

PT-6002 Power Tower™



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
FOR USE WITH POOL AND SPA PRODUCTS

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IMPORTANT SAFETY INFORMATION



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 should be observed when operating the PT-6002 product and other associated equipment.

1. A qualified electrician must install the PT-6002 in accordance to the National and Local Electrical Codes.
2. The PT-6002 must not be less than 5 feet (3 meters in Canada) from inside edge of pool. ONLY USE COPPER CONDUCTORS.
3. Do not exceed the maximum ratings of individual components, wiring devices, and current carrying capacity of conductors.
4. For the bonding, grounding, installing, and wiring of underwater lights to the PT-6002 refer to Article 680 of the National Electrical Code or Article 68 of the Canadian Electrical Code.
5. This device should never operate equipment that could cause property damage, bodily injury, or death should it be activated unexpectedly.
6. Never allow children to operate the PT-6002 unsupervised.

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. could void the user's authority to operate the equipment.

ELECTRICAL RATINGS

Do not exceed the maximum electrical ratings of the PT-6002. Install a 5A 120VAC GCFI Circuit Breaker for PT-6002 Input. The PT-6002 Low Voltage lighting circuits are rated for 5A, 12 or 13VAC, 60W Max. per circuit.

SPECIFICATIONS

ELECTRICAL RATINGS

Input Voltage required: 120VAC 60Hz

Input: 120VAC, 60Hz, 1.2A max

Output: 12-13 VAC, 60 Watts (x2) max

CONSTRUCTION

Case: High Impact Polycarbonate

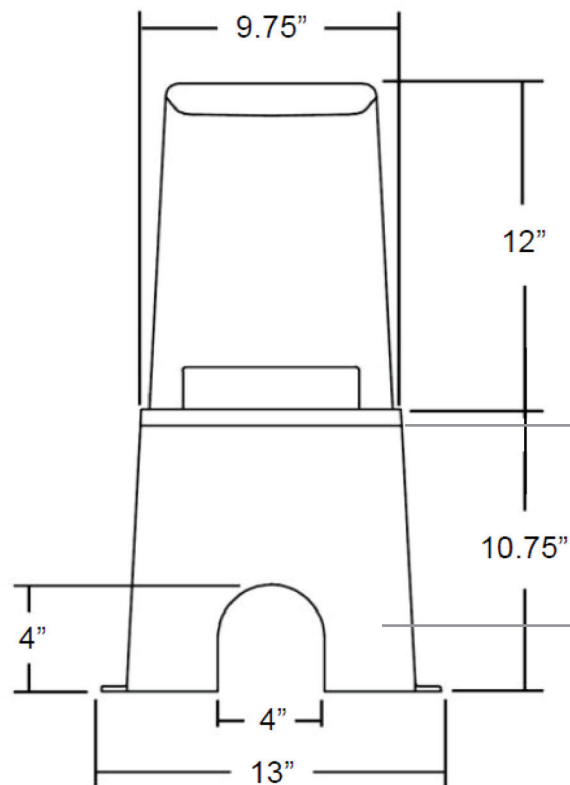
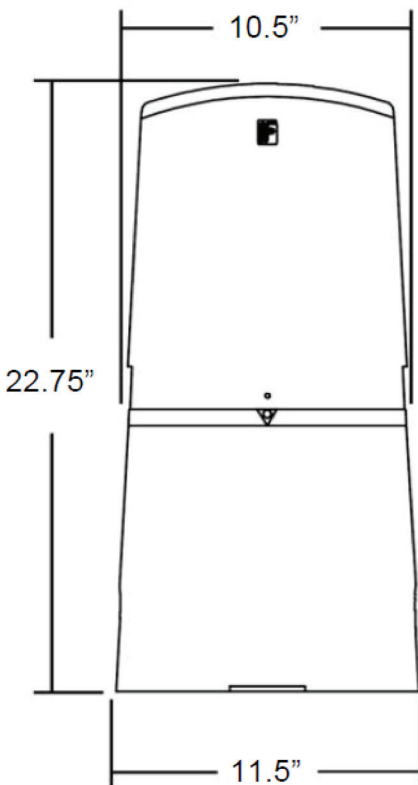
Acoustic rating: 0dB(A)

Weight: 13.5 lbs.

Ambient Temp: 40°C +10/-40

CAUTION: THE EQUIPMENT AND CONTROLS SHALL BE LOCATED NOT LESS THAN 1 M HORIZONTALLY FROM THE SPA OR HOT TUB

ATTENTION: MAINTENIR UNE DISTANCE MINIMALE, MESURÉE DANS UN PLAN HORIZONTAL, DE 1 M ENTRE LA CUVE DE RELAXATION ET LES APPAREILS ET COMMANDES



Maximum Soil Height:
Do NOT allow fill to
exceed this level

Optional PT-BASE for
new installations or when
previous 2000/6000
Series illuminator base is
not available.

INSTALLATION GUIDELINES

REFER TO THE DIAGRAMS BELOW FOR THE FOLLOWING PROCEDURES

This manual covers the PT-6002 Power Tower installation only. However, note that existing conduits leading from each light location in the pool should be:

- made of non-metallic polymeric material (PVC), and
- all conduit joints must be watertight.

1. Conduit installation. Refer to **Figure A** below for optional PT-Base

- a) 120VAC input power conduit. This conduit should be installed so it protrudes through the smaller of the two ports in PT-Base – located toward the front / right as pictured in **Figure A** below. It should at least be flush with the port but extend no more than 1" above it.
- b) 12VAC output conduit. Cables from the lights must all come through the larger of the two ports in the PT-Base as pictured in **Figure A**. This conduit should extend approximately halfway up into the space below the port.

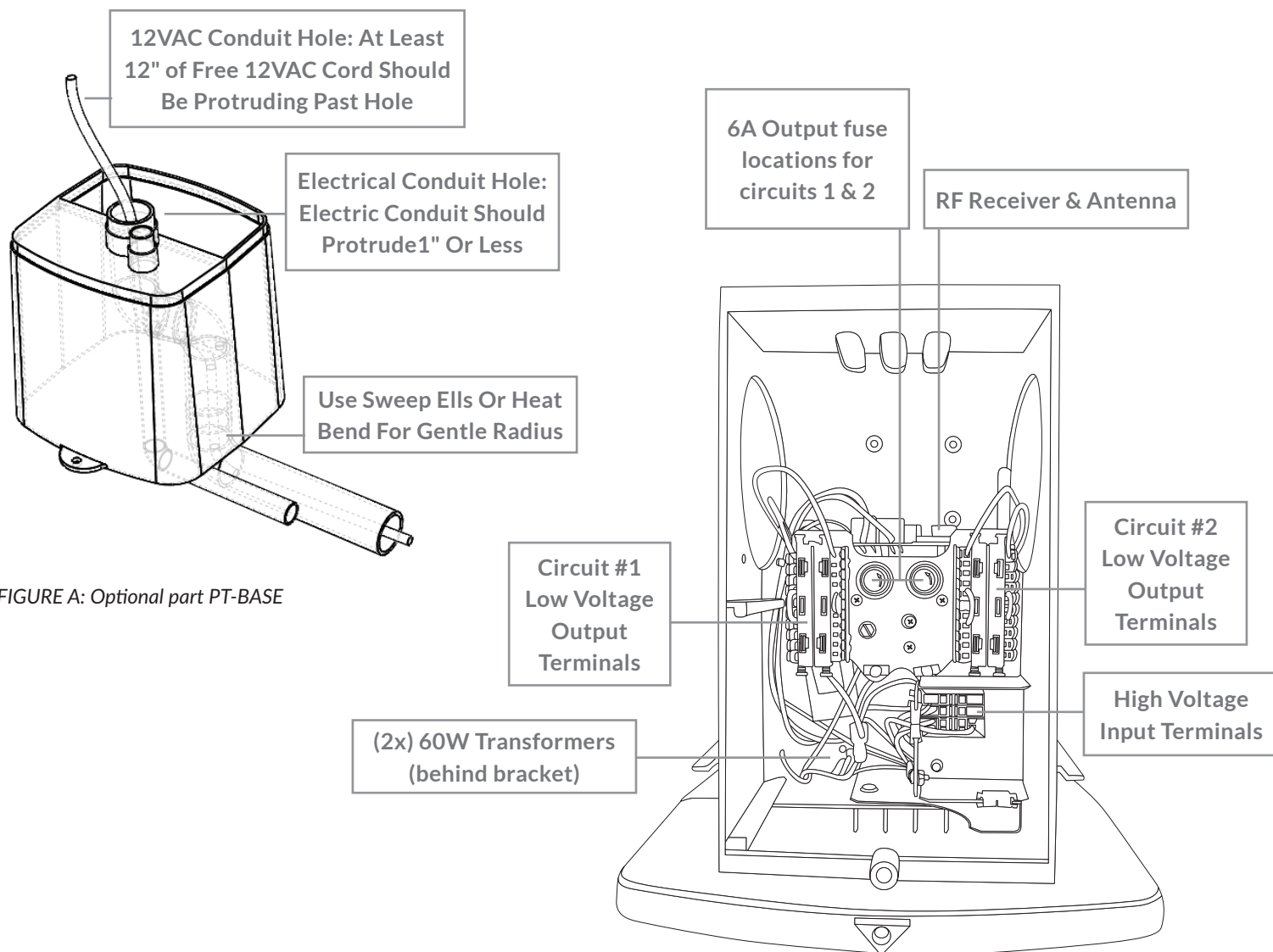


FIGURE A: Optional part PT-BASE

Overview of internal component locations

Connect 120VAC power INPUT wiring to the unit's 3-wire cage clamp.

1. Place the unit on the optional PT-BASE or the existing base from the previous illuminator. Pull the supply cable until it extends beyond the end of the conduit in the base from 6 to 8". Attach the PT-6002 to the base with 2 of the supplied screws.
2. Strip the jacket back 4" back from the end of the internal wires.
3. Strip the insulation on each wire (black, white, and green) to 3/8" +/- 1/16".
4. Feed the cable and stripped wires through the white nylon finger grommet and dress it approximately as shown.
5. Connections (GFCI protected power must be provided to the unit):
 - a. The black (hot) wire connects to the terminal block orange segment,
 - b. the white wire (common) to the grey segment, and
 - c. the green wire (ground) to the yellow-green segment.
6. Connect each wire to its correct segment (**Figure B**):
 - a. Fully insert the wire installation tool (supplied) into the segment's smaller square hole.
 - b. Firmly lever the tool to the left to open the wire entry and hold it in place.
 - c. Fully insert the correct (matching) wire into the segment's larger square hole.
 - d. Release the installation tool and remove it.
 - e. Pull the inserted wire firmly to confirm that it is tightly gripped.
7. After all three wires are inserted, dress them so they do not interfere with each other, as shown in **Figure C**.
8. Dress the cable to remove any excessive loops and/or kinks.

Attention - Do Not Lose the provided Installation Tool, it is required for removal of the input wires should service or replacement be required.

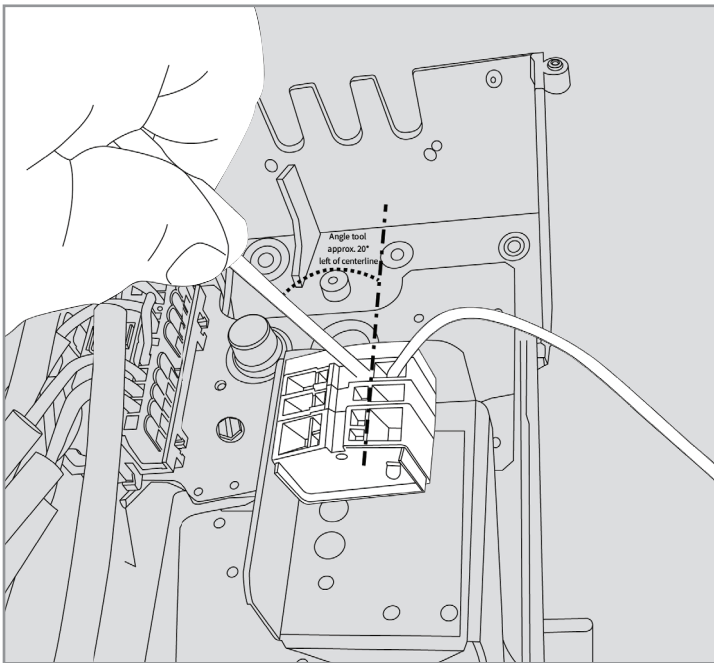


FIGURE B (Steps 6a-6e): Installation tool use - Insert fully, lever towards the left, insert wire, release tension by moving tool to the right, remove tool, & pull test wire

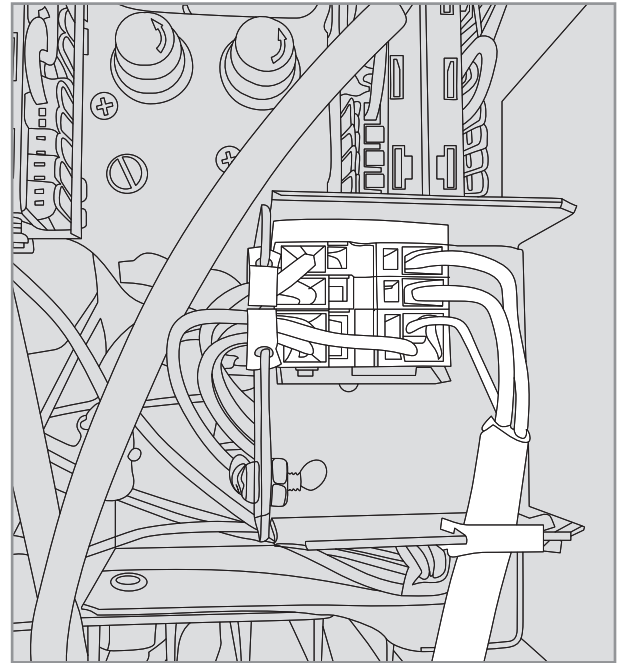


FIGURE C (Steps 7 & 8): Cage clamp shown with 120VAC input wires in place (connected and dressed, right side)

12V Power Output Terminals

Circuit 1 = left bank, Circuit 2 = right bank

Output terminals are connected together in parallel to increase available outputs (**Figure D**). Each left-right pair is designated for one 12VAC device (common and hot) connection. Seven positions are provided but you may only connect as many 12VAC devices as the cumulative wattage consumption of 60W or less will allow.

Do not exceed 60W load.

Connect low voltage (12VAC) lights to the unit's lever terminals.

1. Strip each cable jacket back from the end to release about 3" of each internal wire, being careful not to damage their insulation.
2. Strip each wire's insulation 3/8" +/- 1/16".
3. Twist each wire to eliminate any stray strands.
4. Select a pair of connection points located horizontally across from each other as shown in **Figure E**. Using a fingernail or small tool, rotate each 'lever' out and down until it remains open.
5. Fully insert the black insulated lead through the outermost hole and the red insulated lead through the innermost hole as shown.
6. While holding both leads fully inserted, flip both 'levers' all the way up.
7. Pull on each lead firmly to confirm it is fully gripped (**Figure F**).
8. Repeat steps 1-7 for Circuit 2 connections on right bank of connection points.

12V or 13V AC Low voltage accommodations

If Input voltage to unit is less than 120V and lighting load is high or secondary wiring runs are long, it may be desirable to increase transformer output voltage to compensate. This may be done by opening the lever terminal in the upper right of the output terminal block, removing the blue transformer wire, and substituting the available yellow transformer wire in its place. Cap the, now unused, blue wire with the wire nut (see **Figure G**).

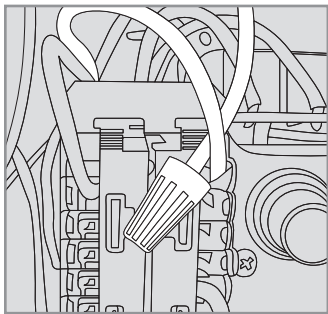


FIGURE G: Red-Blue or Red-Yellow wires used for 12V or 13V output.

Note: output voltages for either circuit 1 or circuit 2 may be set independently by this method based on application needs.

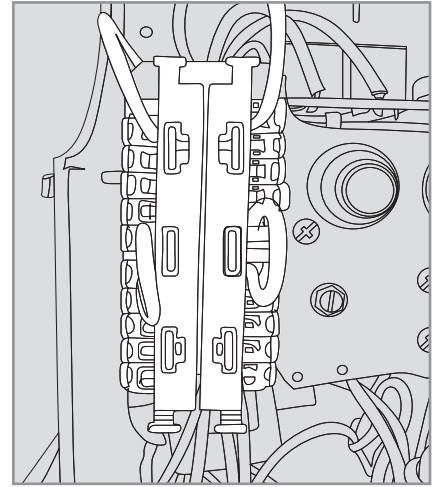


FIGURE D: Low Voltage Output connection terminal

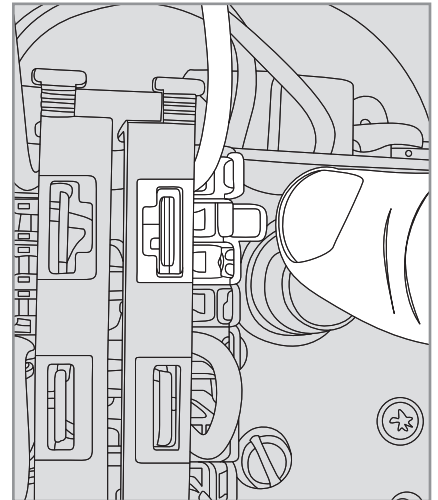


FIGURE E: Lever terminal in open position

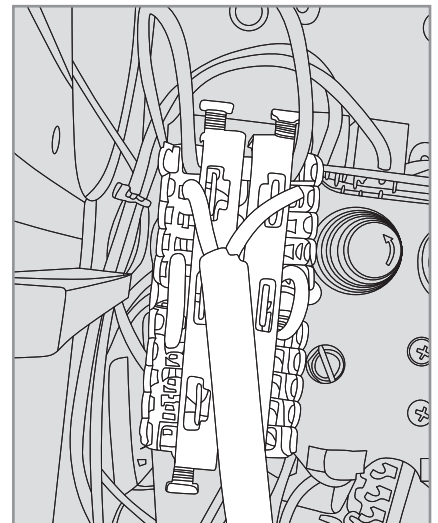


FIGURE F: Low voltage light cord shown connected

STAND-ALONE ENVIRONMENT & OPERATION

The PT-6002 input will be connected to un-switched line voltage (through NEC appropriate GFCI breaker) and can be operated manually by the on-board, 3-position switches or the included hand-held remote control.

Manual Operation

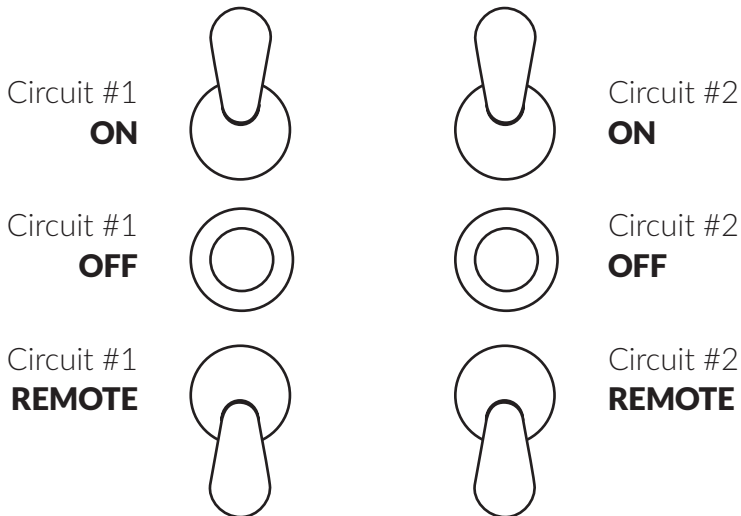
The channel is operated by a 3-position switch. To turn on, move the power switch to the upper, on position. To turn off, move the power switch to the middle, off position.

Remote On/Off Operation

Move the power switch to the lower, remote position and use the hand held remote to toggle the low voltage power circuit on and off.

See below for remote button functions and features.

TOGGLE SWITCH OPERATION



INSTALLING THE PT-6002 UNIT TO THE PT-BASE

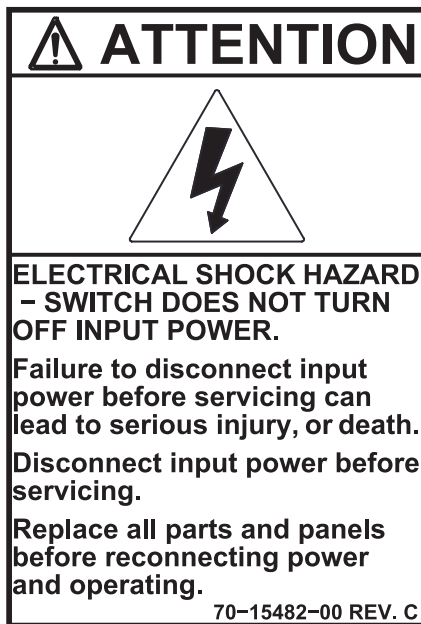
1. Place the chassis on the installation base (from previous installation or purchase of optional part PT-BASE).
2. Adjust the incoming 120V cable and all 12V outgoing cables to remove unnecessary loops and/or kinks.
3. Secure the PT-6002 unit to the PT-Base using the two supplied sheet metal screws.
4. Make sure that the 3-position switches are in the off (middle) position.
5. Place top cover onto unit and secure with the two supplied machine screws.

ELECTRICAL PROTECTION MEASURES

Electrical Fusing

1. Self-Resetting Thermal Fuse: This fuse keeps the unit from overheating in instances where a load in excess of the transformer's capacity is present for an extended period of time. Once normal operating temperatures return, the unit will reset and operation will continue.
2. Replaceable Current Fuse*: To protect against hazardous electrical conditions, the PT-6002 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 FUSE: Part Number 36-15017-00



WIRELESS REMOTE OPERATION

The RF remote system requires no complex programming and is shipped ready to use. In the event that another PT-6002 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, 2, S, or M' 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: Zone 1

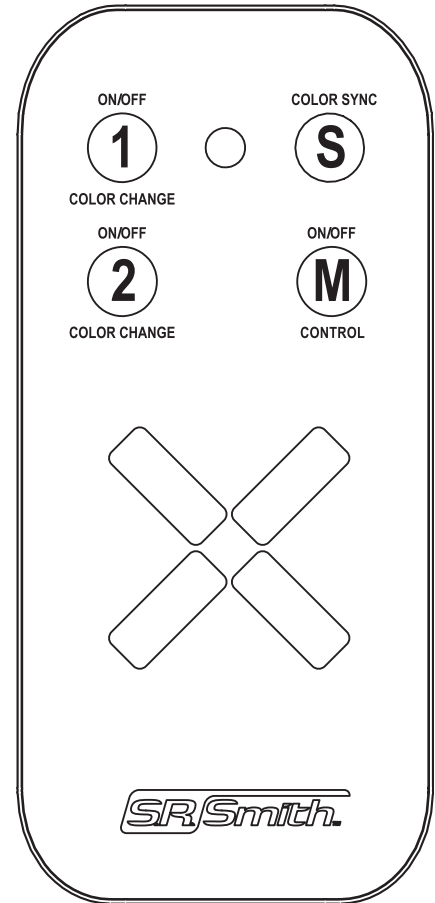
Push the button marked (1) 'ON/OFF - COLOR CHANGE' to toggle on and off the power of Zone 1 on the PT-6002.

To Turn On Using the Wireless Remote Operation: Zone 2

Push the button marked (2) 'ON/OFF - COLOR CHANGE' to toggle on and off the power of Zone 2 on the PT-6002.

Color Changing Operation

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



NEW FEATURE

1-Button - Color Sync / Reset Operation

(For use only with SR Smith LED kēlo, Mod-Lite, Treo, FG, Treo Micro & LED water features)

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

Performance Note: For best results, hold the remote vertically (pointed at the sky) when pressing the command buttons.

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

TROUBLESHOOTING

The remote function of this device operates through radio frequency (RF) signals. As with any RF device, this is subject to interference through surroundings and installation location. In the event of an interference issue or if longer range is required, the internally mounted antennae may be removed and an accessory antenna kit may be used to extend the RF antenna towards the use area by either a 3 meter or 15 meter extended cord and magnetic mounting base. Like any radio device, experimentation may be required to locate the best reception spot. To install the pLX-ANTKT-S or pLX-ANTKT-L, please disregard the instructions included with the kits and follow these steps as outlined below:

1. Shut off power at the appropriate circuit breaker; remove all chances of accidental electrical shock.
2. Remove lift-off cover to allow access inside the PT-6002.
3. Find the 5cm antenna directly connected to the SMA jack on the receiver board, inside the black receiver enclosure. It will be next to the 4 place, DIP switch selector. Carefully unscrew the antenna from the SMA jack.
4. Find a suitable mounting location within the cord range of accessory antenna kit. Use the screws included with the kit to mount the metal bracket on a wall or appropriate surface. Place magnetic base of the antenna on the metal bracket. NOTE – when mounted, the antenna should be in the vertical orientation. Often times, simply moving the antennae up on a taller location will greatly improve reception.
5. Bring the screw-on SMA connector back through the Left or Right round ventilation openings in the chassis and carefully thread the connector on the SMA jack on the receiver board. Make sure there is enough slack that the cover may be reinstalled and the cable is able to pass through the bottom of the ventilation opening on the lift off cover.
6. Once everything is reconnected and the cover is reinstalled, restore power from the circuit breaker and test the remote function.

WARRANTY INFORMATION

For Lighting product warranty information and details, please visit our website:
www.srsmith.com/warranty

Instrucciones de instalación disponibles en español en www.srsmith.com.

Questions?

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



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