Smart OBD gauge for Automotive

Operation Manual

XS series Lúfi®

Dear customers:

Thank you for purchasing our “XS Revolution” series product, please read this manual thoroughly, After installation, please keep this manual for future reference.

This product is only suitable for 12V vehicles (gas&diesel) possess OBDII standard protocol, please do not use for other purposes to avoid fire.

24V

Not suitable for 24V automotive.

The exploitation of this product is to provide data after processed readings of OBDII standard vehicles.

This product contains several special systems, and users can switch through the menu. It includes general-purpose models (suitable for 99% of models after 2008) and special models of some popular models (including models before 2008).

This product is equipped with computer data interface for data repair and upgrading. The official website will release software or interface updates from time to time.

If you encounter any problems with using please contact your distributor immediately, and we will provide you with excellent after-sales service. At the same time, you could also visit our website to inquire any related information.

*Do not install the product where it interrupts driving and the safety deices of vehicle such as air bags.

*Do not try to set up the product while driving.

V1.0

This device complies with part 15 of the FCC Rules. Operation is subject to the followingtwo conditions: (1) this device may not cause harmful interference, and (2) this devicemust accept any interference received, including interference that may cause undesiredoperation.

Any changes or modifications not expressly approved by the party responsible forcompliance could void the user's authority to operate the equipment.NOTE: This equipment has been tested and found to comply with the limits for a Class Bdigital device, pursuant to Part 15 of the FCC Rules. These limits are designed to providereasonable protection against harmful interference in a residential installation. Thisequipment generates, uses and can radiate radio frequencyenergy and, if not installedand used in accordance with the instructions, may cause harmful interference to radiocommunications. However, there is no quarantee that interference will not occur in aparticular installation.

If this equipment does cause harmful interference to radio or television receptionwhich can be determined by turning the equipment off and on, the user is encouragedto try to correct the interference by one or more of the following measures:-- Reorient or relocate the receiving antenna.--Increase the separation between the equipment and receiver.-- Connect the equipment into an outlet on a circuit different from that to which thereceiveris connected.

-- Consult the dealer or an experienced radio/TV technician for help

Product Characteristics

Patent appearance, Easy installation

This product is a multi-functional display instrument for automobile refitting, with patented appearance design, various display interfaces and various unit formats. Standard OBD interface installation design, plug and play. (most models do not need to be connected with ON power detection line - Page 4 for details)

True color display

The 3.5-inch true color wide-angle display screen is adopted for clear display effect. (The displayed data may not be visible when wearing polarizer)

Multiple brightness control modes

The dimmer sensor inside will automatically control the brightness of the display screen according to the use environment, and can also be changed to manual brightness according to the user's preference.

Ultra low power standby

Adopt ultra-low power consumption automatic sleep power saving technology.

G meter / gyro meter

This product integrates gyroscope sensor, which can accurately display the current attitude and provide acceleration data with a maximum range of ± 4G.

GPS / BDS function

The GPS/BDS function of the product can be completely separated from the OBD function to display speed, altitude, positioning coordinates, time and other information (suitable for electric vehicles).

Alarm function (Page 6 for details)

The system has the functions of background data monitoring and warning prompt.

Data calibration function

User can modify the vehicle RPM, speed, turbo/intake pressure, voltage value, etc. according to the vehicle conditions.

Extensible PID command function

The product has 9 user-defined PID command extension functions. Can load the configuration file of the product or configure it by user.

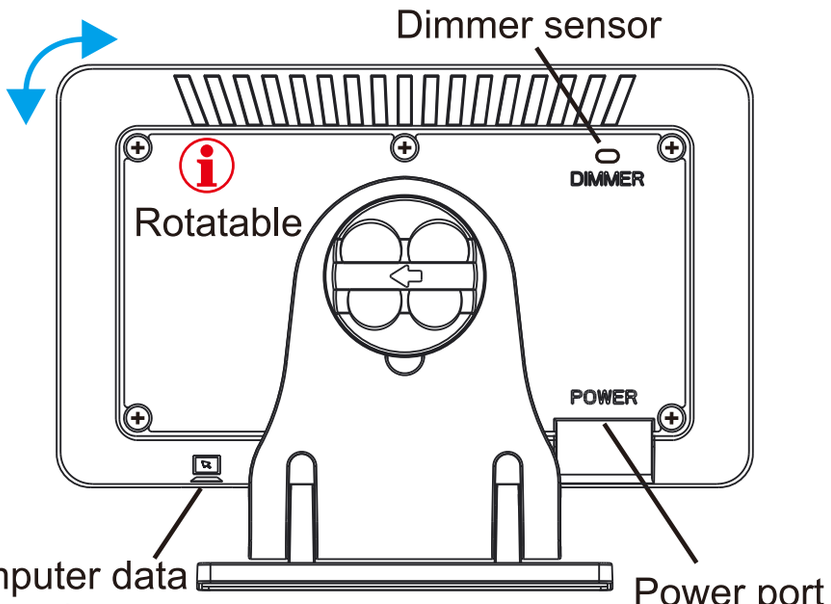
Extremum value display

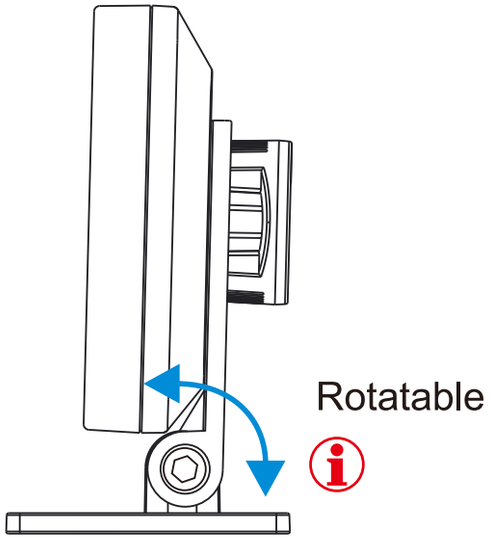
The product has extreme value display function(PEAK value), and users can check the status of the car after starting at any time.

Editable Odometer

The product contains odometer function that can replace the function of the original.

Product Exterior & Mountings

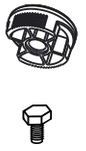




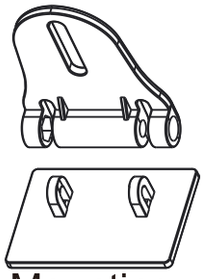
Accessories

manual 1pc

M4 bolt, nut,1pc



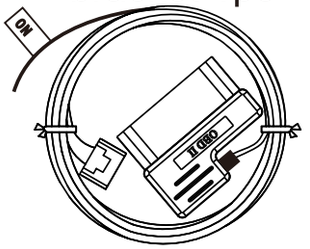
M5 bolt, nut,1pc



Mounting bracket 1pc

Double sided tape 1pc

M4 spanner 1pc



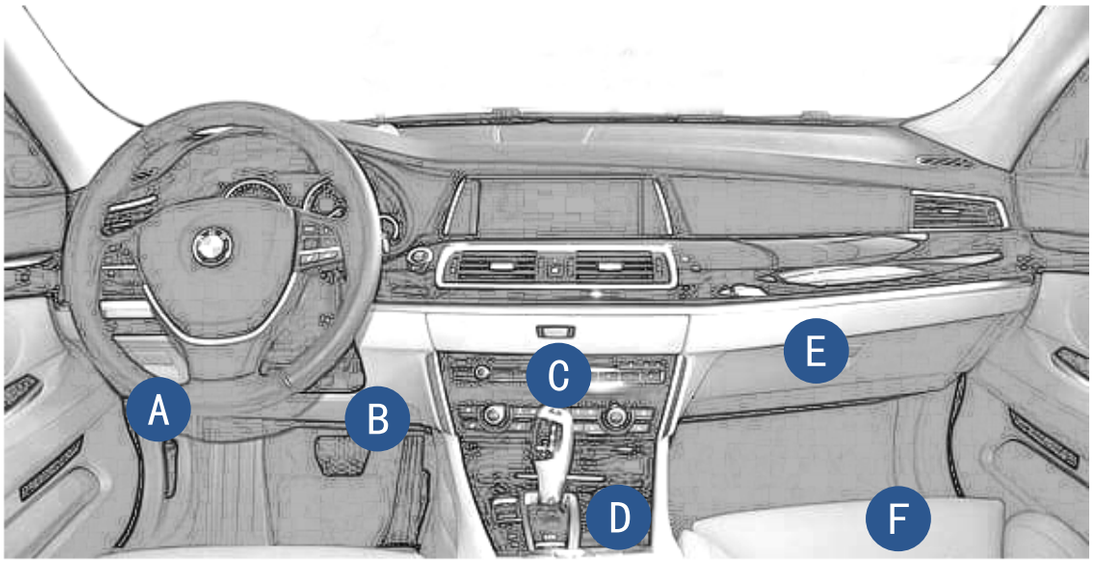
OBDII wire 1pc

Function buttons

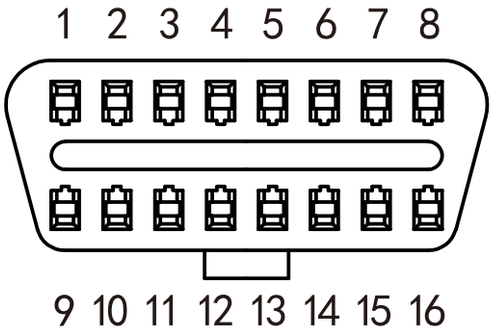
	∧	∨	☰	↩
Setting mode	Menu upward Numbers add	Menu downward Number subtract	Enter	Return
Display mode	Interface switch to next	Interface switch to before	Enter	No use

Product Installation

1.Find the vehicle OBD diagnostic connector, attach the product's OBD power plug and the vehicle OBD connector tightly.



Vehicle OBD connector



Area A: BMW/Audi/Volkswagen/Toyota/Common cars and majority models
Area B: Honda/Lexus (Most models)
Area C/D: Citroen
Area E/F: Other few models

2.Start the engine, the product will try to connect the vehicle ECU(s), if successful then proceed to the normal mode.

Protocol list:

ISO-15765 STD
ISO-15765 EXT
ISO-14230 FAST
ISO-14230 5B
ISO-9141
Toyota special
Volkswagen special
. . . . . .

※If it can't connect all the time, please check out the Common malfunction Analysis (Page 7) or contact your dealer.

3. Choose the special system

Enter the menu “SYSTEM SETUP->CHOOSE SYSTEM” to select the special models currently supported. The special system has some additional functions, such as special data protocol, door status display, etc. (but not necessarily fully supported)

4.Can the product automatically go to sleep when the engine is turned off?

Yes: User can skip the installation step of Ignition-switched ON power line in step 5 to complete the installation.

No: Enter the menu “OTHER SETUP->SLEEP RPM NOT CHANGE” to turn it on. If the RPM data does not change within 5 seconds, it will turn off. (if the vehicle has no auto off function or is always off, user can skip the installation step of ON power detection line in step 5 to complete the installation)

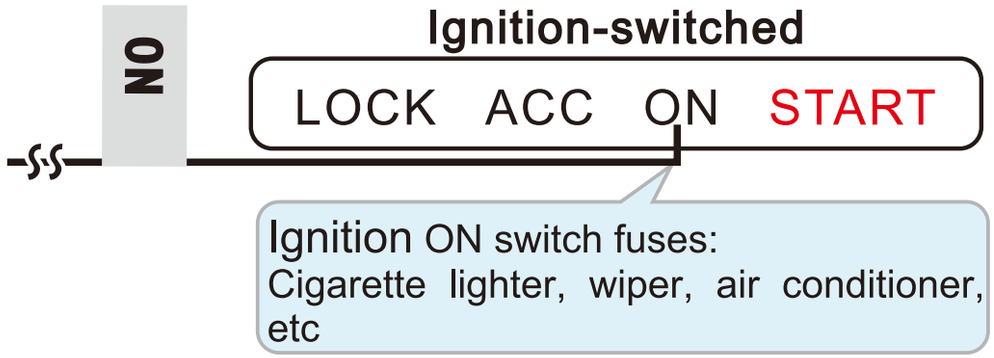
5.Connection method of Ignition-switched (ON) line (required list of cases)

1.After turning on the menu “SLEEP RPM NOT CHANGE” function, want to keep the product work when engine auto off.

2.The product wake-up or sleep synchronously with Ignition-switched.

3.After starting the vehicle, the product cannot wake-up automatically for a long time.

4.Electric vehicles, old model without OBD data or “TURN OFF OBD DATA” is turned off. Only G meter, gyroscope meter and GPS functions are needed.



Installation step 1

Find and pull out the fuse according to the fuse instructions.

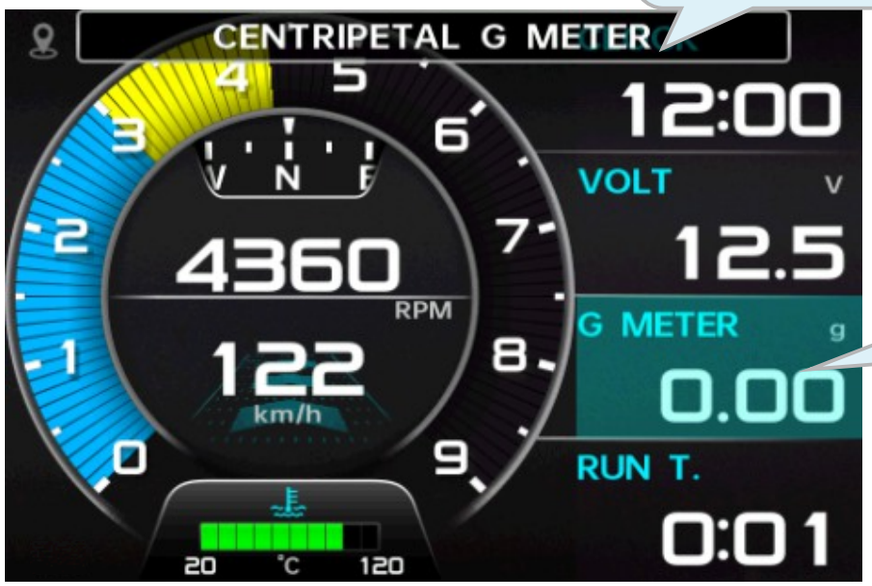
Installation step 2

Peel the detection line and wrap the leakage outlet head around the fuse, and then screw it for several turns to lock it.

Installation step 3

Insert the fuse back, turn on the vehicle power supply and test whether the product works normally or not.

Item setting



The detailed name of the meter is prompted here

Setting steps:

1.“DISPLAY SETUP->ITEM SETUP” enters the modification interface

2.Switch the selection by pressing the menu button for several times

3.Switch the item data by short/long pressing up or down button. (There will be a detailed explanation in the pop-up window)

4.End the setting by pressing return button

Pop-up functions

Example 1 - Turbo warning

Example 2 - Water T. warm-up

Several situations that meet the pop-up prompt

1. The data in the warning list (Page 6) , but there is no data display in the interface
2. The water temperature in warm-up mode is too low and there is no water temperature data display in the interface
3. Door opening (special system)
4. Reading OBD protocol (unless the “TURN OFF OBD DATA” is turned on and only GPS data is used)

Note: if the above conditions are met at the same time, it will be displayed circularly

Warning settings

"MENU->WARNING SETUP"

Gauge	Default	Min	Max	Unit	Condition
RPM	5000	0	11000	RPM	≥value
RPM SHIFT	3000	0	11000	RPM	≥value
SPEED	150	0	400	km/h	≥value
VOLTAGE	11	8	18	V	≤value
WATER TEMP.	105	-40	140	℃	≥value
OIL TEMP.	115	-40	140	℃	≥value
TURBO/IN-MF.P.	1.2	-1	3	x100kpa	≥value
OIL PRESS	0.5	0	10	x100kpa	≤value
FUEL PRESS	0.5	0	6	x100kpa	≤value
EXHAUST TEMP.	950	0	1100	℃	≥value
GEAR/CVTF. TEMP.	115	-40	140	℃	≥value

"MENU->G METER/GYRO SETUP"

Gauge	Default	min	max	Unit	Condition
PITCH	45	0	90	deg	≥value
ROLL	45	0	90	deg	≥value

Calibration settings

1.SYSTEM SETUP->SPEED ADJUST, different vehicle instrument will present speed faster than actual speed, users can adjust based on individual preferences.

2.SYSTEM SETUP->RPM ADJUST, users can adjust based on individual preferences.

3.SYSTEM SETUP->TURBO/IN-MF.P. Calibration, users can adjust based on individual preferences.

4.SYSTEM SETUP->FUEL C. ADJUST, users can adjust to a suitable proportion based on individual preferences.

5.SYSTEM SETUP->GPS TIME SETUP->TIME ZONE, set the GPS time zone according to your region.

6.G METER/GYRO SETUP->ZERO CALIBRATION, which must be calibrated once after the product is placed. (to get accurate data, the product must be placed parallel to the transverse coordinates of the vehicle)

Common Malfunction Analysis

Unable to power on or read data	1.Loose connection of OBD power port 2.Loose connection Instrument power port 3.OBD port fuse might be fused 4.The engine is not started, the model is too old 5.If there is a special model, please choose “SYSTEM SETUP->CHOOSE SYSTEM” menu switch to the special system.
Random change of display data, acceleration of the vehicle is worse than that before installation	1.Please enter “SYSTEM SETUP->PID TIME LOOP” and increase the time until it is stable. 2.Please enter “ABOUT PRODUCT->ISO WORK MODE” and set it to normal mode.
Unable to use auto dimmer control mode	1.Please enter “DISPLAY SETUP->DIMMER” function menu to auto 2.Unknown object covering the dimmer sensor 3.Dimmer sensor broken
No beeper sound for alarm	1.Please enter “SYSTEM SETUP->BUZZER SOUND” menu to turn on 2.Buzzer broken
Unable to clear or read DTC(s)	1.Please operate after engine off 2.Special DTC(s), please use profession equipment
Inaccurate time or time zone difference	1.No GPS signal or weak signal 2.Please enter “SYSTEM SETUP->GPS TIME” to modify the time zone
The burglar alarm is activated after locking the door	Because the product is still working and the OBD protocol still connected, resulting in vehicle false alarm, please check steps 4 and 5 of page 4.
Inaccurate turbo data	Turn on the Ignition-switched to power on the air conditioner, press any button to wake-up the product, and refer to Page 6 to calibrate the turbo data to 0.00 (atmospheric pressure value).

Other Instructions

Fuel consumption specification

1.Fuel consumption is calculated based on the data collected from airflow or turbo/intake pressure. If user's vehicle does not possess one of the data listed above then the product won't be able to get the fuel consumption data.

2.The fuel consumption conversion formula can be divided to fit gasoline or diesel cars, please check the engine type and enter "SYSTEM SETUP->FUEL TYPE" to select the corresponding type.

*Fuel consumption's calculated result might be slightly off with the actual number, please calibrate based on vehicle's condition.

Screen-off dormancy special settings

If the vehicle with auto off function or hybrid the user wants to make the product work when the engine auto off, the both functions of "SLEEP RPM NOT CHANGE" and "SLEEP WHEN AUTO OFF" must be turned off , or the reference (Page 4) is connected to the ON power detection line to control the instrument on and off.

PID Reading cycle

The delay of reading ECU data varies according to different vehicle models. The shorter the reading time, the faster data response. The time delay of reading ECU data on different vehicle types is different, user can set "PID TIME LOOP" time based on car's ability.

Manual wake-up

1.When the product is in sleep and user do not want to start the engine, user can press any function button to wake-up the product.

2.If not press any function button after wake-up, the product will automatically go to sleep again after one minute.

*Some vehicles DTC(s) cannot be cleared while running, please wake-up the product to clear the DTC(s).

Product parameter

Electric parameter	
Operate voltage:	DC 8-18V
Operate current:	≤170mA
Sleep current:	≤1.5mA
Operate temperature:	-20~+85℃
Product size:	103x18x62mm
Holder size:	62x42x60mm

Hardware:

3.5-inch 480x320 IPS screen display
4 touch buttons
Dimmer sensor
Alarm buzzer
Gyroscope and acceleration sensor
GPS & BDS positioning

After-sale Service Card

After-sale option	☐ Return/Refund ☐ Maintenance/Repair ☐ Exchange
Reason for exchange or return	
Contact phone number	
Receiver's name	
Receiver's address	

1.Human damage is not under warranty
2.Warranty is for 1 year since sold

Date: (MM/DD/YEAR)

Lúfi®