CERTIFIED TECH ACADEMY

with eSeries

GC2/GC3
Certified Tech Training

Field Guide

NORTEK SECURITY & CONTROL

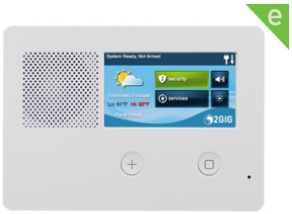
Contents

Field Guide

Disclaimer!

This Field Guide contains programming information for the following panels:

Legacy GC2



GC2e

Legacy GC3

GC3e

Unless otherwise noted, anything that says GC2 in this manual also applies to GC2e. Additionally, anything that says GC3 in this manual also applies to GC3e unless otherwise noted.

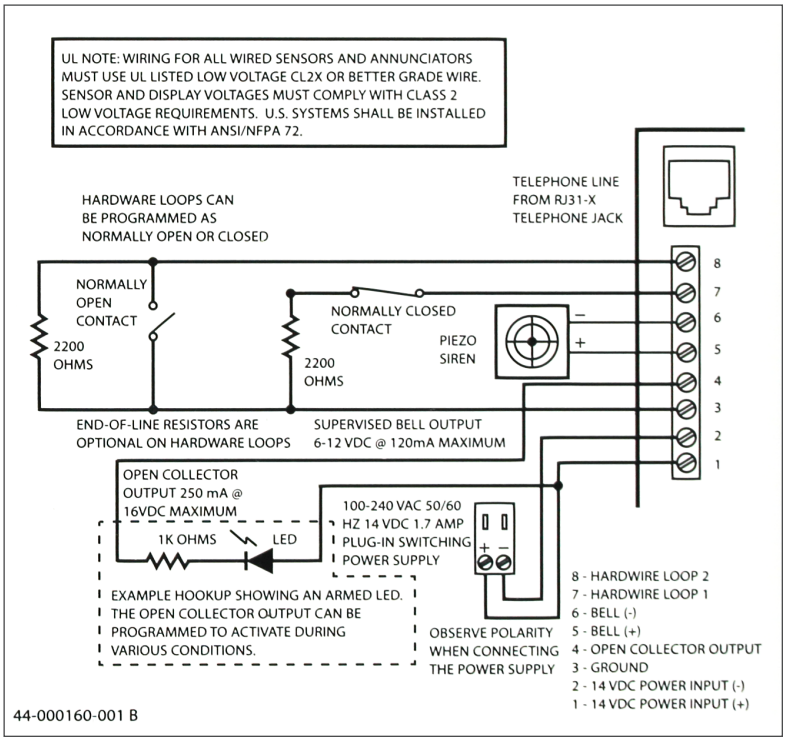
Panel Wiring

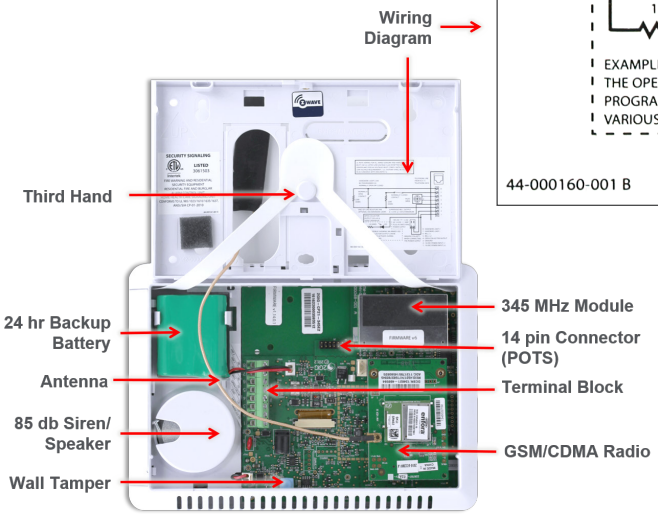
Wiring Size

To avoid AC power loss messages, the voltage between power connection terminals at the back of the panel must be **above 11 volts DC**.

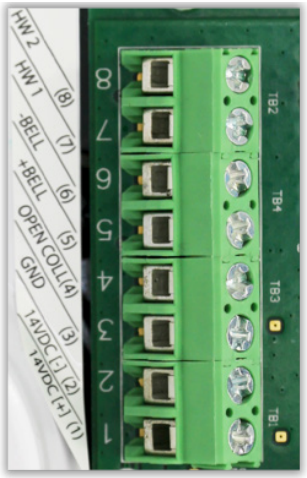
Wire Size	Maximum Length
22 AWG	55ft (16.8 m)
20 AWG	85ft (25.9 m)
22 AWG 2-pairs (19 AWG equivalent)	110ft (33.5 m)
18 AWG	135ft (41.1 m)

Legacy GC2 Wiring Diagram



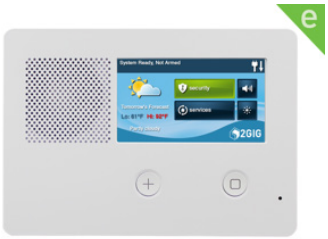


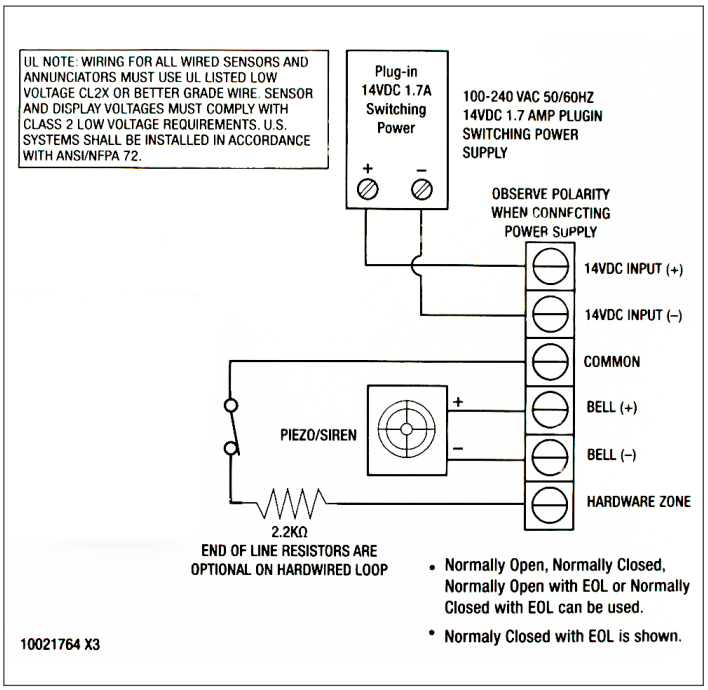
Legacy GC2 Terminal Block

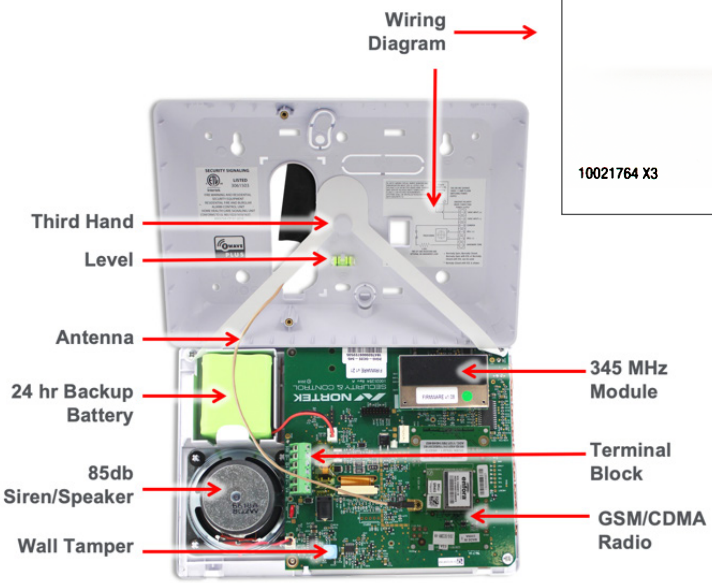


8) Hardwire Zone 2
7) Hardwire Zone 1
6) External Bell (-)
5) External Bell (+) (6-12 VDC @ 120mA max)
4) Open Collector Output (16VDC @ 250mA max)
3) Ground
2) 14VDC Input (-) from Transformer negative (-)
1) 14VDC Input (+) from Transformer positive (+)

GC2e Wiring Diagram







GC2e Terminal Block

HW Hardwire Zone

B- External Bell (-)

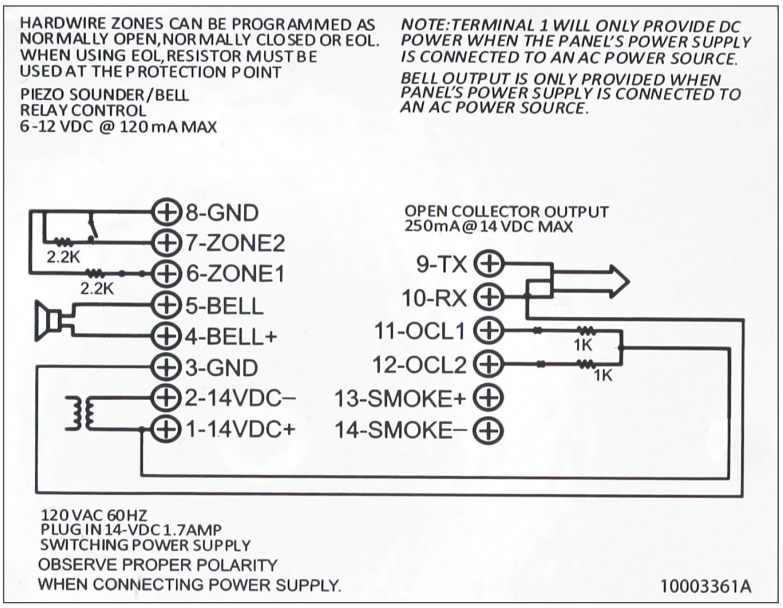
B+ External Bell (+) (6-12 VDC @ 120mA max)

COM Ground

V- 14VDC Input (-) from Transformer negative (-)

V+ 14VDC Input (+) from Transformer positive (+)

GC3/GC3e Wiring Diagram



GC3/GC3e Terminal Blocks

8) Ground

7) Hardwire Zone 2

6) Hardwire Zone 1

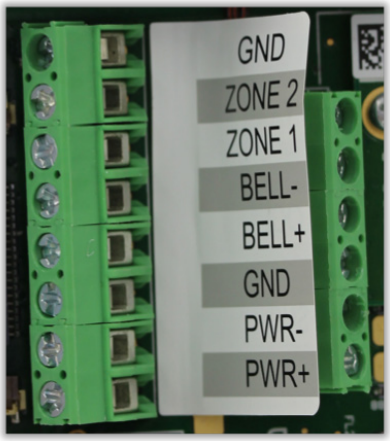
5) External Bell (-)

4) External Bell (+) (6-12 VDC @ 120mA max)

3) Ground

2) 14VDC Input (-) from Transformer negative (-)

1) 14VDC Input (+) from Transformer positive (+)



9) TX

10) RX

11) Open Collector1

12) Open Collector 2

Some panels may have a sticker indicating hookup of two wire smoke detectors; these are non-functional and are to be disregarded.

Basic Programming

GC2 Programming

The GC2 and GC2e share the same programming features and flow.

Default Access Codes

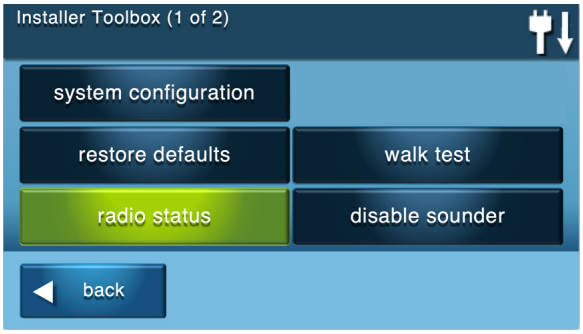
Default Installer Code = 1561
Default Customer Code = 1111

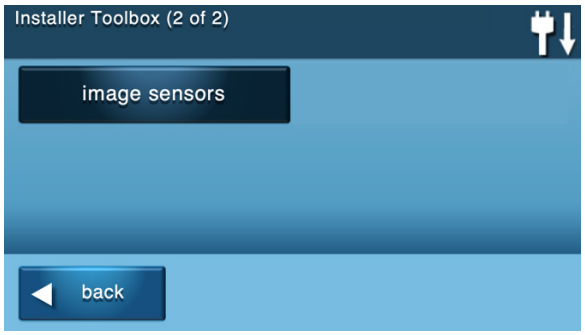
GC2 Installer Toolbox

To access the **Installer Toolbox:**

1. Press the **2GIG logo** located on the bottom right of the GC2 home screen.
2. Enter the **Installer Code** (default code = **1561**).

Installer Toolbox Menu Options





Radio Status

Status Color	Meaning
Green	Connected
Yellow	Idle
Red	Not connected to central station; something needs fixed

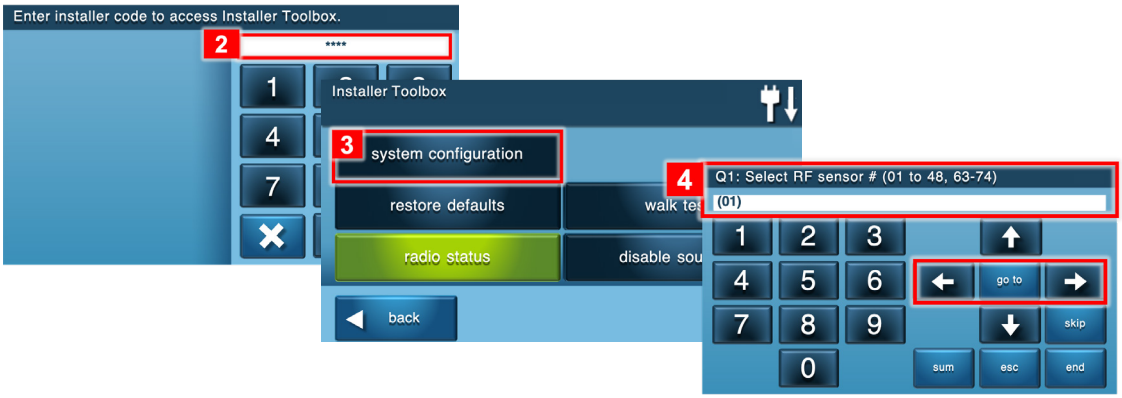
Cell strength of 12 or higher is recommended.

NOTE: *You must power down the GC2 panel prior to installing a cell radio.*

GC2: System Configuration

To access **System Configuration**:

1. Press the **2GIG logo** on the GC2 home screen.
2. Enter the **Installer Code** (default code = **1561**).
3. Press **System Configuration**. The default question *Q1: Select RF sensor # (01 to 48, 63-74)* will display.
4. To navigate to a specific question, press **Go To**, then the **2-digit code** or the ◀ and ▶ keys.



Programming Questions

Q1: Wireless Zones

1) Sensor #
2) Sensor Type
3) Equipment Type
4) Equipment Code
5) Other Equipment Code
6) Serial Number
7) Equipment Age
8) Loop Number
9) Dialer Delay
10) Voice Descriptor
11) Reports
12) Supervised
13) Chime

Q2: Hardwire Zones

1) Wired Sensor #
2) Sensor Type
3) Equipment Type
4) Equipment Code
5) Equipment Age
6) Normal State
7) Dialer Delay
8) Voice Descriptor
9) Reports
10) Chime

Q3: Keyfobs

1) Fob #
2) Fob # Used
3) Equipment Code
4) Other Equipment Code
5) Serial Number
6) Equipment Age
7) Emergency Key
8) Key 2 Can Disarm
9) Voice Descriptor
10) Arm No Delay
11) Key 4 Output

Q4: Keypads

1) Keypad #
2) Keypad # Used
3) Equipment Code
4) Other Equipment Code
5) Serial Number
6) Equipment Age
7) Emergency Key
8) Voice Descriptor

Q5-Q97: System Settings

Q5-Q7: Exit & Entry Delay
Q8-Q15 & Q35, Q40-42, Q48: Dialer & Dialing
Q16-Q19: Emergency Keys & Quick Arming
Q20-Q21: Swinger Shutdown & Siren Supervision
Q22: Lack of Usage Notification
Q23-Q25 & Q91: Radio Modem Network
Q26-Q28: Auto Stay & Exit Options
Q29-Q32: Periodic Test and Cancel Options
Q33-Q37: Cross Sensor & Bell Cutoff
Q38-Q39: AC Loss
Q43-Q45: Installer Code & Lock Programming
Q46-47: Troubles at Night and after Holdoff
Q49-65: Various Reports Functions
Q66-Q70: Daylight Savings
Q71-Q78: Tamper, Bypass, and Disarming
Q79-Q90: Z-Wave & Services
Q92-Q95: Network Device & Broadband Network
Q96: Send Report on Panel Tamper
Q97: Sound on Normal Closing

Q1: Programming a Wireless Sensor

GC2 WIRELESS ZONES		
Q#	**Question**	**Default**
Q1	**Select RF Sensor # (01-48, 63-74)** Select the sensor number by pressing ▶ (or type in the 2-digit #), then press ▼.	
	Select RF Sensor # Type (00) Unused Choose the sensor type* by pressing ▶ (or type in the 2-digit #), then press ▼.	
	Select RF Sensor # Equipment Type This question only appears if sensor type *(04) Interior Follower*, *(08) 24-Hour Auxiliary Alarm*, or *(10) Interior with Delay* is selected.	**Varies by RF sensor type**
	Select RF Sensor # Equipment Code (0000) Other Choose the equipment code* by pressing ▶ (or the 4-digit code), then press ▼.	
	Enter RF Sensor # Other Equipment Code (0-9999) This question only appears if *(0000) Other* is selected as the equipment code.	**0**
	Select RF Sensor # Sensory Act as Normally Open **GC2e only!** This question only appears if certain equipment codes are selected. It allows a sensor to be programmed as Normally Open rather than Normally Closed.	**(0) Disabled**
	Enter RF Sensor # Serial Number (7 digits) • **Keypad Entry**: Use the touchscreen keypad to type in the TXID – **OR** – • **Learning Mode Entry**: Press **Shift** on the GC2, then **Learn**. Next, trigger the sensor or peripheral (if needed, refer to the *Installation Instructions* that came with the product). Once the panel records the serial number, press **OK**.	**0000000**
	Select RF Sensor # Equipment Age (0 to 1) Specify the sensor age using the ▶ (or press **0** for *New* or **1** for *Existing*), then press ▼.	**(0) New**
	Select RF Sensor # Loop Number (1 to 3) Specify the loop number* by pressing *00* (or press **1**, **2**, or **3**), then press ▼.	**Varies with sensor model selected**
	Select RF Sensor # Dialer Delay (0 to 1) Select to enable or disable the dialer delay by pressing ▶ (or type **0** to *Disable* or **1** to *Enable*), then press ▼.	**(1) Enabled ‡** **(2) Disabled (for Fire and CO only)**
	Construct RF Sensor # Voice Descriptor 1. Press **Insert** and the word "*abort*" will appear in the answer box. 2. Use the ◀ and ▶ buttons to move between words, or press the 3-digit code for the appropriate voice descriptor*. 3. Press **Insert** again to add another word (the word "*abort*" will appear again). • Up to five words are allowed. • To remove a word, press **Delete.** 4. When finished, press the ▼ arrow.	**No Default**
	Select RF Sensor # Reports (0 to 1) Select whether or not the system sends a report to Central Station when a sensor triggers an alarm by pressing ▶ (or type **0** to *Disable* or **1** to *Enable*).	**(1) Enabled**
	Select RF Sensor # Supervised (0 to 1) Specify whether or not the panel checks for status reports from the sensor by pressing ▶ (or type **0** to *Disable* or **1** to *Enable*), then press ▼.	**(1) Enabled**
	Select RF Sensor # Chime (0 to 13) Select voice announcement and chime options for the sensor, then press ▼.	**(0) Disabled**
	Review the Summary of RF Sensor (#) screen • To toggle between zone summary screens press the ◀ and ▶ arrows. • To edit current RF zone press **Edit Current.** • To edit or program the next RF zone press **Edit Next.** • Press **Skip** to move to the next programming question.	

* Refer to the ***Programming Tables*** in this document for details on sensor types, equipment codes, and more.

‡ Required setting for compliance with ANSI/SIA CP-01-2010: Control Panel Standard.

Q2: Programming a Wired Sensor

The wired sensors are hardwired contact loops connected to the loop input terminals on the panel's terminal block.

- The **GC2** can be programmed with up to two (2) wired sensors.
- The **GC2e** can be programmed with one (1) wired sensor.

CAUTION: Wired sensors cannot be used for a CO or Fire sensor loop.
Note that Wired Sensor reports as listed below:

- Wired Sensor #1 = Reports as Sensor #49
- Wired Sensor #2 = Reports as Sensor #50

GC2 HARDWIRE ZONE(S)		
Q#	**Question**	**Default**
Q2	**Select Wired Sensor # (1-2) *** Select *1* or *2* using the ▶ arrow, then press the ▼ arrow, then press ▼.	
	Select Wired Sensor (Zone) Type Select the sensor type/zone* (For example, *(01) Exit/Entry 1*, *(02) Exit/Entry 2*, *(03) Perimeter*, and so on) using the ▶ arrow (or the 2-digit #), then press ▼.	
	Select Wired Sensor Equipment Type This question only appears when certain sensor types (zones) are selected.	**(00) Unused**
	Select Wired Sensor Equipment Code Choose the equipment code* by pressing ▶ (or the 4-digit code), then press ▼.	
	Select Wired Sensor Equipment Age (0 to 1) Specify whether the sensor is new or existing by pressing ▶ (or press **0** for *New* or **1** for *Existing*), then press ▼.	**(0) New**
	Select Wired Sensor Normal State (0 to 3) Use the ▶ arrow to choose between *(0) Not Used*, *(1) Closed, (2) Open,* or *(3) End-Of-Line-Resistor* (or press **1**, **2**, or **3**), then press ▼.	**(0) Not Used**
	Select Wired Sensor Dialer Delay (0 to 1) Specify whether to use delayed or instant digital communicator reports for the sensor. The delay time is set on the Dialer Abort screen. Press the ▶ (or type **0** to *Disable* or **1** to *Enable*), then press ▼.	**(1) Enabled ‡**
	Construct Wired Sensor Voice Descriptor (0 to 1) 1. Press **Insert** and the word "*abort*" will appear in the answer box. 2. Use the ◀ and ▶ buttons to move between words, or press the 3-digit code for the appropriate voice descriptor*. 3. Press **Insert** again to add another word (the word "*abort*" will appear again). • Up to five words are allowed. • To remove a word, press **Delete.** 4. When finished, press the ▼ arrow.	**No Default**
	Select Wired Sensor Reports (0 to 1) Select whether or not to send digital communicator reports for the sensor by pressing ▶ (or type **0** to *Disable* or **1** to *Enable*), then press ▼.	**(1) Enabled**
	Select Wired Sensor Chime (0 to 13) Select voice announcement and chime options for the sensor, then press ▼.	**(0) Disabled**

‡ Required setting for compliance with ANSI/SIA CP-01-2010: Control Panel Standard - Features for False Alarm Reduction.

* The **GC2e** allows only 1 hardwire zone to be programmed.

NOTE: *Refer to the **Programming Tables** section of this document for a detailed list of sensor types, equipment codes, loop numbers, voice descriptors, and more.*

Q3: Programming a Wireless (RF) Keyfob

The GC2 can be programmed with up to eight (8) RF keyfobs.

RF keyfobs 1 - 8 report to the panel as follows:

- Fob #1 – reports as sensor #51
- Fob #2 – reports as sensor #52
- Fob #3 – reports as sensor #53
- Fob #4 – reports as sensor #54
- Fob # 5 – reports as sensor #55
- Fob # 6 – reports as sensor #56
- Fob # 7 – reports as sensor #57
- Fob # 8 – reports as sensor #58

GC2 KEYFOBS		
Q#	**Question**	**Default**
Q3	**Select Fob # (1 to 8)** Select the Fob number by pressing ▶ (or type in the 2-digit #), then press ▼.	
	Select Fob # Used (0 to 1) Select to enable or disable the keyfob using the ▶ arrow, then press ▼.	**(0) Unused**
	Select Fob # Equipment Code (0000) Other Choose the equipment code* by pressing ▶ (or the 4-digit code), then press ▼.	**(0000) Other**
	Enter Fob # Other Equipment Code (0-9999) This question only appears if *(0000) Other* is selected as the equipment code.	**0**
	Enter Fob # Serial Number (7 digits) • **Keypad Entry**: Use the touchscreen keypad to type in the TXID – **OR** – • **Learning Mode Entry**: Press **Shift** on the GC2, then **Learn**. The panel will wait for a transmission. Press any button on the keyfob for three (3) to five (5) seconds. Once the panel records the serial number, press **OK.**	**0000000**
	Select Fob # Equipment Age (0 to 1) Specify whether the keyfob is new or existing by pressing ▶ (or press **0** for *New* or **1** for *Existing*), then press ▼.	**(0) New**
	Select Fob # Emergency Key (0 to 4) Make a selection by pressing ▶ (or press **1**, **2**, **3** or **4**), then press ▼ Choose which emergency signal the panel will send to Central Station when the top two buttons on the keyfob are pressed for 2 seconds: *(0) Disabled*, *(1) Auxiliary Alarm*, *(2) Audible Alarm*, *(3) Silent Panic*, or *(4) Fire.*	**(0) Disabled**
	Select Fob # Key 2 Can Disarm (0 to 1) Select to enable or disable whether the keyfob is allowed to disarm the system by pressing ▶ (or type **0** to *Disable* or **1** to *Enable*), then press ▼.	**(1) Enabled**
	Construct Fob # Voice Descriptor 1. Press **Insert** and the word "*abort*" will appear in the answer box. 2. Use the ◀ and ▶ buttons to move between words, or press the 3-digit code for the appropriate voice descriptor*. 3. Press **Insert** again to add another word (the word "*abort*" will appear again). • Up to five words are allowed. • To remove a word, press **Delete**. 4. When finished, press the ▼ arrow.	**Keyfob #**
	Select Fob # Arm No Delay (0 to 1) Select whether the keyfob will arm the system and remove the entry delay by pressing ▶ (or type **0** to *Disable* or **1** to *Enable*), then press ▼.	**(0) Disabled**
	Select Fob # Key 2 Output (0 to 2) Select an action for the keyfob auxiliary button, then press ▼.	**(0) Disabled**

NOTE: *Refer to the **Programming Tables** section of this document for a detailed list of equipment codes, loop numbers, voice descriptors, and more.*

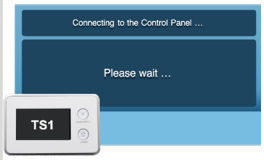
Q4: Programming a Wireless (RF) Keypad

The GC2 can be programmed with up to four (4) RF keypads or RF touch screen keypads.

RF keypads 1 - 4 report to the panel (for emergency and low battery) as below:

- Keypad #1 – reports as sensor #59
- Keypad #2 – reports as sensor #60
- Keypad #3 – reports as sensor #61
- Keypad #4 – reports as sensor #62

User Codes #1 through #8 are reported for openings and closings.
User Code #0 is reported for Quick Arming.

GC2 WIRELESS KEYPADS		
Q#	**Question**	**Default**
Q4	**Select RF Keypad # (1 to 4)** Select the keypad number by pressing ▶, then press ▼.	
	Select RF Keypad # Used (0 to 1) Select to enable or disable the keypad using the ▶ arrow, then press ▼.	**(0) Unused**
	Select RF Keypad # Equipment Code Choose the equipment code* by pressing ▶ (or the 4-digit code), then press ▼.	**(0000) Other**
	Enter RF Keypad # Other Equipment Code (0 to 9999) This question only appears if *(0000) Other* is selected as the equipment code.	**0**
	Enter RF Keypad # Serial Number (7 digits) **If connecting a PAD1 use one of the following two options:** • **Keypad Entry**: Use the touchscreen keypad to type the TXID into the system – **OR** – • **Learning Mode**: Press **Shift** on the GC2, then **Learn**. The panel will wait for a transmission. Press any button on the PAD1. Once the panel records the serial number, press **OK.** **If connecting a TS1, use the following steps: *** 1. Press **Learn** on the GC2. 2. Press **Pair With Panel** on the TS1. 3. Wait for the devices to pair, then press **OK** on both. 4. Press the ▼ arrow on the GC2 to continue. **NOTE: The TS1 will show '*Please wait...*' until all programming on the GC2 is finished and saved.**	**0000000** 
	Select Keypad # Equipment Age (0 to 1) Specify whether the keypad is new or existing by pressing ▶ (or press **0** for *New* or **1** for *Existing*), then press ▼.	**(0) New**
	Select Keypad # Emergency Keys (0 to 1) Make a selection by pressing ▶ (or press **1** or **2**), then press ▼.	**(1) Enabled**
	Construct Fob # Voice Descriptor 1. Press **Insert** and the word "*abort*" will appear in the answer box. 2. Use the ◀ and ▶ buttons to move between words, or press the 3-digit code for the appropriate voice descriptor. * 3. Press **Insert** again to add another word (the word "*abort*" will appear again). • Up to five words are allowed. • To remove a word, press **Delete**. 4. When finished, press the ▼ arrow.	**Keyfob #**

* If the TS1 is used with a **GC2e**, the encryption is not supported.

NOTE: *Refer to the **Programming Tables** section of this document for a detailed list of sensor types, equipment codes, voice descriptors, and more.*

Q5-Q97: Programming System Settings

‡ In the table below, a double dagger (‡) indicates a minimum required setting for ANSI/SIA CP-01 compliance.

GC2 SYSTEM SETTINGS (Q5-Q97)		
Q#	**Question**	**Default**
Q5	**Enter Exit Delay, in Seconds (45 to 120)** The delay time can be increased without affecting compliance. The exit delay timer can be set to a value between 45 and 120 seconds.	**60 seconds ‡**
Q6	**Enter Entry Delay 1, in Seconds (30 to 240)** For compliance with ANSI/SIA CP-01, the total minutes for *Q6: Entry Delay 1* and *Q35: Abort Window Dialer Delay* combined cannot exceed one (1) minute.	**30 seconds ‡**
Q7	**Enter Entry Delay 2, in Seconds (30 to 240)** For compliance with ANSI/SIA CP-01, the total minutes for *Q7: Entry Delay 2* and *Q35: Abort Window Dialer Delay* combined cannot exceed one (1) minute.	**45 seconds ‡**
Q8	**Select Dialer (0 to 1)** The dialer (digital communicator) can be *(1) Enabled* for a monitored system, or *(0) Disabled* for a local alarm or when the GSM (Cellular) Radio Module is used exclusively for reporting. **NOTE**: If *(0) Disabled* is selected in *Q8: Dialer*, telephone line failure detection will also be disabled regardless of the setting specified in *Q63: Phone Fail Detect.*	**(0) Disabled**
Q9	**Enter Dialing Prefix (0 to 4 digits)** Some telephone PBX systems require a dialing prefix to acquire a dial tone. • If the telephone system that the panel is connected to requires a dialing prefix, enter up to four (4) digits. • Press **Shift** to access the pound (#) and star (*) symbols. The **P** button adds a three (3) second pause to the dialing.	**No default**
Q10	**Enter Call Waiting Disable Code (0 to 6 digits)** For ANSI/SIA compliance, do not enter a Disable Code. If the subscriber's phone line has call waiting, incoming call tones on the line can interfere with reports to the Central Station. To prevent this, the system can be programmed to enter the code to deactivate call waiting before sending a report to the Central Station: • If call waiting is active on the phone line, enter the code to deactivate call waiting. • Press **Shift** to access the pound (#) and star (*) symbols. The **P** button adds a three (3) second pause to the dialing. **NOTE**: If the first attempt fails, this code will be ignored on remaining attempts.	**No default ‡**
Q11	**Enter CS #1 Phone Number (0 to 25 digits)** Enter the telephone number for the Central Station #1. • Press **Shift** to access the pound (#) and star (*) symbols. The **P** button adds a three (3) second pause to the dialing. • **NOTE**: If a second Central Station telephone number is programmed with question *Q41: CS #2 Account Number,* the panel alternates between the two Central Station telephone numbers. • After two (2) failed telephone dialing attempts, the panel attempts to connect using the GSM (Cellular) Radio Module if it is installed. • If the GSM (Cellular) Radio Module is not installed, the panel will make eight (8) dialing attempts.	**No default**
Q12	**Enter CS #1 Account Number (4 digits)** Enter the account number for Central Station #1. • This number is always four (4) digits and can include some alpha characters. • Press **Shift** to gain access to these characters: *B, C, D, E,* and *F.*	**No default**

GC2 SYSTEM SETTINGS (Q5-Q97)		
Q#	**Question**	**Default**
Q13	**Select Two-Way Voice (0 to 2)** The panel supports two (2)-way voice communications between the subscriber and the Central Station (CS) operator over the telephone line or the GSM (Cellular) Radio Module (if installed) after an alarm has been reported. • ***(1) Stay On Line***: allows two (2)-way audio over the telephone line or cell radio. • ***(2) Stay On Line, Including Fire and CO Alarms***: allows 2-way audio over the telephone line or cell radio during fire and CO alarms. • ***(0) Disabled***: turns the 2-way audio feature OFF. When the panel connects with the operator, it will beep once per second (every 6 seconds with a cell radio connection). The beep alternates between 2 tones and indicates the panel is waiting for a session command. • If the operator fails to issue a command within 1 min (or 3 min if using the cell radio connection), the call is terminated. • Once the operator presses a command option, the beeps will stop and a 5 min audio session will start (or 3 min audio session if using cell radio connection). When two-way voice communications have been established, the CS operator can use the following telephone keys to control the communications. • ***Tap 1***: Talk mode 1-way communication (allows CS operator to talk to premises). • ***Tap 2***: VOX mode 2-way communications (between CS and the premises) • ***Tap 3***: Listen mode 1-way communication (allows premises to talk to CS operator) • ***Tap 7***: Extends the session 5 minutes without changing mode of operation • ***Tap 9***: Ends the audio session and terminates the call Each time the operator uses a command key, the session is extended for 5 min (or 3 min with a cell radio connection). During the last minute of communications, the system beeps 2 times every 15 seconds to indicate that time is running out.	**(1) Stay Online**
Q14	**Select Silent Panic/Burglary Listen Only (1 to 1)** The panel allows the Central Station to use listen-in over audio after a silent panic, silent burglary, or duress alarm has been reported. This option is permanently set to *(1) Enabled* and cannot be disabled.	**(1) Enabled**
Q15	**Select Dialing Type (0 to 1)** The digital communicator uses tones or pulses. • ***(0) Touch Tone***: for Dual-Tone Multi-Frequency (DTMF) dialing. • ***(1) Pulse***: for rotary dialing.	**(0) Touch Tone**
Q16	**Select Police Emergency Key (0 to 2)** The panel's panic emergency button action can be programmed. The panic emergency button is displayed by pressing the **+** button. • ***(1) Audible***: allows the panic emergency button to sound an audible alarm. • ***(2) Panic***: allows silent activation (also silences Police button on all RF keypads). • ***(0) Disabled***: will disable and not display the panic emergency button.	**(1) Audible**
Q17	**Select Fire Emergency Key (0 to 1)** The panel's fire emergency button is displayed by pressing the **+** button. • ***(1) Audible***: allows the fire emergency button to sound an audible alarm. • ***(0) Disabled***: will disable and not display the fire emergency button.	**(1) Audible**
Q18	**Select Emergency Key (0 to 1)** The panel's emergency button is displayed by pressing the **+** button. • ***(1) Audible***: sounds an audible alarm when the button is pressed. • ***(0) Disabled***: will disable this button. **NOTE**: If all three (3) Emergency buttons are disabled, the panel displays a message when its Emergency button is depressed.	**(1) Audible**
Q19	**Select Quick Arming (0 to 1)** Quick arming allows subscribers to arm the system without having to enter a user code. If Open/Close reports are being sent, quick arming is reported as *User 0*.	**(1) Enabled**

GC2 SYSTEM SETTINGS (Q5-Q97)		
Q#	**Question**	**Default**
Q20	**Select Swinger Shutdown Count (1 to 6)** An unwanted series of multiple faults (usually caused by a bad contact or sensor) is called a "swinger." Swinger shutdown sets the maximum number of alarms that any sensor or hardwire loop can trigger during a single arming period. **NOTE**: CO and Smoke detector alarms are not limited by the swinger shutdown count. Other types of 24-hour zones are limited by the swinger shutdown count.	**(2) Two Trips ‡**
Q21	**Select Siren Supervision Time (0 to 3)** The wiring connection to the external sounder can be supervised. If the wiring to the sounder is cut for 15, 30, or 45 seconds; a bell trouble report can be sent to the Central Station. To supervise the external sounder wiring, select: *(1) 15 Seconds, (2) 30 Seconds,* or *(3) 45 Seconds.*	**(0) Disabled**
Q22	**Enter CS Lack of Usage Notification Time, in Days (0-255)** If this system has not been armed for a specified number of days, inactivity reports can be sent to the Central Station. To turn this feature OFF, select *0 days.*	**7 Days**
Q23	**Enter Radio Modem Network Failure Time (0-255)** If the optional GSM (Cellular) Radio Module loses its cellular connection, specify the amount of down time that must pass before triggering a trouble condition. To turn this feature OFF, select *0 minutes.* **NOTE**: After cellular service is restored for five (5) minutes, the trouble condition automatically clears. **Requirement***: GSM (Cellular) Radio Module must be installed to use this function.*	**30 Minutes**
Q24	**Select Radio Network Failure Causes Trouble (0 to 1)** Selects whether the panel will sound and display trouble if the optional GSM (Cellular) Radio Module has lost its cellular connection. The trouble sounder can be silenced by the user at the panel (cell radio trouble is logged regardless of this setting). When cellular radio module connection is restored, trouble indications automatically clear. • ***(1) Enabled***: allows radio module failure trouble indications. • ***(0) Disabled***: turns off radio module failure trouble indications. **Requirement***: GSM (Cellular) Radio Module must be installed to use this function.*	**(1) Enabled**
Q25	**Select Radio Modem Network Failure Reports (0 to 1)** When enabled, the panel will report radio module failure and restore via land-line if the optional GSM (Cellular) Radio Module loses its cellular connection. **Requirement***: GSM (Cellular) Radio Module must be installed to use this function.*	**(1) Enabled**
Q26	**Select Auto Stay (0 to 1)** This feature must be enabled for ANSI/SIA CP-01 compliance. When *Auto Stay* is enabled and the system is armed in the **Away** mode, the system will change to the **Stay** mode if an exit/entry sensor is not violated during the exit delay. If the system is remotely armed in **Away** mode using a keyfob, telephone, mobile app, or computer, the auto-stay feature will not switch the system to **Stay** mode.	**(1) Enabled ‡**
Q27	**Select Exit Delay Restart (0 to 1)** This feature must be enabled for ANSI/SIA CP-01 compliance. When *Exit Delay Restart* is enabled, re-entering the premises through an exit/entry door during the exit delay will restart the exit delay. The restart of the exit delay will only occur one time; further violations of an exit/entry sensor will not extend the exit delay.	**(1) Enabled ‡**
Q28	**Select Quick Exit (0 to 1)** The quick exit feature allows the user to start the exit delay while the system is armed. When enabled, a **Quick Exit** button appears on the Security screen. Press **Quick Exit** while the system is armed when the user wants to leave through an exit/entry door. After the exit delay expires, the system will return to the **Armed** mode it was in before (either **Stay** or **Away** mode).	**(1) Enabled**
Q29	**Enter Periodic Test, in Days (0-255)** Recurring test reports can be automatically sent to the Central Station at a specified number of days. To disable this feature, select *(0) Disabled*.	**30 Days**

GC2 SYSTEM SETTINGS (Q5-Q97)		
Q#	**Question**	**Default**
Q31	**Enter Cancel Time, in Minutes (5-255)** The minimum setting for ANSI/SIA CP-01 compliance is 5 minutes. The number of minutes can be increased (up to 254 minutes) without affecting ANSI/SIA CP-01 compliance. A Cancel Report will be sent to the Central Station after an alarm, if the system is disarmed within the programmed time. To always send a Cancel Report when the system is disarmed after an alarm, enter "*255*." See *Q32: Cancel Display* for info on displaying when a Cancel Report is sent.	**5 Minutes ‡**
Q32	**Select Cancel Display (0 to 1)** This feature must be enabled for ANSI/SIA CP-01 compliance. When enabled, a cancel report will be sent to the Central Station after an alarm, if system is disarmed within programmed time. The panel can also display that a cancel report was sent. See *Q31: Cancel Time, in Minutes* for info on setting the cancel report trigger time.	**(1) Enabled ‡**
Q33	**Select Cross Sensor 47-48 (0 to 1)** When enabled, sensors 47 and 48 must both be violated during a set time to trigger an alarm. This is called "cross sensor" verification. If only one sensor (47 or 48) is violated, the alarm will not trigger, but a trouble report will be sent for the sensor that triggered. **NOTE**: CO and Fire zone cannot be used for cross sensors. Refer to *Q34: Cross Sensor Timeout, in Seconds* for information on setting the cross sensor timeout.	**(0) Disabled**
Q34	**Enter Cross Sensor Timeout, in Seconds (10-120)** The cross sensor timeout is the maximum period of time allowed between violation of sensors 47 and 48 that will trigger an alarm. If *both* sensors *are* violated within this time period, an alarm will be triggered. If *both* sensors *are not* violated within this time period, an alarm will not be triggered. Cross sensor verification must be enabled with *Q33: Cross Sensor 47-48* for this feature to function.	**10 Seconds**
Q35	**Select Abort Window Dialer Delay (0 to 2) (1)** The dialer (digital communicator) delays calling Central Station to allow users enough time to cancel false alarms before a report is sent. The delay time can be increased to 45 seconds without affecting ANSI/SIA CP-01 compliance only if the combination of *Q35* and *Q6* or *Q7* does not exceed 1 minute. To change the setting, select: *(0) 15 Seconds*, *(1) 30 Seconds)*, or *(2) 45 Seconds*. **NOTE**: The dialer delay can be disabled for each sensor without affecting ANSI/SIA CP-01 compliance.	**30 Seconds ‡**
Q36	**Select Burglary Bell Cutoff (0 to 4)** When a burglary alarm is triggered, the bell will sound until the burglary bell cutoff time expires. To change the Burglary Bell cutoff time, select one of the following: *(0) 4 Minutes, (1) 8 Minutes, (2) 12 Minutes, (3) 16 Minutes,* or *(4) Unlimited.* **NOTE**: The 24-hour Auxiliary Alarm Zone (08) does not follow the burglary bell cutoff time and will sound the panel's local alarm until a User Code is entered. The Auxiliary Alarm Zone does not trigger the external siren (if used).	**(0) 4 Minutes**
Q37	**Select Fire Bell Cutoff (0 to 4)** When a fire alarm is triggered, the bell sounds until the fire bell cutoff time expires. To change the fire bell cutoff time, select one of the following: *(0) 4 Minutes, (1) 8 Minutes, (2) 12 Minutes, (3) 16 Minutes,* or *(4) Unlimited.*	**(0) 4 Minutes**
Q38	**Enter Time to Detect AC Loss, in Minutes (1-30)** When AC power is lost, the system displays a power loss alert ⚠ after specified time. When power is restored, the alert is automatically cleared after 1 minute. **NOTE**: After the AC power alert ⚠ is displayed or clears, the AC power loss report or AC power restore report can be sent to the Central Station immediately, or at a random time, see *Q39: Random AC Loss Report Time*.	**10 Minutes**

<table>
<tr><th colspan="3">GC2 SYSTEM SETTINGS (Q5-Q97)</th></tr>
<tr><th>Q#</th><th>Question</th><th>Default</th></tr>
<tr><td>Q39</td><td>Select Random AC Loss Report Time (0 to 1)
When enabled, the system will report AC power loss and AC power restore at a random time of up to 45 minutes after the event occurs. This helps to reduce Central Station congestion due to a widespread power outage affecting many panels at once. The random AC power status report timer is triggered based on the time set by Q38: Random AC Loss Report Time.</td><td>(1) Enabled</td></tr>
<tr><td>Q40</td><td>Enter CS #2 Phone Number (0-25 digits)
The Central Station Telephone #2 is dialed as backup in case Telephone #1 does not connect. Press Shift to access the pound (#) and star (*) symbols. The P button adds a 3-second pause to the dialing.</td><td>No Default</td></tr>
<tr><td>Q41</td><td>Enter CS #2 Account Number (4 digits)
The account number for Central Station #2 is always four digits and can include some alpha characters. The Shift button accesses B, C, D, E, and F characters.</td><td>No Default</td></tr>
<tr><td>Q42</td><td>Select Remote Control Phone (0 to 3)
This setting controls remote telephone access to the system. Options include: (1) Data Only, (2) Voice Only, (3) Data and Voice, or (0) Disabled.
• The data option is for the installer. It allows access for programming and operating the system with custom PC downloader software.
• The voice option is for the subscriber. It allows the subscriber to call the system from an off-site phone (using a valid user code), to get the status of the system, and to perform remote commands (arm in any mode, disarm, bypass, get system status, and turn on or turn off the open collector output) by entering touch tones. The status is reported back via voice prompts.
If voice access is enabled, to connect to the panel, the subscriber must call the telephone number the panel is connected to, wait for 1 or 2 rings, then hang up and call again within 10-45 seconds. The panel will answer the call and prompt the user to enter their code.
• If a valid code is entered: the system will announce the current system status.
• If an invalid code is entered: the panel will ask for the code again.
• After 2 invalid attempts: the panel will disconnect.
• After 2 calls, with 2 invalid attempts each: the panel will lock for 30 minutes.
<table>
<tr><th>Telephone Key</th><th>Remote Control Phone Mode</th></tr>
<tr><td>1</td><td>System status report</td></tr>
<tr><td>2</td><td>Arm the system in Away mode</td></tr>
<tr><td>3</td><td>Arm the system in Stay mode</td></tr>
<tr><td>4</td><td>Disarm the system</td></tr>
<tr><td>5</td><td>Turn on the auxiliary output</td></tr>
<tr><td>6</td><td>Turn off the auxiliary output</td></tr>
<tr><td>7</td><td>Stop the system status report</td></tr>
<tr><td>8</td><td>Disconnect (hang up)</td></tr>
<tr><td>9</td><td>Repeat command menu</td></tr>
<tr><td>#</td><td>Bypass all open sensors and arm system</td></tr>
</table>
NOTE: Remotely arming the system to Away mode will not start an exit delay or activate Auto Stay mode (if enabled).</td><td>(3) Data and Voice</td></tr>
<tr><td>Q43</td><td>Enter Installer Code (4 digits)
This is a code that installation technicians use to access the Installer Toolbox on the panel. It must be unique from the master user code and all other user codes.
IMPORTANT! If you change the Installer Code, always write it down so that you can access the system later.</td><td>1561</td></tr>
</table>

GC2 SYSTEM SETTINGS (Q5-Q97)		
Q#	**Question**	**Default**
Q44	**Select Lock Installer Programming (0 to 2)** This feature is provided to prevent takeovers. The panel can be set to limit an installer's access to programming after a period of 48 hours (starting when the installer exits **System Configuration** mode). The options are available: • ***(0) Disabled***: provides unlimited full access to programming (no lockout). • ***(1) No access to programming***: denies access to programming after 48 hours. • ***(2) Limited access to programming***: after 48 hours, the installer will be able to view but not change the following: The Central Station phone # and account #, lock installer programming, download ID, and default lockout fields. After the 48-hour lockout timer has locked out the system, the timer can be reset through the cell radio or PC download by remotely setting this question to (*0*) or (*2*). Setting the option to (*0*) or (*2*) will restart the 48-hour lockout timer.	**(0) Disabled**
Q45	**Select Lock Default Programming (0 to 2)** The panel may be able to be hard reset (or soft reset from the **Installer Toolbox**) to its factory default values depending on the value entered for this question. The panel is hard reset by pressing and holding the **+** and **Home** buttons while applying power to the panel. The default feature is provided to prevent takeovers. Three options are available: • ***(0) Default All***: allows resetting the panel to factory defaults. • ***(1) Default All Except CSID, Account/Phone, Lockouts***: allows default of some, but not all options. • ***(2) Default None***: does not allow default of any of the options (denies hard and soft resetting of the panel). **NOTE**: If option *(0)* or *(2)* is selected, the option takes effect after the system runs for 48 hours. This allows the installer to go back and make changes if required.	**(0) Default All**
Q46	**Select Trouble Doesn't Sound at Night (0 to 1)** When enabled, the panel will suppress panel trouble beeps (such as AC loss, system low battery, sensor low battery or RF supervision, panel tamper while disarmed, etc.) from sounding from 10 PM to 9 AM. The trouble alerts are still displayed and immediately reported to the Central Station, and can be acknowledged, but they won't sound beeps until after 9 AM. If the trouble condition(s) self-clear or are acknowledged before 9 AM, no trouble beeps sound after 9 AM (the conditions are still recorded in the event log). • ***(1) Enabled***: suppresses trouble beeps from 10 PM to 9 AM. • ***(0) Disabled***: allows trouble beeps at any time. **For UL 985 compliance** (which applies to Household Fire Warning System Units): this setting (*Q46: Select Trouble Doesn't Sound at Night*) must be set to *(0) Disabled*.	**(1) Enabled**
Q47	**Select Troubles Resound After Holdoff (0 to 7)** Fire and CO sensors are required to re-sound trouble beeps every four (4) hours until the trouble is resolved, even if the trouble is acknowledged at the panel. The panel can be set to delay re-sounding these types of trouble beeps for 1-7 days. • ***(0) Disabled***: allows trouble beeps for CO and fire sensors to r e-sound every four (4) hours after being acknowledged. • To delay re-sounding trouble beeps for CO and Fire sensors, select *(1-7) days*. **For UL 985**: This setting must be set to *(0) Disabled.*	**(0) Disabled**
Q48	**Enter Download CSID (6 digits)** The system supports a six (6)-digit CSID code that is used for remote telephone programming of the panel. This code is verified when the panel connects with the downloading software. If the CSID code does not match the downloading software, the panel will deny the connection. • The CSID code can be entered manually with this programming question. • If this field is left with the default *(000000)*, the first time the downloading software connects with the panel, the field will be filled with the software's CSID.	**000000**

GC2 SYSTEM SETTINGS (Q5-Q97)		
Q#	**Question**	**Default**
Q49	**Select Programming Mode Entry Reports to CS (0 to 1)** When enabled, a report will be sent to the Central Station any time installer programming mode is entered and exited. **NOTE**: This report can only be sent through the telephone dialer. It is not supported through the GSM (Cellular) Radio Module.	**(0) Disabled**
Q50	**Select Trouble Reports to CS (0 to 1)** When enabled, Trouble Reports are sent to the Central Station when any sensor trouble condition occurs. **NOTE**: This setting does not affect Trouble Reports caused by panel conditions, only Trouble Reports caused by sensors.	**(1) Enabled**
Q51	**Select Manual Bypass Reports to CS (0 to 1)** When enabled, Manual Bypass Reports are sent to the Central Station when any sensor has been manually bypassed by the user.	**(0) Disabled**
Q52	**Select AC Loss Reports to CS (0 to 1)** When enabled, AC Power Loss Reports are sent to the Central Station if the panel loses AC power. **NOTE**: The AC power will have to be absent from the panel for the time set by programming question *Q38* before the AC power loss trouble alert is displayed (the default is 10 minutes). If programming question *Q39* is enabled, the actual AC power loss report will occur at a random time of up to four hours after the AC power loss trouble alert ⚠ is displayed. The panel's AC power icon displays the power status immediately. A red "X" over the icon indicates no AC power.	**(1) Enabled**
Q53	**Select System Low Battery Reports to CS (0 to 1)** When enabled, Low Battery Reports are sent to the Central Station if the panel's battery tests low.	**(1) Enabled**
Q54	**Select RF Low Battery Reports to CS (0 to 1)** When enabled, Sensor Low Battery reports will be sent to the Central Station if a sensor battery tests low and sends a low battery transmission to the panel.	**(1) Enabled**
Q55	**Select Opening Reports to CS (0 to 1)** When enabled, Opening Reports will be sent to the Central Station each time the system is disarmed. The user or keyfob # will be indicated in the Opening Report.	**(0) Disabled**
Q56	**Select Closing Reports to CS (0 to 1)** When enabled, Closing Reports will be sent to the Central Station each time the system is armed. The user or keyfob number will be indicated in the closing report. If Quick Arming is enabled, User #0 is indicated for the Closing Report.	**(0) Disabled**
Q57	**Select Alarm Restore Reports to CS (0 to 1)** When enabled, Alarm Restore reports will be sent to the Central Station after an alarm when either the bell timeout has been reached or the system is disarmed. If alarm restores are enabled and: • **Swinger shutdown is set to 2**: a restore will be reported if the sensor is closed (normal state) at bell cutoff or becomes closed after bell cutoff. • **Swinger shutdown is set to 1**: a restore will only be sent if the sensor is closed at the time of disarm. Restores are not sent if a sensor is in swinger shutdown until the time of disarm and the sensor is closed.	**(0) Disabled**
Q58	**Select Trouble Restore Reports to CS (0 to 1)** When enabled, Trouble Restore Reports will be sent to the Central Station when any sensor trouble condition clears/trouble conditions are restored.	**(1) Enabled**
Q59	**Select Bypass Restore Reports to CS (0 to 1)** When enabled, Bypass Restore Reports will be sent to Central Station when any sensor that was force bypassed or manually bypassed gets restored.	**(0) Disabled**

GC2 SYSTEM SETTINGS (Q5-Q97)		
Q#	**Question**	**Default**
Q60	**Select AC Restore Reports to CS (0 to 1)** When enabled, AC Power Restore Reports will be sent to the Central Station when the panel regains AC power after an AC power loss. **NOTE**: The AC power will have to be restored to the panel for one minute before the AC power loss trouble alert automatically clears. If *Q39* is enabled, the actual AC power restore report will occur at a random time of up to 4 hours after the AC power loss trouble alert ⚠ has cleared. **NOTE**: The panel's AC power icon displays the power status. A red "X" over the icon indicates no AC power.	**(1) Enabled**
Q61	**Select System Low Battery Restore Reports to CS (0 to 1)** When enabled, the panel will send a report to the Central Station when low battery conditions are restored.	**(1) Enabled**
Q62	**Select RF Low Battery Restore Reports to CS (0 to 1)** When enabled, the panel will send Sensor Low Battery Restore Reports to Central Station if a sensor battery has tested low and is now *OK*.	**(1) Enabled**
Q63	**Select Phone Fail Detect (0 to 1)** When enabled, the system will monitor the telephone line connected to the panel. If the telephone line is shorted or cut, the panel will indicate telephone line trouble by sounding trouble beeps and displaying the no-phone icon. If the optional GSM (Cellular) Radio Module is installed, the telephone line failure will still be reported if this question is enabled. **NOTE**: If *(0) Disabled* is selected in *Q8: Dialer*, telephone line failure detection is also disabled regardless of the setting specified here in *Q63: Phone Fail Detect.*	**(0) Disabled**
Q64	**Select Smart Test Reports (0 to 1)** Smart Test Reports are a way to reduce Central Station traffic. If Smart Test Reports are enabled and regular periodic test reports are enabled, any non-test report to the Central Station (alarm, restore, trouble, etc.) during the normal operation of the system will reset the periodic test report timer. Periodic test reports would only be sent if the panel has not reported in any way to the Central Station.	**(0) Disabled**
Q65	**Select RF Jam Causes Trouble (0 to 1)** The system can monitor the panel's sensor receiver and detect whether a transmitter is stuck on the air and causing jamming. When jam detect is enabled, the panel will indicate a trouble condition if RF jamming is detected. **NOTE**: This programming question only functions if trouble reports are enabled with programming question *Q50.*	**(0) Disabled**
Q66	**Select Daylight Saving (0 to 1)** When enabled, the panel will adjust its displayed clock and internal clock for Daylight Saving Time (DST). The system default is set to use the current start (March) and end (November) dates for the United States. If the cell radio is used, the time will be automatically adjusted regardless of this setting. **NOTE**: If enabled, you must answer programming questions *Q67*, *Q68*, *Q69*, and *Q70* to modify the start and stop values for DST.	**(1) Enabled**
Q67	**Select Daylight Saving Start Month (01 to 12)** This allows you to change the start month for your country, region, or state, enter the desired month, *(01-12) January - December*.	**(03) March**
Q68	**Select Daylight Saving Start Sunday (1 to 7)** This allows you to change the start week. Enter the *1st, 2nd, 3rd, 4th, last, second from last,* or *third from last (1-7)* as the daylight saving start week.	**(2) 2nd**
Q69	**Select Daylight Saving End Month (01 to 12)** This allows you to change the end month for your country, region, or state. Enter the desired month, *(01-12) January - December.*	**(11) November**

GC2 SYSTEM SETTINGS (Q5-Q97)		
Q#	**Question**	**Default**
Q70	**Select Daylight Saving End Sunday (1 to 7)** This allows you to change the end week. Enter the *1st, 2nd, 3rd, 4th, last, second from last*, or *third from last (1-7)* as the daylight saving end week.	**(1) 1st**
Q71	**Select System Tamper Causes Trouble (0 to 1)** A tamper switch on the panel detects if the case has been opened. When enabled, a tamper switch activation will cause a trouble indication on the panel if the system is disarmed, and an alarm if the system is armed.	**(1) Enabled**
Q72	**Select Quick Bypass (0 to 1)** Normally, sensors that are violated (open) at the time the system is armed will require the user to enter their code to force bypass them. When this feature is set to enabled, a code is not required to bypass open sensor(s) and complete the arming.	**(0) Disabled**
Q73	**Select Disarming Keyfob After Alarm Alert (0 to 1)** When enabled, the panel will produce a unique sound when it's disarmed with a keyfob after an alarm has occurred. Four beeps will sound from the panel's speaker, four chirps will sound from the external sounder (if installed). This feature serves as a safety alert to the user so they can enter the protected premises with caution.	**(0) Disabled**
Q74	**Select Keyfob Arm/Disarm Confirmation (0 to 1)** When enabled, the panel will produce a unique sound when it's armed or disarmed with a keyfob. The panel's speaker will sound one beep when arming and two beeps when disarming. The external sounder (if installed) will sound one chirp when arming and two chirps when disarming (four beeps after an alarm if *Q73* is enabled). This feature indicates to the user that their keyfob signal was received by the panel in case other arm/disarm indications (armed LED, etc.) are not available or visible.	**(0) Disabled**
Q75	**Select Auto Unbypass for Manual Bypass (0 to 1)** Violated (open) sensors can be manually bypassed by the user through the Customer Toolbox or force bypassed at the time of arming. Force bypassed sensors automatically have their bypasses removed when the system is disarmed. Manually bypassed sensors can have their bypass automatically removed at disarming or have bypasses remain in place. • ***(1) Enabled***: automatically removes bypasses from manually bypassed sensors when the system is disarmed. • ***(0) Disabled***: leaves manually bypassed sensors as bypassed when the system is disarmed.	**(1) Enabled**
Q76	**Select Force Bypass Reports (0 to 1)** When enabled, the system will report which sensors have been force bypassed by the user when the system is armed. Forced bypassed sensors are always recorded in the event log, regardless of how this question is programmed.	**(0) Disabled**
Q77	**Select Event Log (0 to 3)** To control the amount of event log entries, the events that get recorded into the system's event log can be selected by type. This setting filters the events that populate the event log. To change event log filters, select one of the following: • ***(0) Disabled*** (no events logged) • ***(1) All Events Except Open, Closing and Bypass*** • ***(2) All Events Except Open and Closing*** • ***(3) All Events***	**(3) All Events**

GC2 SYSTEM SETTINGS (Q5-Q97)		
Q#	**Question**	**Default**
Q78	**Select Output (00-12)** **Legacy GC2 only:** The system's open collector output is available on the panel's terminal block to connect to an external device. The conditions that cause the open collector output to activate are programmable. To change this mode, select one of the following: • ***(0) Disabled*** • ***(01) Activated When Armed*** • ***(02) Activated When Disarmed*** • ***(03) Activated on FTC*** (Failure to Communicate) • ***(04) Activated on Siren Supervision*** • ***(05) Activated on Radio Fault*** • ***(06) Activated on Burglary Alarm*** • ***(07) Activated on Fire Alarm*** • ***(08) Activated on Any Alarm*** • ***(09) Activated on Any System Trouble*** • ***(10) Z-Wave Activation*** (This option is not currently active) • ***(11) Follows Internal Sounder Alarm*** • ***(12) Follows Exit/Entry Beeps*** **GC2e:** Does not have this question, as there are no Open Collector outputs.	**(11) Follows Internal Sounder Alarm ‡**
Q79	**Select Z-Wave Feature (0 to 3)** The Z-Wave home services feature can be enabled or disabled with various remote control access options: • ***(0) Disabled and Hidden***: hides the **Services** button. • ***(1) Disabled but Visible***: shows the **Services** button, but disables it from use. • ***(2) Enabled on Panel, Remote Access Disabled***: shows the **Services** button and disables off-site remote control. • ***(3) Enabled on Panel; Rules Disabled, Remote Access Enabled***: displays the **Services** button, but will show a message that the feature is currently disabled and the user should call the installer.	**(3) Enabled with Local Rules**
Q80	**Select Z-Wave Switches Feature (0 to 1)** When enabled, the Home Service's **Switches** button will display. To hide it, select *(0) Disabled*. This question only functions if *Q79: Z-Wave Feature* is set to *(2)* or *(3)*.	**(1) Enabled**
Q81	**Select Z-Wave Thermostats Feature (0 to 1)** When enabled, the Home Service's **Thermostats** button will display. To hide the button, select *(0) Disabled*. This question only functions if *Q79: Z-Wave Feature* is set to *(2)* or *(3)*.	**(1) Enabled**
Q82	**Select Z-Wave Door Locks Feature (0 to 1)** When enabled, the Home Service's **Door Locks** button will display. To hide the button, select *(0) Disabled*. This question only functions if the Z-Wave feature enable question *Q79: Z-Wave Feature* is set to *(2)* or *(3)*.	**(1) Enabled**
Q83	**Select Temperature Display Units (0 to 1)** The panel can display temperature in Fahrenheit or Celsius. This question only functions if *Q79: Z-Wave Feature* is set to *(2)* or *(3)*, and *Q81: Z-Wave Thermostats Feature* is set to *(1) Enabled*.	**(0) Degrees Fahrenheit**
	Select Date and Time Format (0 to 2)	**(0) MM- DD-YY H:MM AM/PM**
	Select Monetary Symbol (0 to 8)	**(0) $**
Q84	**Select Services Require Master Code** When enabled, the master user code is required to access the Services and the Z-Wave device configurations. This keeps unauthorized users from being able to change Z-Wave settings, such as temperature, lights, and locks.	**(0) Disabled**

GC2 SYSTEM SETTINGS (Q5-Q97)		
Q#	**Question**	**Default**
Q85	**Select Master User Access to Z-Wave Toolbox (0 to 1)** When enabled, the Installer Code or Master Code is required to access the **Z-Wave Toolbox** menu. When disabled, only the Installer Code will provide access to the **Z-Wave Toolbox** menu. When enabled, the Installer code is still required to access the **Advanced Toolbox** menu. This prevents end users from adding or removing Z-Wave devices.	**(0) Disabled**
Q86	**Select Disable Siren After Two-Way Audio (0 to 1)** This setting enhances system operation in personal emergency applications and also provides the dealer with the option of the siren sounding until the bell cut off or until the end of a two-way voice session. • ***(0) Disabled***: Siren resumes after 2-way audio (if bell cut off timer hasn't expired). • ***(1) Enabled***: Siren shuts off after a 2-way audio session.	**(0) Disabled**
Q87	**Select Keyfob/Remote Arming Mode on System Not Ready (0 to 2)** This setting controls how the system will react when there are open sensors and the system is armed remotely. • ***(0) Disabled***: automatically bypasses all sensors that are open when the system is armed remotely. If a sensor restores while the system is armed, the sensor's bypass will be removed, and the sensor will be ready to trigger an alarm. • ***(1) Auto-Bypass***: automatically bypasses all sensors that are open when the system is armed remotely and keep all bypasses in place during the arming cycle, even if a sensor restores. • ***(2) Arm Only When Ready***: prevents arming remotely when any sensor is open.	**(0) Auto-Bypass with Zone Participation on Restore**
Q88	**Select Z-Wave Siren Mode (0 to 1)** This selects which alarm types will activate a Z-Wave siren linked to the panel. • ***(0) Sound for Burglary and Fire/CO***: Z-Wave siren sounds during both burglary and Fire/CO alarms. • ***(1) Sound for Burglary Only***: Z-Wave siren only sounds during burglary alarms.	**(0) Sound for Burglary and Fire/CO**
Q89	**Select Allow Backlight Always On (Demo Mode)** When enabled, the end user can program the "*always on*" option for backlight programming. Due to a small percentage of image "*ghosting*" on the panel (because the backlight never goes off), this question was created but has been defaulted to *(0) Disabled*.	**(0) Disabled**
Q90	**Select Energy Feature (0 to 2)** Select *(1) Disabled but Visible* to show but not activate the energy features. You can also select *(2) Enabled* to turn the energy feature ON.	**(0) Disabled and Hidden**
Q91	**Select Radio Modem Supplier** **For UL 1610 compliance**: this question (*Q91: Select Radio Modem Supplier*) must be set to *(1) Radio Modem Supplier 1*. Additionally, Central-Station Burglar-Alarm Units (*Q96* & *Q97*) must also be set to (1) *Enabled*.	**Varies by Supplier**

Option	Supplier
(0) No Radio Modem Supplier	This is the default setting
(1) Radio Modem Supplier 1	Alarm.com
(2) Radio Modem Supplier 2	Telguard
(3) Radio Modem Supplier 3	
(4) Radio Modem Supplier 4	
(5) Radio Modem Supplier 5	
(6) Radio Modem Supplier 6	

NOTE: If you enable *Q44: Select Lock Installer Programming*, you will not be able to change this setting.

GC2 SYSTEM SETTINGS (Q5-Q97)		
Q#	**Question**	**Default**
Q92	**Select Network Device (0 to 1)** When enabled, the *(1) Go!Bridge* option provides the installer with the following questions shown below to program the Go!Bridge IP Communicator settings.	**(0) none**
	Network Device ID (Read-Only) Only appears if *(1) Go!Bridge* is selected in *Q92 Select Network Device* (0 to 1) Press **Learn**. Then go to the Go!Bridge device and press the **Learn** button. For details, see the Go!Bridge IP Communicator *Installation Instructions*.	**0**
	Select Configuration Source (0 to 1) Select between *(1) Static* or *(2) DHCP (Dynamic Host Configuration Protocol).* The default setting *(0) DHCP* is the most common selection. The other option is *(1) Static and requires entry of a Device IP Address, Gateway IP Address, and Subnet Mask*.	**(0) DHCP**
	If (0) DHCP is selected in Select Configuration Source (0 to 1), the following sub-questions appear:	
	Select Port # (1 to 8) This option is automatically selected if you choose *(0) DHCP* in *Q: Select Configuration Source.* Select the port number for the back end server. *(1) Port 1, (2) Port 2, (3) Port 3, (4) Port 4, (5) Port 5, (6) Port 6, (7) Port 7,*or *(8) Port 8*. After configuring the required port, press **Next** on the panel. Typically, you will skip this question unless additional programming is required.	**(1) Port 1**
	Select Used (0 to 1) It is recommended you always select the default setting *(0) Disabled*. If you choose *(1) Enabled*, you will be prompted to enter the port value. Typically, you will skip this question unless additional programming is required.	**(0) Disabled**
	Enter Port Value (0-65535) Only appears if *(1) Enabled* is selected in *Select Used (0 to 1)*. It is recommended that you always select the default setting *(0) Disabled*. If you select *(1) Enabled* in *Select Used* (0 to 1), use the numeric keypad to enter the port value. **NOTE**: The port value is the port number for Transmission Control Protocol (TCP) communication. Port numbers can range from 0 to 65535. Typically, you will skip this question unless additional programming is required.	**(0) Disabled**
	Enter Port Forward IP Address Only appears if *(1) Enabled* is selected in *Select Used (0 to1).* Typically, you will simply accept the default IP Address value that appears.	**000.000.000.000**
	If (1) Static is selected in Select Configuration Source (0 to 1), the following sub-questions appear	
	Enter Device IP Address Only requires an answer if you selected *(1) Static* in *Q: Select Configuration Source.* Use the numeric keypad to enter the IP Address for the Go!Bridge IP Communicator.	**000.000.000.000**
	Enter Gateway IP Address Only requires an answer if you selected *(1) Static* in *Q: Select Configuration Source*. Use the numeric keypad to enter the IP Address for the access point to the external network. Typically, this is the IP Address of the local network router.	**000.000.000.000**
	Enter Subnet Mask Only requires an answer if you selected *(1) Static* in *Q: Select Configuration Source*. Use the numeric keypad to enter the IP Address for the subnet mask for the network.	**000.000.000.000**
Q93	**Enter Broadband Network Failure Time (1-255)** This sets the amount of time required for triggering a trouble condition if the system detects that the broadband network has lost its connection. After the connection has been restored, the trouble condition clears. *The Go!Bridge IP Communicator must be installed to use this function.*	**30**

GC2 SYSTEM SETTINGS (Q5-Q97)		
Q#	**Question**	**Default**
Q94	**Select Broadband Network Failure Causes Trouble (0 to 1)** Specifies whether or not the panel will sound and display a trouble alert if the *Go!Bridge IP Communicator* loses its broadband connection. The trouble alert can be silenced by the user at the panel (broadband trouble is logged regardless of this setting). When the broadband connection is restored, the trouble indications automatically clear. • ***(1) Enabled***: allows Go!Bridge network failure trouble indications. • ***(0) Disabled***: turns off Go!Bridge trouble indications. *The Go!Bridge IP Communicator must be installed to use this function.*	**(1) Enabled**
Q95	**Select Broadband Network Failure Reports (0 to 1)** When enabled, the panel will report broadband network failures when the IP Communicator loses its broadband connection. *The Go!Bridge IP Communicator must be installed to use this function.*	**(1) Enabled**
Q96	**Select Send Report 3 Times on Panel Tamper (0 to 1)** This option configures the system to transmit three (3) reports to the Central Station when the system detects that the panel's back plate is in a tamper condition. • ***(1) Enabled***: the system transmits three (3) reports to the Central Station. • ***(0) Disabled***: the system only transmits a single report to the Central Station. **For UL 1610 compliance**: Central-Station Burglar-Alarm Units (*Q96* & *Q97*) must be set to (1) *Enabled*. Additionally, *Q91* must be set to *(1) Radio Modem Supplier 1*.	**(1) Enabled**
Q97	**Select Sound on Normal Closing Acknowledgment (0 to 1)** Configures the system to emit a sound when the system acknowledges that an open sensor has closed (i.e., returned to its normal state). • ***(1) Enabled***: the system emits a sound on sensor closing. • ***(0) Disabled***: no sound is emitted on sensor closing. **For UL 1610 compliance**: Central-Station Burglar-Alarm Units (*Q96* & *Q97*) must be set to (1) *Enabled*. Additionally, *Q91* must be set to *(1) Radio Modem Supplier 1*.	**(1) Enabled**

‡ Indicates the default setting for **ANSI/SIA CP-01** compliance.

GC3 Programming

GC3 Default Access Codes

Code	Default	Access
Installer Code *	**1561**	• For the installer • Provides access to **Advanced Installer** Menus (ex. **Smart Home Settings**) • Unable to disarm the device
Master Code *	**1111**	• For the user • Allows the user to disarm the device • Some menu options may be disabled (unless enabled by the installer)

* GC3 panels with firmware 3.2.3 or later have the option to enable a 6 digit pin code. When switching from a 4 to 6 digit pin code, all codes are appended with "11" (the default 6 digit Installer Code = **156111**, the default 6 digit Master = **111111**). Refer to ***Q71*** in the ***Panel Programming*** section of this document for more information.

GC3 Installer Toolbox

There are 2 ways to access the **Installer Toolbox.**

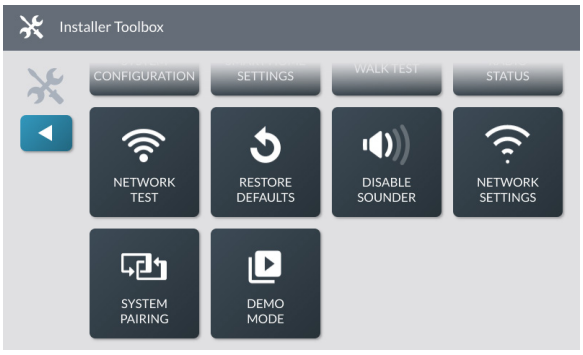
Option A

1. Press the **2GIG logo** on the GC3 home screen.
2. Enter the **Installer Code** (default code = **1561**).

Option B

1. Press **System Settings** on the GC3 home screen.
2. Enter the **Installer Code** (default code = **1561**).
3. Scroll, then press **Installer Toolbox.**
4. If prompted, enter the **Installer Code** (default code = **1561**).

Installer Toolbox Menu Options



Radio Status

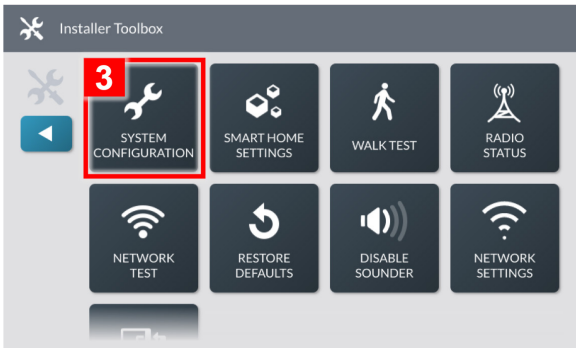
The minimum signal strength is 2/6.

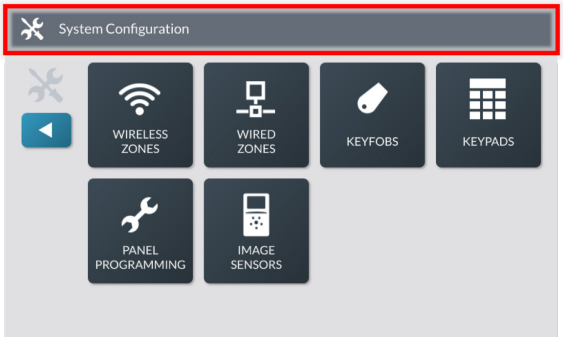
GC3 System Configuration

To access **System Configuration**:

1. Press the **2GIG logo** on the GC3 home screen (*see image on previous page*).
2. Enter the **Installer Code** (default code = **1561**).
3. Press **System Configuration** and the menu will display.

NOTE: *Refer to the **System Configuration Programming Guide** in the **Field Guide** for details on how to program each of the following, as well as a detailed list of programming questions.*





The following is based firmware version GC3 v3.2 or later (versions prior to 3.2 do not have Smart Areas).

Wireless Zones

- Sensor #
- Sensor Type
- Equipment Code
- Smart Areas Assignment
- Serial Number
- Equipment Age
- Sensor Loop
- Transmission Delay
- Voice Descriptor
- Sensor Reports
- Sensor Supervised
- Sensor Chime

Wired Zones

- Wired Zone #
- Sensor Type
- Smart Areas Assignment
- Equipment Age
- Normal State
- Transmission Delay
- Voice Descriptor
- Sensor Reports
- Sensor Chime

Keyfobs

- Fob #
- Fob Used
- Equipment Code
- Serial Number
- Smart Areas Assignment
- Equipment Age
- Emergency Key
- Fob Can Disarm
- Voice Descriptor
- Arm with No Entry Delay
- Fob Output

Keypads

- Keypad #
- Keypad Used
- Equipment Code
- Device ID
- Smart Areas Assignment
- Equipment Age
- Emergency Keys
- Voice Descriptor

Panel Programming

- **Q1-Q3:** Installer Code & Lock Programming
- **Q4-Q6:** Exit & Entry Delay
- **Q7:** Remote Services Provider
- **Q8-Q9:** 2-way Voice & Disable Siren
- **Q10-Q12:** Emergency Keys & Quick Arming
- **Q13-Q17:** Auto Stay & Exit Options
- **Q18-Q20** Keyfob Options
- **Q21-Q23:** Z-Wave & Services
- **Q25-Q27:** Swinger Shutdown & Cross Sensor Options
- **Q28:** Lack of Usage Notification
- **Q29-Q36:** Radio Modem Network
- **Q33-Q35:** Broadband Network Failure (Wi-Fi)
- **Q37-Q39:** Alarm Cancel Options
- **Q40-Q42:** Bell Cutoff &. Trouble at Night
- **Q43-Q45:** Z-Wave Siren & Outputs
- **Q46-Q47:** AC Loss Options
- **Q48-Q62:** Reports to CS & Smart Test Report
- **Q63-Q64:** Trouble Options
- **Q65-Q67:** Bypass Report & Event Log
- **Q68:** Backlight Always On (Demo Mode)
- **Q69-70:** Smart Areas (Partitioning)

Programming a Wireless Zone

The GC3 Panel lets you program a maximum of 100 wireless zones. To begin, navigate to the **Installer Toolbox**, then tap **System Configuration** > **Wireless Zones**.

GC3 WIRELESS ZONES		
Step		**Default**
1	**Wireless Zone #** Select the Wireless Zone number for the peripheral being programmed, then press **Edit Zone**. Available zones appear in gray text. Zones already programmed appear in black text.	
2	**Sensor Type** Choose the sensor type* for the peripheral being programmed.	
3	**Sensor Equipment Type** This only appears if certain sensor types (*04, 06, 07, 10,* or *23*) are selected. The options for this choice will vary depending on the selected sensor type.	**Varies by RF sensor type**
4	**Equipment Code** Enter or select the equipment code* for the sensor/peripheral.	**(0000) Other**
5	**Serial Number (7-digit TXID)** • **Keypad Entry**: Use the touchscreen keypad to type in the TXID – **OR** – • **Learning Mode Entry**: Press **Learn** on the GC3, then trigger the peripheral. Once the panel shows the serial number has been received, press **Accept**.	**0000000**
6	**Smart Areas Assignment** Select a Smart Area (Partition) to assign the sensor (**S1, S2, S3** or **S4**). **NOTE**: Although you can assign sensors to any Smart Area, you must enable *Q69* (under **Panel Programming**) before they will function as intended.	**S1**
7	**Equipment Age** Specify whether the sensor is **New** or **Existing.**	**New**
8	**Sensor Loop Number** Specify the appropriate loop number,* which is a communication channel that informs the system how to respond when events are triggered.	**Varies with sensor model selected**
9	**Transmission Delay** When enabled (ON), the panel will use the transmission delay, which specifies the amount of time the system waits to initiate the digital transmission when an alarm is triggered. This setting *does not* apply to CO or smoke alarms.	**Enabled** **Disabled (for Fire and CO only)**
10	**Voice Descriptor** Create a voice descriptor* for the sensor using the system's built-in vocabulary. 1. Press **Edit Voice Descriptor** to reveal the touchscreen keypad. 2. Enter the first few letters of the desired word, then tap the word to select it. 3. Repeat step 2 to add another word (enter up to six words). 4. Tap **Done**.	**<None>**
11	**Sensor Reports** When enabled (ON), the panel sends a report to Central Station when a sensor triggers an alarm. If disabled, the sensor can still be used to trigger an alarm.	**Enabled**
12	**Sensor Supervision** When enabled (ON), the panel will check for regular, wireless transmissions from the sensor or peripheral. If the panel does not receive a transmission after a set amount of time, the system issues a loss of supervision trouble report. When disabled, sensors sill report to the Central Station. **NOTE**: Disable the **Sensor Supervised** for panic buttons as they are frequently moved out of the system's range when users leave the premises.	**Enabled**
13	**Sensor Chime** Choose the desired chime for the sensor or peripheral from the list.	**Disabled**

* Refer to the ***Programming Tables*** section of this document for a detailed list of equipment codes, loop numbers, voice descriptors, and more.

Programming a Wired Zone

The GC3 can be programmed with up to 2 wired sensors. To begin, navigate to the **Installer Toolbox**, then tap **System Configuration** > **Wired Zones**.

GC3 WIRED ZONES		
Step		**Default**
1	**Wired Zone #** Select the Wired Zone number for the peripheral being programmed, then press **Edit Zone**. Available zones appear in gray text. Zones already programmed appear in black text.	
2	**Sensor Type** Choose the sensor type* for the peripheral being programmed.	
3	**Smart Areas Assignment** Select a Smart Area (Partition) to assign the sensor (**S1, S2, S3** or **S4**). **NOTE**: Although you can assign sensors to any Smart Area, you must enable *Q69* (under **Panel Programming**) before they will function as intended.	**S1**
4	**Sensor Equipment Type** This only appears if certain sensor types (*04, 06, 07, 10,* or *23*) are selected. The options for this choice will vary depending on the selected sensor type.	**Varies by RF sensor type**
5	**Equipment Age** Specify whether the sensor is **New** or **Existing.**	**New**
6	**Normal State** Choose the normal state* for the circuit for the switching component for the wired sensor or peripheral. The options are: • ***Not Used***: Turns the switching component OFF and disables the use of the sensor or peripheral for the zone. • ***Normally Closed (NC)***: Sends an alert signal to the security system when the sensor's circuit is no longer in the NC state. E.g., if the security system was armed and a wired door/window contact programmed as NC goes into the NO state, the change from NC to NO would trigger an alarm. • ***Normally Open (NO)***: Sends an alert signal to the security system when the sensor's circuit is no longer in the NO state. E.g., if the security system was armed and a wired door/window contact programmed as NO goes into the NC state, the change from NO to NC would trigger an alarm. • ***End-of-Line Resistor (EOL)***: Use when an end-of-line (EOL) resistor is present. **NOTE**: An EOL resistor must be installed at the sensor, not at the panel.	**Not Used**
7	**Transmission Delay** When enabled (ON), the panel will use the transmission delay, which specifies the amount of time the system waits to initiate the digital transmission when an alarm is triggered. This setting *does not* apply to CO or smoke alarms.	**Enabled** **Disabled (for Fire and CO only)**
8	**Voice Descriptor** Create a voice descriptor* for the sensor using the system's built-in vocabulary. 1. Press **Edit Voice Descriptor** to reveal the touchscreen keypad. 2. Enter the first few letters of the desired word, then tap the word to select it. 3. Repeat step 2 to add another word (enter up to six words). 4. Tap **Done**.	**<None>**
9	**Sensor Reports** Select whether or not the system sends a report to Central Station when a sensor triggers an alarm (*Enabled* turns feature ON, *Disabled* turns feature OFF). If report feature is turned OFF, the sensor can still be used to trigger an alarm.	**Enabled**
10	**Sensor Chime** Choose the desired chime for the sensor or peripheral from the list.	**Disabled**

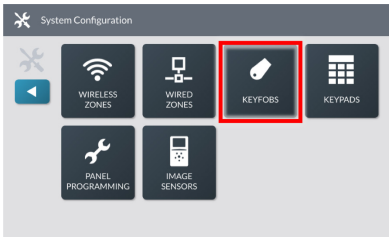
* Refer to the ***Programming Tables*** section of this document for a detailed list of sensor types, equipment codes, normal states, and more.

Programming a Keyfob

The GC3 lets you program up to 32 portable keyfobs.

To begin, navigate to the **Installer Toolbox**, then tap **System Configuration** > **Kefobs.**

Keyfobs will only arm/disarm Smart Area 1.



GC3 KEYFOBS		
Step		**Default**
1	**Fob #** Select the Keyfob # for the keyfob being programmed, then press **Edit Keyfob.**	
2	**Fob Used** Select to enable or disable the keyfob. When disabled, the keyfob cannot be used with the system.	**Unused**
4	**Equipment Code** Enter or select the equipment code* for the keyfob.	**(0000) Other**
5	**Serial Number (7-digit TXID)** • **Keypad Entry**: Use the touchscreen keypad to type in the TXID – **OR** – • **Learning Mode Entry**: Press **Learn** on the GC3, then press any button on the keyfob for three (3) to five (5) seconds. Once the panel shows that the serial number has been received, press **Accept**.	**0000000**
6	**Smart Areas Assignment** It is recommended you leave the Smart Assignment as S1 since keyfobs will only arm/disarm Smart Area 1.	**S1**
7	**Equipment Age** Specify whether the keyfob is **New** or **Existing.**	**New**
8	**Emergency Key** This function lets you choose whether simultaneously pressing the **Arm Away** and **Disarm** buttons on the keyfob triggers an emergency alarm. 24-hour auxiliary alarm options include: *Disabled, Auxiliary, Audible, Silent Panic,* and *Fire.*	**Disabled**
9	**Fob Can Disarm** Select to enable or disable whether the keyfob is allowed to disarm the system.	**Enabled**
10	**Voice Descriptor** Create a voice descriptor* for the keyfob using the system's built-in vocabulary. 1. Press **Edit Voice Descriptor** to reveal the touchscreen keypad. 2. Enter the first few letters of the desired word, then tap the word to select it. 3. Repeat step 2 to add another word (enter up to six words). 4. Tap **Done**.	**<None>**
11	**Arm with No Entry Delay** Select to enable or disable whether the keyfob will arm the system instantly without an exit delay (*Enabled* turns feature ON, *Disabled* turns feature OFF).	**Disabled**
12	**Fob Output** Select whether the auxiliary (*) button on the keyfob can be used to trigger the panel's Open Collector #1 output. • ***Disabled***: This deactivates the option. • ***Toggle Output***: Lets users press the **Auxiliary** (*) button on the fob to control the device is connected to the system's Open Collector Output #1. E.g., to use the keyfob to open/close a garage door. • ***Momentary Output***: Lets users press the **Auxiliary** (*) button on the fob to control the device that is connected to the system's Open Collector Output #1. E.g., to use the keyfob to turn system-controlled lights ON/OFF.	**Disabled**

* Refer to the ***Programming Tables*** section for a list of equipment codes, voice descriptors, and more.

Programming a Keypad

The GC3 lets you program a maximum of 8 keypads.*

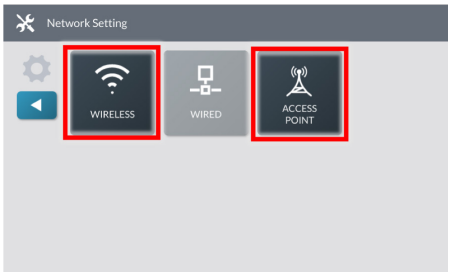
The steps to add/program will vary based on the keypad:

- **For a PAD1:** Use the **Steps to Program a Keypad** on the next page.
- **For a SP1 or SP2:** Begin with the **Steps to Prepare the GC3 and SP1/SP2 for Programming** below.

** Applies to GC3 Firmware Version 3.2 or later. Previous versions allow a maximum of 4 keypads.*

Steps to Prepare the GC3 and SP1/SP2 for Programming

Prior to programming an SP1 or SP2, you must do one of the following: ***A) Connect to Wi-Fi***, or ***B) Create an Access Point.***



A. Connect to Wi-Fi using a Wireless Network

1. On the GC3, press **System Settings**.
2. Enter the **Installer Code** (default = **1561**).
3. Scroll, then press **Network Settings.**
4. Press **Wireless**.
5. Select the correct wireless network **SSID** (ensure Wi-Fi is 2.4 GHz).
6. Enter the **Wireless Password**, then press **Next**.
7. Notate the **IP Address** (ex. 192.168.X.X).
8. Press the ◀ button until you return to the home screen.
9. Follow the specific steps below for the type of keypad being programmed:
   - **a. For an SP1**:
     - i. On the SP1, perform step 4 through 8 above, then move to the **Steps to Program a Keypad** on the next page.
   - **b. For an SP2**:
     - i. On the SP2, perform step 5 and 6 above.
     - ii. Enter the IP address of the GC3 panel (from step 7 above), then press the ✔.
     - iii. When the panel says '*Enter the Pairing Key from the Master Panel*', move to the **Steps to Program a Keypad** on the next page.

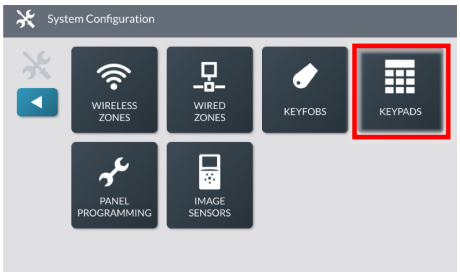
B. Create an Access Point

1. On the GC3, navigate to the **Installer Toolbox**.
2. Press **Network Settings.**
3. Press **Access Point.**
4. Select **Enable**.
5. Click **OK**.
6. Notate the **IP address** and **password** listed under the SSID for the 2GIG GC3.
7. Follow the specific steps below for the type of keypad being programmed:
   - **a. For an SP1**:
     - i. On the SP1, press **Wireless.**
     - ii. Select the correct network.
     - iii. Enter the **Password** (from step 5 above), then press **Next.**
     - iv. Wait for the SP1 to connect to the network.
     - v. Press the ◀ arrow on both the GC3 and SP1.
     - vi. Press the ◀ arrow on the GC3.
   - **b. For an SP2**:
     - i. On the SP2, select the wireless network that matches the **SSID** on the GC3.
     - ii. Enter the **Password** (from step 5 above).
     - iii. Enter the **IP address** (from step 5 above), then press the ✔.
     - iv. Wait for the SP2 to connect to the network.
8. Move to the **Steps to Program a Keypad** on the next page.

Steps to Program a Keypad

To begin, navigate to the **Installer Toolbox**, then tap **System Configuration** > **Keypads.** *

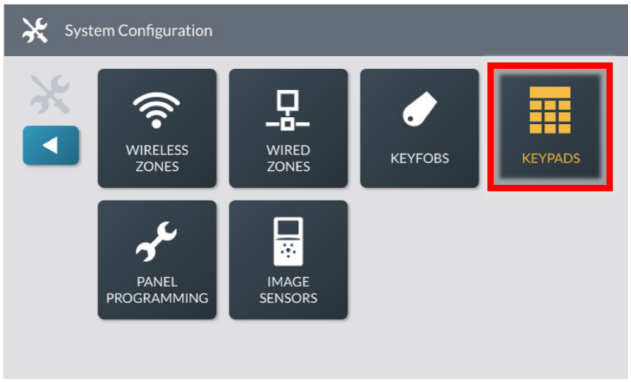
NOTE: *When paring an SP1 or SP2, you must start by completing the* **Steps to Prepare the GC3 and SP1/SP2 for Programming** *on the previous page.*

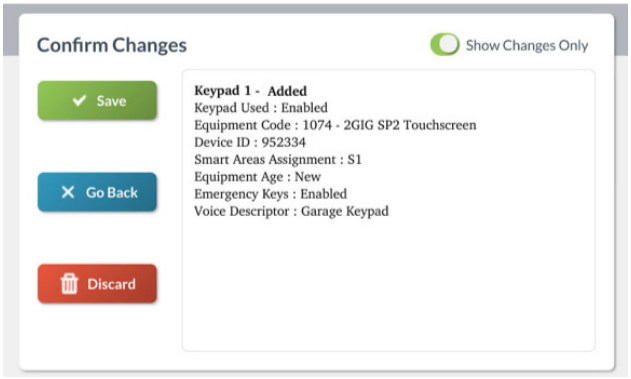


GC3 KEYPADS		
Step		**Default**
1	**Keypad #** Select the Keypad # for the keypad being programmed. For example, Keypad 1. Once a selection is made, press **Edit Keypad.** **NOTE**: A keypad is available for programming when it appears in gray text. A keypad that has already been programmed appears in black text.	
2	**Keypad Used** Select to enable or disable the keypad. When disabled, the keypad cannot be used with the system.	**Unused**
3	**Equipment Code** Enter or select the equipment code* for the keypad: PAD1 = 0867, SP1 = 1060, SP2 = 1074.	**(0000) Other**
4	**Device ID (Serial Number – 7-digit TXID)** **If connecting a PAD1 use one of the following two options:** • **Keypad Entry**: Use the keypad to type the TXID into the system – **OR** – • **Learning Mode**: Press **Learn** on the GC3, then press any button on the PAD1. Once the panel shows the serial number transmitted, press **Accept**.  **If connecting an SP1 or SP2, use the following steps:** 1. Press **Pair** on the GC3. 2. When the GC3 says '*Listening*'…. • **For an SP1**: press **Pair** on the SP1 keypad. • **For an SP2**: press the ✔ button on the SP2 screen that says, '*Enter the Pairing Key from the master panel*.'  3. Wait for the keypad to pair with the GC3. When it is connected, the GC3 will say '*SP1 Connected*' or '*SP2 Connected.*' • **For an SP1**: the SP1 screen will say '*Pairing Complete*', '*Synchronizing…*' and then stop on a screen that says '*System Inactive*.' It will remain on that screen until GC3 programming is completed and saved. • **For an SP2**: the screen will say '*Keypad Successfully Paired*.' Press **OK** on the SP2. The screen SP2 will then display a '*System Unavailable*' message until GC3. 4. Press the ▼ arrow on the GC3.	**0000000**
5	**Smart Areas Assignment** Select a Smart Area (Partition) to assign the keypad (**S1, S2, S3** or **S4**). Although you can assign keypads to any Smart Area, you must enable *Q69* (under **Panel Programming**) before they will function as intended.	**S1**
6	**Equipment Age** Specify whether the keypad is **New** or **Existing.**	**New**
7	**Emergency Key** Select to enable or disable the emergency keys for the keypad.	**Disabled**

GC3 KEYPADS		
Step		**Default**
8	**Voice Descriptor** Create a voice descriptor* for the keypad using system's built-in vocabulary. 1. Press **Edit Voice Descriptor** to reveal the touchscreen keypad. 2. Enter the first few letters of the desired word, then tap the word to select it. 3. Repeat step 2 to add another word (enter up to six words). 4. Tap **Done**.	**<None>**
9	**Save Changes** 1. Press **Return to System Configuration** on the GC3. 2. Press the ◀ arrow on the GC3. 3. Press **Save** on the GC3. 4. Wait for both devices to reboot. When they are ready, both devices will display the home screen.	

Remember, yellow text in the panel indicates changes have not been saved. To save changes, press ◀, then *Save*.





* Refer to the ***Programming Tables*** section for a list of equipment codes, voice descriptors, and more.

Panel Programming (Q1-Q71)

‡ In the table below, a double dagger (‡) indicates that this is the required setting for compliance with ANSI/SIA CP-01-2010: Control Panel Standard - Features for False Alarm Reduction.

GC3 PANEL PROGRAMMING (Q1-Q71)		
Q#	**Question**	**Default**
Q1	**Enter Installer Code** A code installation technicians use to access the **Installer Toolbox** on the panel. It must be unique from the master user code and all other user codes. **IMPORTANT!** If you change the Installer Code, always write it down for reference.	**1561 *** * If *Q71* is set to a 6 digit pin, the default is **156111**
Q2	**Lock Installer Programming** This feature is provided to prevent takeovers. The panel can be set to limit an installer's access to programming after 48 hours (starting when the installer exits System Configuration mode). When enabled, the following programming questions are locked out for 48 hours: *Q1, Q1, Q3*, and *Q7*. To restore access during the 48-hour period, installers must reset the lockout timer using the Cell Radio Module. • ***Disabled*** (OFF): provides full access to programming (no lockout) • ***No access to programming*** (ON:) denies access to programming after 48 hrs • ***Limited access*** (ON): partially restricts programming after 48 hrs If *(2) Limited Access to Programming* is selected, the installer will be able to view, but not change the following attributes after the system has run for 48 hrs: the Central Station phone number, Central Station account number, lock installer programming, download ID, and default lockout fields.	**Disabled**
Q3	**Lock Default Programming** The panel may be able to be hard reset (or soft reset from the **Installer Toolbox**) to its factory default values depending on the value entered for this question. The default feature is provided to prevent takeovers. • ***Allow Reset of All Defaults***: allows resetting the panel to factory defaults • ***Allow Limited Reset of Defaults***: allows default of some factory defaults, with the exception of *Q1, Q2, Q3,* and *Q7* (takes 48 hours to take affect after changing) • ***Do Not Allow Reset of Defaults***: does not allow restore to factory defaults If one of the "*allow*" options is selected, the option takes effect 48 hours after the setting is changed. This allows installers to go back and make changes if required.	**Allow Reset of All Defaults**
Q4	**Exit Delay, in Seconds (45 to 120)** The Exit Delay countdown is the amount of time occupants have to exit the building through a door after arming the system. Doors programmed as Exit/Entry 1 and Exit/Entry 2 use this timer. When the user arms the system, the countdown starts. The panel beeps once every two (2) seconds during the countdown. For the last 10 seconds, the beeps speed up to warn occupants that they have less than 10 seconds to exit the premises. For compliance with ANSI/SIA CP-01-2010, must be set to a 60 second minimum. NOTE: Arming the system from a remote location with a web-enabled device, such as a computer or smart phone, does NOT initiate the exit delay.	**60 seconds ‡**
Q5	**Entry Delay 1, in Seconds (30 to 240)** The Entry Delay 1 timer specifies the amount of time occupants have to disarm the system after entering the premises through a door. Typically, the primary entrance programmed as an Exit/Entry 1 door uses this time. When the user enters the premises, the countdown timer starts. The panel beeps once every two (2) seconds during the countdown. For compliance with ANSI/SIA CP-01-2010, must be set to a 30 second minimum.	**30 seconds ‡**
Q6	**Entry Delay 2, in Seconds (30 to 240)** The Entry Delay 2 timer specifies the amount of time occupants have to disarm the system after entering the premises through a door. Typically, secondary entrances that require a slightly longer entry time are programmed as an Exit/Entry 2 door. For example, a back, side, or garage entry door. When a user enters the premises while the system is armed, the Entry Delay 2 countdown starts. The GC3 Panel beeps once every two (2) seconds during the countdown. For compliance with ANSI/SIA CP-01-2010, must be set to a 45 second minimum.	**45 seconds ‡**

GC3 PANEL PROGRAMMING (Q1-Q71)		
Q#	**Question**	**Default**
Q7	**Remote Services Provider** Configures the appropriate Remote Services Provider (RSP) for the system. A RSP is the third-party security provider that powers the system's interactive services. If the RSP is not Alarm.com, select **None**.	**Alarm.com**
Q8	**2-way Voice** The panel supports two (2)-way voice communications between the subscriber and the Central Station (CS) operator over the telephone line or the GSM (Cellular) Radio Module (if installed) after an alarm has been reported. • ***(1) Stay On Line***: allows two (2)-way audio over the telephone line or cell radio. • ***(2) Stay On Line, Including Fire and CO Alarms***: allows 2-way audio over the telephone line or cell radio during fire and CO alarms. • ***(0) Disabled***: turns the 2-way audio feature OFF. When the panel connects with the operator, it will beep once per second (every 6 seconds with a cell radio connection). The beep alternates between 2 tones and indicates the panel is waiting for a session command. • If the operator fails to issue a command within 1 min (or 3 min if using the cell radio connection), the call is terminated. • Once the operator presses a command option, the beeps will stop and a 5 min audio session will start (or 3 min audio session if using cell radio connection). When two-way voice communications have been established, the CS operator can use the following telephone keys to control the communications. • ***Tap 1***: Talk mode 1-way communication (allows CS operator to talk to premises). • ***Tap 2***: VOX mode 2-way communications (between CS and the premises) • ***Tap 3***: Listen mode 1-way communication (allows premises to talk to CS operator) • ***Tap 7***: Extends the session 5 minutes without changing mode of operation • ***Tap 9***: Ends the audio session and terminates the call Each time the operator uses a command key, the session is extended for 5 min (or 3 min with a cell radio connection). During the last minute of communications, the system beeps 2 times every 15 seconds to indicate that time is running out.	**Stay on line**
Q9	**Disable Siren after two-way** When enabled, the system automatically turns the alarm siren ON/OFF after the end of a 2-Way Voice session. To use this setting, *Q8: 2-way voice* must be enabled. **NOTE**: When disabled, the alarm siren will only resume after a 2-way voice session when the corresponding alarm bell cutoff time has not expired. See *Q40: Burglary bell cut off time* and *Q41: Fire bell cutoff time.*	**Disabled**
Q10	**Police Emergency Key** Configures the system to respond in two ways when a user manually activates a panic alarm on the panel: emit a loud, patterned warning siren, or set off a silent panic alarm with no siren. You can also disable the **Panic** button so it is not visible. • ***Disabled*** (OFF): hides **Panic** button from Alarm screen. • ***Audible*** (ON): makes **Panic** button visible on Alarm screen; the system sounds a loud, patterned warning siren after user activates a panic alarm. • ***Silent Panic*** (ON): makes **Panic** button visible on Alarm screen; the system sounds a silent alarm with no siren after user activates a panic alarm.	**Audible**
Q11	**Fire Emergency Key** Configures the panel to show/hide the **Fire** button on the Alarm screen of the panel. • ***Disabled*** (OFF): hides **Fire** button from Alarm screen. • ***Audible*** (ON): makes **Fire** button visible on Alarm screen; the system sounds a loud, patterned warning siren if user manually activates a fire alarm on the panel.	**Audible**
Q12	**Emergency Key** Configures the panel to show/hide the **Emergency** button on the Alarm screen. • ***Disabled*** (OFF): hides **Emergency** button from Alarm screen. • ***Audible*** (ON): makes **Emergency** button visible on Alarm screen; the system sounds a loud, patterned warning siren after user manually activates emergency alarm on the panel.	**Audible**

GC3 PANEL PROGRAMMING (Q1-Q71)		
Q#	**Question**	**Default**
Q13	**Quick Arming** Quick arming allows users to arm the system without having to enter a user code. When enabled (ON), any occupant can arm the system. When disabled (OFF), only persons who know an active, four-digit user code can arm the system.	**Enabled**
Q14	**Auto Stay** This feature must be enabled for ANSI/SIA CP-01 compliance. • ***Enabled*** (ON): the system monitors the Exit Delay doors after the user arms the system in **Away** mode at the panel. If no one exits that door before the countdown expires, the system automatically arms itself in **Stay** mode. • ***Disabled*** (OFF): the system arms itself in **Away** mode at the end of the Exit Delay countdown. This setting does not go into effect when arming the system in **Away** mode with a keyfob.	**Enabled ‡**
Q15	**Exit Delay Restart** This must be enabled for ANSI/SIA CP-01 compliance. When enabled (ON), re-entering the premises through an exit/entry door during the Exit Delay will restart the Exit Delay time one time. This is useful when a user arms the system, exits the premises, and then needs to quickly enter/exit the premises before the countdown expires. As long as the user exits the premises during the Exit Delay Restart countdown, there is no need to disarm and re-arm the system.	**Enabled ‡**
Q16	**Allow Quick Exit** Allows users to start the exit delay while the system is armed in **Stay** mode. When enabled (ON) and a user taps **Arm Stay**, a **Quick Exit** button appears on the System Armed screen. When a user taps **Quick Exit**, the system starts the exit delay countdown; the user must exit the premises before the countdown expires. After it expires, the system automatically re-arms itself in the specified arming mode. **NOTE**: The **Quick Exit** button is not available on the System Armed screen when the user invokes the Exit Delay Restart feature.	**Enabled**
Q17	**Quick Bypass** When enabled (ON), the system allows users to bypass a sensor without prompting the user to enter a user code. Typically, this feature is disabled, so a user must enter a valid user code before bypassing a sensor.	**Disabled**
Q18	**Alert on Disarm by Keyfob after Alarm** When enabled (ON), the panel will produce a unique sound when it's disarmed with a keyfob after an alarm has occurred. Four beeps will sound from the panel's speaker, four chirps will sound from the external sounder (if installed). This feature serves as a safety alert so users can enter the premises with caution.	**Disabled**
Q19	**Keyfob Arm/Disarm Confirmation** When enabled (ON), the panel will produce a unique sound when it's armed or disarmed with a keyfob. The panel's speaker will sound one beep when arming and two beeps when disarming. The external sounder (if installed) will sound one chirp when arming and two chirps when disarming. This feature indicates the keyfob signal was received by the panel in case other indications are not available or visible.	**Disabled**
Q20	**Keyfob/Remote Arming Mode on System Not Ready** Controls how the system reacts when there are open sensors and the panel is armed remotely. • ***Auto-Bypass with Zone Participation on Restore***: automatically bypasses all open sensors when the system is remotely armed and, while armed, automatically removes the bypass if the sensor is restored to its normal state. • ***Auto-Bypass***: automatically bypasses all open sensors when the system is remotely armed. • ***Arm Only When System Ready***: does not allow the system to arm remotely when sensors are open.	**Auto-Bypass with Zone Participation on Restore**

GC3 PANEL PROGRAMMING (Q1-Q71)		
Q#	**Question**	**Default**
Q21	**Z-Wave Feature** Configures the system to show or hide the **Smart Home Controls** button on the home screen. When enabled, it provides users with access to the smart devices on the network, as well as with the ability to edit scenes and rooms. • ***Disabled and Hidden***: hides **Smart Home Controls** on the home screen. • ***Disabled but Visible***: shows **Smart Home Controls** on the home screen. When the button is tapped, '*This feature is not currently activated message*' displays. • ***Enabled***: shows **Smart Home Controls** on the home screen. Users can operate smart devices from the touchscreen or remotely. • ***Enabled with Local Scenes Hidden***: shows **Smart Home Controls** on the home screen but hides local scenes.	**Enabled**
Q22	**Smart Home Controls Require Master Code** When enabled, the system will prompt the user for an active, four-digit user code when attempting to access the **Smart Home Controls** menu.	**Disabled**
Q23	**Master User Can Access Z-Wave Setup** Configures the system to allow persons who know the system's Master User Code to gain access to the **System Settings** > **Smart Home Settings** menu. • ***Enabled*** makes the **Smart Home Settings** button available in the System Settings menu after entering the Master User Code. • ***Disabled*** grays out the **Smart Home Settings** button and makes it unavailable in the System Settings menu.	**Disabled**
Q24	**Temperature Display Units** Specifies the temperature scale (Fahrenheit or Celsius) used by the system to display weather forecasts on the touchscreen. **NOTE**: Weather forecasts are only available on the panel when enabled by the service provider.	**Fahrenheit**
Q25	**Swinger Shutdown Count (1 to 6)** An unwanted series of multiple faults (usually caused by a bad contact or sensor) is called a "swinger." Swinger shutdown defines the maximum number of times a zone's sensor can activate (i.e., "trip") an alarm during a single arming session. For example, if the count is set to two (2) trips, a window contact sensor would be permitted to trip the alarm a maximum of two (2) times during a single arming session. For compliance with ANSI/SIA CP-01-2010, the default setting is 2 Trips.	**2 Trips ‡**
Q26	**Cross Sensor Zones 99-100** Defines the alarm verification requirement for a cross sensor* zone. A cross sensor zone is comprised of two wireless sensors and both sensors must be violated before the system activates the alarm. This means before a cross sensor zone can activate an alarm, the sensors for both Wireless Zones 99 and 100 must be violated. When this feature is enabled (ON): • ***If only one of the two sensors*** in the cross zones is violated, the system will transmit a trouble report about the violated sensor to the Central Station. • ***If both sensors*** in the cross zones are violated within the amount of time specified in *Q27: Cross sensor Timeout*, in seconds, the system activates an alarm and also transmits an alarm report to the Central Station. * *CO Detectors and Smoke/Heat Alarms cannot be used in cross sensor zones.*	**Disabled**
Q27	**Cross Sensor Timeout, in Seconds (10-120)** Defines the maximum number of seconds (between 10-120 seconds) it takes the system to activate an alarm when both sensors in a cross sensor zone are violated. The value defined here specifies the maximum amount of time that can pass between the violation of sensors programmed for Wireless Zones 99 and 100. • ***If both sensors are violated*** within the amount of time specified here, the system activates an alarm. • ***If only one of the sensors*** is violated during the timeout interval, the system transmits a trouble report to the Central Station and does not activate alarm. For the timeout to affect the system, the Cross Sensor Zones feature must also be enabled on the system. See *Q26 Cross Sensor Zones.*	**10 Seconds**

GC3 PANEL PROGRAMMING (Q1-Q71)		
Q#	**Question**	**Default**
Q28	**Siren Supervision Time** Configures the system to supervise the wire between an external alarm sounder (if installed) and the panel. In the event a supervised wire cut is detected, the system waits the number of seconds specified (*15, 30,* or *45 seconds*), then displays a trouble alert on the panel's touchscreen and transmits a trouble report to the Central Station (CS). Disabled turns this feature OFF.	**Disabled**
Q29	**CS Lack of Usage Notification Time, in Days (0-255)** Monitors the system for lack of usage. If the system is not armed for the number of days specified, an inactivity report is sent to the Central Station (CS). • ***0 Days***: turns feature OFF. • ***1-255 Days*** (ON): transmits inactivity report to CS after the specified # of days. • ***7 Days*** (ON): transmits an inactivity report to CS after 7 days of inactivity.	**7 Days**
Q30	**Radio Modem Network Failure Time, in Minutes (0-255)** Configures the system to display a trouble alert when the panel loses its cell radio network connection. The number of minutes specified here defines the amount of down time that must pass before a trouble alert report is issued. • ***0 Minutes*** (OFF): the system will not issue a trouble alert. • ***1-255 Minutes*** (ON): use the touchscreen's numeric keypad to enter the number of minutes between 1 and 255. • ***30 Minutes*** (ON): issues a trouble alert on the panel after 30 min. of down time. **NOTE**: Once network service is restored for five (5) minutes, the trouble alert condition automatically clears itself.	**30 Minutes**
Q31	**Radio Network Failure Causes Trouble** When enabled, the system will display a visual trouble alert on the touchscreen when it logs a trouble alert condition with the cellular network connection. The panel will display the alert message after the number of minutes specified in *Q30: Radio Modem Network Failure Time, in minutes* expires. **NOTE**: Regardless of the setting selected here, a radio network failure will always be logged in the *System History*. Once the network connection is restored, the system automatically clears the visual indicator. A record of the trouble alert condition is stored in the *System History*.	**Enabled**
Q32	**Radio Network Failure Reports** When enabled, the panel transmits a trouble report to the Central Station when the system detects a cellular radio network failure.	**Enabled**
Q33	**Broadband Network Failure Time, in Minutes (0-255)** Configures the system to display a trouble alert and emit an audible sound when the panel loses its broadband network (Wi-Fi) connection. The number specified defines the amount of down time that must pass before a trouble alert or report is issued. • ***0 Minutes*** (OFF): the system will not issue a trouble alert. • ***1-255 Minutes*** (ON): use the touchscreen's numeric keypad to enter the number of minutes between 1 and 255. • ***30 Minutes*** (ON): issues a trouble alert on the panel after 30 min. of downtime. **NOTE**: Once broadband network (Wi-Fi) service is restored for five (5) minutes, the trouble alert condition automatically clears itself. *The release of GC3 firmware v3.2 adds support for Alarm.com (including AirFx).*	**30 Minutes**
Q34	**Broadband Network Failure Causes Trouble** Determines whether the panel causes a local alert (beeping) at the panel. • ***Enabled*** (ON): the system will display a visual trouble alert will display on the screen and emit an audible trouble alert when it logs a trouble alert condition with the broadband network (Wi-Fi) connection. • ***Disabled*** (OFF): the panel does not create a local trouble and does not beep. The dealer site will show a broadband failure. The end customer (client's) web portal site does not show this as an alert or even in the event history. If *Q35* is enabled, it will send a trouble to the Central Station. **NOTE**: When updating a panel to Firmware version 3.0.2 (or higher) and the panel will not be connected to a Wi-Fi network, this feature must be disabled. *The release of GC3 firmware v3.2 adds support for Alarm.com (including AirFx).*	**Enabled**

GC3 PANEL PROGRAMMING (Q1-Q71)		
Q#	**Question**	**Default**
Q35	**Broadband Network Failure Reports** Determines whether the panel will transmit a report to Central Station. • ***Enabled*** (ON): the panel transmit a trouble report to the Central Station when the system detects a broadband network (Wi-Fi) failure. • ***Disabled*** (OFF): the panel will not transmit a trouble report to the Central Station. *The release of GC3 firmware v3.2 adds support for Alarm.com (including AirFx).*	**Enabled**
Q36	**Periodic Test, in Days (0-255)** Recurring test reports can be automatically sent to the Central Station at a specified number of days. To disable this feature, select *0 Days*.	**30 Days**
Q37	**Alarm Cancel Time, in Minutes (5-255)** Configures the system to transmit a cancellation report to the Central Station when an alarm is canceled by a user within the amount of time specified. To change the setting for alarm info that displays on the screen, see *Q38: Alarm Cancel Display*. The minimum setting for ANSI/SIA CP-01-2010 compliance is 5 minutes. It can be increased (up to 254 minutes) without affecting compliance. To always send a cancel report when the system is disarmed after an alarm, enter "*255*".	**5 Minutes ‡**
Q38	**Alarm Cancel Display** This must be enabled for ANSI/SIA CP-01-2010 compliance. When enabled (ON), a cancel report will be sent to the Central Station after an alarm, if system is disarmed within programmed time. The panel can also display that a cancel report was sent. See *Q37: Alarm Cancel Time, in Minutes* to set the cancel report trigger time.	**Enabled ‡**
Q39	**Alarm Abort Window Transmission Delay** Configures the amount of time the system will wait to initiate the digital transmission when an alarm condition is triggered (*15, 30,* or *45 seconds*). Specifies the number of seconds the user has to manually abort the alarm, in the event of a false alarm. **For ANSI/SIA CP-01-2010 compliance:** the default minimum setting is 30 seconds. The transmission delay can be increased to 45 seconds without affecting compliance only if the combination of *Q39* and *Q5: Entry Delay 1, in seconds* or *Q6: Entry Delay 2, in seconds* does not exceed one (1) minute.	**30 Seconds ‡**
Q40	**Burglary Bell Cutoff Time** When a burglary alarm is triggered, the bell will sound until the burglary bell cutoff time expires. To change the Burglary Bell cutoff time, select one of the following: *4 Minutes, 8 Minutes, 12 Minutes, 16 Minutes,* or *Unlimited* (to require manual shutoff of alarm siren). This setting only affects the GC3 Panel alarm. It does not affect any auxiliary alarms installed (which are typically set to sound for an unlimited amount of time).	**4 Minutes ‡**
Q41	**Fire Bell Cutoff Time** Specifies the amount of time a Carbon Monoxide Detector or Smoke/Heat/Freeze Alarm should sound after the alarm is activated. After the time set here expires, the alarm siren shuts OFF. Select one of the following: 4 *Minutes, 8 Minutes, 12 Minutes, 16 Minutes,* or *Unlimited* (to require manual shutoff of the alarm siren). This setting only affects the GC3 Panel alarm. It does not affect any auxiliary alarms installed (which are typically set to sound for an unlimited amount of time).	**4 Minutes ‡**
Q42	**Trouble Doesn't Sound at Night** When enabled, the panel will suppress panel trouble beeps (such as AC loss, system low battery, sensor low battery or RF supervision, panel tamper while disarmed, etc.) from sounding from 10 PM to 9 AM. The trouble alerts are still displayed and immediately reported to the Central Station, and can be acknowledged, but they won't sound beeps until after 9 AM. If the trouble condition(s) self-clear or are acknowledged before 9 AM, no trouble beeps sound after 9 AM (the conditions are still recorded in the event log). • ***Enabled***: suppresses trouble beeps from 10 PM to 9 AM. • ***Disabled***: allows trouble beeps at any time. **For UL 985 Household Fire Warning System Units installations:** this setting must be set to disabled.	**Enabled**

GC3 PANEL PROGRAMMING (Q1-Q71)		
Q#	**Question**	**Default**
Q43	**Z-Wave Siren Mode** This selects which alarm types will activate a Z-Wave siren linked to the panel. • ***Sound for Burglary and Fire/CO***: causes a Z-Wave siren to sound during burglary and Fire/CO alarms. • ***Sound for Burglary Only***: causes a Z-Wave siren only during burglary alarms.	**Sound for Burglary and Fire/CO**
Q44	**Open Collector #1 Output** Defines output mode for the external device connected to the OCL1 position of the panel's terminal block. Refer to the GC3 ***Wiring Diagram*** earlier in this document.	**11-Follows Internal Sounder Alarm**
Q45	**Open Collector #2 Output** Defines output mode for the external device connected to the OCL2 position of the panel's terminal block. Refer to the GC3 ***Wiring Diagram*** earlier in this document.	**11-Follows Internal Sounder Alarm**
Q46	**Time to Detect AC Loss, in Minutes (1-30)** Configures the system to display a trouble alert in response to AC power loss after a specified amount of time has passed. By default, the system is configured to both display and sound a trouble alert when the panel is without AC power for 10 minutes. When AC power is restored to the panel, the trouble alert condition clears automatically after one (1) minute. Enter a value between one (1) and 30 minutes, or enter **0** to turn the feature OFF. **NOTE**: The Time to Detect AC Loss feature also transmits a trouble report to the Central Station. The time at which the trouble report is sent depends on what the installer configured for *Q47: Random AC loss report time*.	**10 Minutes**
Q47	**Random AC Loss Report Time** When enabled, the system will report AC power loss and AC power restore at a random time of up to 45 minutes after the event occurs. This helps to reduce Central Station congestion due to a widespread power outage affecting many panels at once. The random AC power status report timer is triggered based on the time set by *Q46: Time to Detect AC Loss, in Minutes.*	**Enabled**
Q48	**Programming Mode Entry Reports to CS** When enabled, a report will be sent to the Central Station any time the installer programming mode is entered and exited.	**Disabled**
Q49	**Trouble Reports to CS** When enabled, Trouble Reports are sent to the Central Station when any sensor trouble condition occurs. This setting does not affect trouble reports caused by panel conditions, only trouble reports caused by sensors.	**Enabled**
Q50	**Trouble Restore Reports to CS** When enabled, reports are sent to the Central Station when a trouble condition clears.	**Enabled**
Q51	**Manual Bypass Reports to CS** When enabled, Manual Bypass Reports are sent to the Central Station when any sensor has been manually bypassed by the user.	**Disabled**
Q52	**Bypass Restore Reports to CS** When enabled, reports are sent to the Central Station when a bypassed sensor (forced or manually bypassed) is restored.	**Enabled**
Q53	**AC Loss Reports to CS** When enabled, reports are sent to the Central Station if the panel loses AC power. The system will wait the number of minutes specified in *Q46: Time to Detect AC Loss, in minutes*. If *Q47: Random AC loss report time* is enabled, the report will be sent at a random time (up to 45 mins after the power loss). **NOTE**: When AC power is lost, a "*Power Lost*" message appears on the screen and the system icon state changes to show the panel is not operating on AC power.	**Enabled**
Q54	**AC Restore Reports to CS** When enabled, the system will transmit a report to the Central Station when AC power is restored to the panel. AC power must be restored for one (1) minute before the trouble condition clears from the system. If *Q47: Random AC loss* report time is enabled, the report will be sent at a random time up to 45 minutes after the trouble conditions clears.	**Enabled**

GC3 PANEL PROGRAMMING (Q1-Q71)		
Q#	**Question**	**Default**
Q55	**System Low Battery Reports to CS** When enabled, Low Battery Reports are sent to Central Station if GC3 battery is low.	**Enabled**
Q56	**System Low Battery Restore Reports to CS** When enabled, reports are sent to the Central Station after a low battery condition on the GC3 is restored.	**Enabled**
Q57	**RF Low Battery Reports to CS** When enabled, low battery reports about the system's sensors and peripherals are sent to Central Station.	**Enabled**
Q58	**Sensor Low Battery Restore Reports to CS** When enabled, reports are sent to Central Station after a low battery condition for a sensor is restored.	**Enabled**
Q59	**System Disarmed Reports to CS** When enabled, reports are sent to Central Station when the system is disarmed by a user. The report includes the keyfob or user code that disarmed the system.	**Disabled**
Q60	**System Armed Reports to CS** When enabled, reports are sent to the Central Station when the system is disarmed by a user. The report includes the keyfob or user code that armed the system.	**Disabled**
Q61	**Alarm Restore Reports to CS** When enabled, alarm restore reports will be sent to the Central Station after an alarm when either the bell timeout has been reached or the system is disarmed. If alarm restores are enabled and… • ***Q25 Swinger shutdown is set to 2***: a restore will be reported if the sensor is closed (normal state) at bell cutoff or becomes closed after bell cutoff. • ***Q25 Swinger shutdown is set to 1***: a restore will only be sent if the sensor is closed at the time of disarm. Restores are not sent if a sensor is in swinger shutdown until the time of disarm and the sensor is closed.	**Disabled**
Q62	**Smart Test Reports** When enabled, the system will transmit Smart Test reports to Central Station (CS), which are designed to reduce incoming network traffic for the CS. When enabled in combination with *Q36: Periodic test, in days,* all non-test reports during normal operations restart the periodic test report timer (Ex: alarm, restore, trouble, etc.). Periodic test reports are only sent when the panel hasn't reported in any way to CS.	**Disabled**
Q63	**RF Jam Causes Trouble** When enabled, the system will detect RF jamming and indicate a trouble condition if jamming is detected (ex if a transmitter is stuck on the air causing a jam). **NOTE**: This programming question only functions if trouble reports are enabled with programming question *Q49: Trouble Report to CS.*	**Disabled**
Q64	**System Tamper Causes Trouble** A tamper switch on the panel detects if the back of the panel has been opened. When enabled, a tamper switch activation will cause a trouble indication on the panel if the system is disarmed, and an alarm if the system is armed.	**Enabled**
Q65	**Auto Unbypass for Manual Bypass** Manually bypassed sensors can have their bypass automatically removed at disarming or have their bypasses remain in place. • ***Enabled*** (ON): automatically removes bypasses from manually bypassed sensors when the system is disarmed. • ***Disabled*** (OFF): leaves manually bypassed sensors as bypassed when the system is disarmed.	**Enabled**
Q66	**Force Bypass Reports** When enabled, the system will report which sensors have been force bypassed by the user when the system is armed. Forced bypassed sensors are always recorded in the event log, regardless of how this question is programmed.	**Disabled**

GC3 PANEL PROGRAMMING (Q1-Q71)		
Q#	**Question**	**Default**
Q67	**Event Log** To control the amount of event log entries, the events that get recorded into the system's event log can be selected by type. This setting filters the events that populate the event log. To change Event Log Filters, select one of the following: *Disabled* (no events logged), *All Events Except Open/Close/Bypass, All Events Except Open/Close,* or *All Events*	**All Events**
Q68	**Allow Backlight Always On (Demo Mode)** When enabled, the touchscreen's backlight will not shut off. This is useful when users want to demonstrate panel features, without the backlight timing out. When disabled, the backlight for the screen will dim after 60 seconds of inactivity. **IMPORTANT!** Leaving the backlight ON for extended periods of time may result in image retention. To avoid this, it is recommended you only enable this feature when the panel is intended for use as a demonstration system.	**Disabled**
Q69	**Smart Areas** Configures the Smart Areas (partitioning) feature by allowing the system to be divided into four separate areas. Once enabled, zones, keyfobs, keypads, and users can be assigned to Smart Areas allowing individual control of each area. • ***Enabled*** (ON): turns ON the Smart Areas feature which allows up to 4 partitions. A **Smart Areas** button will appear on the home screen. • ***Disabled*** (OFF): turns OFF the Smart Areas feature.	**Disabled**
Q70	**Main Panel Sounder Follows** Configures the system to allow alarms in all Smart Areas to sound the main panel. • ***All Smart Areas***: alarms from any Smart Area alert and sound at the main panel. • ***Main Panel Smart Area Only***: only alarms in Smart Area 1 alert at the main panel; alarms in Smart Areas 2-4 only alert on keypads assigned to those areas. **NOTE**: With both options, alarms for all Smart Areas are visible by entering the Smart Areas Screen via the **Home** button.	**All Smart Areas**

Q71	**Security Pin Code Length** *
	Allows users to select the length of the security pin code (*4 digits* or *6 digits*) for all pin codes (Installer Code, Master Code, User Code(s), and Duress Code).
	When changing...
	• ***From 4 to 6 digits***: All 4 digit codes are appended with "11"
	  • **Installer Code Defaults:** 1561 / 156111
	  • **Master Code Defaults:** 1111 / 111111
	• ***From 6 to 4 digits***: The last 2 digits on all codes will be removed.
	  • If this causes conflict (ex. duplicate user codes), the option will not be saved.
	  • The Installer/Master User must resolve the conflicts by manually changing any duplicate user codes. This includes conflicts between any codes: installer, master, user(s), duress.
	  • As an alternate to resolving the conflicts, the Installer/Master User can default all users by navigating to the Installer Toolbox, then selecting *Restore Defaults*.
	NOTE: When using the '*Restore Defaults*' option in the Installer Toolbox:
	• If '*Console*' reset is selected: *Q71* will not reset.
	• If '*Users*' reset is selected: *Q71* will reset to the 4-digit pin code. The Installer/Master code will return to the 4-digit defaults. All users will return to 4-digits.
	* Only available on GC3 panels with firmware 3.2.2 or later.
		4 Digits

Using the GC3 Screen Saver Modes

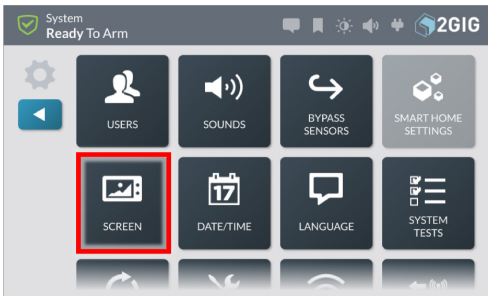
GC3 Panel Firmware Version 3.2.1 introduces 2 new screen saver modes: *

- **My Photos Mode**: The GC3 home screen will display a variety of photos when the screen times out. Customers can choose between the panel's default photos or upload their own photos.
- **Demo Mode**: The GC3 home screen will display a single video when the screen times out. The video can only be added by the installer because the function is intended for sales and trade shows.

* *Only one mode can be enabled at a time on the panel.*

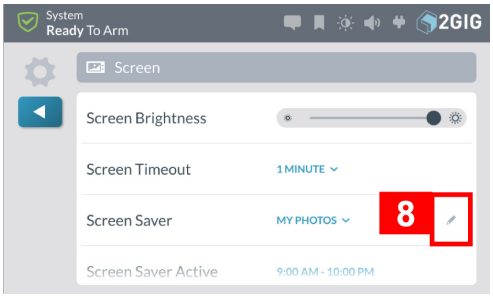
My Photos Mode: Enabling the Default Photos

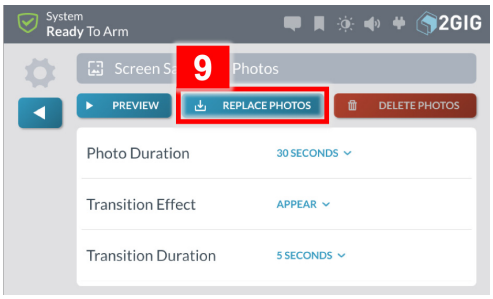
1. Press the **System Settings** button on the GC3 home screen.
2. Enter your code (default Customer Code = **1111**).
3. Tap the **Screen** tile.
4. Select **My Photos** from the **Screen Saver** drop-down.
5. Press the **Back** arrow until you see the home screen.



My Photos Mode: Adding Personal Photos

1. On a computer, create a folder named "*slideshow*" as one word.
2. Place up to 50 photos in the folder.
   - The size of the photos does not matter. The panel automatically resizes them.
3. Save the folder named "*slideshow*" to a USB drive.
4. On the GC3 Panel, press the **System Settings** button.
5. Enter your code (default Customer Code = **1111**).
6. Tap the **Screen** tile.
7. Select **My Photos** from the **Screen Saver** drop-down.
8. Press the **pencil icon** to the right of the **Screen Saver** drop-down.
9. Press the **Replace Photos** button.
10. Put the USB drive into the USB port located on the top of the GC3 Panel.
11. Press **Replace** to confirm you want to replace the photos.
12. Press **OK.**
13. Remove the USB drive from the GC3 Panel.
14. Press the **Back** arrow until you see the home screen.

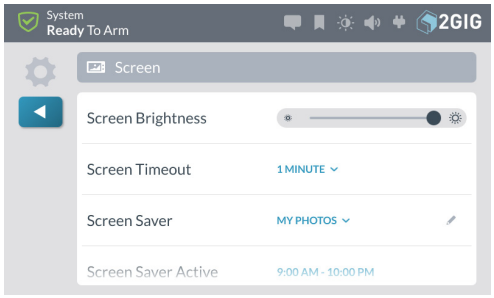




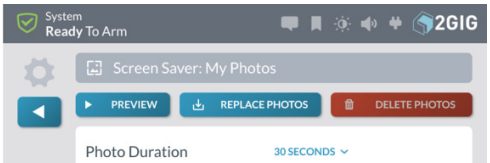
You <u>cannot</u> swap out individual photos or add to the existing ones. To make edits, you must replace the entire folder of images using the steps above. If needed, you can delete all custom photos and replace them with the default stock photos.

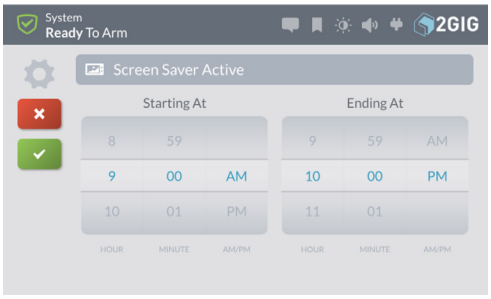
My Photos Mode: Adjusting the Screen Saver Settings

1. Press the **System Settings** button on the GC3 home screen.
2. Enter your code (default Customer Code = **1111**).
3. Tap the **Screen** tile.
4. Adjust the following settings:
   - **Screen Brightness**: Dim or brighten the GC3 screen using the slider.
   - **Screen Timeout**: Time of inactivity before the screen saver starts (*30 sec, 1 min, 2 min, 4 min, 6 min, 8 min,* or *10 min*).
   - **Screen Saver Active**: Select a start and end time for the screen saver to be active each day. For example, customers may want to turn it off during the night to save energy.
     - The panel is limited to only one schedule for the **Screen Saver Active** time.
     - Press the green checkmark after adjusting the start and end time.



5. Press the **pencil icon** to the right of the **Screen Saver** drop-down.
6. Adjust the following settings:
   - **Photo Duration**: How long each photo will appear (*30 sec, 1 min, 2 min,* or *5 min)*
   - **Transition Effect**: How the photos changeover (*Appear, Fade, Push,* or *Wipe)*
   - **Transition Duration**: How long each transition lasts (*2 sec, 3 sec,* or *5 sec)*
   - **Display Sequence**: The order the photos appear (by *Photo Name* or *Shuffle)*
   - **Full Landscape Mode**: *ON* or *OFF*
     - **When ON**: photos cover the entire screen (from left to right); however, some may be cropped out at the top and bottom.
     - **When OFF**: photos will be shown in their entirety; however, if the aspect ratio of a photo does not match the panel, black bars will appear on the sides of the screen.





7. Press the **Preview** button to see how your selections will appear (*optional*).
8. Press the **Back** arrow until you see the home screen.

My Photos Mode: Deleting Custom Photos

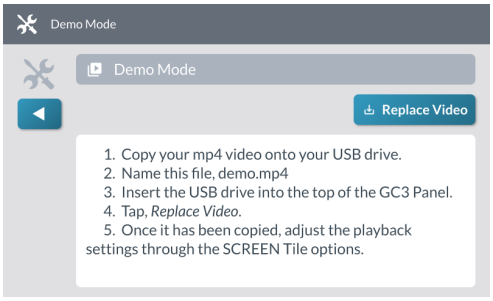
To delete custom photos and replace with the default stock photos, complete the following steps:

1. Press the **System Settings** button on the GC3 home screen.
2. Enter your code (default Customer Code = **1111**).
3. Tap the **Screen** tile.
4. Select **My Photos** from the **Screen Saver** drop-down menu (if it is not already selected).
5. Press the **pencil icon** to the right of the **Screen Saver** drop-down.
6. Press **Delete Photos**.
7. Press **OK.**
8. Once deleted, click **Preview** to verify the images have been replaced with the stock photos.

Demo Mode: Adding and Enabling a Video

A single video (such as a 'how to') can be added for sales and trade show purposes. It will display when the screen times out.

1. On a computer, copy your mp4 video to the "root" of a USB drive (*not* in a folder).
   - The video should be no larger than 200 MB.
   - The recommended resolution is 720p/30 frames per second, not to exceed 20MBps
2. Name the file "*demo.mp4*" (case sensitive).
3. On the home screen of GC3 Panel, press the **2GIG logo** to navigate to Installer Toolbox.
4. Enter the **Installer Code** (default Installer Code = **1561**).
5. Scroll down, then press the **Demo Mode** tile.
6. Put the USB drive into the USB port located on the top of the GC3 Panel.
7. Press **Replace Video.**
8. Press **OK.**
9. Remove the USB drive from the GC3 Panel.
10. Press the **Back** arrow until you return to the home screen.
11. Press **System Settings.**
12. Enter the **password** (Customer Code or Installer Code).
13. Tap the **Screen** tile.
14. Select **Demo Mode** from the **Screen Saver** drop-down menu.
15. Press the **pencil icon** located to the right of the **Screen Saver** option.
    - Adjust the **Video Volume** using the slider (tap the left volume icon to mute volume).
    - Click the **Back** arrow to return to the **Screen Programming** menu.
16. Adjust the following playback settings (optional):
    - **Screen Brightness**: Dim or brighten the GC3 screen using the slider.
    - **Screen Timeout**: This works differently in *Demo* mode than in *My Photos* mode. At the end of the "timeout" period, the video will play on the home screen. When the video is finished, the home screen will display until the "timeout" period is reached again. The video will then repeat. This cycle will continue until the *Screen Saver Active time* is scheduled to end (30 sec, 1 min, 2 min, 4 min, 6 min, 8 min, or 10 min).
    - **Screen Saver Active**: Select a start and end time for the screen saver to be active. For example, the customer may want to turn it off during the night to save energy.
      - The panel is limited to only one schedule for the **Screen Saver Active** time.
      - Press the green checkmark after adjusting the start and end time.
17. Press the **Back** arrow until you return to the home screen.



Unlike *My Photos* mode, once you put a video on the panel for *Demo Mode*, there is no delete option. You can only turn off the video (in *System Settings > Screen*) or choose to replace the video (in *Installer Toolbox > Demo Mode*).

NOTE: *Refer to the **Field Guide** of this manual for details on enabling the **Screen Saver** features.*

Programming Tables

Sensor Types (Zones)

Sensor type is required for all wired and wireless zones. It determines how/when the panel responds to signals from the sensor.

Sensor Type	Description
(00) Unused	For unused sensor numbers that do not have a sensor programmed into them. No system action occurs at any time from this sensor type.
(01) Exit/Entry 1	Reserved for doors used for exit/entry. When the system is armed in the **Stay** or **Away** mode, the exit delay timer starts (regardless if the system is armed in **Stay** or **Away** mode). When the exit delay timer expires, the system is fully armed. When fully armed, if this sensor type is triggered, the Entry Delay 1 timer starts. The system must be disarmed before the Entry Delay 1 timer expires, or an alarm will occur. If the entry delay timer is turned OFF during arming, the exit/entry delay sensors will act as non-delayed instant sensors at the end of exit delay.
(02) Exit/Entry 2	Operates the same as Exit/Entry 1 except it starts the Entry Delay 2 timer. The user can adjust the Entry Delay time to allow more time to disarm the system (such as a garage door).
(03) Perimeter	For doors/windows not used to enter/exit the premises while system is armed. An instant alarm will occur when this sensor type is triggered with the system armed in the **Stay** or **Away** mode.
(04) Interior Follower	For interior sensors that detect presence inside the premises (such as motion detector). This sensor type is called a “follower” due to its action when the system is armed in the **Away** mode. After the exit delay expires and the system is armed, if an interior follower sensor is triggered, an instant alarm will occur. If an exit/entry delay sensor is triggered first, the interior follower sensor will also be delayed. Interior follower sensors are always bypassed and not active when the system is armed in **Stay** mode. This allows premises to be occupied while protecting perimeter.
(05) Day Zone	Similar to Perimeter zone, except when the system is disarmed, a violation displays a trouble alert on the panel’s display. Common uses are protection of sensitive areas that require notification and possibly a Central Station trouble report, but no alarm when the system is disarmed.
(06) 24-Hour Silent Alarm	Active regardless of the system arming status. A Silent Panic alarm is sent to the Central Station, but for safety, no visual or audible indications are activated locally.
(07) 24-Hour Audible Alarm	Continuously armed 24-hours a day and will trigger a local alarm and bell output regardless of the mode the system is in. Typical use would be an audible panic alarm.
(08) 24-Hour Auxiliary Alarm	Continuously armed 24-hours a day and will trigger an alarm regardless of the mode the system is in. The bell output will not activate, but the local sounder will continue until it is acknowledged at the panel. Typical use would be for a monitoring device such as a flood or temperature sensor. There is no time out for the internal sounder, it will continue until a user code is entered.
(09) 24-Hour Fire †	Continuously armed 24-hours a day and will trigger the local alarm fire sounder and the bell output regardless of the mode the system is in. Typical use would be for wireless smoke detectors. This sensor type is always active and cannot be bypassed.
(10) Interior with Delay	Operates as a delayed sensor when the system is armed in the **Away** mode, and when triggered, will start the Entry Delay 1 timer. If the system is armed in **Away** mode with no Entry Delay (armed instant), this sensor type will trigger an instant alarm. If the system is armed in **Stay** mode (or **Stay** mode with no Entry Delay), this sensor type will be bypassed.
(14) 24-Hour Carbon Monoxide †	Continuously armed 24-hours a day and will trigger the local alarm and bell regardless of the mode the system is in. Typical use would be for wireless carbon monoxide detectors. This Sensor Type is always active and cannot be bypassed.
(16) 24-Hour Fire with Verification †	Continuously armed 24-hours a day and can trigger the local alarm and bell regardless of the mode the system is in. Typical use would be for wireless smoke detectors. This Sensor Type is always active and cannot be bypassed. For verification, this Sensor Type must be violated twice in two (2) minutes, or remain violated for 30 seconds. If any other fire sensor (verified sensor type or not) violates within two minutes, both sensors will cause a fire alarm.
(23) No Response Type	A special zone monitored for activity or inactivity by the Central Station. It does not affect security system status. Often used for a doorbell, liquor/gun/game cabinet, etc.
(24) Silent Burglary	For silent triggering of the burglary alarm with perimeter doors/windows not used to enter/exit the premises when the system is armed. An instant silent alarm will occur when this sensor type is triggered with the system in either the **Stay** or **Away** mode. The sounder & bell will not activate.

‡ Indicates sensor types that are not allowed for hardwired loops.

Sensor Loop Numbers

A sensor loop informs the system how to respond when events are triggered. Every wireless sensor has at least one way of triggering, which is why every sensor has at least a Loop 1. If a sensor has more than one way of triggering, additional loop numbers will be assigned to the sensor (e.g., the Wireless Smoke/Heat/Freeze Alarm uses: *Loop 1* for *smoke, Loop 2* for *heat,* and/or *Loop 3* for *freeze detection*).

The following is a general guide to determine the appropriate loop number. Some devices have multiple loop numbers; be sure to use the loop number that matches how the sensor will be triggered. For detailed information, it is recommended you check the *Installation Instructions* included with the sensor or peripheral.

Sensor	Trigger & Loop
Thin Door Window Contact	**Wired** = Loop 1 **Not wired** = Loop 2
Outdoor Wireless Contact	**Wired** = Loop 1 **Not wired** = Loop 2
Smoke/Heat/Freeze Detector	**Smoke** = Loop 1 **Heat** = Loop 2 **Freeze** = Loop 3
Flood/Temperature Sensor	**Flood** = Loop 1 **Heat** = Loop 2 **Freeze** = Loop 3
Water Leak Detector	**Cold** = Loop 1 **Heat** = Loop 2 **Flood** = Loop 3
Stove & Grill Guard Sensor	**Always** = Loop 2

Sensor	Trigger & Loop
Recessed Door Contact **PIR Motion Detector** **Glass Break Detector** **CO Detector** **Micro Sensor with Bypass** **Tilt Sensor** **Panic Button** **Fall Detector Pendant** **Doorbell** **Image Sensor** **Smoke Ring** **FireFighter** **Takeover Module** **Gun Motion Detector**	**Always** = Loop 1

When using Honeywell 5800 series, use their instructions for the loop number.

Sensor Equipment Type

Some sensor types require you to specify an equipment type, which affects the sensor's extended reporting code. The sensor Equipment Type is only required when one of the following Sensor Types is selected: *(04) Interior Follower, (08) 24-Hour Auxiliary Alarm,* or *(10) Interior with Delay*.

Sensor Type (Zone)	Equipment Types
(04) Interior Follower	(1) Motion, (2) Contact
(06) 24-Hour Silent Alarm	(1) Contact, (11) Emergency
(07) 24-Hour Audible Alarm	(1) Contact, (11) Emergency
(08) 24-Hour Auxiliary Alarm	(1) Contact, (6) Freeze, (8) Water, (10) Temperature, (11) Emergency
(10) Interior with Delay	(1) Motion, (2) Contact
(23) No Response Type	(1) Contact, (2) Motion

Equipment Codes

The table below lists the available equipment codes, which are required for all wireless zones, keyfobs, and keypads.

eSeries Sensors MUST be programmed with an eSeries Equipment Code or they will not work properly. Additionally, eSeries Sensors will only work with the GC2e and GC3e panels.

Code	Description	Code	Description
(0000)	Other	**(1026)**	2GIG CO Detector
(0470)	HW R-D/W “5818MNL”	**(1058)**	2GIG Smoke Detector
(0475)	Existing Glass Break Detector	**(1059)**	2GIG-TS1 Wireless Touchscreen Keypad (GC2/e only)
(0491)	HW Panic Pendant “5802MN2”	**(1060)**	2GIG SP1 Touchscreen (GC3/e only)
(0519)	HW Glass Break “5853”	**(1061)**	Tilt Sensor
(0530)	HW PIR “5894PI”	**(1062)**	2GIG Tilt Sensor
(0533)	HW PIR “5890”	**(1063)**	2GIG Doorbell
(0556)	Existing Flood/Temp Sensor	**(1064)**	2GIG Bypass Sensor
(0557)	HW Heat Sensor “5809”	**(1065)**	2GIG Flood Sensor
(0577)	Existing Keyfob Remote	**(1066)**	2GIG Shock Sensor **
(0589)	HW Smoke “5808W3”	**(1067)**	2GIG Repeater
(0609)	Existing Motion Detector	**(1068)**	2GIG Translator **
(0616)	Existing Smoke Detector	**(1069)**	FireFighter SMKT/CO Listener (GC3/e only)
(0624)	HW Flood Sensor “5821”	**(1070)**	2GIG F1-345 *
(0637)	HW D/W “5816”	**(1071)**	2GIG PHB-345 *
(0655)	Existing Door/Window Contact	**(1072)**	Smoke Ring *
(0692)	Existing CO Detector	**(1074)**	2GIG SP2 Touchscreen (GC3/e only)
(0708)	Existing Heat Sensor	**(2058)**	eSeries Smoke Detector (USA) †
(0859)	CO1-345C CO Detector (Canada)	**(2860)**	eSeries CO Detector (USA) †
(0860)	CO1-345 CO Detector (USA)	**(2061)**	eSeries Tilt Sensor †
(0862)	2GIG Thin Door/Window Contact	**(2065)**	eSeries Flood Sensor †
(0863)	2GIG Recessed Door Contact	**(2066)**	eSeries Shock Sensor **
(0864)	2GIG Glass Break Detector	**(2067)**	eSeries Repeater †
(0866)	2GIG 4-Button Keyfob Remote	**(2068)**	eSeries Translator **
(0867)	2GIG PAD 1-345 Wireless Keypad	**(2070)**	eSeries Water Sensor †
(0868)	2GIG Panic Button Remote	**(2862)**	eSeries Thin Door/Window Contact †
(0869)	2GIG PIR with Pet Immunity	**(2863)**	eSeries Recessed Door Contact †
(0871)	SMKE1-345C Smoke Detector (Canada)	**(2864)**	eSeries Glass Break Detector †
(0872)	SMKE1-345 Smoke Detector (USA)	**(2869)**	eSeries PIR with Pet Immunity †
(0873)	2GIG Takeover Module	**(2873)**	eSeries Takeover Module †
(0895)	SMTK2-345 GE Smoke/Heat Detector (USA/Canada)	**(9999)**	Alarm.com Image Sensor

* Not available on the GC3 prior to 3.2.3.

** Sensor not currently supported.

‡ This equipment code is indented to be used with the new eSeries (encrypted) sensors that will be released in 2019. The eSeries sensors *only* work with GC2e and GC3e panels and *must* be entered correctly.

Voice Descriptors

Required for all wireless and wired zones:

	Code Descriptor	Code Descriptor	Code Descriptor
A	002 **Abort**	266 **Apartment**	013 **Attic**
	003 **AC**	008 **Area**	014 **Audio**
	004 **Access**	009 **Arm**	015 **Auto**
	005 **Alarm**	010 **Armed**	016 **Automation**
	006 **And**	011 **Arming**	017 **Auxiliary**
	007 **Announcement**	012 **At**	018 **Away**
B	019 **Baby's**	023 **Battery**	026 Break
	020 **Back**	024 **Bedroom**	027 **Button**
	256 **Balcony**	272 **Bell**	028 **Bypass**
	021 **Basement**	025 **Bonus**	029 **Bypassed**
	022 **Bathroom**	273 **Boy's**	
C	030 **Cabinet**	036 **Center**	044 **Computer**
	274 **Camera**	037 **Check**	045 **Control**
	031 **Cancel**	038 **Chest**	046 **Cool**
	032 **Carbon Monoxide**	039 **Children's**	271 **Corner**
	275 **Cave**	040 **Chime**	047 **Crawl**
	033 **Cellular**	041 **Closet**	048 **Current**
	034 **Cellular**	042 **Code**	
	035 **Cell Radio**	043 **Communications**	
D	276 **Daughter's**	052 **Detector**	058 **Door**
	049 **Day**	053 **Dim**	277 **Doorbell**
	258 **Deck**	054 **Dining**	059 **Downstairs**
	050 **Degrees**	055 **Disarm**	060 **Driveway**
	051 **Den**	056 **Disarmed**	
	259 **Detached**	057 **Dock**	
E	061 **East**	067 **Emergency**	073 **Exit**
	062 **Eight**	068 **Enter**	074 **Exit Now**
	063 **Eighteen**	069 **Entrance**	075 **Exterior**
	064 **Eight**	070 **Entry**	076 **External**
	065 **Electric**	071 **Error**	
	066 **Eleven**	072 **Exercise**	
F	077 **Failure**	086 **Five**	094 **Fourteen**
	078 **Family**	087 **Flood**	095 **Fourth**
	079 **Fan**	088 **Floor**	267 **Foyer**
	080 **Fifteen**	099 **Furnace**	096 **Freeze**
	081 **Fifty**	089 **Fluid**	097 **Freezer**
	082 **Fire**	090 **Foil**	098 **Front**
	083 **Fire Alert**	091 **For**	099 **Furnace**
	084 **Fire Detector**	092 **Forth**	
	085 **First**	093 **Four**	
G	100 **Game**	265 **Gate**	104 **Glass break**
	101 **Garage**	278 **Girl's**	105 **Guest**
	102 **Gas**	103 **Glass**	106 **Gun**
H	107 **Hall**	110 **Hang up**	113 **Home**
	108 **Hallway**	111 **Heat**	114 **House**
	109 **Hanging**	112 **High**	
I	115 **Ice**	116 **Inside**	118 **Interior**
	279 **Image**	117 **Instant**	119 **Intrusion**
	280 **Image Sensor**	120 **Is**	
J	-		
K	121 **Key**	123 **Keypad**	125 **Kitchen**
	122 **Keyfob**	124 **Kids**	

	Code Descriptor	Code Descriptor	Code Descriptor
L	126 **Laundry**	130 **Light**	134 **Loading**
	127 **Left**	131 **Lights**	135 **Lock**
	128 **Level**	132 **Liquor**	136 **Loft**
	129 **Library**	133 **Living**	137 **Low**
M	138 **Main**	141 **Medical**	145 **Monitor**
	139 **Maintenance**	142 **Medicine**	146 **Motion**
	281 **Man**	143 **Menu**	147 **Motion Detector**
	140 **Master**	144 **Middle**	148 **Mud**
N	149 **Nine**	152 **North**	155 **No Delay**
	150 **Nineteen**	153 **Not**	156 **No Entry Delay**
	151 **Ninety**	154 **Not ready**	157 **Nursery**
O	158 **Off**	161 **One**	164 **Outside**
	159 **Office**	162 **One Hundred**	260 **Overhead**
	160 **On**	163 **Output**	
P	165 **Panel**	170 **Phone Line**	174 **Pound**
	166 **Panic**	171 **Play**	175 **Powder**
	167 **Pantry**	172 **Police**	176 **Press**
	168 **Patio**	173 **Pool**	177 **Previous**
	169 **Perimeter**	270 **Porch**	178 **Pump**
Q	-		
R	179 **Radio**	182 **Relay**	186 **Right**
	180 **Ready**	183 **Remote**	187 **Room**
	181 **Rear**	184 **Repeat**	
	261 **Refrigerator**	185 **RF Jam**	
S	188 **Safe**	201 **Silent**	214 **Star**
	189 **Second**	202 **Siren**	215 **Status**
	190 **Security**	203 **Six**	216 **Stay**
	191 **Sensor**	204 **Sixteen**	217 **Stop**
	192 **Sensors**	205 **Sixty**	218 **Storage**
	262 **Service**	206 **Skylight**	219 **Study**
	193 **Session**	207 **Sliding**	220 **Sump**
	194 **Set**	208 **Smoke**	283 **Sun**
	195 **Seven**	282 **Son's**	263 **Sunroom**
	196 **Seventeen**	209 **Sounder**	221 **Supervision**
	197 **Seventy**	210 **South**	286 **Switch**
	198 **Shed**	211 **Space**	222 **System**
	199 **Shop**	212 **Spare**	
	200 **Side**	213 **Stairs**	
T	223 **Tamper**	229 **Thirteen**	236 **Trouble**
	224 **Temperature**	230 **Thirty**	237 **Turn**
	225 **Ten**	231 **Three**	268 **TV**
	226 **Terminated**	232 **To**	238 **Twelve**
	284 **Theatre**	233 **Tool**	239 **Twenty**
	227 **Thermostat**	234 **Transmitted**	240 **Two**
	228 **Third**	235 **Transmitter**	
U	241 **Unlock**	243 **Upstairs**	245 **Utility**
	242 **Upper**	244 **User**	
V	246 **Valve**	269 **Video**	247 **Voice**
W	248 **Wall**	250 **West**	252 **Wireless**
	264 **Warehouse**	251 **Window**	
	249 **Water**	285 **Wing**	
X	-		
Y	253 **Yard**		
Z	254 **Zero**	255 **Zone**	

Zone Numbering

GC2: Zone Numbering

The **GC2** Panel supports **60 wireless protection zones**. When reporting signals to central station, the following zone numbers will be used:

Zones	Description
1-48	Wireless Zones
47-48	Wireless Cross-Sensor Zone
49-50	Wired Zones
51-58	Keyfobs
59-62	Keypads
63-74	Wireless Zones
92	Duress
95	Fire
96	Medical
99	Police Panic

GC3: Zone Numbering

The **GC3** Panel supports **100 wireless protection zones**. When reporting signals to central station, the following zone numbers will be used:

Zones	Description
1-100	Wireless Zones
200-201	Hardwired Zones
300-331	Keyfobs
400-407	Keypads
425	Duress
426	Fire
427	Medical
428	Police Panic

Normal State

Required for all wired zones:

Code	Setting
00	Not Used
01	Normally Closed (N/C)
02	Normally Open (N/O)
03	End-of-Line Resistor (EOLR)

2GIG Device Battery, Range & Loop Information

Device Name	Device Product Code	Estimated Battery Life	Battery Used (Quantity)	Range (Open air)	Loop Numbers Used
Thin Door Window Contact	2GIG-DW10	3-5 years	Maxwell CR2032 3V (2)	350 FT	1 (wired contact), 2 (Internal)
Recessed Door Contact	2GIG-DW20R	3-5 years	Panasonic Cr-2 (1)	450 FT	1
Bypass Sensor	2GIG-DW40	3-5 years	Maxwell CR2032 3V (1)	275 FT	1
Outdoor Wireless Contact	2GIG-DW30-345	Up to 5 yrs.	AA (2)	350 FT	1 (internal), 2 (magnet)
Glass Break Detector	2GIG-GB1	3-5 years	Panasonic CR123A (2)	300 FT	1
PIR Motion Detector	2GIG-PIR1	3-5 years	Panasonic CR123A (1)	350 FT	1
Image Sensor	2GIG-IMAGE1	1 year	AA 1.5v Energizer Ultimate Lithium Batteries (2)	150 FT	1
Tilt Sensor	2GIG-TILT	5-8 years	Panasonic CR2032 3V (1)	350 FT	1
Smoke Detector	2GIG-SMKT3	3-5 years	Energizer AAA (3)	350 FT	1 (smoke), 2 (heat), 3 (freeze)
Carbon Monoxide	2GIG-CO3	3-5 years	Panasonic CR123A (1)	350 FT	1
Flood Temp Sensor	2GIG-FT1	3-5 years	Panasonic CR2 3V	350 FT	1 (flood), 2 (heat), 3 (freeze)
Water Leak Detector	2GIG-FT6-345	Up to 5 yrs.	3V CR123 (1)	350 FT	1
FireFighter	FF-345	5 years	3V lithium CR123A	350 FT	1
Smoke Ring	SDS1-345	3-5 years	Panasonic CR2032A	350 FT	1
Stove & Grill Guard	2GIG-STVGRL1-345	Up to 5 yrs.	Non-replaceable battery	100 FT	Loop 2 only
Fall Detector Sensor	F1-345	5 years	CR2450 Not replaceable	350 FT	1
Touch Screen Keypad	TS1-E	N/A	Use included Transformer	500 FT	N/A
Takeover Module	TAKE-344	Dependent	12V DC	350 FT	1
Panic Button Remote	2GIG-PANIC1	3-5 years	Panasonic CR 2032 (1)	500 FT	1
Doorbell	2GIG-DBELL1	3-5 years	Panasonic CR 2032 (1)	350 FT	1
Indoor Repeater	RPTR-345	5 years	N/A Rechargeable Batt Included	350 FT	1
Keyfob	2GIG-KEY2	3-5 years	Maxwell CR2025 3V (1)	350 FT	N/A
Keypad	2GIG-PAD1	3-5 years	Panasonic CR2032 3V (2)	350 FT	N/A
Gun Motion Detector	2GIG-GNGRD1-345	Up to 5 yrs.	CR2032 (1)	350 FT	Loop 1 only

Features to Limit False Alarms

For ANSI/SIA CP-01-2010 compliance: Control Panel Standard - Features for False Alarm Reduction, the installer can set a variety of different options designed to limit occurrences of a False Alarm.

ANSI/SIA CP-01-2010	2GIG System Feature	GC2 Installation & Programming Guide	GC3 Installation & Programming Guide
4.2.2.1 Exit Time	Exit Delay	*Q5: Exit delay, in seconds (45-120)* *Q28: Allow quick exit*	*Q4: Exit delay, in seconds (45-120)* *"Q16: Allow quick exit*
4.2.2.2 Progress Annunciation	Exit Delay Announcement	N/A	*Q4: Exit delay, in seconds (45-120)*
4.2.2.3 Exit Time Restart	Exit Delay Restart	*Q27: Select Exit delay restart*	*Q15: Exit delay restart*
4.2.3.1 Entry Delay	Entry Delay	*Q6: Entry delay 1, in seconds (30-240)* *Q7: Entry delay 2, in seconds (30-240)*	*Q5: Entry delay 1, in seconds (30-240)* *Q6: Entry delay 2, in seconds (30-240)*
4.2.4.1 Control Buttons	Keyfob/Remote Arming Mode on System Not Ready	*Q20: Keyfob/remote arming mode on system not ready*	*Q20: Keyfob/remote arming mode on system not ready*
4.2.4.3 System Acknowledgment	Alert Keyfob Disarming After Alarm, Keyfob Arm/Disarm Confirmation	*Q73: Disarming keyfob after alarm (alert)*	*Q18: Alert on disarm with keyfob after alarm*
4.2.4.4 Remote Arming	Key Fob Arming	*Q74: Select Keyfob Arm/Disarm Confirmation*	*Q18: Alert on disarm with keyfob after alarm*
4.3.4.5 Remote Disarming	Key Fob Arming	*Q74: Select Keyfob Arm/Disarm Confirmation*	*Q19: Keyfob arm/disarm confirmation*
4.2.5.1 Abort Window	Abort Window Dialer Delay	*Q35: Select Abort Window Dialer Delay*	*Q39: Alarm abort window transmission delay*
4.2.5.1.1 Disarm	Abort Window Dialer Delay	*Q29: Enter Periodic test, in days (0-255)*	*Q36: Periodic test, in days (0-255)*
4.2.5.1.2 Abort	Abort Window Dialer Delay	*Q29: Enter Periodic test, in days (0-255)*	*Q36: Periodic test, in days (0-255)*
4.2.5.2 Alarm Transmission	Abort Window Dialer Delay	N/A	*Q39: Alarm abort window transmission delay*
4.2.5.4 Cancel Window	Alarm Cancel Time, Alarm Cancel Display	*Q31: Cancel time, in minutes (5-255)* *Q32: Select Cancel Display*	*Q37: Alarm cancel time, in minutes (5-255)* *Q38: Alarm cancel display*
4.3.1 Cross Zoning	Cross Sensor Zones, Cross Sensor Timeout	*Q33: Select Cross sensor zones 47-48* *Q34: Cross sensor timeout, in seconds (10-120)*	*Q26: Cross sensor zones 99-100* *Q27: Cross sensor timeout, in seconds (10-120)*
4.3.2 Swinger Shutdown	Swinger Shutdown Count (1-6)	*Q20: Select Swinger shutdown count (1-6)* *Q57: Alarm restore reports to CS*	*Q25: Swinger shutdown count (1-6)* *Q61: Alarm restore reports to CS*
4.6.3 System Test	Console Test Walk Test	See *Installer Testing* in the *GC2 Programming Guide*	See *Testing the Installation* in the *GC3 Programming Guide*

Z-Wave Programming

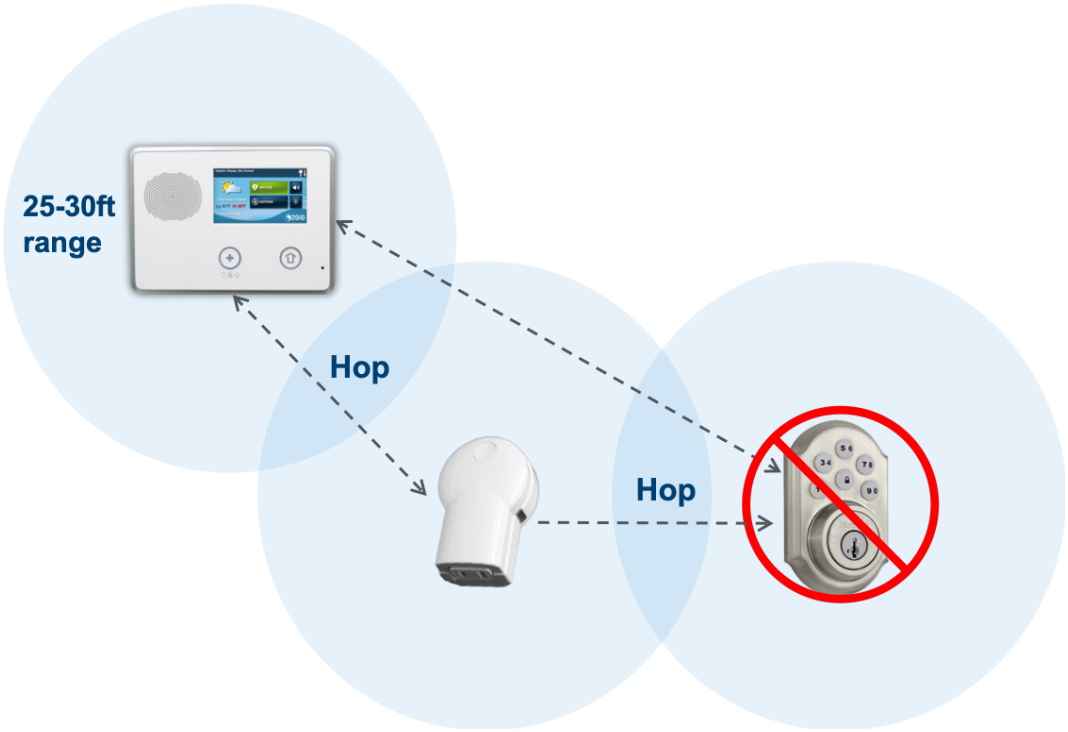
908.42 MHz (North America)

GC2

GC2e GC3 GC3e

Z-Wave	Z-Wave Plus
• Standard in **GC2** panels • Range **25-30 ft**. (100 feet open air) • Creates mesh network using AC powered Z-Wave devices • Up to **4 repeatable hops**	• Standard in **GC2e, GC3, and GC3e** panels • Range **50-70 ft**. (175 feet open air) • 50% improvement in battery life • 50% more bandwidth • 400% more on-chip memory • **3 RF channels** for improved noise immunity and higher bandwidth • Improved **self-healing** and fault tolerance with Explorer Frame feature • Backwards and forwards compatible • Up to **4 repeatable hops**

Z-Wave Hops



Z-Wave Absorption

Pieces of furniture, installation of radio components, metal coatings, plantings and high air humidity should all be considered when planning the best route for your wireless system. Because these attenuations are approximate, a test is recommended before the fixed installation is made.

#	Material	Thickness	Attenuation/Signal/Loss
1	Wood	< 30 cm	10 %
2	Plaster	< 10 cm	10 %
3	Glass (without metal coating)	< 5 cm	10 %
4	Stone	< 30 cm	30 %
5	Pumice	< 30 cm	10 %
6	Aerated concrete stone	< 30 cm	20 %
7	Red brick	< 30 cm	35 %
8	Iron-reinforced concrete	< 30 cm	30-90%
9	… Ceiling	< 30 cm	70 %
10	… Outer wall	< 30 cm	60 %
11	… Inner wall	< 30 cm	40 %
12	Metal grid	< 1 mm	90 %
13	Aluminum coating	< 1 mm	100 %

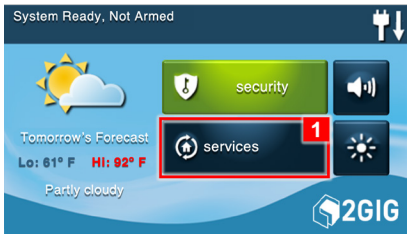
Scenes, Rooms & Bookmarks

Item	Description	Where to Program
Rule	• Does not require pressing a button to initiate (**activated by sensor** or state of panel) • Ex. When X sensor reports activity, do XYZ to my Z-Wave device(s) • Unable to disarm the panel	**GC2**: Panel and Remote Service Provider (RSP) **GC3**: Remote Service Provider (RSP) only
Scene	• Similar to a rule, but requires human intervention (**activated by pressing a button**) • Ex. When “Goodnight” scene is executed, turn off Z-Wave lights, lock the front door, and turn down the thermostat	**GC2/GC3:** RSP or Panel **Note:** Scenes created on the panel do not sync with the RSP & vice versa
Room	• Groups **Z-wave devices *and* scenes** by location • Room names are fully customizable • Displays relevant devices/scenes instead of scrolling through a long master list of devices/scenes	**GC3** Panel only
Bookmark	• Allows the end user to set any menu screen as the home screen • The **Home** button will still go to the home screen, but when the panel goes to sleep, it will open to the **Bookmarked** screen when screen is touched	**GC3** Panel only

NOTE: *Refer to the **Field Guide** for more details on scenes, rooms, and bookmarks.*

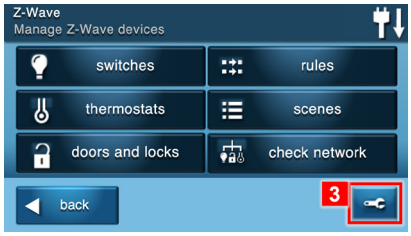
GC2: Z-Wave Programming

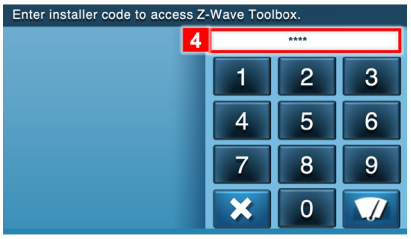
Z-Wave devices are configured in the **Z-Wave Toolbox**.



GC2: Accessing the Z-Wave Toolbox

1. Press the **Services** button on the GC2 home screen.
2. Press the **Z-Wave** button.
3. Press the **Wrench icon** button.
4. Enter the **Installer Code** (default code = **1561**).





GC2: Removing/Excluding a Z-Wave Device

1. From the **Z-Wave Toolbox**, press the **Remove Devices** button.
2. Trigger the device's pairing button (or turn Z-Wave light bulb ON/OFF a couple times).
   NOTE: *Some devices may require you to press the pairing button more than once.*
3. When the panel shows '*A device has been removed*' click the **OK** or **Back** button.

Because of factory testing, devices may need to be removed before being able to be added (even if new).

GC2: Adding/Including a Z-Wave Device

1. From the **Z-Wave Toolbox**, press the **Add Devices** button.
2. Trigger the device's pairing button (or turn Z-Wave light bulb ON/OFF a couple times).
   NOTE: *Some devices may require you to press the pairing button more than once.*
3. Wait for the manufacturer and node number to display before learning the next device.

Door locks may need to be within 1 foot of the panel during discover, and for at least 5 minutes after they are paired.

GC2: Creating a Scene

A **scene** gives you the ability to send commands to different devices at the same time.

1. From the home screen press the **Services** button.
2. On the Services screen press the **Z-Wave** button.
3. One the Manage Z-Wave Devices screen, select **Scenes.**
4. Press **Add Scene.**
5. Enter a name for the scene, then select **OK**. The Z-Wave Scene will display.
6. Add an action by selecting **Add Action**, then select **Z-Wave Switch**, **Z-Wave Thermostat**, or **Z-Wave Doorlock.**
7. Make a selection on the New Switch Action screen:
   - **For Switch**: ON/OFF
   - **For Thermostat:** Desired Mode and Setpoint
   - **For Doorlock:** Unlock/Lock
8. Press **OK.**
9. Press the ◀ button.

GC2: Creating a Rule

A **rule** gives you the ability to trigger a scene after a specified panel event. For example, you can create a rule to arm the security system when an alarm occurs. **Requires *Q79* to be set to *2*.**

1. From the home screen press the **Services** button.
2. On the Services screen press the **Z-Wave** button.
3. On the Manage Z-Wave Devices screen, select **Rules.**
4. Press **Add Rule.**
5. Use the ◀ and ▶ buttons to choose a rule.
6. Use the ◀ and ▶ buttons to choose a scene.
7. Press the ◀ button.

GC2: Final Setup (and Creating a Mesh Network)

1. From the **Z-Wave Toolbox**, press the **Advanced Toolbox** button.
2. Press the **Rediscover Network** button.

***Rediscover Network* is essential to creating a mesh network! It reroutes the GC2's internal routing table.**

GC3: Z-Wave Programming

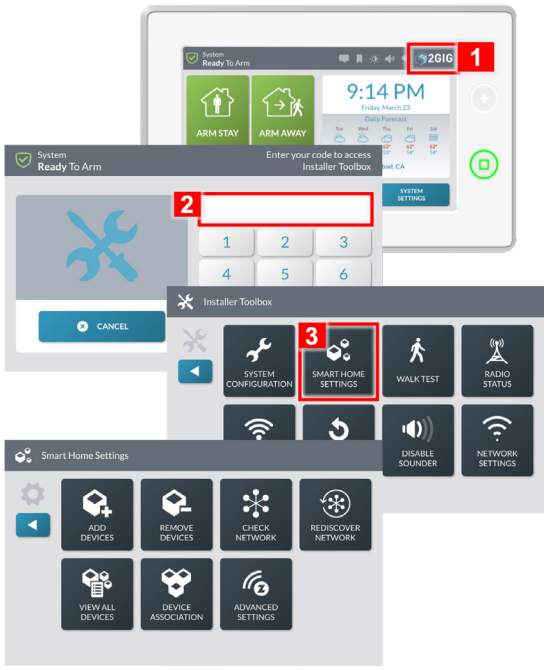
Z-Wave devices are configured in the GC3 in the **Smart Home Settings**.

GC3: Accessing Smart Home Settings

Z-Wave devices are configured in the GC3 under the **Smart Home Settings*** option.

To access **Smart Home Settings:**

1. Press the **2GIG logo** on the GC3 home screen.
2. Enter the **Installer Code** (default code = **1561**).
3. Tap **Smart Home Settings**. The menu will display.



Unless the Master User restricts Smart Area controls, Z-Wave devices can be controlled in all 4 Smart Areas, regardless where located!

* *The options on the **Smart Home Settings** menu are different than the options the customer sees on the **Smart Controls** menu.*

GC3: Removing/Excluding a Z-Wave Device

1. From the **Installer Toolbox**, press the **Smart Home Settings** button.
2. Press the **Remove Devices** button.
3. Trigger the device's pairing button (or turn Z-Wave light bulb ON/OFF a couple times).
   NOTE: *Some devices may require you to press the pairing button more than once.*
4. When the panel shows '*A device has been removed*' click the **OK** or **Back** button.

Because of factory testing, devices may need to be removed before being able to be added (even if new).

GC3: Adding/Including a Z-Wave Device

1. From the **Installer Toolbox**, press the **Smart Home Settings** button.
2. Press the **Add Devices** button.
3. Trigger the device's pairing button (or turn Z-Wave light bulb ON/OFF a couple times)
   NOTE: *Some devices may require you to press the pairing button more than once.*
4. Wait for the manufacturer and node number to display before learning the next device.

Door locks may need to be within 1 foot of the panel during discover, and for at least 5 minutes after they are paired.

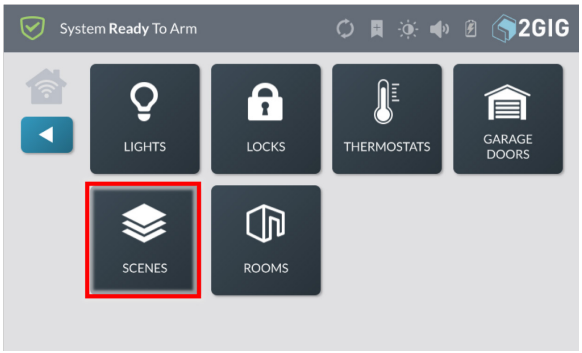
GC3: Creating a Scene

A **scene** gives you the ability to send commands to different devices at the same time.

Example: when "*Goodnight*" scene is executed, turn off Z-Wave lights, lock the front door, and turn down the thermostat.

To create a **Scene** on the panel:

1. Press **Smart Home Controls** on the GC3 home screen.
2. Press **Scenes.**
3. Press the **pencil icon** next to **Edit Scenes.**
4. Press **Add New Scene.**
5. Name the scene, then press **Next.**
6. Select the **category** (ex. **Lights**).
7. Press the **icon** next to **Add or Remove Items.**
8. Select the device (ex. **Night Light** and/or **Kitchen Dimmer**).
9. Continue selections (ex. **Locks**).
10. Continue selections (ex. **Front Door Lock**).
11. When finished, press the ◀ arrow.
12. Press the icon next to **Done Editing.**

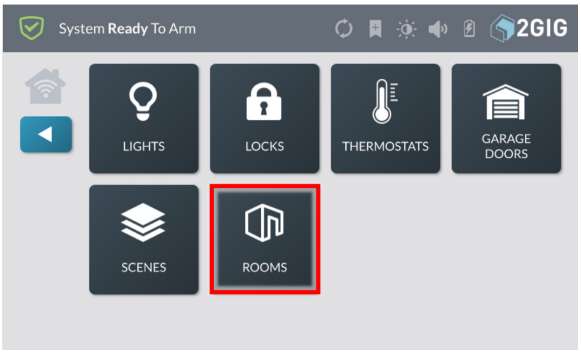


GC3: Creating a Room

A **room** gives you the ability to group Z-Wave devices and scenes by location.

To create a **Room** on the panel:

1. Press **Smart Home Controls** on the GC3 home screen.
2. Press **Rooms.**
3. Press the **pencil icon** next to **Edit Rooms.**
4. Press **Add New Room.**
5. Name the room, then press **Next.**
6. Press the **icon** next to **Add or Remove Items.**
7. Select the category of devices (ex. **Lights**).
8. Select the device to be added (ex. **Night Light**).
9. Continue selections (ex. **Front Door Lock**).
10. Continue selections (ex. **Goodnight**).
11. Once configured, press the ◀ arrow.

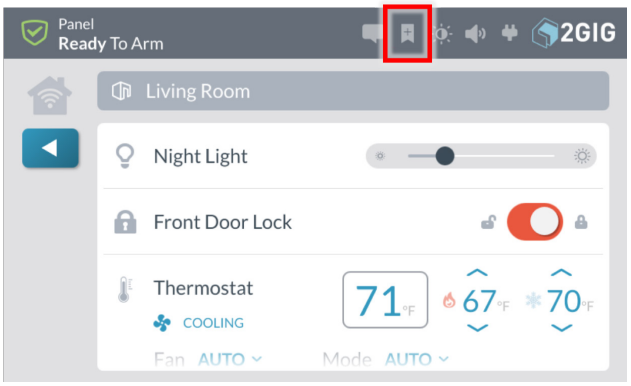


GC3: Bookmarking a Screen

A **bookmark** gives you the ability to set any menu screen as your home screen. The **Home** button still go to the home screen, but when the panel goes to sleep, it will open to the *Bookmarked* screen when the screen is touched.

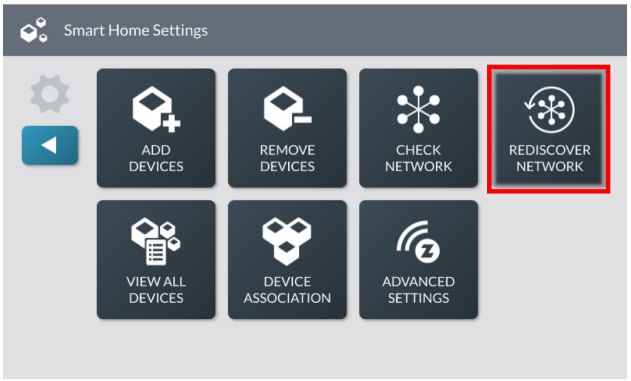
To **Bookmark** a page on the panel:

1. While on the desired page, press and hold the **bookmark icon.**
2. Press **OK** to confirm.



GC3: Final Setup (and Creating a Mesh Network)

1. From the **Installer Toolbox**, press the **Smart Home Settings** button.
2. Press the **Rediscover Network** button.



***Rediscover Network* is essential to creating a mesh network! It reroutes the GC3's internal routing table.**

Sensors and Peripherals Installation & Troubleshooting

345 MHz Sensors and Peripherals

Some sensors have an encrypted version available and are noted with an e next to them. These eSeries sensors have special eSeries equipment codes and only compatible with eSeries panels.

Intrusion Sensors

Thin Door/Window Contact

2GIG-DW10-345 *(Legacy)*
2GIG-DW10E-345 *(eSeries)*

Programming

Sensor Type:	(01) Exit/Entry 1 – for Entry Doors (03) Perimeter – for Windows
Equipment Code:	**Legacy sensor:** (0862) 2GIG Thin Door/Window Contact **eSeries Sensor:** (2862) eSeries Thin Door/Window Contact
Serial Number:	TXID
Loop Number(s):	Loop 1 if using a wired switch Loop 2 if using the internal switch (*as shown below)*

Installation

Use these guidelines when installing the door contact for internal switch usage:

- Mount the sensor within 100 feet (30 meters) of the panel (open air range is 350 feet).
- For **single-door installation**: mount the sensor on the door frame and the magnet on the door.
- For **double-door installation**: mount the sensor on the least-used door and the magnet on the most used door.
- Align the magnet with the sensor by making sure the alignment arrow on the magnet points to the center alignment mark on the sensor (*see image below*).
- Make sure the distance between the sensor and magnet is 0.4 inches or less.
- If sensor/magnet is on a metallic surface, add a spacer

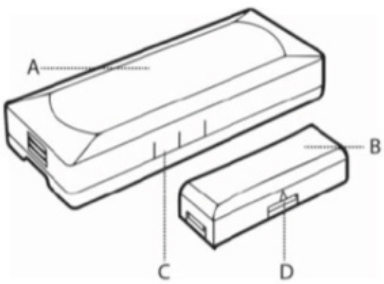
Troubleshooting

Contact shows open after the contact is closed

1. Verify the loop number is correct.
2. Verify the switch and the magnet are properly aligned.

Contact shows loss of supervision

1. Verify programming is correct (especially serial number); test sensor to see if it shows opened/closed on panel.
2. Verify distance between panel and sensor is not too great. This can be difficult to determine. The sensor has open air range of 350 feet. Additionally, there could be interference that could be lowering the range. May need to add 345 MHz repeater (2GIG-RPTR-345).
3. Swap for another contact.



A: Thin Door/ Window Contact Sensor
B: Thin Door/ Window Contact Magnet
C: Alignment Marks on Sensor
D: Alignment Marks on Magnet

Micro Door/Window Sensor with Bypass Feature

2GIG-DW40-345

- The Wireless Door/Window with local bypass is designed for installation on doors, windows, and other items with an open/close feature.
- The local bypass feature allows the opening of a protected door or windows without sending a signal to the panel.
- The bypass feature can be disabled if needed.
- The range will be about 20% less than other sensors.

Programming

Sensor Types:	(01) Exit/Entry 1 – for Entry Doors (02) Exit/Entry 2 – for longer delay (ex. overhead garage door) (03) Perimeter – for Windows
Equipment Code:	(1064) 2GIG Bypass Sensor
Serial Number:	TXID
Loop Number(s):	Loop 1

Installation

Use these guidelines when installing the door contact for internal switch usage:

- Mount the sensor within 75-100 feet (30 meters) of the panel (open air range is 275 feet).
- For **single-door installation**: mount the sensor on the door frame and the magnet on the door.
- For **double-door installation**: mount the sensor on the least-used door and the magnet on the most used door.
- Align the magnet with the sensor by making sure the alignment arrow on the magnet points to the center alignment mark on the sensor.
- Make sure the distance between sensor and magnet is 0.4 inches or less
- If sensor/magnet is on a metallic surface, add a spacer

Operation

To operate the bypass feature:

1. With the door or window closed, press and hold the **bypass** button on the contact until the LED turns ON. If the LED is OFF and the door is closed, press and hold the **bypass** button again until the LED turns ON (3-5 sec.).
2. Open the door or window. The local bypass event will be logged in supporting panels.
3. Once the door or window is closed, the local bypass will end.
4. To toggle the bypass feature: Remove battery, then replace while holding down the bypass button. The LED will flash once to indicate that the bypass feature has been disabled and 5 times if re-enabled.

Troubleshooting

Contact shows open after the contact is closed

1. Verify the loop number is Loop 1.
2. Verify the switch and the magnet are properly aligned.

Sensor Bypass not being logged at the panel

1. Verify Firmware on the panel
   For GC2: 1.14 (or later)
   For GC3: 3.1 (or later)

Recessed Door Contact

2GIG-DW20R-345 *(Legacy)*
2GIG-DW20E-345 *(eSeries)*

The 2GIG Recessed Door Contact (2GIG-DW20R-345) is the industry's most flexible supervised door contact. It communicates with the panel using the 345 MHz wireless frequency. It also allows a multitude of applications while hiding the transmitter within a door or window frame.

Programming

Sensor Types:	(01) Exit/Entry 1 – for Entry Doors 03) Perimeter – for Unused Doors
Equipment Code:	**Legacy sensor:** (0863) 2GIG Recessed Door Contact **eSeries sensor:** (2863) eSeries Recessed Door Contact
Serial Number:	TXID
Loop Number(s):	Loop 1

Installation

- Mount the sensor within 100 feet (30 meters) of the panel (open air range is 350 feet).
- Use a 3/4" drill bit for the hole for the contact and magnet.
- Use a 15/16" bit to counter sink the magnet and sensor.
- If contact or magnet is a little loose, wrap some electrical tape around either end to get a tighter fit.

Troubleshooting

Contact shows open after the contact is closed or won't trigger panel

1. Verify the loop number is set to Loop 1.
2. Verify the switch and the magnet are properly aligned.

Contact shows loss of supervision

1. Verify programming is correct (especially serial number); test the sensor to see if it shows opened/closed on panel.
2. Verify the distance between the panel and sensor is not too great. This can be difficult to determine. The sensor has open air range of 350 feet. Additionally, there could be interference that could be lowering the range. You may need to add a 345 MHz repeater (2GIG-RPTR-345).
3. Swap for another contact.

Wireless Tilt Sensor

2GIG-TILT1-345 *(Legacy)*
2GIG-TILT1E-345 *(eSeries) - Coming soon! **

The Wireless Tilt sensor (2GIG-TILT1-345) is designed for use where the tilted status needs to be monitored. A typical application would be on a garage door. Other uses might include, mailbox lid, pet doors, and/or hinged crawl space doors. Once the sensor is tilted to 45 degrees, the sensor will transmit to the panel. The sensor will also send a restore signal when sensor is returned to less than 45 degrees.

Programming

Sensor Types:	(01) Exit/Entry 1 (03) Perimeter
Equipment Code:	**Legacy sensor:** (1062) 2GIG Tilt Sensor **eSeries sensor:** (2061) eSeries Tilt Sensor **
Serial Number:	TXID
Loop Number(s):	Loop 1

Installation

- Mount the sensor within 100 feet (30 meters) of the panel (open air range is 350 feet).
- Verify the battery tab insulator has been completely removed.
- Verify the arrow on the side of TILT is pointed up when the sensor is vertical.

Troubleshooting

Contact isn't showing open and closed correctly

1. Verify the loop number is set to Loop 1.
2. Verify arrow on side of TILT is pointed up, when the sensor is in vertical position.
3. When testing open status, verify sensor is in horizontal position for at least 10 seconds.

Contact shows loss of supervision

1. Check to make sure programming is correct (especially the serial number); test sensor to see if it shows opened/closed on panel.
2. Verify the battery is showing correct voltage.
3. Verify the distance between the panel and sensor is not too great. This can be difficult to determine. The sensor has open air range of 350 feet. Additionally, there could be interference that could be lowering the range. You may need to add a 345 MHz repeater (2GIG-RPTR-345).
4. Swap for another contact.

* eSeries Sensor coming soon!
** Equipment Code only available on GC2e firmware 1.21 or later, and GC3e firmware 3.2.3 or later.

Passive Infrared Motion Detector (PIR)

2GIG-PIR1-345 *(Legacy)*
2GIG-PIRE-345 *(eSeries)*

The Passive Infrared Motion Detector (2GIG-PIR1-345) is a wall-mounted unit with wide-angle motion protection. When set to *High (HI) Sensitivity Mode*, the PIR has a maximum range of 30 feet deep x 50 feet wide (9.1 meters x 15.2 meters). The PIR's pet-immune feature can be set to tolerate animals up 55 lbs. (25 kg).

Programming

Sensor Types:	(04) Interior Follower – Instant (10) Interior Follower w/ delay – Uses Entry Delay 1
Sensor Equipment Type:	Motion
Equipment Code:	**Legacy sensor:** (0869) 2GIG PIR with Pet Immunity - *OR* - (0609) Existing Motion Detector **eSeries sensor:** (2869) eSeries PIR with Pet Immunity
Serial Number:	TXID
Loop Number(s):	Loop 1

Installation

- Mount the detector 7-8 feet high.
- Ensure motion is not pointed at obstructions, objects that sway/move in air current, or anything that can alter temperature (windows, air ducts, etc.).
- Place a magnet next to the arrow on the side of the motion to enable test mode (5 mins).
- Make sure to set pet immunity jumpers for the correct level.

Troubleshooting

PIR won't trigger panel

1. Verify the loop number is set to Loop 1.
2. Verify the PIR has seen no movement for 3 minutes.

PIR triggers panel when there is no movement from pets or humans (causes false alarm)

1. Verify the PIR is not positioned in direct sunlight or close proximity to a heating or A/C duct.
2. Verify the front cover is secure and not causing a tamper.
3. Verify the lens is clean and free of cobwebs or other insect activity.
4. Verify no plants, drapes, etc. are moving due to an open window (breeze) or heating and cooling vent.

Glass Break Detector

2GIG-GB1-345 *(Legacy)*
2GIG-GB1E-345 *(eSeries)*

The Glass Break Detector (2GIG-GB1-345) is a fully-supervised, tamper-protected, ceiling or wall-mounted unit. The detector provides a 15 feet 4.6 meters) maximum detection range, 360° maximum horizontal sensing angle, and dual-stage glass break detection.

Programming

Sensor Types:	(03) Perimeter
Equipment Code:	**Legacy sensor:** (0864) 2GIG Glass Break Detector **eSeries sensor:** (0864) eSeries Glass Break Detector
Serial Number:	TXID
Loop Number(s):	Loop 1

Installation

- Install the detector no more than 15 feet from windows.
- Use the Honeywell FG-701 to test the GB1.
- Hardwood floors and spaces with severe echoes can increase the chance of false alarms.
- When wall mounted:
    - The detector provides protection coverage on the opposite or adjacent window.
    - Windows on the same wall as the detector are not protected.
    - Always mount the detector so the **Test** button is in the downward position.

Troubleshooting

GB1 won't trigger panel

1. Verify the loop number is set to Loop 1.
2. Test using an approved Glass Break Tester (ex. Honeywell FG-701).

GB1 triggers panel when there is no breaking glass (False Alarm)

1. Verify if any sounds set it off: Slamming doors, dogs barking, dropped items on tile floor.
    - **If *a* sound sets it off**: the sensor may have to be moved to carpeted area. If this has already been done or is not possible, you may need to replace the sensor.
    - **If *no* sounds set it off**: verify programming (loop 1), then retest the sensor. If you continue to get false alarms, you may need to replace the sensor.

Carbon Monoxide Detector

2GIG-CO3-345

The Wireless Carbon Monoxide Alarm consists of an electrochemical carbon monoxide sensor assembly coupled to a wireless transmitter, intended for use with wireless alarm systems.

Programming

Sensor Types:	(14) 24-hour Carbon Monoxide Alarm
Equipment Code:	(1026) 2GIG CO Detector
Serial Number:	TXID
Loop Number(s):	Loop 1

Installation

- **Wall-mounted** detectors should be positioned at least as high as a light switch, and at least six inches (15 centimeters) from the ceiling.
- **Ceiling-mounted** detectors should be at least 12 inches (30 centimeters) from any wall.
- **Do not place** detector within 5 feet (1.5 meters) of any cooking appliance.
- Ideal installation locations:
    - Within 10 feet (3 meters) of a sleeping area.
    - Inside the bedroom if it contains a fuel burning appliance.
    - On every floor of the building.
    - Ideally, install in any room that contains a fuel burning appliance.
    - If the appliance or the room is not normally used, such as the boiler room, the detector should be placed just outside the room so the alarm can be heard more easily.

Troubleshooting

Loss of Supervision

1. When testing the sensor, verify that the **Test** button is held down until all programmed loops have triggered on the panel.
2. Check to make sure programming is correct (especially serial number); test sensor to see if it shows opened/closed on panel.
3. Verify the battery is showing the correct voltage.
4. Verify the distance between the panel and sensor is not too great. This can be difficult to determine. The sensor has open air range of 350 feet. Additionally, there could be interference that could be lowering the range. The panel may need to be closer to the device.
5. Swap for another contact.

Smoke, Heat and Freeze Detector

2GIG-SMKT3-345

2GIG's Wireless Smoke/Heat/Freeze Alarm is a battery-powered wireless alarm intended for use with a 2GIG system. When smoke, excessive heat or cold is detected, the alarm sounds a loud local alarm and the built-in transmitter sends a signal to the panel. This alarm is designed to provide protection within a 35-foot radius of the unit.

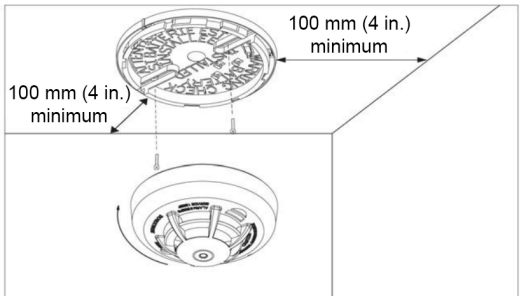
Programming

Sensor Types:	(09) 24 Fire (08) 24 AUX – Freeze and Heat (23) No response – Notifications only
Equipment Code:	(1058) 2GIG Smoke Detector
Serial Number:	TXID
Loop Number(s):	*This sensor uses 1 loop per function:* Loop 1 for Smoke, Loop 2 for Heat, and Loop 3 for Freeze

Each loop must be setup as a different zone. If you want to utilize all three features (smoke, heat, freeze) you will need to setup three different zones and use each loop.

Installation

- Refer to the diagram (on the right) to install the mounting base on the ceiling or on the wall.
- Use the 2 screws and anchors provided.
- Maneuver the base so the screws are at the elbow of the screw slots and secure.
- Refer to the sensor's *Installation Instructions* that come with the product for additional information.



Troubleshooting

Loss of Supervision

1. When testing the sensor, verify that the **Test** button is held down until all programmed loops have triggered on the panel.
2. Check to make sure programming is correct (especially serial number); sensor to see if it shows opened/closed on panel.
3. Verify the battery is showing the correct voltage.
4. Verify the distance between the panel and sensor is not too great. This can be difficult to determine. The sensor has open air range of 350 feet. Additionally, there could be interference that could be lowering the range. The panel may need to be closer to the device.
5. Swap for another contact.

The Smoke, Heat, or Freeze option is not triggering the panel

1. Verify that the option not triggering is programmed correctly (each option requires a separate zone and uses a different loop: 1 for Smoke, 2 for Heat, 3 for Freeze).
2. Hold down the **Test** button on the sensor for at least 30 seconds and verify on the panel.

Smoke Detector Sensor/Transmitter (Smoke Ring)

2GIG-SDS1-345 (Smoke Ring)

The 2GIG Smoke Detector Sensor, is a 110V AC-powered sensor. It monitors the interconnect line on interconnected hardwired smoke detector systems and sends out a transmission when smoke is detected at any of the smoke alarm units connected on the same circuit.

- The device has LEDs to visually indicate the status of the sensor.
- A single CR2032 battery provides backup power in the event that AC power is lost on the smoke detector system circuit.
- Converts traditional AC-powered interconnected smoke detector systems to work with wireless alarm panels.
- Installs between ceiling and existing AC-powered interconnected smoke detector.

Compatible Smoke Alarm Models

- **BRK Brands Model 7010B**: AC Powered Photoelectric Smoke Alarm with Battery Backup
- **Firex Kidde Model i4618**: Hardwire Ionization Smoke Detector with Battery Backup
- **First Alert BRK Model 9120B**: Hardwired Smoke Alarm with Battery Backup
- **Kidde Model i12040**: 120V AC Wire-in Smoke Alarm with Battery Backup
- **USI Electric Model 5304**: Hardwired Ionization Smoke and Fire Alarm with Battery Backup

Programming

Sensor Types:	(09) 24-Hour Fire
Equipment Code:	(1058) 2GIG Smoke Detector
Serial Number:	TXID
Loop Number(s):	Loop 1

Installation

Wiring the Connections

- Before connecting the wires from the smoke detector sensor, identify the (+) line (hot) 120VAC wire and the neutral wire.
- Usually the (+) line (hot) 120VAC wire will be black and the neutral wire will be white.
- Use a voltmeter or voltage sensor to verify that the proper wires are selected.
- You may need to reconnect power to the electrical circuit powering the interconnected hardwired smoke detectors in order to do this.

Tips/Troubleshooting

- Only one SDS1 is required per interconnected smoke detector system.
- Use an electrician's linesman plier or equivalent tool to crimp the wiretaps.

FireFighter

2GIG-FF-345 *(Legacy)*
2GIG-FF1E-345 *(eSeries) - Coming soon! **

- Dual capabilities: can be programmed for Smoke or Carbon Monoxide detection.
- Monitors any UL existing smoke, carbon, or combination detector that emits a Temporal Three (T-3) tone.
- Does not impact UL or Fire Marshall approval of existing smoke detectors.
- Can be used with Legacy Smoke Detectors: non (T-3).
- Refer to the *FireFighter's Installation Instructions* for additional information (i.e., how to detect a non-temporal detector when replacement is not an option).

Programming

Sensor Types: Smoke Detection: (09) 24 Hour Fire, OR (16) 24 Hour Fire with Verification
CO Detection: (14) 24 Carbon Monoxide

Equipment Code: GC2/GC2e: Smoke Detection: (1058) 2GIG Smoke Detector
CO Detection: (1026) 2GIG CO Detector
GC3: (1069) FireFighter SMKT/CO Listener **
GC3e: (2069) eSeries FireFighter SMKT/CO Listener **

Serial Number: *This sensor has **2 different serial numbers*** (one to be used for the Smoke function; the other to be used for the CO function). It is recommended you **manually enter the correct number** to ensure the device triggers properly for the desired function. For:*
- Smoke Detection: enter the **SM#** manually
- CO Detection: enter the **CO#** manually

Loop Number(s): Loop 1

* *The 2 serial numbers can be found on a label on the back of the device and on the circuit board (as shown in the image). It's recommended to make note of these numbers when installing the batteries.*

Installation

- Make note of the SM# and/or CO# on the FireFirefighter & program it *prior* to installation.
- Install the mounting plate on the ceiling using the supplied tape or screws; be sure the arrow on the mounting plate is facing the detector and that it is within 6 inches of the detector.

Testing

The FireFighter (FF) will be in Test Mode for 1 hour after powering on. With the FF mounted, hold the CO/smoke detector's **Test** button for at least 30 seconds, the LED on the FF will start flashing red once its locked on to the detector's temporal tone. Release the **Test** button and the LED will stop flashing. Refer to the *FireFighter's Installation Instructions* (part #10013157B), for additional testing information.

Troubleshooting

Does not trigger an alarm

1. Verify the detector emits a Temporal-Three (T-3) tone, which produces an interrupted 4-Count (3 half second pulses, followed by 1 half second pause, repeated a minimum of 180 seconds).
2. If being used with a legacy detector, which does not support a T-3 pattern, see page 2 (Legacy Smoke Detectors) of the *FireFighter's Installation Instructions* for additional information.
3. Ensure the programming is correct.
4. Ensure the FireFighter is positioned within 6 inches of the detector, with the holes in its housing facing the detector.

FireFighter shows loss of supervision

1. Verify the distance between the 2GIG panel and the FireFighter is within range of the 2GIG panel. The FireFighter has open air range of 350 feet, and a typical indoor operating range of 100–150 feet. Additionally, there could be interference that could be lowering the range. The panel may need to be closer to the device.

* eSeries Sensor coming soon!
** Equipment code only available on GC3/GC3e firmware 3.2.3 or later.

Panic Button Remote

2GIG-PANIC1-345 *(Legacy)*
2GIG-PANIC1E-345 *(eSeries) - Coming soon! **

The Panic Button Remote is a compact, battery-powered, wireless panic button that transmits an Emergency signal from any location within radio frequency (RF) range of the panel. The signal can be transmitted to the panel, whether the security system is armed or disarmed.

- Completely water resistant
- Mounting options: lanyard, wristband, wall mount, belt clip, car-visor clip

Inserting and Replacing the Batteries

WARNING! To be useful in duress situations, it is imperative you maintain the battery in the panic button!

Always use the recommended replacement batteries and ensure that it is new, in good condition, and fully-charged.

To ensure proper functioning, it is recommended that end users and/or qualified installation personnel check the battery for the panic button regularly, at least once per year.

- Under typical conditions, the battery life is approximately two (2) years.
- When the battery is low, the panel's home screen will display a trouble notification.
- To help to ensure that the panic button is available during a duress event, always replace the battery when the low battery notification first appears.

Programming

This device is programed under **Wireless Programming** (not Keyfob).

Sensor Types:	(06) 24-Hour Silent Alarm – Hold up button (07) 24-Hour Audible – Police (08) 24-Hour Auxiliary – Medical
Equipment Code:	**Legacy sensor:** (0868) 2GIG Panic Button Remote **eSeries sensor:** (2868) eSeries Panic **
Serial Number:	TXID
Loop Number(s):	Loop 1

Troubleshooting

To activate the **Panic** button, press and hold the **Panic** button for approximately two (2) seconds. When the LED illuminates RED, a signal is transmitted to the panel.

Panic button won't trigger panel

1. Try changing the equipment type from emergency to contact.
2. If using sensor type *(06) 24 hour silent*, this will not register on panel, but the signal should be sent to Central Station.

* eSeries Sensor coming soon!

** Equipment code only available on GC2e firmware 1.21 or later, and GC3e firmware 3.2.3 or later.

Fall Detector Pendant

2GIG-F1-345

- Battery powered pendant style 345 MHz transmitter.
- Utilizes an accelerometer to monitor movement and body positioning.
- Data analyzed using advanced fall detection algorithms based on real human falls.
- Completely Sealed: Durable, shock, and water resistant (IPx7) with long lasting battery.
- Break-away lanyard, LED battery indicator, and a manual emergency button.

Programming

Sensor Types:	(08) 24-Hour Auxiliary – Medical (07) 24 Hour Audible
Sensor Equipment Type:	Emergency
Equipment Code:	(0868) 2GIG Panic Button Remote
Serial Number:	TXID
Loop Number(s):	Loop 1

Installation and Operation

- No physical installation of the F1-345 is required.
- The F1-345 is not designed to be worn while exercising (since vigorous movements that cause the pendant to swing and stop abruptly may trigger an emergency).
- The battery is not replaceable. The LED will display Red when the battery is low, at which time the service provider should be contacted ASAP.
- The pendant is designed to be worn with the button towards the chest to allow easy thumb activation.
- Pressing the button for 2 seconds initiates an emergency call.
- The pendant should be tested weekly.

Testing

Test the pendant by pressing the **Emergency** button for two seconds, the panel will initiate an alarm and a call to the monitoring station, and the green battery indicator LED will illuminate.

Troubleshooting

Pendant does not trigger an alarm

1. Verify the programming is correct.
2. Verify the battery indicator LED is not Red (low battery).
3. Verify the location of the person wearing the pendant is within range and that nothing is causing interference with the pendant.

NOTE: The pendant has open air range of about 300 feet and a typical indoor operating range of 100–150 feet.

Notification Sensors

Stove & Grill Guard Sensor

2GIG-STVGRL1-345

The 2GIG Stove & Grill Guard is an ON/OFF sensor that alerts the panel (and optionally the smart phone with Alarm.com) when the knob on a stove/grill is turned ON. It is compatible with 2GIG panels, including GC2, GC3, and Vario (and select Honeywell Vista panels).

- Slim and sleek (2.2” diameter, 0.21” thickness)
- Easily attaches to most common stove or grill knobs
- Notification to panel when knob on stove/grill is turned at least 20° from default OFF position
- Remote push/SMS/email notification enabled through Alarm.com account (refer to the *Installation Instructions* that come with the product for more information)
- **Water resistant:** Weather sealed sensor disc adheres to grill surface, IP65 Rated
- **Transmission range:** 100 feet open air

Requirements

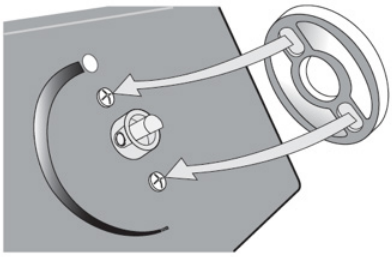
- 2GIG Security & Automation panels:
  - **GC2**: Firmware version 1.17.0.3 or higher
  - **GC3**: Firmware version 3.02 or higher
  - **Vario**: Firmware version 5.57 or higher
- Honeywell Vista Panels (15P, 20P, 50P, 10SE, 20SE tested)

Programming

Sensor Types:	(23) No Response
Sensor Equipment Type:	Contact
Equipment Code:	(0862) 2GIG Thin/Door Window Contact
Serial Number:	TXID
Loop Number(s):	Loop 2
Voice Descriptor:	Gas Left On (recommended)

Installation

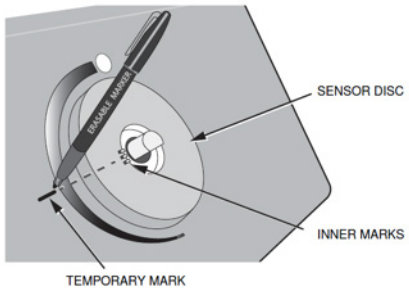
1. Ensure the stove/grill/heater is OFF (if possible, also turn off the gas valve and/or power source).
2. Remove the knob from the stove/grill.
3. Ensure the surface around the knob area is clean.
4. DO NOT REMOVE THE ADHESIVE BACKING FROM THE SENSOR DISC YET! Place the sensor disc on the knob stem area and determine the ideal orientation of the disc. This may be influenced by the presence of screws on the faceplate (*as shown below*).



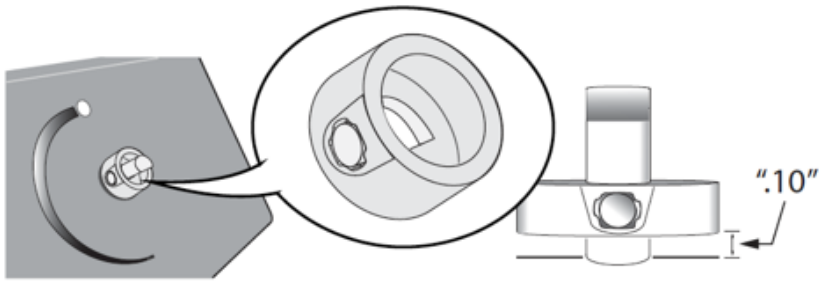
Continued on the next page…

Stove & Grill Guard Sensor, *continued*

5. Put a temporary mark on the faceplate to indicate disc orientation (*as shown below*), then remove sensor disc.



6. Identify the sleeve that best fits your knob stem, then install it 0.10” above the faceplate (*as shown below*).



7. Ensure the sleeve’s magnet aligns with the temporary mark made on the faceplate.
8. Remove the adhesive backing from the sensor disc and install it on the faceplate.
9. Ensure the sensor disc’s markings align with the magnet on the sleeve, and that the disc and sleeve do not touch.
10. Install the knob back onto the stove/grill.

NOTE: *For detailed instructions, refer the Installation Instructions that come with the product*

Troubleshooting

Sensor does not correctly report open/close

1. Verify the loop number is set to Loop 2.
2. Verify the magnet on the sleeve is properly aligned with the markings on the sensor disc (no more than 0.10”).

Contact shows loss of supervision

1. Verify programming is correct (especially serial number); test sensor to see if it shows opened/closed on panel.
2. Verify the distance between the panel and sensor is not too great. The sensor has open air range of 100 feet. Additionally, there could be interference that could be lowering the range. May need to add 345 MHz repeater (2GIG-RPTR-345).
3. Swap for another sensor.

2GIG Gun Motion Detector

2GIG-GNGRD1-345

The 2GIG Gun Motion Detector adds an important safety tool for firearm owners by providing a timely notification to the panel when a firearm is moved.

Key Selling Points & Features:

- The only professionally monitored trigger guard available.
- Hardened steel lock deters unauthorized use of a firearm.
- Designed for use with pistols, revolvers, shotguns (non-lever action) and rifles (non-lever action) with a trigger guard up to 2 1/2 inches long and up to 1 7/8-inches wide (external dimensions).
- 3-digit combination trigger guard lock deters unintended use.
- California Gun Safety (DOJ) Device certified.

Programming

Sensor Types: (24) No Response – Chime on panel and set up on RSP to send notification
(04) Interior Follower – Alarm in Armed Away, No action In Armed Stay, Local Chime when disarmed
(10) Interior with Delay – Alarm after Entry Delay in Armed Away, No action in Armed Stay, Local chime when disarmed
(05) Day Zone – Alarm in Armed Away and Stay, Local chime when disarmed

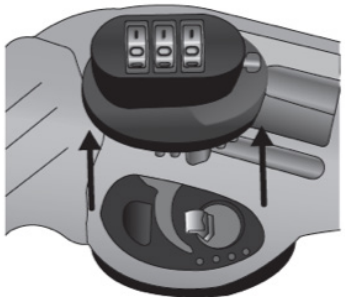
Equipment Code: (1061) – Tilt Sensor

Serial Number: TXID

Loop Number(s): Loop 1

Installation

- Installs around the trigger guard of many hand guns and rifles.
- **Not** to be used on a loaded firearm.
- Installs/removes as shown on the image on the right.
- Refer to the *Gun Motion Detector Installation Instructions* for additional information.



Troubleshooting

Gun lock will not trigger the panel or shows loss of supervision.

1. Verify correct programming including serial number (TXID) and loop number (Loop 1).
2. Verify range and ensure sufficient signal strength if weapon is in a storage case.
3. Ensure the original plastic separation between battery and terminals is removed.
4. Replace battery (1 CR2032).

2GIG Outdoor Wireless Contact Sensor

2GIG-DW30-345 *(Legacy)*
2GIG-DW30E-345 *(eSeries) - Coming soon! **

The 2GIG Outdoor Wireless Contact Sensor expands the reach of security systems to outdoor areas, providing timely notifications when outdoor gates or doors are opened. Able to handle harsh temperature conditions, this sensor is ideal for wide gaps when a typical sensor is insufficient.

Key Selling Points & Features:

- Sensor enables a wide gap (2 inches) enabling sensing for applications from yard gates and swimming pool access to detached garages
- Designed for extreme weather conditions (IP56) -40˚ to 150˚ F.
- Sends a notification to the panel when a door, gate, or window is opened/closed.
- Enables two unique zones (one is for an internal magnetic reed switch, while the second is for a normally-closed circuit that can have external).

Programming

Sensor Types:	(01) Exit/Entry 1 – standard delay (close to the panel) (02) Exit/Entry 2 – longer delay (further from panel; need longer time) (03) Perimeter – for instant alarm (23) No Response – to get notification only
Equipment Code:	**Legacy sensor:** (0862) 2GIG Thin Door/Window Contact **eSeries sensor:** (2862) eSeries Thin Door/Window Contact**
Serial Number:	TXID
Loop Number(s):	Loop 1 if using a minimum 22AWG jacketed cable connection to an external closed contact switch (*Wired*) Loop 2 if using the magnetic reed switch (*not Wired*)

Installation

- Place within 100 feet of the panel (open air range is 350 feet but may be greater if unobstructed)
- Can be mounted on flat or curved surfaces
- Align the magnet 0.25 inch (recommended) to 2.0 inches from sensor on the side with the alignment marks
- Refer to the *Outdoor Wireless Contact Sensor's Installation Instructions* the come with the product for additional information

Troubleshooting

Contact shows open and will not close.

1. Verify the loop number is correct (Loop 1 for external switch; Loop 2 for internal magnetic reed switch).
2. Verify the switch and the magnet are properly aligned.
3. Contact shows loss of supervision.

Verify programming is correct (especially serial number and loop number).

1. Verify the distance is not too great.
2. Replace batteries (2 AA batteries).

* eSeries Sensor coming soon!

** Equipment code only available on GC2e firmware 1.21 or later, and GC3e firmware 3.2.3 or later.

Flood and Temperature Sensor

2GIG-FT1-345 *(Legacy)*
2GIG-FT1E-345 *(eSeries) - Coming soon! **

- Fully supervised and tamper protected.
- Triggers an alarm if the probes are covered with water for 3 minutes, resets when the probes are free of water for 3 minutes.
- Triggers an alarm if the temperature:
  - Exceeds 95°F (35°C) for more than 5 minutes; resets when the temperature goes below 95°F (35°C) for 5 minutes.
  - Falls below 41°F (5°C) for more than 5 minutes; resets when the temperature goes above 41°F (35°C) for 5 minutes.
- Sensor has 3 modes (Flood, Heat & Freeze) that each use a separate zone and loop.

Programming

Sensor Types:	(08) 24-Hour Auxiliary Alarm (Water, Temp, Freeze)
Sensor Equipment Type:	Water – for flood Temperature – for heat Freeze – for cold
Equipment Code:	**Legacy sensor:** (1065) 2GIG Flood Sensor **eSeries sensor:** (2065) eSeries Flood Sensor **
Serial Number:	TXID
Loop Number(s):	*This sensor uses 1 loop per function:* Loop 1 for Flood, Loop 2 for Heat, and Loop 3 for Cold

Each loop must be setup as a different zone. If you want to utilize all three features (flood, heat, freeze) you will need to setup three different zones and use each loop.

Installation

- Do not install the battery until you are ready to program the sensor
- Mount the sensor using the double-sided sticky tape on the Sensor Mounting Plate, or by using two screws to secure the Mounting Plate
- Mount the Flood Probe at floor level where the probes would be immersed in water by using the Probe Mounting Plate and screw

Testing

To test, insert the Flood probe into a cup of water, so that the probes are completely covered. In about 3 minutes, the alarm should sound.

Troubleshooting

Does not trigger an alarm

1. Ensure the programming is correct, and the correct loops are used.

FT1-345 shows loss of supervision

1. Depending on the location of the sensor, it may be out of range. Additionally, there could be interference affecting the range, the addition of a 345 MHz repeater may help.

* eSeries Sensor coming soon!

** Equipment code only available on GC2e firmware 1.21 or later, and GC3e firmware 3.2.3 or later.

Water Leak Detector

2GIG-FT6-345
2GIG-FT6E-345 *(eSeries) - Coming soon! **

The 2GIG Water Leak Detector provides timely notification before costly water damage and flooding happens. Water damage is the #1 residential insurance claim.

Key Selling Points & Features:

- First in the industry to provide dual source protection against water leaks.
- Sends a notification if water is detected where it does not belong (i.e. dripping/leaking water source or pooled water present).
- Easy installation (no screws or tools needed).
- 2GIG and Honeywell 345 MHz compatible.
- Hot and cold ambient temperature warnings.
- Temperature thresholds:
    - **High**: 95° F (35°C)
    - **Low**: 41°F (5°C)

Programming

Sensor Types:	(08) 24-Hour Auxiliary Alarm (Water, Temp, Freeze)
Sensor Equipment Type:	Freeze – for cold Temperature – for heat Water – for flood (leaks/drips)
Equipment Code:	**Legacy sensor:** (1065) 2GIG Flood Sensor **eSeries sensor:** (2065) eSeries Flood Sensor **
Serial Number:	TXID
Loop Number(s):	*This sensor uses 1 loop per function:* Loop 1 for Cold, Loop 2 for Heat, and Loop 3 for Flood

Installation

- Place in locations that have a potential for water leaks or flooding.
- Do not place on a metal or conductive surface.
- If needed, secure detector in place with the provided double sided adhesive tape without covering the three metal contacts.

Troubleshooting

Does not trigger alarm or triggers Incorrect alarm.

1. Ensure the programming is correct and the correct loops are used.

FT6-345 shows loss of supervision.

1. Depending on the location on the location of the sensor, it could be out of range or there may be interference affecting the range. The addition of a 345 MHz repeater may help.
2. Verify programming (especially the serial number and/or loop number) Remember, each option (cold, heat, and flood) requires a separate zone and uses a different loop: 1 for Cold, 2 for Heat, and 3 for Flood.

* eSeries Sensor coming soon!

** Equipment code only available on GC2e firmware 1.21 or later, and GC3e firmware 3.2.3 or later.

Wireless Doorbell

2GIG-DBELL1-345

The Doorbell (2GIG-DBELL1-345) is a dual-purpose doorbell that can be installed with the dwelling's existing 24V wiring and/or use the 345 MHz radio frequency. The button can be used for numerous purposes; standard doorbell, holdup button, emergency button, used to trigger Z-Wave devices, etc.

Programming

Sensor Types:	(23) No Response – can trigger Z-Wave device and customer may receive notifications (06) 24 Silent Alarm – used as a hold-up button (08) 24 Hour Aux – Medical or Emergency button
Equipment Code:	(1063) - 2GIG Doorbell
Serial Number:	TXID
Loop Number(s):	Loop 1

Installation

- Mount the sensor within 100 feet (30 meters) of the panel (open air range is 350 feet).
- When installed as a wired doorbell with the home's existing 24 AC wiring, the push button remains illuminated and will activate the existing doorbell chime.
- Although the doorbell has been designed to withstand weather, and features a weep hole for draining, it is recommended that you avoid mounting the sensor in areas that may be subject to extreme moisture.

Troubleshooting

Loss of Supervision

1. Check to make sure programming is correct (especially serial number); test sensor to see if it shows opened/closed on panel.
2. Verify the battery is showing correct voltage.
3. Verify the distance between the panel and sensor is not too great.
    - This can be difficult to determine. The sensor has open air range of 350 feet.
    - Additionally, there could be interference that could be lowering the range. You may need to add a 345 MHz repeater (2GIG-RPTR-345).
4. Swap for another contact.

Doorbell isn't Triggering the Z-Wave Device

1. Verify the Doorbell is communicating with panel.
2. Verify that reporting is enabled under Doorbell programming.
3. Verify rules setup on remote service provider is correct.

Other 345 MHz Sensors

Wireless Keypad

2GIG-PAD1-345

The 2GIG Wireless Keypad (2GIG-PAD1-345) is a wall-mounted unit designed for use as a secondary keypad for the 2GIG security system. It communicates with the panel using the 345 MHz frequency and provides users with the following features:

- Arms system in **Stay** or **Away** mode
- Disarms system
- Fire and Panic emergency functions
- Lithium batteries
- Transmits 345 MHz
- ETL listed

Does NOT show system status!

Installation

- Mount the keypad within 100 feet (30 meters) of the panel (open air range is 350 feet).
- Secure the mounting plate to the wall using the four (4) Plastic Wall Anchors and Phillips Head Screws (provided).
- Connect the batteries by removing the two battery pull tabs (located near the metal clips on each battery).

Programming

Equipment Code:	(0867) 2GIG Wireless Keypad
Serial Number/Device ID:	TXID

Tips/Troubleshooting

Remember the PAD1:

- Does not show any system statuses
- Can only Arm, Disarm, and activate Fire and Panic emergency functions

NOTE: *Refer to the **System Configuration Programming** section of this guide for more information on programming a keypad.*

4-Button Keyfob Remote

2GIG-KEY2-345 *(Legacy)*
2GIG-KEY2E-345 *(eSeries)*

The 2GIG 4-Button Keyfob Remote (2GIG-KEY2-345) gives users the ability to turn the security system ON and OFF before entering the home or after exiting. If there is an emergency, you can turn on the siren and automatically call the central monitoring station.

Programming

Serial Number:	TXID
Equipment Code:	**Legacy**: (0866) KEY2-345 4-Button Remote **eSeries**: (2866) eSeries 4-Button Keyfob Remote
Emergency Key:	1 (Aux), 2 (Audible), 3 (Silent), and 4 (Fire)

Troubleshooting

Keyfob won't arm or disarm system

1. Verify you programed the keyfob in *Q3* (**for GC2**) and under *Keyfobs* (**for GC3**).
2. For the sub question '*Select fob used/enable 0 to 1,*' verify a selection has been made for *Used* or *Enabled*.

   NOTE: If using a **GC2** and the panel firmware version is 1.10 or newer this option will be enabled, if older than 1.10 the option will be *Used.*

Panic button (holding the away and disarm buttons simultaneously) doesn't trigger panel

1. Under **Keyfob** programming, verify that the sub question *'Select fob emergency key (0-4)'* has the correct option selected: *0 = disabled, 1 = aux alarm, 2 = audible alarm, 3 = silent panic, or 4 = fire.*

For GC3 panels, keyfobs only arm/disarm the Smart Area they are assigned to.

Wireless Indoor Repeater (345 MHz)

2GIG-RPTR1-345 *(Legacy)*
2GIG-RPTR1E-345 *(eSeries) - Coming soon! **

- The RPTR1 repeats 2GIG and Honeywell 345 MHz signals that are unable to directly communicate with the system.
- Lithium-Ion battery included.
- Plug & Play – plug it in and it starts repeating.
- Optional zone programming for tamper, AC power, and low battery supervision.
- Repeated bit in signal to eliminate "repeated signal storm."

Installation

- The repeater should be installed at the mid-point between the panel and the devices that are being repeated.
- Mount the repeater(s) as high as possible to help receiver sensitivity.
- Avoid mounting repeaters in areas where there is a large quantity of metal, metallic surfaces, or electrical wiring.
- Attach the unit to the wall using the 4 supplied screws.
- If the repeater will be learned in as a supervised zone, the Tamper screw must be installed.
- Install the battery, then wire the AC adapter to the TB1 terminal block.
- Plug the AC adapter into a wall outlet not controlled by a switch.

Programming

The Repeater is a plug and play device and does not require any programming to operate. Programming is only required if you want to monitor for Tamper, AC Loss, and Low Battery conditions.

Sensor Types:	(23) No Response Type – alerts only the end user (08) 24 Hour Auxiliary Alarm – alerts the end user & Central Station
Sensor Equipment Type:	(1) Contact
Equipment Code:	**Legacy sensor:** (1067) 2GIG Repeater ** **eSeries sensor:** (2067) eSeries Repeater **
Serial Number:	TXID
Loop Number(s):	Loop 1, 2, or 3 (any loop will work)

Testing

- The LED on the cover will illuminate steady green.
- A solid Red LED indicates a *Tamper* or *AC Power Fail* condition.
- A Slow Flashing Red LED indicates a *Low Battery.*
- A Fast Flashing Red LED indicates a *Jammed* condition.
- Remove the AC adapter from the wall outlet, within 2 minutes an alarm should be triggered.

* eSeries Sensor coming soon!
** Equipment code only available on GC2e firmware 1.21 or later, and GC3e firmware 3.2.3 or later.

Takeover Module

2GIG-TAKE-345 *(Legacy)*
2GIG-TAKE1E-345 *(eSeries) - Coming soon! **

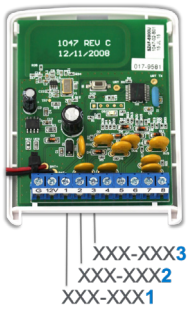
- Wired to Wireless converter/Takeover Module/Super Switch.
- Each module can convert **8 hardwire zones** into **8 wireless** zones (dry contacts only).
- Stack multiple Takeover Modules on one 2GIG system.
- Needs to use existing hardwired system or separate power supply (12-volt).
- Not used in every installation; only used when converting hardwire system from another manufacturer.

No Life/Safety devices!
No Normally Open Devices!

Hardware Conversation Kit

2GIG-TAKE-KIT1

This kit contains the TAKE-345 along with a dedicated power supply. Follow the instructions for the TAKE-345.



Programming

Sensor Types:	Use the sensor type that matches the hardwire option
Equipment Code:	**Legacy sensor:** (0873) 2GIG Takeover Module **eSeries sensor:** (2873) eSeries Takeover Module **
Serial Number:	The **last digit** of the **serial #** will be the port it takes over
Loop Number(s):	Loop 1 for all zones

Installation

- Mount the module next to the existing panel where the hardwired zones are connected
- All of the zones on the Takeover Module act as supervised wireless zones

The module must be powered up with back-up battery first to prevent low battery alert!

To Wire the Takeover Module with an Existing Power Source

1. Remove AC power from existing wired panel.
2. Remove leads from battery on existing wired panel.
3. With power removed, wire the zones to the Takeover Module.
    - Terminals 3-10 are marked as Zones 1-8 on the Takeover Module and are where the zones are connected.
    - For example, to wire zone 1 on the Takeover Module take the positive or HI side of the zone off the existing panel and place it in terminal 3/Zone 1 on the Takeover Module.
    - Leave the negative side or the LO (GND) side of the zone wired to the existing panel.
4. Repeat this procedure for all zones to be connected to the Takeover Module.

* eSeries Sensor coming soon!

** Equipment code only available on GC2e firmware 1.21 or later, and GC3e firmware 3.2.3 or later.

Continued on the next page…

Takeover Module, *continued*

To Wire the Takeover Module without an Existing Power Source

IMPORTANT! Before connecting power to the Takeover Module, wire the zones to Takeover Module. Terminals 3-10 are marked as Zones 1-8 on the Takeover Module.

For example: to wire zone 1 on the Takeover Module, take the positive or HI side of the zone and place it in Terminal 3/Zone 1 on the Takeover Module.

1. Repeat the steps above for all zones to be connected to the Takeover Module.
2. Group all LO/(GND) wires together and connect them to terminal 1/G (GND) Port of the Takeover Module.

Powering the Takeover Module and Other Devices

1. The Takeover Module has two wires attached RED (+) and BLACK (-). Connect the red wire to the red terminal and the black wire to the black terminal on the existing panel's battery.
2. Connect the wires from the existing panel for the battery into the spades lugs on top of the wires from the Takeover Module that is now connected to the battery.
3. **IF USING AN EXISTING POWER SOURCE**: Wire the existing panels AUX power out to terminal 2/12V port on the Takeover Module. If you are using the Takeover Module with PIRs, Glass Break Detectors, or other devices that need power, they must receive power from the AUX power on the existing panel. Reconnect AC power to existing panel.

   NOTE: Remove all other devices wired to AUX power on the existing panel (such as keypads or any other unused devices requiring power).

Troubleshooting

After wiring up Take-345 and programming none of zones will trigger the panel

1. **POWER**: Verify with volt meter the Take-345 is getting 12-13v. Also press the **Learn** button on the module. This should activate a bright red LED for approximately 6 seconds, before turning off. If this does not activate, the module is not getting correct power or is possibly defective.
2. **WIRING**: Verify the LO/common wires are wired correctly. There are 2 methods, try both. (For more information, refer to the *Installation Instructions* that come with the product)
3. **RESISTORS**: Depending on the resistor, length and gauge of the wire, the resistors can cause this issue – remove them.
4. **PROGRAMMING**: Make sure you have the correct loop (Loop 1) for all zones and that you correctly entered the serial number (if entering manually). Also try learning in the zones.

Panel trouble showing low battery on all the Take-345 zones

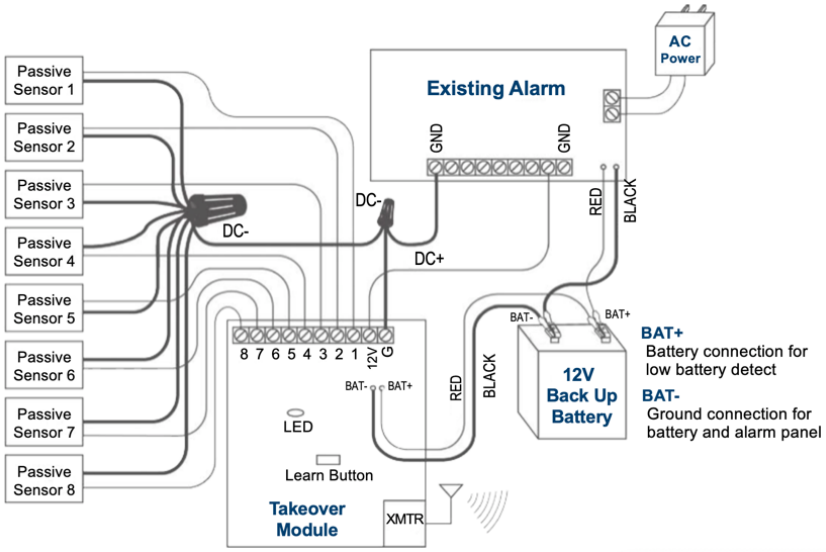
1. **POWER-UP SEQUENCE**: Completely power down the Take-345 for up to 5 minutes. Next, plug the backup battery into the Take-345, then the 12v via the 12v port. (This fixes the issue the vast majority of the time)
2. **POWER**: Verify with volt meter the Take-345 is getting 12-13v. Also press the **Learn** button on the module. This should activate a bright red LED for approximately 6 seconds before turning off. If this does not activate, the module is not getting correct power or is possibly defective.
3. **BACK-UP BATTERY**: Completely unplug the back-up battery, and test the voltage. Voltage should be 12-13v. (Complete this process even if the battery is new)
4. **TAKE-345**: If the power-up sequence has been tried and the back-up battery is good, then the Take-345 will probably need to be replaced.

Continued on the next page…

Takeover Module Wiring

Wiring Order:

1. Disconnect all power to existing hardwire system.
2. Completely wire the Takeover Module.
3. Connect back-up battery terminals (module and existing system)!
4. Reconnect the existing systems power supply.

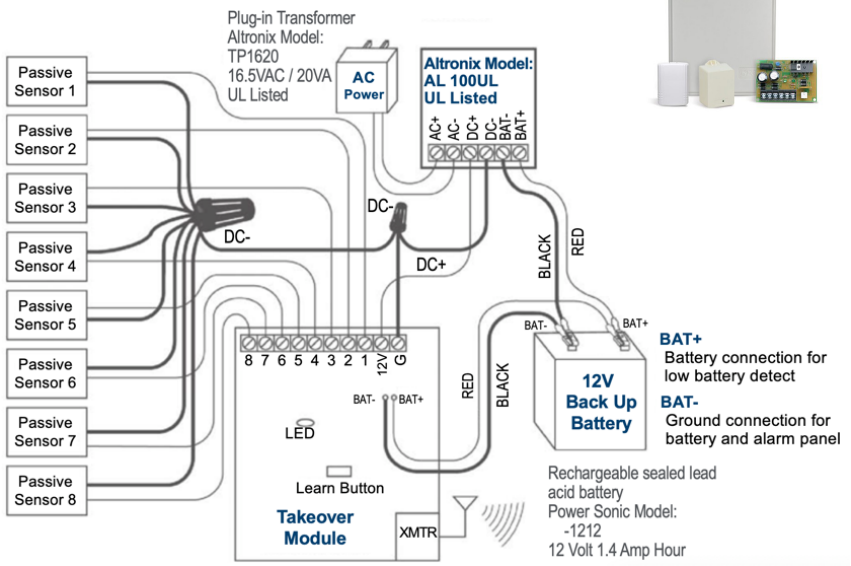


NOT for UL/ETL Listed Installation!

Takeover Module Kit Wiring

Wiring Order:

1. Disconnect all power to existing hardwire system.
2. Completely wire the Takeover Module.
3. Connect back-up battery terminals (module and existing system)!
4. Reconnect the existing systems power supply.

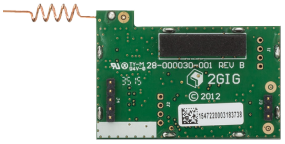


If the system is NOT powered up in the correct order, it will show '*Low Battery*' on each zone controlled by the Takeover Module.

900 MHz – Security Peripherals

GC2: 900 MHz Transceiver

2GIG-XCVR2-345



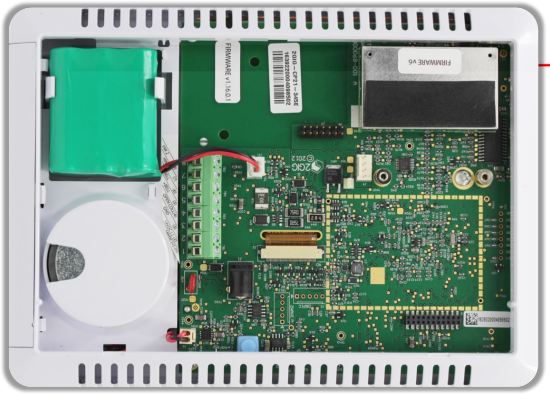
- Enable bi-directional communication with Wireless Touchscreen Keypad (2GIG-TS1), Go!Bridge (2GIG-BRDG1-900) & IMAGE 1.
- Easy to install into any GC2 Panel.
- Replaces the existing 345 MHz receiver and provides both a 900 MHz transceiver and 345 MHz receiver functionality.

You MUST HAVE 900 MHz Transceiver to use any of the 900 MHz Security Peripherals!

Go!Bridge Broadband Communication for GC2 Panels
2GIG-BRDG1-900

Image Sensor
2GIG-IMAGE1
(Alarm.com only)

Wireless Touch Screen Keypad
2GIG-TS1-E



345 MHz Module

If you use the 900 MHz Transceiver and any of the 900 MHz devices with a GC2e panel, you lose the encrypted functionality

Go!Bridge – Broadband Communication for GC2 Panels (GC2 only)

2GIG-BRDG1-900

Requirements

Ensure the GC2 Panel meets these requirements:

- Firmware Version 1.12 (or higher)
- 2GIG-XCVR 900 MHz Transceiver

Installation

- **For UL 1023 compliance:** the Go!Bridge must be installed in the same room as the Internet modem or router.
- **For Internet access:** the Go!Bridge must be connected to the local network router using an Ethernet cable (not provided).

Programming

Step	Action
1	Enter **Panel Programming** with the **Installer Code** (default code = **1561**).
2	Press **Go To**, then select **Q92.**
3	Press the ▶ button to scroll to **(1) Go!Bridge**, then press the ▼ arrow.
4	At the ***Q: Network Device ID (Read Only)*** screen: 1. On the **GC2**: press **Learn.** 2. On the **Go!Bridge**: press and release the **Learn** button (the small black plastic button under the LEDs).
5	When the '*Learn operation succeeded*' message appears, the Go!Bridge and GC2 are linked: 1. Press **OK.** 2. Press the ▼ arrow.
6	At the **Select Configuration Source (0 to 1)** screen: 1. Ensure option **(0) DHCP** is selected. 2. Press the ▼ arrow.
7	At the ***Q: Select Port # (1 to 8)*** screen, you can direct the Go!Bridge to use up to 8 specific ports for data transmission. • For most residential applications, simply press the ▼ arrow to set port 1 to *(0) Disabled.* • Repeat for ports 2 through 8.
8	At the **Summary of Network Device** screen, press **Skip.**
9	At the ***Q93 Enter Broadband Network Failure Time (1 to 255)*** screen: 1. Enter the desired number of minutes that must pass before a network failure triggers the panel to issue a trouble alert. The default is 30 minutes. 2. Press the ▼ arrow.
10	At the ***Q94: Select broadband network failure causes trouble*** screen: 1. Ensure ***(1) Enabled*** is selected. 2. Press **End**
11	At the **Summary of System Configuration** screen: 1. Verify the settings. 2. Press **Exit** to save changes (the panel will reboot).

Troubleshooting

- **LED for IP network.** Verify the IP LED is lit.
- **LED for 900 MHz connection.** Verify the LED is lit.

Image Sensor (GC2 version)

2GIG-IMAGE1 (Alarm.com only)

The Image Sensor is a pet immune PIR (passive infrared) motion detector with a built-in camera. The sensor is designed to capture images during alarm or non-alarm events. Users can also initiate image capture on-demand to Peek-In on their property. Images are stored locally and uploaded either automatically when motion is captured during alarm events or manually when requested by the user. Once uploaded, images are available for viewing on the Alarm.com Website or an Alarm.com Smart phone app.

Requirements

Ensure the GC2 Panel meets these requirements:

- Firmware Version 1.10 (or higher)
- 2GIG-Cell Radio module
- 2GIG-XCVR - 900 MHz Transceiver

Programming

Before programming the image sensor into a new network, you must reset it as follows:

1. Insert a paper clip into the hole in front of the sensor to access the **Reset** button.
2. Press and hold the **Reset** button for three (3) seconds. This power cycles the sensor.
3. Hold down the **Reset** button for 10 seconds. When the LED begins flashing, the sensor is reset and is removed from the existing network.

If the image sensor is not communicating with its network, you can use the *Reset* button to clear the sensor from that network. If the sensor is still communicating with its network, clear the sensor by deleting it from the panel.

Sensor Types:	(04) Interior Follower – Standard Motion Placement (23) No response – Notifications and Automation Rules Only
Equipment Code:	(9999) Alarm.com Image Sensor
Serial Number:	TXID
Loop Number(s):	Loop 1

Installation

- Determine sensor mounting location based on installation scenario and criteria noted in the *Installation Guidelines* that come with the device. For best image capture, the target capture areas should be centered in the frame. (e.g., If end user wants to capture people coming through the door, the doorway should be centered in camera/PIR view).
- Verify RF communication prior to mounting. To verify that the Image Sensor communicates with the panel in its mounting location, enter **System Test** through the **Installer Toolbox** and trigger the Image Sensor.
- Determine desired mounting angle for end user scenario; attach mounting arm to sensor-back and re-attach sensor to sensor-back. The mounting arm attaches to the back of the sensor enabling the sensor angle to vary based on the application.
- To obtain the full 35’ x 40’ coverage area, mount the sensor at a 6˚ downward angle. This corresponds to a “teeth up” orientation of the mounting arm.
- For most smaller areas in residential installs, mount arm with “teeth down” for a deeper angle (18˚).
- Secure the back of the sensor to the mounting arm with the provided screw
- If the camera will be mounted perpendicular to the wall, mount the sensor without the mounting arm/bracket directly on the wall, at a 12°

Continued on the next page...

Image Sensor, *continued*

Troubleshooting

IMAGE1 will not enroll

1. Verify the XCVR2 transceiver is connected.
2. Verify the IMAGE1 is receiving power (LED is solid for 5 seconds following power up).
3. Verify the IMAGE1 is not enrolled in another panel: Hold the reset button for 10 seconds to reset.

Images not captured

1. Verify the IMAGE1 is connected to the panel.
2. Verify the end user has the correct Alarm.com service plan (must have Plus plan for non-alarm functionality).
3. Verify rules initialization is completed (verify on panel or Dealer site. Resend via Dealer site).

Images not uploading

1. Alarm auto-uploads off for first 4 hours after any IMAGE1 enrolled in system. (Manually request alarm images on customer site or enable auto uploads through the Dealer site.
2. Capture type not set for auto-uploads.
3. Verify the upload status of images in the “Gallery” section of the customer site.

Wireless Touch Screen Keypad (GC2 only)

2GIG-TS1-E

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 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.

Requirements

Ensure the GC2 Panel meets these requirements:

- The GC2 Panel and TS1 Firmware Versions must match or be the latest available
- 2GIG-XCVR 900 MHz Transceiver

Programming

Equipment Code: (1059) 2GIG-TS1 Wireless Touchscreen Keypad

Serial Number: The TS1 can only be '*Learned in*'

- Once Panel is in *Learn Mode* – Press **Pair with Panel** on TS1
- Once TS1 is paired, it will be in standby until the panel exits system configuration

Installation

- Ideally, the keypad should be mounted to a wall at about eye level
- The location must have AC power available and nearby
- Avoid locations with studs, electrical wires, and/or pipes

Troubleshooting

TS1 will not pair with panel:

1. Verify that you have replaced the standard 345 MHz receiver to the 900 MHz transceiver (2GIG-XCVR2).
2. Verify that the firmware version on the panel and the TS1 are the same.
3. Make sure range is acceptable (approx. 150 feet). If the device still can't learn in, try pairing it with the device 5 feet or less from the panel. This will help verify which issues could be causing the problem.

TS1 is not accepting user codes, time and date is incorrect, not able to disarm:

1. This is almost always caused by having different firmware on the panel and on the TS1. Verify firmware and update panel or TS1 as needed.

NOTE: *Refer to the **System Configuration Programming** section of this guide for more information on programming a keypad.*

GC3: 900 MHz Transceiver
2GIG-XCVR3-GC3

900 MHz Transceiver *
2GIG-XCVR3-GC3

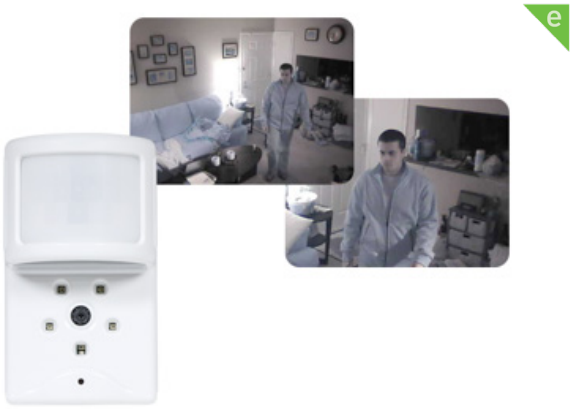
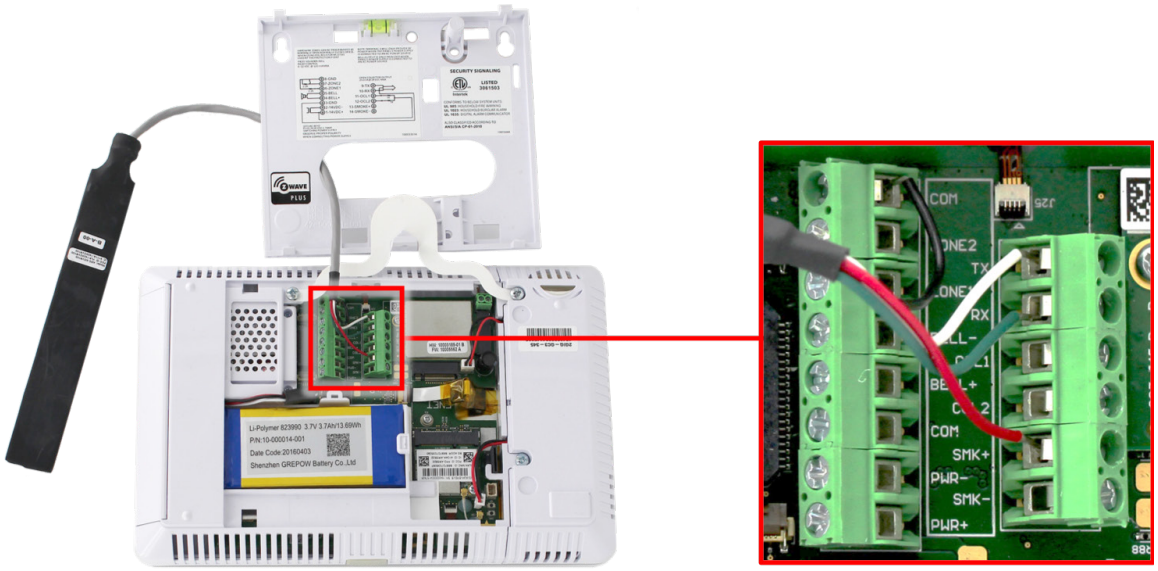


Image Sensor
2GIG-IMAGE2

* MUST HAVE 900 MHz Transceiver to use the Image Sensor



At present TX, RX, SMK+ and GND are used for wiring the XCVR3.

Image Sensor (GC3 version)

2GIG-IMAGE2 (Alarm.com only)

The Image Sensor is a pet immune PIR (passive infrared) motion detector with a built-in camera. The sensor is designed to capture images during alarm or non-alarm events. Users can also initiate image capture on-demand to Peek-In on their property. Images are stored locally and uploaded either automatically when motion is captured during alarm events or manually when requested by the user. Once uploaded, images are available for viewing on the Alarm.com Website or an Alarm.com Smart phone app.

Requirements

Ensure the GC3 Panel meets these requirements:

- Firmware Version 3.02 (or higher)
- 2GIG-Cell Radio module
- 2GIG-XCVR3-GC3 – 900 MHz Transceiver

Programming

Before programming the Image Sensor into a new network, you must reset it as follows:

1. Insert a paper clip into the hole in front of the sensor to access the **Reset** button.
2. Press and hold the **Reset** button for three (3) seconds. This power cycles the sensor.
3. Hold down the **Reset** button for 10 seconds. When the LED begins flashing, the sensor is reset and is removed from the existing network.

If the image sensor is not communicating with its network, you can use the *Reset* button to clear the sensor from that network. If the sensor is still communicating with its network, clear the sensor by deleting it from the panel.

Sensor Types:	(04) Interior Follower – Standard Motion Placement (23) No response – Notifications and Automation Rules Only
Equipment Code:	(9999) Alarm.com Image Sensor
Serial Number:	TXID
Loop Number(s):	Loop 1

Installation

- Determine sensor mounting location based on installation scenario and criteria noted in the *Installation Guidelines* that come with the device. For best image capture, the target capture areas should be centered in the frame. (e.g., If end user wants to capture people coming through the door, the doorway should be centered in camera/PIR view).
- Verify RF communication prior to mounting. To verify that the Image Sensor communicates with the panel in its mounting location, enter **System Test** through the **Installer Toolbox** and trigger the Image Sensor.
- Determine desired mounting angle for end user scenario; attach mounting arm to sensor-back and re-attach sensor to sensor-back. The mounting arm attaches to the back of the sensor enabling the sensor angle to vary based on the application.
- To obtain the full 35’ x 40’ coverage area, mount the sensor at a 6˚ downward angle. This corresponds to a “teeth up” orientation of the mounting arm.
- For most smaller areas in residential installs, mount arm with “teeth down” for a deeper angle (18˚).
- Secure the back of the sensor to the mounting arm with the provided screw.
- If the camera will be mounted perpendicular to the wall, mount the sensor without the mounting arm/bracket directly on the wall, at a 12°.

Continued on the next page...

Image Sensor, *continued*

Troubleshooting

IMAGE2 will not enroll

1. Verify the XCVR3-GC3 transceiver is connected.
2. Verify the IMAGE2 is receiving power (LED is solid for 5 seconds following power up).
3. Verify the IMAGE2 not enrolled in another panel: Hold the **Reset** button for 10 seconds to reset.

Images not captured

1. Verify the IMAGE2 is connected to panel.
2. Verify the end user has the correct Alarm.com service plan (must have Plus plan for non-alarm functionality).
3. Verify rules initialization is completed (verify on panel or Dealer site. Resend via Dealer site).

Images not uploading

1. Alarm auto-uploads off for first 4 hours after any IMAGE2 enrolled in system. (Manually request alarm images on customer site or enable auto uploads through the Dealer site.
2. Capture type not set for auto-uploads.
3. Verify the upload status of images in the “Gallery” section of the customer site.

Accessories

Easy Updater for GC2 Panel and TS1 (GC2 only)

2GIG-UPDV

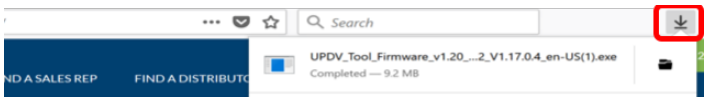
The 2GIG UPDV is a compact, portable tool that lets installers in the field load the latest firmware update onto the GC2 and TS1 without a computer.

Installation

- The 2GIG UPDV ships with the current firmware (as of ship date) installed.
- To upload a more recent version of firmware you must have: a computer, a *Mini USB to USB Power and Data* cable (such as the Duracell LE2178), and a 2GIG Username and Password.
- To get a 2GIG Username/Password, visit www.2GIG.com, then click **To Dealer Site** and register.

Programming the UPDV with the most recent version of firmware from www.2GIG.com

1. Go to www.2GIG.com, click on **To Dealer Site**, and log in.
2. Click on **Support Materials** > **Firmware** > **Firmware Update 2GIG UPDV.**
3. A new page displays. Select the desired language, then click **Save File**.
4. Use the Mini USB to USB Power and Data cable to connect the UPDV to the computer.
5. On the top right corner of the browser, click the ▼ arrow to display the downloaded file.



6. If this is the first time this computer is being used to download firmware to the UPDV, a dialog box displaying **No COM Ports found with FTDI** support is displayed, typically the required drivers are automatically downloaded, and the next series of dialog boxes will be displayed:

7. When the download is complete, disconnect the USB cable.

To download firmware from the UPDV to the GC2:

1. Remove the backplate from the GC2.
2. Disconnect the battery and power from the GC2.
3. Plug the UPDV 4 pin connector cable into the J1 connector on the GC2 circuit board.
4. Plug in the backup battery.
5. Reconnect power to the panel.
   The UPDV will communicate with the panel to determine if a firmware upgrade is possible.
6. Press the button on the UPDV. If a firmware upgrade is possible, the process will start.
   - The **Home** and **Emergency** buttons on the GC2 will flash as the firmware is uploaded.
   - When the firmware has finished uploading, the **Home** and **Emergency** buttons stop flashing on the GC2, the UPDV will display **Done**, and the panel will reboot.
7. Disconnect the UPDV from the panel.
8. Verify the firmware uploaded by checking the version on the panel.

Z-Wave Devices (908 MHz)

Home Automation – Electrical

Z-Wave Single Wall Outlet

WO15EMZ5-1

Turns anything plugged into the bottom outlet into a smart device.

Learning the Devices

Prepare the panel to include (or remove) the device, then:

- **To include/add:** press the button on the device *once*
- **To remove:** press the button on the device *twice*

Tips & Important Information

- When adding/removing the device must be in its permanently installed location.
- If you have trouble adding the device, you may need to "remove it" (even if new).
- 15 amps, 1800W max
- 1 H.P. max, 120 VAC
- Refer to the instructions that came with the device for more information.

CAUTION! Requires a certified electrician to be installed!

Z-Wave Isolated Contact Fixture

Legacy Product

Allows you to control ceiling fans, pool pumps, etc.

Learning the Devices

Prepare the panel to include (or remove) the device, then:

- **To include/add:** press the button once
- **To remove:** tap the button three times, then press and hold

Tips & Important Information

- **Maximum Load:** Isolated Contacts: 20 amps G.P. maximum, 277 VAC, 10FLA, 60LRA, 250VAC, Motor: 1 H.P. maximum, 120/240 VAC Incandescent: TV8, (Tungsten), 120 VAC, 960W maximum

CAUTION! Requires a certified electrician to be installed!

Smart In-Wall Single Switches

Various Models

The following applies to all light switches.

Dimmable Devices

- Use an Air Gap Switch on the face (lower left), that when pulled out, completely removes the power available to the load (simply turning the dimmer off does not).
- This enables the lamps that are controlled by the device to be changed with minimal danger of electrical shock.
- The air gap switch must be pushed all the way back in for the dimmer to operate the lamps again.

LED Indication

- To act as a night light, the LED on the will turn ON when the Associated device is OFF.
- The LED can be user configured to turn ON, when the Associated device is ON, if desired.

CAUTION! Requires a certified electrician to be installed!

Z-Wave Plus Wall Mount Switch

WS15Z5-1

Allows remote ON/OFF control of loads connected to the switch.

Learning the Device

Prepare the panel to include (or remove) the device, then:

- **To include/add:** tap the top/bottom switch continuously until recognized.
- **To remove:** tap the top/bottom switch continuously until recognized.

Tips & Important Information

- 1 H.P. max, 120 VAC
- 15 amps, 1800W max

CAUTION! Requires a certified electrician to be installed!

Z-Wave Plus 3-Way Wall Accessory/Switch

WT00Z5-1

Learning the Device

Prepare the panel to include (or remove) the device, then:

- **To include/add:** tap the top/bottom switch continuously until recognized.
- **To remove:** tap the top/bottom switch continuously until recognized.

Tips & Important Information

- When installing a Z-Wave 3-Way Light setup utilizing 2GIG products, you will need a Load Bearing switch and a non-load bearing. Multiple switches can be utilized to control multiple Load Bearing devices.
- Associate the Load Bearing device with the non-load bearing. Once all of the devices are in the Controller (Alarm Panel), the next step is to associate them together. Association is a Z-Wave term that allows for one device to "Control" another device. In this case, the light switch will control the Load Bearing Device.

CAUTION! Requires a certified electrician to be installed!

Z-Wave Wall Mount Dimmer (500-Watt)

WD500Z5-1

Allows remote ON/OFF control and dimming of connected lights.

Learning the Device

Prepare the panel to include (or remove) the device, then:

- **To include/add:** tap the top/bottom switch continuously until recognized.
- **To remove:** tap the top/bottom switch continuously until recognized.

Tips & Important Information

- **Maximum Load:** 500 Watts for control of permanently installed lighting fixtures only (Not for control of receptacles).
- **Proper Single Gang Installation:** Using WD500Z-1's standard full heat-sink (all tabs), the connected incandescent lamp load shall not exceed 500W.
  - **If a tab is removed from one side of the unit:** the connected incandescent lamp load must not exceed 400W.
  - **If both tabs are removed from the unit:** the connected lamp load must not exceed 300W.
- **Proper Dual Gang Installation:** The connected incandescent lamp load must not exceed 400W for each of the two WD500Z-1 units.
- **Proper Triple Gang Installation:** The connected incandescent lamp load must not exceed 300W for each of the three WD500Z-1 units.

CAUTION! Requires a certified electrician to be installed!

Z-Wave Wall Mount Dimmer (1000-Watt)

Legacy Product

Allows remote ON/OFF control and dimming of connected lights

Learning the Device

Prepare the panel to include (or remove) the device, then:

- **To include/add:** tap the top/bottom switch continuously until recognized.
- **To remove:** tap the top/bottom switch continuously until recognized.

Tips & Important Information

- **Maximum Load:** 1000 Watts for control of permanently installed lighting fixtures only (Not for control of receptacles).
- **Proper Single Gang Installation:** Using WD1000Z-1 standard full heat-sink (all tabs), the connected incandescent lamp load shall not exceed 100W.
  - **If a tab is removed from one side of the unit:** the connected incandescent lamp load must not exceed 900W.
  - **If both tabs are removed from the unit:** the connected lamp load must not exceed 800W.
- **Proper Dual Gang Installation:** The connected incandescent lamp load must not exceed 900W for each of the two WD1000Z-1 units.
- **Proper Triple Gang Installation:** The connected incandescent lamp load must not exceed 700W for each of the three WD1000Z-1 units.

CAUTION! Requires a certified electrician to be installed!

GoControl Smart Wireless Light Switch

Legacy Product

Controls Z-Wave Light Bulb and switches/dimmers remotely and wirelessly

Learning the Device

Prepare the panel to include (or remove) the device, then:

- **To include/add:** tap the top/bottom switch continuously until recognized.
- **To remove:** tap the top/bottom switch continuously until recognized.

Tips & Important Information

- **Maximum Load:** None

CAUTION! Requires a certified electrician to be installed!

Dimmable LED Lights

3 models available

Z-Wave Dimmable LED Light Bulb

Legacy Product

Instant-on smart LED screw-in light bulb is fully-dimmable

Learning the Device

Prepare the panel to include (or remove) the device, then:

- **To include/add:** turn the power to the light bulb socket ON.
- **To remove:** reset the bulb by using the switch to turn power to the bulb ON. The Smart LED Light Bulb will flash twice to confirm removal.

Tips & Important Information

- Power Supply 120 VAC, 60 Hz Brightness 750 lumens (equal to 60W incandescent light bulb)
- Power Consumption 9 Watts
- Color Temperature 2700K
- Bulb Lifetime 25,000 hour (equivalent 22.8 years based on 3 hours/day)

Z-Wave Dimmable LED Indoor Flood Light

Legacy Product

Smart LED dimmable indoor flood light bulb

Learning the Device

Prepare the panel to include (or remove) the device, then:

- **To include/add:** turn the power to the light bulb socket ON.
- **To remove:** reset the bulb by using the switch to turn power to the bulb ON. The Smart LED Light Bulb will flash twice to confirm removal.

Tips & Important Information

- Power Supply 120 VAC, 60 Hz Brightness 650 lumens (equal to 65W incandescent light bulb)
- Power Consumption 7.5 Watts
- Color Temperature 5000K
- Bulb Lifetime 25,000 hour (equivalent 22.8 years based on 3 hours/day)

Z-Wave Recessed Retrofit LED Kit

Legacy Product

Designed to replace a conventional incandescent halogen downlight

Learning the Device

Prepare the panel to include (or remove) the device, then:

- **To include/add:** switch the power to the light bulb socket ON.
- **To remove:** reset the bulb by using the switch to turn power to the bulb ON. The Smart LED Light Bulb will flash twice to confirm removal.

Tips & Important Information

- Power Supply 120 VAC, 60 Hz Brightness 650 lumens (equal to 65W incandescent light bulb)
- Power Consumption 8.5 Watts
- Color Temperature 2700K
- Fixture Lifetime 25,000 hours (equivalent 22.8 years based on 3 hours/day)
- Fits Recessed Fixture Size 5” to 6” diameter

Smart Plug-ins

2 models available

Z-Wave Plug-in Lamp Dimmer Module

PD300EMZ5-1

Fully dimmable instant-on smart LED screw-in light bulb

Learning the Device

Prepare the panel to include (or remove) the device, then:

- **For NWI inclusion**: press the button on the device *once.*
- **For classic inclusion:** press the button on the device *twice.*
- **For removal:** press the button *twice.*

Tips & Important Information

- 300 W for incandescent lamps only.
- A minimum of 20-watt load is recommended for the “Load Sense” feature and dimming capabilities of this product to operate properly.

Z-Wave Plug-in Appliance Module

PS15EMZ5-1

Plug-in Appliance switch provides on/off control to a connected load

Learning the Device

Prepare the panel to include (or remove) the device, then:

- **For NWI inclusion:** press the button on the device *once.*
- **For classic inclusion:** press the button on the device *twice.*
- **For removal mode:** press the button on the device *twice.*

Tips & Important Information

- 15 amps, 1800W max

Home Automation – Security, Comfort & Control

Z-Wave Door Locks

Various manufacturers

Compatible models include:*

- **Kwickset**: GC2/GC3: 910, 912, 914, 916
- **Schlage**: GC2: BE369, BE468, BE469, FE599
  GC3: BE468, BE469
- **Yale**: GC2/GC3: YRD210, YRD220, YRL220, YRD110, YRD 120
- **Danalock**: GC2/GC3: V3 Smart Lock

Please follow the manufacturers guidance on installing and programming door locks.

** Compatible with GC2 firmware 1.17.04 or later and GC3 firmware 3.1 or later.*

Smart Siren-Strobe Alarm

Legacy Product

- Siren/strobe alerts intruders of a security system presence.
- Emits 105 dB alert.

Learning the Device:

Adding

1. Prepare the panel to include a unit to the network by adding it to a group (method of adding a node to the network) (*refer to the panel's user manual if needed*).
2. If the panel supports Network Wide Inclusion (NWI) locate the siren/strobe near the proposed installation location. If not, skip to Step 5.
3. With the panel in *Inclusion* mode, press the siren/strobe **Program/Tamper** switch for 1 second and release. The LED will blink.
4. You should see an indication on the panel that the "*device was included*" in the network.
   - **If the LED stops blinking:** Skip to Step 8.
   - **If the LED does not stop blinking:** Relocate the siren/strobe to within 100 feet (line of sight) of a Z-Wave device or your hub and repeat Step 3. If the LED continues to blink, the panel does not support NWI, continue with Step 5.
5. Place the siren/strobe within 3 feet of the panel.
6. With the panel in *Inclusion* mode, depress the siren/strobe **Program/Tamper** switch for 1 second then release. The LED will blink.
7. You should see an indication on the panel that the "*device was included*" in the network. The LED will stop blinking.
8. The device will appear in the list of switches. It should display "*binary switch*."

Removing

1. Set up the Z-Wave Interface Controller into *Exclusion* mode, and following its instruction to delete the siren/strobe from the panel.
2. Press the siren/strobe Program/Tamper switch for 1 second and release to be excluded. The LED light will flash continuously when the sensor is in the *Exclusion* condition.

Tips & Important Information

- When triggered, the siren/strobe will trigger for 30 seconds (default setting):
  - During that time the siren will emit a very loud pulsating audible alarm at 105db.
  - The integrated strobe light will also flash during the 30 seconds.
- The LED indicator light on the siren/strobe will not be on during normal operation.

CAUTION! This is an extremely loud siren, do not place near your ear!

Z-Wave Programmable Thermostat

GC-TBZ48

Smart thermostat for comfort, energy savings, and a clean design to match any décor.

Learning the Device:

Inclusion/Exclusion is started by putting the controller into add node or remove node state and performing the following:

1. Set your primary panel to *Include, Add* or *Install* mode, to add the thermostat as a node on your network (*refer to the panel's user manual for detailed instructions)*.
2. Press any button on to take thermostat out of sleep mode.
3. Press and hold the **FAN** button for 5 seconds. **SETUP** will appear in the status display line.
4. Scroll to **Z-Wave** using the ▲ / ▼ buttons. Press **SELECT**.
5. When prompted by your Z-Wave panel, press the **YES** button on the Z-Wave Install screen.
6. Press **SELECT** (mode button) to add thermostat to network.
7. Display line should flash the following in the status display line...
   - **If connection is made: WAIT** then **SUCCESS**
   - **If Z-Wave does not connect to panel: WAIT**, then **FAIL**
8. If thermostat fails to connect, repeat **Steps 3-7** to re-try connecting.

As part of the process, the thermostat sends a node information frame at normal power. Low power inclusion or low power exclusion is not possible.

Tips & Important Information

- Battery powered design runs on 4 "AA" batteries
- Can be powered by 24 VAC "C" wire from HVAC system
- Works on standard HVAC systems: 2 stage heat/ 2 stage cool
- Works on heat pump HVAC systems: 3 stage heat/ 2 stage cool

CAUTION! Do not install batteries and temporarily power the thermostat from 24VAC to include onto a Z-Wave network. Shortened battery life may occur when 24VAC power is removed.

Garage Door Controller

GD00Z-4 CONTROLLER
GD00Z-5 CONTROLLER

- Control door with the panel or remotely.
- Works with nearly every garage door opener.

Learning the Device

Prepare the panel to include (or remove) the device, then:

- **To include/add:** press and release the **link** button on the device.
- **To remove:** press and release the **link** button on the device.

Product Compatibility Information

The GD00Z is compatible with the vast majority of sectional garage door openers manufactured after 1993, however there are a few that have been identified as being incompatible.*

Since 2013 some garage door opener manufacturers have incorporated custom features that utilize a proprietary interface from the wall button to the motor. The GD00Z does not support these special interfaces.

The following is a list of the operators that are known to be non-compatible with Linear's GD00Z Controller: *

Chamberlain MyQ Models:

- WD962KEV, KPEV & MLEV
- WD832KEV
- HD 930EV & 420EV
- LW500EV
- PD752D & KPV

Genie Series III Models:

- PowerMax 1500
- TriloG 1200 & 1500
- IntelliG 1000 & 1200

LiftMaster MyQ Models:

- 8355, 8360, 8500, 8550, 8557 & 8587

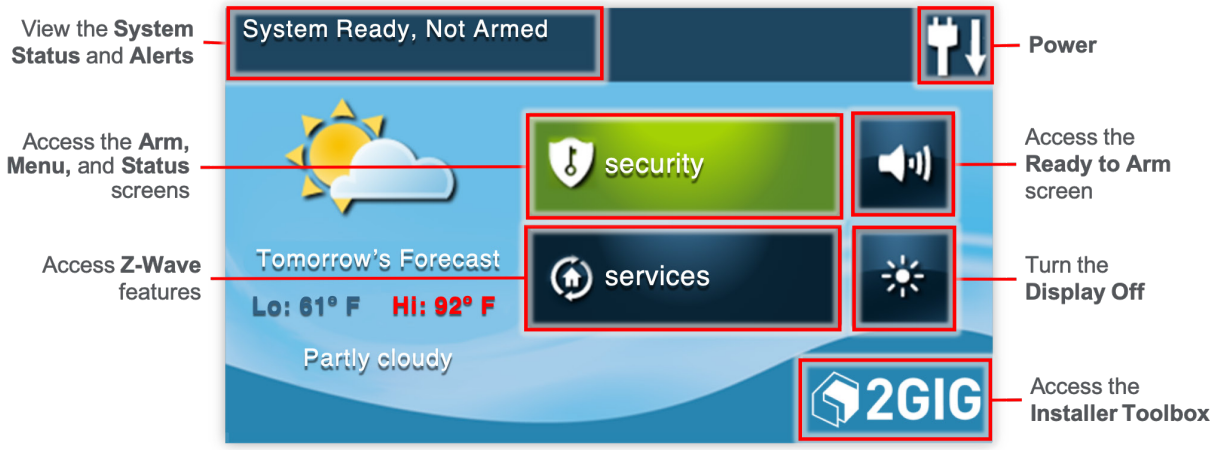
Craftsman AssureLink / MyQ Models:

- 3043 & 30437

* *This is not intended to be an exhaustive listing, but covers some recent models of commonly-found products in the retail marketplace.*

Customer Settings

GC2 Home Screen Navigation



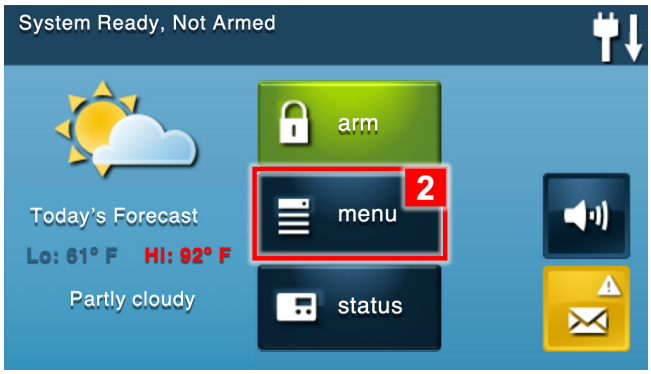
GC2 Customer Toolbox

To access the **Customer Toolbox:**

1. Press the **Security** button on the GC2 home screen.
2. Press the **Menu** button.
3. Press the **Toolbox** button.
4. Enter the **Customer Code** (default code = **1111**).

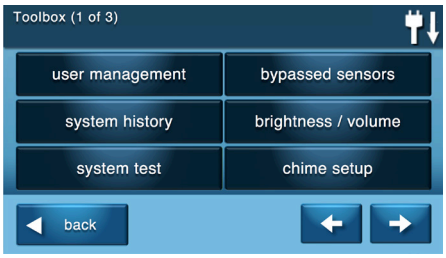
Default Customer Code

Default Customer Code = 1111



GC2 Customer Toolbox, *continued*

Toolbox Screen (1 of 3)



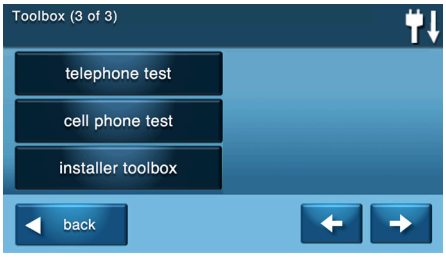
Button	Function
User Management	Add/edit any of the 64 user codes
System History	Logs alarms, alerts, arm/disarms, and bypasses
System Test	Displays a list of all programmed security sensors; provides confirmation that the panel receives their wireless signals
Bypassed Sensors	Displays a list of all programmed sensors; allows you to manually bypass zones
Brightness/Volume	Allows users to adjust screen brightness and volume
Chime Setup	Allows users to change the chime of individual zones

Toolbox Screen (2 of 3)

Button	Function
Blackout Timeout	Select amount of time display stays lit after the screen has been touched
Clean Screen	The touchscreen ignores all input for 30 seconds; allows it to be wiped/cleaned
Calibrate Touch Screen *	Used to re-calibrate the touch screen's X and Y axis. Useful if the touch screen is not accurately accepting touch input
Set Date	Change the system date (not recommended since GC2 receives this from the cell radio)
Set Time	Change the system time (not recommended since GC2 receives this from the cell radio)
Version	Displays: Panel serial number, Firmware version, Z-Wave version, etc.

* *'Calibrate Touch Screen' is not an option on the GC2e. The feature is not needed due to the capacative touch screen.*

Toolbox Screen (3 of 3)



Button	Function
Telephone Test	Performs a function test of the POTS module (POTS module required)
Cell Phone Test *	Performs a function test of the cellular module (POTS module required)
Installer Toolbox	Opens the Installer Toolbox (System Configuration, Default Panel, Walk Test, etc.)

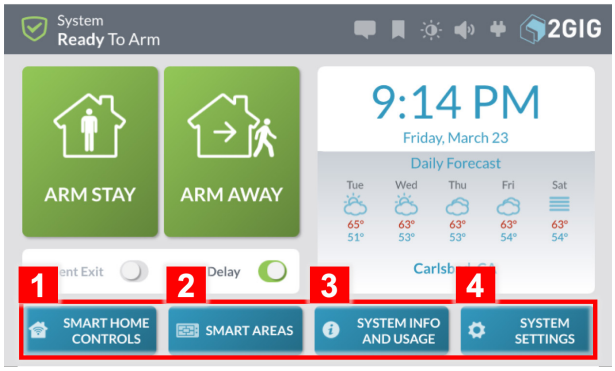
* *'Cell Phone Test' is not on the GC2e as this is a legacy feature.*

GC3 Home Screen Navgation

GC3 Customer Settings

The GC3 home screen options include:

1. Smart Home Controls
2. Smart Areas*
3. System Usage and Info
4. System Settings

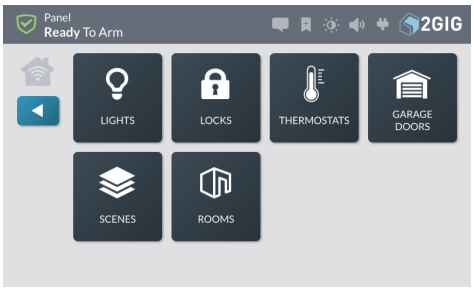


Default Master Code (Customer Code)

Default Master User Code = 1111

* *The **Smart Areas** button will only appear if Q69 is enabled.*

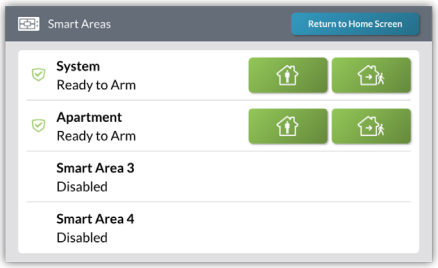
1 Smart Home Controls



Button	Function
Lights	User can control Z-Wave lights
Locks	User can control Z-Wave locks
Thermostats	User can control Z-Wave thermostats
Garage Doors	User can control Z-Wave garage doors
Scenes	User can create and edit scenes (ex. Lock Up and Exterior Lights off)
Rooms	User can group Z-Wave devices and scenes by location

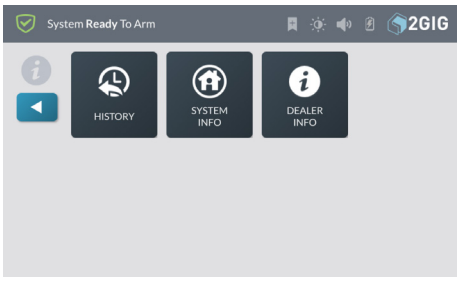
2 Smart Areas

This button only appears on the home screen if *Q69* is enabled.



Button	Function
Smart Areas Button	The button will appear: • **Blue:** If all Smart Area(s) are in a normal "Ready to Arm" state • **Orange:** If any of the Smart Area(s) have a trouble/alert • **Red:** If there is life safety alarm on any of the Smart Areas(s)
Enter Your Code to Access Smart Areas	The pin-code entered determines what Smart Area(s) display: • **Master Code** or **Installer Code:** displays all Smart Areas • **Guest User code:** only displays Smart Area(s) assigned to that user
Smart Areas Screen	Displays all Smart Area(s) a user is been assigned so all authorized partitions can be managed from a single screen. • Smart Areas shown can be armed/disarmed • Each Smart Area appears disabled until a sensor or keypad is been assigned to that Smart Area • You can also view troubles/alerts/alarms for each Smart Area **NOTE:** *The names of individual Smart Areas can be updated by the Master User under* ***System Settings > Smart Areas' Settings.***

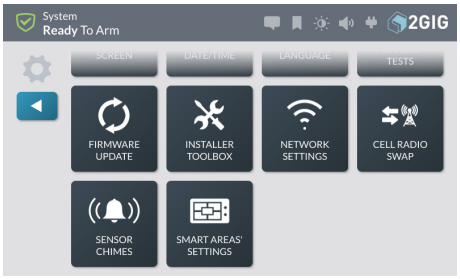
3 System Info and Usage



Button	Function
History	User can view history of Alarm, Arming/Disarming, Bypass, and Alerts
System Info	Displays Z-Wave Home ID, Panel Serial Number, Firmware version, Build Version, Radio Modem, Z-Wave version, and Open Source Licenses
Dealer Info	Displays Dealer information (if available)

4 System Settings

Smart Home Settings **is grayed out if the Master User code is used (unless the Master User code is given permission from the Installer).**



Button	Function
Users	Add/edit any of the 100 user codes, including schedules
Sounds	Adjust the volume for: Voice & Chime, Doorbells, Keypad, and System Annunciation
Bypass Sensors	View a list of all programmed sensors; allows manual bypass of zones
Smart Home Settings	Will be grayed out if the **Master Code** is used (unless the Master User code is given permission from the Installer)
Screen	Adjust the screen brightness and timeout, as well as initiate a **Clean Mode** where the touchscreen is temporarily turned OFF for the purpose of cleaning The GC3 Panel Firmware Version 3.2.1 introduces two new screen saver modes: **My Photos** and **Demo Mode**
Date/Time	Change system date/time (not recommended since GC3 receives this from the cell radio)
Language	Select between English, French, and Spanish
System Tests	Select between **Sensors Test** or **Console Test**
Firmware Update	View any updates to the Firmware Version available via connected USB Firmware versions 3.2 (or higher) show if the device is a GC3 or SP1 along with the serial number for the device
Installer Toolbox	Open the **Installer Toolbox** (System Configuration, Default Panel, Walk Test, etc.)
Network Settings	Select and manage **Wireless**, **Wired**, or **Access Point** settings
Cell Radio Swap	Replace the existing cell card without powering down the panel
Sensor Chimes	Change a sensor's chime
Smart Areas' Settings	The Master User can change the name of each Smart Areas (partition). If *Q69* is disabled, S1 System will be the only option to view/edit Only available on GC3 Panels with Firmware Version 3.2 or later.

Basic Troubleshooting

General Sensor Issues

The following are tips for troubleshooting general sensor issues.

- **Always verify the programming:**
  - Double check that the sensor type, serial number, and loop numbers are correct.
  - Please refer to the *2GIG Installation and Programming Guide* for additional details.
- If sensor is not transmitting to panel, **verify other sensors are working correctly**:
  - **If other sensors are functioning correctly:** the problem will be environmental (distance/interference), programming, or hardware related (faulty sensor).
    - Perform a visual inspection of hardware for damage, ensure the battery is secure (tab has been removed).
    - Verify sensor is within approximately 100-150 feet.
    - If using non 2GIG or Honeywell 5800 series wireless sensors, make sure you have the appropriate receiver or translator.
    - Refer to the *Security Peripherals Installation, Programming & Troubleshooting Tips* section of this *Field Guide* for more information.
  - **If all other sensors are not working:** the problem could be the receiver/transceiver or panel.

General Console Issues

Console Low Battery

1. Verify the battery is correctly plugged into the panel.
2. Verify the panel has been receiving 14 volts 1700 mA for at least 3 hours.

Console Tamper

1. Verify the tamper button is depressing correctly.
2. Verify the back plate is mounted correctly (and the screw is not in the way).
3. If needed, disable this tamper using the following:
   - **For GC2**: *Q71*
   - **For GC3**: *Q64*

Console Screen Scrambled

The panel screen is not displaying correctly (either the screen is not centered or portion of screen is scrambled).

1. Power cycle the panel.
2. Verify the ribbon cable is securely fastened.
3. **For GC2 only**: Hold down the top left corner of screen for approximately 15 seconds (until the panel beeps).

Panel Trouble Conditions

If the panel is beeping, it is most likely a trouble condition. To view troubles:

- **For GC2**: Press the **Security** button, then press the **yellow square with the white triangle** next to the menu button, then press **OK**.
- **For GC3**: Press the **Message** icon on the top bar of the home screen.

Trouble Condition	Possible Solutions
AC Loss	The panel is not receiving 14V at 1700mA. • Make sure the transformer is plugged in and providing the correct voltage to ports 1 and 2 on the terminal block on the panel. • Also, make sure the wire polarity is correct.
Day Zone	This is a sensor type that causes a trouble if the sensor is tripped when the system is disarmed but will cause an alarm when armed. Verify that this is how the end user wants the zone to function. • If the end user wants the zone to function differently, change the sensor type in **System Configuration** to the appropriate type.
Low Battery	A device is reporting *Low Battery* to the panel, the trouble alert will be proceeded by which the device is affected. • Confirm the voltage of the battery on the device is correct. • Replace battery and test sensor for correct functionality. • If still showing *Low Battery*, the sensor may need to be replaced.
Tamper	A device is showing tamper. Most 2GIG devices have a tamper switch that will cause a trouble alert when not being pressed. • Verify that the pieces which house the device are firmly attached. • Verify the tamper button is functioning correctly by pressing the switch and letting go while watching the main panel for status change.
Low Battery on Takeover Module	The panel will show a *Low Battery* on all zones programmed for the Take-345. a. **POWER-UP SEQUENCE**: Completely power down the Take-345 for up to 5 minutes, then: plug the back-up battery into the Take-345, then the 12v via the 12v port. (This fixes the issue the vast majority of time) b. **POWER**: Verify with volt meter the Take-345 is getting 12-13 Volts AC. c. **BACK-UP BATTERY**: Completely unplug the back-up battery, test voltage. Voltage should be 12-13v. (Complete this process even if the battery is new). d. **BAD TAKE-345**: If the power-up sequence was tried and the back-up battery is good, then the Take-345 will probably need to be replaced.
Radio Modem Network Failure	This is caused when the panel is unable to communicate to the cell provider (usually because poor signal strength or the card is not registered correctly). • **For GC2**: signal strength needs to be 10/31 or higher • **For GC3**: signal strength needs to be 2/6 or higher **If poor signal strength and registration time…** **… has been a *reoccurring issue:*** • Try changing providers (AT&T/ Verizon) • Add longer antenna to get away from interfering building material • **For GC2 only**: The *Go!Bridge* may be a solution **… is *recent:*** • Ask customer if panel has been moved or if any changes have been done to the house. • It is possible the cell tower is down or receiving maintenance. • The cell card could be malfunctioning; a new one may solve the issue.

Panel Trouble Conditions, *continued*

Trouble Condition	Possible Solutions
Broadband Network Failure (Wi-Fi)	**For GC2**: This occurs when the *Go!Bridge* loses its broadband connection. • Verify the router or modem the *Go!Bridge* is connected to has an Internet connection. • Restart the *Go!Bridge.* • Check if the necessary ports need to be opened. • Use *Q94* to toggle this trouble. **For GC3**: This occurs when the GC3 Panel cannot connect to the Remote Service Provider via Wi-Fi or Ethernet (via 2GIG-LAN-GC3) • Verify the end user has a stable Internet connection. • Verify the broadband settings are correct. • Power cycle the GC3. • Use *Q33-35* to toggle this trouble. • **IMPORTANT!** When updating a GC3 to Firmware version 3.0.2 (or higher) and the panel will not be connected to a Wi-Fi network, *Q34* must be disabled.
RF Jam	The panel detects that a transmitter is being jammed. • **For GC2**: *Q65* toggles this trouble • **For GC3**: *Q31* toggles this trouble
Wireless Sensor Loss of Supervision	This trouble will be preceded by the sensor #. The panel is not registering the supervisory signal for the sensor. This trouble can be toggled in the individual sensor's programming. a. Verify programming is correct (especially the serial number). b. Test the sensor to see if it shows opened/closed on panel. c. Verify other sensors are working and not showing loss of supervision (if this is system wide; it may be a receiver issue). d. Verify the battery voltage. e. Verify the distance between panel and sensor is not too great. • Approximately 100-150 feet in a house • You may need to add 345 MHz repeater (2GIG-RPTR-345) f. Swap for another contact.
Loss of Keypad A/C Power	This trouble will be preceded by which keypad is not receiving 14V @1700mA. • This can occur when the secondary keypad is wired into the same transformer as the main panel or another secondary keypad.
Loss of Transceiver Supervision (GC2 only)	The panel is not registering that a transceiver is installed. • Verify that the stock 345 receiver, 2GIG-XCVR2, or the 2GIG-DREC2-319 is installed with pins aligned properly. • If it is installed correctly, power down the panel and pull out the receiver/transceiver. • If it is hot to the touch it is most likely fried (it should feel slightly warm). • Wait several minutes, then replace and power up the panel. Retest.
Phone Line Failure	The panel is unable to communicate with the Central Station using the POTS line. • **For GC2**: *Q8* toggles this trouble • **For GC3**: n/a
Siren Supervision	The wired connection for siren is not detecting a siren. • **For GC2**: *Q21* toggles this trouble • **For GC3**: *Q28* toggles this trouble

Z-Wave Troubleshooting

Issue	Possible Solutions
Z-Wave device won't learn in	a. Verify the Z-Wave device is compatible with the panel and/or panel firmware version. b. Press **Remove Device** on the panel and press the learn button/ sequence on the Z-Wave device. If this was the issue, the panel will display "*A device has been removed from (another) network.*" Retry adding the Z-Wave device. c. Verify that the correct pairing button/sequence was pressed on the Z-Wave device. d. Bring the panel and the Z-Wave device within 3 feet of each other, then retry. e. Check if any other Z-Wave device can learn in to panel. f. Press **Reset Z-Wave Controller**, then try adding/removing. *****WARNING! This will completely clear all Z-Wave programming from the panel*****
Z-Wave device became a Failed Device (This happens when the panel cannot communicate with the Z-Wave device)	a. Rediscover the network. b. Remove the device and re-add, then retest the system. c. Possible range issue; try adding Z-Wave repeating device. d. Possible interference issue; check for other 900 MHz devices in the house (e.g., baby monitors and cordless telephones), use a 900 MHz spectrum analyzer to check for interference in the house.
Customer is trying to use App to control Z-Wave device, but it's not functioning correctly	a. Verify the device is physically working (have customer press the lock and unlock buttons on the door lock). • **If NOT working:** troubleshoot device (batteries, power, wired correctly – depending on Z-Wave device). • **If working:** go to the next step. b. Verify the 2GIG panel can communicate with Z-Wave device. c. Navigate to the Z-Wave devices on the panel: • **For GC2**: Press **Services** then **Z-Wave.** • **For GC3**: Press **Smart Home Controls.** d. Select the desired Z-Wave device, change status of Z-Wave device and observe to verify if change occurs on Z-Wave device. • **If NOT working:** verify no other Z-Wave devices have failed (possible mesh network has broken down). Try rediscovering the network, then retest. If still not working, the Z-Wave Device may have become a failed device. • **If working:** go to the next step. e. Verify the panel has good cell communication with the remote service provider. • Run cell test. Cell status should be: – **For GC2**: 10/31 or higher – **For GC3**: 2/6 or higher • **NOTE**: There is also the registration time (viewable via the remote service provider). • If poor cell communication is the issue, see R*adio Modem Network* failure in the **Panel Trouble Conditions** section of this document. • If there is good cell communication, double check with remote service provider to verify signals are going through.

Smart Areas FAQs

The Smart Areas (Partitioning) feature is only available on GC3 firmware versions 3.2 or later.

Question	Answer
How do I enable the Smart Areas feature?	To enable this feature, the GC3 must be on firmware version 3.2 or later. 1. Press the **2GIG logo** on the GC3 home screen. 2. Enter the **Installer Code** (default code = **1561**). 3. Press **System Configuration.** 4. Press **Panel Programming.** 5. Select **Q69: Smart Areas.** 6. Select **Enable.** 7. Press **Return to System Configuration.** 8. Press the ◀ arrow. 9. Press **Save.** 10. You will see a **Smart Areas** button on the bottom of the home page, which indicates that Smart Areas is enabled.
Can I change the names of each Smart Area?	Yes. The Master User can change the name of individual Smart Area(s) by clicking **System Settings** from the home screen, then select Smart Areas' Settings. You can also change the names of Smart Areas on Alarm.com, but they are labeled as "*Partitions*" (rather than "*Smart Areas*").
Can I restrict what Smart Area(s) users have access to? And, can I specify a schedule?	Yes. Once a user is added, you can edit the user to specify what Smart Area(s) to grant access. You can also specify a schedule. However, the schedule cannot be restricted to a specific Smart Areas. Whatever Schedule is assigned to a user will apply to any of the Smart Areas that user has access to.
I enabled Q69, but when I click *Smart Areas* from the home screen Smart Areas 2, 3, and 4 are disabled. Why?	Each Smart Area will remain disabled until a sensor or keypad is assigned to that area. Additionally, users will only see the Smart Area(s) that have been assigned to them (based on their user code).
The *Smart Areas* button on the home screen is not blue like the other buttons. Why?	The Smart Area button on the home screen will appear: • **Blue:** If all Smart Area(s) are in a normal '*Ready to Arm*' state • **Orange:** If any of the Smart Area(s) have a trouble/alert • **Red:** If there is life safety alarm on any of the Smart Areas(s)
How do I arm/disarm Smart Areas individually?	To arm/disarm individual Smart Areas, click the **Smart Areas** button from the home screen.
I don't see Smart Areas on Alarm.com. Why?	Alarm.com uses the terminology *Partitions* rather than *Smart Areas.*

RMA Process

2GIG Standard Return Process

The 2GIG return process is designed to eliminate unnecessary returns and the costs associated with these returns. It is to a customers benefit to troubleshoot product in the field before shipping it back for review.

Return Process Overview

Without exception this procedure should be followed.

1. Customer has an issue with a product at an install.
2. Customer is required to call NSC Technical service (1-855-546-3341). With the exception of the DW10, ALL products are required to be troubleshot.
3. Customer troubleshoots products with NSC Tech Support. If device is determined to be defective a Tech Ticket # is issued for the device or devices.
4. Customer returns the product to a distributor with the Tech Ticket #. Warranty is determined off the date the Ticket # was initiated and compared with either the date the product was shipped to the distributor or the manufacturing date.
5. Distributor or Dealer calls NSC with product list and associated ticket #'s.
6. NSC issues a Return authorization (RA) for the products.
7. Distributor or Dealer returns the product to NSC for inspection/testing.
8. Any "No Problem found" products are reported back to Distributor or Dealer.
9. NSC will return the "No Probelm Found" product back to Distributor or Dealer. NSC will also destroy product at customers request.

NSC will not give credit for "No Problem" found or customer damaged units.

- **Products returned without necessary Tech Ticket #'s will be denied.**
- **Please make sure your installers and customers understand the process.**
- **Our complete warranty language can be obtained from the following link below:**
  http://www.nortekcontrol.com/support/customer-service/warranty-returns/

NORTEK SECURITY & CONTROL

5919 Sea Otter Place, Suite 100 Carlsbad, CA 92010 800.421.1587 www.nortekcontrol.com

Resources

Training Resources

Dealer Information

2GIG Dealer Portal

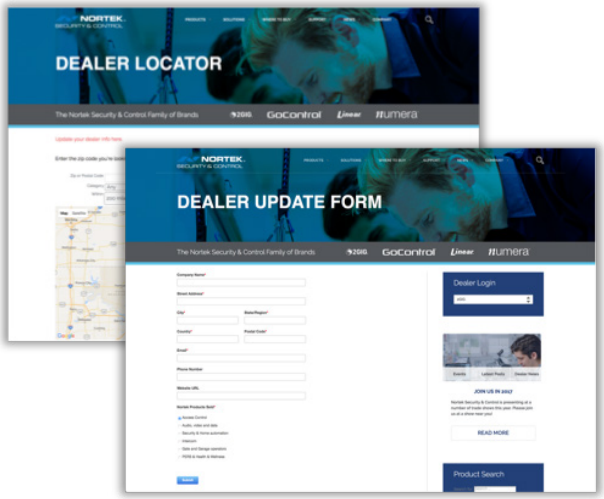
The Dealer Portal can be found at **2gig.com/dealers** or **Dealer.2gig.com**, and contains various information, such as:

- Sell Sheets
- Guides and Manuals
- Release Notes and Technical Bulletins
- Firmware
- Beta Tester Application
- GC2 and GC3 Compatibility Chart
- Video Library

Nortek Dealer Locator

Want your customers to find you on our website? Register to be on our dealer locator!

nortekcontrol.com/dealer-update-form

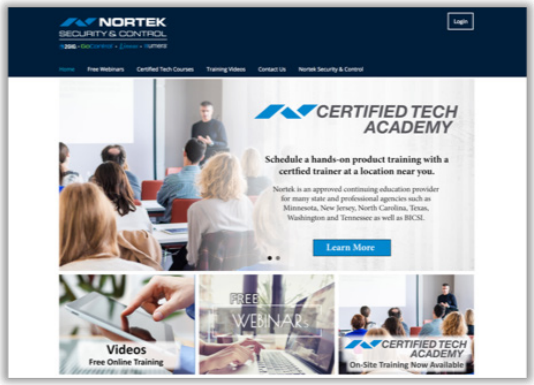


Nortek Certified Dealer Registration

Dealers with 50% or more certified techs can apply to be a Certified Dealer on our portal.

learnnortekcontrol.com/certification

Additional Training



Certified Tech Academy

- Live Weekly Webinars
- Certified Onsite Tech Courses
- Training Videos & More

Learnnortekcontrol.com

or

Learn2GIG.com

2GIG Mobile Device Demo Apps

Android / iPhone / Tablet / iPad versions available from Google Play or the Apple App Store

- 2GIG GC3 Coach
- 2GIG NVR
- 2GIG Video

Contact Information

NORTEK SECURITY & CONTROL

Tech Support

855.2GIGTEC

855.244.4832

Hours of Operation

Mon–Fri: 5:00am-4:30pm (PST)

Sat: 7:30am-3:00pm (PST)

ALARM.COM

Alarm.com Tech Support

6am-6pm (PST Mon-Fri)

7am-3pm (PST Saturday)

866.834.0470

SECURENET

SecureNet Tech Support

5am-5pm (PST Mon-Fri)

855.244.4832

TELGUARD

Telguard Tech Support

5am-5pm (PST Mon-Sat)

866.229.2326

uplink

Uplink Tech Support

5am-5pm (PST Mon-Fri)

888.987.5465