



NX-590E Internet Interface Installation and Startup

I-NX590E-IM
Rev E September 2005

Product Summary

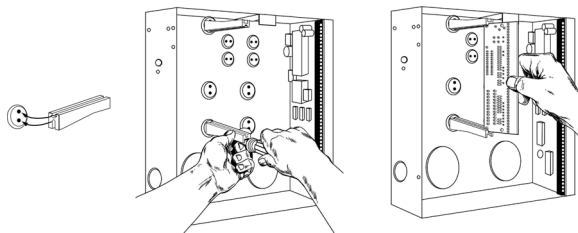
The NX-590E is a dual microprocessor-controlled Internet/Intranet interface used to connect the to the OH Network Receiver. This interface allows any or all events from the NetworX control series (NX) to be reported over the network. For warranty information, please refer to the current GE Security Product catalog.

Installation Guidelines

Inside the can, several 2-holed insertion points have been constructed. This allows for either vertical or horizontal placement of the modules. Notice that the insertion points have two sizes of holes -- a larger hole and a smaller hole.

1. 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.
2. 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. Insert one of the provided screws into the smaller hole (from inside 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. The *second* PCB guide should be positioned opposite of the first (grooved edge up) and placed in the lower insertion point, using the same procedures described above. Once mounted, screw it in securely.
3. The PC board should slide freely in the grooves of both guides.

Figure 1. Board Installation



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.

Enrolling

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 the Program Mode of the NX control panel using the procedure outlined in the NX Installation Manual. When the Program Mode is exited, the NX control will automatically enroll all the devices. The enrolling process takes about 12 seconds, during which time the AService@ 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 AService@ LED will illuminate.

Understanding The Lights

The Internet module has five (5) red LEDs along the front of the board and two more on the SIM module. These LEDs provide valuable information about the status of the Internet module and the network as shown in the following table.

Table 1. LED Descriptions

LED	DESCRIPTION
DS1	Flashes each time the NX-590E has an opportunity to access the NetworX bus. It should be flashing about two times each second.
DS3	Flashes when it is waiting for a communication from the Ethernet Module.
DS4	On when waiting for a reply from a NetworX buss device.
DS5	Flashes when the NX-590E gets a packet from the Ethernet module.
DS6	On when the bus has a message to send to the network.
DS3 - DS6 will be off if the system is initialized, normal and waiting for a new event to report.	
L1	(on SIM module) Flashes ON Ethernet Activity
L2	(on SIM module) Steady ON when Ethernet Link is established with the 10BT cable.
DS2	The sixth LED is located toward the back of the board. It is used for hardware, and will only glow dimly when connected to the NX8 / NX8-E control.

Wiring Connections

Wire the 3-position terminal on the Internet module to the NX control panel using Table 2.

Table 2. Terminal Descriptions

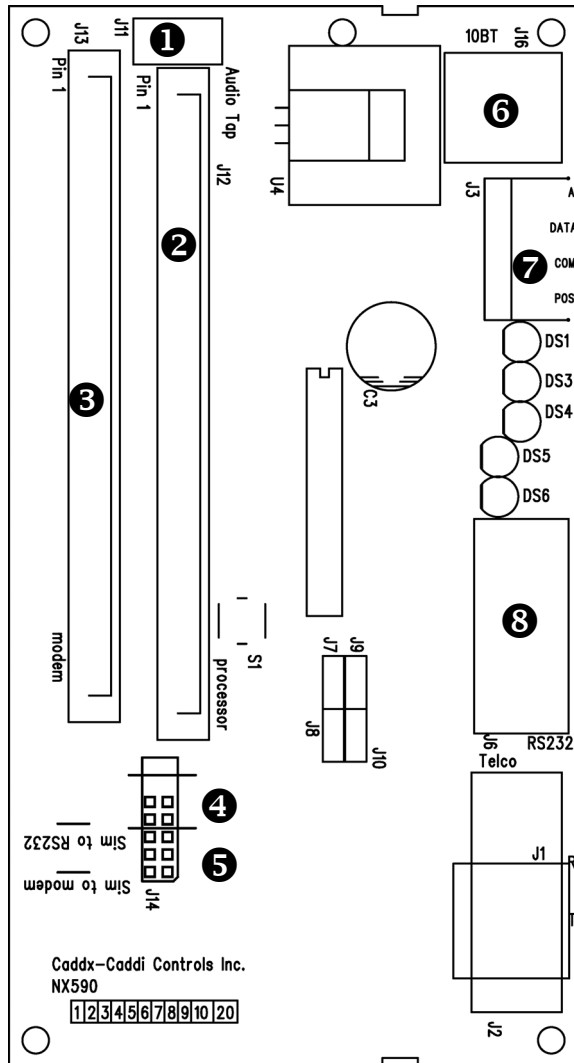
POS	Connect to the KP POS terminal of the panel. Current draw is 200 mA for the NX-590E.
COM	Connect to the KP COM terminal of the panel.
DATA	Connect to the KP DATA terminal of the panel.
J16	Connect to 10BT network hub, router or gateway using a CAT5 patch cable. Do not use a CASCADE or X port in crossover mode.
J6	Connect to RS-232 Modem when unit is delivered with serial software.

Table 3. Maximum Wire Run

LENGTH (in feet)	250	500	1000	2000
Connected To NX control panel	22	20	16	14
Connected To NX-320E	22	18	16	12

Figure 2. Wiring Connections

- 1 Audio Tap
- 2 NX-590E Simm (Pin 1)
- 3 NX-590E Modem (optional)
- 4 Processor to RS232 setting (positions 9 & 10)
- 5 Processor to RS232 setting (positions 3 & 4)
- 6 10BT Ethernet
- 7 Connect DATA/COM/POS to NetworX control panel
- 8 RS232



Module Address

The Internet module has a fixed address of 79. Enter the Program Mode. Select the device address as 79. (See "Programming The Module", page 2.)

Programming The Module

USING THE LED KEYPAD

ENTERING THE PROGRAM MODE

To enter the Program Mode, press [p]-[8]. At this time, the five function LEDs (Stay, Chime, Exit, Bypass, & Cancel) will begin to flash. Next, enter the "Go To Program Code" (the factory default is [9]-[7]-[1]-[3]). If the "Go To Program Code" is valid, the "Service" LED will flash and the five function LEDs will illuminate steady. You are now in the Program Mode and ready to select the module to program.

SELECTING THE MODULE TO PROGRAM:

Enter the address of the Internet module, which is [7]-[9], followed by [#]. The Armed LED will illuminate while it is waiting for a programming location to be entered.

FACTORY DEFAULTING THE MODULE

If this is the first time the module has been used or if you want to load the factory defaults, enter [9]-[1]-[0]-[#]. The keypad will beep 3 times indicating that the loading is in progress. Remember you will erase any values you may have entered previously.

The following two features are only available with Version 2.09 and higher (microprocessor code).

Enter [9]-[1]-[1]-[#] to reset the Premise Server Encryption Key to the factory default key.

Enter [9]-[1]-[5]-[#] to initiate a manual registration with the Premise Server.

PROGRAMMING A LOCATION:

Once the number of the module to be programmed has been entered, the "Armed" LED will illuminate while it is waiting for a programming location to be entered. Enter the desired programming location, followed by the [#] key. The Armed LED will begin to flash while a programming location is being entered. If the location entered is a valid location, the "Armed" LED will extinguish, the "Ready" LED will illuminate, and the zone LED's will show the binary data for the first segment of this location. To change the data, enter the data followed by [p]. While entering new data, the "Ready" LED will begin flashing to indicate a data change in process. The flashing will continue until the new data is stored by pressing the [p] key. Upon pressing the [p] key, the keypad will advance to the next segment and display its data. This procedure is repeated until the last segment is reached. Pressing the [#] key will exit from this location, and the "Armed" LED will illuminate again waiting for a new programming location to be entered. To review the data, repeat the above procedure entering the [p] key without entering data first. Each time the [p] key is pressed the next segment is displayed. If the desired location is the next sequential location, press the [POLICE] key. If the previous location is desired press the [FIRE] key. If the same location is desired press the [AUXILIARY] key. To review the data in a location, repeat the above procedure, pressing the [p] key without any numeric data entry. Each time the [p] key is pressed, the programming data of the next segment will be displayed for review.

EXITING A LOCATION:

After the last segment of a location is programmed, pressing the [p] key will exit that location, turn the "Ready" LED off and the "Armed" LED on. As before, you are now ready to enter another programming location. If an attempt is made 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 awaiting a valid entry.

EXITING THE PROGRAM MODE:

When all the desired changes in programming have been made, it is time to exit the Program Mode. Pressing the [Exit] key will exit this programming level.

USING THE LCD KEYPAD

All steps required for programming are the same as the aforementioned LED keypad. The LCD keypad display will prompt you for the data required. While in the 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. Refer also to "Programming Data" which follows.

Table 4. Characters in LCD keypad only

No. 00		No. 16	P	No. 32	5	No. 48		No. 64	"	No. 80	<
01	A	17	Q	33	6	49	m	65	#	81	=
02	B	18	R	34	7	50	n	66	\$	82	>
03	C	19	S	35	8	51	o	67	%	83	?
04	D	20	T	36	9	52	p	68	&	84	@
05	E	21	U	37	a	53	q	69	'	85	[
06	F	22	V	38	b	54	r	70	(86]
07	G	23	W	39	c	55	s	71)	87]
08	H	24	X	40	d	56	t	72	□	88	^
09	I	25	Y	41	e	57	u	73	+	89	-
10	J	26	Z	42	f	58	v	74	,	90	~
11	K	27	0	43	g	59	w	75	-	91	{
12	L	28	1	44	h	60	x	76	.	92	
13	M	29	2	45	i	61	y	77	/	93	}
14	N	30	3	46	j	62	z	78	:	94	➔
15	O	31	4	47	k	63	!	79	;	95	⬅

PROGRAMMING DATA

Programming data is always one of three types. One type of data is numerical, which can take on values from 0 -15, 0 - F, or 0 -255 depending on the segment size. The other type of data, feature selection data, is used to turn features on/off. It can also be used as character data for Internet names. Use the following procedures with these data types:

Numerical Data

Numerical data is programmed by entering a number from 0-255 on the numeric keys of the system keypad. To view the data in a location, a binary process is used. With this process, the LED=s for zones 1 through 8 are utilized, and the numeric equivalents of their illuminated LED=s are added together to determine the data in a programming location. The numeric equivalents of these LED=s are as follows:

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

Example: If the numerical data to be programmed in a location is "66", press [6]-[6] on the keypad. The LED=s for Zone 2 and Zone 7 will become illuminated indicating 66 is in that location (2 + 64 = 66). Once the data is programmed, press the [p] key to enter the data and advance to the next segment of that location. After the last segment of a location is programmed, pressing the [p] key will exit that location, turn the "Ready" LED off and the "Armed" LED on. As before, 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 awaiting 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 thru 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 LED's 1 thru 8 as you press the keys, indicating that those features are enabled.

✎ LCD Keypad Users: The numbers of the enabled features will be displayed. However, the features not enabled will display a hyphen (-). After the desired setting of features is selected for this segment, press the [p] key. This will 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 the [p] to enter the data, you will exit that location. This will now turn the "Ready" LED off and the "Armed" LED on. As before, you are now ready to enter another programming location.

Character Data

Character Data is used to enter LCD text when programming. An example of character data can be seen in programming locations 13-16 of this module, which takes the form of user@yourdomain.com. This information is programmed using the bottom line of the display as a text editor. (Refer to the [p]-[9]-[2] feature in the NX-148E manual.) Once a character location has been entered, the current data will be displayed on the bottom line. As is always the case, the top line will display the current location and segment number. The five (5) function keys, as well as the up and down arrow to the right of the display, are now used to edit the message prior to saving it back to the location storage. An underscore (_) in the display indicates the current cursor location. To move the cursor to the right, press the [p] key. To move the cursor to the left, press the [Cancel] key. To change the character at the current cursor location, press the **Up** or **Down Arrow** until the desired character is displayed. An alternative and possibly faster method is to enter the 2-digit number found in Table 1.1 that corresponds to the desired character. To accept this character, press the [p] key. The character will remain and the cursor will be advanced one space to the right. To insert spaces, press the [Stay] key. To delete characters, press the [Chime] key.

Programming Locations

Location 0 Programming the Module Mode of Operation

(8 segments Feature Selection data)

Location 0 (zero) contains the module mode, i.e. system characteristics for operation on the Internet.

✎ If Location 0 / Segment 1 / Option 1 is enabled where the NX-590E is the primary reporting device and the control panel is backup, the following 3 items apply:

1. All event categories should be disabled in Location 4 of the **control panel** (device 0). Failure to turn off these segments will cause events to be reported by both the control panel and the NX-590E (dual reporting).
2. Test reports should be enabled (Loc 4/Seg 1/Opt 7 in control panel). Failure to leave test reports enabled will result in the control panel NOT backing up events that fail to communicate via the NX-590E. When properly set, test reports will be reported by the control panel and the NX-590E.

3. The communicator format for the control panel and NX-590E must match.

✎ The NX-4 and NX-6 (V1) control panels CANNOT act as backup to the NX-590E module.

Segment 1

- 1 = Use Control Dialer as Backup to TCP/IP and Email. Clear this option if the control panel is primary/dual report. (Refer to Loc 0 notes starting on page 4 as indicated by ✎)
- 2 = Enable if SIA; disable if Contact ID (factory default is 'off')
- 3 = Use Receiver #2 as Backup
- 4 = Reserved
- 5 = Automation protocol enabled
- 6 = Premise Server application using Automation Port

Segment 2

- 1 = Enable site initiated downloading (p98 from a keypad).
- 2 = Allow remote downloading to the system over the Internet (via DL900 version 2.19 or higher)
- 3 = Use DHCP (IP address is static if this segment is OFF)
Notes: If this DHCP option is enabled, we strongly recommend that Polling in option 8 also be enabled. If this DHCP option is disabled, you will need to program loc 45, 52, and 54 with the appropriate IP addresses. Otherwise, the NX-590E will use the addresses assigned by the DHCP Server.
- 4 = Use DNS Lookup Only (IP addresses are used if this segment is OFF) **Note:** If this DNS option is enabled, Loc 17-24, 37-40, and 41-44 become enabled. If this DNS option is enabled and Loc 17-24, 37-40, and 41-44 are left blank, then Loc 45-53 IP addresses are used.
- 5 - 7 = Reserved
- 8 = Enable AA polling to TCP/IP receivers (poll every period of less than 5 minutes)

Segment 3 Reserved

Segment 4

- 1 = Enable SMTP Email authentication.

Segments 5-8 Reserved

Location 1 Programming Partitions To Report via Internet to Receiver #1

(16 segments of Feature Selection Data)

Location 1 contains the partition(s) that should be included when reporting over the Network. If you wish to exclude any partition from reporting, simply turn off the LED corresponding to that particular partition and no event from that partition will report via network regardless of what is programmed elsewhere. Using Table 5, enter the partition(s) to include for each type of report found in Segments 1 - 16. Factory default is all partitions on.

Segment 1	Alarms and Restores
Segment 2	Open/Close
Segment 3	Bypass
Segment 4	Zone Trouble
Segment 5	Power Trouble (AC Failure or Low Battery)
Segment 6	Siren & Telephone Fault
Segment 7	Test Reports
Segment 8	Program, Download & Log Full
Segment 9	Tampers
Segment 10	Short Circuit & Ground Fault
Segment 11	Sensor Lost
Segment 12	Sensor Low Battery
Segment 13	Expander Trouble
Segment 14	Failure To Communicate
Segment 15	Zone Activity Monitor
Segment 16	Reserved

Table 5. Partition(s) to Report

1 = Partition 1	3 = Partition 3	5 = Partition 5	7 = Partition 7
2 = Partition 2	4 = Partition 4	6 = Partition 6	8 = Partition 8

Location 2 Programming Partitions To Report via Internet to Receiver #2

(16 segments of Feature Selection Data)

Location 2 contains the partition(s) that should be included when reporting over the Network to Receiver #2. If you wish to exclude any partition from reporting, simply turn off the LED corresponding to that particular partition. If the partition LED is off, no event from that partition will report via network regardless of what is programmed elsewhere. Using Table 5, enter the corresponding number of the partition(s) to include for each type of report found in Segments 1–16. Factory default is all partitions off.

Segment 1	Alarms and Restores
Segment 2	Open/Close
Segment 3	Bypass
Segment 4	Zone Trouble
Segment 5	Power Trouble (AC Failure or Low Battery)
Segment 6	Siren & Telephone Fault
Segment 7	Test Reports
Segment 8	Program, Download & Log Full
Segment 9	Tampers
Segment 10	Short Circuit & Ground Fault
Segment 11	Sensor Lost
Segment 12	Sensor Low Battery
Segment 13	Expander Trouble
Segment 14	Failure To Communicate
Segment 15	Zone Activity Monitor
Segment 16	Reserved

Location 3 Programming the Partitions Reporting via Email Account #1

(16 segments of Feature Selection Data)

Location 3 contains the partition(s) that should be included when reporting over the Internet to Email Account #1. If you wish to exclude any partition from reporting, simply turn off the LED corresponding to that particular partition. If the partition LED is not on, NO event from that partition will report via network regardless of what is programmed elsewhere. Use Table 5 to program which partitions to report for Segments 1–16. Factory default is all partitions off.

Segment 1	Alarms and Restores
Segment 2	Open/Close
Segment 3	Bypass
Segment 4	Zone Trouble
Segment 5	Power Trouble (AC Failure or Low Battery)
Segment 6	Siren & Telephone Fault
Segment 7	Test Reports
Segment 8	Program, Download & Log Full
Segment 9	Tampers
Segment 10	Short Circuit & Ground Fault
Segment 11	Sensor Lost
Segment 12	Sensor Low Battery
Segment 13	Expander Trouble
Segment 14	Failure To Communicate
Segment 15	Zone Activity Monitor
Segment 16	Reserved

Location 4 Programming the Partitions Reporting via Email Account #2

(16 segments of Feature Selection Data)

Location 4 contains the partition(s) that should be included when reporting over the to Email account 2. If you wish to exclude any partition from reporting, simply turn off the bit corresponding to that

particular partition. If the partition LED is not on, NO event from that partition will report via network regardless of what is programmed elsewhere. Factory default is all partitions off.

Segment 1	Alarms and Restores
Segment 2	Open/Close
Segment 3	Bypass
Segment 4	Zone Trouble
Segment 5	Power Trouble (AC Failure or Low Battery)
Segment 6	Siren & Telephone Fault
Segment 7	Test Reports
Segment 8	Program, Download & Log Full
Segment 9	Tampers
Segment 10	Short Circuit & Ground Fault
Segment 11	Sensor Lost
Segment 12	Sensor Low Battery
Segment 13	Expander Trouble
Segment 14	Failure To Communicate
Segment 15	Zone Activity Monitor
Segment 16	Reserved

Locations 5-7 SMTP Email Authentication

(1 segment / 16 character data)

- Location 5** SMTP Email Authentication User ID (chars 1-16)
- Location 6** SMTP Email Authentication User ID (chars 17-32)
- Location 7** SMTP Email Authentication password (16 chars)

Locations 8–12 Reserved

Locations 13-16 Return Email Name for this Module

(1 segment / 16 character data)

These locations provide the name of this module in the form of user@yourdomain.com. This must be programmed for email, and the domain name must be one that your mail server accepts. Generally looking like any other user on the domain that you are connecting to works. Many mail servers reject emails from domains other than their own to prevent spamming.

- Location 13** Email Name of Outgoing Email (chars 1-16)
- Location 14** Email Name of Outgoing Email (chars 17-32)
- Location 15** Email Name of Outgoing Email (chars 33-48)
- Location 16** Email Name of Outgoing Email (chars 49-64)

Locations 17-24 TCP/IP Receiver Names

(1 segment / 16 character data)

Note: If the DNS option is enabled (Loc 0 / Seg 2) and Loc 17-24 are left blank, then Loc 46 & 47 IP addresses are used.

These locations provide the name of the TCP/IP account to which you want data to be sent. They are only needed when using DNS. It can take the form of an unqualified name (ex: my_computer (no dot)) or a fully qualified name (ex: www.ge.com (with at least one dot)).

- Location 17** Email Name of TCP/IP Receiver 1 (chars 1-16)
- Location 18** Email Name of TCP/IP Receiver 1 (chars 17-32)
- Location 19** Email Name of TCP/IP Receiver 1 (chars 33-48)
- Location 20** Email Name of TCP/IP Receiver 1 (chars 49-64)
- Location 21** Email Name of TCP/IP Receiver 2 (chars 1-16)
- Location 22** Email Name of TCP/IP Receiver 2 (chars 17-32)
- Location 23** Email Name of TCP/IP Receiver 2 (chars 33-48)
- Location 24** Email Name of TCP/IP Receiver 2 (chars 49-64)

Locations 25-28 Reserved

Locations 29-36 Email Account Names

(1 segment / 16 character data)

These locations provide the name of email accounts to whom you wish to send data. The format is user@yourdomain.com and otheruser@otherdomain.net. They must be functional email accounts that are known to work. A large variety of devices can be utilized including computers, cell phones, pagers and devices. For example, a dealer may want Troubles mailed to his cell phone, Openings and Closings emailed to his home computer, and Alarms sent to the central station.

✍ Make sure the account works before you program it. Keep good records since email addresses change more often than most other items.

*Loc 54
not
needed
when
using
DHCP.*

- Location 29** Name of Email Account 1 (chars 1-16)
- Location 30** Name of Email Account 1 (chars 17-32)
- Location 31** Name of Email Account 1 (chars 33-48)
- Location 32** Name of Email Account 1 (chars 49-64)
- Location 33** Name of Email Account 2 (chars 1-16)
- Location 34** Name of Email Account 2 (chars 17-32)
- Location 35** Name of Email Account 2 (chars 33-48)
- Location 36** Name of Email Account 2 (chars 49-64)

Locations 37-40 Name for your Email Server

(1 segment / 16 character data)

Note: If the DNS option is enabled (Loc 0 / Seg 2) and Loc 37-40 are left blank, then Loc 51 IP address is used.

These locations are used to provide the name of your email server. They are only needed when using DNS. It can take the form of an unqualified name (ex: my_computer (no dot)) or a fully qualified name (ex: www.ge.com (with at least one dot)).

- Location 37** Name of Mail Server (chars 1-16)
- Location 38** Name of Mail Server (chars 17-32)
- Location 39** Name of Mail Server (chars 33-48)
- Location 40** Name of Mail Server (chars 49-64)

Locations 41-44 Name for your Download Computer

(1 segment / 16 character data)

Note: If the DNS option is enabled (Loc 0 / Seg 2) and Loc 41-44 are left blank, then Loc 53 IP address is used.

These locations are used to provide the name of your download computer. They are only needed when using DNS. It can take the form of an unqualified name (ex: my_computer (no dot)) or a fully qualified name (ex: www.ge.com (with at least one dot)).

- Location 41** Name of Download Computer (chars 1-16)
- Location 42** Name of Download Computer (chars 17-32)
- Location 43** Name of Download Computer (chars 33-48)
- Location 44** Name of Download Computer (chars 49-64)

Locations 45- 53 IP addresses

(1 segment decimal data)

If you turned on static IP's instead of dynamic (Loc 0 / Seg 2 / Opt 3), you will need to program locations 45, 52, and 54 with the appropriate IP addresses. Otherwise, the NX-590E will use the addresses assigned by the DHCP Server.

Note: If the DNS option is enabled (Loc 0 / Seg 2), Loc 46, 47, 51, & 53 are only used as a backup (not required).

- Location 45** IP Address For This Module
- Location 46** IP Address For Primary Receiver
- Location 47** IP Address For Secondary Receiver

Location 48 IP Address For On-Site Event Recorder**Location 49** Reserved**Location 50** Reserved**Location 51** IP Address Mail Server**Location 52** IP Address of Gateway**Location 53** IP Address of Download Computer.**Location 54 Subnet Mask**

(1 segment decimal data)

Location 54 contains the subnet mask (typically **255.255.255.0**). However, we suggest you call your Network administrator. This location must be configured so that all IP addresses up to and including the local gateway are allowed. When using cable modem/DSL, this will generally be the same as the computer. To obtain your IP address, gateway, and subnet mask, use one of the following steps:

- For Windows 9X and Windows ME -- At the DOS prompt, type "ipconfig"
- For Windows 2000 & XP -- At the COMMAND prompt, type "ipconfig"

Locations 55 Receiver Alarm Port

(4 segments decimal data)

This location contains the IP alarm port used by the TCP/IP receiver.

Note: You should not change this except as directed by your central station provider.

Locations 56 Download Software Port

(4 segments decimal data)

This location contains the port number used by the download software.

Note: This port is based on the DL900 and should not be changed.

Locations 57 SMTP Email Port

(4 segments decimal data)

This location contains the IP ports used by the SMTP server.

Note: You should not change this except as directed by your email server.

Locations 58-59 Reserved**Location 60 SIA or Contact ID Account Number**

(8 segments hex data)

This location contains the SIA or Contact ID account number. Contact your usual source of account number and dial number for installations.

✍ It is important to add leading zeros to create an 8-digit number.

Location 61 Phone Line Receiver Number

(4 segments decimal data)

This location contains the phone line receiver number associated with this account. Contact your usual source of account number and dial number for installations.

Location 62 Line Number

(4 segments decimal Data)

This location contains the line number associated with this account. Contact your usual source of account number and dial number for installations. If you have a Sure-Gard receiver with line A, enter as line 11.

Location 63 Timers and Counters

(6 segments decimal data)

This location sets the number of attempts and the number of seconds to access the network. Ordinarily, these segments should not be changed.

The defaults are balanced to provide a number of network attempts that satisfy UL requirement if the alarm must be dialed back. The unit will make the number of attempts in Segment 1 until the number of seconds in Segment 2 is exhausted. The length of each attempt is calculated as: Seg 2 divided by Seg 1 (overall time / number of attempts). Factory default is 30 seconds / 2 = 15 seconds per attempt.

Segment 1

Number of retries for failed network attempts (Factory default is 2)

Segment 2

Time in seconds for overall retries of failed network attempts. (0-255 seconds) Factory default is 30. Recommend a minimum of 30 seconds.

Segment 3

Polling time in seconds (time to wait between successful transmissions) Factory default is 10.

Segment 4 - 6 Reserved

Locations 64-71 Account Number for Partitions

(8 segments hex data)

These locations contain the account number for the partitions being used. The factory default is 00000000. If these locations are programmed with anything other than 00000000, it will override location 60 (SIA/CID).

Location 64 Account number for Partition 1

Location 65 Account number for Partition 2

Location 66 Account number for Partition 3

Location 67 Account number for Partition 4

Location 68 Account number for Partition 5

Location 69 Account number for Partition 6

Location 70 Account number for Partition 7

Location 71 Account number for Partition 8

Locations 72-87 Reserved**Location 88 Automation System Port**

(1 segments numerical data)

This location programs the specified port on the NX-590E that accepts a connection on the home automation protocol.

Location 89 Automation Event Transition Enables

(2 segments feature selection data)

The NX-590E can be programmed to automatically send information to the home automation system when there has been a change in the information. This is referred to as 'transition-based broadcasting'. The application and the capabilities of the home automation system determine which information packets use 'transition-based broadcasting'. Programming location 89 is used to enable and disable the appropriate event transition broadcasts. Consult the home automation information and enable the appropriate transition-based broadcasts for your application.

Segment 1

- 1 = Reserved
- 2 = Interface configuration message
- 3 = Reserved
- 4 = Reserved
- 5 = 1 zone status message
- 6 = 16 zone snapshot message
- 7 = 1 partition message
- 8 = 8 partition snapshot message


Segment 2

- 1 = System status message
- 2 = X10 message received
- 3 = Log event message
- 4 = Keypad message received
- 5-8 = Reserved

Location 90 Automation Request / Command Enables

(4 segments feature selection data)

The NX-590E can perform a variety of commands as requested by the home automation system. Location 90 is used to select which requests or commands, if any, you wish the home automation system to have access. Consult the home automation information and enable the appropriate commands for your application.

 It is important to understand the capabilities of the home automation system to avoid compromising the security of your system when programming this location.

Segment 1

- 1 = Reserved
- 2 = Interface configuration request
- 3 = Reserved
- 4 = Zone name request
- 5 = 1 zone status request
- 6 = 16 zone snapshot request
- 7 = 1 partition request
- 8 = 8 partition snapshot request

Segment 2

- 1 = System status request
- 2 = Send X10 command
- 3 = Log event request
- 4 = Send keypad text command
- 5 = Keypad terminal mode request
- 6 = Keypad tone broadcast
- 7-8 = Reserved

Segment 3

- 1 = Program data request
- 2 = Program data command
- 3 = User information request with PIN
- 4 = User information request without PIN
- 5 = Set user code command with PIN
- 6 = Set user code command without PIN
- 7 = Set user authorization command with PIN
- 8 = Set user authorization without PIN

Segment 4

- 1 = RF transmission request
- 2 = Clock / calendar request
- 3 = Store communication event request
- 4 = Set clock / calendar command
- 5 = Primary keypad function with PIN
- 6 = Primary keypad function without PIN
- 7 = Secondary keypad function
- 8 = Zone bypass toggle

Location 91 Address of Keypad for Automation Text Retrieval

(1 segment decimal data)

This location contains the address of the keypad used for automation text retrieval. The factory default is 192.

KEYPAD	PARTITION							
	1	2	3	4	5	6	7	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

Locations 92-125 Reserved

The following programming locations are only available with Version 2.09 and higher (microprocessor code).

Locations 126-130 Premise Server Programming

(4 segments decimal data)

Contact your Premise Server administrator for IP information to program these locations.

- Location 126** Premise Server Dealer ID
- Location 127** IP Address for Premise Server
- Location 128** IP Address for Proxy Server
- Location 129** IP Address for Premise Server Router
- Location 130** Premise Server Proxy Server Port

Location 131 DHCP Assigned IP Address

(4 segments decimal data)

This location displays the DHCP assigned IP address. This is a “read-only” location.

YOUR SYSTEM NOTES

Programming Worksheet

ENABLED FACTORY DEFAULTS ARE SHOWN IN **BOLD ITALICS**

LOC	DESCRIPTION									
0	MODULE MODE OF OPERATION									
	SEG 1									
	1 = Use control dialer as backup to TCP/IP and email <input type="checkbox"/>									
	2 = Backup Format (Off = CID, On = SIA) <input type="checkbox"/>									
	3 = Use Receiver #2 as Backup <input type="checkbox"/>									
	4 = Send Tag to On-Site Event Recorder <input type="checkbox"/>									
	5 = Automation protocol enable <input type="checkbox"/>									
	6 = Premise Server application using Automation Port <input type="checkbox"/>									
	7-8 = Reserved									
	SEG 2									
	1 = Enable site initiated downloading (*98 from keypad) <input type="checkbox"/>									
	2 = Enable remote initiated downloading <input type="checkbox"/>									
	3 = Use DHCP services (static IP of unit if OFF) <input type="checkbox"/>									
	<input checked="" type="checkbox"/> If enabled, it is recommended that option 8 also be enabled.									
	4 = Use DNS services (IP address used if OFF) <input type="checkbox"/>									
	5 - 7 = Reserved									
	8 = Polling enable (for UL AA) <input type="checkbox"/>									
	SEG 3 RESERVED									
	SEG 4									
	1 = Enable SMTP Email Authentication <input type="checkbox"/>									
	SEG 5-8 RESERVED									
1	PARTITIONS TO REPORT BY INTERNET TO RECEIVER #1									
		Partition	1	2	3	4	5	6	7	8
	1 = Alarms and Restores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2 = Open/Close	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3 = Bypass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4 = Zone Trouble	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5 = Power Trouble (AC Failure or Low Battery)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	6 = Siren & Telephone Fault	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	7 = Test Reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	8 = Program, Download & Log Full	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9 = Tamper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	10 = Short Circuit & Ground Fault	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	11 = Sensor Lost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	12 = Sensor Low Battery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	13 = Expander Trouble	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	14 = Failure to Communicate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	15 = Zone Activity Monitor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	16 = Reserved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	PARTITIONS TO REPORT BY INTERNET TO RECEIVER #2									
		Partition	1	2	3	4	5	6	7	8
	1 = Alarms and Restores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2 = Open/Close	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3 = Bypass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4 = Zone Trouble	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5 = Power Trouble (AC Failure or Low Battery)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	6 = Siren & Telephone Fault	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	7 = Test Reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	8 = Program, Download & Log Full	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9 = Tamper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	10 = Short Circuit & Ground Fault	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	11 = Sensor Lost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	12 = Sensor Low Battery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	13 = Expander Trouble	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	14 = Failure to Communicate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	15 = Zone Activity Monitor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	16 = Reserved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	PARTITIONS TO REPORT BY INTERNET TO EMAIL ACCOUNT #1									
		Partition	1	2	3	4	5	6	7	8
	1 = Alarms and Restores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2 = Open/Close	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3 = Bypass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4 = Zone Trouble	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5 = Power Trouble (AC Failure or Low	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

LOC	DESCRIPTION									
	Battery)									
	6 = Siren & Telephone Fault	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	7 = Test Reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	8 = Program, Download & Log Full	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	9 = Tamper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	10 = Short Circuit & Ground Fault	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	11 = Sensor Lost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	12 = Sensor Low Battery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	13 = Expander Trouble	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	14 = Failure to Communicate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	15 = Zone Activity Monitor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	16 = Reserved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4	PARTITIONS TO REPORT BY EMAIL ACCT #2 TO RECEIVER									
		Partition	1	2	3	4	5	6	7	8
	1 = Alarms and Restores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2 = Open/Close	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3 = Bypass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4 = Zone Trouble	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5 = Power Trouble (AC Failure or Low Battery)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	6 = Siren & Telephone Fault	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	7 = Test Reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	8 = Program, Download & Log Full	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9 = Tamper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	10 = Short Circuit & Ground Fault	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	11 = Sensor Lost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	12 = Sensor Low Battery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	13 = Expander Trouble	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	14 = Failure to Communicate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	15 = Zone Activity Monitor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	16 = Reserved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

LOC	DESCRIPTION	DEFAULT	YOUR DATA
5	SMTP EMAIL AUTHENTICATION USER ID (char 1-16)	Interlogix	
6	SMTP EMAIL AUTHENTICATION USER ID (char 17-32)	Gladewater	
7	SMTP EMAIL AUTH PASSWORD (16 char)	Interlogix	
8-12	RESERVED		
13	NAME ON OUTGOING EMAIL (char 1-16)		
14	NAME ON OUTGOING EMAIL (char 17-32)		
15	NAME ON OUTGOING EMAIL (char 33-48)		
16	NAME ON OUTGOING EMAIL (char 49-64)		
17	NAME OF TCP/IP RECEIVER 1 (char 1-16)		
18	NAME OF TCP/IP RECEIVER 1 (char 17-32)		
19	NAME OF TCP/IP RECEIVER 1 (char 33-48)		
20	NAME OF TCP/IP RECEIVER 1 (char 49-64)		
21	NAME OF TCP/IP RECEIVER 2 (char 1-16)		
22	NAME OF TCP/IP RECEIVER 2 (char 17-32)		
23	NAME OF TCP/IP RECEIVER 2 (char 33-48)		
24	NAME OF TCP/IP RECEIVER 2 (char 49-64)		
25-28	RESERVED		
29	EMAIL ACCOUNT #1 (char 1-16)		
30	EMAIL ACCOUNT #1 (char 17-32)		
31	EMAIL ACCOUNT #1 (char 33-48)		
32	EMAIL ACCOUNT #1 (char 49-64)		
33	EMAIL ACCOUNT #2 (char 1-16)		
34	EMAIL ACCOUNT #2 (char 17-32)		
35	EMAIL ACCOUNT #2 (char 33-48)		
36	EMAIL ACCOUNT #2 (char 49-64)		
37	MAIL SERVER (char 1-16)		
38	MAIL SERVER (char 17-32)		
39	MAIL SERVER (char 33-48)		
40	MAIL SERVER (char 49-64)		
41	NAME OF DOWNLOAD COMPUTER (char 1-16)		
42	NAME OF DOWNLOAD COMPUTER (char 17-32)		
43	NAME OF DOWNLOAD COMPUTER (char 33-48)		
44	NAME OF DOWNLOAD COMPUTER (char 49-64)		

LOC	DESCRIPTION	DEFAULT	YOUR DATA
45	IP ADDRESS FOR THIS MODULE	0.0.0.0	
46	IP ADDRESS FOR PRIMARY RECEIVER	0.0.0.0	
47	IP ADDRESS FOR SECONDARY RECEIVER	0.0.0.0	
48	IP ADDRESS FOR ON-SITE EVENT RECORDER	0.0.0.0	
49-50	RESERVED		
51	IP ADDRESS MAIL SERVER	0.0.0.0	
52	IP ADDRESS OF GATEWAY	0.0.0.0	
53	IP ADDRESS FOR DOWNLOAD COMPUTER	0.0.0.0	
54	IP ADDRESS SUBNET MASK	255.255.255.0	
55	RECEIVER ALARM PORT	9-9-9-9	
56	RECEIVER DOWNLOAD PORT	9-9-9-8	
57	SMTP EMAIL PORT	0-0-2-5	
58-59	RESERVED		
60	ACCOUNT NUMBER (Hex) Add leading zeros!	00001000	
61	RECEIVER NUMBER (Decimal)	0001	
62	LINE NUMBER (Decimal)	0001	
63	TIMERS & COUNTERS USED		
	SEG 1 – Number of network attempts (0-255)	2	
	SEG 2 – Time in seconds for overall network attempt (0 – 255) Recommend 30 second minimum	30	
	SEG 3 – Polling time in seconds (0-255)	10	
	SEG 4-6 RESERVED		
64	ACCOUNT NUMBER FOR PARTITION 1	00000000	
65	ACCOUNT NUMBER FOR PARTITION 2	00000000	
66	ACCOUNT NUMBER FOR PARTITION 3	00000000	
67	ACCOUNT NUMBER FOR PARTITION 4	00000000	
68	ACCOUNT NUMBER FOR PARTITION 5	00000000	
69	ACCOUNT NUMBER FOR PARTITION 6	00000000	
70	ACCOUNT NUMBER FOR PARTITION 7	00000000	
71	ACCOUNT NUMBER FOR PARTITION 8	00000000	
72-87	RESERVED		
88	AUTOMATION SYSTEM PORT	9997	
89	AUTOMATION EVENT TRANSITIONS		
	SEG 1		
	1 = Reserved		
	2 = Interface configuration message <input type="checkbox"/>		
	3 = Reserved		
	4 = Reserved		
	5 = 1 zone status message <input type="checkbox"/>		
	6 = 16 zone snapshot message <input type="checkbox"/>		
	7 = 1 partition message <input type="checkbox"/>		
	8 = 8 partition snapshot message <input type="checkbox"/>		
	SEG 2		
	1 = System status message <input type="checkbox"/>		
	2 = X10 message received <input type="checkbox"/>		
	3 = Log event message <input type="checkbox"/>		
	4 = Keypad message received <input type="checkbox"/>		
	5-8 = Reserved		
90	AUTOMATION REQUEST / COMMANDS		
	SEG 1		
	1 = Reserved		
	2 = Interface configuration message <input type="checkbox"/>		
	3 = Reserved		
	4 = Zone name request <input type="checkbox"/>		
	5 = 1 zone status request <input type="checkbox"/>		
	6 = 16 zone snapshot request <input type="checkbox"/>		
	7 = 1 partition request <input type="checkbox"/>		
	8 = 8 partition snapshot request <input type="checkbox"/>		
	SEG 2		
	1 = System status request <input type="checkbox"/>		
	2 = Send X10 command <input type="checkbox"/>		
	3 = Log event request <input type="checkbox"/>		
	4 = Send keypad text command <input type="checkbox"/>		
	5 = Keypad terminal mode request <input type="checkbox"/>		
	6 = Keypad tone broadcast <input type="checkbox"/>		
	7-8 = Reserved		

LOC	DESCRIPTION	DEFAULT	YOUR DATA
	SEG 3		
	1 = Program data request <input type="checkbox"/>		
	2 = Program data command <input type="checkbox"/>		
	3 = User info request with PIN <input type="checkbox"/>		
	4 = User info request without PIN <input type="checkbox"/>		
	5 = Set user code command with PIN <input type="checkbox"/>		
	6 = Set user code command without PIN <input type="checkbox"/>		
	7 = Set user authorization command with PIN <input type="checkbox"/>		
	8 = Set user authorization command without PIN <input type="checkbox"/>		
	SEG 4		
	1 = RF transmission request <input type="checkbox"/>		
	2 = Clock / calendar request <input type="checkbox"/>		
	3 = Store communication event request <input type="checkbox"/>		
	4 = Set clock / calendar command <input type="checkbox"/>		
	5 = Primary keypad function with PIN <input type="checkbox"/>		
	6 = Primary keypad function without PIN <input type="checkbox"/>		
	7 = Secondary keypad function <input type="checkbox"/>		
	8 = Zone bypass toggle <input type="checkbox"/>		
91	KEYPAD ADDRESS FOR AUTOMATION TEXT RETRIEVAL	192	
92-125	RESERVED		
The following programming locations are only available with Version 2.09 and higher (microprocessor code).			
126	PREMISE SERVER DEALER ID	000000000	
127	IP ADDRESS OF PREMISE SERVER	0.0.0.0	
128	IP ADDRESS OF PROXY SERVER	0.0.0.0	
129	IP ADDRESS OF PREMISE SERVER ROUTER	0.0.0.0	
130	PREMISE SERVER PROXY SERVER PORT	0080	
131	DHCP ASSIGNED IP ADDRESS	0.0.0.0	

Frequently Asked Questions

- a. Do I have to setup an IP address for the NX-590E module?**
Absolutely, you must setup a static IP address or use DHCP to get a dynamic IP address. Failure to do so will result in the NX-590E not able to function at all.
- b. What locations do I need to setup to assign a static IP to the NX-590E module?**
- Location 0, Segment 2, Bit 3 must be set to 0
 - Location 45, must be set to the assigned IP address like 3.18.147.166
 - Location 52, must be set to the Assigned Gateway address like 3.18.144.1
 - Location 54, must be set to the Subnet Mask like 255.255.252.0
 - IP address, Gateway address, and Subnet mask are parameter your IT person would be able to provide for the location where the NX-590E would be installed.
- c. What locations do I need to setup to assign a dynamic IP using DHCP to the NX-590E module?**
- Location 0, Segment 2, Bit 3 must be set to 1
 - Locations 45, 52, and 54 are not used in this scenario.
 - Your IT person would be able to tell you if the network supports dynamic IP addressing for your installation.
- d. How do I setup the NX-590E to send events as e-mail messages only?**
- Location 1, Segments 1-16 must be set to '-' to disable reporting to Receiver 1
 - Location 2, Segments 1-16 must be set to '-' to disable reporting to Receiver 2
 - Location 3, Segments 1-16 must enable needed segments in used partitions (see NX-590E Installation and Startup document for segments definition) for email 1; otherwise must be set to '-' to disable reporting
 - Location 4, Segments 1-16 must enable needed segments in used partitions (see NX-590E Installation and Startup document for segments definition) for email 2; otherwise must be set to '-' to disable reporting
 - Locations 3-16, a 64 characters space for the 'From:' field in the e-mail message. A valid name like fieldpanel1@yourdomain.com should be used.
 - Locations 29-32, a 64 characters space for the 'To:' field in the e-mail message. A valid name like johnd@yourdomain.com should be used. This for e-mail 1.
 - Locations 33-36, a 64 characters space for the 'To:' field in the e-mail message. A valid name like johnd@yourdomain.com should be used. This for e-mail 2.
 - Locations 37-40 a 64 characters space for the mail server name. A valid name like mailhost.indsys.ge.com should be used.
 - Location 51, mail server IP address
 - Location 57, Email port, default is 025.
- e. How do I setup the NX-590E to send events to Receiver 1 only?**
- Location 1, Segments 1-16 must enable needed segments in used partitions (see NX-590E Installation and Startup document for segments definition)
 - Location 2, Segments 1-16 must be set to '-' to disable reporting to Receiver 2
 - Location 3, Segments 1-16 must be set to '-' to disable reporting to Email 1
 - Location 4, Segments 1-16 must be set to '-' to disable reporting to Email 2
 - Location 46, IP address for Receiver 1
 - Location 55, Receiver Alarm Port number
- f. How do I setup the NX-590E to send events to Receiver 2 only?**
- Location 1, Segments 1-16 must be set to '-' to disable reporting to Receiver 1
 - Location 2, Segments 1-16 must enable needed segments in used partitions (refer to NX-590E Installation document for segments definition)
 - Location 3, Segments 1-16 must be set to '-' to disable reporting to Email 1
 - Location 4, Segments 1-16 must be set to '-' to disable reporting to Email 2
 - Location 47, IP Address for Receiver 2
 - Location 55, Receiver Alarm Port number

g. How much bandwidth will the NX panel utilize on my network?

The NX panel event message size is 54 bytes and the poll message is 20 bytes. Typically, a panel might generate an Arm and a Disarm event once a day; and an Alarm event when an alarm occurs. The poll message could be sent at a rate of once a second to once every 255 seconds. The default setting is every 10 seconds. So, the NX panel adds very negligible load on the network.

Glossary

DHCP	Short for Dynamic Host Configuration Protocol , a protocol for assigning dynamic IP addresses to devices on a network. With dynamic addressing, a device can have a different IP address every time it connects to the network. In some systems, the device's IP address can even change while it is still connected. DHCP also supports a mix of static and dynamic IP addresses. Dynamic addressing simplifies network administration because the software keeps track of IP addresses rather than requiring an administrator to manage the task. This means that a new computer can be added to a network without the hassle of manually assigning it a unique IP address. Many ISPs use dynamic IP addressing for dial-up users. DHCP client support is built into Windows 95 and NT workstation. NT 4 server includes both client and server support.
DNS	Short for Domain Name System (or <i>Service or Server</i>), an Internet service that translates <i>domain names</i> into IP addresses. Because domain names are alphabetic, they're easier to remember. The Internet however, is really based on IP addresses. Every time you use a domain name, therefore, a DNS service must translate the name into the corresponding IP address. For example, the domain name <i>www.example.com</i> might translate to <i>198.105.232.4</i> .
E-MAIL	Short for electronic mail , the transmission of messages over communications networks. Another common spelling for e-mail is email. The messages can be notes entered from the keyboard or electronic files stored on disk. Most mainframes, minicomputers, and computer networks have an e-mail system. Some electronic-mail systems are confined to a single computer system or network, but others have gateways to other computer systems, enabling users to send electronic mail anywhere in the world. The same message can be sent to several users at once. This is called broadcasting. Companies that are fully computerized make extensive use of e-mail because it is fast, flexible, and reliable. All online services and Internet Service Providers (ISPs) offer e-mail, and most also support gateways so that you can exchange mail with users of other systems. Usually, it takes only a few seconds or minutes for mail to arrive at its destination. This is a particularly effective way to communicate with a group because you can broadcast a message or document to everyone in the group at once. Although different e-mail systems user different formats, there are some emerging standards that are making it possible for users on all systems to exchange messages. In the PC world, an important e-mail standard is MAPI. The CCITT standards organization has develop the X.400 standard, which attempts to provide a universal way of addressing messages. To date, though, the de facto addressing standard is one used by the Internet system because almost all e-mail systems have an Internet gateway.
ETHERNET	A local-area network (LAN) architecture developed by Xerox Corporation in cooperation with DEC and Intel in 1976. Ethernet uses a bus or star topology and supports data transfer rates of 10Mbps. The Ethernet specification served as the basis for the IEEE 802.3 standard, which specifies the physical and lower software layers. Ethernet uses the CSMA/CD access method to handle simultaneous demands. It is one of the most widely implemented LAN standards. A newer version of Ethernet, called 100Base-T (or Fast Ethernet) supports data transfer rates of 100Mbps. And the newest version, Gigabit Ethernet supports data rates of 1 gigabit (1,000 megabits) per second.

FIREWALL	<p>A system designed to prevent unauthorized access to or from a private network. Firewalls can be implemented in both hardware and software, or a combination of both. Firewalls are frequently used to prevent unauthorized Internet users from accessing private networks connected to the Internet, especially intranets. All messages entering or leaving the intranet pass through the firewall, which examines each message and blocks those that do not meet the specified security criteria.</p> <p>There are several types of firewall techniques:</p> <p>Packet filter: Looks at each packet entering or leaving the network and accepts or rejects it based on user-defined rules. Packet filtering is fairly effective and transparent to users, but it is difficult to configure. In addition, it is susceptible to IP spoofing.</p> <p>Application gateway: Applies security mechanisms to specific applications, such as FTP and Telnet servers. This is very effective, but can impose performance degradation.</p> <p>Circuit-level gateway: Applies security mechanisms when a TCP or UDP connection is established. Once the connection has been made, packets can flow between the hosts without further checking.</p> <p>Proxy server: Intercepts all messages entering and leaving the network. The proxy server effectively hides the true network addresses.</p> <p>In practice, many firewalls use two or more of these techniques in concert. A firewall is considered a first line of defense in protecting private information. For greater security, data can be encrypted.</p>
GATEWAY	<p>In networking, a combination of hardware and software that links two different types of networks. Gateways between e-mail systems, for example, allow users on different e-mail systems to exchange messages.</p>
IP	<p>Abbreviation of Internet Protocol, pronounced as two separate letters. IP specifies the format of packets, also called datagrams, and the addressing scheme. Most networks combine IP with a higher-level protocol called Transport Control Protocol (TCP), which establishes a virtual connection between a destination and a source.</p> <p>IP by itself is something like the postal system. It allows you to address a package and drop it in the system, but there's no direct link between you and the recipient. TCP/IP, on the other hand, establishes a connection between two hosts so that they can send messages back and forth for a period of time.</p> <p>The current version of IP is <i>Ipv4</i>. A new version, called <i>Ipv6</i> or <i>Ipng</i>, is under development.</p>
IP ADDRESS	<p>An identifier for a computer or device on a TCP/IP network. Networks using the TCP/IP protocol route messages based on the IP address of the destination. The format of an IP address is a 32-bit numeric address written as four numbers separated by periods. Each number can be zero to 255. For example, 1.160.10.240 could be an IP address.</p> <p>Within an isolated network, you can assign IP address at random as long as each one is unique. However, connecting a private network to the Internet requires using registered IP addresses (called Internet addresses) to avoid duplicates.</p> <p>The four numbers in an IP address are used in different ways to identify a particular network and a host on that network. The InterNIC Registration Service assigns Internet addresses from the following three classes.</p> <p>Class A – supports 16 million hosts on each of 127 networks Class B – supports 65,000 hosts on each of 16,000 networks Class C – supports 254 hosts on each of 2 million networks</p> <p>The number of unassigned Internet addresses is running out, so a new classless scheme called CIDR is gradually replacing the system based on classes A, B, and C and is tied to adoption of <i>Ipv6</i>.</p>

NETWORK	<p>A group of two or more computer systems linked together. There are many types of computer networks, including:</p> <p>Local-area networks (LANs): The computers are geographically close together (that is, in the same building). Most LANs connect workstations and personal computers. Each node (individual computer in a LAN has its own CPU with which it executes programs, but it is also able to access data and devices anywhere on the LAN. This means that many users can share expensive devices, such as laser printers, as well as data. Users can also use the LAN to communicate with each other, by sending e-mail or engaging in chat sessions. LANs are capable of transmitting data at very fast rates, much faster than data can be transmitted over a telephone line; but the distances are limited, and there is also a limit on the number of computers that can be attached to a single LAN.</p> <p>Wide-area networks (WANs): A computer network that spans a relatively large geographical area. Typically, a WAN consists of two or more local-area networks (LANs). Computers connected to a WAN are often connected through public networks, such as the telephone system. They can also be connected through leased lines or satellites. The largest WAN in existence is the Internet. In addition to these types, the following characteristics are also used to categorize different types of networks:</p> <p>Topology: The geometric arrangement of a computer system. Common topologies include a bus, star, and ring.</p> <p>Protocol: The protocol defines a common set of rules and signals that computers on the network use to communicate. One of the most popular protocols for LANs is called <i>Ethernet</i>. Another popular LAN protocol for PCs is the <i>IBM token-ring network</i>.</p> <p>Architecture: Networks can be broadly classified as using either peer-to-peer or client/server architecture.</p> <p>Computers on a network are sometimes called <i>nodes</i>. Computers and devices that allocate resources for a network are called <i>servers</i>.</p>
TCP	<p>Abbreviation of Transmission Control Protocol, and pronounced as separate letters. TCP is one of the main protocols in TCP/IP networks. Whereas the IP protocol deals only with packets, TCP enables two hosts to establish a connection and exchange streams of data. TCP guarantees delivery of data and also guarantees that packets will be delivered in the same order in which they were sent.</p>

FCC (Class B) Information

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. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

This Class B digital apparatus complies with Canadian ICES-003.

PRODUCTS WHICH HAVE THE CE MARK ATTACHED



MANUFACTURERS
DECLARATION OF
CONFORMITY
For



Product identification:

Model/type NX-590E
Category TCP-IP Internet module
Brand Interlogix / Aritech / SLC Technologies / Sentrol /
 ESL / ITI / Caddx / Casi Rusco

Manufacturer: GE Interlogix
 1420 N Main; Gladewater, TX 75647 USA
EU representative GE Interlogix B.V.

Concerning	EMC
A sample of the product has been tested by:	Compliance Engineering Ireland Ltd. Raytown, Ratoath road, Oshbourne, C.O. Meath, Ireland. GE Interlogix Ireland Ltd. Unit 2008, Orchard Ave, City West Business Campus. Naas; Road Dublin 24, Ireland.
Test report reference	03E1089-1, 03DREMC002, GE-ILX CE qual. Plan: 03DUBCE5012-1
Applied standards	EN50130-4 (1995) +A1(1998) EN50081-1(1992); EN55022: 1998 +A1(2000)

Equipment class identifier (RF products falling under the scope of R&TTE)

Not Applicable None (class 1) (class 2)

Means of conformity

We declare under our sole responsibility that this product is in conformity with Directive 89/336/EEC (EMC), and 93/68/EEC (Marking) based on test results using harmonized standards in accordance with the Directives mentioned.

Underwriters Laboratories

UL365 Police Station Connected Burglar Alarm Units & Systems
UL864 * Control Units for Fire-Protective Signaling Systems
UL1610 Grade B & C Central Station Burglar Alarm Unit

Grade AA encryption service requires the use of Listed NX-590E Ethernet card and be connected to Listed Model OH2000E that utilizes the TCP/IP Line card.

** UL864 is only applicable when the NX-590E is used the NX-8E-CF or NX-8-CF commercial fire panels.

Specifications

COMPATIBLE CONTROL PANELS	NX-4V2, NX-6V2, NX-8V2, NX-8, NX-8-CF, NX-8E, or NX-8E-CF
OPERATING POWER	12VDC Supplied from above NX control panels or NX-320E
CURRENT DRAW	120 mA during communication / 90mA standby
OPERATING TEMPERATURE	32 to 120°F (0 to 49°C)
DIMENSIONS	6 in. x 3.25 in. x 1 in. (152 mm x 83 mm x 25 mm)
SHIPPING WEIGHT	1 lb. (454 g)