1982 Exhaust Emission Systems

PEUGEOT DECELERATION SYSTEM

505 Gasoline

DESCRIPTION

The system is used to reduce emission levels during deceleration. System is composed of deceleration valve (Bosch), air flow sensor, microswitch, deceleration relay, thermocontact, cold cut-out relay, and 2-speed relay. Fuel injection is stopped on deceleration by equalizing pressure on both sides of the air flow sensor. This equalization is accomplished by the deceleration valve, which acts on an auxiliary circuit to the mixture regulator. When pressure is equalized, the fuel metering distributor piston is no longer activated by the air flow sensor plate lever and fuel output to injectors ceases.

OPERATION

When engine is at normal operating temperature and throttle is suddenly closed, deceleration fuel cut-off begins when the engine speed reaches 1800 RPM. Deceleration is detected by a microswitch and deceleration relay. When engine is above 1800 RPM, deceleration relay allows positive current to the deceleration valve. This causes throttle flap to move against idle stop which closes microswitch. This energizes 2-speed relay which grounds cold cut-out relay and opens thermocontact. The deceleration valve opens and equalizes pressure on air flow sensor. Injection is resumed when engine reaches 1200 RPM or is accelerated.

TESTING

1) With engine temperature below 104°F (40°C), disconnect the top wire from the thermocontact. Start engine and accelerate to 1800 RPM or more.

2) Quickly release throttle. If operation of deceleration valve can be heard, system is good. Reconnect wire.

3) If deceleration valve could not be heard, disconnect deceleration valve connector. Connect test lamp to connector.

4) Again accelerate to 1800 RPM or more and quickly release throttle. If test lamp comes on then goes off, check vacuum hose routing. If connections are good, replace deceleration valve.

5) If test lamp does not come on, check electrical connections, 2-speed relay and adjustment of microswitch. *See Adjustments.* If all are okay, replace deceleration relay.

ADJUSTMENTS

MICROSWITCH

1) Ensure that microswitch is installed with contact arm toward throttle flap housing and 2 return springs connected.

2) Connect 1 probe of test lamp to positive battery power and other probe to microswitch 2-way connector. Loosen contact screw locknut.

3) Turn contact screw in towards microswitch contact arm until test light just comes on. Tighten locknut. Check that light stays lit while engine idles.

Fig. 1: Peugeot 505 Deceleration Control System