Key FOB Activated – Power Swing Mirrors

To add convenience to the power mirror feature on the Superduty, a relay can be added to maintain control of the multi-function mirror control switch (drivers door), while simultaneously having one (1) of the Key Fob switches control the power mirror swing (90 deg in / out)

Mirror Swing in/out:
The mirror swing in/out is controlled by the joy-stick on the driver's side door. When in the center position, closing the contact by pulling the joy-stick "rearward" swings the mirrors in/out. This is a momentary operation electrically: power is not maintained across the switch once the contact closes.

How it works:

- Select the Key FOB switch desired to control mirror activation. The "lock" switch is probably the safest bet to ensure you're leaving with the doors securely locked upon exiting.
- "Pressing" the selected button on the Key Fob pulls in a relay (defined below), which is setup in a parallel circuit to the multi-function mirror control switch.
- Enjoy convenience and wow! your friends (more than you normally do already…)

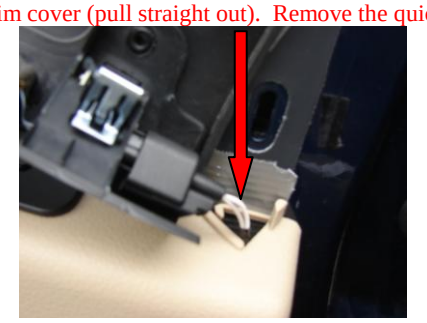
Tools/Materials:

1. Automotive Wire (approx 18 ga) – 6 ft
2. Wire Connectors
3. Soldering Iron/ Solder
4. Wire Cutter/Stripper
5. Multi-meter
6. Socket Set
7. 12v Automotive Relay (Radio Shack – 275-226 or equivalent)

Approx. Install Time – 1.5 hr. (as not to break things along the way)

Getting Started:

Remove the speaker and trim cover (pull straight out). Remove the quick connect speaker harness



Remove the power window switch cluster and trim (pull up on both front and rear simultaneously)
Remove the quick connect harnesses

Remove the power mirror switch and trim (pull up on both front and rear)
Remove the quick connect harnesses

Remove screw access panel below arm rest of door skin

Remove two (2) fasteners, plus two (2) additional fasteners along the bottom of the door trim.

Lift “up” on the grab handle to free the trim panel from the door.

Electrical Section

Relay items will be called out (item #1 through Item #3, with #4 to be grounded)

Locating the lock wire (relay item #1)

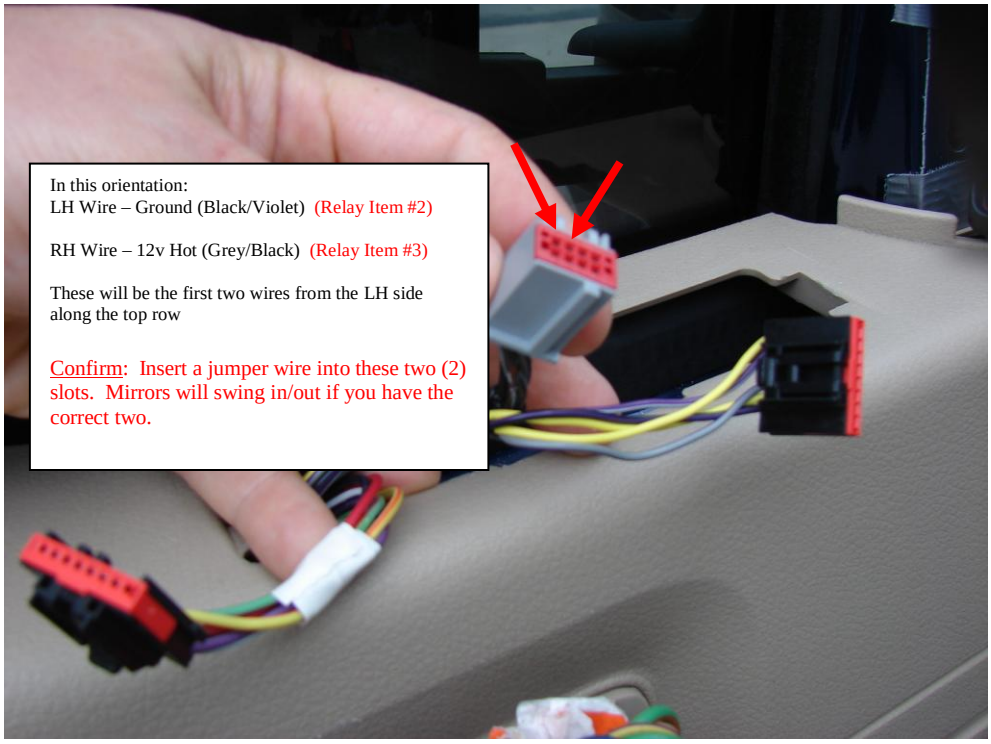
The door is lined with a plastic barrier. Gently pull away the barrier. It has an adhesive and can be reapplied when complete.

Looking at Bottom of Driver Front Door (plastic liner removed)

Two (2) wires lead to the door lock actuator. Strip back the wire casing on the lighter colored wire (believe it to be Grey/Black), exposing the wires. Solder a jumper wire (approx. 30") to this wire for termination to the relay.

Use a multi-meter to confirm: You will see a momentary power spike on this wire when the selected Key Fob switch "lock" is pressed. You will not see a spike when "unlock" (for example) is pressed.

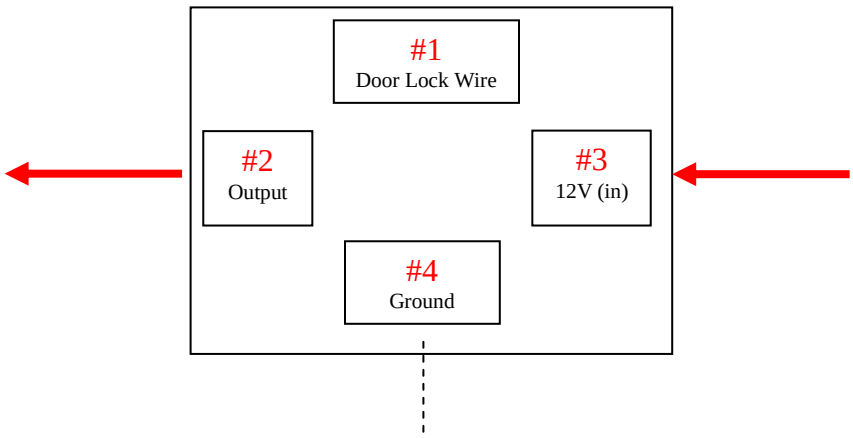
Mirror Wire Harness (illustration only - your door skin will be off at this time)



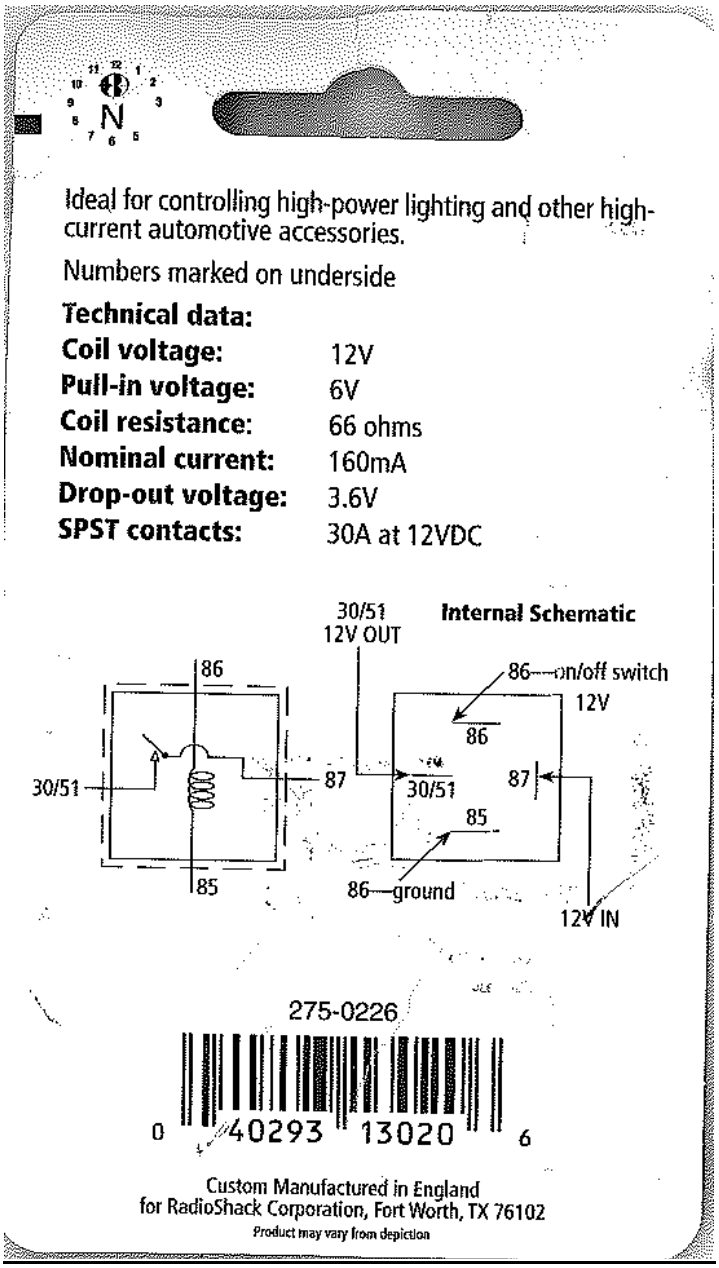
Making the connections:

1. Strip back the wire casing on the two (2) wires noted above to expose wires for soldering jumper connections (approx. 20" each jumper wire – as needed based on relay location).
2. Mount relay to the door frame (near the power window wires works fine, just make sure the door skin can mount without interference or rattle potential)
3. Terminate jumper wires (called out as item #1, #2, and #3 above) to the relay positions below.

Relay Logic - Positions



Relay Specifications (in case you want to find something equivalent):



Ideal for controlling high-power lighting and other high-current automotive accessories.

Numbers marked on underside

Technical data:

Coil voltage:	12V
Pull-in voltage:	6V
Coil resistance:	66 ohms
Nominal current:	160mA
Drop-out voltage:	3.6V
SPST contacts:	30A at 12VDC

275-0226

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Custom Manufactured in England
for RadioShack Corporation, Fort Worth, TX 76102
Product may vary from depiction

Function Test (door skin still off to verify your work):

1. "Press" the selected Key Fob button. Mirror will cycle (in or out)
2. "Press" button again, and the reverse function of the mirror (in or out) will occur.

Final Verification

3. Reconnect the multi-switch for the mirrors to the quick connector (you just spliced into). "Toggle" the joy-stick to cycle the mirrors. This ensures you still have operator control of the multi-switch and not just the Key Fob.

With any luck – success.

Re-Assemble

June 2, 2009
Rawlings