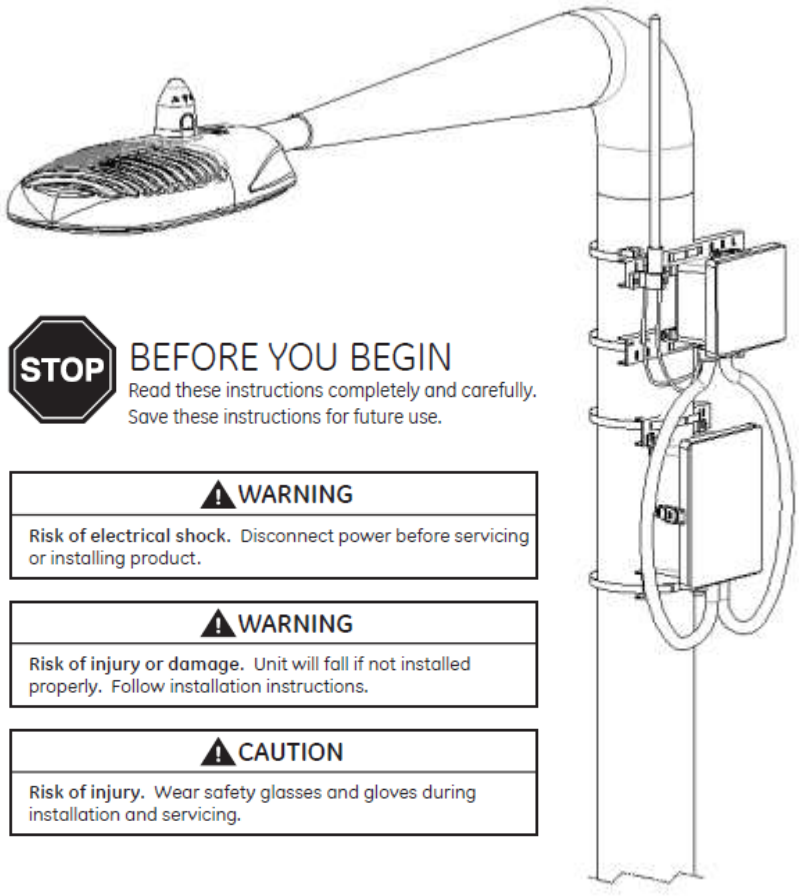
GE
Lighting

Installation Guide

LightGrid
Wireless Outdoor Lighting Control



WARNING

RISK OF ELECTRIC SHOCK

INSTALL IN ACCORDANCE WITH NATIONAL ELECTRIC CODE

WARNING

RISK OF INJURY. The gateway or cellular should be mounted securely upon pole so that it will not move or rotate freely.

STOP

BEFORE YOU BEGIN

Read these instructions completely and carefully.
Save these instructions for future use.

WARNING

Risk of electrical shock. Disconnect power before servicing or installing product.

WARNING

Risk of injury or damage. Unit will fall if not installed properly. Follow installation instructions.

CAUTION

Risk of injury. Wear safety glasses and gloves during installation and servicing.

FCC statements:

This device complies with part 15 of the FCC Rules.
Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

Caution:
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IC Statements:

This device complies with Industry Canada licence-exempt RSS standards.
Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

Cet appareil est conforme aux normes RSS exemptees de licence de Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes:

- Cet appareil ne doit pas provoquer d'interférences et
- cet appareil doit accepter toute interférence, y compris celles pouvant causer un mauvais fonctionnement de l'appareil.

Contents

Components

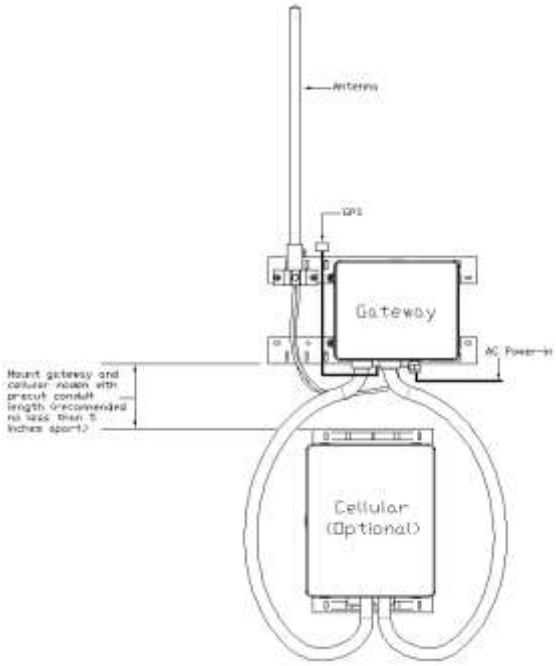
The Gateway and Cellular Units have been packed so that no parts should have been damaged during transit, inspect to confirm.

Gateway Package Includes:

- ELWG0CXXGC – 120/277vac or ELWGHCXXGC – 347-480vac Gateway Unit (1pc)
- Conduit fitting (2pcs) – mounted to enclosure;
- Grey Gland (3pcs),
- Antenna cable (1pc), - mounted to gland;
- Antenna Pole (1pc), - to be installed;
- Pole mounting bracket (2pcs), -mounted to enclosures;

Cellular Package (optional) Includes:

- ELWM0CXV – Cellular Unit – 120/277v (1pc)
- Conduit fittings 30" (2pcs), - mounted to enclosure;
- Ethernet cable 42" (1pcs), mounted to fitting;
- Power Cable 36" (1pc), mounted to fitting;
- Pole mounting bracket (2pcs), mounted to enclosure;



Additional parts/tools (customer supplied)

Customer may require parts listed below:

- Conduit: Nonmetallic Type B liquid-tight ¾" Dia.

(e.g. Cooper LTCOND75NM100);

- Power Cable: 12AWG~18AWG per cord;
- Ethernet Cable: Cat5e outdoor Ethernet cable;
- Tools:
  - Philips Head Screw driver;
  - Steel Strap Cutter;

Optional:

- Caps over gland/conduit fittings;
- RIPLEY Ancillary Power Tap #5731

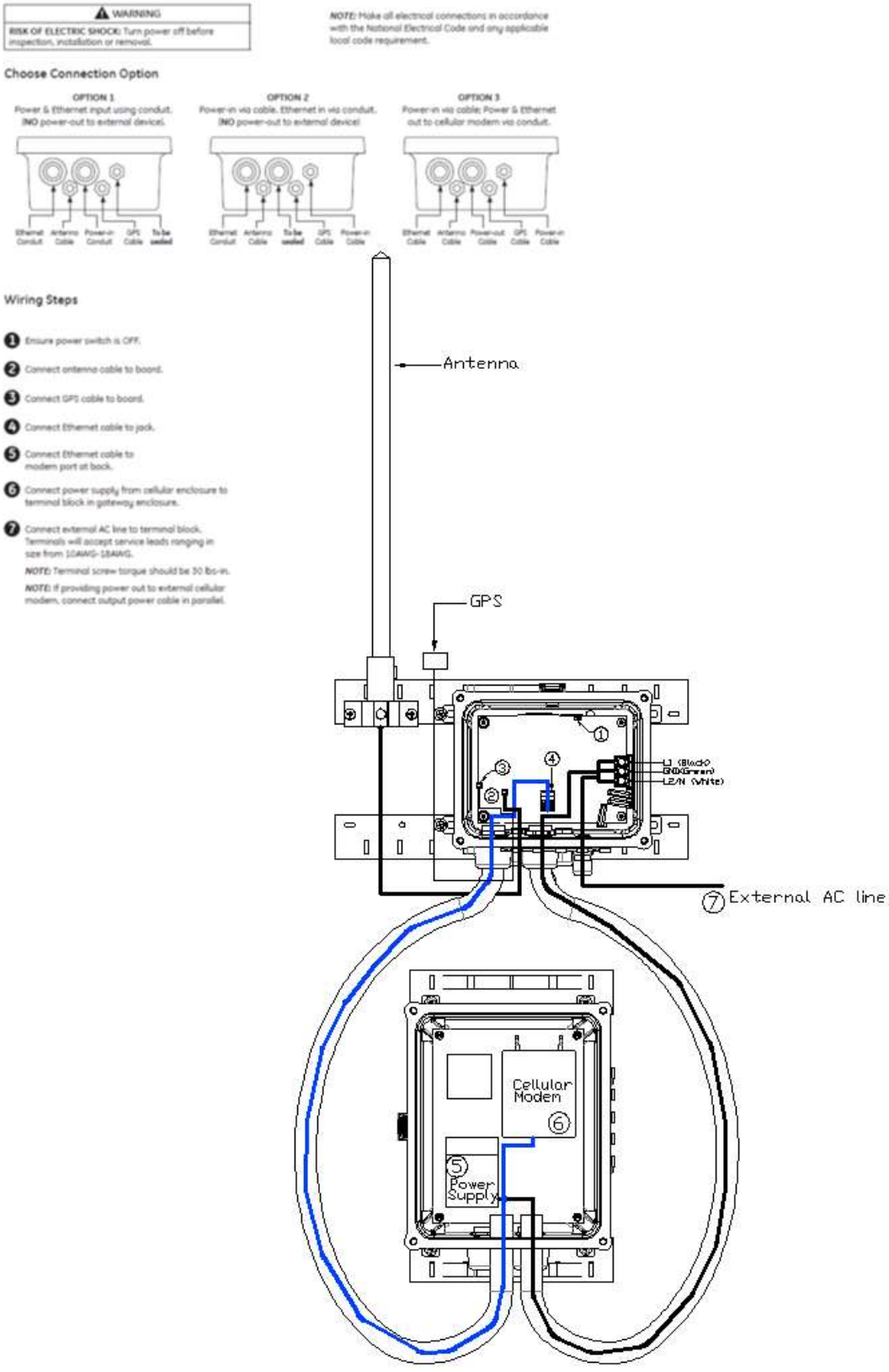
Specifications

	Gateway	Gateway	Cellular
Part Number	ELWG0CXXGC	ELWGHCXXGC	ELWM0CXV
Input Voltage	120-277vac	347-480VAC	120-277VAC
Weight	7 lbs (3.18kg)	7 lbs (3.18kg)	8 lbs (3.63kg)
Dimensions (L x W x H)	7.6"x16"x11" (193x406x280mm)	7.6"x16"x11" (193x406x280mm)	15"x13"x7" (381x330x178mm)
FCC ID	PUU90002	PUU90002	-
FCC Compliance	Part 15 Subpart C (Class B)	Part 15 Subpart C (Class B)	Part 15 Subpart C (Class B)
Mounting Height	24 ft. - 40 ft (8.2 m-12.2 m)	24 ft. - 40 ft (8.2 m-12.2 m)	24 ft. - 40 ft (8.2 m-12.2 m)
Temperature	-40°- 120°F (-40° - 50°C)	-40°- 120°F (-40° - 50°C)	-40°- 120°F (-40° - 50°C)

	Controller
Part Number	ELWN0A_._._1B_._AD
Input Voltage	120-277VAC
Weight	1 lb (0.45kg)
Dimensions (L x W x H)	1.5"x0.6"x0.6" (38.1x15.24x15.24mm)
FCC ID	PUU90003
FCC Compliance	FCC 47 CFR Part 15 C.247 (Class B)
IC ID	10798A-PUU90003
IC Compliance	RSS-247, Section 5
Mounting Height	
Temperature	-40° to 120°F (-40° to 50°C)
Controller Standard	ANSI 7 Pin
Controller Meter	0.5% Utility Grade

Electrical Connections

Depending on configuration of your LightGrid™ system select best option for making connections.



Mounting Gateway and Cellular

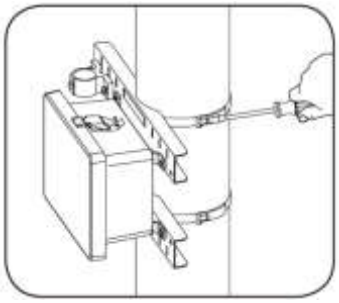
NOTE: Before mounting gateway to pole, ensure circuit powering the gateway is constant power and not switched. Powering gateway with switched circuit will result in damaging gateway and unstable web application for customer. If you have any questions during installation please contact our support team at 1-877-843-5590 or at lightgridsupport@ge.com

NOTE: Mount Gateway and Cellular Units securely in horizontal orientation to a vertical pole and inspect periodically.

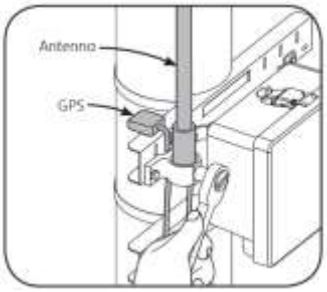
Carefully unpack unit from its packing. Properly inspect for defects before installing.

1. Before attaching gateway enclosure to pole, ensure the mounting band clams are correctly oriented.

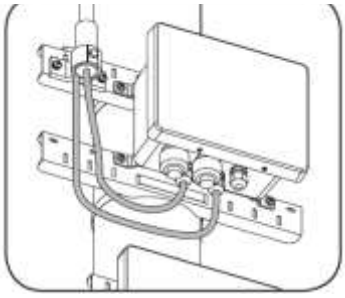
NOTE: Adjustable steel band allows mounting on pole diameters up to 15 inches.



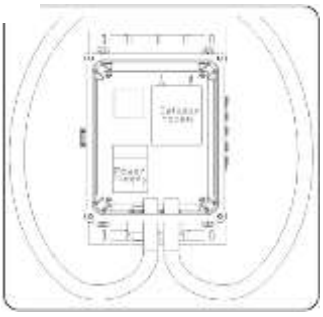
2. Attach gateway enclosure to pole by tightening steel band clamps. Fold or trim excess metal band if needed.



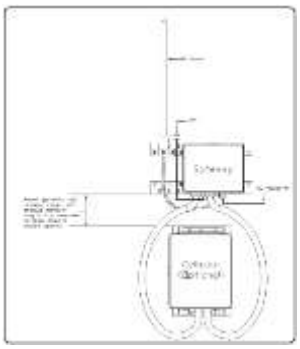
3. Insert the antenna in the mounting bracket and tighten the mounting bolt (45 lbs-in torque). Attach the GPS onto the bracket.



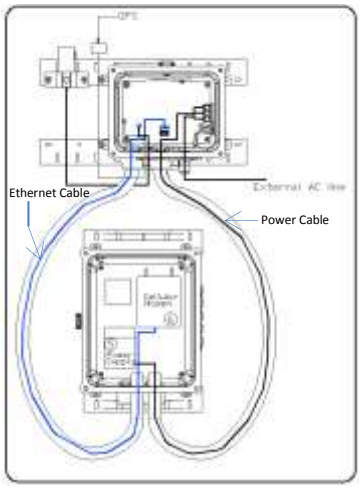
4. Insert GPS and antenna wires through two glands in bottom of gateway enclosures.



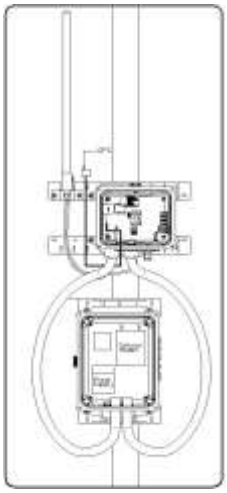
5. Before mounting cellular box to the pole, untighten the conduit nut and insert the two nonmetallic Type B liquid tight conduits into the conduit fittings. Using your hands tighten the conduit fitting nut. **NOTE:** Insert the conduit completely into the conduit fitting, no visible gaps should be seen with conduit inserted into conduit fitting.



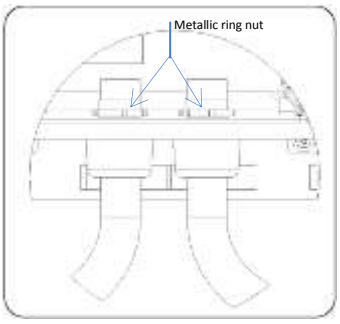
6. Mount cellular unit following the same practice as mounting the Gateway Unit over the same pole. Ensure other end of the flexible conduit fits into conduit fitting hole of gateway.



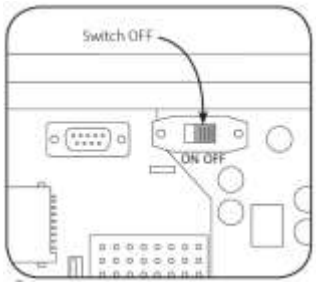
7. Insert Ethernet and Power cable from gateway into flexible conduit and terminate Ethernet cable to modem, and power cable to transformer. See powering gateway and system check for termination information.
NOTE: Ensure you use separate conduit for Ethernet and power cable, do not mix them in same conduit.



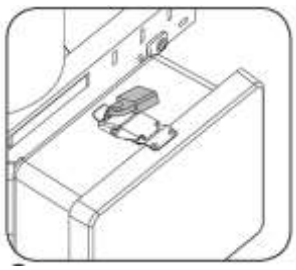
8. Untighten the conduit nut on the gateway and insert the two conduits from the attached cellular modem box to the gateway conduit fitting. Using your hands tighten the conduit fitting nut.
NOTE: Insert the conduit completely into the conduit fitting, no visible gaps should be seen with conduit inserted into conduit fitting. Failure of installing the conduit correctly will result in damage of outside elements entering the enclosures.



9. Inside the cellular modem box check both ring nuts are tight and the conduit fitting does not rotate.



10. Locate the power switch inside the gateway enclosure and move to OFF position.

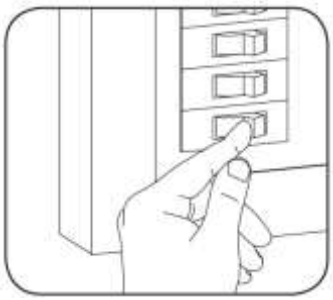


11. Reattach cellular and gateway enclosures covers. Ensure the latches are securely engaged securely

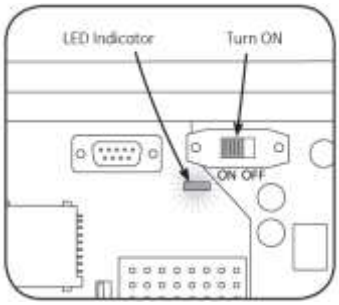
Powering Gateway & System Check

NOTE: Confirm Gateway ON/OFF switch at OFF position.

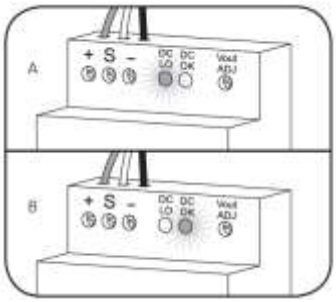
NOTE: Ensure circuit powering Gateway is constant power and not switched. Powering gateway with switched circuit will result in damaging gateway and unstable web application for customer. The system should be powered on by following sequence as below: If you have any questions during system check please contact our support team at 1-877-843-5590 or at lightgridsupport@ge.com



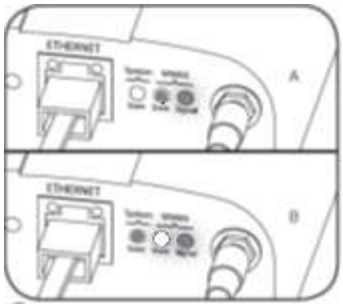
1. Verify that power-in voltage is 120-277v. Turn on external power source.



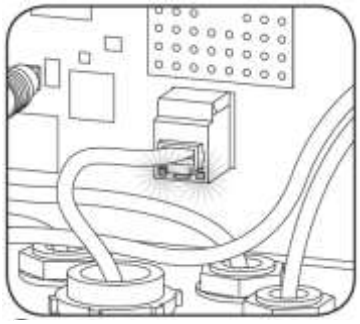
2. Turn the ON/OFF switch to ON position. The LED indicator will turn solid green indicating good connection. Otherwise check all wiring or consult with GE Engineering Team.



3. Inside the cellular enclosure, check the power supply. A) DC/LO will illuminate solid RED after power up. B) DC/OK will illuminate solid GREEN after power stabilizes.

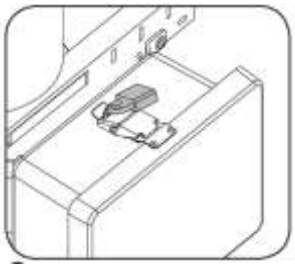


4. After 3 to 5 minutes, check the Ethernet status of the modem inside the cellular enclosure. A) Two LED will be Yellow/Orange indicates antenna signal reaches midrange. B) Solid GREEN and Orange combined indicate antenna signal reaches wide range.



5. Inside the gateway enclosure, check Ethernet port connected with YELLOW port LED blinking.

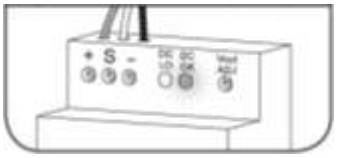
7. Locate cellular modem MEID inside cellular modem box door. Email all MEID to LightGridSupport@ge.com



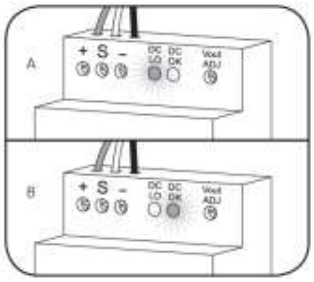
8. Reattach cellular and gateway enclosures covers. Ensure the latches are securely engaged.

Troubleshooting Cellular Modem

In the event that technical support is unable to communicate to the cellular modem we will need to troubleshoot the cellular modem as outlined below. During the troubleshooting process please contact our technical support team at 1-877-843-5590.



1. Inside the cellular enclosure, check the power supply, the DC/OK will be illuminated solid GREEN. If LED is not illuminated GREEN, check power source and connections to power supply terminal are secure. Proceed to step two if power is restored or reset to power supply. If power supply DC/OK is solid GREEN proceed to step three.



2. If power source has been restored or reset. A) DC/LO will illuminate solid RED after power up. B) DC/OK will illuminate solid GREEN after power stabilizes.

3. Solid GREEN and ORANGE LED combined indicate antenna signal reaches wide range. If antenna signal hasn't reached wide range, check if cellular modem antenna is securely connected.

4. If all LED are correct, reset the power to the cellular power supply as outlined in step two. Contact the technical support team and supply them with the MEID of the cellular modem located inside door of the cellular box.

Controller Installation

Carefully unpack unit from its packaging. Properly inspect for defects before installing.

For GE 5-pin Dimming Receptacles

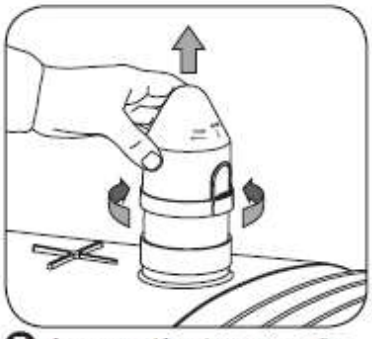
1. Orient controller so large blade aligns with large slot in receptacle and install.

2. If necessary, lift and rotate controller (which will also lift receptacle) so the word 'North' is directed toward true north. Then lower to firmly seat them into position.

For ANSI 3-pin Receptacles

1. Orient 5pin-3pin adapter so large blade aligns with large slot in receptacle and install.

2. Orient controller so large blade aligns with large slot in adapter and install.



3. If necessary, lift and rotate controller (which will also lift receptacle and adapter) so the word 'North' is directed toward true north. Then lower to firmly seat them into position.

After power is restored, and if gateway is installed within range, the controller should indicate one of three LED patterns:

- Both red and yellow LED blinking indicates 'No Network Yet'
- Red LED solid state indicates 'Trying to Join Network'
- Only red LED blinking every 10 seconds indicates 'Working Well' (may take several minutes)