NX-591E-GSM SMSXpress Module
Installation Manual

Contents

Preface

This is the GE *NX-591E-GSM SMSXpress Module Installation Manual* for model NX-591E-GSM. This document includes an overview of the product and detailed instructions explaining:

- how to install; and
- how to program the module.

There is also information describing how to contact technical support if you have questions or concerns.

To use this document effectively, you should have a basic knowledge of electrical wiring and low-voltage electrical connections.

Read these instructions and all ancillary documentation entirely <u>before</u> installing or operating this product. The most current versions of this and related documentation may be found on our website. Refer to *Contacting technical support* on page 25 for instructions on accessing our online publication library.

Note: A qualified service person, complying with all applicable codes, should perform all required hardware installation.

Conventions used in this document

The following conventions are used in this document:

Bold	Menu items and buttons.
Italic	Emphasis of an instruction or point; special terms.
	File names, path names, windows, panes, tabs, fields, variables, and other GUI elements.
	Titles of books and various documents.
Blue italic	(Electronic version.) Hyperlinks to cross-references, related topics, and URL addresses.
`Monospace`	Text that displays on the computer screen.
	Programming or coding sequences.

Safety terms and symbols

These terms may appear in this manual:

CAUTION: *Cautions* identify conditions or practices that may result in damage to the equipment or other property.

WARNING: *Warnings* identify conditions or practices that could result in equipment damage or serious personal injury.

Product overview

The NX-591E-GSM is a microprocessor-controlled GSM interface module used to connect the NetworX series of control panels to GSM cellular networks for event reporting. The module can be used for primary, backup, or additional reporting when used in conjunction with the panel communicator or other optional reporting modules. Flexible event selection allows only specific messages to be reported, keeping airtime to a minimum. The module has 14 LEDs to provide extensive diagnostic and setup information.

Website activation of new and replacement modules

You can activate and manage the module via our website address: *www.gesecurity.com/GSM* (*Figure 1*).

Figure 1.   Web site
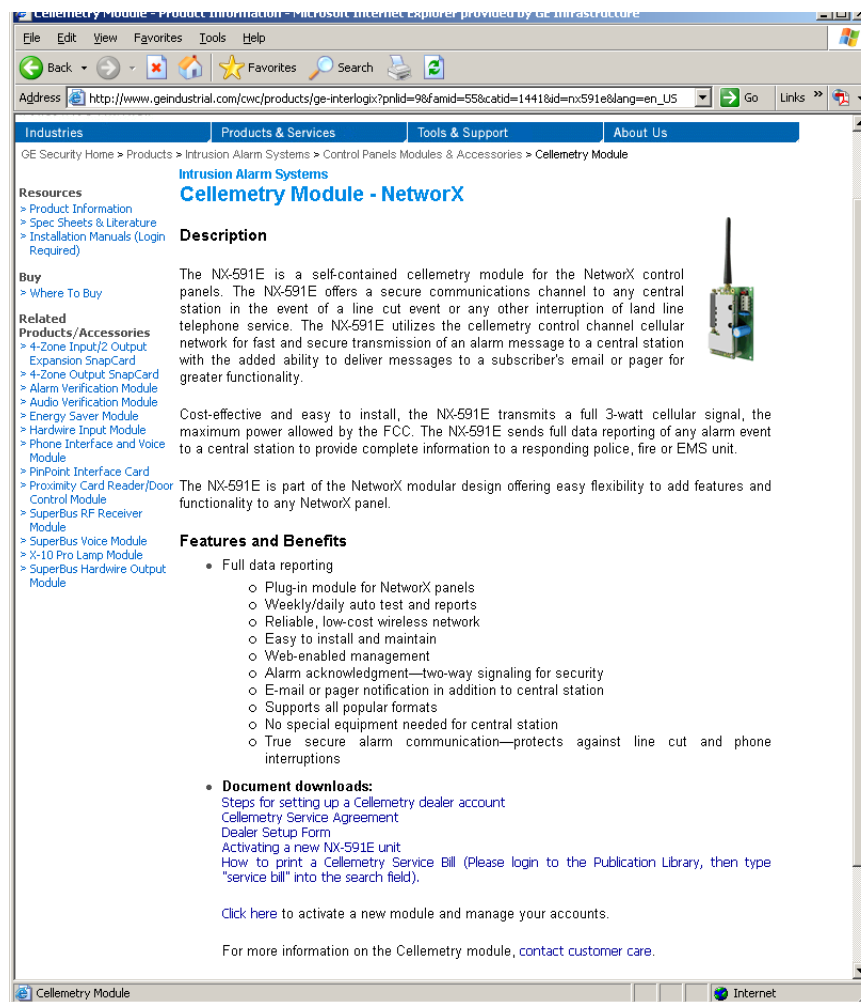
You must have a dealer account set up before you can proceed. If your company already has an account set up, do the following:

1. At the bottom of the web page, click the activation link. The member *Login* screen appears.

2. At the *Login* screen, type your login name and password, then click **Login**.

3. The following options are available on the site map. If not displayed, select **Site map** under the main menu.

Activate digital unit (new). This will activate the GSM module (NX-591E-GSM). Enter the serial number of the module (located on the front of the unit). The serial number must contain 10 digits. Multiple modules can be added from this screen.

Activate digital unit (direct swap). This will only activate a GSM module that is replacing an existing cellemetry module. Enter the serial number of the module to be deactivated (located on the front of the unit), and the serial number of the module to be activated. The serial number must contain 10 digits. Multiple modules can be added from this screen.

Edit unit settings. Complete the following information based on the way you want to configure the reporting for the module:

- Select the unit you have just activated.
- Add the account name to the *Unit name* field.
- Select your *Notification Method 1*.
- Change *TX Retries* to 8 (maximum allowed).
- Go to the appropriate field for the *Method 1* that was chosen (Alpha, E-mail, or Central Station).
  - If *Alpha* pager, the PIN is required.
  - If *Central Station*, enter the receiver phone number and central station A/C number.
- Select a second *Notification Type*, if needed.
- *Notification Enabled* should read "Yes".

4. Click **Update**.

Enrolling the module

The NetworX control panels have the ability to automatically find and store in memory the presence of all keypads, zone expanders, wireless receivers, and any other device on the keypad buss. This allows these devices to be supervised by the control panel. To enroll the devices, enter program mode of the NX control panel using the procedure described in the control panel documentation. When you exit program mode, the control panel will automatically enroll all the devices. The enrolling process takes about 12 seconds, during which time the service LED will illuminate. When using the LCD keypad, the "Service Required" message will be displayed. User codes will not be accepted during the enrolling process. Once a module is enrolled, if the control panel does not detect it, the service LED will illuminate.

Module address

The GSM module has a fixed address of 76. When programming the module, enter program mode and select the device address as 76 (see *Programming* on page 8).

Installation

To install the module you will need to mount and wire the board.

Mounting

Inside the can, several two-holed insertion points have been constructed. This allows for either vertical or horizontal placement of the modules. The insertion points have two sizes of holes, a larger hole and a smaller hole. The black plastic PCB guides are grooved on one edge where the PC board will be seated. The end with the half-moon protrusion fits into the larger hole. The smaller hole is for the screw.

To mount the board, see *Figure 2* and do the following:

1. Place the first black plastic PCB guide in the top insertion point, grooved edge downward. The half-moon protrusion will be in the large hole. It does not require force.

2. Insert one of the provided screws into the smaller hole (from the inside of the can) to secure it in place. A screwdriver should reach through the notch that runs the length of the guide to tighten the screw.

3. Position the second PCB guide opposite of the first (grooved edge up) and placed in the lower insertion point, using the same procedure.

4. Once mounted, screw it in securely.

5. Slide the board in the grooves of both guides.

Note: Older style enclosures did not provide an exit hole for the antenna included with the GSM module. In such cases, you must either drill a new hole (5/8 in.) on top of the can or use an optional external antenna (NX-501E-GSM).

Figure 2.   Mounting the board
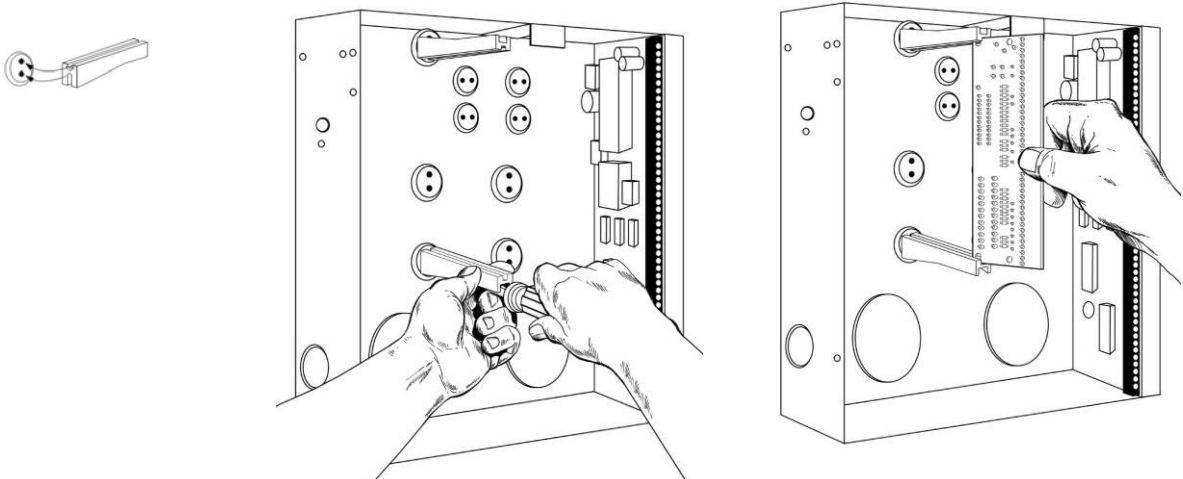
Wiring

Table 1 shows the maximum wire run for different wire gauges.

Table 1. Maximum wire run

Length in feet	Wire gauge (connected to NX control panel or NX320E power supply)
10	20
50	18
100	16

Figure 3 shows the module wiring terminals and LEDs on the board

Figure 3. Wiring terminals
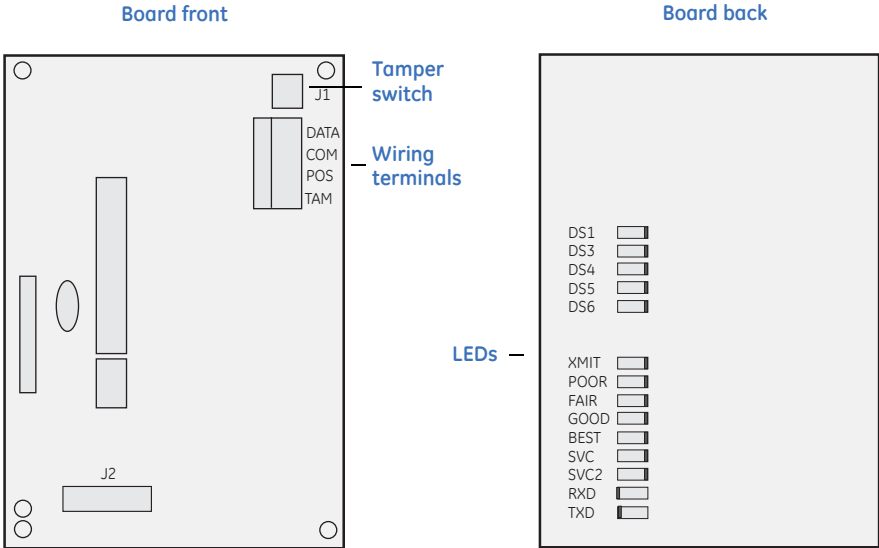
Table 2 describes the wiring terminals.

Table 2. Wiring terminals

Terminal	Description
DATA	Connect to the KP DATA terminal of the panel.
COM	Connect to the KP COM terminal of the panel.
POS	Connect to the KP POS terminal of the panel. Refer to *Specifications* on page 24 for power consumption.
TAMPER	Normally closed.

Module LEDs

The module has 14 green LEDs along the back of the board. These LEDs provide valuable information about the status of the module as described in *Table 3*.

Table 3.   Module LEDs

LED	Description
	DS3 to DS6 LEDs flashing = Network failure. DS3 to DS6 LEDs off = Normal idle condition. (DS3 and DS4) and (DS5 and DS6) flashing alternately = Shutdown.
DS1	Proper circuitry operation.
DS3	On steady = Reading MINs from GSM radio.
DS4	On steady = Looking for cellular service.
DS5	On steady = Sending a network verification message packet to tower. Flashing = Waiting for acknowledgement.
DS6	On = Sending data message to tower. Flashing = Waiting for acknowledgement.
XMIT	Transmitting message packet to tower.
POOR	The LEDs will either be off, on, flashing slow, or flashing fast depending on the dB of the signal. Refer to *Table 4* on page 7 for details.
FAIR	
GOOD	
BEST	
SVC	Cellular service available.
SVC2	Two or more control channels available.
RXD	Receiving data from GSM radio.
TXD	Sending data to GSM radio.

Table 4 describes the dB signals for the LEDs.

Table 4.   *LEDs and dB signals*

dB		Poor	Fair	Good	Best
-114	-107	Off	Off	Off	Off
-106	-104	Slow	Off	Off	Off
-103	-101	Fast	Off	Off	Off
-100	-98	On	Off	Off	Off
-97	-95	On	Slow	Off	Off
-94	-92	On	Fast	Off	Off
-91	-89	On	On	Off	Off
-88	-86	On	On	Slow	Off
-85	-83	On	On	Fast	Off
-82	-80	On	On	On	Off
-79	-77	On	On	On	Slow
-76	-74	On	On	On	Fast
-73	Higher	On	On	On	On

Programming

You can program the module using the LED keypad or the LCD keypad. To program the module using the LED keypad, do the following:

Enter program mode

To enter program mode, press *** 8**. The Stay, Chime, Exit, Bypass, and Cancel LEDs on the keypad will flash. Enter the "go to program code". The factory default is **9 7 1 3**. If the code is valid, the Service LED on the keypad will flash and the five function LEDs will illuminate steady. You are now in program mode and can select the module to program.

Select the module to program

To select the module to program, press **7 6 #** (the address of this GSM module). The Armed LED on the keypad will illuminate while it is waiting for a programming location to be entered.

Factory default the module

To return the module to factory defaults, press **9 1 0 #**. The keypad will beep three times indicating that loading is in progress. Remember you will erase any values you may have entered previously.

Programming a location

Once the number of the module to be programmed has been entered, the Armed LED on the keypad will illuminate while it is waiting for a programming location to be entered.

Note: If an attempt is made to program an invalid entry for a particular segment, the keypad sounder will emit a triple error beep, and remain in that segment waiting for a valid entry.

To enter a location, enter the location number (1 to 13) and press #. The Armed LED will flash. If the location is valid, the Armed LED will extinguish, the Ready LED will illuminate, and the zone LEDs will show the data for the first segment of this location.

To change location data, enter the changed data. The Ready LED will flash to indicate a data change in progress and will continue until the data is saved. Press ***** to save the new data. The keypad will advance to the next segment and display its data. These steps are repeated until the last segment is reached.

To exit a location, press #. The Ready LED will extinguish. The Armed LED will illuminate waiting for a new programming location to be entered.

To review the data, enter the location number and press #. The Armed LED will flash. If the location number is valid, the Armed LED will extinguish, the Ready LED will illuminate, and the zone LEDs will show the binary data for the first segment of this location. Press * to display the next segment data. Each time you press *, the data of the next segment will be displayed for review.

Exit program mode

Press **Exit** to exit this programming level. Press **Exit** a second time to completely exit programming.

LCD keypad programming

All steps required for programming are the same as those described for the LED keypad. The LCD keypad display will prompt you for the data required. While in programming mode, and not in a location, the number in parenthesis is the location you were previously changing. For example, if the display reads, "Enter location, then # (5)", it is reminding you that location 5 was the last location you programmed.

Programming data

Programming data is either numerical data, or feature selection data.

Numerical data

To program numerical data, enter a number from 0 to 255 on the numeric keys of the keypad. To view the data in a location, a binary process is used. With this process, the LEDs for zones 1 through 8 are used, and the numeric equivalents of their illuminated LEDs are added together to determine the data in a programming location. The numeric equivalents of these LEDs are as follows:

Zone 1 LED = 1	Zone 3 LED = 4	Zone 5 LED = 16	Zone 7 LED = 64
Zone 2 LED = 2	Zone 4 LED = 8	Zone 6 LED = 32	Zone 8 LED = 128

For example, if the numerical data to be programmed in a location is "66", press **6 6** on the keypad. The LEDs for Zone 2 and Zone 7 will illuminate indicating 66 is in that location (2 + 64 = 66). Once the data is programmed, press ***** to enter the data and advance to the next segment of that location.

After the last segment of a location is programmed, press ***** to exit that location, turn the Ready LED off, and the Armed LED on. You are now ready to enter another programming location.

If an attempt is made to program a number too large for a particular segment, the keypad sounder will emit a triple beep, indicating an error, and remain in that segment waiting for a valid entry.

Feature selection data

Feature selection data will display the current condition (on or off) of eight features associated with the programming location and segment selected. Pressing a button on the touchpad (1 through 8) that corresponds to the feature number within a segment will toggle (on/off) that feature. Pressing any numeric key between 1 and 8 for selection of a feature will make the corresponding LED illuminate (feature on). Press the number again, and the LED will extinguish (feature off).

You will see that numerous features can be selected from within one segment. For instance, if all eight features of a segment are desired, pressing **1 2 3 4 5 6 7 8** will turn on LEDs 1 through 8 as you press the keys, indicating that those features are enabled.

Note: On LCD keypads, the numbers of the enabled features will be displayed. However, the features not enabled will display a hyphen (-).

After you select the desired setting for this segment, press ***** to enter the data and automatically advance to the next segment of the location. When you are in the last segment of a location and press ***** to enter the data, you will exit that location. The Ready LED will turn off and the Armed LED will turn on. You are now ready to enter another programming location.

Location 0, programming the mode

This location has five numeric data segments. This location contains the system identification number (SID). Factory default is 0-0-0-0-0 for AutoSID.

Note: If manually entering an SID, use leading zeroes.

Location 1, feature selection

This location has four segments. Segment 1 contains the options to be programmed for the functioning of this module. Factory default for all Segment 1 options is off. *Table 5* describes the options

Table 5.   Segment 1 options

Option	Description	On	Off
1	Format	SIA	Contact ID
2	Test signal	Daily[1]	Weekly[2]
3	System preference	Use A or B side only	No preference
4	B side preference	B side (if option 3 is on)	A side
5	Alternate MIN	Disabled	Enabled
6	Disable cellular service LEDs	Disabled	Enabled
7	Enable tamper switch	Enabled	Disabled
8	Disable SIA DCS area modifier[3]	Disabled	Enabled

1. Daily test will be performed 24 hours (± 10 minutes) from time this option is programmed.
2. Weekly test will be performed 168 hours (± 10 minutes) from time this option is programmed.
3. Some older SIA DCS compatible receivers may not support the use of area (partition) modifiers. In such cases, the area modifier must be disabled (Option 8 on).

Segment 2 programs host acknowledgement requirements. Factory default for all Segment 2 options is off. *Table 6* describes the options.

Table 6.   Segment 2 options

Options	Description	On	Off
1	Central station messages	Enabled	Disabled
2	E-mail messages	Enabled	Disabled
3	Pager messages	Enabled	Disabled
4	Periodic test signals	Enabled	Disabled
5 to 8	Reserved for future use.		

Segments 3 and 4 are reserved for future use.

Location 2, events to report to central station

Phone fault detected. This location has 16 segments.

Note: Reporting must be enabled in the control panel for this location to function.

This location selects the partitions to include when reporting to the central station. To exclude any partition from reporting, turn off the LED corresponding to that particular partition number. Enter the numbers of the partitions to include for each type of report found in segments 1 through 16. Factory default is all partitions on for segment 1; all partitions off for segments 2 to 16.

Table 7 describes the segment options.

Table 7.   Location 2 options

Segment	Description	Segment	Description
1	Alarms	9	Tampers
2	Open/close	10	Short circuit and ground fault
3	Bypass	11	Sensor lost
4	Zone trouble	12	Sensor low battery
5	Power trouble (AC failure or low battery)	13	Expander trouble
6	Siren and telephone fault	14	Failure to communicate
7	Test reports	15	Zone activity monitor
8	Program, download, and log full	16	Reserved for future use.

Location 3, special events to report to central station

Phone fault detected. This location has 8 segments.

This location selects the partitions to include when reporting special events to the central station. To exclude any partition from reporting, simply turn off the LED corresponding to that particular partition number. Enter the numbers of the partitions to include for each type of report found in segments 1 through 4. Factory default is all partitions off for segment 1 and 3; all partitions on for segments 2 and 4. Segments 5 to 8 are reserved for future use.

Table 8 describes the segment options.

Table 8.   Location 3 options

Segment	Description	Segment	Description
1	Alarm restores	3	Start download
2	Telephone fault	4	Fail to communicate, data lost

Location 4, events to report to e-mail

Phone fault detected. This location has 16 segments.

Note: Reporting must be enabled in the control panel for this location to function.

This location selects the partitions to include when reporting to e-mail. To exclude any partition from reporting, turn off the LED corresponding to that particular partition number. Enter the numbers of the partitions to include for each type of report found in segments 1 through 16. Factory default is all partitions off. for all segments.

Table 9 describes the segment options.

Table 9.   Location 4 options

Segment	Description	Segment	Description
1	Alarms	9	Tampers
2	Open/close	10	Short circuit and ground fault
3	Bypass	11	Sensor lost
4	Zone trouble	12	Sensor low battery
5	Power trouble (AC failure or low battery)	13	Expander trouble
6	Siren and telephone fault	14	Failure to communicate
7	Test reports	15	Zone activity monitor
8	Program, download, and log full	16	Reserved for future use.

Location 5, special events to report to e-mail

Phone fault detected. This location has 8 segments.

This location selects the partitions to include when reporting special events to e-mail. To exclude any partition from reporting, turn off the LED corresponding to that particular partition number. Enter the numbers of the partitions to include for each type of report found in segments 1 through 4. Factory default is all partitions off for all segments. Segments 5 to 8 are reserved for future use.

Table 10 describes the segment options.

Table 10.   Location 5 options

Segment	Description	Segment	Description
1	Alarm restores	3	Start download
2	Telephone fault	4	Fail to communicate, data lost

Location 6, events to report to pager

Phone fault detected. This location has 16 segments.

Note: Reporting must be enabled in the control panel for this location to function.

This location selects the partitions to include when reporting to a pager. To exclude any partition from reporting, turn off the LED corresponding to that particular partition number. Enter the numbers of the partitions to include for each type of report found in segments 1 through 16. Factory default is all partitions off. for all segments.

Table 11 describes the segment options.

Table 11.   Location 6 options

Segment	Description		Segment	Description
1	Alarms		9	Tampers
2	Open/close		10	Short circuit and ground fault
3	Bypass		11	Sensor lost
4	Zone trouble		12	Sensor low battery
5	Power trouble (AC failure or low battery)		13	Expander trouble
6	Siren and telephone fault		14	Failure to communicate
7	Test reports		15	Zone activity monitor
8	Program, download, and log full		16	Reserved for future use.

Location 7, special events to report to pager

Phone fault detected. This location has 8 segments.

This location selects the partitions to include when reporting special events to a pager. To exclude any partition from reporting, turn off the LED corresponding to that particular partition number. Enter the numbers of the partitions to include for each type of report found in segments 1 through 4. Factory default is all partitions off for all segments. Segments 5 to 8 are reserved for future use.

Table 12 describes the segment options.

Table 12.   Location 7 options

Segment	Description		Segment	Description
1	Alarm restores		3	Start download
2	Telephone fault		4	Fail to communicate, data lost

Location 8, events to report to central station

Phone line is good. This location has 16 segments.

Note: Reporting must be enabled in the control panel for this location to function.

This location selects the partitions to include when reporting to the central station. To exclude any partition from reporting, turn off the LED corresponding to that particular partition number. Enter the numbers of the partitions to include for each type of report found in segments 1 through 16. Factory default is all partitions off for all segments.

Table 13 describes the segment options.

Table 13. Location 8 options

Segment	Description	Segment	Description
1	Alarms	9	Tampers
2	Open/close	10	Short circuit and ground fault
3	Bypass	11	Sensor lost
4	Zone trouble	12	Sensor low battery
5	Power trouble (AC failure or low battery)	13	Expander trouble
6	Siren and telephone fault	14	Failure to communicate
7	Test reports	15	Zone activity monitor
8	Program, download, and log full	16	Reserved for future use.

Location 9, special events to report to central station

Phone line is good. This location has 8 segments.

This location selects the partitions to include when reporting special events to the central station. To exclude any partition from reporting, turn off the LED corresponding to that particular partition number. Enter the numbers of the partitions to include for each type of report found in segments 1 through 4. Factory default is all partitions off for all segments. Segments 5 to 8 are reserved for future use.

Table 14 describes the segment options.

Table 14. Location 9 options

Segment	Description	Segment	Description
1	Alarm restores	3	Start download
2	Telephone fault	4	Fail to communicate, data lost

Location 10, events to report to e-mail

Phone line is good. This location has 16 segments.

Note: Reporting must be enabled in the control panel for this location to function.

This location selects the partitions to include when reporting to e-mail. To exclude any partition from reporting, turn off the LED corresponding to that particular partition number. Enter the numbers of the partitions to include for each type of report found in segments 1 through 16. Factory default is all partitions off. for all segments.

Table 15 describes the segment options.

Table 15.   Location 10 options

Segment	Description	Segment	Description
1	Alarms	9	Tampers
2	Open/close	10	Short circuit and ground fault
3	Bypass	11	Sensor lost
4	Zone trouble	12	Sensor low battery
5	Power trouble (AC failure or low battery)	13	Expander trouble
6	Siren and telephone fault	14	Failure to communicate
7	Test reports	15	Zone activity monitor
8	Program, download, and log full	16	Reserved for future use.

Location 11, special events to report to e-mail

Phone line is good. This location has 8 segments.

This location selects the partitions to include when reporting special events to e-mail. To exclude any partition from reporting, turn off the LED corresponding to that particular partition number. Enter the numbers of the partitions to include for each type of report found in segments 1 through 4. Factory default is all partitions off for all segments. Segments 5 to 8 are reserved for future use.

Table 16 describes the segment options.

Table 16.   Location 11 options

Segment	Description	Segment	Description
1	Alarm restores	3	Start download
2	Telephone fault	4	Fail to communicate, data lost

Location 12, events to report to pager

Phone line is good. This location has 16 segments.

Note: Reporting must be enabled in the control panel for this location to function.

This location selects the partitions to include when reporting to a pager. To exclude any partition from reporting, turn off the LED corresponding to that particular partition number. Enter the numbers of the partitions to include for each type of report found in segments 1 through 16. Factory default is all partitions off. for all segments.

Table 17 describes the segment options.

Table 17.   Location 12 options

Segment	Description	Segment	Description
1	Alarms	9	Tampers
2	Open/close	10	Short circuit and ground fault
3	Bypass	11	Sensor lost
4	Zone trouble	12	Sensor low battery
5	Power trouble (AC failure or low battery)	13	Expander trouble
6	Siren and telephone fault	14	Failure to communicate
7	Test reports	15	Zone activity monitor
8	Program, download, and log full	16	Reserved for future use.

Location 13, special events to report to pager

Phone line is good. This location has 8 segments.

This location selects the partitions to include when reporting special events to a pager. To exclude any partition from reporting, turn off the LED corresponding to that particular partition number. Enter the numbers of the partitions to include for each type of report found in segments 1 through 4. Factory default is all partitions off for all segments. Segments 5 to 8 are reserved for future use.

Table 18 describes the segment options.

Table 18.   Location 13 options

Segment	Description	Segment	Description
1	Alarm restores	3	Start download
2	Telephone fault	4	Fail to communicate, data lost

Programming worksheets

Location 0, System ID

Default of **0 0 0 0 0** (AutoSID). New data is _____.

Location 1, Feature selection

Table 19.   Location 1 worksheet

Segment	Description	Default	Data
1, Feature selection	1 = SIA format (off = Contact ID)	Off	
	2 = Daily test signal (off = weekly)	Off	
	3 = System preference (off = no preference)	Off	
	4 = B side preference (off = A side)	Off	
	5 = Disable alternate MIN	Off	
	6 = Disable cellular service LEDs	Off	
	7 = Enable tamper switch	Off	
	8 = Disable SIA DCS area modifier	Off	
2, Host acknowledgement required	1 = Host acknowledgement for central station messages	Off	
	2 = Host acknowledgement for e-mail messages	Off	
	3 = Host acknowledgement for pager messages	Off	
	4 = Host acknowledgement for periodic test signals	Off	
	5 to 8 = Reserved for future use		

Location 2, Reporting events to central station (Phone line fault detected)

Table 20.   Location 2 worksheet

Segment	Partition								Description
	1	2	3	4	5	6	7	8	
1									Alarms
2									Open/close
3									Bypass
4									Zone trouble
5									Power trouble (AC fail or low battery)
6									Siren and telephone fault
7									Test reports
8									Program, download, and log full
9									Tampers
10									Short circuit and ground fault
11									Sensor lost
12									Sensor low battery
13									Expander trouble
14									Fail to communicate
15									Zone activity monitor
16 Reserved for future use.									

Location 3, Reporting special events to central station (Phone line fault detected)

Table 21.   Location 3 worksheet

Segment	Partition								Description
	1	2	3	4	5	6	7	8	
1									Alarm restores
2									Telephone fault
3									Start download
4									Fail to communicate, data lost
5 to 8 Reserved for future use.									

Location 4, Reporting events to e-mail (Phone line fault detected)

Table 22.   Location 4 worksheet

Segment	Partition								Description
	1	2	3	4	5	6	7	8	
1									Alarms
2									Open/close
3									Bypass
4									Zone trouble
5									Power trouble (AC fail or low battery)
6									Siren and telephone fault
7									Test reports
8									Program, download, and log full
9									Tampers
10									Short circuit and ground fault
11									Sensor lost
12									Sensor low battery
13									Expander trouble
14									Fail to communicate
15									Zone activity monitor
16 Reserved for future use.									

Location 5, Reporting special events to e-mail (Phone line fault detected)

Table 23.   Location 5 worksheet

Segment	Partition								Description
	1	2	3	4	5	6	7	8	
1									Alarm restores
2									Telephone fault
3									Start download
4									Fail to communicate, data lost
5 to 8 Reserved for future use.									

Location 6, Reporting events to pager (Phone line fault detected)

Table 24. Location 6 worksheet

Segment	Partition								Description
	1	2	3	4	5	6	7	8	
1									Alarms
2									Open/close
3									Bypass
4									Zone trouble
5									Power trouble (AC fail or low battery)
6									Siren and telephone fault
7									Test reports
8									Program, download, and log full
9									Tampers
10									Short circuit and ground fault
11									Sensor lost
12									Sensor low battery
13									Expander trouble
14									Fail to communicate
15									Zone activity monitor
16 Reserved for future use.									

Location 7, Reporting special events to pager (Phone line fault detected)

Table 25. Location 7 worksheet

Segment	Partition								Description
	1	2	3	4	5	6	7	8	
1									Alarm restores
2									Telephone fault
3									Start download
4									Fail to communicate, data lost
5 to 8 Reserved for future use.									

Location 8, Reporting events to central station (Phone line is good)

Segment	Partition								Description
	1	2	3	4	5	6	7	8	
1									Alarms
2									Open/close
3									Bypass
4									Zone trouble
5									Power trouble (AC fail or low battery)
6									Siren and telephone fault
7									Test reports
8									Program, download, and log full
9									Tampers
10									Short circuit and ground fault
11									Sensor lost
12									Sensor low battery
13									Expander trouble
14									Fail to communicate
15									Zone activity monitor
16 Reserved for future use.									

Location 9, Reporting special events to central station (Phone line is good)

Segment	Partition								Description
	1	2	3	4	5	6	7	8	
1									Alarm restores
2									Telephone fault
3									Start download
4									Fail to communicate, data lost
5 to 8 Reserved for future use.									

Location 10, Reporting events to e-mail (Phone line is good)

Table 28.   Location 10 worksheet

Segment	Partition								Description
	1	2	3	4	5	6	7	8	
1									Alarms
2									Open/close
3									Bypass
4									Zone trouble
5									Power trouble (AC fail or low battery)
6									Siren and telephone fault
7									Test reports
8									Program, download, and log full
9									Tampers
10									Short circuit and ground fault
11									Sensor lost
12									Sensor low battery
13									Expander trouble
14									Fail to communicate
15									Zone activity monitor
16 Reserved for future use.									

Location 11, Reporting special events to e-mail (Phone line is good)

Table 29.   Location 11 worksheet

Segment	Partition								Description
	1	2	3	4	5	6	7	8	
1									Alarm restores
2									Telephone fault
3									Start download
4									Fail to communicate, data lost
5 to 8 Reserved for future use.									

Location 12, Reporting events to pager (Phone line is good)

Table 30.   Location 12 worksheet

Segment	Partition								Description
	1	2	3	4	5	6	7	8	
1									Alarms
2									Open/close
3									Bypass
4									Zone trouble
5									Power trouble (AC fail or low battery)
6									Siren and telephone fault
7									Test reports
8									Program, download, and log full
9									Tampers
10									Short circuit and ground fault
11									Sensor lost
12									Sensor low battery
13									Expander trouble
14									Fail to communicate
15									Zone activity monitor
16 Reserved for future use.									

Location 13, Reporting special events to pager (Phone line is good)

Table 31.   Location 13 worksheet

Segment	Partition								Description
	1	2	3	4	5	6	7	8	
1									Alarm restores
2									Telephone fault
3									Start download
4									Fail to communicate, data lost
5 to 8 Reserved for future use.									

Specifications

Operating power	12 VDC supplied from NX control panel or NX-320E power supply
Power consumption	
Standby with service LEDs disabled	70 mA max.
Standby with service LEDs enabled	90 mA max.
Transmission burst (<1 second)	700 mA max.
Operating temperature	32 to 120°F (0 to 49°C)
Dimensions (W x H x D)	2.4 x 4.4 x 1.2 in. (61 x 112 x 30 mm)
Shipping weight	1 lb.

Support

This section offers technical support contacts in case you need assistance.

Contacting technical support

For assistance installing, operating, maintaining, and troubleshooting this product, refer to this document and any other documentation provided. If you still have questions, you may contact technical support during normal business hours (Monday through Friday, excluding holidays, between 5 a.m. and 5 p.m. Pacific Time).

Table 32.   Sales and support contact information

	Sales	Technical support
Phone:	**Toll-free:** 888.GESECURity (888.437.3287 in the US, including Alaska and Hawaii; Puerto Rico; Canada). Outside the toll-free area: 503.885.5700.	
E-mail	gesecurity.customerservice@ge.com	nstechsrv@ge.com
Fax	888.329.0331	888.329.0332

Note: Be ready at the equipment before calling for technical support.

Online publication library

Another great resource for assistance with your GE products is our online publication library. To access our publication library, go to our website at the following location:

    http://www.gesecurity.com

In the **Customer Support** menu, select the *Resource Library* link. After you register and log on, you may search through our online library for the documentation you need.[1]

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1.   Many GE Security documents are provided as PDFs (portable document format). To read these documents, you will need Adobe Acrobat Reader, which can be downloaded free from Adobe's website at www.adobe.com.

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