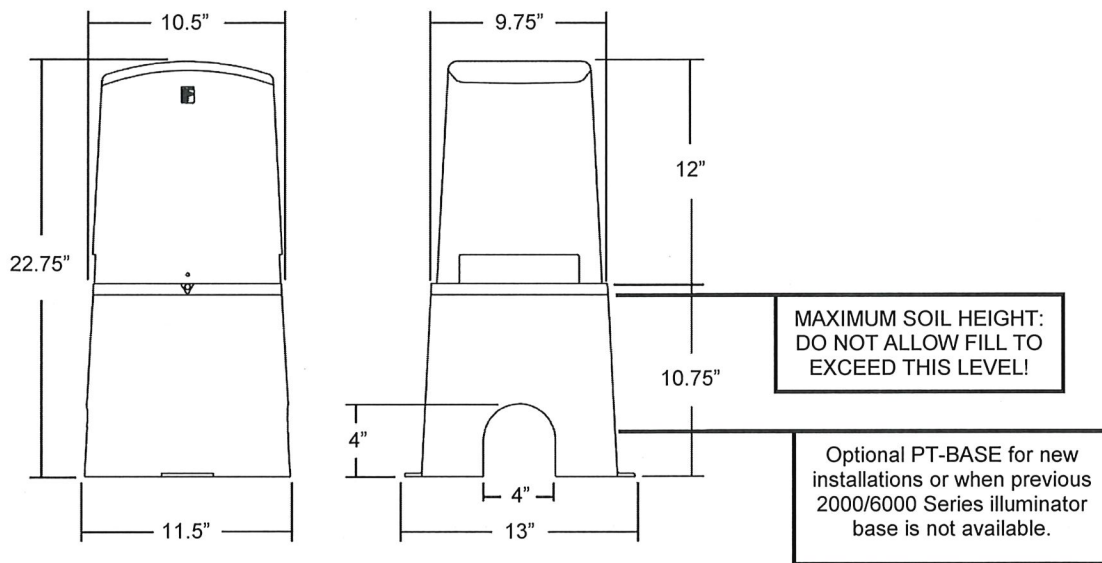




# PT-6000 Power Tower

## INSTALLATION MANUAL



### SPECIFICATIONS

#### ELECTRICAL

Input Voltage required: 120VAC 60Hz  
 Max Power consumption: 62 Watts max  
 Output Voltage 12.0VAC 60Hz, (2x) 30 watts max

### CONSTRUCTION

Case: High Impact Polycarbonate  
 Acoustic rating: 0dB(A)  
 Weight: 12 lbs.

Ambient Temp: 40°C +10/-40

**WARNING: DO NOT INSTALL WITHIN 1.5M (5 FT.) OF A POOL, SPA, OR HOT TUB.**  
**ADVERTISSEMENT: NE PAS INSTALLER A MOINS DE 1,5M D'UNE PISCINE OU D'UNE CUVE DE RELAXATION.**

### ETL LISTED

Conforms to UL STD 379;  
 Certified to CSA STD C22.2 #218.1



SAVE THESE INSTRUCTIONS!



**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.**

## IMPORTANT SAFETY INFORMATION

Basic safety precautions should be observed when operating the PT-6000 product and other associated equipment.

1. A qualified electrician must install the PT-6000 in accordance to the National and Local Electrical Codes.
2. The PT-6000 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-6000 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-6000 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.

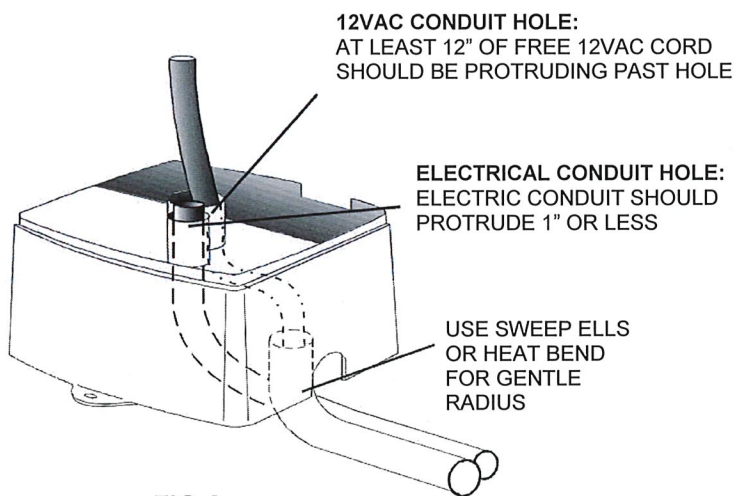
### ELECTRICAL RATINGS

Do not exceed the maximum electrical ratings of the PT-6000. Install a 5A 120VAC GCFI Circuit Breaker for PT-6000 Input. Each of the PT-6000 Low Voltage lighting circuits (x2) are rated for 2.5A 12VAC Max.

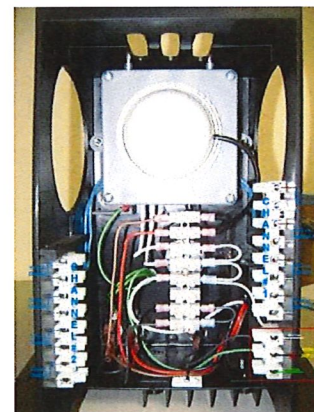
# INSTALLATION GUIDELINES

## REFER TO THE DIAGRAM ON THE FRONT OF THIS MANUAL FOR THE FOLLOWING PROCEDURES

- 1) Non-Metallic polymeric watertight conduit material should be used at each light location in the pool. This manual covers the PT-6000 Power Tower installation only.
- 2) Cut the 12vac line conduits so they will enter the installation base approximately halfway. Cut the 120vac electrical supply conduit so it will protrude past the conduit hole 1" or less (fig A). Pull all 12vac low voltage cables at least 12" through the top of the installation base.
- 3) Primary wiring cover / terminals will be repositioned to not interfere with the entry holes in the base when mounted.
- 4) Voltage Supply Line must enter through smaller entry in PT-Base (or existing base) that is positioned front / right.
- 5) Low Voltage lines to lights must use the larger, center entry through the PT-Base (or existing base).
- 6) Place the chassis on the installation base (from previous installation or purchase of optional part PT-BASE). Secure the illuminator with the two screws supplied. Strip back 12vac device wires 1/4" - 3/8" and connect to appropriate output channel.
- 7) Terminal screws should be tightened to at least 20 in-lb. minimum.
- 8) As a final step on terminals with isolation covers, the cables must be secured to the isolation hood with the supplied cable tie after the hood has been secured to the mount position with the supplied screw.
- 9) Make the 120vac electric supply connections as shown on fig. B, this page -or- fig C, page 5. Make sure no wires interfere with each other.
- 10) Make sure that both 3-position switches are in the off (middle) position (fig C.). Replace top cover and secure with the two supplied screws.



**FIG A.**  
Optional Part  
PT-Base



**FIG B.**  
Isolation cover for the  
supply voltage has been  
removed for clarity

The PT-6000 Power Tower can fit on existing Fiberstars / SR Smith 2000/2000-AS & 6000/6000-AS Series Fiber Illuminator bases when used as a retrofit 12vac power source for LED and Color Light Stream product families. If a new base is required, please purchase part # PT-BASE from your local S.R. Smith Distributor or Service Center.

**The PT-6000 Power Tower may be used in a ‘Stand-Alone’ or ‘Auto Synch’ (with external switching control) configuration environment. Only the operation and input wiring will change as described below.**

### **Stand-Alone Environment & Operation**

The PT-6000 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

Each channel is operated by its own 3-position switch. To turn on, move the appropriate power channel switch to the upper, on position. To turn off, move the appropriate power channel switch to the middle, off position.

#### Remote On/Off Operation

Move the appropriate power channel switch to the lower, remote position and use the hand held remote to toggle the switch on and off.

**See page 7 for remote button functions and features.**

#### Remote Sync Operation

The Sync button will allow both channel 1 & 2 switches to be toggled on/off simultaneously. This is useful when color synchronizing similar 12v products between channels 1 & 2. **See page 7 for remote button functions and features.**

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### **‘Auto Synch’ Environment & Operation**

Typical ‘Auto Synch’ installations with two or more fiber illuminators used two externally controlled relays to provide two, switched, 120VAC hot circuits – one to control the ‘main power’ to the illuminators (in parallel) and the other to connect to the color wheel ‘brown wire’ controls (in parallel). In this environment, multiple PT-6000 units will need to be connected to a single, externally switched/controlled, 120V hot circuit. Both 12VAC output channels of each PT-6000 will be controlled by the 120V input power.

The PT-6000 input will be connected to externally switched/controlled 120VAC line voltage (through NEC appropriate GFCI breaker). The on board, 3-position switches will need to be in the up/on position only. **The remote control transmitter and receiver will be disabled and unused.** The second external relay may be re-assigned or disabled at the installers’ discretion.



# ELECTRICAL CONNECTIONS

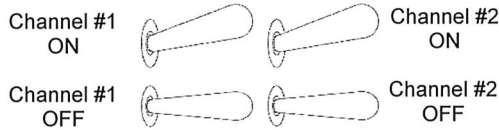
## PT-6000 Power Tower

### TOGGLE SWITCH POSITIONS

Channel #1

Channel #2

#### MANUAL CONTROL



#### Channel #1 AUTO CONTROL



#### Channel #2 AUTO CONTROL

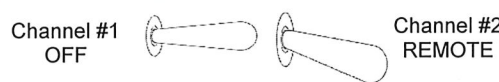
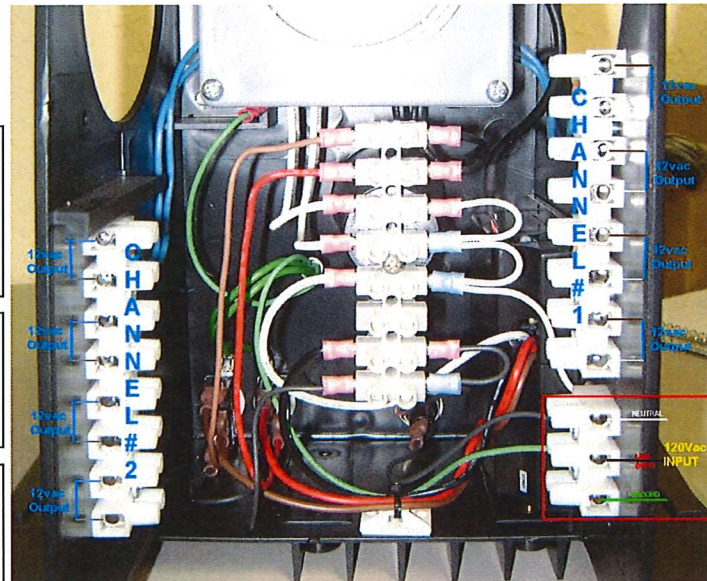


Fig C.



Isolation cover for the supply voltage has been removed for clarity

FOR 12V LOW VOLTAGE LIGHTING SYSTEMS ONLY!

## Terminal Description for Stand-Alone Environment

Each terminal block is dedicated to a particular input or output section as follows:

### Power Input Terminals

White = GFCI protected neutral  
Black = GFCI protected 125VAC hot  
Green = Ground

**GFCI protected power must be provided to the PT-6000.**

### 12V Power Output Channel #1, 30W maximum

Each output terminal pair is designated for one 12VAC device (hot & neutral) connection. Four positions are provided but you may only connect as many 12VAC devices as the cumulative wattage consumption of 30W or less will allow for each output channel. **Do not exceed 30W load on this channel !!**

### 12V Power Output Channel #2, 30W maximum

Each output terminal pair is designated for one 12VAC device (hot & neutral) connection. Four positions are provided but you may only connect as many 12VAC

devices as the cumulative wattage consumption of 30W or less will allow for each output channel. **Do not exceed 30W load on this channel !!**

**Terminal Description for 'Auto Synch' Environment**

Each terminal block is dedicated to a particular input or output section as follows:

Power Input Terminals

- White = GFCI protected neutral
- Black = Externally switched, GFCI protected 125VAC hot
- Green = Ground

**GFCI protected power must be provided to the PT-6000.**


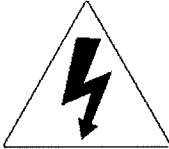
12V Power Output Channel #1, 30W maximum

Each output terminal pair is designated for one 12VAC device (hot & neutral) connection. Four positions are provided but you may only connect as many 12VAC devices as the cumulative wattage consumption of 30W or less will allow for each output channel. **Do not exceed 30W load on this channel !!**

12V Power Output Channel #2, 30W maximum

Each output terminal pair is designated for one 12VAC device (hot & neutral) connection. Four positions are provided but you may only connect as many 12VAC devices as the cumulative wattage consumption of 30W or less will allow for each output channel. **Do not exceed 30W load on this channel !!**

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

 <b>ATTENTION</b>

<b>ELECTRICAL SHOCK HAZARD</b> - 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.
70-15482-00 REV. C

## WIRELESS REMOTE OPERATION

The RF remote system requires no complex programming and is shipped ready to use. In the event that another PT-6000 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:

Push the button marked (1) ‘ON/OFF – COLOR CHANGE’ to toggle on and off the power of Zone 1 on the PT-6000.

Push the button marked (2) ‘ON/OFF – COLOR CHANGE’ to toggle on and off the power of Zone 2 on the PT-6000.

### Color Changing Operation

To change LED pool light colors simply toggle the power OFF, then ON using the button marked ‘1 or 2’ within 1 second. Continue toggling until the desired color or light show is reached. To operate both zones together simultaneously, use the ‘M’ (master) button on the remote.

### ‘New Feature’

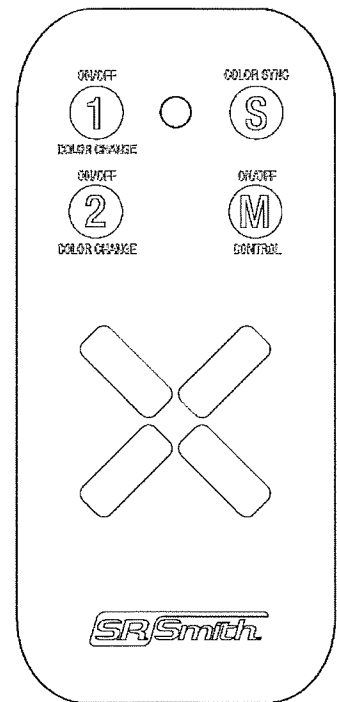
#### 1 Button - Color Sync / Reset Operation

(only for SR Smith LED kelo, Treo, FG, Treo Micro & LED water features)

To color synch lights in a multi-light installation (single or dual 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).

**\*Note** – Both toggle switches on the PT-6000 must be set to REMOTE for wireless operation.

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



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-6000.
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.

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**-- Installation notes --**