Easy

# User Manual



Aultifunction HUD

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## 1.1 Introduction of Product Safety



## Multifunction HUD 10 in 1 features

- Heads-Up Display(HUD).
- · OBD-II interface connection.
- Speed real time display.
- Speeding warning setup and alarm.
- Fuel Economy real time display.
- RPM real time display.
- Coolant temperature monitoring.
- Engine over heated warning alarm.
- · Vehicles battery voltage monitor.
- Boost real time display.

## 1.2 How It Works

# HUD functions Monitor shows on vehicle windshield



OBD-II interface collecting data's from vehicle ECU's :

- Vehicle speed (KPH).
- Boost.

Engine RPM.

- Vehicles battery voltage.
- Coolant temperature.
- Fuel economy indicator.

# 1.3 Heads-Up Display (HUD) Technology



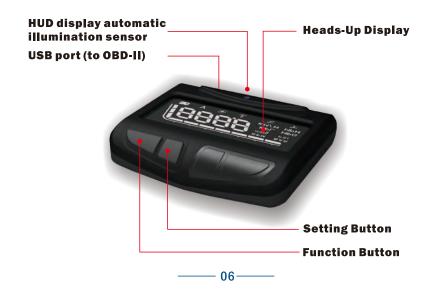
HUD(Heads-Up Display) Technology firstly developed for military and commercial aviation to help pilot being able to view real time data on the windshield or helmet without looking down the lower side instrument.

Show information by fundamental optical on vehicle windshield and get more safety.

# 1.4 Package Content

Descriptions	Q'ty (Pcs)
HUD (Heads-Up Display) Unit	1
OBD-II cable	1
HUD reflective film	1
HUD fitting accessories(velcro)	2
User Manual	1
Warranty Card	1

# 1.5 HUD Unit Layout



## 2.1 HUD Unit Installation and OBD-II Connection

### Step 1:Find the vehicle OBD-II socket

It is usually located at driver side, under steering wheel. (Figure 1)

### Step 2: Connect HUD unit to OBD-II socket.

- (1) Make sure ignition switch is "OFF".
- (2) Take out OBD-II cable. (Figure 2)
- (3) Plug the OBD-II adapter into OBD-II socket. (Figure 3)



## 2.1 HUD Unit Installation and OBD-II Connection

## Step 2: Connect HUD unit to OBD-II socket.

- (4) Fix wire in adapter rib. (Figure 4)
- (5)Plug the "L" type USB connector to HUD unit, than make sure connection is tight. (Figure 5 ~ Figure 6)



## 2.1 HUD Unit Installation and OBD-II Connection

#### **Step 3: Check HUD communication**

In this stage to make sure the HUD unit and vehicle ECU OBD-II communication protocol is matched and working properly.

- (1) Start engine (Figure 7) and press SETTING button to switch-on the HUD unit.
- (2) Press FUNCTION button, the HUD will display real RPM value if communication is successful. (Figure 8)



Figure 7

Figure8

#### Remarks:

If HUD unit shown RPM "0" value, which means the communication failed. Repeat Step 1 to 3 again. If the problem persist, which means the product does not apply to that vehicle model. Please contact with your dealer.

## 2.2 HUD Unit / Auto-power ON/OFF

## Step 4: Check HUD auto-power ON/OFF

In this stage to make sure the HUD unit can auto-power ON/OFF.

- (1) When HUD unit displaying "OFF" after switch-off key, that means auto-power OFF function workable. (Figure 9)
- (2) Start engine again then check if HUD boot within 15 seconds (boot timing depends on vehicle ECU protocol). (Figure 10)
- (3) Press FUNCTION button then return RPM mode.



Figure9

Figure 10

# 2.3 Sticking the Reflective-Film

## Step 5: Sticking the reflective film

- (1) Clean the windshield reflective area. (Figure 11)
- (2) Take off the release film. (Figure 12)
- (3) Spray soap water both on windshield and reflective film. (Figure 13)



# 2.3 Sticking the Reflective-Film

## Step 5: Sticking the reflective film

- (4) Stick the reflective film on windshield and align it properly. (Figure 14)
- (5) Scratch out air and water between reflective film and glass windshield than clean. (Figure 15)
- (6) Wait until reflective film dry. (Figure 16)



## 2.4 Sticking the VELCRO Tape

Figure 19

## Step 6: Sticking the velcro tape

- (1) Stick the velcro tape on bottom side of HUD. (Figure 17)
- (2) Tear-off the release film. (Figure 18)
- (3) Stick the velcro tape on properly dashboard area.
- (4) Place the HUD unit. (Figure 19)

Figure 17



Figure 18

# 2.5 Troubleshooting for installation

## FAQ: Communication fail?

#### Answer:

- 1. Remove OBD-II connector and switch vehicle.
- 2.Info the vehicle make, model, year, displacement, gasoline or diesel to dealer.

#### Note:

- 1. Multi-Function HUD applies with ISO 15765(CAN), ISO 9141-2, ISO 14230(KWP2000)
- 2.Please contact dealer for help if any question.

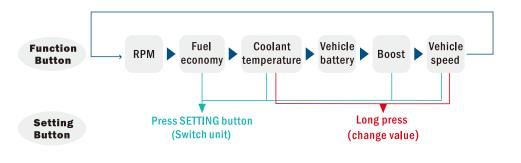
## 3.1 HUD - Function and Setting

#### **FUNCTION Button:**

Switch function in sequence.

#### **SETTING Button:**

Press FUNCTION button into any functions (exclusive RPM and Vehicle Battery function), and then press SETTING button that can be switched unit. Long press SETTING button that you can change value if HUD is speed or Engine temperature function and back to next function.



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## **Function button-No press**

RPM of engine real time display. Example: RPM is 3000/min



### **Function button-Press once**

Fuel economy KPL (Kilometers Per Liter) real time display.

Example: 17KPL

### Switch unit-Press SETTING button

Fuel economy MPG (Miles Per Gallon) real time display.

Example: 34MPG

Notice: 1. The function is only for driving.

2. Some vehicle is probably to support this function.



#### **Function button-Press two times**

Coolant temperature display °C.

Example: 90 °C

# Change Setting-Long press SETTING button for 5 seconds

Press SETTING button adjusts upper temperature when the digit is blinking and increase  $10^{\circ}$ C per pressing, temperature range is  $90\text{-}130^{\circ}$ C.



#### Switch Unit-Press SETTING button

Temperature unit is °F.

Example: 194 °F

# Change Setting-Long press SETTING button for 5 seconds

Press SETTING button adjusts upper temperature when the digit is blinking and increase 24°F per pressing, temperature range is 194-266°F  $^{\circ}$ 



## **Function button-Press three times**

Vehicle battery (V) display.



# Function button-Press four times

Boost BAR display.





#### Switch Unit-Press SETTING BUTTON

Boost inHg (Inch mercury)/ PSI (Pound/Square Inch).

Positive unit PSI Negative unit inHg





PS:It does not support OBD-II if the HUD is shown "----" .

#### **Function Unit-Press five times**

Speed KM/H display. Example: 90KM/H

# Change Setting-Long press SETTING button for 5 seconds

Press SETTING button adjusts speed limitation when the digit blinking and increase 10KM/H per pressing, speed range is 60-300KM/H.

### **Switch Unit-Press SETTING button**

Speed is MPH. Example: 60 MPH

# Change Setting-Long press SETTING button for 5 seconds

Press SETTING button adjusts speed limitation when the digit blinking and increase 6MPH per pressing, speed range is 40-184MPH.





## 3.3 HUD - Warnings and Icons











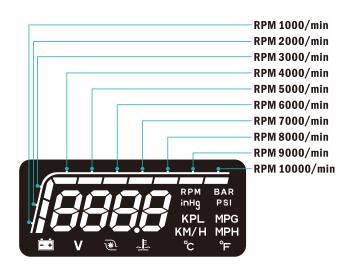


If the value from ECU was more than what your setting, it will alarm(as below icon) and three beep sounds sequentially per 5 seconds. on the other hand, it is always blinking and beep about exceeding vehicle speed, when vehicle speed is less than what your setting and all clear.

#### Notice:

- The product applies with ISO 15765(CAN),ISO 9141-2, ISO 14230(KWP2000), If the product does not
  apply to this protocol, please contact with your dealer.
- ${\bf 2.\,Please\,press\,SETTING\,button\,that\,it\,can\,reconnect\,if\,parking\,was\,more\,than\,five\,days.}$
- PS. Default setting of alarm Vehicle : 110 KM/H/70MPH  $\cdot$  RPM : 6000RPM  $\cdot$  Coolant temperature : 100 °C/212 °F  $\cdot$  Vehicle battery : 11.5 V  $\cdot$  Boost : 1.5 BAR / 22PSI

# 3.4 Revolution Per Minute(RPM) indicator



## **4.1 Product specification**

Heads-Up Display(HUD)			
Operating voltage(Volt)	9~16V		
Operating current(mA)	50~350mA		
Operating temperature(°C)	-40 ~ 85°C		
Static current(mA)	8mA		

#### **Disclaimer**

The information provided in this user manual doesn't mean all inclusive. All user have to observe and comply to the vehicle manufacturer or tire manufacturer specification and all available safety regulation.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1)This device may not cause harmful interference, and(2) this device must accept any interference received, including interference that may cause undesired operation.