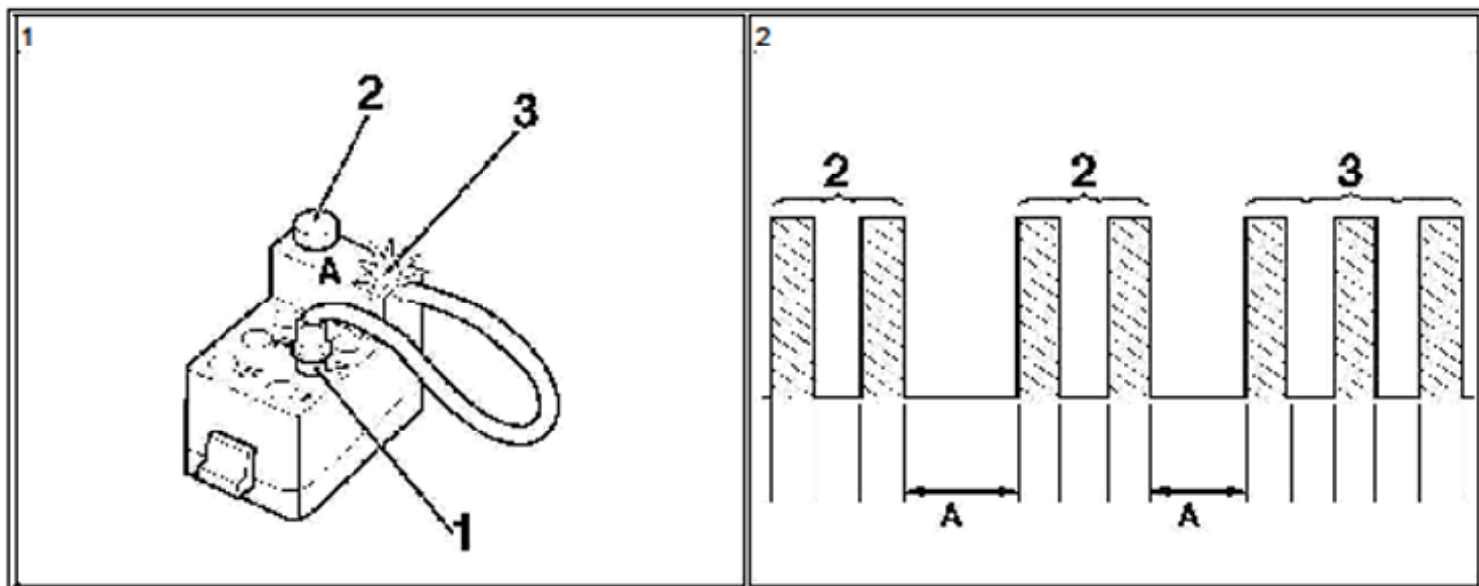


Accessing

- Open data link connector (DLC) cover.
- Insert system selector cable in socket 2 [Fig. 1](#) [1].
- Switch ignition ON.
- Press test button for 0,5 to 1 second [Fig. 1](#) [2].
- Count LED flashes [Fig. 1](#) [3].
- Note trouble codes. Compare with trouble code table.
- Trouble codes consist of a sequence of three groups of flashes [Fig. 2](#).
- A 3 second pause separates each group [Fig. 2](#) [A].
- For example: Trouble code 223 displayed [Fig. 2](#).

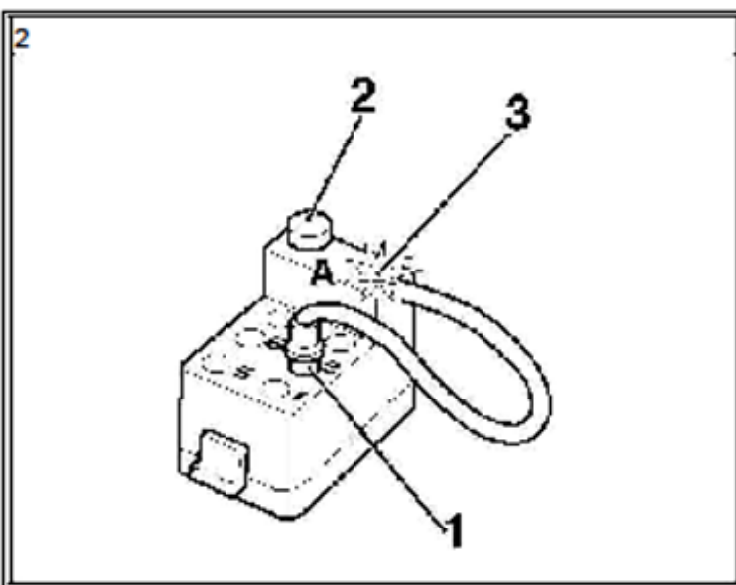


Erasing

NOTE: Trouble codes must be accessed and faults rectified before codes can be erased.

- Open data link connector (DLC) cover.
- Insert system selector cable in socket 2 [Fig. 1](#) [1].
- Switch ignition ON.
- Press test button for 5 seconds minimum [Fig. 1](#) [2].
- Release button. Wait until LED illuminates [Fig. 1](#) [3].
- Press test button for 5 seconds minimum.
- Ensure trouble codes have been erased.
- The ECM fault memory can also be erased by disconnecting the battery.

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



Trouble code identification

Flash type	Fault location	Probable cause
111	No fault found	-
112	<u>Engine control module (ECM)</u>	<u>ECM</u>
113	<u>Injector(s) - faulty signal</u>	Wiring open circuit
121	<u>Manifold absolute pressure (MAP) sensor - signal error</u>	Wiring, vacuum hose blocked/split, MAP sensor
122	<u>Intake air temperature (IAT) sensor - signal error</u>	Wiring, IAT sensor
123	<u>Engine coolant temperature (ECT) sensor - signal error</u>	Wiring, ECT sensor
132	Battery voltage	Wiring, engine control relay, alternator, battery
143	<u>Knock sensor (KS) - signal error/signal absent</u>	Wiring, KS
211	Mixture adjustment resistor - B18EP	Wiring open/short circuit, mixture adjustment resistor
212	<u>Heated oxygen sensor (HO2S) - signal error/signal absent</u>	Wiring, fuses, oxygen sensor heater, injector(s), fuel pressure
214	<u>Crankshaft position (CKP) sensor - early models</u>	Wiring, CKP sensor
222	Engine control relay - no voltage to ECM pin 20	Wiring, engine control relay, ECM
223	Idle air control (IAC) valve, MPI - signal error/signal absent	Wiring short/open circuit
223	<u>Idle speed control (ISC) actuator, TBI - signal error/signal absent</u>	Wiring short/open circuit
231	<u>Heated oxygen sensor (HO2S) - signal error, part load range</u>	Wiring, fuses, oxygen sensor heater, injector(s), fuel pressure
232	<u>Heated oxygen sensor (HO2S) - signal error, idling</u>	Wiring, fuses, oxygen sensor heater, injector(s), fuel pressure
243	<u>Throttle position (TP) sensor - signal error</u>	Wiring, accelerator cable adjustment, TP sensor, ECM
244	<u>Knock sensor (KS) - ignition control limit reached</u>	Wiring, KS, fuel quality, combustion fault
311	<u>Vehicle speed sensor (VSS)</u>	Wiring, VSS
411	<u>Throttle position (TP) sensor - signal error</u>	Wiring, accelerator cable adjustment, TP sensor, ECM
412	<u>Throttle position (TP) sensor - signal to multi-function control module</u>	Wiring, TP sensor, ECM