



Installation

100% Serviceable

Signal Mate's UL 1104 Certified lights were designed to give many years of service due to the modular construction that allows for repairs or upgrades.

- **Installation of light.**
- **Installation of replacement LED or power connector modules.**

- **Installation of light**

Signal Mate does not recommend taking the light apart unless needed to prevent humidity entering the light. At the factory, the light is purged and sealed. See removing humidity in the field if needed.

Installation of light:

1. Check voltage (AC, DC, AC/DC) on the label of the light before installation.
2. Position light with center line on label in line with center of vessel. This will lead cable inboard. See optional cable routing if needed.
3. Remove the four flat head sealing screws holding the mounting plate to the aluminum base.
4. Strip back approximately 3" of the outer jacket of cable. Strip back approximately 3/8" of insulation from the conductors.
5. Feed round power cable (SO, JO) through the strain relief and position conductors with a service loop.
6. Snug the strain relief to keep the cable in position to terminate the wires.
7. The terminal block is wire ready and does not need a crimp type termination.
8. Terminate the wires following nomenclature on the PCB:

AC Light: **L** = Line, **N** = Neutral; chassis symbol = chassis ground.

DC Light: + positive; - Negative; chassis symbol = chassis ground.

9. Tighten the terminal block screws and the strain relief.

10. Reinstall the four flat head sealing screws **applying a small amount of marine sealant to the top of the threads.**

11. Secure the mounting plate to the vessel with lock nuts or Loctite / sealant.

Optional cable routing and orientation of LED with center line of vessel:

If the power cable needs to be routed other than inboard, the base can be moved at 90-degree intervals with the following steps:

1. Aline the base mounting plate with the power cable exiting in the desired direction.

Note: This will cause the center line marking on the base to be incorrect, and therefore the LED module must be re-position.

2. Unscrew the lens and pull LED module out. **O-ring should remain in place on the bottom ledge of module at the bottom of the label.**
3. Rotate module until center line mark on the label (below the 3/8" hole) is facing forward to center line of vessel. Aline the two pins on the bottom of the module into the mating holes in one of four positions (0, 90, 180, 270 degrees) while maintaining alinement with the center line of the vessel.
4. Re-tighten the lens hand tight, then a 1/4 turn farther.
5. Secure the mounting plate to the vessel with lock nuts or Loctite / sealant.

Note: The center line on the base will no longer be facing forward.

- **Installation of LED modules and Power Connectors:**

Signal Mate's modular design allows for easy field replacements of modules.

A. Replacement of LED module:

1. Unscrew lens.
2. Pull LED module straight out. O-ring should remain in place on the bottom ledge of module at the bottom of the label.
3. Rotate module until center line mark on the label (below the 3/8" hole) is facing forward to center line of vessel. Aline the two pins on the bottom of the module into the mating holes in one of four positions (0, 90, 180, 270 degrees) while maintaining alinement with the center line of the vessel.
4. Screw in the lens hand tight, then 1/4 turn more.

Removing Humidity

If the light was opened during high humidity, wait until dry weather and follow the steps below to remove humidity in the field.

1. Keep inside of light dry as possible.
2. Remove the lens and LED module.
3. Wipe inside the base and lens with a paper towel to remove moisture.
4. At a distance of 8" – 12 ", direct a heat gun into the base, LED module and lens until base temperature is very warm to hot.
5. Reassemble following steps 3 and 4 above.

B. Replacement of power connector and AC power supply.

1. Remove mounting plate from vessel.
2. Remove 4 sealing screws attaching the mounting plate to the aluminum base.
3. Remove the wires from the terminal block, loosen the wire strain relief and pull out the power wire.
4. Remove the two screws that secure the PCB(s) to the base.
5. Loosen and remove the wires connected to the small green connector. Observe color and position. Left = red (primary). Center = black (ground). Right = white (secondary).
6. Reverse the order to reinstall another PCB assembly.