



## OBD2DISPLAY™ MANUAL

### 1. SAFETY PRECAUTIONS AND WARNINGS

To prevent personal injury or damage to vehicles or the car tool, read this instruction manual first and observe the following safety precautions.

1. When an engine is running, it produces carbon monoxide, a toxic and poisonous gas. To prevent serious injury or death from carbon monoxide poisoning, operate the vehicle ONLY in a well-ventilated area.
2. To protect your eyes from propelled objects as well as hot or caustic liquids, always wear approved safety eye protection.
3. Keep cigarettes, sparks, open flame and other sources of ignition away from the vehicle. Keep a dry chemical (Class B) fire extinguisher rated for gasoline, chemical and electrical fires in work area.
4. Connecting or disconnecting test equipment when the ignition is ON can damage test equipment. Switch the ignition OFF before connecting the Code Reader before disconnecting the OBD2DISPLAY from the vehicle's Data Link Connector (DLC).
5. To prevent damage to the on-board computer when taking vehicle electrical measurements. Always use a digital multimeter with at least 10 MΩ of impedance.
6. Keep the Car Tool clean, dry and free from oil, water and grease. Use a mild detergent on a clean cloth to clean the outside of the Scan Tool, when necessary.

### 2. PRODUCT INFORMATION

#### 2.1 Product Description

1. LCD Display, 128 x 64 pixels Display with contrast adjustment and backlight.
2. Enter key (Selects displayed)
3. Escape key (Go back to the previous screens)
4. UP and DOWN arrows-moves the selection pointer and scrolls up or down.
5. LEFT and DOWN arrows select responses and moves cursor.
6. Power Button
7. OBDII connector cable, connect the car and the scan tool.
8. Battery compartment

#### 2.2 Product Specifications

<b>Operating temperature:</b>	0 to 50° C
<b>Internal Power:</b>	9 Volt battery
<b>Display:</b>	128 x 64 pixels backlight LCD
<b>External Power:</b>	10 to 15,5 Volt provided via vehicle battery
<b>Dimensions:</b>	195 mm Length, 81 mm Width, 32 mm Height, OBDII connector + cable 1500 mm





## 2.3 Product Features

Works on all 1996 and newer cars & light trucks that are OBD II compliant (including the VPW, PWM, ISO, KWP 2000 and CAN protocols). Reads and clears generic and manufacturer specific Diagnostic

- **Trouble Codes (DTCs)**
- **Reading Freeze Frame Data**
- **Read Live Data**
- **Testing I/M Reading Status**
- **Reading Vehicle Info**
- **Rescanning Data**

For more specific information we forward you to the OBD info document that you'll find on the CD-rom on our website [www.luccio.nl](http://www.luccio.nl).

## 3. OPERATING INSTRUCTIONS

### 3.1 Start the OBD2DISPLAY

1. Turn the ignition OFF.
2. Locate the 16-pin Data Link Connector (DLC) and plug in the cable connector to the (DLC).
3. Wait for the LCD display (Press on the power switch).
4. Turn the ignition ON (Needn't start the engine) and press any key.

The OBD2DISPLAY will search to make contact with the vehicle by scanning the different protocols.

### 3.2 Read Trouble Codes (DTCs)

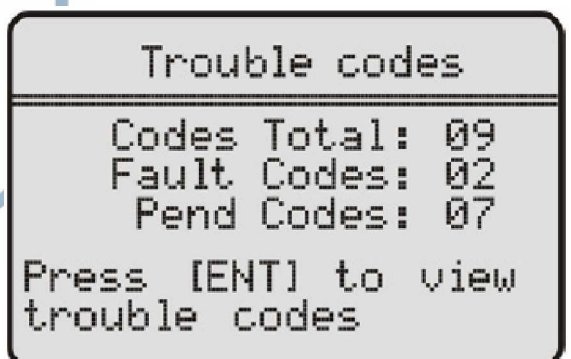
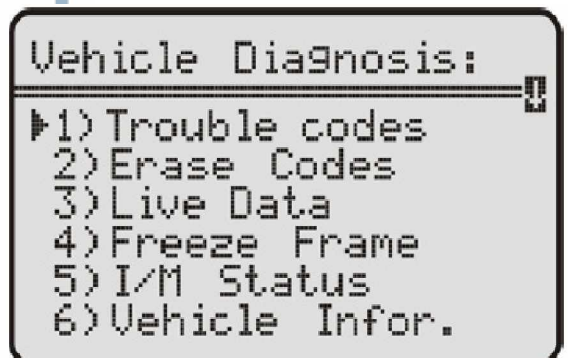
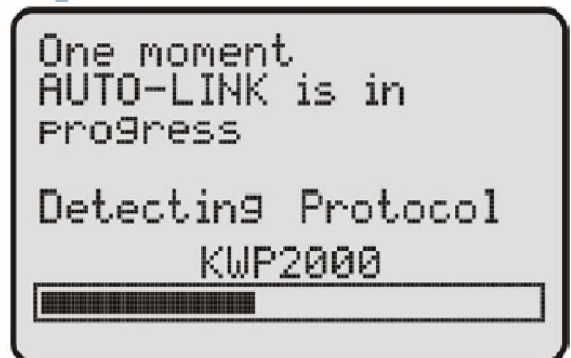
The "Trouble codes" function reads (DTCs) from the vehicle's computer modules there two types of codes; 1 Malfunction Indicator Light (MIL) codes and 2 pending codes.

**MIL codes:** These codes cause the computer to illuminate the MIL when an emission related or driveability fault occurs. The MIL is also known as the "service Engine Soon" or "Check Engine Light". MIL codes remain in the vehicle's memory until the fault is repaired.

**Pending codes:** These codes are also referred as "Continuous monitor" and "Maturing codes". An intermittent fault will cause the computer to store a code in memory. If the fault does not occur within 40 warm-upcycles, the code will be cleared from the memory. If the fault occurs a specific number of times, the code will mature into a DTC and the MIL will turn on.

Select "**1) Trouble codes**" and press ENTER. The OBD2DISPLAY retrieves the DTC's stored in the vehicles computer modules.

- If there are no trouble codes, it will display "**NO CODES ARE FOUND**".
- If there are any trouble codes, all information will be reported on the display.



### 3.3 Erase Trouble Codes (DTCs)

Select "**2) Erase codes**" and press the ENTER key.

```

Vehicle Diagnosis:
-----
1) Trouble codes
▶2) Erase Codes
3) Live Data
4) Freeze Frame
5) I/M Status
6) Vehicle Infor.
    
```

A message appears asking if you are sure. Press the LEFT / RIGHT arrow keys to move the brackets to the desired response and press ENTER.

```

Erase Codes
-----
Erase trouble codes!
Are you sure?

      YES      NO
    
```

### 3.4 Read Live Data (Current Sensor values and Parameters)

To read the current sensor values and Parameters, select "**3) Live Data**".

All available data will be display. By using the UP and DOWN arrow keys one can scroll through the list of parameters.

PRESS THE KEYS LONGER WHEN DEALING WITH A SLOWER PROTOCOL.

```

Vehicle Diagnosis:
-----
1) Trouble codes
2) Erase Codes
▶3) Live Data
4) Freeze Frame
5) I/M Status
6) Vehicle Infor.
    
```

Fuel SYS1 (Fuel System bank 1)  
CL (Closed Loop)

Fuel SYS2 (Fuel System bank 2)  
CL (Closed Loop)

COOLANT (°F / °C) (Coolant Temperature)

```

DataStream
-----
Fuel SYS1
      CL,using H025
Fuel SYS2
      CL,using H025
COOLANT(°F)
      100
    
```

ST FTRM1 (%) Short Term Fueltrim bank 1

LT FTRM1 (%) Long Term Fueltrim bank 1

MAP (mbar) Manifold Absolute Pressure

Engine (RPM) Engine Speed

Vehicle Speed (MPH / Km/h)

Ignition Advance (Crankshaft Degrees)

Inlate Air Temperature (°F / °C)

Mass Air Flow (lb/min / g/s)

Absolute Throttle Position (%)

Oxygen Sensor 1 bank 1 (Volt) and (%)

Oxygen Sensor 2 bank 1 (Volt) and (%)

OBD2 Status (Not OBD)

DataStream	
ST FTRM1 (%)	-2.3
LT FTRM1 (%)	1.5
MAP (in.hg)	10.9

DataStream	
ENGINE(RPM)	923
VEH SPEED(MPH)	0
IGN ADV(DEG)	22.0

DataStream	
IAT(°F)	88
MAF(lb/min)	10.115
ABSLT TPS(%)	6.2

DataStream		
02S11	(v)	(%)
	0.785	-3.1
02S12	(v)	(%)
	0.450	N/A
OBD2 STAT	NOT OBD	

### 3.5 Read Freeze Frame Data

When an emission-related fault occurs, certain vehicle conditions are recorded by the on-board computer. This information is referred to as Freeze Frame Data. This Data can be overwritten by faults with a higher priority.

If codes are erased, the Freeze Frame data may not be stored in the vehicles memory any more.

Select "**4) Freeze Frame**" and press the ENTER key to retrieve the Freeze Frame Data.

The DTC's with its corresponding Freeze Frame Data will be displayed.

By using the UP and DOWN arrow keys one can scroll through the list of Freeze Frame Data.

PRESS THE KEYS LONGER WHEN DEALING WITH A SLOWER PROTOCOL.

```

Vehicle Diagnosis:
-----
1) Trouble codes
2) Erase Codes
3) Live Data
▶4) Freeze Frame
5) I/M Status
6) Vehicle Infor.
    
```

```

Freeze Frame
-----
TROUB CODE                P0686
Fuel SYS1
      OL, not ready CL
Fuel SYS2
                                N/A
    
```

### 3.6 Read I/M Status (Monitoring)

Select "**5) I/M Status**" and press the ENTER key.

The I/M status will show you which subsystems are being monitored / checked on its functioning.

```

Vehicle Diagnosis:
-----
1) Trouble codes
2) Erase Codes
3) Live Data
4) Freeze Frame
▶5) I/M Status
6) Vehicle Infor.
    
```

```

I/M Status
-----
MIL Status                on
Misfire Monitor           ok
Fuel System Mon           ok
Comp. Component           ok

Use ▲▼ to scroll
    
```

Using the UP and Down arrow keys to view the status of the monitored subsystems.

**Explanation list:**

Misfire Monitor	Checks on misfire
Fuel System Mon.	Checks on fuel system functioning
Com Component	Comprehensive Components Monitor
Catalyst Mon	Catalyst Monitor
Htd Catalyst	Heated Catalyst Monitor
Evap System Mon	Evaporative System Monitor
Sec Air System	Secondary Air System Monitoring
A/C refig Mon	Air Conditioning Refrigerant Monitor
Oxygen Sens Mon	Oxygen Sensor Monitor
Oxygen Sens HTR	Oxygen Heater sensor Monitor
EGR System Mon	Exhaust Gas Recirculation Monitor

**3.7 Vehicle Information**

Select "**6) Vehicle Infor.**" From the main menu and press the ENTER key.

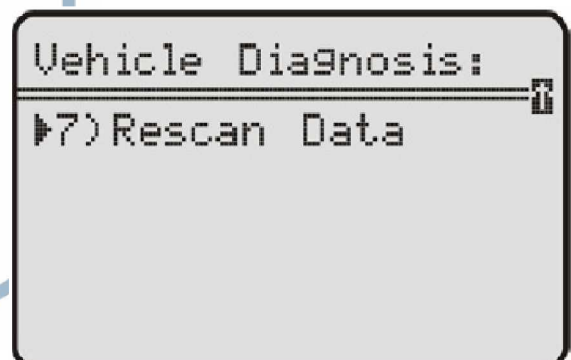
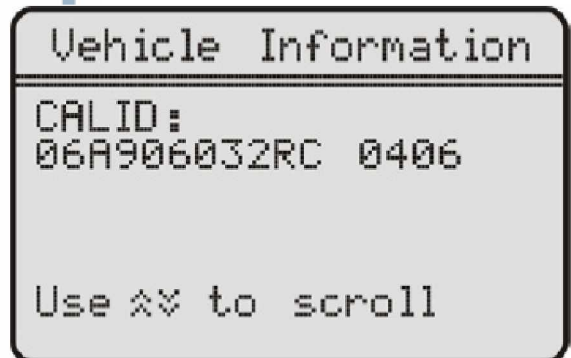
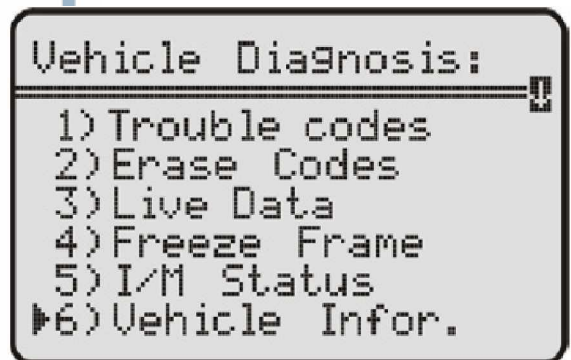
Use the UP and DOWN arrow keys to scroll up and down to be able to see the complete 17 digit number.

If the vehicle does not support this mode, a message will show "**the selected mode is not supported!**".

**3.8 Rescan Data**

Select "**7) Rescan Data**" from the main Menu and press the ENTER key. The OBD2DISPLAY will reconnect and retest your car.

You can use this option for example when during the connection a new DTC is introduced. After having rescanned the data, the OBD2DISPLAY will be able to show you this DTC.





### 3.9 Battery

Open the battery compartment and install the battery.

When the OBD2DISPLAY is connected with a car, it will use the power supply of the vehicle. After having completed the testing and the OBDII connector has been pulled out, the battery will power the OBD2DISPLAY in order to be able to still read the possibly memorised DTC's.

### 4.1 Warranty

Luccio Products warrants its customers that this product will be free of all defects in material and production under normal use and maintenance for a period of 1 year from the date of the original purchase.

This warranty does not apply to damages caused by improper use, accident, abuse, lightning, or if the product was altered or repaired by anyone other than the manufacturer's Service Centre.

If you have any questions, please contact Luccio Engineering through [info@luccio.nl](mailto:info@luccio.nl).



