

WPC2-XXXX-X

Rated for use on 110/120VAC 60Hz and 220/240VAC 60Hz applications



Intertek

3091594

ETL LISTED

Conforms to ANSI/UL STD 508

Certified to CSA STD C22.2 No. 14



Installation Instructions

Read these instructions in their entirety before performing any installation work

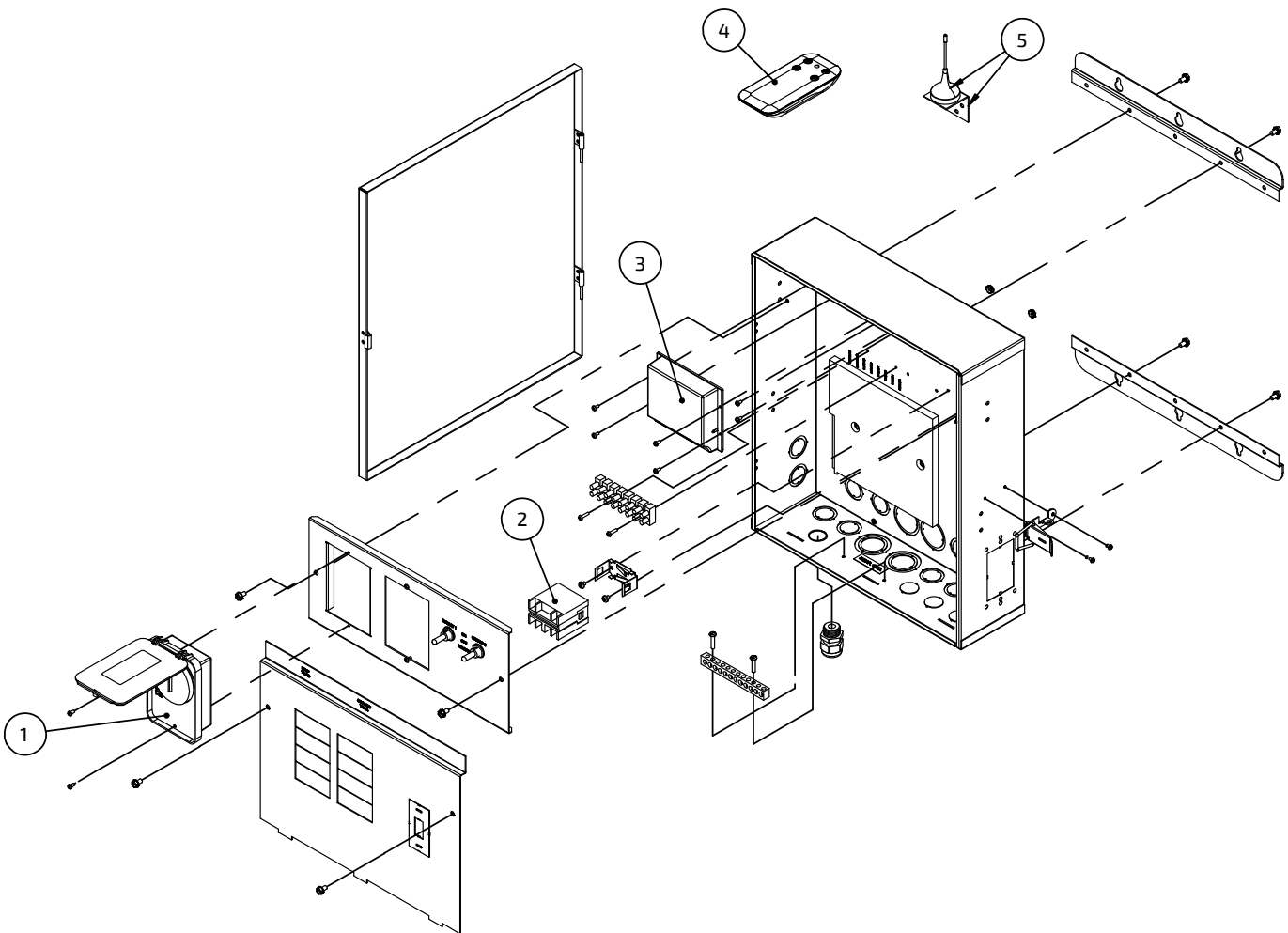
FOR USE WITH POOL AND SPA PRODUCTS

Contents

REPLACEMENT & ACCESSORY ITEMS.....	3
IMPORTANT SAFETY INFORMATION	4
FCC WARNING	4
ELECTRICAL RATINGS and CIRCUIT BREAKER INFORMATION.....	5
WIRING INSTRUCTIONS	6
Power Connection for use without Lighting (no GFCI).....	6
Power Connection for use with Lighting (GFCI required).....	7
Hooking up 120 VAC Lights	8
PUMP CONNECTIONS.....	9
Connecting A 240VAC Single Speed Pump.....	9
External Magnetic Antenna Mounting	10
OPERATING INSTRUCTIONS.....	11
Timer Operation	11
WPC-2 Toggle Switch Operation	12
Wireless Remote Operation	13
Wiring Diagram.....	14
Warranty Information.....	15

REPLACEMENT & ACCESSORY ITEMS

Item No.	Qty.	Component part No.	Replacement Part Description
1	1	WPCTC	Timer
2	1	WPC-1/2WFPR	Relay
3	1	94-15264-00	WPC Receiver, 2-circuit
4	1	94-15263-00	Remote Control, 2-circuit (Transmitter)
5	1	PLX-ANTKT-S	3 meter, magnetic mount antenna Kit
			Optional / Accessory Part Description
Not shown		FP 1/2	Temperature Freeze Device
Not shown		PLX-ANTKT-L	15 meter, magnetic mount antenna Kit



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 WPC-2 product and other associated equipment.

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

WARNING

- TURN OFF INCOMING POWER BEFORE SERVICING EQUIPMENT.
- ALL INSTALLATION AND MAINTENANCE WORK MUST BE PERFORMED BY QUALIFIED ELECTRICAL PERSONNEL ONLY.
- VERIFY ALL ELECTRICAL RATINGS BEFORE INSTALLATION IS COMPLETE.

LOCATION

Install the WPC-2 enclosure using the mounting plates included with each enclosure.

The WPC-2 is housed in a Type 3R rainproof enclosure and can be mounted anywhere between the pool equipment and the breaker panel.

ELECTRICAL RATINGS

Do not exceed the maximum electrical ratings of the WPC-2. A circuit breaker rated at 20 amps at 120VAC must be installed in the breaker panel to connect to the WPC-2 power input. Circuit 1 and Circuit 2 are each rated for use of up to 8 Amps @ 120VAC. The Pump Relay is rated at a maximum of 3HP @ 240VAC.

SUITABLE LISTED BREAKERS						
MANUFACTURER	CIRCUIT BREAKER					FILLER PLATE
	SINGLE	DOUBLE	TWIN	QUAD	GFCB	
Thomas & Betts	TB	TB	TBBD	TBBQ	GFB	FP-1C-TB
Cutler-Hammer	BR	BR	BRD	BRD	GFCB	BRFP
Square D	HOM	HOM	HOMT	HOMT	HOM-GFI	HOMFP
Murray	MP-T	MP-T	MH-T	MH-T	MP-GT	LX100FP
Siemens/ITE	QP	QP	QT	QT	QPF	QF-3
Challenger	C	-	A-CT	-	HAGF	#FC-1C
Westinghouse or Bryant	BR	-	BQ	-	GFCB	FP-1
Crouse Hinds	MP	-	TRIPLEX	-	MP-GF	-
GE Regular	THOP	-	-	-	THOP-GF	TQLFP-1

WIRING INFORMATION - COPPER CONDUCTORS ONLY							
Wire Size 75°C min. Insulation	Supply Circuit Breaker Rating	Terminal Torque		Max Motor Load (Continuous Duty)		General Purpose Branch Circuit Breaker Rating	General Purpose Branch Circuit Maximum Current Capacity
		Line and Neutral Main Lugs	Neutral and Ground	120V	240V		
AWG	AMP	LB-IN	LB-IN	HP	HP	AMP	AMP
14	15	35	20	1/2	1	15	12
12	20	35	20	1	2	20	16
10	30	35	20	1 1/2	3	30	24
8	50	40	25	2	5	40	32
6	55	45	35	-	-	60	44
4	85	45	35	-	-	-	-
3	100	50	-	-	-	-	-
2	100/125	50	-	-	-	-	-

WIRING INSTRUCTIONS

FOLLOW PROPER WIRING PRACTICES IN ACCORDANCE WITH ALL LOCAL REGULATORY REQUIREMENTS.

Power Connections for use without Lighting (no GFCI)

To wire the WPC-2 use insulated COPPER wire only, 12 gauge minimum.

Run a ½" to ¾" conduit from the main breaker panel to one of the bottom left or middle knockouts of the WPC-2. Pull appropriate wires from the main breaker panel to the WPC-2 unit.

To make power connections remove ¾ inches of insulation from wire ends.

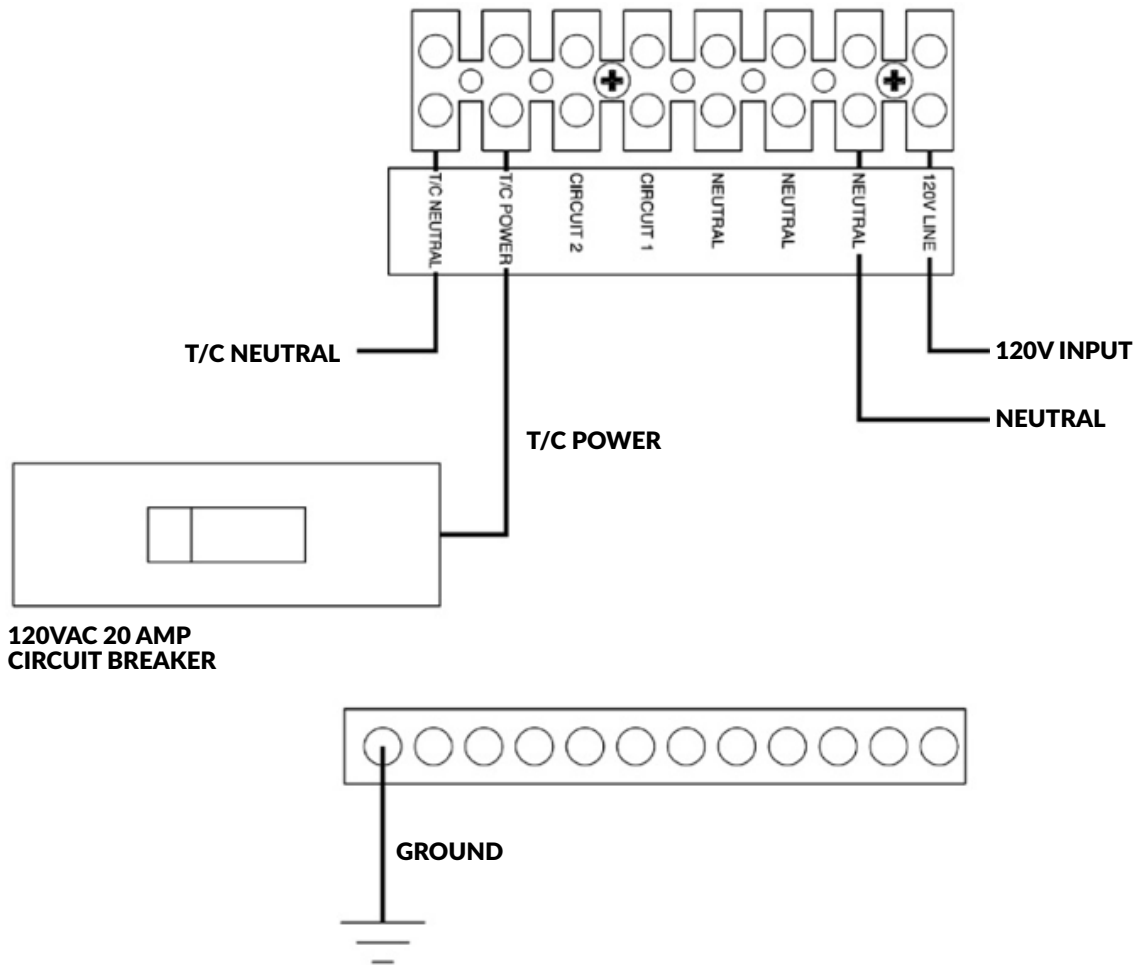
Connect bare wires to the Load Center as illustrated.

Tighten terminal screws firmly (20 lb-in minimum).

Connect the common to the Neutral bar (tighten to 20 lb-in minimum).

Install a 20 Amp circuit breaker and wire to the 120V LINE and the T/C POWER of the terminal block.

Wire the Neutral and T/C NEUTRAL terminals to the Neutral bar on the Load Center.



Power Connection for use with Lighting (GFCI required)

To wire the WPC-2 with the use of a GFCI, punch out the GFCI knockout on the side of the WPC-2 enclosure. For use with an internal GFCI, punch out the GFCI knockout on the Load Center Cover Plate of the WPC. Install GFCI with appropriate hardware.

Install an outdoor rated GFCI. Using **COPPER** wire only, 12 gauge minimum, connect the GFCI from the **LOAD** side to the **HOT** terminal on the POWER INPUT of the WPC-2.

Connect the **NEUTRAL** from the **LOAD** side of the GFCI to the **NEUTRAL** terminal from the WPC-2.

Connect the **GROUND** of the GFCI to the EQUIP. GND. bar.

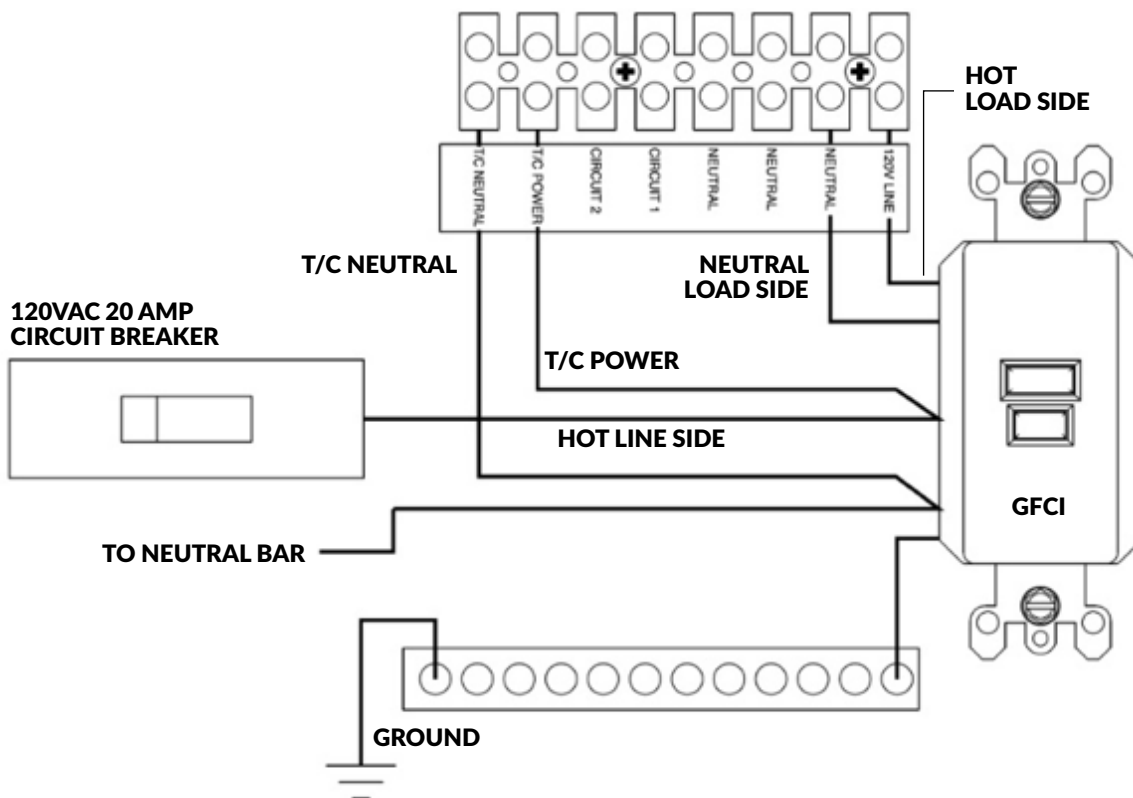
Wire the **HOT** from the GFCI's **LINE** side to the 20Amp circuit breaker in the main breaker panel as discussed earlier.

Connect the **NEUTRAL** from the GFCI's **LINE** side to the house common.

From the GFCI's **LINE** side, connect a wire from the **HOT** to the Timeclocks **T/C POWER** terminal.

From the **NEUTRAL** of the **LINE** side on the GFCI, connect to the **T/C NEUTRAL** on the terminal block.

NOTE: Do not connect the Timeclock Inputs to the **LOAD** side of the GFCI.



Hooking up Lights to Circuit 1 and Circuit 2

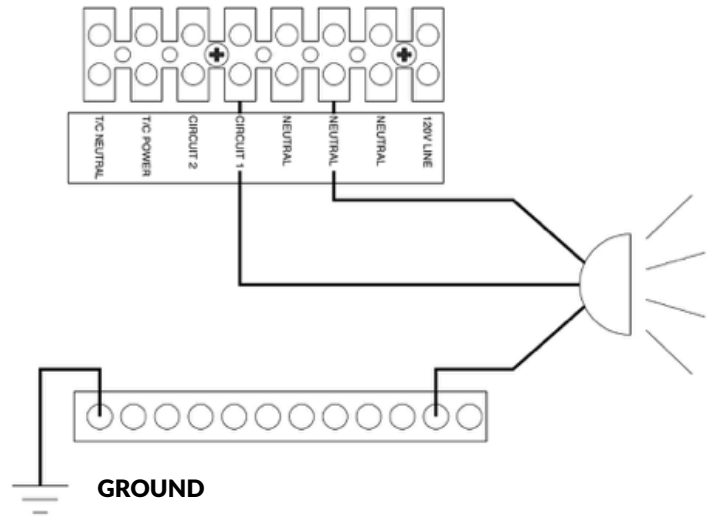
To connect a lighting product to the Circuit 1 and Circuit 2 switch, pull wires from the products to the WPC-2 through conduits connected to the bottom of the WPC-2.

As illustrated, connect lights that will be operated by the Circuit 1 Switch to the Circuit 1 terminal.

Connect the Neutral to the Neutral terminal. Connect the Ground to the Equip. GND. bar.

Repeat for Circuit 2. Do not exceed 8Amps per circuit.

If this product is used to connect 120VAC underwater lights directly, refer to 1999 NEC 680-21(b), 2002 NEC 680-24(b) or CEC 68-060, 062 and 066 for details.



Connecting System 6004 and System 6004-AS* fiber illuminators

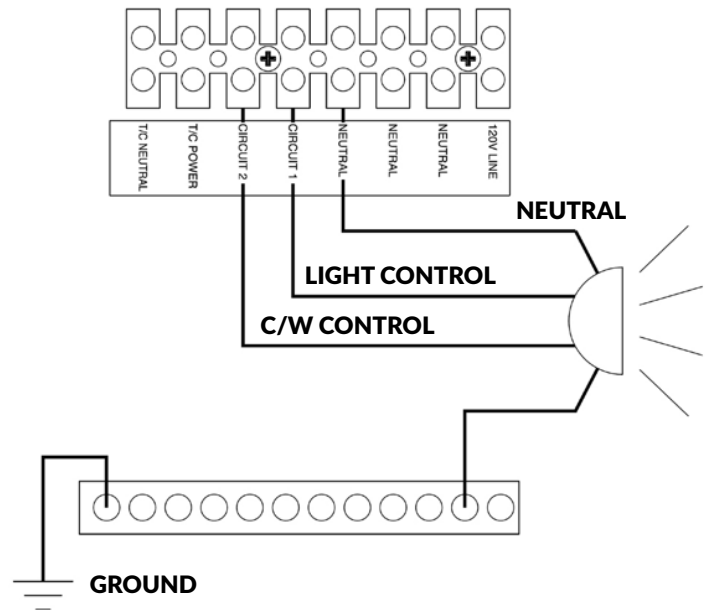
For proper operation of these products both Circuit 1 and Circuit 2 must be wired so that the power is controlled through Circuit 1 and the color wheel functions are controlled through Circuit 2.

Follow each products installation manual for proper installation. Run appropriately rated wires from the light to the WPC-2 no less than 12 Gauge COPPER wires.

Connect the Power to the Circuit 1 terminal at one end and to the BLACK wire on the light. Connect the neutral to the NEUTRAL terminal in the WPC-2 and to the WHITE wire on the light.

Connect the grounding cable to the EQUIP. GND. and on the other end to the GREEN cable.

Finally, for synchronization operation, connect the C/W CONTROL cable to the Circuit 2 terminal and on the other end to the RED wire on the light. You may connect up to 8Amps of supply current to Circuit 1 or Circuit 2.



If this product is used to connect underwater lights directly, refer to 1999 NEC 680-21(b), 2002 NEC 680-24(b) or CEC 68-060, 062 and 066 for details.

*Or other two button Power/Color system, i.e. Pentair, Supervision, Fiberworks...

PUMP CONNECTIONS

NOTE: This model is equipped ONLY with Single Speed pump connection.

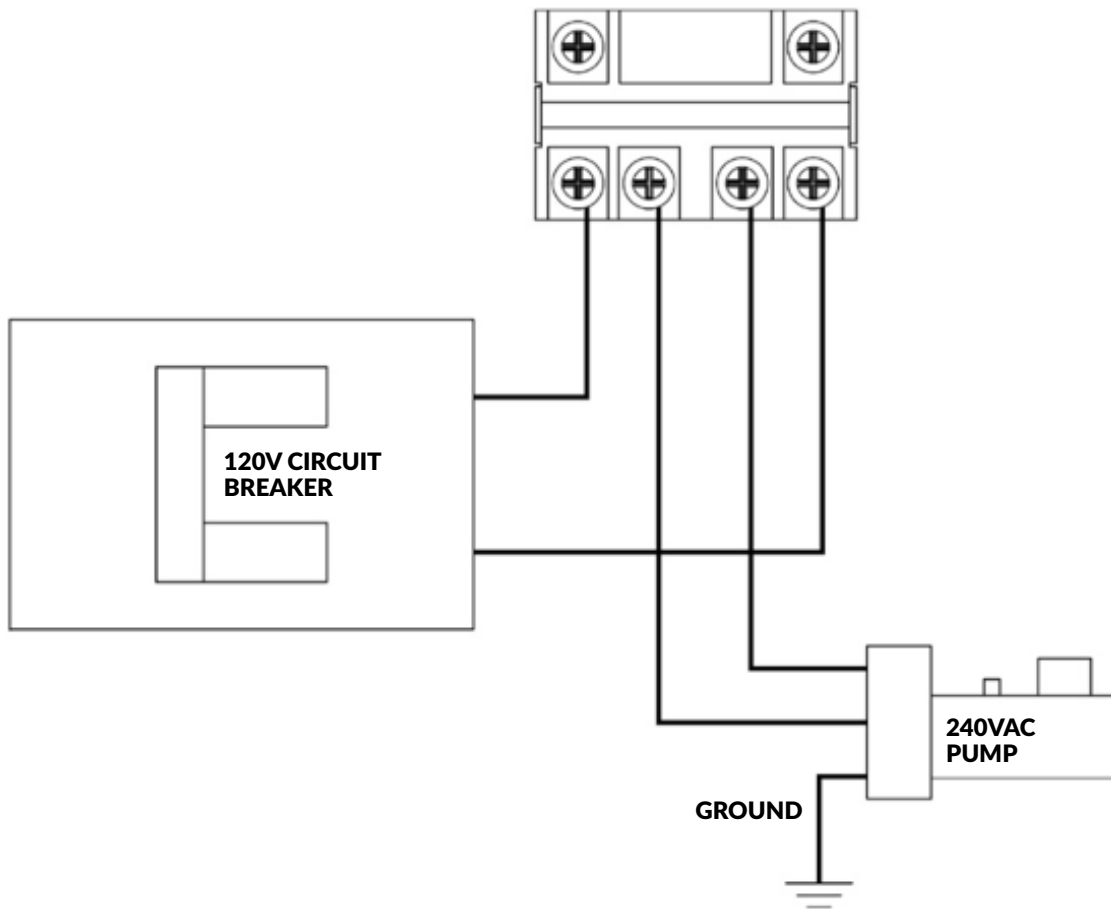
Connecting A 240VAC Single Speed Pump

Connect a 240V 30AMP Circuit Breaker for each pump (if this control box is equipped with optional pump relays).

Using an appropriately sized **copper** wires connect to the outer contacts of the JQX relays of the appropriate pumps as shown.

Run wires from the pump to the inner contacts of the appropriate JQX relay.

NOTE: This unit maybe equipped with more than one JQX relay for pump control



EXTERNAL MAGNETIC ANTENNA MOUNTING

The WPC-2 is equipped with an external antenna that can be mounted up to 3 meters from the WPC-2 unit. The antenna is required as the WPC-2 enclosure is metallic and will block the RF signal from the remote control.

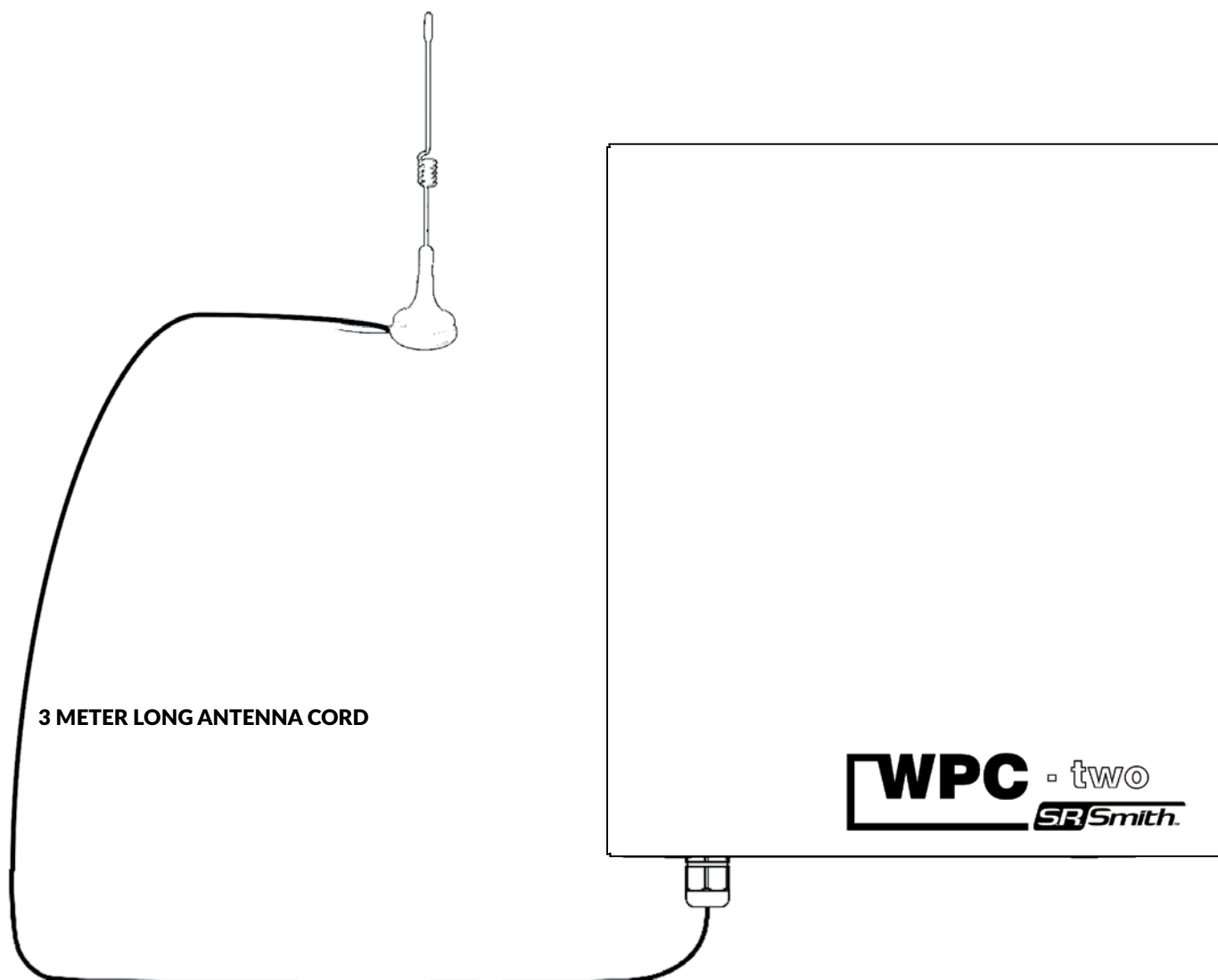
The antenna has a magnetic base and may simply be placed on top of the WPC-2 enclosure.

If moving the antenna elsewhere within 3 meters is desired due to the location of the WPC-2, use the included 90 degree, wall mounting bracket to raise or move the antenna into a clear receiving zone. While not required, best range performance is found when the remote and the antenna are within line of sight and 100' or less.

NOTE: 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 3 meter magnetically mounted antenna may be removed and a 15 meter accessory antenna kit may be used to extend the RF antenna towards the use area - part number **pLX-ANTKT-L**. Like any radio device, experimentation may be required to locate the best reception or RF friendly spot.



OPERATING INSTRUCTIONS

Timer Operation

Set time to current time. In the example below, the current time is set for 9:00pm.

NOTE: Only turn the Timer dial clockwise or the timer will be damaged.

Once the time has been set to the current time, set the hours of the Pump operation by “snapping” the timer tabs inwards towards the center.

NOTE: Each tab represents 15 minutes of operation and tabs set inwards towards the center is for OFF operations and ON when the tabs are set outwards as illustrated.

In the example below, the Pump will be off from 12:00pm to 11:45pm.

Once the time and time of operation has been set, ensure that the Timer function switch is set to Auto for timer control of the Pump as illustrated below.

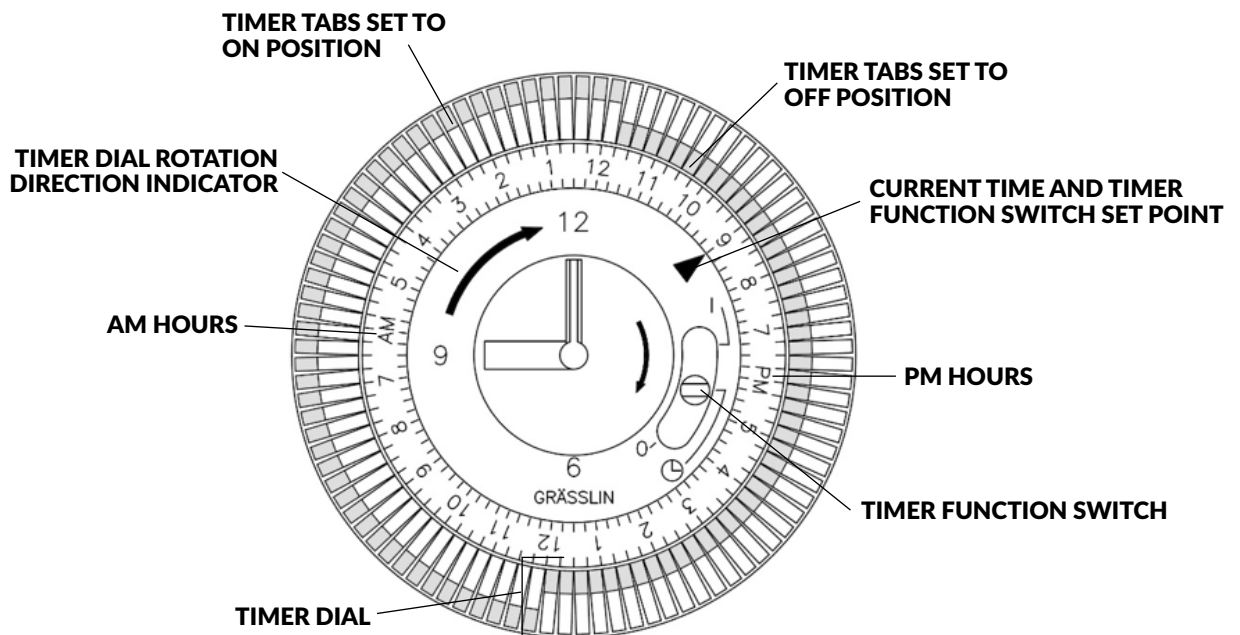
To turn off timers automatic functions, set the Timer function switch to OFF.

To manually turn on the Pump, set the Timer function switch to the ON position.

NOTE: When in the ON position, the Pump will continue to run until the Timer function switch is set to Auto where the tabs at the Set Point is in the OFF position or if the Timer function switch is rotated to the OFF position.

TIMER FUNCTION SWITCH POSITION

- | : ON UP
- ⊕ : AUTO MIDDLE
- : OFF DOWN



WPC-2 Toggle Switch Operation

The WPC-2 receiver box houses two toggle switches. For operation with the wireless transmitter, the toggle switches need to be in the REMOTE position.

To manually turn ON the devices connected to either Circuit 1 or Circuit 2, flip the switches to the ON position.

When a circuit is in the ON position, the Wireless Remote will not be able to turn OFF the respective circuit.

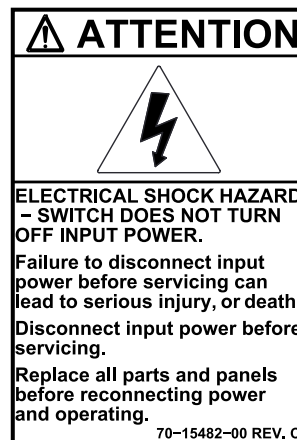
To turn OFF the devices manually, flip the respective switch to the MIDDLE or OFF position.

NOTE: In the OFF position, the wireless remote operation will be bypassed. To re-enable the wireless remote operation, flip the switch back to the REMOTE position.

UNITS EQUIPPED WITH TOGGLE SWITCHES



NOTE: CIRCUIT 1 IS IN THE ON POSITION AND CIRCUIT 2 IS IN THE REMOTE POSITION



Wireless Remote Operation

The RF remote system requires no complex programming and is shipped ready to use. In the event that another WPC unit 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 WPC panel.

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

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

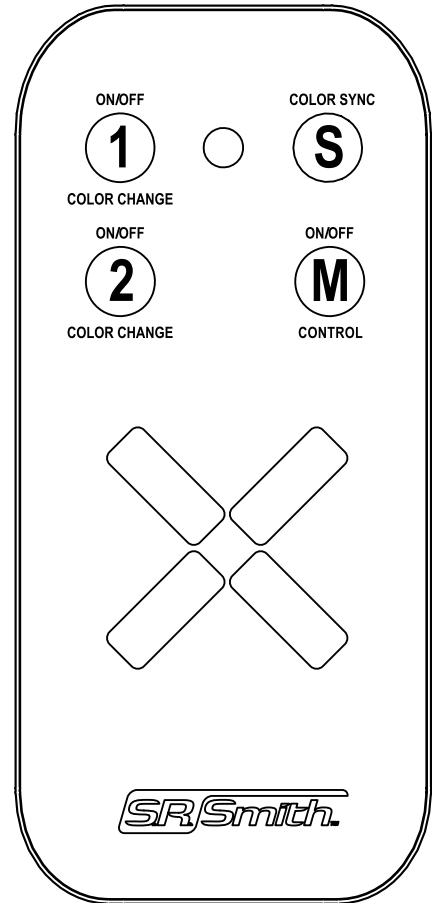
1-Button - Color Sync / Reset Operation

(For use only with SR Smith LED kelo, Treo, FG, Treo Micro & LED water features)

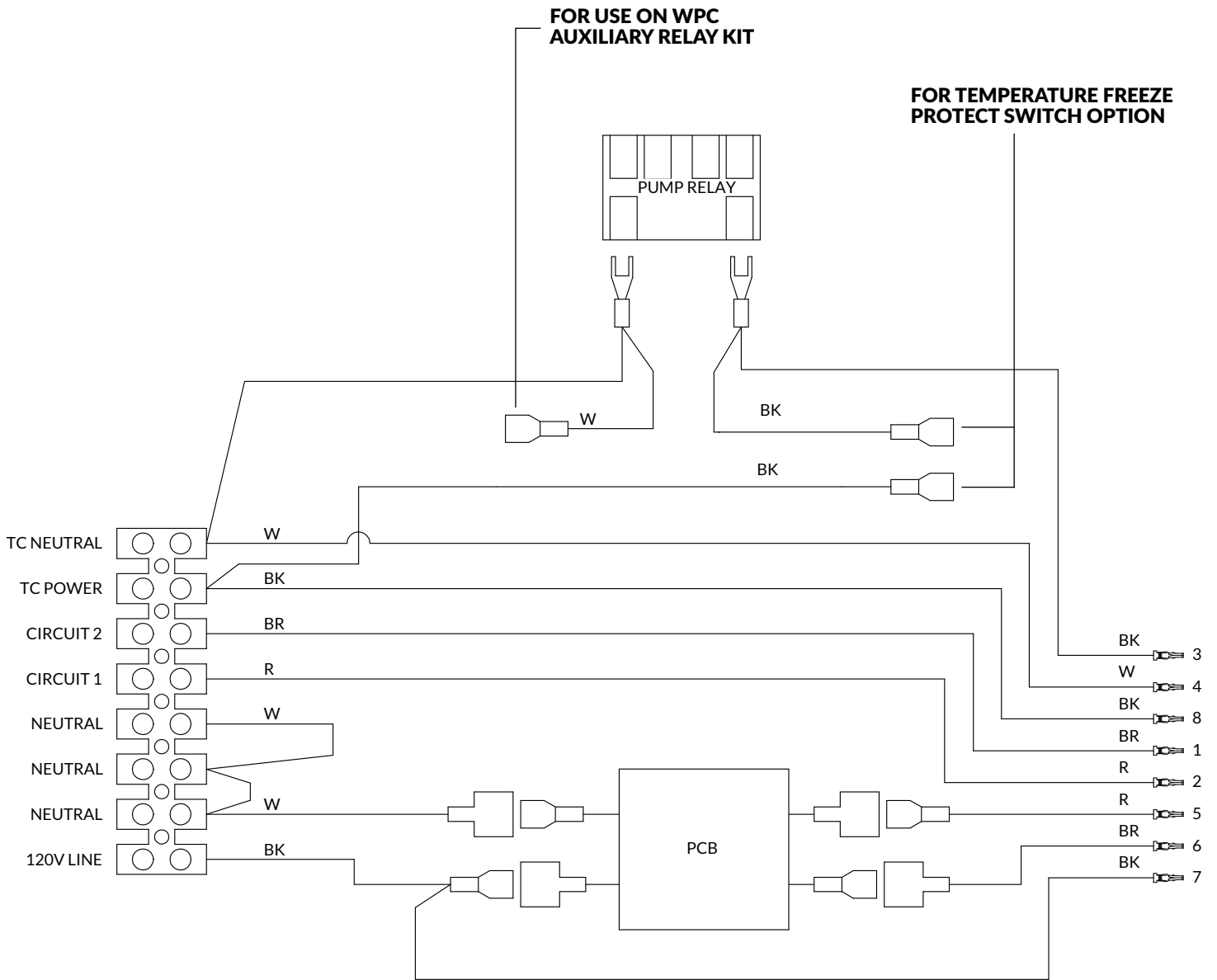
To color synch lights in a multi-light installation (single or dual zone), simply press the "S" button once and wait 15 seconds. During this time, the lights will flash on and off several times, pause in the off mode, then finally resume at color mode 1 (soft color change).

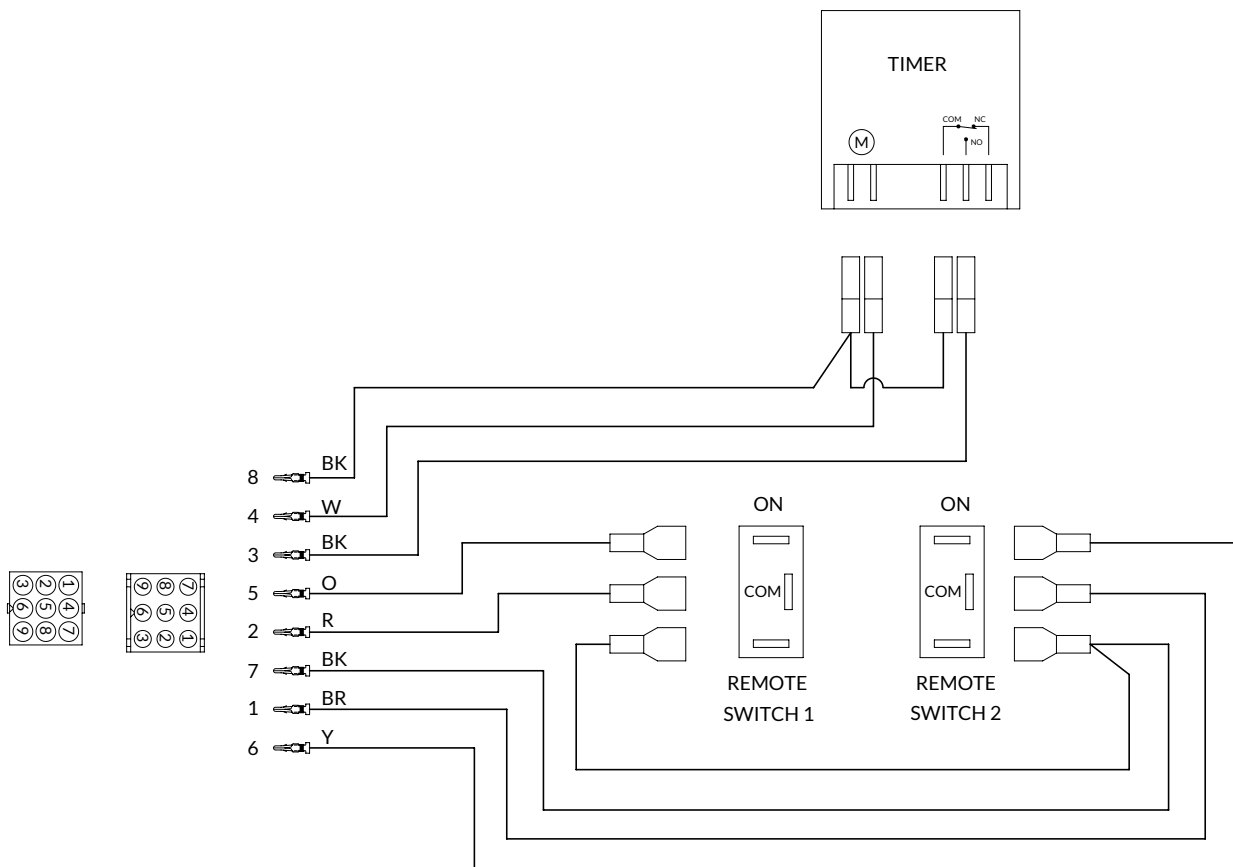
***Note:** Both toggle switches on the WPC unit must be set to REMOTE for wireless operation.

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





WARRANTY INFORMATION

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

Questions?

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



S.R. Smith, LLC
P.O. Box 400 | Canby, OR 97013
P 503.266.2231 **TF** 800.824.4387
srsmith.com