



Kohler Mobile Diagnostic System

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 Android™ operating system. Communications with Kohler EFI engines is accomplished using the Wireless Interface Module, featuring Bluetooth® wireless technology.

To install and run the app, verify your smart phone or tablet meets the following minimum specifications:

Smart Phone / Tablet:

- Minimum operating system: Android 4.0
- Dual core processor / 2 GB internal memory / external microSD™ (32 or 64 GB) slot / 500 MB RAM
- Internet and Bluetooth wireless technology capable

HARDWARE NOTES / TROUBLESHOOTING

- The Kohler Diagnostic app is currently designed to work with Android-based tablets and smart phones that access the Google Play Store. It will not work on Amazon Kindle, Microsoft® Windows™ or Apple® iPad™ or iPhone™ products.
- The tablet / device must be equipped with Bluetooth wireless technology.
- Some application features require the device to be connected to the internet.
- Using devices classified as eReaders or notebooks is not recommended.
- Devices that do not meet minimum specifications may work, but may display vehicle data slower than desired.
- Verify all device software updates have been installed and are working.

NOTE: Technical questions involving the Android™ device, device operating system, and device software must be submitted to the device manufacture.

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.

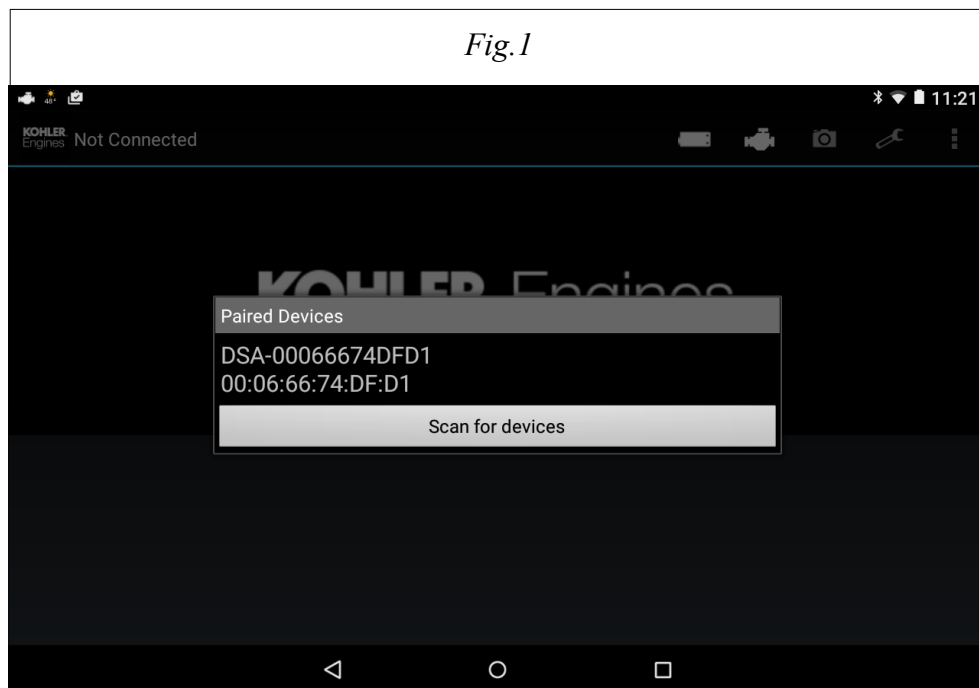
- On Steady – The module has established communications with the smart phone or tablet.

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

The first time the app is run, you will be prompted to select the Wireless Interface Module to connect to (see Fig. 1). If the WIM has not been paired, select Scan for devices. The WIM should appear with DSA in the device name. Once the WIM is visible, select it and pair if necessary. If prompted to enter a PIN, enter **1234**.



NOTES:

- Some users may see a prompt “Make sure it is showing this passkey”. Ignore this prompt and select “Pair”.
- Pairing is a function of the Android device, not KMDS. In some cases, users may be prompted to pair each time the application is started.
- Several Wireless Interface Modules can be paired to a device.
- While several Wireless Interface Modules can be paired to a device, only one can be linked to KMDS at one time.
- When a Wireless Interface Module is linked to the KMDS application, it will no longer be seen by other devices.
- To select between multiple Wireless Interface Modules, select “Connect a Device” located in the Settings/Preferences menu.

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. |

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.

11:41

KOHLER
Engines Engine Diagnostics

Enter the License Serial Number which was included with your bluetooth adapter or cable kit, complete the dealer contact information, and select Continue to register. Registration is required for ETB engine support. If you do not have a License Serial number, press Back. To enable ETB engines at a later time, select Registration in the menu to show this screen again.

Enter License Serial Number

License Serial Number

Enter Dealer Information

Warranty ID Number

Dealer Name

Dealer Email

Address

Address

City

State

Country

Zip/Postal Code

Dealer Phone

Continue

ENGINE SELECTION

Select the engine that's connected by clicking the engine symbol in the action bar at the top of the screen (see Fig. 2 and Fig. 3). Symbols in the action bar menu are shown based on how much space is available on the device's screen. If the symbol is not visible, click on the menu symbol at the far right, and click on "Select Engine".

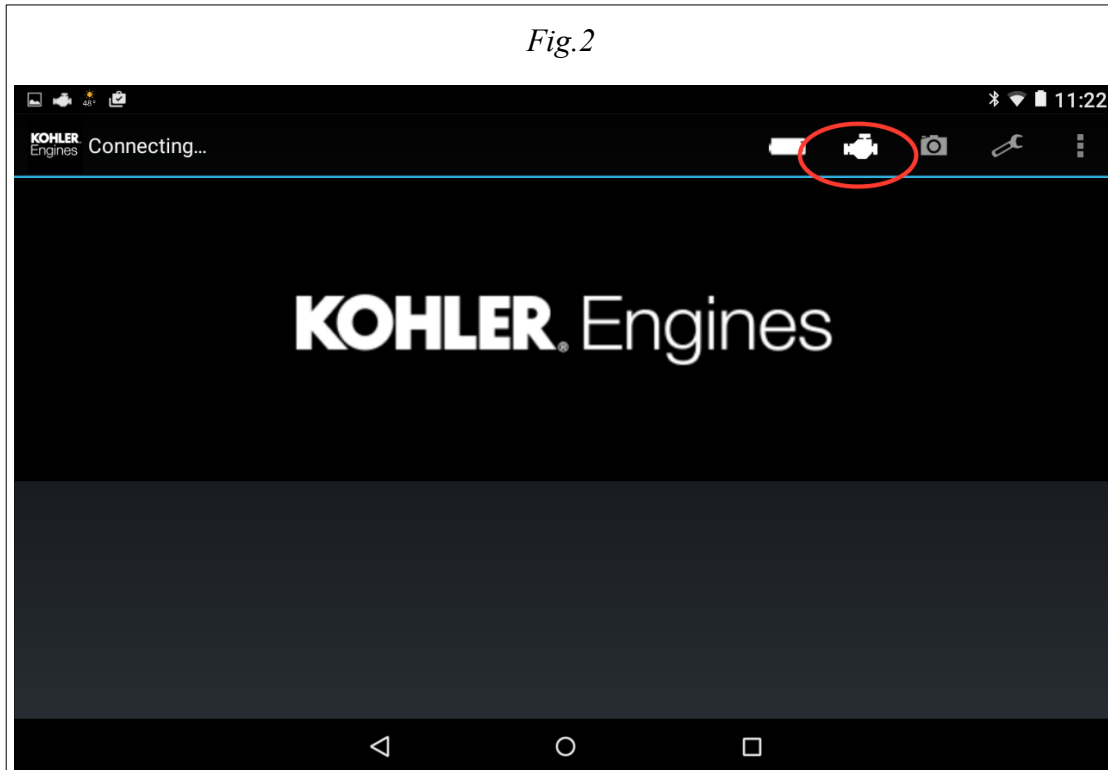
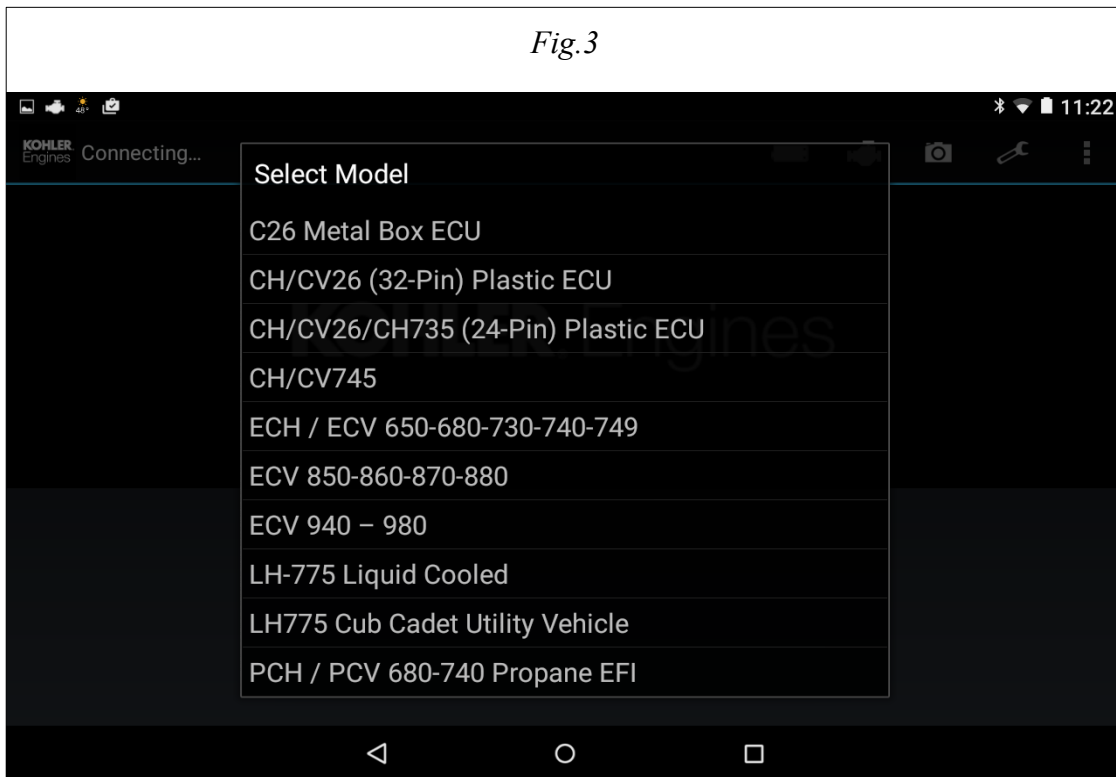
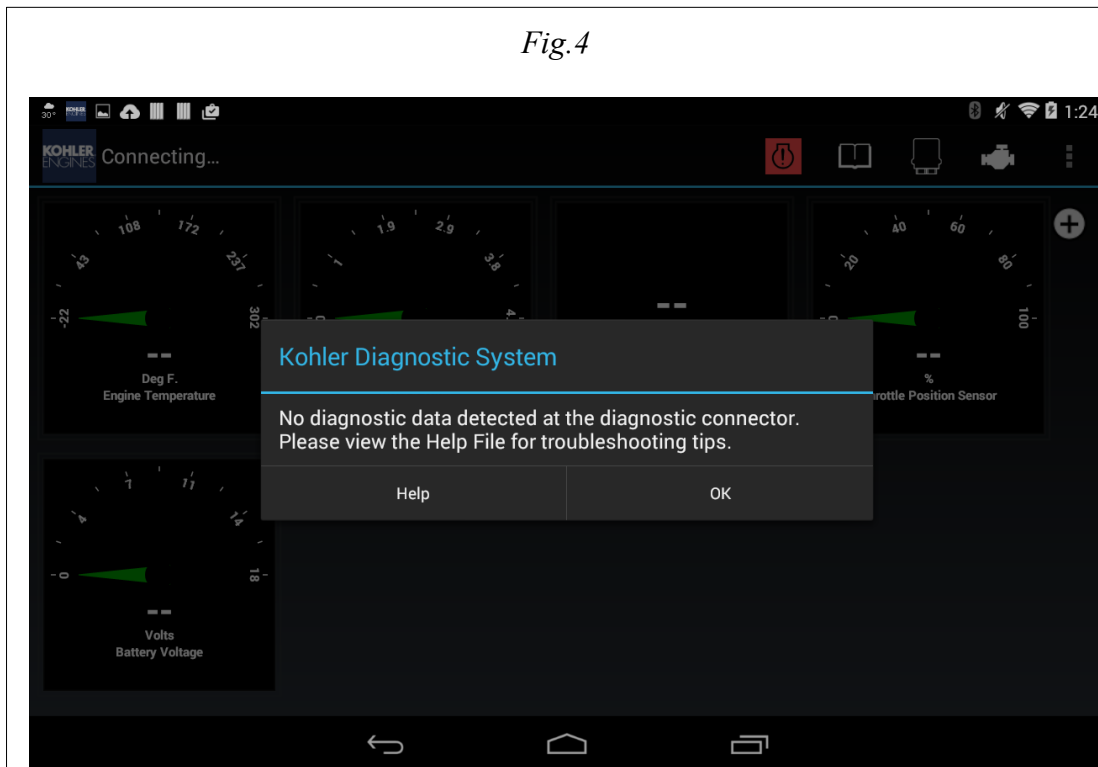


Fig.3



If no data from the engine is detected, the message in Fig. 4 will be displayed.

Fig.4



This typically means either:

- The engine controller is in a non-communicating state. Cycle the ignition OFF then back to ON/RUN to reset the engine controller. Once a connection has been established, “Connected” will display at the upper left of the screen and the gauges will display live data.
- or-
- The wrong engine was selected. Click OK, then the engine icon, and select the correct engine.

QUITTING THE APPLICATION

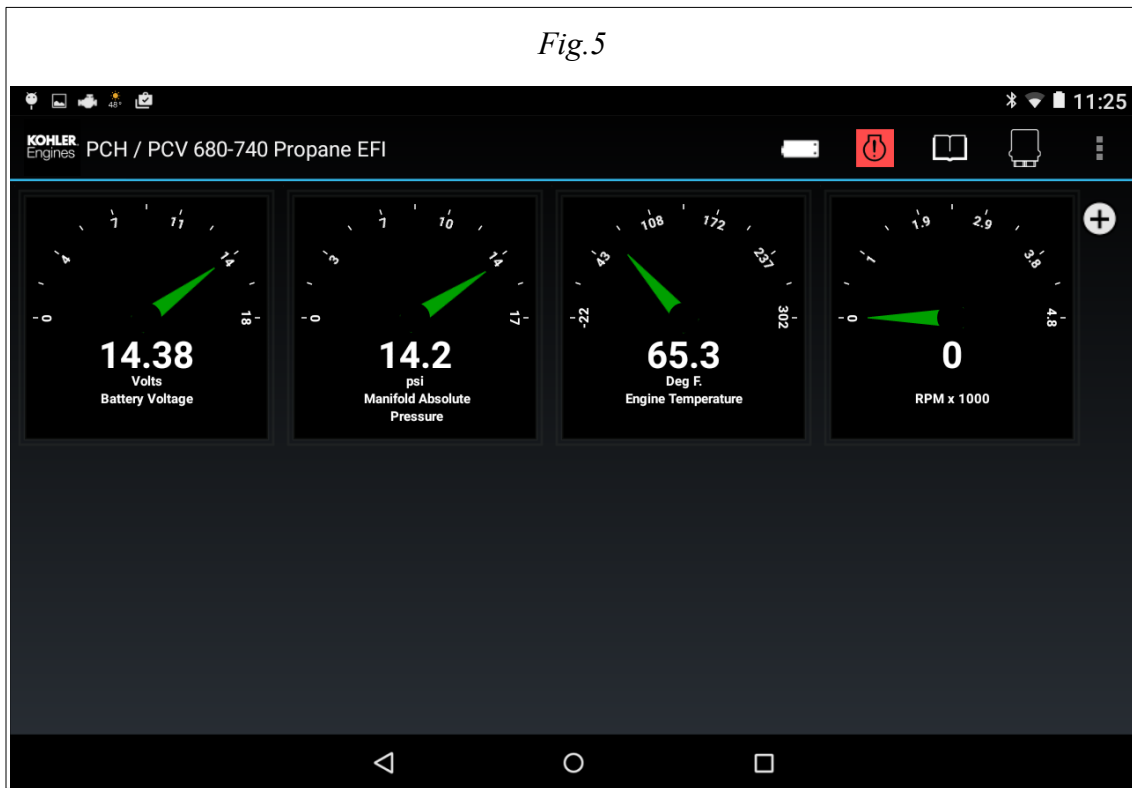
Always exit the app by selecting Quit from the action bar menu. If this is not done and the app is left running when not in use, it will significantly drain the device's battery.

GAUGE DISPLAY SCREEN

Once an engine has been selected, the gauge display screen is shown as in Fig. 5.

- Click on a gauge to change its display style, size, plot its value, remove it, or display a different data item.
- Click and hold to drag a gauge to another location.
- Click on the “+” icon to add a new gauge. It will initially display Battery Voltage.

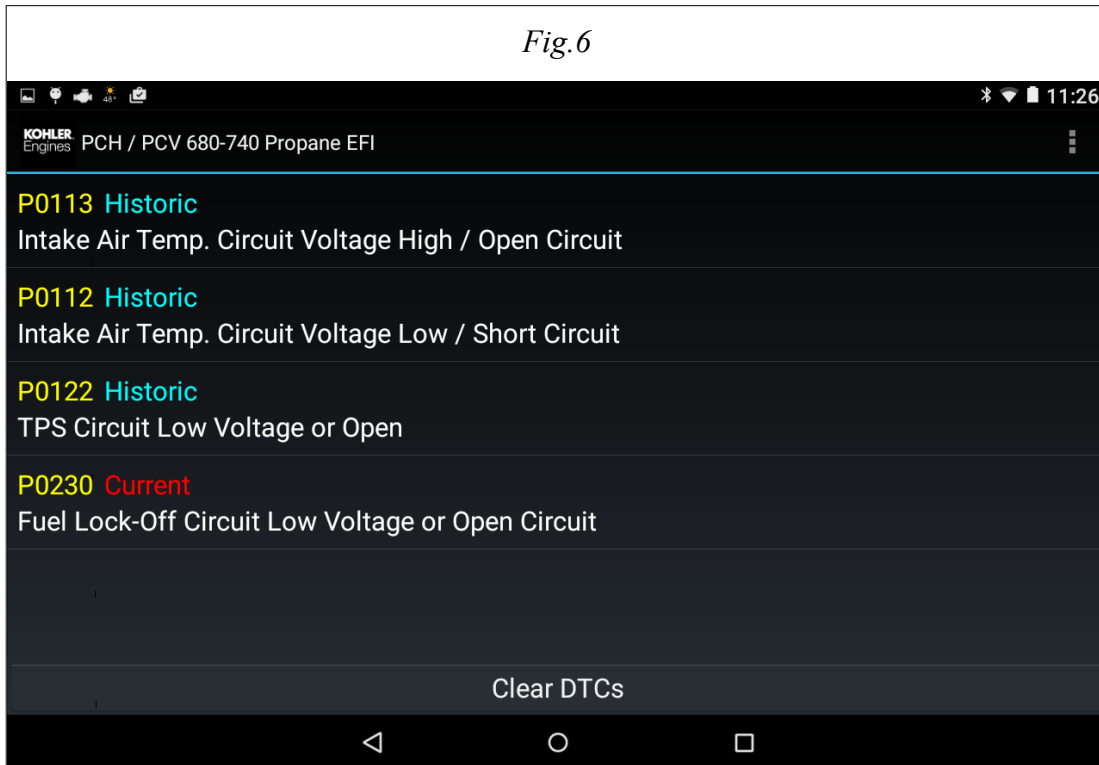
Icons will be shown in the action bar at the top right of the screen depending on what will fit on the device's display. Click on the right-most icon to display additional action items.



ACTION BAR MENU ITEMS

TROUBLE CODES

The Trouble Codes icon will be red if there are trouble codes set, as shown in Fig. 5. Click on it to go the trouble codes screen (see Fig. 6).



- Click on a trouble code listed to display a detailed description and show the Diagnostics and Diagram buttons.
- Click on the Diagnostics button to start a Guided Diagnostics session. See the DIAGNOSTICS section of this document below.
- Click on the Diagram button to show a wiring diagram.
- Click on the Clear DTCs button to clear all trouble codes.

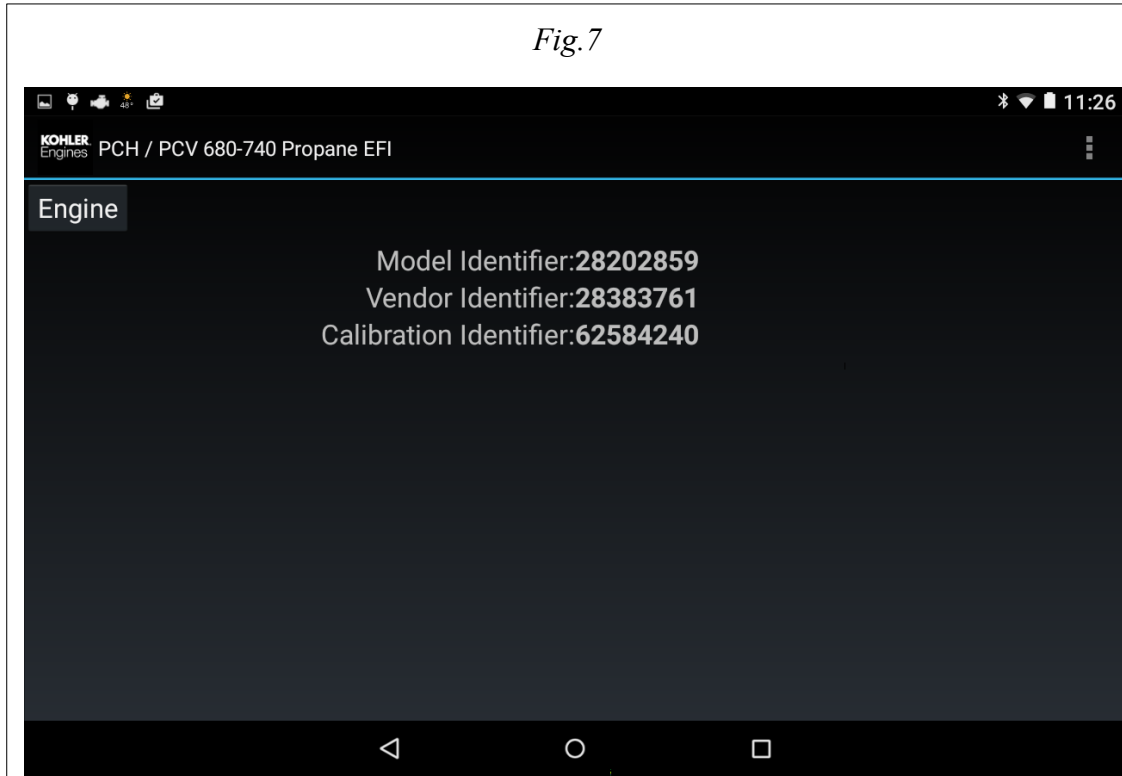
SERVICE MANUAL

Opens the selected engine's service manual PDF file.

NOTE: The application that opens the PDF file is dependent on the device, not KMDS. If the PDF is not handled, or handled improperly, it is recommended that the Google Drive application be installed.

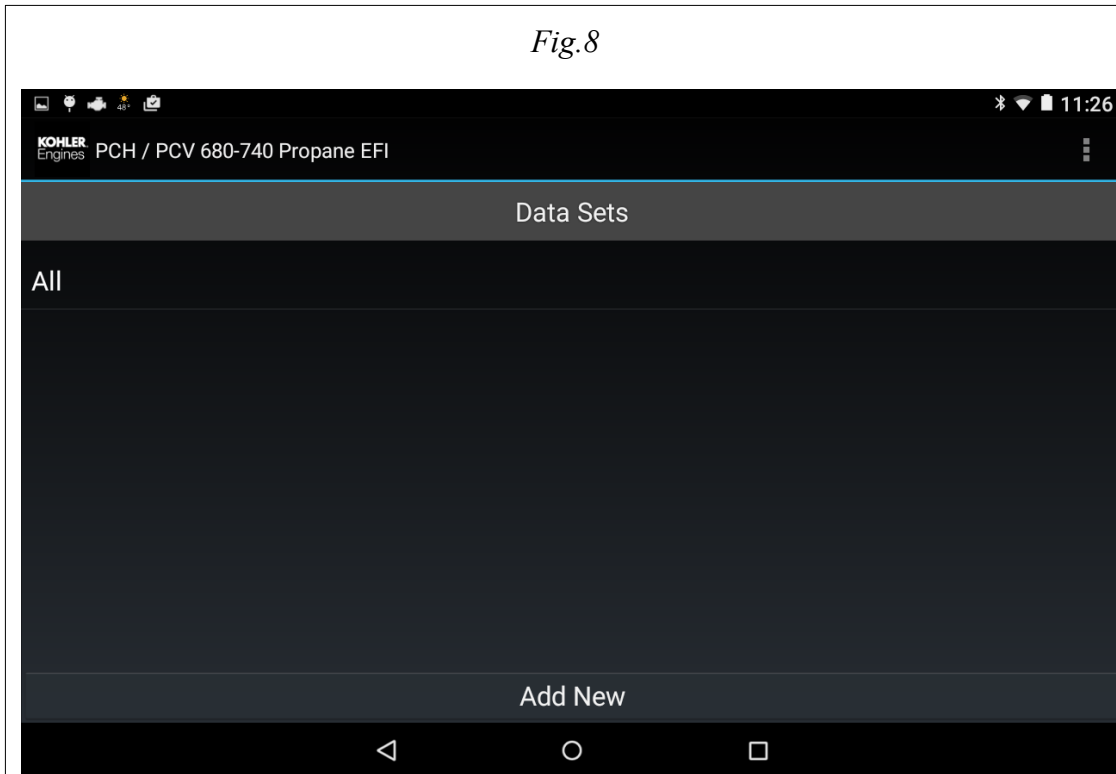
ENGINE CONTROLLER INFORMATION

Displays information available for the selected engine controller (see Fig. 7).



DATA LIST

Displays sets of data lists (see Fig. 8).



- Click on All to display all data items.
- Click on Add New to create a new set of data items, then select the items to display, and name the data set.
- Click on a data set item to display live data for those items (see Fig. 9).
- Click on a live data item to display a live plot of that item (see Fig. 10).
- Click on the live plot to pause/restart data collection.

Fig.9

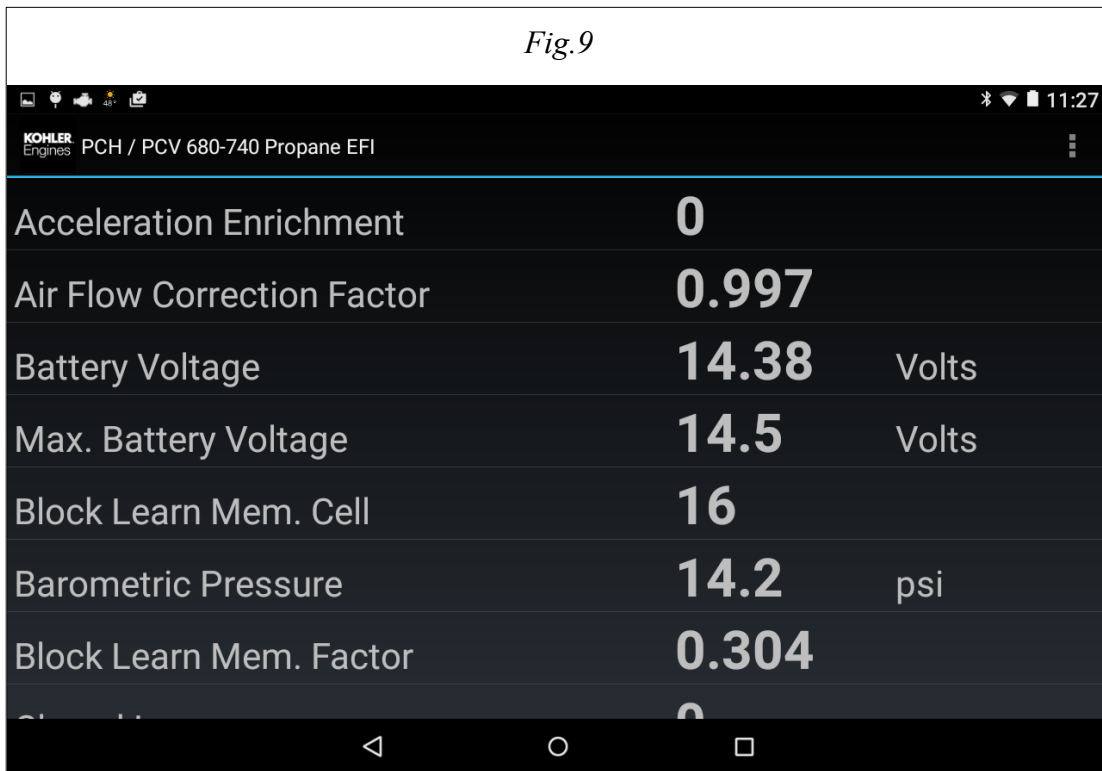
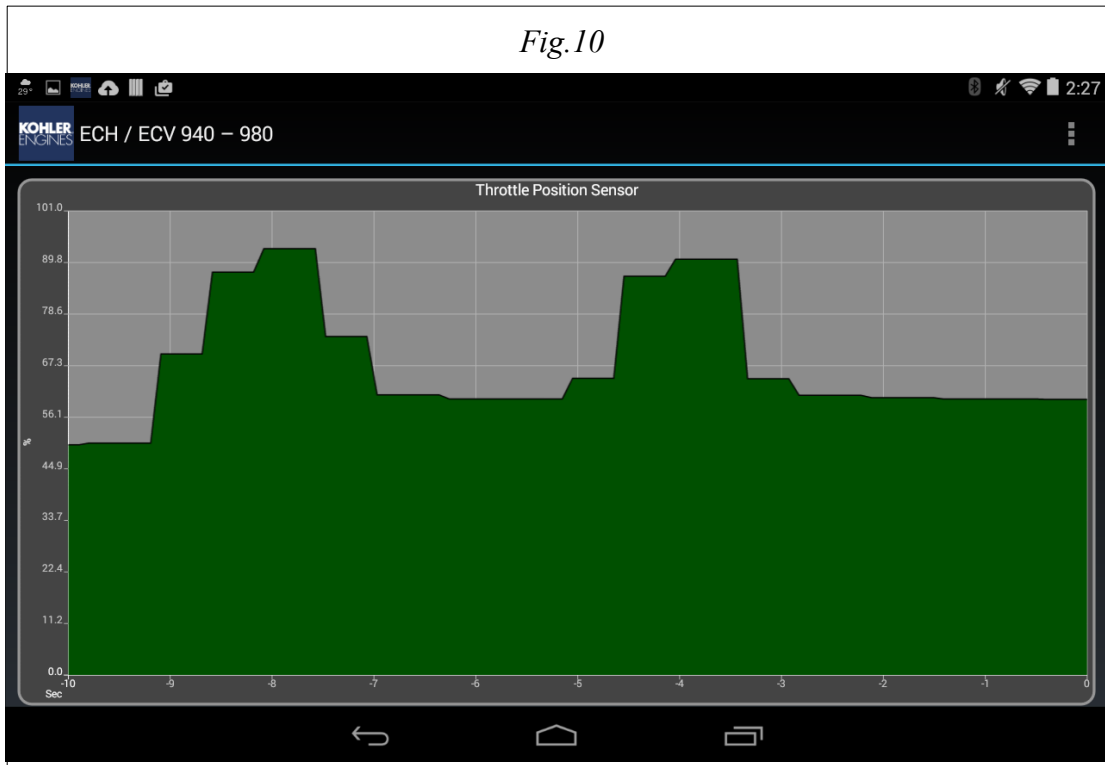
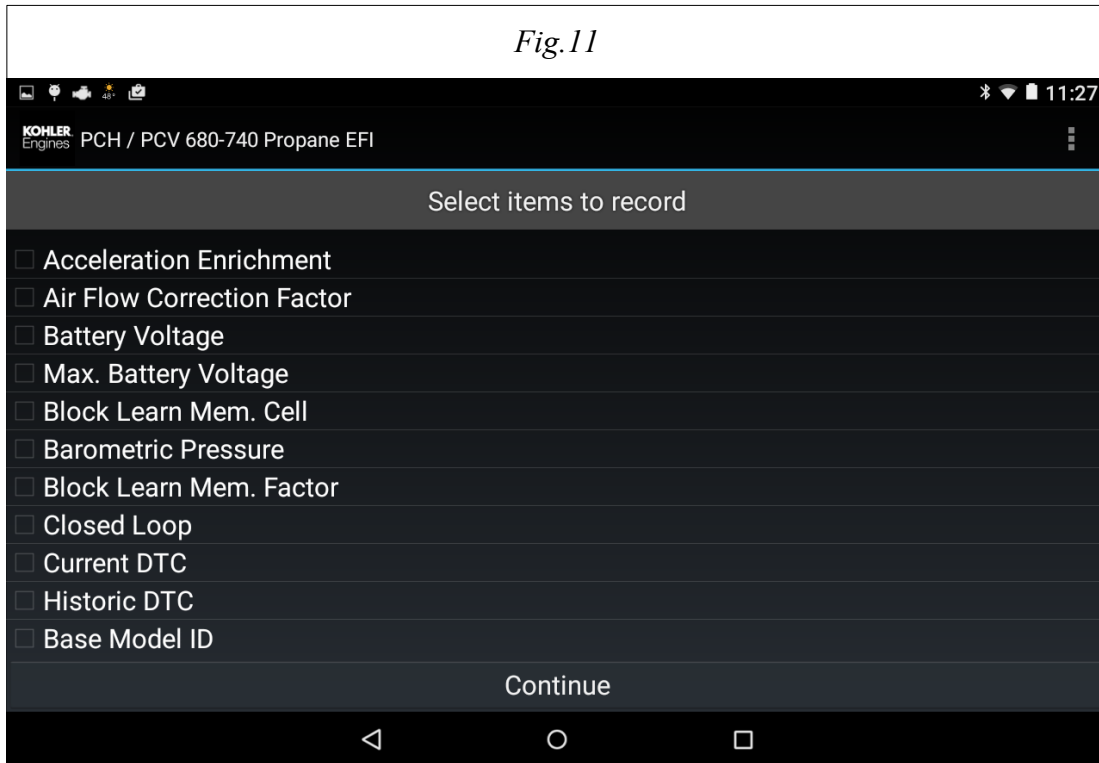


Fig.10



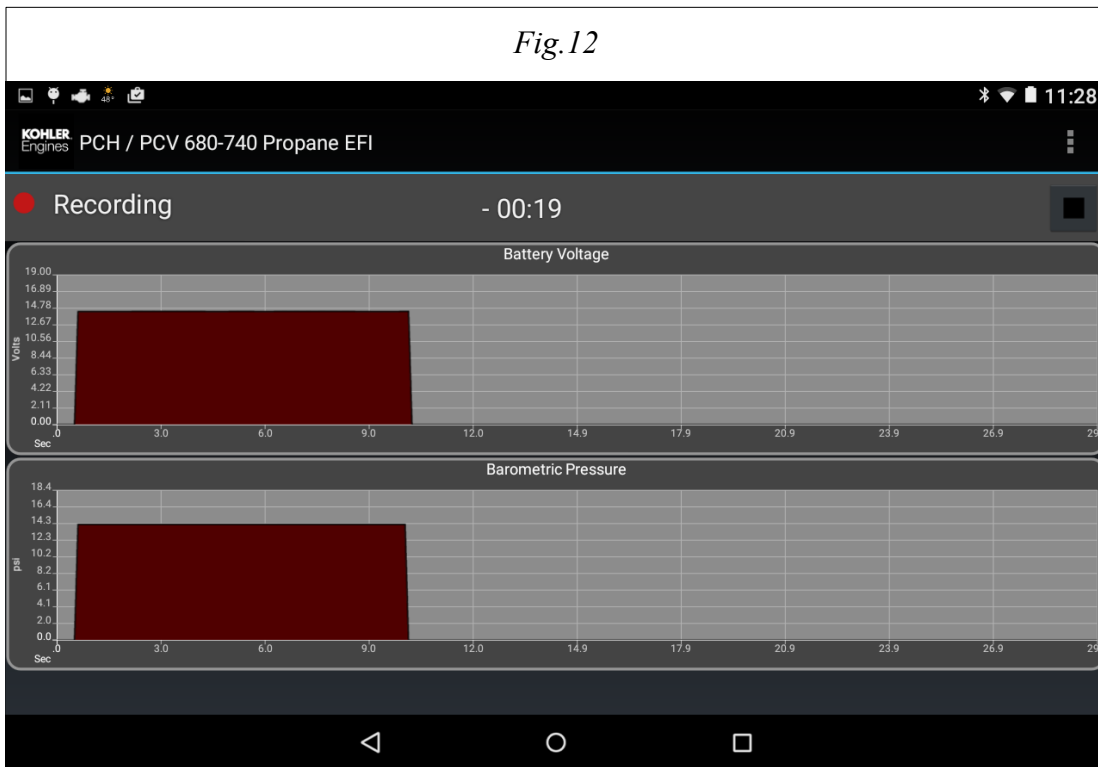
RECORD

Displays the record selection screen (see Fig. 11).



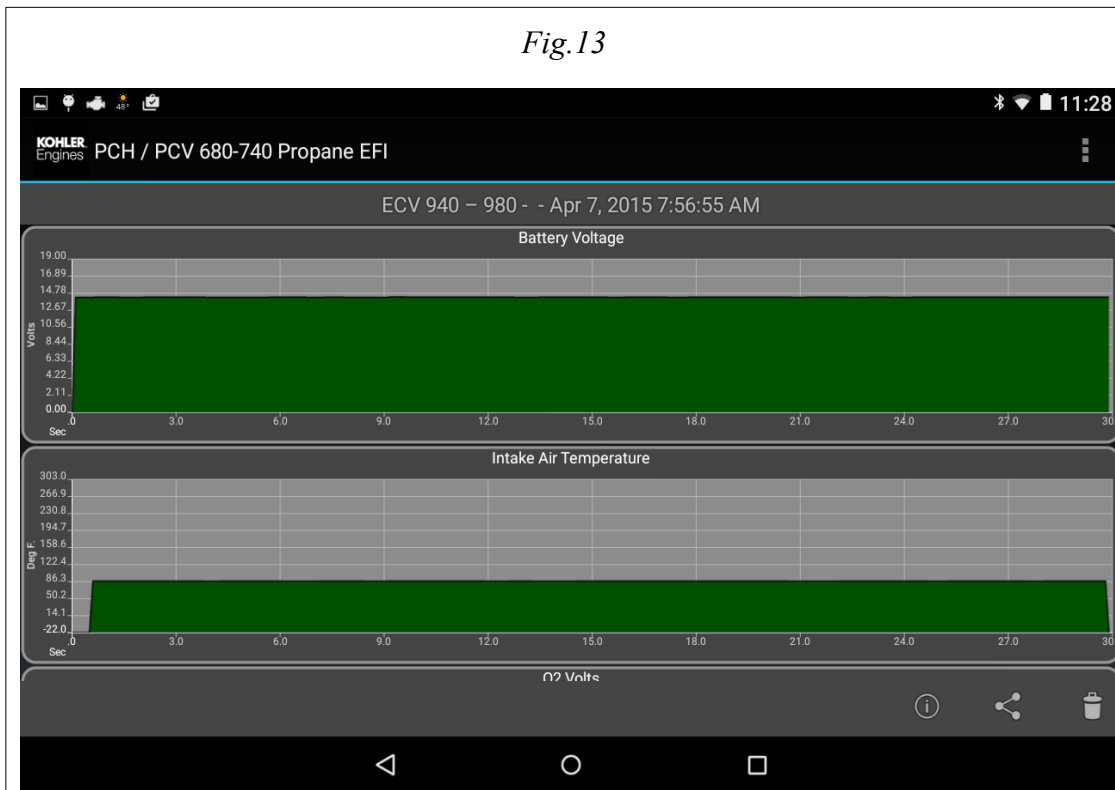
- Select the desired data items to record and click Continue.
- Select the desired length of the recording and click Continue.
- Enter a name for the recording and any comments, and click Start Recording.
- Let the recording proceed for the selected period, or click the Stop icon in the upper right corner to finish recording immediately (see Fig. 12).

Fig.12



- To view a recording, select it from the list (see Fig. 13).
- To show the saved information about a recording, click the “i” icon.
- To email the recorded data, click the “share” icon.
- To delete the recording, click the “trash” icon.

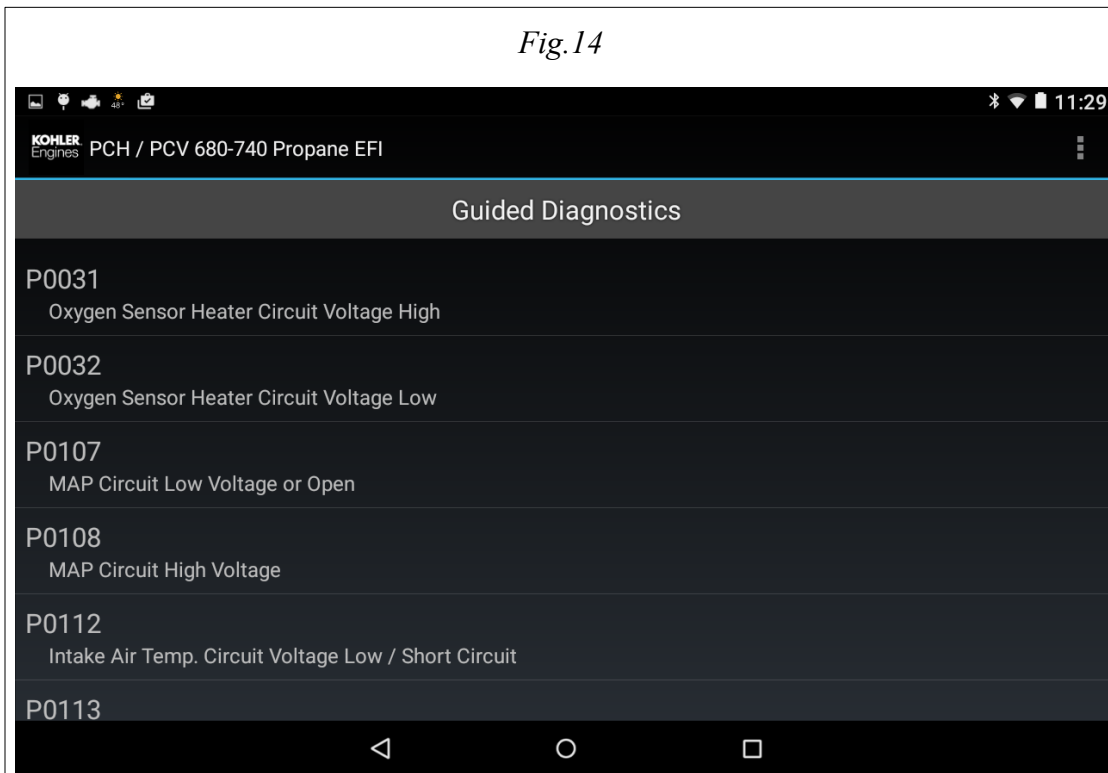
Fig.13



DIAGNOSTICS

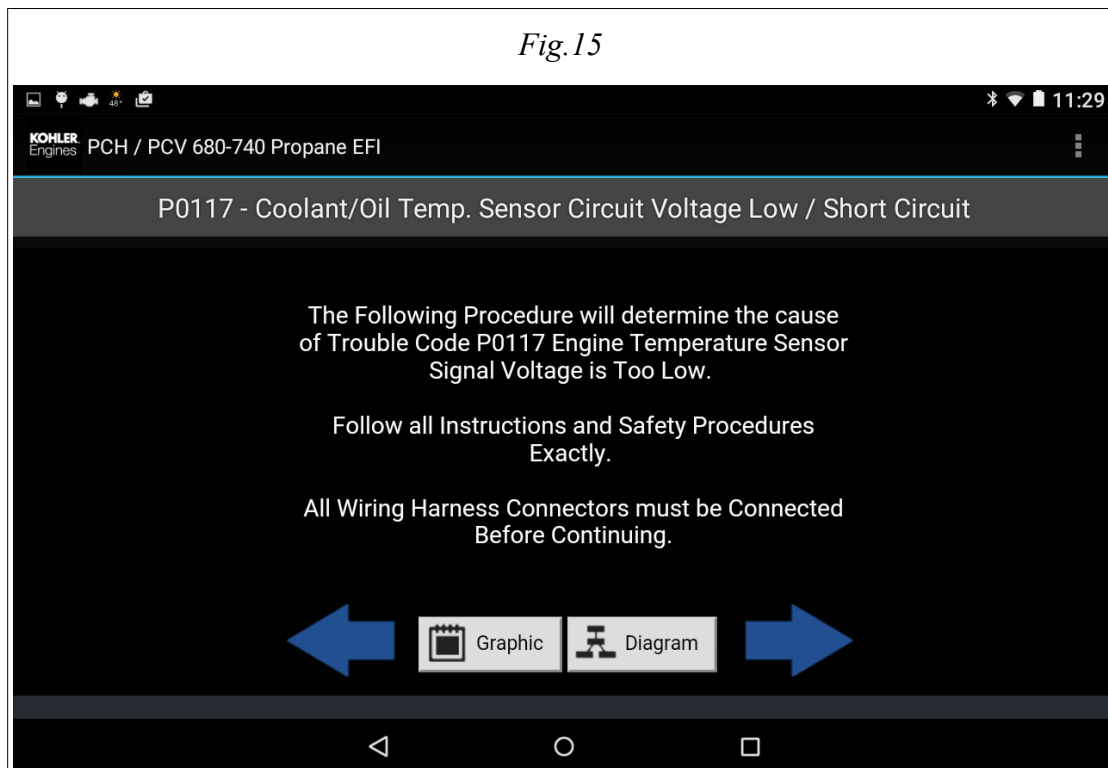
Displays the list of available Guided Diagnostics procedures for the selected engine (see Fig. 14).

Fig.14



Click on the desired Guided Diagnostic Procedure (see Fig. 15), and follow the prompts.

Fig.15



CONNECT A DEVICE

Shows the list of known Bluetooth devices, as shown in Fig. 1.

RECORDINGS

Shows the list of recordings saved on the device.

Click on a listed item to view the recording as shown in Fig. 13.

PREFERENCES

Shows available Preferences, such as Units selection.

HELP

Shows this document.

ABOUT

Shows the app Version Number.

Click Send Bug Report on this screen to send an email to the developer.

QUIT

Exit the application. Always exit the application by clicking this menu item so the device's battery will not be drained when not in use.

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