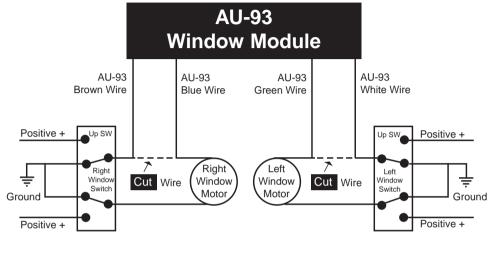


### Note #211 Reverse Polarity Rest at Ground

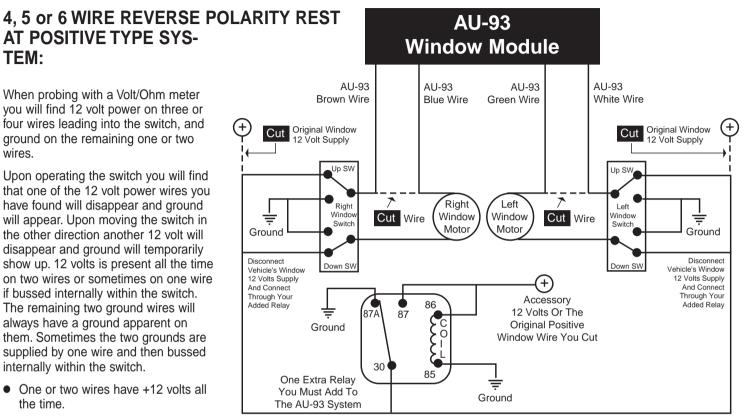
#### 4 or 5 WIRE REVERSE POLARITY REST AT GROUND TYPE SYSTEM:

When probing with a Volt/Ohm meter you will find power on one wire leading into the switch, and ground on the remaining three or four wires. However, upon operating the switch, you will find that one of the grounds you have found will disappear and power will appear. Upon moving the switch in the other direction another ground will disappear and power will temporarily show up. The remaining one or two wires will always have a ground apparent.



- One wire has +12 volts all the time.
- One wire or two wires are grounded all the time.
- Two wires are grounded then change to 12 volts when moving switch.
- **NOTE:** When the AU-93 is activated, the AU-93 Blue & Green wires will have +12 volts output to roll up the window, so it must be connected to the wire going to the vehicle's window motor. DO NOT CONNECT AU-93 BLUE OR GREEN WIRES TO THE VEHICLE'S WINDOW SWITCH WIRE BECAUSE YOU WILL HAVE A SHORT AND BLOW FUSES OR DAMAGE THE AU-93 WHEN AU-93 IS ACTIVATED.
- **NOTE:** When the AU-93 is NOT activated, the AU-93 Brown & Blue wires are connected so your window will work from vehicle's window switch as it did before, only now it will pass through the AU-93. Once the AU-93 is activated, it will disconnect the Brown wire completely and the Blue wire will have a +12 volt output.
- **NOTE:** When the AU-93 is NOT activated, the AU-93 White & Green wires are connected so your window will work from vehicle's window switch as it did before, only now it will pass through the AU-93. Once the AU-93 is activated it will disconnect the White wire complete-ly,and the Green wire will have a +12 volt output.
- **NOTE:** The AU-93 requires a rest at ground system for its built-in electronic sensor to shut off the window motors once the windows have rolled all the way up.

# Note #212 Reverse Polarity Rest at Positive



- One or two wires are grounded all the time.
- Two wires are 12 volts then change to ground when moving switch.
- NOTE: When the AU-93 is activated the AU-93 Blue & Green wires will have +12 volts output to roll up the window, so it must be connected to the wire going to the vehicle's window motor. DO NOT connect AU-93 Blue or Green wires to the vehicle's window switch wire because you will have a short and blow fuses or damage the AU-93 when AU-93 is activated.
- **NOTE:** When the AU-93 is NOT activated, the AU-93 Brown & Blue wires are connected so your window will work from vehicle's window switch as it did before, only now it will pass through the AU-93. Once the AU-93 is activated it will disconnect the Brown wire completely and the Blue wire will have a +12 volt output.
- **NOTE:** When the AU-93 is NOT activated, the AU-93 White & Green wires are connected so your window will work from vehicle's window switch as it did before, only now it will pass through the AU-93. Once the AU-93 is activated it will disconnect the White wire completely and the Green wire will have a +12 volt output.
- **NOTE:** The extra relay shown simply converts the rest at positive systems to rest at ground system required by the AU-93 when the ignition switch is turned off.

# Note #213 Reverse Polarity Rest Open

### 4 - WIRE REVERSE POLARI-TY REST OPEN TYPE SYS-TEM:

The reversal rest open system usually has four wires attached to it. Two wires bring in power and ground, and the other two wires are from the window motor windings. Internally the switch busses the power and ground to opposite sides of the upper switch. The window motor windings are connected to the center two switches poles and rest at zero potential when in a relaxed position. If the switch is moved in the down direction, internal contacts will cause the motor windings to connect to the two upper power and ground connections. If the switch is moved in the up position, connection is made between the center pole motor winding wires and the positive and negative connection of the bottom of the switch.

- One wire has +12 volts all the time.
- One wire has ground all the time.
- Two wires are zero potential then change to +12 volt or ground when moving switch.

#### NOTE: When the AU-93 is activated the

AU-93 Blue & Green wires will have +12 volts output to roll up the window, so it must be connected to the wire going to the vehicle's window motor. DO NOT connect AU-93 Blue or Green wires to the vehicle's window switch wire because you will have a short and blow fuses or damage the AU-93 when AU-93 is activated.

- **NOTE:** When the AU-93 is NOT activated, the AU-93 Brown & Blue wires are connected so your window will work from vehicle's window switch as it did before, only now it will pass through the AU-93. Once the AU-93 is activated it will disconnect the Brown wire completely and the Blue wire will have a +12 volt output.
- **NOTE:** When the AU-93 is NOT activated, the AU-93 White & Green wires are connected so your window will work from vehicle's window switch as it did before, only now it will pass through the AU-93. Once the AU-93 is activated it will disconnect the White wire completely and the Green wire will have a +12 volt output.
- **NOTE:** The extra relay shown simply converts the rest open systems to rest at ground system required by the AU-93 when the ignition switch is turned off.

