

IAT Sensor Cleaning

1998-2002 24V diesel engine

<http://www.dodgeram.org/tech/dsl/sensors/IAT/clean.htm>

The IAT sensor measures the temperature of the intake manifold. The ECM uses this sensor reading to set injection timing and adjust the air-fuel ratio. If the fuel mileage and power output of your engine seem low, some owners have found improvement in EGT, fuel economy, and power after cleaning carbon from the IAT sensor in at the rear of the intake manifold. Engine with exhaust brakes are particularly prone to IAT sensor fouling because soot is blown back into the intake during valve overlap. Smokingdiesel.com has an information page about [problems caused by the IAT sensor](#).

The only tool you need is a 3/8" ratchet with a 6" extension and 13/16" socket.



The IAT sensor is found on the driver's side of the engine, almost at the back of the intake manifold.



Unplug the electrical connector from the sensor. You will need to spread the connect tab away from the sensor body to unplug the sensor. After the connector has been removed, use a 13/16" deep well socket, 6" extension, and ratchet to unscrew the sensor from the manifold.



The sensor on the left had 20,000 miles on it, and it was covered with soot. After a shot of carburetor cleaner, you can see the sensor element inside the cage. Screw the clean IAT sensor back into the manifold, torque it to 10 ft-lb, and reattach the connector.



Normal IAT Sensor resistance values:

Temperature	Resistance
30°	40K
32°	30k to 36k ohms
76°	13K ohms
77°	9k to 11k ohms
81°	6.87K ohms

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122°	3k to 4k ohms
130°	4K ohms
167	600 to 675 ohms
212	600 to 675 ohms

Replacement Sensor:

Cummins PN 3408345, around \$28.

Dodge PN 05014197AA Sensor, Temperature (SEN, TEM), around \$18.