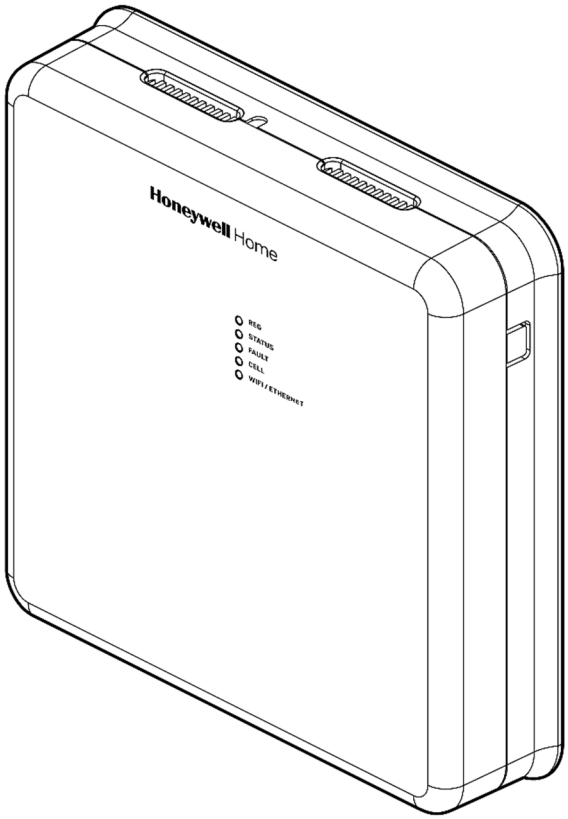
Honeywell Home

LTEM-PV
LTEM-PA

Internet and Cellular Communicator

Installation and Setup Guide



R800-26394A 10/20 Rev A

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SECTION 1

General Information

System Overview

Introduction

The LTEM-P Series Communicators utilize the latest LTE technology specifically designed for loT devices to communicate with AlarmNet. The LTE CAT-M1 technology provides improved power efficiency and signal strength underground and within buildings. LTE CAT-M1 is available everywhere that current LTE networks reach with strong enough reception for consistent connections.

The LTEM-P Series Communicator, herein referred to as the communicator, easily connects to your security system's control panel and sends alarms and messages to AlarmNet for subsequent transfer to the central monitoring station.

The LTEM-P Series includes the following models:

- LTEM-PV (Verizon network)
- LTEM-PA (AT&T network)

The communicator also supports the following optional plug-in modules:

- LTE CAT-1 Cell Radio Module for enhanced cellular radio features (model PROLTE series)
- Wi-Fi/Z-Wave Module for Wi-Fi® connection to the Internet and/or for control of home automation devices (model PROWIFIZW)
- Dialer Capture Module for use with control panels that send Contact ID signals via Dialer (model PRODCM)

NOTES:
- The communicator requires an AlarmNet 360 account. For new installations, please obtain the account information from the central station prior to programming this communicator. For replacement installations, the AlarmNet 360 account is created automatically when the communicator is registered.
- Due to Resideo's continuing effort to improve our products, your device may look slightly different than pictured.

General Information

The LTEM-P communicates via the Internet (when service is available) and switches to cell service when the Internet is not available (provided the Communication Path is set to IP & Cell).

Connection to the Internet is made by direct Ethernet cable to the router, or via Wi-Fi® (requires use of the optional Wi-Fi/Z-Wave module). Only one of these methods may be used, not both.

In normal operation (with Internet connectivity), the LTEM-P communicates from your customer's network connection to the Resideo Network Operations Center, (NOC) via the AlarmNet network. The NOC receives data and routes the information to the Central Station of your choice, based on the account number you assign to the communicator. Note that your Central Station needs to give you the account number. The same account number is used for both Internet and cell transmissions. If your current Central Station is capable of receiving signals from the Resideo NOC, they are capable of receiving signals from the communicator.

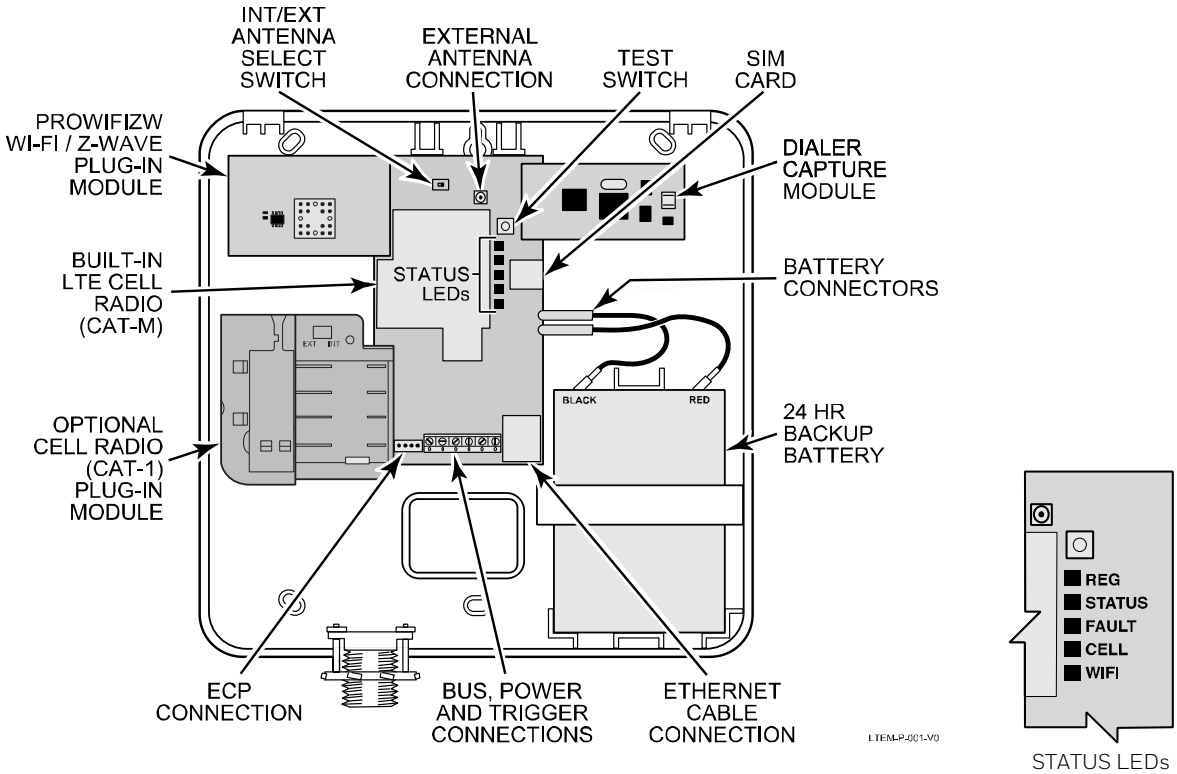
If, for some reason, Internet connectivity is not available, (for example, your customer's ISP is off line or disconnected) and the Communication Path choice is set to IP & Cell, the communicator transmits signals via the cellular network to complete these transmissions. These transmissions are sent to the Resideo NOC and then forwarded to your Central Station the same way as if they were received via the Internet.

If the Internet AND Cell network are both unavailable, the message will not be sent via this device.

System Features

Basic features of the communicator include:

- Quick connection to Resideo control panels and compatible non-Resideo control panels
- Supports both ECP and Bus connections to compatible control panels
- Power supplied by a 9VDC Power Adapter (included)
- Supports dynamic or static IP addressing, and installs behind firewalls without compromising network security (provided that the Communication Path includes IP)
- Supports connection to the Internet via Ethernet cable or Wi-Fi® (Wi-Fi requires installation of PROWIFIZW module) – only one method can be used, Ethernet or Wi-Fi, not both
- Reports fire, burg, and status messages via the Internet
- Reports messages via cell as backup to Internet reporting (provided that the Communication Path includes cell)
- Allows uploading and downloading of VISTA control panel data
- Remote Services allow the end user to access their security system from their computer via a website. Availability of this service is controlled by the dealer via the web-based programming tool on the AlarmNet 360 website
- Supports remote control of alarm systems via Remote Services feature
- Multi-function Test switch used to generate test messages, enter Pairing mode (used during Wi-Fi module installation), and to reboot (reset) the communicator.



STATUS LEDs

About AlarmNet Internet Application

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

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

Supervision Features

The communicator provides the following types of supervision and fault detection:

- **Network communication failure**: In the event the AlarmNet network does not hear a supervisory message from the communicator within a specified time, AlarmNet notifies the central station of a communication failure.
- **Communication path failure**: When the communication path is set to Ethernet & Cell or Wi-Fi & Cell, both the Central Station and the control panel can be notified of a communication path failure. Both failures are considered true faults when the respective fault times have expired ("Cell Fault Time" and "IP Fault Time" for either Wi-Fi or Ethernet options) provided it has been set to a non-zero value. Notification is sent to the central station upon this expiration. Notification to the panel is controlled by the "Notify Panel Of" option.

  (**NOTE**: if the "Cell Fault Time" and "IP Fault Time" options are set to zero, faults will not be reported.)
- **Fault Trigger Output**: A fault trigger output (trigger output terminal T1) activates upon the following communicator fault conditions if alarm reporting is enabled for the condition*: tamper, power loss, low battery, battery charger fault, and loss of network connectivity (communication path loss). The fault trigger output can serve as a fail-safe trigger (if programmed to do so) to ensure the control panel is alerted in the event of a complete communicator power loss (no ac and no battery) or if the wiring from the communicator to the control panel is cut. Refer to the "Fault Relay Normally On" option in the *Programming the Communicator* section for details.

  * Alarm reporting for the noted condition must be enabled for it to trigger the fault output.
- **Primary power loss** and **low battery** conditions (“Primary Power Loss Reporting,” “Low Battery Report” options).
- **Cover and wall tamper** condition (“Tamper Report” option).

Remote Services

Resideo offers a series of web-based services that provides consumers with the ability to communicate with their security system remotely in a number of ways. These web services allow users to:

- Access their security system from a computer via a website (Remote Access feature)
- Receive email and text message notifications of system events (Multi-Mode feature)

Dealers will initially enroll their customers for web services during account programming through the AlarmNet 360 website. The features that can be enabled include Remote Access and Multi-Mode. Once enabled, the specific programming fields associated with these features can be programmed into the communications device using the AlarmNet 360 website.

Control Panel Connections

The communicator provides two types of control panel connections so it can be used with various types of control panels, as summarized below.

ECP Connection

- This connection is for Resideo VISTA control panels that support ECP communication

  Total Connect 2 Compatibility Note: The following VISTA control panel firmware versions support Total Connect 2 Communication (version number is located on the panel's PCB PROM label):

Control Panel	Firmware Version
VISTA-15P / VISTA-20P Family	v9.12 or higher
VISTA-21iP Family	v3.13 or higher
VISTA-128BPT Family	v10.1 or higher
VISTA-250BPT Family	v10.3 or higher

- The communicator connects to the control panel's keypad terminals (Data In, Data Out, Ground) using the included 3-wire harness connector, and provides 2-way communication with the control panel using ECP messaging
- The control panel treats the communicator as an ECP device, so make sure to program the control panel with the communicator's device address
- Reports are sent in Contact ID format.

Bus Connection

- This connection is for use with compatible control panels that do not support ECP communication
- The communicator connects to the control panel via RX/TX/GND terminal block connections
- Reports are sent in Contact ID format.

Optional Accessories

The communicator supports various plug-in modules as follows.

LTE Communication Module (PROLTE-V, PROLTE-A)

- If enhanced cell radio features are desired, install the optional PROLTE Communication plug-in module.

Wi-Fi® / Z-Wave Module (PROWIFIZW)

- If a Wi-Fi connection to the router is desired rather than an Ethernet cable connection, install the optional PROWIFIZW module
- The communicator can use only one Internet connection method: Ethernet or Wi-Fi, not both
- Wi-Fi module can also support the use of Z-Wave devices.

Dialer Capture Module (PRODCM)

- An optional Dialer Capture module can be used for controls that send Contact ID alarm signals via the control panel's dialer. The alarms are then sent to AlarmNet for routing to the central monitoring station.

Antennas

The communicator is equipped with an internal antenna. This feature provides additional security to the installation by making the device tamper resistant. If needed to obtain adequate signal strength, there is a connection for an external antenna.

The following antenna kits are compatible:

- CELL-ANTHB
- PROLTE-ANT
- CELLANT3DBPK

Testing the System

After installation the security system should be tested. Refer to the control panel installation instructions for procedures to test the entire system.

WEEKLY TESTING IS REQUIRED TO ENSURE PROPER OPERATION OF THIS SYSTEM

Specifications

Mechanical	Dimensions: 9.1" (23.2cm) x 9.1" (23.2cm) x 2.2" (5.7cm) Weight: without battery: 1.5 lbs (700g) with battery: 3.3 lbs (1500g)
Input Power	9VDC, 2.5A Power Adapter (Resideo # 300-11260)
Current Drain	Stand-Alone Unit .....70mA idle, 240mA average active With PROLTE Module.....72mA idle, 240mA average active With Wi-Fi Module.....74mA idle, 320mA average active With Dialer Capture Module.....76mA idle, 245mA average active Wi-Fi & Dialer Capture Modules..80mA idle, 325mA average active
Backup Battery	4V, 6.5AH, (Resideo # R300-11454) Expected Battery Life: 5 Years (approx.) **NOTE:** The sealed lead acid battery used for backup will have reduced life expectancy when exposed to elevated temperatures. The useful life of the battery at 25ºC (77ºF) is approximately 4 years. At 35ºC (95ºF) this will drop to 2 years and at 45ºC (113ºF) 1 year. Battery life expectancy should be taken into account when locating the radio.
Fault Trigger Output	Open collector, 12VDC, 0.25W max
Ethernet	Network Standard: IEEE 802.3u compliant Data Rate: 10Base-T (10Mbps) / 100Base-T (100Mbps) with auto detect Ethernet Cable: Cat. 5 (min), MDI / MDI-X auto crossover
Environmental	Operating temperature: 0ºC to +49ºC (32°F to 120°F) Storage temperature: –40ºC to +70ºC (-104°F to 158°F) Humidity: 0 to 95% relative humidity, non-condensing for UL installations: 0% to 85%; for ULC installations 0% to 93% Altitude: to 10,000 ft. operating, to 40,000 ft. storage

Frequency Bands

	LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 12	LTE Band 13
LTEM-PV		X			X
LTEM-PA	X	X		X	

Output Power

LTE Class 5 20dBm (conducted)

Compatibility

Control Panels: For a list of control panels that are compatible with various features of this device, go to: https://mywebtech.honeywellhome.com/

Compass Version: Compatible with Compass Version v2.2.35.1 (or higher) for VISTA series control panel IP/Cellular Downloading

Compliance

This device has been tested by ETL to meet the following standards:

UL1610 Central-Station Burglar-Alarm Units

UL1023 Household Burglar-Alarm System Units

UL365 Police Station Connected Burglar Alarm Units and Systems

SECTION 2

Mounting and Wiring

Installation Notes

- The communicator must be installed in accordance with the National Electrical Code, ANSI/NFPA 70.
- The communicator must be mounted indoors within the protected premises.
- Do not install in air-handling spaces.
- Do not mount the communicator on or near metal objects, as this may affect radio communication. It is also good practice to avoid locating the communicator near wiring such as AC, telephone, HVAC, computer data cables, etc.
- Unshielded, 22 AWG cable is recommended for the communicator power/data wires.
- Do not connect to a receptacle controlled by a switch.

Determining the Signal Strength to Select a Location

When choosing a suitable mounting location, understand that signal strength is very important for proper operation. For most installations using the internal antenna, mounting the unit as high as practical, and avoiding large metal components provides adequate signal strength for proper operation.

You will use the communicator to determine signal strength in order to find a suitable mounting location.

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

Green (REG) → Yellow (STATUS) → Red (FAULT) → Green (CELL) → Green (WIFI)

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

When initialization is complete, the LEDs may blink (per their respective functions).
After initial network setup, subsequent resets or power ups can take up to 90 seconds.

1. Unpack the communicator and open the case by pushing in the two bottom tabs with a screwdriver while separating the case front.
2. Temporarily connect the power adapter and the battery to the communicator. When initial power up is complete, you can remove the power adapter and use the communicator on battery power to find a suitable mounting location.
3. Choose the installation site with the best signal quality by observing the Cell LED; it should be lit solid. The best signal strength is usually found at the highest point in the building, near a window.

Mark the location for the communicator.

Mounting the Communicator

There are two mounting options:

- Mount the Communicator directly to a wall, secured with six screws and a wall tamper screw
- Mount the Communicator to a VISTA control panel cabinet, secured to the cabinet via a threaded bushing and locking nut.

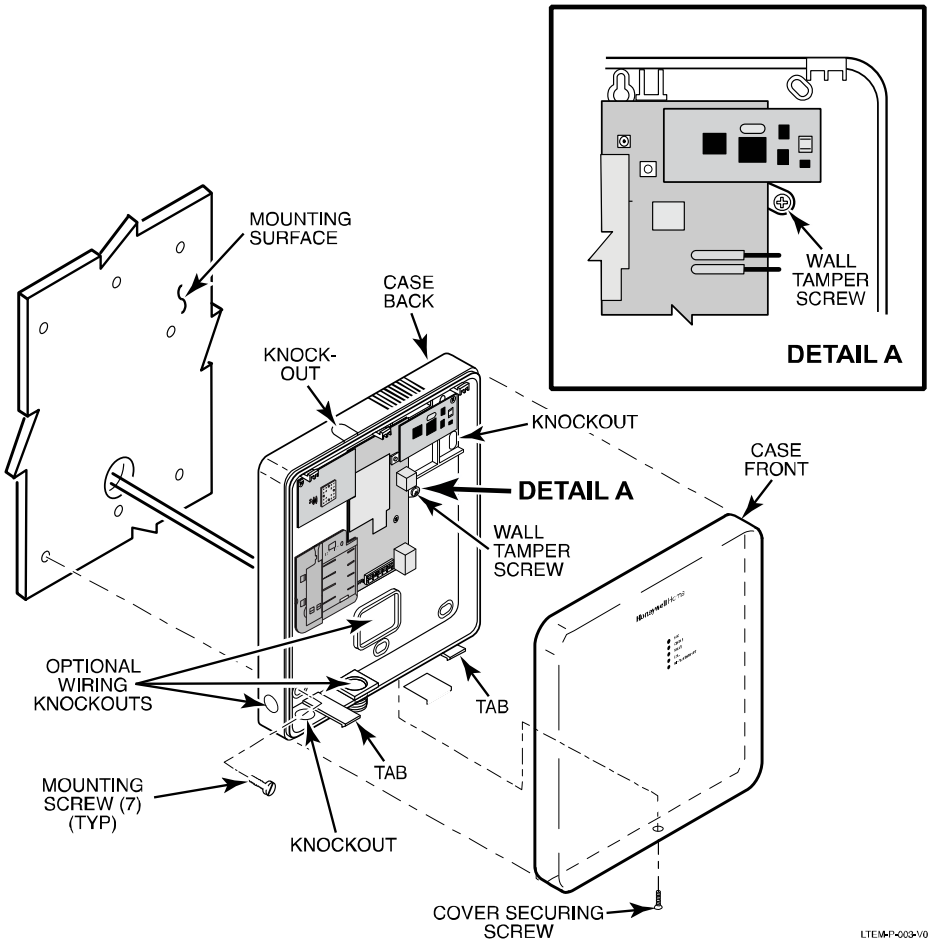
Mounting the Communicator on a Wall

1. Locate the case back over selected mounting position such that the opening in the case back is aligned with the wire/cable opening on the mounting surface.

   Pass the wires/cable through the opening in the case back, or route through the removable knockouts located on the back cover.

   NOTE: Cable tie anchor points are located on the case back around the large center knockout (below the terminal block) for securing the wiring and providing strain relief.

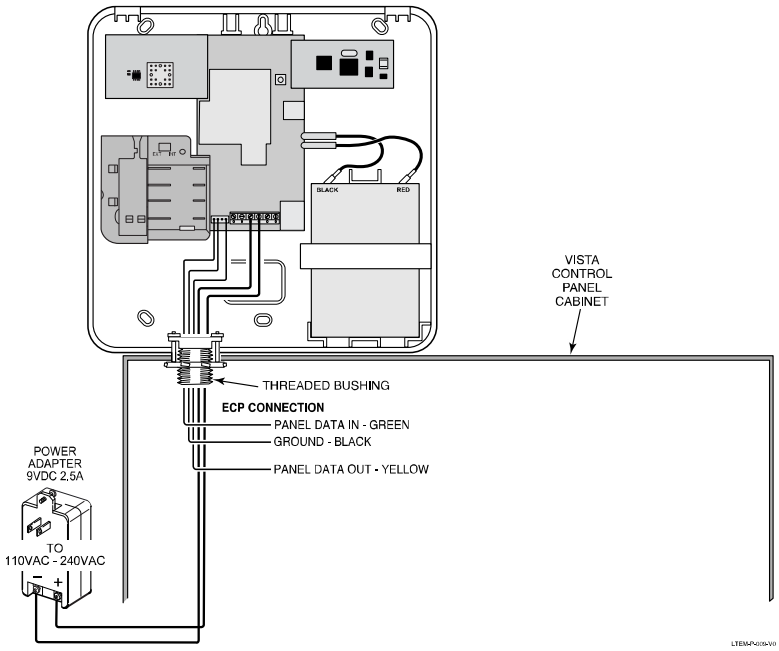
2. Secure the case back to the mounting surface using six screws (3 along the top, 3 along the bottom). After mounting, install the Wall Tamper screw. (Seven screws are provided.)
3. After all wiring is complete and the unit is powered up and the battery is connected, attach the case front. Position the top first, then press the bottom section until it snaps in place. Secure bottom using the supplied cover screw. (This is required for UL installations.)



Standard Mounting

Mounting the Communicator on a VISTA Control Panel Cabinet

1. Ensure power to the control panel (both AC and battery) is off, then remove the knockout on the top left of the control panel cabinet.
2. Remove the bottom knockout of the communicator for the threaded bushing. Install the threaded bushing so it snaps into the plastic retaining tabs. Mount the communicator assembly on the cabinet, passing the threaded bushing through the cabinet knockout and fasten with the locking nut.



Mounting the Communicator on a VISTA Control Panel Cabinet

3. Connect the 3-wire ECP harness connector to the communicator's ECP connector.
4. Connect the power adapter wires to the communicator's power terminals. Observe polarity.
5. Thread the wires through the threaded bushing.
6. Refer to the control panel's installation guide and complete the ECP wiring.
7. Secure the wiring with cable ties as necessary.

   NOTE: Cable tie anchor points are located on the case back around the large center knockout (below the terminal block) for securing the wiring and providing strain relief.
8. After all wiring is complete and the unit is powered up and the battery is connected, attach the case front. Position the top first, then press the bottom section until it snaps in place.

Accessing the Communicator after installation

To access the communicator after installation on a control panel cabinet, the communicator must first be unmounted from the cabinet. Do the following:

1. From inside the control panel cabinet, remove the locking nut from the communicator's threaded bushing, then lift the communicator up and away from the cabinet.
2. Open the communicator by pressing the two tabs on the bottom of the communicator's front case to disengage it from the back case.

Wiring the Communicator

Wiring for VISTA Series ECP Control Panels

Most Resideo VISTA control panels support ECP data communication, (e.g., VISTA-15P, VISTA-20P, VISTA-128BPT and VISTA-128FBPT). 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.

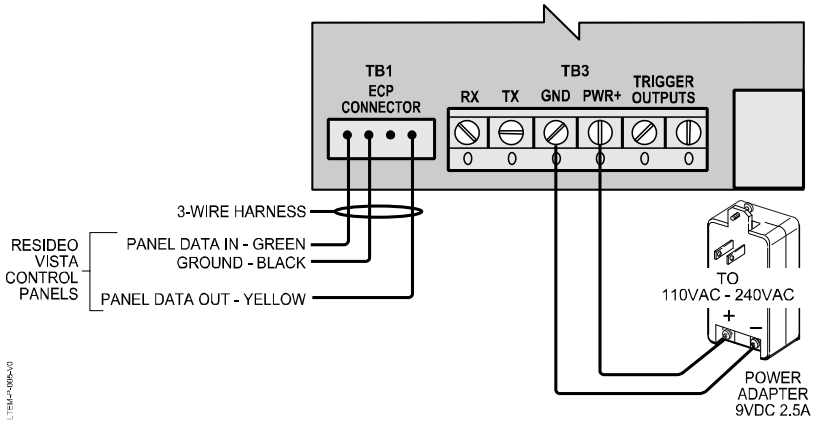
1. Connect the control panel's ECP (keypad) **Data In**, **Data Out**, and **Ground** terminals to the communicator's ECP connector using the included 3-wire harness (Resideo part R600-00155). Note that the 12VDC output from the control panel is NOT used with this connector. See ECP Option 1 diagram below.

   Alternatively, connect the VISTA control panel's ECP (keypad) terminals directly to the communicator's **RX**, **TX**, and **GND** terminals as shown in the ECP Option 2 diagram below.

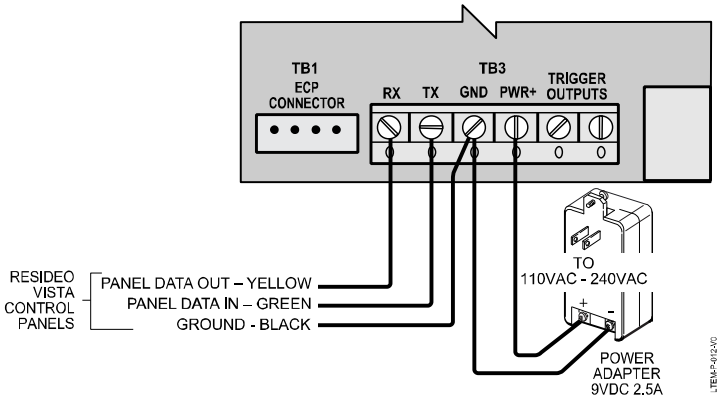
2. Connect the power adapter wires to the communicator's **PWR+** and **GND** terminals as shown. Observe polarity.
3. Secure the wiring with cable ties as necessary. Cable tie anchor points are provided on the case back below the terminal block.

The communicator is powered by the provided 9VDC Power Adapter only. **Do not connect** power from the control panel to the communicator.

Wire length/gauge limitations are the same for the communicator as they are for keypads and other peripheral devices.



ECP Connection Option 1: ECP Connection Using 3-Wire Harness



ECP Connection Option 2: ECP Terminal Block Connections

ECP & BUS Connection Maximum Wire Lengths

Minimum Wire Gauge	Distance from Control Panel
#22	75 ft (23m)
#20	120 ft (37m)
#18	170 ft (52m)
#16	270 ft (82m)

Wiring for Bus Connection Control Panels

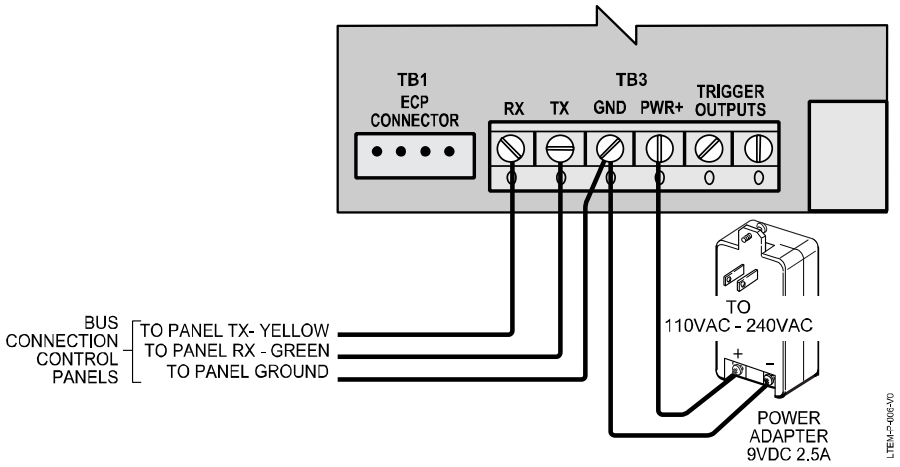
For control panels that do not support ECP data communication, use the communicator's bus terminals to connect the communicator to the control panel' data terminals. Check the control panel's instructions for wire length/gauge limitations and refer to the *ECP & BUS Connection Maximum Wire Lengths* table.

The following steps show typical connections. However, if using compatible *DSC* or I*nterlogix* control panels, refer to their respective sections below

Typical Control Panel Bus Connections

1. Connect the communicator's **RX**, **TX**, and **GND** terminals to the appropriate terminals at the control panel. See diagram below.
2. Connect the power adapter wires to the communicator's **PWR+** and **GND** terminals as shown. Observe polarity.
3. Secure the wiring with cable ties as necessary. Cable tie anchor points are provided on the case back below the terminal block.

The communicator is powered by the provided 9VDC Power Adapter only. **Do not connect** power from the control panel to the communicator.



Wiring a Control Panel via Bus Connection Terminals

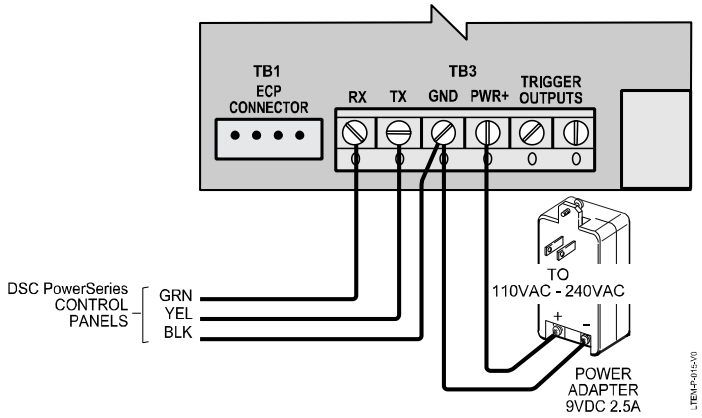
DSC Control Panel Connections

This section applies to the following DSC PowerSeries (PC) control panels:

- PC1616
- PC1832
- PC1864

1. Connect the control panel terminals labeled Black (**BLK**), Yellow (**YEL**), and Green (**GRN**) to the communicator's **GND**, **TX**, and **RX** terminals respectively. See diagram below.
2. Connect the power adapter wires to the communicator's **PWR+** and **GND** terminals as shown. Observe polarity.
3. Refer to the control panel's installation manual for details on programming the control panel.

After reboot/power up, the communicator takes about 5-7 minutes to complete the scan of the panel's partitions and zones. The control panel must be in the "Ready" state (no alarms or faults) in order to perform the scan.



The communicator is powered by the provided 9VDC Power Adapter only. **Do not connect** power from the control panel to the communicator.

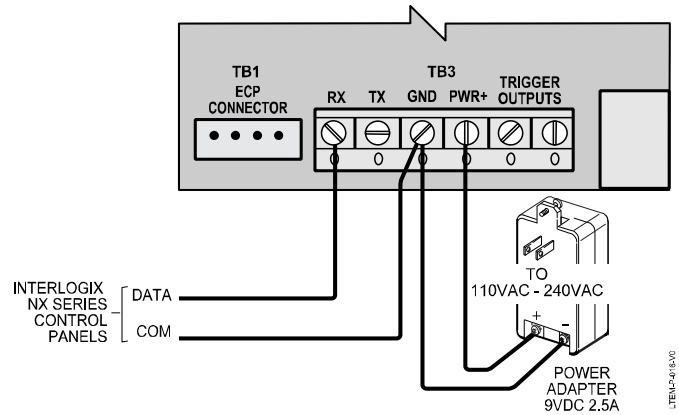
Connections for DSC PowerSeries Control Panels

Interlogix Control Panel Connections

This section applies to the following Interlogix NetworX (NX) Series control panels:

- NX-8E
- NX-4V2
- NX-6V2
- NX-8V2

1. Connect the control panel's **DATA** and **COM** terminals to the communicator's **RX** and **GND** terminals respectively. See diagram below.
2. Connect the power adapter wires to the communicator's **PWR+** and **GND** terminals as shown. Observe polarity.
3. Refer to the control panel's installation manual for details on programming the control panel.



The communicator is powered by the provided 9VDC Power Adapter only. **Do not connect** power from the control panel to the communicator.

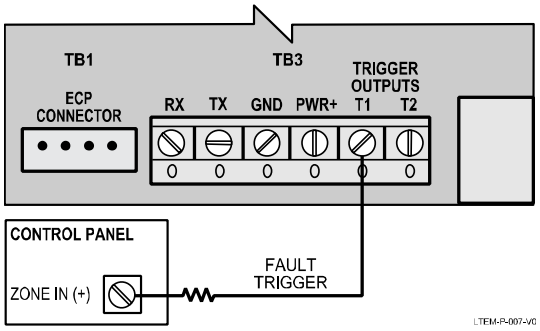
Connections for Interlogix NX Series Control Panels

Wiring the Fault Trigger Output

The communicator's fault trigger output (Trigger Output terminal T1) can be wired and programmed for fail-safe mode (see the program option "FAULT RELAY NORMALLY ON").

To sense a communicator fault at the control panel, see the diagram below.

1. Connect the communicator's Trigger Output **T1** to a zone "+" input at the control panel.
2. Install the proper end-of-line (EOL) resistor required by the control panel.



Typical Wiring for the Fault Trigger to a Control Panel Zone for Normally Closed Fault

Internet Connection (Ethernet or Wi-Fi®)

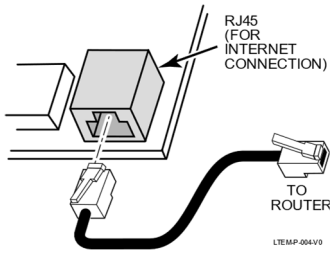
The communicator can connect to the Internet via Ethernet cable direct to a router or via Wi-Fi® using the optional PROWIFIZW Wi-Fi/Z-Wave module.

> The communicator can use only one Internet connection method: Ethernet or Wi-Fi, not both.

Ethernet Cable Connection

If using an Ethernet cable connection, connect one end of the Ethernet cable (Category 5 or higher) to the communicator's RJ45 connector and the other end to the cable/DSL router as shown in the diagram below.

NOTE: When programming the communicator, make sure to program the communication path to Ethernet & Cell.



Ethernet Connection

Wi-Fi Connection

If using Wi-Fi® to connect to the Internet, the PROWIFIZW Wi-Fi/Z-Wave module must be installed. Refer to the *Installing Optional Plug-In Modules* section later in this manual for details on installing the Wi-Fi/Z-Wave module.

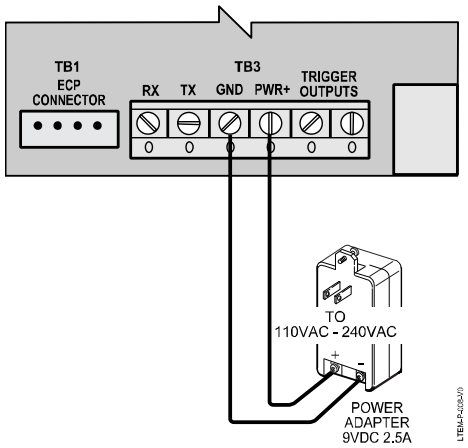
Power Connections

Connecting the Power Adapter

The communicator is powered from the supplied plug-in Power Adapter.

1. Connect the Power Adapter to the communicator's **PWR+** and **GND** terminals as shown below. Observe polarity.
2. **Power Up**: After all wiring connections have been made and all optional plug-in modules have been installed, plug the Power Adapter into a 24-hour, non-switched 110 - 240VAC outlet.

The communicator is powered by its 9VDC Power Adapter only. **Do not connect** power from the control panel to the communicator.



Power Adapter Installation

Backup Battery

The included battery is used for backup in the event of power loss to the communicator. It does not provide power to the control panel. The unit must be powered up before connecting the battery.

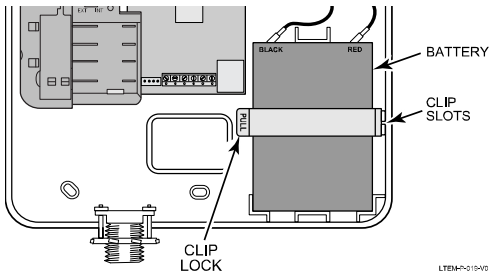
Battery Notes

- The battery can provide over 24 hours of system life in the event of a power failure.
- A programmable power loss message can alert the AlarmNet Control Center when system power is lost (power loss messages are reported within 1-3 hours of actual loss).
- The communicator transmits a low-battery message (programmable) when the battery reaches 3.8V ±5%, indicating subsequent messages may not be transmitted.
- The system shuts down when the battery falls below 3.3V, and radio transmissions are no longer possible.
- If system power is restored before the communicator shuts down, a power restore message is sent within 1-3 hours after power is restored, and the battery is recharged using the communicator's built-in battery charger. If system power is restored after the communicator has shut down, a power-on reset condition exists, the communicator initializes itself and the battery will recharge.

Install the battery as follows:

- Do not plug the battery in until **after** the communicator has been powered-up.
- Do not bend up the battery tabs.
- Battery replacement by professional installer only.

1. Place the battery inside the case.
2. Hook the right side of the battery clip onto the battery clip slots located on the case back, then snap the left side of the clip onto the battery clip lock.
3. Connect the battery to the communicator's battery terminals. Observe polarity.

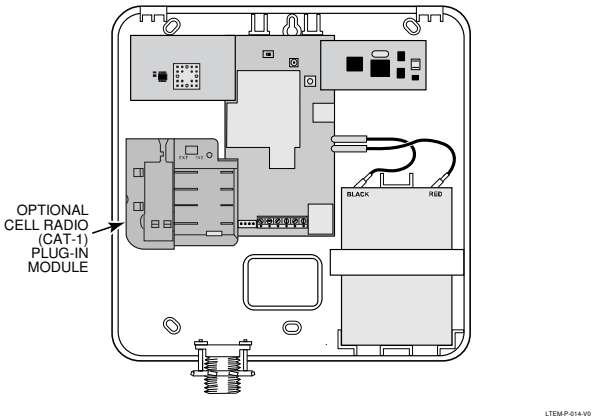


Installing Optional Plug-in Modules

LTE Communication Module

If enhanced cell radio features are desired, install the optional PROLTE Series Communication plug-in module. Models include PROLTE-V and PROLTE-A. Refer to the instructions included with the PROLTE Series module for additional information.

1. Power down the communicator and disconnect the battery.
2. Install the PROLTE module by mating the module's connector to the edge connector on the lower left side of the communicator's PCB. Make sure the module is fully seated in the connector.
3. Affix the FCC/IC label provided with the PROLTE to the communicator's case back
4. After installation, power up the communicator then reconnect the battery.



PROLTE Series Communication Module Installation

5. Programming of the PROLTE Series module is done through the AlarmNet 360™ Programming Tool. On a laptop, PC or Smart Device, go to www.alarmnet360.com.
6. When programming is complete, perform a Communications Test.

NOTES for PROLTE MODULE INSTALLATION

- Initial communicator power up sequence can take up to 15 minutes for network setup.
- After initial network setup, subsequent resets or power ups can take up to 90 seconds.
- Installing the PROLTE module auto-disconnects the built-in LTE CAT-M1 cellular device.
- No additional programming of the PROLTE module is necessary (no need to use AID number). The module automatically marries with the LTEM-P device on power up and connectivity to AlarmNet.
- When programming the AlarmNet account, use the LTEM-P communicator's MAC and CRC.

Wi-Fi / Z-Wave Module

If a Wi-Fi® connection to the router is desired rather than an Ethernet cable connection, install the PROWIFIZW module. This module also provides the ability to control Z-Wave devices.

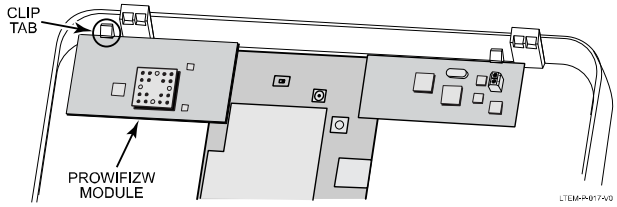
NOTE: The PROWIFIZW requires a router and internet service for Wi-Fi connection.

Refer to the instructions included with the PROWIFIZW module for additional information.

The communicator can use only one Internet connection method: Ethernet or Wi-Fi, not both.

1. Power down the communicator and disconnect the battery.

2. Install the PROWIFIZW module by mating the module's connector to edge connector on the upper left side of the communicator's PCB. Make sure the module is fully seated in the connector. Slip the module board under the clip tab to lock it in place as shown below.
3. Affix the FCC/IC label provided with the PROWIFIZW to the communicator's case back
4. After installation, power up the communicator then reconnect the battery.



Wi-Fi/Z-Wave Module Installation

3. Programming of the PROWIFIZW module, as well as the inclusion/exclusion of Z-Wave devices, is done through the AlarmNet 360™ Programming Tool. On a laptop, PC or Smart Device, go to www.alarmnet360.com.

   NOTE: When programming the communicator, make sure to program the communication path to Wi-Fi & Cell.
4. When programming is complete, perform a Communications Test.

Wi-Fi® Setup

To set up a Wi-Fi connection to the router, you will need the AlarmNet 360 Mobile App installed on a smartphone or tablet. The app is available for download from the App Store or Google Play.

You will also need the following information:

- Communicator's MAC ID and CRC (both found on a label on the communicator).

  MAC ID:_____ CRC:_____
- SSID and password for the router to which the communicator will be connected.

  SSID:_____ Password:_____

With the Wi-Fi module installed and the communicator powered up and battery connected, do the following.

1. Connect your smart device to the same Wi-Fi network the communicator will use.
2. Turn on Bluetooth on your smart device.

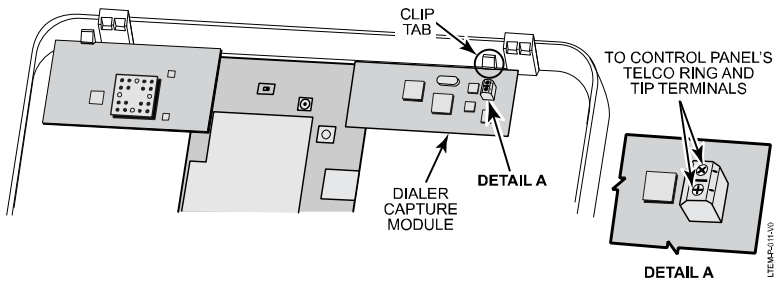
   Make sure the Bluetooth is not connected to another device.
3. Open the AlarmNet 360 Mobile App and log in.
3. Click the upper left menu icon (3 bars) and select "**Connect a Device to the Internet**" to display the **Connect Device** page.
4. When prompted to **Activate Bluetooth on Device**, press and hold the communicator's Test switch for at least 3 seconds to enter Bluetooth Pairing mode. The **REG** (green), **FAULT** (red), and **WIFI** (green) LEDs will blink in unison indicating the unit is in Pairing mode.

   NOTE: Pairing mode times out after 10 minutes of no screen activity.
5. Follow the instructions on the **Connect Device** page. Click "**Get Started**."
6. When prompted, select the communicator's MAC ID, then enter its CRC.
7. When prompted, enter the SSID and password for the Wi-Fi router.
8. Pairing mode ends after the last entry is made.

Dialer Capture Module

An optional Dialer Capture module (PRODCM)can be used for controls that send Contact ID alarm signals via the control panel's dialer. The dialer capture module replaces the phone line and simulates the phone service to the control panel. The alarms are then sent to AlarmNet for routing to the central monitoring station.

1. Power down the communicator and disconnect the battery.
2. Install the Dialer Capture module by mating the module's connector to the edge connector on the upper right side of the communicator's PCB. Make sure the module is fully seated in the connector. Slip the module board under the snap tab to lock it in place as shown below.
3. Connect the control panel's Telco Ring (R) and Tip (T) terminals individually to the Ring and Tip terminals on the Dialer Capture module (module terminals have no Ring/Tip polarity). See diagram below.



Dialer Capture Module Connections

Do not connect the outside phone line to either the Dialer Capture module or the control panel. There should be no connection to the outside phone line when using the Dialer Capture module.

For replacement installations, make sure to disconnect the outside phone line when using the Dialer Capture module with the communicator.

Dialer Capture Control Panel Programming Notes

After the Dialer Capture module has been installed, make sure the control panel is programmed for the following.

- Dialer operation is set for DTMF Tone Dialing for each phone number (pulse dialing is not supported and must be disabled in the control panel)
- PABX field is disabled (the Dialer Capture module does not communicate through a PABX)
- Phone numbers and account numbers are programmed (to ensure the maximum number of messages can be transmitted to the central station before a communication failure occurs, ensure the control panel is programmed with a primary and secondary central station number)
- Report format is set to Contact ID for each phone number
- The maximum number of retry attempts is programmed
- Desired zone and partition reports are enabled.

Additional Notes When Using the Dialer Capture Module

- The Dialer Capture module supports only one-way communications (from the control panel to the central station). For those control panels that support two-way voice communications, speakerphone, paging, follow-me, etc., these features will no longer be available. The control panel must be programmed for one-way communications only.
- Since Dialer Capture module supports only one-way communications (from the control panel to the central station), the Resideo Compass Downloader cannot be used.
- In the event the communicator loses power, the module would not be able to generate a fault trigger to the control panel and set an alarm. In this case, after the panel has exhausted its redial attempts, a communication failure is displayed by the panel (you may have to scroll through the messages).
- The Dialer Capture module cannot sense a fault on the Tip/Ring side. However, during an alarm, if the module cannot forward the alarm, it will trigger a fault and disable the phone line. The phone line will be re-enabled after communication has been re-established.
- If the Dialer Capture module senses a fault, it will send a Trigger signal to the control panel zone (if wired to a zone). At this point the module will also drop the phone line voltage and will not provide a dial tone to the control panel. During this time, the control panel will make retry attempts (8 for residential, and more for commercial) to dial out and send a report. Until the control panel has completed the series of retry attempts it will not be able to detect a Telco fault. To minimize the wait time, for control panels that allow setting the Telco Fault detection time, please set it to the minimum detection time.
- For control panels that may generate erroneous Telco fault conditions based on grounding (such as the VISTA-15P, VISTA-20P), turn off "Telco Fault" monitoring at the control panel.
- If the dialer capture module receives a fault indication from the communicator, the module will disable the phone line, causing the control panel to indicate a communication fault after a period of time. When the dialer capture module receives a fault clear condition, the module will re-enable the phone line.
- If an AlarmNet communications device fault is detected, this will be reported to the control panel as a com failure. If Telco fault is turned on, an AlarmNet failure will be displayed as a Telco Fault. If the communicator fault trigger is wired to a zone, the Dialer Capture module will trigger the control panel to alarm this zone and display a message. With some control panels, displayed alarm messages for triggered zones may hide a "com failure" message. The com failure message can be displayed by first clearing the zone alarm message(s).

External Antenna

If adequate signal strength cannot be achieved with the internal antenna, an external antenna can be used. An Antenna Kit with an antenna cable, adapter cable, clamp, and bracket will be required. Instructions for mounting the antenna are provided with the kit.

The following Antenna Kits are compatible:

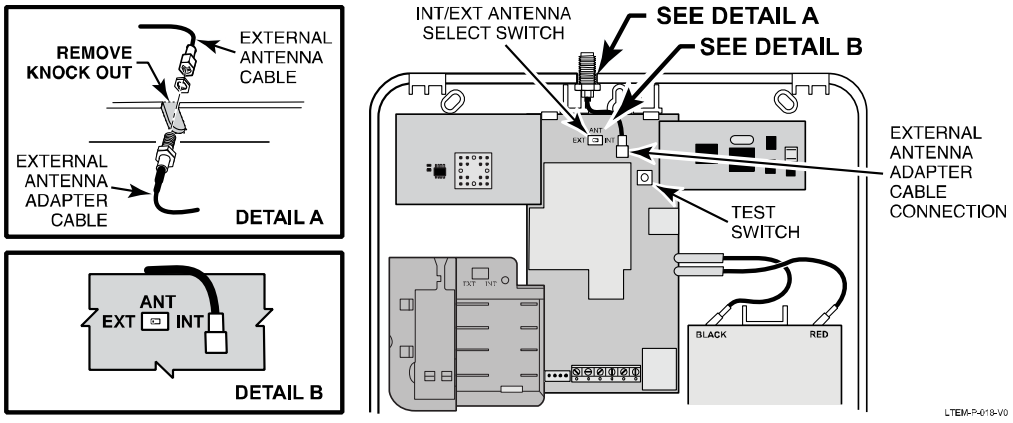
- CELL-ANTHB
- PROLTE-ANT
- CELLANT3DBPK

The Antenna Kit includes a short antenna adapter cable with an MHF connector on one end and an SMA connector on the other end.

To connect an external antenna to the communicator, do the following.

NOTE: Antenna can be installed with the communicator powered up.

1. Remove the antenna port knockout on the top of the communicator case.
2. From inside the case, install the short adapter cable's SMA connector in the antenna port knockout and secure with the nut provided. See diagram detail A.
3. Route the adapter cable as shown, then snap the adapter cable's MHF connector onto the communicator's main board external antenna connector. See diagram below.
4. Install the external antenna according to its instructions, using the brackets and hardware provided with the External Antenna kit.
5. Connect the Antenna Kit's antenna cable to the adapter cable's SMA connector previously mounted to the communicator case back.
6. Set the INT/EXT Antenna Select Switch to the EXT (External) position. See diagram Detail B.
7. When complete, perform a communication test (press and release the Test switch).



External Antenna Installation

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.

Programming the Communicator

General Information

The communicator delivers alarms via the Internet to an AlarmNet central station or via the network, using cell technology when the Internet is not available.

NOTE: The communicator requires an AlarmNet 360 account. For new installations, please obtain the account information from the central station prior to programming this communicator. For replacement installations, the AlarmNet 360 account is created automatically when the communicator is registered.

Programming the communicator is done using the AlarmNet 360 website or the AlarmNet 360 Mobile App.

Using AlarmNet 360

To program the communicator via the website (if you are already signed up for this service), go to: **www.alarmnet360.com** or use the AlarmNet 360 Mobile App. Log in and follow the on-screen prompts. Please have the following information available when programming the communicator:

- Primary City ID (two-digit number), obtained from your monitoring station.
- Primary Central Station ID (two-digit number), obtained from your monitoring station.
- Primary Subscriber ID (four-digit number), obtained from your monitoring station.
- Communicator's MAC ID and MAC CRC number (located on the box and inside the communicator).

When programming is complete, **the communicator must be registered**. See the ***Registration*** section.

After any programming changes are made to bus-connected control panels, the communicator must be reset/rebooted (press and hold the Test switch for 10 seconds).

Programming Options

The following is a list of programming options pertinent to this communicator and programmed in the AlarmNet 360 **SETTINGS** menu.

OVERVIEW FIELDS (Overview fields are programmed when a new account is created in AlarmNet 360)

Communicator MAC xxxxxxxxxxxx	The MAC ID is found on a label on the communicator and on its carton.
Alarm Reporting Number xx xx xxxx	Account information is provided by the central station administrator. This field displays account number, consisting of the City ID, Central Station ID, and Subscriber ID numbers. City ID = 01-99; Central Station ID = 01-FE (HEX); Subscriber ID = 0001-9999
Device Type • LTEM-PA • LTEM-PV	Device Type displays the model number for the communicator being programmed.
Panel Type • VISTA • VISTA-20P • Interlogix • DSC • DCM	Panel Type indicates the type of control panel to which the communicator is connected.

Supervision • Daily	Supervision time is factory-set to "Daily" (24 hours) and cannot be changed. The AlarmNet network must hear at least one supervisory message from the communicator during this supervision period; otherwise, AlarmNet notifies the central station that a communication failure has occurred.

PATH DETAILS OPTIONS

Communication Path • Ethernet and Cell • Wi-Fi and Cell • Cell Only	Select the desired communication path. If Wi-Fi® is desired, the PROWIFIZW module must be installed. Refer to the Wi-Fi/Z-Wave Module section located in Section 2 earlier in this manual.
LRR ECP Device Address • 1-30	**Applicable only if Panel Type is VISTA or VISTA-20P.** The LTEM-P communicates with a VISTA control panel using the ECP bus. Enter the appropriate ECP device address. For VISTA-10P, VISTA-15P, and VISTA-20P series control panels, use address 3. For other control panels, see their Installation and Setup Guide. **NOTES**: 1. When programming the control panel, enable the communicator (or LRR) output. 2. This Device Address must be unique from the "Remote Control Keypad Address" and the "Interactive Event (Multi-Mode) Device Address."
Old Alarm Time • 10 Minutes • 4 Hours • 15 Minutes • 8 Hours • 30 Minutes • 12 Hours • 1 Hour • 24 Hours • 2 Hours	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. Select the desired time period.
IP Fault Time • 00-99	**Applicable only if comm. path includes Ethernet or Wi-Fi.** In the event there is a loss of contact with the network over the Ethernet or Wi-Fi connection, enter the time delay (in minutes) before the communicator notifies the central station. IP failure will always be sent to the central station as Primary Communication Path Failure.
Use DHCP • Select • Unselect	**Applicable only if communication path includes Ethernet.** If selected, dynamically allocates the IP addresses for Ethernet (recommended). If unselected, uses fixed IP addresses programmed in the next 4 fields. **NOTE:** Wi-fi is always set for DHCP.
NIC IP Address xxx.xxx.xxx.xxx	**Applicable only if communication path includes Ethernet.** Enter the 12-digit, 4-part address for this device.
Subnet Mask xxx.xxx.xxx.xxx	**Applicable only if communication path includes Ethernet.** Enter the 12-digit, 4-part address for the 32-bit address mask used to indicate the portion (bits) of the IP address that is being used for the subnet address.
Gateway IP Address xxx.xxx.xxx.xxx	**Applicable only if communication path includes Ethernet.** Enter the 12-digit, 4-part address assigned to the Gateway.
DNS Serv IP Addr xxx.xxx.xxx.xxx	**Applicable only if communication path includes Ethernet.** Enter the 12-digit, 4-part IP address assigned to the DNS (Domain Name System) server.
Cellular Fault Time • 00-99	In the event the communicator detects a communication path failure, enter the time delay (in minutes) before the communicator notifies the central station. A cell failure will always be sent to the central station as Secondary Communication Path Failure.

Fault Relay Normally On (Fail-Safe Mode) • Select • Unselect	The Fault Relay Normally On option enables fail-safe mode, which causes the fault trigger open collector output to be normally energized to ground and de-energizes (open circuit) upon a communicator fault condition (if respective alarm reports are enabled). For conditions that trip the fault trigger refer to *Supervision Features* in Section 1. Select this option if Fail-Safe mode is desired. If unselected, the fault trigger output is normally de-energized and energizes when a listed communicator fault condition occurs. Note that if unselected, the control panel will not be alerted if the radio loses complete power (no AC and no battery) or if the wiring from the radio to the control is cut. See *Wiring the Fault Trigger* in Section 2 for information on connecting the trigger output to a control panel.
Notify Panel Of • Neither • IP Only • Cell Only • Both IP and Cellular	**This option appears only if comm. path includes Ethernet & Cell or Wi-Fi & Cell.** If "Both IP (Wi-Fi or Ethernet) and Cellular" is selected, the device will only notify the control panel if both communication paths fail but will always send notification of either failure to the central station. **NOTE**: The fault trigger output (if Fault Relay Normally On is selected) is triggered only if "Both IP and Cellular" is selected (If the "Cellular Fault Time" and "IP Fault Time" options are set to zero, faults will not be reported). Select the desired option.
Tamper Report • Select • Unselect	If selected, sends a tamper report when the communicator detects a tamper condition. A tamper restore is automatically sent when the tamper condition clears.
Primary Power Loss Reporting • Select • Unselect	If selected, sends a primary power loss report to the central station within 1-3 hours after its detection. A restore report is sent within 1-3 hours after power is restored.
Low Battery Report • Select • Unselect	If selected, sends a low-battery report when a low battery condition exists. A low battery restore is automatically sent when the low battery condition clears.

REMOTE SERVICES

Remote Access • Select • Unselect	Select to allow the end user to access their system via Resideo's Total Connect. Availability of this service is controlled by the dealer. In order to use Remote Access, an account must be created in AlarmNet 360.
Remote Control (AUI) Keypad Addresses • 01-30	Must be programmed if using the Remote Access feature Enter the keypad address intended to be used for remote control. **NOTES:** 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 programmed "Device Address."
Keypad Type • Keypad Only • Full Control	Keypad Only is not applicable for TC2 Total Connect usage. Full Control provides a virtual Total Connect keypad for controlling panel functions and supports User and Panel syncing functions. Used with most Resideo control panels, including VISTA series, LYNX series, Lyric, and PRO series.

ADDITIONAL SETTINGS

Email Notification (Multi Mode Communications • None • Total Connect 2.0 (Enhanced Rpts)	Users can receive email notification of up to 4-8 system events by using the Email Notification (Multi Mode) feature. This is accomplished through emulation of a 4204 relay module for VISTA control panels. Program outputs to trigger on system events the user would like to be notified of through Output Device (Relay) programming in the control panel. These events are configured by the user at Resideo's Total Connect website at: https://totalconnect2.com/.

	NOTE: In order to select email notification (Multi Mode), an account must be created in AlarmNet 360 and "Remote Access" must be selected. ⚠ Multi-Mode (email notification) is intended as a convenience for the user and does not replace Central Station reporting of critical events (alarms, troubles, etc.).
Interactive Event Device Address • 01-30	The Interactive Event Device address must match the address of a relay module enabled in the VISTA control panel (although you do not actually connect a module). This device address must be unique from the communicator device address and the Keypad Address used for Remote Access. It is recommended to assign device address 25.

FIXED SETTINGS (the following options are factory set and not programmable)

Cell Rollover • ON	Cell Rollover is factory-set to ON and cannot be changed. All messages (including AlarmNet network supervisory messages) are sent over the cell network in the event of an Internet failure.
Power Save • ON	The Power Save feature is factory-set to ON and cannot be changed. This feature allows the LTEM-P to meet the 24 hour UL battery backup requirement.
IP Connection • Auto Detect	IP Connection is factory-set to Auto-Detect and cannot be changed. In Auto Detect mode, the device will always try to use IP* to communicate but it will not generate a Primary Comm Path Failure unless it previously detected the presence of IP. As soon as the presence of IP is detected, a Primary Comm Path Restore message is generated and the value of IP Connectivity programming parameter is changed from "Auto Detect" to "Detected". From this point on, the software expects connectivity. The auto detect logic will resume only when the parameter is changed back to "Auto Detect". * Ethernet or Wi-Fi, depending on option selected in Comm Path choice.

ECP Status Codes

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

Common ECP Keypad Display Status Codes

STATUS CODE	DESCRIPTION
0000	Control panel lost communication with communicator.
0880	Communicator tamper detected (cover removed).
4005	Communicator has lost contact with AlarmNet.
000F	Communicator is not registered; account not activated.
0019	Communicator shutdown.
0400	Communicator power on / reset AND the control panel lost communications with communicator.
0C80	Communicator power on / reset AND tamper detected.
0C8F	Communicator power on/ reset AND tamper detected AND not registered.
08E0	Communicator tamper detected and communicator battery low.
3000	Primary power loss (will only be displayed in conjunction with another event).
8000	Battery charger failure (will only be displayed in conjunction with another event).
0060	Low battery (will only be displayed in conjunction with another event).

SECTION 4

Registration

Registering the Communicator

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

Before the communicator is registered, the REG (green) LED will be on. You can monitor the registration process by viewing the display LEDs. The REG (green) LED and STATUS (yellow) LED will blink slowly in unison while registration is in progress.

LED		DESCRIPTION
REG (green)	**ON**	**Module is NOT registered with AlarmNet.**
	OFF	Module is registered with AlarmNet.
	FAST BLINK	Download session with Compass in progress
	SLOW BLINK	**In unison with STATUS (yellow) LED, registration in progress.**
STATUS (yellow)	PERIODIC BLINK	Normal
	FAST BLINK	Cannot deliver alarms
	SLOW BLINK	• Idle power abnormal • **In unison with REG (green) LED, registration in progress**

When the registration successfully completes, the communicator enters a normal operating mode; the REG (green) LED turns off. If registration is not validated by AlarmNet within 90 seconds, the communicator times out, and the REG (green) LED will be lit solid.

To register the communicator, go to: www.alarmnet360.com

Please have the following information available:

- Primary City ID (two-digit number).
- Primary Central Station ID (two-digit hexadecimal number).
- Primary Subscriber ID (four-digit number).
- MAC ID and MAC CRC number (located on the box and inside the communicator).

1. Log in and choose “Programming” page.
2. Search for the account using the Account Information or MAC ID.
3. Under the “Actions” column, use the pulldown menu and select “Register” the account.

During the registration process, the **REG** (green) LED and **STATUS** (yellow) LED will blink slowly in unison.

When registration has been completed successfully, the communicator enters normal operating mode and the REG (green) LED turns off.

After the communicator is registered, you may log out of the AlarmNet 360 website.

Appendices

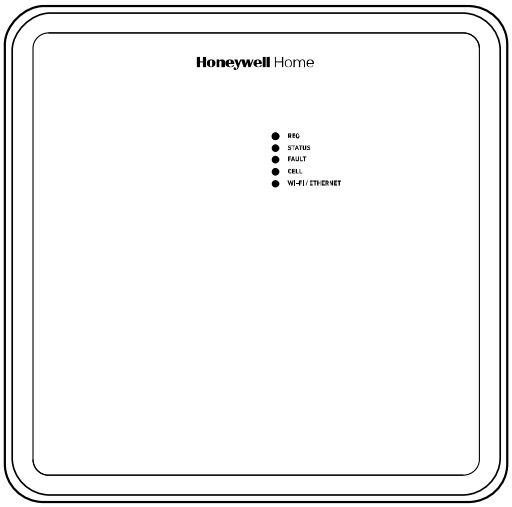
Appendix A: Summary of LED Operation

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

Green (REG) → Yellow (STATUS) → Red (FAULT) → Green (CELL) → Green (WIFI)

LED INDICATIONS

LED		DESCRIPTION
REG (green)	ON	Module is NOT registered with AlarmNet
	OFF	Module is registered with AlarmNet
	FAST BLINK	Download session with Compass in progress
	SLOW BLINK	In unison with STATUS (yellow) LED, registration in progress
STATUS (yellow)	PERIODIC BLINK	Normal (indicates Power On*)
	FAST BLINK	Cannot deliver alarms
	SLOW BLINK	Idle power abnormal
		In unison with REG (green) LED, registration in progress
FAULT (red)	ON	No contact with the network
	OFF	Normal
	FAST BLINK	No network contact AND loss of communication with the panel
	SLOW BLINK	Loss of communication with the panel (ECP fault)
CELL (green)	ON	Minimum required signal quality is present
	OFF	Cell not enabled
	FAST BLINK	Signal quality is poor
WI-FI / ETHERNET (green)	Wi-Fi Connection (if used)	
	ON	Communicator connected to Internet via Wi-Fi
	OFF	Wi-Fi not enabled
	FAST BLINK	Wi-Fi enabled, no connection to Internet
	Ethernet Connection (if used)	
	ON	Communicator connected to Internet via Ethernet
	OFF	Ethernet not enabled
	FAST BLINK	Ethernet enabled, no connection to Internet
TOP THREE - REG - STATUS - FAULT	FAST BLINK IN UNISON	Firmware over-the-air (OTA) download in progress
TOP FOUR - REG - STATUS - FAULT - CELL	FAST BLINK IN UNISON	Cell module firmware OTA update in progress
ALL FIVE LEDs - REG - STATUS - FAULT - CELL - WI-FI / ETHERNET	FAST BLINK IN UNISON	SIM card not present or puk locked
	FAST BLINK IN SEQUENCE	Power up sequence
LEDs 1, 3, & 5 - REG - FAULT - WIFI	FAST BLINK IN UNISON	Unit is in Pairing mode (connecting to smart device via Bluetooth)



*** Power On Indication**: If AC is present, Status (yellow) LED blinks periodically. If on battery power only for longer than 5 minutes (AC loss), the LEDs turn off, then blink once per minute in a random pattern.

Appendix B: Central Station Contact ID Messages

Alarm Condition	Alarm Code	Restore Code
Power On / Reset	E339 C08xx*	
Tamper **(Compromise Indication)**	E341 C08xx*	R341 C08xx*
Power Loss	E337 C08xx*	R337 C08xx*
Low Battery	E338 C08xx*	R338 C08xx*
Battery Charger Failure	E314 C08xx*	R314 C08xx*
ECP Supervision **(Compromise Indication)**	E355 C0000	R355 C0000
Primary Comm Path Supervision	E350 C0951	R350 C0951
Secondary Comm Path Supervision	E350 C0952	R350 C0952
Application Code Update	E903 C08xx	R903 C08xx (success)
Application Code Update Failure	E904 C08xx	
Cellular Module Firmware Update	E365 C08xx	R365 C08xx (success)
Cellular Module Firmware Update Failure	E366 C08xx	
Telco **(Compromise Indication)**		
Open/Close		
Periodic Cell Comm Test Failure	E358 C0803	
Test	5555 5555 9	
Specific to RESIDENTIAL / COMMERCIAL Control Panels (Such as the VISTA-10P, 15P, and 20P series.)		
Communicator Trouble (low battery, ECP bus, network) **(Possible Compromise Indication)**	E353 C08xx* ◊	R353 C08xx* ‡
Radio Fault	E353 0 1xx* ‡	R353 0 1xx* ‡
Specific to COMMERCIAL Control Panels (Such as the VISTA-128/250 series.)		
Communicator Trouble (low battery, ECP bus, network) **(Possible Compromise Indication)**	E333 C08xx* ‡	R333 C08xx* ‡
Radio Loss of Signal **(Possible Compromise Indication)**	E357 0 8xx* †	R357 0 8xx* ‡ or R380 0 8xx* ‡
Radio Fault (low battery, tamper, ECP Bus)	E333 0 8xx* ‡	R333 0 8xx* ‡
AlarmNet Messages		
Communication failure. **(Possible Compromise Indication)**	E359 0 C950	R 359 0 C950
Authorized New Registration	E360 00 000	
Authorized Radio Substitution	E361 00 000	
Unauthorized Radio Substitution Attempt	E362 00 000	

* xx = Communicator Device Address

† = Message is sent by dialer only.

‡ = Message is sent by dialer and radio.

◊ = Message is sent by dialer only, or dialer and radio, depending on failure.

Appendix C: Glossary

4G LTE	Refers to the fourth generation of cellular wireless standards. It is a successor to 3G and 2G families of standards. 4G provides up to 10 times the data transfer speeds of 3G.
DACT	Digital Automated Communications Terminal
DHCP	Dynamic Host Configuration Protocol, which provides a mechanism for allocating IP addresses dynamically so that addresses can be reused when hosts no longer need them.
DNS	Domain Name System, which is a distributed hierarchical naming system used to resolve domain names (e.g., www.yahoo.com) into numerical IP addresses (e.g., 204.17.25.1.).
DSL	Digital Subscriber Line.
ECP	Enhanced Console Protocol, which is a proprietary bus used in Resideo control panels to communicate with keypads and peripheral devices. It uses four wires: power, ground, data in, data out.
Gateway IP Address	A gateway (sometimes called a router) is a computer and/or software used to connect two or more networks (including incompatible networks) and translates information from one network to the other. The Gateway IP address is the IP address for the gateway.
IMEI	International Mobile Equipment Identity number.
IP	Internet Protocol.
IP Address	A unique number consisting of four parts separated by periods (for example: 204.17.29.11). An IP Address can be fixed or "static", or "dynamic," where the IP Address is assigned via DHCP at every startup.
ISDN	Integrated Services Digital Network.
ISP	Internet Service Provider.
LAN	Local Area Network.
LRR	Long Range Radio, an older term now referred to as communicator. A broader term communications module or communications device may also be used.
MAC ID	Media Access Code, this is a unique address assigned to every network communications device. For the communicator it is located on the box and inside the communicator.
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.

Regulatory Notes

REFER TO THE INSTALLATION AND SETUP GUIDE FOR THE CONTROL WITH WHICH THIS DEVICE IS USED FOR LIMITATIONS OF THE ENTIRE SYSTEM.

FEDERAL COMMUNICATIONS COMMISSION & ISED STATEMENTS

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

CLASS B DIGITAL DEVICE STATEMENT

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

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

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

ISED CLASS B STATEMENT

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

FCC / ISED STATEMENT

This device complies with Part 15 of the FCC Rules, and ISED's license-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause harmful interference (2) This device must accept any interference received, including interference that may cause undesired operation.

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

Responsible Party / Issuer of Supplier's Declaration of Conformity: Ademco Inc., a subsidiary of Resideo Technologies, Inc., 2 Corporate Center Drive., Melville, NY 11747, Ph: 516-577-2000
Partie responsable / Émetteur de la déclaration de conformité du fournisseur : Ademco Inc., une filiale de Resideo Technologies, Inc., 2 Corporate Center Drive., Melville, NY 11747, Tél. 516 577-2000

RF Exposure

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

Mise en Garde

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

IMPORTANT NOTE ABOUT EXTERNAL ANTENNAS

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

TO THE INSTALLER

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

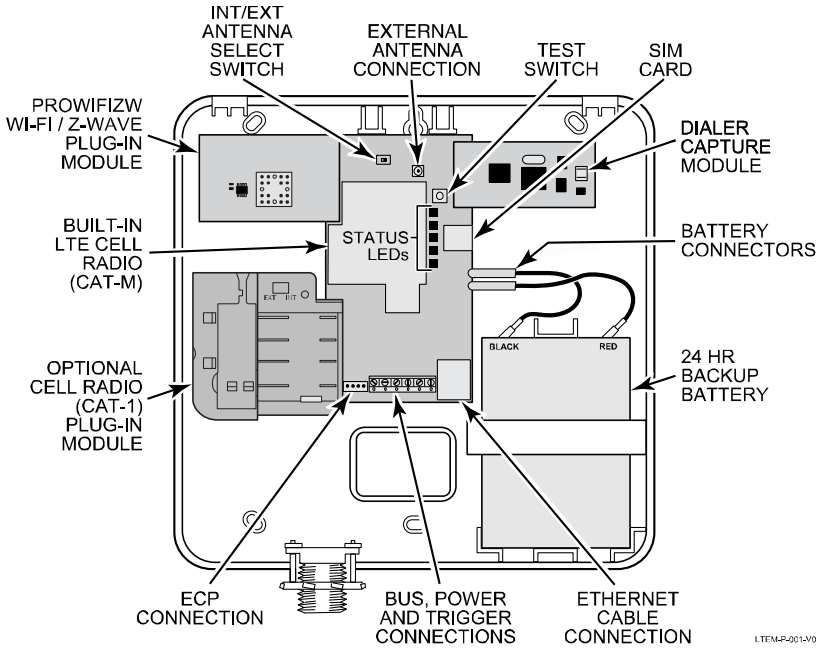
LTEM-PA: The external antenna gain shall not exceed 6.63 dBi for 700 MHz and 850MHz, 6.00 dBi for 1700 MHz, and 8.51 dBi for 1900 MHz. Under no conditions may an antenna gain be used that would exceed the ERP and EIRP power limits as specified in FCC Parts 22H, 24E and 27.

TO THE INSTALLER

Regular maintenance and inspection (at least annually) by the installer and frequent testing by the user are vital to continuous satisfactory operation of any alarm system.

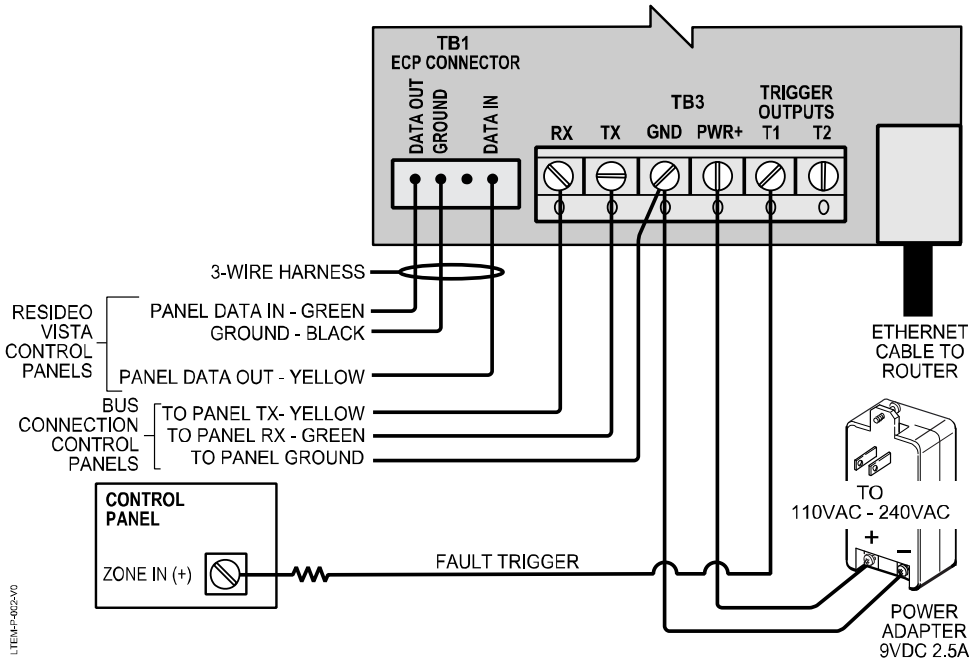
The installer should assume the responsibility of developing and offering a regular maintenance program to the user as well as acquainting the user with the proper operation and limitations of the alarm system and its component parts. Recommendations must be included for a specific program of frequent testing (at least weekly) to ensure the system's proper operation at all times.

Summary of Connections



LED STATUS		
REG (green)	ON	NOT registered with AlarmNet
	OFF	Module is registered with AlarmNet
	FAST BLINK	Download session with Compass in progress
	SLOW BLINK	In unison with STATUS, registration in progress
STATUS (yellow)	Periodic BLINK	Normal (indicates Power On)
	FAST BLINK	Cannot deliver alarms
	SLOW BLINK	Idle power abnormal
		In unison with REG, registration in progress
FAULT (red)	ON	No contact with the network
	OFF	Normal
	FAST BLINK	No network AND loss of comm with the panel
	SLOW BLINK	Loss of comm with the panel (ECP fault)
CELL (green)	ON	Signal quality is acceptable
	OFF	Cell not enabled
	FAST BLINK	Signal quality is poor
WIFI / ETHERNET (green)	ON	Connected to Internet via Wi-Fi or Ethernet
	OFF	Wi-Fi/Ethernet option not enabled
	FAST BLINK	Option enabled, no connection to Internet
TOP 3	BLINK in UNISON	Firmware OTA download in progress
TOP 4	BLINK in UNISON	Cell firmware OTA update in progress
ALL 5	BLINK in UNISON	SIM card not present or puk locked
	BLINK in SEQUENCE	Power up sequence
1 – 3 - 5	BLINK in UNISON	Unit is in Pairing mode

WEEKLY TESTING IS REQUIRED TO ENSURE PROPER OPERATION OF THIS SYSTEM



Communicator Wiring

NOTE: All circuits are supervised, and all circuits are power limited except the battery.

Test Switch Functions
Send Test Message .....Short press & release
Bluetooth Pairing Mode ..Press & hold 3 secs
Reboot Communicator ....Press & hold 10 secs

The product should not be disposed of with other household waste. Check for the nearest authorized collection centers or authorized recyclers. The correct disposal of end-of-life equipment will help prevent potential negative consequences for the environment and human health.

Any attempt to reverse-engineer this device by decoding proprietary protocols, de-compiling firmware, or any similar actions is strictly prohibited.

For Support visit: www.resideo.com.
For Warranty information visit: www.security.honeywellhome.com/warranty.

resideo
www.resideo.com

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