The Villages of Woodland Springs Pool Access - RF Entry System Design and Operation Specification

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1 Introduction

1.1 Purpose of This Document

This document describes the requirements of the RF hardware and RF software package to be installed at the main entry of each pool for The Villages of Woodland Springs. This hardware and software package, hereby referred to as the RF Entry System, will aid in the control of unauthorized access into the Woodland Springs pools and monitor the pool patron's activities.

This RF access control system will be programmed and maintained remotely through the use of a PC and modem. Currently, this task is being performed by distributing plastic ID badges to each Woodland Springs resident, which are presented to Gate Monitors contracted through the YMCA by the current management company (SBB Management). Upon completion of the 4th pool, this gate monitoring approach will cost the homeowners association over $82,000 per pool season.

This Requirements Specification includes a General Description (§2) of the hardware and software to be installed, as well as its Functional Requirements (§3), Performance Requirements (§4), Installation Constraints (§5), Operational Scenarios (§6), and Preliminary Budget (§7).

1.2 Intended Audience

This document will be used by the RF System Installer, SBB Management and the Villages of Woodland Springs Advisory Committee that has solicited this project. SBB Management will use this document to ensure that the RF System Installer understands the needs of this project. The Advisory Committee will use this document to design a system that meets the needs of the Woodland Springs residents in accessing the pools.

1.3 Scope

This Requirements Specification details the agreed upon requirements for the hardware and software system to be installed by the RF System Installer. This document is subject to changes prior to the RF System installation but is intended to be an official specification at the commencement of the work. Sections 1 and 2 provide an introduction to this document and the hardware and software system to be installed. Section 3 lists the functions that the hardware and software must perform in order to be considered successful. Section 4 details the required operational performance of the hardware and software. Section 5 describes the installation requirements for the software. Section 6 provides examples of hardware and software use. Section 7 gives an estimated budget for the project.

1.4 Overview

The Pool RF Entry System will provide a simple to use entry system for pool patrons. This system will consist of a sensor at the main entry of each pool that will monitor for an RF card. When a card is passed in close proximity of this sensor, a control unit will signal the entry gate to open. This control unit will then record the card identification number and the date and time of entry. Once a patron wishes to leave, they will activate another RF sensor that will allow exit of the pool. This information will be recorded as well.

The RF entry system requires that the pool patrons have a specially encoded RF card. These cards will be programmed with a unique ID number that is also printed on the outside of the card. Each Woodland Springs homeowner will be issued their own uniquely coded RF ID card. Additional RF ID cards will be sold to homeowners who will require multiple cards per household.

In addition to recording the entry and exit of the pool, the RF Entry System is capable of controlling who accesses the pool. Once a card ID is issued to a homeowner, the card will be activated in the RF Control System for access to all pools. If for some reason a particular patron needs to be prohibited from using the pools, this particular card can be de-activated by an administrator using a PC and special software written for this system. Reasons for de-activation could be:

- A lost or stolen RF ID card.
- Homeowner moves out of Woodland Springs and does not return card.
- Homeowner fails to pay homeowners dues by set deadline.
- Homeowner does not pay homeowner fines or penalties.
- Homeowner does not follow prescribed pool rules.

Other capabilities of the RF Control System are to monitor if the entry gate is held open or if multiple gate entries are made without gate exits (which indicates the card is being handed over the gate to multiple guests).

The RF Administration Software is a powerful tool used to control the RF Entry System. This tool can be used to set opening and closing times of the pool, to authorize the active cards, to monitor errors and exceptions to the entry and exit of the pool area. This software will allow temporary shut-down of an entire pool if necessary (due to contamination or dangerous conditions). The RF Administration Software runs under the Windows operating system and requires that the PC have a standard modem connection.

2 General Description

2.1 RF ID Badges

The RF Entry System utilizes specialized RF ID Badges. These badges are about the same size and thickness of a standard credit card. Inside these badges is a small passive RF ID chip. There are no batteries in the badges themselves, and the RF ID number will never "erase" itself or become unreadable due to scratching of the card (unlike magnetic stripe or bar code type cards).

The cards can not be easily duplicated and it is not possible to reprogram the badges with false information. These cards can come pre-printed with custom graphics to represent the Villages of Woodland Springs. All the cards have a predetermined prefix which identifies them as a Woodland Springs ID card, and they have a unique ID number for each badge. This ID number is also printed on the outside of the badge.

2.2 RF Entry and Exit Sensors

Each of the entry gates into the pools of Woodland Springs will have an entry and exit sensor. When the RF ID badge is passed in front of this sensor, its unique information is sent to the RF System Controller. The RF Controller then "looks-up" the unique number in its internal database to determine if it is a valid badge. If the badge is marked as "active", the RF Controller sends a signal to the entry gate to unlock.

2.3 RF System Controller

The RF System Controller is the heart of the RF Entry System. This controller "looks-up" the unique badge numbers in its internal database to determine if it is a valid badge. The RF Controller also logs the user information into its database records for later retrieval. The RF Controller is programmed using a built-in modem and phone connection. The RF Controller has a large backup battery system to continue functioning even when there is no main power to the system. This backup system allows people to exit the pool area during a power outage.

2.4 RF Controller Software

The RF Controller Software runs on a standard Windows based computer. This computer is temporarily connected to each of the RF Controllers using a dial-up modem connection. It is necessary for each RF Controller at each location be programmed for full access. The RF Controller Software is a powerful tool that can determine pool access problems and control all aspects of user access.

3 Functional Requirements

3.1 RF Card directives

3.1.1 RF Card Creation

It is recommended that the RF Cards used by Woodland Springs be pre-printed and pre-programmed and include a clearly visible card ID number printed on the outside of the card which matches the programmed number in the RF ID memory. This pre-printed card will include a pool graphics and a "Villages of Woodland Springs" logo. There is a variety of graphics available and custom graphics are possible.

This type of card is readily available from the RF card vendor and additional cards can be ordered at any time that will be compatible with the current system. These pre-printed cards use sequential numbering that is unique to The Villages of Woodland Springs.

3.1.2 RF Card Distribution

One RF card will be issued to each homeowner address. Additional cards could be offered for an acceptable fee (e.g. $25.00) for households that feel it necessary to have additional cards. It is important that the additional cards be kept to a minimum as multiple cards can be lent out to non-homeowners. The RF Card will then be distributed to each new homeowner when they move in (possibly by the welcoming committee).

3.1.3   RF Card Activation

The RF Card will be active immediately upon arrival from the RF card vendor. This means that all cards with the unique Woodland Springs ID number will already be activated in the RF Card System. This will make it much easier to issue new cards to new homeowners.

Once a RF Card is issued, the card ID number will be entered into the homeowner ID database to track its usage. Because all new cards are active, it will be necessary to keep close track on un-issued cards and inventory them from time to time.

3.1.4   RF Card Deactivation

The RF card can be temporarily or permanently deactivated at any time. If a card is reported lost or stolen by a homeowner, its ID number can be deactivated in the system. This will greatly reduce any desire to "buy" cards for non-residents as these cards will become immediately useless.

If a homeowner fails to pay mandatory homeowner dues, or if the homeowner has outstanding fines, these cards can be deactivated as well. Once the dues are brought up-to-date, the cards can be re-activated immediately.

3.1.5   RF Card Collection

When a homeowner moves from the area, their card can be de-activated until they return the card. If the owner fails to return the card, an acceptable fee can be charged (e.g. $25.00) and the card can be permanently deactivated. Once the card is returned, it can be reused by assigning the unique ID number to a new owner. This should help reduce new card costs.

3.2   RF Card User Instructions

3.2.1   Card Entry

In order to enter the pool gate it will be necessary to "wave" the RF card over the entry sensor (see appendix A - section 10.1). Once the unique RF ID is read from the card, a small LED will change from red to green and a short "chirp" will be heard from the sensor. The ID information is then sent to the RF System Controller where it is validated and recorded. The RF System Controller will then send a "gate open" signal to the pool gate latch.

The RF System Controller (see appendix A – section 10.2) has special feature that will sound an alarm if the entry gate is held open too long. This will prevent pool patrons from "blocking" the entry gate open. This also prevents allowing too many people in through the gate at one time. The "hold open time" is programmable.

3.2.2   Card Identifications

Each card will possess a unique ID number printed on the outside of the card. This ID number will refer to only one homeowner. It is recommended that the current homeowner picture ID be used in conjunction with the RF ID card. Each pool patron should have a picture ID card and each group should have at least one RF ID card. Persons who do not have these two forms of ID's should be asked to leave the pool area.

3.2.3 Card Exit

In order to exit the pool area it will be necessary to wave the RF card in front of the exit sensor.

3.3 RF Card System Administrator Instructions

3.3.1 Card System Activation

The RF card will be activated upon arrival and the only other responsibility of the administrator is to ensure the card is truly active. This will greatly reduce the amount of time necessary to issue new cards. The person issuing the cards MUST record the homeowner address and the RF ID of the card to maintain the user database software. Because new cards are automatically active, they should be carefully controlled by one responsible party.

3.3.2 Card System Monitoring

The RF System Controller logs all entries and exits from the pool area with user ID, date and time stamps. This information can be useful to determine pool abuse or vandalism. If it is found that a particular card is being abused, that homeowner can be asked to explain the circumstances or the ID card will be deactivated.

The RF System Controller has an additional feature that will prevent the card from being used as entry multiple times without recording an exit. This feature can be programmed to prevent the gate from opening or it can be programmed to prevent multiple entries in too short of time (e.g. no entries lass than 2 minutes apart). This feature prevents the card from being "passed-back" over the gate to unauthorized guests.

This feature can also be programmed to simply record multiple entries as an "exception code" and allow the card to be used for multiple entries. If the "exception log file" shows abuse by any individual homeowner, a notice could be sent.

The exit log can also determine if a pool patron is not leaving the pool after closing (e.g. leaving at 11:00PM instead of 10:00PM).

3.3.3 Card System Modification

The RF Card can be deactivated at any time for each pool. This deactivation can also be used to lock out all pool patrons to specific pool in the case of dangerous pool conditions such as weather or contamination. It can also be used to allow special hours of operation such as a special swim event that might be outside of the pre-programmed hours.

3.3.4 Card System Reports

The RF Card System is capable of generating a variety of reports. These reports are a very useful tool to determine pool usage and pool abuse. These reports should be printed and reviewed on a regular basis.

3.4   Documentation

3.4.1   Online Help

The user should be able to easily access the online guide at the www.woodlandsprings.com website.

3.4.2   Manual

The RF Card System will have a printed user guide as well as an administration manual.

The Manual should contain the same information as Online Help (see 3.4.1).

3.4.3   System Software Security and Backup

The administration software and users database will become a very valuable tool that can not be easily replaced. The Administrators of the system must insure proper security is maintained and proper backup procedures are followed.

3.5   General Description

3.5.1   Controller

The RF Card System comprises of a system controller at each pool location. Each pool system is a standalone system that includes a battery backed up controller with a modem attached. All programming will be accomplished by using a dial-up connection to this controller. This controller can be programmed on-site, but this should only be used in emergencies.

3.5.2   Modem

The controller modem will be connected to the same phone system as the current 911 phone already installed at each pool. Programming should be done after hours as to not interfere with the function of the 911 phone system

3.5.3   Gate Sensors

Each entry gate at each pool location will have an entry sensor and an exit sensor. The entry sensors should be placed in such a way as to make it impossible to use the exit sensor. The exit sensor should be placed in such a way as to make it impossible to use the entry sensor.

3.5.4   Gate Latches

Each entry/exit gate will have an automatic latching mechanism that opens the gate when a valid RF card is used. This system is capable of being used during a power outage by using the built-in backup battery.

3.5.5   Alarms

Each pool system will have a general purpose alarm that will be programmed to sound when an error occurs. An error condition could be the gate propped open or held open too long. It could also be used to sound an alarm if the exit sensor is used past the scheduled time of departure. This sensor will automatically reset itself after a predetermined amount of time has passed.

3.6 Administrative Interface Requirements

3.6.1 Description

The administrator controls all programming of each pool system controller. It is important that a single user's database be created and maintained and protected. Loss of this database will make the system unusable until another database can be created (which might require issuing of all new cards).

3.6.2 Generating and Viewing Reports

The system reports should be generated periodically (e.g. monthly) to be reviewed for system problems. Exception reports should be carefully monitored for pool abuse.

3.7 System Administrator User Interface Requirements

3.7.1 Description

The System Administrators will be able to control all aspects of the pool entry system. It will be necessary to control each pool's standalone system separately. This means it will be necessary to call each pool controller to deactivate cards (that will be 5 phone calls for 5 pools). The connection time to make the updates will be short, so I estimate the whole process will take no more than 15 minutes.

3.7.2 Hardware Requirements

The database should be maintained on one computer in a secured location. This computer should be located in a safe place and have proper electrical protection against lightning strikes. This computer must have a modem and phone line attached. This computer must be backed-up periodically to prevent a catastrophic data loss.

3.7.3 Software Requirements

The RF Card vendor will supply the software. It is a single database, system control software that runs on a standard Windows computer.

4 Performance Requirements

4.1 Hardware Performance Requirements

One RF Entry System will be installed at each of the pool locations. These locations do NOT have a usable PC or network connection. Each RF System must run independently in a stand-alone fashion. Each of the RF Systems must be capable of communicating using a modem connection (on-site programming is unlikely). The RF Controller and Entry/Exit Sensors will be subjected to a harsh outdoor environment. Care must be given to the mounting location of the RF Controllers as vandalism has been a major problem in the past.

4.2 Software Performance Requirements

The software and data will be placed on a standard PC running the Windows operating system (e.g. Windows XP). This software has minimal requirements as far as PC speed performance and

hard disk size requirements. This means virtually any standard PC will operate this software.   A laptop computer may be the best choice for this equipment need.

5   Installation Constraints

5.1   Pool Installation Description

The installation of the RF hardware should not be underestimated. Proper installation is crucial for trouble free performance. The location of the hardware will greatly affect the likelihood of vandalism to the system.   The system should be installed in such a manner to be protected from the elements (weather) and to be somewhat protected against vandalism. The system still needs to be located where periodic service and repair can be performed.

5.2   Woodland Springs Pool Installation

This section reserved for details on the installation at the Woodland Springs pool.

5.3   Bray Birch Pool Installation

This section reserved for details on the installation at the Bray Birch pool.

5.4   Old Denton Pool Installation

This section reserved for details on the installation at the Old Denton Pool.

5.5   Macaroon Pool Installation

This section reserved for details on the installation at the Macaroon pool

5.6   Future Installations

This section reserved for details on the installations at future pools.

6   Operational Scenarios

The following are brief descriptions of typical user interactions with the Users Management System. They are meant to be illustrative, not to be a definitive description of the functionality of the FMS.

6.1   Gate Monitors

It is highly recommended that Gate monitors NOT be used with the RF Card system. The function of a Gate Monitor is to verify that the pool patrons are residents of Woodland Springs. This is the same function that the RF Card system performs. To add Gate Monitors makes the system redundant and not cost effective.

6.2   Pool Operation Monitors (POM)

It is highly recommended that Pool Operation Monitors (POM) be used in conjunction with the RF Card system. A single POM can move from pool to pool during normal operational hours, identifying problems and pool abuse. This individual should have obvious identification to signify

who they are and that they are in a position of authority. A custom shirt, vest, jacket or hat may be used to identify who this person is and why they have the authority to enforce pool rules. Because the pools are currently open approximately 80 hours per week, it would require 2 full time or three to four part-time employees to fill the positions of the POM. The cost of 2 full-time or three to four part-time POM is quickly offset by the much higher cost of 8 full-time Gate Monitors, which are currently necessary for the 4 pools.

6.3 Lifeguards

It will still be a requirement that the Woodland Springs pool maintain the current lifeguard staff during the slide hours of operation. It is recommended that the slide gate be closed and locked whenever the proper lifeguard status is not maintained. In this way, the pool can remain open, but the slide cannot be used.

7 Summary

The RF Card Entry System can be a very powerful tool that will allow the homeowners greater freedom to use the pools. It will also allow better control over abuse at the pools. The cost of installation can be offset by the personnel expense of Gate Monitors in just one season. If the system is implemented and maintained properly, the system will be almost automatic and need very little administrator intervention. If the system is allowed to be improperly maintained, it will quickly become a worthless investment.

Prior to any implementation of this system, a plan regarding the maintenance and responsibility for the system must be decided, especially related to equipment, software interface of HA member updates and a designated party (parties) within the community to organize and manage the system on an ongoing basis.

Preliminary Budget

Michael's Keys Inc.   817-332-1612
700 N Main   michael4w@sbcglobal.net
Fort Worth, TX 76106

Michael Waldrop   Bid only

Woodland Springs

12300 Woodland Springs Dr
Keller, TX 76248
817-741-1000

1	Securakey ACP door control panel
1	Securakey proximity reader
1	Plug-in-type transformer 16.5 ac
1	HES 5000/501 electric strike
1	Power supply 12VDC
1	Securakey modem
1	SK-NET MLD software
2	12VDC batteries
1	wire & miscellaneous
1	Labor to install

Total $2693 plus tax

Notes:
1. 2 user software for 2 computers, add $525. (Not recommended.)
2. SK-NET MLD software accommodates unlimited remote locations.
3. 2nd door, add $1500
4. Choice of credentials:
    a. RKCM-02 proximity cards (not printable) $2.73ea.
    b. RKKT-02 key fobs $5.25ea.
    c. ETCI-W26 (printable cards) $4.42ea.
    d. ETPS-W26 (preprinted cards) $4.42ea.
    e. ETST-W26 (small key tags) $4.80ea.
    f. ETAT-W26 (stick on labels 1 x 1 square) $2.32ea.
    g. 5000 ETPS-W26 (preprinted cards) $3.90ea.
5. I can bring you samples of any of these credentials.
6. 3 or more sites, discount installation to $2600 ea.

8 Appendix A

8.1 Technical Description of the RF Card and RF Sensor.

Label Insert

Proximity Reader
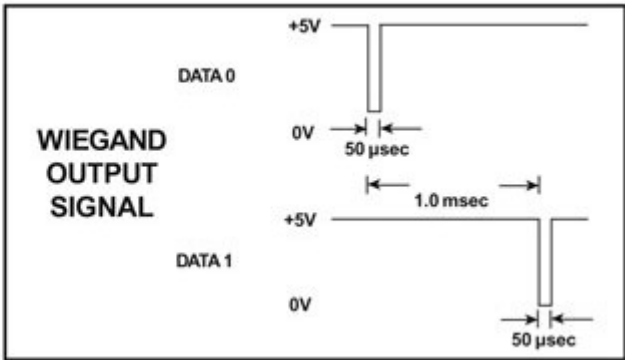Model RK-WM

Molded Card
Model RKCM-02
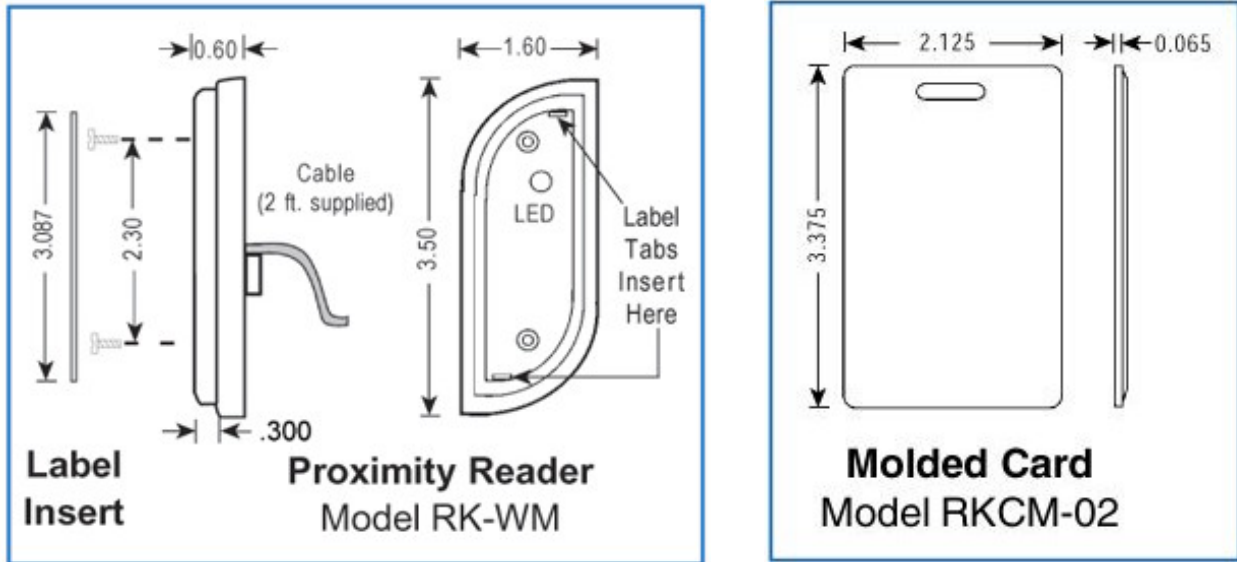
Note: **It is recommended that The Villages of Woodland Springs utilize the Molded Card over the Key Tag due primarily to cost and to remain consistent with existing homeowner ID cards.**

	PHYSICAL	Proximity Reader	Key Tag	Molded Card	ISO Image-able Card	
	Depth	0.60" (1.52 cm)	0.20" (0.50 cm)	0.065" (0.17 cm)	0.033" (0.08 cm)	
	Width	1.60" (4.06 cm)	1.26" (3.20 cm	2.125" (5.40 cm)	2.125" (5.40 cm)	
	Height	3.50" (8.89 cm)	2.00" (5.00 cm)	3.375" (8.57 cm)	3.375 (8.57 cm)	
	Weight	2.88 oz. (81.65 gm)	0.25 oz. (7.20 gm)	0.39 oz. (11.16 gm)	0.20oz. (5.67 gm)	
	Material	ABS	ABS	ABS	PVC	
	Color	Black	Black	White	White	

POWER REQUIREMENTS	5-14 VDC, 90 mA maximum

OUTPUTS & INPUTS		
Wiegand Output	Data 1 and Data 0	Output Sink Current: 100mA; Output Source Current: 5mA
LED/Buzzer Control	LED	Bicolor (Red or Green)
	Buzzer	Short chirp upon presentation of any compatible Secura Key transponder, also controlled by input.
Cable Required	Maximum Distance	500 ft.- 5 to 7 conductor 20 gauge shielded cable (depends on LED and Buzzer control used)

READER CONNECTION

WIRE#	WIRE COLOR	DESCRIPTION
1	RED	5-14VDC
2	BLACK	GROUND
3	GREEN	DATA-0
4	WHITE	DATA-1
5	BROWN	RED LED INPUT*
6	ORANGE	GREEN LED INPUT*
7	BLUE	BUZZER INPUT*

*Connect to GROUND to activate.

WIEGAND OUTPUT SIGNAL

DATA 0 +5V / 0V — 50 µsec — 1.0 msec

DATA 1 +5V / 0V — 50 µsec

ENVIRONMENT	Access Control Unit and Card/Key Tag	
	Ambient Temperature	-40° to +70°C (-40° to +158°F)
	Humidity	0 to 100%

OPERATIONAL	Reading Distance	Molded Card: Up to 6" (15.24 cm); Key Tag and ISO Card: Up to 5" (12.70 cm)
	Card/Key Tag Operation	Passive
	Transmit Frequency	125 kHz

This product complies with UL 294 Standards, with Part 15 of the Class B FCC Rules and meets R&TTE Requirements (European Standards).

CE 168 ⊙

8.2   Technical Description of the System Controller
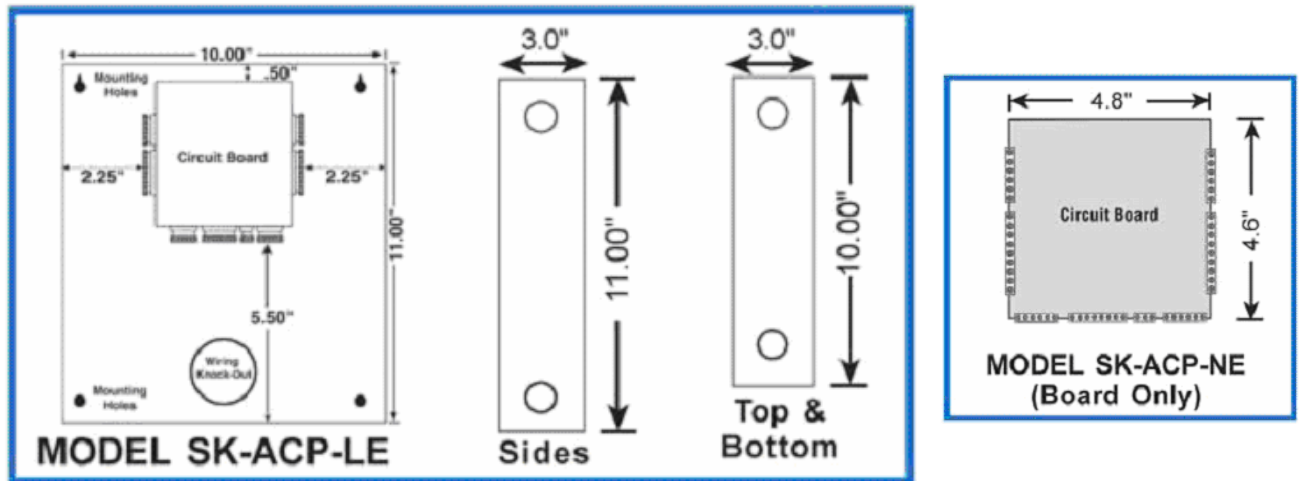
PHYSICAL		SK-ACP-LE	SK-ACP-SE	SK-ACP-NE (ALSO AVAILABLE)
	Depth	3.00" (7.62 cm)	2.5" (6.35 cm)	1.0" (2.54 cm)
	Width	10.0" (25.40 cm)	8.0" (20.32 cm)	4.8" (12.19 cm)
	Height	11.0" (27.94 cm)	8.0" (20.32 cm)	4.6" (11.68 cm)
	Weight	68.8 oz (1.95 kg)	36 oz. (1.02 kg)	N/A
	Material	All Steel	All Steel	N/A
	Color	Beige	Beige	N/A

POWER REQUIREMENTS	
	16.5-24 VAC, 20 VA or 16-30 VDC, 100 mA plus reader current draw
	* A 12 VDC Power Supply may be used if connected to Battery Back-UP Leads. 100mA, plus 150 mA max. reader current draw per reader (Power Supply not included).

BACK-UP BATTERY		
	12 V, 1.2 - 6 Ah (Optional, not included)	

SOFTWARE		
	SK-NET^TM Software Version 2.0 or greater	

CARD READERS	
	Connect two card readers with two-line Wiegand output, up to 40 bits. Provides 14 VDC, 150 mA max. power for each card reader.

OUTPUTS

2 Per Door (Total of 4)	Latch & Alarm Shunt	DPDT contact, 2A, up to 220 VAC or 30 VDC
	Auxiliary	DPDT contact, 2A, up to 220 VAC or 30 VDC

INPUTS

2 Per Door (Total of 4)	Auxiliary 1	Requires SPST contact closure
	Auxiliary 2	Requires SPST contact closure

COMMUNICATION

	RS-232	5-Wire Shielded Cable, up to 38.4K baud, full duplex, (8N1) - UP TO 100'
	RS-485	Single Twisted Pair, shielded cable with a signal ground- UP TO 4000'
	Wiegand Input (2)	Programmable up to 40 bits14 VDC @ 150 mA supplied to each reader,
	Modem	Requires Hayes compatible - 1.2 to 38.4k baud
	LAN	Requires external device server
	Printer	Serial Printer (or Parallel printer with serial converter)

ENVIRONMENT — Access Control Unit and Card/Key Tag

	Ambient Temperature	-40° to +70°C (-40° to +158°F)
	Humidity	0% to 95% Relative Humidity (non-condensing)

OPERATIONAL

	Card Capacity	65,535 /Door (Highest card number = 65,535)
Per Door <	Time Zones	15 for card access, one door unlock; full week plus holiday in one-half hour segments; 32 programmable holidays; selectable automatic daylight saving time.
	Facility Code	Up to 16 different codes simultaneously
	Latch/Alarm Shunt Timer	Programmable from 1/4 to 30 seconds
	Antipassback	Real or Timed (1 to 30 minutes); hard or soft
	Auxiliary Inputs (2)	Programmable for door monitor, tamper monitor, remote
	Auxiliary Output (1)	Output is programmable to activate under one of many
	Limited Use Cards	4,000 (in a block within 65,535) programmable from 1-500
	Transaction Storage	4,864 events
	Memory	Non-volatile

This product complies with UL 294 Standards, CE (European Standards), and with Part 15 of the Class B FCC Rules.

8.3 Technical Description of System Software and Architecture

System Architecture

MULTI-READER SYSTEMS:

- Network is twisted-pair, shielded cable
- Total system cable length, 4000 feet (1219.2m)
- PC connects to Network using 232/485 converter, Model NET-CONV-P, or it can connect to the network without the converter using the RS-232 port on any reader or panel
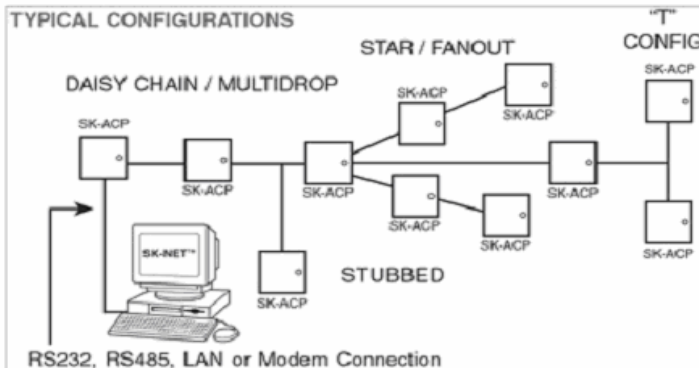- PC also can connect to remote locations with multiple readers, via modem.
- See Diagram for System Configurations

SINGLE READER SYSTEM:

- PC connects directly to reader or panel or via modem

Software upgrades can be downloaded from
www.securakey.com

MINIMUM REQUIREMENTS *			
OPERATING SYSTEM	PROCESSOR SPEED	RAM	AVAILABLE DISK SPACE
WINDOWS® NT 4.0 OR GREATER	200 MHz	128 MB	1 GB
WINDOWS® 2000	700 MHz	128 MB	1 GB
WINDOWS® XP	1 GHz	256 MB	1 GB
RECOMMENDED SYSTEM			
WINDOWS® XP	1.4 GHz	512 MB	10 GB
16 BIT Color Video Card			

* Larger systems may not run properly at the minimum requirements. Software can run on Windows® 98 & ME, but it is not recommended.

TYPICAL CONFIGURATIONS

DAISY CHAIN / MULTIDROP   STAR / FANOUT   "T" CONFIG   STUBBED

RS232, RS485, LAN or Modem Connection

SK-NET™ SOFTWARE FEATURES

All system configuration and card data is programmed and stored at the PC and downloaded to readers.

CARDHOLDER DATABASE FIELDS

First Name, MI, Last Name, Card Number, Access Group, Employee Number, Title, Department, Telephone Ext., User 1, User 2, User 3, Parking ID, Vehicle 1 and Vehicle 2. User Pictures can be added to User Detail.

CARDHOLDER DATABASE REPORTS

Print, Display, Select Pages

EVENT DATABASE FIELDS
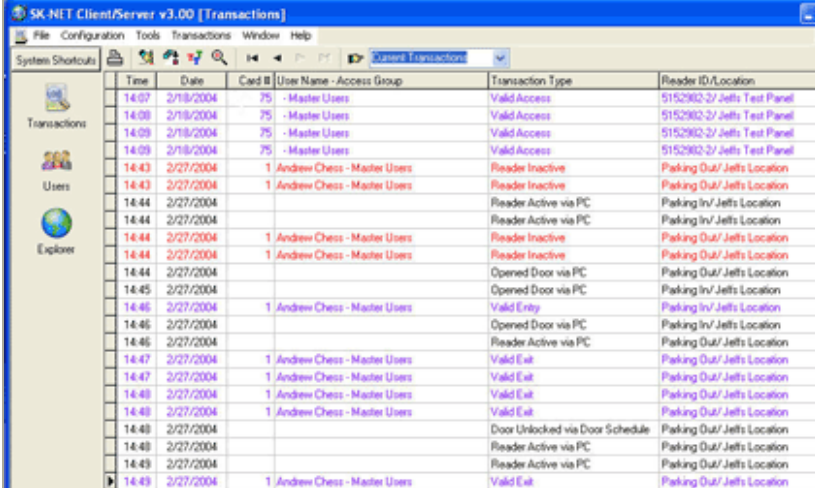
Time, Date, Card Number, User Name, Transaction Type, Reader ID/Location

EVENT REPORTS

Select by Transaction Category, Cardholder, Date and Time, Time Range, Reader, Location

ACCESS GROUPS

Unlimited groups used to assign Readers and Time Zones to Card

Click on Screen Capture to Enlarge

SK-NET™ VERSIONS AVAILABLE:

• SK-NET-DM
Basic SK-NET with Disk & Manual
• SK-NET-MLD
Multiple Locations, Dial-Up Modem and
TCP/IP Communications
• SK-NET-MLD-C/S_
Multiple User Workstations, Multiple Locations, Dial-Up Modem and
TCP/IP Communications (2, 5, 10, 15 user licenses available)

User Groups

READER GROUPS

Up to 32 groups used to allow common control/configuration of multiple readers

ANTIPASSBACK

Real or Timed, Hard or Soft, operational with PC on or offline. Includes optional daily real antipassback forgive