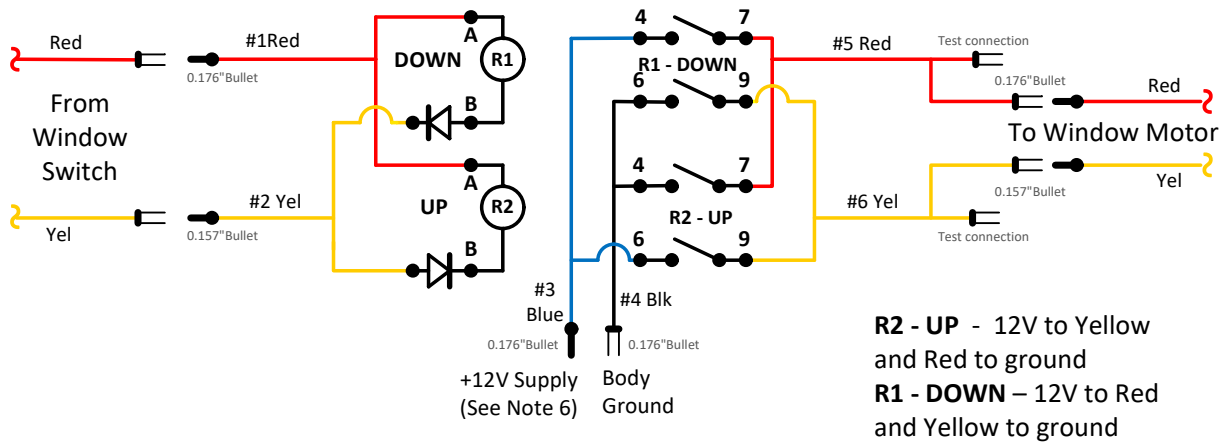


## 1970 Cougar Power Window Relay System

This reduces the power load routed through the door switches. The relays are less sensitive to lower voltage (burned or dirty switch contacts). Relay contact life is expected to be better than switch contacts (yet unproven). Door switches that would not operate the window motors are operating the relays. The relays are also less expensive than replacement door switches. The “test” connections allow both isolating motor from control (switch/relay) issues and overriding/jumping failed controls.



### Materials:

- Relays R1 & R2 - NTE R10-11D10-12F DPDT (10A @ 28VDC contact rating) (2 ea.)
- Diodes - General Purpose Silicon Rectifier NTE 156 2A (2 ea.)
- Case - 4" x 1.5" x 4" (Context Eng. P/N 4006H-6N cut down to 3½ to 4" length) (1 ea.)
- Crimp Connectors:
  - 0.187" – female disconnect – 16-14 ga. (blue) (10 ea.)
  - 0.187" – female disconnect – 22-18 ga. (red) for diodes (2 ea.)
  - 0.176" bullet connectors – 16-14 ga. (blue) (5 pairs)
  - 0.157" bullet connectors – 16-14 ga. (blue) (3 pairs)
  - Butt Connector 16-14 ga. (blue) diodes to wire leads (1 ea.)
- Wire:
  - 14 ga. Wire (colors to match circuits)
  - 10 ga. Wire (12V supply from power window circuit breaker/safety relay in engine compartment to passenger door and body ground under dash for passenger door)
- Shrink wrap to cover diode leads
- Grommet 5/8" OD – ½" ID
- Misc. fasteners to mount relays and case

This component selection and list was driven by items available at a local electronics store. These are not the only components capable of providing this function.

### Notes:

- 1) Connectors are set up to allow reconnection without (by-passing) the Relay circuit.
- 2) Test connections are also usable to temporarily connect power and ground to provide a by-pass to switches and relays. Allowing jumpers to operate windows if switches or relays have failed – leave accessible under door card.
- 3) All potential live (12V) connection ends are insulated female bullet connections
- 4) Two sizes of bullet connections are used to segregate circuit types.
- 5) Drivers & Passenger door relay case mounted on door in opening under/forward of lock button.
- 6) Driver door power will be supplied from a slice into the door un-switched Blue wire (#400). Passenger door and rear windows will be supplied from the switched Red-Blue (#170) wire from the Master Window (Lock) switch to each of the local window switches. These windows will no longer operate if the Master Switch is off. Ground should go back to a chassis ground on body.

### Relay Terminals

