

# WIRELESS TOUCH SCREEN KEYPAD

## INSTALL INSTRUCTIONS

The Wireless Touch Screen Keypad (2GIG-TS1-E) is a wall-mounted, full-color, touch screen interface that provides many of the same easy-to-use keypad functions available on the control panel. It is designed for indoor use only and gives users the ability to control lights, thermostats, and door locks, as well as to view the status of every sensor zone.

When the 900 MHz Transceiver Module (2GIG-XCVR2-345) is installed in the control panel, the system can be programmed to communicate with up to four (4) Wireless Touch Screen Keypads.

**NOTE:** Wireless Touch Screen Keypads marked with serial numbers greater than 1405XXXXXXXXXXXX also include a barrel connector power option (2GIG-AC2-PLUG or 2GIG-AC3-INT-PLG) that makes it easy to connect power to the keypad. These keypads also include a built-in, 90-degree, four (4)-pin header for use with the Firmware Update Cable (2GIG-PCBL2).

**IMPORTANT:** This keypad does not support UL 985 installations.

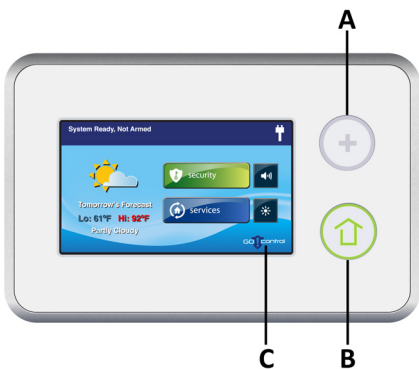
### Box Contents

Verify that the package includes the following:

- 1—Wireless Touch Screen Keypad
- 1—AC Adapter
- 1—AC Adapter Bracket (with adhesive-backing)
- 1—Plastic Zip Tie
- 3—Plastic Wall Anchors and Phillips Head Screws

**TIP:** The box contents will vary depending on whether the keypad was purchased as part of a kit or not.

**Figure 1** Wireless Touchscreen Keypad



- A Emergency Button.** Displays Panic, Fire, and Emergency alarm activation (each has programmable options and can be enabled or disabled).
- B Home Button.** Changes the screen display to the Home screen.
- C Secret Duress Button.** Users can press the button while the system is armed or disarmed and then enter a Duress User Code to send a silent duress report to the central station. To learn more, see the control panel's User Guide.

**TIP:** The Secret Duress button does not provide installers with the ability to access the Installer Toolbox from the keypad. The Installer Toolbox is only available on the control panel.

## Minimum Requirements

For successful communications, the system must meet these minimum requirements:

- A 900 MHz Transceiver Module (2GIG-XCVR2-345) must be installed in the control panel.
- The Go!Control Panel must be running Version 1.10 or higher.
- The TS1-E keypad must be running Version 1.10. See *Verifying the Firmware Version on Both Devices* on page 4.

## Installing the Keypad

Ideally, the keypad should be mounted to a wall at about eye level. In addition:

- The location must have AC power available and nearby.
- Avoid locations with studs, electrical wires, and/or pipes.

## Recommended Tools

The following tools are recommended when mounting the keypad to the wall:

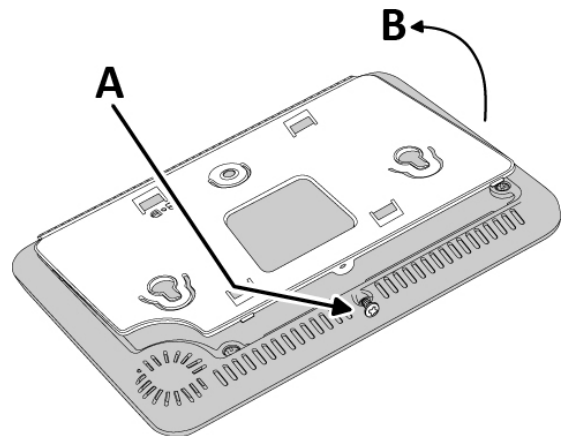
- #6 Insulated Spade Terminals
- Drywall Saw (or equivalent)
- Ladder
- Pencil
- Screwdriver
- Staple Gun
- Wire (for details, see *Determining the Wire Gauge and Maximum Length* on page 2)
- Wire Stripper

## Mounting the Keypad to the Wall

To mount the keypad to the wall:

- 1 Remove the screw from the back cover (see A below).
- 2 Flip open the back cover (see B below).

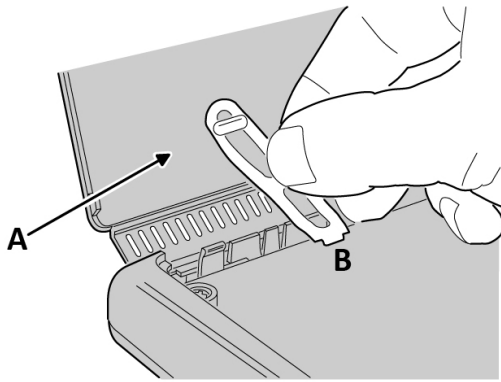
**Figure 2** Wireless Touch Screen Keypad—Back Cover



- 3 Remove the plastic hanging strap (see A below) from the inside of the back cover. You will use the back cover as the mounting plate.

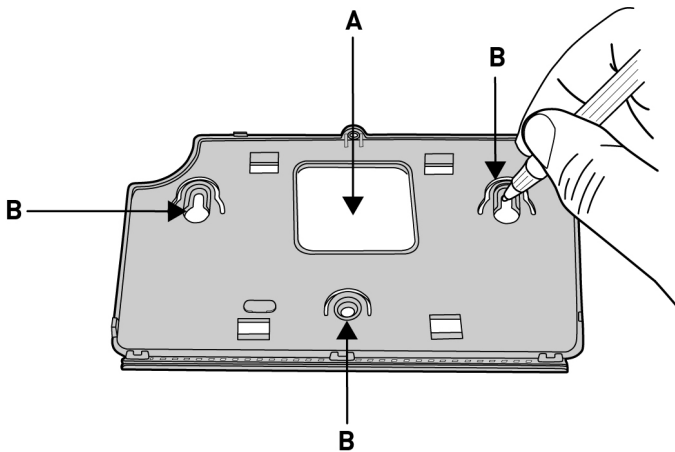
- 4 Leave the other end of the plastic strap attached to the circuit board (see B below).

**Figure 3** Wireless Touch Screen Keypad—Remove Hanging Strap



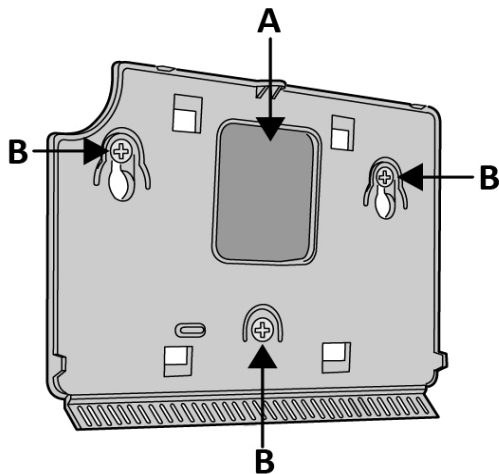
- 5 Hold the back cover at the desired location on the wall. Then use pencil to mark the location of the power wire (see A below) and screw holes (see B below).

**Figure 4** Wireless Touch Screen Keypad—Mounting Holes



- 6 Use a drywall saw to cut an access hole for the power wire. See A below.
- 7 Attach the mounting plate to the wall using the screw holes. See B below.

**Figure 5** Wireless Touch Screen Keypad—Mounting Plate



## Determining the Wire Gauge and Maximum Length

To determine the appropriate wire gauge and length to use, measure the voltage output of the control panel's power terminals. The terminals are located on the back of the control panel.

**TIP:** To avoid the reporting and display of nuisance "AC Power Loss" messages, the measured voltage must not fall below 14 Volts DC.

Use the table below as a guide for selecting the gauge for the power wires. To ensure proper operation, do not exceed the following maximum length for the wire gauge installed:

Wire Gauge	Maximum Length
22 AWG	55 feet (16.8 meters)
20 AWG	85 feet (25.9 meters)
22 AWG 2-pairs (19 AWG equivalent)	110 feet (33.5 meters)
18 AWG	135 feet (41.1 meters)

**IMPORTANT:** In the United States, wiring routed inside walls, ceilings, and floors must be in compliance with the requirements for *NFPA 70: National Electric Code* and local building codes. To satisfy these requirements, it is recommended that the wiring from the AC Power Adapter output be rated CL2, CL2X, CL2R, or PLTC. When installing wiring in a plenum space (e.g., a pathway used to facilitate air circulation for heating and air conditioning systems) the wire must be plenum-rated (CL2P).

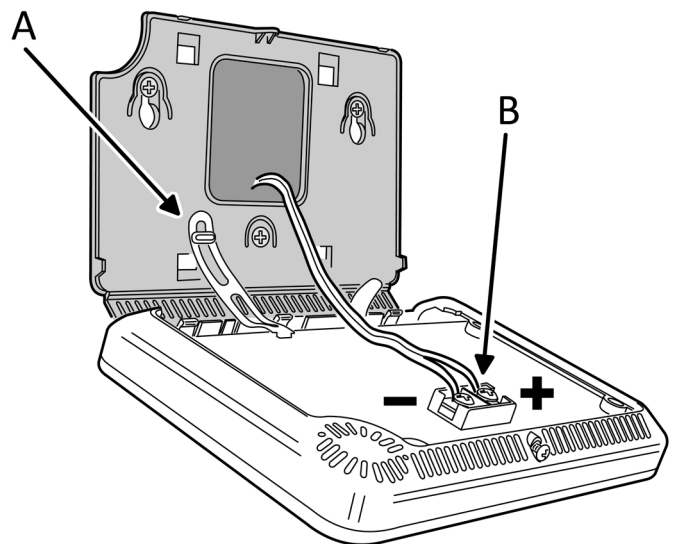
## Connecting the Power Wires to the Keypad

**NOTE:** If you will be connecting power to the keypad using the barrel connector power option, you will not need to complete the steps below. Simply connect the AC Power Supply to the keypad and power outlet. Then continue with *Programming the Keypad to the Control Panel* on page 3.

To connect the power wires to the keypad:

- 1 Route the wire between the power supply and keypad1.
- 2 Reconnect the plastic hanging strap to the inside of the back cover.
- 3 Use #6 Insulated Spade Terminals (not provided) to connect the power wires to the keypad. The connections are polarity sensitive. Always observe the (+) and (-) markings on the unit.

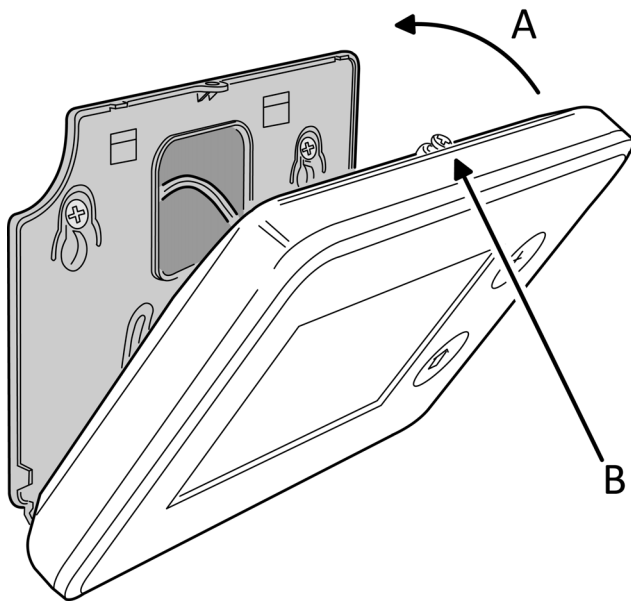
**Figure 6** Wireless Touch Screen Keypad—Connecting Power Wires



- 4 Align and snap the back cover closed. See A below.

5 Reattach the screw to the back cover. See B below.

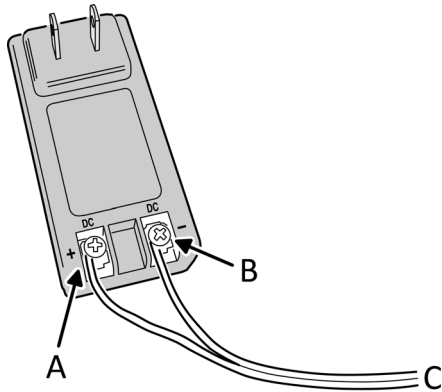
Figure 7 Wireless Touch Screen Keypad—Close Back Cover



6 Connect the other side of the power wiring to the AC Adapter (provided). The connections are polarity sensitive. Always observe the (+) and (-) markings as follows:

- Left Terminal 14 VDC (+). See A below.
- Right Terminal 14 VDC (-). See B below.

Figure 8 AC Adapter




**NOTE:** The power wire (see C above) goes to the keypad.

## Programming the Keypad to the Control Panel

To communicate with up to four (4) Wireless Touch Screen Keypads, you must install the 900 MHz Transceiver Module (2GIG-XCVR2-345) in the control panel before using the programming steps below.

To program the keypad into the control panel:

- 1 Connect the AC Adapter to the keypad as described in *Connecting the Power Wires to the Keypad*.
- 2 Power ON the keypad. The **This Device is Not Paired with a Control Panel** message appears on the keypad's screen.
- 3 Ensure the control panel is powered ON. Then tap the Home  button.
- 4 Tap the logo in the lower-right corner of the control panel Home screen.
- 5 At the **Enter Your Code** screen, enter your four (4)-digit installer code.
- 6 At the **Installer Toolbox (page 1 of 2)** screen, tap System Configuration.

7 At the **Q1: Select RF Sensor # (01 to 48)** screen, tap **Go To**.

8 At the **Enter Question Number (2 Digits)** screen, enter **04**

9 At the **Q4: Select RF Keypad # (1 to 4)** screen, tap → to scroll to the desired keypad number (1-4). For example, tap → to scroll to (1) keypad one. Then tap ↓.

10 At the **Q: Select RF Keypad # Used (0 to 1)** screen, tap → to scroll to (1) **Enabled**. Then tap ↓.

11 At the **Q: Select RF Keypad # Equipment Code** screen, tap → to scroll to (1059) *2GIG-TS1 Wireless Touch Screen Keypad*. Then tap ↓.

12 At the **Q: RF Keypad # Keypad ID (Read-Only)** screen, press the **Learn** button. This places the control panel into learning mode.

13 On the control panel at the **Pair with Xcvr Device** screen, the "initiating learning process" message appears.

14 On the keypad, at the **This Device is Not Paired with the Control Panel** screen, tap **Pair with Panel**. This places the keypad into learning mode.

When the "learn operation succeeded" message appears on both the control panel and keypad, the devices are linked.

15 Ensure the following is true:

- On the control panel at the **Pair with Xcvr Device** screen, ensure the **Type** reads *2GIG-TS1-E Wireless Touch Screen Keypad* and that the **ID#** appears. Tap **OK**.
- On the keypad at the **Pair with Panel** screen, ensure that the **Network ID** shows a unique hexadecimal number for the control panel and that the **Keypad ID** number appears. Tap **OK**.

16 On the control panel at the **Pair with Xcvr Device** screen, tap **OK**. Then tap ↓.

**NOTE:** The keypad displays a "The Security System is Temporarily Not Operational" message and remains in this state until you finish programming the device into the panel, save the changes, and exit out of programming mode.

17 At the **Q: RF Keypad # Keypad ID (Read-Only)** screen, ensure the keypad ID appears. Then tap ↓.

18 At the **Q: Select RF Sensor # Equipment Age** screen, tap → to select one of the following:

- **(0) New** (Default). Then tap ↓.  
OR
- **(1) Existing**. Then tap ↓.

19 At the **Q: Construct RF Sensor # Voice Descriptor** screen, the voice descriptor *keypad one* (or *keypad two*, *keypad three*, and so on.) should display.

If you want to change the voice descriptor, tap the delete (X) button. Then tap **Insert**. Then enter the appropriate voice descriptor code. For example, to create a voice descriptor code named *keypad one*, do the following:

- Tap **Insert**. Then enter **123** for *keypad*.
- Tap **Insert**. Then enter **161** for *one*. Then tap ↓.

**TIP:** For a complete list of available voice descriptors, see the control panel's *Quick Programming Guide*.

20 At the **Summary of RF Keypad #** screen, tap **Skip**.


21 At the **Q5: Enter Exit Delay, in Seconds (45-120)** screen, enter the desired exit delay. The default value is 60. Tap **End**. This setting affects both the control panel and keypad.

22 At the **Summary of System Configuration** screen, tap **Save Changes** and ensure a checkmark appears in the **Save Changes** box. Then tap **Exit**. This restarts the control panel.

**NOTE:** You can program up to four (4) keypads into the control panel by repeating the steps above.



## Disabling a Keypad from the Control Panel

If you want to disable a keypad after programming it into the control panel:

- 1 Ensure the control panel is powered ON. Then tap the Home  button.
- 2 Tap the logo in the lower-right corner of the control panel Home screen.
- 3 At the **Enter Your Code** screen, enter your four (4)-digit installer code to go to the **Installer Toolbox (page 1 of 2)** screen.
- 4 At the **Installer Toolbox (1 of 2)** screen, tap **System Configuration**.
- 5 At the **Q1: Select RF Sensor # (01 to 48)** screen, tap **Go To**.
- 6 At the **Enter Question Number (2 Digits)** screen, enter **04**.
- 7 At the **Q4: Select RF Keypad # (1 to 4)** screen, tap → to scroll to the keypad number (1-4) to remove. For example, tap → to scroll to (1) keypad one. Then tap ↓.
- 8 At the **Q: Select RF Keypad # Used** screen, tap → to scroll to (0) *Disabled*. Then tap ↓.
- 9 Tap ↓ until the **Summary of RF Keypad #** screen appears. Then tap **Skip**.
- 10 At the **Q5: Enter Exit Delay, in Seconds (45-120)** screen, tap **End**.
- 11 At the Summary of System Configuration screen, tap **Save Changes** and ensure a checkmark appears in the **Save Changes** box. Then tap **Exit**. This restarts the control panel.

## Restoring the Keypad's Factory Settings

To restore the keypad's factory settings to use it with a different control panel:


- 1 Power OFF and then power ON the keypad.
- 2 Press and hold down both the Emergency  and Home  buttons for approximately 20 seconds.
- 3 When both buttons illuminate, the keypad's factory settings have been restored. The screen will display the following message:  
"This Device is Not Paired with a Control Panel."

## Verifying the Firmware Version on Both Devices

In order to communicate properly, the keypad and the control panel must be running the same firmware version.

**NOTE:** If the keypad has not yet been paired to the control panel, the firmware version number displays on the keypad's main screen.

To check the firmware version on the keypad and control panel (after they have been paired):

- 1 Press the Home  button.
- 2 At the Home screen, tap **Security**.
- 3 Tap **Menu**.
- 4 Tap **Toolbox**.
- 5 At the **Enter Your Code to Access the Toolbox** screen, enter the master code.
- 6 At the **Toolbox (1 of 3)** screen, tap → to scroll to the **Toolbox (2 of 3)** screen.
- 7 Tap **Version**.
- 8 At the **Version** screen, ensure the **Firmware Version** field matches on both the control panel and keypad.

## Updating the Firmware

To update the firmware on the keypad, you will need:

- The Firmware Update Cable for the TS1 and Control Panel (2GIG-UPCBL2).
- To download the latest firmware update go to [dealer.2gig.com](http://dealer.2gig.com).

For instructions, refer to the document titled *Update the Firmware on the Control Panel and TS1* (PN: 77-000001-001).

## SPECIFICATIONS

<b>Wireless Signal Range</b>	500 ft (152.4 m), open air, with Wireless Control Panel
<b>Transceiver</b>	Silicon Labs SI1001-E-GM2
<b>Transceiver Frequency</b>	900 MHz frequency-hopping bi-directional communication
<b>Radio</b>	25 channel frequency-hopping spread spectrum, 403 kHz channel spacing (910.2-920.275 MHz), GFSK modulation, 128 kbps, +19dBm maximum RF power out
<b>Dimensions (L x W x H)</b>	4.3" x 6.7" x 0.8" (11 x 17 x 2 cm)
<b>Weight (including battery)</b>	9.6 oz.
<b>Housing Material</b>	ABS Plastic
<b>Color</b>	White
<b>Operating Temperature</b>	32°-120 F° (0°-49° C)
<b>Relative Humidity</b>	5-95% Non-Condensing
<b>Operating Voltage</b>	14VDC
<b>Certification</b>	FCC, Industry Canada, IFETEL, and NOM

## REGULATORY INFORMATION



NOM: 1402CE04315  
IFETEL: RCPLI2G14-1035

## Wireless Product Notice

Radio controls provide a reliable communications link and fill an important need in portable wireless signaling; however, there are some limitations which must be observed.

- For United States Installations Only: The radios are required to comply with FCC Rules and Regulations as Part 15 devices. As such, they have limited transmitter power and therefore limited range (approximately 400 ft.).
- A receiver cannot respond to more than one transmitted signal at a time and may be blocked by radio signals that occur on or near their operating frequencies, regardless of code settings.
- Changes or modifications to the device may void FCC compliance.
- Infrequently used radio links should be tested regularly to protect against undetected interference or fault.
- A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor or dealer, and these facts should be communicated to the end users.

## FCC Notice

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

- 1 This device may not cause harmful interference, and
- 2 This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for Class B Digital 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 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
- 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
- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### Industry Canada Notices

*This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.*

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

**WARNING:** Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

### Operating and Storage Temperature

The recommended storage temperature for all touchscreens is -10°C to 60°C (14°F to 140°F).

For optimal touchscreen use, operational temperature is 0°C to 49°C (32°F to 120°F).

## LIMITED WARRANTY

This Linear product is warranted against defects in material and workmanship for one (1) year. This warranty extends only to wholesale customers who buy direct from Linear LLC or through Linear LLC's normal distribution channels. Linear LLC does not warrant this product to consumers. Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any.

There are no obligations or liabilities on the part of Linear LLC for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation. All implied warranties for functionality, are valid only until the warranty expires. This Linear LLC Warranty is in lieu of all other warranties expressed or implied.

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855-2GIG-TECH (855-244-4832)

Email: [2gigtechsupport@linearcorp.com](mailto:2gigtechsupport@linearcorp.com)

Visit web site for technical support hours of operation

#### For technical support outside of the USA and Canada:

Contact your regional distributor

Visit [dealer.2gig.com](http://dealer.2gig.com) for a list of distributors in your region

77-000090-001 Rev. E