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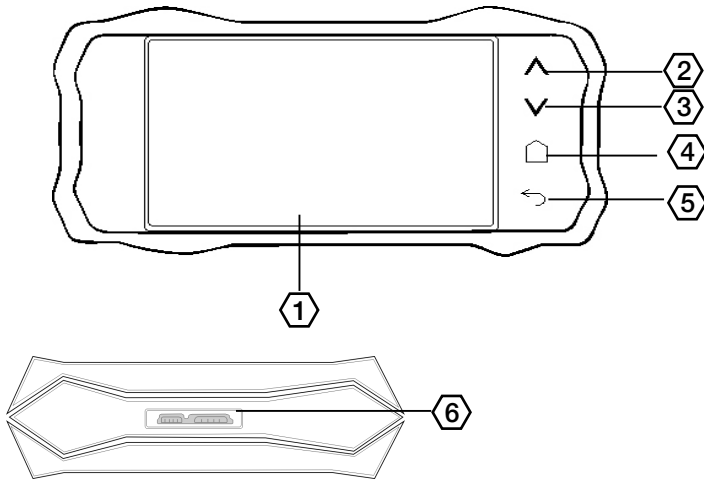


## **1. Safety Precautions and Warnings**

**To prevent personal injury or damage to vehicles and/or the auto computer, read this instruction manual first and observe the following safety precautions at a minimum whenever working on a vehicle:**

- Always keep attentive while driving.
- DO NOT try to make any adjustments while driving.
- DO NOT mount the auto computer in a position which can obstruct the view of the driver.
- DO NOT mount the auto computer in a manner which could cause it to be propelled through the vehicle during an accident causing injury, such as over or near an airbag.
- DO NOT route the cable in a manner which would interfere with the operation of the vehicle controls.
- Keep the auto computer dry, clean, free from oil/water or grease. Use a mild detergent on a clean cloth to clean the outside of the auto computer, when necessary.

## 2. Using the Auto Computer



### 2.1 Tool Descriptions

1. LCD Display -- Display retrieved data.
2. Buttons -- UP button.
3. Button -- Down button.
4. Button -- Enter or confirm button.
5. Button -- Return button.
6. USB3.0Port -- Connect the tool to vehicle's DLC with the OBD II cable supplied. or connect to the computer via USB cable.

### 2.2 Specifications

- 1). Display: 2.8: TFT color display
- 2). Operating Temperature: -10 to 70°C (14 to 158 F°)
- 3). Storage Temperature: -20 to 70°C (-4 to 158 F°)
- 4). Power: 8 to 18 volts provided via vehicle power
- 5). Dimensions:

Length	Width	Height
120 mm (4.72 in)	* 65 mm (2.56 in)*	10 mm (0.8 in)
- 6). NW: 0.30kg (0.60lb),GW: 0.35kg(0.72lb)

## 2.3 Accessories Included

- 1). User manual/Start Guide -- Instructions on tool operations
- 2). OBD II cable -- Provides power to tool and communicates between the tool and vehicle.
- 3). USB cable -- Connects the tool to a computer for software update.
- 4). CD -- Includes user manual,DTC lookup software and etc.
- 5). Velcro mounting strips -- Used to firm the TurboGauge onto the Vehicle.

## 2.4 Navigation Characters

Characters used to help navigate the auto computer are:

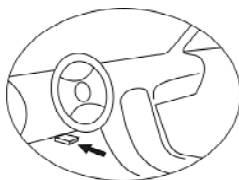
- 1). "> or < or \*-- Indicates the button next to it can be used and presses it to do what is displayed next to it.
- 2). "←" Moves to previous digit.
- 3). "→" Moves to next digit; Indicates an option is selected.
- 4). "+" -- Increase digit value.
- 5). "-" -- Decrease digit value.
- 6). "\$" -- Indicates the cost of fuel consumption.

## 2.5 Connection to the Vehicle

Follow the below steps to connect the tool to the vehicle:

- 1). Connect the OBD II cable to the tool.
- 2). Place the tool to the position you have chosen.
- 3). Locate DLC on vehicle.

The DLC (Data Link Connector or Diagnostic Link Connector) is a standardized 16-cavity connector where diagnostic auto computers interface with the vehicle's on-board computer. The DLC is usually located 12 inches from the center of the instrument panel (dash), under or around the driver's side for most vehicles. If Data Link Connector is not located under dashboard,a label should be there telling location. For some Asian and European vehicles, the DLC is located behind the ashtray and the ashtray must be removed to access the connector. A plastic DLC cover may be found for some vehicles and you need to remove it before plugging the OBD II cable. If the DLC can not be found, refer to the vehicle's service manual for the location.



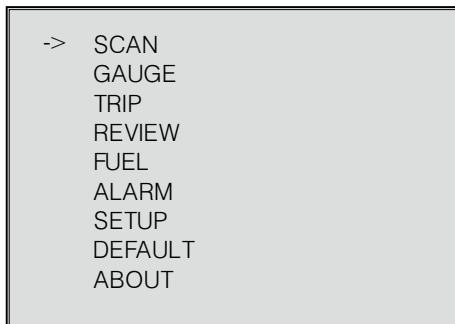
- 4). Plug OBD II cable to the vehicle's DLC.
- 5). Turn the ignition on. Engine can be off or running.
- 6). The auto computer starts to communicate with the vehicle.

● **If auto computer links to the vehicle, but fails to communicate with the vehicle's ECU (Engine Control Unit) for the first time, the tool will turn off automatically.**

**Follow steps below to troubleshoot if the tool can not open:**

- √ Verify that the ignition is ON;
- √ Check if the OBD II connector is connected to the vehicle's DLC well;
- √ Verify that the vehicle is OBD II compliant;
- √ Turn the ignition back to on and repeat the procedure from step 5.

- 7). When communication has been established, it shows the **HOME** screen.



● The **HOME** screen is defaulted to display 4 menu options as shown in the figure above. It can be set to show the **Gauge, Tank, Tank to empty, Total, Today and Current** information also. **HOME** screen hereafter in the manual refers to the default setting.

## 2.6 Turn off

- 1). Pull out the OBD II connector
- 2). The tool will be turn off automatically in 10-20 seconds if no operation, after communication stops or engine stops
- 3). Hold the right-lower button to turn off the tool. The operation is available only at first or menu.
- 4). Turn off the vehicle, the tool will turn off after 20 seconds.

## 3. Scan Tool

### 3.1. Reading and erasing codes (Home>Scan>DTC)

1). Choose the "SCAN" to start scanning.

```
->  SCAN
      GAUGE
      TRIP
      REVIEW
      FUEL
      ALARM
      SETUP
      DEFAULT
      ABOUT
```

2). Choose "DTC" and press Enter to read the trouble code.

```
->  DTC
      I/M
      FRZ
      INFO
```

3). There are four menu from DTC menu if the vehicle protocol is CAN.

```
->  STORED
      PENDING
      PERMANENT
      ERASE
```

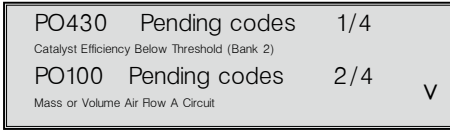
4). Choose "Stored" and press Enter to read the stored code.

PO105	Stored codes	1/4	
Manifold Absolute Pressure / Barometric Pressure Circuit			
PO100	Stored codes	2/4	v
Mass or Volume Air Flow A Circuit			

If no codes are found, the screen will show "No codes!"

Press the lower-left button to return "DTC " menu

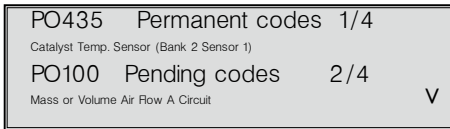
5). Choose "Pending" and press Enter to read the pending code.



If no codes are found,the screen will show "No codes!"

Press ESC button to return "DTC " menu

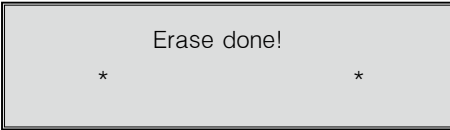
6). Choose "Permanent" and press Enter to read the permanent code.



If no codes are found,the screen will show "No codes!"

Press ESC button to return "DTC " menu

7). Choose "Erase" and press Enter button to erase the trouble codes.



CAUTION: Erasing the Diagnostic Trouble Codes may allow the trip computer to delete not only the codes from the vehicle's on-board computer, but also "Freeze Frame" data and manufacturer enhanced data. Further, I/M Readiness Monitor Status for all vehicle monitors are reset to Not- Ready or Not-Complete status. Do not erase the codes before the system has been checked completely by a technician.

8) Press ESC button to return "DTC " menu



## 3.2. Retrieving I/M Readiness Status (Home>Scan>I/M)

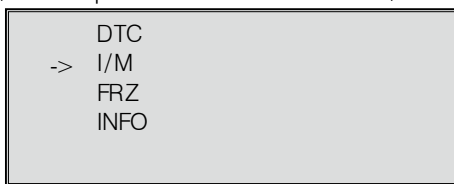
I/M Readiness function is used to check the operations of the Emission System on OBD2 compliant vehicles, including the below.

1. Malfunction Indicator Lamp Status (MIL)
2. Misfire monitoring (MIS).
3. Fuel System Monitoring (Fuel)
4. Comprehensive Component Monitoring (CCM)
5. Catalyst Monitoring (CAT)
6. Heated Catalyst Monitoring (HCAT)
7. Evaporative System Monitoring (EVAP)
8. Secondary Air System Monitoring (AIR)
9. A/C System Refrigerant Monitoring (ACRF)
10. Oxygen Sensor Heater Monitoring (O2S)
11. Oxygen Sensor Heater Monitoring (HTR)
12. EGR System Monitoring (EGR)

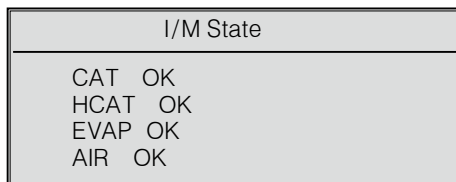
Besides, the below words show these monitors status:

- √ "OK" -- Indicates that a particular monitor being checked has completed its diagnostic testing.
- √ "NC" -- Indicates that a particular monitor being checked has not completed its diagnostic testing.
- √ "NA" -- The function is not supported on that vehicle.
- √ "ON" -- The malfunction indicator lamp is on.
- √ "OF" -- The malfunction indicator lamp is off.

- 1). Choose "I/M" and press Enter button to view I/M readiness status.



- 2). View I/M readiness status on screen.

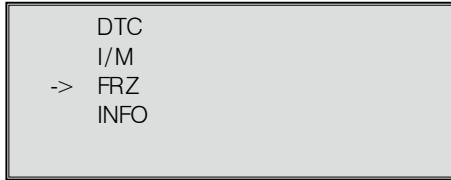


3). Use the upper four buttons next to any of the items or use lower-right button to view additional data on next screen(s).

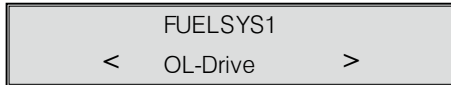
4). Press ESC button to exit.

### 3.3 Reading Freeze Frame Data (Home>Scan>FRZ)

1). To view freeze frame data,press the button next to "FRZ".



2). Use the button next to "< " and " >" to view previous or next PID data.



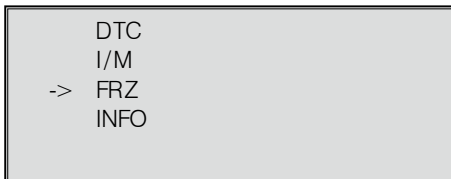
If there is no freeze frame data available,a "No freeze frame" message shows on the screen. Press "\*" to return.

3). Press ESC button to exit.

### 3.4 Viewing VIN Number(Home>Scan>INFO)

**The tool is able to retrieve Vehicle Identification number on 2002 and newer vehicles that support Mode 9.**

1). Choose "INFO" and press Enter button to view vehicle information.



If the vehicle does not support this mode,a "Not supported!" message comes up on the display. Press "\*" or wait a few seconds to return.

2). View VIN no. on screen.

VIN:

1HGES16684H88888

If the vehicle support VIN and CVN both, the unit shows them as follows:

< VIN

CVN >

Press the according button then review the CVN and VIN.

CVN:

91F30F69

VINN:

IE4FTL8YS8I016714

3) Press ESC button to exit.

## 4. Gauge

The auto computer can be configured to measure and monitor up to four different sets of information simultaneously, providing real-time engine performance analysis to allow you to adjust driving behavior and improve fuel economy.

1. Fuel system 1 status (LP1)
2. Fuel system 2 status (LP2)
3. Calculated load value (LOD)
4. Engine coolant temperature (ECT)
5. Fuel rail pressure (FRP)
6. Intake manifold absolute pressure (MAP)
7. Engine speed (RPM)
8. Vehicle speed (VSS)
9. Ignition timing advance for #1 cylinder (IGN)
10. Intake air temperature (IAT)
11. Air flow rate from mass air flow sensor (MAF)
12. Absolute throttle position (TP)
13. Commanded secondary air status (AIR)
14. Short term fuel trim (B1-S1) --- (B1-S4) if it support PID 13 or 1D
15. Oxygen sensor output voltage (B1-S1) --- (B1-S4) if it support PID 13 or 1D
16. Short term fuel trim (B2-S1) --- (B2-S4) if it support PID 13 or 1D
17. Oxygen sensor output voltage (B2-S1) --- (B2-S4) if it support PID 13 or 1D
18. Battery voltage (VLT)
- 1). Choose "GAUGE" and press Enter button to view gauge readings.

SCAN  
 -> GAUGE  
 TRIP  
 REVIEW  
 FUEL  
 ALARM  
 SETUP  
 DEFAULT  
 ABOUT

2). View currently selected gauges on screen.

VSS		IAT	
40	KM/H	56	°C
RPM	380	IGN	45
/Min		°	
MAP	56	FRP	16
KPa		KPa	

The information available varies from vehicle to vehicle. If the information is not available for a certain gauge, the trip computer shows " -- ".

When the selected gauges are displayed for about 12 seconds, the trip computer records them automatically. It shows these 6 gauges directly when viewing gauges readings next time.

3). Use the Upper button to select any of the items, Down button for next direction selection, or use Enter button to view additional data on next screen(s).

4). Press ESC button to exit.

*When the selected gauge item comes up, the full data name will show in yellow column for 3 seconds.*

*When one gauge item turns to another direction selected, the full data name will show in yellow column for 3 seconds in new direction.*

*When the selected gauge item shows in 3 seconds, no change any more, the full data name will disappear.*

## 5. Trip Computer

The auto computer records information about CURRENT, TODAY, TANK, TANK TO EMPTY and TOTAL trips.

### 5.1 Current Trip: (Home>Trip>Current).

Displayed data are as follows:

- |                              |                             |
|------------------------------|-----------------------------|
| 1. Average LPH (Unit: LPH)   | 2. Average LHK (Unit: LHK)  |
| 3. Time (Unit: __:__)        | 4. Distance (Unit: KM)      |
| 5. Fuel (Unit: L)            | 6. Cost (Unit: \$)          |
| 7. Average Speed (Unit: KPH) | 8. Max. Speed (Unit: KPH)   |
| 9. Instant LPH (Unit: LPH)   | 10. Instant LHK (Unit: LHK) |
| 11. Horsepower (Unit: KW)    |                             |

**NOTE:** Definition of one trip is the time from engine ignition to engine turn-off must be > 30 minutes.

1). Choose "TRIP" and press Enter button from home screen.

```
SCAN
GAUGE
-> TRIP
REVIEW
FUEL
ALARM
SETUP
DEFAULT
ABOUT
```

2). Choose "CURRENT" and press Enter button to enter current trip screen

```
-> CURRENT
TODAY
TANK
TANK TO EMPTY
TOTAL
```

3). View detailed trip information on the screen.

A.FC		A.VS	
4.0	LHK	120	KM/H
TIME	38:00	FUEL	4.5
		L	
DIST	56	COST	16
KM		\$	

The information available varies from vehicle to vehicle. If the information is not available for a certain gauge, the trip computer shows " -- ".

When the selected data is displayed for about 12 seconds, the trip computer records them automatically. It shows these 6 data items directly when viewing trip readings next time.

4). Use the Upper button to select any of the items,

Use the Down button for next direction selection,

Use Enter button to view additional data on next screen(s).

*When the selected data item comes up, the full data name will show in yellow column for 3 seconds.*

*When one data item turns to another direction selected, the full data name will show in yellow column for 3 seconds in new direction.*

*When the selected data item shows in 3 seconds, not change any more, the full data name will disappear.*

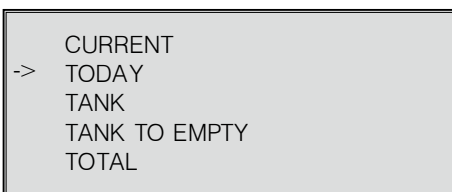
5). Press ESC button next to return the previous menu.

*The above operation on TRIP are the same as the current trip operation.*

## 5.2 Today Trip:(Home>Trip>Today)

Displayed data are as follows:

1. Average LPH (Unit: LPH)
  2. Average LHK (Unit: LHK)
  3. Time (Unit: \_\_:\_\_)
  4. Distance (Unit: KM)
  5. Fuel (Unit:L)
  6. Cost (Unit:\$)
  7. Average Speed (Unit: KPH)
  8. Max. Speed (Unit: KPH)
- 1).Choose "TODAY" and press Enter button to enter Today trip screen



- 2).View detailed trip information on the screen.

A.FC		A.VS	
4.0		LHK	120
			KM/H
TIME	38:00	FUEL	4.5
		L	
DIST	56	COST	16
KM		\$	

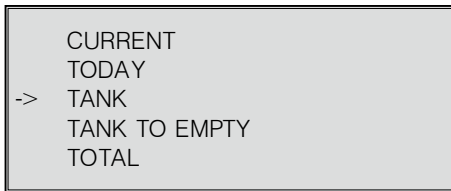
- 3). Use the Upper button to select any of the items,  
Use the Down button for next direction selection,  
Use Enter button to view additional data on next screen(s).
- 4). Press ESC button to return the previous menu.

## 5.3 Tank Trip:(Home>Trip>Tank)

**The TANK trip shows the following items:**

1. Average LPH (Unit: LPH)
2. Average LHK (Unit: LHK)
3. Fuel (Unit: L)
4. Cost (Unit:\$)
5. Fuel to empty(Unit:L)
6. Distance (Unit: KM)
7. Tank to empty (Unit: KM)
8. Time (Unit: \_\_:\_\_)
9. Time to empty (Unit: \_\_:\_\_)

1).Choose "TANK" and press Enter button to enter Tank trip screen



2).View detailed trip information on the screen.

A.FC		A.VS	
4.0		120	
LHK		KM/H	
TIME	38:00	FUEL	4.5
		L	
DIST	56	COST	16
KM		\$	

3). Use the Upper button to select any of the items,  
 Use the Down button for next direction selection,  
 Use Enter button to view additional data on next screen(s).

4). Press ESC button to return the previous menu.



## 5.3 Tank To Empty Trip:(Home>Trip>Tank)

**The TANK trip shows the following items:**

1. Tank to empty (Unit: KM)
2. Fuel to empty(Unit:L)
3. Time to empty (Unit: \_\_:\_\_)

1).Choose "TANK" and press Enter button to enter Tank to empty trip screen.

CURRENT
TODAY
TANK
-> TANK TO EMPTY
TOTAL

2).View detailed trip information on the screen.

A.FC		A.VS	
4.0	LHK	120	KM/H
TIME	38:00	FUEL	4.5
		L	
DIST	56	COST	16
KM		\$	

3). Use the Upper button to select any of the items,  
Use the Down button for next direction selection,  
Use Enter button to view additional data on next screen(s).

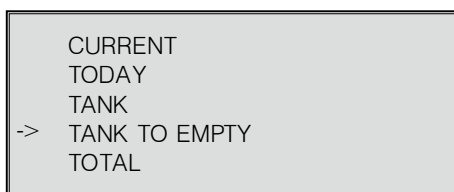
4). Press ESC button to return the previous menu.

## 5.4 Total Trip:(Home>Trip>Total)

**The Total trip shows the following items:**

- |                              |                            |
|------------------------------|----------------------------|
| 1. Average LPH (Unit: LPH)   | 2. Average LHK (Unit: LHK) |
| 3. Time (Unit: __: __)       | 4. Distance (Unit: KM)     |
| 5. Fuel (Unit:L)             | 6. Cost (Unit:\$)          |
| 7. Average Speed (Unit: KPH) | 8. Max. Speed (Unit: KPH)  |

1).Choose "TOTAL" and press Enter button to enter Total trip screen



2).View detailed trip information on the screen.

A.FC		A.VS	
4.0		120	
LHK		KM/H	
TIME	38:00	FUEL	4.5
		L	
DIST	56	COST	16
KM		\$	

3). Use the Upper button to select any of the items,  
Use the Down button for next direction selection,  
Use Enter button to view additional data on next screen(s).

4). Press ESC button to return the previous menu.

## 6. REVIEW-Car Black Box (Home>REVIEW)

The tool is able to save up to 300 hours of driving data. Data from each trip is recorded the following categories:

Time and date for each trip starts and ends

Duration time travel each trip

Distance travel each trip

Fuel used

Cost used

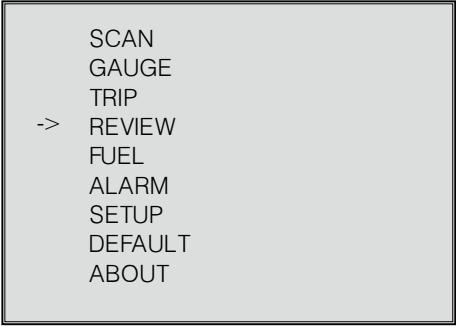
Average speed

Maximum speed during trip

Average LPH

Average LHK

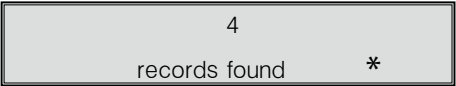
1).Review home screen.



A screenshot of the TurboGauge main menu. The menu is displayed in a light gray box with a black border. The text is as follows:

```
SCAN
GAUGE
TRIP
-> REVIEW
FUEL
ALARM
SETUP
DEFAULT
ABOUT
```

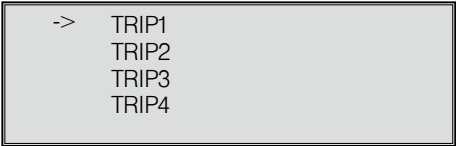
2). Choose "Review" and Press Enter button.



A screenshot of the review screen. The screen is a light gray box with a black border. The text is as follows:

```
4
records found *
```

3). Select a set of trip information to view.



A screenshot of the trip selection screen. The screen is a light gray box with a black border. The text is as follows:

```
-> TRIP1
    TRIP2
    TRIP3
    TRIP4
```

4). Choose each trip to view detailed trip information.

Trip start and Trip end

Start: 18:14:23		
	2011-03-15	>

Stop: 18:18:23		
<	2011-03-15	>

Duration and Distance

Duration		
<	0:04	>

Distance		
<	25Km	>

Fuel used and Cost used

Fuel used		
<	0.5 L	>

Cost		
<	\$ 0.20	>

Average speed and Maximum speed.

Average Speed		
<	104.0KPH	>

Maximum Speed		
<	124.KPH	>

Average LPH and Average LHK

Average LPH		
<	27.6	>

Average LHK		
<	25.3	>

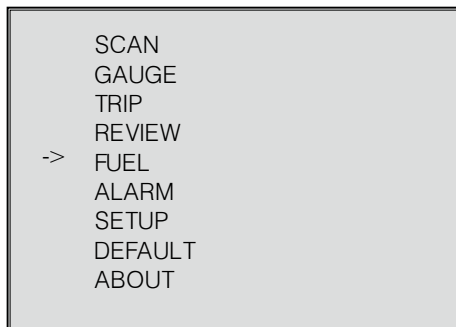
5). Press ESC button to return the previous screen.

## 7. Fuel (Home>>Fuel)

>> Means to press the lower-right button once

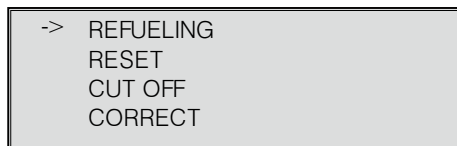
**NOTE: In order to get more accurate fuel consumption readings, and to get valid TANK information, use the Fuel function every time when your vehicle is refueled. Make sure the tank size and the fuel type are properly set before use this function.**

1). Choose "**FUEL**" and press Enter button to enter fuel menu.



### 7.1. Refueling

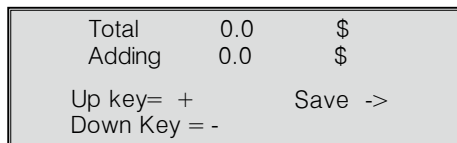
1). Choose "**REFUELING**" and Press the button



2). There will happen two items at the second line: "Cost" and "Volume"



3). Press the button next to "Cost" or "Volume" to adjust the fuel.



4). Use the button next to "-" or "+" to adjust the amount of fuel which the user actual put in the tank.

Total	0.9	\$
Adding	0.0	\$
Up key= +		Save ->
Down Key = -		

5). Press "\*" to finish the adjustment, and the fuel economy will be immediately affected by the adjustment.

Record the adjustment factor for your vehicle if you use it in another vehicle and then return it back to this one, so you can later adjust it back to this one without repeating the steps above.

6). Keep the TurboGauge connected to the vehicle and use the vehicle normally. Once reach approximately 1/4 tank of fuel left, please kindly refuel the product again.

- Fill the tank in gas station and let the pump shut off automatically.
- When filling the tank on your second refuel, try to use the same pump you used for your first refuel with the vehicle pointed in the same direction. If you refuel your fuel tank with your vehicle on an incline, it can have an effect on the amount of fuel the pump can dispense into your tank.
- Drive your vehicle normally with the auto computer connected.
- When filling your tank, let the pump shut off automatically - don't top off.
- keep the refuel operation after fill up each time.

## 7.2 RESET

1). Choose "RESET" and press the button to enter fuel reset menu.

REFUELING  
 -> RESET  
 CUT OFF  
 CORRECT

2). Choose "<" and ">", Press Enter button and reset the fuel set.

Are you sure?  
 < Yes No >

- keep the reset operation before the first refuel and better not to reset the product after the later refuel operation.

## 7.3 CUT OFF

1). Choose "CUT OFF" and press the button to enter fuel cut off menu.

◀ REFUELING      RESET ▶  
 ◀ CUT OFF      CORRECT ▶

2). Use the button on the upper left or upper right to select the fuel type your vehicle uses.

<	24	>
CUT OFF		SAVE ►
Up key= + Down Key = -		

Some vehicles will turn the fuel injectors off when coasting. This will cause the fuel economy to go to 9999 MPG to 0.00KHL. This shows when you are not using any fuel while coasting. This is sensed through the open/closed loop indicator and the throttle position. To tell if the throttle is closed, the throttle position is checked against the CUT OFF value. CUT OFF is the value the throttle has to be above in order to indicate a fuel cutoff and show 0 fuel flow.

3). Choose the suitable data via UPPER and DOWN button. then press SAVE button, then it returns the "Setup" Menu.

## 7.4 CORRECT

1). Choose "**CORRECT**" and press the button to enter fuel correct menu.

REFUELING
RESET
CUT OFF
-> CORRECT

2). Choose "1" and press the button to adjust the real fuel consumption.

15.9 -----> 15.9
1.000 *

3). Press UPPER and DOWN button to adjust the amount of actual fuel refilled.

Actual	1	+
Cacul.	4	-

4). Choose save the adjust result.

Ratio: 5.522  
Any key return

● keep the correct operation after the second refueling.

5). Press ESC button to retrun previous menu.

## 7.8 Alarm(Home >> Alarm)

1). To set the alarm of Engine Coolant Temperature(water temperature), please choose ALARM .

SCAN  
GAUGE  
TRIP  
REVIEW  
FUEL  
-> ALARM  
SETUP  
DEFAULT  
ABOUT

2). Press Enter button to set the ALARM.

< 115 C >  
ECT  
Up key= +  
Down Key = -  
Save ->

3).Press ESC button to return.



## 7.6. Setup (Home>> >>Setup)

The auto computer allows you to make the following adjustments and settings:

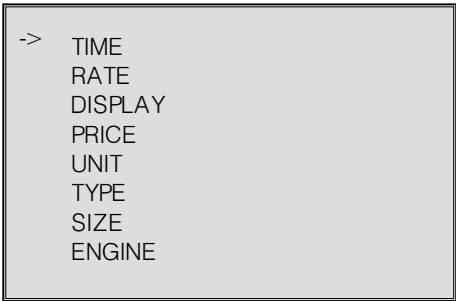
- 1). Time: Changes time displayed by the auto computer.
- 2). Rate: Sets sampling and recording rate.
- 3). Display: Sets display mode of the tool.
- 4). Price: Sets the fuel cost
- 5). Type: Selects the fuel type your vehicle uses.
- 6). Size: Sets tank size of the vehicle.
- 7). Engine: Sets up engine size.
- 8). Units: Changes unit of measure.

● The auto computer uses flash memory to save settings, so the data will not be lost if the unit is disconnected from the vehicle

**NOTE:** In order to get accurate data of fuel consumption, distance to empty, time to empty and etc., always perform setup like it is the first time using the auto computer in a vehicle. For example, if you use it in another vehicle and return it back to the original one, or if the unit is reset to factory settings.

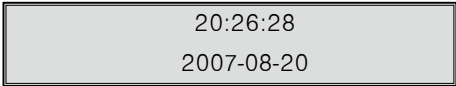
### 7.6.1. Time (Setup>>Time)

- 1). Choose TIME from "SETUP" screen.



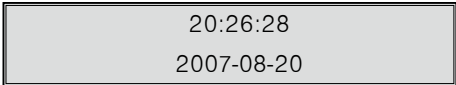
```
->  TIME
      RATE
      DISPLAY
      PRICE
      UNIT
      TYPE
      SIZE
      ENGINE
```

- 2). Press the Enter button to "TIME".



```
20:26:28
2007-08-20
```

- 3). Press Enter button to enter time adjustment screen.

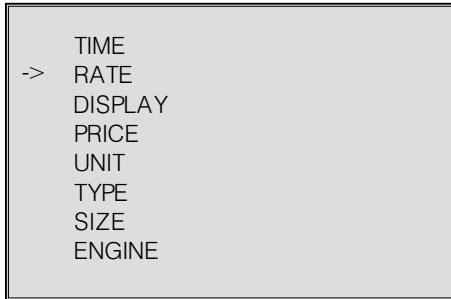


```
20:26:28
2007-08-20
```

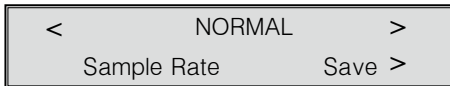
- 4). Use Enter button to select a digit, and then use the button "UPPER" or "DOWN" to increase or decrease the value.
- 5). Press Enter button to finish and save the setup, Or press ESC button to exit without saving the settings.

## 7.6.2. Rate (Setup>>Rate)

- 1). Press Enter button from Setup screen.



- 2). Choose "RATE" and press the button to enter.

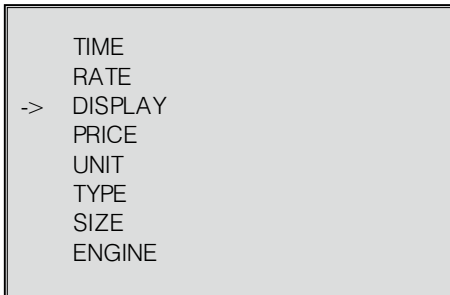


- 3). Use the Upper and Down button to select a sampling rate among "Auto", "NORMAL" and "SLOW", and press "SAVE" button to save the setup. it returns to RATE Menu.

NORMAL is the factory default rate. If this causes some updates to be skipped or irregular operation, "SLOW" should be used.

## 7.6.3. Display (Setup>>Display)

- 1). Press the lower-right button from HOME screen.

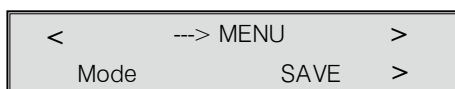


2). Press the button next to "DISPLAY".



## A. Enter Mode Menu

1). To change the display mode of trip items, press the button next to MODE.

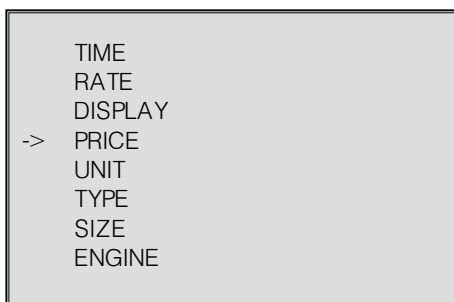


2). Use the UPPER and DOWN button to change among "MENU ", "CURRENT", "TODAY", "TOTAL ", "TANK" and "GAUGE", and press SAVE. and return to Display menu.

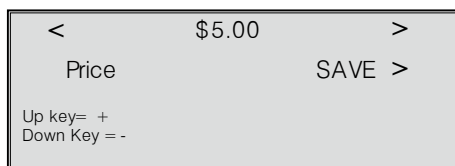
## 7.6.4. Price (Setup >>Price)

(>> means the use press the lower-right button doubly )

1). Press the button next to "Price" and enter the menu.

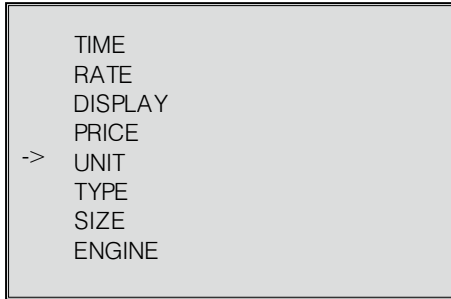


2). Use the UPPER and DOWN button to adjust the contrast, and press "SAVE".

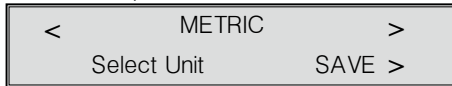


## 7.6.5. Unit (Setup>> Unit)

1. Press the button next to "**UNIT**" change units of system.

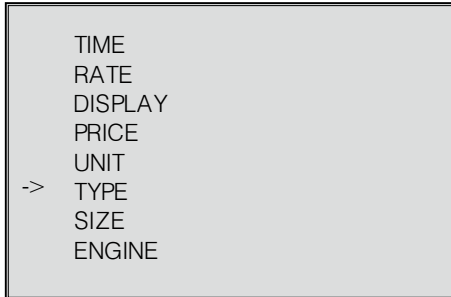


2). Use the UPPER and DOWN button to change between metric and English unit of measure, and press "SAVE". then it returns the Setup Menu

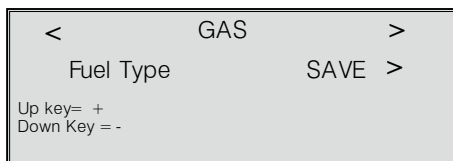


## 7.6.6. Type (Setup>>Type)

1). Press the button next to "**TYPE**" to enter fuel setup menu.



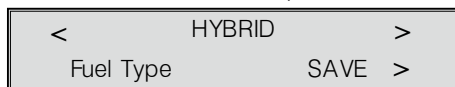
2). Use the UPPER and DOWN button to select the fuel type your vehicle uses.



# TurboGauge

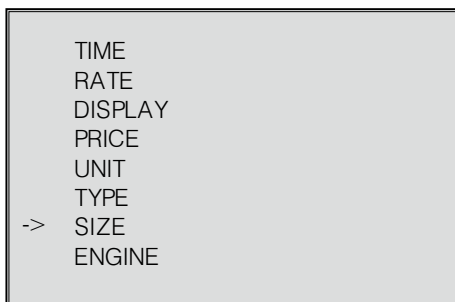
There are **DIESELa**, **DIESELb**, **HYBRID**, **GAS**, **LPG** fuels types to choose as different cars. **DIESELa** and **DIESELb** do not refer to different types of diesel fuel. They only affect the way fuel consumption is computed and are selected based on the way the vehicle computer reports its sensor information. Most diesel vehicles use DIESELa. Do the following to determine which your diesel vehicle uses: **Set engine size --> choose DIESELa --> warm up the engine and idle in neutral or park --> select GAUGE and have one of the gauges show RPM and another show GPH --> note the GPH value--> use the throttle to raise the engine RPM to about 1500 RPM.** If the GPH reading increases, you have a DIESELa vehicle. If the GPH drops or stays the same. you have a DIESELb vehicle.

3). Press SAVE button and an "→" icon appears on the screen indicating the type is selected. then it returns the "Setup" Menu

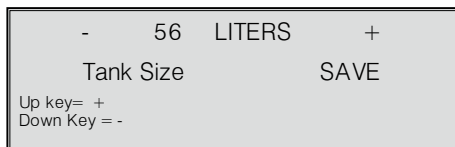


## 7.6.7 Tank Size (Setup>>Size)

1). Press the button next to "SIZE" to set the tank size of your vehicle.

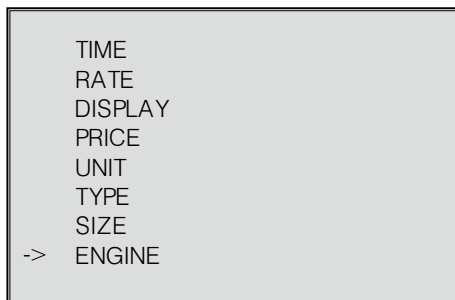


2). Use the UPPER and DOWN button to change the tank size, and press SAVE button to save, then it returns the "Setup" Menu.

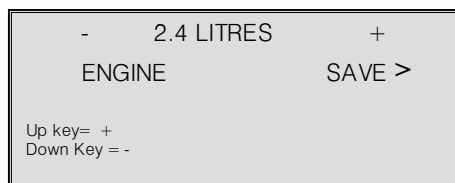


## 7.6.8. Engine (Setup>>Engine)

1). Press the button next to "ENGINE".

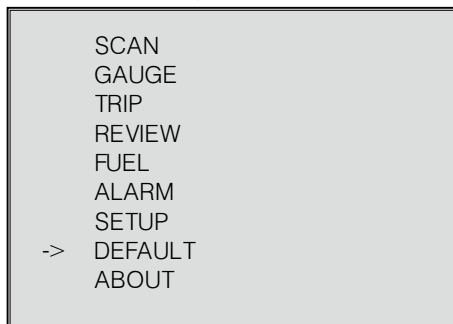


2). Use the button next to " - " or " + " to change engine size, and press SAVE button., then it returns the "Setup" Menu

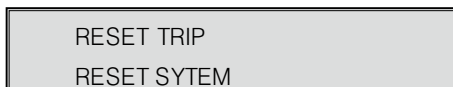


## 7.7 Default (Home>> >> Default)

1). To reset the auto computer to original factory settings, press lower-right button from HOME screen doubly.



2). Press the button next to "DEFAULT".

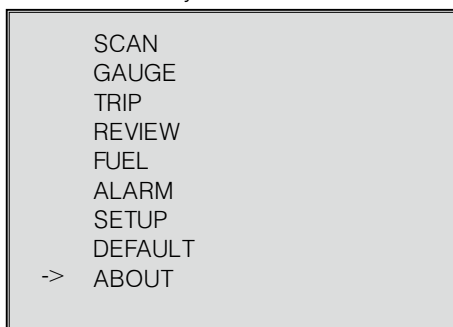


3). Choose the RESET TRIP or RESET SYSTEM .

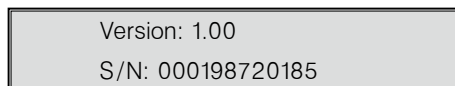


## 7.8 ABOUT (Home>> >> ABOUT)

1). To reset the auto computer to original factory settings, press lower-right button from HOME screen doubly.



2). Press the button next to see the SN.



3). Press ESC button to return.

## 8. Update

1). Please kindly download the update software from the website to the computer.

2). Install the update software to your Turbogauge tool via the USB cable.

3). After update the Turbogauge, please reset the tool.

## 9 Appendix

### 9.1 Gauge Abbreviation

LP1	Fuel system 1 status	LP2	Fuel system 2 status
LOD	Calculated load value	ECT	Engine coolant temperature
FPR	Fuel rail pressure	MAP	Intake manifold absolute pressure
RPM	Engine speed	VSS	Vehicle speed
IGN	Ignition timing advance for #1 cylinder	IAT	Intake air temperature
MAF	Air flow rate from mass air flow sensor	TP	Absolute throttle position
AIR	Commanded secondary air status	(B1-S1) - (B1-S4)	Short term fuel trim if it support PID 13 or 1D
(B1-S1) - (B1-S4)	Oxygen sensor output voltage if it support PID 13 or 1D	(B2-S1) - (B2-S4)	Short term fuel trim if it support PID 13 or 1D
(B2-S1) - (B2-S4)	Oxygen sensor output voltage if it support PID 13 or 1D	VLT	Battery voltage

### 9.2. SCAN Abbreviation

MIL	Malfunction Indicator Lamp Status	CCM	Comprehensive Component Monitoring
MIS	Misfire Monitoring	FUEL	Fuel System Monitoring
CAT	Catalyst Monitoring	EGR	EGR System Monitoring
HCAT	Heated Catalyst Monitoring	EVAP	Evaporative System Monitoring
AIR	Secondary Air System Monitoring	ACRF	A/C system refrigerant Monitoring
O2S	Oxygen Sensor Monitoring	HTR	Oxygen Sensor Heater Monitoring
FRZD	Freeze Data	VIN	Vehicle No.
ACL	Acceleration	Ext. Acl	Extreme Acceleration
DTC	Diagnostic Trouble Code	SMP Rate	Systems Management Processor Rate



## 9.3. TRIP UNIT Abbreviation

### Current Trip Unit

	Metric	Definition	English	Definition
1 Average LPH	LPH	Liter /Hour	GPH	Gallon / Hour
2 Average LHK	LHK	Liter /100 kilometers	MPG	Mile / Gallon
3 Time	_:__	Hour: Minute	_:__	Hour: Minute
4 Distance	KM	Kilometer	MI	Mile
5 Fuel	L	Liter	GAL	Gallon
6 Cost	\$	dollar	\$	dollar
7 Average Speed	KPH	Kilometer /Hour	MPH	Mile /Hour
8 Maximum Speed	KPH	Kilometer /Hour Max.	MPH	Mile /Hour
9 Instant LPH	LPH	Liter /Hour	GPH	Gallon / Hour
10 Instant LHK	LHK	Liter /100 kilometers	MPG	Mile / Gallon
11 Horsepower	KW	KW	HPR	HPR

### Today Trip Unit

	Metric	Definition	English	Definition
1 Average LPH	LPH	Liter /Hour	GPH	Gallon / Hour
2 Average LHK	LHK	Liter /100 kilometers	MPG	Mile / Gallon
3 Time	_:__	Hour: Minute	_:__	Hour: Minute
4 Distance	KM	Kilometer	MI	Mile
5 Fuel	L	Liter	GAL	Gallon
6 Cost	\$	dollar	\$	dollar
7 Average Speed	KPH	Kilometer /Hour	MPH	Mile /Hour
8 Maximum Speed	KPH	Kilometer /Hour Max.	MPH	Mile /Hour

### Tank Trip Unit

	Metric	Definition	English	Definition
1 Average LPH	LPH	Liter /Hour	GPH	Gallon / Hour
2 Average LHK	LHK	Liter /100 kilometers	MPG	Mile / Gallon
3 Fuel	L	Liter	GAL	Gallon
4 Cost	\$	dollar	\$	dollar
5 Fuel to empty	L	Liter	GAL	Gallon
6 Distance	KM	Kilometer	MI	Mile
7 Tank to empty	KM	Kilometer	MI	Mile
8 Time	_:__	Hour: Minute	_:__	Hour: Minute
9 Time to empty	_:__	Hour: Minute	_:__	Hour: Minute

### Total Trip Unit

	Metric	Definition	English	Definition
1 Average LPH	LPH	Liter /Hour	GPH	Gallon / Hour
2 Average LHK	LHK	Liter /100 kilometers	MPG	Mile / Gallon
3 Time	_:__	Hour: Minute	_:__	Hour: Minute
4 Distance	KM	Kilometer	MI	Mile
5 Fuel	L	Liter	GAL	Gallon
6 Cost	\$	dollar	\$	dollar
7 Average Speed	KPH	Kilometer /Hour	MPH	Mile /Hour
8 Maximum Speed	KPH	Kilometer /Hour Max.	MPH	Mile /Hour

## **10. Warranty and Service**

### **10.1 Limited One Year Warranty**

TurboGauge warrants to its customers that this product will be free from all defects in materials and workmanship for a period of one (1) year from the date of the original purchase, subject to the following terms and conditions:

- 1). The sole responsibility of TurboGauge under the warranty is limited to either the repair or, at the option of TurboGauge, replacement of the auto computer at no charge with proof of purchase. The sales receipt may be used for this purpose.
- 2). This warranty does not apply to damages caused by improper use, accident, flood, lightning, or if the product was altered or repaired by anyone other than the Manufacturer's Service Center.
- 3). TurboGauge shall not be liable for any incidental or consequential damages arising from the use, misuse, or mounting of the auto computer. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply.
- 4). All information in this manual is based on the latest information available at the time of publication and no warranty can be made for its accuracy or completeness. TurboGauge reserves the right to make changes at any time without notice.

### **10.2. Service Procedures**

If you have any questions, please contact your local store, distributor or visit our website.

If it becomes necessary to return the auto computer for repair, contact your local distributor for more information.