

**Honeywell**

**AlarmNet<sup>®</sup> 7847i-L**  
**Internet Communication Module**  
**For LYNXR-I**  
**Installation and Setup Guide**





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# General Information

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## In This Section

- ◆ *Introduction*
- ◆ *About AlarmNet-i Internet Application*
- ◆ *IP Uploading/Downloading Using the 7847i-L*
- ◆ *Encryption*
- ◆ *Features*
- ◆ *Specifications*

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## Introduction

AlarmNet's 7847i-L Internet Communication Module was developed to transport alarm signals from the LYNXR-I control to an AlarmNet central station via the Internet. The easy-to-install 7847i-L provides sophisticated data security and communicates with all AlarmNet central stations through AlarmNet's server. In addition to alarm reporting, the 7847i-L provides upload/download programming capability via the Internet.



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The 7847i-L module requires an AlarmNet-i account. Obtain the account information from the central station prior to programming this module.

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## About AlarmNet-i Internet Application

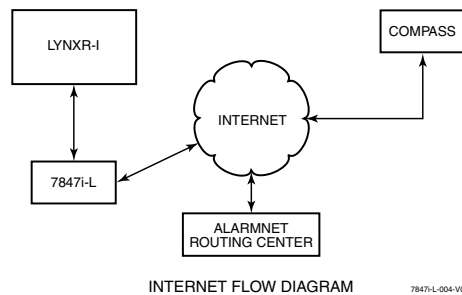
AlarmNet-i is a fully encrypted, secure method of delivering alarm messages from a protected premise to an AlarmNet equipped central station. An Internet Communicator Module transmits status, supervisory, and alarm messages to the AlarmNet Control Center using a broadband Internet connection.

The AlarmNet Control Center identifies, validates, and forwards the messages to the appropriate AlarmNet central station. AlarmNet-i has an unlimited account capacity.

## IP Uploading/Downloading Using the 7847i-L

The 7847i-L can be used to provide high-speed up/downloading to the LYNXR-I control. This allows site maintenance independent of central station monitoring, and modification to sites globally via the Internet.

The figure below shows data flow when the system is set up for use with the Internet.



**Figure 1. IP Uploading/Downloading via Internet Flow Diagram**

## Encryption

The 7847i-L supports private key encryption. Private key encryption means that both the sender and the receiver know the KEY used to encrypt the data. Each device produced by Honeywell is loaded with a globally unique identifier called a MAC number, and a large random number or KEY. This KEY and MAC number are also stored in the AlarmNet servers. When a device contacts AlarmNet it sends the MAC number in the clear followed by the message that is encrypted using the KEY data. The server looks up its copy of the KEY based on the MAC number and uses that KEY to decrypt the message.

The 7847i-L uses 256 bit AES (Rijndael) encryption (which is required for certain government installations). The AlarmNet-i AES Encryption Software Module Version 1.0 contained in the Honeywell products has NIST approval. Listings for this approval can be found at <http://csrc.nist.gov/cryptval/aes/aesval.html> Certification number 127.

## Features

- Installs inside LYNXR-I control assembly
- Easy CAT-5 10/100 BaseT connection to a hub or router
- Operates behind firewalls without compromising network security
- Supports dynamic or fixed IP addressing
- Simple programming using a 7720P programming tool
- Reports fire, burg, and status messages via the Internet
- Allows uploading and downloading of control panel data over the Internet.

## Specifications

### Mechanical

Dimensions: 2.25" x 2.125"

### Electrical

Input Power: 12VDC (nominal), 14VDC (max)

Current Drain: 56mA

Shutdown Voltage: 5.5 VDC

# Mounting and Connecting

## In This Section

◆ *Mounting and Connecting the 7847i-L*

◆ *Ethernet Connections*

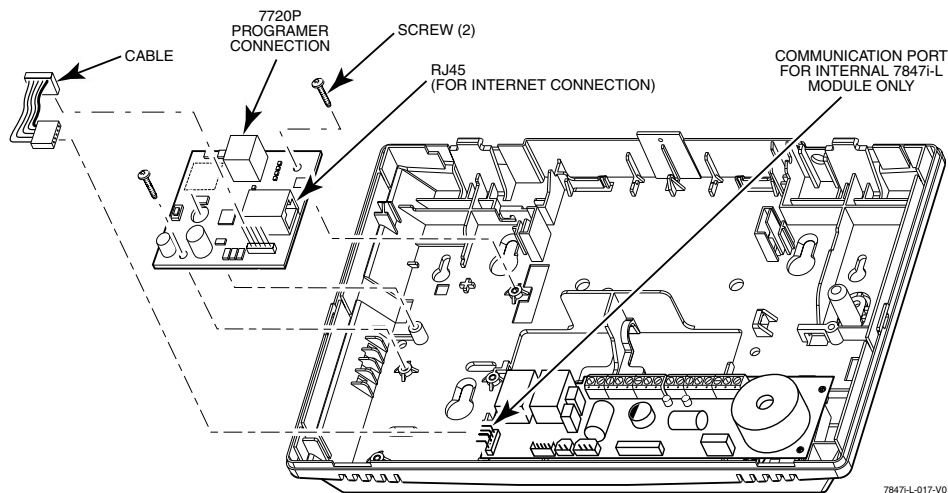
## Mounting and Connecting the 7847i-L

Depending on the location of the communication port, the 7847i-L must be mounted and connected differently.

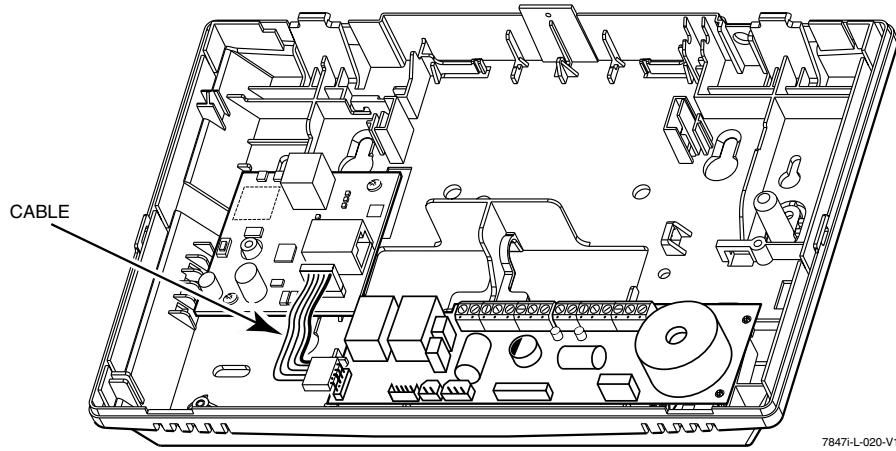
Examine which configuration you have and follow the instructions for mounting and wiring below; either Configuration A or B, as appropriate.

### Configuration A

1. Before securing the module to the back plate, connect the provided cable between the module and the PC board as shown in *Figure 2a*. This cable provides DC power and ground for the module and data in/out connections.
2. Install the module into the back plate and secure it with the two provided screws.



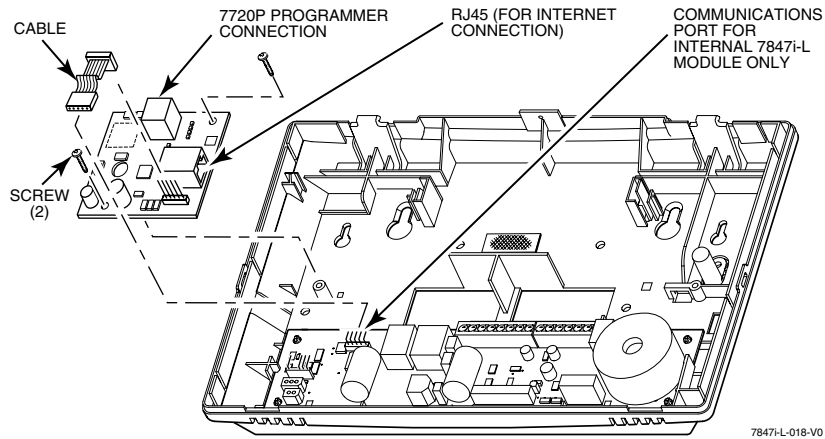
**Figure 2a. Configuration A: Mounting the 7847i-L Module**



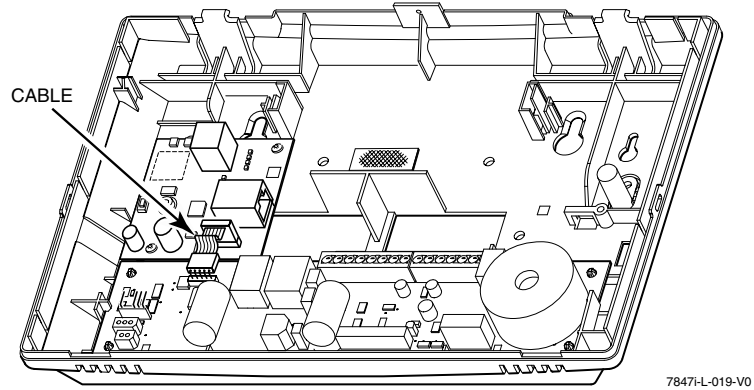
**Figure 2b. Configuration A: Installed 7847i-L Module**

**Configuration B**

1. Install the module into the back plate and secure it with the two provided screws.
2. Connect the provided cable between the module and the PC board. This cable provides DC power and ground for the module and data in/data out connections.



**Figure 3a. Configuration B: Mounting the 7847i-L Module**



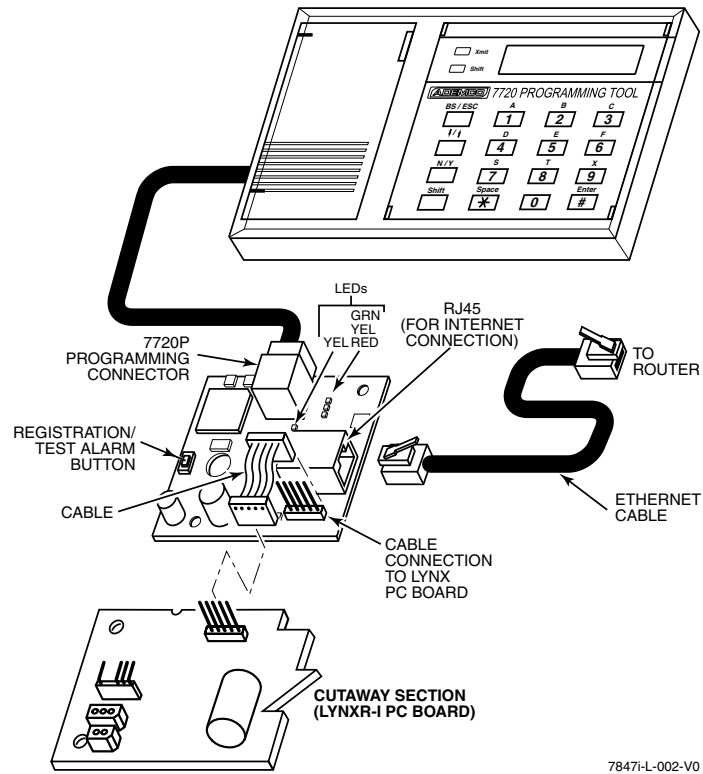
**Figure 3b. Configuration B: Installed 7847i-L Module**

## Ethernet Connections

**UL**

1. For UL installations, the Cat. 5 Ethernet connection between the 7847i-L and the router cannot exceed 12 feet with both the 7847i-L and the router located within the same room.
2. Use a Listed cable/DSL router suited for the application.

1. Connect one end of the Ethernet cable (Category 5) to the RJ45 Ethernet connector and the other end to a cable/DSL router, refer to *Figure 4*.
2. When programming the module, plug the programming cable from the 7720P Programming Tool into the programming connector on the 7847i-L module.



**Figure 4. 7847i-L Ethernet Connection**

# Programming the 7847i-L

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## In This Section

◆ General Information

◆ Exiting Programming Mode

◆ Entering Program Mode

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## General Information




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To the control panel, the 7847i-L Internet Communication Module is treated as a long-range radio device.

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The 7847i-L delivers alarms occurring on the LYNXR-I control to an AlarmNet central station via the Internet. The communication is encrypted to ensure security (see Encryption paragraph in *Section 1: General Information*).

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The 7847i-L module requires an AlarmNet-i account. Obtain the account information from the central station prior to programming this module.

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You can program a 7847i-L by one of the following methods:

- Through the AlarmNet Direct Website
- Through use of a 7720P Programming Tool

### Using 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:

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 label inside module)

After programming is complete, you must transfer the data to the module and the module must be registered. Refer to *Section 4: Registration*, for further instructions.

### Using a 7720P Programming Tool

Connect the 7720P Programming Tool; refer to Figure 3 in Section 2. The 7847i-L powers the 7720P Programming Tool via the programming jack, and automatically senses the presence of the 7720P when it is plugged in.

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 below lists each normal and shift key function.

**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]: Press to accept entries	No SHIFT function

\* Active only when the "Exit Prog 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.

### Entering Program Mode

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**

**NOTE:** The default programming values are listed in each prompt below.

*Table 2. Programming a 7847i-L*

	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."

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	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
5	<b>Change Password?</b> (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. <b>NOTE:</b> 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	<b>Enter Password</b>		[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	<b>Verify Password</b>		[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: <b>Verify Not OK</b> <b>PSWD not created</b> Otherwise, the "Exit Prog. Mode?" prompt is displayed directly.
8	<b>Exit Prog. Mode?</b> (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	<b>Device Mode</b> (ECP)_		• ECP	Press [ENTER] to select <b>ECP</b> mode (LYNXR-I supports ECP mode only). The 7847i-L uses ECP messaging to communicate with the control panel via the cable connection. To allow central station reporting of alarms via the 7847i-L, make sure the LYNXR-I's field *55 Enable/Disable ECP Interface is enabled. When enabled, the LYNXR-I sends contact ID format reports to the 7847i-L, which then sends the reports to the central station. Use LYNXR-I field *77 to assign the reporting priorities between the LYNXR-I dialer and the 7847i-L. Refer to the LYNXR-I Programming Guide for detailed information regarding these fields.

**Important Information Regarding Primary Accounts (Questions 10-12)**  
 Account information is provided by the central station administrator.

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
10	Primary City ID (??)_		[01-99]	Enter the 2-digit primary city ID, 01-99 (decimal).
11	Primary CS ID (??)		[01-FE]	Enter the 2-digit primary central station ID number, 01-FE (HEX).
12	Primary Sub ID (????)		[0001-9999]	Enter the 4-digit subscriber account number, 0001-9999 (decimal).
13	Device Address (03)_		[01-30]	In ECP mode, the 7847i-L communicates with the panel as a Long Range Radio (LRR) device. Enter address 03 for LYNXR-I Series controls. <b>NOTE:</b> When programming the control, enable the LRR output.
14	Supervision (24 Hours)_		<ul style="list-style-type: none"> <li>24 Hours</li> <li>• 1 Hour</li> <li>• US UL Line (6 Min)</li> <li>• CN UL Line Lvl 3 (3 Min)</li> <li>• US UL Line (90 Sec)</li> <li>• CN UL Line Lvl 4 (90 Sec)</li> <li>• CN UL Line Lvl 5 (75 Sec)</li> <li>• None</li> <li>• 30 Day</li> </ul>	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.

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
15	<b>Old Alarm Time (10 Minutes)_</b>		<ul style="list-style-type: none"> <li>• 10 Minutes</li> <li>• 15 Minutes</li> <li>• 30 Minutes</li> <li>• 1 Hour</li> <li>• 2 Hours</li> <li>• 4 Hours</li> <li>• 8 Hours</li> <li>• 12 Hours</li> <li>• 24 Hours</li> </ul>	<p>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.</p> <p>Press the [space] key to scroll through choices.</p> <p><b>UL NOTE:</b> Must be 10 minutes.</p>
16	<b>IP Fit Time (60 mins)_</b>		[00-99]	<p>Enter the time delay (01-99) in minutes before the 7847i-L notifies the control panel that there is loss of contact with the network, or enter "00" if you do not want the 7847i-L to alert the control panel of loss of contact with the network. The 7847i-L will alert the control panel of the loss of contact via a dedicated status message.</p> <p><b>UL NOTE:</b> Must be two (02) minutes.</p>
17	<b>Use DHCP Y/N (Y)_</b>		[Y], [N]	<p>Dynamically allocates the IP addresses (recommended); then skip to Prompt 23: "Review?"</p> <p>If [N], uses fixed IP addresses.</p>
18	<b>NIC IP Address: 255.255.255.255_</b>		12 digit: xxx.xxx.xxx.xxx	<p>Enter the 4-part address for this device. The 4 parts of the address must be separated by spaces (displayed as periods in Review mode).</p>
19	<b>Subnet Mask: 255.255.255.255_</b>		12 digit: xxx.xxx.xxx.xxx	<p>Enter the 32-bit address mask used to indicate the portion (bits) of the IP address that is being used for the subnet address. The 4 parts of the address must be separated by spaces (displayed as periods in Review mode).</p>
20	<b>Gateway IP Addr: 255.255.255.255_</b>		12 digit: xxx.xxx.xxx.xxx [0.0.0.0] = not used	<p>Enter the 4-part address assigned to the Gateway. The 4 parts of the address must be separated by spaces (displayed as periods in Review mode).</p>

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
21	DNS Serv IP Addr: 255.255.255.255_		12 digit: xxx.xxx.xxx.xxx [0.0.0.0.] = not used	Enter the 4-part IP address assigned to the DNS (Domain Name System) server. The 4 parts of the address must be separated by spaces (displayed as periods in Review mode).
22	Enable Pwr Save (Y)_		[Y], [N]	For 24 hour UL Battery Backup requirement, this feature must be enabled, or the unit must be powered by an appropriate UL listed UPS. If connectivity problems occur with certain routers or switches disable this option.
23	Review? Y/N		[Y] = review [N] = exit	<b>Reviewing Programming Mode Entries</b> 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. <b>To exit the programming mode,</b> press [N] in response to the "REVIEW?" prompt, and refer to <i>Exiting Programming Mode</i> at the end of this section.

### 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 root file is updated to log the changes made. A message is displayed telling the user that this step is being executed. When complete, the message "DONE" is displayed to indicate the file was successfully uploaded.



If critical configuration changes were made, the 7847i-L will reset to ensure that the programmed features are enabled.

### Setting Factory Defaults

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

<b>Set Default?</b> 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. PLEASE NOTE THAT THIS WILL ERASE ANY PASSWORD THAT MAY HAVE BEEN ENTERED. After pressing [Y], the Create Password prompt appears (see Prompt 4).

### ECP Status Codes

Table 3 lists the message displayed on the LYNXR-I display. Table 4 lists the messages sent to the central station.

**Table 3. ECP Keypad Display Status Code**

STATUS CODE	DESCRIPTION
103 Fault	indicates an ECP communications/supervision failure

**Table 4. ECP Contact ID (685 Displays) Codes**

CODE*	DESCRIPTION
E339 C803	ECP power-on reset (occurs upon registration, exiting program mode, or power on reset)
E355 C000	7847i-L lost communication with control panel
R355 C000	7847i-L restore communication with control panel

\*As displayed on 685 Digital Receiver

# Registration

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## In This Section

◆ *Registering the 7847i-L*

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### Registering the 7847i-L

Once you have initialized and programmed the 7847i-L, it must be registered to enable the account. An unregistered 7847i-L is indicated by the Status (green) LED lit, the Message (yellow) LED slow blinking, and the Fault (red) LED not lit. The Internet Link (yellow) LED may be lit or blinking. Refer to *Section 5: Summary of LED Operation* for a detailed discussion of LED operation.

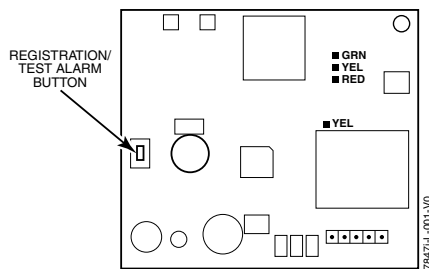
You can register the 7847i-L by one of the following methods:

- Through use of the Registration/Test Alarm Button
- Through use of a 7720P Programming Tool
- Through the AlarmNet Direct website
- By phone

To complete the registration process, a 7847i-L transmits a registration message and receives a registration validation indicating that the account is now enabled.

#### Using the Registration/Test Alarm Button

Initiate the registration sequence by clicking the Registration/Test Alarm Button three (3) times.



**Figure 5. 7847i-L Registration/Test Alarm Button Location**

Once the registration has been completed successfully, the 7847i-L 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 C803” (“03” represents the module’s fixed device address). The description may read “Trouble – Exp. Mod. Reset”. If registration is not validated within 90 seconds, the 7847i-L times out, and the (green) LED will be lit (solid).

If repeated registration attempts time out, check your Internet connection and verify that 7847i-L account information has been entered correctly.

### Using the Programming Tool

The interactive registration feature allows the installer to register the 7847i-L 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] and the up arrow [↑] 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 7847i-L is registered and this message is displayed. The 7847i-L is now in full service and available for alarm reporting to the central station.

### Possible Errors When Configured for AlarmNet-i

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 Primary account is not accepted. The ID information was either entered incorrectly, 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 7847i-L for an existing account. This prompt appears for 2 seconds.

Enter PIN#

This prompt appears after pressing the down arrow [↓] on the 7720P.

**NOTE:** If you do not have a PIN, you may exit registration mode by pressing [ESC]. Once you have your PIN, you can resume the registration process by pressing [Shift] and the up arrow [↑] key.

Enter a 4-digit alphanumeric PIN number provided by an authorized AlarmNet representative.

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 7847i-L is registered and the old unit unregistered. Additionally, AlarmNet sends a substitution alarm to the central station.
Registration BAD Pri ID – Need PIN	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. <b>NOTE:</b> Each attempt causes a substitution alarm to be sent to the central station.

### Registering through AlarmNet Direct Website

Once the module has been programmed, you may register it via the AlarmNet Direct Website.

To do this, please go to:

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

Log in and follow the on-screen prompts.

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)
5. Once module is registered, you may log out of the AlarmNet Direct website.

### Register by Phone

You can register the module by calling the AlarmNet Technical Assistance Center (TAC) at 1-800-222-6525.

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 a subscriber ID.
- When instructed to do so, triple-click the Registration/Test Alarm Button to complete the registration.



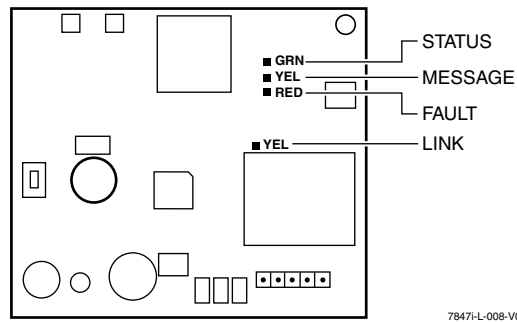
# Summary of LED Operation

**In This Section**

- ◆ 7847i-L Status Display Operation
- ◆ Message Status During Normal (Idle) State

**7847i-L Status Display Operation**

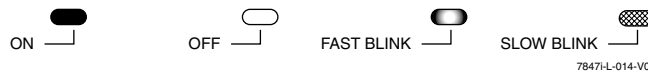
The 7847i-L has four LEDs used to indicate message and device status, and one LED to indicate network connection.



**Figure 6. 7847i-L LEDs**

Each LED's on and off state has a specific meaning during normal operation. Each LED can have four different states - ON, OFF, FAST BLINK and SLOW BLINK.

Throughout this document, the following key is used to describe LED state:



**Figure 7. LED Key**

**Table 5. LED Functions**

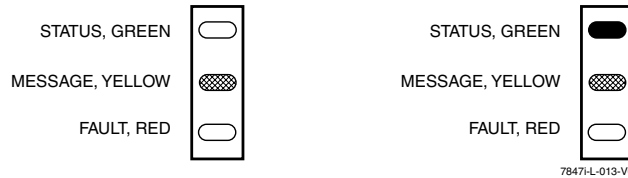
LED FUNCTION	LED COLOR	DESCRIPTION
STATUS	GREEN	ON – 7847i-L is NOT registered with AlarmNet. OFF – 7847i-L is registered with AlarmNet FAST BLINK – Download session with Compass in progress. SLOW BLINK – In unison with yellow LED – Registration in progress.

MESSAGE	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 the 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.
ETHERNET LINK/ ACTIVITY	YELLOW	ON – Ethernet link detected. OFF – No Ethernet link detected. FAST BLINK – Transmitting/Receiving data.

**Message Status During Normal (Idle) State**

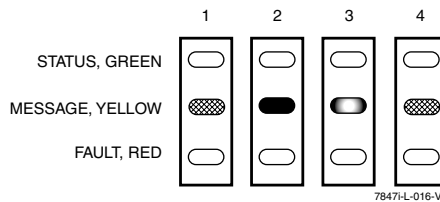
During Normal Operation, the yellow Message LED functions as the 7847i-L's heartbeat. With no message pending, the heartbeat is an indication that the unit is functioning.

The yellow Internet Link LED may be lit solidly or periodically blink during normal operation.



**Figure 8. A Registered 7847i-L Status Display (left) and an Unregistered 7847i-L Status Display (right) in Normal Operating State**

The sequence below illustrates LED operation when the 7847i-L transmits a message.



**Figure 9. LED Sequence for a Registered 7847i-L Message Transmission**

# Programmer Keyboard Commands

## Programmer Keyboard Commands

Programmer keyboard commands can be used to quickly view your Internet 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] | 7847i-L<br>x.x.xx    mm/dd/yy       | <p><b>Software Revision</b></p> <p>"x.x.xx" indicates the installed software Revision.<br/>mm/dd/yy indicates month, day and year of the revision.</p>   |
| [B] | MAC xxxxxxxxxxxx<br>MAC CRC    yyyy | <p><b>MAC Address</b></p> <p>"xxxxxxxxxxxx" indicates the 7847i-L's unique identification number.<br/>"yyyy" indicates the MAC CRC number. This number is also found on the label on the module, as well as the label on the box.<br/>Press the [Space] key to go to the next field.<br/>Press the backspace [BS] key to go to the previous field.</p> |
| [C] | Mon 01 Jan 2001<br>05:48:39 am      | <p><b>Time</b></p> <p>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.</p>   |
| [D] | Physical Link<br>Good/Bad           | <p><b>Network Diagnostics Display</b></p> <p>Indicates whether the device has detected a physical connection to the Internet.<br/>Press the [Space] key to go to the next field.</p>   |
|     | NIC IP Address<br>xxx.xxx.xxx.xxx   | <p><b>IP Information Display</b></p> <p>Displays the IP address assigned to this device.<br/>Press the [Space] key to go to the next field.</p>  |
|     | Subnet Mask<br>xxx.xxx.xxx.xxx      | <p>Displays the 32-bit address mask used to indicate the portion (bits) of the IP Address that is being used for the subnet address.<br/>Press the [Space] key to go to the next field.<br/>Press the backspace [BS] key to go to the previous field.</p>  |
|     | Gateway IP Addr<br>xxx.xxx.xxx.xxx  | <p>Displays the IP Address assigned to the Gateway.<br/>Press the [Space] key to go to the next field.<br/>Press the backspace [BS] key to go to the previous field.</p>   |

	DNS Serv IP Addr: xxx.xxx.xxx.xxx	Displays the IP Address assigned to the DNS (Domain Name System) server. Press the [Space] key to go to the NIC IP address. Press the backspace [BS] key to go to the previous field.
	Encryption Test: AES Passed!	Performs a self-test of the AES encryption algorithm. Press the [Space] key to go to the Physical Link field. Press the backspace [BS] key to go to the previous field.
	DHCP: OK	DHCP (Dynamic Host Configuration Protocol) indicates server is performing satisfactorily.
[F]	Testing Gateway Redir 1	<b>Run Network Diagnostic Status (Configured for AlarmNet Reporting)</b> Performs a set of network diagnostics that tests the integrity of the links between the 7847i-L and the various connection points (Redirs) to AlarmNet. Refer to <i>Section 7: Network Diagnostics</i> .
[S]	ECP            Flt OK	<b>Status Display</b> Displays the zone and network connectivity status (flt). “i” = Loss of network connectivity but the fault time has <b>not</b> yet expired. “T” = Loss of network connectivity and the fault time has expired.
[T]	Test Msg Sent	<b>Test Alarm</b> Sends a Test alarm to AlarmNet. Functional for a <i>registered</i> 7847i-L only. If the device is not registered, a message is displayed indicating that the command cannot be executed.
[X]	Reset CPU Y/N	<b>Reset the 7847i-L.</b> Pressing [N] returns to normal mode (blank screen = enter next command or escape). Pressing [Y] resets the module (blank screen = reset complete).
[↑] UP arrow	Registering ...	<b>Registration</b> Registers a programmed 7847i-L with AlarmNet. Refer to <i>Section 4: Registration</i> .
[↓] DN arrow	Enter PIN#	<b>Registration with PIN for Replacement Module</b> Registers a replacement 7847i-L with AlarmNet, once programmed, using the existing PIN #. Refer to <i>Section 4: Registration</i> .
[ENTER]	Strt Prog Mode? Y/N_	<b>Enter Program Mode</b> Press [Y] to enter program mode; otherwise, press [N].

# Network Diagnostics

## Running Network Diagnostics on the 7847i-L using AlarmNet

The network diagnostic process tests the integrity of the links between the 7847i-L and the various connection points of AlarmNet Control that are known as “Redirects” (Redirs or RDR).

To initiate the network diagnostics, press the [F] key on the 7720P.

---

**NOTE:** The test is performed ONLY if a physical link is detected. If no physical link is detected, the test is aborted and the following is displayed:

---

NO PHYSICAL LINK

If a physical link is detected, the diagnostics are performed. The following shows the progression of the test:

Testing Redir 1	The first step of the test traces the connection to Redir 1 at AlarmNet Control.
Testing Redir 1 Reached Gateway	A successful trace to Redir 1 is indicated here.
Redir 1 Service OK	The service at AlarmNet Control on Redir 1 is functioning. If not, “Redir 1 Failed” is displayed.
Testing Redir 2	The first step of the test traces the connection to Redir 2 at AlarmNet Control.
Redir 2 Service OK	The service at AlarmNet Control on Redir 2 is functioning. If not, “Redir 2 Failed” is displayed.
Testing Redir 3	The first step of the test traces the connection to Redir 3 at AlarmNet Control.
Redir 3 Service OK	The service at AlarmNet Control on Redir 3 is functioning. If not, “Redir 3 Failed” is displayed.

RDR1	RDR2	RDR3
OK	OK	OK

A summary of the tests is displayed after Redir 3 is tested. The example shows that the tests of all three connection points, or Redirs, were successful. If an error occurred at any point, the summary will display “FAIL” under the faulty Redir.

# Glossary

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## Glossary

AES – Advanced Encryption Standard

DHCP – Dynamic Host Configuration Protocol, which provides a mechanism for allocating IP addresses dynamically so that addresses can be reused when hosts no longer need them.

DNS – Domain Name System, which is a distributed hierarchical naming system used to resolve domain names (e.g., www.yahoo.com) into numerical IP addresses (e.g., 204.17.25.1).

DSL – Digital Subscriber Line

ECP – Enhanced Console Protocol, which is a proprietary communications bus used in Honeywell VISTA control panels for wiring additional keypads and peripheral devices; consists of a four-wire data bus (power +/-, data in/out).

Gateway IP Address – A gateway (sometimes called a router) is a computer and/or software used to connect two or more networks (including incompatible networks) and translates information from one network to the other. The Gateway IP address is the IP address for the gateway.

IP – Internet Protocol (packet-based protocol)

IP Address – A unique number consisting of four parts separated by periods, sometimes called a "dotted quad.," for example: 204.17.29.11, assigned to every computer/workstation connected to the Internet. IP numbers can be "static" (assigned and unchanging) or "dynamic," assigned via DHCP at each and every startup.

ISP – Internet Service Provider

MAC Address – The hardware address of a device connected to a network.

Subnet Mask – A Subnet is a portion of a network that shares a network address with other portions of the network, and is distinguished by a subnet number. The Subnet Mask is a 32-bit address mask used in IP to indicate the bits of an IP address that are being used for the subnet address.

TCP/IP – Transmission Control Protocol / Internet Protocol





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