



## *Signal*® Mirror Installation Instructions

2005 – 2009 Ford Mustang



***THE safety accessory of the 21<sup>st</sup> Century.***™

P/N 210-0114-0

Rev. A3 (11/17/08), BTV

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**Note: Professional Installation Recommended**

**Warranty does not cover damage to the vehicle or mirror housing due to improper installation. The following installation instructions are to be considered as a guide only. Door removal procedures, indicator wire color and location may have changed since publication of these instructions. The installer is responsible for any damage that may occur during installation.**

**INCLUDED ITEMS:**

- 1 left and 1 right *Signal*<sup>®</sup> mirror
- 1 left and 1 right wire harness
- 2 wire taps
- 2 rubber grommets
- 2 housing connectors
- 2 ring connectors
- 1 instruction manual

**REQUIRED TOOLS:**

- Ratchet with extension or ratcheting screwdriver
- 10mm socket
- Socket wrench
- Torx wrench
- Large slotted screwdriver
- Small pry bar
- Gopher wire (rod)
- Electrical tape
- Wire crimper and stripper
- Needle nose pliers
- Multimeter or wire tester
- Sturdy gloves
- Safety glasses or goggles
- Utility knife
- Drill
- 1/8" Drill bit
- 1/4" Drill bit
- 1/2" Drill bit

**Please read instructions prior to installation.**

**PROBLEMS OR QUESTIONS?**

Technical Assistance is available by calling  
Muth Mirror Systems Technicians at:

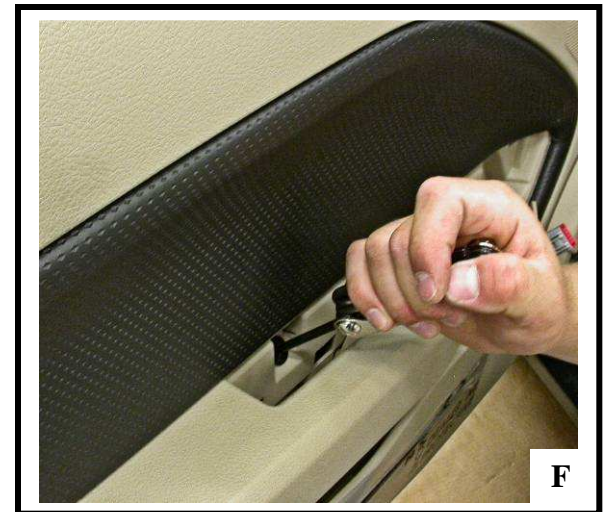
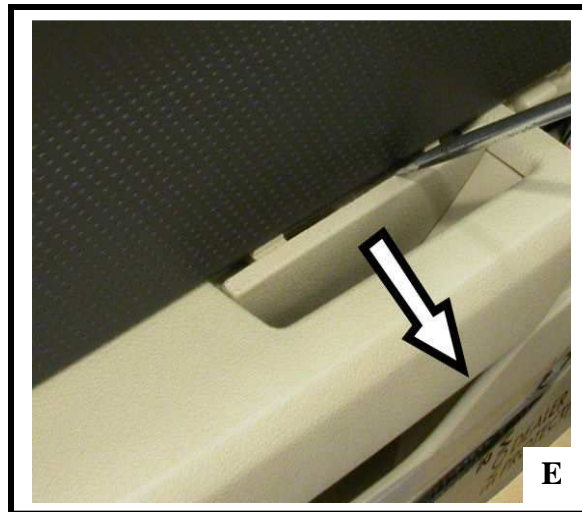
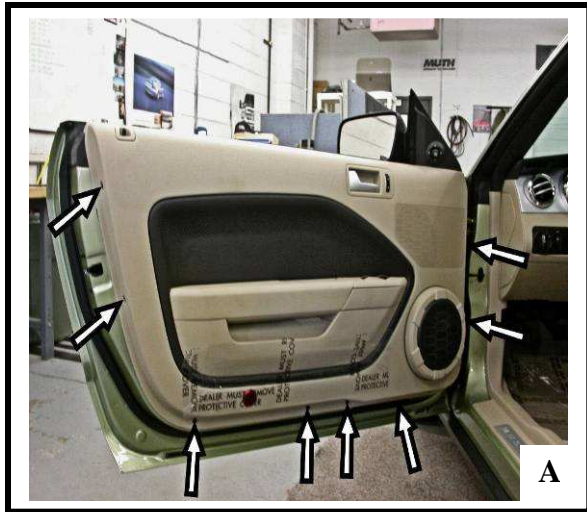
1-800-844-6616

Monday through Friday  
Between 8:00 a.m. and 5:00 p.m. CST

Or through the Muth web site: [www.muthco.com](http://www.muthco.com)

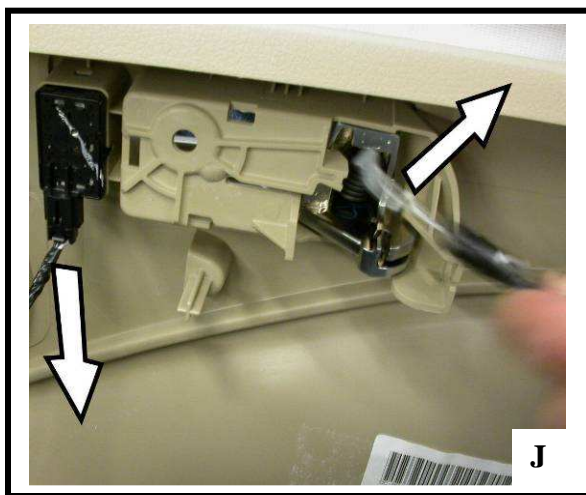
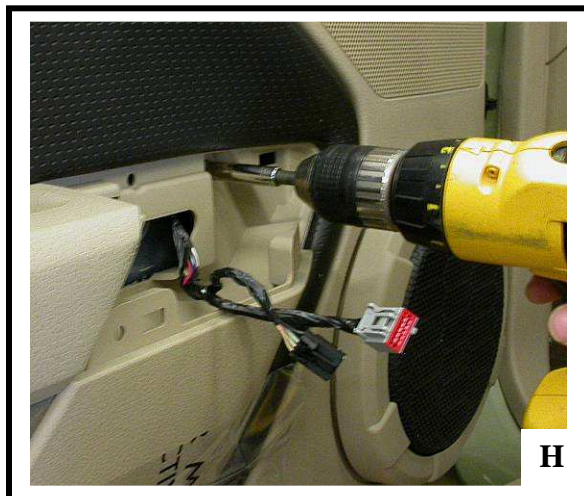
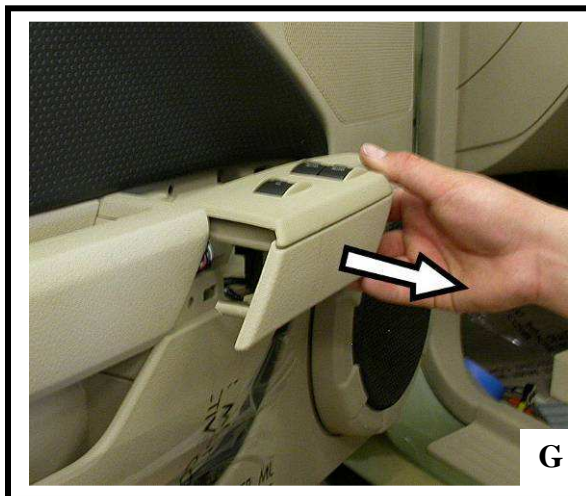
Or via E-mail: [techsupport@muthco.com](mailto:techsupport@muthco.com)

# DOOR PANEL REMOVAL



Start with opening the driver's side door and lowering the window. Using a 7mm socket wrench, remove all (8) hex screws along the perimeter of the door frame (A). Unsnap corner plastic triangular cover (B). Carefully remove door handle cover using a slotted screwdriver (C). Remove screw in door handle with a T-15 torx wrench (D). With the slotted screwdriver, remove plastic covering on the grab bar (E). Release the revealed screw using a T-15 torx wrench (F).

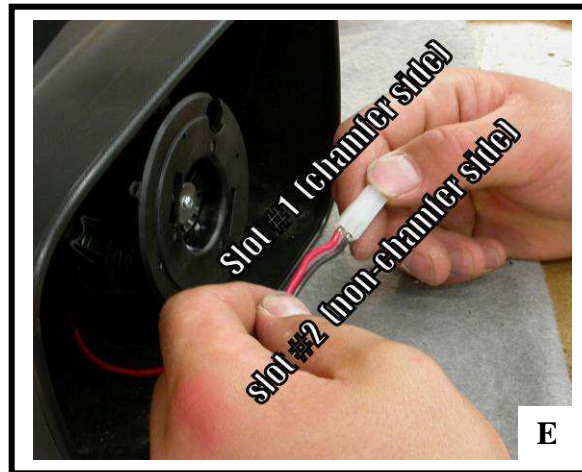
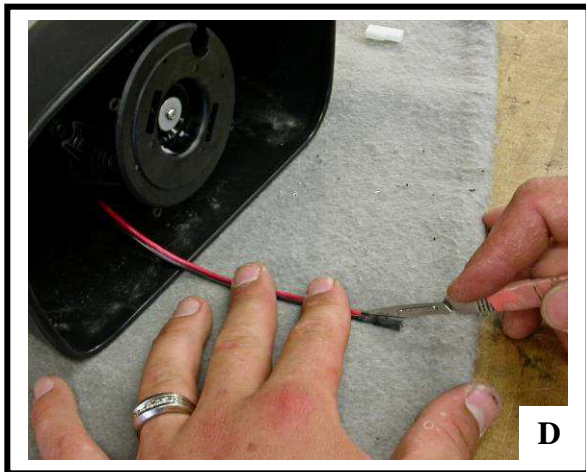
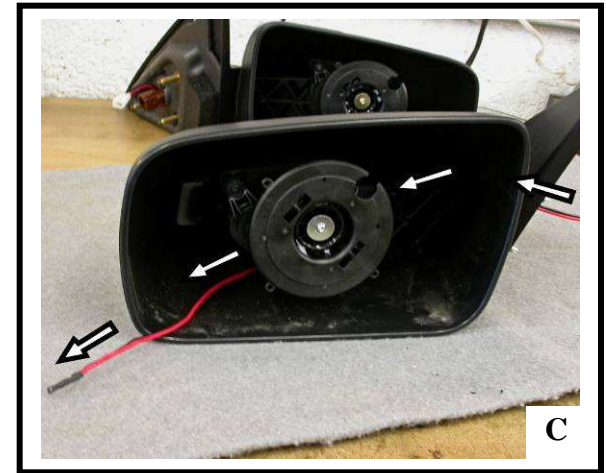
# DOOR PANEL & MIRROR HOUSING REMOVAL CONTINUED



Carefully pry out the control console with a small pry bar (G). Disconnect all wiring connections behind control console and remove it. Using a 7mm socket wrench, remove screw revealed by the removal of the control console (H). Pull on door panel to unsnap it from door frame (I). Lift up and pull door panel out a few inches away. Disconnect tweeter and wiring connection (J). Remove door panel and set it aside. Disconnect mirror harness (K1). Secure the mirror housing with one hand, remove the (3) nuts holding the mirror housing to the door frame using a 11mm socket (K2). **WARNING: Not securing mirror housing with one hand before loosening the nuts could cause the mirror housing to fall and become damaged.** Carefully remove mirror housing from door frame and set mirror housing on a cloth covered surface.

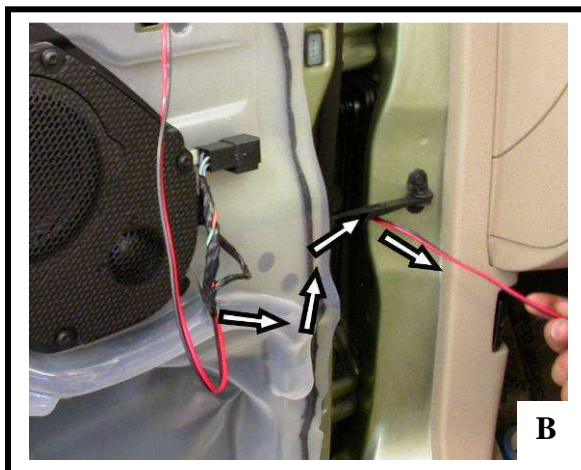
# MIRROR REPLACEMENT

**WARNING:** Safety glasses and sturdy gloves are required for mirror replacement.



Push down on the lower outboard edge of glass until mirror pivots fully outward. Insert a large slotted screwdriver in between the mirror backing plate and motor actuator (A). Carefully pry and twist screwdriver until original mirror pops off. **If heated**, disconnect heater wires from heater terminals and remove mirror. Remove the foam insulation on the housing sail (B). Using the shorter of the two harnesses from the wiring kit, guide the end with the shrink tube wrapped around it thru the foam insulation, thru the housing sail (B), and into the mirror housing (C). Use a utility knife, carefully cut the shrink tube and remove it (D). **Be very careful not to cut into the wiring harness itself.** Using one of the supplied housing connectors, insert the red wire pin into slot #1 - chamfer side (E). Insert the black wire pin into slot #2 - non-chamfer side (E). Continue to insert each pin into its hole until the pin snaps into place (**not removable**). Pull the Signal<sup>®</sup> mirror wire harness thru housing sail leaving about 4" to 6" of the wire harness inside mirror housing. Connect the mating connectors on the new Signal<sup>®</sup> mirror and the Signal<sup>®</sup> mirror wire harness (F). **If heated**, reconnect the heater wires to the heater terminals on the back of the new Signal<sup>®</sup> mirror (F). **NOTE: There is no polarity so the wires may be interchanged.** Carefully tuck all wiring behind motor actuator. **Not doing so, could result in wiring interfering with mirror travel.** Remove the PSA liner on the PSA disc. Align and center the motor mount onto the motor actuator. With the palm of your hand, slowly push down on the glass until the new Signal<sup>®</sup> mirror snaps into position. Press down on all sides to ensure the new Signal<sup>®</sup> mirror is fully seated and functional. Replace the foam insulation onto the housing sail.

# WIRE ROUTING

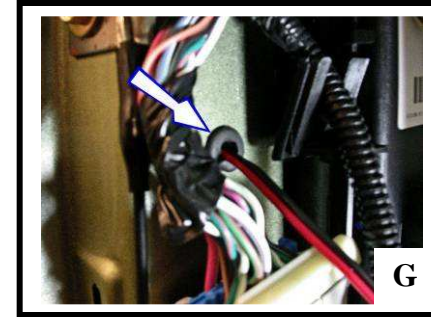
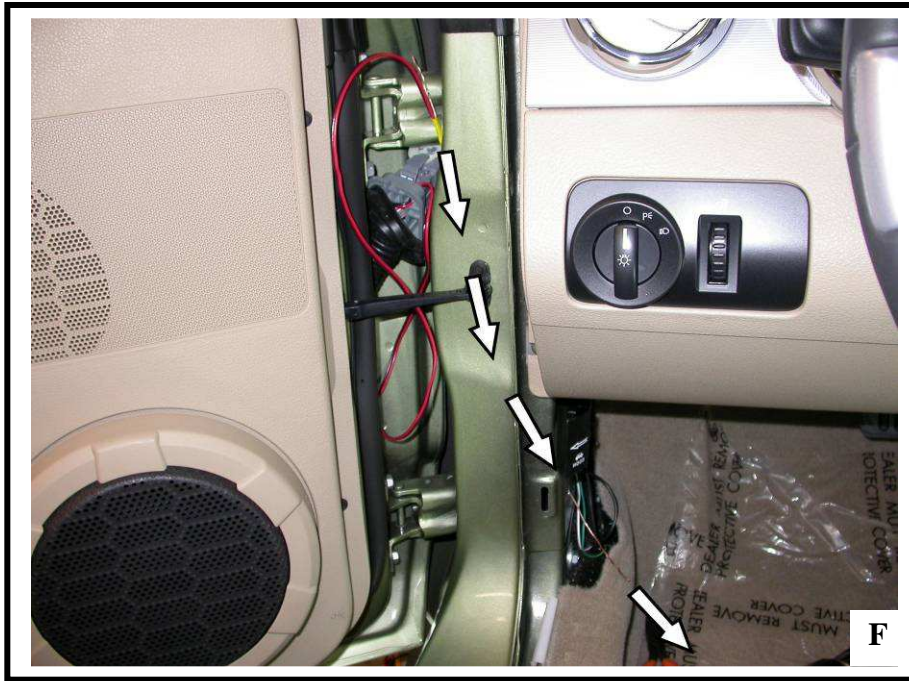


**WARNING:** When routing wire into vehicle, it is extremely important to not let wire get pinched or crushed at any time.

**Avoid window track and sharp edges at all times. Not doing so may cause circuit shortage problems in the long run.**

Guide all wire harnesses thru the hole in the door frame and position the mirror housing assembly on the mirror mount. Reconnect mirror harness (A1). Attach the mirror housing to the mirror mount with three mirror mounting nuts (A2). **WARNING!** Do not over tighten the mirror mounting nuts. Find the rubber boot located between the door frame and vehicle frame. Use a flat screwdriver, push-down from the top and push-up from the bottom to release boot connector from the vehicle frame. Pry out the boot connector. Uncover the rubber boot from the boot connector. Tape the open end of the *Signal*<sup>®</sup> mirror wire harness to the fish rod. Push the fish rod from inside door frame through the rubber boot (B). Once the fish rod with the *Signal*<sup>®</sup> mirror wire harness protrudes through the rubber boot, cut the tape with a utility knife and pull the *Signal*<sup>®</sup> mirror wire harness through rubber boot, removing any slack in the *Signal*<sup>®</sup> mirror wire harness. Work the grey boot connector out of the body panel so it faces you. Use 1/4" inch drill bit, drill an access hole through the upper unused section of the connector. **Use extreme caution as not to damage anything around this area, including paint or wire harness.** Insert the *Signal*<sup>®</sup> mirror wire harness thru the drilled opening on the boot connector (C). Remove any slack in the *Signal*<sup>®</sup> mirror wire harness. Remove plastic trim pieces on the running board and the kick panel. Use a 1/8" drill bit, drill a pilot hole into the side of the kick panel (D). Re-drill using a 1/2" drill bit (E).

# WIRE ROUTING CONTINUED



Tape the open end of the *Signal*<sup>®</sup> mirror wire harness to the fish rod. Push the fish rod thru the boot connector opening and out the 1/2" drilled hole (F).

Pull the fish rod thru to get the *Signal*<sup>®</sup> mirror wire harness inside the vehicle, and remove any slack in the *Signal*<sup>®</sup> mirror wire harness. Cut the tape with a utility knife and remove the fish rod. Replace the rubber boot back onto the boot connector. Snap the boot connector back into place on the vehicle frame. Insert the *Signal*<sup>®</sup> mirror wire harness thru one of the supplied rubber grommets. Slide the rubber grommet along the *Signal*<sup>®</sup> mirror wire harness and place the rubber grommet into the 1/2" drilled hole (G). Remove any slack in the *Signal*<sup>®</sup> mirror wire harness. Repeat all of the previous steps to replace the factory mirror on the passenger side door with the new *Signal*<sup>®</sup> mirror.

**\* Before proceeding, please read remainder of instructions for information regarding wiring identification and options.**

The vehicle's electrical wiring is located within the wire bundle on each side of the kick panel. Route the *Signal*<sup>®</sup> mirror wire harness on the driver side to the driver side kick panel. Separate the red and black wires on the *Signal*<sup>®</sup> mirror wire harnesses. Locate a suitable grounding location (grounding bolt, right above the drilled hole, in the kick panel area). Cut the black wire to length and strip about 3/8" off. Bend about half of the stripped portion of the black wire back onto itself. Insert the black wire into one of the supplied ring connectors and crimp it into place. Secure the ground ring to the metal framework of the vehicle using the bolt as shown (H).

# WIRE IDENTIFICATION



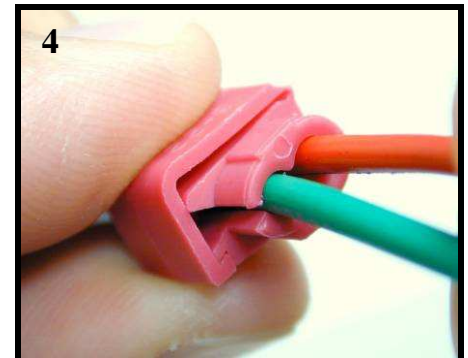
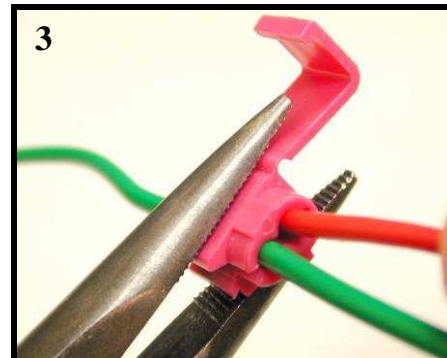
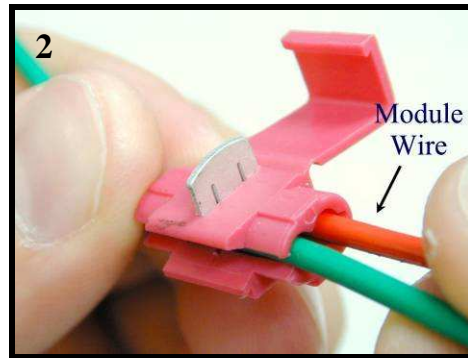
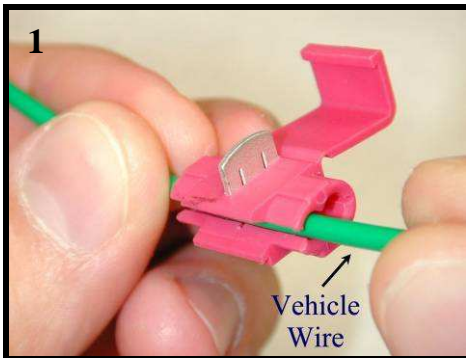
## TURN & BRAKE

The vehicle's electrical wiring for the TURN & BRAKE is located within the wire bundle on each side of the kick panel. Locate the WHITE w/ RED STRIPE wire within the wire bundle on the driver side kick panel. Turn the ignition key so that electrical power is on and activate the driver side turn indicator. Probe the wire with the wire tester to verify that flashing turn directional power is present. Label that wire as 'driver side indicator'. Find the RED w/ WHITE STRIPE wire within the wire bundle on the passenger side kick panel. Turn the ignition key to on. Activate the passenger side turn indicator. Probe the wire with the wire tester to verify that flashing turn directional power is present. Label that wire as 'passenger side indicator'.

## TURN ONLY

The wiring location for the TURN ONLY is located in a wire loom behind the passenger side headlight. Extra wire will be needed to go from inside the vehicle, through passenger side firewall opening/grommet and then to the wire loom. Locate the GREY w/ BLACK STRIPE wire within the wire loom. Turn the ignition key so that electrical power is on and activate the driver side turn indicator. Probe the wire with the wire tester to verify that flashing turn directional power is present. Label that wire as 'driver side indicator'. Find the DARK BLUE w/ PINKISH RED STRIPE wire within the wire loom. Turn the ignition key to on. Activate the passenger side turn indicator. Probe the wire with the wire tester to verify that flashing turn directional power is present. Label that wire as 'passenger side indicator'.





**USE THE INCLUDED WIRE TAPS AND FOLLOW THE FOUR STEPS ABOVE TO SPLICE INTO THE TURN INDICATOR WIRES**

- A. Make sure the harnesses are routed securely and enough slack is left for splicing.
- B. Splice the RED wire from the driver side harness into the wire previously labeled 'driver side indicator'.
- C. Splice the RED wire from the passenger side harness into the wire previously labeled 'passenger side indicator'.
- D. Activate each turn indicator to verify that the *Signal*<sup>®</sup> mirrors are working properly.
- E. Reconnect all original wiring. Turn the ignition power to on, check to verify all features are working properly.
- F. Replace the plastic door frame moldings, trim, door panels, and all accessories.

**Muth products are protected by these, and other pending, United States Patents**

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