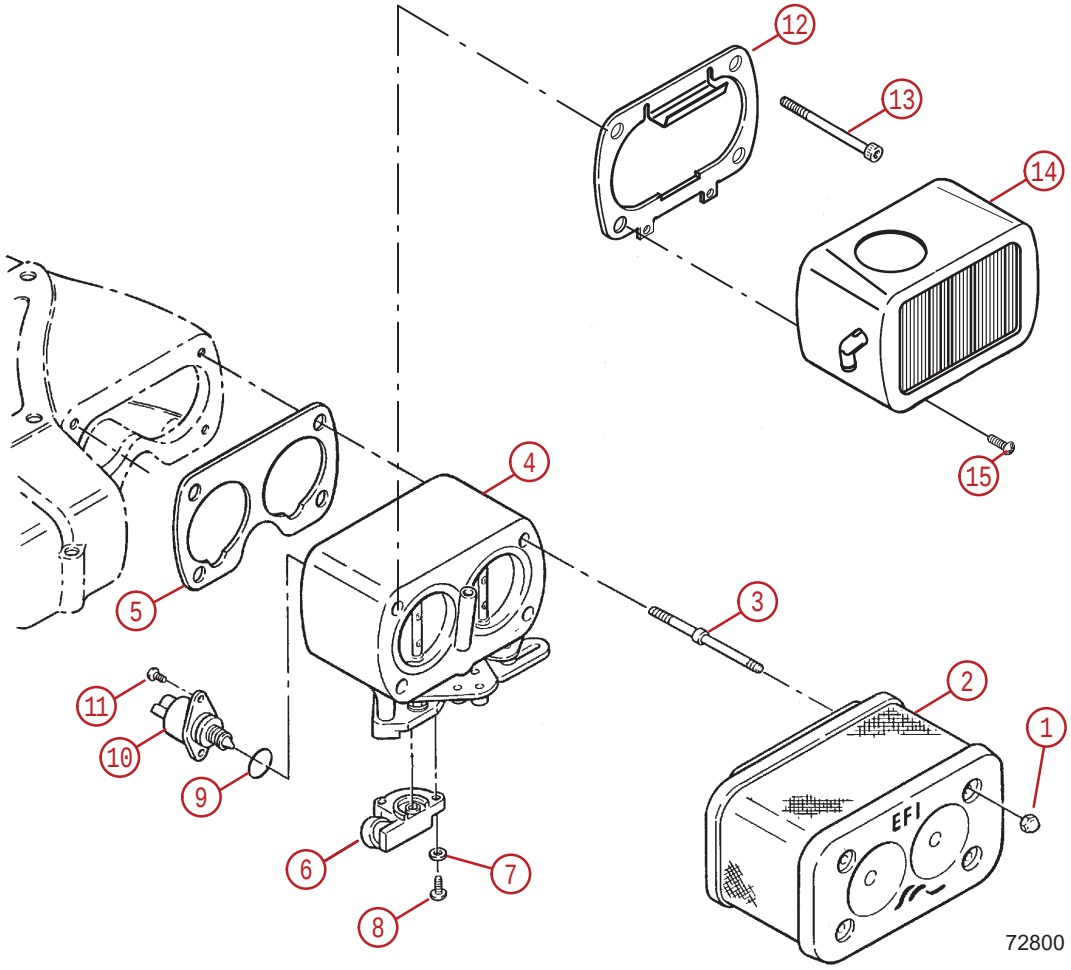
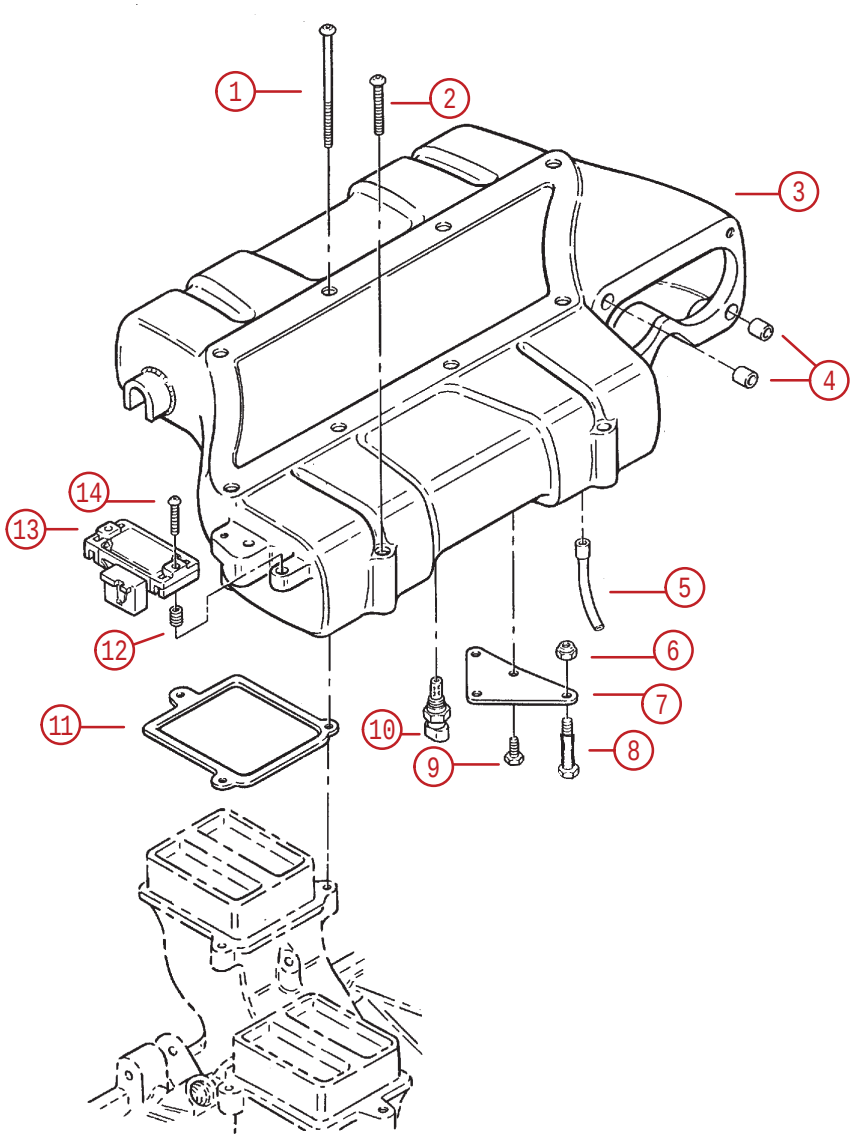
Exploded Views

454/502 Mag MPI and 8.2L MPI Flame Arrestor and Throttle Body



1 - Cap Nut
2 - Flame Arrestor (All Models Except Horizon)
3 - Stud
4 - Throttle Body
5 - Gasket
6 - Throttle Position (TP) Sensor
7 - Washer
8 - Screw
9 - O-Ring
10 - Idle Air Control (IAC) Valve
11 - Screw
12 - Mounting Bracket (All Models Except Horizon)
13 - Screw (All Models Except Horizon)
14 - Flame Arrestor (Horizon Models)
15 - Screw (Horizon Models)

454/502 Mag MPI and 8.2L MPI Plenum



72802

1 - Screw
2 - Screw
3 - Plenum
4 - Sleeve
5 - Drain Line To Intake Manifold
6 - Nut
7 - Bracket
8 - Stud
9 - Screw
10 - Intake Air Temperature (IAT) Sensor
11 - Gasket
12 - Seal
13 - Manifold Absolute Pressure (MAP) Sensor
14 - Screw

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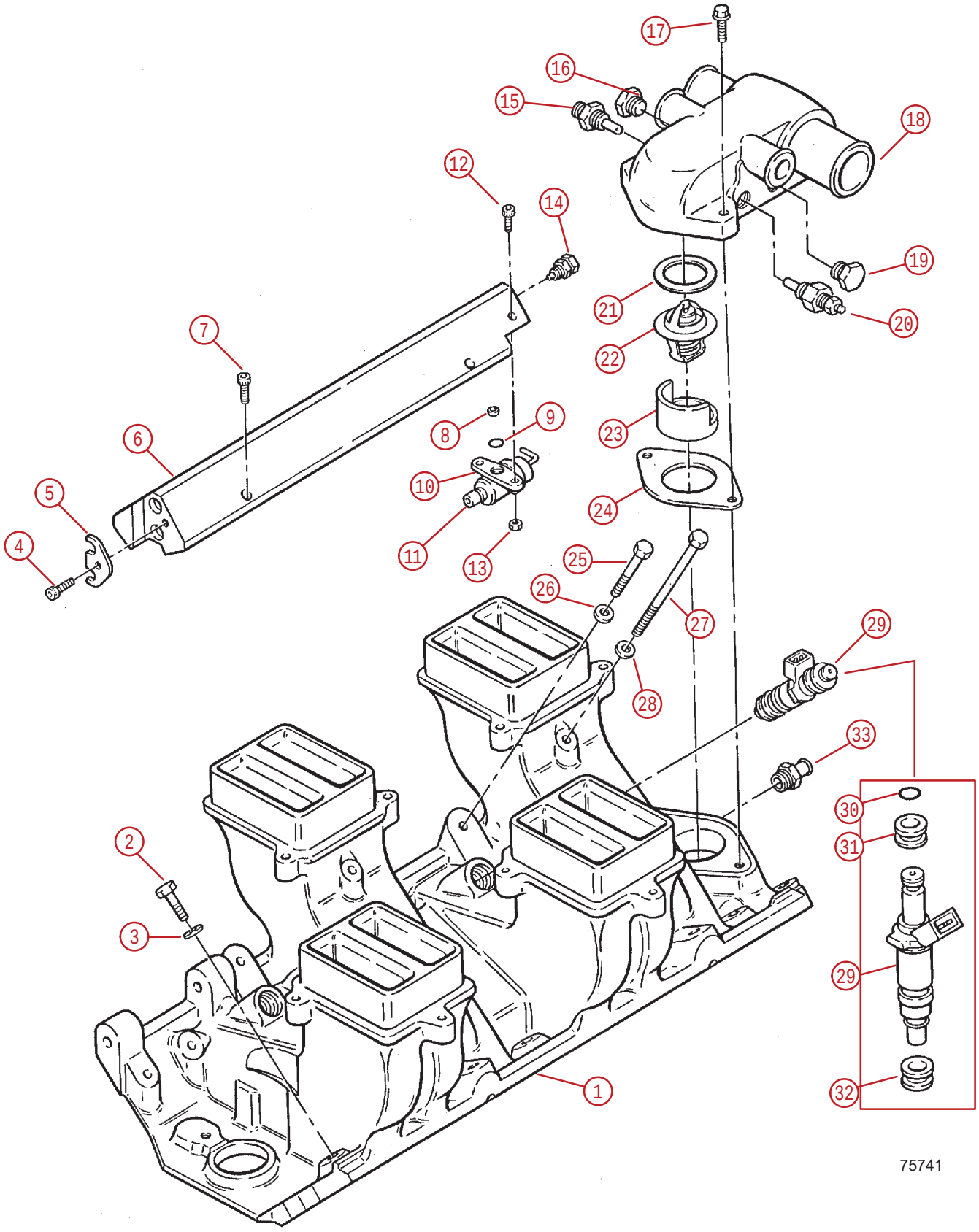
454/502 Mag MPI and 8.2L MPI Intake Manifold and Fuel Rail



1 - Intake Manifold
2 - Bolt
3 - Washer
4 - Bolt
5 - Retainer
6 - Fuel Rail
7 - Bolt
8 - Filter
9 - O-Ring
10 - Fuel Damper
11 - Plug
12 - Bolt
13 - Nut
14 - Schrader Valve
15 - Engine Coolant Temperature (ECT) Sensor
16 - Plug
17 - Bolt
18 - Thermostat Housing
19 - Plug
20 - Water Temperature Sender
21 - Gasket
22 - Thermostat
23 - Sleeve
24 - Gasket
25 - Bolt
26 - Washer
27 - Bolt
28 - Washer
29 - Fuel Injector
30 - O-Ring
31 - Grommet
32 - Grommet
33 - Water Bypass Fitting

Fuel Pressure Relief Procedure

NOTICE

Refer to “Precautions” in this section, BEFORE proceeding.

1. Disconnect electrical connector at fuel pump.
2. Crank engine for ten seconds (if engine starts allow it run until it stops) to relieve any fuel pressure in the system.

454 / 502 Mag MPI Multi-Port Components

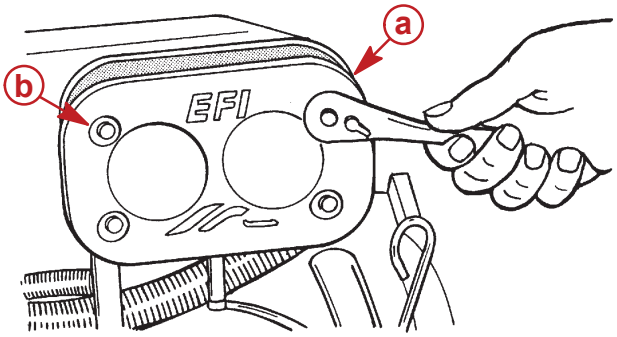
Flame Arrestor

NOTICE

Refer to “Precautions” in this section, BEFORE proceeding.

REMOVAL

Remove four flame arrestor mounting cap nuts and flame arrestor from throttle body.



72790

a - Flame Arrestor
b - Cap Nuts (4)

CLEANING AND INSPECTION

Clean flame arrestor in solvent and dry with compressed air.

INSTALLATION

1. Install flame arrestor to throttle body.
2. Apply Loctite 242 to threads of studs. Install four flame arrestor mounting cap nuts. Torque cap nuts to 50 lb-in. (6 Nm).

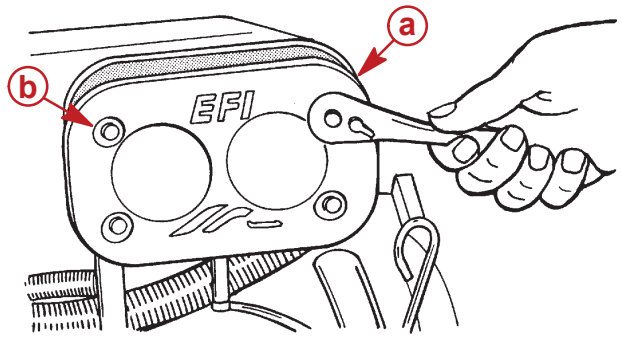
Throttle Body

NOTICE

Refer to "Precautions" in this section, BEFORE proceeding.

REMOVAL

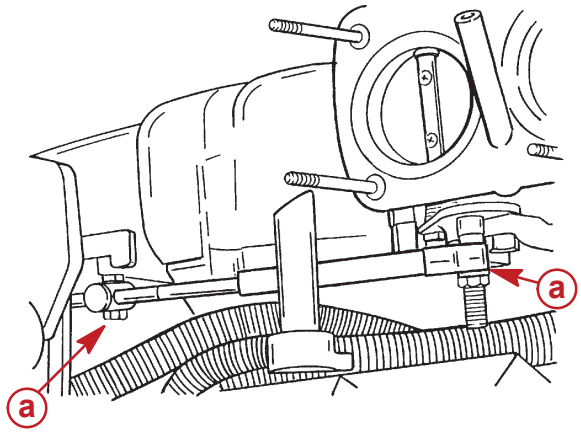
1. Remove four flame arrestor mounting cap nuts and remove flame arrestor from throttle body.



72790

a - Flame Arrestor
b - Cap Nuts (4)

2. Disconnect throttle linkage.



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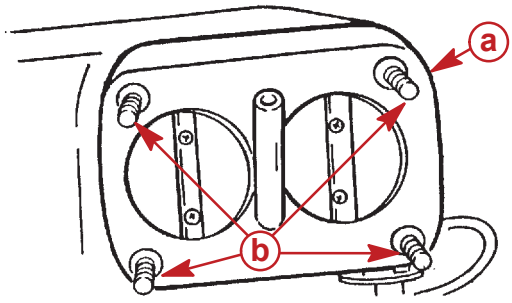
a - Throttle Linkage Connections

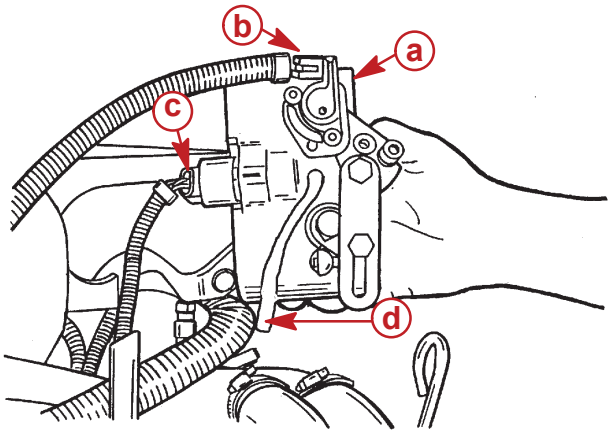
3. Remove four throttle body mounting studs using a stud driver.



72792

a - Throttle Body
b - Throttle Body Mounting Studs

4. Turn throttle body as shown and disconnect TP sensor, drain tube and IAC electrical connectors.



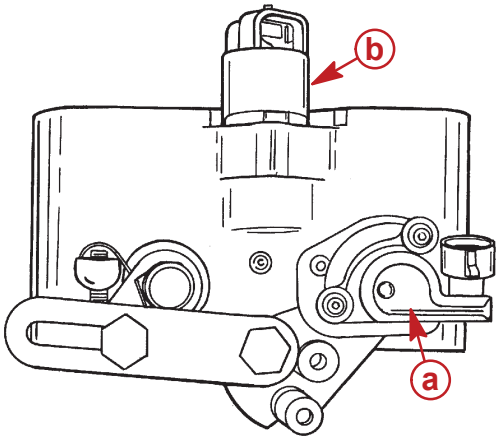
72793

a - Throttle Body
b - Throttle Position (TP) Sensor
c - Idle Air Control (IAC) Valve
d - Drain Tube

IMPORTANT: To prevent damage to throttle valve, it is essential that throttle body be placed on a holding fixture before performing service.

IMPORTANT: Insert a clean shop towel into the opening of the plenum to prevent foreign material from entering the engine.

5. Remove TP sensor with O-ring and IAC valve with O-ring from throttle body.



72794

a - Throttle Position (TP) Sensor
b - Idle Air Control (IAC) valve

CLEANING AND INSPECTION

IMPORTANT: DO NOT use cleaners containing methyl ethyl ketone. It is not necessary for cleaning throttle bore and valve deposits.

IMPORTANT: DO NOT allow the TP sensor and IAC valve to come into contact with solvent or cleaner.

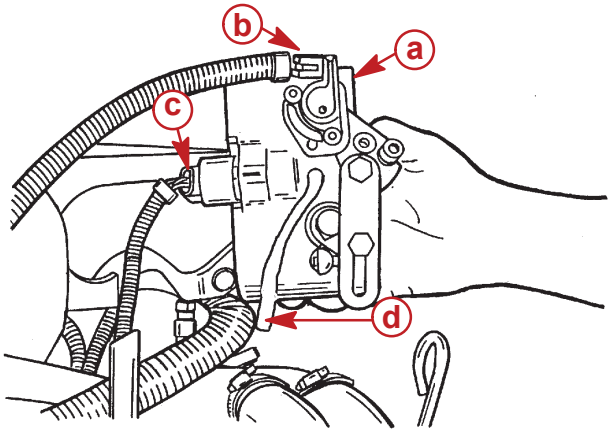
IMPORTANT: Use care when removing gasket material from plenum and throttle body. Failure to do so could result in damage to the plenum and throttle body.

1. Carefully remove all gasket material from plenum and throttle body.
2. Thoroughly clean all parts of throttle body. Make certain that all passages are free of dirt and burrs.
3. Inspect mating surfaces for damage that could affect gasket sealing.
4. Inspect throttle body for cracks in casting.
5. Inspect throttle plates, linkage, return springs, etc., for damage, wear and foreign material.
6. Check plenum for loose parts and foreign material.

INSTALLATION

NOTE: *To prevent difficult removal of fasteners and damage to fastener heads, do not use a higher strength thread locking compound than recommended.*

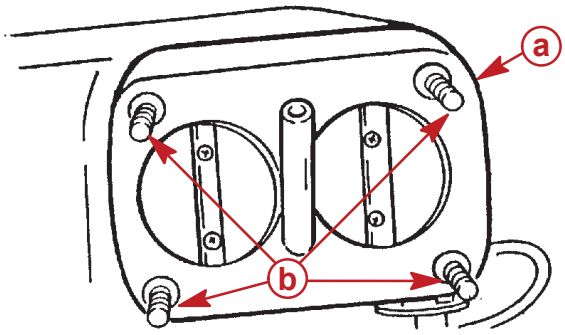
1. Connect TP sensor and IAC electrical connectors, then install throttle body with new gasket, using four throttle body mounting studs.



72793

a - Throttle Body
b - Throttle Position (TP) Sensor
c - Idle Air Control (IAC) Valve
d - Sight Tube

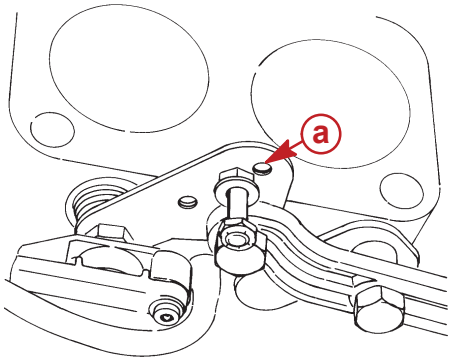
2. Apply Loctite 242 to threads of studs. Using a stud driver, torque studs to 165 lb-in. (18.6 Nm).



72792

a - Throttle Body
b - Throttle Body Mounting Studs

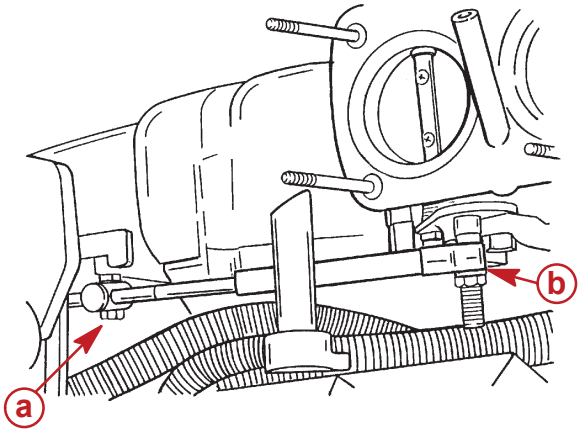
NOTE: *If Boat is equipped with Quicksilver Zero Effort Controls, the throttle cable mounting stud must be in the most forward position on throttle lever.*



73855

a - Position For Zero Effort Controls

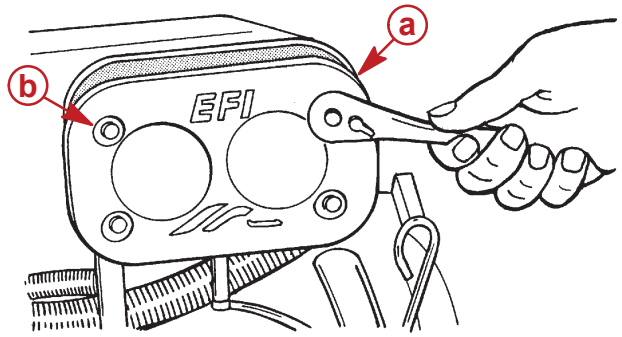
3. Connect throttle linkage. Secure cable barrel anchor stud with locknut and tighten securely. Secure cable end guide to lever stud. Install locknut on stud until it contacts end guide.



72791

a - Cable Barrel Anchor Stud
b - Locknut

4. Install flame arrestor on throttle body. Apply Loctite 242 to threads of studs. Install four flame arrestor mounting cap nuts. Torque cap nuts to 50 lb-in. (6 Nm).



72790

a - Flame Arrestor
b - Cap Nuts (4)

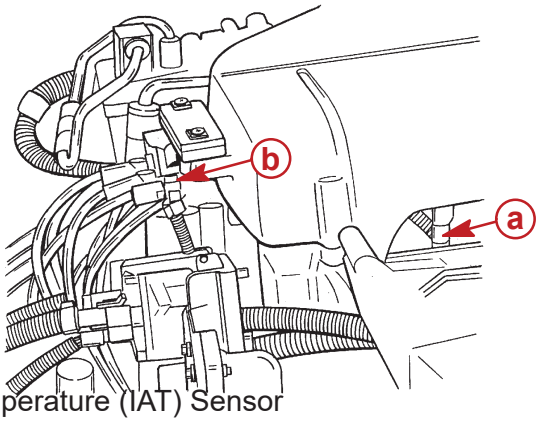
Plenum

NOTICE

Refer to "Precautions" in this section, BEFORE proceeding.

REMOVAL

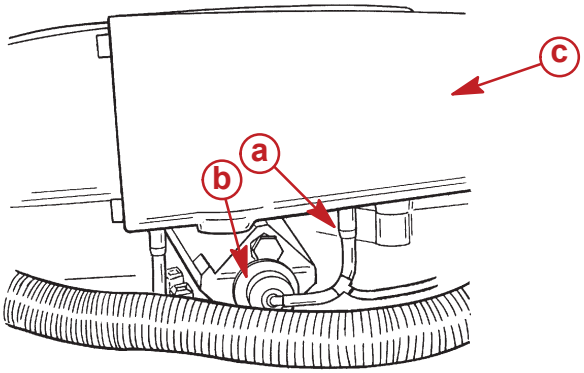
1. Remove flame arrestor and throttle body as outlined previously.
2. Disconnect IAT and MAP sensor electrical connectors.



72795

a - Intake Air Temperature (IAT) Sensor
b - Manifold Absolute Pressure (MAP) Sensor

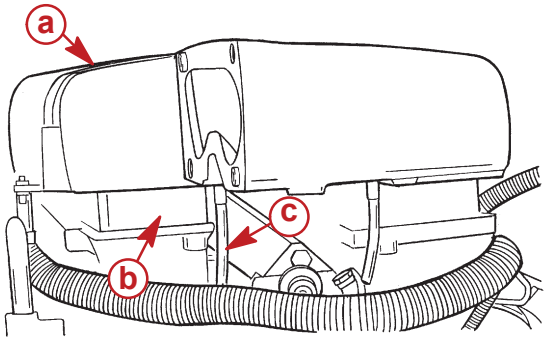
3. Disconnect vacuum line at plenum.



75724

a - Vacuum Line
b - Fuel Pressure Damper
c - Plenum

4. Remove twelve plenum mounting fasteners and lift straight up from intake manifold. Turn plenum slightly and rest on intake manifold as shown. Disconnect drain line at plenum and remove plenum.



72797

a - Plenum
b - Intake Manifold
c - Drain Line

IMPORTANT: Place a clean shop towel over each of the eight intake manifold openings to prevent foreign material from entering the engine.

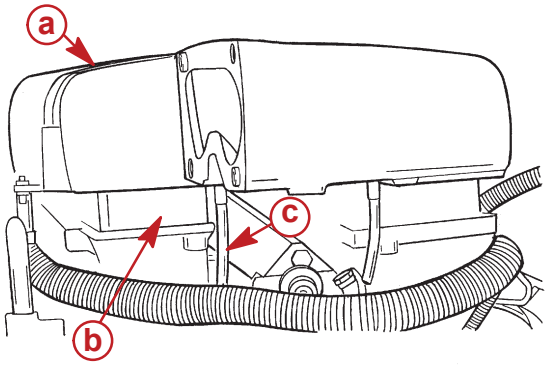
CLEANING AND INSPECTION

IMPORTANT: Use care when removing gasket material from intake manifold and plenum. Failure to do so could result in damage to the intake manifold and plenum.

1. Carefully remove all gasket material from intake manifold and plenum.
2. Clean plenum in solvent and dry with compressed air.
3. Inspect mating surfaces for damage that could affect gasket sealing.
4. Inspect plenum for cracks in casting.

INSTALLATION

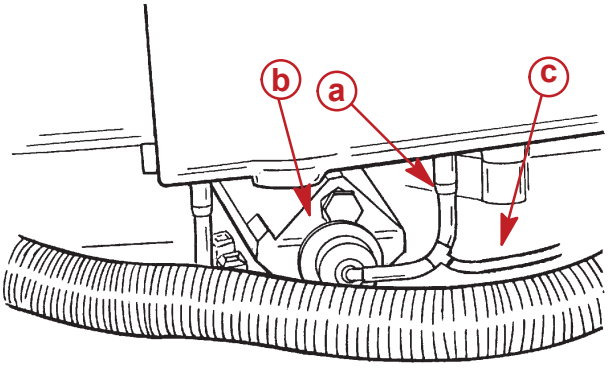
1. Install one gasket onto each of the four intake manifold trumpets.
2. Rest plenum on intake manifold as shown. Connect drain line at plenum. Lower plenum evenly onto intake manifold and install twelve plenum mounting fasteners. Torque fasteners to 150 lb-in. (17 Nm).



72797

a - Plenum
b - Intake Manifold
c - Drain Line

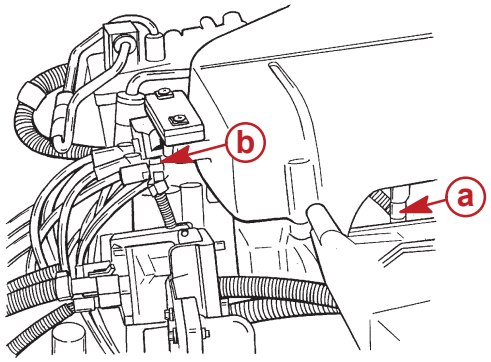
3. Connect vacuum lines.



75724

a - Vacuum Lines
b - Fuel Pressure Damper
c - Vacuum Line to Fuel Pressure Regulator (On Fuel Cooler)

4. Connect IAT and MAP sensor electrical connectors.



72795

a - Intake Air Temperature (IAT) Sensor
b - Manifold Absolute Pressure (MAP) Sensor

5. Install throttle body and flame arrestor as outlined previously.