



2GIG-TS2-E WIRELESS TOUCH SCREEN KEYPAD

INSTALLATION INSTRUCTIONS

The Wireless Touch Screen Keypad (2GIG-TS2-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 / 2GIG-XCVR2E-345) is installed in the control panel, the system can be programmed to communicate with up to four (4) Wireless Touch Screen Keypads.

IMPORTANT: This keypad does not support UL 985 installations.

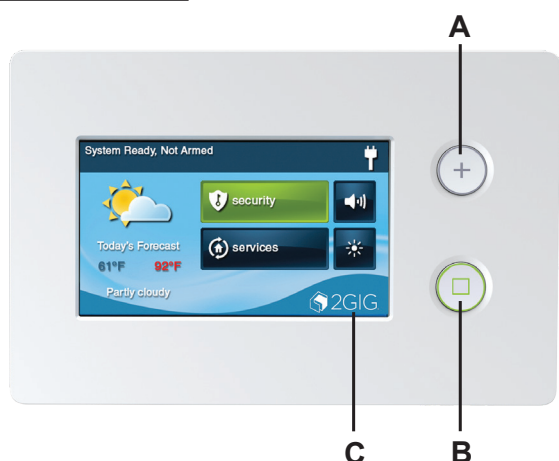
Box Contents

Verify that the package includes the following:

- 1—Wireless Touch Screen Keypad
- 1—A C Adapter
- 1—A C 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-XCVR2e-345) must be installed in the control panel.
- The 2GIG Panel must be running the minimum Firmware version as shown below based on the platform of the panel or higher.
- The TS2-E keypad must be running Version 1.16 or later. See *Verifying the Firmware Version on Both Devices*.

Platform	XCVR Model	FW Version** (Minimum Required)
GC2e	2GIG-XCVR2e-345*	1.23
	2GIG-XCVR2-345	1.21
GC2	2GIG-XCVR2-345	1.16

* – XCVRe model is not compatible with GC2

** – FW version for both GC2/2e Panel and TS2 must be the same.

See section above "Verifying the FW Version on Both Devices" for further details.

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*)
- 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 in Fig. 2).
- 2 Flip open the back cover.
- 3 Remove the plastic hanging strap (see C in Fig. 3) from the inside of the back cover. You will use the back cover as the mounting plate.
- 4 Temporarily detach the Hanging Strap from the mounting plate (see C in Fig. 3).
- 5 Leave the other end of the plastic strap attached to the circuit board (see D in Fig. 3).

Figure 2 — Back Cover

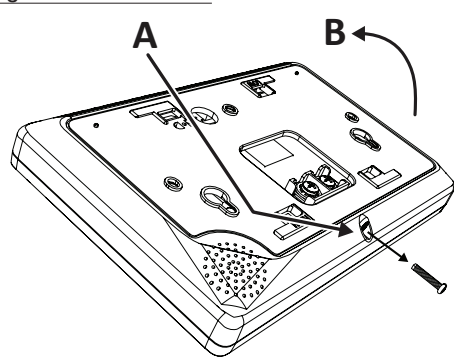


Figure 3 — Remove Hanging Strap

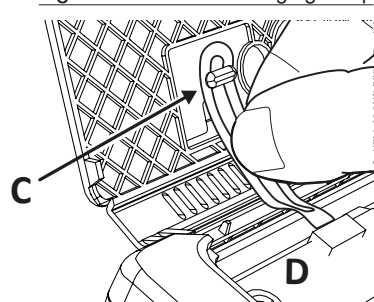


Figure 4 — Mounting Holes

- 6 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 in Fig. 4).
- 7 Use a drywall saw to cut an access hole for the power wire (see A in Fig. 4).

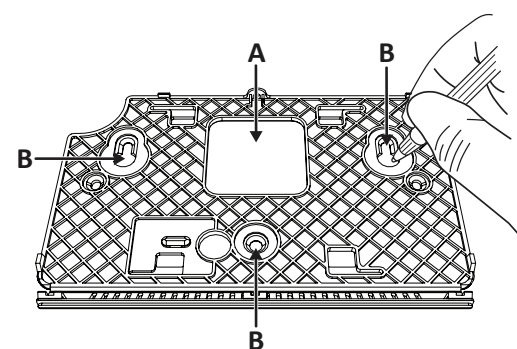
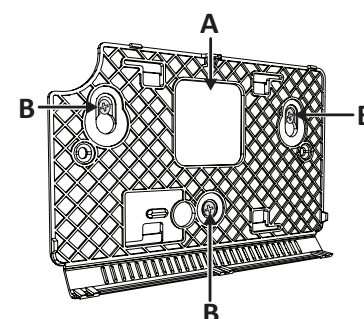


Figure 5 — Mounting Plate

- 8 Attach the mounting plate to the wall using the three screw holes (see B in Fig. 5).



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 to the Keypad

There are two ways to provide power to the keypad. If you are using wires, see section above for appropriate wires to be applied. If you will be connecting power using the barrel connection option, skip down below to Barrel Power Connection Option section. Only one power connection type is required.

NOTE: These keypads include a built-in, 90-degree, four (4)-pin header for use with the Firmware Update Cable (2GIG-PCBL2).

To connect the power to the Keypad using power wires:

- 1 Reconnect the plastic hanging strap to the inside of the back cover (see A in Fig. 6a).
- 2 Route the power supply wire to the power terminals on the Keypad 1 (see B in Fig. 6a).
- 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 (see B in Fig. 6a).
- 4 Move ahead to step 8 & 9 to reattach the back cover to the keypad.

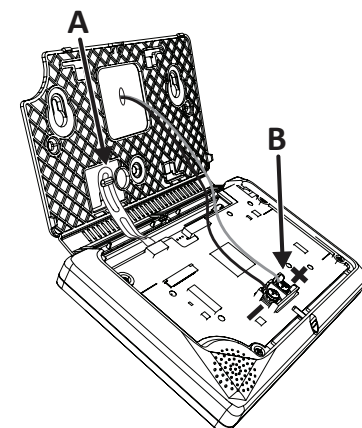


Figure 6a — AC Adapter

To connect power using the Barrel Power Connection Option:

NOTE: (2GIG-AC2-PLUG / 2GIG-AC2-INT sold separately).

- 5 Route barrel connector cable through the back panel opening (see C in Fig. 6b below).
- 6 Locate the barrel connector port (see D in Fig. 6b below), and insert the connector to the port.
- 7 Follow steps 8 and 9 below to reattach the back cover to the keypad.

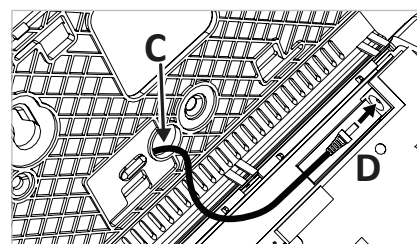
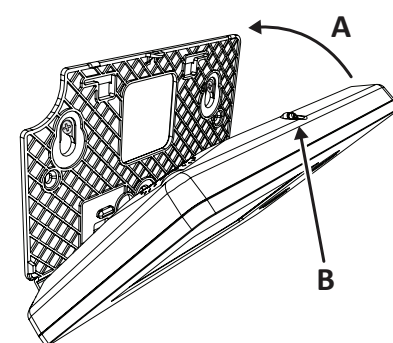


Figure 6b — Power with Barrel Connector

Figure 7 — Close Back Cover

- 8 Align and snap the back cover closed (see A in Fig. 7).
- 9 Reattach the screw to the back cover (see B in Fig. 7).



- 10 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 in Fig. 8.
- Right Terminal 14 VDC (-). See B in Fig. 8.

NOTE: The power wire (see C in Fig. 8) goes to the keypad.

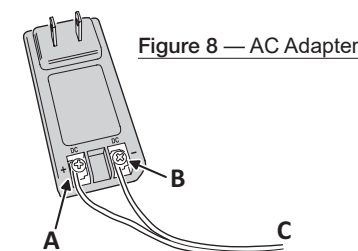


Figure 8 — AC Adapter

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 TS2 and Control Panel (2GIG-UPCBL2).
- To download the latest firmware update go to dealer.2gig.com.

Firmware update available at www.2gig.com/dealers.

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 in the control panel before using the programming steps below. See above Minimum Requirements for information on which XCVR module is required.

To program the keypad into the control panel:

- 1 Connect the AC Adapter to the keypad as described in *Connecting the Power 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-TS2 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-TS2-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 ↓.
- (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. The 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 check mark 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 check mark 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."

SPECIFICATIONS

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

REGULATORY INFORMATION

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.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.

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.

Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas provoquer d'interférences, et (2) cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

L'appareil a été évalué pour répondre aux exigences générales d'exposition RF.

L'appareil peut être utilisé dans des conditions d'exposition fixes / mobiles.

La distance de séparation minimale est de 20 cm.

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 Nortek Security & Control LLC product is warranted against defects in material and workmanship for one (1) year. This warranty extends only to wholesale customers who buy direct from Nortek Security & Control LLC or through Nortek Security & Control LLC's normal distribution channels. Nortek Security & Control 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.

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All products returned for warranty service require a Return Authorization Number (RA#). Contact Returns at 1-855-546-3351 for an RA# and other important details.



For technical support in the USA and Canada: 855-2GIG-TECH (855-244-4832)

Contact: <https://www.nortekcontrol.com/technical-support/>
Visit www.nortekcontrol.com for technical support hours of operation.

For technical support outside of the USA and Canada: Contact your regional distributor.

Visit www.2gig.com/dealers/ for a list of distributors in your region.



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5919 Sea Otter Place, Suite 100
Carlsbad, CA 92010 USA

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10032360 Rev-A