

Honeywell

CDMA-L3

CDMA Module with 2-Way Voice

Installation and Programming Guide



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GENERAL INFORMATION

The CDMA-L3 is an optional communication module intended for use with Lynx Plus Series Series controls, and provides cellular communication with the AlarmNet network for backup delivery of alarm and other messages to the monitoring central station. The module also supports voice communications between the control panel and the central station.

Honeywell's CDMA-L3 cellular communication module transmits signals via the CDMA 1X RTT network and forwards them to the central monitoring station.

System Features

- Quick connection to compatible Lynx Plus Series control panels.
- Simple programming using a 7720P programming tool or via the AlarmNet Direct Website.
- Reports fire, burglary, and status messages.
- Allows uploading and downloading of control panel data via CDMA network.
- Uses 2-way ECP communication with the control.
- Enables two-way voice (AAV) communication between the control and central station via CDMA network.
- 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 CDMA-L3 provides the following types of supervision and module fault detection:

- Network communication failure: In the event the AlarmNet network does not hear a supervisory message 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 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 Direct website. Once enabled, the specific programming fields associated with these features can be programmed either remotely using the AlarmNet Direct website or locally using the 7720P Programming Tool. These web services allows 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 CDMA-L3 module requires an AlarmNet account. For new installations, please obtain the account information from the central station prior to programming this module.

CDMA-L3 Module Kit

This kit contains the following components:

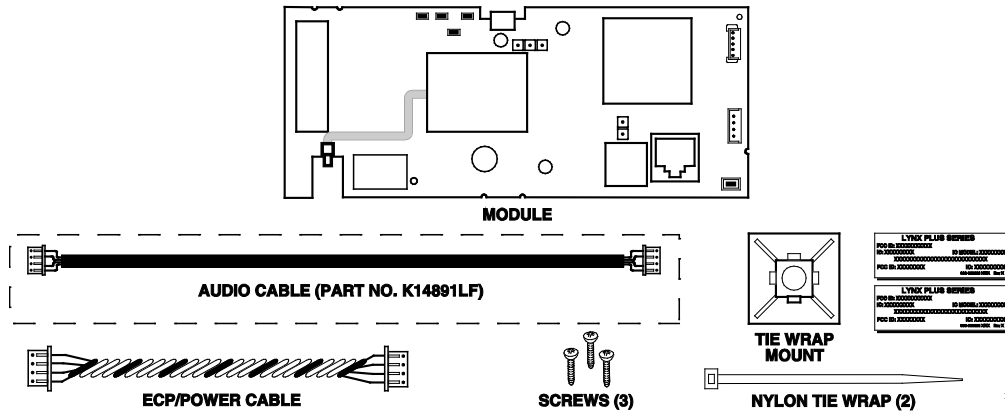


Figure 1 – CDMA-L3 Package Components

Installing the CDMA-L3 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 CDMA-L3

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

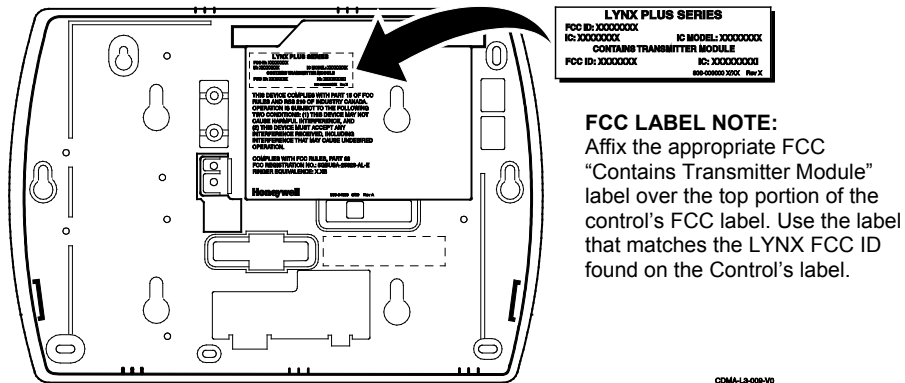


Figure 2 – FCC/IC Label location



RF Exposure

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

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).

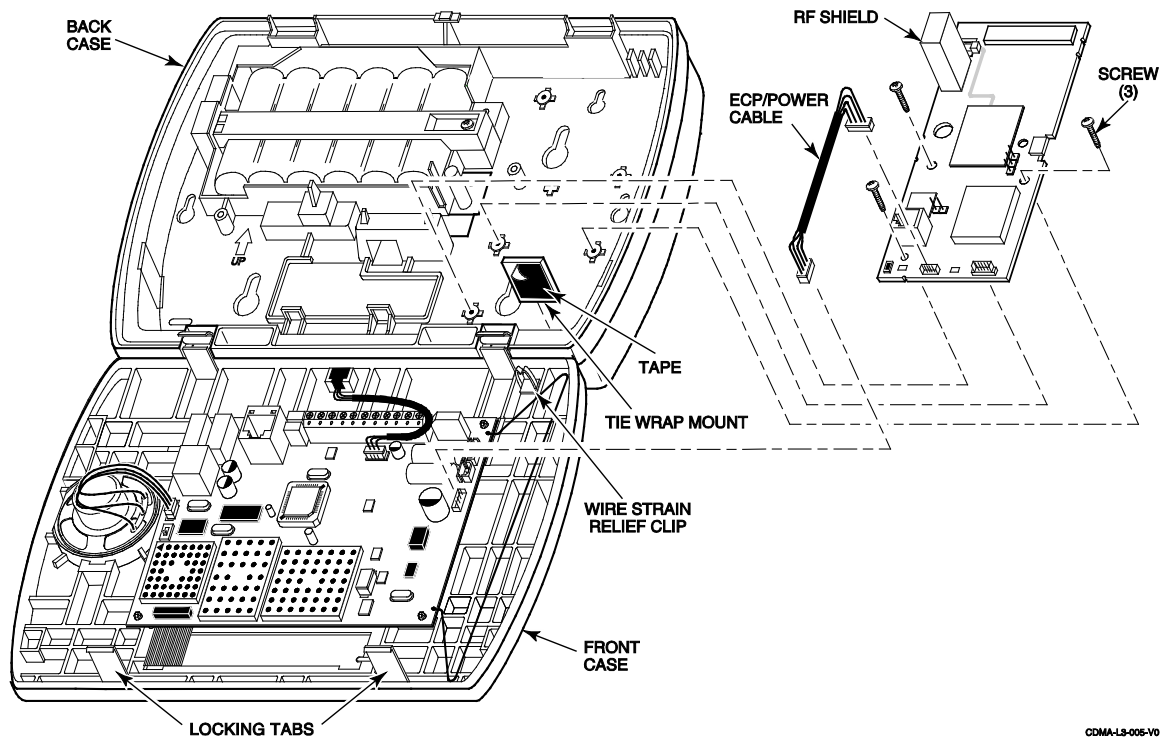


Figure 3 – Installing the Module

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



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 in 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 Figures 3 and 4 to ensure that the cables do not interfere with the antenna.

9. Program the CDMA-L3. Refer to the Programming the CDMA-L3 Module section.
10. Connect the provided shielded audio cable between the module and the PC board and route the cable as shown in Figure 4.
11. Snap the control front assembly to the back plate.

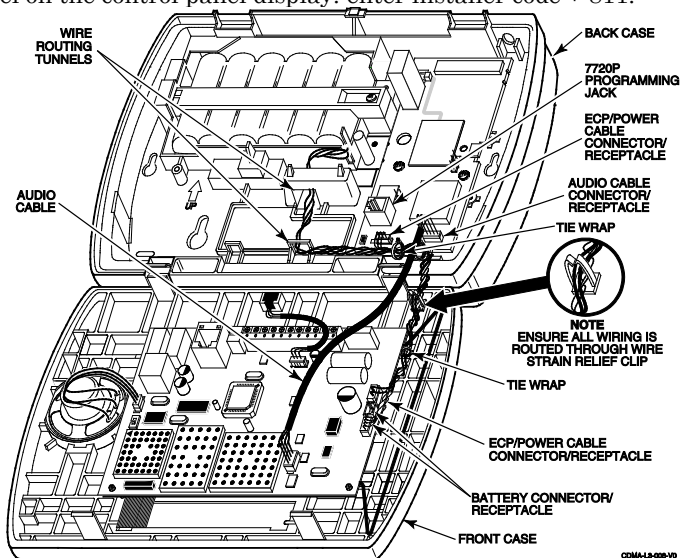
Audio Cable Routing

Use one of two audio cables depending on the control. A long cable is used with controls using firmware rev 20.xx. A short cable (supplied) is used with controls using firmware rev 30.xx or higher.

To view the firmware revision level on the control panel display: enter installer code + 811.

CDMA-L3 Cable Routing

(for controls with rev 20.xx firmware, use long cable)



CDMA-L3 Cable routing for modified LYNX Plus PCB design

(for controls with rev 30.xx firmware, use short cable)

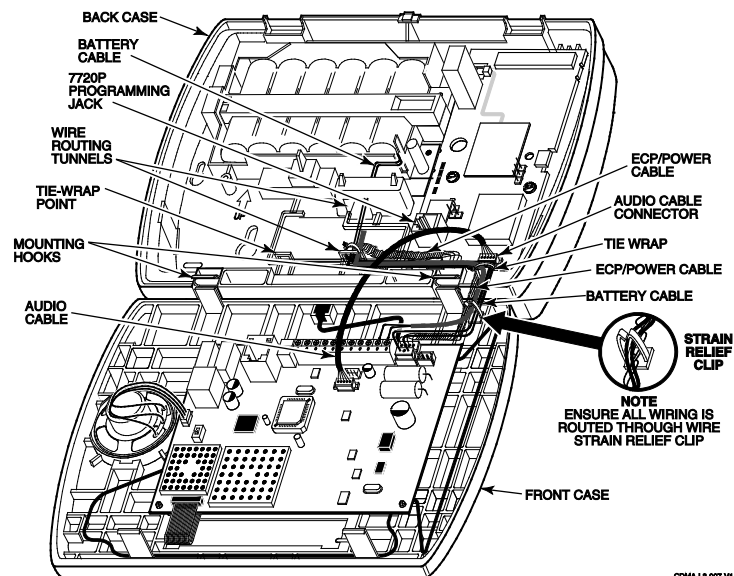


Figure 4 – Long (top diagram) and short (bottom diagram) cable routing options

Programming the CDMA-L3 Module

The CDMA-L3 Module can be programmed by the following methods:

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

Using the AlarmNet Direct website

To program the module via the website (if you are already signed up for this service), go to:
<https://services.alarmnet.com/AlarmNetDirect/userlogin.aspx>

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:

- Primary City ID (two-digit number)
- Primary Central Station ID (two-digit hexadecimal number)
- Primary Subscriber ID (four-digit number)
- MAC ID and MAC CRC number (located on the outside of box and on the CDMA-L3)

After programming is complete, you must transfer the data to the CDMA-L3 and the module must be registered. Refer to the Registration section for further instructions.

Using the 7720P Programming Tool

Connect the 7720P Programming Tool as shown in Figure 5. The CDMA-L3 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 the appropriate key.

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

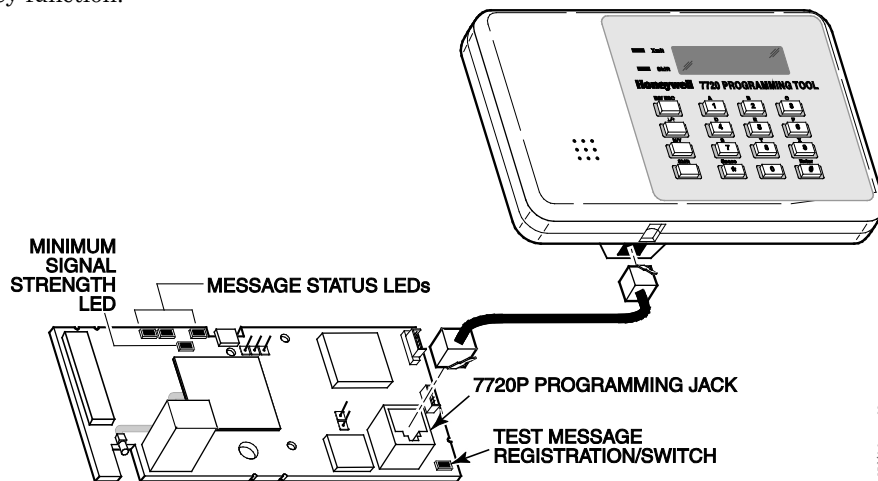


Figure 5 – 7720P Connection

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

ECP Mode Programming

The CDMA-L3 supports ECP messaging to communicate with the control panel. Lynx Plus Series controls send Contact ID format alarms to the CDMA-L3 directly on the 4-wire console bus.

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
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Programming the CDMA-L3 Module

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: <div>Verify Not OK PSWD not created</div> 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 <i>Exiting Programming Mode</i> paragraph in this section.
9	Device Mode (ECP)_		<ul style="list-style-type: none"> • ECP • 4204 Emu • Two 4204s 	Press the [space] key to scroll through the modes of operation. Press [ENTER] to select ECP mode. IMPORTANT NOTE: Do not select any other mode.

Setting Up the Multi-Mode Feature

Multi-Mode enables users to receive e-mail notification of system events. Since the communication device is emulating a 4204 or two 4204 modules, there is no additional hardware to install.



E-mail notification is intended as a convenience for the user, and does not replace Central Station reporting of critical events (alarms, troubles, etc.).

Enabling the Multi-Mode Feature

- Multi-Mode must be enabled during account programming on the AlarmNet Direct website by selecting "Enabled" at the Multi-Mode prompt.

Configuring Multi-Mode

The communication device emulates one or two standard 4204 relay modules for purposes of triggering events for sending e-mail reports. If "4204 Sourced" is selected, you must enable Multi-Mode Address 6 or 7 in Lynx Plus Series Programming Field *86. If "2-4204 Sourced" is selected, you must enable both. When "4204 Sourced" is selected, the user can be notified of up to four events, and when "2-4204 Sourced" is selected, the user can be notified of up to eight system events. The Multi-Mode Address must match the address of the e-mail trigger module enabled in the Lynx Plus Series control panel in Field *86.

Events used to send e-mail messages are defined on the Honeywell Total Connect website, and must correspond to (e-mail) event triggers programmed in the control panel as events 09-16 in field *80 Device Programming Menu Mode.

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
10	Multi Mode (Disabled)_		<ul style="list-style-type: none"> • Disabled • 4204 Sourced • 2-4204 Sourced • Enhanced Reports 	Enable if you want system events sent by e-mail to the user. Select "4204 Sourced" to send up to four events, or "2-4204 Sourced" to send up to eight events; "Enhanced Reports" to send full status of the panel for Total Connect 2.x support. Disable for normal alarm processing and go to Prompt 12 "Primary City ID" prompt. Press the [space] key to scroll through choices
11	Multi Mode Addr (12)		[01-30]	<p>NOTE: This prompt will only appear if the Multi-Mode feature has been enabled.</p> <p>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 setting is "Enhanced Reports", the address used is 4. Nothing needs to be set in the control panel. Otherwise, Multi-Mode uses address(es) 6 and/or 7, which must also be enabled as relays in the control panel.</p>



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

12	Primary City ID (??)_		[01-99]	Enter the 2-digit primary city ID, 01-99 (decimal).
13	Primary CS ID (??)		[01-FE]	Enter the 2-digit primary central station ID number, 01-FE (HEX).
14	Primary Sub ID (????)		[0001-9999]	Enter the 4-digit subscriber account number, 0001-9999 (decimal).
15	Device Address (03)_		[01-30]	<p>The CDMA-L3 communicates with the panel as a communication device. Enter ECP device address 03.</p> <p>NOTE: When programming the control, enable the LRR output.</p>

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 Direct website by selecting "Enabled" at the Remote Access prompt.
- A keypad address of "1" must be enabled in the CDMA-L3 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 Direct website and follows the "Keypad Address" prompt. In the "Keypad Type" prompt, select "LYNX Keypad".

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
16	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 Direct website.
17	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 the appropriate device address. NOTE: This address must be set to "1".
18	Supervision (24 Hours)_		<ul style="list-style-type: none"> • 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.
19	Old Alarm Time (10 Minutes)_		<ul style="list-style-type: none"> • 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.
20	Cell Flt Time (00 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
21	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 <i>Exiting Programming Mode</i> paragraph at the end of this section.

ECP Status Codes

The CDMA-L3 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 **CENTRAL STATION MESSAGES** section) for these conditions are sent to the central station by the module.

Status Code	Meaning
0000	Module lost communication with the control panel.
0005	Module lost contact with AlarmNet.
000F	Module is not registered; account not activated.
001F	Module deactivated.

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 CDMA-L3 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_	CDMA-L3 radio 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 <i>Programmer Keyboard Commands</i> 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).

Registering the CDMA-L3

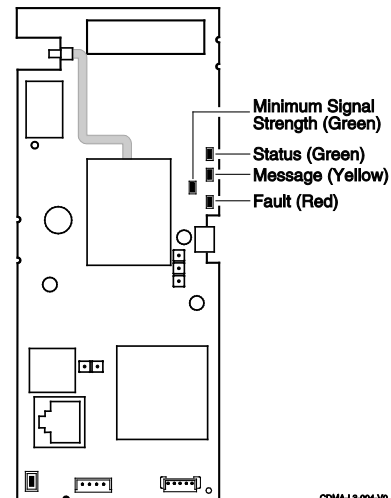
Once you have initialized and programmed the CDMA-L3, it must be registered to enable the account. An unregistered CDMA-L3 is indicated by Status LEDs as:

- Status lit
- Message slow blinking
- Fault not lit

Upon completion of the registration process, a CDMA-L3 transmits a registration message and receives a registration validation indicating that the account is now enabled. Wait for the "Registration Success" message to appear.

Register the CDMA-L3 by one of these methods, described in the following pages:

- Through the AlarmNet Direct website
- Using the Test Message/Registration Switch
- Using a 7720P Programming Tool
- By phone



CDMA-L3



The "Registration Success" message is only displayed when the 7720P Programming Tool is used for registration.

Register Through the AlarmNet Direct Website

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

<https://services.alarmnet.com/AlarmNetDirect/userlogin.aspx>.

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 Administration at 800-222-6525 option 3.

Please have the following information available when programming the device:

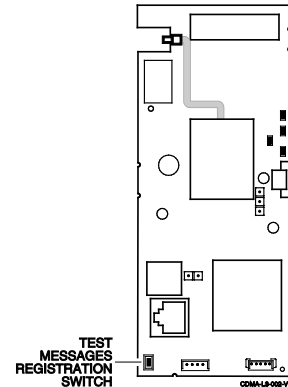
1. Primary City ID (two-digit number)
2. Primary Central Station ID (two-digit hexadecimal number)
3. Primary Subscriber ID (four-digit number)
4. MAC ID and MAC CRC number (located on outside of box and on label inside module) or MIN number of the device you are replacing.

Once module is registered, you may log out of the AlarmNet Direct 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 CDMA-L3 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 CDMA-L3 times out, and the (green) LED will be lit (solid).

NOTE: If the triple-click is not performed quickly enough, the unit may enter a diagnostic mode (Green, Yellow, and Red LEDs flash in sequence for a period of time, after which the device resets). If this occurs, simply wait for the LEDs to return to normal flashing, then retry the triple-click command.



Register Using the Programming Tool

The interactive registration feature allows the installer to register the CDMA-L3 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 [↑] 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 CDMA-L3 is registered and this message is displayed. The CDMA-L3 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 CDMA-L3 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 CDMA-L3 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 the AlarmNet Technical Assistance Center (TAC) at 1-800-222-6525 (Option 1).

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.

PROGRAMMER KEYBOARD COMMANDS

Programmer keyboard commands 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 red keys on the 7720P Programming Tool.)

[A]

CDMA-L3 x.x.xx mm/dd/yy

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 xxxxxxxxxxxx
MAC CRC yyyy

MAC Address

"xxxxxxxxxxxx" indicates the CDMA-L3'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.

ESN xxxxxxx

ESN (Electronic Serial Number)

A unique number that is used by the carrier to enable/disable it from the network.

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

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

[C]

Mon 01 Jan 2001 05:48:39 am
--

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 AES Passed!
--

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.

CDMA-L3 Status Displays

[E]	<table><tr><td>RSSI -xxxdbm</td><td>1X stat</td><td>REG x</td></tr></table>	RSSI -xxxdbm	1X stat	REG x	Status Display Screen 1 RSSI – RSSI level in dBm. Communicator is on 1X network where “stat” can be: Good RSSI -20 to -90 dBm OK RSSI -91 to -100 dBm Marginal RSSI -101 to -106 dBm Bad RSSI -107 to -150 dBm REG – Registration status where “x” can be: N – Not Registered H – Registered Home S – Searching R – Registered Roaming ? – Unknown Registration State Press the [space] key to go to the next screen. Press the [backspace] key to go to the last screen.																																																																			
RSSI -xxxdbm	1X stat	REG x																																																																						
	<table><tr><td>RAN 1X</td><td>EC/IO (dBm) xxx</td></tr></table>	RAN 1X	EC/IO (dBm) xxx	Status Display Screen 2 RAN – Radio Access Network. (1X or IS-95A) Ec/I0 – Ratio of channel power to traffic power; roughly equivalent to noise ratio. A number closer to zero is better. <table><tr><td colspan="5">Very Good</td><td colspan="3">Good</td><td colspan="3">Fair</td></tr><tr><td colspan="5"><div></div></td><td colspan="3"><div></div></td><td colspan="3"><div></div></td></tr><tr><td>0</td><td>-1</td><td>-2</td><td>-3</td><td>-4</td><td>-5</td><td>-6</td><td>-7</td><td>-8</td><td>-9</td><td>-10</td><td>-11</td></tr></table> <table><tr><td colspan="4">Poor</td><td colspan="8">High Noise</td></tr><tr><td colspan="4"><div></div></td><td colspan="8"><div></div></td></tr><tr><td>-11</td><td>-12</td><td>-13</td><td>-14</td><td>-15</td><td>-16</td><td>-17</td><td>-17</td><td>-19</td><td>-20</td></tr></table> Press the [space] key to get to the next screen. Press the [backspace] key to go to the previous field.	Very Good					Good			Fair			<div></div>					<div></div>			<div></div>			0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	Poor				High Noise								<div></div>				<div></div>								-11	-12	-13	-14	-15	-16	-17	-17	-19	-20
RAN 1X	EC/IO (dBm) xxx																																																																							
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	<table><tr><td>SID xxxx</td><td>NID xxxxx</td></tr></table>	SID xxxx	NID xxxxx	Status Display Screen 3 SID – System Identification, identifies the cell network in the local area. NID – Network Identification, identifies the overall network. Press the [space] key to get to the next screen. Press the [backspace] key to go to the previous field.																																																																				
SID xxxx	NID xxxxx																																																																							
	<table><tr><td>Cell N/A</td><td>Channel xxx</td></tr></table>	Cell N/A	Channel xxx	Status Display Screen 4 Cell – Base Station ID Channel – Control Channel in use. Press the [space] key to go to the next screen. Press the [backspace] key to go to the previous field.																																																																				
Cell N/A	Channel xxx																																																																							

CDMA-L3 Status Displays (Continued)

[S]	<div>ECP</div> <div>Flt OK</div>	ECP Mode Displays the mode of operation and system fault status. Flt Displays the communicator fault status. OK = Normal, No fault. G = No network connectivity over CDMA and fault time has expired. g = No network connectivity over CDMA and fault time has NOT yet expired.
[T]	Test Msg Sent	Test Alarm Sends a Test alarm to AlarmNet. Functional for a <i>registered</i> CDMA-L3 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 CDMA-L3. Pressing [N] returns to normal mode. Pressing [Y] resets the device.
[↑] (UP arrow)	Registering ...	Registration Registers a programmed CDMA-L3 with AlarmNet.
[↓] (DN arrow)	Enter PIN#	Registration with PIN for Replacement Module Registers a replacement CDMA-L3 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 CDMA-L3 module is not initialized when you enter this command, the following screen will be displayed:
		<div>Cannot Upload Try Later! _</div>
		Wait for the RSSI LEDs to light, indicating the CDMA-L3 module 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].

SUMMARY OF LED OPERATION

CDMA-L3 Status Display Operation

The module has four LEDs used to indicate minimum signal strength, message, and device status (refer to Figure 5). When installed in the control panel, the LEDs are located as shown.

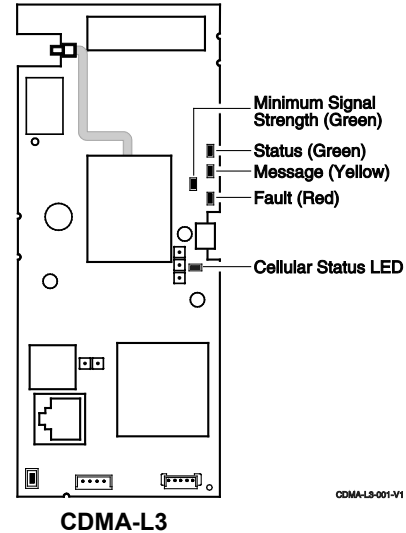
LED	INDICATION
Green	Status
Yellow	Message
Red	Fault
Green	Minimum Signal Strength

Each LED can have four different states:

LED STATE	DETAILS
ON	Solid ON
OFF	Turned OFF
SLOW BLINK	Slow/Equal ON/OFF time
FAST BLINK	Fast/Equal ON/OFF time
PERIODIC FLASH	Brief ON, longer OFF time

Cellular Status LED

Flash every...	Meaning
second	Voice session
2 seconds	Data session
4 seconds	Connected to cellular network
Blink every second	No or deactivated SIM































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.

Table 3. Status and Signal Strength LED Operation

LED COLOR	LED	DESCRIPTION
GREEN	STATUS	ON – CDMA-L3 is NOT registered with AlarmNet. OFF – CDMA-L3 is registered with AlarmNet. FAST BLINK – Download session with Compass in progress. SLOW BLINK – In unison with yellow LED – Registration in progress. PERIODIC FLASH – module has been deactivated in network coverage
YELLOW	MESSAGE	ON – Message transmission pending. PERIODIC FLASH - Normal FAST BLINK – Message waiting for network ACK. SLOW BLINK – In unison with green LED – Registration in progress. PERIODIC BLINK – Module has been deactivated in roaming coverage
RED	FAULT	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 panel. PERIODIC FLASH – module has been deactivated in roaming coverage
GREEN	SIGNAL STRENGTH	ON – Minimum required signal strength is present. OFF– Installation is not recommended.
	ALL (except signal strength green)	FAST BLINK sequential – in process of firmware update

Table 4 – LED Examples of Normal Operating State

LED COLOR	LED INFO	Registered Status Display	Unregistered 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:				 ON	 OFF	 FAST BLINK	 SLOW BLINK

CENTRAL STATION MESSAGES

The following messages are sent to the Central Station by the CDMA-L3 module for the conditions listed below.

Table 4 – CDMA-L3 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
Code Download Begin	E903 C0803	
Code Download End Successful	n/a	R903 C0803
Code Download Failed	E904 C0803	
Test	5555 5555 9	

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

DOWNLOADING

The CDMA-L3 can be used to provide high-speed up/downloading to Lynx Plus Series control panels over the cellular network via ECP communication. This allows site maintenance independent of central station monitoring, and modification to sites globally.



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

GLOSSARY

1X:	1 times Radio Transmission Technology
AES:	Advanced Encryption Standard
CDMA:	Code Division Multiple Access cellular technology. Uses spread spectrum technology and unique transmitter coding to share channels and bandwidth without interference between users.
ECP:	Enhanced Console Protocol, which is a proprietary communications bus used in Honeywell control panels for wiring additional keypads and peripheral devices; consists of a four-wire data bus (power +/-, data in/out).
ESN:	Electronic Serial Number
IMEI:	International Mobile Equipment Identity number
MAC ID:	Media Access Code; located on the module label.
MEID:	Mobile Equipment Identifier

SPECIFICATIONS

Physical

Dimensions: 5.625" x 2.25"

Electrical

Input Voltage: 12VDC (powered by the Lynx Plus Series Control) (Range: 5.5 VDC-12 VDC)

Quiescent Current: 40mA

Peak Current During Transmit: 300mA

Environmental

Operating temperature: -20°C to +55°C, for ULC installations 0°C to +49°C

Storage temperature: -40° to +70°C

Humidity: 0 to 95% relative humidity, non-condensing

Altitude: to 10,000 ft. operating, to 40,000 ft. storage

RF Features

- Dual-band support for both the 800MHz cellular and 1.9GHz PCS bands.
- Adheres to CDMA authentication as specified in CDMA 1X.
- Support for IS-95A/B and CDMA 1X Release 0/A.

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

FEDERAL COMMUNICATIONS COMMISSION (FCC) Part 15

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.

FCC Statement

This device complies with Part 15 of 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.

**RF Exposure**

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

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

For the CDMA-L3, the external antenna must not exceed a maximum directional gain (including cable loss) of 8.1 dBi at 850 MHz and 3.9 dBi at 1900 MHz.

SUPPORT & WARRANTY

For the latest documentation and online support information, please go to:
<https://mywebtech.honeywell.com/>

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



MyWebTech



Warranty



800-20342 8/15 Rev. A

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