

Computer Diagnostics Mazda Vehicle Check-up

Computer diagnostics provide accurate analysis of the condition of your vehicle's electronic control devices, unavailable through visual inspection, using Mazda's latest and exclusive system for malfunction diagnosis.

Diagnosis time: **Approx. 10min**



Base price:

These days nearly all of your car's operations are aided by electronic control devices. Leave it to Mazda's computer diagnostics for your on-going and complete vehicle diagnostics needs.

*Not available on some models.
*Diagnosis time means the time required for vehicle recognition and engine warm-up completion.
*Diagnosis time varies with the type and number of tests depending on the vehicle and equipment.

Self-diagnostic test

Used to be a wrench and experience were enough...

Nowadays, cutting-edge computer diagnostics is where it's at!



1 Anti-lock brakes/ traction control

■ Role: Prevents wheel-lock during braking and drive-wheel tire spin at start-from-stop for maintenance of safety and drive stability.
■ Malfunction: Possible effect on braking, start-from-stop acceleration and drive stability.



2 Auto A/C

■ Role: Controls airflow vents, airflow amount and temperature.
■ Malfunction: Possible loss of control of air vent switching, airflow amount and temperature.



3 Electronic power steering

■ Role: Controls steering wheel operation force according to vehicle speed.
■ Malfunction: Possibility of heavy steering operation force.



4 Vehicle electronic device systems (Generic electronic modules)

■ Role: Control of electronic devices such as auto headlights, auto wipers, door locks, power windows.
■ Malfunction: Possible effect on operation of electronic devices.



5 Instrument cluster

■ Role: Controls gauges, displays, warning lights/sounds equipped in instrument cluster.
■ Malfunction: Possible effect on operation of gauges, displays, warning lights.



6 Remote keyless entry

■ Role: Control of advanced keyless entry and start system.
■ Malfunction: Possible loss of door locking/unlocking function using keyless switch.



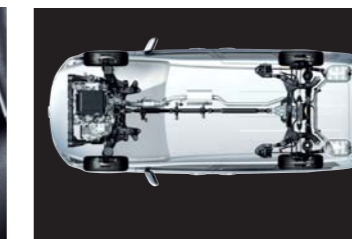
7 SRS airbag system (Restraint control module)

■ Role: Deploys airbags upon vehicle impact, restrains impact on driver and front passenger. (Controls airbag system)
■ Malfunction: Possible effect on airbag operation.



8 Automatic transmission

■ Role: Controls for optimum gear changing according to driving conditions.
■ Malfunction: Possible effect on shifting, shift-feel, acceleration-feel.



9 4WD control module

■ Role: Controls drive torque transmitted to rear tires according to road surface and driving conditions.
■ Malfunction: Possible effect on the transmission of drive torque to rear tires.



10 Headlamp control

■ Role: Controls adaptive front lighting system to illuminate direction of travel at curves and intersections.
■ Malfunction: Possible effect on headlight illumination control corresponding to steering wheel angle and vehicle speed.



11 Lighting control module

■ Role: Controls auto headlight system, rain sensor wipers.
■ Malfunction: Possible effect on the operation of the auto headlights and rain sensor wipers.



12 Left power sliding door module 13 Right power sliding door module

■ Role: Controls opening/closing of left/right power sliding doors.
■ Malfunction: Possible loss of sliding door open/close function.



14 Power liftgate (Liftgate / trunk module)

■ Role: Controls opening/closing of power liftgate.
■ Malfunction: Possible loss of electric open/close functionality of rear gate.



15 Audio amplifier

■ Role: Controls audio signal amplification and acoustic quality.
■ Malfunction: Possible effect on audio acoustic quality.



16 Powertrain control module

■ Role: Overall control of engine such as optimum timing and fuel injection and ignition based on driving conditions.
■ Malfunction: Possible effect on engine driving, fuel economy, and exhaust gas conditions.

Input/output test

Accelerator position pedal sweep test

■ Role: Verifies if sensor can detect accelerator pedal depression amount correctly.
■ Malfunction: Possible effect on accelerator-feel, shift-feel on automatic transmission.

Throttle opening sweep test

■ Role: Verifies if sensor detects throttle (accelerator) opening angle correctly.
■ Malfunction: Possible effect on accelerator-feel, shift-feel on automatic transmission.

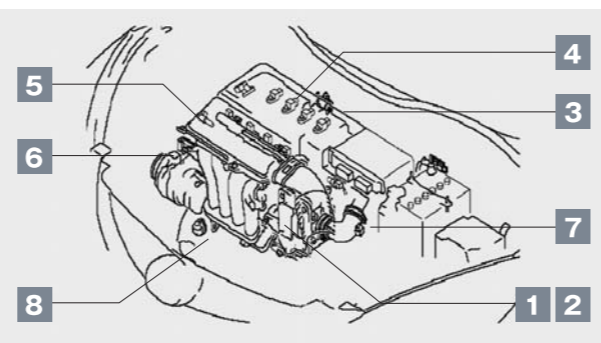
Idle air control system test

■ Role: Verifies control conditions of idle air control system which stabilizes idling.
■ Malfunction: Possible effect on idling conditions.

Key ON engine running test

■ Role: Inspects input/output parts for engine control, and condition of related wiring harnesses.
■ Malfunction: Possible effect on engine driving conditions, acceleration-feel, and fuel economy.

Powertrain control module data monitor



1 Throttle position sensor-1

■ Role: Inspects throttle (accelerator) opening angle during idling.
■ Malfunction: Possible effect on fuel economy and engine driving conditions.

2 Throttle position sensor-2

■ Role: Inspects throttle (accelerator) opening angle during idling.
■ Malfunction: Possible effect on fuel economy and engine driving conditions.

3 Heated exhaust gas oxygen sensor

■ Role: Detects signal of oxygen sensor which detects oxygen concentration in exhaust gas.
■ Malfunction: Possible effect on fuel economy and exhaust gas conditions.

4 Spark advance

■ Role: Displays control value of ignition timing necessary for stable engine driving.
■ Malfunction: Possible effect on fuel economy and engine driving conditions.

5 Engine revolution

■ Role: Displays engine speed during idling.
■ Malfunction: Possible effect on fuel economy and idling conditions.

6 Generator output voltage

■ Role: Displays voltage of generator (alternator)
■ Malfunction: Possible effect on battery power, engine starting.

7 ATF temperature

■ Role: Temperature of automatic transmission fluid during diagnostics.
■ Malfunction: Possible effect on shifting, acceleration-feel and fuel economy.

8 Engine coolant temperature

■ Role: Temperature of engine coolant during diagnostics.
■ Malfunction: Possible effect on engine starting, driving conditions, acceleration-feel, and fuel economy.