

2007 ENGINE PERFORMANCE

Intake Air Distribution and Filtering - Explorer, Explorer Sport Trac & Mountaineer

SPECIFICATIONS

TORQUE SPECIFICATIONS

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| Description | Nm | lb-in |
|------------------------------|----|-------|
| Coolant expansion tank bolts | 7 | 62 |

DESCRIPTION AND OPERATION

INTAKE AIR DISTRIBUTION AND FILTERING

The intake air system consists of the following:

- Engine air cleaner
- Air cleaner outlet tube
- Mass air flow (MAF) sensor
- Air cleaner element
- Engine air cleaner support insulator
- Air cleaner clamp

The intake air system:

- filters intake air with a replaceable, dry-type air cleaner element.
- measures air flow and air temperature with a MAF sensor.

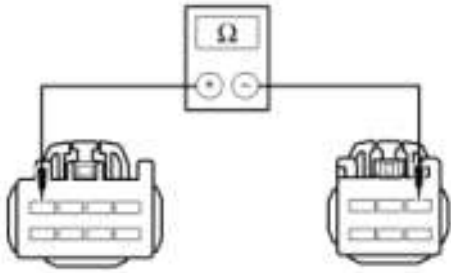
DIAGNOSTIC TESTS

INTAKE AIR DISTRIBUTION AND FILTERING

Refer to the [Introduction - Gasoline Engines](#) .

REMOVAL AND INSTALLATION

INTAKE AIR SYSTEM COMPONENTS - EXPLODED VIEW, 4.0L SOHC



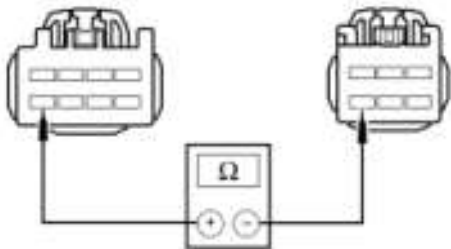
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Fig. 1: Exploded View Of Intake Air System Components - 4.0L SOHC
 Courtesy of FORD MOTOR CO.

| Item | Part Number | Description |
|------|-------------|---|
| 1 | 13A506 | Wiring harness retainer |
| 2 | 9C632 | Air cleaner outlet pipe clamp |
| 3 | 9C632 | Air cleaner outlet pipe clamp |
| 4 | 6758 | Crankcase breather hose |
| 5 | 9R504 | Air cleaner outlet pipe |
| 6 | 14A464 | Mass air flow (MAF) sensor electrical connector |
| 7 | 9628 | Retaining clips (2 required) (part of 9A600) |
| 8 | 9661 | Air cleaner cover |
| 9 | 9601 | Air cleaner element |
| 10 | 9A600 | Air cleaner tray |
| 11 | 9E931 | Rubber bell mouth |
| 12 | 9P686 | Grommets (2 required) |
| 13 | 9P686 | Grommets (2 required) |

1. For additional information, refer to the appropriate procedures.

INTAKE AIR SYSTEM COMPONENTS - EXPLODED VIEW, 4.6L (3V)



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Fig. 2: Exploded View Of Intake Air System Components - 4.6L (3V)
 Courtesy of FORD MOTOR CO.

| Item | Part Number | Description |
|------|-------------|-------------------------|
| 1 | 6758 | Crankcase breather hose |

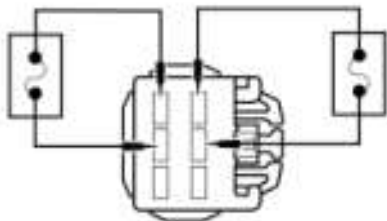
| | | |
|----|--------|--|
| 2 | 9C482 | Brake booster vacuum hose |
| 3 | 9C632 | Air cleaner outlet pipe clamp |
| 4 | 9C632 | Air cleaner outlet pipe clamp |
| 5 | 9B659 | Air cleaner outlet pipe |
| 6 | 14A464 | Mass air flow (MAF) sensor electrical connector (part of 12B637) |
| 7 | 9628 | Air cleaner cover retaining clips (3 required) (part of 9A612) |
| 8 | 9661 | Air cleaner cover |
| 9 | 9601 | Air cleaner element |
| 10 | 9A612 | Air cleaner tray |
| 11 | 9E931 | Rubber bell mouth |
| 12 | 9P686 | Grommets (2 required) |
| 13 | 9P686 | Grommets (2 required) |

1. For additional information, refer to the appropriate procedures.

AIR CLEANER

REMOVAL

1. Loosen the clamp and disconnect the air cleaner outlet pipe from the air cleaner.
2. Disconnect the mass air flow (MAF) sensor electrical connector.
3. Remove the bolts and, if equipped with a 4.6L (3V) engine, detach the wiring harness retainer. Position the coolant expansion tank aside.



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Fig. 3: Locating 4.6L (3V) Engine Bolts & Wiring Harness Retainer
 Courtesy of FORD MOTOR CO.

NOTE: The grommets that go into the inner fender will come out with the air cleaner.

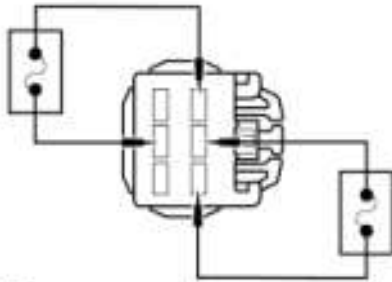
4. Lift the air cleaner out of the grommets in the wheel well and out of the inner fender.

INSTALLATION

CAUTION: Use a sponge or shop towel to apply the soap and water solution. Spraying the soap and water solution can damage the MAF

sensor.

1. Apply a soap and water solution to the face and the LH side of the rubber bell mouth.

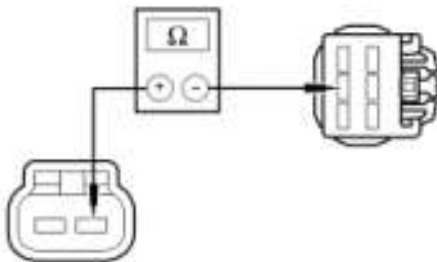


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Fig. 4: Locating LH Side Of Rubber Bell Mouth
Courtesy of FORD MOTOR CO.

NOTE: Made sure the grommets that go into the inner fender are in place on the air cleaner.

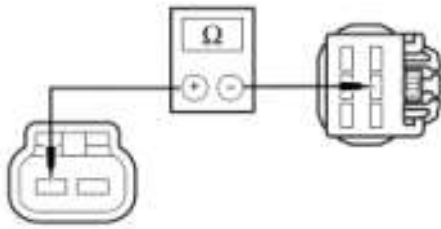
2. Push the air cleaner into the grommets in the wheel well and into the inner fender.
3. Make sure the bell mouth is correctly installed. The face of the rubber bell mouth should be against the inside of the sheet metal. No part of the rubber bell mouth should protrude through the air intake hole in the sheet metal.



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Fig. 5: Locating Rubber Bell Mouth
Courtesy of FORD MOTOR CO.

4. Position the coolant expansion tank, install the bolts and, if equipped with a 4.6L (3V) engine, attach the wiring harness retainer.
 - Tighten to 7 Nm (62 lb-in).



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Fig. 6: Locating 4.6L (3V) Engine Bolts & Wiring Harness Retainer
 Courtesy of FORD MOTOR CO.

5. Connect the MAF sensor electrical connector.
6. Connect the air cleaner outlet pipe to the air cleaner and tighten the clamp.

AIR CLEANER ELEMENT

REMOVAL AND INSTALLATION

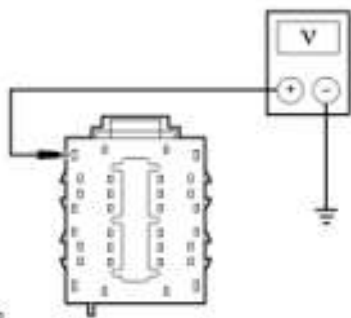
NOTE: Do not disconnect the mass air flow (MAF) sensor electrical connector.

Vehicles equipped with a 4.0L (SOHC) engine

1. Detach the wiring harness retainer from the air cleaner outlet pipe.

Vehicles equipped with a 4.6L (3V) engine

2. Detach the wiring harness retainer from the coolant expansion tank.



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Fig. 7: Locating Air Cleaner Outlet Pipe
 Courtesy of FORD MOTOR CO.

All vehicles

3. Loosen the clamp and disconnect the air cleaner outlet pipe from the air cleaner.
4. Unclip and remove the air cleaner cover.
5. Remove the air cleaner element.

NOTE: Clean the inside of the air cleaner tray.

6. To install, reverse the removal procedure.

AIR CLEANER OUTLET PIPE

REMOVAL AND INSTALLATION

Vehicles equipped with a 4.0L SOHC engine

1. Detach the wiring harness retainer from the air cleaner outlet pipe.

Vehicles equipped with a 4.6L (3V) engine

2. Disconnect the brake booster vacuum hose from the air cleaner outlet pipe.

All vehicles

3. Disconnect the crankcase breather hose from the air cleaner outlet pipe.
4. Loosen the clamps and remove the air cleaner outlet pipe.
5. To install, reverse the removal procedure.