

MAZDA

Model: 323 (BG) • 323 Estate 1,6/4x4 (BW) • 323 (BA/BJ)
626/MX-6 • 626/Estate • Xedos 6/9 • MX-3/MX-5

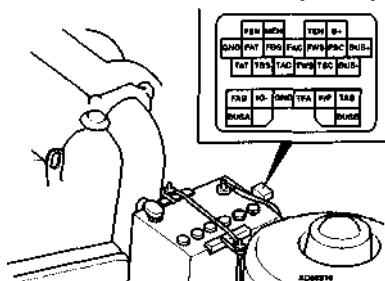
Year: 1989-00

Engina code: BP, BP-DOHC, B3, B3E, B6, B6-SOHC, B6-DOHC,
B6E,FP, FS, KF, KJ, KL K8, RF, RF-CX, RF-Turbo, ZL,
Z5

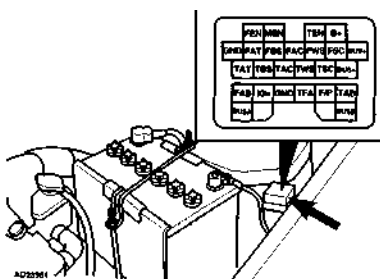
System: Mazda EGI • Mazda EDC

Engine management/transmission

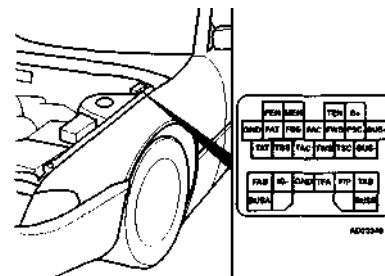
Data link connector (DLC) locations



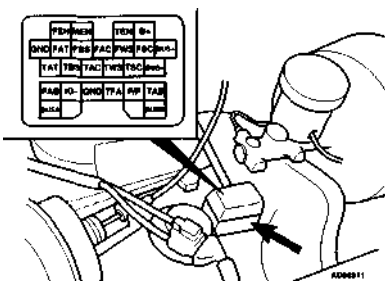
323 - engine bay, LH



626 -1997/MX-6, Xedos 6/9, MX-3 -
engine bay, LH



626/Estate 1998 -» - engine bay, LH



MX-5 - near brake master cylinder

Trouble codes

n The ECM fault memory can also be checked and erased using diagnostic equipment connected to the data link connector (DLC).

General information

Except Xedos 9 2,3

- n Refer to the How to use this manual section for: general test conditions, terminology, detailed descriptions of wiring faults and a general trouble shooter for electrical and mechanical faults.
- n Trouble codes are displayed by using an LED connected to the data link connector (DLC).
- o Except 323 1998-», 626/Estate/MX-5 1997->: Engine control module (ECM) displays all available diagnostic information for immobilizer system.
- n DLC without wiring/terminals in positions FAT & TAT: Engine control module (ECM) incorporates transmission control function.
- n DLC with wiring/terminals in positions FAT & TAT: Transmission control module (TCM) mounted separately.

Xedos 9 2,3

- n Refer to the How to use this manual section for: general test conditions, terminology, detailed descriptions of wiring faults and a general trouble shooter for electrical and mechanical faults.
- a Trouble codes are displayed by using an LED connected to the data link connector.
- n Engine control module (ECM) displays all available diagnostic information for immobilizer system.
- Q Transmission control module (TCM) mounted separately.
- n Data bus connecting ECM to TCM allows faults relating to both systems to be displayed when accessing ECM fault memory.
- n The ECM/TCM fault memory can also be checked and erased using diagnostic equipment connected to the data link connector (DLC).

Engine management/transmission

Accessing

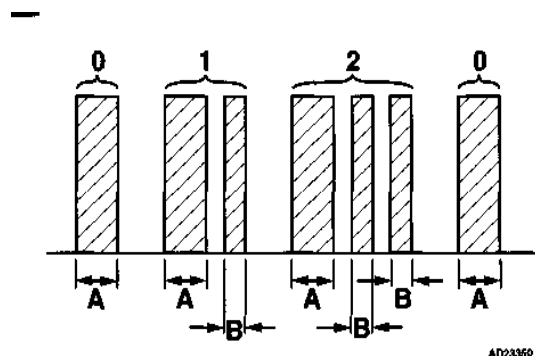
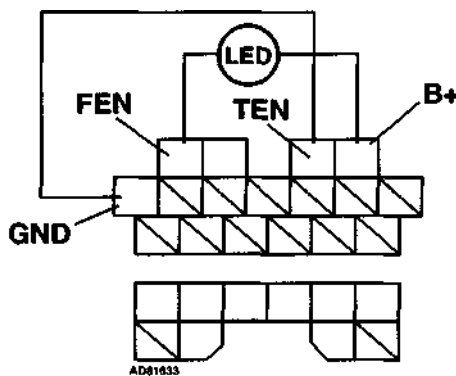
- Ensure ignition switched OFF.
- Bridge data link connector (DLC) terminals GND and TEN

1

- Connect LED test lamp between terminals FEN and B+ D.

NOTE: Connect LED test lamp positive connection to DLC terminal B+.

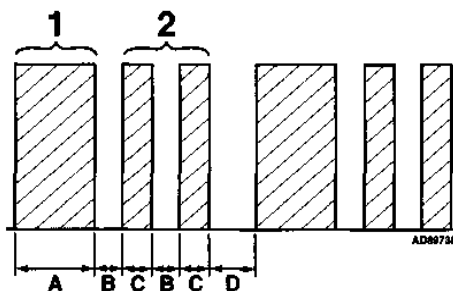
- Switch ignition ON.
- Count LED flashes. Note trouble codes. Compare with trouble code table.
- Two digit trouble codes are displayed as follows:
 - Long flashes indicate the 'tens' 2 [A].
 - Short flashes indicate the 'units' 2 [C].
 - For example: Trouble code 12 displayed 2.
- Four digit trouble codes are displayed as follows:
 - Each trouble code consists of four groups.
 - A long flash indicates the start of each group 3 [A].
 - Short flashes indicate the digits of each group 3 [B].
 - No short flashes in a group indicate '0'.
 - For example: Trouble code 0120 displayed 3.
- Switch ignition OFF. Rectify faults as necessary.



Erasing

- Ensure ignition switched OFF.
- Disconnect battery earth lead for at least 30 seconds.
- Depress brake pedal for at least 20 seconds.
- Reconnect battery earth lead.
- Repeat checking procedure to ensure no data remains in ECM fault memory.

WARNING: Disconnecting the battery may erase memory from electronic units (e.g. radio, clock).



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Trouble code identification

Flash type 2-digit	Fault location	Probable cause
01	Ignition pulse missing	Wiring, tachometer, ignition coil, distributor, ECM, TCM
02	Diesel: Engine speed (RPM) sensor - no signal	Wiring, RPM sensor
02 1	Petrol: Crankshaft position (CKP) sensor/engine speed (RPM) sensor - no signal	Wiring, sensor supply voltage, CKP/RPM sensor
03	Camshaft position (CMP) sensor - no signal	Wiring, sensor supply voltage, CMP sensor
04	Diesel: Crankshaft position (CKP) sensor - no signal	Wiring, sensor supply voltage, CKP sensor
04 2	Petrol: Crankshaft position (CKP) sensor/engine speed (RPM) sensor - no signal	Wiring, sensor supply voltage, CKP/RPM sensor
05	Knock sensor (KS)	Wiring, KS
06	Vehicle speed sensor (VSS)	Wiring, speedometer, VSS
08	Mass air flow (MAP) sensor/volume air flow (VAF) sensor	Wiring, MAF/VAF sensor
09	Engine coolant temperature (ECT) sensor	Wiring, ECT sensor
10	Intake air temperature (IAT) sensor	Wiring, IAT sensor
11	Intake air temperature (IAT) sensor	Wiring, IAT sensor
12	Throttle position (TP) sensor	Wiring, TP sensor adjustment, TP sensor
14	Barometric pressure (BARO) sensor	Wiring, BARO sensor, ECM
15	Except V6: Oxygen sensor (O2S)/heated oxygen sensor (HO2S) - no activity V6: Heated oxygen sensor (HO2S), bank 2 - no activity	Intake leak, fuel pressure/pump, wiring, O2S/HO2S, injector(s), ECT sensor, MAF sensor, spark plugs Intake leak, fuel pressure/pump, wiring, O2S/HO2S, injector(s), ECT sensor, MAF sensor, spark plugs
16	Exhaust gas recirculation (EGR) valve position sensor	Wiring, EGR valve position sensor
17	Except V6: Oxygen sensor (O2S)/heated oxygen sensor (HO2S) - incorrect signal V6: Heated oxygen sensor (HO2S), bank 2 - incorrect signal	Intake leak, fuel pressure/pump, wiring, O2S/HO2S, injector(s), ECT sensor, MAF sensor, spark plugs Intake leak, fuel pressure/pump, wiring, O2S/HO2S, injector(s), ECT sensor, MAF sensor, spark plugs
18	Fuel quantity adjuster	Wiring, fuel quantity adjuster/position sensor
19	Fuel quantity adjuster position sensor	Wiring, fuel quantity adjuster position sensor
22	Fuel shut-off solenoid	Wiring, fuel shut-off solenoid
23	Diesel: Fuel temperature sensor Petrol: Heated oxygen sensor (HO2S), bank 1 - no activity	Wiring, fuel temperature sensor Intake leak, wiring, O2S/HO2S, injector(s), ECT sensor, MAF sensor, spark plugs
24	Heated oxygen sensor (HO2S), bank 1 - incorrect signal	Intake leak, fuel pressure/pump, wiring, O2S/HO2S, injector(s), ECT sensor, MAF sensor, spark plugs
25	Fuel pressure regulator control solenoid	Wiring, fuel pressure regulator control solenoid
26	Evaporative emission (EVAP) canister purge valve	Wiring, EVAP canister purge valve
28	Exhaust gas recirculation (EC3R) solenoid -vacuum i	Wiring, EGR solenoid
29	Exhaust gas recirculation (EGR) solenoid - vent	Wiring, EGR solenoid
34	Idle air control (IAC) valve	Wiring, IAC valve
35	Fuel pressure regulator control solenoid 2	Wiring, fuel pressure regulator control solenoid
36	Glow plug relay	Wiring, glow plug relay
41	Intake manifold air control solenoid 1	Wiring, intake manifold air control solenoid
43	Fuel injection timing sensor	Wiring, fuel injection timing sensor/solenoid

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Flash type 2-digit	Fault location	Probable cause
46	Petrol: Intake manifold air control solenoid 2	Wiring, intake manifold air control solenoid
	Diesel: Closed throttle position (CTP) switch	Wiring, CTP switch
49	Engine control module (ECM) - defective	ECM
52	Module coding plug	Wiring, module coding plug
55	Input shaft speed (ISS) sensor/turbine shaft speed (TSS) sensor	Wiring, ISS/TSS sensor
56	323: Engine control module (ECM) - supply voltage	Wiring, ECM
	626: Transmission fluid temperature (TFT) sensor	Wiring, TFT sensor
57	Engine control relay	Wiring, engine control relay
60	Shift solenoid (SS) A, 1-2	Wiring, SS
61	Shift solenoid (SS) B, 2-3	Wiring, SS
62	Shift solenoid (SS) C, 3-4	Wiring, SS
63	Torque converter clutch (TCC) control solenoid	Wiring, TCC control solenoid
64	Shift timing solenoid, 3-2	Wiring, shift timing solenoid
65	Torque converter clutch (TCC) solenoid	Wiring, TCC solenoid
66	Transmission fluid pressure (TFP) solenoid	Wiring, TFP solenoid
67	Engine coolant blower motor relay - 1 /low temperature	Wiring, engine coolant blower motor relay
68	Engine coolant blower motor relay - high temperature	Wiring, engine coolant blower motor relay
69	Engine coolant blower motor temperature sensor	Wiring, engine coolant blower motor temperature sensor
71	Engine control module (ECM)/immobilizer control module - communication error	Wiring, immobilizer control module, ECM
72	Ignition key - not programmed into ECM	ECM incorrectly/not programmed
73	Engine control module (ECM)/immobilizer control module - immobilizer codes do not match	Incorrectly programmed immobilizer control module/ECM
74	Engine control module (ECM)/immobilizer control module - ignition key codes not match	Incorrect/damaged key, ECM incorrectly programmed
75	Engine control module (ECM) - EEPROM error	ECM
76	Engine control module (ECM) — immobilizer code not stored	ECM incorrectly/not programmed
77	Immobilizer control module - communication error	Incorrect/damaged key, wiring, reader coil, immobilizer control unit

1 626/Xedos 6/9, engine codes KF/KL: Located in cylinder block.

2 626/Xedos 6/9, engine codes KF/KL: Located in distributor.

Ptype 4-digit	Fault location	Probable cause
PO	Refer to EOBD trouble code table	-
P1100	Mass air flow (MAP) sensor ~ circuit intermittent	Wiring, MAF sensor
P1101	Mass air flow (MAP) sensor - circuit intermittent	Wiring, MAF sensor
P1110	Intake air temperature (IAT) sensor 2	Wiring, IAT sensor
P1112	Intake air temperature (IAT) sensor-circuit intermittent	Wiring, IAT sensor
P1113	Intake air temperature (IAT) sensor 2	Wiring, IAT sensor