

## Installation Instructions

### INSTRUCTIONS PERTAINING TO A RISK OF FIRE, OR INJURY TO PERSONS.

#### IMPORTANT SAFETY INSTRUCTIONS. SAVE THESE INSTRUCTIONS.

(Failure to follow the warnings and instructions on this sheet could result in fire, injury, failure of product, and/or voiding of warranty.)

1. Do not touch while lamp is on. Turn off/unplug and allow to cool before replacing lamp.
2. Lamp gets HOT quickly! Contact only switch/plug when turning on.
3. Keep lamp away from materials that may burn.
4. Do not install fixture in contact with combustible materials.
5. Do not touch lamp at any time. Use a soft cloth. Oil from your skin may damage lamp.
6. Do not operate with damaged or missing parts.
7. Do not disassemble beyond faceplate removal to facilitate lamp and accessory installation/replacement, or as otherwise directed in the installation instructions below.
8. Periodically remove any debris or build-up accumulated on the faceplate, on the lens, or in the housing. Failure to do so could result in reduction in performance, fixture overheating, or fire.
9. Do not install within 10 feet of a pool, spa, or fountain.
10. Have installed in accordance with all applicable installation codes and standards by a person familiar with the construction, operation, and hazards involved. Consult a qualified electrician to ensure correct branch circuit conductor.
11. Use only cable rated for low voltage. Cable buried more than 6" must be suitable for direct burial. Direct burial cable may be ordered from Vision3 Lighting.
12. Lens temperatures can get hot enough, with some lamps, to cause injury when touched.
13. Failure to follow these instructions can cause fire, injury, and/or void warranty.

#### Notes:

- This fixture should not be mounted in such a way that the Faceplate is buried or below grade.
- This fixture requires a remote transformer.
- Wiring connections must not be exposed to moisture/water. All wiring must be done using the provided Silicone Filled Wire Nuts, or in another industry standard water tight manner. Failure to do so could result in water being siphoned into the Body thru the wire strands in the Power Input Cable and causing a moisture/water related failure.
- LED models should only be powered and controlled by compatible transformers and control systems. Contact Vision3 Lighting for approved transformer / controls list. Using non-approved transformers / controls could cause the LED to not operate properly or fail.
- Integral LED options come with a High/Low switch. See 'Integral LED Output Switching' instructions in the 'Integral LED Maintenance' section. Switch will be set to 'High' setting at the factory, unless otherwise specified when ordered.
- Use only Vision3 approved Retrofit MR16 LED options and supplied Heatsink Mount, otherwise LED may overheat and fail.
- LED ratings subject to change without notice. See website or contact V3 for most current info.

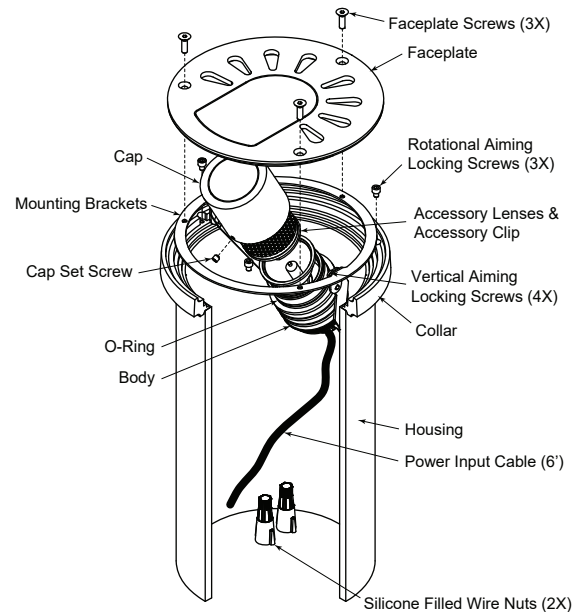
**Caution!** Fixture will be hot if lamp is on. Remove power and allow fixture to cool before performing any adjustments or maintenance.

#### Unpack:

1. Unpack the fixture from it's box.
2. Check through all packaging material to make sure there aren't any items hidden in it before discarding.
3. Remove the Faceplate Screws (3X) and remove the Faceplate (if shipped assembled).
4. Loosen the Rotational Aiming Locking Screws (3X) and remove the Mounting Brackets/Body/Cap assembly from the Housing (if shipped assembled).

#### Inspection:

1. Referring to the sketch on the right, along with the packing list and order, check that all components are accounted for. Contact Vision3 lighting immediately if any discrepancies are found. Note: depending on the options and accessories ordered, certain components may not be included.
2. Inspect all parts for shipping damage, such as: broken lenses, broken lamps, cut or nicked cable, damage to the cable connector on the Body, cut O-ring, etc. If any damage is found, do not install fixture. Contact Vision3 lighting so that damaged items can be repaired or replaced.
3. Cover and store all parts in a clean, dry, and safe place until it is time for installation. Note: Plastic bags are handy for keeping parts organized and clean during storage.



Shown with MR16 Halogen Lamp Option

#### Housing Installation:

1. Before beginning Housing installation, examine Housing to ensure that there is no damage, visible defects, or missing parts. Contact Vision3 lighting if any issues are found.
2. Dig an appropriately sized hole for the Housing and trench for direct burial power cable.
3. Run power supply cable (not supplied) in the trench to the hole in accordance with all applicable installation codes and standards.
4. Feed the power supply cable thru the bottom of the Housing. Note: Feed enough thru so that there will be at least 12" of excess cable past the top of the Housing when installed in the hole.
5. Place the Housing in the hole so that it is at the desired elevation. The Housing should be placed such that the top of the Collar is flush or above grade level. Note: If there is to be ground cover (such as rock, bark, or low growing plants) used around the fixture, allow for that during installation and raise the

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installed height accordingly. Caution!: The fixture gets hot when operated and should not be installed so that it is in contact with combustible materials!

6. Coil any excess power supply cable into the Housing.
7. Stuff a rag into the top of the Housing to keep dirt/concrete from entering the Housing and threaded holes during the rest of installation. Alternatively, a cover can be fashioned from wood or cardboard.
8. Fill in around the Housing:

#### Landscape Install:

- a. Begin filling in the hole around the Housing with soil in 1" to 2" increments, compacting as you go. Note: If the local soil conditions prevent proper drainage, such as with clay, it is recommended that sand or a loose soil/peat gravel mixture be used to backfill the hole. It may also be required to dig a deeper hole to allow for thorough drainage around fixture.
- b. Continue filling around the Housing, compacting as you go. Be careful to not damage the power cable when compacting. Fill up to the desired level. Note: The Housing should never be placed such that the top of the Faceplate is below grade level or in an area where there is the possibility of being covered by water. The landscape contour should be such that water flows away from the fixture.
- c. Fill in the trenches and cover the power supply cable.
- d. Install appropriate ground cover, if being used.

#### Concrete Install:

- a. Slightly back fill a few inches of dirt around the Housing to hold it in place.
  - b. Fill in the trenches and cover the power supply cable.
  - c. Pour concrete around the Housing, up to the top of the Collar. Do not allow any concrete to enter the Housing or screw holes. Reinforcing rods must be used in the concrete to prevent cracking of the concrete from the heat of the fixture. Note: The Housing should never be placed such that the top of the Faceplate is below grade level or in an area where there is the possibility of being covered by water. The concrete should be contoured such that water flows away from the fixture.
9. Remove the rag from the Housing. Clean the threaded holes and top of the Collar. Note: A can of compressed air (such as used for cleaning computers) is handy for blowing out threaded holes.
  10. Cut and strip the power supply cable and Power Input Cable. Note: Cut such that, after cables are wired together, there is enough slack to pull the Body in and out of the Housing for maintenance, but don't leave so long that it is difficult to coil the cables into the Housing.
  11. Attach the power supply cable to the Power Input Cable using the supplied Silicone Filled Wire Nuts (2X). Note the wattage of the lamps being used and make sure the power supply is properly sized and delivers the proper voltage.
  12. Install the Lamp and Accessory Lenses as described below, if not already installed.
  13. Slide the Mounting Brackets/Body/Cap assembly into the Housing. Coil the cables at the bottom of the Housing to keep them from kinking. There is a groove in the Collar for the ring shaped bracket to sit in. The Rotational Aiming Locking Screws (3X) should pinch the ring shaped bracket into the Collar. Note: You may have to remove one of the screws to install the bracket.
  14. Loosen the Vertical Aiming Locking Screws (4X).
  15. Aim the fixture by swinging/rotating the Mounting Brackets until the Body is in the desired location. Note: The fixture should not be aimed such that the Body is any closer than 1/8" to the inside of the Housing. The 1/8" hex tool supplied in the tool kit for removing the Faceplate can be used to gauge the distance. Failure to maintain this distance can cause damage to the Housing.
  16. Tighten the Vertical Aiming Locking Screws (4X) and the Rotational Aiming Locking Screws (3X).
  17. Bolt the Faceplate to the Collar using the Faceplate Screws (3X) Note: Apply a small dab of anti-seize to each screw (not supplied) to keep screws from seizing over time.

#### Cap Removal / Installation:

##### Cap Removal:

1. Remove power from fixture and let cool before touching. **Caution! Fixture may still be hot!**
2. Loosen and remove the Faceplate Screws (3X). Note: Thoroughly clean any dirt and debris from the hex in each screw before attempting to loosen. Failure to do so will cause the screw heads to strip.
3. Loosen the Rotational Aiming Locking Screws and pull the Mounting Brackets/Body/Cap assembly out of the Housing.
4. Loosen the Cap Set Screw using a 3/32" hex tool – **do not remove screw!**
5. Remove the Cap. Holding the Body and twisting while removing reduces the risk of damaging the O-ring.
6. Inspect O-ring for damage. Replace if necessary.

##### Cap Installation:

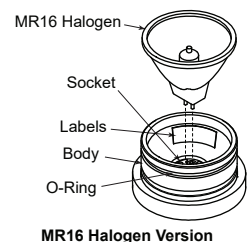
1. Install Cap on to Body by pushing and twisting slowly. If O-ring is excessively dry, use a small amount of Krytox lubricant.
2. Tighten Cap Set Screw with the 3/32" hex tool so that it just bottoms out. **Do not over tighten the Cap Set Screw!** This may cause the fixture to not seal properly.
3. Clean the threaded holes and top of the Collar. Note: A can of compressed air (such as used for cleaning computers) is handy for blowing out threaded holes).
4. Install and aim the Mounting Brackets/Body/Cap assembly as described above.
5. Bolt the Faceplate to the Housing using the Faceplate Screws (3X) Note: Apply a small dab of anti-seize to each screw (not supplied) to keep screws from seizing over time.

#### Accessory Maintenance:

1. Remove Cap as explained in Cap Removal process.
2. Remove Accessory Clip from Cap, if any.
3. Carefully remove Accessories, if any.
4. Inspect all items for damage. Replace if necessary.
5. Clean Cap and Accessories with a clean, damp cotton cloth.
6. Carefully install Accessories into Cap.
7. Compress Clip and push into Cap until it holds Accessories tightly.
8. Re-assemble fixture as explained in Cap Installation process.

#### MR16 Halogen Lamp Maintenance (for models with MR16 halogen lamp):

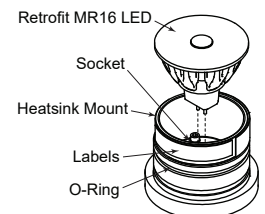
1. Remove Cap as explained in Cap Removal process.
2. Pull MR16 Halogen lamp straight out. **Caution! Lamp may still be hot! Be sure lamp has cooled before touching.**
3. Inspect Socket for any damage.
4. Clean inside of fixture and Cap with a clean dry cloth.
5. Push new MR16 Halogen lamp straight in, being careful to align pins. **Note:** Replacement lamp must not exceed ratings on Label.
6. Re-assemble fixture as explained in Cap Installation process.



MR16 Halogen Version

#### Retrofit MR16 LED Maintenance (for models with retrofit MR16 LED lamp):

1. Remove Cap as explained in Cap Removal process.
2. Pull Retrofit MR16 LED straight out. **Caution! LED may still be hot! Be sure LED has cooled before touching.**
3. Inspect Socket for any damage.
4. Clean inside of fixture and Cap with a clean



Retrofit MR16 LED Version

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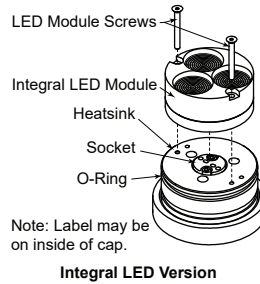
dry cloth.

- Push new Retrofit MR16 LED straight in, being careful to align pins. Make sure LED fully contacts Heatsink Mount, otherwise LED may overheat and fail prematurely. **Note:** Replacement LED must not exceed ratings on Label. Only use Vision3 approved Retrofit MR16 LED and supplied Heatsink Mount, otherwise LED may overheat and fail.
- Re-assemble fixture as explained in Cap Installation process.

#### Integral LED Module Maintenance (for models with Integral LED Module):

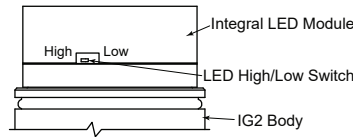
##### Integral LED Module Replacement:

- Remove Cap as explained in Cap Removal process.
- Loosen and remove the LED Module Screws.
- Pull Integral LED Module straight out. Do not twist or the pins will break off in the Socket. **Caution! LED may still be hot! Be sure LED has cooled before touching.**
- Clean the grease off of the Heatsink top surface using a rag dipped in alcohol.
- Inspect the Socket for any damage.
- If the replacement Integral LED Module does not come with a thermal transfer pad on the base, apply a thin layer of thermal grease (not supplied) to the surface of the Heatsink that will contact the bottom of the Integral LED Module.
- Align the pins on the Integral LED Module with the Socket and push straight in. Do not twist or push in at an angle or the pins may be damaged.
- Install and tighten the LED Module Screws. **Caution!** Over tightening of screws could crack the Integral LED Module case.
- Re-assemble fixture as explained in Cap Installation process.



##### Integral LED Output Switching:

- Remove Cap as explained in Cap Removal process.
- Inspect for damage. Replace any damaged parts, if necessary.
- Clean inside of fixture and Cap with a clean, damp cotton cloth.
- Find LED High/Low Switch on side of Integral LED Module.
- Using a pin, small nail, etc, flip the switch in the desired direction. See the Integral LED Module Switch sketch for which direction corresponds to which setting.
- Re-assemble fixture as explained in Cap Installation process.



#### COB LED Maintenance (for models with COB LED):

##### Changing COB LED Optics:

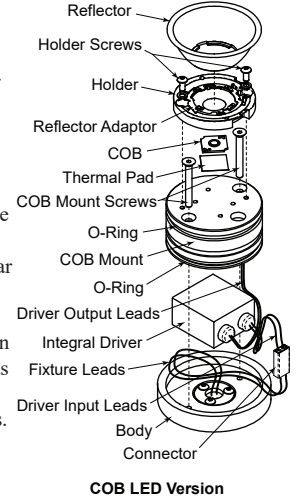
- Remove Cap as explained in Cap Removal process.
- Twist Reflector counter-clockwise to unlock and remove.
- Insert new Reflector and twist clockwise to lock.
- Re-assemble fixture as explained in Cap Installation process.

##### Changing COB LED Chip:

- Remove Cap as explained in Cap Removal process.
- Twist Reflector counter-clockwise to unlock and remove.
- Loosen and remove the two Holder Screws, the Reflector Adapter, and the Holder. Note: Twist Holder to facilitate COB removal.
- Note the orientation of the COB. Compress the Holder clip and carefully remove the COB chip.
- Thoroughly clean the COB Mount with a lint free towel. Note: Make sure the old Thermal Pad and any residue are removed from the COB Mount.
- Place the new COB up against the Holder clip in the same orientation as the removed COB. Ensure that the polarity marks on the Holder match the

polarity marks on the COB. Slowly press on the opposite side of COB to compress the Holder clip until the COB drops into the recess. Note: Only touch the edges of the COB as oils and dirt from your skin can damage the diodes.

- Remove clear plastic film from supplied Thermal Pad, and, using light pressure, apply to back of the new COB chip. Make sure pad is square and fully covers the back of the COB. Remove secondary clear plastic film from the exposed side of the Thermal Pad.
- Place the Holder and Reflector Adapter on the COB Mount in the same orientation as it was removed.
- Install and tighten the two Holder Screws. Do not overtighten.
- Insert Reflector and twist clockwise to lock.
- Re-assemble fixture as explained in Cap Installation process.



##### Changing COB LED Integral Driver:

- Remove Cap as explained in Cap Removal process.
- Twist Reflector counter-clockwise to unlock and remove.
- Lightly pull and twist Driver Output Leads (red & blue) until they are removed from the Holder. Note lead position.
- Loosen and remove the two Holder Screws, the Reflector Adapter, and the Holder. Note: Twist Holder to facilitate COB removal.
- Loosen and remove the two COB Mount Screws.
- Note the orientation of the COB Mount. Remove the COB Mount by slowly pulling it off of the body.
- Note positioning and routing of Integral Driver wires. Remove Integral Driver from the COB Mount.
- Lightly pull and twist Driver Input Leads (black) to remove from Connector.
- Install new Integral Driver by inserting input leads (black) into Connector. Route Integral Driver leads similarly as the removed Integral Driver.
- Route the Driver Output Leads (red & blue) through the COB Mount and then seat the Integral Driver in the COB Mount.
- Install COB Mount onto the Body in the same orientation as it was removed.
- Install and tighten the two COB Mount Screws until the COB Mount bottoms out. **Caution! Do not pinch leads!**
- Place the Holder with COB and Reflector Adapter on the COB Mount in the same orientation as it was removed. Note: If COB chip needs to be replaced also, do that now, as explained above.
- Install and evenly tighten the two Holder Screws. Do not overtighten.
- Install Driver Output Leads into the Holder (red to '+' & blue to '-'). Excess wire can be pushed into spacer.
- Insert Reflector and twist clockwise to lock.
- Re-assemble fixture as explained in Cap Installation process.