

# DSS-7000

## Midtronics Battery Diagnostic Service System

For testing 6- and 12-volt automotive and 12-volt and 24-volt charging systems.



## ***INSTRUCTION MANUAL***

# Chapter 1: Introduction

## Personal Precautions

### ⚠ DANGER

**Risk of explosive gases. Never smoke or allow a spark or flame in the vicinity of a battery.**

Batteries can produce a highly explosive mix of hydrogen gas and oxygen, even when the battery is not in operation. Always work in a well-ventilated area.

### ⚠ WARNING

**Wash hands after handling.**

REQUIRED BY CALIFORNIA PROP. 65: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

Inspect the battery for damage and check the electrolyte level. If the electrolyte level is too low, replenish it and fully charge the battery. Always use the necessary safety precautions when working with batteries to prevent severe injury or death. Follow all manufacturers' instructions and BCI (Battery Council International) safety recommendations, which include the following precautions:

- ⇒ Battery acid is highly corrosive. If acid enters your eyes, immediately flush them thoroughly with cold running water for at least 15 minutes and seek medical attention. If battery acid gets on your skin or clothing, wash immediately with a mixture of water and baking soda.
- ⇒ Always wear proper safety glasses or face shield when working with or around batteries.
- ⇒ Keep hair, hands, and clothing as well as the analyzer cords and cables away from moving engine parts.
- ⇒ Remove any jewelry or watches before you start servicing the battery.
- ⇒ Use caution when working with metallic tools to prevent sparks or short circuits.
- ⇒ Never lean over a battery when testing, charging, or jump starting.

## Symbols Conventions

Symbol	Description
	The safety symbol indicates instructions for avoiding hazardous conditions and personal injury.
	The safety symbol with the words <b>CAUTION</b> , <b>WARNING</b> , or <b>DANGER</b> indicates instructions for avoiding hazardous conditions and personal injury.
	The wrench symbol indicates procedural notes and helpful information.

## Accessories



A028 DMM Cables



A033 Lead Post Adapters



CVG-2 Wireless Convergence Module and Extension Cable (Optional)



A018 Amp Clamp (Optional)

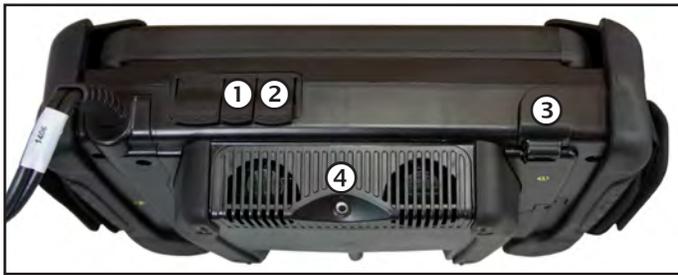
## Description

The analyzer uses function-specific applications accessed through a series of menus and icons to guide users through the battery testing process for consistent testing implementation and accuracy. These are accessed using the Tablet Controller's touch screen display. Test results can be displayed, on the tablet, full-color printed, or wirelessly emailed.

## Diagnostic Device



Front View



Top View

- ① **Charger Port:** Plug in point for the Diagnostic Device charger.
- ② **USB port**
- ③ **RJ45 Connector:** For accessory cable connection.
- ④ **Temperature Sensor:** For measuring the ambient temperature of a battery during the testing procedure.



Control Panel

- ① **Power Button:** For powering up analyzer when not connected to a battery.
- ② **Tablet Controller Release Button:** Press to release the Tablet Controller module from the Diagnostic Device.



Status LEDs

- ① **Power:** **Green** when analyzer is on.
- ② **Charging:** **Red** - analyzer charging or needs charging, or **Green** - fully charged.
- ③ **Check Connection:** **Red** - check clamp connection, or **Green** - clamp connection OK.
- ④ **Communication:** Flashes **Blue** when the Diagnostic Device is communicating with the Tablet Controller.
- ⑤ **Reverse Connection:** **Red** - clamps reversed, or **Green** - clamps OK.

## Tablet Controller



Front View



Rear View



Side View

- ① **Touch Screen:** Primary user interface.
- ② **Camera:** For VIN scanning and identification
- ③ **Diagnostic Device Connection:** For when the Tablet Controller is docked with the Diagnostic Device.
- ④ **Charger Port:** Plug in point for the Diagnostic Device charger.
- ⑤ **Power Button:** For turning the Tablet Controller on and off independent of the Diagnostic Device.

## Test Preparation

### Inspecting the Battery

Before starting the test visually inspect the battery for:

- Cracked, buckled, or leaking case. If you see any of these defects, replace the battery.
- Corroded, loose, or damaged cables and connections. Repair or replace them as needed.
- Corrosion on the battery terminals, and dirt or acid on the case top. Clean the case and terminals using a wire brush and a mixture of water and baking soda.
- Low electrolyte level. If the electrolyte level is too low, add distilled water to fill up to ½ above the top of the plates and fully charge the battery. Do not overfill.
- Corroded or loose battery tray and hold-down fixture. Tighten or replace as needed.

### Testing Out-of-Vehicle

The preferred battery test location is in the vehicle. However, if you plan to test out of the vehicle:

- Always disconnect the negative cable from the battery first and reconnect it last.
- Always use a carry tool or strap to lift and transport the battery.

## WARNING

**Failure to properly install lead terminal adapters, or using adapters that are dirty or worn, may cause false test results.**

When testing side-post or Group 31 batteries, always use lead terminal adapters provided with the tester—do not test at the battery's steel bolts. To avoid damage, never use a wrench to tighten the adapters more than ¼ turn.

### Testing In-Vehicle

The preferred test position is at the battery posts. If you must test at a remote-post location, it should have both a positive and negative post. Otherwise, you must remove the battery and perform an out-of-vehicle test.

At the start of the test, make sure all vehicle accessory loads are off, the key is not in the ignition, and the doors are closed.

### Connecting To A Battery

## CAUTION

Do not connect the tester to a voltage source greater than 30 Vdc.

Connect the clamps to the tester: the red clamp to the positive (+) terminal and the black clamp to the negative (-) terminal.

If you connect the clamps in the wrong polarity (positive to negative or negative to positive), the tester displays CLAMPS REVERSED! Reconnect the clamps.

To make sure both sides of the clamps are gripping the terminals, rock the each clamp back and forth. A poor connection will prevent testing, and the tester will display the message CHECK CONNECTION. If the message reappears after you have correctly reconnected the clamps, clean the terminals and reconnect.

### Connecting An Accessory Cable

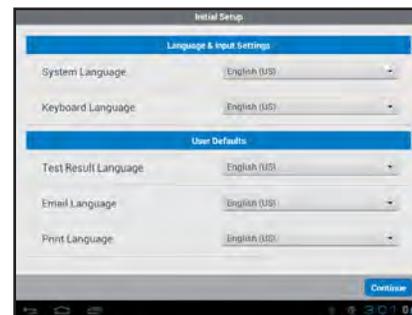
If you are using an accessory cable, plug it as you would a phone jack into the accessories port on top of the tester. It locks automatically into the port. To remove it after testing, press the lever and pull the connector out.

### Setting User Preferences

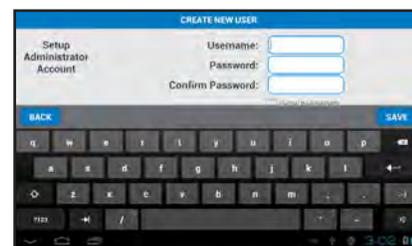
Before starting your test you may want to customize the use of your analyzer by setting preferences in the Settings (⚙️) Menu. The Settings Menu is described in Chapter 6.

### Initial Power Up

1. Select the System, Keyboard, Test Result, Email and Print-out default language: English, French Canadian, Latin Spanish. Tap **Continue** to advance to the next screen.

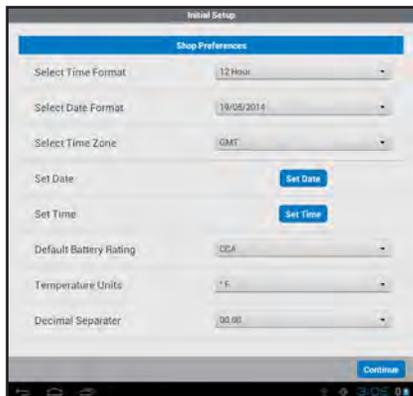


2. Use the keyboard to create a Username and Password. Tap **Continue** to advance to the next screen.



**IMPORTANT:** By default, the first account to be established during the initial setup process will be an Admin account.

- Select the Shop Preferences defaults. Tap **Continue** to advance to the next screen.

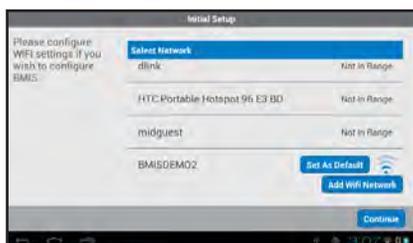


<b><u>Time Format:</u></b>	12-hour or 24-hour format
<b><u>Date Format:</u></b>	DD/MM/YYYY, MM/DD/YYYY, or YYYY/MM/DD
<b><u>Time Zone:</u></b>	Time zone offset from Greenwich Mean Time
<b><u>Set Date:</u></b>	Set the current date
<b><u>Set Time:</u></b>	Set the current time in the selected time zone
<b><u>Default Battery Rating:</u></b>	Default: CCA (Cold Cranking Amps)
<b><u>Temperature Units:</u></b>	Select Fahrenheit or Celsius
<b><u>Decimal Separator:</u></b>	Select decimal point or comma

- Select the available connected Accessories, Linked Diagnostic Devices, and Linked CVG-2 Devices. Tap **Continue** to advance to the next screen.

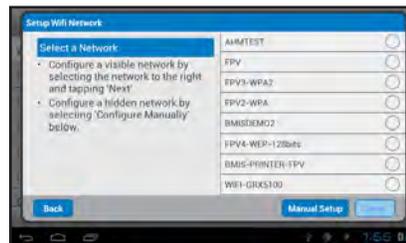


- Select a default WiFi network. The analyzer scans for detectable WiFi network and displays them on the screen. If the desired network is not displayed, tap **Add WiFi Network** to enter the information manually. Tap **Continue** to advance to the next screen.



If **Add WiFi Network** was selected, Tap on the button next to the desired network and tap **Next**.

Tap **Manual Setup** to manually enter the Network SSID, Security, and IP Settings. Tap **Next** when finished.



Use the onscreen keypad to manually enter the Network SSID, security type, and IP settings.



**Battery Rating**

**Security**

None

WEP

WPA/WPA2 PSK

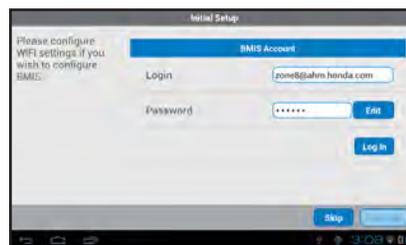
**IP Address**

DHCP

Static

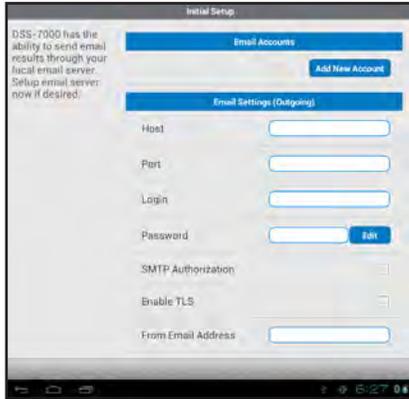
If necessary, enter the WiFi Password and IP Settings. Tap **Next** when finished. A confirmation screen is displayed when the analyzer has successfully connected to the WiFi network.

- Enter the BMIS account Login email address and password. Click on **Log In** to connect with the BMIS account. Tap **Skip** to move to the next Initial Setup screen.

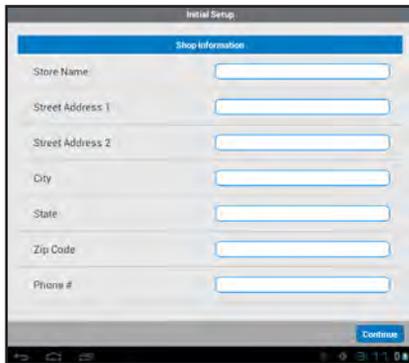


**NOTE:** The WiFi network must have been successfully set up in the previous step before a BMIS account can be accessed.

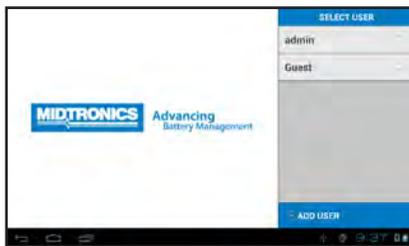
- Enter the address and server information the analyzer will use for sending test results via email.



- Enter the Shop Information including the Store Name, Street Address, City, State, Zip Code, and Phone #. Tap **Continue** to advance to the next screen.



- The user sign-on screen is displayed. Select a user to begin using the analyzer.



**NOTE:** By default, the first user created is assigned Administrator rights. Tap Add User to add additional users. See Chapter 6: Setup for more information.

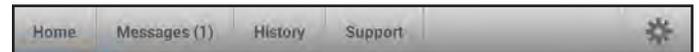
## User Interface



Home Screen

- ① Menu Bar
- ② Selection Area
- ③ Android Icons

### Menu Bar



**Home:** Return to the main user screen.

**Messages:** Displays important system messages including any analyzer software updates and any scheduled battery tests.

**History:** Displays a history of tests performed by the tool. See Chapter 5: History.

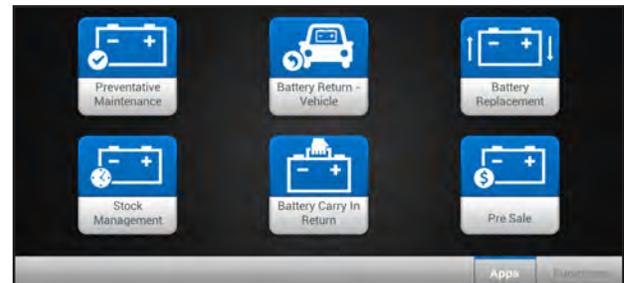
**Support:** Access to the analyzer's Instruction Manual.



Access the analyzer's user defaults and settings including WiFi setup, configured printers, system and keyboard language, display brightness, system volume, connected accessories, and device information.

### Selection Area

Displays the available test applications or testing functions.



Applications



### ***Functions***

***Battery Test:*** Tests a battery that is not connect to a vehicle.

***System Test:*** Tests the battery, starting and charging systems of a vehicle. The battery must be in the vehicle to perform this test.

***Cable Drop Test:*** Digital multimeter with 8 test meters, and options for clamps and probes.

***Digital Multimeter:*** Test the voltage drop of user-defined circuits.

## Chapter 2: Functions

Access all Functions by tapping on **FUNCTIONS** in the lower right corner of the screen. The options under FUNCTIONS are a series standardized battery tests and functions.



*Functions Home Screen*

### Battery Test

Use the Battery Test function to select the test parameters and interpret the results when testing an out-of-vehicle battery.

1. Tap Battery Test.
2. Connect the test clamps to the battery and tap **Continue**.
3. Hold the Diagnostic Device over the battery and tap **Cap-  
ture Temperature**. Once the battery temperature has been successfully measured, tap **Continue**.
4. Enter the battery testing parameters. Tap **Continue** when finished.

#### Battery Post

- TOP POST
- SIDE POST
- DUAL POST

#### Battery Application

- AUTOMOTIVE
- MARINE BATTERY
- POWERSPORT
- GROUP 31
- COMMERCIAL 4D/8D
- LAWN & GARDEN

#### Battery Type

- FLOODED
- AGM
- AGM/SPIRAL
- GEL

#### Battery Rating Units

- CCA
- CA
- JIS
- DIN(A)
- SAE(A)
- IEC(A)
- EN(A)
- EN2(A)

This information is usually printed on the battery label.

Rating	Description	Range
CCA	Cold Cranking Amps: Battery current at 0 °F (-17.8 °C).	100 to 3000
CA	Cranking Amps: Battery current at 32°F (0 °C).	100 to 3000
JIS	Japanese Industrial Standard: Usually printed on battery label.	26A17 to 245H52
DIN(A)	<b>Deutsche Industrie-Norm</b>	100 to 1000
SAE(A)	European labeling of CCA	100 to 3000
IEC(A)	International Electrotechnical Commission	100 to 1000
EN(A)	<b>Europa-Norm</b>	100 to 1700
EN2(A)	<b>Europa-Norm</b>	100 to 1700

#### Battery Rating

?

Tap on the box and use the keypad displayed on the Tablet Controller to enter the battery rating.

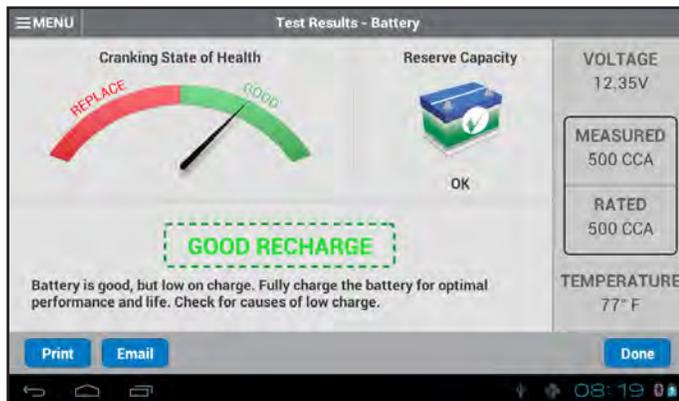


**NOTE:** When JIS is selected, use the drop-down menu to scroll to the correct JIS number.

## Battery Test Results

After the test the tester displays one of five battery decisions along with the complete results.

Tap **PRINT** to print the test results or **EMAIL** to email the results to the customer. To return to the Home Screen, tap **DONE**.



Decision	Recommended Action
GOOD BATTERY	Return the battery to service.
GOOD-RECHARGE	Fully charge battery and return to service.
CHARGE & RETEST	Fully charge the battery and retest. <b>Failure to fully charge the battery before retesting may cause false readings.</b> For a repeated CHARGE & RETEST decision, replace battery.
REPLACE BATTERY	May also mean a poor connection between battery cables and battery.
BAD CELL-REPLACE	Replace the battery and retest.

## System Test

Use the System Test function to select the test parameters and interpret the results when testing an out-of-vehicle battery.

1. Tap System Test.
2. Connect the test clamps to the battery and tap **Continue**.
3. Hold the temperature sensor on the bottom of the Diagnostic Device over the battery and tap **Capture Temperature**. Once the battery temperature has been successfully measured, tap **Continue**.
4. Enter the battery testing parameters.

### Battery Post

- TOP POST
- SIDE POST
- DUAL POST

### Battery Application

- AUTOMOTIVE
- MARINE BATTERY

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SAE(A)	European labeling of CCA	100 to 3000
IEC(A)	International Electrotechnical Commission	100 to 1000
EN(A)	Europa-Norm	100 to 1700
EN2(A)	Europa-Norm	100 to 1700

### Battery Rating

Tap on the box and use the keypad displayed on the Tablet Controller to enter the battery rating.



**NOTE:** When JIS is selected, use the drop-down menu to scroll to the correct JIS number.

### Battery Test Results

Tap **Print** to print the test results or **Email** to email the results to the customer. To return to the Home Screen, tap **Done** or **System Test** to continue with the System Test.



Test Results - Summary

Decision	Recommended Action
GOOD BATTERY	Return the battery to service.
GOOD-RECHARGE	Fully charge battery and return to service.
CHARGE & RETEST	Fully charge the battery and retest. <b>Failure to fully charge the battery before retesting may cause false readings.</b> For a repeated CHARGE & RETEST decision, replace battery.
REPLACE BATTERY *	May also mean a poor connection between battery cables and battery. After disconnecting battery cables, retest battery using Battery Test before replacing.
BAD CELL-REPLACE	Replace the battery and retest.

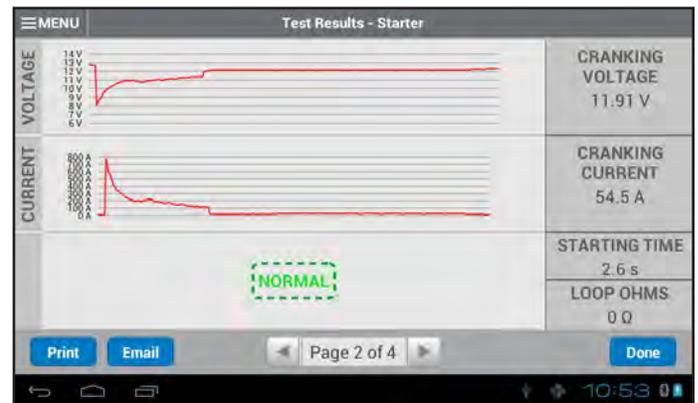
\* When testing at the jump start posts, the tester may need to verify the result. It will give you the option of retesting at the battery posts.

### Charging System Test

- When using the Amp Clamp, hold the clamp away from any cables with the jaws closed and tap **Continue** to reset the value to zero.
- With the engine and all electrical loads off, place the clamp around the positive (+) battery cable and tap **Continue**.
- When prompted Start the vehicle's engine and leave it running at idle.
- Tap **Continue** once it is displayed. The analyzer tests the alternator output.
- Rev the engine to between 2000 to 3000 RPM to the testing threshold and tap **Continue**. The analyzer tests the alternator output again.
- Idle the engine when prompted and then turn it off.
- Tap **Continue** to display the test results.

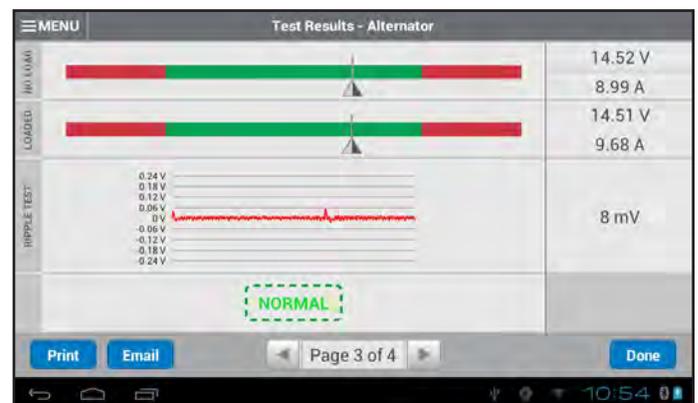
### Charging System Test Results

The Charging System Test results are displayed on screens 2 and 3. Screen 4 displays a summary of the entire System Test. Tap **Print** to print the test results or **Email** to email the results to the customer. To return to the Home Screen, tap **Done**.



Test Results - Starter

Decision	Action
NORMAL	The starter voltage is normal and the battery is fully charged.
LOW VOLTAGE	The starter voltage is low and the battery is fully charged.
CHARGE BATTERY	The starter voltage is low and the battery is discharged. Fully charge the battery and repeat the starter system test.
REPLACE BATTERY	(If the battery test result was (REPLACE or BAD CELL.) The battery must be replaced before testing the starter.
LOW CRANKING AMPS	The starter voltage is high but the cranking amps are low.
NO START	The engine didn't start and the test was aborted.
CRANKING SKIPPED	The tester didn't detect the vehicle's starting profile and skipped the Starter Test.

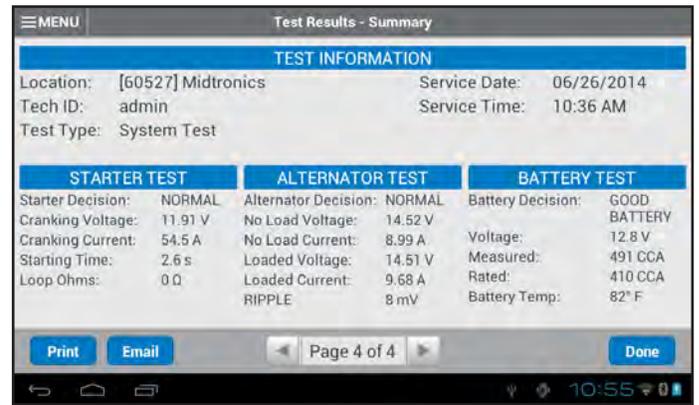


**Test Results - Alternator**

Decision	Action
NORMAL	The output from the alternator is normal.
NO OUTPUT	<p>No output detected. Check the belts to ensure the alternator is rotating with the engine running.</p> <ul style="list-style-type: none"> <li>√ Check all connections to and from the alternator, especially the connection to the battery. Clean or replace cable if necessary and retest.</li> <li>√ If the belts and connections are in good working condition, replace the alternator. (Older vehicles use external voltage regulators, which may require only replacement of the voltage regulator.)</li> </ul>
LOW OUTPUT	<p>The alternator is not providing enough current to power the system's electrical loads and charge the battery.</p> <ul style="list-style-type: none"> <li>√ Check the belts to ensure the alternator is rotating with the engine running.</li> <li>√ Check the connections from the alternator to the battery. If the connection is loose or heavily corroded, clean or replace the cable and retest.</li> </ul>
HIGH OUTPUT	<p>The voltage output from the alternator to the battery exceeds the normal limits of a functioning regulator.</p> <ul style="list-style-type: none"> <li>√ Check for loose connections and a normal ground connection. If there are no connection problems, replace the regulator.</li> </ul> <p>The normal high limit of a typical automotive regulator is 14.5 volts +/-0.5. Refer to the manufacturer specifications for the correct limit, which may vary by vehicle type.</p>

**Diode Decisions**

Decision	Action
EXCESSIVE RIPPLE	<p>One or more diodes in the alternator are not functioning or there is stator damage, which is shown by an excessive amount of AC ripple current supplied to the battery.</p> <ul style="list-style-type: none"> <li>√ Make sure the alternator mounting is sturdy and that the belts are in good shape and functioning properly. If the mounting and belts are good, replace the alternator.</li> </ul>
OPEN PHASE	Replace the alternator.
OPEN DIODE	
SHORTED DIODE	



**Test Results - Summary**

## Chapter 3: Applications (Apps)

The options under Applications (Apps) are a series of testing functions that have been customized for retail or service oriented locations. Access all Applications by tapping **Apps** in the lower right corner.



Applications Home Screen

### Preventative Maintenance

The Preventative Maintenance function automates battery testing, allowing every vehicle in for service to be tested quickly with just a few simple steps.

1. Tap the Preventative Maintenance icon.
2. Connect the test clamps to the battery and tap **Continue**.



**NOTE:** Tap **Find Battery** to search for the battery location based on the vehicle year, make, and model. To use the VIN tap the scan button or enter the information manually. See Step 4.

3. Hold the temperature sensor on the bottom of the Diagnostic Device over the battery and tap **Capture Temperature**. Once the battery temperature has been successfully measured, tap **Continue**.
4. Enter the VIN either by scanning the bar code on the inside of the driver's side door or by entering the number manually. If an existing record is not found, a new record will be created.

**Scan VIN From Bar Code:** Use the camera built into the Tablet Controller to capture a VIN barcode, usually located on the driver's side door frame.



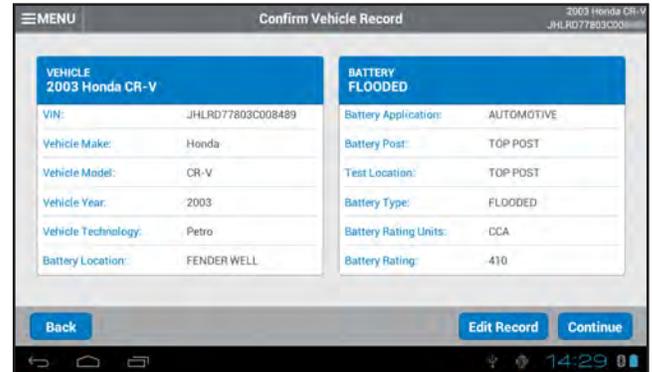
**Manually Type VIN Number:** Use the on-screen keypad to type the VIN manually.

5. If prompted, enter the battery post type and tap **Continue**.

#### Battery Post

- TOP POST
- SIDE POST
- DUAL POST

6. A vehicle confirmation screen is displayed showing the record for the vehicle and battery. If the information is correct, tap **Continue**.



If any of the data needs to be updated, tap on **Edit Record**. After the data has been updated tap **Update Record** to save the changes and return to the Confirm Vehicle Record screen.

VIN

Vehicle Make

Vehicle Model

Vehicle Year

- #### Battery Post
- TOP POST
  - SIDE POST
  - DUAL POST

- #### Battery Application
- AUTOMOTIVE
  - MARINE BATTERY
  - POWERSPORT
  - GROUP 31
  - COMMERCIAL 4D/8D
  - LAWN & GARDEN

- #### Battery Type
- FLOODED
  - AGM
  - AGM/SPIRAL
  - GEL

### Battery Rating Units

- CCA
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DIN(A)	Deutsche Industrie-Norm	100 to 1000
SAE(A)	European labeling of CCA	100 to 3000
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EN(A)	Europa-Norm	100 to 1700
EN2(A)	Europa-Norm	100 to 1700

Battery Rating

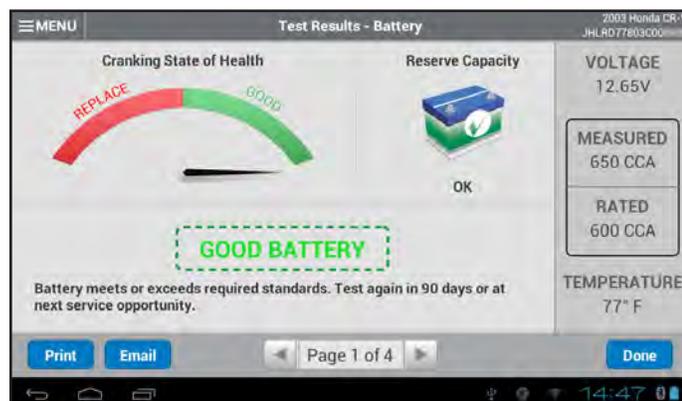
To enter the Battery Rating, tap on the box and enter the battery rating using the displayed keypad.

 **NOTE:** When JIS is selected, use the drop-down menu to scroll to the correct JIS number.

7. Tap **Continue** to begin the test.

### Battery Test Results

Tap **Print** to print the test results or **Email** to email the results to the customer. To return to the Home Screen, tap **Done** or **System Test** to continue with the System Test.



Decision	Recommended Action
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GOOD-RECHARGE	Fully charge battery and return to service.
CHARGE & RETEST	Fully charge the battery and retest. <b>Failure to fully charge the battery before retesting may cause false readings.</b> For a repeated CHARGE & RETEST decision, replace battery.
REPLACE BATTERY *	May also mean a poor connection between battery cables and battery. After disconnecting battery cables, retest battery using Battery Test before replacing.
BAD CELL-REPLACE	Replace the battery and retest.

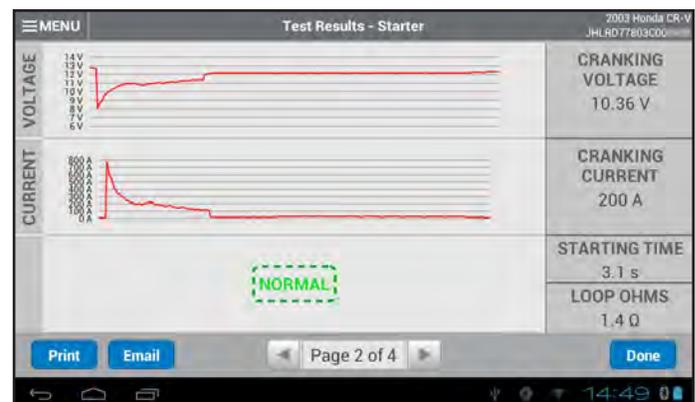
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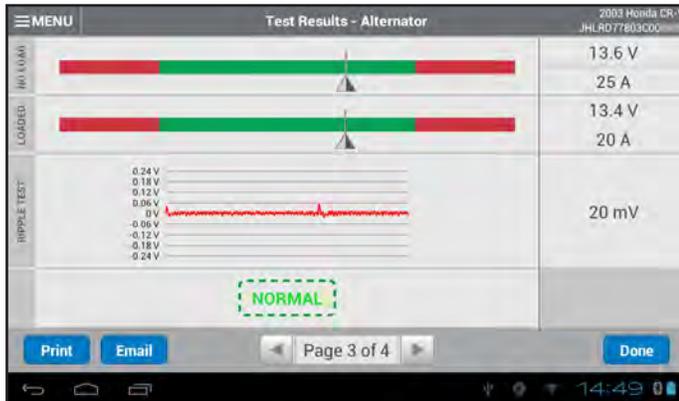
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**Test Results - Starter**

Decision	Action
NORMAL	The starter voltage is normal and the battery is fully charged.
LOW VOLTAGE	The starter voltage is low and the battery is fully charged.
CHARGE BATTERY	The starter voltage is low and the battery is discharged. Fully charge the battery and repeat the starter system test.
REPLACE BATTERY	(If the battery test result was (REPLACE or BAD CELL.) The battery must be replaced before testing the starter.
LOW CRANKING AMPS	The starter voltage is high but the cranking amps are low.
NO START	The engine didn't start and the test was aborted.
CRANKING SKIPPED	The tester didn't detect the vehicle's starting profile and skipped the Starter Test.



**Test Results - Alternator**

Decision	Action
NORMAL	The output from the alternator is normal.
NO OUTPUT	No output detected. Check the belts to ensure the alternator is rotating with the engine running. <ul style="list-style-type: none"> <li>✓ Check all connections to and from the alternator, especially the connection to the battery. Clean or replace cable if necessary and retest.</li> <li>✓ If the belts and connections are in good working condition, replace the alternator. (Older vehicles use external voltage regulators, which may require only replacement of the voltage regulator.)</li> </ul>

LOW OUTPUT	The alternator is not providing enough current to power the system's electrical loads and charge the battery. <ul style="list-style-type: none"> <li>✓ Check the belts to ensure the alternator is rotating with the engine running.</li> <li>✓ Check the connections from the alternator to the battery. If the connection is loose or heavily corroded, clean or replace the cable and retest.</li> </ul>
HIGH OUTPUT	The voltage output from the alternator to the battery exceeds the normal limits of a functioning regulator. <ul style="list-style-type: none"> <li>✓ Check for loose connections and a normal ground connection. If there are no connection problems, replace the regulator.</li> </ul> <p>The normal high limit of a typical automotive regulator is 14.5 volts +/-0.5. Refer to the manufacturer specifications for the correct limit, which may vary by vehicle type.</p>

**Diode Decisions**

Decision	Action
EXCESSIVE RIPPLE	One or more diodes in the alternator are not functioning or there is stator damage, which is shown by an excessive amount of AC ripple current supplied to the battery. <ul style="list-style-type: none"> <li>✓ Make sure the alternator mounting is sturdy and that the belts are in good shape and functioning properly. If the mounting and belts are good, replace the alternator.</li> </ul>
OPEN PHASE	Replace the alternator.
OPEN DIODE	
SHORTED DIODE	

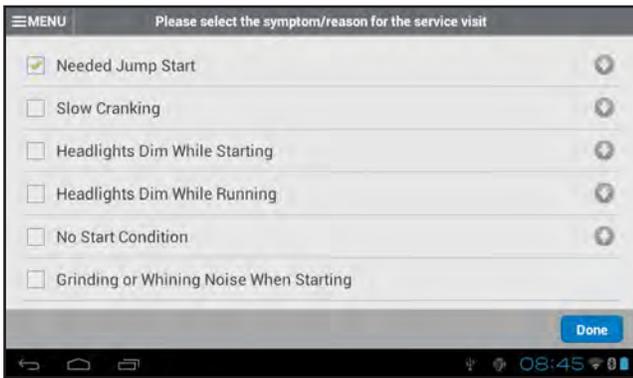


**Test Results - Summary**

### Battery Return - Vehicle

Use Battery Return-Vehicle to identify potential issues with the battery or electrical system in vehicles returned for service. This application also give the option to run a System Test to test the vehicle's Starting and Charging systems.

1. Tap the **Battery Return-Vehicle** icon.
2. Select the symptom or symptoms for the service visit.



**NOTE:** When displayed, tap  for a more detailed explanation of each symptom/reason.

3. Connect the test clamps to the battery and tap **Continue**.



**NOTE:** Tap **Find Battery** to search for the battery location based on the vehicle year, make, and model. To use the VIN tap the scan button or enter the information manually. See Step 4.

4. Hold the temperature sensor on the bottom of the Diagnostic Device over the battery and tap **Capture Temperature**. Once the battery temperature has been successfully measured, tap **Continue**.
5. Enter the VIN either by scanning the bar code on the inside of the driver's side door or by entering the number manually. If an existing record is not found, a new record will be created.

**Scan VIN From Bar Code:** Use the camera built into the Tablet Controller to capture a VIN barcode, usually located on the driver's side door frame.



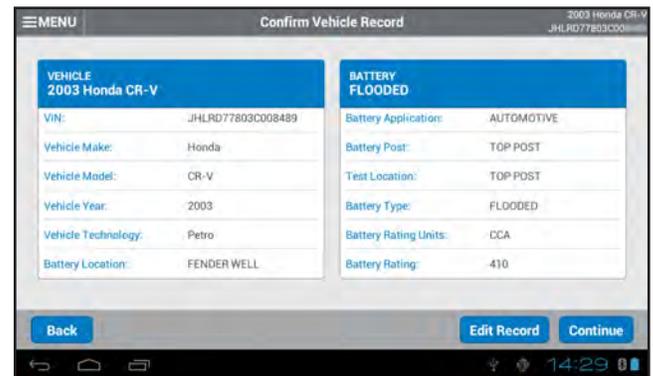
**Manually Type VIN Number:** Use the on-screen keypad to type the VIN manually.

6. If prompted, enter the battery post type and tap **Continue**.

#### Battery Post

- TOP POST
- SIDE POST
- DUAL POST

7. A vehicle confirmation screen is displayed showing the record for the vehicle and battery. If the information is correct, tap **Continue**.



8. If any of the data needs to be updated, tap on **Edit Record**. When all of the data has been updated tap **Update Record** to return to the Confirm Vehicle Record screen.

#### VIN

Enter VIN

#### Vehicle Make

Enter Vehicle Manufacturer

#### Vehicle Model

Enter Vehicle Model Name

#### Vehicle Year

Enter Vehicle Model Year

#### Battery Post

- TOP POST
- SIDE POST
- DUAL POST

#### Battery Application

- AUTOMOTIVE
- MARINE BATTERY
- POWERSPORT
- GROUP 31
- COMMERCIAL 4D/8D
- LAWN & GARDEN

#### Battery Type

- FLOODED
- AGM
- AGM/SPIRAL
- GEL

**Battery Rating Units**

- CCA
- CA
- JIS
- DIN(A)
- SAE(A)
- IEC(A)
- EN(A)
- EN2(A)

This information is usually printed on the battery label.

Rating	Description	Range
CCA	Cold Cranking Amps: Battery current at 0 °F (-17.8 °C).	100 to 3000
CA	Cranking Amps: Battery current at 32°F (0 °C).	100 to 3000
JIS	Japanese Industrial Standard: Usually printed on battery label.	26A17 to 245H52
DIN(A)	Deutsche Industrie-Norm	100 to 1000
SAE(A)	European labeling of CCA	100 to 3000
IEC(A)	International Electrotechnical Commission	100 to 1000
EN(A)	Europa-Norm	100 to 1700
EN2(A)	Europa-Norm	100 to 1700

Battery Rating

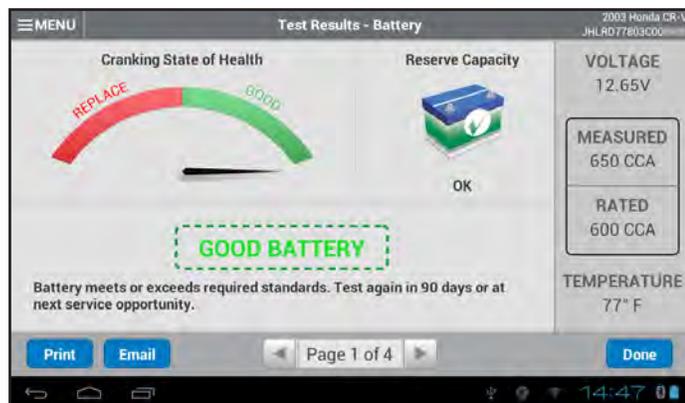
Tap on the box and use the keypad displayed on the Tablet Controller to enter the battery rating.

**NOTE:** When JIS is selected, use the drop-down menu to scroll to the correct JIS number.

9. Tap **Continue** to begin the test.

**Battery Test Results**

Tap **Print** to print the test results or **Email** to email the results to the customer. To return to the Home Screen, tap **Done** or **System Test** to continue with the System Test.



**Test Results - Summary**

Decision	Recommended Action
GOOD BATTERY	Return the battery to service.
GOOD-RECHARGE	Fully charge battery and return to service.
CHARGE & RETEST	Fully charge the battery and retest. <b>Failure to fully charge the battery before retesting may cause false readings.</b> For a repeated CHARGE & RETEST decision, replace battery.
REPLACE BATTERY *	May also mean a poor connection between battery cables and battery. After disconnecting battery cables, retest battery using Battery Test before replacing.
BAD CELL-REPLACE	Replace the battery and retest.

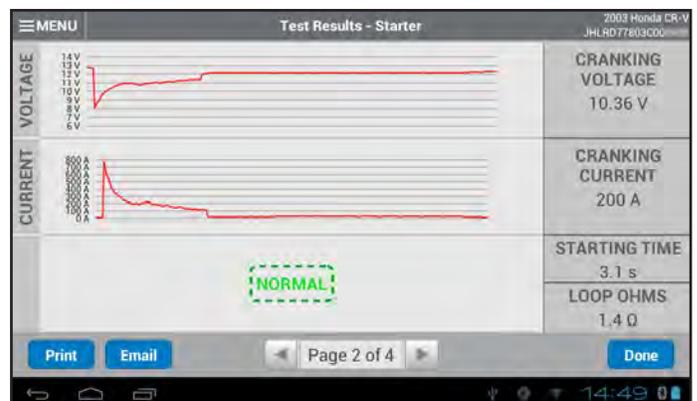
\* When testing at the jump start posts, the tester may need to verify the result. It will give you the option of retesting at the battery posts.

**Charging System Test**

- When using the Amp Clamp, hold the clamp away from any cables with the jaws closed and tap **Continue** to reset the value to zero.
- With the engine and all electrical loads off, place the clamp around the negative (-) battery cable and tap **Continue**.
- When prompted Start the vehicle's engine and leave it running at idle.
- Tap **Continue** once it is displayed. The analyzer tests the alternator output.
- Rev the engine to between 2000 to 3000 RPM to the testing threshold and tap **Continue**. The analyzer tests the alternator output again.
- Idle the engine when prompted and then turn it off.
- Tap **Continue** to display the test results.

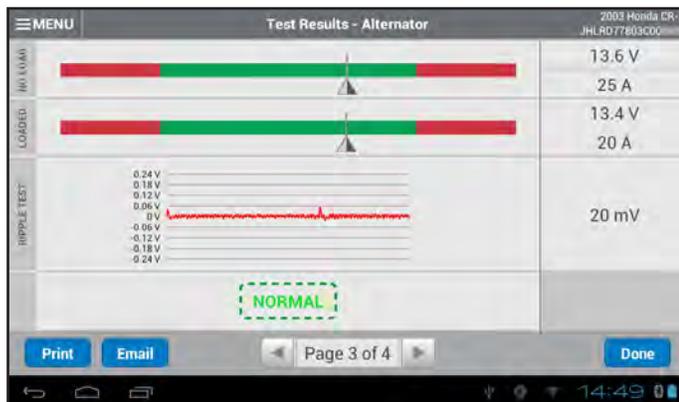
**Charging System Test Results**

The Charging System Test results are displayed on screens 2 and 3. Screen 4 displays a summary of the entire System Test. Tap **Print** to print the test results or **Email** to email the results to the customer. To return to the Home Screen, tap **Done**.



**Test Results - Starter**

Decision	Action
NORMAL	The starter voltage is normal and the battery is fully charged.
LOW VOLTAGE	The starter voltage is low and the battery is fully charged.
CHARGE BATTERY	The starter voltage is low and the battery is discharged. Fully charge the battery and repeat the starter system test.
REPLACE BATTERY	(If the battery test result was (REPLACE or BAD CELL.) The battery must be replaced before testing the starter.
LOW CRANKING AMPS	The starter voltage is high but the cranking amps are low.
NO START	The engine didn't start and the test was aborted.
CRANKING SKIPPED	The tester didn't detect the vehicle's starting profile and skipped the Starter Test.



**Test Results - Alternator**

Decision	Action
NORMAL	The output from the alternator is normal.
NO OUTPUT	No output detected. Check the belts to ensure the alternator is rotating with the engine running. <ul style="list-style-type: none"> <li>✓ Check all connections to and from the alternator, especially the connection to the battery. Clean or replace cable if necessary and retest.</li> <li>✓ If the belts and connections are in good working condition, replace the alternator. (Older vehicles use external voltage regulators, which may require only replacement of the voltage regulator.)</li> </ul>

LOW OUTPUT	The alternator is not providing enough current to power the system's electrical loads and charge the battery. <ul style="list-style-type: none"> <li>✓ Check the belts to ensure the alternator is rotating with the engine running.</li> <li>✓ Check the connections from the alternator to the battery. If the connection is loose or heavily corroded, clean or replace the cable and retest.</li> </ul>
HIGH OUTPUT	The voltage output from the alternator to the battery exceeds the normal limits of a functioning regulator. <ul style="list-style-type: none"> <li>✓ Check for loose connections and a normal ground connection. If there are no connection problems, replace the regulator.</li> </ul> <p>The normal high limit of a typical automotive regulator is 14.5 volts +/-0.5. Refer to the manufacturer specifications for the correct limit, which may vary by vehicle type.</p>

**Diode Decisions**

Decision	Action
EXCESSIVE RIPPLE	One or more diodes in the alternator are not functioning or there is stator damage, which is shown by an excessive amount of AC ripple current supplied to the battery. <ul style="list-style-type: none"> <li>✓ Make sure the alternator mounting is sturdy and that the belts are in good shape and functioning properly. If the mounting and belts are good, replace the alternator.</li> </ul>
OPEN PHASE	Replace the alternator.
OPEN DIODE	
SHORTED DIODE	

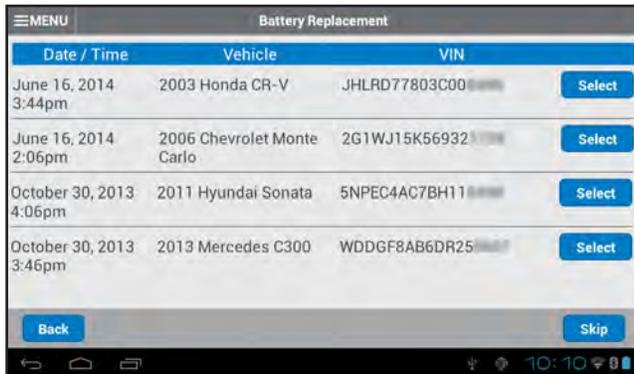


**Test Results - Summary**

### Battery Replacement

Use the Battery Replacement function to track battery replacements resulting from a Replace Battery decision and test new batteries after installation in a vehicle. Using the CVG module, the analyzer will communicate directly with the vehicle to register the new battery to that vehicle. It can also provide reset information in the event of battery power interruption.

1. Tap the **Battery Replacement** icon.
2. Select the record for the vehicle in which the battery has been installed.



3. Enter the VIN either by scanning the bar code on the inside of the driver's side door or by entering the number manually. If an existing record is not found, a new record will be created.

**Scan VIN From Bar Code:** Use the camera built into the Tablet Controller to capture a VIN barcode, usually located on the driver's side door frame.



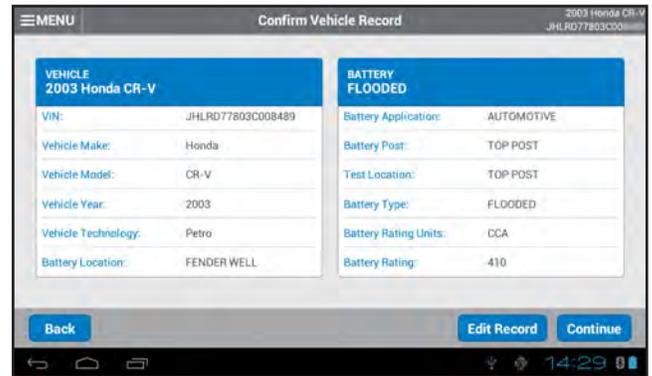
**Manually Type VIN Number:** Use the on-screen keypad to type the VIN manually.

4. If prompted, enter the battery post type and tap **Continue**.

**Battery Post**

- TOP POST
- SIDE POST
- DUAL POST

5. A vehicle confirmation screen is displayed showing the record for the vehicle and battery. If the information is correct, tap **Continue**.



6. If any of the data needs to be updated, tap on **Edit Record**. When all of the data has been updated tap **Update Record** to return to the Confirm Vehicle Record screen.

**VIN**

**Vehicle Make**

**Vehicle Model**

**Vehicle Year**

**Battery Post**

- TOP POST
- SIDE POST
- DUAL POST

**Battery Application**

- AUTOMOTIVE
- MARINE BATTERY
- POWERSPORT
- GROUP 31
- COMMERCIAL 4D/8D
- LAWN & GARDEN

**Battery Type**

- FLOODED
- AGM
- AGM/SPIRAL
- GEL

**Battery Rating Units**

- CCA
- CA
- JIS
- DIN(A)
- SAE(A)
- IEC(A)
- EN(A)
- EN2(A)

This information is usually printed on the battery label.

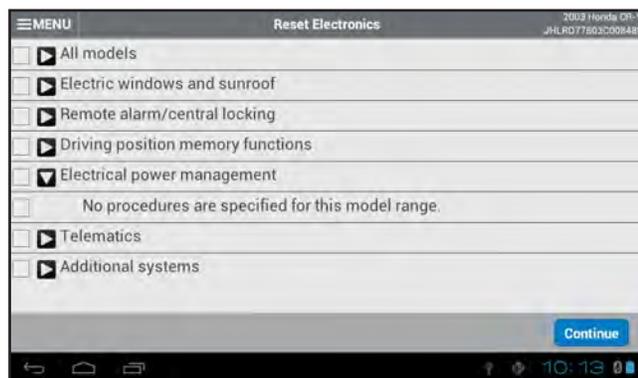
Rating	Description	Range
CCA	Cold Cranking Amps: Battery current at 0 °F (-17.8 °C).	100 to 3000
CA	Cranking Amps: Battery current at 32°F (0 °C).	100 to 3000
JIS	Japanese Industrial Standard: Usually printed on battery label.	26A17 to 245H52
DIN(A)	Deutsche Industrie-Norm	100 to 1000
SAE(A)	European labeling of CCA	100 to 3000
IEC(A)	International Electrotechnical Commission	100 to 1000
EN(A)	Europa-Norm	100 to 1700
EN2(A)	Europa-Norm	100 to 1700

**Battery Rating**

Tap on the box and use the keypad displayed on the Tablet Controller to enter the battery rating and tap **Continue**.

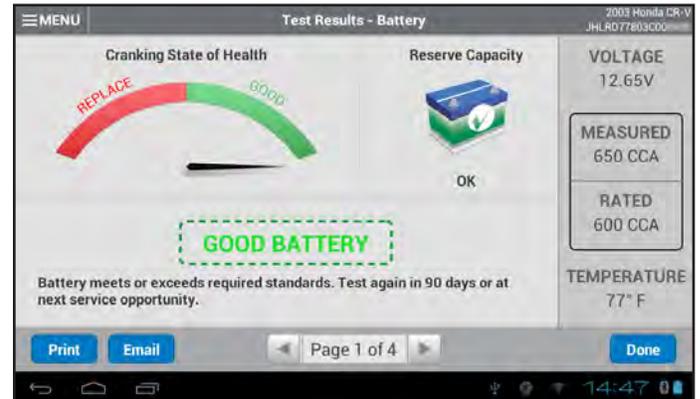
 **NOTE:** When JIS is selected, use the drop-down menu to scroll to the correct JIS number.

- If a Reset Electronics screen is displayed, tap the check boxes next to each listed vehicle function after confirming they are operating correctly following the new battery installation. Tap **Continue** when finished to display the test results.



**Battery Test Results**

Tap **Print** to print the test results or **Email** to email the results to the customer. To return to the Home Screen, tap **Done** or **System Test** to continue with the System Test.



**Test Results - Summary**

Decision	Recommended Action
GOOD BATTERY	Return the battery to service.
GOOD-RECHARGE	Fully charge battery and return to service.
CHARGE & RETEST	Fully charge the battery and retest. <b>Failure to fully charge the battery before retesting may cause false readings.</b> For a repeated CHARGE & RETEST decision, replace battery.
REPLACE BATTERY *	May also mean a poor connection between battery cables and battery. After disconnecting battery cables, retest battery using Battery Test before replacing.
BAD CELL-REPLACE	Replace the battery and retest.

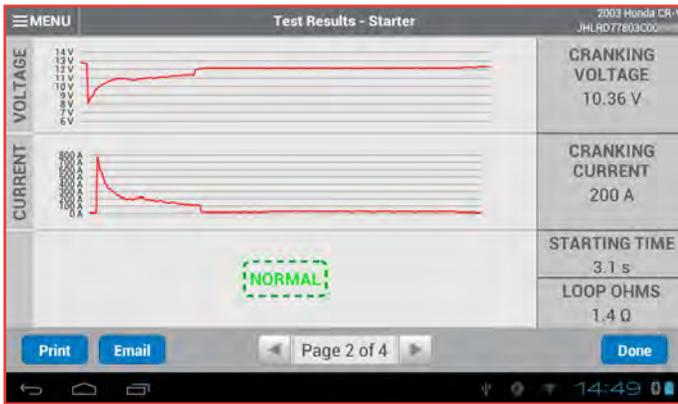
\* When testing at the jump start posts, the tester may need to verify the result. It will give you the option of retesting at the battery posts.

**Charging System Test**

- When using the Amp Clamp, hold the clamp away from any cables with the jaws closed and tap **Continue** to reset the value to zero.
- With the engine and all electrical loads off, place the clamp around the negative (-) battery cable and tap **Continue**.
- When prompted Start the vehicle's engine and leave it running at idle.
- Tap **Continue** once it is displayed. The analyzer tests the alternator output.
- Rev the engine to between 2000 to 3000 RPM to the testing threshold and tap **Continue**. The analyzer tests the alternator output again.
- Idle the engine when prompted and then turn it off.
- Tap **Continue** to display the test results.

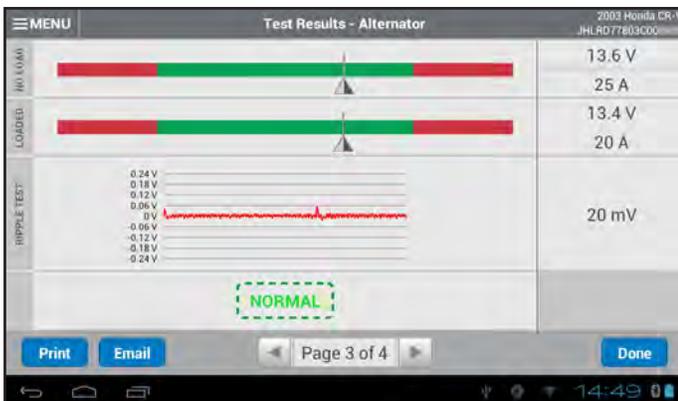
### Charging System Test Results

The Charging System Test results are displayed on screens 2 and 3. Screen 4 displays a summary of the entire System Test. Tap **Print** to print the test results or **Email** to email the results to the customer. To return to the Home Screen, tap **Done**.



**Test Results - Starter**

Decision	Action
NORMAL	The starter voltage is normal and the battery is fully charged.
LOW VOLTAGE	The starter voltage is low and the battery is fully charged.
CHARGE BATTERY	The starter voltage is low and the battery is discharged. Fully charge the battery and repeat the starter system test.
REPLACE BATTERY	(If the battery test result was (REPLACE or BAD CELL.) The battery must be replaced before testing the starter.
LOW CRANKING AMPS	The starter voltage is high but the cranking amps are low.
NO START	The engine didn't start and the test was aborted.
CRANKING SKIPPED	The tester didn't detect the vehicle's starting profile and skipped the Starter Test.



### Test Results - Alternator

Decision	Action
NORMAL	The output from the alternator is normal.
NO OUTPUT	No output detected. Check the belts to ensure the alternator is rotating with the engine running. <ul style="list-style-type: none"> <li>✓ Check all connections to and from the alternator, especially the connection to the battery. Clean or replace cable if necessary and retest.</li> <li>✓ If the belts and connections are in good working condition, replace the alternator. (Older vehicles use external voltage regulators, which may require only replacement of the voltage regulator.)</li> </ul>
LOW OUTPUT	The alternator is not providing enough current to power the system's electrical loads and charge the battery. <ul style="list-style-type: none"> <li>✓ Check the belts to ensure the alternator is rotating with the engine running.</li> <li>✓ Check the connections from the alternator to the battery. If the connection is loose or heavily corroded, clean or replace the cable and retest.</li> </ul>
HIGH OUTPUT	The voltage output from the alternator to the battery exceeds the normal limits of a functioning regulator. <ul style="list-style-type: none"> <li>✓ Check for loose connections and a normal ground connection. If there are no connection problems, replace the regulator.</li> </ul> <p>The normal high limit of a typical automotive regulator is 14.5 volts +/-0.5. Refer to the manufacturer specifications for the correct limit, which may vary by vehicle type.</p>

### Diode Decisions

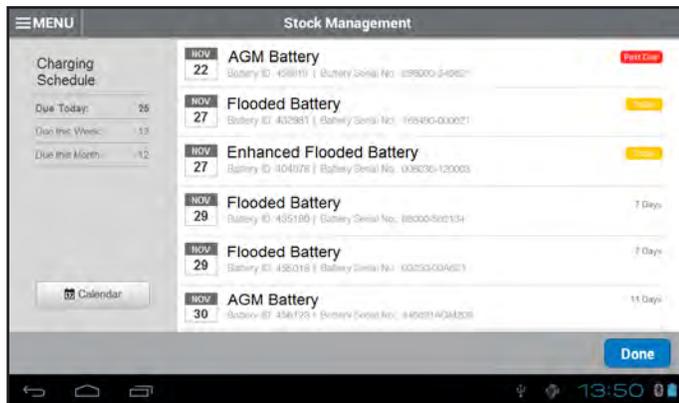
Decision	Action
EXCESSIVE RIPPLE	One or more diodes in the alternator are not functioning or there is stator damage, which is shown by an excessive amount of AC ripple current supplied to the battery. <ul style="list-style-type: none"> <li>✓ Make sure the alternator mounting is sturdy and that the belts are in good shape and functioning properly. If the mounting and belts are good, replace the alternator.</li> </ul>
OPEN PHASE	Replace the alternator.
OPEN DIODE	
SHORTED DIODE	



Test Results - Summary

### Stock Management

Use the Stock Management function to schedule regular testing of batteries in inventory to identify any that need charging and ensure all batteries in stock are ready for sale. This function also feeds reminders within other parts of the user interface.

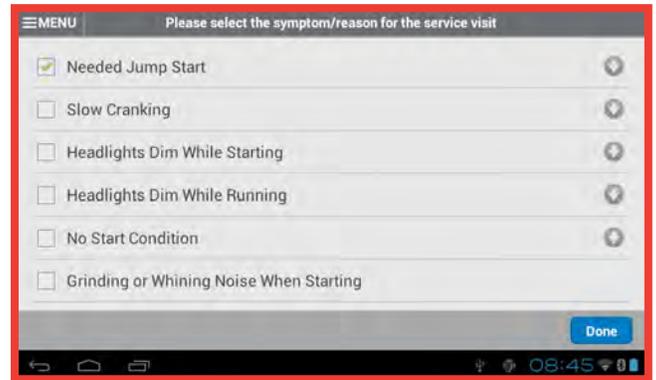


### Battery Carry In Return

Use this function to test customer batteries out-of-vehicle for possible return.

1. Tap the **Battery Carry-in Return** icon.

2. Select the symptom or symptoms for the service visit.



**NOTE:** When displayed, tap for a more detailed explanation of each symptom/reason.

3. Connect the test clamps to the battery and tap **Continue**.
4. Enter the battery testing parameters. Tap **Continue** when finished.

#### Battery Post

- TOP POST
- SIDE POST
- DUAL POST

#### Battery Application

- AUTOMOTIVE
- MARINE BATTERY
- POWERSPORT
- GROUP 31
- COMMERCIAL 4D/8D
- LAWN & GARDEN

#### Battery Type

- FLOODED
- AGM
- AGM/SPIRAL
- GEL

#### Battery Rating Units

- CCA
- CA
- JIS
- DIN(A)
- SAE(A)
- IEC(A)
- EN(A)
- EN2(A)

This information is usually printed on the battery label.

Rating	Description	Range
CCA	Cold Cranking Amps: Battery current at 0 °F (−17.8 °C).	100 to 3000
CA	Cranking Amps: Battery current at 32°F (0 °C).	100 to 3000
JIS	Japanese Industrial Standard: Usually printed on battery label.	26A17 to 245H52
DIN(A)	Deutsche Industrie-Norm	100 to 1000
SAE(A)	European labeling of CCA	100 to 3000
IEC(A)	International Electrotechnical Commission	100 to 1000
EN(A)	Europa-Norm	100 to 1700
EN2(A)	Europa-Norm	100 to 1700

Battery Rating

Tap on the box and use the keypad displayed on the Tablet Controller to enter the battery rating.

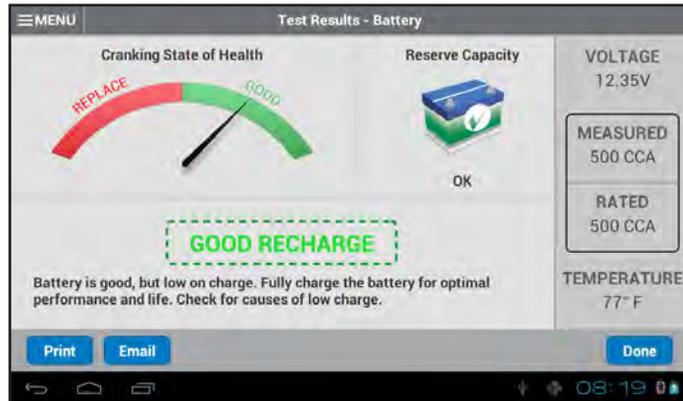


**NOTE:** When JIS is selected, use the drop-down menu to scroll to the correct JIS number.

### Battery Test Results

After the test the tester displays one of five battery decisions along with the complete results.

Tap **PRINT** to print the test results or **EMAIL** to email the results to the customer. To return to the Home Screen, tap **DONE**.



Decision	Recommended Action
GOOD BATTERY	Return the battery to service.
GOOD-RECHARGE	Fully charge battery and return to service.
CHARGE & RETEST	Fully charge the battery and retest. <b>Failure to fully charge the battery before retesting may cause false readings.</b> For a repeated CHARGE & RETEST decision, replace battery.

REPLACE BATTERY *	May also mean a poor connection between battery cables and battery. After disconnecting battery cables, retest battery using Battery Test before replacing.
BAD CELL-REPLACE	Replace the battery and retest.

### Pre Sale

Use the Pre Sale function to test each new battery before customer purchase to confirm it is good and prevent potential customer service or warranty issues.

1. Tap Pre Sale icon.
2. Connect the test clamps to the battery and tap **Continue**.
3. Hold the Diagnostic Device over the battery and tap **Capture Temperature**. Once the battery temperature has been successfully measured, tap **Continue**.
4. Enter the battery testing parameters. Tap **Continue** when finished.

### Battery Post

- TOP POST
- SIDE POST
- DUAL POST

### Battery Application

- AUTOMOTIVE
- MARINE BATTERY
- POWERSPORT
- GROUP 31
- COMMERCIAL 4D/8D
- LAWN & GARDEN

### Battery Type

- FLOODED
- AGM
- AGM/SPIRAL
- GEL

**Battery Rating Units**

- CCA
- CA
- JIS
- DIN(A)
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- EN(A)
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This information is usually printed on the battery label.

Rating	Description	Range
CCA	Cold Cranking Amps: Battery current at 0 °F (-17.8 °C).	100 to 3000
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JIS	Japanese Industrial Standard: Usually printed on battery label.	26A17 to 245H52
DIN(A)	<b>Deutsche Industrie-Norm</b>	100 to 1000
SAE(A)	European labeling of CCA	100 to 3000
IEC(A)	<b>International Electrotechnical Commission</b>	100 to 1000
EN(A)	<b>Europa-Norm</b>	100 to 1700
EN2(A)	<b>Europa-Norm</b>	100 to 1700

**Battery Rating**

Tap on the box and use the keypad displayed on the Tablet Controller to enter the battery rating.

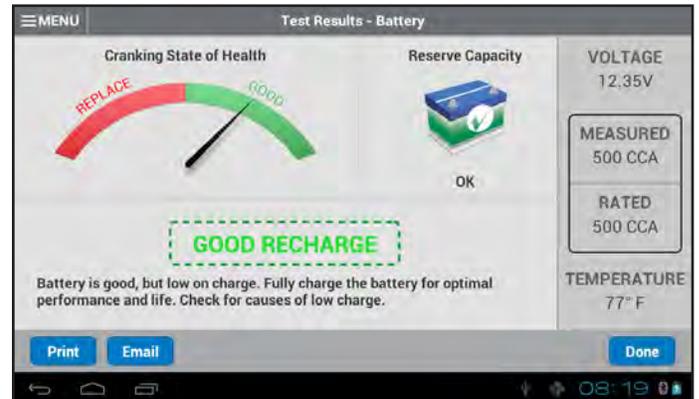


**NOTE:** When JIS is selected, use the drop-down menu to scroll to the correct JIS number.

**Battery Test Results**

After the test the tester displays one of five battery decisions along with the complete results.

Tap **PRINT** to print the test results or **EMAIL** to email the results to the customer. To return to the Home Screen, tap **DONE**.



Decision	Recommended Action
GOOD BATTERY	Return the battery to service.
GOOD-RECHARGE	Fully charge battery and return to service.
CHARGE & RETEST	Fully charge the battery and retest. <b>Failure to fully charge the battery before retesting may cause false readings.</b> For a repeated CHARGE & RETEST decision, replace battery.
REPLACE BATTERY *	May also mean a poor connection between battery cables and battery.
BAD CELL-REPLACE	Replace the battery and retest.

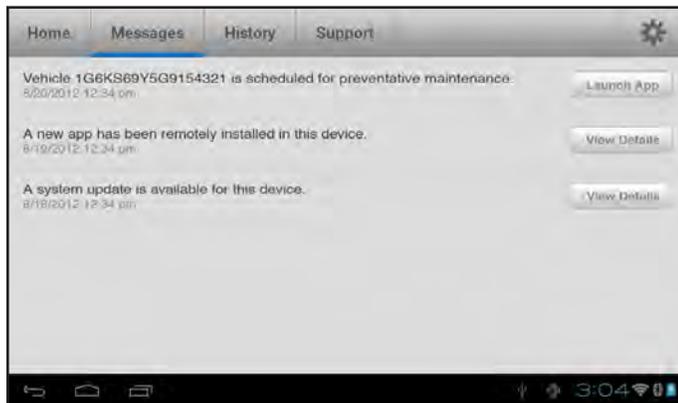
## Chapter 4: Messages

The Messages function displays alerts and notifications for upcoming tests and activities. This includes scheduled testing as well as tool software updates and maintenance opportunities.

To access the Messages function, tap **Messages** on the Menu Bar at the top of the Tablet Control screen.



### Types Of Messages



## Chapter 5: History

The History function allows access to the tool usage history, a vehicle history based on VIN, and user histories.

To access the History function, tap **History** on the Menu Bar at the top of the Tablet Control screen.

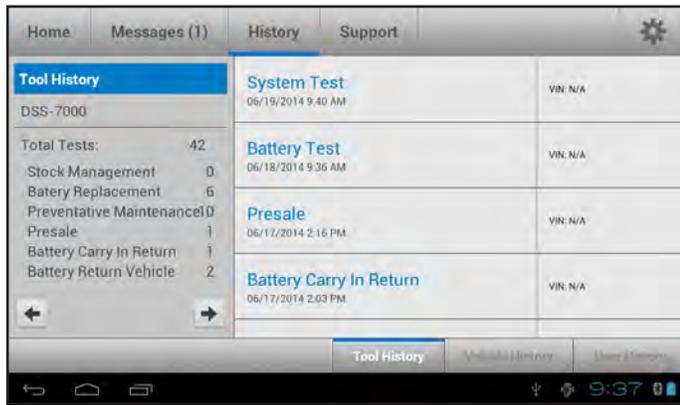


### Tool History

Tap on Tool History in the menu bar at the bottom of the Tablet Controller screen to display the tool usage totals.



Use Tool History to view test total history as well as in vehicle and out of vehicle test totals. Individual test results are also displayed.



The tool testing history is displayed in a series of screens on the left side of the Tablet Controller. Tap or to scroll to between screens.

Tap on the records displayed on the right side of the screen to view the individual test results.

### Totals By Test Results

The totals are displayed by possible results for all battery chemistries and potential test results.

GOOD BATTERY	BC OPEN OR LOAD FAIL REPLACE
GOOD RECHARGE	BROKEN WELD REPLACE
MARGINAL RECHARGE	FROZEN BATTERY
MARGINAL	TOO HOT REPLACE
CHARGE & RETEST	TEMP SENSOR FAILED
REPLACE BATTERY	ABORTED
BADCELL SHORT REPLACE	INVALID TEST
REMOTE POST	ABORTED/24V
SIDE POST	OUT OF BALANCE

### Totals By Test Type

Displays test totals by test type.

Stock Management	Presale
Battery Replacement	Battery Carry In Return
Preventative Maintenance	Battery Return Vehicle

### Totals By Time Interval

Displays test totals by time interval. Also displays the number of tests performed in and out of vehicle.

Last 7 Days	In Vehicle
Last 30 Days	Out Vehicle
Last 90 Days	

### Vehicle History

Tap on Vehicle History in the menu bar at the bottom of the Tablet Controller screen to display the tool usage totals.



Vehicle History displays test totals conducted on specific vehicles based on the VIN. It is also possible to enter a VIN to search for test records for a specific vehicle by tapping the displayed buttons.

**Scan VIN From Bar Code:** Use the camera built into the Tablet Controller to capture a VIN barcode, usually located on the driver's side door frame.



**Manually Type VIN Number:** Use the on-screen keypad to type the VIN manually.

Tap on the records displayed on the right side of the screen to view the individual test results.

### User History

Tap on User History in the menu bar at the bottom of the Tablet Controller screen to display the tool usage totals.



User History displays test totals for the user that is currently logged in to the analyzer. The possible test results are the same as used in Test History.

Tap on the records displayed on the right side of the screen to view the individual test results.

## Chapter 6: Settings



Use the Setup options to setup and adjust WiFi, printer setup and selection, email settings, user information, default language, display settings, sound settings, BMIS login information, shop information, user management, connected accessories, and device information.

To access Setup, tap on the  icon displayed in the upper right corner of the Tablet Controller screen.



### WiFi

Use the WiFi function to select from a list of detectable wireless networks. Wireless networks can also be deleted from the displayed list.

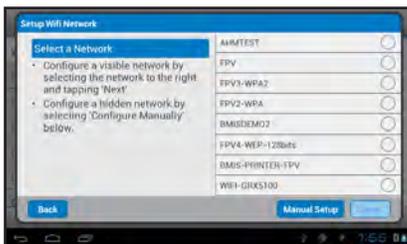
#### Add WiFi Network

Use the Add WiFi Network function to add to the list of wireless networks available for the analyzer to use.

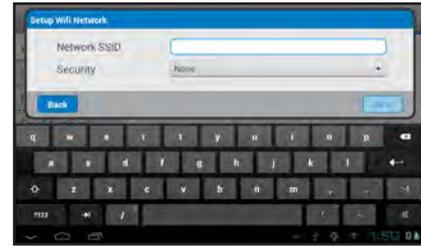


1. Tap the **Add WiFi Network** button.
2. A list of detected wireless networks is displayed. Tap on the button next to the desired network and tap **Next**.

Tap **Manual Setup** to manually enter the Network SSID, Security, and IP Settings. Tap **Next** when finished.



Use the onscreen keypad to manually enter the Network SSID, security type, and IP settings.



#### Battery Rating

#### Security

- None
- WEP
- WPA/WPA2 PSK

#### IP Address

- DHCP
- Static

If necessary, enter the WiFi Password and IP Settings. Tap **Next** when finished. A confirmation screen is displayed when the analyzer has successfully connected to the WiFi network.

#### Battery Rating

#### Security

- None
- WEP
- WPA/WPA2PSK

#### IP Settings

- DHCP
- Static

3. If necessary, enter the WiFi Password and IP Settings. Tap **Next** when finished.
4. A confirmation screen is displayed when the analyzer has successfully connected to the WiFi network.

## Printer Setup (Admin Only)

The Printer Setup function detects and displays a list of allowed printers available on the connected WiFi network.



**NOTE:** WiFi network communication must be successfully established before allowable printer(s) can be detected and setup.

### Scan For Printers

Scans for WiFi enabled printers that are connected to the same WiFi network.

1. Tap the Scan For Printers button.
2. Make sure the WiFi printer(s) is on and connected to the same wireless network as the analyzer.
3. Tap **Next** to begin scanning.
4. A list of eligible printers is displayed.

### Printer Selection

Use this function to select a default printer from a displayed list of allowed printers available on the connected WiFi network.



**NOTE:** The analyzer must be successfully communicating with a WiFi network before a printer can be detected and selected.

## Email Settings (Admin Only)

Use the Email Settings function to establish Email Accounts for outgoing email and outgoing email settings.

### Email Accounts

Displays all created email accounts. Accounts can also be added, edited, and deleted. Entered email accounts are added to the email address book. Frequently used email addresses can be selected from the displayed address list rather than being re-typed each time.

### Email Settings

Enter and edit the email settings for sending outgoing email. Includes Host, Post, Login, Password, SMTP Authorization, TLS Enablement, sending email address. Use the displayed keypad on the Tablet Controller to enter and edit the port settings.

### User

Create a Username and Password for each individual analyzer technician.

## Language & Input

Use the Language & Input function to select the default system language used by the tool. User defaults also include Test Results, Email, and Print languages.

### Language & Input Settings

Select the default language for the analyzer to use for all tests and results displayed on the Tablet Controller.

- English (US)
- French (Canada)
- Spanish (Mexico)

### User Defaults

Select the default language for all Test Result, Email, and Print results.

#### Test Result Language

- Prompt user
- English (US)
- French (Canada)
- Spanish (Mexico)

#### Email Language

- Prompt user
- English (US)
- French (Canada)
- Spanish (Mexico)

#### Print Language

- Prompt user
- English (US)
- French (Canada)
- Spanish (Mexico)

## Display

Adjust the Tablet Controller display including the Brightness, Sleep Time, and Dim Time. Auto Brightness can also be turned on and off.

### Brightness

Adjust the display Brightness by tapping and holding the slider, then moving it right or left to make the screen brighter or darker.



### Auto Brightness

Enable and disable Auto Brightness by tapping on the check box.

Auto Brightness

### Sleep Time

Adjust the amount of elapsed time before the Tablet Controller goes into a power saving (Sleep) mode. The default is 5 minutes.

- 2 minutes
- 3 minutes
- 4 minutes
- 5 minutes

### Dim Time

Adjust the amount of elapsed time before the Tablet Controller goes into a power saving (Dim) mode. The default is 1 minute.

- 30 seconds
- 1 minute

### Sounds

Enable and adjust the System Volume, touch screen sounds, and notification sounds. The Notification Sound can also be changed.

### System Volume

Adjust the System Volume by tapping and holding the slider, then slide it left or right to make the screen brighter or darker.

Low  High

### Touch Sounds Enabled

Enable and disable screen Touch Sounds by tapping on the check box.

Touch Sounds Enabled

### Notification Sounds Enabled

Enable and disable Notification Sounds by tapping on the check box.

Notification Sounds Enabled

### Notification Sounds

Select a default Notification Sound.

- Pixie Dust
- Bells
- Chime

### BMIS Login (Admin Only)

Enter and edit BMIS Login and Password information. Log into a BMIS account.

Login

Password

### Shop Information (Admin Only)

Use the onscreen keypad to enter the store name, address, and phone number.

Store Name

Street Address

Street Address 2

City

State

Zipcode

Phone #

### Shop Preferences (Admin Only)

Set time, date, and battery test parameter defaults.

#### Select Time Format

- 12 Hour
- 24 Hour

#### Select Date Format

- 06/19/2014
- 19/06/2014
- 2014/06/19

#### Select Time Zone

- Multiple Time Zones

#### Set Date

**Set Date**

Jun 18 2015

#### Set Time

**Set Time**

8 52 AM

#### Default Battery Rating

- CCA

#### Temperature Units

- °F
- °C

#### Decimal Separator

- 00.00
- 00,00

## User Management (Admin Only)

Set user type (Admin or Standard), reset registered user passwords or delete registered users.

## Accessories

This function displays the connected and linked accessory devices. Additional devices and CVG-2 modules can also be detected and linked to the analyzer.

### Link Diagnostic Device

5. Tap on the Link Diagnostic Device button.
6. Move the diagnostic device to be linked within 30 feet of the Tablet Controller, turn on the device, then tap **Next**
7. A list of detected devices is displayed. Tap on the button next to the desired device to select it and then tap **Next**.

If the desired device is not displayed in the list, tap **Retry Scan** to search for the device again.



**NOTE:** A passkey number is automatically generated once the Bluetooth pairing has been established.

8. A confirmation message is displayed when the device has been successfully linked. Tap **Done** to return to the Accessories screen.
9. To unlink the device, tap **Unlink**.

### Link CVG-2 Device

1. Tap on the Link CVG-2 Device button.
2. Plug the CVG-2 into the OBDII port of any vehicle.
3. With the Tablet Controller located within 30 feet of the vehicle, start the engine when prompted, then tap **Next**
4. A list of detected devices is displayed. Tap on the button next to the desired device to select it and then tap **Next**.

If the desired device is not displayed in the list, tap **Retry Scan** to search for the device again.



**NOTE:** A passkey number is automatically generated once the Bluetooth pairing has been established.

5. A confirmation message is displayed when the device has been successfully linked. Tap **Done** to return to the Accessories screen.

## About

Use About to display data about the WiFi connection as well as the DSS Controller, Diagnostic Device, and CVG-2 Device software version information.

### About Device

WiFi MAC Address	00;11:F6:A6:34:47
Configuration Version	192-410506-A00-0008
Data Version	192-480001-A00-0001
DSS Controller Version	192-4700001A-0007
Diagnostic Device Version	Unknow
CVG-2 Device Version	No Device Configured