PROGRAMMING INSTRUCTIONS
FOR THE
SPECTRUM AND VISTA
TELEPHONE ENTRY SYSTEMS
WITH THE -100 BOARD

IMPORTANT NOTE

These instructions are for programming a Spectrum/Vista system with a 100 board. These instructions differ significantly from the programming manual for the Spectrum/Vista with a 99 board. In particular, programming telephone numbers with the 100 board is different than with the 99 board. In order to program your 100 board Spectrum/Vista system correctly, please read this manual thoroughly.
IMPORTANT NOTICE

The Spectrum and Vista systems are very reliable and easy to use. However, if programmed incorrectly, these systems may function improperly and are likely to cause you and others a great deal of inconvenience. Similarly, there are certain key things you must know about using these systems. Thus, you should take the time to read these instructions completely before attempting to program or use your system. Also, where space is provided in these instructions, fill in the entries that you will make before you begin programming. If you have any questions, your installing dealer will be happy to assist you.

TABLE OF CONTENTS

This document is divided into five sections as follows:

<table>
<thead>
<tr>
<th>SECTION NAME</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Overview of System Operation</td>
<td>2</td>
</tr>
<tr>
<td>2. Basic Hints/Programming Rules</td>
<td>3</td>
</tr>
<tr>
<td>3. Setting System Guidelines</td>
<td>4</td>
</tr>
<tr>
<td>4. Entering and Erasing Telephone Numbers and Entry Codes</td>
<td>6</td>
</tr>
<tr>
<td>5. Remote Programming and Remote Relay Activation</td>
<td>8</td>
</tr>
</tbody>
</table>
**IMPORTANT:** The Sentex Systems, Inc. warranty on this system is conditioned upon Sentex Systems, Inc. being paid in full for this equipment. This warranty will not be honored until such payment has been received by Sentex Systems, Inc.

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1 - OVERVIEW OF SYSTEM OPERATION

Your Spectrum/Vista telephone entry system stores, recalls, and dials the telephone numbers of your building's residents/occupants (referred to hereafter simply as resident or residents), and responds to signals from their phones to unlock a door or activate an automatic gate operator. When a visitor arrives at the controlled entrance, he/she lifts the receiver (if you have a model with a handset), pushes the "#" button on the keypad to activate the system, and then dials the code that is listed next to the resident's name on your directory. If the resident decides to let the visitor in after talking with him/her, they enter a "9" (on either a tone or rotary dial telephone) for door 1 or a "5" (on their tone dial telephone only) for door 2. This will cause the controlled entrance to be unlocked. It will also cause the display to show an open indication and cause the system to emit a 3-second tone. If the resident wants to extend the time allowed to talk through the system, they would enter a "#" on their telephone. If a resident wants to hang-up on a visitor without allowing access, they enter a "✱" on their telephone. **It is important that all residents know how the system operates.** When allowing entry, neither party should hang-up until the display and tone are activated.

The system also has an option that allows it to be used with codes that, when entered on the system's keypad, can activate the corresponding relay. If your system is equipped with this option, 4-digit entry codes can be given to (or chosen by) each resident as well as 10 vendors, service people, etc. Conversely, you can decide to limit the use of this feature to a few people. An authorized person who wishes to enter the building by these means presses the "✱" key and their 4-digit code. If a valid code is entered, the controlled entrance will unlock or activate in the manner described in the paragraph above. If invalid codes are entered successively (the number of incorrect successive entries allowed can be set between 1 and 9) within a 3-minute period, this feature will disable itself for 3-minutes. The rest of the system's capabilities will continue to operate normally.

Before the system can be used, the telephone numbers, directory codes, and other system variables must be programmed into the memory. Programming the system is easy once you understand the key steps in the procedure. However, incorrect programming can cause problems for you and others. Thus, you should **read these instructions thoroughly before attempting to program the system.**

For your convenience, a programming guide label has been placed on the inside of the system's cabinet. This guide is an easy, handy reference for you once you become familiar with the programming procedures.
2 - BASIC HINTS AND THE PROGRAMMING RULES

The sections that follow provide detailed explanations of how to program specific functions that the system can handle. The following programming rules and hints mostly apply when programming is completed at the system. However, there are a number of basic hints and programming rules that apply to programming the system remotely. If you have the remote programming feature enabled, please refer to section 5 of this manual for additional rules and hints on programming the system remotely.

Basic hints and programming rules for the Spectrum/Vista system are as follows:

1. To enter the program mode, open the cabinet and push the white button marked "PGRM". This will cause the display to show a "P". Close the cabinet and use the keypad to program. You can begin with any of the programming areas described on the following pages.

2. After you complete a valid programming sequence, the system will return the programming prompt ("P") to the display. You can then switch to another programming area or continue on with the area you just completed.

3. The system will remain in the program mode until you push the "# " or the "✱" button on the keypad, or until 60 seconds pass without an entry on the keypad (to make sure you do not accidentally leave the system in the program mode).

4. Several error codes are used to help ensure that you program the system correctly. The system will display an "E" and a 1-digit code to tell you what you have done wrong. These error codes are shown below:

<table>
<thead>
<tr>
<th>CODE</th>
<th>MEANING OF CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The entry you are trying to erase or verify does not exist in the system. For example, there is no directory code that matches the one you are trying to erase.</td>
</tr>
<tr>
<td>2</td>
<td>You have tried to enter a directory code or entry code that already exists in the system’s memory. For example, you are trying to enter directory code 253 and that code has already been assigned to someone else.</td>
</tr>
<tr>
<td>3</td>
<td>The system memory is full. You must either erase an individual entry that has already been made or erase the whole memory.</td>
</tr>
<tr>
<td>4</td>
<td>You have made a format error in making the entry. For example, you tried to enter a &quot;✱&quot; as part of a telephone number.</td>
</tr>
</tbody>
</table>

An "E" will also appear when the system is used incorrectly during normal operation.

5. If you realize during an entry that you are making a mistake, you can void the entry by purposely making a "format" error. Thus, if the format calls for the next key pushed to be a number, push the "# " key. If the format calls for the next key pushed to be the "✱", push any number key.
3 - SETTING SYSTEM CHARACTERISTICS

The programming sequences described in this section allow you to set up the characteristics of your telephone entry system. In general, you should only need to program in each area during system installation, not on an on-going basis.

SETTING DIRECTORY CODE LENGTH

Purpose  To tell the system how many digits will be in the code that a visitor uses to dial a resident.
Format  0 + 4 + code length (may be 1, 2, 3, or 4)
Example  0 + 4 + 3 (sets code length to 3 digits).
Important Notes  Factory setting is 2-digit code length.

WARNING: Be sure the directory code length is set properly before you begin entering telephone numbers. You may change this length later BUT you will have to change all directory codes in the system to the new length or the system will not function properly and you may run out of capacity.

A 1-digit code length will handle 10 codes, 2-digit codes will handle 100 codes, and 3- or 4-digits will handle 1000 codes.

VERIFYING DIRECTORY CODE LENGTH

Purpose  To make sure that the code length in the system is what you think it is/want it to be.
Format  You press the "8" and the display shows the code length.
Example  You press the "8" and the display will show an "8" and then a "3" indicating that the code length is 3-digits.

SETTING LOCK/GATE OPEN TIME

Purpose  To control how long the door or gate will remain unlocked/open.
Format  3 + number of seconds for door 1 (2 digits) + number of seconds for door 2 (2 digits)
Example  3 + 05 (sets door 1 unlocked/open time for 5 seconds) + 60 (sets door 2 unlocked/open time for 60 seconds).
Important Notes  Factory setting is 10 seconds for each relay. Open time can be reset from 01 to 63 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, 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.
## CHANGING NUMBER OF WRONG ENTRY CODES ALLOWED

### Purpose
This tells the system how many incorrect entry codes may be entered within a 3 minute period before the system deactivates the entry code function for a period of 3 minutes. All other functions continue to operate normally during this time.

### Format
0 + 3 + number of incorrect entry codes allowed (1 digit)

### Example
0 + 3 + 6 (sets incorrect entry codes allowed at 6)

### Important Notes
Factory setting is 2 incorrect entry codes allowed. The number can be reset from 1 to 9.

When the specified number of incorrect entry codes is reached, the system gives an error indication on the display whenever a new entry code is attempted until the 3 minute period is over.
4 - ENTERING AND ERASING
TELEPHONE NUMBERS AND ENTRY CODES

The programming sequences described in this section allow you to tell the system what telephone numbers it may dial and, if your system has the entry code option, which 4-digit entry codes should grant entry. These programming steps will be repeated frequently as people move in and out of your building.

ENTERING DIRECTORY CODES
AND TELEPHONE NUMBERS

Purpose
This tells the system to dial up to an 11-digit telephone number when the directory code (the code that appears next to the name on the directory) you program is entered on the keypad by a visitor.

Format
1 + directory code (see page 4 for number of digits) + telephone number (up to 11 digits) + # (entered only if the telephone number is under 11 digits).

Examples
1 + 38 + 5551212 + # (sets code 38 to dial 555-1212)
1 + 24 + 18185556978 (sets code 24 to dial 1-818-555-6978)

Important Notes
The directory code length you use must be the same for all residents. This length is set in the area discussed on page 4 entitled "Setting Directory Code Length".

If you are going to change a resident's telephone number or assign a directory code that has previously been used to a new resident, you must first erase the existing entry and then make the new entry. (See the area below entitled "Erasing Directory Codes/Telephone Numbers").

VERIFYING TELEPHONE NUMBERS

Purpose
Allows you to check that you have entered a telephone number correctly.

Format
7 + directory code (system will then show the telephone number you have assigned to that directory code).

Example
7 + 38 (system displays 5551212)

Important Notes
If the telephone number shown is incorrect, erase the entry as shown below and re-enter it correctly.

ERASING DIRECTORY CODES
AND TELEPHONE NUMBERS

Purpose
Deletes a directory code/telephone number entry from the memory.

Format
5 + directory code + 3 stars/asterisks

Example
5 + 38 + ***(erases directory code 38 and associated telephone number).
ERASING ALL DIRECTORY CODES
AND TELEPHONE NUMBERS

Purpose  Allows you to clear the entire directory code memory. You would perform this task if the memory has been filled with codes that have either been forgotten or entered in error.

Format  Press and hold the PGRM button and enter 05 + *** on the keypad. Do not release the PGRM button until you have entered all of the information on the keypad.

ENTERING ENTRY CODES
(This is an optional feature)

Purpose  Allows you to set up 4-digit codes that residents or service people can use to gain entry to the building without a key.

Format  2 + entry code (4 digits)

Example  2 + 5467 (sets up entry code 5467 to allow entry)

Important Notes
If this option is included in your system, you have the capacity to give entry codes to each unit in your building plus at least 10 extra for vendors or service people. Ask your installing dealer for the exact number of entry codes available.

ERASING ENTRY CODES
(This is an optional feature)

Purpose  Allows you to delete 4-digit codes that residents or service people use to gain entry to the building without a key.

Format  6 + entry code (4 digits) + 3 stars/asterisks

Example  6 + 5467 + *** (deletes entry code 5467).

ERASING ALL ENTRY CODES

Purpose  Allows you to clear the entire entry code memory. You would perform this task if the memory has been filled with entry codes that have either been forgotten or entered in error.

Format  Press and hold the PGRM button and enter 06 + *** on the keypad. Do not release the PGRM button until you have entered all of the information on the keypad.
5 - REMOTE PROGRAMMING
AND REMOTE RELAY ACTIVATION

To program the Spectrum/Vista system via telephone or to activate the relays from a remote location, please refer to the following instructions:

IMPORTANT NOTE: If the Remote Programming feature is enabled, the Door Position Sense feature will become disabled.

REMOTE PROGRAMMING

1. From a tone dial telephone, call the telephone number to which the Spectrum/Vista is connected. When the system answers, you will have 30 seconds to begin entering the security code (discussed in point 2). If you do not begin your entry within 30 seconds, the unit will hang up.

2. When the system answers, you must first enter a 3-digit security code. This is normally set to 7-5-3, but may have been changed if you are having more than one system installed. To distinguish if the security code has been changed or not, look at the label on the EPROM. If there is only a letter "D" or "G" on the label, the security code is 7-5-3. If there is a "D" on the label followed by a 3-digit number, the security code is that number after the "D".

3. After you have entered the 3-digit security code, a "7" will signal the system to enter the programming mode. When you press this key, an "In Use" indication (shown as a "b") will be shown on the unit’s display and the unit will signal you that it is ready to accept programming by emitting several short tones. Begin programming following exactly the same procedure as if you were using the keypad on the front of the unit. The only functions that will not work from a remote location are the "verify" and “erase all” functions.

When an entry is accepted, the unit will emit two short tones. You may then make your next entry. If an entry is rejected, the unit will emit a steady tone for two seconds. You may then make another entry.

To return the system to the "run" mode, simply push the "#" button any time after you hear two short tones. The unit will then emit several short tones and one long tone before hanging up. The unit will also hang up and return to the run mode if no entry is made within a 30 second period.

REMOTE RELAY ACTIVATION

Remote relay activation is accomplished by calling the telephone number the Spectrum/Vista is connected to (from a tone dial telephone only) and entering the security code (as discussed in point 2 in the section above). To activate a relay, enter the numbers shown below. The system will then hang-up after you activate any relay.

PLEASE NOTE: When you use the remote relay activation feature, you are only allowed to activate one relay at a time. The system will not allow you to activate both relays simultaneously.

Dialing a "9" on the telephone keypad will activate relay 1 for the programmed period of time. Dialing an "8" activates relay 1 and keeps it activated until you call back and release it by entering your security code and then a "9".

Dialing a "5" on the telephone keypad will activate relay 2 for the programmed period of time. Dialing a "4" activates relay 2 and keeps it activated until you call back and release it by entering your security code and then a "5".