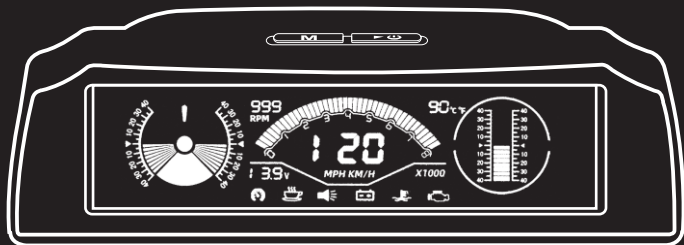


AUTOOL X90

Smart OBD Slope Meter

User Manual



Trademark

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Caution

- Please follow the operation instructions and use the parts recommended by manufacturer.
- Non- technical person shall not change, disassemble or repair the product, otherwise all losses caused by this shall be bared by the user himself.
- Please do not scratch, bend, twist or stretch the wires. Do not place the wires in high temperature. Do not press hard or decompose the on-board charging adapter.
- Please do not place nails, pins, and other small debris on the charging port, in order to avoid damaging the charging connector.
- Do not place the product in unstable place such as high altitude area, slope, or shelf.
- This product is powered by electricity and should not be used as a toy for children.
- Do not immerse the product in water or other liquids, in order to avoid short circuit.
- Please try to use the power supply and power cord supplied by manufacturer as standard.
- Please do not expose this product to strong light or high temperature when it' s not at use.

1. Product Introduction

Autool X90 OBD smart slope meter extends the concept of combining HUD automobile head-up display function with on-board slope meter, which greatly improves the product's safety escort level for users, and is favored by a large number of off-road enthusiasts.

Autool X90 OBD smart slope meter reads data through OBD interface of automobile connected by data line. It supports nine major protocols and can also support the use of some light trucks.

With Autool X90 OBD smart slope meter, you can not only drive without bowing your head and pay attention to the vehicle dynamics at any time, but also see the roll angle and elevation angle of the vehicle. The X90 OBD smart slope meter uses LCD color screen display. The effect is dazzling and clear, so that the vision can be seen at a

glance. The functions of OBD smart escort include (OBD speed, speed, clearing fault codes, water temperature, voltage, roll angle of the vehicle, elevation angle of the vehicle, etc.). Functions)

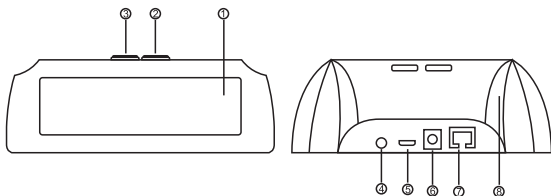
2. Product Features

- Suitable for domestic car system, Asian car system, American car system, European car system, and some minivans.
- It has the function of clearing the fault code of automobile.
- Free switching between degrees Fahrenheit and degrees Celsius (tank temperature display)
- Free switching between British and metric units (speed display) Gui Temple site
- Support for the nine major OBD agreements,
- Automatically monitor the driving condition of the vehicle.
- The light intensity induced by the light source sensor is used to adjust the brightness of the screen.
- The free rotation is used, and its sensitivity is high.
- Using color high definition liquid crystal screen display, high resolution
- Carbon fiber appearance fuselage design.
- Start with the car, stop automatic dormancy function.
- Parameter display:
 - Vehicle roll angle display
 - Vehicle elevation display
 - OBD Speed Display
 - OBD Speed Meter Display
 - OBD Speed Digital Display
 - Temperature Display of Water Tank
 - Clearing Fault Code
 - Battery Voltage Display
- Alarm functions:
 - Roll angle danger alarm
 - Elevation angle hazard alarm
 - Over-speed alarm
 - Fatigue driving alarm (alarm will be given if driving for 4 hours continuously)
 - Battery Abnormal Alarm
 - Alarm for high water temperature
 - Vehicle Fault Code Alarm

3. Output Parameters

Power:	DC 10V ~ 30V
Working Temperature:	-40°C ~ 80°C
Depression& Elevation Angle:	-40° ~ 40°
Roll Angle:	-40° ~ 40°
OBD Speed:	Synchronous automobile data
OBD Revolution:	Synchronized Vehicle Data
Voltage Accuracy:	± 0.5V
Speed Accuracy:	< 0.05Km/h
Water Temperature accuracy:	± 0.5°C
Fault Code:	Synchronized Vehicle Data
Support Agreements:	Supports 9 major protocols
Shell Material:	ABS+PC High Temperature Resistant Materials
Product Size:	70*59*59 mm/ 2.8*2.3*2.3 inch
Weight:	203g

4. Introduction of Main Unit



- 1-Display Interface.
- 2-" M " menu function key.
- 3-Switch key.
- 4- Photoelectric sensor (automatic adjustment of display brightness).
- 5- Upgrade dedicated USB interface.
- 6-DC12V Power Supply Interface (only available for GPS version).
- 7-RG45 power supply and OBD signal receiving port.
- 8- Carbon fiber process shell.

5. Introduction of Display Interface and Function



A- Roll angle alarm icon, when the roll angle of the car reaches 30 degrees, this icon will light up and give an alarm sound.

B- Roll angle indication area, real-time measurement of vehicle roll angle, using free rotation, left and right angles of 40 degrees.

C - Digital speed display area, showing the current speed (motion speed).

D- Engine speed dashboard display, indicating the current speed of the engine (dashboard speed).

E-Satellite Vehicle Speed Display Area, which shows the current speed of the vehicle as it travels.

F- Water tank temperature display area, real-time display of water temperature.

G- Elevation indicator area, real-time measurement of vehicle elevation angle, using free rotation, front and rear angles of 40 degrees.

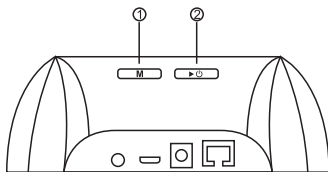
H- Automobile battery voltage monitoring display area, showing the current battery voltage value.

I - Over speed alarm. When the car arrives at 120KM/H, this icon will light up and make an alarm sound. (You can also turn off the alarm sound)

J - Fatigue driving alarm. When the car runs continuously for 4 hours, this icon will light up and give an alarm sound.

Sound Close/Open icon. When the sound is turned on, the icon is lit, but not when it is turned off. (You can open/close by pressing the right button for a long time.

6. Introduction of Key Function



1) "M" function key

- * Short press "M" function key, temperature unit / switching
- * Long press "M" function key 3S, speed unit KM/H and M PH switch.
- * Long press "M" function key 5S, turn on/off sound

2) Right-click

- * Press the "right button" button to reset the roll angle and elevation angle.
- * Press the right button for 5 seconds to clear the car trouble code.

7. Installation Steps

- 1) Park the car on the horizontal road, paste the back glue on the product, fix it anywhere convenient to observe inside the car, and adjust it manually to the level.
- 2) Connect the OBD data line to the OBD interface of the automobile (as shown in the figure below). The OBD smart convoy will start until the data are displayed properly.

8. Warranty

There are 3 years' warranty for AUTOOL product main unit and 1 year warranty for the accessories since the day the customers have received the product parcel.

Warranty Access:

- 1.Repairing or replacement the equipment will be done according to the specific fault conditions.
- 2.We guarantee that all replacement parts, accessories or equipment are brand new.
- 3.When there is a product breakdown that can not be solved within 90 days, customer should provide video and pictures as proof, we will bear the freight cost and provide customer the accessories in need to replace. After receiving the product for more than 90 days, the customer shall bear the freight cost, we will provide the accessory for free to replace.

Conditions Warranty not Covered:

- 1.Product is bought through non-official AUTOOL purchase channel.

2.Product failure is caused by incorrect use of the product, use for other wrong purpose or human factors.

Disclaimer: The AUTOOL Technology Co, Ltd. reserves the right to change product designs and specifications without prior notice. The physical appearance and color may differ from those shown in the instruction manual. Please refer to the actual product. If you have any questions, please contact the dealer or the Autool service center. The company have the final explanation right of product and shall not bear any consequences due to misunderstanding.

注册商标

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www.autooltech.com，或发送邮件至：aftersale@autooltech.com，与偶然公司联系。

一、产品简介：

X90 (OBD) 智能护航仪延用H U D汽车抬头显示功能与车载坡度仪两大功能相结合的理念，大大提高产品对用户的安全护航等级，更是受到了大批越野爱好者的青睐。

X90 (OBD) 智能护航仪通过数据线连接汽车OBD接口读取数据，支持9大标准协议，通用于市面上80%以上的车型，还可以支持部分小货车使用，是业内首创。使用OBD智能护航仪既可以开车不低头，随时关注到车辆动态，同时也可以看到车辆横滚角和俯仰角状态，OBD智能护航仪采用LCD彩屏显示。效果炫丽清晰，让视觉一目了然。

X90 (OBD) 智能护航仪功能包括OBD车速，转速，清除故障码，水温，电压，车辆横滚角，车辆俯仰角等功能。

二、产品特点：

- 适用于国产车系、亚洲车系、美洲车系、欧洲车系、和部分小型货车;
- 具备清除汽车故障码功能;
- 华氏度和摄氏度自由切换 (水箱温度显示);
- 英制和公制单位自由切换 (车速显示);
- 支持OBD九大协议;
- 全自动监测车辆行驶状况;
- 采用光源感应器感应的感光强度来调整屏幕亮度;
- 采用游离式转动，其灵敏程度较高;
- 采用彩色高清液晶屏显示，分辨率较高;
- 采用碳纤维外观机身设计;
- 随车启动，停车自动休眠功能。

三、产品功能：

- 车辆横滚角显示
- 车辆俯仰角显示

- OBD车速显示
- OBD转速仪表显示
- OBD转速数字显示
- 水箱温度显示
- 电瓶电压显示
- 清除故障码

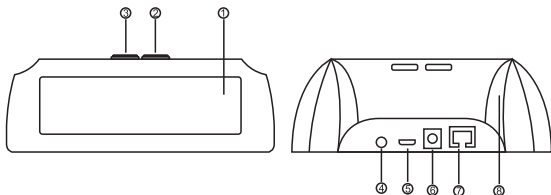
四、报警功能：

- 横滚角危险报警
- 超速报警
- 电瓶异常报警
- 车辆故障码报警
- 附仰角危险报警
- 疲劳驾驶报警（连续行驶4小时会报警）
- 水温高报警

五、产品参数：

电源：	DC 10V ~ 30V
工作温度：	-40℃ ~ +80℃
俯仰角：	-40° ~ +40°
横滚角：	-40° ~ +40°
OBD车速：	同步汽车数据
OBD转数：	同步汽车数据
电压测量精度：	+ - 0.5V
速度精度：	< 0.05Km/h
水箱温度精度：	+ - 0.5°度
故障码：	同步汽车数据
支持协议：	支持9大协议
外壳材质：	ABS+PC耐高温材料
产品尺寸：	70*59*59 (mm)
重量：	203g

六、主机介绍



- 1-显示屏界面。
- 2- “M” 功能键。
- 3-开关键。
- 4-光电传感器（自动调节显示亮度）。
- 5-升级专用USB接口。
- 6-DC 12V供电接口（可供GPS版本使用）。
- 7-RG45供电和OBD信号接收端口。
- 8-碳纤维工艺外壳。

七、显示界面及功能介绍



- A-横滚角报警提示图标，当汽车横滚角度达到30°度，此图标会点亮并发出报警声音。
- B-横滚角指示区域，实时测量车辆横滚角度，采用游离式转动，左右角度为40°度。
- C-数字转速显示区域，显示当前转速值（运动转速）。
- D-发动机转速仪表盘显示，指示发动机的当前转速（仪表盘转速）。
- E-卫星车速显示区域，车辆行驶时显示车辆当前车速。
- F-水箱温度显示区域，实时显示水温度值。
- G-附仰角指示区域，实时测量车辆附仰角度，采用游离式转动，前后角度为40°度。
- H-汽车电瓶电压监测显示区域，显示当前电瓶电压值。
- I-超速报警，当汽车行驶到达120KM/H时，此图标会点亮并发出报警声音。（也可以关闭报警声音）
- J-疲劳驾驶报警，当汽车连续运行4小时，此图标会点亮并发出报警声音。

K-声音关闭/开启图标，当开启声音时此图标点亮，关闭时不点亮（可以长按右键操作打开/关）

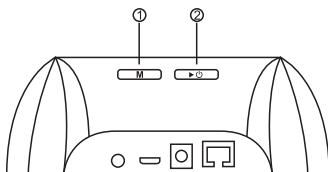
L-电瓶电压异常报警图标，当电瓶电压出现故障异常时，此图标会点亮并发出报警声音。

M-水温报警，当水箱水温高于设定值时，此图标会点亮并发出报警声音。

N-汽车故障码报警，当汽车出现故障时，此图标会点亮并报警提示（可以长按左键清除故障码）

O-MPH/KMH为车速单位图标，MPH是英制单位，KM/H为公制单位（可以长按右键3秒切换这两个单位模式）

八、按键功能介绍



* 长按“M”功能键3S,速度单位KM/H和MPH切换。

* 长按“M”功能键5S,开/关声音

2、右键

* 短按“右键”键，横滚角和俯仰角复位平衡。

* 长按“右键”键5秒，清除汽车故障码。

九、安装步骤

1.把汽车停放在水平路面上，将背胶粘贴在产品上，固定于汽车内部方便观察的任何地方,手工调校至水平即可。

2.连接OBD数据线至汽车OBD接口（如下图所示），OBD智能护航仪开机，直到各项数据显示正常，方可驾车行驶。

十、注意事项

- 此说明书是本产品的必要组成部分，请仔细阅读。
- 妥善保存此说明书，以备检修时使用。
- 按照本说明书操作，并且只使用制造商推荐的附件。
- 本机只用于设计所明确的用途，切勿移作它用。
- 非技术人员不得私自改造，拆卸或维修本产品，因此带来的所有损失由本指南使用者承担。
- 请勿刺划、弯折、扭曲、拉伸电线，且勿将电线置于高温处，勿重压、分解车载充电适配器。
- 请勿将钉子、针等其他细小杂物置于充电口，以免损坏充电接头。
- 请勿将产品置于高空、斜面、货架等不稳的地方使用。
- 本产品通电使用，请勿让儿童当玩具。
- 请勿把本产品浸入水中或其他液体中可能发生短路。
- 请尽量使用本产品标配电源及电源线。
- 在未使用状况下，请不要将本品放在强光或高温下暴晒烘烤。
- 对由于使用不当或移作它用而引起的损害，厂家概不负责。

十一、售后保修

AUTOOL 整机自客户签收日起享有3年保修期，附件1年保修期。

保修方式

- 1.根据具体的故障情况对设备进行修理或更换；
- 2.我方保证所有更换的部件、附件或设备都是全新；
- 3.在客户收到产品90天内出现故障同时提供视频和图片，我方承担运费并免费提供相应配件给客户更换。收到产品超过90天，客户承担相应的费用，我方免费提供配件给客户更换。

以下情况不再免费保修范围：

- 1.非正规渠道购买AUTOOL的产品；
- 2.未按产品说明书要求使用和维护造成的损坏；

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