, Europe and New Zealand. Every DataPark  
office stocks a complete range of DataPark parts and components. This enables us  
to efficiently meet the needs of our distributors and customers.

DataPark, Inc. manufacture, program and develop a complete PARCS system  
including RCS, ACS and the FMS. The DataPark range of products meets or  
exceeds all industry standards and is easy to install, maintain and use. All  
components and parts have proven reliability and durability.

- c. After the DataPark equipment is installed, it will be maintained by the DataPark  
Local Factory Trained Technicians

### **Project Management Structure:**

**Steve Haralambiew** - Project Manager has over 25 years of experience with technical details in the Parking Industry for Parking Access Revenue Control Systems . Over 25 years of experience in design of hardware and software. In addition, the project manager for DataPark has vast experience and currently design, manages and has installed over 300 PARCS worldwide.

**Lorenza DLG. Tomaz** - Contracts Administrator has over 19 years of supervisory and management experience. Comprehensive background in the parking industry, including direct management of procurement and contracts. Directly involve with vendors and project managers to ensure timely coordination of necessary documents for execution of contracts, close-outs, including payroll & compliance certifications, and services are performed within acceptable time line. In addition to the extensive administrative skills, posses an Accounting Degree.

**Lazar Milanov** – Assistant Project Manager as Operations Coordinator has over 15 years of parking experience. He has gained experience in all phases of the parking business and is an expert in automated technologies. His experience includes success in parking garages, surface lots, hotel and valet operations. He has personally supervised the project management of over 20 automated revenue control equipment installations. Posses Master degree in Accounting and Management.

**Ivan Pantchev**– Assistant Project Manager as Hardware Coordinator has over 8 years of experience with a wide variety of duties including but not limited to project management and deployment, high level technical support both; hardware and software fields. Participates in development of new products, implementing and testing the latest application and functionality of the new products. Proficient in overseeing project management of very complex installations and development of custom solutions tailored by the customer's specific needs and requirements. Specialized in technical sales and sourcing of complete access and revenue control solutions with highest level of integration of access and revenue control equipment and voice and video surveillance products. Posses Masters Degree in Integrated Engineering and Management.

We have the ability to improve and customize all aspect of our product to provide the **best** for our clients, including design and customize a system to fit any proposed projects. Well-trained and certified hardware and software engineers are available for adaptation of customized systems, both software and hardware. Our importance is the customers

expectation with satisfaction, for that reason, we "customize programs" that will adapt for every single clientele need.

It is our company goal to conduct our business in a manner that gives full attention to providing the best service to our customers. Our personnel are chosen for their enthusiastic and pleasant attitudes and are trained to give courteous and efficient service on which you can depend. People, Technology and Resources are the key to deliver the highest level of customer service, quality operations, marketing support, revenue control, companywide efficiencies and sound fiscal management

Our staff personnel are factory trained as well as advanced with highly educated engineering staff. Datapark Group also provides 24 hour a day technical support for customers that supply remote access to the management station server.

**Qualifications and Related Experience of the Firm and Experience of Technical Staff:**

Proposed Project Managers:

<b>Name of team member:</b>	<b>Steve Haralambiew</b>
Number of years with the firm:	26 Years
Number of years in PARCS industry:	29 Years
Role in this Project:	Senior Project Manager
List of previous projects	<ol style="list-style-type: none"> <li>City of Chicago, IL 5 S. Columbus Dr. Chicago, IL 60603 Mr. Stuart Vieth (312) 616-6757</li> </ol>
Nature of relationship:	Business Client
<b>Name of the team member:</b>	<b>Lorenza DLG. Tomaz</b>
Number of years with the firm:	19 Years
Number of years in PARCS industry	19 Years
Role in this Project:	Contracts Administrator
List of previous projects	<ol style="list-style-type: none"> <li>InterPark Command Control Center 203 North La Salle, Suite 1400 Chicago, IL 60601 Mr. Mark Heinsohn (312) 294-4682</li> <li>City of San Francisco, CA Various City Locations Mr. Anson Lee (415) 982-7275</li> </ol>
Nature of relationship:	Business Client
<b>Name of the team member:</b>	<b>Lazar Milanov</b>
Number of years with the firm:	3 Years
Number of years in PARCS industry	17 Years
Role in this Project:	Assistant Project Manager Operations Coordinator
List of previous projects	<ol style="list-style-type: none"> <li>Chicago Transient Authority / Cumberland Garage Chicago ,IL 60601 Mr. Ivan Matic (312) 343-3821</li> </ol>
Nature of relationship:	Business Client

<b>Name of the team member:</b>	<b>Ivan Pantchev</b>
Number of years with the firm:	8 Years
Number of years in PARCS industry	8 Years
Role in this Project:	Assistant Project Manager Hardware Coordinator
List of previous projects	1. InterPark, IL 203 North La Salle, Suite 1400 Chicago, IL 60601 Mr. Mark Heinsohn (312) 294-4682
Nature of relationship:	Business Client

**DataPark, Inc. has successfully provided equipment and services for the following projects that are similar or larger in size and scope of this Project.**

Relevant projects:

<b>CONTACT</b>	<b>Nature and magnitude of project. How does project compare to scope of this project?</b>
Project Number 1 Company: LAZ Parking Chicago Name: Stuart Vieth - General Manager Phone: 312 616 6701 Email: <a href="mailto:SVieth@lazparking.com">SVieth@lazparking.com</a>	East Monroe Garage, Millennium Garage, Grand Park North Garage, Grand Park South Garage. These four facilities form the Grand Park Parking System which is the largest under ground parking facility in the US and is located in Downtown Chicago. The Grand Park garage has over 9000 spaces. There are over 40 Pay on Foot stations and over 60 lanes of equipment controlled by four (4) LFMS and one (1) Central Management Stations. The project has a control center with complete VoIP and Video over IP solution for monitoring and control of the equipment. This project is of higher magnitude and complexity than the currently proposed one.
Project Number 2 Company : Central Parking Chicago Name Ivan Matic - Operations Manager Phone 312-343-3821 Email : <a href="mailto:IMatic@parking.com">IMatic@parking.com</a>	Chicago Transient Authority ( CTA / Cumberland Garage) . The Garage has 2100 parking spaces. The project was completed in April 2010. It includes three Pay-on-Foot machines ,one fee computer and six lanes of entry and exit equipment with connection to CTA terminal and proximity access control.
Project Number 3 Company: City of San Francisco Name: Mr. Anson Lee Phone: 415 982 7275 Email: <a href="mailto:alee.uptownparking@sbcglobal.net">alee.uptownparking@sbcglobal.net</a>	The project includes 18 facilities with 63 Entry/Exit lanes combined and 40 Pay On Foot Stations. There are 18 Facility Management Stations in the project with 1 Central Management Station. The project is very similar to the proposed one in terms of centralized monitoring and control over large number of automated parking facilities.
Project Number 4 Company: InterPark Chicago Name: Mark Heinsohn Phone: 312 294 4682 Email: <a href="mailto:Mark.Heinsohn@intpark.com">Mark.Heinsohn@intpark.com</a>	InterPark Parking Command Control Center. Located at 200 N La Salle in Chicago, this Command center is solely responsible for managing 14 fully automated parking garages with 51 Entry/Exit stations, 36 Pay On Foot stations and 2 Central Management stations at the Control Center. The project is very similar to the proposed one in terms of centralized monitoring and control over large number of automated parking facilities.
Project Number 5 Company: Vornado/Charles E Smith Name: Paul Edenbaum - Director Parking Operations Phone: 703 769 8200 Email: <a href="mailto:pedenbaum@vno.com">pedenbaum@vno.com</a>	Waterfront Station East and West Garage Washington, DC. The project was completed in March 2010. It includes three Pay-on-Foot machines and seven lanes of entry and exit equipment with a Safeway grocery store component and proximity access control. The facilities also provide Event Parking for Arena Stage. This project is of similar magnitude and slightly lower complexity.

# Section 3

## References

## Client References

### References

#### Client No. 1

Company Name:	Inter Park Inc. 48 Locations
Contact Person's Name, Phone number and E-mail address:	Mr. Mark Heinsohn (312) 294-4682 <a href="mailto:Mark.Heinsohn@intpark.com">Mark.Heinsohn@intpark.com</a>
Address	200 North LaSalle, Chicago ,IL 60601 – InterPark Command Control Center
DataPark role	Project Management/ Installation

#### Client No. 2

Company Name:	Inter Park
Contact Person's Name, Phone number and E-mail address:	Mr. Sam Asare Garage Manager Phone 312-617-4212 <a href="mailto:sam.asare@intpark.com">sam.asare@intpark.com</a>
Address:	University of Chicago Medical Center Parking Garage
Nature of relationship to Proposer:	Business Client

#### Client No. 3

Company Name:	CPS Parking – 1 Location
Contact Person's Name, Phone number and E-mail address:	Daniel Lassiter General Manager CPS Parking Chicago Office: (312) 578-1660 E-Mail: <a href="mailto:DLassiter@PARKING.COM">DLassiter@PARKING.COM</a>
Address:	1 N LaSalle St, Chicago , Il 60601
Nature of relationship to Proposer:	Business Client

#### Client No. 4

Company Name:	CPS Parking – 2 Locations
Contact Person's Name, Phone number and E-mail address:	Mr. Ivan Matic (312) 343-3321 <a href="mailto:IMatic@parking.com">IMatic@parking.com</a>
Address:	1 N LaSalle, Chicago, IL 60601
Nature of relationship to Proposer:	Business Client

**Client No. 5**

Company Name:	Ampco System Parking 18 Locations in Chicago
Contact Person's Name, Phone number and E-mail address:	Mr. Blaise( Tony)Hometorwu – Operations Manager (312) 296-0698 <a href="mailto:Blaise.Hometorwu@abm.com">Blaise.Hometorwu@abm.com</a>
Address:	111 E Wacker Drive, Chicago ,IL 60601
DataPark role	Project Management/ Installation

# Section 4

## Completion Schedule

## Monona Terrace Parking Facility - System Installation Timeline

Task	Q3 - 2012			Q4 - 2012		
	July	August	September			
Milestone - Project Start	◆					
Equipment Manufacturing		◆				
Meeting with Owner's Representative and Subcontractors to determine equipment placement and coordinate electrical and concrete work.	◆					
Producing of all necessary shop drawings and deliver to the Owner and Subcontractors	◆					
Meeting with Owner's IT to determine the availability and timelines for installing network and server equipment	◆					
Datapark to determine all goals for hardware and software implementation. Start and complete any development projects if needed.		◆				
Milestone - Equipment Delivery			◆			
Equipment unpacking and integrity check after delivery. Verifying all necessary components are accounted for.			◆			
Milestone - Commence Installation			◆			
Completing necessary concrete and electrical work			◆			
Deliver Testing Plan and Schedule to the Owner for approval		◆				
Installation of office, server, computer and network hardware			◆			
Bolting down lane equipment, Pay Stations, Cashier Booth etc.			◆			
Completing all control and power wiring terminations			◆			
Installation and configuration of all software (including server, database and credit cards)			◆			
Completing all peripheral and lane controller programming and set up			◆			
Milestone - Substantial Project Completion			◆			
Commence Testing of Equipment			◆			
Personnel Training and Certification on proper operation and maintenance.			◆			
Milestone - Go Live			◆			

# Section 5

## Cost Proposal

**LIST OF UNIT PRICES, BASE BID AND ALTERNATES**  
**Monona Terrace Parking Facility / Project #20120530**  
**Data Park Equipment**  
**June 27, 2012**

Description	Qty	Total Price	
<b>BASE SYSTEM</b>			
<b>John Nolan Drive Entrance</b>			
Barrier Gate with Straight Arms	3		
Ticket Dispenser/ Intercom/ Prox reader	3		
Fee Computer	1		
Fee Display	1		
Full Signs ( mount of the top of the Entry Stations	3		
Detector Loops ( to reuse the existing one)			
<b>Carroll Street Entrance(Upper Level)</b>			
Barrier Gate with Straight Arms	1		
Ticket Dispenser/ Intercom/ Prox reader	1		
Full Signs ( mount of the top of the Entry Stations	1		
Detector Loops ( to reuse the existing one)			
<b>Carroll Street Entrance(Lower Level):</b>			
Barrier Gate with Straight Arms	1		
Ticket Dispenser/ Intercom/ Prox reader	1		
Full Signs ( mount of the top of the Entry Stations	1		
Detector Loops ( to reuse the existing one)			
<b>John Nolan Drive Exit</b>			
Barrier Gate with Straight Arms	3		
Exit Station/ Intercom/ Prox Reader	2		
Pay -in- lane / Credit Card /Cash/ Intercom/Prox reader/ No Coins	1		
Fee Computer	1		
Fee Display	1		
Detector Loops ( to reuse the existing one)			

<b>Pinckney Exit</b>			
Barrier Gate with Straight Arms	1		
Exit Station/ Intercom/ Prox Reader	1		
Fee Computer	1		
Fee Display	1		
Directional Sign	2		
Detector Loops ( to reuse the existing one)			
<b>Management Office</b>			
System Server	1		
PARC Software	1		
Credit Card Software ( included in the DP 11000 Cost)	1		
ACS Software ( included in the cost of DP11000	1		
Remote Workstation Licenses	1		
Mass Validation Encoder	1		
Off- line Validator	1		
Proximity Cards	100		
<b>Stock Items</b>			
10,000 Self Park tickets	10000		
Rolls of paper for fee computer	10		
Rolls of paper for APS Receipt printer	10		
Three space ribbons for each printer requiring ribbon	12		
Replacement straight gate arms	1		
Intercom lane concentrator	2		
Firewall equipment (Sonicwall TZ210) cost w/ setup	1		
Communication Devices ( RS232 to 485)	5		
<b>BASE SYSTEM EQUIPMENT TOTAL</b>		<b>\$182,096.00</b>	
Installation	1	\$24,101.52	
Site work, including electrical ,conduit communications cable supply, install and termination, New concrete isle ( <b>Budgetary Number</b> )	1	\$35,000.00	
Tax 10.25%( Equipment only)	1	\$18,664.84	
Freight	1	\$3,236.00	
Training	1		
<b>BASE SYSTEM TOTAL</b>		<b>\$263,098.00</b>	

<b>Additional Upgrades:</b>			
<b>Potential Carroll Street Exit</b>			
Barrier Gate with Straight Arms	1		
Exit Station/ Intercom/ Prox Reader	1		
Directional Sign	2		
Detector Loops	2		
Bollards	4		
Installation	1		
Tax 10.25%( Equipment only)	1		
Freight	1		
<b>TOTAL Potential Carroll Street Exit</b>		<b>\$17,864.39</b>	
<b>Lobby Pay Stations</b>			
Pay -on-Foot/ Credit Card /Cash/Coins/ Intercom	4		
Installation	1		
Tax 10.25%( Equipment only)	1		
Freight	1		
<b>TOTAL Lobby Pay Stations</b>		<b>\$134,975.00</b>	
<b>Cameras</b>			
CCTV System with 14 cameras and NVR	1		
Installation	1		
Tax 10.25%( Equipment only)	1		
Freight	1		
<b>TOTAL Cameras</b>		<b>\$40,842.50</b>	
<b>Queue Detection</b>			
PGS System Server	1		
Internally Illuminated L.E.D. Signs	2		
Vehicle Count Sensors	6		
Installation	1		
Tax 10.25%( Equipment only)	1		
Freight	1		
<b>TOTAL Queue Detection</b>		<b>\$31,330.47</b>	
<b>Alternative #1 :</b>			
*** Series of one (1) year maintenance agreements for five (5) years. Maintenance service to start after the one (1) year warranty period. INCLUDING BASE BID	Yr 2	\$18,209.60	
	Yr 3	\$19,120.08	
	Yr 4	\$20,076.08	
	Yr 5	\$21,079.89	
	Total	<b>\$78,485.65</b>	<b>\$19,621./ per year</b>

<b>Alternative #2 :</b>			
5 Year Term Monthly Cost 50% down payment / 8.5% interest	per month	\$4,943.15	
Buyout at the End of Term		\$1.00	
<b>Alternative #3 :</b>			
Sending Lost ticket rate to the exist station	1	\$1,200.00	
<b>Alternative #4 :</b>			
Lockable protection box for the server	1	\$400.00	
<b>Alternative #5</b>			
Web Interface for Parking Guidance System	1	\$7,056.00	
<b>Alternative #6:</b>			
Web base Validation System with 10 licenses	1	\$3,500.00	
<b>Alternative #7:</b>			
Integration with Central Parking Monthly Accounting System ( CARS)	1	\$3,500.00	

## **Section 6**

# **Specifications and Scope of work**

## Specifications; Scope of work and Typical Wiring Diagram

### Scope of Work

Equipment installation for the new PARCS will meet the required scope of work as specified in the RFQ. DataPark will provide all labor, supervision, project coordination, materials, equipment, services and installing a fully functional state-of-the-art parking access and revenue controls system.

In order to assure smooth transition we will provide the DataPark Management Station to site management for pre-installation training and subsequent database entry of access control data. The new access cards will be provided to the monthly parkers in advance. We will be more than happy to participate on the Board meeting and provide you with presentation in regards to the new equipment and garage operations. **We believe that the key for successful and smooth installation will be good communication with the local management and customers.** DataPark will conduct an on-site training and provide hard-copy manuals on the equipment installation, programming, usage, preventative maintenance, troubleshooting and repair. Training sessions include, Supervisors/Operator, Maintenance Personnel and System Managers/Administrators.

#### Lane Equipment changes over:

- Order the equipment and start the preparation site work. (Garage operates under old system).
- Start the preparation site work – this work to be performed will not require any lane closures. (Garage operates under old system).  
All conduit and required cabling will be done including communication, hardware and local management stations.
- Installing of Pay on Foot hardware and exit stations - garage operates under old system.
- If needed we will install additional loops for entry/ exit A & B bi-directional logic- garage operates under old system. This work will require lane closure for 3 hours per lane. The work will be done in such time that will have the less impact on the traffic.
- Test all equipment hardware communication with local management station (rates, monthly, etc.). (Garage operates under old system).
- Provide training for pay on foot / central pay station hardware and software. (Garage operates under old system.)  
Confirm all operating functions with operator/owner.
- Change over the old entry and exit stations hardware with new hardware. This will require closure of each lane for 2 hours. This work will be done in such time that will have less impact on the traffic.  
(Garage operates under new hardware).
- Testing procedure and training. Garage will work under new system.

## **Section 7**

# **DataPark PARC System Data Sheets and Facility Management Software**

**The proposed Parking Access Revenue Control System consists of the following:**

**Facility Management System (FMS)**

**The DataPark PARC System software and hardware is fully CISP/PCI compliant for credit card processing.**

The management software and lane hardware meet all PCI/DSS requirements (see web site below for compliancy documents).

[https://www.pcisecuritystandards.org/security\\_standards/vpa/](https://www.pcisecuritystandards.org/security_standards/vpa/)

The following is a screen shot from the PCI Security Standards web site.

<b>Datapark DP11000 PARCS</b>							
Version #:	<a href="#">4.01</a>						
App Type #1:	Payment Back Office	PA-DSS v1.2	Acceptable for new deployments	Dec 28, 2010	Oct 02, 2013	403 Labs	2010-01-19
Target Market:	Parking access and revenue control systems						
Reference #:	10-04.00038.002						
Description Provided by Vendor: Datapark DP11000 PARCS is a complete middleware/front-end/back-end parking access and revenue control solution, integrated with a variety of third-party payment processor modules.							

The DP11000 is GUI based menu-driven software system through a computer or network of computers and/or servers. The collection, recording, reporting and transmission of information for transactions and device functions are fully reported to the FMS (and CMC and Central Database server) as they occur.

The operating system of the computers and servers that DP11000 operates on is the most recent release of Microsoft Windows operating system (Windows XP Pro, Win7 Pro/Ultimate, Microsoft Windows Server 2003 R2 or newer). The software provided by Datapark Inc. to operate the PARCS system will be delivered in a ready-to-run form, including all necessary utility programs and documentation. Database Management System (DMS) software is an industry standard such as MS SQL Server 2008 or equivalent for Windows using object-oriented and event-driven programming techniques. DP11000 system uses a proprietary database, containing account numbers, card numbers, invoices, payments and etc., which is logically encrypted. Logical OS access control is applied towards accessing it. All other software packages are industry standard to the greatest extent possible. Data

exchange with third party software will be possible using standard Open Database Connectivity (ODBC).

- PARCS integrated components as computers and/or servers utilize RAID1 technology as a standard.
- FMS is able to function as “Central Cashier Station”. FMS accepts and records parking transactions via media and combination thereof that can be processed at the “Exit Cashier Stations”, including credit card (Credit card in/out), debit card, special pass card, and disposable magnetic striped cards/validations.
- DP11000 provides usage of individual multi-level user accounts, with a minimum of 8 access levels, which utilize complex passwords. Individual user accounts indicate that every account used is associated with an individual user and/or process with no use of generic group accounts used by more than one user or process.

The FMS requires the following password complexity for compliance is enforced:

- Passwords must be at least 7 characters, must include both numeric and alphabetic characters and cannot be the same as the last 4 passwords
- Passwords must be changed at least every 90 days
- If an incorrect password is provided 6 times the account should be locked out
- Account lock out duration should be at least 30 minutes (or until an administrator resets it)
- Sessions idle for more than 15 minutes should require re-entry of username and password to reactivate the session.
- PARCS utilizes Windows OS logical access control allowing 50 or more concurrent user profiles to be used, controlled by system administrator.

FMS supports networked alert system with low, medium and high priority customizable alarms. Logical access controls is applied towards user access rights. In addition, the systems is capable of forwarding alarms to pre-defined users via e-mail, SMS text message at predetermined times and frequencies.

The system software settings, information, data received or generated by the PARCS are recorded to a Log File that is replicated or backed-up to a data tape or digital storage medium in a readily accessible read-only format. Systems retain/store data for at least 5 years.

The FMS logical access control identifies all employees and managers, and PARCS maintenance personnel, and each Transaction and the data entry (normal or abnormal) is attributed to the individual responsible for an action.

FMS allow the operator to document and explain in writing any operational and/or reporting based discrepancies or differences. FMS logical access control identifies whenever any software program is altered and by whom.

DP11000 utilizes networked reporting module that allows users to set an automatically batch and/or print of identified reports to pre-defined local and/or network printers.

DP11000 utilizes programmable “Turn around Grace Period”, “POF Courtesy Time”, and “Grace Period”.

DP11000 supports scheduled rate changes module allowing the accommodation of varying rate structures within a single and multiple facilities. DP11000 incorporated validation program provides for the creation and processing of validations. All validation types are operator configurable and exceed the specified validation types. The validation structure includes, but is not limited to the following parameters:

- Fixed amount.
- Fixed time amount deducted from the beginning of time parked
- Fixed time amount deducted from the end of time parked
- Percent calculation type applied as discount a percentage of the calculated fee.
- One time Free/Complimentary Exit
- Fee switch to a different fee structure, such as: Fee reduction to a fixed amount or zero if certain time parameter is met.
- Fee limitation to a fixed maximum at any time or if certain time parameter is met.
- Full validation
- Full validation if parked in nested area
- Fee charged according to a rate table or extra fee added to regular rate if time limit between exit of nested area and exit of main area exceeded.
- Free exit to/after time set
- Daily or Event Surcharge

As fully networked and WEB system FMS is accessible via secured WEB application, such as IE or VPN and at CMC.

The DP11000 Occupancy Monitoring System provides automatic, remote, and manual control of the gates, full signs, exit directing signs, reversing lane switchovers and other devices. The counting system records and reports every entry of a vehicle into the parking facility and subsequently record further movements into and out of specified nested areas within the parking facility and then record all

vehicle exits. The counting system is based on loop triggering events and is a basis for control of gates, signs, and lane functions at critical entry/exit points throughout the system.

DP11000 utilizes Global Validation program accessible from FMS and/or CMC, configurable via logical access system that allows authorized users to create/program global and/or local validations, global and/or local discount coupons, and global and/or local access cards.

System software settings, information, data received or generated by the PARCS are recorded to a Log File that is replicated or backed-up to a pre-defined remote computer (Database server).

System allows authorized parking personnel to perform local back-up to a proven media on demand.

Database Management System (DMS) software is an industry standard such as MS SQL Server 2008 or equivalent for Windows using object-oriented and event-driven programming techniques. DP11000 system uses a proprietary database, containing account numbers, card numbers, invoices, payments and etc., which is logically encrypted. Logical OS access control is applied towards accessing it. All other software packages are industry standard to the greatest extent possible. Data exchange with third party software will be possible using standard Open Database Connectivity (ODBC).

DP11000 assigns a 17 digit non-resettable number to each transaction that includes lane number, transaction number, date and time of transaction.

### **Credit/Debit Card Processing Subsystem**

Credit card payment processing is an integrated subsystem of the DATAPARK software system with fully automated auditing. Credit transactions made at the Pay Stations, fee computers or Exit Stations is transferred to the Credit Worker server on the server management station in encrypted format approved by the PCI Security Standards Council. The Credit Card Software has the ability to set the credit card parameters, types of cards that will be allowed to pay and the maximum amount a person can accumulate on a credit card. It provides a list of all credit cards in the black list to the Credit Card System.

The server manages the real-time authorization request to the clearinghouse via DSL (On-Line system). It is certified with the following clearinghouses:

- Alliance Data (SPS Host)
- Alliance Data (SPS Terminal)
- Cardnet (FDMS North)
- Cardnet w/ ValueLink Gift
- Check (Split Dial)
- Envoy (FDMS Nashville)
- Fifth Third
- FDR (FDMS Omaha)
- Gift Card (All)
- Global Payment Sys (MAPP Central)
- Global Payment Sys (NDC Host)
- Global Payment Sys (NDC Terminal)
- Global Payment Sys (CNH Host w/ Canadian Debit)
- RBS Lynk
- Mercury (Host)
- Mercury (Host w/ Canadian Debit)
- Mercury (Terminal)
- NaBanco (FDMS South)
- NPS
- Elavon (formerly Nova)
- Paymentech (Host)
- Paymentech (Terminal)
- Sterling Payment Technologies (Host)
- Shift 4
- Tranvia (Cardsmith)
- Vital/TSYS (D Format)
- Vital w/ ValueLink Gift

The software prevents all double entries and prevents over payments by not allowing manual attendant entry of charge amounts (only fee balance can be accepted for charges). All credit card transactions are batched to the clearinghouse based on the shifts reports from the Pay Stations and the management reports from the Exit Stations. At a specific Time selectable by the Operator all open batches are closed and a day-end message sent to the clearinghouse. If any attendant, auto Pay Station, or Exit Station shift is still in progress at that Time a new batch opens for the attendant or device.

The system has the capability to manually enter a credit card transaction from the credit server for the purpose of recreating a transaction record. Authorized users with the appropriate user access level apply the credit only. The windows system is protected with logical access control and proprietary applications to prevent unauthorized users from accessing it.

The software allows a search for transactions by a variety of search criteria (card number, ticket number, fee paid, etc). Reports are provided indicating the status of credit card batches sent to the clearinghouse. Credit card processing reports are generated that show all transactions summarized by date and batch number. Additional reports are developed separating credit transactions.

Any attempts to repeat a credit card authorization submittal on any transaction will be rejected by the Credit Card System. Thus, duplicate authorizations and authorizations for more than the amount due will be automatically rejected. Only part of the credit card number is printed on the receipt issued.

The system keeps a running inventory of the credit cards used to enter the facility and store invalid cards. A “Black List” option is provided also. The system can display all the credit cards currently in the facility using the credit in/out functionality.

With DSL On-Line system EVERY credit card transaction gets direct authorization, that takes up to 5 sec. If the event communication is lost between a lane and the server, lane software accepts transactions only in accordance if there is a pre-set minimum value. When communication is restored, the transactions are processed normally. Credit cards are not accepted for any amount greater than the parking fee.

The software prevents all double entries and prevents over payments by not allowing manual attendant entry of charge amounts (only fee balance can be accepted for charges). At a specific Time selectable by the Operator all open batches are closed and a day-end message sent to the clearinghouse. If any attendant, auto Pay Station, or Exit Station shift is still in progress at that Time a new batch opens for the attendant or device.

The system has the capability to manually enter a credit card transaction from the credit server for the purpose of recreating a transaction record. Authorized users with the appropriate user access level apply the credit only. The windows system is protected with logical access control and proprietary applications to prevent unauthorized users from accessing it.

The software allows a search for transactions by a variety of search criteria (card number, ticket number, fee paid, etc). Reports are provided indicating the status of credit card batches sent to the clearinghouse. Credit card processing reports are generated that show all transactions summarized by date and batch number. Additional reports are developed separating credit transactions.

Any attempts to repeat a credit card authorization submittal on any transaction will be rejected by the Credit Card System. Thus, duplicate authorizations and

authorizations for more than the amount due will be automatically rejected. Only part of the credit card number is printed on the receipt issued.

The system keeps a running inventory of the credit cards used to enter the facility. The system can display all the credit cards currently in the facility using the credit in/out functionality.

### **Credit Card Reporting**

Reports reconcile Credit card transactions to vehicle entry/exit transactions. A credit card history query (screen view and printed report) is required. The history is queried by last 4 digits of credit card number, date, Time or a combination of these items. The format includes entry date and Time, exit date and Time, length of stay, attendant ID, Parking Facility code, lane number, fee paid and payment method, credit card number, and authorization number.

A report is generated daily showing credit cards that are used repeatedly in the same day. The parameter describing the filter point (number of uses) is user defined. The report includes: exit date and Time, Parking Facility code, lane number, attendant ID, credit card number, credit card authorization, and fee paid.

- Expiration Date Report. Allows the user to view all credit cards on file that expire on the user-specified date.
- Credit Card Activity Report. Access credit cards activity stored in the system.
- Daily Credit Card Report. Provides each day's credit totals from each of the devices installed at the facility.
- Credit Card Detailed Report. Displays all in/out transactions by credit card.
- Credit Card Parking Fee Report. Summarizes ticket charges for credit card transactions only.

Black List Report. Displays all credit cards black-listed by the facility and sort data by card number

### **Parking Space and Count Subsystem**

The Count Monitor System provides automatic, remote, and manual control of the gates, space count/availability and FULL signs, exit directing signs, reversing lane switchovers and other devices.

The counting system records every entry of a vehicle into the parking facility and subsequently record further movements into and out of specified nested areas within the parking facility and then record all vehicle exits. The counting system is the basis for control of gates, signs, and lane functions at critical entry/exit points throughout the system.

DataPark will place vehicle detection equipment at each entry and exit lanes that will accurately count vehicles as they enter and exit. The detector system will record every entry of a vehicle into the parking facility and then record every exit with an accuracy of 99.99% or better for each lane as measured over a twenty-four (24) hour period.

All data required for the monitoring, controlling and adjusting of the Count Monitor System will be displayed and recorded on all workstations and the server station as it occurs. The occupancy data also is viewable from every station. The system provides monitoring and count management such as:

- Differentials. Total facility counts, reserved /s non-reserved contract counts, and any other differential counts
- Counts. The non-reset counts for all exit and entry lanes.
- Monitors at the entry/exit lanes.
- The status of the controller boards.
- Count diagnostics. The resettable counts for exit/entry lanes

The Count Monitor System provides customizing alarm messages, program controls, automatically reverse lanes, and open/close lanes at a preprogrammed Time of the day.

The system has the option to set an interval at which the system automatically records lane counts, alarms, and other data in a daily database file, based on spaces available and occupied.

The system is able reset the daily counts at a preset Time.

The Count Monitor System can communicate to variable message signs to activate and alter the messages based on a combination of conditions including count, Time and lanes. Messages can be set as desired at the management computer.

Vehicle detection will be achieved by installing multiple in-pavement inductive loops or use existing in the entry and exit lanes of each Parking Facility, Activating, Direction Sensing, and Closing in-pavement inductive loops will be installed in locations needed to ensure accurate count of each vehicle entering and exiting the parking. Direction sensing loops will also ensure correct indication of vehicles backing out from, in to, illegal vehicle forward or reverse conditions.

The record of all barrier gate openings other than those associated with standard transactions and all vehicle movements over loops when barrier gates are constantly in the "up" position (through malfunction or manual intervention).

### Parking Guidance System

We will install TCS Parking Guidance System which will meet and exceed the RFP requirements. Provide a Parking Guidance System (PGS) which guides and alerts patrons to the amount of available spaces in the Grand Ohio Parking Garage. The PGS System includes ultrasonic directional sensors monitoring vehicle entry/exit at garage entry/exit, space availability signage, wireless communication system components, and a central PGS server.

### Six Ultrasonic Directional Sensors



- Three (3) unit cluster configuration at wide garage entrances/exits
- Built in central processing unit to control sensor logic
- Built in self-test diagnostics
- Maximum mounting height 8 ft
- Directional counting of vehicles
- Maximum effective speed 12 mph
- 24 VDC low voltage
- Output: plus-minus pulses and/or serial interface via RS-485
- Directional counting of lanes of up to 20' width
- Dimensions: 74" L x 2.75" H x 2.5" W
- Weight: 15.5 lbs

### One Communication Point Enclosures

- All components for local network wireless clusters connected to USDS communication points (CP).
  - ( 1) Communication point enclosures provided including:
    - Wireless communication equipment (i.e. modems, power supplies, etc.)

### Two Space Availability Signage (Sample Sign Design)



- Single sided space availability sign
- Dimensions : 7" H x 18" W x 2.5" D
- Routed aluminum panel
- Character height:
- 5.0" LED character height
- Spaces availability display:
- 3-Digit single stroke seven segment display
- Number of spaces and universal arrow in green
- "0" in red
- 24 VDC Low voltage
- UL/CUL approved
- Super bright wide viewing angle LEDs
- 40" Double post overhead ceiling mount

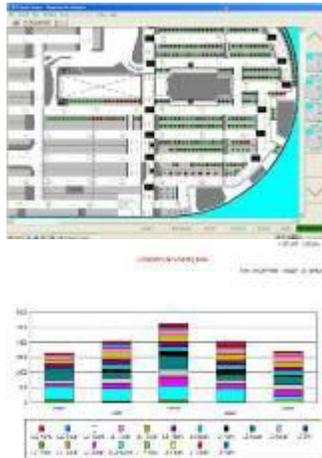
### 1 Central PGS Server Hardware and Software



- **Hardware:**
- Dedicated PGS tower server Dell T or equivalent
- Operating System Windows Server 2008
- Minimum 2 GB RAM
- CD/RW Drive
- Flat screen monitor
- USB mouse & keyboard

- 30 min UPS backup

**Software:**



- Remote log-me-in capability
- Microsoft™ Windows based
- Multi-user network connection
- Monitoring all PGS equipment
- Providing graphic description of occupancy status
- Ability to view on other existing workstations including graphic description of occupancy status
- Network connectivity with secured access
- Real time graphical analysis for operator control with GUI for parking facility
- Central communications to LED signage and ultrasonic detectors
- Complete single control and programmability of LED signage and sensors
- Password protected access
- All reprogramming changes are logged
- Complete reporting and statistics for floor counts, occupancy, turnover, alarms, and customizable reports
- Storage and access of historical data
- Alarm monitoring for dynamic signage & counting locations
- *Customer supplied anti-virus software recommended*

**Entry Lane Device/Ticket Issuing Machine (TIM)**

**DP5900-6**

**Entry Station- Mag Stripe**



**FEATURES:**

- Online System RS232, RS485 communication
- Complete Stand-alone
- Programmable graphic LCD display
- Tickets printed with 5 digit consecutive number, lane, rate, year, month, date, military hours and minutes
- Voiding of tickets
- Push button or Automatic Issuing of tickets
- Lot Full control
- Monthly cards
- Features soft/hard/no passback
- 256 Access Levels
- 64 Time Zones
- Bi-directional transport mechanism with ticket retractor
  
- CC – Credit card
- Bi-directional loop logic
- Ticket collection box

**OPTIONS:**

- BAROEM – OEM Barcode Scanner
- BARPRN – Barcode printing (Pre-printed)
- BARPRNM – Barcode printing mobile (Boca unit)
- DC - Debit Cards
- PRS – Mini Prox Reader (Standard)

Each entry lane at the Parking Facility is furnished with a Ticket Dispenser (TIM) to issue mag stripe tickets. Ticket encoding is machine readable and human-readable (imprinted in sharp, clear alphanumeric characters). TIM accepts and records parking transactions via media including credit card (Credit card in/out), debit card, special pass card, and disposable magnetic striped card.

The TIM communicates with the Facility Management Station software to provide facility/gate control based on real-time usage.

Each entry lane can be furnished with up to four proximity readers, which are integrated into the ticket dispenser. The devices will display messages to the customer and will require vehicle presence over the activating loop before enabling reading functionality.

TIM will not issue a ticket if a valid monthly card has been detected at the same entry lane and the vehicle has not cleared the closing loop.

TIM read and confirms access card number and system code from 2 inches. The FMS acts as the access control server to check and verify active status, access rules, and correct anti-passback. In case the card passes all checks, an open signal is sent to the gate to open.

The Card Access system grants or denies access based on user defined parameters such as, but not limited to: card status; none, true soft/hard or timed soft/hard anti-passback; access level groups, including holiday's groups; time zones limitations groups. If a violation of any type occurs, an alarm starts and it can be set off only by an authorized facility operator; all that activities, the violation reasons, date/time, location, card number etc. are written in a file for report generation.

- TIM communicates on-line, over network with the Facility Management Station software to provide control based on real-time usage. TIM supports automatic daylight savings time adjustment.
- PCI/DSS compliant. TIM reads and process credit cards through a Magnetic Stripe and Contact-less (proximity type) card reader per PCI/DSS protocols.
- TIM is equipped with locking mechanism with the capability of being re-keyed.
- Thermostatically regulated heater/fan control (-4F to 131F)
- Programmable none, true soft/hard or timed soft/hard anti-passback feature.
- The TIM records every transaction, including normal and abnormal transactions, transmits in real-time this data to the Facility Management Station, recording it to system violation/inactive cards list. All that activities, the violation reasons, date/time, location, card number etc. are written in a file for report generation.
- If a violation of any type occurs, an alarm starts and it can be set off only by an authorized operator.
- Internal memory and battery clock.
- LPR subsystem interface.
- Intercom.

- All activities, the violation reasons, date/time, location, card number etc. are written in a file for report generation.
- Ticket encoding is machine readable (bar code) and human-readable (imprinted in sharp, clear alphanumeric characters) and includes, at a minimum, the following:
  1. Parking Facility Name
  2. Entry lane number
  3. Date and time of entry
  4. Ticket Number
  5. Transaction Number
- The TIM is on-line, TCP/IP addressable and communicates with the FMS over network. It contains a memory capable of storing transaction records. A minimum of 10,000 transactions is maintained of those transactions. All records are transferred to the FMS once communication is re-established.
- TIM supports “Pre-pay” operation.
- TIM supports Lot Full operation. When in Full mode TIM will not issue transient tickets, but grant access to monthly card parker.
- TIM will not issue a ticket or grant monthly access when the gate arm is in up position.

## Pay-on-Foot

**DP7001 M**

**Pay Station**



### **FEATURES:**

- On-line System RS232, RS485
- Pedestrian or In-Lane operation
- Pay and display, pay on exit, entry or central pay operation
- Accepts Discount/Store Validations
- Management and revenue reports
- Programmable Messages
- Backup battery
- Lost ticket button
- Selectable fee button
- Grace period
- Initial free period
- Day/Evening/Night/Early Bird rates
- Rate switch able on daily or hourly basis
- Daily maximum (card, absolute time)
- Weekly maximum
- Discount by time, amount and %
- No sale key
- Sales tax computation
- Accepts up to seven denominations of notes
- Accepts up to six denominations of coins
  
- Recycles and issues for change up to three denominations of coins

- 12" LCD Display
- Receipt Printer

**OPTIONS:**

- CH4 - Coin Hopper
- PS - Pay By Space
- BAROEM - OEM Bar Code Reader
- BARPRNR - Bar Code Receipt Printing (BOCA UNIT)
- PP - Prepay
- LT - Lost Ticket
- BD3 - Bill Dispenser – Fujitsu Bill Dispenser with 2 notes
- BD3 - Bill Dispenser – Fujitsu Bill Dispenser with 3 notes

Pay Stations (POF) will be provided to the Parking to accept magnetic striped tickets. POF accepts and records parking transactions via media and combination thereof including credit card (Credit card in/out), debit card, special pass card, and disposable magnetic striped cards/validations.

The POF is an integrated part of PARCS system and communicates with the Facility Management Station software to provide facility control on real-time bases.

The POF records every transaction; including normal/abnormal transactions, count events etc. All activities are written in a file for report generation.

- Report generation is accessible in to authorized facility users.
- Report generation supports data filtering in user defined time – interval
- Report generation is accessible from FMS in both proprietary report format and industry defined format, such as XML/CSV, PDF etc.
- Report generation is exportable to an external media in industry defined format, such as XML/CSV, PDF etc.

POF communicates on-line, over network with the Facility Management Station software to provide control based on real-time usage. POF/CC supports automatic daylight savings time adjustment.

- ADA compliant per ADAAG, CAC requirements.
- POF is equipped with locking mechanism with the capability of being re-keyed.
- POF supports programmable “Turnaround Grace Period” and does encode “Exit Lag Time” on transient ticket. Both options can be modified by authorized users.
- Thermostatically regulated heater/fan control (-4F to 131F)

The POF records every transaction, including normal and abnormal transactions; synchronizing, in real-time, data with the Facility Management Station system violation/inactive cards list. If a violation of any type occurs, POF denies payment to the customer.

If an abnormal event of any type occurs, an alarm is triggered and it can be set off only by an authorized operator. The POF detects and reports the following status conditions to the FMS:

- Low receipts
- Validation/coupon/ticket collection bin full
- Coin Vault Full
- Coin Storage Unit Empty
- Bill Dispenser Low
- Ticket jam
- Door Open
- In service
- Out of service
- Transient Backout
- Monthly Backout
- Maintenance Ticket
- Power/Communication interruptions/failures
- Power/Communication restoration

PS provides clear, step-by-step graphically illustrated on a 12 inches LCD display, built into a faceplate with illuminating button lights, instructions (including Voice messages) to the customer including:

- How, when and where to insert tickets, validations, coins, bills, etc.
- How to cancel a transaction
- How to obtain a receipt
- Remaining value of the validation, debit card or special pass
- Instructions in multiple languages
- Intercom
- Internal memory and battery clock.

The POF is on-line, TCP/IP addressable and communicates with the FMS over network. It contains a memory capable of storing transaction records. A minimum of 10,000 transactions is maintained of those transactions. All records are transferred to the FMS once communication is re-established.

The POF is capable of giving the patron a receipt both automatically and upon demand. When the transaction is complete, the POF/CC issues a receipt to the patron as programmed. Printed data on a receipt includes, at a minimum, the following:

- Ticket number
- Date and time and point of entry (entry lane number)
- Date and time of payment (POF/CC device number)
- Amount paid
- Payment method (CC, validation, pre-paid etc)

- Transaction Number

The POF/CC records every transaction; including normal/abnormal transactions, count events etc. All activities are written in a file for report generation. All activities are written in a file for report generation and accessible from both FMS and CMC.

Shift related data is compiled in User-defined time interval, including but not limited to: transient counts and monthly access, loop counts etc. Report data is compiled in User defined interval, Daily, Weekly, Monthly and Yearly.

POF accepts discount coupon on tickets and automatically applies it to the parking fee. All validation types are operator configurable with the following parameters at a minimum:

- Fixed dollar amount.
- Fixed time amount deducted from the beginning of time parked
- Fixed time amount deducted from the end of time parked
- Percent calculation type applied as discount a percentage of the calculated fee (percent, 5000 %, is a 50% discount).
- Fee switch to a different fee structure, such as: Fee reduction to a fixed amount or zero if certain time parameter is met (i.e. if time parked is less than two hours fee is reduced to one (\$1.00) dollar).
- Fee limitation to a fixed maximum at any time or if certain time parameter is met (i.e. if time parked is between 9:00 AM. and 6:00 PS and total time parked is less than six (6) hours, fee will increment at regular rate up to three dollars (\$3.00), then rate will remain at three dollars (\$3.00) until the sixth (6th) hour. After the sixth (6th) hour, the regular rate will resume).
- Full validation
- Full validation if parked in nested area
- Fee charged according to a rate table or extra fee added to regular rate if time limit between exit of nested area and exit of main area exceeded.

POF reads writes all tickets and coupons.

PCI/DSS compliant. POF accepts credit card payment through magnetic stripe and/or “contactless” reader.

The POF operates with United States coins. The POF rejects and returns any denominations that are not programmed as acceptable; damaged or counterfeit coins, foreign coins and foreign objects. The PS contains a coin return receptacle. The receptacle receives all dispensed change, and all rejected and/or returned coins and foreign objects. The POF is provided with change hoppers, one for each coin denomination accepted that stores a minimum of 75 coins. POF provides

coin inventory status report. The coin storage units are self-locking when removed from their mounting assembly.

1. POF have the following programmable and user-defined features:
  - Bill Acceptor that supports up to 7 denominations of notes
  - Bill/Change dispenser that issues up to 3 denominations of notes with a capacity of 500 notes minimum in each vault.
  - Recycles and issues for change up to 3 denominations of coins
  - Coin vault/Coin storage unit
2. POF is equipped with Thermal receipt printer
3. POF is equipped with 12 inches LCD Display and:
  - a. Language selection button with ability to navigate through instructions in up to 3 different languages.
  - b. Programmable graphical information and/or advertising material (slide shows) in idle mode.
  - c. Programmable operational and/or instruction messages

The POF simultaneously transfers records in real-time to FMS and stores transaction records in the Journal Log. The data can be copied and exported to an external media. Records of each parking transaction includes validation amount, total parking fee, cash paid, special pass card number and the amount deducted from a special pass card, and transaction number, together with the entry time, date and lane number.

The POF contains a cancel push-button that will cancel any transaction prior to the full fee having been paid. Once full parking fee payment is completed or a credit card authorization is in process the transaction cancellation cannot be performed and refunds are not available. When a transaction is cancelled the amount tendered, including the validations and coupons, prior to cancellation is returned to the patron. The patron's ticket is returned without being re-encoded for exit. The transaction is reported as type "Cancelled" to the FMS.

The POF allows a customer to push a button labeled "Lost Ticket" for assistance in case of misplaced ticket.

POF has the needed tamper-resistant method to unlock, unique for each device. Coin and Bill containers are keyed differently than the POF. Coin and Bill containers automatically lock upon removal from the PS and must be reset before reinstallation. A key is required to permit release of the cashbox from the PS. A different key is required to open the cashbox for emptying. POF accepts monthly account payments as a standard feature.

**DP 6001**
**Cashier Station**

**FEATURES:**

- On-line System RS232, RS485
- Complete Stand-alone Operation
- 256 Access Levels
- Time Zones
- Pre-pay functions
- Monthly payment with database interface
- 99 Operators
- Management reports
- Programmable keyboard
- 32 Programmable Rates
- 128 Programmable Discounts or Store Validations
- 63 Programmable Deposits
- 31 Programmable Refunds
- 15 Programmable Prepays
- Controller for 2 additional card reader interfaces
- 16383 monthly cards
- Monthly card encoder
- Passback feature - Hard/Soft/No passback
- Programmable Messages
- Backup battery
- Lost ticket key
- Grace period
- Initial free period
- Day/Evening/Night/Early Bird rates
- Rate switchable on daily basis
- Daily maximum (car or absolute time)
- Weekly maximum
- Discount by time, amount and %
- No sale key
- Sales tax computation
- Short money record
  
- BARENTRYSP – Bar Code Reader

The Fee Computer has the following features as a minimum:

1. Up to two cash drawers with tamper-resistant method to unlock, unique for each device.
2. Accepts and records parking transactions via media and combination thereof, including credit card (Credit card in/out), debit card, special pass card, and magnetic striped cards/validations.
3. Thermal receipt printer.
4. Ticket reader, integrated credit card and Smart Card reader.
5. Internal memory and battery clock.
6. Patron Fee Display
7. Pre-programmable Exit Lag Time
8. Capable of giving the patron a receipt both automatically and upon demand. When the transaction is complete, the Cashier Station issues a receipt to the patron as programmed. Printed data on a receipt includes, at a minimum, the following:
  - a. Ticket number
  - b. Date and time and point of entry (entry lane number)
  - c. Date and time of payment (POF/CC device number)
  - d. Amount paid
  - e. Payment method (CC, validation, pre-paid etc)
  - f. Transaction Number
  - g. Cashier operator number/ID
9. Amount/Fees due are automatically calculated.
10. Customizable Cash received key.
11. Cash drawer remains closed in case of non-cash or \$0.00 revenue transactions.

Each Fee Computer is fully programmable either at the device or via download from FMS, supporting at the minimum:

- 99 programmable rate tables with maximum flexibility for time increments, grace/complimentary periods and dollar amount increments.
- Holiday rates
- 200 programmable validation accounts
- Daily maximum
- 63 programmable deposits
- 31 prepay tables
- Lost Ticket option
- Up to 999 users
- Unreadable/Manual ticket option
- Short money/Insufficient Funds transaction

Validation parameters are operator programmable and include but are not limited to:

- Time value – in front or at back
- Money value – flat amount
- Variable-rate value
- Valid from date and to date
- Sold at value
- Valid in time period: from and to
- Limitations on the number of uses for each validation
- Limitations on each validation's ability to be combined with other validations
- Up to 9999 different facility codes
- Up to 255 different Lot Numbers
- Global, Multi or local limitation on location

All devices transmit in real time an electronic audit trail to the FMS via standard TCP/IP communication. The device simultaneously tracks and record payment records of each parking transaction including at the minimum: cashier ID/number, validation amount, total parking fee, payment method, credit card/special pass card number and the amount deducted from a special pass card, and transaction number, together with the entry time, date and lane number. The records for every transaction; including non-resettable normal/abnormal transactions, count events etc. are written in a file for report generation, accessible to authorized facility users. Supports data filtering in user defined time interval, including but not limited to: all transactions, rate codes, validation codes/amounts, cashier/shift login information, exception events etc.

The Exit Lane Device is on-line, TCP/IP addressable and communicates with the FMS over network. It contains a memory capable of storing transaction records. A minimum of 10,000 transactions is maintained of those transactions. All records are transferred to the FMS once communication is re-established.

The records for every transaction; including non-resettable normal/abnormal transactions, non-resettable count events etc. are written in a file for end of shift report generation, accessible to authorized facility users. Supports data filtering in user defined time – interval and is accessible at the device itself and FMS in both proprietary report format and industry defined format, such as XML/CSV, PDF etc.

## Exit Lane Device

### DP5800-6



### Exit Station-Mag Stripe

#### FEATURES:

- Online System RS232, RS485 communication
- Complete Stand-alone
- Programmable graphic LCD display
- Voiding of tickets
- Monthly cards
- Features soft/hard/no passback
- 256 Access Levels
- 64 Relay Time Zones
- Bi-directional transport mechanism with ticket retractor
- Bi-directional loop logic
- Two-way magnetic stripe ticket and card reading
- Ticket collection box
- Programmable rate
- CC – Credit card

#### OPTIONS:

- BAROEM – OEM Barcode Scanner
- BARPRN – Barcode printing (Pre-printed)
- BARPRNM – Barcode printing mobile (Boca unit)
- DC - Debit Cards
- PRS – Mini Prox Reader (Standard)

Each exit lane at the Parking Facility is furnished with an Exit Lane Device to accept magnetic striped tickets. Exit Lane Device accepts and records parking transactions via media including credit card (Credit card in/out), debit card, special pass card, and disposable magnetic striped card.

The Exit Lane Device communicates with the Facility Management Station software to provide facility/gate control based on real-time bases. Each exit lane can be furnished with up to four proximity readers, which are integrated into the ticket acceptor. The devices will display messages to the customer and will require vehicle presence over the activating loop before enabling reading functionality.

Exit Lane Device read and confirms access card number and system code from 2 inches. The FMS acts as the access control server to check and verify active status, access rules, and correct anti-passback. In case the card passes all checks, an open signal is sent to the gate to open.

The Card Access system grants or denies access based on user defined parameters such as, but not limited to: card status; none, true soft/hard or timed soft/hard anti-passback; access level groups, including holiday's groups; time zones limitations groups. If a violation of any type occurs, an alarm starts and it can be set off only by an authorized facility operator; all that activities, the violation reasons, date/time, location, card number etc. are written in a file for report generation.

- Exit Lane Device communicates on-line, over network with the Facility Management Station software to provide control based on real-time usage. It supports automatic daylight savings time adjustment.
  - PCI/DSS compliant. Exit Lane Device reads and process credit cards through a Magnetic Stripe and Contact-less (proximity type) card reader per PCI/DSS protocols.
  - Exit Lane Device is equipped with locking mechanism with the capability of being re- keyed.
  - Exit Lane Device supports programmable “Turnaround Garce period” and “POF Grace Time”.
  - Thermostatically regulated heater/fan control (-4F to 131F)
  - Programmable none, true soft/hard or timed soft/hard anti-passback feature.
  - The Exit Lane Device records every transaction, including normal and abnormal transactions, transmits in real-time this data to the Facility Management Station, recording it to system violation/inactive cards list. If a violation of any type occurs, Exit Lane Device denies exit to the customer and an alarm starts that it can be set off only by an authorized operator and the FMS.
  - The Exit Lane Device displays real-time programmable messages, custom messages and status messages such as "card expired," time and date, remaining value of debit card etc. It includes user activated illuminated receipt issue button on front plate and user programmable voice prompts.
  - Internal memory and battery clock.
  - Intercom.
- 
- The Exit Lane Device is on-line, TCP/IP addressable and communicates with the FMS over network. It contains a memory capable of storing transaction records. A minimum of 10,000 transactions is maintained of



those transactions. All records are transferred to the FMS once communication is re-established.

- Exit Lane Device accepts additional exit transactions via media including credit card (Ticket In/ Credit card out, Credit card in/out) through ticket slot and/or “contactless” method, debit card, special pass card, and disposable magnetic striped and other validations.
- Exit Lane Device provides human-readable (imprinted in sharp, clear alphanumeric characters) receipt.
- All activities, the violation reasons, date/time, location, card number etc. are written in a file for report generation.
- Grants exit to validated/pre-paid tickets, presented within programmed “Exit Grace Time”; allows payment via alternative media as, but not limited to: credit card, smart cards and validation coupons.
- Exit Lane Device voids accepted tickets/coupons and erases the programmed data from the magnetic strip.
- The Exit Lane Device records every transaction; including normal/abnormal transactions, count events etc. All activities are written in a file for report generation.
- Report generation is accessible in to authorized facility users.
- Exit Lane Device accepts additional exit transactions via magnetic striped media including discount tickets and other validations.
- All activities are written in a file for report generation and accessible from both FMS and CMC.
- Exit Lane Device comes with dual ticket feed.

## **Validations Subsystem**

### **Validations/Event Prepay Subsystem Description**

Datapark validation system provides for the creation and processing of validations and exceeds the specified requirements of up to 99 different types of validations and ability to track up to 999 separate validation accounts. Each PARCS exit/payment device is capable of accepting at least four (4) validation tickets. These features activated and controlled through the FMS. It is user –id controlled for all validations processed at each validation unit. All validation transactions (produced or accepted) are tracked and reported to the FMS and /or CMC. The system provides detailed reports upon request that include but not limited to:

- Validation totals filtered by unit/user/validation type etc.
- Time-filtered totals (daily/monthly, yearly etc.)
- Billable Invoicing System

Validation parameters are operator programmable and include but are not limited to:

- Time value – in front or at back
- Money value – flat amount
- Variable-rate value
- Valid from date and to date
- Sold at value
- Valid in time period: from and to
- Limitations on the number of uses for each validation
- Limitations on each validation's ability to be combined with other validations
- Up to 9999 different facility codes
- Up to 255 different Lot Numbers
- Global, Multi or local limitation on location

All validation types are operator configurable and exceed the specified validation types. The validation structure includes, but is not limited to the following parameters:

- Fixed amount.



- Fixed time amount deducted from the beginning of time parked
- Fixed time amount deducted from the end of time parked
- Percent calculation type applied as discount a percentage of the calculated fee.
- One time Free/Complimentary Exit
- Fee switch to a different fee structure, such as: Fee reduction to a fixed amount or zero if certain time parameter is met.
- Fee limitation to a fixed maximum at any time or if certain time parameter is met.
- Full validation
- Full validation if parked in nested area
- Fee charged according to a rate table or extra fee added to regular rate if time limit between exit of nested area and exit of main area exceeded.
- Free exit to/after time set
- Daily or Event Surcharge

## Merchant Validation Devices

### Off-line Validation Machine

**DP1350**

**Merchant Validator/Discount Encoder**



Use remotely for discounts, validations or rebates as programmed.

Datapark provides all necessary equipment to encode and read Validations. DP1350 Off-line encoders will be used by retail merchants and others to re-encode the ticket to apply a validation or a different fee structure to it so that the PARCS system integrated equipment calculates the fee owed taking into account the encoded validation. The pre-programmed rate or discount will be programmed for the needed application, with the applicable time parameters. Each PARCS device supports 32 different rate structures and 128 different discount types/structures. The restriction of using combination validations can be preprogrammed in using the rates tables for a maximum validated time combination of different validation. The rates and discounts for all devices are programmed from the FMS. The validation devices have the following options at the minimum:

- Stan-alone, portable unit
- LED indicates successful encoding.
- Internal non- resettable counter
- Wheel encoding stamp provides a visible indicator to the cashier of the validation.

**On-line Merchant Validation Devices**

**DP6100-MT      Multiple Ticket Encoder**



Connected to PC. Includes keypad, bulk feeder/validator and software. Used for encoding bulk quantities of mag-stripe rebate tickets, multiple-entry tickets, etc.

The DP61000 Validation device magnetically encode and read up to 128 different validation types applied to transient tickets. It can also encode magnetic time-limited, value-added and usage cards, discount and special passes, valet badges. The device has the following options included as a minimum:

- Operates in on-line mode with FMS and/or from remote locations.
- FMS controls DP6100 to provide complete security and accountability for encoding
- FMS stores in daily transaction files data for all Validations, coupons and Special Pass Cards produced and validations accepted for report generation.
- Printing mechanism provides a visible indicator such as validation name, number as well as the account/coupon ID.
- Can be loaded with box of validation tickets/coupons and automatically issues up to 9,999 validation coupons.

### Special Event Subsystem

- **Event Prepay at Entry**  
Entry Station TD may operate in an automated pre-pay mode. Each operator/attendant can be issued a proximity card. The card will be programmed to act as an operator ID, pre-pay mode selection and a rate selection to automatically issue a pre-pay ticket. The entry station (TD) has 32 customizable rate schedules. Each operator can have up to 32 different cards pre-programmed with the cashier ID and the rate for issuing a ticket. Once the operators present/waive the card at the proximity reader, the entry station will automatically issue a paid ticket for the event with the pre-programmed exit time. The ticket issued will have the amount paid, the ticket number, exit time and the operator number magnetically and visually encoded on the ticket. All of the transaction data will be sent to the FSM and CMC for reporting. The ticket can be used directly at the exit and, if outside of validated/prepaid parameters – the dollar amount of the prepayment survives and is used as a Credit Balance against prevailing charges at exit.
- **Remote Event rate change**  
The System can accept new parking rate data for transient rate structure via an XML feed. The System also transmits special event rates and is able to accommodate off peak-period discounts for entering and/or exiting a garage during defined times. Transient parking rates may vary according to parking facility location, time of day, day of week, length of stay, or a combination of those pricing structures. Only authorized users shall be able to implement the XML feed to change the parking rates.
- **On-line prepay Special Event Program (Case Study)**  
Customers may access the online reservation portion of the facility system over the internet web-browser, such as Microsoft Explorer. The System will require customer's credit card number; the same credit card will be used at the entry lane to allow the customer to enter the garage. The System will produce a confirmation code for the customer to print out along with instructions on how to access the facility, and how to process the ticket before exiting. Additionally, if the customer enters a starting address, a map detailing the driving directions will be available.

Park here. Go anywhere.  

**DAILY PARKING**

**How it works.**

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi commodo, ipsum sed pharetra gravida, orci magna rhoncus neque, id pulvinar odio lorem non turpis. Nullam sit amet enim.

Suspendisse id velit vitae ligula volutpat condimentum. Aliquam erat volutpat. Sed quis velit. Nulla facilisi. Nulla libero. Vivamus pharetra posuere sapien. Nam consectetur.

Enjoy!

**EVENT PARKING**

**COUPONS**

To receive a coupon, please fill out the form below.

NAME:

ADDRESS:

APT/UNIT:

CITY:

STATE:

ZIP:

PHONE:

EMAIL:

VERIFY EMAIL:

[get coupon >](#)

Park here. Go anywhere.  

**DAILY PARKING**

**Featured Events**

- [Chicago Marathon](#)
- [Venetian Night](#)
- [Air & Water Show](#)
- [Event Name Goes Here](#)

**EVENT PARKING**

**COUPONS**

To pay for event parking, select your event below.



**Air & Water Show**  
August 15 - 16, 2009

[more info >](#)

Proin at eros non eros adipiscing mollis. Donec semper turpis sed diam. Sed consequat ligula nec tortor. Integer eget sem. Ut vitae enim eu est....(read more)

**Lorem Ipsum**  
Date Goes Here

[more info >](#)

Proin at eros non eros adipiscing mollis. Donec semper turpis sed diam. Sed consequat ligula nec tortor. Integer eget sem. Ut vitae enim eu est....(read more)

**Lorem Ipsum**  
Date Goes Here

[more info >](#)

Proin at eros non eros adipiscing mollis. Donec semper turpis sed diam. Sed consequat ligula nec tortor. Integer eget sem. Ut vitae enim eu est....(read more)

© Copyright Millennium Garages 2009. All Rights Reserved.

**Magnetic Automation Barrier Gates**



Magnetic Automation, a leading manufacturer of barrier gates in the world, is a premier gate due to reliability and speed (currently used by the Illinois Toll Road Authority). The gate incorporates a “torque motor” that has constantly applied power making it virtually unaffected by climate changes. The gate features a plastic boom with a feature for quick repair in the event of a “drive through.”

# Section 8

# Training

## *Training*

DataPark will conduct an on-site training and provide hard-copy manuals on the equipment installation, programming, usage, preventative maintenance, troubleshooting and repair. Training sessions include, Supervisors/Operator, Maintenance Personnel and System Managers/Administrators.

### Cashier Training Program

- DP6001 Cashier Station Operations
- Operation of all transactions (transient, credit/debit cards, validations, etc.)
- System messages and cashier terminal report

### Supervisor & Operator Training Program

- DP6001 Cashier Station Operations
- DP6100 Validator/Ticket Reader Operations
- Operation of all transactions (transient, credit/debit cards, validations, etc.)
- System messages and cashier terminal report
- Primary maintenance on Revenue Control Equipment components
- Messages and Alarms
- Automatic Functions
- Database/Card Manager
- Reports (Cards/Viewer/Generator)
- Manual Control and Override
- DP7001 Series Pay Station Operations/Reports

### Administrator Training Program

- System Operations
- Messages and Alarms
- Automatic Functions
- Database/Card Manager
- Reports (Cards/Viewer/Generator)
- Manual Control and Override
- Sign and Count System
- DP7001 M Pay Station Operations/Reports

### Maintenance Training Program

- Primary System components
- Replenish all system supply
- Clear ticket and paper jams
- Remove and replace gate arms
- DP5900D Entry Station general maintenance
- DP5800 Exit Station general maintenance
- DP7001 Series Pay Station general maintenance
- Cleaning magnetic heads on all equipment
- Cleaning and replacement of bill acceptor and dispensers on DP7001 Pay Station

## **Section 9**

# **Service Respond Time and Warranty**

### *Service and Respond*

DataPark, Inc. shall make proper response to a request for emergency service within two (2) hours of the placement of a call for service every day of the week. Such service shall be performed Mondays thru Fridays, 8:00 A.M. to 4:00 P.M. All service calls made after normal business hours, Saturday and Sundays, DataPark shall make proper response to the request for emergency services within two (2) hours of the placement of a call for service. Data Park, Inc. shall not be responsible for delays caused by acts of God, labor disputes not involving DataPark employees, failure of transportation, civil unrest or causes beyond its control. This agreement for service calls shall not include labor, service or repair made necessary by misuse, abuse, neglect, theft, riot, vandalism, electrical power failure, fire, water or other casualties; or repairs made necessary as a result of service being performed by personnel other than those of DataPark, Inc. or the parking lot operator. In such instances separate charges shall be made for parts and labor that are both fair and just.

Maintenance support may be accessed 24 hours through our service number. In addition, all service and technical calls may be placed directly to our local staff numbers.

### *Equipment Warranty*

DataPark warrants this product to be free from defects in materials and workmanship for a period of one (1) year parts and labor following the date of shipment. Recommended installation and maintenance procedures must also be followed. DataPark, Inc. agrees to repair or replace any defective product for one year from date of installation. Evidence of vandalism, unauthorized modifications, and connections to improper power source will void this warranty. This warranty extends only to the original purchaser, and does not cover repair labor, or replacement of parts that are by nature expendable.

In case of failure due to defective material or workmanship during the warranty period, the complete DataPark product will be repaired or replaced at the manufacturer's discretion, at no charge shipped to DataPark, Inc., 1635 Neptune Drive, San Leandro, California, 94577. Replacement parts are warranted for the remaining portion of the original warranty period.

DataPark Inc.'s obligation under this warranty is limited to servicing and replacing defective parts. DataPark, Inc. shall in no circumstances be liable for any direct or consequential loss or damage of any nature resulting from the malfunction of the product.

### *Work Warranty*

DataPark, Inc. shall guarantee a standard warranty that the work which Inter Technomics, Inc. completes at the Property will be done in accordance with the Agreement and that the Work as installed will fulfill the requirements of the specifications. Datapark, Inc. agrees to repair or replace any or all of its work together with any other adjacent work which may be displaced or damaged by so doing, that may prove to be defective in its workmanship or material within a period of one (1) year from the date of acceptance of the Work by the Owner without any expense whatsoever to the Owner, ordinary wear and tear and unusual abuse or neglect expected.

## *Maintenance*

### Software Support and Maintenance

Software/PC support and maintenance will include the following:

- All changes to rate tables
- All changes to Validations
- In the event that DATAPARK is called to respond to a problem that it is outside the scope of the Software Support Contract, DATAPARK reserve the right to bill the **Client** for all site time at prevailing rates.

### Hardware Support and Maintenance

Hardware support and maintenance will include all hardware/equipment as well as gate/barrier mechanisms and proximity readers and interface devices of any type. Hardware support and maintenance details are as follows:

- Preventative maintenance visits to be in accordance with manufacturer's specifications but no less than one (1) preventive maintenance visits per site, per month.
- Reactive callouts are covered by this service contract in accordance with the following schedule: Monday through Friday, 08.00am to 05.00pm
- All parts/components will be covered except what is specifically excluded below

### Items / Services NOT covered

DATAPARK items **NOT** covered:

- Peripheral Control software upgrades
- Software or EPROM's required to introduce new bank notes or coins
- Credit card acceptance problems relating or data recovery resulting from clearinghouse and/or credit card circuit issues.
- Concrete bases and islands and any protection posts
- Asphalt laneways
- Barrier Gate arm replacement if due to vandalism or theft
- Proximity, AVI, magnetic stripe cards or transponders

### Services and parts NOT covered:

This contract **shall not cover** any and all labor and / or materials required to service, repair and / or replace software or hardware as a direct result of vandalism, misuse, gross negligence and / or acts of God.

## Section 10

# DataPark PARC System Report Package

## DP 5900 Entry Station



AMOUNT:\$120.30  
CHARGE:\$12.50

TIME: 33HRS 30M  
CHARGE:\$10.20

CARD VALUE LOW  
PAY CASHIER

TOTAL USAGE 62  
09/21/94 18:24

PASSBACK ERROR  
CARD: 12000



TIME: 13:59  
LOW TICKETS

TIME: 13:59  
OUT OF SERVICE

TIME: 13:59  
NO CAR PRESENCE

CONTRACT PAYMENTS  
ARE DUE TODAY

**DP5900 Entry Station is designed for multiple use at unattended entrances of a parking facility with optimum performance. All types of ticket technology usage can be processed through the DataPark DP5900.**



## DP5900 ENTRY STATION - CC/I/BAR/RP/SI/SO/D/DC/PRS/PRM/X/220V

### SPECIFICATIONS

- ETL Listing
- Housing & Finish:  
Aluminum construction  
Standard White finish
- Electrical: 115/230 V 50/60 Hz
- Mechanical:  
9 pin dot matrix printer, cartridge ribbon,  
self-sharpening cutter,

Bi-directional automatic transport.

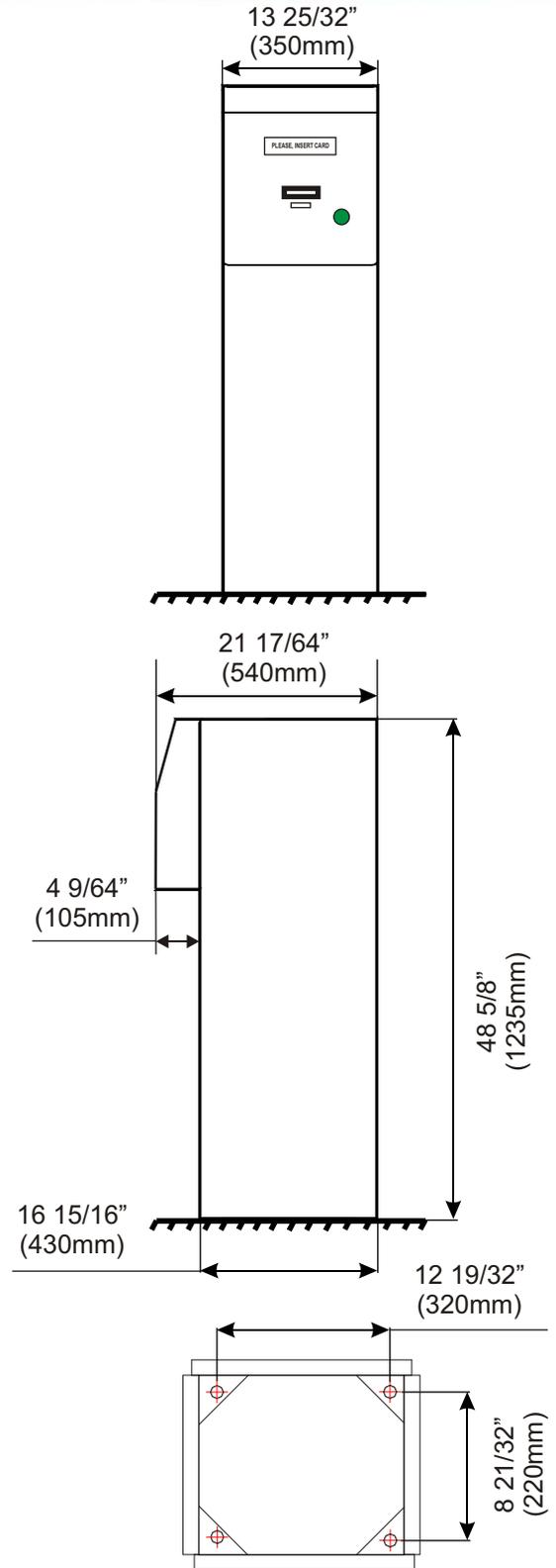
- Dimensions:  
13 25/32" (350 mm) W  
48 5/8" (1235 mm) H  
16 15/16" (430 mm) D
- Environment:  
-4F (-20°C) to 131F (55°C)

### FEATURES

- Online System RS232, RS485 communication
- Complete Stand-alone
- Programmable graphic LCD display
- Tickets printed with 5 digit consecutive number, lane, rate, year, month, date, military hours and minutes
- Voiding of tickets
- Push button or Automatic Issuing of tickets
- Lot Full control
- Monthly cards
- Features soft/hard/no passback
- 256 Access Levels
- 64 Time Zones
- Bi-directional transport mechanism  
With ticket retractor
- Bi-directional loop logic
- Ticket collection box
- Pre-payment mode for Events and Conventions
- Programmable Rates

### OPTIONS

- CC - Credit Cards
- I - Intercom
- BARMH - Barcode for Maghead
- BAROEM - OEM Barcode scanner
- RP - Additional Thermo Receipt Printer
- SI - Inside MATRIX SIGN
- SO - Outside LED SIGN
- D - Dual Ticket feed
- DC - Debit Cards
- PRS - Prox Reader Standart
- PRM - Prox Reader Max.
- X - Housing Color
- MI - Multiple ticket issue
- BI - Barcode ticket issue
- 220V - 120V
- Programmable voice announcement with intercom
- Reading specific tickets/cards of different formats
- Multi-language programmable messages
- Valet Parking/Operator interface/Badge reader
- Hotel room key card interface
- Two-way magnetic stripe ticket and card reading
- Hand Held Programmer



### DataPark, Inc.

1631 Neptune Drive San Leandro, CA 94577  
Tel: (510) 483-PARK Fax: (510) 352-5305  
E-mail: datapark@dataparkgroup.com

### East Coast Office:

Tel: (301)390-9492 Fax: (301) 390-5649  
E-mail: eastoffice@dataparkgroup.com

### DISTRIBUTOR:

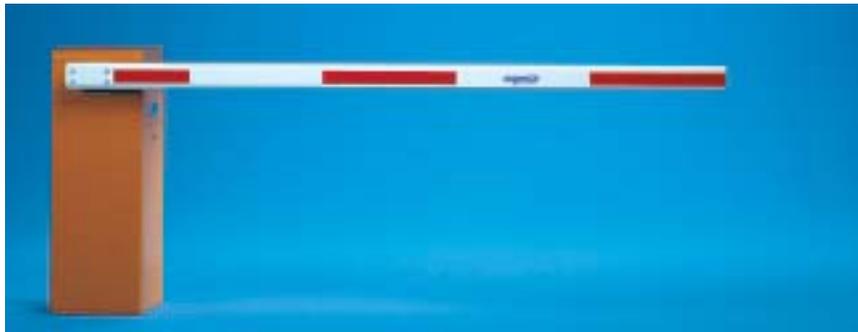


### Pacific Rim Office:

Tel: (03) 9-348-0688 Fax: (03) 9-348-0923  
E-mail: australia@dataparkgroup.com

### Europe Office:

Tel: (359) 82-821-505 Fax: (359) 82-821-504  
E-mail: dsh@dataparkinc.com



## Barriers MAGSTOP (Car park barriers)

MIB 30 / MIB 40

Technical data:	Unit	MIB 30	MIB 40
Maximum boom length	feet	12 $\bar{0}$	20 $\bar{0}$
Opening and closing time	s	1.4	4.0
Voltage	V	115	115
Frequency	Hz	60	60
Power consumption	W	120	120
Housing: width	inches	13 $\frac{3}{4}$ $\bar{0}$	13 $\frac{3}{4}$ $\bar{0}$
Depth	inches	13 $\frac{3}{4}$ $\bar{0}$	13 $\frac{3}{4}$ $\bar{0}$
Height	inches	42 $\bar{0}$	42 $\bar{0}$
Weight not including barrier boom	Lbs	110	110

### Technical Description

The combination of our proven and reliable electric motor with a lever system represents a simple and extremely reliable drive solution. It permits short opening and closing times without the barrier boom bouncing in the end positions. The lever system locks the barrier boom at both end positions. In the event of a power failure, it can still be moved easily by hand.

The complete drive system is attached to the barrier housing as a single unit, and can easily be removed from the housing by removing the mounting screws.

A built in spring mechanism provides a precise counterbalance for the barrier boom. The springs are factory set to correspond with the boom length prior to delivery. If necessary, the springs can be easily reset in situ during assembly, for example if the barrier boom is shortened or if signs are attached to the boom.

It is also a simple matter to change the handing on-site from right-axial to left-axial.

### The Drive Unit

The barrier is driven by a torque motor mounted on a central cast aluminium support. This support also contains the bearings for the drive shaft, the gear box and the mounting for the counterbalance springs.

The torque motor is designed for alternating current. It requires neither limit switches nor a friction clutch. It is maintenance-free and can be stalled in any position without the risk

of damage. In the end positions the motor remains under power assisting the mechanical locking of the barrier boom via the lever system. This reduces the power consumption to a minimum. This power is dissipated in the form of heat, which prevents the occurrence of condensation and corrosion. This guarantees reliable and problem-free operation, especially in cold climatic conditions.

The built-in position sensor provides precise barrier boom status information to the associated controller. The self-learning control unit guarantees optimum braking, without the barrier boom bouncing or swinging out of the end position. The barrier is factory wired, tested, ready to connect and supplied with all necessary mounting accessories.

### The Housing

The housing is manufactured from 14 gauge zinc plated sheet steel on to a base frame of stainless steel, then phosphate and powder coat finished for maximum protection against corrosion.

Control units are mounted onto a removable zinc plated sheet steel panel. All of the components within the barrier housing are readily accessible through the maintenance door and removable top cover. The housing is supplied in an RAL 2000 orange colour finish as standard. Other colours are available on request, at extra cost.

### Available Versions

Barriers may be supplied with the barrier boom fitted to either the right or left hand side. In its standard configuration the maintenance access door is positioned at the rear, although on request it can be any one of the other sides.

### The Barrier Boom

The barrier boom is extruded from highly stable aluminium alloy to produce an octagonal profile of 40x2  $\frac{1}{8}$ 0x  $\frac{1}{16}$ 0 and finished with an RAL 9010 white powder coat then applied with bright red reflective tape strips. If the barrier boom is to be any longer than 12 $\bar{0}$  it is necessary to fit either a pendulum support or fixed support post.

If the available vertical height is restricted, the barrier can, at extra cost, be supplied with an articulated boom. In order to calculate the dimensions of the articulated boom, the barrier length (D=) and height (H=) must be supplied.

### The Control Unit

The MLC controller was especially developed by Magnetic. Using microprocessor technology to ensure a flexible, modern approach to the control techniques, it possesses all appropriate expansion options including an I/O box and serial communications interface. The MLC and ancillary control units are fitted on to the fold out mounting plate.

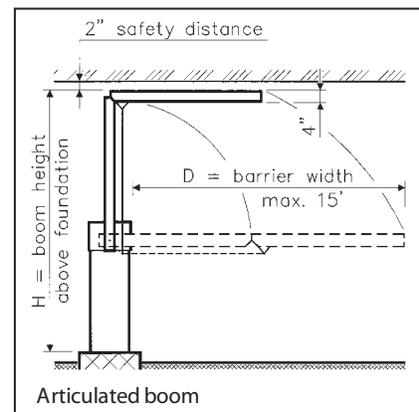
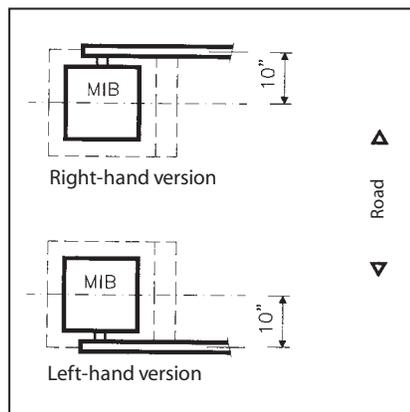
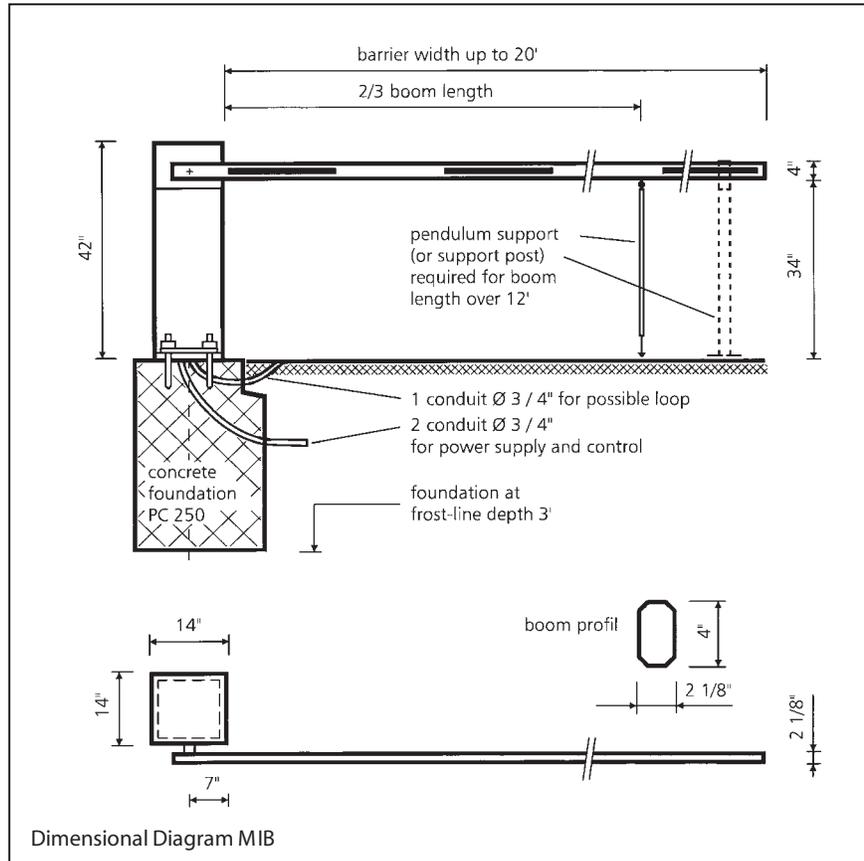
### Safety

The following safety instructions and country-specific accident prevention regulations are to be observed for installing and operating Magnetic barriers:

1. The concrete foundation must be produced by the customer in accordance with Magnetic Foundation Info MF 5115.
2. The minimum required distance between the end of the barrier boom and the nearest building is 20'.  
 $20'$
3. The customer must fit all permanent barrier installations with an all-pole main switch which can be locked up.
4. The closing and opening actions must be observed. The mounting of operating elements outside the field of view is not permissible; there must be a line of visibility between the barrier and the control system.
5. It is forbidden for persons or goods to be anywhere within the swing zone of the barrier boom while it is in operation.
6. If the barrier boom is any longer than 3.5 m, a pendulum support or a support post must be mounted.
7. The barrier boom fixture can withstand winds of up to a maximum of force 10 on the Beaufort scale (= 10.44 Lb/Sqft; 500 N/m<sup>2</sup>).

### The Electrical Connection

Electrical connections are carried out in accordance with factory circuit diagrams. Our control units may necessitate the application of special connection diagrams for certain configurations. This can be supplied by us on request.



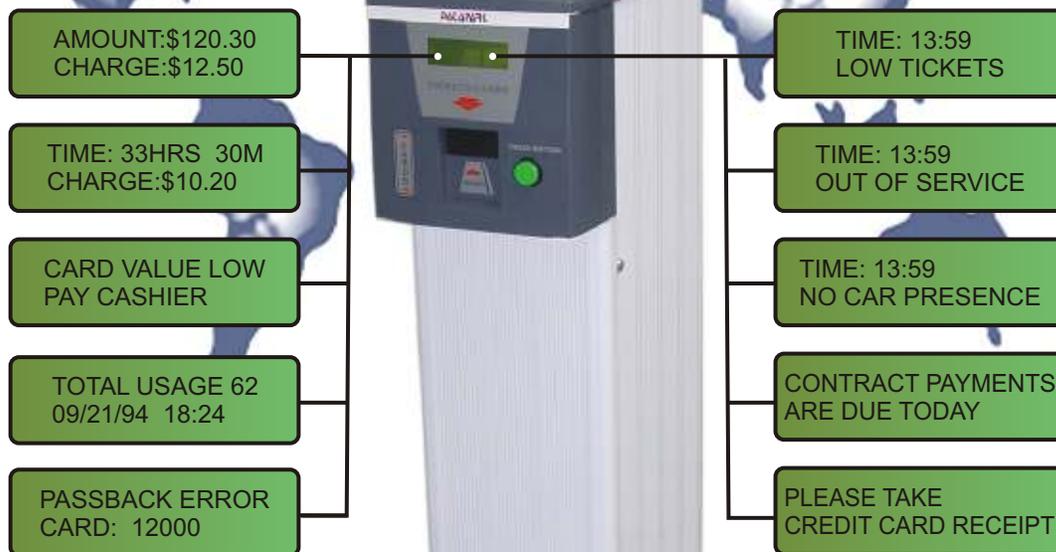
## DP 6001 Cashier Station



**The sophisticated DP6001 Cashier Station provides reliable revenue control. It processes transient, monthly and debit cards. Accepts payment by cash, debit and CREDIT cards. Special monthly feature updates the management database.**



## DP 5800 Exit Station



**DataPark Exit Station DP5800 is designed for multiple use in unattended exit of a parking facility. Magnetic stripped technology allows either transient, valet, hotel or monthly cards to be processed through the DP5800.**



## DP5800 EXIT STATION - CC/I/BAR/RP/SI/SO/D/DC/PRS/PRM/X/220V

### SPECIFICATIONS

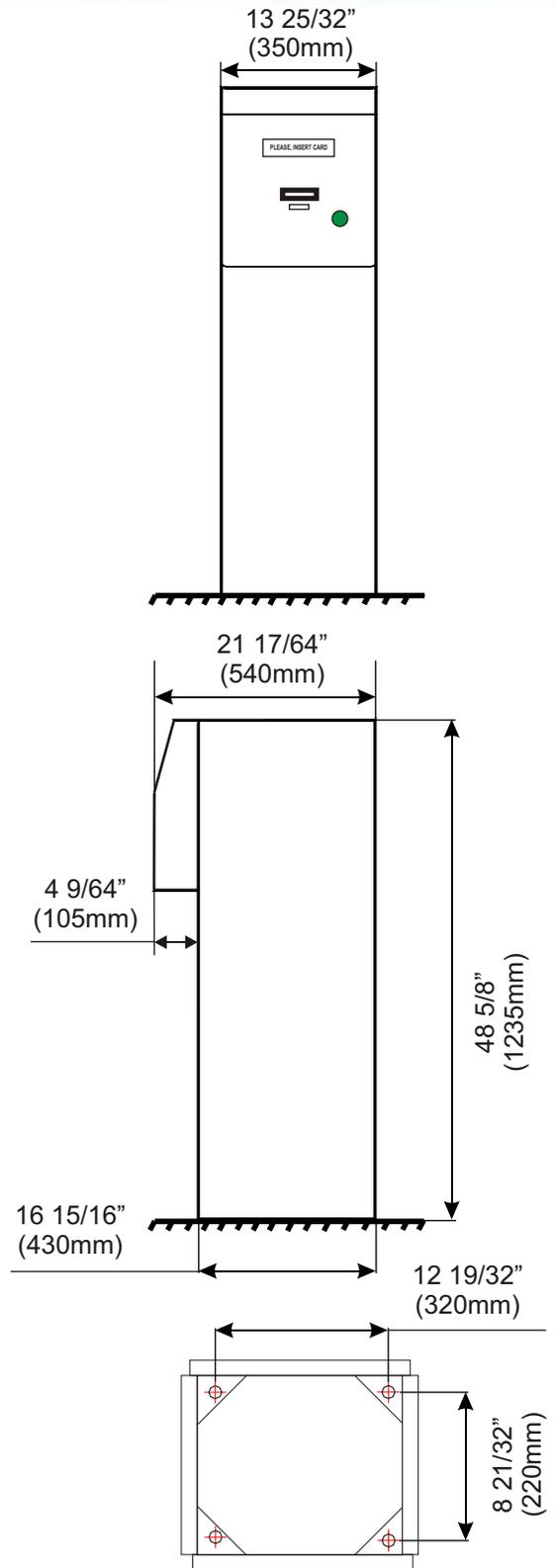
- ETL Listing
- Housing & Finish:  
Aluminum construction  
Standard White
- Electrical: 115/230 V 50/60 Hz
- Dimensions:  
13 25/32" (350 mm) W  
48 5/8" (1235 mm) H  
16 15/16" (430 mm) D
- Mechanical:  
9 pin dot matrix printer  
cartridge ribbon  
self-sharpening cutter  
Bi-directional  
automatic transport
- Environment:  
-4F (-20°C) to 131F (55°C)

### FEATURES

- Online System RS232, RS485 communication
- Complete Stand-alone
- Programmable graphic LCD display
- Voiding of tickets
- Monthly cards
- Features soft/hard/no passback
- 256 Access Levels
- 64 Relay Time Zones
- Backup battery
- Bi-directional transport mechanism with ticket retractor
- Bi-directional loop logic
- Two-way magnetic stripe ticket A card reading
- Ticket collection box
- Pre-payment mode for Events and Conventions
- Programmable Rates

### OPTIONS

- CC - Credit Cards (ticket sized receipts)
- I - Intercom
- BARMH - Barcode for Maghead
- BAROEM - OEM Barcode scanner
- RP - Additional Thermo Receipt Printer
- SI - Inside MATRIX SIGN
- SO - Outside LED SIGN
- D - Dual Tickets
- DC - Debit Cards
- PRS - Prox Reader Standard
- PRM - Prox Reader Max.
- X - Housing Color
- 220V - 120V
- Credit Cards
- Programmable voice announcement with intercom
- Reading specific tickets/cards of different formats
- Multi language programmable messages
- Valet Parking/Operator interface/Badge reader
- Special validation system for Theater, Restaurant and Hotel parking
- Four-way reading
- Hotel room key card interface
- Four-Way reading for magstripe ticket/cards



Edition .04.2009

### DataPark, Inc.

1631 Neptune Drive San Leandro, CA 94577  
Tel: (510) 483-PARK Fax: (510) 352-5305  
E-mail: [datapark@dataparkgroup.com](mailto:datapark@dataparkgroup.com)

### East Coast Office:

Tel: (301)390-9492 Fax: (301) 390-5649  
E-mail: [eastoffice@dataparkgroup.com](mailto:eastoffice@dataparkgroup.com)



[www.dataparkinc.com](http://www.dataparkinc.com)

### Pacific Rim Office:

Tel: (03) 9-348-0688 Fax: (03) 9-348-0923  
E-mail: [australia@dataparkgroup.com](mailto:australia@dataparkgroup.com)

### Europe Office:

Tel: (359) 82-821-505 Fax: (359) 82-821-504  
E-mail: [dsh@dataparkinc.com](mailto:dsh@dataparkinc.com)

### DISTRIBUTOR:

## DP 7001M Mini Pay Station



The sophisticated DP7001M Mini Pay Station provides reliable revenue control. Processes all monthly cards, transient tickets and re-charges Debit cards. Accepts payment by Notes, Coins, Debit and CREDIT card. Issues change in Coins. The DP7001M can be used as a ticket issue machine, pre - pay entry machine, central pay machine and pay-at-exit machine.

## SPECIFICATIONS

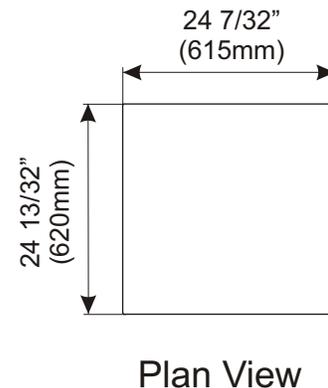
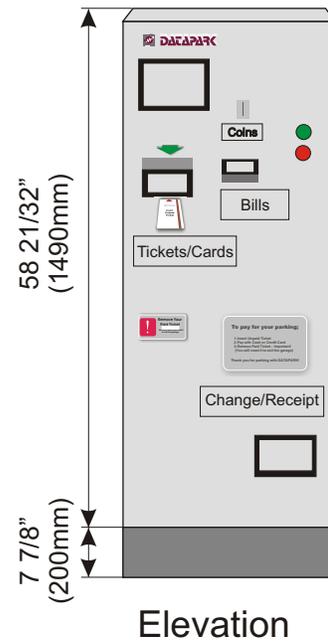
- **Housing:**  
Aluminum construction  
Standard White finish
- **Electrical:**  
115/230 V 50/60 Hz
- **Environment:**  
-4F (-20°C) to 131F (55°C)

## FEATURES

- On-line System RS232, RS485
- Pedestrian or In-Lane operation
- Pay and display, pay on exit, entry or central pay operation
- Accepts Discount/Store Validations
- Management and revenue reports
- Programmable Messages
- Selectable fee button
- Grace period
- Day/Evening/Night/Early Bird rates
- Rate switchable on daily or hourly basis
- Daily maximum (card, absolute time)
- Weekly maximum
- Discount by time, amount and %
- No sale key
- Sales tax computation
- Accepts up to seven denominations of notes
- Accepts up to six denominations of coins
- Recycles and issues for change up to three denominations of coins
- 6.4" LCD Display
- Receipt Printer
- Voice Announcement to assist operation
- Programmable rates

## OPTIONS

- Recharges Value Debit cards (Collect parking fees in advance)
- Accepts payment of monthly accounts
- Management Reports on a Centralized Online Host Computer
- Keypad for Pay by Space
- Additional one non-recycle hopper
- PRS - Prox reader standart
- FP - Front pannel overlay
- DC - Debit cards
- CC - Credit cards
- CH4 - Additional coin hopper
- BARMH - Barcode reader for maghead
- BAROEM - OEM Barcode scanner
- Pay and Display
- Pay by Space
- LT - Lost ticket
- PP - Prepay
- I - Intercom
- BD - Bill Dispenser
- CA - Coin Acceptor
- CH - Coin Hopper



## DataPark, Inc.

1631 Neptune Drive San Leandro, CA 94577  
Tel: (510) 483-PARK Fax: (510) 352-5305  
E-mail: [datapark@dataparkgroup.com](mailto:datapark@dataparkgroup.com)

## East Coast Office:

Tel: (301)390-9492 Fax: (301) 390-5649  
E-mail: [eastoffice@dataparkgroup.com](mailto:eastoffice@dataparkgroup.com)



[www.dataparkinc.com](http://www.dataparkinc.com)

## Pacific Rim Office:

Tel: (03) 9-348-0688 Fax: (03) 9-348-0923  
E-mail: [australia@dataparkgroup.com](mailto:australia@dataparkgroup.com)

## Europe Office:

Tel: (359) 82-821-505 Fax: (359) 82-821-504  
E-mail: [dsh@dataparkinc.com](mailto:dsh@dataparkinc.com)

## DISTRIBUTOR:





## Features

- Magstripe ticket dispensing, exit verifying
- Cashless payment processing
- Online or offline operation
- Proven lane logic for superior revenue control
- Backlit LCD display
- Service-friendly internal layout
- Proven components for reliability

## Versatility for parking

In the lane or in the lobby, the Universal One is a patron service-friendly kiosk that delivers efficient performance in a wide range of parking applications.

## Ticket dispenser or exit verifier

The Universal One can be configured to dispense or verify magstripe tickets in entry or exit lanes. The kiosk is optimized for a wide range of vehicle heights, while the easy-to-read display and membrane pushbutton ensure quick, easy and reliable transient processing. Automated ticketing (when a vehicle is present) remains a configuration option, eliminating the need for the patron to "Press for Ticket".

The thermal printer – which is built into the transport – can be configured to print promotional messages and/or redundant time and date, while the magnetic head reads and writes the magstripe. And the Universal One offers the tightest lane logic on the market, reducing the potential for ticket or tailgating fraud and maintaining the highest integrity in the revenue stream.

In addition, the kiosk can be configured to support peripheral access control readers – whether mounted near the ticket throat or on a separate stand – for monthly patrons.

## Cashless payment kiosk

The Universal One can also be configured as a credit card-only pay station. It offers comfortable ergonomics for patrons using the kiosk whether on foot or in a vehicle. And, in addition to traditional payment applications, the configuration options allow it to function in Credit In, Credit Out (CICO) or Pre-Pay modes.

With this flexibility, the Universal One can provide efficient cashless payment processing in the entry lane, the exit lane or the lobby.

# Universal One

## Reduced cost of ownership

In any role, the Universal One minimizes the maintenance effort required to keep your system running reliably.

Its burster design reduces the time between maintenance visits by pulling from two ticket stacks (a configurable option), which allows it to process up to 10,000 tickets between refills. The burster also creates less dust when compared with cutting designs, reducing one of the key problems in transport maintenance.

When maintenance is required, the Universal One is designed with a side door to keep technicians out of the lane, clear sight lines to all indicators, easy access to commonly-handled components and internal lighting to assist technicians in poorly-lit areas.

And if the Universal One is damaged, it is designed to allow replacement of key components or external cladding without scrapping the entire device.

## The best of both worlds

The Universal One can be configured and its reports can be pulled from ScanNet™ facility management software. But if the communications network is unavailable, all functionality and configuration can be managed internally, keeping your system (and revenues) flowing.



**FEDERAL APD**

A Federal Signal Company

*Freedom for Control*

# Universal One

## Specifications

### Intelligence

- Configurable remotely over network from ScanNet™
- Configurable locally from PowerPad4 terminal
- Configuration options:
  - Patron display messages
  - Programmable outputs
  - Reports
  - Receipts
- Networkable via (optional configurations):
  - RS-485 serial loop
  - Ethernet
- Fully functional when online or offline
  - Buffers up to 1900 credit card and 7700 cash transactions

### Patron Interaction

- Bright backlit LCD display directs patron through transaction workflow
- Lit Press for Ticket button uses membrane contract for long life
- Accepts (optional configurations):
  - Magstripe tickets, vouchers, validations via transport
  - Patron ID via prox reader
  - Credit cards via insertion reader
- Thermal printer provides patron receipt upon request
- ADA compliant

### Electrical

- 90-130VAC or 180-240VAC external power
  - Maximum draw – fully configured – 90-130VAC: 8A
  - Maximum draw – fully configured – 180-240VAC: 4A
- 24VDC internal circuit for low voltage components
- Segregated AC circuit for optional UPS unit

### Mechanical

- 58" H x 14" W x 20" D (147cm H x 36cm W x 51cm D)
- Weight – fully configured: 178lbs (81kg)
- Heavy gauge steel frame construction, e-coated for rust prevention
- Aluminum cladding construction

### Environmental

- Operating temperature: -30° to 45° C (-22° to 113° F)
- Insulated, heated and vented to maintain internal temperature and humidity ranges
- NEMA 3R cabinet



**Freedom for Control**

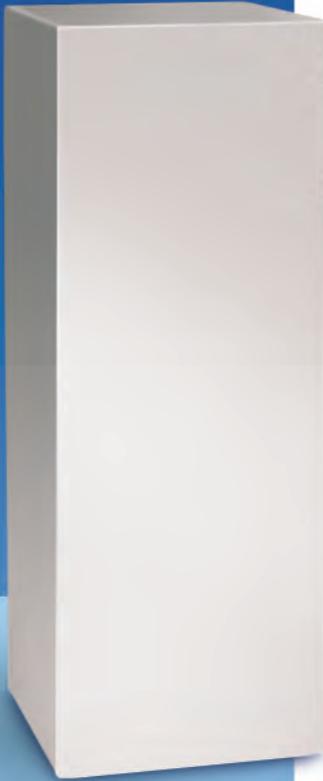
For more information  
federalapd.com  
800.521.9330



Distributed by:

# Parking Barrier Gate

## G-90 CD Series



### Design and Function

The G-90 CD Series barrier gate provides microcomputer intelligence, multiple programming options and on-board controls for total lane management.

### Protect Your Investment

The G-90 CD Series continues the tradition of high quality barriers that you depend on from Federal APD. The gate is extremely durable in the harshest environments. Its heavy-gauge aluminum cabinet is armored with a weather-resistant finish to keep your installation looking clean and new for years of rust-free service.

### Omega LCD Controller™

The heart of this gate is the Omega LCD Controller™. This fully integrated controller provides a systems approach for convenient, accurate and cost-effective lane management.

### Lane Configuration

The G-90 CD Series can handle any type of lane configuration possible – including reversing lanes and lanes with three vehicle detectors – with software options embedded into the unit's Configuration Module. This factory programmed microcontroller plugs into the power board and defines the software options used in the gate.

### Counts You Can Count On

The G-90 CD Series allows you to design an on-board information center with counting functions integrated into a single self-contained device. The controller's software logic integrates optional counting functions such as resettable and nonresettable totalizing counts, single and dual differential counts, hourly counts and a host of statistical counts. These counts can be viewed on the controller's visual display and are accessed by the menu-driven keypad.

### Vehicle Detectors

Three integrated and automatically self-tuning vehicle detectors are available. These high-speed detectors provide a sensitive tailgating recognition system that is capable of recognizing two separate vehicles traveling over a detector loop simultaneously. Diagnostic and metering tools are also built into the controller.

### Sensitive Reversing Logic™

An advanced, maintenance-free safety and monitoring system is designed into every gate: Sensitive Reversing Logic™ (SRL). This system provides safer gate operations by instantly sensing gate arm obstructions, limit switch failures, and gate arm position – without the use of electromechanical systems. The SRL sensing system also features self-tuning capabilities.

### Features

- Advanced Omega LCD Controller™ with visual display
- Power Supply Board provides multiple input/output terminals
- Total lane management with
  - Two built-in vehicle detectors
  - Sensitive Reversing Logic
  - Built-in diagnostics
  - Event history report
  - Back-out timer
  - 7 day memory & data storage

### Options

- Third integrated vehicle detector
- Totalizing & differential counts
- Automatic time zone controls
- Hourly statistical reports
- Directional logic
- Communications interface to ScanNet™ Central Management System



Omega LCD Controller™

**FEDERAL APD**  
A Federal Signal Company

*Freedom for Control*



# Parking Barrier Gate

## Specifications

### Features

Omega LCD Controller™ provides all logic control and monitoring functions

- 11 digital inputs
- 14 outputs, 1A at 24VDC/VAC
- 16 character LCD display and a keypad to perform programming, send commands and monitor lane operations
- Two integrated, self-tuning loop detectors, third optional
- Logic for one-way lanes, two-way lanes, operations with automatic ticket dispensers, push-button ticket dispensers, card locks and token units. Is easily field programmable through the use of DIP switches or keypad buttons  
Maximum counting accuracy
- Stores successive vend inputs of any type and sequentially processes each vend
- LED indicator lights provide operational status of detectors and controller
- Configuration Module (a 20-pin, 8-bit, fully static, EPROM/ROM based micro-controller) defines available software options
- Diagnostic mode facilitates on-site testing of loop detectors, LCD keypad buttons, LCD display, internal clock, Configuration module, 115V power supply line voltage, Omega LCD communication ports, and I/O
- Sensitive Reversing Logic™ (SRL) ensures gate arm automatically rises upon contact with any object during descent
- "AUTO-MANUAL" switch provided to test motor and limit switches or to raise arm manually
- UL Listed (Canada/U.S.)

### Electrical

- Input: 115VAC, 15A standard, 220V optional
- One (1) high voltage plug-in relay with two form C contacts, second relay optional
- 115VAC convenience outlet provided
- Built-in thermal overload switch protection

### Mechanical

- Cabinet constructed of heavy-gauge aluminum, finished in a weather-resistant powder coat
- All reducers and motors mounted on a single 1/4" (6.25 mm) uni-bracket weldment for maximum strength in high load applications
- Gasketed door has flush-mounted, Thandle lock
- 1/3 HP, heavy duty, high output torque, 115VAC, single phase, instant-reversing motor.
- Cams allow adjustment of gate arm travel, no mechanical stops or braking devices required
- 15" W x 40" H x 15" D (381mm W x 1016mm H x 381mm D) with a flange arm height of 35.5" (902mm)



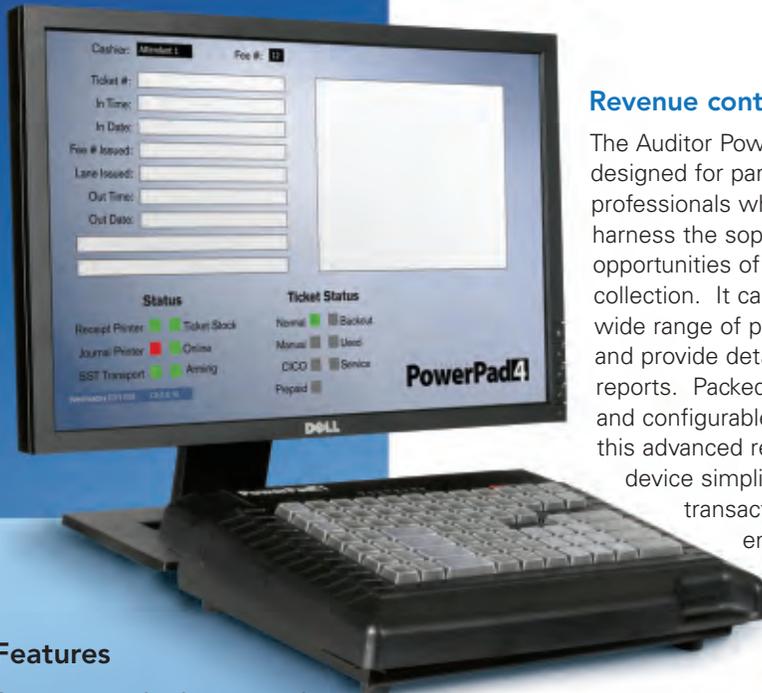
**Freedom for Control**

For more information  
federalapd.com  
800.521.9330



Distributed by:

# Auditor PowerPad4



## Features

- Payment methods accepted:  
Cash  
Check  
Credit/debit card  
ValueCard™
- Cashier-friendly ergonomics and user interface
- Automatic or manual (key-in) fee calculations
- Configurable via ScanNet™ or from PowerPad4 keypad
- Up to 12 fee tables
- Up to 500 attendants
- Up to 1820 merchant accounts
- Comprehensive cash audits and shift reports
- Deposit and withdrawal tracking
- Statistical reports
- Online or offline operation (buffers up to 1900 credit card or 7700 cash transactions)

## Revenue control solutions

The Auditor PowerPad4 is designed for parking professionals who need to harness the sophisticated opportunities of revenue collection. It can process a wide range of payment options and provide detailed activity reports. Packed with features and configurable functionality, this advanced revenue control device simplifies

transactions and limits employee discretion as configured by facility management.

The PowerPad4 speeds up the patron's egress, eases the cashier's workload, provides better marketing opportunities to area merchants, answers the needs of the parking manager, and increases the revenues and profits of the parking operation.

## Optimal efficiency

The streamlined design of the PowerPad4 offers a cashier-friendly interface and a high speed printer for validating tickets, and printing receipts and journal tapes. The tactile touch keypad includes 84 customer-defined keys, allowing facility managers the ability to custom tailor the PowerPad4 to their needs.

## The right choice

The PowerPad4 is an integral part of your parking control system. Several versions are available to fit your parking operation:

- Standard – for cashing of manual tickets (time/date stamped)
- Magstripe – for cashing of read/write magstripe tickets
- Barcode – for cashing of pre-printed barcode tickets
- POD Barcode - for cashing of barcode tickets printed at a POD Ticket Dispenser

## Reports keep you in control

The Powerpad4 tracks lane activity and transactions. From this data it can produce an extensive array of reports for detailed analysis of your complete parking operation.

## People + automation

The PowerPad4 automates many of the cashier operations. Multiple fee schedules, account validations, currency exchange calculations, taxes, activity reporting, auditing, facility counts and many more aspects of your business are handled quickly and accurately. These features speed up patron processing and allow your employees more time to attend to the service aspects of your business.

## Options

- Peripherals (cash drawers, fee display, multi-station printer)
- Magstripe validator to read/write tickets and read credit cards
- Barcode scanner to read barcode tickets
- Ticket tracking system
- ValueCard™ system
- Validation/voucher system
- Fee display
- Credit card swipe reader



**Freedom for Control**

# Auditor PowerPad4

## Specifications

### Intelligence

- Configurable remotely over network from ScanNet™
- Configurable locally using keypad
- Configuration options:
  - Patron display messages
  - Currency handling
  - Reports
  - Validations
- Networkable via RS-422
- Fully functional when online or offline
  - Buffers up to 1900 credit card or 7700 cash transactions

### User Interaction

- Off-the-shelf display (VGA connection)
- Tactile, configurable keyboard
- LED diagnostic indicators for:
  - Tx/Rx Online (to ScanNet™)
  - Comm IRQ
  - Reset
  - Tx/Rx Printer
  - Power

### Electrical (external power supply)

- 90-130VAC or 180-240VAC external power
  - Typical draw – Standard configuration with 17" monitor: 1.5A
- 24VDC circuit for peripheral component power

### Mechanical

- 2.6" H x 12.5" W x 9.5" D (6.5cm H x 31.7cm W x 24.2cm D)
- Weight – keyboard only: 4 lbs (1.8kg)

### Peripherals supported

- FAPD Magstripe Validator
- Barcode scanner
- Two (2) cash drawers
- Multi-station printers
- Fee display
- Configurable I/O:
  - Three (3) RS-232 serial ports
  - Five (5) RS422/485 serial ports (optional)

### Environmental

- Operating temperature: 10° to 45°C (50° to 113°F)
- Storage temperature: -40° to 65°C (-40° to 149°F)
- Relative humidity: 80% at 30°C (86°F), non-condensing



**FEDERAL APD**

A Federal Signal Company

**Freedom for Control**

For more information  
federalapd.com  
800.521.9330



Distributed by:



# Element

## Enterprise Facility Management System

**Today, operational excellence starts with software.** Hardware is certainly vital to your parking enterprise. Yet it does not possess the power to drive your business toward top tier performance and lasting operational excellence. So what will be the most critical element for future success? We believe it's a smarter, more data-driven software platform.

**We put more into Element, so you can get more out of it.** Element's software platform coalesces years of acquired systems expertise gleaned from thousands of installed customer sites and exacting real-world environments into the very best in modern software architecture. At once, you'll see that your user experience is specifically designed to turn raw data into useful, accessible information. Plus, Element features an open, interoperable, and scalable platform. So you can easily use solutions from a variety of providers - and gain maximum flexibility in creating business rules that fit your operational design.

### Enjoy the flexibility to manage your current systems on your own terms.

Element is a bold step forward in operational management - but it's only our first step. As we build more software modules, hardware options and third party interfaces onto the platform, you can be sure they'll exhibit the same focused attention to delivering real world value that's elementally different.

#### Features

- Interoperable platform
- Scalable to any size operation
- Flexibility through open XML interface
- Secured interprocess communications
- Stable .NET environment
- Hosted services capability
- Accessible from anywhere, anytime, anyplace
- High reliability through configurable load distribution
- PA/DSS Certification
- MS SQL ODBC Database
- Backwards compatible to legacy lane equipment



## Cloud Technology

The Element platform and remote hosting capabilities support cloud computing, allowing you to access your data anywhere at any time and create a central point of control.

## Standardized Platform

Element uses the industry standard TCP/IP protocol for ALL inter-process communication.

## Open and Flexible Structure

Element will allow access and licensing to all service API's within Element to 3rd party developers. Customers and 3rd party developers will continue to expand Element through the development of applications.

## Scalable

The Element platform is fully scalable to the size of your operation by allowing you to deploy any combination of modules upon one to many servers. This means that critical services such as credit card may be hosted on a separate server, fully isolated from the main network.

## Modular Architecture

The Element platform's modular architecture facilitates integration, isolates services in a modular format and further simplifies development and upgrades. Because of its modular architecture, additional Element modules can be developed without modifying the foundation platform code. This feature promotes system stability and long term reliability.

## Interoperability

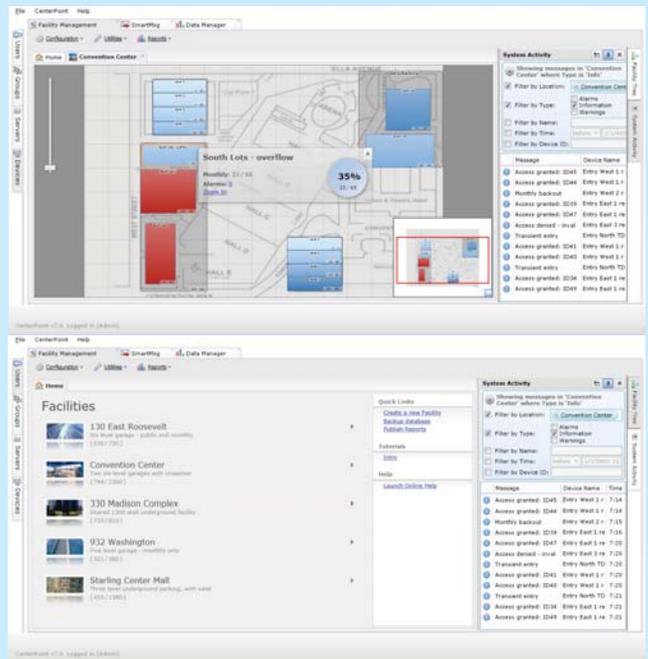
Interoperability promotes the capability for third party hardware (devices) to be recognized by the platform. Additional device modules may be developed and integrated with the platform, facilitating the platform's interoperable capability.

## Standard SQL Database

Element has a standard MS SQL Database Management System with ODBC accessibility. SQL gives you maximum options for open architecture (data sharing among multiple software systems) and scalability, unlike other open-architecture solutions.

## Single, Standard Interface

Element uses a standard XML module through which all exposed APIs may be accessed by third party applications. Everything that can be hooked into the platform can do so through the XML module. One place to interface, one standard way of doing it.



Get the free mobile app for your phone  
<http://gettag.mobi>

Use your mobile app to take a tour of Element.

[www.federalapd.com](http://www.federalapd.com)  
800.521.9330

Distributed by:



### Features

- Online Or Offline Operation
- Self-Replenishing Coin System

### Flexible Payment

- Coin or Paper Currency
- Debit Card
- Credit Card
- Merchant Validation
- Vouchers
- Value Cards
- Receipt Issued on Demand

### Options

- Journal Printer
- Intercom

# Pay-In-Lane

Models 9000S, 9000C, 9000P

### Pay-In-Lane

Federal APD's Pay-In-Lane device offers you a convenient way to operate your parking facility without an attendant. Each model is unmanned and provides Exit Cashiering or Pre-Pay entry. At exit, the Pay-In-Lane processes the fee automatically and displays it in the LCD window. Change is issued in coins and a receipt is either provided on demand or can be programmed to issue automatically.

### Exit Operations

**Model 9000S - Standard Unit.**  
This model is an unmanned Exit Cashiering device. User-friendly features prompt the patron to insert the parking ticket into the device. When the fee is displayed, the patron can choose the preferred method of payment. Standard payment features for the Model 9000S include paper currency, coins, vouchers, merchant validations, or debit ValueCards.

**Model 9000C - Credit Card Unit.**

This model includes all the Model 9000S payment options plus the ability to process credit cards.

### Entry Operations

**Model 9000P - Pre-Pay Unit.**

This model is used for point of entry operation. When a patron drives up to the Model 9000P, the required fee is displayed. The parking fee is a programmable flat rate. Payment can be made with paper currency, coins or credit card.



*Freedom for Control*

# Pay-in-Lane

## Specifications

### Features

- Automatically calculates and displays parking fees, accepts payment, issues change in coins or credit slips and provides a receipt automatically or on demand
- Standard components:
  - SST Ticket Validator (Model 9000S and 9000C)
  - Coin changer (accepts and dispenses coins)
  - Up to five auto-replenishing coin denomination dispenser tubes
  - Note acceptor and vault
  - Programming interface
  - Thermal receipt printer
  - Credit card insertion reader (on Model 9000C and 9000P)
- Optional components:
  - Journal printer
  - Intercom
- The standard coin cassette holds two dollar tubes, two-quarter tubes and a nickel tube. The capacity of each is as follows:

Coin	Max. fill by coin changer	Max. fill manually (Do not fill more than)
.05	77 coins (\$3.85)	87 coins (\$4.35)
.25	84 coins (\$21.00)	96 coins (\$24.00)
1.00	69 coins (\$69.00)	81 coins (\$81.00)

- Comprehensive financial and statistical reports are available at the device or from a PC running the Federal APD ScanNet<sup>™</sup> Central Management System
- Processes up to 14 different bank notes and up to 5 different coin denominations
- Operates offline or online with Federal APD's ScanNet<sup>™</sup> Central Management System

- LCD display guides patron through transaction
- Programming Interface for fee calculations, attendants, taxes, time and date

### Electrical

- Powered from 115VAC or 220VAC
- Output power available in 24VDC and 5VDC

### Mechanical

- Weatherproof steel cabinet mounted on a steel pedestal
- Powder coat finish
- Cabinet is 24.21" W x 24.21" H x 16.53" D (615mm W x 615mm H x 420mm D)
- Pedestal base is 10" W x 25.5" H x 10" D (647.7mm W x 790mm H x 254mm D)

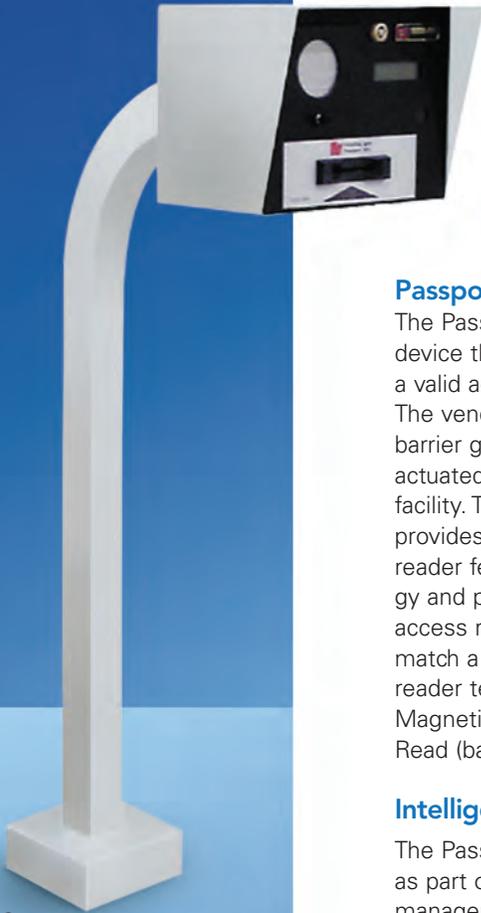


**Freedom for Control**

For more information  
federalapd.com  
800.521.9330



Distributed by:



## Features

- Operates with ScanNet™ host-based operation or offline for standalone operation
- Programming with a PDA (Personal Digital Assistant) via an infrared interface and Palm IR interface
- Capacity to store over 100,000 unique ID numbers
- Two programmable relay contact outputs for pulsed or latched activation.
- Four programmable 12VDC inputs for digital signals:
  - Inhibit, Monitor, Egress, & Link
- Message up to 16 characters long for display option
- Storage for all programming is retained in battery backed RAM. Information stored includes:
  - Valid/Void Status
  - 16 time zones, 16 groups
  - 16 holidays
  - Mode of operation of each input
  - Message text
- Supports Wiegand, Dyna, Radio AVI, Proximity, Barcode, Magnetic Stripe

## Passport 360 Reader

The Passport 360 is an access control device that provides a vend signal when a valid access credential is presented. The vend signal allows a door lock, barrier gate or other control device to be actuated, allowing patron access to the facility. The Passport 360 controller provides all the control you need. This reader features a wide range of technology and program flexibility to satisfy your access requirements. It allows you to match a variety of configurations and reader technologies, including Proximity, Magnetic Stripe, AVI, Barcode and Dyna Read (barium ferrite).

## Intelligent Reader

The Passport 360 Reader can be linked as part of a computerized, online facility management system, or used as a stand-alone offline device. This intelligent reader gives you the security you need with an advanced distribution processing architecture, ensuring continual and independent operations at all times. Decisions such as ID status, time zones, and issue levels are made at the reader and do not require external memory.

## Computer Control

This versatile reader system offers the advantage of centralized computer control. By using our ScanNet™ Central Management System you can create, store, send, and retrieve all programming from a central desktop computer. With simple keyboard commands you can track monthly patrons, and control access to certain areas, lots, and even entire buildings. You can send commands to generate a remote vend, set the antipassback mode, resync a single credential passback status, and

# Passport™ 360

automatically resync all credentials on a daily basis. Real-time activity reports can be printed from a central computer.

## Reader Programming

The Passport 360 Card Reader functions offline for standalone operation, or online with ScanNet™ host-based operation. Programming can be accomplished by using our ScanNet™ Central Management System or by using as PDA (Personal Digital Assistant). With the PDA you can load and store all programming information directly on the handheld, and transfer that information to other readers. Processing and storing programmed information can be done locally.

## Options

- Keypad
- LCD visual display
- Intercom



**FEDERAL APD**

A Federal Signal Company

*Freedom for Control*

# Passport™ 360

## Specifications

### Features:

- Functions offline for standalone operation, or online with ScanNet™ for host-based operation
- All programming can be accomplished using ScanNet™ over a network or locally via IR interface
  - The PDA allows the user to load and store all programming information with a simple command
  - The Passport 360 has the ability to process and hold all of its programming locally
- Provides over 100,000 unique ID numbers with the following capabilities:
  - Each ID number may be individually assigned to any one of 16 groups
  - Each of the 100,000 credentials may be reissued up to 16 times without changing the ID number or losing credential capacity
  - With the optional keypad, ID numbers 1 to 1,100 may correspond to access codes (pin numbers)
- Capable of storing up to 3,000 credential transaction and status messages
- Configuration:
  - ID numbers can be assigned to 1, 2, 4, 8, or 16 groups depending on the Group/Issue Level combination programmed
  - Issue levels and group combinations are selectable in the following combinations:
    - 16 Groups and 1 Issue Level
    - 8 Groups and 2 Issue Levels
    - 4 Groups and 4 Issue Levels
    - 2 Groups and 8 Issue Levels
    - 1 Group and 16 Issue Levels
- Up to six different facility codes
- Can assign Privilege status up to 16 credentials
  - Privilege IDs have the ability to override the Anti-Passback System
  - Privilege IDs have the ability to override inputs programmed for inhibit mode so that a credential holder with a privilege ID may vend a gate without a vehicle presence
- Up to 16 time zones
- Up to 16 holidays
- Offline security checks (without the assistance of a host computer or central processor):
  - Alien Credential Check
  - Valid ID Number
  - Valid Group Number
  - Valid Issue Number
  - Valid Time Zone
  - Timed Passback Status
  - Valid Facility Code
- Four inputs:
  - Egress
  - Monitor
  - Link
  - Inhibit
- Automate baud rate detection
- Wiegand interface for AVI, Proximity, Magnetic Stripe, Barcode, and Federal APD Dyna (Wiegand)
- Optional 2 line, 16-position alphanumeric LCD display
- Magnetic Stripe read head: 6 1/4" W x 1 3/4" H x 1 1/2" D (159mm W x 45mm H x 38mm D)
- Proximity read head: 5 1/2" W x 1 11/16" H x 3/4" D (5mm W x 61mm H x 20mm D)
- Barcode Read Head: 4 7/8" W x 1 3/8" H x 1 1/4" D (124mm W x 61mm H x 32mm D)
- Controller: 8 11/16" W x 5 1/2" H x 1 1/2" D (220mm W x 140mm H x 40mm D)
- Power Supply: 2 7/8" W x 4 5/8" H x 1 1/4" D (64mm W x 112mm H x 30mm D)
- Metal Enclosure: 10" W x 7 7/8" H x 8 1/2" D (254mm W x 199mm H x 216mm D)
- Gooseneck Stand: 2" square (50.8 mm) tubing, 35" H (889mm). When mounted on a 6" (152.4mm) curb, center of enclosure mounting plate is 41" (1041mm) H from pavement

### Electrical:

- Dyna Read Head: 0.5A at 5VDC inputs
- Magnetic Stripe Read Head: 35mA at +5 volts
- Proximity Read Head: +12VDC nominal ( max of 1A)
- Controller: 0.2 Ampere at 12VDC (input), +/- 10%
- Power Supply: 1A at 110VAC input, 2.5A at 12VDC output

### Environmental:

- Controller: operates at a -40° to 140° F (-40° to 60° C)
- Display: operates at -5° to 122° F (-20° to 50° C)

### Mechanical:

- Dyna read head: 3" W x 4 1/2" H x 3" D (76mm W x 114mm H x 76mm D)



**Freedom for Control**

For more information  
federalapd.com  
800.521.9330



Distributed by:

## MM-6800™ Sentinel-Prox™ Proximity Reader



MM-6800 Proximity Card Reader provides exceptional reading distance in a slim, compact enclosure for Access Control applications. With a read range up to 8 inches, the MM-6800 reader delivers excellent performance without compromising quality, durability, attractive appearance, and ease of installation.



**Installation** The MM-6800 reader is designed to fit perfectly on the 1-3/4 inch standard metal door frame or window mullion. The metal-compensation that is built into every MM-6800 reader assures minimal loss of read range when the reader is mounted on a metal surface. The MM-6800 reader also can be fastened by 2 screws on any wall or other surface. Installation may be indoors or outdoors, exposed to weather.

**Features** The MM-6800 reader contains (a) a 3-color LED, (b) a 4 kilohertz beeper, and (c) a “hold” circuit. Both LED and beeper are controlled by the reader itself. All three functions can be controlled

externally by the host system. The LED can indicate access-granted by the host. The beeper can be used as an alarm that prevents further card reads until the alarm condition is cleared. The “hold” circuit delays code transmission from the reader until the host requests it.

**Testing** The reader is *self-testing* – using its own LED and beeper, it needs no interface to a controller to assure the installer and cardholder of correct performance. The reader is also *self-diagnostic* – if DC power is unstable, or if electrical noise is induced in the cable, the reader resets and its LED changes to amber.

**Operation** AWID’s proximity readers use a re-present mode that requires that the user remove the card from the reader’s field before the card can be read again. This feature eliminates multiple reads from a single presentation of the card. The MM-6800 reader has both Wiegand data interface for basic 4-wire connection (7 wires when all features are controlled), and also RS-232 serial interface. Code transmission from both interfaces is simultaneous.

**Environment** The MM-6800 reader is ready for challenging applications. The ABS plastic one-part enclosure, fully potted at the back surface with epoxy resin, stands up to physical abuse and adverse environment.

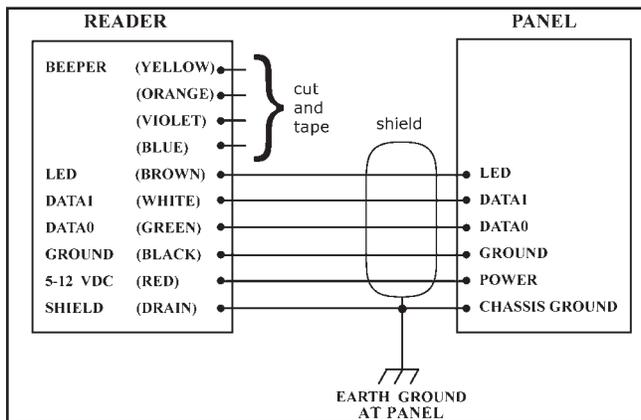
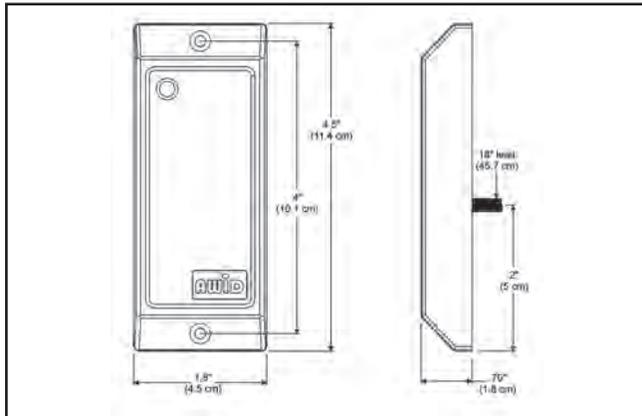
**Credentials** All of AWID’s 125 kilohertz proximity credentials may be used with the MM-6800 reader. This includes clamshell and graphics-quality cards, keytags, hangtags, and adhesive wafers. Read range varies with the credential type.

### FEATURES

- Compact size . . .  
*Fits on a mullion or door frame*
- Clean, slim design . . .  
*Matches good architecture at site*
- Ready for rough usage . . .  
*Rugged, strong construction*
- Ready for adverse weather . . .  
*One-part enclosure with potting*
- Easy mounting . . .  
*2 screws (supplied) for fastening*
- Special read range in a small unit . . .  
*Up to 8 inches with cards*
- Visu AWID’s al and audible indicators . . .  
*3-color LED and beeper inside reader*
- Controllable functions in reader . . .  
*LED, beeper, hold can be wired to panel*
- Easy power . . .  
*Connects to panel’s DC terminals*
- Quick wiring to host panel . . .  
*Basic 4-wire hook-up; 7 wires maximum*
- Standard Wiegand data output . . .  
*Data-0 & Data-1 panel connections*
- Alternative RS-232 data output . . .  
*Interface to PC or special controller*
- Compatible with other readers . . .  
*Wiegand interface used in other readers*
- Uniform code formats . . .  
*Standard 26-bit plus special codes*
- No programming in reader . . .  
*MM-6800 is ready to read all AWID codes*
- Self-testing for good operation . . .  
*LED & beeper indicate performance*
- High value ratio . . .  
*Excellent performance; low cost*

# MM-6800™

## Sentinel-Prox™ Proximity Reader



### ACCESSORIES & SUPPLIES

**Mounting hardware** – 2 #6-32 x 1" thread-cutting screws (supplied). Use other fasteners as needed for mounting.

**Power supply** – Reader operates with voltage between +5 volts and +12 volts DC. Most controller panels provide suitable voltage on power and ground terminals. External linear, regulated DC power supply may be used (120 milliamperes or more current rating).

**Cable for power and data** – 22 gauge, stranded, color-coded, overall shielded, not twisted pair. 4 to 7 conductors depending on connection of reader's controllable functions (LED, beeper and "hold"). For Wiegand, up to 500 feet long.

**Protective housing** – MM-6800 reader is suitable for exposure to rain, snow, and bright sunshine. Mount reader inside a Lexan housing to remove reader from view and abuse. AWID suggests Model PCH049 housing from The Housing Company.

**Mounting devices** – Consult with supplier for utility boxes, adapter plates, poles, posts, pedestals, bollards, etc.

**Installation Sheet** – Download full instructions from AWID's Web site.

### OPTIONAL

To designate optional HID compatibility, add "MP" suffix to the part number (e.g. MM-6800-GR-MP).

### CREDENTIALS

**Proximity cards, keytags and wafers** – AWID offers a selection of cards, tags and wafers for use with the MM-6800 reader.

### OPERATING CHARACTERISTICS

#### Reading Distance:

With cards – Up to 8 inches (varies with mounting method, voltage applied to reader, and credential type)

#### Excitation Frequency:

Transmit and Receive – 125 kHz

#### Antenna Output:

Omni-directional low-frequency RF field

#### Indicators (Control by Reader and Panel)

LED – 3 colors, red-amber-green

Beeper – piezo-electric, 4 kHz tone

#### Power Supply:

+5 volts to +12 volts DC  $\pm$  10%, linear, regulated; current rating 120 mA or more

#### Communications Protocols:

Wiegand electrical interface

RS-232 serial interface

#### Code Formats:

Determined by AWID's credentials programmed with 26 bits to 50 bits

#### Cable (For Wiegand Interface):

4 to 7 conductors (not twisted pairs), stranded, 22 gauge, color-coded, overall 100% shielded, plastic sheath, to 500 ft

### PHYSICAL CHARACTERISTICS

#### Dimensions:

6.0 x 1.75 x 1.0 inch (15.24 x 4.45 X 2.54 cm)

#### Weight:

6 ounces (170 g)

#### Material:

ABS 1-part enclosure, beige or dark gray  
Epoxy resin potting at rear surface

#### Cable (Integrated with Reader):

10 conductors, 22 gauge, 18 inches long  
Overall shielded, gray plastic sheath

#### Mounting:

Door frame, window mullion, wall, cabinet

### ENVIRONMENT

#### Operating Temperature:

-31 to +150 F (-35 to +65 C)

#### Operating Humidity:

0% to 95%, non-condensing

#### Protection from Environment:

Use Lexan housing when reader must be removed from view or protected from damage.

#### Avoiding Interference:

Optimize reader performance by spacing or shielding reader from neighboring readers, including reader on other side of wall at door.

### CERTIFICATION

ISO-9001:2000; FCC Part 15; IC; UL listed

Applied Wireless Identifications Group, Inc.  
18300 Sutter Blvd.  
Morgan Hill, CA 95037  
Tel: (408) 825-1100  
Fax: (408) 782-7402  
www.awid.com



# Universal PS

## Features

- Patron-friendly workflow
- High strength design
- Capable of high transaction volumes
- Service-friendly internal layout
- Proven components for reliability
- Options:
  - Prox reader
  - Credit card insertion reader
  - Bank note accepting
  - Bank note dispensing, up to 4 denominations
  - Coin accepting
  - Coin dispensing, up to 3 denominations
  - Lost Ticket function
  - Change Language display function

## Experience pays off

The Universal PS combines Federal APD's half century of application experience with the best in design and components to create a patron-friendly, service-friendly payment kiosk for today's parking applications.

## Designed around the patron...

Designed for high volume payment applications, the Universal PS recognizes either magstripe tickets or prox cards, calculates the patron's fee (including any vouchers or validations), then accepts credit card, coin or bank note payments. Once the payment is processed, the patron receives change in bank notes or coins as appropriate, and can elect to receive a receipt from the thermal printer.

The 15" display directs the patron throughout the transaction. A carefully designed series of screens and component locations allow optimal user-friendliness for all patrons regardless of age, native language or literacy. And the kiosk size and layout provides comfortable ergonomics for patrons of all sizes, whether in a wheelchair or well over six feet tall (1.8m).

## ...and the technician

Federal APD recognizes that one of the fundamentals of operational success is the routine servicing of kiosks like the Universal PS. That's why the internal layout of the kiosk is designed to make it easy to perform common tasks, from changing paper to cleaning, typically without a single tool. Internal lighting, slide-out subassemblies, sight lines to indicators, room for hands and tools... the Universal PS was designed with technicians in mind.

## The Bottom Line

But even successful patron interactions and easy maintenance can't overcome the cost of theft or substantial vandalism. So the Universal PS is designed to resist theft and vandalism to a high degree by using heavy gauge steel construction, a five point locking mechanism and a reinforced LCD display. And if the unit is damaged, in spite of this, both cosmetic and functional components are designed for easy replacement without scrapping the entire kiosk.



**Freedom for Control**

# Universal PS

## Specifications

### Intelligence

- Configurable remotely over network from ScanNet™
- Configurable locally from PowerPad4 terminal
- Configuration options:
  - Patron display messages
  - Currency handling
  - Reports
  - Receipts
- Networkable via (optional configurations):
  - RS-485 serial loop
  - Ethernet
- Fully functional when online or offline
  - Buffers up to 1900 credit card and 7700 cash transactions

### Patron Interaction

- 15" LCD display directs patron through transaction workflow
- Change Language button supports English, Spanish, Portuguese and French
- Accepts (optional configurations):
  - Magstripe tickets, vouchers, validations via transport
  - Patron ID via prox card
  - Credit cards via insertion reader
- All coin denominations between 15mm and 32mm
- Up to 14 bank notes denominations
  - 120mm to 165mm length, 62mm to 82mm width

- Stores (optional configuration):
  - Approximately 2000 small coins (18mm), 1200 large coins (24mm)
  - Approximately 1000 bank notes
  - Recycles coin denominations used for dispensing
- Dispenses (optional configurations):
  - Up to 3 denominations of coins between 17mm and 31mm
    - Approximately 1200 large coins per denomination (24mm)
  - Up to 4 denominations of bank notes
    - 120mm to 165mm length, 60mm to 82mm width, 0.09mm to 0.3mm thickness
    - Approximately 500 bank notes per denomination
- Thermal printer provides patron receipt upon request
- ADA compliant

### Electrical

- 90-130VAC or 180-240VAC external power
  - Maximum draw – fully configured – 90-130VAC: 15A
  - Maximum draw – fully configured – 180-240VAC: 8A
- 24VDC internal circuit for low voltage components
- Three (3) 90-130VAC outlets for service (when fully configured)
- Segregated AC circuit for optional UPS unit

### Mechanical

- 66" H x 27" W x 22" D (168cm H x 69cm W x 56cm D)
- Weight – fully configured: 540lbs (245kg)
- Heavy gauge steel construction
- E-coated frame for rust prevention
- Powder-coated cladding

### Security

- Heavy gauge steel construction
- Five point locking system
- User-configurable keys for external lock
- Cabinet access is monitored and recorded
- Additional internal locking for all cash-handling components
- Reinforced LCD display

### Environmental

- External operating temperature: -10° to 40° C (14° to 104° F)
- Insulated, heated to maintain internal temperature and humidity ranges
- NEMA 3R cabinet



**Freedom for Control**

For more information  
federalapd.com  
800.521.9330



Distributed by:

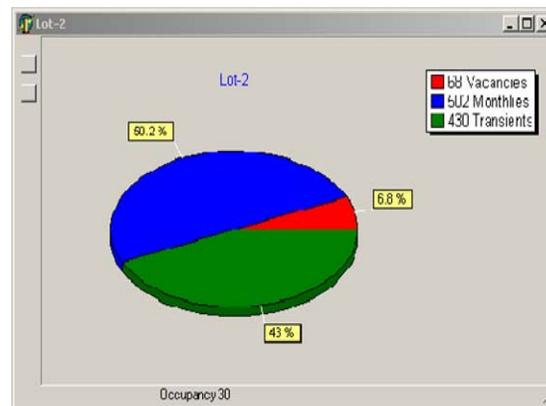
# Sign-Net

## Intelligent Sign/Message Control System



From small booth mounted status scanners to multi-level patron directional signs, the Sign-Net software can display real-time information to your customers. The Sign-Net system is fully integrated to the Federal APD Scan Net Transportation Management System.

Sign-Net allows full network deployment and can even display information on your web-site



Screen Display of Available Spaces Sign Module



Southern Time Equipment Company  
Serving the Carolinas since 1977  
1-800-849-5654



Distributed By:





## Ramp Controller 2



### Facility Control

The Federal APD Ramp Controller 2 is a multi-functional parking control device capable of tracking either one-way or two-way traffic on internal lanes and ramps in a parking facility.

By monitoring traffic flow at strategic points, the Ramp Controller 2 provides the central management system with the data necessary to maintain an accurate, real time vehicle inventory for each of the facility's parking areas, lots and zones.

Each Ramp Controller 2 has the ability to be set up in various lane configurations, which can support as many as five uni-directional lanes, two bi-directional lanes, or a combination of the two. The I/O Ports are mappable using the PDA, making the RC2 a flexible control device.

Ramp controllers help to direct traffic into or away from parking areas by activating or deactivating "full" signs. This type of control enables you to maximize lot capacity, providing your parking patron with easy notification of any parking spaces available or full conditions.

Vehicle counts (forward and reverse), loop status and system status are transmitted to Federal APD's Central Management System, ScanNet. The Central Management System remotely controls the "full" signs, which are operated by the Ramp Controller 2.

### Features

The Ramp Controller 2 package contains a microprocessor-based control board that is enclosed in a factory-sealed package that is easily changeable as a plug-in controller module. The controller is equipped with LED indicator lights to provide the status of the vehicle detectors and to ensure a power supply voltage is being generated.

Also included with the enclosure are well-marked terminals for ease of installation and servicing. The Ramp Controller 2 receives power from a separate power supply unit that is capable of delivering power to 10 Ramp Controllers. The power supply is also enclosed in a separate steel NEMA Type 12 Enclosure.

### Communication Interface

Programming the Ramp Controller 2 is easy with a PDA (personal digital assistant) using the Ramp Controller Programming Utility. Programming is transferred between the PDA and RC2 via serial infrared communications. With online communication to the ScanNet Central Management System, you receive the complete control you need to maintain the fullest possible occupancy along with the highest possible revenues from your parking enterprise.



### Features:

- Counts vehicles in multiple lanes or ramps in parking facility.
- Five mappable self-tuning vehicle detectors monitor up to two bi-directional lanes or five uni-directional lanes.
- Controls up to four high voltage relays, such as Federal APD's "Full" Signs at 115/220V.
- Eight digital outputs (pulsed or latched) are mappable for various lane-control. (Standard usage would be "Full" Signs or counters.)
- Communicates counts, loop status and device status for each lane to the ScanNet Central Management System.
- Programming with a PDA (personal digital assistant) via an infrared interface.
- Tune and reset vehicle detectors.
- Steel NEMA Type 12 enclosure.



**FEDERAL APD**  
Federal Signal Corporation  
A-156

## 1. Purpose

The Federal APD Ramp Controller 2 is a parking control device used to count cars traveling on internal lanes and on ramps in a parking facility. By monitoring traffic flow at strategic points, Ramp Controllers provide the ScanNet Central Management System with the data necessary to maintain an accurate, real time vehicle inventory for each of the parking areas, lots and zones.

## 2. Features/Functions:

- a. Monitors one-way traffic in lanes equipped with one detector loop or two-way traffic in lanes equipped with two detector loops.
- b. Five self-tuning vehicle detection loops enable monitoring of up to two bi-directional lanes, five unidirectional lanes, or other various lane configurations between the two.
- c. Federal APD's Tailgate Recognition System is capable of distinguishing two vehicles within 6 inches (152 mm) of each other on a standard 2.5 ft. x 6 ft. (0.762m x 1.828m) vehicle detection loop.
- d. Eight digital outputs (pulsed or latched) are selectable through the PDA.
- e. One to four digital outputs are capable of operating "full" signs when used in conjunction with the count system option in the ScanNet system.
  - 1) Four A.C. relays are provided, each with 1-form C contact, rated at 120 V.A.C. at 10 A. This is to accommodate large incandescent full signs.
- f. Easily field-configurable using a PDA (personal digital assistant with 8 MB internal memory or higher), and Palm OS software (V4.0 or higher) connected via an infrared interface.
- g. PDA programming abilities:
  - 1) Upload or download configuration
  - 2) Reset or Initialize device
  - 3) Turn full sign on/off
  - 4) Lane configuration options:
    - a) Enable lane (enable/disable)
    - b) Set lane address (0-31)

- c) First loop (disable/map to loop input 1-5)
  - d) Second loop (disable/map to loop input 1-5)
  - e) Forward count pulse output 1 (disable/map to output 1-8)
  - f) Forward count pulse output 2 (disable/map to output 1-8)
  - g) Latch output 1 (disable/map to output 1-8)
  - h) Latch output 2 (disable/map to output 1-8)
- 5) Loop configuration options:
    - a) Vehicle Detection Sensitivity
    - b) Tailgate Detection Sensitivity
    - c) Tailgate Detection (enable/disable)
    - d) Loop (enable/disable)
  - 6) Set date and time
  - 7) Set password
- h. Communicates the following status to ScanNet in real time:
    - 1) Vehicle counts: forward and reverse.
    - 2) Loop status: loop presence/frequency
    - 3) System activity monitor device status

## 3. Electrical Requirements:

- a. Power Supply Unit: The Ramp Controller receives power from a separate power supply unit, which can accept input voltage ranging from 85-264 V.A.C. at 47-63 Hz at 2 Amperes and produces output of 24 VDC. The Power Supply unit is capable of delivering power to 10 Ramp Controller units. Each Ramp Controller unit may be switched on and off independently.
- b. The Ramp Controller Unit can accept voltage input of 24 V.D.C +/-10%. Current consumption is 0.5 Amps or less.
- c. The power supply is housed in a steel NEMA Type 12 Enclosure: 13.35 in. H (339mm) x 12.12 in. W (309mm) x 6.25 in. D (159mm).

## 4. Construction:

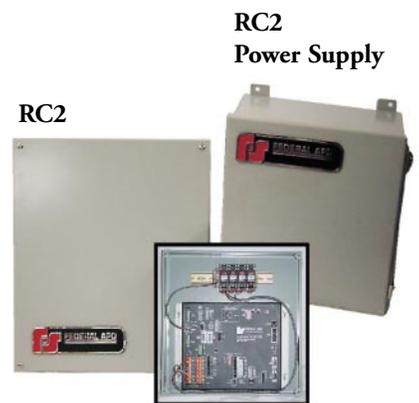
- a. All electronic components of the Federal APD Ramp Controller 2 Board are contained in one factory-sealed package,

which is readily changeable as a plug-in controller module.

- b. The Ramp Controller package is housed in a 17.25 in. H (438mm) x 15.25 in. W (387 mm) x 3.4 in. D (86mm), steel NEMA Type 12 enclosure.
- c. Equipped with LED indicator lights to provide operational status of the vehicle detector loops and the controller including: Loops A, B, C, D and E presence; Loops A, B, C, D, E and tuning.
- d. A separate LED indicator light to show that a proper power supply voltage is being generated.

## 5. Field Connections:

- a. The Ramp Controller 2 contains terminals to allow neat and orderly connection of field wires.
- b. All terminals are labeled in a manner which facilitates ease of installation and service.



*Serving the Parking Professional for 50 Years*

Distributed by:

42775 Nine Mile Road • Novi, Michigan 48375 U.S.A.  
Tel: (248) 374-9600 • Fax: (248) 374-9610 • Sales: (800) 521-9330  
<http://www.FederalAPD.com>



# Direct-View LED Traffic Controller TCL1818RG-175TS

## PRODUCT NUMBER

5494

## CABINET DIMENSIONS

18" H x 18" W x 2.5" D

## ILLUMINATION SOURCE

Super bright, wide viewing angle LEDs  
Available in green, red, blue, amber, and white LEDs  
Messages "blankout" when turned off, eliminating confusion  
Long life, solid state lighting

## ELECTRICAL

Integrated solid state power supply  
Standard Voltage: 120 VAC, Optional Voltages: 9-36 V, 240 VAC, 277 VAC  
Maximum amps per lighted message (at 120 V) shown in the table below  
UL/CUL approved for wet locations

## CONSTRUCTION

Faces: Single Faced Sign  
Extrusion (TCL): Slim line continuous, corrosion resistant, aluminum housing 2.5" deep  
Face Material: Impact Resistant, smoked tinted Polycarbonate 1/8" thick.

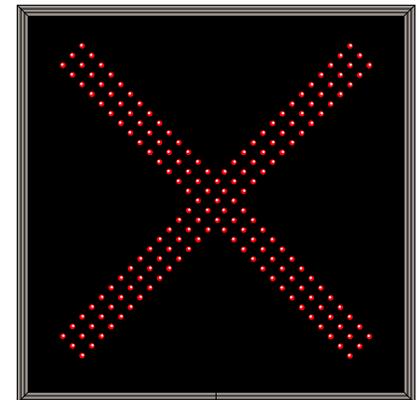
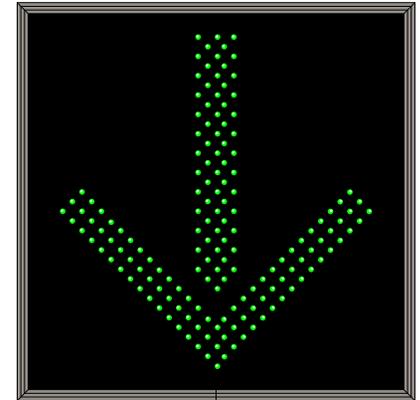
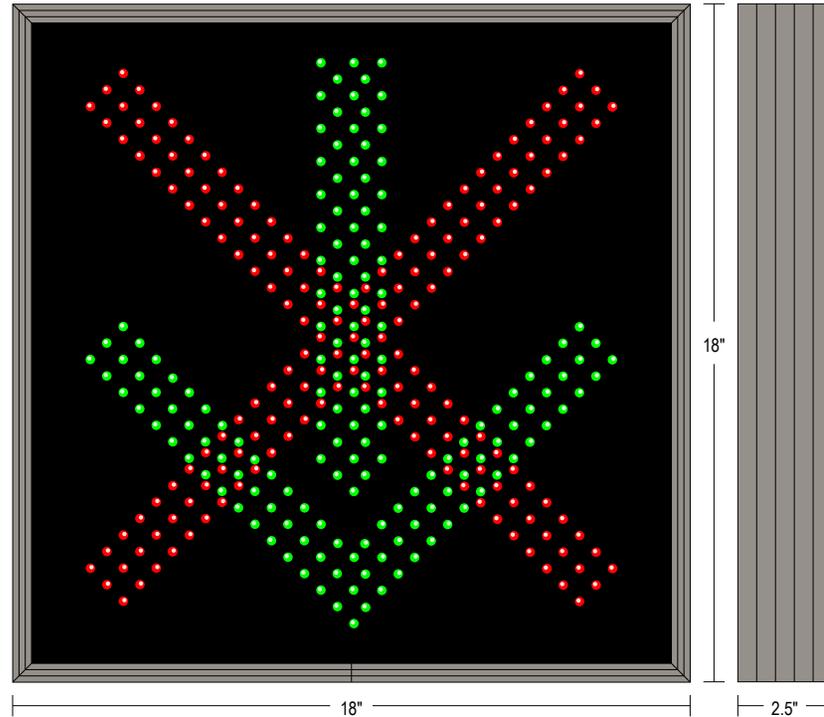
## FINISH

Standard Cabinet Color: Duranodic Bronze  
Custom colors available upon request



## Product View

NOTE: Sign image may not exactly represent the finished product. For illustration purposes only.



MESSAGE	COLOR	HEIGHT	AMPS
DOWN ARROW	Green Wide Angle Oval	14.0"	0.09
X	Red Wide Angle Oval	14.0"	0.05

**Trans-Tech**  
4999 Pittsburgh Ave.  
Erie, PA 16509  
Phone: (888) 811-7010  
Fax: (814) 836-8401

Email: [sales@transportation-tech.com](mailto:sales@transportation-tech.com)

Website: [www.transportation-tech.com](http://www.transportation-tech.com)



Proudly Made in the USA



# TECHNICAL Practice

**TELECOM SOLUTIONS FOR THE 21ST CENTURY**

**E-30/E-30-EWP**

**Handsfree Speaker  
Phone with Dialer**

June 22, 2010

## Provide Reliable and Intelligent Handsfree Communication!



E-30/E-30-EWP

The **E-30-EWP** shares all of the features of the **E-30** in addition to Enhanced Weather Protection (EWP) for installation in harsh environments. EWP products feature rubber gaskets and boots, silicon sealed connections, gel-filled butt connectors, as well as urethane potted circuit boards with weather sealed, field-adjustable trim pots and DIP switches for easy on-site programming.

The **E-30** handsfree phone is designed to provide quick and reliable handsfree communication and can be connected directly to a C.O. line or analog PABX/KSU station.

The **E-30** features non-volatile memory, a built in dialer, and intelligent call progress detection for automatic hang-up when the call is completed.

The **E-30** can be programmed to dial up to 5 different numbers on ring no answer or busy and can be configured to dial these numbers until answered.



E-30 shown with  
optional VE-5x5

## Features

- Handsfree operation
- Phone line powered
- Vandal resistant, stainless steel faceplate with heavy-duty metal call button
- Non-volatile E<sup>2</sup> memory (no batteries required)
- Touch Tone or pulse dialing
- Programmable to dial up to 5 numbers on busy or ring no answer
- Red off-hook LED indicator
- Hangs up on CPC, silence, busy signal, return to dial tone, time out or a Touch Tone command
- Programmable to auto-answer on incoming calls
- Remotely programmable
- Extended temperature range (-15°F to 130°F)
- **E-30-EWP has Enhanced Weather protection**
- Flush mountable using included plastic rough-in box
- Optional **VE-5x5** surface mount back box
- **E-30-EWP** conforms to NEMA requirements

**?** Need More Information on EWP?  
Call (715) 386-4345 and select 859.

**?** Need More Information on VE-5x5?  
Call (715) 386-4345 and select 424.

## Applications

### Non-ADA Hot-Line Phones for:

- Elevators
- Parking lots/ramps
- ATM machines
- Stadiums
- Convention centers

### Gate and Door Entry Phones for:

- Business lobbies
- Pedestrian gates
- Residences

**CAUTION** - <sup>1</sup> When installing on an analog extension of a phone system: Some phone systems do not conform to analog telecom standards and might not be compatible with the E-30 speaker phones. For a detailed description of the telephone line specifications required for any of the E-30 phones, retrieve Fax Back Document 869. <sup>2</sup> In louder background noise environments, the push to talk version may be required (E-30-PT or E-30-PT-EWP).

## Specifications

**Power:** Telephone line powered. Minimum 24V DC talk battery voltage, with a minimum loop current of 20mA loop. Loop current may be boosted on low current lines with a Viking Model **TBB-1B** talk battery booster (Fax Back # 632).

**Minimum Ring Voltage:** 25VAC RMS

**REN #:** 0.5A

**Dimensions:** Overall-127mm x 127mm x 57mm (5" x 5" x 2.25"), Plastic Electrical Box-102mm x 102mm x 54mm (4" x 4" x 2.12")

**Shipping Weight:** 1 Kg (2.2 lbs)

**Operating Temperature:** -26°C to 54°C (-15°F to 130°F)

**Humidity - E-30:** 5% to 95% non-condensing

**Humidity - E-30-EWP:** Up to 100% condensing

**Connections:** Gel-filled butt connectors

Phone...715.386.8861

## IF YOU HAVE A PROBLEM WITH A VIKING PRODUCT, PLEASE CONTACT: VIKING TECHNICAL SUPPORT AT (715) 386-8666

Our Technical Support Department is available for assistance Monday 8am - 4pm and Tuesday through Friday 8am - 5pm central time. So that we can give you better service, before you call please:

1. Know the model number, the serial number and what software version you have (see serial label).
2. Have your Technical Practice in front of you.
3. It is best if you are on site.

### RETURNING PRODUCT FOR REPAIR

The following procedure is for equipment that needs repair:

1. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (RA) number. The customer MUST have a complete description of the problem, with all pertinent information regarding the defect, such as options set, conditions, symptoms, methods to duplicate problem, frequency of failure, etc.
2. Packing: Return equipment in original box or in proper packing so that damage will not occur while in transit. Static sensitive equipment such as a circuit board should be in an anti-static bag, sandwiched between foam and individually boxed. All equipment should be wrapped to avoid packing material lodging in or sticking to the equipment. Include ALL parts of the equipment. C.O.D. or freight collect shipments cannot be accepted. Ship cartons prepaid to: Viking Electronics, 1531 Industrial Street, Hudson, WI 54016
3. Return shipping address: Be sure to include your return shipping address inside the box. We cannot ship to a PO Box.
4. RA number on carton: In large printing, write the R.A. number on the outside of each carton being returned.

### RETURNING PRODUCT FOR EXCHANGE

The following procedure is for equipment that has failed out-of-box (within 10 days of purchase):

1. Customer must contact Viking's Technical Support at 715-386-8666 to determine possible causes for the problem. The customer MUST be able to step through recommended tests for diagnosis.
2. If the Technical Support Product Specialist determines that the equipment is defective based on the customer's input and troubleshooting, a Return Authorization (R.A.) number will be issued. This number is valid for fourteen (14) calendar days from the date of issue.
3. After obtaining the R.A. number, return the approved equipment to your distributor, referencing the R.A. number. Your distributor will then replace the product over the counter at no charge. The distributor will then return the product to Viking using the same R.A. number.
4. The distributor will NOT exchange this product without first obtaining the R.A. number from you. If you haven't followed the steps listed in 1, 2 and 3, be aware that you will have to pay a restocking charge.

### LIMITED WARRANTY

Viking warrants its products to be free from defects in the workmanship or materials, under normal use and service, for a period of one year from the date of purchase from any authorized Viking distributor or 18 months from the date manufactured, whichever ever is greater. If at any time during the warranty period, the product is deemed defective or malfunctions, return the product to Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI., 54016. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (R.A.) number.

This warranty does not cover any damage to the product due to lightning, over voltage, under voltage, accident, misuse, abuse, negligence or any damage caused by use of the product by the purchaser or others.

**NO OTHER WARRANTIES:** VIKING MAKES NO WARRANTIES RELATING TO ITS PRODUCTS OTHER THAN AS DESCRIBED ABOVE AND DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTIES OR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

**EXCLUSION OF CONSEQUENTIAL DAMAGES:** VIKING SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE TO PURCHASER, OR ANY OTHER PARTY, FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR EXEMPLARY DAMAGES ARISING OUT OF OR RELATED TO THE SALE OR USE OF THE PRODUCT SOLD HEREUNDER.

**EXCLUSIVE REMEDY AND LIMITATION OF LIABILITY:** WHETHER IN AN ACTION BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY) OR ANY OTHER LEGAL THEORY, ANY LIABILITY OF VIKING SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCT, OR AT VIKING'S OPTION, REFUND OF THE PURCHASE PRICE AS THE EXCLUSIVE REMEDY AND ANY LIABILITY OF VIKING SHALL BE SO LIMITED.

IT IS EXPRESSLY UNDERSTOOD AND AGREED THAT EACH AND EVERY PROVISION OF THIS AGREEMENT WHICH PROVIDES FOR DISCLAIMER OF WARRANTIES, EXCLUSION OF CONSEQUENTIAL DAMAGES, AND EXCLUSIVE REMEDY AND LIMITATION OF LIABILITY, ARE SEVERABLE FROM ANY OTHER PROVISION AND EACH PROVISION IS A SEPARABLE AND INDEPENDENT ELEMENT OF RISK ALLOCATION AND IS INTENDED TO BE ENFORCED AS SUCH.

### FCC REQUIREMENTS

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. Inside the front panel of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive REN's on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of the REN's should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total REN's, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

The plug used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this E-30 does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

If the E-30 causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make

the necessary modifications to maintain uninterrupted service.

If trouble is experienced with the E-30, for repair or warranty information, please contact:

**Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI 54016 (715) 386-8666**

If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Connection to Party Line Service is subject to State Tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

**WHEN PROGRAMMING EMERGENCY NUMBERS AND (OR) MAKING TEST CALLS TO EMERGENCY NUMBERS:**

Remain on the line and briefly explain to the dispatcher the reason for the call. Perform such activities in the off-peak hours, such as early morning or late evenings.

It is recommended that the customer install an AC surge arrester in the AC outlet to which this device is connected. This is to avoid damaging the equipment caused by local lightning strikes and other electrical surges.

### PART 15 LIMITATIONS

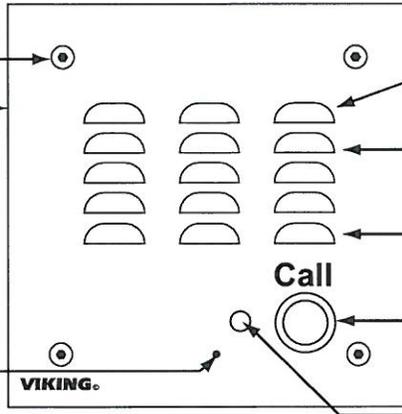
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

# Features Overview

**Mounting Screws:** 6-32 x 0.75" long flathead with 5/64" hexdrive, 18-8 stainless steel to prevent corrosion.

**Faceplate:** 14 gauge 304 stainless steel.

**Condensation Drain Hole**



**Microphone:** Omni-directional microphone with protective water-resistant cloth.

**Speaker:** Mylar speaker with rubber gasket to maintain water-tight seal and eliminate water deterioration.

**Speaker Screen:** Stainless steel speaker screen with 0.018" diameter holes to prevent punctures from paperclips, etc.

**Push Button Switch:** Push to initiate call, push again to disconnect. Solid 304 stainless steel internally sealed per IP67.

**LED:** Lights red for "In-Use" indication.

**DIP Switches (see page 7):**

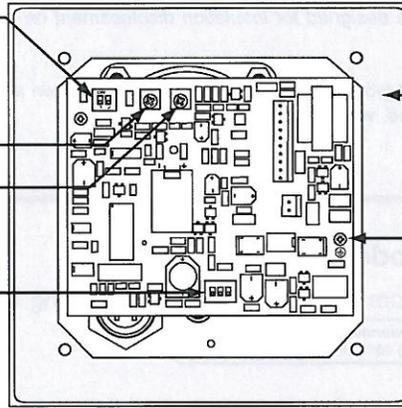
- 1: Normal Audio Detection
- 2: Increased Audio Detection

**Microphone Volume**

**Speaker Volume**

**DIP Switches (see page 7):**

- 1: Push Button Feature (connect / disconnect)
- 2: Auto Answer Feature (on/off)
- 3: Programming Switch (normal/programming)



**Faceplate Gasket:** 1/8" thick closed cell PVC to provide a water-tight seal.

**Earth Ground:** To increase surge protection, loosen the screw labeled ⊕ (as shown) and fasten a wire with ring terminal (included) from the mounting screw to Earth Ground (grounding rod, water pipe, etc.)

# Installation

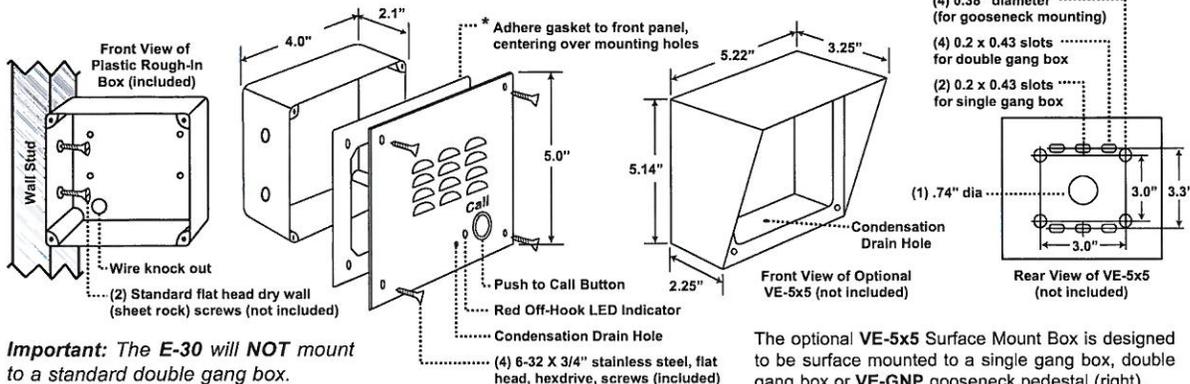
## A. Mounting



**IMPORTANT:** Electronic devices are susceptible to lightning and power station electrical surges from both the AC outlet and the telephone line. It is recommended that a surge protector be installed to protect against such surges. Contact Panamax at (800) 472-5555 or Electronic Specialists Inc. at (800) 225-4876.

**Caution:** When warm air comes in contact with cold surfaces, such as outside walls and conduits, it causes condensation. To prevent condensation from accumulating inside the E-30 always bring conduit into the bottom of the unit. If this is not possible, drill a 1/4" diameter hole in the bottom of the gray plastic box.

**\*Note:** Peel off paper liner and adhere gasket to the back of the faceplate, centering it over the four corner mounting holes. Be careful to position the modular jack inside the chassis as not to damage the components on the circuit board.



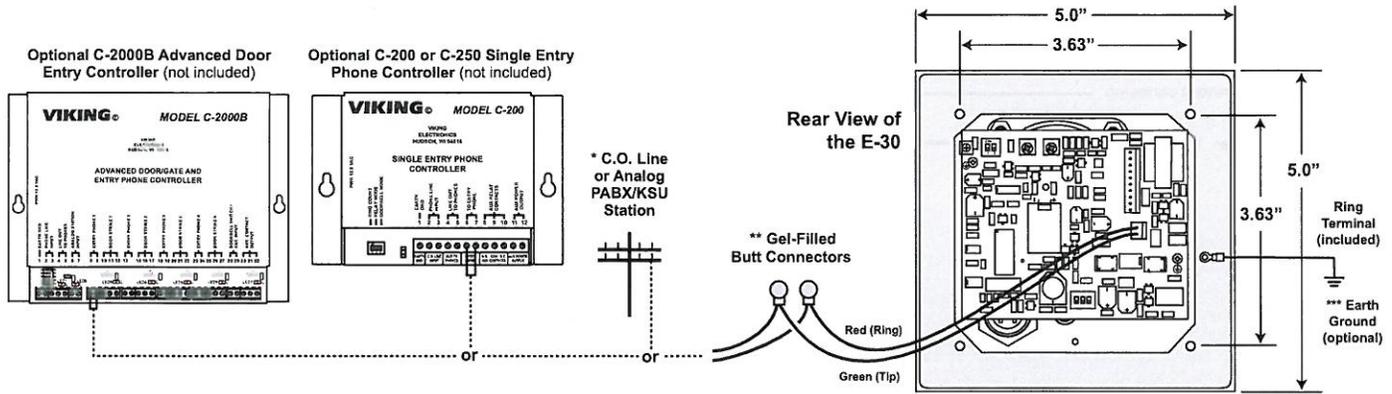
**Important:** The E-30 will NOT mount to a standard double gang box.

**Note:** The plastic rough-in box (part # 259576) may be purchased separately in advance. Go to [www.vikingelectronics.com](http://www.vikingelectronics.com) and click on "Spare Parts".

**Need More Information on VE-5x5 or VE-GNP?**  
Call (715) 386-4345 and select 424.



## B. Wiring the E-30 Phone Board



\* **Note:** When installing a line powered phone on a low voltage and/or low loop current phone system extension, a **TBB-1B** Talk Battery Booster may be required, see **DOD# 632**.

\*\* **Note:** The gel-filled (water-tight) butt connectors are designed for insulation displacement on 19-26 gauge wire with a maximum insulation of 0.082 inches. Cut off bare wire ends prior to terminating.

\*\*\* **Note:** To increase surge protection, loosen the PCB mounting screw labeled  $\oplus$  (as shown above) and fasten a wire with spade terminal (included) from the mounting screw to Earth Ground (grounding rod, water pipe, etc.)

# Programming

## A. Accessing the Programming Mode

The **E-30** phone can be programmed from any Touch Tone phone using a C.O. line, analog PABX/KSU station, or a **DLE-200B** Line Simulator. ? Need More Information on the DLE-200B? Call (715) 386-4345 and select 605.

### 1. Using the Security Code

<b>Step 1.</b>	Move DIP switch 2 to the <b>ON</b> position (sets unit to answer incoming calls - see section F).
<b>Step 2.</b>	From a Touch Tone phone call the line attached to the <b>E-30</b> .
<b>Step 3.</b>	When the <b>E-30</b> answers, enter the 6-digit security code (factory set to 845464 - see section C). A double beep should then be heard indicating you have entered the programming mode.

### 2. Without the Security Code

<b>Step 1.</b>	Move DIP switch 2 to the <b>ON</b> position (sets unit to answer incoming calls - see section F).
<b>Step 2.</b>	Move DIP switch 3 to <b>OFF</b> (incoming calls enter the programming mode without security code - see section F).
<b>Step 3.</b>	From a Touch Tone phone call the line attached to the <b>E-30</b> .
<b>Step 4.</b>	When the <b>E-30</b> answers, a double beep will be heard and you will automatically enter the programming mode.
<b>Step 5.</b>	When finished programming, move DIP switch 3 back to the <b>ON</b> position (see section F).

**Note:** If a valid memory position is entered, a double beep will be heard, four beeps indicate an error.

## B. Quick Programming Features

	Enter Digits	- then -	Enter Memory Location
First speed dial number .....	0-20 digits	then	#00
Second speed dial number .....	0-20 digits	then	#01
Third speed dial number .....	0-20 digits	then	#02
Fourth speed dial number .....	0-20 digits	then	#03
Fifth speed dial number .....	0-20 digits	then	#04
To add a * at any point in the dialing string .....	**		
To add a # at any point in the dialing string .....	*#		
To add a four second pause at any point in the dialing string .....	*7		
Toggle between Touch Tone and Pulse dialing .....	*6		
Miscellaneous options (factory set to 000210) .....	6 digits (0-9)	then	#17
Timing/Dialing options (factory set to 234111) .....	6 digits (0-9)	then	#18
Change security code (factory set to 845464) .....	6 digits (0-9)	then	#19
Exit programming and disconnect .....	#7		
Reset all programming to factory default settings .....	###		

### C. Security Code (memory location #19)

The security code allows the user/installer to program the **E-30** phone while DIP switch **3** is in the **ON** (normal) position. The factory set security code is 845464 (V-I-K-I-N-G). It is recommended that the factory set security code be changed. **Example:** To store 123456 as the security code:

<b>Step 1.</b>	Access programming as shown in <b>Programming</b> section <b>A</b> .
<b>Step 2.</b>	Enter <b>123456 #19</b> ..
<b>Step 3.</b>	Hang-up.

**Enter Your Security Code Here:**

						<b>#19</b>
--	--	--	--	--	--	------------

**Note:** The security code must be 6 digits and cannot include a \* or a #.

### D. Speed Dial Numbers (Memory Locations #00 - #04)

**Note:** Up to 20 digits can be stored in each dial position. Special features such as pause, mode change, Touch Tone \* and # count as single digits.

The speed dial number programmed in location **#00** is the telephone or extension number that is dialed when the "Call" button is first pressed. Additional speed dial numbers will be dialed when there is no answer or a busy signal is detected and the next number redial features are activated. The **E-30** will cycle through the programmed speed dial numbers until answered. To program, enter the desired speed dial number followed by the memory location number (**#00 - #04**).

To clear a speed dial location, simply enter the memory location (**#00 - #04**) alone. The **E-30** is factory set with no speed dial number programmed.

To Program:	Enter:
*	**
#	**#
4 second pause	*7
switch to pulse mode	*6
0, 1, 2...9	0, 1, 2...9

### E. Timing/Dialing Options (Memory Location #18)

There are six positions in the timing/dialing options. To program these options, enter the six desired timing/dialing digits followed by **#18**. The six available timing/dialing options are defined as shown below.

Dial: A + B + C + D + E + F + # + 1 + 8

Factory Default Setting: 2 + 3 + 4 + 1 + 1 + 1

Talk/Listen Delay \_\_\_\_\_

Call Length \_\_\_\_\_

Silence Time Out \_\_\_\_\_

Dial Next Number on Ring No Answer \_\_\_\_\_

Dial Next Number on Busy \_\_\_\_\_

Pulse Dial Speed \_\_\_\_\_

Enter Timing/Dialing Settings Here:

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>#18</b>

#### Setting A - Talk/Listen Delay

This feature selects switching time between talk and listen modes (VOX switching time). Use chart at the right. **\* Note:** The factory default is .2 seconds.

Touch Tone	Talk/Listen Delay
1	.1 sec
2	.2 sec *
3	.3 sec
4	.4 sec
5	.5 sec
6	.6 sec
7	.7 sec
8	.8 sec
9	.9 sec

#### Setting B - Call Length Time Out

This feature selects the maximum length of time that calls can be connected. Programmable in increments of 1 minute up to a maximum of 9 minutes (Touch Tones 1 - 9). Program 0 in this location to disable the call length time out. With the call length disabled, the **E-30** phone must rely on CPC, busy, reorder, silence or return dialtone to hang-up. Use chart at the far right. **\* Note:** The factory default is 3 minutes.

Touch Tone	Call Length Time Out
0	Disabled
1	1 min
2	2 min
3	3 min*
4	4 min
5	5 min
6	6 min
7	7 min
8	8 min
9	9 min

### Setting C - Silence Time Out

This feature selects the length of time that calls will remain connected without voice activity. Programmable in increments of 10 seconds up to a maximum of 90 seconds (Touch Tones 1 - 9). To disable the silence time out, program 0 in this location. Use chart at the right.

\* **Note:** The factory default is 40 seconds.

Touch Tone	Silence Time Out
0	Disabled
1	10 sec
2	20 sec
3	30 sec
4	40 sec*
5	50 sec
6	60 sec
7	70 sec
8	80 sec
9	90 sec

### Setting D - Dial Next Number on Ring No Answer

If enabled and a ring-no-answer is detected, the E-30 phone will dial the next programmed speed dial number, and continue to cycle through the emergency numbers until a call is completed. \* **Note:** This feature is disabled in the factory default.

Touch Tone	Setting D
1 or 0	Disabled*
2, 3, 4...9	Dials second number after 2, 3, 4...9 rings respectively

### Setting E - Dial Next Number on Busy

If enabled and a busy is detected, the E-30 phone will dial the next programmed speed dial number, and continue to cycle through the emergency numbers until a call is completed. \* **Notes:** This feature is disabled in the factory default setting. If the busy signal is interrupted with a promotional message, contact your central office to have it removed.

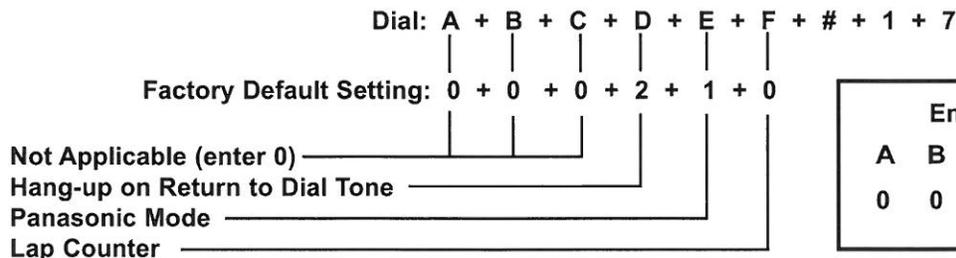
Touch Tone	Setting E
1	Disabled*
2	Enabled

### Setting F - Pulse Dialing Rate (Pulses per Second)

The E-30 phone is capable of different pulse dialing speeds. \* **Note:** The factory default setting is 10pps (pulses per second).

Touch Tone	Setting F
1	10 pps*
2	20 pps

## F. Miscellaneous Options (memory location #17)



Enter Settings Here:					
A	B	C	D	E	F
0	0	0	<input type="text"/>	<input type="text"/>	<input type="text"/>
					#17

### Settings A / B / C - Not Applicable

### Setting D - Hang Up on Return to Dial Tone

If enabled and a return dial tone is detected, the E-30 will hang up.

\* **Note:** The factory default setting is enabled.

Touch Tone	Setting D
1	Disabled
2	Enabled*

### Setting E - Panasonic Mode

The E-30 can be programmed to recognize the double ring cadence that is typical of Panasonic phone systems. If the E-30 is connected to a Panasonic extension, (or any other system that provides a double ring cadence) enable "Panasonic Mode" will allow for proper call progress detection.

\* **Note:** This feature is disabled in the factory default setting.

Touch Tone	Setting E
1	Disabled*
2	Enabled

## Setting F - Lap Counter

With the lap counter disabled (factory setting), if the **E-30** is programmed to dial the next number on ring-no-answer and/or busy signal (see page 5 and 6), the **E-30** will continuously call its programmed phone numbers forever until the call is answered.

Touch Tone	Setting F
0	Disabled*
1-9	Lap count = 1-9 times

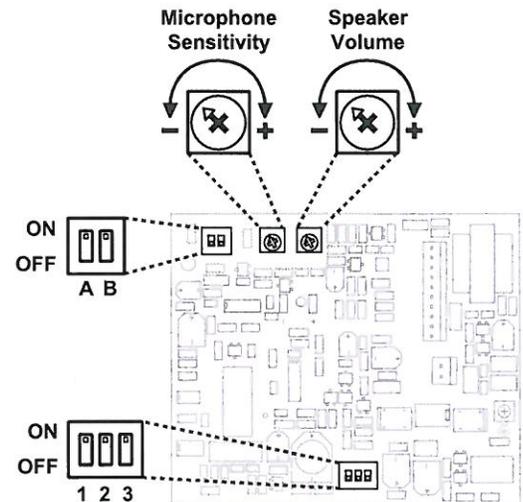
The lap counter is a programmable counter that determines how many times the **E-30** will cycle through its list of up to 5 emergency number (or up to 3 "Info" phone numbers), before it stops the dialing process and hangs up. When all of the programmed phone numbers have been dialed, the lap counter is incremented and the dialing process repeats. When the lap counter has been met, the dialing process stops and the **E-30** hangs up. \* **Note:** This feature is disabled in the factory default setting.

## G. DIP Switch Programming/Speaker and Microphone Adjustments

Two POTs are provided to increase or decrease speaker volume and microphone sensitivity. In certain noisy locations the microphone sensitivity may need to be decreased as shown below. **Caution:** Setting the microphone gain too high may cause distorted audio, prevent the distant party from breaking over and inhibit second number redialing.

Switch A	Switch B	Description
ON	ON	Normal audio detection
OFF	OFF	Increase audio detect sensitivity for low level lines. Useful in applications in which voice or busy signals have trouble breaking over to the speaker.

DIP Switch	Position	Description
1	ON	"CALL" button alternately connects and disconnects calls (factory default)
1	OFF	"CALL" button connects calls only
2	ON	Incoming calls answered (factory setting)
2	OFF	Incoming calls are not answered
3	ON	Normal operation mode (factory setting)
3	OFF	Learn mode - Any incoming calls are automatically entered into the programming mode (no security code required). Use this option if you have forgotten your security code.



## H. Programming Examples

To Program the E-30 Phone...	Step 1 - See Section A	Step 2 - Enter Digits:
...to store 123456 as the security code	Enter Programming	1 2 3 4 5 6 # 1 9
...to store a Touch Tone 9, a four second pause and then a pulse dialed 333-4444 in the first speed dial position	Enter Programming	9 *7 *6 3 3 3 4 4 4 4 # 0 0
...to store 555-1234 in the second speed dial position	Enter Programming	5 5 5 1 2 3 4 # 0 1

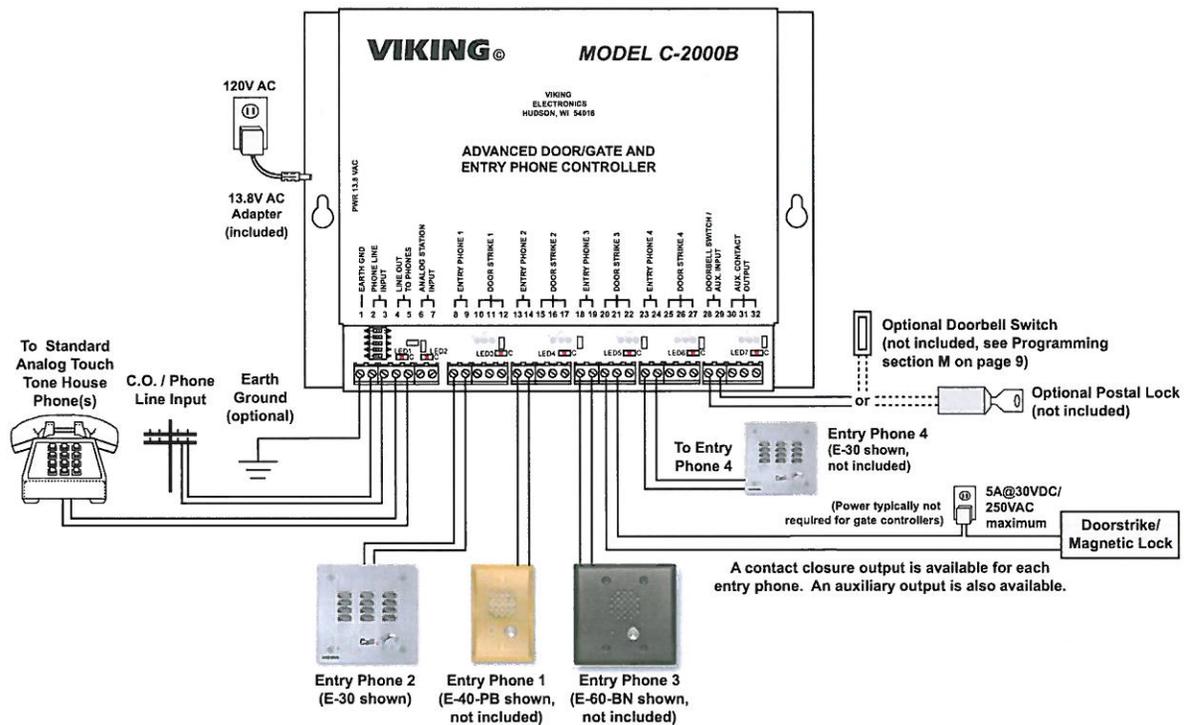
# Operation

When the "Call" button is pressed, the **E-30** phone goes off-hook, and dials a pre-programmed telephone number. The front panel LED will light any time the phone is off hook. In the event that the line is busy or there is a ring-no answer, the unit can be programmed to call additional phone numbers. The phone then cycles through up to 5 pre-programmed speed dial numbers until the call is answered. The **E-30** will hang up on CPC, silence, busy signal, return to dial tone, time out or Touch Tone command (\*#). If programmed to auto-answer, the **E-30** will also answer any incoming call.

# Applications

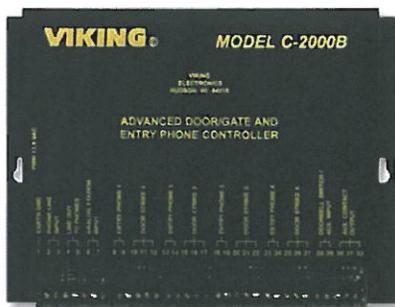
## C-2000B Advanced Door/Gate and Entry Phone Controller

The **C-2000B** allows up to 4 entry phones to call into your existing residential or business phones or phone system. Tenants may answer the call, converse with the visitor and activate a contact closure to control electronic gates or door strikes. The **C-2000B** provides "Caller ID," "Call Waiting ID" and "Call Waiting" tone when the phone line is in use. Tenants may gain entry at each gate by entering a Touch Tone keyless entry code. Tenants may call out to each entry phone for monitoring purposes. An auxiliary input is also available for connecting a common garage door opener/receiver and auxiliary keyless entry keypads. See the **C-2000B** Technical Practice for complete installation instructions, **DOD# 156**.



## Other Products

### Add 1-4 Entry Phones and Doorstrike Control to an Existing Phone Line



The **C-2000B** now offers two operational modes for added flexibility.

In the Single Line Ring Through Mode, the **C-2000B** allows single line phones to share a phone line with 1 to 4 entry phones. Tenants may converse with visitors and activate a contact closure to control gates or strikes. The **C-2000B** provides entry phone "Caller ID" and "Call Waiting Caller ID" and a "Call Waiting" tone when the phone lines is in use. Tenants may gain entry at each location by entering a keyless entry code.

In the Analog Station Dial Through Mode, the **C-2000B** allows 1 to 4 entry phones to share one analog PABX extension or telephone line and place outgoing calls. When a remote party answers, they can converse with visitors and activate a contact closure to control gates or strikes. Monitoring entry phones, forcing doorstrike relays to operate or remote programming of the **C-2000B** can be accomplished by calling the analog PABX extension or telephone line connected. Authorized personnel may gain entry at each location by entering a keyless entry code. For more information, see **DOD# 156**.

**Product Support Line...715.386.8666**

**Fax Back Line...715.386.4345**

Due to the dynamic nature of the product design, the information contained in this document is subject to change without notice. Viking Electronics, and its affiliates and/or subsidiaries assume no responsibility for errors and omissions contained in this information. Revisions of this document or new editions of it may be issued to incorporate such changes.

## AXIS Camera Station

Comprehensive video management software for monitoring, recording, playback and event management.



- > Up to 50 cameras
- > Scheduled and event-driven recording
- > Intuitive handling
- > Control of PTZ and dome cameras
- > Site maps
- > Remote viewing and control

AXIS Camera Station is a complete monitoring and recording system for up to 50 cameras. Designed for Axis network video products, this software offers easy installation and setup with automatic camera discovery and powerful event configuration wizard, as well as efficient management of cameras in the system.

View and record high quality video and audio from up to 50 cameras with H.264, MPEG-4 and Motion JPEG video compression. Support for H.264 video compression enables optimization of bandwidth and storage efficiency by significantly reducing the bit rate without compromising image quality.

Scheduled and event-driven recordings are triggered by motion or external inputs. AXIS Camera Station utilizes camera based motion detection to save bandwidth and disk space. Manual recording can be triggered directly in the live view interface.

AXIS Camera Station is developed with focus on ease-of-use and intuitive handling offering efficient management of cameras and video in the system.

Powerful recording search with timeline visualization and export functionality. Support for Site Maps makes it possible to render a full overview of the monitored area as well as gain quick access to any Axis network camera in the installation.

Control of PTZ and dome cameras using a joystick or mouse gives responsive and accurate control of the pan, tilt, zoom functionality. Support for digital PTZ is available in both live view and playback.

The Windows client can be installed on any computer, enabling remote viewing and control from anywhere on the corporate network or the Internet.

## Technical specifications – AXIS Camera Station

<b>Camera</b>		<b>Triggers &amp; Events</b>	
<b>Models</b>	Compatible with Axis network video products running firmware 4.30 or higher* *Excluding AXIS 206M/206W	<b>Event recording</b>	Events triggered by video motion detection, Active Tampering Alarm, AXIS Cross Line Detection, external inputs, manual trigger or system triggers
<b>Number of channels</b>	Up to 50	<b>Scheduled recording</b>	Schedule per camera allows customization of weekday and weekend recordings
<b>Video</b>		<b>Motion detection</b>	Advanced camera-based motion detection for low bandwidth utilization
<b>Video compression</b>	H.264 (MPEG-4 Part 10/AVC) MPEG-4 Part 2 Motion JPEG	<b>Input/output control</b>	Advanced control of cameras' digital inputs/outputs
<b>Resolutions</b>	Supports connected Axis video product resolutions	<b>Alarm notification</b>	Visual indication, audible alert, traybar notification, switch to camera/view, go to PTZ preset, email, alarm procedure, acknowledgement of alarms
<b>Recording frame rate</b>	1500 fps or more on recommended hardware	<b>Logs</b>	Alarm, event and audit logs
<b>Audio</b>		<b>System</b>	
<b>Audio streaming</b>	One-way audio	<b>Minimum system requirements</b>	Windows 7 Professional, Vista Business, XP Professional (server and/or client), 2008 Server R2, 2008 Server, 2003 Server (server only) Always use the latest service packs Microsoft .NET runtime environment (included in installation package)
<b>Audio compression</b>	AAC G.711 G.726	<b>Minimum computer requirements – client</b>	CPU: Intel P4 or higher, 2 GHz (Intel Core i7 recommended for larger systems) RAM: 1 GB (4 GB recommended for larger systems) Graphics card with full DirectX 9.0 hardware acceleration and onboard video memory of 256 MB or more Important! Use latest graphics card driver and DirectX runtime
<b>Recording server</b>		<b>Minimum computer requirements – server</b>	CPU: Intel P4 or higher, 2 GHz (Intel Xeon recommended for larger systems) 1 GB RAM (4 GB recommended for larger systems)
<b>Security</b>	Multiple user access levels with password protection using local or Windows domain users (Active directory)	<b>Recommended network</b>	100 Megabit network (Gigabit network recommended for larger systems)
<b>Installation and setup</b>	Automatic camera discovery Efficient camera management Powerful event configuration wizard	<b>Recommended hard disk configuration</b>	At 30 fps in VGA: up to 15 cameras/hard disk
<b>Recording storage</b>	Unlimited recording database, limited only by disk space Record directly to local and network disks Duration can be limited per camera to conform to local legal requirements Fail-over recording in cameras Locking of prioritized recordings	<b>General</b>	
<b>Client</b>	AXIS Camera Station Client (for Windows) included for local and remote viewing, playback and administration	<b>Languages</b>	English, French, German, Italian and Spanish
<b>Live view</b>		<b>Licenses</b>	AXIS Camera Station base licenses for 4 or 10 cameras/channels to be used on one single dedicated PC/server Additional licenses in +1, +5 or +20 up to 50 cameras/channels One year support license included in initial base license Future support and upgrades require a yearly support license 30-day demo can be upgraded to licensed version
<b>Camera live view</b>	Flexible live view configuration of up to 50 cameras, Axis' Corridor Format™, multiple monitors Hot-spot, camera/view sequence, site maps, web page	<b>License registration</b>	Register automatically over the Internet or manually at www.axis.com within a five day grace period
<b>PTZ support</b>	Control of PTZ and dome cameras using mouse or joystick Area zoom, Digital PTZ Programmable hot-keys	<b>Included accessories</b>	Installation Guide CD with software and User's Manual
<b>Playback</b>			
<b>Search for recordings</b>	Search for recordings based on camera, date and time Timeline visualization, smart search, bookmarks		
<b>Playback</b>	Playback speed: up to 64x or frame by frame Graphical timeline for quick overview of events		
<b>Synchronized playback</b>	Playback of video and audio from up to 25 cameras simultaneously		
<b>Export</b>	Manual and scheduled export Single images in JPEG format or video sequences in ASF format Digital signature on exported recordings		

More information is available at [www.axis.com](http://www.axis.com)

### Optional accessories

AXIS T8310 Video Surveillance Control Board for responsive and accurate pan/tilt/zoom control of cameras.



AXIS P8221 Network I/O Audio Module enhances video surveillance systems with additional I/O and superb audio quality.



### AXIS Camera Station One – free of charge



Software solution for viewing and recording live video from a single Axis network camera.

## AXIS P33 Network Camera Series

Fixed domes for any environment with remote focus and zoom.



- > Superb video quality in 5 MP and HDTV
- > Multiple H.264 video streams
- > Remote focus and zoom
- > Outdoor ready
- > Digital PTZ and multi-view streaming
- > P-Iris control

AXIS P33 Network Cameras constitute a series of indoor and outdoor-ready fixed domes. These cameras are ideal for unobtrusive video surveillance, day and night, in exposed areas such as airports, subways, retail stores, schools and university campuses.

AXIS P33 Series offers models from SVGA resolution up to 5 megapixel, and including support for SMPTE standard-compliant HDTV 720p and 1080p video. The 5 megapixel models can cover a large area with exceptional detail and light sensitivity.

The remote focus capability allows for convenient installation, eliminating hands-on focusing at the camera. The remote zoom and pixel counter features ensure that the camera's angle of view is optimized for the area to be monitored and the required pixel resolution.

The 3- and 5-megapixel models support the unique and revolutionary P-Iris control, which allows the cameras to precisely control the iris position to optimize depth of field and lens resolution for optimal image clarity.

AXIS P33 Series provides multiple, individually configurable H.264 and Motion JPEG video streams. All AXIS P33 cameras offer digital pan/tilt/zoom and the 3-megapixel and 5-megapixel models additionally provide multi-view streaming.

AXIS P33 Series ranges from indoor cameras to vandal-resistant outdoor models. They have low, environment-friendly power consumption, supplied by standard Power over Ethernet (IEEE 802.3af). This is the case even for the weatherproof models that operate in extreme temperatures from -40° to 55° C (-40° to 131 °F).



# Fixed domes designed for efficient installation – indoors or outdoors

AXIS P33 Series is the perfect choice for a wide range of demanding video applications in outdoor and indoor environments. AXIS P33 Network Cameras are designed for professional video surveillance with easy and reliable installation in focus.

## Outdoor-ready installation for extreme temperatures

The outdoor models of AXIS P33 Series are specially designed for reliable, vandal-resistant and weather-proof installation, with pre-installed heater and fan, and an integrated dehumidifying membrane eliminating any humidity caught in the camera casing during installation. These cameras come with a 5 m (16 ft.) Ethernet cable with a pre-mounted, specially designed gasket, enabling flush wall mounting and requiring no additional sealant. A weather shield is also included for effective protection against reflections from sunlight, or build-ups of rain or snow.

## Mounting options

AXIS P33 Series offers a wide range of optional kits for indoor and outdoor installations, for example, for mounting on a wall, pole or corner. The IP51-rated drop ceiling mount kit protects the camera from condensation and dust that may exist in the plenum space above the drop ceiling. Both indoor and outdoor

camera models include a smoked transparent cover as an alternative to the clear cover, for additional flexibility.

## Easy installation with remote focus and zoom

AXIS P33 Network Cameras offer unique installation capabilities with remote focus and zoom. The remote focus feature enables convenient focusing over the network, eliminating the need for hands-on fine-tuning at the camera. The remote zoom functionality ensures that the camera's angle of view is optimized for the area to be monitored.

## Unique pixel counter feature

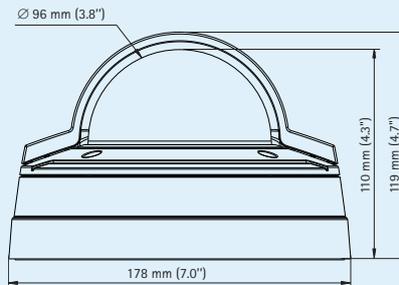
The unique pixel counter offered in Axis cameras allows the installer to easily verify that the camera installation fulfills any regulatory or specific customer requirements, for example, calculating the pixel resolution of the face of a person passing a doorway monitored by the camera.



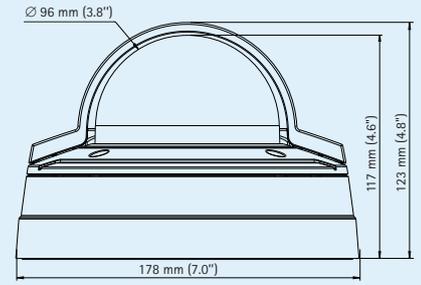
Unique pixel counter feature



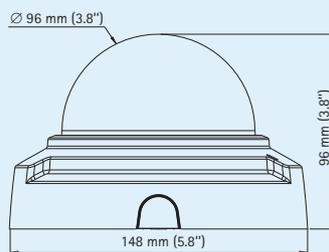
**AXIS P3343/-VE and AXIS P3344/-VE**  
Weight: 1.6 kg (3.5 lb.) with weather shield



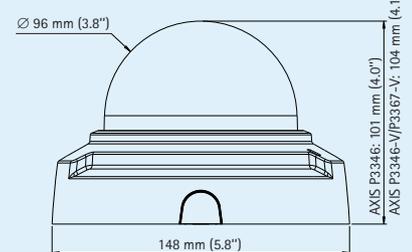
**AXIS P3346-VE and AXIS P3367-VE**  
Weight: 1.7 kg (3.7 lb.) with weather shield



**AXIS P3343 and AXIS P3344**  
Weight: 450 g (1.0 lb.)  
**AXIS P3343-V and AXIS P3344-V**  
Weight: 660 g (1.5 lb.)



**AXIS P3346**  
Weight: 490 g (1.1 lb.)  
**AXIS P3346-V and AXIS P3367-V**  
Weight: 700 g (1.6 lb.)



## Model Specifications – AXIS P33 Network Camera Series

Model type	Resolution			
	SVGA	1 MP / HDTV 720p	3 MP / HDTV 1080p	5 MP / HDTV 1080p
Tamper-resistant, indoor	AXIS P3343 6 mm AXIS P3343 12 mm	AXIS P3344 6 mm AXIS P3344 12 mm	AXIS P3346	
Vandal-resistant, indoor	AXIS P3343-V 6 mm AXIS P3343-V 12 mm	AXIS P3344-V 6 mm AXIS P3344-V 12 mm	AXIS P3346-V	AXIS P3367-V
Vandal-resistant, outdoor	AXIS P3343-VE 6 mm AXIS P3343-VE 12 mm	AXIS P3344-VE 6 mm AXIS P3344-VE 12 mm	AXIS P3346-VE	AXIS P3367-VE

Note: AXIS P3301/-V and AXIS P3304/-V are not part of AXIS P33 Series

## Technical Specifications – AXIS P33 Network Camera Series

Camera		Video streaming
<b>Image sensor</b>	AXIS P3343/-V/-VE and AXIS P3344/-V/-VE: Progressive scan RGB CMOS 1/4" AXIS P3346/-V/-VE: Progressive scan RGB CMOS 1/3" (effective) AXIS P3367/-V/-VE: Progressive scan RGB CMOS 1/3.2"	Multiple, individually configurable streams, H.264 and Motion JPEG Controllable frame rate and bandwidth VBR/CBR H.264
<b>Lens</b>	Varifocal remote zoom and focus, IR corrected, megapixel resolution AXIS P3343/-V/-VE 6 mm: 2.5-6 mm, 72°-34° view*, F1.2, DC-iris AXIS P3343/-V/-VE 12 mm: 3.3-12 mm, 54°-17° view*, F1.4, DC-iris AXIS P3344/-V/-VE 6 mm: 2.5-6 mm, 87°-40° view*, F1.4, DC-iris AXIS P3344/-V/-VE 12 mm: 3.3-12 mm, 70°-20° view*, F1.6, DC-iris AXIS P3346/-V/-VE: 3-9 mm, 84°-30° view*, F1.2, P-Iris AXIS P3367/-V/-VE: 3-9 mm, 84°-30° view*, F1.2, P-Iris *horizontal angle of view	<b>Multi-view streaming</b> Up to 8 individually cropped out view areas Digital PTZ, preset positions, guard tour AXIS P3346/-V/-VE: When streaming 4 view areas and 1 overview in VGA resolution, the frame rate is 20 fps per stream (3 MP capture mode) AXIS P3367/-V/-VE: When streaming 4 view areas and 1 overview in VGA resolution, the frame rate is 12 fps per stream (5 MP capture mode) or 20 fps per stream (3 MP capture mode)
<b>Day and night</b>	Automatically removable infrared-cut filter	<b>Image settings</b> Compression, color, brightness, sharpness, contrast, white balance, exposure control, exposure zones, backlight compensation, wide dynamic range – dynamic contrast, fine tuning of low light behavior Rotation: 0°, 90°, 180°, 270°, including Corridor Format Text and image overlay, privacy mask, mirroring of images
<b>Minimum illumination</b>	AXIS P3343/-V/-VE 6 mm: Color: 0.2 lux, F1.2, B/W: 0.04 lux, F1.2 AXIS P3343/-V/-VE 12 mm: Color: 0.3 lux, F1.4, B/W: 0.05 lux, F1.4 AXIS P3344/-V/-VE 6 mm: Color: 0.3 lux, F1.4, B/W: 0.05 lux, F1.4 AXIS P3344/-V/-VE 12 mm: Color: 0.4 lux, F1.6, B/W: 0.06 lux, F1.6 AXIS P3346/-V/-VE: Color: 0.5 lux, F1.2, B/W: 0.08 lux, F1.2 AXIS P3367/-V/-VE: Color: 0.2 lux, B/W: 0.04 lux, F1.2	<b>Audio</b> <b>Audio streaming</b> Two-way <b>Audio compression</b> AAC LC 8/16 kHz, G.711 PCM 8 kHz, G.726 ADPCM 8 kHz Configurable bit rate <b>Audio input/output</b> External microphone input or line input, line output AXIS P3343/-V, AXIS P3344/-V, AXIS P3346/-V and AXIS P3367/-V: Built-in microphone
<b>Shutter time</b>	AXIS P3343/-V/-VE and AXIS P3344/-V/-VE: 1/25000 s to 1/6 s AXIS P3346/-V/-VE: 1/35500 s to 1/6 s AXIS P3367/-V/-VE: 1/28000 s to 2 s	<b>Network</b> <b>Security</b> Password protection, IP address filtering, digest authentication, user access log, IEEE 802.1X** network access control, HTTPS** encryption
<b>Pan/Tilt/Zoom</b>	Digital PTZ, preset positions, guard tour	<b>Supported protocols</b> IPv4/v6, HTTP, HTTPS**, QoS Layer 3 DiffServ, FTP, SMTP, Bonjour, UPnP, SNMPv1/v2c/v3(MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS
<b>Camera angle adjustment</b>	AXIS P3343/-V/-VE and AXIS P3344/-V/-VE: Pan 360°, tilt 170°, rotation 340° AXIS P3346/-V/-VE and AXIS P3367/-V/-VE: Pan 360°, tilt 160°, rotation 340°	<b>System integration</b> <b>Application Programming Interface</b> Open API for software integration, including the ONVIF specification available at <a href="http://www.onvif.org">www.onvif.org</a> , as well as VAPIX® and AXIS Camera Application Platform from Axis Communications, specifications available at <a href="http://www.axis.com">www.axis.com</a> Support for AXIS Video Hosting System (AVHS) with One-Click Camera connection
<b>Video</b>		<b>Intelligent video</b> Video motion detection, active tampering alarm, audio detection Support for AXIS Camera Application Platform enabling installation of additional applications
<b>Video compression</b>	H.264 (MPEG-4 Part 10/AVC) Motion JPEG AXIS P3343/-V/-VE, AXIS P3344/-V/-VE, AXIS P3346/-V/-VE: H.264 Baseline Profile AXIS P3367/-V/-VE: H.264 Baseline and Main Profile	<b>Events</b> Intelligent video, external input
<b>Resolutions</b>	AXIS P3343/-V/-VE: 800x600 (SVGA) to 160x90 AXIS P3344/-V/-VE: 1280x800* (1 MP) to 160x90 AXIS P3346/-V/-VE: 2048x1536 (3 MP) to 160x90 AXIS P3367/-V/-VE: 2592x1944 (5 MP) to 160x90 *1440x900 (1.3 MP) scaled resolution available via VAPIX®	<b>Alarm actions</b> File upload via FTP, HTTP and email Notification via email, HTTP and TCP External output activation Video and audio recording to edge storage Pre- and post-alarm video buffering
<b>Frame rate H.264</b>	AXIS P3343/-V/-VE and AXIS P3344/-V/-VE: 30 fps in all resolutions AXIS P3346/-V/-VE: 3 MP capture mode: 20 fps in all resolutions, HDTV 1080p (1920x1080) and 2 MP 4:3 (1600x1200) capture modes: 30 fps in all resolutions AXIS P3367/-V/-VE: 5 MP capture mode: 12 fps in all resolutions; and capable of all AXIS P3346 capture modes	<b>Installation aids in software</b> Remote zoom, remote focus, pixel counter
<b>Frame rate Motion JPEG</b>	AXIS P3343/-V/-VE and AXIS P3344/-V/-VE: 30 fps in all resolutions AXIS P3346/-V/-VE: 3 MP capture mode: 20 fps in all resolutions, HDTV 1080p (1920x1080) and 2 MP 4:3 (1600x1200) capture modes: 30 fps in all resolutions AXIS P3367/-V/-VE: 5 MP capture mode: 12 fps in all resolutions; and capable of all AXIS P3346 capture modes	

\*\* This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. ([www.openssl.org](http://www.openssl.org))

## Technical Specifications (continued) – AXIS P33 Network Camera Series

General	
<b>Casing</b>	Polycarbonate transparent cover Aluminum inner camera module with encapsulated electronics Color: white NCS S 1002-B AXIS P3343/P3344/P3346: Tamper-resistant polycarbonate casing AXIS P3343-V/P3344-V: 1000 kg (2200 lb.) impact-resistant aluminum casing AXIS P3346-V/P3367-V: IK10 impact-resistant aluminum casing AXIS P3343-VE/P3344-VE: IP66- and NEMA 4X-rated, 1000 kg (2200 lb.) impact-resistant aluminum casing with integrated dehumidifying membrane AXIS P3346-VE/P3367-VE: IP66- and NEMA 4X-rated, IK10 impact-resistant aluminum casing with integrated dehumidifying membrane
<b>Processor and memory</b>	AXIS P3343-V/-VE and AXIS P3344-V/-VE: ARTPEC-3, 128 MB RAM, 128 MB Flash AXIS P3346-V/-VE: ARTPEC-3, 256 MB RAM, 128 MB Flash AXIS P3367-V/-VE: ARTPEC-4, 512 MB RAM, 128 MB Flash
<b>Power</b>	Power over Ethernet IEEE 802.3af AXIS P3343-V, AXIS P3344-V, AXIS P3346-V and AXIS P3367-V: Class 2 AXIS P3343-VE/P3344-VE/P3346-VE/P3367-VE: Class 3
<b>Connectors</b>	RJ-45 10BASE-T/100BASE-TX PoE Terminal block for 1 alarm input and 1 output 3.5 mm mic/line in, 3.5 mm line out
<b>Edge storage</b>	SD/SDHC memory card slot (card not included) Support for recording to network share (Network Attached Storage or file server)
<b>Operating conditions</b>	AXIS P3343-V, AXIS P3344-V, AXIS P3346-V, AXIS P3367-V: 0 °C to 50 °C (32 °F to 122 °F), humidity 15 - 85% RH (non-condensing) AXIS P3343-VE/P3344-VE/P3346-VE/P3367-VE: -40 °C to 55 °C (-40 °F to 131 °F), humidity 15 - 100% RH (condensing)
<b>Approvals</b>	EN 55022 Class B, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class B, ICES-003 Class B, VCCI Class B, C-tick AS/NZS CISPR 22, EN 60950-1 AXIS P3346-V/P3367-V: IEC 62262 IK10 AXIS P3343-VE/P3344-VE: EN 50121-4, IEC 62236-4, EN 60950-22, IEC 60529 IP66, NEMA 250 Type 4X AXIS P3346-VE/P3367-VE: EN 50121-4, IEC 62236-4, IEC 60529 IP66, NEMA 250 Type 4X, IEC 62262 IK10, EN 60950-22
<b>Included accessories</b>	Mounting and connector kits, Installation Guide, CD with installation tools, recording software and User Manual, Windows decoder 1-user license, smoked transparent cover AXIS P3343-VE/P3344-VE/P3346-VE/P3367-VE: Mounting bracket, weather shield, cable shield, 5 m (16 ft.) network cable with pre-mounted gasket

More information is available at [www.axis.com](http://www.axis.com)

## Accessories – AXIS P33 Network Camera Series

### Optional accessories for outdoor models

Pendant adapter kit including weather shield



AXIS T91A Brackets



Wall



Corner

I/O audio cable, 5 m (16 ft.)



Axis illuminators



AXIS P33-VE  
3/4" NPS Adapter



### Optional accessories for indoor models

Pendant adapter kit



AXIS T91A Brackets



Ceiling



Wall

Mounting bracket



IP51-rated drop-ceiling mount kit with transparent or smoked cover



For information on AXIS Camera Station and video management software from Axis' Application Development Partners, see [www.axis.com/products/video/software/](http://www.axis.com/products/video/software/)



5100 W. Brown Deer Road, Brown Deer, WI. 53223  
 Tel: (262) 814-7000 • Fa x: (262) 814-7017  
[www.Tapconet.com](http://www.Tapconet.com)

Quotation	
Price Quotation Number:	6262012
Please indicate this number when ordering	
Date:	6/26/2012
Reference:	Monona Terrace Upgrade

Customer/Buyer: Angela Giovannone	Terms: Net 30
Company: Singh & Associates	FOB: Our Plant
Name: Monona Terrace	Destination
Address: One John Nolan Drive Madison, WI. 53703	Estimated Delivery: 6-8 weeks
	Email: <a href="mailto:agiovannone@singhinc.com">agiovannone@singhinc.com</a>
Tel: 312-629-0240	Fax: 312-629-8449

Part No.	Qty	Description		Sell	Sell Total
<b>John Nolan Drive Entry Lanes</b>					
53-18125W	3	G-90 CD GATE,LH,120V,WHITE PAINT	\$	2,554.00	\$ 7,662.00
53-18035	3	GATE ARM, 10FT FINISHED, G89/G90/G90CD	\$	59.00	\$ 177.00
83-20553W	3	Universal One Credit Card TD, 115V, White, Inc. Prepay Mode Option	\$	16,667.00	\$ 50,001.00
SP-100	3	Passport Plus 360 Card Reader, Proximity	\$	1,134.00	\$ 3,402.00
SP-101	6	Loops	\$	400.00	\$ 2,400.00
SP-200	3	Viking Phone Dialer Intercom w/Remote Open Feature	\$	548.00	\$ 1,644.00
SP-201	3	Status Indicators (Red "X", Green Arrow)	\$	894.00	\$ 2,682.00
93-22083	1	SST Auditor Powerpad4 Fee Computer w/coupon creation	\$	11,467.00	\$ 11,467.00
93-10391	1	FEE DISPLAY, 2.3" LED W/HEATER 120 VOLT	\$	1,734.00	\$ 1,734.00
<b>Carrol Street Entrance (Upper Level)</b>					
53-18125W	1	G-90 CD GATE,LH,120V,WHITE PAINT	\$	2,554.00	\$ 2,554.00
53-18035	1	GATE ARM, 10FT FINISHED, G89/G90/G90CD	\$	59.00	\$ 59.00
83-20553W	1	Universal One Credit Card TD, 115V, White, Inc. Prepay Mode Option	\$	16,667.00	\$ 16,667.00
SP-100	1	Passport Plus 360 Card Reader, Proximity	\$	1,134.00	\$ 1,134.00
SP-101	2	Loops	\$	400.00	\$ 800.00
SP-200	1	Viking Phone Dialer Intercom w/Remote Open Feature	\$	548.00	\$ 548.00
SP-201	1	Status Indicators (Red "X", Green Arrow)	\$	894.00	\$ 894.00
<b>Carroll Street Entrance/Exit (Lower Level)</b>					
53-18125W	2	G-90 CD GATE,LH,120V,WHITE PAINT	\$	2,554.00	\$ 5,108.00
53-18035	2	GATE ARM, 10FT FINISHED, G89/G90/G90CD	\$	59.00	\$ 118.00
83-20553W	1	Universal One Credit Card TD, 115V, White, Inc. Prepay Mode Option	\$	16,667.00	\$ 16,667.00
83-20558W	1	Universal One CCEV, 115V, White, Credit Card In/Out Option	\$	13,067.00	\$ 13,067.00
SP-100	2	Passport Plus 360 Card Reader, Proximity	\$	1,134.00	\$ 2,268.00
SP-101	4	Loops	\$	400.00	\$ 1,600.00
SP-200	2	Viking Phone Dialer Intercom w/Remote Open Feature	\$	548.00	\$ 1,096.00
SP-201	2	Status Indicators (Red "X", Green Arrow)	\$	894.00	\$ 1,788.00
<b>John Nolan Drive Exit</b>					
93-22083	2	SST Auditor Powerpad4 Fee Computer w/coupon creation	\$	11,467.00	\$ 22,934.00
93-10391	2	FEE DISPLAY, 2.3" LED W/HEATER 120 VOLT	\$	1,734.00	\$ 3,468.00
53-18125W	3	G-90 CD GATE,LH,120V,WHITE PAINT	\$	2,554.00	\$ 7,662.00
53-18035	4	GATE ARM, 10FT FINISHED, G89/G90/G90CD	\$	59.00	\$ 236.00
43-16811W	1	Pay In Lane Model 9000C Cash/Credit w/annuciation	\$	21,200.00	\$ 21,200.00
83-20558W	2	Universal One CCEV, 115V, White, Credit Card In/Out Option	\$	13,067.00	\$ 26,134.00
SP-100	8	Loops	\$	400.00	\$ 3,200.00
SP-200	3	Viking Phone Dialer Intercom w/Remote Open Feature	\$	548.00	\$ 1,644.00
SP-201	3	Status Indicators (Red "X", Green Arrow)	\$	894.00	\$ 2,682.00
<b>Subtotal</b>					\$ 234,697.00



<b>Quotation</b>	
Price Quotation Number:	6262012
Please indicate this number when ordering	
Date:	6/26/2012
Reference:	Monona Terrace Upgrade

5100 W. Brown Deer Road, Brown Deer, WI. 53223  
 Tel: (262) 814-7000 • Fa x: (262) 814-7017  
[www.Tapconet.com](http://www.Tapconet.com)

Part No.	Qty	Description	Sell Each	Total
<b>Balance Forward</b>				\$ 234,697.00
<b>Pinckney Exit</b>				
93-22083	1	SST Auditor Powerpad4 Fee Computer w/coupon creation	\$ 11,467.00	\$ 11,467.00
93-10391	1	FEE DISPLAY, 2.3" LED W/HEATER 120 VOLT	\$ 1,734.00	\$ 1,734.00
53-18125W	1	G-90 CD GATE,LH,120V,WHITE PAINT	\$ 2,554.00	\$ 2,554.00
53-18035	1	GATE ARM, 10FT FINISHED, G89/G90/G90CD	\$ 59.00	\$ 59.00
43-16811W	1	Pay In Lane Model 9000C Cash/Credit w/annuciation	\$ 21,200.00	\$ 21,200.00
SP-100	1	Passport Plus 360 Card Reader, Proximity	\$ 1,134.00	\$ 1,134.00
SP-101	2	Loops	\$ 400.00	\$ 800.00
SP-200	1	Viking Phone Dialer Intercom w/Remote Open Feature	\$ 548.00	\$ 548.00
<b>Office</b>				
99-29208	1	Element Parking System Software Revenue, Monitoring, Count, Access Control, and Automation	\$ 26,294.00	\$ 26,294.00
99-29209	1	Element Central Credit Card Option	\$ 7,334.00	\$ 7,334.00
88-10243	5	Element Area Controller with Ethernet Interface	\$ 1,334.00	\$ 6,670.00
SP-4014	1	Server, DELL w/ANTI-VIRUS SOFTWARE	\$ 4,667.00	\$ 4,667.00
SP-4005	1	NETEPAY, DATACAP (Credit Card Processor), Chase/Paymentech	\$ 1,000.00	\$ 1,000.00
SP-4006	1	SOINCWALL, FIREWALL TZ190 (PCI Compliant)	\$ 934.00	\$ 934.00

<b>EQUIPMENT TOTAL</b>	<b>\$ 321,092.00</b>
<b>LABOR, INCL. 2 YR. PARTS &amp; 1 YR. LABOR WARRANTY</b>	<b>\$ 27,100.00</b>
<b>TAX (Monona Terrace Only)</b>	<b>Tax Exempt</b>
<b>GRAND TOTAL</b>	<b>\$ 348,192.00</b>

**Labor Warranty service is available during TAPCO normal business hours only. 24 Hour emergency service is available.**  
 Unlimited training is included with the installation price  
**Color Options are Silver, Yellow or White**

Prices are subject to increase to prices in effect at time of shipment when specific shipment date is later than one year from date of order. TAPCO, reserves the right to cancel any order resulting from this quotation in the event no agreement is reached on the foregoing statement. Minimum billing per order is \$100.00 This quotation automatically expires in 30 days. Materials or products or other manufacturers or source, used as a whole or in part as accessories to the Federal APD products, are guaranteed in the same manner as they are guaranteed to Federal APD. Any or all engineering drawings, specifications, installation instructions or diagrams relative to Federal APD products are not guaranteed to be free from error. All order are subject to acceptance by TAPCO. On projects over \$50,000.00 a 10% down payment is required. A 20% down payment is required for all projects over \$100,000.00.

This quotation constitutes an offer to sell the above-referenced equipment, software and/or services. Your signature of acceptance hereon constitutes your acceptance of this offer resulting in a binding agreement between the parties which is subject to the terms contained on both the first and last page hereof. Please read these terms prior to accepting this offer as you will be bound by them upon your signature.

Accepted Date: \_\_\_\_\_ Quotation By: \_\_\_\_\_  
 By: \_\_\_\_\_



5100 W. Brown Deer Road, Brown Deer, WI. 53223  
 Tel: (262) 814-7000 • Fa x: (262) 814-7017  
[www.Tapconet.com](http://www.Tapconet.com)

<b>Quotation</b>	
Price Quotation Number:	6262012
Please indicate this number when ordering	
Date:	6/26/2012
Reference:	Monona Terrace Upgrade

Part No.	Qty	Description	Sell Each	Total
<b>Potential Carroll Street Exit</b>				
83-20558W	1	Universal One CCEV, 115V, White, Credit Card In/Out Option	\$ 13,067.00	\$ 13,067.00
53-18125W	1	G-90 CD GATE,LH,120V,WHITE PAINT	\$ 2,554.00	\$ 2,554.00
53-18035	1	GATE ARM, 10FT FINISHED, G89/G90/G90CD	\$ 59.00	\$ 59.00
SP-100	2	Loops	\$ 400.00	\$ 800.00
SP-200	1	Viking Phone Dialer Intercom w/Remote Open Feature	\$ 548.00	\$ 548.00
SP-201	1	Status Indicators (Red "X", Green Arrow)	\$ 894.00	\$ 894.00
			<b>Total</b>	<b>\$ 17,922.00</b>
<b>Lobby Pay Stations</b>				
SP-900	4	Universal Pay Station w/Cash and Credit Acceptance and Dispensing. Includes 4 Note Dispensers	\$ 44,000.00	\$ 176,000.00
SP-901	4	Viking Phone Dialer Intercom w/Remote Open Feature	\$ 548.00	\$ 2,192.00
			<b>Total</b>	<b>\$ 178,192.00</b>
<b>Data Upgrade</b>				
SP-901	1	Ethernet Upgrade (Estimate Only)	\$ 13,334.00	\$ 13,334.00
<b>Cameras</b>				
SP-850	5	Camera, Axis P3346, Fixed, 3MP (2048 x 1536), HD Day/Night, Wide Dynamic Range (JND Entry, JND Exit, Carroll Entry, Pickney Exit)	\$ 1,200.00	\$ 6,000.00
SP-851	1	Software, Camera Station, 10 License	\$ 1,334.00	\$ 1,334.00
SP-852	1	Server, Video, 3 TB Storage	\$ 4,667.00	\$ 4,667.00
			<b>Total</b>	<b>\$ 12,001.00</b>
<b>Que Detection</b>				
SP-950	4	Iteris Camera, 4 camera processor	\$ 4,534.00	\$ 18,136.00
SP-951	4	Static Message Sign, LED, 42"x 7"	\$ 1,234.00	\$ 4,936.00
			<b>Total</b>	<b>\$ 23,072.00</b>
<b>Integrated Count System</b>				
12-10415	1	Ramp Controller 2, w/Anti-Tailgating Feature	\$ 1,667.00	\$ 1,667.00
12-10416	1	Ramp Controller 2 Power Supply	\$ 667.00	\$ 667.00
SP-600	1	Sign Net Software, Integrated with Element	\$ 6,000.00	\$ 6,000.00
SP-601	2	Spaces Available Sign	\$ 3,734.00	\$ 7,468.00
SP-602	4	Sawcut Vehicle Loops	\$ 400.00	\$ 1,600.00
			<b>Total</b>	<b>\$ 17,402.00</b>



# GMG SYSTEMS

parking technologies

## Parking Access and Revenue Control Systems



GMG Systems, Inc.  
14439 Catalina Street, San Leandro, CA 94577  
Tel/Fax: 888-GMG-SYSTEMS (888-464-7978)  
sales@gmgsys.com www.gmgsys.com

Proudly designed and manufactured in the U.S.A.

GMG Systems, Inc. is a Parking Access and Revenue Control Systems (PARCS) manufacturer located in the San Francisco Bay Area since 2003. Our founding engineers have combined PARCS experience of more than 42 years. All equipment is produced in the USA. GMG builds parking equipment that requires minimal service so we offer an unprecedented two (2) year warranty. GMG designs and builds parking equipment to meet any performance specification and our parking equipment products are typically related to the construction industry CSI Division 11150. Please refer to our website [www.gmgsys.com](http://www.gmgsys.com) for detailed product information, cut-sheets and features describing how the GMG equipment stands out among competitors.

**HANDS ON MANUFACTURING Means QUALITY and AFFORDABILITY**

Our principal founders are involved hands-on with every aspect of the manufacturing operation. They oversee and direct all research, design, engineering, cost analysis, fabrication, assembly, delivery, installation, training and service for all of GMG’s products. We strive for affordability with superior quality.

**PRODUCTS**

**Parking Entrance Stations & Ticket Dispensers**  
**Parking Exit Stations**  
**Barrier Gate Operators**  
**Automatic Pay Stations**  
**Credit Card Only Pay Stations**

**Standard Fee Computers**  
**Parking Management Servers**  
**Barcode Valet Fee Computers**  
**Pay & Display + Pay by Space**  
**Audio and Image Processing**

**SUPERIOR QUALITY Means “RELIABILITY YOU CAN COUNT ON!”**

To achieve superior products, the GMG principals have drawn from their vast experience, conducting an extensive evaluation of best practices and components among parking equipment systems. This has resulted in a simplified design using state of the art technologies and the highest quality components available. This superior quality claim is backed up by an exclusive two (2) year warranty. GMG produces one of the most advanced, most reliable parking equipment on the market today.

**OUTSTANDING EQUIPMENT & SOFTWARE FEATURES**

GMG incorporates 18 innovative features not found in competing equipment. Many end user benefits are associated with these features.

**SERVICES**

GMG offers a one stop shop for turn-key parking equipment system services that include:

**Parking Consultation**      **Estimating**      **Design and Engineering**  
**Manufacturing**              **Installation**      **Training**                      **Service**

**OUR GOALS**

- 1) To produce superior quality, user friendly, state of the art parking equipment which is easy to use, highly efficient, durable, long lasting, low maintenance, easy to service and cost effective.
- 2) To provide the highest return on investment (ROI) for our clients.
- 3) To stand out as the best value on the market today.
- 4) To earn your business and to keep our as a client by delivering low maintenance, long lasting PARCS.
- 5) To have each and every clients as one of our client references, not just as a satisfied customer.
- 6) To make life easier for our clients.





## PARKING EQUIPMENT MANUFACTURER

Producing:  
PARKING ACCESS & REVENUE CONTROL SYSTEMS (PARCS)

### WHAT SETS US APART?

18 EQUIPMENT & SOFTWARE FEATURES – WHICH SURPASS THE COMPETITION

#### FEATURES

- 1) An unprecedented two (2) year warranty
- 2) Maintenance friendly using the highest quality parts
- 3) User friendly and designed with customer focus
- 4) True Web-based user interface
- 5) Fully functional Web UI with access to ALL data
- 6) Highly versatile with unlimited scalability
- 7) Self diagnostic scanning & monitoring
- 8) Remote troubleshooting & system diagnostics
- 9) Proprietary, internal software licensing is eliminated
- 10) Product based on Linux® OS and Java™ platform
- 11) 128-bit data encryption in all process phases
- 12) Centralized integration of multiple facilities
- 13) High speed Ethernet TCP/IP communication
- 14) Built-in image processing – snapshots & video
- 15) Built-in real-time speech synthesis & audio playback
- 16) Powerful access card system & card compatibility
- 17) Unlimited record storage capacity – same speed!
- 18) Report output to major database formats

#### BENEFITS

- 1) Save the cost of 2<sup>nd</sup> year service agreement
- 2) BUILT TO LAST! Better return on investment (ROI)
- 3) Easy to use by parking patrons, less employee training
- 4) Accessible from any local or remote location, same UI
- 5) Complete access to all data & every control operation
- 6) Access from any number and any type of workstation(s)
- 7) Built-in self test examination of hardware and software
- 8) No need for field trips, thus save cost
- 9) Save recurring, proprietary, internal license fees
- 10) Save by eliminating 3rd party OS & DB license fees
- 11) Provides the same or higher level of security as banks
- 12) Central control location saves operating expenses
- 13) Lightning fast response for critical data verification
- 14) Photos at entry & exit provide added security
- 15) Personalized greetings & audio instructions
- 16) Unlimited multiple card types. Convenient for patrons.
- 17) No system slow down from accumulated data
- 18) Export all data to your current reporting format (Excel)

**GMG designs technically advanced, high quality, low maintenance, affordable equipment**

**HANDS ON MANUFACTURING Means QUALITY and AFFORDABILITY**

**SUPERIOR QUALITY Means “RELIABILITY YOU CAN COUNT ON!”**

**GMG BUILDS AFFORDABLE PARKING EQUIPMENT THAT LASTS!**



GMG Systems is proud to present APP3000 - a complete revenue and access control solution for automated parking garages. Using powerful LINUX® and Java™ technologies allows GMG Systems to offer many innovative features that are not common for the parking industry yet

**Built-in image processing and video capabilities in all system components.**

- The APP3000 parking management system associates every car entry and exit with a picture snapshot.



- The images are displayed in the usage activity reports
- The APP3400 Fee Computer automatically retrieves the picture taken at the garage entrance and shows it to the

cashier for verifying the vehicle and driver information.

- The video stream can be used for surveillance purposes eliminating the need of costly coaxial cabling through the entire parking facility. In case of an Internet connection to the APP3900 system server, the surveillance video is also transmitted over the Internet.

**Built-in real time speech synthesis and audio playback capabilities.**

- All APP3000 system components provide the patron with audio instructions during normal operation or in case of unusual events.
- All system components support speech synthesis and can play text messages distributed by the system server. This makes possible playing custom messages for a particular patron. Such features dramatically improve the garage appearance and put a personal touch in the patrons' overall parking experience.



**Web-based user interface and remote management.**



- APP3000 provides a native web-based user interface (like in on-line banking) for all administration, management, reporting and revenue auditing.

- Therefore

all system functionality is directly available through a secure remote connection to the system server (through modem, DSL, Wireless, etc.). This includes monitoring the garage occupancy, system alarms, lanes activities, running statistical and revenue reports, etc.

- Working from a remote location does not require installing any additional software – everything is done through a standard WEB interface using a web browser like Internet Explorer. This allows the garage management to be on top of operation even when far away from the office. All remote connections utilize a 128-bit SSL encryption for protecting the sensitive information.

**Barcode and Hybrid Magnetic Stripe / Barcode Ticket Technology**

Simultaneous use of magnetic stripe and barcode technology eliminates unreadable tickets. This is an invaluable feature for Central-pay unattended exit operation.

By using barcode technology the preprinted ticket number is matched to the machine issued number for easier auditing and ticket tracking. The magnetic encoding guarantees uninterrupted operation in off-line mode, the barcode part is used in case the magnetic data is damaged.

**Barcode only** technology perfect for the growing demand for fully automated facilities (no unreadable demagnetized tickets)







- Unlimited number of discount validations.
- Accepts payment by cash, credit card, check, charge account and store discount validation coupons.

- Automatic cash drawer.
- Unlimited numbers of employees supported.

Password and access rights for each employee.

- Built-in easy to read cashier and manager password protected daily reports.
- On demand detailed reports for past revenue for up to five years back.
- Ticket entrance picture display
- Server software hosting for small garages



### APP3100 Ticket Dispenser

- Credit card size magnetic stripe tickets, hybrid magnetic/barcode, or barcode only tickets
- Pushbutton or automatic ticket issue. Large, illuminated ticket request button flashing when active.
- Part of a powerful access cards control system with no limit for: maximum physical card number, number of cardholders, security access levels, time restriction codes. Unlimited number of individual and group parking restriction criteria.

- Large backlit graphic LCD screen with programmable, easy to understand messages.
- Reports stolen tickets to the APP 3000 system server for automatic invalidation and tracking.
- Lot full system input and output integration.
- Prints and encodes the issued ticket with: ticket number, date and time of issue, machine number, fee rate, optional discount rate.
- Built-in vehicle and gate counters.



### Options:

- Separate monthly access card console with reader and customer LCD screen when automatic ticket dispensing is in use - placed 10ft. from APP3100.

### APP3200 Exit Station.

- Large capacity ticket storage box for less collection trips holds up to 2,000 tickets.
- Credit card processing
- Thermal receipt printer with high capacity paper roll



- Hotel parking pass
- Hinged top cover opens up allowing easy access to the ticket transporting mechanism.
- Side and top access doors provide easy access to collected tickets and to protected service and wiring panels.
- Thermostat controlled heating and ventilation.
- Weather resistant design.

### APP3800 Pay Station.

- Accepts payment by notes, coins and credit cards.
- Self-replenishing coin system with up to four recycling coin change hoppers.
- Notes change in two denominations (exp. to six).
- Accepted and change notes stored in a secured lockable cassettes.
- Out of change alarms in online mode.
- Meets the ADA and ANSI requirements.

- Easy to read 15" LCD display with detailed instructions. Help demonstration mode available by demand.
- Interactive touch screen user interface for maximum convenience.
- Maintenance free thermal printer with custom receipts. Supports large receipt roll for less maintenance.
- As a part of the APP 3000 system automatically recognizes all recalled tickets eliminating illegal use of back out or stolen tickets.
- Built-in customer service intercom
- Built-in revenue and audit reports.
- Heavy duty steel tamper proof design with intrusion detection alarm.
- Multi-point door locking mechanism.
- Thermostat controlled heating and ventilation.



**Options:**

- Pay-and-display operation for small parking lots.
- Any combination of cash accepting and dispensing can be accommodated.
- Economic credit card only operation for unattended parking lots.

**Credit Card Only Pay Station**

- Economic version of the full featured Automatic Pay Station
- Accepts payment by credit cards.
- Multi-point door locking mechanism.
  - Easy for maintenance and service.
  - Maintenance free thermal printer with custom receipts. Supports large receipt roll for less maintenance.
  - Electronic or paper journal.
  - Easy to read 15" LCD display with detailed instructions. Help demonstration mode available by demand.
  - Interactive touch screen user interface for maximum convenience.



**Barcode Valet Fee Computer.**

- 15" Touch Screen LCD with fully customizable screen layout.
- Prints the ticket with entry time and payment information for easy auditing.
- Bar code scanner for reading the ticket number.
- Automatic fee calculation.
- Discount validations by flat amount, time period, percentage, etc.
- Built-in revenue and ticket inventory reports.
- Multifunction EPSON printer with:
  - Fast thermal receipt and reports printing.
  - Slip printing capability for valet ticket processing.
- Storage of revenue and activity data for the lifespan of the system.
- Built-in server software with Web-base user interface.



**Pay-and-Display or Pay-by-Space Machine**

- Pay-and-Display operation easily readable receipt showing expiration time.
- Pay-by-Space operation with space inventory report
- Cashier-less parking fee payment 24h per day, 365 days per year.
- Accepts payment by banknotes
- Accepts payment by coins
- Credit card processing
- Easy to read LCD display with detailed instructions.
- Vandal proof secure keypad
- Maintenance free thermal printer with custom receipts. Supports large receipt roll for less maintenance.
- Built-in revenue and audit reports.
- Real time clock with rechargeable backup battery.
- Multi-point door locking mechanism.
- Easy for maintenance and service.
- Meets the ADA requirements.



**California Based Manufacturing**  
**Great Reliability & Competitive Pricing**  
**18 Features: Surpassing the Competition**  
**100% Web Based User Interface**  
 \* No Software Licensing Fees \*  
**Unlimited Expandability & Scalability**  
**Centralized Integration: Multiple Facilities**  
**Built-in Audio & Image Processing**  
**Maintenance Friendly & User Friendly**  
 \* 2 Year Warranty \*



**TESTIMONIALS:**



**The City of Santa Cruz**

has had a very good experience with the GMG Systems parking equipment. GMG's equipment is currently installed in two locations within our City, one at the Santa Cruz Municipal Wharf and another in a downtown parking garage. The Wharf Gate serves, on average, 55,000 parkers per month and we have had virtually no issues with any of the GMG equipment since 2006.

The downtown pay stations are working fabulously and we especially like the Web based access capabilities which allows us to manage the parking operation from remote locations.

The proof of a good supplier is in the question, "Would we purchase this equipment again?" And the answer for GMG is an **outstanding YES**. GMG is a very good firm to work with.

– Marlin Granlund, Parking Program Manager, City of Santa Cruz

34 OCTOBER 2009 • PARKING TODAY • www.parkingtoday.com

**UC IRVINE, HEALTHCARE**

... "The performance of this new (GMG) equipment has been significantly better than, in fact, outstanding compared to the previous equipment. ... all of those previous difficulties went away with the GMG equipment. Their (GMG) equipment, software and their service has been excellent and we are very happy with the entire parking operations management package we acquired from them." ...

**HILTON HOTELS, UNIVERSAL CITY**

... "And it is my firm opinion that GMG offers some of the finest equipment and parking systems on the market today. Their equipment is very high quality, very durable, very easy to maintain and very easy to use. Compared with other equipment, we have had very few repair or service incidents."

**SANFRANCISCO PARKING OPERATOR**

"The (GMG) parking equipment is simple to use, cost effective and the 2 year warranty stands out over other parking equipment manufacturers."

GMG Systems, Inc.  
 14439 Catalina Street  
 San Leandro, CA 94577  
 Tel/Fax: 888-464-7978  
 888-GMG-SYSTEMS  
 sales@gmgsys.com www.gmgsys.com

Presented By:

Java™ is a trademark or a registered trademark of Sun Microsystems, Inc. in the United States and other countries. LINUX® is a registered trademark of Linus Torvalds.

*Quality, reliability, technical superiority... bulletproof solutions*



## APP 3100 Entrance Station

### Features

- Magnetic stripe, Hybrid Magnetic/Barcode or Barcode only tickets
- Pushbutton or automatic ticket issue. Illuminated ticket request button flashing when active.
- Large backlit graphic LCD screen with programmable, easy to understand messages.
- Built-in customer service intercom.
- Reports stolen tickets to the APP 3000 system server for automatic invalidation and tracking.
- Barrier gate vend or sliding/roll-up door vend signals.
- Lot full system input and output integration.
- Part of a powerful access cards control system with no limit for the number of cardholders or a maximum physical card number, car-pool and group parking, unlimited numbers of security access levels, time restriction codes, number of groups and number of group criteria.
- Internal test dispense button.
- Large nonvolatile data buffer for thousands of event records.
- Built-in real time speech synthesis and audio playback capabilities.
- Programmable voice announcement.
- Hinged door and top cover for easy access
- Thermostat controlled heating and ventilation.
- Weather resistant design.
- Easy for maintenance and service.
- TCP/IP communication

### Housing

Heavy-duty 12 gauge steel construction, all-weather gaskets, hinged top cover and door.

Dimensions: 45"x17.5"x22.5" (1143mm x 444mm x 572mm)

Weight: 150 lbs.

Finish: Standard Grey/Blue, options available



### Options

- Built-in image processing and video capabilities with built-in surveillance camera.
- Second access card reader port with a separate gate vend signal.
- RF access tag processing.
- Valet parking operation with multipart tickets.
- Bright external message display for garage FULL or custom messages.

### Electrical

120V AC, 60 Hz / 10 Amp max.

220V AC, 50/60 Hz / 5 Amp max.

### Environment

Temperature: -15F ~ 125F (-26C ~ 52C)

Humidity: 10% ~ 95% non-condensing

### GMG Systems, Inc

14439 Catalina Street

San Leandro, CA 94577

Tel/Fax: 888-GMG-SYSTEMS (888-464-7978)

sales@gmgsys.com, www.gmgsys.com

### Presented By:



## Barriers MAGSTOP Eco Barrier

### MBE 35 / MBE 50

Technical Data	Unit
Max. boom length	feet
Opening time	s
Closing time	s
Voltage	V
Frequency	Hz
Power consumption	W
Housing width	inches
Depth	inches
Height	inches
Weight	Lbs

MBE 35	MBE 50
12	15
approx. 2.3	approx. 4.6
approx. 2.8	approx. 4.9
115	115
60	60
65	65
12	12
14	14
41	41
110	110

#### The Barrier

The ECOLINE barrier represents the combination of our proven Magnetic technology with a single phase torque motor, housing and conventional control for both manual and automatic operation. Additional features of the ECOLINE barrier are easy setup and installation.

These barriers are suitable for all applications with simple requirements like gated communities, small car parks or those controlled by a guard.

The controller and a limit switch are integrated in the barrier. The barrier boom may be supplied in either standard or customized length.

#### The Drive Unit

The reliable direct drive consists of a maintenance-free torque motor and the lever system which enables an harmonious movement of the barrier boom. The counterbalance springs balance the boom weight. Using the lever system the barrier boom is locked in both end positions open or closed. In case of power failure the barrier can easily be opened manually. This can be done without using any tools.

The spring adjustment that corresponds to the boom length can be done quickly on site. This is necessary for every installation. An automatic opening of the barrier boom in case of power failure can be achieved by a stronger adjustment of the springs.

In the end positions the motor remains under power and the low power consumption of the motor is dissipated in the form of heat which guarantees the barrier can be operated at low temperatures and also prevents the occurrence of condensation in the motor and housing.

#### The Housing

The barrier consists of a self-supporting and compact housing with a UV-resistant and environmentally-friendly powder coat finish for maximum protection against corrosion. The housing color comes as standard in RAL9010 White. The controller and the power switch are located on the mounting plate. Pre-mounted DIN-rails enable an easy installation of additional electrical devices. The mounting plate and the drive unit within the barrier housing are readily accessible through the maintenance door at the left hand side. The top cover can also easily be removed.

#### The barrier boom

The barrier boom is extruded from highly stable aluminium alloy, to produce an octagonal profile of 4" x 2 x 1/16" thickness and finished with a RAL 9010 white paint then applied with red high reflective tape strips. The boom is readily visible even at night. If the barrier is to be any longer than 14 ft, it is imperative to use either a pendulum support or support pillar.

If the available vertical height is restricted, the barrier can optionally be supplied with an articulated boom.

#### The Control Unit

The ECOLINE controller enables the barrier to be operated manually or automatically. There are 11 standard functions to be selected for operating the barriers. These functions cover all standard applications.

The connection of additional safety equipment for pedestrians is possible.

Besides the standard operating modes several special functions are additionally integrated. These enable the operation of traffic lights. The storage of opening pulses (vent signal count) makes access control possible. After power failure there are three possibilities to restart the barrier: Manual reset, signal reset or automatically. For safety reasons the manual reset function is factory-set. This means the barrier remains open as long as the reset button at the control unit is pressed. The electrical connections are made on labeled terminal blocks. The motor is driven by a TRIAC output stage.

All signal inputs and relay outputs are opto-coupled. Selection of the operating mode and the special functions are by a rotary switch and DIP-switch.

For the power supply of optional external devices for example induction loop detectors 24 VDC / 0.5 A is supplied.

LED's show the status of inputs and outputs and help trouble shooting and diagnostics.

### The Signal Inputs

The 6 signal inputs use the internal 24 VDC for the following functions:

- Input 1 = Opening
  - Input 2 = Opening loop detector
  - Input 3 = Closing
  - Input 4 = Pedestrian safety
  - Input 5 = Safety
  - Input 6 = Limit switch
- (Inputs require potential free contacts)

### The Relay Outputs

The 4 potential-free relay outputs can be loaded with 24VDC / 1A. The functions can be selected via DIP-switch.

- Output 1 = motor drive direction or feedback CLOSE
- Output 2 = pulse when barrier opens or after release of safety device (passing of safety loop)
- Output 3 = Operation of traffic light or signal lamp
- Output 4 = System failure or additional traffic light control

### Mounting, Installation and Connection

It is imperative when installing this product to follow the installation instructions and comply with the electrical code.

### Safety

The details for the mounting and operating instructions as well as the accident prevention regulations are to be observed for installing and operating the barriers.

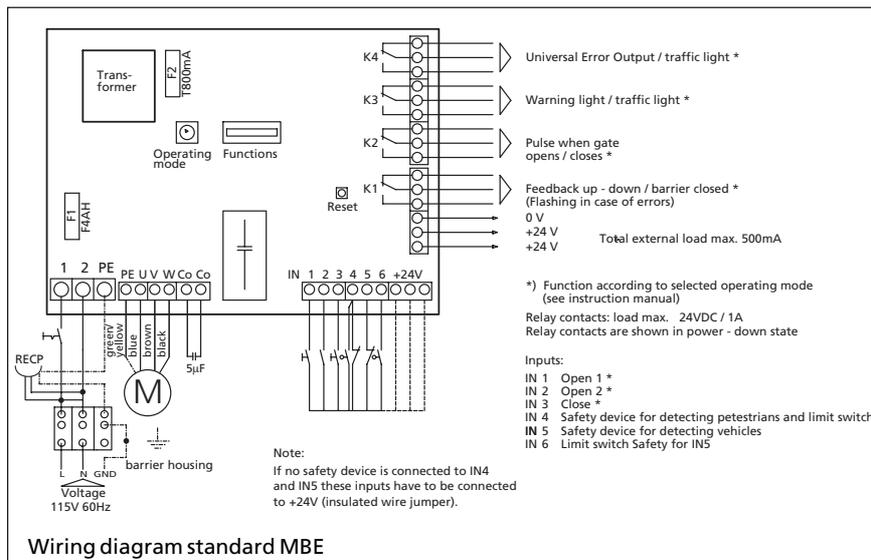
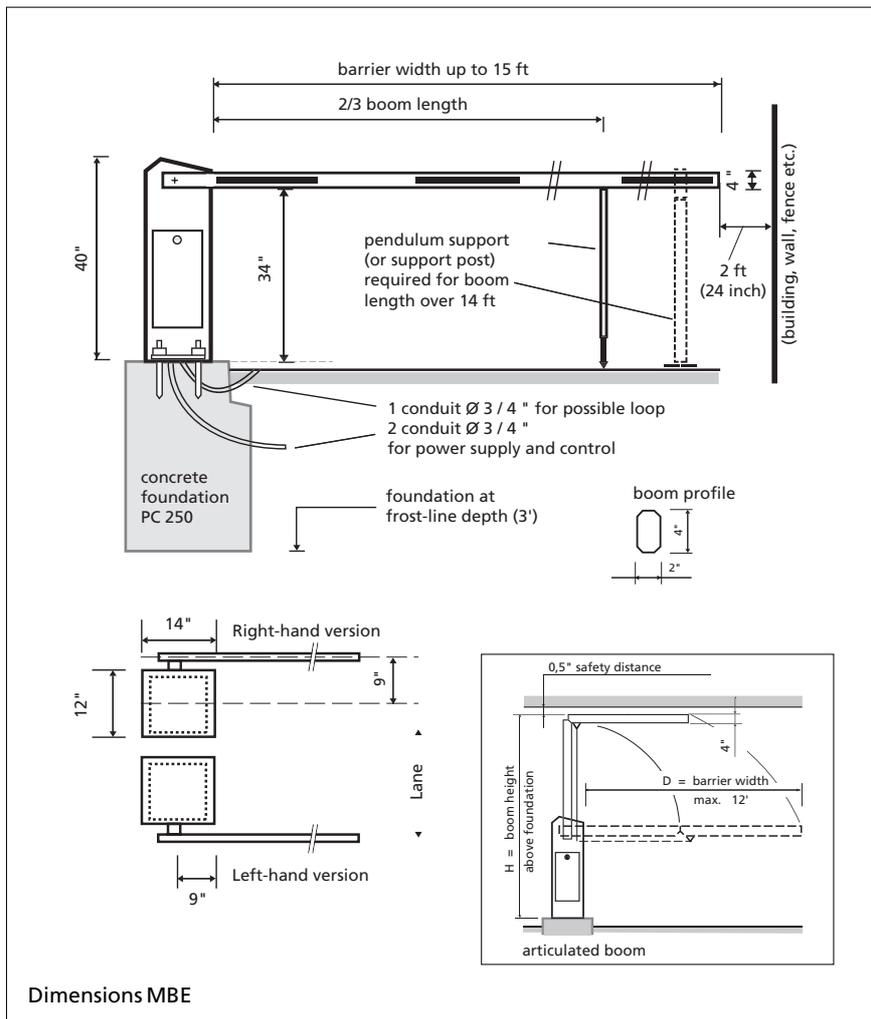
**A safe clearance distance of at least 2 ft (24 inches) must be provided between the tip of the barrier boom and the closest solid obstacle (building, wall, fence etc.).**

MAGNETIC emphasizes that the barriers shall only be used to control vehicle traffic. PEDESTRIANS ARE NOT ALLOWED.

The operator has to ensure an absolute separation of vehicle and pedestrian traffic by taking appropriate measures. Walkways next to the roadway must have additional markings and warning signs to keep pedestrians away from vehicle traffic and barrier.

The barrier comes with pictograms and warning labels "Automotive Traffic Only". The opening and closing actions must be observed. The barrier operation must be observed at all time.

Magnetic products correspond to the quality assurance according to the ISO 9001 regulations.



Order details  
 Type:           ○ MBE35   ○ MBE50  
 Version       ○ Right     ○ Left  
 Required width "D" = \_\_\_\_\_ ft  
 Order quantity \_\_\_\_\_ pcs

For boom length > 14 ft  
 ○ Pendulum support   ○ supporting pillar  
 Articulated boom necessary ?   ○ Yes  
 If yes, "H" = \_\_\_\_\_ ft



## APP 3200 Exit Station (Verifier)

### Features

- Magnetic stripe, Hybrid Magnetic/Barcode or Barcode only tickets
- Large capacity ticket storage box for less collection trips holds up to 2,000 tickets.
- Large backlit graphic LCD screen with programmable, easy to understand messages.
- Built-in customer service intercom.
- Reports stolen tickets to the APP 3000 system server for automatic invalidation and tracking.
- Barrier gate vend or sliding/roll-up door vend signals.
- Part of a powerful access cards control system with no limit for the number of cardholders or a maximum physical card number, car-pool and group parking, unlimited numbers of security access levels, time restriction codes, number of groups and number of group criteria.
- Large nonvolatile data buffer for thousands of event records.
- Built-in real time speech synthesis and audio playback capabilities.
- Programmable voice announcement.
- Hinged door and top cover for easy access
- Thermostat controlled heating and ventilation.
- Weather resistant design.
- Easy for maintenance and service.
- TCP/IP communication

### Housing

Heavy-duty 12 gauge steel construction, all-weather gaskets, hinged top cover and door.

Dimensions: 45"x17.5"x22.5" (1143mm x 444mm x 572mm)

Weight: 150 lbs.

Finish: Standard Grey/Blue, options available

### GMG Systems, Inc

14439 Catalina Street

San Leandro, CA 94577

Tel/Fax: 888-GMG-SYSTEMS (888-464-7978)

sales@gmgsys.com, www.gmgsys.com



### Options

- Credit card processing with receipt issue.
- Built-in image processing and video capabilities with built-in surveillance camera.
- Second access card reader port with a separate gate vend signal.
- RF access tag processing.

### Electrical

120V AC, 60 Hz / 10 Amp max.

220V AC, 50/60 Hz / 5 Amp max.

### Environment

Temperature: -15F ~ 125F (-26C ~ 52C)

Humidity: 10% ~ 95% non-condensing

### Presented By:

## Features

- Accepts payment by notes, coins and credit cards.
- Self-replenishing coin system with up to four recycling coin change hoppers.
- Notes change in two denominations, expandable to 6.
- Accepted and change notes stored in a secured lockable cassettes.
- Meets the ADA and ANSI requirements.
- Easy to read 15" LCD display with detailed instructions.
- Interactive touch screen user interface for maximum convenience.
- Built-in real time speech synthesis and audio playback capabilities.
- Programmable voice announcement.
- Maintenance free thermal printer with custom receipts. Supports large receipt roll for less maintenance.
- Automatic parking fees calculation for unlimited time period.
- As a part of the APP 3000 system automatically recognizes all recalled tickets eliminating illegal use of back out or stolen tickets.
- Built-in customer service intercom
- Built-in revenue and audit reports.
- Real time clock with rechargeable backup battery.
- Heavy duty steel tamper proof design with intrusion detection alarm.
- Multi-point door locking mechanism.
- Thermostat controlled heating and ventilation.
- Easy for maintenance and service.



Designed to provide automatic, cashier-less parking fee payment 24h per day, 365 days per year. Part of the APP3000 parking revenue and access control system. Supports credit card processing for fast, convenient payment. Accepts cash in notes and coins. Dispenses change in notes and coins. Meets the ADA and ANSI requirements. Heavy duty steel tamper proof design with intrusion detection alarm. The processed ticket is printed and electronically encoded with all necessary information for automatic garage exit and revenue auditing. APP3800 supports the industry standard Ethernet TCP/IP communication which allows seamless integration in any type of small or enterprise networks including wireless and Internet connectivity.

### Electrical

120V AC, 60 Hz / 5 Amp max. (10 Amp with heater)  
 220V AC, 50/60 Hz / 2.5 Amp max. (5 Amp with heater)

### Environment

Temperature: -15F ~ 125F  
 -26C ~ 52C  
 Humidity: 10% ~ 95% non-condensing

### Housing

Heavy duty steel tamper proof design with intrusion detection alarm. Multi-point door locking mechanism with concealed hinges.

### Dimensions:

Height: 63" (1600 mm)  
 Width: 30" (762 mm)  
 Depth: 20" (508 mm)

### Total weight:

Approx. 600 lb.  
 (272 kg.)

## GMG Systems, Inc

14439 Catalina Street  
 San Leandro, CA 94577  
 Tel: 888-GMG-SYSTEMS (888-464-7978)  
 sales@gmgsys.com, www.gmgsys.com

## Presented By:

*Quality, reliability, technical superiority... bulletproof solutions*

# **ATTENDENT** **ON DEMAND**



## **Fee Computer Interface for APP3800 Automated Pay Station**

- Allows any parking personnel to use APP3800 Automated Pay Station as a APP3400 Fee Computer
- Assists with lost tickets, special rates, discounts & more.
- Eliminates the need of a separate Fee Computer.
- Automated payment process minimizes cash handling errors.
- On-call attendants can be requested to assist patrons in special situations via intercomm without the need of a full-time on site employee.



# **MONTHLY**

---

# **DIRECT PAY**



## **Pay Monthly Fees on APP3800 Automated Pay Station**

- Monthly card holders can now pay their fees within in the garage.
- Available 24/7 for added convenience.
- Fast and Easy user interface.
- Accepts multiple types of payments.
- Instantly updates card information



**Monthly Direct Pay**

Name:	Kelly Jones
Card #:	254
Old Expiration Date:	2/28/2011
New Expiration Date:	3/31/2011
Billing Rate:	Regular Monthly
Amount Due:	\$200.00

# TECHNICAL Practice

**TELECOM SOLUTIONS FOR THE 21ST CENTURY**

**E-30/E-30-EWP**

**Handsfree Speaker  
Phone with Dialer**

June 22, 2010

## Provide Reliable and Intelligent Handsfree Communication!



E-30/E-30-EWP

The **E-30-EWP** shares all of the features of the **E-30** in addition to Enhanced Weather Protection (EWP) for installation in harsh environments. EWP products feature rubber gaskets and boots, silicon sealed connections, gel-filled butt connectors, as well as urethane potted circuit boards with weather sealed, field-adjustable trim pots and DIP switches for easy on-site programming.

The **E-30** handsfree phone is designed to provide quick and reliable handsfree communication and can be connected directly to a C.O. line or analog PABX/KSU station.

The **E-30** features non-volatile memory, a built in dialer, and intelligent call progress detection for automatic hang-up when the call is completed.

The **E-30** can be programmed to dial up to 5 different numbers on ring no answer or busy and can be configured to dial these numbers until answered.



E-30 shown with  
optional VE-5x5

## Features

- Handsfree operation
- Phone line powered
- Vandal resistant, stainless steel faceplate with heavy-duty metal call button
- Non-volatile E<sup>2</sup> memory (no batteries required)
- Touch Tone or pulse dialing
- Programmable to dial up to 5 numbers on busy or ring no answer
- Red off-hook LED indicator
- Hangs up on CPC, silence, busy signal, return to dial tone, time out or a Touch Tone command
- Programmable to auto-answer on incoming calls
- Remotely programmable
- Extended temperature range (-15°F to 130°F)
- **E-30-EWP has Enhanced Weather protection**
- Flush mountable using included plastic rough-in box
- Optional **VE-5x5** surface mount back box
- **E-30-EWP** conforms to NEMA requirements

**?** Need More Information on EWP?  
Call (715) 386-4345 and select 859.

**?** Need More Information on VE-5x5?  
Call (715) 386-4345 and select 424.

## Applications

### Non-ADA Hot-Line Phones for:

- Elevators
- Parking lots/ramps
- ATM machines
- Stadiums
- Convention centers

### Gate and Door Entry Phones for:

- Business lobbies
- Pedestrian gates
- Residences

**CAUTION** - <sup>1</sup> When installing on an analog extension of a phone system: Some phone systems do not conform to analog telecom standards and might not be compatible with the E-30 speaker phones. For a detailed description of the telephone line specifications required for any of the E-30 phones, retrieve Fax Back Document 869. <sup>2</sup> In louder background noise environments, the push to talk version may be required (E-30-PT or E-30-PT-EWP).

## Specifications

**Power:** Telephone line powered. Minimum 24V DC talk battery voltage, with a minimum loop current of 20mA loop. Loop current may be boosted on low current lines with a Viking Model **TBB-1B** talk battery booster (Fax Back # 632).

**Minimum Ring Voltage:** 25VAC RMS

**REN #:** 0.5A

**Dimensions:** Overall-127mm x 127mm x 57mm (5" x 5" x 2.25"), Plastic Electrical Box-102mm x 102mm x 54mm (4" x 4" x 2.12")

**Shipping Weight:** 1 Kg (2.2 lbs)

**Operating Temperature:** -26°C to 54°C (-15°F to 130°F)

**Humidity - E-30:** 5% to 95% non-condensing

**Humidity - E-30-EWP:** Up to 100% condensing

**Connections:** Gel-filled butt connectors

Phone...715.386.8861

## IF YOU HAVE A PROBLEM WITH A VIKING PRODUCT, PLEASE CONTACT: VIKING TECHNICAL SUPPORT AT (715) 386-8666

Our Technical Support Department is available for assistance Monday 8am - 4pm and Tuesday through Friday 8am - 5pm central time. So that we can give you better service, before you call please:

1. Know the model number, the serial number and what software version you have (see serial label).
2. Have your Technical Practice in front of you.
3. It is best if you are on site.

### RETURNING PRODUCT FOR REPAIR

The following procedure is for equipment that needs repair:

1. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (RA) number. The customer MUST have a complete description of the problem, with all pertinent information regarding the defect, such as options set, conditions, symptoms, methods to duplicate problem, frequency of failure, etc.
2. Packing: Return equipment in original box or in proper packing so that damage will not occur while in transit. Static sensitive equipment such as a circuit board should be in an anti-static bag, sandwiched between foam and individually boxed. All equipment should be wrapped to avoid packing material lodging in or sticking to the equipment. Include ALL parts of the equipment. C.O.D. or freight collect shipments cannot be accepted. Ship cartons prepaid to: Viking Electronics, 1531 Industrial Street, Hudson, WI 54016
3. Return shipping address: Be sure to include your return shipping address inside the box. We cannot ship to a PO Box.
4. RA number on carton: In large printing, write the R.A. number on the outside of each carton being returned.

### RETURNING PRODUCT FOR EXCHANGE

The following procedure is for equipment that has failed out-of-box (within 10 days of purchase):

1. Customer must contact Viking's Technical Support at 715-386-8666 to determine possible causes for the problem. The customer MUST be able to step through recommended tests for diagnosis.
2. If the Technical Support Product Specialist determines that the equipment is defective based on the customer's input and troubleshooting, a Return Authorization (R.A.) number will be issued. This number is valid for fourteen (14) calendar days from the date of issue.
3. After obtaining the R.A. number, return the approved equipment to your distributor, referencing the R.A. number. Your distributor will then replace the product over the counter at no charge. The distributor will then return the product to Viking using the same R.A. number.
4. **The distributor will NOT exchange this product without first obtaining the R.A. number from you. If you haven't followed the steps listed in 1, 2 and 3, be aware that you will have to pay a restocking charge.**

### LIMITED WARRANTY

Viking warrants its products to be free from defects in the workmanship or materials, under normal use and service, for a period of one year from the date of purchase from any authorized Viking distributor or 18 months from the date manufactured, whichever ever is greater. If at any time during the warranty period, the product is deemed defective or malfunctions, return the product to Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI., 54016. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (R.A.) number.

This warranty does not cover any damage to the product due to lightning, over voltage, under voltage, accident, misuse, abuse, negligence or any damage caused by use of the product by the purchaser or others.

**NO OTHER WARRANTIES:** VIKING MAKES NO WARRANTIES RELATING TO ITS PRODUCTS OTHER THAN AS DESCRIBED ABOVE AND DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTIES OR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

**EXCLUSION OF CONSEQUENTIAL DAMAGES:** VIKING SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE TO PURCHASER, OR ANY OTHER PARTY, FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR EXEMPLARY DAMAGES ARISING OUT OF OR RELATED TO THE SALE OR USE OF THE PRODUCT SOLD HEREUNDER.

**EXCLUSIVE REMEDY AND LIMITATION OF LIABILITY:** WHETHER IN AN ACTION BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY) OR ANY OTHER LEGAL THEORY, ANY LIABILITY OF VIKING SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCT, OR AT VIKING'S OPTION, REFUND OF THE PURCHASE PRICE AS THE EXCLUSIVE REMEDY AND ANY LIABILITY OF VIKING SHALL BE SO LIMITED.

IT IS EXPRESSLY UNDERSTOOD AND AGREED THAT EACH AND EVERY PROVISION OF THIS AGREEMENT WHICH PROVIDES FOR DISCLAIMER OF WARRANTIES, EXCLUSION OF CONSEQUENTIAL DAMAGES, AND EXCLUSIVE REMEDY AND LIMITATION OF LIABILITY, ARE SEVERABLE FROM ANY OTHER PROVISION AND EACH PROVISION IS A SEPARABLE AND INDEPENDENT ELEMENT OF RISK ALLOCATION AND IS INTENDED TO BE ENFORCED AS SUCH.

### FCC REQUIREMENTS

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. Inside the front panel of this equipment is a label that contains, among other information, a product identifier in the format US:AAEQ##TXXXX. If requested, this number must be provided to the telephone company.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive REN's on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of the REN's should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total REN's, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

The plug used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this E-30 does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

If the E-30 causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make

the necessary modifications to maintain uninterrupted service.

If trouble is experienced with the E-30, for repair or warranty information, please contact:

**Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI 54016 (715) 386-8666**

If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Connection to Party Line Service is subject to State Tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

**WHEN PROGRAMMING EMERGENCY NUMBERS AND (OR) MAKING TEST CALLS TO EMERGENCY NUMBERS:**

Remain on the line and briefly explain to the dispatcher the reason for the call. Perform such activities in the off-peak hours, such as early morning or late evenings.

It is recommended that the customer install an AC surge arrester in the AC outlet to which this device is connected. This is to avoid damaging the equipment caused by local lightning strikes and other electrical surges.

### PART 15 LIMITATIONS

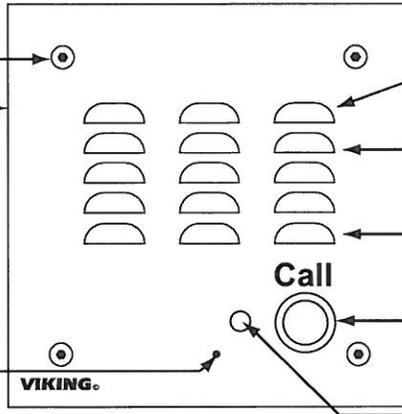
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

# Features Overview

**Mounting Screws:** 6-32 x 0.75" long flathead with 5/64" hexdrive, 18-8 stainless steel to prevent corrosion.

**Faceplate:** 14 gauge 304 stainless steel.

**Condensation Drain Hole**



**Microphone:** Omni-directional microphone with protective water-resistant cloth.

**Speaker:** Mylar speaker with rubber gasket to maintain water-tight seal and eliminate water deterioration.

**Speaker Screen:** Stainless steel speaker screen with 0.018" diameter holes to prevent punctures from paperclips, etc.

**Push Button Switch:** Push to initiate call, push again to disconnect. Solid 304 stainless steel internally sealed per IP67.

**LED:** Lights red for "In-Use" indication.

**DIP Switches (see page 7):**

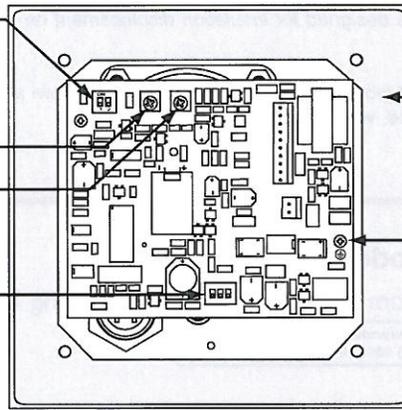
- 1: Normal Audio Detection
- 2: Increased Audio Detection

**Microphone Volume**

**Speaker Volume**

**DIP Switches (see page 7):**

- 1: Push Button Feature (connect / disconnect)
- 2: Auto Answer Feature (on/off)
- 3: Programming Switch (normal/programming)



**Faceplate Gasket:** 1/8" thick closed cell PVC to provide a water-tight seal.

**Earth Ground:** To increase surge protection, loosen the screw labeled ⊕ (as shown) and fasten a wire with ring terminal (included) from the mounting screw to Earth Ground (grounding rod, water pipe, etc.)

# Installation

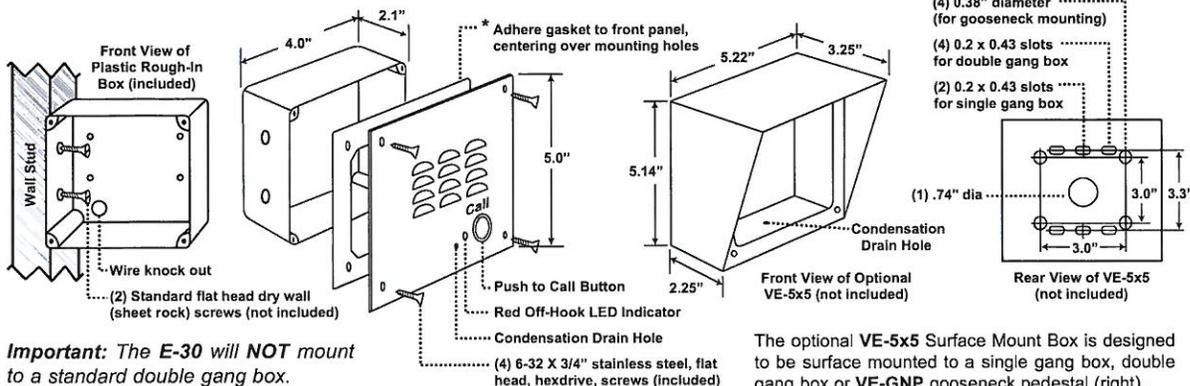
## A. Mounting



**IMPORTANT:** Electronic devices are susceptible to lightning and power station electrical surges from both the AC outlet and the telephone line. It is recommended that a surge protector be installed to protect against such surges. Contact Panamax at (800) 472-5555 or Electronic Specialists Inc. at (800) 225-4876.

**Caution:** When warm air comes in contact with cold surfaces, such as outside walls and conduits, it causes condensation. To prevent condensation from accumulating inside the E-30 always bring conduit into the bottom of the unit. If this is not possible, drill a 1/4" diameter hole in the bottom of the gray plastic box.

**\*Note:** Peel off paper liner and adhere gasket to the back of the faceplate, centering it over the four corner mounting holes. Be careful to position the modular jack inside the chassis as not to damage the components on the circuit board.



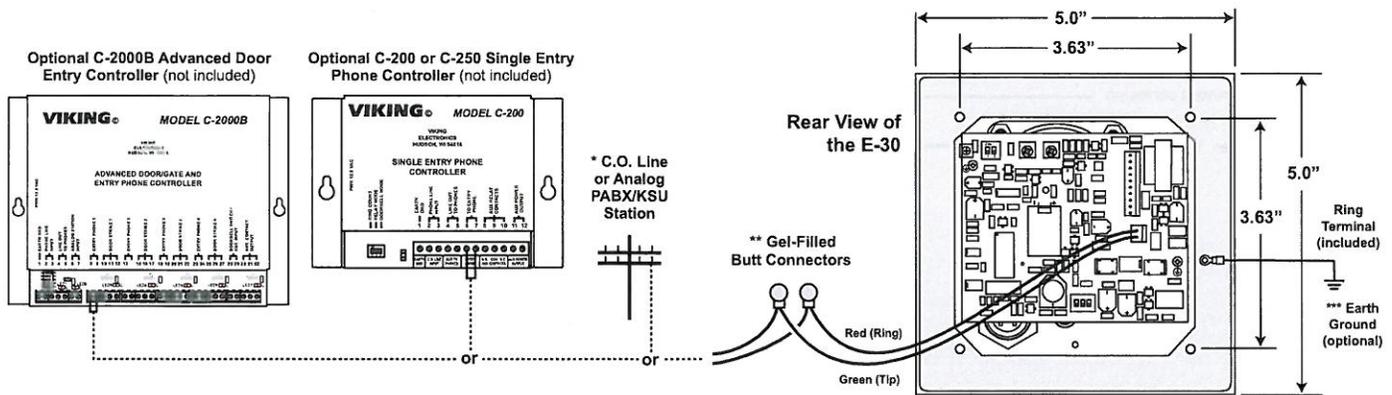
**Important:** The E-30 will NOT mount to a standard double gang box.

**Note:** The plastic rough-in box (part # 259576) may be purchased separately in advance. Go to [www.vikingelectronics.com](http://www.vikingelectronics.com) and click on "Spare Parts".

**?** Need More Information on VE-5x5 or VE-GNP? Call (715) 386-4345 and select 424.



## B. Wiring the E-30 Phone Board



\* **Note:** When installing a line powered phone on a low voltage and/or low loop current phone system extension, a **TBB-1B** Talk Battery Booster may be required, see **DOD# 632**.

\*\* **Note:** The gel-filled (water-tight) butt connectors are designed for insulation displacement on 19-26 gauge wire with a maximum insulation of 0.082 inches. Cut off bare wire ends prior to terminating.

\*\*\* **Note:** To increase surge protection, loosen the PCB mounting screw labeled  $\oplus$  (as shown above) and fasten a wire with spade terminal (included) from the mounting screw to Earth Ground (grounding rod, water pipe, etc.)

# Programming

## A. Accessing the Programming Mode

The **E-30** phone can be programmed from any Touch Tone phone using a C.O. line, analog PABX/KSU station, or a **DLE-200B** Line Simulator.  **Need More Information on the DLE-200B?** Call (715) 386-4345 and select 605.

### 1. Using the Security Code

<b>Step 1.</b>	Move DIP switch 2 to the <b>ON</b> position (sets unit to answer incoming calls - see section F).
<b>Step 2.</b>	From a Touch Tone phone call the line attached to the <b>E-30</b> .
<b>Step 3.</b>	When the <b>E-30</b> answers, enter the 6-digit security code (factory set to 845464 - see section C). A double beep should then be heard indicating you have entered the programming mode.

### 2. Without the Security Code

<b>Step 1.</b>	Move DIP switch 2 to the <b>ON</b> position (sets unit to answer incoming calls - see section F).
<b>Step 2.</b>	Move DIP switch 3 to <b>OFF</b> (incoming calls enter the programming mode without security code - see section F).
<b>Step 3.</b>	From a Touch Tone phone call the line attached to the <b>E-30</b> .
<b>Step 4.</b>	When the <b>E-30</b> answers, a double beep will be heard and you will automatically enter the programming mode.
<b>Step 5.</b>	When finished programming, move DIP switch 3 back to the <b>ON</b> position (see section F).

**Note:** If a valid memory position is entered, a double beep will be heard, four beeps indicate an error.

## B. Quick Programming Features

	Enter Digits	- then -	Enter Memory Location
First speed dial number .....	0-20 digits	then	<b>#00</b>
Second speed dial number .....	0-20 digits	then	<b>#01</b>
Third speed dial number .....	0-20 digits	then	<b>#02</b>
Fourth speed dial number .....	0-20 digits	then	<b>#03</b>
Fifth speed dial number .....	0-20 digits	then	<b>#04</b>
To add a * at any point in the dialing string .....	**		
To add a # at any point in the dialing string .....	*#		
To add a four second pause at any point in the dialing string .....	*7		
Toggle between Touch Tone and Pulse dialing .....	*6		
Miscellaneous options (factory set to 000210) .....	6 digits (0-9)	then	<b>#17</b>
Timing/Dialing options (factory set to 234111) .....	6 digits (0-9)	then	<b>#18</b>
Change security code (factory set to 845464) .....	6 digits (0-9)	then	<b>#19</b>
Exit programming and disconnect .....	#7		
Reset all programming to factory default settings .....	###		

### C. Security Code (memory location #19)

The security code allows the user/installer to program the **E-30** phone while DIP switch **3** is in the **ON** (normal) position. The factory set security code is 845464 (V-I-K-I-N-G). It is recommended that the factory set security code be changed. **Example:** To store 123456 as the security code:

<b>Step 1.</b>	Access programming as shown in <b>Programming</b> section <b>A</b> .
<b>Step 2.</b>	Enter <b>123456 #19</b> ..
<b>Step 3.</b>	Hang-up.

**Enter Your Security Code Here:**

							<b>#19</b>
--	--	--	--	--	--	--	------------

**Note:** The security code must be 6 digits and cannot include a \* or a #.

### D. Speed Dial Numbers (Memory Locations #00 - #04)

**Note:** Up to 20 digits can be stored in each dial position. Special features such as pause, mode change, Touch Tone \* and # count as single digits.

The speed dial number programmed in location **#00** is the telephone or extension number that is dialed when the "Call" button is first pressed. Additional speed dial numbers will be dialed when there is no answer or a busy signal is detected and the next number redial features are activated. The **E-30** will cycle through the programmed speed dial numbers until answered. To program, enter the desired speed dial number followed by the memory location number (**#00 - #04**).

To clear a speed dial location, simply enter the memory location (**#00 - #04**) alone. The **E-30** is factory set with no speed dial number programmed.

To Program:	Enter:
*	**
#	*#
4 second pause	*7
switch to pulse mode	*6
0, 1, 2...9	0, 1, 2...9

### E. Timing/Dialing Options (Memory Location #18)

There are six positions in the timing/dialing options. To program these options, enter the six desired timing/dialing digits followed by **#18**. The six available timing/dialing options are defined as shown below.

Dial: A + B + C + D + E + F + # + 1 + 8

Factory Default Setting: 2 + 3 + 4 + 1 + 1 + 1

Talk/Listen Delay \_\_\_\_\_

Call Length \_\_\_\_\_

Silence Time Out \_\_\_\_\_

Dial Next Number on Ring No Answer \_\_\_\_\_

Dial Next Number on Busy \_\_\_\_\_

Pulse Dial Speed \_\_\_\_\_

Enter Timing/Dialing Settings Here:

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>#18</b>

#### Setting A - Talk/Listen Delay

This feature selects switching time between talk and listen modes (VOX switching time). Use chart at the right. \* **Note:** The factory default is .2 seconds.

Touch Tone	Talk/Listen Delay
1	.1 sec
2	.2 sec *
3	.3 sec
4	.4 sec
5	.5 sec
6	.6 sec
7	.7 sec
8	.8 sec
9	.9 sec

#### Setting B - Call Length Time Out

This feature selects the maximum length of time that calls can be connected. Programmable in increments of 1 minute up to a maximum of 9 minutes (Touch Tones 1 - 9). Program 0 in this location to disable the call length time out. With the call length disabled, the **E-30** phone must rely on CPC, busy, reorder, silence or return dialtone to hang-up. Use chart at the far right. \* **Note:** The factory default is 3 minutes.

Touch Tone	Call Length Time Out
0	Disabled
1	1 min
2	2 min
3	3 min*
4	4 min
5	5 min
6	6 min
7	7 min
8	8 min
9	9 min

### Setting C - Silence Time Out

This feature selects the length of time that calls will remain connected without voice activity. Programmable in increments of 10 seconds up to a maximum of 90 seconds (Touch Tones 1 - 9). To disable the silence time out, program 0 in this location. Use chart at the right.

\* **Note:** The factory default is 40 seconds.

Touch Tone	Silence Time Out
0	Disabled
1	10 sec
2	20 sec
3	30 sec
4	40 sec*
5	50 sec
6	60 sec
7	70 sec
8	80 sec
9	90 sec

### Setting D - Dial Next Number on Ring No Answer

If enabled and a ring-no-answer is detected, the E-30 phone will dial the next programmed speed dial number, and continue to cycle through the emergency numbers until a call is completed. \* **Note:** This feature is disabled in the factory default.

Touch Tone	Setting D
1 or 0	Disabled*
2, 3, 4...9	Dials second number after 2, 3, 4...9 rings respectively

### Setting E - Dial Next Number on Busy

If enabled and a busy is detected, the E-30 phone will dial the next programmed speed dial number, and continue to cycle through the emergency numbers until a call is completed. \* **Notes:** This feature is disabled in the factory default setting. If the busy signal is interrupted with a promotional message, contact your central office to have it removed.

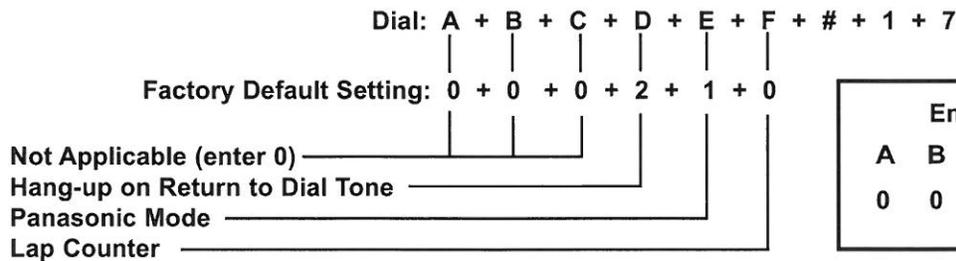
Touch Tone	Setting E
1	Disabled*
2	Enabled

### Setting F - Pulse Dialing Rate (Pulses per Second)

The E-30 phone is capable of different pulse dialing speeds. \* **Note:** The factory default setting is 10pps (pulses per second).

Touch Tone	Setting F
1	10 pps*
2	20 pps

## F. Miscellaneous Options (memory location #17)



Enter Settings Here:						
A	B	C	D	E	F	
0	0	0	<input type="text"/>	<input type="text"/>	<input type="text"/>	#17

### Settings A / B / C - Not Applicable

### Setting D - Hang Up on Return to Dial Tone

If enabled and a return dial tone is detected, the E-30 will hang up.

\* **Note:** The factory default setting is enabled.

Touch Tone	Setting D
1	Disabled
2	Enabled*

### Setting E - Panasonic Mode

The E-30 can be programmed to recognize the double ring cadence that is typical of Panasonic phone systems. If the E-30 is connected to a Panasonic extension, (or any other system that provides a double ring cadence) enable "Panasonic Mode" will allow for proper call progress detection.

\* **Note:** This feature is disabled in the factory default setting.

Touch Tone	Setting E
1	Disabled*
2	Enabled

## Setting F - Lap Counter

With the lap counter disabled (factory setting), if the **E-30** is programmed to dial the next number on ring-no-answer and/or busy signal (see page 5 and 6), the **E-30** will continuously call its programmed phone numbers forever until the call is answered.

Touch Tone	Setting F
0	Disabled*
1-9	Lap count = 1-9 times

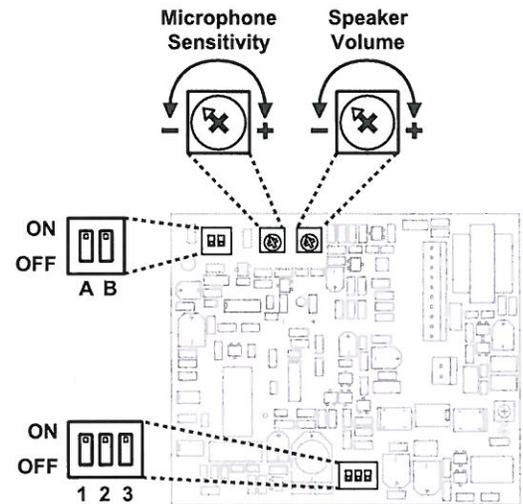
The lap counter is a programmable counter that determines how many times the **E-30** will cycle through its list of up to 5 emergency number (or up to 3 "Info" phone numbers), before it stops the dialing process and hangs up. When all of the programmed phone numbers have been dialed, the lap counter is incremented and the dialing process repeats. When the lap counter has been met, the dialing process stops and the **E-30** hangs up. \* **Note:** This feature is disabled in the factory default setting.

## G. DIP Switch Programming/Speaker and Microphone Adjustments

Two POTs are provided to increase or decrease speaker volume and microphone sensitivity. In certain noisy locations the microphone sensitivity may need to be decreased as shown below. **Caution:** Setting the microphone gain too high may cause distorted audio, prevent the distant party from breaking over and inhibit second number redialing.

Switch A	Switch B	Description
ON	ON	Normal audio detection
OFF	OFF	Increase audio detect sensitivity for low level lines. Useful in applications in which voice or busy signals have trouble breaking over to the speaker.

DIP Switch	Position	Description
1	ON	"CALL" button alternately connects and disconnects calls (factory default)
1	OFF	"CALL" button connects calls only
2	ON	Incoming calls answered (factory setting)
2	OFF	Incoming calls are not answered
3	ON	Normal operation mode (factory setting)
3	OFF	Learn mode - Any incoming calls are automatically entered into the programming mode (no security code required). Use this option if you have forgotten your security code.



## H. Programming Examples

To Program the E-30 Phone...	Step 1 - See Section A	Step 2 - Enter Digits:
...to store 123456 as the security code	Enter Programming	1 2 3 4 5 6 # 1 9
...to store a Touch Tone 9, a four second pause and then a pulse dialed 333-4444 in the first speed dial position	Enter Programming	9 *7 *6 3 3 3 4 4 4 4 # 0 0
...to store 555-1234 in the second speed dial position	Enter Programming	5 5 5 1 2 3 4 # 0 1

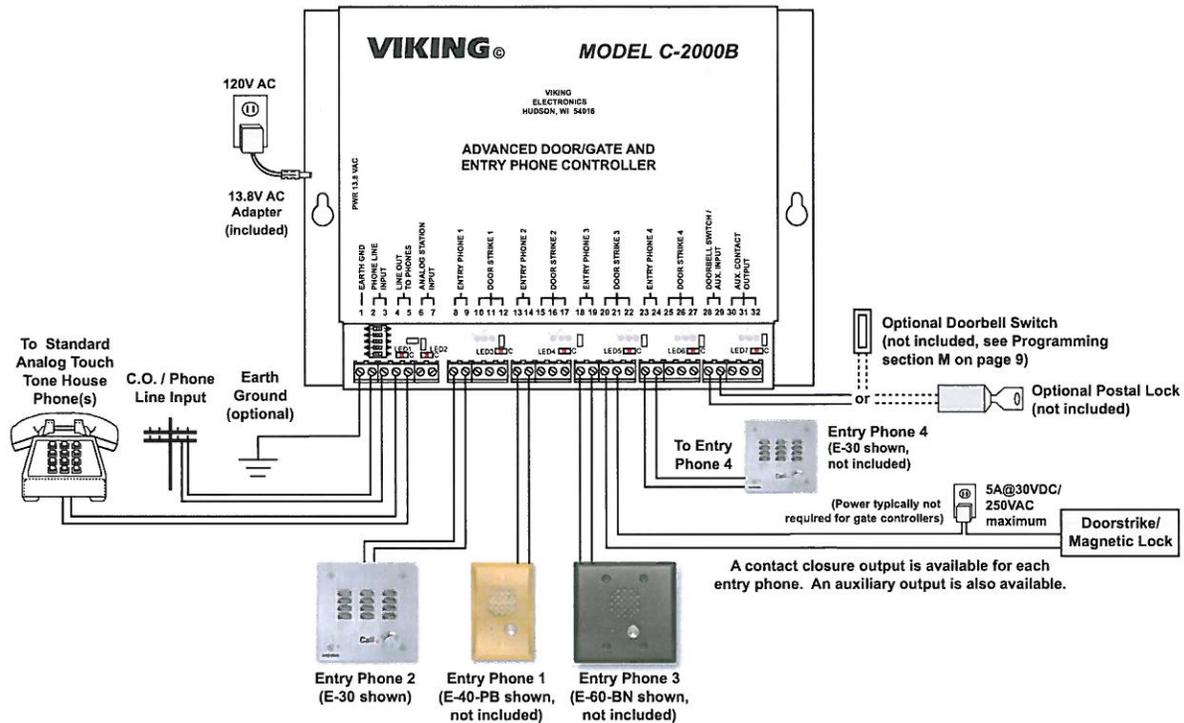
# Operation

When the "Call" button is pressed, the **E-30** phone goes off-hook, and dials a pre-programmed telephone number. The front panel LED will light any time the phone is off hook. In the event that the line is busy or there is a ring-no answer, the unit can be programmed to call additional phone numbers. The phone then cycles through up to 5 pre-programmed speed dial numbers until the call is answered. The **E-30** will hang up on CPC, silence, busy signal, return to dial tone, time out or Touch Tone command (\*#). If programmed to auto-answer, the **E-30** will also answer any incoming call.

# Applications

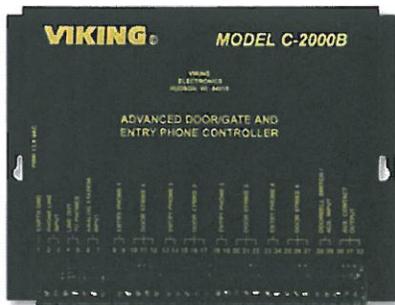
## C-2000B Advanced Door/Gate and Entry Phone Controller

The **C-2000B** allows up to 4 entry phones to call into your existing residential or business phones or phone system. Tenants may answer the call, converse with the visitor and activate a contact closure to control electronic gates or door strikes. The **C-2000B** provides "Caller ID," "Call Waiting ID" and "Call Waiting" tone when the phone line is in use. Tenants may gain entry at each gate by entering a Touch Tone keyless entry code. Tenants may call out to each entry phone for monitoring purposes. An auxiliary input is also available for connecting a common garage door opener/receiver and auxiliary keyless entry keypads. See the **C-2000B** Technical Practice for complete installation instructions, **DOD# 156**.



## Other Products

### Add 1-4 Entry Phones and Doorstrike Control to an Existing Phone Line



The **C-2000B** now offers two operational modes for added flexibility.

In the Single Line Ring Through Mode, the **C-2000B** allows single line phones to share a phone line with 1 to 4 entry phones. Tenants may converse with visitors and activate a contact closure to control gates or strikes. The **C-2000B** provides entry phone "Caller ID" and "Call Waiting Caller ID" and a "Call Waiting" tone when the phone lines is in use. Tenants may gain entry at each location by entering a keyless entry code.

In the Analog Station Dial Through Mode, the **C-2000B** allows 1 to 4 entry phones to share one analog PABX extension or telephone line and place outgoing calls. When a remote party answers, they can converse with visitors and activate a contact closure to control gates or strikes. Monitoring entry phones, forcing doorstrike relays to operate or remote programming of the **C-2000B** can be accomplished by calling the analog PABX extension or telephone line connected. Authorized personnel may gain entry at each location by entering a keyless entry code. For more information, see **DOD# 156**.

**Product Support Line...715.386.8666**

**Fax Back Line...715.386.4345**

Due to the dynamic nature of the product design, the information contained in this document is subject to change without notice. Viking Electronics, and its affiliates and/or subsidiaries assume no responsibility for errors and omissions contained in this information. Revisions of this document or new editions of it may be issued to incorporate such changes.



14439 Catalina Street San Leandro, CA 94577

# Quote

Date	Quote #
6/26/2012	2012-846

<b>Name / Address</b>
SINGH & Associates, Inc. Mau Hua Electrical Engineer 300 W. Adams Street, Suite 609 Chicago, Illinois 60606

<b>Project</b>	
Monona Terrace Convention Center, Madison	
<b>Rep</b>	Kris

Description	Qty	Cost/Unit	Total
<b>JOHN NOLAN DRIVE ENTRANCE</b>			
APP 3100B Barcode Ticket Dispenser	3	8,910.00	26,730.00T
Credit Card Terminal (price per lane/unit) PA-DSS validated solution.	3	1,755.00	5,265.00T
APP3084 MINI Prox Reader	3	243.00	729.00T
APP 3071 Telephone Intercom Station	3	607.50	1,822.50T
APP 3600S ParkingPro Barrier Gate Operator with 12ft straight aluminum gate arm & two Loop Detectors	3	5,265.00	15,795.00T
APP3091 Open / Closed LED Sign (3.5")	3	877.50	2,632.50T
APP 3089 Network IP Camera Kit (camera, TPZ camera housing, mounting bracket, switch, etc.)	3	1,788.75	5,366.25T
<b>JOHN NOLAN DRIVE EXIT</b>			
APP 3200B Barcode Exit Station	2	10,260.00	20,520.00T
Credit Card Terminal (price per lane/unit) PA-DSS validated solution.	2	1,755.00	3,510.00T
APP3084 MINI Prox Reader	3	243.00	729.00T
APP 3072 Telephone Intercom Station with Remote Open	4	877.50	3,510.00T
APP 3800B Pay-In-Lane Automatic Station - accepts coins, banknotes, and credit cards; change in Banknotes and coins with Bar-Code Reader	1	41,512.50	41,512.50T
APP 3400BE Barcode Cashier Station (Fee Computer), Exit	2	9,720.00	19,440.00T
APP 3600S ParkingPro Barrier Gate Operator with 12ft straight aluminum gate arm & two Loop Detectors	3	5,265.00	15,795.00T
APP3091 Open / Closed LED Sign (3.5")	3	877.50	2,632.50T
APP 3089 Network IP Camera Kit (camera, TPZ camera housing, mounting bracket, switch, etc.)	3	1,788.75	5,366.25T
<b>CARROLL STREET ENTRANCE (Upper Level)</b>			
APP 3100B Barcode Ticket Dispenser	1	8,910.00	8,910.00T
Credit Card Terminal (price per lane/unit) PA-DSS validated solution.	1	1,755.00	1,755.00T
APP3084 MINI Prox Reader	1	243.00	243.00T
APP 3071 Telephone Intercom Station	1	607.50	607.50T
APP 3600S ParkingPro Barrier Gate Operator with 12ft straight aluminum gate arm & two Loop Detectors	1	5,265.00	5,265.00T
APP3091 Open / Closed LED Sign (3.5")	1	870.00	870.00T
APP 3089 Network IP Camera Kit (camera, TPZ camera housing, mounting bracket, switch, etc.)	1	1,788.75	1,788.75T
<b>CARROLL STREET ENTRANCE (Lower Level)</b>			
APP 3100B Barcode Ticket Dispenser	1	8,910.00	8,910.00T
Credit Card Terminal (price per lane/unit) PA-DSS validated solution.	1	1,755.00	1,755.00T

Acceptance:  
I/We understand and agree to accept the terms of this proposal. I/We understand that equipment manufacture begins immediately when GMG Systems Inc. received deposit, and that the deposit is non-refundable, but may be used as a credit toward a future purchase from GMG Systems, Inc.

Signature \_\_\_\_\_

<b>Sales Tax (0.0%)</b>
<b>Total</b>

Local: 510-357-7978

Fax: 888-464-7978

Toll Free: 888-464-7978

E-mail: sales@gmgsys.com



14439 Catalina Street San Leandro, CA 94577

# Quote

Date	Quote #
6/26/2012	2012-846

<b>Name / Address</b>
SINGH & Associates, Inc. Mau Hua Electrical Engineer 300 W. Adams Street, Suite 609 Chicago, Illinois 60606

<b>Project</b>	
Monona Terrace Convention Center, Madison	
<b>Rep</b>	Kris

Description	Qty	Cost/Unit	Total
APP3084 MINI Prox Reader	1	243.00	243.00T
APP 3071 Telephone Intercom Station	1	607.50	607.50T
APP 3600S ParkingPro Barrier Gate Operator with 12ft straight aluminum gate arm & two Loop Detectors	1	5,265.00	5,265.00T
APP3091 Open / Closed LED Sign (3.5")	1	877.50	877.50T
APP 3089 Network IP Camera Kit (camera,TPZ camera housing, mounting bracket, switch, etc.)	1	1,788.75	1,788.75T
<b>PINCKNEY EXIT</b>			
APP 3800B Pay-In-Lane Automatic Station - accepts coins, banknotes, and credit cards; change in Banknotes and coins with Bar-Code Reader	1	41,512.50	41,512.50T
APP3084 MINI Prox Reader	1	243.00	243.00T
APP 3072 Telephone Intercom Station with Remote Open	2	877.50	1,755.00T
APP 3400BE Barcode Cashier Station (Fee Computer), Exit	1	9,720.00	9,720.00T
APP 3600S ParkingPro Barrier Gate Operator with 12ft straight aluminum gate arm & two Loop Detectors	1	5,265.00	5,265.00T
APP3091 Open / Closed LED Sign (3.5")	1	877.50	877.50T
APP 3089 Network IP Camera Kit (camera,TPZ camera housing, mounting bracket, switch, etc.)	1	1,788.75	1,788.75T
<b>GARAGE LOBBY</b>			
APP 3800B Pay-On-Foot Automatic Station - accepts coins, banknotes, and credit cards; change in Banknotes and coins with Bar-Code Reader	4	41,512.50	166,050.00T
Credit Card Terminal (price per lane/unit) PA-DSS validated solution.	4	1,755.00	7,020.00T
APP 3089 Network IP Camera Kit (camera,TPZ camera housing, mounting bracket, switch, etc.)	4	1,788.75	7,155.00T
<b>PARKING MANAGEMENT OFFICE</b>			
APP 3900 Management Server (hardware only), RAID 1	1	2,565.00	2,565.00T
APP 3902 Reporting Software Package	1	4,050.00	4,050.00T
APP 3903 Counting and Monitoring Software Package	1	6,206.25	6,206.25T
APP 3904 Access Card Control Software Package	1	3,881.25	3,881.25T
APP 3905-5 Credit Card Package PA-DSS validated solution. (Internet required)	1	7,593.75	7,593.75T
APP 3907 Pre-paid Tickets Software Package	1	3,510.00	3,510.00T
APP 3902 Revenue and Activity Reports Package		0.00	0.00T
APP3093 Garage Capacity System (one or more LED signs display the TOTAL of garage available spaces) price per outdoor sign	1	1,750.00	1,750.00T
Subtotal of Equipment			481,184.50
Shipping to Madison, WI		2,630.00	2,630.00

Acceptance:  
I/We understand and agree to accept the terms of this proposal. I/We understand that equipment manufacture begins immediately when GMG Systems Inc. received deposit, and that the deposit is non-refundable, but may be used as a credit toward a future purchase from GMG Systems, Inc.

Signature \_\_\_\_\_

**Sales Tax (0.0%)**

**Total**

Local: 510-357-7978

Fax: 888-464-7978

Toll Free: 888-464-7978

E-mail: sales@gmgsys.com



14439 Catalina Street San Leandro, CA 94577

# Quote

Date	Quote #
6/26/2012	2012-846

<b>Name / Address</b>
SINGH & Associates, Inc. Mau Hua Electrical Engineer 300 W. Adams Street, Suite 609 Chicago, Illinois 60606

<b>Project</b>	
Monona Terrace Convention Center, Madison	
<b>Rep</b>	Kris

Description	Qty	Cost/Unit	Total
Setup and Training		1,860.00	1,860.00
Equipment Installation		46,320.00	46,320.00
<b>OPTIONAL EQUIPMENT</b>			
CARROLL STREET EXIT (reversible lane)			
APP 3800B Pay-In-Lane Automatic Station - accepts coins, banknotes, and credit cards; change in Banknotes and coins with Bar-Code Reader	1		0.00T
APP3953 Credit Card Terminal (price per lane/unit) PA-DSS validated solution.	1		0.00T
APP3084 MINI Prox Reader (ProxPoint Proximity Reader)	1		0.00T
APP 3072 Telephone Intercom Station with Remote Open	1		0.00T
APP 3600S ParkingPro Barrier Gate Operator with 12ft straight aluminum gate arm & two Loop Detectors	1		0.00T
APP3091 Open / Closed LED Sign (3.5")	1		0.00T
APP 3089 Network IP Camera Kit (camera, TPZ camera housing, mounting bracket, switch, etc.)	1		0.00T
Pre-formed Loop (Cold)	2		0.00T
Saw Cut, Install and Seal in-ground loop	2		0.00
Equipment Installation	1		0.00
<b>TOTAL OPTIONAL EQUIPMENT \$ 68,952.25</b>			

**Terms:**

Quote valid for 90 days and supersedes any and all previous quotes, both written and verbal.  
**DELIVERY:** Within 90 days of order, unless otherwise specified. Custom features may take longer.  
**PAYMENT:** Non-refundable deposit of 50% of the Total price due when placing order. If order is canceled, deposit can be applied as a credit toward future purchase within 12 months. Balance due upon delivery.  
**LEASE PURCHASE OPTION PROGRAMS:** Lease programs with the option to purchase are available upon approved credit. Leasing minimizes out of pocket costs and typically creates an immediate positive cash flow; simplifies budgeting because you establish a limited and fixed payment; and keeps credit and back lines available for working capital needs such as inventory, payroll and expansion. Lease payments can be extended for as long as 60 months.  
 Atlantic Business - 1865 NE Dixie Highway; Jensen Beach, FL 34957; Tel: 1-800-625-2455; Fax: 1-772-334-7999  
 Credit Balboa Capital - 2010 Main St. 11th Floor; Irvine, CA 92614 ; Tel: 1-888-225-2621; www.balboacapital.com  
 Five Point Capital - Mr. Franco Coniglione  
 13280 Evening Creek Drive South, Suite 200, San Diego, CA 92128  
 P:(866) 615-5249 F: (877) 304-2436  
 fconiglione@fivepointcapital.com

**Acceptance:**

I/We understand and agree to accept the terms of this proposal. I/We understand that equipment manufacture begins immediately when GMG Systems Inc. received deposit, and that the deposit is non-refundable, but may be used as a credit toward a future purchase from GMG Systems, Inc.

Signature \_\_\_\_\_

**Sales Tax (0.0%)**

**Total**

Local: 510-357-7978

Fax: 888-464-7978

Toll Free: 888-464-7978

E-mail: sales@gmgsys.com



14439 Catalina Street San Leandro, CA 94577

# Quote

Date	Quote #
6/26/2012	2012-846

<b>Name / Address</b>
SINGH & Associates, Inc. Mau Hua Electrical Engineer 300 W. Adams Street, Suite 609 Chicago, Illinois 60606

<b>Project</b>	
Monona Terrace Convention Center, Madison	
<b>Rep</b>	Kris

Description	Qty	Cost/Unit	Total
<p>Scope of work:</p> <p>a) Installation includes:            Removing the old equipment (No Disposal)            Mounting the new equipment on the provided concrete bases.            Furnish and install electrical and control conduit and wires between units            Furnish and install all necessary conduit and data cables within garage            Connect power, communication and control lines            Setup and programming the equipment            Operation/Maintenance/Management Training</p> <p>b) Installation does NOT include:            Building Permits            Concrete work            Saw cut, install and seal in-ground loops</p> <p>TWO YEAR LIMITED WARRANTY</p> <p>1. Equipment Limited Warranty: GMG Systems, Inc. (GMG) warrants all Equipment to be free from defects in material or workmanship under normal use and recommended maintenance for a period of two (2) years from the date of delivery. Warranty specifically excludes defects resulting from misuse, abuse, neglect, alteration, modification, improper installation, unauthorized repairs, submersion, theft, vehicle crash, or by any other type of impact or damage. This limited warranty DOES NOT extend to those parts that are subject to excessive wear and tear. Components which are generally subject to excessive wear and tear and which are not covered by this warranty may include but are not limited to: motor brushes, drive shafts and pins, belts, fuses, limit switches, barrier gate arms with hardware, etc. Any defect found within two years and within the scope of this warranty will be corrected at GMG's factory. LABOR COST for troubleshooting, removing, replacing, servicing, and shipping/handling the defective part(s) are to be borne by the Customer. If it is determined that either no fault exists, or the damage to be repaired was caused by negligence, Customer agrees to pay all charges associated with such repair. This Warranty includes 90 days of technical support and 90 days of field support within a 200 miles radius of GMG's office. THIS CONSTITUTES THE SOLE WARRANTY MADE BY GMG EITHER EXPRESSED OR IMPLIED. EXCEPT AS PROVIDED HERE WITH, THERE ARE NO OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.</p> <p>2. Software Limited Warranty: GMG warrants that for a period of ninety (90) days from the date of shipment from GMG: (i) the media on which the Software is furnished will be free of defects in materials and workmanship under normal use; and (ii) the Software substantially conforms to its published specifications. Except for the foregoing, the Software is provided AS IS. This limited warranty extends only to Customer as the original licensee. In no event does GMG warrant that the Software is error free</p>			

Acceptance:  
 I/We understand and agree to accept the terms of this proposal. I/We understand that equipment manufacture begins immediately when GMG Systems Inc. received deposit, and that the deposit is non-refundable, but may be used as a credit toward a future purchase from GMG Systems, Inc.

Signature \_\_\_\_\_

<b>Sales Tax (0.0%)</b>
<b>Total</b>

Local: 510-357-7978

Fax: 888-464-7978

Toll Free: 888-464-7978

E-mail: sales@gmgsys.com



14439 Catalina Street San Leandro, CA 94577

# Quote

Date	Quote #
6/26/2012	2012-846

<b>Name / Address</b>
SINGH & Associates, Inc. Mau Hua Electrical Engineer 300 W. Adams Street, Suite 609 Chicago, Illinois 60606

<b>Project</b>	
Monona Terrace Convention Center, Madison	
<b>Rep</b>	Kris

Description	Qty	Cost/Unit	Total
<p>or that Customer will be able to operate the Software without problems or interruptions.</p> <p>3. Limitation of Warranty: Further, the warranty is void if, at any time: (i) Customer attempts to make any internal changes to any of the components of the Equipment or the Software embedded therein; (ii) the power supplied to any part of the Equipment exceeds the rated tolerance; (iii) if any external device attached by Customer creates conditions exceeding the tolerance of the Equipment; or (iv) the serial number is removed or defaced. OPERATION OF THE EQUIPMENT THAT RENDERS THIS WARRANTY VOID WILL BE DEFINED TO INCLUDE ALL OF THE POSSIBILITIES DESCRIBED IN THIS SECTION, TOGETHER WITH ANY PRACTICE WHICH RESULTS IN CONDITIONS EXCEEDING THE DESIGN TOLERANCE OF THE EQUIPMENT.</p> <p>4. Limitation of Liability: IT IS UNDERSTOOD AND AGREED THAT GMG'S LIABILITY FOR ANY DAMAGES SUFFERED BY ITS CUSTOMERS, WHETHER IN CONTRACT, IN TORT, UNDER ANY WARRANTY THEORY, IN NEGLIGENCE, OR OTHERWISE SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF NONCONFORMING UNITS OR PARTS. UNDER NO CIRCUMSTANCES SHALL GMG BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS) OF ANY CUSTOMER, OR ANY OTHER THIRD PARTY, EVEN IF GMG HAS BEEN PREVIOUSLY ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NO ACTION, REGARDLESS OF FORM, ARISING OUT OF THE TRANSACTIONS UNDER THIS AGREEMENT MAY BE BROUGHT BY EITHER PARTY MORE THAN ONE (1) YEARS AFTER SUCH PARTY KNEW OR SHOULD HAVE KNOWN OF THE OCCURRENCE OF THE EVENT(S) WHICH GAVE RISE TO THE CAUSE OF ACTION.</p> <p>GMG's support is available during normal business hours unless other terms apply under a separate Support Agreement. After the initial 90 days technical support fees will apply if there is no active support agreement in place. Customer Support: 888-464-7978 , option 2 or support@gmgsys.com</p> <p>Please, contact us about Support and Service Agreement details.</p>			

Acceptance:  
I/We understand and agree to accept the terms of this proposal. I/We understand that equipment manufacture begins immediately when GMG Systems Inc. received deposit, and that the deposit is non-refundable, but may be used as a credit toward a future purchase from GMG Systems, Inc.

Signature \_\_\_\_\_

<b>Sales Tax (0.0%)</b>
<b>Total</b>



14439 Catalina Street San Leandro, CA 94577

# Quote

Date	Quote #
6/26/2012	2012-846

<b>Name / Address</b>
SINGH & Associates, Inc. Mau Hua Electrical Engineer 300 W. Adams Street, Suite 609 Chicago, Illinois 60606

<b>Project</b>	
Monona Terrace Convention Center, Madison	
Rep	Kris

Description	Qty	Cost/Unit	Total
<p><b>Main Benefits:</b>            True Web-based secure user interface for local or remote management. Only a web browser is needed to access the parking management software either in the garage or through a remote connection.            Full system functionality available through the web interface. Unlimited number of client workstations from any type can connect to the server - Microsoft Windows® PC, Apple Macintosh®, Linux®, Hand-held PDA.            All products are based on Linux® OS and Java™ technology, so no third party licenses or additional fees are necessary for workstation, server or database modules.            Ethernet TCP/IP communication in every piece of parking equipment allows integration into any existing network infrastructure – wired, fiber-optic, wireless, Internet.            Multiple facilities can be managed in a central location via secure connection.            All pieces of equipment are capable of operating in off-line mode for unlimited time periods. No revenue or activity records are ever lost. The collected data is transmitted to the parking server when communication is restored.            Access card system supports a high level of security and uses any number and type of cards simultaneously.            128-bit data encryption in all phases of information collection, transmission and storage.            Unlimited number of revenue and activity records stored for the lifespan of the system.            Report output export to major database formats, including Microsoft® Office Excel®.</p>			

Acceptance:  
 I/We understand and agree to accept the terms of this proposal. I/We understand that equipment manufacture begins immediately when GMG Systems Inc. received deposit, and that the deposit is non-refundable, but may be used as a credit toward a future purchase from GMG Systems, Inc.

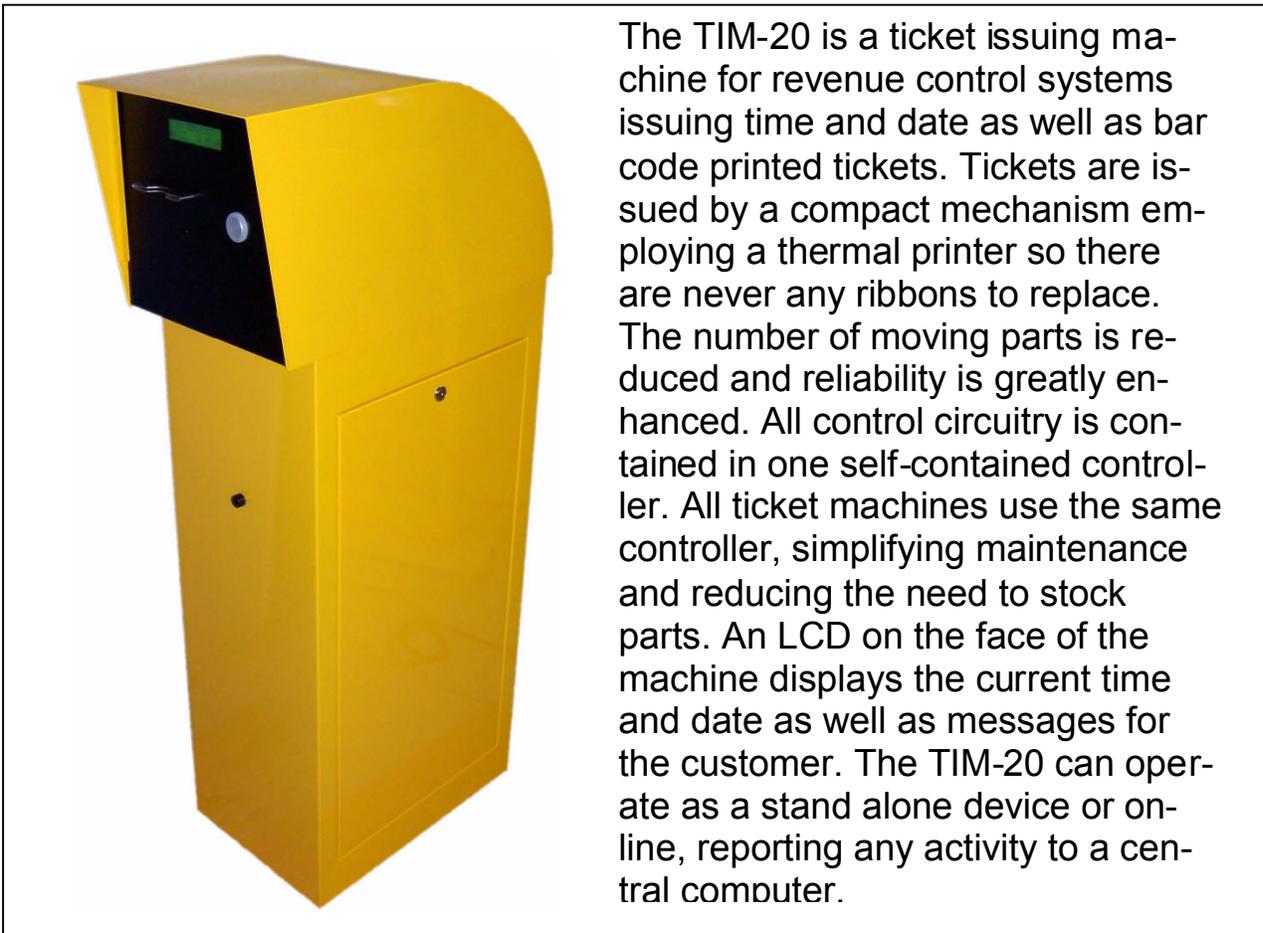
Signature \_\_\_\_\_

<b>Sales Tax (0.0%)</b>	\$0.00
<b>Total</b>	\$531,994.50



# TICKET ISSUING MACHINE TIM-20

## Product Specification



The TIM-20 is a ticket issuing machine for revenue control systems issuing time and date as well as bar code printed tickets. Tickets are issued by a compact mechanism employing a thermal printer so there are never any ribbons to replace. The number of moving parts is reduced and reliability is greatly enhanced. All control circuitry is contained in one self-contained controller. All ticket machines use the same controller, simplifying maintenance and reducing the need to stock parts. An LCD on the face of the machine displays the current time and date as well as messages for the customer. The TIM-20 can operate as a stand alone device or on-line, reporting any activity to a central computer.

### A. HOUSING

The housing shall be weatherproof and constructed of heavy gauge steel not less than #14 gauge. All seams and joints shall be electric bead welds. No spot welds shall be acceptable for base construction.

The base of the housing shall be provided with risers which shall keep the floor of the base off the mounting surface in order to provide air circulation and water drainage beneath the housing. This feature shall be provided to lengthen the life of the housing. Access to the inside of the base shall be provided by 2 flush, full length gasketed, key locked doors. One door shall access the ticket magazine, one door shall access the machines electronic controls.

The finish shall be a powder coat paint finish applied over a suitable primer.

# TICKET ISSUING MACHINE TIM-20

## Product Specification



The ticket magazine shall be removable in order to speed restocking of tickets. The capacity of the magazine shall be a minimum of 10000 fan-folded tickets. The magazine shall be capable of holding tickets from 2" to 3 " in width.

The housing shall contain 2 separately locked compartments; the bottom (base) compartment containing the tickets and ticket issuing machine controller and the top compartment containing the issuing mechanism.

The hood or top section of the housing shall be hinged for easy access to the mechanism and electrical connections.

### **B. TICKET ISSUING MECHANISM**

The mechanism shall be one complete assembly providing all necessary connections to the controller. The printing method shall be thermal.

To prevent rust and corrosion, all mechanism components shall be plated. All mounting bolts, hardware, etc., shall also be plated.

The mechanism shall be capable of issuing a standard 2" X 5" ticket at a rate of 60 per minute. Tickets shall be cut off before being issued. No portion of the ticket shall be in a position permitting handling before it is cut off completely.

A sensor in the mouth of the ticket machine shall prohibit issuing of any additional tickets as long as a ticket remains in the mouth of the machine.

The current time, date and lane number of the ticket machine shall be printed on the ticket in man readable form at the time it is issued. The TIM-20 shall also be able to encode this information on the tickets in the form of a bar code. Additional printing (custom messages) shall also be available on request.

### **C. TICKET ISSUING CONTROLLER**

All control logic shall be contained in one easily removable circuit board. All field wiring to the controller shall be made on easily accessible screw terminals. All controllers shall be identical and completely interchangeable with any other controller.

A 32 character LCD display on the face of the mechanism shall display the current time and date. When a ticket is issued, the LCD shall display the message: "PLEASE TAKE TICKET". The LCD shall incorporate an LED back lighting and shall be visible under all lighting conditions. Custom LCD messages shall be available upon request.

# TICKET ISSUING MACHINE TIM-20

## Product Specification



Time, date and operating parameters shall be programmed via a hand held key pad. The key pad shall plug directly into the controller board. The controller shall contain a battery backup in case of power failure and shall maintain the time, date and all programming for a minimum of 72 hours.

The controller shall contain inputs and outputs for connection and control of peripheral equipment. The following inputs shall be provided:

- \* Loop occupied (arming)
- \* Issue ticket
- \* Low ticket sensor
- \* Inhibit (stops issuing of tickets in a lot full or out of tickets condition)

The following outputs shall be provided:

- \* Raise gate
- \* Out of service (can activate a full sign or switch red/green light)

### D. COMMUNICATION TO HOST COMPUTER

Optionally, the Ticket Issuing Controller shall be able to communicate via RS-485 with a host system. The host system shall be capable of monitoring the status of the ticket machine, remote programming and control, and maintaining the correct time and date.

### E. TECHNICAL DATA

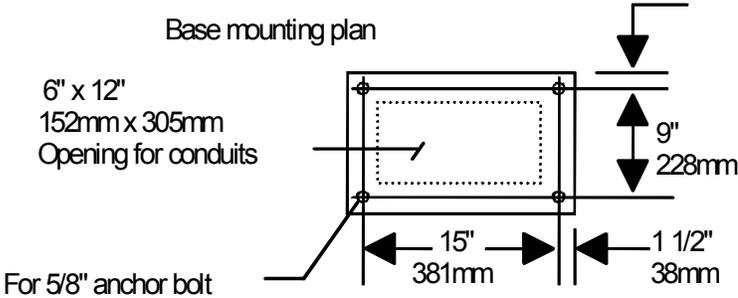
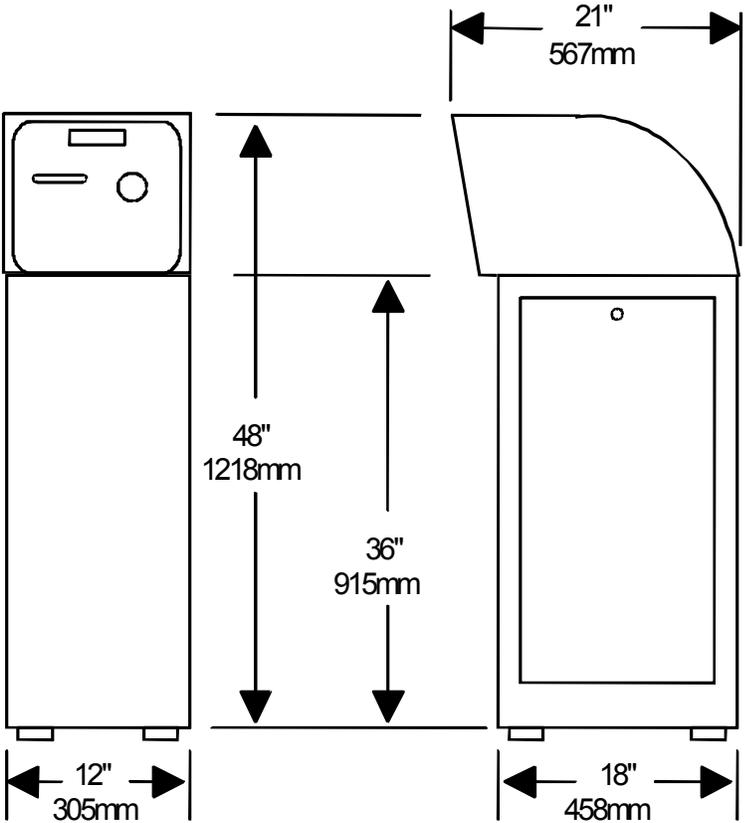
Ticket	Thermal printing, 2" x 5" standard custom sizes available
Encoding Method	Bar Code
Printing Method	Thermal
Mechanical	48" H X 12" W X 21" D (1218mm X 305mm X 567mm)
Weight	110 lbs. (50 Kg)
Power	110-220VAC, 50/60Hz, 3Amps
Environmental	Operating temperature: -5 deg. F to 160 deg. F (-20 deg. C to 70 deg. C)

# TICKET ISSUING MACHINE TIM-20

## Product Specification



### Ticket Issuing Machine Housing Dimensions:



# UNIVERSAL GATE UG-141

## Product Specification



Barrier gate for standard parking applications. The gate arm is directly connected to the gear-motor by a steel shaft. This eliminates the need for belts and chains. Harmonic crank motion eliminates the need for mechanical brakes. All gate control circuitry is contained in sealed, plug-in controller that can be replaced in seconds. Every gate controller is identical and is completely interchangeable, reducing maintenance requirements and the need to stock parts. The Universal Gate will work in conjunction with any ticket issuing machines, card readers or loop detectors offering the highest degree of security and flexibility with the lowest maintenance costs.

### A. HOUSING

The housing shall be weather proof and constructed of heavy gauge steel not less than #14. All seams, joints and supports shall be electric bead weld. Spot welds are not acceptable for housing construction. Access to the motor compartment shall be provided by a removable top cover secured by latches located inside the housing. Access to the interior of the housing shall be provided by a full length gasketed key locked door. The door and top shall be designed to retard unauthorized entry, tampering and vandalism. An opening of 6" X 12" shall be provided at the bottom of the housing for conduits and field wiring. The gate shall be painted in a powder coat finish applied over a suitable primer.

### B. CONTROL CIRCUITRY

All control circuitry, logic, motor starting circuitry, etc., shall be contained in one easily removable sealed housing hereinafter referred to as the gate controller. All electrical

# UNIVERSAL GATE UG-141

## Product Specification



connections to the gate controller shall be made with plugable terminal blocks. One standard gate controller shall be capable of providing all system logic as well as manual functions. The gate controller shall provide inputs for connection of any peripheral equipment such as loop detectors, ticket machines, card readers, etc. The operating mode of the gate shall be determined by routing the control wires of these devices to their proper inputs. No re-programming of the gate controller shall be necessary. A manual UP/DOWN switch shall be provided.

### C. GEAR MOTOR

The gate arm drive assembly shall be directly gear driven by a gear motor. No belt, pulley, or chain drive shall be acceptable. The 1/3 H. P. motor shall conform to NEHA standards. The motor shall be instantly reversible electrically via bi-directional solid state AC switches driven by solid state trigger circuits located inside the gate controller. No mechanical stops, breaks, clutches, etc., shall be acceptable. Vertical and horizontal gate arm stopping positions shall be controlled by independently adjustable micro-switches. The micro-switch assembly shall be located on the gear motor. Provisions shall be made for easy field adjustment. It shall be possible to open the gate manually by means of a hand crank in case of power failure.

### D. GATE ARM

Gate arm length shall be a maximum of 12 feet. The gate arm shall be clamped to the unit by means of a screw on bracket in order to provide a break-away feature. Remounting of gate arms shall not require the drilling of holes.

### E. OPTIONS

1. An articulating gate arm shall be provided for installations with limited overhead clearance. The gate arm shall be two wooden pieces driven and firmly supported by metal side brackets and a single adjustable steel rod. Wood side brackets shall not be acceptable.
2. A gate arm rebound feature shall be provided in-case an object is struck by the gate arm. If the gate arm comes into contact with an object during the closing cycle, sufficient non-destructive pressure shall cause the gate motor to instantly reverse and return the gate arm to the full open position. Pressure applied to the gate arm while in the full closed position shall not activate the motor to raise the arm. The rebound sensor shall be a part of the gate arm drive shaft contained within the locked gate housing. Positive electrical contact of this feature shall be provided to prevent recycling. A timer can be

# UNIVERSAL GATE UG-141

## Product Specification



incorporated in the gate circuitry to automatically lower the gate arm after a rebound activation providing the closing loop is not occupied by a vehicle.

3. A heater controlled by a thermostat shall be provided for installations operating in cold climates.

### F. TECHNICAL DATA

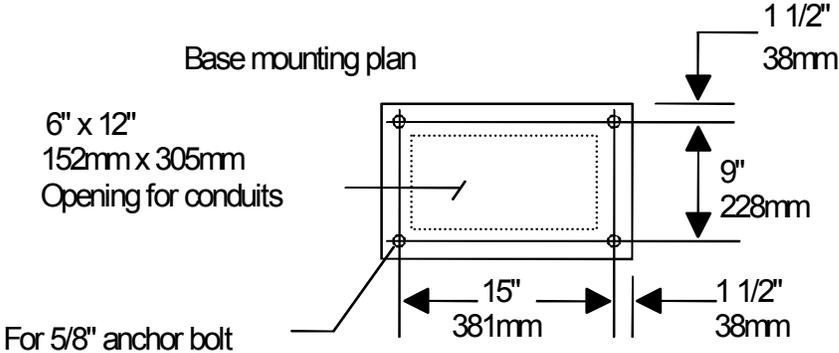
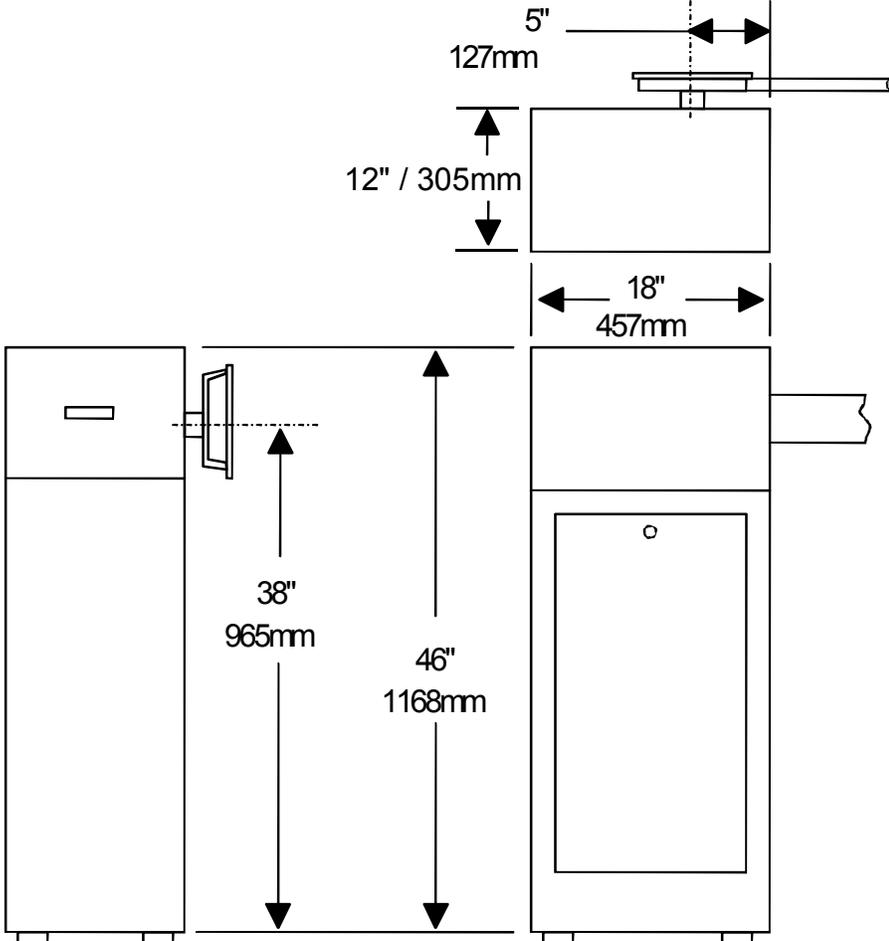
Housing	weather proof #14 Ga steel construction flush, tamper proof full length door removable hood for easy access off the ground rust resistant feet powder coat finish
Motor drive	1/3 HP heavy duty motor direct drive
Gate arm	wooden arm up to 12ft. (3.5m) PVC or aluminum arms optional
Control circuitry	sealed, self-contained plug-in controller
Power	110VAC, 60Hz, 10Amps (220VAC, 50Hz, 6Amps optional)
Environmental	Operating temperature: -5 <sup>0</sup> F to 160 <sup>0</sup> F (-20 <sup>0</sup> C to 70 <sup>0</sup> C)
Mechanical	46" H X 18" W X 12" D (1168mm X 457mm X 305mm)
Weight	170 lbs. (77 Kg)

# UNIVERSAL GATE UG-141

Product Specification



Universal Gate Housing Dimensions:



# DIFFERENTIAL COUNTER DC-1100

## Product Specification



Differential counter used for keeping a running total of the number of parking spaces available in a facility or area within a facility. When the number of free spaces is zero, the DC-1100 can turn on FULL signs and disable entrance equipment. Traffic can be counted at up to 4 entrances and 4 exits. The unit comes equipped with an LED display to show the number of free spaces. The unit is DIN rail mountable and can be mounted inside a gate, ticket machine, or in a separate enclosure.

### A. OPERATION

The counter shall be a solid state device with a 3 digit LED display. The counter shall be a self-contained module, DIN rail mountable, suitable for mounting inside a gate, ticket machine or other equipment. Manual add and subtract buttons shall be provided for setting the correct number of spaces. The LED display will show the number of available spaces. When the number of spaces is reduced to 0, the counter shall close a normally open output. The output of the counter shall be capable of disabling entrance equipment preventing any further vehicles from entering the facility as well as switching a full sign on and off. When space again becomes available, the LED will show the number of spaces and the output contacts will open.

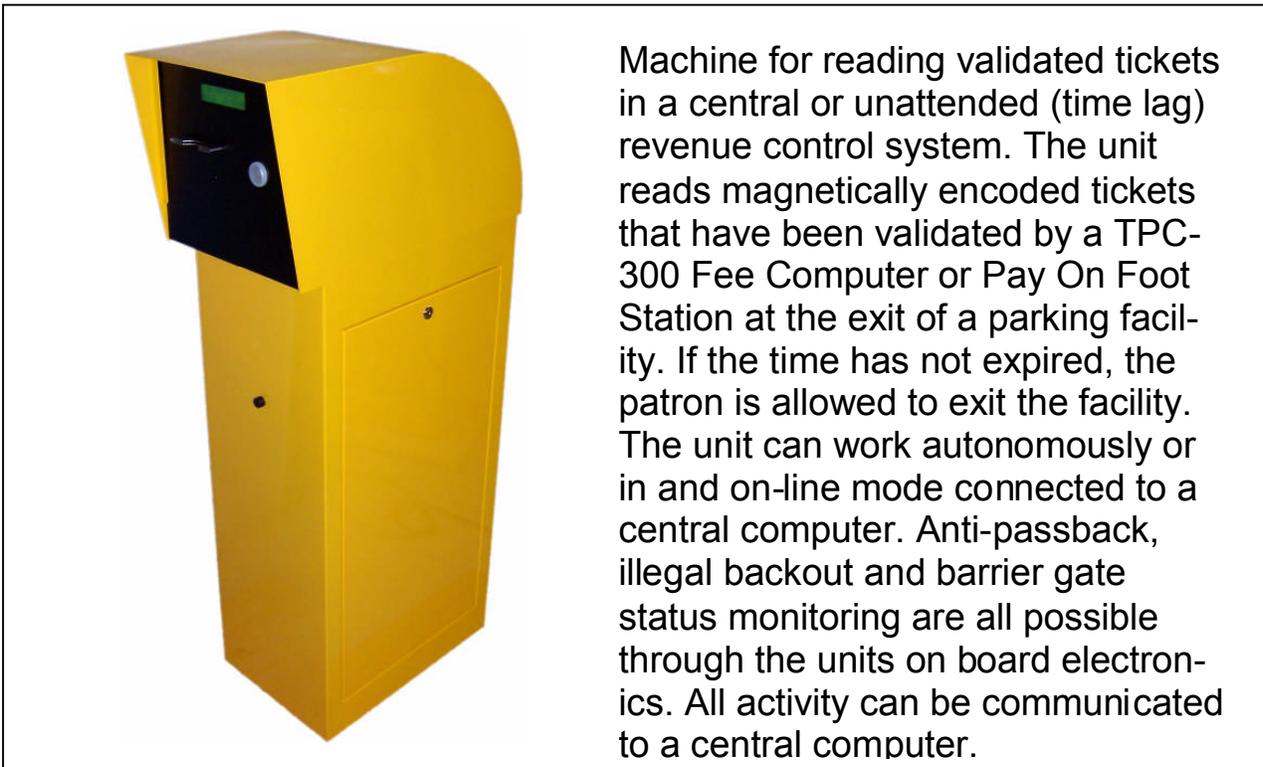
The counter shall provide inputs for counting at up to 8 lanes of traffic. (4 entrance and 4 exit) All wiring shall be made on easily accessible screw terminals.

### B. TECHNICAL DATA

Counting Speed	each input sampled 20 times per second
Inputs	inputs for counting at 4 entrances and 4 exits
Power	Input power: 110-220VAC, 50/60 Hz, 200mA

# TICKET READER TR-21

## Product Specification



Machine for reading validated tickets in a central or unattended (time lag) revenue control system. The unit reads magnetically encoded tickets that have been validated by a TPC-300 Fee Computer or Pay On Foot Station at the exit of a parking facility. If the time has not expired, the patron is allowed to exit the facility. The unit can work autonomously or in and on-line mode connected to a central computer. Anti-passback, illegal backout and barrier gate status monitoring are all possible through the units on board electronics. All activity can be communicated to a central computer.

### A. HOUSING

The base shall be weatherproof and constructed of heavy gauge steel not less than #14 gauge. All seams and joints shall be electric bead welds. No spot welds shall be acceptable for base construction.

The base of the housing shall be provided with risers which shall keep the floor of the base off the mounting surface in order to provide air circulation beneath the housing, thereby drying water or dampness which could cause rust. This feature shall be provided to lengthen the life of the housing. Access to the inside of the base shall be provided by 2 flush, full length key locked doors. One door shall access the ticket bin, one door shall access the controller.

The finish shall be two coats of baked enamel finish applied over a suitable primer.

The unit shall contain a bin to store tickets that have been read and accepted. The capacity of the bin shall be a minimum of 5000 tickets.

The housing shall contain 2 separately locked compartments; the bottom (base) compartment containing the ticket bin and controller and the top compartment containing the ticket reading mechanism.

# TICKET READER TR-21

## Product Specification



The hood or top section of the housing shall be hinged for easy access to the mechanism and electrical connections.

### **B. TICKET READING MECHANISM**

The mechanism shall be one complete assembly providing all printing, reading and encoding capabilities. The encoding method shall be magnetic stripe on ISO track 2.

To prevent rust and corrosion, all mechanism components shall be plated. All mounting bolts, hardware, etc., shall also be plated.

The mechanism shall be capable of reading and encoding a standard credit card size ticket (2 1/8" x 3 3/8") at a rate of 30 per minute.

The machine shall be programmable to void and eject any tickets left in the throat of the machine thus preventing use of fraudulent tickets.

### **C. CONTROLLER**

All control logic shall be contained in one easily removable circuit board. All field wiring to the controller shall be made on easily accessible screw terminals. All controllers shall be identical and completely interchangeable with any other controller.

A 32 character backlit LCD display on the face of the mechanism shall display the current time and date. When a vehicle pulls up to the machine, the LCD shall display the message: "PLEASE INSERT TICKET". Custom messages shall be available upon request.

Time, date and operating parameters shall be programmed via a hand held keypad. The keypad shall plug directly into the controller board. The controller shall contain a battery backup in case of power failure and maintain all programming for a minimum of 72 hours.

The controller shall contain inputs and outputs for connection and control of peripheral equipment. The following inputs shall be provided:

- \* Loop occupied (arming)
- \* Read ticket
- \* Gate position (up or down)
- \* Inhibit (turns the machine off)

# TICKET READER TR-21

## Product Specification



The following outputs shall be provided:

- \* Raise gate
- \* Lower gate
- \* Out of service

### D. COMMUNICATION TO HOST COMPUTER

Optionally, the Controller shall be able to communicate via RS-485 with a host system. The host system shall be capable of monitoring the status of the ticket reader, remote programming and control, and setting the time and date.

### E. TECHNICAL DATA

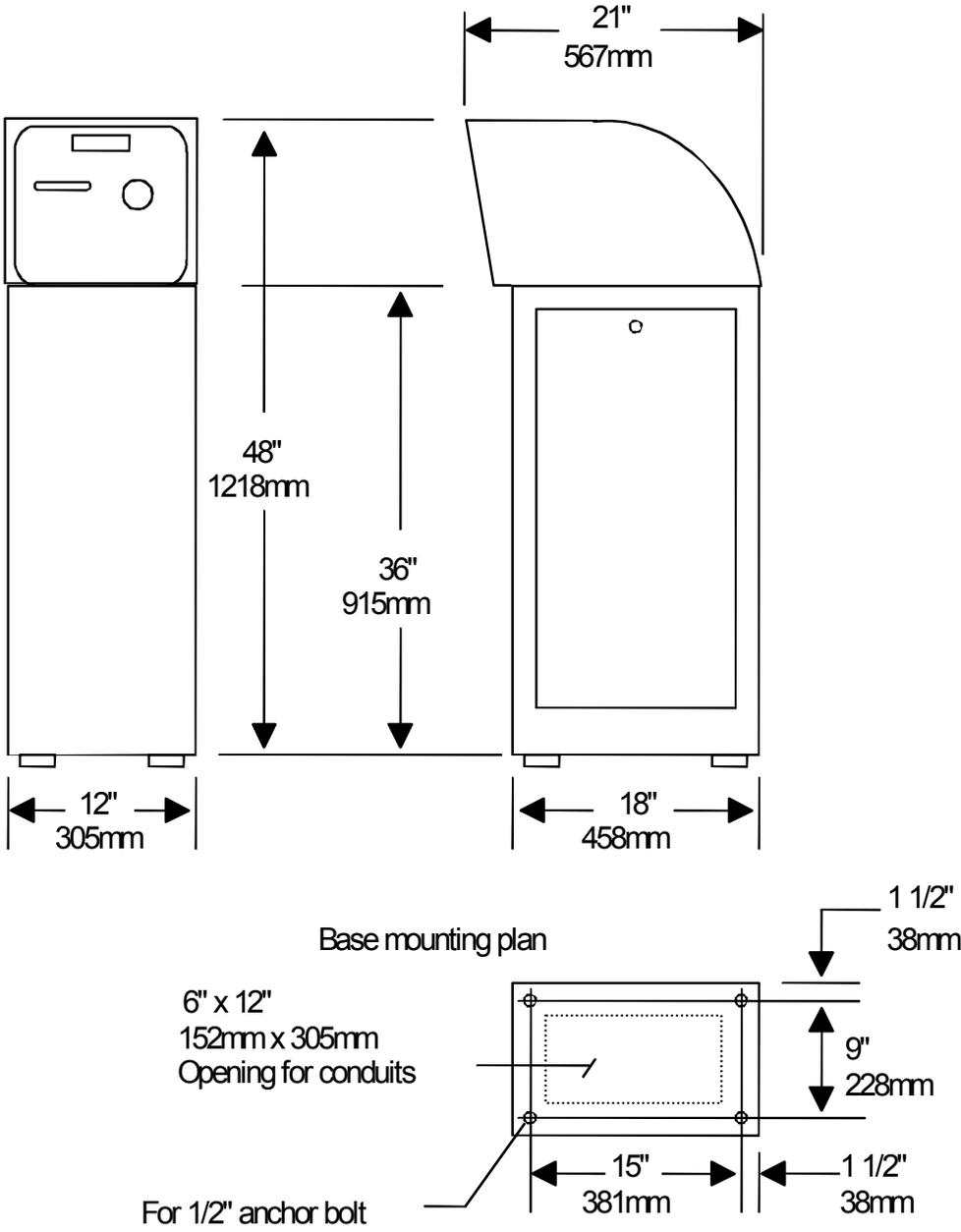
Ticket	2 1/8" x 3 3/8" (credit card size)
Encoding	magnetic stripe encoding ISO track 2, Oe 200
Printing Method	Dot matrix, 5 x 7 dot pattern
Mechanical	48" H X 12" W X 21" D (1218mm X 305mm X 567mm)
Weight	110 lbs. (50 Kg)
Power	110-240VAC, 50/60Hz, 3Amps
Environmental	Operating temperature: 5 deg. F to 105 deg. F (-15 deg. C to 40 deg. C)

# TICKET READER TR-21

Product Specification



Ticket Reader Housing Dimensions:



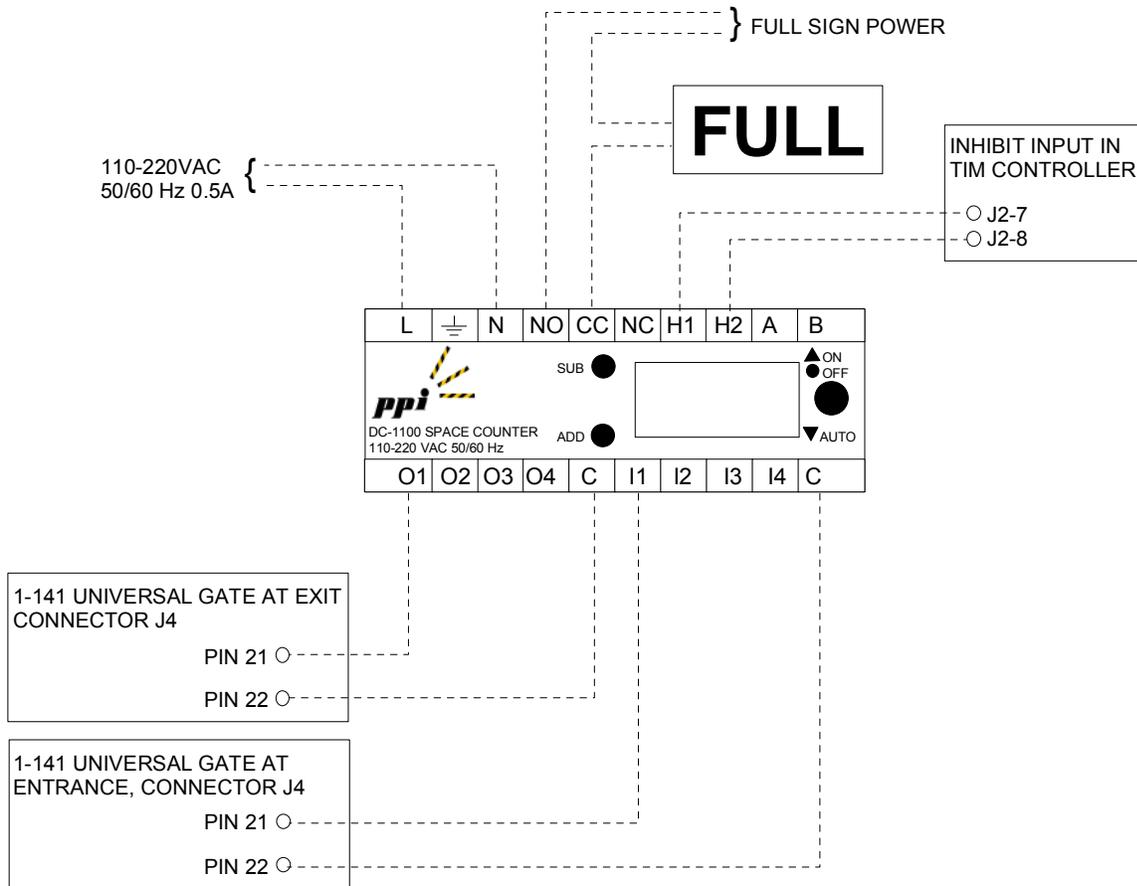
# DIFFERENTIAL COUNTER DC-1100

## Product Specification



Output Contacts	2 form C contacts rated 8A at 115VAC
Size	3" H X 4" W X 4 1/2" D, DIN rail mountable inside other equipment (separate weather proof enclosure optional)
Environmental	-5 deg F to 160 deg F (-20 deg C to 70 deg C)

### Typical configuration:



# SMART READER SAC-4159



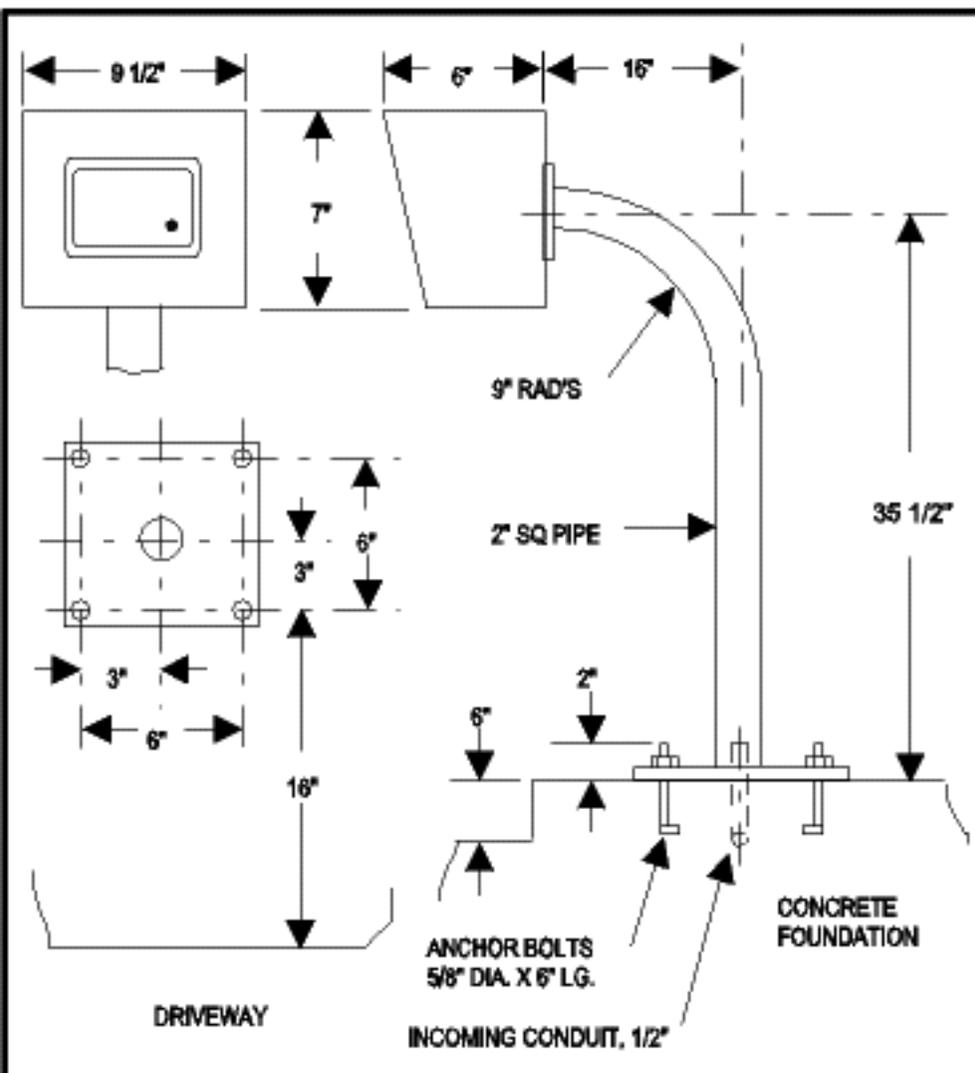
STANDARD GOOSE  
NECK PEDESTAL  
MOUNTED READER

TYPICAL WALL MOUNTED  
LONG RANGE READER

The SAC-4159 Smart Reader is a programmable card reader capable of operating in an on-line or off-line mode. The standard Smart Reader comes as a proximity card reader with a range of 6". Each reader can control 2 doors or lanes with the addition of a second proximity reader. Proximity readers with a range of up to 8 feet are available. Programming is done through a PC. All software is supplied with the reader as well as a cable to connect the reader and the PC. Any PC with Microsoft Windows can be used to program the Smart Reader. Once the reader is programmed, it will function on its own without further intervention. However, any changes to the programming such as card holder status must be downloaded to the reader in order to take affect. All programming is stored in nonvolatile memory. It is also possible to operate the reader in an on-line mode. In this mode, the reader must be connected to a PC either through an RS-485 network or wireless network. In an online mode, the activity of the reader can be monitored in real time. Activity reports and a user database can be created using the included software and any programming changes can be instantly transmitted to any reader. The Smart Reader has a relay output to open doors, gates, etc. The reader electronics can be located remotely to increase security and eliminate tampering.

## AVAILABLE FEATURES:

- Pedestal or wall mounted
- on or off line operation
- Dry contact output to open gates, doors, etc.
- 12-24VDC 500mA operation
- Proximity card technology with read ranges from 6" to 8 feet
- Card size: 3 3/8" X 2 1/8" (85mm x 54mm) standard credit card size



**PARKING PRODUCTS INC.**  
**2517 WYANDOTTE ROAD**  
**WILLOW GROVE PA 19090**

**PHONE 215-657-7500**  
**FAX 215-657-4321**  
**WWW.PARKINGPRODUCTS.COM**



# venSTATION

*A US-Built, PCI-PADSS Compliant Solution for your Revenue Collection needs*



*The next generation in the line of revolutionary automated revenue collection systems*



*State of the art communication and payment processing technology. Level 1 PCI compliant. ADA compliant.*

**Available in both online and stand alone configurations**

**Constructed in an attractive yet heavy-duty design of reinforced steel and formed concrete sides for maximum security**

**Customer friendly ATM style menu interface and large high contrast display**

**Optional complete credit card processing, remote rate management, and real time diagnostics**



# venSTATION

## LOCAL & REMOTE REPORTING

Audit Reports Cash Collection Tickets Sold  
Intrusion Detection/Service Alerts Lot Patrol

## REAL TIME REPORTING & CREDIT CARD PROCESSING

Real Time Authorization, Relational Data Base,  
PCI-PADSS Level 1 Certification, Central Data Management

## NETWORK SUPPORT FOR 2 TO 200+

Cellular Wireless (CDMA/GPRS), Ethernet  
Wi-Fi 802.11(WPA/WPA2), RS-232/RS-485

## MULTIPLE PAYMENT METHODS

Coins, Bills, Credit/Debit Cards, Loyalty Cards  
Electronic Coupons, Remote Validation, SmartCards

## LOCAL & CENTRALIZED RATE TABLE MANAGEMENT

Time of Day, Day of Week, Special Event Dates  
Multiple Days, Variable Rates



PARKING PRODUCTS INC.  
2517 WYANDOTTE ROAD  
WILLOW GROVE PA 19090  
Ph:215-657-7500  
www.parkingproducts.com

For more information, contact

Domenic Caruso, Senior Sales Consultant  
djc@parkingproducts.com

### Interface

Large, easy to read LCD display  
ATM style menu driven interface  
programmable screen messages

### Configuration

Pay by Space, Pay & Display, Variable of flat rate  
change rates on the fly over the web

### Forms of Payment

Accepts both coins and bills  
600 coin capacity bag  
1000 bill capacity stacker  
tokens: programmable value  
PCI compliant credit card processing

### Change Giving

All coin denominations  
programmable coin acceptor  
600 coin capacity hopper

### Receipt Printer

Low maintenance thermal printer  
5000 receipts per paper roll  
receipt information programmable

### Security

10 gauge steel with 1/4 in. reinforcement  
maximum security Medeco lock  
audible and remote alarm capability  
sealed cash system  
lockable and removable cash vaults  
audit reports for cash collected & tickets sold  
complete transaction log history

### Power

110-220VAC, solar power optional

### Environment

thermostat controlled heater  
fully insulated case

### Dimensions

25" H x 58" W X 15" D  
(67cm X 156cm X 40cm)  
fully ADA compliant





### I YEAR LIMITED LIABILITY WARRANTY

ParkingSOFT commercial parking facility equipment, hardware, devices and modules (collectively "Equipment") are warranted against defects in materials and workmanship for a period of one year from the date of installation. The conditions of this warranty and the extent of the responsibility of ParkingSOFT under this warranty are as follows:

1. This warranty will become void, when damage to the product occurs if service other than removal, repair or replacement of Equipment, is performed by anyone other than an approved ParkingSOFT warranty service dealer.
2. This warranty does not apply to any product that has been disassembled, defaced, altered, subjected to abuse, neglect, or accident, exposed to faulty power, lightning strikes or other weather event, has had the serial number altered or removed, or that has been disconnected, reinstalled, adjusted, or repaired other than in accordance with ParkingSOFT specifications by a warranty service dealer.
3. This warranty does not apply to any defect or damage that occurs to the Equipment after delivery of the Equipment to the ParkingSOFT dealer assigned to the Territory in which Equipment purchaser is located, or if delivered directly from ParkingSOFT to Equipment purchaser, after delivery of the Equipment to the Equipment purchaser. For example, the warranty does not apply to Equipment held in inventory by the dealer, or that is delivered by ParkingSOFT to the dealer or the Equipment purchaser in fulfillment of the Equipment purchaser's Equipment order, and that is defective or damaged as a result of improper storage, acts of vandalism, weather related events, improper installation, or any other act or event occurring after delivery of the Equipment by ParkingSOFT, and the cost of replacement or repair of such defective or damaged Equipment shall **not** be the responsibility of ParkingSOFT.
4. This warranty covers labor cost for removing and reinstalling the Equipment for repair or replacement. Standard service hours are from Monday through Friday 8:00am - 5:00pm, excluding **holidays**. Warranty service performed outside standard hours, are subjective to billable labor cost at an hourly rate from portal to portal.
5. The sole responsibility of ParkingSOFT under this warranty shall be limited to repair of the purchased Equipment, or replacement thereof, during the designated warranty period.
6. ParkingSOFT will pay the shipping expense and replace the Equipment at no charge during this warranty period.
7. **Warranty disclaimer limits of liability.** Except as described in this limited liability warranty, there are no expressed or implied warranties of merchantability and fitness of Equipment for a particular purpose. In no event will ParkingSOFT be liable for any direct, special, or non-sequential damages arising out of, or in connection with, the delivery, use, inability to use, or performance of this product.
8. Proof of date of installation is required for warranty service on all Equipment.
9. This warranty grants specific legal rights. Additional legal rights, which may vary by locale, may also apply.
10. Should any difficulties arise with the performance of ParkingSOFT equipment or systems during warranty, or with ParkingSOFT-authorized dealer service, please contact ParkingSOFT directly at 877-884-7275 or via correspondence to:

Support Department

ParkingSOFT

5730 Oakbrook Parkway, Suite 140

Norcross, Georgia 30093

11. The terms of this limited warranty are governed by Maryland law, excepting its choice of law provisions. All disputes between the parties shall be settled by mandatory arbitration conducted in Baltimore City, Maryland by a single arbitrator selected from ADR Maryland. Arbitration shall be conducted in accordance with ADR Maryland's then standard arbitration agreement. Each party shall be responsible for its equal share of arbitration expenses, provided, however, that each party shall be solely responsible for that party's legal fees and costs incurred in connection with preparing for and arbitrating the dispute.



END USER LICENSE AGREEMENT

Customer Name

Effective Date

Facility Locations

Number of Permitted Users

Subscription Fee – Parking Solution

Subscription Fee – Event Solution

Subscription Fee – BackOffice Solution

THIS END USER LICENSE AGREEMENT (“EULA”) IS A LEGALLY BINDING CONTRACT BETWEEN PARKINGSOFT AND CUSTOMER. IT COVERS ALL PARKINGSOFT WEB HOSTED OR DOWNLOADEDABLE SOFTWARE APPLICATIONS ACCESSED BY OR DOWNLOADED FOR CUSTOMER, TOGETHER WITH ANY SUPPORTING EXPLANATORY AND/OR TECHNICAL DOCUMENTATION AND KNOWHOW PROVIDED OR OTHERWISE MADE AVAILABLE TO CUSTOMER BY PARKINGSOFT.

BY CLICKING ON THE “I AGREE” BUTTON; BY ACCESSING THE HOSTED SERVICE; BY DOWNLOADING ANY PARKINGSOFT SOFTWARE; OR BY EXECUTING THIS EULA, YOU ARE REPRESENTING THAT YOU HAVE READ THIS EULA, THAT YOU UNDERSTAND IT, THAT YOU AGREE TO BE BOUND BY ITS TERMS AND THAT YOU ARE AUTHORIZED TO ENTER INTO THIS EULA ON BEHALF OF THE CUSTOMER. YOU, AND THROUGH YOU, THE CUSTOMER, THE CUSTOMER’S EMPLOYEES AND AGENTS, INDIVIDUALLY AND COLLECTIVELY, AGREE TO BE BOUND BY THE TERMS OF THIS EULA, INCLUDING THE WARRANTY DISCLAIMERS, LIMITATIONS OF LIABILITY, AND TERMINATION PROVISIONS SET FORTH BELOW. YOU, AND THROUGH YOU, THE CUSTOMER, THE CUSTOMER’S EMPLOYEES AND AGENTS, INDIVIDUALLY AND COLLECTIVELY, ADDITIONALLY AGREE TO BE BOUND BY THE TERMS OF USE GOVERNING THE PARKINGSOFT WEBSITE.

## TERMS AND CONDITIONS

### 1. Definitions.

“**Hosted Service**” shall mean the ParkingSOFT web hosted software and/or any other ParkingSOFT software applications being provided to the Customer in connection with (a) ParkingSOFT’s automated commercial parking facility services (“Parking Solution”); (b) ParkingSOFT’s back office solution services (“BackOffice Solution”); (c) ParkingSOFT’s event parking solution services (“Event Solution”); and/or any other software based product or service provided to Customer by ParkingSOFT at anytime during the term of this EULA.

“**Customer**” shall mean the business entity/end user procuring the right to use the Hosted Service in accordance with the terms and conditions of this EULA.

“**Subscription Fee**” shall mean the fee assessed the Customer by ParkingSOFT for the License to use the Hosted Service, which said fee is assessed based on, among other things, the number of Customer facilities accessing the Hosted Service, as well as the particular services ParkingSOFT has agreed to provide Customer through its Hosted Service. The Subscription Fee is subject to modification upon provision of additional services to Customer by ParkingSoft, as well as upon any fee increase implemented by ParkingSOFT. Customer shall be provided with thirty days notice prior to any fee increase becoming effective.

“**ParkingSOFT Website**” shall mean collectively the websites located at [www.parkingsoft.com](http://www.parkingsoft.com), [admin.parkingsoft.com](http://admin.parkingsoft.com), [event.parkingsoft.com](http://event.parkingsoft.com)

2. License. Subject to the terms and conditions of this EULA, together with the terms of use governing the ParkingSOFT Website, and including, but not limited to timely payment of the Subscription Fee, ParkingSOFT grants to Customer a limited, non-transferable, non-exclusive, non-sublicensable license to access and use the Hosted Service in connection with those services for which Customer has paid the Subscription Fee. Use of and access to the Hosted Service is permitted only by the number of employees/agents of Customer specified in this EULA. Customer shall require all permitted users to keep all ID and password information strictly confidential and not share such information with any unauthorized person. Customer shall be responsible for any and all actions taken using Customer’s accounts and passwords. You shall not exceed the scope of the license granted hereunder. Any rights not expressly granted hereunder by ParkingSOFT to Customer are reserved by ParkingSOFT, and all implied licenses are disclaimed.

3. General Restrictions. Customer shall not: (a) rent, lease, copy, provide access to or sublicense the Hosted Service to a third party or to a Customer facility location not identified in this EULA, or to use the Hosted Service to provide a service to a third party or to a Customer facility location not identified in this EULA, (b) reverse engineer, decompile, reverse compile, translate, adapt, disassemble, or otherwise seek to obtain the

source code, algorithms, APIs, or any portion thereof, by any means whatsoever, to the Hosted Service, or cause, assist, or permit any third party do so, (c) modify the Hosted Service or any related explanatory or technical documentation or other knowhow provided or otherwise made available to Customer by ParkingSOFT, or create any derivative product from any of the foregoing, (d) remove or obscure any product identification, proprietary, copyright, or other notices contained in the Hosted Service (including any reports or data printed from the Hosted Service), (e) incorporate or otherwise bundle the Hosted Service into any other offering (whether software as a service or otherwise), (f) use the Hosted Service for the rendering of services to third parties (for example, by offering consulting services to third parties), or (g) publicly disseminate information or analysis regarding the performance of the Hosted Service.

4. Ownership. This is a subscription for use of the Hosted Service and not an agreement for sale. Customer acknowledges that it is obtaining only a limited right to use and access the Hosted Service during the Term and that no ownership rights are being conveyed to Customer under this EULA or otherwise. Customer agrees that ParkingSOFT, and/or its Licensor(s), retains all right, title and interest (including all patent, copyright, trade secret, and other intellectual property rights), databases, technology, reports and documentation (collectively “ParkingSOFT Technology”). Further, Customer acknowledges that the Hosted Service is offered as an on-line hosted solution, and that Customer has no right to obtain a copy of the underlying software itself. All copies, improvements, updates, modifications, or enhancements of the Hosted Service shall remain the property of ParkingSOFT (including any changes which incorporate Customer’s suggestions, ideas, and/or feedback). All rights not granted by ParkingSOFT are reserved.

5. Subscription Fee. Payment of the Subscription Fee for the Parking Solution, the BackOffice Solution and the Event Solution is to be made as provided for herein. At the time Customer sets up its Hosted Service user account through the ParkingSOFT Website, it will be prompted to provide ParkingSOFT with either credit card or ACH authorization by which Customer payments will be applied automatically each month on the payment due date. Failure to make any payment by the payment due date may result in an interruption of the Hosting Service until such time as payment, including late payment, ISF, or other banking charges, is paid in full.

a) Parking Solution. The Hosting Service provided in connection with for the Parking Solution is provided at no charge for the first 12 months of service following activation of Customer’s on-line Parking Solution account. Thereafter, the Subscription Fee is to be paid on a monthly basis on the 15th day of the month.

b) BackOffice Solution and Event Solution. The Subscription Fee for the Hosting Service provided in connection with the BackOffice Solution and the Event Solution is to be paid on a monthly basis on the 15th day of the month.

6. Term and Termination. The term of the EULA shall commence on the Effective Date and continue until such time as either party provides the other party with fifteen (15) days notice of its intent to terminate the EULA, together with the effective date of said

termination (“Term”). Upon termination of the EULA, Customer must cease all use of the Hosted Service. Customer will have five (5) days following termination of the EULA to request access to any Customer data stored in the Hosted Service. ParkingSOFT has no obligation to store Customer’s data beyond such five (5) day period. Nothing herein shall be interpreted to limit ParkingSOFT’s right to interrupt Customer’s service at any time for failure to pay the Subscription Fee. Nothing herein obligates either party to enter into any further agreement with the other party. Sections 3 (General Restrictions), 4 (Ownership), 6 (Term and Termination), 8 (Confidential Information), 9 (Customer Data), 10 (No Warranty), 11 (Limitation of Liability), 12 (Equitable Relief, 13 (General), and 14 (Dispute Resolution) shall survive termination of the Agreement.

7. Maintenance and Support. Payment of the Subscription Fee entitles Customer to receive all software upgrades, as well as 24 hour phone and email technical support. In addition, ParkingSOFT provides an initial courtesy training session to Customer. All subsequent training sessions are billed to customer at a rate of \$75.00 per hour. Training rates are subject to change without notice.

8. Confidential Information. In the course of their relationship, the parties may disclose to each other information identified at the time of disclosure as confidential (“Confidential Information”), which may include information concerning their respective businesses and technology. Any ParkingSOFT Technology, performance information related to the Hosted Service, and the terms and conditions of this EULA shall be deemed to be Confidential Information of ParkingSOFT without any marking or further designation. All Confidential Information shall remain the property of the disclosing party, and the receiving party shall have no interest in or rights in such Confidential Information, except as expressly set forth in this Agreement. Except as authorized herein, each party agrees to maintain all Confidential Information of the other party in confidence, to not use or disclose any Confidential Information and to take all reasonable precautions to prevent any unauthorized disclosure of such information.

9. Customer Data. ParkingSOFT, may use aggregate data for its own statistical purposes, of which includes, in part, but not in whole, Customer data that does not in and of itself, or through its manner of use, enable Customer or any third party to discern Customer’s or any third party’s identity.

10. No Warranty. PARKINGSOFT AND ITS LICENSORS MAKE NO REPRESENTATION, WARRANTY, OR GUARANTY AS TO THE RELIABILITY, TIMELINESS, QUALITY, SUITABILITY, TRUTH, AVAILABILITY, ACCURACY, OR COMPLETENESS OF THE HOSTED SERVICE. THE HOSTED SERVICE MAY BE SUBJECT TO LIMITATIONS, DELAYS, AND OTHER PROBLEMS INHERENT IN THE USE OF THE INTERNET AND ELECTRONIC COMMUNICATIONS. PARKINGSOFT IS NOT RESPONSIBLE FOR ANY DELAYS, DELIVERY FAILURES, OR OTHER DAMAGE RESULTING FROM SUCH PROBLEMS. THE HOSTED SERVICE IS PROVIDED STRICTLY ON AN “AS IS” BASIS.

PARKINGSOFT AND ITS LICENSORS DO NOT REPRESENT OR WARRANT THAT (A) THE USE OF THE HOSTED SERVICE, OR THE SERVER(S) THAT MAKE THE HOSTED SERVICE AVAILABLE, WILL BE SECURE, TIMELY, UNINTERRUPTED, OR ERROR-FREE IN OPERATION IN

COMBINATION WITH ANY OTHER HARDWARE, SOFTWARE, SYSTEM, OR DATA, (B) THE HOSTED SERVICE WILL MEET CUSTOMER'S REQUIREMENTS OR EXPECTATIONS, (C) ANY STORED DATA WILL BE ACCURATE OR RELIABLE, (D) THE QUALITY OF ANY PRODUCTS, SERVICES, INFORMATION, OR OTHER MATERIAL OBTAINED BY CUSTOMER THROUGH THE HOSTED SERVICE WILL MEET THE CUSTOMER'S REQUIREMENTS OR EXPECTATIONS, (E) ERRORS OR DEFECTS WILL BE CORRECTED, OR (F) THE HOSTED SERVICE OR THE SERVER(S) THAT MAKE THE HOSTED SERVICE AVAILABLE ARE FREE OF VIRUSES OR OTHER HARMFUL COMPONENTS. ALL CONDITIONS, REPRESENTATIONS AND WARRANTIES, WHETHER EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, OR NON-INFRINGEMENT OF THIRD PARTY RIGHTS, ARE HEREBY DISCLAIMED TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW BY PARKINGSOFT AND ITS LICENSORS.

11. Limitation of Liability. In no event shall ParkingSOFT be liable for any loss of use, lost data, failure of security mechanisms, interruption of business, or any indirect, special, incidental, or consequential damages of any kind (including lost profits), regardless of the form of action, whether in contract, tort (including negligence), strict liability or otherwise, even if informed of the possibility of such damages in advance (together "Liability Claim"). Notwithstanding any other provision of this EULA, ParkingSOFT's entire aggregate liability to Customer under this EULA shall not exceed the lesser of (a) the amount actually paid by Customer to ParkingSoft in Subscription Fees during the six (6) months prior to the allegation(s) giving rise to the Liability Claim or \$30,000.

12. Equitable Relief. The parties agree that any impending or the existing violation of Sections 2, 3, 4, and 8 would cause the nonviolating party irreparable injury for which it would have no adequate remedy at law, and accordingly agrees that the nonviolating party shall be entitled to obtain immediate injunctive relief prohibiting such violation without the need to post a bond or other security, in addition to any other rights and remedies available to it. The violating party shall be liable to the nonviolating party for all costs and legal fees incurred in connection with or arising out of the nonviolating party's obtaining such equitable relief.

13. General. ParkingSOFT reserves the right to take such steps as ParkingSOFT believes is reasonably necessary or appropriate to enforce or verify Customer's compliance with this Agreement. This EULA shall be governed by and construed under the laws of the State of Maryland, excepting its choice of law provisions. This EULA shall be binding upon and inure to the benefit of the parties' successors and assigns. ParkingSOFT reserves the right, at any time and from time to time, to update, revise, supplement, and otherwise modify this EULA and to impose new or additional rules, policies, terms, or conditions on your use of the Hosted Service. Such updates, revisions, supplements, modifications, and additional rules, policies, terms and conditions (collectively, "Additional Terms") will be effective immediately and incorporated into this EULA. Customer continued use of the Hosted Service will be deemed to constitute Customer's acceptance of any and all such Additional Terms. All Additional Terms are hereby incorporated into this EULA by reference. The captions and headings used in this

EULA are used for convenience only and are not to be given any legal effect. If any provision of this EULA is found invalid or unenforceable by a court of competent jurisdiction, such provision shall be deemed modified with retroactive effect to render such provision valid and enforceable to the maximum extent permissible so as to effect the intent of the parties hereto, and the remainder of this EULA shall continue in full force and effect.

14. Dispute Resolution. Each party desires a prompt resolution of any dispute between them with respect to this EULA. To that end, excepting Section 12, the parties each agree to submit any nonreconcilable disputes to binding arbitration. The arbitrator's decision shall be the final and conclusive resolution of said disputes. Arbitration costs shall be shared equally between the parties, provided, however, that each party shall be solely responsible for that party's legal fees and costs incurred in the course of preparing for and arbitrating said dispute(s). Arbitration shall be conducted in Baltimore City Maryland by a single arbitrator selected from ADR Maryland in accordance with the ADR Maryland standard arbitration agreement. The prevailing party in any arbitration shall have the right to enroll the arbitration award as a judgment in any court of competent jurisdiction.

Agreed to and accepted this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

For ParkingSOFT:

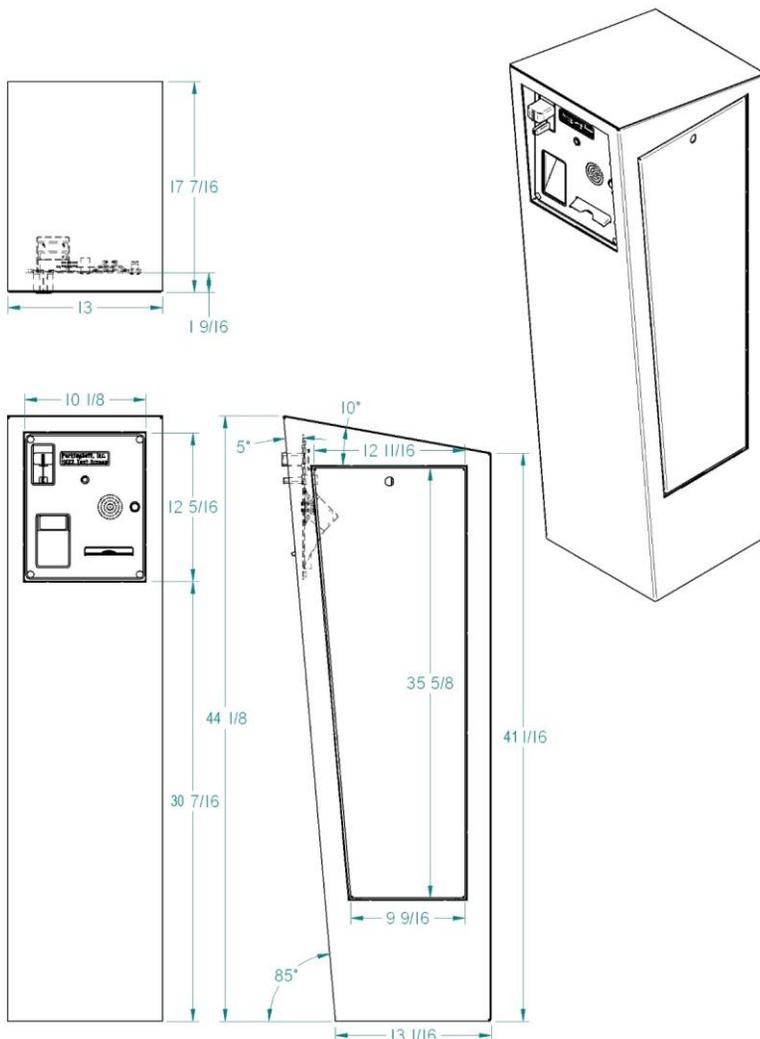
For Customer:

\_\_\_\_\_  
Authorized Agent

\_\_\_\_\_  
Authorized Agent

## Features:

- ▲ Large Touch Screen or Two Line + Button Models
- ▲ Single Firmware Board with TCP/IP communication
- ▲ Online and offline mode
- ▲ Thermal bar-coded tickets (3.5" by 2.3")
- ▲ Custom ticket logos and non transient access cards
- ▲ Units are shipped with barcode scanner and configured for plug-n-play HID and AVI(optional)
- ▲ System uses inexpensive barcode access cards that allow monthly and frequent parker entry/exit
- ▲ Remote updates, remote management, remote trouble shooting
- ▲ Few moving parts (low maintenance cost)



## Specifications:

### Electrical

120V AC, 60 Hz  
 5 amp max. at 120V  
 I/O for gate vend, lane counts, reversible lanes

### Mechanical

Thermal printer  
 Omni-directional barcode scanner  
 Color TFT display with vandal-resistant touch screen

### Housing

12 gauge (2.8mm) steel  
 44"H x 13"W X 13" D  
 Weight: 90 pounds  
 Color: Gibraltar Gray, Pure White(RAL #9010) and custom

### Environment

Temperature: -20F to 122 F  
 Humidity: 10% - 95% (non-condensing)

### Printer

Resolution: 203 dpi(8 dots/mm)  
 Print width: 2.1" (54 mm)  
 Print speed: 5.9" (150 mm) per sec

### Paper

Thickness: 7.60 ~ 0.60 mils /193 ~ um  
 Width: 2.3" (58 mm)  
 Roll: 6" - 10"

### Options

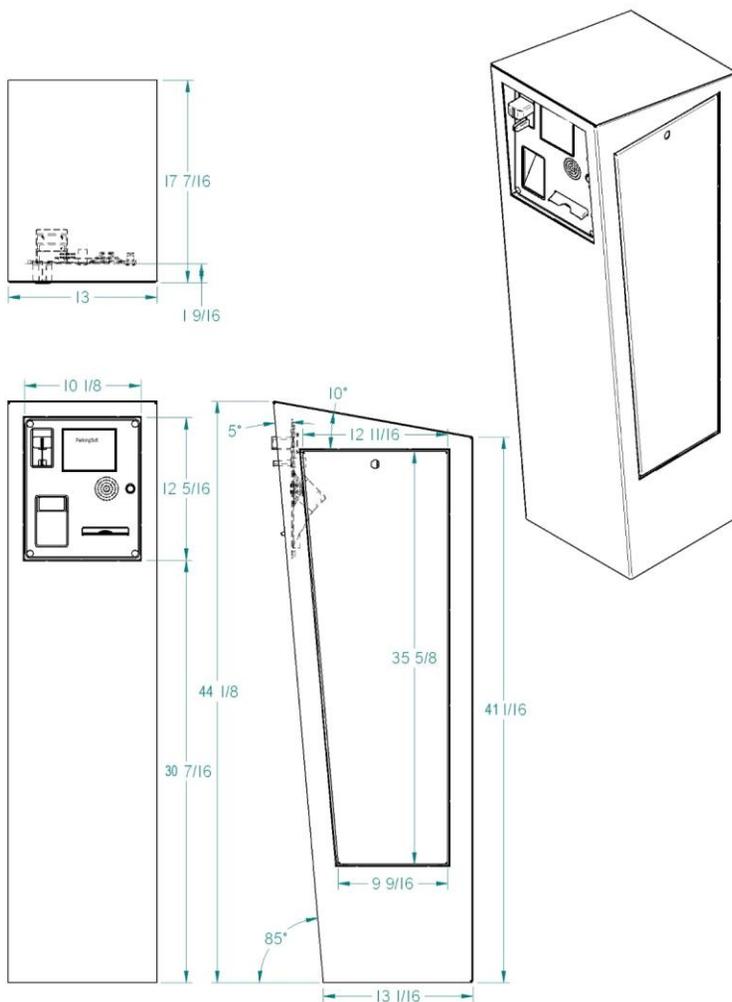
HID/AVI reader  
 Width: 2.3" (58 mm)  
 6" or 2" base





## Features:

- ▲ *Inexpensive and secure way to add an exit lane*
- ▲ *Large Touch Screen and dual-side credit card reader*
- ▲ *Single Firmware Board with TCP/IP communication*
- ▲ *Parts are interchangeable with the Entry Units*
- ▲ *Thermal bar-coded receipts (6.0" by 2.3" )*
- ▲ *Custom ticket logos and non-transient access cards*
- ▲ *Units are shipped with barcode scanner and configured for plug-n-play HID and AVI(optional)*
- ▲ *System uses inexpensive barcode access cards that allow monthly and frequent parker entry/exit*
- ▲ *Remote updates, remote management, remote trouble shooting*
- ▲ *Minimal moving parts (low maintenance cost)*



## Specifications:

### Electrical

120V AC, 60 Hz  
5 amp max. at 120V  
I/O for gate vend, lane counts, reversible lanes

### Mechanical

Thermal printer  
Omni-directional barcode scanner  
Color TFT display with vandal-resistant touch screen  
External dual side credit card reader

### Housing

12 gauge (2.8mm) steel  
44"H x 13"W X 13" D  
Weight: 90 pounds  
Color: Gibraltar Gray, Pure White(RAL #9010) and custom

### Environment

Temperature: -20F to 122 F  
Humidity: 10% - 95% (non-condensing)  
Automated climate control  
Door open sensor

### Printer

Resolution: 203 dpi(8 dots/mm)  
Print width: 2.1" (54 mm)  
Print speed: 5.9" (150 mm) per sec

### Paper

Thickness: 7.60 ~ 0.60 mils /193 ~ um  
Width: 2.3" (58 mm)  
Roll: 6" – 10"

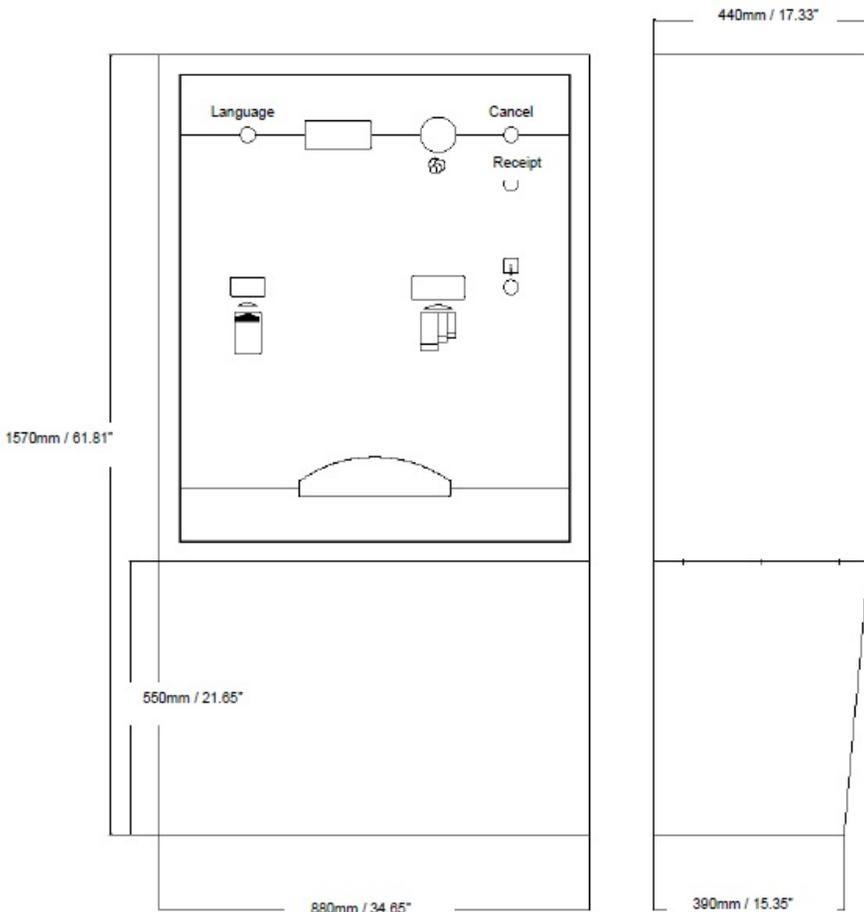
### Options

HID/AVI reader  
6" or 2" base



## Features:

- ▲ Stand-alone or exit lane units
- ▲ Large Screen and vandal proof buttons
- ▲ TCP/IP communication
- ▲ Accepts and dispenses cash and coin
- ▲ Thermal bar-coded tickets
- ▲ Custom ticket logos and non-transient access cards
- ▲ Dispenses up to three types of notes and four types of coins
- ▲ Integrated bill recycling for larger capacity
- ▲ Remote updates, remote management, remote trouble shooting
- ▲ No ticket ingestion and minimal moving parts (low maintenance cost)
- ▲ Five Point Locking System – Heavy Gauge Steel Housing
- ▲ Note Dispenser can be reloaded without opening unit, limited access to cash collected.



## Specifications:

### Electrical

120V AC, 60 Hz  
20 amp max. at 120V  
I/O door open and alarm

### Mechanical

Thermal printer  
Omni-directional barcode scanner  
Large TFT display  
External credit card reader  
Bill acceptor  
Recycling bill dispenser  
Coin acceptor/dispenser

### Housing

10 gauge steel  
61.81"H x 34.65"W X 13.33" D  
Weight: 400 pounds  
Color: Gray, Pure White(RAL #9010) and custom

### Environment

Temperature: -20F to 122 F  
Humidity: 10% - 95% (non-condensing)

### Printer

Resolution: 203 dpi(8 dots/mm)  
Print width: 3.4" (88 mm)  
Print speed: 5.9" (150 mm) per sec

### Paper

Thickness: 0.065 ~ 0.085 mils  
Width: 3.4" (88 mm)  
Roll: 3.3"

### Options

HID/AVI reader





**ParkingSOFT**

# MOVE

YOUR FACILITY INTO  
THE TECHNOLOGY OF  
TOMORROW

Experience why ParkingSOFT is the leading solutions provider of Parking Access and Revenue Control Systems.

## Technically Advanced Parking System Solutions *Alternative Specifications – Desman Associates*



### Company Purpose

The technology ParkingSOFT provides can best be described as a paradigm shift from traditional parking industry “fat client” expensive electro-mechanical systems, heavily dependent upon proprietary hardware and software, to “thin client” open, flexible, hosted software solutions and non-proprietary hardware with minimal complex components.

### System Overview Description and Goals

Through automation, technology and use of the Internet, eliminate costly labor intensive manual processes of legacy systems and provide comprehensive real time parking access, and revenue control system solutions in a hosted SaaS environment.

### The Problem ,Economic Conditions and Solutions

Current national economic conditions require creative alternative solutions to improve technology and replace failing antiquated systems with minimal funding sources available. ParkingSOFT prides itself on advancing technology and having the ability to present new, unconventional solutions to generate progressive sources of previously uncollected revenue, along with expense reduction to achieve the goals of our clients.

The key to success of our system is the ability to remove up to 85% of cash transactions from the field and eliminate the possibility of intervention by staff and customers in the transaction processes.





*INDUSTRY LEADERS IN THE ADVANCEMENT OF TODAY'S PARKING TECHNOLOGY*

## **ParkingSOFT Technology in Demand *Why Now?***

The basic product of Industry hardware and software costs and overall systems costs of ownership reached their peak in the past five years. Costly technical monopolies emerged trapping customers with single proprietary sources and abused existing customers with escalating costs. Many manufacturers attempted to convert their existing hardware and software from stand alone systems to web based software with varying degrees of failure. In many cases complete failure and loss of consumer confidence resulted from the efforts. There was in essence a definitive industry shift to “fat client” systems requiring costly end user licenses per seat. Consumers have become very disenchanted with the high costs of adding users and maintaining the proprietary hardware. Many were so heavily vested that they saw no alternative.

ParkingSOFT firmware based equipment contains minimal moving parts and circuitry and our functionality is based on Software as a Service “SaaS” in which the end user does not directly possess the software. Users pay a subscription fee to ParkingSOFT for the use of the software and access to the programs full functionality from any typical PC through web browsers such as Internet Explorer or Firefox. This true web based application requires only a browser; no helper programs or add-on interfaces, such as Citrix, are needed. Therefore, software provided by ParkingSOFT requires nothing more than a browser on the “client”, or user, end, eliminating costly end user per seat licensing agreements. The main application, permits, tickets, access control, revenue control, event module and other functions are all pure, thin-client applications.

The demand for open payment technology, automation and the shift to consumer self service product purchases to the Internet and Mobile devices has created high demand for our products. We are increasingly targeted as the vendor of choice by transportation systems, consultants, architects and engineers to provide new industry specifications using our applications and non-proprietary hardware.

## **ParkingSOFT Customer Base**

**Our system applications are developed into self-generating revenue solutions for our Client's. Our customers own or provide parking related services for:**

- Onsite / Offsite Airport Facilities**
- Transit Systems,**
- Universities**
- Urban / Office Complexes**
- Health Care Institutions**
- Event and Stadium Venues**
- Municipalities**
- Entertainment and Gaming Venues**
- Residential, Retail and Mixed Use Facilities**
- Individual Parking End User's Purchasing Destination Oriented Parking**

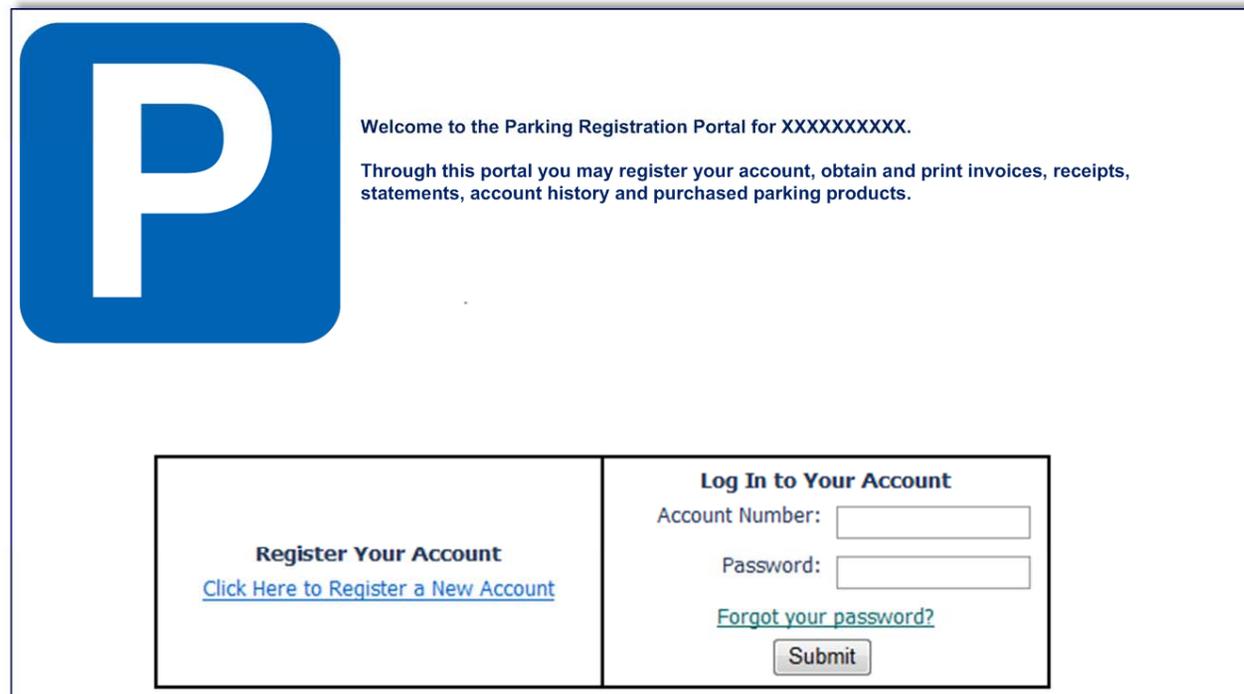
**ParkingSOFT provides PARCS products and service applications for all of the above end users. A major key element in the advancement of our systems is the low costs of system ownership. Our minimal moving parts, the elimination of ingestion of all media with the exception of cash and the Plug & Play ease of hardware modules has virtually eliminated the need for costly annual hardware service agreements. When compared to current competitive systems, the ROI in a typical ParkingSOFT system can be easily and quickly recovered along with increased profits through elimination of service costs, reduction in labor and consumables along with elimination of intervention in the revenue stream by customers, staff and 3<sup>rd</sup> party service vendors.**

## Software Products

Provided and hosted in a Software as a Service (SaaS) Environment by Subscription with or without the requirement of our hardware of mobile equipment solutions.

### Customer Self Registration and Payment Portals

Permits Frequent, Corporate, Monthly and Employee parkers self-register for parking via the Internet, create unique user ID and password to view and edit accounts, parking activity, receive coupons, messages, promotions and invoices, purchase products, make payments and/or create automated recurring payment.

A screenshot of a web portal interface. On the left is a large blue square with a white letter 'P'. To its right is a welcome message: "Welcome to the Parking Registration Portal for XXXXXXXXXX. Through this portal you may register your account, obtain and print invoices, receipts, statements, account history and purchased parking products." Below this is a registration section with the heading "Register Your Account" and a link "Click Here to Register a New Account". To the right is a login section titled "Log In to Your Account" with input fields for "Account Number:" and "Password:", a link "Forgot your password?", and a "Submit" button.

<p><b>Register Your Account</b></p> <p><a href="#">Click Here to Register a New Account</a></p>	<p><b>Log In to Your Account</b></p> <p>Account Number: <input type="text"/></p> <p>Password: <input type="password"/></p> <p><a href="#">Forgot your password?</a></p> <p><input type="submit" value="Submit"/></p>
---	--

## Administrative, Accounting and Management Portal

Allows full administrative access to the system, which enables the creation and removal of virtually unlimited levels of password secured authorized access for management, staff and authorized end users. Features enabled or disabled at the discretion of Administration include;

- Unlimited End User Programmable Rate, Validation, Coupon, Product and Tax Calculations
- Unlimited Parking Access Groups and Nesting by Device, Location and Area
- Unlimited End User Creation of Email, Smartphone and/or Print Marketing.
- Standard Reporting and all reports are exportable in Excel, XML, TIFF, Web Archive, CSV and Acrobat PDF formats for End User customization.
- Real time delivery of parking product bar codes purchases, validations and or discounts via the Internet.

Overview Modify Make Payment

ID: 9551659      Number: FP0009551659 55452 FP0000055452 55437  
 FP0000055437 FC: 1 Number: 12 FC: 47  
 Number: 1357

First Name: Paul      Last Name: Favorov

Email: paul.favorov@parkingsoft.c      Phone: 123

Password: 1234      Company Phone:

Promo Code:      Corporate Accounts: Walt Disney Productio

Receive Email:       Company Name:

Address:      Company Address:

City:      Company City:

State/Zip: Georgia 30341      Company State/Zip: -None-

Note:

Card On File:  \*By checking this box, I hereby authorize this facility to initiate charges to the credit card listed below, and authorize the credit card institution to accept the amount of such charges to the credit card listed below.

Card Type: Visa      Expiration: 01 2012

CC Number: XXXX-XXXX-XXXX-1111

Monthly Billing:  \*By checking this box, I hereby authorize this facility to initiate charges to the credit card listed above on monthly basis if I am a member of a monthly membership program. Otherwise, I shall be billed separately.

Update

Transactions AccessTags Coupons Emails Monthly Payments Points History

Number	Entry	Exit	Total	FP
<a href="#">524</a>	5/12/2010 6:10:22 PM	5/12/2010 6:10:58 PM	0.0000	<a href="#">9551659</a>
<a href="#">522</a>	5/12/2010 3:02:41 PM	5/12/2010 5:24:14 PM	5.0000	<a href="#">9551659</a>
<a href="#">519</a>	5/12/2010 4:21:25 PM	5/12/2010 4:22:02 PM	0.0000	<a href="#">9551659</a>
<a href="#">518</a>	5/12/2010 3:45:10 PM	5/12/2010 3:45:37 PM	0.0000	<a href="#">9551659</a>
<a href="#">515</a>	5/12/2010 2:46:04 PM	5/12/2010 2:46:29 PM	0.0000	<a href="#">9551659</a>
<a href="#">505</a>	5/10/2010 4:54:33 PM	5/10/2010 4:56:38 PM	0.0200	<a href="#">9551659</a>
<a href="#">502</a>	5/10/2010 3:48:56 PM	5/10/2010 3:50:59 PM	0.0200	<a href="#">9551659</a>
<a href="#">499</a>	5/10/2010 2:16:49 PM	5/10/2010 2:20:10 PM	0.0300	<a href="#">9551659</a>
<a href="#">497</a>	5/10/2010 2:05:49 PM	5/10/2010 2:06:05 PM	0.0000	<a href="#">9551659</a>
<a href="#">492</a>	4/22/2010 8:45:27 AM	4/22/2010 9:17:16 AM	13.0000	<a href="#">9551659</a>

Transactions Emails Monthly Payments Points History

Invoice #	Due Date	Invoice Date	Month/Year	Total	Paid	Void	Invoice
578	02/06/11 12:44 AM	01/22/11 12:44 AM	1/2011	\$50.00	0.00	No	<a href="#">Invoice</a>
574	01/06/11 12:44 AM	12/22/10 12:44 AM	12/2010	\$50.00	50.00	No	<a href="#">Invoice</a>
570	12/07/10 12:43 AM	11/22/10 12:43 AM	11/2010	\$54.00	54.00	No	<a href="#">Invoice</a>
562	10/28/10 02:46 PM	10/13/10 02:46 PM	10/2010	\$50.00	50.00	No	<a href="#">Invoice</a>

**Frequent Parker Program** – The ParkingSOFT Frequent Parking Program is a very popular web based tool to maximize the return on investment through efficient marketing by off airport entities of their parking product and amenities to consumers. The success of our off airport systems throughout the country is directly attributed to the marketing of products and amenities, such as automobile washing / detailing, fuel sales, dry cleaning, automobile repairs, valet services, groceries, etc. unavailable at most large and regional airport facilities. There has been a recent trend in requests by on airport systems for this system, which seems driven by the current economic conditions and need to compete with off airport entities for market share. This trend has expanded to include transit, municipal, university and healthcare applications for commuters, patients, students, visitors, and staff. Use of frequent parker programs offers a higher level of service at a lower rate, excelling through volume, higher consumer loyalty and market share our overall increase in positive perception of services provided.

**Corporate Customer Group Administration Portals** – Permits Group Administrators from major Corporate, Tenant or Business Groups to manage all parkers registered within their group account, add, delete and update all individual parker information. Purchase validations, review activity and pay invoices.

**Partner / Travel Agency Management and Marketing Portals** – Permits authorized agencies, partners, airlines, rental car providers and others to securely register and utilize various tools. Create accounts, manage employees and physical inventory, create promotions and trip packages, deliver pre-paid parking coupons to resellers, distribute rewards such as; bulk purchased airline frequent flyer miles, complimentary gifts, parking, etc. Track and charge for ground transportation, hotel and off airport shuttle activity through the terminal by month, by trip, by time at the End User's discretion.

## **Hardware Components**

Standard entry machines contain either touch screen or two line display, bar code scanners, secondary media readers, firmware and thermal printers. All components are readily available and Plug & Play to permit quick replacement in the event of failure. Our standard exit machine is virtually identical to the entry machine with the addition of a swipe and/or contactless credit / debit card reader.

Fee computers are touch screen self contained units with peripheral bar code scanner, credit card swipe reader, thermal printer and secure cash drawer.

Pay on Foot units are designed with bar code media / ticket scanners, swipe credit card readers, bill and coin acceptors, and recycling escrow change dispensers. No additional change cassettes are required, since lower denomination bills are escrowed and additional change can be added by supervisors in the field without opening the unit.

**Our philosophy and approach are summarized in the low costs of system ownership. Our devices never ingest media of any kind. Tickets and media are scanned and or inserted. The only ingested materials are cash and coins.**



## Compatibility with Existing and Future Technology

Our devices contain interchangeable Plug & Play modules such as printers and scanners. Our firmware provides for the use of virtually all currently available HID, AVI and Touch less Media reader communications, along with current and future NFC, Smart Phone technology. Technology applications include access and future open payment media.



## Mass Marketing / Event and Retail Establishment Sample Validations

- Event host selects parking location or locations, purchases pre-paid parking validation bar code for a definitive or indefinite number of uses expiring following the event date. Bar code is printed with advertisement in local newspaper, magazine or other media. Retail establishment prepays for specified number of bar codes. File is delivered to establishments 3<sup>rd</sup> party printer and applied to selected media.
- Customer scans the entry ticket and bar code validation upon exit for free or discounted rate.



FRONT



BACK

## **System Automation - Remote Management Call Center Options**

**Full automation of most facilities can be achieved by the web based real time functions of our systems. By adding remote data monitoring, with direct VoIP communications and related video multiple facilities can be controlled remotely by trained technicians. Minimal workstation set up and hardware expense is required.**



**As an alternative, we recommend remote management and monitoring outsourcing provided by ParkingSOFT, LLC. ParkingSOFT can provide all equipment and fully trained customer service staff, to remotely monitor gates and lanes under a monthly service contract.**

**Our current 24 hour / 365 day emergency call centers sub-contractors located in Maryland and Atlanta.**



---

**Full automation and call center functions, with either option, can reduce or eliminate the staffing of contracted cashiers, minimize lost revenue and significantly lower operating expense.**

## Reduced Collection Requirements = Improved Focus on Customer Service

ParkingSOFT provides customized automated parking facility operations that allow owners and operators to apply their full resources to customer service initiatives.

Our technology reduces energy use, consumable natural resources, non-biodegradable products and expense, creating financial savings and contributing to a cleaner environment.

Optional Modules include automated valet hand held units and integrated system software. Features include automated VIN Scanning and vehicle identification. Vehicle tracking and Inventory. Alternative rate calculation.



## Event Specific Parking System Solutions

**Pre-pay** – Event parking permits can be pre-sold on-line and self-printed by customers. Using barcode technology similar to airline boarding pass systems, permits are recorded at time of sale and scanned for entry to the designated facility.

**Traffic/Crowd Control** – Using the on-line prepay system to determine customer information by zip code, designating their parking area and directing their route. Police and Transportation entities provide traffic congestion data which can be used to establish traffic routes to specific lots at the point of pre-purchase. System features permit the sports venues to separate fans for crowd control by only unlocking specified lots based on the local or remote zip codes of purchasers. Visiting fans can be permitted to purchase in selected designated lots only, with the other lots displaying “sold out”.

**Alcohol Control / Police Intervention** – Since customers create a password and log in to purchase pre-paid permits, they can easily be identified by name, address and/or permit after the fact. When the officials identify those that are catalyst for trouble, disorderly, etc. A crosscheck of the database and the individual can be discreetly banned from purchasing future permits.

**Security/Cash Control** – Cash in the field can be reduced by up to 80% increasing security and revenue control. Pre-paid permits are scanned once and re-entry is prohibited eliminating pass back. Hand-held units can be activated by the Venue to permit printing sale of a limited number of permits at designated facilities.

**Real Time Audit and Management** – The University via the Internet can view and manage all aspects of the event. Point of sale cash/credit card transactions, pre-sold, arrival and transaction counts are updated every 30 seconds in all locations and displayed on the secure dashboard. The designated University Event Manager can manage the event real time for maximum efficiency. All audits and reports are visible as activity is occurring.

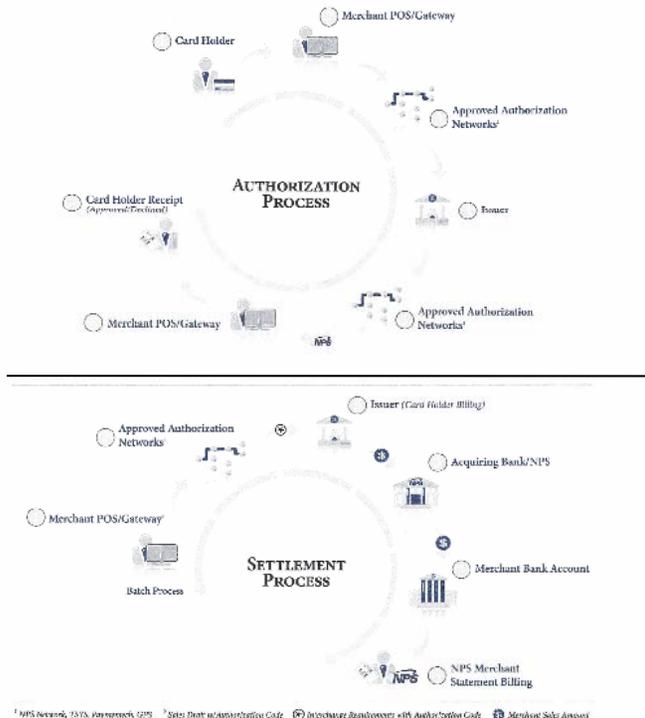



Lot	Capacity	Current	Available	Price	Status
Lot 1	100	50	50	\$5	Open
Lot 2	100	100	0	\$5	Sold Out
Lot 3	100	20	80	\$5	Open
Lot 4	100	0	100	\$5	Open
Lot 5	100	0	100	\$5	Open
Lot 6	100	0	100	\$5	Open
Lot 7	100	0	100	\$5	Open
Lot 8	100	0	100	\$5	Open
Lot 9	100	0	100	\$5	Open
Lot 10	100	0	100	\$5	Open
Lot 11	100	0	100	\$5	Open
Lot 12	100	0	100	\$5	Open
Lot 13	100	0	100	\$5	Open
Lot 14	100	0	100	\$5	Open
Lot 15	100	0	100	\$5	Open
Lot 16	100	0	100	\$5	Open
Lot 17	100	0	100	\$5	Open
Lot 18	100	0	100	\$5	Open
Lot 19	100	0	100	\$5	Open
Lot 20	100	0	100	\$5	Open

## Secure Direct Credit / Debit Card Processing by the Parking / Event and Healthcare Industry Specialist – Nationwide Payment Solutions

For secure and payment processing ParkingSOFT has integrated with Nationwide Payment Solutions a national leader in Parking POS Systems. The authorization and settlement process shown traces the path of payment.

They have become a valuable provider in our commercial, event venue and healthcare systems applications.



**Healthcare  
Industry Specialist**

---

**Industry Leaders In The  
Complex Healthcare World**

- Extremely Low Premier Negotiated Rates
- Secure PCI Compliant Payment Processing End-to-End
- Direct Integration With Most Healthcare POS Systems
- Recurring Billing - Interest Free Payment Plans
- Improve Back Office Collections With Our A/R Program & Training
- Medical Claims Verification
- **Best-In-Class** In-House Customer Service & Support
- Superior Web-Based Reporting & Reconciliation
- Simple Easy To Read Statements
- Seamless Transition
- Process All Forms Of Non-Cash Payments  
Credit/Debit/Gift/Checks

**Nationwide Payment Solutions Your Partner in  
Electronic Payments. For more information  
please call us at 800.742.1677 ext. 9**

Nationwide Payment Solutions is a Level 1 PCI/DSS Certified Direct Payment Processor handling over \$3 billion in electronic payment transactions annually. A registered Merchant Service Provider (MSP) and Third Party Processor (TPP) of Visa, MasterCard, Discover, and American Express.

[www.NationwidePaymentSolutions.com](http://www.NationwidePaymentSolutions.com)

## Web Bar Code Product Delivery Examples

Purchased bar code permits products are available for immediate printing or saving to a device by the consumer in Adobe Acrobat PDF format. In addition, the customer also automatically receives the product image file via email upon completion of purchase. The permit can be presented for scanning upon arrival at the site in various methods including printed format and/or mobile phone or device image. Samples are displayed:

**EVENT PARKING PERMIT**  
UNIVERSITY OF MARYLAND  
MEN'S BASKETBALL  
Vs DUKE

Thank you for your order! Print this page and present it to parking attendant on the day of the event.

Event Name: vs. Fake University	<b>EVENT PARKING PERMIT</b> <b>REGENTS DRIVE GARAGE</b>
324520	Valid From: <b>9/24/2010 7:00:00 AM</b> Valid To: <b>9/24/2010 10:00:00 PM</b>
<p><b>Directions</b></p> <p><b>FROM BALTIMORE AND POINTS NORTH</b> Take I-95 South to Washington, D.C.'s Capital Beltway (I-495 West). Take Exit 27 and then follow signs to Exit 25 (U.S. 1 South toward College Park). Proceed approximately one mile south on Route 1; take the exit for 193 West (University Boulevard). At the first light, turn left onto Paint Branch Drive. Right on Stadium Drive and the Regents Garage is on the left.</p> <p><b>FROM VIRGINIA AND POINTS SOUTH</b> Take I-95 North to Washington, D.C.'s Capital Beltway (I-495). Continue north on I-95-I-495 toward Baltimore. Take Exit 25 (U.S. 1 South toward College Park). Proceed approximately one mile south on Route 1; take the exit for 193 West (University Boulevard). At the first light, turn left onto Paint Branch Drive. Left on Stadium Drive and the Regents Garage is on the left.</p>	
Event Name: vs. Fake University Parking Garage: Let RDG Valid From: 9/24/2010 7:00:00 AM Valid To: 9/24/2010 10:00:00 PM	<p><b>Terms and Conditions</b></p> 324520



**PARKING PERMIT**  
ACME PARKING  
GENERAL

Madonna

Thank you for your order! Print this page and present it to parking attendant on the day of the event.

Event Name: Madonna	<b>General</b>
161168	Valid From: <b>5/7/2010 12:00:00 AM</b> Valid To: <b>12/2/2020 12:00:00 AM</b>
<p><b>Directions</b></p> <p>I-75 South - 75 South- Exit at North Avenue. Left at end of ramp. Turn Left at 3rd traffic light (Peachtree Street). The Fox Theatre is 1 block, on the left.</p> <p>I-85 South - 85 South- Exit at North Avenue. Left at end of ramp. Turn Left at 3rd traffic light (Peachtree Street). The Fox Theatre is 1 block, on the left.</p> <p>GA 400 South - 400 South to 85 South. Exit at North Avenue exit; Turn left at end of ramp. Turn Left at 3rd traffic light (Peachtree Street). The Fox Theatre is 1 block, on the left.</p> <p>I-75/85 North &amp; I-20 - 75/85 North (I-20 to 75/85 North). Exit at the West Peachtree/ Spring Street exit. Go to Peachtree Street (2 blocks); turn Left. The Fox Theatre is 2 blocks, on the left.</p>	
Event Name: Madonna Parking Garage: General Valid From: 5/7/2010 12:00:00 AM Valid To: 12/2/2010 12:00:00 AM	<p><b>Terms and Conditions</b></p> 161168 

## Monitor All Activity “Live” at Any Facility, Anywhere, Anytime

- Cash & Credit Card Transactions
- Facility Occupancy Counts by User / Type
- Online Payment – Validation Usage
- Administrative Reporting of User Activity
- Reserved and Special Event Occupancy
- System Function and Maintenance
- Real Time Web Based Reporting
- Venues Event Hand-Held Units



- **Secure Full Access to System Function and Activity, Anywhere, Anytime via the Internet Password Secured Portal.**



***Tested, Proven, Reliable Equipment & Software***

**TCP/IP based and serviced via the Internet**

**Easy Install Microsoft Modules**

**Next Day Replacement Shipping**

**Help Desk available 24/7**

**Designed for Easy User Maintenance**

**No Expensive Hardware Maintenance**

**Agreements Required or Needed.**

**Automatic Lifetime**

**System Software Updates**





INDUSTRY LEADERS IN THE ADVANCEMENT OF TODAY'S PARKING TECHNOLOGY

**Business / Consulting Contact Information**

**Michael Conway**  
**Managing Partner**  
**ParkingSOFT, LLC**  
**2702 Lighthouse Point East, Suite 626**  
**Baltimore, Maryland 21224**  
**410-327-9650**  
**410-327-9656 Fax**  
**mike.conway@parkingsoft.com**  
**www.parkingsoft.com**

**Technical Contact Information**

**ParkingSOFT, LLC**  
**5730 Oakbrook Parkway Suite 140**  
**Norcross, Georgia 30093**  
**877-884-PARK (7275)**  
**support@parkingsoft.com**  
**www.parkingsoft.com**



**MOVING PARKING FORWARD™**





PRODUCT	DESCRIPTION	MSRP	SYSTEM UNITS	EXTENDED	CARROLL ST UPPER ENTRY	EXTENDED	CARROLL ST LOWER ENTRY	EXTENDED	PICKNEY ST EXIT	EXTENDED	JOHN NOLAN ENTRY	EXTENDED	JOHN NOLAN EXIT	EXTENDED	PROJECT BUDGET TOTAL	PAY ON FOOT OPTION	EXTENDED	CARROLL ST EXIT OPTION	EXTENDED	CCTV SYSTEM	EXTENDED	TOTAL OPTIONS	TOTAL PROJECT W/OPTIONS	
<b>SOFTWARE</b>	<b>ParkingSOFT</b>																							
PS-SUITE SFT (SUBSCRIPTION ONLY - DIRECT TO END USER + REQUIRED EULA NOT INCLUDED) MINIMUM BASED ON \$800 / MONTH @ 60 MONTHS)	Full Software Suite Pre-Configured on Dell Server	\$42,277.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	\$0.00	\$0.00	
<b>PRODUCT</b>	<b>DESCRIPTION</b>	<b>MSRP</b>	<b>SYSTEM UNITS</b>	<b>EXTENDED</b>	<b>CARROLL ST UPPER ENTRY</b>	<b>EXTENDED</b>	<b>CARROLL ST LOWER ENTRY</b>	<b>EXTENDED</b>	<b>PICKNEY ST EXIT</b>	<b>EXTENDED</b>	<b>JOHN NOLAN ENTRY</b>	<b>EXTENDED</b>	<b>JOHN NOLAN EXIT</b>	<b>EXTENDED</b>	<b>PROJECT BUDGET TOTAL</b>	<b>PAY ON FOOT OPTION</b>	<b>EXTENDED</b>	<b>CARROLL ST EXIT OPTION</b>	<b>EXTENDED</b>	<b>CCTV SYSTEM</b>	<b>EXTENDED</b>	<b>TOTAL OPTIONS</b>	<b>TOTAL PROJECT W/OPTIONS</b>	
<b>HARDWARE</b>	<b>ParkingSOFT</b>																							
PS-LocServ-T	ParkingSOFT Location Server - Tower	\$7,438.00	1	\$7,438.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	\$7,438.00	0	\$0.00	0	\$0.00	0	\$0.00	\$0.00	\$7,438.00	
PS-EN-DEV - TCH	Entry Device, Touch + Printer + Imager Scanner + Heater	\$11,107.00	0	\$0.00	1	\$11,107.00	1	\$11,107.00	0	\$0.00	3	\$33,321.00	0	\$0.00	\$55,535.00	0	\$0.00	0	\$0.00	0	\$0.00	\$0.00	\$55,535.00	
PS-EX-DEV	Exit Device, Touch + Printer + Imager Scanner + Credit Card + Heater	\$11,570.00	0	\$0.00	0	\$0.00	0	\$0.00	1	\$11,570.00	0	\$3.00	3	\$34,710.00	\$46,283.00	0	\$0.00	1	\$11,570.00	0	\$0.00	\$11,570.00	\$57,853.00	
PS-FC-DEV	Fee Computer Exit Device, Drawer + MSR + Printer + Imager Scanner + Gate Controller	\$5,590.91	0	\$0.00	0	\$0.00	0	\$0.00	1	\$5,590.91	0	\$0.00	3	\$16,772.73	\$22,363.64	0	\$0.00	1	\$5,590.91	0	\$0.00	\$5,590.91	\$27,954.55	
PS-FC-Display	Customer Display for Fee Computer, 11.25mm 2X20 Black, USB	\$545.45	0	\$0.00	0	\$0.00	0	\$0.00	1	\$545.45	0	\$0.00	3	\$1,636.36	\$2,181.82	0	\$0.00	1	\$545.45	0	\$0.00	\$545.45	\$2,727.27	
<b>PRODUCT</b>	<b>DESCRIPTION</b>	<b>MSRP</b>	<b>SYSTEM UNITS</b>	<b>EXTENDED</b>	<b>CARROLL ST UPPER ENTRY</b>	<b>EXTENDED</b>	<b>CARROLL ST LOWER ENTRY</b>	<b>EXTENDED</b>	<b>PICKNEY ST EXIT</b>	<b>EXTENDED</b>	<b>JOHN NOLAN ENTRY</b>	<b>EXTENDED</b>	<b>JOHN NOLAN EXIT</b>	<b>EXTENDED</b>	<b>PROJECT BUDGET TOTAL</b>	<b>PAY ON FOOT OPTION</b>	<b>EXTENDED</b>	<b>CARROLL ST EXIT OPTION</b>	<b>EXTENDED</b>	<b>CCTV SYSTEM</b>	<b>EXTENDED</b>	<b>TOTAL OPTIONS</b>	<b>TOTAL PROJECT W/OPTIONS</b>	
<b>Pay in Lane / Pay on Foot</b>	<b>MAGNETIC AUTOCONTROL</b>																							
PS-POF	Pay on Foot Unit Complete (Cash, Coin, Credit Card)	\$78,777.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	\$0.00	4	\$315,108.00	0	\$0.00	0	\$0.00	#####	\$315,108.00	
<b>PART CODE</b>	<b>DESCRIPTION</b>	<b>MSRP</b>	<b>SYSTEM UNITS</b>	<b>EXTENDED</b>	<b>CARROLL ST UPPER ENTRY</b>	<b>EXTENDED</b>	<b>CARROLL ST LOWER ENTRY</b>	<b>EXTENDED</b>	<b>PICKNEY ST EXIT</b>	<b>EXTENDED</b>	<b>JOHN NOLAN ENTRY</b>	<b>EXTENDED</b>	<b>JOHN NOLAN EXIT</b>	<b>EXTENDED</b>	<b>PROJECT BUDGET TOTAL</b>	<b>PAY ON FOOT OPTION</b>	<b>EXTENDED</b>	<b>CARROLL ST EXIT OPTION</b>	<b>EXTENDED</b>	<b>CCTV SYSTEM</b>	<b>EXTENDED</b>	<b>TOTAL OPTIONS</b>	<b>TOTAL PROJECT W/OPTIONS</b>	
<b>BARRIER GATES</b>	<b>MAGNETIC AUTOCONTROL</b>																							
Parking.Pro-RC012xx	High Performance Microdrive Barrier w/ 12 ft arm. Standard RAL 9010 white, RAL 2000 orange, built in dual channel loop detector.	\$4,680.00	0	\$0.00	1	\$4,680.00	1	\$4,680.00	1	\$4,680.00	3	\$14,040.00	3	\$14,040.00	\$42,120.00	0	\$0.00	1	\$4,680.00	0	\$0.00	\$4,680.00	\$46,800.00	
M3147.6666	10' foam protective edge	\$32.14	0	\$0.00	1	\$32.14	1	\$32.14	1	\$32.14	3	\$96.43	3	\$96.43	\$289.29	0	\$0.00	1	\$32.14	0	\$0.00	\$32.14	\$321.43	
<b>PART CODE</b>	<b>DESCRIPTION</b>	<b>MSRP</b>	<b>SYSTEM UNITS</b>	<b>EXTENDED</b>	<b>CARROLL ST UPPER ENTRY</b>	<b>EXTENDED</b>	<b>CARROLL ST LOWER ENTRY</b>	<b>EXTENDED</b>	<b>PICKNEY ST EXIT</b>	<b>EXTENDED</b>	<b>JOHN NOLAN ENTRY</b>	<b>EXTENDED</b>	<b>JOHN NOLAN EXIT</b>	<b>EXTENDED</b>	<b>PROJECT BUDGET TOTAL</b>	<b>PAY ON FOOT OPTION</b>	<b>EXTENDED</b>	<b>CARROLL ST EXIT OPTION</b>	<b>EXTENDED</b>	<b>CCTV SYSTEM</b>	<b>EXTENDED</b>	<b>TOTAL OPTIONS</b>	<b>TOTAL PROJECT W/OPTIONS</b>	
<b>AVI HID, ACCESS CONTROL</b>	<b>RF LOGICS</b>																							
Proximity Card Reader	RF Tiny (4" Range)	\$125.45	0	\$0.00	1	\$125.45	1	\$125.45	1	\$125.45	3	\$376.36	3	\$376.36	\$1,630.91	0	\$0.00	1	\$125.45	0	\$0.00	\$125.45	\$1,756.36	
<b>PART CODE</b>	<b>DESCRIPTION</b>	<b>MSRP</b>	<b>SYSTEM UNITS</b>	<b>EXTENDED</b>	<b>CARROLL ST UPPER ENTRY</b>	<b>EXTENDED</b>	<b>CARROLL ST LOWER ENTRY</b>	<b>EXTENDED</b>	<b>PICKNEY ST EXIT</b>	<b>EXTENDED</b>	<b>JOHN NOLAN ENTRY</b>	<b>EXTENDED</b>	<b>JOHN NOLAN EXIT</b>	<b>EXTENDED</b>	<b>PROJECT BUDGET TOTAL</b>	<b>PAY ON FOOT OPTION</b>	<b>EXTENDED</b>	<b>CARROLL ST EXIT OPTION</b>	<b>EXTENDED</b>	<b>CCTV SYSTEM</b>	<b>EXTENDED</b>	<b>TOTAL OPTIONS</b>	<b>TOTAL PROJECT W/OPTIONS</b>	
<b>VOIP / INTERCOMM / CCTV</b>	<b>AIPHONE, DIGITAL ACCOUSTICS</b>																							
TalkMaster-EE	TalkMaster Enterprise Edition	\$3,613.64	1	\$3,613.64	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	\$3,613.64	0	\$0.00	0	\$0.00	0	\$0.00	\$0.00	\$3,613.64	
TalkMaster-SIP (REQUIRES EXISTING PBX PHONE SYSTEM OR HOSTING)	SIP Media Gateway, VoIP Telephony interface software to transfer calls to land or cellular lines.	\$1,295.45	1	\$1,295.45	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	\$1,295.45	0	\$0.00	0	\$0.00	0	\$0.00	\$0.00	\$1,295.45	
PS-Intercom	IP Intercom Call Station Interface for Intergration (PS-EN/EX/INVAL-DEV)	\$1,036.36	0	\$0.00	0	\$0.00	1	\$1,036.36	1	\$1,036.36	0	\$0.00	3	\$3,109.09	\$5,181.82	4	\$4,145.45	1	\$1,036.36	0	\$0.00	\$5,181.82	\$10,363.64	
Ocularis-CS-1C	Per Camera/Channel License for Ocularis-CS-Base	\$668.18	0	\$0.00	0	\$0.00	1	\$668.18	1	\$668.18	0	\$0.00	3	\$2,004.55	\$3,340.91	4	\$2,672.73	1	\$668.18	0	\$0.00	\$2,672.73	\$6,013.64	
Ocularis-CS-Base	Ocularis CS Video Centric Physical Security Information Management Base Server Software	\$5,127.27	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	\$0.00	0	\$0.00	0	\$0.00	1	\$5,127.27	\$5,127.27	\$5,127.27	
PS-HD4500	4-500GB RAID Storage (Desired for 8 cameras, 5 frames per second with 704x480 resolution per camera)	\$3,636.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	\$0.00	0	\$0.00	0	\$0.00	1	\$3,636.00	\$3,636.00	\$3,636.00	
PS-KC	Option: Flush Mount, wide angle lens camera integrated (PS-EN/EX/INVAL-DEV)	\$1,388.43	0	\$0.00	0	\$0.00	0	\$0.00	1	\$1,388.43	0	\$0.00	3	\$4,165.29	\$5,553.72	4	\$5,553.72	1	\$1,388.43	0	\$0.00	\$5,553.72	\$11,107.44	
P3344-VE (12mm)	Dome Camera (Surface Mount) Outdoor Vandal-resistant, Day/Night camera, 1MP/720P	\$3,636.36	0	\$0.00	1	\$3,636.36	1	\$3,636.36	1	\$3,636.36	3	\$10,909.08	3	\$10,909.08	\$32,727.24	0	\$0.00	1	\$3,636.36	0	\$0.00	\$0.00	\$32,727.24	
PC Workstation w/ Printer	Dell Workstation / HP Printer	\$3,041.32	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	\$0.00	0	\$0.00	0	\$0.00	1	\$3,041.32	\$3,041.32	\$3,041.32	
			<b>SYSTEM UNITS</b>	<b>EXTENDED</b>	<b>CARROLL ST UPPER ENTRY</b>	<b>EXTENDED</b>	<b>CARROLL ST LOWER ENTRY</b>	<b>EXTENDED</b>	<b>PICKNEY ST EXIT</b>	<b>EXTENDED</b>	<b>JOHN NOLAN ENTRY</b>	<b>EXTENDED</b>	<b>JOHN NOLAN EXIT</b>	<b>EXTENDED</b>	<b>PROJECT BUDGET TOTAL</b>	<b>PAY ON FOOT OPTION</b>	<b>EXTENDED</b>	<b>CARROLL ST EXIT OPTION</b>	<b>EXTENDED</b>	<b>CCTV SYSTEM</b>	<b>EXTENDED</b>	<b>TOTAL OPTIONS</b>	<b>TOTAL PROJECT W/OPTIONS</b>	
Equipment Budget Only Pricing				\$12,347.09		\$19,580.96		\$21,285.50		\$29,273.30		\$58,745.87		\$87,819.89	\$229,554.43		\$327,479.90		\$29,273.30		\$11,804.59	#####	\$592,419.25	
Installation Budget Only Estimate	Excludes, concrete, electrical, etc.														\$104,000.00								\$143,000.00	
Totals															\$333,554.43								\$735,419.25	
Software EULA / Subscription	Monthly Subscription Fee	\$800.00																						



The Administration Unit/Pay Station is the central component of Parking Management System. Controlled via a central computer, it provides a comprehensive range of functions for monitoring and controlling all peripheral devices, as well as wide-ranging options for administering and evaluating various operational data. The operating mode (Administration Unit-, Control Centre- or Pay Station mode) can be switched at the touch of a button. Tickets are processed via a separate Coder connected to the central computer.



## APT450.Logic Parking.Logic

## Manual.Cash

### Features

- Clearly structured, easy-to-use graphic user interface (GUI)
- Plain-text system messages for instant system status overview
- Application-specific keyboard
- Quality-assured in accordance with ISO 9001 standards

### Functions

- Supported means of payment include cash, invoice, cheque, standard credit or debit cards, various City Cards, as well as system-based Time / Cash Debit Cards and manual payment methods
- System supports redeeming of short-term parking validations
- System-based Cash Debit Cards and supported City Cards can be recharged as needed
- Production of all system-based parking tickets, debit cards and special-purpose cards
- Issuing and processing of parking tickets on keycards
- Support for special sales, receipt printing and issuing of replacement tickets
- Special functions for operator shift administration and cash flow
- For details on Administration Unit functions see System Applications Factsheets

## Standard version

- Control Computer with appropriate processing power and memory capacity; includes computer mouse, hard disc, floppy drive and Ethernet interface boards, operating system
- Electronic system journal

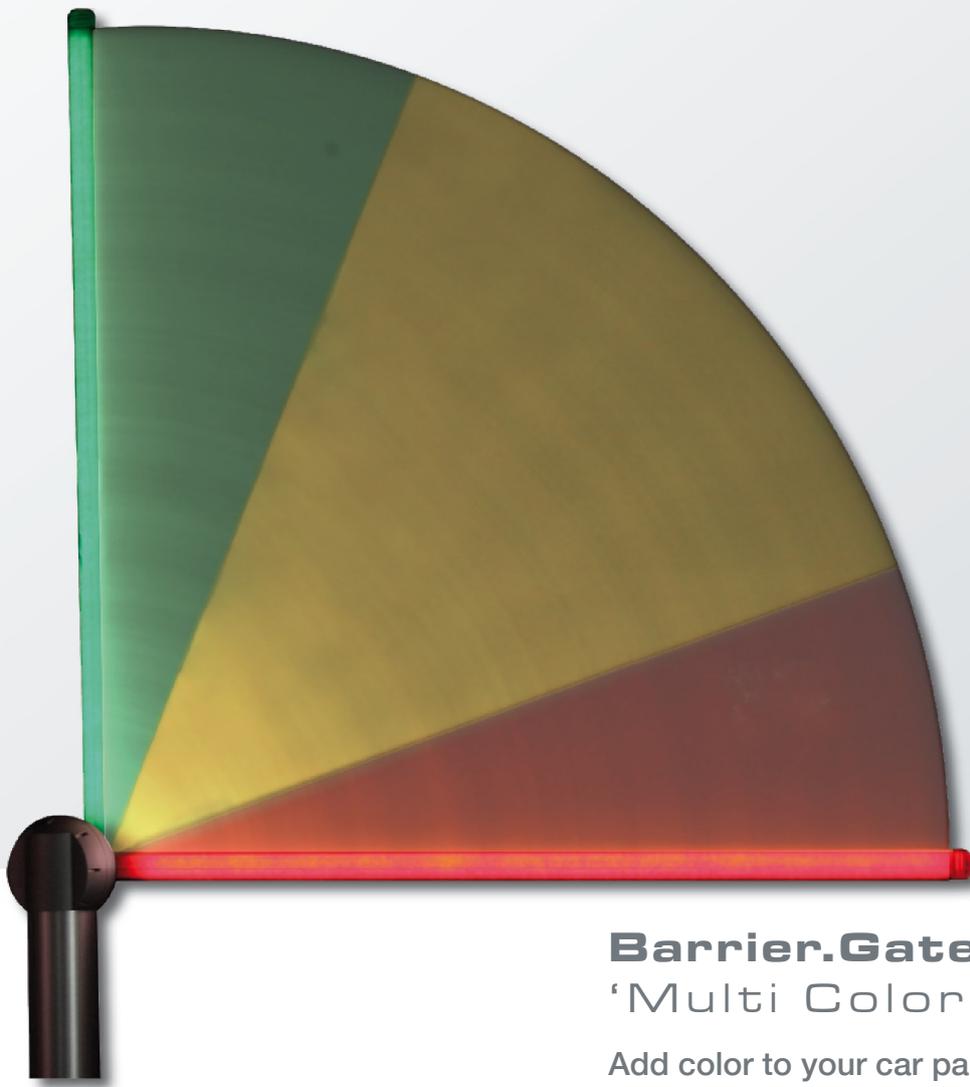
## Accessories

- Standard PC keyboard, or Control Keyboard Standard or Compact with replaceable key labels for custom key allocations
- 15" or 17" colour monitor
- Ink-jet or laser printer for printing of reports and other documentation; journal printer
- Standard modem or ISDN modem, Ethernet hub, and SKIDATA network hub
- Coder unit, complete with power adapter and cables; functions include:
  - Issuing and processing of barcode and magnetic tickets; includes receipt printing function (receipt can be printed separately or onto ticket)
  - Issuing of supported handsfree parking products
  - Processing of standard credit cards (for details see Factsheet Coding Unit)
- Ticket retaining mechanism (holds up to 100 tickets)
- Alphanumeric Customer Display, complete with power adapter and desk stand
- External serial-interface printer for receipts
- 600 VA uninterruptible power supply unit (interface cable included): provides backup power supply in case of power outages; allows for shutting down devices properly to avoid data loss
- Till actuator module: Potential-free make contact for automated control of a till drawer (causes drawer to open automatically when performing payment transactions or cash-related functions)

## Technical Specifications

Standards ..... CE label

For further technical details see Factsheets: Coding Unit, Control Keyboard, Customer Display



## **Barrier.Gate** 'Multi Color Boom'

**Add color to your car park!**

From "Stop" to "Free Passage":

This barrier changes colors.

The traffic light effect or rather your corporate colors - It's up to you...

### **The signature of your company**

- Be seen, be different: illuminated barrier booms create striking access points
- Personalize your car park:  
You decide in what colors the barrier is illuminated when it opens and closes
- Offer your customers a plus of security, e.g. by means of an intuitively recognizable traffic light function

### **Save money**

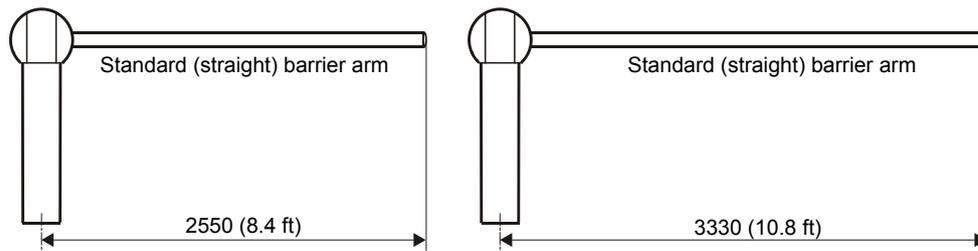
- Profit from extremely low maintenance costs  
No more time-consuming maintenance tasks for halogen lamps
- Go for LED and make better use of your time

### **Color design made easy**

- Up to three individually definable colors
- The position and the mode of the color change can be freely defined
- The "Easy-Color-Code" is the easy way to make sure that all barriers have the same colors

### **Make a visual impact**

- The Multi Color Boom can be attached to almost any barrier; no hardware update required
- So why wait till tomorrow?



## Properties

- White transparent barrier boom with holding frame  
The overall effect depends on the ambient light.
- Protective red rubber bead at the bottom of the boom profile (for enhanced visibility at daylight)
- Operation modes can be easily configured on site
- The "Easy-Color-Code" guarantees that different barriers do not have different colors
- Evenly illuminated by a colored LED ribbon
- Fully mounting compatible to "AS 450 ASL"
- Electronic components (including barrier breakage sensor) fully compatible
- Can be shortened (by a technician) at 21 cm (8.268") intervals
- Temperature-resistant and vibration-resistant
- Weatherproof and dampproof
- Quality-assured in accordance with ISO 9011 standards

### Available in two lengths (mind the operation mode):

- Standard operation mode: max. 2,55 m (8.4 ft)
- Operation mode Extended: max. 3,33 m (10.8 ft)

## Standard Version

- Available boom holding frames: Detachable / Fixed / Fixed-GB
- Smart CPU with highly integrated POWER LED ribbon

### Easy-Color-Code

- The color setting only needs to be defined once
- 16 values for each LED color
- Delay for color change can be up to 1,5 sec.
- Immediate or smooth color change

### Traffic Light Colors mode

- Two-color or three-color traffic light mode
- Fixed color values (apply to all barriers)

### Corporate design color mode

- One color can be freely configured on site

### Smart Colors mode

- Two or three colors can be defined on site and allocated to the different positions of the barrier boom
- Color change delays and color change modes can be combined to a number of different variations

## Options

- Customer-specific barrier boom holding frame: RAL
- Customer-specific color: Barrier boom profile: for quantities of 50 or 200 pieces respectively (color sample required)

## Technical Specifications

<b>Dimensions</b>	2,55 m (8.4 ft) or 3,33 m (10.8 ft) (length of barrier boom, including end cap)
<b>Weight</b>	3,15 kg / 6.9 lbs (2,55 m) or 4,10 kg / 9.0 lbs (3,33 m) (without aluminium holder)
<b>Max. power consumption</b>	20 W / +12 V DC (protected by a micro-fuse)
<b>Temperature range</b>	-35 °C to +55 °C (-31 °F to +131 °F) / max.. 90 % relative humidity(non-condensing)
<b>Color</b>	Barrier boom holding frame – RAL 9007 Gray Aluminium Semi-Gloss Barrier boom profile: transparent white (fibre-glass reinforced plastic)

The parking barrier unit is installed in combination with a parking column at entrance and exit points of parking areas. The barrier is the actual access control device of the Parking System. It can also be used as an OEM product in combination with other systems.

### Awards

Design was nominated for Austrian National Design Award by Austrian Design Institute (Österreichisches Institut für Formgebung)  
Design won Hanover Industry Forum Design Award.



Picture may vary from actual product

## APT450.Logic Parking.Logic

### Note on Safety

To avoid any possible personal damage, please note that the operator of this device is required to fulfil and maintain, for as long as the device is in use, all safety requirements and measures mentioned in the System Description and Maintenance Manual, as well as all other safety regulations applicable to the use/application of this device.

### Features

- Geared motor with integrated frequency converter control; 230 V AC / 115 V AC supply current
- Self-locking gearing
- Barrier arm (illuminated and non-illuminated versions): Sturdy fibreglass design; elliptic profile; 2.8 m (9.2") standard barrier length
- Opening time approx. 1.5 secs at 90° opening angle
- Jointed barrier arm available for locations with restricted overhead clearance.
- Contactless switches at terminal positions of barrier arm
- Integrated barrier breakage detection
- Durable casing fabricated from impact-resistant plastic with aluminium-coloured lacquer coating; floor stand manufactured from ALU
- No special tools required for installation of barrier arm, Service and maintenance free installation
- Quality-assured in accordance with ISO 9001 standards

## Standard Version

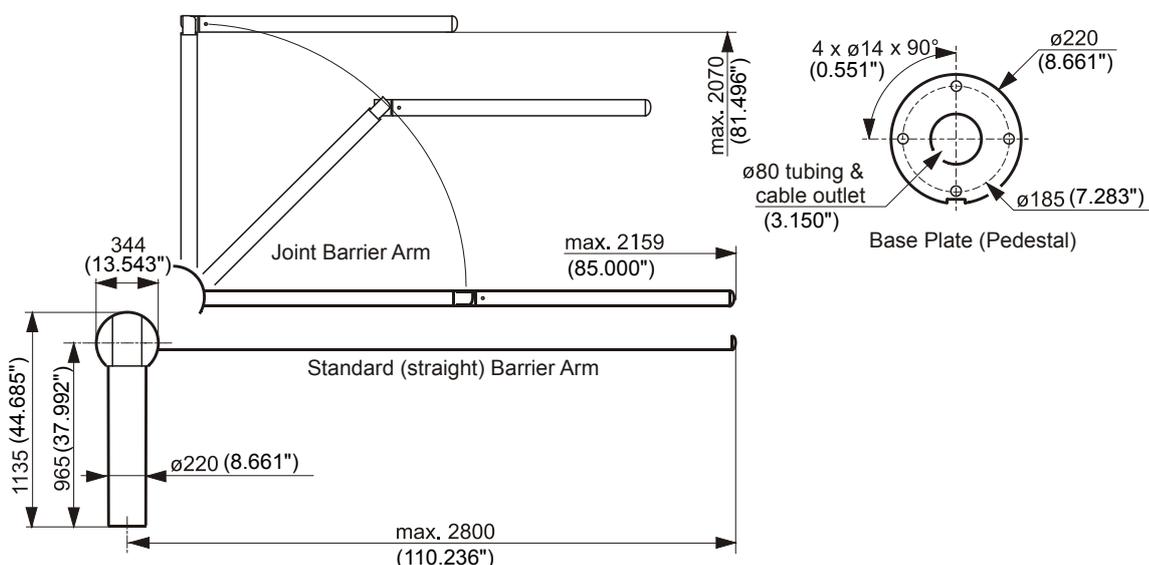
- Barrier unit features built-in frequency converter control array, column top, tubular support frame, three-phase motor, crank drive, integrated barrier motor control, barrier arm support, mounting platform and connecting rods for secure installation
- Barrier control board sd521; 2 inputs and 2 outputs

## Accessories

- Elliptical-profile standard barrier arm (w/ or w/o illumination) fabricated from yellow-coloured glass fibre reinforced plastic; length up to 2.8 m (9.2"); unit comes complete with barrier arm support, built-in breakage sensor
- Jointed barrier arm (w/o illumination) fabricated from yellow-coloured glass fibre reinforced plastic; length up to 2.15 m (7.1"); internal shafts; unit comes complete with barrier arm and tension assembly; standard height of barrier arm joint 2.07 m (6.8") above ground
- Barrier arm support with ejector; crash guard; chassis lock
- Installation of two loop detectors for vehicle and passage direction detection
- Built-in safety light barrier input provides added security for pedestrians
- Warning light for barrier movements
- Extension board sd529 with 6 additional inputs and outputs; additional SIO (e.g. for bidirectional lanes with one barrier only) and operation mode switch

## Technical Specifications

Supply voltage.....	230 V AC / 50 Hz; 110 - 115 V AC / 60 Hz
Opening time (0° to 90°).....	approx. 1.5 secs
Dimensions (casing) .....	240 mm x 1135 mm x 344 mm / 9.449" x 44.685" x 13.543" (w x h x d)
Weight .....	34 kg (75 lbs)
Power consumption.....	250 W max.
Operating temperature .....	-25 °C to +45 °C ( -13 °F to +113 °F) (ambient)
Protection class .....	IP 33
Standards .....	CE label, UL
Safety Class .....	1
Cabinet Colour.....	Anodised Aluminium
Plastic parts .....	RAL 9007 eggshell
Barrier arm.....	Pantone 114 U



As the main controlling unit at entrance and exit gates, the parking column is designed to process data carriers in the form of barcode tickets and magnetic stripe cards as well as contactless data carriers (i.e. keycards). All tickets are processed through the same slot. The transceiver unit for contactless data transfer is integrated into the front panel of the column top.



Picture may vary from actual product

## APT450.Logic Parking.Logic

## Column.Gate

### Design/Structure

- Self-explanatory arrangement of control elements
- Large, illuminated ticket request button on entrance column terminal; flashes when active
- Illuminated cancel button on entrance column terminal
- Display for user guidance
- Maintenance-friendly design, lockable swivel door, hinged front panel, top cover; no tools required for replacing Coding Unit
- Additional mounting plate for card reader, key switch, camera, etc.

### Features

- One ticket slot for different data carriers, including magnetic tickets, direct thermal printing of short-term parking tickets and tickets; simultaneous processing of up to 2 tickets (e.g. payment by value or credit card); prepared for smartcard reader
- 5.7" Backlit LC colour graphics display; 320 pixels x 240 pixels; use of incoming light for illumination enhancement
- 13 MHz / 125 kHz handsfree module for processing contactless kecards, integrated into front panel
- Thermostat-controlled heating/ventilation
- SKIDATA intercom system, including call button
- Ticket bin for up to 5000 fanfold ticket blanks
- Ticket shortage sensor; tray for retained, defective, invalidated and blocked tickets (max. capacity at entrance terminal: 150 tickets, at exit terminal: 2,000 tickets)
- Device is weather resistant, thanks to high-quality materials (e.g. aluminium)
- Quality assurance in accordance with ISO 9001

## Standard Version

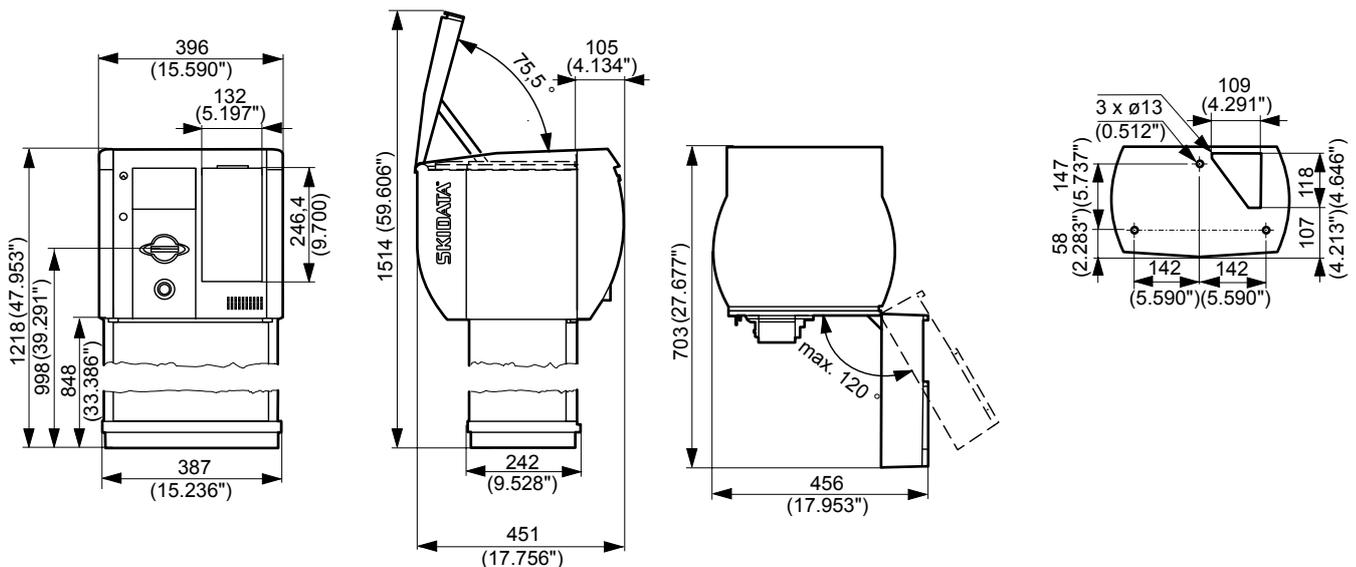
- Entrance column unit capable of processing SKIDATA barcode tickets; includes thermal print head for visual marking of tickets; KeyAntenna; backlit LC colour graphics display; switchable power supply; heater; ventilator
- Exit column unit capable of processing SKIDATA barcode tickets and keycards; includes thermal print head for visual marking of tickets; KeyAntenna; backlit LC colour graphics display; switchable power supply; heater; ventilator
- Exit column provides additional option of payment by twin-track magnetic cards and credit cards; unit can issue receipt slips (for details see Factsheet Coding Unit)

## Accessories

- Lock; can be installed in locking system; crash guard; combined ticket basket
- 3 keys for customer specific special functions (Confirm, Cancel, Receipt)
- Interface PCB sd582;
- Extension kit for 13 MHz / 125 kHz contactless cards (FCC certified)
- Ethernet-Network Adapter

## Technical Specifications

Supported data carriers .....	SKIDATA Thermal cardboard, with/without ISO magnetic stripes; SKIDATA thermoplast cards with ISO magnetic stripes; keycard
Entrance / Exit .....	approx. 440 / 850 short-term parkers per hour
Supply voltage .....	230 V AC / 50 Hz; 110 - 115 V AC / 60 Hz
Dimensions .....	396 mm x 1218 mm x 451 mm / 15.590" x 47.953" x 17.756" (w x h x d)
Weight .....	approx. 25 kg (55.1 lbs)
Power consumption .....	400 W max.
Interface .....	RS 485 (2-wire), Arcnet protocol
Operating temperature .....	-30 °C to +45 °C (-22 °F to +113 °F) ambient
Humidity .....	Up to 90 % (non-condensing)
Protection class .....	IP 33
Standards .....	CE label, UL
Cabinet Colour .....	Anodised Aluminium
Plastics heading sections .....	RAL 9007 Eggshell
Plastics Colour .....	RAL 7043 Traffic grey B
Card slot .....	Pantone 114 U



The pay-on-foot station Credit.Cash is optimised for cashless payments and features a compact design, which can perfectly be integrated in parking facilities using Credit.Cash. The device can be wall-mounted (handicapped accessible) or installed on a support Stand-Rack. User guidance is provided in the form of a colour graphics display and illuminated pictograms.



Picture may vary from actual product

## APT450.Logic Parking.Logic

In combination with Coder Unlimited, Credit.Cash can accept standard credit cards, debit cards, as well as several City Cards, customer cards and system-based value cards in various formats (barcoded, magnetic stripe and RFID-based cards) through the same intake slot, thanks to SKIDATA „Single-Slot“ technology.

Coder Basic can be used for simple requirements to accept all types of barcode tickets and follow-up tickets, RFID tickets require a RFID reader in front door (optional).

Country-specific payment terminal-solutions can be included in the lower area of the payment machine.

### Design

- Compact and modern design
- Optional Stand-Racks- and wall mounting frame
- Mounting plate e.g. for attachment of country-specific EMC-terminal

### Features

- Straight-forward design of the control elements
- Operator guidance via graphic-colour display and illuminated Pictograms
- Language change-over possible at anytime
- Single ticket processing slot for barcode tickets and magnetic stripe cards (Coder Unlimited only), receipt issuing, direct thermal printing of tickets/cards, simultaneous processing of up to two tickets (e.g. payment by means of debit card) depending on the type of coder
- Built-In 125 kHz / 13 MHz handsfree technology provides support of contactless keycards
- Issuing of up to 3000 receipts
- Simple handling of operational procedures



The pay-on-foot station Power.Cash features innovative design, functionality, ergonomics and efficient service. Intuitive user guidance is provided in the form of backlight illuminated user elements and noticeable, easily comprehensible pictograms. Special options are provided to allow for coin and banknote counting in various combinations. Change is dispensed from self-refilling universal hoppers. Using the „Single-Slot“ technology allows to accept standard credit cards, debit cards, as well as several City cards, customer cards and system-based value cards in various formats (barcoded, magnetic stripe



Picture may vary from actual product

## APT450.Logic Parking.Logic

and RFID-based cards) at the same time. Country-specific payment terminal-solutions can be easily included. Different pedestals fulfilling ADA requirements (especially for handicapped people in wheelchairs) are provided.

### Design

- Unique design using steel, precious glass and high-quality plastics
- Innovative LED front illumination, back lit soft keys (touch-technology)
- Intuitive user guidance, only active elements are visible
- Acoustic soft keys supported
- Back lit parking symbol „P“
- Disability friendly design according ADA standards
- High resolution 10" TFT colour display
- Eye-catching ticket processing slot
- Integrated intercom system
- Mounting plate for customer specific attachments e.g. PIN/PAD
- Spacious information area (A4) e.g. tariff list
- VDS inspected housing

## Power.Cash 'Parking'

### Features

- Lower height for handicapped people in wheelchairs (ADA-compatible)
- Single ticket processing slot for barcode tickets and magnetic stripe cards. Thermal direct imprinting of tickets. Simultaneous processing of up to two tickets (e.g. payment by means of debit card). Transceiver unit integrated into front panel allows for use of hands-free data carriers (keycard)
- Electronic coin tester accepts up to 16 different coins and programmable tokens
- High coin storage capacity (approx. 4,400), self-replenishing change hoppers
- Self locking stainless steel coin container
- Coin slot with automatic shutter
- Illuminated change compartment with soft shutter
- Intercom system, volume and microphone adjustable
- Call button and 4 function buttons (maintenance free, capacitive keys)
- Coin transport mechanism, 4 coin hoppers, lockable main coin container
- Heater and fresh-air ventilator
- Ticket container for 500 retracted paper tickets (max. capacity)
- Uninterruptible Power Supply unit (to backup the last business case)
- Wide voltage power supply

### Accessories

- Banknote validator SC 83 - no banknotes escrow
- Banknote validator BNA 56 cash-box for up to 1,000 banknotes - no banknotes escrow
- Banknote validator BNA 57 cash-box for up to 1,000 banknotes - up to 15 banknotes escrow
- Duplex banknote dispenser F56 (additionally to BNA 56/57, SC83)
- Bill to Bill banknote changer, cash-box for up to 1,000 banknotes, change box for up to 110 banknotes (self-replenishing)

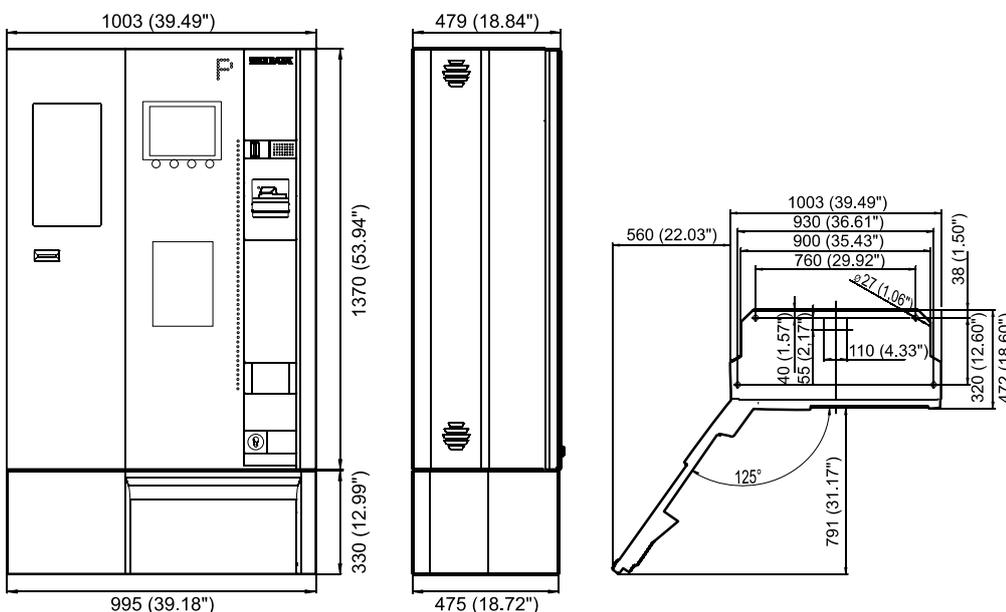
- Mounting plate for optional extension modules (PIN/PAD, Print@Home Scanner etc.)
- Coder Unlimited for ticket transactions

## Options

- Customer specific varnish and illuminated bar
- Different pedestal options
- UPS bypass-time 30 minutes
- RFID data carrier module
- PIN/PAD cover plate
- Print@Home Scanner
- Journal and fiscal printer
- Double ticket intake
- Big ticket container for retracted ISO format paper tickets (approx. 1,500)
- Illumination attachment
- Bag support ledge (depending on pedestal type)
- Master key system
- Locking system using electronic locks (for configurable authorisations)

## Technical Specifications

Data carriers .....	SKIDATA thermal cardboard with/without magnetic stripe, SKIDATA Thermo-Plast and ISO magnetic stripe, CHIP-cards ISO 7816, contact less ISO 14443, ISO 15693, cash cards, credit cards
Dimensions .....	1003 mm x 1370 mm x 479 mm / 39.49" x 53.94" x 18.84" (w x h x d) – without pedestal
Weight (acc. assembly) .....	up to 300 kg (660 lbs) (depending on device assembly)
Power supply .....	230 V AC / 50 Hz; 120 V AC / 60 Hz
Power consumption .....	250 W without heating, max. 1 kW with heating
Uninterruptible Power Supply .....	for correct termination of a business case
Operating temperature .....	-20 °C to +50 °C (-4 °F to +122 °F) (ambient, not exposed to sunlight, outdoor use requires protective roofing)
Protection class .....	IP 43
PC .....	industrial PC platform, Windows XP embedded operating system, SQL data-base
Interface .....	Ethernet, 4 potential-free relays outlet, Commend compatible intercom
Standards .....	CE, UL (EN/UL 60950), FCC certified components, VDS agreement, protection class according IEC 60529
Standard colours .....	RAL 9007 and RAL 7021
Front .....	cabinet fabricated from 2 mm (0.079") power-coated steel sheet, door fabricated from 3 mm (0.118") power-coated steel sheet



**Monona Terrace - Base Scope  
Parking Equipment Upgrade  
5/28/2012**

Qty	Part #	ITEM	Sell Price	Ext Sell
<b><u>JOHN NOLAN DRIVE - ENTRY</u></b>				
3		"FULL/OPEN" LED sign w/stand	\$1,232.00	\$3,696.00
3	945200529	Entrance Column W/Color display, Proximity reader and intercom, SKIDATA	\$15,644.00	\$46,932.00
				
		<ul style="list-style-type: none"> <li>* Accepts credit card upon entry</li> <li>* Coupon/validation handling integrated into same slot as ticket handling (Single Throat Technology)</li> <li>* Customer specific, programmable text display. Large graphic display included with your logo to be added.</li> <li>* Coder/ticket feeder units are swappable reducing down-time &amp; billable emergency service calls.</li> <li>* Using a thermal print head...no more expensive ribbons to buy, no labor to change out, no lite printed unreadable tickets</li> <li>* Secure read write barcode technology included vs. magnetic stripe for more stability and best "go green"</li> </ul>		
3	945500130	Barrier gate w/fiberglass arm, SKIDATA	\$3,448.00	\$10,344.00
				
		<ul style="list-style-type: none"> <li>* Direct Drive System rated for over 5 Million cycles, raises/lowers smoothly in fewer than 1.5 seconds</li> <li>* Aluminum tubular design (rust &amp; vandal resistance) with a direct drive mechanism</li> <li>* Advanced technology provides lower energy use than any other gate providing lower energy bills in a "go green" design</li> <li>* Extruded fiberglass gate arm unprecedented re-usable characteristics</li> <li>* Direct Drive System provides best leveling/repositioning arm on the market</li> </ul>		
6	DHC	Sawcut Loops	\$550.00	\$3,300.00
1	946100000	Manual Pay Station with desktop validator	\$14,663.00	\$14,663.00
				
		<ul style="list-style-type: none"> <li>* Desktop validator/transport mech. Auto reads ticket, fee, validations and credit card processing</li> <li style="background-color: yellow;">* Feature includes ability to produce validations in bulk quantities for distribution to accounts</li> </ul>		

**\*\*\*Continued\*\*\***

**CARROLL STREET ENTRANCE - UPPER & LOWER LEVEL**

2		"FULL/OPEN" LED sign w/stand	\$1,232.00	\$2,464.00
2	945200529	Entrance Column W/Color display, Proximity reader and intercom, SKIDATA	\$16,064.00	\$32,128.00



- \* Accepts credit card upon entry
- \* Coupon/validation handling integrated into same slot as ticket handling (Single Throat Technology)
- \* Customer specific, programmable text display. Large graphic display included with your logo to be added.
- \* Coder/ticket feeder units are swappable reducing down-time & billable emergency service calls.
- \* Using a thermal print head...no more expensive ribbons to buy, no labor to change out, no lite printed unreadable tickets

2	945500130	Barrier gate w/fiberglass arm, SKIDATA	\$3,448.00	\$6,896.00
---	-----------	--	------------	------------



- \* Direct Drive System rated for over 5 Million cycles, raises/lowers smoothly in fewer than 1.5 seconds
- \* Aluminum tubular design (rust & vandal resistance) with a direct drive mechanism
- \* Advanced technology provides lower energy use than any other gate providing lower energy bills in a "go green" design
- \* Extruded fiberglass gate arm unprecedented re-usable characteristics
- \* Direct Drive System provides best leveling/repositioning arm on the market

2	DHC	Sawcut Loops	\$550.00	\$1,100.00
---	-----	--------------	----------	------------

**JOHN NOLAN DRIVE - EXIT**

2	945200629	Exit Column W/Color display, Proximity reader, intercom, SKIDATA	\$15,856.00	\$31,712.00
---	-----------	--	-------------	-------------



- Accepts prepaid tickets
- \* Credit card and coupon/validation handling integrated into same slot as ticket handling (Single Throat Technology)
- \* Four way ticket reads, 2 way credit card reads available
- \* Customer specific, programmable text display. Large graphic display included with your logo to be added.
- \* Coder/ticket feeder units are swappable reducing down-time & billable emergency service calls.
- Lost Ticket Function

\*\*\*continued\*\*\*

2 94610000 Work Station with desktop validator \$14,663.00 \$29,326.00



- \* Desktop validator/transport mech. Auto reads ticket, fee, validations and credit card processing
- \* Feature includes ability to produce validations in bulk quantities for distribution to accounts

1 PIL (Pay in Lane) - Cash and Credit Card \$34,594.00 \$34,594.00



- \* Accepts notes, reads notes 4-ways
- \* Accepts coins as payment
- \* Accepts credit card
- \* Accepts Coupons/validations
- \* Lost Ticket Function
- \* Dispenses coins as change
- \* Accepts parking debit cards

3 945500130 Barrier gate w/fiberglass arm, SKIDATA \$3,448.00 \$10,344.00



- \* Direct Drive System rated for over 5 Million cycles, raises/lowers smoothly in fewer than 1.5 seconds
- \* Aluminum tubular design (rust & vandal resistance) with a direct drive mechanism
- \* Advanced technology provides lower energy use than any other gate providing lower energy bills in a "go green" design
- \* Extruded fiberglass gate arm unprecedented re-usable characteristics
- \* Direct Drive System provides best leveling/repositioning arm on the market

6 Sawcut Loops \$550.00 \$3,300.00

**PINCKNEY EXIT**

1 94610000 Work Station with desktop validator \$14,663.00 \$14,663.00



- \* Desktop validator/transport mech. Auto reads ticket, fee, validations and credit card processing
- \* Feature includes ability to produce validations in bulk quantities for distribution to accounts

1 PIL (Pay in Lane) - Cash and Credit Card \$34,594.00 \$34,594.00



- \* Accepts notes, reads notes 4-ways
- \* Accepts coins as payment
- \* Accepts credit card
- \* Accepts Coupons/validations
- \* Lost Ticket Function
- \* Dispenses coins as change
- \* Accepts parking debit cards

1	945500130	Barrier gate w/fiberglass arm, SKIDATA	\$3,448.00	\$3,448.00
		<i>* Direct Drive System rated for over 5 Million cycles, raises/lowers smoothly in fewer than 1.5 seconds</i> <i>* Aluminum tubular design (rust &amp; vandal resistance) with a direct drive mechanism</i> <i>* Advanced technology provides lower energy use than any other gate providing lower energy bills in a "go green" design</i> <i>* Extruded fiberglass gate arm unprecedented re-usable characteristics</i> <i>* Direct Drive System provides best leveling/repositioning arm on the market</i>		
2		Sawcut Loops	\$550.00	\$1,100.00
1		Host Server System (Hardware and Software Licensing) Revenue Control/Count Monitoring Module PCI Facility Count and Count monitoring Access Control Parking Debit Card Car Pooling Module Main Control Center Monitoring Software	\$34,149.00	\$34,149.00
1		Credit Card Server with anti-virus software	\$6,900.00	\$6,900.00
		<b>MISC</b>		
250	CP001328 5000	Blank Keycard 13MHZ	\$6.00	\$1,500.00
3		Industrial ethernet switch	\$345.00	\$1,035.00
1		ASA (Cisco Firewall)	\$1,148.00	\$1,148.00
1		Tickets, Qty 28K	\$750.00	\$750.00
2	945521020	Barrier Arms	\$250.00	\$500.00
2		Transport Mechanism	\$8,843.00	\$17,686.00
1		Freight	\$1,050.00	\$1,050.00

**TOTAL EQUIPMENT**

=====

**\$349,322.00**

**SALES TAX (Owner to self tax)**

**\$0.00**

**Electrical/Low Voltage (Not Included)**

**\$0.00**

**Installation/Commissioning/Training**

**\$32,000.00**

=====

**TOTAL PROJECT COST**

**\$381,322.00**

**Harstad Controls Scope of Work**

- \* Harstad Controls to provide 20 hours of training
- \* Includes monthly maintenance and training visits during first six months of operation and one each quarter after first six months. This will provide for the greatest amount of knowledge transfer and allow owner to maximize the features of their investment
- \* 2 Year Parts and 1 year Labor Warranty
- \* Remove and disposal of existing equipment
- \* Provide remote access for owner/operator

**\*\*\*Continued\*\*\***

**Additions:**

Addition of Carroll Street Exit per scope of work defined in document is budgeted at \$44,000, excluding electrical and low voltage

\* **PCI:**

SKIDATA release 21/v4 Software application is PCI/PA-DSS compliant  
 Harstad to provide a dedicated secured network with firewall  
 Harstad to provide monthly MS patches and updates for first 12 months after implementation  
 Harstad to provide 1 year of SKIDATA Software Updates including installation

\*\*\* **Validationsk/Pre-encoded passes:**

- \* System includes ability to create follow-up tickets to issue to validation accounts
- \* System includes ability to create daily passes on ticket stock for short term usage  
 Example: conferences, VIP's, etc.

**Work by others**

- \* Commercial grade DSL line required by owner for credit card processing and remote support
- \* Electrical, conduit
- \* Data communication cabling to each device

**Terms and Conditions**

- \* Please allow 10 - 12 weeks for delivery and installation
- \* Assumes existing loops may be able to be reused
- \* 50% down with system order
- \* Net 30 after installation
- \* work to be completed during normal business hours
- \* Assumes existing power circuits are sufficient

**Harstad Controls Scope of Work**

**Prepared by:**

---

**Dan Stublaski**  
**President - Harstad Controls**

**Monona Terrace - Budget  
Parking Equipment Upgrade - Use of POF stations  
5/28/2012**

Qty	Part #	ITEM	Sell Price	Ext Sell
<b><u>JOHN NOLAN DRIVE - ENTRY</u></b>				
3		"FULL/OPEN" LED sign w/stand	\$1,232.00	\$3,696.00
3	945200529	Entrance Column W/Color display, Proximity reader and intercom, SKIDATA	\$15,644.00	\$46,932.00
		 <ul style="list-style-type: none"> <li>* Accepts credit card upon entry</li> <li>* Coupon/validation handling integrated into same slot as ticket handling (Single Throat Technology)</li> <li>* Customer specific, programmable text display. Large graphic display included with your logo to be added.</li> <li>* Coder/ticket feeder units are swappable reducing down-time &amp; billable emergency service calls.</li> <li>* Using a thermal print head...no more expensive ribbons to buy, no labor to change out, no lite printed unreadable tickets</li> <li>* Secure read write barcode technology included vs. magnetic stripe for more stability and best "go green"</li> </ul>		
3	945500130	Barrier gate w/fiberglass arm, SKIDATA	\$3,448.00	\$10,344.00
		 <ul style="list-style-type: none"> <li>* Direct Drive System rated for over 5 Million cycles, raises/lowers smoothly in fewer than 1.5 seconds</li> <li>* Aluminum tubular design (rust &amp; vandal resistance) with a direct drive mechanism</li> <li>* Advanced technology provides lower energy use than any other gate providing lower energy bills in a "go green" design</li> <li>* Extruded fiberglass gate arm unprecedented reusable characteristics</li> <li>* Direct Drive System provides best leveling/repositioning arm on the market</li> </ul>		
6	DHC	Sawcut Loops	\$550.00	\$3,300.00
1	946100000	Manual Pay Station with desktop validator	\$14,663.00	\$14,663.00
		 <ul style="list-style-type: none"> <li>* Desktop validator/transport mech. Auto reads ticket, fee, validations and credit card processing</li> <li>* Feature includes ability to produce validations in bulk quantities for distribution to accounts</li> </ul>		

\*\*\*continued\*\*\*

**CARROLL STREET ENTRANCE - UPPER & LOWER LEVEL**

2		"FULL/OPEN" LED sign w/stand	\$1,232.00	\$2,464.00
2	945200529	Entrance Column W/Color display, Proximity reader and intercom, SKIDATA	\$16,064.00	\$32,128.00



- \* Accepts credit card upon entry
- \* Coupon/validation handling integrated into same slot as ticket handling (Single Throat Technology)
- \* Customer specific, programmable text display. Large graphic display included with your logo to be added.
- \* Coder/ticket feeder units are swappable reducing down-time & billable emergency service calls.
- \* Using a thermal print head...no more expensive ribbons to buy, no labor to change out, no lite printed unreadable tickets

2	945500130	Barrier gate w/fiberglass arm, SKIDATA	\$3,448.00	\$6,896.00
---	-----------	--	------------	------------



- \* Direct Drive System rated for over 5 Million cycles, raises/lowers smoothly in fewer than 1.5 seconds
- \* Aluminum tubular design (rust & vandal resistance) with a direct drive mechanism
- \* Advanced technology provides lower energy use than any other gate providing lower energy bills in a "go green" design
- \* Extruded fiberglass gate arm unprecedented re-usable characteristics
- \* Direct Drive System provides best leveling/repositioning arm on the market

2	DHC	Sawcut Loops	\$550.00	\$1,100.00
---	-----	--------------	----------	------------

**JOHN NOLAN DRIVE - EXIT**

3	945200629	Exit Column W/Color display, Proximity reader, intercom, SKIDATA	\$15,856.00	\$47,568.00
---	-----------	--	-------------	-------------



- Accepts prepaid tickets
- \* Credit card and coupon/validation handling integrated into same slot as ticket handling (Single Throat Technology)
- \* Four way ticket reads, 2 way credit card reads available
- \* Customer specific, programmable text display. Large graphic display included with your logo to be added.
- \* Coder/ticket feeder units are swappable reducing down-time & billable emergency service calls.
- Lost Ticket Function

\*\*\*continued\*\*\*

2 946100000 Work Station with desktop validator \$14,663.00 \$29,326.00



*\* Desktop validator/transport mech. Auto reads ticket, fee, validations and credit card processing*

*\* Feature includes ability to produce validations in bulk quantities for distribution to accounts*

3 945500130 Barrier gate w/fiberglass arm, SKIDATA \$3,448.00 \$10,344.00



*\* Direct Drive System rated for over 5 Million cycles, raises/lowers smoothly in fewer than 1.5 seconds*

*\* Aluminum tubular design (rust & vandal resistance) with a direct drive mechanism*

*\* Advanced technology provides lower energy use than any other gate providing lower energy bills in a "go green" design*

*\* Extruded fiberglass gate arm unprecedented re-usable characteristics*

*\* Direct Drive System provides best leveling/repositioning arm on the market*

6 Sawcut Loops \$550.00 \$3,300.00

**PINCKNEY EXIT**

1 946100000 Work Station with desktop validator \$14,663.00 \$14,663.00



*\* Desktop validator/transport mech. Auto reads ticket, fee, validations and credit card processing*

*\* Feature includes ability to produce validations in bulk quantities for distribution to accounts*

1 945200629 Exit Column W/Color display, Proximity reader, intercom, SKIDATA \$15,856.00 \$15,856.00



*Accepts prepaid tickets*

*\* Credit card and coupon/validation handling integrated into same slot as ticket handling (Single Throat Technology)*

*\* Four way ticket reads, 2 way credit card reads available*

*\* Customer specific, programmable text display. Large graphic display included with your logo to be added.*

*\* Coder/ticket feeder units are swappable reducing down-time & billable emergency service calls.*

*Lost Ticket Function*

\*\*\*continued\*\*\*

1	945500130	Barrier gate w/fiberglass arm, SKIDATA	\$3,448.00	\$3,448.00
		<i>* Direct Drive System rated for over 5 Million cycles, raises/lowers smoothly in fewer than 1.5 seconds</i> <i>* Aluminum tubular design (rust &amp; vandal resistance) with a direct drive mechanism</i> <i>* Advanced technology provides lower energy use than any other gate providing lower energy bills in a "go green" design</i> <i>* Extruded fiberglass gate arm unprecedented re-usable characteristics</i> <i>* Direct Drive System provides best leveling/repositioning arm on the market</i>		
2		Sawcut Loops	\$550.00	\$1,100.00

**Lobby Pay on Foot Stations**

4		POF (Pay on Foot) - Cash and Credit Card	\$34,594.00	\$138,376.00
		<i>* Accepts notes, reads notes 4-ways</i> <i>* Accepts coins as payment</i> <i>* Accepts credit card</i> <i>* Accepts Coupons/validations</i> <i>* Lost Ticket Function</i> <i>* Dispenses coins as change</i> <i>* Accepts parking debit cards</i>		

1		Host Server System (Hardware and Software Licer Revenue Control/Count Monitoring Module PCI Facility Count and Count monitoring Access Control Parking Debit Card Car Pooling Module Main Control Center Monitoring Software	\$34,149.00	\$34,149.00
1		Credit Card Server with anti-virus software	\$6,900.00	\$6,900.00

**MISC**

250	CP001328 5000	Blank Keycard 13MHZ	\$6.00	\$1,500.00
3		Industrial ethernet switch	\$345.00	\$1,035.00
1		ASA (Cisco Firewall)	\$1,148.00	\$1,148.00
1		Tickets, Qty 28K	\$750.00	\$750.00
2	945521020	Barrier Arms	\$250.00	\$500.00
2		Transport Mechanism	\$8,843.00	\$17,686.00
1		Freight	\$1,050.00	\$1,050.00

\*\*\*continued\*\*\*

	=====
<b>TOTAL EQUIPMENT</b>	<b>\$450,222.00</b>
<b>SALES TAX (Owner to self tax)</b>	<b>\$0.00</b>
<b>Electrical/Low Voltage (Not included)</b>	<b>\$0.00</b>
<b>Installation/Commissioning/Training</b>	<b>\$32,000.00</b>
	=====
<b>TOTAL PROJECT COST</b>	<b>\$482,222.00</b>

### Harstad Controls Scope of Work

- \* Harstad Controls to provide 20 hours of training
- \* Includes monthly maintenance and training visits during first six months of operation and one each quarter after first six months. This will provide for the greatest amount of knowledge transfer and allow owner to maximize the features of their investment
- \* 2 Year Parts and 1 year Labor Warranty
- \* Remove and disposal of existing equipment
- \* Provide remote access for owner/operator

### \* **PCI:**

SKIDATA release 21/v4 Software application is PCI/PA-DSS compliant  
 Harstad to provide a dedicated secured network with firewall  
 Harstad to provide monthly MS patches and updates for first 12 months after implementation  
 Harstad to provide 1 year of SKIDATA Software Updates including installation

### \*\*\* **Validationsk/Pre-encoded passes:**

- \* System includes ability to create follow-up tickets to issue to validation accounts
- \* System includes ability to create daily passes on ticket stock for short term usage  
 Example: conferences, VIP's, etc.

### Work by others

- \* Commercial grade DSL line required by owner for credit card processing and remote support
- \* Electrical, conduit
- \* Data communication cabling to each device

### Terms and Conditions

- \* Please allow 10 - 12 weeks for delivery and installation
- \* Assumes existing loops may be able to be reused
- \* 50% down with system order
- \* Net 30 after installation
- \* work to be completed during normal business hours
- \* Assumes existing power circuits are sufficient

### **Prepared by:**

---

**Dan Stublaski**  
**President - Harstad Controls**



<b>Monona Terrace Parking - CCTV</b> <b>6/26/2012</b>
--

Qty	Part #	ITEM	Sell Price	Ext Sell
1	TCM-3411	H.264/MPEG-4/MJPEG, Megapixel, D/N, CMOS, PoE/DC 12V, Fixed Dome	\$541.00	\$541.00
7	TCM-6630	Speed dome camera, 36 x optical Zoom, H.264/MPEG-4/MJPEG	\$2,538.00	\$17,766.00
8	CSSW-ONE-IP	CSSW-PRO-IP License, Salient	\$226.00	\$1,808.00
1	RM1000-01000	Camera Server with 2 TB Hard Drive, Salient	\$3,079.00	\$3,079.00
				=====
<b>TOTAL EQUIPMENT</b>				<b>\$23,194.00</b>
<b>Electrical (to be determined)</b>				<b>\$0.00</b>
<b>Harstad Controls Labor, commissioning, training</b>				<b>\$3,600.00</b>
				=====
<b>TOTAL PROJECT COST</b>				<b>\$26,794.00</b>

**Note**

\*\* Owner may want to substitute panormaic IP camera in lieu of PTZ and thus realize a savings of \$1500.00 per camera

\*\* Does not include data cabling at this point in time

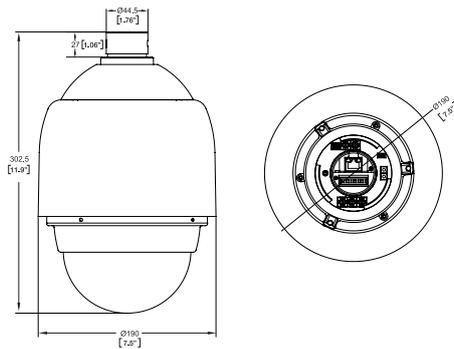
# TCM-6610/TCM-6630

18x Zoom H.264 IP D/N Outdoor  
Speed Dome/35x Zoom H.264 IP D/N  
Outdoor Speed Dome



- 1/4" Sony EXview HAD Interlaced Scan CCD (TCM-6610) / 1/4" Hitachi Progressive Scan CCD (TCM-6630)
- Day and night function with mechanical IR cut filter
- Minimum illumination 0.01 lux at F1.4
- 18x optical zoom (TCM-6610) / 35x optical zoom (TCM-6630)
- 25/30 fps at full D1 resolution
- Selectable H.264, MPEG-4 SP, MJPEG compressions with dual streaming
- Two-way audio
- Video motion detection
- Digital input and digital output
- Wide Dynamic Range (TCM-6630)
- Analog video output with 530 TVL (TCM-6610) / 540 TVL (TCM-6630)
- Weatherproof IP66 rated casing
- TCM-6610N/ TCM-6630N (NTSC)
- TCM-6610P/ TCM-6630P (PAL)

## DIMENSION DIAGRAM



Unit: mm [inch]

## ACCESSORY OPTIONS

Dome Cover		
PDCX-1001		5.8-inch, transparent, vandal proof
PDCX-0001		5.8-inch, transparent, non-vandal proof
PDCX-0103		5.8-inch, smoke, non-vandal proof

Popular Mounting Solutions		
Wall	PMAX-0307	
Pendant	PMAX-0109	
Corner	PMAX-0306 PMAX-0402	
Pole	PMAX-0306 PMAX-0502	

\* For more mounting solutions, please refer to Mounting Accessory section of Buyer's Guide or Project Planner on [www.acti.com](http://www.acti.com)

\* All specifications are subject to change without notice.  
\* All brand names and registered trademarks are the property of their respective owners.

# TCM-6610/TCM-6630

## PRODUCT SPECIFICATION

	TCM-6610	TCM-6630
<b>• Device</b>		
Device Type	Speed Dome Camera	
Image Sensor	Sony EXview HAD Interlaced Scan CCD	Hitachi Progressive Scan CCD
Sensor Size	1/4" (3.2 x 2.4 mm)	
Horizontal Resolution	530 TVL	540 TVL
Day / Night	Yes	
Minimum Illumination	Color: 0.1 lux; B/W: 0.01 lux	
Color to B/W switch	DSP based switch, configurable	
Mechanical IR Cut Filter	Yes	
IR Sensitivity Range	700 - 1100 nm	
IR LED	No	
Electronic Shutter	1/1 - 1/10,000 sec (NTSC/PAL)	1/1 - 1/30,000 sec (NTSC/PAL)
<b>• Lens</b>		
Focal Length	Zoom, f4.1 - 73.8 mm / F1.4 - 3.0	Zoom, f3.4 - 119 mm / F1.4 - 4.2
Iris	Auto iris	
Focus	Auto focus	
Horizontal Viewing Angle	48° - 2.8°	55.8° - 1.7°
<b>• PTZ</b>		
Zoom Ratio	18x optical; 12x digital	35x optical; 12x digital
Zoom Speed	2.1 sec (1x to 18x)	4.6 sec (1x to 35x)
Manual Panning Speed	1° ~ 90° /s	
Manual Tilting Speed	1° ~ 90° /s	
Preset Panning Speed	5° ~ 400° /s	
Preset Tilting Speed	5° ~ 400° /s	
Panning Range	0° ~ 360° endless	
Tilting Range	-10° ~ 100°	
Control	Remote manual control; 256 preset points; 8 preset tours; auto scan	
Preset Panning Accuracy	0.225°	
Preset Tilting Accuracy	0.45°	
Absolute Position	Yes	
Protocol	DSCP, Pelco P, Pelco D, AD422, Philips, Kalatel, VCL, JVC, etc.	
<b>• Video</b>		
Compression	H.264, MPEG-4 SP, MJPEG	
Maximum Frame Rate vs. Resolution	30 fps at 720 x 480 (Full D1, NTSC); 25 fps at 720 x 576 (Full D1, PAL) 30 fps at 352 x 240 (CIF, NTSC); 25 fps at 352 x 288 (CIF, PAL) 30 fps at 160 x 112 (QCIF, NTSC); 25 fps at 176 x 144 (QCIF, PAL)	
Multi-Streaming	Simultaneous dual streams based on two configurations	
Bit Rate	28 Kbps - 6 Mbps (per stream)	
Bit Rate Mode	Constant, Variable	
S/N Ratio	More than 50 dB	
Image Enhancement	Backlight compensation; White balance: automatic, predefined and manual; Brightness; Saturation; Contrast; Automatic gain control	Wide dynamic range; Backlight compensation; White balance: automatic, predefined and manual; Brightness; Saturation; Contrast; Automatic gain control
Privacy Mask	24 configurable regions	8 configurable regions
Text Overlay	User defined text on video	
Image Orientation	Image flip and mirror	
<b>• Audio</b>		
Compression	8 kHz, Mono, PCM, 16 bit encoding	
Audio-In	3.5 mm Phone Jack	
Audio-Out	3.5 mm Phone Jack	
<b>• Network</b>		
Protocol & Service	TCP, UDP, HTTP, HTTPS, DHCP, PPPoE, RTP, RTSP, IPv6, DNS, DDNS, NTP, ICMP, ARP, IGMP, SMTP, FTP, UPnP	
Ethernet Port	1, Ethernet (10/100 Base-T), RJ-45 connector	
Security	IP address filtering; HTTPS encryption; Password protected user levels	
<b>• Alarm</b>		
Alarm Trigger	Video motion detection (3 regions); External device through digital input	
Alarm Response	Notify control center; Go to PTZ preset point or preset tour; Change camera settings; Command other devices; E-mail notification with snapshots; Upload video, snapshot to FTP server; Activate external device through digital output	
<b>• Interface</b>		
Analog Video Output	1, CVBS, 1.0Vp-p with 75 Ω BNC connector	
Digital Input	8, terminal block	
Digital Output	1, terminal block	
<b>• General</b>		
Power Source / Consumption	AC 24V / 65 W (heater on)	
Weight	5800 g (12.9 lb)	
Dimensions (Ø x H)	172 mm x 302.5 mm (6.7" x 11.9"); 190 mm x 302.5 mm (7.5" x 11.9") with sunshield	
Environmental Casing	Weatherproof (IP66 rated); Transparent dome cover	
Mount Type	Pendant, Wall, Corner, Pole	
Operating Temperature	-45 °C ~ 50 °C (-49 °F ~ 122 °F)	
Operating Humidity	10% ~ 85% RH	
Approvals	Camera: CE, FCC, IP66; Adapter: CE, TUV-GS, UL, RCM, CCC	
<b>• Integration</b>		
Unified Solution	Fully compatible with ACTi software	
ISV Integration	Software Development Kit (SDK) available	
Firmware Access Browser	Microsoft Internet Explorer 6.0 or newer	

# KCM-3911

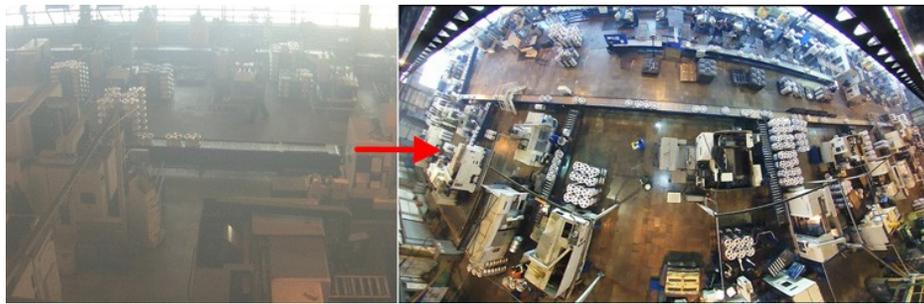
- 1/2.5" Progressive Scan CMOS
- Day and night function with mechanical IR cut filter
- Minimum illumination 0.06 lux at F2.8
- 180°/360° panorama and ePTZ view
- Built-in f1.05 mm / F2.8 Megapixel Fisheye lens
- 6 fps at 2032 x 1920 resolution
- Up to 6 cropped regions as independent channels
- Defogging
- Digital input and digital output
- ExDR ( Extreme Dynamic Range)
- 2D+3D Digital Noise Reduction



Elevator Lobby with ONE camera



180 and 360 degree views de-warped in camera, no extra load on NVR resources, and no special software needed.



Replacing standard 1.3MP camera and using Defogging video processing



Outdoor KCM-7911 Coming July 2012





## **OVERVIEW**

- Enterprise Level Multi Server System
- Unlimited Users
- Unlimited System-wide Cameras
- Active Directory/LDAP support
- Royalty Free API
- Available as software only or on a variety of PC hardware platforms

## **SINGLE SEAT ADMINISTRATION**

- Administer all servers from a central administration application
- Push updates to any/all servers simultaneously
- Copy or move cameras between servers
- Move licenses between servers
- Replicate server configuration
- Configure users & groups

## **VIDEO CLIENT**

- Customize unlimited viewing layouts
- Simultaneous record, playback, live view and export
- Display up to 64 cameras for live view simultaneously
- Adjust display size of each camera individually
- Full screen mode
- Multi monitor/video wall support

## **VIDEO CLIENT CONTINUED...**

- Change view layouts by dragging and dropping cameras available from any server
- Limit access to cameras based on login
- Adjust frame rate individually for each camera
- Motion, event and recording status color indicators display on camera title
- Event notification by email
- Control Pan Tilt and Zoom (PTZ) cameras
  - on screen buttons, virtual joystick or USB attached joystick
- Control PTZ speed
- Enable/disable tours
- Control : Iris, Focus Auto Iris and Auto Focus manually
- Automated Attendant
- Access preset positions
- Quick review buffers video from all cameras for instant replay (30 second to 10 minutes)

## **SINGLE CAMERA PLAYBACK**

- Playback clips from any camera/any server
- Search by date/time & smart search
- Clips are color coded to indicate motion, event or scheduled recording
- Playback controls include, play, pause, rewind, fast-forward, frame advance, frame reverse, next clip, previous clip
- Playback adjustment up to 400% of original speed



## ***SINGLE CAMERA PLAYBACK CONTINUED...***

- Export to CD/DVD directly from client
- Take a snapshot, digitally zoom, save, print etc.
- Export to file
- Exported video is marked with an electronic watermark for tamper evident video export
- AVI with executable player verifies no tampering has occurred

## ***MULTI CAMERA PLAYBACK***

- Playback video from up to four cameras simultaneously/any server
- Cameras can be selected from any server
- Color coded motion histogram shows when and what type of recordings are available from each camera
- Playback controls include, play, pause, rewind, fast-forward, frame advance, frame reverse, next clip, previous clip
- Playback speed adjustment up to 400% of original speed
- Export to CD/DVD directly from client
- Take a snapshot, digitally zoom, save, print etc.
- Export to file
- Exported video is marked with an electronic watermark for tamper evident video export
- AVI with executable player verifies no tampering has occurred

## ***SMART SEARCH***

- Search for motion in defined area
- Define multiple motion zones for searching
- Set low, medium or high level of motion
- Specify date/time range
- Matching video clips become instantly available to view while search is ongoing

## ***MAPPING CLIENT***

- Import unlimited maps
- Maps can be hyperlinked. Hyperlink maps to unlimited levels
- Multiple Monitor Support
- Import any JPEG or Bitmap file as a map
- Drag and drop cameras on the map to position them for the operators view
- On mouseover when placing cameras on the map a snapshot from the camera displays immediately for easy camera placement
- Draw a field-of-view cone to represent the cameras field of view
- On mouseover of a camera icon, live view from camera displays ( doubleclick for a full resolution pop-up window)
- Control PTZ cameras:
  - PTZ buttons, Joystick control, access to presets, focus & iris controls



## **MAPPING CLIENT CONTINUED...**

- Right click on camera for Quick Review , Live View or Search Video
- Field-of-view cones change color to indicate camera status
- Navigate maps, by clicking map icons in the current map or navigate in the tree view
- Map controls include zoom in, zoom out, show/hide camera labels & scale to fit
- Add cameras to the map which are connected to any server in the system

## **WEB CLIENT**

- Complete HTTP based web client for live view and playback of recorded video
- Configure live view layouts up to 16 cameras
- Drag and drop cameras from tree view to populate layout
- Up to 4 separately configured layouts from 1 camera to a 4x4 layout
- Dynamically scale image size
- Adjust frame rate on the fly
- Playback recorded video.
- Playback clips from any camera/any server
- Search by date/time
- Clips are color coded to indicate motion, event or scheduled recording

## **WEB CLIENT CONTINUED...**

- Playback controls include, play, pause, rewind, fast-forward, frame advance, frame reverse, next clip, previous clip
- Playback speed adjustment up to 400% of original speed
- Take a snapshot

## **ALARM / DARK SCREEN CLIENT**

- Cameras only display on motion or alarm/event
- Add unlimited cameras from any or multiple servers in the system
- Schedule cameras to show in the alarm client
- Schedule only motion events, only alarm events, both or none
- Event history list for quick review and playback
- Full camera control available for live video including PTZ control

## **VIDEO EXPORT QUEUE**

- Add unlimited clips to the Queue for export
- Add a clip to the Queue then change screen/cameras to continue an investigation without losing track of the clip
- Burn clips directly to CD/DVD from client application, without 3rd party software
- AVI with executable player verifies no tampering has occurred



## ***DYNAMIC VIDEO RESOLUTION***

- In the normal view layout the client application pulls a resolution closest to the video display size, so network bandwidth consumption is kept to a minimum (does not affect recording resolution)
- Double click on any camera for full screen display at highest available camera resolution

## ***RECORDING***

- Unlimited recording capability (limited only by available storage)
- Record each camera in the system to the same or separate volumes
- Supports JBOD, RAID, UNC path, iSCSI, SAN & NAS
- Mark volumes as read only for archiving
- Works with any standard backup program for archiving of video data (use existing IT approved backup software)
- Record to MJPEG, Microsoft MPEG4, ISO MPEG4, H.264

## ***RECORDING CONTINUED...***

- Record native camera format or transcode video to any supported format
- Record resolutions up to 11 mega pixel
- Record based on event, motion or schedule
- Set separate schedules on a per camera basis
- Separate event/motion setting per camera
- Motion detection can be configured with variable levels of sensitivity
- Motion detection can be configured with multiple detection windows in the field of view



[www.harstadcontrols.com](http://www.harstadcontrols.com)

**Queue Detection Counting System**  
**Monona Terrace**  
**6/29/2012**

Qty	Part #	ITEM	Sell Price	Ext Sell
<b><u>Queue 1</u></b>				
4	DLM	Directional logic loop detector, tail gate detection, dual channel	\$893.00	\$3,572.00
8	MUMO	Multifunctional Module (communicates from sensors to COMO on bus)	\$250.00	\$2,000.00
8		Sawcut Loops	\$660.00	\$5,280.00
1	COMO - IP	Communication module with power supply. Supports up to 90 UMS devices	\$1,990.00	\$1,990.00
1		LED directional sign	\$2,952.00	\$2,952.00
<b><u>Queue 2</u></b>				
4	DLM	Directional logic loop detector, tail gate detection, dual channel	\$893.00	\$3,572.00
8	MUMO	Multifunctional Module (communicates from sensors to COMO on bus)	\$250.00	\$2,000.00
8		Sawcut Loops	\$660.00	\$5,280.00
1	COMO - IP	Communication module with power supply. Supports up to 90 UMS devices	\$1,990.00	\$1,990.00
1		LED directional sign	\$2,952.00	\$2,952.00
<b><u>Queue 3</u></b>				
4	DLM	Directional logic loop detector, tail gate detection, dual channel	\$893.00	\$3,572.00
8	MUMO	Multifunctional Module (communicates from sensors to COMO on bus)	\$250.00	\$2,000.00
8		Sawcut Loops	\$660.00	\$5,280.00
1	COMO - IP	Communication module with power supply. Supports up to 90 UMS devices	\$1,990.00	\$1,990.00
1		LED directional sign	\$2,952.00	\$2,952.00
<b><u>Control Room/Office</u></b>				
1	ICOM	ICOM computer for up to 16 COMO, RAID 1, Windows 7 Professional, Visualization software	\$7,046.00	\$7,046.00
1		Misc relays, connectors, shop supplies	\$640.00	\$640.00
<b>TOTAL EQUIPMENT</b>				<b>\$55,068.00</b>
<b>SALES TAX (7.7775%)</b>				<b>\$4,281.54</b>
<b>Electrical/Low Voltage (TBD)</b>				<b>\$0.00</b>
<b>Harstad Labor</b>				<b>\$7,200.00</b>
<b>TOTAL PROJECT COST</b>				<b>\$66,549.54</b>

=====

A-290

=====

**Harstad Controls Scope of work**

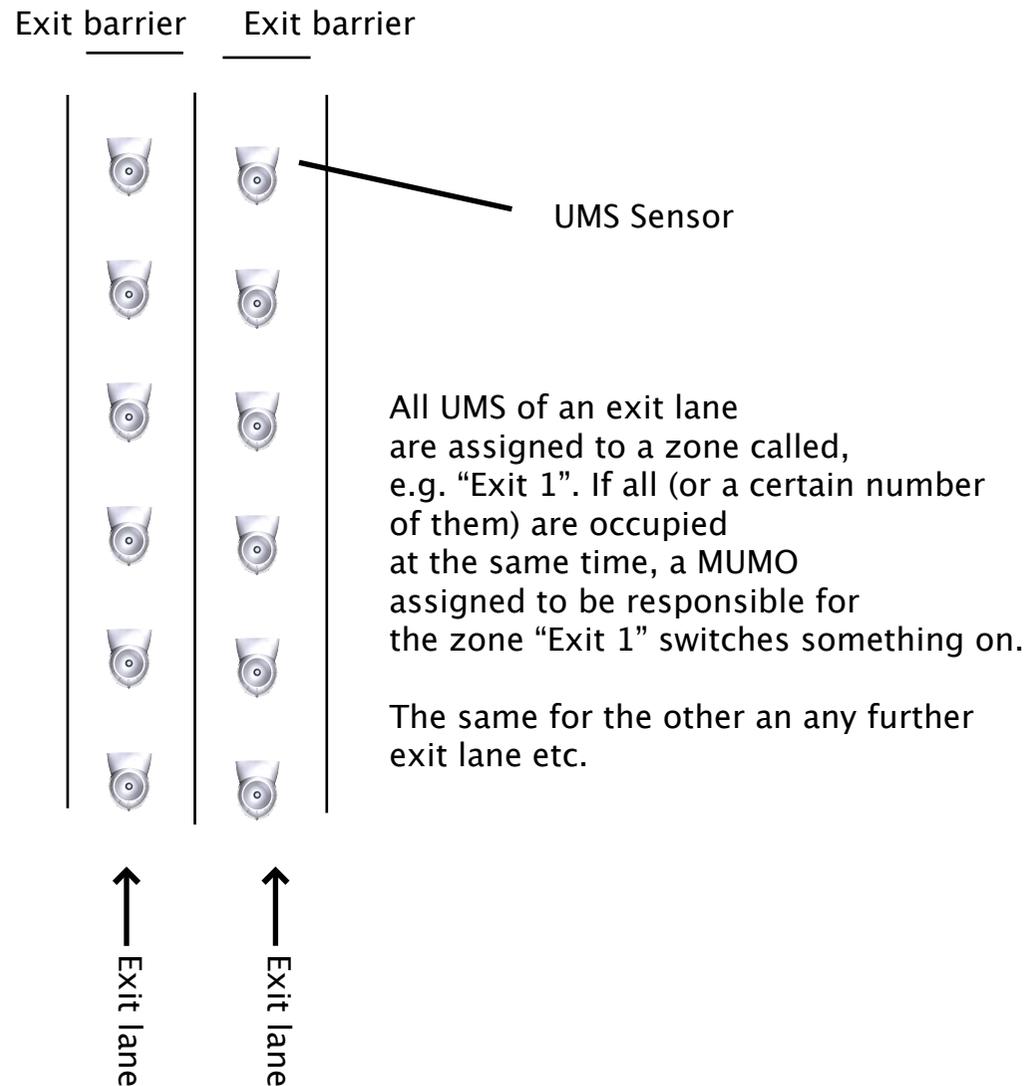
- \*\* Provide vehicle counting equipment, software, labor and training
- \*\* 2 year warranty on hardware and software
- Exclusions
- \*\* Electrical and low voltage/data cabling
- \*\* X-raying of deck

**Terms**

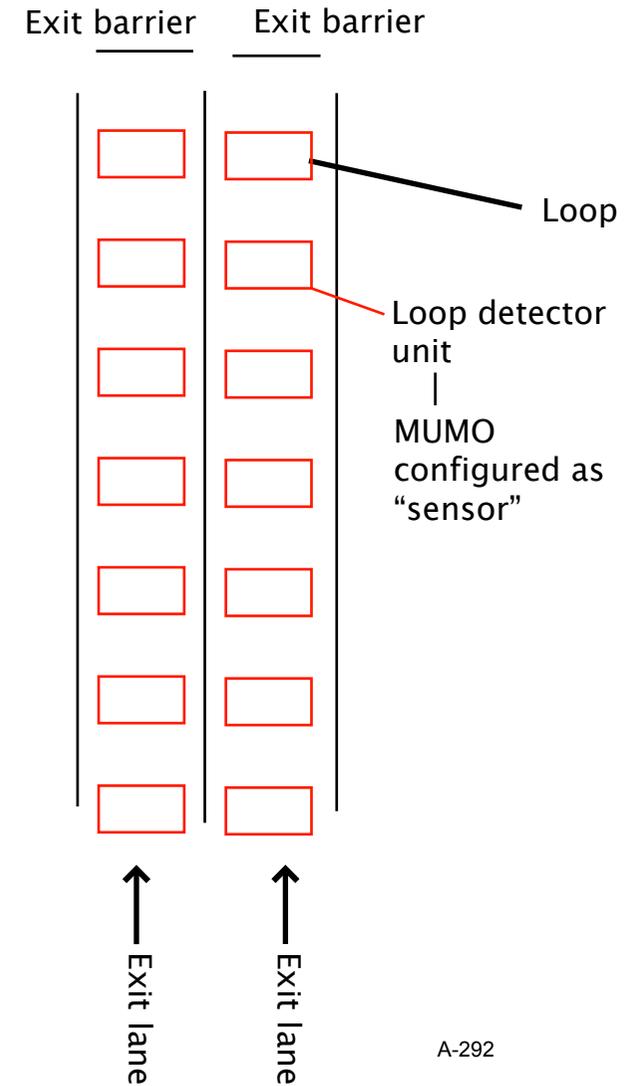
50% down with system order  
Remaining balance net 30  
1.5% monthly interest will apply to outstanding balances

***Harstad Controls  
7103 Hwy 65 N.E.  
Fridley, MN 55432  
763-571-5660***

## Indoor, under cover



## Outdoor



# IVIS

Picture: IVIS User Interface  
(actual items may differ from photos).



## Description

IVIS is an Internet browser-based application for monitoring your parking facility (INDECT recommends Mozilla Firefox™). IVIS can be operated on the ICOM computer or any computer connected to the network of the main ICOM computer.

IVIS provides you with a great variety of information on your parking facility. The IVIS GUI shows level floor plans, allowing you to control virtually any aspect dealing with signage, single space administration, statistics, and many other features. At a glance, you are always informed about the occupancy of the entire car park, a level or other section, and see the current status of each sign and parking space equipped with INDECT sensors. Or create a statistical report—custom-tailored to your requirements.

## Advantages

- No separate workstation required to run IVIS—you can manage your parking facility directly on the ICOM or from any computer that is on the same network as the system server (ICOM).
- Easy operation via an Internet browser (Mozilla Firefox™ recommended)
- Performance controlled by ATSERVER Windows Service for uninterrupted operation
- Integrated online help<sup>1</sup>
- Alarm in case of hardware or connection failure<sup>2</sup>

In addition, IVIS contains powerful tools which enable you to adapt your parking facility to your requirements, for example:

- Adjust LED brightness to fit ambient conditions
- Adjust the settings of all available components
- Find individual parking spaces
- Reserve individual parking spaces
- Playback and visualize a definable period of time
- Navigate the floor plans
- Schedule events (LED dimming, sign operation etc.)
- Set alarms for individual bays (alarm on entry to/exit of bay, maximum parking duration)
- Set alarms for the entire car park (maximum parking duration)
- Show sensor history

1. Currently available in English, German and Italian

2. Audio alarm availability subject to connected speakers

- Create statistical reports on car parks, levels, zones, individual bays
- Show bay occupation intensity
- Optional fire alarm feature, automatic report feature, quickreport feature
- ... and many more

## Installation

Since IVIS runs on Mozilla Firefox™, there is no need to install IVIS.

In case there is an updated version of the online help, INDECT will update the online help via remote login (to be provided by the customer) or send you the current version with a quickguide for updating.

---

**INDECT Electronics & Distribution GmbH**

Rennweg 83  
2345 Brunn am Gebirge  
AUSTRIA

T: +43/2236/32 01 99  
F: +43/2236/32 01 99-99  
[office@indect.com](mailto:office@indect.com)  
[www.indect.com](http://www.indect.com)



All rights reserved.

No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, microfilming, or otherwise, without written permission from Indect Electronics & Distribution GmbH.

Indect Electronics & Distribution GmbH assumes no liability whatsoever for the contents of this document. Indect Electronics & Distribution GmbH reserves the right to change the contents of this document, in its own estimation and without notice. This document is delivered in an "as is" state, and Indect Electronics & Distribution GmbH assumes no liability for its use.

# UOCT - UPSOLUT Optical Car Tracker

Picture: UOCT with installation bracket  
(actual item may differ from photo)



## Description

INDECT's UPSOLUT Optical Car Tracker serves for vehicle counting.

The UOCT is a ceiling-mounted sensor that is installed in the middle of a driving lane.

The sensor has an integrated optical system that monitors the lane and counts vehicles in both driving directions. The counting is evaluated on-board, the sensor transmits + and - inputs to the system, counting vehicles in and out of the assigned zones.

INDECT's UOCT is the only sensor on the market that is able to identify double-track vehicles as such and that can detect the vehicle's driving direction without lane separation. It is even able to separate and count tailgating vehicles.

**Please note:** The sensor does not provide license plate recognition, nor does it capture the drivers. There is no transmission of optical data to the INDECT system. Detection is fully embedded, the sensor transmits only the counting data (car in / car out) to the system.

Systems with UOCT sensors are to be connected to the INDECT remote maintenance server for 24/7 operation surveillance and enhanced performance. Please refer to the relevant data sheet for more information.

## Advantages

- Traffic counting on single- and bidirectional lanes (not counting persons)
- Sensor connected to the INDECT bus
- Easy installation, only one device required for each counting point
- IP65
- Assignment to zones (counting in and out) via software
- Can be used for precounting of sensor-monitored zones or for zone-counting
- Counting inputs processed by the system and displayed on responsible signs
- Counting visualised by sensor-integrated LED to test operation (LED can be turned off)
- Integrated remote maintenance

## Commercial Data

Article name	Article number	Customs tariff number	Weight per unit
<b>Project Articles</b>			
<b>UOCT</b> UPSOLUT Optical Car Tracker: ceiling-mounted traffic counting sensor with integrated optical detector, RGB LED and installation bracket. Integrated camera lens for installation heights between 2.4 and 2.8 m.	401101		



## Technical Data

### Dimensions

UOCT Sensor (LxWxH):	290 x 90 x 29 mm (11.42 x 3.54 x 1.14 in)
----------------------	---

### Sensor Data

Measuring principle:	Motion detection, optical area control
Measuring range:	up to 6 m (19.7 ft) detection width
Installation height:	2.4 to 2.8 m (7.9 to 9.2 ft)
Casing material:	Heavy duty compound plastic
Casing colour:	Dark grey
Ingress Protection:	IP65
Supply voltage range:	15 to 24 V DC
Ambient conditions:	-25° to 70°C (-13 to 158 °F) 10 to 90% RH (non-condensing)
Storage temperature:	-30° to 70°C (-22 to 158 °F)

## Installation

### Sensor Position

The sensor is to be installed on the ceiling (directly or suspended), in the middle of the driving lane. The integrated optical detector looks vertically down on the lane.

No object is to be installed underneath the sensor that might impair the visibility of the detection zone.

The approved installation height is between 2.4 and 2.8 m (distance: sensor camera window to floor).

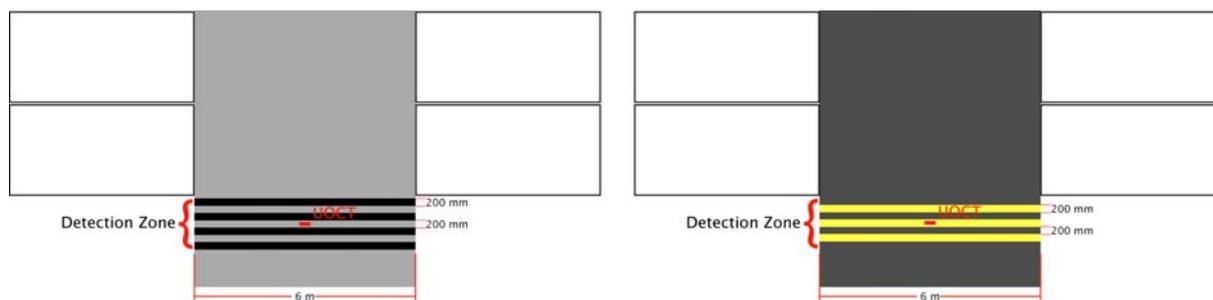
It is recommended that the detection zone be not directly adjacent to parking spaces, since cars driving partly over the detection zone into these bays might not be counted accurately.

**Please note:** the UOCT sensor is not to be installed over pedestrian crossings, since no detection stripes (see below) can be installed there.

### Detection Zone (ROI = Region of Interest)

The detection zone is underneath the sensor and may be up to 6 m wide.

In the detection zone, horizontal stripes are to be applied (taped, sprayed, painted) to the floor. On bright, glossy surfaces, 4 black stripes are to be used. On dark surfaces, 3 white or yellow stripes are to be used. Any stripes or colours to be applied must be matte.





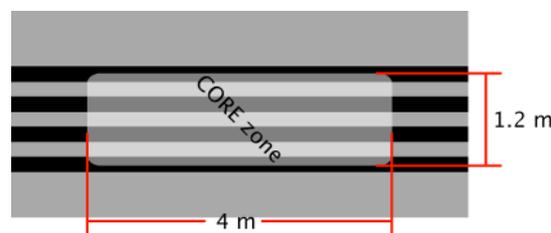
The stripes serve for providing sufficient contrast for car recognition. For the planning of a counting point it must be considered that vehicles should be able to pass only within the detection zone.

### Light Conditions

Stable light conditions must be provided in the detection zone! To this end, two double-tube fluorescent lamps with a built-in reflector (colour: cold white) and 58 W each are to be installed adjacent to the UOCT. The fluorescent lamps are to be on this position to prevent shadow-casting in the detection zone. The lamps must be switched on all the time, otherwise detection accuracy might suffer (except for the time the car park is closed).



The brightness in the detection core zone is to be above 350 lux, measured on the floor.



**Please note:** If no stable and sufficiently bright light conditions are provided, INDECT cannot assume any liability for inaccurate vehicle counting.

### Cabling

- Isolation displacement terminals
- Cable for connection: H05RR-F 4g 1.5mm<sup>2</sup> (AWG 16)

As for connection to the INDECT bus, please refer to the wiring diagram.

### Detection Data

Detected vehicles:	Double-track cars that are approved for road traffic; trailers might be counted as separate vehicles
Drivethrough speed:	From walking speed to 30 km/h (19 mph)
Minimum distance between cars:	The minimum distance between cars for accurate counting is 1 m (3.3 ft)
Detection width:	Complete stripe-covered zone. When a car drives through it must be completely within the stripe-covered zone.
When is a car counted:	As soon as it has passed the last stripe of the detection zone.

Detected drivethrough scenarios:

- One car driving through
- Two cars driving through parallel
- Two cars in opposite directions
- Two cars tailgating (> minimum distance - see above)
- Car driving into the detection zone and backing out again
- Car driving into the detection zone, stopping and moving on

---

**INDECT Electronics & Distribution GmbH**

Rennweg 83  
2345 Brunn am Gebirge  
AUSTRIA

T: +43/2236/32 01 99  
F: +43/2236/32 01 99-99  
[office@indect.com](mailto:office@indect.com)  
[www.indect.com](http://www.indect.com)



All rights reserved.

No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, microfilming, or otherwise, without written permission from Indect Electronics & Distribution GmbH.

Indect Electronics & Distribution GmbH assumes no liability whatsoever for the contents of this document. Indect Electronics & Distribution GmbH reserves the right to change the contents of this document, in its own estimation and without notice. This document is delivered in an "as is" state, and Indect Electronics & Distribution GmbH assumes no liability for its use.

# Level SIGN



Picture: Sample level sign  
(actual item may differ from photo)

## Description

INDECT signs make parking guidance an easy task in covered or open air parking facilities. A great variety of LED modules (LESY, LEDI, TEMO) can be installed in the high-quality aluminium frame of the sign - to cope with any possible guidance task (see data sheet LESY, LEDI and TEMO). Text panels are available with any text, layout or colour. INDECT provides proven standard sizes and layouts, though even special customer preferences can be catered for.

## Advantages

- Great variety of LED modules to be installed in the sign
- Layout and dimensions according to customer preferences
- Frame and text panel colour according to customer preferences
- Optimal visibility through backlight and transparent text panel
- Easy maintenance through special rack frame

## Commercial Data

Please refer to the individual components which are installed in your custom-tailored signs.

## Technical Data

### Dimensions

L x H x D:	According to customer preferences; Standard sizes from 250x250x140 mm (9.84x9.84x5.51 in) to 2500x340x140 mm (98.4x13.4x5.51 in) per row (other dimensions are possible, but are custom made signs)
------------	--

### Technical Data

Frame:	Aluminium
Frame colour:	<ul style="list-style-type: none"> <li>• Powder coating RAL 9006, or</li> <li>• RAL according to customer preferences</li> </ul>
Frame openings for maintenance:	Left, right, bottom), fixed with screws
Text panel:	<ul style="list-style-type: none"> <li>• Transparent acrylic glass 3 mm (temperature resistant up to 80°C) or</li> <li>• Transparent polycarbonate (temperature resistant up to 130°C)</li> </ul>
Text foil (applied on text panel):	Colour and layout (text and symbols) according to customer preferences

Cover plate for LED Modules:	Dibond plate 3 mm, front: matte black, drilled holes for each single LED according to symbol layout
Ingress Protection:	IP32
Ambient conditions:	-25 to 70 °C (-13 to 158 °F) 10 to 90% RH (non-condensing)
Storage temperature:	-40 to 70 °C (-40 to 158 °F)
Input power of backlight lamps:	230 V / 50 Hz
Power consumption of backlight lamps:	0.1 A to 1 A depending on the dimensions and the required number of background lamps
Input power of LED modules:	24 V DC from sensor bus
Power consumption of LED modules:	Depending on symbols and digits, see data sheet LESY, LEDI and TEMO

## Mounting

- Ceiling mounted: via threaded bars, chains or profiles
- Wall mounted: with screws and/or profiles
- Standing on concrete or metal foot

## Cabling

- Recommended cable for power supply of backlight: NYM-J 3x1.5 mm<sup>2</sup> / AWG15  
**Note:** Comply with local standards and requirements!
- Recommended cables for connection of LED modules: see data sheet LESY, LEDI, TEMO, MAMO, MUMO and DIMO.

**Note:** Other cable types can be tested for suitability by INDECT upon request.

## Layout Samples

### Sample Sign 1

Double-sided level sign (front and back side).

Dimensions (lxhxd): 1900x250x140 mm  
(74.8x9.84x5.51 in)

- 4 LESY arrow/cross diagonal
- 6 LEDI green
- 1 DIMO
- 4 cables CABL 02 cable 4ph
- 2 cables CABL 04 cable 8ph
- 1 aluminium frame 1900 x 250 x 140 mm (74.8x9.84x5.51 in)
- Text panels



**INDECT Electronics & Distribution GmbH**

Rennweg 83  
2345 Brunn am Gebirge  
AUSTRIA

T: +43/2236/32 01 99  
F: +43/2236/32 01 99-99  
[office@indect.com](mailto:office@indect.com)  
[www.indect.com](http://www.indect.com)



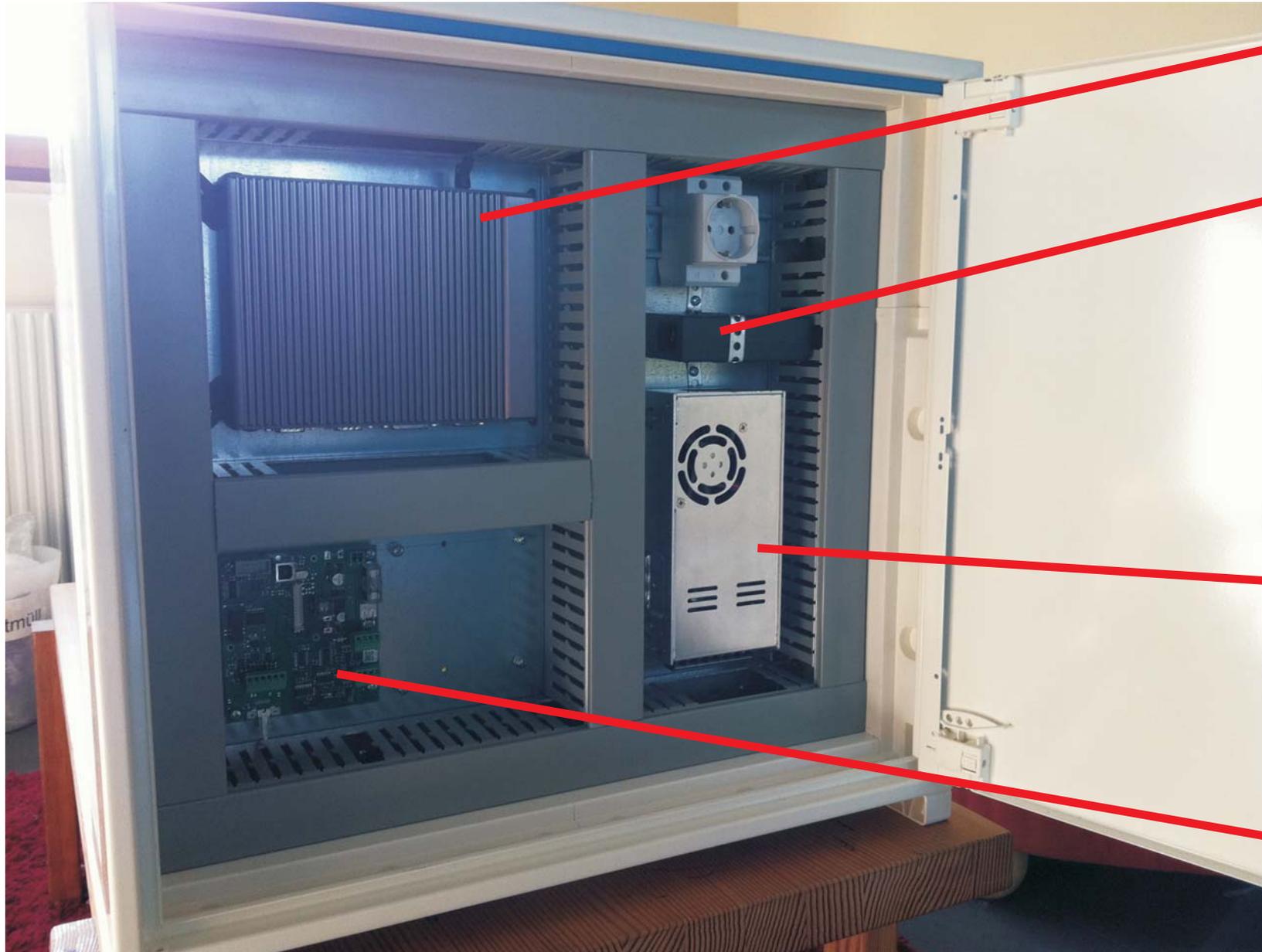
All rights reserved.

No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, microfilming, or otherwise, without written permission from Indect Electronics & Distribution GmbH.

Indect Electronics & Distribution GmbH assumes no liability whatsoever for the contents of this document. Indect Electronics & Distribution GmbH reserves the right to change the contents of this document, in its own estimation and without notice. This document is delivered in an "as is" state, and Indect Electronics & Distribution GmbH assumes no liability for its use.



# Junctionbox iCOM micro



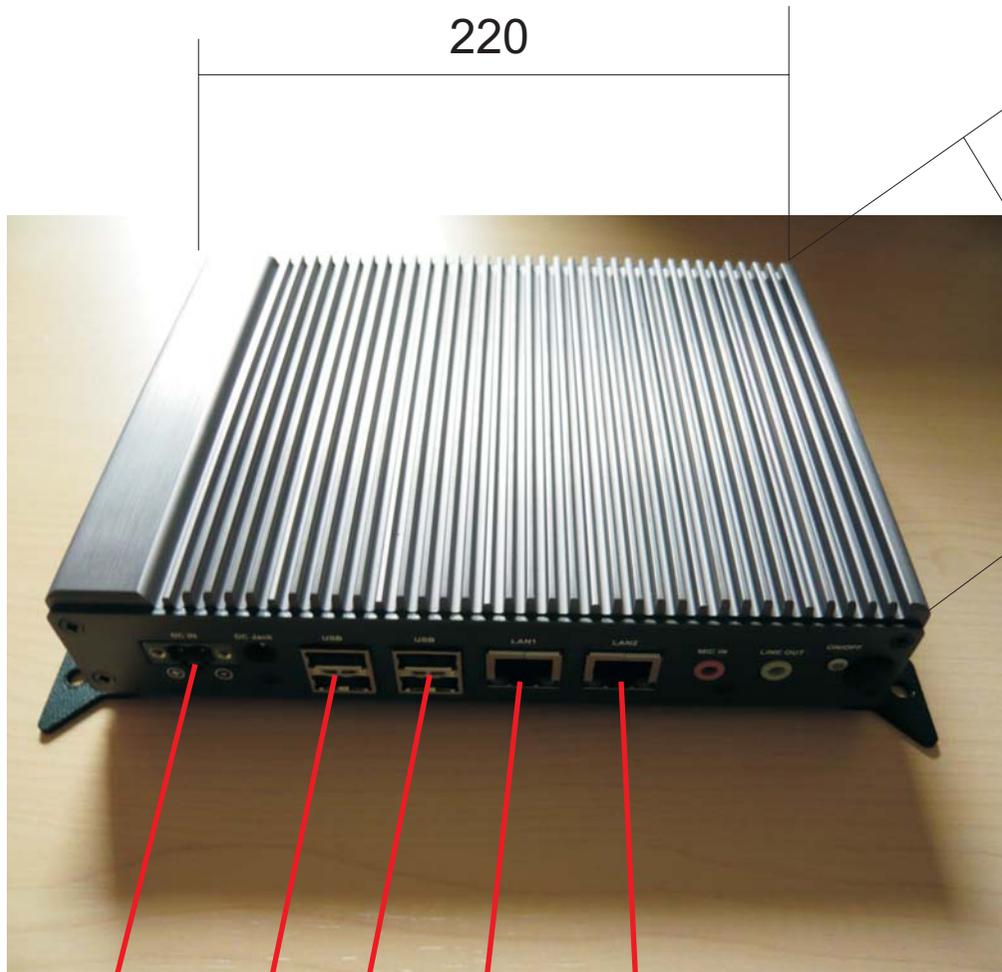
ICOM micro  
220x160x43mm

ICOM micro PS

COMO PS

COMO print

# ICOM micro



DC in  
USB1  
USB2  
LAN1  
LAN2



COM1  
Rs232  
COM2  
Rs232  
DVI  
CRT

# T2 Flex<sup>®</sup> PARCS

Think Technology. Think Solutions. **Think T2.**



Permit Management | **Access Control** | **Revenue Control** | Event Parking | Enforcement



## T2 Flex Unified Parking Management

T2 Flex Access Control and Revenue Control Packs are part of a unified solution that integrates access control, revenue control and a monitoring system with T2 Flex enforcement, permit and event management functionality on the basis of a common management system and parking data warehouse. You only need **ONE system to manage all aspects of your parking operation, garages, on and off-street lots, permits, citations, special events and all other activities.**

The T2 Flex Access Control and Revenue Control Packs can be implemented individually, jointly, or as part of the complete unified system, with Permit Management and/or Enforcement Packs and Event management. All T2 Flex Packs include the core parking management functionality, “the brains of the system”, which defines system configuration, fee computations, access permissions, business rules, reporting information and much more.

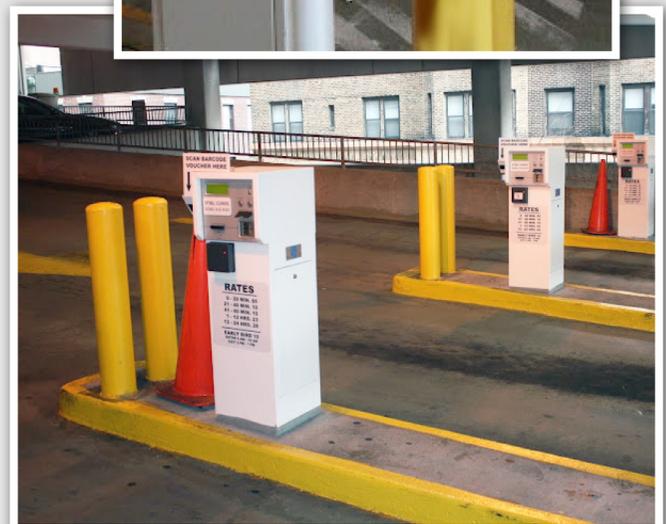
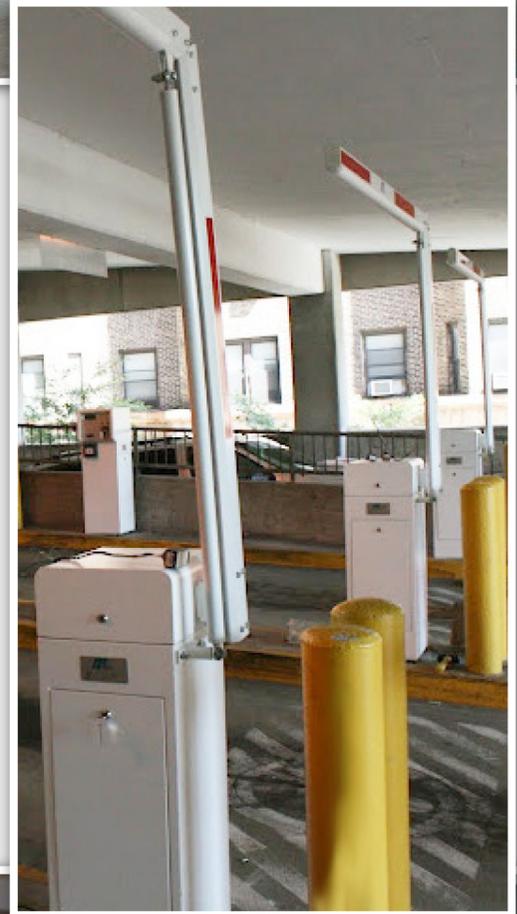
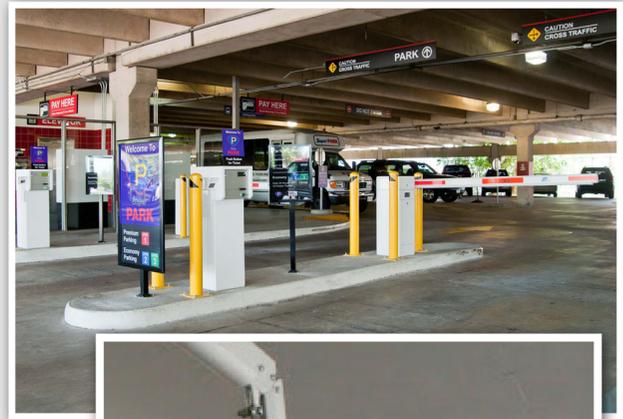
## T2 Flex Access and Revenue Control

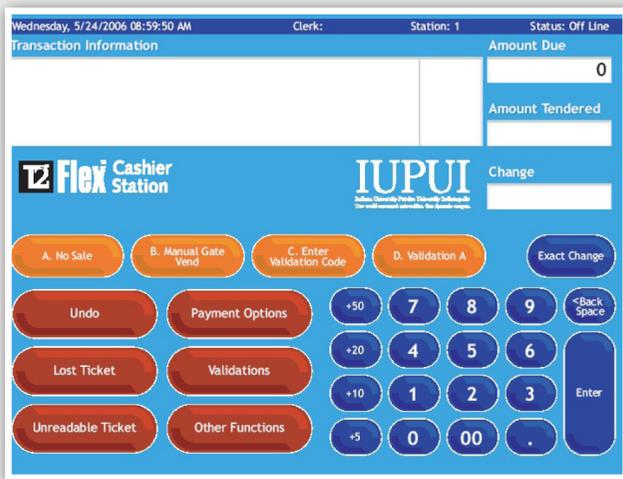
### T2 Flex Access Control Pack

- » Enables processing for parkers who bypass the revenue control system and arrive at the entry lane with a permit
- » Includes standard access control functionality
- » Includes premium features such as multiple credentials tied to a customer, online credential purchase capability, wait lists and payment plans
- » Supports all credential read technology
- » Barcode, magnetic stripe, RFID, proximity cards, biometrics, etc.
- » Permit database administration

### T2 Flex Revenue Control Pack

- » Delivers functionality to process transient parkers who pay for each visit
- » Includes standard revenue control functionality
- » Includes premium features such as a user configurable software-based cashier station, multiple IPG support, and a PA-DSS validated credit card payment solution suite
- » Supports in-lane cashier, central cashier, pay-on-foot, pay-in-lane, unattended pay-on-entry





- » Automatically computes parking fees and amount tendered
- » Accepts cash, credit cards and debit cards for payment
- » Cashier Station processes exception transactions such as validations, lost tickets, insufficient funds, disputed fee, unreadable ticket, manually issued tickets, manual credit cards, disabled permit, split transactions
- » Automated Pay Station (APS) processes exception transactions such as validations and lost tickets
- » Exit verifier processes validations
- » Blocks processing of backout and stolen tickets
- » Allows manual ticket entry
- » Real time transactions and activity monitoring of lane hardware and cashier station from T2 Flex
- » Offers selectable setting for requiring cash drawer to be closed before beginning another transaction
- » Generates traditional shift & revenue reports

## Revenue Control

### Premium Features

- » User configurable software-based cashier station.
- » Split transactions accept unlimited number of payment methods
- » Allows an unlimited number of validation accounts.
- » Deters ticket switching by blocking a cashier from changing a fee once it has initially been displayed to the customer; system records the original (canceled) transaction information followed by the revised transaction
- » Option to have transaction tickets ingested into the ticket validator or returned to the operator for any ticket type
- » Option to generate a magnetic replacement ticket for lost ticket and unreadable ticket transactions
- » On-site management approval for transaction types
- » User configurable labels for all cashier functions including validations and exception transactions
- » Bill the appropriate third-parties for reserved parking
- » Ensure you don't "over-reserve" facilities beyond capacity
- » Special exception transaction features that eliminate the need for manual forms while ensuring customer information is entered into the system database

### Premium Report Features

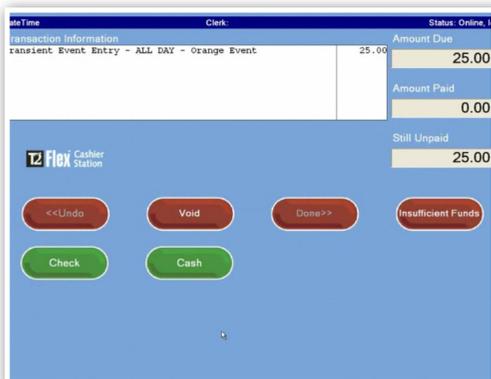
- » Cashier Performance Report
- » Insufficient Fund Report
- » Rate Increment Report
- » Exception Transaction Report

**T2 can host the entire T2 Flex application for you.**

## Event Management

### Premium Features

- » Special event permits can be tied to other active permits within T2 Flex, and can be easily transferred between permit holders
- » Switch access control areas to and from Event Mode, or a mixed event and non-event mode smoothly and quickly
- » Configuration changes can be made in one place and applied to one or more handhelds immediately
- » During connectivity or network outages, handhelds and ARC devices pull information from the same offline data center and the need for import tasks is eliminated
- » e-Business allows parkers to add event permits to existing permits and purchase permits in real time



- » Handhelds and Cashier stations employ nearly identical user interfaces, and both in real time



## Access Control

### Premium Features

- » Accepts payment using owner credentials, student IDs, university cards, payroll and interdepartmental deductions
- » Bulk activation, modification, deactivation, and termination of credentials
- » Task Scheduler allows credential permissions to be pre-set and vary by date, day of week, and time of day
- » Online services include purchase of credentials and replacements, credential activation and termination, invoicing, and auto e-mail messages for payment reminders
- » Generates an accounts receivable aging report
- » Maintains an account history for re-assigned credential numbers
- » Provides credential number parsing tool to accept a wide range of credential reader outputs
- » Supports third party credential activation
- » Automatically set access privileges for individual or bulk permits based on day of the week and time of day
- » Automatically set access privileges for special event days and time
- » Mailing labels for specified queries of the credential database
- » Email passback violation reports to selectable users

**T2 can host the entire T2 Flex application for you.**



# One Unified System for Access and Revenue Control

- » Open system that works with all read technologies including bar code, magnetic strip, proximity card, RFID and biometrics
- » Accepts cash, credit and debit cards for payment
- » Database management for individual users and group accounts
- » Hard, soft, and timed anti-passback
- » Auto lock-out of delinquent credentials
- » Multiple credentials allowed for one parker
- » Multiple vehicles allowed for each credential. Restricts permissions based on facility and user
- » Provides facility nesting enforcement
- » Reverse lanes on-demand or on a schedule as needed
- » Support flexible, refillable value permits; sell with any starting value
- » Add uses, days or dollar values during or after a permit sale
- » Value permits can be billed to a third party at the time of sale or at the time of use

### Equipment and Occupancy Monitoring System

- » Observes equipment status and occupancy levels in real time
- » Provides the ability to set departmental and personal alarm settings

### Encoding System

- » Creates and tracks validation and special event tickets

### Event Parking

- » Includes handhelds for scanning pre-paid permits, credit card payments and receipt issuance

T2 Flex Access and Revenue Control brings a software-driven approach to access and revenue control with:

- » Convenient and secure access to all parking data, in real-time, from any computer, smart phone, or most other devices with a web browser
- » Intuitive user interface
- » Real-time reporting
- » Extensive built-in data import and export capabilities
- » Strong audit trail and data security
- » Customer system configuration options and settings that can be done by the end customer, meeting your specific operational needs without custom programming
- » Data stored with Oracle®, a proven, powerful and secure database, so there is no limit on the number of facilities, lanes, permits, devices or components, and no limit to the number of months or years of data you can have in the system
- » PA-DSS validated credit card solution ensures you are using a solution with the most up-to-date data security standards, protecting your parkers' credit card information
- » Use of TCP/IP communications protocol - the same networking technology that supports Internet communications
- » T2 Revenue Control hardware include credit card entry and exit stations, pay-on-foot and pay-in-lane stations

T2 Systems built its reputation on quality products and best-in-class customer support. No other partner will continue to support you and your solution like T2.

- » **Online Help:** within T2 Flex customers have access to context sensitive help
- » **Online Recorded Training:** access to both free and paid-for recorded training sessions
- » **Report Library:** Provides access to an extensive library of reports and allows you to upload and share reports
- » **Online Support Case Management:** find solutions to your technical questions and issues, or submit a support case directly to T2







# The Most Sophisticated, Far-reaching Information Possible

## Centralized Management and Control

The T2 Flex parking management system includes components that work together in a reliable networked environment. Because T2 Flex can run on multiple network types, from 3G connection, you have superior flexibility of network design and hardware location.

All centralized management and monitoring are done through the T2 Flex software, a browser-based application for viewing and managing data. This makes it easy to control, manage and observe the system at anytime from any workstation connected to the internet, including remote programming and control of devices. You can set up user accounts with granular system access and view full activity history.

All T2 PARCS hardware maintain the full rate structure and logic to operate in an offline mode.

## More Return on Investment

T2 Flex is unique in that once you implement Access and Revenue control functionality, you can add an unlimited number of facilities. Unlike other systems, T2 Flex enables automatic updates, meaning new software can be rolled out to equipment easily.

Because T2 Flex is the only unified system in the industry, the PARCS functionality is part of the same system that can be used for credential delivery, event management and online payments.

T2 Flex Online Help provides context sensitive step-by-step instructions and information on how to use and configure T2 Flex.

### Shift Report By Facility

Shift Start/End Date: 9/6/06 7:09:11 AM - 9/6/06 3:12:02 PM

Cashier: Connielwin / 2046

Location: Vermont Street Garage / Lane 8 Exit Vermont

	Number of Trans.	\$
<b>Revenue</b>		
Transient Parking Fee	286	\$781.00
<b>Total Items</b>	<b>286</b>	<b>\$781.00</b>
<b>Total Tickets Processed</b>	<b>277</b>	
<b>Payments</b>		
Cash	111	\$325.00
Grace Period Trans	25	\$0.00
<b>Total Payments</b>	<b>136</b>	<b>\$325.00</b>
Validations		\$454.00
ISF Contracts		\$0.00
<b>Total Revenue</b>		<b>\$779.00</b>
<b>ISF Contracts</b>		
Total Parking Fee	1	\$2.00
Amount Paid		\$2.00
Amount Owed		\$0.00
<b>Validations</b>		
101 Radiation Oncology	3	\$8.00

## Parking in the Cloud

T2 Systems is the only PARCS provider that offers a **fully-hosted, web-based solution in a PCI-DSS Level 1 Hosting Facility**. You will find T2 Systems listed as a Level 1 Service Provider on the Visa website. For organizations that process credit card payments, choosing a vendor with a compliant hosting environment offers significant cost and time savings. Much of the work and costs associated with pursuing PCI DSS compliance for your organization is eliminated since T2 has made the investment and achieved the Attestation of Compliance.

When T2 hosts your application, you pay a single annual hosting fee and we take care of all IT management and administration. T2 Hosting Benefits:

- » Faster deployment because we take care of server equipment, database maintenance and backups, and all system administration and maintenance
- » Your data is safe from fires, floods, theft and power failures
- » Upgrades to the latest version of T2 Flex are automatic, a service not offered by other vendors
- » You'll also realize reduced costs because you won't need to invest in additional hardware or budget for future technology requirements

Ticket Type	Ticket Number	Entry Time/Exit Time	Length of Stay	Gross Revenue	Less: ISF	Less: Vals	Net Revenue	Cash Payments
Lost Ticket		9/11/06 14:16:54 9/11/06 14:16:54	0d 0h 0m 55s	\$8.00			\$8.00	\$8.00
Manual Transaction		9/11/06 7:42:23 9/11/06 7:42:23	0d 0h 0m 28s	\$2.00			\$2.00	\$2.00
Manual Transaction		9/11/06 10:22:08 9/11/06 10:22:08	0d 0h 0m 38s	\$2.00		\$(2.00)	\$0.00	\$0.00
Manual Transaction		9/11/06 10:25:02 9/11/06 10:25:02	0d 0h 0m 32s	\$8.00		\$(8.00)	\$0.00	\$0.00
Manual Transaction		9/11/06 10:26:10 9/11/06 10:26:10	0d 0h 0m 32s	\$8.00		\$(8.00)	\$0.00	\$0.00
Manual Transaction		9/11/06 10:31:53 9/11/06 10:31:53	0d 0h 0m 34s	\$8.00		\$(8.00)	\$0.00	\$0.00
Manual Transaction		9/11/06 14:27:38 9/11/06 14:27:38	0d 0h 0m 19s	\$2.00		\$(2.00)	\$0.00	\$0.00
Manual Transaction		9/11/06 15:24:55 9/11/06 15:24:55	0d 0h 0m 41s	\$3.00		\$(3.00)	\$0.00	\$0.00
Transient	101006071	9/11/06 5:49:05 9/11/06 14:15:00	0d 8h 25m 55s	\$6.00			\$6.00	\$6.00

### Premium Report Features

- » Report field names can be easily changed to match your operation's language
- » Provides time-based and shift-based reports to allow reconciliation of cashier activity, cash collections and deposits, and credit card sales and deposits
- » Includes a report locator tool to help you find the information you need
- » Provides an easy-to-use custom report generator
- » Provides a wizard-based query manager

## Parking Management

### Premium Features

- » Highly configurable to minimize hard coding for system changes
- » Task scheduler allows tasks to occur automatically based on date, day of the week, and time of day
- » Access privileges are selectable for individual users
- » Records system configuration changes including type, time, and the user making the change
- » Records date, time, user and reason for manual gate raises

### Other Features

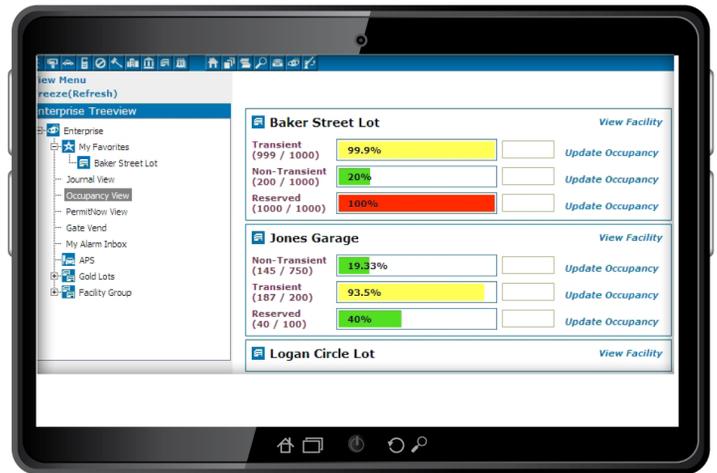
- » Flexible platform for credential eligibility, pricing schedules and payment methods
- » Highly configurable rate types: flat, variable, daily maximums, lost ticket, special events
- » Grace period and lag time parameters
- » Remote system programming
- » Standard reports for revenue, lane activity, credentials, statistics, ticket tracking, occupancy, and events



# Monitoring System

## Premium Features

- » Access to monitoring activities from any computer with internet access
- » Drill down capability to identify problems
- » Event journal to record system events
- » Task scheduler automates gate open and close by time of day and day of week
- » Task scheduler changes the occupancy mix thresholds (credential, transient, reserved) by hour of day
- » Automates “full” sign activation once predefined occupancy thresholds have been exceeded
- » Simultaneous view of equipment status for each device, lane, or grouping of lanes
- » Simultaneous view of equipment status and real-time transaction activity
- » Simultaneous view of occupancy and equipment status
- » Direct access to device status and credential history to troubleshoot access problems
- » Allows remote gate vend and documents date, time, user, and reason for remote vends
- » Displays occupancy counts on external signs within the parking operation office
- » Provides lane activity and duration reports
- » Accommodates reversible lanes



## Premium Alarm Features

- » Alarm management documents when the alarm occurred, who responded and when
- » Provides a personal alarm inbox, so that users can manage the received alarms and identify read, unread, responded, and unresponded alarms specific to them
- » Select which events will alarm for each user
- » Select the type of alarm (read only, respond, sound, light) for each user
- » Respond to alarms in batch
- » Receive alarms via email or text message



Company Headquarters:  
8900 Keystone Crossing, Suite 700  
Indianapolis, IN 46240  
Tel. (800) 434.1502 Fax (317) 524.5501  
www.T2Systems.com

Think Technology. Think Solutions. Think T2.



# SINGH

**Monona Terrace Convention Center Parking Garage  
Vendor Evaluation Questionnaire**

Client/Company Name: AMP CO SYSTEM PARKING  
 Client Contact & Phone: BLAISE (TONY) HOMBORWU (312) 296-0698  
 Vendor Name: AMAHO MCGANN.

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	2	3	4	(5)
INTERCONTINENTAL HOTEL, 1465 WEBSTER (THEATRE), 1265 S. MICHIGAN, 1845 N. CLYBORNE, & ECT.					
Please rate the Vendor's responsiveness to inquiries.	1	2	3	4	(5)
GOOD. SOFTWARE IS GOOD.					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	(4)	5
HESITANT IS PROVIDING ASSISTANCE OVER THE PHONE.					
Please rate the Vendor's overall performance.	1	2	3	(4)	5
GOOD.					
Please rate your satisfaction with the Vendor's equipment	1	2	3	(4)	5
GATE. SHEAR PIN HARD TO BE REMOVED WHEN GATES MALFUNCTION. NEED HAMMER TO UNDO THE PIN.					
Please rate your overall satisfaction with the Vendor.	1	2	3	(4)	5
SOFTWARE IS GOOD. MIB SOFTWARE. REMOTE ACCESS ON THE SYSTEM.					
What was your overall experience with the Vendor? Would you recommend the Vendor?					
YES. WOULD RECOMMEND TO OTHERS. TONY RANKED THE OVERALL FOR MCGANN → (3) ★ MOST IMPROVED IN COMPARISON TO DATA PARK & SKIDATA BUT COSTLY.					

# SINGH

**Monona Terrace Convention Center Parking Garage  
Vendor Evaluation Questionnaire**

Client/Company Name: MASONIC CENTER @ SAN FRANCISCO'  
 Client Contact & Phone: MS SHA BROWN (415) 740-7886  
 Vendor Name: AMANO MCGANN'

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:	1	2	3	4	5
Please rate the Vendor's responsiveness during installation & training.					(5)
EQUIPMENTS ARE RELIABLE BUT SERVICE RESPONDS ARE NOT EXECUTANT.					
Please rate the Vendor's responsiveness to inquiries.		(2)	3	4	5
SLOW BUT WHEN THEY ARE PRESENT, USUALLY ANSWERS WERE SATISFIED.					
Please rate the Vendor's responsiveness to maintenance & repair issues.		(2)	3	4	5
NOT EASY ACCESS. TAKES TIME TO GET THE PROPER RESPOND.					
Please rate the Vendor's overall performance.			3	(4)	5
Please rate your satisfaction with the Vendor's equipment				(4)	5
EQUIPMENTS ARE AESTHETICALLY MORE BULKY & NO DUAL COVERAGE, SO HAVE PROBLEMS IF TICKET WERE AGENT OR WORN OUT.					
Please rate your overall satisfaction with the Vendor.				(4)	5
GATES WERE VERY LONG LASTING, SHE HAD GATES THAT WERE OVER 10 YRS OLD AND STILL IN OPERATIONS.					
What was your overall experience with the Vendor? Would you recommend the Vendor?					
GOOD. YES, BUT DEPENDING ON LOCATIONS & CLIENTS' NEEDS.					

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: INTER PARK INC.  
 Client Contact & Phone: MARK HEINSOHN (312) 294-4682  
 Vendor Name: AMAANO MCGARRN

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	2	3	<input checked="" type="radio"/> 4	5
MOSTLY IN MN. UPGRADE FOR ONE OF THE LOCATION TOOK AWHILE FOR THEM TO COMPLETE. TRAINING IS GOOD.					
Please rate the Vendor's responsiveness to inquiries.	1	2	3	<input checked="" type="radio"/> 4	5
SERVICE IS GOOD. NO MAINTENANCE CONTRACTS AT MOST LOCATIONS BECAUSE OF COST, SO ONLY T&M.					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	<input checked="" type="radio"/> 4	5
TIME & MATERIAL IS A GOOD WAY FOR THEIR EQUIPMENTS.					
Please rate the Vendor's overall performance.	1	2	3	<input checked="" type="radio"/> 4	5
COST IS ON THE HIGH SIDE. WHY 2 SERVERS FOR CREDIT CARD & RECORDING? NOT ABLE TO GET STRAIGHT ANSWER.					
Please rate your satisfaction with the Vendor's equipment	1	2	3	<input checked="" type="radio"/> 4	5
GOOD BUT COST MORE.					
Please rate your overall satisfaction with the Vendor.	1	2	3	<input checked="" type="radio"/> 4	5
GOOD, BUT LOCATION @ MN. SOMETHING HARD TO REACH PEOPLE.					
What was your overall experience with the Vendor? Would you recommend the Vendor?					
GOOD. COSTLY THEREFORE <u>NO</u> RECOMM. 15-20% MORE IN COMPARISON TO DATAPARK.					

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: AMP CO SYSTEM PARKING  
 Client Contact & Phone: BLAISE (TONY) HOMESTORWU / 312 2960698  
 Vendor Name: DATA PARK

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:	1	2	3	4	5
Please rate the Vendor's responsiveness during installation & training.					(5)
TRAINING ONSITE / OFFICE. ALSO MONTHLY WEB TRAINING FOR NEW PM OR EMPLOYEES. 80% PARKING FACILITIES USING DATA PARK. 20% WITH SKIDATA & MCGANN.					
Please rate the Vendor's responsiveness to inquiries.					(5)
STAFF AVAILABLE OVER THE PHONE. REMOTE ASSISTANCE FROM BULGARIA.					
Please rate the Vendor's responsiveness to maintenance & repair issues.					(5)
MAIN NUMBER TO CALL FOR MAINTENANCE & REPAIR. ALL TECHNICIANS ARE AVAILABLE WITH A PHONE. CALL. 15 MINS. SOMETIMES TO RESPOND, WITH NO ADDITIONAL SERVICE CONTRACT.					
Please rate the Vendor's overall performance.				(4)	5
ROOM FOR IMPROVEMENTS. REMOTE ACCESS CONTROL NEEDS TO BE BETTER.					
Please rate your satisfaction with the Vendor's equipment					(5)
SATISFY, BUT NEED TO HAVE BETTER HARDWARE TO SOFTWARE INTERACTIONS.					
Please rate your overall satisfaction with the Vendor.					(5)
VERY HAPPY.					
What was your overall experience with the Vendor? Would you recommend the Vendor?					
GOOD. YES, WOULD RECOMMEND DATA PARK. TONY RANKED THE OVERALL FOR DATA PARK => (1) IN COMPARISON TO MCGANN & SKIDATA.					

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: CPS PARKING - SEVERAL CHICAGO AREA LOCATIONS.  
 Client Contact & Phone: IVAN MATIC (312)343-3821  
 Vendor Name: DATA PARK

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	2	3	4	5
REGIONAL MANAGER @ CHICAGO IS VERY RESPONSIVE. TRAININGS PROVIDED AT ANY OF THEIR 15 FACILITIES @ DATA PARK.					
Please rate the Vendor's responsiveness to inquiries.	1	2	3	4	5
TOTAL 10 PARKING GARAGES ; 9 W/DATAPARK & 1 W/SKIDATA @ CHGO. CHINATOWN BECAUSED IT IS REQUESTED BY CLIENT.					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	4	5
DATAPARK PRIORITIZED THEIR MAINTENANCE & REPAIR FOR THEIR GARAGES VERY WELL. SOME GARAGES HAVE SERVICE CONTRACTS BUT SOME DO NOT. DO NOT CONTRACT USES TM.					
Please rate the Vendor's overall performance.	1	2	3	4	5
LIMITED NUMBER OF TECHNICIANS BUT THEY ARE ALWAYS AVAILABLE W/A PHONE CALL. ONLINE MANAGERS ARE VERY HELPFUL					
Please rate your satisfaction with the Vendor's equipment	1	2	3	4	5
DURABLE PARTS. LOTS OF CONFUSION CAUSED BY THE CREDIT CARD STRIPE MACHINE SLIDING UPWARDS RATHER THAN THE TYPICAL SLIDING DOWNWARDS.					
Please rate your overall satisfaction with the Vendor.	1	2	3	4	5
SOFTWARE IS GOOD , UPGRADES PROVIDED USUALLY ONCE EVERY TWO YRS TO MATCH PCI'S COMPLIANCE.					
What was your overall experience with the Vendor? Would you recommend the Vendor?					
GOOD. YES TO RECOMMENDATION. IVAN RANKED THE OVERALL FOR DATA PARK => 1 IN COMPARISON TO TAPCO (FED APD) & SKIDATA.					

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: INTER PARK INC.  
 Client Contact & Phone: MARK HEINSOHN (712) 294-4682  
 Vendor Name: DATA PARK

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	2	3	4	5
INSTALLATION IS GOOD. TRAINING IN OFFICE /ONSITE FOR NEW EQUIPMENTS OR UPGRADES.					
Please rate the Vendor's responsiveness to inquiries.	1	2	3	4	5
LAZAR IS THE REG. MANAGER IN CHICAGO, SO IS EASY WHEN INTER PARK HAS QUESTIONS.					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	4	5
45 LOCATIONS. RESPONSIVENESS IS GOOD. INTER PARK ALSO USES AMAND MCBANN, SKIDATA & ZEAG.					
Please rate the Vendor's overall performance.	1	2	3	4	5
ALL LOCATIONS HAVE THEIR OWN MAINTENANCE CONTRACTS, SO THE MAINTENANCE FOR EQUIPMENTS OR CALLS WERE ANSWERED PROMPTLY.					
Please rate your satisfaction with the Vendor's equipment	1	2	3	4	5
YES, SOFTWARE REQUEST NEEDS TO BE BETTER.					
Please rate your overall satisfaction with the Vendor.	1	2	3	4	5
HAPPY.					
What was your overall experience with the Vendor? Would you recommend the Vendor?					
GOOD. YES, WOULD RECOMMEND TO OTHERS.					

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: US AIRPORT PARKING  
 Client Contact & Phone: RUSS LYBBS. (303) 371-7575  
 Vendor Name: FED. APD. (TAPCO)

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	2	3	4	5
1998 - STARTED DID NOT GET SUPPORT.. NOT RESPONSIVE. THEY DO INSTANTAN (MISTAKEN).					
Please rate the Vendor's responsiveness to inquiries.	1	2	3	4	5
DGO - DISTRIBUTION (LOCAL GUY) DOOR & GATE OPERATORS.					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	4	5
Please rate the Vendor's overall performance.	1	2	3	4	5
NOT STEPPING UP TO MATCH THE NEEDS.					
Please rate your satisfaction with the Vendor's equipment	1	2	3	4	5
TOO MANY MOVING PARTS.					
Please rate your overall satisfaction with the Vendor.	1	2	3	4	5
What was your overall experience with the Vendor? Would you recommend the Vendor?					
OK. <u>NO</u>					

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: GENERAL MITCHELL INTERNATIONAL AIRPORT  
 Client Contact & Phone: JEFF TRAPP (414) 747-4514  
 Vendor Name: TRAFFIC & PARKING CONTROL CO., (INC) (TAPCO)  
FEB. - APR.

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	2	3	4	(5)
RECENTLY CONVERTING 2004 SYSTEM TO NEW ONES, AT 2 SECTIONS OF THE PARKING GARAGES (5 TOTAL) OUTLETING TO TOLL PLAZA & 4 SURFACE LOTS @ AIRPORT.					
Please rate the Vendor's responsiveness to inquiries.	1	2	3	(4)	5
TECHNICIANS OR PM ONSITE ALL TIME. 8AM - 5PM					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	(4)	5
ONSITE TECHNICIAN					
Please rate the Vendor's overall performance.	1	2	3	(4)	5
GOOD.					
Please rate your satisfaction with the Vendor's equipment	1	2	3	4	(5)
UPGRADE IS EASY FROM 2004 APD W/ ELEMENT, SCANNET SOFTWARE - HARDWARE COMPATIBLE.					
Please rate your overall satisfaction with the Vendor.	1	2	3	4	(5)
YES.					
What was your overall experience with the Vendor? Would you recommend the Vendor?					
<ul style="list-style-type: none"> <li>- VERY RESPONSIVE, BUT SHORT HANDED, TAPCO WILLING TO ADD &amp; TRAIN STAFF.</li> <li>- HIGH RECOMMENDATION.</li> </ul>					

# SINGH

## Monona Terrace Convention Center Parking Garage

### Vendor Evaluation Questionnaire

Client/Company Name: CPS PARKING - SEVERAL CHICAGO AREA LOCATIONS

Client Contact & Phone: IVAN MATIC (312) 343-3821

Vendor Name: TAPCO (FED. APP)

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	2	3	4	5
TAPCO MAIN OFFICE @ MILWAUKEE. ONLY ONE TECHNICIAN IN CHICAGO AREA, BUT ALWAYS THERE TO HELP.					
Please rate the Vendor's responsiveness to inquiries.	1	2	3	4	5
ONLY 5 FACILITIES ARE USING TAPCO.					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	4	5
TURN AROUND TIME IS BAD, I.E. GRAND PLAZA, ONE OF THE EQUIPMENTS MALFUNCTION BUT THEY HAD TO WAIT FULL 3 WEEKS FOR REPLACEMENTS.					
Please rate the Vendor's overall performance.	1	2	3	4	5
Please rate your satisfaction with the Vendor's equipment	1	2	3	4	5
DURABLE EQUIPMENTS BUT SOFTWARE IS LACKING. SWITCHING FROM SCANNER TO ELEMENT.					
Please rate your overall satisfaction with the Vendor.	1	2	3	4	5
What was your overall experience with the Vendor? Would you recommend the Vendor?					
OVERALL IS GOOD. YES, WOULD RECOMMEND. IVAN RANKED THE OVERALL FOR TAPCO (FED APP) AS 2 FOR SERVICES BUT 3 FOR EQUIPMENTS, IN COMPARISON TO DATAPARK & SKIDATA.					

SINGH & ASSOCIATES, INC. • CONSULTING ENGINEERS

10501 W. Research Drive • Milwaukee, WI 53226 • (414) 443-0840 • Fax (414) 727-0933

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: CITY OF MADISON (PARKING OPERATION MANAGER)  
 Client Contact & Phone: TOM WOZNICK  
 Vendor Name: TAPCO. (PED APP)

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	(2)	3	4	5
FOLLOWUP TRAINING IS SLOW. TAKES TIME FOR UPDATE.					
Please rate the Vendor's responsiveness to inquiries.	1	(2)	3	4	5
SLOW IN RESPONDING. DAILY W/ GATES MOSTLY.					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	(2)	3	4	5
INCORPORATED T2 SYSTEMS TO MATCH WHAT WAS NEEDED RATHER THAN TAPCO.					
Please rate the Vendor's overall performance.	1	(2)	3	4	5
Please rate your satisfaction with the Vendor's equipment	1	2	(3)	4	5
EQUIPMENTS ARE OLD.					
Please rate your overall satisfaction with the Vendor.	1	(2)	3	4	5
What was your overall experience with the Vendor? Would you recommend the Vendor?					
GOOD, BUT CUSTOMER INTERACTION WAS BAD. NO, TOM WOULD NOT RECOMMEND TAPCO.					

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: CITY OF SANTA CRUZ  
 Client Contact & Phone: MARLIN GRANLUND (831) 420-5184  
 Vendor Name: GMG SYSTEMS, INC.

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	2	3	4	5
VERY HAPPY.					
Please rate the Vendor's responsiveness to inquiries.	1	2	3	4	5
QUITE RESPONSIVE, HOWEVER THE REPRESENTATIVE IS 2 HRS. AWAY.					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	4	5
GOOD.					
Please rate the Vendor's overall performance.	1	2	3	4	5
GOOD.					
Please rate your satisfaction with the Vendor's equipment	1	2	3	4	5
USED @ 2 STRUCTURES NOW. HYBRID, BARCODE, PAY \$ @ STATION. NOW 24 HR SERVICE W/ REMOTE ACCESS. PAY-ON-FOOT - APP GOOD SERIES.					
Please rate your overall satisfaction with the Vendor.	1	2	3	4	5
VERY SATISFIED.					
What was your overall experience with the Vendor? Would you recommend the Vendor?					
RECEIVED REF. CALLS 3-4 TIMES IN THE LAST 3 YRS. FROM CLIENTS @ SANTA CLARA & SAN FRANCISCO.					

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: MASONIC CENTER @ SAN FRANCISCO  
 Client Contact & Phone: MRS. SAA BROWN (415) 740-7886  
 Vendor Name: GMG SYSTEMS

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	2	3	4	5
TELL THEM WHAT YOU NEED, THEY WILL DELIVER. TRAINING AVAILABLE ONSITE / OFFICE / REMOTELY.					
Please rate the Vendor's responsiveness to inquiries.	1	2	3	4	5
USED @ 10 LOCATIONS. SHE CAN TEXT THE MANAGER FOR ASSISTANCE. QUESTIONS RESOLVED WITHIN 24 HRS.					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	4	5
RELIABLE. EQUIPMENTS CAN BE CUSTOMIZED TO SUIT THE TASTE AESTHETICALLY TO THE NEEDS OF CUSTOMERS; SUCH AS COLOR & STYLE.					
Please rate the Vendor's overall performance.	1	2	3	4	5
LINEX. TICKETS W/ BAR CODE & DUAL COVERAGE, GREAT FOR BOND TICKETS. PAY STATION TOUCH SCREEN.					
Please rate your satisfaction with the Vendor's equipment	1	2	3	4	5
USER FRIENDLY. REMOTE ACCESS. IP ACCESS, VIA PHONE. RELIABLE, PREPAY.					
Please rate your overall satisfaction with the Vendor.	1	2	3	4	5
VERY HAPPY.					
What was your overall experience with the Vendor? Would you recommend the Vendor?					
GOOD. YES FOR SELF PARK & AUTOMATED GARAGES.					

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: WALLY PARK  
 Client Contact & Phone: SOHAL ISLAM (213) 784-2882  
 Vendor Name: PARKING SOFT

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	2	3	4	5
RESPONSIVE. THEY PLANNED THE PROCESS FOR INSTALLATION BEFORE THE ACTUAL WORK. TRAINING IS GOOD.					
Please rate the Vendor's responsiveness to inquiries.	1	2	3	4	5
PARKING SOFT @ 6 LOCATIONS FOR WALLY PARK AND FUNCTIONALITY IS GOOD. IP BASE SYSTEM WHICH MAKE IT EASIER FOR CUSTOMERS TO USE REMOTE ACCESS.					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	4	5
MINIMAL REPAIR THUS FAR.					
Please rate the Vendor's overall performance.	1	2	3	4	5
Please rate your satisfaction with the Vendor's equipment	1	2	3	4	5
SOFTWARE NEEDS TO BE UPGRADED TO MATCH THE REQUESTS FROM ALL THE CUSTOMERS.					
Please rate your overall satisfaction with the Vendor.	1	2	3	4	5
VERY HAPPY					
What was your overall experience with the Vendor? Would you recommend the Vendor?					
GOOD OVERALL EXPERIENCE. YES, WOULD RECOMMEND TO OTHERS. - BETTER THAN SKIDATA.					

SINGH & ASSOCIATES, INC. • CONSULTING ENGINEERS

10501 W. Research Drive • Milwaukee, WI 53226 • (414) 443-0840 • Fax (414) 727-0933

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: US AIRPORT PARKING  
 Client Contact & Phone: RUSS LYLES. (303) 371-7575  
 Vendor Name: PARKING SOFT

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:				
Please rate the Vendor's responsiveness during installation & training.	1	2	3	4 <input checked="" type="radio"/> 5
RESPONSIVE. STAYED LONGER AT SITE. FROM GEORGIA. BUT VERY RESPONSIVE. LOCAL INSTALLATION - DOES NOT HAVE ONE. 45 MINS @ BULDOZ.				
Please rate the Vendor's responsiveness to inquiries.	1	2	3	4 <input checked="" type="radio"/> 5
ACCESS TO SUPPORT. WEEKENDS TOO.				
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	4 <input checked="" type="radio"/> 5
LOCALITY MEMBERSHIP PROGRAM. REWARDS ON POINTS ON MEMBERSHIP CARD. \$1.00 FOR 1 POINT.				
Please rate the Vendor's overall performance.	1	2	3	4 <input checked="" type="radio"/> 5
SWITCH OVER TO PARKING SOFT LAST SEPTEMBER 2011. TO BRING UP CERTAIN TRANSACTION.				
Please rate your satisfaction with the Vendor's equipment	1	2	3	4 <input checked="" type="radio"/> 5
WORK. CUSTOMER SERVICE IS EXCELLENT. HARDWARE IS GOOD.				
Please rate your overall satisfaction with the Vendor.	1	2	3	4 <input checked="" type="radio"/> 5
SOFTWARE IS AS GOOD AS HARDWARE, WEBSITE. REMOTE ACCESS.				
What was your overall experience with the Vendor? Would you recommend the Vendor?				
GOOD. YES WOULD RECOMMEND.				

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: UNIV. OF MARYLAND (EVENT SYSTEM)  
 Client Contact & Phone: ANDREW BAKER (301) 314-9003  
 Vendor Name: PARKING SOFT

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:				
Please rate the Vendor's responsiveness during installation & training.	1	2	3	4 <input type="radio"/> 5 <input checked="" type="radio"/>
EVENT CONTRACT - 24/7 ACCESS. PASS FOR EVENT. DIRECT ACCESS TO VP. VENDOR & DISTRIBUTOR				
Please rate the Vendor's responsiveness to inquiries.	1	2	3	4 <input type="radio"/> 5 <input checked="" type="radio"/>
WORKING W/ DIFF. GROUP 6 GARAGES - 300 TO 1700 SPACES; SURFACE LOTS. 12000 TO 15000				
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	4 <input type="radio"/> 5 <input checked="" type="radio"/>
MAIL THE HANDHELD IN BETWEEN SESSIONS. HARDWARE & SOFTWARE UPGRADES.				
Please rate the Vendor's overall performance.	1	2	3	4 <input type="radio"/> 5 <input checked="" type="radio"/>
CONNECTIVITY IS KEY. MOTOROLA HANDHELD. PCI COMPLIANT WIFI/CELLULAR CONNECTIONS.				
Please rate your satisfaction with the Vendor's equipment	1	2	3	4 <input type="radio"/> 5 <input checked="" type="radio"/>
WEB PORTAL ACCESS IS GREAT. AUDITING (REPORT CAN BE LIVE - PAY STATION/NO GATES.				
Please rate your overall satisfaction with the Vendor.	1	2	3	4 <input type="radio"/> 5 <input checked="" type="radio"/>
CONNECTIONS. AUTOMATED SYSTEMS.				
What was your overall experience with the Vendor? Would you recommend the Vendor?				
VERY GOOD. YES, RECOMMENDATION T2-SYSTEM. ALSO.				

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: AMPSCO SYSTEM PARKING  
 Client Contact & Phone: BLAISE (TONY) HOMBERGER (312) 296-0698  
 Vendor Name: SKI DATA.

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	2	3	(4)	5
PROBLEM: NOT MUCH DETAILS PROVIDED BEFORE COMPLETE INSTALLATION. CHARGE EXTRA IF ADDITIONAL SERVICES REQUIRED.					
Please rate the Vendor's responsiveness to inquiries.	1	2	3	(4)	5
FACTORY FOR EQUIPMENTS @ AUSTRIA, BUT APT ACTS AS AN AGENT IN CHICAGO. AUTOMATED PARKING TECHNOLOGY					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	(3)	4	5
NEED SERVICE CONTRACT(S) FOR ADDITIONAL WORK.					
Please rate the Vendor's overall performance.	1	2	3	(4)	5
GOOD.					
Please rate your satisfaction with the Vendor's equipment	1	2	3	(4)	5
LIMITED INFORMATION PROVIDED, ONLY WHEN ASKED.					
Please rate your overall satisfaction with the Vendor.	1	2	3	(4)	5
GOOD.					
What was your overall experience with the Vendor? Would you recommend the Vendor?					
GOOD. YES. TONY RANKED THE OVERALL FOR SKIDATA → (3) IN COMPARISON TO MCGANN & DATAPARK.					

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: CPS PARKING - SEVERAL CHICAGO AREA LOCATIONS  
 Client Contact & Phone: IVAN MATIC (312) 343-3821  
 Vendor Name: SKI DATA

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:	1	2	3	4	5
Please rate the Vendor's responsiveness during installation & training.				(4)	
"GHOST" IN SYSTEMS SOMETIME. TAKE TIME FOR INSTALLATION SOMETIMES FOR SEVERAL LOCATIONS. TRAINING IS GOOD.					
Please rate the Vendor's responsiveness to inquiries.				(4)	
VERY RESPONDSING BUT SOMETIMES COSTLY.					
Please rate the Vendor's responsiveness to maintenance & repair issues.				(4)	
NEEDS MAINTENANCE CONTRACT FOR ADDITIONAL WORK, ALSO COST FOR A LOANER.					
Please rate the Vendor's overall performance.				(4)	
Please rate your satisfaction with the Vendor's equipment					(5)
EQUIPMENTS ARE EXPENSIVE BUT DURABLE / STABLE. PARTS RESPOND SAME AS DATAPARK.					
Please rate your overall satisfaction with the Vendor.				(4)	
PRICERY WHEN IT COMES TO REPAIR / MAINTENANCE. UPGRADES TO MATCH PCI COMPLIANCE COULD COST BETWEEN 5 TO 6 K FOR EACH IMPROVEMENT. DATAPARK DOES NOT CHARGE					
What was your overall experience with the Vendor? Would you recommend the Vendor? <sup>FOR UPGRADES</sup>					
OVERALL EXPERIENCE IS MODERATELY SATISFIED. YES, WOULD RECOMMEND TO OTHERS. IVAN RANKED THE OVERALL FOR SKIDATA AS (2) FOR EQUIPMENTS BUT (3) FOR THEIR SERVICES, IN COMPARISON TO TAPCO (FED. APD) & DATAPARK.					

SINGH & ASSOCIATES, INC. • CONSULTING ENGINEERS

10501 W. Research Drive • Milwaukee, WI 53226 • (414) 443-0840 • Fax (414) 727-0933

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: WALLY PARK.  
 Client Contact & Phone: SOHAL ISLAM (213) 784-2882  
 Vendor Name: SKIDATA.

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:				
Please rate the Vendor's responsiveness during installation & training.	1	2	3	4 <input checked="" type="radio"/> 5
IN LOS ANGELES, SENTRY CONTROL SYSTEM IS THEIR AGENT (FOR 18 YRS). INSTALLATION & TRAINING HAVE BEEN GOOD.				
Please rate the Vendor's responsiveness to inquiries.	1	2	3	4 <input checked="" type="radio"/> 5
PROVIDE SKIDATA @ 3 LOCATIONS.				
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	4 <input checked="" type="radio"/> 5
EXPENSIVE EQUIPMENT COST BUT MINIMAL MAINTENANCE & REPAIR ISSUES				
Please rate the Vendor's overall performance.	1	2	3	4 <input checked="" type="radio"/> 5
NEED MAINTENANCE CONTRACT FOR EXTRA WORK				
Please rate your satisfaction with the Vendor's equipment	1	2	3	4 <input checked="" type="radio"/> 5
EQUIPMENTS NEED TO BE MAINTAINED WELL, BECAUSE ALL THEIR EQUIPMENTS NEED TO BE REPLACED OR RECALIBRATED AFTER 6-7 YRS.				
Please rate your overall satisfaction with the Vendor.	1	2	3	4 <input checked="" type="radio"/> 5
What was your overall experience with the Vendor? Would you recommend the Vendor?				
GOOD. YES, WOULD RECOMMEND TO OTHERS.				

SINGH & ASSOCIATES, INC. • CONSULTING ENGINEERS

10501 W. Research Drive • Milwaukee, WI 53226 • (414) 443-0840 • Fax (414) 727-0933

# SINGH

**Monona Terrace Convention Center Parking Garage  
Vendor Evaluation Questionnaire**

Client/Company Name: INTER PARK INC.  
 Client Contact & Phone: MARK HEINSOHN (312) 294-4682  
 Vendor Name: SKI DATA

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	2	3	4	5
WITH A DISTRIBUTOR (ATLANTA), THE INSTALLATION & TRAINING IS BETTER.					
Please rate the Vendor's responsiveness to inquiries.	1	2	3	4	5
ONLY 2 LOCATIONS IN CHICAGO. <u>NO</u> MAINTENANCE CONTRACTS.					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	4	5
TIME & MATERIAL COST ONLY (HOURLY RATE).					
Please rate the Vendor's overall performance.	1	2	3	4	5
GOOD.					
Please rate your satisfaction with the Vendor's equipment	1	2	3	4	5
GOOD					
Please rate your overall satisfaction with the Vendor.	1	2	3	4	5
What was your overall experience with the Vendor? Would you recommend the Vendor?					
EQUIPMENTS & SOFTWARE ARE EXPENSIVE. <u>NO</u> RECOMMENDATION. 15-20% MORE IN COMPARISON TO DATAPARK.					

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: CITY OF MADISON. (PARKING OPERATION MANAGER)  
 Client Contact & Phone: TOM WOZNICK (608) 264-9272  
 Vendor Name: SKI DATA.

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	2	3	4	5
DELIVER OF SERVICE IS GOOD. OVER THE PHONE SERVICE. TRAINING OF DEMOS ONSITE/OFFICE ON SOFTWARE & HARDWARE					
Please rate the Vendor's responsiveness to inquiries.	1	2	3	4	5
VERY RESPONSIVE TO WORK WITH INTERNAL STAFF @ UNIVERSITY OF MADISON'S HOSPITAL.					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	4	5
BOUGHT SPARE PARTS. OVERNIGHT ITEMS ON BACK UPS. NO MAINTENANCE CONTRACT.					
Please rate the Vendor's overall performance.	1	2	3	4	5
EXCELLENT					
Please rate your satisfaction with the Vendor's equipment	1	2	3	4	5
W/RF ID, MORE MONTHLY USERS & ANNUAL PERMITS. ALSO W/ PROXIMITY CARDS.					
Please rate your overall satisfaction with the Vendor.	1	2	3	4	5
VERY RELIABLE. PAY STATION & ACCESS ARE GOOD.					
What was your overall experience with the Vendor? Would you recommend the Vendor?					
GOOD. YES, ABSOLUTELY.					

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: UNIV. OF MARYLAND (EVENT SYSTEM)  
 Client Contact & Phone: ANDREW BAKER (301) 314-9003  
 Vendor Name: T2 SYSTEM

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	2	3	4	5
STILL WORKING ON HANDHELD SOLUTIONS - ONLINE TRAINING					
Please rate the Vendor's responsiveness to inquiries.	1	2	3	4	5
PARKING TICKET & PERMIT REGISTRATION: ONLINE & WEBSITE, MORE FOR STUDENT (FACULTY & VISITORS).					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	4	5
SOFTWARE IS GREAT, NOT FOR EVENT.					
Please rate the Vendor's overall performance.	1	2	3	4	5
NOT USE.					
Please rate your satisfaction with the Vendor's equipment	1	2	3	4	5
Please rate your overall satisfaction with the Vendor.	1	2	3	4	5
What was your overall experience with the Vendor? Would you recommend the Vendor?					
OK. NOT RIGHT NOW.					

# SINGH

## Monona Terrace Convention Center Parking Garage Vendor Evaluation Questionnaire

Client/Company Name: CITY OF MADISON (PARKING OPERATION MANAGER)  
 Client Contact & Phone: TOM WOZNICK (608) 264-9272  
 Vendor Name: ZEGA.

Please rate your experience with Parking & Revenue Control Equipment Vendor identified above on a scale from 1 to 5.

1 = Highly dissatisfied 2 = Moderately dissatisfied 3 = Neutral 4 = Moderately satisfied 5 = Highly satisfied

Questions:					
Please rate the Vendor's responsiveness during installation & training.	1	2	3	(4)	5
MAN. VERY RESPONSIVE.					
Please rate the Vendor's responsiveness to inquiries.	1	2	3	(4)	5
5 GARAGES W/ GATES (4000 SPOTS) & 1 SURFACE LOT (PARTLY GATED) 2500 TO 3000 SPACES.					
Please rate the Vendor's responsiveness to maintenance & repair issues.	1	2	3	(4)	5
MONTHLY <del>REPAIRS</del> CONTRACT. VERY RESPONSIVE. MAINTENANCE					
Please rate the Vendor's overall performance.	1	2	3	(4)	5
SWITCHING OVER ONTO HIGHER RATES W/ SOFTWARE UPDATES.					
Please rate your satisfaction with the Vendor's equipment	1	2	3	(4)	5
VERY FEW ISSUES. NO PROBLEM W/ HARDWARE. REGISTRY CAN BE MCEP.					
Please rate your overall satisfaction with the Vendor.	1	2	3	(4)	5
VERY GOOD. GOOD COMMUNICATION.					
What was your overall experience with the Vendor? Would you recommend the Vendor?					
GOOD. YES, RECOM. ONLY OVERALL OPERATIONS THUS FAR.					