# Quik Bridge<sub>®</sub> Supervised One-Channel Receiver

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# INSTALLATION

## Product Summary

The Quik Bridge<sup>®</sup> Supervised One-Channel Receiver adds wireless capability to a compatible hardwired control panel. Up to two ITI wireless sensors can be monitored using two zone inputs on the control panel. One zone input is used for alarm and tamper activations, while the other zone is used for low battery and supervisory monitoring (see Figure 1).



Figure 1. Expanding zones by adding up to two supervised sensors

# How the Receiver "Supervises" Wireless Devices

In addition to alarm and tamper messages, ITI sensors also transmit low-battery and supervisory messages. The Quik Bridge One Channel Receiver carefully "supervises" all of these messages. Alarm and tamper messages activate the alarm relay, which triggers an alarm. Low-battery messages activate the supervise relay and cause the receiver LED to flash every 4 seconds as a trouble indicator. Supervisory transmissions do not activate any zone or relay, they simply let the receiver know that the sensor is working properly. If the sensor *stops sending* supervisory information, however, the supervise relay of the receiver is activated and the LED double-flashes every 4 seconds. If this coincides with a low-battery condition, the receiver will triple-flash every 4 seconds.

## LED Indicator

The receiver has one LED. Table 1 lists the possible states of the LED and what they mean.

Table 1.	What	the	states	of	the	LED	mean
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Power LED	Means
On and flickering irregularly	Receiver has power and is receiving transmissions.
Off	Receiver has no power OR all devices were successfully deleted from the receiver memory and the LED will flash on again within three seconds.
Flashing regularly	Receiver is ready to learn a wireless device.
Flashing once every 4 seconds	Indicates a low battery trouble con- dition for at least one sensor.
Double-flashing once every 4 sec- onds	Indicates that no supervisory trans- missions have been received in the past 24 hours from one sensor, or that no transmissions have been received from either sensor.
Triple-flashing once every 4 sec- onds	Indicates simultaneous low battery trouble condition and no supervi- sory transmissions in the past 24 hours (for one or both sensors).

## Zone Planning

This section explains the capabilities, limitations, and suggested uses of the Quik Bridge Supervised One-Channel Receiver.

# Possible Combinations of Wireless Devices

The receiver can learn and supervise up to two sensors.

## What the Wireless Devices Can Do

Table 2 describes how ITI sensors work with the receiver. The shaded area represents the low battery and supervisory transmissions to the supervise relay. Use this information, together with the panel installation instructions, to plan the installation of wireless devices.

#### Planning the installation

Before you begin programming, it is a good idea to write down how you plan to use the wireless devices with each zone. Use Table 3 as a work-sheet.

Table 2.	Use the	information	in	the	table	below	to	plan	your	installation
of wireles	s devices	ò.								

This device	When this event happens	Has this effect on the receiver		
PIR motion sensor (all ITI models)	Motion is detected or tamper switch is tripped	Activates the alarm relay for a minimum of 3 seconds		
Smoke sensor (60-506-319.5 only)	Smoke is detected (no tamper switch)	Activates the alarm relay for a minimum of 3 seconds		
Panic sensor (60-578 only)	Panic button is pressed (no tamper switch on panic sensors)	Activates the alarm relay for a minimum of 3 seconds or until the button is released, whichever is last		
Door/window sensor	Opening the door or tripping the tamper switch	Activates the alarm relay for a minimum of 3 seconds or until the door is closed		
	Closing the door (if door was opened) or resetting the tamper switch (if tamper switch was tripped)	De-activates the alarm relay		
Any sensor added to the mem- ory of the receiver	Battery is low and/or sensor is not transmitting supervisory information	Activates the supervise relay for a mini- mum of 3 seconds LED will single-flash, double-flash, or triple-flash every 4 seconds as a trouble indicator (see "What the states of the LED mean" on page 1)		
	Battery is replaced (if the battery was low) or supervisory transmis- sions resume (if the sensor was not transmitting)	De-activates the supervise relay		

Panel Zone (supervising)	Panel Zone (alarm)	Devices	Functions

Table 3. Zone assignments for wireless devices

#### Sensor Compatibility

The following current ITI Learn Mode<sup>™</sup> wireless devices are compatible with this receiver:

- PIR motion sensors
- Smoke sensors (60-506-319.5 only)
- Panic sensors (60-578 only)
- Door/window sensors (see note below)
- **Note:** Only the internal reed switches of a door/window sensor can be used. The receiver does not support the use of sensors with external devices connected to the sensor terminal block.

## Control Panel Compatibility

The receiver will expand one zone of any conventional hardwired control panel.

**Note:** The receiver should not be connected to powered zones (such as 2-wire smoke zones).





#### **Programming Button**

Use the programming button (see Figure 2) when doing the following procedures:

- "Deleting All Wireless Devices" on page 6
- "Adding Wireless Devices" on page 6

## Overview of Receiver Operation

## Zone Outputs

The receiver has eight terminals. Terminals 1 and 2 are for +12 VDC power input. Terminals 3–5 are the alarm outputs that you connect to the desired panel zone input. Terminals 6–8 are the supervision outputs that you connect to the desired panel zone input. The zones can be configured to be normally closed (N/C) or normally open (N/O) (see "Connecting the Receiver to a Control Panel" on page 7).

## Tools and Accessories Needed

#### Included with Receiver

- Four 1<sup>1</sup>/<sub>2</sub>" screws
- Wall anchors

#### Not Included with Receiver

- Drill with assorted bits
- EOL resistors (usually supplied with the panel)
- Phillips screwdriver
- Voltmeter
- Wire stripper

## Installation Guidelines

Observe the following guidelines when installing the receiver:

- Leave ten inches above the receiver for the antenna.
- Avoid areas that are likely to expose the receiver to moisture.
- Avoid areas with excessive metal or electrical wiring, including furnace and utility rooms.
- Avoid mounting the receiver on a metal surface. When mounting on metal is unavoidable, mount the receiver so that the antenna extends above the metal surface (see Figure 2)
- The One-Channel Receiver is a super regenerative receiver. To ensure consistent operation of the receiver, mount it at least three feet away from other super regenerative receivers (such as the receiver in most garage door openers).



Figure 3. When mounting on metal is unavoidable

## Installation

This section explains how to install the Quik Bridge Supervised One-Channel Receiver.

### Mounting the Receiver

CAUTION: You must be free of static electricity before handling circuit boards. Touch a bare metal surface or use a grounding strap to discharge yourself.

#### To mount the receiver on a wall:

1) Choose a location for the receiver. You can mount the receiver on a sheetrock wall, but you may need to use additional mounting hardware.

2) Remove the cover by pressing down on the center of the top edge of the cover (see Figure 4).



Figure 4. Removing the cover

3) Hold the receiver against the wall at the desired height and location, leaving at least ten inches above the base for the antenna. While holding the receiver against the wall, mark the location of the top-left and lower-right mounting holes.



- 4) Remove the base from the wall and install wall anchors at any marked location where studs are not present.
- 5) Secure the receiver to the wall using two 1<sup>1</sup>/<sub>2</sub>" Phillips screws (included).
- 6) Secure the antenna to the wall using a T-18 staple gun and 9/16" staples.

#### Powering the Receiver

CAUTION: You must be free of all static electricity when handling sensors. Touch a grounded metal object before handling the circuit board.

You must connect the receiver to the +12 VDC power outputs on the panel or to a separate power supply (such as 12-volt DC adapter).

**Note:** If you choose not to connect the receiver to the panel power outputs, consider using a power supply with a back-up battery (in case of power outages).

To find the DC power terminals on the panel, see the panel installation instructions.

#### To power the receiver:

- 1) Shut off or remove power from the panel.
- 2) Using Figure 5 as a guide, connect the receiver to the panel or other equivalent power supply.

**RECEIVER POWER TERMINALS** 



Figure 5. Connecting power to the receiver

## Programming

This section explains how to add and delete wireless devices from the memory of the Quik Bridge Supervised One-Channel Receiver.

## Deleting All Wireless Devices

Delete all wireless devices from the memory of the receiver before you begin adding any new ones. Deleting all wireless devices clears the memory of the receiver. This prepares the receiver for new programming.

Note: It is not possible to delete devices one at a time.

#### To delete all wireless devices from the receiver:

- Press and hold the programming button. In about three seconds you will hear and feel a "doubleclick" from the receiver. Continue holding the programming button until you hear a second double-click from the receiver (3 seconds) and the LED shuts off.
- 2) Release the programming button. The LED will flash twice, indicating that the receiver memory is cleared.

### Adding Wireless Devices

See "Sensor Compatibility" on page 3 for information on compatible ITI wireless devices.

#### To add a wireless device to the receiver:

- Press and hold the programming button until you hear and feel a "double-click" from the receiver (about three seconds), then release the programming button.
- Wait three seconds. The LED will begin flashing, indicating the receiver is ready to learn a new wireless device.
- Note: If the LED is not flashing, the receiver is not ready to learn a device. Always wait until the LED begins flashing before proceeding to the next step.
- 3) Trip the device while holding it at arm length from the receiver:

*For sensors with tamper switches* Activate the tamper switch by removing the cover.

*For sensors without tamper switches* Put the sensor in alarm.

- After about three seconds, the receiver will double-click to indicate that the wireless device was added.
- 5) To add another wireless device, go back to step 1.

# Connecting the Receiver to a Control Panel

Connect the receiver zone output terminals to the zone input terminals on the panel. The receiver zone may be configured to be N/C (Normally Closed) or N/O (Normally Open). See figures 6 and 7 for wiring and EOL resistor placement.



Figure 6. Wiring a receiver zone to be N/C

## Testing

This section explains how to test the operation of the wireless devices that you programmed into the Quik Bridge Supervised One-Channel Receiver.

General procedure for testing the receiver:

- CAUTION: To avoid sending false alarms to the police or fire department when testing monitored systems, always call and notify the central station before activating alarms.
- For monitored systems, call the central station or other monitoring service to let them know you will be testing the system.

- 2) Arm the panel.
- 3) Trip a wireless sensor or other device that you added to the receiver.
- Restore the sensor to its non-alarm state and disarm the system. Repeat steps 4 and 5 for each wireless device. Verify that the system goes into alarm (i.e., sirens activate).
- 5) If necessary, call the central station and let them know you have finished testing the system.



Figure 7. Wiring a receiver zone to be N/O

## Specifications

Dimensions:  $2.5 \times 2.6 \times 0.9$ " ( $64 \times 66 \times 23$  cm) Maximum current draw (both relays on): 70 mA Operating temperature range: 40 to 120°F (4 to 49°C) Power requirements: 11.5 to 15 VDC Receiver frequency: 319.5 MHz Receiver range: 250 feet (76 meters) minimum in open air Receiver type: Super regenerative Relay contact rating: Current: 7A maximum Voltage: 250 VAC maximum Contact: Dry contact Form C

Weight: 2.5 oz., including antenna

## Notices

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

1) This may not cause harmful iinterference.

2) This device must accept any interference that may be received, including interference that may cause undesired operation.

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



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