

CR Unicorn  
Automotive Diagnostic Tool  
USER MANUAL



## Package List

Phoenix Lite 2Power Adaptor  
Phoenix MDCl LiteUser Manual  
OBDI Adapter BOX Transfer LinePassword Letter  
OBDII Extension CableNon-Standard OBDII Adapter\*10  
Cigarette Lighter Cable Fuse ( $\phi 5*20\text{mm}$ )\*4  
Type-C to USB Cable Fuse ( $\phi 6*30\text{mm}$ )\*2  
Battery Clamps/Cable Set

## Compatibility

ISO 9142ISO 14230  
ISO 15765K/L-Line  
SAE-J1850 VPWSAE-J1850 PWM  
CAN ISO 11898Highspeed CAN  
Middlespeed CANCAN FD Protocol  
Lowspeed and Singlewire CANGM UART  
UART Echo Byte ProtocolHonda Diag-H Protocol  
TP 2.OTP 1.6  
SAE J1939SAE J1708  
Fault-Tolerant CANJ2534 Protocol  
DoIP ProtocolSAE-J2610  
RS232



## IC Statement

This device complies with Industry Canada's licence-exempt RSSs. 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.

The term "IC: " before the certification/registration number only signifies that the Industry Canada technical specifications were met. This product meets the applicable Industry Canada technical specifications.

Cet appareil contient des émetteurs / récepteurs exemptés de licence conformes aux RSS (RSS) d'Innovation, Sciences et Développement économique Canada. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## SAR Information Statement

Your Automotive Diagnostic Tool is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radiofrequency (RF) energy set by the Innovation, Science and Economic Development Canada of the Canada Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health. The exposure standard for Automotive Diagnostic Tool employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the ISED is 1.6 W/kg. \* Tests for SAR are conducted with the Automotive Diagnostic Tool transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the Automotive Diagnostic Tool while operating can be well below the maximum value. This is because the Automotive Diagnostic Tool is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output. Before Automotive Diagnostic Tool model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the ISED for each model. The highest SAR value for this Automotive Diagnostic Tool when tested for use worn on the body, as described in this user guide, is 0.48 W/Kg (Body-worn measurements differ among Automotive Diagnostic Tool models, depending upon available accessories and ISED requirements). The ISED has granted an Equipment Authorization for this Automotive Diagnostic Tool with all reported SAR levels evaluated as in compliance with the IESD RF exposure guidelines. SAR information on this Automotive Diagnostic Tool is on file with the ISED and can be found under the Display Grant section of <http://smssgs.ic.gc.ca> after searching on IC: 27741-UNICORN Additional information on Specific Absorption Rates (SAR) can be found on the web-site at <http://www.wow-com.com>. \* In the United States and Canada, the SAR limit for Automotive Diagnostic Tool used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements. The SAR test distance is 0mm. 5150-5250 indoor use only.



## Déclaration d'information SAR

Votre outil de diagnostic automobile un émetteur et récepteur radio. Il est conçu et fabriqué pour ne pas dépasser les limites d'émission pour l'exposition à l'énergie radiofréquence (RF) fixées par Innovation, Sciences et Développement économique Canada du gouvernement du Canada. Ces limites font partie de directives complètes et établissent les niveaux d'énergie RF autorisés pour la population générale. Les lignes directrices sont basées sur des normes élaborées par des organisations scientifiques indépendantes grâce à une évaluation périodique et approfondie d'études scientifiques. Les normes incluent une marge de sécurité substantielle conçue pour assurer la sécurité de toutes les personnes, indépendamment de leur âge et de leur état de santé. La norme d'exposition pour l'outil de diagnostic automobile utilise une unité de mesure connue sous le nom de taux d'absorption spécifique ou SAR. La limite SAR fixée par l'ISED est de 1,6 W/kg. \* Les tests de SAR sont effectués avec l'outil de diagnostic automobile transmettant à son niveau de puissance certifié le plus élevé dans toutes les bandes de fréquences testées. Bien que le SAR soit déterminé au niveau de puissance certifié le plus élevé, le niveau SAR réel de l'outil de diagnostic automobile pendant son fonctionnement peut être bien inférieur à la valeur maximale. En effet, l'outil de diagnostic automobile est conçu pour fonctionner à plusieurs niveaux de puissance afin de n'utiliser que la puissance nécessaire pour atteindre le réseau. En général, plus vous êtes proche d'une antenne de station de base sans fil, plus la puissance de sortie est faible. Avant que le modèle d'outil de diagnostic automobile ne soit disponible à la vente au public, il doit être testé et certifié par la FCC qu'il ne dépasse pas la limite établie par l'exigence adoptée par le gouvernement pour une exposition sûre. Les tests sont effectués dans des positions et des emplacements (par exemple, à l'oreille et porté sur le corps) comme l'exige l'ISED pour chaque modèle. La valeur SAR la plus élevée pour cet outil de diagnostic automobile lorsqu'il est testé pour une utilisation sur le corps, comme décrit dans ce guide de l'utilisateur, est de 0.48 W/Kg (les mesures portées sur le corps diffèrent selon les modèles d'outils de diagnostic automobile, selon les accessoires disponibles et les exigences ISED ). L'ISED a accordé une autorisation d'équipement pour cet outil de diagnostic automobile avec tous les niveaux SAR signalés évalués comme étant conformes aux directives d'exposition RF de l'ISED. Les informations SAR sur cet outil de diagnostic automobile sont enregistrées auprès de l'ISED et peuvent être trouvées dans la section Display Grant de <http://smssgs.ic.gc.ca> après une recherche sur IC : 27741-UNICORN Renseignements supplémentaires sur les taux d'absorption spécifiques (SAR) se trouve sur le site Web à l'adresse <http://www.wow-com.com>. \* Aux États-Unis et au Canada, la limite SAR pour l'outil de diagnostic automobile utilisé par le public est de 1,6 watts/kg (W/kg) en moyenne sur un gramme de tissu. La norme intègre une marge de sécurité substantielle pour offrir une protection supplémentaire au public et tenir compte de toute variation des mesures.

La distance de test SAR est de 0 mm. 5150-5250 à usage intérieur uniquement.

## FCC Requirement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

### **SAR Information Statement**

Your Automotive Diagnostic Tool is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radiofrequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health. The exposure standard for Automotive Diagnostic Tool employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. \* Tests for SAR are conducted with Automotive Diagnostic Tool transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the Automotive Diagnostic Tool while operating can be well below the maximum value. This is because the Automotive Diagnostic Tool is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output. Before a Automotive Diagnostic Tool model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model. The highest SAR value for this Automotive Diagnostic Tool when tested for use at the worn on the body, as described in this user guide, is 0.48 W/Kg (Body-worn measurements differ among Automotive Diagnostic Tool models, depending upon available accessories and FCC requirements). The FCC has granted an Equipment Authorization for this model Automotive Diagnostic Tool with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this Automotive Diagnostic Tool is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/fccid> after searching on FCC ID: 2AWD8UNICORN Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) web-site at <http://www.wow-com.com>. \* In the United States and Canada, the SAR limit for Automotive Diagnostic Tool used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements. The SAR test distance is 0mm. 5150-5250 indoor use only.

### **Copyright Information**



Copyright © 2020 by iCarsoft Technology Inc. (hereinafter referred to as "iCarsoft"). All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying and recording or otherwise, without the prior written permission of iCarsoft. The information contained herein is designed only for the use of this unit. iCarsoft is not responsible for any use of this information as applied to other units.

Neither iCarsoft nor its affiliates shall be liable to the purchaser of this unit or third parties for damages, losses, costs, or expenses incurred by purchaser or third parties as a result of: Accident, misuse, or abuse of this unit, or unauthorized modifications, repairs, or alterations to this unit, or failure to strictly comply with iCarsoft operating and maintenance instructions. iCarsoft shall not be liable for any damages or problems arising from the use of any options or any consumable products other than those designated as Original iCarsoft Products or iCarsoft Approved Products.

Formal statement: The names of other products mentioned in this manual are intended to explain how to use this equipment, and the registered trademark ownership still belongs to the original company. This equipment is designed for professional technicians or maintenance personnel.

### **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 equipment 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 equipment**

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 the device.

If any of the following situations 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.
- The charging device is under cleaning.

**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.

 Note: Access to network resources makes the device vulnerable to computer viruses, hackers, spyware, 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-spyware software to provide adequate protection for your computer and keep these software up to date.

**Precautions on Using this tool**

- Make sure the ignition switch should be in the OFF position when plugging and unplugging the diagnostic connector.
- Keep the connector in the storage box on the back of the main unit, when the vehicle diagnosis is finished.
- Gently press the diagnostic connector to pop up the diagnostic connector. Do not pull or use sharp objects to pry the diagnostic connector.

**Precautions on Operating Vehicle's ECU**

- Do not disconnect the battery or any wiring cables in the vehicle when the ignition switch is on, as this could avoid damage to the sensors or 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 extremely careful 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, make sure it is attached firmly, otherwise electronic elements, such as ICs inside the ECU, can be damaged.



## Content

1. Quick Start Manual .....	3
1.1 InitialUse .....	3
1.1.1 Turn onthe Machine .....	3
1.1.2 LanguageSetting .....	3
1.1.3 ConnectWi-Fi .....	3
1.1.4 ChooseTimeZone .....	3
1.1.5 UserAgreement .....	3
1.1.6 CreateanAccount .....	3
1.1.7 VCIActivation .....	3
1.2 DiagnosisFlowchart .....	4
1.3 Function Menu .....	4
1.4 Charging .....	5
1.5 Battery .....	5
1.6 VCIConnections .....	5
<b>2. Introduction .....</b>	<b>6</b>
2.1 ProductProfile .....	6
2.2 Components& Controls .....	6
2.3 Function Modules (Optional) .....	8
2.4 THINKLINK Video RemotediagnosisDevice .....	9
2.5 Parameters .....	9
<b>3. Beginto Use .....</b>	<b>10</b>
3.1 IntelligentDiagnosis .....	10
3.2 LocalDiagnosis .....	10
3.2.1 ManualDiagnosis .....	11
3.2.2 SystemSelection .....	13
3.2.3 FunctionSelection .....	13
3.3 Maintenance .....	17
3.3.1 OilReset .....	17
3.3.2 Elec.ThrottleAdaption.....	17
3.3.3 SteeringAngle Reset.....	18
3.3.4 BatteryMatching .....	18
3.3.5 ABSBleeding .....	18
3.3.6 Break-padReset .....	18
3.3.7 DPFRegeneration .....	19
3.3.8 GearLearning .....	19
3.3.9 IMMOService .....	19
3.3.10 InjectorCoding .....	19
3.3.11 TPMSReset .....	19
3.3.12 SuspensionMatching.....	20
3.3.13 AFSReset.....	20
3.3.14 A/TLearning.....	20

目录记得更新





- 3.3.15 SunroofInitialization..... 20
- 3.3.16 EGRAdaption..... 20
- 3.3.17 ODOReset..... 20
- 3.3.18 AirbagReset..... 20
- 3.3.19 TransportMode..... 20
- 3.3.20 A/FReset..... 21
- 3.3.21 Stop/StartReset..... 21
- 3.3.22 NOxSensor Reset..... 21
- 3.3.23 AdBlue Reset (Diesel Engine ExhaustGas Filter)..... 21
- 3.3.24 SeatCalibration..... 21
- 3.3.25 CoolantBleeding..... 21
- 3.3.26 TyreReset..... 21
- 3.3.27 WindowsCalibration..... 21
- 3.3.28 LanguageChange..... 21
- 3.4 TPMSDiagnostics..... 21
- 3.5 DiagnosticFeedback..... 22
- 3.6 RepairInfo..... 23
  - 3.6.1 FaultCodeEnquiry..... 23
  - 3.6.2 VehicleCoverageEnquiry..... 23
  - 3.6.3 LearningCourse..... 23
- 3.7 ThinkFile..... 23
- 3.8 ThinkStore..... 24
- 3.9 ADAS(Optional)..... 24
- 4. SoftwareUpdate..... 25**
  - 4.1 UpgradeallSoftware..... 25
- 5. SetUp..... 25**
  - 5.1 VCI..... 25
  - 5.2 VCIManagement..... 26
  - 5.3 ActivateVCI..... 26
  - 5.4 FixVCI Firmware/system..... 26
  - 5.5 DataStream Sample..... 26
  - 5.6 MyOrder..... 26
  - 5.7 Profile..... 26
  - 5.8 ChangePassword..... 26
  - 5.9 Wi-FiSettings..... 26
  - 5.10 DiagnosticSoftware Clear..... 26
  - 5.11 BusinessInformation..... 27
  - 5.12 CustomerManagement..... 27
  - 5.13 PhotoAlbum..... 27
  - 5.14 ScreenRecorder..... 27
  - 5.15 Settings..... 27
- 6.FAQ..... 27**



## 1. Quick Start Manual

### 1.1 InitialUse

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

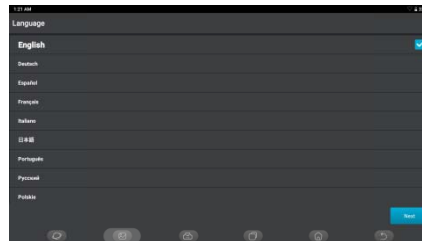
#### 1.1.1 Turn on theMachine

After pressing the power button, images will be shown on the screen as follows.



#### 1.1.2 Language Setting

Select the tool language from the languages listed on the interface.

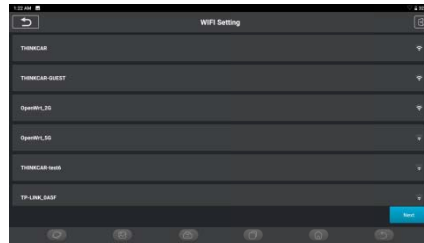


#### 1.1.3 ConnectWi-Fi

The system will automatically search all available Wi-Fi networks for you to choose. If the chosen network is open, you can connect it directly; if the chosen network is encrypted, you must enter the correct password. Then you can connect Wi-Fi after clicking "connect".

 **Tips:** Wi-Fi must be set. If no Wi-Fi network is available nearby, you can enable "Portable Mobile Hotspot".





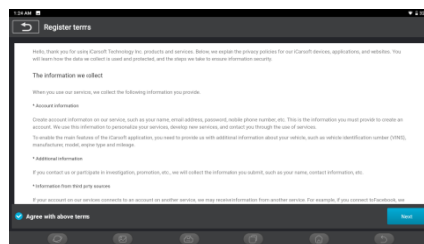
### 1.1.4 Choose TimeZone

Select the time zone of your current location, then the system will automatically configure the time according to the time zone you selected.



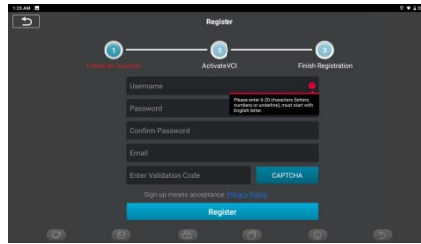
### 1.1.5 User Agreement

Please read all the terms and conditions of the user agreement carefully. Choose "Agree all the above terms", and click the "Agree" button to complete the registration process. Then the page will jump to the "Congratulations on your successful registration" interface.




### 1.1.6 Create an Account

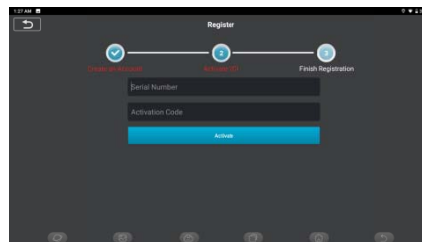
You need to register an account with your e-mailbox. If you have owned other products of iCarsoft series, you can directly login by using the existing account.



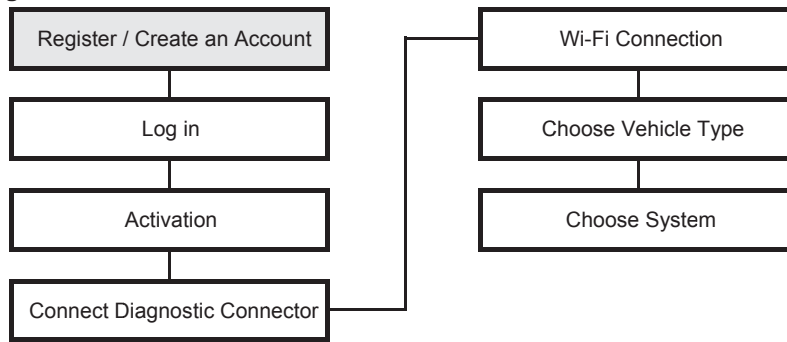
### 1.1.7 VCI Activation

Input the VCI serial number and activation code to activate and bind the diagnostic connector. If you have not activated it, you can also click "Settings" on the main interface to enter and select "Activate" to operate.

 **Tips:** The activation code is an 8-digit number and is pasted on the "password letter".



### 1.2 DiagnosisFlowchart



### 1.3 Function Menu

Power on the main unit, the system will automatically enter into the function menu selection interface:



**It mainly includes the following features:**



- The main unit and diagnostic connector support Wi-Fi, Bluetooth and wired communication. Wired communication is superior to Bluetooth connection in terms of transmission rate and anti-interference. Also wired connection is recommended for online programming function.
- Supports powerful intelligent VIN recognition technology, which is convenient, fast and efficient.
- Heavy Duty Diagnosis (Optional): Diagnose 24V cars, like trucks, buses, construction vehicles.
- Modular expansion: printer, work light, video scope, battery tester, scope box, thermal imager, battery test clip, wireless TPMS tool.
- It can detect faults in the electronic control systems of most high-, medium-, and low-end vehicles in Asia, Europe, the United States and China. Powerful diagnostic functions include reading fault codes, clearing fault codes, reading data streams, action tests, and special functions.
- Maintenance function: matching, coding, programming of most vehicles' programmable modules, and most

commonly used maintenance and reset functions: Oil Reset; Elec. Throttle Adaption; IMMO Service; Injector Coding; Brake-pad Reset; Steering Angle Reset; ABS Bleeding; AFS Reset; Battery Matching; A/T Learning; DPF Regeneration; EGR Adaption; TPMS Reset; Sunroof Initialization; Suspension Matching; Gear Learning; Airbag Reset; ODO Meter Reset; AdBlue Reset; A/F Reset; Coolant Bleeding; Language Change; NOx Sensor Reset; Seat Calibration; Stop/Start Reset; Transport Mode; Tyre Reset; Windows Calibration; AC System Relearn/Initialization; Engine Power Balance Monitoring; Gas Particulate Filter Regeneration; High Voltage Battery Diagnostics; Intelligent Cruise Control System; Motor Angle Calibration; IMMO PROG (optional).


- TPMSfunction:withwirelessTPMStool,TPMSactivation,programmingandlearningfunctionscanbe supported.
- Onlineoneclicktoupdatediagnosissoftware,clientandfirmware.
- Feedback:Incaseofanyabnormalsoftwareorfunctionduringdiagnosis,pleasereporttous.Our professional technician will track and fix it shortly.

#### 1.4 Charging

Follow the steps below to charge the main unit:

- Connecttheotherendtothechargingjackonthebottomofthemainunit.
  - Plugthechargerpowerplugintoapoweroutlettostartcharging.
  - Whenthebatterystatusicondisplays , the main unit has beencharged.
- Whenitdisplays ,thechargingprocesshasbeencompletedandyoushalldisconnectthemainunit.

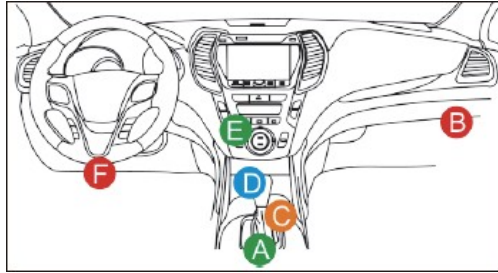
#### 1.5 Battery

- Itisnormalthatthemainunitwon'tturnonwhenchargingbecausethebatteryhasnotbeenusedfora longtimeoritisexhausted.Pleaseturnonthemainunitagainafterchargingthebatteryforawhile.
- Please charge the main unit through the charger in the package. iCarsofttakes noresponsibility for damages and losses caused by charging with chargers other than those specified by the company.
- The battery is rechargeable. However, as the battery is a wear part, the standby time of the device will beshortenedafterlong-timeuse.Pleaseavoidfrequentrepeatedchargingsoastoextendbattery life.
- Thebatterychargingtimevarieswithtemperatureandbatterystatus.
- When the battery power is low, the system will pop up a prompt reminding you to connect thecharger. When the battery power is too low, the device will turn o.

#### 1.6 VCIConnections

Connection steps as below:

- (1) Locate vehicle's DLC socket. Most of the DLC are standard OBDII diagnostic sockets (non-standard OBDIIvehiclediagnosticsocketsneedtouse thecorrespondingadapter). TheDLCisusuallylocated 12 inches from the center of the instrument panel (dash), under or around the driver's side for most vehicles.IftheDLCcannotbefound,refertothevehicle'sservicemanualforthelocation.



A	For Opel, Volkswagen, Audi
B	For Honda
C	For Volkswagen
D	For Opel, Volkswagen, Citroen
E	For Changan
F	For Hyundai, Daewoo, Kia, Honda, Toyota, Nissan, Mitsubishi, Renault, Opel, BMW, Mercedes-Benz, Mazda, Volkswagen, Audi, GM, Chrysler, Peugeot, Regal, Beijing Jeep, Citroen and most prevailing models

(2) For OBDII vehicle, follow the steps described below to proceed.

a) Use the OBDII extension cable to connect the VCI dongle and DLC socket

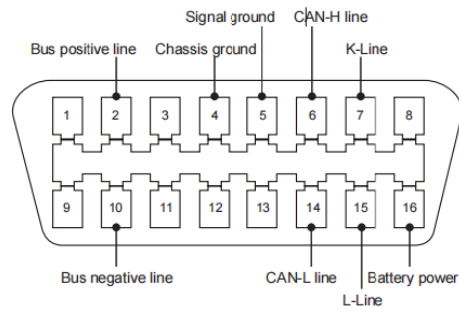
(3) For non-OBDII vehicle, if the pin of the DLC is damaged or has insufficient power, please follow the either of the following methods to proceed:

- a) Cigarette Lighter cable
- b) Battery Clamps Cable

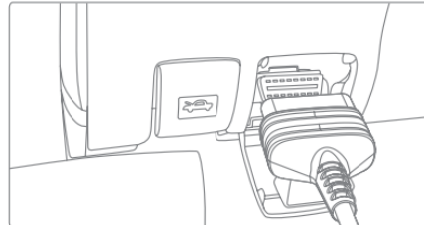
(4) Non-standard 16-PIN vehicle diagnostic sockets (OBDI).

A. Introduction of OBD vehicle diagnosis connector

In the development history of automobile diagnosis and detection, OBD system is an online diagnostics system for internal combustion engines, which currently goes through a generation and a second generation, the second generation being EOBD/OBDII, as shown in the diagram below, with a unified hardware feature and interface definition for the diagnostic seat of the car.









OBD II Connector and Pinout



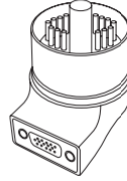
OBD II Diagnostic Port of Automobile

About 1996, before the United States unified the OBD II standard and during the transition period, different automobile manufacturers had different diagnostic port for OBD I, such as three PIN like HONDA; 17 PIN like Toyota; 38 PIN like BENZ. CR Unicorn is equipped with 10 OBD I diagnostic connectors, as shown in the table below:



CR-6 1 PC		BZ-38 1 PC	
TA-17 1 PC		TA-22 1 PC	
B-20 1 PC		GM-12 1 PC	

OBD I Diagnostic Port on the Packing List

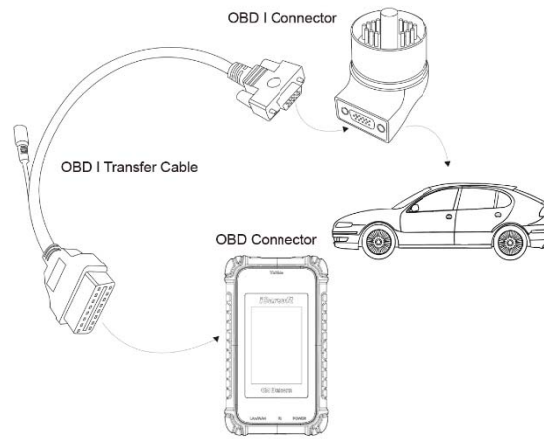


Diagnostic Connector for BMW 20

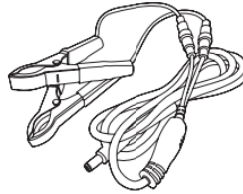
8个非标接  
头全写上

#### B. How to connect OBD I Diagnostic Port

The OBD I connector, which was set up to cater to older models of various car brands, has very few current applications as most older cars have been phased out. Cars produced after 2005 are basically all OBD II connector. In USA, we still occasionally come across vintage or modified cars that still use OBD I. For this reason, a transfer from OBD II to OBD I is required.



Note: when using older models, the Transfer Cable must be used, with the small power connector on it, which is connected to the power connector of the power double clamp cable, this is a solution for certain cars before 1996, whose diagnostic holders do not have a 12V power supply



Application of the double clamp power cable

All other configurations with Non-standard 16-PIN diagnostic connectors can be wired to achieve the diagnosis of the corresponding old models.

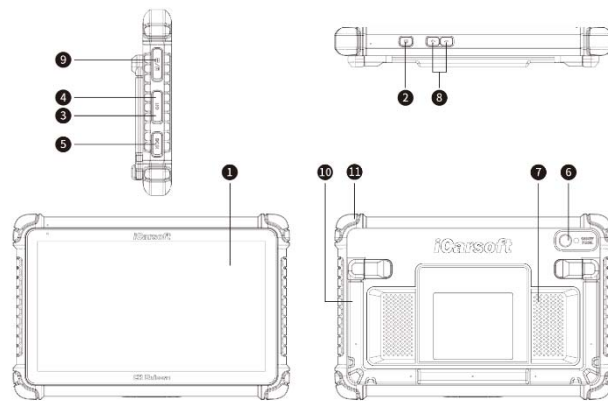
## 2. Introduction

### 2.1 Product Profile

iCarsoft CR Unicorn is a new generation of intelligent diagnostic equipment. With advanced technology and stronger hardware, CR Unicorn is the most powerful diagnostic tool in the market. CR Unicorn

has 13.3' LED touch screen and 720 nits brightness, as well as robust plastic cover and perfect industrial design. By Wi-Fi connection, diagnostic speed is more fast.

## 2.2 Components &Controls



**(1) Screen**

**(2) Power/Lock ScreenKey**

Press the key about 5s to power on the pad. Single click to sleep or awake the pad.

**(3) Type CPort:**connectwithcomputertotransmitthedata.

**(4) USBPort:**connectwithUSBtoolorextensivemodules.

**(5) DCPort**

**(6) RearCamera**

**(7) Speaker**

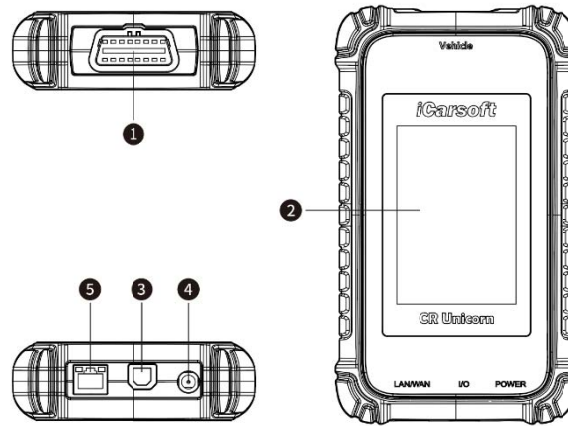
**(8) Volumelcon**

**(9) HDMIInterface**

**(10) AdjustableHolder:**180°adjustableangle

**(11) RubberCorner**

## 2.3 iCarsoft Intelligent Vehicle Connection Interface



- (1) **OBD-16diagnosticinterface**: used to connect with the OBDII extension cord.
- (2) **Display**: display working status.
- (3) **I/O data transmission port**: used to connect with the diagnosis host/computer for wired communication.
- (4) **DC port**: DC power connection port.
- (5) **LAN port**: LAN connection port

## 2.4 Parameters

### Host computer

- Operating System: Android9.0
- Memory:8G
- Storage:256G
- Battery:18600mAh/3.7V
- Screen: 13.3inches
- Resolution: 1920\*1080
- Camera: Rear camera13.0MP
- Network: Wi-Fi, WLAN802.11b/g/n
- Bluetooth: Bluetooth4.2

- WorkingTemperature: 32°F ~122°F (0°C~50°C)
- StorageTemperature: -4°F ~140°F (-20°C~60°C)

**Vehicle Connection Interface**

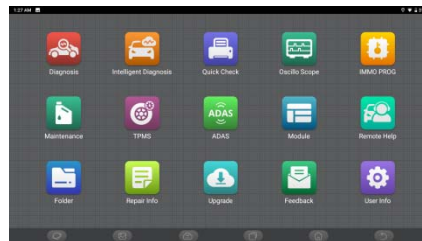
- Memory:256M
- Storage:8G
- Screen: 3.97inches
- Power:≤6W
- Operating Voltage:9~36V
- Communication method: Local diagnostic mode:Wi-Fi/USB
- WorkingTemperature:14°F ~122°F (10°C~50°C)
- StorageTemperature: -4°F ~140°F (-20°C~60°C)

**3. Begin toUse**

Diagnostic function, coverage more than 100 car brands, support intelligent diagnosis and traditional diagnosis, including OBDII full-function diagnosis, full-system diagnosis including: read fault code, clear faultcode,readreal-timedatastream,specialfunction,actuationtest.Adiagnosisreportcanbegenerated after thediagnosis.

**3.1 IntelligentDiagnosis**

Connect the vehicle first, click “Intelligent Diagnosis” on the main interface, the tool will start the smart diagnosis program and automatically read the vehicle VIN, as shown below:



If the device failed to access the VIN information, please use “Local Diagnosis”.


**3.2 Diagnosis**

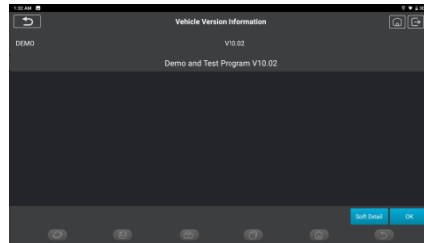
In this mode, user can manually select vehicle models and systems for diagnosis.

### 3.2.1 Manual Diagnosis

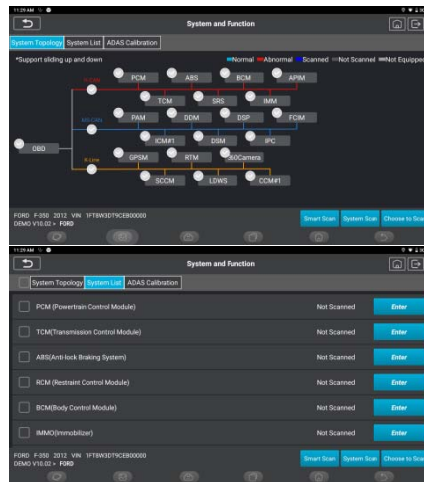
CR Unicrom also supports step-by-step manual selection of menus for diagnosis. To use the "DEMO" as an example to introduce how to start the diagnosis as below.

1) Select vehicle type: click on the "demo" icon on the main diagnostic interface to enter.

 Tips: The diagnosis menu varies with different vehicles



2) Select Diagnostic method: The interface has two display modes of system topology and system list, with the same functions. Switch according to personal preference.



### 3.2.2 Smart Scan

It enables you to quickly access all the electronic control units of the vehicle and generate a detailed report about vehicle health---This function varies from vehicle to vehicle. The system will start scanning

Electronic Control Units to see if there are fault codes and displays the specific results.

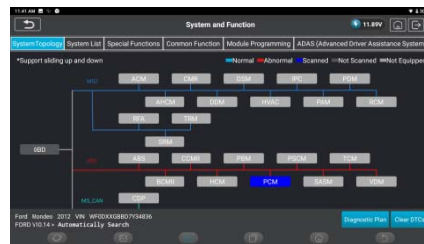


Click "Report" to generate a vehicle health report.



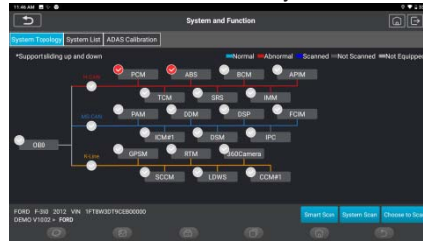
### 3.2.3 System Scan

Automatically scan all systems of the vehicle.



### 3.2.4 Choose to Scan

Choose the target automotive electronic control system to scan.

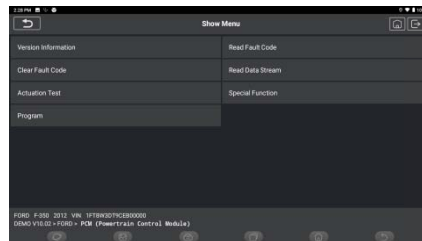


### 3.2.5 System and Function

After “Smart Scan”, we can choose system to check the detail information. Tap “PCM” as an example to demonstrate. The following page shows the selection interface.



To check “System and Function”, tap “Enter” to get a corn interface, which is the functional interface of each electronic control unit.





a) VersionInformation

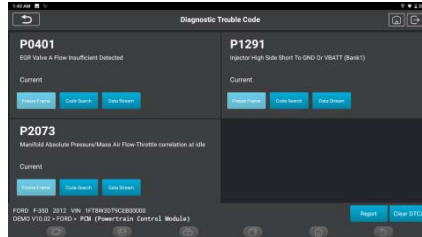
As shown in the picture, click “Version Information” to read the current version information of the car ECU.

b) Read FaultCode

ThisfunctionistoreadtheDTCintheECUmemory,helpingmaintenancepersonneltoquicklyidentifythe cause of the vehiclebreakdown.


As shown below, click “Read Fault Code”, and then the screen will display diagnostic results.

- ⚠ Tips: Reading the DTC when troubleshooting a vehicle is only a small step in the entire diagnostic process. Vehicle DTC are for reference only, and parts cannot be replaced directly based on the given DTC definition. Each DTC has a set of test procedures. The maintenance technician must strictly conform to the operation instructions and procedures described in the car maintenance manual to confirm the root cause of the breakdown.




## c) ClearDTC

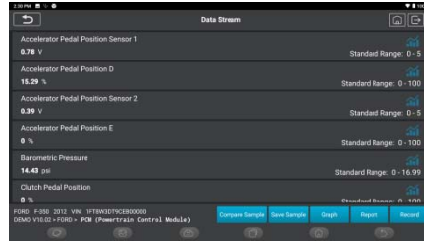
On the diagnostic function selection screen, tap Clear Fault Code, the system will automatically delete the currently existing DTCs and display the dialog box of "DTCs Cleared".

 Note: For general models, please operate strictly according to the normal sequence: read DTC - clear DTC - test the car - retrieve DTC for verification - repair the car - clear DTC - recheck the car, to confirm that the DTC no longer appears.

## d) Read datastream

This option allows you to view and capture (record) real-time Live Data of ECU. This data, including current operating status for parameters and/or sensor information, can provide insight on overall vehicle performance. It can also be used to guide vehicle repair.

 Note: If you must drive the vehicle in order to perform a troubleshooting procedure, ALWAYS have a second person help you. Trying to drive and operate the diagnostic tool at the same time is dangerous, and could cause a serious traffic accident.



On-screen Buttons:

[Graph]

Displays the parameters of the selected data stream in waveform. On the data stream waveform page, you can do the following:

- [Combine]: Displayed in graph merge status for data comparison.
- [Value]: Displayed the parameters in values and shown in list format.
- [Customize]: Customize the data stream option to be viewed. Tap the button, a pull-down list of the data stream items appears on the screen. Select the desired items (max 12 items), and then screen will display the waveforms corresponding to these items immediately. If need to remove any items, just deselect them.

The screenshot shows a 'Data Stream' window with a grid of waveform graphs for multiple parameters. At the bottom, there are buttons for 'Customize Sample', 'Combine', 'Value', 'Report', and 'Record'.

Parameter	Value
Accelerator Pedal Position D	15.29%
Accelerator Pedal Position E	0%
Accelerator Pedal Position Sensor 1	0.78(V)
Accelerator Pedal Position Sensor 2	0.39(V)
Barometric Pressure	14.43(psi)
Clutch Pedal Position	0%
Clutch Pedal Position Switch	No
Dynamic Throttle Control Actuator	3.77(deg)
Engine Throttle Valve (ACT) Command	-17.62%
Exhaustive Brake Release Command	0%
Exhaustive Brake Release Command	Yes
Fuel Injector Pulse Control 1	341.6(msec)

Tap to display the current (single) data stream in waveform graph. On the waveform graph page, you can do the following:

[Min/Max]: Tap to define the maximum / minimum value. Once the value goes beyond the specified value, the system will alarm.



[Customize]: Tap "<" on the right side of the screen, to define the data stream option to be viewed.

! Note: Max 4 data streams can be displayed.



[Compare Sample]

Tap to select the sample DS file. All the values you customized and saved in process of DS sampling will be imported into the Standard Range column for your comparison.

! Note: Before executing this function, you have to sample the values of data stream items and save it as a sample Data Stream file.

<b>[Report]</b>	Tap to save the value of current data stream.
<b>[Record]</b>	To record diagnostic data, for you to replay and review. Tap "Stop" button to end reading. The saved file follows the naming rule: It begins with vehicle type, and then the product S/N and ends with record starting time. All diagnostic records can be replayed from User Info -> MyReport.
<b>[Save Sample]</b>	To sample data stream. After sampling, recording and saving the data stream, each time you review the data stream items, you will be able to call out the corresponding sample data to overwrite the current standard range. Tap it to start recording the sample data stream (Note: Only data stream items with measurement units will be recorded). Once the recording process is complete, tap to end recording, the system will automatically jump to the data revision screen. Tap the Min./Max. value to change it. After modifying all desired items, tap Save to save it as a sample DS file. All DS files are stored in User Info -> Data Stream Sample

e) ActuationTest

This function is used to test whether the execution components in the electronic control system can work normally.

f) Special Function

This function is used for data writing operation of electronic control unit. They all belong to this category, such as ECU data calibration, ECU Programming etc. Some Resetting functions are also included in this part.

**3.4 Quick Check**

It adopts smart detection mode. After the vehicle is connected, the system will automatically recognize the vehicle information, automatically check the vehicle, and automatically generates a report. Automatic printing can be set so that no human intervention is needed throughout the process.

**3.4 Oscilloscope**

Pair with a four-channel SCOPE BOX to apply this function. This is visual graphical interface that assists users in identifying electrical problems with sensors, actuators, control modules, or circuits.



### 3.5 IMMO PROG

Pair with a PROG module to apply this function. The anti-theft programmer supports car key chip reading / writing, EEPROM chip reading / writing, MCU chip reading / writing, engine / gearbox ECU EEPROM and FLASH reading / writing.

### 3.6 Maintenance

CR Unicorn supports matching, coding, programming of most vehicles' programable modules, and most commonly used maintenance and reset functions, including Oil Reset; Elec. Throttle Adaption; IMMO Service; Injector Coding; Brake-pad Reset; Steering Angle Reset; ABS Bleeding; AFS Reset; Battery Matching; A/T Learning; DPF Regeneration; EGR Adaption; TPMS Reset; Sunroof Initialization; Suspension Matching; Gear Learning; Airbag Reset; ODO Meter Reset; AdBlue Reset; A/F Reset; Coolant Bleeding; Language Change; NOx Sensor Reset; Seat Calibration; Stop/Start Reset; Transport Mode; Tyre Reset; Windows Calibration; AC System Relearn/Initialization; Engine Power Balance Monitoring; Gas Particulate Filter Regeneration; High Voltage Battery Diagnostics; Intelligent Cruise Control System; Motor Angle Calibration; IMMO PROG (optional).

#### 3.6.1 OilReset

The lightening of the car maintenance light indicates that the vehicle needs maintenance. Reset the mileage or driving time to zero after the maintenance, so the maintenance light will vanish and the system will start a new maintenance cycle.

#### 3.6.2 Elec. ThrottleAdaption

Elec. Throttle Adaption is to utilize the car decoder to initialize the throttle actuator so that the learning value of the ECU returns to the initial state. By doing these, the movement of the throttle (or idle motor) can be more accurately controlled, thus adjust the intake volume. Situations when throttle matching is

needed:

- a) After replacing the electronic control unit, the relevant characteristics of the throttle operation have not been stored in the electronic control unit.
- b) After the electric control unit is powered on, the memory of the electric control unit's memory is lost.
- c) After replacing the throttle assembly, you need to match the throttle.
- d) After replacing or disassembling the intake port, the controlling of the idles speed by the coordination between the electronic control unit and the throttle body is affected.
- e) Although the characteristics of the idle throttle potentiometer have not changed, the intake volume has changed and the idle control characteristics have changed at the same throttle openings.

### 3.6.3 Steering Angle Reset

To reset the steering angle, firstly find the relative zero point position for the car to drive in straight line. Taking this position as reference, the ECU can calculate the accurate angle for left and right steering. After replacing the steering angle position sensor, replacing steering mechanical parts (such as steering gearbox, steering column, end tie rod, steering knuckle), performing four-wheel alignment, or recovering car body, you must reset the steering angle.

### 3.6.4 Battery Matching

This function enables you to perform a resetting operation on the monitoring unit of vehicle battery, in which the original low battery fault information will be cleared and battery matching will be done.

Battery matching must be performed in the following cases:

- a) Main battery is replaced. Battery matching must be performed to clear original low battery information and prevent the related control module from detecting false information. If the related control module detects false information, it will invalidate some electric auxiliary functions, such as automatic start & stop function, sunroof without one-key trigger function, power window without automatic function.
- b) Battery monitoring sensor. Battery matching is performed to match the control module and motor sensor to detect battery power usage more accurately, which can avoid an error message displaying on the instrument panel.

### 3.6.5 ABS Bleeding

When the ABS contains air, the ABS bleeding function must be performed to bleed the brake system to restore ABS brake sensitivity. If the ABS computer, ABS pump, brake master cylinder, brake cylinder, brake line, or brake fluid is replaced, the ABS bleeding function must be performed to bleed the ABS.

### 3.6.6 Brake-pad Reset

If the brake pad wears the brake pad sensor line, the brake pad sensor line sends a signal sensor line to the on-board computer to replace the brake pad. After replacing the brake pad, you must reset the brake pad. Otherwise, the car alarms.

Reset must be performed in the following cases:

- a) The brake pad and brake pad wear sensor are replaced.
- b) The brake pad indicator lamp is on.

- c) The brake pads sensor circuit is short, which is recovered.
- d) The servo motor is replaced

### 3.6.7 DPF Regeneration

DPF regeneration is used to clear PM (Particulate Matter) from the DPF filter through continuous combustion oxidation mode (such as high temperature heating combustion, fuel additive or catalyst reduce PM ignition combustion) to stabilize the filter performance.

DPF regeneration may be performed in the following cases:

- a) The exhaust back pressure sensor is replaced.
- b) The PM trap is removed or replaced.
- c) The fuel additive nozzle is removed or replaced.
- d) The catalytic oxidizer is removed or replaced.
- e) The DPF regeneration MIL is on and maintenance is performed.
- f) The DPF regeneration control module is replaced.

### 3.6.8 Gear Learning

The crankshaft position sensor learns crankshaft gear machining tolerance and saves to the computer to more accurately diagnose engine misfires. If gear learning is not performed for a car equipped with Delphi engine, the MIL turns on after the engine is started. The diagnostic device detects the DTC P1336 'gear not learned'. In this case, you must use the diagnostic device to perform gear learning for the car. After gear learning is successful, the MIL turns off. After the engine ECU, crankshaft position sensor, or crankshaft flywheel is replaced, or the DTC 'gear not learned' is present, gear learning must be performed.

### 3.6.9 IMMO Service

To prevent the car being used by unauthorized keys, the anti-theft key matching function must be performed so that the immobilizer control system on the car identifies and authorizes remote control keys to normally use the car. When the ignition switch key, ignition switch, combined instrument panel, ECU, BCM, or remote control battery is replaced, anti-theft key matching must be performed.

### 3.6.10 Injector Coding

Write injector actual code or rewrite code in the ECU to the injector code of the corresponding cylinder so as to more accurately control or correct cylinder injection quantity. After the ECU or injector is replaced, injector code of each cylinder must be confirmed or re-coded so that the cylinder can better identify injectors to accurately control fuel injection.

### 3.6.11 TPMS Reset

After the tire pressure MIL turns on and maintenance is performed, the tire pressure resetting function must be performed to reset tire pressure and turn off the tire pressure MIL. Tire pressure resetting must be performed after maintenance is performed in the following cases: tire pressure is too low, tire leaks, tire pressure monitoring device is replaced or installed, tire is replaced, tire pressure sensor is damaged, and tire is replaced for the car with tire pressure monitoring function.



### 3.6.12 Suspension Matching

This function can adjust the height of the body. When replacing the body height sensor in the air suspension system, or control module or when the vehicle level is incorrect, you need to perform this function to adjust the body height sensor for level calibration.

### 3.6.13 AFSReset

This feature is used to initialize the adaptive headlamp system. According to the ambient light intensity, the adaptive headlamp system may decide whether to automatically turn on the headlamps, and timely adjust the headlamp lighting angle while monitoring the vehicle speed and body posture.

### 3.6.14 A/T Learning

This function can complete the gearbox self-learning to improve gear shifting quality. When the gearbox is disassembled or repaired (after some of the car battery is powered off), it will lead to shift delay or impact problem. In this case, this function needs to be done so that the gearbox can automatically compensate according to the driving conditions so as to achieve more comfortable and better shift quality.

### 3.6.15 Sunroof Initialization

This function can set the sunroof lock on, closed when it rains, sliding / tilting sunroof memory function, temperature threshold outside the car etc.

### 3.6.16 EGR Adaption

This function is used to learn the EGR (Exhaust Gas Recirculation) valve after it is cleaned or replaced.

### 3.6.17 ODO Reset

- a) ODO reset is to copy, write, or rewrite the value of kilometers in the chip of odometer by using a car diagnostic computer and data cable, so that the odometer shows the actual mileage.
- b) Usually when the mileage is not correct due to the damaged vehicle speed sensor or odometer failure, it is necessary to do ODO reset after maintenance.

### 3.6.18 Airbag Reset

This function resets the airbag data to clear the airbag collision fault indicator. When the vehicle collides and the airbag deploys, the corresponding fault code of the collision data appears, the airbag indicator lights up, and the fault code cannot be cleared. Since the data inside the airbag computer is disposable, it is required that all new accessories must be replaced, but after performing this function, the data of the airbag computer can be recovered and the fault code can be cleared, the airbag light will go out, and the airbag computer can continue to use.

### 3.6.19 Transport Mode

In order to reduce power consumption, the following functions may be disabled, including limiting the vehicle speed, not waking up the door opening network, and disabling the remote control key, etc. At this



time, the transport mode needs to be deactivated to restore the vehicle to normal.

— — **3.6.20 A/FReset**

This function is applied to set or learn Air/Fuel ratio parameters.

**3.6.21 Stop/StartReset**

This function is used to open or close the automatic start-stop function via setting the hidden function in ECU (provided that the vehicle has a hidden function and supported by hardware).

**3.6.22 NOx SensorReset**

NOx sensor is a sensor used to detect the content of nitrogen oxides (NOx) in engine exhaust. If the NOx fault is re-initialized and the NOx catalytic converter is replaced, it is necessary to reset the catalytic converter learned values stored in the engine ECU.

**3.6.23 AdBlue Reset (Diesel Engine Exhaust GasFilter)**

After the diesel exhaust treatment fluid (car urea) is replaced or filled up, urea reset operation is required.

**3.6.24 SeatCalibration**

This function is applied to match the seats with memory function that are replaced and repaired.

**3.6.25 CoolantBleeding**

Use this function to activate the electronic water pump before venting the cooling system.

**3.6.26 TyreReset**

This function is used to set the size parameters of the modified or replaced tire.

**3.6.27 WindowsCalibration**

This feature is designed to perform door window matching to recover ECU initial memory, and recover the automatic ascending and descending function of power window.

**3.6.28 LanguageChange**

This function is used to change the system language of the vehicle central control panel.

**3.6.29 AC System Relearn/Initialization**

If the ECU or actuator of the vehicle air conditioner is replaced, or the memory of the ECU memory is lost, air conditioner initialization learning is needed.

**3.6.30 Intelligent Cruise Control System**

For replacement of intelligent cruise control system of vehicle and matching after repairing.

### **3.6.31 Engine Power Balance Monitoring**

At the power stroke of each cylinder, power balance monitors crankshaft acceleration, thus determining the relative power provided by each cylinder.

### **3.6.32 Gas Particulate Filter Regeneration**

After long-term use of the particle catcher, fuel consumption can be increased, engine output power can be decreased, then in this case, the GPF needs to be replaced or regenerated.

### **3.6.33 Motor Angle Calibration**

There is a deviation between the rotor position detected by the angle position sensor of the motor and the actual rotor magnetic field position, so it is necessary to calibrate the motor angle.

### **3.6.34 High Voltage Battery Diagnostics**

For diagnosis and state information detection on high-voltage accumulator.

### **3.6.35 IMMO PROG (optional)**

Anti-theft editor supports vehicle key chip read and write, EEPROM chip read and write, MCU chip read and write, engine ECU and transmission ECU EEPROM and FLASH read and write.

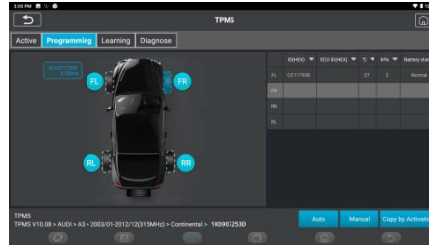
## **3.7 TPMS Diagnostics**

CR Unicorncanworkwithwirelesstirepressure diagnostic tool to perform TPMS activation, programming and learning.

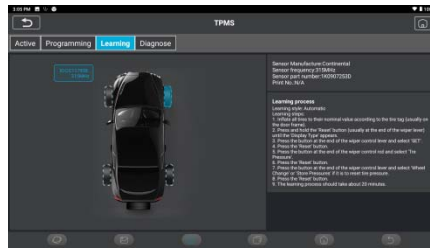
- a) Activation: to activate the sensor's ID, wheel pressure, sensor frequency, tire temperature and battery status.



- b) Programming: to program sensor data to a blank TPMS sensor, so as to replace a sensor that is in low battery and does not function properly. There are three sensor programming methods available: automatic, manual, and via activation/replication.



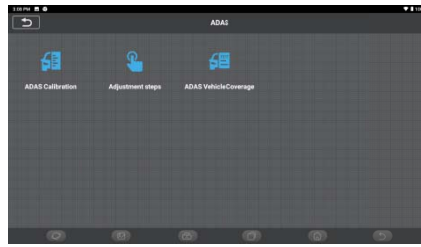
- c) Learning: to write the sensor ID into the vehicle ECU for sensor identification.




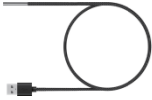
### 3.8 ADAS(Optional)




Advanced Driver Assistance System (ADAS) is an electronic component in a vehicle, including various safety functions of the vehicle, such as automatic emergency braking (AEB), lane departure warning (LDW), lane keeping assist, blind spot elimination, night vision camera and Adaptive lighting.

The function on the equipment is disabled by default, and the user needs to activate the function with an activation card before using it. And this function needs to be matched with iCarsoft ADAS calibration tools. Mainly used to calibrate various camera and radar of driver assistance systems, such as: front camera for lane departure warning system, radar sensor for ACC and camera for adaptive headlights.



### 3.9 Function Modules (Optional)

S/N	Name	Image	Description
1	Printer		USB Thermal Printer can be used with the device to quickly print diagnostic reports anytime and anywhere.
2	Video Scope		Super long custom coil pipeline design, flexible bending with durable materials, suitable for a variety of complex environments. Multiple uses with 3 kinds of special connectors(Hook,sideviewmirror,magnet).Supports720P HD image. With 6 auxiliary lights for brighter light, easily used in dark environment. Application scenarios: 1. Engine combustion chamber inspection; 2. Engine internal carbon deposit inspection; 3. Three-way catalytic inspection; 4. Air-conditioning pipeline inspection;5.Thecornersofthevehiclethatarenoteasyto detect,suchasfallingscrews,orwaterleakage,cracks,and foreignobjects.

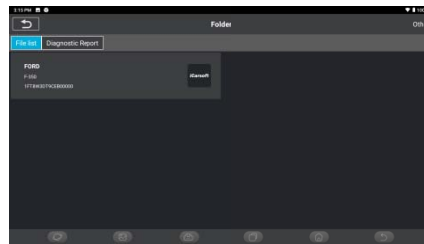
3	Battery Test Clip		With high resolution screen and high precision data, can diagnose battery information, like battery power, voltage, internal resistance, lifetime, starting current and so on. Application: Check the car battery health status, starting system and charging system.
4	Scope Box		Equipped with 4 channels 100MHz bandwidth, sampling rate reaches up to 1GS/ s. Combined with the iCarsoft CR Unicorn to achieve full touch control operation. Specially developed auto repair and detection special menu and HD waveform display brings more convenient for usage. Application scenarios: The Scope Box can accurately determine the problems of sensors, actuators, control modules or lines.
5	iCarsoft T-Wand 9000		Work with CR Unicorn to complete tire pressure diagnosis related functions. Application scenarios: 1. Read tire pressure information such as pressure, temperature, and battery status; 2. Change the sensor for programming; 3. Change the position of the tire or other abnormalities that require sensor learning.

### 3.10 Remote Help

In this function, you can request remote assistance through third-party software. By sending your device ID number to the remote technician or after-sales personnel, you can authorize the other party to remotely operate the device, so as to guide you to the problems encountered in the process of using the device.

### 3.11 Folder

It is used to record and establish the file of the diagnosed vehicles. The file is created based on the vehicle VIN and check time, including all VIN-related data such as diagnostic reports, data stream records and pictures.



### 3.12 Repair Info



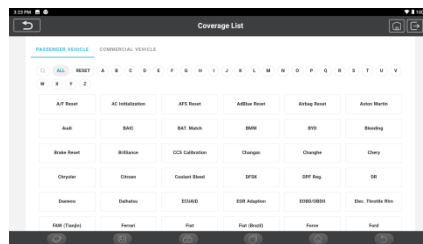
Tap "Repair Info" on the homepage, the following page will appear.

#### 3.12.1 OBD Fault Code Library

You can enquire the definition of OBD fault codes.

#### 3.12.2 Coverage List

You can enter the Vehicle brand, model, year and other information to enquire the support functions and diagnostic system.



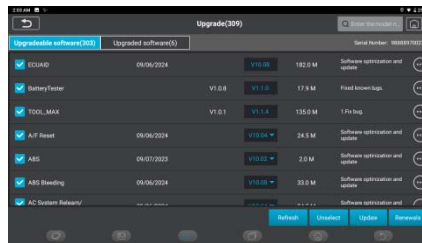
#### 3.12.3 Learning materials

You can view the operation playback of the special functions of each brand model, to help users study the operation of the special functions online without connecting the vehicle.

### 3.13 Update

In order to let you enjoy better functions and upgrade services, we recommend you make software upgrades irregular. When there is a newer software version, the system will remind you to upgrade.

Click "Software Upgrade" to enter the upgrade center. There are two function tabs on the upgrade page:



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

Upgraded software: A list of software that has been downloaded.

 Note: During the upgrade, please keep normal network connection. Upgrade many software may take a few minutes, please wait.

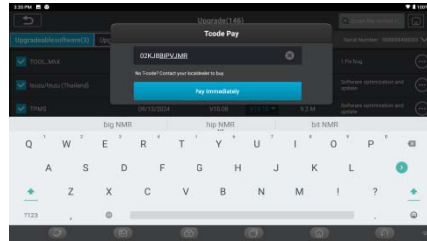
If you need to remove certain software, please enter setting -> diagnostic software clear -> remove software to operate.

Renewals: Please contact your local dealer to purchase a T-code card when your vehicle model package expires.

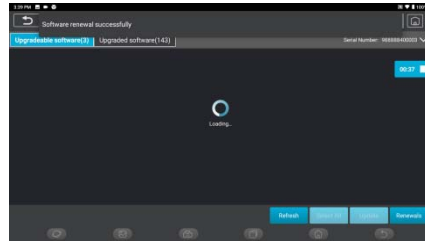


Tap "Renewals" and enter the T-code and tap OK.



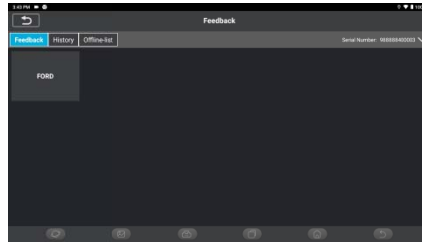


When it pops up a "software renewal successfully" box, that means you have renewals successfully. After that, please download the software of the car model you need, then you can use it.



### 3.14 Feedback

If you encounter an unresolved problem or diagnostic software bug during diagnosis, you can revert the most recent 20 test records to iCarsoftTeam. When we receive your feedback, we will analyze and troubleshoot it in a timely manner, to improve the quality of our products and user experience. Tap Feedback, the below pop-up message will appear:



Tap OK to enter the vehicle diagnostic feedback selection screen. There are three options:

**Diagnostic Feedback:** to show the list of all tested vehicle models

**History:** Tap to view all diagnostic feedback reverted and the processing progress.

**Offline List:** Tap to display all diagnostic feedback logs which have not been submitted successfully due to network failure. Once the tablet gets a stable network signal, it will be uploaded to the server automatically. In Diagnostic Feedback page, tap the diagnostic record of certain vehicle model or special function on next step.

Tap Choose File to open the target folder and choose the desired diagnostic logs. Choose the failure type and fill with the detailed failure description in the textbox, and leave your telephone or email address. After inputting, tap Upload Log to revert feedback to us.

We will follow up your feedback as soon as we receive your diagnostic feedback, please keep an eye on the progress and results of your diagnostic feedback in Diagnostic Feedback History.

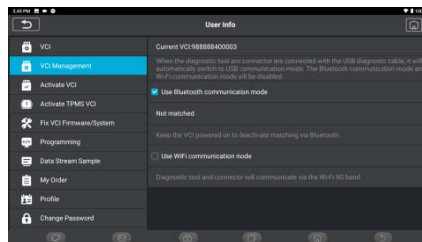
## 4 User Info

### 4.1 VCI

If several VCI connectors are registered on this device, this option allows you to choose one from those.

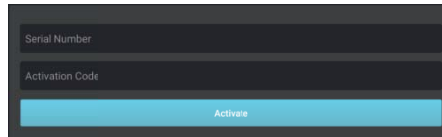
### 4.2 VCI Management

Used to choose Bluetooth communication mode or Wi-Fi communication mode.



### 4.3 Activate VCI

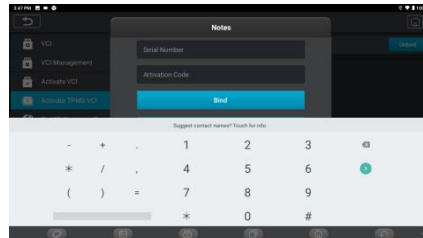
This item lets you activate a new VCI connector. Input the Serial Number and Activation Code, and then tap "Activate" to activate it.



Once the VCI connector is activated, its serial number will be displayed in the list.

### 4.4 Activate TPMS VCI

This step is for binding the Tire Pressure Monitoring System.



### 4.5 Fix VCI Firmware/system

Used to repair the VCI firmware. During the repair, please don't power off or switch interfaces.



## 4.6 Programming



iCarsoft CR Unicorn supports online programming and coding. Programming and coding is to input the relevant control data from the software into the programmable EPROM or FLASH of the vehicle computer using electronic communication transfer technology.

Note:

This function is only required when any of the following conditions occur;

- a. When the control unit module is replaced with a new one.
- b. When the control unit module does not work properly.
- c. When a version update upgrade of the control unit module is required.
- d. When the vehicle fault cannot be solved after the vehicle has completed routine self-diagnosis (reading and clearing fault codes, reading data stream and actuation test).

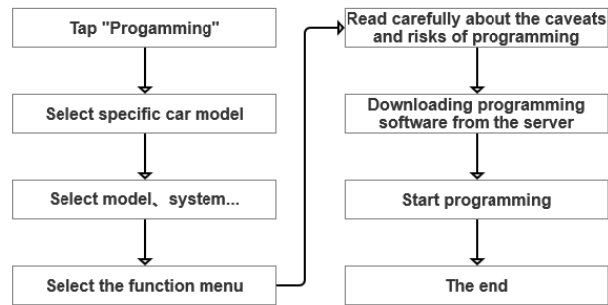
If there is a hardware failure in the working components of each system of the vehicle or in the computer itself, it is pointless to work on programming the car computer.

Before performing programming, check the following carefully;

- Check the vehicle, turn off the engine, and leave it in the non-ignition state.
- Put the transmission in the P/N position.
- Turn off all electrical devices, such as air conditioning, headlights, turn signals, audio, etc. Otherwise, any unstable car current may cause programming interruption.
- Make sure the vehicle is connected to an approved programming (or stable) battery charger, and make sure the battery voltage is between 13V and 14V.
- Diagnose the vehicle, troubleshoot possible problems and clear vehicle fault codes.
- Do not turn on or move any part of the vehicle related to programming while programming, as doing so may cause programming to be interrupted. It may cause damage to the related module.
- Make sure that the power supply of CR Unicorn main unit is sufficient.
- Programming is at individual risk. Not all vehicle problems can be programmed to solve, so please choose carefully.
- Do not interrupt artificially and abnormally during the execution of this function, otherwise it may cause

serious consequences such as the engine control unit being unusable.

Generally, you need to go through the following steps to program the car computer (depending on the specific vehicle, the programming process may be complicated for different vehicles, so follow the screen prompts strictly.);



#### 4.7 Data Stream Sample

This feature allows you to manage the recorded data stream sample files.

#### 4.8 My Order

Used to manage order details.

#### 4.9 Profile

Used to set and manage personal information.

#### 4.10 Change Password

This item allows you to modify your login password.

#### 4.11 Wi-Fi

Setup Wi-Fi network that can be connected.

#### 4.12 Diagnostic Software Clear

This option can clear some unused diagnostic software and free up the storage space.

### 4.13 Business Information

Add the information of the workshop, to which the tool belongs, and it will be displayed to customers in the diagnostic report.

### 4.14 Customer Management

Manage information of all customers, who did vehicle diagnostic on this equipment and display in turn.

### 4.15 Photo Album

This module saves the screenshots.

### 4.16 Screen Recorder

This module saves the screen recordings.

### 4.17 Settings

This option makes settings including Units, Language, Clear Cache, Mode Switch, Restore Factory Settings, and Log Out.



#### 4.17.1 Check for Updates

It is for checking the version of the device and update it if it is necessary.

#### 4.17.2 Sleep Time

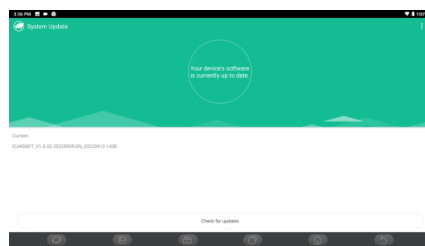
This is used to set up the sleep time. If the device is not operated within the sleep time limit, the device will automatically turn off the screen.

#### 4.17.3 Privacy Policy

You can find the seller's service information in here.

#### 4.17.4 System Upgrade

To check the latest Android system version and upgrade it if it is necessary.



#### **4.17.5 Screen Recording**

Turn on or off the Screen Recording while operating on the device to save the history as video.

#### **4.17.6 Units**

It controls the data unit in the device. Choose the one that you are accustomed to reading.

#### **4.17.7 T-Code**

T-code is a series of number that proves you have been purchase the service. Enter T-Code to realize the service you have been purchased.

#### **4.17.8 Clear Cache**

To clear all the storage software, account, information, setting, and all the records of the device to save the space. PLEASE USE IT WITH CAUTION.

#### **4.17.9 Restore Factory Settings**

Factory Reset, delete all data and restore the original settings. PLEASE USE IT WITH CAUTION.

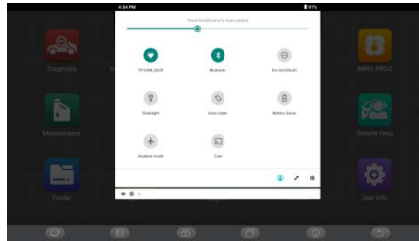
#### **4.17.10 Log In**

Log In or Log Out your account in here.

#### **4.18 Hotkey Setting**

Including: Wi-Fi, Bluetooth, Flashlight,ect.





### 5. FAQ

Q: Can I use the same type of charger to charge the tablet?

A: No, please use original charger. We are not responsible for any damage and economic loss caused by using charger, which is not provided by iCarsoft.

Q: How to save power?

A: Please turn off the screen while the equipment isn't used, set a shorter standby time, and decrease the brightness of the screen.

Q: The tablet cannot be turned on after charging

Possible reasons	Solution
The equipment has not been used for a long time, and the battery loss	Charge it for more than 2 hours before turning it on
Problem of Charger	If there is a quality problem, please contact the dealer or after-sales service of iCarsoft.

Q: Why can't make register?

Possible reasons	Solution
The equipment isn't connected	Please make sure the network is connected
Notes that your email has been registered.	Use another email for register or login with the username registered by the email (If you forget the username, you can retrieve it by email)
The email didn't receive the verification code during the registration	Check if the email is correct and get the verification code again

Q: Why can't log in?

Possible reasons	Solution
The equipment isn't connected	Please make sure the network is connected
The user name or password is incorrect	Check the user name and password Contact iCarsoft after-sales service or regional sales to retrieve the user name and password
Server problem	Server maintenance, please try again later

Q: Why can't activate the equipment?

Possible reasons	Solution
The equipment isn't connected	Make sure the network is connected
The serial number and activation code are inputted wrong	Check the serial number and activation code and make sure they are correct (Serial number 12 digits, activation code 8 digits).
The activation code is invalid	Contact iCarsoft after-sales service or regional sales
Notes that the configuration is empty	Contact iCarsoft after-sales service or regional sales

Q: Notes: the equipment is not activated during update software ?

Possible reasons	Solution
The VCI connector may not be activated during registration	Use the serial number and activation code to activate the connector Steps are as follows: Click [Settings]->[Activate VCI] Enter the correct serial number and activation code in the interface, and click [Activate].

Q: Software upgrade failed.

Possible reasons	Solution
The equipment is not connected to the Internet	Check its network connection
The user name or password is wrong The equipment has not enough memory	Check the user name and password Uninstall irrelevant applications and delete uncommonly used vehicle software (enter setting -> diagnostic software clear -> remove software to operate)
Server problem	Server maintenance, please try again later

Q: There is no power in the VCI dongle after connecting to the vehicle's DLC port.

Possible reasons	Solution
Poor contact of vehicle's DLC port	Plug out the VCI dongle, and then plug it in again
Too low voltage of the vehicle battery	<ul style="list-style-type: none"> <li>• Recharge the vehicle battery.</li> <li>• Replace the vehicle battery if it is damaged.</li> </ul>
Damage of the VCI dongle	Contact iCarsoft after-sales service to get support

Q: The tablet cannot establish a connection with the VCI dongle.

Possible reasons	Solution
Poor contact of the VCI dongle	<ul style="list-style-type: none"> <li>• Plug out the VCI dongle, and then plug it in again</li> <li>• Perform the VCI Bluetooth pairing again</li> </ul>
The firmware is damaged	Enter the settings and tap "Fix Connector Firmware/ System" to fix the firmware

Q: How about non-standard OBDII VCI connector

A: There is a several non-standard adapters in the box. Follow the instructions to connect.

Q: Communication error with vehicle ECU?

A: Please confirm:

Whether the VCI is correctly connected and whether the vehicle ignition switch is ON.

If all are normal, send vehicle production year, model and VIN number by Feedback feature.

Q: Failed to enter into vehicle ECU system?

A: Please confirm:

Whether the vehicle is equipped with the system, whether the VCI is correctly connected, and whether the vehicle ignition switch is ON.

Q: What to do if the connector is missing

A: Contact iCarsoft after-sales service or regional sales.

Q: The downloaded diagnostic software is inconsistent with the serial number

A: There are several connectors registered under the equipment account, and the serial number of right connector has not been selected.

Enter the settings-[VCI] and select the right serial number of connector. Delete the software with problems, then enter the upgrade center to download the diagnostic software again.

### **Warranty Terms**

- — This warranty applies only to users and distributors who purchase iCarsoft products through normal procedures. Within one year from the date of delivery, iCarsoft warrants its electronic products for damages caused by defects in materials or workmanship. Damages to the equipment or components because of abuse, unauthorized modification, use for non-designed purposes, operation in a manner not specified in the instructions, etc. are not covered by this warranty. The compensation for dashboard damage caused by the defect of this equipment is limited to repair or replacement. iCarsoft does not bear any indirect and incidental losses. iCarsoft will judge the nature of the equipment damage according to its prescribed inspection methods. No agents, employees or business representatives of iCarsoft are authorized to make any confirmation, notice or promise related to iCarsoft products..

Icarsoft Technology Inc

Service Line: 1-703-890-6001

Customer Service Email: [support@icarsoft.us](mailto:support@icarsoft.us)

Official Website: [www.icarsoft.us](http://www.icarsoft.us)

Products tutorial, videos, Q&A and coverage list are available on iCarsoft official website.