

# **7847i-E**

## **Intranet Communication Module**

### **Installation and Setup Guide**



**Requires  
Compass Version  
1.5.8.54A (or higher)  
for IP Downloading**

## **Glossary**

AES – Advanced Encryption Standard

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

DNS – Domain Name System. 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

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

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

LAN – Local Area Network

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

NAT – Network Address Translation

PPP – Point-to-Point Protocol

PPPoE – Point-to-Point Protocol over Ethernet

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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# General Information

## Introduction

The 7847i-E Intranet Communication Module transports alarm signals via a Private LAN. This easy-to-install device provides sophisticated data security and communicates directly to a 7810PC or 7810iR-ent Intranet receiver (herein referred to as the “receiver”) in a private network application. In addition to alarm reporting, the 7847i-E provides upload/downloading capability via a Private LAN.

NOTE: The communicator is evaluated for Level A3 Active Channel Security and P3 Passive Channel Security. If used in zone trigger mode or for Passive Channel Security, a Listed DACT must be used and connected to the MX8000 central station receiver.

## System Features

Basic features of the 7847i-E include:

- Easy CAT-5 10 BaseT connection to a hub or router
- Installs behind firewalls without compromising network security
- Supports dynamic or static IP addressing
- Quick connection to compatible Honeywell series control panels
- Simple programming using a 7720P programming tool
- Reports fire, burg, and status messages via a Private LAN
- Allows uploading and downloading of control panel data over a Private LAN

## About Private Network Application

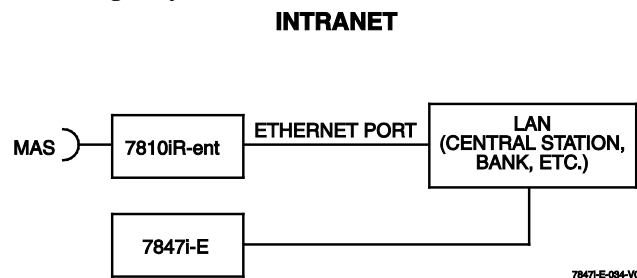
The 7847i-E transmits signals within a private network application to a 7810PC or 7810iR-ent receiver. Up to 300 7847i-E Intranet Communication Modules may be routed to a single receiver.

For receivers:

MX8000: UL/ULC. can be used for secondary reporting in ECP. Required for Zone Trigger or Passive Channel Security.

7810iR-ENT UL/ULC. primary receiver

7810PC - UL commercial burg only



**Figure 1. 7810PC or 7810iR-ent/7847i-E Private LAN Block Diagram**

## Encryption

The 7847i-E and receiver support 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. When a device contacts the receiver it sends the MAC number in the clear followed by the message that is encrypted using the KEY data.

The communication devices use 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/groups/STM/cavp/documents/aes/aesval.html> Certification number 979.

## Installation Key

At installation a 10-digit installation key needs to be programmed into every device in the network. This 10-digit key should be the same for all devices used in the Private LAN mode. The communication device uses this key to encrypt its private key when it registers with the receiver. This way its MAC and private key can be learned. This installation key is used for registration purposes only and is not used for supervision or alarm transmission. Once a device is registered the receiver will have a copy of the 7847i-E's factory KEY. From this point on the unique factory key is used for communications.

## Recovery Mode

In the event of a failure of the receiver requiring the replacement of the hardware or the erasure of its memory, the receiver supports a Recovery Mode. In Recovery Mode, the receiver is programmed with the same 10-digit installation key. When a 7847i-E communicates with the receiver and is found not to exist in its database, a special response is sent back to the 7847i-E requesting it to re-register itself. The 7847i-E then registers using the 10-digit installation key. When all accounts have been recovered, Recovery Mode can be turned off to provide better control of registration.

## Modes of Operation

### UL/ULC

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Only ECP Mode has been approved for ULC installations.

ECP and Zone Trigger have been approved for UL installations

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The 7847i-E provide four modes of operation so they can be used with various types of control panels, as summarized below:

### ECP Mode

- This mode is for use with Honeywell controls that support communication device (LRR)-ECP communication
- The module connects to the control's keypad terminals and provides 2-way communication with the control using ECP messaging
- The control treats the module as a communication (LRR) device, so program the control accordingly, including setting the module's proper device address
- Panel-generated reports are sent in Contact ID format
- The module also supports two hardwire zone trigger inputs (zones 6 and 7) – these report in ADEMCO High-Speed format

### Zone Trigger Mode

- This mode is for use with controls that do not support communication device-ECP communication nor 4204 Relay Modules
- The module provides six input zones
- Each zone can be configured for +V, -V, or EOLR triggering
- Each zone can be programmed for inverted operation, delayed reporting, and restoral reporting
- Zones should use EOL resistors and programmed as V+ inverted or V- Inverted so a cut line results in an alarm.
- Zone 1 and 2 inputs can distinguish between pulsed and steady signals and report fire or burglary alarms respectively
- Zone 1 and 2 inputs can also be programmed to report LYNX panic (if used with LYNX control)
- Zone 1 and 2 are not for use as fire/burglary zones by UL
- Reports are sent in ADEMCO High-Speed format

### Module Supervision Features

The 7847i-E provides the following types of supervision and module fault detection:

- Network communication failure: In the event the receiver does not hear a supervisory message from the module within a specified time ("Supervision" option), it notifies the central station of a communication failure.
- Fault output: Terminal 11 can serve as a fail-safe trigger for module fault conditions.  
If used, the fault relay will trip when the following conditions occur; tamper\*, loss of network connectivity\*, the device is not registered.  
\* Alarm reporting for the noted condition must be enabled for it to trigger the fault relay.
- Cover tamper condition ("Tamper Rpt" option).

### Specifications

#### Mechanical

Dimensions: 8.4" x 8.0" x 1.5"

Weight: 1 lb.

#### Electrical

Input Power: 12VDC

Current Drain: 88mA peak

Radio Fault Output: Open collector

Input Trigger Levels: (V+) 2V – 14V, (V-) 0V – 1V

#### Ethernet

Network Standard: IEEE 802.3u compliant

Data Rate: 10Base-T / 100Base-T with auto detect

Ethernet Cable: Cat. 5 (min.), MDI/MDI-X auto crossover

#### Environmental

Operating temperature: 0° 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

## Programming for UL864 Compliance

The 7847i-E provides a programmable supervision features that allows the system to meet the UL864 Commercial Fire requirements. These requirements are in the following table.

This product incorporates field-programmable software. In order for the product to comply with the requirements in the Standard for Control Units and Accessories for Fire Alarm Systems, UL 864, certain programming features or options must be limited to specific values or not used at all as indicated below.		
Program feature or option	Possible settings	Settings permitted in UL 864
<b>Supervision</b>	24 Hours • 1 Hour • 6 Min • 3 Min • 90 Sec • CN 90 Sec • 75 Sec • None • 30 Day	Must be set to: • 3 minutes for UL Comm Fire/Burg or ULC Active Channel Security. • 24hrs for ULC Passive channel security
<b>Old Alarm Time</b>	• 10 Minutes • 15 Minutes • 30 Minutes • 1 Hour • 2 Hours • 4 Hours • 8 Hours • 12 Hours • 24 Hours • 4 Hours • 8 Hours • 12 Hours • 24 Hours	Must be 10 minutes.
<b>IP Fault Time</b>	[00-99]	Must be one (01) minute.
<b>Flt Rel ON</b>	[Y], [N]	Must be set to "Y."
<b>ECP MODE PROGRAMMING</b>		
<b>Zn6 Trigger Type</b> <b>Zn7 Trigger Type</b>	• (V+) • (V-) • (EOLR)	V+ must be set as inverted and V- as non-inverted
<b>Delay Zn6</b> <b>Delay Zn7</b>	[01-15] [00] = no delay	Must be 00
<b>ZONE TRIGGER MODE PROGRAMMING</b>		
<b>Zn1 Trigger Type to Zn8 Trigger Type</b>	• (EOLR) • (V+) • (V-)	V+ must be set as inverted and V- as non-inverted
<b>Delay Zn1 to Delay Zn8</b>	[01-15] [00] = no delay	Must be 00



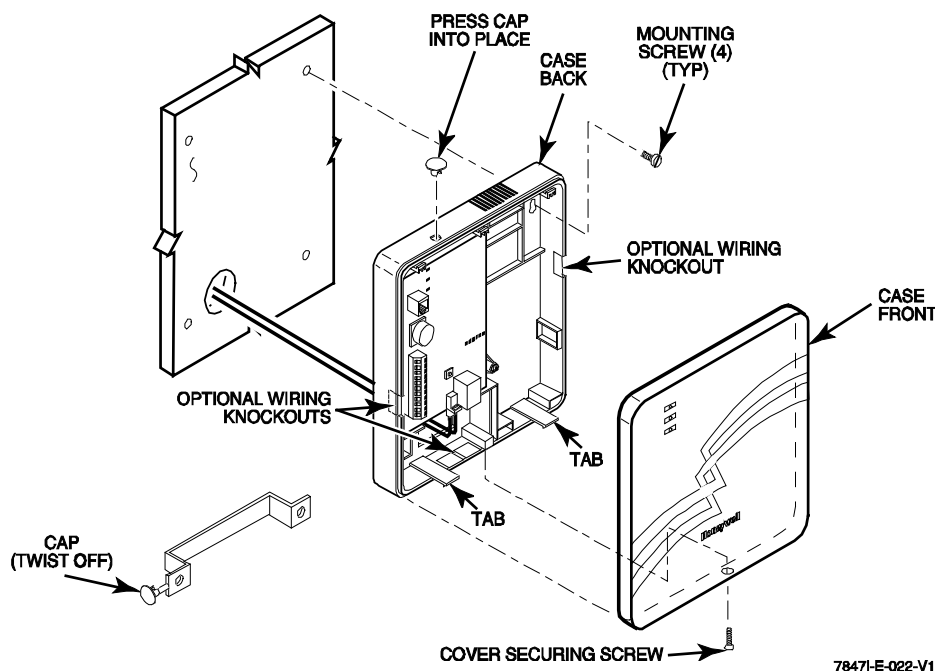
# Mounting and Wiring

## Mounting the 7847i-E

**UL/ULC** For Commercial Fire the communicator must be mounted to a single or double gang box.

The 7847i-E must be mounted **indoors**. To mount the unit, see *Figure 2* and complete the following steps:

1. Unpack the unit and detach the case back by pushing up into the two tabs located at the bottom of the 7847i-E module with the blade of a screwdriver while pulling the case back and case front apart.
2. Locate the case back over the mounting surface such that the opening in the case back is aligned with the wire/cable access opening (in the mounting surface) while passing the wires/cable through the opening in the case back, or through the removable knockouts located on the bottom of the back cover.
3. Secure the case back to the mounting surface using four screws (supplied).
4. When all wiring is completed, attach the case front of the unit to the case back. Attach the top first then press the bottom section inward until it snaps into place securely. Secure bottom using cover securing screw (supplied) as shown below, (required for UL installations).
5. Twist and remove cap from handle (supplied) and discard handle. Insert cap in top hole of case back, as shown.



*Figure 2. Mounting the 7847i-E*

## Wiring the 7847i-E



Unshielded, 22 AWG cable is recommended for 7847i-E power/data wires.

### ULC

For ULC Household Fire and Burglary installations, use ECP wiring only.

**NOTE:** The unit is to be mounted with all interconnecting wires between the Listed Control panel and communicator less than 3 feet in length and contained within the same room. All interconnecting wiring must be installed in rigid or in flexible metal conduit if run in the walls or ceiling. A UL/ULC Listed router must also be used.

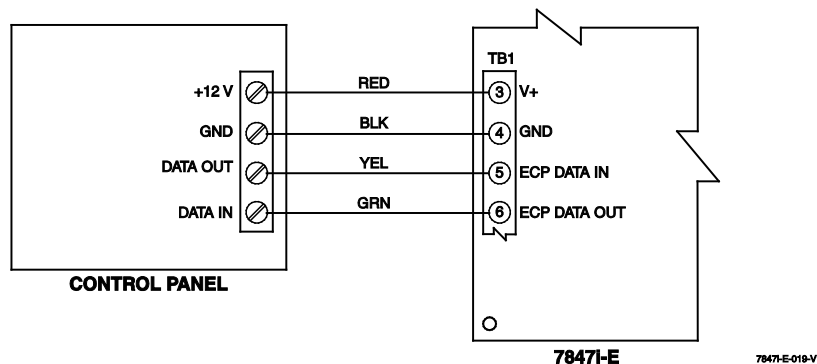
### Wiring for ECP Mode

Most Honeywell ADEMCO control panels support ECP data communication, (e.g., VISTA-10P, VISTA-15P, VISTA-20P, LynxR-I, VISTA-128BP/BPT and VISTA-250BP/BPT and the VISTA-128FBP/FBPT and VISTA-250FP/FBPT). However, there are some panels that do not. Check the Installation and Setup Guide for the control panel you are using to see if it supports ECP communication.

Connect the 7847i-E to a compatible Honeywell VISTA control panel's ECP terminals, in parallel with keypads and other peripheral devices, VIP module, etc. Wire length/gauge limitations are the same for the module as they are for keypads and other peripheral devices. To wire the module for ECP communication, see *Figure 3* and do the following:

**Table 1. Wiring connections for ECP mode**

7847i-E	Control
Terminal 3 V+	+12 V Aux
Terminal 4 GND	Ground
Terminal 5 Data In	Data Out
Terminal 6 Data Out	Data In



**Figure 3. Wiring a Vista for ECP Mode**

### Wiring for Zone Trigger Mode

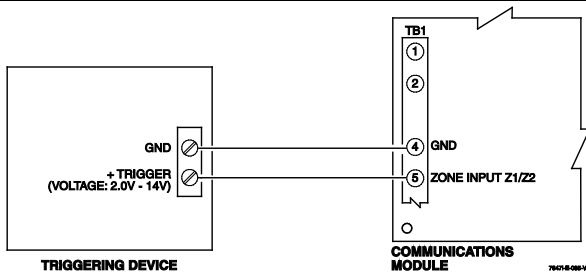
To trip the zone on the 7847i-E in V+ trigger mode, the positive triggering voltage from the control panel must be within 2.0V-14V.

Trigger levels above this range may cause permanent damage to the unit.

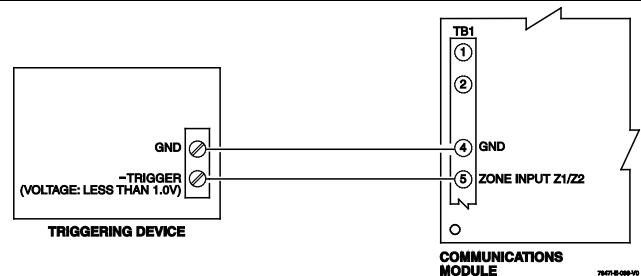
Trigger levels below this range result in unreliable operation.

To trip the zone on the 7847i-E in V- trigger mode, the negative triggering voltage must be less than 1.0V.

Connect a wire from the triggering source (bell output, voltage trigger, etc.) of the control panel to the zone input of the module, and connect a common ground between the module and control panel.



**Figure 4. Wiring Zone 1 Input for a Positive (+) Trigger**

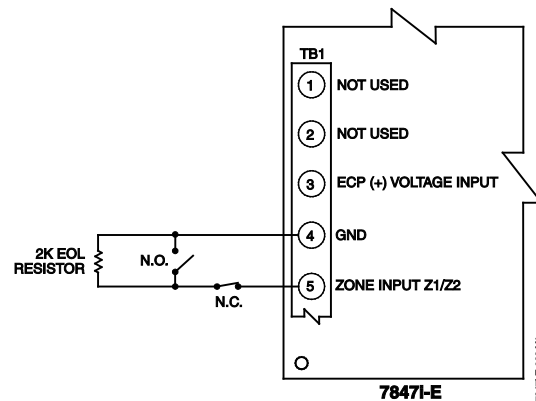


**Figure 5. Wiring Zone 1 Input for a Negative (-V) Trigger**

**Notes for Trigger Mode with Non- Honeywell Controls:**

- Commercial Fire: a) Assign one zone (3-7) between the 7847i-E and triggering device for each of the following conditions: alarm, trouble, & supervisory events. See Summary of Connections diagram on inside back cover for wiring detail and refer to the control panel's instructions for specific control panel wiring terminals.  
b) The control panel used must be UL 864 Listed and evaluated for central station or proprietary service.
- For voltage trigger mode, the voltage trigger must be within the range of 2.4Vdc - 12.6Vdc for positive triggers.
- Power must be supplied by a separate power supply with sufficient backup battery Listed 1481 [for fire] or UL603 [for Burg] and wiring must be in conduit in accordance with local codes. UL 1481 Power supply output must be 12Vdc Regulated.

**Figure 6. Wiring the 7847i-E Zone 1 Input for EOL Supervised N.O./N.C. Triggers**



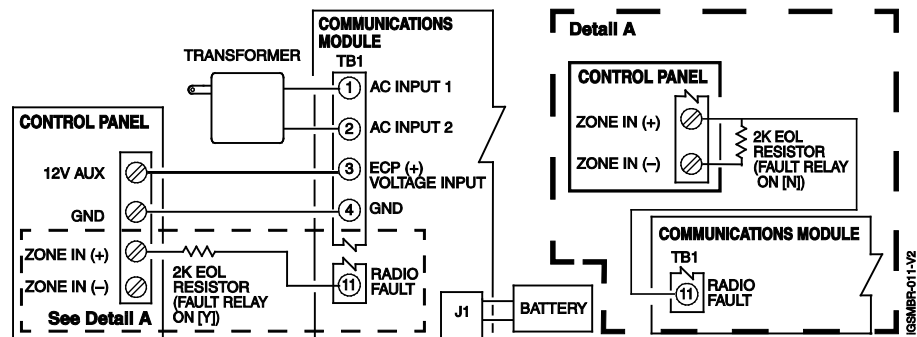
**Wiring the Fault Relay**

You may wire and program the communicator's fault output trigger for fail-safe mode (see the question "FLT REL ON Y/N").

To sense a communicator fault at the control panel, see the figure below and make the following connections. Include the proper EOL resistor required by the control panel.

**UL/ULC**

For commercial burglary a 24hr zone must be assigned, and the fault relay wired to that zone



**Figure 7. Wiring the Fault Relay to a Control Panel Zone**

## Power Connections and Options

Primary power for the 7847i-E is provided by the auxiliary power output of the control panel 9.6V –13.8V, typical, or other external power source.

When calculating the total load on the auxiliary power output of the control panel, 20mA must be budgeted for the 7847i-E. Under normal operating conditions, the unit will not pull more than 20mA; however, it will draw 75mA during a transmission.

Connect the wires from the (+) and (–) terminals of the DC power source to terminals V+ and GND on TB1 of the 7847i-E. **Observe Polarity!**

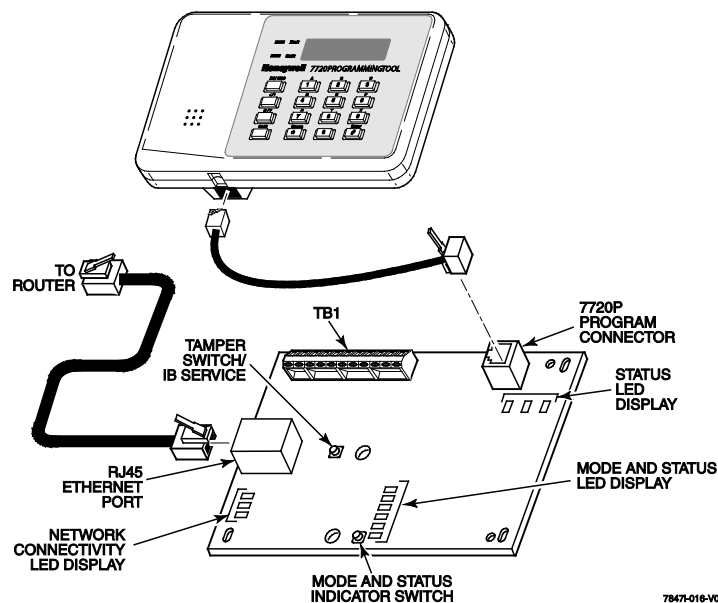
If using an external power source, connect GND from power supply to GND of the control panel.

## Ethernet Connections

**UL**

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

- Connect one end of the Ethernet cable (Category 5) to the 7847i-E's RJ45 Ethernet connector and the other end to the cable/DSL router.



*Figure 8. Ethernet Connections*

### Initial Power-Up Sequence

Before connecting power, check that the following have been completed:

- Terminal block TB1 V+ and GND terminals are connected to the control panel's auxiliary power output: 12 VDC nominal.
- Power up the control panel.

Initially, all 7847i-E programming options are set to the factory default settings.

**NOTE:** Refer to *Appendix A* for detailed information on LED functions.

# Programming the 7847i-E

## General Information



To the control panel, the 7847i-E Intranet Communication Module, when in ECP Mode, is treated as a long-range radio device.

The 7847i-E can be configured to deliver alarms via a Private LAN directly to a 7810PC or 7810iR-ent receiver. Communication is encrypted to ensure security. The 7847i-E uses 256-bit AES (Rijndael) encryption (which is required for certain government installations).

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

- Through use of a 7720P Programming Tool
- Through a programming mode in control panel, on panels that support this option (e.g., Vista-128BP and FBP)

### Using a 7720P Programming Tool

Connect the 7720P Programming Tool; refer to Figure 8 in Section 2. The 7847i-E 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 2 below lists each normal and shift key function.

**Table 2. 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 Programming Mode" prompt is displayed.

## Using the Control Panel Programming Mode

Some control panels support programming of the 7847i-E through the control panel programming mode (e.g., Vista-128BP). If programming through the control panel, only the ECP Mode programming options are available. The "mode" questions will not be displayed, and the mode cannot be changed. For a description of key functions on the control panel keypad, and how they map to the 7720P Programming tool, refer to the control panel's Programming Guide.

## 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 current 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.

## ECP Mode Programming

Press the [ENTER] key to begin programming.

- NOTES:**
1. The central station can remotely block access to local device programming. If this has been done, the following prompt appears:
  2. The default programming values for ECP mode are listed in each prompt below.

Access to Prog Mode Denied
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*Table 3: Programming a 7847i-E for ECP mode only.*

	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. <b>NOTE:</b> To clear an existing password, without entering a new one, answer [Y] to the "Change Password?" prompt,

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
				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: <b>Verify Not OK PSWD not created</b> Otherwise, the "Exit Prog. Mode?" prompt is displayed directly.
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"> <li>• ECP</li> <li>• Zone Triggers</li> <li>• 4204 Emu</li> <li>• Two 4204s</li> </ul>	Press the [space] key to scroll through the modes of operation. Press [ENTER] to select <b>ECP</b> mode.  See <i>Table 5</i> if programming other modes.
10	CS IP: 255.255.255.255		12 digit: xxx.xxx.xxx.xxx	Enter the four part primary CS IP address of the receiver at the reporting center to which this device will report. The four parts of the address must be separated by spaces. <b>NOTE:</b> This entry CANNOT be left as 255.255.255.255". It MUST be programmed with a valid IP address.
11	CS Port: (80)		[80]	Enter the Central Station Port Number. <b>NOTE:</b> The CS Port number must match the "Listening Port" question of the receiver.
12	Alarm Delivery: Only One CS IP_		[Only One CS IP] [Fail to CS IP2]	Select the "Only One CS IP" option, if only one Central Station IP address is desired and go to Prompt 18: Verify Inst. Key. Select the "Fail to CS IP2" option, if a secondary Central Station IP address is desired.
13	Secondary CS IP: 255.255.255.255		12 digit: xxx.xxx.xxx.xxx	Prompts 13-15 apply only if Prompt 12: Alarm Delivery is set to "Fail to CS IP2". Enter the four part secondary CS IP address of the receiver at the reporting center to which this device will report. The four parts of the address must be separated by spaces. <b>NOTE:</b> This entry CANNOT be left as "255.255.255.255" if using the Secondary CS IP. It MUST be programmed with a valid IP address.
14	Second CS Port: (80)		[80]	Enter the Central Station Port Number. <b>NOTE:</b> The CS Port number must match the "Listening Port" question of the receiver.
15	IP2 Supervision 30 Day_		<ul style="list-style-type: none"> <li>• 30 Day</li> <li>• Daily</li> <li>• Full Rate</li> <li>• None</li> </ul>	Sets the supervision timing for the secondary internet receiver to send a test alarm if set to Daily or 30 Day, or to send a status message to the receiver if the interval is set to Full Rate. Selecting Full Rate means secondary supervision will be the same as primary. <b>NOTE:</b> The second receiver must be programmed to supervise subscribers in order to generate a communication failure. Press the [space] key to scroll through the choices.

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
16	Installation Key: *****_		[0-9]	Enter the 10-digit Installation Key necessary for communication with receiver. If the key entry is invalid, the prompt is repeated. See the <i>Installation Key</i> paragraph in <i>Section 1</i> for more information.
17	Verify Inst. Key: *****_		[0-9]	Re-enter the 10-digit Installation Key to verify key. If verification fails, "Verify NOT OK" will be displayed for one second and the display will return to the entry of the installation key.
18	Primary City ID (??)_		[01-99]	Enter the 2-digit primary city ID, 01-99 (decimal).
19	Primary CS ID (??)		[01-FE]	Enter the 2-digit primary central station ID number, 01-FE (HEX).
20	Primary Sub ID (????)		[0001-9999]	Enter the 4-digit subscriber account number for the primary central station, 0001-9999 (decimal).
21	Device Address (03)_		[01-30]	In ECP mode, the 7847i-E communicates with the panel as a communication (LRR) device. Enter the appropriate ECP device address. For VISTA-10 and VISTA-20 series control panels, use address 03. For other controls, see the control panel's Installation and Setup Guide. <b>NOTES:</b> 1. When programming the control, enable the LRR output. 2. The device address must be unique from the "Keypad Address" entered in Prompt 23.
22	Direct Wire Y/N (N)_		[Y], [N]	Applies only to VISTA-128BP/250BP and FBP series controls, and FA1600C and FA1700C series controls. Enables Direct Wire Downloading over IP. If [N], skip to Prompt 24: "Supervision."
23	Keypad Address (28)_		[01-30]	Must be programmed if using Direct Wire downloading. Enter the appropriate device address. <b>NOTES:</b> 1. This address must also be programmed as an alpha keypad in the control panel or an AUI (Advanced User Interface) type device, if a full enhanced graphic interface to the system is desired and the control panel supports it. DO NOT connect an actual keypad (or any other device) assigned to this address. 2. This address must be unique from the "Device Address" entered in Prompt 21.
24	Supervision (24 Hours)_		<ul style="list-style-type: none"> <li>• 24 Hours</li> <li>• 1 Hour</li> <li>• 6 Min</li> <li>• 3 Min</li> <li>• 90 Sec</li> <li>• CN 90 Sec</li> <li>• 75 Sec</li> <li>• None</li> <li>• 30 Day</li> </ul>	The receiver must hear at least one supervisory message from the module during this supervision period; otherwise, the receiver 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. Must be set to: <ul style="list-style-type: none"> <li>• 3 minutes for UL Comm Fire/Burg or ULC Active Channel Security.</li> <li>• 24hrs for ULC Passive channel security</li> </ul>



	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
25	Old Alarm Time 10 Minutes_		<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/ULC NOTE:</b> Must be 10 minutes.</p>
26	IP Flt Time (60 mins)_		[00-99]	<p>Enter the time delay (01-99) in minutes before the 7847i-E notifies the control panel that there is loss of contact with the network, or enter 00 if you do not want the unit to alert the control panel of loss of contact with the network. The 7847i-E will alert the control panel of the loss of contact via a dedicated status message.</p> <p><b>UL/ULC NOTE:</b> Must be one (01) minute.</p>
27	Flt Rel ON Y/N (N)_		[Y], [N]	<p>During normal system operation the open collector fault output will change states (open or ground) on a fault condition. The change of state depends on whether (Y) or (N) is used during programming.</p> <ul style="list-style-type: none"> <li>• Tamper *</li> <li>• Loss of Network Connectivity *</li> <li>• Message Communication Failure</li> <li>• Device Not Registered</li> </ul> <p>*Fault must be enabled in programming for these conditions (tamper &amp; loss of network) to trigger the fault output</p> <p>Choosing Flt Rel ON (Y),</p> <ul style="list-style-type: none"> <li>• Provides a ground during normal operation.</li> <li>• Provides an open during a fault.</li> <li>• "Failsafe mode" (if the radio loses power, the fault output opens, de-energizing the relay)</li> </ul> <p>Choosing Flt Rel ON (N),</p> <ul style="list-style-type: none"> <li>• Provides an open during normal operation.</li> <li>• Provides a ground during a fault condition.</li> </ul> <p>This mode is lower power consumption.</p> <p><b>UL/ULC NOTE:</b> Must be set to "Y."</p>
28	Tamper Rpt Y/N (Y)_		[Y], [N]	<p>Sends a tamper report when the module detects a tamper condition. A tamper restore is automatically sent when the tamper condition clears.</p> <p><b>UL/ULC NOTE:</b> Must be "Y" for commercial burglary</p>
<p align="center"><b>Important Information Regarding Zone Input Options</b></p> <p><b>ECP mode</b> supports two optional hardwire zone input triggers by making connections to the module's zone 6 and/or zone 7 terminals and programming the appropriate zone trigger options below.</p> <p>Each zone input can be programmed to cause an alarm under one of the following conditions:</p> <ul style="list-style-type: none"> <li>• (V+), where a positive voltage causes an alarm for normally low connections (voltage trigger, NO, NC)</li> <li>• (V-), where a ground trigger causes an alarm for normally high connections (open collector, NO, NC)</li> <li>• (EOLR) End of Line Resistor, where the input is supervised by a 2K EOL resistor. The zone can be triggered by open collector, voltage trigger, NO, NC.</li> </ul> <p>In addition to the above, zones can be programmed for an Inverted Trigger, where the alarm and normal states of the zones are inverted; this can serve a fail-safe supervisory purpose for certain installations.</p> <p>These zone inputs can also be programmed for restore reporting, and for delayed reporting, which allows time for the user to abort false alarms.</p> <p><b>NOTE:</b> Optional hardwire zones report in ADEMCO High-Speed format.</p>				
29	Enable Zn6 Y/N (N)_		[Y], [N]	<p>Enables alarm reporting for zone 6.</p> <p>If [N], skip to Prompt 42: "Enable Zn7."</p>

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
30	<b>Zn6 Trigger Type</b> <b>(V+)_</b>		<ul style="list-style-type: none"> <li>• (V+)</li> <li>• (V-)</li> <li>• (EOLR)</li> </ul>	Selects the triggering method for this zone input. Press the [space] key to scroll through choices. <b>UL:</b> V+ must be set as inverted and V- as non-inverted
31	<b>Invert Zn6 Y/N</b> <b>(N)_</b>		[Y], [N]	Inverts the alarm and normal states of the zone 6 trigger; otherwise uses normal input signal.
32	<b>Restore Zn6 Y/N</b> <b>(Y)_</b>		[Y], [N]	Enables restore reporting for zone 6.
33	<b>Delay Zn6 (secs)</b> <b>(00)_</b>		[01-15] [00] = no delay	Defines the reporting delay in seconds for zone 6. <b>UL:</b> Must be 00
34	<b>Enable Zn7 Y/N</b> <b>(N)_</b>		[Y], [N]	Enables alarm reporting for zone 7. If [N], skip to Prompt 47: "Use DHCP."
35	<b>Zn7 Trigger Type</b> <b>(V)_</b>		<ul style="list-style-type: none"> <li>• (V+)</li> <li>• (V-)</li> <li>• (EOLR)</li> </ul>	Selects the triggering method for this zone input. Press the [space] key to scroll choices. <b>UL:</b> V+ must be set as inverted and V- as non-inverted
36	<b>Invert Zn7 Y/N</b> <b>(N)_</b>		[Y], [N]	Inverts the alarm and normal states of the zone 7 trigger; otherwise, uses normal input signal.
37	<b>Restore Zn7 Y/N</b> <b>(Y)_</b>		[Y], [N]	Enables restore reporting for zone 7.
38	<b>Delay Zn7 (secs)</b> <b>(00)_</b>		[01-15] [00] = no delay	Defines the reporting delay in seconds for zone 7. <b>UL:</b> Must be 00
39	<b>Use DHCP Y/N</b> <b>(Y)_</b>		[Y], [N]	Dynamically allocates the IP addresses (recommended); then skip to Prompt 43: "Review?" If [N], uses fixed IP addresses.
40	<b>NIC IP Address:</b> <b>255.255.255.255_</b>		12 digit: xxx.xxx.xxx.xxx	Enter the 4-part address for this device. The four parts of the address must be separated by spaces (displayed as periods in Review mode).
49	<b>Subnet Mask:</b> <b>255.255.255.255_</b>		12 digit: xxx.xxx.xxx.xxx	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 four parts of the address must be separated by spaces (displayed as periods in Review mode).
41	<b>Gateway IP Addr:</b> <b>255.255.255.255_</b>		12 digit: xxx.xxx.xxx.xxx	Enter the 4-part address assigned to the Gateway. The four parts of the address must be separated by spaces (displayed as periods in Review mode).
42	<b>DNS Serv IP Addr:</b> <b>255.255.255.255_</b>		12 digit: xxx.xxx.xxx.xxx	Enter the 4-part IP address assigned to the DNS (Domain Name System) server. The four parts of the address must be separated by spaces (displayed as periods in Review mode).
43	<b>Review? Y/N</b>		[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.

**ECP Status Codes**

When the 7847i-E is configured for ECP mode, it sends status messages to the control panels (e.g., VISTA-10P, VISTA-15P and VISTA-20P series), for tamper, and network connectivity failures. Some of the control panels display these on the keypad as "LngRng Radio" followed by a 4-digit code (listed in table 4). In addition, the Contact ID codes (listed in Appendix B) for these conditions are sent to the central station by the module.

**Table 4. Common ECP Keypad Displays Status Codes**

STATUS CODE	DESCRIPTION
0000	Control panel lost communication with 7847i-E.
0880	Tamper detected (cover removed).
0005	Lost Ethernet connectivity.
000F	Not registered; account not activated.
0400	Power on reset AND the control panel lost communications with 7847i-E.
0C80	Power on reset AND tamper detected.
0C8F	Power on reset AND tamper detected AND not registered.

**Alternative Zone Trigger Mode****Zone Trigger Mode**

There are six input zones available on the 7847i-E. Zones 1 and 2 are located on TB1 pin 5 and are selectable for +V, -V, or EOLR modes, which can detect both pulsed and steady signals. The pulsed signal is reported as an alarm on zone 1 (Fire); the steady signal is reported as an alarm on zone 2 (Burg). The implied pulse count for zone 1 is fixed to 3 pulses. No restores are reported for this zone.

Zones 3, 4, 5, 6 and 7 are voltage trigger inputs located on TB1 pins 6-10.

**Alternative Mode Programming**

Press the [ENTER] key to begin programming and follow the prompts for the mode of operation being programmed.

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

<b>Access to Prog Mode Denied</b>
---------------------------------------

**Table 5: Programming a 7847i-E for Zone Trigger mode.**

	PROMPTS	ZONE TRIG.	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]	If a password has already been assigned, this prompt appears after pressing [N] at the "Program Device?"

	PROMPTS	ZONE TRIG.	ENTRY	OPTIONS	DESCRIPTION
	Y/N_				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	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.
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)_	✓		• ECP • Zone Trig. • 4204 Emu • Two 4204s	Press the [space] key to scroll through the modes of operation. Press [ENTER] to select mode. See <i>Table 3</i> for ECP mode programming.
10	CS IP: 255.255.255.255	✓		12 digit: xxx.xxx.xxx.xxx	Enter the 4-part primary CS IP address of the 7810iR-ent receiver at the reporting center to which this device will report. The four parts of the address must be separated by spaces. <b>NOTE:</b> This entry CANNOT be left as "255.255.255.255". It MUST be programmed with a valid IP address.
11	CS Port: (80)	✓		[80]	Enter the Central Station Port Number. <b>NOTE:</b> The CS Port number must match the "Listening Port" question of the receiver.
12	Alarm Delivery: Only One CS IP_	✓		[Only One CS IP] [Fail to CS IP2]	Select the "Only One CS IP" option, if only one Central Station IP address is desired and go to Prompt 16: "Installation Key". Select the "Fail to CS IP2" option, if a secondary Central Station IP address is desired.
13	Secondary CS IP: 255.255.255.255	✓		12 digit: xxx.xxx.xxx.xxx	Enter the 4-part secondary CS IP address of the receiver at the reporting center to which this device will report. The 4-parts of the address must be separated by spaces. <b>NOTE:</b> This entry CANNOT be left as "255.255.255.255" if using the Secondary CS IP. It MUST be programmed with a valid IP address.
14	Second CS Port: (80)	✓		[80]	Enter the Central Station Port Number. <b>NOTE:</b> The CS Port number must match the "Listening Port" question of the receiver.

	PROMPTS	ZONE TRIG.	4204/ 2-4204	ENTRY	OPTIONS	DESCRIPTION
15	IP2 Supervision 30 Day_	✓	✓		<ul style="list-style-type: none"> <li>• 30 Day</li> <li>• Daily</li> <li>• Full Rate</li> <li>• None</li> </ul>	<p>If 30 Day or Daily is selected, the 7847i-E will send a test alarm to the second CS IP within that interval.</p> <p>If Full Rate is selected, a status message is sent to the second CS IP at the same rate as the regular Supervision Interval (Prompt 24).</p> <p><b>NOTE:</b> The second receiver must be programmed to supervise subscribers in order to generate the communication failure.</p> <p>Press the [space] key to scroll through the choices.</p>
16	Installation Key: ***** _	✓	✓		[0-9]	Enter the 10-digit Installation Key necessary for communication with the receiver. If the key entry is invalid, the prompt is repeated. See the <i>Installation Key</i> paragraph in <i>Section 1</i> for more information.
17	Verify Inst. Key: ***** _	✓	✓		[0-9]	<p>Re-enter the 10-digit Installation Key to verify key.</p> <p>If verification fails, "Verify NOT OK" will be displayed for one second and the display will return to the entry of the installation key.</p>
<b>Important Information Regarding Primary (Questions 18-20)</b>						
Account information is provided by the central station administrator.						
18	Primary City ID (??)_	✓	✓		[01-99]	Enter the 2-digit primary city ID, 01-99 (decimal).
19	Primary CS ID (??)	✓	✓		[01-FE]	Enter the 2-digit primary central station ID number, 01-FE (HEX).
20	Primary Sub ID (????)	✓	✓		[0001-9999]	Enter the 4-digit subscriber account number, 0001-9999 (decimal).
21	Device Address (12)_		✓		[01-15]	<p>The 7847i-E communicates with the control panel as a 4204 relay module. Enter the appropriate address. For VISTA-10P, and FA130CP series control panels, this must be address 12. For other controls, see the control panel's Installation and Setup Guide.</p> <p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>1. The 4204 protocol limits address range to 01-15. If using 2-4204 mode, the 7847i-E assigns the second 4204 to the next higher device address (e.g., if entering address 12 for the first 4204, then address 13 is automatically assigned to the second 4204 module). Program the control panel accordingly.</li> <li>2. The device address(es) must be unique from the "Keypad Address" entered in Prompt 26 and any other address used on the control panel.</li> </ol>
22	Direct Wire Y/N (N)_		✓		[Y], [N]	<p>Applies only to VISTA-128BP/250BP and FBP series controls, and FA1600C and FA1700C series controls.</p> <p>Enables Direct Wire Downloading over IP.</p> <p>If [N], skip to Prompt 24: "Supervision."</p>

	PROMPTS	ZONE TRIG.	4204/ 2-4204	ENTRY	OPTIONS	DESCRIPTION
23	Keypad Address (28)_		✓		[01-30]	<p>Must be programmed if using Direct Wire downloading. Enter the appropriate device address.</p> <p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>1. This address must also be programmed as an alpha keypad in the control panel. If a full enhanced graphic interface to the system is desired, the keypad must also be enabled as an AUI (Advanced User Interface) device. DO NOT connect to an actual keypad (or any other device) assigned to this address.</li> <li>2. This address must be unique from the "Device Address" entered in Prompt 21.</li> </ol>
24	Supervision (24 Hours)_	✓	✓		<ul style="list-style-type: none"> <li>• 24 Hours</li> <li>• 1 Hour</li> <li>• 6 Min</li> <li>• 3 Min</li> <li>• 90 Sec</li> <li>• CN 90 Sec</li> <li>• 75 Sec</li> <li>• None</li> <li>• 30 Day</li> </ul>	<p>The receiver must hear at least one supervisory message from the module during this supervision period; otherwise, the receiver 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.</p> <p>Must be set to:</p> <ul style="list-style-type: none"> <li>• 3 minutes for UL Comm Fire/Burg or ULC Active Channel Security.</li> <li>• 24hrs for ULC Passive channel security</li> </ul>
25	Old Alarm Time 10 Minutes_	✓	✓		<ul style="list-style-type: none"> <li>• 10 Min.</li> <li>• 15 Min.</li> <li>• 30 Min.</li> <li>• 1 Hr</li> <li>• 2 Hrs</li> <li>• 4 Hrs</li> <li>• 8 Hrs</li> <li>• 12 Hrs</li> <li>• 24 Hrs</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>
						<b>UL NOTE:</b> Must be 10 minutes.
26	IP Flt Time (60 mins)_	✓	✓		[00-99]	<p>Enter the time delay (01-99) in minutes before the 7847i-E notifies the control panel that there is loss of contact with the network, or enter 00 if you do not want the unit to alert the control panel of loss of contact with the network. The unit will alert the control panel of the loss of contact via a dedicated status message.</p>
						<b>UL/ULC NOTE:</b> Must be one (01) minute.

	PROMPTS	ZONE TRIG.	4204/ 2-4204	ENTRY	OPTIONS	DESCRIPTION
27	Flt Rel ON Y/N (N)_	✓	✓		[Y], [N]	<p>During normal system operation the open collector fault output will change states (open or ground) on a fault condition. The change of state depends on whether (Y) or (N) is used during programming.</p> <ul style="list-style-type: none"> <li>• Tamper *</li> <li>• Loss of Network Connectivity *</li> <li>• Message Communication Failure</li> <li>• Device Not Registered</li> </ul> <p>*Fault must be enabled in programming for these conditions (tamper &amp; loss of network) to trigger the fault output</p> <p>Choosing Flt Rel ON (Y),</p> <ul style="list-style-type: none"> <li>• Provides a ground during normal operation.</li> <li>• Provides an open during a fault.</li> <li>• "Failsafe mode" (if the radio loses power, the fault output opens, de-energizing the relay)</li> </ul> <p>Choosing Flt Rel ON (N),</p> <ul style="list-style-type: none"> <li>• Provides an open during normal operation.</li> <li>• Provides a ground during a fault condition.</li> </ul> <p>This mode is lower power consumption.</p> <p><b>UL/ULC NOTE:</b> Must be set to "Y."</p>
28	Tamper Rpt Y/N (Y)_	✓	✓		[Y], [N]	<p>Sends a tamper report on zone 8 when the module detects a tamper condition. A tamper restore is automatically sent when the tamper condition clears.</p> <p><b>UL/ULC NOTE:</b> Must be "Y" for commercial burglary</p>
29	Lynx Panic Y/N (N)_	✓			[Y], [N]	<p>Applies only if used with control communication device (LRR) trigger connected to the module's zone terminal.</p> <p>Reports a Panic alarm on zone 3 when the module detects a single pulse on zone 1.</p> <p>No restores are generated for a Panic alarm.</p>

### Important Information Regarding Zone Input Options

If desired, **4204 mode** supports two optional hardwire zone input triggers by making connections to the module's zone 6 and/or zone 7 terminals and programming the appropriate zone trigger options below.

**NOTE:** These triggers are not available when using 2-4204 mode.

**Zone Trigger Mode** provides six hardwire zone input triggers by making connections to the module's zone terminals and programming the appropriate zone trigger options below. Zones are numbered 1-7, with zone 2 serving as a reporting zone only (see Bell Output Zone below).

**Bell Output Zone 1 (and 2):** The zone 1 and 2 terminal can detect both pulsed and steady signals. If connecting the bell output to the 7847i-E zone causes a bell fault on the control panel, enable the "Trip Inputs 1or2" option. The 7847i-E reports an alarm on zone 1 (fire) when it detects a pulsed signal and an alarm on zone 2 (burglary) when it detects a steady signal.

**Telco Zone and Open/Close Zone:** Dedicated zones can be assigned as the Telco fault zone and/or an open/close (arm/disarm) reporting zone. When triggered, these zones report a Telco line fault or open/close report respectively, in ADEMCO High-Speed format. Connect the appropriate trigger from the control to the selected zone input for each of these options.

**Input Trigger Types:** Triggering of each zone input can be programmed to cause an alarm under one of the following conditions:

- (V+), where a positive voltage causes an alarm for normally low connections (voltage trigger, NO, NC)
- (V-), where a ground trigger causes an alarm for normally high connections (open collector, NO, NC)
- (EOLR) End of Line Resistor, where the input is supervised by a 2K EOL resistor. The zone can be triggered by open collector, voltage trigger, NO, NC.

**Inverted Trigger:** Zones can be programmed for inverted trigger, where the alarm and normal states of the zones are inverted; this can serve a fail-safe supervisory purpose for certain installations.

**Restore and Delayed Reports:** Zone inputs can be programmed for restore reporting, and for delayed reporting (allowing time for the user to abort false alarms).

**UL NOTE:** Zone restoral must be enabled.

**Report Only if Armed option:** To help eliminate redundant reports, zone alarms can be restricted to report only if a conditional zone is triggered (armed). If this feature is desired, the conditional zone is automatically used as the "arming" zone. Connect the appropriate control panel trigger to the conditional (arming) zone. The trigger must be programmed as necessary in the control panel. The conditional (arming) zone on the module is a different dedicated zone for each programming mode, as follows:

Mode	Conditional (Arming) Zone
Zone Trigger	7
4204	4
2-4204	8

**IMPORTANT:** If any zone (zones 1-6 in zone trigger mode, zones 1-3 in 4204 mode, zones 1-7 in 2-4204 mode) is set for Report Only if Armed, the conditional (arming) zone becomes unavailable for reporting (as it is reserved for the "arming" trigger connection).



	PROMPTS	ZONE TRIG.	4204/ 2-4204	ENTRY	OPTIONS	DESCRIPTION
30	Trip Inputs 1or2 w/Bell Out (N)_				[Y], [N]	Use if the zone 1 and 2 connection to the control's bell output causes a bell fault on the control panel. <b>NOTES:</b> 1. If used, EOLR trigger type is not available for zones 1, 2 and 3. 2. Do not use with Lynx controls.
31	Telco Zone (0)_	✓	✓		Zone Trig: [3-7] 4204: [1-4] 2-4204: [1-8] [0] = not used	See Important Information Regarding Zone Input Options on previous page. Enter the zone number to be used for Telco line fault reports. This zone assignment must be unique from the Open/Close Zone selected in Prompt 35. <b>Zone Trigger Mode:</b> If any zone is programmed for "report only if armed," zone 7 cannot be used. If Lynx Panic is enabled, zone 3 cannot be used. <b>4204 Mode:</b> If any zone is programmed for "report only if armed," zone 4 cannot be used. <b>2-4204 Mode:</b> If any zone is programmed for "report only if armed," or if tamper is enabled, zone 8 cannot be used. <b>NOTE:</b> Connect the Telco line fault output (or relay output programmed for "Telco line fault") to the Telco zone.
32	Open/Close Zone (0)_	✓	✓		Zone Trig: [3-7] 4204: [1-4] 2-4204: [1-8] [0] = not used	Enter the zone number to be used for open/close (arm/disarm) reports. This zone assignment must be unique from the Telco Zone selected in Prompt 34. <b>Zone Trigger Mode:</b> If any zone is programmed for "report only if armed," zone 7 cannot be used as an open/close zone. If Lynx Panic is enabled, zone 3 cannot be used. <b>4204 Mode:</b> If any zone is programmed for "report only if armed," zone 4 cannot be used as an open/close zone. <b>2-4204 Mode:</b> If any zone is programmed for "report only if armed," or if tamper is enabled, zone 8 cannot be used as an open/close zone. <b>NOTE:</b> Connect an open/close (arm/disarm) trigger (or relay output) from the control panel to the open/close zone.
33	Zn1 Trigger Type (V+)_	✓			• (EOLR) • (V+) • (V-)	Selects the triggering method for this zone input. Press the [space] key to scroll through choices. <b>UL:</b> V+ must be set as inverted and V- as non-inverted
34	Invert Zn1 Y/N (N)_	✓			[Y], [N]	Inverts the alarm and normal states of the zone 1 trigger; otherwise uses normal input signal.
35	Restore Zn1 Y/N (Y)_	✓	✓		[Y], [N]	Enables restore reporting for zone 1.
36	Delay Zn1 (secs) (00)_	✓	✓		[01-15] [00]=no delay	Defines the reporting delay in seconds for zone 1. <b>UL:</b> Must be 00
37	Rpt Zn1 ONLY if Armed (N)_	✓	✓		[Y], [N]	Report alarms on zone 1 ONLY if the conditional zone (zone 7 in zone trigger mode; zone 4 in 4204 mode; or zone 8 in 2-4204 mode) is triggered (armed). If [N], always reports alarms on zone 1.
38	Invert Zn2 Y/N (N)_				[Y], [N]	Inverts the alarm and normal states of the zone 2 trigger; otherwise uses normal input signal.

	PROMPTS	ZONE TRIG.	4204/ 2-4204	ENTRY	OPTIONS	DESCRIPTION
39	Restore Zn2 Y/N (Y)_		✓		[Y], [N]	Enables restore reporting for zone 2.
40	Delay Zn2 (secs) (00)_	✓	✓		[01-15] [00]=no delay	Defines the reporting delay in seconds for zone 2. <b>UL:</b> Must be 00
41	Rpt Zn2 ONLY if Armed (N)_	✓	✓		[Y], [N]	Reports alarms on zone 2 ONLY if the conditional zone (zone 7 in zone trigger mode; zone 4 in 4204 mode; zone 8 in 2-4204 mode) is triggered (armed). If [N], always reports alarms on zone 2.
If Lynx Panic is enabled, then skip to Prompt 46: "Rpt Zn3 ONLY if Armed."						
42	Zn3 Trigger Type (V+)_	✓			• (EOLR) • (V+) • (V-)	Selects the triggering method for this zone input. Press the [space] key to scroll through choices. <b>UL:</b> V+ must be set as inverted and V- as non-inverted
43	Invert Zn3 Y/N (N)_	✓			[Y], [N]	Inverts the alarm and normal states of the zone 3 trigger; otherwise uses normal input signal.
44	Restore Zn3 Y/N (Y)_	✓	✓		[Y], [N]	Enables restore reporting for zone 3.
45	Delay Zn3 (secs) (00)_	✓	✓		[01-15] [00] = no delay	Defines the reporting delay in seconds for zone 3. <b>UL:</b> Must be 00
46	Rpt Zn3 ONLY if Armed (N)_	✓	✓		[Y], [N]	Reports alarms on zone 3 ONLY if the conditional zone (zone 7 in zone trigger mode; zone 4 in 4204 mode; zone 8 in 2-4204 mode) is triggered (armed). If [N], always reports alarms on zone 3. <b>4204 mode:</b> If any zone is programmed to "Report Only if Armed," skip to Prompt 57: "Enable Zn6."
47	Zn4 Trigger Type (V+)_	✓			• (EOLR) • (V+) • (V-)	Selects the triggering method for this zone input. Press the [space] key to scroll through choices. <b>UL:</b> V+ must be set as inverted and V- as non-inverted
48	Invert Zn4 Y/N (N)_	✓			[Y], [N]	Inverts the alarm and normal states of the zone 4 trigger; otherwise uses normal input signal.
49	Restore Zn4 Y/N (Y)_	✓	✓		[Y], [N]	Enables restore reporting for zone 4.
50	Delay Zn4 (secs) (00)_	✓	✓		[01-15] [00] = no delay	Defines the reporting delay in seconds for zone 4. <b>UL:</b> Must be 00
51	Rpt Zn4 ONLY if Armed (N)_	✓	2-4204 only		[Y], [N]	Reports alarms on zone 4 ONLY if the conditional zone (zone 7 in zone trigger mode; zone 8 in 2-4204 mode) is triggered (armed). If [N], always reports alarms on zone 4.
52	Zn5 Trigger Type (V+)_	✓			• (EOLR) • (V+) • (V-)	Selects the triggering method for this zone input. Press the [space] key to scroll through choices. <b>UL:</b> V+ must be set as inverted and V- as non-inverted
53	Invert Zn5 Y/N (N)_	✓			[Y], [N]	Inverts the alarm and normal states of the zone 5 trigger; otherwise uses normal input signal.
54	Restore Zn5 Y/N (Y)_	✓	2-4204 only		[Y], [N]	Enables restore reporting for zone 5.
55	Delay Zn5 (secs) (00)_	✓	2-4204 only		[01-15] [00] = no delay	Defines the reporting delay in seconds for zone 5. <b>UL:</b> Must be 00

	PROMPTS	ZONE TRIG.	4204/ 2-4204	ENTRY	OPTIONS	DESCRIPTION
56	Rpt Zn5 ONLY if Armed (N)_	✓	2-4204 only		[Y], [N]	Reports alarms on zone 5 ONLY if the conditional zone (zone 7 in zone trigger mode; zone 8 in 2-4204 mode) is triggered (armed). If [N], always reports alarms on zone 5.
57	Enable Zn6 Y/N (N)_		4204 only		[Y], [N]	Enables alarm reporting for zone 6. If [N], skip to Prompt 63: "Enable Zn7."
58	Zn6 Trigger Type (V+)_	✓	4204 only		<ul style="list-style-type: none"> <li>• (EOLR)</li> <li>• (V+)</li> <li>• (V-)</li> </ul>	Selects the triggering method for this zone input. Press the [space] key to scroll through choices. <b>UL:</b> V+ must be set as inverted and V- as non-inverted
59	Invert Zn6 Y/N (N)_	✓	4204 only		[Y], [N]	Inverts the alarm and normal states of the zone 6 trigger; otherwise uses normal input signal.
60	Restore Zn6 Y/N (Y)_	✓	✓		[Y], [N]	Enables restore reporting for zone 6.
61	Delay Zn6 (secs) (00)_	✓	✓		[01-15] [00] = no delay;	Defines the reporting delay in seconds for zone 6. <b>UL:</b> Must be 00
62	Rpt Zn6 ONLY if Armed (N)_	✓	✓		[Y], [N]	Reports alarms on zone 6 ONLY if the conditional zone (zone 7 in zone trigger mode; zone 4 in 4204 mode; zone 8 in 2-4204 mode) is triggered (armed). If [N], always reports alarms on zone 6.
63	Enable Zn7 Y/N (N)_		4204 only		[Y], [N]	Enables alarm reporting for zone 7. If [N], skip to Prompt 70: "Use DHCP."
64	Zn7 Trigger Type (V+)_	✓	4204 only		<ul style="list-style-type: none"> <li>• (EOLR)</li> <li>• (V+)</li> <li>• (V-)</li> </ul>	Selects the triggering method for this zone input. Press the [space] key to scroll through choices. <b>UL:</b> V+ must be set as inverted and V- as non-inverted
65	Invert Zn7 Y/N (N)_	✓	4204 only		[Y], [N]	Inverts the alarm and normal states of the zone 7 trigger; otherwise uses normal input signal.
66	Restore Zn7 Y/N (Y)_	✓	✓		[Y], [N]	Enables restore reporting for zone 7. <b>Zone Trigger mode:</b> This question will only be displayed if zone 7 is not used as the conditional (arming) trigger zone.
67	Delay Zn7 (secs) (00)_	✓	✓		[01-15] [00] = no delay;	Defines the reporting delay in seconds for zone 7. <b>Zone Trigger mode:</b> This question will only be displayed if zone 7 is not used as the conditional (arming) trigger zone. <b>UL:</b> Must be 00
68	Rpt Zn7 ONLY if Armed (N)_		✓		[Y], [N]	Reports alarms on zone 7 ONLY if the conditional zone (zone 4 in 4204 mode; zone 8 in 2-4204 mode) is triggered (armed). If [N], always reports alarms on zone 7. <b>2-4204 mode:</b> If any zone is programmed to "Report Only if Armed," or if tamper is enabled, skip to Prompt 70: "Use DHCP."
69	Delay Zn8 (secs) (00)_		2-4204 only		[01-15] [00] = no delay;	Defines the reporting delay in seconds for zone 8. <b>UL:</b> Must be 00

	PROMPTS	ZONE TRIG.	4204/ 2-4204	ENTRY	OPTIONS	DESCRIPTION
70	Use DHCP Y/N (Y)_	✓	✓		[Y], [N]	Dynamically allocates the IP addresses (recommended). If Private LAN is enabled, skip to Prompt 75: "Review." If [N], uses fixed IP addresses.
71	NIC IP Address: 255.255.255.255_	✓	✓		12 digit: xxx.xxx.xxx.xxx	Enter the 4-part address for this device. The four parts of the address must be separated by spaces (displayed as periods in Review mode).
72	Subnet Mask: 255.255.255.255_	✓	✓		12 digit: xxx.xxx.xxx.xxx	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 four parts of the address must be separated by spaces (displayed as periods in Review mode).
73	Gateway IP Addr: 255.255.255.255_	✓	✓		12 digit: xxx.xxx.xxx.xxx	Enter the 4-part address assigned to the Gateway. The four parts of the address must be separated by spaces (displayed as periods in Review mode).
74	DNS Serv IP Addr: 255.255.255.255_	✓	✓		12 digit: xxx.xxx.xxx.xxx	Enter the 4-part IP address assigned to the DNS (Domain Name System) server. The four parts of the address must be separated by spaces (displayed as periods in Review mode).
75	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 questions 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?" question again appears.  <b>To exit the programming mode</b> , press [N] in response to the "REVIEW?" question, and refer to <i>Exiting Programming Mode</i> below.

## 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, such as the mode of operation, the 7847i-E 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.

Set Default?  
Y/N\_

Press [Y] to reset factory default values.

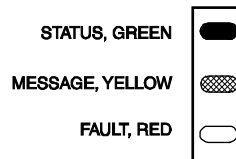
Press [N] to cancel this function.

If you press [Y], all programmed values are reset to the original factory settings. PLEASE NOTE THAT THIS WILL ERASE ANY PASSWORD THAT MAY HAVE BEEN ENTERED. After pressing [Y], the Create Password prompt appears (see Prompt 4).

# Registration

## Registering the 7847i-E

Once you have initialized and programmed the 7847i-E, it must be registered to enable the account. An unregistered unit is indicated on the Status Display LEDs as: Status lit, Message slow blinking, and Fault not lit. The Internet Link may be lit or blinking. Refer to *Appendix A* for a detailed discussion of LED operation.



**Figure 9. Unregistered 7847i-E Status Display In Normal Operation**

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



**Figure 10. LED Key**

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

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

- Through use of the Tamper Switch
- Through use of a 7720P Programming Tool

### Using the Tamper Switch

Initiate the registration sequence by clicking the Tamper 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 the registration is in progress.

Once the registration has been completed successfully, the 7847i-E 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 8xx”, where “xx” is the ECP device address. The description may read “Trouble – Exp. Mod. Reset”. If registration is not validated within 90 seconds, the unit times out, and the (green) LED will be lit (solid).

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

The power-on/reset message will be sent in ADEMCO High-Speed format if the module is programmed for zone trigger, 4204 or 2x4204 modes.

### Using the Programming Tool

The interactive registration feature allows the installer to register the 7847i-E 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 7847i-E is registered and this message is displayed. The unit is now in full service and available for alarm reporting to the central station.

#### Possible Errors

Function  
Unavailable

The Installation Key **MUST** be programmed in order to initiate the Registration process.

This message will be displayed if the key is invalid.

No Registration  
Account Disabled

Account was disabled at the receiver prior to the registration attempt or while registration was in progress.

Registration BAD  
Timed Out

If the Registration Key entered is invalid, this message is displayed.

Registration BAD  
Account Exists!

This prompt is displayed if the account number programmed in the 7847i-E is already being used for a different 7847i-E in the system. If a replacement is desired, enable Substitution Mode in the receiver.

Registration BAD  
CS Database FULL

This prompt is displayed if the receiver has reached its maximum capacity for accounts. Its database is limited to 300 subscribers.

Registration BAD

This prompt is displayed if a general problem occurred when the 7847i-E tried to register with the receiver.

# 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

- |     |  |   |
|-----|--|---|
| [A] | 7847i-e<br>x.x.xx            mm/dd/yy    | <b>Software Revision</b><br>Depending on unit being programmed, either "7847i" or "7847i-e" will be displayed.<br>"x.x.xx" indicates the installed software Revision.<br>Mm/dd/yy indicates month, day and year of the revision.              |
| [B] | MAC   xxxxxxxxxxxx<br>MAC CRC       xxxx | <b>MAC Address</b><br>"xxxxxxxxxxxx" indicates the 7847i-E's unique identification number.<br>"xxxx" indicates the MAC CRC number. This number is also found on the label on the module, as well as the label on the box.                     |
| [C] | Mon 23 Jul 2007<br>03:45:23 am           | <b>Time</b><br>Retrieves the current date and time from the receiver in Greenwich Mean Time (GMT). This display confirms that the module is in sync with network.   |
| [D] | Physical Link:<br>GOOD                   | <b>Network Diagnostics Display</b><br>Indicates whether device has detected a physical connection to the internet.<br>Press the [space] key to go to the next field.  |
|     | NIC IP Address:<br>xxx.xxx.xxx.xxx       | <b>IP Information Display</b><br>Displays the IP address assigned to this device.<br>Press the [space] key to go to the next field.   |
|     | Subnet Mask:<br>xxx.xxx.xxx.xxx          | 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] key to go to the previous field. |
|     | Gateway IP Address:<br>xxx.xxx.xxx.xxx   | Displays the IP address assigned to the Gateway.<br>Press the [space] key to go to the next field.<br>Press the [backspace] key to go to the previous field.  |
|     | DNS Server IP:<br>xxx.xxx.xxx.xxx        | Displays the IP address assigned to the DNS (Domain Name System) server.<br>Press the [space] key to go to the next field.<br>Press the [backspace] key to go to the previous field.  |
|     | Encryption Test:<br>AES Passed!          | Performs a self-test of the chosen encryption algorithm.<br>Press the [space] key to go to the next field.<br>Press the [backspace] key to go to the previous field.  |

[F]	DHCP OK/BAD	DHCP (Dynamic Host Configuration Protocol) indicates server is performing satisfactorily. Press the [space] key to go to the Physical Link display.
	Testing Gateway	<b>Run Network Diagnostic Test</b> Performs a set of network diagnostics that tests the integrity of the links between the unit and the various connection points (Redirs) to the receiver. Refer to Section 6: <i>Network Diagnostics</i> .

### System Status Displays

[S]	ECP 67 Tm Flt xx 5 OK	<b>ECP Mode</b> Displays the zone and system fault status. Press the [space] key to go to the next field. Press the [backspace] key to go to the previous field.
	1234 67 Tm Flt 5555 xx 5 OK	<b>4204 Emulation Mode</b> Displays the zone and system fault status. Press the [space] key to go to the next field. Press the [backspace] key to go to the previous field.
	12345678 Tm Flt 5555555x 5 OK	<b>Two-4204 Emulation Mode</b> Displays the zone and system fault status. Press the [space] key to go to the next field. Press the [backspace] key to go to the previous field.
	1234567 Tm Flt 5555555 5 OK	<b>Zone Trigger Mode</b> The status of the unit can be viewed on the 7720P. The status display includes: <ul style="list-style-type: none"><li>• <b>Zone input status (1234567)</b> - the numbers 1-7 represent the 7 mappings of the zone input, and follow Honeywell's ADEMCO high-speed format codes: 1 = New Event 5 = Normal X = Not Enabled</li><li>• <b>Tm</b> – Tamper status follows high-speed format codes above.</li><li>• <b>Flt</b> – Represents radio faults: <b>OK</b> = Normal ; No fault <b>I</b> – No network connectivity over IP and fault time has expired <b>i</b> – No network connectivity over IP and fault time has NOT yet expired.</li></ul>
[T]	Test Msg Sent	<b>Test Alarm</b> Sends a test alarm to the Primary CS IP and the Secondary if it is enabled.



[X]	Reset CPU Y/N	<b>Reset the 7847i-E</b> Pressing [N] returns to diagnostic 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-E with the receiver.
[ENTER]	Strt Prog Mode? Y/N_	<b>Enter Program Mode</b> Press [Y] to enter program mode; otherwise, press [N].



# SECTION 6

## Network Diagnostics

### Running Network Diagnostics on the 7847i-E

The network diagnostic process tests the integrity of the links between the 7847i-E and the receiver to which it should report.

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 CSIP 1

The first step of the test traces the connection to CS IP 1.

Testing CSIP 1  
Reached CSIP 1

A successful trace to CS IP 1 is indicated here. See below for possible errors that may occur at this stage of testing.

Reached CSIP 1  
Testing Service

After a successful trace *to* CS IP 1, a test of the service *at* CS IP 1 is performed. That is, the first test determines if a message can reach the receiver; this test determines if the connection point (CSIP) at the receiver knows what to do with the message once it receives it.

CSIP 1  
Service OK

The service at the receiver on CS IP 1 is functioning. See below for possible errors that may occur at this stage of testing.

Testing CSIP 2

The first step of the test traces the connection to CS IP 2 at the receiver.

Testing CSIP 2  
Reached CSIP 2

A successful trace to CS IP 2 is indicated here. See below for possible errors that may occur at this stage of testing.

Reached CSIP 2  
Testing Service

After a successful trace *to* CS IP 2, a test of the service *at* CS IP 2 is performed. That is, the first test determines if a message can reach the receiver; this test determines if the connection point (CSIP) at the receiver knows what to do with the message once it receives it.

CSIP 2  
Service OK

The service at the receiver on CS IP 2 is functioning. See below for possible errors that may occur at this stage of testing.

Testing CSIP 3

The first step of the test traces the connection to CS IP 3 at the receiver.

Testing CSIP 3  
Reached CSIP 3

A successful trace to CS IP 3 is indicated here. See below for possible errors that may occur at this stage of testing.

Reached CSIP 3  
Testing Service

After a successful trace *to* CS IP 3, a test of the service *at* CS IP 1 is performed. That is, the first test determines if a message can reach the receiver; this test determines if the connection point (CSIP) at the receiver knows what to do with the message once it receives it.

CSIP 3 Service OK
----------------------

The service at the receiver on CS IP 3 is functioning. See below for possible errors that may occur at this stage of testing.

Testing CSIP 2 Does Not Exist
----------------------------------

If CS IP 2 and/or CS IP 3 are not programmed, display will read.

CIP1 OK/Fail	CIP2 N/A	CIP3 N/A
-----------------	-------------	-------------

A summary of the tests is displayed after CS IP 3 is tested. The example shows that CS IP 2 and/or CS IP 3 are not programmed.

### Possible Errors Running Network Diagnostics

Errors may occur at either while tracing the connection to a given receiver or while testing the service at a given receiver. The following list highlights the most common errors. Please contact the AlarmNet Technical Assistance Center (TAC) for help regarding any errors NOT listed below.

#### Possible Errors

Testing CSIP x FAIL before Gtwy
------------------------------------

While tracing the connection to CS IP x, the trace fails before ever reaching the local gateway (router).

Testing CSIP x FAIL at Gtwy
--------------------------------

While tracing the connection to CS IP x, the trace fails after reaching the local gateway (router).

Testing CSIP x FAIL on IP Addr
-----------------------------------

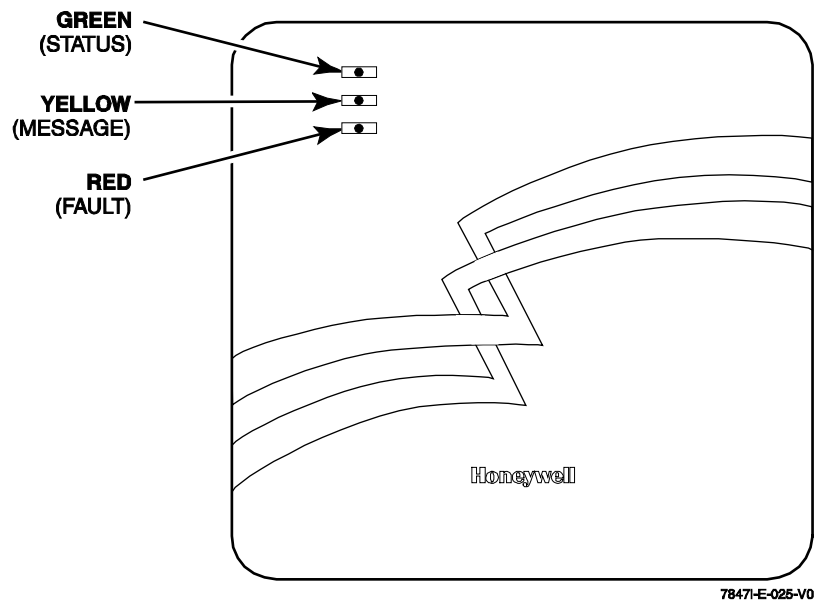
While tracing the connection to CS IP x, the trace fails after reaching the CS IP.

## Appendix A: Summary of LED Operation

### Status Display Operation

The 7847i-E Status Display has three LEDs used to indicate message and device status:

- STATUS, *green*
- MESSAGE, *yellow*
- FAULT, *red*



*Figure 11. 7847i-E Status Display LEDs with Front Cover Installed*

Each LED can have four different states - ON, OFF, FAST BLINK and SLOW BLINK.

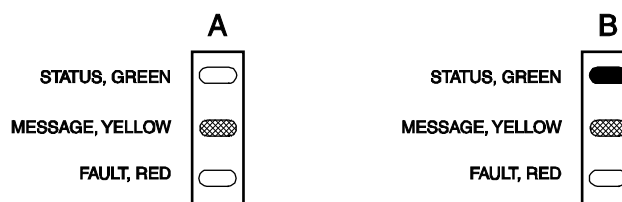
Throughout this document, the following key is used to describe LED state:



*Figure 12. LED Key*

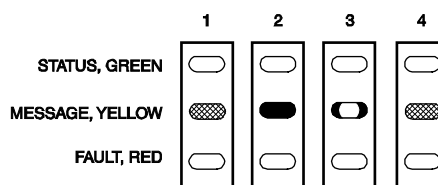
**Table 6. Status Display Operation**

LED COLOR	LED LABEL	DESCRIPTION
GREEN	STATUS	ON – 7847i-E is NOT registered with receiver. OFF – 7847i-E is registered with receiver. FAST BLINK – Download session with Compass in progress. SLOW BLINK – In unison with yellow LED – registration in progress.
YELLOW	MESSAGE	ON – Message transmission pending. QUICK PERIODIC FLASH – Normal. FAST BLINK – Message waiting for network ACK. SLOW BLINK – Idle, power abnormal. – In unison with green LED , registration in progress.
RED	FAULT	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.



**Figure 13. A Registered 7847i-E Status Display (A) and an Unregistered 7847i-E Status Display in Normal Operating State(B)**

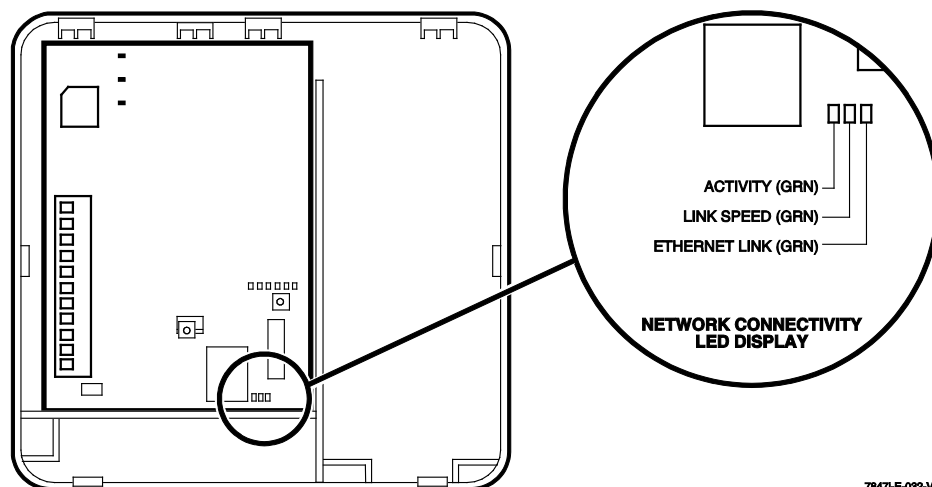
The sequence below illustrates LED operation when 7847i-E transmits a message.



**Figure 14. LED Sequence for a Registered 7847i-E Message Transmission**

## Network Connectivity Display

The Network Connectivity display can only be viewed with the cover removed. It is used as a visual indication of 7847i-E network activity.



7847i-E-032-V1

**Figure 15. 7847i-E Network Connectivity Display**

The Network Connectivity Display consists of three LEDs. They function as follows:

LED COLOR	LED LABEL	DESCRIPTION
1 <sup>ST</sup> GREEN	ACTIVITY	BLINKING – Network activity detected. OFF – Normal.
2 <sup>ND</sup> GREEN	LINK SPEED	ON – 100 MB/S link to Internet. OFF – 10 MB/S link to Internet.
3 <sup>RD</sup> GREEN	ETHERNET LINK	ON – Ethernet link detected. OFF – No Ethernet link detected.

**Mode and Status LED Display**

The Mode and Status LED Display consists of 4 LEDs. LED 1 (red LED on the left) will be off, LED 2 and 3 (yellow LEDs) indicate operation mode. LED 4 (1<sup>st</sup> green LED) displays Web connection status; LEDs 5 and 6 are not used.

**Mode and Status Indicator Switch**

Press and hold the Mode and Status Indicator Switch to change the LED functions in order to view the mode of operation and network carrier status. When the switch is held down, LED 1 (red LED on the left) will be off, and the LEDs from left to right have the following meanings:

**Table 7. LED Functions with Mode and Status Indicator Switch Depressed**

<b>LED 1 (red)</b>	<b>LED 2 (1<sup>st</sup> yellow)</b>	<b>LED 3 (2<sup>nd</sup> yellow)</b>	<b>LED 4 (1<sup>st</sup> green)</b>
OFF	in combination with LED 3	in combination with LED 2	Web Connection

**Table 7a. Operation Modes**

<b>OPERATION MODE</b>	<b>LED 2 (1<sup>st</sup> yellow)</b>	<b>LED 3 (2<sup>nd</sup> yellow)</b>
ECP	OFF	OFF
Zone	ON	OFF
4204	OFF	ON
2 – 4204	ON	ON

**Table 7b. Status Indications**

<b>STATUS</b>	<b>LED 4 (1<sup>st</sup> green)</b>
OFF	No Web connection
SLOW BLINK	Trying to connect
NORMAL BLINK	–
FAST BLINK	Web communication
ON	Connected to Web



## Appendix B: Central Station Messages

The following messages are sent by the 7847i-E module for the conditions listed below.

*Table 8. Central Station Messages*

<b>Alarm Condition</b>	<b>ECP Mode Alarm Code</b>	<b>ECP Mode Restore Code</b>	<b>Zone and 4204 Modes Alarm Code</b>	<b>Zone and 4204 Modes Restore Code</b>
<b>Power On Reset</b>	E339 C08xx*		5551 5555 6	
<b>Tamper</b>	E341 C08xx*	R341 C08xx*	5555 5551 7	5555 5553 7
<b>ECP Supervision</b>	E355 C0000	R355 C0000	5555 5515 5	5555 5535 5
<b>Primary CS IP Supervision</b>	E954 C0951	R954 C0951	5555 5551 5	5555 5553 5
<b>Secondary CS IP Supervision</b>	E954 C0952	R954 C0952	5555 5551 1	5555 5553 1
<b>Telco</b>			5555 5155 6	5555 5355 6
<b>Open/Close</b>			2 sent in selected zone	4 sent in selected zone
<b>Code Download Begin</b>	E903 C08xx*	n/a	n/a	n/a
<b>Code Download End Successful</b>	n/a	R903 C08xx*	n/a	n/a
<b>Code Download Failed</b>	E904 C0803	n/a	n/a	n/a
<b>Test</b>	5555 5555 9		5555 5555 9	

\* xx = 7847i-E Device Address

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



## Appendix C: IP Downloading

### General Information

The 7847i-E can be used to provide high-speed up/downloading to Honeywell VISTA and LynxR-I control panels. This allows site maintenance independent of central station monitoring, and modification to sites through a Private LAN or globally via the Internet.

Residential panels that support IP downloading (e.g., Vista-20P and LynxR-I) are connected to the unit through the ECP bus. Currently, commercial controls such as VISTA-128BP and FBP support IP downloading through use of a Direct Wire connection (using the trigger cable).

**UL**

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

### Direct Wire Setup

To perform IP up/downloading using Direct Wire, the unit requires that Direct Wire downloading over IP programming is enabled (Direct Wire Y/N), and that the ECP Device Address on which the unit communicates with the control panel as a keypad is entered (Keypad Address). Additionally, the 7847i-E must be connected by cable as shown below to the panels listed.

#### NOTES:

1. For Direct Wire IP downloading on Commercial Fire panels (e.g. VISTA-128FBP, FA1700C), Program Field 3\*19 **Enable J2 Header Printer Port** must be set to "1".
2. This feature is not available if device is set for zone trigger mode.
3. If using the RS232 Home Automation features, you cannot use Direct Wire Downloading. This includes customers using WinpakSE and ProWatch.

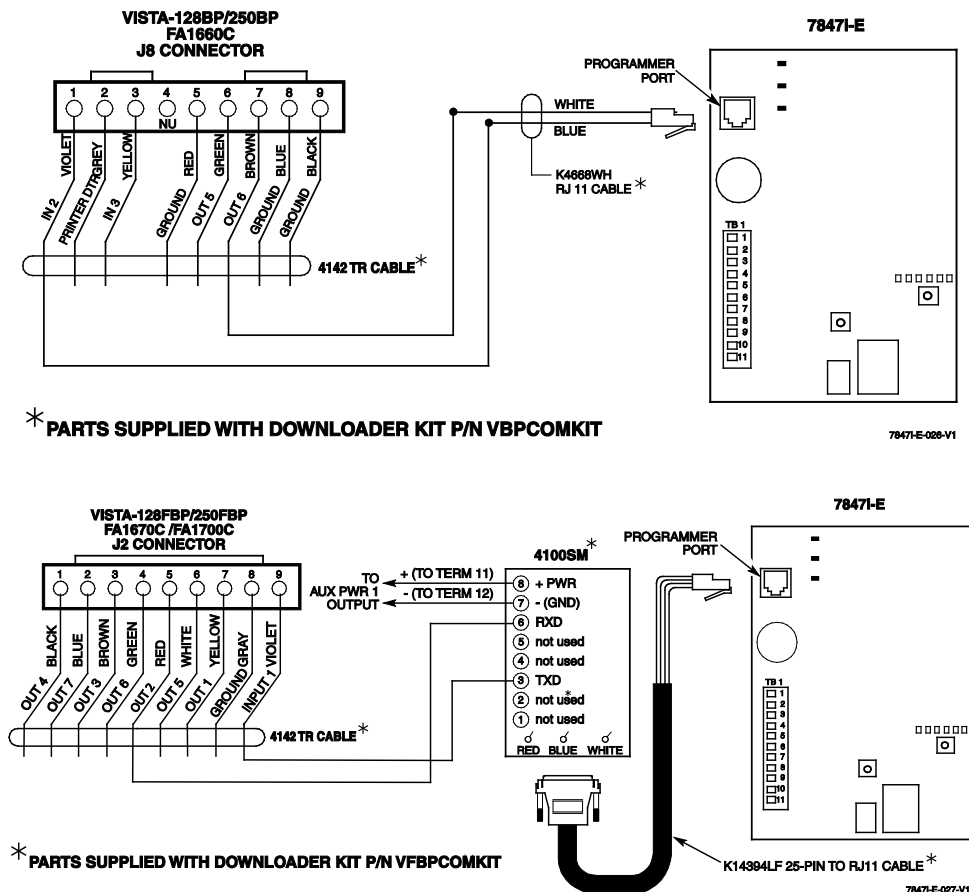
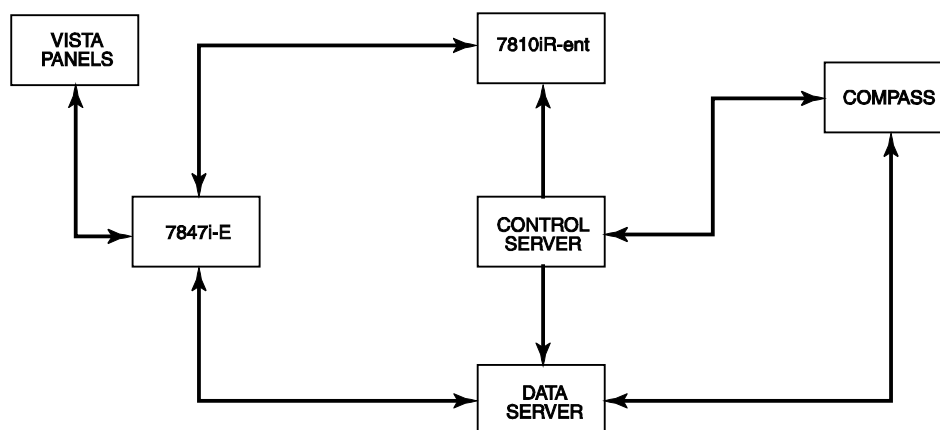


Figure 16. Cable Connections for IP Downloading

Prior to IP up/downloading over a Private LAN, setup of the Honeywell Compass Connect Server and Honeywell Compass downloader is required. Refer to the Compass Connect Server Installation and Setup Guide (K10178V1) and the Compass IP Downloading Supplement (K10441V1) for setup instructions.

The figure below show data flow.



*Figure 17. Private LAN Flow Diagram*

## Appendix D: 7847i-e Code Updating

### General Information

To initiate a code update, a compressed code file must be posted to on an IIS server on the same subnet as the 7847i-e. The compressed code file should have the extension .scz and the filename MUST include “7847ie”, otherwise the update will not be attempted.

Since the file will have the extension “.scz”, it is likely that this file name extension will need to be added to the MIME types in the IIS manager. Please contact your IT administrator to properly configure your server.

### Procedure

From the receiver, the get code command should be issued to the subscriber to be updated.

On the 7810iR-ent, this command can be found on the Subscriber Commands screen for the given account. To navigate to this screen, go to the Accounts Summary screen by pressing the “View Accounts” button. Press the display button associated with the Active accounts to view the list of accounts. Press the “Enabled” button of the account you wish to update. Press the “Commands” button to get the subscriber commands screen. On this screen, there is a box labeled “Software Update”. On the 7810PC, the same tab can be found on the Private LAN Accounts screen. Press the URL data entry field and enter the full network path to the software file. This includes the IP address of the IIS server followed by the filename. For example, if the IIS server’s IP address is 10.10.101.140 and the code file is 7857ie-2-12-4.scz, the URL that would be entered in the command is <http://10.10.101.140/bin/7847ie-2-12-4.scz>. Press the “Get Code” button to issue the command. It can take up to 180 seconds for the command to get the subscriber.

Once the subscriber receives the command, it will:

1. Send a “Code Update has Started” message to the central station (E903 00 C803)
2. Begin flashing the Status LEDs rapidly in succession
3. “Code Update In Progress” is displayed on the 7720P if it is connected

The “Code Update In Progress” string is displayed when any of the following commands are attempted while the code update process is active:

1. Registration (Up or Down arrow key command from 7720P)
2. Force Rootfile Upload (“0” key command from 7720P)
3. Enter Program Mode (<enter> key command from 7720P)
4. Reset Radio (<shift> “X” key command from 7720P)

All other key commands are usable during the code update process. Alarm processing and delivery is also not compromised while the code is being downloaded.

If the download was not successful, the device sends a “Code Update Failure” message to the Central Station (E904 00 C803). The failure can occur for a number of reasons. Some of the possibilities are:

1. The URL supplied is NULL
2. Failure to connect to the IIS server
  - a. Server is not ready
  - b. Wrong IP address specified in URL
  - c. Wrong folder identified in URL
3. Failure to find the file identified in the URL
4. The device fails to receive the entire file

Upon successful completion of downloading the code file, the device sends a “Code Update Successfully Completed” message to the Central Station (R903 00 C803).

Once the Code Update message is either delivered central station or the Old Alarm Time has expired for that message, the device will reset.

Upon reset, the device will decompress the file that was downloaded. If the decompressed version passes a CRC check, then that code runs in the device.

If the CRC check fails, the device will run the previously running version of code.

To force the device to revert back to the previous version of code, it must be power-cycled with the mode switch must be depressed when power is re-applied.

## Summary

Initiate a software update via the receiver.

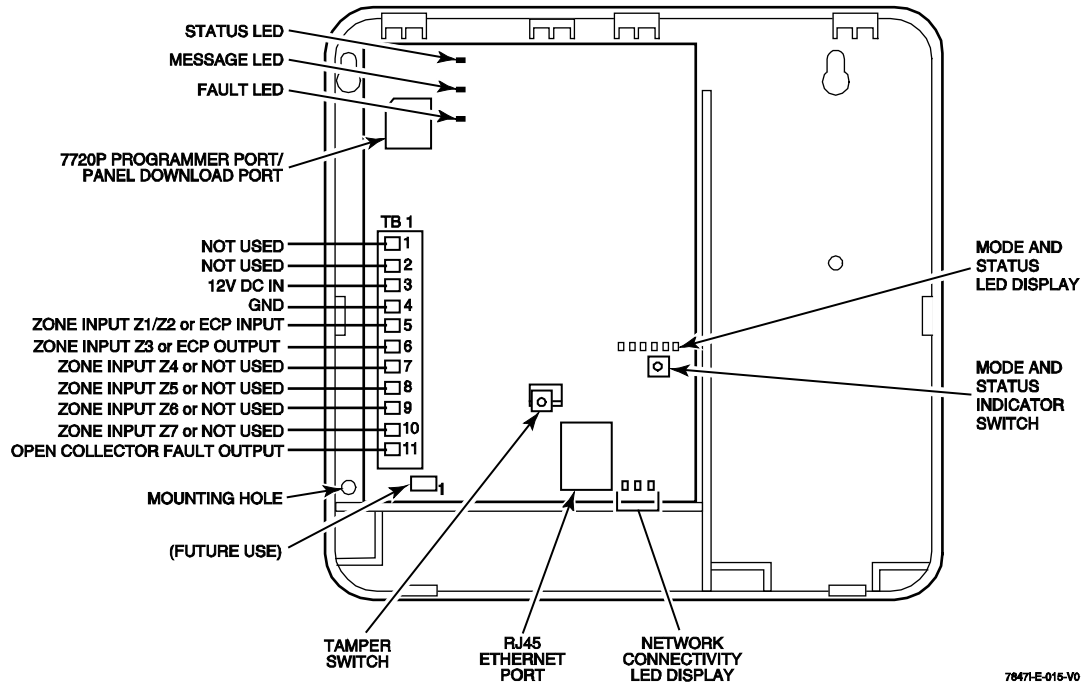
Status LEDs of the device will blink in a marching fashion when the software update commences and it will send a message to the Central Station indicating that the code update process has begun.

While the code is being downloaded, certain functions are not available but alarm delivery is not impaired.

A message is delivered to the Central Station at the end of the download indicating whether or not the process was successful.

- If the process was successful, the device will reset and the code will be decompressed and the CRC will be verified. If the CRC check fails, the device will continue to run the previous version of code. Otherwise, the newly downloaded version will run.
- There is the ability to revert back to the previous version of code on demand.

## 7847i-E Summary of Connections



7847i-E-015-V0

### TB1 Wiring for 7847i-E Communication Module

TB1	2 x 4204 Mode	4204 Mode	Zone Mode	ECP Mode	Wire Color
1	---	---	---	---	
2	---	---	---	---	
3	12VDC	12VDC	12VDC	12VDC	RED
4	GND	GND	GND	GND	BLK
5	ECP IN	ECP IN	Z1/Z2	ECP IN	YEL
6	ECP OUT	ECP OUT	Z3	ECP OUT	GRN
7	NOT USED	NOT USED	Z4	NOT USED	
8	NOT USED	NOT USED	Z5	NOT USED	
9	NOT USED	Z6	Z6	Z6	
10	NOT USED	Z7	Z7	Z7	
11	FLT OUT	FLT OUT	FLT OUT	FLT OUT	

## FEDERAL COMMUNICATIONS COMMISSION 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.
- Move the antenna leads away from any wire runs to the receiver/control.
- Plug the receiver/control 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.

### INDUSTRY CANADA 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 / IC STATEMENT

This device complies with Part 15 of the FCC Rules, and RSS210 of Industry Canada. 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.

Cet appareil est conforme à la partie 15 des règles de la FCC & de RSS 210 des Industries Canada. 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 transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

### 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 7847i-E, the external antenna must not exceed a maximum directional gain (including cable loss) of 3.2 dBi at 850 MHz and 2.3 dBi at 1900 MHz.

### DOCUMENTATION AND ONLINE SUPPORT

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

### WARRANTY

For the latest warranty information, please go to:  
[www.honeywell.com/security/hsc/resources/wa](http://www.honeywell.com/security/hsc/resources/wa)

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