



# Refractors For CHAMP® Fixture Enclosures

# Installation & Maintenance Information

## APPLICATION

Refractors may be mounted on VMV Series Champ ballast enclosures, (175W and below) in either existing or new installations.

These refractors provide an enclosed gasketed luminaire with IES Type II, III or V light distribution.

## INSTALLATION

### REFRACTOR FOR NEW CHAMP FIXTURE

If a new CHAMP fixture has been ordered for use with a refractor, the fixture is shipped with the modifications made to accept the refractor and an anti-vibration O-ring. The refractor and the O-ring (which is in an envelope) are shipped in a separate carton.

**WARNING**

Be sure electrical power source is **off** before starting the installation.

1. After the fixture has been installed, in accordance with the IF1108 instructions furnished for use with it, the O-ring should be placed above the threads in the ballast housing, as shown in small section of Figure 1 on this instruction sheet.
2. With correct lamp already in place as instructed in IF1108, thread refractor into ballast housing and tighten until it seats against O-ring and white silicone gasket.
3. Installation is now complete and power may be turned **on**.

### REFRACTOR FOR EXISTING CHAMP FIXTURE

When a refractor is ordered for installation on a CHAMP fixture that is already in service, the carton with the refractor also has an envelope with all necessary hardware for installation. This hardware kit consists of a lampholder bracket, two self-threading screws and an anti-vibration O-ring.

**WARNING**

Be sure electrical power source is **off** before starting the installation.

1. Fully loosen the captive cover screw of CHAMP fixture, open ballast housing and allow it to hang on hinge bracket.
2. Disconnect field wiring connected to ballast leads and disconnect grounding wire between cover and ballast housing, if present.
3. Take ballast housing to bench, or other suitable work surface, for installation of required change in lampholder mounting and other work connected with the refractor installation.
4. Remove two (2) lampholder mounting screws in ballast housing and take lampholder out of casting cavity.

**NOTE:** It is not necessary to disconnect or replace lampholder wires if the insulation is intact.

5. Remove white silicone gasket from fixture.
6. Attach lampholder spacer bracket furnished with refractor to lampholder in position shown in Figure 1, using the two (2) mounting screws previously used to mount lampholder.
7. Use two (2) self-threading screws (provided) in holes in casting to mount lampholder and spacer bracket on surface just outside lampholder cavity in casting.
8. Replace white silicone gasket in same position that it was previously.
9. Place O-ring in globe thread opening above threads and against gasket. (See small section in Figure 1.)
10. Install proper lamp in lampholder. (See lamp information on fixture nameplate.)
11. Thread refractor assembly into ballast housing and tighten until it firmly seats against O-ring and white silicone gasket.
12. Hang ballast housing on hook of cover module and make connections to field wiring leads in manner which complies with all applicable electrical codes.
13. Swing ballast housing into closed position on cover module and securely tighten captive locking screw.
14. Turn power **on**.

**CAUTION**

On fixtures larger than 100 watts use only R series glass refractors. PR series plastic refractors can only be used on the following Champ fixtures:

Wattage	Fixture
75 100	VMVC (mercury vapor)
50 70 100	VMVS (high pressure sodium)
70 100	VMVM (metal halide)

These fixtures must only be operated in the vertical position with the lamp base up.

## GLASS REFRACTOR BEAM ADJUSTMENT

Glass refractor designed for IES Type II distribution pattern is adjustable for proper beam alignment. An indicator "STREET SIDE" is molded into refractor lens to designate the side of the refractor to be aimed toward the area to be lighted (see Figure 2 and 3). After completing steps in previous procedure, loosen clamp ring and rotate refractor until indicator is oriented so that it is on the same side as the area to be lighted. The arrows should be aligned parallel to the long axis of the area. Securely tighten clamp ring.

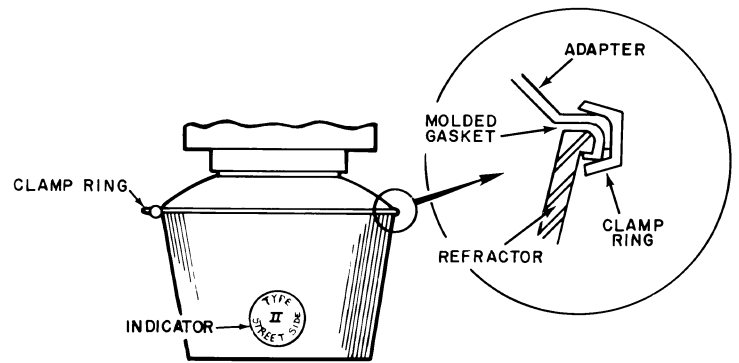
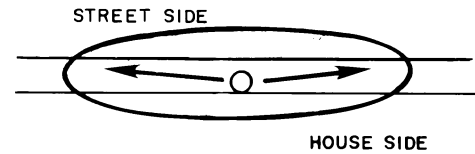


Figure 2.

## PLASTIC REFRACTOR BEAM ADJUSTMENT

Plastic refractors designed for IES Types II and III distribution patterns are adjustable for proper beam alignment. An indicator "HOUSE SIDE" is molded into the refractor lens to designate the side of the refractor to be aimed away from the area to be lighted. After completing steps in the previous procedure loosen clamp ring and rotate refractor until "HOUSE SIDE" indicator is oriented 180° from area to be lighted.



TYPE II or TYPE III

Figure 3.

### CAUTION

It is NOT necessary to disturb the clamp ring, during installation or relamping. Any damage to the enclosed gasket would void the refractor dust seal.

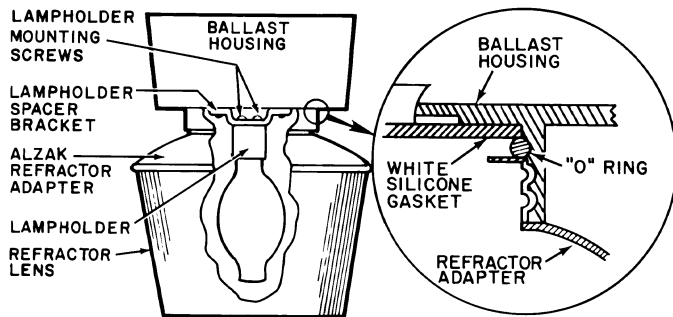


Figure 1.

### WARNING

When used in classified locations do not install where marked operating temperature exceeds ignition temperatures of hazardous atmospheres. Keep tightly closed when in operation.

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