

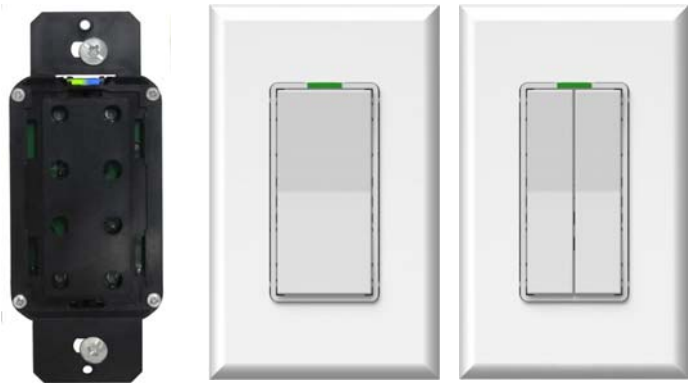
## Single/Dual Dedicated Remote (3+ Way) Controller Base (model USR-40A) or Dedicated Remote with single white rocker (model USR1-40A-W)

Provides 3+way or multi-way ON/OFF or dimming control, and dual (2) blue/green LED indication, for these devices:

- SimplyBrilliant® UPB Dimmer-Controller; models US1, US2 and US22
- UPB Fixture Dimmer and Relay Modules; models UFD and UFR
- UPB Controlled Receptacle; model URD

### IMPORTANT! Read Before Installing!

- SimplyBrilliant incandescent dimmers **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 the master switch for ON/OFF (dimming disabled) operation with those types of lighting.
- **DO NOT WIRE HOT!** Permanent damage may result. Improper installation voids the warranty.



Model USR-40A shown without rocker faceplate and with faceplate options: single and dual-tall rocker, ZS11 and ZS12 Series respectively (Decora style wallplates not included).

## FUNCTION

The Single/Dual Dedicated Remote Controller Base, model USR-40A, provides “traveler wire” connection for remote 3+way or multi-way ON/OFF or dimming actuation of SimplyBrilliant UPB Dimming-Controllers, as well as fixture and receptacle modules. The USR controller base has dual (2) blue/green LED indication and supports a single or dual-tall rocker faceplate; faceplate models ZS11 and ZS12 respectively, available in white, almond, light-almond, ivory, black and brown. A Dedicated Remote Controller with single, gloss-white, rocker faceplate (model ZS11-W) attached is available as model USR1-40A-W.

## 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 install in areas that can exceed 120°F (e.g., in an attic).
8. Do not cover the product with any material when in use.
9. SAVE THESE INSTRUCTIONS.

## DEDICATED REMOTE CONTROLLER INSTALLATION

The SimplyBrilliant Dedicated Remote Controller base (USR-40A) 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: DO NOT WIRE THIS DEVICE WITH POWER CONNECTED.** Injury or permanent damage to the device may result. Improper installation voids the product warranty.

To install a USR-40A Series Dedicated Remote controller for 3- or more-way control:

1. Locate the multi-way switch junction boxes and consider where the master switch and USR remote(s) will be located. Locating the main power feed ‘always hot’ wire, and lighting circuit load wires (i.e. hot switched-leg to the lights) and neutral wire(s) is important. Installing the master switch in the junction box that has the original 3-way’s main power feed is best/easiest. USR blue LED indication is only possible if power (hot) is available in the USR controller location. Power fed to an adjacent switch that shares the same USR junction box and circuit breaker may be used for power, enabling the blue LED function. See step 7 for more details.
2. If power is not available at the USR, only the green LED will function. If a neutral wire is available in the remote USR junction box (e.g. neutral wire from a power feed to an adjacent switch), other than the white wire in the traveler Romex or the white neutral wire going up to the load/lights, then one of the wires in the traveler Romex (e.g. white wire) maybe re-labeled (as black) and used to carry power (hot) over to the USR to enable the blue LED function. See step 7 for more details.
3. Disconnect power at the circuit breaker.
4. Remove existing wall switch hardware and locate red-traveler wire, along with the black switched leg and neutral-white wire that connect to the light/load circuit. Disconnect the wires to the existing 3- or multi-way switches.
5. Refer to the appropriate wiring diagram on the next pages. Connect the master switch and remote USR using the traveler wire in the wall (typically a red wire) to connect the white-brown Remote 1 wires’ of both the master and remote switches. The black switched-leg wire (in the traveler-Romex) is connected to the load (brown) wire of the master switch and used (connected) to control both LED 1 and LED 2 indicators (brown and red wires, respectively) on the USR. The black wire to the light / load is connected with the switched-leg at LED wire nut.

For 4+way configurations, connect up to 6 additional USR units (in parallel) to the same Remote 1 (white-brown) traveler wire of the master load controlling switch or remote USR. The other connections (neutral, LED and power wires) for the 4+way

controllers are the same as the first remote controller (see wiring diagrams for details).

For single rocker remote USR installation proceed to step 7.

- There are two ways a second rocker (e.g. ZS12 faceplate) can be used on a dual-rocker remote configuration: either (A) to control a second rocker on the master load controlling switch, or (B) to control a second master load controlling switch.

(A) To use the second rocker of a dual-tall (ZS12) faceplate on a remote controller to control a second rocker on the master load controlling switch, use a second traveler (possibly the white neutral or the black switched-leg wire in the travel-Romex, if either can be made available) to connect the white-red Remote 2 wires of both the master and remote switches.

In this case, where the neutral or switched-leg wire is used as a traveler, the switched leg wire may not be available to connect/control the LED (brown and red) wires of the USR. This results in having to choose to either have the USR LED indicators always blue (not connecting, but capping the brown and red wires) or green (connecting the brown and red wires to always hot). If the LEDs must track the load, a second master switch could be used (with load wire capped) in place of the USR. In this 'virtual three-way' configuration a lighting scene link is used (included in the transmit and receive tables of both switches) so the LEDs will track/match each other.

(B) To use the second remote controller rocker of a dual-tall (ZS12) faceplate on the USR to control a second master load controlling switch, use the traveler wire (typically a red wire going over to the second load controlling switch) to connect the Remote 2 white-red wire of the USR - to the preferred Remote input (1 or 2 depending on rocker preference) of the second load controlling switch.

The switched-leg wire of the first or second load controlling switch is connected to the output circuit of the load controlling switch and to the red wire on the USR, controlling the second (right) LED indicator. Test functionality as described in steps 8 through 11.

- OPTIONAL: In some multi-way circuits there may not be an 'always hot' wire available in both junction boxes, requiring use of one of the wires in the traveler Romex to provide a hot connection to the other junction box, or possibly the hot wire of an adjacent switch in the same junction box as the remote USR. All hot power wires used MUST be powered from the same circuit breaker.



**CAUTION: DO NOT USE A HOT POWER WIRE FROM ANOTHER CIRCUIT-BREAKER TO POWER THE REMOTE USR.** Injury or permanent damage to the device may result. Improper installation voids the product warranty. The master load controlling switch and the remote USR must be powered by the same circuit-breaker.

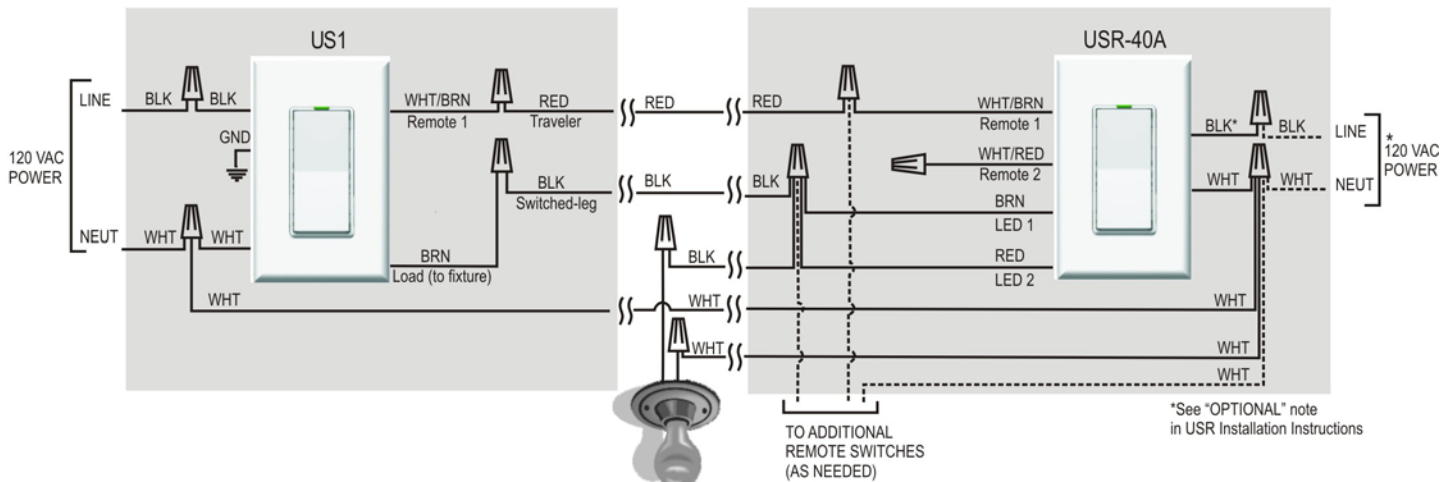
If a neutral wire is available in the remote USR junction box (e.g. neutral wire from a power feed to an adjacent switch), other than the white wire in the traveler Romex or the white neutral wire going up to the load/lights, then the white neutral wire in the traveler Romex may be re-labeled (as black, typically with black electrical tap on white wire insulation at both ends) and used to carry power (hot) from the master switch junction box over to the USR to enable the blue LED function.

- Cap off any unused wires with wire nuts to prevent shorting.
- Mount the controller inside the J-box using captive screws provided. **DO NOT OVER TIGHTEN SCREWS.**
- Reconnect power at the circuit breaker.
- Test the master switch then the remote to insure proper operation. Note the master switch should be able to control the light-load without the remote controller connected. If this is not the case, check wiring at the master switch making sure its brown load wire is connected to the switched-leg wire, connecting the light/load (e.g. same wire was connected to the switched-leg of a conventional 3-way).

**STANDARD 3-WAY (OR MULTI-WAY) INSTALLATION – US1 SERIES DIMMER** This diagram shows a 3-way wiring configuration in which a USR-40A (for older models refer to USR-40 User Guide) remote controller controls the load connected to a US1 dimmer-controller switch. Additional remote controllers may be added in parallel for 4 or more-way control. LEDs light when power is applied to the USR's LED wires (brown and red wires), typically connected to the load / switched-leg. If a hot (always powered) wire from the same circuit-breaker powering the master US2 switch is available in the remote USR junction box, it can be connected to the USR's black power wire enabling the blue LED function (e.g. blue LED indicates off and green LED indicates on). If an always powered wire is not available in the remote controller junction box, then only the green LEDs will light when power is applied to the LED wires, via load/switched-leg connection. Green LEDs are off when power to load/switched leg is off.

**STANDARD 3-WAY (OR MULTI-WAY) INSTALLATION**

**DO NOT CONNECT MECHANICAL/CONVENTIONAL 3-WAY SWITCH IN PLACE OF USR! DAMAGE WILL RESULT**



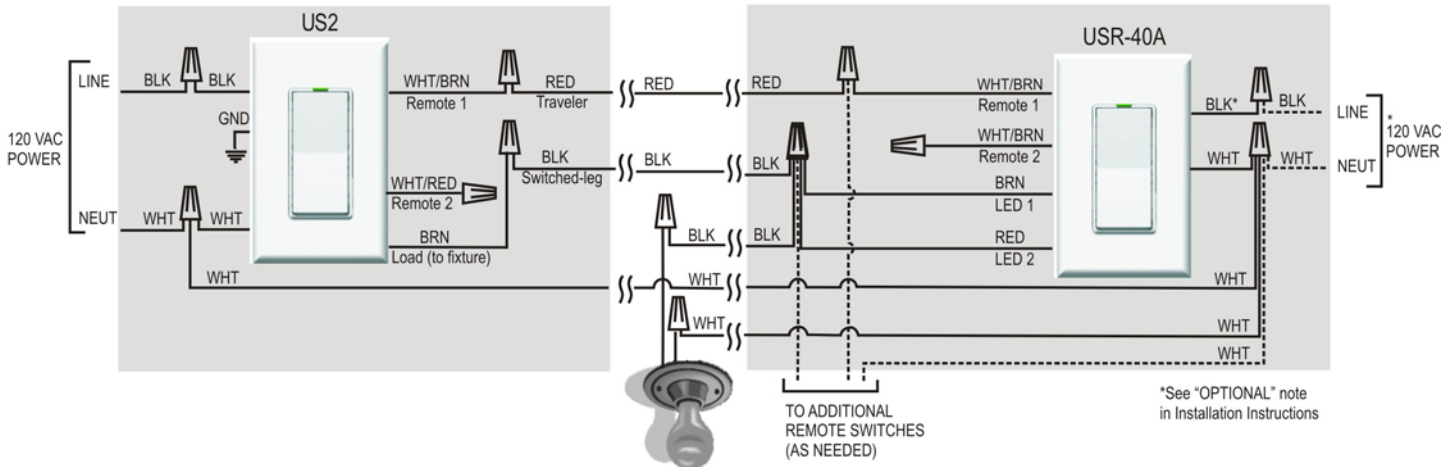
# Dedicated Remote (3+Way) Controller Base

# Model USR-40A

**STANDARD 3-WAY (OR MULTI-WAY) INSTALLATION – US2 SERIES DIMMER** This diagram shows a 3-way wiring configuration in which a USR-40A (for older models refer to USR-40 User Guide) remote controller controls the load connected to a US2 dimmer-controller switch. Additional remote controllers may be added in parallel for 4 or more-way control. LEDs light when power is applied to the USR LED wires (brown and red wires), typically connected to the load / switched-leg. If a hot (always powered) wire from the same circuit-breaker powering the master US2 switch is available in the remote USR controller junction box, it can be connected to the USR's black power wire enabling the blue LED function (e.g. blue LED indicates off and green LED indicates on). If an always powered wire is not available in the remote USR junction box, then only the green LEDs will light when power is applied to the LED wires, via load/switched-leg connection. Green LEDs are off when power to load/switched leg is off.

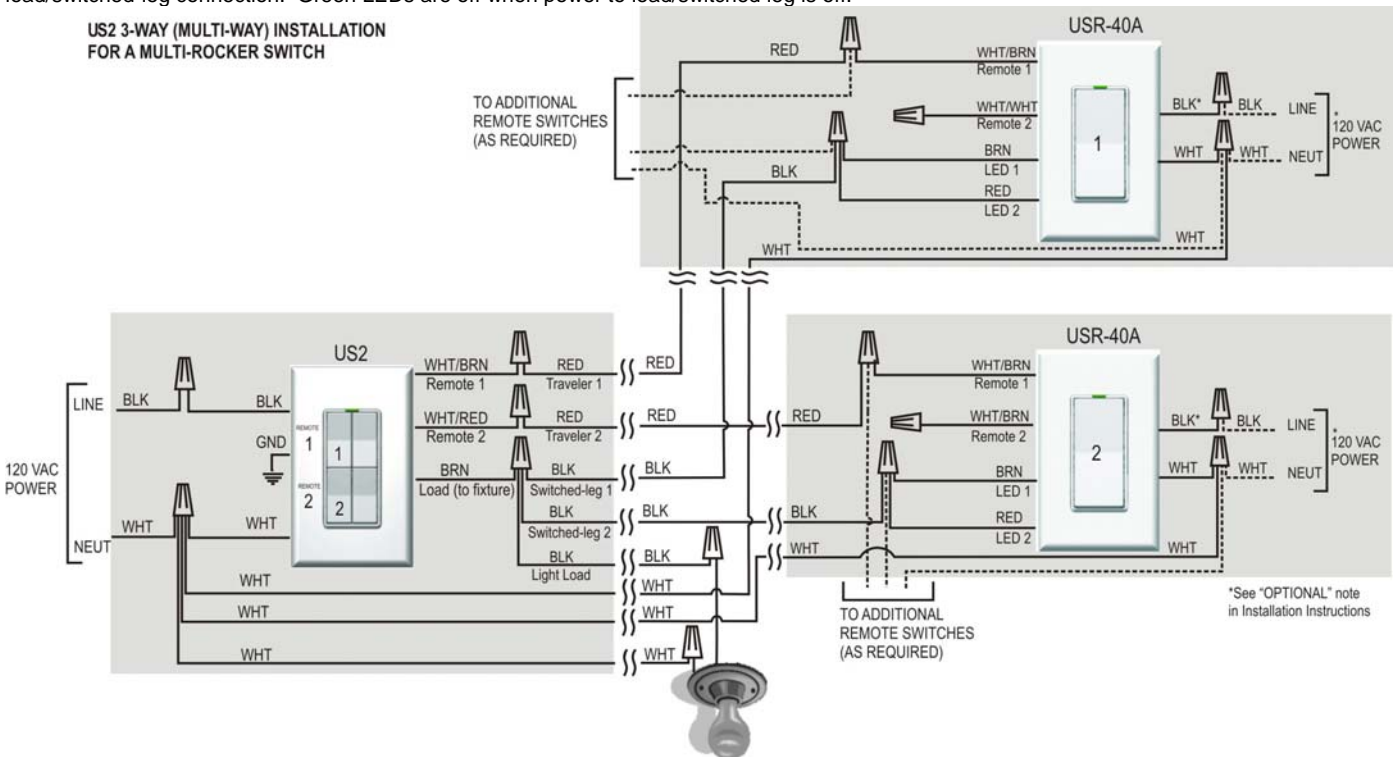
US2 STANDARD 3-WAY (OR MULTI-WAY) INSTALLATION

**DO NOT CONNECT MECHANICAL/CONVENTIONAL 3-WAY SWITCH IN PLACE OF USR! DAMAGE WILL RESULT!!**



**DUAL-ROCKER 3-WAY (OR MULTI-WAY) INSTALLATION – US2 SERIES DIMMER** If a multi-rocker faceplate is installed on a US2, by default from the factory, the connected load will be controlled by the top-left rocker (1). All other rockers on the switch act as UPB transmitters. A remote USR controller connected to Remote 1 (brown/white wire) will control the top-left rocker (1). If a second remote USR controller is installed and connected to Remote 2 (red/white wire), it will control the bottom-left rocker (2) of the master switch (i.e. buttons 3 & 4) of the US2. Additional remote controllers may be added in parallel for 4 or more-way control. LEDs light when power is applied to the USR LED wires (brown and red wires), typically connected to the load / switched-leg. If a hot (always powered) wire from the same circuit-breaker powering the master US2 switch is available in the remote USR junction box, it can be connected to the USR's black power wire enabling the blue LED function (e.g. blue LED indicates off and green LED indicates on). If an always powered wire is not available in the remote controller junction box, then only the green LEDs will light when power is applied to the LED wires, via load/switched-leg connection. Green LEDs are off when power to load/switched leg is off.

US2 3-WAY (MULTI-WAY) INSTALLATION FOR A MULTI-ROCKER SWITCH





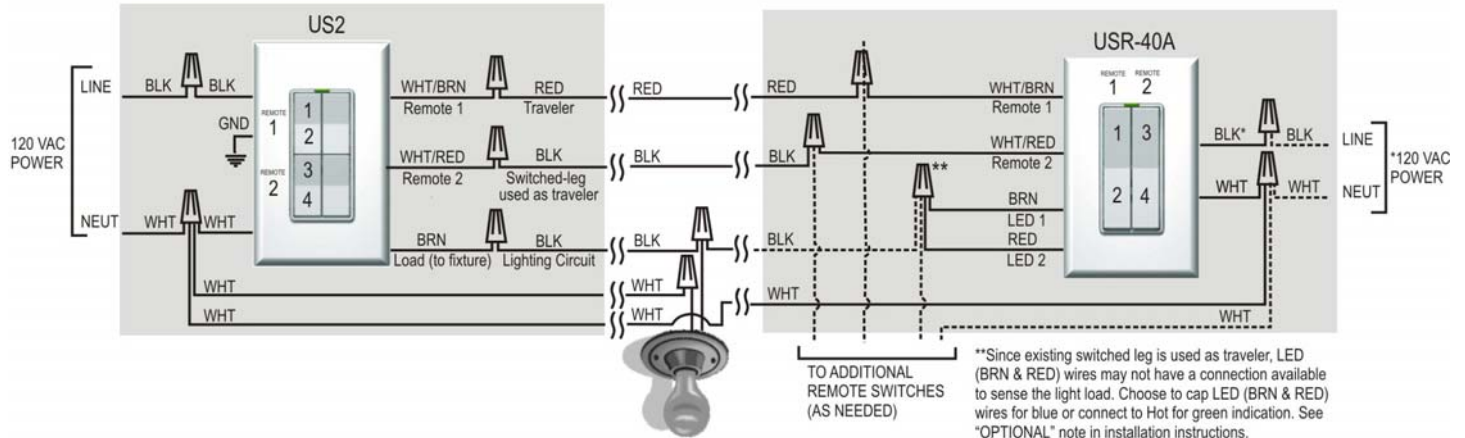
# Dedicated Remote (3+Way) Controller Base

# Model USR-40A

## DUAL-ROCKER 3-WAY (OR MULTI-WAY) INSTALLATION – US2 SERIES DIMMER

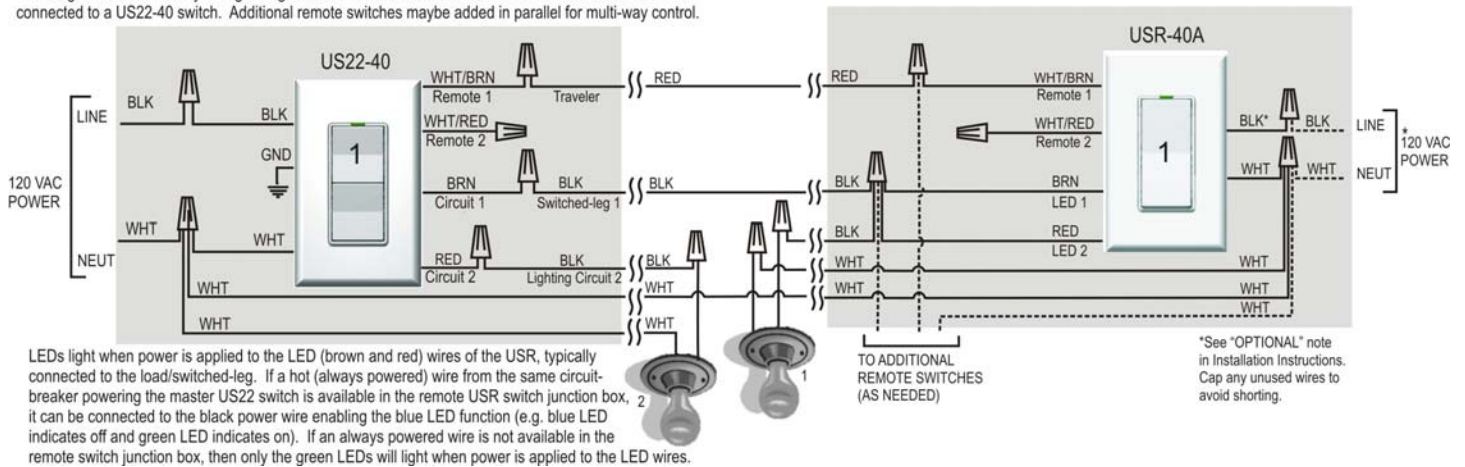
If a multi-rocker faceplate is installed on a US2, by default from the factory, the connected load will be controlled by the top-left rocker. All other rockers on the switch act as UPB transmitters. If a dual-rocker faceplate is installed on a USR-40A, it is possible to wire a 3-way (or multi-way) circuit such that the top-left rocker (or buttons 1 & 2 on a multi-button) and bottom-left rocker (or buttons 3 & 4) of the US2 will connect with the two rockers on the USR-40A. LEDs light when power is applied to the USR LED wires (brown and red wires), typically connected to the load / switched-leg. If a hot (always powered) wire from the same circuit-breaker powering the master US2 switch is available in the remote USR junction box, it can be connected to the USR's black power wire, enabling the blue LED function (e.g. blue LED indicates off and green LED indicates on). If an always powered wire is not available in the remote controller junction box, then only the green LEDs will light when power is applied to the LED wires, via load/switched-leg connection. Green LEDs are off when power to load/switched leg is off.

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



## STANDARD DUAL 3-WAY (MULTI-WAY) INSTALLATION - US22 SERIES

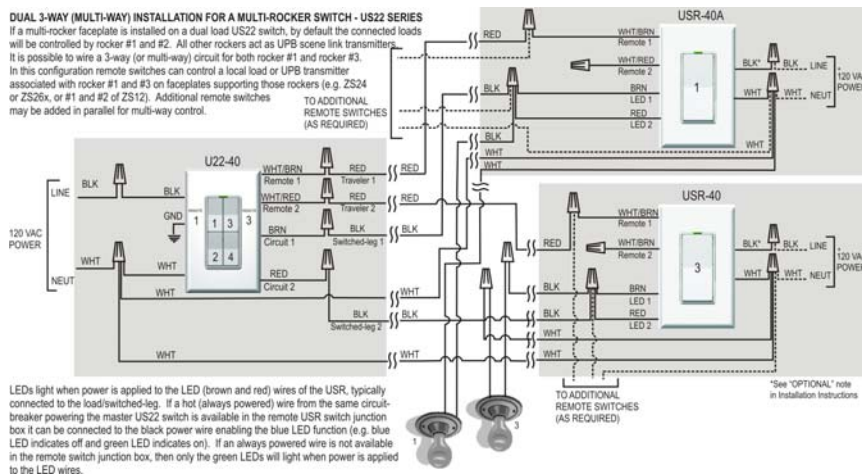
This diagram shows a 3-way wiring configuration in which a remote USR-40A switch controls the load #1 connected to a US22-40 switch. Additional remote switches may be added in parallel for multi-way control.



LEDs light when power is applied to the LED (brown and red) wires of the USR, typically connected to the load/switched-leg. If a hot (always powered) wire from the same circuit-breaker powering the master US22 switch is available in the remote USR switch junction box, it can be connected to the black power wire enabling the blue LED function (e.g. blue LED indicates off and green LED indicates on). If an always powered wire is not available in the remote switch junction box, then only the green LEDs will light when power is applied to the LED wires.

## DUAL 3-WAY (MULTI-WAY) INSTALLATION FOR A MULTI-ROCKER SWITCH - US22 SERIES

If a multi-rocker faceplate is installed on a dual load US22 switch, by default the connected loads will be controlled by rocker #1 and #2. All other rockers act as UPB scene link transmitters. It is possible to wire a 3-way (or multi-way) circuit for both rocker #1 and rocker #3. In this configuration remote switches can control a local load or UPB transmitter associated with rocker #1 and #3 on faceplates supporting those rockers (e.g. ZS24 or ZS26k, or #1 and #2 of ZS12). Additional remote switches may be added in parallel for multi-way control.



LEDs light when power is applied to the LED (brown and red) wires of the USR, typically connected to the load/switched-leg. If a hot (always powered) wire from the same circuit-breaker powering the master US22 switch is available in the remote USR switch junction box it can be connected to the black power wire enabling the blue LED function (e.g. blue LED indicates off and green LED indicates on). If an always powered wire is not available in the remote switch junction box, then only the green LEDs will light when power is applied to the LED wires.

See US22 User Guide for larger wiring diagram and dual-rocker remote configuration.