Quick Installation Guide

Refer to the LTEM-P Series Installation and Setup Guide R800-26394 dated 10/20 or later for additional information.

General Information and Component Identification

Congratulations on your purchase of Resideo's LTEM-PV/LTEM-PA communicator. These communicators send alarms and messages from the security system's control panel to AlarmNet® for subsequent transfer to the central monitoring station. Other features include the following:

• The communicators provide upload/downloading capability of Resideo's control panel programming data. Refer to the *Installation and Setup Guide* for the use of these features.

• These communicators also support optional Plug-In Modules, including PROLTE series LTE radio modules, PROWIFIZW Wi-Fi / Z-WAVE module, and PRODCM Dialer Capture module.

• In addition, these communicators can be used with compatible non-VISTA/non-Resideo control panels. Refer to the Installation Supplement (R800-26807) for more information on this usage.

• The LTEM-PV and LTEM-PA are referred to herein as LTEM-P, or the communicator or communication module.

This guide addresses a simple installation using stand-alone configuration (no plug-in modules), Internet connection via Ethernet cable, default programming values where possible, and is applicable for most installations. For detailed information on features and options and configuration of remote services, please refer to the *Installation and Setup Guide* for the product.

Please note the following:

• The communicator requires an AlarmNet 360 account. For new installations, please obtain the account information from the central station prior to programming.

• For control panels that support ECP, the control panel treats the communicator as an ECP device, so make sure to program the control panel with the communicator's device address. Refer to the control panel's *Installation and Setup Guide* for details.

Remote Services

Resideo offers secure web-based services that enable users to remotely monitor and control their security system. These web services enable users to; monitor and control their security system from a website or smartphone, receive email notifications of system events, and receive event confirmations.

Dealers can enroll their customers for "Remote Services" by using the AlarmNet 360 website. Once enabled, the specific programming fields associated with these features can be programmed into the communication device using the AlarmNet 360 website.

1. Determine Signal Strength and Select a Location

The communicator must be mounted indoors. 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.

In this step, you will use the communicator to determine signal strength in order to find a suitable mounting location.

NOTE: Read and follow the RF Exposure notice on the other side.

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 strong signal strength by observing the CELL LED. If lit, signal strength is acceptable. The best signal strength is usually found at the highest point in the building, near a window.

4. Mark the location for the communicator.

2. Mount and Wire the Communicator

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

2. Pass the wires/cable through the opening in the case back, or route through the removable side or bottom knockouts located on the back cover. Then secure the case back to the mounting surface using seven (7) screws (supplied).

   Alternatively, if used with a VISTA control panel, the communicator can be mounted directly onto the control panel cabinet. See the *LTEM-P Series Installation & Setup Guide* for details.

3. Make the following wire connections (use either the ECP or Bus connections, depending on the type of control panel used). For ECP connections, use only the supplied 3-wire connector harness or wire directly to the **RX**, **TX**, & **GND** terminals. Typical connections are shown below. Refer to the *LTEM-P Series Installation & Setup Guide* for additional information.

⚠ For UL Listed installations, the communicator must be powered by the provided 9VDC Power Adapter only. Powering the communicator from another source may cause unexpected results, including reduced battery backup time, as well as making the installation non-UL Listed.
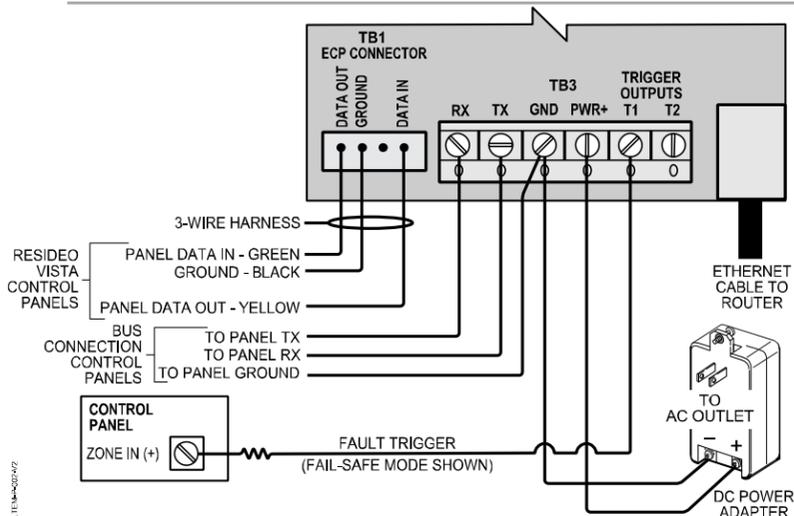
ECP & BUS Connection Max Wire Lengths

Distance from Control Panel	Minimum Wire Gauge	
75 ft (23m)	#22	**NOTE:** Unshielded, 22 AWG cable is recommended for the communicator power/data wires.
120 ft (37m)	#20	
170 ft (52m)	#18	
270 ft (82m)	#16	

Power Adapter Max Wire Lengths

Max distance from power adapter to communicator	Wire Gauge (AWG)
25 feet (7.62m)	# 22
45 feet (13.72m)	# 20
70 feet (21.34m)	# 18
110 feet (33.53m)	# 16

3. Connect the Internet Cable

(for installations that use an Ethernet Communication Path option)

Connect one end of the Ethernet cable (Category 5 or higher) to the communicator's RJ45 Ethernet connector and the other end to the cable/DSL router as shown in the figure.

For Wi-Fi connection to the Internet, refer to the Installation and Setup Guide.

Due to Resideo's continuing effort to improve our products, your device may look slightly different than pictured.

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

** Not evaluated by UL

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

IMEI/MAC ID: A label showing the IMEI and MAC ID numbers is located on the PCB shield plate.
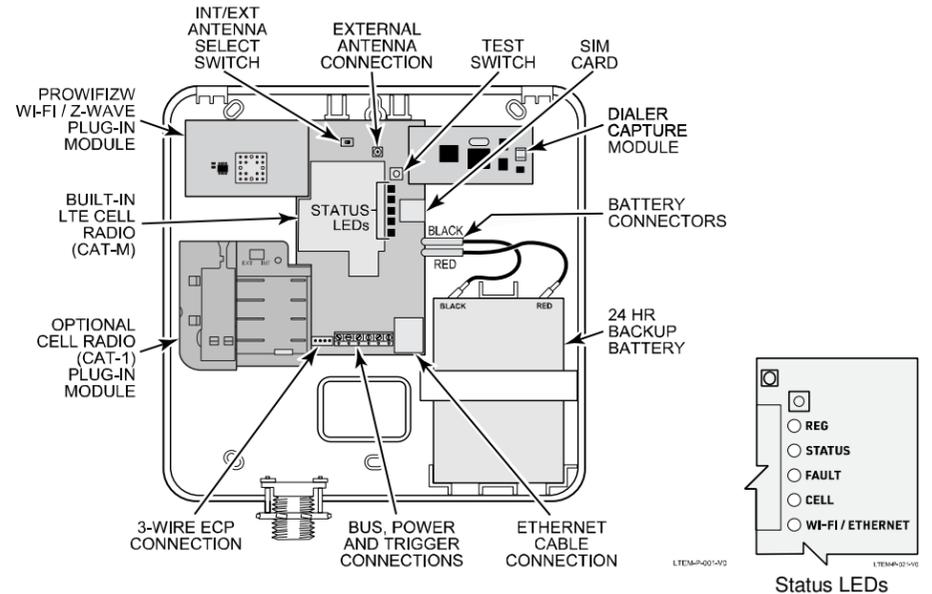
LTEM-P Communicator shown with all optional modules installed

Test Switch Functions

Generate Test Message	Short press & release
Register Communicator	Triple-click
Bluetooth Pairing Mode	Press & hold 3 secs
Reboot Communicator	Long press & hold 10 secs

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/power ups can take up to 90 seconds.

4. When all wiring has been completed (including the Internet cable if used), install the battery (but do not connect until unit has been powered up). You may power up the communicator.

5. After power up, connect the battery to the communicator's battery terminals (observe polarity).

6. 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. (Required for UL installations.)

⚠ The communicator must be installed in accordance with the National Electrical Code, ANSI/NFPA 70.

Fail-Safe Mode:
Set the Fault Trigger output (T1) for Fail-Safe mode by selecting the FAULT RELAY NORMALLY ON program option checkbox via AlarmNet 360. Note that trigger T2 is not used.
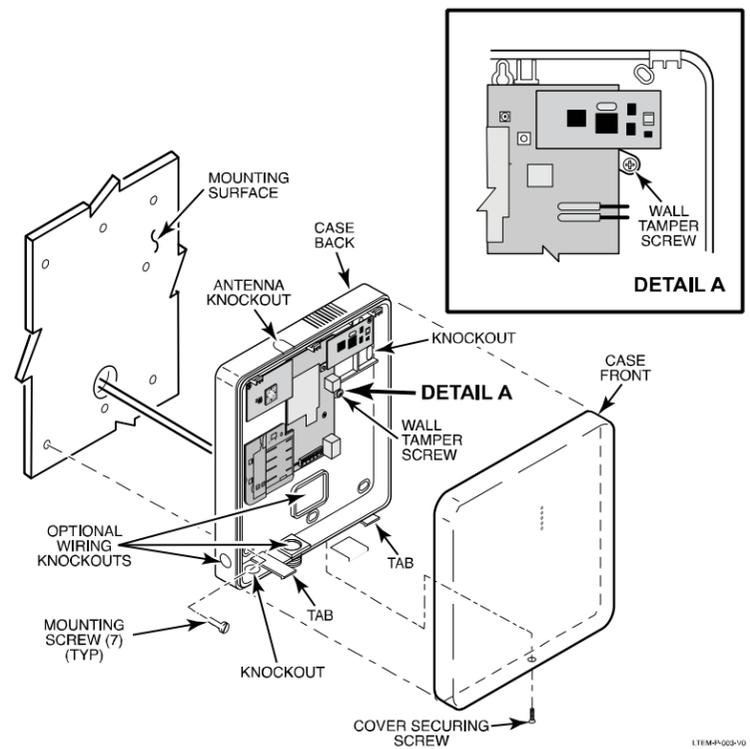
Mounting the Communicator

• For UL installations, the Ethernet connection between the communicator and the router cannot exceed 12 feet. Both units must be located within the same room.

• Use a Listed cable/DSL router suited for the application.
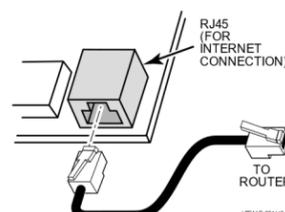
4. Program and Register the Communicator

You can quickly program and register the communicator by using the AlarmNet 360 website.
In addition, after you program the communicator, you can register it by using the Test switch
If you are not signed up for this service, click on "Dealer Signup" from the login screen to create an account.

Have the following information ready:

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

Program the Communicator (using the AlarmNet 360 website)

Log in and complete the communicator programming using the "Program New Account" page.
(Refer to the online help if needed.)
When complete you may register the communicator or log out of the AlarmNet 360 website.

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

Register the Communicator

Once you have programmed the communicator, it must be registered. Registering the communicator activates the account with AlarmNet and enables the control panel to send reports.
Before the communicator is registered, the REG (green) LED will be ON.
There are two ways to register the communicator:

- You can register by logging into AlarmNet 360 and choosing the "Programming" page. Search for the account using the Account Information or MAC ID. Under the "Actions" column, use the pulldown menu select "Register" the account.
- You can also register after the communicator is installed and programmed by clicking the Test Switch 3 times.

After successful registration, the REG (green) LED turns off.

LED Status Table

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
STATUS (yellow)	PERIODIC BLINK	Normal (Indicates Power On*)
	FAST BLINK	Cannot deliver alarms
	SLOW BLINK	Idle power abnormal
FAULT (red)	ON	No contact with the network
	OFF	Normal
	FAST BLINK	No network contact AND loss of communication with the panel (ECP fault)
	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.

Power Adapter Off (Battery Power Only): LEDs 2, 4, & 5 - STATUS (yellow), CELL (green), WI-FI (green) Fast Blink in Unison every 25 – 45 seconds.

Compliance

UL1610 Central-Station Burglar-Alarm Units
UL1023 Household Burglar-Alarm System Units
UL365 Police Station Connected Burglar Alarm Units and Systems
CAN/ULC-S304 Control Units, Accessories and Receiving Equipment for Intrusion Alarm System

Specifications

Input Power	9VDC, 2.5A from 102-132VAC, 60Hz, 0.6A Power Adapter (Resideo # 300-04705V1)
Current Drain	Max current with all plug-in modules: 515mA See Installation & Setup Guide (R800-26394) for additional details.
Backup Battery	4V, 6.5AH, (Resideo # R300-11454)
Data Rate	10Base-T (10Mbps) / 100Base-T (100Mbps) with auto detect

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)

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

⚠ 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.resideo.com.

This product manufactured by Resideo Technologies, Inc. and its affiliates

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

⚠ **WEEKLY TESTING IS REQUIRED TO ENSURE PROPER OPERATION OF THIS SYSTEM.**

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.

TRADEMARKS

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