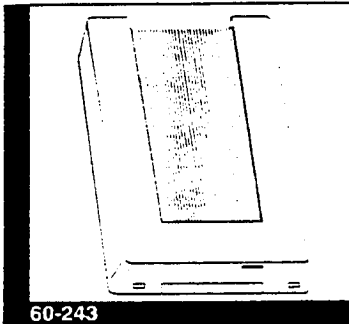


# Hardwire Output Module (HOM)

Document Number 46-173A  
August, 1993



## INSTALLATION INSTRUCTIONS

### Product Summary

The ITI® Hardwire Output Module (HOM) lets you control external devices such as indicator lights or relay circuits with either the SX-V or the CareTaker® Plus security systems. The HOM is connected with a 4-wire cable directly to the Central Processing Unit (CPU).

### Tools Needed

To install the HOM, you need the following:

- A Phillips screwdriver (for mounting the HOM)
- A flathead screwdriver (to make wiring connections)
- An SX-V Handheld Programmer (to program the HOM)



**Warning:** You must be free of all static electricity when handling electronic components. Touch a bare metal surface before touching the circuit board.

### Required Relay

If you plan to use the HOM to activate other equipment, you must use a relay that will trip upon a small voltage transition. The relay we recommend is manufactured by Alarm-Saf, part number AS/RBKS-124P, available from the manufacturer.

The relay trips at a voltage of 3 to 24 VDC at 0.5 mA. There are two sets of dry contacts in the relay that you can use for control voltages. The positive trip input controls both sets of dry contacts. For eight separate output line functions, you need eight relays.

The HOM draws 10 mA in normal operation. In alarm condition, the system may use up to 700 mA, depending on how you have the HOM configured and how many output lines you are using. The total power consumed from the hardwire bus can be no more than 500 mA. Total the current requirements for your bus devices to determine if an additional power supply is needed.

Keep the following issues in mind when using the Alarm-Saf sensitive relay.

- The operating voltage of the relay circuit is 12 to 24 VDC. You need an auxiliary power supply.
- You must connect the auxiliary power supply negative to the HOM negative supply terminal via a jumper wire. This gives the HOM and the auxiliary power supply a common negative ground.
- There is one trip input to the relay, but each relay has two sets of dry contacts.

Figure 1 shows the wiring information required to connect the AS/RBKS-124P to the HOM.

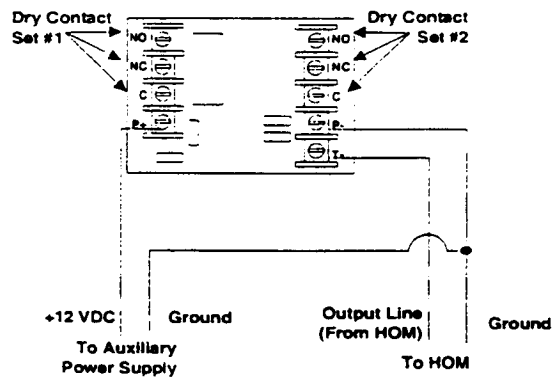


Figure 1. Wiring the required relay to the HOM

## Major Trouble Output

Output line 7 cannot be programmed because it is always used for major trouble output. Any of the following circumstances cause line 7 to trigger:

- Upper sensors 94 and 96 (and 97 on SX-V) in alarm.
- A communication failure between the CPU and the HOM.
- Loss of EEPROM memory in the HOM or the CPU.

**Note:** The HOM also has a switched power supply which is ON whenever the HOM is operating. This is available from the HOM on terminals 11 and 12. With terminal 11 positive, this supplies 5.5 VDC at 200 mA. This supply can power a dialer if a major failure condition occurs. This output switches off 3 minutes after the failure; this delay gives the dialer ample time to communicate the failure to the central station.

## Installing and Wiring the HOM

The following procedure explains how to install and wire the HOM to the SX-V or CareTaker Plus security system. See Figure 3.

- 1) Determine the location for the HOM and run a 4-conductor cable to the location.
- 2) The HOM requires a 4-conductor wire. We recommend that you use 20-gauge or greater stranded jacketed cable. Use shielded cable for cable runs of more than 20 feet.
- 3) Carefully remove the circuit board from the base.
- 4) Mount the HOM base using the three mounting holes provided (see Figure 2). Be sure to handle the board by its edges to avoid static problems.

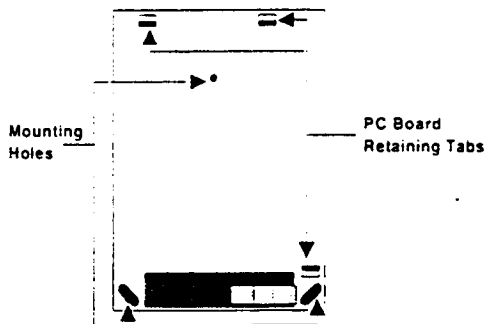


Figure 2. Mounting the HOM base

or-- Mount the HOM (with plastic case removed) inside the SX-V CPU by securing it to the metal mounting tabs with 3/4" screws. We recommend remote mounting, because wiring is difficult with

the HOM inside the cabinet.

- 5) Carefully reinstall the HOM circuit board.
- 6) With the CPU power off, connect the cable to the CPU terminals (see Table 1).
- 7) Connect the CPU input wiring to the HOM as shown in Table 1. You can remove the terminal strip from the HOM to make wiring easier.

Table 1. Wiring the HOM to the CPUs

HOM Terminal	SX-V CPU Terminal	CareTaker Plus CPU Terminal
13	10 (+6.8 VDC)	15 (DC Out)
14	6 (Ground)	11 (Ground)
15	7 (Data out)	19 (Bus in)
16	14 (Data in)	18 (Bus out)

- 8) Wire the output lines to the external devices. If you are going to power the external device from the HOM, it must operate at 6.8 VDC. Use output line terminals 1 through 8.

**Note:** Output line seven is not programmable and is always used for major trouble output.

- 9) Wire terminal 12 as the ground for the output line connections.
- 10) Verify that all wiring is correct and the terminal strip is seated properly before applying CPU power.

## Installing a HOM Tamper Switch

The HOM can be tampered by connecting a reed switch between terminals #9 and #10. The plastic base has a molded bracket for the reed switch (1/4-inch drill mount) and the top cover holds the magnet. Opening the cover opens a normally closed switch.

The HOM sends supervisory signals for the tamper reed switch to the CPU just like wireless sensors. The CPU looks at these signals the same as if it were a wireless zone.

## HOM Output Line Configurations

Depending on the programming options you select, when specific conditions exist the HOM outputs a DC voltage to any of eight separate lines. The output lines of the HOM go from 0 to 3.8 VDC at 100 mA. This voltage can be for indicator lights or tripping a relay to control an external device.

The HOM operates in either preset or programmed mode. The preset mode of operation is similar to other panels that trip external dialers; the programmed mode of operation gives the system additional configuration options. Preset configuration outputs are described in Table 3, while programmable outputs are described in Table 4.

The configuration jumper (see Figure 3) on the circuit board determines the mode of operation. Select program mode by having the jumper in place; select preset mode by removing the jumper from the jumper pins. (The HOM is shipped with the jumper installed; remove jumper for preset mode operation.)

The jumper is also used when configuring the HOM.

**Note:** You must program the HOM with the SX-V Handheld Programmer.

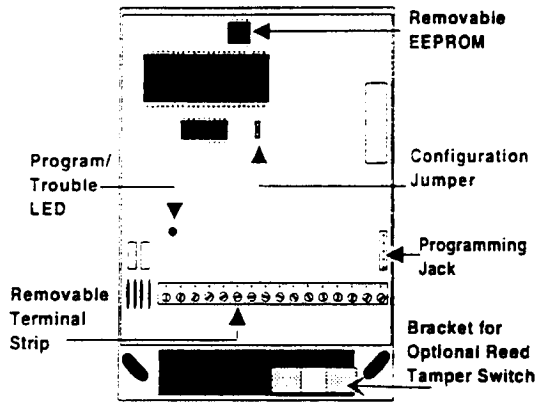


Figure 3. Features of the HOM Circuit Board

### Program/Trouble LED

The LED on the board acts as a programming and trouble indicator. In normal operation, it is OFF.

Table 2. Trouble LED Indications

LED	This indicates
OFF	Normal operation
ON Flashing	Communication problem with CPU*
ON Solid	Memory was lost. You may need to reprogram the HOM.

\* For example, there is a communication problem with the CPU if two different bus devices have the same unit ID#, or if the HOM is incorrectly wired to the CPU

An LED on the HOM circuit board indicates the status of the HOM programming and communication with the CPU.

## General Programming Procedure

This section describes the general programming procedure for all HOM units. Use this procedure if you are using the preset configuration or the programmable configurations.

- 1) With the HOM wired to the CPU, plug the SX-V Handheld Programmer into the programming jack of the HOM. The open face of the programmer cable must be toward the outside edge of the HOM board.
- 2) Remove the configuration jumper. See Figure 3 for location.
- 3) Press the ON button on the Handheld Programmer.

**Note:** If your Handheld Programmer displays a decimal point following the "HELLO," the programmer will not work for programming the HOM. Contact ITI Technical Services for programmer software update, if needed.

- 4) Press the READ button on the Handheld Programmer until the LED is on.

**Note:** The LED must be on to program the tamper switch sensor number. To turn the LED on, press the READ button on the Handheld Programmer until the LED comes on.

- 5) Press the HOUSE CODE button on the Handheld Programmer; the display under HOUSE CODE flashes.
- 6) Enter the unit ID number for the HOM. This number can be from 0 to 7 and must not be the same as any other device on the hardwire bus.
- 7) If you have installed the reed tamper switch in the HOM plastic case, press the SENSOR NUMBER button on the Handheld Programmer, and enter the desired sensor number (for SX-V, choose the sensor number from the sensor chart in the installation manual).
- 8) Press the SENSOR TYPE button on the Handheld Programmer, and select Normally/Open or Normally/Closed for the tamper switch. Other options on the programmer are not used and won't affect the HOM operation. The tamper reed switch is supervised and the tamper zone continues sending data until an acknowledge signal is received from the CPU.
- 9) Press the ENTER key on the Handheld Programmer. The display shows DONE or FAIL. If FAIL is displayed, repeat steps 4 through 8 making sure entries are valid.
- 10) Press READ to verify your programming.

11) Press the READ button on the Handheld Programmer until the LED is off.

**Note:** The LED must be off to program the CPU type. To turn the LED off, press the READ button on the Handheld Programmer until the LED is off.

12) Press SENSOR NUMBER button on the Handheld Programmer, then enter the type code for the CPU the HOM is connected to:

- 0 – SX-V
- 1 – CareTaker Plus

13) If you are using the preset output line configurations, put the configuration jumper where you can find it if you need it. Go to step 14.

or-- If you are using the programmable output line configuration, go to "Programming the Programmable Configurations."

14) SX-V--Place the CPU in the program mode. This initializes the tamper reed switch (if any) automatically at the CPU.

**CareTaker Plus**--Program the tamper sensor in by group and sensor number per the instructions in the *CareTaker Plus Installation Manual*.

15) Perform a level 9 Sensor Test to verify tamper programming.

**Note:** For a listing of preset features, refer to Table 3.

## Programming the Programmable Configurations

The following steps explain how to set the HOM up to seven programmable output configurations.

1) Complete the steps under "General Programming Procedure." Be sure the Handheld Programmer is connected to the programming plug.

**Table 3. Preset Output Configurations**

Name and Type	Config.	Output Line	Conditions that activate Output Line		Default Sensors (SX-V Only)
			On CareTaker Plus	On SX-V	
Fire Alarms - Momentary	00	1	Sensors in group 26 (Fire) and upper sensor 80 in alarm.	Sensor assigned to group 2 in alarm.	20-27, 80
Silent Panic and Duress Alarms - Momentary	01	2	Sensors in groups 2 and 3 (Silent Panic) and upper sensor 86 (Duress) in alarm.	Sensors in group 12 (Silent Panic) and upper sensor 86 (Duress) in alarm.	4, 5, 7, 87
Intrusion Alarms - Momentary	02	3	Sensors in groups 8, 9 (Special), 10-12 (Entry), 13 (Perimeter), 14-20 (Interior), upper sensor 92 (CPU Tamper) in alarm.	Sensors in groups 3 (Special), 4-5 (Perimeter), 6-10 (Interior) in alarm condition.	30-76
Audible Panic Alarms - Momentary	03	4	Sensors in groups 0-1 (Police Panic), 21-22 (Local Aux), and upper sensors 77 (Tamper) and 81 (Touchpad Police) in alarm.	Sensors in group 0 in alarm.	2, 3, 6, 81, 77
Medical and Environmental - Momentary	04	5	Sensors in groups 4-7 (Aux Panic), 23-24 (Local Aux), 29 (Environmental), and upper sensors 78 (Freeze), 79 (No Activity), and 82 (Touchpad Aux) in alarm.	Sensors in group 1 in alarm.	10-17, 82
Minor Trouble Conditions - Momentary	05	6	Supervisory or trouble condition on any sensor, or upper sensors 90 (AC Failure), 91 (Low CPU Battery) in alarm.	Supervisory or trouble condition on any sensor, or sensors 01 (System Interference), 90 (AC Failure), 91 (Low CPU Battery) in alarm.	N/A
Major Trouble Conditions - Momentary	06	7	Upper sensors 94 (Receiver Failure), 96 (Fail-to-Communicate) in alarm, communication failure over hardwire bus to HOM, loss of EEPROM memory at HOM.	Sensors 94 (Receiver Failure), 96 (Fail to Communicate), 97 (Phone Line Failure) in alarm, communication failure over hardwire bus to HOM, loss of EEPROM memory at HOM.	N/A
Phone Test & Weekly Test - Momentary	07	8	Upper sensors 83 (Phone Test) and 93 (Weekly Phone Test) in alarm.	Upper sensors 83 (Phone Test) and 93 (Weekly Phone Test) in alarm.	N/A

- 2) Install the configuration jumper on the jumper pins on the HOM board.
- 3) Press the SENSOR TYPE button on the Handheld Programmer, then enter the number of the output line terminal: 1 – 6, or 8. This assigns what output line will go high (+3.8 VDC) for that particular configuration.

**Note:** Output line seven is not programmable, and is always used for major trouble output.

- 4) Press the SENSOR NUMBER button on the Handheld Programmer. Then enter the programmable configuration you want to use for this output line. See Table 4.
- 5) Press the HOUSE CODE button on the Handheld Programmer; the display under HOUSE CODE flashes. Enter selected sensor number to activate the output line, or press 0 to select all sensors in the group indicated. The group configurations are described in Table 4.

**Note:** On the CareTaker Plus, the HOM can have multiple trips within an arming period if the sensor number is programmed to 0 (as described in step 5). If the output is programmed to trip only one sensor in the group, the HOM allows only one trip per arming period, except for configurations which trip groups 27 and 28. These groups *always* allow multiple output trips.

- 6) Press the ENTER key on the Handheld Programmer. The display shows DONE or FAIL. If FAIL is displayed repeat steps 3 through 6, making sure entries are valid.

- 7) Press the READ button on the Handheld Programmer to verify the information you just entered.
- 8) Press the READ button to toggle to the next entry.
- 9) Repeat steps 3 – 8 until you have entered the programmable configurations for all the output lines.
- 10) SX-V–Place the CPU in the program mode. This initializes the tamper reed switch (if any) automatically at the CPU.

**CareTaker Plus**–Program the tamper sensor in by group and sensor number per the instructions in the *CareTaker Plus Installation Manual*.

- 11) Perform a level 9 Sensor Test to verify tamper programming.

## Understanding the Programmable Configurations Table

The following points are important when using Table 4.

- Default sensors (when shown) apply only to the SX-V system.
- Unless otherwise noted, momentary output configurations remain active for 3 minutes or until the arming level is changed.
- Unless otherwise noted, sustained output configurations remain active until the arming level is changed.

Table 4. Programmable Output Configurations

Name and Type	Config.	Conditions that Activate the Output Line		Default Sensors (SX-V Only)
		On CareTaker Plus	On SX-V	
Special Intrusion Alarms - Momentary	10	Sensors in group 8 and 9 in alarm.	Sensors in group 3 in alarm.	30-33
Interior Intrusion Alarms - Momentary	11	Sensors in groups 14-20 in alarm.	Sensors in groups 6-10 in alarm.	60-76
Exterior Intrusion Alarms	12	Sensors in groups 10-13 in alarm.	Sensors in groups 4-5 in alarm.	34-57
Intrusion Alarms Excluding Exit Delay - Momentary	13	Sensors in groups 8-9 (Special), 10-12 (Entry), 13 (Perimeter), 14-20 (Interior), upper sensor 92 (CPU Tamper) in alarm condition and not caused by an exit delay.	Sensors in groups 3 (Special), 4-5 (Perimeter), 6-10 (Interior) in alarm and not caused by an exit delay.	30-76
Silent Intrusion Alarms - Momentary	14	Not used.	Sensors in groups 3 (Special), 4-5 (Perimeter), 6-10 (Interior) in alarm and the arming level is 5 (Silent).	30-76
Audible Intrusion Alarms - Momentary	15	Not used.	Sensors in groups 3 (Special), 4-5 (Perimeter), 6-10 (Interior) in alarm, and the arming level is not 5 (Silent).	30-76

Table 4. Programmable Output Configurations

Name and Type	Config.	Conditions that Activate the Output Line		Default Sensors (SX-V Only)
		On CareTaker Plus	On SX-V	
Intrusion Alarms / Activation Delay - Momentary	16	Sensors in groups 8, 9 (Special), 10-12 (Entry), 13 (Perimeter), 14-20 (Interior), upper sensor 92 (CPU Tamper) in alarm, with a 30-second delay.	Sensors in groups 3 (Special), 4-5 (Perimeter), 6-10 (Interior) in alarm, condition, with 30-second delay.	30-76
Special Alarms / Activation Delay - Momentary	17	Sensors in groups 8 and 9 in alarm, with a 30-second delay.	Sensors in group 3 in alarm, with 30-second delay.	30-33
Interior Alarms / Activation Delay - Momentary	20	Sensors in groups 14-20 in alarm, with a 30-second delay.	Sensors in groups 6-10 in alarm, with 30-second delay.	60-76
Exterior Alarms / Activation Delay - Momentary	21	Sensors in groups 10-13 in alarm, with a 30-second delay.	Sensors in groups 4-5 in alarm, with 30-second delay.	34-57
Intrusion Alarms Except Exit Delay / Activation Delay - Momentary	22	Sensors in groups 8-9 (Special), 10-12 (Entry), 13 (Perimeter), 14-20 (Interior), upper sensor 92 (CPU Tamper) in alarm and not caused by an exit delay, but with a 30-second delay.	Sensors in groups 3 (Special), 4-5 (Perimeter), 6-10 (Interior) in alarm and not caused by an exit delay, but with a 30-second delay.	30-76
Silent Intrusion Alarms / Activation Delay - Momentary	23	Not used.	Sensors in groups 3 (Special), 4-5 (Perimeter), 6-10 (Interior) in alarm and the arming level is 5 (Silent), with a 30-second delay.	30-76
Audible Intrusion Alarms / Activation Delay - Momentary	24	Not used.	Sensors in groups 3 (Special), 4-5 (Perimeter), 6-10 (Interior) in alarm and the arming level is not 5 (Silent), with a 30-second delay.	30-76
Intrusion Alarm Memory / Modulation - Sustained	25	Sensors in groups 8-9 (Special), 10-12 (Entry), 13 (Perimeter), 14-20 (Interior) upper sensor 92 (CPU Tamper) in alarm. The output toggles ON for 1 second and OFF for 1 second, and deactivate with level change.	Sensors in groups 3 (Special), 4-5 (Perimeter), 6-10 (Interior) in alarm. The output toggles ON for 1 second and OFF for 1 second, and deactivate with level change.	30-76
Intrusion Alarm Memory - Sustained	26	Sensors in groups 8-9 (Special), 10-12 (Entry), 13 (Perimeter), 14-20 (Interior), upper sensor 92 (CPU Tamper) in alarm. The output deactivates with level change.	Sensors in groups 3 (Special), 4-5 (Perimeter), 6-10 (Interior) in alarm. The output deactivates with level change.	30-76
Fire Alarm Memory - Sustained	27	Sensors in group 26 (Fire) and upper sensor 80 (Touchpad Fire). The output deactivates with level change.	Sensors in group 2 in alarm. The output deactivates at a level change.	20-27, 80
Intrusion & Fire Alarm Drive - Momentary (16 Minutes)	30	Sensors in groups 8-9 (Special), 10-12 (Entry), 13 (Perimeter), 14-20 (Interior), 26 (Fire), upper sensors 80 (Touchpad Fire), and 92 (CPU Tamper) in alarm.	Sensors in groups 2 (Fire), 3 (Special), 4-5 (Perimeter), 6-10 (Interior) in alarm.	20-76, 80
Intrusion & Fire Alarm Drive - Momentary (5 Minutes)	31	Sensors in groups 8-9 (Special), 10-12 (Entry), 13 (Perimeter), 14-20 (Interior), 26 (Fire), in alarm, or upper sensors 80 (Touchpad Fire) and 92 (CPU Tamper) in alarm.	Sensors in groups 2 (Fire), 3 (Special), 4-5 (Perimeter), 6-10 (Interior) in alarm.	20-76, 80
Fire Alarms / Activation Delay - Momentary	32	Sensors in group 26 (Fire) and upper sensor 80 in alarm.	Sensor assigned to group 2 in alarm.	20-27, 80
CPU to Monitoring Station Failure - Momentary	33	Upper sensor 96 (Fail-to-Communicate) in alarm.	Sensor 96 (Fail-to-Communicate) or 97 (Phone Line Failure) in alarm.	
CPU Low-Level Siren Drive	34	The output follows the low-level siren drive. Can be used to drive a light for the deaf or an auxiliary siren.	The output follows the low-level siren drive. Can be used to drive a light for the deaf or an auxiliary siren.	

Table 4. Programmable Output Configurations

Name and Type	Config.	Conditions that Activate the Output Line		Default Sensors (SX-V Only)
		On CareTaker Plus	On SX-V	
CPU High-Level Siren Drive	35	The output follows the high-level siren drive.	The output follows the high-level siren drive.	
SX-V System Armed Status - Sustained	36	The arming level is 2 or 3.	The arming level is 3, 4, 5, 6, or 7.	
SX-V System Disarmed Status - Sustained	37	The arming level is 1, 8, or 9.	The arming level is 0, 1, 2, 8, or 9.	
Opening Report - Momentary	40	Upper sensor 84 (Opening Report) is in alarm. The output deactivates after the panel is done communicating or after 3 minutes.	Sensor 84 (Opening Report) is in alarm. The output deactivates after the panel is done communicating or after 3 minutes.	
Closing Report - Momentary	41	Sensor 85 (Closing Report) is in alarm. The output deactivates after the panel is done communicating or after 3 minutes.	Sensor 85 (Closing Report) is in alarm. The output deactivates after the panel is done communicating or after 3 minutes.	
Energy Saver Daytime Set Point Driver - Sustained	42	The arming level is 1, 8, or 9.	The arming level is 0, 1, 2, 3, 8, or 9.	
Energy Saver Away Driver - Sustained	43	The arming level is 3.	The arming level is 4 or 5.	
Energy Saver Nighttime Driver - Sustained	44	The arming level is 2.	The arming level is 6 or 7.	
Energy Save At Home Driver - Sustained	45	The arming level is 1, 2, 8, or 9.	The arming level is 0, 1, 2, 3, 6, 7, 8, or 9.	
Nonaudible Control - Momentary (15 Minutes)	46*	Sensors in groups 27-28 in alarm.	Sensors in group 11 in alarm.	
Nonaudible Control / Modulation - Momentary (15 Minutes)	47*	Sensors in groups 27-28 in alarm. The output toggles ON for 1 second, then OFF for 1 second.	Sensors in group 11 in alarm. The output toggles ON for 1 second, then OFF for 1 second.	
Nonaudible Control-Sustained	50*	Sensors in groups 27-28 in alarm.	Sensors in group 11 in alarm.	
Nonaudible Control - Momentary (5 Minutes)	51*	Sensors in groups 27-28 in alarm.	Sensors in group 11 in alarm.	
Nonaudible Control - Momentary (4 Seconds)	52*	Sensors in groups 27-28 in alarm.	Sensors in group 11 in alarm.	

Table 4. Programmable Output Configurations

Name and Type	Config.	Conditions that Activate the Output Line		Default Sensors (SX-V Only)
		On CareTaker Plus*	On SX-V	
Audible Alarm Memory - Sustained	53	Sensors in groups 0-1 (Police Panic), 4-7 (Auxiliary Panic), 8-9 (Special), 10-12 (Entry), 14-20 (Interior), 21-24 (Local), 26 (Fire), 29 (Environmental), upper sensors 77 (Touchpad Tamper), 78 (Freeze), 79 (No Activity), 80-82 (Touchpad Panics), 92 (CPU Tamper).	Sensors in groups 0 (Audible Panic), 1 (Medical and Environmental), 2 (Fire), 3 (Special), 4-5 (Exterior), 6-10 (Interior) in alarm.	2, 3, 6, 10-76, 77, 80, 81, 82, 92
Audible Alarm Memory with Modulation - Sustained.	54	Sensors in groups 0-1 (Police Panic), 4-7 (Auxiliary Panic), 8-9 (Special), 10-12 (Entry), 14-20 (Interior), 21-24 (Local), 26 (Fire), 29 (Environmental), upper sensors 77 (Touchpad Tamper), 78 (Freeze), 79 (No Activity), 80-82 (Touchpad Panics), 92 (CPU Tamper). The output toggles ON for 1 second, then OFF for 1 second.	Sensors in groups 0 (Audible Panic), 1 (Medical and Environmental), 2 (Fire), 3 (Special), 4-5 (Exterior), 6-10 (Interior) in alarm. The output toggles ON for 1 second, then OFF for 1 second.	2, 3, 6, 10-76, 77, 80, 81, 82, 92
CPU Armed - Momentary (4 Seconds)	55	Change arming level to 2 or 3.	Change arming level to 3, 4, 5, 6, or 7.	
CPU Disarmed - Momentary (4 Seconds)	56	Change arming level from 2 or 3 to 1, 8, or 9.	Change arming level from 3, 4, 5, 6, or 7 to 0, 2, 8, or 9.	
Open Sensor	57	Any sensor in open condition.	Any sensor in open condition.	
Non-Open Sensor	60	Any sensor in alarm, bypass, trouble, or supervisory condition.	Any sensor in alarm, bypass, trouble, or supervisory condition.	

\* Configurations 46 through 52 use sensors assigned into groups 27-28 on the CareTaker Plus system and group 11 on the SX-V. This group does not report, but is audible with trouble beeps in levels 0-4 and 6-8. On the SX-V, sensor numbers must be regrouped into group 11 using the CS-4000 Central Station Receiver.

## Specifications

### Compatibility

SX-V .....with software dated 11-30-87 or later  
 CareTaker Plus .... with Rev. 2.0 or later software  
 Power Requirements ..... 10 mA normal operation  
 Dimensions ..... 4" wide x 5 1/8" high x 1" deep  
 Output ..... 3.8 VDC at 100 mA  
 Programmable Outputs ..... 7  
 Nonprogrammable Outputs ..... 1  
 Configurations ..... Preset or Programmed

## Notices:

### FCC Notice:

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference that may be received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by Interactive Technologies, Inc. can void the user's authority to operate the equipment.



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