

! WARNING! READ BEFORE INSTALLING

- !** Install and locate this light in accordance with the installation instructions.
- !** This light is potentially hazardous if not properly installed.
- !** This light must be installed in conformance with Article 680 of the National Electric Code and all local code requirements.
- !** To reduce the risk of electric shock, a Class A ground fault circuit interrupter (GFCI) shall be installed in the branch circuit by a licensed electrician, and all devices in the system must be properly grounded. **DO NOT use extension cord sets.**
- !** The total electrical system must be installed, tested, and approved by a licensed electrician before it is placed in operation.
- !** This light is not intended for installation in pool or spa floors. It must be installed in a vertically oriented wall. Failure to install the fixture properly could result in personal injury and/or property damage.
- !** Never operate this light for more than ten seconds without completely submerging it in water. Total submersion is required for cooling.
- !** Except when the light is installed in an area of the swimming pool that is not used for swimming and the lens is adequately guarded to keep any person from contacting it, the fixture shall be installed in or on a wall of the pool, with the top of the lens opening not less than 18 inches below the normal water level of the pool.
- !** Transformer used to supply power for 12V lights shall be an isolated winding type with a metal barrier between the primary and secondary windings. Output rating: 12V, 300 Watts lamp max.

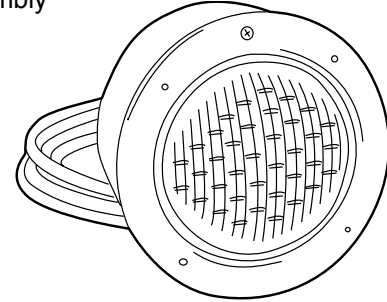
Full Moon™ pool lighting fixtures are designed to meet the National Electric Code - Article 680, and the Canadian Electrical Code requirements. The NEC requires that fixtures be installed so that the top of the fixture lens is at least 18" below normal water level. The junction box shall be located not less than 8" above the pool water level and not less than 4" above the pool deck or ground, whichever is higher. The junction box shall be located not less than 4 feet from the perimeter of the pool, unless separated from the pool by a fence, wall or other permanent barrier. Junction boxes mounted above grade in the walkway around a pool shall be afforded additional protection by locating them in such places as under a diving board, adjacent to fixed structures, etc. Check codes to assure compliance.

**LIGHT INSTALLATION
SEE FIGURE 1**

! Warning: Disconnect all power sources to the pool equipment before installing this light assembly.

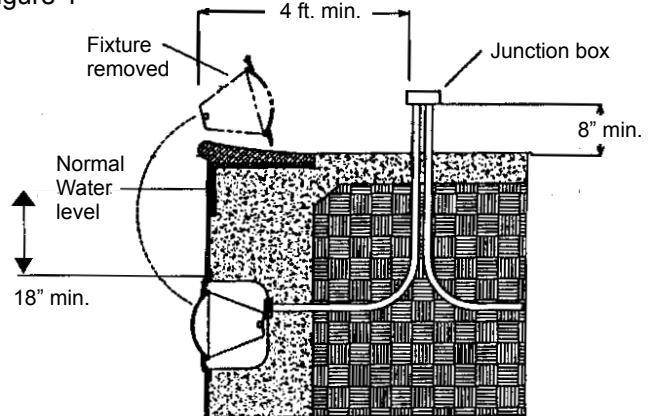
1. Verify that your newly purchased **Full Moon™** light matches your wattage, voltage and cord length requirements.
2. Place the light assembly on the deck. Run the end of the cord down into the pool and into the niche opening. Push the cord into the conduit until it appears at your wiring junction box. Pull the excess cord through the conduit, but leave sufficient slack to raise light to deck level as shown.
3. **Bonding:** The National Electric Code - Article 680-22, and the Canadian Electrical Code require that the light be electrically bonded to the pool/spa structure by a solid copper conductor no smaller than No. 8 AWG.
4. **Grounding:** The light must be permanently grounded in accordance with the National Electric Code - Article 250 or the Canadian Electrical Code, and applicable local codes before connecting to the electrical power service.
5. Wiring connections at the junction box shall comply with local codes, the National Electrical Code, or the Canadian Electrical Code.
6. Wrap the excess cord around the light housing as it is lowered into the niche. This excess cord will be necessary to accommodate future bulb replacement when the light must be raised to deck level.

Light Assembly



7. Insert the light assembly into the niche with the "face-ring locking screw" (see figure 2) positioned at 12 o'clock. Be certain the hook at the bottom of the face-ring (at 6 o'clock position) is securely attached to the notch on the bottom rim of the light niche.
8. Secure the light assembly to the niche using the locking screw at the top of the face-ring.
9. (Re)-connect power supply to light.

Figure 1



**BULB REPLACEMENT
SEE FIGURE 2**

! Warning: Disconnect all power sources to the pool equipment before servicing this light assembly.

1. Remove the "face-ring locking screw" at the top of the face ring.
2. Remove the light assembly from the niche and raise to deck level.
3. Remove the stainless steel **LensLok™** retaining ring by pulling the notched end of the **LensLok™** towards the center of the lens with a flathead screwdriver.
4. Place the head of your screwdriver into the **lens removal slot** on the light body and twist to remove the lens.

Note: If lens is not easily removable, loosen the **vacuum relief screw** on the side of the light housing until vacuum is relieved. Do not completely remove the screw. Now remove the lens and immediately re-tighten vacuum relief screw.

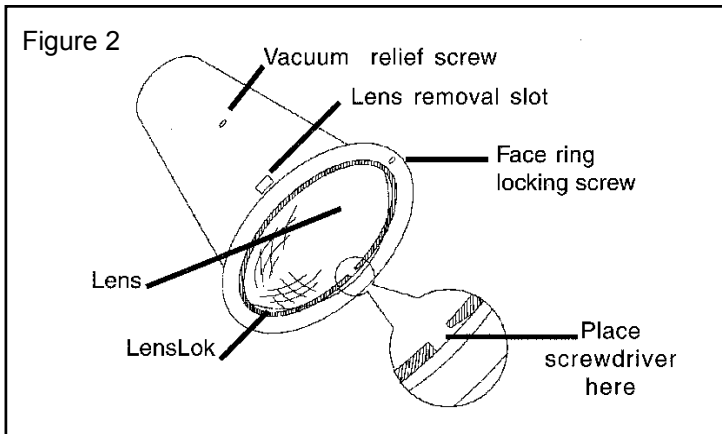
5. Replace the bulb with an equivalent wattage and voltage from your pool dealer.
6. Carefully clean all sealing surfaces on the light housing and lens using a

clean, lint-free cloth. It is recommended that the lens O-ring be replaced as a part of routine maintenance when the bulb is changed.

7. Silicone lubricate the lens O-ring and place it into the groove provided in the light housing. Press the lens firmly into place.

8. Install the **LensLok™ retaining ring**. Place one end of the **LensLok™** into the groove between the lens and the face ring. Working around the ring toward the other end, use your thumbs to press the **LensLok™** into place. Be certain that the **LensLok™** retaining ring is completely seated before reinstalling light into niche.

9. Mount light assembly in the niche as directed in the light installation section.



NICHE INSTALLATION - GUNITE WALL SEE FIGURE 3

1. Position and secure the niche to the pool wall rebar with the label "TOP" located at 12 o'clock.

Note: The uppermost point of the light lens must be at least 18" below the minimum water level.

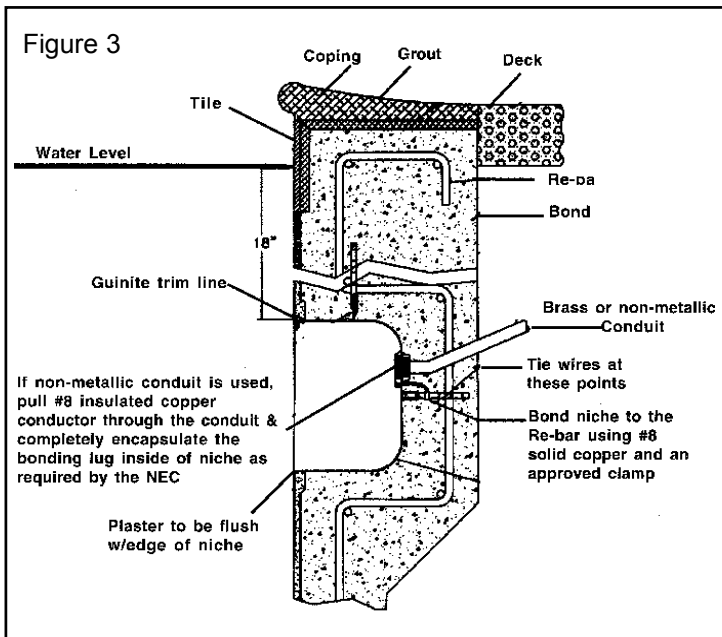
2. Connect wiring conduit to the factory installed brass conduit fitting on the back of the niche.

Brass conduit - Secure a #8 solid copper of the niche. The wire should then be attached to the steel structure of the pool and to the conduit using an approved direct burial cold water clamp.

Rigid, non-metallic conduit - A #8 solid or standard insulated copper wire will be required to run in the conduit connected at one end to the bonding lug inside the niche and to the junction box at the other. If non-metallic conduit is used, completely encapsulate the inside bonding lug with an approved material by the National Electric Code or the Canadian Electrical Code.

3. Apply plaster around the niche bringing it flush with the gunite flange.

4. The niche is now ready for light installation.



NICHE INSTALLATION - VINYL LINED WALL

SEE FIGURE 4

1. Mark the location of the hole (10-1/4" to 10-1/2" diameter) to be cut in the pool wall if not factory punched. **Note:** The uppermost point of the lens must be at least 18" below the minimum water level. Cut along the marked circle.

2. Insert the niche through the hole in the panel section from the inside of the pool.

3. The vinyl liner niche features a factory installed "channel gasket" to facilitate installation and ensure proper sealing. Position the niche assembly so the word "TOP" (stamped in the channel gasket) is at the 12 o'clock position. Using the niche as a pattern, mark the top and bottom screw locations. Remove the niche and drill the screw holes using a 1/4" drill bit. Reinsert the light niche. Align the holes in the "back-up ring" with those in the niche flange and the pool wall. Secure the niche using (2) pan head screws through the niche flange holes at the top and bottom (12 and 6 o'clock) through the pool wall panel, a niche gasket and into the back-up ring.

4. Install the vinyl liner per manufacturer's instructions.

5. Position the second gasket and face ring over the liner aligning the (10) mounting holes and pierce the liner at each hole location. Tightly secure the assembly using provided flat head screws.

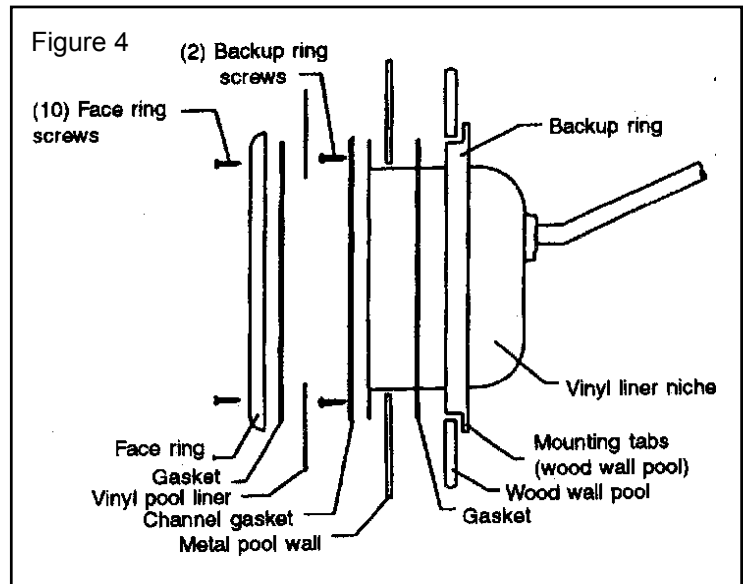
6. Connect wiring conduit to the factory installed brass conduit fitting on the back of the niche.

Brass conduit - Secure a #8 solid copper ground wire to the bonding lug on the back of the niche. The wire should then be attached to the steel structure of the pool and to the conduit using an approved direct burial cold water clamp.

Rigid, non-metallic conduit - A #8 solid or stranded insulated copper wire will be required to run in the conduit connected at one end to the bonding lug inside the niche and to the junction box at the other. Completely encapsulate the inside bonding lug with an approved material by the National Electric Code or the Canadian Electrical Code.

7. Trim the liner from inside the niche opening per manufacturer's instructions.

8. The niche is now ready for light installation.



The NEC requires that fixtures must be installed so that the fixture lens is at least 18" below normal water level. The junction box shall be located at least 8" above maximum water level, pool deck or ground, whichever is greater. The junction box shall be located not less than 4 ft. from the perimeter of the pool, unless separated from the pool by a fence, wall or other permanent barrier. Junction boxes mounted above grade in the walkway around the pool shall be afforded additional protection by locating them in such places as under a diving board, adjacent to fixed structures, etc. Check local codes to assure acceptance.



LIGHT REPAIR PARTS

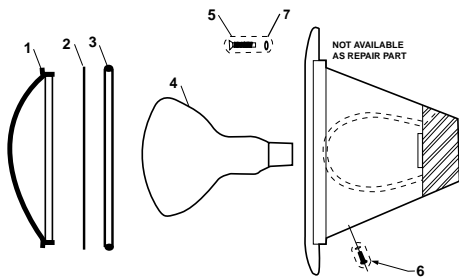


Fig No.	Part No.	Description
1	23-4921-01-R	Lens - clear
	23-4977-04-R	Lens - blue
2	23-4911-94-R	LensLok retainer ring
3	47-0442-33-R	O-Ring
4	23-4941-07-R	120V, 500W light bulb
	23-4941-15-R	120V, 400W light bulb
	23-4942-06-R	120V, 300W light bulb
	23-4979-02-R	120V, WaterColor bulb
	23-4943-05-R	12V, 300W light bulb
	23-4945-86-R	12V, 100W light bulb
	23-4978-03-R	12V, WaterColor bulb
5	14-4316-99-R	Pilot screw w/ retainer
6	14-4339-99-R	Vacuum relief screw
7	47-0006-30-R	O-Ring

NICHE REPAIR PARTS

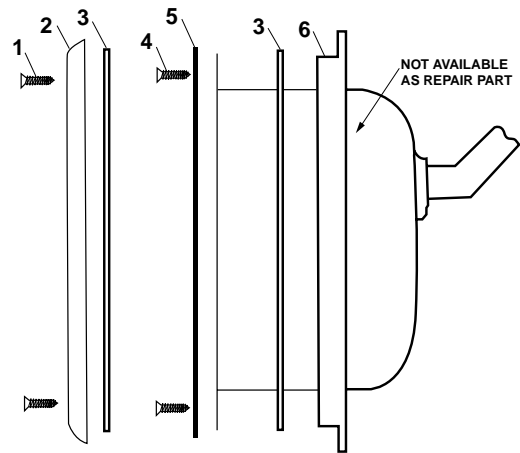


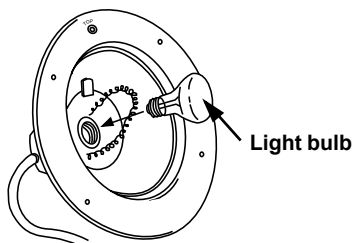
Fig No.	Part No.	Description
1	14-4383-03-R	Face ring screw kit
2	23-4927-05-R	VL face ring
3	13-0114-08-R	VL stamped gasket
4	14-4337-00-R	Backup ring screw kit
5	13-0115-07-R	VL channel gasket
6	23-4926-06-R	VL backup ring

FULL MOON™ ASSEMBLY INSTRUCTIONS

Since your new pool light contains a fragile and expensive bulb, it has been specially packaged in order to prevent damage during shipping. Please follow these simple instructions to complete the assembly by installing the bulb, O-ring, lens and LensLok™ ring:

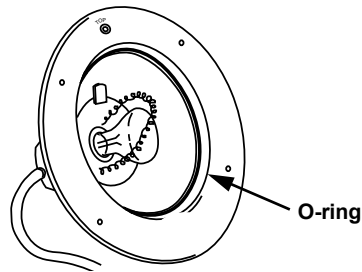
Step 1:

First, remove the light bulb from its small carton and install in the light socket. When properly installed, the loop spring will contact the bulb (except on 100 watt version).



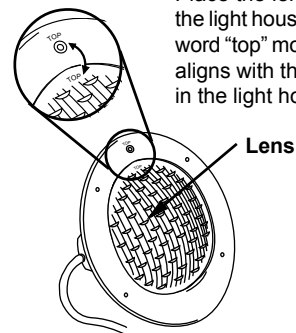
Step 2:

Remove the *pre-lubricated O-ring* from its bag and place inside the light housing as shown.



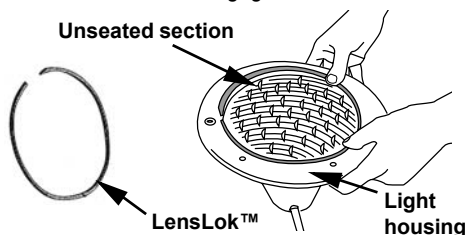
Step 3:

Place the lens inside the O-ring in the light housing. Be certain that the word "top" moulded in the glass lens aligns with the word "top" stamped in the light housing.



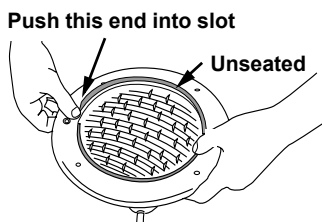
Step 4:

Insert one end of LensLok™ into groove between glass lens and light housing. Using your thumbs as shown, press the LensLok™ "in and down", moving around the light until approximately half of the LensLok™ is engaged in the slot.



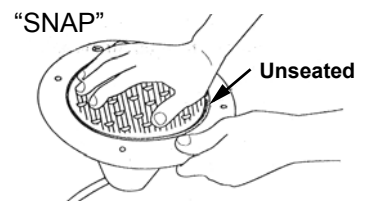
Step 5:

Holding the LensLok™ in place as shown, push the unseated end of the LensLok™ "in and down" until it engages in the slot between the light housing and the lens. This will leave a small portion of the LensLok™ still unseated.



Step 6:

Place the palm of your hand on the lens next to the unseated section of the LensLok™. Press firmly "down and away" from the unseated section of LensLok™ and you will hear it "snap" into place. When properly engaged the two ends of the LensLok™ lie flat and **DO NOT** overlap.





Multi-Color L.E.D. Pool Light

INSTALLATION NOTE:

Observe all warnings and follow all installation procedures as shown in the *Full Moon™* Owner's Manual and Installation Instructions.

OPERATION NOTES:

1. Your *Full Moon™* WaterColor L.E.D. light may be set on any of 5 great selections:

- **Crystal Mode** - Natural white light.
- **Rainbow Mode** - A pleasant transition through the color spectrum, including Royal Blue, Tangerine Sky, Golden Glow, Mint Green, Pale Rose, and Aquamarine.
- **Solo Mode** - Lock on your choice of Sunrise, Royal Blue, Fire, Mint Green, Pale Rose, and Aquamarine.
- **Lagoon Mode** - A relaxing transition of blues and greens.
- **Showtime Mode** - A high energy kaleidoscope of flashing colors to compliment your party or celebration.

2. The WaterColor light is controlled by your standard light switch or a controller with a standard ON/OFF function similar to a light switch. When you first turn your WaterColor light ON, it will always come on in the *Crystal Mode* (natural white).

WARNING! Do not connect the WaterColor light to a rheostat or controller channel with a dimming function. Using a rheostat or controller with the WaterColor light will interfere with the proper functioning of the WaterColor light and may result in damage to electrical components in the rheostat or controller. Malfunctions or damage of any kind resulting from connection to a rheostat or dimmer function will NOT be covered under the Full Moon™ warranty.

3. Once your light is "on", you may change modes by turning your light switch (or remote control button) "off" and then "on" again. Each time you turn your light switch "off" and "on", your Rainbow light will sequence to the next mode. It will always sequence through the modes in the order shown above.

IMPORTANT! Mode Switching is controlled by a computer chip that requires a "time-window" between **1/2 second and 2-1/2 seconds** to switch modes. This simply means you must turn your light switch "off" and then "on" again no sooner than 1/2 second and no longer than 2-1/2 seconds in order to switch to the next mode. With a little practice, you will quickly get a "feel" for the timing.

Note: If you turn your light switch "off" and "on" again in **less** than 1/2 second, the light will **not** switch modes.

Note: If you turn your light switch "off" and wait **longer** than 2-1/2 seconds before you turn it back "on", the light will automatically reset to *Crystal Mode* (natural white).

4. As mentioned above, once you have turned your WaterColor light "off" for an evening, it will always restart in the *Crystal Mode* (natural white) the next time it is turned "on".

GENERAL LIGHTING NOTES:

1. Since color is largely influenced by the reflection of light off the pool walls and bottom, the colors actually seen with the *Full Moon™* WaterColor will vary from pool to pool depending upon:

- Pool surface (vinyl, fibreglass, gunite, pebble, tile, etc.)
- Color of the pool surface.
- Reflective/absorptive qualities of the pool surface.

2. Light Placement: If you have selected your favorite/best "viewing angle", place the light in the wall nearest you so that it faces away from you and points *towards* your favorite "viewing angle".

3. Enjoy your favorite Mode....or "Mood"!



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