

**INSTRUCTION MANUAL
FOR THE
PROGRAMMING AND USE
OF
HORIZON SYSTEMS**

Sentexsystems

IMPORTANT NOTICE

The Horizon system provides extremely powerful and user-friendly access control. However, if it is programmed incorrectly, the system may function improperly and is 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 the time to read these instructions completely before attempting to program or use your Horizon system. If you have any questions, your installing dealer will be happy to assist you.

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1 - OVERVIEW OF SYSTEM OPERATION

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

The Horizon system is capable of carrying out the following functions:

1. VISITOR ENTRY

The Horizon system can store, recall, and dial the telephone numbers of your building's occupants and respond to signals from their telephones to unlock a door or activate a gate operator (or any other device you wish). A visitor is instructed to find the occupant's name on the system and will display one name at a time at the visitor's request. When the code is entered, the system will dial the associated telephone number. If the occupant answers the call, they can take one of four actions by dialing a number on their telephone (the system recognizes signals from their telephones using tone dialing only, except for action (A), which can also be initiated by a rotary/pulse dial telephone):

- A) a "9" will activate relay 1 to open a door or gate. The message "ACCESS GRANTED - PLEASE ENTER NOW" will show on the display, and a short tone burst will be emitted.
- B) a "5" will activate relay 2 to open a door or to turn on whatever device is controlled by this relay (if relay 2 is set for control).
- C) a "*" will hang-up the Horizon system without allowing entry.
- D) a "#" will extend the "call-time" (you can perform this action as often as you like in a conversation).

2. AUTHORIZED PERSONNEL/OCCUPANT ENTRY

The Horizon system can be used to control the access of people who are authorized to be inside the building/complex with the use of entry codes. These 4-digit codes can be given to each occupant, service person, etc. or these codes can be limited to a few, or no, people. Each person enters their code on the keypad on the system's faceplate. If the code is valid, relay 1 will activate and the entrance will be unlocked/opened. A series of invalid codes (you set the number) within a 3-minute period will disable this function for 3 minutes. The rest of the system's capabilities will continue to operate. This function is known as "strikes-and-out".

3. ACCESS FOR POST OFFICE AND FIRE DEPARTMENT

Conditions 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. These will be hooked up by your installer and the relevant agency, if needed.

4. DIRECT OPERATOR CONTROL OF RELAYS - SEE PAGE 16.

5. SPECIAL FUNCTIONS - SEE PAGE 18.

A number of special functions are available. Please refer to page 18 to see if any of the special functions apply to your application.

2 - HINTS ON SYSTEM USE AND MAINTENANCE

This section covers some important tips on how to use and maintain your Horizon system. After you understand it completely, you should review this information, as well as that contained in section 1, with everyone who will use or maintain this system. Your installing dealer should also give you a single page of "User Instructions" that you can copy and give to each person. This training will make sure that user problems are minimized, which in turn will make your life easier. Even if this seems clear and uncomplicated to you, experience suggests that untrained users will initially have troubles.

VISITOR ENTRY

1. When an occupant is allowing entry, neither party should hang-up until the occupant has pressed the appropriate key on his/her telephone.
2. The Horizon system has a feature that you (or anyone else you choose to tell about this feature) may use to initiate communication with the system. Dial the telephone number of the line to which the Horizon is connected and when it answers, press the "#" key on your telephone. This will establish two-way communications using the Horizon's speaker and microphone, but will not allow you to grant entry. The call will time out just like a call placed from the Horizon.

CODE ENTRY

1. If someone enters part of their entry code incorrectly, they can clear the incorrect entry by pressing the "*" key once. They must start over at the beginning of the code.
2. When an incorrect entry code is made on the keypad, the system will normally display an "INVALID CODE - PLEASE WAIT" message for 3 seconds and then say "NOW TRY AGAIN". However, if this incorrect entry code causes the system to meet your "strikes-and-out" limit, the first message will say "INVALID ENTRY" not "INVALID CODE" and the "NOW TRY AGAIN" message will not appear. Moreover, for the next 3 minutes the system will respond "SYSTEM IN USE" anytime someone tries to enter an entry code at the keypad.

SYSTEM MAINTENANCE

1. The window that protects your display in your system may have been treated with a special coating that essentially eliminates glare and makes it much easier to read the display (this is an option - consult your dealer to inquire if this has been purchased with your system). However, accumulated dirt or dust on the window or display can, over time, significantly reduce the readability of the display. Consequently, you should make sure that the window is kept clean, both on the outside and the inside. 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.**

3 - BASIC PROGRAMMING RULES

One aspect of the Horizon system's flexibility is that it can be programmed using any one of three programming sources: (1) a handheld alpha numeric data entry terminal connected to the unit, (2) the 12 button keypad on the faceplate of the unit, or (3) a terminal/modem combination hooked via telephone into the optional built-in modem.

Programming is similar for all three 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 terminal/modem combination hooked via telephone to the system's optional built-in modem (referred to as "terminal" hereafter). Differences between these two programming methods and the remaining programming method are covered in section 10.

This section covers some general rules about programming the Horizon system. If you master these few basic rules, you will have little trouble programming the system correctly:

- Before you can begin programming, your programming source must be activated. If you are using the handheld, you must first open the Horizon cabinet and plug the cable into the pins in the upper right-hand corner of the main circuit board that is labeled "HANDHELD PROGRAMMER". The pin on the handheld programmer's connector which is closest to the red stripe on the ribbon cable is considered pin 1. Connect pin 1 on the connector to pin J3 on the main processor board. The ribbon cable should extend down from the connector.
- To enter programming with the use of the handheld, press any key on the programming keypad. When you enter the programming mode, you will see the prompt shown below:

IN PROGRAMMING - AREA NUMBER _ _

- To enter programming with the use of a terminal/modem, dial the telephone number that is connected to your system. When the system answers the line and the terminal displays the "<CONNECT>" message, enter a "★" and the six-digit programming access code. To see a menu of the programming areas that you can access, enter "88" plus the "ENTER" button at the programming prompt. This menu is also shown on page 6.
- After you complete your entries in any area, you will be asked "DO YOU WISH TO CONTINUE IN THIS AREA? (1=YES, 0=NO)". If you press the "1" key, the system will return to the prompt in which you specify the door(s) to which the programming is addressed. If you press the "0" key, the system will return to the menu prompt.
- When you have entered your response to a prompt, press the "ENTER" key. If you have entered the correct number and type of characters in the correct format, the system will display the next prompt. No entry is recorded in memory until all prompts in an area are completed.
- If you realize in the middle of an entry that you have made an error, press the "ESCAPE" key (on some keyboards, this key only says "ESC"). 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. You also press the "ESCAPE" key if you are at the beginning of any prompt and want 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 "ESCAPE" button when the menu prompt is on the screen.

- If you make a format error during programming, the system will display an error message and you will be given a clean 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 large or too small.
- 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 the relay activation time.
- 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 the second point on the previous page.
- Due to space limitations in the Horizon system's memory, there are certain punctuation marks that cannot be used in the welcoming message that is shown on the display. The punctuation marks that you **may** use in this message are the following: pound (#), star/asterisk (★), comma (,), period (.), dash (-), apostrophe ('), slash (/), and a blank space.

4 - 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 of the codes, and you are programming the Horizon system through a terminal/modem, you may access the main menu by entering "88" and the "ENTER" button when the "menu prompt" is shown (as described on page 4). For your reference, the menu of choices is shown below as it would appear on your terminal. The menu below is also shown as a reference for systems which will be programmed with the use of a handheld or the main keypad.

<u>CODE</u>	<u>PROGRAMMING AREA</u>	<u>CODE</u>	<u>PROGRAMMING AREA</u>
00	CHANGING THE PROGRAMMING ACCESS CODE	07	ENTERING TELEPHONE NUMBERS
01	SETTING RELAY 2 CONFIGURATION	08	ENTERING ENTRY CODES
02	SETTING DOOR OPEN TIME	09	SETTING SPECIAL FUNCTIONS
03	SETTING STRIKES AND OUT	10	ERASING TELEPHONE NUMBERS
04	SETTING CALL LENGTH	11	ERASING ENTRY CODES
05	SETTING DIRECTORY CODE LENGTH	12	ERASING ALL ENTRIES
06	CHANGING SCREEN MESSAGES	13	VERIFYING ENTRIES

YOUR CHOICE: __

Each of the programming areas are discussed in detail in the following pages, including an explanation of what you will be trying to accomplish in each area. A listing of the prompts that the system will display in leading you through the required entries is also 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.

NOTE: You will not be permitted access to areas that your specific system is not equipped to handle.

Section 5 covers all the areas that deal with setting up the system guidelines, including areas 00 through 06. Section 6 covers areas 07 through 12, the repetitive entries for adding and erasing telephone numbers and entry codes from the system. Section 7 discusses area 13 which is used to check what is contained in the system's memory.

IMPORTANT NOTE: Sections 8 and 9 discuss several "hidden" functions which are not shown on the main programming menu, but which you may want to utilize under special circumstances.

5 - 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 "ESCAPE" or "ESC" button. To tell the system you have completed an entry, press the "ENTER" button. Also, remember to watch the flashing cursor so that you make the correct response to each prompt.

AREA 00 - CHANGING PROGRAMMING ACCESS CODE

PURPOSE: To change the code that must be used to enter the programming mode to some combination that will be secret and easy to remember. **Factory setting = 000000.**

<u>SYSTEM PROMPT</u>	<u>EXAMPLE OF TYPICAL ENTRY</u>	<u>IMPORTANT NOTES</u>
PROG ACCESS CODE IS _____	555555 + ENTER	THIS IS A SIX DIGIT CODE CONSISTING OF NUMBERS ONLY.

AREA 01 - SETTING RELAY 2 CONFIGURATION

PURPOSE: There are six (6) different configurations in which relay 2 can be set. Below is a list of these configurations, followed by an explanation of each. The numbers next to each configuration are the digits which you will use to program the system. These configurations are as follows:

0 = Control	3 = CCTV
1 = Shunt	4 = CCTV Immediate
2 = Alarm	5 = Emergency Call (not available in Canada)

If the second relay is set to **Control**, it will activate when the resident dials the tone activation digit for relay 2 or when terminal "AUX" on the Horizon controller board sees a contact closure to common. If set to **Shunt**, it activates whenever relay 1 activates to temporarily bypass an alarm sensor monitoring this entry. If set to **Alarm**, it will activate if (1) the terminal marked "AUX" on the Horizon controller board sees a contact closure to "COMMON" when relay 1 is de-energized (e.g., the controlled entry is forced open), (2) the terminal marked "AUX" on the Horizon controller board sees a contact closure for more than one minute after the main relay has de-energized (e.g., the entry is held open), or (3) the strikes-and-out feature has been violated (see step 03 for further discussion of the strikes-and-out feature). If set to **CCTV**, the resident dials the activation digit for relay 2 to activate the closed circuit TV. The relay will be deactivated when the call is terminated (by the resident granting or denying entry or by the call "timing out"). If set to **CCTV Immediate**, relay 2 will activate the closed circuit TV as soon as a visitor dials a resident. After the tenant call is terminated (by the resident granting or denying entry or by the call "timing out"), relay 2 will remain activated for the programmed activation time. If set to **Emergency Call** (not available in Canada), relay 2 will act in the same manner as if the system was set to CCTV Immediate. Furthermore, if status line 2 is activated by an emergency call button (or another type of device that provides a contact closure) and the system is currently not in programming or making a tenant call, the system will activate the closed circuit TV attached to relay 2 and place a call to the programmed emergency call number. When the manager (or an authorized person) answers the emergency call, the system will connect that person to the system's speaker/microphone. **Factory setting = Control.**

PLEASE NOTE: If you have an exit request button connected to relay 2, you will need to set the configuration of relay 2 as Control. If relay 2 is set for any other configuration, this device will not work.

<u>SYSTEM PROMPT</u>	<u>EXAMPLE OF TYPICAL ENTRY</u>	<u>IMPORTANT NOTES</u>
ENTER RELAY CONFIGURATION ___	5 + ENTER	--SEE EXPLANATION GIVEN IN "PURPOSE" SECTION ABOVE FOR IMPLICATIONS OF EACH CHOICE.
TELEPHONE NUMBER _____	5551212 + ENTER	--THIS PROMPT WILL ONLY APPEAR IF YOU SELECTED EMERGENCY CALL AS THE RELAY CONFIGURATION. --THE EMERGENCY CALL TELEPHONE NUMBER CAN BE UP TO 10 DIGITS IN LENGTH.

AREA 02 - SETTING DOOR OPEN TIME

PURPOSE: Sets the period of time that each relay will remain activated. **Factory setting = 10 seconds.**

<u>SYSTEM PROMPT</u>	<u>EXAMPLE OF TYPICAL ENTRY</u>	<u>IMPORTANT NOTES</u>
ACTIVATION TIME FOR RELAY 1 ___	07 + ENTER	--ANSWER MUST CONTAIN 2 DIGITS. RELAYS CAN BE ACTIVATED FOR 01 TO 99 SECONDS. --IF THIS RELAY ACTIVATES 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, 2 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.

ACTIVATION TIME FOR RELAY 2 ___

08 + ENTER

--ANSWER MUST ALSO CONTAIN 2 DIGITS.
 --IF THIS RELAY ACTIVATES 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, 2 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.
 --IF THE RELAY CONFIGURATION FOR RELAY 2 IS SET FOR CCTV IMMEDIATE AND YOU WISH TO HAVE RELAY 2 DEACTIVATE ONCE THE CALL IS TERMINATED (BY EITHER GRANTING OR DENYING ACCESS TO THE BUILDING OR THE CALL "TIMING OUT"), THEN SET THE RELAY ACTIVATION TIME FOR 01 SECOND. IF YOU WISH TO HAVE THE ABILITY TO WATCH SOMEONE ENTER THROUGH THE GATE, THE RELAY ACTIVATION TIME SHOULD BE SET FOR A LONGER PERIOD OF TIME.

AREA 03 - 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 and will close a specified relay. **Factory setting = 3 incorrect entries.**

<u>SYSTEM PROMPT</u>	<u>EXAMPLE OF TYPICAL ENTRY</u>	<u>IMPORTANT NOTES</u>
ENTER NUMBER OF STRIKES (1-9) ___	4 + ENTER	WILL ALLOW 4 INCORRECT CODES.

AREA 04 - SETTING CALL LENGTH

PURPOSE: Sets the length of any call made by the system. Time starts when dialing stops. **Factory setting = 60 seconds.**

<u>SYSTEM PROMPT</u>	<u>EXAMPLE OF TYPICAL ENTRY</u>	<u>IMPORTANT NOTES</u>
ENTER TALK TIME ___ SECONDS	072 + ENTER	--ENTER TIME AS THREE DIGITS --THIS ENTRY CAN BE BETWEEN 015 AND 250 SECONDS.

AREA 05 - SETTING DIRECTORY CODE LENGTH

PURPOSE: Sets the number of digits in the directory codes (the number associated with the tenant's name and telephone number). **Factory setting = 3 digits.**

<u>SYSTEM PROMPT</u>	<u>EXAMPLE OF TYPICAL ENTRY</u>	<u>IMPORTANT NOTES</u>
DIGITS IN DIRECTORY CODE (1, 2, 3, 4)? __	4 + ENTER	IF YOU CHANGE THE CODE LENGTH AFTER THE INITIAL SETTING, YOU MUST ERASE ALL OF THE DIRECTORY CODES IN THE SYSTEM AND THEN RE-ENTER THEM AT THE NEW LENGTH OR THE SYSTEM WILL NOT FUNCTION PROPERLY.

AREA 06 - CHANGING SCREEN MESSAGES

PURPOSE: This area allows all of the screen messages to be changed to suit the user. This includes the possibility of converting the directions into a foreign language. None of the programming instructions or messages can be changed. There are two (2) sections on how to program these areas: (1) programming with the use of the small display, or (2) programming with the use of a terminal. Please refer to the area which corresponds with your programming source.

PROGRAMMING WITH THE USE OF THE SMALL DISPLAY

If you are programming your Horizon system with the use of a handheld programmer or keypad, you will be using the small display as your reference. The following messages are the default messages that will be shown, in sequential order, on the small display. After a set of lines are shown, the system will ask if you wish to change the previous message. If you wish to change the message, simply enter a "1" and the system will then ask which line you wish to change. Enter the line number corresponding with the examples on the following page and then enter your screen message. If you change a screen message and decide later to return it to the default message, simply enter a zero (0) at the prompt after choosing to change that message. The words which are in bold type will not appear on the small display, but are shown for your reference. **IMPORTANT NOTE:** Only the welcoming message (the first message shown) needs to be programmed. The other menu choices do not need to be changed. In fact, we strongly recommend that you leave the other messages unchanged, unless your particular application requires that they be changed.

<u>LINE 1 OF DISPLAY</u>	<u>LINE 2 OF DISPLAY</u>
WELCOMING	MESSAGE
HOLD # KEY IN	TO SEE DIRECTORY
# TO GO FORWARD	* TO GO BACKWARD
OR ENTER CODE ON	KEYPAD TO DIAL
PRESS * IF BUSY	OR NO ANSWER
SYSTEM IS	DIALING
THANKS FOR USING	SENTEX SYSTEMS
ACCESS GRANTED	PLEASE ENTER NOW
SYSTEM IN USE	
INVALID	CODE
LINE NOW FREE	PRESS # TO DIAL
	LINE IS IN USE
LINE IS	STILL BUSY
PLEASE TRY	AGAIN LATER
NOW	TRY AGAIN
CODE:	

PROGRAMMING WITH THE USE OF A TERMINAL/MODEM

The following examples are for those programming the Horizon by terminal/modem. The AREA 06 menu will provide you with four (4) selections. These selections are as follows:

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

To begin programming the screen messages, enter the number associated with the area you wish above. The following pages will give you directions for programming each area above, as well as a list of the default messages in each area. **IMPORTANT NOTE:** Only the welcoming message needs to be programmed. The other choices do not need to be changed. In fact, 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. **IMPORTANT NOTE:** The factory setting for this area is a generic message stating "WELCOMING MESSAGE". Therefore, this area **must** be programmed.

<u>SYSTEM PROMPT</u>	<u>EXAMPLE OF TYPICAL ENTRY</u>	<u>IMPORTANT NOTES</u>
WHICH LINE NUMBER WOULD YOU LIKE TO CHANGE (1-2)? __	1 + ENTER	INDICATES THAT YOU WISH TO ENTER INFORMATION FOR LINE 1.
ENTER 16 CHARACTERS OR LESS FOR THIS LINE _____	WELCOME TO + ENTER	TO ENTER A LINE, PRESS A SPACE AND THE "ENTER" BUTTON.

2. DIRECTIONS PAGE

This message provides instructions for system use. It includes 3 screens of 2 lines with 16 characters. Each line has a factory default instruction line (shown below) 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 zero (0). The message will be displayed on the terminal's screen as shown below.

<u>SYSTEM PROMPT</u>	<u>EXAMPLE OF TYPICAL ENTRY</u>	<u>IMPORTANT NOTES</u>
THESE MESSAGES ARE THE DIRECTORY INSTRUCTIONS	1 + ENTER	--ENABLES EDITING OF LINE 1. --UNLESS YOUR APPLICATION REQUIRES YOU TO CHANGE THESE MESSAGES, IT IS STRONGLY ADVISED THAT YOU DO NOT CHANGE ANY OF THE MESSAGES IN THIS SECTION.
{TOP} LINE 1: HOLD # KEY IN LINE 2: # TO GO FORWARD LINE 3: OR ENTER CODE ON	{BOTTOM} TO SEE DIRECTORY * TO GO BACKWARD KEYPAD TO DIAL	

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

6 - ENTERING AND ERASING TELEPHONE NUMBERS AND ENTRY CODES

The programming areas in this section are subject to a number of variations depending on what capabilities have been installed in your system.

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

AREA 07 - ENTERING TELEPHONE NUMBERS

PURPOSE: To enter directory codes (the code that will appear next to the name on the directory), telephone numbers, and names. The names will be inserted in the directory listing automatically. The amount of numbers and names your system will hold can be verified using area 13 selection 4 (see page 16). If your system is connected to a PBX telephone system in your building, see Section 9 (Other Special Functions) on page 17.

<u>SYSTEM PROMPT</u>	<u>EXAMPLE OF TYPICAL ENTRY</u>	<u>IMPORTANT NOTES</u>
ENTER 4 DIGIT DIRECT. CODE _____	1234 + ENTER	--THE SYSTEM WILL ASK FOR A CODE CONTAINING THE NUMBER OF DIGITS YOU SPECIFIED IN AREA 05. --YOU MAY NOT DUPLICATE CODES UNLESS THE PEOPLE WHO SHARE A CODE ALSO SHARE A PHONE NUMBER. IF YOU TRY TO USE THE SAME CODE FOR DIFFERENT PHONE NUMBERS, YOU WILL GET AN ERROR MESSAGE AFTER YOU RESPOND TO THE NEXT PROMPT. --TO REPLACE SOMEONE WHO HAS LEFT, YOU MUST FIRST ERASE THEM FROM THE SYSTEM (SEE AREA 10).
ENTER TELEPHONE NUMBER _____	5551212 + ENTER	--SETS CODE 1234 TO DIAL 555-1212. --TELEPHONE NUMBERS CAN BE 1 TO 10 DIGITS IN LENGTH. DO NOT ENTER DASHES BETWEEN NUMBERS. --IF YOU ENTER A TELEPHONE NUMBER THAT IS EXACTLY 10 DIGITS IN LENGTH, THE HORIZON WILL AUTOMATICALLY DIAL A "1" BEFORE THE TELEPHONE NUMBER. IF YOU DO NOT WANT THE SYSTEM TO DIAL A "1" BEFORE ANY 10-DIGIT TELEPHONE NUMBERS, DISABLE THE "PREFIX '1'" FEATURE (SEE PAGE 18).

ENTER NAME _____

DOE, JOHN P. +
ENTER

--NAME CAN BE 13 CHARACTERS LONG, INCLUDING PUNCTUATION AND SPACES.
--THE DIRECTORY IS ARRANGED ALPHABETICALLY BY THE FIRST CHARACTER IN THE NAME. THEREFORE, "JOHN DOE" WILL APPEAR IN THE "J" SECTION OF THE DIRECTORY AND "DOE, JOHN" WOULD APPEAR IN THE "D" SECTION.

AREA 08 - ENTERING ENTRY CODES

PURPOSE: To set up 4-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 to contact someone inside. The number of entry codes that your system can hold can be checked using area 13 selection 4 (see page 16).

<u>SYSTEM PROMPT</u>	<u>EXAMPLE OF TYPICAL ENTRY</u>	<u>IMPORTANT NOTES</u>
ENTERING 4-DIGIT ENTRY CODE (LESS THAN 9999) _____	1234 + ENTER	YOU MAY NOT DUPLICATE CODES. IF YOU TRY TO DO SO, THE SYSTEM WILL GIVE AN ERROR MESSAGE.
MORE CODES? (1=YES, 0=NO) ___	1 + ENTER	"1" RETURNS YOU TO THE FIRST PROMPT, "0" TAKES YOU TO THE MENU PROMPT.

AREA 09 - SETTING SPECIAL FUNCTIONS - SEE SECTION 9 OF THIS MANUAL

AREA 10 - ERASING TELEPHONE NUMBERS

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

<u>SYSTEM PROMPT</u>	<u>EXAMPLE OF TYPICAL ENTRY</u>	<u>IMPORTANT NOTES</u>
ENTER CODE TO ERASE ___	1234 + ENTER	SYSTEM WILL RESPOND WITH THE INFORMATION IN MEMORY ASSOCIATED WITH THIS CODE.

*TELEPHONE NUMBER: 5551212
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 ARE DISPLAYED.

AREA 11 - ERASING ENTRY CODES

PURPOSE: Allows individual entry codes to be erased from the system's memory.

<u>SYSTEM PROMPT</u>	<u>EXAMPLE OF TYPICAL ENTRY</u>	<u>IMPORTANT NOTES</u>
ENTER ENTRY CODE TO ERASE _____	1234 + ENTER	THE SYSTEM WILL SHOW THE CODE AGAIN BEFORE PROCEEDING TO THE NEXT PROMPT.
ERASE THIS ENTRY (1=YES, 0=NO) __	1 + ENTER	YOU MUST CONFIRM THAT YOU WISH TO ERASE THIS CODE. IF YOU SAY NO, THE CODE REMAINS IN THE SYSTEM'S MEMORY.

AREA 12 - ERASING ALL ENTRIES

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

<u>SYSTEM PROMPT</u>	<u>EXAMPLE OF TYPICAL ENTRY</u>	<u>IMPORTANT NOTES</u>
ERASE (0=PHONE, 1=CODE) __	1 + ENTER	THIS WILL INDICATE THAT YOU WISH TO HAVE ALL OF THE ENTRY CODES ERASED.
<i>ALL ENTRY CODES WILL BE ERASED</i> ARE YOU SURE (1=YES, 0=NO) __	1 + 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 SYSTEM'S 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.

7 - VERIFYING ENTRIES

AREA 13 - VERIFYING ENTRIES

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

<u>SYSTEM PROMPT</u>	<u>EXAMPLE OF TYPICAL ENTRY</u>	<u>IMPORTANT NOTES</u>
ENTER AREA TO VERIFY (1-4): 1=TELEPHONE NUMBERS 2=ENTRY CODES 3=SYSTEM SET-UP 4=SYSTEM CAPACITIES/OPTIONS	1 + ENTER	ENTERING A "1" OR A "2" WILL ALLOW YOU TO CHECK INDIVIDUAL ENTRIES THAT YOU HAVE MADE. ENTERING A "3" WILL SHOW YOU THE ENTRIES YOU HAVE MADE REGARDING SYSTEM SETUP. ENTERING A "4" WILL SHOW THE CAPACITIES AND OPTIONS THAT YOUR SYSTEM IS EQUIPPED WITH.

8 - DIRECTLY CONTROLLING SYSTEM RELAYS

In addition to the programming areas discussed on the previous pages, you may also directly control the system's two 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 not included in the "program mode" only to ensure that system relays are not activated or deactivated except by authorized personnel.

REMOTE RELAY ACTIVATION

In order to remotely activate the system's two relays, you first need to enter the programming mode. To enter the programming mode, call the telephone number designated for the system from a touch tone telephone. The Horizon will answer the telephone line and will put out a modem carrier signal over the telephone line. Next, enter a single asterisk ("*") and the six-digit programming access code. Once you have entered the asterisk, the modem signal will cease and after you have entered the programming mode, the system will respond with two short beeps. Once you are in the programming mode, the code for controlling the system's relays are as follows:

TIMED RELAY ACTIVATION

RELAY 1 = 99 + #

RELAY 2 = 95 + #

Once the relay has been activated, you will hear one long tone followed by two short tones.

SUSTAINED RELAY ACTIVATION (stays activated until released by operator)

RELAY 1 = 98 + #

RELAY 2 = 94 + #

Once the relay has been activated, you will hear one long tone followed by two short tones. This relay will not deactivate until you "unlatch" it by initiating a timed activation of the same relay as described above.

ON-SITE RELAY ACTIVATION

The first step for on-site relay activation is to enter the programming mode via your programming source. Next, you will enter the appropriate code for the relay you wish to activate. The codes for controlling the system's relays are as follows:

TIMED RELAY ACTIVATION (activation time is established in area 02)

RELAY 1 = 99 + ENTER
RELAY 2 = 95 + 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

The unit will respond with "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 above.

PLEASE NOTE: If relay 2 is set to operate as an alarm relay, you will not be able to operate it on either a timed or sustained basis.

9 - OTHER SPECIAL FUNCTIONS

The Horizon system has several other functions that you may need to use in special circumstances. These are accessed from the programming mode and are activated by entering a 2-digit code when the menu prompt appears on the screen.

ACTIVATING "PBX" DIALING

If a Horizon system with visitor entry capability is connected to a PBX telephone system, you can direct the system to dial a digit (which you specify) and then pause briefly (so the PBX can give the system an outside line) before dialing a 7-digit or longer telephone number that you program 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 the leading digit and pause.

To enable PBX dialing (or disable it if it has been enabled earlier), enter "09" and the "ENTER" button when the menu prompt is shown. The system will then give you a list of options and will ask you for the option number you want. Enter number "2" at this prompt. The system will then ask you to either enter a "1" (to enable the PBX option) or a "0" (to disable the PBX option). If you enter a "1", the system will then ask you for the number to dial before the telephone number. Enter this number (a "9" for most PBX systems) and press the "ENTER" key. If you enter a "0", you will disable the PBX option on this system.

ENABLING/DISABLING THE PREFIX "1" FEATURE

When you are entering a directory code and the telephone number is exactly 10 digits in length, the Horizon system will automatically dial a leading "1" before the 10 digits. This feature is called the Prefix "1" feature. The factory default setting for this feature is "Enabled".

If you do not want the system to automatically dial a leading "1" on a 10-digit telephone number, you will need to disable the Prefix "1" feature. To disable this feature, enter "09" and the "ENTER" button when the menu prompt is shown. When the Area 9 menu prompt appears, enter "3" for "Enable Prefix 1". The system will then ask you to either enter a "1" (to enable the Prefix 1 option) or a "0" (to disable the Prefix 1 option). Enter the appropriate number and press the "ENTER" button.

ENABLING/DISABLING NEW ANSWER

This feature is set to "Yes" by the factory and does not need to be changed unless a version of SPS older than version 6460 is in use. Older versions of SPS do not support the "New Answer" method and "Enable New Answer" should be set to "0" (zero) for No.

"Enable New Answer" must be set to "Yes" when there are multiple units sharing a phone line. When multiple units share a phone line, each unit must have a unique access code and the "Rings Before Answer" setting must be the same.

To enable this feature, enter "09" and the "ENTER" button when the menu prompt is shown. When the Area 9 menu prompt appears, enter "4" for "Enable New Answer". The system will then ask you to either enter a "1" (to enable the New Answer) or a "0" (to disable the New Answer). Enter the appropriate number and press the "ENTER" button.

RE-SORTING A DIRECTORY

If the directory in a system which has visitor entry capability should get scrambled for some reason, you may direct that system to "re-sort" it and put it back in the correct alphabetical order. At the menu prompt, enter the number "73" and the "ENTER" button. The system will then display a "PLEASE WAIT" message. When the next prompt appears on the screen, the re-sort is completed.

SETTING ANSWER RING COUNT

You may choose the number of times the phone will ring before the system will answer the line. At the menu prompt, enter "09" and the "ENTER" button. The system will then give you a list of options and will ask you for the option number you want. Enter the number "1" and the "ENTER" button at this prompt. The system will then ask you "RINGS BEFORE ANSWER ___". Enter the number of times you want the phone to ring (between 1 to 9 rings) before the system will pick it up and press the "ENTER" button.

Factory setting = 1.

ACTIVATING ALTERNATIVE SCROLLING MODE

If you have a large capacity of directory codes, you may choose to have the alternative scrolling mode activated. The alternative scrolling mode saves a visitor time in trying to locate a tenant's directory code. This feature is demonstrated when a visitor presses the "#" key on the Horizon keypad. Instead of having the first alphabetically-sorted code displayed when the "#" key is pressed, this feature will cause the Horizon to display the code located in the middle of the programmed directory codes. For example, if you have a system with 100 directory codes programmed and you wish to activate alternative scrolling, the 50th directory code listed will be shown when the "#" key is pressed. Otherwise, if you do not wish to activate alternative scrolling, the first directory code will be shown when the "#" key is pressed.

To activate the alternative scrolling mode, at the menu prompt enter "50" and the "ENTER" button. The next prompt will read "JUMP TO MID DIR? (1=YES, 0=NO) ___". If you wish to have the alternative scrolling mode activated, enter a "1" at this prompt. If you do not wish to have the alternative scrolling mode activated or you wish to deactivate a previously activated scrolling mode, enter a "0" at this prompt and the system will return you to the main menu prompt.

10 - PROGRAMMING VIA THE 12-BUTTON KEYPAD

As noted in the "BASIC HINTS" section, your Horizon system can be programmed via the 12-button keypad on the face of the system. Programming via the keypad on the face of the Horizon system involves only four differences from the procedures described in pages 7 through 16:

1. To enter programming, the programming access code must be preceded by pressing the "*" button three (3) times instead of once.
2. The "#" button functions like the "ENTER" button on the terminal and the "*" button takes the place of the "ESCAPE" button. Thus, when you are done with an entry, you press the "#" button. If you wish to exit from a programming step or erase a mistaken entry, you press the "*" button.
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.