Model SW-2 shown with actuator faceplate
(sold separately)

Provides ON/OFF and dimming control for:
- **Incandescent lighting**
- **Magnetic low-voltage lighting**
- **Halogen lighting**

<div style="border:2px solid red; background:red; color:white; text-align:center;">

IMPORTANT!
Read This Before Installing!

</div>

- **This incandescent dimmer cannot be used to dim FLUORESCENT, ELECTRONIC LOW-VOLTAGE or METAL HALIDE lighting, unless specifically allowed by the lighting manufacturer. Please see instructions to configure this product for ON/OFF operation with these types of lighting.**

- **DO NOT WIRE HOT! Permanent damage may result. Improper installation voids the warranty.**

FUNCTION

The SW-2 UPB Universal Dimming Transceiver allows remote control of permanently-installed new or existing lighting fixtures, lamps and other electrical devices. Each unit has one rocker switch that directly controls a load up to 900W (see Rating Table in this document). Incandescent lamps can be turned ON or OFF, and can also be dimmed and brightened. The SW-2 can be configured to turn other types of non-dimmable loads ON and OFF. Actuator faceplates (model series SW-1x, SW-2x, SW-3x, SW-4x, WC-4x, WC-5x and WC-8x) are fully interchangeable on the SW-2 base. All switch actuators act as transmitters that can communicate with other UPB devices, either individually or collectively for lighting scenes.

IMPORTANT SAFETY INSTRUCTIONS

When using electrical products, basic safety precautions should always be followed, including the following:

1. READ AND FOLLOW ALL SAFETY INSTRUCTIONS.
2. REMOVE YELLOW "INSTALL WITH CARE" LABEL BEFORE INSTALLING.
3. Installation should be performed by a qualified electrician.
4. Keep away from water. If product comes into contact with water or other liquid, unplug immediately.
5. Never use products that have been dropped or damaged.
6. Do not use this product outdoors.
7. Do not use this product for other than its intended use.
8. Do not connect multiple lamps that, when combined, exceed the maximum load rating of the product, de-rated for multi-gang boxes (see table in this document).

9. Do not install in areas that can exceed 120°F (e.g., in an attic).
10. To avoid the risk of overheating and possible damage to other equipment, do not install to control a receptacle.
11. Do not cover the product with cloth, paper or any material when in use.
12. SAVE THESE INSTRUCTIONS.

INSTALLATION

The SW-2 UPB Universal Dimming Transceiver is designed to be installed in a junction box that is wired to a readily accessible over-current protection device in the building wiring per NEC and CEC electrical codes.

> **CAUTION:** The default switch configuration operates as a dimmer for incandescent lamps. It will also dim magnetic low-voltage and halogen lamps. To control fluorescent, electronic low-voltage or metal halide lamps, or motor-operated appliances, transformer-supplied appliances or fans, the switch must be reconfigured for ON/OFF operation (no dimming) prior to use. Refer to the section on Configuration.

> ⚡ **CAUTION:** DO NOT WIRE THIS DEVICE WITH POWER CONNECTED. Injury or permanent damage to the device may result. Improper installation voids the product warranty.

1. Locate the existing wall switch for the lighting to be controlled. Note that the lamp rating (or the combined rating of multiple connected lamps) must not exceed the values shown in the following table:

		Number of Load Dimmers in J-box		
		1	2	3+
Number of J-box Gangs	1	600W	--	--
	2	800W	500W	--
	3+	900W	700W	500W

2. Disconnect power at the circuit breaker. (NOTE: You MUST do this. Wiring this switch "Hot" will damage the switch and void its warranty.)

3. Remove the existing wall switch hardware. Disconnect the wires to the switch.

4. Remove the yellow "INSTALL WITH CARE" label, if present.

5. Using a wire nut, connect the black (Line) wire of the switch to the black (Line) power wire.

6. Using a wire nut, connect all white (Neutral) wires together.

7. Using a wire nut, connect the brown (load output) wire of the SW-2 to the black wire of the device to be controlled.

8. IF THIS IS TO BE A 3- OR MORE-WAY INSTALLATION, MAKE SURE YOU INSTALL AN SW-3 AT ALL 3-WAY LOCATIONS. CONNECTING THIS SWITCH TO A MANUAL 3-WAY SWITCH WILL DAMAGE THE SWITCH AND VOID THE WARRANTY. Use a wire nut to connect the brown/white wire to the traveler wire that extends to the remote switch. If there is a second remote and a second traveler, use a wire nut to connect the red/white traveler to the wire that extends to the second remote switch location. See below for remote switch installation.

9. Cap off any unused wires to prevent shorting.

10. Mount the switch inside the J-box using captive screws. DO NOT OVER TIGHTEN THE SCREWS.

11. Reconnect power at the circuit breaker.

CONFIGURATION

Configuration requires UPB setup/configuration software (such as Web Mountain's NetPlace server or UPStart) and a model SPIM-01 Computer Interface Module. Before using UPStart configuration software, be sure to download the latest version from the Web Mountain website.

UPB settings must be configured for specific faceplates. When using UPStart, this is done by selecting the faceplate "variant" when adding the device to the network.

SETUP MODE

When configuring a UPB system, it is often necessary to place the SW-2 in SETUP mode in order to initiate self-identification on the powerline. To place the SW-2 in SETUP mode, tap any rocker/pushbutton exactly 5 times consecutively. The LED indicator will continuously blink GREEN when the unit is in SETUP mode. To exit SETUP mode and enter NORMAL mode, tap the rocker/pushbutton twice again.

OPERATION

Unless otherwise configured, rocker actuators behave as follows:

Rocker Event	Dimmer Action	
	Top Rocker	Bottom Rocker
Single-Tap	Brighten to 100% at Default Rate	Fade to 0% at Default Rate
Double-Tap	Snap to 100%	Snap to 0%
Hold	Start brightening to 100% at Default Rate	Start fading to 0% at Default Rate
Release	Stop brightening and hold current level	Stop fading and hold current level

For multi-actuator faceplates, the top-left (#1) rocker or button provides ON/OFF and dimming control functions for the connected light fixture (load). The additional actuator(s) act as transmitters to other UPB devices. See illustration at right for actuator numbering examples.

1. By linking a transmitting switch to a UPB Receptacle, Appliance Module or Relay Module, the connected load can be turned ON by tapping the top of the rocker and OFF by tapping the bottom of the rocker. Pushbuttons can be configured to toggle the load ON and OFF.

2. By linking a transmitting switch to a UPB Lamp or Fixture Dimmer Module, the connected load can be controlled according to the table above. Pushbuttons can be configured as a "Super Toggler", which will alternate the actions of a top and bottom rocker.

POWER DISCONNECTION

To disconnect power to the connected lamp fixture, depress the top of the rocker switch, grab the underside of the clear plastic indicator tab with your fingernail, pull the tab out about 0.2" until it stays in place. The indicator will extinguish to show that power is now disconnected. To reconnect power, simply push the tab back into its normal position.

OVERLOAD PROTECTION

The SW-2 contains a thermal sensor that automatically turns off the connected load if the switch becomes too hot. This can occur when the load exceeds the power rating of the switch, or when dimming incompatible loads. If the load begins to turn OFF and ON repeatedly

without command or actuation, then either the load must be reduced or the switch must be reconfigured for non-dimming operation.

INSTALLING/CHANGING FACEPLATES

Web Mountain Dimming Wall Switches are designed with removable actuator faceplates, making it possible to upgrade functionality and/or change color in the field without disconnecting the switch from the wall. Changing faceplate types will require re-configuration via software.

To install a faceplate assembly, do the following:

1. Hold the rocker faceplate assembly so that the clear plastic light pipe (LED) on the switch fits nicely into the recess on the top of the rocker.
2. Align the four prongs on the rocker assembly with the four slots on the switch body.
3. Press the rocker faceplate assembly into the switch body. Ensure that all four prongs are fully inserted and latched into the switch body. If all four prongs are not fully latched, the rocker plungers may not function properly.
4. Exercise rocker actuator several times in both directions to ensure proper seating and operation.

To remove the faceplate assembly to upgrade functionality or to change color, do the following:

1. Remove the wall plate from the switch.
2. Using the thumb and index finger, press the top two prongs of the rocker faceplate assembly inward so that they unlatch from the switch body AND at the same time, using your thumbnail, slightly lift up the clear plastic light pipe. This will release the top of the rocker assembly.
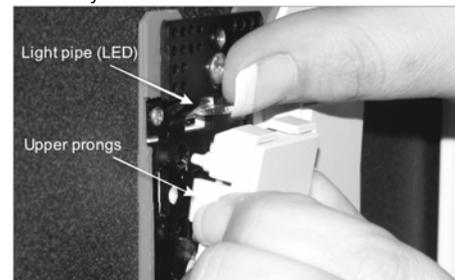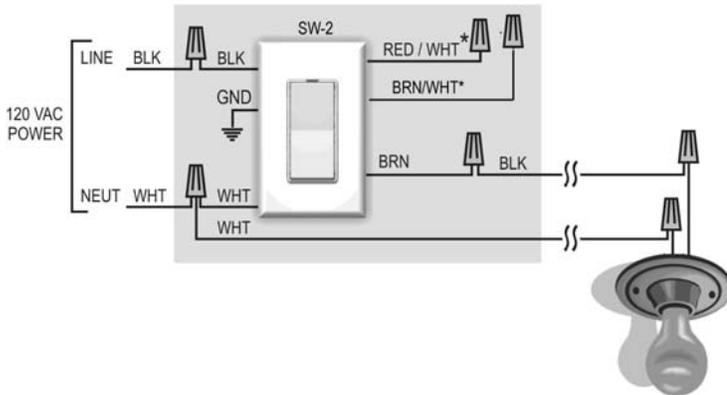

3. Press the two lower prongs inward, and pull the faceplate assembly away and slightly downward from the switch body, moving it away from the clear plastic light pipe.
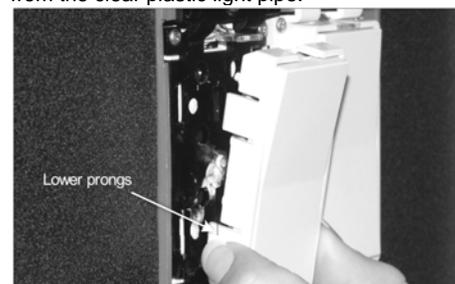
4. Once the old rocker faceplate is removed, follow steps 1-4 above for instructions on installing a new rocker faceplate assembly.

STANDARD 2-WAY INSTALLATION

NOTES:

* CAP UNUSED BRN/WHT AND/OR RED/WHT WIRES TO PREVENT SHOCK OR SHORTING.

** CONNECT THE BROWN WIRE (BLACK ON SOME MODELS) OF THE SW-3 AS SHOWN TO ENABLE OPERATION OF THE LED INDICATOR. THIS WIRE IS NOT REQUIRED FOR SWITCH OPERATION AND CAN BE OMITTED IF A THIRD WIRE IS NOT AVAILABLE. CAP BROWN WIRE IF NOT USED.
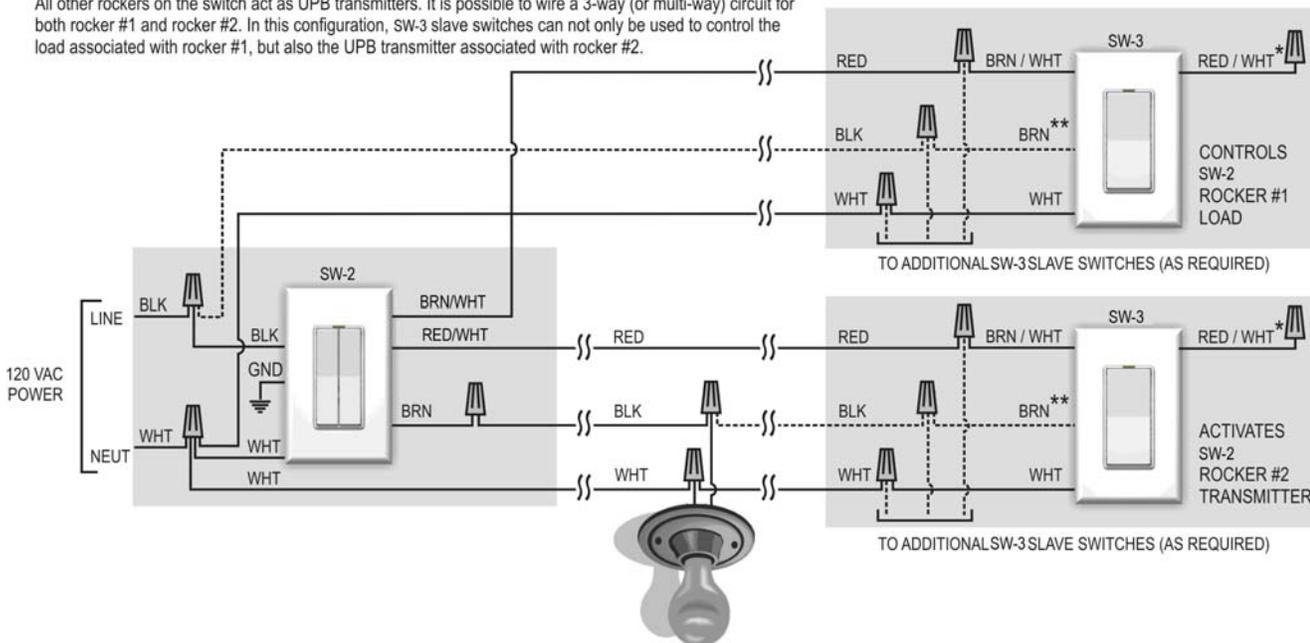
STANDARD 3-WAY (OR MULTI-WAY) INSTALLATION

This diagram shows a 3-way wiring configuration in which an SW-3 slave switch controls the load connected to an SW-2 switch. Additional SW-3 slave switches may be added in parallel for multi-way control.

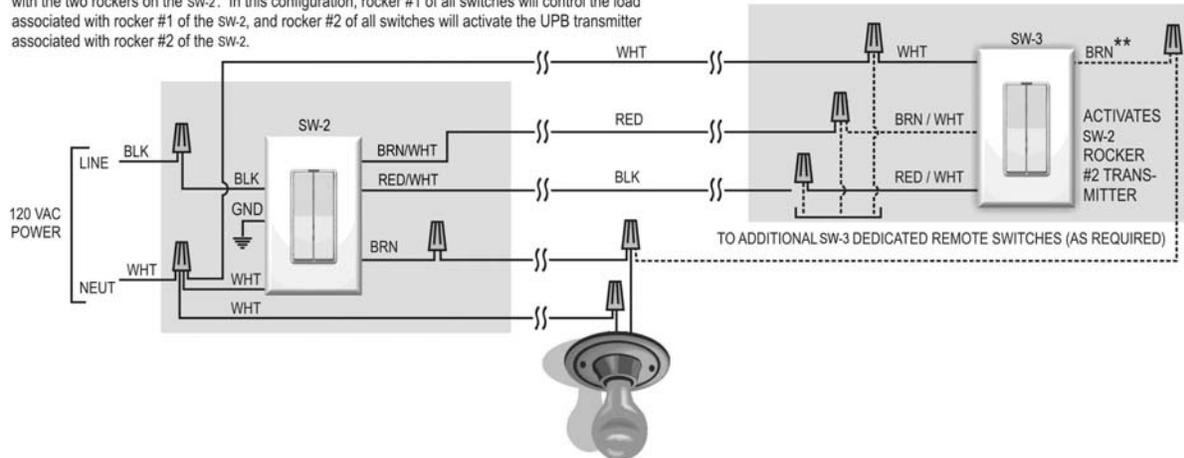TO ADDITIONAL SW-3 SLAVE SWITCHES (AS REQUIRED)
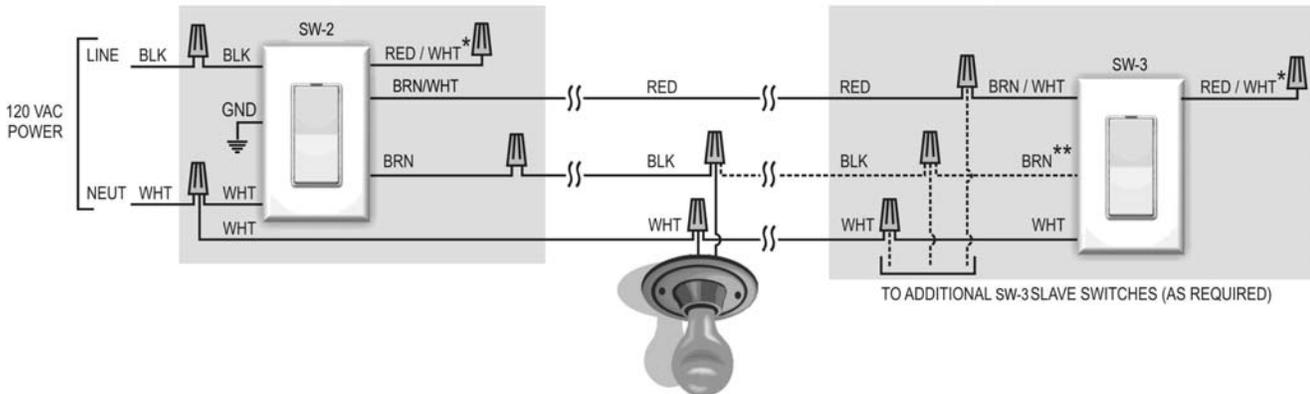
3-WAY (OR MULTI-WAY) INSTALLATION FOR A MULTI-ROCKER SWITCH

If a multi-rocker faceplate is installed on an SW-2, the connected load will be controlled by rocker #1. All other rockers on the switch act as UPB transmitters. It is possible to wire a 3-way (or multi-way) circuit for both rocker #1 and rocker #2. In this configuration, SW-3 slave switches can not only be used to control the load associated with rocker #1, but also the UPB transmitter associated with rocker #2.

TO ADDITIONAL SW-3 SLAVE SWITCHES (AS REQUIRED)

DUAL-ROCKER 3-WAY (OR MULTI-WAY) INSTALLATION

If a multi-rocker faceplate is installed on an SW-2, the connected load will be controlled by rocker #1. All other rockers on the switch act as UPB transmitters. If a dual-rocker faceplate is installed on an SW-3, it is possible to wire a 3-way (or multi-way) circuit for both rocker #1 and rocker #2 of the SW-3 that will connect with the two rockers on the SW-2. In this configuration, rocker #1 of all switches will control the load associated with rocker #1 of the SW-2, and rocker #2 of all switches will activate the UPB transmitter associated with rocker #2 of the SW-2.

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SOLUTION
Master switch is wired properly but has no power.	Air gap power disconnect may be disengaged (pulled out).	Push light pipe (indicator) back into position flush with faceplate assembly housing.
Master switch actuator doesn't turn load ON and/or OFF.	3-way remote switch actuator may be binding, causing the switch to be stuck ON or OFF.	Loosen mounting screws on remote switch and/or wallplate to relieve pressure on housing.
	Actuator faceplate may not be seated properly on the switch body.	Exercise actuator several times to ensure proper seating and operation.
Buttons and/or rockers stick or don't actuate properly when pressed.	Mounting screws may be too tight or j-box may be deformed, causing the switch body to warp.	Loosen mounting screws to relieve pressure on the switch housing.
	Actuator springs may have backed out of their correct location during shipping.	Reseat the springs: place the faceplate face-up on a flat surface, then press down on both sides of each rocker at the same time.
Load turns ON and OFF regularly without actuation or command.	Switch is overloaded.	Reduce the power load by removing bulbs from the circuit.
	Switch is dimming a load that is not rated for use with incandescent dimmers.	Reconfigure the switch for ON/OFF operation with no dimming (using UPStart, for example).
Bottom rocker actuator turns off other lights in the house.	SW-2 has a single or dual-tall rocker faceplate installed, but has not been configured for the proper faceplate.	Configure the switch for the correct rocker faceplate (using UPStart, for example).

UPB FACTORY DEFAULT SETTINGS

To restore the following default settings, place the SW-2 in SETUP mode and tap any actuator exactly 10 times. The indicator will continuously blink BLUE. Tap the actuator twice again to exit SETUP mode.

Network Name	"Network 1"
Room Name	"New Room Name"
Device Name	"New SA US2-40"
Unit ID	29
Network ID	255
Network Password	1234
Rocker 1 Transmit Link	241 (internal)
Rocker 2 Transmit Link	1
Rocker 3 Transmit Link	10
Rocker 4 Transmit Link	11
Receive Links	1 (ON), 2(OFF) and 241 (internal)

NOTE: Internal links (241 through 248) allow scenes controlled by the SW-2 to include the connected load. These links are only transmitted externally if specifically configured to do so.

MANUAL SCENE CREATION & MODIFICATION

Once the SW-2 has been initially configured (and the actuator has a Link assigned to it), it is possible to make scene changes without configuration software.

1. To create a scene for one of the SW-2 actuators, set all scene devices to the desired light levels and then place them in SETUP mode. Tap the scene actuator on the SW-2 exactly 7 times to create the scene and store the light levels.

2. To add a device to an existing scene, activate the scene and set the light level on the device to be added. Place the device in SETUP mode and tap the scene actuator on the SW-2 exactly 7 times to modify the scene.

3. To remove a device from an existing scene, place the device to be removed in SETUP mode. Tap the scene actuator on the SW-2 exactly 8 times to modify the scene.

4. To change light levels on an existing scene, set the levels as desired and tap the scene actuator on the SW-2 exactly 7 times to modify the scene.