

Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

25c



PROFESSIONAL T7 WIRED DIAGNOSTIC TABLET SCANNER



59582

Visit our website at: <https://www.harborfreight.com>
Email our technical support at: productsupport@harborfreight.com

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-877-987-4248 as soon as possible.

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⚠ WARNING

Read this material before using this product. Failure to do so can result in serious injury. **SAVE THIS MANUAL.**

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OVERVIEW

WARNING SYMBOLS AND DEFINITIONS

	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
	Addresses practices not related to personal injury.

SETUP

IMPORTANT SAFETY INFORMATION

WARNING

Read all safety warnings and instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

Work Area Safety

1. Keep work area clean and well lit. Cluttered benches and dark areas may cause accidents.
2. Do not connect or disconnect the Scanner while the ignition is on or the engine is running.
3. **DO NOT attempt to operate the Scanner while driving the vehicle. Have a passenger operate the Scanner.**
4. Before testing a vehicle, put the transmission in PARK (for automatic transmission) or NEUTRAL (for manual transmission). Engage the parking brake and chock the tires.
5. NEVER smoke or allow a spark or flame in vicinity of battery or engine.
6. **Operating a vehicle indoors CAN KILL YOU IN MINUTES.** Engine exhaust contains carbon monoxide. This is a poison you cannot see or smell. NEVER operate vehicle inside a home or garage, EVEN IF doors and windows are open. Only use OUTSIDE and far away from windows, doors, and vents.
7. Do not operate the Scanner in explosive atmospheres, such as in the presence of flammable liquids, gases, or heavy dust.

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8. Never leave the vehicle unattended while running tests.
9. Keep a fire extinguisher suitable for gasoline/chemical/electrical fires nearby.
10. Use extreme caution when working around the ignition coil, distributor cap, ignition wires and spark plugs. These components create hazardous voltages when the engine is running.
11. Keep bystanders, children and visitors away while operating the Scanner.
12. This product is not a toy. Do not allow children to play with or near this item.
13. Use as intended only. Do not modify.
14. Inspect before every use; do not use if parts are loose or damaged.
15. Do not place the Scanner on any unstable surface.
16. Handle the Scanner with care. If the Scanner is dropped, check for breakage and any other conditions that may affect its operation.
17. Keep the Scanner dry, clean, free from oil, water or grease. Use a mild detergent on a clean cloth to clean the outside of the Scanner when necessary.
18. Store the Scanner and accessories in a locked area out of the reach of children.
19. Maintain product labels and nameplates. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

Electrical Safety

1. Do not use the Scanner while standing in water.
2. Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.
3. **Do not expose the Scanner Tablet or Power Adapter to rain or wet conditions.** Water entering the Scanner or Power Adapter increases the risk of electric shock.

Personal Safety

1. Wear ANSI-approved safety goggles during use.
2. Do not wear loose clothing or jewelry. Keep hair, clothing, hands, tools, and test equipment away from moving or hot engine parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
3. Do not use the Scanner while tired or under the influence of drugs, alcohol, or medications. A moment of interruption can result in serious personal injury.
4. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
5. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Service

There are no user serviceable parts. Have the Scanner serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the equipment is maintained.



SAVE THESE INSTRUCTIONS.

Specifications

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Scanner Tablet	
Operating System	Android 10
Processor	MT6761 1.5 GHz
Battery	6000 mAh
Memory	3 GB
Storage	32 GB
Display	7" (1024x600) touch screen
Connectivity	Wi-Fi: 802.11 b/g/n/ac 2.4G/5G dual frequency
	USB Type Cx1
Operating Temperature	32°F-122°F
Storage Temperature	-4°F-158°F



OBD II On-Board Diagnostics

It is required by the EPA that all 1996 and newer vehicles sold in the United States be equipped with an OBD II computer system.

OBD II is an early warning system designed to monitor engine, transmission, and emissions control components by performing specific diagnostic tests.

When a fault condition is detected, the system captures important data and activates the "Check Engine" light.

If the light comes on, the vehicle might have a condition that wastes fuel, shortens engine life, or causes excessive air pollution. If the problem that caused the light to come on is addressed, for instance a loose gas cap is tightened, the light will go out.

If the light comes on and stays on, a minor engine fault condition is occurring and should be addressed as soon as possible

If the light is blinking, a severe engine fault condition is occurring and should be addressed immediately.

The Scanner connects to the vehicle's computer system and captures information that can help identify the fault condition.

Vehicle Coverage

This Scanner is designed to work with all OBD II compliant vehicles, including those equipped with a CAN bus.

OBD II was installed in some 1994 and 1995 model year gasoline vehicles.

To verify if a 1994 or 1995 vehicle is OBD II compliant, check the Vehicle Emissions Control Information label, which is located in the engine compartment.

Definitions

- **EOBD: European On-Board Diagnostics**
Essentially the same as OBD II, with the same Data Link Connector and Communication Protocols.
- **Communication Protocol:** Allows different systems and sensors in a vehicle to communicate. There are currently five Protocols:
 - **CAN Bus**
 - **J1850 VPW**
 - **ISO 9141-2**
 - **J1850 PWM**
 - **ISO 14230 KWP**
- **CAN: Controller Area Network**
Message-based Communication Protocol serial bus.
- **CAN Vehicle**
2008 and newer.
- **Pre-CAN Vehicle**
2007 and older.
- **DLC: Data Link Connector**
The 16-cavity connector on the vehicle that allows communication between the computer system and the Scanner.
- **Drive Cycle**
A set of driving procedures that, when met, provide the Enabling Criteria for the I/M Monitors to run and complete their diagnostic tests.
- **Enabling Criteria**
Operating conditions that must occur during a Drive Cycle to cause the I/M Monitors to run and complete their diagnostic tests.
- **MIL: Malfunction Indicator Lamp**
The vehicle's "Check Engine" warning light that activates when a DTC is stored.
- **DTC: Diagnostic Trouble Code**
A code stored in the computer system's memory, which helps to identify the fault condition that is causing the MIL to activate.
- **Freeze Frame Data**
Operating conditions that are stored when a DTC is stored.
- **PID - Parameter Identification Data**
Data returned by the vehicle's Control Modules to the Scan Tool.

Control Modules

Control Modules are individual computers that operate and monitor different systems in the vehicle. Control Modules vary depending on manufacturer.

ID codes are assigned to each Control Module, which are defined by the vehicle's Communication Protocol. For example, a vehicle may use ID code \$7E8 for the PCM and \$7E9 for the TCM.

Control Module	Control Module Definition
PCM/ECU	Powertrain Control Module/Engine Control Unit
TCM	Transmission Control Module

Common Control Modules

I/M Monitors

Inspection and Maintenance diagnostic tests that the Control Modules perform on specific sub-systems of the vehicle.

There are two types of Monitors:

- **Continuous:** Monitors that perform tests all the time while the engine is running.
- **Non-Continuous:** Monitors that require specific operating conditions to be met during a Drive Cycle in order for the Monitors to run their testing sequences.

Note: Not all Monitors are supported by all vehicles.

Gasoline Engine Monitors

Continuous

- MIS** – Misfire
- FUEL** – Fuel System
- CCM** – Comprehensive Components

Non-Continuous

- CAT** – Catalyst
- HCAT** – Heated Catalyst
- EVAP** – Evaporative System
- AIR** – Secondary Air System
- O2S** – Oxygen Sensors
- HTR** – Oxygen Sensor Heater
- EGR** – EGR System

Diesel Engine Monitors

Continuous

- MIS** – Misfire
- FUEL** – Fuel System
- CCM** – Comprehensive Components

Non-Continuous

- HCCAT** – NMHC Catalyst
- NCAT** – NOx Aftertreatment
- BP** – Boost Pressure System
- EGS** – Exhaust Gas Sensor
- PM** – PM Filter
- EGR** – EGR System

Diagnostic Test Modes

Diagnostic Test Modes as described in the latest OBD II standard SAE J1979.

Note: Not all Modes are supported by all vehicles.

- \$01** - Request Current Powertrain Diagnostic Data
- \$02** - Request Powertrain Freeze Frame Data
- \$03** - Request Emission-Related Stored DTCs
- \$04** - Clear/Reset Emission-Related Diagnostic Information
- \$05** - Request Oxygen Sensor Monitoring Test Results (2007 and older vehicles only)

- \$06** - Request On-Board Monitoring Test Results for Specific Monitored Systems
- \$07** - Request Emission-Related Stored DTCs Detected During Current or Last Completed Driving Cycle
- \$08** - Request Control of On-Board System, Test or Component
- \$09** - Request Vehicle Information
- \$0A** - Request Emission-Related Permanent DTCs

Diagnostic Trouble Code

A five digit alphanumeric identifier for a fault condition identified by the OBD II system. There are three types of Diagnostic Trouble Codes:

1. **Pending** - When a fault condition is identified during a Drive Cycle, but does not meet enough criteria to activate the MIL.
If the fault condition occurs during two consecutive Drive Cycles, it will turn into a Stored DTC and the MIL will activate.
2. **Stored** - A Diagnostic Trouble Code is stored when a fault condition has occurred that meets enough criteria to activate the MIL.
3. **Permanent** - A stored DTC that can only be cleared by the OBD II system, after repairs are made, and a set number of Driving Cycles have been completed.

Example Code: P0303 – Cylinder 3 Misfire

Systems

- B - Body
- C - Chassis
- P - Powertrain**
- U - Network

Code Types*

- 0 - Generic**
- 1 - Manufacturer Specific
- 2 - Generic Powertrain/Manufacturer Specific
- 3 - Generic Powertrain/Manufacturer Specific

Sub-Systems

- 1 - Fuel and Air Metering
- 2 - Fuel and Air Metering (injector circuit malfunction only)
- 3 - Ignition Malfunction or Engine Misfire**
- 4 - Auxiliary Emission Controls
- 5 - Vehicle Speed or Idle Controls
- 6 - Computer Output Circuits
- 7 - Transmission Controls
- 8 - Transmission Controls

03 - Cylinder 3

P 0 3 0 3

* The Scanner supports the following Code Types:

Generic (SAE):
B0, B3
C0, C3
P0, P2, P34-P39
U0, U3

Manufacturer Specific:
B1, B2
C1, C2
P1, P30-P33
U1, U2

Components and Controls



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

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1. USB Type- C Port (Power/Data)
2. OBD II Diagnostics Cable Port
3. Power (on/off)
4. Charging LED
5. Touch Screen
6. Keypad
7. Adjustable Flip-Out Stand
8. Stylus
9. Speakers



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Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.



Charging the Scanner Battery

NOTICE: Only use the Power Adapter included with the Scanner. Use of any other adapter will damage the unit. Always charge on a non-flammable surface in a well-ventilated area.



1. To check the battery power level, press and hold the Power Button about one second to turn on the Scanner Tablet.
2. Power level is indicated as a percentage (%) in the upper left-hand corner of the screen.

Note: If the power level drops below 10% while the Tablet is on a *Connect Charger* notification will appear on the screen. If the power level becomes very low the unit will shut itself off.

120VAC Charging

1. Insert USB end of Charging Cable into Charger.
2. Insert small end of Charger Cord into Tablet.
3. Insert Charger into 120VAC outlet.
4. The charging symbol  will appear briefly on Tablet screen, indicating the battery is charging.
5. When charging is finished the charging complete symbol  replaces the charging symbol. Unplug the 120VAC Power Adapter from its outlet and disconnect the USB Cable from the Tablet.

Charging with a Computer

1. Insert USB end of Charger Cord into a USB port on computer.
2. Insert small end on Charger Cord into (Power/Data) Port on Tablet.
3. The charging symbol  will appear briefly on the Tablet screen, indicating the battery is charging.
4. When charging is finished the charging complete symbol  replaces the charging symbol. Disconnect the USB Cable from the Tablet and the computer.


Power ON/OFF


1. Press and hold Power Button about one second to turn on Tablet. System starts initializing and then enters the **Home** screen.
2. To turn Tablet off, press and hold Power Button until an option menu appears. Touch **Power Off** and then **OK**.

Screen Layout

On-Screen Buttons

There are four on-screen controls located at the bottom of the Tablet screen:

Back—Touch the  symbol to return to the previous screen.

Home—Touch the  symbol to return to the Tablet home screen.

Recent App—Touch the  symbol to view recently launched applications and any applications currently running.

Screenshot—Touch the  symbol to capture the current screen.

Screen Preview

On **Home** screen, touch and hold any blank area. A function menu will appear at bottom of screen displaying wallpapers, widgets, settings, applications, etc.

Desktop

Adjusting Screen Brightness

1. On **Home** screen, touch **Settings > Display > Brightness Level**.
2. Move slider left or right to adjust screen brightness.

Note: Reducing brightness of screen will help conserve battery power.

Setting Standby Time

If Scanner Tablet is on but not used within defined standby period, screen will be locked automatically and system enters sleep mode to save power. To set standby time interval:

1. On **Home** screen, touch **Settings > Display > Sleep**.
2. Select desired standby time from the **Sleep** menu.

Changing Language

Scanner Tablet supports multiple languages. Use following procedure to change language of Tablet:

1. On **Home** screen, touch **Settings > Languages & Input > Languages**.
2. Touch **Add a Language** and choose desired language from list.
3. Touch and hold desired language, drag it to top of screen and release. System will change to chosen language.

File Transfer Setup


Use following procedure to change mode to media device and enable file transfer:

1. Connect small end of Charger Cord to (Power/Data) Port of Tablet.
2. Connect USB end of Charger Cord to a computer.
3. Perform data backup.

Note: Tablet is in charging mode by default.

Wi-Fi Setup

Connect to a Wi-Fi Network

1. On **Home** screen, touch **Settings** icon  and then **Network & Internet > Wi-Fi** to configure Wi-Fi setting.
2. Move Wi-Fi switch to ON—unit searches for available wireless LANs.
3. Select desired Wi-Fi network from list. If chosen network is open, you can connect directly. A password may be required for secured networks.

Note: To add a new network select **Add Network** from list.

4. When **Connected** appears on screen, it indicates that unit is properly connected to network. Touch on connected network from list to view its name, status, signal strength, link speed, security type, etc.

Note: Turning OFF Wi-Fi switch when not in use will help conserve battery power.

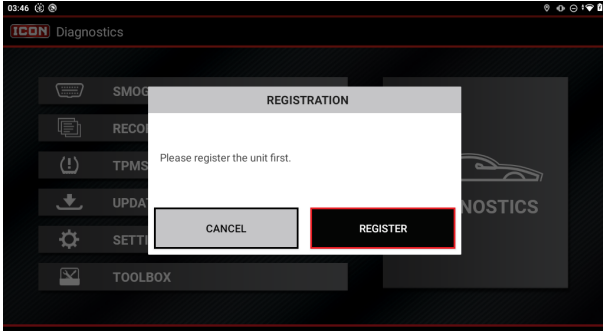
Disconnect from a Wi-Fi Network

1. On **Home** screen, touch **Settings > Network & Internet**
2. Touch on network with a **Connected** status, then touch **Forget**.

User Registration/Download Diagnostic Software


Note: Ensure Scanner has strong Wi-Fi connection.

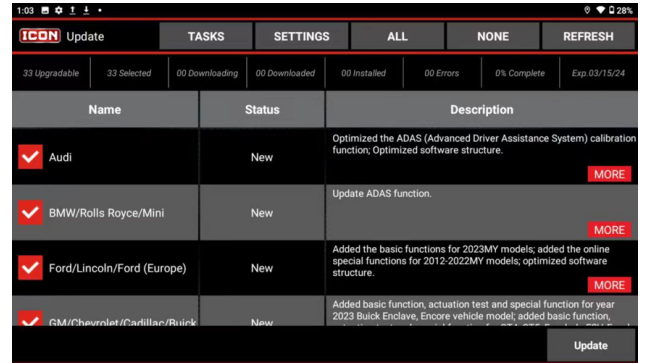
1. Turn on the Scanner Tablet, connect Scanner to Wi-Fi and touch the Icon application on the **Home** screen.
2. Touch **Update** to update software.



3. Touch **Register**.

Existing Account

1. For an existing account, turn on Scanner Tablet and touch ICON application on **Home** screen. Touch **Settings** icon  and then **PROFILE** to enter **Sign In** page.
2. Touch **Sign In** to log into system directly.



4. Touch **Update**.
5. To pause downloading, touch **Stop**.
6. To resume, touch **Continue**.
7. To download and install later, touch **Exit**.

Note: After username and password are entered first time, system's auto-save function automatically stores it. After initial set up it is no longer necessary to input the account information manually to sign in.

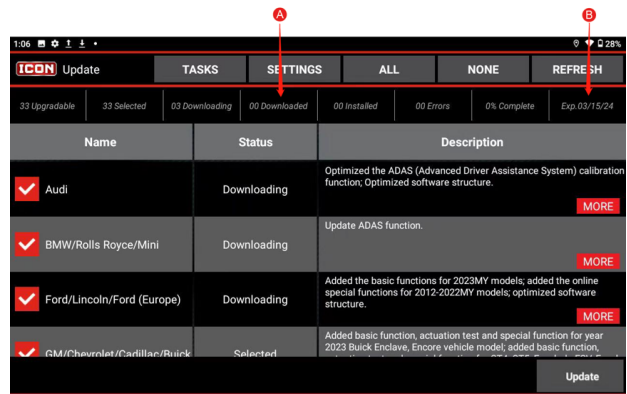
Software Update

Note: Before diagnosing a vehicle, corresponding vehicle diagnosis software must be downloaded. It is also recommended to check for updates on a regular basis to keep current with latest available software. If **Automatically Download** in **SETTINGS/SOFTWARE UPDATE** is set to ON, all selected software under Preferred Brands List will be automatically downloaded in background.

Note: Ensure Scanner has strong Wi-Fi connection.

1. Touch **Update** icon in **Main Menu** to enter **Update** screen where a list of diagnostic software will be displayed.
2. All diagnostic software that is upgradable will be selected by default. To select particular vehicle software, touch **None** and then check box next to desired vehicle make(s).
3. Touch **More** to check detailed information of current software.
4. Touch **Refresh** to refresh current screen.

5. Touch **Tasks** to switch to other running in-app modules.
6. Touch **Settings** to quickly access to setting screen of app.

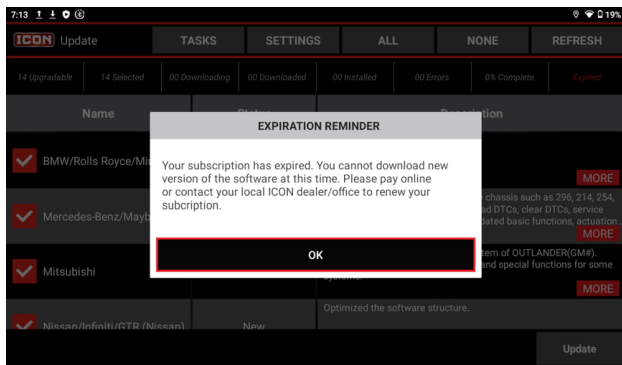


- A - Indicates update state.
 B - Indicates expiration date.
7. Touch **Update** to start downloading. When downloading is complete, system will install software packages automatically.

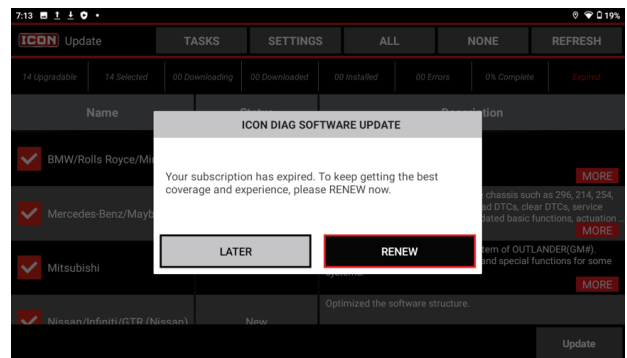
Renew Software Subscription

Method 1

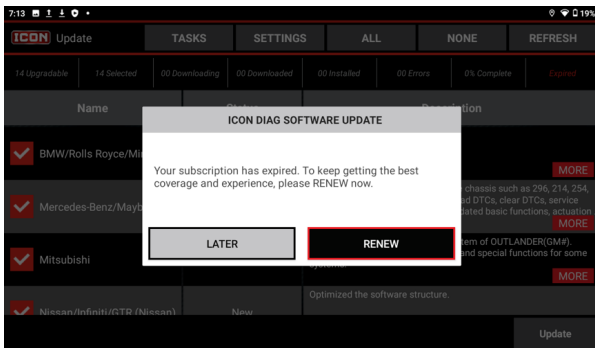
Note: If the software subscription is due or expires, a message box similar to following screen will pop up on screen, prompting you to renew software subscription.



1. Touch **OK**, the following screen will display.



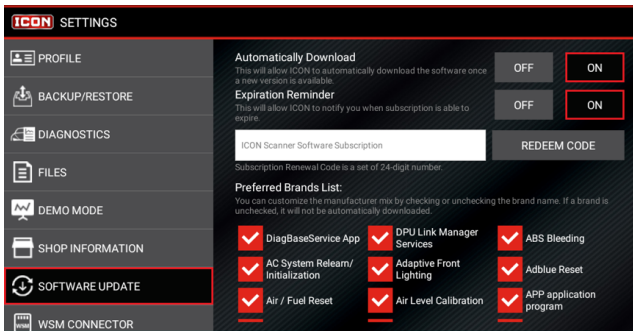
2. Touch **Renew**, the following screen will display.



3. Touch **Activate**.
4. On the next prompt, touch **Download**.

Method 2

1. Touch **Settings** on the **Main Menu** and log in ICON application.
2. Go to **Software Update**.



3. Select all vehicle manufacturers in Preferred Brands List.
4. Type 24-digit number of Subscription Renewal code in input box.
5. Touch **Redeem Code**.
6. Touch **Download**.

Vehicle Connections

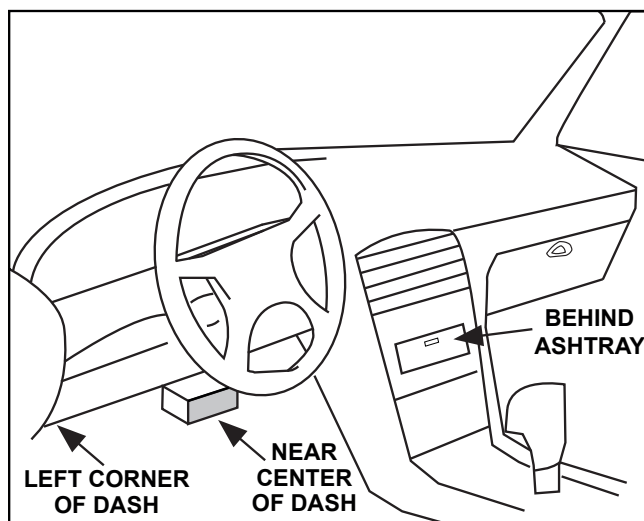
OBD II Vehicle Connection

Directly plug the WSM into vehicle's DLC using supplied OBD II extension cable.

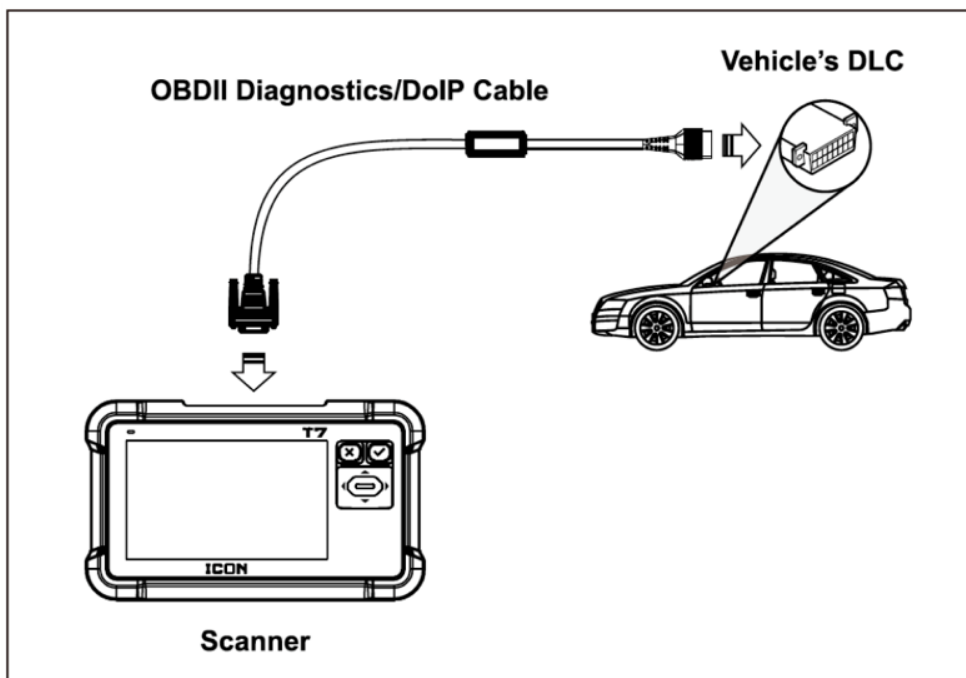


Installing the Vehicle Communication Interface Connector

1. Locate the vehicle's Data Link Connector (DLC). The 16-pin DLC is usually located under the dashboard, within 12 inches of the center of the panel, on the driver's side of most vehicles. Check the vehicle's service manual for the exact location.



2. For most vehicles, use OBD2 Diagnostics/DoIP Cable to connect DLC and Scanner.



Diagnostics Toolbar

The diagnostics toolbar contains a number of buttons that enable various procedures. It is displayed at the top of the vehicle diagnostic screens throughout the diagnostic session. Refer to the table below for a brief description of the functions of the diagnostics toolbar buttons.

MENU	Return to Main Menu page.
EXIT	Exit the current diagnosis.
TASKS	Switch to different running in-app modules
SETTINGS	Quick access to settings.
ALL	Select all.
NONE	Unselect all.
PRINT	Prints the current diagnostics report
EMAIL	Sends the diagnostics report to others via Email.
DELETE	Delete the selected item.
MORE	Share the diagnostic report with others.

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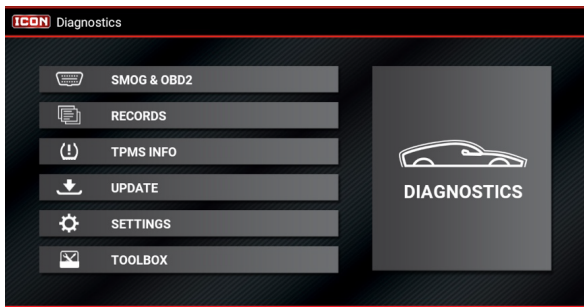
OPERATION

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Main Menu

Turn on the Scanner Tablet and touch the Icon application on the **Home** screen to enter the **Main Menu**.



Diagnostics:
Enter Diagnostic Menu.

SMOG & OBD2:

Quick way to check for Diagnostic Trouble Codes and isolate cause for illuminated malfunction indicator lamp (MIL), check monitor status prior to emissions certification testing, verify repairs, and perform a number of other services that are emissions related.

Records:

Manage diagnostic reports, data stream records and diagnostic software.

TPMS:

Manual of reset TPMS light.

Update:

Software update and manage.

Settings:

Adjust Scanner configuration.

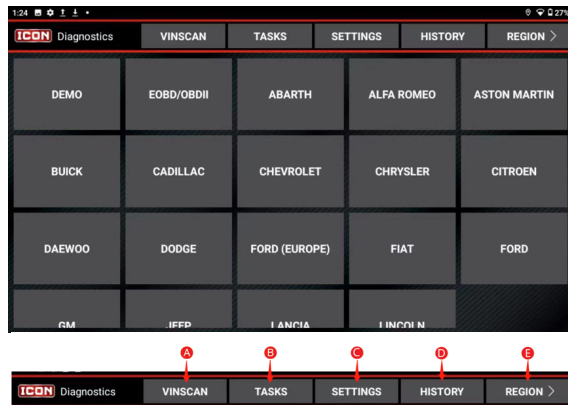
Toolbox:

Additional tools including Voltage Check, Calculator, Backup/Restore Data, Help and More.

Diagnose

Diagnostic Preparation

1. Touch the **Diagnose** icon in the **Main Menu** to enter the **Vehicle Selection** page.



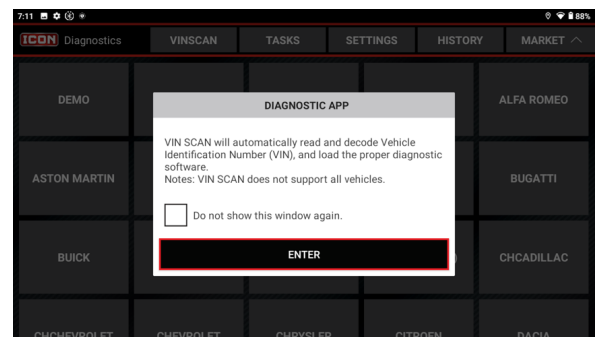
- C. Touch to quickly access to the setting page of the app.
- D. When a vehicle diagnosis is performed, the Scanner Tablet records the detailed diagnostic information. Touch **History** to access diagnostic reports from previously tested vehicles. Testing can be resumed from the previous operation without starting from scratch.
- E. Touch to switch between Domestic, European, Asian and all regions.

2. Two methods are available to access the vehicle diagnostic software:

- a. From the **Vehicle Selection** screen, touch **VINSCAN** to access the **Enter VIN** screen.

Note: The corresponding diagnostic software and Auto search file need to be downloaded first when downloading the diagnostic software. An active internet connection is required.

- A. Touch to scan Vehicle Identification Number (VIN) code of your vehicle. Auto Read and INPUT VIN are included.
- B. Touch to switch to other different running in-app modules.



- b. Connect the Scanner to the OBD 2 Diagnostics/DoIP Cable.
- c. Connect OBD 2 Diagnostics/DoIP Cable to vehicles DLC port.
- d. Touch **Enter**.

- e. From the *Vehicle Selection* page, touch appropriate vehicle brand, then follow on-screen instructions to access the diagnostic software.

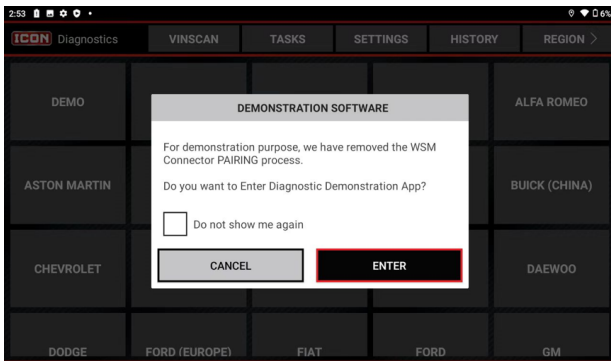
Diagnostic System Demonstration

The following information demonstrates the basic procedures on how to diagnose a vehicle:

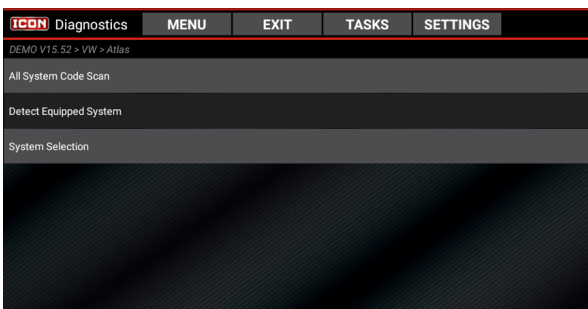
Note: Retrieving and using DTC's for troubleshooting vehicle operation is only one part of an overall diagnostic strategy. Never replace a part based only on DTC definition. Each DTC has a set of testing procedures, instructions and flow charts that must be followed to confirm the location of the problem. This information can be found in the vehicle's service manual.

Note: If the DEMO does not appear on the vehicles selection page, please go to **SETTINGS** and set the **DEMO MODE** to ON

1. Touch the **Diagnose** icon in the **Main Menu** to enter the *Vehicle Selection* page, then touch the **DEMO** icon to display the following window.

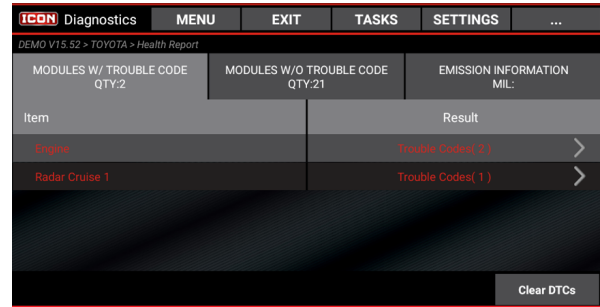


2. Touch the **ENTER** button to enter the *Vehicles Model Selection* page
3. Touch desired vehicle to enter the *Test Selection* page.



All System Code Scan Demonstration

This will read trouble codes from all available systems. Touch **All System Code Scan** to scan the vehicle control modules. When scanning is complete, the following screen appears.

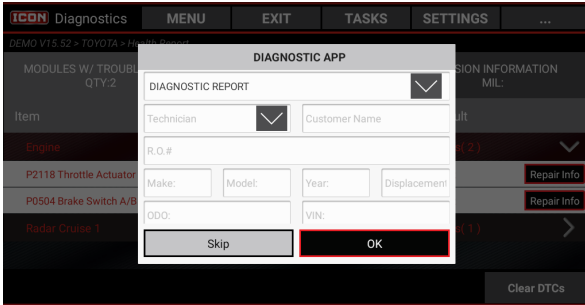


4. Three tabs to show test result:
 - a. **MODULES WITH TROUBLE CODE**, Lists all systems with fault codes.
 - b. **MODULES WITHOUT TROUBLE CODE**, Lists all systems without fault codes.
 - c. **EMISSIONS INFORMATION**, Emission Readiness Status.

Note: Emission Readiness Status on each report can be turned on and off under *Settings/Files*. For step-by-step manual selection of individual test systems and functions, touch the desired system to enter *Test Function Selection* page. Refer to System Selection Demo section for further information.

On-Screen Buttons

- **Menu:** Return to Main Menu screen.
- **Exit:** Exit the current diagnostic application.
- **Tasks:** Switch to other in-app modules running in backstage.
- **Settings:** Quick access to settings.
- **Clear DTC's:** Touch to clear existing diagnostic trouble codes.
- **....:** Touch to perform open, print, email, delete diagnostic report.



5. Choose the report type from the drop-down menu: Pre-Repair Report, Post-Repair Report, or Diagnostic Report.
6. Input the required information in the *Report Information* window and touch **OK**.

Note: All reports are saved under the **REPORTS** tab in **Main Menu/RECORDS**. Refer to the Records section for further information on report operations. To append the shop information on the diagnostic report, user needs to check the box Includes Shop Information.

7. Touch **OK** to save. To skip the workshop information, touch **Skip** to go to the next step.

Note: Workshop information can also be revised from the **Main Menu** in **Settings/Shop Information**. Configured information is automatically generated each time the diagnostic report is saved. All vehicle and workshop information is included on the diagnostic report, permitting easy report retrieval using the Diagnostic Report Search function.

8. Touch on desired systems to view detailed Diagnostic Trouble Code information.

Detect Equipped System Demonstration

Use this option for step-by-step manual selection of the individual test systems and functions.

1. Touch **System Scan**.
2. Touch desired system to enter test function selection screen.

System Selection Demo

Note: Use this option for step-by-step manual selection of the individual test systems and functions.

1. From *Test Selection* screen, touch **System Selection**.
2. Touch desired system.

Note: On this screen different vehicles will display different diagnostic menus.

3. Touch **Read Fault Code**.

On-Screen Buttons

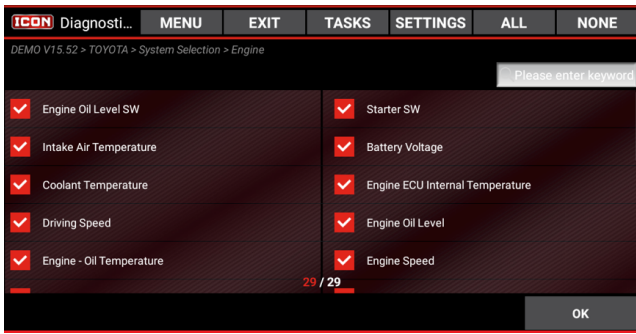
- **Freeze Frame:** When an emission-related fault occurs, certain vehicle conditions are recorded by the on-board computer. This information is referred to as freeze frame data and includes a snapshot of critical parameter values at the time the DTC is set.
- **Repair info:** Web Search, which conducts an internet search with trouble code and vehicle information pre-filled; Guided Help, which shows the guided repair suggestions if applicable. (An active internet connection is required).
- **....:** Touch any selection of this button drop list will save the result as a report. All reports can be found under **Main Menu > RECORDS>Reports**.

4. Touch **Clear Trouble Code** to erase retrieved Diagnostic Trouble Codes from the vehicle after repairs have been made.
5. To read and clear the trouble codes, set the ignition to KEY ON with the ENGINE OFF. Do not start the engine.

Note: Clearing DTCs does not fix the problem(s), and if proper repairs to correct the problem that caused the code(s) to be set are not made, the code(s) will appear again and the check engine light will illuminate as soon as the problem that caused the DTC to set manifests itself.

6. Touch **Read Data Stream** to retrieve and display live data and parameters from the vehicle's ECU.

WARNING!: Vehicle must be driven to troubleshoot. Always have a second person help you. Trying to drive and operate the Scanner at the same time is dangerous and could cause a serious traffic accident.

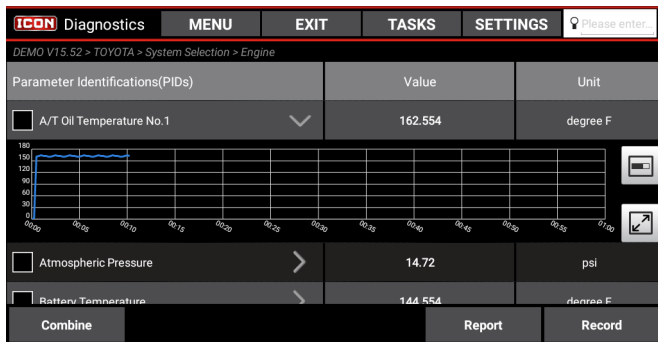


On-Screen Buttons

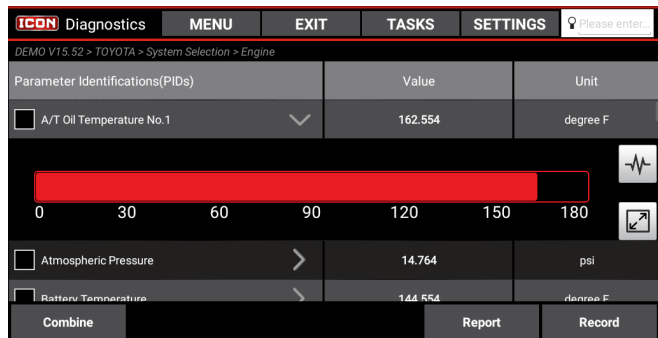
- **All:** Touch to select all items on current screen. To select individual items, check box before name.
- **None:** Touch to deselect all selected data stream items.
- **OK:** Touch to confirm selections and enter the next screen.

Note: If the value of the data stream is out of the standard range, the value is shown in red.

- **Value:** Default mode displays the parameters as text in a list format.
- **Graph:** Displays parameters in waveform or progress bar mode. Touch to activate, use and to switch between progress bar and waveform mode.

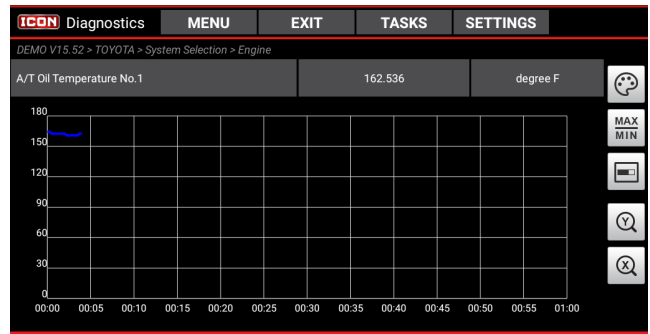


Waveform Mode

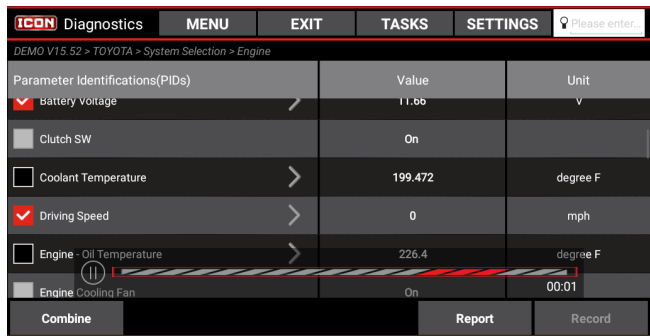


Progress Bar Mode

Note: Touch **Zoom Icon** to take the screen into full-screen mode.



- Display the waveform in desired color.
- Touch to define the maximum / minimum value. Once the value goes beyond the specified value, it will trigger the sound alert, which could be turned on/off under Settings>Diagnostics.
- Display the waveform in bar chart.
- Zoom in the Y-axis scale.
- Zoom in the X-axis scale.
- **Combine:** Use to merge graphs for data comparison. Different items are coded in different colors. Select a maximum of eight items at a time and touch OK to view the merged waveforms.
- **Report:** Touch to save the current data in text format. All reports are saved under the **REPORTS** tab in **Main Menu > RECORDS**.
- **Record:** Touch to record diagnostic data for playback and analysis later as shown below.



7. Touch the **Stop** button to stop recording the data stream and save the file.

Note: The system will use the following saved file naming convention: File name includes vehicle type, product S/N, date, and record starting time. Make sure the record starting time is accurate to help identify files. All files are saved under the **DATA STREAM** tab in **Main Menu > RECORDS**.

8. Touch **Actuation Test** to access vehicle-specific subsystem and component tests.

Note: Available tests vary by vehicle manufacturer, year, and model. During the actuation test the Scanner outputs commands to the ECU in order to drive the actuators and then determines the integrity of the system or parts by reading the ECU data, or by monitoring the operation of the actuators. Such as switching an injector between two operating states.

9. Touch **Special Function** to perform coding, reset, relearning and more service functions, to help vehicles get back to functional status after repair or replacement.

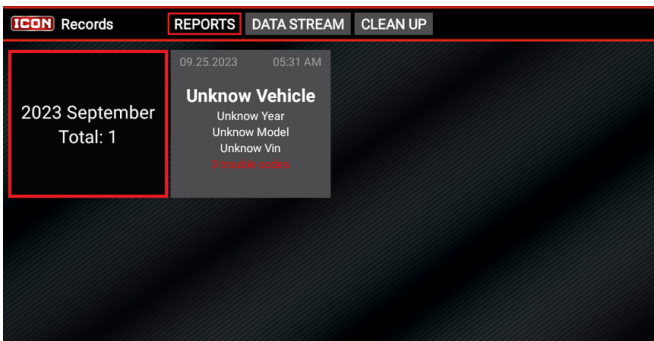
Viewing Diagnostic History Demonstration

Note: When a vehicle diagnosis is performed the Scanner records detailed diagnostic information. The History function allows access to previously tested vehicle records. Testing can be continued from the previous operation without starting from scratch.

Records

Note: This function is used to manage diagnostic reports, data stream records and diagnostic software.

1. Touch the **RECORDS** icon in the **Main Menu** to enter. There are three tabs on the records screen: **REPORTS**, **DATA STREAM** and **CLEAN UP**.
2. Diagnostic Trouble Code results saved on the Diagnostic Trouble Code screen will be listed under the **REPORTS** tab in date sequence.

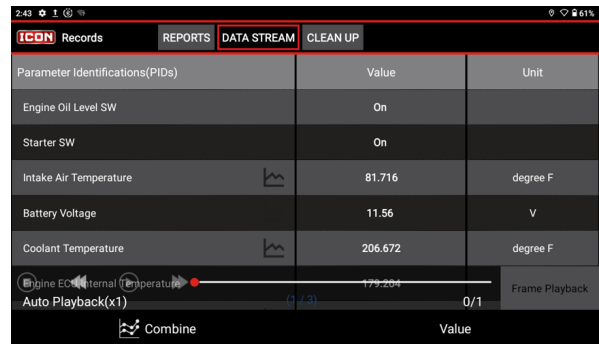


3. Touch on the individual reports to view their details.
4. Touch ... on the upper right corner of the screen to pull down the option menu.
 - **Delete:** Touch to delete the current report.
 - **E-mail:** Touch to send the current report to others via email.
 - **Print:** Touch to print the current report out via external printer. The printer needs to be configured separately. Refer to the Printing section for printing operations.
 - **More:** Touch to perform more operations via other applications.

10. Touch **History** on the **Vehicle Selection Screen Toolbar** to display all the diagnostic records from previously tested vehicles listed by date.
11. Touch on the desired record to view the details of the last **Vehicle Diagnostic Report**.

On-Screen Buttons

- **Individual Record:** Touch this button on the desired record to enter the Test Selection screen of that record's last diagnostic operation. Select the desired option to continue from the previous operation.
- **Multiple Records:** Press and hold the desired record, the following screen appears, Add History Page without All, NONE, DELETE buttons image.



On-Screen Buttons

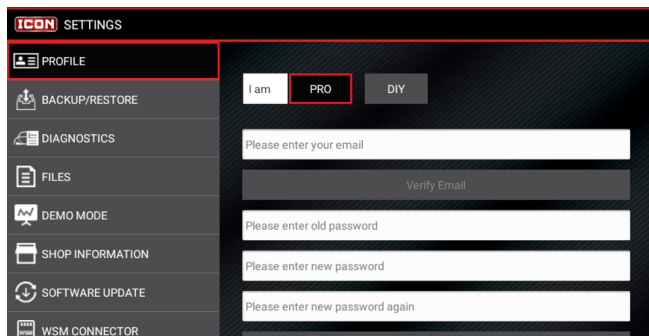
- **Combine:** Use to merge graphs for data comparison. Different items are coded in different colors.
 - **Frame Playback:** Use for frame-by-frame playback of the selected data stream items. When in Frame Playback mode, this button changes to Auto Playback.
 - **Auto Playback:** Use for automatic playback of the selected data stream items. When in Auto Playback mode, this button changes to Frame Playback.
 - **Stop Playback:** Touch the Stop button to stop the playback.
5. All downloaded and installed diagnostic software is listed under the **CLEAN UP** tab. This option allows you to remove some diagnostic software that are not frequently used to free up some storage space.
 - **ALL:** Touch to select all data stream records.
 - **NONE:** Touch to deselect all data stream records.
 - **DELETE:** Touch to delete the selected data stream records.
 6. Touch **DELETE** to remove it.

Note: After the software is successfully removed, it will not appear on the Vehicle Selection screen. To use the software again in the future, user may download it in the **UPDATE** module in the **Main Menu**.

Settings

Note: Use this function to manage personal information, files, shop information and make some system settings.

1. Touch the **SETTINGS** icon in the Main Menu to enter the *Settings* screen.



2. Touch the desired selection in the Settings column on the left to make modifications.
 - **PROFILE:** Use to manage personal information, set Email address, change login password, login and logout etc.

- **BACKUP/RESTORE:** Use to set the default backup file types, folder path and restore file types, folder path.
- **DIAGNOSTICS:** Use to set the units of measurement, and over range sound alert of data stream.
- **FILES:** Automatically adds the emission test report and shop information on all health reports and deletes records and reports without confirmation or not.
- **DEMO MODE:** Show or hide the DEMO software.
- **SHOP INFORMATION:** Use to view and enter or modify workshop information. Saved information is automatically generated each time the diagnostic report is saved.
- **SOFTWARE UPDATE:** Update settings or software, including automatic download, expiration reminder, software subscription renewal.

Toolbox

Repair Information

This function provides you quick accesses to some renowned and popular repair and maintenance website links. These may include general information about a component or system, diagnostic and troubleshooting procedures and/or repair instructions.

Image

Use this function to manage the screenshots. All screenshots created during vehicle diagnosis are saved in this module.

Feedback

Use this function to submit diagnostic problems to us for analysis.

Help

FAQ, User Manual, Vehicle Coverage Lookup, Technical Support and About are included.

Backup

Use this function to back up the valuable in-app diagnostic information/data.

Note: If the default backup file types and backup folder path are preset in the BACKUP/RESTORE module in SETTINGS in the Main Menu, just touch Backup.

Restore

Use this function to restore the diagnostic information/data from previous backup.

Note: If the default restore file types and restore folder path are preset in the BACKUP/RESTORE module in SETTINGS in the Main Menu, just touch Restore. Restore will overwrite the current files, please make sure to do so while performing this operation.

Calculator

Supports several kinds of useful and reliable calculators for quick calculations.

Voltage Check

Performs a check of the vehicle's battery to ensure the system is operating within acceptable limits.

Maintenance



There are no user serviceable parts. Have the Scanner serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the equipment is maintained.

Maintenance

⚠️WARNING

TO PREVENT SERIOUS INJURY FROM ELECTRIC SHOCK:

Shut down the Scanner Tablet and unplug the Power Adapter from its electrical outlet before inspection, maintenance, or cleaning.

1. **PERIODICALLY**, inspect the general condition of the Scanner components. Check for:
 - loose hardware
 - damaged cord/electrical wiring
 - cracked or broken parts
 - any other condition that may affect its safe operation.
2. **PERIODICALLY**, wipe external surfaces with clean cloth. Clean the Scanner Tablet screen with soft cloth and mild glass cleaner.
Note: Do not use harsh chemicals or abrasive cleansers on any Scanner components.
3. Store Scanner components in the Carry Case in a dry, locked area out of the reach of children.

FCC STATEMENT

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.

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

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.

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PLEASE READ THE FOLLOWING CAREFULLY

SAFETY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

OVERVIEW

SETUP

OPERATION

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Record Product's Serial Number Here: _____

Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts. Specify UPC 193175475770 when ordering parts.

SAFETY

OVERVIEW

SETUP

OPERATION

MAINTENANCE

Limited Warranty

This ICON product is warranted to the original purchaser to be free from defects in materials and workmanship for a period of one (1) year beginning on the date of purchase (or product receipt, if later). To obtain warranty service, the product or part must be returned to us with proof of purchase (e.g. in-store receipt or packing slip/invoice) and may require shipment by purchaser to a service center at purchaser's expense. If our inspection verifies a covered defect in materials or workmanship during the warranty period, we will, at our option, repair or replace the defective product. We will return repaired products within a reasonable time at our expense, but if we determine that there is no defect, or that the defect resulted from causes not within the scope of our warranty, then we will return the product to you if you pay return shipping costs.

This warranty does not cover any failure or damage that we determine is due directly or indirectly to normal wear and tear, misuse, use not for the intended purpose or not in accordance with the product manual, abuse, accident, rental, modification or alteration, unauthorized repair, improper installation, neglect, lack of maintenance, or any other failure not arising from defective materials or workmanship. Fraudulent returns or claims will be denied. The repair or replacement described in this warranty shall be your sole and exclusive remedy. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES, WRITTEN OR ORAL, AND ANY IMPLIED WARRANTIES ARE DISCLAIMED TO THE EXTENT PERMITTED BY LAW AND OTHERWISE LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN. HARBOR FREIGHT SHALL NOT BE LIABLE UNDER ANY CIRCUMSTANCES FOR ANY INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES OR COSTS ARISING FROM THIS WARRANTY OR THE USE OF THIS PRODUCT. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THESE LIMITATIONS MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

