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NOTE: Read all directions and cautions before using cleaning kit.

#### SAFETY FIRST

- Follow standard automotive safety practices at all times.
- Have a class "B" fire extinguisher on hand at all times.
- Wear approved eye protection at all times. Should cleaner contact eyes, flush with water for 15 minutes and consult a physician immediately.
- When using the kit indoors always provide adequate ventilation and route exhaust gases outdoors.
- This kit is designed for use only on gasoline fuel injected engines.

**WARNING:** The Professional Fuel Injector Cleaner contains AROMATIC PETRO-LEUM DISTILLATES. Keep away from heat, sparks and open flames. Avoid prolonged contact with skin and breathing vapor. Do not take internally. If swallowed, do not induce vomiting. Call a physician immediately. Any time fuel lines are being opened have a class "B" fire extinguisher close to work area.

The procedure used to clean fuel injection systems on all engines is basically the same. Typically, the only difference from one system to another is the method used in connecting the cleaning kit to the vehicle's fuel system and the amount of pressure used.

NOTE: There may be more than one method for connecting to the fuel system, we recommend you choose the most convenient method for each specific vehicle.

#### WHEN USING THE GAUGE REGULATOR ASSEMBLY



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- 1) Ensure the engine to be cleaned is at normal operating temperature. The upper radiator hose should be hot and the thermostat open. On vehicles with electric fans, run engine until fan operates. Then, turn ignition and all accessories off.
- Check all engine fluid levels. Place fender covers on the vehicle to prevent cleaner from contacting painted surfaces in case of leak.

NOTE: Cleaner will soften paint if spill remains on surface for more than 10 minutes. If cleaner is allowed to contact painted surfaces, flush immediately with soap and water. If cleaner is allowed to soften paint, do not attempt to clean as paint will reharden.

CAUTION: Before disconnecting fuel lines or connecting cleaning kit, the fuel pump(s) must be disabled and the fuel lines depressurized.

3) To disable fuel pump(s), refer to specific make and type system information. Some vehicles use a low pressure pump in the tank as well as a high pressure pump mounted in line. Both pumps must be disabled.

NOTE: Removing fuel pump relay may not disable pump, as oil pressure switch may over-ride and activate pump. Also on some models, the ignition may be rendered inoperative if relay or fuel pump fuse is removed.

- After disabling fuel pump(s), start and run engine until it stalls and will not restart.
- 5) Depressurize fuel line. This can be done two ways:
  a) For systems without a Schrader valve (test port), cover fuel fitting with a shop towel then loosen slowly.

**b)** For systems with a Schrader valve (test port), cover the valve with a shop towel while depressing valve core.

### GENERAL APPLICATION DIRECTIONS

6) Refer to appropriate page to determine how cleaning kit should be connected to specific make/system. There may be more than one method for connecting to the fuel system. We recommend you choose the most convenient method for each specific vehicle. Make sure to use appropriate adapter(s) when connecting to the fuel system. Also, ensure secure connection of hoses and adapters.

NOTE: Make certain gauge regulator assembly is fully closed by turning the control knob counterclockwise before connecting to the fuel system or installing cleaner. This will prevent pressure from escaping through the gauge regulator. Screw the cleaner can onto the gauge regulator with care, as these cans are pressurized.

CAUTION: Do not cross thread or overtighten can during installation. Ensure the can of cleaner is at room temperature 70-80° F. Do not exceed 120° F.

7) When vehicle fuel pressure is known or specified by manufacturer, set cleaning pressure 2-3 psi less than specification. We recommend disconnecting and plugging manifold vacuum source at the fuel pressure regulator whenever possible, before performing the injector cleaning sequence.

CAUTION: Always check for leakage before starting engine and during the cleaning procedure. If a leak is detected, repair before continuing the cleaning process.

#### HOW TO ESTABLISH CLEANING PRESSURE WHEN SYSTEM PRESSURE IS UNKNOWN

- 1) With engine off, key off, slowly turn the control knob on the pressure regulator assembly clockwise while observing the pressure gauge. Pressure will rise momentarily and fall off when vehicle pressure regulator setting is exceeded. Immediately turn the control knob counterclockwise to maintain a pressure gauge reading of 2-3 psi less than vehicle regulated pressure. When vehicle pressure regulator setting is exceeded, the regulator will make a buzzing sound. We recommend that you watch the gauge and also listen for the pressure regulator buzzing sound when it is open or returning fuel to the tank.
- 2) Start engine and idle. Engine RPM may be increased during cleaning process to a maximum of 2000 RPM is engine runs poorly at idle. The aerosol cans of cleaner must be held in the upright position during the entire cleaning process.
- 3) If engine will not start, refer to cleaning tips for that application.
- 4) As cleaner is being used, pressure will begin to drop. Turn control knob clockwise to maintain the correct system pressure. Keep engine running as long as possible.
- 5) After engine stalls, let cleaner "sit" in the injection system for 10-15 minutes. This will help loosen any remaining deposits. Turn control

### GENERAL APPLICATION DIRECTIONS

knob fully counterclockwise before removing the can from the regulator assembly. Depressurize gauge regulator into an approved container before disconnecting from the system. Reconnect all fuel lines, vacuum lines and electrical connections.

6) Reactivate fuel pump by turning the key to the ON position, without starting the engine, to bring fuel pressure back to specification.

#### NOTE: Check for leaks.

- 7) Before starting the engine pour an approved cleaning additive into the fuel tank (with a minimum of 12 gallons of gasoline).
- 8) Start the engine, and let it idle for several minutes to remove air from lines.

NOTE: Make a final check for leaks.

#### WHEN USING THE CANISTER ASSEMBLY



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NOTE: Steps 1-6 are the same as with the gauge regulator assembly. See prior pages.

 Make certain regulator is fully closed by turning the control knob counterclockwise and the ball valve is closed before connecting to the fuel system.

- 2) Remove fill cap, add 1 can of Professional Fuel Injection System Cleaner to the canister and replace fill cap.
- 3) Hang canister under vehicle hood where hoses and adapters will not contact moving parts.

NOTE: Make certain the hood is supported and will not collapse during the cleaning process.

- 4) Refer to the appropriate page to determine how cleaning canister should be connected to specific make/system. There may be more than one method for connecting to the fuel system. We recommend you choose the most convenient method for each specific vehicle. Make sure to use appropriate adapter(s) when connecting to the fuel system. Also, ensure secure connection of hose and adapters.
- 5) Connect shop air to air inlet fitting.

#### CAUTION: Do not exceed 100 psi.

6) When vehicle fuel pressure is known or specified by manufacturer, set cleaning pressure (control pressure) 2-3 psi less than specification. We recommend disconnecting and plugging the manifold vacuum source at the fuel pressure regulator whenever possible, before starting the injector cleaning sequence.

CAUTION: Always check for leakage before starting engine and during the cleaning procedure. If a leak is detected, repair before continuing the cleaning process.

#### HOW TO ESTABLISH CLEANING PRESSURE WHEN SYSTEM PRESSURE IS UNKNOWN

- 1) With engine off, key off, open the ball valve and slowly turn the control knob on the regulator clockwise while observing the control pressure gauge. Pressure will rise momentarily and fall off when vehicle pressure regulator setting is exceeded. Immediately turn the control knob counterclockwise to maintain a pressure gauge reading of 2-3 psi less than vehicle regulated pressure. When vehicle pressure regulator setting is exceeded, the regulator will make a buzzing sound. We recommend that you watch the gauge and also listen for the pressure regulator buzzing sound when it is open or returning fuel to the tank.
- 2) Start engine and idle. Engine RPM may be increased during cleaning process to a maximum of 2000 RPM is engine runs poorly at idle. The canister must remain upright during the entire cleaning process.
- 3) If engine will not start, refer to cleaning tips for that application.
- 4) After engine stalls, let cleaner "sit" in the injection system for 10-15 minutes. This will help loosen any remaining deposits. Turn control knob fully counterclockwise, close the ball valve and disconnect shop air supply. Open the ball valve then turn the control knob clockwise to

depressurize the canister before disconnecting from the system. Reconnect all fuel lines, vacuum lines and electrical connections.

5) Reactivate fuel pump by turning the key to the ON position, without starting the engine, to bring fuel pressure back to specification.

NOTE: Check for leaks.

6) Before starting the engine pour and approved cleaning additive into the fuel tank (with a minimum of 12 gallons of gasoline).

#### HOW TO CHECK FUEL SYSTEM USING THE CANISTER ASSEMBLY

- 1) Connect to vehicle fuel system as directed.
- 2) Close the ball valve and start engine.
- 3) Read fuel system pressure on the (smaller) system pressure gauge.









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Car Will Not Start	Car Starts, But Will Not Idle	Cleaner Can Pressure Runs Out Before All Solution Gone	Can of Solution: Cleaner Empties In Less Than 3 Min.	suc
××× ×	× × × ×	IX	<ul> <li>Warm Engine To Full Operating Temp</li> <li>Warm Can Of CleanerTo Room Temp</li> <li>Warm Can Of CleanerTo Room Temperature Senso</li> <li>Disconnect Engine Coolant Temperature Senso</li> <li>Reconnect Sensor When Done Cleaning Injectors. Clear Trouble Code</li> </ul>	sor mp
×	-	-	Bleed Air From Fuel Lines (CIS-Lambda & CIS-E Systems)	ns).
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1 - DO NO 2 - CAUTIC	NT EXCEED 12 DN: If pressure	0° F. Always hold ca is too high, the inje	can upright. Ijector may not open.	

#### FUEL SYSTEM PRESSURES

Make/Model & System Type	Running Press	ure Cleaning Pressure
Acura		
MPFI	35-64 psi	33-61 psi
Alfa Romeo		
MPFI	36-46 psi	33-43 psi
Audi		
Warning: The 2006 2.0L (BGP & BGY), &	the 3.2L BKH eng	ines deliver extremely high pressure
to the injectors. This cleaning system cann	ot be used on the	se engines.
MPFI	36-61 psi	33-59 psi
CIS/CIS Lambda	68-78 psi	65-75 psi
BMW		
MPFI	35-73 psi	32-70 psi
CIS/CIS Lambda	40-60 psi	37-57 psi
CIS-E	65-85 psi	62-82 psi
Buick		
ТВІ	9-13 psi	10 psi
MPFI	30-62 psi	27-59 psi
Cadillac		
ТВІ	9-13 psi	10 psi
MPFI	30-66 psi	27-53 psi
Chevrolet		
TBI (Except Metro)	9-13 psi	10 psi
TBI (Metro)	23-31 psi	20-28 psi
MPFI	25-62 psi	23-59 psi
Chevrolet Trucks		
MPFI	25-66 psi	22-63 psi
CPFI	55-66 psi	52-63 psi
TBI (Low)	9-13 psi	10 psi
TBI (High)	26-32 psi	23-29 psi
Chrysler		
TBI (Low)	13-15 psi	13 psi
TBI (High)	38-40 psi	
MPFI	37-63 psi	34-60 psi
Chrysler Imports		
MPFI	35-53 psi	32-50 psi
Daihatsu		
MPFI	27-46 psi	24-43 psi
Dodge		
TBI (Low)	13-15 psi	13 psi
TBI (High)	38-40 psi	
MPFI	37-63 psi	34-60 psi

Dodge Imports           MPFI         35-53 psi         32-50 psi
MPFI
Dodge Trucks
TBI 13-15 psi
MPFI
Eagle
TBI 13-15 psi
MPFI
Fiat
MPFI
Ford
TBI (Low) 13 psi
TBI (High) 22-55 psi
MPFI
Ford Trucks
MPFI
Geo
TBI
MPFI
GMC
CPFI 55-66 psi
TBI
MPFI
Honda
TBI
MPFI
Hummer
MPFI
Hyundai
MPFI
Infiniti
MPFI
İsuzu
TBI
MPFI
Isuzu Trucks
CPFI
Jaquar
Warning: The S-Type, X-Type, & 2003-06 vehicles deliver extremely high pressure to the
injectors. This cleaning cannot be used on these engines.
MPFI

Make/Model & System Type	Running Press	sure Clea	aning Pressure
Jeep			
ТВІ	14-15 psi		13 psi
MPFI (Through 1995)	38-42 psi		35-39 psi
MPFI (1996 & Up)	44-58 psi		41-55 psi
Kia			
MPFI	34-94 psi		31-91 psi
Land Rover			
MPFI	36-65 psi		33-62 psi
Lexus			
Warning: The 2006 GS 300 (3.0L), IS 250 (2	2.5L), & IS 350	(3.5L) engines deliver e	extremely high
pressure to the injectors. This cleaning syste	em cannot be us	sed on these engines.	
MPFI	28-85 psi		25-82 psi
Lincoln			
TBI (Low)	13-17 psi		13 psi
TBI (High)	25-55 psi		22-52 psi
MPFI (Except Continental)	30-65 psi		27-62 psi
MPFI (Continental Through 1997)	30-45 psi		27-42 psi
MPFI (Continental 1998)	55-85 psi		52-82 psi
MPFI (Continental 1999 & Up)	45-60 psi		42-57 psi
Mazda			
MPFI	28-73 psi		25-70 psi
Mercedes-Benz			
MPFI	53-60 psi		50-57 psi
CIS/CIS Lambda	40-60 psi		37-57 psi
Mercury			
TBI (Low)	13-17 psi		13 psi
TBI (High)	25-55 psi		22-52 psi
MPFI	28-85 psi		25-82 psi
Merkur			
MPFI	35-45 psi		32-42 psi
Mini			
MPFI	47-53 psi		44-50 psi
Mitsubishi			
ТВІ	35-38 psi		32-35 psi
MPFI	27-58 psi		24-55 psi
Nissan/Datsun			
тві	14-43 psi		13-40 psi
MPFI	30-51 psi		27-48 psi
Oldsmobile			
тві	9-13 psi		10 psi
MPFI	31-59 psi		28-57 psi

Make/Model & System Type	Running Press	ure Cleaning	Pressure
Oldsmobile Trucks			
CPFI	54-66 psi		51-63 psi
Peugeot			
MPFI	33-45 psi		30-42 psi
CIS/CIS Lambda	65-75 psi		62-72 psi
CIS-E	65-85 psi		62-82 psi
Plymouth			
TBI (Low)	13-15 psi		13 psi
TBI (High)	38-40 psi		36 psi
MPFI	37-63 psi		34-60 psi
Plymouth Imports			
MPFI	35-53 psi		32-50 psi
Pontiac			
ТВІ	9-13 psi		10 psi
MPFI	30-62 psi		27-59 psi
Porsche			
MPFI	29-61 psi		26-58 psi
CIS/CIS Lambda	40-57 psi		37-55 psi
Range Rover			
MPFI	36-42 psi		33-39 psi
Renault			
ТВІ	14-17 psi		13-15 psi
MPFI	43-49 psi		40-46 psi
Saab			
MPFI	28-62 psi		25-59 psi
CIS/CIS Lambda	65-75 psi		62-72 psi
CIS-E	65-85 psi		62-82 psi
Saturn			
ТВІ	36-41 psi		35 psi
MPFI	30-60 psi		27-57 psi
Scion	·		
MPFI	44-60 psi		41-57 psi
Sterling			
MPFI	35-47 psi		32-44 psi
Subaru			
ТВІ	20-38 psi		17-35 psi
MPFI	23-53 psi		20-50 psi
Suzuki			
TBI (Low)	12-20 psi		10-17 psi
ТВІ	24-39 psi		21-36 psi
MPFI	23-57 psi		20-54 psi

Make/Model & System Type	Running Pressure	Cleaning Pressure
Toyota		
MPFI	24-50 psi	21-47 psi
Volkswagen		
Warning: The 2006 2.0L BPY & 3.6L BLV	engines deliver extrem	ely high pressure to the
injectors. This cleaning system cannot be u	sed on these engines.	
MPFI	36-58 psi	33-55 psi
CIS/CIS Lambda	68-78 psi	65-75 psi
CIS-E	75-96 psi	72-93 psi
Volvo		
MPFI	34-58 psi	31-55 psi
CIS/CIS Lambda	50-56 psi	47-53 psi
CIS-E	65-85 psi	62-82 psi

#### WITH FUEL INJECTION CLEANING KIT USING:

Adapters #3, #31, #43, #44, #45, #49, #56, #57, #58, #60, #61, #65, #66, #80, #81, & #82

Optional Adapters #74, #75, #76, #77, #78

**WARNING:** Fuel systems are under pressure. Depressurize fuel system before disconnecting fuel lines for system access. Wear approved eye protection at all times.

CAUTION: AVOID SPILLING GASOLINE OR CLEANING SOLVENT ON PAINTED SURFACES.

#### BEFORE TESTING SYSTEM PRESSURE, PERFORM THE FOLLOWING

- 1) Be sure the gauge regulator control knob is turned fully counterclockwise to the off position.
- 2) Firmly attach the main feed line to the gauge regulator assembly. All adapters use the main feed line.
- **3)** Attach appropriate adapter to vehicle per examples in Adapter Applications section and attach main feed line to adapter.
- 4) Turn ignition key to the on position to energize fuel pump.

#### NOTE: Check for fuel leaks.

Start engine, hold the end of the regulator where the can screws on over an appropriate container and turn the pressure adjusting knob clockwise until fuel flows into the container for two seconds. This bleeds air out of the line and gauge to improve the accuracy of your readings.

CAUTION: Fuel under pressure and flammable. Have a Class B fire extinguisher nearby.

5) Be sure control knob is again turned fully counterclockwise (OFF position) and begin pressure testing.

NOTE: Some specifications are given with vacuum applied to regulator, and some specifications are given with no vacuum applied to regulator.

- 1) SYSTEM PRESSURE: With engine running, note pressure reading and compare with factory specifications.
- 2) TESTING PRESSURE REGULATOR (Multi-Port Injection): With engine running and vacuum applied to regulator, note pressure reading. Then disconnect vacuum line from regulator and note reading. Pressure should increase 8-12 psi.
- 3) **DEADHEAD PRESSURE:** With engine running, momentarily pinch off return line just long enough to note peak pressure. Peak pressure should be at least two times normal system pressure.

CAUTION: Do not pinch off fuel line for more than 3 seconds, and do not pinch off plastic or flexible metal fuel lines. Always use a suitable pinch off tool.

4) FUEL PUMP VOLUME: With engine running, hold the end of the regulator where the can screws on over an appropriate container, and turn the knob clockwise until fuel flows from regulator. Allow fuel to flow for 30 seconds, then turn knob fully counterclockwise and note the amount of fuel in the container. There should be at least one pint.

CAUTION: DO NOT pinch off plastic or flexible metal fuel lines.

**5) STATIC PRESSURE:** Start engine and allow pressure to stabilize. Turn off engine and watch pressure gauge. Fuel pressure may drop initially 1-4 psi, then hold. Pressure should hold for a minimum of 60 seconds. A slight rise in pressure is normal. If pressure falls off within 60 seconds, there is a leak in the system. To isolate the leak, locate the flexible fuel lines between the engine and chassis. Repressurize the system by turning the key to the ON position for 3 seconds then off. While pressure is bleeding down, pinch off the line between the fuel pump and fuel rail (high pressure line). If the pressure drop stops, the leak is at the check valve in the fuel pump or the coupler (pulsator). If the pressure still drops with the high pressure line pinched off, pinch off the fuel return line and note pressure. If the pressure drop stops, the leak is in the pressure regulator. If the leak does not stop, the leak is caused by and injector or injectors.

CAUTION: Some TBI systems have a built in bleed orifice, and a drop in static pressure is considered normal.

#### MODELS USING ADAPTER #3



G00067727

#### HOSE USED

Main feed line.

#### SYSTEM PRESSURE

Measure at test port on fuel rail, on fuel supply line or on throttle body.

#### ADAPTERS USED

Adapter #3.

#### **CLEANING PRESSURE**

2-3 psi less than system pressure with vacuum hose unhooked from pressure regulator.

#### WHERE TO CONNECT TO SYSTEM

Remove cap from test port on fuel rail or fuel supply line. Install adapter #3 to main feed line, and connect adapter to test port.

#### HOW TO DISABLE FUEL PUMP

Disconnect wiring harness at fuel pump.

#### SPECIAL INSTRUCTIONS

#### MODELS USING ADAPTERS #31 & #65



G00067728

#### **HOSE USED**

Main feed line.

#### SYSTEM PRESSURE

Measure at banjo connection at fuel filter outlet or fuel rail.

#### ADAPTERS USED

Adapters #31 and #65.

#### **CLEANING PRESSURE**

2-3 psi less than system pressure with vacuum hose unhooked from pressure regulator.

#### WHERE TO CONNECT TO SYSTEM

Remove banjo bolt at fuel filter outlet or fuel rail. Install adapter #31 and #65 to fuel filter or fuel rail. Connect main feed line to adapter #65.

#### HOW TO DISABLE FUEL PUMP

Disconnect wiring harness at fuel pump.

#### SPECIAL INSTRUCTIONS

### ADAPTER APPLICATIONS

#### MOST MODELS USING 5/16" OR 3/8" FLEXIBLE FUEL HOSE



G00067729

#### HOSE USED

Main feed line.

#### SYSTEM PRESSURE

Measure at test port on adapter.

#### ADAPTERS USED

Adapter #43.

#### **CLEANING PRESSURE**

2-3 psi less than system pressure with vacuum hose unhooked from pressure regulator.

#### WHERE TO CONNECT TO SYSTEM

Using hose #6, install adapter #43 in series with the fuel inlet line. Connect main feed line to test port on adapter #43.

#### HOW TO DISABLE FUEL PUMP

Disconnect wiring harness at fuel pump.

#### SPECIAL INSTRUCTIONS

#### ALL GM TBI



G00067730

#### **HOSE USED**

Main feed line.

#### SYSTEM PRESSURE

Measure at test port on adapter.

#### ADAPTERS USED

Adapter #44 or #45.

#### **CLEANING PRESSURE**

2-3 psi less than system pressure with vacuum hose unhooked from pressure regulator.

#### WHERE TO CONNECT TO SYSTEM

Remove factory gas line from flexible inlet hose. Install adapter #44 or #45 between flexible inlet hose and steel fuel line from gas tank. Attach main feed line to adapter.

#### HOW TO DISABLE FUEL PUMP

Disconnect wiring harness at fuel pump.

#### SPECIAL INSTRUCTIONS

If pressure on gauge bleeds off when engine is off, it will be necessary to block return line. Use fuel return line clamp (#13) or return line block adapter #71.

#### MOST MODELS USING BANJO BOLT FUEL LINES



G00067731

#### HOSE USED

Main feed line.

#### SYSTEM PRESSURE

Measure at test port on adapter.

#### ADAPTERS USED

Determine appropriate adapter – #49 (8mm), #56 (12mm) or #57 (10mm) – by matching to original equipment banjo bolt thread/ diameter.

#### **CLEANING PRESSURE**

2-3 psi less than system pressure with vacuum hose unhooked from pressure regulator.

#### WHERE TO CONNECT TO SYSTEM

Remove factory bolt from banjo fitting on fuel rail or cold start valve. Install the correct adapter – #49 (8mm), #56 (12mm) or #57 (10mm) – by comparing diameter and thread pitch to factory bolt. Connect main feed line to adapter.

#### HOW TO DISABLE FUEL PUMP

Disconnect wiring harness at fuel pump.

#### SPECIAL INSTRUCTIONS

#### 1982-87 GM TBI (WITH BANJO FITTING)



G00067732

#### **HOSE USED**

Main feed line.

#### SYSTEM PRESSURE

11 psi. (Specifications are approximate. For specific pressures, see appropriate service manual.)

#### ADAPTERS USED

Adapter **#58**.

#### **CLEANING PRESSURE**

9 psi (cleaning pressure must be 2-3 psi less than system pressure).

#### WHERE TO CONNECT TO SYSTEM

Remove banjo bolt from fuel line on TBI unit. Replace it with adapter **#58**. Connect main feed line to adapter.

#### HOW TO DISABLE FUEL PUMP

Disconnect wiring harness at fuel pump.

#### SPECIAL INSTRUCTIONS

Engine must be at normal operating temperature.

#### ASIAN MODELS WITH 12 MM x 1.25 (FINE) THREAD PITCH BANJO FITTING



#### HOSE USED

Main feed line.

#### SYSTEM PRESSURE

Measure at test port on adapter.

#### ADAPTERS USED

Adapter #58 using copper hex washer when needed.

NOTE: Copper hex washer may not be needed for all applications.

#### **CLEANING PRESSURE**

2-3 psi less than system pressure with vacuum hose unhooked from pressure regulator.

#### WHERE TO CONNECT TO SYSTEM

Install **#58** in place of original banjo bolt at fuel filter outlet. Connect main feed line to adapter.

#### HOW TO DISABLE FUEL PUMP

Disconnect wiring harness at fuel pump.

#### SPECIAL INSTRUCTIONS

If pressure on gauge bleeds off when engine is off, it will be necessary to block return line. Use fuel return line clamp (#13) if needed.

NOTE: Copper hex washer is used when #58 is too long.

#### MODELS USING HOSE ADAPTERS #60 or #61



G00067734

#### HOSE USED

Main feed line.

#### SYSTEM PRESSURE

Measure at test port on fuel rail or throttle body.

#### ADAPTERS USED

Hose adapter #60 or #61.

#### **CLEANING PRESSURE**

2-3 psi less than system pressure with vacuum hose unhooked from pressure regulator.

#### WHERE TO CONNECT TO SYSTEM

Remove cap from test port on fuel rail or throttle body. Install hose adapter #60 or #61 to test port. Connect main feed line to hose adapter.

#### HOW TO DISABLE FUEL PUMP

Disconnect wiring harness at fuel pump.

#### SPECIAL INSTRUCTIONS

#### MODELS USING HOSE ADAPTER #66



G00067735

#### **HOSE USED**

Main feed line.

#### SYSTEM PRESSURE

Measure at test port on fuel rail or throttle body.

#### ADAPTERS USED

Hose adapter #66.

#### **CLEANING PRESSURE**

2-3 psi less than system pressure with vacuum hose unhooked from pressure regulator.

#### WHERE TO CONNECT TO SYSTEM

Remove cap from test port on fuel rail or throttle body. Install hose adapter #66 to test port. Connect main feed line to hose adapter.

#### HOW TO DISABLE FUEL PUMP

Disconnect wiring harness at fuel pump.

#### SPECIAL INSTRUCTIONS

#### MODELS USING HAIR PIN ADAPTER #80



#### HOSE USED

Main feed line.

#### SYSTEM PRESSURE

Measure at test port on fuel rail or throttle body.

#### ADAPTERS USED

Adapter #80 (and disconnect tool #67).

#### **CLEANING PRESSURE**

2-3 psi less than system pressure with vacuum hose unhooked from pressure regulator.

#### WHERE TO CONNECT TO SYSTEM

Disconnect fuel line (using disconnect tool). Install hose adapter #80 onto fuel rail hair pin connector. Connect main feed line to adapter.

#### HOW TO DISABLE FUEL PUMP

Disconnect wiring harness at fuel pump, or disconnect inertia switch.

#### SPECIAL INSTRUCTIONS

#### MODELS USING SPRING LOCK ADAPTER #81 or #82



#### HOSE USED

Main feed line.

#### SYSTEM PRESSURE

Measure at test port on fuel rail or throttle body.

#### ADAPTERS USED

Adapter #81 (7/16") or #82 (9/16").

#### **CLEANING PRESSURE**

2-3 psi less than system pressure with vacuum hose unhooked from pressure regulator.

#### WHERE TO CONNECT TO SYSTEM

Disconnect fuel line (using spring lock disconnect tool). Install hose adapter #81 or #82 onto fuel rail spring lock connector. Connect main feed line to adapter.

#### HOW TO DISABLE FUEL PUMP

Disconnect wiring harness at fuel pump, or disconnect inertia switch.

#### SPECIAL INSTRUCTIONS

#### **TBI & MPFI**

#### TBI & MPFI

#### Corroction

Condition & Possible Cause	Correction
Engine Won't Start (Cranks Normally)	
Cold Start Valve Inoperative	Test Valve & Circuit
Poor Connection, Vacuum Or Wiring	Check Vacuum & Electrical Connections
Contaminated Fuel	Test Fuel For Water Or Alcohol
Defective Fuel Pump Relay Or Circuit	Test Relay & Wiring
Battery Too Low	Charge & Test Battery
Low Fuel Pressure	Test Pressure Regulator & Fuel Pump,
	Check For Restricted Lines & Filters
No Distributor Reference Pulses	Repair Ignition System As Necessary
Open Coolant Temp. Sensor Circuit	Test Sensor & Wiring
Shorted WOT Switch In TPS	Disconnect WOT Switch, Engine Should Start
Defective ECM	Replace ECM
Fuel Tank Residual Pressure Valve Leaks	Test For Fuel Pressure Drop After Shut Down
Hard Starting	
Disconnected Hot Air Tube To Air Cleaner	Reconnect Tube & Test Control Valve
Defective Idle Air Control (IAC) Valve	Test Valve Operation & Circuit
EGR Valve Open	Test EGR Valve & Control Circuit
Stalls When A/C Is Turned On	Check For A/C "ON" Signal At ECM. Check For
	Overcharged A/C System
Restricted Fuel Lines	Check For Fuel Line Restrictions
Poor MAP Sensor Signal	Test MAP Sensor, Vacuum Hose & Wiring
Engine Stalls While Parking	Test For Excessive Power Steering Pressure
No Power To Injectors	Check Injector Fuse(s)
Open Coolant Temperature Sensor Signal	Test Sensor & Wiring
Open WOT Switch In TPS	Disconnect WOT Switch, Engine Should Start
Incorrect Fuel Pressure	Test Pressure Regulator, Fuel Pump & Wiring
Rough Idle	
Poor MAP Sensor Signal	Test MAP Sensor, Vacuum Hose & Wiring
Intermittent Injector Operation	Loose Injector Harness Connectors
Faulty Injector Operation	Check For Clogged Injectors
Incorrect Fuel Pressure	Check For Plugged Fuel Filter
Erratic Speed Sensor Inputs	Sensor Harness Too Close To High Tension Wires
Poor Coolant Temperature Sensor Signal	Test For Shorted Sensor Or Circuit
Defective Idle Air Control (IAC) Valve	Test Valve Operation & Circuit
Shorted, Open Or Misadjusted TPS	Test & Adjust Or Replace TPS
EGR Valve Open	Test EGR Valve & Control Circuit
Poor Oxygen Sensor Signal	Test For Shorted Or Open Sensor Or Circuit
Incorrect Mixture From PCV System	Test PCV For Flow,
	Check Sealing Of Oil Filter Cap

#### TROUBLE SHOOTING

#### TBI & MPFI (Cont.)

#### Condition & Possible Cause Correction Poor High Speed Operation Low Fuel Pump Volume ...... Faulty Pump Or Restricted Fuel Lines Of Filters Poor MAP Sensor Signal ...... Test MAP Sensor, Vacuum Hose & Wiring Poor Oxvgen Sensor Signal ...... Test For Shorted Or Open Sensor Or Circuit Open Coolant Temperature Sensor Signal ...... Test Sensor & Wiring Faulty Ignition Operation ...... Check Wires For Cracks Or Poor Connections. Test Secondary Voltage With Oscilloscope Contaminated Fuel Test Fuel For Water Or Alcohol Intermittent FCM Ground \_\_\_\_\_\_ Test FCM Ground Connection For Resistance Restricted Air Cleaner Beplace Air Cleaner Restricted Exhaust System ...... Test For Exhaust Manifold Back Pressure Poor MAF Sensor Signal ...... Check Leakage Between Sensor & Manifold Poor VSS Signal ...... If Tester For ALCL Hook-up Is Available, Check That VSS Reading Matches Speedometer Ping or Knock on Acceleration Poor Knock Sensor Signal ...... Test For Shorted Or Open Sensor Or Circuit Poor Baro Sensor Signal ...... Test For Shorted Or Open Sensor Or Circuit Improper Ignition Timing ...... Check For Engine Overheating Problems: Low Coolant, Loose Belts Or Electric Cooling Fan Inoperative **Engine Stalls After Start** Faulty Ignition Signal ...... Check For Open In Ignition Signal Wire Between Fuse Block & ECU Poor Coolant Temperature Sensor Signal ...... Test Sensor & Wiring No Fast Idle Bent Fast Idle Micro Switch ...... Check Micro Switch & Adjust As Necessary Hesistation. Stumble Poor MAP Sensor Signal ..... Check MAP Sensor Vacuum Hose Poor TPS Signal ..... Check TPS Adjustment

Faulty Connection At ECU Pin 6 ..... Check Connection

# TROUBLE SHOOTING

#### **CONTINUOUS INJECTION SYSTEM (CIS)**

#### CONTINUOUS INJECTION SYSTEM (CIS)

#### Correction

Condition & Possible Cause	Correction
Hard Start – Cold	
Sensor Plate/Plunger	Check For Free Movement
Auxiliary Air Valve	Check Valve
Fuel Pump	Check Pump Fuse, Relay & Pump
Cold Start System	Check Cold Start Valve
Thermo-Time Switch	Check Thermo-Time Switch
Defective Fuel Injectors	Check Fuel Flow & Pressure
Idle Setting	Check CO Level
Air Intake System	Check For Leaks
Stall, Stumble, Hesitation	
Fuel Pump	Check Fuse, Relay & Pump
Control Pressure	Test Pressure
Sensor Plate/Plunger	Check For Free Movement
Lambda Sensor	Check Lambda Sensor
Hard Start – Hot	
Air Intake System	Check For Leaks
Sensor Plate/Plunger	Check For Free Movement
Air Flow Sensor	Check Sensor
Fuel Pump	Check Fuse, Relay & Pump
Fuel Leakage	Check For Leakage
Defective Fuel Injectors	Check Fuel Flow & Pressure
Idle Setting	Check CO Level
Reduced Top Speed/Power	
Air Intake System	Check For Leaks
Sensor Plate/Plunger	Check For Free Movement
Control Pressure	Check Pressure
Defective Fuel Injectors	Check Fuel Flow & Pressure
Lambda Sensor	Check Lambda Sensor
**AFC (Air Flow Control):** Any fuel injection system which uses a meter or sensor to measure intake air for the primary control of amount of fuel to be injected.

### **BOSCH INJECTION SYSTEMS**

**D-JETRONIC:** A fuel injection system that uses intake manifold pressure to control the amount of fuel injected.

**K-JETRONIC:** A continuous fuel injection system (CIS) that relies on pressure to open injectors and a fuel distributor which varies the quantity of fuel.

**KE-JETRONIC:** An updated K-Jetronic system that includes an oxygen sensor and a pressure control valve for feedback system to control the air/fuel ratio.

**L-JETRONIC:** A multi-port fuel injection (MPFI) system that uses an air flow meter to adjust fuel injection to meet demand.

**LE/LU-JETRONIC:** An updated L-Jetronic system either equipped with an electronic feedback system (LE) or limited to unleaded fuel use only (LU).

**MONO-TRONIC:** Bosch throttle body fuel injection unit.

**MOTRONIC:** A combination of computerized ignition and electronic fuel injection into one system.

**CIS (Continuous Injection System):** Refers to any fuel injection system which continuously injects fuel through some type of injector responsive to pressure only. This is basically a mechanical system in which later designs are refined with electronic controls.

**CIS-E:** Electronically controlled version of CIS. Typically Bosch KE-Jetronic.

**CFI (Central Fuel Injection):** Ford throttle body injection (TBI) system using a singe;-port unit, mounted in place of the carburetor and using one or two injectors to supply fuel into the intake manifold. **CPFI (Central Port Fuel Injection):** This is a hybrid mechanical and electronically-pulsed fuel injection system. Used on Chevrolet and GMC trucks, the system pulses an injector which meters fuel through a flexible line to a mechanical poppet valve located at each cylinder. **DFI (Digital Fuel Injection):** One of the throttle body injection (TBI) systems used on Cadillacs.

**ÉCM/ECU (Electronic Control Module/Unit):** The on-board control unit for the fuel injection system, which receives all the input signals, processes them, and sends out control signals to the injectors and other control devices.

**EFI (Electronic Fuel Injection):** Refers to any system which uses some form of an electronic injector, opened only by a signal from the ECM/ECU. Also refers to the GM multi-port fuel injection system used on 1975-80 Cadillacs.

**FI (Fuel Injection):** Used to mean that an engine is equipped with some type of fuel injection system.

LAMBDA: Term used to describe the "ideal" air/fuel ratio, usually 14.7:1.

**LAMBDA SENSOR:** Usually called the oxygen (O2) sensor, used to measure oxygen content of the exhaust gas to indicate a lean or rich mixture compared to the perfect balance.

**MAF (Mass Air Flow):** The volume, temperature, and density of the incoming air. A MAF sensor provides information to the controller for regulation of fuel supply.

**MAP (Manifold Absolute Pressure):** The negative (less than atmospheric) pressure in the intake manifold of a running engine. A MAP sensor can detect this pressure, send a signal to the controller to indicate engine load and fuel requirements. May be a combination unit which also measures atmospheric pressure, and then is called a B/MAP sensor.

**MFI/MPFI (Multi-Port Fuel Injection):** Describes a system that uses one injector for each cylinder of the engine. The injectors are normally opened in groups, rather than individually.

**MPC (Manifold Pressure Control):** A fuel injection system that relies primarily on intake manifold pressure to signal engine load and fuel requirements.

**PULSE WIDTH:** The amount of time, measured in milliseconds (one millisecond is equal to 1/1000 of a second), that the electronic fuel injector is opened for fuel distribution.

**SFI (Sequential Fuel Injection):** A type of fuel injection that opens the injectors one at a time, in the same type of sequence as a spark plug firing order.

**TBI** (Throttle Body Injection): Generally used to refer to any fuel injection system which uses a single point injection unit mounted on top of the throttle body, similar to a carburetor. It may have one or two injectors, and may be a high or low pressure system, depending upon application.

**TPI (Tuned Port Injection):** A fuel injection system using calibrated air intake runners for equal air distribution and timed air delivery to the combustion chamber for the purpose of better performance values.

# AMC/JEEP

# Eagle

ТВІ	40
MPFI	42
Jeep	
тві	44
MPFI	46
Renualt	
ТВІ	48
MPFI	50

13-15 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from throttle body. Install adapter #80 to throttle body and connect main feed line to adapter. To block fuel return line on vehicles that use soft rubber return line, use fuel return line clamp (#13)

**METHOD 2:** Install adapter #3 on to main feed line, and connect to test port on throttle body.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 13 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

# THROTTLE BODY FUEL INJECTION

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



G00067739

#### EAGLE TBI FUEL PUMP DISABLE LOCATIONS

Models	Location
All Models	Unplug fuel pump connector on underbody, at rear of vehicle.

36-53 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove bolt from the fuel filter outlet hose and, using adapter #31, connect hose adapter #65 and outlet hose together using copper washers. Connect main feed line to adapter #65.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove bolt from fuel filter outlet. Install adapter #56 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 3:** Remove fuel inlet hose flange from fuel rail. Install flange mount adapter #52 (15.0mm) or #53 (15.7mm) with vehicle bolts. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 33-50 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

Location

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



#### **METHOD 3**



G00067740

#### EAGLE MPFI FUEL PUMP DISABLE LOCATIONS

#### Models

All Models ...... Unplug fuel pump connector on underbody, at rear of vehicle.

14-15 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump.

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from throttle body. Install adapter #80 to throttle body and connect main feed line to adapter. To block fuel return line on vehicles that use soft rubber return line, use fuel return line clamp (#13).

**METHOD 2:** Install adapter #3 on to main feed line. Connect adapter #3 to test port on throttle body.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 13 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



JEEP

#### SYSTEM PRESSURE

38-42 psi (Approx.) - Through 1995 44-58 psi (Approx.) - 1996 & Up

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

CAUTION: Do not overtighten.

Set cleaning pressure to 2-3 psi (approx.) less than system pressure specifications and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### JEEP MPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
Through 1998	Unplug in-tank fuel pump connector, on front right side of tank.
	Or, disconnect fuel pump relay in engine compartment.
1999 & Up	Remove fuel pump relay in engine compartment.

14-17 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) Install adapter #3 on to main feed line. Connect adapter #3 to test port on throttle body.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

CAUTION: Do not overtighten.

Set cleaning pressure to 13-15 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

# RENAULT

# THROTTLE BODY FUEL INJECTION

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



G00067743

#### RENAULT TBI FUEL PUMP DISABLE LOCATIONS

#### Models

#### Location

All Models ... Unplug fuel pump connector at fuel pump. Or, remove fuel pump relay from fuse block.

43-49 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel line from cold start valve. Install adapter #4 or #5 to the main feed line. Connect main feed line to the fuel line from the cold start valve and secure with hose clamp.
METHOD 2: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 secured with hose clamp and attach main feed line.
METHOD 3: Remove fuel outlet line from fuel filter. Install hose #6 with adapter #43 secured with hose clamp. Install fuel outlet line to adapter #43 and secure with hose clamp. Connect main feed line to test port of adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

## CAUTION: Do not overtighten.

Set cleaning pressure to 40-46 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



# CHRYSLER

Chrysler	53
MPFI	56
Chrysler Imports MPFI	59
Dodge TBI	61
MPFI	64
Dodge Imports MPFI	67
Dodge Trucks	69
MPFI	71
Pymouth	
TBI MPFI	73 76
Pyymouth Imports MPFI	79

13-15 (Approx.) Low Pressure 38-40 psi (Approx.) High Pressure

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## **FUEL SYSTEM ACCESS**

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from throttle body. Install hose adapter #6 with adapter #4 or #5 to inlet line and secure with hose clamps. Connect main feed line to adapter.

NOTE: On some models, disabling fuel pump will disable injector(s) and/or ignition. If this occurs, use hose adapter #36 (1/4" x 5/16") or #37 (5/16" x 5/16") to loop fuel inlet and fuel outlet lines. Secure with hose clamps.

**METHOD 2:** Disconnect inlet fuel line from throttle body. Install hose adapter #6 with adapter #43 to throttle body inlet line. Secure all hose ends with hose clamps. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

NOTE: If unable to disable fuel pump, loop inlet and outlet fuel lines as described in METHOD 1.

**METHOD 3:** Using hair pin disconnect tool #67, disconnect throttle body inlet fuel line at hair pin connector. Install adapter #55 into fuel inlet line hair pin connector. Connect main feed line to adapter.

**METHOD 4:** Using spring lock disconnect tool, disconnect throttle body inlet fuel line at spring lock connector. Install adapter #81 or #82 into fuel inlet connector. Connect main feed line to adapter.

- Remove fuel return line from throttle body. Install fuel return hose block adapter #28 (1/4") or #29 (5/16") to throttle body and secure with hose clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 13 psi (approx.) for low pressure systems and to 36 psi (approx.) for high pressure systems and check for leaks.

5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.

# CHRYSLER

- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.





37-63 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to Blue colored at the back of this manual.

**METHOD 2:** Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 to fuel rail. Secure with hose clamp. Connect main feed line to adapter.

**METHOD 3:** Using hair pin disconnect tool #67, disconnect inlet fuel line at fuel rail hair pin connector. Install adapter #55 into fuel rail inlet hair pin connector. Connect main feed line to adapter.

**METHOD 4:** Using spring lock disconnect tool, disconnect inlet fuel line at spring lock connector. Install adapter #81 or #82 into fuel inlet connector. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 34-60 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.





# **CHRYSLER IMPORTS**

## SYSTEM PRESSURE

35-53 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove bolt from the fuel filter outlet hose and, using adapter #31, connect hose adapter #65 and outlet hose together using copper washers. Connect main feed line between adapter and gauge regulator assembly.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove fuel inlet hose flange from fuel rail. Install flange mount adapter #52 (15.0mm) or #53 (15.7mm) with vehicle bolts. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

# CAUTION: Do not overtighten.

Set cleaning pressure to 32-50 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### CHRYSLER IMPORTS MPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
All Models	Unplug fuel pump connector at fuel pump.

38-40 psi (Approx.) Low Pressure 38-40 psi (Approx.) High Pressure

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## **FUEL SYSTEM ACCESS**

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from throttle body. Install hose adapter #6 with adapter #4 or #5 to inlet line and secure with hose clamps. Connect main feed line to adapter.

NOTE: On some models, disabling fuel pump will disable injector(s) and/or ignition. If this occurs, use hose adapter #36 (1/4" x 5/16") or #37 (5/16" x 5/16") to loop fuel inlet and fuel outlet lines. Secure with hose clamps.

**METHOD 2:** Disconnect inlet fuel line from throttle body. Install hose adapter #6 with adapter #43 to throttle body inlet line. Secure all hose ends with hose clamps. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

NOTE: If unable to disable fuel pump, loop inlet and outlet fuel lines as described in METHOD 1.

**METHOD 3:** Using hair pin disconnect tool #67, disconnect throttle body inlet fuel line at hair pin connector. Install adapter #55 into fuel inlet line hair pin connector. Connect main feed line to adapter.

**METHOD 4:** Using spring lock disconnect tool, disconnect throttle body inlet fuel line at spring lock connector. Install adapter #81 or #82 into fuel inlet connector. Connect main feed line to adapter.

- 3) Remove fuel return line from throttle body. Install fuel return hose block adapter #28 (1/4") or #29 (5/16") to throttle body and secure with hose clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 13 psi (approx.) for low pressure systems and to 36 psi (approx.) for high pressure systems and check for leaks.

5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.

# DODGE

- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.





37-63 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 to fuel rail. Secure with hose clamp. Connect main feed line to adapter.

**METHOD 3:** Using hair pin disconnect tool #67, disconnect inlet fuel line at fuel rail hair pin connector. Install adapter #55 into fuel rail inlet hair pin connector. Connect main feed line to adapter.

**METHOD 4:** Using spring lock disconnect tool, disconnect inlet fuel line at spring lock connector. Install adapter #81 or #82 into fuel inlet connector. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 34-60 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.





# **DODGE IMPORTS**

## SYSTEM PRESSURE

35-53 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove bolt from the fuel filter outlet hose and, using adapter #31, connect hose adapter #65 and outlet hose together using copper washers. Connect main feed line between adapter and gauge regulator assembly.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove fuel inlet hose flange from fuel rail. Install flange mount adapter #52 (15.0mm) or #53 (15.7mm) with vehicle bolts. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 32-50 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

#### **METHOD 1**



#### DODGE IMPORTS MPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
All Models	Unplug fuel pump connector at fuel pump.

13-15 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from throttle body. Install hose adapter #6 with adapter #4 or #5 to inlet line and secure with hose clamps. Connect main feed line to adapter.

NOTE: On some models, disabling fuel pump will disable injector(s) and/or ignition. If this occurs, use hose adapter #36 (1/4" x 5/16") or #37 (5/16" x 5/16") to loop fuel inlet and fuel outlet lines. Secure with hose clamps.

**METHOD 2:** Disconnect inlet fuel line from throttle body. Install hose adapter #6 with adapter #43 to throttle body inlet line. Secure all hose ends with hose clamps. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

NOTE: If unable to disable fuel pump, loop inlet and outlet fuel lines as described in METHOD 1.

- **3)** Remove fuel return line from throttle body. Install fuel return hose block adapter #28 (1/4") or #29 (5/16") to throttle body and secure with hose clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 13 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.





#### DODGE TRUCKS TBI FUEL PUMP DISABLE LOCATIONS

Models	Location
Van Models	
FWD Disconnect in-tank fuel pump on top center	r of fuel tank.
RWD Disconnect in-tank fuel pump on top rea	r of fuel tank.
All Other Models Disconnect in-tank fuel pump on rear en	d of fuel tank.

# DODGE TRUCKS

## SYSTEM PRESSURE

31-51 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Using hair pin disconnect tool #67, disconnect inlet fuel line at fuel rail hair pin connector. Install adapter #55 into fuel rail inlet hair pin connector. Connect main feed line to adapter.

**METHOD 3:** Using spring lock disconnect tool, disconnect inlet fuel line at spring lock connector. Install adapter #81 or #82 into fuel inlet connector. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

## CAUTION: Do not overtighten.

Set cleaning pressure to 28-48 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.


## PLYMOUTH

#### SYSTEM PRESSURE

13-15/38-40 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from throttle body. Install hose adapter #6 with adapter #4 or #5 to inlet line and secure with hose clamps. Connect main feed line to adapter.

NOTE: On some models, disabling fuel pump will disable injector(s) and/or ignition. If this occurs, use hose adapter #36 (1/4" x 5/16") or #37 (5/16" x 5/16") to loop fuel inlet and fuel outlet lines. Secure with hose clamps.

**METHOD 2:** Disconnect inlet fuel line from throttle body. Install hose adapter #6 with adapter #43 to throttle body inlet line. Secure all hose ends with hose clamps. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

NOTE: If unable to disable fuel pump, loop inlet and outlet fuel lines as described in METHOD 1.

**METHOD 3:** Using hair pin disconnect tool #67, disconnect throttle body inlet fuel line at hair pin connector. Install adapter #55 into fuel inlet line hair pin connector. Connect main feed line to adapter.

**METHOD 4:** Using spring lock disconnect tool, disconnect throttle body inlet fuel line at spring lock connector. Install adapter #81 or #82 into fuel inlet connector. Connect main feed line to adapter.

- 3) Remove fuel return line from throttle body. Install fuel return hose block adapter #28 (1/4") or #29 (5/16") to throttle body and secure with hose clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 13 psi (approx.) for low pressure systems, and 36 psi (approx.) for high pressure systems. Check for leaks.

5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.

## PLYMOUTH

- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.





37-63 psi (Approx.)

#### SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 to fuel rail. Secure with hose clamp. Connect main feed line to adapter.

**METHOD 3:** Using hair pin disconnect tool #67, disconnect inlet fuel line at fuel rail hair pin connector. Install adapter #55 into fuel rail inlet hair pin connector. Connect main feed line to adapter.

**METHOD 4:** Using spring lock disconnect tool, disconnect inlet fuel line at spring lock connector. Install adapter #81 or #82 into fuel inlet connector. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 34-60 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.





All Models ......... Remove fuel pump relay in engine compartment. Or, unplug fuel pump connector at tank. Check for access cover under luggage compartment carpet or rear seat cushion.

## **PLYMOUTH IMPORTS**

#### SYSTEM PRESSURE

35-53 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove bolt from the fuel filter outlet hose and, using adapter #31, connect hose adapter #65 and outlet hose together using copper washers. Connect main feed line between adapter and gauge regulator assembly.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove fuel inlet hose flange from fuel rail. Install flange mount adapter #52 (15.0mm) or #53 (15.7mm) with vehicle bolts. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 32-50 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### PLYMOUTH IMPORTS MPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
Van Models	
FWD	Disconnect in-tank fuel pump on top center of fuel tank.
RWD	Disconnect in-tank fuel pump on top rear of fuel tank.
All Other Models	Disconnect in-tank fuel pump on rear end of fuel tank.

# FORD

Ford	80
MPFI	84
Ford Trucks	86
Lincoln TBI	89
MPFI	91
TBI	93 95
Merkur MPFI	97

13-17 psi (Approx.) Low 25-55 psi (Approx.) High Pressure

#### SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Install hose adapter #66 onto main feed line. Connect hose adapter #66 to test port.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove plastic pin-lock connector holding fuel filter outlet line in place. Install hose adapter #59 into fuel inlet hose (going to throttle body) and reuse plastic pin-lock connector to hold adapter in place. Connect main feed line to adapter. Remove fuel outlet line from throttle body. Install fuel return plug (#7).

**METHOD 3:** Install hose adapter #62 onto main feed line. Connect hose adapter #62 to test port.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 13 psi (approx.) for low pressure systems and to 22-52 psi (approx.) for high pressure systems. Check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### Models

#### Location

All Models ...... Disconnect inertia switch in rear of vehicle located either near left trunk lid hinge, in rear storage area near left taillight, on back panel of luggage compartment, behind access cover in right rear storage area or in left rear quarter panel.

28-65 psi (Approx.)

#### SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

#### FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: (With Test Port) Install hose adapter #66 onto main feed line. Connect hose adapter #66 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2: (Without Test Port)** Remove plastic pin-lock connector holding fuel filter outlet fuel line in place. Install hose adapter #59 into fuel inlet hose (going to fuel rail) and reuse plastic pin-lock connector to hold adapter in place. Connect main feed line to adapter #59. **METHOD 3: (Without Test Port)** Disconnect fuel line (using dis-

connect tool). Install hose adapter #81 or #82 onto fuel rail connector. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 25-62 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



All Models ....... Disconnect inertia switch in rear of vehicle located either near left trunk lid hinge, in rear storage area near left taillight, on back panel of luggage compartment, or behind access cover in right rear storage area.

## FORD TRUCKS

#### SYSTEM PRESSURE

35-72 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: (With Test Port) Install hose adapter #66 onto main feed line. Connect hose adapter #66 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2: (Without Test Port)** Remove plastic pin-lock connector holding fuel filter outlet fuel line in place. Install hose adapter #59 into fuel inlet hose (going to fuel rail) and reuse plastic pin-lock connector to hold adapter in place. Connect main feed line to adapter #59.

**METHOD 3: (Without Test Port)** Remove plastic pin-lock connector holding fuel inlet line to fuel rail. Disconnect fuel line. Install hose adapter #59 onto fuel rail and reuse plastic pin-lock connector to hold adapter in place. Connect main feed line to adapter #59.

**METHOD 4:** Using spring lock disconnect tool, disconnect inlet fuel line at spring lock connector. Install adapter #81 or #82 into fuel inlet connector. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 32-69 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

## Main Feed Line Hose Adapter #66 Test Port Fuel Inlet Fuel Inlet

#### METHOD 2

METHOD 1







13-17 psi (Approx.) Low Pressure 25-55 psi (Approx.) High Pressure

#### SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Install hose adapter #66 onto main feed line. Connect hose adapter #66 to test port. Remove fuel outlet line from throttle body. Use fuel return line clamp (#13) to block fuel return line.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove plastic pin-lock connector holding fuel filter outlet line in place. Install hose adapter #59 into fuel inlet hose (going to throttle body) and reuse plastic pin-lock connector to hold adapter in place. Connect main feed line to adapter. Remove fuel outlet line from throttle body. Install fuel return plug (#7).

**METHOD 3:** Install hose adapter #62 onto main feed line. Connect hose adapter #62 to test port.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 13 psi (approx.) for low pressure systems and to 22-52 psi (approx.) for high pressure systems and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



30-45 psi (Approx.) Except Continental 30-45 psi (Approx.) Continental Through 1997 55-85 psi (Approx.) Continental 1998 45-60 psi (Approx.) Continental 1999 & Up

#### SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

#### FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1 (With Test Port): Install hose adapter #66 onto main feed line. Connect hose adapter #66 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2 (Without Test Port):** Remove plastic pin-lock connector holding fuel filter outlet fuel line in place. Install hose adapter #59 into fuel inlet hose (going to fuel rail) and reuse plastic pin-lock connector to hold adapter in place. Connect main feed line to adapter #59.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 2-3 psi (approx.) less than system pressure specifications and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### LINCOLN MPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
Continental 1997 & Up Disconnect inertia s	witch on left fender apron, near suspension switch.
Navigator Disconnect i	nertia switch, behind right side of instrument panel.
All Others	Disconnect inertia switch, near left trunk lid hinge.

13-17 psi (Approx.) Low Pressure 25-55 psi (Approx.) High Pressure

#### SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Install hose adapter #66 onto main feed line. Connect hose adapter #66 to test port. Remove fuel outlet line from throttle body. Use fuel return line clamp (#13) to block fuel return line.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove plastic pin-lock connector holding fuel filter outlet line in place. Install hose adapter #59 into fuel inlet hose (going to throttle body) and reuse plastic pin-lock connector to hold adapter in place. Connect main feed line to adapter. Remove fuel outlet line from throttle body. Install fuel return plug (#7).

**METHOD 3:** Install hose adapter #62 onto main feed line. Connect hose adapter #62 to test port.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 13 psi (approx.) for low pressure systems and to 22-52 psi (approx.) for high pressure systems. Check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### MERCURY TBI FUEL PUMP DISABLE LOCATIONS

#### Models

#### Location

All Models ....... Disconnect inertia switch in rear of vehicle located either near left trunk lid hinge, in rear storage area near left taillight, on back panel of luggage compartment, or behind access cover in right rear storage area.

28-85 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1 (With Test Port): Install hose adapter #66 onto main feed line. Connect hose adapter #66 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2 (Without Test Port):** Remove plastic pin-lock connector holding fuel filter outlet fuel line in place. Install hose adapter #59 into fuel inlet hose (going to fuel rail) and reuse plastic pin-lock connector to hold adapter in place. Connect main feed line to adapter #59.

**METHOD 3 (Without Test Port):** Remove fuel outlet line from fuel filter. Install hose #6 with adapter #43 to fuel filter and secure with hose clamp. Install fuel outlet line to adapter #43 and secure with hose clamp. Connect main feed line to adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 25-82 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.





Cougar	. Disconnect inertia switch in left side of trunk, behind trim panel.
Mountaineer	Disconnect inertia switch in instrument panel, below radio.
Mystique & Villager	Disconnect inertia switch behind left kick panel.
Sable & Tracer Disconne	ct inertia switch on right side of trunk, or right rear of cargo area.

35-45 psi (Approx.)

#### SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) Install hose adapter #66 onto main feed line. Connect hose adapter #66 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 32-42 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

## MERKUR

## MULTI-PORT FUEL INJECTION

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



#### MERKUR MPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
All Models	Disconnect fuel pump relay in the circuit protection panel
	located in the cowl near the left rear corner of the engine compartment

# GM

Buick	
тві	100
MPFI	102
Cadillac	
тві	104
MPFI	106
Chevrolet	
TBI (Except Metro)	109
TBI (Metro)	111
MPFI	113
Chevrolet Trucks	
CPFI	116
ТВІ	118
MPFI	120
Geo	
тві	122
MPFI	124
GMC	
CPFI	126
ТВІ	128
MPFI	130
Hummer	
MPFI	132
Oldsmobile	
тві	134
MPFI	136
Oldsmobile Trucks	
MPFI	138
Pontiac	
ТВІ	140
MPFI	142
Saturn	
ТВІ	144
MPFI	147

9-13 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

METHOD 1: Remove inlet fuel line from TBI unit. Install hose adapter #8 between TBI unit and main feed line.
METHOD 2: Disconnect inlet fuel line from flexible inlet hose. Install adaptor #44 or #45 between flexible inlet hose and steel fuel line from

adapter #44 or #45 between flexible inlet hose and steel fuel line from tank and connect main feed line.

**METHOD 3:** On TBI units with banjo fitting, remove fuel inlet banjo bolt from TBI unit. Install adapter #58 using copper washers and connect main feed line.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from TBI and install return line plug adapter #71 to block the return line on vehicles that use the hard plastic/ polyamid fuel line. To block the return line on vehicles that use the soft rubber return line, use fuel return line clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 10 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### BUICK TBI FUEL PUMP DISABLE LOCATIONS

Models		Location
All Models	 Unplug fuel pump	connector, at fuel tank.

30-62 psi (Approx.)

#### SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

#### FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** On vehicles with no test port, use hair pin disconnect tool #67 to disconnect inlet line from hair pin connector. Install adapter #54 into hair pin connector. Connect main feed line to adapter.

**METHOD 3:** Using spring lock disconnect tool, disconnect inlet fuel line at spring lock connector. Install adapter #81 or #82 into fuel inlet connector. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 27-59 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

#### **METHOD 1**



9-13 psi (Approx.)

#### SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel feed line.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove inlet fuel line from TBI unit. Install hose adapter **#8** between TBI unit and main feed line.

**METHOD 3:** Disconnect inlet fuel line from flexible inlet hose. Install adapter #44 or #45 between flexible inlet hose and steel fuel line from tank and connect main feed line.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from TBI and install return line plug adapter #71 to block the return line on vehicles that use the hard plastic/ polyamid fuel line. To block the return line on vehicles that use the soft rubber return line, use fuel return line clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 10 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



30-66 psi (Approx.)

#### SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

#### FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** On vehicles with no test port, use hair pin disconnect tool #67 to disconnect inlet line from hair pin connector. Install adapter #54 into hair pin connector. Connect main line to adapter.

**METHOD 3:** Using spring lock disconnect tool, disconnect inlet fuel line at spring lock connector. Install adapter #81 or #82 into fuel inlet connector. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 27-63 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

#### **METHOD 1**



**METHOD 2** 



G00067767


9-13 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove inlet fuel line from TBI unit. Install hose adapter #8 between TBI unit and main feed line.
METHOD 2: Disconnect inlet fuel line from flexible inlet hose. Install adapter #44 or #45 between flexible inlet hose and steel fuel line from tank and connect main feed line.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 3:** On TBI units with banjo fitting, remove fuel inlet banjo bolt from TBI unit. Install adapter **#58** using copper washers and connect main feed line.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from TBI. Install return line plug adapter #71 to block the return line on vehicles that use the hard plastic/polyamid fuel line. To block the return line on vehicles that use the soft rubber return line, use fuel return line clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

### CAUTION: Do not overtighten.

Set cleaning pressure to 10 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### CHEVROLET TBI FUEL PUMP DISABLE LOCATIONS

Models		Location
All Models	 Unplug fuel pump	connector, at fuel tank.

12-31 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from throttle body. Install hose #6 with adapter #4 or #5 secured with hose clamp. Attach main feed line to adapter.

**METHOD 2:** Remove bolt from the fuel filter outlet hose and, using adapter #31, connect hose adapter #65 and outlet hose together using copper washers. Connect main feed line to adapter #65.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- **3)** To block return line on vehicles that use the soft rubber return line, use fuel return line clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 10-28 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



Models	Location
All Models	Remove fuel pump relay or unplug fuel pump connector at tank.

25-62 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** On vehicles with no test port, use hair pin disconnect tool #67 to disconnect inlet line from hair pin connector. Install adapter #54 into hair pin connector. Connect main feed line to adapter.

**METHOD 3:** Using spring lock disconnect tool, disconnect inlet fuel line at spring lock connector. Install adapter #81 or #82 into fuel inlet connector. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 23-59 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

## **METHOD 1**



**METHOD 2** 



G00067767

# CHEVROLET Multi-PORT Fuel Rail Supply Tube Adapter #81 or #82 Main Feed Line Main Feed Line

Models	Location
Corvette	
1986-89, 1993-96	
1990-92	Remove fuel pump fuses, at main and auxiliary fuse block.
All Other Models	

55-66 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Confirm gauge regulator is closed and install a can of injector cleaner. Do not overtighten. Set cleaning pressure to 52-63 psi (approx.) and check for leaks.
- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



#### CHEVROLET TRUCKS CPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
All Models	 Unplug fuel pump connector, at fuel tank.

## SYSTEM PRESSURE

9-13 psi (Approx.) Low Pressure 26-32 psi (Approx.) High Pressure

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove inlet fuel line from TBI unit. Install hose adapter #8 between TBI unit and main feed line.
METHOD 2: Disconnect inlet fuel line from flexible inlet hose. Install adapter #44 or #45 between flexible inlet hose and steel fuel line from tank and connect main feed line.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from TBI units. Install adapter #71 to block the return line on vehicles that use the hard plastic/polyamid fuel line. To block the return line on vehicles that use the soft rubber return line, use fuel return line clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

## CAUTION: Do not overtighten.

Set cleaning pressure to 10 psi (approx.) for low pressure systems and to 23-29 psi (approx.) for high pressure systems. Check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



Models	Location
All Models	Unplug fuel pump connector at fuel tank.

## SYSTEM PRESSURE

25-66 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 22-63 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### CHEVROLET TRUCKS MPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
All Models	 Unplug fuel pump connector, at fuel tank.

12-31 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from throttle body. Install hose #6 with adapter #4 or #5 secured with hose clamp. Attach main feed line to adapter.

**METHOD 2:** Remove bolt from the fuel filter outlet hose and, using adapter #31, connect hose adapter #65 and outlet hose together using copper washers. Connect main feed line to adapter #65.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- **3)** To block the return line on vehicles that use the soft rubber return line, use fuel return line clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 10-28 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



Or, unplug fuel pump connector at tank.

25-50 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove bolt from the fuel filter outlet hose. Replace with adapter #31 and #65 using copper washers, or replace with adapter #58 and hex nut using copper washers. Connect main feed line to adapter #65 or #58.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove inlet fuel line from fuel rail and install hose adapter #65 to fuel rail using vehicle bolt or cap nut and 2 washers. Connect main feed line to adapter #65.

**METHOD 3:** Remove banjo bolt from cold start valve. Install adapter #49 using copper washers to cold start valve. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 23-47 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



55-66 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 52-63 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



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#### GMC CPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
All Models	Unplug fuel pump connector, at fuel tank.

9-13 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove inlet fuel line from TBI unit. Install hose adapter #8 between TBI unit and main feed line.
METHOD 2: Disconnect inlet fuel line from flexible inlet hose. Install adapter #44 or #45 between flexible inlet hose and steel fuel line from tank and connect main feed line.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from TBI unit. Install adapter #71 to block the return line on vehicles that use the hard plastic/polyamid fuel line. To block the return line on vehicles that use the soft rubber return line, use fuel return line clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 10 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



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All Models	 Unplug fu	iel pump	connector,	at fuel	tank.

25-62 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 22-59 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### GMC MPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
All Models	 Unplug fuel pump connector, at fuel tank.

50-62 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 47-59 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### GMC MPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
All Models	Unplug fuel pump connector, at fuel tank.
	Or command fuel pump "off" with scan tool.

9-13 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## **FUEL SYSTEM ACCESS**

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove inlet fuel line from TBI unit. Install hose adapter #8 between TBI unit and main feed line.
METHOD 2: Disconnect inlet fuel line from flexible inlet hose. Install adapter #44 or #45 between flexible inlet hose and steel fuel line from tank and connect main feed line.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 3:** On TBI units with banjo fitting, remove fuel inlet banjo bolt from TBI unit. Install adapter **#58** using copper washers and connect main feed line.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from TBI. Install adapter #71 to block the return line on vehicles that use the hard plastic/polyamid fuel line. To block the return line on vehicles that use the soft rubber return line, use fuel fuel return line clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

### CAUTION: Do not overtighten.

Set cleaning pressure to 10 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### OLDSMOBILE TBI FUEL PUMP DISABLE LOCATIONS

Models	Location
All Models	 Unplug fuel pump connector, at fuel tank.

31-59 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** On vehicles with no test port, use hair pin disconnect tool #67 to disconnect inlet line from hair pin connector. Install adapter #55 into hair pin connector. Connect main feed line to adapter.

**METHOD 3:** Using spring lock disconnect tool, disconnect inlet fuel line at spring lock connector. Install adapter #81 or #82 into fuel inlet connector. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 28-57 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

#### **METHOD 1**





54-66 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 51-63 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

## **OLDSMOBILE TRUCKS**

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



#### OLDSMOBILE TRUCKS CPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
All Models	 Unplug fuel pump connector at fuel tank.

9-13 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove inlet fuel line from TBI unit. Install hose adapter #8 between TBI unit and main feed line.
METHOD 2: Disconnect inlet fuel line from flexible inlet hose. Install adapter #44 or #45 between flexible inlet hose and steel fuel line from tank and connect main feed line.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 3:** On TBI units with banjo fitting, remove fuel inlet banjo bolt from TBI unit. Install adapter **#58** using copper washers and connect main feed line.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from TBI unit. Install adapter #71 to block the return line on vehicles that use the hard plastic/polyamid fuel line. To block the return line on vehicles that use the soft rubber return line, use fuel return line clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

### CAUTION: Do not overtighten.

Set cleaning pressure to 10 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### PONTIAC TBI FUEL PUMP DISABLE LOCATIONS

Models		Location
All Models	 Unplug fuel pump	connector, at fuel tank.

30-62 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** On vehicles with no test port, use hair pin disconnect tool #67 to disconnect inlet line from hair pin connector. Install adapter #54 into hair pin connector. Connect main feed line to adapter.

**METHOD 3:** Using spring lock disconnect tool, disconnect inlet fuel line at spring lock connector. Install adapter #81 or #82 into fuel inlet connector. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 27-59 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

#### **METHOD 1**





36-41 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove cap on test port on fuel line. Connect adapter #3 to test port. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove inlet fuel line from TBI unit. Install hose adapter **#8** between TBI unit and main feed line.

**METHOD 3:** Use hair pin disconnect tool #67 to disconnect inlet line from hair pin connector on fuel inlet line. Install adapter #54 into hair pin connector. Connect main feed line to adapter.

**METHOD 4:** Using spring lock disconnect tool, disconnect throttle body inlet fuel line at spring lock connector. Install adapter #81 or #82 into fuel inlet connector. Connect main feed line to adapter.

- 3) On vehicles that use the hard plastic/polyamid fuel lines, remove fuel return line from TBI unit and install adapter #71 to block the return line. To block the return line on vehicles that use the soft rubber return line, use return fuel line clamp.
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

## CAUTION: Do not overtighten.

Set cleaning pressure to 35 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.


G00067785



30-60 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove cap from test port on fuel line. Connect adapter #3 to test port. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Use hair pin disconnect tool #67 to disconnect inlet line from hair pin connector on fuel inlet line. Install adapter #54 into hair pin connector. Connect main feed line to adapter.

**METHOD 3:** Using spring lock disconnect tool, disconnect inlet fuel line at spring lock connector. Install adapter #81 or #82 into fuel inlet connector. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

### CAUTION: Do not overtighten.

Set cleaning pressure to 27-57 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.





# IMPORTS

Acura MPFI	153
Alfa Romeo	155
Audi MPFI CIS & CIS LAMBDA	157 159
BMW	
MPFI CIS & CIS LAMBDA CIS-E	161 163 165
Daihatsu MPFI	167
Fiat MPFI	169
Honda TBI MPFI	171 173
Hyundai MPFI	176
Infiniti MPFI	178
Isuzu TBI MPFI	180 182
Isuzu Trucks	
CPFI	184
Jaguar MPFI	186
Kia thru Saab	151
Scion thru Volvo	152

# IMPORTS

Kia	
MPFI	188
Land Rover	
MPFI	190
Lexus	
MPFI	192
Mazda	
MPFI	194
Mercedes-Benz	
MPFI	196
CIS & CIS LAMBDA	198
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Peugeot	
MPFI	210
CIS & CIS LAMBDA	212
CIS-E	214
Porsche	
MPFI	216
CIS & CIS LAMBDA	218
Range Rover	
MPFI	220
Saab	
MPFI	222
CIS & CIS LAMBDA	224
CIS-E	226
Acura thru Jaguar	150
Scion thru Volvo	152

# IMPORTS

Scion MPFI	228
Sterling MPFI	230
Subaru	
ТВІ	232
MPFI	234
Suzuki	
тві	236
MPFI	238
Toyota MPFI	240
Volkswagen	
MPFI	242
CIS & CIS LAMBDA	244
CIS-E	246
Volvo	
MPFI	248
CIS & CIS LAMBDA	250
CIS-E	252
Acura thru Jaguar	150
Kia thru Saab	151

35-64 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove bolt from the fuel filter outlet hose. Replace with adapter #31 and #65 using copper washers, or replace with adapter #58 and hex nut using copper washers. Connect main feed line to adapter #65 or #58.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove inlet fuel line from fuel rail and install hose adapter #65 to fuel rail using vehicle bolt or cap nut and 2 washers. Connect main feed line to adapter #65.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

### CAUTION: Do not overtighten.

Set cleaning pressure to 33-61 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### 

# ALFA ROMEO

## SYSTEM PRESSURE

36-46 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel line from cold start valve. Install adapter #4 or #5 to the main feed line. Connect main feed line to the fuel line from the cold start valve and secure with hose clamp.
METHOD 2: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 secured with hose clamp and attach main feed line.
METHOD 3: Remove fuel outlet line from fuel filter. Install hose #6 with adapter #43 secured with hose clamp. Install fuel outlet line to adapter #43 and secure with hose clamp. Connect main feed line to test port of adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

### CAUTION: Do not overtighten.

Set cleaning pressure to 33-43 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.





Access is through maintenance cover in luggage compartment floor.

WARNING: The 2006 2.0L (BGP & BGY), & the 3.2L BKH engines deliver extremely high pressure to the injectors. This cleaning system cannot be used on these engines.

## SYSTEM PRESSURE

36-61 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel line from cold start valve. Install adapter #4 or #5 to the main feed line. Connect main feed line to the fuel line from the cold start valve and secure with hose clamp.
METHOD 2: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 secured with hose clamp and attach main feed line.
METHOD 3: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #43 to fuel rail and secure with hose clamps. Attach fuel inlet line to adapter #43 and secure with hose clamp. Connect main feed

line to adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 33-59 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.

# AUDI

7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



#### AUDI MPFI FUEL PUMP DISABLE LOCATIONS

#### Models

#### Location

All Models ...... Disconnect negative terminal of fuel pump connector, under left side of the vehicle. Or, remove fuel pump fuse or fuel pump relay.

68-78 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel distributor. Install adapter #65 with vehicle bolt. Connect main feed line to adapter. METHOD 2: Remove fuel inlet line banjo bolt at fuel distributor. Install adapter #56 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from fuel distributor. Install 12 mm plug from adapter kit #32.
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

### CAUTION: Do not overtighten.

Set cleaning pressure to 65-75 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

# MULTI-PORT FUEL INJECTION CIS & CIS-LAMBDA

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



#### AUDI MPFI (CIS) FUEL PUMP DISABLE LOCATIONS

Models	Location
Coupe & V8 Quattro	<sup>1</sup> Remove access panel in luggage compartment.
	Unplug fuel pump connector on top of fuel tank.
All Others <sup>1</sup> Rer	move fuel pump relay located in fuse/relay center.
$^{\rm 1}$ - Some models use more than 1 fuel pump. Both	pumps must be disabled.

35-73 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel line from cold start valve. Install adapter #4 or #5 to the main feed line. Connect main feed line to the fuel line from the cold start valve and secure with hose clamp.
METHOD 2: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 secured with hose clamp and attach main feed line.
METHOD 3: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #43 to fuel rail and secure with hose clamps. Attach fuel inlet line to adapter #43 and secure with hose clamp. Connect main feed line to adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

### CAUTION: Do not overtighten.

Set cleaning pressure to 32-70 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### BMW MPFI FUEL PUMP DISABLE LOCATIONS

#### Models

#### Location

Through 1996 .... Disconnect negative terminal of fuel pump connector, under left side of the vehicle. 1997 & Up ...... Remove fuel pump relay.

40-60 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel distributor. Install adapter #65 with vehicle bolt. Connect main feed line to adapter. METHOD 2: Remove fuel inlet line banjo bolt at fuel distributor. Install adapter #56 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from fuel distributor. Install 12 mm plug from adapter kit #32.
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 37-57 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.





#### BMW MPFI (CIS) FUEL PUMP DISABLE LOCATIONS

#### Models

#### Location

All Models ......<sup>1</sup> Remove rear seat cushion and fuel pump access cover or remove access panel in luggage compartment. Unplug in-tank fuel pump connector. <sup>1</sup> - Some models use more than 1 fuel pump. Both pumps must be disabled.

65-85 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel distributor. Install adapter #65 with vehicle bolt. Connect main feed line to adapter. METHOD 2: Remove fuel inlet line banjo bolt at fuel distributor. Install adapter #56 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) To block return line, remove large return line from fuel distributor and/or pressure regulator and block both ends using plugs or cap nuts from adapter kit #32. Do not block small return line between fuel distributor and pressure regulator or disconnect vacuum line from pressure regulator.
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

### CAUTION: Do not overtighten.

Set cleaning pressure to 62-82 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, increasing can pressure as necessary to start engine. Vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

**BMW** 







#### BMW MPFI (CIS-E) FUEL PUMP DISABLE LOCATIONS

#### Models

#### Location

All Models ... <sup>1</sup> Unplug in-tank fuel pump connector by either removing rear seat cushion and access cover or remove access panel in luggage compartment. <sup>1</sup> - Some models may use more than 1 fuel pump. Both pumps must be disabled.

27-46 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove bolt from the fuel filter outlet hose. Replace with adapter #31 and #65 using copper washers, or replace with adapter #58 and hex nut using copper washers. Connect main feed line to adapter #65 or #58.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove inlet fuel line from fuel rail and install hose adapter #65 to fuel rail using vehicle bolt or cap nut and 2 washers. Connect main feed line to adapter #65.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

### CAUTION: Do not overtighten.

Set cleaning pressure to 24-43 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



Wodels	Location
Charade	Unplug fuel pump connector under rear seat.
Rocky	Unplug fuel pump connector on right frame rail, in front of fuel tank.

36-40 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel line from cold start valve. Install adapter #4 or #5 to the main feed line. Connect main feed line with adapter to the fuel line from the cold start valve and secure with hose clamp. METHOD 2: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 secured with hose clamp and attach main feed line. METHOD 3: Remove fuel outlet line from fuel filter. Install hose #6 with adapter #43 secured with hose clamp. Install fuel outlet line to adapter #43 and secure with hose clamp. Connect main feed line to test port of adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

### CAUTION: Do not overtighten.

Set cleaning pressure to 34 psi (approx.) and check for leaks.

- Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



35-41 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove cap nut from banjo bolt on inlet line at throttle body. Install hose adapter #65 using vehicle cap nut and copper washers. Connect main feed line to adapter.
METHOD 2: Remove banjo bolt from fuel filter outlet line. Install

**METHOD 2:** Remove banjo bolt from fuel filter outlet line. Install adapter #56 or #58 using copper washers. Connect main feed line to adapter.

- **3)** To block fuel return line on vehicles that use the soft rubber return line, use fuel return line clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

## CAUTION: Do not overtighten.

Set cleaning pressure to 34 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### HONDA TBI FUEL PUMP DISABLE LOCATIONS

Models	Locatio	n
All Models	Unplug fuel pump connector on top of fuel tank. Access by removing rear sea	ıt.

24-63 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove bolt from the fuel filter outlet hose. Replace with adapter #31 and #65 using copper washers, or replace with adapter #58 and hex nut using copper washers. Connect main feed line to adapter #65 or #58.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove inlet fuel line from fuel rail and install hose adapter #65 to fuel rail using vehicle bolt or cap nut and 2 washers. Connect main feed line to adapter #65.

**METHOD 3:** Install adapter #3 onto main feed line, and connect to test port on fuel rail. Plug fuel return at fuel pressure regulator with appropriate plug adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 4:** Install adapter #80 to fuel rail fuel supply hair pin connector, at firewall (do not remove air cleaner).

3) Confirm gauge regulator is closed and install a can of injector cleaner.

### CAUTION: Do not overtighten.

Set cleaning pressure to 21-60 psi (approx.) and check for leaks.

- Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.

HONDA

7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



# HONDA

#### **METHOD 4**



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#### HONDA MPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
Passport	Unplug fuel pump connector at tank.
	Or, remove fuel pump fuse/relay from engine compartment.
All Others	Unplug fuel pump connector at tank.
	Check for access cover under luggage compartment carpet or rear seat cushion.
	Or, Remove PGM-FI main relay #2 (blue relay) from behind glove compartment.

35-55 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove bolt from the fuel filter outlet hose. Replace with adapter #31 and #65 using copper washers, or replace with adapter #58 and hex nut using copper washers. Connect main feed line to adapter #65 or #58.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove fuel inlet hose flange from fuel rail. Install flange mount adapter #52 (15.0mm) or #53 (15.7mm) with vehicle bolts. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

### CAUTION: Do not overtighten.

Set cleaning pressure to 32-52 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

Location

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.





#### HYUNDAI MPFI FUEL PUMP DISABLE LOCATIONS

#### Models

All Models ....... Unplug fuel pump connector at fuel pump, or under rear seat through access cover.

38-51 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 secured with hose clamp. Attach main feed line to adapter.

**METHOD 2:** Remove fuel outlet line from fuel filter. Install hose #6 with adapter #43 secured with hose clamp. Install fuel outlet line to adapter #43 and secure with hose clamp. Connect main feed line to test port of adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

### CAUTION: Do not overtighten.

Set cleaning pressure to 35-48 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### Location

All Models ...... Unplug fuel pump connector in fusebox, or in engine compartment.

9-13 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove inlet fuel line from TBI unit. Install hose adapter #8 between TBI unit and main feed line.
METHOD 2: Disconnect inlet fuel line from flexible inlet hose. Install adapter #44 or #45 between flexible inlet hose and steel fuel line from tank and connect main feed line.

NOTE: This method is used for testing fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from TBI unit. Install adapter #71 to block the return line on vehicles that use the hard plastic/polyamid fuel line. To block the return line on vehicles that use the soft rubber return line, use fuel return line clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

### CAUTION: Do not overtighten.

Set cleaning pressure to 10 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.


Models		Location
Amigo, Pick-Up, Rodeo & Trooper II	 Unplug fuel pump	connector, at fuel tank.

35-64 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Disconnect inlet fuel line from flexible inlet hose. Install adapter #44 or #45 between flexible inlet hose and steel line from tank. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove fuel inlet line from fuel rail supply line. Install hose #6 with adapter #43 between fuel supply line and fuel rail and secure with hose clamps. Connect main feed line to test port of adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

METHOD 3: Locate test port on fuel rail and install adapter #3.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 32-61 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



# **ISUZU TRUCKS**

#### SYSTEM PRESSURE

55-62 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 52-59 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

# **ISUZU TRUCKS**

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



#### ISUZU CPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
All Models	Unplug fuel pump connector, at fuel tank.

**WARNING:** The S-Type, X-Type, & 2003-06 vehicles deliver extremely high pressure to the injectors. This cleaning cannot be used on these engines.

#### SYSTEM PRESSURE

35-54 psi (Ex. Supercharged) 72 psi (Supercharged)

#### SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel line from cold start valve. Install adapter #4 or #5 to the main feed line. Connect main feed line to the fuel line from the cold start valve and secure with hose clamp.

**METHOD 2:** Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 to fuel rail and secure with hose clamp. Connect main feed line to adapter.

**METHOD 3:** Remove fuel inlet line from fuel rail. Install hose #6 with adapter #43 secured with hose clamp. Install fuel inlet line to adapter #43 and secure with hose clamp. Connect main feed line to test port of adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure 2-3 psi less than the appropriate pressure specification above and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.

# JAGUAR

7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



#### Models

# Through 1996 ..... Disconnect fuel pump relay, located either on right side of trunk, behind passenger side dash panel, on right side of firewall or on radiator support (5th relay from left).

Location

Or, disconnect inertia switch at right or left kick panel.

1997 & Up ..... Remove trunk front trim panel, and disconnect fuel pump connector.

34-94 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel line from fuel rail. Install hose #6 to fuel rail. Install adapter #4 or #5 to the main feed line. Connect main feed line to the fuel line from the fuel rail. Secure fuel lines with hose clamps.

**METHOD 2:** Remove fuel outlet line from fuel filter. Install hose #6 with adapter #43 secured with hose clamp. Install fuel outlet line to adapter #43 and secure with hose clamp. Connect main feed line to test port of adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

CAUTION: Do not overtighten.

Set cleaning pressure to 31-91 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

Location

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



#### KIA MPFI FUEL PUMP DISABLE LOCATIONS

#### Models

1994-95 Sephia Remove fue	pump relay, located below center of instrument panel, attached to ECM.
1995 Sportage	Remove fuel pump fuse from passenger compartment fuse panel.
1996 & Up	. Unplug fuel pump connector, under or behind rear seat cushion.

# LAND ROVER

#### SYSTEM PRESSURE

36-65 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 33-62 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



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#### LAND ROVER MPFI FUEL PUMP DISABLE LOCATIONS

#### Models

#### Location

All Models . .. Disconnect fuel realy shut-off switch, located on engine compartment firewall behind cover.

**WARNING:** The 2006 GS 300 (3.0L), IS 250 (2.5L), & IS 350 (3.5L) engines deliver extremely high pressure to the injectors. This cleaning system cannot be used on these engines.

#### SYSTEM PRESSURE

28-55 psi (Approx.)

#### SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

#### FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove banjo bolt from cold start valve. Install adapter #49 using copper washers to cold start valve. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove banjo bolt from fuel rail. Install hose adapter #65 using vehicle bolt and copper washers. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 25-52 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



Unplug fuel pump connector in trunk or access under rear seat.

28-73 psi (Approx.)

#### SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 secured with hose clamp. Attach main feed line to adapter.

**METHOD 2:** Remove fuel outlet line from fuel filter. Install hose #6 with adapter #43 secured with hose clamp. Install fuel outlet line to adapter #43 and secure with hose clamp. Connect main feed line to test port of adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 3:** Install hose adapter #66 onto main feed line. Connect hose adapter to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 25-70 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### MAZDA MPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
1997 B2300 & B4000	Disconnect inertia switch, under instrument panel
	on right side of center console.
1998 & Up B2500, B3000 & B4000	Disconnect inertia switch, under instrument panel
	on right side of center console.
1997 Miata	Remove fuel pump relay in engine compartment.
1997 & Up Millenia, MX-6 & 626	Remove fuel pump relay in engine compartment.
1997 & Up MPV Rer	nove fuel pump relay mounted on passenger side
	of front console.
Navajo	Unplug fuel pump connector at fuel tank.
1997 & Up Protege Rer	nove fuel pump relay mounted on passenger side
	of front console.
All Others R	emove left kick panel cover and disconnect circuit
opening	relay connector or unplug fuel pump connector by
removii	ng access panel in luggage area or removing rear
seat	ower cushion. Or, remove fuel pump relay located
	in engine compartment.

# **MERCEDES-BENZ**

#### SYSTEM PRESSURE

53-60 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page)

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

- 2) METHOD 1: Locate test port on fuel rail and install adapter #3. Connect main feed line to adapter #3. METHOD 2: Disconnect fuel inlet line under hood and connect adapter #61. Connect main feed line to adapter #61.
- 3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 50-57 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



Models	Location
All Models	Disconnect fuel pump connector, under vehicle.
	If vehicle is equipped with 2 pumps, remove fuel pump relay.

# MERCEDES-BENZ MULTI-PORT FUEL INJECTION CIS & CIS-LAMBDA

#### SYSTEM PRESSURE

40-60 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel distributor. Install adapter #65 with vehicle bolt. Connect main feed line to adapter. METHOD 2: Remove fuel inlet line banjo bolt at fuel distributor. Install adapter #56 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from fuel distributor. Install 12 mm plug from adapter kit #32.
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 37-57 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

# MERCEDES-BENZ MULTI-PORT FUEL INJECTION CIS & CIS-LAMBDA

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



#### MERCEDES MPFI (CIS) FUEL PUMP DISABLE LOCATIONS

# Models Location All Models 1 Disconnect negative terminal of fuel pump connector under rear of vehicle, forward of fuel tank. 1 - Some models use more than 1 fuel pump. Both pumps must be disabled.

35-38 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove bolt from the fuel filter outlet hose. Replace with adapter #31 and #65 using copper washers, or replace with adapter #58 and hex nut using copper washers. Connect main feed line to adapter #65 or #58.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove fuel inlet hose flange from fuel rail. Install flange mount adapter #52 (15.0mm) or #53 (15.7mm) with vehicle bolts. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 32-35 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### MITSUBISHI TBI FUEL PUMP DISABLE LOCATIONS

#### Models

#### Location

All Models ..... Unplug in-tank fuel pump connector. Access fuel pump connector by removing access service cover under luggage compartment carpet, at rear side of tank or under rear of vehicle, or under rear seat.

27-58 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove bolt from the fuel filter outlet hose. Replace with adapter #31 and #65 using copper washers, or replace with adapter #58 and hex nut using copper washers. Connect main feed line to adapter #65 or #58.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove fuel inlet hose flange from fuel rail. Install flange mount adapter #52 (15.0mm) or #53 (15.7mm) with vehicle bolts. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 24-55 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.





G00067798

#### MITSUBISHI MPFI FUEL PUMP DISABLE LOCATIONS

#### Models

#### Location

All Models ...... Unplug in-tank fuel pump connector. Access fuel pump connector by removing access service cover under luggage compartment carpet, at rear side of tank or under rear of vehicle, or under rear seat.

47.5-50 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 secured with hose clamp and attach main feed line. METHOD 2: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #43 to fuel rail and secure with hose clamps. Attach fuel inlet line to adapter #43 and secure with hose clamp. Connect main feed line to adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 44-47 psi (approx.) and check for leaks.

- 4) Start engine and run at idle. Vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### AUDI MPFI FUEL PUMP DISABLE LOCATIONS

Models

#### Location

All Models ...... Disconnect negative terminal of fuel pump connector, under left side of the vehicle. Or, remove fuel pump fuse or fuel pump relay.

14-36 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel outlet line from fuel filter. Install hose #6 with adapter #43 to fuel filter and secure with hose clamps. Install fuel outlet line to adapter #43 and secure with hose clamp. Connect main feed line to test port of adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove fuel outlet line from fuel filter. Install adapter #4 or #5 to fuel filter outlet line and secure with hose clamp. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 13-33 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



below luggage compartment carpet. Or, remove fuel pump fuse.

30-51 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 to fuel line and secure with hose clamps. Connect main feed line to adapter.

**METHOD 2:** Remove fuel outlet line from fuel filter. Install hose #6 with adapter #43 secured with hose clamp. Install fuel outlet line to adapter #43 and secure with hose clamp. Connect main feed line to test port of adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 27-48 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



All Models	 Unplug in-tank fuel pump connector under vehicle in front of fuel tank,
	by removing inspection cover under luggage compartment carpet or
	removing lower rear seat cushion. Or, remove fuel pump fuse.
	Or, command fuel pump "off" using CONSULT-II.

33-45 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel rail. Install hose adapter #60 (12mm) or #61 (14mm) to fuel rail. Connect main feed line to adapter.

**METHOD 2:** Remove fuel outlet line from fuel filter. Install hose #6 with adapter #43 secured with hose clamp. Install fuel outlet line to adapter #43 and secure with hose clamp. Connect main feed line to test port of adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 30-42 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



All Models ...... Unplug fuel pump connector at fuel pump. Unplug both pumps, if equipped.

# PEUGEOT

#### SYSTEM PRESSURE

65-75 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel distributor. Install adapter #65 with vehicle bolt. Connect main feed line to adapter. METHOD 2: Remove fuel inlet line banjo bolt at fuel distributor. Install adapter #56 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from fuel distributor. Install 12 mm plug from adapter kit #32.
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 62-72 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.





All Models ......<sup>1</sup> Unplug fuel pump connector at fuel pump. <sup>1</sup> - Some models use more than 1 fuel pump. Both pumps must be disabled.

PFUGFOT

65-85 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel distributor. Install adapter #65 with vehicle bolt. Connect main feed line to adapter. METHOD 2: Remove fuel inlet line banjo bolt at fuel distributor. Install adapter #56 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) To block return line, remove large return line from fuel distributor and/or pressure regulator and block both ends using plugs or cap nuts from adapter kit #32. Do not block small return line between fuel distributor and pressure regulator or disconnect vacuum line from pressure regulator.
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 62-82 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, increasing can pressure as necessary to start engine. Vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### PEUGEOT MPFI (CIS-E) FUEL PUMP DISABLE LOCATIONS

 Models
 Location

 All Models
 <sup>1</sup> Unplug fuel pump connector at fuel pump.

 <sup>1</sup> - Some models may use more than 1 fuel pump. Both pumps must be disabled.

29-61 psi (Approx.)

# SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

# FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove cap and check ball from fuel pressure test port on fuel rail. Install hose adapter #60 (12mm) or #61 (14mm) to test port. Connect main feed line to hose adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove fuel line from cold start valve. Install adapter #4 or #5 to cold start valve fuel line and secure with hose clamp. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 26-58 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.


#### PORSCHE MPFI FUEL PUMP DISABLE LOCATIONS

Models

#### Location

All Models ....... Unplug fuel pump connector at fuel pump. Unplug both fuel pumps, if equipped. Or, remove fuel pump fuse in passenger compartment, or fuel pump relay in engine compartment.

40-57 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel distributor. Install adapter #65 with vehicle bolt. Connect main feed line to adapter. METHOD 2: Remove fuel inlet line banjo bolt at fuel distributor. Install adapter #56 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from fuel distributor. Install 12 mm plug from adapter kit #32.
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 37-55 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.





All Models .....<sup>1</sup> Unplug fuel pump connector at fuel pump(s). <sup>1</sup> - Some models use more than 1 fuel pump. Both pumps must be disabled.

# **RANGE ROVER**

## SYSTEM PRESSURE

36-42 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) Install adapter #3 onto main feed line. Connect adapter #3 to test port on fuel rail.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 33-39 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### RANGE ROVER MPFI FUEL PUMP DISABLE LOCATIONS

#### Models

#### Location

All Models .. Disconnect fuel relay shut-off switch located in engine compartment firewall behind cover.

28-62 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line banjo bolt or cap nut from fuel rail. Install adapter #65 onto fuel rail using vehicle banjo bolt or cap with copper washers. Connect main feed line to adapter.
 METHOD 2: Remove banjo bolt from fuel filter outlet line. Install adapter #56 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

## CAUTION: Do not overtighten.

Set cleaning pressure to 25-59 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



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#### SAAB MPFI FUEL PUMP DISABLE LOCATIONS

#### Models

#### Location

All Models ... Remove access panel in luggage compartment and unplug fuel pump connector on top of fuel tank. Or, remove fuel pump fuse or relay from fuse block.

65-75 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel distributor. Install adapter #65 with vehicle bolt. Connect main feed line to adapter. METHOD 2: Remove fuel inlet line banjo bolt at fuel distributor. Install adapter #56 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from fuel distributor. Install 12 mm plug from adapter kit #32.
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 62-72 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

## MULTI-PORT FUEL INJECTION CIS & CIS-LAMBDA

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



#### SAAB MPFI (CIS) FUEL PUMP DISABLE LOCATIONS

#### Models

#### Location

All Models ........ <sup>1</sup> Remove access panel in luggage compartment and unplug fuel pump connector, on top of fuel tank.

<sup>1</sup> - Some models use more than 1 fuel pump. Both pumps must be disabled.

65-85 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel distributor. Install adapter #65 with vehicle bolt. Connect main feed line to adapter. METHOD 2: Remove fuel inlet line banjo bolt at fuel distributor. Install adapter #56 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) To block return line, remove large return line from fuel distributor and/or pressure regulator and block both ends using plugs or cap nuts from adapter kit #32. Do not block small return line between fuel distributor and pressure regulator or disconnect vacuum line from pressure regulator.
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 62-82 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, increasing can pressure as necessary to start engine. Vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

#### METHOD 1



#### SAAB MPFI (CIS-E) FUEL PUMP DISABLE LOCATIONS

Models	Location
All Models	$^{\rm 1}{\rm Remove}$ access panel in luggage compartment and unplug fuel pump
	on top of fuel tank.
1 - Some models may use me	ore than 1 fuel pump. Both pumps must be disabled.

44-60 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 secured with hose clamp and attach main feed line. METHOD 2: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #43 to fuel rail and secure with hose clamps. Attach fuel inlet line to adapter #43 and secure with hose clamp. Connect main feed line to adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

## CAUTION: Do not overtighten.

Set cleaning pressure to 41-57 psi (approx.) and check for leaks.

- 4) Start engine and run at idle. Vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### AUDI MPFI FUEL PUMP DISABLE LOCATIONS

Models	Location
tC	Disconnect fuel pump connector at fuel tank, under rear seat.
xA & xB	Unplug fuel pump relay in instrument panel junction block.

35-47 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove bolt from the fuel filter outlet hose. Replace with adapter #31 and #65 using copper washers, or replace with adapter #58 and hex nut using copper washers. Connect main feed line to adapter #65 or #58.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 2:** Remove inlet fuel line from fuel rail and install hose adapter #65 to fuel rail using vehicle bolt or cap nut and 2 washers. Connect main feed line to adapter #65.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 32-44 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



woders					Local	lion
All Models	 Unplug fuel	pump	connector	on top	of fuel ta	ank.

20-38 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from throttle body. Install hose #6 with adapter #4 or #5 to throttle body and secure with hose clamp. Attach main feed line to adapter.

**METHOD 2:** Remove fuel outlet line from fuel filter. Install hose #6 with adapter #43 secured with hose clamp. Install fuel outlet line to adapter #43 and secure with hose clamp. Connect main feed line to test port of adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- **3)** To block return line on vehicle that uses the soft rubber return line, use fuel return line clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 18-35 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



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#### SUBARU TBI FUEL PUMP DISABLE LOCATIONS

#### Models

#### Location

All Models ....... Unplug fuel pump connector, at pump, under rear of vehicle. Remove access cover under rear seat or in luggage compartment, and unplug fuel pump connector.

23-53 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 secured with hose clamp and attach main feed line. METHOD 2: Remove fuel outlet line from fuel filter. Install hose #6 with adapter #43 secured with hose clamp. Install fuel outlet line to adapter #43 and secure with hose clamp. Connect main feed line to test port of adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 20-50 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### SUBARU MPFI FUEL PUMP DISABLE LOCATIONS

#### Models

#### Location

All Models ....... Unplug fuel pump connector, at pump, under rear of vehicle. Remove access cover under rear seat or in luggage compartment, and unplug fuel pump connector.

12-20 psi (Approx.) Low Pressure 24-39 psi (Approx.) High Pressure

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from throttle body. Install hose #6 with adapter #4 or #5 secured with hose clamp. Attach main feed line to adapter.

**METHOD 2:** Remove fuel inlet line from throttle body. Install hose #6 with adapter #43 between fuel inlet line and throttle body and secure with hose clamps. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 3:** Remove fuel inlet hose flange from throttle body. Install flange mount adapter #51 (11.0mm) to throttle body with vehicle bolts. Connect main feed line to adapter.

- **3)** To block return line on vehicle that uses the soft rubber return line, use fuel return line clamp (#13).
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 10-17 psi (approx.) for low pressure systems and to 21-36 psi (approx.) for high pressure systems and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.

SUZUKI

## THROTTLE BODY FUEL INJECTION

8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



All Models ...... Disconnect in-tank fuel pump connector at fuel tank. Or, remove fuel pump relay in engine compartment or passenger compartment relay center.

23-57 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 secured with hose clamp and attach main feed line. METHOD 2: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #43 secured with hose clamp. Install fuel inlet line to adapter #43 and secure with hose clamp. Connect main feed line to test port of adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

**METHOD 3:** Remove fuel inlet hose flange from fuel rail. Install flange mount adapter #51 (11.0mm) to fuel rail with vehicle bolts. Connect main feed line to adapter.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 20-55 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



# Models Location All Models ...... Disconnect in-tank fuel pump connector at fuel tank. Or, remove fuel pump relay in engine compartment or passenger compartment relay center.

24-50 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove banjo bolt from cold start valve. Install adapter #49 using copper washers to cold start valve. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL SYSTEM PRESSURES in SECTION 1.

**METHOD 2:** Remove banjo bolt from fuel inlet line at fuel rail. Install hose adapter #65 using vehicle bolt and copper washers. Connect main feed line to adapter.

**METHOD 3:** Remove banjo bolt from fuel inlet line at fuel rail. Install adapter #56, #57 or #58 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 21-47 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### TOYOTA MPFI FUEL PUMP DISABLE LOCATIONS

Models

#### Location

All Models ...... Disconnect in tank fuel pump connector at fuel tank (on some models, the fuel pump connector is accessible after removing cover under rear seat, or in luggage compartment). Or, unplug fuel pump relay. **WARNING:** The 2006 2.0L BPY & 3.6L BLV engines deliver extremely high pressure to the injectors. This cleaning system cannot be used on these engines.

## SYSTEM PRESSURE

36-58 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

2) METHOD 1: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #4 or #5 secured with hose clamp and attach main feed line. METHOD 2: Remove fuel inlet line from fuel rail. Install hose #6 with adapter #43 secured with hose clamp. Install fuel inlet line to adapter #43 and secure with hose clamp. Connect main feed line to test port of adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 33-55 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### VOLKSWAGEN MPFI FUEL PUMP DISABLE LOCATIONS

#### Models

#### Location

All Models ...... Unplug fuel pump connector at fuel pumps. Unplug both pumps, if equipped. Or, remove fuel pump fuse under dash.

## VOLKSWAGEN MULTI-PORT FUEL INJECTION CIS & CIS-LAMBDA

## SYSTEM PRESSURE

68-78 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel distributor. Install adapter #65 with vehicle bolt. Connect main feed line to adapter. METHOD 2: Remove fuel inlet line banjo bolt at fuel distributor. Install adapter #56 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from fuel distributor. Install 12 mm plug from adapter kit #32.
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

## CAUTION: Do not overtighten.

Set cleaning pressure to 65-75 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.

## VOLKSWAGEN MULTI-PORT FUEL INJECTION CIS & CIS-LAMBDA

NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



All Models .....<sup>1</sup> Unplug fuel pump connector at fuel pump(s).

<sup>1</sup> - Some models use more than 1 fuel pump. Both pumps must be disabled.

## VOLKSWAGEN

## SYSTEM PRESSURE

75-96 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel distributor. Install adapter #65 with vehicle bolt. Connect main feed line to adapter. METHOD 2: Remove fuel inlet line banjo bolt at fuel distributor. Install adapter #56 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) To block return line, remove large return line from fuel distributor and/or pressure regulator and block both ends using plugs or cap nuts from adapter kit #32. Do not block small return line between fuel distributor and pressure regulator or disconnect vacuum line from pressure regulator.
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 72-93 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, increasing can pressure as necessary to start engine. Vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



#### VOLKSWAGEN MPFI (CIS-E) FUEL PUMP DISABLE LOCATIONS

Models	Location
All Models	$^{1}\ensuremath{\text{Unplug}}$ fuel pump connector at fuel pump(s).
<sup>1</sup> - Some models may use more than 1 fuel pump. Bo	oth pumps must be disabled.

34-58 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Remove and plug vacuum hose at pressure regulator. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel rail. Install hose adapter #60 (12mm) or #61 (14mm) to fuel rail. Connect main feed line to adapter.

METHOD 2: Locate test port on fuel rail and install adapter #66.

**METHOD 3:** Remove fuel line from cold start injector. Install hose #6 with adapter #43 to cold start injector and secure with hose clamps. Attach cold start injector fuel line to adapter #43 and secure with hose clamp. Connect main feed line to adapter #43.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

3) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 31-55 psi (approx.) and check for leaks.

- 4) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 5) Turn ignition key off. Allow chemical to soak for ten minutes.
- 6) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 7) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



Or, remove fuel pump fuse or relay in engine or passenger compartment relay center.

50-56 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel distributor. Install adapter #65 with vehicle bolt. Connect main feed line to adapter. METHOD 2: Remove fuel inlet line banjo bolt at fuel distributor. Install adapter #56 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) Remove fuel return line from fuel distributor. Install 12 mm plug from adapter kit #32.
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 47-53 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.



<sup>1</sup> - Some models use more than 1 fuel pump. Both pumps must be disabled.

65-85 psi (Approx.)

## SPECIAL INSTRUCTIONS

Engine at normal operating temperature. Remove gas tank cap to vent gas tank pressure. Disable fuel pump (see next page).

## FUEL SYSTEM ACCESS

1) Crank engine for 15 seconds to bleed off remaining fuel pressure and verify that fuel pump is disabled.

CAUTION: Place a shop towel under fitting connections to prevent any fuel leakage onto hot engine.

 METHOD 1: Remove fuel inlet line from fuel distributor. Install adapter #65 with vehicle bolt. Connect main feed line to adapter. METHOD 2: Remove fuel inlet line banjo bolt at fuel distributor. Install adapter #56 using copper washers. Connect main feed line to adapter.

NOTE: This method may also be used to test fuel system pressure. Refer to FUEL PRESSURE TESTING in SECTION 1.

- 3) To block return line, remove large return line from fuel distributor and/or pressure regulator and block both ends using plugs or cap nuts from adapter kit #32. Do not block small return line between fuel distributor and pressure regulator or disconnect vacuum line from pressure regulator.
- 4) Confirm gauge regulator is closed and install a can of injector cleaner.

#### CAUTION: Do not overtighten.

Set cleaning pressure to 62-82 psi (approx.) and check for leaks.

- 5) Start engine and run at idle, increasing can pressure as necessary to start engine. Vehicle will run rough and stall when can is empty. Fuel system is now clean.
- 6) Turn ignition key off. Allow chemical to soak for ten minutes.
- 7) Close gauge regulator valve and remove empty can from gauge regulator assembly. Relieve system pressure into an approved container by opening gauge regulator valve.
- 8) Remove cleaning adapters and replace vehicle bolts, fittings, etc. and reconnect fuel pump. Turn ignition key to "on" position to pressurize fuel system and check for leaks. Start vehicle and run for 2 to 3 minutes for a final inspection.
NOTE: Ensure gauge regulator assembly is closed before installing cleaner or connecting to fuel system.



## VOLVO MPFI (CIS-E) FUEL PUMP DISABLE LOCATIONS

Models	Location
All Models	$^{1}\ensuremath{\text{Unplug}}$ fuel pump connector at fuel pump(s).
<sup>1</sup> - Some models may use more than 1 fuel pump. Bo	oth pumps must be disabled.