PROGRAMMING
INFINITY SYSTEMS
WITH
MULTI-LINK FIRMWARE

Sentexsystems

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IMPORTANT: The Sentex Systems warranty on this system is conditioned upon Sentex Systems being paid in full for this equipment. The warranty will not be honored until such payment has been received by Sentex Systems.

SentexSystems

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PART 1
INTRODUCTION

The Infinity system is one of the most powerful and flexible access control systems in existence today. Yet, its user-friendly design also makes it one of the easiest to use. Below is list of features and notices about the system.

There are four basic Infinity systems: "L", "S", "M", and "DI". These systems have a variety of visitor entry capabilities.

The Infinity "B" series is a card and/or code entry system only.

The "L", "S", and "M" systems have electronic directories for ease of use.

Multi-Link firmware equips your system with up to 16 relays that can be used to integrate programming and event reporting.

The Infinity System includes:

- Visitor entry control through telephone
- Entry codes, cards, or a combination of both
- Added security through the use of Time Zones, Anti-Passback, Date-Limited Codes, and Use-Limited Codes
- Calls to a preprogrammed number in case of alarm activation.
- Turn on a light or siren in case of alarm.
- Timed control of doors and other relays
- Optional free exit doors
- Special access for Post Office and Fire Department
- Direct operator control of relays

IMPORTANT NOTICE

The Infinity systems provide extremely powerful and user-friendly access control. However, if they are programmed incorrectly, the systems may function improperly and are likely to cause you and others a great deal of inconvenience. Similarly, there are certain key things you and others in your building/complex must know about using the system. Thus, you should take your time to read these instructions completely before attempting to program or use your Infinity system. If you have any questions, your installing dealer will be happy to assist you.

PLEASE NOTE: The locks on most Sentex System's cabinets are commonly keyed. This lock can be easily replaced. If you wish to have the lock on your system individually keyed, contact a locksmith.

PART 2
OVERVIEW OF SYSTEM OPERATION

The Infinity system is one of the most powerful and flexible access control systems in existence today. Yet, its user-friendly design also makes it one of the easiest to use. This section gives you an overview of how the system operates.

There are four basic series of Infinity systems, each of which can combine a wide variety of access control functions in one set of electronics. The "L", "S", "M", and "DI" series contain visitor entry capabilities as described below (although the "DI" series does not have an electronic directory) and can have varying degrees of card and/or code entry. The "B" series is a card and/or code entry system only. The Multi-Link firmware with which your systems are equipped allows up to 16 systems (including combinations of the four different types of systems) to be connected in a "chain" that provides integrated programming and event reporting.

The Infinity systems are capable of carrying out the following functions (several of these functions are options, so ask your dealer which capabilities have been included in your chain):

A. VISITOR ENTRY

The "L", "S", "M", and "DI" series Infinity systems can store, recall, and dial the telephone numbers of your building's occupants and respond to signals from their telephones to unlock a door; open a gate; or activate any other device you wish.

A visitor is instructed to find the occupant's name on the system directory and enter the accompanying code on the keypad. In the "L", "S", and "M" series the directory is built into the system and will display one page of names at a time. In the "DI" series, the directory is typed. When the code is entered, the system will dial the associated telephone number.

The occupant answering the call can take one of five actions by dialing a number on their telephone.

Please Note: a rotary pulse dial can initiate the first action. However, *all other signals must use tone dialing.*

DIAL:	FOR ACTION:
9	Activate relay 1 (for example, open a door or gate)
5	Activate relay 2 (open a door or turn on whatever device is controlled by this relay; for example, an elevator)
3	Activate relay 3 (activate whatever device is controlled by this relay)
7	Activate relay 4 (activate whatever device is controlled by this relay)
✳	Hang up without allowing entry
#	Reset the call timer to allow continued conversation

When relay 1 is activated, the display (if the system has one) will show "ACCESS GRANTED - PLEASE ENTER NOW" and a short tone will be emitted.

A record of each telephone entry "transaction" is then sent to the printer (if your system is equipped with one). A record of the transaction is also stored in memory. The exact number of transactions stored depends on the firmware and options in your system. The **transaction butter memory** can be accessed at any time to find out who recently gained entry to the building.

B. AUTHORIZED PERSONNEL/OCCUPANT ENTRY

The Infinity system can be used to control access by people who are authorized to be inside the building or complex. Each occupant, service person, or any other person who may need regular access to the complex is given either an entry code or a card. You can limit the access each person has by putting restrictions on the access codes or cards.

Entry Codes: A 4- or 5-digit entry code can be given to each occupant, service person, or any other person who may need regular access to the complex. Each person enters their code on either the keypad on the system's faceplate or a remote keypad (optional). When the code is validated by the Infinity system, access is granted. For example, the front entrance will be unlatched, or the front gate will be opened. A person may enter only a limited number of invalid codes before the system will disable this function for 3 minutes. The rest of the system will continue to operate.

Cards: Cards are presented to a card reader. When the card is validated by the Infinity system, access is granted. For example, the front entrance will be unlatched, or the front gate will be opened. Each Infinity system can use up to two card readers.

C. RESTRICTING ACCESS

You can restrict the use of entry codes and cards by using one or more of the following features:

Time Zones: Limit the days and/or times that a code or card is valid and the door/gate at which it can be used.

Anti-Passback: Greatly reduces the possibility of a card or code being used by more than one person. **True Anti-Passback** restricts the card or code by requiring that it be used to exit before it can be used to enter again (and vice versa). **Timed Anti-Passback** restricts the card or code by requiring a specific period of time to pass before you are able to use that card/code again on that reader/keypad.

Date-Limited Codes: Special cards/entry codes that will become invalid after a date you specify. These cards/entry codes can only be used on Multi-Link systems that have full-control codes with names and they can ONLY be programmed using SPS (versions 1.02 and higher). They may not be programmed from any other programming source.

Use-Limited Codes: Special cards/entry codes that will become invalid after a number of uses you specify. These cards/entry codes can only be use on Multi-Link systems that have full-control codes with names and they can ONLY be programmed using SPS (version 1.02 or higher). They may not be programmed from any other programming source.

Cards or codes that provide the ability to restrict access by time, day, or previous usage are called **full-control** codes. Full-control codes are standard in the "B" series, but are optional in the "L", "S", "M", and "DI" series. You may also be able to associate a name with each full-control code or card.

Simple entry codes which cannot be used to limit access come standard in the "L", "S", "M", and "DI" series.

Every time a code/card is used in the system, the transaction can be recorded on the system's printer (optional) and is stored in the unit's **transaction buffer memory** (see Section A Visitor Entry).

D. DOOR STATUS MONITORING

The Infinity system can monitor the status of any door it controls if the required sensors are installed (ask your dealer). You can program the system to respond to either of the following conditions: 1) a controlled door is held open for more than 60 seconds after it is supposed to be re-locked; or 2) a controlled door is broken open. Response options are:

1. **Place a modem call to a preprogrammed number.** If your system is equipped with a modem and connected to another modem, the system will call the other modem, then transmit a sequence including "<INFINITY>" and an alarm message.

    For example, if door 1 in unit 3 is forced open, the alarm message "DOOR 3.1 FORCED ALARM" will be transmitted. The "ALARM" portion will be left off if the door is simply held open too long. If the first call is not answered, a second call will be placed one minute later.

2. **Close a relay** to turn on a light or siren, or inform an alarm monitoring station of the problem.

The system will also take these actions if someone enters too many consecutive incorrect entry codes in a 3-minute period. All "alarm" conditions are recorded on the printer, (if your system is equipped with one), and stored in the transaction buffer memory (see Section A Visitor Entry).

E. TIMED CONTROL OF DOORS AND RELAYS

The Infinity system can automatically unlock/open any door/gate once each day and lock/close it later that day, at the times you specify. For example, you may wish to open the front gate at 7:00 am and close it at 6:00 pm. The system can do this with any device controlled by the system's relays.

You may establish 16 holidays on which these time schedules will not operate unless so desired. Thus, if the doors are to be unlocked during normal business hours, you can have them remain locked on New Year's Day, even if the holiday falls on a weekday. All timed activity is reported to the printer (optional) and stored in the transaction buffer memory.

F. FREE EXIT THROUGH MONITORED DOOR

The system can allow "free exit" through either controlled entry, so that someone who entered the building properly does not cause a "forced" door condition when he leaves. Consult your installer to determine whether and how you should utilize this feature.

G. ACCESS FOR POST OFFICE AND FIRE DEPARTMENT

Connections are included in the system to make sure that the post office and fire department can gain access to your facility without having to contact anyone to let them in. Your installer and the relevant agency can hook these up.

H. DIRECT OPERATOR CONTROL OF RELAYS

You can directly control the system's relays by entering programming mode. See Part 8 Direct Control of System Relays for more details.

PART 3
HINTS ON SYSTEM USE AND MAINTENANCE

This section covers some important tips on how to use and maintain your Infinity system. After you understand it completely, you should review this information, as well as the information contained in Section 1, with everyone who will use or maintain this system. Your installing dealer should also have given you a single page of "User's Instructions" that you can copy and give to each person. This training will make sure that user problems are minimized. If your system includes card entry, it is particularly important to make sure the cardholders know how to present their cards to be read by the card reader. Even if this seems clear and uncomplicated to you, experience suggests that untrained users will initially have trouble with card entry.

A. VISITOR ENTRY

- When an occupant is allowing entry, neither party should hang-up until the occupant has pressed the appropriate key on his/her telephone.

- The Infinity system has a feature that may be used to <u>initiate</u> communication with the system.

   1. Dial the telephone number to which the Infinity is connected.

   2. When the Infinity answers, press the "#" key on your telephone. This will establish two-way communications using the Infinity speaker and microphone, but will not allow the user to grant entry. The call will time out just like a call placed from the Infinity.

B. CODE/CARD ENTRY

ENTRY CODE ERRORS

   1. If someone makes a mistake entering their code, they can clear the incorrect entry by pressing the "✶" key once. They must then enter their entire code.

   2. When an incorrect entry code is made on the main keypad, the system will display the message "INVALID CODE - PLEASE WAIT" for 3 seconds. Then display "NOW TRY AGAIN".

      However, if this incorrect entry code causes the system to meet your "strikes and out" limit, the message "INVALID ENTRY" will display. If anyone tries to enter a code on that keypad within the next 3 minutes, the system will display the message "SYSTEM IN USE". Other keypads will continue to operate normally.

USING A CARD READER

When using card entry, a green light on the Infinity card reader will signal the user that entry has been granted. Certain card readers may have a red light or one may come on when the card is presented. Typically, there will be no indication to someone using an entry code (your installing dealer can hook up indicator lights on your keypads if you feel it is necessary).

C. PRINTER OUTPUT

Whenever a transaction occurs, the Infinity will send a record of that event to the RS232 port. If your Infinity system is equipped with a printer, each record will be printed on a single line. The format of that printout is shown below:

DATE TIME   SOURCE OF ACTIVITY   CODE   NAME   RESULT/REASON

SOURCE OF ACTIVITY will tell you what caused the transaction record to be generated. Possible sources are:

- ◆ **_Keypad_** indicating an entry code was used at a specific keypad
- ◆ **_Card Reader_** indicating a card was used at a specific reader
- ◆ **_Phone Entry_** this indicates which door was opened by the occupant
- ◆ **_Exit Req._** typically this occurs when someone uses the exit request button, such as the postman
- ◆ **_Door Ajar_** occurs when the door is held open for more than one minute after the lock is reactivated or if someone breaks open the door
- ◆ **_Auto Unlock or Lock_** occurs when the door/gate is automatically unlocked/opened or when it is automatically locked/closed based on the schedules you have set up
- ◆ **_Latch Door_** occurs when you direct the system to latch the gate open or unlock the door until you give it further instructions

Each of these descriptions will also include a number such as 2.1 which represents the unit and the door/relay at which the activity occurred. In this example, the activity would be at relay 1 in unit 2.

CODE will either be a person's entry code, card code, or directory code.

RESULT/REASON tells you whether access was granted or denied, and, if it was denied, why. It will also print the word **_Alarm_** if the door has been broken open or if someone causes the "strikes and out" feature to be invoked (see Part 6 Initial System Set-Up, Section C Area 06 – Strikes and Out).

D. SYSTEM MAINTENANCE ("L", "S", AND "M" SERIES ONLY)

The Display Screen in your system has been treated with a special coating that essentially eliminates glare and makes it much easier to read the display. However, accumulated dirt or dust on the display can significantly reduce the readability of the display over time. Make sure that the window is kept clean, both on the outside and the inside.

1. To clean the outside, use a soft, lint-free cloth and a mild solution of soap and water. **DO NOT USE HARSH CLEANERS OR YOU WILL SCRATCH THE WINDOW.**

2. To clean the inside, gently push a soft, dry, lint-free rag through the opening at one end of the display chamber until the end of the rag comes out the opening at the opposite end of the display chamber. Then move the rag back and forth over the window and the display to remove any dust that may have accumulated. **DO NOT REMOVE THE DISPLAY ASSEMBLY TO CLEAN THE WINDOW.**

3. Your system's display may exhibit some unevenness in coloration or blotching in very hot weather or if it is in direct sunlight. This is a normal, temporary occurrence that will not harm the display or affect the usability of the system. The uneven coloration will disappear when the temperature falls or the display is no longer is direct sunlight.

E. CHAIN COMMUNICATION INTEGRITY

Chain Break Message. If there is a loss of communication in your chain of Infinity systems, a "chain break message" will be transmitted every 10 to 20 seconds to the devices attached to the first and last unit in the chain. For example, if the break in communications occurred between units 4 and 5, the message would read "BREAK IN CHAIN BETWEEN UNITS 04 AND 05". If you receive this message, contact your installing dealer to determine what has caused the break.

Resequencing: If you enter programming while a break exists in communications, you will be informed of this fact, but will not be allowed to continue until you have performed a **resequencing** of the units (see Part 10 Other Special Functions, Section D Resequencing the Units in the Chain).

Renumbering: The first time you enter programming after a break in the chain has been experienced and fixed (for example, this could happen if you add an Infinity system to the middle of the chain), you will be informed of this fact but will not be allowed to continue until you have **renumbered** the units (see Part 10 Other Special Functions, Section D Resequencing the Units in the Chain). This renumbering ensures that all of the units in the chain have the proper unit numbers and know how many units are in the chain.

PART 4
BASIC PROGRAMMING RULES

One aspect of the Infinity system's flexibility is that it can be programmed using any one of four programming sources:

◆ Handheld alpha-numeric data entry terminal connected to the first unit in the chain (if it is an "L" series system)

◆ Standard video display or printing terminal hooked into the first unit's RS232 serial port

◆ The 12 button keypad on the faceplate of the first unit in the chain (if it is an "L" series system)

◆ Terminal/modem combination hooked via telephone into the optional built-in modem (installed in the first unit in the chain); **or** a separate stand-alone modem hooked into the first unit's RS232 serial port.

Programming is similar for all of these sources. Due to space limitations, this document will focus primarily on the most common methods, the handheld data entry terminal (referred to as "handheld" hereafter) and a standard terminal hooked into the system's RS232 serial port (referred to as "terminal" hereafter). Differences between these two programming methods and the remaining two are covered in Part 11 Alternate Methods of Programming and Using the System.

A. GETTING STARTED

Before you can begin programming, your programming source must be activated. If you are using the handheld, you must open the Infinity cabinet and plug the cable into the pins on the bottom of the main circuit board that is labeled "HANDHELD PROGRAMMER". The ribbon cable should extend down from the connector. If you are using a terminal, turn it on.

▪ To enter programming for the **handheld**, simply press the "✶" key.

▪ To enter programming with the use of a **terminal**, you must enter a "✶" and then your six character programming access code. This code is set at 000000 by the factory, but can be changed once you are in the programming mode.

▪ When you enter the programming mode, your system will display the "menu prompt" as shown below:

ENTER CODE FOR PROGRAMMING AREA YOU WISH TO ACCESS (ENTER 88 FOR MENU)__

You can see the menu of all areas that you can access by typing "88" plus the ENTER key. This menu is also shown in Part 4 The Main Programming Menu.

B. GENERAL HINTS

ENTER KEY. When you have entered your response to a prompt, press the ENTER key. the system will display the next prompt. No entry is recorded in memory until all prompts in an area are completed.

TYPING ERRORS. If you realize in the middle of an entry that you have made an error, press the ESC key (on some keyboards, this key will read "ESCAPE"). Your entry will remain on the screen in most cases, but you will be given a "clean" prompt, allowing you to begin your entry again.

FINISH PROGRAMMING. Press the ESC key at the beginning of any prompt to leave that programming area completely. This will take you back to the menu prompt. If you wish to exit the programming mode completely, press the ESC key when the menu prompt is on the screen.

HUNG UP. If for any reason one of the units in the chain becomes "hung-up" during programming, you may force all of the units in the chain to perform a hardware reset by quickly pressing the ESC key four times.

If you are programming from a terminal or from a computer with terminal emulation software, you may also force a reset by signaling a "break" four times in rapid succession (refer to the instructions that were enclosed with your terminal or terminal emulator for instructions on how to send a break). **OR**, you may press the CTRL and "X" keys simultaneously from a terminal or computer to force all of the units in the chain to exit the programming mode.

INCORRECT FORMAT. If you make a "format" error during programming, the system will display an error message and you will be given a new prompt to allow you to re-enter the information correctly. Before re-entering the data, look at the incorrect entry and figure out why the system rejected it. Typically, a format error is caused by trying to enter an invalid character type (for example, a letter when only numbers are allowed) or a number that is too long or too short.

OTHER ERRORS. The system will provide other messages if it is unable to complete the entry you have attempted. These messages are easily understood and will direct you to the next step.

ENTERING TIMES. All time entries are made using the **AM/PM format**, not in the 24-hour format. You will first be prompted for the time and then the next prompt will ask you whether this time is to be AM or PM.

DATE AND TIME PUNCTUATION. In entries such as time or date, the system will show you the "punctuation" in the entry (for example, "__/__/____" will be shown when you are setting the current date). Do not enter this punctuation as you make your entry. Thus, January 7, 1988 will be entered as "01071988", but will be displayed as 01/07/1988. Similarly, 8:30 will be entered as "0830".

NUMBER OF DIGITS. Always enter the number of digits shown by the programming prompt (the only exceptions to this rule are entries of names, messages, or telephone numbers which may be terminated at any point). For example, you must always enter two digits for hours, minutes, month, and date. Year is always entered using four digits.

SYSTEM TIME OUTS. If 60 seconds pass without a key being pressed, the system assumes that programming has been terminated and exits the programming mode. To re-enter the programming mode, follow the procedures described in Section A Getting Started.

ACCEPTABLE KEYBOARD ENTRIES. Due to space limitations in the Infinity system's memory, there are certain punctuation marks that cannot be used in the welcoming message that is shown on the display in the "L" series. The punctuation that you **may** use in the message are the following: pound (#), star/asterisk (✶), comma (,), period (.), dash (-), apostrophe ('), slash (/), and a blank space.

C. ADDRESSING A UNIT

After you have entered the code for the area you wish to program, you will be prompted to identify the units for which the programming is intended. In most programming areas, you may choose to address all the units, a group of units, or just one unit at a time. You will see the prompt displayed below (the number of units shown will depend on the number that are installed in your chain):

```
WHICH UNITS DO YOU WISH TO ADDRESS:
(0=NO, 1=YES, 2=BACK-UP, 3=NEXT UNIT, ENTER=FINISHED)


UNIT #01     02      03
            YES    YES    YES
```

+ If you wish to include all units in the programming, just press ENTER.
+ If you wish to limit the programming to a smaller group of units (or just one), move the cursor to any unit that you do <u>not</u> want included and press the "0" (zero) or "N" key. The screen will then display the word "NO" under that unit. When you have made all desired changes, press ENTER.

D. PROGRAMMING IN DIFFERENT AREAS

There are several areas where this prompt will not appear.

+ The prompt in **Areas 14, 15, and 16** is similar to the one above except that you are asked to specify the door(s) to which programming is addressed and the two doors per unit are displayed.
+ The prompt in **Areas 09, 12, 21, 22, and 23** will be "WHICH UNIT DO YOU WISH TO ADDRESS __" since you may address only one unit at a time.
+ Programming in **Areas 00, 01, 05, and 07** must always apply to all units in the chain, so you will not see any "unit" prompt. All units in the chain will accept the programming automatically.

After you complete the entries in any area in which programming is not automatically addressed to all units, you will be asked "DO YOU WISH TO CONTINUE IN THIS AREA? (1=YES, 0=NO)".

+ Press the "1" key to return to the prompt in which you specify the unit(s) or door(s) to program. Press the "0" key to return to the menu prompt.

After you specify which units or doors are being addressed, prompts will appear on the screen telling you what entry to make next. Respond to the prompt and be sure to follow the format indicated. A flashing cursor indicates where your next key press will be displayed.

PART 5
THE MAIN PROGRAMMING MENU

Once you have entered the programming mode, you will need to enter a 2-digit code to tell the system which programming area you wish to access. If you do not remember all the codes, you may access the main menu by entering "88" + ENTER when the menu prompt is shown. For your reference, the menu of choices is shown below as it would appear on your terminal or on the display of an "L" series system.

A. INITIAL SYSTEM SET-UP

AREA	PURPOSE	ACCEPTABLE INPUT
00	Changing programming access code	0 thru 9 and letters
01	Setting clock	0 thru 9
02	Setting up time zones	1 thru 7
03	Setting relay configuration	0=control, 1=shunt, 2=alarm, 3=CCTV
04	Setting door open time	01 to 99
05	Setting alarm call	1=yes, 0=no
06	Setting strikes and out	1 thru 9
07	Setting call length	015 to 255 seconds
08	Setting code lengths	1 thru 5
09	Setting anti-passback	1=enable, 0=disable
10	Setting auto lock/unlock schedules	1 thru 4
11	Setting holiday schedules	01 thru 16
12	Changing screen messages	See programming manual
24	Entering facility code	000 to 255

B. TELEPHONE NUMBERS, ENTRY CODES, AND CARD CODES

AREA	PURPOSE	ACCEPTABLE INPUT
13	Entering telephone numbers	0 thru 9
14	Entering entry codes	0000 to 65536
15	Entering a single card	00000 to 65536
16	Entering groups of cards	00000 to 65536
17	Making cards works as entry codes	1=yes, 0=no
18	Erasing telephone numbers	Enter directory code to erase
19	Erasing entry codes	0000 to 65536
20	Erasing a single card	00000 to 65536
21	Erasing all entries	0=phone numbers, 1=entry codes, 2=cards

C. VERIFYING AND PRINTING ENTRIES

AREA	PURPOSE	ACCEPTABLE INPUT
22	Verifying entries	1=phone numbers, 2=entry codes, 3=cards, 4=time zones, 5=auto lock/unlock schedules, 6=holiday schedules, 7=system setup, 8=system options
23	Printing out memory	1=phone numbers, 2=entry codes, 3=cards, 4=all transactions, 7=most recent transactions

D. DIRECTLY CONTROLLING SYSTEM RELAYS

AREA	PURPOSE	ACCEPTABLE INPUT
92	Latch relay 3	
93	Cycle relay 3	
94	Latch relay 2	
95	Cycle relay 2	
96	Latch relay 4	
97	Cycle relay 4	
98	Latch relay 1	
99	Cycle relay 1	

E. OTHER SPECIAL FUNCTIONS

AREA	PURPOSE	ACCEPTABLE INPUT
50	Selecting a Type of LCD Display	
70	Enabling PBX dialing	
73	Resorting a directory	Set directory code length and entry code length first
80	Resequencing the units in a chain	
81	Enabling a separate printer	
82	Adding an option to the system	1 thru 7
83	Suppressing real-time transactions	See description on page 34
84	Disabling transaction reporting	1=enable, 0=disable

F. MISCELLANEOUS

AREA	PURPOSE	ACCEPTABLE INPUT
25	Rings before pick up	1 thru 9
52	System reset	
55	Enabling pulse dialing	
60	Enabling DTMF dialing	
88	Display Menu of programming choices	

Each of the programming areas are discussed in detail in the following pages. Examples are given of system prompts and typical entries, along with notes on how to program your system. Please note that you will not be allowed access to areas that your specific system is not equipped to handle. Here is a list of the programming areas:

- **PART 6 INITIAL SYSTEM SET-UP** covers all the areas that deal with setting up the system guidelines, including areas 1 through 12 plus 24.

- **PART 7 TELEPHONE NUMBERS, ENTRY CODES AND CARD CODES** covers areas 13 through 21, the repetitive entries for adding and erasing telephone numbers, cards and codes from the system.

- **PART 8 VERIFYING AND PRINTING ENTRIES** covers areas 22 and 23 which are used to check what is contained in the system's memory.

- **PART 9 DIRECTLY CONTROLLING SYSTEM RELAYS** covers how to activate relays directly from programming mode.

- **PART 10 OTHER SPECIAL FUNCTIONS** covers several functions which are not shown on the main programming menu, but which you may want to utilize under special circumstances.

PART 6
INITIAL SYSTEM SET-UP

The areas discussed in this section control the system's "personality". Most areas have factory settings that will be appropriate in many situations (these are indicated where they exist).

Remember, if you make a mistake in an entry, press the ESC (or "ESCAPE") button. To tell the system you have completed an entry, press ENTER. Also remember to watch the flashing cursor so that you make the correct response to each prompt.

A. AREA 00 - CHANGING PROGRAMMING ACCESS CODE

PURPOSE: **To change the code that must be used to enter the programming mode**
                  <u>**Factory setting = 000000**</u>

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER NEW PROGRAMMING ACCESS CODE ____	DON483 + ENTER	This is a 6-character code. It can consist of letters and/or numbers. However, if you will use a 12-key keypad to program, use numbers only.

B. AREA 01 - SETTING CLOCK

PURPOSE: **To set the system's internal clock.** An accurate clock is critical to the proper use of time zones and the automatic lock/unlock schedules (see areas 02 and 10) as well as accurate reporting of transactions to the printer (if one is used) and/or transaction buffer. If the system loses power, the clock must be reset, unless you have clock battery back-up option (ask your installer).

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER CURRENT TIME (HR:MN) __:__	0930 + ENTER	Sets clock to 9:30. AM/PM is set in the next step. Hour must be 2 digits. Do not enter colon after the hour.
0=AM 1=PM _	0 + ENTER	Sets clock to AM. Your entry will be shown as AM or PM.
TODAY'S DATE IS (MO/DA/YEAR) __/__/____	07041988 + ENTER	Sets the date to July 4, 1988. Enter month and day as 2 digits; year as 4 digits. Do not enter slashes in between month, day, and year.
TODAY IS (1=SUN 7=SAT) _	2 + ENTER	2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday
DO YOU HAVE DAYLIGHT SAVINGS TIME? (1=YES 0=NO)	1 + ENTER	System will adjust for daylight savings time. If it does not exist in your area, enter "0".

C. AREA 02 - SETTING UP TIME ZONES

PURPOSE: **Time zones allow you to restrict access of cards or codes to certain times during specified days** (e.g., the janitor's code is good only during the times he is supposed to be in your building).

You can create up to **7 restricted time zones**, each of which contain up to 3 separate time periods. These zones can then be assigned to cards or codes as they are entered into the system (see Part 7 Telephone Numbers, Entry Codes and Card Codes, Areas 14, 15, and 16).

Holidays may be included or excluded from a time zone. If excluded, any date you designate as a holiday in area 11 will not be included as part of the time zone even if it falls on a day (such as Monday) that would otherwise be included.

To set up a **time zone that extends past midnight and into the next day**, create one segment that runs till midnight (for example, Monday through Friday from 8PM until 12 midnight) and a second segment that starts at midnight on the following days (for example, Tuesday through Saturday, from 12 midnight until 4AM).

If you are setting a **time zone for holidays**, you must also program that time zone to be valid for a day of the week. For example, if you have programmed January 1st as a holiday and this holiday lands on a Friday in order for a code to be considered valid, the time zone for that code must be valid on Holidays, as well as for Fridays. If the time zone is programmed to be valid only on holidays and not for Fridays, the code will be considered invalid and will not grant access.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER TIME ZONE NUMBER (1-7)_	1 + ENTER	Restricted time zones are numbered 1 to 7.
ENTER TIME SEGMENT NUMBER (1-3)_	1 + ENTER	Three different time periods may be set for each time zone. If only one unit is being addressed, the current entries for all segments in that unit will be displayed on the screen. If no entries have been made, next prompt will be skipped.
ENTER 0 TO ERASE THIS SEGMENT OR 1 TO ENTER TIME AND VALID DAYS	1 + ENTER	If "0" is entered, the rest of the prompts will not be shown
TIME THAT ACCESS BEGINS IS (HR:MN) __:__	0600 + ENTER	Do not enter the colon between the hour and the minutes. AM/PM is set in the next step.
0=AM 1=PM	0 + ENTER	Sets the start time as 6:00 am.
TIME THAT ACCESS ENDS IS (HR:MN) __/__	0530 + ENTER	Segments must end after time that access starts and may not extend past 12:00 pm on the same day.
0=AM 1=PM	1 + ENTER	Sets the ending time as 5:30 pm.
DAYS ON WHICH TIME ZONE IS VALID (1=SUN 8=HOL) _	3 + 5 + ENTER	2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday.

D. AREA 03 - SETTING RELAY CONFIGURATION

PURPOSE: **To select the mode of operation for the system's third and fourth relays** (the first and second are always used for control purposes).

Factory setting = All control

If set up as **CONTROL** relays, each relay will activate only on a timed basis (see Part 6 Initial System Set-Up, Area 10) or when a tenant dials the specified number (a "3" for relay 3 or a "7" for relay 4).

As a **SHUNT** relay, relay 3 will be activated whenever relay 1 is activated to temporarily bypass an alarm sensor monitoring this entry. Relay 4 activates whenever relay 2 is activated.

As an **ALARM** relay, relay 3 will activate if: (1) door 1 is forced open, (2) if door 1 is held open for more than 1 minute after relay has been deactivated, or (3) the strikes and out feature has been violated at keypad 1 (see Part 6 Initial System Set-Up, Section G Area 06 Setting Strikes and Outs). Relay 4 acts in the same manner for door/relay/keypad 2 instead of 1.

As a **CCTV** relay, each relay will activate when a tenant dials a "9" or "5" to activate a door, or the telephone call times out.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
SET RELAY 3 FOR 0=CONTROL 1=SHUNT 2=ALARM 3=CCTV YOUR CHOICE:_	0 + ENTER	See explanation given in the purpose section above. Prompt will also be given for relay 4.

E. AREA 04 - SETTING DOOR OPEN TIME

PURPOSE: **Sets the period of time that each relay will remain activated.**

Factory setting = 10 seconds

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ACTIVATION TIME FOR RELAY 1 = __SECONDS	07 + ENTER	Answer must always contain 2 digits. Relays can be activated for 01 to 99 seconds. Prompt will be repeated for relays 2, 3, and 4.

IMPORTANT NOTE

If any of these relays activate a gate operator with a momentary contact closure, you will need to set the relay activation time for a short period of time (for example, 5 seconds). If you set the relay activation time for a longer period of time, there is a possibility that the gate will continue to open and close until the relay activation period has ended.

F. AREA 05 - SETTING ALARM CALL

PURPOSE: **To cause the first unit in the chain to call a programmed number and indicate that an alarm condition exists** at one of the units in the chain. Alarm conditions are triggered by the following events: 1) a monitored door is forced open; 2) the door is held open for more than 1 minute after the relay has been deactivated; or 3) the strikes and out feature has been violated (see Part 6 Initial System Set-Up, Section 6 Area 06 Setting Strikes and Outs).

NOTE: **This feature is not available in Canada.**

Factory setting = Disabled.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
WANT AN ALARM CALL MADE? (1=YES 0=NO)_	1 + ENTER	If answer is no, next prompt will not appear
ENTER NUMBER TO CALL _____	12138577358 + ENTER	An alarm call will be made to 1-213-857-7358. Do not enter dashes between the digits.

G. AREA 06 - SETTING STRIKES AND OUT

PURPOSE: **Specifies the number of wrong codes that can be entered consecutively before a unit stops accepting codes for 3 minutes.** The unit will close a specified relay and/or place an alarm call if these options have been activated in areas 03 and 05.

Factory setting = 2 incorrect entries.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
NUMBER OF STRIKES ALLOWED (0-9) IS __	4 + ENTER	Will allow 4 incorrect codes. If you enter a "0", the strikes and out feature will be disabled.

H. AREA 07 - SETTING CALL LENGTH

PURPOSE: **Sets the maximum length of any call made by the system. Time starts when dialing stops.**

Factory setting = 60 seconds.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
MAXIMUM CALL LENGTH IS (015-250) ___SECONDS	072 + ENTER	Enter time as three digits. Setting to 70 seconds or less will minimize your phone bill.

I. AREA 08 - SETTING CODE LENGTHS

PURPOSE: **Sets the number of digits in the directory codes** (the number associated with a tenant's name and telephone number) **and the entry codes** (the code that can be used to gain entry without use of a key). These settings must be the same for all units in the chain.

Factory setting = 3 digits for directory codes and 4 digits for entry codes.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
NUMBER OF DIGITS IN DIRECTORY CODE IS (1-4) _	4 + ENTER	If you change the code length after the initial setting, you must change all directory codes in the system to the new length or the system will not function properly.
NUMBER OF DIGITS IN ENTRY CODE (4-5) _	5 + ENTER	If you are going to have card codes work as entry codes (see Part 7 Telephone Numbers, Entry Codes and Card Codes, Section E Area 17 Making Cards work as Entry Codes), this must be set to 5 since card codes are 5 digits long.

J. AREA 09 - SETTING ANTI-PASSBACK

PURPOSE: **The anti-passback feature is designed to eliminate more than one person using the same card or code to gain entry to a restricted area.** There are two types of anti-passback: true anti-passback and timed anti-passback. When **true anti-passback** is enabled, all users will need to use their card or code in card reader B or keypad B before access will be allowed again through card reader A or keypad A. When **timed anti-passback** is enabled, time restrictions are added to the door where the original activity had occurred.

Factory setting = Disabled.

VERY IMPORTANT NOTE: This feature only works within a unit, not among units in a chain.

PLEASE NOTE: If you set the system for true anti-passback and you need to leave the controlled door or gate open for an extended period of time, the system will be unable to track the users. You will need to disable and re-enable true anti-passback. The next transaction made by each user will be granted or "forgiven". This "forgiveness" will also apply if you re-enable true anti-passback to a system in which it was previously disabled.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
DO YO WISH TO (0) DISABLE ANTI-PASSBACK (1) ENABLE "TRUE" ANTIPASSBACK (2) ENABLE "TIMED" ANTIPASSBACK ENTER YOUR CHOICE __	1 + ENTER	The example enable true anti-passback
THE TIMED ANTI-PASSBACK TIME IS (2-255) __ MINUTES	14 + ENTER	This prompt will appear only if you choose "2" Timed Anti-passback

K. AREA 10 - SETTING AUTO LOCK/UNLOCK SCHEDULES

PURPOSE: **Allows the system to automatically unlock and relock a door, open and close an electric gate, or control almost any other function at times you specify.** Each schedule can contain up to three time periods. For example, doors can automatically unlock at 8AM and relock at 5PM on weekdays, but unlock only from 8AM to 12 noon on Saturdays. You can exclude holidays from these schedules if you wish so that the doors/gates will not be open if a holiday falls on a day that would normally be a business day. For the Auto Lock/Unlock schedule to work with relays 2, 3, and 4, these must be set as control relays (see Part 6 Initial System Set-up, Section D Area 3 Setting Relay Configuration).

To set up a schedule that extends past midnight and into the next day, create a segment that runs until midnight (for example, Monday through Friday from 8PM until 12 midnight) and a second segment that starts at midnight on the following days (for example 12 midnight until 4AM on Tuesday through Saturday).

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
SET AUTO LOCK/UNLOCK FOR WHICH RELAY (1-4) _	3 + ENTER	Each relay may be controlled independently if they are set as control relays in area 03.
ENTER SEGMENT TIME NUMBER (1-3) _	1 + ENTER	Three different time periods may be included in each segment. If only one unit is being addressed, the current entries for all segments in that unit will be displayed on the screen. If no entries have been made, the next prompt will not be shown.
ENTER 0 TO ERASE THIS SEGMENT OR 1 TO ENTER TIME AND VALID DAYS	1 + ENTER	If "0" is entered, the rest of prompts will not be shown.
TIME TO OPEN DOORS IS HR:MN) __:__	0800 + ENTER	Do not enter a colon between the hours and the minutes. Segments can begin at any time.
0=AM 1=PM _	0 + ENTER	Sets beginning time as 8:00 am.
TIME TO CLOSE DOORS IS (HR:MN) __:__	0500 + ENTER	Do not enter a colon between hours and minutes. Segments must end later than the time that they begin on and the same day. Segments cannot extend past 12 midnight.
0=AM 1=PM	1 + ENTER	Sets ending time as 5:00 pm.
DAYS ON WHICH SCHEDULE IS VALID (1=SUN 8=HOL)	3 + 5 + ENTER	2=Monday 3=Tuesday 4=Wednesday 5=Thursday 6=Friday 7=Saturday.

L. AREA 11 - SETTING HOLIDAY SCHEDULES

PURPOSE: **Establishes the dates a unit will treat as holidays** in assessing time zones and automatic lock/unlock schedules; a day which is specified will be excluded if it coincides with a holiday set up in this area. For example, if New Year's Day is set up as a holiday, the cards and codes that would ordinarily be allowed access will not be granted entry on January 1st.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER HOLIDAY NUMBER (01-16) __	03 + ENTER	Entry must be 2 digits.
ENTER 0 TO REMOVE THIS HOLIDAY OR 1 TO ENTER A NEW HOLIDAY	1 + ENTER	"0" erases an existing holiday and the next prompt is skipped. "1" lets you enter a new holiday or modify an existing one.
ENTER DATE (MO/DA) __/__	0704 + ENTER	Sets July 4 as a holiday. Both month and date must be entered as 2 digits. Do not enter a slash between month and date.

M. AREA 12 - CHANGING SCREEN MESSAGES

PURPOSE: **This area allows the three message pages and all of the single line messages to be changed to suit the user.** This includes the possibility of converting the instructions into a foreign language. None of the programming instructions or messages can be changed. The area 12 menu provides four selections:

1. WELCOME MESSAGE
2. DIRECTIONS PAGE
3. AFTER DIALING PAGE
4. ALL OTHER MESSAGES

IMPORTANT NOTE: Only the welcome message needs to be programmed. The other menu choices do not need to be changed. *We strongly recommend that you leave the others unchanged, unless your particular application requires that they be changed.*

1. WELCOMING MESSAGE

This message is shown on the screen when the unit is not being used by a visitor. It should greet the visitor, tell him/her where they are, and what to do next.

- **Infinity L Series:** Six lines of 26 characters each.
- **Infinity S Series:** Two lines of 16 characters each.
- **Infinity M Series:** Two lines of 20 characters each.

NOTE: There are no factory settings for this message. Therefore, this area must be programmed.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
WHICH LINE OF THE MESSAGE (1-6) ARE YOU ENTERING?__	1 + ENTER	Indicates that you wish to enter information for line 1.
ENTER 26 CHARACTERS OR LESS FOR THIS LINE _____	WELCOME TO OAK VILLAGE + ENTER	To erase a line, press ENTER with no entries on the line. Your entry is automatically centered.

2. DIRECTIONS PAGE

This message provides instructions for system use.

- **Infinity L Series:** Nine lines of 40 characters each.
- **Infinity S Series:** Three displays of two lines of 16 characters each.
- **Infinity M Series:** Three displays of two lines of 20 characters each.

NOTE: Each line has a factory default instruction line that should not be changed. If you decide to change the instructions and then later decide to change them back to the factory settings, simply enter a "0".

INFINITY "L" EXAMPLE

SYSTEM PROMPT Line		EXAMPLE	IMPORTANT NOTES
1:	--DIRECTIONS—	1 + ENTER	Enables Editing for Line 1
2:	-FIND THE NAME ON DIRECTORY		Unless your application requires it, we strongly advise **against** changing any of the messages in this section.
3:	-THEN, ENTER CODE ON KEYPAD		
4:	-PRESS ✶ KEY TO SEE PREVIOUS PAGE		
5:	OR PRESS # KEY TO SEE NEXT PAGE		
6:	-HOLD KEY DOWN FOR HIGH SPEED		
7:	-NOW, PRESS # KEY TO SEE FIRST PAGE		
8:	(TOP LEFT JUSTIFIED) PRESS ✶ KEY TO SEE PREVIOUS PAGE		
9:	(BOTTOM RIGHT JUSTIFIED) PRESS # KEY TO SEE PREVIOUS PAGE		

ENTER LINE NUMBER (1-9) TO CHANGE, ESC TO EXIT, OR 0
TO RETURN ALL LINES TO DEFAULT __

INFINITY "S" AND "M" EXAMPLE

SYSTEM PROMPT Line		EXAMPLE	IMPORTANT NOTES
THESE MESSAGES ARE THE DIRECTORY INSTRUCTIONS		1 + ENTER	Enables editing of line 1.
{TOP}	{BOTTOM}		Unless your application requires it, we strongly advise **against** changing any of the messages in this section.
1: HOLD # KEY IN TO	TO SEE DIRECTORY		
2: # TO GO FORWARD	✶ TO GO BACKWARD		
3: OR ENTER CODE ON	KEYPAD TO DIAL		

ENTER LINE NUMBER (1-3) TO CHANGE, ESC TO EXIT, OR 0
TO RETURN ALL LINES TO DEFAULT __

3. AFTER DIALING PAGE

This message provides the user with instructions about what to do while the system is dialing and after the conversation.

- **Infinity L Series:** Five lines of 40 characters each.
- **Infinity S Series:** Two lines of 16 characters each.
- **Infinity M Series:** Two lines of 20 characters each.

NOTE: If after programming your own instructions, you decide that you want to go back to the factory default for this area, simply enter "0".

INFINITY "L" EXAMPLE

SYSTEM PROMPT Line	EXAMPLE	IMPORTANT NOTES
THIS IS THE AFTER DIALING PAGE	1 + ENTER	Enables editing of line 1.
1: IF LINE BUSY OR NO ANSWER		Unless your application requires it, we strongly advise **against** changing any of the messages in this section.
2: PUSH ✶ AND TRY AGAIN LATER		
3: THANK YOU FOR USING		
4: THE INFINITY SYSTEM		
5: FROM SENTEX SYSTEMS, INC.		

ENTER LINE NUMBER (1-5) TO CHANGE, ESC TO EXIT, OR 0
TO RETURN ALL LINES TO DEFAULT __

INFINITY "S" AND "M" EXAMPLE

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
Line		
THIS IS THE AFTER DIALING PAGE	1 + ENTER	Enables editing of line 1.
{TOP}	{BOTTOM}	Unless your application requires
1: PRESS ★ IF BUSY	OR NO ANSWER	it, we strongly advise **against** changing any of the messages in this section.

4. ALL OTHER MESSAGES

These messages are used to prompt and direct the user through various steps of the system.

- **Infinity L Series:** Twelve lines of 40 characters each.
- **Infinity S Series:** Eleven displays with two lines of 16 characters each, plus one display of 1 line of 8 characters.
- **Infinity M Series:** Eleven displays with two lines of 20 characters each, plus one display of one line of 8 characters.

NOTE: If after programming your own messages, you decide to return to the factory default messages, simply enter a "0".

INFINITY "L" EXAMPLE

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
Line		
THESE ARE ALL THE OTHER MESSAGES	1 + ENTER	Enables editing of line 1.
01: ACCESS GRANTED-		Unless your application requires
02: SYSTEM IS DIALING		it, we strongly advise **against**
03: LINE IS AVAILABLE		changing any of the messages
04: LINE IS IN USE		in this section.
05: LINE IS BUSY		
06: PLEASE ENTER NOW		
07: PLEASE TRY AGAIN LATER		
08: PRESS # TO TRY AGAIN		
09: NOW TRY AGAIN		
10: SYSTEM IN USE		
11: INVALID CODE		
12: PLEASE WAIT		

ENTER LINE NUMBER (01-12) TO CHANGE, ESC TO EXIT, OR 00
TO RETURN ALL LINE TO DEFAULT __

INFINITY "S" AND "M" EXAMPLE

SYSTEM PROMPT		EXAMPLE	IMPORTANT NOTES
Line			
THESE ARE ALL THE OTHER MESSAGES		1 + ENTER	Enables editing of line 1.
{TOP}	{BOTTOM}		Unless your application requires
01:	ACCESS GRANTED	PLEASE ENTER NOW	It, we strongly advise **against**
02:	SYSTEM IS	DIALING	changing any of the messages
03:	LINE NOW FREE	PRESS # TO DIAL	in this section.
04:	LINE IS IN USE		
05:	LINE IS	STILL BUSY	
06:	THANKS FOR USING	SENTEX SYSTEMS	
07:	PLEASE TRY	AGAIN LATER	
08:	INVALID	CODE	
09:	INVALID ENTRY		
10	NOW	TRY AGAIN	
11	SYSTEM IN USE		
12	PLEASE WAIT-		
13:	CODE:		

ENTER LINE NUMBER (01-13) TO CHANGE, ESC TO EXIT, OR 00
TO RETURN ALL LINES TO DEFAULT __

N. AREA 24 - ENTERING FACILITY CODES

PURPOSE: **Sets the facility code of the cards the system is to accept.** This code is set at the factory to match the cards shipped with your system. You will not need to make entries in this area except under unusual circumstances.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER FACILITY CODE ___	008 + ENTER	Must be a 3-digit entry between 001 and 255.
		A facility code of 000 will signal the system to ignore all facility codes.

PART 7
TELEPHONE NUMBERS, ENTRY CODES
AND CARD CODES

The programming areas in this section are subject to a number of variations depending on what capabilities have been installed in your system. Prompts that may not appear are noted in bold face type.

Remember, if you make a mistake in an entry, press ESC. After typing your entry, press ENTER. Watch the flashing cursor so that you make the correct response to each prompt.

> **PLEASE NOTE:** To program <u>Date-Limited Codes and Use-Limited Codes</u>, please refer to the Parts titled "PROGRAMMING DATE-LIMITED CODES" and "PROGRAMMING USE-LIMITED CODES" in section 3 of your <u>SPS User's Guide</u>.

A. AREA 13 - ENTERING TELEPHONE NUMBERS

> **PURPOSE:**   **To enter directory codes, telephone numbers, and names.** The directory code will appear next to the name on the directory. If your system is equipped with an electronic directory, the names will appear in the directory listing automatically.

- To find out the how many of numbers and names your system can remember see Part 8 Verifying and Printing Entries, Section A Area 22 Verifying Entries.

- If your system is connected to a PBX telephone system in your building, see Part 10 Other Special Functions, Section B Area 70 Activating PBX Dialing.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER 3-DIGIT DIRECTORY CODE ___	123 + ENTER	System will ask for a code containing the number of digits you specified in area 08. You may not duplicate codes unless the tenants share a phone number. To replace someone who has left, you must first erase them from the system (see area 18).
ENTER TELEPHONE NUMBER _____	8567849 + ENTER	Sets code 123 to dial 856-7849. Telephone numbers can be 1 to 11 digits long. Do not enter dashes between numbers.
ENTER NAME _____	DOE, JOHN P.	Name can be 13 characters long, including punctuation and spaces. "COMMERCIAL BLDG." option allows 35 characters. The directory is arranged alphabetically by the first character in the name. Therefore, "John Doe" would appear in the "J" section of the directory and "Doe, John" would appear in the "D" section.

B. AREA 14 - ENTERING ENTRY CODES

PURPOSE: **To set up 4 or 5 digit codes that can be used by occupants or service personnel to gain entry to your building complex without having to use a key or contact someone inside.** For the number of entry codes that each system will hold, see Part 8 Verifying and Printing Entries, Section A Area 22 Verifying Entries.

> **PLEASE NOTE:** To program <u>Date-Limited Codes and Use-Limited Codes</u>, please refer to the areas titled "PROGRAMMING DATE-LIMITED CODES" and "PROGRAMMING USE-LIMITED CODES" in section 3 of your SPS User's Guide.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER 5-DIGIT ENTRY CODE (LESS THAN 65536) _____	12345 + ENTER	Code length is established in area 08. (factory sets at 4, which will give slightly different prompt). You may not duplicate codes. If you try to do so, the system will give an error message.
* **ENTER TIME ZONE (0=ANY TIME, OR 1-7)** _ **(CAUTION: TIME ZONES 1-7 MIGHT NOT BE THE SAME IN ALL UNITS)**	0 + ENTER	0=code is valid at any time. Zones 1-7 must be set up in area 02 or they will cause all entry attempts to be rejected.
** **ENTER NAME_____**	DOE, JOHN P.	Limit is 13 characters.

C. AREA 15 - ENTERING A SINGLE CARD

PURPOSE: **To validate a single card to be used for entry.** This is an optional function. If one of the systems in your chain is not equipped with this function, you will not be able to enter this programming area. For the number of cards each system will hold, see Part 8 Verifying and Printing Entries, Section A Area 22 Verifying Entries.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER CARD CODE _____	00789+ ENTER	Card codes must always be entered as 5 digits.
ENTER TIME ZONE (0 FOR ANY TIME, OR 1-7) __ (CAUTION: TIME ZONES 1-7 MIGHT NOT BE THE SAME IN ALL UNITS	1 + ENTER	Card will be subjected to time zone 1 restrictions. Time zone "0" is unrestricted.
ENTER NAME _____	DOE, JOHN P.	Limit is 13 characters.

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* These prompts will not appear if your system is not equipped with the "full-control codes" option.

** These prompts will not appear if your system is not equipped with the option that allows names to be associated with cards and/or codes.

D. AREA 16 - ENTERING GROUPS OF CARDS

PURPOSE: **To enter a group of cards that will be valid during the same time zone and at the same door(s).** This allows large quantities of cards to be entered at the same time. However, names may not be associated with these cards in this process. If a system in the chain is not equipped with the card access option, you will not be able to enter this programming area.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER FIRST CARD CODE _____	04050 + ENTER	Card codes must always be entered as 5 digits. Be sure that the group of card codes you are entering does not include numbers already in the system.
ENTER LAST CARD CODE _____	05000 + ENTER	Ending card code must be higher than first card code. If you ask a unit to group enter more cards than the unused capacity of the system, an error message will be displayed telling you how many cards you are trying to enter and how much capacity is left. You must then erase enough existing cards to allow this group to be entered, or enter the cards individually or in smaller groups.
ENTER TIME ZONE (0 FOR ANY TIME, OR 1-7) __ (CAUTION: TIME ZONES 1-7 MIGHT NOT BE THE SAME IN ALL UNITS)	1 + ENTER	All cards will be subject to the same time zone.

E. AREA 17 - MAKING CARDS WORK AS ENTRY CODES

PURPOSE: **Allows card codes to also be used as digital entry codes on the system's keypad(s).** If this feature is activated, be sure that you set the number of digits in the entry codes to 5 (in area 08) or you will not be able to enter the card code.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
SHOULD CARD CODES ALSO WORK AS ENTRY CODES (1=YES 0=NO) __	1 + ENTER	Sets up card codes to function as entry codes. As a result, each card code will also be valid as an entry code.

F. AREA 18 - ERASING TELEPHONE NUMBERS

PURPOSE: **Allows individual telephone numbers, directory codes, and names to be erased from the system's memory.**

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER DIRECTORY CODE TO ERASE ___	123 + ENTER	System will respond with the information in memory associated with code 123.
TELEPHONE NUMBER: 8567849		
NAME: DOE, JOHN P.		
ERASE THIS ENTRY? (1=YES 0=NO) _	1 + ENTER	You must confirm that you wish to erase this information. If you say no, the information remains in the memory.
		If another person shares this directory code and phone number, the system will show that information after you have answered this prompt. This process will be repeated until all names assigned to this code taken care of.

G. AREA 19 - ERASING ENTRY CODES

PURPOSE: **Allows individual entry codes to be erased from the system's memory.** If a system in your chain is not equipped with the entry code option, you will not be able to enter this programming area.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER ENTRY CODE TO ERASE_____	12345 + ENTER	The number of digits in the entry code is set in area 08.
		If the system is equipped with the option that associates names with codes, the system will respond with the name associated with this code.
NAME: SMITH, FRED		
ERASE THIS ENTRY? (1=YES 0=NO) _	1 + ENTER	You must confirm that you wish to erase this code. If you say no, this code will stay in the memory.

H. AREA 20 - ERASING A SINGLE CARD

PURPOSE: **Allows an individual card to be erased from the system's memory.** If one of the systems in the chain is not equipped with the card access option, you will not be able to enter this programming area.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER CARD CODE TO ERASE_____	00345 + ENTER	Entry must be 5 digits long. If the system is equipped with the option that associates names with cards, the system will respond with the name associated with this card.
NAME: BROWN, JAMES		
ERASE THIS ENTRY? (1=YES 0=NO) _	1 + ENTER	You must confirm that you wish to erase this card. If you say no, the card remains in memory.

I. AREA 21 - ERASING ALL ENTRIES

PURPOSE: **Allows you to completely erase an entire area of information (for example, all telephone and directory code entries or all cards) from the system's memory.**

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
WHICH AREA SHOULD BE ERASED COMPLETELY? (0=PHONE NBRS, 1=CODES, 2=CARDS) __	1 + ENTER	Indicates that you wish to erase all entry codes. The system will ask you to confirm your decision to erase an entire area.
ALL ENTRY CODES WILL BE ERASED		
ARE YOU SURE? (1=YES 0=NO)	0 + ENTER	You must confirm that you wish to erase this entire area. Enter a "0" if you change your mind about erasing an entire area. The information will be retained in the memory. If you enter a "1", it will take several seconds to completely erase an entire area. When the erasure is completed, the system will return to the menu prompt.

PART 8
VERIFYING AND PRINTING ENTRIES

A. AREA 22 - VERIFYING ENTRIES

PURPOSE: **Allows you to verify information that you have entered into the system's memory as well as verifying the system's capacities and the status of available options.**

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER NUMBER FOR AREA TO VERIFY: 1 = TELEPHONE NUMBERS 2 = ENTRY CODES 3 = CARDS 4 = TIME ZONES 5 = AUTO LOCK/UNLOCK SCHEDULES 6 = HOLIDAY SCHEDULES 7 = GENERAL SYSTEM SET UP 8 = SYSTEM CAPACITIES/OPTIONS YOUR CHOICE? __	1 + ENTER	Entering 1, 2, or 3 will allow you to check individual entries you have made. Entering 4, 5, or 6 will show you the result of all entries you have made in these areas. Entering 7 will show you the entries you have made regarding system set-up. Entering 8 will show the capacities and options included in your system.

B. AREA 23 - PRINTING OUT MEMORY

PURPOSE: **Allows you to print out or display the information stored in a specific area of the system's memory, or the last 1200 transactions that have occurred.** For example, you can print out all cards or all codes, or display the last 1200 transactions (capacity for 6000 transactions in memory is available as an option). In systems using Multi-Link firmware, the standard number of transactions retained is only 1000 and the option only increases this number to 5900 transactions.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER NUMBER OF AREA TO PRINTOUT: 1 = ALL TELEPHONE NUMBERS AND ASSOCIATED NAMES 2 = ALL ENTRY CODES AND ASSOCIATED NAMES 3 = ALL CARDS AND CARDHOLDERS 4 = ALL TRANSACTIONS IN BUFFER YOUR CHOICE? __	4 + ENTER	Transactions in buffer include the last 1000-1200 entries, entry attempts, and alarm conditions; an option is available that will store and report the last 5900-6000 transactions.
PRINT TO PRINTER (1) OR DISPLAY (0)? __	0 + ENTER	If you select 1 (Printer), the buffer will be transmitted continuously with proper formatting and page headings. Sending data to the display causes it to be shown one page at a time. You will then be asked if you wish to proceed to the next page or stop.

C. AREA 24 - ENTERING FACILITY CODE

SEE NOTE IN PART 7 TELEPHONE NUMBERS, ENTRY CODES AND CARD CODES, INTRODUCTION.

PART 9
DIRECTLY CONTROLLING SYSTEM RELAYS

In addition to the programming areas discussed above, you may also directly control the system's four relays once you have entered the programming mode. This control is accomplished by entering a code when the menu prompt is given. These codes are not shown on the programming menu because they are not part of a normal programming process and are not generally used on a regular basis. They are included in the "program mode" only to ensure that system relays are not activated or deactivated except by authorized personnel.

The codes for controlling the system's relays are as follows:

TIMED RELAY ACTIVATION (activation time is established in area 04).

RELAY 1 = 99 + ENTER

RELAY 2 = 95 + ENTER

RELAY 3 = 93 + ENTER

RELAY 4 = 97 + ENTER

The system will not display a direct response to these entries - it will simply display a "fresh" programming prompt. However, the action you desired will be carried out immediately.

SUSTAINED RELAY ACTIVATION (stays activated until released by operator).

RELAY 1 = 98 + ENTER

RELAY 2 = 94 + ENTER

RELAY 3 = 92 + ENTER

RELAY 4 = 96 + ENTER

The unit will respond with a "LATCH OPEN DOOR - ARE YOU SURE (1=YES 0=NO) __. If you respond with a "0", nothing will happen. If you respond with a "1", the appropriate relay will be activated until you "unlatch" it by initiating a timed activation of the same relay as described in the point above.

IMPORTANT NOTE: If relays 3 or 4 are set to operate as alarm relays, you will not be able to operate them on either a timed or sustained basis.

PART 10
OTHER SPECIAL FUNCTIONS

The Infinity system has several additional functions that you may need to use in special situations. These are accessed by entering a 2-digit code when the menu prompt appears on the screen.

A. AREA 50 - SELECTING A TYPE OF LCD DISPLAY

If your system is a new installation or has been recently repaired and the data on the LCD display does not appear in the correct manner (i.e., text wrapping from the end of last line to beginning of the first line, a single line splits into two separate lines, etc.), the system's display setting may be incorrect.

To change the display setting in the software, enter the programming mode. At the programming prompt, type "50" and press ENTER. Then press ESC to return to the display's welcoming message. The data on the display should now appear normal.

> **PLEASE NOTE:** If the messages on your display are shown incorrectly, there is a chance that the programming prompts may also be incorrect. If you program your entries in the manner described above, the system will accept these entries without error and the problem should be corrected.

B. AREA 70 - ACTIVATING PBX DIALING

If an Infinity system provided with visitor entry or alarm call capability is connected to a PBX telephone system, it can be directed to dial a specified digit, pause briefly (so the PBX can give the system an outside line) and then dial any 7-digit (or longer) telephone number that has been programmed into the system. Any telephone number that is less than 7-digits is assumed to be an internal extension on the PBX and is dialed without including the initial digit and pause.

To enable PBX dialing (or disable, if it has been enabled earlier), type "70" and press ENTER at the menu prompt. After specifying which units are to be addressed, you are asked which number to dial before the 7+ digit telephone number. Enter the number your PBX requires to connect a telephone to an outside line (usually "9") and press ENTER.

C. AREA 73 - RE-SORTING A DIRECTORY

If the names in a directory appear to be scrambled and not in alphabetical order, you may re-sort the directory by typing "73" and pressing ENTER at the Menu prompt. The system then asks "Which unit do you wish to address?" Type the unit number and press ENTER. The system then displays "Please wait." When the next prompt appears on the screen, the re-sorting is complete.

D. AREA 80 - RESEQUENCING UNITS IN A CHAIN

This step allows each unit to identify its position in your chain. It must be performed at initial installation and if you add or remove a new unit in the chain.

> **IMPORTANT NOTE:** If this process is done via modem, make sure only the first unit in the chain is connected to the telephone line when you call. Once the units are resequenced, multiple units can be connected to the same line since only the unit designated as "1" will answer the line. However, until the initial resequencing is done at installation, each unit will respond as if it is number "1."

To initiate this resequencing, enter "80" and press ENTER at the menu prompt. The serial numbers of each unit are then displayed along with the numbers of the units in the chain. If a unit has been added or removed from the middle of the chain, be sure it is reflected in your documentation so that the units are correctly addressed after the resequencing is complete.

E. AREA 81 - ENABLING A SEPARATE PRINTER

If you wish to hook up a printer which operates independently of a terminal or personal computer connected to the first unit in the chain, you must connect this printer to the last unit in the chain. However, the units in the chain will not pass transaction records through the last unit unless you specifically enable it. To do so, enter "81" and press ENTER in response to the menu prompt. You will then be prompted "Is a printer connected to the last unit in the chain?__". Enter a "1" to turn on this output (or a "0" to turn it off). The printer will then be enabled to print all transaction records as they occur (except when you are in the programming mode). **NOTE:** Be sure to set step 83 to either "2" or "3."

F. AREA 82 - ENABLING 26-BIT FORMAT

If you wish to use 26-bit format, you can enable this option through area 82.

To **enable** this feature, type "82" and press ENTER when the menu prompt is shown. The system will then ask you which option number you want. Type "1" and press ENTER at the menu prompt. This option is now enabled.

To **disable** this feature at a later date, type "82" and press ENTER when the menu prompt is shown. The system will then ask you which option number you want. Type "1" and press ENTER at the prompt.

NOTE: When the 26-bit format is enabled, the system will accept both 26-bit and 30-bit formats.

G. AREA 82 - ENABLING/DISABLING THE PREFIX "1" FEATURE

When you enter a directory code of exactly 10 digits in length, the Multi-Link system automatically dials a leading "1" before the 10 digits. This is called the Prefix 1 feature. The factory default for this feature is "Enabled".

If you do not want the system to automatically dial a leading "1" on a 10-digit directory code, you need to disable this feature. To disable this feature, type "82" and press ENTER at the menu prompt. The system will then ask you "Which unit do you wish to address?" Type the single digit unit number and press ENTER. The system will then ask you which option number you want. Type "02" and press ENTER.

If you wish to re-enable this feature at a later date, type "82" and press ENTER at the menu prompt. The system will then ask you which option number you want. Type "02" and press ENTER at this prompt.

H. AREA 83 - SUPPRESSING REAL-TIME TRANSACTION RECORDS

Occasionally, in large Multi-Link chains, heavy transaction activity can overload the communication lines and cause one or more units to reset or cause breaks in the chain. This step allows you to suppress any unused transaction output and possibly free-up communication lines. To suppress the real-time transaction output in a Multi-Link system follow the steps below:

At the programming prompt, enter "83". The display should now read as:

    TRX PACKETS? (0=NONE, 1=ARM, 2=CON, 3=BOTH) __

The factory default for this step is "BOTH (3)". Select the number corresponding with your selection and press either the "#" key or the ENTER key (depending on your programming source). If you are unsure of what selection you should make, answer the questions below:

- a) Do you have an ARM (Auxiliary Relay Module) unit in your chain?
  If the answer is "**yes**", advance to "b".
  If the answer is "**no**", skip to "c".

- b) Do you wish to view the transactions from your system as they occur?
  If the answer is "**yes**", choose "BOTH" as your selection.
  If the answer is "**no**", choose "ARM" as your selection. Ignore "c".

- c) Do you wish to view or print the transactions from your system as they occur?
  If the answer is "**yes**", choose "CON" as your selection.
  If the answer is "**no**", choose "NONE" as your selection.

I. AREA 84 - DISABLING TRANSACTION REPORTING

There are four (4) types of transactions for which you have the ability to disable transaction reporting for. These transactions are:

<div align="center">

EXIT REQUESTS

INVALID CARDS

INVALID CODES

WRONG DOORS

</div>

If you do not wish to have a specific type of transaction reported to the system, you may disable the reporting of that transaction type by typing "84" and pressing ENTER at the menu prompt. Once you have entered this step, the cursor will appear next to the first transaction type at the top of the list. You may disable or enable the reporting of each of these transaction types individually. If you wish to disable the reporting of a specific transaction type, enter "0" next to that transaction type. If you want to enable the reporting of a specific transaction type, enter "1" next to that transaction type.

J. USING THE VOICE MAIL FEATURE

If there is a voice mail system connected to a tenant's telephone line, the system allows the visitor to dial an extension during a tenant call. To use this feature, the visitor places a tenant call, the voice mail system answers the call, then the visitor can then dial an extension of up to 6 digits on the front panel keypad. All of the keys on the front panel keypad are valid, except for the "✶ " key. If the "✶ " key is pressed, the tenant call will be disconnected.

PART 11
ALTERNATIVE METHODS OF PROGRAMMING
AND USING THE SYSTEM

Your Infinity system can be programmed by two methods other than the use of a handheld data entry terminal or an on-site terminal (the two methods covered above): the 12 button keypad located on the face of the unit (only available in the "L" series) and a terminal hooked into a Hayes-compatible modem. The sections below discuss the differences between these methods and the programming instructions contained in Parts 6 through 10.

A. PROGRAMMING VIA THE 12-BUTTON KEYPAD

Programming from the 12-button keypad on the face of the Infinity system (not available on the "B" series) involves only four differences from the procedures described in Part 6 through 10.

1. To enter programming, the programming access code must be preceded by "✶✶✶" (3 asterisks) instead of "✶" (a single asterisk).

2. The "#" functions like ENTER on a terminal, and the "✶" button takes the place of the ESC button. When you are done with an entry, press "#". If you wish to exit from a programming step or erase a mistaken entry, press "✶".

3. To make any entry that can include non-numeric characters (for example, a name), you must enter all characters (including numbers) by using the following 2-digit codes:

A=01	K=11	U=21	0=30	SPACE	=40
B=02	L=12	V=22	1=31	POUND (#)	=41
C=03	M=13	W=23	2=32	AMPERSAND (&)	=42
D=04	N=14	X=24	3=33	ASTERISK (✶)	=43
E=05	O=15	Y=25	4=34	APOSTROPHE (')	=44
F=06	P=16	Z=26	5=35	DASH (-)	=45
G=07	Q=17		6=36	COMMA (,)	=46
H=08	R=18		7=37	not used	=47
I=09	S=19		8=38	PERIOD (.)	=48
J=10	T=20		9=39	SLASH (/)	=49

4. If the system is being programmed from a terminal at the same time someone tries to enter programming from the keypad, the system will indicate on the display that the system is in use.

B. PROGRAMMING/RELAY ACTIVATION VIA A MODEM

The Infinity system can also be programmed from a terminal connected to a Hayes-compatible modem. The "remote" modem can then connect to either an optional internal 300 or 2400 baud modem in the first unit in the chain; or to a separate Hayes-compatible modem connected to the first unit's RS232 port.

To establish this modem-to-modem connection, consult the instructions you received with your modem on how to place a call. If you are calling an internal modem, your modem should call the number to which the first unit is connected. If you are using an external modem connected to the RS232 port of the first unit in the chain, call the number to which that modem has been connected. This may or may not be the same as the telephone number to which the Infinity is connected.

Once the modems have connected, you must then <u>begin</u> to enter your programming access code within 15 seconds or the system will hang-up. The system will also hang-up if you enter an incorrect access code. Once you have correctly entered your access code, programming the system via modem is exactly the same as described in Parts 6 through 8 and all system prompts will be display on your terminal screen.

PART 12
PROGRAMMING THE AUXILIARY RELAY MODULE

A. INTRODUCTION

The Auxiliary Relay Module (ARM) is an accessory which can be purchased for use with the Multi-Link Infinity system. The purpose of the ARM is to provide timed relay activation/deactivation for up to sixteen SPDT (single-pole, double throw) relays (e.g., for elevator control). In addition, the ARM unit will also allow free access or control of the heating and air conditioning systems for up to three time periods per day. The ARM will work anywhere within a Multi-Link system, except as the first unit in the chain, and cannot be used as a stand-alone unit.

Each of the sixteen relays is controlled by a specific "transaction record" which is sent to all of the units in a Multi-Link chain. A "transaction record" is composed of the unit number, the device type (telephone, entry code, or card reader), door number, and group number. Group numbers are numbers which vary depending on the type of devices attached to your system. For instance, for telephone access units, the group number is the first two numbers of the directory code; for keypad access units, the group number is the first two numbers of the entry code; and for card reader access units, the group number is the last two digits in the name field. For example, say someone enters the entry code "1243" on keypad 1. The group number for this transaction record will be read as "12" by the ARM unit (see Section G Activate a Relay on the Arm Unit Using a Directory Code).

Entering data for the ARM unit is done in the same manner as entering data for a Multi-Link unit, with the exception that the following steps have been removed and cannot be accessed: 03, 04, 05, 07, 10, 12, 13, 16, 18, 21-0, 22-1, 23-1, 55, 60, 69, 73, 83, 85, 87, 89, 93, 95, 97, and 99. You can program the rest of the Multi-Link chain with these steps, but the ARM unit will not accept any data from these areas. Information that is entered in all other Multi-Link programming steps will also apply to the ARM unit.

Furthermore, the ARM unit has an additional programming area which needs to be completed before it is able to begin operation. This is programming area 48. The information programmed into this area is only accepted by the ARM unit and will not be accepted by the other units in the Multi-Link chain. Information is programmed into the ARM unit relay by relay. Also, all card readers and keypads which are attached to the Multi-Link chain and are to be used by the ARM unit need to be programmed into the ARM through area 48 **in addition to being programmed into the Multi-Link system**. These devices will not work with the ARM unless this procedure is done.

> **IMPORTANT NOTE:** If you have an A.R.M. board within your Multi-Link installation, it is imperative that you perform programming step 83 to enable communication between the Multi-Link units and the A.R.M. unit(s) (see Part 11 Other Special Functions, Section H Area 83 Suppressing Real-Time Transaction Records). If you do not perform this programming step, you will experience communication problems between the units.

Remember, if you make a mistake in an entry, press ESC. If you want to make changes to a different relay in the same unit, press "9" and ENTER. To tell the system that you have completed an entry, press ENTER.

To begin programming the ARM unit, press "48" and ENTER at the programming prompt. After you enter the number of the unit and the relay number (this number can be between 01 to 96), the system will display the following screen:

CURRENT SETTINGS FOR RELAY NUMBER 01

0.   RELAY ENERGIZED AT POWER UP: YES

LOCATIONS THAT ACTIVATE THIS RELAY

	UNIT	DOOR	SOURCE(S)	ACTIVATION TIME
1.	___	__	____	__:__
2.	___	__	____	__:__
3.	___	__	____	__:__
4.	___	__	____	__:__

5.   GROUPS THAT ACTIVATE THIS RELAY   ___   ___   ___   ___   ___   ___

AUTOMATIC ACTIVATION PERIODS

6.	__:__	____	TO	__:__	____	___	___	___	___	___	___	___	___
7.	__:__	____	TO	__:__	____	___	___	___	___	___	___	___	___
8.	__:__	____	TO	__:__	____	___	___	___	___	___	___	___	___

ENTER ESC IF DONE, NUMBER OF AREA TO CHANGE, OR 9 FOR ANOTHER RELAY ___

> To add or change information for this relay, enter the number (between 0 and 8) corresponding to that area. On the following pages, a listing of the prompts that the system will display in leading you through the required entries is shown, along with examples of typical responses to the prompts, and important notes that you should keep in mind as you respond to each prompt.

B. AREA 0 - RELAY ENERGIZED AT POWER UP

PURPOSE: **To set the status of the relay at power-up.** If you choose to have the relay in an energized state when power is applied, then, if power is lost to the ARM board (or the system as a whole), the relay will switch states. For example, if you have an elevator control circuit connected to the NC contacts on relay 1 and relay 1 is programmed to be energized at power up, then if the ARM board lost power, the elevators will continue to operate.

If you chose to have the relay in a de-energized state when power is applied, then if power is lost to the ARM board (or the system as a whole), the relay will not switch states. For example, if you have a gate operator connected to the NO contacts on relay 2 and relay 2 is programmed to be de-energized at power up, then if the ARM board lost power, the gate will remain closed.
Factory setting = All relays energized at power up.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENERGIZE RELAY AT POWER-UP? (1=YES 0=NO) __	1 + ENTER	If you enter a "1", the relay will be energized at power up. Any action that activates the relay will de-energize it. Deactivating the relay will cause it to energize again. This mode is typically used for elevator or HVAC.
		If you enter "0", the relay will be de-energized at power up. Any action that activates the relay will energize it. Deactivating the relay will cause it to de-energize again. This mode is typically used for control of doors or gates.

C. AREAS 1 THROUGH 4 - LOCATIONS THAT ACTIVATE THIS RELAY

PURPOSE: To define up to four locations that this relay will activate.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER UNIT NUMBER __	02 + ENTER	This is a number between 01 and 16 that defines the Multi-Link unit affiliated with this relay. This entry must be made as two digits.
ENTER DOOR NUMBER __	1 + ENTER	1 = Door 1 2 = Door 2
ENTER VALID ACCESS DEVICES (1=Keypad, 2=Reader, 3=Phone) __	2 + 3+ ENTER	This entry will activate a card reader and a phone as valid access devices. This entry can be from one to three digits depending on how many devices will share the same activation time for this relay.
ENTER RELAY ACTIVATION TIME (MN:SS): ___:__	00010 + ENTER	This system will first prompt for the minutes. The entry for the minutes must be three digits long (up to 255). Then the system will prompt for the seconds; this entry must be two digits in length. Do not enter a colon between the minutes and the seconds.

D. AREA 5 - GROUPS THAT ACTIVATE THIS RELAY

PURPOSE: To enter group numbers that this relay will accept.

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
RE-ENTER DATA FOR UP TO SIX GROUPS__ __ __ __ __ __	98 + ENTER	This will limit access to people who have a code with the group number 98 only. Group numbers must be two digits in length. Enter "00" to allow entry to anyone who possesses a valid entry code or card. To grant access someone (i.e., a janitor) in all areas operated by the ARM unit, assign them a code with a group number of 99. You do not need to program the 99 group code; it is a feature written into the system's memory. If you do not program any entries in this area, the ARM unit will only allow entry to those persons that have a "99" group number assigned to them.

E. AREAS 6 THROUGH 8 - AUTOMATIC ACTIVATION PERIODS

PURPOSE: **To set the automatic activation periods for the relays on the ARM unit.**
These periods cause the ARM unit to automatically activate the relays in order to provide "free" access for a specified period of time.

For example, if you have a business on the third floor of a building which is open from 8 A.M. to 5 P.M. Monday through Friday you can set the relay for the third floor to activate at 8 A.M. and deactivate at 5 P.M. every Monday through Friday. At all other hours access to this floor would be restricted.

Each relay on the ARM unit can contain up to three automatic activation periods. The automatic activation periods can also be used to control the usage of a heating system, air conditioning system, lighting, etc.

To set up a schedule that extends past midnight and into the next day, create one segment that runs until midnight (for example, Monday through Friday from 8 PM until 12 midnight) and a second segment that starts at midnight on the following day (for example 12 midnight until 4 A.M. on Tuesday through Saturday).

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER BEGINNING TIME (HR:MN) __:__	0800 + ENTER	Enter two digits for the hour and two digits for the minutes. Do not enter a colon between the hour and the minutes.
ENTER 0 FOR AM, 1 FOR PM	0 + ENTER	Sets beginning time as 8:00 a.m.
ENTER ENDING TIME (HR:MN) __:__	0500 + ENTER	Do not enter a colon between the hour and the minutes. Segments cannot extend past 12 midnight on the same day.
ENTER 0 FOR AM, 1 FOR PM	1 + ENTER	Sets ending time as 5:00 p.m.
ENTER DAYS VALID (1=SUN 8=HOL) ___	3 + 5 + ENTER	2=Monday 3=Tuesday 4=Wednesday 5=Thursday 6=Friday 7=Saturday.

G. ACTIVATE A RELAY ON THE ARM UNIT USING A DIRECTORY CODE

You must already have entered the directory code for the Infinity unit in the Multi-link chain. Entering these codes is very similar to entering codes into the Multi-Link units. Use the programming steps listed in Part 6 Telephone Number, Entry Codes, and Card Codes, Sections A, B, and C. Be sure you enter a group number in the appropriate area (described below).

NOTE: Before you can activate a relay on the ARM unit using a directory code, you must enter a directory code that includes a group number. The first two digits of the directory code are the group number (see Section D Area 5 – Groups That Activate This Relay above).

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER 3-DIGIT DIRECTORY CODE _____	981 + ENTER	The directory code must contain the number of digits you specified in Area 08.
		The first two numbers of the directory code <u>must be</u> a group number that is valid for the ARM unit. The example shows the group number as "98" and the directory code as "1". "98" is a group number that was entered in ARM area 5 (see Section D Groups That Activate This Relay).
		Do not duplicate codes unless tenants share a phone number.
		To change the code of someone who has left, you must first erase them from the system.
ENTER A TELEPHONE NUMBER _____	5551212 + ENTER	When code 981 is entered, the Infinity unit dials 555-1212.
		The ARM unit performs actions programmed for group number 98.
		Telephone numbers can be 1 to 11 digits long. Do not enter dashes between numbers.
ENTER NAME _____	DOE, JOHN E.	Names can be 13 characters long, including punctuation and spaces. The Commercial Building Option allows up to 35 characters.
		The directory is arranged alphabetically by the first character entered. "John Doe" would appear in the "J" section of the directory; "Doe, John" would appear in the "D" section.

H. ACTIVATE A RELAY ON THE ARM UNIT USING AN ENTRY CODE

The following section describes how to activate a relay on the ARM unit using entry codes. Entering these codes is very similar to entering codes into the Multi-Link units. Use the programming steps listed in Part 6 Telephone Number, Entry Codes, and Card Codes, Sections A, B, and C, but include a valid group code in the appropriate area (described below).

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER 5-DIGIT ENTRY CODE _____	98345 + ENTER	Code length is established in Area 08 (**factory set = 4** which will give slightly different prompt). The first two numbers of the directory code <u>must be</u> a group number that is valid for the ARM unit. The example shows the group number as "98" and the directory code as "345". "98" is a group number that was entered in ARM area 5 (see Section D Groups That Activate This Relay). You may not duplicate codes.
* ENTER TIME ZONE (0=ANY TIME, OR 1-7) ___ (CAUTION: TIME ZONES 1-7 MIGHT NOT BE THE SAME IN ALL UNITS)	0 + ENTER	0 = Code will be valid at any time. Zones 1-7 must be set up in Area 02
**ENTER NAME _____	DOE, JOHN P.	Limit is 13 characters.

I. ACTIVATE A RELAY ON THE ARM UNIT USING AN CARD CODE

The following section describes how to activate a relay on the ARM unit using entry codes. Entering these codes is very similar to entering codes into the Multi-Link units. Use the programming steps listed in Part 6 Telephone Number, Entry Codes, and Card Codes, Sections A, B, and C, but include a valid group code in the appropriate area (described below).

SYSTEM PROMPT	EXAMPLE	IMPORTANT NOTES
ENTER CARD CODE _____	00789 + ENTER	Card codes must be 5 digits.
ENTER TIME ZONE (0 FOR ANY TIME, OR 1-7) __ (CAUTION: TIME ZONES 1-7 MIGHT NOT BE THE SAME IN ALL UNITS)	1 + ENTER	Card will be subjected to Time Zone 1 restrictions. Time zone "0" is unrestricted. Zones 1-7 must be set up in Area 02.
**ENTER NAME _____	DOE, JOHN P 12	The name field only has a limit of 13 characters. You <u>must</u> enter a valid group code as the last two digits in the name field in order for this code to be valid in an ARM unit. In the example shown, the group code for this card is 12.