

MODIS™ Ultra

Quick Start Guide

EAZ0079L00B Rev. A

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The information, specifications and illustrations in this manual are based on the latest information available at the time of printing.

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IMPORTANT:

Before operating or maintaining this unit, please read this manual carefully paying extra attention to the safety warnings and precautions.

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Getting Started

To begin operating your MODIS Ultra diagnostic tool:

1. Install the battery pack (provided) into the MODIS Ultra.
2. Connect the AC/DC power supply to the MODIS Ultra unit to charge the battery pack.
3. Power on the diagnostic tool.

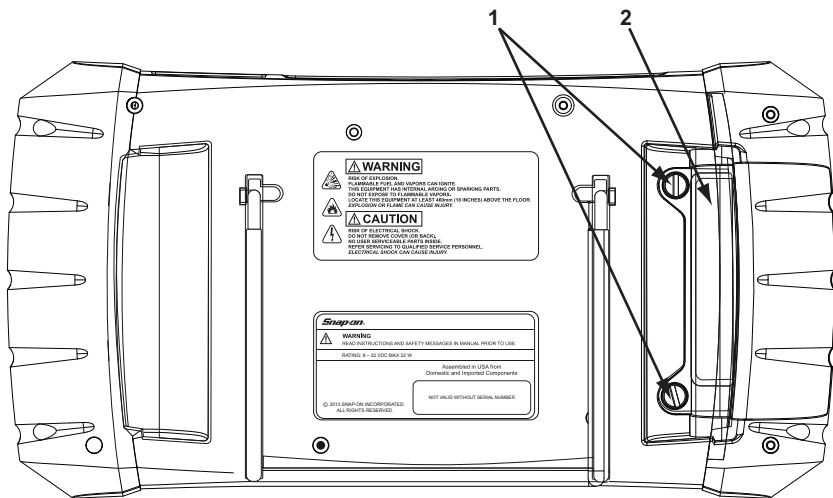
Battery Pack Installation

Use the following procedure to install the battery pack.



To install the battery pack:

1. Loosen the two captive screws that secure the battery cover to the back of the unit.



1— Captive Screws

2— Battery Cover

Figure 1-1 Battery pack

2. Pull up on the inner edge of the battery compartment cover to release it, pivot the cover into an upright position, then lift the battery cover off of the housing.
3. Align the tabs on battery compartment with the slots on the battery, then fit the battery into the housing.
4. Slide the battery up to engage the electrical contacts, the battery snaps into place as it seats.
5. Align the hinges on the battery cover with the tabs on the outer edge of the housing, then pivot the cover down into position on the housing.
6. Snug up the captive screws to hold the cover in place.
Do not overtighten the screws!

Power Supply Connection

Use the following procedure to connect the power supply.



To connect the AC/DC power supply:

1. Insert the power cord of the AC/DC power supply into a service outlet.
2. Fit the power supply cable jack into the DC port (marked 10-30V) on the top of the MODIS Ultra unit.

An LED alongside the DC port illuminates to indicate power is being supplied and the battery is charging.

Powering on the MODIS Ultra







The MODIS Ultra automatically powers on and opens to the Home screen when ever it is connected to a power source. Use the power button on the front of the unit to power off, and to power on the unit from the internal battery pack.



Figure 1-2 Power button

The Home Screen

The main body of the Home screen has six selectable buttons, one for each of the primary scan tool functions.

Name	Button	Description
Scanner		Opens a list of vehicle manufacturers to begin the process of establishing a communications link to the test vehicle.
OBD-II/EOBD		Performs generic OBD-II/EOBD system scan tool tests without first identifying the vehicle being tested.
Guided Component Test		Opens a diagnostic database of specific tests for the identified vehicle that includes procedures, connector pinouts, and tips, along with a meter configured to perform the test.
Scope Multimeter		Configures your diagnostic tool to perform as either a two channel lab scope, graphing multimeter, or digital multimeter.
Previous Vehicles & Data		Use to connect to a recently tested vehicle, or to access saved data files.
Tools		Use to adjust tool settings to your personal preferences, to access system information, and perform other special operations.

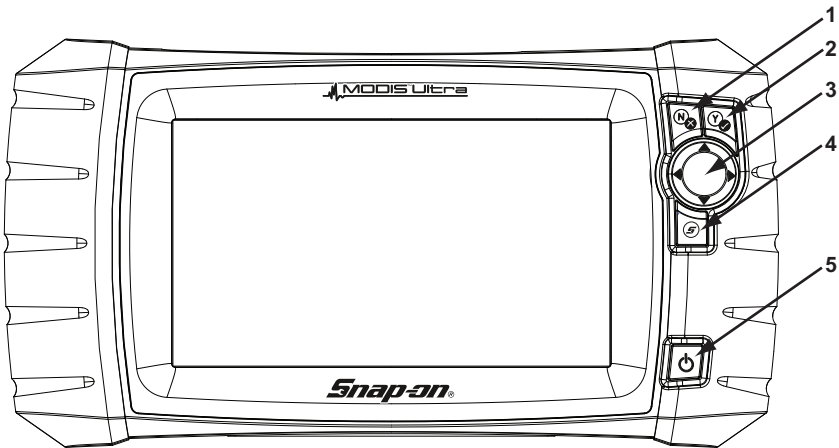
IMPORTANT:

This Quick Start Guide covers basic tool functions only. Complete operating instructions and detailed information about the tool can be found in the MODIS Ultra User Manual. The MODIS Ultra User Manual is on the Documentation CD provided with your kit, and is also available on our website at: <http://diagnostics.snapon.com>.

Controls and Connections

Controls

The external controls on the MODIS Ultra are simplified since most operations are controlled through the touch screen. Touch screen navigation is menu driven, which allows you to quickly locate the needed test, procedure, or data through a series of choices and questions.

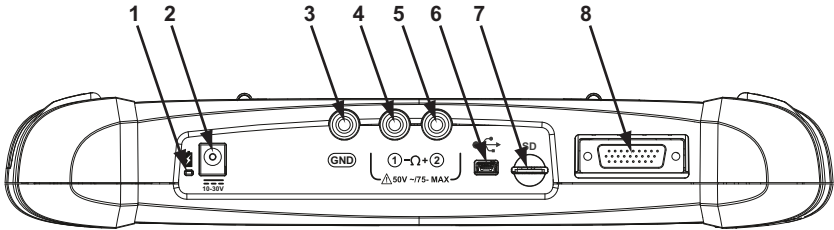


- 1— **N/x Button**—exits a menu or program, returns to the previous screen, or answers no to a question on the screen.
- 2— **Y/✓ Button**—selects a menu or program, advances to the next screen, or answers yes to a question on the screen.
- 3— **Directional Buttons**—moves the highlight on the display screen up (▲), down (▼), left (◀), and right (▶), as indicated by the arrows.
- 4— **Shortcut Button**—can be programmed to provide a shortcut for performing a variety of routine tasks.
- 5— **Power Button**—switches the unit on and off.

Figure 2-1 Controls

2.1 Connections

Ports for connecting the MODIS Ultra to a vehicle, personal computer, or power source are located on top of the unit.



- 1— **Power Indicator**—a red light emitting diode (LED) that illuminates when power is being supplied to the unit.
- 2— **DC Power Supply Input Port**—use for connecting the AC/DC power supply.
- 3— **Ground Port**—use for connecting the ground side of the Channel 1 test lead when using the scope multimeter.
- 4— **Channel 1 Port**—use for connecting the Channel 1 test lead when performing scope or multimeter tests.
- 5— **Channel 2 Port**—use for connecting the Channel 2 test lead when performing scope or multimeter tests.
- 6— **Mini USB Client Port**—use to connect the diagnostic tool to a personal computer for transferring saved files.
- 7— **Micro secure digital (uSD) Card Port**—holds the uSD card that contains the operating system programming.
- 8— **Data Cable Port**—use for connecting the diagnostic tool to a vehicle for scanner testing.

Figure 2-2 Connections

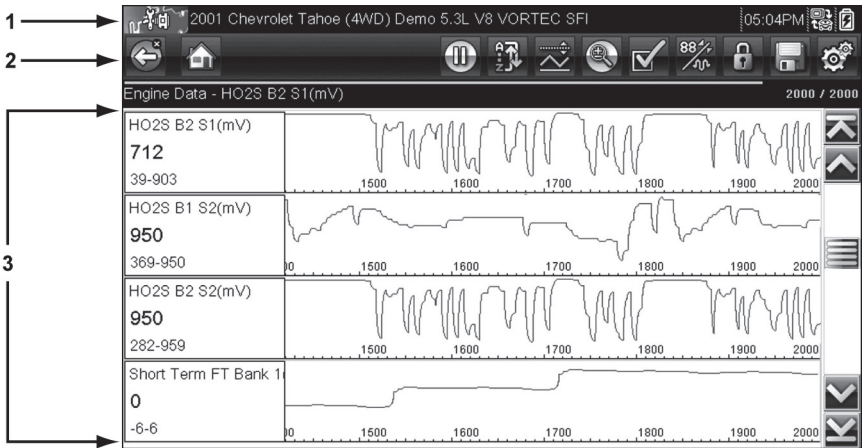
IMPORTANT:

The uSD card must be installed for the tool to operate. Do not remove the uSD card while the unit is powered on.

Scanner and OBD-II/EOBD

Screen Layout












Scan tool screens typically include three sections:



- 1— Title bar**—shows test and tool status and may include vehicle identification (ID), active menu name, time, power source indicator, and vehicle communication indicator
- 2— Toolbar**—contains active test control icons
- 3— Main body**—displays menus of available tests or data from the vehicle

Figure 3-1 Sample scan tool screen

Toolbar

Button	Icon	Function
Back		Returns to the previously viewed screen. This button is always at the left-hand edge of the toolbar.
Home		Returns to the Home screen. This button is always alongside the Back button on the left of the toolbar.
Pause		Indicates live data from the vehicle is being displayed. Selecting pauses data collection and a Play button replaces the Pause button.
Sort		Determines the order in which the data parameters are listed on the screen. Selecting opens a menu.
Triggers		Opens a menu that allows you to set, arm, and clear threshold values that automatically trigger a data movie recording.
Zoom		Opens a dropdown menu of options to increase and decrease the scale of the data being displayed.
Custom Data List		Opens a menu for selecting which parameters display in the data list. Switching off not needed parameters allows a faster screen update rate.
Change View		Opens a menu for selecting how the data displays. Options allow you to choose between PID list (text), 1 graph, 2 graphs, or 4 graphs.
Lock/Unlock		Locks or unlocks the highlighted parameter so it does not scroll while you navigate the data.
Save		Saves a recording of the data currently on the screen plus data that is buffered in tool memory.
Tools		Opens the tools menu, which allows you to adjust basic tool settings.

3.1 Scanner

The **Scanner** button opens a list of available vehicle manufacturers and begin the process of identifying the vehicle to be tested.

Because the scan tool presents data provided by the ECM of the test vehicle, certain attributes of the vehicle must be entered into the scan tool in order to ensure that the data displays correctly.

The vehicle identification sequence is menu driven, simply follow the screen prompts to make a series of choices. Each selection you make advances you to the next screen. Exact procedures may vary somewhat by the make, model, and year of the test vehicle.

A confirmation screen displays once all of the identification information has been entered. Select **OK** at the confirmation screen to continue. The database for the identified vehicle loads and a list of systems available for testing displays.

Scanner Demonstration Mode

Your diagnostic tool includes a demonstration mode that takes you through a simulated vehicle identification process and allows you to explore the capabilities of the Scanner function without actually connecting to a vehicle.

IMPORTANT:

Do not connect the diagnostic tool to a vehicle while using the Demonstration mode.



Starting the Demonstration

1. From the Home screen, select **Scanner**.
2. Select Demonstration from the manufacturer menu and follow the menu choices to navigate to the desired system, test and/or function.

OBD-II/EOBD

The **OBD-II/EOBD** button opens a menu that allows you to perform generic OBD-II/EOBD system tests without first identifying a specific vehicle. The OBD-II/EOBD menu includes:

- OBD Health Check
- OBD Diagnose

OBD Health Check offers a way to quickly check for and clear generic diagnostic trouble codes (DTCs) and to check readiness monitors. Selecting opens a submenu of options, chose from the submenu and follow the screen prompts.

SureTrack[®]

SureTrack is a comprehensive source of expert repair knowledge to help you improve diagnostic accuracy and reduce repair time. SureTrack features include:

- A Common Replaced Parts graph
- Tips and fixes obtained from actual repairs
- Up-to-the-minute information from vehicles currently being serviced nationwide

**NOTE:**

To access SureTrack, you must turn the Wi-Fi radio on and connect to a wireless network.



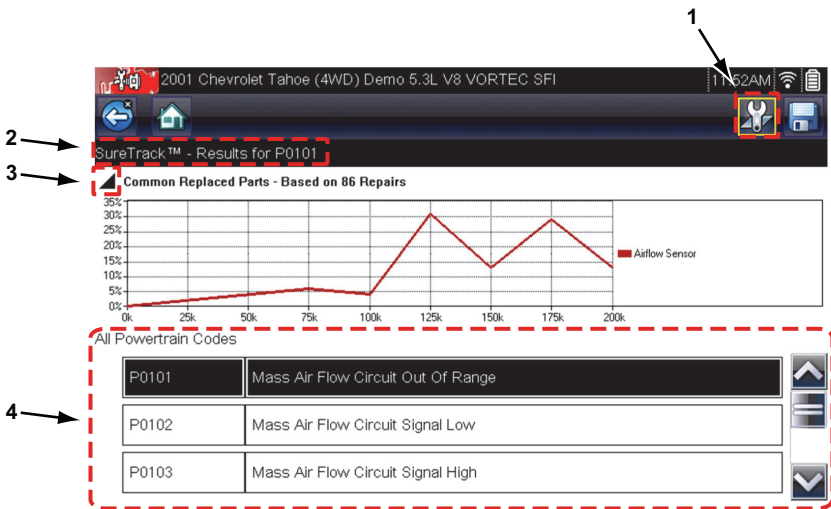
Wireless Network Setup / Basic Operation

1. From the Home screen, navigate to **Tools > Settings > Configure Wi-Fi**.
2. Select the **Wi-Fi Power** icon from the toolbar to turn the Wi-Fi radio on. The Wi-Fi power icon will change from a green check mark ✓ icon to red “X” mark icon indicating Wi-Fi radio is currently on.
3. Choose your wireless network and select **Connect**.

**NOTE:**

A password is required when choosing a protected network. Networks with a proxy or that require the user to accept terms of usage are not supported.

SureTrack repair information can be accessed while reviewing DTCs. As an example, select **Scanner > Engine > Codes Menu > Display Codes > Engine Trouble Code Information**, then select a DTC. If SureTrack information is available for the selected DTC, a SureTrack results status message will display (e.g. *SureTrack - Results for P0102*).



- 1— **Fix It! Icon**—opens SureTrack Dashboard
- 2— **SureTrack Status Bar**—displays active SureTrack status or results
- 3— **Common Replaced Parts Graph Icon**—toggles graph display on/off
- 4— **DTC Listed Results**—displays current DTCs

Figure 3-2 Sample SureTrack screen

Below the results status message is the Common Replaced Parts message (e.g. *Common Replaced Parts - Based on 87 Repairs*) and the Common Replaced Parts graph icon ►. Select the icon to toggle the Common Replaced Parts graph view on and off.

For detailed SureTrack operation instructions refer to your *User Manual*. The *User Manual* is provided on the Documentation CD included with your kit and is also available on our website. Website addresses are listed in the front of this manual.


Guided Component Tests

Guided Component Tests Basics

Guided Component Test procedures, tips, and meter settings reduce diagnostic testing time. Guided Component Test data is vehicle specific and the identification sequence is menu driven, simply follow the screen prompts.

Extras Menu (Top Level Menu Items)

The Extras icon is located on the Guided Component Test Home screen. Three menu selections are available that offer valuable supplemental data:

Icon	Menu Selections
	Features and Benefits - Provides tips for maximizing your Guided Component Test module experience and lists the various accessories available.
	How To Guide - Opens a list of built-in training sessions and other information.
	Power User Tests - Use to quickly access a pre-configured meter to perform a specific test.

Testing a Component

A menu of components displays once a system is selected. Select a component and a menu offering component information and a number of tests displays.











- **COMPONENT INFORMATION**—provides information on the selected component and connector pin details
- **TESTS**—opens a pre-configured meter for performing the selected test, instructions for performing the test, and time-saving tips.

A Guided Component Test screen has three major sections, and is similar to a Scope Multimeter screen (Figure 5-1):

- A toolbar to control test operations at the top
- A meter with an electronic measurement in the middle
- An information panel with test details at the bottom

Toolbar

Use the toolbar buttons control tool operations.

Button	Icon	Function
Back		Returns to the previously viewed screen. This button is always at the left-hand edge of the toolbar.
Home		Returns to the Home screen. This button is always alongside the Back button on the left of the toolbar.
Change Vehicle		Returns to the menu for selecting a new test vehicle.
Stop		Stops the collection of data, which allows you to more closely examine the trace and to review the data that is being held in the memory buffer.
Trace Details		Opens and closes a field of controls at the bottom of the screen, which allows you to adjust certain attributes of how the trace displays on the screen.
Component Information		Opens and closes an information window at the bottom of the screen, which contains details about the signal and the circuit being tested.
Cursors		Turns the cursors on and off. The cursors are two vertical rules that can be repositioned on the screen to measure intervals.
Expand/Collapse		Expands the meter display to fill the entire screen, or collapses the meter to show the information panel at the bottom of the screen.
Save		Saves a recording of the data being displayed on the screen along with the data that is being held in the memory buffer.
Tools		Opens the tools menu, which allows you to adjust certain basic tool settings.

Scope Multimeter

The Scope Multimeter module provides all the tools needed for performing circuit tests and for monitoring signals and circuit activity.

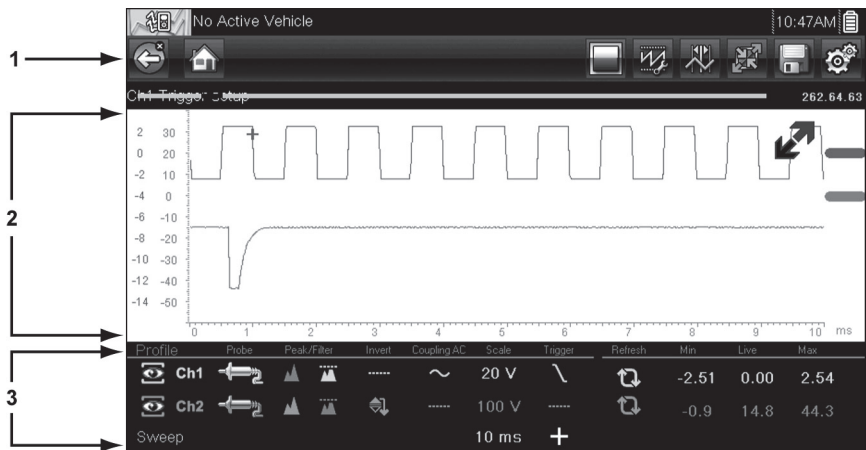
Select Scope Multimeter from the Home page to open the main menu, then select from the menu options:

- Lab Scope
- Graphing Multimeter
- Digital Multimeter

Each option opens a menu of specific test setups.

Screen Layout

Scope Multimeter screens include three main elements:



- 1— **Toolbar**—contains test controls
- 2— **Main body**—displays test results
- 3— **Trace details**—displays trace settings

Figure 5-1 Sample scan tool screen

Toolbar

The Scope Multimeter toolbar is the same as for Guided Component Test, see page 14 for details.

Main Body

The main body of the screen can display two circuit traces, or waveforms, simultaneously. Adjustments to the display are made through the toolbar.

Each trace is displayed as voltage over time on a standard oscilloscope screen. Voltage level is recorded on the vertical, or “y”, axis and time is presented on the horizontal, or “x”, axis of the screen. Values are shown for each graduation on the scales.

Trace Details

The Trace Details section displayed at the base of the screen is used to adjust settings for capturing and displaying the trace. Adjustments are made by touching the item to be changed on the screen. A dash (–) indicates that function is not selected, and an icon indicates an active function. The following trace adjustments and settings are available:

- **Profile**—switches the trace on and off.
- **Probe**—use to select the type of test probe being used.
- **Peak**—maximizes the signal sampling rate for capturing fast events, such as spikes and glitches.
- **Filter**—removes noise or interference from the trace.
- **Invert**—switches the polarity of the displayed signal.
- **Coupling AC**—blocks the DC portion of an input signal in order to amplify the AC portion.
- **Scale**—use to adjust the trace scale, which is the total value displayed on the vertical axis of the display.
- **Trigger**—switches triggering on or off, and sets the trigger to either the rising or falling slope of the trace.