Trademark

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Disclaimer

All information, specifications, and illustrations in this manual are current as of the date of publication. OBDSTAR reserves the right to make changes at any time without prior notice. While the contents of this manual have been carefully reviewed, the Company does not guarantee the completeness or accuracy of the information, including but not limited to product specifications, functions, and illustrations.

OBDSTAR shall not be liable for any direct, indirect, special, incidental, or consequential damages, including but not limited to loss of profits.

Note: Please read this manual carefully—especially the safety precautions—before operating or performing maintenance on the device.

Safety Information

For the safety of yourself and other people, and to avoid damage to the tool and the vehicle, all personnel operating the tool must read and follow the safety precautions mentioned in this manual.

Due to the variety of procedures, tools, components and techniques used in vehicle maintenance, the different ways of operation by staff, and the wide variety of diagnostic applications and products tested by the tool, this manual cannot predict every situation and give safety advice. It is the automotive service technician's responsibility to fully understand the system being tested and to use appropriate repair methods and testing procedures. When testing, you must use appropriate operating methods, so as not to place yourself and others in the work area at risk, or damage the tool being used or the vehicle being tested.

Before using the tool, please refer to and follow the safety information and applicable test

procedures provided by the vehicle or tool manufacturer. Please read, understand and obey all the safety information and tips in the manual and use the tool according to the instructions in this manual.

Safety Instructions

The safety information provided here covers all situations known to the Company. However, the Company cannot identify, anticipate, or provide guidance for every possible hazard. The operator must ensure that all maintenance operations are performed in a manner that does not compromise personal safety.

⚠Danger: While the engine is running, keep the service area well ventilated, or properly connect the engine to the building's exhaust system. Carbon monoxide produced by the engine can cause slow reaction and even serious personal injury or death.

Safety Warnings

- Always perform vehicle diagnostics in a safe environment.
- Keep the diagnostic tool dry and clean, and away from gasoline, water, and oily substances. If necessary, clean the device surface with a clean cloth lightly dampened with a mild detergent.
- Avoid placing the diagnostic tool on electrical distribution boxes, as strong electromagnetic interference may cause equipment damage.
- Keep this product away from magnetic sources, as magnetic fields may erase stored data.
- Do not use this product in high-temperature environments or areas with flammable gases (e.g., gas stations).
- Do not use the device during a thunderstorm to avoid lightning strikes or electrical hazards.
- Never operate the diagnostic tool while driving, as distraction may cause an accident.
- Wear ANSI-compliant safety goggles.
- Keep clothing, hair, hands, tools, testers, etc. away from running or hot engine parts.
- As vehicle emissions are bodily harmful, diagnosis must be performed in a well-ventilated place.
- Before starting the engine, make sure to apply the parking brake, use a barrier to block the front wheels, and put the shift lever in neutral (manual transmission) or park (automatic transmission), so as not to suddenly move forward and injure people when the engine is started.
- Exercise extreme care when working around ignition coils, distributor covers, ignition lines and ignition plugs. These components generate high voltages when the engine is running.
- Equip special fire extinguishers for gasoline, chemicals and electrical fires in the work area.
- Do not connect or disconnect diagnostic tool when the ignition switch is on or the engine is running.
- When disassembling and installing the programmable read-only memory (PROM), the

operator should wear a grounding metal strap, wrap one end of it around the wrist, and clamp the other end on the vehicle body to avoid ECU circuit failure caused by static electricity.

- When servicing the vehicle, please refer to the instructions in the maintenance manual, and operate in strict accordance with the diagnostic procedures and precautions. Failure to do so may result in personal injury or damage to the diagnostic tool.
- To avoid damage to the diagnostic tool or the generation of erroneous data, please ensure that the vehicle's battery is sufficiently charged and that the connection to the vehicle's diagnostic seat is clean and secure.
- Radio frequency emissions from this device may interfere with implantable medical devices (such as pacemakers or cochlear implants) or personal medical devices (such as hearing aids). If you use such devices, consult the manufacturer for usage restrictions.
- In medical facilities, please comply with applicable regulations or guidelines. Power off this device when in proximity to medical equipment.
- The wireless function of this device may interfere with aircraft navigation and communication systems. Comply with airline regulations. When wireless device use is prohibited, turn off this device.
- This device and its accessories contain small parts. Keep them out of reach of children to prevent accidental damage, choking, suffocation, or other hazards.
- This product has a built-in lithium battery. To ensure user safety, do not leave it in high-temperature environments or under direct sunlight.

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1 Manual Overview

This manual contains instructions for using the device.
The illustrations in the manual may include all available modules and optional equipment for your system. For information on and purchase of additional optional modules and accessories, please contact your local sales agent or dealer.

1.1 Conventions

The following conventions are used in this manual:

1.1.1 Bold Text and Square Brackets

In the body of the manual, bold text and square brackets are used to highlight selectable items such as buttons and menu options.
For example:
Tap **[OK]**.

1.1.2 Terminology

The term "select" means to highlight a button or menu item and then tap it to confirm the selection.

1.1.3 Tips and Notes

The following message types are used in this manual:
Tips:
These provide helpful information, such as additional usage instructions, shortcuts, and practical suggestions.
Notes:
Notes remind you to avoid (avert) situations to prevent damage to the diagnostic tool or the vehicle.

2 Product Overview

This product is a new-generation vehicle fault diagnostic tool developed for internet applications, supporting Windows operating systems. With OBDSTAR's advanced diagnosis technology in its blood, it has the advantage of wide vehicle coverage, diverse functions and accurate test data. By establishing communications between the AC system and the smart

diagnostic tools, PCs devices via a professional diagnostic connector, the product enables comprehensive fault diagnosis for all brands, models, and systems.
Designed to leverage the benefits of mobile internet, this product seamlessly integrates with resources from other OBDSTAR products and services.

2.1 Intelligent Diagnostic Scanner

2.1.1 Interfaces and Functions



Fig. 2.1.1-1 Front View of the Smart Diagnostic Scanner

1) C2: OBD Mode Port
2) C3: BENCH Mode Port
3) C4: Programmer Port
4) USB Type-C Port
5) USB Type-B Port
6) DC Charging Port
7) Power Indicator Light
8) USB Connection Indicator Light
9) Communication Indicator Light
10) Controlled Power Indicator Light

2.1.2 Power Supply

The smart diagnostic scanner can be powered by:

1) An AC/DC power supply

The intelligent diagnostic tool can be powered via either an AC or DC power adapter.

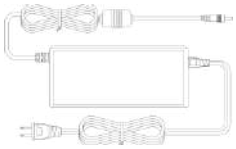
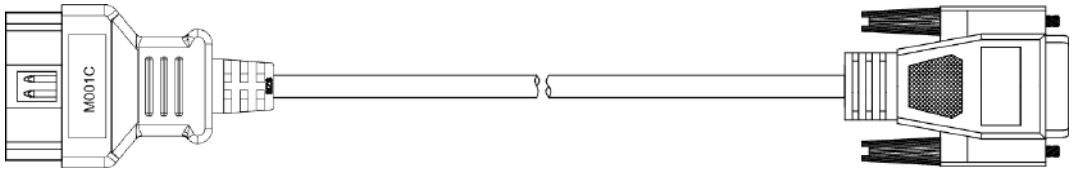


Fig. 2.1.2 AC/DC Power Connector

2.1.3 Main Test Cable

The main test cable is used to establish a connection between the diagnostic scanner and the vehicle under test.



2.1.4 Accessories

Different configurations include different accessories. Some functions require specific accessories to operate. For more information or to place an order, please contact our customer service department or an authorized dealer.

2.1.5 Specifications

Operating System	Windows 10 and above
Processor	STM32H723, STM32F407
Operating Voltage	DC14V
Operating Temperature	-10 ℃ to 55 ℃ (14 ℉ to 131 ℉)
Storage Temperature	-20 ℃ to 70 ℃ (-4 ℉ to 158 ℉)
Weight	About 0.7 kg
Dimensions	176 mm x 115 mm x 31.7 mm

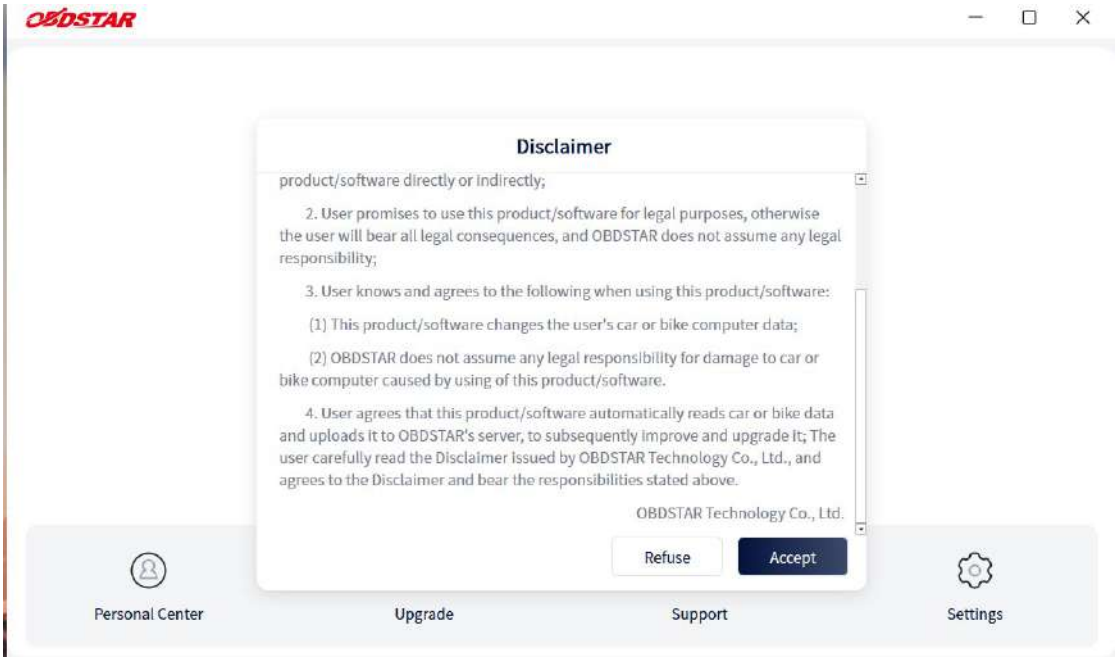
Warranty	1-year hardware warranty; software upgrades: TBC (effective from date of manufacture)

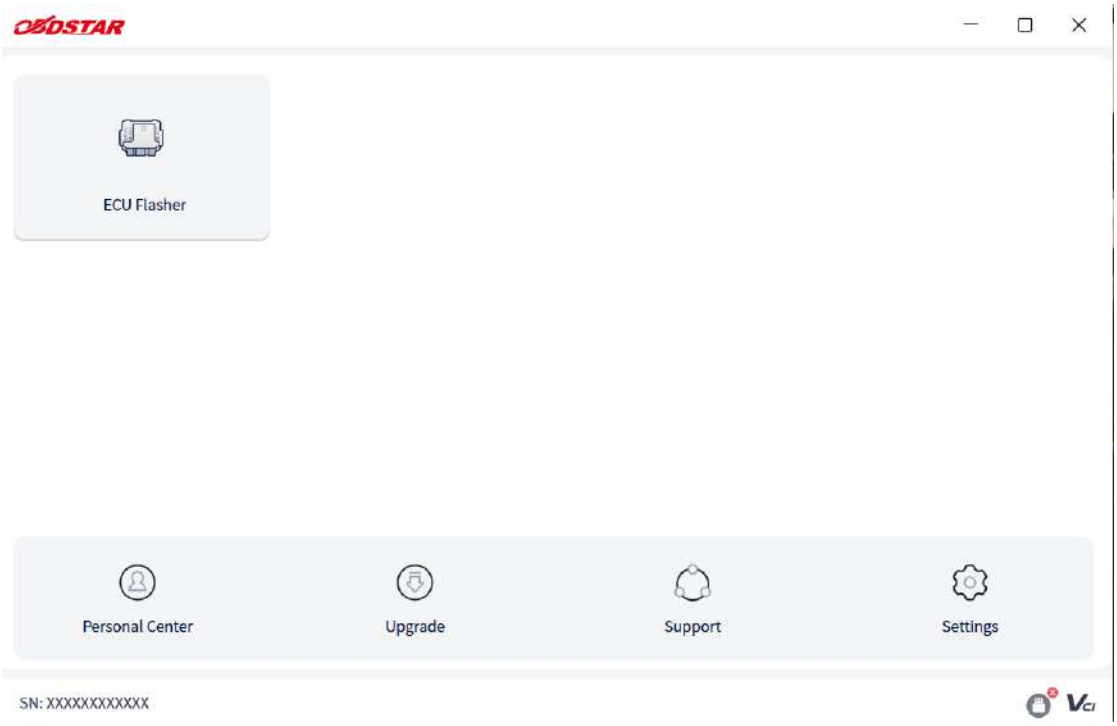
3 Device User Guide

Before using the intelligent diagnostic tool, please ensure that the device is connected to a DC power source (refer to the Power Supply section for details). The PC diagnostic software can be downloaded from the official website of OBDSTAR Technology Co., Ltd.

3.1 Power On

The power indicator lights up when the intelligent diagnostic tool is connected to a power source, indicating that the device is powered on. Open the OBDSTAR diagnostic software on your PC. The system will automatically display the Disclaimer window. Swipe the screen to read the Disclaimer in full. Once completed, tap **[Accept]** to proceed—the system will then display the OBDSTAR Program menu. (Tap **[Refuse]** to exit the software.)





3.2 OBDSTAR Program

Users can select and run different programs from the OBDSTAR Program menu. The table below provides a brief description of each OBDSTAR program. Please tap to select the program you wish to run.

Note: The list below is not exhaustive and is subject to the actual software downloaded.

Table 4.2 PC-Side OBDSTAR Programs

Program Name	Icon	Description
ECU Flasher		It allows data to be read from systems such as ECM, TCM, BODY, and CHASSIS via OBD, BENCH, BOOT, BDM, or JTAG modes. It supports ECU cloning, IMMO off, VIN read/write, ECU unlock, and more.
Personal Center		To view personal account information, etc.

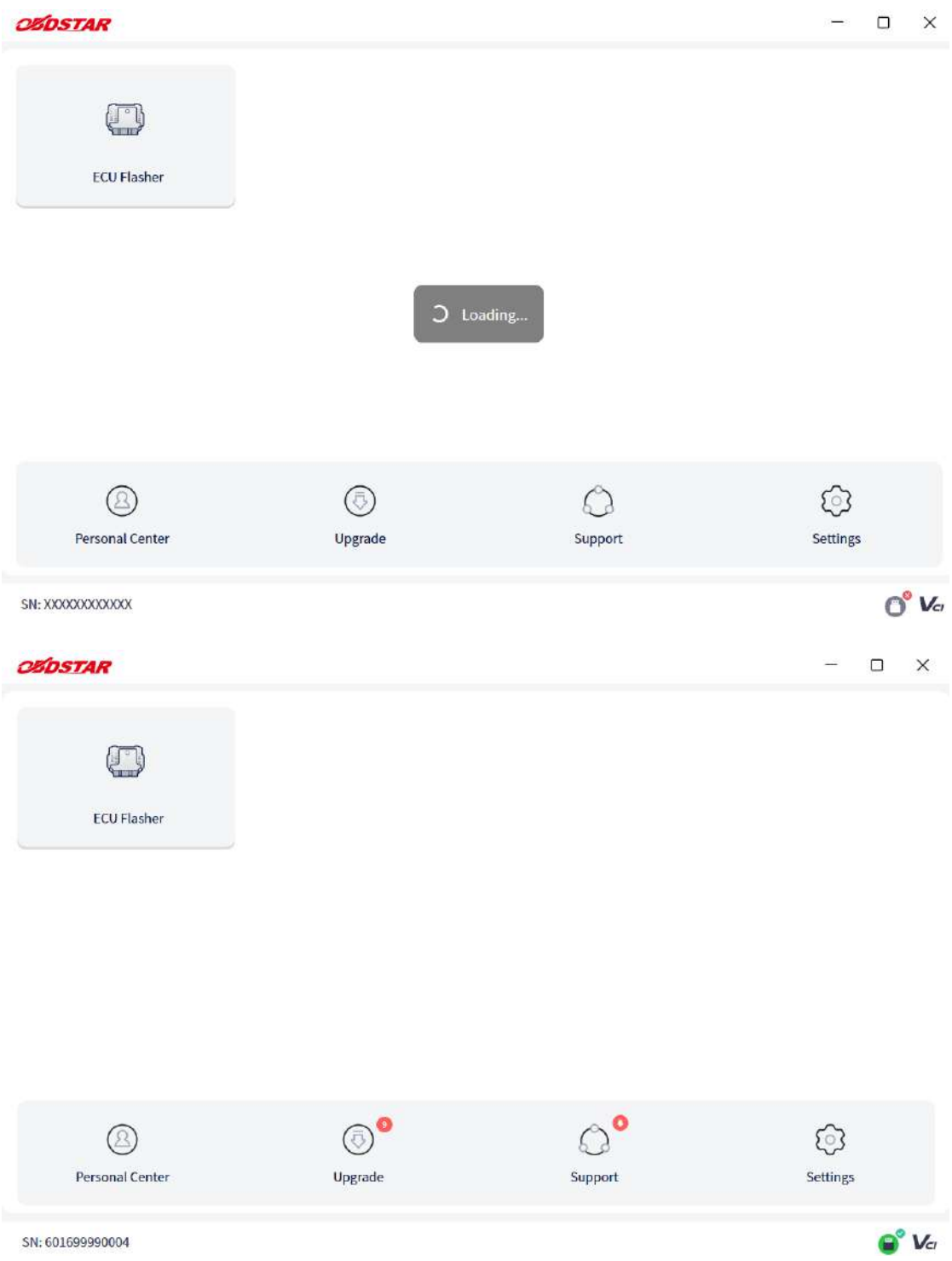
Upgrade		Upgrades your applications and updates your diagnostic software.
Settings		Used to view the device serial number, set the application language, units, and the font size, and view version information and the disclaimer.

3.3 Connecting the Device and Software

The diagnostic software requires a USB connection to establish communication between the device and the PC for data transmission.

3.3.1 USB Connection

When the device is powered on, the power indicator lights up,indicating that it is active. Connect the diagnostic tool via the USB port. Once the connection is established, the interface will display the device's serial number (SN), and  will change to  .



3.4 Power Off

All vehicle communications must be terminated before switching off the diagnostic tool. Forced shutdown while communicating may cause problems with some vehicles' ECM, so please exit the diagnostic application before shutting down.

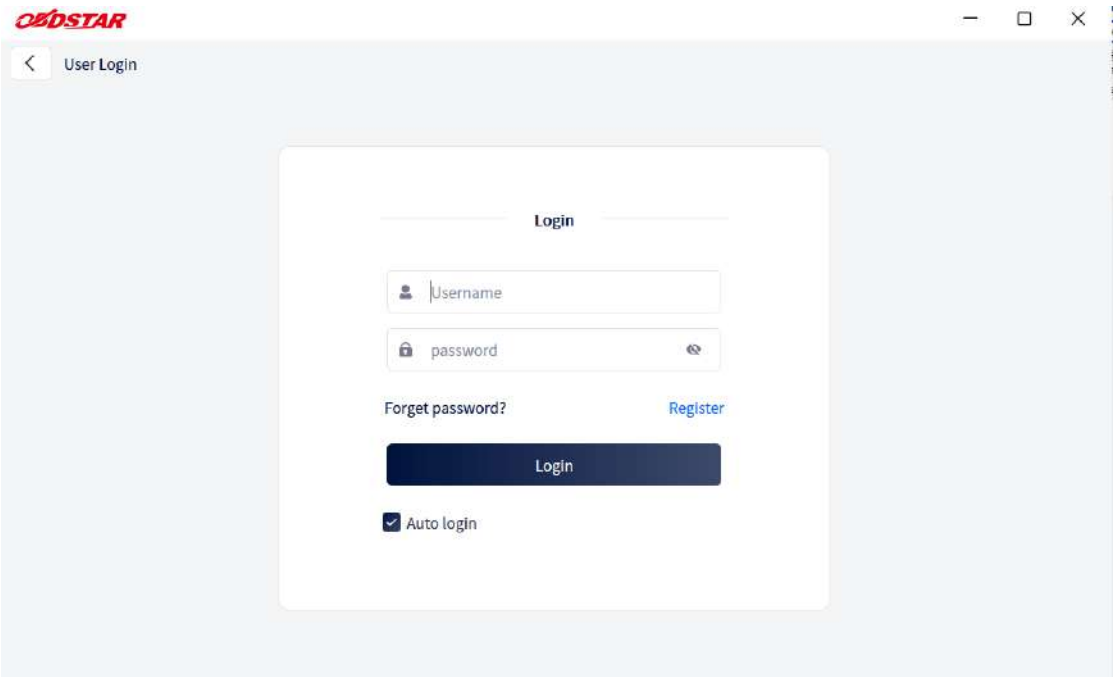
To power off the device:

1) Unplug the power supply.

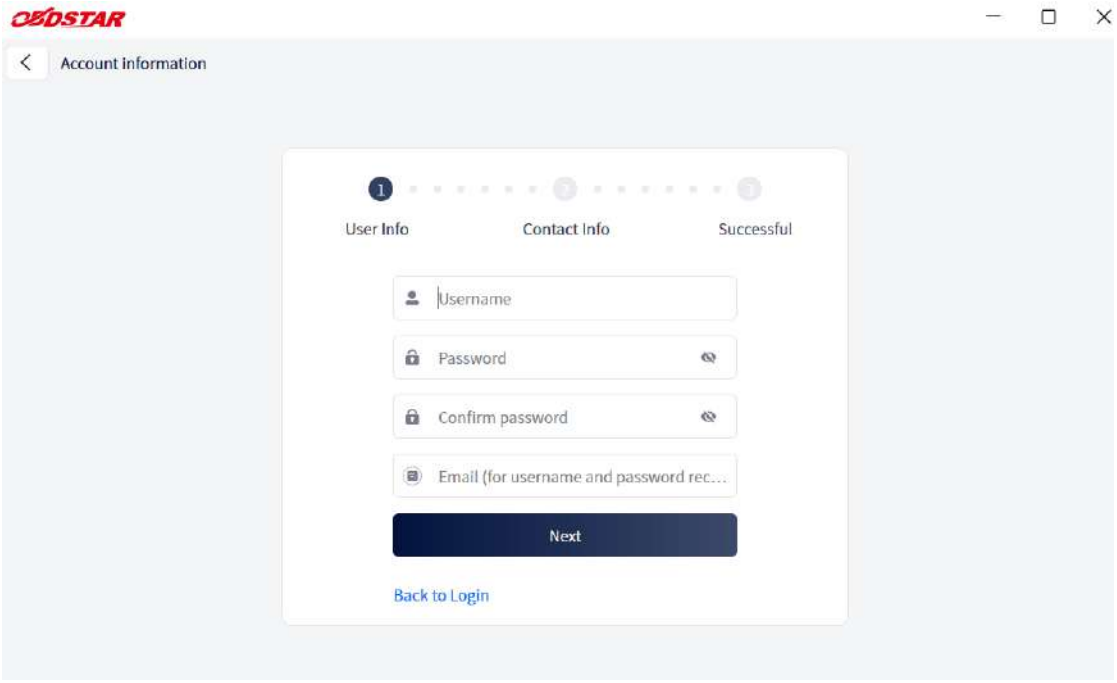
3.5 Personal Center

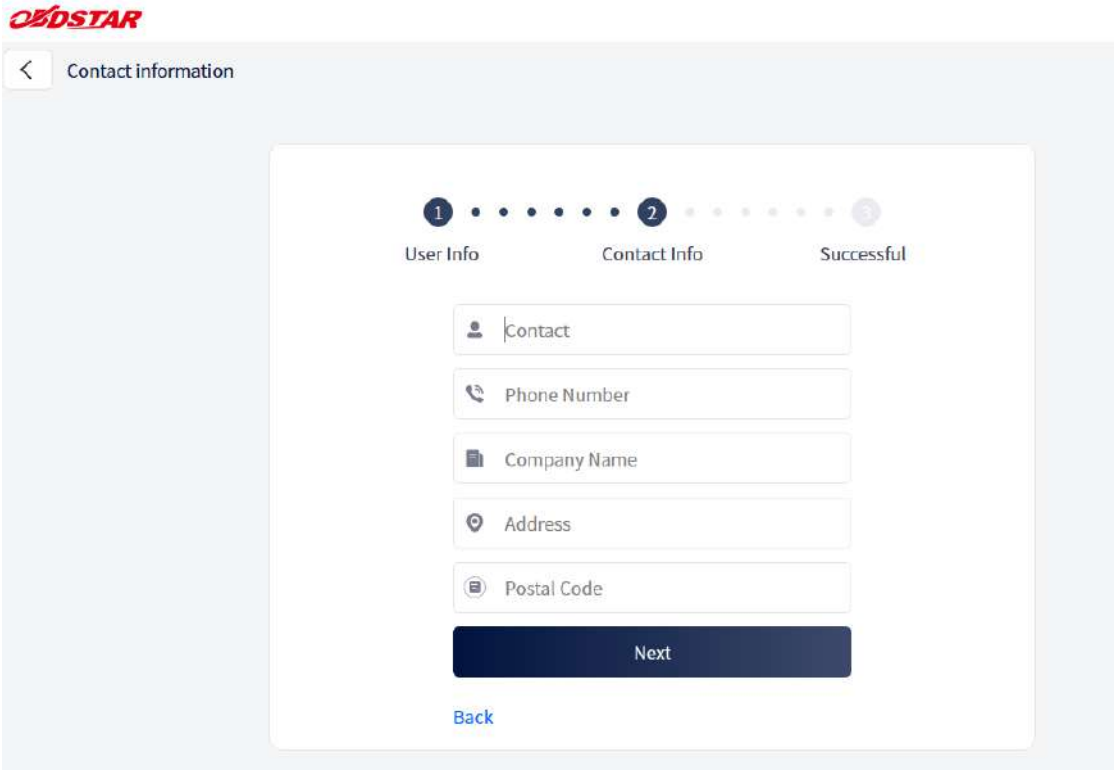
3.5.1 User Registration

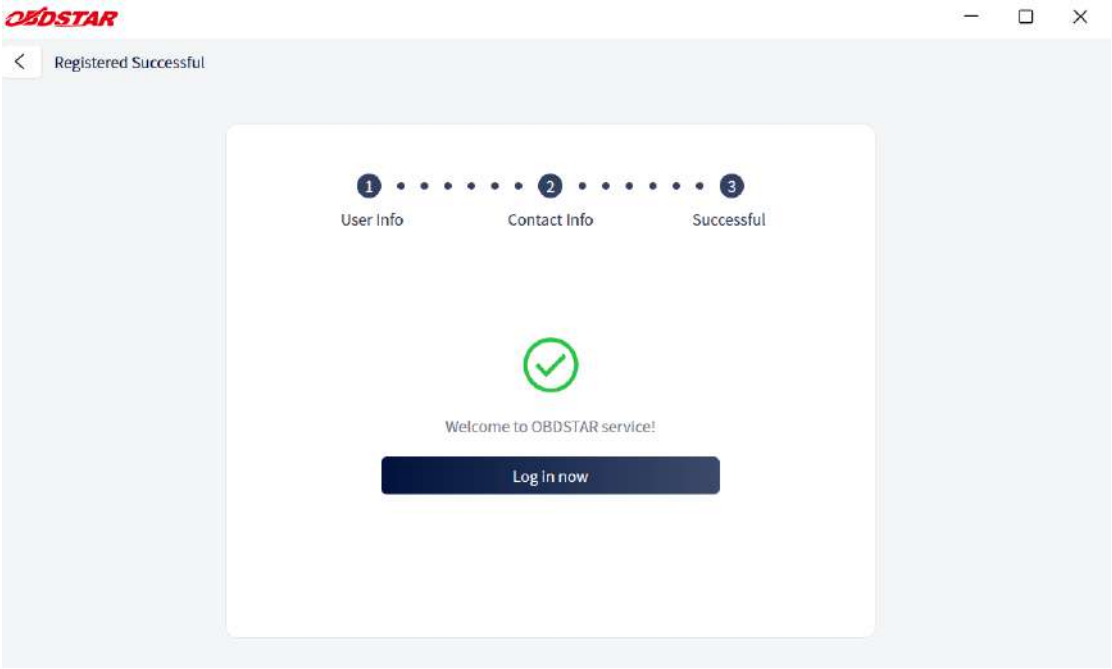
Procedure:
Clicking the **[Personal Center]** icon displays the login screen.



Click the **[Register]** button in the lower right corner and proceed to the user registration interface.


Account Information
User Info
Contact Info
Successful
Username
Password
Confirm password
Email (for username and password rec...
Next
Back to Login

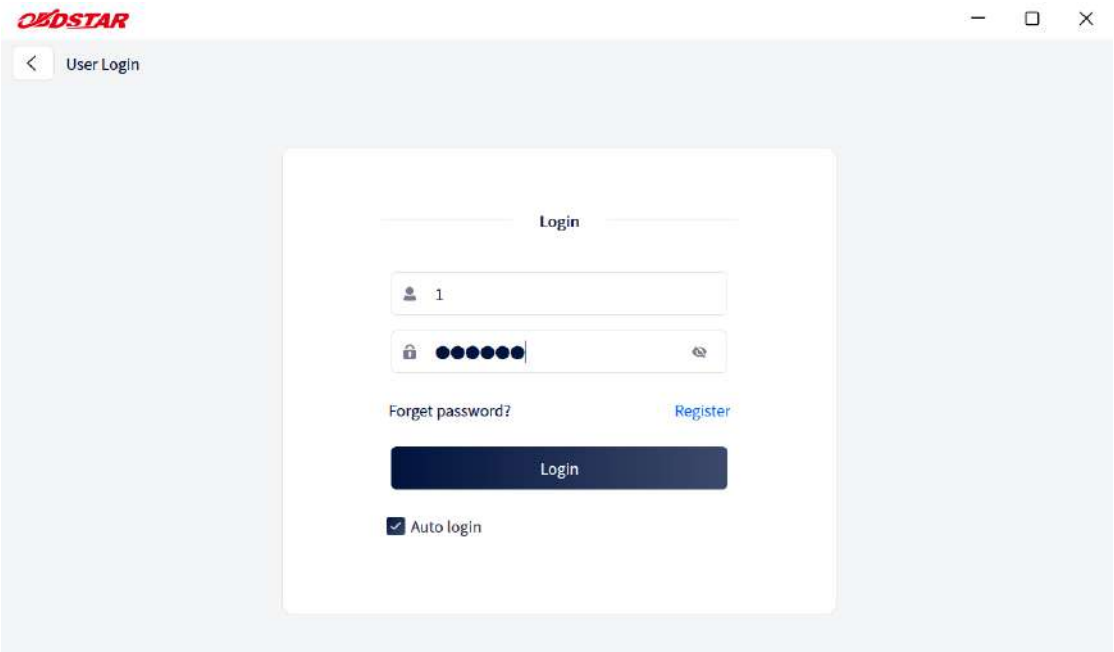

Contact information
User Info
Contact Info
Successful
Contact
Phone Number
Company Name
Address
Postal Code
Next
Back



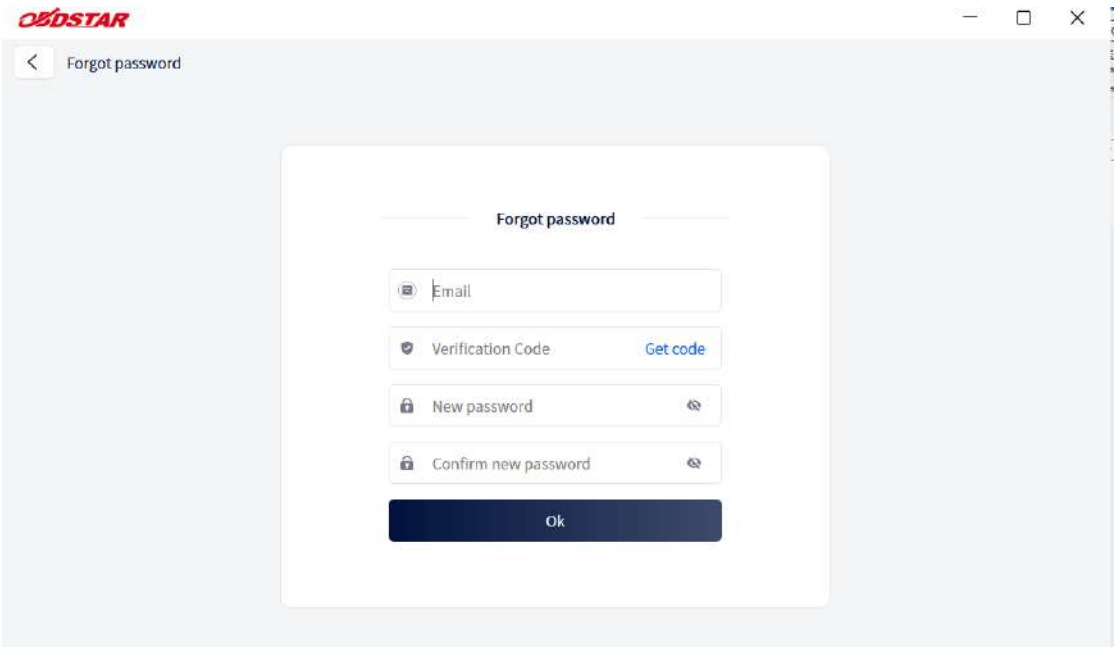
Fill in the required registration information. Once completed, you'll see a success message. Click **[Log in now]** to continue.

3.5.2 User Login

If you are already registered, enter your account and password, then click **[Login]**.

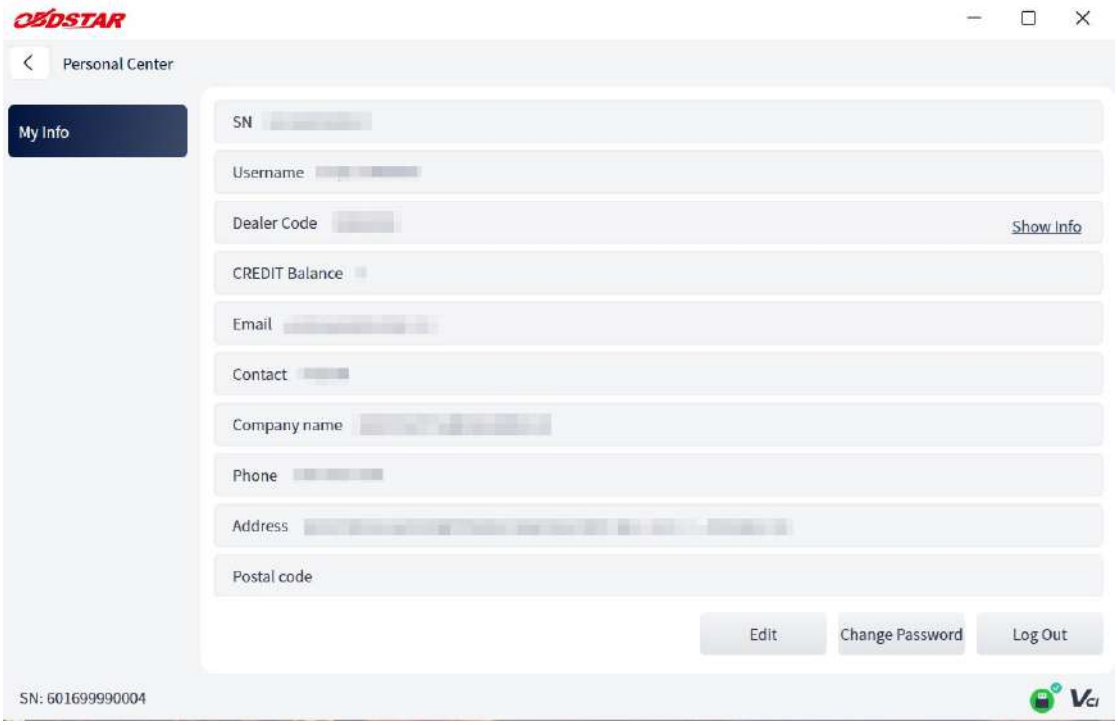


If you forget your password, click **[Forget password?]** on the login screen to go to the password recovery page. Enter the required information to reset your password.

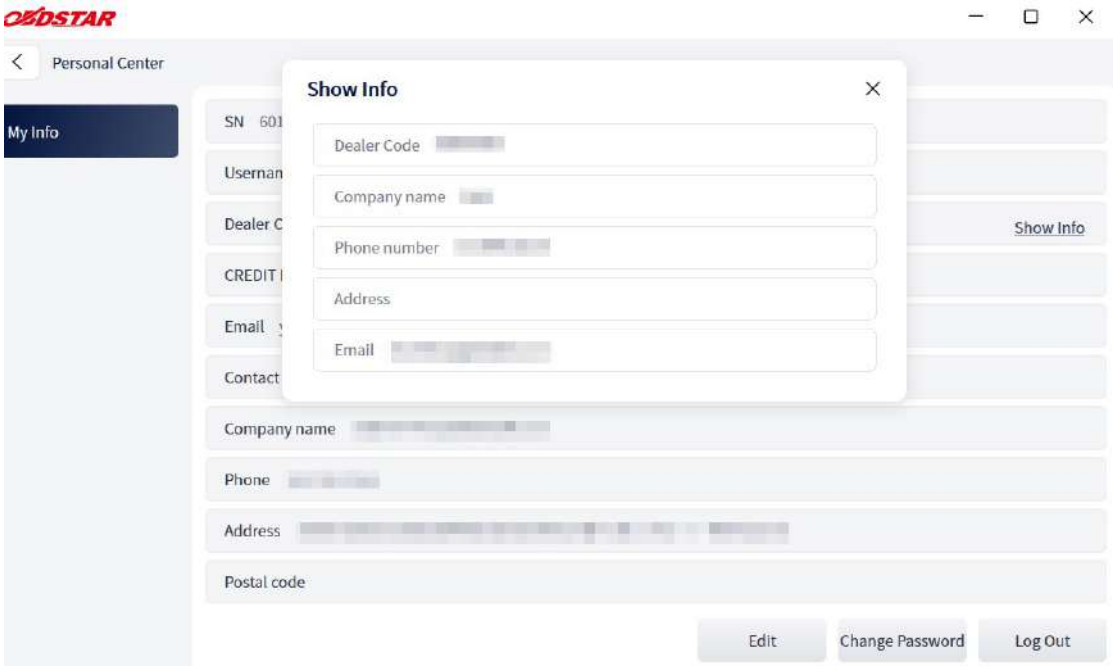


3.5.3 My Info

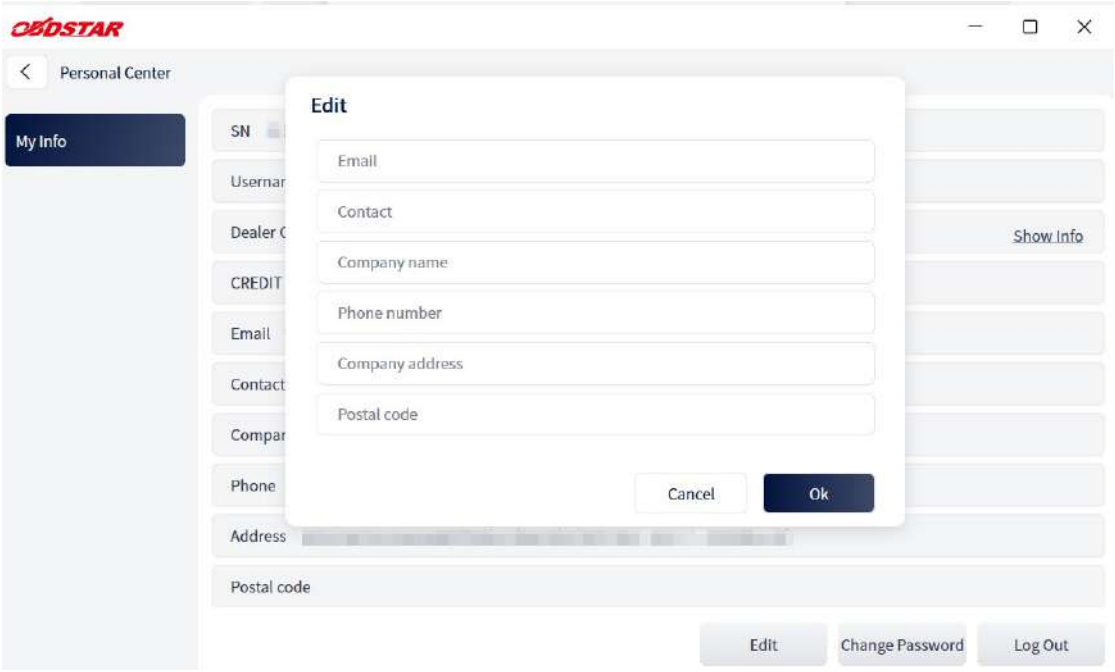
After logging in, the user's basic information is displayed, and contact details or password can be updated.



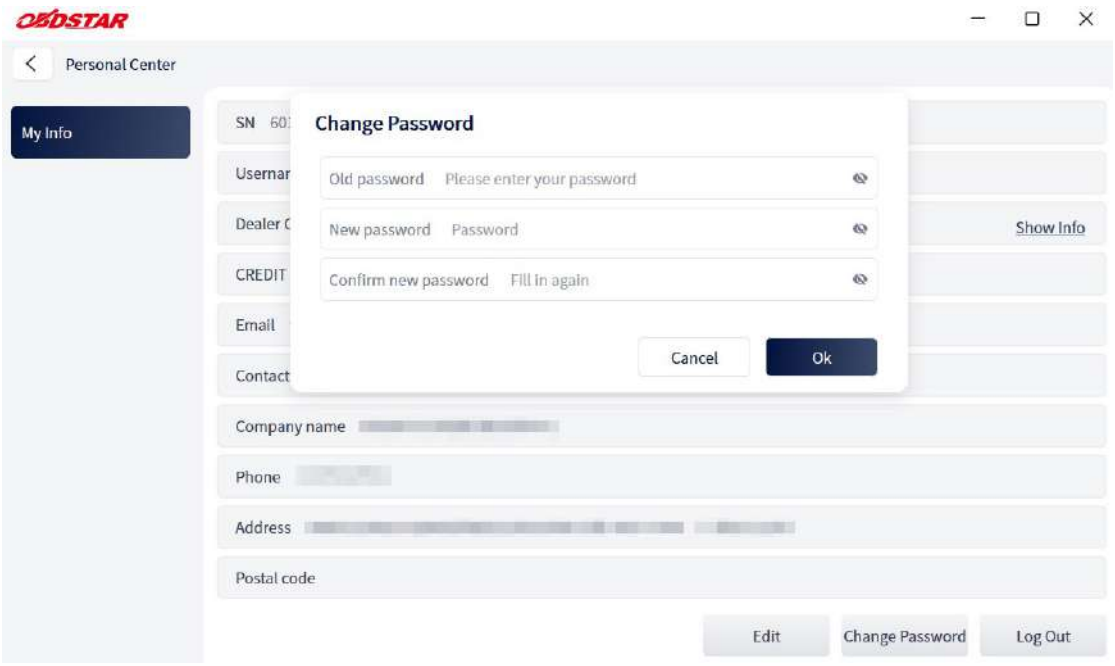
Click **[Show Info]** in the "Dealer Code" field to see the contact details of the device's assigned dealer.



Click **[Edit]** at the bottom of the My Info screen to update your personal contact details.



Click **[Change Password]** at the bottom of the My Info screen to modify your password.

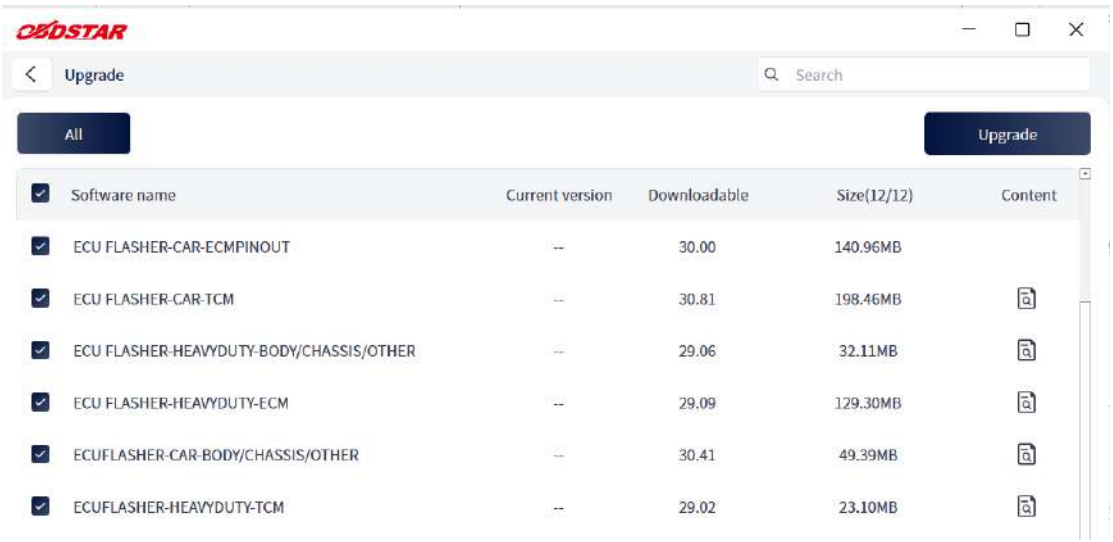


3.6 Upgrade

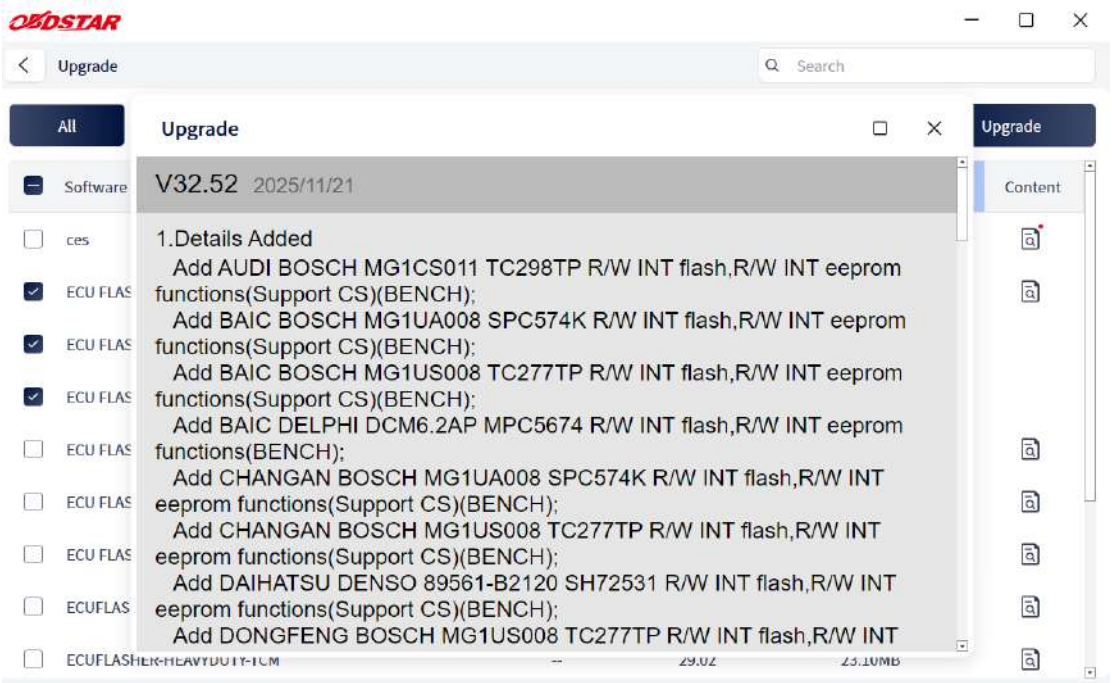
Users can download the basic data required for diagnosis, vehicle diagnostic software, data package, etc. in this function module.

Follow the steps below to use it.

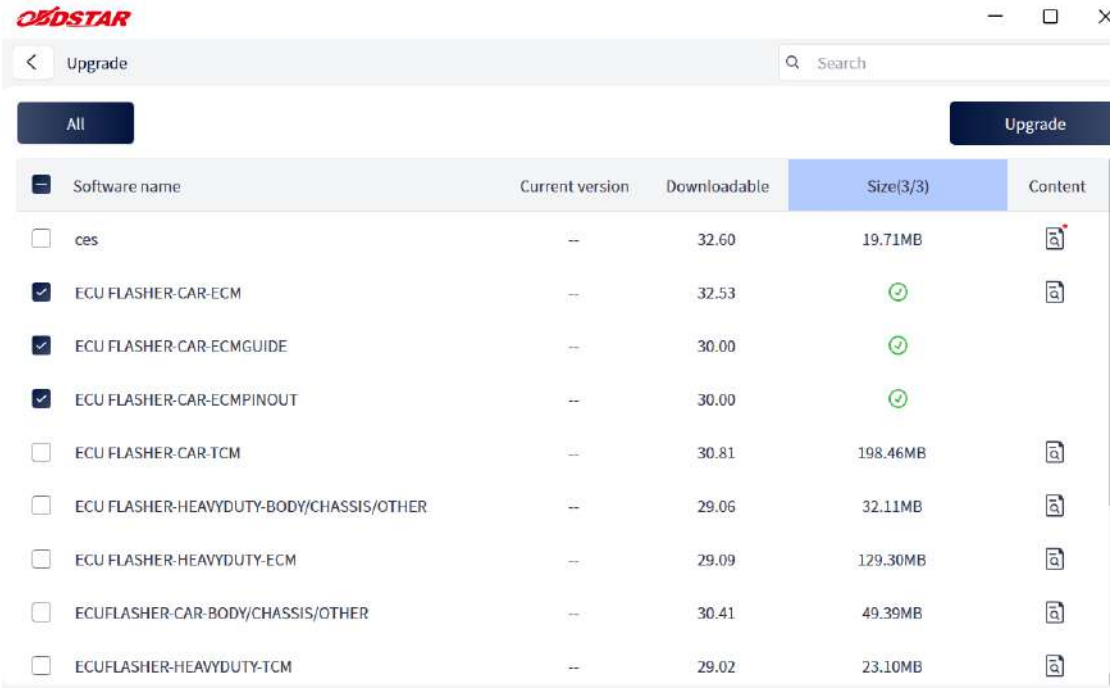
1) Log in to your account before using the Upgrade feature. (Refer to Section 3.6, Personal Center, for registration and login instructions.) After logging in, go to the Upgrade main screen, where all available updates are displayed. By default, all upgradable software items are selected. To deselect an optional item, click the box ☑ next to the software name. Grayed-out checkboxes ☑ indicate mandatory software that must be upgraded and cannot be deselected. After selecting the software to upgrade, click the upgrade button Upgrade in the upper-right corner to begin the upgrade process. When the list contains many items, use the search bar in the upper-right corner to quickly find specific software by entering keywords or letters.



2) On the Upgrade main screen, the last column displays the upgrade content for each software item. Click the icon button corresponding to a specific software entry to view details about its version update.



3) If you click the Upgrade button in the upper-right corner again while an upgrade is in progress, a pop-up message will appear: "Downloading. Please try again after the download finishes." Once a software item has finished downloading, a checkmark icon will appear in column 5 of that row to indicate completion.



3.7 Settings

This module includes the following sub-modules: VCI Info, Languages, Units, Font Size, and About.

3.7.1 VCI Info

The user can see the page as shown in the figure below after clicking **[Settings]** on the OBDSTAR page.
VCI Information contains serial number (SN), firmware version, hardware version, and software version.



3.7.2 Languages

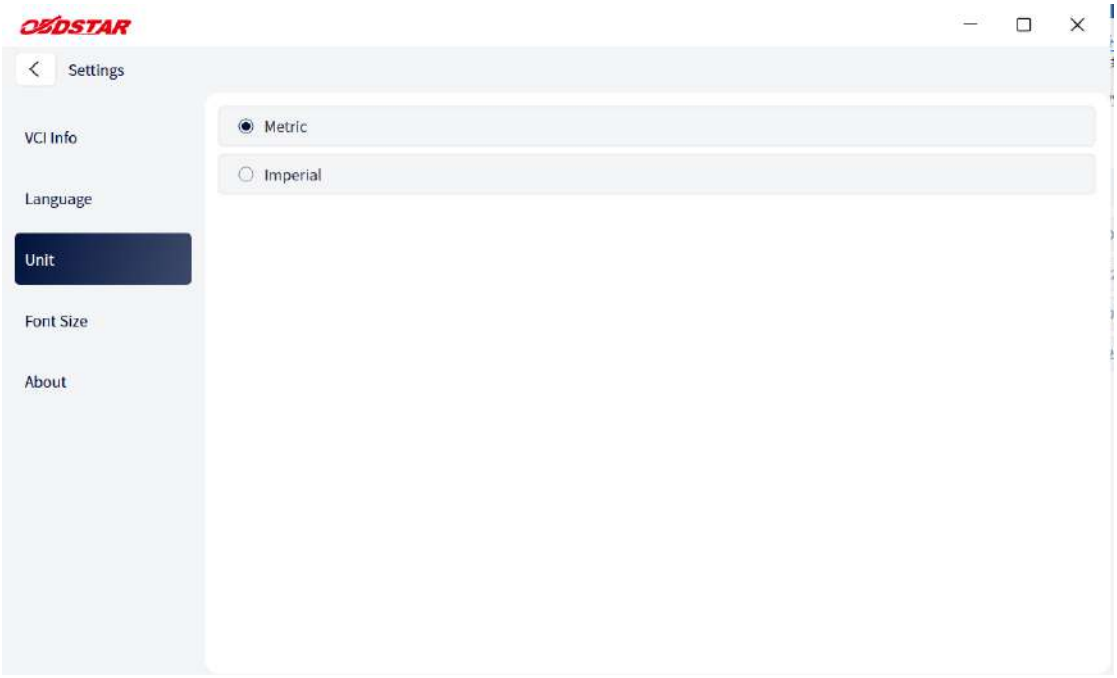
Click **[Language]** on the Settings screen to view the language selection menu (see illustration below). Choose from the languages supported by the device.



3.7.3 Units

Click **[Unit]** in Settings to choose between **[Metric]** and **[Imperial]**. The selected unit system

will apply across all device functions.



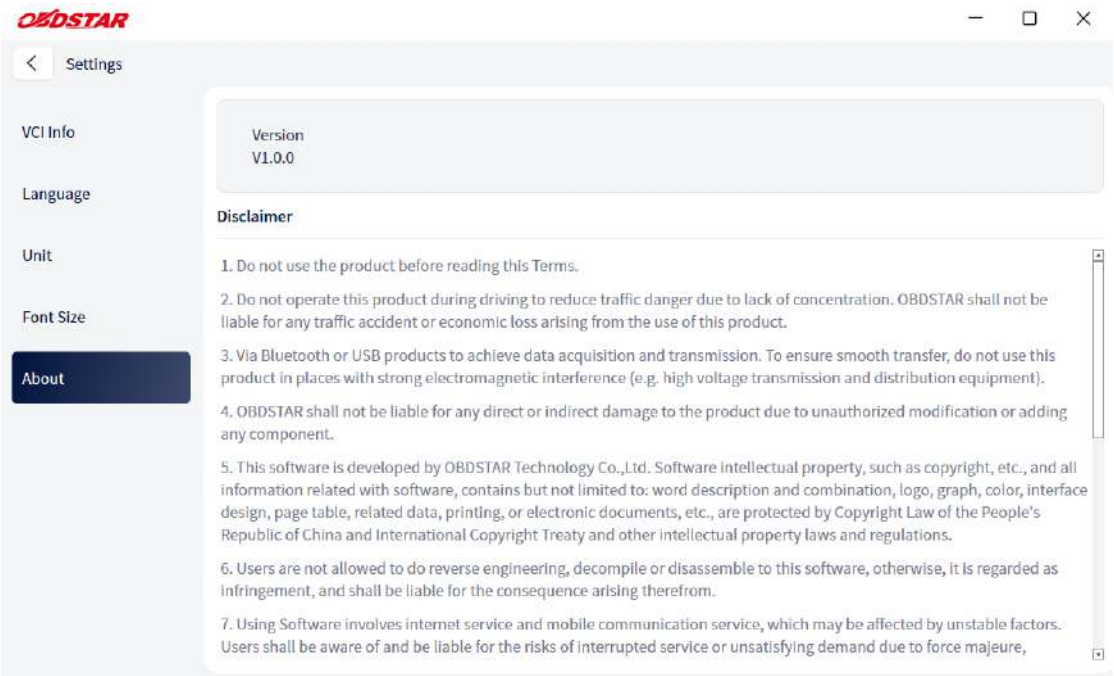
3.7.4 Font Size

On the main settings page, click **[Font Size]** to view and adjust the available font size options.



3.7.5 About

Click **[About]** in the Settings menu to access detailed version information and disclaimer.

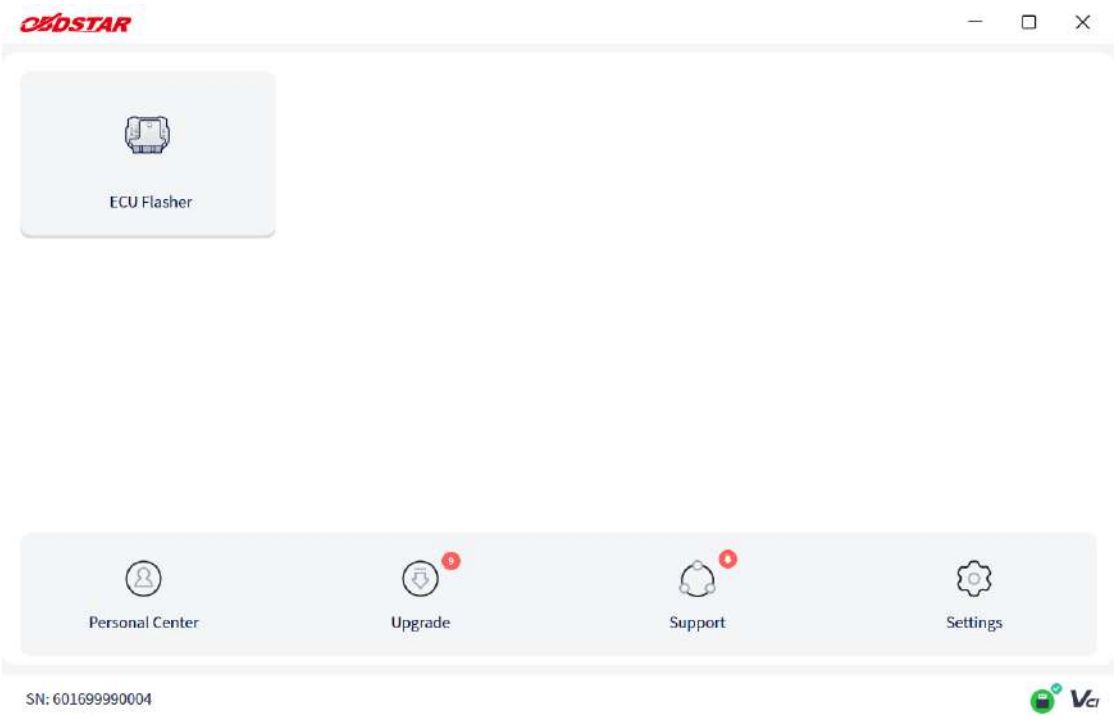


3.8 Diagnostic Operations

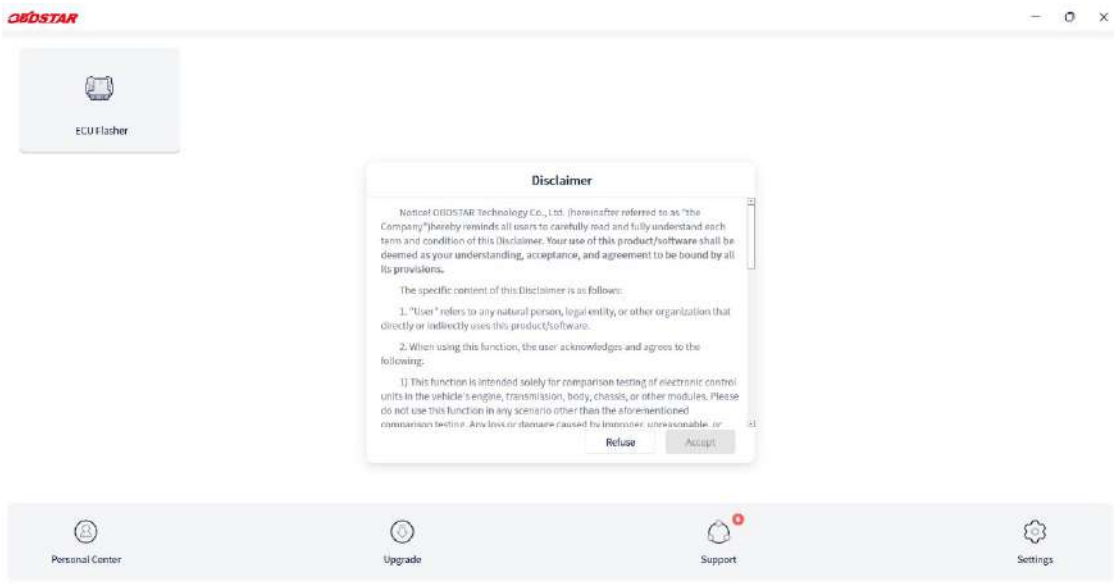
The diagnostic program connects to the vehicle's ECU via a VCI and programmer, enabling ECU cloning operations such as reading ECU information, reading/writing EEPROM, reading /writing flash memory, and querying Bosch part numbers.

3.8.1 Diagnostic Procedure

OBDSTAR Software supports ECU cloning for multiple vehicle systems, including ECM, body control, TCM, and more.
Main Interface:



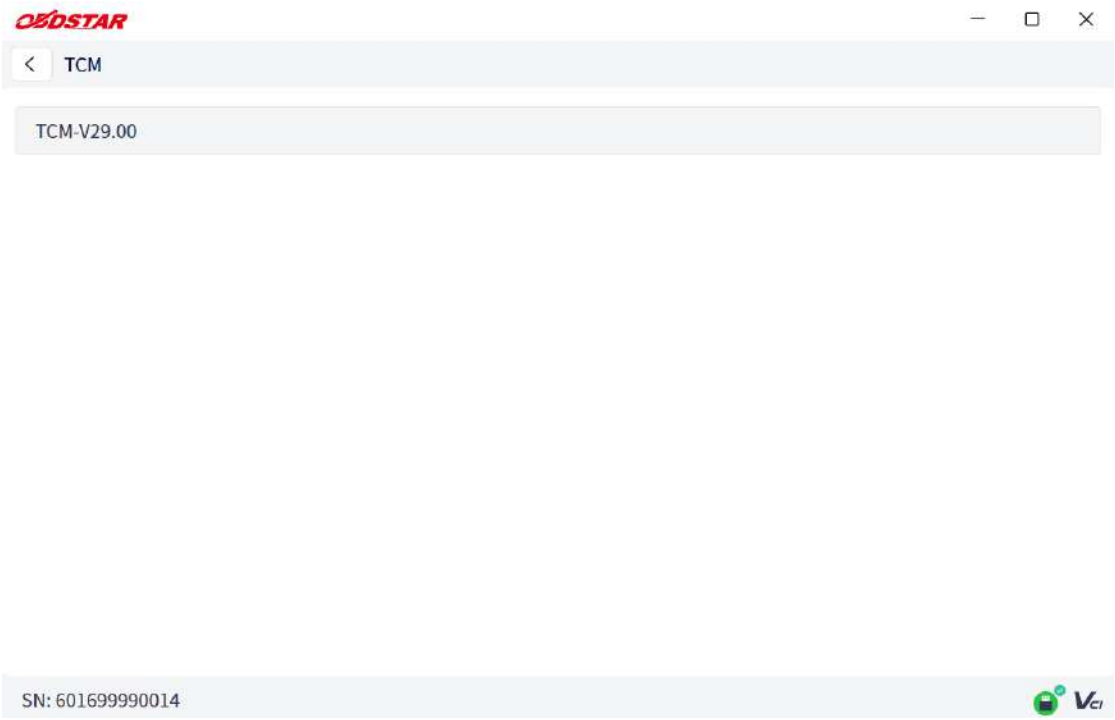
Tap **[ECU Flasher]**. A disclaimer window will appear.



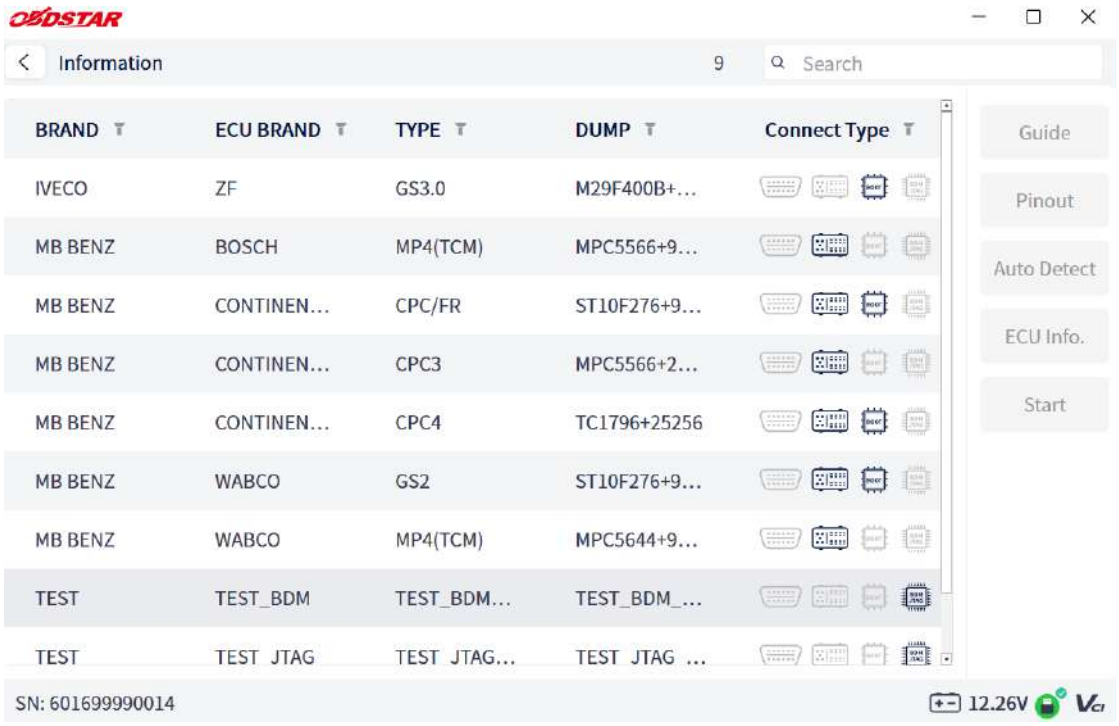
Read the disclaimer carefully, then tap **[Accept]** to proceed. After acceptance, a list of supported modules is displayed.



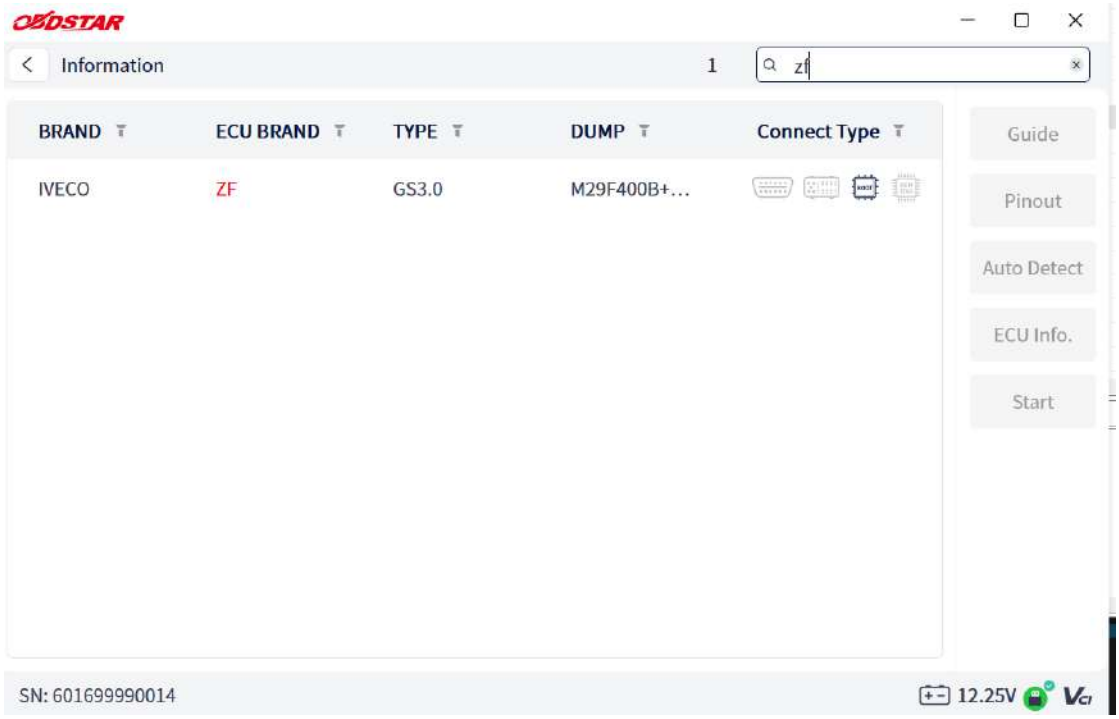
Select the appropriate module (e.g., HD – TCM). A version notice will appear. (Note: Software versions can be downloaded or updated via the "Upgrade" feature.)



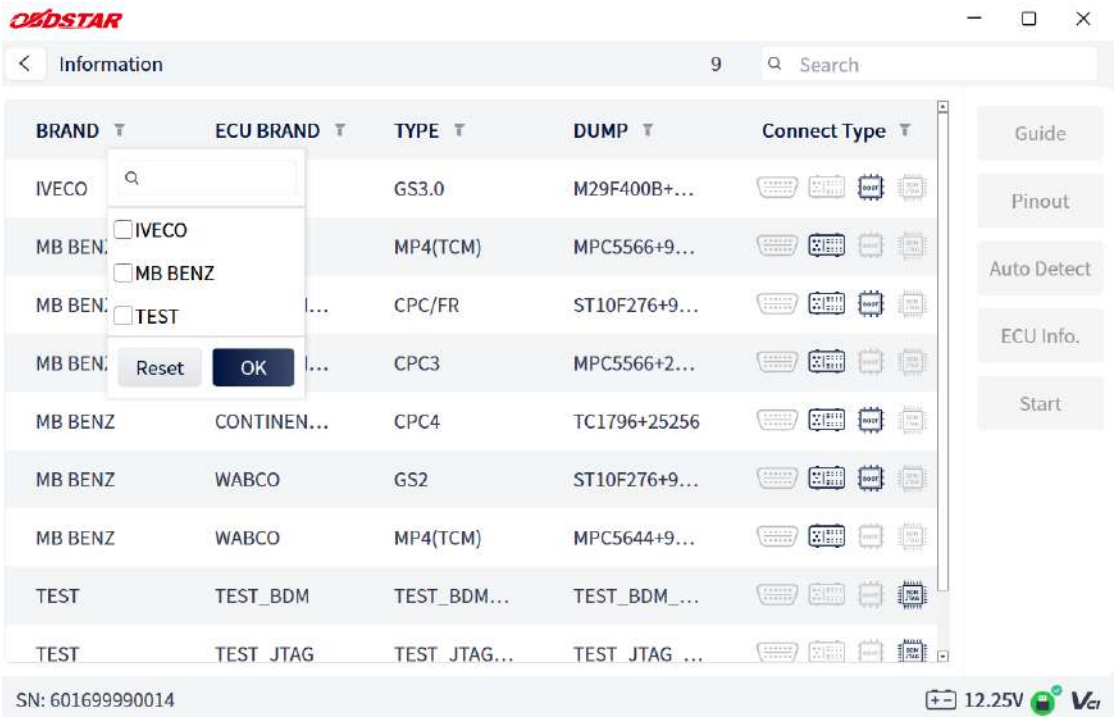
Tap to access the diagnostic interface, which displays all transmission ECU types currently supported by this software version.



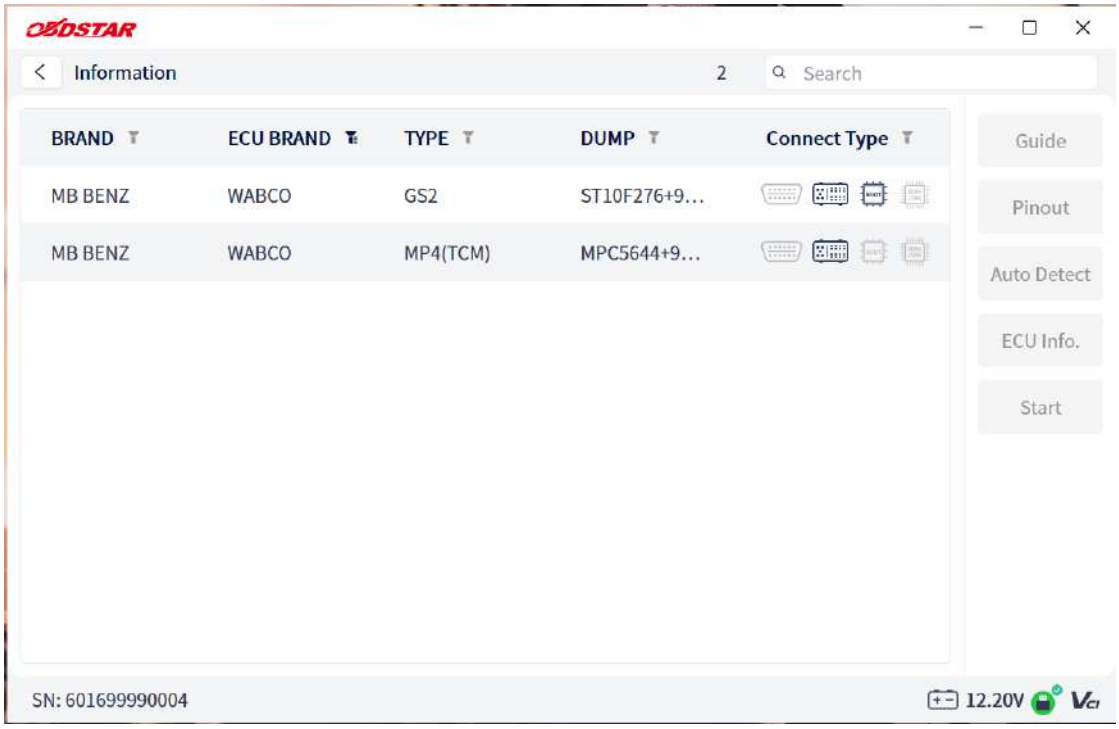
Tap **[Search]** or the to filter results. Enter or select criteria to quickly locate your brand. Example: Type ZF in the search box, the system automatically filters and highlights matching entries in red. Tap the × on the right side of the input field to clear the search term.



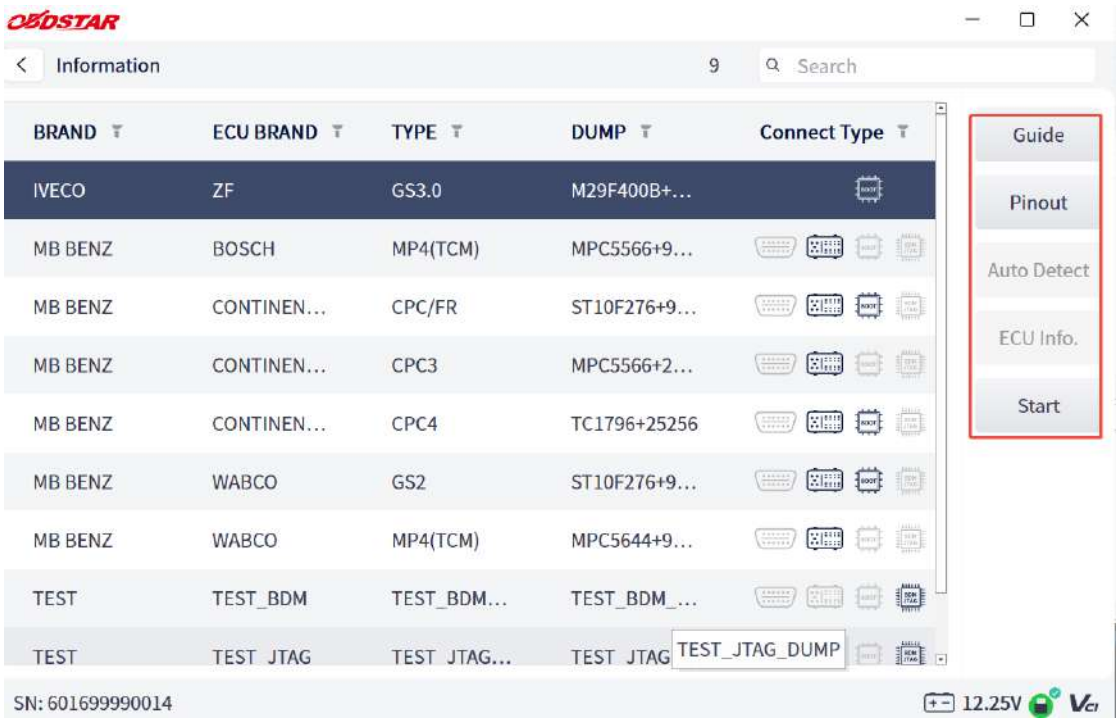
Tap the next to Brand to open a brand selection menu.



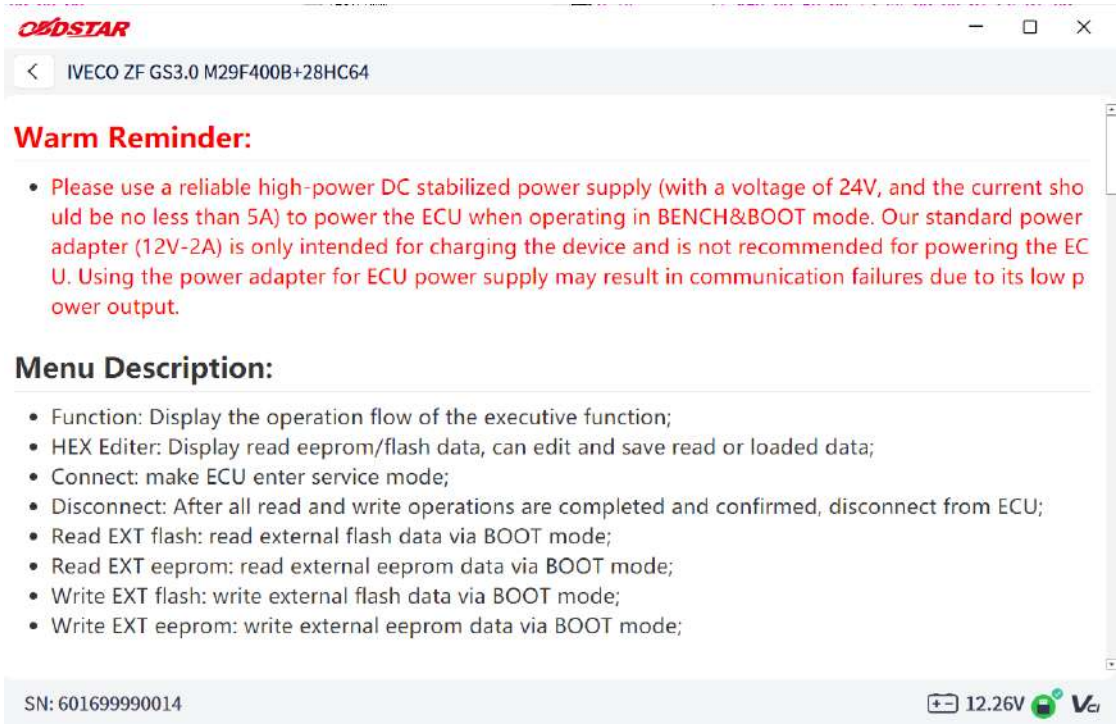
Choose a brand (e.g., MB BENZ), then tap **[OK]** to apply the filter.



Once the correct ECU type is selected, use the buttons on the right to view the operation guide or wiring diagram, or tap **[Start]** to access the specific function interface for that ECU type.



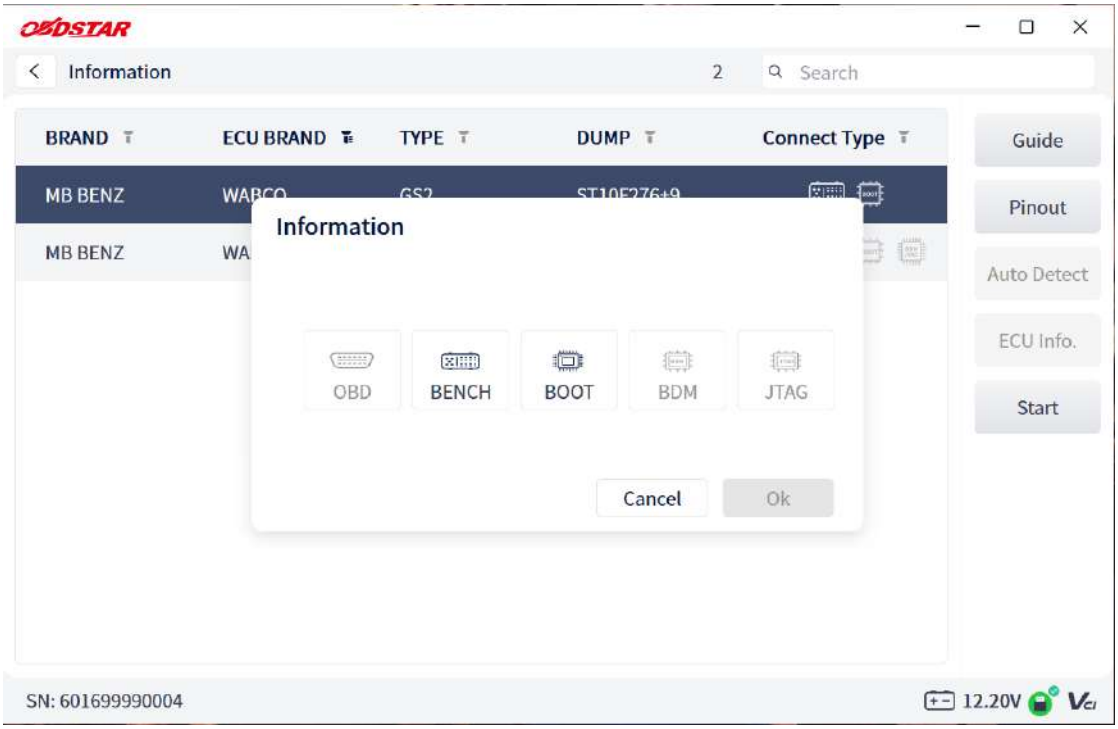
Tap **[Guide]** to view important notes, function descriptions, connection methods, and other information for the selected ECU type.



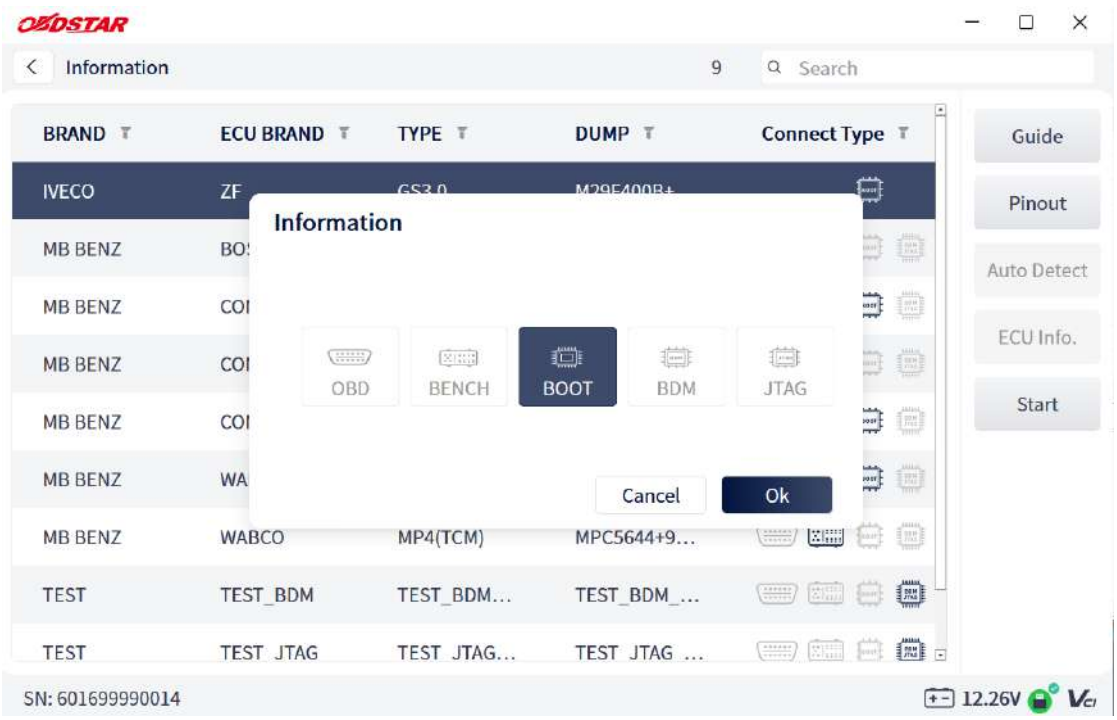
Tap **[Pinout]** to view the corresponding wiring connections or ECU image.

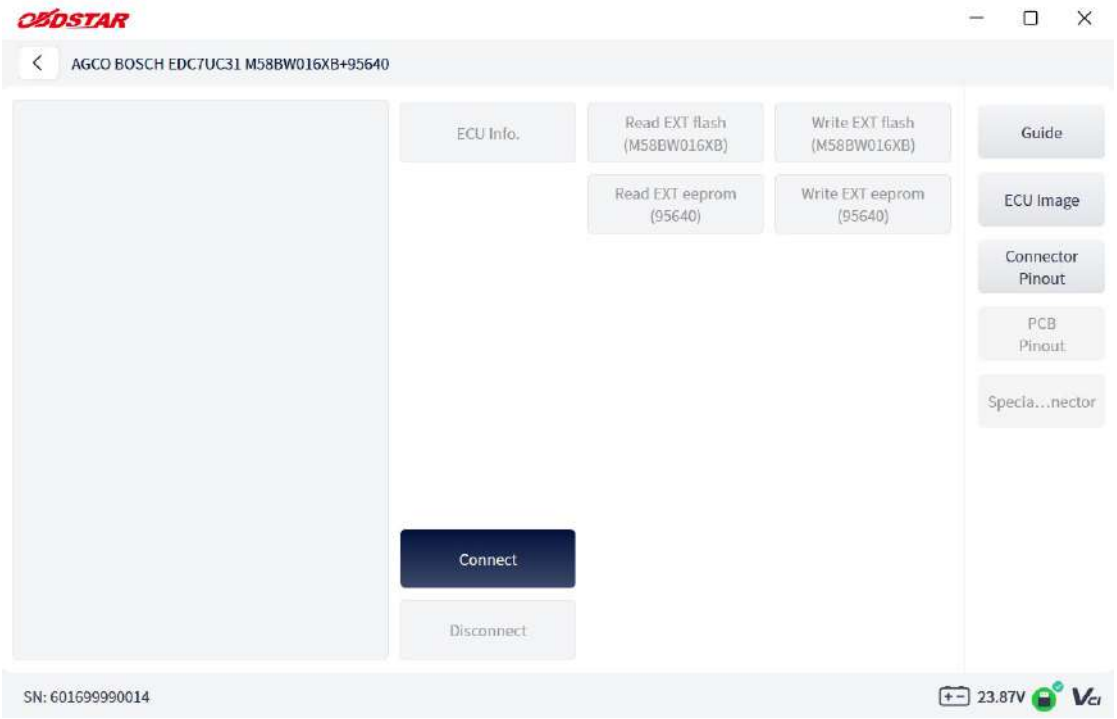


After selecting the appropriate diagnostic type, tap **[Start]** to choose a connection method.

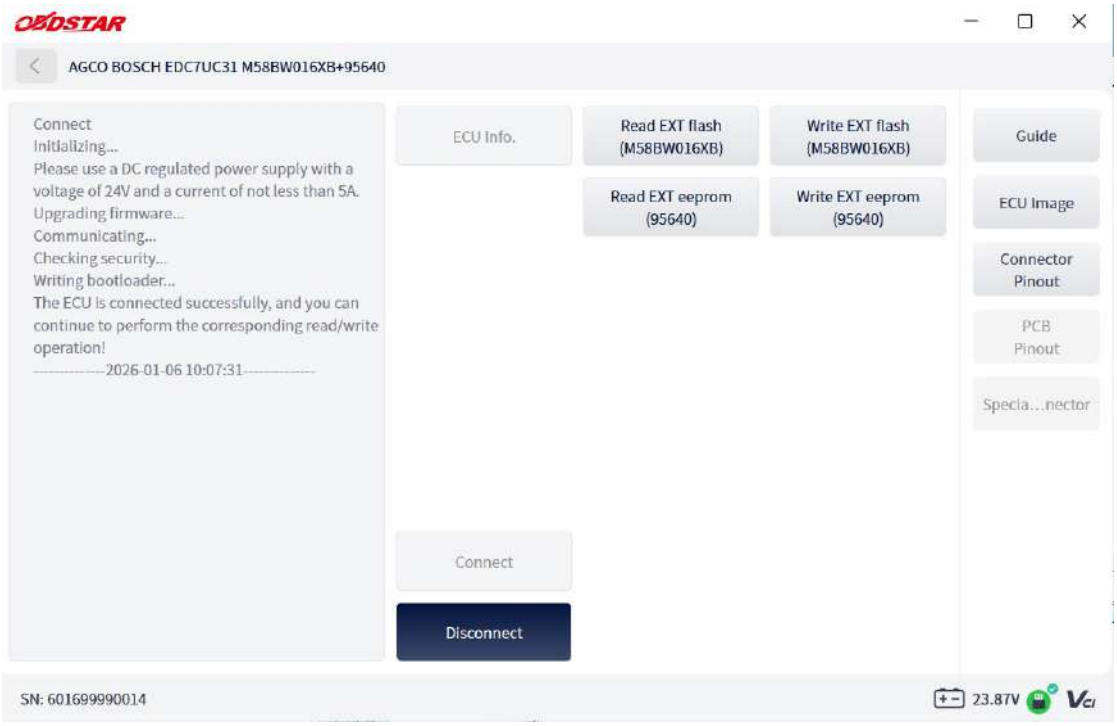


Tap **[OK]** to confirm and load the available function menu for that connection mode.

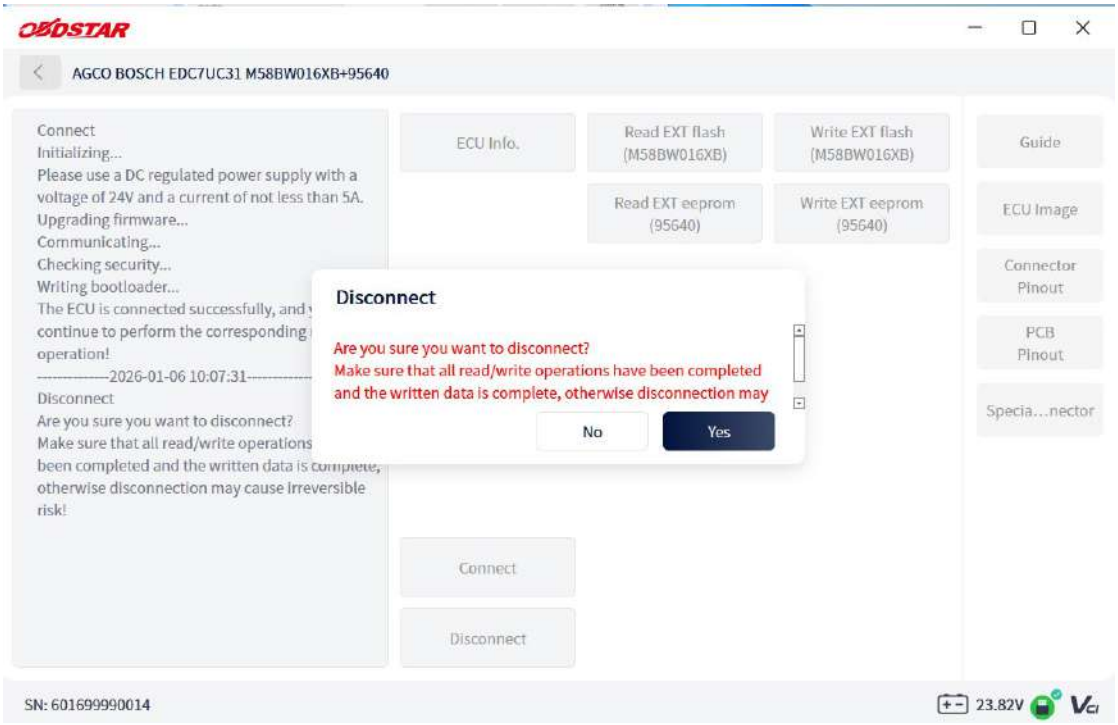




Tap **[Connect]** to establish communication with the ECU. Once connected, you may perform supported operations.



After completing all operations and verifying no errors occurred, tap **[Disconnect]** to safely terminate the ECU connection and end the session.



Note: Before exiting or closing the diagnostic application program, you must first exit the diagnostic operation interface and terminate all communication between the diagnostic tool and the vehicle. As communication interruption may cause damage to the vehicle ECU, it is necessary to ensure that the test main cable is well connected with the diagnostic tool and the vehicle in the process of diagnostic communication, and ensure that all diagnostic communication has been exited before disconnecting the diagnosis main line or turning off

the tool.

4 Maintenance and Care

Keep the device and its accessories dry. Do not use external heating devices such as microwaves to dry them.
Avoid subjecting the device and its accessories to strong impacts or vibrations, as this may damage the equipment..
Do not store the device or its accessories in areas with extremely high or low temperatures, as this may result in equipment or charger malfunctions, fire, or explosion.
Do not clean the device or its accessories with harsh chemicals, solvents, or strong detergents.
Before cleaning or performing maintenance, turn off the device and disconnect the charger.
Do not disassemble the device or its accessories yourself. If you do, the device and accessories will no longer be covered under the manufacturer's warranty.
If the device collides with a hard object or suffers strong external impact causing the screen to crack or break, do not touch or attempt to remove any broken pieces. Immediately stop using the device and contact an authorized service center as soon as possible.

5 Using the Battery and Charger

Charger Status Check: Before each use, carefully inspect the charger for damage, deformation, or cracks. Check the power cord for signs of wear or fraying. Ensure the plug is reinforced with a metal strain relief sleeve to prevent bending or breakage.
Proper Plug/Unplug Procedure: Always grip the rigid part of the plug when inserting or removing it from an outlet. Insert and remove the plug straight in/out—do not wiggle or force it, as this can cause metal fatigue in the socket contacts. Never yank or pull the cord to disconnect the charger.
Ventilation Requirements: Place the charger in a cool, well-ventilated area, away from direct sunlight and air conditioning vents. Maintain at least 20 cm (8 inches) of clearance around the charger to ensure unobstructed airflow through its ventilation openings.
Child Safety: Keep the charger out of reach of children. If children must interact with electrical devices, adult supervision is required at all times.
Regular Cleaning: Periodically clean the charger's exterior surfaces and charging ports using a clean cloth or brush to remove dust and debris. Always clean with a damp cloth or an anti-static cloth. Do not use dry cloths or irritating chemicals.
Cable Inspection: Regularly check the power cord for damaged insulation, loose plugs, or corrosion on connectors. Perform a thorough inspection every 12 months. Immediately replace the charger if you observe cracked insulation or a loose plug.
Do not place the device near microwaves, ovens, radiators, or other heating appliances.
When the device is powered by a power adapter, the applicable altitude is determined by the accompanying adapter. The device is suitable for tropical environmental conditions; maintain

the ambient temperature between -20 °C and 70 °C. Do not use the device outside these temperature ranges, as extreme temperatures may cause malfunctions.
Do not use the charger if the power cord is damaged, as this may cause electric shock or fire.
Always comply with local regulations regarding the disposal of the device and its accessories. Support recycling initiatives and do not dispose of the device or its components as ordinary household waste.

Handling Special Situations

Thunderstorms: During thunderstorms or lightning, immediately unplug the charger from the power outlet to prevent surge damage to the device.
Charger Exposure to Water: If the charger gets wet, stop using it immediately. Allow it to dry completely before attempting to use it again.
Charger Not Functioning: Check whether the power outlet is functioning properly, the charging cord is undamaged, and the device's charging port is clean and free of debris. If the issue persists, contact an authorized service technician or replace the charger.

6 Ordering Information

Replaceable parts and optional accessories can be ordered directly from the Company's authorized dealers. Please specify the following when placing an order:
Quantity required
Part number
Part name

7 Warranty

One-Year Limited Warranty

OBDSTAR Technology Co., Ltd. (hereinafter referred to as "OBDSTAR") warrants to the original retail purchaser of this product that, for a period of one year from the date of delivery, if the product or any component becomes defective due to material or workmanship under normal use, resulting in device failure, OBDSTAR will, upon proof of purchase, repair or replace it free of charge—with a new or refurbished part—at its discretion.
OBDSTAR shall not be liable for any incidental or consequential damages resulting from misuse, improper operation, or incorrect installation of the device. Some countries or states do not allow limitations on the duration of implied warranties; therefore, the above limitations may not apply to you.
This warranty does not cover the following:
a. Products damaged as a result of abnormal use, unusual conditions, accidents, mishandling, negligence, unauthorized modifications, improper use, incorrect installation or repair, or improper storage.

b. Products whose physical or electronic serial numbers have been removed, altered, or defaced.

c. Damage caused by exposure to high temperatures or extreme environmental conditions.

d. Damage resulting from connecting to or using accessories or other products not approved or authorized by the Company.

e. Defects in the product's appearance, decorative items, ornamental or structural components such as frames and non-functional parts.

f. Products damaged by external causes such as fire, dirt, sand, blown fuses, theft, or misuse of power source.