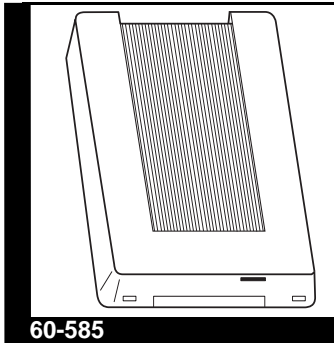# SuperBus Hardwire Output Module (HOM)

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60-585

INSTALLATION INSTRUCTIONS

About this Document

This document describes how to install, program, and test the ITI® SuperBus™ Hardwire Output Module (HOM).

SuperBus technology is supported by various ITI security panels and by the ITI access control 1251e series.

For additional HOM programming and operating details, refer to the *Installation Instructions* for the panel.

Product Summary

The HOM expands the versatility of compatible panels by adding four programmable outputs. These include both normally open and normally closed dry relay contact outputs.

Add up to eight SuperBus HOMs to UltraGard™ or Concord™ security panels for a total of 32 output points.

Add up to 16 HOMs to one 1251e access control panel for a total of 64 output points.

Examples of HOM uses include:

■ Turning on a CCTV camera during a burglary alarm

■ Turning on exit lights during a fire alarm or

■ Activating backup cellular phones or long-range radios if primary communications are inoperable

For additional security, the plastic case accommodates a magnetic reed switch to provide tamper protection. Simply connect the switch to the HOM built-in tamper contact input or to one of the panel's hardwire input zones on UltraGard or Concord security panels.

HOM Components

The HOM module comes complete with mounting hardware. Power is provided by the panel.

Figure 1 shows the main HOM components. Table 1 describes these components.
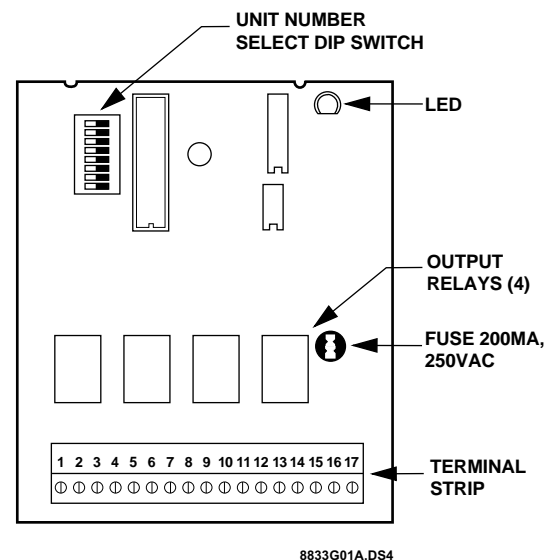

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Figure 1. HOM Circuit Board Components

Table 1. HOM Component Descriptions

Component	Function
Unit number DIP switch	Determines the HOM's bus unit number.
Light-emitting diode (LED)	Flashes constantly to indicate normal communication to the panel bus.
Fuse	Protects the HOM in case of power supply short circuits.
Output relays	Form C (dry contact) output relays.
Terminal strip	Used for SuperBus and output wiring connections.

Installation Guidelines

- Maximum HOMs per panel:
  —The UltraGard™ security system supports up to eight SuperBus devices total (SuperBus Alphanumeric Touchpad, HIM, HOM, ESM, etc.).
  —The Concord™ security system supports up to 16 SuperBus devices (SuperBus Alphanumeric Touchpad, HIM, HOM, ESM, etc.) eight of which can be HOMs.

  —The 1251e access control panel supports up to 24 SuperBus devices (16 may be HOMs).
- Each SuperBus device must have a different unit ID number.
- Do not exceed the panel's total DC power rating when using panel power for bus devices and hardwired sensors that require panel power (see the specific panel's installation instructions).
- Maximum HOM current draw with all outputs energized is 91 mA. Each HOM draws 11 mA typical when outputs are not energized (idle).
- Do not exceed the HOM output relay contact ratings (see the specifications section at the end of this document).
- Use 4-conductor, 22-gauge or larger stranded wire from the HOM to the panel.
- Use 22-gauge or larger stranded wire from the HOM to the output devices.

Tools and Supplies Needed

- Screwdriver
- 4 self-tapping Phillips panhead screws (included)
- 4 #6 plastic wall anchors (included)
- Drill with sheet metal bits to match screws (cabinet mount only)
- 22-gauge or larger stranded hookup wire
- Tamper reed switch (optional)

Installation

The SuperBus HOM can be mounted:

- inside an UltraGard panel cabinet,
- inside a Concord panel cabinet,
- inside a SuperBus module cabinet, or
- on a wall.

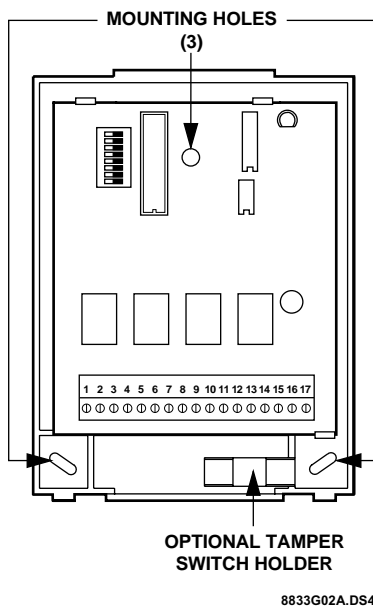**Note:** Wear a static electricity grounding strap to avoid damaging the board.

Mounting the HOM in an UltraGard Cabinet

1. Turn off the panel power switch and disconnect the panel transformer and the backup battery.
2. Remove the HOM cover and set it aside (Figure 2).

**PRESS DOWN
HERE AND PULL
AWAY FROM BASE**

8557G47B.DS4
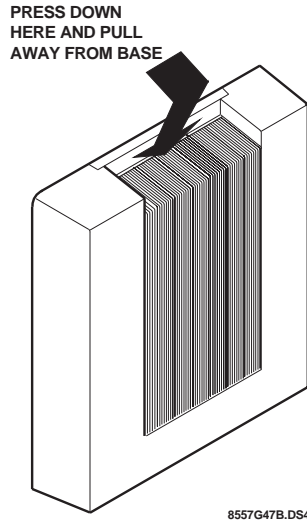
Figure 2. Removing the Cover

3. Place the back plate inside the cabinet at the lower-right corner and mark the mounting holes (Figure 3).

**MOUNTING HOLES
(3)**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

**OPTIONAL TAMPER
SWITCH HOLDER**

8833G02A.DS4

Figure 3. Mounting Holes

4. Drill holes in the cabinet wall for the self-tapping screws.
5. Secure the back plate to the cabinet with #6-32 self-tapping screws.

Mounting the HOM in a Concord Cabinet

1. Disconnect the panel transformer and backup battery.
2. Remove and discard the HOM cover (Figure 2).
3. Open panel cabinet cover.
4. Slide the module backplate onto the two module mounting clips located on the top-left (or top-right) corner of the cabinet (Figure 4.)
5. Swing the module up and onto the cabinet side tab.
6. In areas of high vibration, install the supplied standoffs between the module backplate and panel circuit cards (not shown).

**SUPERBUS
MODULE
MOUNTING
CLIPS (6)**

**SUPERBUS
MODULE
(COVER
REMOVED)**

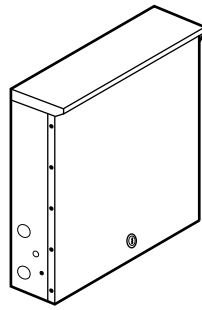**PANEL CABINET
(COVER NOT SHOWN)**

8842G03A.DSF
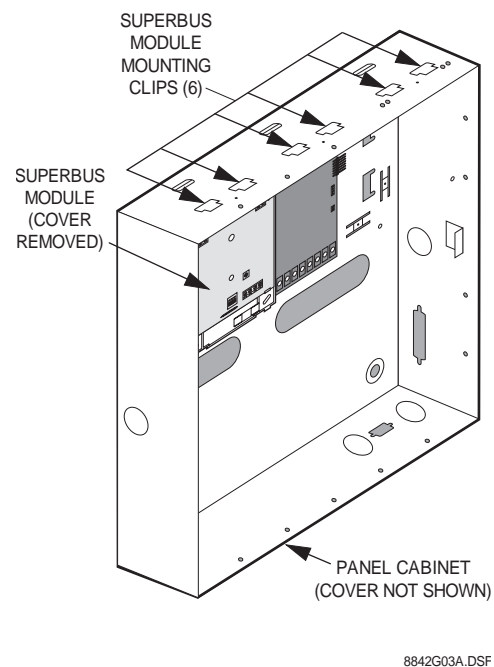
Figure 4. Mounting Module in Concord Cabinet

Mounting the HOM in a SuperBus Module Cabinet

The ITI SuperBus Module Cabinet provides a secure and compact steel housing for up to six SuperBus modules.

Complete instructions for mounting the cabinet are included with the cabinet.

Figure 5. ITI SuperBus Module Cabinet Part #60-698

Mounting the HOM on a Wall

1. Turn off the panel power and disconnect the backup battery.
2. Remove the HOM cover and set it aside (Figure 2).
3. Place the back plate on the wall and mark the mounting holes (Figure 3).
4. Drill holes and insert appropriate anchors.
5. Secure the back plate to the wall with panhead screws.

Wiring

This section describes how to wire:

■ the HOM to an UltraGard or Concord security panel,

■ the HOM to a 1251e access control panel,

■ various devices to the HOM terminals.

To wire the HOM to a panel:

1. Turn off the panel power and disconnect the backup battery.
2. Wire the HOM to the panel as shown in Table 2 and Figure 6. For specific SuperBus wiring details, see the panel's *Installation Instructions*.

Table 2. HOM SuperBus/Panel Wiring

HOM Terminals	UltraGard Terminals	Concord Terminals	1251e Terminals
14 (+12VDC)	12	4	B8
15 (BUS A)	13	5	B9
16 (BUS B)	14	6	B10
17 (GND)	15	3	B11

To wire output devices to the HOM:

3. Wire the HOM outputs as shown in Figure 6. For specific output device wiring details, see the output device installation instructions.

   Example HOM applications and wiring are provided later in this document.
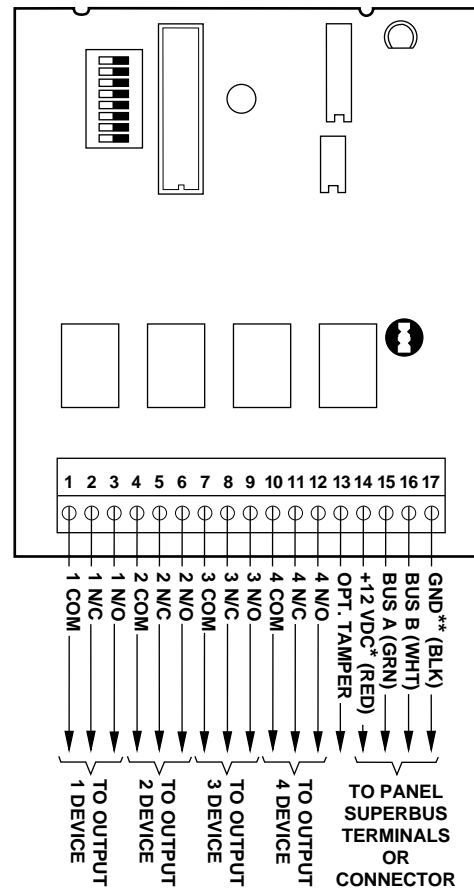
Figure 6. HOM General Wiring

Installing an Optional Module Tamper Switch

If you are mounting the HOM in its own plastic, and not mounting it inside a metal cabinet, you may want to add module tamper detection.

To do this, install a reed switch in the plastic cover and wire the switch to the HOM terminals or unused panel hardwire input terminals on UltraGard™ or Concord™ security systems. If someone opens the cover, the reed switch opens and causes an alarm.

Note: The tamper switch is not supported by 1251 access control panels.

The tamper switch holder is located at the lower-right side of the back plate as shown in Figure 3. The plastic cover holds the magnet.

To install the tamper reed switch:

1. Slide the reed switch into the holder.
2. Connect the normally closed reed switch to the HOM TAMPER (13) and GND (17) terminals.

    (In the case of UltraGard, connect the reed switch in series with 4.7K ohm [ITI part number 49-365] EOL resistor and to the panel GND and unused hardwire zone input terminals. In the case of Concord, in series with a 2.0 K ohm [ITI part number 49-454] EOL resistor and to the panel ZONE COMMON/GND and unused hardwire zone input terminals.)
3. Insert the reed switch magnet into the nibs on the module cover (not shown). Press the magnet clip (supplied) down over the magnet until it clicks into place.

Setting the HOM Unit Number

The unit number is how the panel recognizes a bus device, such as a HOM. Each bus device requires a different unit number for successful communication and operation with the panel.

Think of the unit number as an address. Without an address the panel would not know where to reach the bus module.

Unit number switch changes are not recognized by the HOM until the system is powered down, then powered up again.

The HOM is not detected by the UltraGard panel until the panel is switched to program mode.

Note: A panel cannot control HOM output points if the unit number of that HOM is changed.

UltraGard and Concord Setup

To set the HOM unit number:

Locate the DIP switches on the HOM circuit board as shown in Figure 1. Set the switches to the desired HOM unit number, 0-7, as shown in Figure 7.

For unit number recommendations, refer to the security panel installation instructions.

Unit number switches 1 through 5 are reserved for future use and must remain in the OFF position.
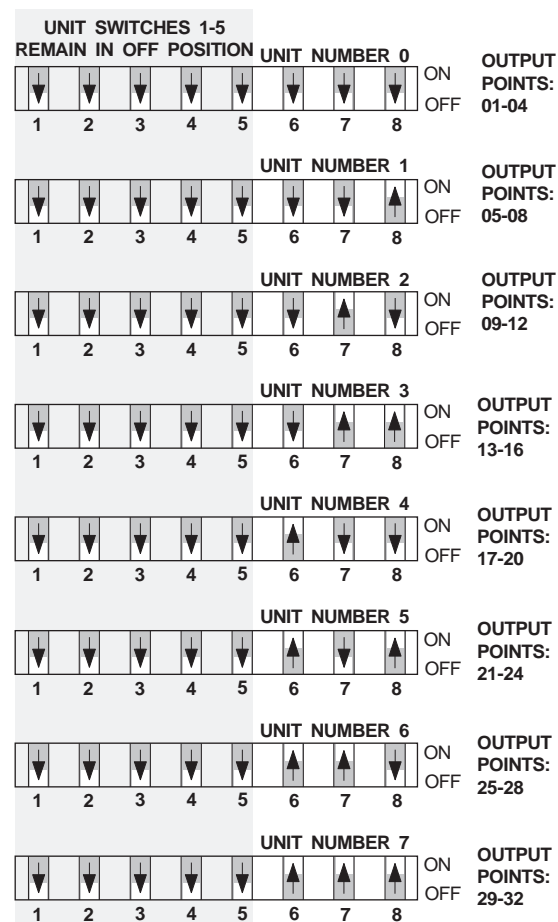
Figure 7. DIP Switch Settings for Use with UltraGard & Concord Panels

1251e Access Control Setup

Adding a HOM to a 1251e access control panel is accomplished through HOM DIP switch settings and ACCESS NT™ software.

Four output points are assigned to each unit number (module). *It is important that you assign unit numbers to HOMs sequentially.* If a unit number is skipped, then all four output points on that module are reported as failed.

To set the HOM unit number:

1. Set the HOM DIP switches on the first HOM to the unit number 16 setting as shown in Figure 9.

2. In ACCESS NT, in the New or Edit APM dialog box, select 1 to represent the number of output modules added to the system (Figure 8). Output points 5-8 are now available. (Zero means that no output modules have been added to the panel.)
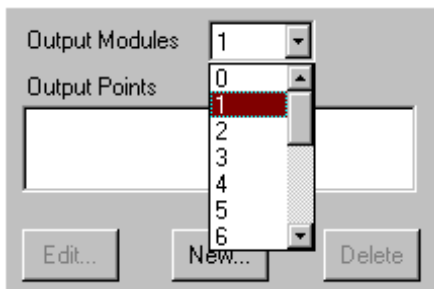
Figure 8. Assigning One Output Module to the Panel

Note: Even if you've installed some Hardwire Input Modules (HIMs), assign unit number 16 to the first HOM and continue sequentially.

3. If you're adding a second HOM, assign unit number 17 to it by setting the DIP switches as shown in Figure 9.

4. In the New or Edit APM dialog box, select 2 to indicate that two HOMs have been added to the system. Output points 9-12 are now available.

5. Continue assigning HOMs sequentially.

After you've assigned a HOM unit number to each HOM, see the *ACCESS NT Reference Manual* for directions on defining each new point.

Figure 9. DIP Switch Settings for HOMs 1 through 8 for Use with 1251e Access Control Panel

ASSIGN UNIT NO. 24 TO OUTPUT MODULE 9

OUTPUT POINTS: 37-40

ASSIGN UNIT NO. 25 TO OUTPUT MODULE 10

OUTPUT POINTS: 41-44

ASSIGN UNIT NO. 26 TO OUTPUT MODULE 11

OUTPUT POINTS: 45-48

ASSIGN UNIT NO. 27 TO OUTPUT MODULE 12

OUTPUT POINTS: 49-52

ASSIGN UNIT NO. 28 TO OUTPUT MODULE 13

OUTPUT POINTS: 53-56

ASSIGN UNIT NO. 29 TO OUTPUT MODULE 14

OUTPUT POINTS: 57-60

ASSIGN UNIT NO. 30 TO OUTPUT MODULE 15

OUTPUT POINTS: 61-64

ASSIGN UNIT NO. 31 TO OUTPUT MODULE 16

OUTPUT POINTS: 65-68

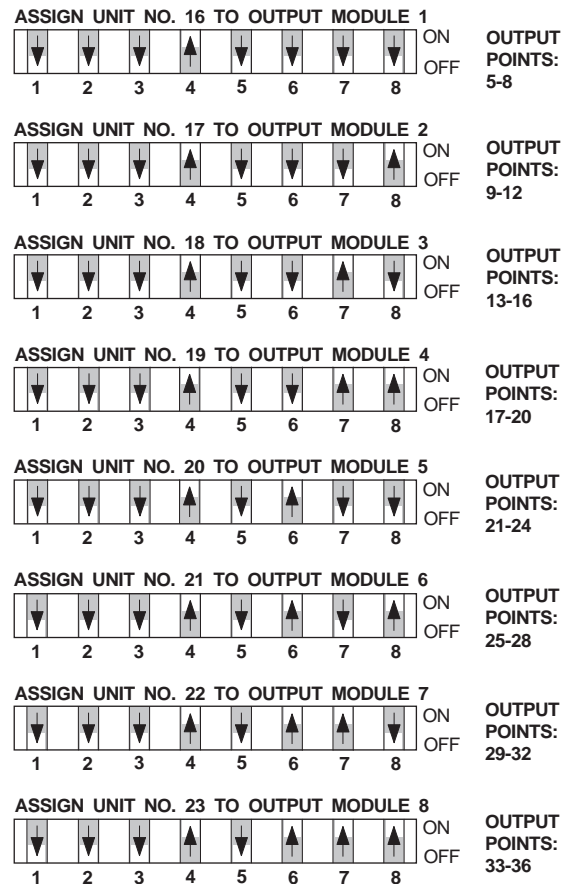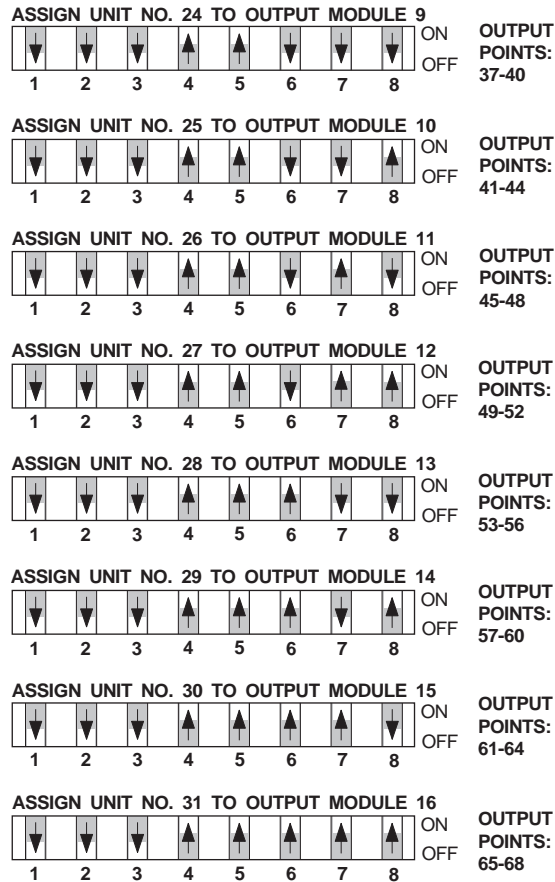**Figure 10. DIP Switch Settings for HOMs 9 through 16 for Use with 1251e Access Control Panel**

Power Up and Bus Communication

This section describes how to power up the panel and the HOM and get them communicating with each other.

In general, to power up the UltraGard, Concord, or 1251e panel and the HOM:

1. Verify that all wiring at the panel and the HOM are correct.
2. Verify that there are no conflicting SuperBus device unit number settings.
3. Reconnect the panel battery and plug in the power transformer.
4. Turn on the panel power switch (UltraGard only).
5. Proceed to the following panel specific power up instructions

Powering up an UltraGard panel

Set the panel's RUN/PROGRAM switch to PRO-GRAM.

If the alphanumeric display reads 1-OFF and the 1 is flashing, enter the install code (4-digit installer access code) to get the panel into the program mode.

The alphanumeric display should read PROGRAM MODE and the HOM LED should be flashing continuously, indicating successful communication to the panel.

Note: If the HOM LED is not flashing continuously, set the RUN/PROGRAM switch to RUN and turn off the panel power switch. Verify that all wiring is correct and that all SuperBus devices are set with different unit numbers. Whenever the HOM unit number is changed, you must turn off the panel power switch, turn it back on, then enter the program mode for the panel and HOM to communicate successfully.

Powering up a Concord panel

The Concord security panel automatically "learns" the unit number of each bus device when the panel is first powered up and when program mode is entered. However, only alphanumeric touchpads can be used to program the panel. LED touchpads have no programming capabilities.

If you plan on installing systems with no alphanumeric touchpads, it is recommended that you keep an alphanumeric touchpad specifically for programming. This touchpad can be quickly connected and disconnected from the header pins on the lower-left portion of Concord panel boards.

Note: An alphanumeric touchpad must be connected to the panel prior to power up.

To power up the Concord panel and verify HOM bus communication:

1. Verify that all wiring between the panel, touchpad and HOM is correct.
2. Connect the panel battery and plug in the panel transformer. Alphanumeric touchpad displays should momentarily indicate: SCANNING BUS DEVICES.
3. Enter program mode by pressing **8 + installer CODE (default = 4321) + 00**. The touchpad should display SYSTEM PROGRAMMING.

4. Press **#** and the display shows SECURITY.

5. Press the **A** or **B** button until the display shows ACCESSORY MODULES, and then press **#**. The display should read BUS DEVICES.

6. Press the **#** button. The display shows the lowest unit number and its device name. For example, an alphanumeric touchpad unit number display looks like this:
   ```
   UNIT - TYPE
     01 - ATP
   ```

7. Press **A** or **B** to cycle through all bus device unit numbers until the HOM appears. For example:
   ```
   UNIT - TYPE
     06 - HOM
   ```

8. After verifying the HOM unit number, press ***** repeatedly until the display shows SYSTEM PRO-GRAMMING.

9. Press **A** or **B** until the display shows EXIT PRO-GRAMMING.

10. Press **#** to exit program mode. The display shows the day, date, and time. The HOM status LED should be flashing continuously, indicating successful communication to the panel.

Note: If the LED is not flashing continuously, turn off the panel power switch. Verify that all wiring is correct and that all bus devices are set with different unit ID numbers.

Whenever the HOM unit ID number is changed, you must remove panel power, and reapply it for the panel and HOM to begin communicating successfully.

Powering Up a 1251e Access Control Panel

To enable bus communication between the HOM and the panel, make sure the bus selection switch on the panel is in the up position. (See Figure 11.)
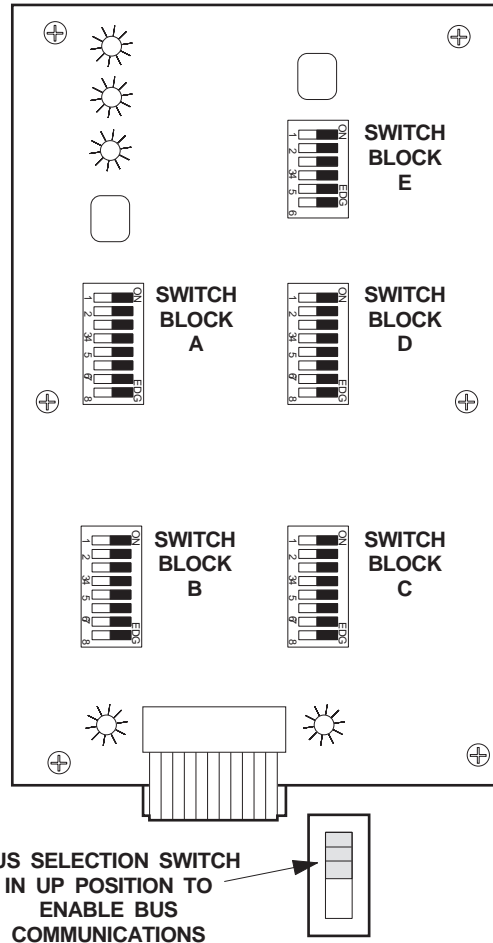
1251G21B.DSF

Figure 11. Bus Selection Switch on 1251e

See the *1251e Installation and Reference Manual* for further directions.

Programming HOM Outputs

The HOM receives pre-programmed output commands from the panel via the SuperBus data connection, then energizes the appropriate HOM output. Output selection, time delay, and duration are determined by the panel programming.

For Use with an UltraGard Security Panel

See Appendix A.

For Use with a Concord Security Panel

See Appendix B.

For Use with a 1251e Access Control Panel

See the *ACCESS NT Reference Manual.*

Application Examples

The following sections provide some examples of typical applications to assist you in configuring the HOM to your specific applications.

CCTV Camera Control Output Example

The following is a an example of closed circuit television (CCTV) camera controlled by a burglary alarm.

To wire the HOM to a CCTV camera:

1. Turn off the panel power and disconnect the backup battery.
2. Wire the HOM module to the panel (see Table 2 and Figure 12).
3. Wire the HOM Output 1 COM and N/O outputs to the camera (or camera multiplexer control) as shown.
4. Turn the panel power back on and reconnect the backup battery.
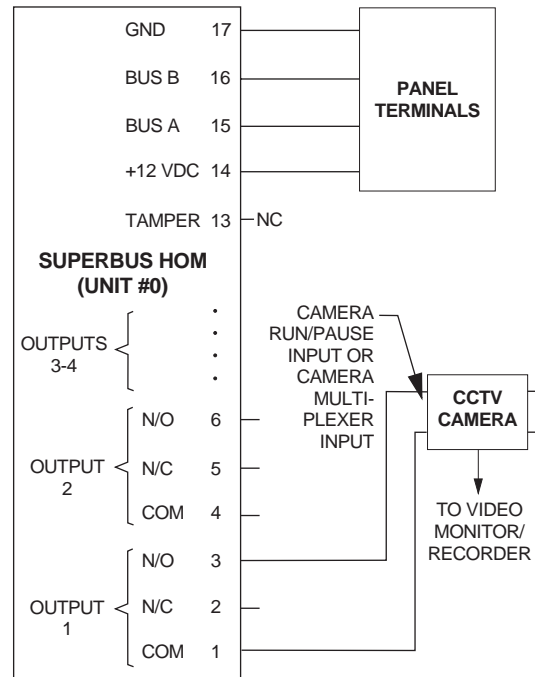
NOTE: DO NOT EXCEED RELAY CONTACT VOLTAGE AND CURRENT RATINGS

8833G06B.DS4

Figure 12. Connecting a CCTV Camera to the HOM

To program for use with an UltraGard security panel:

At the panel, set point 1 (HOM unit 0, output 1) to trigger on sensor 1 activity (for example, motion detector learned as sensor 1) and have a 3 minute response. This would be HOM configuration code `01-22901`.

To program for use with a Concord security panel:

At the panel, select the desired partition and set point 1 (HOM unit 0, output 1) to trigger on sensor 1 activity (for example, motion detector learned as sensor 1) and have a 3 minute response. This would be HOM configuration code `22901`.

LED Indicator Output Example

The following is an example of an LED indicator used to show an arming status condition.

To wire the HOM and LED indicator:

1. Turn off the panel power and disconnect the backup battery.
2. Wire the HOM module to the panel (see Table 2 and Figure 13).
3. Wire the LED and the appropriate current limiting resistor in series with the output as shown.
4. Turn the panel power back on and reconnect the backup battery.

*DO NOT EXCEED PANEL +12V POWER CONSUMPTION LIMITS (SEE PANEL INSTALLATION INSTRUCTIONS)

8833G04B.DS4

Figure 13. Connecting an LED Indicator to the HOM

To program for use with an UltraGard security panel:

At the panel, set point 1 (HOM unit 0, output 1) to trigger on arming levels 2 or 3 with a sustained response. This would be HOM configuration code `01-00903`.

To program for use with a Concord security panel:

At the panel, select the desired partition and set point 1 (HOM unit 0, output 1) to trigger on arming levels 2 or 3 with a sustained response. This would be HOM configuration code `00903`.

Wireless Overhead Door Control Output Example

This example applies to an UltraGard or Concord security setup only:

The following is an example of a wireless keychain touchpad used to control an overhead door.

To wire the HOM and overhead door control:

1. Turn off the panel power switch and disconnect the backup battery.
2. Wire the HOM module to the security panel (see Table 2).
3. Wire the HOM Output 1 COM and N/O outputs in parallel with the overhead door operator control as shown in Figure 14.

NOTE: DO NOT EXCEED RELAY CONTACT
VOLTAGE AND CURRENT RATINGS

8833G07B.DSF

Figure 14. Connecting an Overhead Door Operator to the HOM

To program for use with an UltraGard security panel:

At the panel, set point 1 (HOM unit 0, output 1) to trigger on group 32 in alarm and have a momentary response. This would be HOM configuration code 01-09600.

To program for use with a Concord security panel:

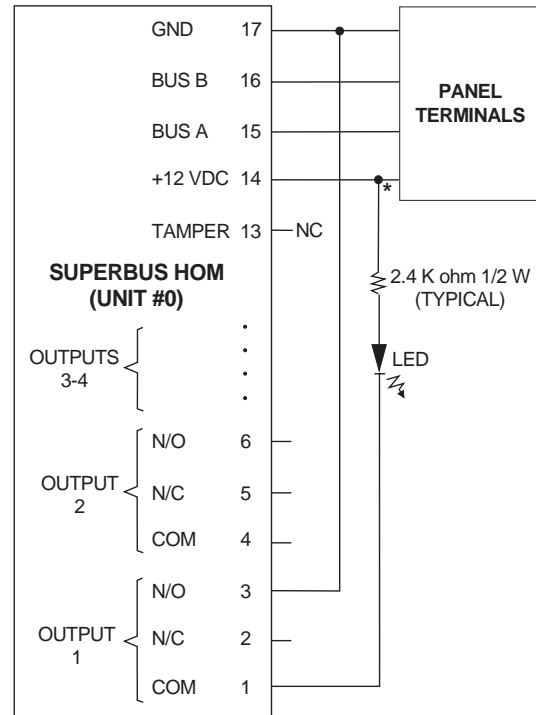At the panel, select the desired partition and set point 1 (HOM unit 0, output 1) to trigger on a wireless keychain star button and have a momentary response. This would be HOM configuration code 01400.

Long-Range Radio Communications Backup Output Example

This example applies to an UltraGard or Concord security setup only:

The following is an example of a long-range radio used as a communications backup in case of a Failure-To-Communicate (FTC) response from the panel if for example, the phone lines are inoperable).

To wire the HOM to a long-range radio:

1. Turn off the panel power and disconnect the backup battery.
2. Wire the HOM module to the security panel (see Table 2).
3. Wire the HOM Output 1 COM and N/O outputs to the long-range radio as shown in Figure 15.
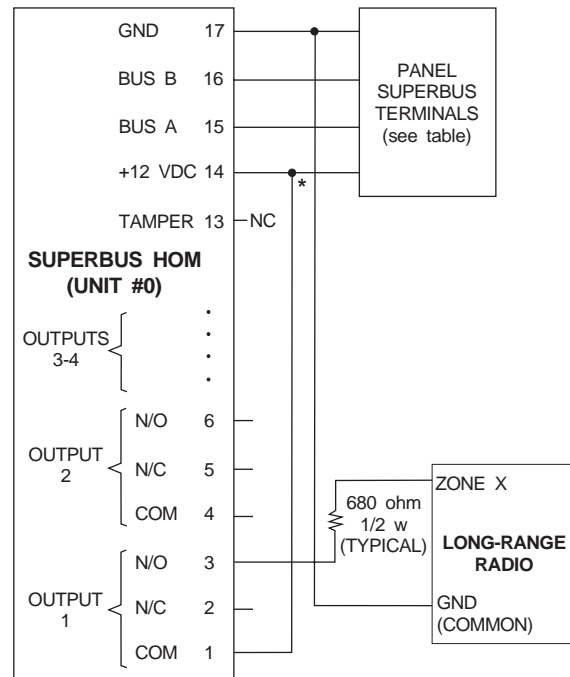
NOTE: DO NOT EXCEED RELAY CONTACT
VOLTAGE AND CURRENT RATINGS

*DO NOT EXCEED PANEL +12V POWER CONSUMPTION LIMITS (SEE PANEL INSTALLATION INSTRUCTIONS)
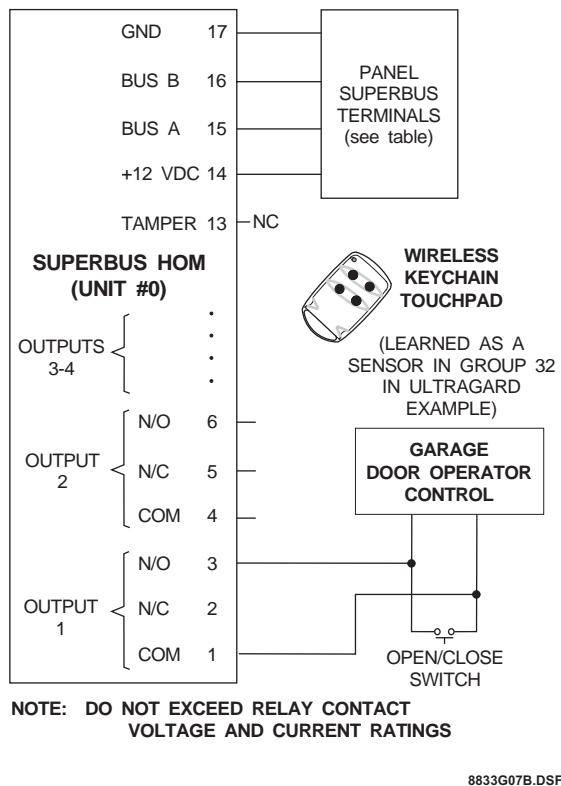
8833G05B.DSF

Figure 15. Connecting a Long-Range Radio to the HOM

To program for use with an UltraGard security panel:

At the panel, set point 1 (HOM unit 0, output 1) to trigger on a fail to communicate (FTC) condition and to have a sustained response. This would be HOM configuration code 01-01203.

To program for use with a Concord security panel:

At the panel, set point 1 (HOM unit 0, output 1) to trigger on a fail to communicate (FTC) condition and to have a sustained response. This would be HOM configuration code 01203.

4-Wire Smoke Detector (with Power Reset) Example

This example applies to a Concord hardwired security setup only:

The following is an example of a 4-wire smoke detector with power reset application.

To wire the HOM and 4-wire smoke detector:

1. Turn off the panel power and disconnect the backup battery.
2. Wire the HOM module to the security panel Superbus terminals as shown in Table 2.
3. Wire the HOM Output 1 COM and N/C terminals to the smoke detector terminals and Power Supervision Module wires as shown in Figure 16.
4. Wire the smoke detector two output terminals to the Power Supervision Module wires and then to

any of the panel's unused zone inputs and zone input common terminals as shown in Figure 16.
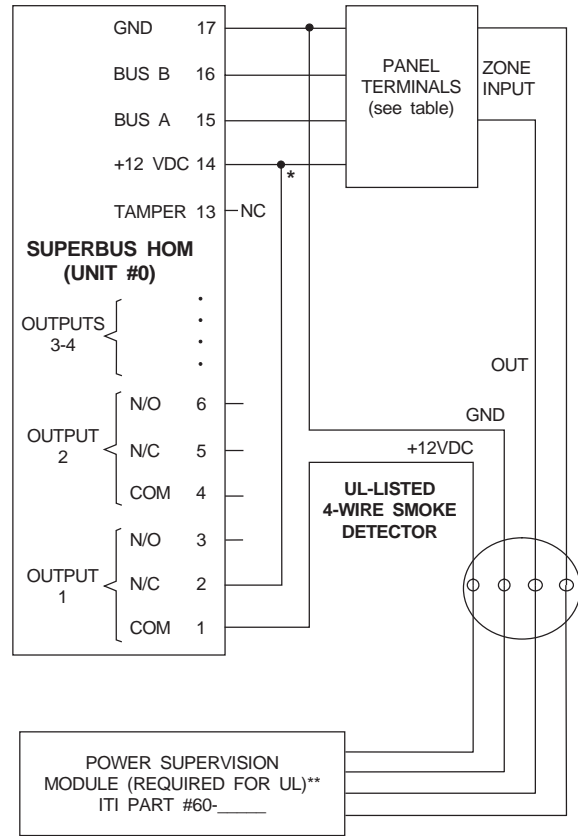
*DO NOT EXCEED PANEL +12V POWER CONSUMPTION LIMITS (SEE PANEL INSTALLATION INSTRUCTIONS)

**LOCATE AT LAST DEVICE. CONTAINS INTERNAL 2.0 K END-OF-LINE RESISTOR BETWEEN GREEN AND WHITE)

NOTE: DO NOT EXCEED RELAY CONTACT VOLTAGE AND CURRENT RATINGS

8833G13A.DSF

Figure 16. Connecting a 4-Wire Smoke Detector to the HOM and Concord Security Panel.

To program for use with a Concord security panel:

At the panel, select the desired partition and set point 1 (HOM unit 0, output 1) to trigger on a smoke power condition and have a momentary response. This would be HOM configuration code 01500.

Testing the HOM Operation

To test the HOM operation, activate each of the programmed system triggering events and check that the desired HOM outputs respond.

The following table lists how the HOM status LED should respond when communications to and from the panel through the SuperBus data connections are correct.

Table 3. HOM Status LED

When Used with an . . .	the HOM LED should blink . . .
UltraGard security panel	continually
Concord security panel	continually
1251e access control panel	once every 5 seconds

Troubleshooting the HOM

Use the following table to determine possible solutions to HOM problems.

Table 4. Troubleshooting the HOM

Problem	Solution
LED stays off (does not blink).	1. Check HOM and panel fuses. 2. Check SuperBus wiring. 3. Check that no SuperBus modules are set to the same unit number. 4. Check for proper panel/HOM initialization after changing unit numbers.
LED remains on.	1. Reinitialize panel and HOM by turning panel power off and on. 2. HOM circuit failure. Replace the module.
LED blinks, but no outputs activate.	Check panel/HOM programming.
One output never activates.	1. Check panel/HOM programming. 2. Check that the point (particular HOM output) programmed trigger event actually occurs. (For UltraGard and Concord panels, see Appendix A and B) 3. Check output-to-output device wiring.
Output(s) activate only momentarily.	Check panel/programming (particular HOM output) uses correct response configuration. (For UltraGard and Concord panels, Appendix A and B)
Output(s) activate randomly.	1. Check HOM and panel fuses. 2. Check SuperBus wire routing and length. 3. Check that no SuperBus modules are set to the same unit numbers.
HOM tamper input is inoperable. (UltraGard & Concord)	Some panels and panel versions do not read the HOM's built-in Tamper Input status. Connect the HOM tamper switch to one of the panel's unused hardwire zone inputs.
One output stays activated.	1. Check if the point is programmed for a 3 minute "on" time and if the triggering event for the point is repeatedly "resetting" the 3 minute timer. 2. Output may have failed or been overloaded. Reprogram to use a different (unused) output. On 1251e, check interlocking setup.

Common Questions and Answers

The HOM (and possibly alphanumeric or other SuperBus modules) seems to be locked up after changing module unit numbers. Why does it do this and what should I do?

The two most common reasons for this are:

■ unintialized modules, or

■ one or more modules sharing the same unit number.

SuperBus modules do not read unit number (DIP switch) changes until the module is initialized by turning the panel power off and back on. Also, some panels do not read SuperBus module unit number changes until the panel has been switched to the program mode.

If the modules or touchpads seem locked up after being initialized, check that no two modules or touchpads have the same unit number selected. (See "Power Up and Bus Communication" section in this document.)

How are multiple HOMs wired to the panel?

Wire multiple HOM (and other SuperBus) modules and touchpads in "daisy-chain" fashion (in parallel, from one to the next) to the panel's SuperBus terminals or connector.

My application requires a special voltage and current. Can an external relay and separate power supply be connected to a HOM output?

Yes. But be careful not to exceed the HOM output voltage and current rating when controlling the external relay and power supply.

Replacing the HOM Cover

To replace the HOM cover on wall mount installations:

1. Insert the two tabs at the bottom of the module back plate into the slots of the cover.

2. Swing the cover up and press onto the back plate until it clicks into place.

Note: On in-cabinet mounting installations the HOM module cover is not used and may be discarded.

Appendix A:
Programming HOM Outputs
for Use with UltraGard

A HOM output point is programmed into the UltraGard security panel by entering two kinds of information:

1. Trigger Event—The event that activates the output point.

2. Response—How the point responds when the event occurs.

Trigger events can be alarms, trouble conditions, open sensors, etc. The response information determines when and how long the output point will be active.

The output point can be programmed:

■   to activate immediately.

■   to delay activation by 30 seconds.

■   to stay on until the panel is disarmed.

■   to stay on for only 4 seconds.

Tables 5 and 6 provide brief descriptions of the available output triggers and responses.

Table 5. Event Trigger Descriptions

Event Trigger	Description
Fire Alarm	When Fire Alarm condition occurs
Police Alarm	When Police Alarm condition occurs
Auxiliary Alarm	When Auxiliary Alarm condition occurs
Audible Alarm	When any of the three above conditions occur
Silent Alarm	When a sensor in group 2 or 3 goes into alarm or when a duress alarm is activated
Any Alarm	When any alarm is started (does not include groups 25, 27, 28, and 32)
HOM Group in Alarm	When a sensor in group 27, 28, or 32 goes into alarm
Major Trouble	When a receiver failure (S94) or a phone failure (S96) occurs
Entering Level 2 or 3	When the panel is armed to level 2 or 3
Entering Level 3	When the panel is armed to level 3

Table 5. Event Trigger Descriptions (Continued)

Event Trigger	Description
AVM Interactive	When the central station operator begins listening or talking to the premises
FTC	When the fail to communicate output is activated
Group XX in Alarm	When any sensor in group XX goes into alarm
Sensor XX in Alarm	When sensor number XX goes into alarm
Sensor XX Open	When sensor XX opens

Table 6. Response Characteristic Descriptions

Response Characteristic	Description
Momentary trip time	Point remains activated for the programmed 1-12 seconds. The default momentary trip time is 4 seconds (all points have the same time) and can only be changed from the CS-4000 Central Station Receiver or the ITI ToolBox downloader.
3 Minute trip time	Point remains activated for 3 minutes.
Siren Time trip time	Point remains activated while the interior siren is sounding.
Sustained trip time	Point remains activated for the duration of the event.
Siren Tracking*	Point activates and deactivates according to the current alarm type.
Trip Delay*	Point activates 30 seconds after the trigger event occurs.

*   These characteristics are in addition to the programmed trip time.

Programming the HOM Output Point/ Configuration Numbers into the Panel

This section describes how to program each of the HOM output point configurations into the UltraGard security panel.

The point/configuration number is "nn-tttrr" where *nn* is the point number and *tttrr* is the 5 digit configuration number for the point (Figure 17).

```
01-00903
         └── Response No.
       └──── Trigger No.
   └──────── Output Point No.

8833G11B.DS4
```
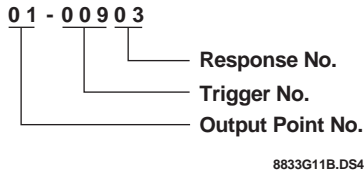
Figure 17. HOM Output Point/ Configuration Number Example

The 5 digit configuration number consists of a 3-digit trigger number (*ttt*) (see Tables 8, 9, 10, 11, and 12) and a 2-digit response number (*rr*) (see Tables 6 and 13).

The configuration number example in Figure 19 tells us the following:

■ The configuration number is referring to HOM unit number 00. We know this because output point 01 is located on HOM unit number 00 in relay output position number 1. (See Table 7.)

■ The output will be triggered while arming to level 2 or 3. (See 009 in Table 9.)

■ The response will be sustained (03). (See Table 13.)

HOM configuration programming is also available through the CS-4000 Central Station Receiver or the ITI ToolBox downloader.

To program the HOM output point configurations into the UltraGard panel:

1. Set the panel's RUN/PROGRAM switch to PROGRAM.

   If the alphanumeric display reads *1-OFF* and the *1* is flashing, you must enter the install code (4-digit installer access code) to get the panel into the program mode.

   The alphanumeric display should read *PROGRAM MODE.*

2. Press **STATUS** repeatedly until *HOM SETUP* is displayed.

3. Press **COMMAND** to display *POINT 01-#####* (the first point and its previously programmed configuration code [if any]). Blank or unprogrammed points are displayed as *POINT ##- * * * * *.*

4. To display other points, press **STATUS, BYPASS** or enter the desired two-digit point number.

5. Press **COMMAND** to change the displayed point's configuration code. The display will show *POINT ##-_ _ _ _ _.* Or press **POLICE** to enter a blank number for this point.

6. Enter the points new 5 digit configuration number (see Trigger and Response Number tables). The display will blink as you start entering numbers. To escape this sequence without changing the previously programmed number, press **FIRE**.

7. Press **COMMAND** to enter the new point configuration into the panel's memory. The display will stop blinking.

Note: If the entered number is invalid, the display will revert to the point's previously programmed configuration number.

8. To display and/or change other points, press **STATUS** or **BYPASS**.

9. When finished, press FIRE once to return to the HOM menu or twice to return to the Main menu.

Table 7. HOM Point Numbers

	Output Point Numbers			
	1	2	3	4
HOM Unit Number 00	01	02	03	04
HOM Unit Number 01	05	06	07	08
HOM Unit Number 02	09	10	11	12
HOM Unit Number 03	13	14	15	16
HOM Unit Number 04	17	18	19	20
HOM Unit Number 05	21	22	23	24
HOM Unit Number 06	25	26	27	28
HOM Unit Number 07	29	30	31	32

Table 8. HOM Point Configuration Number Programming Defaults

	Output Point	Configuration Number	Event Trigger	Response Time	Delay	Siren Tracking
Unit Number 00	01	00100	Fire Alarm	4 secs*	no	no
	02	00500	Silent Alarm	4 secs*	no	no
	03	00200	Police Alarm	4 secs*	no	no
	04	00300	Auxiliary Alarm	4 secs*	no	no
Unit Number 01	05	00800	Major Trouble	4 secs*	no	no
	06	01200	FTC	4 secs*	no	no
	07	00411	Any Audible Alarm	Sustained	no	yes
	08	00700	HOM Group	4 secs*	no	no
Unit Number 02	09	00903	Entering Level 2 or 3	Sustained	no	no
	10	01003	Entering Level 3	Sustained	no	no
	11	-	(not programmed)	-	-	-
	12	-	(not programmed)	-	-	-
...	13 - 32		(not programmed)			

* Momentary response time defaults to 4 seconds and is programmable from 1 to 12 seconds only from the central station or downloader.

Table 9. Event Trigger Numbers

Event	Trigger No.
Fire Alarm	001
Police Alarm	002
Auxiliary Alarm	003
Any Audible Alarm	004
Silent Alarm (groups 2 and 3 [duress])*	005
Any Alarm (trigger 004 or 005)*	006
HOM Group (27, 28, or 32) in alarm	007
Major Trouble (Sensor 94 or 96 in alarm)	008
While in Level 2, 3	009
While in Level 3 (Away)	010
AVM Interactive	011
FTC	012

* Does not include HOM groups (27, 28, or 32) in alarm.

Table 10. Sensor Group Number Event Trigger Numbers

Sensor Group	Trigger No.
Group 00 in alarm	064
Group 01 in alarm	065
Group 02 in alarm	066
Group 03 in alarm	067
Group 04 in alarm	068
Group 05 in alarm	069
Group 06 in alarm	070
Group 07 in alarm	071
Group 08 in alarm	072
Group 09 in alarm	073
Group 10 in alarm	074
Group 11 in alarm	075
Group 12 in alarm	076
Group 13 in alarm	077
Group 14 in alarm	078
Group 15 in alarm	079
Group 16 in alarm	080
Group 17 in alarm	081
Group 18 in alarm	082
Group 19 in alarm	083
Group 20 in alarm	084
Group 21 in alarm	085
Group 22 in alarm	086
Group 23 in alarm	087
Group 24 in alarm	088
Group 25 in alarm	089
Group 26 in alarm	090
Group 27 in alarm	091
Group 28 in alarm	092
Group 32 in alarm	096

Table 11. Sensor Number Event Trigger Numbers

Sensor Number	State	Trigger No.	State	Trigger No.
Sensor 01	in alarm	129	open	229
Sensor 02	in alarm	130	open	230
Sensor 03	in alarm	131	open	231
Sensor 04	in alarm	132	open	232
Sensor 05	in alarm	133	open	233
Sensor 06	in alarm	134	open	234
Sensor 07	in alarm	135	open	235
Sensor 08	in alarm	136	open	236
Sensor 09	in alarm	137	open	237
Sensor 10	in alarm	138	open	238
Sensor 11	in alarm	139	open	239
Sensor 12	in alarm	140	open	240
Sensor 13	in alarm	141	open	241
Sensor 14	in alarm	142	open	242
Sensor 15	in alarm	143	open	243
Sensor 16	in alarm	144	open	244
Sensor 17	in alarm	145	open	245
Sensor 18	in alarm	146	open	246
Sensor 19	in alarm	147	open	247
Sensor 20	in alarm	148	open	248
Sensor 21	in alarm	149	open	249
Sensor 22	in alarm	150	open	250
Sensor 23	in alarm	151	open	251
Sensor 24	in alarm	152	open	252
Sensor 25	in alarm	153	open	253
Sensor 26	in alarm	154	open	254
Sensor 27	in alarm	155	open	255
Sensor 28	in alarm	156	open	256
Sensor 29	in alarm	157	open	257
Sensor 30	in alarm	158	open	258
Sensor 31	in alarm	159	open	259
Sensor 32	in alarm	160	open	260

Table 11. Sensor Number Event Trigger Numbers

Sensor Number	State	Trigger No.	State	Trigger No.
Sensor 33	in alarm	161	open	261
Sensor 34	in alarm	162	open	262
Sensor 35	in alarm	163	open	263
Sensor 36	in alarm	164	open	264
Sensor 37	in alarm	165	open	265
Sensor 38	in alarm	166	open	266
Sensor 39	in alarm	167	open	267
Sensor 40	in alarm	168	open	268
Sensor 41	in alarm	169	open	269
Sensor 42	in alarm	170	open	270
Sensor 43	in alarm	171	open	271
Sensor 44	in alarm	172	open	272
Sensor 45	in alarm	173	open	273
Sensor 46	in alarm	174	open	274
Sensor 47	in alarm	175	open	275
Sensor 48	in alarm	176	open	276
Sensor 49	in alarm	177	open	277
Sensor 50	in alarm	178	open	278
Sensor 51	in alarm	179	open	279
Sensor 52	in alarm	180	open	280
Sensor 53	in alarm	181	open	281
Sensor 54	in alarm	182	open	282
Sensor 55	in alarm	183	open	283
Sensor 56	in alarm	184	open	284
Sensor 57	in alarm	185	open	285
Sensor 58	in alarm	186	open	286
Sensor 59	in alarm	187	open	287
Sensor 60	in alarm	188	open	288
Sensor 61	in alarm	189	open	289
Sensor 62	in alarm	190	open	290
Sensor 63	in alarm	191	open	291
Sensor 64	in alarm	192	open	292
Sensor 65	in alarm	193	open	293
Sensor 66	in alarm	194	open	294

Table 11. Sensor Number Event Trigger Numbers

Sensor Number	State	Trigger No.	State	Trigger No.
Sensor 67	in alarm	195	open	295
Sensor 68	in alarm	196	open	296
Sensor 69	in alarm	197	open	297
Sensor 70	in alarm	198	open	298
Sensor 71	in alarm	199	open	299
Sensor 72	in alarm	200	open	300
Sensor 73	in alarm	201	open	301
Sensor 74	in alarm	202	open	302
Sensor 75	in alarm	203	open	303
Sensor 76	in alarm	204	open	304

Table 12. Upper Sensor Number Event Trigger Numbers*

Upper Sensor No.	State	Trigger No.
Sensor 77	in alarm	205
Sensor 78	in alarm	206
Sensor 79	in alarm	207
Sensor 80	in alarm	208
Sensor 81	in alarm	209
Sensor 82	in alarm	210
Sensor 83	in alarm	211
Sensor 84	in alarm	212
Sensor 85	in alarm	213
Sensor 86	in alarm	214
Sensor 87	in alarm	215
Sensor 88	in alarm	216
Sensor 89	in alarm	217
Sensor 90	in alarm	218
Sensor 91	in alarm	219
Sensor 92	in alarm	220
Sensor 93	in alarm	221
Sensor 94	in alarm	222

Table 12. Upper Sensor Number Event Trigger Numbers* (Continued)

Upper Sensor No.	State	Trigger No.
Sensor 95	in alarm	223
Sensor 96	in alarm	224

* For 'upper sensor in alarm' trigger events (205-224), the corresponding upper sensor must be ON for the HOM point to activate.

Table 13. Response Numbers*

Siren Tracking	Trip Delay	Response Time	Response No.
no	no	momentary	00
no	no	3 minutes[5]	01
no	no	siren time[2]	02
no	no	sustained[3]	03
no	yes[4]	momentary	04
no	yes[4]	3 minutes[5]	05
no	yes[4]	siren time[2]	06
no	yes[4]	sustained[3]	07
yes[1]	no	momentary	08
yes[1]	no	3 minutes[5]	09
yes[1]	no	siren time[2]	10
yes[1]	no	sustained[3]	11
yes[1]	yes[4]	momentary	12
yes[1]	yes[4]	3 minutes[5]	13
yes[1]	yes[4]	siren time[2]	14
yes[1]	yes[4]	sustained[3]	15

* Response Specifics

1. If siren tracking is chosen for an event which does not sound sirens, the point will not turn on. If sirens are started while the point is still theoretically activated, the point will pulse to match the sirens.

When the panel's siren cadence changes (Aux. to Police, etc.), all HOM points that are tracking the siren pattern will change to match the siren. The pulsing outputs on all HOMs will pulse with one common cadence.

Note: If siren tracking is chosen and a pulsing siren (Aux. or Police) is active for long periods of time, the mechanical lifetime of the relay may be exceeded. A HOM point following an Auxiliary siren can be expected to function for 350 total hours of pulsing.

2. If a trip time of 'siren time' is chosen for an event which doesn't start the sirens, the point will only be activated if sirens are already sounding for some other reason.

3. If a sustained trip time is chosen for an alarm which doesn't necessarily require disarming (Upper Sensors 84, 85, 87, 95, etc.), the point will remain activated until the next arming level change.

4. If a point is configured to have a 30 second trip delay, and that delay has been started by an event, 'restoral' of the trigger event will cancel the trip delay timer and the point activation.

5. A point set to activate for 3 minutes will stay activated for the full 3 minutes and cannot be deactivated by any other means (except entering program mode or removing power).

   If a point with a trip time of momentary or 3 minutes is currently activated when the trigger event for that point occurs again, the activation timer will be restarted. (The three minute or momentary activation time is timed from the last occurrence of the trigger event.)

Appendix B: Programming HOM Outputs for Use with Concord

A HOM output point is programmed into the Concord security panel by entering five kinds of information:

1. HOM #—The desired HOM unit number (00-07).
2. HOM Output—The desired HOM output relay number (1-4).
3. Partition—The desired system partition (1 or 2).
4. Trigger Event—The event that activates the output point.
5. Response—How the point responds when the event occurs.

Trigger events can be partition alarms, trouble conditions, open sensors, etc. The response information determines when and how long the output point will be active.

The output point can be programmed:

■   to activate immediately.

■   to delay activation by 30 seconds.

■   to stay on until the panel is disarmed.

■   to stay on for only 4 seconds.

Tables 14 and 15 provide brief descriptions of the available output triggers and responses.

Table 14. Event Trigger Descriptions

Event Trigger	Description
Fire Alarm	When Fire Alarm condition occurs
Police Alarm	When Police Alarm condition occurs
Auxiliary Alarm	When Auxiliary Alarm condition occurs
Audible Alarm	When any of the three above conditions occur
Silent Alarm	When a sensor in group 2 or 3 goes into alarm or when a duress alarm is activated
Any Alarm	When any alarm is started (does not include groups 25, 27, 28, and 32)
HOM Group in Alarm	When a sensor in group 27, 28, or 32 goes into alarm
Major Trouble	When a receiver failure (S94) or a phone failure (S96) occurs

Table 14. Event Trigger Descriptions (Continued)

Event Trigger	Description
Entering Level 2 or 3	When the panel is armed to level 2 or 3
Entering Level 3	When the panel is armed to level 3
AVM Interactive	When the central station operator begins listening or talking to the premises
Partition 2 AVM Trip	When an alarm occurs in partition 2.
Keychain Touchpad Star (*) Button	When star (*) button is pressed on keychain touchpad.
Smoke Power	When hardwired smoke detector reset is needed.
FTC	When a fail-to-communicate signal occurs.
Group XX in Alarm	When any sensor in group XX goes into alarm
Sensor XX in Alarm	When sensor number XX goes into alarm
Sensor XX Open	When sensor XX opens

Table 15. Response Characteristic Descriptions

Response Characteristic	Description
Momentary trip time	Point remains activated for the programmed 1-12 seconds. The default momentary trip time is 4 seconds (all points have the same time) and can only be changed during installer programming or from the ITI ToolBox downloader.
3 Minute trip time	Point remains activated for 3 minutes.
Siren Time trip time	Point remains activated while alarm sirens are sounding.
Sustained trip time	Point remains activated for the duration of the event.
Siren Tracking*	Point activates and deactivates according to the current alarm type.
Trip Delay*	Point activates 30 seconds after the trigger event occurs.

*   These response characteristics are in addition to the programmed trip time.

Programming the HOM Output Point/ Configuration Numbers into the Panel

This section describes how to program each of the HOM output point configurations into the Concord security panel.

The point/configuration number is "tttrr" where *tttrr* is the 5 digit configuration number for the output point (Figure 18).

```
0 0 9 0 3
        └──── Response No.
    └──────── Trigger No.
```

8833G12A.DSF
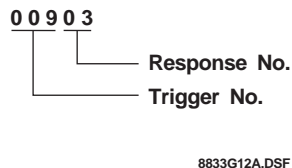
Figure 18. HOM Output Point/ Configuration Number Example

The 5 digit configuration number consists of a 3-digit trigger number (*ttt*) (see Tables 16, 17, 18, 19, and 20) and a 2-digit response number (*rr*) (see Tables 15 and 21).

The configuration number example in Figure 20 tells us the following:

■ The output will be triggered while arming to level 2 or 3. (See 009 in Table17.)

■ The response will be sustained (03). (See Table 21.)

In addtion to programming via the touchpad, HOM configuration programming is also available through the ITI ToolBox downloader.

To program the HOM output point configurations into the Concord security panel:

1. Enter program mode by pressing **8** + **installer CODE (default = 4321) + 00**. The touchpad should display SYSTEM PROGRAMMING.

2. Press **#** and the display shows SECURITY.

3. Press **A** or **B** until the display shows ACCESSORY MODULES, then press **#**. The display should read BUS DEVICES.

4. Press **#**. The display shows the lowest unit number and its device name. For example, an alphanumeric touchpad unit number display looks like this:
   UNIT - TYPE
     01 - ATP

5. Press **A** or **B** to cycle through all bus device unit numbers until the HOM appears. For example:
   UNIT - TYPE
     06 - HOM

6. Press **#**. The display shows RELAY 1.

7. Press **A** or **B** to select the desired relay (1 - 4), then press **#**. The display shows PARTITION ASSIGN 1.

8. Press **1** or **2** to select the desired partition assignment for this relay, then press **#**. The display flashes the entered selection, then stops after pressing # and shows PARTITION ASSIGN n *(new setting)*

9. Press **B** and the display shows CONFIGURATION nnnnn *(current setting)*.

10. Enter the desired 5-digit configuration number for this relay, then press **#**. The display flashes the entered number, then stops and shows CONFIGURATION nnnnn *(new setting)*.

11. After verifying the HOM configuration setting, , press ***** repeatedly until the display shows SYSTEM PROGRAMMING.

12. Press **A** or **B** until the display shows EXIT PROGRAMMING.

13. Press # to exit program mode. The display shows the day, date, and time.

Table 16. HOM Point Configuration Number Programming Defaults

	Output Relay	Configuration Number	Event Trigger	Response Time	Delay	Siren Tracking
Unit Number 00	1	00100	Fire Alarm	4 secs*	no	no
	2	00500	Silent Alarm	4 secs*	no	no
	3	00200	Police Alarm	4 secs*	no	no
	4	00300	Auxiliary Alarm	4 secs*	no	no
Unit Number 01	1	00800	Major Trouble	4 secs*	no	no
	2	01200	FTC	4 secs*	no	no
	3	00411	Any Audible Alarm	Sustained	no	yes
	4	00700	HOM Group	4 secs*	no	no
Unit Number 02	1	00903	Entering Level 2 or 3	Sustained	no	no
	2	01003	Entering Level 3	Sustained	no	no
	3	01400	Keychain Star (*) Button	4 sec.*	no	no
	4	01500	Smoke Detector Pwr Reset	3 sec.	no	no
...	...	...	(not programmed)	...	...	...

* Momentary response time defaults to 4 seconds and is programmable from 1 to 12 seconds only from installer programming or downloader.

Table 17. Event Trigger Numbers

Event	Trigger No.
Fire Alarm	001
Police Alarm	002
Auxiliary Alarm	003
Any Audible Alarm	004
Silent Alarm (groups 2 and 3 (duress)*	005
Any Alarm (trigger 004 or 005)*	006
HOM Group (27, 28, or 32) in alarm	007
Major Trouble (Sensor 94 or 96 in alarm)	008
While in Level 2, 3	009
While in Level 3 (Away)	010
AVM Interactive	011
FTC (Failure-to-Communicate)	012
Partition 2 AVM	013
Keychain Star Button	014
Smoke Detector Power Reset	015

* Does not include HOM groups (27, 28, or 32) in alarm.

Table 18. Sensor Group Number Event Trigger Numbers

Sensor Group	Trigger No.
Group 00 in alarm	064
Group 01 in alarm	065
Group 02 in alarm	066
Group 03 in alarm	067
Group 04 in alarm	068
Group 05 in alarm	069
Group 06 in alarm	070
Group 07 in alarm	071
Group 08 in alarm	072
Group 09 in alarm	073
Group 10 in alarm	074
Group 11 in alarm	075
Group 12 in alarm	076
Group 13 in alarm	077
Group 14 in alarm	078
Group 15 in alarm	079
Group 16 in alarm	080
Group 17 in alarm	081
Group 18 in alarm	082
Group 19 in alarm	083
Group 20 in alarm	084
Group 21 in alarm	085
Group 22 in alarm	086
Group 23 in alarm	087
Group 24 in alarm	088
Group 25 in alarm	089
Group 26 in alarm	090
Group 27 in alarm	091
Group 28 in alarm	092
Group 32 in alarm	096

Table 19. Sensor Number Event Trigger Numbers

Sensor Number	State	Trig-ger No.	State	Trig-ger No.
Sensor 01	in alarm	129	open	229
Sensor 02	in alarm	130	open	230
Sensor 03	in alarm	131	open	231
Sensor 04	in alarm	132	open	232
Sensor 05	in alarm	133	open	233
Sensor 06	in alarm	134	open	234
Sensor 07	in alarm	135	open	235
Sensor 08	in alarm	136	open	236
Sensor 09	in alarm	137	open	237
Sensor 10	in alarm	138	open	238
Sensor 11	in alarm	139	open	239
Sensor 12	in alarm	140	open	240
Sensor 13	in alarm	141	open	241
Sensor 14	in alarm	142	open	242
Sensor 15	in alarm	143	open	243
Sensor 16	in alarm	144	open	244
Sensor 17	in alarm	145	open	245
Sensor 18	in alarm	146	open	246
Sensor 19	in alarm	147	open	247
Sensor 20	in alarm	148	open	248
Sensor 21	in alarm	149	open	249
Sensor 22	in alarm	150	open	250
Sensor 23	in alarm	151	open	251
Sensor 24	in alarm	152	open	252
Sensor 25	in alarm	153	open	253
Sensor 26	in alarm	154	open	254
Sensor 27	in alarm	155	open	255
Sensor 28	in alarm	156	open	256
Sensor 29	in alarm	157	open	257
Sensor 30	in alarm	158	open	258
Sensor 31	in alarm	159	open	259
Sensor 32	in alarm	160	open	260

Table 19. Sensor Number Event Trigger Numbers

Sensor Number	State	Trig-ger No.	State	Trig-ger No.
Sensor 33	in alarm	161	open	261
Sensor 34	in alarm	162	open	262
Sensor 35	in alarm	163	open	263
Sensor 36	in alarm	164	open	264
Sensor 37	in alarm	165	open	265
Sensor 38	in alarm	166	open	266
Sensor 39	in alarm	167	open	267
Sensor 40	in alarm	168	open	268
Sensor 41	in alarm	169	open	269
Sensor 42	in alarm	170	open	270
Sensor 43	in alarm	171	open	271
Sensor 44	in alarm	172	open	272
Sensor 45	in alarm	173	open	273
Sensor 46	in alarm	174	open	274
Sensor 47	in alarm	175	open	275
Sensor 48	in alarm	176	open	276
Sensor 49	in alarm	177	open	277
Sensor 50	in alarm	178	open	278
Sensor 51	in alarm	179	open	279
Sensor 52	in alarm	180	open	280
Sensor 53	in alarm	181	open	281
Sensor 54	in alarm	182	open	282
Sensor 55	in alarm	183	open	283
Sensor 56	in alarm	184	open	284
Sensor 57	in alarm	185	open	285
Sensor 58	in alarm	186	open	286
Sensor 59	in alarm	187	open	287
Sensor 60	in alarm	188	open	288
Sensor 61	in alarm	189	open	289
Sensor 62	in alarm	190	open	290
Sensor 63	in alarm	191	open	291
Sensor 64	in alarm	192	open	292
Sensor 65	in alarm	193	open	293
Sensor 66	in alarm	194	open	294

Table 19. Sensor Number Event Trigger Numbers

Sensor Number	State	Trig-ger No.	State	Trig-ger No.
Sensor 67	in alarm	195	open	295
Sensor 68	in alarm	196	open	296
Sensor 69	in alarm	197	open	297
Sensor 70	in alarm	198	open	298
Sensor 71	in alarm	199	open	299
Sensor 72	in alarm	200	open	300
Sensor 73	in alarm	201	open	301
Sensor 74	in alarm	202	open	302
Sensor 75	in alarm	203	open	303
Sensor 76	in alarm	204	open	304

Table 20. System Feature Event Trigger Numbers*

Feature	State	Trigger No.
Phone Test	in alarm	205
RF Touchpad Reports	in alarm	206
AC Failure	in alarm	207
CPU Low Battery	in alarm	208
Auto Phone Test	in alarm	209
Receiver Failure	in alarm	210
Back in Service	in alarm	211
Phone Failure	in alarm	212
Buffer Full	in alarm	213
System Tamper	in alarm	214
Freeze	in alarm	215
No Activity	in alarm	216
Fire Panic	in alarm	217
Police Panic	in alarm	218
Auxiliary Panic	in alarm	219
Opening Report	in alarm	220
Closing Report	in alarm	221
Latchkey Report	in alarm	222

**Table 20. System Feature
Event Trigger Numbers* (Continued)**

Feature	State	Trigger No.
Duress	in alarm	223
Force Arming Report	in alarm	224
Fire in Partition	in alarm	225

* For 'system feature in alarm' trigger events (205-225), the corresponding feature must be ON (enabled) for the HOM point to activate.

Table 21. Response Numbers*

Siren Tracking	Trip Delay	Response Time	Response No.
no	no	momentary	00
no	no	3 minutes[5]	01
no	no	siren time[2]	02
no	no	sustained[3]	03
no	yes[4]	momentary	04
no	yes[4]	3 minutes[5]	05
no	yes[4]	siren time[2]	06
no	yes[4]	sustained[3]	07
yes[1]	no	momentary	08
yes[1]	no	3 minutes[5]	09
yes[1]	no	siren time[2]	10
yes[1]	no	sustained[3]	11
yes[1]	yes[4]	momentary	12
yes[1]	yes[4]	3 minutes[5]	13
yes[1]	yes[4]	siren time[2]	14
yes[1]	yes[4]	sustained[3]	15

* Response Specifics

1. If an event does not trigger sirens, siren tracking response numbers activate without turning on the output. If sirens are triggered by another event, the output pulses to match the siren.

   If the siren cadence changes (for example from police to fire), outputs set up for siren tracking change to match the siren and all pulsing outputs pulse to one common cadence. However, HOM outputs won't be synchronized with panel or SnapCard outputs or the panel speaker output.

Note: The relay's mechanical lifetime may be exceeded if an output is set up for a siren tracking response and a pulsing siren (auxiliary or fire) is active for long time periods. A HOM or SnapCard relay output's lifetime expectancy is about 350 total pulsing hours.

2. If an event does not trigger sirens, siren time response times activate outputs only if sirens are active for another reason.

3. If an alarm event does not necessarily require disarming (no activity, closing report, etc.), outputs set up for a sustained response time remain activated until the next arming level change.

4. If an event occurs that activates an output set up for trip delay, the delay and output activation can be canceled by trigger event restoral.

Note: The trip delay is factory set for 30 seconds and cannot be changed.

5. Activated outputs set up for a 3-minute response time remain active for the entire 3 minutes. To deactivate the output before the 3-minute time expires, you must enter program mode or remove panel power.

   Activated outputs set up for a momentary or 3-minute response time restart if the same trigger event occurs again.

Specifications

Compatibility: UltraGard™ security panels with Version 2.0 software or later, Concord™ hardwire and wireless security panels, 1251e and 1251p access control panels with Access 5.0™ or Access NT™ software.

Power Requirements: 12 VDC, 11 mA typical (idle), 91 mA maximum (all relays energized). Power supplied from the panel through the SuperBus connections.

Panel Data Bus: One 4-wire ITI SuperBus

Number of Inputs: One module tamper input

Input type: Magnet/reed type tamper switch (unsupervised, not suitable for UL-Listed installations)

Number of Outputs: Four, panel programmable outputs

Output Type: "Form-C" relay contacts (COMMON, N/C, N/O). Relay contacts rated 2.0 A at 60 VDC or 120 VAC maximum

Storage Temperature Range: -30° to 120° F (-34° to 49° C)

Operating Temperature Range: 32° to 120° F (0° to 49° C).

Dimensions: 5.25" (133.4mm) L x 4.125" (104.8mm) W x 1.0" (25.4mm) D

Case: Belgian gray ABS plastic

Notices

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

1) This device may not cause harmful interference.
1) 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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WIRELESS

Security

Automation

Access Control