Supervised Wireless Siren

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Product Summary

The Supervised Wireless Siren is a portable siren that installs in any ITI® system by plugging into an electrical outlet. The outlet must be on the same electrical phase as the panel’s Line Carrier Power Transformer. The panel sends messages to the siren over the building’s existing electrical wiring system. However, the siren sends messages back to the panel using RF signals. Figure 1 shows how it works.

In normal operation, the siren’s red button (LED) will remain steadily lit (will not flash or turn off). However, if a problem (a trouble condition) arises with the siren, its red button (LED) will either turn off completely or flash from 1 to 7 times within 20 seconds. The siren will continue to beep and flash every minute thereafter until the trouble condition is resolved. Once the problem is corrected the siren will resume normal operation.

Supervised mode means the panel, if capable of supervising the siren, will report any siren problems (low battery, panel communication failure, zero house code). Currently, only the panels that support supervised operation (see “Specifications” on page 10) can supervise the siren.

The siren can be used with any other ITI panel, but the panel will not report any siren problems. This is described as unsupervised mode.

Tools Needed

- Phillips screwdriver

Installation Guidelines

Use the following guidelines when installing the siren:

- UltraGuard® and Custom Version panels must be powered using the optional Line Carrier Power Transformer (60-678).
- SX-V® panels must have software dated 11/30/87 or later installed.

Figure 1. The panel sends messages to the siren using the Line Carrier Power Transformer. However, the siren sends messages to the panel using RF signals.
This siren must use a rechargeable 3.6 volt NiCd battery pack (included).

Avoid installing the siren in outlets on circuits that include televisions, computers, refrigerators, or microwave ovens. These devices can generate noise on the AC power lines that may block signals from the panel to the siren.

The panel’s transformer and the siren must be plugged into outlets on the same electrical phase.

Installing the Battery Pack

The siren comes with a 3.6 volt NiCd battery pack that you must install before plugging in the siren or programming house codes into the siren.

To install the battery pack:
1) To access the battery compartment, remove the screw on the back of the siren.
2) Remove the front cover of the siren.
3) Put the battery pack in the compartment.
4) Plug the two-pin battery cable into the socket inside the battery compartment (see Figure 2). It only goes in one way.

5) Replace the front cover, making sure not to pinch the wires.
6) Replace the screw you removed in Step 1.

Figure 2. Putting the battery pack in the compartment

Programming

This section explains how to add a siren to an ITI control panel. Below is a list of the methods covered:

- **Unsupervised mode (for all ITI panels).** A siren installed this way behaves like a Wireless Interior Siren (60-353-235). The panel will not report any siren problems.

- **Supervised mode (for Concord™ and Simon™ panels).** If you install the siren this way, the panel will report any siren problems.

For more information on panel programming, see the panel’s installation instructions.

Adding Sirens, in Unsupervised Mode, to Any ITI Panel

This section explains how to add sirens, in unsupervised mode, to any ITI panel (see “Specifications” on page 10). The panel will not report any siren problems.

To add sirens to any compatible ITI system:

1) Install the battery pack in each siren (see “Installing the Battery Pack”).

2) At the panel, make sure the house code (002–254 or A-O) is set (see the panel’s installation instructions or reference manual).

   **Note:** House Codes 000 and 001 are default house codes that must be changed to avoid communication problems when installing the siren.

   House Code 255 is reserved for demonstration use, such as with demo kits.

3) Plug in each siren. Use only non-switched outlets on the same electrical phase as the panel.
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Adding Sirens, in Supervised Mode, to a Concord System

This section explains how to add sirens in supervised mode to a Concord system. The panel will report any siren problems. For multiple partitions, you must install the siren(s) in one (1) partition at a time.

Programming Guidelines

Use the following guidelines when adding a siren, in supervised mode, to a Concord system.

- For a 1-partition system:
  Make sure the house code and the SWS Supervisory Code are the same.

- For a 2-partition system:
  Make sure the partition 1 house code, the partition 2 house code, and the SWS Supervisory Code are all different from each other.

To add sirens to the Concord system using supervised operation:

1) Install the battery pack in each siren (see “Installing the Battery Pack” on page 2).

2) At the panel, while in Program mode, make sure the house code (002–254) is set by selecting LIGHT CONTROL, PARTITION [1 or 2], HOUSE CODE.

3) Enter a number using the programming guidelines listed in “Programming Guidelines” in this section.

   Note: House Codes 000 and 001 are default house codes that must be changed to avoid communication problems when installing the siren.

   House Code 255 is reserved for demonstration use, such as with demo kits.

4) At the panel, set the SWS Supervisory Code (002–254) by selecting SIREN OPTIONS, GLOBAL, SWS SUPV CODE.

5) Enter a number using the guidelines at the beginning of this section.

   Note: Skip Step 6 if the siren is in Default mode (has never been plugged into an electrical outlet controlled by a Concord or Simon panel).

6) Press and hold the siren's red button (LED) for about 20 seconds. Hold it until you hear a total of 3 beeps: 1 beep after the first 10 seconds, 2 beeps after the next 10 seconds.

7) Prepare the panel to learn the sirens by selecting SENSORS, LEARN SENSORS, SENSOR PTN [1 or 2], SENSOR GROUP, enter 33 and then press BYPASS.
Adding Sirens, in **Supervised** Mode, to a Simon System

This section explains how to add a siren, in *supervised* mode, to a Simon system. The panel will report any siren problems.

**Programming Guidelines**

Use the following guidelines when adding a siren, in *supervised* mode, to a Simon system.

**To add a siren to the Simon system using *supervised* operation:**

1) Install the battery pack in each siren (see “Installing the Battery Pack” on page 2).

2) At the panel, while in Program mode, make sure the desired house code (A-O) is set. Press **LIGHT CONTROL** to verify this. The siren will automatically learn the panel's house code later in this process.

3) If the desired house code has not been entered into the system, program it as described in the panel's installation instructions.

   **Note:** Skip Step 4 if the siren is in Default mode (has never been plugged into an electrical outlet controlled by a Concord or Simon panel).

4) Press and hold the siren’s red button (LED) for about 20 seconds. Hold it until you hear a total of 3 beeps: 1 beep after the first 10 seconds, 2 beeps after the next 10 seconds.

8) Plug in each siren. Use only non-switched outlets on the same electrical phase as the panel.

   Each siren beeps once when you plug it in, indicating it has received the house code from the panel. Its red button (LED) flashes 10 times, indicating the siren is in *supervised* mode.

   The panel announces SENSOR NN OKAY or the LCD displays TRIP NEXT SENSOR. This indicates that the siren is learned into the panel.

   **Note:** The siren battery is not charged when you first install it. It will charge within about 1/2 hour of being plugged into AC power.

9) If the siren doesn’t beep or the red button (LED) doesn’t flash 10 times, there is a problem. Leave the siren plugged into the outlet and reset the siren’s house code by pressing its button for 20 seconds (see “Resetting a Siren’s House Code to Zero” on page 6).

   After 20 seconds, the siren will beep a total of four (4) times, followed by its red button (LED) flashing 10 times. This indicates that the siren is in *supervised* mode.

   If the siren doesn’t beep four (4) times or its red button (LED) doesn’t flash 10 times, see “Troubleshooting” on page 8.

10) Verify that the sensor is *supervised* by conducting the tests described in the in the “Testing” Section on page 6.

11) Repeat this process for any remaining sirens that will be used in this installation.
5) Learn the siren into the panel. Press ADD from the Start menu and then SENSORS/REMOTE from the Main menu. Continue pressing SENSORS/REMOTE until you hear the best description of the siren’s final location. Then, select DONE.

The panel announces USE THE RED NUMBERED KEYS TO ENTER THE SENSOR TYPE.

6) Enter 33 as the sensor type.

7) The panel announces PRESS THE BUTTON ON SENSOR... However, do not press any buttons on the siren (see the caution listed below).

CAUTION: Do not press the siren’s red button (LED). Instead, proceed to Step 8.

8) Simply plug the siren into an electrical outlet on the same phase as the panel, which is not controlled by a switch. This is all that is required to learn the siren into the panel. You will hear a beep from the siren, followed by 10 bright flashes from the red button (LED). This indicates that the siren is in supervised mode.

The panel will simultaneously announce SENSOR... PROGRAMMED.

Note: The siren battery is not charged when you first install it. It will charge within about 1/2 hour of being plugged into AC power.

9) If the siren doesn’t beep or the red button (LED) doesn’t flash 10 times, there is a problem. Reset the siren’s house code by pressing its button for 20 seconds (see “Resetting a Siren’s House Code to Zero” on page 6). After 20 seconds, the siren will beep a total of four (4) times, followed by its red button (LED) flashing 10 times. This indicates that the siren is in supervised mode.

Note: If the siren doesn’t beep four (4) times or its red button (LED) doesn’t flash 10 times, see “Troubleshooting” on page 8.

10) Verify that the sensor is supervised by conducting the tests described in the in the “Testing” Section on page 6.

11) Repeat this process for any remaining sirens that will be used in this installation.
Resetting a Siren’s House Code to Zero

In some situations, you may need to reset a siren’s house code. This includes when you change a panel’s house code or before you install a siren that has already learned a different house code.

To reset a siren’s house code to zero:

1) Press and hold the siren’s button for 20 seconds.
   The siren beeps once after 10 seconds, then beeps twice after 10 more seconds. A total of three (3) beeps indicates the house code has been reset to zero.

Changing the Volume of the Siren Status Beeps

The siren has five (5) volume levels for status beeps, from 1 (silent) to 5 (maximum).

To change the volume of the siren’s status beeps:

1) Press and hold the siren’s button for 10 seconds until it beeps, then release it.
   The siren responds by beeping once, indicating volume level 2.

2) To increase the volume by one (1) level, press the siren button for one (1) second (until it beeps). Repeat until the volume reaches the desired level.
   After the maximum level, the volume resets to level 1, indicated by a series of beeps.

3) After five (5) seconds of inactivity, the Volume Tuning mode is automatically disabled.

Testing

The siren, once it is learned into an ITI security system, requires testing to verify several things:

- that the sensor is programmed correctly,
- that the panel receives the sensor’s RF signal (if used in supervised mode),
- that the sensor receives the panel’s Power Line Carrier transformer signal, and
- that both the sensor and panel interact properly in an alarm.

This section explains how to test the siren for all of the above factors. The specific process for each type of alarm begin below.

Is the Siren Programmed Properly?

This test verifies that the siren is programmed into the panel correctly.

1) Unplug the siren from the electrical outlet. This will cause the siren’s red button (LED) to turn off for a few seconds.

2) Place your hand over the red button (LED) to shroud it. This will help you see the next flash.

Note: The following flashes are not as bright as trouble flashes.

3) Count the number of seconds between the red button’s (LED’s) quick, dim flashes:

   4 seconds: The siren is in unsupervised mode. This will continue to flash once every 4 seconds if the siren has no trouble conditions.

   8 seconds: The siren is in supervised mode. This will continue to flash once every 8 seconds if the siren has no trouble conditions.

Note: If you notice the siren’s button flashing more brightly or more frequently, there is a problem. Count the total number of bright flashes within 20 seconds. Then refer to page 8 to resolve the problem, as directed in Table 1.

4) If the siren is programmed in the wrong supervisory mode, repeat the programming procedure starting on page 2.
Is the RF Signal Being Sent and Received?

This test verifies that the siren’s RF signal is being received by the panel (if used in Supervised mode).

1) Put the panel into Sensor Test mode.
2) Unplug the siren from the electrical outlet. You should see the siren’s LED turn off (no flashing), as described in Table 1 on page 8.
3) The panel should confirm the siren’s loss of AC power.
   - If using a Concord system, the panel will announce or display SENSOR... OK.
   - If using a Simon panel, the panel will announce SENSOR... ACTIVATED.
4) Plug the siren back into the electrical outlet. You will see the red button (LED) remain steadily lit.

Note: If the siren’s red button (LED) flashes you have a problem. Count the total number of bright flashes within 20 seconds of the beep. Refer to page 8 and resolve the problem, as directed in Table 1.

5) Take the panel out of Sensor Test mode.

Is the Power Line Carrier Transformer Signal Being Sent and Received?

This test verifies that the siren’s Power Line Carrier signal is being received by the panel (if used in Supervised mode).

1) Unplug the siren from the electrical outlet. You should see the siren’s LED turn off (no flashing), as described in Table 1 on page 8.
2) Wait four (4) minutes. The panel should confirm the siren’s loss of panel to siren communication.
   - If using a Concord system, the panel will announce or display SENSOR... TROUBLE.
   - If using a Simon panel, the panel will announce SENSOR... FAILURE after you press the STATUS button twice.
3) Plug the siren back into the electrical outlet to correct the trouble. You will see the red button (LED) remain steadily lit.

4) Wait one (1) minute. The trouble condition will stop once the panel’s AC powerline signal is received by the siren.

Note: If the siren flashes there is a problem. Count the total number of bright flashes within 20 seconds of the beep. Refer to page 8 and resolve the problem, as directed in Table 1.

Will the Siren and Panel Respond to Alarms?

This test verifies that the panel will signal the siren whenever an alarm occurs. This test ensures that all equipment is working properly, and that each type of alarm is sounding correctly.

CAUTION: Call the central monitoring station and alert them that you are conducting this test.

1) Arm the system as described in your panel’s installation instructions.

Note: This test will not work if the panel is disarmed or in Program mode.

2) For monitored systems, call the central station to let them know you will be testing the system.
3) Create intrusion, fire, and auxiliary alarms. Both the siren and panel should make the appropriate status tone for each type of alarm.
4) Disarm and arm the system. Both the siren and panel should make the appropriate status tones, unless the siren’s status volume is set to level 1 (see Changing the Volume of the Siren Status Beeps on page 6).
5) Once you are finished with the above test, disarm the system.
6) Call the central monitoring station and advise them that the test is over.
Troubleshooting

Use Table 1 to diagnose potential problems with the siren. The siren indicates problems (trouble conditions) by beeping (trouble beeps) and by flashing the red button (LED) on and off 1-7 times within 20 seconds:

- **Trouble Beeps**—The siren makes a long beep, a short beep, and flashes its red button (LED) (see below). This indicates a trouble condition.
- **Number of Red Button (LED) Flashes**—The siren’s red button (LED) brightly flashes a 1 to 7 times within 20 seconds of the trouble beeps. This indicates a trouble condition. Observe the total number of flashes to diagnose the problem in Table 1.
Table 1. Listen for siren trouble beeps. Next, count the total number of times the red button (LED) brightly flashes within 20 seconds. Then, use this table to look up the siren’s possible problem and its solution.

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Possible Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Red Button (LED) Flashes</td>
<td>Trouble Beeps</td>
</tr>
<tr>
<td>0 (OFF)</td>
<td></td>
</tr>
<tr>
<td>1</td>
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<td>6</td>
<td>✓</td>
</tr>
<tr>
<td>7</td>
<td>✓</td>
</tr>
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Solutions
1) Make sure the panel is powered by the correct transformer. See the panel’s installation instructions for these specific requirements.
2) Make sure the siren is plugged into an outlet on the same electrical phase as the panel’s transformer.
3) Move the siren to a circuit that is not used by any other appliances.
1) If the siren was recently unplugged, give it time to recharge.
2) If the problem persists for more than $\frac{1}{2}$ hour, replace the siren’s battery pack.
1) Make sure the *Concord panel’s* house code is between 002 and 254 (see page 2). Or, make sure the *Simon panel’s* house code is between A and O (see page 4).
2) Reset the siren’s house code if you are using the siren in a supervised state.
1) Make sure the siren is plugged in.
2) Make sure the siren is plugged into an outlet that is not controlled by a switch. Relocate it if necessary.
Specifications

Alarm volume: 85 dBA at 10 feet
Supervised operation: Concord™, Simon™
Dimensions: 4.3 × 3.4 × 1.5” (109 × 86 × 38 mm)
Operating temperature range: 0 to 49°C (32 to 120°F)
Power requirements: 120 VAC
Battery: 3.6 VDC, 700-mAh NiCd battery pack (included).
Notices

This device complies with FCC Rules Part 15. Operation is subject to the following two (2) conditions:

1) This 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.