



**INFORMATION SHEET**  
**STAGE 2 TURBO UPGRADE KIT**  
**DODGE SRT-4**  
**PART NUMBER P5007863 (with Turbo Toys)**  
**P5007967 (without Turbo Toys)**

**Stage 2 Turbo Upgrade Kit Components**

- (1) Stage 2 PCM
- (4) 682 cc/min Fuel Injectors
- (1) Wastegate Actuator
- (1) 3.0 bar MAP Sensor
- (1) 3.0 bar TIP Sensor
- (1) Block-off Connector for PCM

**Recommended Upgrades**

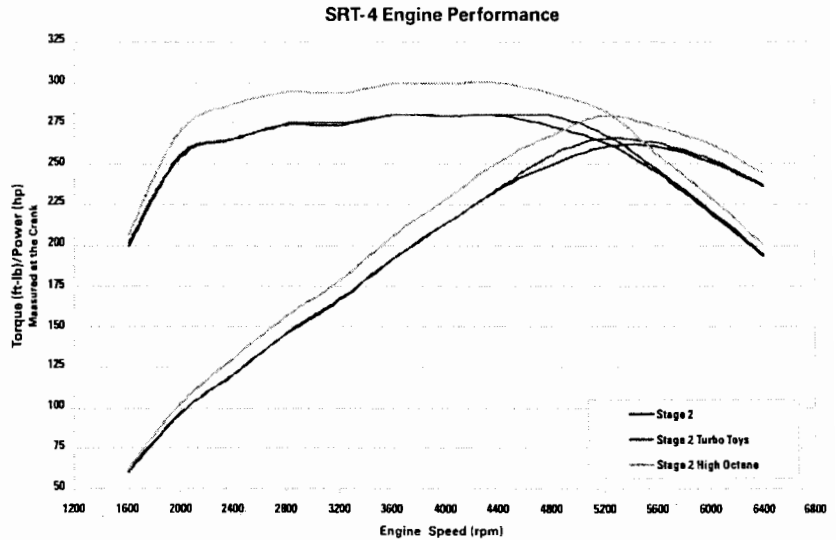
- P4510461 Cat-Back Exhaust System
- P4510647 Performance Clutch

**Stage 2 Turbo Upgrade Kit Feature Description**

- **Increased WOT and part throttle boost.** To develop additional peak power and peak torque for the Stage 2 package, the boost was increased for wide-open throttle (WOT) conditions. The boost was also raised for part throttle conditions to enhance the driveability.
- **Improved turbo response.** The Stage 2 turbo wastegate control was retuned for better turbo response. Not only will the Stage 2 deliver more torque and power, it will also deliver it faster.
- **Boost hold feature during WOT shifts.** Keep the pedal to the metal, blip the clutch, and grab the next gear. Do it fast enough before the redline, and your reward will be a zero-lag, constant boost shift.
- **Enhanced first gear boost schedule.** The maximum boost in first gear is increased to deliver more torque and power to the road for a higher performance launch.
- **More aggressive exhaust note during deceleration.** More pops, snaps, and burbles during closed throttle decelerations and between shifts.
- **Optimized calibration for the Mopar Performance Blow-Off Valve.** (P4510548 – sold separately). The Stage 2 kit has improved the functionality and the audible performance of the integrated recirculation valve with the BOV conversion kit in mind.
- **Increased Rev. Limit.** The Stage 2 calibration increases the engine redline from 6200 RPM to 6500 RPM.

*For technical assistance regarding the Stage 2 Turbo Upgrade Kit, please call the Mopar Performance Tech Line at (248) 969-1690.*

**Stage 2 Turbo Upgrade Kit Performance**



Vehicle Package	Torque Rating	Power Rating
Stage 2	260 ft-lb @ 3600-4400 rpm	250 hp @ 5200 rpm
Stage 2 Turbo Toys	280 ft-lb @ 3600-4800 rpm	285 hp @ 5200 rpm
Stage 2 High Octane Mode	300 ft-lb @ 3600-4400 rpm	280 hp @ 5200 rpm

NOTE: All ratings are with Cat-Back System P4510461

**Mopar Performance parts are sold "as is," without any warranty whatsoever.** Implied warranties, including warranties of merchantability or fitness for a particular purpose, are excluded. The entire risk as to quality and performance of such parts is with the buyer. Should such parts prove defective following their purchase, the buyer and not the manufacturer, distributor or retailer, assumes the entire cost of all necessary servicing or repair. Chrysler, Dodge, and Jeep® vehicle and parts warranties are voided if the vehicle or parts are used for competition or if they fail as a result of modification.

**SPECIAL NOTE:**  
**P0633 Fault Code Explanation**

It is normal for the Stage 2 kit to set the P0633 fault code. This code will not activate the MIL (Malfunction Indicator Light), but it will be displayed during a diagnostic check. The vehicle functionality or performance will not be affected as a result of this code.

**Not legal for use on pollution-controlled vehicles, or vehicles registered for highway use.**



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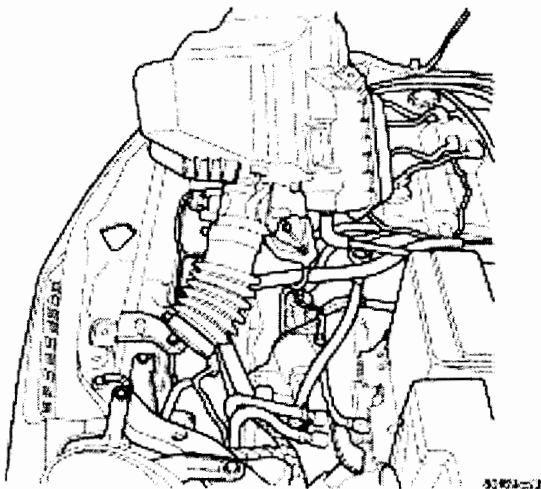


**SPECIAL NOTE:**  
**P0633 Fault Code Explanation**

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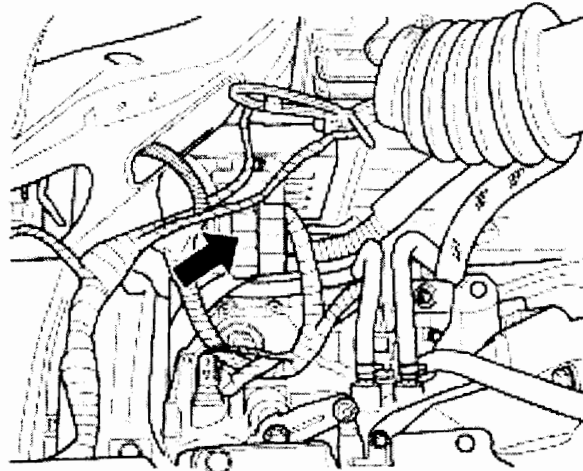
**POWERTRAIN CONTROL  
MODULE REMOVAL – 2.4L**

- (1) Disconnect the negative battery cable.
- (2) Remove and relocate the air cleaner box (Fig. 1). Refer to the Air Cleaner Housing removal on page 2.



**Fig. 1 AIR BOX RELOCATED**

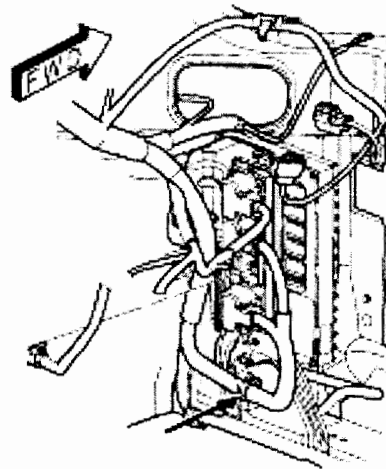
- (3) Unlock and disconnect the electrical connectors (Fig. 2) at the PCM.



**Fig. 2 CONNECTORS INSTALLED**

- 1 - WIRING CLIP
- 2 - PCM

- (4) Remove the wiring harness clip (Fig. 3) from the PCM bracket.

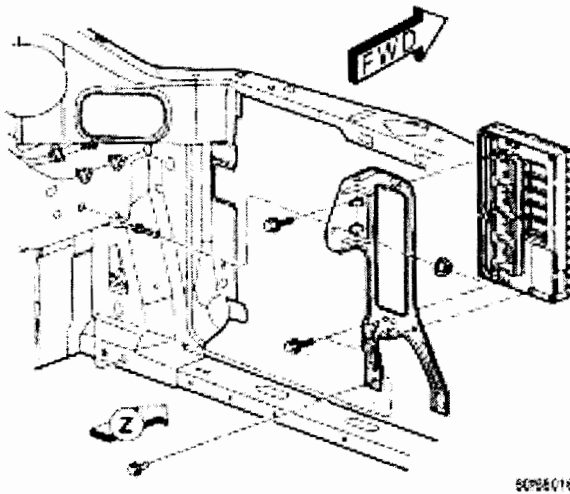


**Fig. 3 WIRING HARNESS**



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- (5) Remove the mounting bolts from the bottom of the PCM bracket (Fig. 4).
- (6) Remove the nut.
- (7) Remove the assembly, PCM and bracket.
- (8) Remove PCM from bracket.



**Fig. 4 PCM And Bracket**

**INSTALLATION**

- (1) Install new PCM to bracket. Tighten three screws to 11.8N·m (105in-lbs.).
- (2) Install supplied block-off connector (green) into green cavity on PCM and lock.
- (3) Install the assembly, PCM and bracket.
- (4) Loose install the mounting nut.
- (5) Install the mounting bolts to the bottom PCM bracket (Fig. 4).
- (6) Tighten the mounting nut and bolts to 10.7N·m (95in-lbs.).
- (7) Install the wiring harness clip (Fig. 3) PCM bracket.

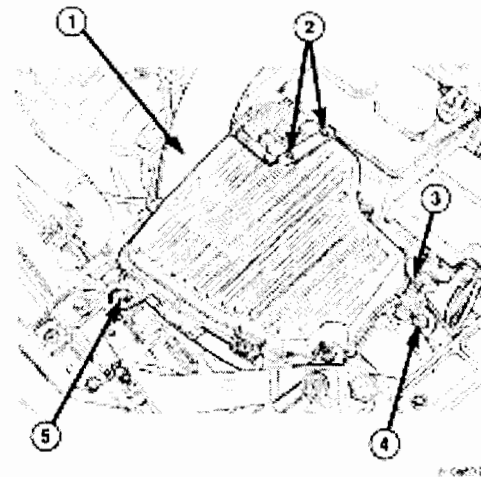
**NOTE: The electrical connector for the PCM is COLOR Coded.**

- (8) Connect the electrical connectors and lock (Fig.2) at the PCM.
- (9) Install the air cleaner box (Fig. 1). Refer to Air Cleaner Housing Installation on this page for information.

**NOTE: Do not install air cleaner housing if Turbo Toys Kit will be installed at this time.**

**AIR CLEANER HOUSING REMOVAL**

- (1) Disconnect clean air hose from air cleaner housing (Fig. 5).
- (2) Disconnect ambient air temperature sensor (Fig. 5).
- (3) Remove turbocharger solenoid bracket mounting screws (Fig. 5). Reposition turbocharger solenoid bracket.
- (4) Disconnect make-up air hose from the side of air cleaner housing.
- (5) Dislodge wiring harness clips on the side of the air cleaner housing.
- (6) Remove air cleaner housing mounting screw and nut (Fig. 5).
- (7) Pull air cleaner housing straight up to remove.



**Fig. 5 Air Cleaner Housing Mounting**

- 1-CLEAN AIR HOSE
- 2-SOLENOID MOUNTING BRACKET SCREWS
- 3-AMBIENT AIR TEMPERATURE SENSOR
- 4-AIR CLEANER HOUSING MOUNTING NUT
- 5-AIR CLEANER HOUSING MOUNTING SCREW

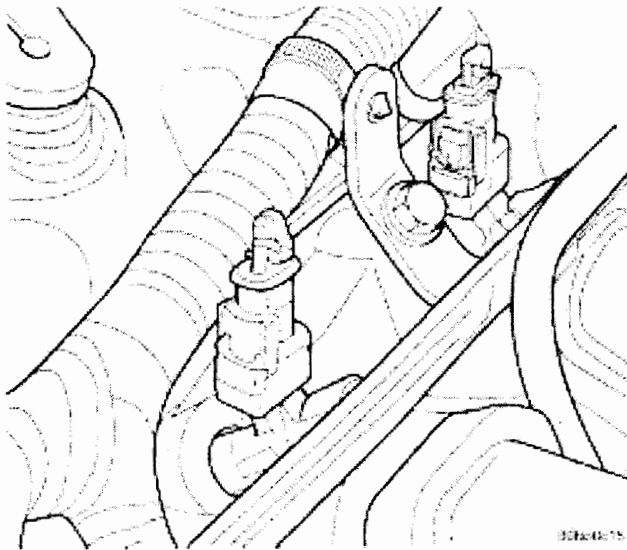
**INSTALLATION**

- (1) Install air housing. Make sure that it is on the battery tray tab in the back and on the stud on the side.
- (2) Install the nut and screw for air cleaner housing (Fig. 5). Tighten fasteners to 7.3 N·m (65 in. lbs.).
- (3) Insert wiring harness clips on the side of the air cleaner housing.
- (4) Connect make-up air hose to the side of air cleaner housing.
- (5) Install turbocharger solenoid bracket mounting screws (Fig. 5).
- (6) Connect ambient air temperature sensor (Fig. 5).
- (7) Connect clean air hose to air cleaner housing (Fig. 5).



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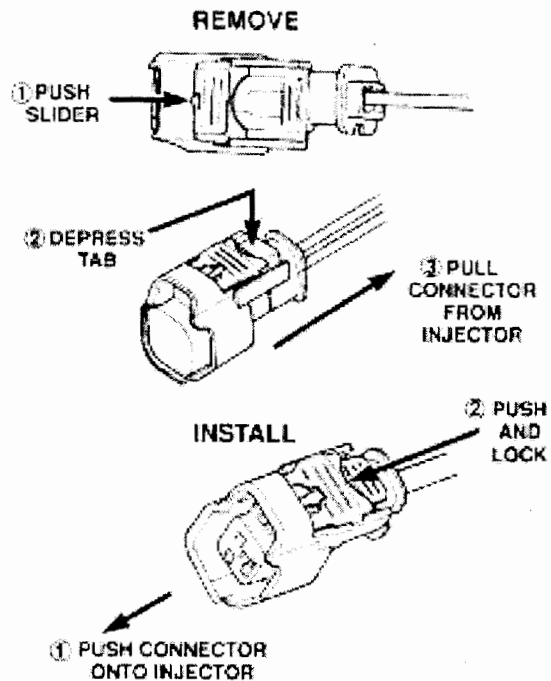
**STANDARD PROCEDURE REMOVAL –  
INJECTOR CONNECTOR**



**Fig. 6 Fuel Injectors**

**REMOVAL**

- (1) Disconnect negative cable from battery.
- (2) Remove fuel rail cover.
- (3) Release fuel system pressure. Refer to Fuel System Pressure Release procedure on page 5.
- (4) Disconnect fuel supply line from rail (Fig 8). Refer to Quick-Connect Fittings on page 5.
- (5) Disconnect electrical connectors at the fuel injectors (Fig. 6). To remove connector refer to (Fig. 7). Pull the red colored slider away from injector (1). While pulling the slider, depress tab (2) and remove connector (3) from injector. The factory fuel injection wiring harness is numerically tagged (INJ 1, INJ 2, etc.) for injector position identification. If harness is not tagged, make note of wiring location before removal.

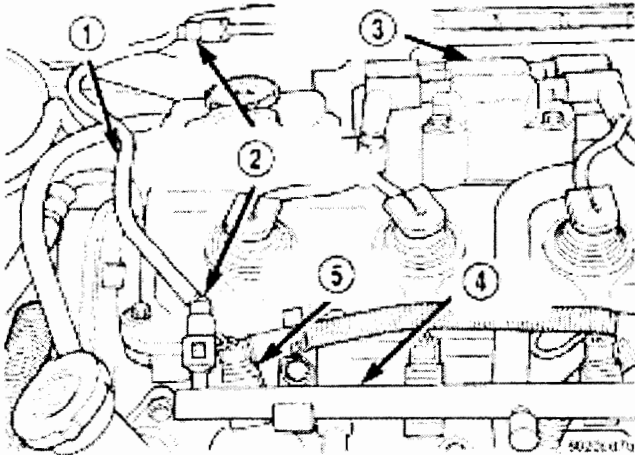


**Fig. 7 Remove/Install Injector Connector**

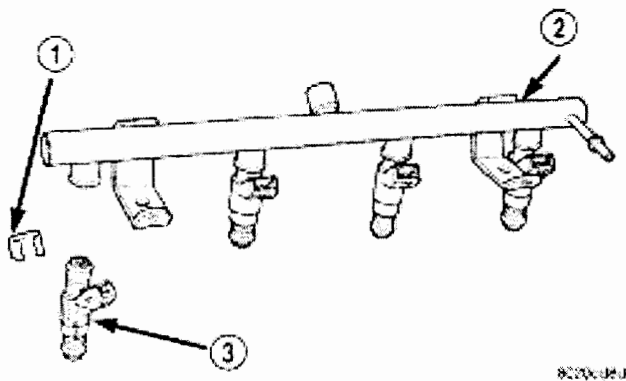
- (6) Remove fuel rail mounting screws.
- (7) **IMPORTANT:** Remove all excess dirt around injector base to intake manifold.
- (8) Lift rail off of intake manifold. Cover the fuel injector openings in the intake manifold.
- (9) Remove fuel injector retainer (Fig. 9).
- (10) Pull injector out of fuel rail.



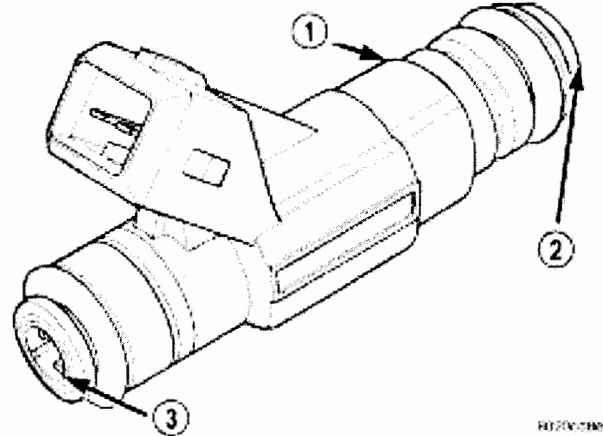
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**Fig. 8 Fuel Rail and Injectors**  
1 - FUEL SUPPLY LINE  
2 - FUEL LINE QUICK-CONNECTS  
3 - IGNITION COIL  
4 - FUEL RAIL  
5 - FUEL INJECTOR



**Fig. 9 Fuel Injector Retainer**  
1 - RETAINER  
2 - FUEL RAIL  
3 - FUEL INJECTOR



**Fig. 10 Fuel Injector O-Rings**  
1 - FUEL INJECTOR  
2 - NOZZLE  
3 - TOP (FUEL ENTRY)

**INSTALLATION**

- (1) Apply a light coating of clean engine oil to the upper O-ring (Fig. 10).
- (2) Install injector in cup on fuel rail.
- (3) Install retaining clip.
- (4) Apply a light coating of clean engine oil to the O-ring on the nozzle end of each injector.
- (5) Insert fuel injector nozzles into openings in intake manifold. Seat the injectors in place. Tighten fuel rail mounting screws to 22.5 N·m  $\pm$  3 N·m (200 $\pm$ 30 in. lbs.).
- (6) Attach electrical connectors to fuel injectors (Fig. 7). Refer to the fuel injector connector section for electrical connector installation.
- (7) Connect fuel supply line to fuel rail (Fig. 8). Refer to Quick Connect Fittings on page 6.
- (8) Connect negative cable to battery.
- (9) **Turn key on and off twice to pressurize the fuel system. Check for leaks prior to starting engine.**



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**STANDARD PROCEDURE -  
FUEL SYSTEM PRESSURE  
RELEASE PROCEDURE**

- (1) Remove Fuel Pump relay from Power Distribution Center (PDC). For location of relay, refer to label on underside of PDC cover.
- (2) Start and run engine until it stalls.
- (3) Attempt restarting engine until it will no longer run.
- (4) Turn ignition key to OFF position.
- (5) Return fuel pump relay to PDC.
- (6) One or more Diagnostic Trouble Codes (DTC's) may have been stored in PCM memory due to fuel pump relay removal. The DRB III/ scan tool must be used to erase a DTC.

**WARNING: RELEASE FUEL SYSTEM PRESSURE BEFORE SERVICING FUEL SYSTEM COMPONENTS. SERVICE VEHICLES IN WELL VENTILATED AREAS AND AVOID IGNITION SOURCES. NEVER SMOKE WHILE SERVICING THE VEHICLE.**

**WARNING: WRAP SHOP TOWELS AROUND HOSES TO CATCH ANY GASOLINE SPILLAGE.**

**QUICK CONNECT FITTING**

**STANDARD PROCEDURE -  
QUICK-CONNECT FITTINGS REMOVAL**

When disconnecting a quick-connect fitting, the retainer will remain on the fuel tube nipple.

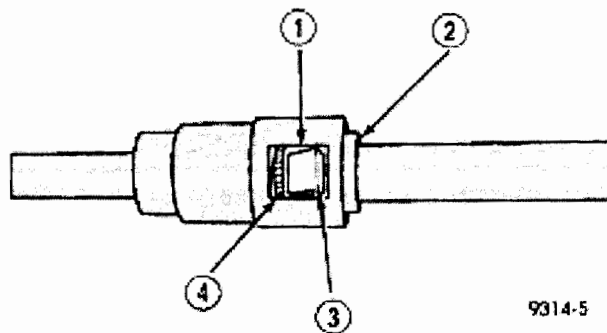
**WARNING: RELEASE FUEL SYSTEM PRESSURE BEFORE DISCONNECTING A QUICK-CONNECT FITTINGS. REFER TO THE FUEL PRESSURE RELEASE PROCEDURE.**

- (1) Perform Fuel Pressure Release Procedure. Refer to the Fuel Pressure Release Procedure above.
- (2) Disconnect negative cable from battery or auxiliary jumper terminal.
- (3) Squeeze retainer tabs together and pull fuel tube/quick-connect fitting assembly off of fuel tube nipple. The retainer will remain on fuel tube.

**INSTALLATION**

**CAUTION: Never install a quick-connect fitting without the retainer being either on the fuel tube or already in the quick-connect fitting. In either case, ensure the retainer locks securely into the quick-connect fitting by firmly pulling on fuel tube and fitting to ensure it is secured.**

- (1) Using a clean lint free cloth, clean the fuel tube nipple and retainer.
- (2) Prior to connecting the fitting to the fuel tube, coat the fuel tube nipple with clean engine oil.
- (3) Push the quick-connect fitting over the fuel tube until the retainer seats and a click is heard.
- (4) The plastic quick-connect fitting has windows in the sides of the casing. When the fitting completely attaches to the fuel tube, the retainer locking ears and the fuel tube shoulder are visible in the windows. If they are not visible, the retainer was not properly installed (Fig. 11). Do not rely upon the audible click to confirm a secure connection.
- (5) Connect negative cable to battery.



**Fig. 11 Plastic Quick-Connect Fitting/Fuel Tube Connection**  
1 - WINDOW  
2 - TAB (2)  
3 - EAR  
4 - SHOULDER (ON TUBE)



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### TWO-TAB TYPE FITTING

This type of fitting is equipped with tabs located on both sides of the fitting (Fig. 12). These tabs are supplied for disconnecting the quick-connect fitting from component being serviced.

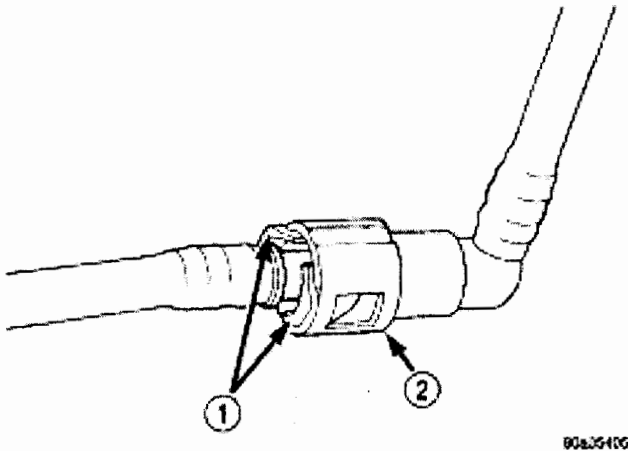


Fig. 12 Typical Two-Tab Type Quick-Connect Fitting

1 - TAB(S)

2 - QUICK-CONNECT FITTING

**CAUTION:** The interior components (O-rings, spacers) of this type of quick-connect fitting are not serviced separately, but new plastic retainers are available. Do not attempt to repair damaged fittings or fuel lines/tubes. If repair is necessary, replace the complete fuel tube assembly.

**WARNING:** THE FUEL SYSTEM IS UNDER A CONSTANT PRESSURE (EVEN WITH THE ENGINE OFF). BEFORE SERVICING ANY FUEL SYSTEM HOSES, FITTINGS OR LINES, THE FUEL SYSTEM PRESSURE MUST BE RELEASED. REFER TO THE FUEL PRESSURE RELEASE PROCEDURE IN THIS GROUP.

### DISCONNECTION/CONNECTION

- (1) Perform fuel pressure release procedure. Refer to Fuel Pressure Release Procedure on page 5.
- (2) Disconnect negative battery cable from battery or auxiliary jumper terminal.

- (3) Clean fitting of any foreign material before dis-assembly.
- (4) To disconnect quick-connect fitting, squeeze plastic retainer tabs (Fig. 12) against sides of quick-connect fitting with your fingers. Tool use is not required for removal and may damage plastic retainer. Pull fitting from fuel system component being serviced. The plastic retainer will remain on component being serviced after fitting is disconnected. The O-rings and spacer will remain in quick-connect fitting connector body.
- (5) Inspect quick-connect fitting body and component for damage. Replace as necessary.

**CAUTION:** When the quick-connect fitting was disconnected, the plastic retainer will remain on the component being serviced. If this retainer must be removed, very carefully release the retainer from the component with two small screwdrivers. After removal, inspect the retainer for cracks or any damage.

- (6) Prior to connecting quick-connect fitting to component being serviced, check condition of fitting and component. Clean parts with a lint-free cloth. Lubricate with clean engine oil.
- (7) Insert quick-connect fitting to component being serviced and into plastic retainer. When a connection is made, a click will be heard.
- (8) Verify a locked condition by firmly pulling on fuel tube and fitting (15-30 lbs.).
- (9) Connect negative cable to battery.
- (10) Turn key on and off twice to pressurize the fuel system. Check for leaks prior to starting engine.

### PLASTIC RETAINER RING TYPE FITTING

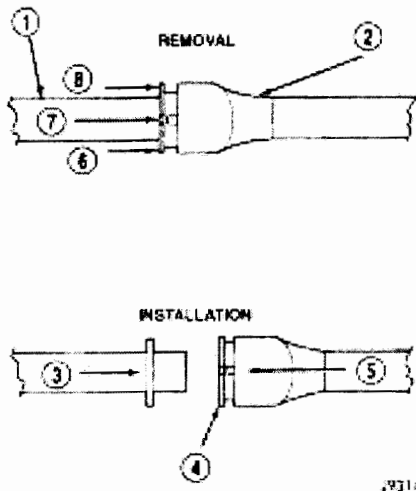
This type of fitting can be identified by the use of a full-round plastic retainer ring (Fig. 13) usually black in color.

**CAUTION:** The interior components (O-rings, spacers, retainers) of this type of quick-connect fitting are not serviced separately. Do not attempt to repair damaged fittings or fuel lines/tubes. If repair is necessary, replace the complete fuel tube assembly.



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**Fig. 13 Plastic Retainer Ring Type Fitting**

- 1 - FUEL TUBE
- 2 - QUICK CONNECT FITTING
- 3 - PUSH
- 4 - PLASTIC RETAINER
- 5 - PUSH
- 6 - PUSH
- 7 - PUSH
- 8 - PUSH

**DISCONNECTION/CONNECTION**

- (1) Perform fuel pressure release procedure. Refer to Fuel Pressure Release Procedure in this section.
- (2) Disconnect negative battery cable from battery or auxiliary jumper terminal.
- (3) Clean fitting of any foreign material before disassembly.
- (4) To release fuel system component from quick-connect fitting, firmly push fitting towards component being serviced while firmly pushing plastic retainer ring into fitting (Fig. 13). With plastic ring depressed, pull fitting from component. The plastic retainer ring must be pressed squarely into fitting body. If this retainer is cocked during removal, it may be difficult to disconnect fitting. Use an open-end wrench on shoulder of plastic retainer ring to aid in disconnection.
- (5) After disconnection, plastic retainer ring will remain with quick-connect fitting connector body.
- (6) Inspect fitting connector body, plastic retainer ring and fuel system component for damage. Replace as necessary.
- (7) Prior to connecting quick-connect fitting to component being serviced, check condition of fitting and component. Clean parts with a lint-free cloth. Lubricate with clean engine oil.
- (8) Insert quick-connect fitting into component being serviced until a click is felt.
- (9) Verify a locked condition by firmly pulling on fuel tube and fitting (15-30 lbs.).
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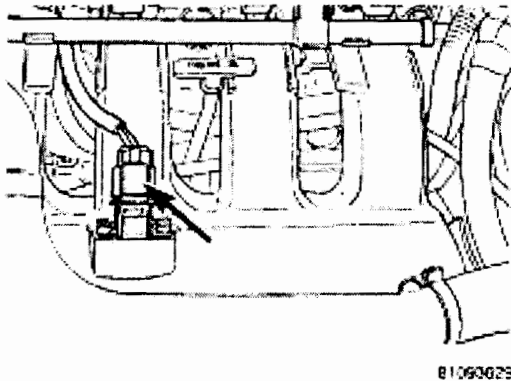


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## MAP SENSOR

### REMOVAL

- (1) Locate MAP Sensor on front of intake manifold



**Fig. 14 Map Sensor Location**

- (2) Disconnect electrical connector at MAP Sensor (Fig. 14). To remove connector, unlock connector by pushing red tab toward the wire harness, and then depress the center lock and pull the connector from the sensor.
- (3) Remove two screws attaching MAP Sensor to intake manifold.
- (4) Withdraw MAP Sensor from intake manifold

### INSTALLATION

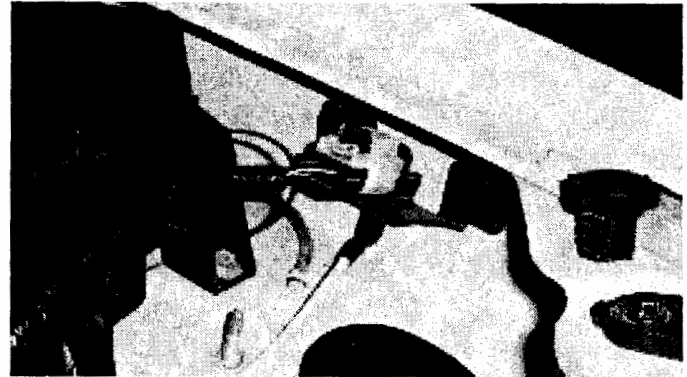
- (1) Apply a light coating of clean engine oil to MAP Sensor O-Ring
- (2) Install new MAP Sensor supplied into intake manifold.
- (3) Install two fasteners retaining MAP Sensor to intake manifold.
- (4) Torque fasteners to 35 in/lbs.
- (5) Attach electrical connector to MAP Sensor, push lock tab into lock connector.

## TIP SENSOR

### REMOVAL

- (1) Locate TIP Sensor on left-hand inside fender. (Fig. 15)
- (2) Disconnect electrical connector at TIP Sensor (Fig. 15). To remove connector, unlock the connector by pushing the red tab toward the wire harness, and then depress the center lock and pull the connector from the sensor.
- (3) Carefully remove the two clips attaching TIP Sensor bracket to inner fender and save for reinstallation.
- (4) Remove vacuum hose from sensor.

- (5) Remove production sensor from bracket by gently lifting retaining clip and sliding sensor off of bracket flange. Bracket will be reused.



**Fig. 15**

### INSTALLATION

- (1) Locate new TIP Sensor supplied in kit.
- (2) Mount new TIP Sensor to original bracket by sliding the retaining clip over the bracket flange until it locks in place.
- (3) Reinstall push clips through bracket and inner fender mounting holes.
- (4) Push center of clip until flush with base.
- (5) Reconnect vacuum hose.
- (6) Reconnect electrical connector, push lock tab into lock connector.

## WASTEGATE ACTUATOR

### REMOVAL

- (1) Locate the five upper exhaust manifold heat shield fasteners. (Fig. 16)
- (2) Remove the five upper exhaust manifold heat shield fasteners.
- (3) Remove upper heat shield.



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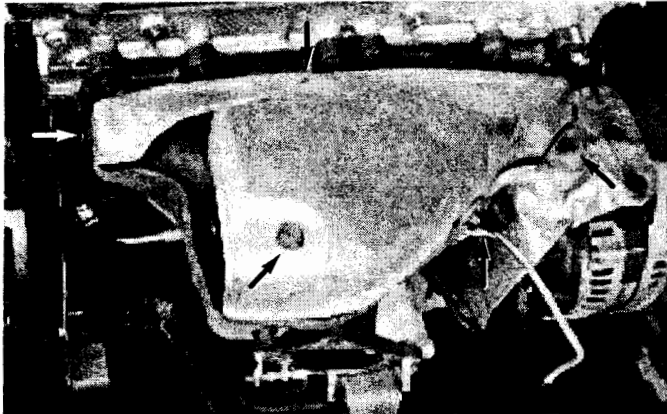


Fig. 16

- (4) Remove spring clip retaining Wastegate actuator rod to lever.
- (5) Remove pressure line from Wastegate canister.
- (6) Remove two fasteners retaining Wastegate actuator to turbo compressor housing.
- (7) Remove Wastegate actuator from vehicle.

**INSTALLATION**



Fig. 17

- (1) Scribe actuator rod flush with canister (Fig. 17).
- (2) Align and attach Wastegate actuator rod to lever.
- (3) Install spring clip retaining Wastegate actuator rod to lever.
- (4) Align and install two fasteners retaining Wastegate actuator to turbo compressor housing.
- (5) Torque fasteners to 15 ft/lbs.
- (6) Connect pressure hose to Wastegate canister.
- (7) Check actuator adjustment by measuring from the scribe line on the actuator to the canister. This measurement should be 4.0mm (.160 in.) (Fig. 18).

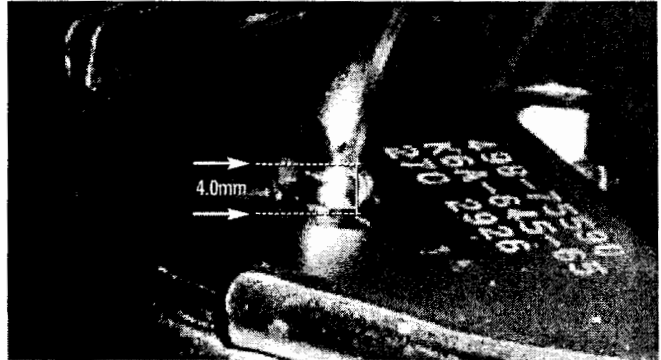


Fig. 18

- (8) If adjustment is required, remove spring clip retaining Wastegate actuator rod to lever.
- (9) Loosen lock nut on adjuster and thread in or out to obtain correct adjustment (Fig. 19).

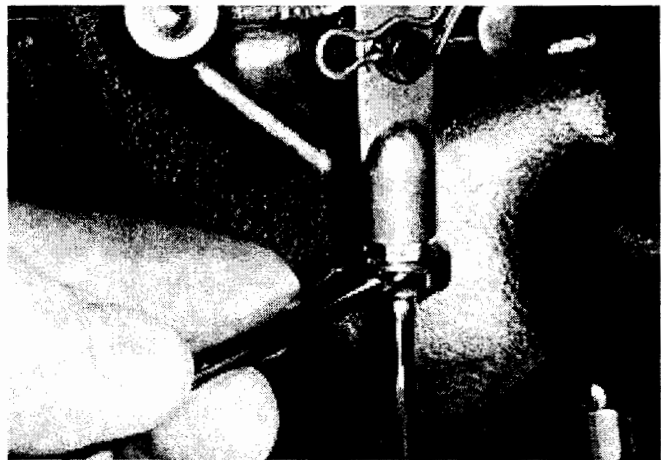


Fig. 19

- (10) When correct adjustment is obtained, retighten lock nut and install spring clip retainer Wastegate actuator to lever.
- (11) Connect pressure hose to Wastegate actuator.

**FIVE UPPER HEAT SHIELD FASTENERS**

**INSTALLATION**

- (1) Install upper exhaust manifold heat shield.
- (2) Loose attach all five attaching fasteners.
- (3) Tighten five upper heat shield fasteners.