



NetworX NX-548E Receiver Installation Instructions

466-2225B July 2006
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Contents

<i>Introduction</i>	1
<i>Internal mounting</i>	1
<i>External mounting</i>	2
<i>Wiring</i>	3
<i>DIP switch settings</i>	3
<i>Power up</i>	3
<i>Programming</i>	4
<i>Testing and troubleshooting</i>	6
<i>Programming settings table</i>	7
<i>Supported devices</i>	11
<i>Specifications</i>	12

Introduction

The NX-548E Receiver adds wireless capabilities to the NetworX line of control panels. Adding a receiver makes these control panels compatible with NX wireless transmitters. Only three wire connections are required for power and communication to the control panel.

WARNING: To avoid possible equipment damage or personal injury, remove power from the control panel before making any wiring connections to the receiver.

Internal mounting

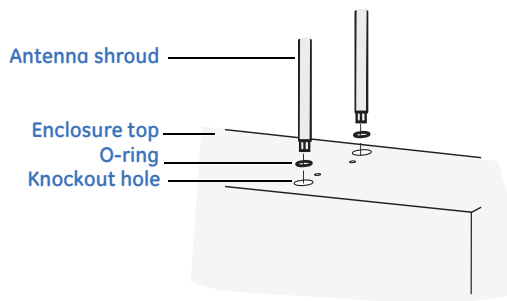
For internal mounting, mount the receiver inside the control panel enclosure. Use the following installation guidelines:

- Leave at least 10 in. (25 cm) above the control panel for the receiver's antennas.
- Avoid areas that expose the receiver to moisture.
- Avoid areas with excessive metal or electrical wiring, including furnaces and utility rooms.

To mount the receiver, do the following:

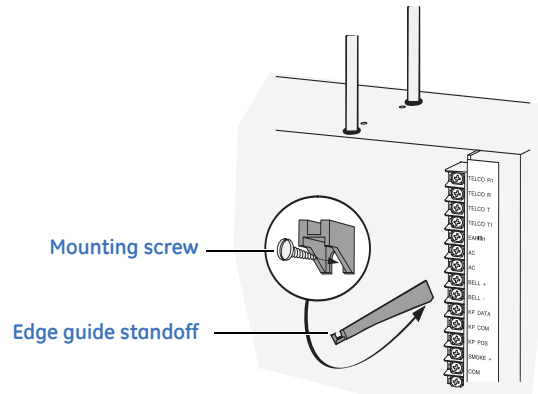
1. Remove the appropriate knockouts on the top of the control panel enclosure for the antenna shrouds.
2. Assemble the antenna shrouds and fit the black O-rings to the bottom of each shroud.
3. Insert the shrouds into the knockout holes (*Figure 1*).

Figure 1. Installing the antenna shrouds



4. Use the mounting screw provided to loosely install the edge guide standoff in the lower mounting hole in the appropriate space to the left of the control panel (*Figure 2*). Do not tighten the mounting screw down at this time.

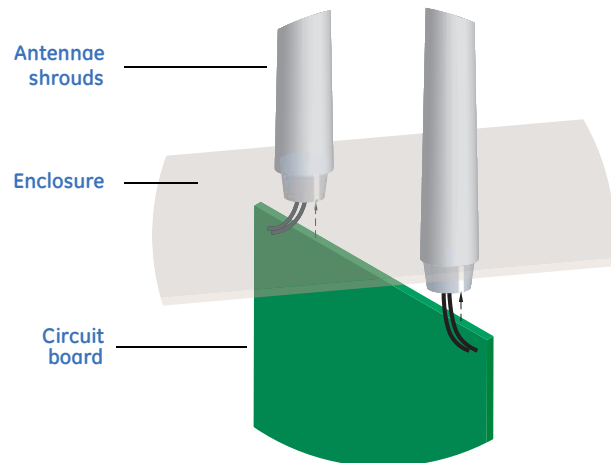
Figure 2. Installing the edge guide standoff



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

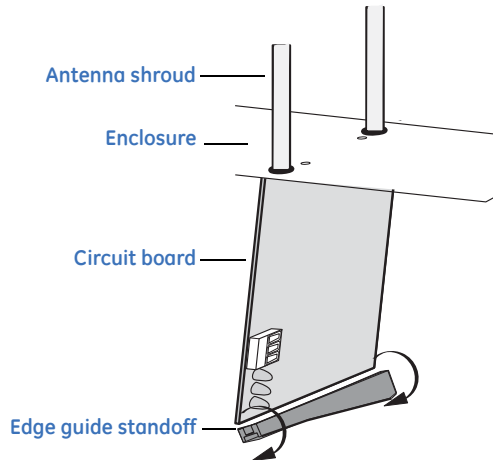
5. Slide the printed circuit board into the antennae shroud slots, after inserting wires into antennae shrouds (*Figure 3*).

Figure 3. Antennae shrouds



- Align the bottom of the circuit board in the edge guide standoff and twist the standoff into place (Figure 4). Tighten the mounting screw (Figure 2).

Figure 4. Installing the circuit board



External mounting

This installation uses enclosure model NX-569 (600-1029-03). The module comes as a kit that is assembled in the field. Use the following installation guidelines:

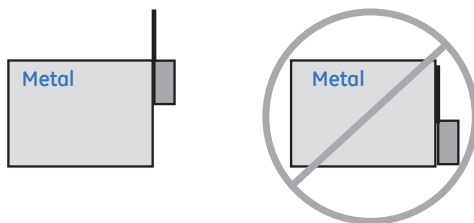
- Allow at least 10 in. (25 cm) of clearance above the enclosure for the antennas.
- Use the wire length guidelines in Table 1.

Table 1. Wire lengths

Wire gauge (shielded or unshielded)	Maximum wire length between module and panel
22 AWG (0.65 mm)	250 feet (76 m)
18 AWG (1.02 mm)	500 feet (152 m)

- Install the module in its own plastic enclosure. It should not be installed inside the panel's enclosure.
- Avoid mounting locations that expose the module to moisture.
- Avoid areas with excessive metal or electrical wiring including furnace and utility rooms. If unavoidable, mount on or near metal with the antenna extending above the metallic surfaces as shown in Figure 5.

Figure 5. Mounting on or near metal



Tools and supplies needed

To complete the installation, you will need the following tools and supplies:

- Screwdrivers;
- Drill with bits;
- Mounting screws and anchors (included); and
- 3-conductor, 22-gauge (0.65 mm) or larger, stranded wire.

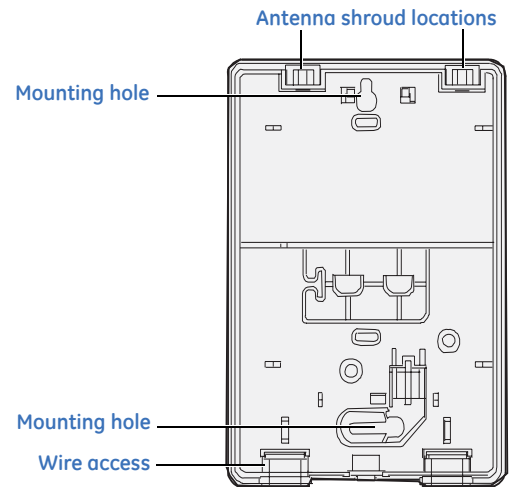
Mounting

The module can be mounted on any interior wall (protected from the elements). To mount the module, do the following:

- Remove the module back plate from the packaging.
- Hold the base against the mounting surface and mark the two mounting holes and the wire access hole as shown in Figure 6. Remember to leave at least 10 in. (25 cm) above the back plate for the antennas.

Note: The wire access hole is molded into the plastic so that you can access the wire, yet keep it hidden from the back plate.

Figure 6. Back plate



- Drill holes and insert the appropriate anchors (included).
- Run a 3-conductor, 22 or 18 gauge (0.65 or 1.02 mm) stranded wire cable from the module wire access hole location to the panel (Figure 6).
- Secure the back plate to the wall with the pan head screws provided.
- To assemble the antenna shrouds, attach the proper number of sections together, then attach the top cap.
- Install each antenna shroud on top of the back plate.
- Remove the transceiver circuit board from the antistatic bag.

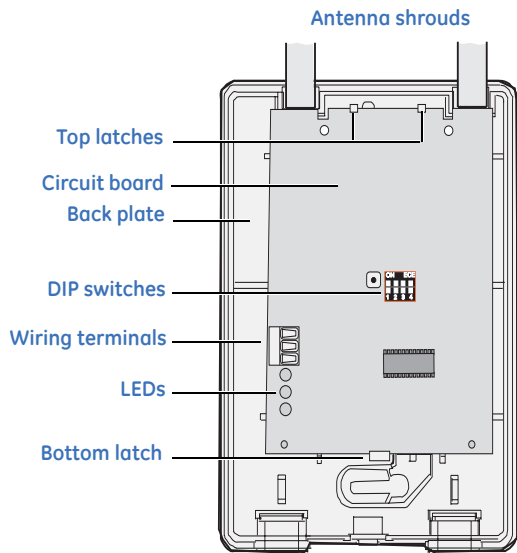


CAUTION

You must be free of static electricity before handling circuit boards. Wear a grounding strap or touch a bare metal surface to discharge static electricity.

- To install the circuit board onto the back plate (Figure 7), insert the antennas into the antenna shrouds, then gently slide the top of the circuit board under the two top latches, and snap the circuit board in at the bottom latch to secure it in place.

Figure 7. Circuit board and back plate

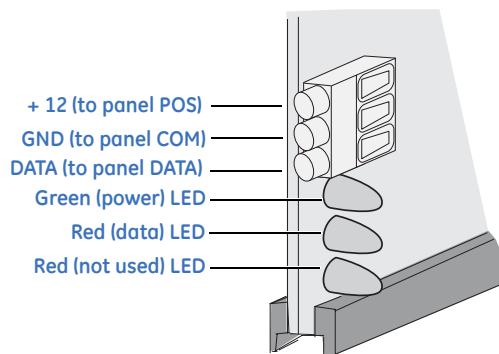


Wiring

To wire the receiver, do the following:

- Remove power (if applied) from the control panel. Use 22-gauge, or larger, stranded wire to connect the +12, GND, and DATA terminals on the receiver (Figure 8) to the power, common, and data terminals on the control panel.

Figure 8. Receiver wiring connections and LEDs



DIP switch settings

The DIP switches (Figure 7) on the circuit board are used to set the receiver module number. Use Table 2 to set the DIP switches to the desired module number.

Table 2. DIP switch settings

Module number 32 	Module number 33
Module number 34 	Module number 35 (default)
Module number 36 	Module number 37
Module number 38 	Module number 39

Power up

When you apply power to the control panel, the green (power) LED on the receiver (Figure 8) blinks for approximately 10 seconds. Table 3 describes the receiver status based on LED conditions. The lower red LED at the bottom of the receiver (Figure 8) may emit a dim glow, but is not used as an indicator.

Table 3. LED indications

Green (power) LED status	Meaning
Power-up blinks	LED blinks represent Product Version Number (PVN). Long blink on is 1, short blink on is 0. PVN is in binary, from most significant to least significant bit.
Off	No packets from sensors being received.
Short blink on	Receiver received a valid packet from an unknown sensor.
Long blink on	Receiver received a valid packet from an enrolled sensor.

Red (data) LED status	Meaning
Off	No data communication with the control panel. Check wiring and power source.
Short blink on	Normal data communication with the control panel.

Programming

This section describes how to program the units.

Programming guidelines

Use the following programming guidelines:

- NX-4 and NX-6 control panels can have receivers added with zones that overlap those contained in the control panel. No hardware expanders can be used.
- NX-8 control panels can have expansion zones (hardwire or wireless) set the same as those contained in the control panel. To do this you must disable the onboard control panel zones in panel location 37. All zone expansion modules must not overlap any blocks of 8 zones.
- All other control panels can have wireless zones added to any zone. If a hardwire input (on either the control panel or hardwire expander) is also present on the same zone as an enabled wireless zone, the wireless transmitter takes priority.

Transmitter programming

When programming wireless transmitters into the receiver, you can set various options and partitions for each transmitter. These settings appear in segments of each programming location.

Use *Table 5* on page 7 to record zone assignments and settings. Be sure to circle where each zone resides:

RM. Receiver module

HE. Hardwire expander

P. Panel

This gives you all the programming information in one place to facilitate the programming process.

Zone locations 1 to 192

Zone locations 1 to 192 are not numbered in *Table 5* on page 7 since these locations vary depending on location 194, *Receiver zone bank setting*.

Note: The default settings shown for segments 1 and 2 in the first zone location apply to all zone locations.

Add transmitters

LCD touchpads will display instructions when accomplishing tasks. To add transmitters, do the following:

1. Enter *** 8** at the keypad. On LED touchpads, the five function lights start flashing.
2. Enter the program code (factory default is **9 7 1 3**). On LED touchpads, the service light flashes and the five function lights change from flashing to on steady.
3. Enter the DIP switch setting module number and press **#**. On LED touchpads, the Armed LED turns on, indicating the control panel is waiting for a programming location entry.
4. For new installations, enter **9 1 0 #** to load factory defaults and clear any unwanted information in memory.
5. For new installations, set the receiver zone bank setting in location 194 to determine the starting zone number for the specific receiver. This applies only to NX-8E. **This must be set before learning sensors.** For example, if location 194 is set to 3, the first available location is 25. The total number of available locations depends on the zone limits for both the panel and receiver.
6. Enter **0 #** to enter the sensor learning location. On LED touchpads, the Ready LED turns on and the Armed LED turns off.

7. Enter the zone number (1 through 192) and press *****. Three beeps from the keypad indicate an entry error. This occurs if you enter a transmitter number that is not within the receiver's zone block or if the location already has a sensor learned into it.

Note: If you change your mind about your entry, terminate programming by entering **0 # 0 *** and start over at step 6.
8. Trip the desired transmitter (within 250 seconds) as described in *Table 4*. Listen for the *ding dong* for confirmation.

Note: For specific instructions on tripping a transmitter, consult the transmitter's manual.

Table 4. Tripping transmitters

Transmitter	Action
Door/window, shock, glass guard, freeze, UFT (Universal Fire Transmitter)	Activate tamper switch by removing cover.
Door/window with external contact	Activate tamper switch by removing cover. Feature 4—Input option 1, must be on.
Recessed door/window	Activate tamper switch by removing circuit board until tamper switch is exposed.
Micro door/window and Micro recessed door/window	Refer to the installation instructions for the specific sensor for activation information.
SlimLine door/window	Remove cover, then press the button on the top of the sensor, or activate the tamper switch by removing the cover.
PIR	Activate tamper switch by removing back plate from PIR.
Smoke detector without tamper switch	Press and hold the test button.
Smoke detector with tamper switch	Trip the tamper switch. Feature 4—Input option 1, must be on.
Heat detector	Press, then release the tamper switch.
Single button panic	Press and hold the button.
Dual button panic	Press and hold both buttons together.
Keyfobs	Press and hold the lock and unlock buttons together.
Repeater	Press, then release the tamper switch.

9. To program remaining transmitters, repeat steps 6 to 8.
10. To exit program mode, press **EXIT EXIT**.
11. Confirm that the zone types and partition assignments are set correctly in the control panel. Refer to the control panel installation manual for instructions on how to set zone types and partition assignments.

Note: When an 80-bit device is added, Feature 6 of Segment 1 (see *Table 5* on page 7) is turned on. But when a 63-bit device is added on a zone location that previously had an 80-bit device, make sure to turn off Feature 6 of Segment 1.

Transmitter options

LCD touchpads will display instructions when accomplishing tasks.

To program the transmitter and partition settings, do the following:

1. Enter * **8** at the keypad. On LED touchpads, the five function lights start flashing.
2. Enter the program code (factory default is **9713**). On LED touchpads, the service light flashes and the five function lights change from flashing to on steady.
3. Enter the DIP switch setting module number for the receiver and press #. On LED touchpads, the Armed LED turns on to indicate the control panel is waiting for a programming location entry.
4. Enter the zone location number and press #. On LED touchpads, the Armed LED turns on and the Zone LEDs display the binary data for the current settings.
5. Press the keypad button that corresponds to the feature number you want changed. On LED touchpads, the lights corresponding to the feature number will turn on or off depending on the previous state. On LCD touchpads, the feature number will turn on or off depending on the previous state.
6. Press * to enter the changes and automatically advance to segment 2.

Note: If you press # instead of * in step 6, it exits the zone location and does not save changes to transmitter options.
7. Press # to exit zone location. To continue programming other zone locations, repeat steps 4 to 7. To exit program mode, press **EXIT EXIT**.

Door/window transmitter settings

Use the following guidelines when setting features 4 and 5 (see Segment 1 in *Table 5* on page 7) for door/window transmitters:

- Feature 4 - Input option 1. Turn on this feature to disable the transmitter's internal reed switches.
- Feature 5 - Input option 2. For transmitters that use a normally open (N/O) external contact, leave this feature off. For transmitters that use a normally closed (N/C) external contact, turn this feature on.

Wireless smoke detector settings

Use the following guideline when setting feature 4 (see Segment 1 in *Table 5* on page 7) for wireless smoke detectors:

- Feature 4 - Input option 1. For detectors with tamper switches, turn on this feature to enable the tamper feature.

Note: Feature 4 must be off (disabled) when using wireless smoke detectors without tamper switches.

4-button keyfob settings

The control panel installation manual describes how keyfob functions 1 and 2 can be used to control relays, outputs, or X-10 devices.

Use the following guidelines when setting features 4 and 5 (see Segment 1 in *Table 5* on page 7) for 4-button keyfobs:

- Feature 4 - Input option 1. Turn on this feature to change the Light button to keyfob function 1.
- Feature 5 - Input option 2. Turn on this feature to change the Star button to keyfob function 2.

UFT settings

Use the following guidelines when setting features 4, 5 and 7 (see Segment 1 in *Table 5* on page 7) for UFTs:

- Feature 4 - Input option 1. For UFTs, turn on this feature to disable the transmitter's primary reed.
- Feature 5 - Input option 2. For UFTs on this feature to disable the transmitter's secondary reed.
- Feature 7 - Input option 3. For UFTs that use a normally open (NO) external contact, leave this feature off. For UFTs that use a normally closed (NC) external contact, turn this feature on.

Partition settings for keyfobs

LCD touchpads will display instructions when accomplishing tasks.

To program the transmitter and partition settings, do the following:

1. Enter * **8** at the keypad. On LED touchpads, the five function lights start flashing.
2. Enter the program code (factory default is **9713**). On LED touchpads, the service light flashes and the five function lights change from flashing to on steady.
3. Enter the DIP switch setting module number and press #. On LED touchpads, the Armed LED turns on to indicate the control panel is waiting for a programming location entry.
4. Enter the zone location number and press #. On LED touchpads, the Armed LED turns on and the Zone LEDs display the binary data for the current settings. On LCD touchpads, the display shows Segment 1 and its settings.
5. Press * to advance to Segment 2.
6. Press the keypad button that corresponds to the partition number you want to change. On LED touchpads, lights that turn off indicate the keyfob is active in that partition. On LCD touchpads, partition numbers that turn on indicate the keyfob is active in that partition.

Note: These partition settings apply only to keyfobs. Partition assignments for other types of transmitters are made in the panel.
7. Press * to enter the changes. To continue programming transmitter partition settings, repeat steps 4 to 8.

Note: If you press #, it does not save changes to the current segment, but it does save changes to previous segments.
8. To exit program mode, press **EXIT EXIT**.

Transmitter supervision windows

LCD touchpads will display instructions when accomplishing tasks.

To change the transmitter supervision windows, do the following:

1. Enter * **8** at the keypad. On LED touchpads, the five function lights start flashing.
2. Enter the program code (factory default is **9 7 1 3**).
3. Enter the DIP switch setting module number and press **#**. On LED touchpads, the Armed LED turns on to indicate the control panel is waiting for a programming location entry.
4. Enter **195 #** to enter location 195, segment 1.
5. Enter the new normal supervision time (0 to 255 hours) and press *****. If you choose 0, the normal supervision window is set to 256 hours.



CAUTION

Do not set the normal or fire supervision windows to 1 hour. This causes false trouble reports from all learned wireless transmitters.

6. Enter the new fire supervision time (0 to 255 hours) and press *****. If you choose 0, the fire supervision window is set to 256 hours.
7. Enter the new short supervision time (up to 30 minutes). The short supervision time prevents arming if a transmitter has not checked in within the set time. This applies only to specific countries outside the US. Check the control panel installation manual to determine if this setting is available. If you enter a number higher than 30 (the default value is 40), you disable the feature.
8. Press ***** to save any changes. The panel waits for the next location entry.

Note: If you press **#**, it does not save changes to the current segment, but it does save changes made in previous segments.

9. To exit program mode, press **EXIT EXIT**.

Delete transmitters

LCD touchpads will display instructions when accomplishing tasks.

The following section describes how to delete transmitters from the receiver.

Note: This procedure makes the receiver ignore a transmitter, but does not remove the transmitter identification from the receiver's memory. The transmitter can be reactivated by turning segment 1 on zone back on, or a new one can be learned into the zone.

To delete transmitters, do the following:

1. Enter * **8** at the keypad. On LED touchpads, the five function lights start flashing.
2. Enter the program code (factory default is **9 7 1 3**). On LED touchpads, the service light flashes and the five function lights change from flashing to on steady.
3. Enter the DIP switch setting module number and press **#**. On LED touchpads, the Armed LED turns on, indicating the control panel is waiting for a programming location entry.
4. Enter the zone location number to be deleted and press **#**. On LED touchpads, the Armed LED turns on and the Zone LEDs display the binary data for the current settings.
5. To change transmitter feature 1 (enable sensor), press **1**. On LED touchpads, the 1 LED turns off to indicate the feature change and the Ready LED flashes to indicate the change request.
6. Enter * **#**. On LED touchpads, the Ready LED stops flashing to indicate the new settings are stored in memory and the system automatically exits from that location.
7. To continue deleting transmitters, repeat steps 4 to 6.
8. If you want to delete all transmitters and load factory defaults, enter **9 1 0 #**.
9. To exit program mode, press **EXIT EXIT**.

Testing and troubleshooting

Test all transmitters to verify programming and operation. Use location 200 to troubleshoot transmitters mounted in marginal signal strength locations or if the panel has a *sensor lost* trouble condition. To troubleshoot the transmitters, do the following:

- Delete the transmitter and relearn it back into the receiver.
- Go to location 200 and check the signal strength. A signal of 6 or more indicates good signal strength, anything less could cause periodic *sensor lost* trouble conditions.
- If signal strength is below the acceptable level, delete the transmitter and rotate the mounting position (90, 180, or 270 degrees).
- Relearn the transmitter into the receiver and check location 200 for signal strength.
- If rotating the mounting position does not improve signal reception or is not practical, move the transmitter to different locations near the desired mounting area.
- Delete and relearn the transmitter until an acceptable signal level is attained, then mount the transmitter.

Table 5. Programming settings (continued)

Location	Segment 1	Segment 2
Zone ____ Assigned to module #____. RM HE P	1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 80-bit device 7 - Input option 3 8 - Not used	Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone ____ Assigned to module #____. RM HE P	1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 80-bit device 7 - Input option 3 8 - Not used	Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone ____ Assigned to module #____. RM HE P	1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 80-bit device 7 - Input option 3 8 - Not used	Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone ____ Assigned to module #____. RM HE P	1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 80-bit device 7 - Input option 3 8 - Not used	Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone ____ Assigned to module #____. RM HE P	1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 80-bit device 7 - Input option 3 8 - Not used	Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone ____ Assigned to module #____. RM HE P	1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 80-bit device 7 - Input option 3 8 - Not used	Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob
Zone ____ Assigned to module #____. RM HE P	1 - Enable sensor 2 - Supervised 3 - Fire supervision 4 - Input option 1 5 - Input option 2 6 - 80-bit device 7 - Input option 3 8 - Not used	Partition 1 keyfob Partition 2 keyfob Partition 3 keyfob Partition 4 keyfob Partition 5 keyfob Partition 6 keyfob Partition 7 keyfob Partition 8 keyfob

Table 5. Programming settings (continued)

Location	Segment 1	Segment 2
193 Receiver options (all defaults off)	1 - Enable jam detect 2 - Enable auto advance to next zone number 3 - Keyfob user ID (off = all keyfobs report as user 99; on = keyfob reports as learned zone #) 4 - Enable antenna tamper (only selectable on international versions; reports as box tamper) 5 - Enable case tamper 6 - Keyfob disarming (0 = keyfob disarm normal; 1 = disarm only during entry or partial arm) 7 - Enable wall tamper (reports as box tamper) 8 - Not used	None
194 Receiver zone bank setting (default = 0), set this before learning any sensors. Applies only to NX8E.	Starting zone numbers by bank setting: 0 = 1 1 = 9 2 = 17 3 = 25 4 = 33 5 = 41 6 = 49 7 = 57 8 = 65 9 = 73 10 = 81 11 = 89 12 = 97 13 = 105 14 = 113 15 = 121 16 = 129 17 = 137 18 = 145 19 = 153 20 = 161 21 = 169 22 = 177 23 = 185	
195 Supervision Windows	Normal ____ hours. (0 to 255 hours; default = 24 hours)	Fire ____ hours. (0 to 255 hours; default = 4 hours)
	Segment 3: Short supervision time ____ minutes (1 to 30 minutes, default = 40 minutes - disabled) Do not change Segment 3 setting unless required. See step 7 under <i>Transmitter supervision windows</i> on page 6.	

Table 5. Programming settings (continued)

Location	Segment 1	Segment 2
200 Number of rounds received from last transmitter learned See Testing and troubleshooting on page 6.	None	None

Supported devices

For 80-bit devices, Feature 6 must be on for Segment 1 on zone location. For 63-bit devices, Feature 6 must be off for Segment 1 on zone location.

80-bit devices

- 60-849-02-95 ESL Smoke Detector
- 60-917-95 Universal Fire Transmitter
- 60-832-95R 2 Button Keychain Touchpad *

63-bit devices

- NX-450 (60-670-95R) SAW Door/Window Sensor, White
- NX-451 (60-670-11-95R) SAW Door/Window Sensor, Brown
- NX-452 (60-499-10-319.5) SlimLine Door/Window Sensor, White
- NX-453 (60-499-11-319.5) SlimLine Door/Window Sensor, Brown
- NX-458 (60-751-95) Recessed Micro Door/Window Sensor
 - 60-741-11-95 Recessed Micro Door/Window Sensor, Brown
- NX-470 (60-659-95R) 4-Button Keychain Touchpad
- NX-474 (60-906-95) Micro Multi-Purpose Crystal Panic Button
- NX-475 (60-578-10-95) Water-Resistant Pendant Panic Sensor
- NX-480 (60-639-95) Indoor SAW PIR Motion Sensor
 - 60-639-95R-OD Outdoor SAW PIR Motion
 - 60-639-02-95R SAW PIR Motion w/1.5v
- NX-487 (60-834-95) Adjustable Dual Technology Sound Sensor
- NX-490 (60-506-319.5) Wireless Smoke Sensor
- NX-491NT (60-848-02-95) ESL 560 Series Wireless Smoke Sensor
- NX-495 (60-460-319.5) Rate-of-Rise Heat Sensor
- NX-650 (60-362-10-319.5) Standard Door/Window Sensor, White
- NX-651 (60-362-11-319.5) Standard Door/Window Sensor, Brown
- NX-652 (60-641-95) Long Life Door/Window Sensor, White
- NX-653 (60-641-11-95) Long Life Door/Window Sensor, Brown
- NX-454 (60-688-95) Micro Door/Window Sensor, White*
- NX-455 (60-688-11-95) Micro Door/Window Sensor, Brown*
- NX-481 (60-807-95R) Indoor SAW PIR Motion Sensor*
- NX-482 (60-880-95) AP750W PIR Motion Sensor*
- NX-488 (60-873-95) ShatterPro Crystal Glass Break Sensor*
- NX-497 (60-652-95) Crystal Carbon Monoxide Sensor*
- NX-656 (60-462-10-319.5) Glass Guard Crystal Sensor, White*
- NX-657 (60-462-11-319.5) Glass Guard Crystal Sensor, Brown *
- NX-658 (60-742-95R) Crystal Freeze Sensor*
- NX-667 (60-886-95) Crystal Learn Mode Shock Sensor, White*
- NX-668 (60-886-11-95) Crystal Learn Mode Shock Sensor, Brown*
- NX-695 (60-744-95R) SAW Water Sensor*
- NX-706 (80-922) Repeater Kit 319.5*
- NX-707 (80-922-1) Repeater Kit 319.5 *
 - 60-511-01-95 Learn Mode DS924 PIR Motion Sensor*
 - 60-511-01-95 DS924I Pet Immune PIR*
 - 60-452-10-319.5 Learn Mode Pendant Panic*
 - 60-457-10-319.5 Learn Mode Double Button Panic *
 - 60-458-10-319.5 Learn Mode Single Button Panic*

* These devices are not listed, investigated, or verified by UL.

Specifications

Compatibility	NX-4, NX-6, NX-8, NX-8E control panels
Frequency	319.5 MHz
Wireless range	1,000 feet (304 m)
Required power	12.0 VDC (provided by panel)
Current draw	55 mA maximum
Operating temperature	32 to 120°F (0 to 49°C)
Storage temperature	-30 to 140°F (-34 to 60°C)
Max. relative humidity	85% noncondensing
Dimensions	4.65 x 3.20 inches (11.8 x 8.1 cm)
Listings	
UL	UL 985, UL 1023
CUL	ORD-C1023-1974, ULC-S545-02

FCC compliance

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions:

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

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Technical support

Toll-free: 888.437.3287 (US, including Alaska and Hawaii; Puerto Rico; Canada).
Outside the toll-free area: Contact your local dealer.

www.gesecurity.com