Quick Installation Guide for X50 Plus Car OBD Multi-function instrument

■Product introductions

Appropriate models for products

The product is suitable for standard OBD-II protocol compliant petrol and diesel vehicles, especially for vehicles without a temperature gauge, tachometer and fuel consumption meter.

Product installation modes

This product is a car OBD multi-function instrument with a stylish and compact shape. It is designed for installation through the plug and play OBD port without cutting the wire, easy and simply to install.

Features of product hardware

32-bit ARM CORTEX-M3 CPU, with 72MHz maximum operating frequency, in support of multiple high speed automotive communication protocols

Early alarm functions of products

Support multiple early alarm functions: water temperature early alarm, over-speed early alarm, shifting reminding early alarm and vehicle fault early alarm; bring car owners great convenience for safe driving.

Functions of clearing fault codes

Car owners can scan and clear regular vehicle fault codes at their discretion and reduce repair costs, without going to the 4S shop.

Product parameters

Operating voltage：10-18V DC

Operating current：<80mA

Sleep current：<15mA

Operating temperature：-20~85℃

Product volume：82mm×55mm×55mm

Product packaging accessories: host, data lines, 3M Double sided adhesive, instructions, certificate of approval.

■Product description

X50 Plus OBD mini car trip computer is a small car instrument with powerful functions, which is especially suitable for vehicles without a tachometer, an engine temperature gauge and fuel consumption display functions.

X50 Plus can also display and monitor vehicle battery voltage, generator charging voltage, offering vehicle over speed alarm, high engine temperature alarm and monitoring and other functions. It even can read vehicle data streams, scan engine fault

codes and offer fault code clearing functions

■Product appearance

■X50 Plus host instructions

1. Ambient light detector
2. OBD data plug
3. Function key
4. Display screen

Where, the function key has three directions：

Pull leftwards or rightwards to choose the menu, press M in the middle to confirm, long press M in the middle to exit the current menu or to return.
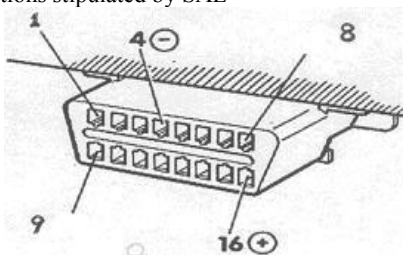
■Product installation and usage：

Insert the product into the check port on the vehicle OBD computer; insert the other end of the

product into the data interface of the host.

After the product is inserted into the host and the car is started, wait for the communication linkage between X50 Plus and the car. After the linkage is successfully established, the host will send a "drop" sound, at the same the display screen displays vehicle protocols and then indicates that it is the first time the product is used to set up parameters.

International universal OBD plug protocol definitions stipulated by SAE

Linkage between car trip computers and cars

Product installation precautions：

The automobile instrument panel must be kept clean, if waxing is done with car instrument waxes, causing the double adhesive not to be pasted, please carry out cleaning operations with a heat towel and

then undertake installation. When installation, heat the instrument panel by blowing air, which can achieve the best effects.

■**Product usage settings**

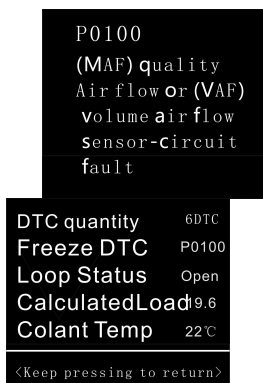Press the function key in the front of the host to enter into product menu status

■**Electronically Controlled Diagnosis System**

Press the function key again to enter the electronically controlled system. The electronically controlled system contains three menu functions, see the following figure:

```
OBD diagnose  ◄  ▢
Driving test
Settings
Meter config
Product  inf
───────────────────
<Keep pressing to return>
```

```
Scan   DTCs ◀    ☐
Erase  DTCs
Data  Stream
```
<Keep pressing to return>

Enter fault code scanning functions to read car fault code information and choose whether to clear car faults.

```
P0100
(MAF) quality
Air flow or (VAF)
volume air flow
sensor-circuit
fault
```
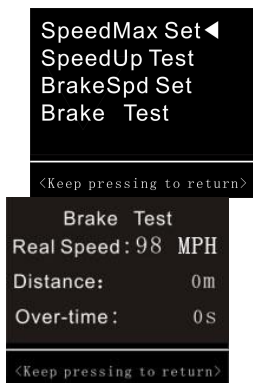
```
DTC quantity      6DTC
Freeze DTC       P0100
Loop Status       Open
CalculatedLoad   9.6
Colant Temp      22℃
```
<Keep pressing to return>

Choose to read data streams to detect car data in real time. Choose the key leftwards and rightwards to flip pages up and down for query.

■Car performance tests

Car performance tests include: acceleration performance tests, brake performance tests, acceleration target speeds, and initial braking speeds
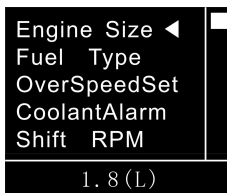
```
SpeedMax Set◄
SpeedUp Test
BrakeSpd Set
Brake  Test

<Keep pressing to return>
```

```
   Brake  Test
Real Speed: 98  MPH
Distance:        0m
Over-time:       0s

<Keep pressing to return>
```

When an acceleration performance test is carried out, set up an acceleration target speed firstly, and finish the acceleration performance test after the set speed is reached. When the brake performance test

is undertaken, it is necessary to set up an initial braking speed firstly; when the initial brake speed is reached, start to calculate the brake distance until the car speed is stopped

■Instrument parameter settings

   Choose instrument parameter settings, enter the instrument parameter setting interface, and adjust the parameter size left and right, long press the function key to return to the previous menu.

```
Engine Size ◄  ■
Fuel  Type
OverSpeedSet
CoolantAlarm
Shift  RPM
      1. 8 (L)
```

   Instrument parameter settings include the following setting class contents:

   1. Engine displacement settings- Set up the engine displacement size, after this parameter is set, the car's instantaneous fuel consumption and average fuel

consumption are accurately calculated.

2. Fuel type setting-

Choose petro, diese1, diesel 2; in different diesel modes, fuel consumption data sees great changes.

3. Overspeed alarm- Set up this parameter, when the set car speed is reached, the instrument will send "drop, drop" sounds to give an alarm, the car speed text will display in red.

4. High water temperature alarm- Set up this parameter, when the engine reaches the alarm temperature instrument, "drop, and drop" sounds will be given, at the same time the displayed temperature character is red.

5. Shift reminding rotation speed - After this rotation speed is set, shift reminding status is reached, and a shift prompt tone will be sent, at the same time , shift characters display

6. Shift reminding upper limit- The car speed reaches the set value, the shift reminding will be shut down, in case there are no gears to uplift at the highest gear after the set car speed is exceeded.

7. Instrument standby time-After the car flames out, the set value is reached, and X50 Plus will sleep automatically.

8. Car speed error correction- When the car speed meter displays 100 km/miles status, adjust X50 Plus display to be in accordance with the car speed meter.

9. Battery voltage correction-Correct voltage display accuracy settings in X50 Plus

10. Alarm voltage settings- Set up this parameter to remind car owners whether the battery is damaged.

11. Instrument digit color -Seven colors are available for option, users can carry out settings based on their preference.

12. Car speed reset settings-In idle modes, if the car speed is lower than the set value, the car speed will be displayed as zero.
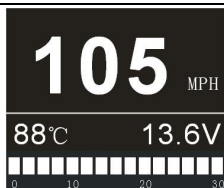
13. Fuel consumption data correction- If there is an error between average fuel consumption displayed in X50 Plus and actual fuel consumption, adjust this parameter. If the displayed fuel consumption is bigger than the actual one, decrease the percentage, otherwise increase the percentage.

14. Factory reset settings-Choose this function to restore X50 Plus data to initial status.

■Instrument interface settings

This function will configure contents displayed in X50 Plus

In operating state, X50 Plus can display four data on the display screen. These four data correspond to the following contents:

Position 1 only can display car speeds or engine rotation speeds or coolant temperatures. Position2 and 3 can configure more data class contents, Position4 only can configure instantaneous fuel consumption or engine rotation progress bar display.

```
Sys  Version
Protocol inf
Matching inf



⟨Keep pressing to return⟩
```

■Product information

The product information function can query product software versions and communication protocols of this car as well as help and solutions to car compatibility problems.

■Instructions on car compatibilities ：

    X50 Plus can be used on most of cars normally through plug and play.

    When used in some cars, car dashboard lights or fault alarm lights are caused to be lit up abnormally, operate according to the help hint on compatibility solutions and use needle-nose pliers to twist off excess pins to eliminate such phenomena.

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