Specification

Applicable to the ANCEL DP500 products

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I. INTRODUCTION

1. PRODUCT PROFILE

This device is a new Android-based vehicle trouble diagnostic device developed for Internet applications. It is characterized by covering wide range of vehicles, featuring powerful function, and providing precise result. Through vehicle diagnostic OBD connector and variant mobile intelligent terminals, it achieves vehicle trouble diagnosis for full car model and full system vehicle.

Meanwhile, taking advantage of mobile Internet, this device integrates more application and service, such as Maintenance Database, remote assistant, One Key Upgrade etc.

2. FEATURES

1. Diagnostic function:

Classify special function: ABS, Battery match, CVT learning, EPB, Gear learning, Immobilizer, Cluster calibrate, steering angle reset etc.

Specially designed for Android platform with clear and

user-friendly interface;

2. Maintenance database:

Equipped with powerful database.

3. One Key Upgrade:

Built-in WIFI mode can realize application downloading and diagnostic function by one key upgrade.

4. System setting:

Set VCI formation, language, unit, data logging, user information etc.

5. Remote assistance:

Achieve remote assistance by this function.

3 KNOWLEDGE OF THIS DEVICE

3.1 The whole set

This device is composed of the tablet computer, main test cable and kinds of connectors.

3.2 The tablet computer

front view



reverse view



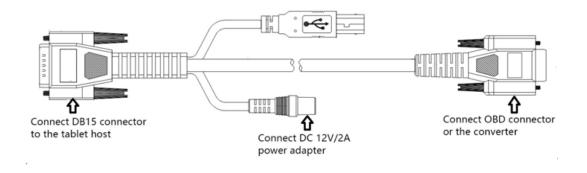
4 TECHNICAL PARAMETER

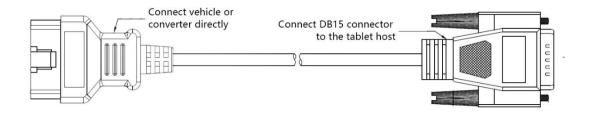
- Operation system: Android 5.1.1
- CPU: RK3128 Quad-Core, ARM Cortex A7@1.2Ghz

- Battery: 3800mA, rechargeable polymer lithium battery
- Extension memory card: 32G Micro SD (TF) card supported
- Memory capacity: 16GB
- LCD: 7.0 inches
- LCD resolution: 800*480
- Touch screen: Capacitive touch screen
- Wi-Fi: supported
- Working temperature: -20°C~55°C (14°F~131°F)
- Storage temperature: -20°C~70°C (-4°F~158°F)
- Weight: about 1kg
- Dimension: 245*149*35 mm

5 ACCESSORY (Standard Configuration)

5.1 Main test cable



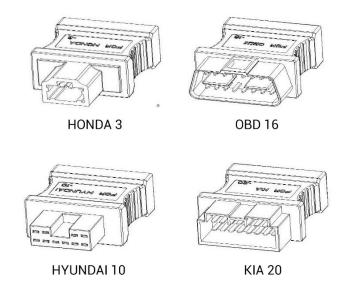


Pack different main cable according to different configurations

5.2 OBD Connector

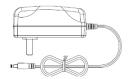
OBD I connector to connect the diagnosis port of non OBD II vehicles. To choose the connector according to the vehicle brand and models.

Common connectors are as below:



Note: Different configuration accessories may have different options

5.3 Others



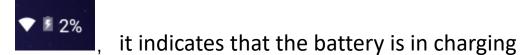
DC Power Adapter (Output DC 12V/2A)

To power up the tablet via connecting

with outside power supply.

6 CHARGE THIS DEVICE

- 1. Connect the included USB cable with charger.
- 2. Plug the charger into AC outlet.
- 3. When it connects to charger, battery logo indicates



- 4. When battery logo changes into
- and then disconnect charger from AC outlet.
- 5. Unplug USB cable on the charger from this device.



7 USING BATTERY

• If the battery keeps unused for a long time or battery is completely discharged, it is normal if it cannot be turned on while being charged. Please charge it for a

period and then turn it on.

- Using data service will cause more power consumption and shorten the stand by time.
- The charging time of battery varies with temperature condition and battery consumption status.
- While this device has low battery, a beep will sound.
 If it is very low, this device will be switched off automatically.

Note: Do one of the followings to save power:

- 1. When this device keeps unattended, press POWER key to turn off the LCD.
- 2. Shorten the standby time: Enter main menu, choose "Settings" > "DEVICE"> "Display" > "Sleep" to select a shorter standby time.
- 3. Decrease the brightness of LCD display: Enter main menu, choose "Settings" > "DEVICE" > "Display" > "Brightness", and then drag the slider to adjust it.
- 4. Change "Live wallpaper" into "Gallery".
- 5. Press VOLUME key to decrease the volume.

8 POWER ON/POWER OFF THIS DEVICE

8.1 Power on

Press and hold Power button for three seconds to turn on this device.

Note: Set date, time and time zone.

8.2 Power off

Press and hold Power button for three seconds to turn off this device.

9 ABOUT DESKTOP

The screen is shown as blow:

- A . Print screen : make a quick screenshot and save it to gallery
- B . Back button : go back to previous interface or exit program.
- C . Home button : return to the desktop
- D. Touch screen menu button : select desired item
- E . DP button PP: enter diagnose and program interface
- F. VIC button VCI: enter system settings

10 CUSTOMIZE YOUR DESKTOP

10.1 Add items on the desktop

On the main menu, hold and press the desired item, the system will automatically enter the desktop and place the icon into the circle.

Hint: If many applications occupy the desktop, hold and press the desired one to move it to other extension desktop.

10.2 Move items on the desktop

- 1. Hold and press the item to be moved.
- 2. After a movable circle appears on the screen, drag it to the target location.

10.3 Delete items on the desktop

- 1. Hold and press the desired item, "X Delete" appears in the upper middle of the screen.
- 2. Drag the item to "X Delete".
- 3. When the item and icon turn red and then release it.

10.4 Change your wallpaper

- 1. Hold and press a blank area on the desktop, a popup wallpaper will be shown on the screen.
- 2. Choose desired wallpaper.
- 3. Click upper left corner √ to set wallpaper.

10.5 Create a folder on the desktop

- 1. Drag one icon to another icon, the system will create a folder.
- 2. Input the folder name.

11 ON USING TOUCH SCREEN

- Tap: use your finger to tap desired items to confirm or open it.
- Long-press: press and hold the current interface,
 icon or input field to open the available operation options.
- Slide: use your finger to slide the screen horizontally or vertically.
- Drag: hold and press the desired item, then drag it to any location.

12 AUTO-ROTATE THE SCREEN

To perform such operations as browsing webpage, viewing images etc., rotate this device, the screen will automatically change the display direction. To disable this function, click "Settings" and click "display" to enter. Unselect the option "Auto-rotate the screen".

Note: This product application does not support rotating screens.

13 LOCK&UNLOCK

13.1 Lock the screen

- When machine is ON, press POWER key to lock the screen.
- The system will lock the screen automatically after this device remains idle for a long time.

13.2 Unlock the screen

Press POWER key to activate the screen and then drag the lock to "Unlock position."

14 NOTIFACTION PANEL

The notice panel is used to display some activities,

messages to remind and inform users.

14.1 Turn on the notification panel

- 1. When a new notification icon appears on the status bar, slide the status bar upwards to open it.
- 2. In the notification panel, click the desired notification item to open it.

14.2 Turn off the notification panel

Slide the panel upwards, and then specify the notifications as OFF to turn it off.

15 INPUT METHOD

Set input method:

Enter main menu, and then select "Settings"-> "Language and keyboard" to Choose desired input method.

The default input method, Google input can support powerful word stock engine,

Intelligent Google input and multiple keyboard mode.

Android keyboard and Google input method and make

input easier.

To start text input mode, please click any text input

entry.

16 HOW TO SET AS AIRPLANE MODE

According to the regulations of some countries or areas, PC device must be turned off before boarding on the airplane.

The way to disable functions of this device is to set it as airplane mode. In this mode, all wireless radio waves will be disabled, including mobile network, and WLAN.

Do one of the followings to enable or disable airplane mode:

Press POWER key and choose "Airplane mode" from the pop-up option menu.

Access the main menu, and choose "Settings" > "WLAN" > "More..." > "Airplane mode".

II. OTHERS

1 WLAN

This function enables you to enjoy surfing on the Internet and downloading data from the Internet via Wi-Fi.

1.1 Set WI-FI on

- 1. Enter main menu screen, choose "Settings" > WLAN
- 2. When the WLAN sign appears blue, it indicates Wi-Fi has been activated already.

Note: To prolong the battery life, please switch Wi-Fi off when it keeps unattended.

1.2 Connect to WLAN

Start WLAN, if this device is within range of WLAN, it can automatically detect and connect to current WLAN, select desired network and input password, then you can surf the Internet by WLAN.

2 Browser

You can use any APP based on browse website and network.

2.1 Open browser

Enter main menu screen, tap to the browser. You can choose the desired homepage or input the website address to browse.

1. Tap to input or edit the web link

2.2 Browser webpage

- 1. Open the browser.
- 2. Input the web address, and tap "Go" on the keyboard to visit the website.

Tips: Alternatively, you can also tap, and then choose "Bookmarks/History" from the pull-down list to choose the web link you want to access.

3. After a webpage is open, slide the screen with the tip of your finger to view other hidden content.

2.3 After a webpage is open, slide the screen with the tip of your finger to view other hidden content.

There are two ways to zoom in/ zoom out while browsing a webpage.

- to zoom in so that the text on a webpage appears in a column that fits your device's screen, double-tap with the tip of your finger.
- to zoom in manually, place two fingers on the screen and then spread them apart. To zoom out, either double-tap again or place two fingers apart on the screen and then pinch them together.

2.4 Save favorite webpage to bookmark

- 1. While browsing a webpage, tap Function Menu at the top right and choose "Save to bookmarks".
- 2. Edit a label for the bookmark.
- 3. Tap "OK" to confirm and save it.

2.5 Open multiple pages

The browser allows you to open multiple web pages and you can toggle between these pages.

- 1. While browsing a webpage, tap the Fold Button at the top right and open new window.
- 2. Another web page will be displayed in the new window.

2.6 Customize Internet settings

While browsing a webpage, choose "Settings" at the top right, you can view or change browser settings, privacy & security setting and advanced setting etc.

3 GALLERY

This option is used to manage pictures and video files.

3.1 Open gallery

Enter main menu screen, tap "Gallery" to access it. The system searches images and videos in this device and SD card automatically, and categorizes it into corresponding folders.

3.2 Browse images

- 1. Enter main menu screen, tap "Gallery".
- 2. Tap the picture folder you want to view.
- 3. Tap the desired image to browse.

4. Swipe the screen rightwards or leftwards to view the next/previous picture.

4 MUSIC

Music files are stored into 4 categories: Artists, Albums, Songs and Playlist. Tap the desired music to display music.

Tips: While playing, tap back button to switch to other applications and the player will be running in background. Open the status bar and choose the audio file to return to the player screen.

5 CALCULATOR

You can use calculator to operate algorithm of plus, subtract, multiply and divide, and function operation of sin, cos, tan and log.

6 CALENDAR

This function lets you view calendar or create to-do events.

Enter main menu screen, tap "Calendar". Swipe up and down to switch to month;

Tap someday, the followings can be done.

Tap to refresh, search, and hide control and setting.

7 ALARMS

7.1 Add an alarm

- 1. Enter main menu, and tap "Alarm".
- 2. Tap to add alarms.
- 3. Set the detailed information of the alarm.
- 4. Tap ____ to pack up the alarm to store the setting.

7.2 Delete an alarm

- 1. Enter main menu, and tap "Alarm".
- 2. Tap the desired alarm.
- 3. Tap I to delete it.

Tips: After the alarm is deleted, you can choose to cancel delete alarm on the right side from the option menu.

7.3 Customize your alarm

- 1. Enter main menu, and tap "Alarm".
- 2. Tap menu button, and then choose "Settings".
- 3. Alarm volume: Set the volume of alarms.
- 4. Set the duration of alarm.

- 5. Set the duration the alarm snooze next time.
- 6. Volume buttons: set what these buttons function when pressed during an alarm.
- 7. Set default ringtone: choose the alarm ringtone.

7.4 Countdown set

- 1. Enter the main menu to tap

 ■to choose count down alarm;
- 2. Set the time of countdown;
- 3. Tap to add count down alarm, and tap to delete alarm;
- 4. Tap \square to start count down, and tap \square to stop count down;

Notice: after the countdown ends, the device will ring alarm sound.

7.5 Second clock setting

- 1. Enter the main menu to tap oto choose second clock;
- 2. Tap \square to start second and clock, and tap \square to stop second clock;
- 3. Tap to reset second time;

4. Tap on the right side to display the smaller unit counter of second clock;

8 ES FILE VIEWER

Open ES file viewer, and enter main menu.

You can manage SD card, browse by category and browse all music, picture, video, document application, package, favorites, installation package, management recommended through catalogue.

9 BRIGHTNESS

- 1. Enter main menu screen, tap "Settings" > "Display".
- 2. Tap "Brightness" to enter.
- 3. Drag the slider leftward to lower the screen brightness. Drag the slider rightward to increase the screen brightness.

10 SET SCREEN LOCK

You can set the screen lock pattern, and when the screen is locked, it will not be unlocked until you draw the right pattern.

Enter main menu screen, tap "Settings" > "Security" > "Screen lock".

- 2. There are several options available for your selection. To define a pattern, follow the on-screen prompts to plot your pattern.
- 3. After drawing, tap "Confirm" to save your setting.

11 APPLICATION

11.1 View installed applications

- 1. Enter main menu screen, tap "Settings" > "Apps" to open the downloaded application list.
- 2. The following operations are available:
- Tap the desired one to view the application information.
- Tap and choose "Sort by size" from the pull-down menu, the applications will be displayed in size order automatically.
- Tap and choose "Reset app preferences" from the pull-down menu, a confirmation dialog box will appear on the screen, tap "Reset apps" to proceed; tap "Cancel" to abort.
- 3. To uninstall an application, tap it to enter the application information screen.

4. Tap "Uninstall" and then follow the on-screen instructions to finish it.

11.2 View the running applications

- 1. Enter the main menu screen, tap "Settings" > "Apps". Scroll the screen from right to left to RUNNING tab to open the currently running application list.
- 2. The following operations can be done:
- View the currently running applications;
- Tap any one to stop it.

12 LANGUAGE&INPUT METHOD

- Enter the main menu screen, tap "Settings" > "Language & input">Tap language.
- 2. Tap "Language" and choose the desired language in this device.

The setting of input method

The device provides several kinds of input methods. Tap setting before the desired input method.

13 SET DATE&TIME

This device is preset to use the network-provided date, time zone and time.

Note: If Automatic date & time is set as Use networkprovided time, date, time and time zone will not be defined.

- Enter the main menu screen, and tap "Settings" >
 "Date & time".
- 2. Tap "Set date", and scroll the screen upwards and downwards until the desired numbers appear on the highlight area.
- 3. Tap "Select time zone", and choose the desired one from the time zone list. Scroll the screen upwards and downwards to view more.
- 4. Tap "Set time" and scroll the screen upwards and downwards to adjust the hour and minute. After setting, tap "Done" to confirm.
- 5. Select or deselect "Use 24-hour format" to switch between 12-hour format and 24-hour format.
- 6. Tap "Choose date format" to choose the desired date of this device format from the list.

14 RESTORE TO FACTORY SETTINGS

This option enables you to restore this device to the default factory settings.

Once it is reset, all data (including downloaded applications) will be deleted.

Note: Before resetting to factory data, please back up all important data saved in your device.

- Enter the main menu screen, tap "Settings" > "Backup & reset" > "Factory data reset".
- 2. Follow the instructions on the screen to proceed.1. Enter main menu screen, choose "Settings" > WLAN

15 STORE

Enter the main menu, and tap setting> store check the store situation of the device.

Store the download content in the default browser to the download content list.

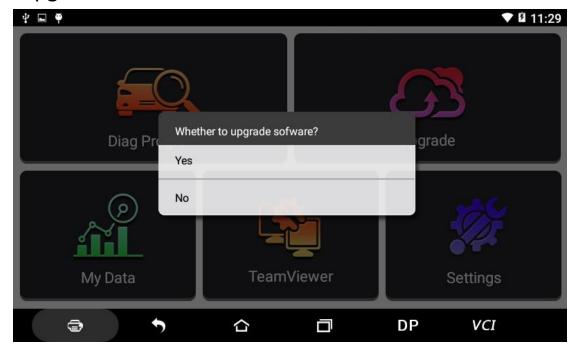
16 APPS INSTALLATION/ UNINSTALLATION

- 1. Install: Put the application package under the root directory of SD card, enter "File Manager" and then tap the desired package to start installing.
- 2. Uninstall: Tap "Settings" > "Apps", and choose the desired one to uninstall.

III. ONE KEY UPGRADE

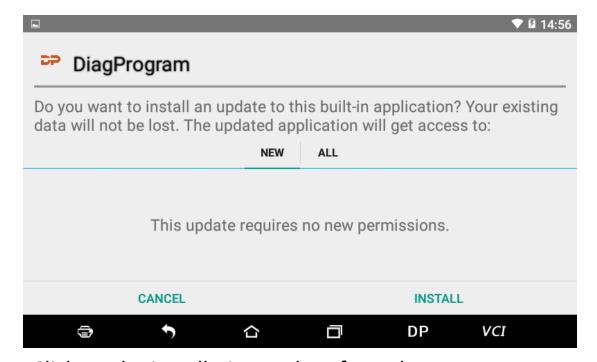
1. DETECTION SYSTEM UPGRADE

The system APK automatically detects the version. If there is a version update, a red dot is in the upper right corner of the upgrade button. Click on the upgrade button to prompt "Whether to perform software upgrade":

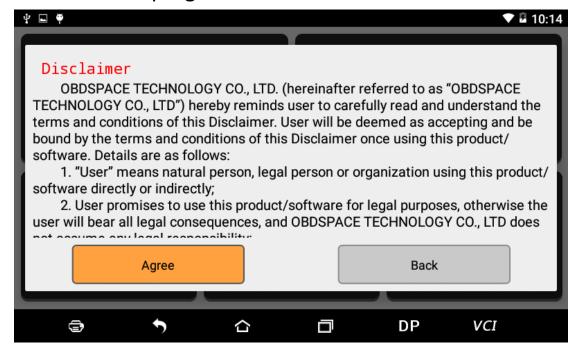


If not, click "No", you will directly return to the main interface. However you cannot enter the upgrade diagnosis application interface.

Click on the APK upgrade and it prompts to install:



Click on the installation and perform the program installation, automatically close the program and install. After installation, click on the program image to reenter the DP program:



Re-enter the main interface and prompt statement.

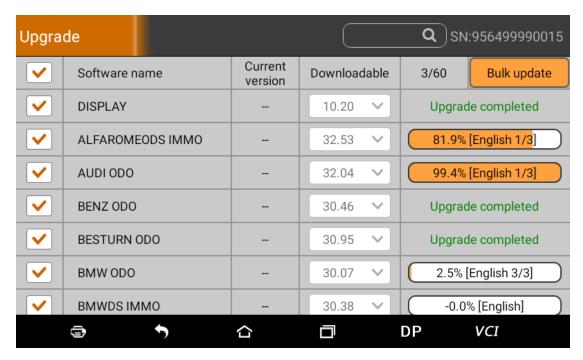
(Notes: Ensure Internet connection is normal when updating.)

2. DIAGNOSTIC FUNCTION UPGRADE

Download and upgrade software by "One Key Upgrade"



Tap main screen "batch update", start downloading and upgrading



If a software needs to be canceled, just tap the corresponding Check Box. As following photo shown:



After the upgrade is completed, you can enter the diagnostic programming to view the upgrade version description and the version number, and you can perform related diagnostic operations and functions.

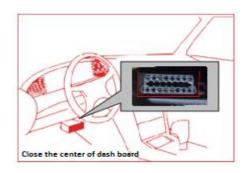
(Notes: Ensure Internet connection is normal when updating. Besides, because of many software, it may take several minutes, please wait patiently.)

IV. DIAGNOSIS INSTRUCTION

1 CONNECT VCI CONNECTOR

Procedure to connect VCI connector:

1. Locate vehicle's DLC socket. The DLC (Data Link Connector or Diagnostic Link Connector) is the standardized 16-pin connector where diagnostic code readers interface with the vehicle's on-board computer. The DLC is usually located 12 inches from the center of the instrument panel (dash), under or around the driver's side for most vehicles, as shown below. If Data Link Connector is not located under dashboard, a label should be there telling location. For some Asian and European vehicles, the DLC is located behind the ashtray and the ashtray must be removed to access the connector. If the DLC cannot be found, refer to the vehicle's service manual for the location.



2. Plug the diagnostic connector into the vehicle's DLC socket (It is suggested to use the OBD 2 extension cable to connect VCI connector and DLC socket.). For non-16PIN DLC socket, please select the corresponding non-16 pin connector adapter, then plug the non-16pin end of the adapter into the DLC socket, and then connect the standard 16pinend VCI connector.

2 DIAGNOSIS FLOWCHAT

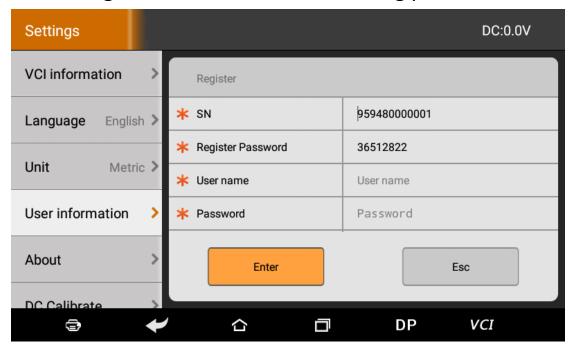
For new users, please follow the 3.1 to get familiar with and start using this device.

Connect the diagnostic connector —>user registration—>user login—>download or upgrade software—>select function or vehicle type—>proceed diagnosis

3 USER REGISTRATION

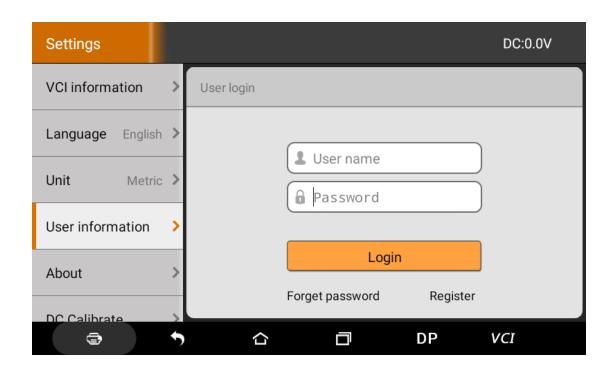
3.1 User Registration

Click to **VCI** enter diagnostic software, select "the user information" in "Settings" menu, and then enter user registration window. As following photo shown:

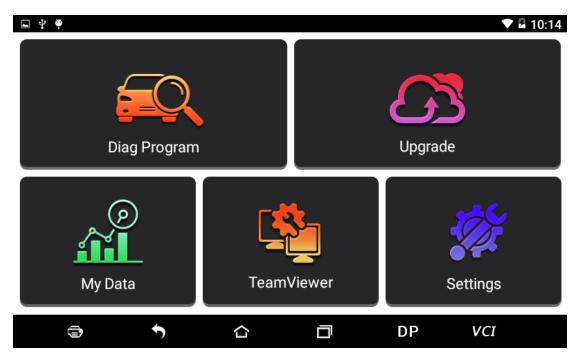


Fill in the information in each field (Items with * must be filled). After inputting, tap "OK"

If you have registered to be a member, click "the user information" to enter user login page, as following picture shown:



4 DIAGNOSTIC SOFTWARE MAIN INTERFACE INTRODUCTION



Function menu included as follows:

Diag Program: Operate as a diagnostic tool.

Upgrade: To download diagnostic software or upgrade diagnostic software to the latest version.

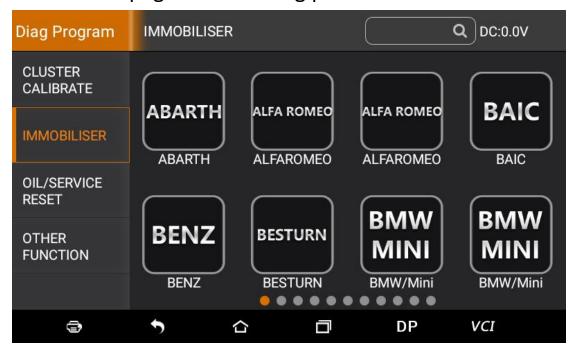
My Data: Easy to handle the renewing data...

Settings: It includes VCI information, language, unit, data records, user information, about.

Remote assistance: Realize remote hosting operation.

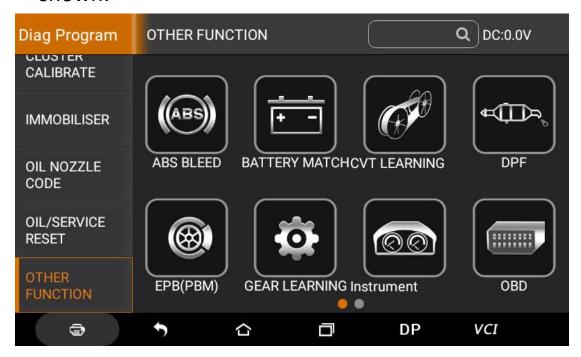
5 START DIAGNOSING

Tap on the main menu screen, and then choose "Diag Program" to enter the function selection and vehicle selection page. As following photo shown:

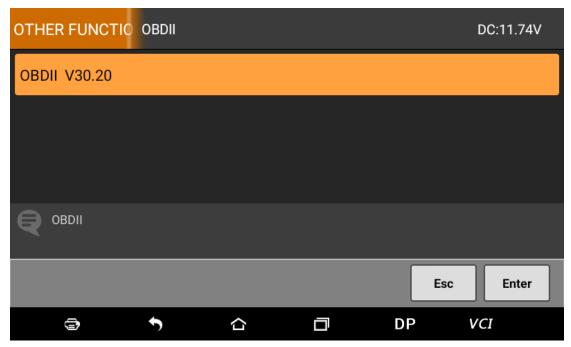


Hereinafter, take OBDII for example, to introduce how to start diagnosing.

Tap "OBDII", and tap "OBDII" icon. As following photo shown:



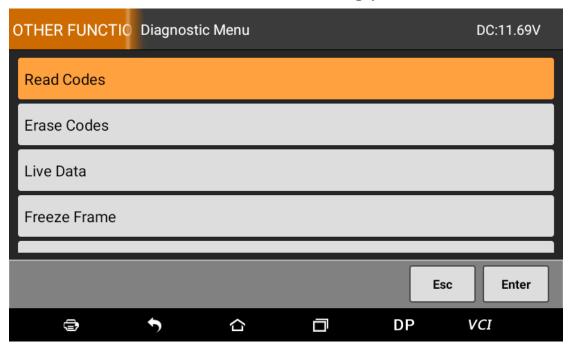
To select software version, as following photo shown:



To enter diagnostic function menu, as following photo shown:

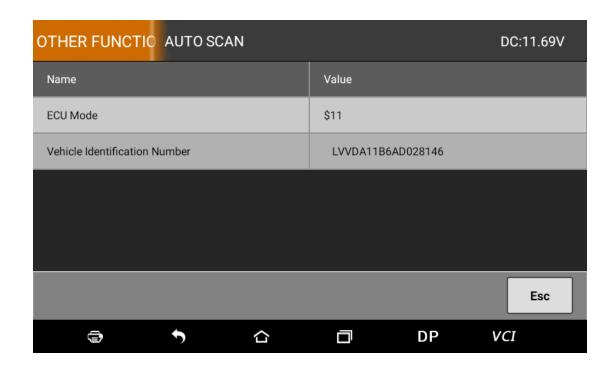


To select AUTO SCAN, as following photo shown:



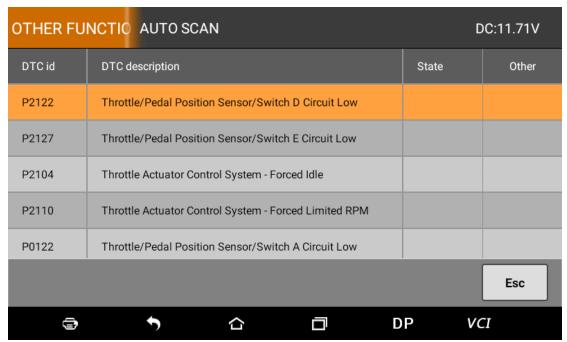
5.1 Read vehicle information

Tap "Read vehicle information", as following photo shown:

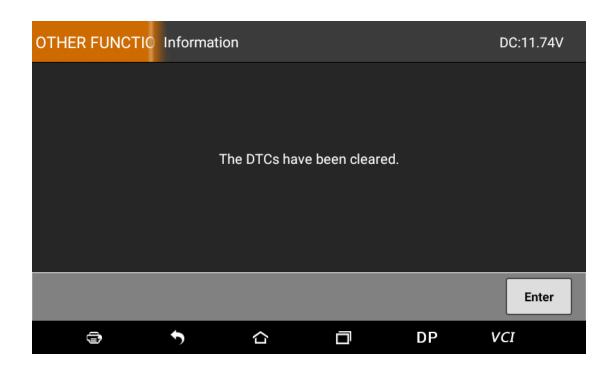


5.2 Read trouble code

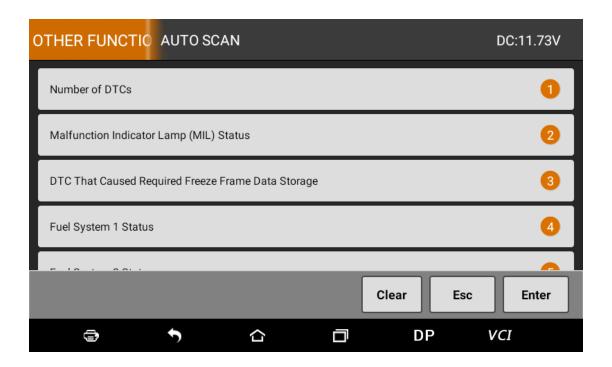
Tap "Read trouble code", as following photo shown:

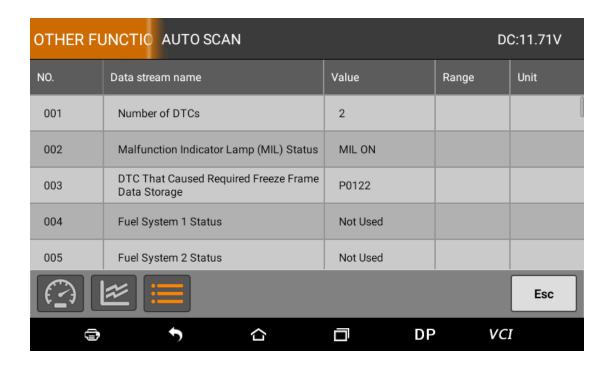


5.3 Clear trouble code



5.4 Read data stream

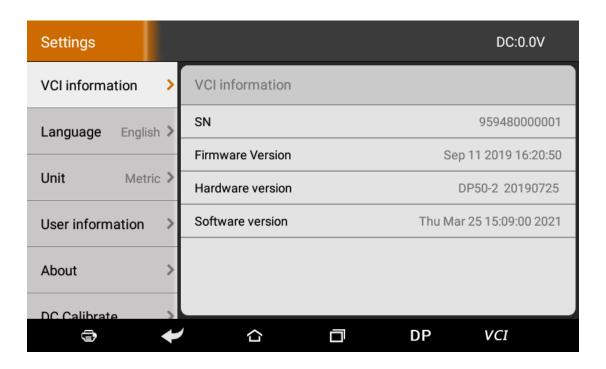




6 SYSTEM SETTINGS

It includes VCI information, language, unit, data records, user information and about etc.

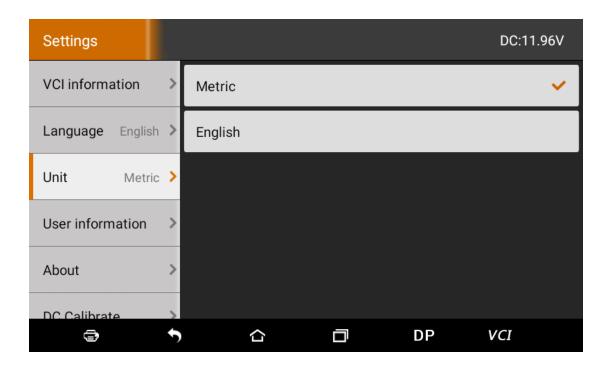
6.1 VCI information



6.2 Language



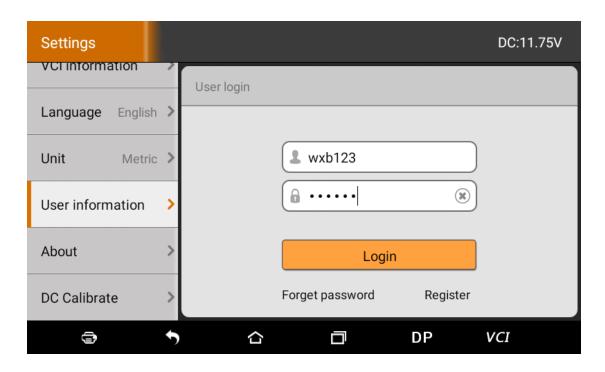
6.3 Unit



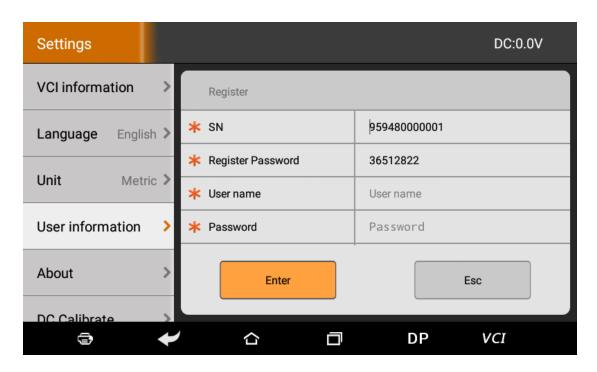
6.4 User information

It used to set and manage user's information.

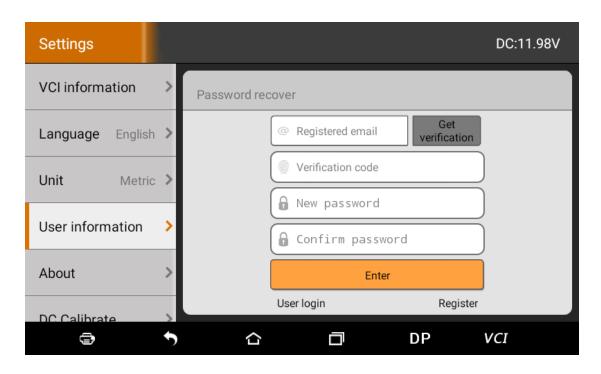
6.4.1 User login



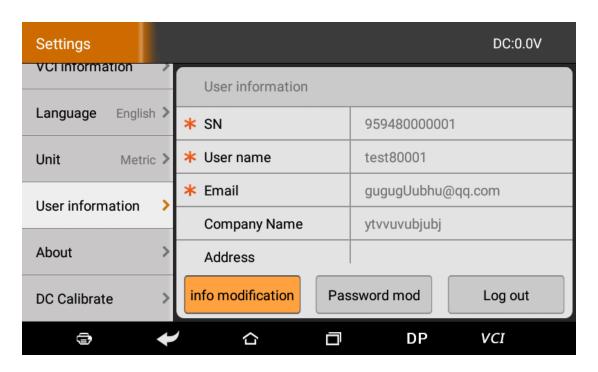
6.4.2 User registration



6.4.3 Forget password



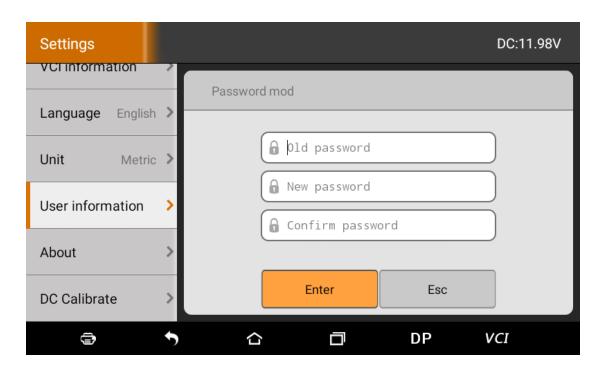
6.4.4 Registration information



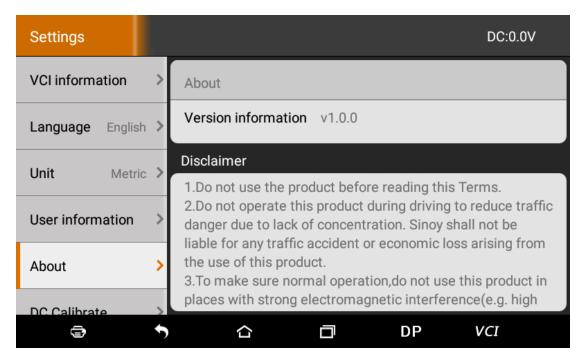
6.4.5 Info modification



6.4.6 Modify password



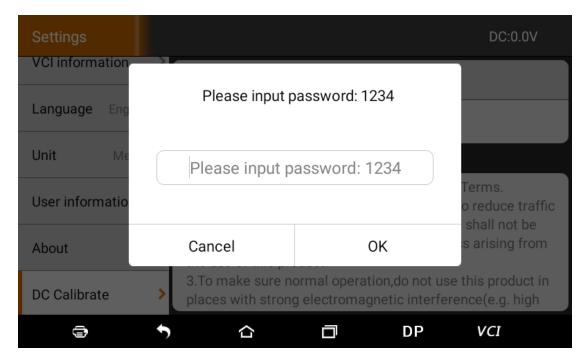
6.5 About



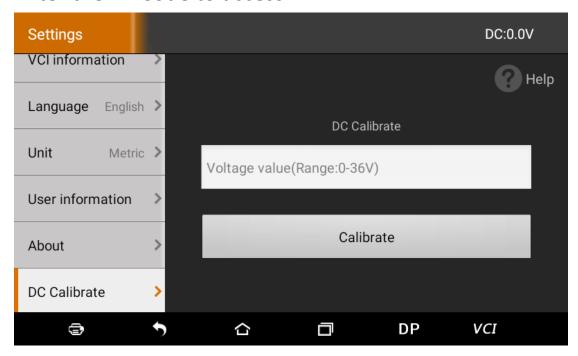
Display software version updates and product announcements.

6.6 DC Calibrate

Voltage calibration is performed when the voltage is abnormal:



Enter the PinCode to access:



Enter the correct voltage for calibration. When it is completed, display the correct voltage value in the upper right corner of the diagnostic programming interface.

7 REMOTE ASSISTANCE

This application can realize remote hosting operation via the Third Party's software: Quick Support.

