

Trouble-Shooting Hints for Electronically Controlled Gasoline Injection System

Before performing trouble-shooting jobs it is necessary that the engine and ignition system are in order.

Cause	Corrections
Engine does not start, fuel pump does not operate	
Fuse defective Line to pump relay and to fuel pump interrupted Line connections to fuel pump have faulty contact	Replace fuse (8 A). Check whether pump relay is energized. To do this, switch ignition on and off observing the noise of the relay. Possibly check voltage with voltmeter only. Fit connections to fuel pump.
Terminal 86 of pump relay has 0 voltage because voltage supply relay is not energized or line is interrupted.	If applicable eliminate interruption.
Pump relay on terminal 86 has voltage, but terminal 85 has no ground connection	After switching on the ignition, the pump runs for 1–2 sec. Check with voltmeter; ground connection for terminal 85 is switched by the control unit. Replace control unit
Line from pump relay, terminal 85 to positive connection of fuel feed pump is interrupted	Check plug connection, eliminate interruption.
Fuel feed pump defective	Replace
Engine does not start, fuel pump operates	
Line to cable connector, terminal 50 of starter motor is interrupted	Check with Bosch Tester EFAW 228
Cable connection on pressure sensor not plugged in or interruption	Check cable connection, if necessary eliminate interruption
Sending contacts defective	Replace insert
No pressure is built up in the fuel circuit (line pinched off, defective pressure regulator)	Use pressure gage to check pressure, if necessary replace pressure regulator, measure feeding capacity of fuel pump (1 liter in at least 30 sec.).
Throttle valve switch wrongly adjusted	Check adjustment, if necessary adjust
Throttle valve switch defective	Replace throttle valve switch

Cause	Corrections
Engine starts, but stops again	
Line connection for sending contacts on ignition distributor not plugged in or line interrupted	Check with Bosch Tester EFAW 228 if necessary replace sending contacts and/or cable harness assembly
Cable connection on cooling water temperature sensor not plugged in or interruption and/or temperature sensor defective	Check cable connection, if necessary eliminate interruption and/or replace temperature sensor
Pressure sensor defective	Replace pressure sensor
Pump relay has voltage on terminal 86, but terminal 85 has no ground connection	After switching on the ignition, the pump operates for 1–2 sec. Check with voltmeter; ground connection for terminal 85 is switched by the control unit. Replace control unit.
Cooling water thermo sensor has interruption (even though only at times)	Replace thermo sensor
Engine stops during drive (in most cases misfiring occurs previously)	
Resistance of sending contact is too high or contact is dirty (grease, oil)	Replace contact insert, if dirty cautiously clean with washing gasoline
Plug connections not in order (pressure sensor, sending contacts)	Check plug connections
No fuel pressure	Check fuel pressure
Engine runs irregularly, one cylinder does not work	
One injection valve is sticking	Replace valve
Valve connection or valve coil not in order	Check plug connection, replace valve, check with Bosch Tester EFAW 228
Engine misfires, which is not caused by the ignition system	
Connections are loose, central ground cable has bad contact to body	Check plug connections, check ground connection
Sending contact dirty	Clean contact or replace insert
Unsatisfactory engine output	
Fuel pressure too low	Check pressure regulator, if necessary replace Measure feeding capacity of fuel pump (1 liter in at least 30 secs.)
Pressure sensor defective	Check with Bosch Tester EFAW 228, if necessary replace pressure sensor
Throttle valve opening too small	Check throttle valve and control linkage

Cause	Corrections
Fuel consumption too high	
Pressure sensor defective	Replace pressure sensor
Sending units do not function properly or resistance on the electric connections (corrosion) too high	Check injection system with Bosch Tester EFAW 228 (see page 43)
Throttle valve switch not correctly adjusted	Adjust with Bosch Tester EFAW 228
Fuel pressure too high	Check pressure regulator, if necessary replace
Air or cooling water temperature sensor defective	Check temperature sensors with Bosch Tester EFAW 228, if necessary replace
Heavy surging in idling position	
Hose between intake pipe and additional air valve is leaking	Check hose, if necessary replace
Throtte valve opening range not correctly adjusted (throttle valve is open in idling position)	Readjust throttle valve stop
Idling speed adjustment too high	Correctly adjust idling speed
Pressure regulator defective	Check pressure regulator, if necessary replace
Engine misfires during acceleration (hesitation)	
Pick-up enrichment in throttle valve switch does not function	Check throttle valve switch with Bosch Tester EFAW 228
Idling speed too high, but cannot be adjusted	
Leakages in the idling air system	Check idling air system
Rubber seal ring below injection valve leaking	Replace rubber seal rings
Throttle valve improperly adjusted	Adjust throttle valve correctly