



Kohler Mobile Diagnostic System for iOS

User's Guide

SAFETY INFORMATION

Read all safety information. Failure to follow all precautions could result in severe injury or death.

- Use the Kohler Mobile Diagnostic System as a diagnostic tool, not a replacement for a vehicle's instrument cluster. Attaching the device to a vehicle for diagnostic purposes is not recommended. Mount the device at your own risk.
- Do not allow the module, cable, or device to come near or in contact with any ignition system components.
- Run the engine outside or in a well-ventilated area; never run an engine in an enclosed space. Carbon monoxide is an odorless, colorless gas which is extremely poisonous and can cause severe injury or death.
- Place the device securely so it is clear of moving parts and does not obstruct vehicle operation or controls.
- Do not place a device mount on a vehicle where it will become a distraction to the driver.
- Use sound judgment at all times and operate the vehicle in a safe manner.
- Pull over and stop driving the vehicle when changing settings or making device selections and inputs.
- Always stay clear of moving parts on a running engine. Do not wear loose clothing that can be caught in rotating parts.
- Always wear approved safety glasses.
- Exercise extreme caution when working around acid-filled wet cell batteries.

HARDWARE REQUIREMENTS

The Kohler Diagnostic app has been developed to run on smart phones and tablets using the iOS™ operating system. Communications with Kohler EFI engines is accomplished using the Wireless Interface Module, featuring Bluetooth® wireless technology.

To install and run the app at least iOS 8.0 is required. Some application features require the device to be connected to the internet.

WIRELESS INTERFACE MODULE (WIM)

The Wireless Interface Module is equipped with an LED status light. The LED illuminates in 3 modes:

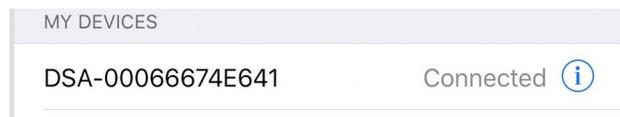
- Rapid Blinking – The module is performing self-check. Note that the engine must be on by turning the ignition key to the RUN position.
- Slow Blinking – The module has turned on its radio transmitter/receiver and is waiting to connect to the smart phone or tablet.
- On Steady – The module has established communications with the smart phone or tablet.

CONNECT TO THE VEHICLE

The engine end of the Communications Interface Cable has a 4-pin connector which is either connected to the diagnostic connector, or the cable adapter (used for some engines). The location of the connector is different on each engine. Consult the appropriate service manual in order to determine where to connect the cable. Connect the interface cable to the Wireless Interface Module after making sure that the connector terminals are not damaged or bent. Refer to the SAFETY INFORMATION section for important safety information related to the interface cable.

CONNECTING TO THE WIRELESS INTERFACE MODULE

Pair the Wireless Interface Module in Settings → Bluetooth on your device.



NOTES:

- Only one Wireless Interface Module can be paired at one time.
- When a Wireless Interface Module is paired to a device, it will no longer be seen by other devices.
- IMPORTANT – The first time the app uses the Wireless Interface Module, it may update the firmware on the device. This process can take a few minutes and connectivity may appear intermittent. Allow the process to complete before disconnecting the device or stopping the app.

WIM TROUBLESHOOTING

PROBLEM	RESOLUTION
The LED does not blink.	<ul style="list-style-type: none"> • Verify battery voltage at the diagnostic connector. • Turn the ignition key to ON or RUN position.
The LED always slow blinks – device will not connect.	<ul style="list-style-type: none"> • Verify the device Bluetooth radio is turned ON. • Pair the device with the Wireless Interface Module.
The device will not connect to the Wireless Interface Module.	<ul style="list-style-type: none"> • Verify the WIM LED is blinking. • Verify another device is not already linked to the WIM. • Verify the device Bluetooth radio is turned ON.
The device drops link with Wireless Interface Module.	<ul style="list-style-type: none"> • Move the device closer to Wireless Interface Module. • Remove obstructions between the device and Wireless Interface Module. • Verify the vehicle battery voltage is 12.8 VDC or higher.
The screen background turns red while connected.	<ul style="list-style-type: none"> • The connection timed out and will continue to retry. The screen will return to normal when the connection is re-established.

REGISTRATION

If you have a License Serial Number as supplied with your bluetooth adapter or cable kit, enter it on the Dealer Information screen, along with your Warranty ID Number, email, and other contact information. This is required to enable ETB engine support. Then tap Continue. If you don't have a License Serial Number, hit back. Other engines will still be accessible.

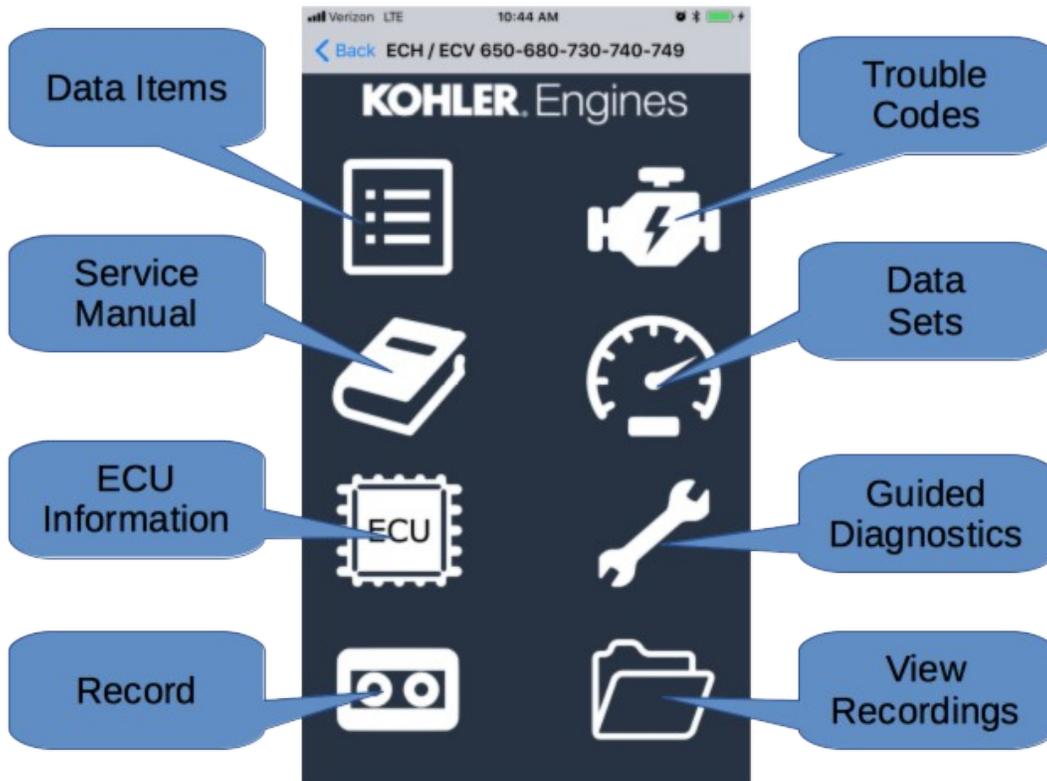
The screenshot shows a mobile application interface for dealer registration. At the top, the status bar displays the time 11:23, signal strength, Wi-Fi, and battery icons. Below the status bar is a navigation bar with a blue back arrow and the text '< Back Dealer Information'. The main content area has a dark background with white text instructions: 'Enter your License Serial number, dealer email, and Warranty ID Number here, along with other contact information, then press Continue and ETB engines will be enabled. If you don't have a License Serial number, press Back. To enable ETB engines at a later time, press the User icon on the engine selection screen to show this screen again.' Below the instructions are ten white input fields stacked vertically, labeled: License Serial Number, Kohler Warranty ID Number, Dealer Name, Dealer Email, Address 1, Address 2, City, State/Province, Country, and Zip/Postal Code. At the bottom of the form is a large white button labeled 'Continue'.

ENGINE SELECTION

Select the engine that's connected by scrolling left to right through the list, then tap Continue.



Once the engine is selected, the main menu is shown.



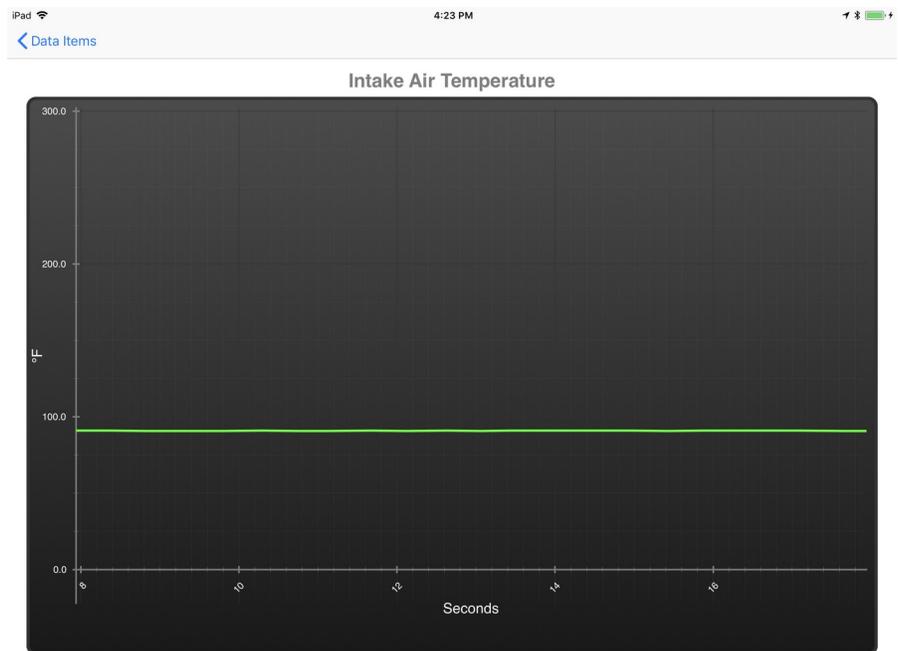
DATA ITEMS

Tap the Data Items icon on the main menu to show the data items screen. This screen lists all available data items. Tap an item to show a live plot.

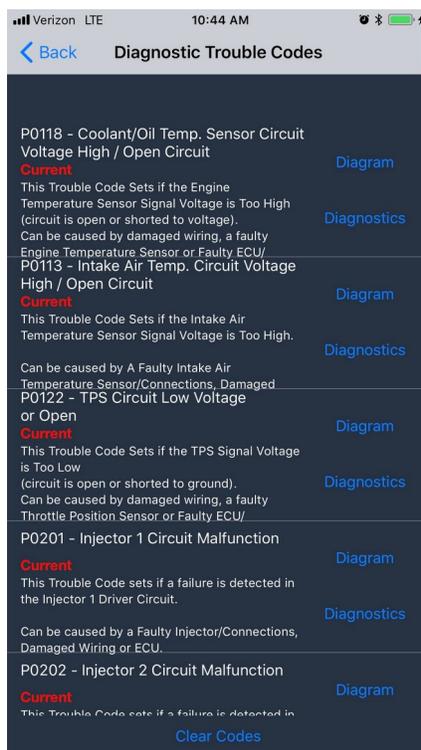


A screenshot of a mobile application interface showing a list of data items. The status bar at the top indicates Verizon LTE, 10:44 AM, and battery level. The title bar reads "ECH / ECV 650-680-730-740-749 Data Items". The list contains 15 items with their current values and units where applicable.

Data Item	Value	Unit
Acceleration Enric...	False	
Air Flow Correctio...	0.999	
Air-Fuel Ratio	5.34	
Battery Voltage	12.25	Volts
Max. Battery Volta...	12.2	Volts
Block Learn Mem....	33	
Barometric Pressu...	8.7	psi
Block Learn Mem....	0.334	
Closed Loop	False	
Current DTC	P0032	
Historic DTC	P0032	
Diagnostic Switch...	False	
Engine Run Time	0	Secs.
Engine Hours (Tot...	0	Hours
Engine Hours (Trip)	0	Hours

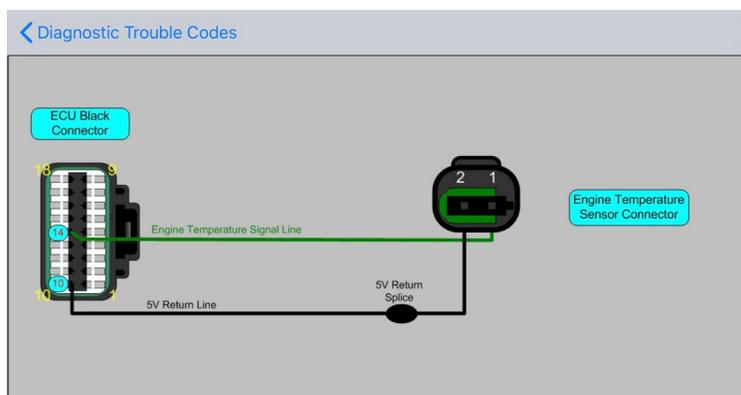


TROUBLE CODES



Tap the Trouble Codes icon on the Main Menu to see a list of current and historic trouble codes.

- Tap the Diagnostics button to start a Guided Diagnostics session. See the DIAGNOSTICS section of this document below.
- Tap the Diagram button to show a wiring diagram.
- Tap the Clear DTCs button to clear all trouble codes.



SERVICE MANUAL

Tap the Service Manual icon on the Main Menu to display the selected engine's service manual PDF file.

Verizon LTE 10:44 AM

< ECH / ECV 650-680-730-740-749

Section 5 Electronic Fuel Injection (EFI) System

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5.1

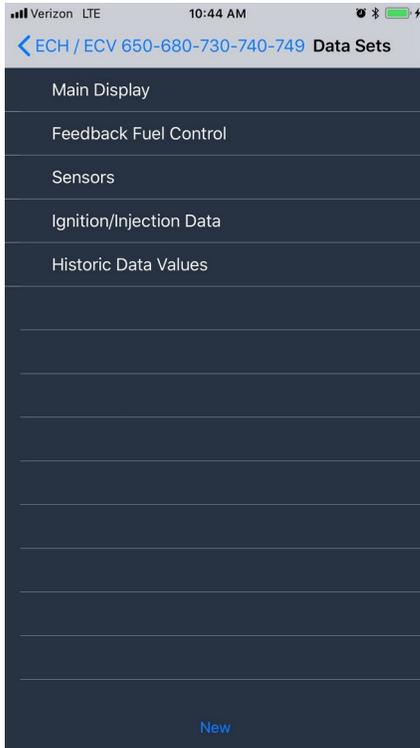
**Section 5
EFI Fuel System**

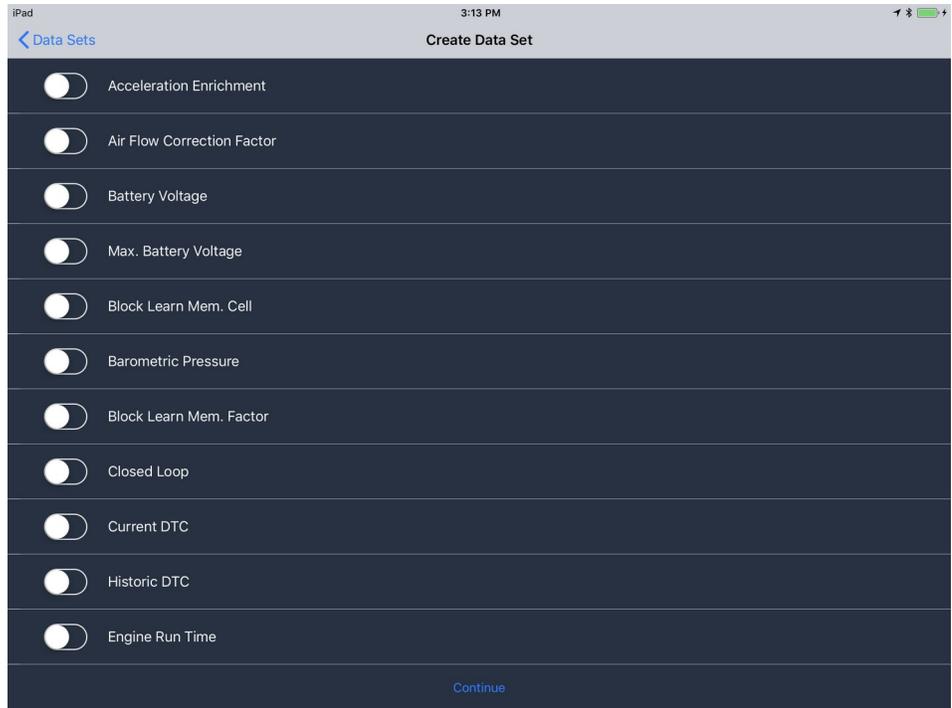
<p>Description</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center; font-weight: bold; font-size: small;">WARNING</p> <p style="font-size: x-small;">Explosive Fuel can cause fires and severe burns. Do not fill the fuel tank while the engine is hot or running.</p> </div> <p>Explosive Fuel! Gasoline is extremely flammable and its vapors can explode if ignited. Store gasoline only in approved containers, in full...</p>	<p>2. A completely dry system may require repeating step 1 several times. Wait a minimum of 10 seconds between key OFF and key ON.</p> <p>Fuel Recommendations</p> <p>General Recommendations Purchase gasoline in small quantities and store in clean, approved containers. An approved container with a capacity of 2 gallons or less with a pouring spout is recommended. Such a container is easier to...</p>
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DATA SETS

Tap the Data Sets icon on the main menu to display a list of data sets.

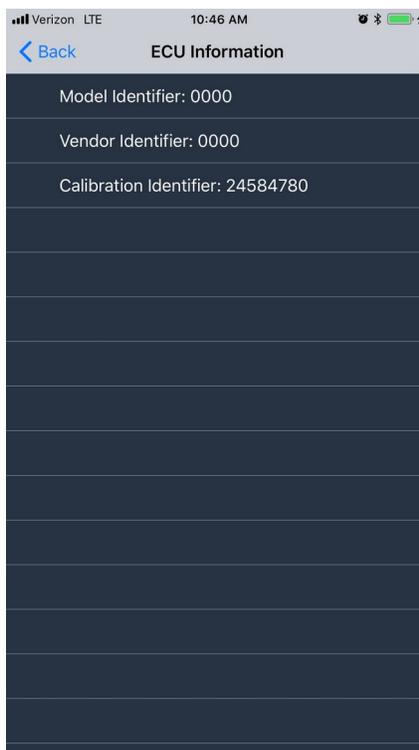
- Tap a data set to display live data as gauges.
- Tap New to select items to create a new custom data set.





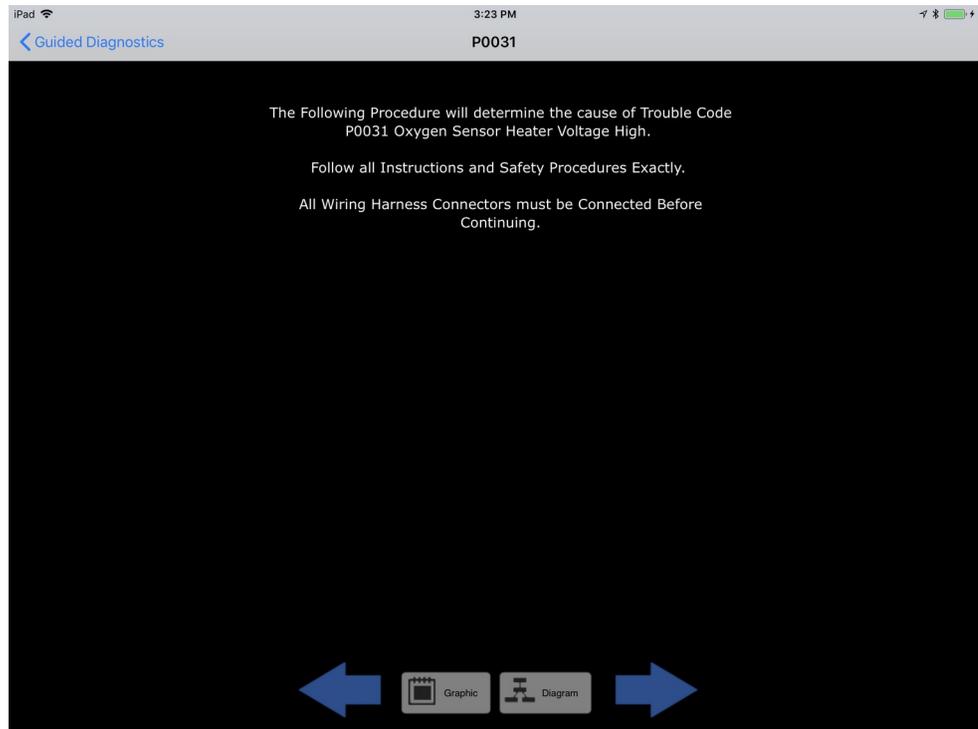
ENGINE CONTROLLER INFORMATION

Tap the ECU information icon on the Main Menu to display ECU information available for the selected engine controller.



GUIDED DIAGNOSTICS

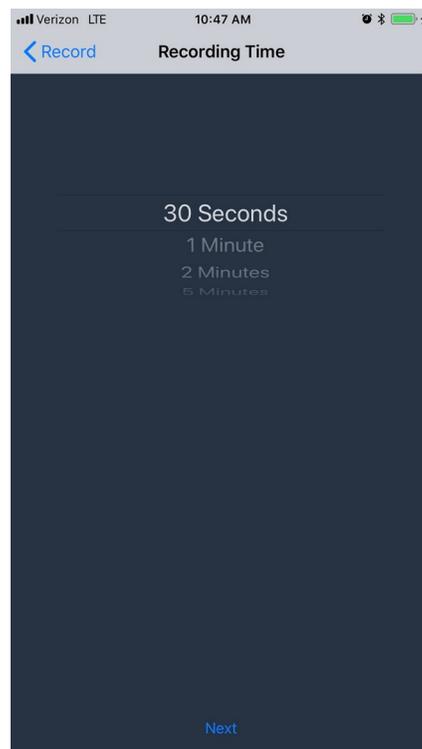
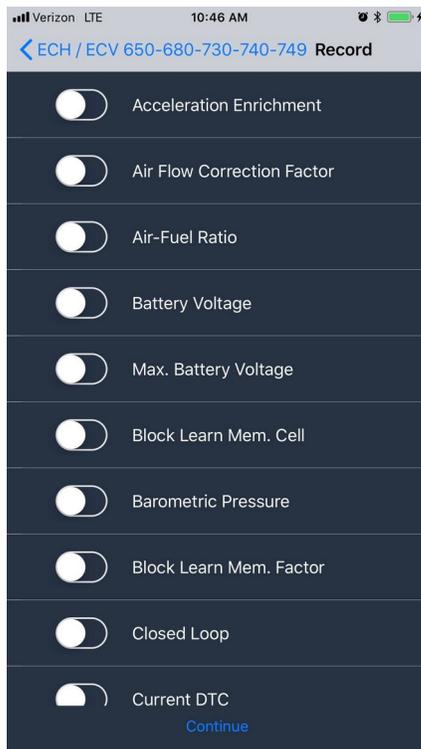
Tap the Guided Diagnostics icon on the Main Menu to list available guided diagnostics procedures. Tap a procedure to begin and follow the prompts. An internet connection is required.

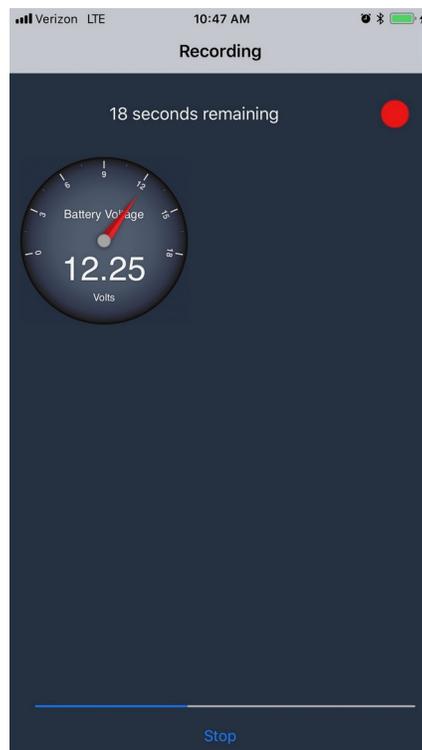
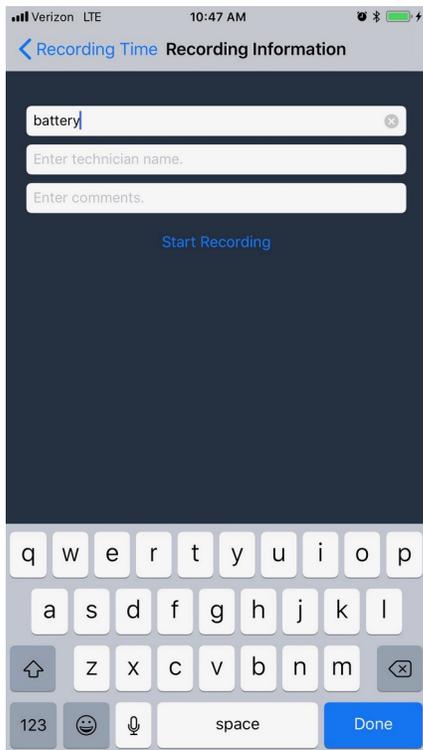


RECORD

Tap the Record icon on the Main Menu to select items to record.

- Select the desired data items to record and click Continue.
- Select the desired length of the recording and click Continue.
- Enter a name for the recording and any comments, and click Start Recording.
- Let the recording proceed for the selected period, or click the Stop button to finish recording immediately.

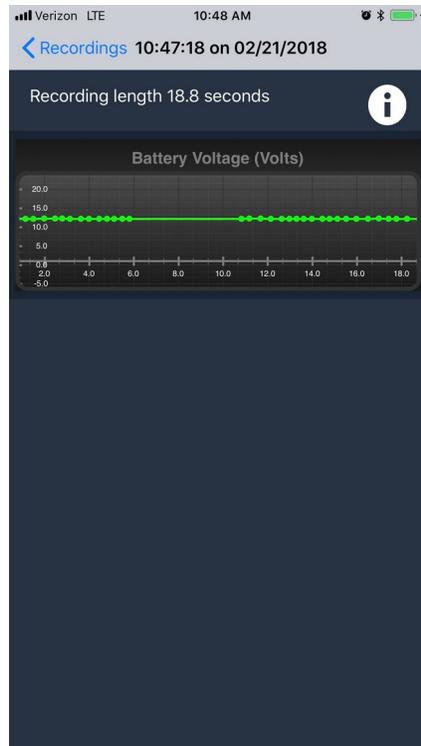




VIEW SAVED RECORDING

Tap the View Recordings icon on the Main Menu to select items to view.

- To view a recording, select it from the list.
- To show the saved information about a recording, click the “i” icon.
- To email the recorded data, swipe left on the list entry and tap Share.
- To delete the recording, swipe left on the list entry and tap Delete.



APP SETTINGS

To change the units displayed, tap the Settings icon in the lower right corner of the Engine Selection screen and select English or Metric.

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