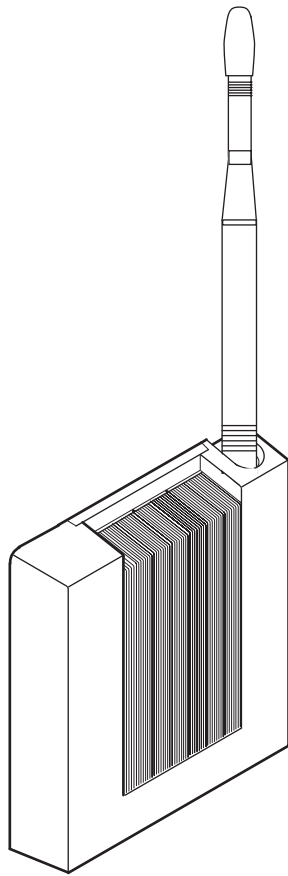


NX-592E-GSM Wireless Gateway Installation Manual



Copyright	Copyright © 2008 GE Security. All rights reserved.
	This document may not be copied in whole or in part or otherwise reproduced without prior written consent from GE Security except where specifically permitted under US and international copyright law.
	Document number/revision: 466-2204D (April 2008).
Disclaimer	The information in this document is subject to change without notice. GE Security ("GE") assumes no responsibility for inaccuracies or omissions and specifically disclaims any liabilities, losses, or risks, personal or otherwise, incurred as a consequence, directly or indirectly, of the use or application of any of the contents of this document. For the latest documentation, contact your local supplier or visit us online at www.gesecurity.com .
	This publication may contain examples of screen captures and reports used in daily operations. Examples may include fictitious names of individuals and companies. Any similarity to names and addresses of actual businesses or persons is entirely coincidental.
Trademarks and patents	GE and the GE monogram are registered trademarks of General Electric Company.
	Other trade names used in this document may be trademarks or registered trademarks of the manufacturers or vendors of the respective products.
Intended use	Use this product only for the purpose it was designed for; refer to the data sheet and user documentation. For the latest product information, contact your local supplier or visit us online at www.gesecurity.com .
FCC compliance	This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
	Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Contents

Preface	1
Conventions used in this document	1
Safety terms and symbols	1
Product summary	2
Components	3
Before installation	4
Create a new account	4
Programming the number of zones	5
Installation	6
Installation guidelines	6
Tools and supplies needed	6
Mounting locations	6
Mounting	7
Wiring connections	8
Case tamper switch installation	9
Power up	9
Enrolling the module	9
Programming using the keypad	10
Status LEDs	11
Specifications	12
Troubleshooting	12
Contacting us	13
Online resources	13
Creating a new subscriber account	14
Customer information	15
System operation from Alarm.com	15
FCC notice	15

Preface

This is the *GE NX-592E-GSM Wireless Gateway Installation Manual*. This document includes an overview of the product and detailed instructions explaining:

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

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

To use this document effectively, you should have the following minimum qualifications:

- a basic knowledge of NetworX panels; and
- a basic knowledge of electrical wiring and low-voltage electrical connections.

Read these instructions and all ancillary documentation entirely before installing or operating this product. The most current versions of this and related documentation may be found on our website. Refer to [Online resources](#) on page 13 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.
<i>Italic</i>	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.
<i>Blue italic</i>	(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.

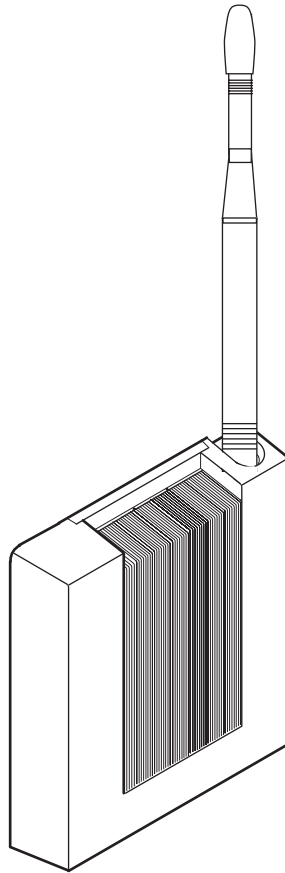


WARNING: *Warnings* identify conditions or practices that could result in equipment damage or serious personal injury.

Product summary

The NX-592E-GSM Wireless Gateway (*Figure 1*) allows NetworX owners to control and monitor their system status from the Alarm.com website. Through a wireless, two-way paging network, your customer has limited controls on such features as security, notifications, history, and authentication (see [System operation from Alarm.com](#) on page 15 for further details)

Figure 1. NX-592E-GSM



Using the wireless paging network, NetworX owners may also be notified of system events by e-mail, pager, or phone.

Components

The wireless module interfaces with the NetworX panel data bus and is powered by the panel or an auxiliary 12 VDC power supply. Status LEDs indicate bus and paging network communications. *Figure 2* shows the main module components and *Table 1* describes them.

Figure 2. Main module components

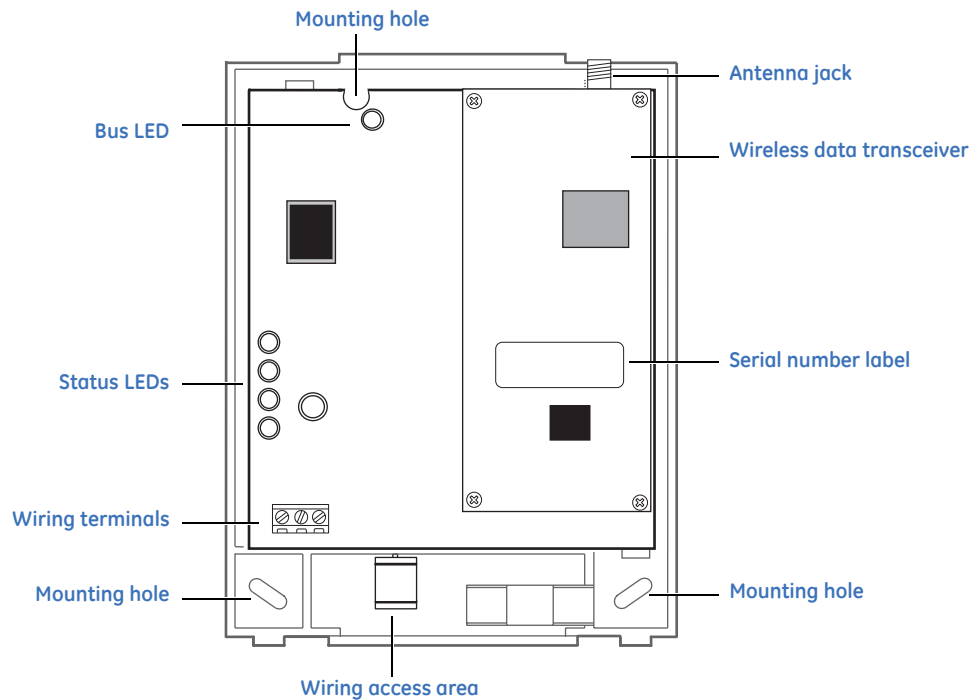


Table 1. Module component descriptions

Component	Function
Bus LED	Indicates data bus activity between panel and module
Status LEDs	Indicate communications status with two-way pager network (see Status LEDs on page 11)
Wiring terminals	Panel wiring connections (see Wiring connections on page 8)
Antenna jack	Antenna connection for wireless data transceiver

Before installation

Before installing any Wireless Gateway, you must:

- Create the Alarm.com customer account prior to installing the Wireless Gateway.
- E-mail dealer@alarm.com to become a registered Alarm.com dealer/installer.

Create the account at least 24 hours before installation to ensure that the wireless module is activated properly on the wireless network.

Create a new account

To create a new account, do the following:

1. Open a web browser and enter the Alarm.com dealer website URL:
<https://www.alarm.com/dealer>
2. Enter your dealer login and password and press **Go**.
3. Go to the *Coverage/FAQ* page to check wireless coverage at the install location. If the location has full coverage, proceed with the next steps. If coverage is uncertain, you may contact Alarm.com for more details.
4. Click the **Customers** link on the menu bar. Then click **Create Customer**.
5. Enter the required customer information
6. Ensure the customer e-mail address is entered correctly. Alarm.com sends a confirmation message, and a list of account changes, to the customer via e-mail.
7. Click **Next**. *Step Two, Create Customer's Login* will appear. Follow the directions as stated. You may click on **Automatically Generate Login** to have a login assigned to you.
8. Click **Next**. *Step Three, System Location* will appear. If the system is installed at the address provided at *Step One Customer Information*, click **Yes**. If the system is installed at an address different from the one provided in *Step One Customer Information*, click **No** and enter the correct address and time zone where the system is to be installed. It is important that you enter the correct system location address at this step.
9. Click **Next**. *Step Four Panel Information* will appear. In the *Modem Serial #* dialog box, enter the 10-character ID found on the gateway you purchased. If you are unable to proceed with the modem serial number, contact Alarm.com.
10. Select **NX** in the *Panel Type* list box.



CAUTION: The website will issue a warning about the number of zones attached to the panel. Unlike Concord and Simon, the Alarm.com gateway cannot learn the number of zones from the panel. By default, the gateway will assume that eight zones are installed. If the number of zones is different, you will have to send a command to the panel later via the Customer Support page of the Dealer website.

11. Click **Next**. The *Confirmation* screen will appear. Review the customer information. If you need to change any of the information, click the **Edit** link next to the field you want to update.

12. Click **Done**. The *Account Creation Successful* screen will appear. Click **View and Print Welcome Letter**. Print two copies of the welcome letter; one for the customer and one for your records. The letter includes the customer's login, temporary password, and instructions on how to get started.

Also, a confirmation message is sent via e-mail to the address entered in *Step One: Customer Information*. The message contains a user confirmation number to be entered during initial log on to the Alarm.com website.

Note: If you leave the *Account Creation Successful* screen without printing a welcome letter, you must click the **Customer** Tab, choose the **Customer Support** tab, and search for and click the customer that needs a new welcome letter. On the customer information page that appears, select the **New Welcome Letter** tab in the *Customer Support Option* panel on the left-hand side.

If the customer does not receive the confirmation e-mail, you may send a new confirmation e-mail by selecting **Resend Confirmation Number** in the *Customer Support Options* panel.

Programming the number of zones

This section describes how to program the number of zones into the gateway.



CAUTION: Unlike Concord and Simon, the Alarm.com gateway cannot learn the number of zones from the NX panel. By default, the gateway will assume that eight zones are installed. If the numbers of zones is different, you will have to send a command to the panel via the *Customer Support* page of the Alarm.com Dealer website.

To program the number of zones into the gateway, do the following:

1. Once the account is created, log on to the Alarm.com Dealer website at:
<https://www.alarm.com/dealer>
2. Click the **Customers** tab, and then click the **Customer Support** subtab.
3. Enter the name of the account in the *Customer Search* field and click **Submit Search**.
4. Select the customer name in the *Search Results* list below the *Customer Search* area.
5. When the account information appears, click the **Sensor List** link on the left side of the page under *Customer Support Options*.
6. Enter the number of installed zones for the customer's NX panel and click **Submit**.

Note: If the panel was not powered up after the account was created, no zone list will appear on this page. The command to set the number of zones will be sent to the panel right away if the panel is powered up, or later when the panel powers up if it has not already powered up.

Installation

Installation requires you to position the module, connect all wires and mounts, and optionally install a case tamper.

Installation guidelines

Use the following guidelines when installing the module:

- NetworX panels support a maximum of one Wireless Gateway per system.
- Use four-conductor, 22- or 18-gauge stranded wire to connect the module to the panel (*Table 2*).

Table 2. Maximum wire length

Gauge	Maximum wire length to panel
22 ga.	40 ft. (12 m)
18 ga.	90 ft. (27 m)

- Mount the module as close to the panel as possible. The module draws a maximum of 65 mA (continuous) and up to 1600 mA (instantaneous peaks) from the panel.
- Do not exceed the panel's total output power when using panel power for bus devices and hardwired sensors (refer to your panel documentation).

Tools and supplies needed

- Slotted and Phillips screwdrivers
- Drill (3/8" drive) and drill bits
- Wire-cutter/stripper
- Four-conductor, 22-gauge or larger stranded wire
- Modem
- Modem antenna and mounting screws (included)
- #6 panhead screws and wall anchors (four each included)

Mounting locations

Use the following guidelines to choosing a mounting location:

- Locate the module near an outside wall, preferably on an upper level.
- Leave 12 to 18 in. (30 to 45 cm) of space near the module antenna jack.
- Avoid locating the module in areas with excessive metal or electrical wiring, such as a furnace or utility room.
- Make sure the antenna is pointing up.

Mounting

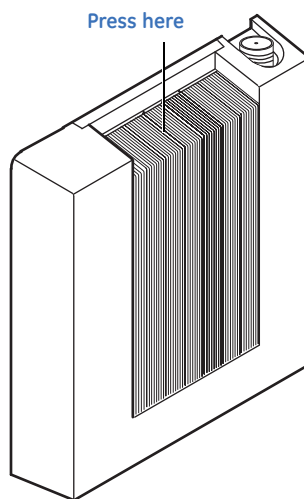
To mount the module, do the following:

1. To remove the module's enclosure cover, press down on the top of the module and pull it away from the base (*Figure 3*).



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

Figure 3. Removing the enclosure




2. Fasten the antenna to the antenna jack (see *Figure 2* on page 3).
3. Place the module backplate at the desired location; ensure it is level and mark the three mounting holes and the wire access area (see *Figure 2* on page 3). Be sure to leave at least 12 to 18 in. (30 to 45 cm) above the backplate for the antenna.
4. Drill holes at the mounting hole and wire access area locations.
5. Install wall anchors and secure the module backplate to the wall with #6 panhead screws.

Wiring connections

To wire the module, do the following:

1. Remove panel AC power and disconnect the backup battery.

 **CAUTION:** To prevent damage to the panel or module, you must remove panel AC power and disconnect the backup battery prior to changing any wire connections.

2. Wire the module to the panel bus and power terminals (see *Figure 4* and *Table 3*).

Figure 4. Wiring connections

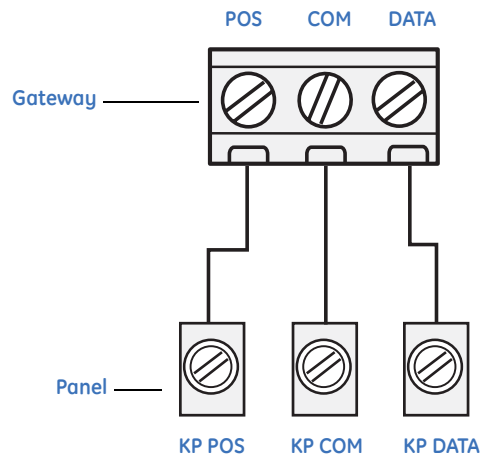


Table 3. Terminal descriptions

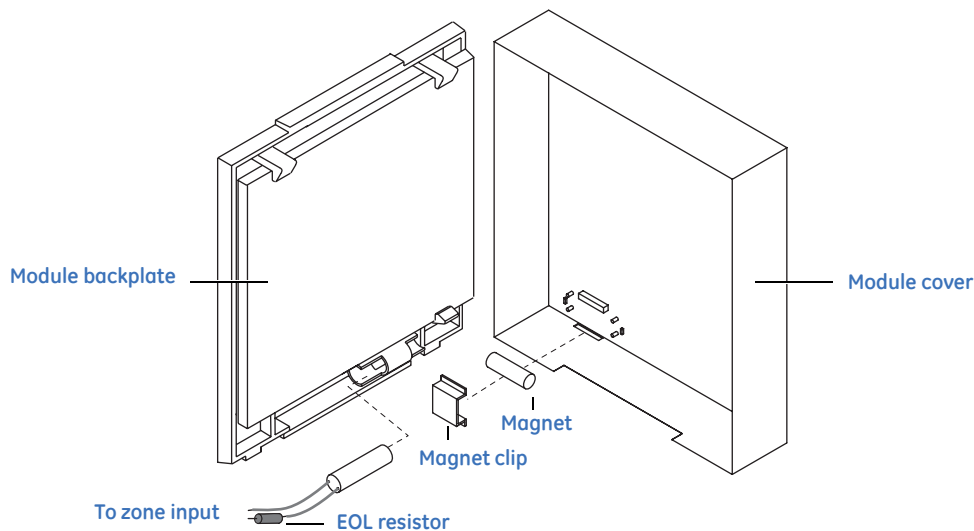
Terminal	Description
POS	Connect to the KP POS terminal of the NetworX panel
COM	Connect to the KP COM terminal of the NetworX panel
DATA	Connect to the KP DATA terminal of the NetworX panel

Case tamper switch installation

If your module is easily accessible, you should consider adding a case tamper detection switch. When the module cover is removed, this switch activates an alarm or trouble signal (depending on panel programming). To install the case tamper switch, see *Figure 5* and do the following:

1. Slide the reed switch into the plastic holder on the module backplate.

Figure 5. Installing a case tamper switch



2. Connect a reed switch (with EOL resistor) to any unused hardwire input on the panel. For the EOL resistor value, see the control panel installation manual.
3. Press the magnet into the tabs located on the module cover. Next, press the magnet clip over the magnet until the clip locks into place.

Power up

To power up the module, do the following:

1. Verify that all wiring between the panel and module are correct.
2. Reconnect the backup battery and restore panel AC power.

Enrolling the module

The NetworX control panels automatically find and store in memory the presence of all keypads, zone expanders, wireless receivers, output modules, and any other device on the keypad bus, allowing these devices to be supervised by the control panel. To enroll the devices, enter Program Mode (refer to your control panel documentation). When you exit Program Mode, the control panel automatically enrolls the devices. This process takes about 12 seconds. During this time, the Service LED will illuminate and User codes will not be accepted. Once a module is enrolled, if it is not detected by the control, the Service LED will illuminate. When initially powering up, the control panel automatically performs the device enrollment process.

Programming using the keypad

The wireless gateway needs to know the address of at least one of the LCD keypads. Some commands, such as getting the zone names for display on the website, will not work if the keypad address is not known. By default, the wireless gateway assumes a keypad address of 192 (keypad 1, partition 1). If your LCD keypad is programmed differently (press ***94** + **installer code** to check), you must change the wireless gateway keypad address. To change the gateway keypad address, do the following:

1. Press *****, then **8**.
2. Enter the “Go to program” code (the default code is **9, 7, 1, 3**). If the code is valid, the keypad display will prompt you for a device address.
3. Enter the address of the NX-592E (**7, 8**) then press **#**. At this point, the keypad display will prompt you for a programming location to be entered.
4. Enter **0**, followed by the **#** key. Location 0, which is the LCD address will display. The default is **192**. For a list of addresses, see *Table 4*.
5. To change the LCD keypad address, enter the new address, followed by the ***** key. The display will return to the location prompt.
6. To exit this location without changing the data, press the **#** key.
7. To review the data, repeat the above procedure, pressing the ***** key without entering data first. If you attempt to program an invalid entry for a particular segment, the keypad sounder will emit a triple error beep (beep, beep, beep) and remain in that segment waiting for a valid entry.
8. Press the **Exit** key to exit this programming level. Press the **Exit** key again to exit Program Mode.

While in programming mode and not in a location, the number in parentheses is the location you were previously changing. For example, if the display reads `Enter location, then # (2)`, it is reminding you that location 2 was the last location you programmed.

Location 0: LCD keypad address

Certain commands in the module require it to know the location of at least one LCD keypad (if one exists in the system). If your system has an LCD keypad we recommend that you place it in Partition 1 Keypad 1. This will allow Location 0 to be left at the factory default. If the LCD keypad is selected as something other than Partition 1 Keypad 1, program the appropriate address in Location 0. Table shows the address options.

Table 4. Addresses

Keypad	Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7	Part 8
1	192	193	194	195	196	197	198	199
2	200	201	202	203	204	205	206	207
3	208	209	210	211	212	213	214	215
4	216	217	218	219	220	221	222	223
5	224	225	226	227	228	229	230	231
6	232	233	234	235	236	237	238	239
7	240	241	242	243	244	245	246	247
8	248	249	250	251	252	253	254	255

Status LEDs

The status LEDs (*Figure 2* on page 3) indicate the module's current signal and status.

Red ERR LED

The top red ERR LED indicates proper communication between the main board of the module and the wireless modem.

Off. If there is no communication between the main board of the module and the wireless modem board.

Flashing. with each message exchanged between the main board of the module and the wireless modem board.

Red REG LED

The bottom red REG LED indicates the module is registered and in range.

On. When the module is registered and in range.

Off. When the module is out of range and not registered with the network.

Flashing. When the module is registered but out of range.

Yellow ACK LED

The yellow ACK LED indicates the module's message status.

On. After the first message has been sent to and received by Alarm.com services.

Off. Until a message has been sent by the module.

Flashing. While the first message is being sent by the module.

Green XMT LED

The green XMT LED indicates the module's message status.

Off. Immediately after Alarm.com services has received a message.

Flashing. While a message is being sent by the module.

Table 5 shows a complete list of LED condition patterns.

Table 5. LED condition patterns

Condition	Red REG LED	Yellow ACK LED	Green XMT LED	Description
1	Off	Off	Off	Module not powered/not working.
2	On	Off	Off	Module in range, first message not sent, not currently sending message.
3	On	On	Off	Module in range, first message sent, not currently sending message.
4	On	On	Flashes	Module in range, first message sent, currently sending message.

Specifications

Compatibility	NetworX panels
Power requirements	9.5 to 15 VDC, 12 V nominal, 65 mA (continuous), 1600 mA (instantaneous peak), maximum from panel or auxiliary power supply
Cellular network	Quad Band GSM/GPRS
Power / data bus	One 3-wire NetworX power/communication data bus
Indicators	One module/panel communication status LED. Four wireless communication status LEDs
Operating temperature	32 to 120°F (0 to 49°C)
Storage temperature	-30 to 140°F (-34 to 60°C)
Humidity	90% relative humidity, noncondensing
Case color	Belgian gray
Case materials	High impact, ABS plastic
Dimensions (H x W x D)	5.25 x 4.125 x 1.0 in. (13.3 x 10.5 x 2.5 cm)
Installation	Wall mount

Troubleshooting

This section provides information to help you diagnose and solve various problems that may arise while configuring or using your GE Security product.

- *The bus LED is not flashing.*

Turn off panel AC power and verify that all wiring is correct.

Note: All buffered messages may be received from the two-way paging network upon restoring power to the module.

- *The module status LEDs do not immediately turn on after initial power-up.*

You may have to wait five to eight minutes for the module to communicate with Alarm.com services.

- *The touchpads/sirens are beeping even though the system is not armed.*

Press *, **2** to display the trouble condition. Refer to your touchpad documentation for details.

Contacting us

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

Table 6. Technical support

North America	Latin America
T: 888 GE Security (888.437.3287) Toll-free in the US, Puerto Rico, and Canada. 503.885.5700 outside the toll-free area.	T: 305.593.4301
F: 561.998.6232 (Boca Raton tech support)	F: 305.593.4300
E: nstechsrv@ge.com gesecurity.customerservice@ge.com	E: InfraSec.TechnicalServicesLatinAmerica@ge.com InfraSecCustomerService.LatinAmerica@ge.com
Australia, New Zealand	Europe, Middle East, and Africa
E: techsupport@gesecurity.com.au	W: At www.gesecurity.eu , select <i>Customer Support</i> .
	China, India, Singapore, Taiwan, Southeast Asia
	E: ges.asiatechservice@ge.com

Note: Be ready at the equipment before calling.

Online resources

Here are some useful links on our website www.gesecurity.com:

Online library. From the *Customer Support* menu, select the [Resource Library](#) link. After you register and log on, you may search for the documentation you need.¹

Training. To view any available online training for GE Security products, select the [Training](#) link. (Online training is not available for all products.)

Warranty and terms information. From the *Customer Support* menu, select [Return and Warranty Policy Statement](#) or [Terms and Conditions Policy Statement](#).

Customer service and technical support. From the *Customer Support* menu, select [Customer Service](#) or [Technical & Application](#). Select the appropriate product category for the contact information or use the menu to select a location outside the US.

1. Many GE documents are provided in English only as PDFs. To read these documents, you will need Adobe Reader, which you can download free from Adobe's website at www.adobe.com.

Creating a new subscriber account

This section describes how to create a new subscriber account on the Alarm.com website. Be sure to discuss this section with your customer prior to the module's final installation.

After you have created a new subscriber account and installed the module, instruct your customer to log on to the Alarm.com website. You will need the following items to complete the new subscriber setup procedure:

- Login and temporary password included on the Alarm.com Welcome Letter.
- Confirmation number sent from Alarm.com to your customer's e-mail.
- Complete list of system sensors and touchpads.
- A phone number and e-mail address for Alarm.com to send notifications to.

After you have gathered the required information, log on to the following address:

<https://www.alarm.com>

Log on by entering the correct login name and temporary password. A New Subscriber Setup Wizard appears. Assist the customer in creating an address book and turning on all Alarm.com notifications.

Leave *Customer information* on page 15 from this document with your customer. The information on these pages describes security system use and limitations of the Alarm.com website. This information does not appear in any owner's manual or user guide.

Customer information

System operation from Alarm.com

Operating your system from the Alarm.com website gives you limited controls for managing your customer account, viewing system status and history, arming your system, and other functions through an easy to use web interface. Web-enabled features depend on selected service packages and may vary.

For the most current descriptions of available operations, see the Alarm.com website and click on the help tab in the category you have questions about.

FCC notice

This device complies with parts 15 of the FCC rules. Operation is subject to the following two 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 GE Security can void the user's authority to operate the equipment.

The wireless modem used with this product is an intentional radiator. Refer to labeling on the modem for the FCC ID.

