

# poolLUX<sup>®</sup> Plus 2

**pLX-PL2** Rated for use on 120VAC 60Hz applications



**Intertek**

5005508

ETL LISTED

Conforms to UL STD 379;

Certified to CSA STD C22.2 #218.1

## Installation Instructions

Read all instructions before attempting to perform installation work

Type 3R Rainproof Enclosure

RF Remote Frequency = 915MHz

FOR USE WITH POOL AND SPA PRODUCTS



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## IMPORTANT SAFETY INFORMATION

### CAUTION: POWER AND SIGNAL OUTPUT CONDUITS MUST BE NON-METALLIC

ATTENTION: CONDUITS POUR PUISSANCE DE SORTIE ET SORTIE SIGNAL DOIT ETRE NON METALLIQUE



#### **ELECTRICAL SHOCK HAZARD – SWITCH DOES NOT TURN OFF INPUT POWER.**

Failure to disconnect input power before servicing can lead to serious injury, or death.

Disconnect input power before servicing.

Replace all parts and panels before reconnecting power and operating

**DANGER – FAILURE TO FOLLOW THESE WARNINGS, INSTRUCTIONS, AND THE OWNER'S MANUAL MAY RESULT IN SERIOUS INJURY OR DEATH.**

Basic safety precautions shall be observed when installing and operating the poolLUX® Plus 2 (p/n pLX-PL2) and other associated equipment:

1. A qualified electrician must install the poolLUX® Plus 2 (p/n pLX-PL2) in accordance with the requirements of NEC ANSI/NFPA 70 and Article 680.
2. The poolLUX® Plus 2 (p/n pLX-PL2) must be mounted on a flat vertical surface. The unit must be a minimum of 4 inches above the ground level, pool deck, or higher than 8 inches above the maximum pool water level, whichever provides greatest elevation. The unit must be positioned a minimum of 4 feet (1.2 m) from the inside wall of the pool, unless separated from the pool by a solid fence, wall, or other permanent barrier.
3. CAUTION: THE EQUIPMENT AND CONTROLS SHALL BE LOCATED NOT LESS THAN 1 M HORIZONTALLY FROM THE SPA OR HOT TUB.
4. ATTENTION: MAINTENIR UNE DISTANCE MINIMALE, MESURÉE DANS UN PLAN HORIZONTAL, DE 1 M ENTRE LA CUVE DE RELAXATION ET LES APPAREILS ET COMMANDES.
5. ONLY USE COPPER CONDUCTORS.
6. Do not exceed the maximum electrical ratings of the poolLUX® Plus 2 (p/n pLX-PL2) components (indicated on page 4), wiring devices, and current carrying capacity of the conductors.
7. This poolLUX® Plus 2 (p/n pLX-PL2) is intended to be used with low voltage underwater luminaires that comply with Article 680 of the National Electrical Code and does not require bonding due to their polymeric or isolated application design.
8. This device should never operate equipment that could cause property damage, bodily injury, or death should it be activated unexpectedly.
9. Use with branch circuit breakers with 15 amperes or less.
10. This device must be used with an approved ground-fault circuit interrupter (GFCI).
11. Use rain-tight or wet location hubs that comply with the requirements in the standard for conduit, tubing, and cable fittings (UL514b) only.
12. The conduit hub is to be connected to the power input conduit before the hub is connected to the enclosure.
13. Never allow children to operate the pLX-PL2 unsupervised.

## **RF Exposure Statement**

To maintain compliance with FCC's RF Exposure guidelines, this equipment should be installed and operated with minimum distance of 20cm between the radiator and your body. Only use the supplied antenna.

## **IC Statement**

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## **FCC WARNING**

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by S.R.Smith, LLC will void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment causes harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment on a different circuit than that of the receiver.
- Consult the dealer or an experienced Radio and Television Technician for help.

## Electrical Ratings

Do not exceed the maximum electrical output rating of each unit listed below.

<b>Model</b>	<b>Input</b>	<b>Output</b>
pLX-PL2	120 VAC, 60 Hz, 1.2A max	12-13 VAC, 60 Watt max (x2)

Use a 15 Amp, 120VAC GFCI Circuit Breaker for input power.

### **Thermal Cutoff**

To help protect against undesirable thermal conditions, the poolLUX® Plus 2 (p/n pLX-PL2) utilizes thermal cutoffs that will stop electricity in the event of an overload, or overheat condition. When the fault condition is rectified, the output power will self-reset without user intervention.

### **Output Fuse**

To protect against hazardous electrical conditions, the poolLUX® Plus (p/n pLX-PL2) utilizes a current fuse that will cut off output electricity in the event of a short circuit condition. When the fault condition is rectified and the fuse is replaced, normal operation will resume. Only use SR Smith replacement fuses:

36-15017-00

## Recommended Tools and Supplies

1. Circular hole saw for installation of 3/4" and or 1" non-metallic conduit depending on installation requirements. Do not use spade bits for opening the conduit knockouts.
2. Application appropriate and approved 'rain-tight' or 'wet location' conduit hubs.
3. Additional duct seal may be required for high count or multi conduit installation.

**\* Note:** Every installation will have at least two or more (multi) conduits - one for input power and one or more for output power. Most installations will likely have several output power conduits.

4. Slotted screwdriver, size #2
5. Phillips screwdriver, size #2
6. Drill
7. #10 Screws appropriate for installing the product onto a wall (**installer supplied**)

**\* Note:** It is recommended to hand tighten all screw terminals and screw fasteners inside the enclosure and front cover until snug and secure. Be sure not to overtighten as permanent damage may occur.

## INSTALLATION INSTRUCTIONS

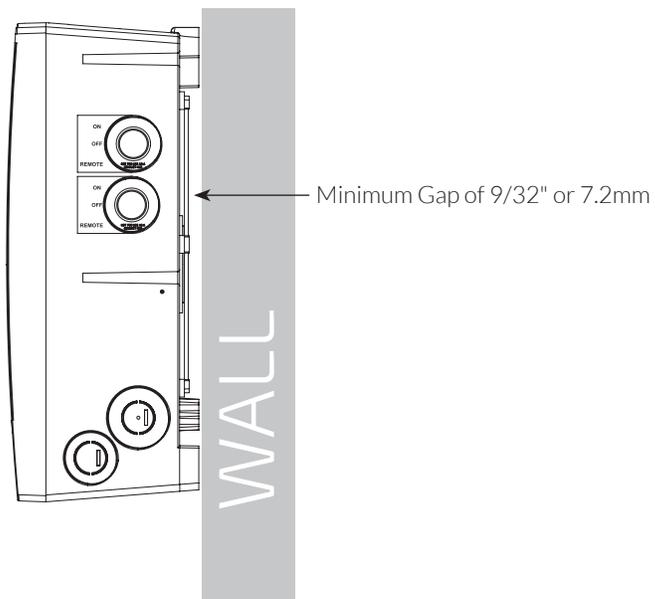
### WARNING

- TURN OFF INCOMING POWER BEFORE SERVICING EQUIPMENT.
- ALL INSTALLATION AND MAINTENANCE WORK MUST BE PERFORMED BY A QUALIFIED ELECTRICIAN.
- GFCI BREAKER MUST BE USED TO CONNECT TO INPUT POWER.
- VERIFY ALL ELECTRICAL RATINGS BEFORE INSTALLATION IS COMPLETE.
- FOLLOW PROPER WIRING PRACTICES IN ACCORDANCE WITH ALL NATIONAL AND LOCAL REGULATORY REQUIREMENTS.

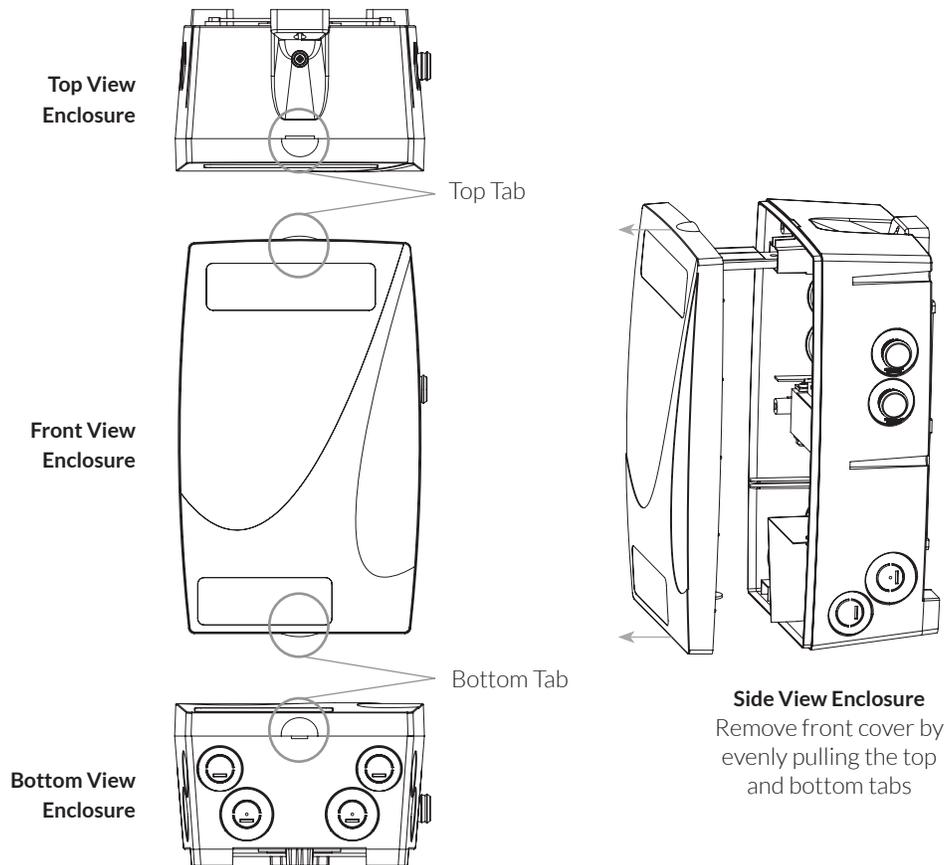
### Enclosure mounting

1. Locate the poolLUX® Plus 2 (p/n pLX-PL2) in an appropriate area that meets the following requirements:
  - a. Must be mounted on a flat vertical surface.
  - b. Must be a minimum of 4 inches above the ground level, pool deck, or higher than 8 inches above the maximum pool water level, whichever provides greatest elevation.
  - c. Must be positioned a minimum of 4 feet (1.2 m) from the inside wall of the pool unless separated from the pool by a solid fence, wall, or other permanent barrier.

For the unit to be adequately air cooled, allow a minimum gap of 9/32" (7.2mm) between the wall and the back surface of the unit. The stand-off mounting tabs will make contact with the wall.



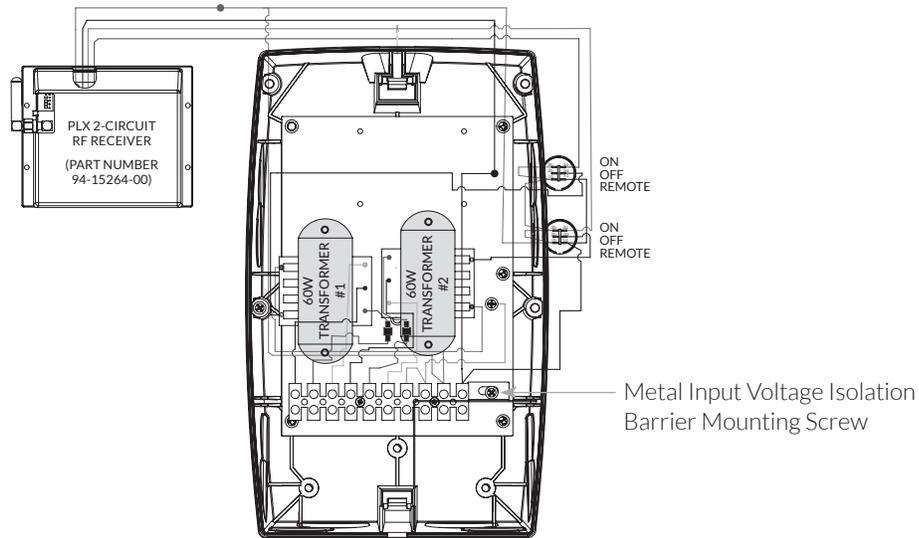
2. By hand open the enclosure by pulling the front cover off evenly by the top and bottom tabs. Do not angle or 'hinge' the cover when removing or damage may occur. If you cannot open the enclosure by hand, use a flat blade screwdriver to twist open the finger tabs of the cover at the top and bottom of the unit.



3. Securely install a wall material appropriate #10 screw (Installer Supplied) into the location where the unit will be installed. The screw head must be 1 1/8" away from the wall to allow the unit to be mounted correctly.
4. Place the mounting tab of the poolLUX® Plus 2 (p/n pLX-PL2) over the #10 screw and let it hang in place. Level the unit and mark the remaining 2 mounting screw locations on the wall. Use 2 more material appropriate #10 screws, supplied by the installer, to secure the unit to the wall through the mounting holes on the back of the unit. Once the lower two screws are secure, tighten the top screw to securely hold the upper portion of the enclosure in place.

## Input / Supply Line Voltage

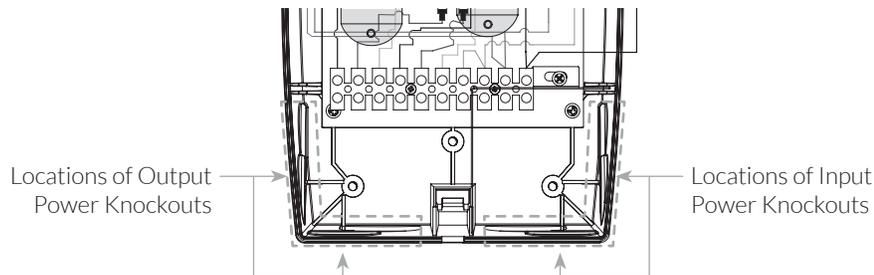
1. Remove the metal input voltage isolation barrier by unscrewing the mounting screw. Once the securing screw is removed, the isolation cover will pull straight out to allow easier access to the conduit knockout locations.



**\*Note:** Once all conduits are connected, replace the metal input voltage isolation barrier and mounting screw. Tighten until the mounting screw is secure.

2. Bring the supply power conduit to one of the four, lower right input power conduit knockout locations that terminate 'inside' the isolation barrier. No output connections are allowed through these knockout locations.

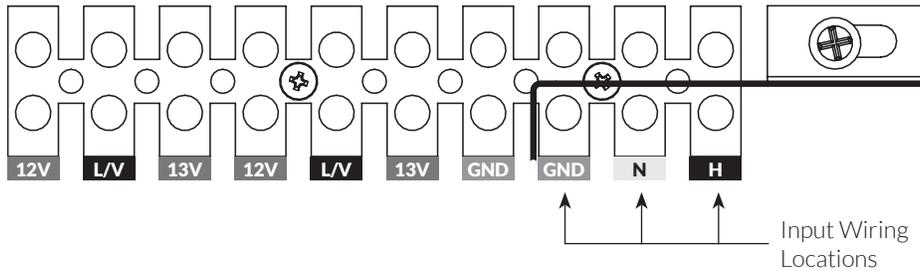
**\*Note:** The wiring of the input and output power are required to use separate conduits and must not share an individual conduit. No conduit should contain both input and output power wiring.



3. Using a hole saw, open the knockouts for the size of the conduit ( $\frac{3}{4}$ " or 1") being installed.

- Attach an approved 'rain-tight' or 'wet location' hub to the conduit. After the hub is attached to the conduit, attach the hub to the enclosure.
- Connect the GFCI protected, 15A max, supply voltage line to the right side of the terminal block. Strip  $\frac{1}{4}$ " of insulation and then connect the wires to the marked terminals and tighten securely.

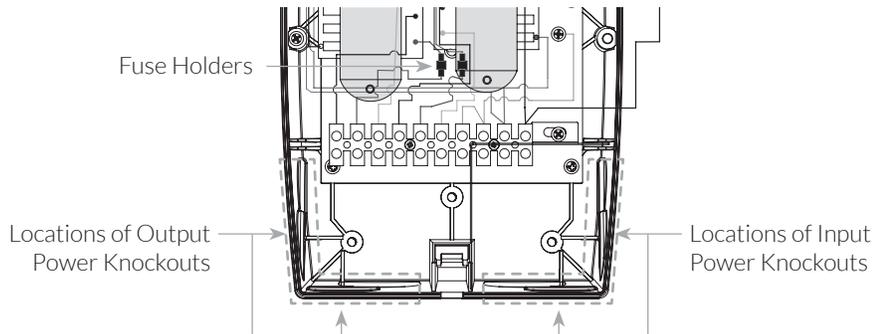
120V Hot GFCI Load to terminal marked: **H**  
 120V Neutral GFCI Load to terminal marked: **N**  
 Electrical System Ground to terminal marked: **GND**



- Replace and secure the metal input voltage isolation barrier and verify that the input wiring screw terminals are secure.

## Output Wiring for Lights and Light Sources

- The combined load of all lights connected to the poolLUX® Plus 2 must not exceed the following:
  - pLX-PL2 = 60 watts max. per circuit
- The enclosure provides four (4) output conduit locations. If additional conduit terminations are required, an approved junction box may be used as a termination point and multiple output cables may be run through a single feeder conduit to the poolLUX® Plus 2.
- Using a hole saw, open the knockout for the size of the conduit ( $\frac{3}{4}$ " or 1") being installed.



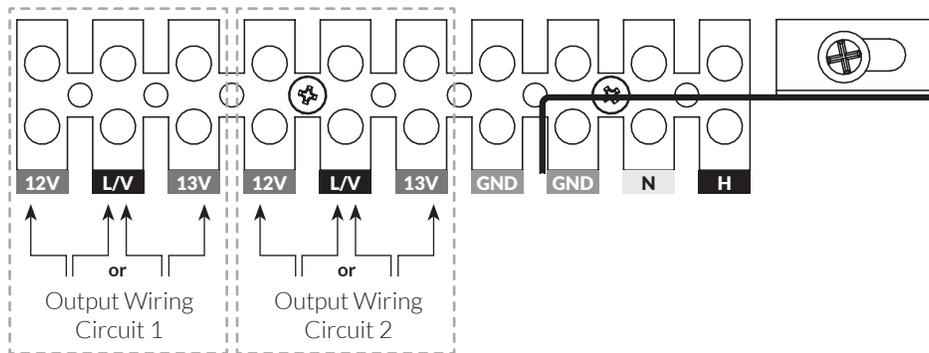


**CAUTION** – IF USING FEEDER OR SUPPLY LINES TO A JUNCTION BOX, BE SURE TO USE THE APPROPRIATE WIRE GAUGE FOR THE LOAD AND DISTANCES INVOLVED.

- Bring output conduits to the open conduit locations. Any conduit used as output wiring runs between the lights and pLX-Plus unit (pLX-PL2) and any external controller shall be Non-Metallic (polymeric).

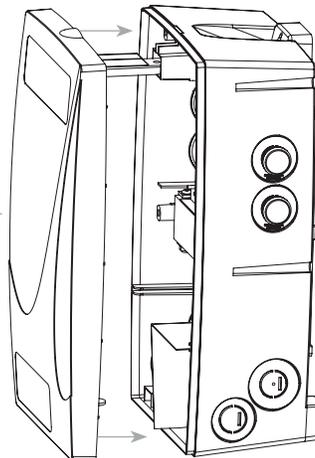
**ATTENTION: LES CONDUITS DOIVENT ÊTRE RELIÉS PAR LA MASSE**

- Attach an approved 'rain-tight' or 'wet location' hub to the conduit first, and then attach hub to the enclosure.
- The poolLUX® Plus 2 has two electrical taps or connection points per output circuit that allow for 12VAC or 13VAC operation. Securely connect the lights' two conductors to the electrical (taps) output terminals. Most installations will utilize the terminal configuration of 12VAC terminal and low voltage common terminal. In some cases (voltage loss can occur due to extended cabling and/or junction boxes connections), additional voltage may be required to operate the lights requiring use of the 13VAC terminal and the low voltage common terminal.



**\*Note:** DO NOT use or bridge both the 12VAC and 13VAC terminal positions at the same time.

- Do a final inspection to verify all wiring connections are correct.
- Once inspected, align the panel bayonet guides to the snap-in receivers along the centerline of the enclosure. Evenly and gently, push the cover in place ensuring that both the top and bottom latches 'snap' in place.
- Allow power from the input supply voltage to the unit and function test the unit via the three-way rocker switch on the upper, right side of the unit.



# OPERATING INSTRUCTIONS

## Manual Rocker Switch Operation

The poolLUX® Plus 2 utilizes one rocker switch per circuit (circuit 1 & circuit 2) for operation with the wireless transmitter. **The switches must be in the MIDDLE position before powering on for the first time.**

### Per Circuit Operation

**To Turn ON Manually:** Flip the Rocker Switch to the 'UP' or 'On' position.

**Note:** When the Rocker Switch is in the ON position, the Wireless Remote will not work.

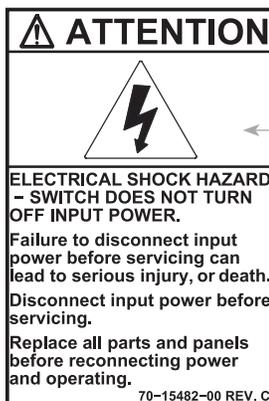
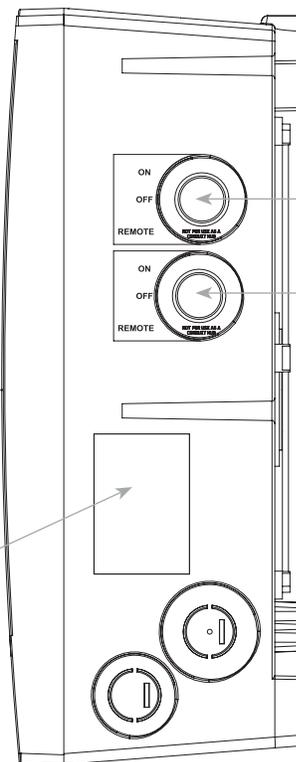
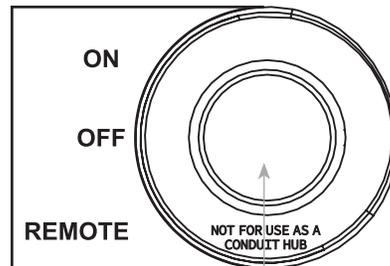
**To Turn OFF:** Flip the Rocker Switch to the 'MIDDLE' or 'OFF' position.

**Note:** When the Rocker Switch is in the OFF position, the Wireless Remote will not work.

### To Turn On wireless Remote Operation:

Flip the Rocker Switch in the 'Down' position or the 'Remote' position.

**Note:** Remote Operations will not work unless the Rocker Switch is in the 'Down' position or the 'Remote' position.



## Wireless Remote Operation

The new poolLUX® Plus 2 RF remote system requires no complex programming and is shipped ready to use. In the event that another poolLUX® Plus 2 or similar device is installed nearby and is operating on the same pairing code, that code (A-P) may be easily changed by choosing another via the 4 position DIP switch package found inside the battery compartment of the remote. The receiver board inside the control panel will also need to be changed to match.

**Note:** The default code as shipped is Code A on both the remote and the receiver.

### Sleep Mode

To conserve battery power, the remote will enter standby mode when no function has been selected for 30 seconds or more. To wake the remote, simply press the '1' or 'S' button momentarily. The indicator will light up solid for 5 seconds indicating that it is ready to transmit. A rapidly flashing indicator indicates that a command signal was sent to the control panel.

### To Turn On Using the Wireless Remote Operation:

Push the button marked (1) 'ON/OFF - COLOR CHANGE' or (2) 'ON/OFF - COLOR CHANGE' to toggle on and off the output power of the poolLUX® Plus 2 on circuit 1, 2, or both.

### Color Changing Operation (circuit 1 or circuit 2)

To change LED pool light colors simply toggle the power OFF, then ON using the appropriate button marked '1' or '2' within 1 second. Continue toggling until the desired color or light show is reached.

### Master Color Changing Operation (circuit 1 & 2 together)

To operate both circuits 1 & 2 together simultaneously, use the button marked 'M'. Continue toggling until the desired color or light show is reached.

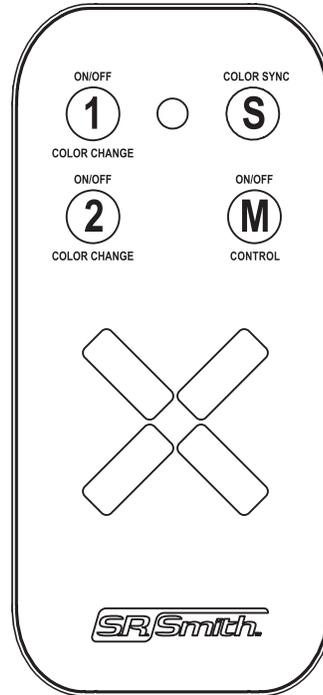
### 'New Feature' 1 Button - Color Sync / Reset Operation

(only for SR Smith LED TREO, FG, micro & LED water features)

To color-sync lights in a multi-light installation, simply press the "S" button once and wait 15 seconds. During this time, the lights on circuit 1 & 2 will flash on and off several times, pause in the off mode, then finally resume at color mode 1 (soft color change).

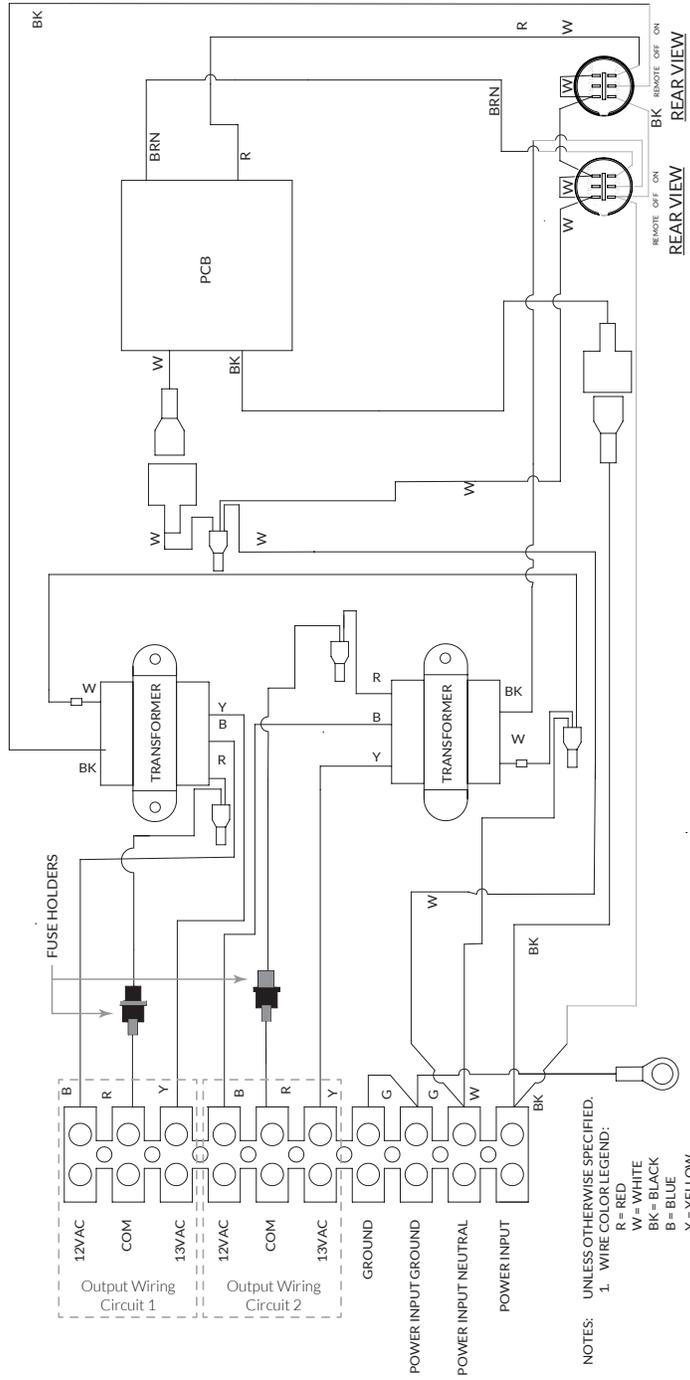
**Note:** The Rocker Switches on the poolLUX® Plus 2 must be set to REMOTE for wireless operation.

**Performance Note:** For best range results, hold the remote vertically (pointed at the sky).



PAIRING CODE CHART				
DIP Switch	1	2	3	4
Code A	OFF	OFF	OFF	OFF
Code B	ON	OFF	OFF	OFF
Code D	OFF	ON	OFF	OFF
Code C	ON	ON	OFF	OFF
Code E	OFF	OFF	ON	OFF
Code F	ON	OFF	ON	OFF
Code G	OFF	ON	ON	OFF
Code H	ON	ON	ON	OFF
Code I	OFF	OFF	OFF	ON
Code J	ON	OFF	OFF	ON
Code K	OFF	ON	OFF	ON
Code L	ON	ON	OFF	ON
Code M	OFF	OFF	ON	ON
Code N	ON	OFF	ON	ON
Code O	OFF	ON	ON	ON
Code P	ON	ON	ON	ON

# WIRING SCHEMATIC



- NOTES: UNLESS OTHERWISE SPECIFIED.  
 1. WIRE COLOR LEGEND:  
 R = RED  
 W = WHITE  
 BK = BLACK  
 B = BLUE  
 Y = YELLOW  
 G = GROUND  
 BRN = BROWN  
 2. A SIDE OF SWITCH IS FOR UNIT OPERATION AND B SIDE IS FOR SWITCH LIGHTING ONLY

## REPLACEMENT PARTS

### Replacement parts for the poolLUX® Plus 2 (pLX-PL2):

Transformer (pLX-PL60)	44-15039-00
3-Way Switch	38-15002-01
Isolation Barrier	02-15342-00
Isolation Barrier mounting screw, 8-32	10-15078-05
Fuse Holder	36-15016-00
Fuse (pLX-PL60)	36-15017-00
RF Receiver, 2-circuit	94-15264-00
RF Remote, Transmitter, 2- circuit	94-15263-00
Antenna, 5 CM	94-15265-00

### WARRANTY INFORMATION

For Lighting product warranty information and details, please visit our website:  
[www.srsmith.com/warranty](http://www.srsmith.com/warranty)

## Questions?

Contact One of Our Dedicated Lighting Specialists. **1-800-824-4387** x4012 or x2282



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