

# LTE-15/25/50ANT EXTENSION ANTENNA KIT INSTRUCTIONS

The LTE-15ANT/LTE-25ANT/LTE-50ANT is an indoor/outdoor antenna that can increase the signal strength received by the communicator module by mounting the antenna at higher elevations or where the signal is stronger.

## Compatible Models

**PowerSeries Neo:** LE2080, 3G2080, TL280LE, TL2803G,

**PowerSeries:** 3G2060, TL2603G, TL260GS, GS2060

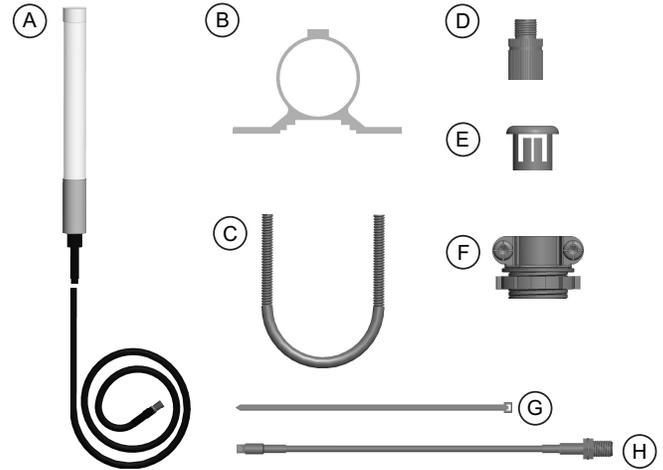
**Alexor:** TL265GS, GS2065

**Impassa:** 3G2055, GS2055, TL2553G, 3G2077

**Universal:** 3G4000, 3G4010, 3G4010CF, LE4000, LE4010, LE4010CF, LE4010ECF

## Out of the Box

- A. Extension antenna with cable
- B. Wall-mount bracket
- C. U-Bracket
- D. Brass adaptor
- E. Plug
- F. Clamp
- G. Cable tie wrap
- H. Antenna Connector



## Installation Overview

Installing the LTE extension antenna involves the following:

- Disconnect and remove the internal antenna (if applicable) from the communicator module.
- Connect the extension antenna to the communicator module.
- Determine a suitable location for the antenna and mount it.

## Adaptor Connection

The LTE extension antenna can be directly connected to an antenna connector with a plug-in pin.

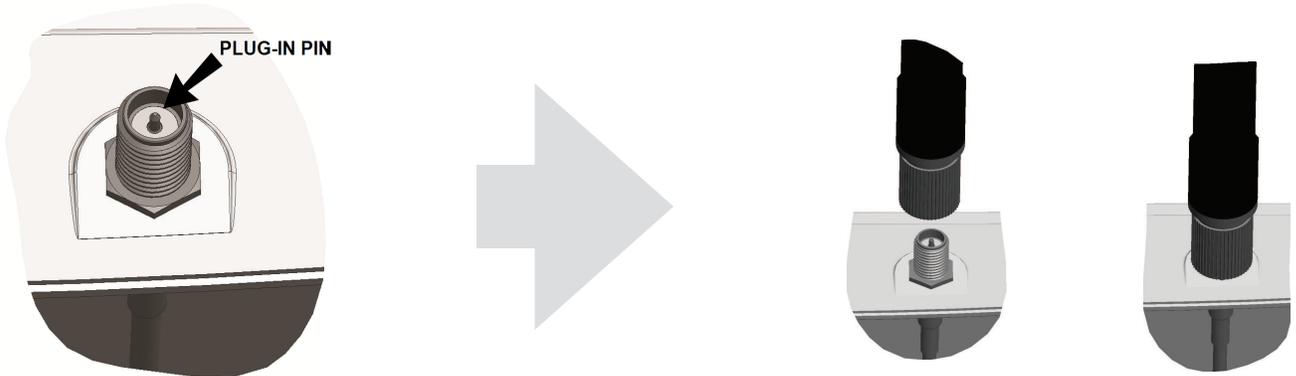


Figure 1: Antenna connector with plug-in pin

An adaptor has been provided for antenna connectors that have a receptacle without a pin.

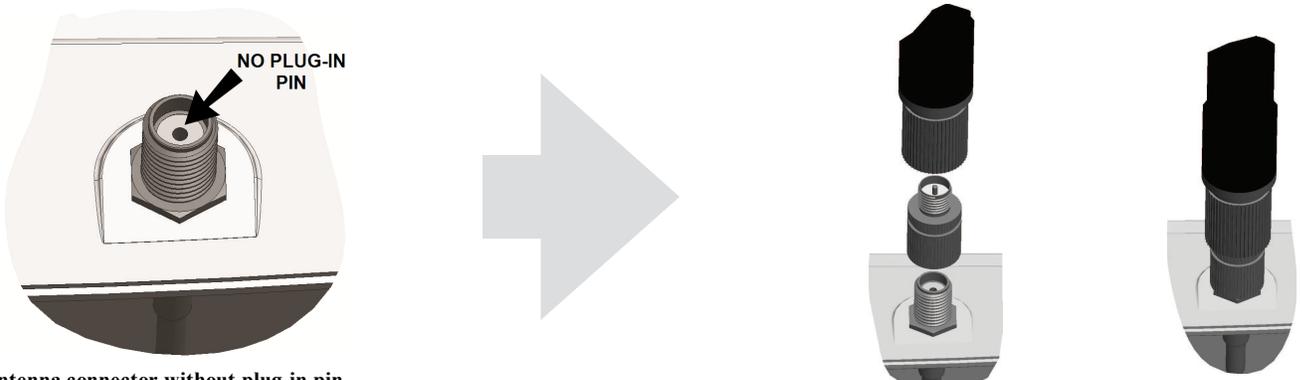


Figure 2: Antenna connector without plug-in pin

# Antenna Replacement

## TL265GS/GS2065/TL260(3G)/GS2060/3G2080/ 3G4000/LE4000 Models

1. Remove all power from the alarm panel.
2. Remove the supplied antenna from the enclosure by rotating the base counter clockwise. Ensure the brass nut holding the threaded section of the antenna connector remains finger tight.
3. Remove the cabinet front cover to view the green, signal strength LED during the antenna placement.
4. Connect the end of the extension antenna cable to the on-board antenna connector. Use the brass adaptor if required (see Figure 2).
5. Locate the antenna (refer to Antenna Placement for more information).
6. Reattach the front cover.

**WARNING:** This panel cabinet contains hazardous voltages and/or TNV circuits.

### Securing Antenna to a Metal Cabinet

When installing the antenna in a metal cabinet or enclosure, secure the antenna cable using the metal clamp provided in the kit. See below:

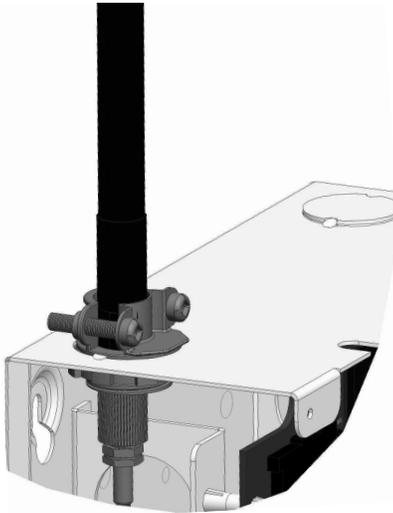


Figure 3: Antenna installation in a metal cabinet

## TL2553G/3G2055/3G2075/GS2055 Models

### Removing the existing antenna

1. Remove the front cover of the alarm panel.
2. Disconnect the AC, telephone lines, battery wire and ribbon cable from the panel.
3. Carefully disconnect the antenna cable from the communicator and on-board antenna by pinching the connectors and lifting straight up.
4. To remove the antenna cable from under the PCB:
  - (a) Press the retaining tab at the bottom of the module and lift the PCB.
  - (b) Slide the PCB down then remove the existing antenna cable from the enclosure.

5. Reinstall the PCB by sliding it up and underneath the top retaining clips and pressing down.

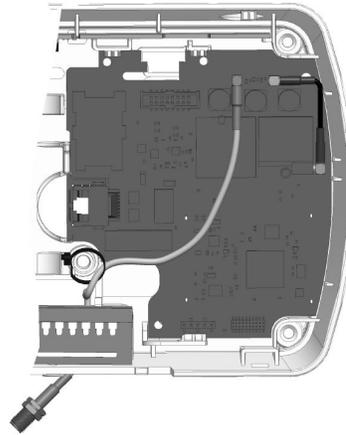


Figure 4: Installing the antenna connector

### Installing the LTE Antenna

1. Insert the small end of the antenna connector through the opening above the terminal block (see Figure 4: ).
2. Connect the cable to the radio module.
3. Secure the antenna connector to the plastic base on the enclosure using the cable tie provided (see Figure 5: ).
4. Attach the extension antenna cable to the small antenna connector. Use the brass adaptor if required.
5. Plug in the battery wire, ribbon cable, AC and telephone lines.
6. Replace the front cover of the alarm panel.

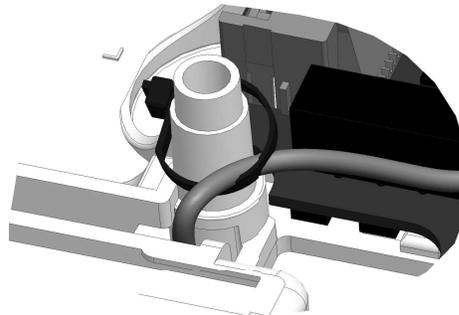


Figure 5: Securing the antenna connector

## Antenna Placement

**NOTE:** LTE communicators must be enrolled and have an activated SIM card for Placement Testing.

To choose a suitable location, perform a placement test by moving the antenna until an area of high signal strength is found. The relative signal strength is indicated by the green LEDs on the alarm panel PCB. Refer to your communicator installation manual for more information.

Notes regarding antenna placement:

- Mount the antenna away from sources of electrical interference.
- Mount the antenna vertically for optimal signal strength.
- If signal strength is poor, move the antenna left or right, up or down 1-2 inches (several feet for outdoor installations).

## Mounting the Antenna

When installing the LTE Antenna, ensure the antenna is mounted vertically and the active antenna element (white fiberglass portion) is not placed against a wall or structure.

**NOTE: Use the full length of the cable. Do NOT cut or splice the cable. For long cable installations, ensure the antenna cable does not place strain on the equipment.**

### Wall-mount

1. Secure the provided bracket to the wall using appropriate screws (not provided).
2. Insert the antenna into the bracket, tightening the screws against the metal base. Do not over tighten.
3. Route the antenna cable down to the intended location of the communicator unit.
4. Excess cable can be coiled close to the communicator. Do not coil too tightly. Coil diameter should be greater than 8".
5. If turning the cable through a 90 degree corner, ensure the bend radius is more than 2".



Figure 6: Wall mount

### Pole-mount

If the antenna is being mounted on a pole, the U-bracket must be used to hold the antenna in place. Follow the instructions below:

1. Insert the antenna into the provided bracket, tightening the screws against the metal base. Do not over tighten.
2. Mount the antenna with bracket onto the pole using appropriate screws.
3. Connect the U-bracket as shown in Figure 7 to secure antenna to the pole.

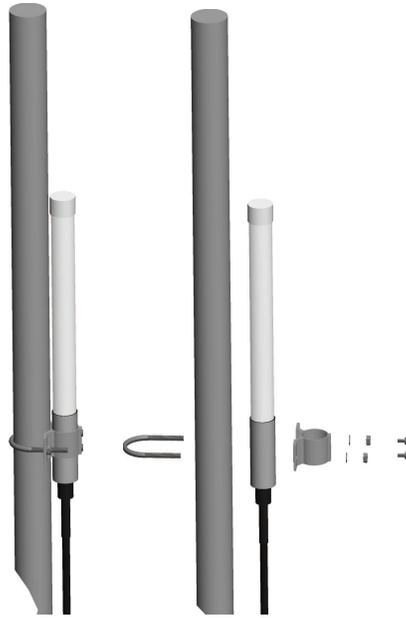


Figure 7: Pole mount

# Specifications

ANTENNA	LTE-15ANT	LTE-25ANT	LTE-50ANT
Type	LTE/3G/2G	LTE/3G/2G	LTE/3G/2G
Gain	3dBi	3dBi	3dBi
Polarization	Linear Vertical	Linear Vertical	Linear Vertical
Frequency Range	698 ~ 2700MHz	698 ~ 2700MHz	698 ~ 2700MHz
Azimuth Beam Width	Omni-directional	Omni-directional	Omni-directional
Radiating element	¼ Wave Helical	¼ Wave Helical	¼ Wave Helical
Admitted Power	100W	100W	100W
<b>Elevation Beam Width (3dB)</b>			
VSWR (max.)	2.0	2.0	2.0
Impedance	50 ohm	50 ohm	50 ohm
<b>Total Weight, with cable (lb/Kg)</b>			
Antenna Length / Diameter	333mm	333mm	333mm
Antenna Diameter	35 mm	35 mm	35 mm
Cable Type	7D-FB	7D-FB	7D-FB
Cable Length (Ft/m)	15' / 4.5 m	25' / 7.6 m	50' / 15.2 m
Connector	RP-SMA	RP-SMA	RP-SMA
Operating Temperature	-40 ~ +80C	-40 ~ +80C	-40 ~ +80C
Storage Temperature	-30 ~ +70C	-30 ~ +70C	-30 ~ +70C

## Warning

Use these instructions in conjunction with the associated Communicator Installation Manual. Disconnect power and telephone lines during the installation of the LTE-15ANT, LTE-25ANT and LTE-50ANT antennas. Only use the LTE-15ANT, LTE-25ANT and LTE-50ANT antennas in conjunction with the supplied coaxial cable. The LTE-15ANT, LTE-25ANT and LTE-50ANT antennas must be installed by service persons only. Use caution when installing the LTE-25ANT and LTE-50ANT antennas near power lines. The outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits, as contact with them might be fatal. NEVER install the antenna during a lightning storm. When installation is complete, verify that the mounting is secure and the connector is properly attached. Ensure the antenna installation is earthed.

### Limited Warranty

Digital Security Controls (DSC) warrants that for a period of 12 months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use and that in fulfillment of any breach of such warranty, DSC shall, at its option, repair or replace the defective equipment upon return of the equipment to its repair depot. This warranty applies only to defects in parts and workmanship and not to damage incurred in shipping or handling, or damage due to causes beyond the control of DSC such as lightning, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration or improper application of the equipment. The foregoing warranty shall apply only to the original buyer, and is and shall be in lieu of any and all other warranties, whether expressed or implied and of all other obligations or liabilities on the part of DSC. DSC neither assumes responsibility for, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product. In no event shall DSC be liable for any direct, indirect or consequential damages, loss of anticipated profits, loss of time or any other losses incurred by the buyer in connection with the purchase, installation or operation or failure of this product.

**To satisfy FCC/IC RF exposure requirements for mobile transmitting devices, a separation distance of 20 cm or more must be maintained between the antenna of this device and persons during device operation.**



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