

CHAMP-PAK

HID Lighting Luminaires CPMV Series Installation & Maintenance Information

IF 1425

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

APPLICATION

CPMV Champ-Pak lighting luminaires are suitable for use in the following hazardous (classified) areas as defined by the National Electric Code (NEC®), Canadian Electrical Code (CEC), and International Electrotechnical Commission (IEC):

- Class I Division 2 Groups A, B, C, D;
Class I Zone 2 IIC AEx nR IIC, Ex nR IIC
- Zone 2 - Ex nR IIC
- Class II, Division 1 Groups F & G

Refer to the luminaire nameplate for specific classification information, maximum ambient temperature suitability and cor-

responding operating temperature (T-Number).

CPMV luminaire 4X / IP66 construction is designed for use indoors and outdoors in Marine and Wet locations, where moisture, dirt, corrosion, vibration, and rough usage may be present.

CPMV luminaires are supplied with a choice of voltages (120, 208, 220, 240, 277, 347, 480, tri-tap, multi-tap, etc.) and light sources, High Pressure Sodium (HPS), Metal Halide (MH), and Mercury Vapor (MV), in ratings of 70 through 150 watts.

⚠ WARNING

To avoid the risk of fire, explosion, or electric shock, this product should be installed, inspected, and maintained by a qualified electrician only, in accordance with all applicable electrical codes.

⚠ WARNING

To avoid electric shock:

Be certain electrical power is OFF before and during installation and maintenance.

Luminaire must be supplied by a wiring system with an equipment grounding conductor.

To avoid burning hands:

Make sure refractor and lamp are cool when performing maintenance.

⚠ WARNING

To avoid explosion:

Make sure the supply voltage is the same as the luminaire voltage.

Do not install where the marked operating temperatures exceed the ignition temperature of the hazardous atmosphere.

Do not operate in ambient temperatures above those indicated on the luminaire nameplate.

Install luminaire with lamp base up.

Use only the lamp and wattage specified on the luminaire nameplate.

Use proper supply wiring as specified on the luminaire nameplate.

All gasket seals must be clean.

Before opening, electrical power to the luminaire must be turned off. Keep tightly closed when in operation.

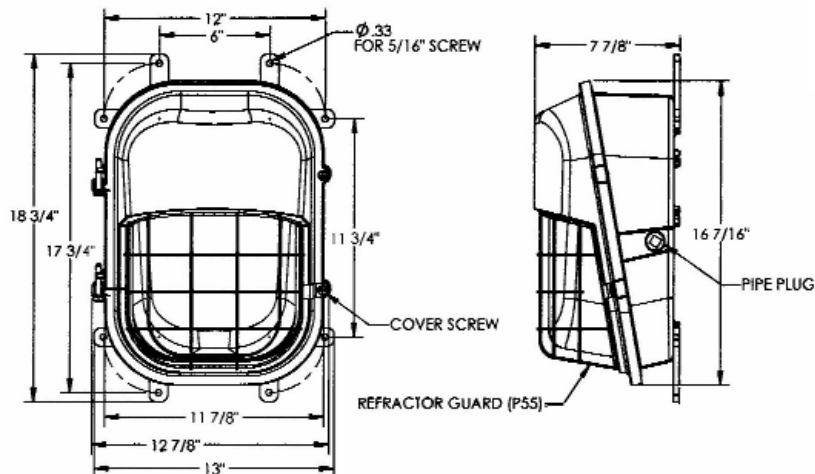


Figure 1

INSTALLATION

Mounting

1. If refractor guard (P55) is required and not factory installed, it may be easier to install now. The guard can be installed any-time during or after the luminaire installation (see REFRAC-TOR GUARD INSTALLATION section).
2. Attach 4 mounting brackets to back of luminaire with hardware provided. Rotate to desired position and tighten to 45 in.-lbs.
3. Mark and drill desired location on mounting surface.
4. Secure luminaire to surface using 5/16" (8 mm) bolts or lag screws (not included).

Wiring

5. Completely loosen the 2 captive cover screws and swing open the cover.
6. For a restricted breathing installation, seal per the RESTRICTED BREATHING SEALING section. Then continue to step 7.
7. Remove housing reflector by loosening four screws and pulling the reflector up and out. Set reflector aside.
8. Connect supply wires to luminaire leads per the attached wiring diagrams, using methods that comply with all applica-ble codes. If the luminaire is installed in a location which requires supply wire rated above 90°C, the supplied lumi-naire leads (rated for 105°C) may be fed to a junction box. Tighten all electrical connections.
9. Reinstall housing reflector.
10. Install lamp. See LAMP INSTALLATION AND REPLACE-MENT section.
11. Close all unused conduit entries with pipe plugs provided. To prevent galling, lubricate pipe plugs with Crouse-Hinds HTL lubricant before installing. Tighten plugs securely, with at least three threads engaged.
12. Close cover and securely tighten the 2 cover screws. For proper gasket seal, torque the screws to 30 in.-lbs (3.4 N·m).
13. Turn power on.

Restricted breathing sealing (or plugging)

Note: Utilizing the Restricted Breathing protection method (-S826) will result in a **cooler** luminaire Maximum Temperature Identification Number or T-Number. See luminaire nameplate for T-Number information.

WARNING

To avoid explosion, the wiring methods used must maintain the integrity of the Restricted Breathing luminaire.

A) Threaded Rigid Metal Conduit Wiring Method Requirements for Restricted Breathing

When wiring with conduit, all conduit entries used must be sealed. Use one of the following two sealing methods to maintain the restricted breathing integrity of Crouse-Hinds CPMV luminaires:

Sealing Method 1: For Conduit. Seal according to NEC 505-15 (c) using Listed Conduit Entrance Seals. Seal all entries used.

Sealing Method 2: For Conduit. Alternate Sealing Method using an Electrical Sealing Putty as follows:

1. A maximum of six (6) #12 AWG conductors can be sealed in each conduit entry.
2. Form the Electrical Sealing Putty into a ball at least 1 inch (25.4 mm) in diameter.
3. Surround each conductor with the Electrical Sealing Putty and form into a ball, making sure the conductors are separated.
4. Carefully push the Electrical Sealing Putty and conductors back into the conduit keeping it flush with the end of the conduit. Make sure the sealing material surrounds all conductors providing a good seal between the conductors and the conduit.
5. Repeat steps 1 through 4 for each entry used.

The Electrical Sealing Putty found to be acceptable for maintaining the restricted breathing characteristics of the CHAMP-PAK series CPMV luminaire is listed in Table 1.

Manufacturer	Designation
Crouse-Hinds	TSC Epoxy
Panduit	Duct Seal (DS-1)

Table 1

B) Cable and Cable Gland or Fittings Wiring Method Requirements for Restricted Breathing

When wiring with cable, use Cable and Cable Glands or Fittings that are suitable for restricted breathing. Install according to instructions supplied with the gland or fitting. Repeat for each entry used.

C) All unused conduit / cable entries must be closed up. Close with pipe plug supplied with unit. To prevent galling, lubricate pipe plugs with Crouse-Hinds HTL Lubricant before installing.

D) If the protection method requires a test port, an unused conduit opening may be used as a test port. Mark test port by attaching self-adhesive label supplied with luminaire next to the test port.

REFRACTOR GUARD (P55) INSTALLATION

Note: It is not necessary to open or remove the cover to install the optional refractor guard, catalog number P55. No additional hardware is needed to attach the guard. To install:

1. Remove the bottom cover screw and set aside.
2. Position the guard at the left side of the luminaire, with the hook to the right and the face of the guard toward the wall. Place the hook of the guard on the lower hinge pin, just above the hinge hook. Swing the guard over the refractor.
3. Reinstall the bottom cover screw through the guard screw tab and the housing screw hole.
4. Tighten the cover screw to 30 in.-lb. (3.4 N·m) torque.

LAMP INSTALLATION AND REPLACEMENT

1. Disconnect power to luminaire and allow to cool completely.
2. Completely loosen the 2 captive cover screws and swing open the cover.
3. Remove lamp.
4. Perform cleaning and inspection as noted in the MAINTENANCE section.
5. Screw new lamp into lampholder and securely tighten lamp. New lamp must be identical type, size, and wattage as marked on the luminaire nameplate.
6. Close cover and securely tighten the 2 cover screws. For proper gasket seal, torque the screws to 30 in.-lbs (3.4 N·m).

CAUTION

To prevent ballast damage on high pressure sodium light luminaires, replace burned out lamps as soon as possible.

To avoid shortened lamp life, lampholder failure, wiring faults, or ballast failure, tighten lamp firmly and completely.

To avoid injury, guard against lamp breakage.

COVER REMOVAL & INSTALLATION

Cover removal:

Note: Hinge is designed with a mechanical stop that will prevent the refractor from hitting the wall.

1. Turn off power to branch circuit.
2. Completely loosen the 2 captive cover screws. Swing cover open.

WARNING

To avoid explosion and wire damage, do not support cover by lampholder wire leads.

3. Disconnect wires to lampholder and cover ground connection and wire nuts.
4. Loosen the wire clamp in the housing and pull lamp leads and ground wire free.
5. With cover fully open, close cover very slightly. Lift up along the hinge pin, toward the top of the luminaire, until the hook touches the upper hinge support.
6. Open the cover slightly wider and continue to lift up until hinge stop is clear of hinge pin.

Cover Installation:

1. With cover open, position cover so that the hook is lying on the open end of the hinge pins.
2. Slide cover down until the hinge stop contacts the hinge support on the housing.
3. Close the cover slightly and slide the cover onto the hinge pins.

4. Route the lamp leads and the cover ground connection through the wire clamp in the housing.
5. Reconnect the lamp leads and the ground wire connection. Tighten the wire clamp.
6. Test the wire routing by closing the cover and observing the flexing of the wires. If the wires are being pinched by the cover, loosen and rotate the wire clamp in the housing.

MAINTENANCE

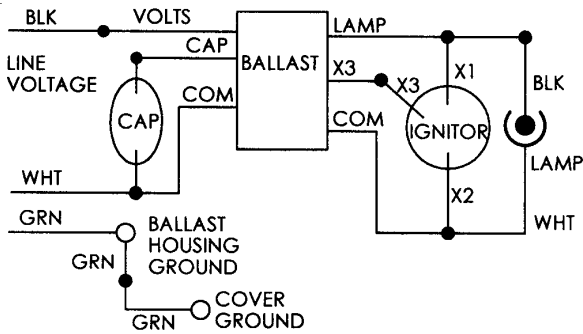
- Perform visual, electrical, and mechanical inspections on a regular basis. The environment and frequency of use should determine this. However, it is recommended that checks be made at least once a year. We recommend an Electrical Preventive Maintenance Program as described in the National Fire Protection Association Bulletin NFPA No. 70B: Recommended Practice For Electrical Equipment Maintenance (www.nfpa.org).
- The refractor should be cleaned periodically to insure continued lighting performance. To clean, wipe the refractor with a clean, damp cloth. If this is not sufficient, use a mild soap or a liquid cleaner such as Collinite NCF or Duco #7. Do not use an abrasive, strong alkaline, or acid cleaner. Damage may result.
- Visually check for undue heating evidenced by discoloration of wires or other components, damaged parts, or leakage evidenced by water or corrosion in the interior. Replace all worn, damaged, or malfunctioning components and clean gasket seals before putting the luminaire back into service.
- Electrically check to make sure that all connections are clean and tight.
- Mechanically check that all parts are properly assembled.

ADDITIONAL MAINTENANCE FOR LUMINAIRES WITH A TEST PORT

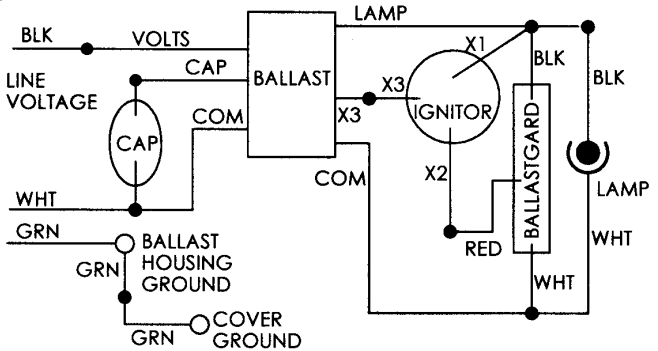
When required, a test port is provided in the luminaire housing. This test port is to be used for checking that the restricted breathing properties of the luminaire are retained. The restricted breathing properties can be verified in accordance with the tests in IEC 60079-15. This opening must be closed with a plug during operation. The restricted breathing properties should be checked only when the surrounding atmosphere is known to be non-hazardous.

WIRING DIAGRAMS

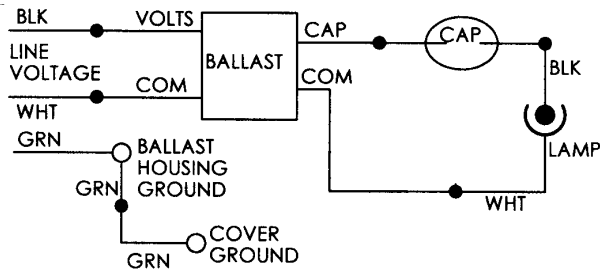
Metal Halide - 70 and 100 watts
High Pressure Sodium - 70, 100 and 150 watts



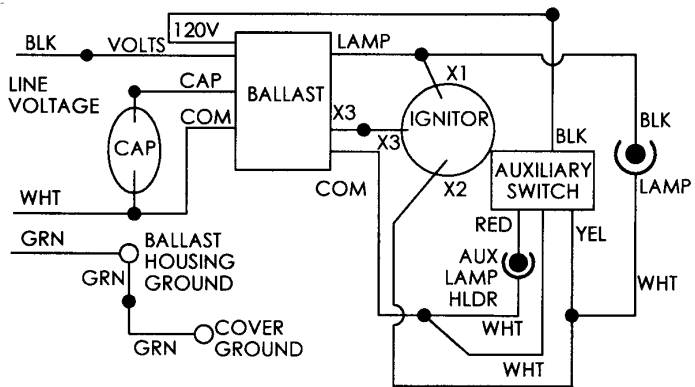
Ballastgard Option (catalog suffix BG) -
High Pressure Sodium only
50, 70, 100 and 150 watts



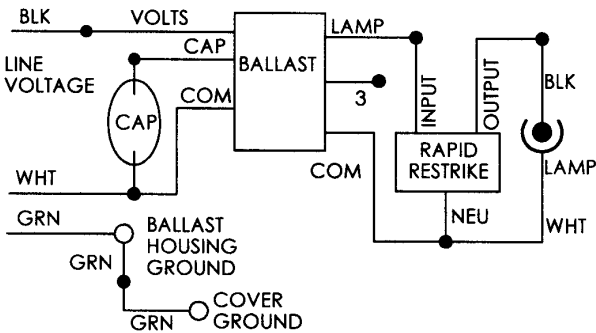
Mercury Vapor - 100 watts



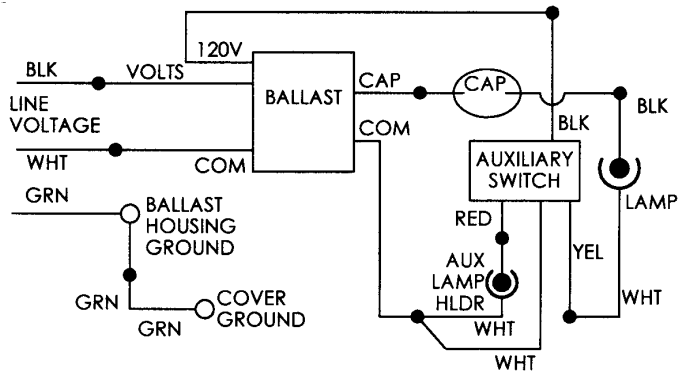
Quartz Auxiliary Lamp Option (catalog suffix QTZ) -
High Pressure Sodium - 50, 70, 100 and 150 watts
Metal Halide - 70 and 100 watts; 150 watt Pulse Start



Rapid Restrike Option (catalog suffix IR) -
High Pressure Sodium only
50, 70, 100 and 150 watts



Quartz Auxiliary Lamp Option (catalog suffix QTZ) -
Mercury Vapor - 100W



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