

# INSTALLATION INSTRUCTIONS

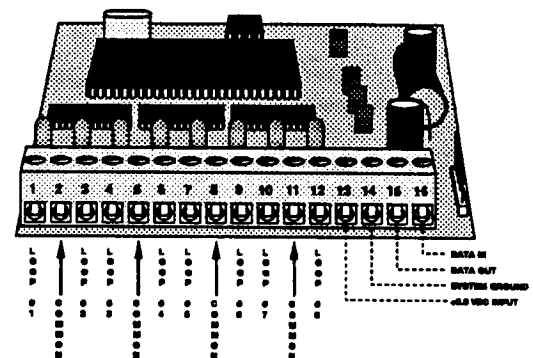
## OVERVIEW

The ITI Hardwire Input Module (HIM) can be added to the SX-V, Canadian Plus and CareTaker Plus which gives them the ability to incorporate groups of 8 normally open or normally closed hardwire zones into these systems. Each zone includes an individual end-of-line resistor circuit. These hardwire zones are individually programmable with the Hand Held Programmer and will work exactly the same as wireless zones. The HIM is connected with a four-conductor cable directly to the CPU.

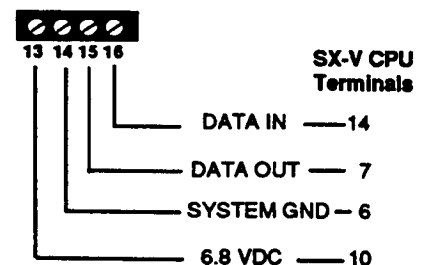
- ⇒ The HIM will work with SX-V's that have software dated 11-30-87 or later.
- ⇒ Up to 8 HIM's can be attached to an SX-V or CareTaker Plus. Each HIM draws 10 mA, do not exceed the 500 mA total power supplied by each type of CPU.
- ⇒ All programmed data is stored in a removable E<sup>2</sup>PROM.
- ⇒ The HIM has a removable terminal strip for easier wiring.
- ⇒ The HIM Module requires a four conductor wire. It is recommended that you use 22 gauge or greater stranded jacketed cable. In some long run instances shielded cable should be used.
- ⇒ The HIM sends supervisory signals for each zone to the CPU.
- ⇒ The HIM's plastic case can be tampered by using one of the inputs wired to a reed switch. The plastic base has a molded housing for the reed switch (1/4 inch drill mount) and the top cover will hold the magnet. Opening the cover will open the switch.
- ⇒ Each HIM has 8 zones which can be individually programmed using the SX-V Programmer. The Unit Number of the device on the hardwire buss is also set with the programmer. (The LED's correspond to the loop input that is being programmed or read.)
- ⇒ All loops need to be terminated with a 4.7 K ohm end-of-line resistor. For Normally Open switches, the resistor must be in parallel. For Normally Closed switches, the resistor must be in series. Unused loops need not be terminated but should be "put to sleep" with the Programmer.

## INSTALLATION AND WIRING FOR SX-V

1. The HIM circuit board can be removed from its plastic case and mounted under the SX-V main circuit board inside the CPU cabinet. Or, you can mount it remotely from the CPU if that is more convenient. If using the plastic case, remove the circuit board and mount the case using #6 panhead screws. If mounting inside the SX-V CPU cabinet, (use two 3/8" self-tapping screws provided and the built-in mounting tabs on back plate). It will be easier to work with a HIM that is mounted in the SX-V cabinet if you remove the plug-in terminal strip before wiring.
2. Disconnect all power to the SX-V by disconnecting the transformer and the Back-up battery. Using 22 Gauge or greater wire, connect the HIM to the SX-V as shown. Using 22 gauge or greater wire, connect your hardwire loops to the HIM. Verify that end-of-line resistors are installed properly (Normally Open in parallel, Normally Closed in series.)
3. Be sure power is off when you plug the strip back in. Double check the wiring and be sure the terminal strip is seated properly. Restore power back to the CPU.

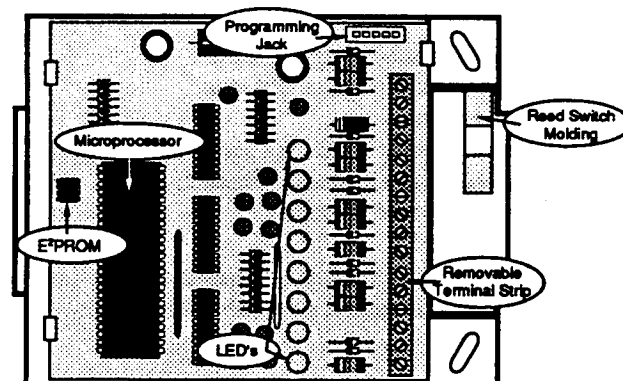


HIM Terminal Strip



## **PROGRAMMING THE HIM FOR THE SX-V**

1. Place the CPU in the Program Mode. This will initialize the zones automatically at the CPU as you program sensors into the HIM.
2. With the HIM wired to the CPU (or any other ITI Buss device) and the switches or detectors connected, plug the programming cable from the SX-V Programmer into the Programming Jack. **Polarity must be observed. The open face of the programmer cable should be toward the outside.** Note: If your programmer displays a decimal point following the "HELLO", the software will not work in programming the HIM. Contact ITI Customer Service for software updates.
3. Press the READ Button on the Programmer. One of the LEDs will light. This LED corresponds to the zone or loop you are programming. By pressing the READ Button you can toggle through the 8 LEDs to select the zone you wish to program.
4. Press the House Code Button on the Programmer. Then enter the Unit ID Number for the Hardwire Buss. This number can be from 0 to 7 and must not be the same as any other device on the Hardwire Buss.
5. Press the Sensor Number Button. This is followed by the two-digits of the sensor number for the zone. Remember 8s and 9s are illegal entries.
6. Now press the Sensor Type Button on the Programmer. Enter the Type on the Programmer. Note: The programming option keys operate the same as for an RF sensor except for the Supervised and Fire Panic Priority buttons. All zones are supervised and each zone will continue sending data until an acknowledge is received from the CPU.
7. Press the Enter key on the Programmer. The display will show DONE or FAIL. If FAIL is displayed repeat steps 1 through 5 making sure entries are valid.
8. Press READ to verify your programming.
9. On a Wireless Touchpad press BYPASS 77, wait for bouncing balls. Press STATUS 77, wait for bouncing balls.
10. Press READ again to step to the next zone and continue programming all devices hardwired to the HIM. Note: Any zone that is not used should be put to sleep using the Programmer. It is recommended that a Level 9 Sensor Test be performed to verify all programming.



**NOTE:** If the CPU is to use hardwire sensors only delete sensor 94 from the CPU. Refer to SX-V installation manual for Sensor Deletion procedures.

## SPECIAL PROGRAMMING FOR THE SX-V

### HOW TO CHANGE A SENSOR NUMBER ON A DEVICE HARDWIRED THROUGH THE HIM

1. Plug the Programmer Cable into the HIM. Make sure to observe proper polarity. The open face of the programmer cable should be toward the outside.
2. Press the READ button to step to the zone you wish to reprogram.
3. Enter the new Sensor Number and press the Enter button.
4. To delete the previous Sensor Number, place the CPU into the Program Mode.
5. Using a Wireless Touchpad press BYPASS then the sensor number to be deleted. The bouncing balls in the display will confirm that the sensor was deleted.

### HOW TO CHANGE A UNIT NUMBER ON A HIM

1. Enter the Program Mode on the CPU.
2. Plug the Programmer Cable into the HIM. Make sure to observe proper polarity. The open face of the programmer cable should be toward the outside.
3. Enter the Unit Number (any unused number 0 to 7). Then press Enter.
4. Press BYPASS then 77, wait for bouncing balls. Then press STATUS 77, wait for the bouncing balls. This will reset the bus addresses in the CPU.
5. Return the CPU to the Normal Operate Mode by turning the Program switch Off.

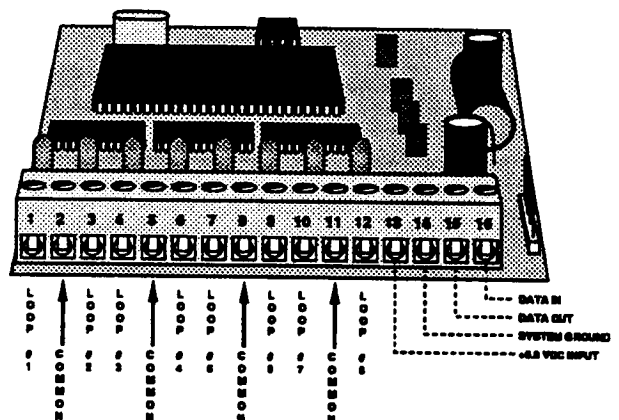
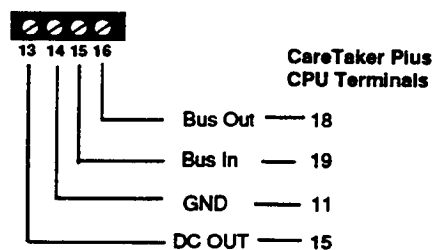
### TROUBLE LED

The LED that corresponds with the Number One Loop also acts as a trouble indicator. If this LED is Flashing, there is a communication problem with the CPU. If the LED is Solid ON, the memory has been lost.

## INSTALLATION AND WIRING FOR THE CARETAKER PLUS AND CANADIAN PLUS

1. The HIM can only be mounted externally for these CPUs. Using 22 gauge or greater wire, connect the HIM to the CPU as shown. Using 22 gauge wire, connect your hardwire loops to the HIM. Verify that end-of-line resistors are installed properly (Normally Closed in series, Normally Open in parallel.)
2. Be sure power is off when you plug the strip back in. Double check the wiring and be sure the terminal strip is seated properly. Restore power back to the CPU.

HIM Terminal Strip



## **PROGRAMMING THE HIM FOR THE CARETAKER PLUS AND CANADIAN PLUS**

### **HOW TO CHANGE A UNIT NUMBER ON A HIM**

1. Plug the Programmer Cable into the HIM. Make sure to observe proper polarity. The open face of the programmer cable should be toward the outside.
2. Press the House Code button on the programmer.
3. Enter the Unit Number (any unused number 0 to 7). Then press Enter.

NOTE: If the CPU is to use hardwire sensors only delete sensor 94 from the CPU. Refer to the CPU installation manual to turn off upper sensor number 94.

### **SENSOR PROGRAMMING**

1. With the HIM wired to the CPU and detectors connected, plug the programming cable from the SX-V Programmer into the Programming Jack. Polarity must be observed. The open face of the programmer cable should be toward the outside. Note: If your programmer displays a decimal point following the "HELLO", the software will not work in programming the HIM. Contact ITI Customer Service for software updates.
2. Press the READ Button on the Programmer. One of the LEDs will light. This LED corresponds to the zone or loop you are programming. By pressing the READ Button you can toggle through the 8 LEDs to select the zone you wish to program.
3. Press the Sensor Number Button. You will need to enter a sensor number. This number can be anything from 2 to 77 (32 zones total). These CPUs use this number, the Unit Number of the HIM for "learn mode" programming. You will assign a sensor number for the CPU in the LEARN SENSORS menu prompt from the Alphanumeric Touchpad.
4. Now press the Sensor Type Button on the Programmer. Enter the Type on the Programmer. Note: the programming option keys operate the same as for an RF sensor except for the Supervised and Fire Panic Priority buttons. All zones are supervised and each zone will continue sending data until an acknowledge is received from the CPU.
5. Press the Enter key on the Programmer. The display will show DONE or FAIL. If FAIL is displayed repeat steps 1 through 5 making sure programmer is connected properly and entries are valid.
6. Press the READ button to verify your programming.
7. Press the READ button again to step to the next zone and continue programming all devices hardwired to the HIM. Note: Any zone that is not used should be put to sleep using the programmer.

### **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

## **INSTALLATION INSTRUCTIONS**