



SPEED CONTROL

4 AND 6 CYL. JEEP WRANGLER

INSTALLATION INSTRUCTIONS

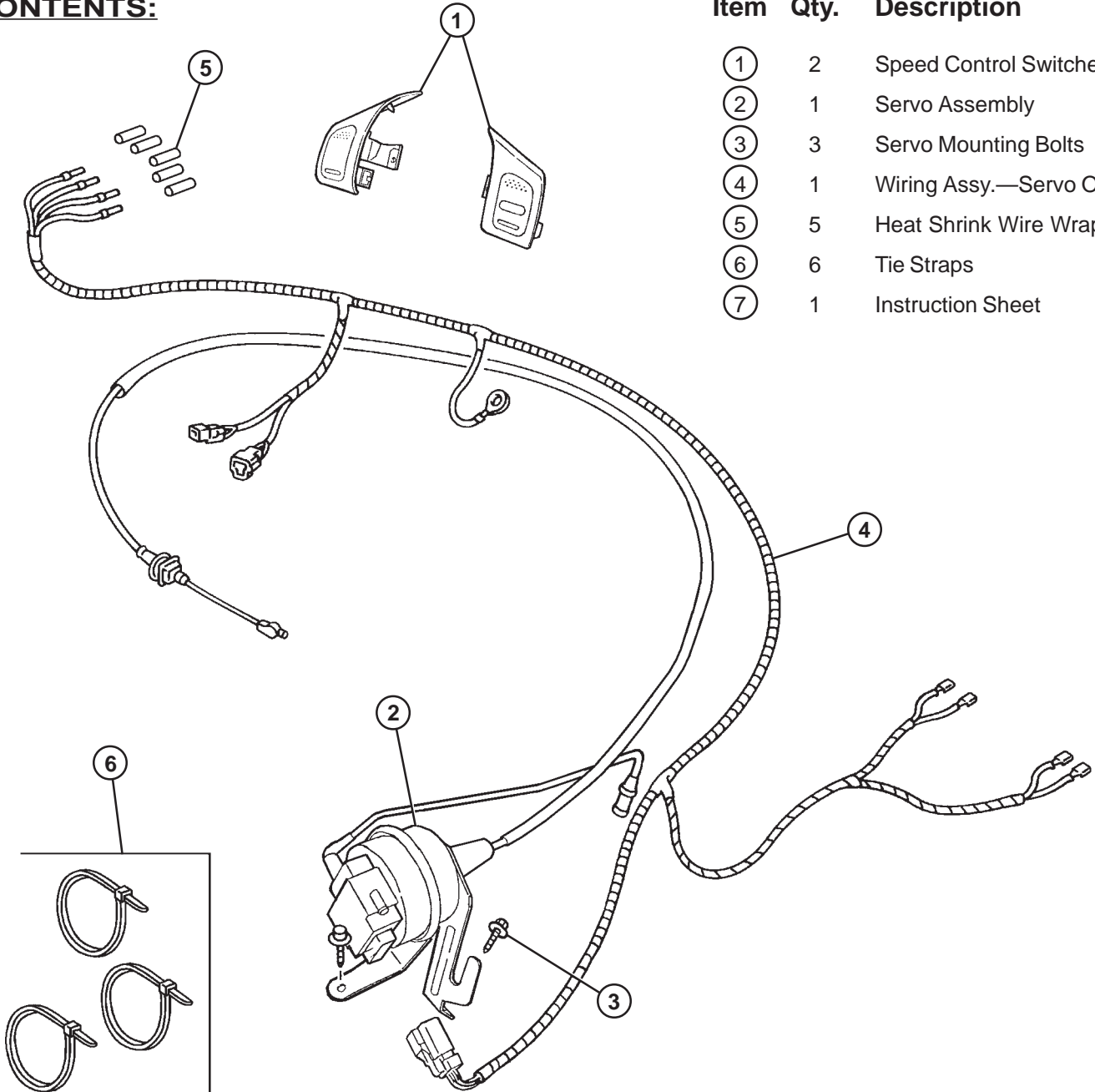
Read entire instructions thoroughly before starting.

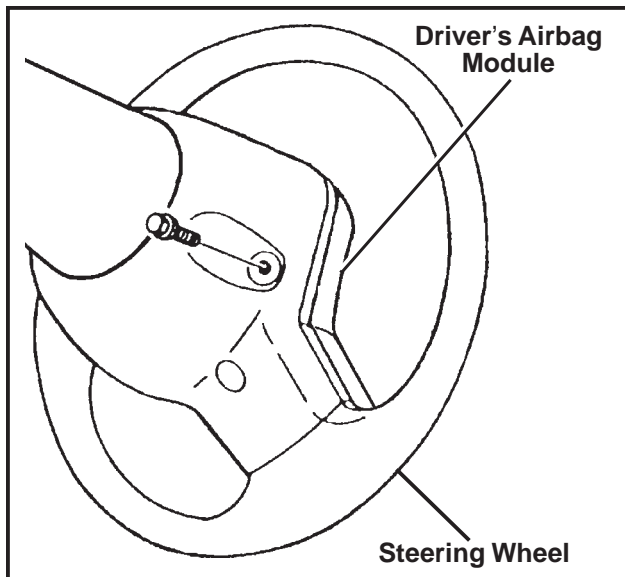
TOOLS REQUIRED:

- Complete socket set • Phillips screwdriver • Torx drivers • Wire strippers/cutters • Rosin core solder
- Solder gun • Electrical tape • Silicone sealant • Small flat head screwdriver
- Modeler's knife • Long, narrow punch • Needle nose pliers

CONTENTS:

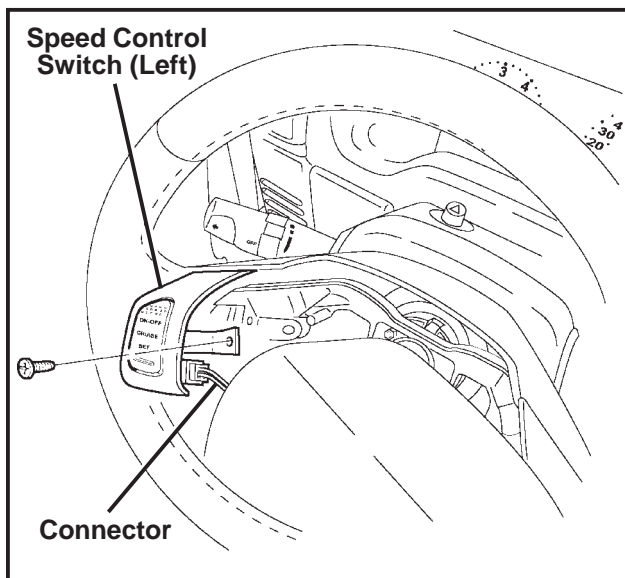
| Item | Qty. | Description |
|------|------|----------------------------|
| ① | 2 | Speed Control Switches |
| ② | 1 | Servo Assembly |
| ③ | 3 | Servo Mounting Bolts |
| ④ | 1 | Wiring Assy.—Servo Overlay |
| ⑤ | 5 | Heat Shrink Wire Wrap |
| ⑥ | 6 | Tie Straps |
| ⑦ | 1 | Instruction Sheet |



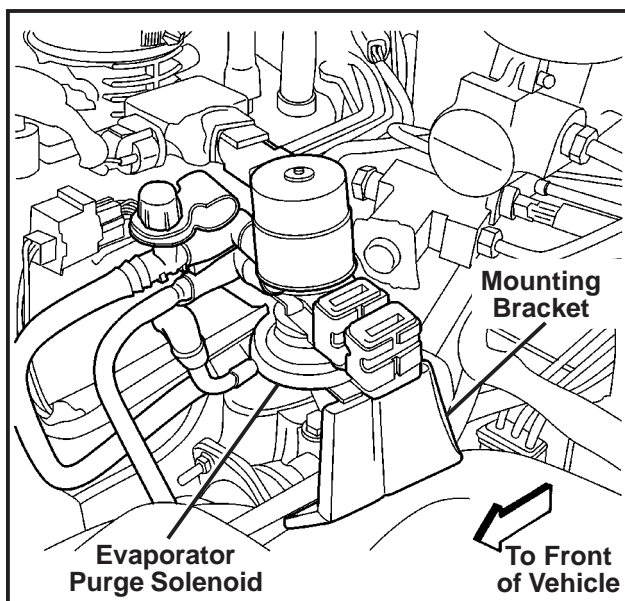


A – Install Speed Control Switches:

- 1) Disconnect and isolate the negative battery cable.
- 2) Using an 8mm socket wrench, remove two screws that attach the driver's airbag module to the steering wheel.
- 3) Carefully pull the module away from the steering wheel and leave it connected.

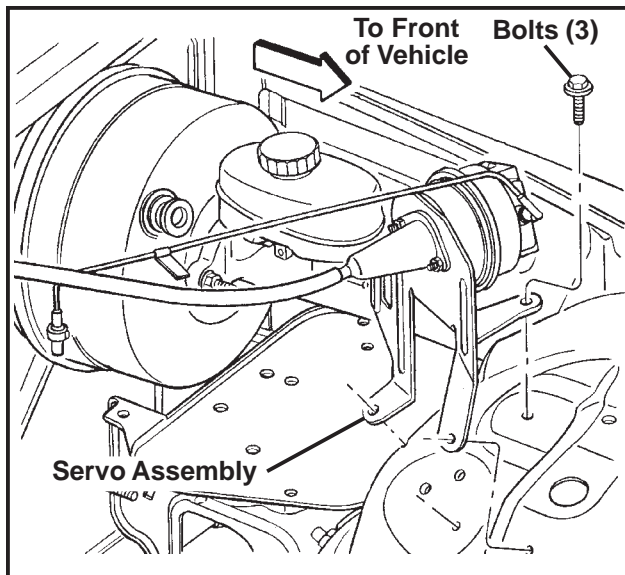


- 4) Using a phillips driver, remove two screws from the speed control blanks.
- 5) Remove the blanks but save the screws for re-use.
- 6) Connect and install speed control switches (Item 1).

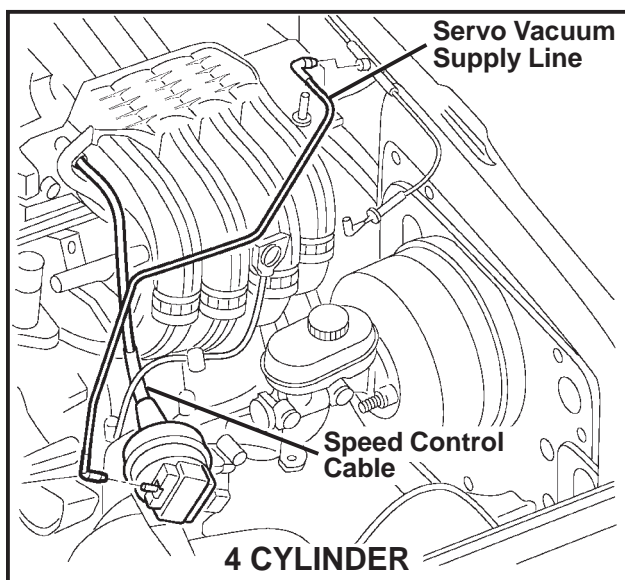


B – Install Speed Control Servo:

- 1) Open the hood. Locate the evaporator purge solenoid just forward of the brake master cylinder.
- 2) Slide the solenoid off of its mounting bracket.
- 3) Remove and discard the mounting bracket and fasteners.

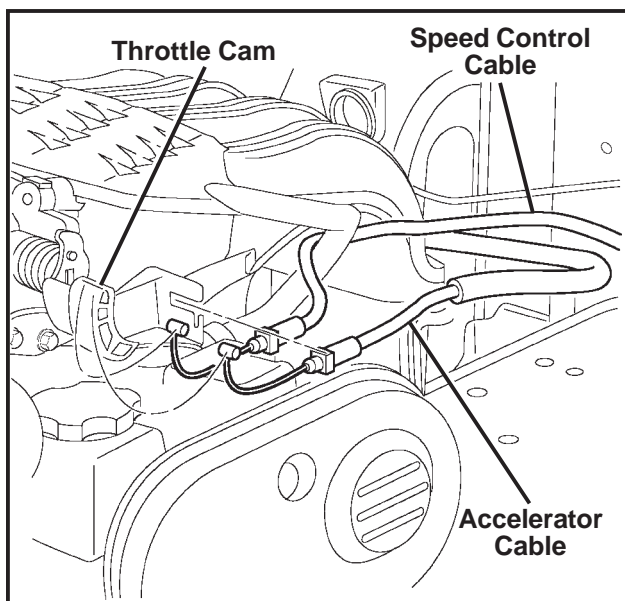


- 4) Install the servo (Item 2) with three supplied bolts (Item 3) using a 10mm socket wrench.
- 5) Slide the evaporator purge solenoid onto the servo mounting bracket tab.



C – Install Servo Vacuum and Cable—4 Cylinder:

- 1) Install servo vacuum supply line to the capped port on the tee fitting of the engine vacuum line.
- 2) Route speed control cable across to the engine throttle body as shown.

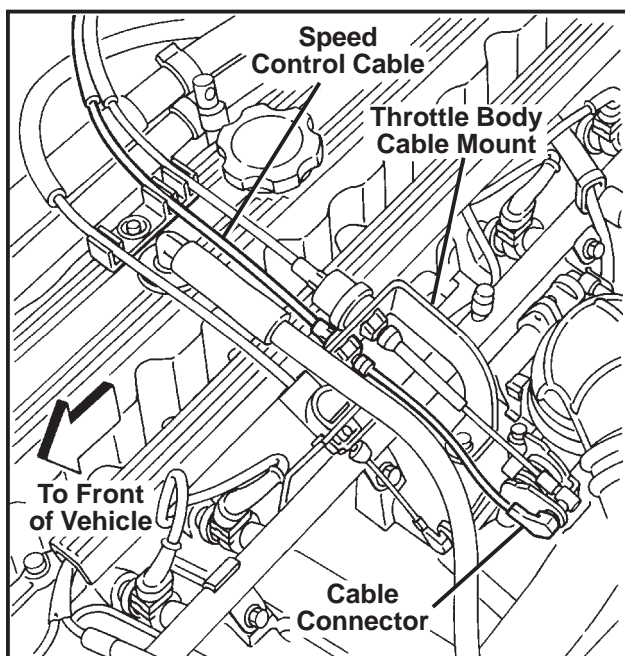
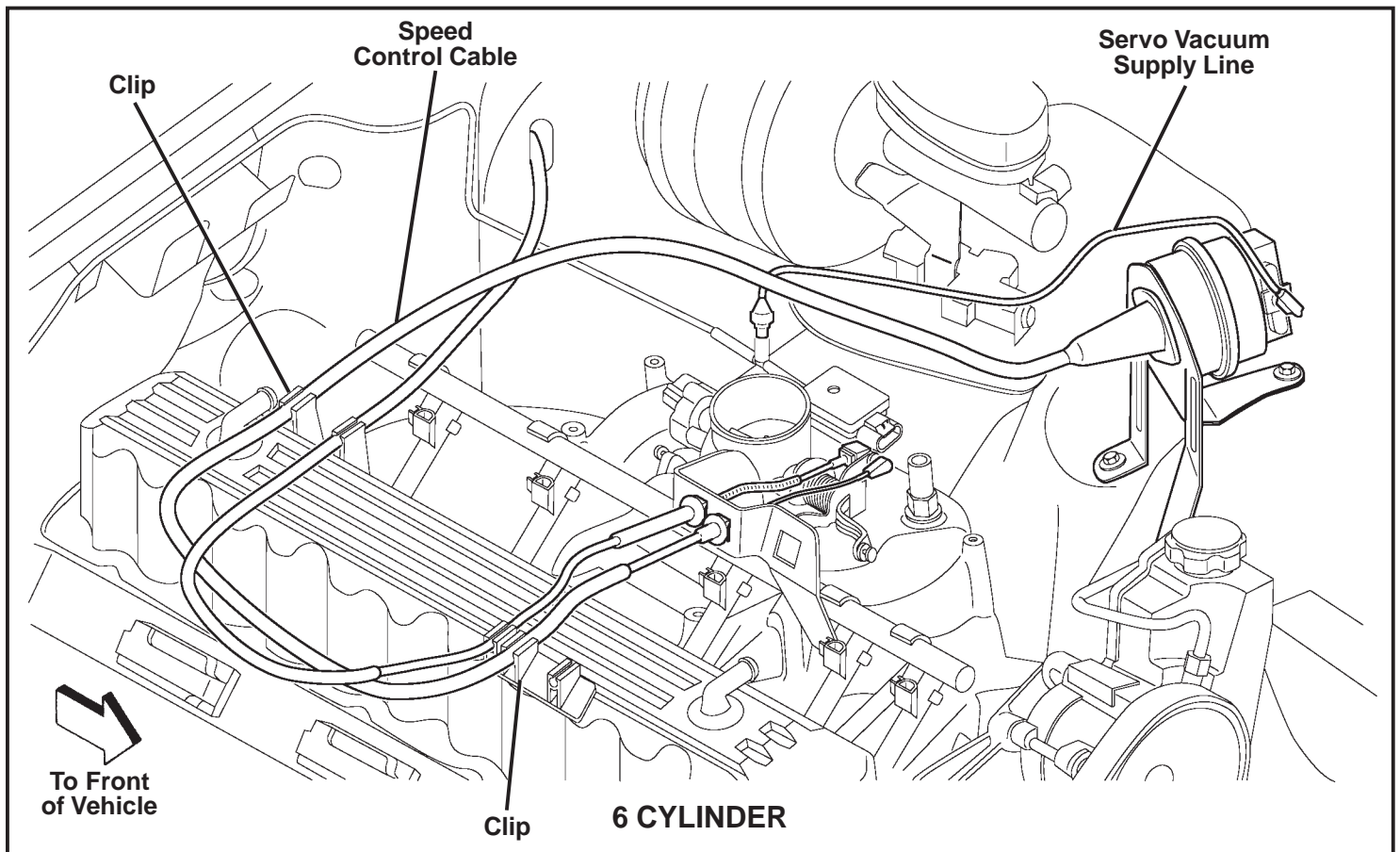


- 3) Remove accelerator cable clip from the throttle body cable mount and detach accelerator cable connector from the throttle cam.
- 4) Snap speed control cable clip and accelerator cable clip into the cable mount and throttle cam as shown.

CAUTION! Operate throttle cam by hand to make sure the throttle opens smoothly with no binding and that it returns to idle.

D - Install Servo Vacuum and Cable—6 Cylinder:

- 1) Install servo vacuum supply line to the capped port on the tee fitting of the engine vacuum line.
- 2) Route speed control cable across to the engine throttle body as shown. Snap the cable into two existing clips.

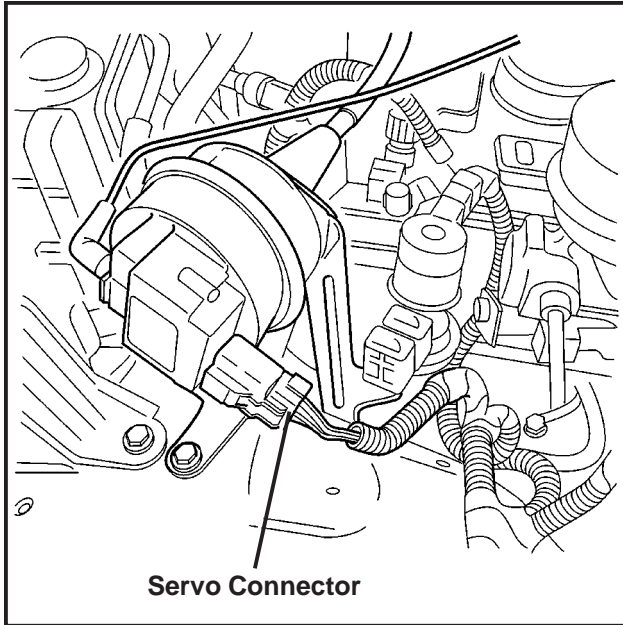


- 3) Route speed control cable through opening in the throttle body cable mount and snap the cable clip in place.
- 4) Snap speed control cable connector to the throttle cam as shown.

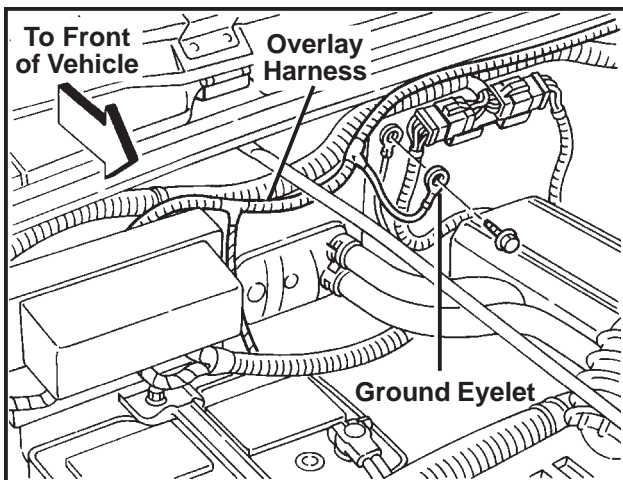
CAUTION! Operate throttle cam by hand to make sure the throttle opens smoothly with no binding and that it returns to idle.

E – Install Servo Overlay Harness (Underhood if Needed):

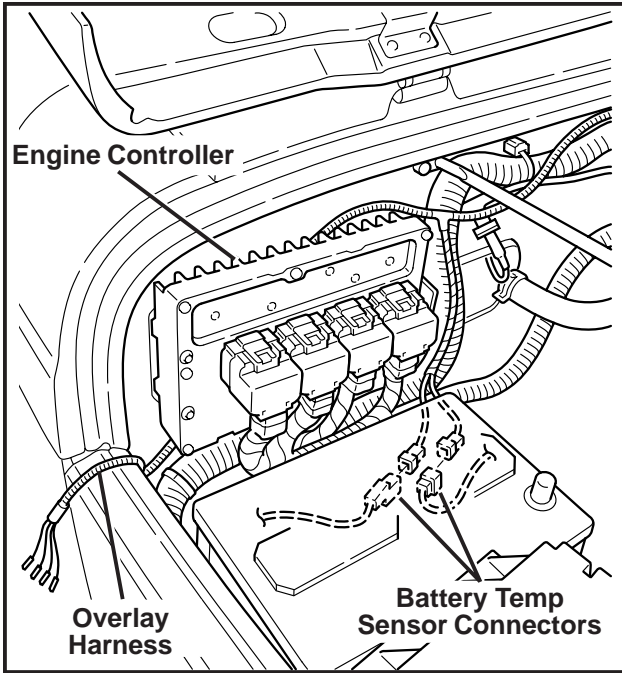
- 1) Look for possible existing servo connector taped back to the main engine harness just below the brake master cylinder.
- 2a) If connector is found, it means the vehicle has been pre-wired and your installation is complete. Plug and lock connector into the servo and proceed to Section G—Step 5.
- 2b) If connector is not found, the servo overlay harness (Item 4) must be installed. Proceed with Step 3.
- 3) Lay the harness across main bulkhead harness in the engine compartment.



- 4) Plug and lock 4-way connector from the servo overlay harness into the servo.
- 5) Make a 1/4" hole in the grommet located where the main harness passes thru the bulkhead.
- 6) Rig-up a pull tab and taking care not to bend the terminals, feed four terminated wires from the servo overlay harness through the hole and into driver's compartment.



- 7) Locate upper bulkhead ground on the passenger's side of vehicle in the engine compartment.
- 8) Install ground eyelet from the servo overlay harness to this ground using a 15mm socket wrench.

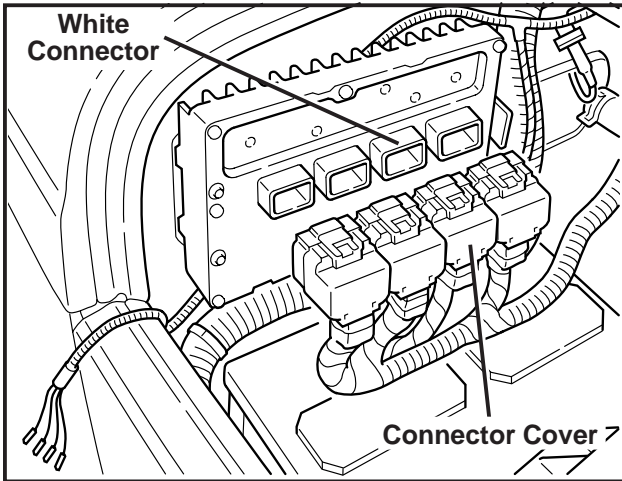


Steps 9 and 10 apply to 2005 model year vehicles only.

- 9) Disconnect the 2-way battery temp sensor connection located directly behind the battery tray.

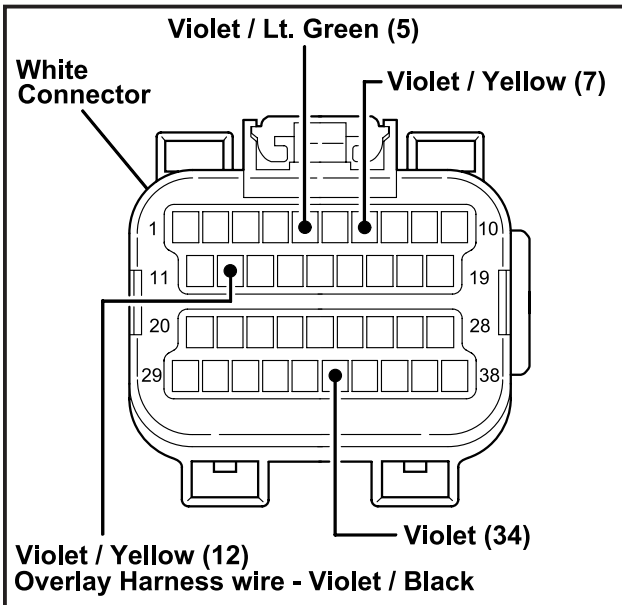
NOTE: On vehicles with A/C, the battery will have to be removed to gain access to the battery temp sensor connectors.

- 10) Plug two 2-way connectors from the servo overlay harness in-between the battery temperature sensor connectors.



Steps 11-15 apply to 2005 and 2006 model year vehicles.

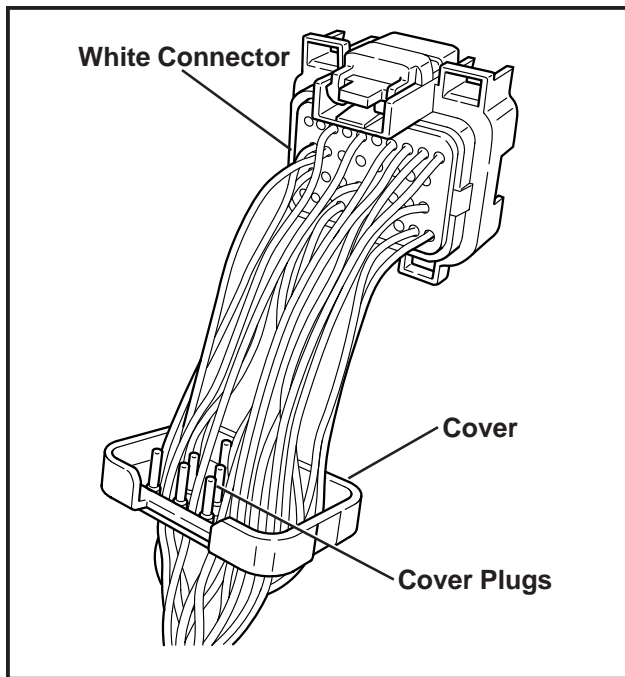
- 11) Unplug all four connectors from the engine controller.
- 12) Remove cover from the white connector.
- 13) Remove tape wrap from the connector wiring.



- 14) Look for speed control wiring that may be present in the connector. Refer to the graphic at left.

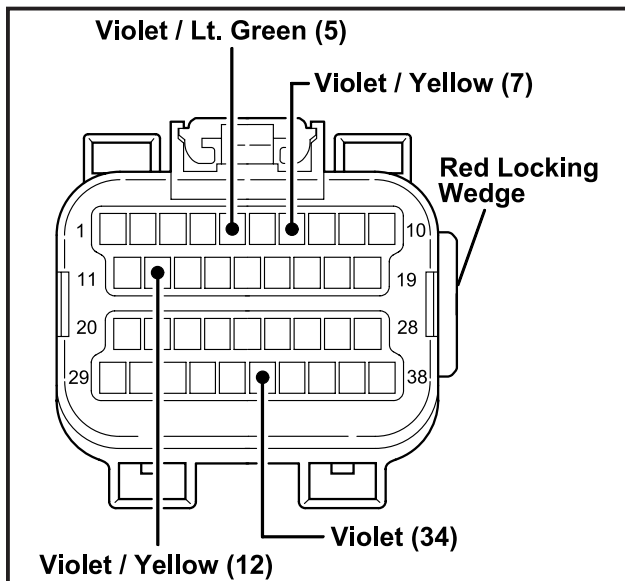
If wiring is present in connector cavities:

- A) Trim off existing wire, leaving enough wire to solder to.
- B) Trim off terminal from corresponding wire color on overlay harness.
- C) Slip heat shrink wire wrap (Item 5) onto either wire end.
- D) Solder and heat shrink the splice.
- E) Tape back the trimmed connector wire to the harness.



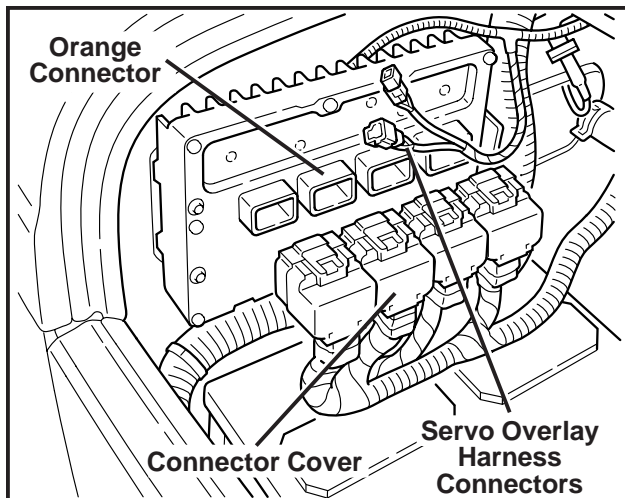
If no wiring present in connector cavities:

- A) Remove cover from back (wire side) of connector using a small flat blade screwdriver. Slide cover back on the wiring.
- B) Identify and remove cover plugs that correspond to the connector cavities. Refer to graphic below.
- C) Re-install cover to the connector.

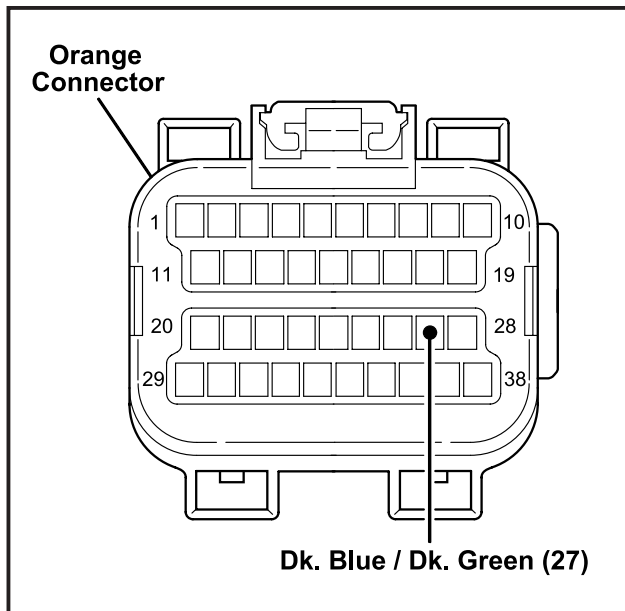


- D) Carefully disengage connector's red locking wedge using a small flatblade screwdriver.
 - E) Fully insert the terminated overlay harness wires into the proper cavities. Refer to graphic at left. Engage connector locking wedge.
- 15) Apply new tape wrap to the connector wiring. Re-install cover to the white connector.

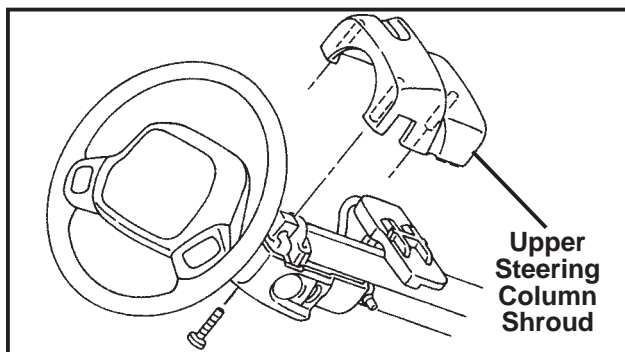
Steps 16-25 apply to 2006 model year vehicles only.



- 16) Remove cover from the orange connector.
- 17) Remove tape wrap from the connector wiring.
- 18) Trim off DB/DG wire from the orange 38-way connector, leaving enough wire to solder to. Strip off 1/4" of insulation.
- 19) Trim off both 2-way connectors from the servo overlay harness.
- 20) Strip off 1/4" of insulation from one DB/DG wire on the servo overlay harness. Tape back and isolate each of the three remaining wires.

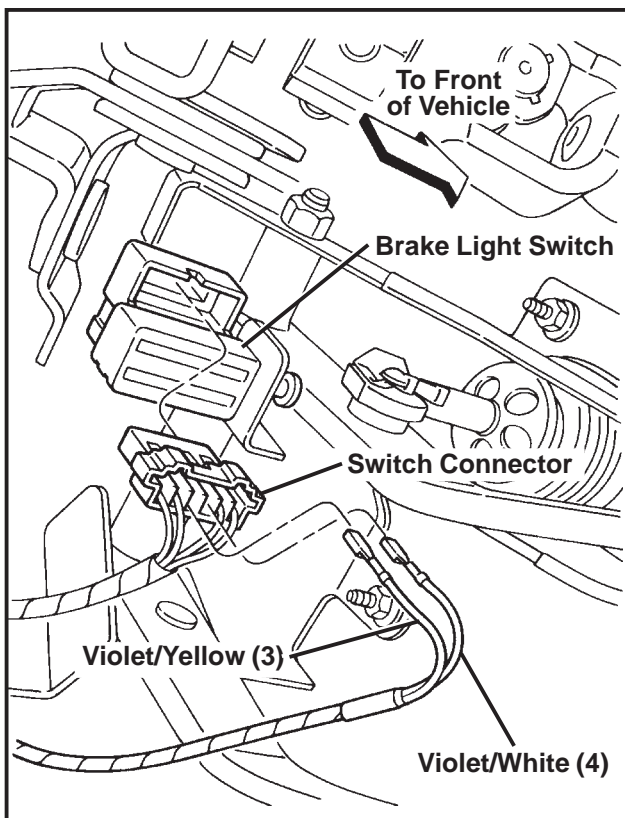


- 21) Slip heat shrink wrap onto trimmed DB/DG wire coming out of orange 38-way connector.
- 22) Twist three DB/DG wire ends together, solder and heat shrink the splice.
- 23) Apply new tape wrap to the connector wiring.
- 24) Plug connectors back into the engine controller.



F – Install Servo Overlay Harness (Under I/P):

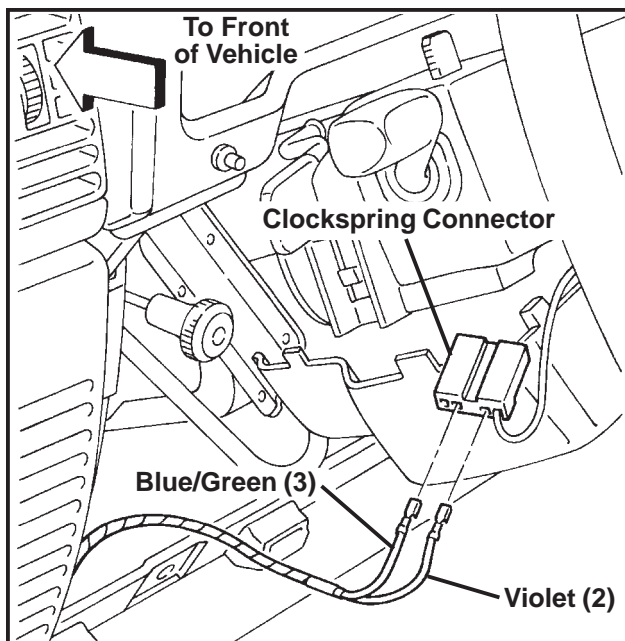
- 1) Using a phillips driver, remove three screws from the upper and lower steering columns shrouds.
- 2) Remove knee blocker trim panel.



- 3) Locate brake light switch under the I/P, unplug its 6-way connector and remove green locking wedge.
- 4) Insert terminated wires from the harness into the switch connector. Follow the illustration at left for proper installation.

NOTE: On some vehicles there will be existing violet wires in those cavities. They must be removed from the connector and trimmed from the I/P harness.

- 5) Re-install green locking wedge and plug connector back into the brake light switch.



- 6) Route two terminated wires from the servo overlay harness up to clockspring connector.
- 7) Insert two terminated wires into the clockspring connector. Follow the illustration at left for proper installation.

NOTE: On some vehicles there will be existing wires in those cavities. They must be removed from the connector and trimmed from the I/P harness.

G - Finalize the Installation:

- 1) Using two tie straps (Item 6) secure the overlay harness to the I/P harness.

CAUTION! Keep harness away from any sharp edges, heated or moving parts.

- 2) Apply silicone sealant to main wire harness bulkhead grommet.
- 3) Re-install upper steering column shroud and the knee blocker.
- 4) Using four tie straps (Item 6) secure the overlay harness to the engine compartment harness at the upper bulkhead.
- 5) Re-install the driver's airbag module.
- 6) With the ignition set to the ON position, re-connect the negative battery cable.
- 7) Test drive your work!
- 8) Refer customer to the Owner's Manual for speed control operation procedures.

TROUBLESHOOTING NOTE:

Refer to the service manual, diagnostic repair manual, or the MDS system. This system is identical to the factory-installed system.

