CPX-900 Toyota/Lexus
Battery & Electrical Diagnostic Analyzer

Quick Reference Guide
November 2019
167-000925EN-A

Important - Before You Start

- The CPX-900 is intended for non-warranty battery testing. This tester does not produce a battery warranty code. Use the DSS-5000 Battery Diagnostic Service System or DCA-8000 Battery Diagnostic Tool when testing batteries under warranty.
- Before operating the analyzer, refer to Instruction Manual
- Always follow battery manufacturer instructions and BCI (Battery Council International) safety recommendations
- For additonal support go to toyotacpx900.midtronics.com

Connections And Data Ports

1. Display Screen
2. Cooling Vent
3. Arrow Keys & Power Button
4. Micro-USB Port
5. Thermal Printer
6. Temperature Sensor
7. VIN Barcode Scanner
8. Clamp Tabs
9. User-replacable AA batteries
10. User-replaceable test clamps

Conductance Profiling

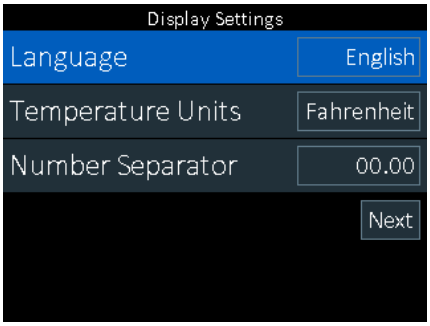
Conductance Profiling™ technology determines battery cranking capability and identifies batteries with poor Reserve Capacity. This additional battery analysis can take up to 60 seconds to complete.

IMPORTANT: Always begin each test by connecting the tester clamps to the battery being tested. The testing process begins as soon as the clamps are connected.

Initial Power Up

Display

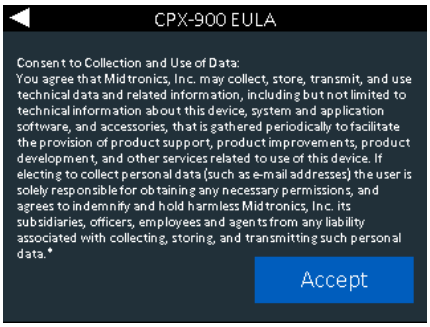
Tap **Next** to continue.



Language	Select the analyzer default standard language.
Temperature Units	Select the default temperature units (Fahrenheit/ Celsius) used when measuring battery temperature.
Number Separator	Select the default number display using commas or periods separators.

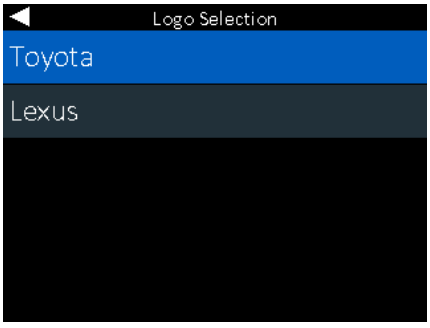
Data Collection Consent

Select **Accept** to Consent to Collection and Use of Test Data.



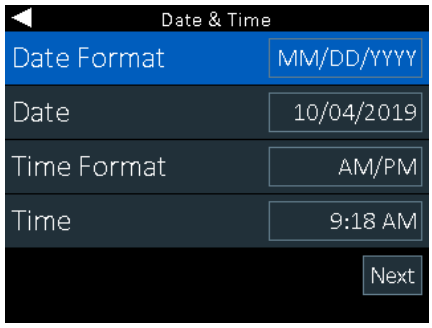
Logo Selection

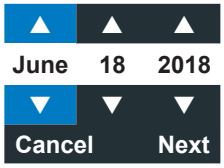
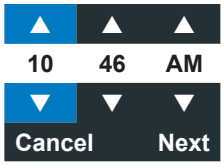
Select the correct brand logo: Toyota /Lexus.



Date & Time

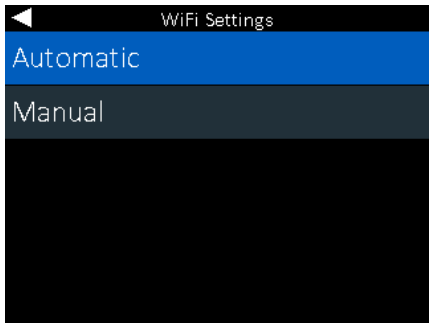
Use ◀ to return to the Display menu.



Date Format	Select Month/Day/Year (MM/DD/YYYY), or Day/ Month/Year DD/MM/YYYY.
Date	Use ▲ or ▼ to advance the month, day, and year. Use ◀ or ▶ to advance left or right and move to **Cancel** or **Next**. Select **Next** to save the date or **Cancel** to exit without saving. 
Time Format	Select 12 or 24 Hour Format.
Time	Use ▲ or ▼ to advance the hours, minutes, and AM/ PM setting. Use ◀ or ▶ to advance left or right and move to **Cancel** or **Next**. Select **Next** to save the time or **Cancel** to exit without saving. 

WiFi Settings

Set up the WiFi connection. See "Network" in Chapter 5: Setup.

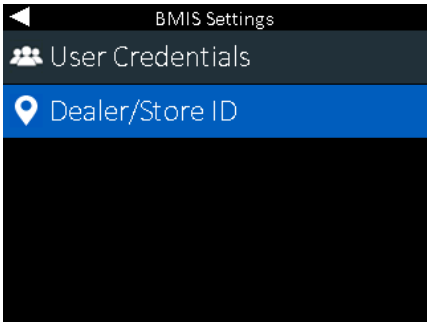


IMPORTANT: The CPX-900 will not connect to an enterprise network with a user login landing page.

Automatic	The tester searches for any detectable WiFi networks. Select a displayed network is then displayed on the tester screen.
Manual	Manually enter Security, SSID, Password, Encryption, and WEP Keys.

BMIS Settings

Enter the Midtronics-provided User Credentials, password, Client ID, and Location ID to access BMIS data management.



Use ▲▼◀▶ to highlight the numbers on the displayed keyboard and press ■ to select.

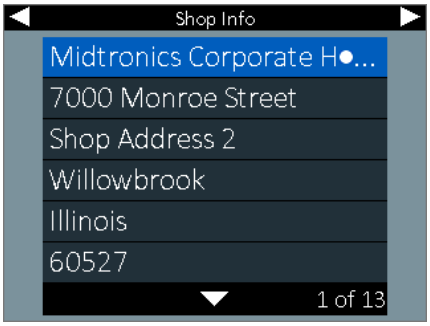
NOTE: If WiFi was not configured in the previous step, the BMIS setup screen is not displayed.

IMPORTANT: If no WiFi connnection has been made, follow the procedure described in the WiFi section of Chapter 5: Settings in the User Manual.

User Credentials	toyota@cpx900.com
Password	ToyotaMdx1!
Dealer / Store ID	

Shop Settings

Confirm the displayed shop information is correct. If the shop information is incorrect, the the wrong dealer code may have been entered in the previous step.

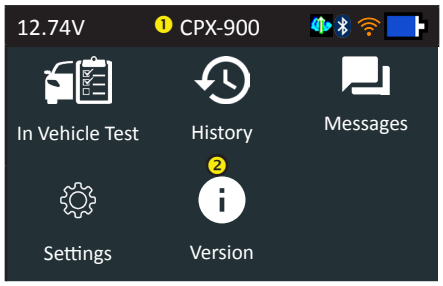


Shop Name	Country
Shop Address	Phone Number
Shop Address 2	Email Address
City	Website
State	(Blank)
Zipcode	(Blank)
Country	

With the displayed alphanumeric keypad, use ▲▼◀▶ to highlight the desired alphanumeric character. Select ↑ to access the lower case and symbol character maps.

Once all of the alphanumeric characters have been entered, select **Save** or **Esc** to exit without saving.

Main Menu



① Menu Bar

12.74V	Battery Voltage: (if connected)		WiFi Signal Strength: Orange when not connected.
	Bluetooth Status: Displayed when connected		Controller Internal Battery Status: Blue indicates amount of charge.
	BMIS Connectivity "X" indicates no connection		

② Main Menu Selection Area

When displayed, the Screen Arrows show which **ARROW** key on the keypad to press to display other icons, screens, or item in a list.

Additional Screens

The dots at the bottom or side of a menu or results screen indicate additional screens are available.

Screen 1
Screen 2
Screen 3

Press ◀ or ▶

Screen 1
Screen 2

Press ▲ or ▼

Test Preparation

Before starting the test visually inspect the battery for:

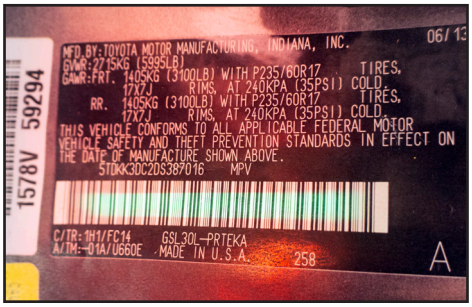
- Cracked, buckled, or leaking case.
- Corroded, loose, or damaged cables and connections.
- Corrosion, dirt, or acid on the battery terminals or case top.
- Corroded or loose battery tray and hold-down fixture.

⚠ DANGER	⚠ WARNING
Risk of explosive gases Batteries generate explosive gases during normal operation, and when discharged or charged. Follow all manufacturers' instructions and BCI (Battery Council International) safety recommendations.	**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.

In Vehicle Battery Test

1. ***Connect*** - Tester clamps to battery terminals.
2. ***Select*** - At the Main Menu select In Vehicle Test.
3. ***Temperature*** - Hold sensor 6 to 12 inches over battery & select **Capture**.
4. ***VIN Capture*** - Scan VIN bar code, usually located in the right corner of the vehicle's front windshield or on the driver's side door frame.

IMPORTANT: To capture the VIN, position the tool so the projected green line scans the entire width of the barcode.



Manual Entry: Use the on-screen keypad to manually type the 17-digit VIN and tap **Next**.

5. ***Battery Test Setup*** - Edit vehicle and battery information based on the VIN & select **Start**.

Application	Automotive
Battery Post	Top Post
Battery Type	Flooded, EFB, AGM Spiral, AGM, Gel
Battery Units	CCA, MCA, CA, DIN, SAE, EN, EN2
Battery Rating	Hold ▲ or ▼ to increase scrolling speed.

Battery Test Results

Send test results via email.	Return to Main Menu
Print test results	

Icons are color-coded to indicate status.

Battery Test

Green:	All test parameters were completed and have passed.	**Red:**	The battery has failed the test.
Yellow:	Some test parameters may require further testing.	**Gray:**	Insufficent data to perform the test.

Refer to Appendix B: Decision Tables in the User Manual for a complete explaination of all possible test results.

Replacement Parts

Part No.	Description
A401	CPX-900 Paper Roll (10 pk)
A683	CPX-900 10' Cable / Clamp
A684	CPX-900 4' Cable / Clamp
CPX-901	CPX-900 Dock-for overnight updates

Frequently Asked Questions

Powering the CPX-900

Q: What does CPX-900 use for power?
A: CPX-900 has 6 internal AA batteries, accessible through a battery door on the back of the tool. The CPX-900 draws power from the battery under test (unless voltage is too low) when connected.

CPX-901 (Dock)

Q: Does the dock (CPX-901) recharge the AA batteries?
A: No. The AA batteries used in CPX-900 are not rechargeable. The dock only provides power to the CPX-900 for overnight updates.

Q: Does the CPX-901 (dock) come with the CPX-900?
A: Yes, for Toyota units, the dock is an accessory which is included. It can also be purchased as a spare in case it is lost.

Q: How is the CPX-901 (dock) used?
A: The dock provides two functions: 1) power to the unit for receiving overnight updates and transmitting data; and 2) a storage "home".

VIN Scan Options

Q: Where should I scan the VIN from?
A: Scanning the door VIN plate is the best option.

Cables

Q: How long are the cables that come with CPX-900?
A: Standard cables that come on the tool are 4-feet. Optional 3-meter cables (~9.8feet) are also available as spare or replacement parts.

Q: Are cables field replaceable?
A: Yes.

Printer

Q: Is the printer used in CPX-900 shared with other Midtronics products?
A: Yes, the same printer is used on the DSS-5000 platform and is available through the Toyota SST website.

Q: What are the specs for the printer paper?
A: The paper is a 2-¼" wide by 1-⅞" diameter thermal printer paper.

Conductance Profiling™

Q: What is Conductance Profiling™
A: Conductance Profiling is a battery test to analyze the battery's reserve capacity capability, and is a part of the standard test procedure

Q: When does the Conductance Profiling™ test not run
A: The CPX-900 functions the same as DSS-5000. When the following conditions exist, a test will not be performed:

1. Voltage of battery under test is ~< 8.5V
2. Excessive system noise
3. Battery fails to meet minimum industry standards

MIDTRONICS www.midtronics.com

Corporate Headquarters
Willowbrook, IL USA
Phone: 1.630.323.2800
Canadian Inquiries
Toll Free: +1 1 866 592 8052

Midtronics b.v.
European Headquarters
Houten, The Netherlands
Serving Europe, Africa, the Middle East, and The Netherlands
Phone: +31 306 868 150

Midtronics China
China Operations
Shenzhen, China
Phone: +86 755 2374 1010

Midtronics India
Navi Mumbai, India
Phone: +91 22 2756 4103/1513
Asia/Pacific (excluding China)
Contact Corporate Headquarters
Phone: +1.630.323.2800