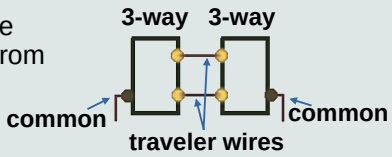
HOW TO USE THE SWITCH WIZARD – INSTRUCTIONS

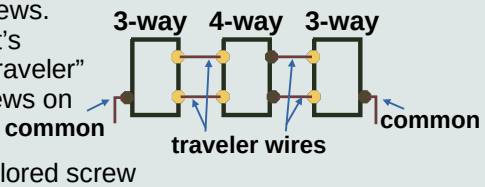
PC09242024 PDF

CAUTION ! – DO NOT use on energized wiring

OVERVIEW: A basic 3-way switch circuit consists of two 3-way switches. Power goes to the "common" terminal (the black colored screw) of one 3-way switch. Two "traveler" wires go from switch to switch, connecting to the brass colored screws. The wire to the light goes to the "common" terminal of the other 3-way switch.



A basic 4-way switch circuit consists of two 3-way switches and one or more 4-way switches. 4-way switches have two brass colored screws and two black colored screws. Power goes to the "common" terminal of one 3-way, also two "traveler" wires from it's brass colored screws go to the 4-way switch's brass colored screws. Another two "traveler" wires from the 4-way switch's black colored screws go to the two brass colored screws on the second 3-way.



Additionally, there may be a bare or green ground wire connected to the green colored screw

TO BEGIN:

TURN THE POWER OFF ! If you are not sure which circuit breaker or fuse it is, turn them all off or remove all the fuses. Not doing so will result in a destroyed Switch Wizard and probable electrical shock and damage to your body !

TEST THE SWITCH WIZARD BATTERY: With none of the tester leads touching each other you should see a very brief flash of all three tester lights when you press the button. Connect all three tester leads together, hold the button down for 15 seconds, you should see all three lights solid blue. If not – replace the battery.

IN THE FOLLOWING TESTS: Separate the wires far enough to be sure the alligator clips will not touch each other, connect the Switch Wizard as shown in the pictures and press the button on it. Follow the steps.

STEP 1:

REMOVE ALL the switches for the light that is not working, no need to remember which wire was on which terminal. **If there are not any 4-way switches then ignore the 4-way switch parts.** The ground wire is not used in the tests and should not be touching any of the switch wires or tester leads.

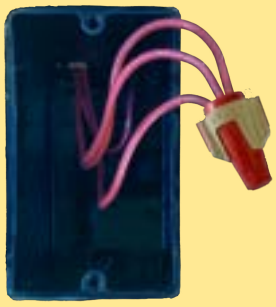
STEP 2:

Identify the common wire for 3-way # 1 test

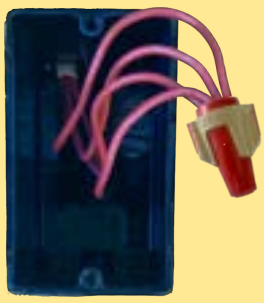
At one of the 3-way switch locations connect the three switch wires together, as in the (AT 3-WAY # 2) example below. If there are any 4-way switches connect all four wires together at **each** of the 4-way switch locations as in the (AT EACH 4-WAY) example below.

YOU SHOULD HAVE:

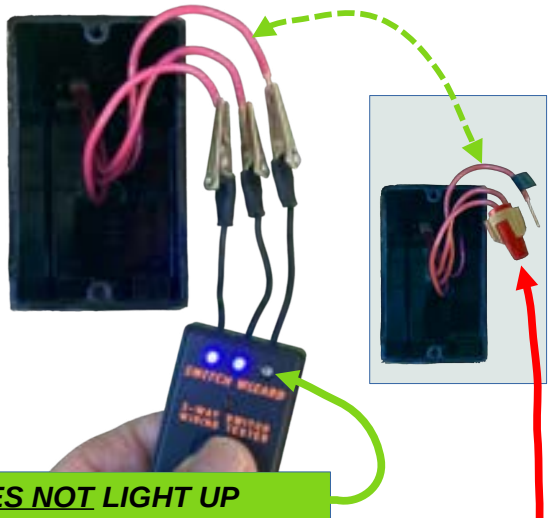
AT 3-WAY # 2, ALL THREE WIRES TIED TOGETHER



AT EACH 4-WAY, ALL FOUR WIRES TIED TOGETHER
(if applicable)



3-WAY # 1 CONNECT THE TESTER



MARK THE WIRE THAT DOES NOT LIGHT UP

At 3-way # 1 connect the three tester leads to the three switch wires, it does not matter which lead goes to which wire.

Press the button on the tester and two LEDs will light. Mark the switch wire connected to the tester lead that **DOES NOT** light up as in (3-way # 1) example above. Use one of the supplied markers, or a piece of tape, whatever you want, just keep track of which wire it is. This is the "common" wire for this switch.

DO NOT INSTALL THE SWITCH YET, CONNECT THE OTHER TWO WIRES BACK TOGETHER

(CONTINUED ON OTHER SIDE)

STEP 3:

Identify the common wire for 3-way # 2 test:

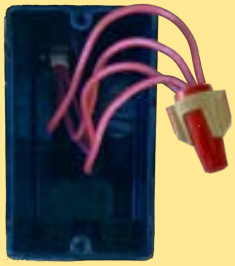
IMPORTANT – the two unmarked wires at 3-way # 1 must be connected back together. Also, all four wires at each 4-way switch location still tied together.

YOU SHOULD HAVE:

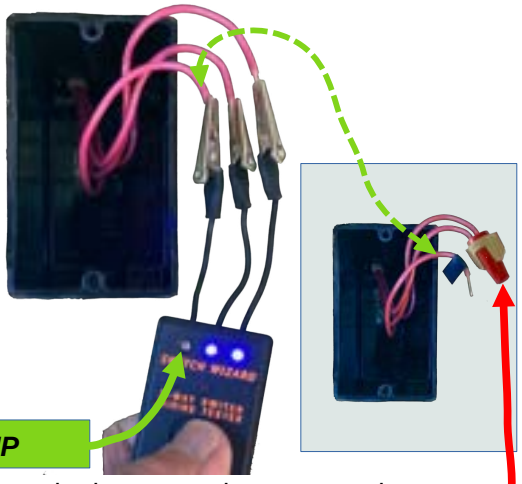
AT 3-WAY # 1, THE TWO UNMARKED WIRES FROM STEP 2 TIED TOGETHER

MARKED WIRE FROM STEP2

AT EACH 4-WAY, ALL FOUR WIRES TIED TOGETHER
(if applicable)



AT 3-WAY # 2 CONNECT THE TESTER



MARK THE WIRE THAT DOES NOT LIGHT UP

Now at 3-way # 2, connect the three tester leads to the three switch wires, Press the button on the tester and two LEDs will light. Mark the switch wire connected to the tester lead that **DOES NOT** light up as in (AT 3-WAY # 2) example above. This is the "common" wire for this switch. **IF THERE ARE ANY 4-WAY SWITCHES CONNECT THE OTHER TWO WIRES BACK TOGETHER.** If not go to step 5.

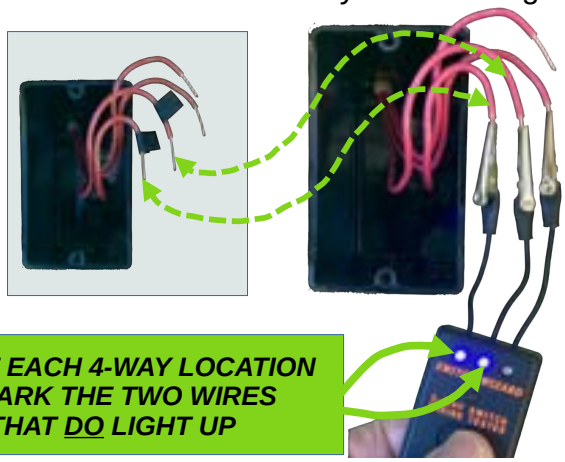
STEP 4:

4-way switch traveler test:

IMPORTANT – Connect the unmarked wires of 3-way # 2 back together.

YOU SHOULD HAVE:

AT BOTH 3-WAY SWITCHES, THE TWO UNMARKED WIRES TIED TOGETHER

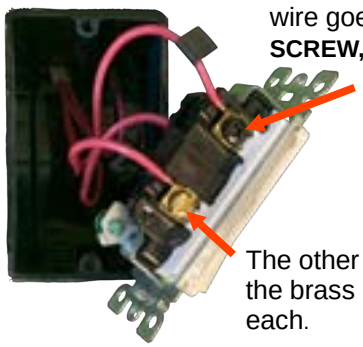


AT EACH 4-WAY LOCATION MARK THE TWO WIRES THAT DO LIGHT UP

At each 4-way switch, connect the tester to any three of the four switch wires, push the tester button and two LEDs will light. Mark the two switch wires connected to the tester leads that **DO LIGHT UP**. These two wires are a "traveler pair" . If there are more 4-way switches, connect all four wires back together again and repeat this step at each location.

STEP 5:

Install the switches:

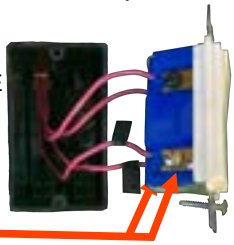


At both 3-way switches the marked wire goes to the **ODD COLORED SCREW,** (usually black) referred to as the " common terminal"

The other two wires "travelers" go to the brass colored screws, one wire to each.

On the 4-way switch two screws will be one color (brass), and two screws will be another color (usually black). Connect the two marked wires to the brass colored screws, the other two wires to the other color of screws. **GO BY THE COLOR OF THE SCREWS NOT THE PHYSICAL LOCATION ON THE SWITCH.** (varies from brand to brand)

EATON™ BRAND SWITCH EXAMPLE



marked wires to the brass colored screws, one wire to each.