Honeywell

THE POWER OF **CONNECTED**

LTE-L3 Series Communicators

LTE-L3A

LTE-L3V

Installation and Setup Guide

800-24263 4/18 Rev A

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GENERAL INFORMATION

The LTE-L3A and LTE-L3V are communication modules intended for use with Lynx Plus Series controls, and provide wireless communication with the AlarmNet network for backup delivery of alarm and other messages to the monitoring central station. The modules also support voice communications between the control panel and the Central Station.

The LTE-L3A and LTE-L3V are collectively referred to as the Communicator throughout this manual.

Honeywell's cellular communication module communicates with AlarmNet over the LTE network. If a data connection cannot be established, it will attempt to send a transmission via SMS.

System Features

- Quick connection to compatible Lynx Plus Series control panels.
- Simple programming using a 7720P programming tool or via the AlarmNet 360 Website.
- Reports fire, burglary, and status messages.
- Allows uploading and downloading of control panel data.
- Uses 2-way ECP communication with the control.
- Enables two-way voice (AAV) communication between the control and central station.
- Sends reports in Contact ID format.
- Supports remote control of alarm system via Remote Services Feature.
- Fully powered (primary and backup battery) from the control.

The Communicator provides the following types of supervision and module fault detection:

Network communication failure: In the event the AlarmNet network does not hear from the module within a specified time ("Supervision" option, 24 hours, 30 days, or none), AlarmNet notifies the central station of a communication failure.

Communication path failure: In the event the module detects a communication path failure, the control panel can be notified of a trouble condition with the module after a specified time has elapsed.

Remote Services Features

The Remote Services Features can only be used with Lynx Plus Series controls Revision 16 or later. Multi Mode (E-mail notification) is intended as a convenience for the user, and does not replace Central Station reporting of critical events (alarms, troubles, etc.).

Remote Services allow the end user to communicate with their Security System remotely via several features. Availability of this service is controlled by the dealer via the web-based programming tool on the AlarmNet 360 website. Once enabled, the specific programming fields associated with these features can be programmed either remotely using the AlarmNet 360 website or locally using the 7720P Programming Tool. These new web services will allow users to:

- Receive e-mail and text message notification of system events (Multi-Mode feature)
- Access their security system from a computer via a website (Remote Access feature)
- Perform system functions and receive confirmations using text messages (SMS feature)

The Communicator module requires an AlarmNet account. For new installations, please obtain the account information from the central station prior to programming this module.

Communicator Module Kit

This kit contains the following components:

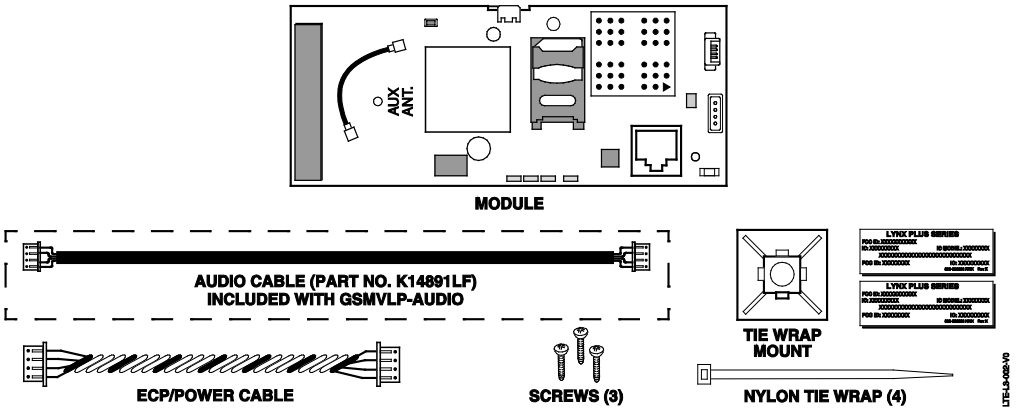


Figure 1 – Communicator Kit Components

Installing the Communicator module

1. **Disconnect power from the control, including the battery, BEFORE installing the module.**
2. **CAUTION: ESD SENSITIVE DEVICE. To discharge any static buildup, briefly touch a chassis ground point before installing this module. Avoid performing this installation while standing on a carpeted floor**.

Opening the Lynx Plus Series Control and Installing the Communicator

1. Install the FCC/IC label (provided) on the control's back case as shown on Figure 2.

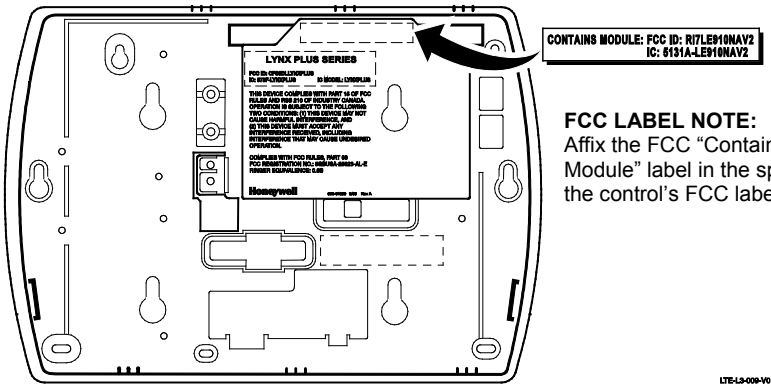


Figure 2 – FCC/IC Label location (LTE-L3A label shown)

2. Release the control's front case assembly from the rear case by depressing the two locking tabs at the top of the unit with the blade of a medium size screwdriver (refer to Figure 3).

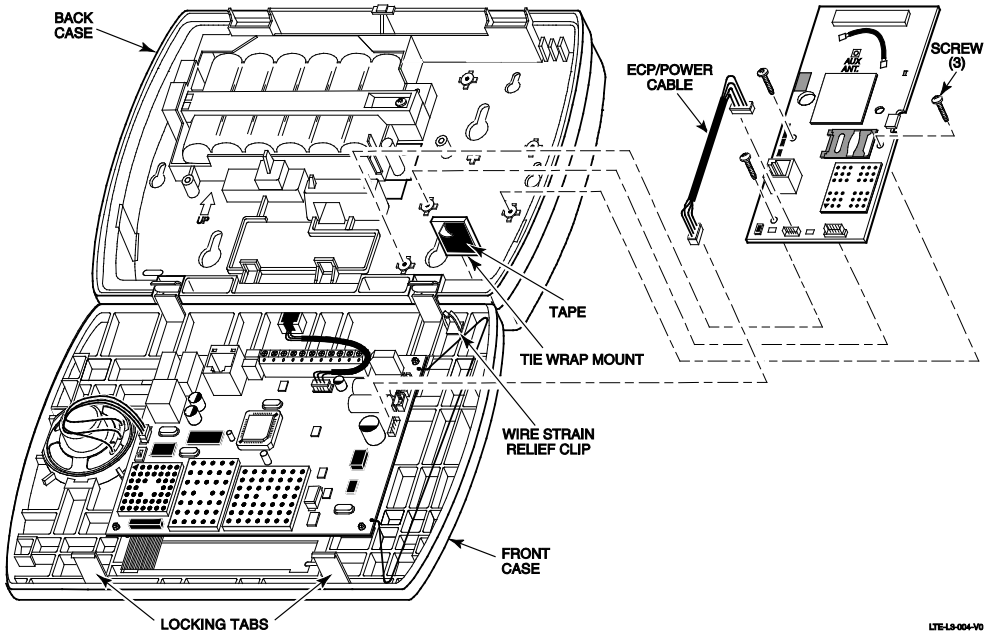


Figure 3 – Installing the Communicator Module

3. Install the control in accordance with the appropriate Installation Instructions.
4. Install the Communicator into the control's back case and secure it with the three provided screws.

Do not block the ventilation slots in the case when installing the tie wrap mount.

5. Remove the backing from the tape on the provided tie wrap mount. Install the tie wrap mount in the lower right corner of the back case as shown on Figure 3.
6. Connect the provided ECP/power cable between the module and the PC board and route the cable as shown in Figure 4. This cable provides DC power and ground for the module and ECP connections.

For best radio performance, the wires, ECP/power cable, battery and shielded audio cables must be routed as shown in Figure 4.

7. Make the wiring connections and install the control in accordance with the appropriate Installation Instructions. Twist the ECP/power and battery cables and ensure that they are routed through the routing tunnels and/or the strain relief clip as shown in Figure 4.
8. Secure the wiring with the provided tie wraps as shown in Figure 4 to ensure that the cables do not interfere with the antenna.
9. Install the Auxiliary Antenna. Refer to the diagram for proper antenna cable routing and use the nylon clips to secure the cable along the battery compartment as shown. Use the double-sided tape to affix the antenna to the case.

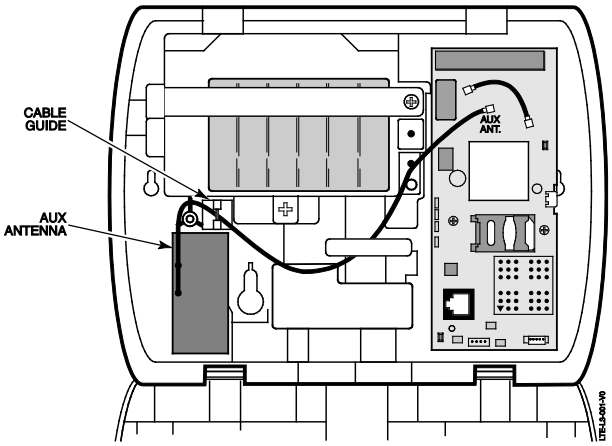


Figure 4 – Auxiliary Antenna Cable Routing (LTE-L3A shown)

10. Connect the provided shielded audio cable between the Communicator module and the PC board and route the cable as shown in the diagram below.
11. Snap the control front assembly to the back plate.

CABLE NOTE: Two cables are supplied: a long cable and a short cable. The long cable is intended for use with controls using firmware rev 20.xx. The short cable is intended for use with controls using firmware rev 30.xx or higher.

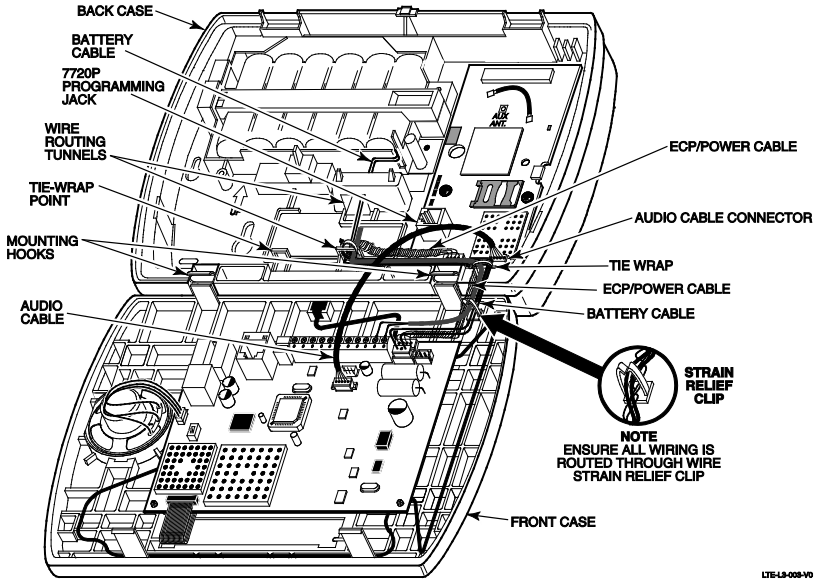


Figure 5 – Audio Cable routing for LYNX Plus (for controls with rev 30.xx firmware)

Programming the Communicator

The Communicator can be programmed through the following methods:

- The AlarmNet 360 website
- Use of a 7720P Programming Tool

LTE-L3V Initial Power Up: Upon initial power up, the communicator LEDs blink in repeated sequence from top to bottom indicating network initialization.

Green (REG) → Yellow (TX/RX) → Red (FAULT) → Green (SIGNAL)

This sequence may take up to 15 minutes. **Do not reset power during this time.**

During the final stages of initialization, the Green REG LED lights solid while the Red FAULT LED lights solid on or flashes rapidly (if module not connected to the control panel ECP).

When initialization is complete, the Green signal strength LED lights solid (the yellow and red LEDs may also blink, per their respective functions).

After initial network setup, subsequent resets or power ups can take up to 90 seconds.

Using the AlarmNet 360 website

To program the module via the website (if you are already signed up for this service), go to: Alarmnet360.com

If you are not signed up for this service, click on "Dealer Sign-Up". Log in and follow the on-screen prompts. Please have the following information available when programming the module:

1. Primary City ID (two-digit number)
2. Primary Central Station ID (two-digit hexadecimal number)
3. Primary Subscriber ID (four-digit number)
4. MAC ID and MAC CRC number (located on the outside of box and on the Communicator)
5. After programming is complete, you must transfer the data to the Communicator and the module must be registered. Refer to the Registration section for further instructions.

Using a 7720P Programming Tool

Connect the 7720P Programming Tool as shown in Figure 5. The Communicator powers the 7720P Programming Tool via the programming jack. Each key of the 7720P has two possible functions: a normal function and a Shift function.

- To perform a normal key function, simply press the desired key.
- To perform a Shift function, press the [shift] key, and then press the appropriate key.

The prompts in this document reflect use of the 7720P Programming Tool. Table 1 lists each normal and shift key function.

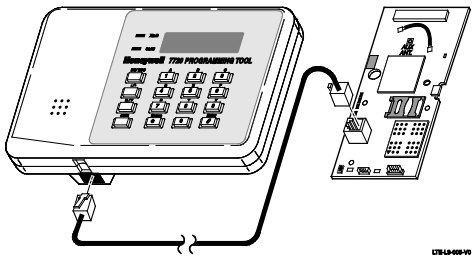


Figure 6 – 7720P Connection

Table 1 – 7720P Normal and Shift Key (shift LED lit) Functions

KEY	NORMAL KEY FUNCTION	SHIFT KEY FUNCTION
BS/ESC	[BS]: Press to delete entry	[ESC]: Press to quit program mode; also can reset programming defaults*
↓/↑	[↓]: Scroll down programming	[↑]: Scroll up programming
N/Y	[N]: Press for "NO" answer	[Y]: Press SHIFT-Y for "YES" answer
SHIFT	Press before pressing a SHIFT key function. Will light SHIFT LED. LED goes out once a key is pressed. Press again for each SHIFT function desired.	
1/A	[1]: For entering the number 1	[A]: For entering letter A
2/B	[2]: For entering the number 2	[B]: For entering letter B
3/C	[3]: For entering the number 3	[C]: For entering letter C
4/D	[4]: For entering the number 4	[D]: For entering letter D
5/E	[5]: For entering the number 5	[E]: For entering letter E
6/F	[6]: For entering the number 6	[F]: For entering letter F
7/S	[7]: For entering the number 7	[S]: For entering letter S
8/T	[8]: For entering the number 8	[T]: For entering letter T
9/X	[9]: For entering the number 9	[X]: For entering letter X
SPACE	[SPACE]: For scrolling option list	No SHIFT function
0	[0]: For entering the number 0	No SHIFT function
#/ENTER	[#/ENTER]: Starts programming mode; Press to accept entries	No SHIFT function

*Active only when the "Exit Programming Mode" prompt is displayed.

Programming Conventions

Programming is accomplished by answering a series of prompts (questions). Most prompts require only a [Y]es or [N]o response, while others require a numerical response (ID numbers, etc.).
The current value is displayed on the second line in parentheses ( ). A "?" indicates an invalid entry.
Use the [ENTER] key to accept the current entry and proceed to the next prompt. If the entered value is invalid, pressing [ENTER] re-displays the prompt; the next prompt is not displayed until a valid answer is entered.
Use the up/down arrow keys to scroll through the programming questions without changing any values. Press the [ESC] key to go to the end of the list of questions.

Programming

The Communicator supports ECP messaging to communicate with the control panel. Lynx Plus Series controls send Contact ID format alarms to the Communicator directly on the 4-wire console bus. Refer to Table 2 for Communicator programming and follow the prompts.

Press the [ENTER] key to begin programming.

NOTE: The central station can remotely block access to local device programming. If this has been done, the following prompt appears:	**Access to Prog Mode Denied**

Table 2 – Programming the Communicator

NOTE: The default programming values are listed in the prompts below.

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
1	**Strt Prog Mode? (Y/N)_**		[Y], [N]	Enters programming mode.
2	**Enter Password**		[0-9, A-F, N, S, T, X, Y]	If a password has been previously assigned, this prompt appears. Enter a 4-digit password (0-9, A-F, N, S, T, X, Y). The next prompt appears.
3	**Program Device? (Y/N)_**		[Y], [N]	To begin programming the module, press [Y] and go to Prompt 9: "Device Mode." To create a password if none has been assigned, press [N] and go to Prompt 4: "Create Password?." To change an existing password, press [N] and go to Prompt 5: "Change Password?."
4	**Create Password? (Y/N)_**		[Y], [N]	Passwords can be used to protect account and programming information. If no password has been assigned, this prompt appears after pressing [N] at the "Program Device?" prompt. If a password is desired, press [Y] and go to Prompt 6: "Enter Password."
5	**Change Password? (Y/N)_**		[Y], [N]	If a password has already been assigned, this prompt appears after pressing [N] at the "Program Device?" prompt. Press [Y] if you want to change the password. **NOTE:** To clear an existing password, without entering a new one, answer [Y] to the "Change Password?" prompt, then press the [Enter] key when prompted for the new password and its confirmation.
6	**Enter Password**		[0-9, A-F, N, S, T, X, Y]	This prompt is displayed if [Y] was pressed in Prompt 4 or 5. Enter a 4-digit password (0-9, A-F, N, S, T, X, Y).
7	**Verify Password**		[0-9, A-F, N, S, T, X, Y]	Re-enter the password as confirmation. If the password doesn't match the first entry, the following is displayed followed by the "Exit Prog. Mode?" prompt: **Verify Not OK** **PSWD not created** Otherwise, the "Exit Prog. Mode?" prompt is displayed directly.

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
8	**Exit Prog. Mode? (Y/N)_**		[Y], [N] [ESC]	Exits program mode. Press [N] to go back to Prompt 3. Press [ESC] to load factory defaults. Refer to the *Exiting Programming Mode* paragraph in this section.
9	**Multi Mode (Disabled)_**		• Disabled • Enhanced Reports	Multi-Mode enables users to receive e-mail notification of system events. Disable for normal alarm processing and go to Prompt 11 "Primary City ID" prompt. Select "Enhanced Reports" if you want system events sent by e-mail to the user. Enhanced Reports enables reporting to Total Connect 2.0 web services. **NOTE**: E-mail notification is intended as a convenience for the user, and does not replace Central Station reporting of critical events (alarms, troubles, etc.).
10	**Multi Mode Addr (25)**		[01-30]	**NOTE:** This prompt will only appear if the Multi-Mode feature has been enabled. This address must be programmed if using the Multi- Mode (e-mail notification) feature. The device address must be unique from the normal Device Address and the Keypad Address used for Remote Access. If the Multi-Mode "Enhanced Reports" is selected, the address used is 4. Nothing needs to be set in the control panel.

1. Account information is provided by the central station administrator.
2. The Lynx Plus Series Controls do not support second account reporting.

11	**Primary City ID (??)_**		[01-99]	Enter the 2-digit primary city ID, 01-99 (decimal).
12	**Primary CS ID (??)**		[01-FE]	Enter the 2-digit primary central station ID number, 01-FE (HEX).
13	**Primary Sub ID (????)**		[0001-9999]	Enter the 4-digit subscriber account number, 0001-9999 (decimal).
14	**Device Address (03)_**		[01-30]	The module communicates with the panel as a Long Range Radio (LRR) device. Enter ECP device address 03. **NOTE:** When programming the control, enable the LRR output.

Setting up the Remote Access Feature

Remote Access enables the user to remotely control the security system using a standard web browser.

Enabling Remote Access:

- Remote Access must be enabled during account programming on the AlarmNet 360 website by selecting "Enabled" at the Remote Access prompt.
- A keypad address of "1" must be enabled in the Communicator in order for the device to communicate with the control panel.

Selecting the User Interface:

This option is selected during account programming from the AlarmNet 360 website and follows the "Keypad Address" prompt. In the "Keypad Type" prompt, select "LYNX Keypad".

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
15	**Remote Access Y/N (N)_**		[Y], [N]	Press [Y] to allow the end user to access their system via a website. Availability of this service is controlled by the dealer via the web-based programming tool on the AlarmNet 360 website.
16	**Keypad Address (28)_**		[01-30]	**NOTE:** This prompt will only appear if the Remote Access feature has been enabled. Must be programmed if using the Remote Access feature. Enter device address "01."
17	**Supervision (24 Hours)_**		• 30 Day • 24 Hour • None	The AlarmNet network must hear at least one supervisory message from the module during this supervision period; otherwise, AlarmNet notifies the central station that a communication failure has occurred. (If the supervision period is changed after registration, you must re-register the module.) Press the [space] key to scroll through choices. **UL NOTE:** Must be 24 hour.
18	**Old Alarm Time (10 Minutes)_**		• 10 Minutes • 15 Minutes • 30 Minutes • 1 Hour • 2 Hours • 4 Hours • 8 Hours • 12 Hours • 24 Hours	The old alarm time sets how long an undeliverable alarm is retried for delivery to the central station. If the message is not validated, it is retried until the old alarm time is reached or the message is validated. Press the [space] key to scroll through choices. **UL NOTE:** Must be 10 minutes.
19	**Cell Flt Time (60 mins)_**		[01-99] [00] = not used	In the event the module detects a communication path failure, enter the time delay (in minutes) before the module notifies the control panel with a trouble message. The control panel can then notify the central station. **UL NOTE:** Must be one (01) minute.

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
20	**Review? Y/N**		[Y] = review [N] = exit	**Reviewing Programming Mode Entries** To review the programming options (to ensure that the correct entries have been made), press [Y]. The programming prompts are displayed again. Use the up/down arrow keys to scroll through the program fields without changing any of the values. If a value requires change, simply type in the correct value. When the last field is displayed, the "REVIEW?" prompt again appears. **To exit the programming mode**, press [N] in response to the "REVIEW?" prompt, and refer to *Exiting Programming Mode* paragraph at the end of this section.

ECP Status Codes

The Communicator sends status messages to the control panel to indicate general failures. The control will display "FAULT 103" if any of the events listed below should occur. In addition, the Contact ID codes (listed in Appendix A) for these conditions are sent to the central station by the module.

- Communicator loses communication with control panel.
- Communicator lost contact with AlarmNet.
- Communicator is not registered; account not activated.
- Communicator shutdown.

Exiting Programming Mode

To exit the programming mode, press [N] in response to the "REVIEW?" question. Then press [Y] to the "Exit Prog Mode?" question. Upon exiting, the message "Checking Root File TX Path" will be displayed, and the configuration file at the server is updated to log the changes made. When complete, the message "DONE" is displayed to indicate the file was successfully uploaded.

If critical configuration changes were made, such as the mode of operation, the Communicator will reset to ensure that the programming features are enabled.

If the file is not successfully uploaded, one of the following prompts will be displayed. Follow the steps shown below, until the upload is successful.

Display	Description	What to do
Cannot Upload Try Again? Y/N_	Communicator not yet initialized.	Wait for RSSI LEDs to be lit. Press [Y].
Failed to Update Root File!	Network problem, or you answered "N" to "Cannot Upload Try Again?" prompt.	Initiate the Force Server Update command by pressing the [0] key; refer to the *Programmer Keyboard Commands section.*

Setting Factory Defaults

To reset the programming options to factory-default values, press [ESC] at the "Exit Prog Mode?" prompt.

Set Default? Y/N_

Press [Y] to reset factory default values.

Press [N] to cancel this function.

If you press [Y], all programmed values are reset to the original factory settings.

IMPORTANT NOTE: THIS WILL ERASE ANY PASSWORD THAT MAY HAVE BEEN ENTERED. After pressing [Y], the Create Password prompt appears (see Programming step 4).

REGISTRATION

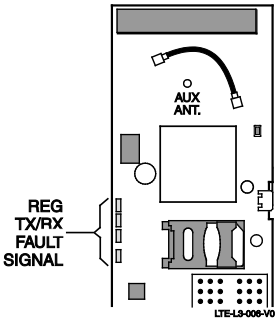
Registering the Communicator

Once you have initialized and programmed the Communicator, it must be registered to enable the account. Registering the communicator activates the account with AlarmNet and enables the security system's control panel to send reports.

The top REG LED will indicate the communicator's registration status as follows:

LED	Indication
REG (green)	ON – Module is NOT registered with AlarmNet. OFF – Module is registered with AlarmNet.

You can monitor the registration process by viewing the display LEDs. The TX/RX (yellow) LED and the REG (green) LED will blink slowly in unison while registration is in progress.



Upon completion of the registration process, a Communicator transmits a registration message and receives a registration validation indicating that the account is now enabled. Wait for the "Registration Success" message to appear.

NOTE: The “Registration Success” message is only displayed when the 7720P Programming Tool is used for registration.

You can register the Communicator by one of the following methods:

- Through the AlarmNet 360 website
- Through the use of the Test Message/Registration Switch
- Through the use of a 7720P Programming Tool
- By phone

Register through the AlarmNet 360 Website

To register the module via the website (if you are already signed up for this service), go to: Alarmnet360.com.

Log in and follow the on-screen prompts.

If you are not signed up for this service, click on "Dealer Signup" from the login screen to gain access to the Honeywell web-based programming.

You will be instructed how to proceed upon completing the sign-up form. Only one sign-up per dealer is required. Once an initial user is established, additional logins may be created by that user.

NOTE: Central Stations sign up by contacting AlarmNet Customer Service at 1 (800) 323-4576 and selecting option 1, then Option 1 again for Cloud Services;. (Monday–Friday 8:30 am to 9:00 pm, Saturday 9:00 am to 5:30 pm ET).

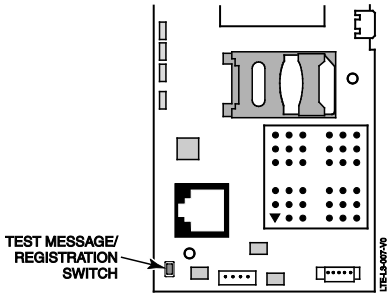
Please have the following information available when programming the device:

1. Primary City ID (two-digit number)
2. Primary Central Station ID (two-digit hexadecimal number)
3. Primary Subscriber ID (four-digit number)
4. MAC ID and MAC CRC number (located on outside of box and on label inside module) or MIN number of the device you are replacing.

Once module is registered, you may log out of the AlarmNet 360 website.

Register Using the Test Message/Registration Switch

Initiate the registration sequence by clicking the Test Message/Registration Switch three times. You can monitor the registration process by viewing the Status Display. The Message (yellow) LED and the Status (green) LED will blink slowly in unison while registration is in progress. Once the registration has been completed successfully, the Communicator enters normal operating mode; the Status (green) LED goes out and the Message (yellow) LED is lit to indicate that the power-on / reset message is waiting to be sent. This message will appear at the receiving station as "E339 803". The description may read "Trouble – Exp. Mod. Reset". If registration is not validated within 90 seconds, the Communicator times out, and the (green) LED will be lit (solid).



Register Using the Programming Tool

The interactive registration feature allows the installer to register the Communicator through a series of keyboard commands on the 7720P Programming Tool. This method of registration lets the installer monitor the registration process.

Registering …

Once the installation is complete, press the [SHIFT] plus **[↑]** key on the 7720P. The registration message is sent and the unit waits for the acknowledgment.

Registration SUCCESS

If this is a new installation and the city, central station, and customer numbers have been correctly entered, the Communicator is registered and this message is displayed. The Communicator is now in full service and available for alarm reporting to the central station.

Possible Errors

Registration BAD Timed Out	Displayed if no response to the registration request is received.
Registration BAD Pri Sub ID BAD	Indicates the city, central station, or customer number for the labeled account(s) is not accepted. The ID information was either entered in error, or the central station failed to pre-authorize programmed ID numbers with AlarmNet customer service.
Registration BAD Pri ID – Need PIN	Displayed if this is a repair/replacement, or an error was made in programming the Primary account information of the Communicator for an existing account. This prompt appears for 2 seconds. See the *Replacing an existing module* section below for further displays.

Replacing an existing module using the programming tool

Enter PIN#	This prompt appears after pressing the **down arrow [↓]** on the 7720P. Enter a 4-digit alphanumeric PIN number provided by your central station, your dealer or an authorized AlarmNet representative. **NOTE:** If you are replacing an existing "C Series" radio, you can enter the last four-digits of the "C Series" MIN number. Press the [ENTER] key.
Registering …	The registration message is sent and the unit waits for acknowledgement.
Registration SUCCESS	If the PIN is valid, the new Communicator is registered and the old unit unregistered. Additionally, AlarmNet sends a substitution alarm to the central station.
Registration BAD	If you entered an invalid PIN, the appropriate message is displayed depending on which account number is being replaced (see above for exact wording). The registration process is repeated. **NOTE:** Each attempt causes a substitution alarm to be sent to the central station.

Register by Phone

You can register the module by calling AlarmNet Support at 1-800-323-4576 (Monday–Friday 8:30 am to 9:00 pm, Saturday 9:00 am to 5:30 pm ET).

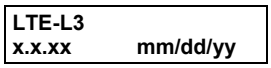
You will need the following information:

- MAC number (found on the label).
- Subscriber information (provided by the central station), including a city code, CSID, and subscriber ID.
- When instructed to do so, enter the Installer Code and OFF on the Lynx Plus control to initiate the registration.

DIAGNOSTIC COMMANDS

The 7720P programming tool can be used to quickly view your connectivity settings and options. Most commands require you to press the [shift] key and then the designated command key. (See the keys designated in red on the 7720P Programming Tool.)

[A]



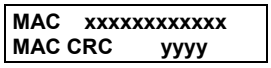
Software Revision

"x.x.xx" indicates the installed software revision.

Mm/dd/yy indicates month, day and year of the revision.

Module Identification Displays

[B]



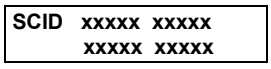
MAC Address

"xxxxxxxxxxxx" indicates the Communicator's unique identification number.

"yyyy" indicates the MAC CRC number. These numbers are found on the label on the module, as well as the label on the box.

Press the [space] key to go to the next field.

Press the [backspace] key to go to the previous field.

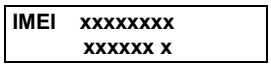


SCID Display

Displays the identification number assigned to the SIM card (SCID) in this device.

Press the [space] key to go to the next field.

Press the [backspace] key to go to the previous field.



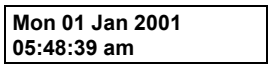
IMEI Display

Displays the identification number assigned to the Communicator module in this device.

Press the [space] key to get the MAC Address.

Press the [backspace] key to go to the previous field.

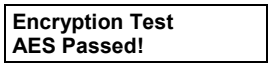
[C]



Time

Retrieves the current date and time from the AlarmNet network in Greenwich Mean Time (GMT). This display confirms that the module is in sync with network.

[D]



Encryption Test

Performs a self-test of the AES encryption algorithm.

Press the [Space] key to go to the next field.

Press the backspace [BS] key to go to the previous field.

LTE Status Displays

[E] Operating with Cellular service

```
RAT  SigQual  REG
LTE/3G  *****    x
```

Cellular Status Display Screen 1
RAT – Radio Access Technology. – LTE or 3G

SigQual – Signal Quality (1-5 "*')

REG – Registration status where "x" can be:

- N – Not Registered
- H – Registered Home
- S – Searching
- D – Registration Denied
- R – Registered Roaming
- ? – Unknown Registration State

If the RAT is LTE, the number of stars is derived from received power (RSRP) and the received quality (RSRQ). The lower number of stars of the two ratings is what is displayed as overall quality.

NOTE: For adequate signal strength, must be 2 stars or more.

RSRP:
Greater than -85dBm = 5 stars
-86dBm to -95dBm = 4 stars
-96dBm to -105dBm = 3 stars
-106dBm to -115dBm = 2 stars
-116dBm and lower = 1 star

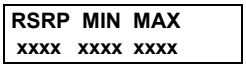
RSRQ:
Greater than -10dB = 5 stars
-11dB to -12dB = 4 stars
-13dB to -14dB = 3 stars
-15dB to -16dB = 2 stars
-17dB and lower = 1 star

Press the [space] key to go to the next screen.
Press the [backspace] key to go to the last screen.

LTE Displays

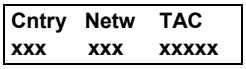
```
RAT  RSRP  RSRQ
LTE  xxxx  xxxx
```

Signal Display for LTE
RAT – Radio Access Technology.
RSRP – Reference Signal Received Power
RSRQ – Reference Signal Received Quality
Press the [space] key to get to the next screen.
Press the [backspace] key to go to the previous field.

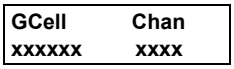


Min/Max Signal Display for LTE
RSRP – Current Reference Signal Received Power
MIN – Minimum Receive Signal Level
MAX – Maximum Receive Signal Level
Press the [space] key to get to the next screen.
Press the [backspace] key to go to the previous field.

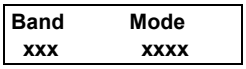
Min/Max Signal Quality Display for LTE
RSRQ – Current Reference Signal Received Quality
MIN – Minimum Receive Signal Quality
MAX – Maximum Receive Signal Quality
Press the [space] key to get to the next screen.
Press the [backspace] key to go to the previous field.



Location Display for LTE
Cntry – Country Code
Netw – Network Code
TAC – Tracking area code
Press the [space] key to get to the next screen.
Press the [backspace] key to go to the previous field.

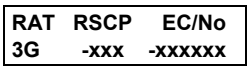


Cell Display for LTE
GCell – Global Cell ID
Chan – RF Channel number (EURFCN)
Press the [space] key to go to the next screen.
Press the [backspace] key to go to the previous field.

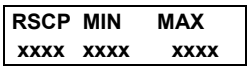


LTE Status Display Screen 5
Band – LTE Band Number
Mode – LTE Mode either FDD or TDD
Press the [space] key to go to Status Display Screen 1.
Press the [backspace] key to go to the previous field.

3G Displays



Signal Display for 3G
RAT – Radio Access Technology.
RSCP –Received Signal Code Power
Ec/N0 – Carrier Noise Ratio (CNR)
Press the [space] key to get to the next screen.
Press the [backspace] key to go to the previous field.



Min/Max Signal Display for LTE
RSRP – Current Reference Signal Received Power
MIN – Minimum Receive Signal Level
MAX – Maximum Receive Signal Level
Press the [space] key to get to the next screen.
Press the [backspace] key to go to the previous field.

Cntry	Netw	LAC
xxx	xxx	xxxxx

Location Display for 3G
Cntry – Country Code
Netw – Network Code
LAC – Local area code
Press the [space] key to get to the next screen.
Press the [backspace] key to go to the previous field.

Cell	Chan	PSC
xxxxxx	xxxx	xxx

Cell Display for 3G
Cell – Global Cell ID
Chan – Control Channel in use
PSC – Primary Sync Code
Press the [space] key to go to the next screen.
Press the [backspace] key to go to the previous field.

Second Site RSSI
Available

3G Status Display Screen 5
Secondary Site RSSI availability. Available or Not Available will be displayed.
Press the [space] key to go to Status Display Screen 1.
Press the [backspace] key to go to the previous field.

LTE Status Displays (Continued)

[S]

```
ECP          Flt
             OK
```

ECP Mode

Displays the mode of operation and system fault status.

Flt – Represents communicator faults:

OK = Normal, No fault.

G = No network connectivity over cellular network and fault time has expired.

g = No network connectivity over cellular network and fault time has NOT yet expired.

[T]

```
Test Msg Sent
```

Test Alarm

Sends a Test alarm to AlarmNet. Functional for a *registered* Communicator only. If the device is not registered, a message is displayed indicating that the command cannot be executed.

[X]

```
Reset CPU Y/N
```

Reset the Communicator.

Pressing [N] returns to normal mode.

Pressing [Y] resets the device.

[↑] (UP arrow)

```
Registering …
```

Registration

Registers a programmed Communicator with AlarmNet.

[↓] (DN arrow)

```
Enter PIN#
```

Registration with PIN for Replacement Module

Registers a replacement Communicator with AlarmNet, once programmed, using the existing PIN #.

[0]

```
Force Server Update?
Y/N
```

Force Upload of Configuration File to Server

Pressing [Y] will force the device to upload its entire configuration file to the server.

Pressing [N] cancels the operation.

NOTE: If the Communicator is not initialized when you enter this command, the following screen will be displayed:

```
Cannot Upload
Try Later! _
```

Wait for the RSSI LEDs to light, indicating the Communicator has completed its initialization, and try again.

[ENTER]

```
Strt Prog Mode?
Y/N_
```

Enter Program Mode

Press [Y] to enter program mode; otherwise, press [N].

APPENDIX A

SUMMARY OF LED OPERATION

Status Display Operation

The Status Display has four LEDs used to indicate message and device status (refer to Figure 5). When installed in the control, the LEDs appear in the following order from top to bottom.

REG, green
TX, RX, yellow
FAULT, red
SIGNAL, green

Each LED can have four different states - ON, OFF, FAST BLINK and SLOW BLINK. Refer to the key at the bottom of Table 4.

Minimum Signal Strength LED Operation

The Minimum Signal Strength LED normally displays the module's signal strength. The LED (green LED) will be lit to indicate that the minimum required signal strength for installation exists between the module and the receiving tower. Refer to Figure 9.

Table 3. Status and Signal Strength LED Operation

LED	DESCRIPTION	
REG (green)	ON	Module is NOT registered with AlarmNet.
	OFF	Module is registered with AlarmNet.
	FAST BLINK	Download session with Compass in progress.
	SLOW BLINK	In unison with yellow LED – Registration in progress.
TX/RX (yellow)	ON	Message transmission pending.
	QUICK PERIODIC BLINK	Normal
	FAST BLINK	Message waiting for network ACK.
	SLOW BLINK	In unison with green LED – Registration in progress.
FAULT (red)	ON	No contact with network.
	OFF	Normal.
	SLOW BLINK	Loss of communication with the panel (ECP fault).
	FAST BLINK	No network contact AND loss of communication with the control panel.
SIGNAL (green)	ON	Minimum required signal strength is present.
	OFF	Installation is not recommended.
ALL	IN UNISON FAST BLINK – Hardware Error. IN SEQUENCE – Power Up sequence	

Table 4 – LED Examples of Normal Operating State

LED COLOR	LED INFO	Configured Status Display	Unconfigured Status Display	LED Sequence for a Configured Message Transmission			
				1	2	3	4
GREEN	STATUS						
YELLOW	MESSAGE						
RED	FAULT						
GREEN	MINIMUM SIGNAL STRENGTH						
		LED Key: 					

NOTE: "Configured" means the module has account information.

CENTRAL STATION MESSAGES

The following messages are sent to the Central Station by the Communicator for the conditions listed below.

Table 5 – Communicator Central Station Messages

Alarm Condition	ECP Mode Alarm Code	ECP Mode Restore Code
Power On Reset	E339 C0803	
ECP Supervision	E355 C0000	R355 C0000
Communication Path Restore		R350 C0951
Test	5555 5555 9	
Status Application Code Update	E903	R903
Application Code Update Fail	E904	
Module Firmware Update	E365	R365 (success)
Module Firmware update Fail	E366	

Note: The control panel sends its own general code (E353) for a trouble condition.

COMMUNICATOR DOWNLOADING

The Communicator can be used to provide high-speed up/downloading to Lynx Plus Series control panels over the LTE network via ECP communication. This allows site maintenance independent of central station monitoring, and modification to sites globally.

UL **Downloading may only be performed if a technician is at the site.**

GLOSSARY

4G LTE - Refers to the fourth generation Long Term Evolution cellular wireless standards.

AES – Advanced Encryption Standard

IMEI – International Mobile Equipment Identity number

MAC Address – Media Access Code; located on the module label.

SPECIFICATIONS

Physical

Dimensions: 5.625" x 2.25"

Electrical

Input Voltage: 9VDC (powered by the Lynx Plus Series Control)
Quiescent Current: 33mA
Peak Current During Transmit: 330mA

Environmental

Operating temperature: -20ºC to +55ºC, for ULC installations 0ºC to +49ºC
Storage temperature: -40º to +70ºC
Humidity: 0 to 95% relative humidity, non-condensing
Altitude: to 10,000 ft. operating, to 40,000 ft. storage

RF

Frequency Bands:
LTE-L3A
LTE Bands: 2, 4, 5, 12, 13
WCDMA Bands: II, IV, V

LTE-L3V
LTE Bands 2, 4, 13

Output Power:

LTE-L3A
LTE: 23dBm, Class 3
WCDMA: 23dBm, Class 3

LTE-L3V
LTE: 23dBm, Class 3

– NOTES –

– NOTES –

FEDERAL COMMUNICATIONS COMMISSION & ISED STATEMENTS

The user shall not make any changes or modifications to the equipment unless authorized by the Installation Instructions or User's Manual. Unauthorized changes or modifications could void the user's authority to operate the equipment.

CLASS B DIGITAL DEVICE STATEMENT

This equipment has been tested to FCC requirements and has been found acceptable for use. The FCC requires the following statement for your information.

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause 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:

- If using an indoor antenna, have a quality outdoor antenna installed.
- Reorient the receiving antenna until interference is reduced or eliminated.
- Move the radio or television receiver away from the receiver/control panel.
- Move the antenna leads away from any wire runs to the receiver/control panel.
- Plug the receiver/control panel into a different outlet so that it and the radio or television receiver are on different branch circuits.
- Consult the dealer or an experienced radio/TV technician for help.

ISED CLASS B STATEMENT

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

FCC / ISED STATEMENT

This device complies with Part 15 of the FCC Rules, and ISED's license-exempt RSSs. 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.

Cet appareil est conforme à la partie 15 des règles de la FCC et exempt de licence RSS d'ISED. Son fonctionnement est soumis aux conditions suivantes: (1) Cet appareil ne doit pas causer d'interférences nuisibles. (2) Cet appareil doit accepter toute interférence reçue y compris les interférences causant une réception indésirable.

RF Exposure

Warning – The antenna(s) used for this device must be installed to provide a separation distance of at least 7.8 inches (20 cm) from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC and ISED multi-transmitter product procedures.

Mise en Garde

Exposition aux Fréquences Radio : La/les antenne(s) utilisée(s) pour cet émetteur doit/doivent être installée(s) à une distance de séparation d'au moins 20 cm (7,8 pouces) de toute personne et ne pas être située(s) ni fonctionner parallèlement à tout autre transmetteur ou antenne, excepté en conformité avec les procédures de produit multi transmetteur FCC et ISED.

IMPORTANT NOTE ABOUT EXTERNAL ANTENNAS

If an external cellular radio antenna is used, the antenna may be installed or replaced ONLY by a professional installer.

TO THE INSTALLER

LTEL3V: The external antenna gain shall not exceed 6.94 dBi for 700 MHz, 6.00 dBi for 1700 MHz, 9.01 dBi for 1900 MHz. Under no conditions may an antenna gain be used that would exceed the ERP and EIRP power limits as specified in FCC Parts 22H, 24E and 27.

LTEL3A: The external antenna gain shall not exceed 6.63 dBi at 700MHz and 850 MHz, 6.0 dBi at 1700 MHz and 8.51 dBi at 1900 MHz. Under no conditions may an antenna gain be used that would exceed the ERP and EIRP power limits as specified in FCC Parts 22H, 24E and 27, or ISED RSS-130, RSS-132, RSS-133, and RSS-139.

Support and Warranty

For online support information, please go to:
https://mywebtech.honeywell.com/

For the latest warranty information, go to:
www.honeywell.com/security/hsc/resources/wa

For patent information, see www.honeywell.com/patents

MyWebTech

Warranty

Patents

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www.honeywell.com/security

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