

**UPB Standard Dimming Transceiver Switch
Model SW-411**

Provides ON/OFF, dimming and timed OFF control for:

- Incandescent lighting
- Magnetic low-voltage lighting
- Halogen lighting

IMPORTANT!
Read This Before Installing!

- 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.

Model SW-411 shown with white actuator faceplate (included)



FUNCTION

The Web Mountain UPB Dimming Transceiver Switch, model SW-411, provides direct load control and or remote control of permanently-installed new or existing lighting fixtures, lamps and other electrical devices connected to UPB devices. Each unit has one rocker switch that directly controls a load up to 900W (see Table 1). Incandescent lamps can be turned ON or OFF, and can also be dimmed and brightened. The SW-411 can be configured to turn other types of non-dimmable loads ON and OFF. The timer function can be used to automatically turn OFF loads, after a preset time, like bathroom fans or heat lamps. The switch may also act as a transmitter or receiver 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. Installation should be performed by a qualified electrician.
3. Keep away from water. If product comes into contact with water or other liquid, disconnect immediately.
4. Never use products that have been dropped or damaged.
5. Do not use this product outdoors.
6. Do not use this product for other than its intended use.
7. Do not connect multiple lamps that, when combined, exceed the maximum load rating of the product, de-rated for multi-gang boxes.
8. Do not install in areas that can exceed 120°F (e.g., in an attic).
9. To avoid the risk of overheating and possible damage to other equipment, do not use this product to control a receptacle.
10. Do not cover the product with any material when in use.
11. SAVE THESE INSTRUCTIONS.

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.

INSTALLATION

The Web Mountain UPB Dimming Transceiver Switch (SW-411) 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.

1. Locate the existing wall switch for the lighting to be controlled. Note that the lamp rating (or the combined rating of all connected lamps) must not exceed what is shown in the de-rating table below.

Table 1: Power per Dimmer

		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.
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 all white (Neutral) wires together.
6. Using a wire nut, connect the brown (load output) wire of the SW-411 to the black wire of the device to be controlled.
7. IF THIS IS TO BE A 3- OR MORE-WAY INSTALLATION, use a wire nut to connect the brown/white "REMOTE 1" wire or red/white "REMOTE 2" wire if there is a second 3-way switch traveler. See wiring diagrams on page 2.
8. Using a wire nut, connect the black (Line) wire of the SW-411 switch to the black (Line) power wire.
9. Mount the switch inside the J-box using captive screws. DO NOT OVER TIGHTEN THE SCREWS.
10. Reconnect power at the circuit breaker.

CONFIGURATION

Configuration requires UPB setup/configuration software 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. First time users should also download and follow the Quick Start Guide and use the Installation Wizard available in UPStart to save time.

The SW-411 default settings assume an SW-11 or SW-12 (single rocker) faceplate. **The device will not operate correctly with any other model of faceplate.**

SETUP MODE

When configuring a UPB system, it is often necessary to place the SW-411 in SETUP mode in order to initiate self-identification on the powerline. To place the SW-411 in SETUP mode, tap any rocker 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 twice again.

OPERATION

Unless otherwise configured, rocker actuator behaves 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

1. By linking a transmitting switch to a (non-dimming) 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.
2. By linking a transmitting switch to a (dimming) UPB Lamp or Fixture Dimmer Module, the connected load can be controlled according to the table above.

A timer function is available in the SW-411. Controller commands or rocker taps can turn ON the load and preset the timer period. The SW-411 automatically turns OFF at the end of the period. The available preset times are: 1 Sec., 5 Sec., 30 Sec., 1 Min., 2 Min., 4 Min., 10 Min., 20 Min., 30 Min., 40 Min., 50 Min., 1 Hr., 2 Hrs. 3 Hrs. and 4 Hrs. The default setting is: Timer Off.

To turn lights on faster, local response time adjustments are available (300, 450, 600 and the default 750 mSec) and configured with UPStart configuration software. Local response time is the time from rocker press to load response.

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 LED 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-411 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 or if the switch is in an environment that exceeds the maximum operating temperature (120° F). If the load begins to turn OFF and ON repeatedly without command or actuation, then the load must be reduced.

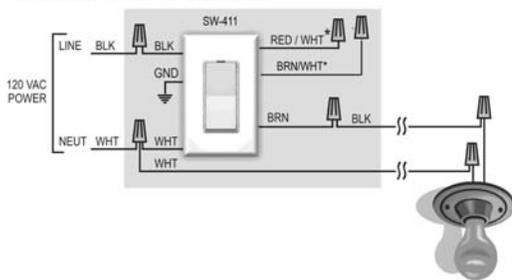
UPB FACTORY DEFAULT SETTINGS

To restore the following default settings, place the SW-411 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 US1-40"
Unit ID	22
Network ID	255
Network Password	1234
Transmit Links	None are pre-programmed
Receive Links	1 (100%), 2 (0%)

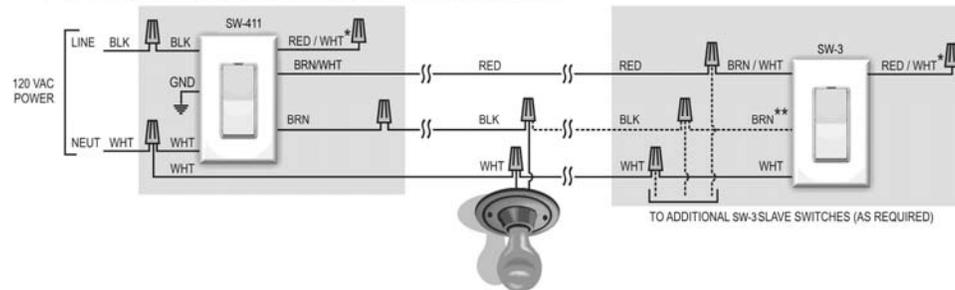
STANDARD 2-WAY INSTALLATION

STANDARD 2-WAY INSTALLATION



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-411 switch. Additional SW-3 slave switches may be added in parallel for multi-way control.



* CONNECT THE BROWN WIRE ON SW-311 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 TO PREVENT SHOCK OR SHORTING.

INSTALLING/CHANGING FACEPLATES

The SW-411 Dimming Wall Switch is designed with a removable actuator faceplate, making it possible to change color in the field without disconnecting the switch from the wall.

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. With equal pressure on the top and bottom of the faceplate, squeeze prongs as you press it 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/button plungers may not function properly.
4. Exercise each rocker/button several times to ensure proper seating and operation. If the rocker or button doesn't operate properly, remove and re-install the faceplate to check proper seating and operation.

To remove the faceplate assembly 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. 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.

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SOLUTION
Master switch is wired properly but has no power. (LED indicator is OFF)	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. (LED indicator is ON)	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. If necessary, remove and replace faceplate 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.	Exercise actuator several times to ensure proper seating and operation. If necessary, remove and replace faceplate to ensure proper seating and operation.
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).
Multi-button/rocker faceplate is not recognized in UPStart and does not work	The SW-411 is configured for a single rocker ONLY. Multi-button/rocker faceplates will not be recognized by UPStart	Replace the SW-411 with an SW-2 and the desired faceplate.