

INSTRUCTION SHEET

Diffused Metal Halide Kit for Horizontal Mast MLTs

Overview

These instructions illustrate installation of the Diffused Metal Halide Kit. This kit is not compatible with LED lights or LED light towers.

NOTE: It is necessary to enlist the help of an assistant during kit assembly.

Models Affected

Select horizontal-mast MLTs.



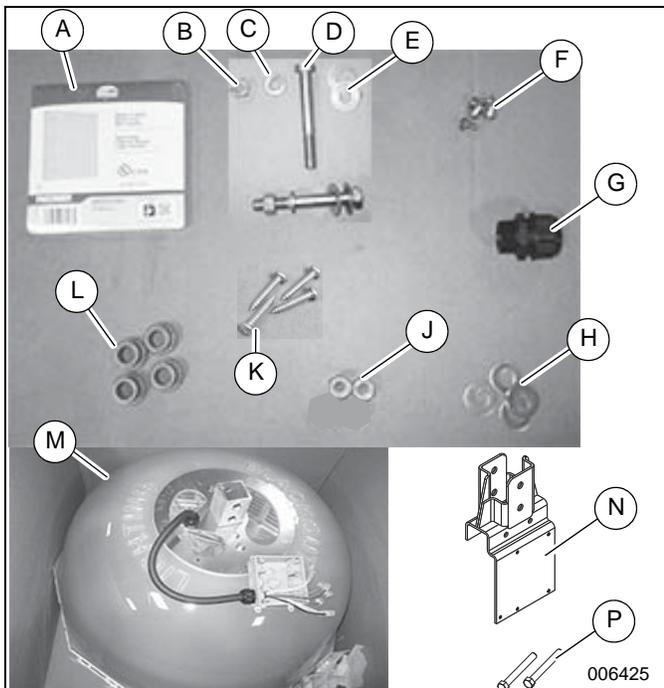
⚠ WARNING

Consult Manual. Read and understand manual completely before using product. Failure to completely understand manual and product could result in death or serious injury. (000100a)

⚠ WARNING

Equipment damage. Only qualified service personnel may install, operate, and maintain this equipment. Failure to follow proper installation requirements could result in death, serious injury, and equipment or property damage. (000182a)

Kit Components



Item	PN	Qty	Description
—	10000022533	1	Instructions
A	12109	1	COVER,BOX,2 GANG,PLSTC
B	61093	2	NUT, .500-13 HEX G8 ZB
C	60276	2	WASHER, .500 SPLIT LOCK ZC
D	50215	2	SCREW, .500-13X4.000 STD HEX G5 ZC
E	60670	4	WASHER, .500 FLAT 1.060/ .110 ZC, G8
F	10000024270	5	SCREW 10-32 X .500 TRUSS PHIL 18-8 SS
G	14656	1	STRAIN RLF, .75 NPT .545/ .709 ID, WT
H	60151	4	WASHER, .375 FLAT .810/ .060 ZY HARDENED
J	60358	2	NUT, .375-16 NYLK G5 ZC
K	60424	4	SCREW, 6-32X.750 PAN PHIL G2 ZC
L	10000022794	4	BEARING .75 OD X .5 ID X .5 L X 1 FLANGE
M	10000022742	1	ASSY MH DIFFUSED LIGHT FIXTURE
N	10000022726	1	WELDMENT BRACKET 3000-5000 HORI MAST
P	60400	2	SCREW, .375-16X3.000 STD HEX G5 ZC

Recommended Tools

- Cross-blade screwdriver
- Combination wrenches—5/16, 7/16, 3/4, 9/16, 11/16, 1-1/8 in.
- Clean gloves
- Clean towel

Installation

Preparing Unit for Service



WARNING

Burn hazard. Lamps become extremely hot while in use. Allow 10–15 minutes for cooling before handling or lowering mast. Touching a hot lens or fixture can cause severe burns.

(000278)

1. Fully retract mast.

IMPORTANT NOTE: See [Figure 1](#). The mast must be in the position shown.

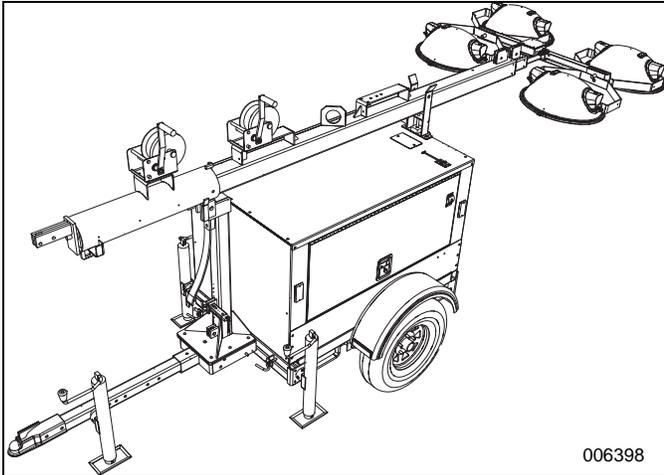


Figure 1. Required Mast Position

2. Place unit on firm, flat surface.
3. Block wheels.
4. Verify unit is OFF, the engine is cool, and the lamps are cool.
5. Disconnect negative (-) battery cable.

Removing Standard Equipment

Unless specified, parts removed in this section do not need to be retained for later installation.

1. See [Figure 2](#). Remove lid of junction box.

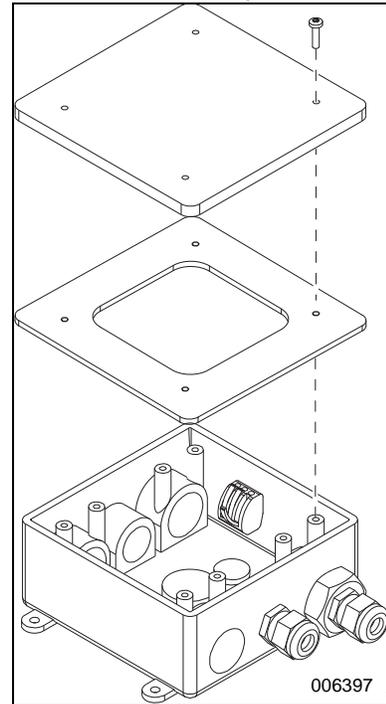


Figure 2. Junction Box Lid Removal

2. In junction box, disconnect all wires, loosen strain reliefs, and remove all wires from box.
3. See [Figure 3](#). Remove light fixtures from crossbar.

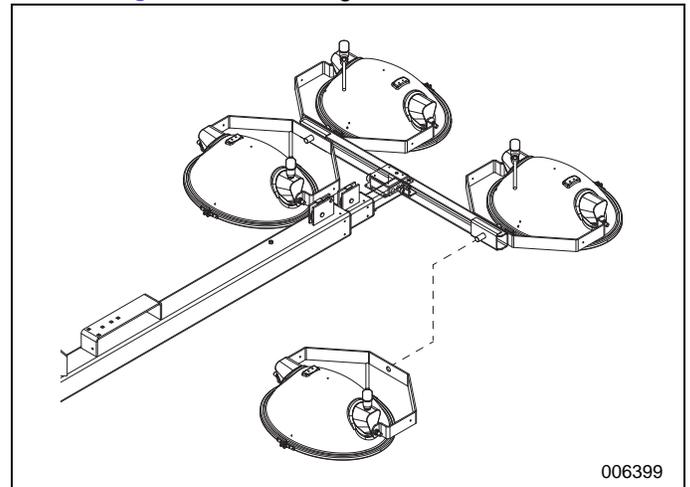


Figure 3. Light Fixture Removal

IMPORTANT NOTE: When checking or replacing the bulbs, wipe them with a clean cloth to avoid leaving any residue or fingerprints on the glass. Residue can result in a hot spot on the bulb and result in premature bulb failure.

- See [Figure 4](#). Remove bulbs from light fixtures: Remove hardware (A), lid (B), and gasket (C). Unfasten bulb support (D). Remove and retain bulb.

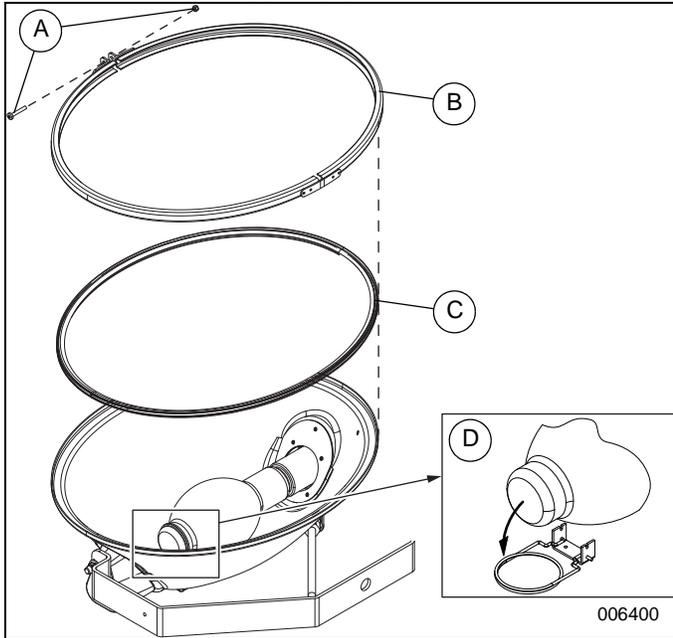


Figure 4. Bulb Removal

- See [Figure 5](#). Remove junction box (A) and crossbar (B) from mast.

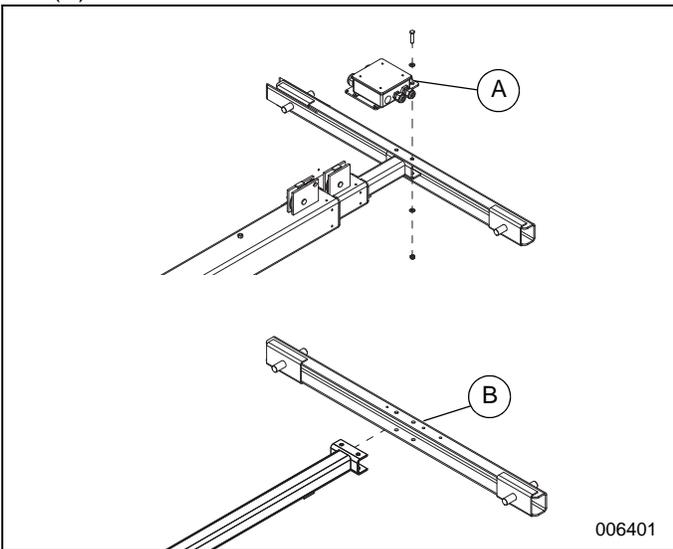


Figure 5. Junction Box and Crossbar Removal

- See [Figure 6](#). Remove and retain tubing clamp (A).

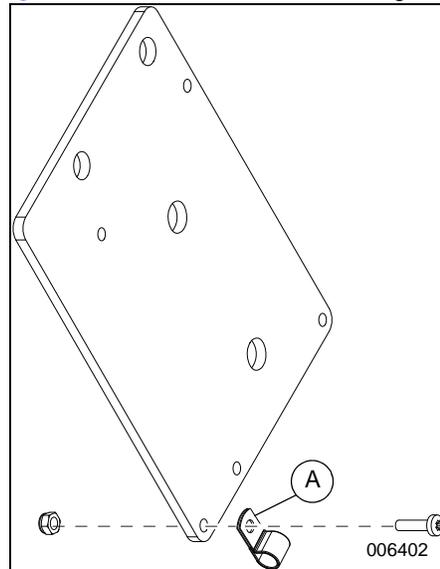


Figure 6. Tubing Clamp Removal

Installing Metal Halide Kit

1. See [Figure 7](#). Obtain light fixture (A). Remove and retain hardware securing sides of lid.

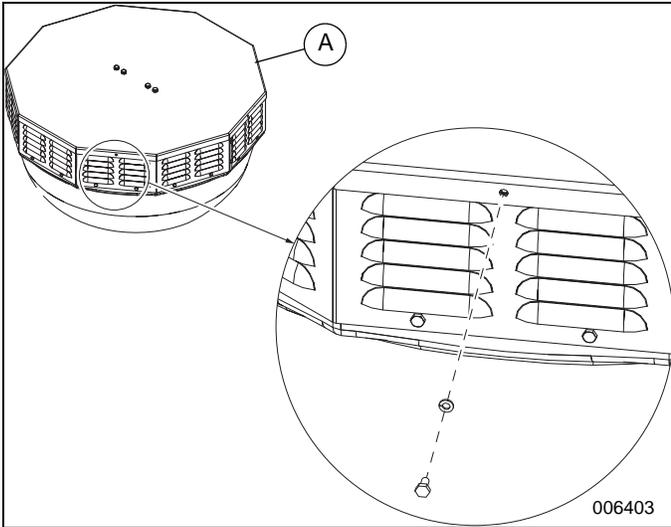


Figure 7. Hardware Removal—Side of Lid

- | Item | Kit PN | Description |
|------|-------------|-------------------------|
| A | 10000022742 | Assembly, light fixture |
2. See [Figure 8](#). Remove and retain hardware securing top of lid. Remove and retain lid.

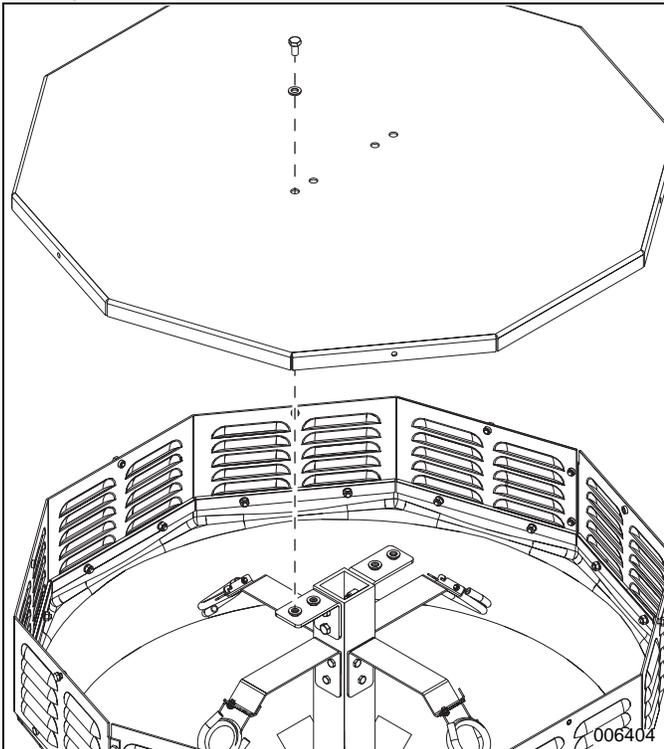


Figure 8. Lid Removal

IMPORTANT NOTE: When checking or replacing the bulbs, wipe them with a clean cloth to avoid leaving any residue or fingerprints on the glass. Residue can result in a hot spot on the bulb and result in premature bulb failure.

3. See [Figure 9](#). Install bulbs, as follows.

Pinch at (A) to release spring-clamp brace. Pivot as illustrated (B). Install bulb (C). Secure bulb with spring-clamp brace as shown (D).

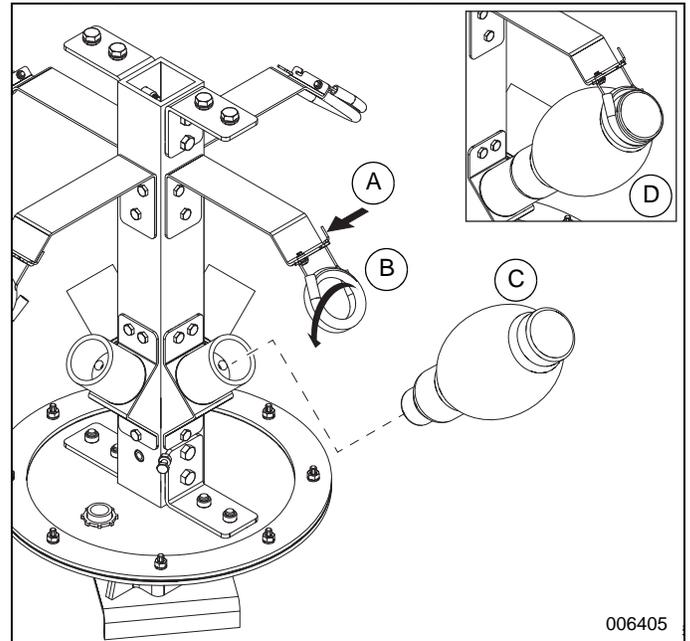


Figure 9. Bulb Installation

4. Install lid to light fixture, as follows.

IMPORTANT NOTE: Excessive torque can strip screw heads and damage threads.

- See [Figure 8](#). Install lid using hardware retained in step 3, lubricating surfaces of rubber washers before installing. Tighten hardware to 19.7 ft-lb (26.7 Nm).
- See [Figure 7](#). Install hardware retained in step 2. Tighten to 75 in-lb (8.5 Nm).

5. See [Figure 10](#). Install bearings (A) to light fixture.

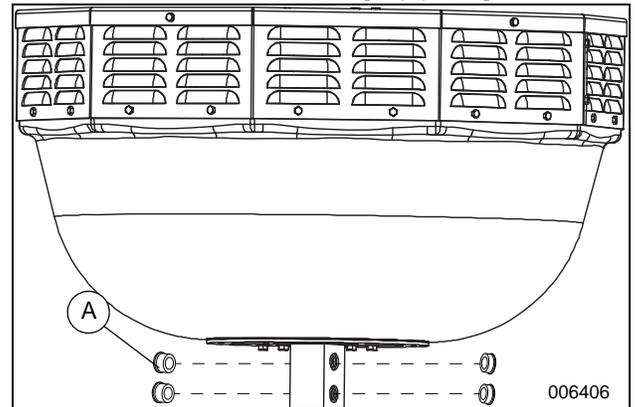


Figure 10. Bearing Installation

Item	Kit PN	Description
A	10000022794	Bearing .75 OD X .5 ID X .5 L X 1

6. See [Figure 11](#). Install weldment bracket to light. Tighten hardware to 41.7 ft-lb (56.5 Nm).

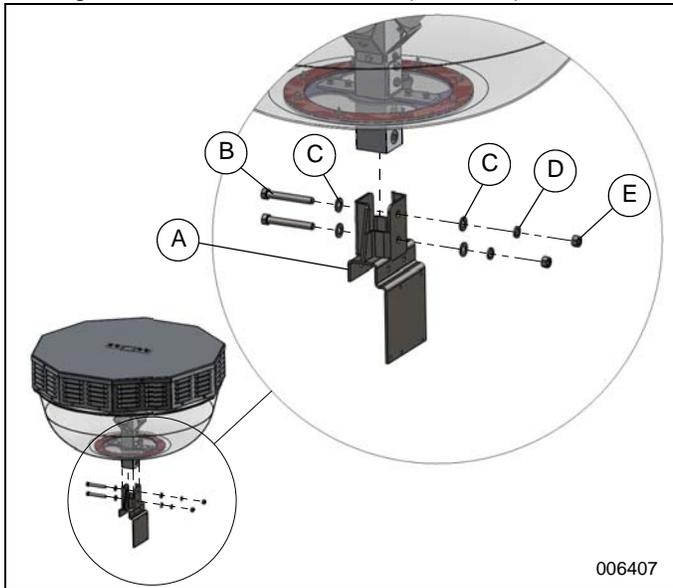


Figure 11. Mounting Weldment Installation

Item	Kit PN	Description
A	10000022726	Weldment bracket 3000-5000 horiz
B	50215	Screw, .500-13X4.0 STD HEX G5 ZC
C	60670	Washer, .500 flat 1.060/.110 ZC, G8
D	60276	Washer, .500 split lock ZC
E	61093	Nut, .500-13 HEX G8 ZB

7. See [Figure 12](#). Install bracket-plus-light-fixture to mast. Tighten hardware to 20 ft-lb (27.2 Nm).

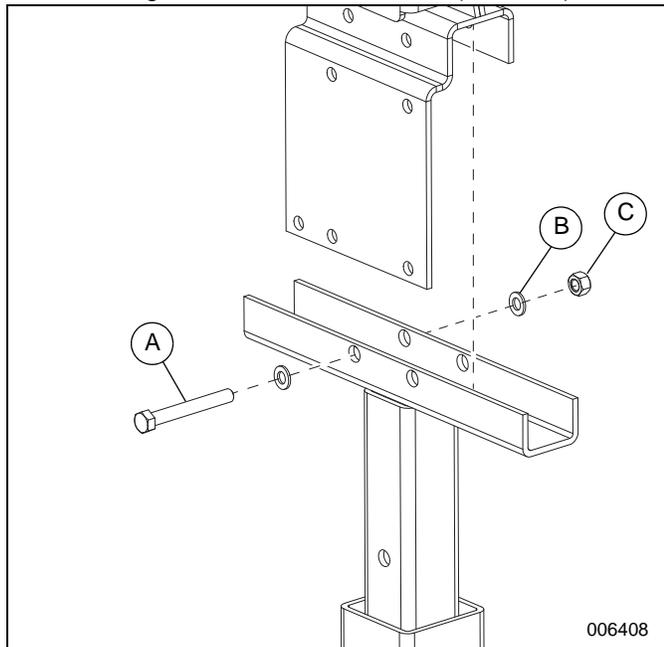


Figure 12. Bracket/Light Fixture Installation to Mast

Item	Kit PN	Description
A	60400	Screw, .375-16X3.00 STD HEX G5 ZC

Item	Kit PN	Description
B	60151	Washer, .375 flat .810/.060 ZY hard
C	60358	Nut, .375-16 NYLK G5 ZC

8. See [Figure 13](#). Install strain relief to junction box. Install coil-cord to tubing clamp, then install tubing clamp as shown.

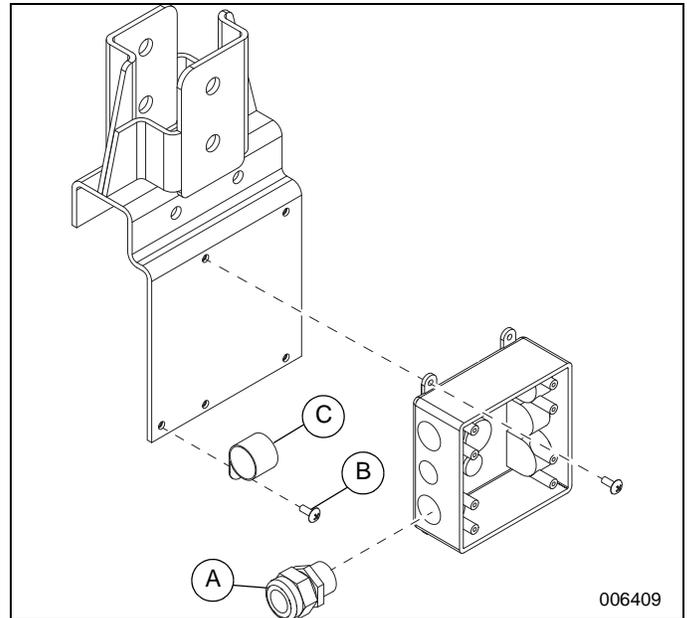


Figure 13. Junction Box Installation

Item	Kit PN	Description
A	14656	Strain relief
B	—	Tubing clamp—retained in step 6 of Removing Standard Equipment .
C	10000024270	Screw 10-32 X .500 truss phil 18-8 SS

9. See [Figure 14](#). Install coil-cord through lower strain relief (A). Verify enough wire is in junction box to connect to WAGO connectors, then tighten strain relief.

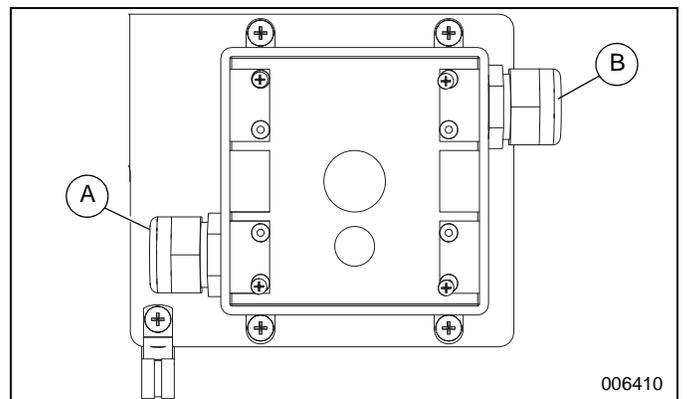


Figure 14. Cable Installation

10. Install light fixture cord through upper strain relief (B). Verify enough wire is in junction box to connect to WAGO connectors, then tighten strain relief.

11. See **Figure 15**. In junction box, connect wires.

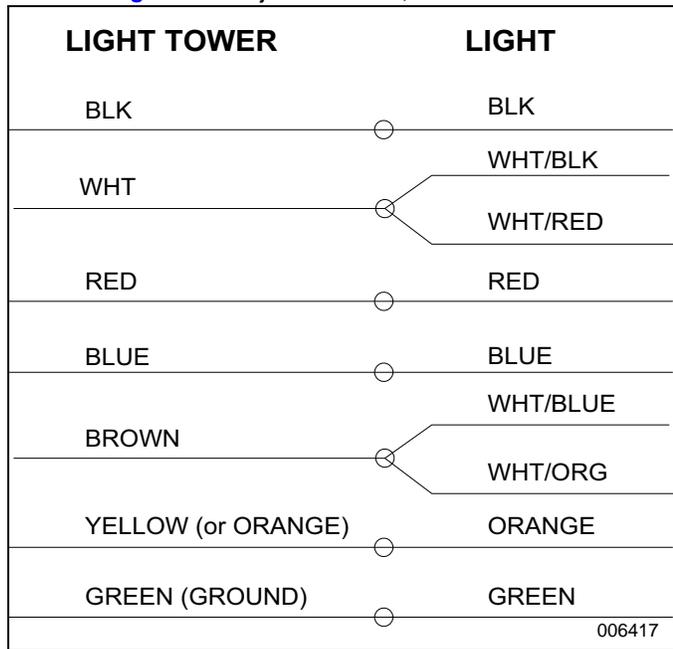


Figure 15. Junction Box Wiring

12. See **Figure 16**. Install junction box cover.

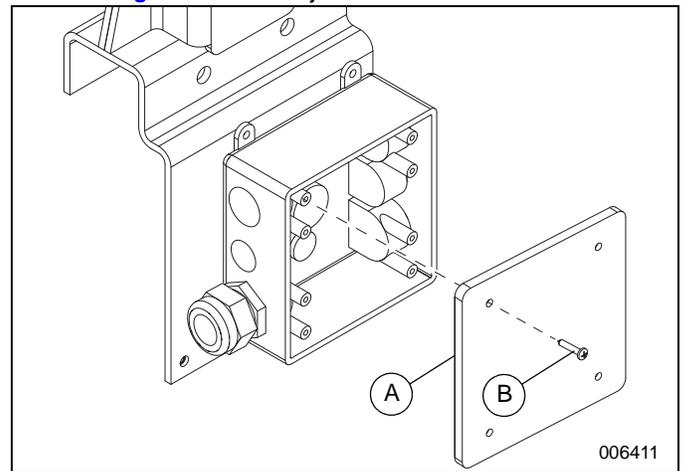


Figure 16. Junction Box Cover Installation

Item	Kit PN	Description
A	12109	Cover, box, 2 gang, plstc
B	60424	Screw, 6-32x.750 pan phil G2 ZC

Diffused Metal Halide Kit installation is complete.