SOLUS™ Edge
User Manual
FCC Compliance 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.

CAUTION

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

FCC RF Radiation Exposure Statement

1. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device was tested for typical lap held operations with the device contacted directly to the human body to the back side of the Display Unit. To maintain compliance with FCC RF exposure compliance requirements, avoid direct contact to the transmitting antenna during transmitting.
3. According to FCC 15.407(e), the device is intended to operate in the frequency band of 5.15GHz to 5.25GHz under all conditions of normal operation. Normal operation of this device is restricted to indoor use only to reduce any potential for harmful interference to co-channel MSS operations.
Product Support Information

Phone / E-mail - Technical Assistance
1-800-424-7226 / diagnostics_support@snapon.com
or use our online contact form
- https://www1.snapon.com/diagnostics/us/Contact

Website Links:

Snap-on Diagnostics and Information
  • http://diagnostics.snapon.com

Manuals / Technical Documentation - This manual is periodically revised to ensure the latest information is included. Download the latest version of this manual and other related technical documentation at:
  • http://diagnostics.snapon.com/usermanuals

For technical assistance in all other markets, contact your selling agent.

Product Training Videos

Diagnostic tool specific training videos are available on our website. Follow along and learn the basics of diagnostic tool operation with our free training videos.

Videos are product specific and are available at:

http://diagnostics.snapon.com - Click on the “Training & Support” tab, select the applicable diagnostic tool, then select “See Training”.

NOTE:
Sample titles are listed below. Not all titles may be available for all diagnostic tools, and are subject to change.

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Diagnostic Quick Tips - Video Series

Snap-on Diagnostic Quick Tips videos are available at no charge on our website and on our YouTube channel. These videos are developed from real repair case studies to help professional technicians use diagnostic tools to solve specific vehicle problems (e.g. performing a Ford Relative Injector Flow Test).

Additional videos are also available showing specific diagnostic tool features (e.g. ShopStream Connect - Software Updates).

Videos are available at:

http://diagnostics.snapon.com - Click on the “Training & Support” tab, select the applicable diagnostic tool, then select “See Quick Tips”

https://www.youtube.com/user/snaponscanner/videos - Use the search function to find a title, or enter “Diagnostic Quick Tips” in the search field to see a list of all applicable titles.

NOTE:
URL links (above) and titles listed (below) are subject to change and may not be available in all markets.

A sample list of titles are listed below, other titles may be available.

Some videos may not applicable for use with all diagnostic tools.

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READ ALL INSTRUCTIONS

For your own safety, the safety of others, and to prevent damage to the product and vehicles upon which it is used, it is important that all instructions and safety messages in this manual and the accompanying Important Safety Instructions manual be read and understood by all persons operating, or coming into contact with the product, before operating. We suggest you store a copy of each manual near the product in sight of the operator.

For your safety, read all instructions. Use your diagnostic tools only as described in the tool user’s manual. Use only manufacturer recommended parts and accessories with your diagnostic tools.

This product is intended for use by properly trained and skilled professional automotive technicians. The safety messages presented throughout this manual and the accompanying Important Safety Instructions manual are reminders to the operator to exercise extreme care when using this product.

There are many variations in procedures, techniques, tools, and parts for servicing vehicles, as well as in the skill of the individual doing the work. Because of the vast number of test applications and variations in the products that can be tested with this instrument, we cannot possibly anticipate or provide advice or safety messages to cover every situation. It is the responsibility of the automotive technician to be knowledgeable of the system being tested. It is essential to use proper service methods and test procedures. It is important to perform tests in an appropriate and acceptable manner that does not endanger your safety, the safety of others in the work area, the equipment being used, or the vehicle being tested.

It is assumed that the operator has a thorough understanding of vehicle systems before using this product. Understanding of these system principles and operating theories is necessary for competent, safe and accurate use of this instrument.

Before using the equipment, always refer to and follow the safety messages and applicable test procedures provided by the manufacturer of the vehicle or equipment being tested. Use the product only as described in it’s user manual. Use only manufacturer recommended parts and accessories with your product.

Read, understand and follow all safety messages and instructions in this manual, the accompanying Important Safety Instructions manual, and on the test equipment.

Environmental Conditions:

- This product is intended for indoor use only
- This product is rated for Pollution Degree 2 (normal conditions)
Safety Signal Words

All safety messages contain a safety signal word that indicates the level of the hazard. An icon, when present, gives a graphical description of the hazard. Safety Signal words are.

**DANGER**
Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury to the operator or to bystanders.

**WARNING**
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury to the operator or to bystanders.

**CAUTION**
Indicates a potentially hazardous situation which, if not avoided, may result in moderate or minor injury to the operator or to bystanders.

Safety Message Conventions
Safety messages are provided to help prevent personal injury and equipment damage. Safety messages communicate the hazard, hazard avoidance and possible consequences using three different type styles:

- Normal type states the hazard.
- **Bold type states how to avoid the hazard.**
- *Italic type states the possible consequences of not avoiding the hazard.*

An icon, when present, gives a graphical description of the potential hazard.

Safety Message Example

**WARNING**
Risk of unexpected vehicle movement.
- **Block drive wheels before performing a test with engine running.**

_**A moving vehicle can cause injury.**_

Important Safety Instructions
For a complete list of safety messages, refer to the accompanying *Important Safety Instructions manual.*

SAVE THESE INSTRUCTIONS
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Chapter 1 Using This Manual

1.1 Content

This manual contains basic operating instructions and is structured in a manner to help you become familiar with your diagnostic tool features and perform basic operations.

The illustrations in this manual are intended as reference only and may not depict actual screen results, information, functions or standard equipment. Contact your sales representative for availability of other functions and optional equipment.

1.2 Conventions

The following conventions are used.

1.2.1 Terminology

The terms “Scanner” and “Scanner function” are used to describe the Scanner Function(s) of the diagnostic tool.

Examples:

• Select Scanner from the Home screen.
• From the Scanner main menu select Continue.
• The Scanner function provides many diagnostic tests.

The term “select” describes tapping/touching an icon on the touch screen, or highlighting an icon or menu choice and then selecting the confirmation menu choice such as Continue, Accept, OK, Yes, or other similar choice.

Abbreviated example for the following procedure: “Select Brightness”

1. Navigate to and highlight the Brightness selection.
2. Select OK, or similar, button.

1.2.2 Symbols

Different types of arrows are used. The “greater than” arrow (>) indicates an abbreviated set of selection (navigation) instructions.

Abbreviated example for the following procedure: “Select Tools > Connect-to-PC”

1. Select Tools from the home screen.
2. Highlight Connect-to-PC on the Tools menu.
3. Select Connect-to-PC.

The solid arrows (◀, ▶, ▼, ▲) are navigational instructions for the four directions of the directional buttons.

Example: Press the down ▼ arrow.
1.2.3 Bold Text

Bold emphasis is used in procedures to highlight selectable items such as control buttons, icons and menu options.

Example: Press the OK button

1.2.4 Notes and Important Messages

The following messages are used.

Notes

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

Example:

NOTE:
For additional information refer to...

Important

IMPORTANT indicates a situation which, if not avoided, may result in damage to the test equipment or vehicle.

Example:

IMPORTANT:
Do not disconnect the data cable while the diagnostic tool is communicating with the ECM.

1.2.5 Hyperlinks

Hyperlinks, or hot links, that take you to other related articles, procedures, and illustrations are available in electronic documents. Blue colored text indicates a selectable hyperlink.

Example:

IMPORTANT:
Read all applicable Safety Information before using this diagnostic tool!

1.2.6 Procedures

An arrow icon in the left-margin area indicates a procedure.

Example:

To change screen views:
1. Select the Graph icon.
   The dropdown menu displays.
2. Select an option from the menu.
   The screen layout changes to the format selected.
Chapter 2 Introduction

This chapter introduces the basic features of the diagnostic tool, including the control buttons, data connections, battery pack and power sources. Technical Specifications are provided at the end of this chapter.

2.1 Control Buttons

There are four “push type” control buttons and one “thumb pad rocker type” multi-directional button located on the right side of the diagnostic tool. All other diagnostic tool operations are controlled through the touch screen.

**Figure 2-1 Front view**

<table>
<thead>
<tr>
<th>Item</th>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1    | ![N/X or Cancel button](image1) | - To exit a menu or program.  
- To close an open list and return to the previous menu or screen.  
- To answer “No” when a yes/no choice is given. |
| 2    | ![Y/✓ or Accept button](image2) | - To confirm a selection from a menu or program  
- To select an item that was highlighted using the direction arrows.  
- To advance to the next screen in a series.  
- To answer “Yes” when a yes or no choice is given. |
2.2 Data and Power Connections

Connectors and jacks for data communication cables and the AC Power Supply are located on the top of the diagnostic tool.

<table>
<thead>
<tr>
<th>Item</th>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td><img src="https://via.placeholder.com/150" alt="Directional" /></td>
<td>Directional - Thumb pad rocker type buttons&lt;br&gt;Buttons move the cursor or highlight in their respective direction:&lt;br&gt;• Up (▲)&lt;br&gt;• Down (▼)&lt;br&gt;• Left (◀)&lt;br&gt;• Right (▶)</td>
</tr>
<tr>
<td>4</td>
<td><img src="https://via.placeholder.com/150" alt="S (Shortcut)" /></td>
<td>S (Shortcut) - Push type button&lt;br&gt;Programmable function button that can provide a shortcut for performing a variety of routine tasks. Refer to Configure Shortcut Button, on page 99 for additional information.</td>
</tr>
<tr>
<td>5</td>
<td><img src="https://via.placeholder.com/150" alt="Power (On/Off)" /></td>
<td>Power (On/Off) - Push type button&lt;br&gt;Turns the diagnostic tool on and off. Also, press and hold for 5 seconds for emergency shutdown</td>
</tr>
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**Figure 2-2 Top view**

<table>
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<th>Item</th>
<th>Description</th>
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<tr>
<td>1</td>
<td>Battery Status Indicator LED&lt;br&gt;• Green - battery is fully charged&lt;br&gt;• Red - battery is charging&lt;br&gt;• Amber - indicates a battery issue</td>
</tr>
<tr>
<td>2</td>
<td>Power Supply Jack - AC power supply connection</td>
</tr>
<tr>
<td>3</td>
<td>Mini USB Jack - USB cable connection used to transfer saved data files to a personal computer</td>
</tr>
<tr>
<td>4</td>
<td>Micro secure digital (uSD) Card - contains operating system programming. <strong>IMPORTANT</strong> The uSD card must be installed for the diagnostic tool to operate. Do not remove the uSD card while the diagnostic tool is powered on.</td>
</tr>
<tr>
<td>5</td>
<td>Data Cable Connector - Data cable connection used to connect the diagnostic tool to a vehicle data link connector</td>
</tr>
</tbody>
</table>
2.3 Battery Pack and Stand

1— Battery Pack
2— Battery Cover
3— Built in-Stand (shown open) - The built-in stand extends from the back of the diagnostic tool and clips into the diagnostic tool for storage.

Figure 2-3 Back view
2.4 Power Sources

Your diagnostic tool can receive power from any of the following sources:

- Internal Battery Pack
- AC Power Supply
- Vehicle Power

2.4.1 Internal Battery Pack

The diagnostic tool can be powered from the internal rechargeable battery pack. A fully charged battery provides sufficient power for about 3.5 hours of continuous operation.

The battery is recharged when an external power source is connected. Battery charging occurs when the diagnostic tool is connected to a vehicle data link connector (DLC) using the Data Cable or when the AC Power Supply is connected to a live AC power source.

The Battery Status Indicator LED (located next to the power supply jack) indicates battery status (Figure 2-3).

- **Green** - indicates battery is fully charged
- **Red** - indicates battery is charging
- **Amber** - indicates a battery issue. This is usually caused by excessive battery temperature (above 104°F/40°C), which disables charging. Allow the diagnostic tool to cool down before continuing operation.

2.4.2 AC Power Supply

The diagnostic tool can be powered from a standard AC outlet using the AC power supply. The connector on the end of the output cable of the AC power supply attaches to the power supply input jack on top of the diagnostic tool. Use only the AC power supply provided.

**IMPORTANT:**
Never connect the AC power supply to the power supply input on the diagnostic tool when the diagnostic tool is communicating with a vehicle.

2.4.3 Vehicle Power

All OBD-II/EOBD vehicles have vehicle battery power (B+) available on the DLC. The diagnostic tool is powered through the Data Cable when connected to the vehicle DLC. A green LED indicator on the DLC end of the data cable, illuminates when power is being supplied to the cable. If the LED fails to illuminate, check that the data cable is properly connected and then check the DLC power circuit. See Data Cable Connection, on page 18 for additional data cable information.

An optional power cable is required when testing non-OBD-II/EOBD models that do not have vehicle battery power (B+) available on the DLC. Contact your sales representative for availability.

**IMPORTANT:**
Never connect the optional power cable to the power supply input on the diagnostic tool when the diagnostic tool is communicating with a vehicle.
## 2.5 Technical Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Description / Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch Screen</td>
<td>Resistive Touch Panel</td>
</tr>
<tr>
<td>Display</td>
<td>8.0 inch diagonal, Color LCD</td>
</tr>
<tr>
<td></td>
<td>800 x 480 resolution SWVGA</td>
</tr>
<tr>
<td>Battery</td>
<td>Rechargeable lithium-ion battery pack</td>
</tr>
<tr>
<td></td>
<td>Approximately 3.5 hour run time</td>
</tr>
<tr>
<td></td>
<td>Approximately 5 hour charge time</td>
</tr>
<tr>
<td>Operating Voltage</td>
<td>10 to 30 VDC</td>
</tr>
<tr>
<td>Width</td>
<td>11.1 in. (281 mm)</td>
</tr>
<tr>
<td>Height</td>
<td>6.3 in. (160 mm)</td>
</tr>
<tr>
<td>Depth</td>
<td>1.6 in. (40.3 mm)</td>
</tr>
<tr>
<td>Weight (including battery):</td>
<td>2.6 lb (1.18 kg)</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>At 0 to 90% relative humidity (non-condensing)</td>
</tr>
<tr>
<td>Range (ambient)</td>
<td>32 to 113°F (0 to 45°C)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>At 0 to 70% relative humidity (non-condensing)</td>
</tr>
<tr>
<td>(ambient)</td>
<td>–4 to 140°F (–20 to 60°C)</td>
</tr>
<tr>
<td>Environmental Conditions</td>
<td>This product is intended for indoor use only</td>
</tr>
<tr>
<td></td>
<td>This product is rated for Pollution Degree 2 (normal conditions)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>Supply Rating; 15 VDC, 2A</td>
</tr>
</tbody>
</table>
Chapter 3 Basic Operation and Navigation

This chapter describes basic diagnostic tool operation, navigation, screen layout, icon functions, and screen messages. Before you operate the diagnostic tool, make sure the battery pack is fully charged or the diagnostic tool is powered by the AC power supply.

3.1 Turning On/Off and Emergency Shutdown

The following sections describe how to turn the diagnostic tool on and off and how to perform an emergency shutdown.

3.1.1 Turning On

The diagnostic tool will automatically turn on and open the Home screen (Figure 3-1) when power is supplied through the Data Cable or by the AC Power Supply. If the diagnostic tool does not automatically turn on, press and release the Power button on the front of the diagnostic tool to turn the diagnostic tool on.

3.1.2 Turning Off

IMPORTANT:
All vehicle communication must be terminated BEFORE turning off the diagnostic tool. A warning message displays if you attempt to turn the diagnostic tool off while communicating with the vehicle. Forcing a shut down while communicating may lead to ECM problems on some vehicles. Never disconnect the Data Cable when the diagnostic tool is communicating with the vehicle ECM.

To turn off the diagnostic tool:
1. Press the N/X button or select the Back or Home icon to navigate to the Home screen. The “stopping communication” message appears briefly before the Home screen displays.
2. Disconnect the diagnostic tool Data Cable from the vehicle.
3. Press and release the Power button. A confirmation screen displays.
4. Press the Y/✓ button or select OK from the menu to turn the diagnostic tool off. To continue operating, press the N/X button or select Cancel from the menu.
3.1.3 Emergency Shutdown

**IMPORTANT:**
Using the emergency shutdown procedure while communicating with the vehicle ECM may lead to ECM problems on some vehicles.

During normal operation turn the diagnostic tool off using the Turning Off procedure above. The emergency shutdown procedure should only be used if the diagnostic tool does not respond to navigation or control buttons or exhibits erratic operation. To force an emergency shutdown, press and hold the **Power** button for five seconds until the diagnostic tool turns off.

3.2 Wi-Fi Connection

See Wi-Fi Connection / Troubleshooting, on page 129.

3.3 Basic Navigation

3.3.1 Home Screen Layout

The Home screen includes a title bar and main body. The Home screen contains icons, one for each of the primary diagnostic tool functions.

![Figure 3-1 Home screen](image)
3.3.2 Title Bar

The title bar at the top of the screen provides basic information about current diagnostic tool operating conditions. Title bar options vary depending upon vehicle make and model, what function is active, what test is being performed, or what menu is selected. The title bar contains information only, there are no selectable items.

Elements of the Title bar let you know at a glance:

- What diagnostic tool function is currently active.
- The current time.
- Wi-Fi signal strength
- The source and status of the power being supplied to the diagnostic tool.

An active function icon is always displayed along the left-hand edge of the Title bar. These icons resemble their Home screen icon counterparts in appearance and color. The name of the function displays to the right of the icon on some screens.

A real time clock displays to the left of the power supply icon. The clock is powered by a dedicated internal battery, so the correct time is maintained even when the main battery pack is discharged. Use the Tools function to set the clock and format how time is displayed. See Clock Settings, on page 105 for additional information.

The Title bar displays other information that varies depending upon what functions are being performed. Other information may include:

- The identification (ID) of the test vehicle
- The name of the active menu or function
- The name of the test being performed

<table>
<thead>
<tr>
<th>Icon</th>
<th>Function</th>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Full Battery Charge Level" /></td>
<td>Full Battery Charge Level - Indicates power is being supplied by the internal battery pack. Horizontal bars diminish as the battery discharges.</td>
<td><img src="image" alt="Active Vehicle Communication" /></td>
<td>Active Vehicle Communication - Indicates the diagnostic tool is actively communicating with a vehicle.</td>
</tr>
<tr>
<td><img src="image" alt="Low Battery Charge Level" /></td>
<td>Low Battery Charge Level - Indicates the internal battery pack is low and needs to be recharged immediately. A warning message will also display on the screen when the battery gets low.</td>
<td><img src="image" alt="Wi-Fi Signal Strength" /></td>
<td>Wi-Fi Signal Strength - Indicates signal strength of the wireless network connection. Three bars - indicate full strength signal Zero to 1 bar - indicate weak or no signal</td>
</tr>
<tr>
<td><img src="image" alt="External Power Connected" /></td>
<td>External Power Connected - Indicates power is being supplied through the data cable connection to a vehicle or by the AC Power Supply.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 3.3.3 Home Screen Icons

Each available diagnostic tool function is represented by an icon on the home screen. The table below provides descriptions of the icon functions.

Select an icon from the Home screen to launch a function. You can also use the control buttons to activate a function, a yellow border around the icon indicates it is highlighted, or in focus. Use the Directional buttons (⇦, →, ↑, ↓) to highlight the desired function and then press the Y/.authorization button to select it. A “please wait” message may display briefly, then automatically clear once the function is loaded and ready for use.

<table>
<thead>
<tr>
<th>Function Name</th>
<th>Function Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scanner</strong></td>
<td></td>
<td>Used to communicate with the electronic control systems of a vehicle. This function allows you to retrieve diagnostic trouble codes (DTCs), view PID data and perform diagnostic tests. See Scanner, on page 19 for details.</td>
</tr>
<tr>
<td><strong>OBD-II/EOBD</strong></td>
<td></td>
<td>Allows you to access generic OBD-II/EOBD data and tests without identifying the vehicle being tested. See OBD-II/EOBD, on page 68 for details.</td>
</tr>
<tr>
<td><strong>Quick Lookups</strong></td>
<td></td>
<td>Allows you quickly access OEM Oil and Tire/Wheel specifications and instructions on your diagnostic tool. See Quick Lookups, on page 78.</td>
</tr>
<tr>
<td><strong>Previous Vehicle &amp; Data</strong></td>
<td></td>
<td>Allows you to quickly reconfigure the diagnostic tool to a recently tested vehicle and to access saved data files. See Previous Vehicles and Data, on page 93 for details.</td>
</tr>
<tr>
<td><strong>Tools</strong></td>
<td></td>
<td>Allows you to adjust diagnostic tool settings to your personal preferences and perform other special functions. See Tools, on page 97 for details.</td>
</tr>
</tbody>
</table>
3.3.4 Common Toolbar Control Icons

Common control icon functions are described in the following table. Specific function control icons are described in their applicable chapters. Displayed control icons vary depending on the active function or test. Select a control icon on a screen to activate a control function. You can also use the control buttons to activate a function, a yellow border around the icon indicates it is highlighted, or in focus. Use the Directional buttons (↑, ↓, ←, →) to highlight the desired function and then press the Y/✓ button to select it.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Function</th>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Back Icon" /></td>
<td>Back - Returns to the previously viewed screen. Icon is located on the left-hand edge of the toolbar.</td>
<td><img src="image" alt="Record Icon" /></td>
<td>Record - Indicates the data being displayed is paused and not being updated. Selecting resumes data collection.</td>
</tr>
<tr>
<td><img src="image" alt="Home Icon" /></td>
<td>Home - Returns to the Home screen. Icon is located next to the Back icon on the left side of the toolbar.</td>
<td><img src="image" alt="Tools Icon" /></td>
<td>Tools - Opens the tools menu.</td>
</tr>
<tr>
<td><img src="image" alt="Save Icon" /></td>
<td>Save - Writes data from buffer memory to a file. The saved &quot;movie&quot; file can be accessed for future reference by selecting Previous Vehicles and Data &gt; View Saved Data.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The control icons below are used to navigate through paused or saved “movie” files during playback.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Function</th>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Step Forward Icon" /></td>
<td>Step Forward - allows forward movement in singular steps. To quickly step forward, select this icon (yellow frame appears) then press and hold the Y/✓ button.</td>
<td><img src="image" alt="Step Back Icon" /></td>
<td>Step Back - allows backward movement in singular steps. To quickly step backward, select this icon (yellow frame appears) then press and hold the Y/✓ button. (Note: To quickly step backward during Scanner data playback, press and hold the icon down until a red frame appears around the icon.)</td>
</tr>
<tr>
<td><img src="image" alt="Skip Forward Icon" /></td>
<td>Skip Forward - allows forward movement in multiple steps. To quickly skip forward, select this icon (yellow frame appears around icon) then press and hold the Y/✓ button</td>
<td><img src="image" alt="Skip Back Icon" /></td>
<td>Skip Back - allows backward movement in multiple steps. To quickly skip backward, select this icon (yellow frame appears around icon) then press and hold the Y/✓ button.</td>
</tr>
</tbody>
</table>
3.3.5 Scroll Bar

A vertical scroll bar appears along the right-hand edge of the screen when additional data expands above or below what is currently on the screen (Figure 3-2).

1 — **Beginning** - Moves to beginning of data displayed
2 — **Step up** - Moves up one increment of the data displayed
3 — **Slider (position indicator)** - Select and drag the Slider to scroll through data. The slider indicates the relative position of the current screen to the total available data.
4 — **Step down** - Moves down one increment of the data displayed
5 — **End** - Moves to end of data displayed

The Up (▲) and Down (▼) directional buttons can also be used to move through the data one line at a time. Press and hold a directional button to rapidly scroll through data.
3.4 Screen Messages

3.4.1 System Messages

There are four types of system messages that may be displayed:

<table>
<thead>
<tr>
<th>Message Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loading and Connecting</td>
<td>Loading and connecting messages display when the diagnostic tool is performing an internal operation, such as loading a database, establishing communications with the vehicle, or initiating a test. The message automatically clears once the internal operation is complete.</td>
</tr>
<tr>
<td>Confirmation</td>
<td>Confirmation messages inform you when you are about to perform an action that cannot be reversed or when an action has been initiated that requires a confirmation to continue. When a response is not required, the message displays briefly, then disappears.</td>
</tr>
<tr>
<td>Warning</td>
<td>Warning messages inform you when completing the selected action may result in an irreversible change or in the loss of data. A confirmation is required to continue.</td>
</tr>
<tr>
<td>Error</td>
<td>Error messages inform you when a system or procedural error has occurred, for example if the data cable becomes disconnected during operation.</td>
</tr>
</tbody>
</table>

3.4.2 Communication Messages

When "no communication" messages are displayed, it indicates the diagnostic tool and the vehicle electronic control module are not communicating.

The following conditions cause “no communication” messages to display:

- The diagnostic tool is unable to establish a communication link with the vehicle.
- The vehicle is not equipped with the system that was selected.
- There is a loose connection.
- There is a blown vehicle fuse.
- There is a wiring fault on the vehicle.
- There is a circuit fault in the data cable or adapter.
- Incorrect vehicle identification was entered.

Refer to the Vehicle Communication Software manuals for manufacturer-specific problems.
3.5 **Data Cable Connection**

Connection of the data cable to the diagnostic tool and vehicle DLC is required for Scanner and OBD-II/EOBD testing.

Depending on the vehicle, the supplied DA-4 data cable may be used alone or may require optional adapters.

- **All OBD-II/EOBD compliant vehicles** - Use the supplied DA-4 data cable. The 26-pin end of the cable attaches to the data cable connector on the top of the diagnostic tool. The 16-pin end connects to the vehicle DLC. The cable connectors are secured with captive screws.

- **All non-OBD-II/EOBD (OBD-I) compliant vehicles** - Use the supplied DA-4 data cable with the optional DA-5 adapter and a manufacturer specific adapter. The 26-pin end of the cable attaches to the data cable connector on the top of the diagnostic tool. The 16-pin end connects to the DA-5 adapter, the DA-5 adapter connects to the manufacturer specific adapter and then connects to the vehicle DLC. The cable connectors are secured with captive screws.

On-screen cable and adapter connection instructions are provided while using the Scanner and OBD-II/EOBD functions. The instructions may also include the location of the vehicle DLC [Figure 3-3](#). If required, additional connection information can be found in the appropriate vehicle communication software manual for the vehicle. Vehicle communication software manuals are available online, see the website information at the front of this manual.

![Vehicle connection data cable message](#)

For data cable vehicle power connection information, see **Vehicle Power**, on page 9.

**To connect the data cable to the vehicle:**

1. Follow the on-screen instructions for connecting to the vehicle [Figure 3-3](#).
2. Select **Continue** once the data cable is connected.
   
   The diagnostic tool establishes communication then displays a list of available tests. If the diagnostic tool is unable to establish a communications link, a "no communications" message displays.

3. Select from the available tests to open a submenu of test options.
This chapter describes the basic operation of the Scanner function.

The Scanner icon is located on the Home screen.

The Scanner function allows your diagnostic tool to communicate with the electronic control systems of a vehicle. This allows you to retrieve diagnostic trouble codes (DTCs), view PID data and perform diagnostic tests.

### 4.1 Screen Layout and Toolbar Icons

The following screen layout and toolbar controls apply to both the Scanner and the OBD-II/EOBD functions.

#### 4.1.1 Screen Layout

![Screen layout]

1. **Title bar**—shows active test, vehicle and diagnostic tool status
2. **Toolbar**—contains control icons
3. **Main body**—displays menus, PID and test data

The Title bar appears for all functions and displays information only, there are no selectable items. Refer to Title Bar, on page 13 for details.
4.1.2 Scanner Control Icons

The scanner toolbar contains control icons. Control icons may vary depending on the active function or test. A yellow frame surrounding an icon (highlighted), indicates it is selected. Other control icons (not shown) are described in Common Toolbar Control Icons, on page 15.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Function</th>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Pause Icon" /></td>
<td>Pause - Indicates PID data from the vehicle is being displayed. Selecting pauses data collection.</td>
<td><img src="image" alt="Custom Data List Icon" /></td>
<td>Custom Data List - Opens a menu for selecting which PIDs display in the list.</td>
</tr>
<tr>
<td><img src="image" alt="Clear Icon" /></td>
<td>Clear - Erases all the PID data in the buffer and begins a new recording. Selecting opens a confirmation message.</td>
<td><img src="image" alt="Change View Icon" /></td>
<td>Change View - Changes display options between PID list or graph displays.</td>
</tr>
<tr>
<td><img src="image" alt="Trigger Icon" /></td>
<td>Trigger - Opens a menu that allows you to set, arm, and clear threshold values that automatically trigger PID data to be saved from buffer memory to a file.</td>
<td><img src="image" alt="Lock/Unlock Icon" /></td>
<td>Lock/Unlock - Locks or unlocks the highlighted parameter. Locked PIDs move to the top of the list and do not scroll as you move through the data.</td>
</tr>
<tr>
<td><img src="image" alt="Zoom Icon" /></td>
<td>Zoom - Incrementally increases and decreases the scale of the data being displayed.</td>
<td><img src="image" alt="Sort Icon" /></td>
<td>Sort - Determines the order in which PIDs are listed on the screen.</td>
</tr>
</tbody>
</table>

4.2 Scanner Demonstration Program

The Scanner demonstration program contains actual vehicle data that allows you to navigate and become familiar with the many capabilities of the Scanner function without actually connecting to a vehicle. The following sections in this chapter provide detailed information on navigating through the Scanner function and various menus. As you navigate through the Demonstration program, refer to the applicable section for additional information.

To start the demonstration program:
1. From the Home screen, select the Scanner icon.
   The manufacturer menu displays.
2. Select the Demonstration icon.

**IMPORTANT:**
Do not connect a vehicle to the diagnostic tool while using the Demonstration program.

3. Follow the on-screen instructions and make the selection as needed until the confirmation screen displays.
4. Select OK on the confirmation screen to load the demonstration database.
   A message displays “Demo mode: Do not connect to vehicle.”
5. Select Continue.
   A systems menu, which shows all of the systems available for testing, displays.
6. Select a system from the menu, then select submenus as applicable to display the desired demonstration information.
4.3 Scanner Operation

4.3.1 Vehicle Identification

The vehicle must be correctly identified for the diagnostic tool to communicate, and display data correctly. Menus and navigation will vary by vehicle.

Depending on the vehicle, the vehicle identification process may require manual entry of the vehicle information, or it may be automated. The following three Scanner functions are available to identify the vehicle:

**Instant ID** - Automatically completes the identification process upon initial communication between diagnostic tool and the vehicle using OBD-II VIN mode $09. Instant ID requires specific vehicle support and procedures, see Instant ID, on page 24 for additional information.

**Auto ID** - Automatically completes the identification process after the vehicle make and year are manually entered.

**Manual ID** - Allows for manual entry of all required vehicle identification criteria.

Use the following procedure to identify a vehicle.

**NOTE:**
The following procedure applies to most OBD-II vehicles, and may vary depending on the vehicle. Not all vehicles support the Instant ID and/or Auto ID functions.

1. Connect the data cable to the diagnostic tool. See Data Cable Connection, on page 18.
2. Turn the vehicle ignition switch on.
3. Connect the data cable to the vehicle data link connector (DLC). See Data Cable Connection, on page 18.

**NOTE:**
If the diagnostic tool is off, when the OBD-II data cable is connected to the vehicle DLC, the diagnostic tool should automatically turn on. If the tool did not turn on when the data cable was connected to the vehicle, check the vehicle DLC for power. Most OBD-II vehicles supply power to the DLC, which in-turn supplies power and turns on the diagnostic tool when the cable is connected.

4. If required, turn the diagnostic tool on.
5. Depending on the vehicle:
   a. Instant ID may occur, as indicated by an audible "beep" sounded within 5 seconds after the diagnostic tool turns on. Select the Scanner icon, then wait for the vehicle confirmation screen (Figure 4-2) and select OK to continue. Then proceed to step 6. See Instant ID, on page 24, for additional information about this function.
b. If Instant ID is not supported, you will be prompted to select the vehicle make and year (if needed). Then a menu option is displayed to choose either **Automatic ID** or **Manual ID**.
   - **Selecting Automatic ID** (if supported by the vehicle) will briefly display a communications screen informing you that the diagnostic tool is attempting to establish communication with the vehicle and determine vehicle identification.

   Once the vehicle has been identified, the vehicle confirmation screen displays. If the vehicle information is correct, select **OK** to continue, then proceed to step 6.

   If the vehicle does not support Auto ID, the diagnostic tool will attempt to identify the vehicle and then display a message indicating that vehicle identification cannot be made. If this occurs, proceed to “**Selecting Manual ID**” next.

   - **Selecting Manual ID** allows you to manually enter all the vehicle information to identify the vehicle.

     b1.) Follow the screen prompts to enter all the information required to identify the vehicle.

     b2.) Once the vehicle has been identified, the vehicle confirmation screen displays (Figure 4-2). If the vehicle information is correct, select **OK** to continue, then proceed to step 6.
6. After the vehicle is identified, a menu of available systems, and options are displayed. Select a system or option (Figure 4-3).

NOTE:
Only the systems and options supported for the vehicle are included in the menu list.

If a system (e.g. Engine, Transmission, Antilock Brakes, etc) is selected, the diagnostic tool may establish communication with the vehicle, then display the system main menu (available tests) (Figure 4-4). For sub-menu option information, see System Main Menu Options, on page 25.
**Instant ID**

The Instant ID function, can save time when initially identifying a vehicle, by automatically communicating with the vehicle to complete the vehicle identification process.

This function requires specific vehicle support requirements, and connection procedures to operate.

- **Vehicle requirements:**
  - Vehicle must support Mode $09$ VIN.
  - **Note:** Mode $09$ VIN is mandated on 2008 and newer vehicles.
  - Vehicle must be equipped with Hi Speed CAN or J1850 communication protocol.

- **Connection procedure requirements:**
  1. Turn the vehicle ignition on.
  2. Connect the data cable to the diagnostic tool.
  3. Connect the data cable to the vehicle data link connector (DLC).
  4. The diagnostic tool should turn on automatically. If required, turn the diagnostic tool on. An audible "beep" will be sounded within 5 seconds of the diagnostic tool being turned on, if the VIN is read.
    - **Note:** No visual confirmation is displayed.
  5. Select **Scanner**.
    When Scanner is selected, a screen may briefly appear informing you the diagnostic tool is attempting to automatically complete the vehicle identification process.
  6. After the vehicle has been identified, the vehicle confirmation screen displays. If the vehicle information is correct, select **OK** to continue.

---

**NOTE:**
Depending on the vehicle, Instant ID may occur automatically and only ask you to confirm the vehicle, or additional screen prompts may be displayed to enter vehicle information.

**NOTE:**
If the Scanner feature is exited during the session that Instant ID was used, selecting Scanner again, will not ID the vehicle again. To quickly ID the vehicle again, select it from Previous Vehicles and Data > Vehicle History.

If the vehicle is not automatically identified, follow the screen prompts to enter the information required to identify the vehicle.
4.3.2 System Main Menu Options

Once a System is selected (e.g. Engine, Transmission, Antilock Brakes, etc) is selected, the diagnostic tool may establish communication with the vehicle, then display the System Main Menu (available tests).

**NOTE:**
Menus and navigation will vary by vehicle.

The System Main Menu may include:

- **Codes Menu**—displays diagnostic trouble code (DTC) records from the vehicle electronic control module. Selecting may open a submenu of viewing options.
- **Clear Codes**—erases DTC records and other data from the ECM. This selection is found on a Codes submenu for some models.
- **Data Display**—displays PID data from the vehicle electronic control module. Selecting may open a submenu of viewing options.
- **Functional Tests**—provides specific subsystem tests. The tests vary depending on the manufacturer and model.
- **Actuator Tests**—similar to functional tests, checks the operation of certain actuators, such as solenoid valves and relays.
- **Memory Resets**—allows you to reprogram adaptive values for certain components after making repairs. Selecting opens a submenu. These options are found on the Functional Tests Menu for some models.
- **System Tests**—provides specific subsystem testing. Performing these tests is similar to functional tests.
- **Generic Functions**—lets you access certain available Generic OBD II functions from a proprietary menu (1996 and newer vehicles only).
- **Troubleshooter**—provides step-by-step procedures, integrating PIDs and retrieving trouble codes when appropriate, for specific symptoms of the identified vehicle.

The following sections, describe some of the System Main Menu items listed above.

4.3.3 Codes Menu

This selection may appear as Codes, Codes Menu, Codes Only, Codes (No Data), Service Codes or something similar on the menu. Selecting opens a list of viewing options that includes:

- **Display Codes**
- **Clear Codes**, on page 26
- **Freeze Frame/Failure Records**, on page 27

**Display Codes**

This function opens either a list of diagnostic trouble codes (DTCs) stored in the selected vehicle electronic control module (ECM), or a submenu of DTC viewing options. The code list includes the DTC and a brief description (Figure 4-5).

If SureTrack® (optional) is active and data is available for a selected DTC, additional troubleshooting information from SureTrack (e.g. Common Replaced Parts data (Figure 4-5),
Real Fix and Related Fixes) will also be available. For additional information about using SureTrack, see SureTrack, on page 39.

Figure 4-5 DTC results

1— Fix It! Icon — opens SureTrack Dashboard
2— Save Icon — saves the displayed DTCs to an (.XML) file
3— SureTrack Status Bar — displays active SureTrack status or result
4— Common Replaced Parts Graph Icon — toggles graph display on/off
5— DTC Results List — displays current DTCs

Submenu options may include:

- **Trouble Code Information**—opens a list of codes in ECM memory
- **History Codes**—opens a list of codes whose symptoms are not currently present. History codes indicate an intermittently occurring problem.
- **Failed This Ignition**—opens a list of codes that set during the current ignition cycle.
- **MIL SVS or Message Requested**—displays ECM requests to turn on the malfunction indicator lamp (MIL) or service vehicle soon (SVS) lamp, or display a driver information alert.
- **Last Test Failed**—displays a complete list of failed tests.
- **Test Failed Since Code Cleared**—displays a list of tests that failed since the last time codes were cleared from ECM memory.

**Clear Codes**

The diagnostic tool clears codes from the vehicle electronic control module memory on most vehicles. If this function is not available on the test vehicle, Clear Codes does not appear as a menu option.

**NOTE:**

Clear Codes is also available from OBD-II Health Check (see OBD Health Check, on page 69).
To clear codes:
1. Select Clear Codes from the Codes Menu.
   A confirmation message displays.
2. Make sure any conditions shown on the confirmation message are met, then select Yes.
   A "codes cleared" message displays once the operation is complete.
3. Select Continue to return to the Codes Menu.

**IMPORTANT:**
Clearing codes erases all temporary ECM information, including Freeze Frame/Failure Records. Make sure no vital diagnostic information will be lost before clearing codes.

**Saving Codes**
When viewing individual system codes (e.g. engine, transmission) selecting the Save icon from the toolbar saves the results as a report formatted file.

When system codes are saved, a confirmation message is displayed indicating that the file was saved.

*Message Example:* “Saving A2810005.XML”

The saved file(s) can be viewed on the diagnostic tool - See Viewing Code Results on the Diagnostic Tool, on page 95.

**Code Scan**
See Vehicle Code Scan / (ALTUS™), on page 61.

**Freeze Frame/Failure Records**
This selection displays the DTC that was set, along with corresponding data, when the ECM commanded the malfunction indicator lamp (MIL) to turn on.
Data Display

Select Data to view PID data from the vehicle ECM. In data display mode the screen has a toolbar and a main body (Figure 4-6).

![Data display screen](image)

The toolbar control icons are described in Scanner Control Icons, on page 20 and Common Toolbar Control Icons, on page 15.

During data display the main body of the screen is divided into two columns; the left-hand column has a description of the parameter and the right-hand column shows the parameter value or state. Parameters are listed in the order in which they are transmitted by the ECM, so expect variations between years, makes, and models.

Up to three parameters can be locked, or fixed, at the top of the list. Locked parameters do not change as you scroll through the parameter list. The Lock/Unlock icon on the toolbar selects which parameters are fixed (see Locking Parameters, on page 30).

Displayed data may also be paused or saved for detailed review and future reference, see Saving Files, on page 33 and Pausing and Reviewing Data Files, on page 34.

Customizing the Data List

The Custom Data List icon on the toolbar is used to determine which specific parameters display. Minimizing the number of parameters on the data list allows you to focus on any suspicious or symptom-specific data parameters. You can add or remove most parameters from the list. Certain vital parameters may not be removed. These appear in gray at the top of the list along with a lock icon, and they cannot be selected.

NOTE:

Limiting the number of parameters that display to those that apply to a particular situation results in a faster data refresh rate, and reduces the amount of memory used for saved files.
To create a custom data list:

1. Select the **Custom Data List** icon on the toolbar.
   
   The data selection screen displays and selection icons appear. Check marks to the left of the parameter description indicate which parameters are selected for display. A second smaller check box indicates a parameter that is locked.
   
   The toolbar icons provide options for selecting and deselecting parameters to include or remove from the custom data list:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="select_deselect.png" alt="Icon" /></td>
<td><strong>Select/Deselect</strong>, use to mark individual parameters to hide or display. Locked parameters cannot be deselected.</td>
</tr>
<tr>
<td><img src="select_all_deselect_all.png" alt="Icon" /></td>
<td><strong>Select All/Deselect All</strong>, use to hide or display all of the parameters in the list. Locked parameters cannot be hidden. Items at the top of the list that cannot be highlighted are locked and cannot be turned off.</td>
</tr>
</tbody>
</table>

2. Create a custom data list by selecting (check mark box by parameter name) the parameters to include.

3. Select **Back** to display the updated data list.

**Changing Screen Views**

Selecting the **View** icon opens a drop-down menu of options:

- PID List
- 1 Graph
- 2 Graph
- 4 Graph

The PID (parameter identification) List view is a 2-column display with the name of the parameters in the left column and their current values in the right column (**Figure 4-6**).

The 1, 2, and 4 Graph views divide the screen horizontally to simultaneously display data graphs for the indicated number of parameters (**Figure 4-7**). Use the scroll bar or the **up (▲)** and **down (▼)** icons to view other parameters in the list.
Figure 4-7 Four graph view

NOTE:
Any previously set conditions, such as held data or locked lines of data, remain in effect when the screen view is changed.

Locking Parameters

Use the Lock/Unlock icon to hold selected lines of the data in place and prevent them from scrolling, or to release previously locked lines of data. Up to three lines of data may be held at a time. This feature allows you to position related parameters together, making it easier to monitor their values and spot inconsistencies.

Locked parameters display as the top frames on the main body of the display screen, as well as at their usual position within the data list (Figure 4-8). A lock icon appears to the left of the parameter name to indicate it is locked.

To lock parameters:

1. Highlight the parameter to be locked.
2. Select the Lock/Unlock icon on the toolbar to lock it.
   A copy of the locked parameter is now shown at the top of the data list, and a lock icon appears alongside the parameter name.
3. Highlight and select additional parameters to lock.
   Up to three parameters can be locked at a time. Once locked, a parameter remains locked until it is manually unlocked, or communication with the vehicle is stopped.
NOTE:
If three parameters are locked, one of them must first be unlocked before another parameter can be locked.

To unlock parameters:
1. Scroll through the data list and highlight the parameter to be unlocked, or released.
2. Select the Lock/Unlock icon on the toolbar.
   The released parameter and the lock icon disappear from the list at the top of the data list.
3. Repeat Step 1 and Step 2 to release other parameters if needed.

Setting Trigger Levels
The trigger icon allows you to configure the diagnostic tool to automatically save PID data from buffer memory to a file when a parameter value crosses a threshold. When triggering is armed, a "Trigger event" pauses data collection and saves data to a file.

Selecting the Trigger icon opens a menu that includes:

- **Set Trigger**—establishes upper and lower signal values to initiate an event capture for the highlighted parameter.
- **Arm Trigger**—activates the diagnostic tool to capture an event when the signal crosses a threshold value.
  Trigger lines change colors to indicate the trigger is armed.
- **Clear All Triggers**—deletes all previously set trigger levels.

If triggers are set the menu options are:

- **Clear Trigger**—deletes set trigger levels for the highlighted parameter.
- **Disarm Trigger**—de-activates event capture capability.
- **Clear All Triggers**—deletes all previously set trigger levels.
To set trigger levels:
1. Highlight the parameter to be used for triggering the recording.
2. Select the **Trigger** icon.
3. Select **Set Trigger** from the drop-down menu.

A graph of the highlighted parameter with a trigger toolbar above it fills the main body of the screen (Figure 4-9).

The trigger level line displays as a solid line running horizontally across the data graph. An upper and lower trigger level must be set, the upper level is set first.

4. Select the plus (⁺) and minus (⁻) icons on the toolbar, or use the up ▲ and down ▼ arrow buttons to position the upper trigger level to where you want it on the graph.
5. Select ✔ on the toolbar, or press the Y/✓ button, to set the upper threshold.

A lower trigger level line now appears at the mid-point of the graph.

6. Select the plus (⁺) and minus (⁻) icons on the toolbar, or use the up ▲ and down ▼ arrow buttons to position the lower trigger level line to where you want it on the graph.
7. Select ✔ on the toolbar, or press the Y/✓ button, to set the lower threshold.

The display returns to the PID data view and the trigger points appear as horizontal lines across the designated parameter graph. Repeat this procedure to establish trigger points for other parameters if desired. Once armed, any data points that register outside of your set conditions pause data collection and save data to a file.

**NOTE:**
Only three parameters can have trigger levels set at one time, but only one of the conditions needs to be satisfied for triggering to occur.
To arm triggers:
1. Select the Trigger icon on the toolbar.
2. Select Arm Triggers from the drop-down menu.

The trigger lines on the data graphs change color to indicate an armed condition.

Triggers for all of the graphs are armed simultaneously. Once triggering is armed, it remains in that state until you switch it off. If trigger settings are modified or are added for other parameters, they are armed as soon as you exit the setting screen.

4.3.4 Saving and Reviewing Scanner / OBD-II/EOBD Data Files

The following procedures are used when saving and reviewing data files for Scanner and OBD-II/EOBD.

**Saving Files**

During normal operation, data from the vehicle’s ECM is continuously being stored in buffer memory as it is displayed onscreen. Buffer memory is limited to a predetermined “total” size and is displayed on the counter (located below the toolbar on the right side of the screen) (Figure 4-11).

Selecting Save writes the stored buffer memory to a file. Saving data is useful when trying to isolate an intermittent problem or to verify a repair during a road test. The saved file can be played back (similar to a movie clip) by selecting Previous Vehicles and Data > View Saved Data. See View Saved Data, on page 94 for additional information.

**NOTE:**

The Save icon performs the same function as “Save Movie” function choice for the programmable Shortcut button, see Configure Shortcut Button, on page 99 for details.

The saved data file can also be downloaded to a personal computer (PC) using the Mini USB jack. Once connected to the PC, the data files can be printed, transferred, and copied using ShopStream Connect. ShopStream Connect is an application that creates an interface between the diagnostic tool and a PC. The ShopStream Connect application is available free online, see the ShopStream Connect website information at the front of this manual for additional information.

The toolbar control icons are described in Scanner Control Icons, on page 20 and Common Toolbar Control Icons, on page 15.

**To save data:**

- Select Save.

A save dialog box displays while data is being saved. The data is saved when the message box disappears.
Saving Screens

The **Shortcut** button can be programmed to save a snapshot of a visible screen as a bitmap file, see **Configure Shortcut Button**, on page 99 for details. The saved file can be viewed by selecting **Previous Vehicles and Data > View Saved Data**, see **View Saved Data**, on page 94 for additional information.

**Pausing and Reviewing Data Files**

During normal operation, data from the vehicle’s ECM is continuously being stored in buffer memory as it is displayed onscreen. The **Pause** feature, allows you to temporarily pause data collection to review it in detail.

**To pause and review data**

Toolbar control icons are described in **Scanner Control Icons**, on page 20 and **Common Toolbar Control Icons**, on page 15.

1. While viewing data, select the **Pause** icon.

   On the toolbar, the playback control icons are displayed. A counter displays along the right-hand edge of the screen between the toolbar and the main body. A bar graph to the left of the counter shows how much data is in the memory buffer. A slider on the bar graph indicates the position of the current screen in relation to the entire contents of the data buffer.

   Use the slider to quickly scroll through the data. Use the control icons to accurately position the cursor. The cursor (vertical line), indicates your position when in the graph mode, appears once you begin navigating (**Figure 4-11**).
2. Scroll up or down to review the list of data.
3. Select the desired control icon to move forward or back incrementally in the selected direction.

To resume:
- Select the Record icon.

The display changes back to display data and the Pause icon is shown on the toolbar. A vertical rule runs through the data graph to indicate data was paused at that point.

**NOTE:**
The Shortcut icon can be set to perform the Pause/Play function. See Configure Shortcut Button, on page 99 for additional information.
4.3.5 Functional Tests

The **Functional Tests** selection is used to access vehicle-specific subsystem tests. Available tests vary by manufacturer, year, and model. Only the tests available for the identified vehicle display in the menu.

There are several types of functional tests:

- **Information Tests**—these are read-only tests, like selecting "VIN" from a Functional Tests menu to display the VIN of the identified vehicle.
- **Toggle Tests**—these tests switch a component, such as a solenoid, relay, or switch, between two operating states.
- **Variable Control Tests**—these tests command a certain value for a system or component, such as varying spark timing in 1° increments or EGR valve duty cycle in 10% increments.
- **Reset Tests**—these tests reset the adaptive, or learned, values that are stored in the vehicle electronic control module memory.
- **Scripted Tests**—these tests are software routines that place the vehicle into special operating modes for performing certain repairs, such as bleeding brakes with ABS.

Selecting Functional Tests opens a menu of test options that varies by make, year, and model. Selecting a menu option either activates the test or opens a submenu of additional choices. Follow all screen instructions while performing tests. How and what information is presented on the screen varies according to the type of test being performed and the vehicle being serviced.

Toggle and variable control tests often display functional test controls on the toolbar at the top of the screen with PID data in the main body (Figure 4-12).

![Functional test screen](image)

**Figure 4-12 Functional test screen**

A Test icon on the toolbar activates the test, and a Return, or similarly named, icon cancels the test. For variable control tests, the variable value displays between the main body and the toolbar. Plus and Minus icons on the toolbar increase and decrease the variable value.

A Data List icon, shown to the left, is available on the toolbar for some tests. This feature allows you to change which data list displays in the main body without exiting the functional test. The icon is only available when the test is inactive.
4.3.6 Generic Functions

Generic Functions are use to perform generic OBD-II/EOBD tests, for additional information see OBD-II/EOBD, on page 68.

Troubleshooter (Fast-Track®)

Fast-Track Troubleshooter is a database of experience-based repair strategies and information, that has been compiled and validated by top-notch technicians. Troubleshooter simplifies the diagnosis process, as it contains information on virtually all common diagnostic trouble code (DTC) problems and driveability symptoms.

Troubleshooter information is organized into a series of diagnostic tips that are designed to quickly lead you to the root cause of a particular problem. The tips are vehicle-specific, which means only tips that relate to the identified vehicle are presented. Selecting opens a menu that may include:

- **Code Tips**—provides detailed information on setting conditions, testing, and interpreting test results for specific codes.
- **Symptom Tips**—provides diagnostic tests and procedures based on vehicle operation.
- **Time Savers**—provides supplemental information, such as firing order and #1 cylinder location, that may be needed to make a diagnosis.
- **Common Problems**—provides advice and remedies for certain “pattern failures” that have been experienced on vehicles of the same model.
- **Tests and Procedures**—explains how to perform certain tests on the specific test vehicle. Some tips provide specifications and installation information as well.
- **Fast-Track Data Scan**—contains information and guidelines on how to validate data readings for certain sensors and actuators, PID data values are provided.
- **Fast-Track Fixes**—provides actual repair information for related repairs.

**NOTE:**

Troubleshooter appears in a Scanner menu only if tips are available for the system selected on the identified vehicle.

Certain PID data parameter values display directly within the tip when performing Troubleshooter tests and procedures (Figure 4-13).

![Figure 4-13 Troubleshooter tip](image173x79.jpg)
4.4 Exiting Scanner

The Scanner function remains open as long as there is an active communication link with the vehicle. You must interrupt this communication link in order to exit from tests and power down the diagnostic tool. A warning message displays if you attempt to shut down while the diagnostic tool is communicating with the vehicle.

NOTE:
Damage to the vehicle electronic control module (ECM) may occur if communication is disrupted. Make sure the data cable is properly connected at all times during testing. Exit all tests before disconnecting the data cable or powering down the diagnostic tool.

To exit the Scanner function:
1. From any active data screen, select the Back icon on the toolbar.
   The “stopping communications” message briefly displays followed by the Data menu.
2. From the Data Menu, select Back on the toolbar.
   The “stopping communications” message displays again, then the Main menu. Once the Main menu is displayed, communication has been terminated and it is safe to return to the Home screen and power down the diagnostic tool.
5.1 SureTack - Diagnostic Tool Features

SureTrack is an integrated Wi-Fi function that provides you expert automotive information directly on your diagnostic tool, via wireless network connection to our Snap-on web services network.

SureTrack includes a comprehensive source of expert automotive knowledge for professional technicians, combining diagnostic experience and detailed vehicle-specific parts replacement records. SureTrack can provide you with vehicle specific part replacement, diagnostic and repair information related to the diagnostic trouble codes (DTCs) found when checking codes with the Scanner. If diagnostic Tips, Fixes or parts information is available for a DTC, simply select the applicable SureTrack icon from the DTC results list to review the information and start the repair.

SureTrack Features:

- Up-to-the-minute diagnostic intelligence based on vehicles currently being serviced by professional shops
- Provides the following diagnostic information (if available) all based on the vehicle ID and diagnostic trouble codes (DTCs) selected
- Common Replaced Parts Graph — displays the replacement parts most frequently used to successfully complete repairs based on actual vehicle repairs
- Tips - Experience-based diagnostic and repair tips and information for the selected DTC
- Related Tips - Additional Tips that may be related to the selected DTC
- Real Fixes - Verified successful repair information and/or procedures for the selected DTC
- Related Real Fixes - Additional Real Fixes that may be related to the selected DTC.

All information (e.g. replaced parts data, tips and fixes) have been obtained from professional automotive OEM and specialty technicians from a vast range of repair shops.

**NOTE:**
SureTrack Tips, Fixes, and Common Replaced Parts information may not always be available for every vehicle DTC. Only available information is displayed.

5.1.1 Basic Operation and Navigation

Before you can begin using SureTrack, you must:

- Verify that you have the current software upgrade installed. SureTrack is only active with current software versions. Contact your sales representative for purchasing information.
- Turn the Wi-Fi radio on. For Wi-Fi setup and connection see, Wi-Fi Connection / Troubleshooting, on page 129.
NOTE:
The diagnostic tool is equipped with the ability to connect to a Wi-Fi network, however the connection is solely dedicated to our Snap-on web services network. Before you begin using an integrated Wi-Fi function you must connect to a wireless network and turn the Wi-Fi radio on.

- Connect to a wireless network and the Internet. For Wi-Fi setup and connection see, Wi-Fi Connection / Troubleshooting, on page 129.

Icons
Before you begin using SureTrack, familiarize yourself with the SureTrack icons and their functions:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Icon Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Fix It! icon" /></td>
<td>Fix It!</td>
<td>Opens the SureTrack dashboard and displays the Common Replaced Parts graph and Tips or Real Fixes for the selected DTC</td>
</tr>
<tr>
<td><img src="image" alt="Related Tips icon" /></td>
<td>Related Tips</td>
<td>Displays Related Tips for the selected DTC</td>
</tr>
<tr>
<td><img src="image" alt="Real Fixes icon" /></td>
<td>Real Fixes</td>
<td>Displays Related and Real Fixes for the selected DTC</td>
</tr>
<tr>
<td><img src="image" alt="Menu Exit icon" /></td>
<td>Menu Exit</td>
<td>Exits the SureTrack dashboard</td>
</tr>
<tr>
<td><img src="image" alt="Common Replaced Parts Graph icon" /></td>
<td>Common Replaced Parts Graph</td>
<td>Toggles the Common Replaced Parts Graph display open/close</td>
</tr>
</tbody>
</table>

Viewing Information
SureTrack information is accessible (if available) when viewing DTCs within the Scanner function.

As an example, once the diagnostic tool has been connected to the test vehicle and the vehicle has been identified, navigate to **Engine > Codes Menu > Display Codes > All Powertrain Codes or Engine Trouble Code Information** to display the DTC results screen.

NOTE:
If SureTrack information is available for a selected DTC, the SureTrack status bar will display “SureTrack - Results for XXX” (XXX = the selected DTC).

If a DTC is present, select the DTC from the list to highlight it, then select the **Fix It!** icon (Figure 5-1) to see if SureTrack information is available. Selecting **Fix It!** opens the SureTrack dashboard. See Dashboard on page 41 for additional information.

The Common Replaced Parts graph is displayed on the DTC results screen. If the graph is minimized select the Common Replaced Parts Graph icon, located to the left of Common Replaced Parts Graph title bar (Figure 5-1) to open (maximize) the graph.
SureTrack SureTack - Diagnostic Tool Features

Figure 5-1 DTC Results with SureTrack

1—Fix It! Icon — opens the SureTrack Dashboard
2—Save Icon — saves the DTCs list (see, Saving and Reviewing Scanner / OBD-II/EOBD Data Files on page 33)
3—SureTrack Status Bar — displays the active SureTrack status or result
4—Common Replaced Parts Graph Icon — toggles the graph display open/close
5—DTC Results List — displays the current DTCs

Dashboard

Selecting the Fix It! icon from the DTC results screen opens the SureTrack dashboard. The initial Dashboard screen displays the Common Replaced Parts Graph and either a Tip or Real Fix for the selected DTC (depending on availability). The Related Tips and Real Fixes icons are also available from this screen (Figure 5-2).
Common Replaced Parts Graph

The Common Replaced Parts graph (if available) is displayed by selecting the Fix It! icon or can be viewed directly from the DTC results screen by selecting the Common Replaced Parts Graph icon, located to the left of Common Replaced Parts Graph title bar. The Common Replaced Parts graph shows the percentage of verified fixes (using the parts listed) derived from the total number of repairs by mileage. The graph may display one or more replacement parts based on the captured information.

The example below (Figure 5-3) shows two common replaced parts used in the repair of DTC P0106. In this example, the PCV valve is the most common replaced part based on 973 repairs involving vehicles with up to 200k miles, 17% of those 973 repairs occurred at 125k miles.
Tips and Related Tips

- **Tips** - Experience-based diagnostic and repair tips and information for the selected DTC
- **Related Tips** - Additional Tips that may be related to the selected DTC

Tips have been researched and obtained from professional automotive OEM and specialty technicians from a vast range of repair shops. Tips may not be available for every vehicle and/or DTC.

Tips (if available) can be displayed in two ways:

- Selecting the **Fix It!** icon from the DTC results screen opens the SureTrack dashboard which may include Tip(s) for the selected DTC. If Tips are not available for the DTC, Real Fixes may be displayed.
- Selecting the **Related Tips** icon will display a list of Related Tips. Selecting an item from the list, opens additional details about the Related Tip (Figure 5-4).

![Figure 5-4 Tip(s) Screens](image-url)
Real Fixes and Related Fixes

- **Real Fixes** - Verified successful repair information and/or procedures for the selected DTC.
- **Related Real Fixes** - Additional Real Fixes that may be related to the selected DTC.

Fixes have been researched and obtained from professional automotive OEM and specialty technicians from a vast range of repair shops. Fixes may not be available for every vehicle and/or DTC.

Fixes (if available) can be displayed in two ways:

- Selecting the **Fix It!** icon (Figure 5-2) from the DTC results screen opens the SureTrack dashboard which may include Real Fixes for the selected DTC. If Real Fixes are not available for the DTC, Tips may be displayed.
- Selecting the **Real Fixes** icon (Figure 5-2) displays Related and Real Fixes (if available). Selecting an item from the list opens additional details about the Fix in a Complaint, Cause, Correction format (Figure 5-5).

![Figure 5-5 Related Real Fixes Screens](image)

SureTrack Status Messages

Status messages may be displayed to inform you of pending issues or general status. Depending on your software version and connection status, the following messages may be displayed in the SureTrack status bar:

- **SureTrack Content May Be Available!** - indicates SureTrack content may be available, however you are not currently connected to the SureTrack database. This message may be caused by a Wi-Fi connection issue, or if you do not have the current software upgrade installed. See [Wi-Fi Connection / Troubleshooting](#), on page 129 for SureTrack Troubleshooting information.
- **No connection to SureTrack. Please try again later.** - indicates you are not currently connected to the SureTrack database, except when displayed in the OBD/EOBD function as SureTrack is not accessible in OBD/EOBD mode. If this message is displayed in the Scanner function, it may be caused by a Wi-Fi connection issue, or if you do not have the current
software upgrade installed. See SureTrack, on page 39 for SureTrack Troubleshooting information.

- **Loading content from SureTrack** - indicates SureTrack information is being accessed from the SureTrack database.
- **A new diagnostic software upgrade is available. See your sales representative for details** - indicates your access to SureTrack will be expiring soon and you should contact your sales representative to purchase the current software upgrade.
- **Your SureTrack access has expired. See your Sales representative to renew.** - indicates your access to SureTrack has expired and you should contact your sales representative to purchase the current software upgrade.
- **Verified parts replacement data not available. Tap the wrench icon for more results.** - indicates that Common Replaced Parts information (graph) is not available, however other types of SureTrack information may be (e.g. Real Fixes and Tips). Select the Fix It! icon to see if other information is available.

### 5.2 SureTrack - Online Community

Your diagnostic tool includes access to the online SureTrack Community. You can use your PC to access the latest Real Fixes, Related Tips, and Common Repair Procedures information.

SureTrack is an evolving database of "real-world" automotive repair knowledge based on expert knowledge and millions of actual repair orders. It was designed to help you improve diagnostic accuracy and reduce repair times.

#### 5.2.1 Main Topic Links

- Finding your SureTrack Authorization Code page 46
- Creating a SureTrack Account page 47
- Logging In (active account) page 51
- Logging In with New Authorization Code (active account) page 52
- SureTrack Features page 55
- SureTrack Screens page 56

#### 5.2.2 Quick Reference

**SureTrack Community FAQ's**

For the latest SureTrack Community information and answers to frequently asked questions visit: mitchell1.com/support/suretrack-faqs/

**Using SureTrack for the First Time**

If you have purchased a new diagnostic tool, you will need to create a SureTrack account before you can access SureTrack. See Creating a SureTrack Account, on page 47 for instructions.
Login Scenarios

- I already have an active SureTrack account with username and password - Logging In (active account), on page 51.
- SureTrack has already expired, but I purchased a qualifying upgrade/plan and have a new SureTrack authorization code (reactivation) - Logging In with New Authorization Code (expired account), on page 53.
- SureTrack is still active, but I have purchased a qualifying upgrade/plan and have a new SureTrack authorization code (reactivation) - Logging In with New Authorization Code (active account), on page 52.

5.2.3 Finding your SureTrack Authorization Code

When you purchase a qualifying upgrade/plan, or platform from your Snap-on Representative, you will receive a SureTrack authorization code. The authorization code is printed on your sales receipt. Authorization codes are 12 digit alpha-numeric codes (e.g. 123ABCAP4-US).

After obtaining a new upgrade/plan you will receive a new SureTrack authorization code.

Each time you purchase a qualifying diagnostics upgrade/plan you will be provided a new SureTrack authorization code. The authorization code will expire as noted in the upgrade/plan details. To log in with a new authorization code, see Logging In with New Authorization Code (expired account), on page 53.
5.2.4 Creating a SureTrack Account

Use Requirements

To use SureTrack you must:

- Create a SureTrack Account, see Creating an Account, on page 47.
- Have a current SureTrack Authorization Code, see Finding your SureTrack Authorization Code, on page 46.
- Have access to a PC with an Internet connection.

Creating an Account

If you are a new member (do not have an existing SureTrack account), you will need to complete the online registration before you can use SureTrack. Use the following procedure to create an account.

1. On your PC visit: https://shopkeypro.com
2. To create an account use the following illustrated instructions. Step numbers are provided in each illustration, follow the sequence to completion.

   ![Figure 5-7](image)

   ![Figure 5-8](image)
SureTrack - Online Community

Figure 5-9

Enter all required* information.

Create
Cancel

Password*
Online Profile
Address
Name
Email
Email Address*
Phone
First Name* Last Name* Phone Number
Address
Address Line 1
Address Line 2
City*
State*
Zipcode
Orkhia Profile
Username*
Password*
Retype Password*
Cancel
Create

Success

Congradulations! Your account has been created.
This account can be used to contribute to the community and manage your profile.
To link this account to your shop, have your shop add you in Profile Manager.

Done

Figure 5-10

Figure 5-11

Username
Password
Forgot password? Click here to reset.
Remember username & password
Login
Cancel

Create a new Individual Account

X

X
Question 1: Choose a question...
Question 2: Choose a question...
Question 3: Choose a question...

Choose 3 security questions.
Select three questions below. These questions will help us verify your identity should you forget your password.

Choose 3 security questions.

Submit
Cancel

Find the SureTrack Authorization Code on your sales receipt.
12 digit alpha-numeric code (e.g. 123ABCAP4-US)
Enter the SureTrack Authorization Code

12 Technician Profile Manager

Enter all required information (scroll down)

13

14 Click “Save”

15 Close the browser window or tab.

---

Open www.shopkeypro.com and login

16

Username

Password

Forgot password? Click here to reset.

Remember username & password

Login

Cancel

Create a new Individual Account

---
5.2.5 Logging In (active account)

If you have previously created a SureTrack account, and have a valid username and password, select **LOGIN (Figure 5-16)** from the ShopKey Pro start page, and then complete the login process (**Figure 5-17**). Once successfully logged in you will be directed to the 1Search *Limited* results page. See SureTrack Screens, on page 56.

![Figure 5-16](image)

If you have previously selected the "remember me" checkbox in the login screen you will skip the login and be automatically directed to the 1Search Limited results page.

![Figure 5-17](image)
5.2.6 Logging In with New Authorization Code (active account)

Use the following instructions, if you have purchased a qualifying upgrade/plan and your SureTrack account is active (has not expired). To find your new authorization code, see Finding your SureTrack Authorization Code, on page 46.

1. Log in to ShopKeyPro.com using your current username and password.
2. At the ShopKey Pro start page, select your username (Figure 5-18), then select Profile Manager from the dropdown menu.

3. Log in to the Profile Manager (Figure 5-19) using your current username and password.
4. Enter your new Authorization code (Figure 5-19).

5. Review and update the rest of your profile and make sure all required fields are filled out.
6. Select Save.
7. Exit the Profile Manager by selecting your username (near the top right) and select **Logout**.
8. When the login screen displays, login using your current username and password.
9. Confirm the new expiration date by logging back into Profile Manger to check it.

5.2.7 Logging In with New Authorization Code (expired account)

Use the following instructions, if your SureTrack account has expired, and you have purchased a qualifying upgrade/plan. Your new upgrade/plan comes with a new SureTrack authorization code.

To find your new authorization code, see [Finding your SureTrack Authorization Code](#), on page 46.

1. Log in to ShopKeyPro.com using your using your current username and password.

When your SureTrack account has expired, and you try to login you are directed to an information window (Figure 5-20).

2. Scroll down and select the link shown in (Figure 5-20).

3. The SureTrack FAQ webpage opens (Figure 5-21).
4. Scroll to the topic “Where do I apply my new Authorization Key from Snap-on?”
5. Select the link “click here to log into the profile manager login window directly”.
   – URL - https://profilemanager.mitchell1.com/technicianprofile/index

The SureTrack renewal window opens.

6. Enter your current username and password.

The SureTrack Profile Manager window opens.

7. Enter your new Authorization code (Figure 5-22).

8. Review and update the rest of your profile and make sure all required fields are filled out.
9. Select Save.
10. Exit the Profile Manager by selecting your username (near the top right) and select Logout.
11. When the login screen displays, login using your current username and password.
12. Confirm the new expiration date by logging back into Profile Manager to check it.
5.2.8 SureTrack Features

SureTrack is an integrated part of ShopKey Pro, and includes two navigation modules providing search and forum capabilities:

- 1Search™ Limited
- Sure Track Community.

1Search™ Limited

The 1Search Limited module includes the following information features:

- **Real Fixes and Tips** - real-world fixes and repair tips captured from actual repair orders and the experiences of professional technicians.
- **Common Repair Procedures Graph** - graphical display of the specific parts and procedures most frequently used to fix the selected code or symptom.
- **ProView** - provides graphical displays showing the direct relationship between a code or symptom to the component used to fix them.
- **Component Tests** - includes instructions on how to test the component, and descriptions of component operation, component locations, test locations, connector end views and even sample waveforms.
- **TSB's** - OEM technical service bulletins.
- **Safety Recalls and Campaigns** - safety recall and service campaign information.

SureTrack Community

The Sure Track Community module is a forum-based application that connects you with a community of other professional technicians to find and share information, ask questions, and provide your own tips.
5.2.9 SureTrack Screens

SureTrack Home Page (within ShopKey Pro)

The SureTrack Home page within ShopKey Pro includes:

1. Change Vehicle - dropdown menu provides options to change the active vehicle
2. Active Vehicle - displays active vehicle
3. Recall/Campaigns - displays available OEM recalls and campaigns
4. Help - provides SureTrack and ShopKey Pro online help topics
5. Contact Us - provides options for contacting ShopKey Pro customer service
6. Settings - provides general setting options and information
7. Logout - logs you off of ShopKey Pro
8. User ID options menu - displays username, selecting opens Profile Manager and other options
9. Main Menu (dropdown) - Options are Home, 1Search Limited, and SureTrack Community
10. General Training and Information Links (various)

* available on all pages
1Search Limited Top 10 Results Page

Selecting 1Search Limited displays a Top 10 results page which includes:

- **Search Bar** - use the search bar to enter a code, component or symptom to search. For best results keep search terms short (e.g. water pump, not - water pump replacement).

- **Page Tabs** - use the page tabs to navigate to related information (e.g. Index, SureTrack, ProView, etc) varies per application

- **Quick-links** - Technical Service Bulletins (TSBs) is the only available option

- **Repair Totals indicator** - displays the total number of repairs that all displayed data was based on

- **Top 10 lists** - display the most popular repairs and lookups by existing users for the selected vehicle (select an item from any list to view the Results Index, see Results Index Page, on page 58)
  - Top 10 - Commonly Replaced Components
  - Top 10 - Common DTCs
  - Top 10 - Common Symptoms
  - Top 10 - Top Search Lookups

![Figure 5-24](image-url)
Results Index Page

The Results Index page includes:

- **OEM Plus Results** - provides results that best match the exact search criteria, ranked in order with the closest match at the top.
- **SureTrack Results** - provides probable components related to the search criteria, ranked in order from the most likely to the least likely component.

Select an item from either list to view the results, see SureTrack Results Page, on page 59).

![Figure 5-25](image-url)
SureTrack Results Page

Selecting an item from the Results Index page displays applicable repair information on the SureTrack results page.

![SureTrack Results Page](image)

Information may include:

- **Real Fixes and Tips** - real-world fixes and repair tips captured from actual repair orders and the experiences of professional technicians.
- **Common Repair Procedures Graph** - graphical display of the specific parts and procedures most frequently used to fix the selected code or symptom.
- **Component Tests** - includes instructions on how to test the component, and descriptions of component operation, component locations, test locations, connector end views and even sample waveforms.
- **TSB’s** - OEM technical service bulletins.
- **Safety Recalls and Campaigns** - safety recall and service campaign information.
ProView Results Page

Selecting the **ProView** tab from the SureTrack results page opens ProView. ProView provides graphical displays showing the direct relationship between a code or symptom to the component used to fix them.

![Figure 5-27](image)

Information may include:

- **Radial Graph** - showing the relationship of the code or symptom to possible at fault components.
- **Component Frequency Graphs** - showing the most commonly replaced component for that code or symptom.
- **Common Replaced Parts Graphs** - showing the mileage at which the most common component is replaced.
Code Scan allows you to quickly scan all supported vehicle control modules for codes. In addition, Global OBD-II codes and Readiness Monitors are scanned giving you a complete health check of vehicle systems.

One of the benefits of performing a code scan is that you can quickly show your customer diagnostic related issues with a pre scan report, and then after repairing the issues you can use the post scan report to show that the repairs were completed (Figure 6-1). In addition, by using ALTUS the reports can be given to the customer and also saved for your own records, for more information, see Vehicle System Report (ALTUS™), on page 67.

IMPORTANT:
PRE / POST Scan Importance - As many systems do not turn on the check engine light or other indicator, performing a vehicle code scan before making any repairs may help in troubleshooting, by identifying possible unknown issues that may be related to the present symptoms.

Performing pre and post scans also allows you to record in report format the pre-condition of the vehicle and compare the post scan after work is complete to confirm the repairs were completed properly.

Pre and post scan is required by some manufacturers for pre and post collision work as well as by some insurance companies.

![Figure 6-1](image-url)
6.1 Using Code Scan

NOTE:
The Code Scan function and results are dependent upon the vehicle. Not all vehicles may support this function.

After you have connected and identified a vehicle through Scanner, Code Scan is available from the Vehicle System menu.

Selecting Code Scan from the Vehicle System menu (Figure 6-2) starts an active scan of vehicle control modules, and opens the Code Scan results screen (Figure 6-3).

NOTE:
Selecting Clear All Codes Read by Code Scan (Figure 6-2) erases all DTCs from all vehicle system modules that were read by Code Scan. Selecting this function may not clear global OBD-II codes on some vehicles.

When initially opened (Figure 6-3), a progress bar is shown at the top indicating the active scanning progress. Once completed, code results are displayed by system.

The following results are displayed as the modules are scanned and are described in the following sections.

- Total Number of Systems (modules) Analyzed
- List of All the Systems Analyzed with DTCs Totals
- Global OBDII DTCs
- Readiness Monitor Test Status
Code Scan control icons are located on the upper toolbar (Figure 6-3), and provide the following functions.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Refresh" /></td>
<td><strong>Refresh</strong> - Refreshes the code scan data (restarts the code scan)</td>
</tr>
<tr>
<td><img src="image" alt="System" /></td>
<td><strong>System</strong> - Opens the main menu of the system selected (highlighted)</td>
</tr>
<tr>
<td><img src="image" alt="Save" /></td>
<td><strong>Save</strong> - Saves the code scan results as an (.XML) file. See Viewing Codes and Code Scan Results, on page 95.</td>
</tr>
</tbody>
</table>

After the code scan has competed it is automatically saved as an .XML file on the diagnostic tool, and is uploaded to your account on ALTUSDRIVE.com (if registered and connected).

A confirmation message is displayed indicating that the file was saved (e.g. **Message Example**: “Saving A2810005.XML”).

To view the report on the diagnostic tool, see Viewing Code Results on the Diagnostic Tool, on page 95.

To view/print the report on ALTUS, see Vehicle System Report (ALTUS™), on page 67.

**NOTE:**
The code scan can also be saved manually by selecting the **Save** icon.
6.1.1 Total Number of Systems (modules) Analyzed

The total number of systems analyzed is actively displayed at the top of the screen as they are scanned.

![Figure 6-4 Code Scan systems analyzed result total](image)

6.1.2 List of All the Systems Analyzed with DTCs Totals

A categorized system list with DTC totals is displayed in the order they are scanned. To view the main menu for a system in the list, select the system, then select the **System** icon (Figure 6-5).

![Figure 6-5 System icon (opens Main Menu)](image)
Select the expand/collapse icon (Figure 6-6) on the left side of a system category title to expand or collapse a systems’ DTC list.

![Figure 6-6 Expand/Collapse Icon (expanded result)](image)

### 6.1.3 SureTrack® Common Replaced Parts Graph

Selecting a DTC allows you to view available SureTrack Common Replaced Parts and repair information for the DTC. Select the Common Replaced Parts graph or the Fix It! icon from the toolbar for the code information. For additional information on SureTrack, and common replaced parts graph see SureTrack®, on page 40.

![Figure 6-7 Common Replaced Parts graph icon and Fix It! icon (in toolbar)](image)
6.1.4 Global OBDII DTCs

Towards the end of the Code Scan list Global OBDII DTCs are displayed.

![Image of Code Scan Example]

**NOTE:**
Some 2005 to 2008 vehicles may not display global OBD-II information in the Code Scan list. A message will be displayed to inform you the OBD-II - codes and monitors for this vehicle may be accessed using the global OBD-II function. See OBD-II/EOBD, on page 68.

6.1.5 Readiness Monitor Test Status

At the end of the Code Scan list, readiness monitor test results are displayed as "Tests Complete" or "Not Complete".

Quick reference indicators are used to show monitor status.

- **Green icon “✓” mark** - Monitor test is complete
- **Grey icon “—” mark** - Monitor test is not complete

![Image of Readiness Monitor Example]
NOTE:
Monitors that are not supported by the vehicle are not displayed in Code Scan.

6.2 Vehicle System Report (ALTUS™)

After a code scan is completed the results of the scan are automatically configured into a Vehicle System Report that is uploaded and saved to your ALTUS online account (if registered and connected). Report examples are shown in Figure 6-1.

Using ALTUS the report can be printed, downloaded, attached to an e-mail or other social media app to share with others. For additional information on using ALTUS, see ALTUS (ALTUSDRIVE.com) - Cloud Sharing/Storage, on page 112.

NOTE:
Code scan reports are automatically saved each time a code scan is performed. If using ALTUS, the report is automatically uploaded to your online ALTUS account on ALTUSDRIVE.com.

The code scan/vehicle system report includes:

- Basic vehicle information
- A list of the code scan results by system
- Individual system DTCs with a brief description
- Global OBD codes
- Readiness monitor test status

6.2.1 Printing the Vehicle System Report

Use ALTUS to print the vehicle system report from your PC or mobile device, see Quick Reference (print / download / share), on page 116.

The vehicle system report can also be customized and printed using ShopStream Connect - See Printing the (Code Scan) Vehicle System Report, on page 141.
This chapter describes the basic operation of the OBD-II/EOBD function.
The OBD-II/EOBD icon is located on the Home screen.
The OBD-II/EOBD function allows you to access “generic” OBD-II/EOBD data.
Generic OBD-II/EOBD data is data limited to emission related diagnostics such as:

- Checking for emissions-related diagnostic trouble codes (DTCs)
- Checking the cause of an illuminated malfunction indicator lamp (MIL)
- Checking monitor status prior to emissions certification testing

To access other available electronic control module (ECM) data for vehicle specific systems, parameters or enhanced diagnostics use the Scanner function, see Scanner on page 19.

**NOTE:**
The OBD-II/EOBD function can also be used to access “generic” OBD-II/EOBD data for OBD-II/EOBD compliant vehicles that are not included in the Scanner function databases.

### 7.1 Basic Operations

#### 7.1.1 Screen Layout and Toolbar Controls

Screen layout and toolbar controls are similar to the Scanner function, see Screen Layout and Toolbar Icons, on page 19.

#### 7.1.2 Connecting the Data Cable

Connection of the data cable to the diagnostic tool and vehicle DLC is required for OBD-II/EOBD testing, see Data Cable Connection, on page 18.

#### 7.1.3 Saving and Reviewing Data Files

Save and Pause control icon operation and data review procedures are the same as used for the Scanner function, see Saving and Reviewing Scanner / OBD-II/EOBD Data Files, on page 33.

### 7.2 OBD-II/EOBD Menu

The following options are available from the OBD-II/EOBD menu:

- OBD Health Check
- OBD Direct
### 7.2.1 OBD Health Check

The OBD-II Health Check offers a way to quickly check for and clear emissions-related diagnostic trouble codes (DTCs), and to check readiness monitors for emissions testing. Selecting opens a connection message. Select **Continue** or press the **Y/✓** button to open a submenu of test options (Figure 7-1).

**Global OBD II Code Check**

Global OBDII Code Check displays stored emission related generic DTCs reported by the ECM. Selecting opens a submenu with two choices: Codes and Pending Codes. Either option opens a code list (Figure 7-2).

The DTC results screen is similar to the same screen used in the Scanner function, as both display the SureTrack results message below the toolbar. However, SureTrack is not accessible and no information is displayed in OBD-II/EOBD mode. SureTrack is only accessible in the Scanner function where the vehicle has been identified.
Codes
The Codes option displays a list of current emission related DTCs.

OBD-II/EOBD Codes have a priority according to their emission severity. The priority of the code determines the illumination of the MIL and the code erase procedure. Vehicle manufacturers have implemented the ranking differently, so there are differences between makes.

Pending Codes
The purpose of this service is to enable the diagnostic tool to obtain “pending” or maturing diagnostic trouble codes. These are codes whose setting conditions were met during the last drive cycle, but need to be met on two or more consecutive drive cycles before the DTC actually sets.

NOTE:
Save valuable time by using this service to verify test results after a single drive cycle following a vehicle repair and code clearing procedure.

- If a test failed during the drive cycle, the DTC associated with that test is reported. If the pending fault does not occur again within 40 to 80 warm-up cycles, the fault is automatically cleared from memory.
- Test results reported by this service do not necessarily indicate a faulty component or system. If test results indicate another failure after additional driving, then a DTC is set to indicate a faulty component or system, and the MIL is illuminated.

Refer to the Global OBD Vehicle Communication Software Manual for additional information.

Global OBD II Clear Codes
This option is used to clear all emission related diagnostic data, such as DTCs, freeze frame data, and test results, from the memory of the selected ECM. Although OBD-II/EOBD displays generic OBD-II/EOBD data only, clearing codes erases all of the stored data, including any enhanced codes and freeze frame information.

A confirmation screen displays when the clear codes option is selected to prevent accidental loss of data. Select to continue from the confirmation screen. Refer to the Global OBD Vehicle Communication Software Manual for additional information.

Readiness Monitors
This test checks the status of the readiness monitoring system. An OBD-II /EOBD control system runs continuous and periodic tests to check the status of emission-related subsystems to gauge the integrity of the electronic operations. Two options are available for Readiness Monitors:

- Monitors Complete Since DTC Cleared—displays the status of all monitors that have run since the last time ECM memory was erased.
- Monitors Complete This Cycle—displays the status of the monitors that ran during the current drive cycle only.
Select either option and test results are shown in the data viewer (Figure 7-3).

![Figure 7-3 Readiness monitor test report](image)

Scroll to view the entire list of Readiness Monitors to ensure that all tests are complete. Select Save from the toolbar and follow the screen prompts to save a copy of the monitor report as part of the vehicle records.

**MIL Status**

This test checks the ECM commanded state (on or off) if the malfunction indicator lamp.

### 7.2.2 OBD Direct

OBD Direct includes the following menu and submenu choices:

- **OBD Diagnose**
  - **Start Communication** - initiates a test session
  - **Connector Information** - provides DLC location details
  - **Manual Protocol Selection** - provides choices for communication protocol
- **OBD Training Mode** - allows you to familiarize yourself with the capabilities of OBD-II/EOBD while navigating through menus without being connected to a vehicle.
Start Communication

Use the following procedure to begin an OBD-II/EOBD test session:

**To perform an OBD-II/EOBD Test:**
1. Connect the data cable to the test vehicle.
2. Select **Start Communications** from the OBD-II/EOBD menu.
   - A series of messages are displayed indicating automatic detection of vehicle type (12 or 24 V) has occurred and then the detected controllers are displayed.
   - The diagnostic tool establishes a communication link with the test vehicle, then opens an information screen (Figure 7-4).

![Figure 7-4 Protocol information](image)

The information screen shows how many control modules were detected, which ECM is communicating, and which communication protocol is being used.

3. Select **Continue**.
   - A Select Service menu of available tests opens:
     - **Readiness Monitors**, on page 73
     - **MIL Status**, on page 73
     - **Fast-Track Troubleshooter**, on page 73
     - **($01) Display Current Data**, on page 74
     - **($02) Display Freeze Frame Data**, on page 74
     - **($03) Display Trouble Codes**, on page 74
     - **($04) Clear Emissions Related Data**, on page 74
     - **($05, 06, 07) Display Test param./Results**, on page 75
     - **($08) Request Control of On-board System**, on page 76
     - **($09) Read Vehicle Identification**, on page 76
     - **($09) In-use Performance Tracking**, on page 76
     - **($0A) Emission Related DTC with Permanent Status**, on page 76
**IMPORTANT:**
All service modes are not supported by all vehicles, so the available menu selections will vary.

![Service mode menu](image)

**Figure 7-5 Service mode menu**

4. Select a test to continue.

**Readiness Monitors**
Use this menu item to check the readiness of the monitoring system. Monitors not supported will display “not supported”. Scroll, if needed, to view the entire list of monitors (Figure 7-3). Selecting Readiness Monitors opens a submenu with two choices:

- **Monitors Complete Since DTC Cleared**—displays the results of all monitor tests that have run since the last time the vehicle electronic control module (ECM) memory was cleared.
- **Monitors Complete This Cycle**—displays only the results of monitor tests that ran during the current drive cycle, they reset when the ignition is switched off.

**MIL Status**
This item is used to check the current condition of the malfunction indicator lamp (MIL). Additional information, such as which ECM commanded the MIL on and the distance driven while the MIL is on (if supported), can also be displayed. The MIL Status report can also be saved as part of the vehicle records.

**Fast-Track Troubleshooter**
Fast-Track® Troubleshooter is a database of experience-based repair strategies and information, that has been compiled and validated by top-notch technicians. The Troubleshooter system simplifies the diagnosis process, as it contains information on virtually all common diagnostic trouble code (DTC) problems and driveability symptoms for most vehicles covered by the vehicle communication software.
($01) **Display Current Data**

Use this test to display the serial data transmitted by the selected vehicle electronic control module (ECM). The main body of the screen has two columns; the left-hand column is a description of the parameter and the right-hand column is the parameter value or state. Viewing options and operations are the same as the Scanner function, see Data Display, on page 28 for more information.

![Figure 7-6 Current data display](image)

($02) **Display Freeze Frame Data**

Freeze frame data provides a "snapshot" of critical parameter values at the time a DTC set.

This item is used to display freeze frame data for any stored emission related diagnostic trouble codes (DTCs). In most cases the stored frame is the last DTC that occurred. Certain DTCs, those that have a greater impact on vehicle emissions, have a higher priority. In these cases, the highest priority DTC is the one for which the freeze frame records are retained.

($03) **Display Trouble Codes**

This is used to display any stored emission related DTCs reported by the ECM. The display is similar to the Scanner function code display (see Data Display, on page 28 for details). The list does not include enhanced DTCs in this mode.

($04) **Clear Emissions Related Data**

This item is used to clear all emission related diagnostic data, such as DTCs, freeze frame data, and test results, from the memory of the selected ECM.
To clear emission related Data:

1. Select Clear Emissions Related Data from the menu.
   A confirmation message displays to help prevent loss of any vital data (Figure 7-7).

2. Continue from the confirmation message.
   The screen updates several times as ECM memory is erased, then a "data has been cleared" message displays.

3. Select Continue to return to the Select Service menu.

($05, 06, 07) Display Test param./Results

This option opens a submenu of parameters and test results from various sensors, monitor test results, and a record of DTC setting conditions detected during the last drive cycle. The submenu includes:

- ($05) Oxygen Sensor Monitoring
- ($06) On-board Monitored Systems
- ($07) DTCs Detected During Last Drive

($05) Oxygen Sensor Monitoring

This option opens a menu of tests available for checking the integrity of the oxygen (O2) sensors. Making a selection displays all of the pertinent O2 sensor parameters for the specific test. The test identification (ID) displays at the top of the data list.

($06) On-board Monitored Systems

This option opens a menu of tests from the monitored systems. The available data is for specific systems and components that the on-board diagnostic system monitors continuously, such as misfire, or non-continuously, such as the catalyst system. Making a menu selection displays the test results.
($07) DTCs Detected During Last Drive
This test opens a record of any DTCs that set during the last completed drive cycle. Select to open the DTC list.

($08) Request Control of On-board System
This service enables bidirectional control of the ECM. This service allows the diagnostic tool to control the operation of an on-board system, test, or component.

($09) Read Vehicle Identification
The purpose of this service is to enable the diagnostic tool to request and display vehicle-specific information, such as the vehicle identification number (VIN), the calibration identification, and the calibration verification number (CVN), of the test vehicle. Select a menu item to retrieve the information. Select Return to go back to the menu.

($09) In-use Performance Tracking
This option displays the “In-use Performance Tracking” of data. It is a record of the number of times each of the monitor tests have been completed. Select Return to go back to the menu.

($0A) Emission Related DTC with Permanent Status
This option displays a record of any “permanent” codes. A permanent status DTC is one that was severe enough to illuminate the MIL at some point, but the MIL may not be on at the present time. Whether the MIL was switched off by clearing codes or because the setting conditions did not repeat after a specified number of drive cycles, a record of the DTC is retained by the ECM. Permanent status codes automatically clear after repairs have been made and the related system monitor runs successfully.

Connector Information
This option opens a database of vehicle diagnostic connector locations that includes most makes and models. The menu driven interface leads you quickly to difficult to find test connectors.

To locate a vehicle diagnostic connector:
1. Select Connector Information from the System menu.
   A list of vehicle manufacturers displays.
2. Select a manufacturer from the list.
   A list of models available from the selected manufacturer displays.
3. Select a model from the list.
   If a cable adapter is needed, which one and how to connect it displays.
4. Select Continue.
   Information on where to locate the vehicle diagnostic connector displays.
5. Select Continue to return to the System menu.
Manual Protocol Selection

Communication protocol is a standardized way of transferring data between an ECM and a diagnostic tool. Global OBD may use the following communication protocols:

- ISO 15765-4 (CAN)
- ISO 27145 (WWHOBD CAN)
- ISO J1939 (CAN)
- ISO 9141-2 (K-LINE)
- SAE J1850 PWM (Pulse Width Modulation)
- SAE J1850 VPW (Variable Pulse Width)
- ISO 14230-4 (Keyword Protocol 2000)
- SAE J2284/ISO 15765-4 (CAN)

When initially attempting to establish communication with the ECM the diagnostic tool attempts to communicate trying each protocol in order to determine which one is being used. During normal operation the communication protocol is automatically detected. If automatic detection fails, communication protocol can be manually selected.

**IMPORTANT:**

Using unsupported OBD communication protocols may activate warning lights and can set network related faults. Only use the manual selection option when OBD protocol is already known.

Select **Manual Protocol Selection** to open a menu of options *(Figure 7-8)*.

![Figure 7-8 Manual protocol selection menu](image)

Select the **Back** icon or press the **N/X** button to return to the OBD-II/EOBD Main menu.
This chapter describes the basic operation, and navigation of the Quick Lookups function. The Quick Lookups icon is located on the Home screen.

Quick Lookups includes Oil Specs and Resets and Tire and Wheel Service vehicle information functions:

8.1 Oil Specs and Resets

Oil Specs and Resets is located in the Quick Lookups main menu (Quick Lookups > Oil Specs and Resets).

Oil Specs and Resets provides OEM information on your diagnostic tool, via wireless network connection with our Snap-on Information Service. This feature allows you quick access to the following information:

- Fluid capacity and specifications
- Scanner functional resets
- Service reset procedures and information

NOTES:

— Oil Specs and Resets vehicle coverage is the same as the Scanner vehicle coverage.

— Not all vehicles may have on-board diagnostic tool reset capabilities, or have information available.

— The diagnostic tool is equipped with the ability to connect to a Wi-Fi network, however the connection is solely dedicated to our Snap-on Information Service. Before you begin using this function you must connect to a wireless network and turn the Wi-Fi radio on. See Wi-Fi Connection / Troubleshooting, on page 129 for instructions.

— If you experience a wireless network connection loss, Oil Specs and Resets information will not refresh and/or may cause the function to stop. To continue use, you must re-establish your Internet connection.

— Performance may vary depending on your wireless network equipment and ISP.
8.1.1 Operation

**NOTE:**
The information and procedures provided by the Oil Specs and Resets function is vehicle specific, therefore a vehicle must be identified before information can be displayed.

**Using the Oil Specs and Resets function**

There are two methods to access this function:

- **From the Home screen** - select the **Quick Lookups** icon, then select **Oil Specs and Resets** (Figure 8-1), and then proceed to Step 1 below.

![Figure 8-1 Oil Specs and Resets](image)

- **From within a current Scanner session** - select **Oil Specs and Resets** from the System menu (Figure 8-2), then proceed to Step 3 below.

![Figure 8-2 Scanner System Menu - Oil Specs and Resets Option](image)

1. Follow the screen prompts to select the vehicle, Manufacturer, Year and Model.
2. Select **OK** to confirm the vehicle.
3. After the Fluid Capacity screen displays, navigate to either of the following options:
   - Perform a service interval reset using the diagnostic tool.
   - View OEM service reset instructions and related information.
NOTE:
Depending on the active function, descriptive information is displayed in the main body of the screen. If applicable, use the scroll bar or directional buttons (▲, ▼) to scroll up/down to view all of the information.

Icons
The following provides a brief description of the related Oil Specs and Resets toolbar icon functions. Detailed descriptions are provided in the following sections.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Icon Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Icon Fluid Capacity" /></td>
<td>Fluid Capacity</td>
<td>Displays OEM recommended engine oil specification and capacity information.</td>
</tr>
<tr>
<td><img src="image" alt="Icon Functional Reset" /></td>
<td>Functional Reset (Scanner)</td>
<td>Opens the Scanner service reset menu for the selected vehicle, providing options for available resets using the diagnostic tool.</td>
</tr>
<tr>
<td><img src="image" alt="Icon Reset Procedure" /></td>
<td>Reset Procedure</td>
<td>Displays OEM service interval reset instructions, to perform a manual reset of the service indicator.</td>
</tr>
</tbody>
</table>

Fluid Capacity
Selecting **Fluid Capacity** displays OEM recommended fluid specifications (Figure 8-3).

NOTE:
The Fluid Capacity screen is the default screen.

Typical information may include:
- Vehicle engine information
- Oil capacity specifications with or without oil filter
- Oil rating, weight and type
- Special notes

![Fluid Capacities](image)

Figure 8-3 Typical Oil Specification Result
Functional Reset

Selecting Functional Reset opens the service interval reset menu (within the Scanner function) for the selected vehicle, and includes functional resets for the oil service indicator and other supported resets.

**IMPORTANT:**
Instructions may be provided, that are required to be performed before selecting or completing the reset function itself. Follow all instructions as written.

**NOTES:**

Functional resets are not available for all vehicles, and will vary depending on vehicle support.

A “grayed out” or non-selectable icon indicates that functional resets are not available for the selected vehicle.

Service interval reset menu titles will vary by manufacturer.

1. Select the Functional Reset icon.

The Scanner function opens to the service interval reset menu for the selected vehicle.

2. Select the applicable menu option(s) to perform the functional reset.

3. Read and perform any instructions that are provided.

4. If applicable, once the reset has completed select OK or Continue.

The following screen examples (Figure 8-4) illustrate the typical engine oil life indicator reset menu navigation for a 2011 Honda Accord. Other vehicle manufacturer menu navigation will vary.
Attention:
The engine oil life will be reset to "100%".

Figure 8-4
8.1.2 Reset Procedure

Selecting Reset Procedure displays OEM oil service reset instructions. Typical information may include:

- Step-by-step instructions for manually resetting the oil service reset indicator using on-board vehicle functionality (e.g. instrument cluster controls, accelerator pedal, information or media center controls, multi-function switch, etc.)
- Special notes, and/or instructions
- Theory of operation

**NOTE:**
During content download, icons may be used as image place holders until the image is fully downloaded, and can be displayed.

Use the scroll bar or directional buttons (▲, ▼) to scroll up/down to view all of the information.

The following are examples (Figure 8-5) of typical oil service reset instructions. Instructions and screens will vary by vehicle.

---

Figure 8-5

![Oil Service Reset Instructions](image)
**Viewing Images**

Images may be provided within the reset instructions. Depending on the image, it may require enlargement to see details within the image.

1. If you need to see an image in greater detail, tap the image to select it (Figure 8-6).

Selecting an image, opens it in a viewer window (Figure 8-7).

Use the zoom and pan features described in this section to adjust the image as needed.
**Zoom**

From the image viewer window, select the + and - icons from the toolbar to incrementally increase or decrease the image displayed (Figure 8-8).

![Figure 8-8]

**Pan**

To move the image, touch, hold and drag the image on the screen to reposition it (Figure 8-9).

![Figure 8-9]
8.2 Tire and Wheel Service

Tire and Wheel Service is located in the Quick Lookups main menu (Quick Lookups > Tire and Wheel Service).

Tire and Wheel Service provides OEM information on your diagnostic tool, via wireless network connection with our Snap-on Information Service. This feature allows you quick access to the following information:

- Tire Pressure Monitoring System (TPMS) Indicator Reset Procedures
- TPMS Relearn Procedures
- Tire Pressure Sensor Removal/Installation Procedures
- Tire Fitment Specifications

Tire and Wheel Service can also provide (when available) quick access to the following diagnostic functions when connected to a vehicle:

- View and Clear TPMS Related Codes
- View TPMS Related Data
- Perform TPMS Related Functional Tests
- View TPMS Troubleshooter Information

NOTE:

— Tire and Wheel Service vehicle coverage is the same as the Scanner vehicle coverage.

— Not all vehicles may have on-board diagnostic tool reset capabilities, or have information available.

— The diagnostic tool is equipped with the ability to connect to a Wi-Fi network, however the connection is solely dedicated to our Snap-on Information Service. Before you begin using this function you must connect to a wireless network and turn the Wi-Fi radio on. See Wi-Fi Connection / Troubleshooting, on page 129 for instructions.

— If you experience a wireless network connection loss, Tire Service information will not refresh and/or may cause the function to stop. To continue use, you must re-establish your Internet connection.

— Performance may vary depending on your wireless network equipment and ISP.

8.2.1 Operation

NOTE:

The information and procedures provided by the Tire and Wheel Service function is vehicle specific, therefore a vehicle must be identified before information can be displayed.
Using the Tire and Wheel Service function

There are two methods to access this function:

- **From the Home screen** - select the Quick Lookups icon, then select Tire and Wheel Service (Figure 8-10), and then proceed to Step 1 below.

![Figure 8-10](image)

- **From within a current Scanner session** - select Tire and Wheel Service (or applicable choice) from the System menu (Figure 8-11), then proceed to Step 3 below.

![Figure 8-11](image)

1. Follow the screen prompts to select the vehicle, Manufacturer, Year and Model.
2. Select OK to confirm the vehicle.
3. After the TPMS Reset instruction screen displays, you can navigate to other options as needed, see Tire and Wheel Service Toolbar Icons.

**NOTE:**
Depending on the active function, descriptive information is displayed in the main body of the screen. If applicable, use the scroll bar to scroll up/down to view all of the information.
## Tire and Wheel Service Toolbar Icons

The following provides a brief description of the related Tire and Wheel Service toolbar icon functions. Detailed descriptions are provided in the following sections.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Icon Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="TPMS Indicator Reset" /></td>
<td>TPMS Indicator Reset</td>
<td>Displays TPMS indicator reset instructions, to perform a manual reset of the TPMS indicator. See TPMS Indicator Reset.</td>
</tr>
<tr>
<td><img src="image" alt="Remove and Repair (TPMS Service)" /></td>
<td>Remove and Repair (TPMS Service)</td>
<td>Displays TPMS service information. See TPMS Indicator Reset.</td>
</tr>
<tr>
<td><img src="image" alt="Scanner Functions" /></td>
<td>Scanner Functions</td>
<td>Opens the TPMS test related Scanner menu. Options may include, view and clear codes, display data, and access functional tests using the diagnostic tool.</td>
</tr>
<tr>
<td><img src="image" alt="Tire/Wheel Specifications (Fitment)" /></td>
<td>Tire/Wheel Specifications (Fitment)</td>
<td>Displays OEM tire and wheel specifications.</td>
</tr>
</tbody>
</table>
TPMS Indicator Reset

Selecting the TPMS Indicator Reset icon displays TPMS indicator reset instructions. Typical information may include:

- Instructions for manually resetting the TPMS indicator using on-board vehicle functionality.
- Special notes, and/or instructions
- Theory of operation

During content download, progress messages may display until the image is fully downloaded, and can be displayed.

Use the scroll bar to scroll up/down to view all of the information.

The following example (Figure 8-12) shows a typical TPMS indicator reset instructions. Instructions and screens will vary by vehicle.

![Figure 8-12](image-url)
TPMS Remove & Repair (TPMS Service)

Selecting the Remove & Repair (TPMS Service) icon displays TPMS service information. Typical information may include:

- Removal and installation instructions.
- Relearn/enable procedures
- Diagnostic testing procedures
- Theory of operation

During content download, progress messages may display until the image is fully downloaded, and can be displayed.

Use the scroll bar to scroll up/down to view all of the information.

The following are examples (Figure 8-13) of typical TPMS service procedures. Screens, results will vary by vehicle.

![Figure 8-13](image-url)
Scanner Functions

Selecting the Scanner Function icon opens the TPMS Scanner test menu for the selected vehicle. Options may include:

- View and Clear Codes
- View Data
- Perform TPMS Related Functional Tests/Resets
- View TPMS Troubleshooter Information

IMPORTANT:
Functional test instructions may be provided, that are required to be performed before selecting or completing the function itself. Follow all instructions as written.

NOTE:
Scanner functions require connection and communication with the vehicle.

Functional tests/ resets are not available for all vehicles, and will vary depending on vehicle support.

A “grayed out” or non-selectable icon indicates that functional resets/ rests are not available for the selected vehicle.

Service test/reset menu titles will vary by manufacturer.

The following screen examples (Figure 8-14) illustrate some typical TPMS functional test screens.

Figure 8-14
Tire/Wheel Specifications (Fitment)

Selecting **Tire/Wheel Specifications** displays OEM tire and wheel specifications (Figure 8-15). Typical information may include:

- Tire size and pressure
- Wheel hub stud size and lug torque
- Wheel size

<table>
<thead>
<tr>
<th>Drive Type</th>
<th>Body Style</th>
<th>Vehicle Option</th>
<th>GVWR (lbs)</th>
<th>Front/Rear Both Size Description</th>
<th>Standard Inflation (psi) Front-Rear</th>
<th>Torque (ft-lbs)</th>
<th>Wheel Base (in) Min-Max</th>
<th>Rim Size</th>
<th>Bolt (d-mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RWD</td>
<td>4D</td>
<td>Utility</td>
<td>7100-7300</td>
<td>B P275/55R20 111S</td>
<td>O</td>
<td>140</td>
<td>8.6J 6-139.7mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RWD</td>
<td>4D</td>
<td>Utility w/271</td>
<td>7100-7300</td>
<td>B P265/65R19 111S</td>
<td>S</td>
<td>140</td>
<td>8.6J 6-139.7mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4WD</td>
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<td>4WD</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>RWD</td>
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<td>7100-7300</td>
<td>B P265/70R17 111S</td>
<td>S</td>
<td>140</td>
<td>8.6J 6-139.7mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 8-15 Typical Tire and Wheel Specification Result*
This chapter describes the basic operation of the Previous Vehicles and Data function.

The **Previous Vehicles and Data** icon is located on the Home screen. This function allows you to select recently tested vehicles and access saved data files.

### 9.1 Previous Vehicles and Data Menu

The following options are available from the Previous Vehicles and Data menu:

- Vehicle History
- View Saved Data, on page 94
- Delete Saved Data, on page 96

#### 9.1.1 Vehicle History

The diagnostic tool stores the identification of the last twenty-five vehicles tested, so there is no need to go through the complete vehicle identification sequence when performing a retest after repairs have been made. The oldest vehicle record is deleted when a new vehicle is identified once there are twenty-five vehicles on file.
To select from the vehicle History:
1. Select Previous Vehicles and Data from the Home screen.
2. Select Vehicle History from the menu.
   A list of up to 25 previously tested vehicles displays. Each vehicle is given a unique file name. Scroll to view the entire list.
3. With the item to be opened highlighted, either select the vehicle ID or press the Y/✓ button. The appropriate software loads and a vehicle ID confirmation screen displays.
4. Select OK or press the Y/✓ button to continue.
   The System Menu for the selected vehicle displays.

9.1.2 View Saved Data

Selecting the View Saved Data menu option opens a list of all the saved data (movie) files and screen images that are stored in memory. Saved files are listed in chronological order by the date and time that they were created with the most recent files are at the top of the list.

Figure 9-2 Saved data list

Saved files can either be opened directly on the diagnostic tool, or downloaded to a personal computer and opened using ShopStream Connect. See Pausing and Reviewing Data Files, on page 34 and Connect-to-PC, on page 98 for additional information.

NOTE:
A maximum of 50 files are displayed. To view all (if more than 50) files stored, use ShopStream Connect. See Connect-to-PC, on page 98 for additional information.

To review a saved data file or image:
1. Select Previous Vehicles and Data from the Home screen.
2. Select View Saved Data from the menu.
3. Select a file to review from the list.
9.1.3 Viewing Codes and Code Scan Results

When code scan or single system code results are saved, they are saved in (.XML) file format (Figure 9-3).

The saved (.XML) file(s) can be viewed using these methods:

- On the diagnostic tool - See Viewing Code Results on the Diagnostic Tool, on page 95.

In Vehicle System Report format using:

- ALTUS - see ALTUS (ALTUSDRIVE.com) - Cloud Sharing/Storage, on page 112
- ShopStream Connect - see Printing the (Code Scan) Vehicle System Report, on page 141.

Viewing Code Results on the Diagnostic Tool

Selecting a system code or a code scan results file from your saved file list (Figure 9-3), opens the file onscreen. When opened, the (.XML) file displays basic vehicle information and a list of DTCs with a brief description of each.

If SureTrack is active and data is available, additional troubleshooting information from SureTrack (e.g. Common Replaced Parts data (Figure 9-4), Real Fix and Related Fixes) will also be displayed.
9.1.4 Delete Saved Data

This menu option is used to permanently erase saved files from memory.

To delete a saved file:
1. Select Previous Vehicles and Data from the Home screen.
2. Select Delete Saved Data from the menu.
   A list of saved files displays.

   **NOTE:**
   The Select All/Deselect All and Delete icons become available on the toolbar so that you can either delete individual files or clear the entire memory buffer all at once.

3. Select a file from the list and a confirmation message displays.
4. Select an option from the confirmation message:
   - **OK**—deletes the selected file and returns to the saved files list, which no longer includes the deleted file.
   - **Cancel**—returns to the saved files list without deleting the selected file.
5. Select Back on the toolbar to return to the Previous Vehicles and Data menu, select Home to return to the Home screen.
This chapter describes the basic operation of the Tools function.

The **Tools** icon is located on the Home screen. This function allows you to configure diagnostic tool settings to your preferences.

### 10.1 Tools Menu

The following options are available from the Tools menu:

- **Connect-to-PC**—use to transfer and share files with a personal computer (PC)
- **Configure Shortcut Button**, on page 99—use to change the function of the shortcut button
- **System Information**, on page 99—use to view configuration information for the diagnostic tool
- **Settings**, on page 100—use to configure certain characteristics of the diagnostic tool

![Figure 10-1 Tools menu](image-url)
10.1.1 Connect-to-PC

*Connect-to-PC* allows you to transfer saved data files on your diagnostic tool to your personal computer using a USB cable.

The optional ShopStream Connect™ PC software allows you to view, print and save data files on your PC. In addition, you can download software updates from the PC to the diagnostic tool. These features provide an ideal way to manage saved data files. The ShopStream Connect application is available free online, see ShopStream Connect, on page 137 for additional information.

To connect the diagnostic tool to a PC:

1. Connect the supplied USB cable to the diagnostic tool and then to the PC.
   
   A USB cable, supplied with your diagnostic tool, is used to connect the diagnostic tool to the PC. When the diagnostic tool is connected to the PC a communications icon appears on the right edge of the title bar.

2. Select **Tools** from the Home screen.

3. Select **Connect-to-PC** from the Tools and Setup menu.
   
   A screen message will display to confirm the tool is in Connect-to-PC-mode.

![Figure 10-2](image)

This device is now in Connect-to-PC mode.

Press *X* to exit.

![Figure 10-2](image)

Exit
10.1.2 Configure Shortcut Button

This feature allows you to change the function of the Shortcut button. Options are:

- **Brightness**—opens the brightness setting screen.
- **Save Screen**—saves a bitmap image of the visible screen.
- **Save Movie**—writes PID data from buffer memory to a file for future playback.
- **Show Shortcut Menu**—opens the menu so you can quickly select from any of the functions.
- **Toggle Record/Pause**—programs the Shortcut button to work as the Pause and Play icons.

To assign a function to the Shortcut button:
1. Select **Tools** from the Home screen.
   The Tools menu opens.
2. Select **Configure Shortcut button** from the menu.
3. Select a function from the menu.
4. Select the **Back** on the toolbar or press the **N/X** button to return to the options menu.

10.1.3 System Information

**System Information** allows you view patent information and system information such as the software version and serial number of your diagnostic tool.

![System Information](image)

**Figure 10-3 System information**

To display the System information screen:
1. Select **Tools** from the Home screen to open the menu.
2. Select **System Information** from the menu.
   The System Information screen displays.
3. Scroll as needed to view all of the data.
4. Select **Back** on the toolbar or press the **N/X** button to return to the options menu.
10.1.4 Settings

This Tools selection allows you to adjust certain basic diagnostic tool functions to your personal preferences. Selecting opens an additional menu that offers the following:

- System Settings - see System Settings, on page 100
- Configure Wi-Fi - see Wi-Fi Connection / Troubleshooting, on page 129
- Configure Scanner - see Configuring Scanner, on page 106
- Configure Units - see Configure Units, on page 107

System Settings

Selecting System Settings opens a menu with two options; Display and Date & Time. Either selection opens an additional menu.

Display options include:

- Brightness, on page 101—adjusts the intensity of the screen back lighting.
- Color Theme, on page 101—changes the background color of the screen display.
- High Contrast Toolbar, on page 102—enhances toolbar graphics for poor lighting conditions.
- Font Type, on page 102—switches between standard and bold text for better visibility.
- Backlight Time, on page 103—adjusts how long the screen stays on with an idle diagnostic tool.
- Touch Screen Calibration, on page 103—calibrates the touch screen display.

Date & Time options include:

- Time Zone, on page 104—sets the internal clock to the local time standard.
- Clock Settings, on page 105—sets the time on the internal clock.
- Daylight Savings Time, on page 105—configures the clock for Daylight Savings Time.
- Time Format, on page 106—switches the time displays between a 12 or 24 hour clock.
- Date Format, on page 106—configures how the month, date, and year displays.
**Brightness**

Selecting this option opens the brightness setting screen for adjusting the back lighting of the display (Figure 10-4).

![Brightness setting]

Figure 10-4 Brightness setting

Each push of the **Plus** and **Minus** icons, or the up (▲) and down (▼) arrows, incrementally changes the back lighting up or down respectively.

Select **Back** from the toolbar or press the **N/X** button to exit.

**Color Theme**

This option allows you to select between a white and black background for the screen. The black background can be beneficial when working under poor lighting conditions.

Selecting opens a menu with two choices: **Day Theme** (white background) and **Night Theme** (black background). Make a selection and a “please wait” message momentarily displays followed by the Home screen. The new toolbar setting is now active.
**High Contrast Toolbar**

This option allows you to switch to a high contrast toolbar. This toolbar features black and white icons with crisp graphics that are easier to see in poor lighting conditions or bright sunlight.

![Figure 10-5 High-contrast toolbar](image)

Selecting opens a menu with two choices; Color Toolbar and High Contrast Toolbar. Select and a “please wait” message displays followed by the Home screen. The new setting is now active.

**Font Type**

This option allows you to select between standard and bold faced type for the display screen. Bold type makes screen writing more legible under poor lighting or bright sunlight conditions.

![Figure 10-6 Bold type on a black background](image)
Selecting opens a menu with two choices: Normal Font and Bold Font. Select a menu item or scroll and then press the Y/✓ button to make a selection. The change is instantaneous. Select the Back or Home icon on the toolbar to return to either the Settings menu or the Home screen.

**Backlight Time**
This option allows you to configure how long the screen backlight remains on when the diagnostic tool is inactive. The following choices are available:

- Always On
- 15 Seconds
- 30 Seconds
- 45 Seconds
- 60 Seconds

Select the menu item desired, or scroll and then press the Y/✓ button to make a selection. Select Back or Home on the toolbar to return to either the Settings menu or the Home screen.

**Touch Screen Calibration**
Calibrating the touch screen maintains the accuracy of the touch-sensitive display.

**IMPORTANT:**
To avoid serious damage to the diagnostic tool, always complete the touch screen calibration sequence once it has begun. Never turn off the diagnostic tool while a screen calibration is in process.

**To calibrate the touch screen:**
1. Select **Tools** from the Home screen to open the menu.
2. Select **Settings** from the menu.
3. Select **Touch Calibration** from the menu.
   The calibration screen opens (Figure 10-7).
4. Select each box on the screen as it displays.
   The display returns to the Settings menu once the screen calibration procedure is complete.

Time Zone
This option opens a menu of time zone settings. Scroll to highlight, then select the local time zone.
The display returns to the Settings menu once a time zone is selected.
**Clock Settings**

This option opens a window for resetting the time on the real-time clock.

**To set the clock:**
1. Select **Tools** from the Home screen to open the menu.
2. Select **Settings** from the menu.
3. Select **Clock Settings** from the menu.

   A warning message briefly displays followed by the Clock Settings screen (Figure 10-8).

![Figure 10-8 Clock settings](image)

4. Select the **up** (↑) icon on the screen or press the **up** (▲) button to incrementally increase the number in the highlighted field. Select the **down** (↓) icon on the screen or press the **down** (▼) button to incrementally decrease the number.
5. Select the **check** (✔) icon on the screen or press the **Y/✓** button to move the highlight to the next field.
6. Repeat Step 4 and Step 5 until the correct time is displayed.
7. Select the **Back** icon on the toolbar or press the **N/X** button to close the Clock Settings window and return to the Settings menu.

**Daylight Savings Time**

This option opens a menu to configure the internal clock for Daylight Savings Time. Choose from:

- **ON**—sets the clock for Daylight Savings time.
- **OFF**—sets the clock for standard time.

Make either selection, then select the **Back** icon or press the **N/X** button to return to the menu.
**Time Format**

This option determines whether time is displayed on a 12 or 24 hour clock. Selecting opens a menu with two choices:

- **24 Hour Format**
- **12 Hour Format**

Make either selection, then select the **Back** icon or press the **N/X** button to return to the menu.

**Date Format**

This option allows you to select how date information is displayed. Select from:

- **(MM_DD_YYYY)**—Month, Day, Year
- **(DD_MM_YYYY)**—Day, Month, Year
- **(YYYY_MM_DD)**—Year, Month, Day

Make a selection, then select the **Back** icon or press the **N/X** button to return to the menu.

**Configuring Scanner**

This option allows you to change the scanner display to toggle scales on and off. Scales are the graduations and values that display on the horizontal axis at the base of the parameter graphs. The waveform fills the entire graph area with scales switched off.

![Figure 10-9 Scales hidden](image)
To change hide/show scales:
1. Select Tools from the Home screen.
2. Select Settings from the Tools and Setup menu.
3. Select Configure Scanner from the Settings menu.
4. Highlight either menu entry to make a selection:
   - Show Graph Scale—to switch the scales on.
   - Hide Graph Scale—to switch the scales off.
5. Select the Back icon or press the N/X button to return to the Settings menu.

Configure Wi-Fi
See Wi-Fi Connection / Troubleshooting, on page 129.

Configure Units
Selecting opens a dialog box that allows you to choose between US customary or metric units of measure for temperature, vehicle speed, air pressure, and other pressures.

![Configure units menu](image)

To change the units setup:
1. Select Tools from the Home screen to open the menu.
2. Select Configure Units to open the menu.
3. Select an item from the Configure Units menu.
4. Select a setting from the listed choices.
5. Select Back on the toolbar or press the N/X button to return to the options menu.
This chapter describes basic cleaning and battery replacement procedures for your diagnostic tool.

11.1 Cleaning and Inspecting the Diagnostic Tool

Periodically perform the following tasks to keep your diagnostic tool in proper working order:

• Check the housing, cables and connectors for dirt and damage before and after each use.
• At the end of each work day, wipe the diagnostic tool housing, cables and connectors clean with a damp cloth.

**IMPORTANT:**
Do not use any abrasive cleansers or automotive chemicals on the unit.

11.1.1 Cleaning the Touch Screen

The touch screen can be cleaned with a soft cloth and a mild window cleaner.

**IMPORTANT:**
Do not use any abrasive cleansers or automotive chemicals on the touch screen.

11.2 Battery Pack Service

Follow all safety guidelines when handling the battery pack.

**WARNING**
Risk of electric shock.

- Prior to recycling the battery pack, protect exposed terminals with heavy insulating tape to prevent shorting.
- Disconnect all test leads and turn diagnostic tools off before removing the battery pack.
- Do not attempt to disassemble the battery pack or remove any component projecting from or protecting the battery terminals.
- Do not expose the unit or battery pack to rain, snow, or wet conditions.
- Do not short circuit the battery terminals.

*Electric shock can cause injury.*

**WARNING**
Risk of explosion.

- Use the proper factory battery pack only, incorrect replacement or tampering with the battery pack may cause an explosion.

*Explosion can cause death or serious injury.*
11.2.1 Battery Pack Safety Guidelines

**IMPORTANT:**
The battery pack contains no user serviceable components. Tampering with the battery pack terminals or housing will void the product warranty.

Keep the following in mind when using and handling the battery pack:

- Do not short circuit battery terminals.
- Do not immerse the diagnostic tool or battery pack in water, or allow water to enter the unit or battery compartment.
- Do not crush, disassemble, or tamper with the battery pack.
- Do not heat the battery pack to over 100°C (212°F), or dispose of it in a fire.
- Do not expose the battery pack to excessive physical shock or vibration.
- Keep the battery pack out of reach of children.
- Do not use a battery pack that appears to have suffered abuse or damage.
- Store the battery pack in a cool, dry, well ventilated area.

**NOTE:**
The battery pack should be used within a short period of time (about 30 days) after charging to prevent loss of capacity due to self-discharging.

If long-term storage of the battery pack is necessary, it should be stored in a in cool, dry, well ventilated place with a 30 to 75 percent state of charge to prevent loss of characteristics.

To prolong the life of your battery, power off the unit when not in use. The diagnostic tool has a built in charger that recharges the battery on demand whenever it is connected to a power source.
11.2.2 Replacing the Battery Pack

If the battery pack no longer holds a charge, contact your sales representative to order a new one.

**IMPORTANT:**
Replace the battery pack with original Snap-on replacement parts only.

To replace the battery pack:

1. Loosen the two screws that retain the battery compartment cover.
2. Lift the lower edge of the battery compartment cover and slide it down slightly to clear the locating tabs and remove the cover.
3. Lift the lower edge of the battery and slide it down slightly to clear the locating tabs and remove the battery.

**IMPORTANT:**
During installation, do not overtighten the battery cover screws.

4. To install the new battery, reverse the removal procedures.

---

1— Battery
2— Battery Cover
3— Battery Cover Screws

*Figure 11-1 Battery pack location*
11.2.3 Disposing of the Battery Pack

Always dispose of a lithium-ion battery pack according to local regulations, which vary for different countries and regions. The battery pack, while non-hazardous waste, does contain recyclable materials. If shipping is required, ship the battery pack to a recycling facility in accordance with local, national, and international regulations.

- For additional information within the United States of America contact: Rechargeable Battery Recycling Corporation (RBRC) at www.call2recycle.org Phone - 800 822-8837
- For additional information within Canada contact: Rechargeable Battery Recycling Corporation (RBRC) at www.call2recycle.ca Phone - 888 224 9764

Products bearing the WEEE logo (Figure 11-2) are subject to European Union regulations.

![Sample WEEE logo](image)

**Figure 11-2 sample WEEE logo**

**NOTE:**
Always dispose of materials according to local regulations.

Contact your sales representative for details.
ALTUS is a mobile-friendly cloud-based application designed specifically for technicians to store, organize and share diagnostic information.

This built-in feature automatically transfers code scan reports from the diagnostic tool to ALTUS (ALTUSDRIVE.com).

**Main Topic Links**

- Quick Reference (print / download / share)
- Registration - Getting Started
- Using ALTUS
  - ALTUS - New User Registration
  - ALTUS - SureTrack User Setup
  - ALTUS Setup Information Screen
  - Logging in to ALTUS (registered user)
  - Navigating ALTUS (Toolbars)
  - My Files
  - Search
  - Favorites
  - Profile
  - File Detail (Tags)
  - Sharing/E-mail an Individual Report (Link icon)
  - Logging Out of ALTUS

**12.1 Key Features**

- Automatically transfer code scan reports to ALTUS.
- Access and manage your ALTUS account, using your mobile device or PC.
- Share/send report files via e-mail, or other mobile apps.
- Tag reports (attach a descriptive key-name) to help you organize and search report files.
- Use the Search function to quickly find files by Tag, Description and Title.

**12.2 Important Notes**

- To use ALTUS, registration and diagnostic tool Wi-Fi connection is required.
- The diagnostic tool only transfers code scan reports to ALTUS.
- ALTUS is continuously monitored for inappropriate content. Abuse (as determined by moderator) will result in account deactivation.
12.3 Registration - Getting Started

To use ALTUS:

- The diagnostic tool must be connected to a Wi-Fi network
- Account registration is required online
  - If you are a new user, you will need to create a new account, see ALTUS - New User Registration.
  - If you already have a SureTrack® account, see ALTUS - SureTrack User Setup.

12.3.1 ALTUS - New User Registration

If you are a new user, follow these steps to register and create a new account:

NOTE:
Account setup is only required one time.

NOTE:
If you are a SureTrack user, see ALTUS - SureTrack User Setup.

1. Connect the diagnostic tool to a Wi-Fi network, see Turning Wi-Fi On and Connecting to a Network, on page 130.

2. Write down the Serial Number, PIN and Code that are displayed when the device connects to the Wi-Fi network (Figure 12-1), or leave the screen displayed. Registration information can also be found in the Tools menu, see ALTUS Setup Information Screen, on page 115.

3. Using a mobile device or PC, visit https://ALTUSDRIVE.com and select Create Individual Account from the Login screen.

4. Enter the required information and create a Username and Password, then select Create.

5. At the “Success” confirmation screen, select Done.
6. Log in using your **Username** and **Password**.
7. Answer the security questions, then select **Submit**.
8. From Technician Profile Manager select the **Device Management** tab.
9. Select **Add Device**, then enter your **Serial Number**, **PIN**, **Code**, and **Device Name** and select **Save** when done.
10. Log out of Profile Manager, then select the **ALTUS Home Page** browser tab to get started.
11. Turn the diagnostic tool off, and then on.

Your Diagnostic diagnostic tool is now registered to your ALTUS online account. Code scan reports will be automatically sent (only when connected to Wi-Fi) to your online account from the device.

**NOTE:**
If the device is not connected to a Wi-Fi network when the code scan is performed, the report will not be sent to your ALTUS account. Wi-Fi connection is required to upload the report to ALTUS.

### 12.3.2 ALTUS - SureTrack User Setup

If you already have a SureTrack account, follow these steps to register and setup your ALTUS account:

**From a PC or mobile device:**

1. Connect the diagnostic tool to a Wi-Fi network, see **Turning Wi-Fi On and Connecting to a Network**, on page 130.
2. Write down the Serial Number, PIN and Code that are displayed when the device connects to the Wi-Fi network (**Figure 12-2**), or leave the screen displayed. Registration information can also be found in the Tools menu, see **ALTUS Setup Information Screen**, on page 115.

![ALTUS Setup](image)

**Figure 12-2**

**NOTE:**
The PIN and Code numbers will change each time you view the ALTUS Setup screens (**Figure 12-2** and **Figure 12-3**). This is normal, any displayed set of PIN and Code numbers may be used to register on ALTUSDRIVE.com.
3. Using a mobile device or PC, visit https://ALTUSDRIVE.com and select Login (upper right screen).
4. Log in using your SureTrack Username and Password.
5. Open the Profile Manager (additional login may be required).
6. From the Device Management tab, select Add Device.
7. Enter your Serial Number, PIN, Code, and Device Name.
8. Log out of Profile Manager, then select the ALTUS Home Page browser tab to get started.
9. Turn the diagnostic tool off, and then on.
10. See Using ALTUS, on page 116.

Your diagnostic tool is now registered to your ALTUS online account. Code scan reports will be automatically sent (only when connected to Wi-Fi) to your online account from the device.

**NOTE:**

If the device is not connected to a Wi-Fi network when the code scan is performed, it will not be sent to the ALTUS account. Wi-Fi connection is required to upload the report to ALTUS.

### 12.3.3 ALTUS Setup Information Screen

From the Home screen, selecting Tools > ALTUS Setup (Figure 12-3) allows you view the diagnostic tool serial number, PIN and Code needed to register on ALTUSDRIVE.com.

**NOTE:**

The PIN and Code numbers will change each time you view the ALTUS Setup screens (Figure 12-3 and Figure 12-1). This is normal, any displayed set of PIN and Code numbers may be used to register on ALTUSDRIVE.com.
12.4 Using ALTUS

To use ALTUS:

- An ALTUS account is required, see Registration - Getting Started, on page 113.
- The diagnostic tool must be connected to a Wi-Fi network, see Turning Wi-Fi On and Connecting to a Network, on page 130.

12.4.1 Quick Reference (print / download / share)

- **Downloading Files** - Select the menu icon on the file card (upper right), then select Download from the menu options. See (callout #4) in My Files, on page 117.
- **Printing Files** - Select the menu icon on the file card (upper right), then select Download from the menu options (see callout #4 in My Files, on page 117), once downloaded print the file from your device. Alternate Method - open the file in a new browser tab (see File Detail (Tags), on page 119,) and use the browser viewer tools to print the file. **Note:** All browsers may not support this feature.
- **Sharing Individual Files** - Select the link icon on the file card (lower center), then select Copy to Clipboard from the pop-up window. See Sharing/E-mail an Individual Report (Link icon), on page 121.
- **Sharing the Entire Gallery of Files** - Select the menu icon from the upper toolbar (upper right), then select Copy to Clipboard from the pop-up window. See Sharing all Reports (Share My Gallery), on page 121.

12.4.2 Logging in to ALTUS (registered user)

To log in to ALTUS:

1. Using your mobile device or PC visit ALTUSDRIVE.com.
2. Select the Login icon (Figure 12-4).

3. Log in using your Username and Password (Figure 12-5).
12.4.3 Navigating ALTUS (Toolbars)

The upper and lower toolbars are available from all screens.

The upper toolbar includes a menu icon (right side) (Figure 12-6). This menu allows you to share your entire gallery, see Sharing all Reports (Share My Gallery), on page 121.

The lower toolbar (Figure 12-7) includes the following links:

- My Files, see page 117
- Search, see page 122
- Favorites, see page 123
- Profile, see page 123

12.4.4 My Files

My Files displays all the code scan reports uploaded from the diagnostic tool (Figure 12-8). Each report is displayed in a navigation card.
1— **Report Upload Date** - Reports are displayed with the most recent uploads at the top. The Report upload date is displayed at the upper left. The date is shown once at the top of the series of reports, scroll up / down to see all files within a specific date.

2— **Report File Name** - See File Detail (Tags), on page 119, for additional information.

3— **Your Account Username (and timestamp)** - See Account, on page 125, for additional information. The timestamp indicates the date/time the file posted on ALTUSDRIVE.com

4— **Menu Icon** - options:
   - **Download** - Select to download the report to your device.
   - **Delete** - Select to delete the report from ALTUS.

5— **Favorites Icon** - See Favorites, on page 123, for additional information.

6— **Link icon** - See Sharing/E-mail an Individual Report (Link icon), on page 121, for additional information.

Selecting a report opens the report File Details. The File Detail screen allows you to edit report file metadata.
File Detail (Tags)

As shown in Figure 12-9 selecting (touching) a report from My Files opens the report File Detail card. Selecting the report again opens that report in a new browser tab.

NOTE:
Opening the file in a separate browser tab may allow you to use the browser viewer tools to print or download the file. This feature may not be available in all browsers.

Figure 12-9
The following describes File Detail card features.

![Figure 12-10](image)

1— **Back Icon** - Returns to My Files

2— **Report Name (user entered searchable text)** - Select the report file name to open the editor. Enter text (alphanumeric) in the field as desired.

3— **Your Account Username (and timestamp)** - See Account, on page 125, for additional information. The timestamp indicates the date/time the file posted on ALTUSDRIVE.com

4— **Description (user entered searchable text)** - Enter text (alphanumeric) in the description field as desired.

5— **Known Good / Bad Checkboxes (user defined and searchable)** - Selecting a checkbox automatically creates a tag (e.g. #good) and is displayed in the Active Tag(s) field.

6— **Tag (user entered searchable text)** - Enter text (alphanumeric) in this field as desired. Tagging a report allows you to associate (tag) descriptive text to a report. Tagging can be used to associate multiple reports with a common tag. The tag text then can be used when performing a search to find all reports with the same tag. Each text entry (word) that is separated by a space (return) is added as a tag, and is displayed in the Active Tag field.

7— **Active Tag(s)** - Displays the active tag(s). Tags can include the “good” or “bad” entry from the Known Good / Bad checkboxes, and text entered in the report Name, Description and Tag fields. Each entry is automatically preceded with the “#” symbol.
Sharing/E-mail an Individual Report (Link icon)

To share a report:

1. Select the Link icon (Figure 12-11) on the report card.

![Figure 12-11](image)

2. Select Copy to Clipboard (Figure 12-12) from the pop-up window.

![Figure 12-12](image)

3. Open your (e-mail, text, social media, etc.) app and paste the URL into a message to share with others.

The URL link that is sent only displays:

- The Report
- Report Name
- Your User Name
- Date Report was posted
- Report Description

Sharing all Reports (Share My Gallery)

To share your entire gallery (all files in My Files):

1. Select the Menu icon (Figure 12-13) from the upper toolbar.

![Figure 12-13](image)
2. Select **Share My Gallery**.
3. Select **Copy to Clipboard** (Figure 12-14) from the pop-up window.

![Figure 12-14](image)

4. Open your (e-mail, text, social media, etc) app and paste the URL into a message to share with others.

The URL link that is sent only displays:

- The Reports
- Report Names
- Your User Name
- Date the Reports were posted
- Report Descriptions

### 12.4.5 Search

The Search screen allows you to perform text searches on all uploaded files and view the results.

To search for a specific file or set of files, enter a **search term** in the search box and select the **magnifying glass** icon (Figure 12-15) (or press Enter).

![Figure 12-15](image)

Search queries the following to find results:

- **Report File Name** - name can be either system assigned or user assigned
• **Known Good / Bad Checkboxes** - selecting a checkbox automatically creates a searchable tag (e.g. good or bad)
• **Description** - user entered text
• **Tag** - user entered text

See [File Detail (Tags)](#), on page 119, for additional information on the above “user entered” text.

### 12.4.6 Favorites

The Favorites screen displays all the reports selected as favorites (*Figure 12-16*).

![Figure 12-16](image)

To set a file as a "Favorite", select the **Favorite** icon (star symbol) to highlight the icon.

<table>
<thead>
<tr>
<th>Description</th>
<th>Icon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favorite (on)</td>
<td>🌟</td>
</tr>
<tr>
<td>Favorite (off)</td>
<td>🌟</td>
</tr>
</tbody>
</table>

The Favorites icon can be selected/deselected at anytime when displaying files.

### 12.4.7 Profile

The Profile screen allows you to:

• Open Profile Manager (*Figure 12-17*), see [Using Profile Manager](#), on page 124,
Using Profile Manager

1. To open the Profile Manager screen, select Profile from lower toolbar, then select Open Profile Manager (Figure 12-17).

NOTE:
Profile Manager opens a new browser tab. To return to ALTUS after logging out of Profile Manager, you must select the ALTUS Home Page browser tab.

2. Enter your Username and Password at the Login screen.
If you are a SureTrack user, please note that Profile Manager is the same as your SureTrack Profile Manager. Any changes you make will also be reflected in your SureTrack account.

Profile Manager includes five tabbed categories to help you manage your account information:

- Account, on page 125,
- Personal Information, on page 126,
- Expertise, on page 126,
- Profile Picture, on page 127,
- Device Management, on page 127,
**Account**

This screen manages the following account information (Figure 12-18):

- Authorization Key (not required for ALTUS account registration)
- Account Expiration Date
- Shop Nickname
- Email
- Username
- Password

![Figure 12-18](Image)
**Personal Information**

This screen manages the following personal account information (Figure 12-19):

- First Name
- Last Name
- City
- State
- Zip Code

![Figure 12-19](image1)

**Expertise**

(SureTrack users only) - Select the vehicles from the list that you have expertise with. When a question is asked within the SureTrack community about one of the selected vehicles, you will receive an email with the details and a link back to the question.

![Figure 12-20](image2)
**Profile Picture**

This screen allows you to personalize your profile picture, by selecting one of the provided images.

**Device Management**

This screen manages devices associated with your account (Figure 12-21):

Select **Add a Device** to setup and add an authorized device (e.g. Diagnostic Tool or Diagnostic Thermal Imager).

Enter the device:

- **Serial Number** - serial number of the device
- **Code** - authorization code specific to the device
- **PIN** - specific PIN associated to the device
- **Device Name** - user defined name

When finished select **Save** to save and link the device to your account.

![Figure 12-21](Image)

**Logging Out of Profile Manager**

Select the **logout** icon (upper right screen) to log out of Profile Manager (Figure 12-22).

![Figure 12-22](Image)

**NOTE:**

Profile Manager opens a new browser tab. To return to ALTUS after logging out of Profile Manager, you must select the ALTUS Home Page browser tab.
Logging Out of ALTUS

To log out of ALTUS select **Profile** from lower toolbar, then select **Logout** (Figure 12-23).

![Figure 12-23](image-url)
The diagnostic tool is equipped with many features that require Wi-Fi connection. The Wi-Fi connection is solely dedicated to our Snap-on Web Services Network. To use features like ALTUS and Oil Specs and Resets, a Wi-Fi connection is required. Authorization and registration is also required to use some of these features. This section includes information on Wi-Fi connection and troubleshooting.

Main Topic Links
- Checking if Wi-Fi is On/Off page 129
- Checking if Wi-Fi is Connected page 130
- Wi-Fi Icons (Setup) page 130
- Turning Wi-Fi On and Connecting to a Network page 130
- Add Network Advanced (Connecting to a hidden network) page 132
- Wi-Fi Testing page 132
- Wi-Fi Troubleshooting and Status Messages page 134

13.1 Checking if Wi-Fi is On/Off
If the Wi-Fi indicator is displayed in the title bar, Wi-Fi is on. If Wi-Fi is off, see Turning On Wi-Fi and Connecting to a Network to turn it on and connect.
13.2 Checking if Wi-Fi is Connected

Check the Wi-Fi indicator in the title bar:

- ![Wi-Fi icon on](image1.png)
  - Wi-Fi is on and connected to a network (1 to 3 bars).
- ![Wi-Fi icon off](image2.png)
  - Wi-Fi is on, but not connected (zero bars). See Wi-Fi Troubleshooting and Status Messages, on page 134.

13.3 Wi-Fi Icons (Setup)

Familiarize yourself with the following Wi-Fi icons and indicators from the Wi-Fi configuration screen.

<table>
<thead>
<tr>
<th>Wi-Fi Icon (toggle type)</th>
<th>Wi-Fi Test Icon</th>
<th>Wi-Fi Signal Strength Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3.png" alt="Wi-Fi icon on" /></td>
<td><img src="image4.png" alt="Wi-Fi test icon" /></td>
<td><img src="image5.png" alt="Wi-Fi signal strength indicator" /></td>
</tr>
<tr>
<td>Select to turn Wi-Fi ON</td>
<td>Select to turn Wi-Fi OFF</td>
<td>Select to open the Wi-Fi Test screen</td>
</tr>
<tr>
<td>Displayed on Wi-Fi configuration screen only</td>
<td></td>
<td>Three bars indicate full strength signal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zero bars indicate no signal</td>
</tr>
</tbody>
</table>

| | | Displayed on the title bar next to the battery level indicator |

13.4 Turning Wi-Fi On and Connecting to a Network

1. From the Home screen, select Tools > Settings > Configure Wi-Fi.
2. Select the Wi-Fi icon (with checkmark) (Figure 13-1) to turn Wi-Fi on.

![Figure 13-1 Wi-Fi Icon (shown off)](image6.png)

3. The Wi-Fi icon will change to the Wi-Fi symbol with “x” mark (Figure 13-2), indicating Wi-Fi is on.
The screen will change to display available supported network connections.

4. Select your network. Use the scroll feature to show all active connections (Figure 13-2).

![Figure 13-2 Wi-Fi Configuration Screen]

1— Available Network Connections
2— Wi-Fi Icon (Wi-Fi shown on)

**NOTE:**
A password is required when choosing a secured (protected) network. Enter the password using the on-screen keyboard and then select the check mark on the keyboard to continue.

Networks with a proxy, challenge page, or that require the user to accept terms of usage are not supported.

Wi-Fi performance varies depending on your wireless network equipment and ISP.

5. Select **Connect** to connect to your desired network or **Cancel** to cancel the request.

6. From the Connect confirmation screen select **OK** to continue using this connection or **Forget** to disconnect this connection.

- The screen will change to display your confirmed network connection and ALTUS registration information. For ALTUS registration information see ALTUS (ALTUSDRIVE.com) - Cloud Sharing/Storage, on page 112.
- If the status message “Not Connected” is displayed, retry the configuration process or see Wi-Fi Testing on page 132 for additional information.
13.5 Add Network Advanced (Connecting to a hidden network)

The Add Network selection allows you to connect to a network that is not broadcasting its name (not visible in the displayed network list). These networks are also known as "hidden" networks.

To connect to a hidden network you will first need to know the following:

- Network Security Type
  - Open (only need SSID)
  - WPA or WPA2 (Pre-shared key)
  - WEP (WEP key)
- Network name or SSID (Service Set Identifier)
- Network Password

Connecting to a Hidden Wi-Fi Network
1. From the Home screen, navigate to Tools > Settings > Configure Wi-Fi.
2. Select Add Network Advanced from the network list (scroll to end of list).
3. Select security type Open, WPA, WPA2, or WEP. Refer to the router user manual or your IT administrator to determine the type.
4. Enter the network name or SSID
5. Enter the network password.
6. Select Connect at the prompt to connect to the network.
7. Select OK at the confirmation screen to continue using this connection, or Forget to disconnect this connection.

13.6 Wi-Fi Testing

If you are experiencing network connection issues, an automated testing feature is available to quickly test your network connection.

Testing Connections
1. Before you start the automated testing procedure, turn off the diagnostic tool and then turn it on. This clears previous testing messages from memory.
2. Connect to your desired network, see Turning Wi-Fi On and Connecting to a Network on page 130.
3. From the Wi-Fi configuration screen, select the Wi-Fi Test icon to open the network connection test screen (Figure 13-3).

Figure 13-3 Wi-Fi Test Icon
The network connection test is an automated test that begins when the screen is displayed. Network connection systems are tested in sequence and display a status indicator (Red = test failed, Yellow = test is process, or Green = test completed satisfactorily) when finished (Figure 13-4).

Connectivity of the following systems are checked:

- Hardware
- Router
- Internet
- HTTP
- Web Services Network

4. If a connection issue(s) is present, select View Summary to review the results. The summary information is helpful if you are experiencing difficulties with your connection (Figure 13-5). Scroll through the summary information to review the test results for each system and Tip messages for the current connection issue. See Connection Tests - Troubleshooting chart in Wi-Fi Troubleshooting and Status Messages on page 134 for additional information.

1— Connection Tests
2— View Summary

Figure 13-4 Connection Tests

Figure 13-5 View Summary

1— Connection Test Results
2— Connection Issue Tip Message
13.7 Wi-Fi Troubleshooting and Status Messages

The following troubleshooting information is not inclusive and is meant as a guide only. Other issues and solutions may arise that are not stated here. The following description of terms are provided for reference as used in the following troubleshooting chart:

- **Router** - The data transmission device directly connected to your ISP.
- **Remote Wireless Access Point** - A wireless connection device between the router and your diagnostic tool.
- **Wi-Fi Radio** - The internal diagnostic tool radio transmitting and receiving Wi-Fi signals.
- **Network Connection** - Also called Wi-Fi connection. The configured Wi-Fi router connection the diagnostic tool connects to. This connection can be secured (password protected) or unsecured (open).

### Router Information

Router compatibility and setup are important factors to check when trying to determine connectivity problems. Although we have tested this device at the factory to verify connectivity, we cannot guaranty its connectivity with your specific equipment. There may be some situations that require your time for router connection troubleshooting and/or additional consultation and equipment. Snap-on Incorporated is not responsible for any costs incurred for any additional equipment, labor or consultation charges or any other costs that may result from correcting non-connectivity issues with this device.

### Check Router Settings

Verify the following router settings **BEFORE** you begin troubleshooting a non-connectivity or “No Connection” problem. After each check, make any corrections as necessary then retest for connectivity. **Contact your IT administrator or ISP for assistance.**

1. Check your router connection and if applicable, the remote wireless access point connection.
2. Clear saved Wi-Fi networks, see Clearing Wi-Fi Networks, on page 134.
3. Verify:
   - (a). Router is configured to use Dynamic Host Configuration Protocol (DHCP), not a static IP address.
   - (b). Router and/or settings for this device are configured to 2.4GHz. 5GHz is not supported.
   - (c). Router is configured to B/G and/or N standard wireless networks to 2.4GHz. 5GHz is not supported. See your router "User Guide" for setup, connection and troubleshooting procedures.
4. Check for router firmware and update to current version, if applicable.
5. Restart or reset the router. See your router "User Guide" for procedures.
6. Connect to a different router.

### Clearing Wi-Fi Networks

1. Select the Wi-Fi network that you are trying to connect to from the list of saved networks on the Wi-Fi configuration menu.
   The Wi-Fi Summary page displays.
2. Select **FORGET**
   The Wi-Fi Configuration menu displays.
3. Repeat steps (1) and (2) for ALL saved Wi-Fi networks.
4. Once all saved Wi-Fi networks have been deleted (forgotten) turn off the diagnostic tool.
5. Turn on the diagnostic tool and connect to the desired Wi-Fi network, see Turning Wi-Fi On and Connecting to a Network, on page 130.

---

### General - Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
</table>
| Wi-Fi radio is turned Off | | 1. From the Home screen, navigate to Tools > Settings > Configure Wi-Fi.  
2. Select the Wi-Fi icon and turn the Wi-Fi radio on. The Wi-Fi icon will change from a green check mark icon to red "X" mark icon indicating Wi-Fi radio is on.  
3. Connect to a known good network. |
| Not connecting to a network | | 1. Clear saved Wi-Fi networks, see Clearing Wi-Fi Networks, on page 134.  
2. Connect to a network.  
3. From the Configure Wi-Fi screen select the Wi-Fi Test icon and review the results. See Connection Tests - Troubleshooting in the following table. |
| Wi-Fi connection drops off or disconnects intermittently | Wi-Fi Signal strength insufficient | Check Wi-Fi signal strength - out of range or interference. Move closer (within 50 Ft. (15 M) or into a direct open sight-line of the router or if applicable, remote wireless access point. Eliminate interference from overhead lights, windows, walls, other wireless devices, metal objects and devices that emit electrostatic discharge. |
| | Router overloaded | Disconnect/disable other Wi-Fi devices connected to the router. |

---

### Connection Tests - Troubleshooting

<table>
<thead>
<tr>
<th>Failed Test</th>
<th>Possible Cause (Displayed Tip Message*)</th>
<th>Corrective Action / Checks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware</td>
<td>Wi-Fi radio not responding and/or will not turn off</td>
<td>Contact Customer Support for assistance.</td>
</tr>
<tr>
<td></td>
<td>Wi-Fi radio not responding and/or will not initialize</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Missing or corrupt firmware file(s)</td>
<td></td>
</tr>
</tbody>
</table>
13.7.1 Informative Messages

Messages may be displayed to inform you of pending issues or general status. Depending on your access and connection status, the following are typical messages that may be displayed:

- **Content May Be Available!** - indicates content may be available, however you are not currently connected to the Web Services Network. This message may be caused by a Wi-Fi connection issue, or you do not have access to the feature. See Wi-Fi Troubleshooting and Status Messages, on page 134 for Troubleshooting information.

- **No connection. Please try again later.** - indicates you are not currently connected to the Web Services Network, except when displayed in the OBD/EOBD function as Repair Information Applications are not accessible in OBD/EOBD mode. If this message is displayed in the Scanner function, it may be caused by a Wi-Fi connection issue, or you do not have access to the feature. See Wi-Fi Troubleshooting and Status Messages, on page 134 for Troubleshooting information.

- **Loading content** - indicates information is being accessed from the Web Services Network.

- **A new diagnostic software upgrade is available. Contact your sales representative for details.**

- **Your access has expired. See your Sales representative to renew.** - indicates your access to the Web Services Network has expired and you should contact your sales representative.

*See Wi-Fi Testing, on page 132 for additional information.*
This chapter includes a brief introduction to some of the key features of the ShopStream Connect software. For detailed ShopStream Connect information and instructions, download the ShopStream Connect User Manual from our website: http://diagnostics.snapon.com/usermanuals

The ShopStream Connect™ (SSC) software is PC-based software that extends the capabilities of your diagnostic tool. Using ShopStream Connect software with your diagnostic tool allows you to do the following:

• View, Print, and Manage data saved from your Diagnostic tool.
• Move and copy your data between the diagnostic tool and your PC.
• View and Print trouble codes saved with select diagnostic tools. This allows you to share the data in a report format with vehicle owners or other technicians.
• Add or edit notes and comments to diagnostic tool data files.
• Download and install diagnostic tool software updates and upgrades.

The ShopStream Connect (SSC) software is available (free of charge) at:

ShopStream Connect - http://diagnostics.snapon.com/ssc

### 14.1 Using SSC (Connecting to your PC)

To connect and use SSC with your diagnostic tool:

1. Download and install SSC on your PC from: http://diagnostics.snapon.com/ssc
2. Turn your diagnostic tool on.
3. Connect the supplied USB cable from the USB jack on your diagnostic tool to your PC:
4. From the diagnostic tool Home screen, select Tools > Connect-to-PC.

The “Device is now in Connect-to-PC mode” screen message is displayed (Figure 14-1) and the ShopStream Connect software will open automatically on your PC (Figure 14-2).
If the ShopStream Connect software does not open, open it from the Windows Start menu or use the ShopStream Connect shortcut icon on the Windows desktop (automatically created during installation).

### 14.2 SSC Main Screen

The ShopStream Connect software will open automatically when you connect the diagnostic tool to your PC USB connection, *Using SSC (Connecting to your PC)*, on page 137.

The following shows the main screen layout for ShopStream Connect software.

![Main Screen Layout](image)

**Figure 14-2**

1. **Notes Window**—allows you to add notes to select data files. Select *Save* from the menu bar to save your notes. **NOTE:** *Not all file types allow notes, the Notes window will be grayed out when a file type that does not support notes is highlighted. Some image files may display notes for reference purposes (the notes are grayed out and not editable).*

2. **File directory structure**—displays the file directory structure of your PC in standard Windows format, and shows any connected diagnostic tools at the bottom of the data list.

3. **Data Manager Toolbar**—provides control icons that perform a variety of operations on data files.

4. **Main Menu bar**—contains *File*, *Edit*, *Tools*, and *Help* menus.

5. **Tabs**—provides access to data files and presets stored on the diagnostic tool or on the PC, and also allows viewing of software revision details of the diagnostic tool.
6—Main display—shows stored data files details. NOTE: The files listed are sortable (ascending/descending) by clicking on the column tab at the top (e.g. File Name, Type, etc.) Sort preferences are saved when the ShopStream Connect program is closed.

7—Preview—displays a sample of the file if the selected file is a image file.

14.3 Scanner DataViewer

SSC allows you to view data files recorded with your diagnostic tool, on your PC. When a Scanner data file is selected, it opens and displays in the Scanner DataViewer (Figure 14-3). Scanner DataViewer allows you play the data file and custom configure the data in a number of ways.

1—Menu bar
2—Display toolbar
3—Graph display
4—Properties icon
5—Vertical Scroll bar
6—Zoom controls
7—Slider bar
8—Navigation toolbar
9—Parameter text list
10—Highlighted PIDs - indicates graphs currently displayed
11—Parameter configuration tabs

Figure 14-3
14.4 Image Viewer

SSC allows you to view and print .bmp, .jpg and .sps image files (screenshots) saved on your diagnostic tool, with your PC.

**NOTE:**
File extension types vary depending on the diagnostic tool. Not all the file extensions described here may be available on your diagnostic tool.

![Image Viewer diagram](image.png)

1— **Exit** - closes the Image Viewer
2— **Print** - prints the image
3— **Print Preview** - allows the image to be previewed before printing
4— **Captured Screen Image**

Figure 14-4
14.5 Printing the (Code Scan) Vehicle System Report

To print the Vehicle System Report, the saved code scan .XML file must be opened using ShopStream Connect.

**To print the Vehicle System Report using ShopStream Connect:**

1. Double-click the code scan .XML file from the file list to open the Vehicle System Report (Figure 14-5) in the Code Scan Viewer (Figure 14-6).

![Figure 14-5](image)

2. Select **Print** or **Print Preview** from the Code Scan Viewer menu to print or preview the Vehicle System Report (Figure 14-6).

![Figure 14-6](image)
Selecting **Print** opens the Windows print dialog window (Figure 14-7). Select your printer from the list, then select **Print** to print the report.

![Figure 14-7](image)

### 14.6 Customizing the (Code Scan) Vehicle System Report

Select fields of the Vehicle System Report can be edited, and you can also add notes to the report using ShopStream Connect.

**To edit the Shop Information (header) of the Vehicle System Report:**

1. From ShopStream Connect, select **Tools > Options > Edit Shop Info** (Figure 14-8).

2. The **Shop Info** dialog box opens (Figure 14-9) allowing you to enter the name address, and phone number for your shop. This information is included as a header on the report.

![Figure 14-8](image)

![Figure 14-9](image)
A preview panel at the bottom of the box shows how the information will appear on a printout (Figure 14-9).

3. Check the "Use Shop Info in Printout Header" box to show the Shop Info in the printout (Figure 14-9).

4. Check the "Use timestamp in Vehicle System Report" box to show the time the vehicle was scanned in the printout (Figure 14-9).

5. When you are finished editing, select Save (Figure 14-9) to save the information and close the dialog box.

To edit the VIN and License Plate fields, and/or add notes to the Vehicle System Report:

1. From ShopStream Connect, open the code scan .XML file to be edited (Figure 14-10).

2. Click in the editable fields as shown in (Figure 14-10) to change the values or add notes.

3. Check the "Add the notes to the printed copy" box to show the notes in the printout (Figure 14-10).
Vehicle System Report

VEHICLE INFORMATION
MAKE: Chrysler
YEAR: 2006
MODEL: Town & Country
ENGINE: 3.8L V6 MPI
SYSTEM:

LICENSE PLATE:

NOTES:
Add the notes to the printed copy

CODE RESULTS:
Ignited: 19
A: 5
B: 2

A: Ambulance
Central Gateway (PCM): 0
Door Module - Front Left (DMFL): 2
Door Module - Front Right (DMFR): 2
Door Module - Rear Left (DMRL): 2
Door Module - Rear Right (DMRR): 2
Heat Ventilation A/C (Hvac): 1
Instrument Cluster Module (CCM): 0
Power Liftgate Module (PLGM): 1
Power Sliding Door Module - Left (PSDML): 3
Power Sliding Door Module - Right (PSDMR): 2
Siren: 2

Figure 14-10
14.7 Software Upgrades and Updates

Upgrade/Update Descriptions:

- **Software Upgrade** - a software upgrade is a new software version (contact your sales representative for purchase information).
- **Software Update** - a software update is a service release for installed software. These are available free of charge, and are provided as necessary to update installed software. When your diagnostic tool is connected to a PC using SSC, the SSC software will automatically check for updates, and if an update is available, it will provide installation instructions. Follow the screen prompts to accept, download and install the software.

**NOTE:**
To receive updates or upgrades, SSC software must be installed on your PC and have connection to the Internet.

**Example - Updating diagnostic tool software:**
1. Select **Tools > Update Software > (diagnostic tool type - e.g. ETHOS Edge, MODIS Edge, SOLUS Edge, etc.)** from the Menu bar (**Figure 14-11**).
   
   The software checks the Snap-on web server for available updates.

![Figure 14-11](image)

2. If service release updates are available, select **Next** to continue, then select **Download** and follow the on-screen instructions to complete the installation (**Figure 14-12**).

![Figure 14-12](image)

**NOTE:**
For additional information on ShopStream Connect software updates and upgrades, download the ShopStream Connect User Manual from our website: [http://diagnostics.snapon.com/usermanuals](http://diagnostics.snapon.com/usermanuals)
14.7.1 End User License Agreement

Before software installation at initial purchase, and before all subsequent software updates/upgrades installations End User License Agreement (EULA) acceptance is required.

Use of Software is governed by the terms and conditions of the End User License Agreement. The diagnostic tool should not be initially operated until the End User License Agreement is read. Use of the device acknowledges your acceptance of the End User License Agreement. The Snap-on Incorporated Software End User License Agreement is available at: https://eula.snapon.com/diagnostics

To Accept: at the screen prompt (Figure 14-13) click the checkbox on the left side of the window, and then select Agree and Continue. The software will be installed automatically.

Figure 14-13 below represents a typical EULA acceptance agreement screen.

![Figure 14-13 Typical EULA acceptance screen](image)

To Decline: at the screen prompt (Figure 14-13) select I Decline. A confirmation message is displayed providing options to Go Back or Exit the software installation (Figure 14-14).

![Figure 14-14 Typical EULA acceptance screen](image)