# User manual for Head Up Display

# Model: A8

(This product has been registered for appearance patents and display copyrights.)

HUD short for Head Up Display. It displays driving datas on the front windshield such as speed, RPM, fuel consumption, water temperature, voltage on the car front window glass; avoiding drivers unsafety because of watching the instrument while driving. Drivers can read the driving information instantly, and can always keep the best state on the way with HUD.

# **HUD display functions**



- 1. Light sensor: Automatically adjust the brightness according to the environment
- 2. Rotational speed(RPM): the rotational speed of the engine.
- 3. Alarm icon panel: From left to right → Shift reminder, over speed alarm, engine fault, fatigued driver reminder, buzzer.
- 4. Speed: Driving speed
- 5. Rotational speed units: the units of rotational speed
- 6. Unit mark: KM/H= Kilometers/hour, MPH= Miles/hour, RPM=rotations per minute
- 7. Water temperature: Display the car's tank temperature
- 8. Secondary Alarm icon panel: From left to right → High water temperature temperature alarm, battery voltage alarm, over-speed alarm
- 9. Unit mark: Degrees (Celsius  $^{\circ}$ C or Fahrenheit  $^{\circ}$ F), KM = Kilometers, V = Voltage, M = Miles
- 10. Multi function display: Voltage, Mileage, Water temperature.
- 11. Fuel consumption unit :L/100km = Liter/100 kilometers, L/H = Liter/hour
- 12. Fuel consumption datas
- 13. Fuel consumption icon

# **Buttons Function**



- ① OBDII cable input
- 2 Power button

③ Three way scroll button/setting button:

- a. Up button = up motion
- b. Ok button = inward button press
- C. Down button = down motion

# Scroll Button/Setting button



# Functions for setting button(when the button place is in left):

- 1 Short pull up: (1) switch the display mode
  - (2) Increasing parameter values after enter into menu setting.
- 2 Short pull down: Decreasing parameter values after enter into menu setting.
- 3 Vertical Short press in:(1) switch the multi functions of water temperature/voltage/ single driving distance

(2) after enter into the setting menu, to increase the menu.

- 4 Long pull down: turn on or off the buzzer.
- 5 Vertical long Press 5 seconds: (1)enter into setting menu(menu 0-16)

(2) after finish adjustment, vertical long press in 5 seconds to save it and exit.

# Turn off/on the buzzer

When HUD is working, pull down the setting button for 5 seconds, to turn off the buzzer, do it again to turn on the buzzer

# Engine fault code clearance:

When HUD connected car,pls donnot start the car, put the key to "ON", waiting for HUD shutdown,then long pull down the wave button for 5 second, you will hear "beep" sound from HUD, which means clear the fault codes completed.

# **Reset setting:**

Vertically long press 5 seconds to enter into menu setting, short press 16 times to find menu 16, short pull down to parameter 1, long press in 5 seconds to save after

# HUD Setting (please see windscreen reflection to set)

Vertical long press in the setting button for 5s to enter the menu setting, vertical short press to increase the menu option(from menu 1 to menu 16), up and down the setting button to increase or decrease the default value. After adjustment, vertical long press 5 seconds to save and exit.

	8
	Menu option
	120
Default value	

Menu Setting					
Menu	Function	Adjustme nt Range	Explanation	Default Value	Setting State
0	Speed	50-150	When the Speed is not the same as dashboard:Up or down the wave button to adjust	107	
1	RPM	50-150	When RPM is not the same as dashboard:Up or down the wave button to adjust	117	
2	Fuel consumption	50-150	When fuel consumption is not the same as dashboard:Up or down the wave button to adjust	100	
3	RPM alarm	10-75	When RPM reaches 5000, HUD will give RPM alarm	50	
4	Shift reminder	1-75	When RPM reaches 5000, HUD will give RPM alarm	50	
5	Four-stage alarm	0-1	0 for turn off,1 for turn on the four-stage alarm (60KM/H,80KM/H,100KM/H,120K M/H),speed alarm shows up when it reaches to above four speed	0	A C C C C C C C C C C C C C C C C C C C
6	Single-stage alarm	30-250	Over speed alarm shows up when the vehicle speed exceeds 150	150	

7	Display mode	0-3	0 =automatic mode: when speed below 80km/h, device show all information ;and when speed over 80km/h,device is in high speed mode, 1 =display all information, 2=high speed mode(only display speed and fuel consumption), 3=Voltage control the power on/off(for hybrid electric vehicles)	1	S C C C C C C C C C C C C C C C C C C C
8	Brightness adjustment	0-2	0 =automatic adjustment, 1 = darkest by manual, 2 =brightest by manual	0	
9	Fuel consumption unit	0-2	0 is no display, 1 is L/H, 2 is L/100KM	2	
10	Speed unit	0-2	0 is RPM, 1 is KM, 2 is MPH	1	S C C C C C C C C C C C C C C C C C C C
11	Water temperature unit	0-2	0 = no display, 1 =°C 2 =°F	1	
12	Mileage Unit	0-1	(switch between KM/Mile) 0 =single driving distance in KM, 1 =single driving distance in Mile	0	
13	Reference fuel consumption	10-500	Average fuel consumption of 100KM, default 80 means average fuel consumption of 100KM is 8L	70	

14	Emission setting	0-100	The default car emission is 16(means 1.6L) ,if there is no display fuel consumption,pls adjust the default value to 0	16	
15	Reference start voltage	110-150	HUD will automatically turns on when voltage above 13.2V,and device automatically turns off when voltage below 13.2V	132	
16	Reset setting	0-1	Adjust the parameter to 1,and vertical press in the wave button 5 seconds to save,then the reset is finished	0	

# HUD installation procedure

- 1. Ensure your vehicle is OBDII compatible or EUOBD.
  - a.Check around the area under the steering wheel for an OBD plug
  - b. Contact your vehicle manufacturer or search online
  - c.Open the bonnet and look for a OBDII compatible sticker (this is NOT on all OBDII compatible cars, therefore isn't a deciding factor)
- **2.** Locate the 16 pin diagnostic link (see below picture). This is usually located in the area under the steering wheel.



- **3.** Start vehicle's engine and ensure power switch is in the on position.
- 4. HUD will power on with engine
  - a.If the HUD displays vehicle voltage, fuel consumption, speed and rotational speed the unit has installed correctly.
  - b. Failing the above: Wait up to one minute for software to sync and confirm OBD cable is plugged in properly.

# **Reflective film installation**

Using the unit without the reflective film may result in a double image observed by the user depending on the windshield. If you see a double layer it is due to the windshields dual layer construction and you should install the film by following the instructions below.

- **1.** Place the supplied non-slip mat in the desired position on the dashboard with the HUD on top.
- Observing where the HUD reflects place the reflective film in position.
  a.Ensure the surface is clean and dry before installing the film;
  - b. Remove the back protective side marked (1) and attach the film to the clean windscreen;
  - c.Once you're satisfied with the location use a credit card or similar to remove any bubbles or air pockets that remain;
  - d. Remove the front side marked (2), if you need to adjust the HUD's reflection, reposition using the nonslip mat.

# Please note: If the car will not use in a week, please disconnect the OBD equipment.

# Troubleshooting

#### 1. The screen without any display, and no power

Start the car engine; check if the OBD cable line is tight; please pull down the OBD cables more times to ensure; check if HUD power switch turns on. If still no display, please change another car to test, analyze whether the car OBD diagnostic interface is good, if it is not good, please repair it and try again.

# 2. When HUD power on, HUD only shows the car voltage and be automatic power off after a few seconds driving.

HUD only available for cars with OBD2 and EU-OBD agreement(European region: after 2003 years, Other region: after 2007 years )

HUD Products don't support JOBD and OBDI protocol.

# 3. The machine is stuck or stuck during driving

(1)Please check the OBD interface if connected withe other device(One point and two lines, positioner, tire pressure monitoring, drop lock window folding, ELM27 etc) (2)Modified and retrofitted cars (Central Control Navigation, Electronic Throttle Accelerator ,Fixed Speed Cruise, Computer System has been brushed,One-button start, keyless entry, remote start) will cause a crash

Please remove other OBD devices and do the factory reset.

# 4. See not clearly when HUD under the sunlight, and with double reflection.

This product reflects the driving data of the car on the windshield. Since the windshield is double-layered, there will be a slight ghost in the display. According to the glass of the car, the ghost image is different. If it is hard to read the datas, you can use the reflective film attached to this product.

Check whether the HUD host protective film is torn, and please attached the reflection film in the gift box corresponding on the windscreen.

Under the condition with power, vertical press wave button 5 seconds to enter into menu option, short press 8 times to menu 8, pull down the setting button to parameter 2, and vertical press 5 seconds to save.

#### 5.Inaccurate Speed

When HUD is power on, vertical press the setting button 5 seconds to enter into the menu options, here menu option shows 0, default value shows 107, up or down the button to increase or decrease the value according to the difference until it shows correct one. After adjustment, vertical press in 5 seconds to save it. (Example: If the dashboard shows 100, and HUD shows 104, then change the HUD default value from 107 to 104)

#### 6.Inaccurate fuel consumption

The unit for fuel consumption is L/100KM, HUD display is the single driving fuel consumption, while car display is Integrated average driving fuel consumption, so it is normal if there are difference.

HUD display three kinds of fuel consumption

a.Idle mode: HUD display Instantaneous fuel consumption per hour (L/H), it means HUD can figure out how much oil the car will consumed after start engine in one hour

b. Driving mode: HUD display Instantaneous fuel consumption of 100KM

c. Finish driving: HUD display is average fuel consumption of 100KM, when turn off the car, HUD will auto turn off in 10s

Under the condition with power, vertical press the wave button 5 seconds to enter into menu option, show press in 14 times to find menu 14, the default value is 16 (means the emission is 1.6L), up or down the wave button to increase or decrease the value according to the difference with your car emission until it shows correct. Vertical press in 5 seconds to save and exit.

Or find menu 2, the parameter shows 100, up or down to adjust.

#### 7. Over speed alarm

HUD default over speed alarm value is 150, it can be adjusted.

Under the condition with power, vertical press in the wave button 5 seconds to enter into menu option, short press 6 time to menu 6, parameter is 150, here 150 means over when driving speed reach 150, HUD will give over speed alarm, up or down the wave button to increase or decrease the value. Vertical press in 5 seconds to save after adjustment.

# 8. Start Stop cars setting

Vertical short press the wave button 5 seconds to enter into menu setting, vertical short press 7 times to menu 7, the default value is 1, up or down the wave button to adjust the default value to 3 ( 3 is for voltage control switch for start-stop car), vertical press in 5 seconds to save and exit.

# 9. Restart after shutdown, restart scanning car protocol

Vertical press in 5 seconds to enter into menu setting, short press 15 times to menu 15, the default value is 132, up or down to adjust the default value to 135, vertical press in 5 seconds to save and exit.

# 10. HUD cannot be automatically power off

(1) After the car is turned off, the HUD is turned off but restarted repeatedly: Observe the HUD voltage. If the voltage is between 130-135, adjust the default value of menu 15 to 136-137, then save and exit.

(2) After the car is turned off, the HUD is stuck with the speed. Set the default value of menu 7 from 1 to 3. Then save and exit. If it still can't be turned off, set the menu 15 value to 136.

# **Technical Parameters**

Environment temperature - 40 °C— +80 °C Barometric press:86-106KPa Relative humidity:10%-95% Environment voice:<=60dB Alarm of sound level:>=30dB(A) Work voltage:9V~16Vdc(12Vdc/400mA) Size of product:12.5\*7.5\*1.5(cm) Weight of product:110g