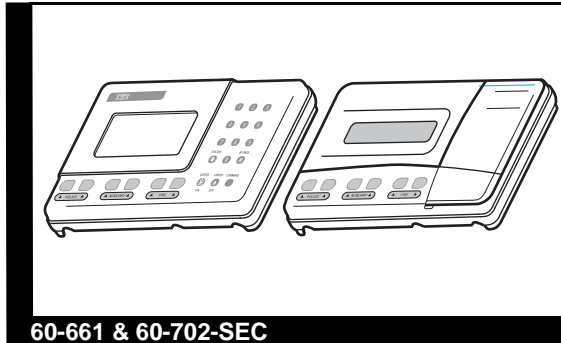


# SuperBus 2-Line LCD Alphanumeric Touchpad

Document Number: 466-1117 Rev. B  
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## Installation Instructions

### Product Summary

The SuperBus 2-Line LCD Alphanumeric Touchpad gives you complete on-site system programming and operation control of a compatible security system (see the 'Specifications' section).

The two-line, 20-character, liquid-crystal alphanumeric display provides visual status messages for the entire system. The display identifies by name any programmed location so the user can determine where an alarm, trouble, or open-sensor condition exists. Lengthy location names or sensor text of up to 20 characters are displayed without scrolling.

You can select sensor names from the preprogrammed list or customize names to suit each customer. Sensor names are stored in the panel, which eliminates the need for downloading sensor text from one touchpad to another.

Touchpad keys light up after the first key press for easy night viewing. After approximately 15 seconds with no touchpad activity, this lighting goes out. Pressing any key will illuminate the buttons again.

Additional features include the following:

- Built-in piezo alarm and status tones
- Twenty-four-hour panic buttons for police, auxiliary, and fire emergencies
- One hardwire input (unsupervised)
- Display contrast control

## Installation Guidelines

- For UltraGard™ systems, up to eight superbuss devices can be connected to the panel (SuperBus Alphanumeric Touchpad, HIM, HOM, ESM, etc.).
- Each superbuss device must have a different unit number.
- The touchpad's default unit ID number is 1.
- Do not exceed the panel's total power when using panel power for bus devices and hardwire sensors that require panel power (see the specific panel's *Installation Instructions*).
- Maximum current draw of the SuperBus 2-Line LCD Alphanumeric Touchpad is 115 mA.
- Mount the touchpad in an environmentally controlled area (42°F to 95°F).
- If you use the optional hardwire input, mount the touchpad near the device connected to the input.
- When mounting the touchpad's back plate, allow a 1-inch clearance on all sides, since the touchpad is bigger than the back plate.
- Use 4-conductor, 22-gauge or larger stranded wire from the display to the control panel.
- Use 2-conductor, 22-gauge or larger stranded wire for the hardwire input.
- Do not use the hardwire input for a critical protection device because this input is not supervised.

### The following must be observed in UL installations:

- The hardwire input can be configured for normally closed or normally open protection devices.
- If you use the hardwire input and program it normally closed, mount the touchpad within 3 feet of the panel.
- If the hardwire input is programmed normally open, the panel, touchpad, and initiating device (hardwire sensor) must be mounted within 3 feet of each other. No intervening walls or barriers may be present between devices.
- Only UL-listed devices may be connected to the hardwire input.
- The hardwire input must not be used for fire-initiating devices.

## Tools Needed

- Screwdriver
- #6 screws and anchors
- Panhead screws for a gang box installation
- Saw or awl for cutting wallboard in wall installations

**Note:** Do not use screws larger than #6 or the display will not seat properly onto the back plate.

## Installation

The SuperBus 2-Line LCD Alphanumeric Touchpad can be installed on a wall or gang box.

### To mount the touchpad on a wall:

1. Separate the mounting bracket from the back plate by loosening the screws and unlatching the tabs from the mounting slots (figure 1).
2. Place the back plate on the wall and mark the four mounting holes (figure 2). Be sure to leave a 1-inch clearance on all sides of the back plate.

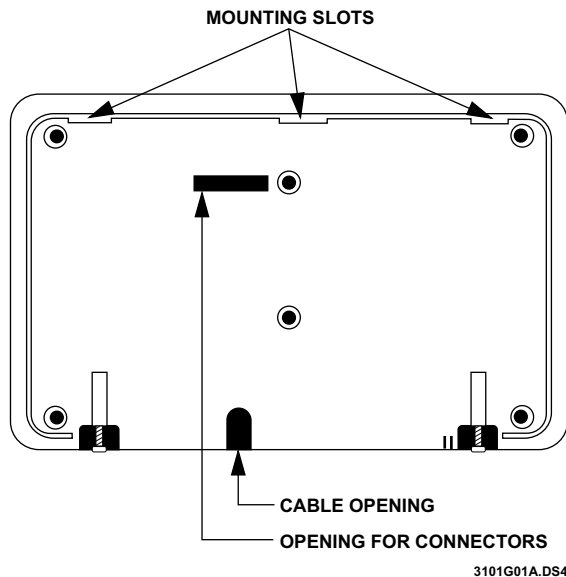


Figure 1. Touchpad Mounting Slots

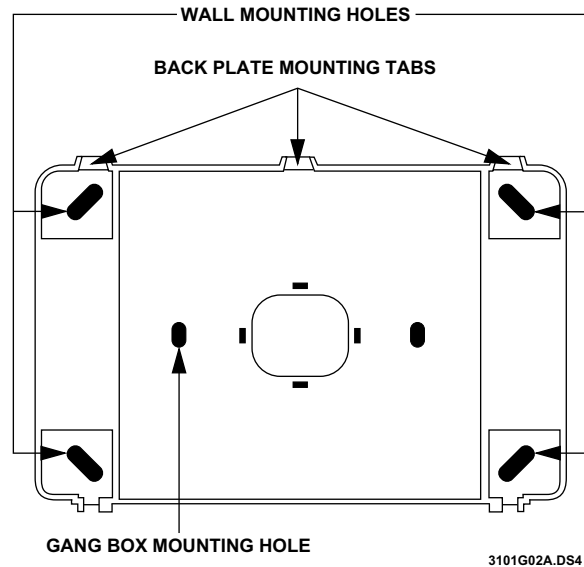


Figure 2. Back Plate and Mounting Holes

3. Insert anchors at the marked locations.
4. Align the back plate wall-mount holes and wall anchors.
5. Secure the back plate.
6. Cut a hole in the wall along the center of the mounting plate to pull your cable through for terminations.

### To mount the touchpad on a gang box:

1. Separate the mounting bracket from the back plate by loosening the screws and unlatching the tabs from the mounting slots (figure 1).
2. Line up the gang box mounting holes with the gang box holes (figure 2).
3. Secure the back plate to the gang box with pan-head screws.

**Note:** Do not overtighten screws or the back plate may bind and prevent the touchpad from mounting properly.

## Wiring

Wiring consists of connecting the touchpad's wiring harness to the panel terminals and connecting a hardwire sensor to the hardwire input harness wires.

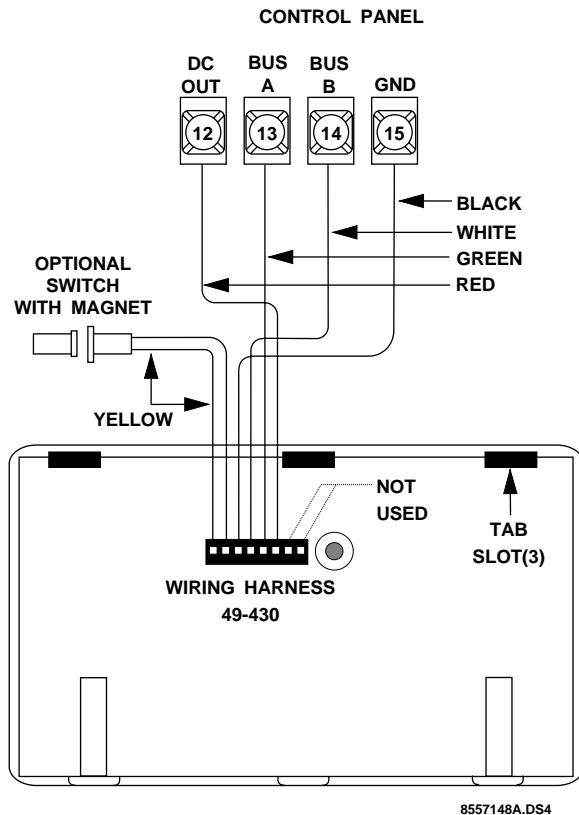
If used, the hardwire input must be added to panel memory. The input (yellow wires) can be configured for normally open or normally closed protection devices. See the specific panel's *Reference Manual* or *Installation Instructions* for setting the configuration.

## Wiring the Touchpad to UltraGard and Custom Versions

### To wire the touchpad's wiring harness to UltraGard and Custom Versions:

Use figure 3 to complete these instructions.

1. Turn off the panel power switch.
2. Disconnect the panel's transformer and backup battery.
3. Insert the wiring harness connector onto the pins located on the rear of the unit. Make sure the yellow wires are to the left.



**Figure 3.** Wiring the 2-Line Touchpad

4. Align the slots on the touchpad with the slots on the back plate. Insert the mounting tabs into the mounting slots and press the keypad toward the wall.
5. Tighten the screws.

## Power Up and Bus Communication

Before you power up the panel, you must decide the unit number (device address) of each bus device (Alphanumeric Touchpad, HIM, ESM, etc.) connected to the panel. The panel automatically learns the unit

number of each bus device when you enter the program mode. All alphanumeric touchpads default to unit number 1.

## Guidelines for Assigning Alphanumeric Touchpad Unit Numbers

Use the following guidelines to avoid communication conflicts between bus devices and the panel:

- Always start with one touchpad connected to the panel and get it operational with the panel, before connecting additional touchpads.
- Whenever possible, such as in new installations, assign alphanumeric touchpad unit numbers before all other panel programming.
- Always work from one touchpad location when assigning unit numbers for installations with multiple touchpads.
- Other bus devices with unit number DIP switches (ESM, HIM, HOM, etc.) must be set to the desired unit number before applying power and entering the program mode.

## Getting One Touchpad Operational with the Panel

1. Make sure no touchpads are connected to wiring harnesses.
2. Choose the touchpad location closest to the panel and verify that all wiring at the panel and the touchpad wiring harness is correct.
3. Make sure panel power is off or removed.
4. Set the panel to the RUN or NORMAL mode.
5. Apply power to the panel.
6. Before connecting the wiring harness to the touchpad, hold the touchpad with one hand so that your thumb is holding down the 5 button.
7. Connect the wiring harness to the touchpad with your other hand. The display shows *DA 001* (DA = device address; 1 = unit number 1).
8. Set the panel to the program mode and the display should read *PROGRAM MODE*.
9. Verify correct operation by pressing STATUS or BYPASS. The display should show a different menu item for each button press.

If your installation only calls for one alphanumeric touchpad, you may proceed with other system programming.

If you have more alphanumeric touchpads to connect and assign unit numbers for, use the next procedure **before** proceeding with any other system programming.

## Adding Touchpads to Operational Systems

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1. Make sure no new touchpads are connected to their wiring harnesses.
  2. Verify that all wiring at the panel and the added touchpad wiring harnesses is correct.
  3. Set the panel to program mode. Working touchpads display *PROGRAM MODE*
- or-- The display shows *ENTER CODE* or *1-OFF* (1 blinking), indicating you need to enter the install code).

After entering the install code, working touchpads display *PROGRAM MODE*.

**Note:** After entering the install code to get into program mode, the panel allows you to switch between RUN/NORMAL and PROGRAM mode for one hour, without re-entering the install code.

4. At a working touchpad, press **BYPASS** or **STATUS** until the display shows *TOUCHPAD OPTIONS*.
5. Press **COMMAND** and the display shows *UNIT NUMBER*.
6. Press **COMMAND** and the display shows *DA 00N* (DA = device address; N= unit number 0 - 7). Make a note of this touchpad's unit number.
7. Check the unit numbers of all other working touchpads and write them down.
8. Check the unit number DIP switches on other bus devices (ESM, HIM, HOM, etc.) and make a note of their respective unit numbers.
9. Pick up a new touchpad and hold it with one hand so that your thumb is holding down the 5 button.
10. Connect the wiring harness to the touchpad with your other hand. The display shows *DA 001*.
11. Press **COMMAND** and the display shows *ENTER \_*.
12. Enter a different unit number than that of the existing touchpads and any other bus devices in the system, by pressing any of the touchpad buttons numbered 0 thru 7.
13. Press **STATUS** to lock in and display the touchpad's new unit number.
14. Disconnect this touchpad and repeat steps 9 thru 13 for any other new alphanumeric touchpads. Be sure to disconnect each touchpad after assigning its unit number.
15. After assigning unit numbers to all touchpads, connect each touchpad to its respective wiring harness.
16. Set the panel to RUN or NORMAL. All touchpads should display *1 - OFF*.

17. Set the panel to program mode so the panel can learn all bus device unit numbers. All touchpads should display *PROGRAM MODE*.
18. Set the panel to RUN or NORMAL.
19. At each touchpad, verify correct operation by pressing **STATUS**. The display should show the system's current status.

## Adjusting the Display Contrast Level

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Depending on where the touchpad is installed, you may need to adjust the display contrast level to read it clearly.

1. Set the panel to program mode.
2. Press **BYPASS** until *TOUCHPAD OPTIONS* is displayed.
3. Press **COMMAND** to display *UNIT NUMBER*.
4. Press **COMMAND** to display *DA ###*.

**CAUTION:** Do not attempt to change the displayed unit number (DA ###) at this time.

5. Press **BYPASS** and **LIGHTS OFF** buttons simultaneously. The display contrast increases or decreases one level each time you press the buttons.
6. When the desired contrast level is reached, set the panel to RUN or NORMAL, then to program mode and back to RUN or NORMAL.

## Troubleshooting

Table 1 describes actions you can take to correct problems you may experience when connecting bus devices to the panel.

**Table 1. Troubleshooting**

Problem	Cause/Action
All touchpads display <i>1 - OFF</i> but don't work or can't get into program mode.	<ol style="list-style-type: none"> <li>1. <i>Panel has an install code programmed.</i> Disconnect all touchpads except original. Set panel to program mode, enter install code and switch back to RUN/NORMAL.</li> <li>2. <i>Panel wasn't switched to program mode and back to run/normal mode after assigning touchpad unit numbers.</i> Set panel to program mode and back to RUN/NORMAL.</li> <li>3. <i>Touchpad unit numbers are set above 7 or the same as another bus device.</i> Assign unused unit numbers (0-7) to touchpads.</li> </ol>
Touchpad displays the message <i>BUS FAIL UNIT N</i> (N = unit number of failed bus device).	<ol style="list-style-type: none"> <li>1. <i>Indicates a wiring problem.</i> Turn off or remove panel power, check wiring at all bus devices, and correct where necessary.</li> <li>2. <i>Touchpad unit number is set above 7 or is the same as another bus device.</i> Assign unused unit number to touchpad, using the procedure in this document.</li> <li>3. <i>Panel wasn't switched to program mode and back to run/normal mode after assigning touchpad unit numbers.</i> Set panel to program mode and back to RUN/NORMAL.</li> </ol>

**Table 1. Troubleshooting (Continued)**

Problem	Cause/Action
LED on HIM, HOM, and/or ESM is not blinking.	<ol style="list-style-type: none"> <li>1. <i>HIM, HOM, and/or ESM unit numbers are the same as another bus device.</i> Change unit number on HIM, HOM, and/or ESM. Remove then restore panel power, then set panel to program mode and back to RUN/NORMAL.</li> <li>2. <i>Panel wasn't switched to program mode and back to run mode after assigning touchpad unit numbers.</i> Set panel to program mode and back to RUN/NORMAL.</li> <li>3. <i>Indicates a wiring problem.</i> Turn off or remove panel power, check HIM, HOM, and ESM wiring. Correct where necessary.</li> </ol>
HIM or touchpad loop reports trouble.	<ol style="list-style-type: none"> <li>1. <i>HIM or touchpad unit number is the same as another bus device.</i> Change unit number on HIM, HOM, and /or ESM, then set panel to program mode and back to RUN/NORMAL.</li> <li>2. <i>Indicates a wiring problem.</i> Turn off or remove panel power, check/correct HIM and touchpad wiring.</li> <li>3. <i>Unit number on HIM or touchpad was changed.</i> Panel must learn hardwire loops again when HIM or touchpad unit number is changed.</li> </ol>
Panel reports trouble on upper sensors 78 and 88.	<ol style="list-style-type: none"> <li>1. <i>ESM unit number is the same as another bus device.</i> Change unit number on ESM. Remove then restore panel power, then set panel to program mode and back to RUN/NORMAL.</li> <li>2. <i>Indicates a wiring problem.</i> Turn off the panel power switch, check ESM wiring, and correct where necessary.</li> </ol>

## Programming

A SuperBus Alphanumeric Touchpad or SuperBus 2-Line Alphanumeric Touchpad must be used to program the panel. For a complete description of programming commands, refer to the specific panel's *Installation Instructions*. Refer to the specific panel's *Owner's Manual* for operational instructions.

## Specifications

Compatibility: UltraGard and Custom Versions

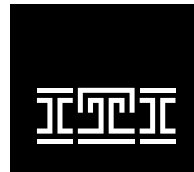
Power Requirements: 12 VDC, 115 mA (maximum)

Dimensions: 4.60" x 7.75" x .780" (H x W x D)

## Notices

This equipment has been tested and found to comply with the limits for a class B device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna on the radio or TV.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



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