NEWCHIP

USER MANUAL
HDT711

Ver: V1.00.001

Copyright Information:

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Trademark

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Safety Precautions and Warnings
To avoid personal injury, property loss, or accidental damage to the product, read all of the information in this section before using the product.

Handle Device Carefully
Do not drop, bend, or puncture the tool, or insert extra objects into or place heavy objects on the device. The vulnerable components inside may be damaged.

Do not Disassemble or Modify the Device
The device is a sealed device with no user-serviceable parts inside. All internal repairs must be performed by an authorized maintenance organization or qualified technician. Attempts to disassemble or modify the device will void the warranty.

Do not Try to Replace the Internal Battery
The internal rechargeable lithium battery must be replaced by an authorized maintenance organization or qualified technician. Contact the dealer for factory replacement.

Adapter Information
Avoid immersing the device in water or placing it in a location where it may absorb moisture or other liquids.

During normal use, the charging device may become hot. Please ensure that there is good ventilation while charging device.

If any of the following situation occurs, please unplug the charging device:

• The charging device is exposed to rain, liquid or in an environment with excessive overlap.

• The charging device showed physical damage.

• Cleaning the charging device.

Data and Software Protection

Do not delete unknown files or change the names of files or directories created by others, otherwise the device software may not run.

Tips: Access to network resources makes the device vulnerable to computer viruses, hackers, spy-ware, and other malicious behaviors, and may damage the device, software, or data. To make sure that you are using firewalls, anti-virus software and anti-spy-ware software to provide adequate protection for your computer and keep these software up to date.

Precautions on Using this Tool

The ignition switch should be in the OFF position when plugging and unplugging the diagnostic connector.

Precautions on Operating Vehicle's ECU

• Do not disconnect battery or any wiring cables in the vehicle when the ignition switch is on, as this could avoid damage to the sensors of the ECU.

• Do not place any magnetic objects near the ECU.

• Disconnect the power supply to the ECU before performing any welding operations on the vehicle.

• Be extreme caution when performing any operations near the ECU or sensors. Ground yourself when you disassemble PROM, otherwise ECU and sensors can be damaged by static electricity.

• When reconnecting the ECU harness connector, be sure it is attached firmly, otherwise electronic elements, such as ICs inside the ECU, can be damaged.

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Contents

1.Quick Start Guide

1.1 Initial Use

The following settings should be made when you initially use the tool.

1.1.1 Power on the Device

After long press the power button, images will be shown on the screen as follows.
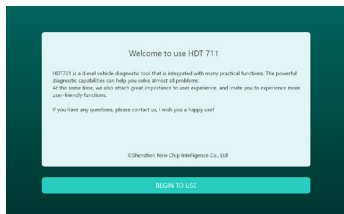
1.1.2 Create an account

Connect to the network and create an account. You need to enter your Email to register an account. If you already own other products of New Chip and have already registered, you can log in directly with your existing account.
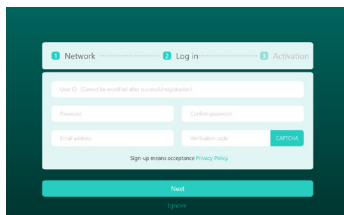
1.1.3 VCI Device Activation

Input the device serial number and activation code to activate and bind the VCI device. If the activation is not performed, please contact New Chip after-sales customer service or regional sales for help.

Tip: The activation code is a set of 8 digits number and send by text messages.

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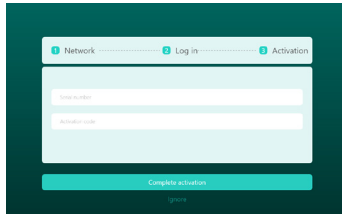
1.2 Diagnostic Flowchart
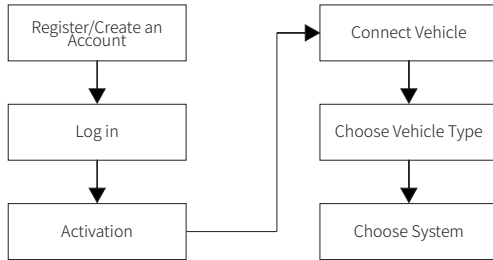
1.3 Function Menu

After the device is powered on, the system automatically enters the function menu selection interface.
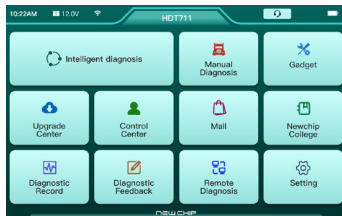
It mainly contains the following function menus:

Intelligent Diagnosis: Fast scanning vehicle ECU based on artificial intelligence.

Manual Diagnosis: Manually select the vehicle type and system for diagnosis.

Gadget: Customized functions and commonly used tools.

Upgrade Center: Diagnostic software upgrade.

Control Center: Diagnostic files, connector activation, firmware fix, customized data stream, Profile Dormacy, etc.

Mall: New Chip Mall.

New Chip College: Watch operation demo, maintenance information, etc.

Diagnostic Record: View the diagnosis records.

Diagnostic Feedback: If the vehicle software or function is abnormal under special circumstances during use, please report your problems to us and we will have professionals follow up and deal with them in time.

Remote Diagnosis: Request remote control to diagnostic the vehicle or remote assistance for others to diagnostic the vehicle.

Setting： Information system settings such as repair shop, account number, etc.

1.4 Charging

Follow the steps below to charge the host:

· Connect one end of the power cord to the socket of the host.

· Then insert the charger power plug into the power socket to start charging.

· When the battery status icon displays: 🔋 , the host is being charging.

· When the battery icon displayed: 🔋 the charging process is completed and you should disconnect the host.

1.5 Battery

· It is normal that the host won't turn on while charging because the battery has not been used for a long time or it is exhausted. Please turn on the host again after charging the battery.

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· Please use the supplied charger for charging. The company assumes no responsibility for damages and losses caused by charging with chargers other than those specified by NEW CHIP.
· The battery charging time varies with temperature and battery status.
· When the battery power is low, the system will automatically pop up a prompt message to remind you to charge. When the battery power is too low, the device shuts down automatically.
· Please do not charge the battery when the temperature is lower than 0° C (32° F) or higher than 45° C (113° F).

1.6 Diagnostic Device Connection

The connection steps are as follows:

1)Find the diagnostic socket on the vehicle. Most of the diagnostic sockets are standard OBD II diagnostic sockets (non-standard OBD II vehicle diagnostic sockets need to use the corresponding adapter), generally they are installed on the driver's side, 12 inches from the center of the dashboard. If you cannot find the location of the vehicle diagnostic socket, please refer to the vehicle maintenance manual.
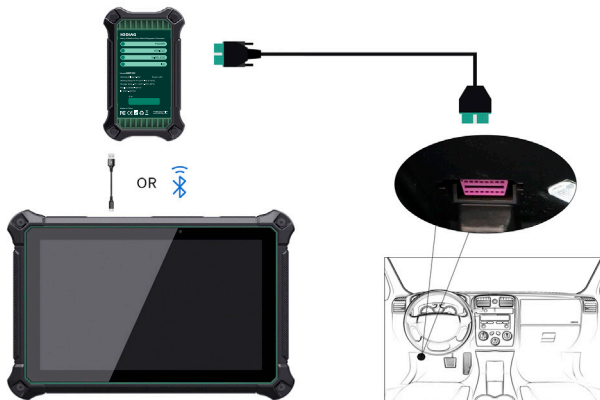
2)For the standard OBD II diagnostic socket, its connection as below:

| Host | → | VCI Device | → | OBD II Diagnostic | → | Vehicle |

3)For non-standard OBD II diagnostic sockets, the connection as follows:

| Host | → | VCI Device | → | OBD II Diagnoctic | → | Diagnostic Socket Adapter | → | Vehicle |

2.Basic Introduction

2.1 Product Profile

HDT711 is a new generation of intelligent diagnostic tool launched by New Chip. It supports local and remote diagnosis of vehicles, and can diagnostic heavy trucks, light trucks, natural gas vehicles, buses, construction machinery and other models in Asia, Europe, the United States and China, and supports intelligent diagnosis and Manual Diagnosis.

2.2 Components & Controls

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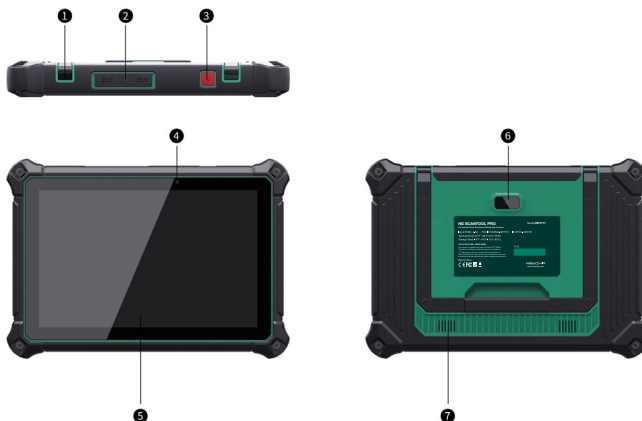
① Adjustable bracket
② Type C charging jack: used to connect the supplied charger for charging.
  USB port: This port is used to connect USB devices.
③ Power/Lock screen key
④ Front camera
⑤ Display screen
⑥ Rear camera
⑦ Speaker

2.3 VCI Device

This device is a VCI (Vehicle Communication Interface) device used to connect to the vehicle diagnostic socket to collect data, and then send it to the host for analysis via Bluetooth or USB communication.

① LED Indicator:
Power Indicator: After the VCI device is powered on, it will be red and always on.
Vehicle Indicator: When the VCI device communicates with the host, the indicator light is on and flashes; when the VCI device does not communicate with the host, the indicator is off.
Wireless Indicator: When it is displayed in blue, it is in wireless Bluetooth working mode.
I/O Indicator: This indicator lights up after the VCI device is connected to the host via USB.
②Diagnostic Interface: To connect the main cable.
③USB Jack: Used to connect the VCI device and the host for wired diagnosis.

2.4 Parameters

Operating system	Android 10
RAM	4G
Storage	128G
Battery	12600/3.8V
Bluetooth	Bluetooth5.0
Screen	10 Inches
Network	Wi-Fi
Dimension	283.5×198.5×36 mm
Working Temp	32° F ~ 122° F(0°C～ 50°C)
Storage Temp	14° F ~ 140° F(-10°C～ 60°C)

3.Get started

Diagnostics functions support a wide range of vehicle models, able to diagnose heavy trucks, light trucks, natural vehicles, buses, engineering machinery from Asia,Europe,USA and China. It supports intelligent diagnosis and traditional diagnosis,including the system and full functional diagnosis: reading version info,reading diagnostic trouble code, clearing diagnostic trouble code, reading real-time data stream, special functions, actuation test, etc., and generating the diagnosis report automatically after the diagnosis.

3.1 Intelligent Diagnosis

Connect the vehicle, enter this function, the device starts the intelligent diagnostic process and automatically recognizes the vehicle's ECU.

3.2 Manual Diagnosis

In addition to supporting intelligent diagnosis and automatic identification, it also supports manual selection diagnosis.

Let's take diagnosing Cummins engine as an example to introduce how to start the diagnosis.

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1) Enter the manual diagnosis menu and select "**Engine**".

Tips: The diagnosis menu may be varies from different vehicles.
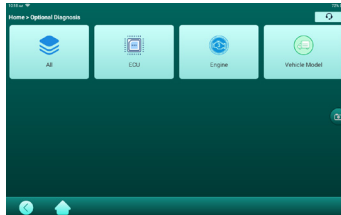
2) Select the engine brand: Cummins.
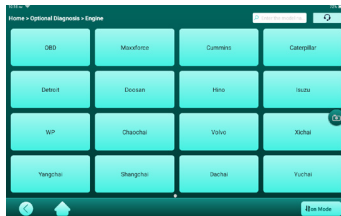
3) Tap the menu: The system automatically recognizes.
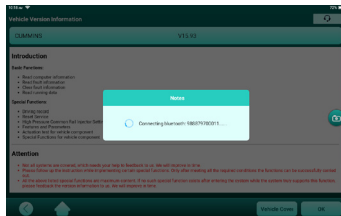
4) After entering the system, select the function you want to test.
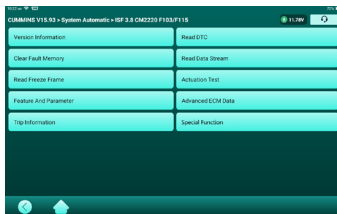
Tips: The diagnosis menu may be varies from different vehicles.

a) Version Information

Tap"**Version Information**" to read the version information of the current vehicle ECU.
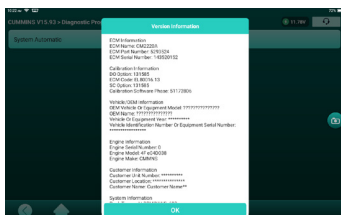
b) Read Diagnostic Trouble Codes

This function is used to read the fault code in the ECU memory of the tested system to help the maintenance personnel find the cause of the vehicle fault quickly.
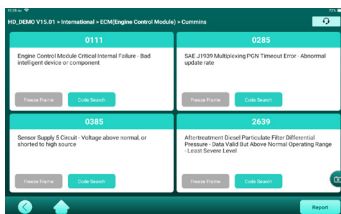
Tips: Reading Diagnostic Trouble code during vehicle diagnosis is only a small step during the entire diagnosis. The vehicle fault code is only as a reference and components cannot be replaced directly on the basis of the given fault code definition.Each fault code has a set of test procedure, and the maintenance technician must confirm the root node of the fault in strict accordance with the operation instructions and procedures described in the vehicle repair manual.

c) Clear Diagnostic Trouble Codes

Tap "**Clear Diagnostic Trouble code**" on the function selection page, the system will automatically delete the current fault code and pop up the dialog box "**Clear fault code successfully**".

Tips: For general models, please operate in the regular sequence: read fault code first, and then clear the fault code, start the vehicle to test, read the fault code again for verification, repair the vehicle, clear fault code, and start vehicle to test again to confirm that the fault code no longer appears.

d) Read Data Stream

This function is majorly used to read and display real-time data and parameters of the vehicle ECU. Through observing these data streams, maintenance technicians can understand the vehicle's overall performance and offer maintenance suggestions.

Tips:In order to perform vehicle troubleshooting, you have to drive the vehicle. Please find someone else to help you. It is dangerous to drive and operate diagnostic tool at the same time, which will cause serious traffic accidents.

If the 1 / X mark appears, it means that the data stream options are not displayed. Slide the screen from bottom to top to display the remaining options. There are three display modes. You can choose the most appropriate way to browse the stream:

[**Graph**]:Display parameters in waveform form.

[**Value**]:The default display mode, which displays the parameters in the form of value and list (* Tips: If the data stream value is not within the standard range, the data will be changed to red).

[**Combine**]: The graphics are presented in combination for comparison (* Tips: different data stream options are marked in different colors).

On-screen button description:
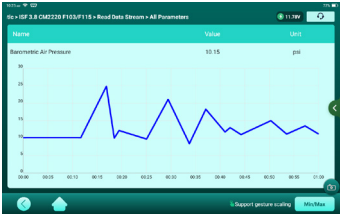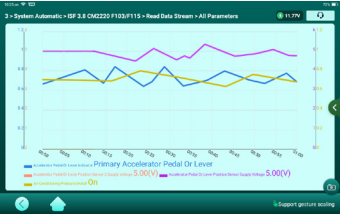
[Graph]	Display the parameters of the selected data stream in waveform form. On the data stream waveform page, you can perform the following operations: [**Combine**]:Present the graphics in combination for the user to compare. [**Value**]:Display the parameters in numerical value and list form. [**<**]:Customize the data stream options you need to view. Tap this button, and the data stream option drop-down box will pop up on the screen. Select (up to 4 data stream options can be selected) the data stream options to be viewed, and the corresponding waveform will be displayed on the screen. If you need to remove unnecessary options, just uncheck them.

[ ]	Tap to display the current (single) data stream as a waveform graph. On the waveform display page, users can perform the following operations: [**Upper Limit/Lower Limit**]:Tap to enter to set the maximum/minimum value. Once the running value exceeds the set value, the system will issue a warning. [**<**]:Tap"**<**" on the right side of the screen to customize the data stream options you need to view. Tips: Only 4 data streams can be displayed at most.
[**Compare Sample**]	Tap to select the sample data stream file, and the values you set and saved during the data stream collection process will be imported into the "**standard range**" column, which is convenient for you to compare. Tips: Before executing this function, you must collect and save the value of the data stream option first.
[**Report**]	Tap this button to save the current data stream value.

[Record]	Used to record diagnostic data for users to replay and view. To stop reading,tap "**Stop**" (the white box in front of the progress bar). The saved file is named with the serial number of the vehicle diagnostic connector + the system time when the recording is started, and it is stored under the menu of "**Control Center**" and "**Diagnostic File**".
[Help]	Select a data stream option, and then tap the button to view the help information.
[Save Sample]	Used to collect sample data streams. After the collection, entry, and saving are completed, you can import the data stream sample file to cover the current "**standard range**" column data every time you check the data stream option in the future. Tap to start to record the sample data stream (Tips: The system only records data stream options with units), after the recording is completed, tap to end the recording. Tap the data stream option and modify the values in the "**Minimum**" and "**Maximum**" columns. After the modification is completed, tap "**Save**" to save your customized data stream value as a sample data stream. All sample data streams are stored in "**Control Center**" -> "**Data Stream Sample**".

e) Actuation test

This function is mainly used to test whether the executive components in the ECU can work normally.

f) Special Functions

Some vehicle models have special function menus, and the special functions are varies from different vehicel models. Generally, special functions include following: DPF regeneration, injector coding, EGR, NOx reset, Adblue reset (diesel Engine exhaust filter)

and so on.

Tips: The special functions are varies from different vehicle models, and the details are subject to the device display.

3.3 Gadget

Common tools can be placed in this menu, and the software in the gadget can be added or deleted by taping the small pen " [✎] " icon in the upper right corner.
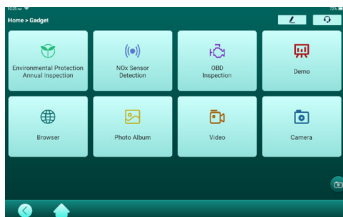
In addition, you can also add vehicle models here in the manual diagnosis.

To make sure that you enjoy better function and upgrade services, we suggest you upgrade your software irregularly. You are prompted to upgrade the software when an new version is available.

3.4 Control Center
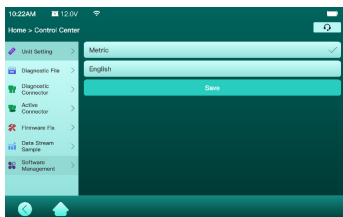
3.4.1 Unit Setting

This option is used to switch between metric and English units.

3.4.2 Diagnostic Files

Used to record and establish vehicle files. It will be created according to vehicle

information and diagnostic time, including diagnostic record, diagnostic report and data playback.

3.4.3 Diagnostic Connector

If multiple connectors are registered under the same New Chip HDT711 account, use this item to select the corresponding diagnostic connector.

3.4.4 Activate Connector

Used to activate the connector.

3.4.5 Firmware Fix

Used to repair connector firmware. During the fix process, please do not power off or switch the interface.

3.4.6 Data Stream Sample

Used to manage recorded sample data stream files.

3.4.7 Software Management

Used to delete installed software.

3.5 Mall

New Chip Mall.

3.6 New Chip College

Enter this menu to view operation demos.

3.7 Diagnostic Records

Used to view historical diagnosis records and quickly enter the previously diagnosed system.

3.8 Diagnostic Feedback

If you encounter unsolvable problems or diagnostic software problems in the diagnosis, the user can offer the feedback of the latest 20 test records to New Chip. After we receive your feedback, we will follow up and deal with it in a timely manner in order to improve our product quality and user experience.

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Tap "**Diagnostic Feedback**" and the following dialog box will pop up:
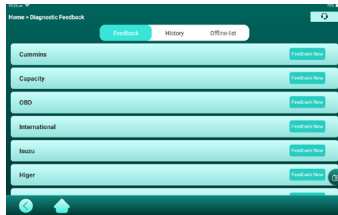
Tap "**OK**" to enter the vehicle diagnosis record feedback selection interface. There are 3 operable options as follows:

Feedback: Display a list of all vehicle models that have been tested.

History: Tap to view the processing progress of all submitted diagnosis feedback.

Offline-list: Tap to view the diagnosis feedback of upload failure due to network problems. Once the network is restored, the system will automatically upload to the server side.

Under the "**Feedback**" tab, tap on the diagnostic record of the corresponding vehicle model to enter.

Tap "**Select File**" to open the target folder, select the diagnostic log that needs feedback, and then select the corresponding diagnostic feedback question type. Input the specific fault description and the specific contact information of the feedback person in the text box. Then tap "**Upload Log**" to send it to us. After we receive your fault feedback, we will follow up your feedback report in time.Please pay attention to the progress and results of the diagnostic feedback in"**History**".

3.9 Remote Diagnosis

If a technician encounters a problem that cannot be solved during the diagnosis process, he can seek remote assistance from other technicians.

Tips: The following conditions must be met before executing this function:

1. The device requesting remote diagnosis must be equipped with diagnostic software corresponding to the vehicle .

2. Before performing remote diagnosis operation, please make sure that the device is connected to the network normally and the network is stable.
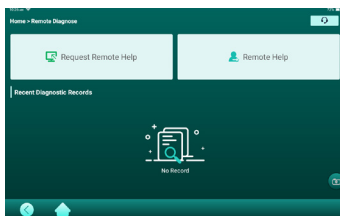
3.9.1 Request Remote Help

Tap [**Request Remote Help**], then select the model software.
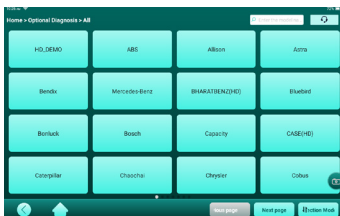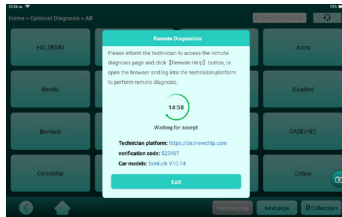
Notify the other party to enter the remote car interface, click on [**Remote Help**] ; tell the other party your verification code.

Wait for the other party to take control of your device remotely for remote diagnosis.

3.9.2 Remote Help

Tap [**Remote Help**], the screen will prompt you to input the verification code . The screen displays as shown in the figure below:
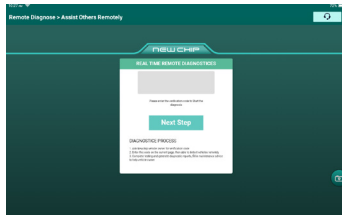
After input, click [**Next Step**] to start remote diagnosis.

3.10 Setting
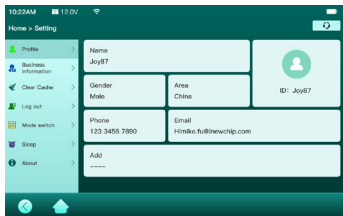
3.10.1 Profile
Used to set up and manage personal information.

3.10.2 Business Information
This option is used to set repair shop Information.

3.10.3 Clear Cache
Execute this function to clear the cache.

3.10.4 Log out/Login
Log out/Login account settings.

3.10.5 Mode Switch
Switch between USB mode and HOST mode.

3.10.6 Sleep
Used to change the time for the screen to go off automatically.

3.10.7 About
This option is used for APP version information and update APP.

4.Software Upgrade
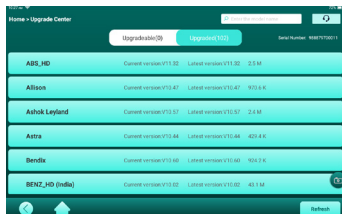
There are two tabs on the upgrade page:

Upgradable: A list of software that can be upgraded to newer versions.

Upgraded: A list of software that has been downloaded.

Tips: During the upgrading, please keep normal network connection. Upgrading many softwares may take a few
minutes, please wait.To unselect a software, tap on the check box in front of the software to unselect.

5.FAQ

1.Q: Is it possible to use the same type of charger to charge the host?

A: No, please use the supplied charger for charging. The company is not responsible for
any damage and economic loss caused by the use of adapters not provided by New Chip.

2.Q: How to save power?

A: When not using the device, please turn off the screen. Set a shorter standby time.
Decrease the screen brightness.

3.Q:The host cannot be turned on after charging?

Reasons	Solution
The device has not been used for a long time, and the battery is in loss status	Charge it for more than two hours before turning it on.
Adapter problem	If there is any quality problem, please contact the dealer or New Chip after-sales service to solve it.

4.Q:Why can't the device be registered?

Reasons	Solution
The device is not connected to the internet	Confirm that the internet connection of the device is normal.
Prompt that the e-mail has been registered	Change to a new e-mail or log in with the username registered with the e-mail(if you forget your username, you can retrieve it through your e-mail).
The e-mail can not receive the verification code during the registration process	Confirm whether the e-mail is correct; obtain the verification code again.

5.Q:Why can't log in ?

Reasons	Solution
The device is not connected to the internet	Confirm that the internet connection of the device is normal.
Incorrect username or password	Confirm whether the password and user name are inputted correctly. Reset via "Forgot Password".
Server problem	Server maintenance, please try again later.

6.Q:Why can't activate the device?

Reasons	Solution
The device is not connected to the internet	Confirm that the internet connection of the device is normal.
The serial number or activation code is inputted incorrectly	Confirm that the serial number and activation code are correct (12 digits for the serial number and 8 digits for the activation code).
Activation code is invalid	Contact New Chip after-sales customer service or regional sales.
Prompt that the configuration is empty	Contact New Chip after-sales customer service or regional sales.

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7.Q:The device is not activated during update software?

Reasons	Solution
The diagnostic connector may not be activated during registration	The diagnostic connector is not activated during registration, please contact New Chip after-sales customer service or regional sales for help.

8.Q:The software upgrade failed.

Reasons	Solution
The device is not connected to the internet	Confirm that the internet connection of the device is normal.
Server problem	Server maintenance, please try again later.

9.Q:When the diagnostic cable is connected to the vehicle, it is not powered.

Reasons	Solution
Insufficient contact of the diagnostic line	Please plug in the diagnostic cable again.
Poor contact of the vehicle diagnostic socket circuit	Please check if the pins of the diagnostic socket are normal.
Too low voltage of the vehicle battery	Please replace the vehicle battery.
Diagnostic connector damage	Contact New Chip after-sales customer service or regional sales.

10.Q:The host cannot be connected to the diagnostic connector?

Reasons	Solution
The diagnostic connector is not plugged in properly	Please replug the diagnostic connector.
Bluetooth not connected	Cancel the Bluetooth pairing of the diagnostic connector, and use the software to automatically pair the connector again.
Diagnostic connector firmware is not fixed	Enter the settings, tap [Firmware Fix] to upgrade the firmware.
Wrong connector	Check if the selected connector serial number is correct.

11.Q: Non-standard OBDII vehicle diagnostic interface connection.
A: There are some non-standard adapter in the package box, just connect it as described in the manual.

12.Q: The diagnostic device cannot communicate with the vehicle ECU?
A: Make sure that the diagnostic cable is connected correctly. Make sure the vehicle ignition key is turned on.If you confirm that the diagnosis are normal, please send the following information to us through the **[Diagnostic Feedback]** function module: vehicle VIN code, model and model year.

13.Q: An abnormality occurs when the diagnostic software is used.
A: Tap**[Diagnostic Feedback]** to offer specific problems to us for improvement.

Warranty Policy

This warranty policy is only applicable to users and distributors who purchase New Chip products through normal procedures. Within one year from the date of delivery, New Chip guarantees its electronic products for defects caused by materials or workmanship. Damages to the device or components due to abuse, unauthorized modification, use for non-design purpose, operation in a manner not specified in the manual, etc are not covered by this warranty.

Customer Service Center

If you encounter any problems during the operation of the device, please contact Shenzhen New Chip Intelligence Co., Ltd.
Service Tel: +86-755-21036827
Service Email: service@inewchip.com
Official website: www.inewchip.com
Regarding product usage tutorials, and more questions and answers, please visit official website to view.

FCC WARNING: This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

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

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to 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 the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.
• The rating information is located at the bottom of the unit.

FCC/IC RF Radiation Exposure and SAR Statements

The device has been tested for body-worn Specific Absorption Rate (SAR) compliance. The FCC/IC has established detailed SAR requirements and has established that these requirements. RF Exposure Information The radio module has been evaluated under FCC Bulletin C95.1 and IEEE 1528 and found to be compliant to RF Exposure from radio frequency devices. This model meets the applicable government requirements for

exposure to radio frequency waves. The highest reported SAR level for usage near the body (0mm) is 0.63 W/kg.

IC Statements

This device complies with Industry Canada Iicense-exempt RSS standard(s). Operation is subject to the following two conditions: 1. This device may not cause interference, and 2. This device must accept any interference, including interference that may cause undesired operation of the device.

Le présentappareilestconforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitationestautorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareildoit accepter tout brouillageradioélectriquesubi, mêmesi le brouillageest susceptible d'encompromettre le fonctionnement.