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Important Safety Information

Warning: To avoid personal injury, property damage, or accidental damage to the product, read all of the information in this section before using the product.

Work Area Safety

- Keep work area clean and well lit. Cluttered benches and dark areas may cause accidents.
- Do not connect or disconnect the tool while the ignition is on or the engine is running.
- DO NOT attempt to operate the tool while driving the vehicle. Have a second person to operate the tool.
- 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.
- NEVER smoke or allow a spark or flame in vicinity of battery or engine.
- The vehicle shall be tested in a well-ventilated work area, as engines produce various poisonous compounds (hydrocarbon, carbon monoxide, nitrogen oxides, etc.)
- Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases, or heavy dust.
- Never leave the vehicle unattended while testing.
- Keep a fire extinguisher suitable for gasoline/chemical/electrical fires nearby.
- 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.
- Keep bystanders, children and visitors away while operating the tool.
- This product is not a toy. Do not allow children to play with or near this tool.

- Use as intended only. Do not modify.
- Inspect before every use; do not use if parts are loose or damaged.
- Do not place the tool on any unstable surface.
- Handle the tool with care. If the tool is dropped, check for breakage and any other conditions that may affect its operation.
- Keep the tool dry, clean, free from oil, water or grease. Use a mild detergent on a clean cloth to clean the outside of the tool when necessary.
- Store the tool and accessories in a locked area out of the reach of children.
- To avoid damaging the tool or generating false data, please make sure the vehicle battery is fully charged and the connection to the vehicle DLC (Data Link Connector) is clear and secure.
- If the VCI (Vehicle Communication Interface) is not in use for a long period of time, it is suggested to unplug the VCI from vehicle's DLC to conserve battery power.

Electrical Safety

- Do not use the tool while standing in water.
- Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.
- **Do not expose the tool or power adaptor to rain or wet conditions**. Water entering the tool or power adaptor increases the risk of electric shock.

Personal Safety

- Wear an ANSI-approved eye shield when testing or repairing vehicles.
- 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.
- Do not use the tool while tired or under the influence of drugs, alcohol, or medications. A moment of interruption can result in serious personal injury.
- 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.
- 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.
- There are no user serviceable parts. Have the tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the equipment is maintained.
- Please use the included battery and charger. Risk of explosion if the battery is replaced with an incorrect type.
- Automotive batteries contain sulfuric acid that is harmful to skin. In operation, direct contact with the automotive batteries should be avoided. Keep the ignition sources away from the battery at all times.

Precautions on Operating Vehicle's ECU

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

- Use extreme caution when performing any operations near the ECU or sensors. Ground yourself when you disassemble PROM, otherwise ECU and sensors can be damaged by static electricity.
- When reconnecting the ECU harness connector, be sure it is attached firmly, otherwise electronic elements, such as ICs inside the ECU, can be damaged.

Using This Manual

This manual contains device usage instructions.

Some illustrations shown in this manual may contain modules and optional equipment that are not included in your system.

The following conventions are used.

Bold Text

Bold text is used to highlight selectable items such as buttons and menu options.

Example:

Tap **OK**.

Notes

A NOTE provides helpful information such as additional explanations, tips, and comments.

Example:

Note: Remember to remove the VCI connector from the vehicle's DLC after use.

Warning

Warning indicates a hazardous situation which, if not avoided, could result in minor or moderate injury to the operator or to bystanders.

Example:

Warning: Retrieving and using DTCs for troubleshooting vehicle operation is only one part of an overall diagnostic strategy. Never replace a part based only on the 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.

Danger

Danger indicates an imminently or potentially hazardous situation which, if not avoided, could result in death or serious injury to the operator or to bystanders.

Example:

Danger: 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.

Illustrations

Illustrations used in this manual are samples, the actual testing screen may vary for each vehicle being tested. Observe the menu titles and on-screen instructions to make correct option selection.

Table of Contents

1 Introduction

1.1 Product Profile

All-In-One is a powerful Android-based diagnostic tool, which has several production configurations ranging from commercial vehicle to passenger vehicle. It inherits from LAUNCH's advanced diagnosing technology and is characterized by covering a wide range of vehicles, featuring powerful functions, and providing precise test result.

It has the following features:

- Diagnostic: This module allows you to use the VIN information of the currently identified vehicle to access its data (including vehicle information, historical diagnostic records) from the cloud server to perform quick test, eliminating guesswork and step-by-step manual menu selection.
- Remote Diagnostics.: A perfect and powerful remote diagnostics solution developed by asTech. In this ecology system, if a technician or car owner (asTech Connect) does not have time to puzzle through a touch vehicle problem, he can seek a trusted second opinion or additional expertise on various vehicle issues from remote master technicians or repair shops (Tool Side Device enables the shop owner to greatly increase customer's retention and boost shop revenue by providing the professional technical assistance service.
- Service Function: Offers all kinds of coding, reset and relearn service functions, to help vehicles get back to functional status after repair or replacement.
- One-click Update: Lets you update your diagnostic software online.
- Diagnostic History: This function provides a quick access to the tested vehicles and users can choose to view the test report or resume from the last operation, without the necessity of starting from scratch.
- Feedback: Enables you to submit the vehicle issue to us for analysis and troubleshooting.
-

1.2 Package List

The following packing list is for reference purpose only. For different destinations, the accessories may vary. For details, please consult from the local dealer or check the packing list supplied with this tool together.

Display tablet x 1

Indicates the test result.

asTech Connect (VCI) device x 1

Collects vehicle data and sends it to the tablet for analysis.

Power adaptor x 1

Charges the tablet via the AC outlet.

Diagnostic cable x 1

Connects the asTech Connect device to the OBD II vehicle's DLC.

Charging cable (Type A-Type C) x 1

Connects the tablet to a PC for data exchange/backup.

Data cable (Type A-Type B) x 1

- Connects the asTech Connect device to PC for J2534 reprogramming.
- Connects the asTech Connect device to the tablet for vehicle diagnosis.

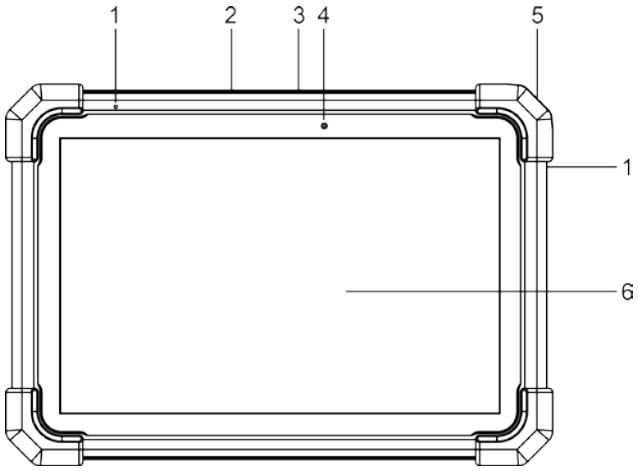
1.3 Components & Controls

There are two main components to the diagnostic system:

- Display Tablet – the central processor and monitor for the system (See **Chapter 1.3.1**).
- asTech Connect Device – the device for accessing vehicle data (See **Chapter 1.3.2**).

1.3.1 Display Tablet

The tablet acts as the central processing system, which is used to receive and analyze the live vehicle data from the asTech Connect device and then output the test result.



1. **Microphone**
2. **Type-A USB Port**

- Connect to the asTech Connect device to perform vehicle diagnosis via the USB cable Connect to compatible add-on modules (such as Videoscope) or USB storage devices.

3. Connect to PC type-c USB Port for data exchange/backup.

4. **Front Camera**
5. **POWER Key**

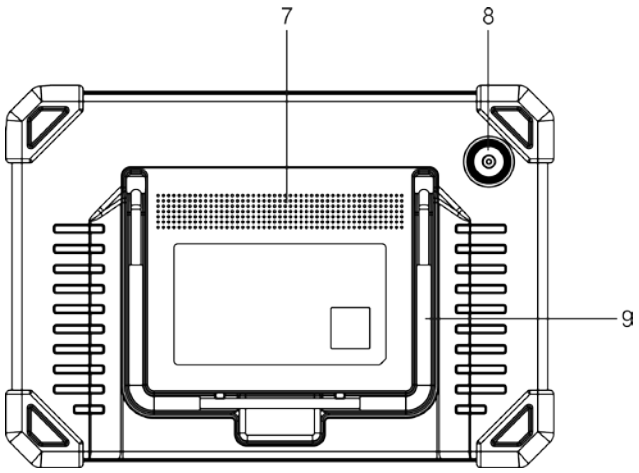
In Off mode, press it for 3 seconds to turn the tablet on.

In On mode:

- Press it once to activate the LCD if the LCD is off. Press it once to turn off the LCD if the LCD lights up.
- Press and hold it for 3 seconds to turn it off. Press and hold it for 8 seconds to perform forced shutdown.

6. **LCD Screen**

Indicate the test result.



7. **Audio Speaker**
8. **Rear Camera**
9. **Adjustable stand**

Flip it out to any angle and work comfortable at your desk, or hang it on steering wheel.

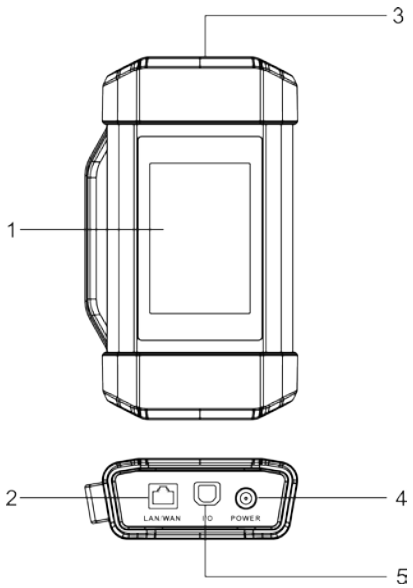
1.3.2 asTech Connect Device

The asTech Connect device features powerful functions and it can be applied in the following situations: 1). When as a VCI (Vehicle Communication Interface), it needs to work in conjunction with the **Diagnostics** module of the tablet, which is used to obtain vehicle data, and then send it to the tablet for analysis via Bluetooth / data cable.

2). When as a asTech Connect (Customer) VCI, it does not communicate with the tablet, but it needs to work together with the **asTech** module of the tablet. The tablet is mainly used to issue remote diagnostic requests, and the asTech Connect VCI is networked to receive and execute commands from the remote Tool Side Device (Business).

Note: For detailed operations, please refer to Chapter 7.

3). When as a local or remote J2534 PassThru device, it can be used in conjunction with the PC installed with OEM diagnostic software.



1. **Touch screen**
2. **LAN/WAN port**

Connect the asTech Connect device to the Internet.

3. **OBD-16 diagnostic connector**

Connect the asTech Connect device to the vehicle's DLC (Data Link Connector) port via the Diagnostic cable.

4. **DC-IN power jack**

Currently disabled and for manufacturer use only.

⚠ Warning: The asTech Connect device obtains power through the vehicle's DLC, and it is prohibited to connect to an external DC power supply. No responsibility can be assumed for any damage or loss caused as a result of not strictly following the above method.

5. **Data I/O port**

- Connect the asTech Connect device to the tablet to perform vehicle diagnosis.
- Connect the asTech Connect device to the PC when as a J2534 PassThru device.

1.4 Technical Parameters

1. Display tablet

Operating system: Android

Processor: 4-core 2.0GHz

Memory: 4GB

Storage: 128GB

Screen: 10.1 inch capacitive touch screen with a resolution of 1280 x 800 pixels

Camera: Front-facing 5.0MP camera + Rear-facing 8.0MP camera

Connectivity

- Wi-Fi (802.11a/b/g/n/ac) 2.4GHz/5GHz dual frequency
- Bluetooth

Working temperature: 0℃ ~ 50℃

Storage temperature: -20℃ ~ 70℃

2. asTech Connect device

Size: 204mm x 110mm x 45mm

Working voltage: DC 9~36V

Power consumption: ≤ 6W

Communication: Bluetooth/Wi-Fi or data cable connection

Working temperature: 0℃ ~ 50℃

2 Initial Use

2.1 Charging & Turning On

1. Plug one end of the included charging port of the tablet, and the other end to the power adaptor.
2. Connect the other end to the AC outlet.

If appears on the screen, it indicates it is being charged. If the logo changes into , it indicates that the battery is fully charged. Unplug the power adaptor from the tablet.

Note: If the battery remains unused for a long period of time or the battery is completely discharged, it is normal that the tool will not power on while being charged. Please charge it for a period of 5 minutes and then turn it on.

Warning: Please use the included power adaptor to charge your tool. No responsibility can be assumed for any damage or loss caused as a result of using power adaptors other than the one supplied.

Press [POWER] for 3 seconds, an option menu will pop up on the screen. Tap **Power off** to turn the tool off.

2.2 Tips on Finger Operations

Single-tap: To select an item or asTech a program.

Double-tap: To zoom in so that the text on a webpage appears in a column that fits your device's screen.

Long press: Tap and hold on the current interface or area until a contextual menu pops up on the screen, and then release it.

Slide: To jump to different pages.

Drag: Tap the application icon and drop it to other location.

Spread apart/pinch together: To zoom in manually, place two fingers on the screen and then spread them apart. To zoom out, place two fingers apart on the screen and then pinch them together.

2.3 Screen Layout

The following on-screen buttons are available on the bottom of the screen.

Home: Navigates to the Android's home screen.

Recent App: Views the running applications.

VCI Connection: Shows whether the VCI device is properly connected or not.

Screenshot: Captures the current screen.

Back: Returns to the previous screen.

2.4 Adjust Brightness

Note: Reducing the brightness of the screen is helpful to conserve the battery power.

1. On the home screen, tap **Settings -> Display -> Brightness level**.
2. Drag the slider to adjust it.

2.5 Change System Language

The tool supports multiple system languages. To change the language of the tool, please do the following:

1. On the home screen, tap **Settings -> System -> Language & input -> Languages**.
2. Tap **Add a language**, and then choose the desired language from the list.
3. Tap and hold the desired language and drag it to the top of the screen and then release it, the system will change into the target language.

2.6 Set Standby Time

If no activities are made within the defined standby period, the screen will be locked automatically and the system enters sleep mode to save power.

1. On the home screen, tap **Settings -> Display -> Advanced -> Screen timeout**.
2. Choose the desired sleep time.

2.7 Network Setup

The tablet has built-in Wi-Fi that can be used to get online. Once you're online, you can register the tool, surf the Internet, get apps, send email, asTech the remote diagnosis, and check for software updates etc.

Connect to a Wi-Fi network

1. On the home screen, tap **Settings -> Network & Internet -> Wi-Fi**.
2. Slide the Wi-Fi switch to ON, the tablet starts searching for available wireless networks.
3. Select a wireless network,
   - If the chosen network is open, the tablet will connect automatically.
   - If the selected network is encrypted, a network password will need to be entered.
4. When **Connected** appears, it indicates the Wi-Fi connection is complete.

Note: When Wi-Fi is not required, this should be disabled to conserve battery power.

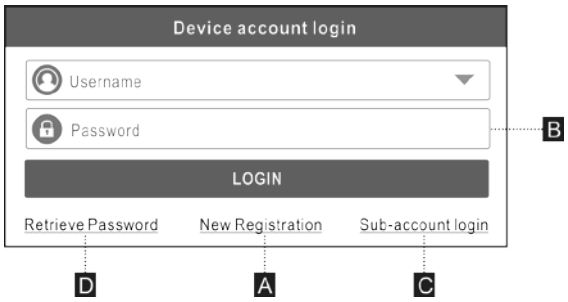
Disconnect from a Wi-Fi network

1. On the home screen, tap **Settings -> Network & Internet -> Wi-Fi**.
2. Tap the network with a **Connected** status, then tap **Disconnect**.

3 Register & Update

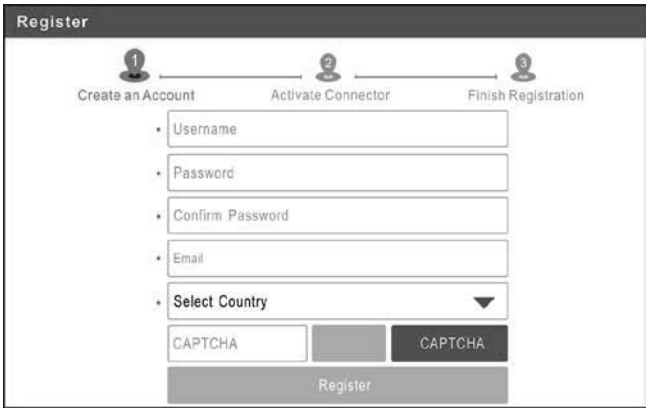
3.1 Register & Update

For initial use, the registration is the necessary first procedure to activate the tool.
Tap the application icon on the home screen to asTech it, and then tap **Login** on the upper right corner of the screen to enter the following screen.



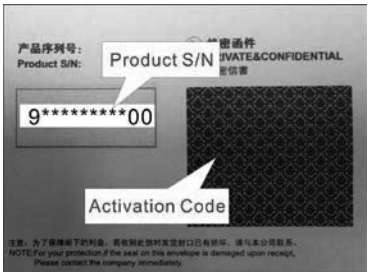
(If you are a new user, follow A to proceed.)
(If you have registered to be a member, go to B to login the system directly.)
(If you have bound a sub-account to this tool, go to C to login the system.)
(In case you forgot password, refer to D to reset a new password.)

A. If you are a new user, tap **New Registration** to enter the sign-up page.



In the above figure, fill in the information in each field (Items with * must be filled). After inputting, tap **Register**, a screen similar to the following will appear:

Input the 12-digit Product Serial Number and 8-digit Activation Code (can be obtained from the password envelope), and then tap **Activate**.



Tap **Yes** to navigate to the update center to update all available software. Tap **No** to ignore it. In this case, follow Chapter 8 to check for updates.

After the registration is successfully complete, the wireless communication between the tablet and the asTech Connect device is automatically established and user has no need to configure it again.

B. If you have registered to be a member, input your name and password, and then tap **Login** to enter the main menu screen directly.

Note: The tablet has an auto-save function. Once the username and password are correctly entered, the system will automatically store it. Next time you login the system, you will not be asked to input the account manually.

C. If you have created a sub-account or bound an existing account to the tool, tap **Sub-account login** to login. For more details on sub-accounts, refer to Chapter 10.11.7.

D. If you forgot the password, tap **Retrieve password** and then follow on-screen instructions to set a new password.

3.2 Job Menu

After logging in, the **Login** button will change into the button. It mainly includes the following items:

Name	Description
Diagnostics	• Obtain vehicle data from the cloud server to perform quick test via reading VIN, to avoid various defects resulting from step-by-step menu selection. • Check the historical repair records online.
Service Function	Perform commonly used repair & maintenance services.
All-In-One	The All-In-One system is powerful remote diagnostics solution developed by

	asTech. The system consists of asTech Connect VCI, asTech Complete and Tool Side Device VCI. • asTech Connect VCI: For technicians seeking technical assistance and additional expertise on various vehicle issues. • asTech Complete: For asTech Connect posting assistance request and Tool Side Device accepting order. • Tool Side Device VCI: For service provider or master technician providing technical assistance service.
Software Update	To update vehicle diagnostic software and APK.
Diagnostic History	• Access the diagnostic reports from the previously tested vehicles. • Resume the previous operation without starting from scratch.
Online Shop	Visit the online shop.
Feedback	To feed back the recent 20 diagnostic logs to us for issue analysis.
Report	To manage the saved diagnostic reports and diagnostic records.
Maintenance	Abundant maintenance data are available, which helps repair professionals Diagnostics and repair vehicles efficiently, accurately and profitably.
User Info	To manage VCI, my reports, change password, configure Wi-Fi printer, system settings and logout etc.
More	Includes remote diagnosis and some Android system apps etc.

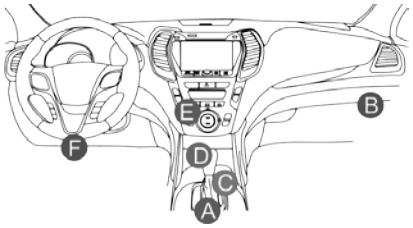
4 Connections

4.1 Preparation

Normal testing conditions

- The ignition is turned on.
- The vehicle battery voltage range is 9-14V or 18-30V.
- The throttle is in closed position.
- Find DLC location:

  For passenger cars, the DLC(Data Link Connector) is usually located 12 inches from the center of the instrument panel, under or around the driver's side for most vehicles. For some vehicles with special designs, the DLC location may vary. Refer to the following figure for location.



A. Opel, Volkswagen, Audi

B. Honda

C. Volkswagen

D. Opel, Volkswagen, Citroen

E. Changan

F. Hyundai, Daewoo, Kia, Honda, Toyota, Nissan, Mitsubishi, Renault, Opel, BMW, Mercedes-Benz, Mazda, Volkswagen, Audi, GM, Chrysler, Peugeot, Regal, Beijing Jeep, Citroen and other most popular models

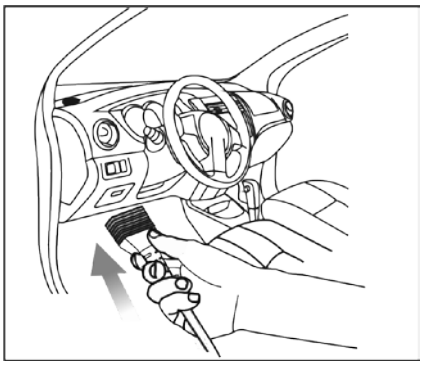
If the DLC cannot be found, refer to the vehicle's service manual for the location.

For commercial vehicles, the DLC is always located in driver's cab.

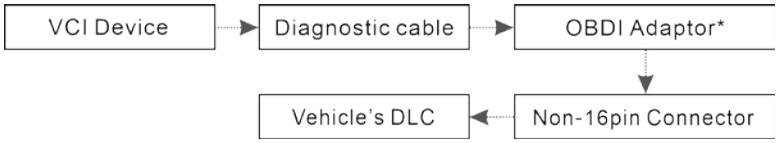
4.2 Vehicle connection

The method used to connect the VCI device to a vehicle's DLC depends on the vehicle's configuration as follows:

For OBD II vehicles, connect the VCI device to vehicle's DLC directly via the diagnostic cable.



For non-OBDII vehicles, proceed as follows:



Note: If the power supply on vehicle diagnostic socket is insufficient or the power pin is damaged, you can get power via either of the following ways:

A. Via Battery clamps cable: Connect one end of the battery clamps cable to the power jack of the OBD I adaptor box, and the other end to the vehicle's battery.

B. Via Cigarette lighter cable: Connect one end of the cigarette lighter cable to the power jack of the OBD I adaptor box, and the other end to the cigarette lighter receptacle.

5 Diagnosis

5.1 Diagnostics

Through simple Bluetooth communication between the display tablet and asTech Connect device, you can easily get the VIN (Vehicle Identification Number) information of the currently identified vehicle. Once the VIN is successfully identified, the system will retrieve it from the remote server and then guide you to vehicle information page without the necessity of step-by-step manual menu selection.

The vehicle information page lists all historical diagnostic records of the vehicle, which lets the technician have a total command of the vehicle faults. In addition, a quick dial to local Diagnostics and diagnostic function are also available on this page for reducing the roundabout time and increasing productivity.

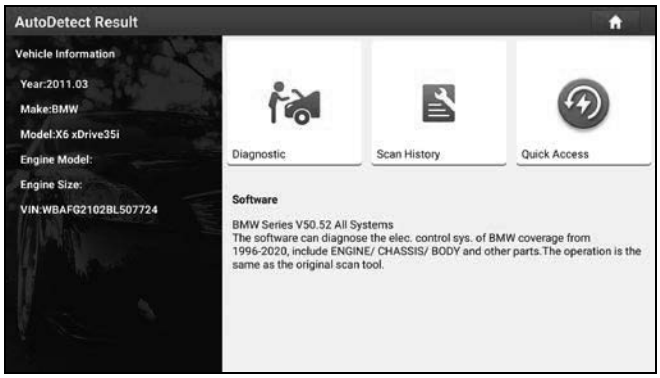
*Notes:

- Before using this function, please make sure the VCI device is properly connected to the vehicle's DLC. For detailed connection, see Chapter 4.2 **Vehicle Connection**.
- A stable network connection is required for this function.

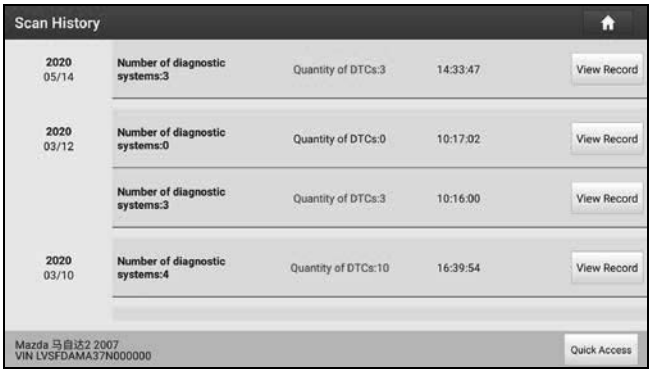
Follow the steps below to proceed.

1. Tap **Intelligent Diagnostics** on the Job menu screen to start pairing with the VCI device.
2. After pairing is complete, the tablet starts reading the vehicle VIN.

A. If the VIN can be found from the remote server database, the following screen will appear:



- Tap **Diagnostic** to start a new diagnostic session.
- To perform other functions, tap **Quick access** to directly go to the diagnostic function selection screen. Choose the desired one to start a new diagnostic session.
- Tap **Scan History** to view its historical repair record. If there are records available, it will be listed on the screen in sequence of date. If no records exist, the screen will show "No Record."



- Tap **View record** to view the details of the current diagnostic report.
- To perform other functions, tap **Quick access** to directly go to the diagnostic function selection screen. Choose the desired one to start a new diagnostic session.

B. If the tablet failed to access the VIN information, the screen will display as below:

- Tap the input field to directly, tap **OK**. If the VIN exists on the remote server, the system will enter the diagnostic function selection screen.
- Tap to asTech the VIN recognition module.

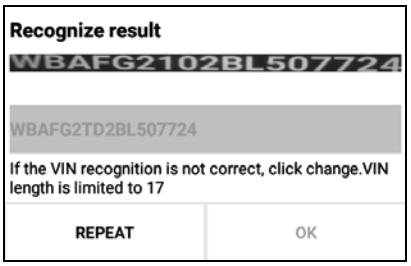
Place the VIN inside the viewfinder rectangle to scan it. The most recognizable location for this number is in the top left corner on the vehicle's dashboard. Other locations include the driver's door or post, and the firewall under the hood.

- Tap to switch the display mode of the screen.
- Tap to turn the camera flash on.
- Tap to choose it from the record list if the VIN of the vehicle has been scanned before.

- Tap  to input the VIN manually if the tablet has failed to identify the VIN of the vehicle.
- Tap  to scan the VIN barcode. If the VIN barcode cannot be recognized, please manually input the VIN.
- Tap  to scan the VIN character. If the VIN character cannot be recognized, please manually input the VIN.

Note: In general, vehicle identification numbers are standardized - all contain 17 characters. VIN characters may be capital letters A through Z and numbers 1 through 0; however, the letters I, O and Q are never used in order to avoid mistakes of misreading. No signs or spaces are allowed in the VIN.

After scanning, the screen automatically displays the result.



- If the VIN scanned is incorrect, tap the result field to modify it and then tap **OK**.
- To scan it again, tap **REPEAT**.

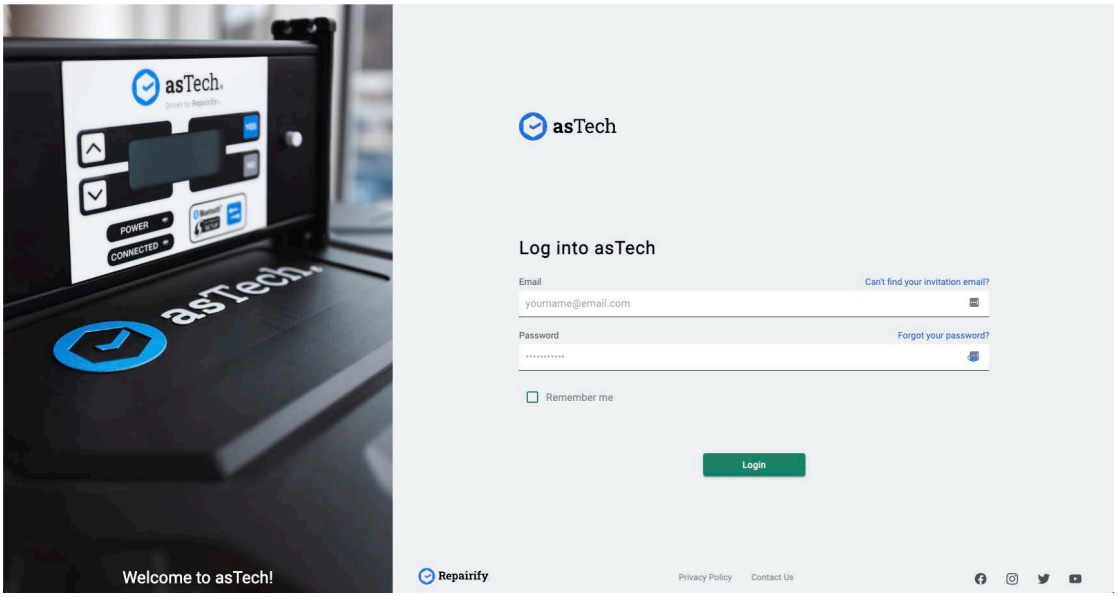
If the VIN exists on the remote server, the system will enter the diagnostic function selection screen.

5.2 Remote Diagnostics

This option aims to help repair shops or technicians asTech instant messaging and remote diagnosis, making the repair job getting fixed faster.

Tap **Remote Diagnostics** on the Job menu, the screen appears blank by default.

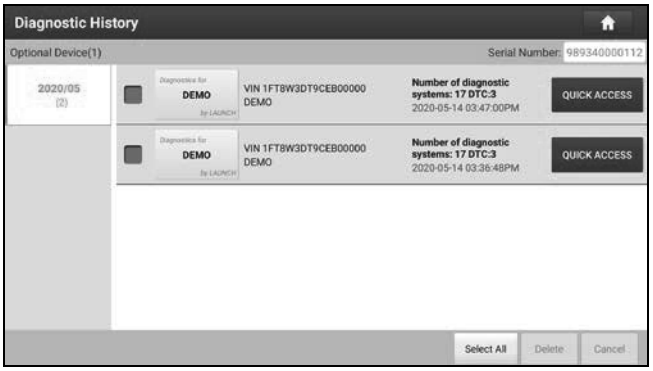
5.2.1 Interface Layout



5.3 Diagnostic History

This function enables users to directly get access to the previously tested vehicle's diagnostic records in details, so users can resume from the last operation, without starting from scratch.

Tap **Diagnostic History** on the Job menu screen, all diagnostic records will be listed on the screen in date sequence.



- Tap certain vehicle model to view the details of the last diagnostic report.
- To delete certain diagnostic history, select it and then tap **Delete**. To delete all historical records, tap **Select All** and then tap **Delete**.
- Tap **Quick Access** to directly navigate to the function selection page of last diagnostic operation. Choose the desired option to proceed.

5.4 Report

This option is used to view, delete or share the saved reports.

Tap **Report**, there are total 3 options available.

In case the DTC result is saved on Read Trouble Code page, the files will be listed under **Health Reports** tab.

If user records the running parameters while reading data stream, the tablet will save the file which appears under **Recorded Data** tab.

Remote Reports lists all diagnostic reports generated in process of remote diagnosis.

5.5 Feedback

This function enables you to feedback the diagnostic issues to us for analysis and troubleshooting.

Tap **Feedback**, and tap **OK** to enter into the vehicle diagnostic record page.

A. Feedback

Tap the target vehicle to enter the feedback page.

B. History

Tap it to view the diagnostic feedback logs which are marked with different color indicating the process status of the diagnostic feedback.

C. Offline list

Tap it to enter the diagnostic feedback offline list page. Once the tablet gets a stable network signal, it will be uploaded to the remote server automatically.

6 Service Function (Reset)

This module provides an easy dial to quickly access the most commonly performed service functions. It offers coding, reset, relearn and more service functions, to help vehicles get back to functional status after repair or replacement.

6.1 Oil Reset Service

This function enables you to reset the oil service for the engine oil life system, which calculates an optimal oil life change interval depending on the vehicle driving conditions and weather events.

It needs to be performed in the following cases:

1. If the service lamp is on, run car diagnostics first for troubleshooting. After that, reset the driving mileage or driving time, so as to turn off the service lamp and enable a new driving cycle.
2. If the service lamp is not on, but you have changed the engine oil or electric appliances that monitor oil life, you need to reset the service lamp.

6.2 Electronic Parking Brake Reset

This function enables you to reset the brake pad after replacing the brake pad.

It needs to be performed in the following cases:

1. The brake pad and brake pad wear sensor are replaced.
2. The brake pad indicator lamp is on.
3. The brake pad sensor circuit is short, which is recovered.
4. The servo motor is replaced.

6.3 Steering Angle Calibration

This function can reset the steering angle to zero to keep the car running straight.

It needs to be performed generally after replacing the steering angle position sensor, or after replacing the mechanical parts of the steering system (such as steering gear, steering column, tie rod ball head, steering knuckle), or after completing the four-wheel alignment, body repair, etc.

To reset the steering angle, first 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.

6.4 ABS Bleeding

This function allows you to perform various bi-directional tests to check the operating conditions of Anti-lock Braking System (ABS).

It needs to be performed in the following cases:

1. When the ABS contains air.
2. When the ABS computer, ABS pump, brake master cylinder, brake cylinder, brake line, or brake fluid is replaced.

6.5 Tire Pressure Monitor System Reset

This function can reset the tire pressure and turn off the tire pressure MIL.

It needs to be performed in the following cases:

1. 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.
2. 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.

6.6 Gear Learning

This function enables you to perform tooth learning for the car, to turn off the MIL.

It needs to be performed in the following cases:

1. After the engine ECU, crankshaft position sensor, or crankshaft flywheel is replaced.
2. The DTC 'tooth not learned' is present.

6.7 Anti-theft Matching

This function enables you to perform the anti-theft key matching function, so that the immobilizer control system on the car identifies and authorizes remote control keys to normally use the car.

It needs to be performed in the following cases:

- When the ignition key, ignition switch, instrument cluster, engine control unit (ECU), body control module (BCM), or remote control battery is replaced.

6.8 Injector Coding

This function can write injector actual code or rewrite code in the ECU to the injector code of the corresponding cylinder, so as to control or correct the cylinder injection quantity accurately.

It needs to be performed in the following cases:

- After the ECU or injector is replaced.

6.9 Battery Maintenance System Reset

This function can reset the monitoring unit of the car battery, by clearing the original breakdown information about the lack of battery power to rematch the battery.

It needs to be performed in the following cases:

1. The main battery is replaced. The replacement of the main battery needs to utilize battery matching to clear the former information about the lack of power, thus avoiding false information detected by the relevant control module which may cause the failure of some electronic auxiliary functions. For example, the vehicle automatically stops; the sunroof can’t work by one key; electric window can’t open and close automatically.
2. The battery monitoring sensor is replaced. The battery monitoring sensor uses the battery matching function to re-match the control module with the monitoring sensor, so as to detect the use of the battery power more accurately, and avoid receiving wrong information from instrument prompts which will cause false alarms.

6.10 Diesel Particulate Filter (DPF) Regeneration

This function can help remove PM (Particulate Matters) from the DPF filter by using combustion oxidation methods (such as high temperature heating combustion, fuel additive or catalyst reduce PM ignition combustion) to keep the performance of the filter stable.

It needs to be performed in the following cases:

1. The exhaust back pressure sensor is replaced.
2. The PM trap is removed or replaced.
3. The fuel additive nozzle is removed or replaced.
4. The catalytic oxidizer is removed or replaced.
5. The DPF regeneration MIL is on and maintenance is performed.
6. The DPF regeneration control module is replaced.

6.11 Electronic Throttle Position Matching

This function can utilize the diagnostic scanner to initialize the throttle actuator so that the learning value of the ECU returns to the initial state. By doing so, the movement of the throttle (or idle motor) can be more accurately controlled, thus adjusting the intake volume.

It needs to be performed in the following cases:

- After replacing the electronic control unit, the relevant characteristics of the throttle operation have not been stored in the electronic control unit.
- After the electronic control unit is powered off, the memory of the electronic control unit's memory is lost.
- After replacing the throttle assembly, you need to match the throttle.
- After replacing or disassembling the intake port, the controlling of the idle speed by the coordination between the electronic control unit and the throttle body is affected.
- The intake volume, and the idle control behavior has changed while staying at the same throttle opening position, although the idle throttle potentiometer behavior hasn't changed.

6.12 Gearbox Matching

This function can complete the self-learning of the gearbox and improve the shift quality.

It needs to be performed in the following cases:

- When the gearbox is disassembled or repaired.

6.13 AFS (Adaptive Front-lighting System) Reset

This function enables you to initialize the adaptive headlamp system.

6.14 Sunroof Initialization

This function can set the sunroof lock off, close in rain, memory function of sliding / tilting sunroof, outside temperature threshold, etc.

6.15 Suspension Calibration

This function can adjust the vehicle body height sensor for level calibration.

It needs to be performed in the following cases:

1. When replacing the body height sensor, or control module in the air suspension system.
2. When the vehicle height is incorrect.

6.16 EGR Adaption

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

6.17 Seats Calibration

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

6.18 Windows Calibration

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

6.19 Transport Mode

To lower vehicle power consumption, user may perform the following operations: limit vehicle speed, not wake up the network for door open and disable remote key etc. In this case, deactivating transport mode is needed to recover vehicle being normal.

6.20 Gas Particulate Filter (GPF) Regeneration

After the GPF is used for a long time, fuel consumption is increased and engine output power is reduced. In this case, the GPF replacement or regeneration must be performed.

7 Software Update

This module enables you to update the diagnostic software & App and frequently used software.

7.1 Update Diagnostic Software & APP

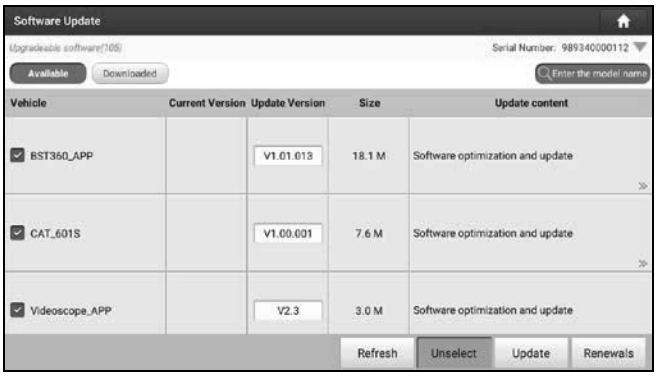
Go to **Software Update** on the Job Menu and tap the **Downloaded** tab.

The **Available** tab displays a list of software that can be updated. Under it, all software is categorized into three kinds:

- **Common software**: mainly includes some common apps that are associated with the diagnostic app. The software of this kind always stays at the top of the list, which can be deselected manually (excluding the system app, such as firmware and ECU aid).
- **Frequently used vehicle software**: refers to the diagnostic software that is frequently used, including the vehicle diagnostic software and Reset software. It is generally displayed following the **Common software** list.
- **Other vehicle software**: refers to the diagnostic software that is rarely used or never used. It is generally displayed following the **Frequently used software** list.

1). If the user does not download any diagnostic software during the sign-up process, all diagnostic software is selected by default. Tap **Update** to start downloading.

2). If the user downloaded all/some vehicle software during the sign-up process and had it serviced for a long period of time, only the frequently used software is selected. Tap **Update** to start downloading. Other vehicle software that is rarely used will also be listed under the **Available** tab, but it is not selected at default.

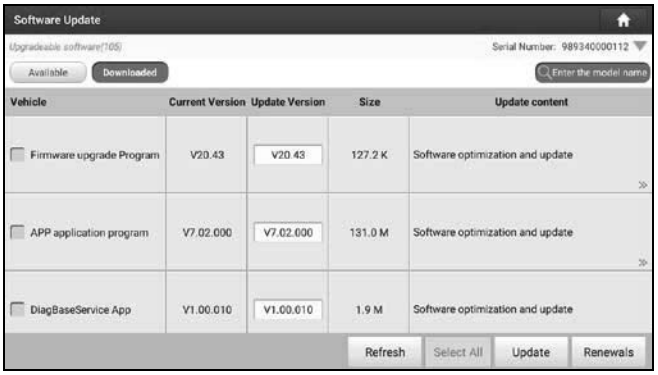


To download certain software that is not frequently used, check the box before the vehicle model. Tap **Update** to start downloading.

Once download is finished, the software packages will be installed automatically.

7.2 Update Frequently Used software

If the user only intends to update the frequently used software, go to Software Update and tap the **Downloaded** tab.



Tap **Update** to start downloading. Once download is finished, the software packages will be installed automatically.

8 User Info

This function allows users to manage personal information and VCI.

8.1 VCI

This option allows you to manage all activated VCI devices.
If several VCI devices are activated on this tool, a list of VCIs will be displayed on the screen. Once you choose the VCI device that belongs to other account, you have to log out, and then input the right account to continue.

8.2 VCI Management

This option is used for the tablet to deactivate pairing up with the VCI device via Bluetooth.

8.4 Firmware Fix

Use this item to upgrade and fix diagnostic firmware. During fixing, please do not cut power or switch to other interfaces.

8.5 Sample

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

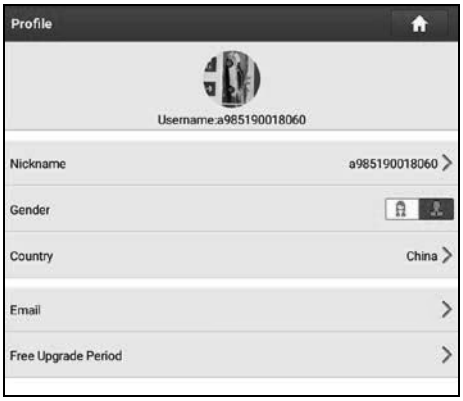
8.6 Software Status

This item displays the expiration date of standard software configuration, the activation & expiration date of SGW and database. Moreover, user can also use this item to renew the software subscription.

If any one of the above-mentioned subscription service expires, a solid red dot will appear on the module of ***User Info*** and the ***Software Status*** tab respectively, and the WalkMe function will be disabled.

8.9 Profile

Use this item to view and configure personal information.



- Tap the user image to change it.
- Tap > next to *Upgrade Period* to check the due date of all diagnostic software.

8.10 Change password

This item allows you to modify your login password.

8.11 Settings

It enables you to make some application settings and view software version information etc.

8.11.1 Units

It is designed to configure the measurement unit. Metric System and English System are available.

8.11.2 Shop Information

This option lets you define your shop information. It mainly includes Workshop, Address, Telephone, Fax and License Plate.

After inputting, tap **Save**.

Once you saved the shop information, it will be entered automatically in the *Add Information* box every time you save the diagnostic report.

8.11.3 Printer Set

This option is designed to establish a wireless connection between the tablet and the Wi-Fi printer (sold separately while performing printing operations.

The App is compatible with the ***asTech Wi-Fi Printer*** (sold separately and ***System*** (external printer.

For asTech Wi-Fi printer, follow the User Manual included with the printer to configure it.

For other Wi-Fi printers,

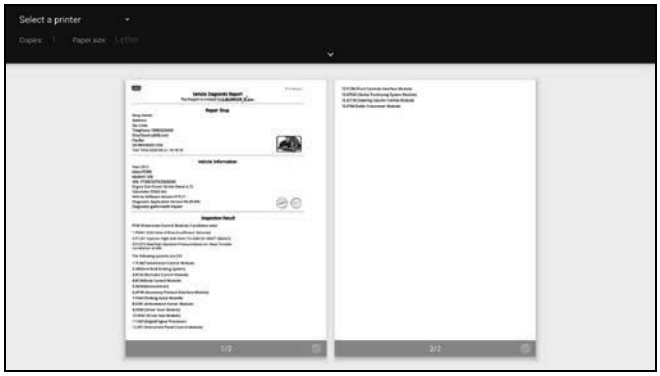
Before printing, make sure the following conditions are met:

- The Wi-Fi printer is powered on and working normally.
- The print service plug-in associated with the printer is already installed on the tablet (Go to Google Play or use the Browser to download and install it).

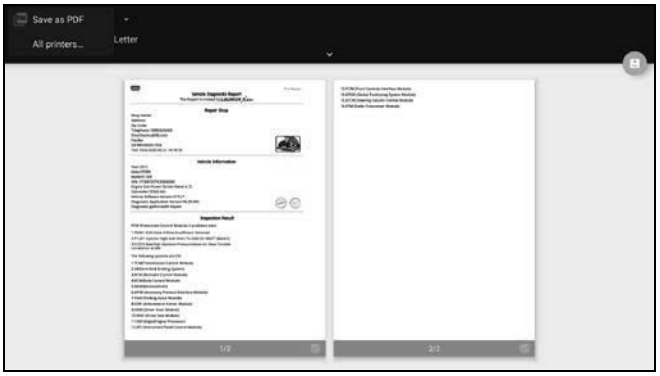
Follow the steps below to proceed:

1. Set the default printer as **System**.
2. Go to **Other Modules -> Tablet Settings -> WLAN**, set the WLAN switch to Off.
3. On the report details page, tap .

4. Touch next to **Select a printer** on the upper left corner of the screen.



5. Select **All Printers -> Add printer** and enable the installed printer service, the system starts searching for all available Wi-Fi printers of the brand.



6. Select the desired Wi-Fi printer from the list. If the chosen Wi-Fi printer hotspot is open, the tablet can connect it directly. If it is encrypted, a password may be required. Refer to the Wi-Fi printer user manual to get the default password.
7. Now the printer is ready for printing.
8. Alternatively, you can also choose ***Save as PDF*** to save the current diagnostic report as a PDF file for later printing.

8.11.4 Newsletter Settings

This option is used to set whether to activate the newsletter pushing.

8.11.5 Clear Cache

This option allows you to clear the App cache. Clearing the cache will restart the App.

8.11.6 About

The software version information and disclaimer are included.

8.11.7 Login/Logout

To logout the current user ID, tap **Logout**.

To login the system again, tap **Login**.

8.12 Diagnostic Software Clear

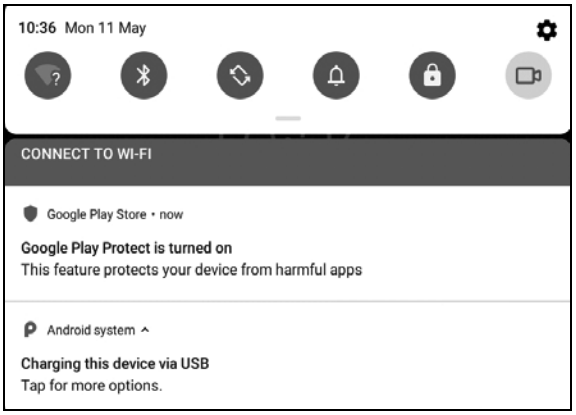
This item allows you to hide/clear the diagnostic software that is not frequently used.

Note: Removing software may completely delete the software from the tablet. If some software is not used and the tablet runs out of space, you can use this feature to remove it.

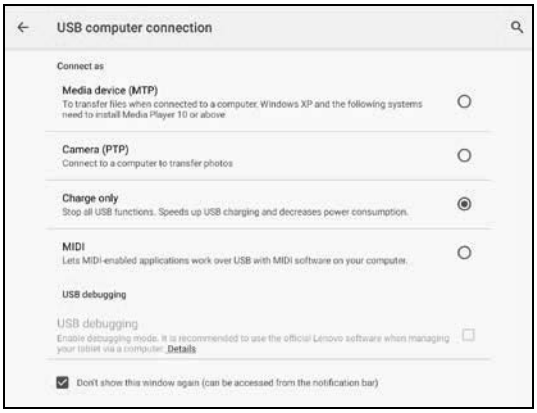
9 Synchronization

You can transfer media files, screenshots and APK between the PC and tablet.

1. Connect one end of the included charging/data cable to the charging/data I/O port of the tablet, and the other end to the USB port of the PC.
2. Swipe the tablet screen from the top, a pull-down option list will appear on the screen.



3. Tap **Charging this device via USB**, the following setting options will be displayed on the screen.



4. Select the checkbox “Media device (MTP)” under the **Connect as** tab.
5. Now you can transfer files between the tablet and PC.

10 FAQ

10.1 About All-In-One

1. How to save power?

1. Please turn off the screen while the tool keeps idle.
2. Set a shorter standby time.
3. Decrease the brightness of the screen.
4. If WLAN connection is not required, please turn it off.

2. Communication error with vehicle ECU?

Please confirm:

1. Whether the VCI device is correctly connected.
2. Whether ignition switch is ON.
3. If all checks are normal, send vehicle year, make, model and VIN number to us using Feedback feature.

3. Failed to enter into vehicle ECU system?

Please confirm:

1. Whether the vehicle is equipped with this system.
2. Whether the VCI device is correctly connected.
3. Whether ignition switch is ON.
4. If all checks are normal, send vehicle year, make, model and VIN number to us using Feedback feature.

4. How to reset the tablet?

⚠ Warning: Resetting may cause data loss. Before doing so, please make sure important data and information has been backed up.

Do the following to reset the tablet:

1. Tap **Settings -> System -> Reset options**.
2. Tap **Erase all data (factory reset)**.
3. Tap **RESET TABLET**.
4. Tap **ERASE EVERYTHING** to start resetting until the tool automatically reboots.

5. What to do if the language of vehicle diagnostic software does not match the system language?

English is the default system language of the tool. After the system language is set to the preference language, please go to the update center to download the vehicle diagnostic software of the corresponding language.

If the downloaded diagnostic software is still displayed in English, it indicates that the software of the current language is under development.

6. How to retrieve the login password?

Please follow below steps to proceed in case you forgot the login password:

1. Tap the application icon on the home screen to asTech it.
2. Tap the **Login** button on the upper right corner of the screen.
3. Tap **Retrieve password**.
4. Input product S/N and follow the on-screen prompts to retrieve the password.

10.2 About asTech Connect.

1. What's network conditions is required for asTech Diag.?

The remote asTech Diag. operation requires a network broadband of 100 MB or above.

2. What does the word "Delay" displayed on the asTech Connect screen mean?

The Delay (network delay) indicates the quality of the current network. Different colors represent different delay status. There are three states of network delay:

Green: Indicates the network is normal. It is recommended that the diagnosis operation be performed when the network delay is green. Otherwise, the communication with the vehicle may fail or the incorrect system detection may occur.

Yellow: Indicates the network is not stable. Please keep it stable.

Red: Indicates the network delay is serious and not suitable for remote diagnosis or the network is disconnected.

3. Why is the network connection so poor?

If the displayed network is poor, there may be too many people using the network in the LAN and some users are downloading. It is recommended to use a stable network for remote asTech diagnosis.

4. Why does the sign appear on the upper right corner of the asTech Connect screen?

Some networks have firewall restriction which leads to a longer delay of connection. You are most likely to see this sign while your system is in connection with networks managed by communities or companies. It is recommended to use the networks directly installed by telecommunication operators where there is no firewall restriction.

5. Some systems of some old vehicles cannot be tested

The asTech Connect device supports CANBUS and DoIP communication protocols, but some old vehicle uses K-Line communication protocol.

6. Is it necessary to re-ignite the car after the diagnostic system starts working?

For the sake of some vehicle's conditions, the re-ignition will provide you a more detailed analysis after OBD diagnosis.

7. Can I charge the asTech Connect device through an external DC power supply?

No. The asTech Connect device obtains power only through a vehicle's OBD diagnostic socket. Getting power through an external DC power supply could result in system malfunction.

8. How to update asTech Connect system?

After the asTech Connect device is powered on and connected to the network, a message "Whether to upgrade now?" will be displayed if a new system version is detected. Tap **Yes** to start updating, wait until the upgrade is complete.

11 Glossary of Terms & Abbreviations

ABS – Anti-Lock Brake System

AC – Alternative Current

ADAS -- Advanced Driver Assistance Systems

AFS – Adaptive Front-lighting System

CAN – Controller Area Network

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

DC – Direct Current

DLC – Data Link Connector

The 16-cavity connector on the vehicle that allows communication between the computer system and the diagnostic tool.

DPF – Diesel Particulate Filter

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.

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.

Freeze Frame Data – A digital representation of engine and/or emissions system conditions present when a fault code was recorded.

Generic Code – A DTC that applies to all OBD2 compliant vehicles.

I/M – Instant Messaging

I/M Readiness – An indication of whether or not a vehicle's emissions-related system are operating properly and are ready for Inspection and Maintenance testing.

IMMO – Immobilizer

LCD – Liquid Crystal Display

LED – Light Emitting Diode

Manufacturer Specific Code – A DTC that applies only to OBD II-compliant vehicles made by a specific manufacturer.

MIL – Malfunction Indicator Lamp
The vehicle's "Check Engine" warning light that activates when a DTC is stored.

OBD I – On-Board Diagnostics Version 1

OBD II – On-Board Diagnostics Version 2

OEM – Original Equipment Manufacturer

PID – Parameter Identification Data
Data returned by the vehicle's Control Modules to the diagnostic tool.

PDF – Portable Document Format

TPMS – Tire Pressure Monitor System

VCI – Vehicle Communication Interface

WLAN – Wireless Local Area Network

Warranty

This warranty is expressly limited to persons who purchase asTech® products for purposes of resale or use in the ordinary course of the buyer's business.

asTech All-In-One® electronic product is warranted against defects in materials and workmanship for one year (12 months) from date of delivery to the user.

This warranty does not cover any part that has been abused, altered, used for a purpose other than for which it was intended, or used in a manner inconsistent with instructions regarding use. The exclusive remedy for any automotive meter found to be defective is repair or replacement, and asTech shall not be liable for any consequential or incidental damages.

Final determination of defects shall be made by asTech in accordance with stipulated procedures.

Order Information

Replaceable and optional parts can be ordered directly from your authorized tool supplier. Your order should include the following information:

- Quantity
- Part number
- Item description

If you have any questions on the operation of the unit, please contact:

astech.com

Statement:

asTech reserves the rights to make any change to product designs and specifications without notice. The actual object may differ a little from the descriptions in the manual in physical appearance, color and configuration. We have tried our best to make the descriptions and illustrations in the manual as accurate as possible, and defects are inevitable, if you have any question, please contact local dealer or after-sale service center of asTech does not bear any responsibility arising from misunderstandings.

FCC Statement

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.
To assure continued compliance, any changes or modifications not expressly approved by the party.
Responsible for compliance could void the user's authority to operate this equipment. (Example- use only shielded interface cables when connecting to computer or peripheral devices).
This equipment 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.

The SAR limit adopted by USA and Canada is 1.6 watts/kilogram (W/kg) averaged over one gram of tissue. The highest SAR value reported to the Federal Communications Commission (FCC) and the Industry Canada (IC) for this device type when it is tested properly worn on the body is 0.394W/kg Max.

The device complies with the RF specifications when the device is used near your at a distance of 0 mm from your body. Ensure that the device accessories

such as a device case and a device holster are not composed of metal components. Keep your device 0 mm away from your body to meet the requirement earlier mentioned.

This device was tested for typical body-worn operations. To comply with RF exposure requirements, a minimum separation distance of 0 mm must be maintained between the user's body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.