Qoltec®

INSTRUCTION MANUAL

OBDII/EOBD DIAGNOSTIC TESTER

MODEL : 50685

EN

INTRODUCTION

Thank you for your trust and for choosing our OBDII/EOBD Test and Diagnostic Tool. We are confident that the product will meet your expectations.

This manual will guide you through the process of installing and using the device. If you have any questions after reading the manual, please contact the NTEC sp. z o.o. service department.

ABOUT THE PRODUCT

The Qoltec OBD2/EOBD is an intuitive diagnostic tool that allows you to quickly identify and solve problems in your car. The device is used to check engines on all OBDII protocol compliant vehicles, with a 12V voltage and a standard 16-pin connector. With this versatile device, you will read fault codes, identify faults and restore full functionality to your vehicle in no time.

The DLC (Data Link Connector) is normally located approximately 30 cm from the centre of the vehicle's dashboard (cockpit).

CONSTRUCTION OF THE UNIT

Figure 1

1. LCD display
2. Red led: indicates engine problem. "mil (malfunction indicator light)" can be switched on.
3. Yellow Led: indicates a possible problem. Some diagnostics may not have been performed and/or dtc is pending.
4. Green Led: indicates correct engine operation.
5. Function button
6. Return button
7. Obdii connector
8. Top button
9. Enter button
10. Lower button

DESCRIPTION OF FUNCTIONS

1. Diagnostics with two systems, optional engine and gearbox.

2. Quick indication of engine faults, with green / yellow / red LED indicators as fault lights.

3. Read and clear engine fault codes and display DTC definitions. 16929 DTCs (diagnostic trouble codes) are available in the instrument system.

4. Display of sensor data stream information, supporting 249 parameter types.

5. Display of frozen image data and 1/M status information.

6. Reading vehicle information: vehicle identification number (VIN), calibration identification numbers (IDs), calibration verification numbers (CVNs).

7. Testing of the vehicle starting and charging system

8. Supports multiple languages.

9. Support Protocols:

a. SAE J1850 VPW

b. ISO 9141-2

c. ISO 14230-4 (KWP SBAUD)

d. ISO 15765-4 (CAN 11/500)

e. ISO 15765-4 (CAN 29/500)

f. SAE J1 850 PWM

g. ISO 14230-4 (KWP FAST)

h. ISO 15765-4 (CAN 11/250)

i. ISO 15765-4 (CAN 29/250)

OPERATION OF THE APPLIANCE

Language: the factory-set language is English. Other languages can be set manually in the instrument menu.

Units of measurement: the tester is designed to use both metric and imperial system units. The default setting is the metric system.

Fn key: Possibility to set the Fn key as a quick one-click test among the options "usual datastream", "all datastream", "1/M readiness", "Read codes" Dual system selection.

TECHNICAL SPECIFICATIONS

Operating voltage	8V-25V
Operating current	52mA
Operating temperature	-20°C-70°C
Storage temperature	-30°C-80°C
Display	2.4'' TFT colour display
Supported data stream type	249 types
Number of supported codes	16929

DIAGNOSTICS

Start the car engine and connect the OBDII connector to the vehicle's OBDII interface.

Enter the main interface; click the 'OK' button to start the vehicle system scan (DLC). If a single system is detected, it defaults to the engine system; when two systems are detected, a system selection menu will appear where you select the system to be diagnosed.

Figure 2

DIAGNOSTICS MENU

- Read codes: Read the diagnostic codes (DTCs) on the engine or transmission system and display the standard definition.

- Clearing codes: Clear all DTCs in the system.

- Data stream: Read and display all supported sensor data, up to 249 parameter types.

- Frozen image: Frozen image data captures vehicle status information (fault code, vehicle speed, engine rpm, water temperature, etc.) at the time of an emissions-related fault.

- I/M readiness: The I/M readiness function is used to check the operation of the emissions system in OBD2-compliant vehicles. Some newer vehicle models can support two types of I/M readiness tests:

A. Since DTC cleared - indicates the status of the monitors since the DTC codes were cleared.

B. Since the start of the current drive cycle - indicates the status of the monitors since the start of the current drive cycle. "OK" : diagnostic testing completed "INC" : diagnostic testing not completed "N/A" : not supported

- Vehicle information: Overview of vehicle identification number (VIN), calibration identification numbers (IDs), calibration verification numbers (CVNs).

DTC

There are 16929 DTC definitions in the instrument system. Enter the DTC no. and press the Enter key. (illustration)

A detailed fault definition will be displayed, which should be referred to during maintenance. (illustration)

Figure 3

TEST OF THE STARTING SYSTEM

The test proceeds as follows:

1. Select the "cranking test" function and press the ENTER button to start.

2. Then start the engine when the corresponding message appears on the display. (Figure) The tester will automatically complete the test and display the results.

3. When RPM (?) is detected the following message will be displayed. (figure)

4. A starting voltage of less than 9.6V is considered abnormal.

5. The result of the test carried out by the device will include the current starting voltage and the starting time of the motors.

6. It is for the convenience of service personnel to quickly know the entire state of the starting system from the data.

Figure 4

CHARGING SYSTEM TEST

The test proceeds as follows:

1. Select "charging Test" on press ENTER to start the test.

Note: Do not switch off the engine during the test. Follow the directions shown on the tester screen. (Figures)

2. When the test is complete, the tester will display the charging voltages at load and no load, the ripple voltage and the results of the charging test. (drawing)

Note: "No Output" means that the charging system is not generating an output (no charging voltage). The vehicle will stop working when the battery is exhausted. Check the alternator or contact your car service as soon as possible.

Figure 5

SERVICE AND REPAIR

Remember that incorrect repair can lead to serious damage to the appliance and may even pose a danger to the user. If you have problems with your appliance, if you have no experience or knowledge of how to repair your appliance, it is advisable to seek the assistance of a specialist or technical service. You may benefit from a warranty repair if the defect is due to a manufacturing problem. Warranty repair may include repair of the defective component, replacement of parts with new parts or replacement of the entire product if repair is not possible.

MAINTENANCE AND CLEANING

1) Turn off the power before cleaning.

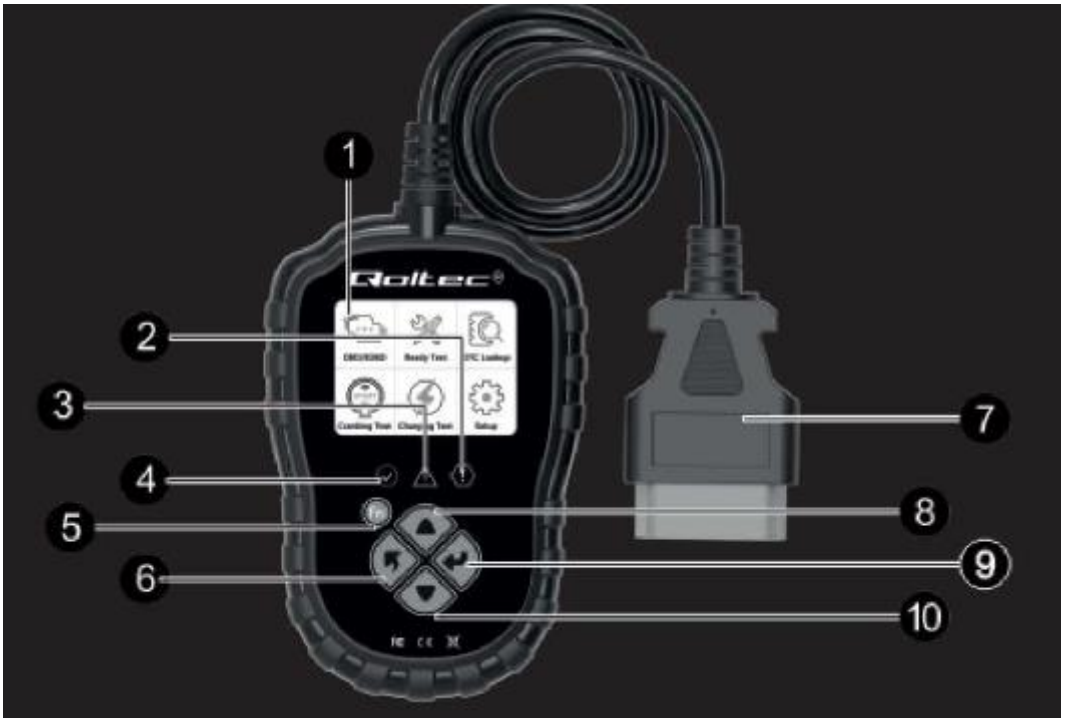
2) Wipe the unit with a dry cloth. Do not use chemicals or water.

DISPOSAL

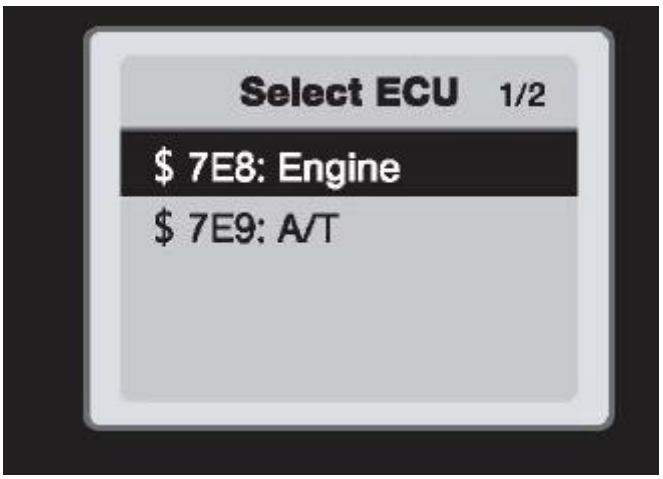
Avoid disposing of the appliance in ordinary waste containers to prevent environmental pollution. Return the device to suitable electronic waste collection points or electronic equipment recycling shops.

Attachement 1

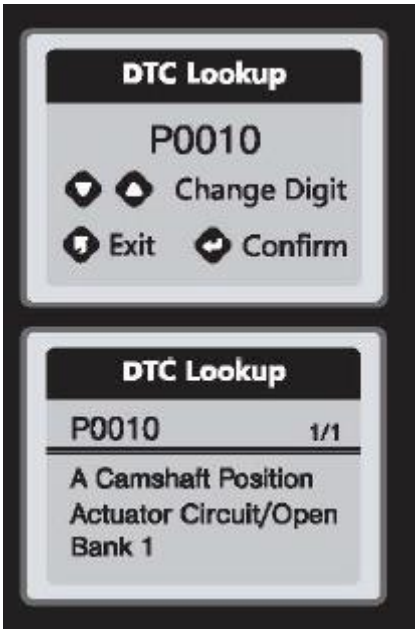
1



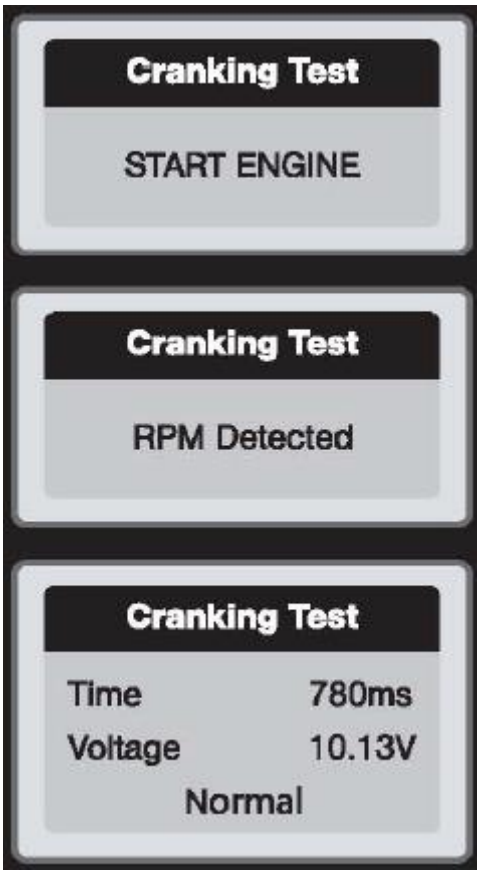
2



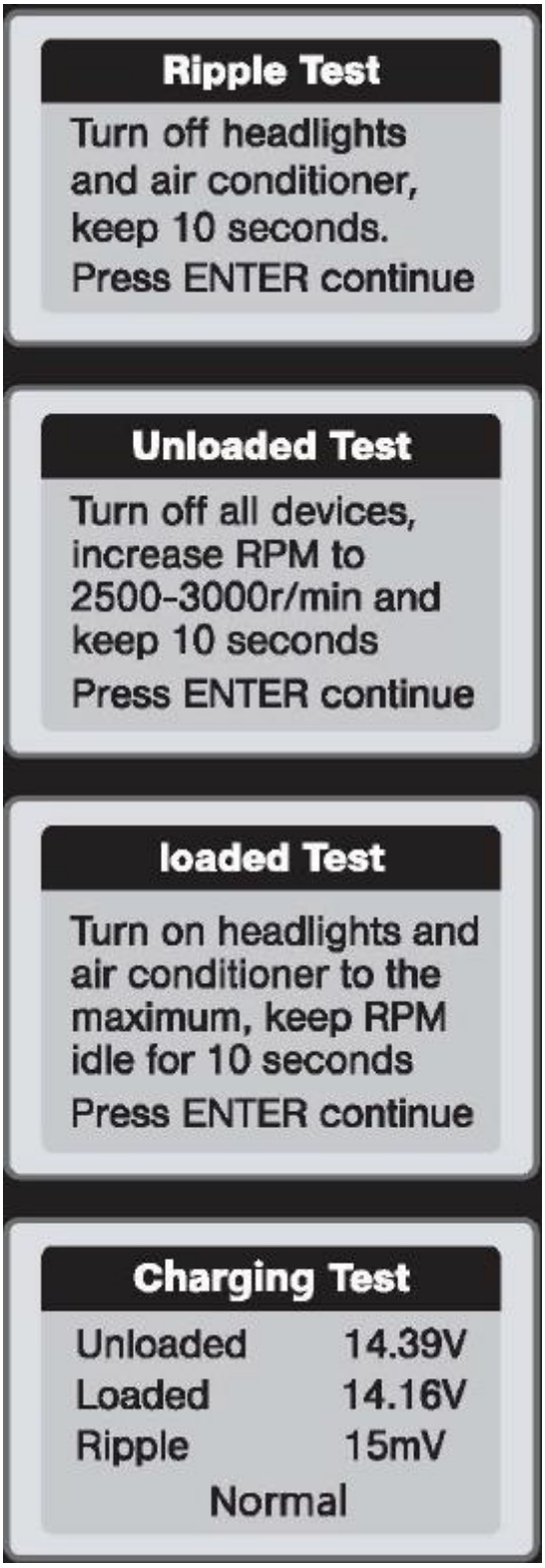
3


DTC Lookup
P0010
Change Digit
Exit
Confirm
DTC Lookup
P0010
1/1
A Camshaft Position
Actuator Circuit/Open
Bank 1

4


Cranking Test
START ENGINE
Cranking Test
RPM Detected
Cranking Test
Time
780ms
Voltage
10.13V
Normal

5


Ripple Test
Turn off headlights and air conditioner, keep 10 seconds.
Press ENTER continue
Unloaded Test
Turn off all devices, increase RPM to 2500-3000r/min and keep 10 seconds
Press ENTER continue
loaded Test
Turn on headlights and air conditioner to the maximum, keep RPM idle for 10 seconds
Press ENTER continue
Charging Test
Unloaded 14.39V
Loaded 14.16V
Ripple 15mV
Normal