

EVINRUDE DIAGNOSTICS VERSION 5

A GUIDE TO GETTING STARTED

September 2021

INTRODUCTION

This guide is primarily intended to help Evinrude E-TEC owners.

The words CONNECT, CONNECTED, CONNECTION, CONNECTING and their opposites e.g. DISCONNECT, where used in this guide, means the electrical CONNECTION of Evinrude Diagnostics to the EMM.

The symbol -> means navigate to / select.

The Evinrude Diagnostics Program communicates with the Engine Control Unit (ECU) of Evinrude Fitch, D.I. back to 1997 and the Engine Management Module (EMM) of all Evinrude E-TEC G1 (Legacy) engines and is used for retrieving engine diagnostic information, setting engine operating parameters, performing engine maintenance and obtaining engine history reports.

The Help Section of Evinrude Diagnostics Version 5 is an integral part of the Evinrude Diagnostics V5 program and as such cannot be accessed without first installing Evinrude Diagnostics.

This guide has been written to help potential users of Evinrude Diagnostics Version 5 overcome this problem by providing information, in advance of its installation, about the initial set up and use of some of Evinrude Diagnostics' many features.

Evinrude Diagnostic V5 Kits are available from Evinrude Dealers and online retailers.

The main areas of concern with the kits available from online retailers of Evinrude Diagnostics V5 are the quality of their interface connection cable and chipset used in the RS-232 to USB Serial Port Adapter. Also their Evinrude Diagnostics V5 kits usually have the Serial Port Adapter hardwired into the interface connection cable.

Evinrude recommends Serial Port Adapters with an FTDI chipset.

Evinrude Diagnostics V5.9.0.0 is the latest version available to consumers which should also include the latest Engine Maps.

Evinrude Diagnostics V5 is backwards compatible. This means it will work with all the models listed below.

EVINRUDE E-TEC. G1 (Legacy)

15HO, 25HP, 30HP, 40HP, 50HP, 55HP, 60HP, 65HP, 75HP, 90HP, 115HP, 130HP, 150HP, 175HP, 200HP, 225HP, 250HP, 300HP and all E-TEC HO Models.

FICHT.

75HP, 90HP, 115HP, 135HP, 150HP, 175HP, 200HP, 225HP, 250HP.

DI.

100HP, 115HP, 135HP, 150HP, 175HP, 200HP, 225HP, 250HP.

EVINRUDE

TRADEMARK, COPYRIGHT AND INTELLECTUAL PROPERTY

<https://www.evinrude.com/en-US/legal-notice.html>

TOPICS

- 1.Purchase Evinrude Diagnostics**
 - 2.Hardware and Software Requirements**
 - 3.Using Help**
 - 4.Getting Started**
 - 5.Outline** - RS -232 Serial Port Adapter, Connection Cable
 - 6.Application Starting**
 - 7.Initial Setup**
 - 8.Update Evinrude Diagnostics** - Notes
 - 9.Software Registration** - Requirements - Edit Details
 - 10.Communications Setup** - Comms USB port
 - 11.GUI Effects Setup** - Customize appearance
 - 12.CONNECTING Evinrude Diagnostics**
 - 12a. E-TEC 15HO-30HP** Tiller Steer - Has 12 V battery
 - 12b. E-TEC 15HO-30HP** Tiller Steer - Has No 12 V battery
 - 12c.Video** - Has no 12V battery - How to Power On the EMM
 - 13.EMM CONNECTION and DISCONNECTION**
 - 14.Set USB Serial Device (FTDI chipset)**
 - 15.EMM CONNECTION Warnings**
 - 16.DIAGNOSTICS OUTLINE**
 - 17.Monitor Mode** - Tachometer - CPS Sync - Camera
 - 18.Snapshots**
 - 19.Application Closing and DISCONNECTION**
-

1.PURCHASE EVINRUDE DIAGNOSTICS VERSION 5

From an Evinrude Dealer.

Support the business that pays the bills to make this site <https://www.etecownersgroup.com> available at no charge.

Barnacle Bills Marine

4584 Route 47 Delmont NJ 08314 USA

Parts call (856) 785 9455

Have your model number ready

Evinrude Customer Service call (844) 345 4277

Have your model and serial number ready

Barnacle Bills **Online Store**

<https://www.bbmarinesupply.com/>

Email

sales@bbmarinesupply.com

Facebook

<https://www.facebook.com/Barnaclebillsmarine/>

From an online retailer

There are many online retailers of Evinrude Diagnostics V5 for the G1 (Legacy) E-TEC. These two online retailers of Evinrude Diagnostics V5 listed below have proven to be reliable, sell a quality product and have good customer support.

<https://matthewnavis.com/product-category/marine-diagnostic-tools/>

They supply their V5 diagnostic kit with the software on a USB memory stick as most computers don't have a disc drive.

They also have an eBay store however purchases made direct from their website (above) may be cheaper.

<https://www.ebay.com/str/europecarsbodyparts>

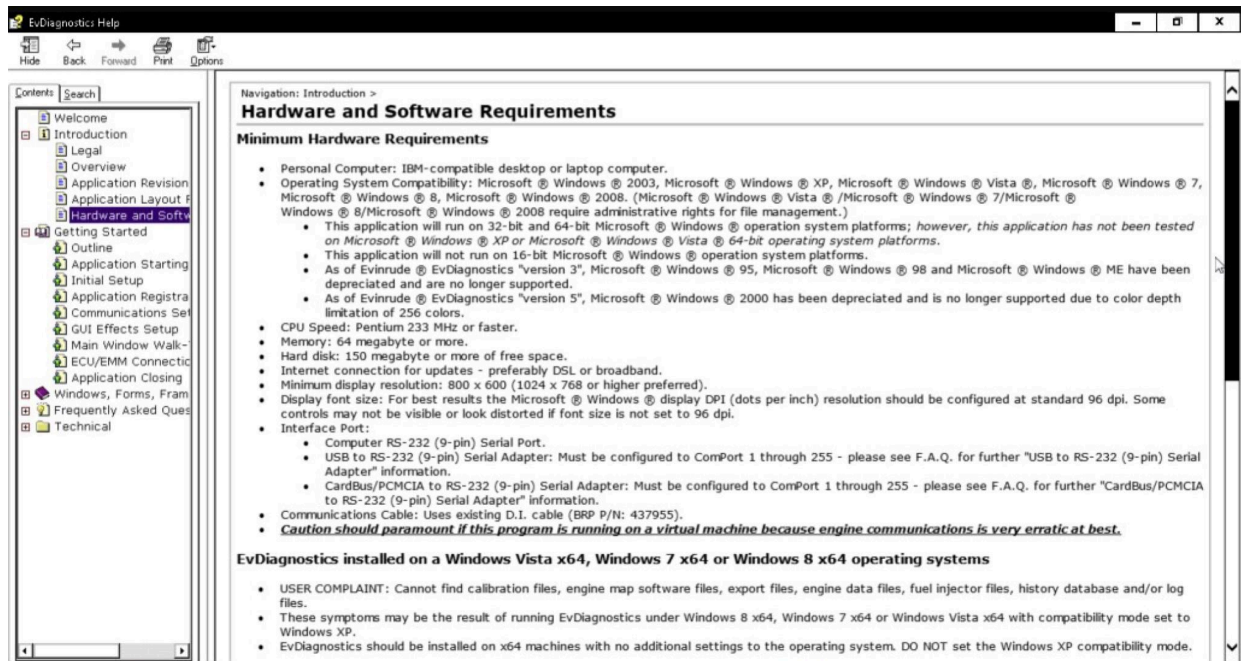
PowerSports A long time retailer of BRP / Evinrude Diagnostic Kits who supply their Evinrude V5 diagnostic kit with the software on a disc but when their V5 kit is purchased they also supply login information which allows the user to access their Customer Support Area from where the latest software may be downloaded.

<https://www.powersports-diag.com/en/evinrude-diagnostic-kits/6-evinrude-diagnostic-kit-evdiag.html>

While most online retailers accept responsibility for their product's quality, they don't accept responsibility for the users lack of computer skills when installing and using Evinrude Diagnostics.

2. Hardware and Software Requirements

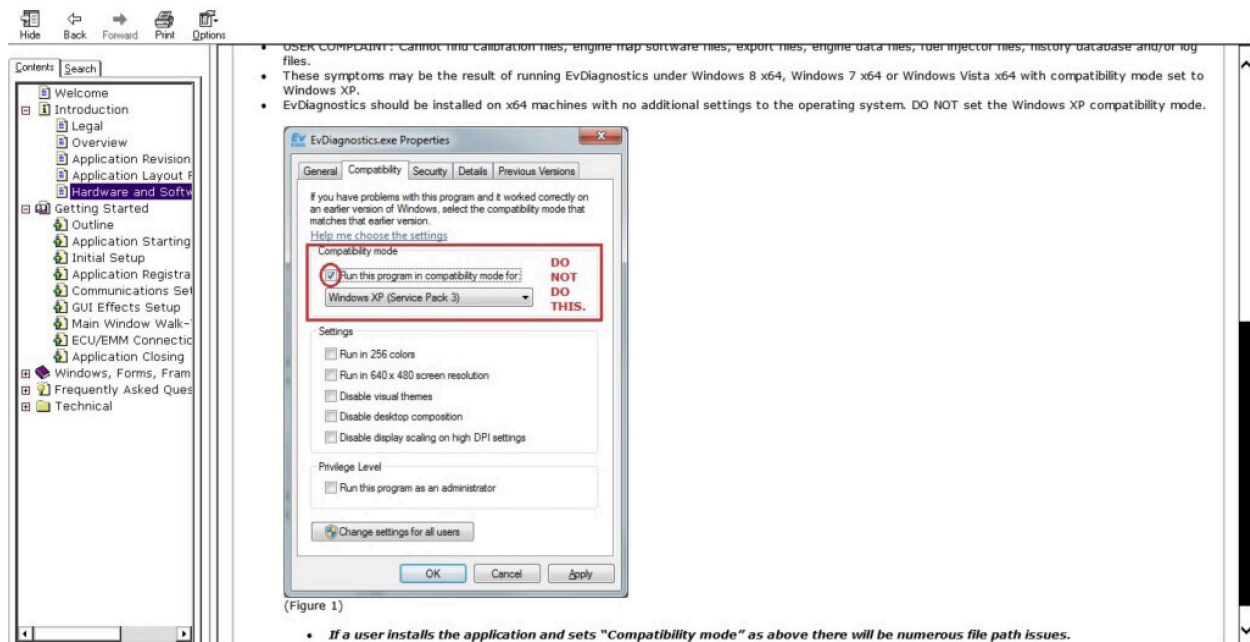
Navigation. Main Menu -> Help -> Contents -> Introduction -> Hardware and Software Requirements.



Notes. Since these Hardware and Software Requirements were published, Microsoft has released Windows 10 and 11
Evinrude Diagnostics V5 will run on Windows OS, XP through 11 and requires very little System resources.

See also Version 5 backwards compatibility in **INTRODUCTION**.

Compatibility Mode



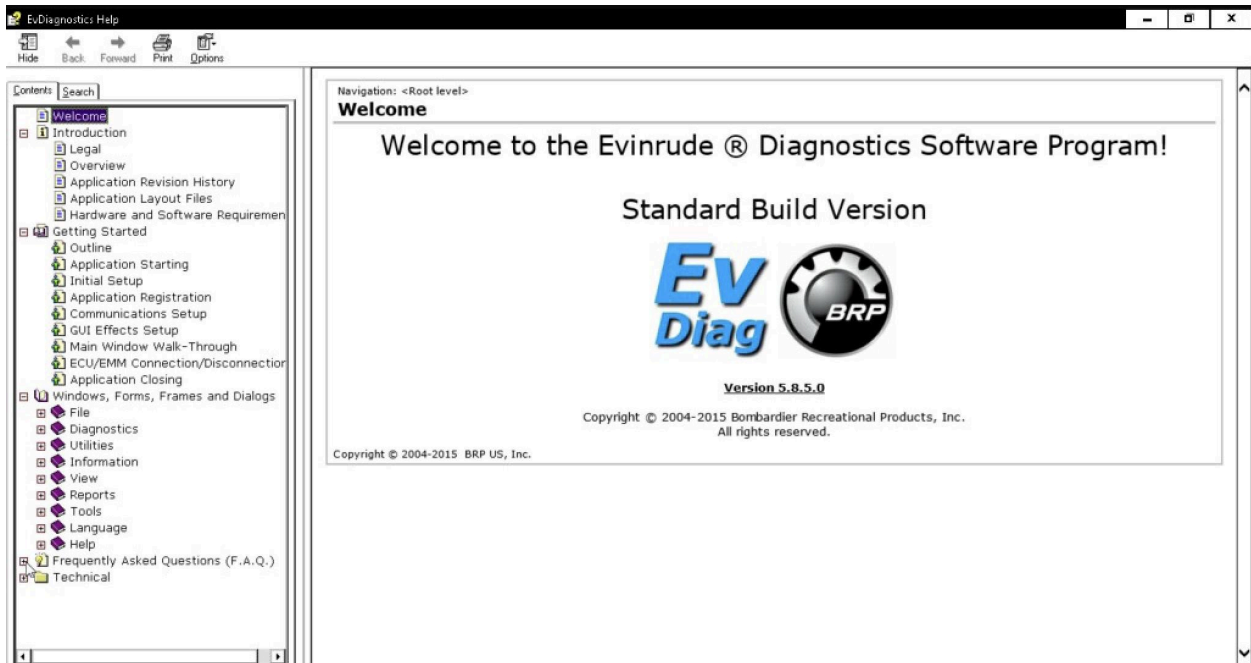
Notes. Do not run Evinrude Diagnostics in Compatibility Mode.

3.Using Help

Navigation. Main Menu -> Help -> Contents.

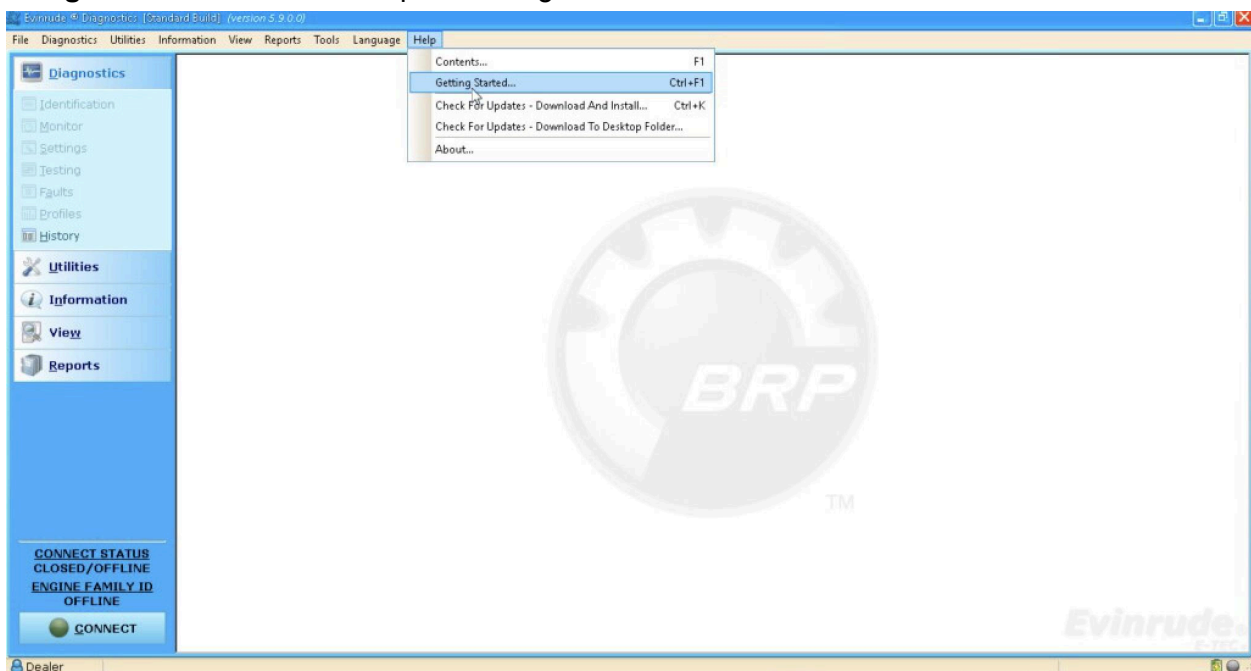
Help may also be searched by Topic.

Navigation. Main Menu -> Help -> Contents -> Search -> Type in keyword(s) -> List Topics -> Select Topic to Display -> Display



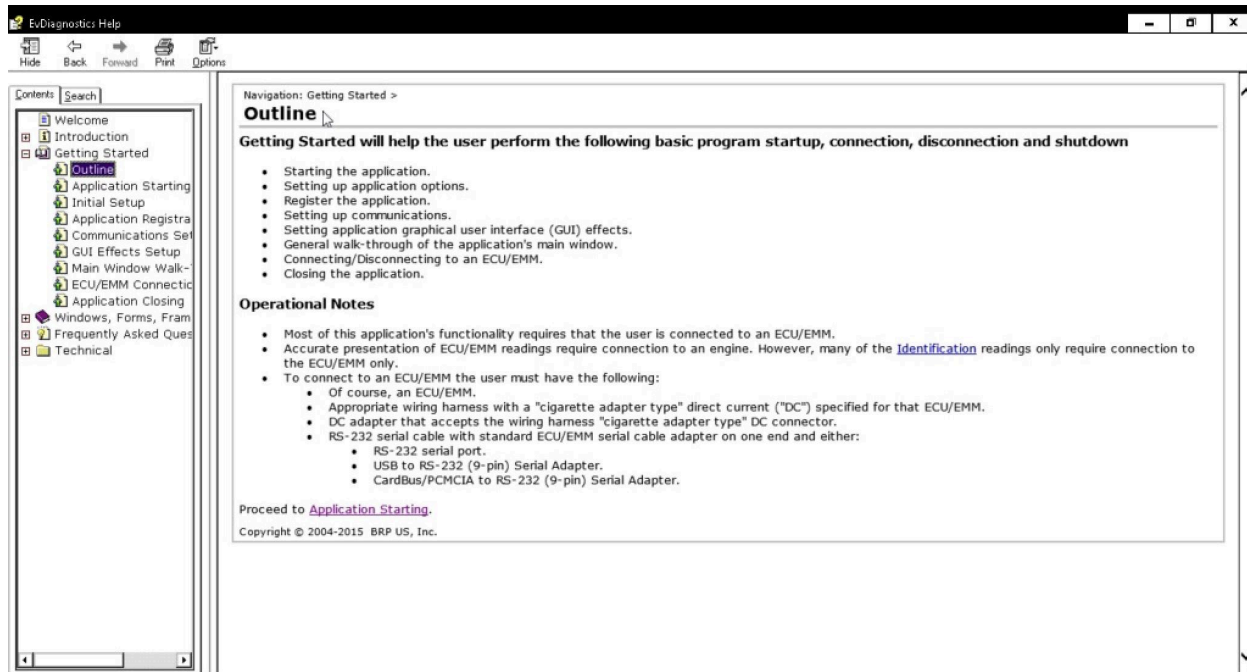
4.Getting Started

Navigation. Main Menu -> Help -> Getting Started -> Outline



5.Outline

Getting Started Outline will help the user perform basic program startup, **CONNECTION**, **DISCONNECTION** and shutdown



Notes. Using a jumper wire as described in **12a** and using a 12 Volt battery as described in **12b** eliminates the need for the harness with "cigarette type adapter" and DC adapter as described above in **Outline**.

With reference to **RS-232 Serial Port** in **Operational Notes** above. Many laptops do not have a Serial Port, therefore a **Serial Port Adapter** is required to **CONNECT** Evinrude Diagnostics. Most Evinrude Diagnostics V5 Kits from online retailers have the RS-232 to USB Serial Port Adapter hardwired into the interface cable.

The Device Drivers for the RS-232 Serial Port Adapter, where the Adapter is hardwired into the interface cable, are usually installed automatically when installing Evinrude Diagnostics purchased from online retailers.

Further information. Brief installation instructions for a RS-232 to USB Serial Adapter.

<https://drive.google.com/file/d/1hDLTK6E0uJC7K8ND5h62Q2oyyTe0UVik/view?usp=drivesdk>

Those who have obtained Evinrude Diagnostics V5 as software only will also need an RS-232 Serial Port to USB Adapter and an Evinrude Interface **CONNECTION** Cable # 0437955.

Alternatively a user could make the **CONNECTION** cable.

A guide to making the **CONNECTION** cable.

<https://continuouswave.com/ubb/Forum6/HTML/002257.html>

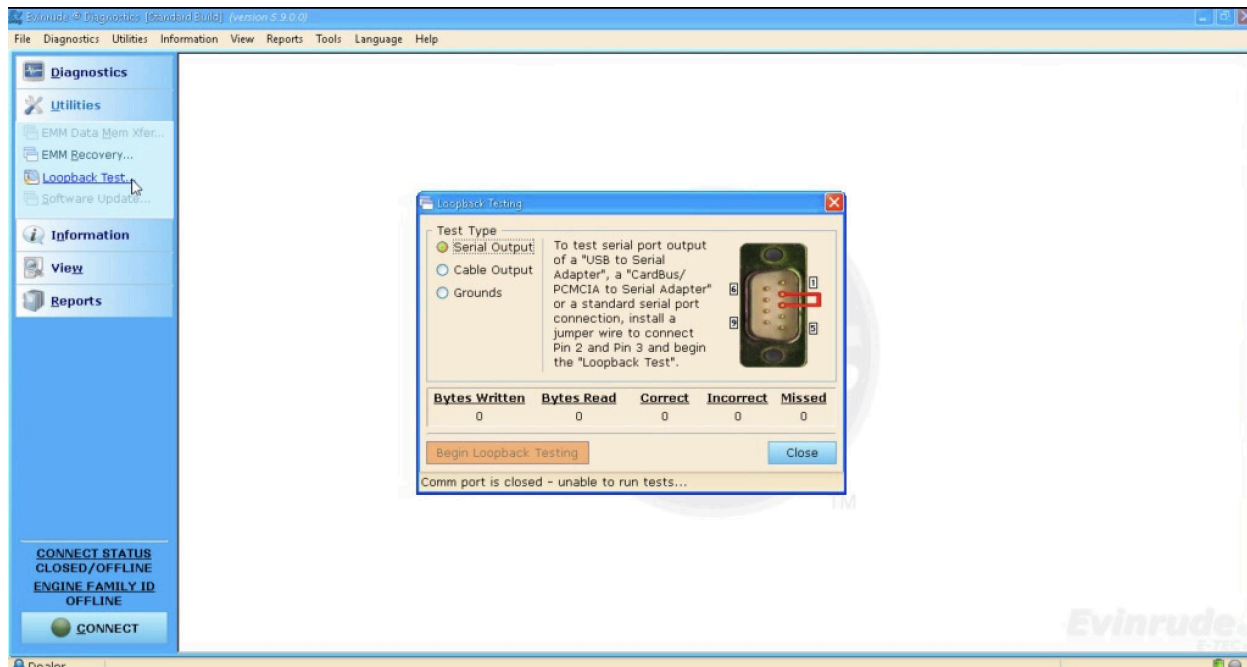
Evinrude recommends the StarTech RS-232 (FTDI chipset) Serial Port Adapter. It's Device Drivers will either be on a disc included with the Serial Port Adapter or available as a download from the manufacturer's website.

Further information. Update Driver and Set Comms Port.

<https://drive.google.com/file/d/1hgIRvcICWJ2uLawGPiGmPxxFI3Uic0gk/view?usp=drivesdk>

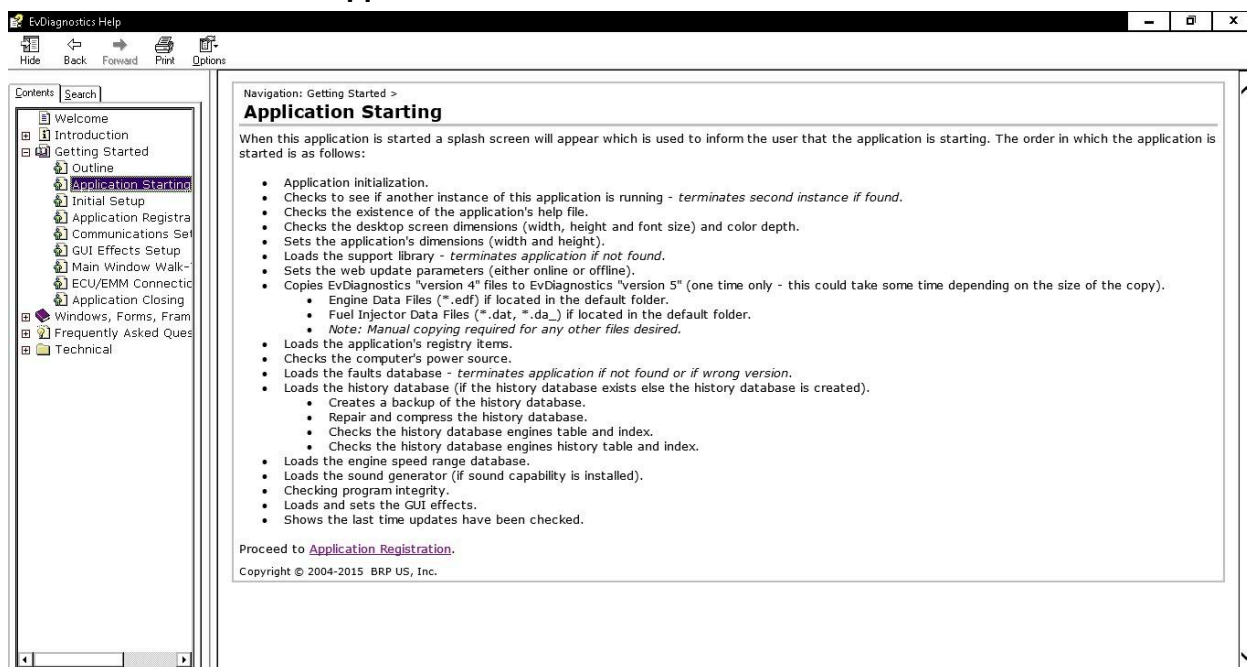
To test the Output of a USB to Serial Adapter

Navigation. Main Menu -> Utilities -> Loopback Test.



6. Application Starting

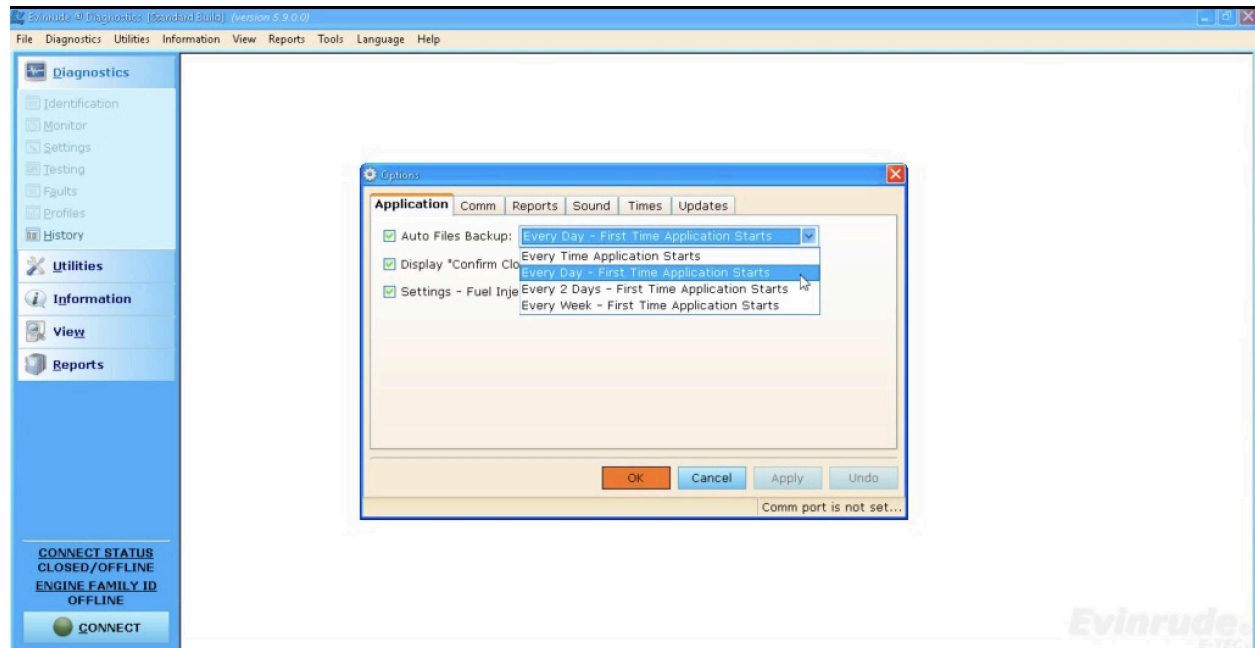
The order in which the Application is started.



Auto files backup

Navigation. Main Menu -> Tools -> Options -> Application -> Auto Files Backup. Select when Backup happens.

Depending on the Backup Files setting selected, an Engine History Report will be automatically generated and saved to the Exports folder when Evinrude Diagnostics is CONNECTED to the engine.



History Reports

History Reports are automatically generated when Evinrude Diagnostics is CONNECTED to the engine, depending on setting selected, and saved to the Exports folder.

Email or print an engine History Report

Navigation. Main Menu -> View -> Exports -> Select File -> Right Click-> Share -> Email / Print. To select the History Report required, identify the file by it's time and date.

To post a Report on <https://www.etecownersgroup.com/categories> email it to yourself, save it to your file sharing site e.g. Google Drive, set sharing permissions to "anyone with a link" then copy and paste the link into your post.

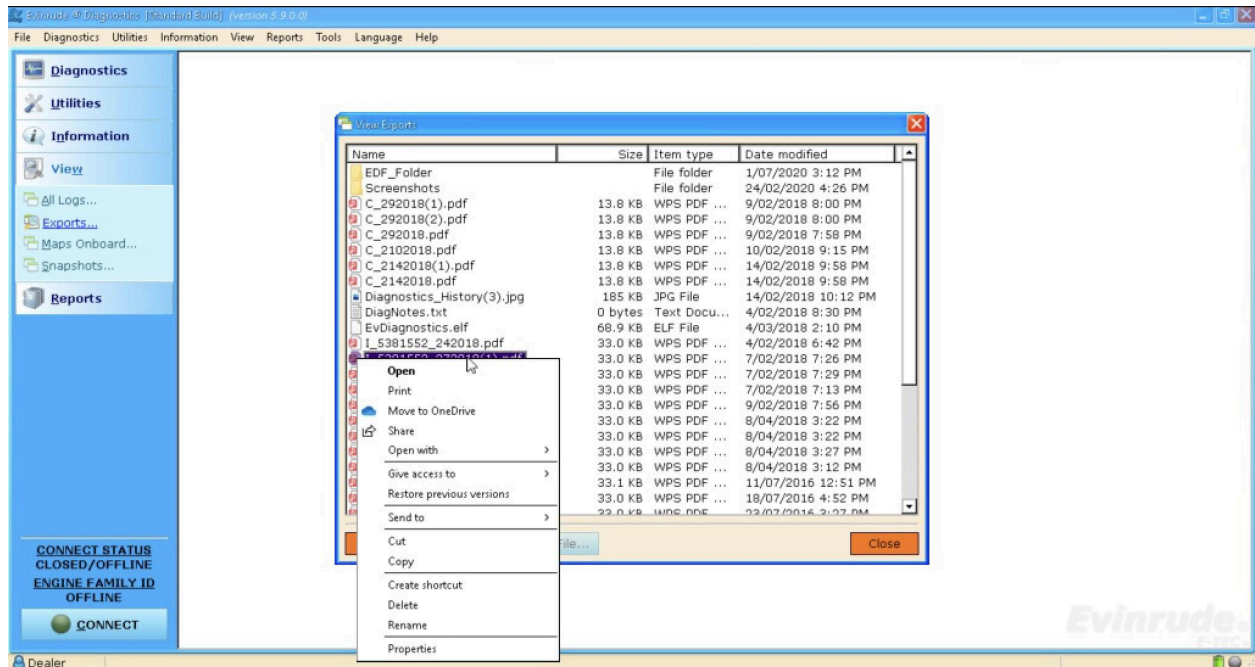


Figure 1.

Notes The engine History Report file is a PDF and it's file identification number is a combination of the engine's serial number and the date the Report was generated. If more than one Report was generated on the day then it will be numbered. e.g. (3).pdf

Example History Report I_5381552_272018 (3).pdf

5381552 - engine Serial Number.

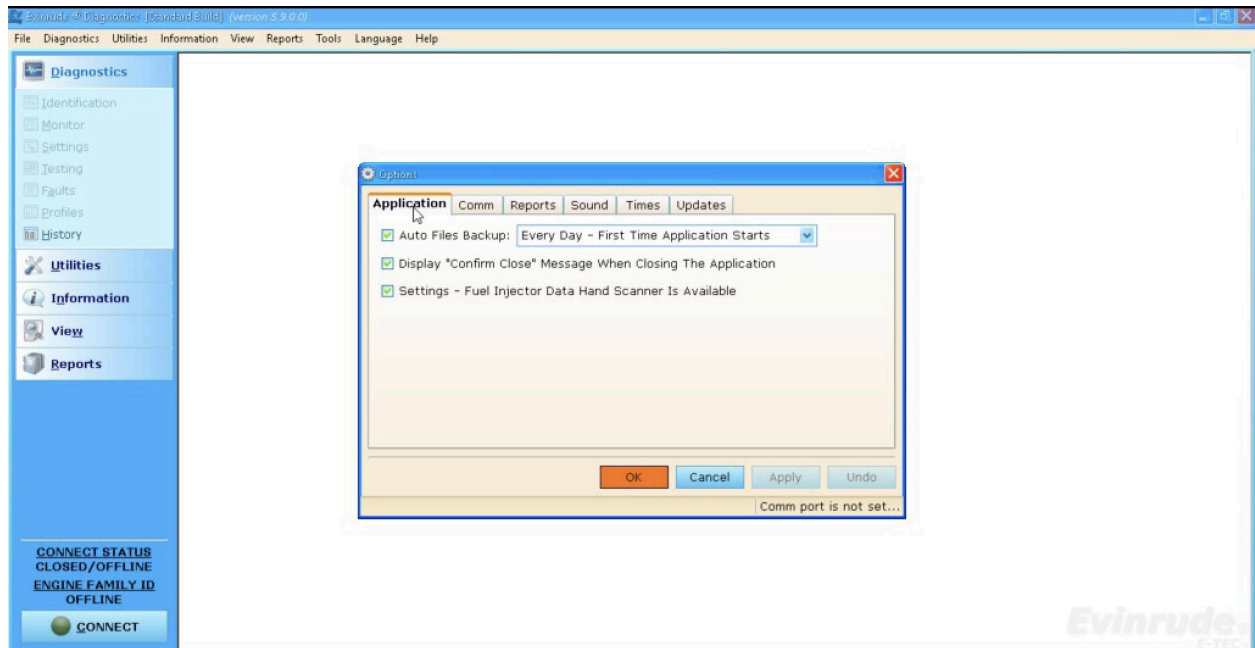
272018 - date, Month/Day/Year format, 7th February 2018.

(3) - 3rd Report on the day.

.pdf - Portable Document Format.

Select Confirm Close option to prevent accidental Close.

Navigation. Main Menu -> Tools -> Options -> Application.

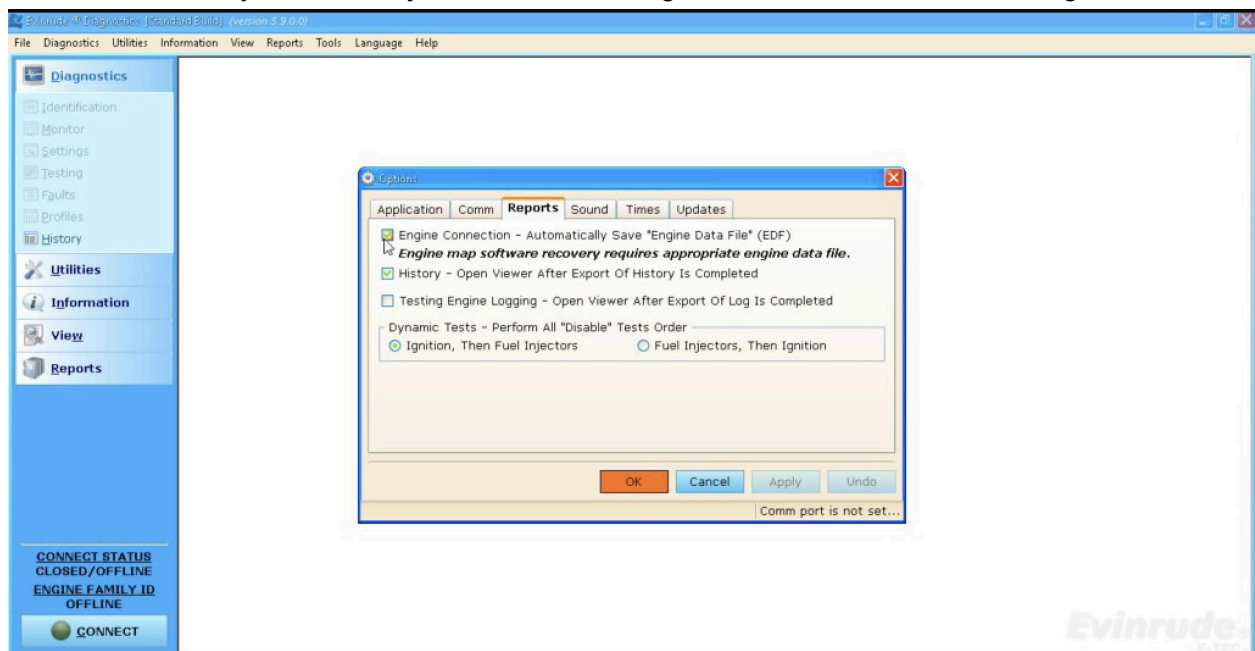


Notes. Fuel Injector Data Hand Scanner e.g. Data Matrix Code Scan App on a smartphone, must be selected to replace Fuel Injector Coefficients using a scanner or App.

Automatically Save the Engine Data File (EDF)

Navigation. Main Menu -> Tools -> Options -> Reports -> Engine Connection -> Automatically save EDF.

An EDF is normally saved every time Evinrude Diagnostics CONNECTS to the engine.



Notes. Engine Data Files (EDF) are used to aid in EMM Recovery or Replacement. If the EMM fails and requires reprogramming or replacing, the information contained in the EDF, i.e. the EMM's backup, is critical in the process of restoring or replacing the EMM.

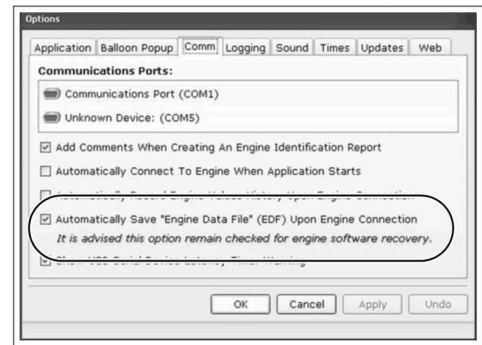
Engine Data Files

Engine Data Files (EDF) are used to aid in *EMM* recovery, or replacement. An EDF file is normally saved every time *Evinrude Diagnostics* software connects to an engine.

Make sure the *Automatically save "Engine Data File" (EDF) Upon Engine Connection* option in *Evinrude Diagnostics* software is selected.

- Start *Evinrude Diagnostics* v 5.1 or higher.
- Use the Tools menu and select Options.
- Check *Automatically save "Engine Data File" (EDF) Upon Engine Connection*.
- Click "OK" to permanently save setting.

Also see **Administrative Bulletin 2011-02(A)** and **EMM Replacement Videos** available from *DealerPort* or *BOSSWeb*.



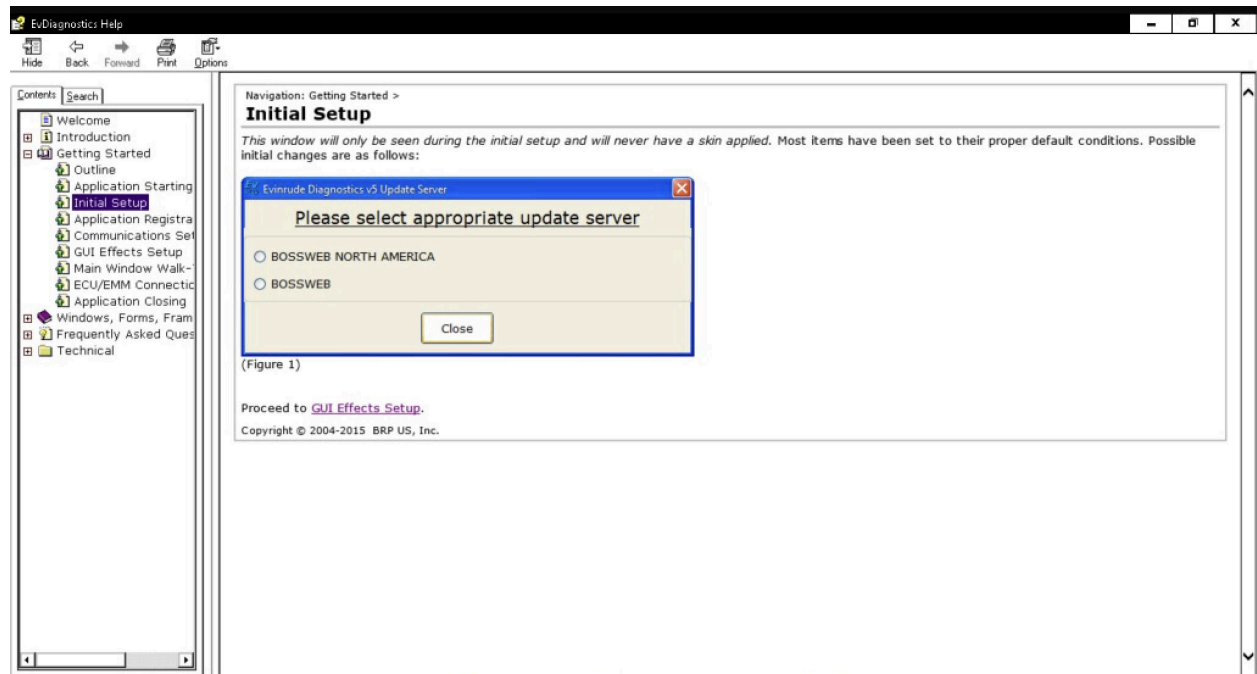
Automatically save "Engine Data File" (EDF) Upon Engine Connection

7.Initial Setup

Ignore this BOSSWEB dialog box below. As a user without access to the BRP Evinrude Dealer site BOSSWEB the user will not get updates nor will they be able to update the software without installing a later version of Evinrude Diagnostics.

See also **8. Update Evinrude Diagnostics**.

The user will still get update prompts but they can be ignored.



8.Update Evinrude Diagnostics

As a retail consumer, the user can only update Evinrude Diagnostics by installing a later version. However if a user purchased an earlier version of Evinrude Diagnostics e.g. V5.7.6.3 from an Evinrude Dealer, possibly the Dealer may update it.

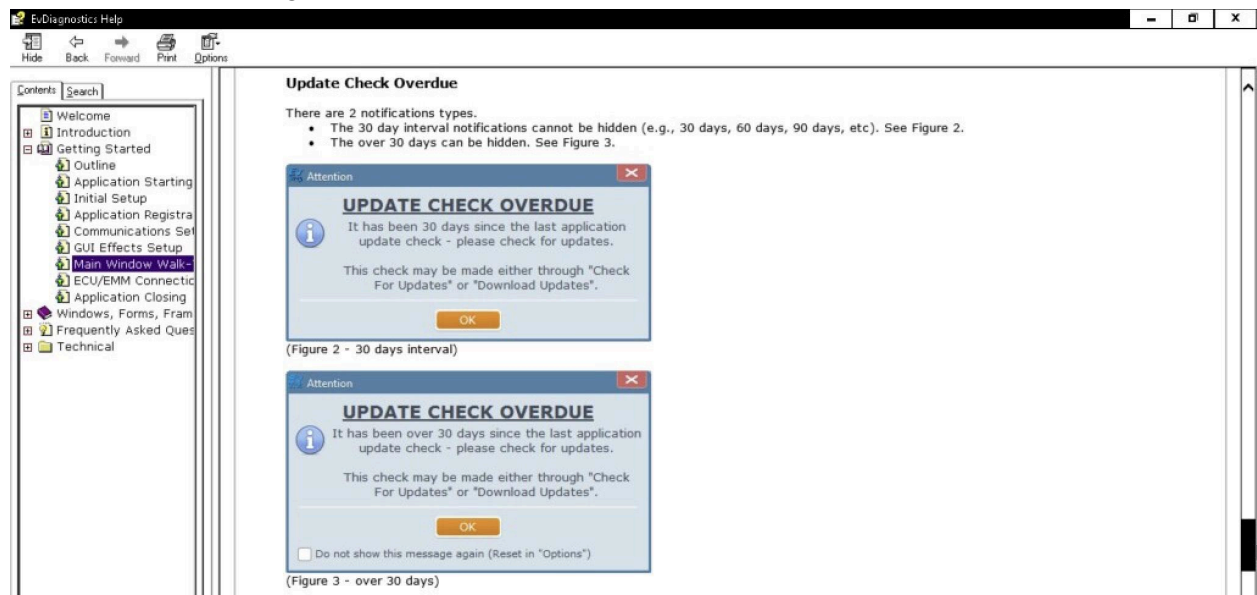
Version 5.9.0.0 is the latest available to consumers.

Where a later version is to be installed on a computer already running an earlier version, don't uninstall the earlier version as the later version will delete it but also save all the Evinrude Diagnostic's settings and details, ie. engine details, History Reports, EDF, Comms Port, Settings, Faults etc.

The existing earlier version does not have to be running when a later version is installed.

Update Check Overdue

As explained above, ignore the update prompts.

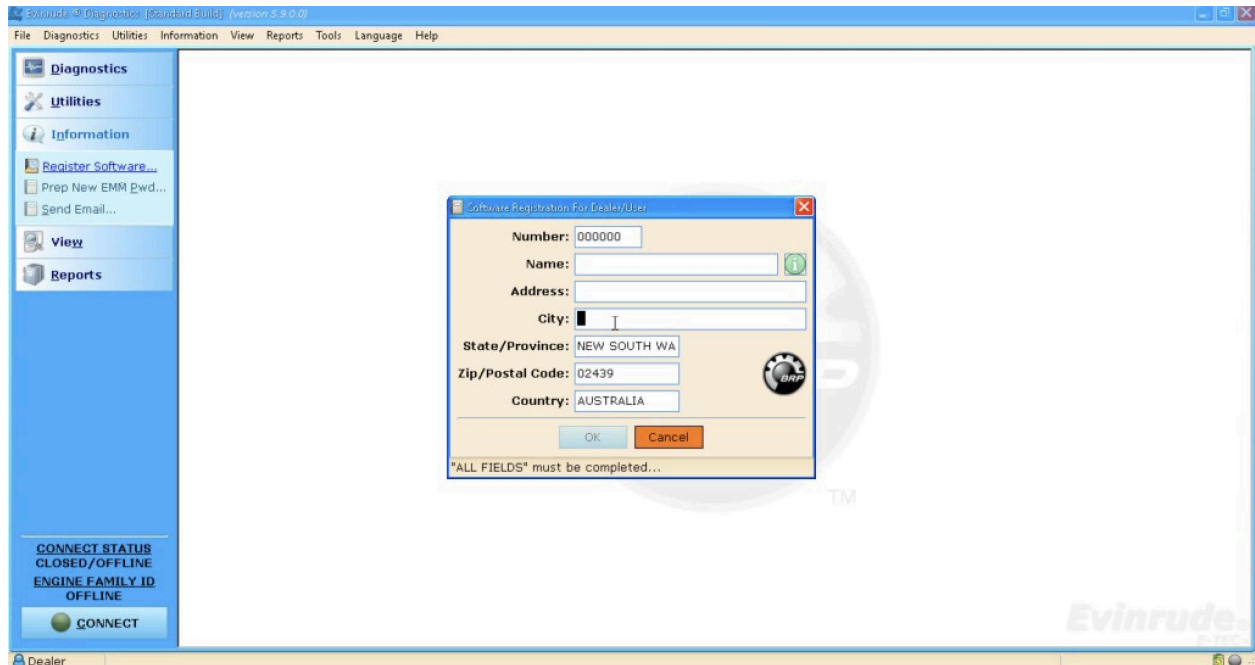


Notes. Annoying as this may be, the user cannot stop the 30 day interval notification from appearing but to stop the over 30 days notification check the box, "do not show this message again."

9. Software Registration

Navigation. Main Menu-> Information -> Register Software.

Or Main Menu -> Help -> Contents -> Windows, Forms, Frames and Dialogs -> Information-> Register Software



Notes. Evinrude Diagnostics will not Register unless the Zip (Post) Code entered in the Registration box has at least 5 digits and the Number has six digits. Australian Post (Zip) Codes have four digits e.g. 2439. To make it five digits just put a 0 at the front i.e. 02439

Aborting on initial registration will close the application.

The user need not be concerned that the Registration information will be reported back to BRP / Evinrude as it will not be.

Registration information is only used for identification purposes on reports and is shown on the Engine History Report. The Registration, if filled in truthfully, will assist with identifying the engine when it is being serviced / repaired.

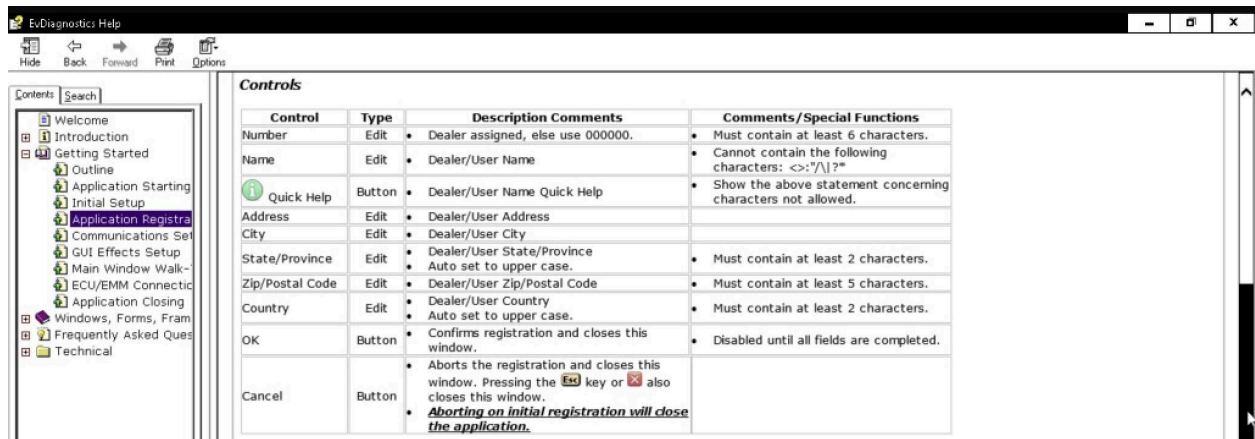
Registration Requirements

Software registration is required to run Evinrude Diagnostics as it will not work if registration is not completed.

Number; Use any six digits e.g. 000000

Zip Code; Use a minimum of five digits e.g. 02439

"ALL FIELDS" must be completed.

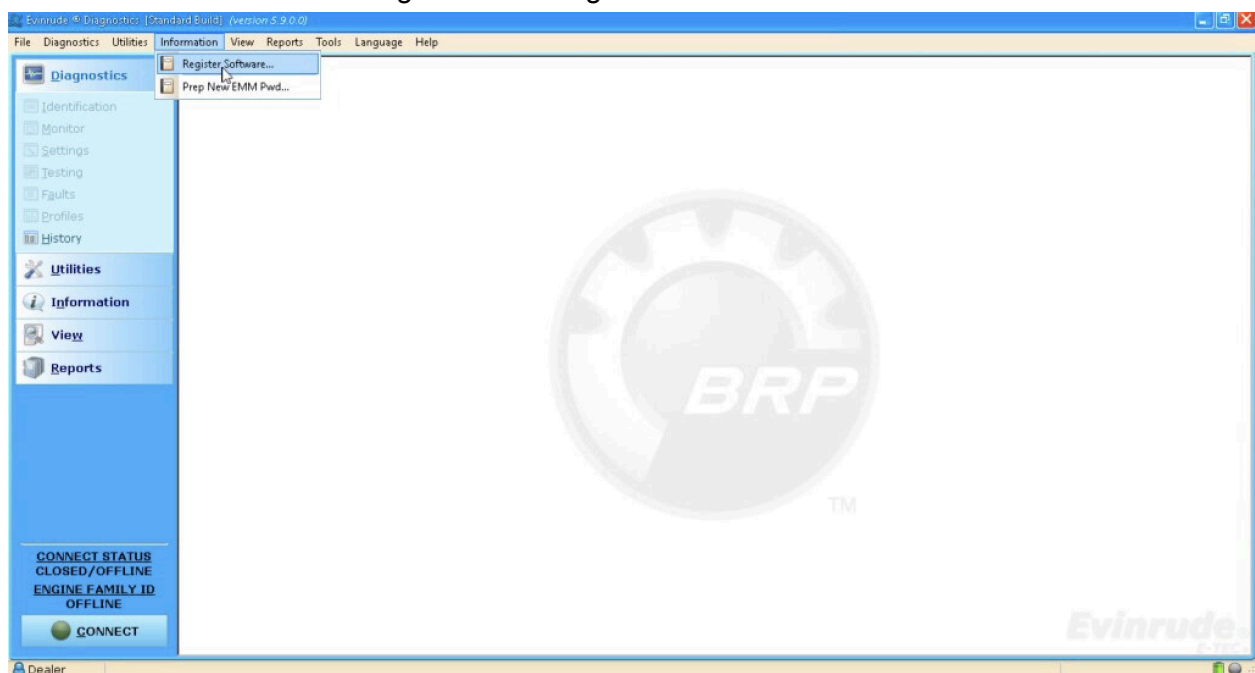


Edit Registration Details

View or change the Registration details.

Navigation. Main menu -> Information -> Register Software.

Edit details in the Software Registration dialog box -> OK to save.



10. Communications Setup

If an interface connection cable with its Serial Port Adaptor hardwired or an individual Serial Port Adaptor, is connected to a USB port on the computer prior to installing Evinrude Diagnostics then when Evinrude Diagnostics is being installed the Comms Port being used will automatically be selected and allocated as part of the installation of Evinrude Diagnostics.

Also with a V5 kit from an online retailer, where the interface connection cable has a hardwired Serial Port Adapter, the Device Drivers will also be installed during the installation of Evinrude Diagnostics.

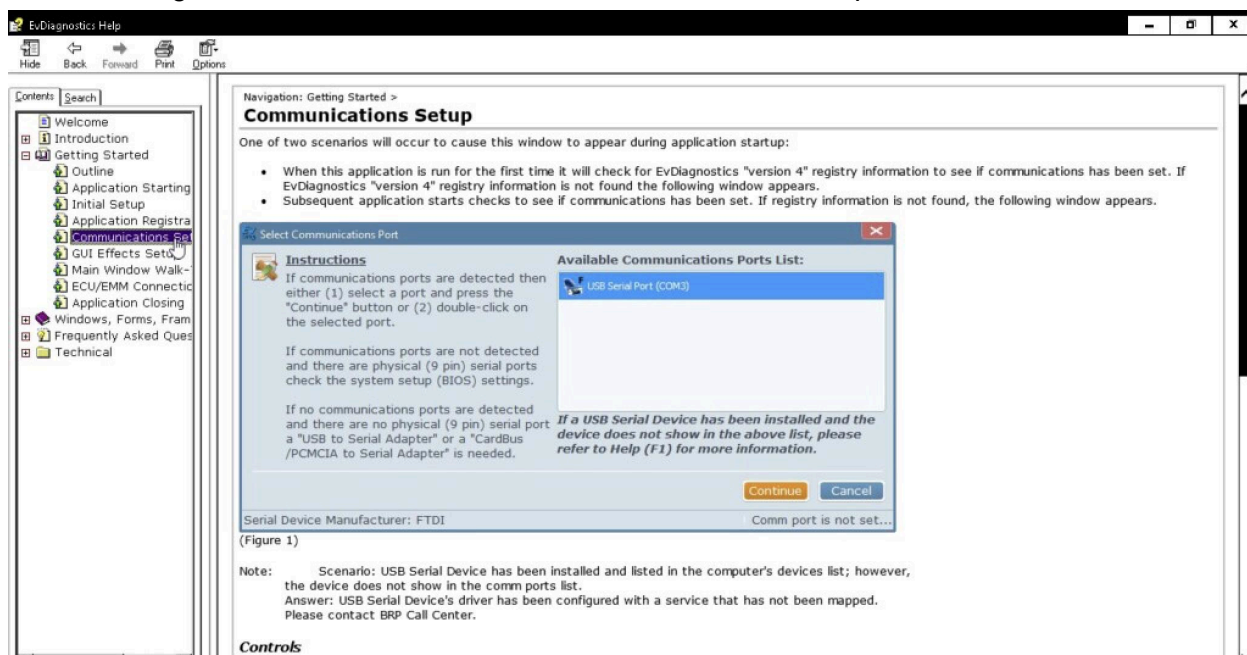
Having the interface connection cable with the Serial Port Adapter plugged into a USB port on the computer when installing Evinrude Diagnostics will save time later with having to manually set the Comms Port if, after installing Evinrude Diagnostics, it “Auto Runs”.

The connection cable does not need to be CONNECTED to the engine during the installation of Evinrude Diagnostics.

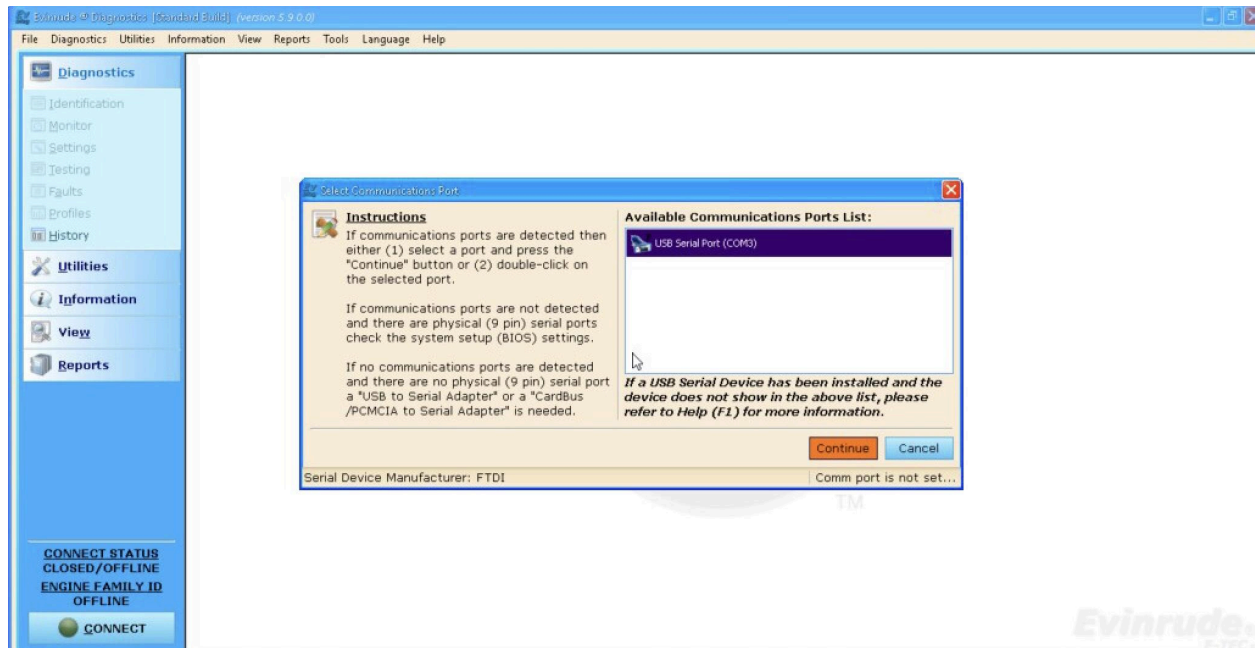
If Evinrude Diagnostics “Auto Runs” (or when it next runs) after installing it and the interface connection cable with the Serial Port Adapter, hardwired or an individual Serial Port Adapter, wasn't plugged into a USB port on the computer during the installation of Evinrude Diagnostics, then a Dialog Box advising “No Comm Port found” will appear on the screen. If the user then clicks on Continue another dialog box will appear advising “No Comm Port Allocated” (words to that effect) then just click on “Continue”. This is mentioned only because if it happens it is something which can be confusing.

Running Evinrude Diagnostics once in Administration Mode, with the Serial Port Adaptor or interface connection cable with hardwired Serial Port Adapter plugged into the computer, will set the correct baud (communication) rate and allocate the USB Comms port.

Once the Comms Port has been set any USB Port on the computer may be used to CONNECT Evinrude Diagnostics but if a USB port that hasn't already been allocated is used to CONNECT Evinrude Diagnostics then the user will have to allocate that USB port.



Notes. Evinrude Diagnostics Version 4 referred to above is an earlier version of Evinrude Diagnostics which works with Evinrude Fitch, D.I. and with Evinrude E-TEC up to Year Model 2012. Evinrude Diagnostics V5 is required for E-TEC G1 Year Model 2012 and later.



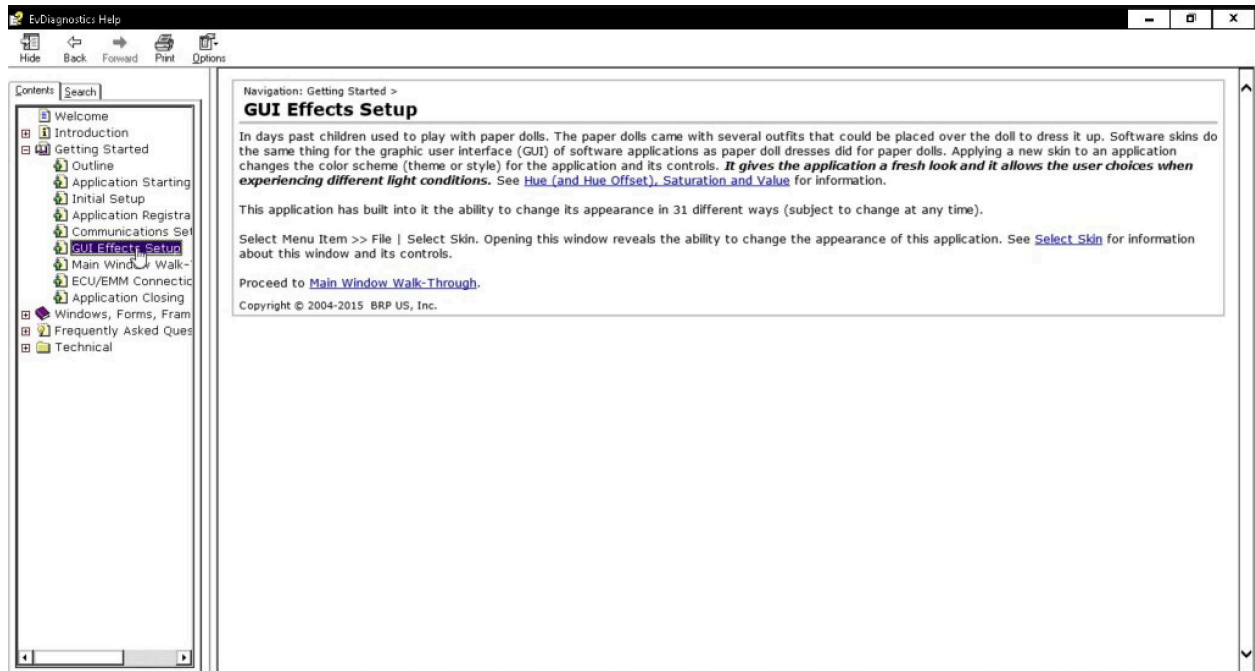
Notes. See also 13. **EMM CONNECTION / DISCONNECTION** and **INTRODUCTION** - Version 5 backwards compatibility.

11. GUI Effects Setup

Customise the appearance of Evinrude Diagnostics.

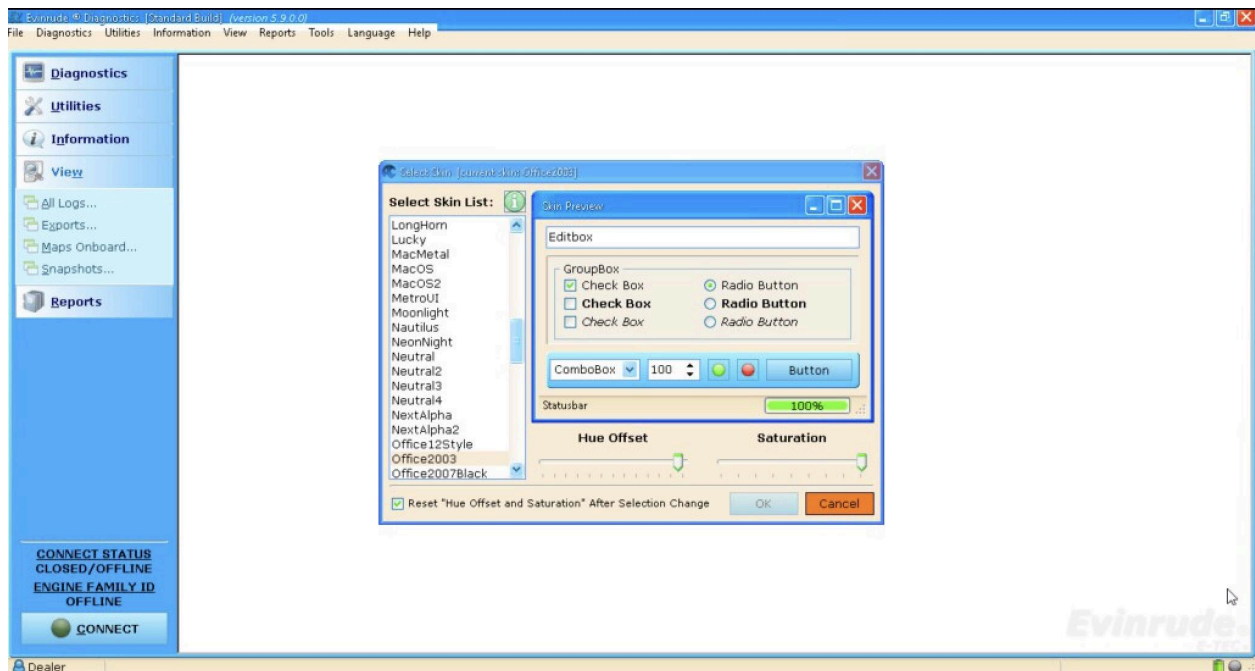
By using Skins the user may customise the appearance of Evinrude Diagnostics. There are many Skins to choose from and the appearance of each individual Skin may be further customised by changing the Hue Offset and Saturation.

Skins are a very useful way of pre-setting the Diagnostics screen display to allow for different light levels and once a Skin has been set up it can be saved and selected later as required.



Select and customise a skin.

Navigation. Main menu -> File -> Select Skin.



Notes. See also the Skin Hue Offset and Saturation Panel where Hue Offset and Saturation may be adjusted.

Navigation. Main Menu -> Tools -> Skin Hue Offset and Saturation.

12.CONNECTING EVINRUDE DIAGNOSTICS.

Evinrude Diagnostics Version 5 can be CONNECTED at Key ON to the EMM of all E-TEC G1 outboards which have an Off/On/Start Key Switch. i.e. a 12 Volt battery.

The EMM must be powered ON to CONNECT Evinrude Diagnostics.

When an engine with an OFF/ON/START key switch is not running, turning the key to ON will supply battery power to power ON the EMM.

Where there is no OFF/ON/START key switch the engine needs to be running to generate the power to power ON the EMM and allow Evinrude Diagnostics to CONNECT.

The E-TEC 15HO-30HP Tiller Steer Models do not have an OFF/ON/START key switch so when the engine is not running the EMM requires another source of power to allow Evinrude Diagnostics to CONNECT.

12a.Power ON the EMM. E-TEC 15HO-30HP Tiller Steer Electric Start Models (with 12 Volt battery)

Connecting a jumper wire to pin 5, red / violet strip wire and pin 4 violet wire, of the 6 pin Deutsch connector (Figure 6 below) will power ON the EMM to allow CONNECTION of Evinrude Diagnostics.

This eliminates the need to run the engine.

Note. A workshop alternative to using a jumper wire is, Evinrude Key Switch #5005800 and Key Switch Cable Assembly #0586262.

EMM Communications

The *EMM* must turn ON before it will communicate with the service laptop computer. When performing diagnostics, or updating engine management software, many technicians find it convenient to power the *EMM* using a separate key switch tool connected at the engine harness key switch connector, rather than the key switch located at the helm.

If desired, Ignition Switch and Key, P/N 5005800 and Key Switch Cable Assembly, P/N 586262 can be used for this purpose.



1. Ignition Switch and Key, P/N 5005800
2. Key Switch Cable Assembly, P/N 586262

The connector shown in Figure 6 below is located opposite the throttle cam.

Remove the six pin Deutsch connector's dust cover which has the six white blanking plugs in the back (but no wedge or pins inside) and use a jumper wire to connect **pin 4 violet wire** to **pin 5 red/violet stripe wire** to power ON the EMM.

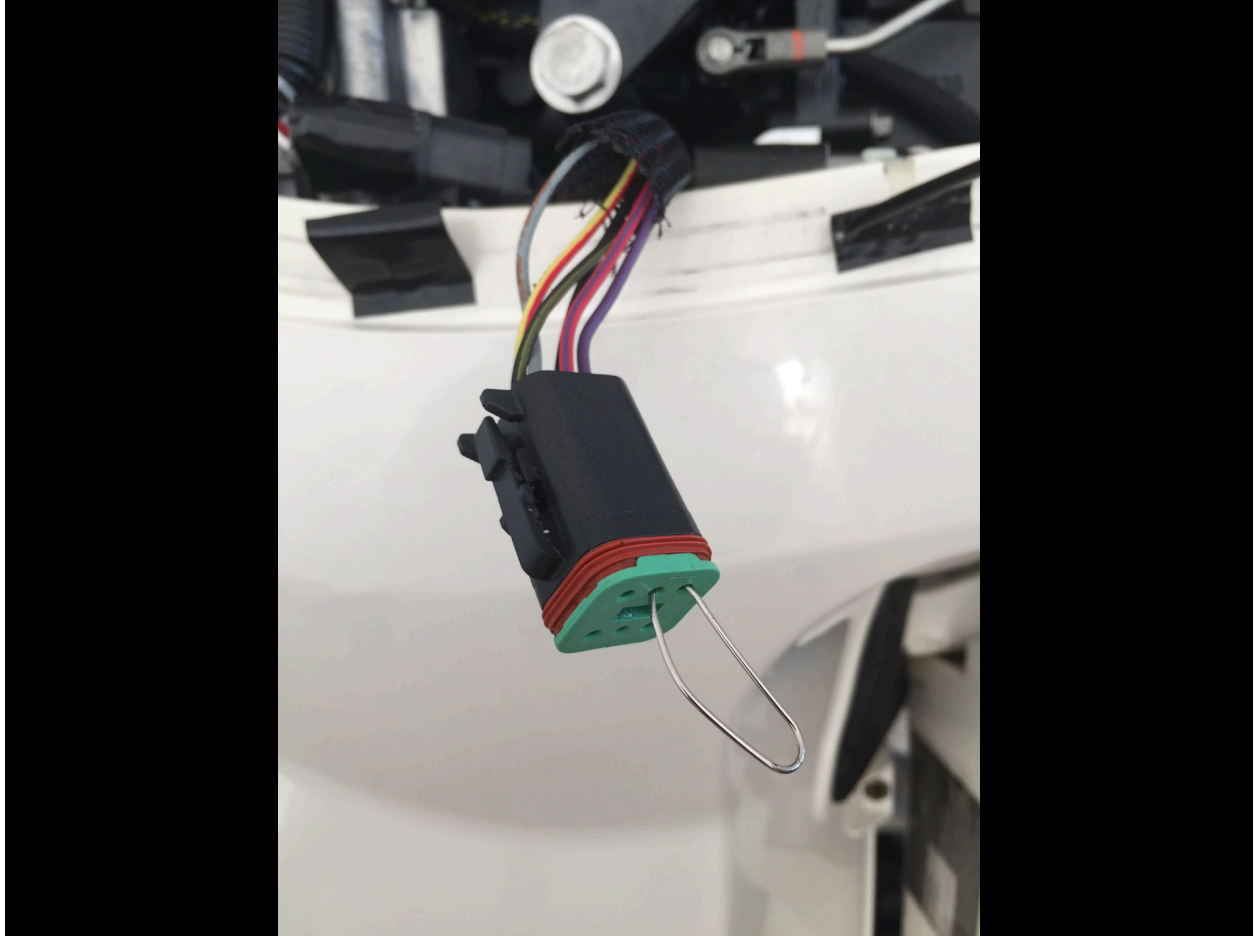
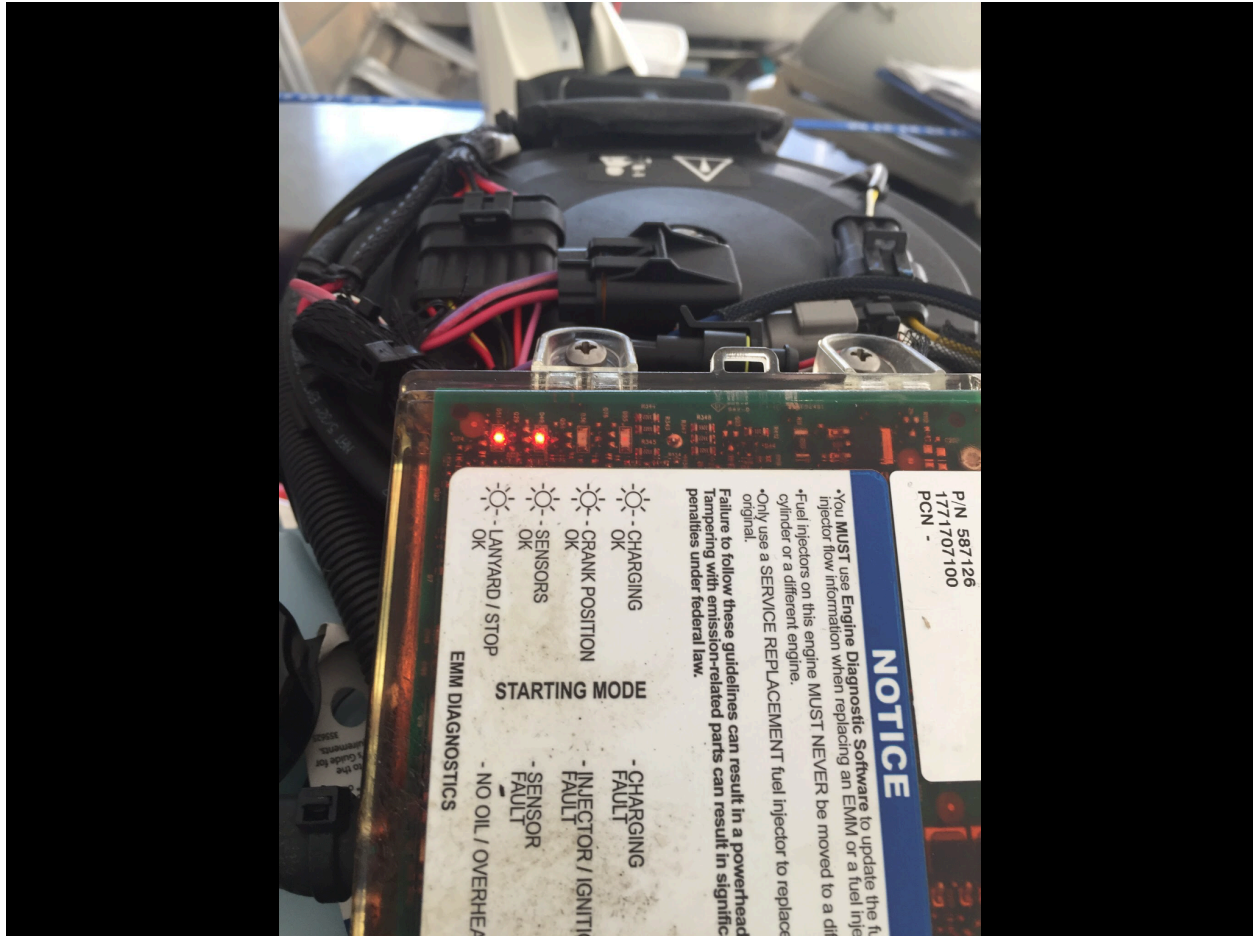


Figure 6. Jumper wire connecting pin 4 to pin 5.

Notes. The pin numbers which are molded into the back edge of the 6 pin Deutsch connector are very small.

Figure 5.

When the EMM is powered ON (engine not running, lanyard in place and not in gear) these two LEDs will light.



12b. Power ON the EMM of E-TEC 15HO-30HP Tiller Steer Pull Start Models (without 12 Volt battery)

Connecting a 12 Volt battery, **Positive +** to **pin 4 violet wire** and **Negative -** to **pin 3 black wire** of the 6 pin Deutsch connector, shown above in Figure 6, will power ON the EMM to allow CONNECTION of Evinrude Diagnostics.

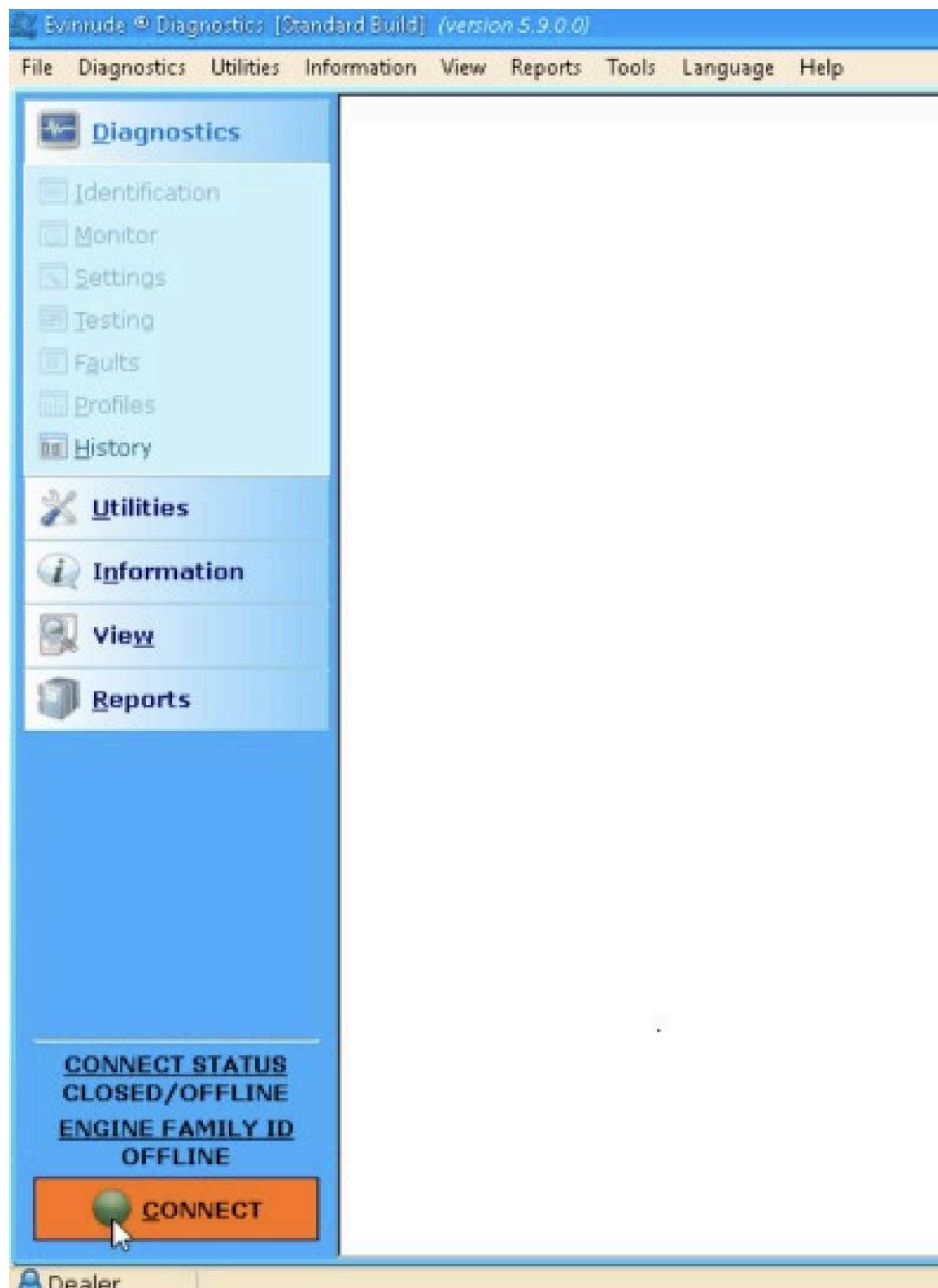
As above in Figure 5 (engine not running, lanyard in place and not in gear) when the EMM is powered ON those two LEDs will light.

12c. VIDEO - Connecting a 12 Volt battery to supply power to the EMM and allow CONNECTION of Evinrude Diagnostics.

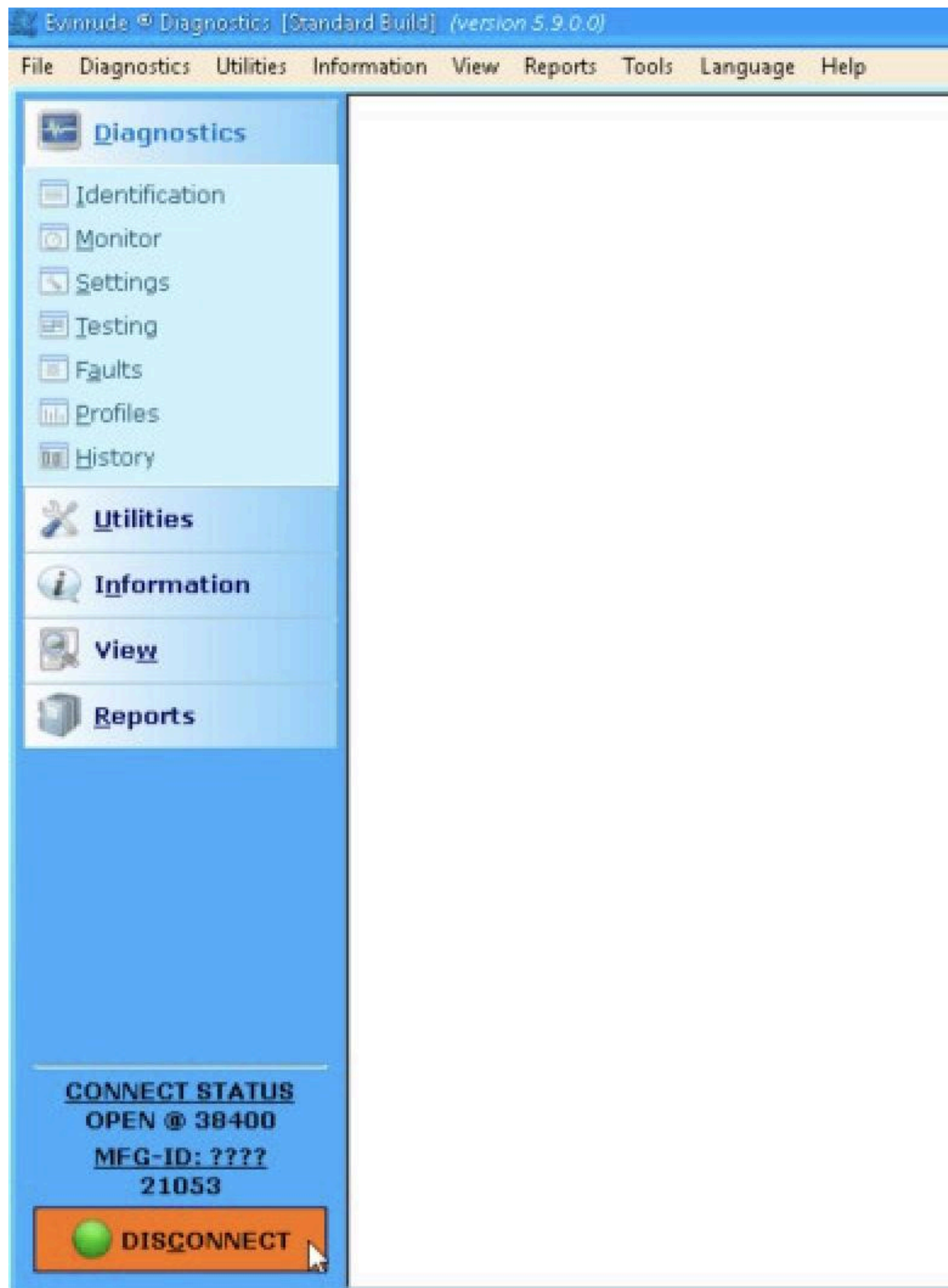
<https://www.youtube.com/watch?v=XN53m2fL-BY>

13. EMM CONNECTION and DISCONNECTION

Click on the CONNECT button, bottom left of screen, to CONNECT Evinrude Diagnostics. When Diagnostics CONNECTS the button will change to **Green** and **CONNECT** to **DISCONNECT**.



CONNECT



DISCONNECT

Notes. After installing Evinrude Diagnostics.

If a USB port not already used for Evinrude Diagnostics is then used to CONNECT Evinrude Diagnostics, when the user clicks on CONNECT a dialogue box will appear advising the user that the USB port has now been allocated and to click on Continue to proceed with CONNECT. If a USB port already used to CONNECT Evinrude Diagnostics is again used to CONNECT Evinrude Diagnostics i.e. a USB port that has already been allocated, then the user will not be shown that dialogue box again.

It is not essential to always use the same USB port but as above, if a USB port is used that hasn't already been used, i.e. not allocated, then that dialogue box will appear and the user will need to confirm it's allocation by clicking on "Continue."

When Evinrude Diagnostics won't CONNECT the user will always be shown a dialogue box advising that it can't CONNECT and a list of possible reasons why (not). e.g. Key not on, cable not connected.

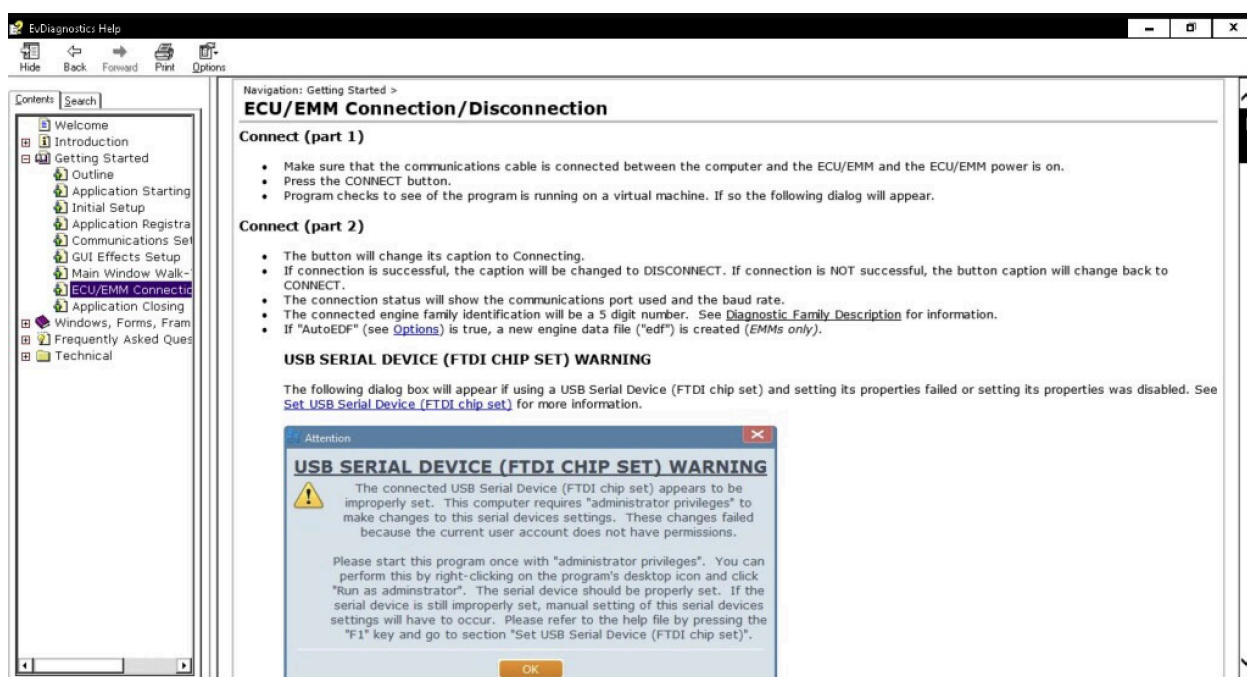
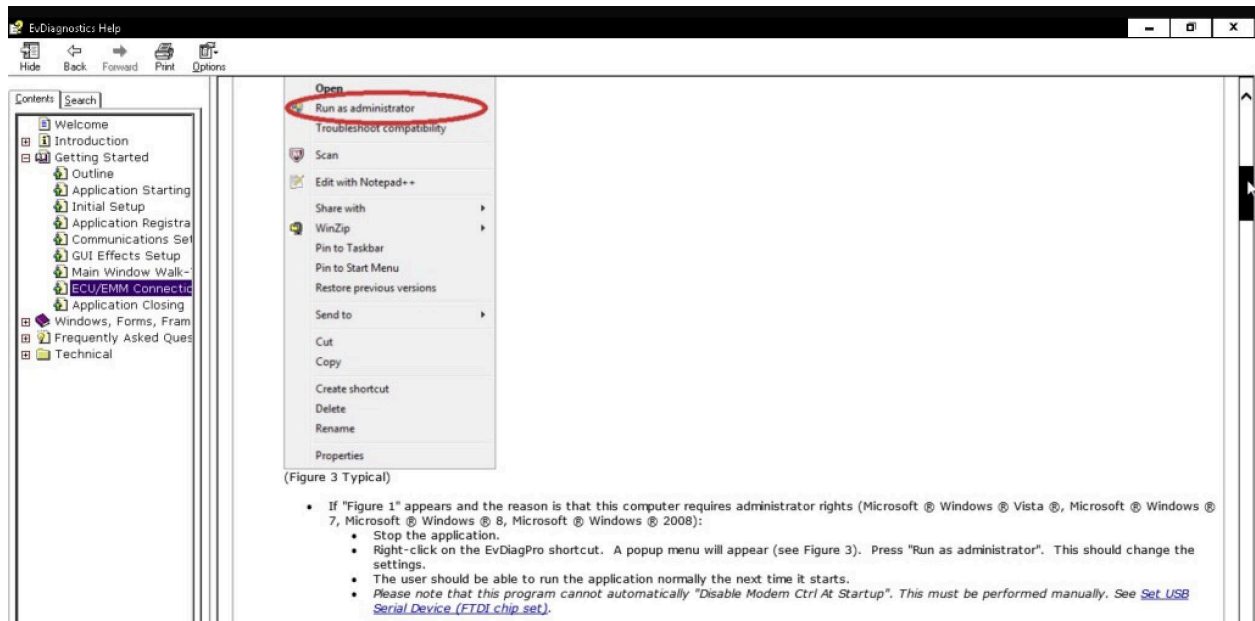


Figure 2 is the Dialog box above.

Notes. See Run as Administrator to set the USB Serial Device's correct baud, i.e. communication, rate in Figure 2 above.

See also **14. Set USB Serial Device. FTDI chipset.**

Figure 3.



Notes. In Figure 3 above. The reference to "Figure 1" is a typing error. The reference should read "Figure 2."

14.Set USB Serial Device (FTDI chipset)

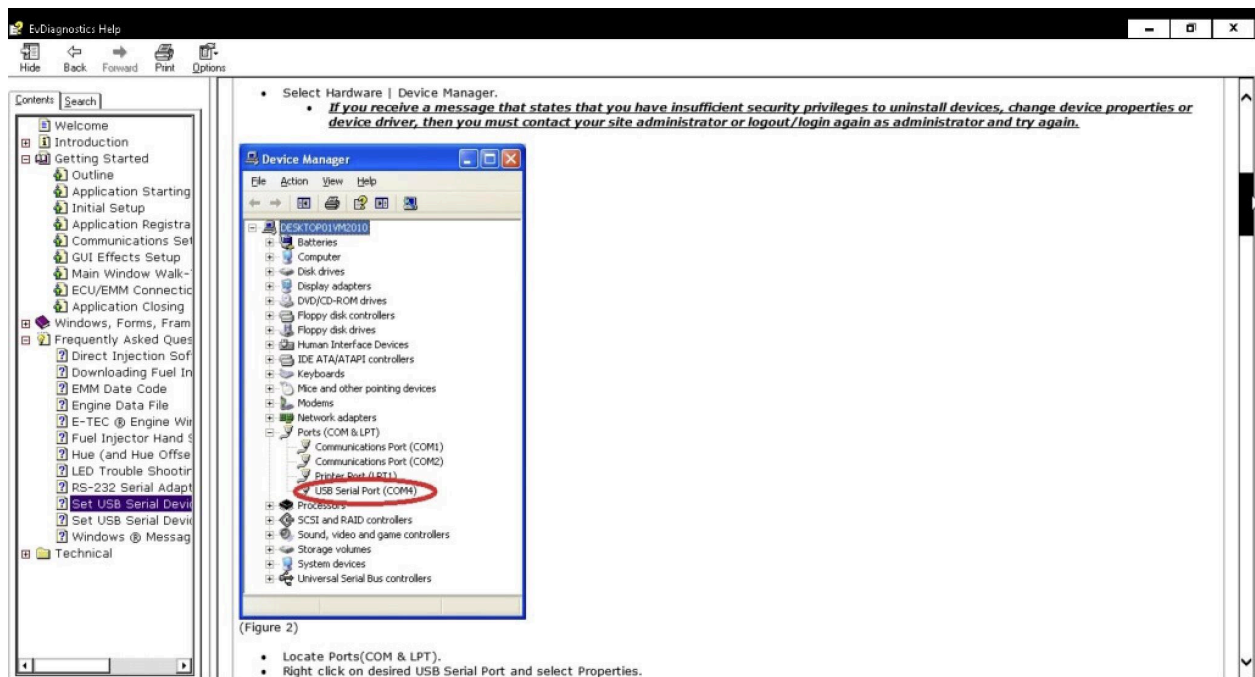
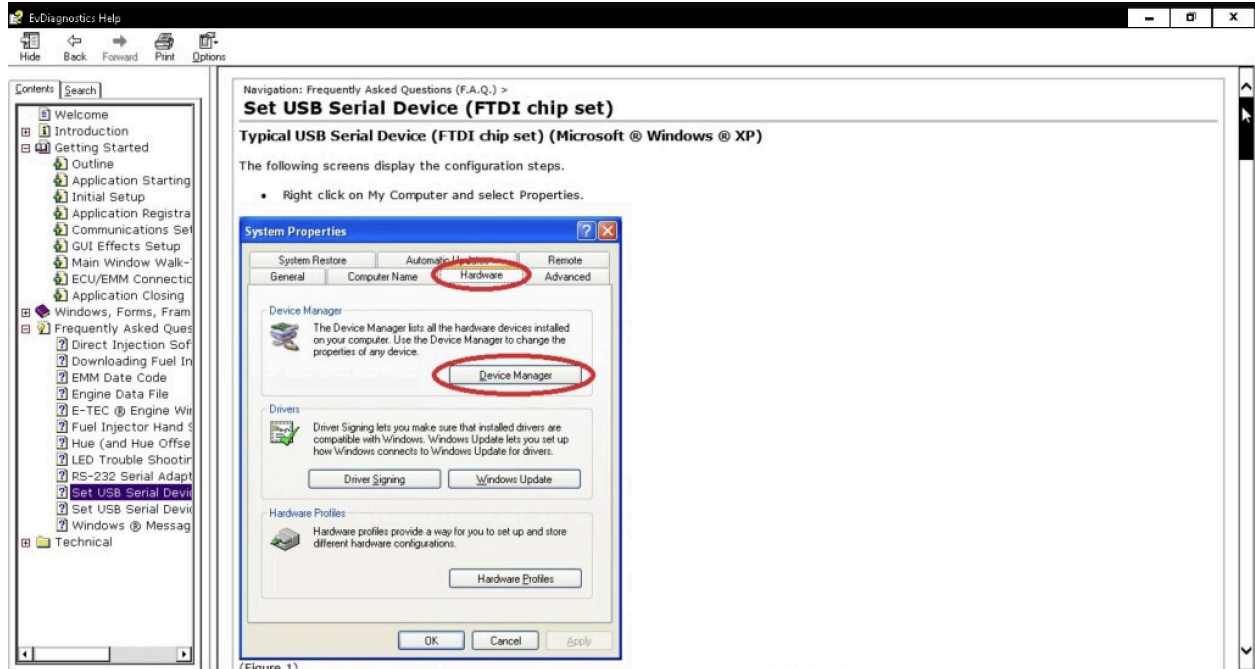
The USB Serial Port Adapter Device Drivers are where some users experience problems with setting up Evinrude Diagnostics.

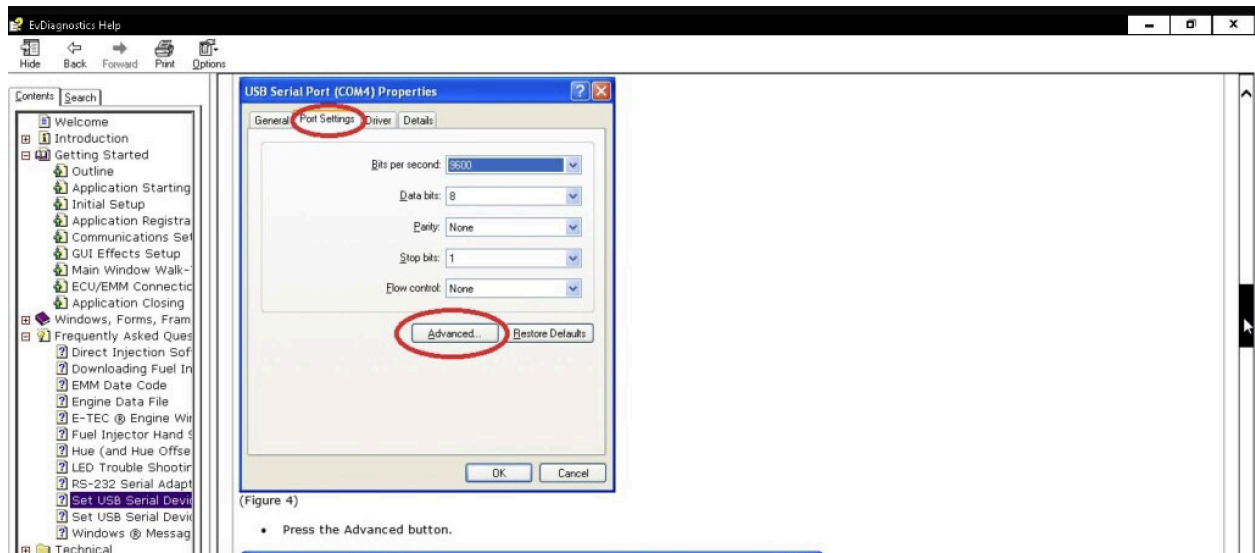
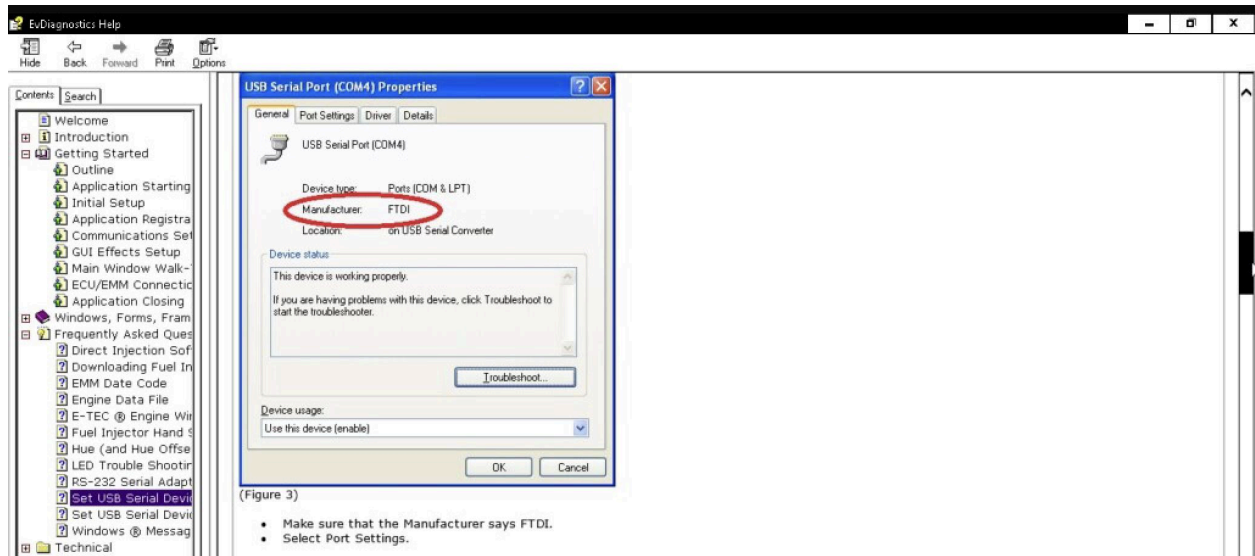
See also Device Drivers in **Topic 5 Notes**.

Evinrude Diagnostics Help contains more information on this subject.

Navigation. Main Menu -> Help -> Contents -> FAQ -> RS-232 Serial Adapters. See also in **Help**, Set USB Serial Device (FTDI Chipset).

The following screenshots display the configuration steps.





EvDiagnostics Help

Hide Back Forward Print Options

Contents Search

- Welcome
- Introduction
- Getting Started
 - Outline
 - Application Starting
 - Initial Setup
 - Application Registra
 - Communications Set
 - GUI Effects Setup
 - Main Window Walk-
 - ECU/EMM Connectio
 - Application Closing
- Windows, Forms, Fram
- Frequently Asked Ques
- Direct Injection Sof
- Downloading Fuel In
- EMM Data Code
- Engine Data File
- E-TEC Engine Wi
- Fuel Injector Hand S
- Hue (and Hue Offse
- LED Trouble Shootir
- RS-232 Serial Adapt
- Set USB Serial Devi
- Set USB Serial Devi
- Windows & Messag
- Technical

Advanced Settings for COM1

COM Port Number: COM1

USB Transfer Sizes

Select lower settings to correct performance problems at low baud rates.

Select higher settings for faster performance.

Receive (Bytes): 64

Transmit (Bytes): 64

EM Options

Select lower settings to correct response problems.

Latency Timer (msec): 4

Timeouts

Minimum Read Timeout (msec): 0

Minimum Write Timeout (msec): 0

Miscellaneous Options

Serial Enumerator ☒

Serial Printer ☐

Cancel If Power Off ☐

Event On Surprise Removal ☐

Set RTS On Close ☐

Disable Modem Ctrl At Startup ☒

OK Cancel Defaults

(Figure 5)

- Locate USB Transfer Sizes - Receive and set the value to "64".
- Locate USB Transfer Sizes - Transmit and set the value to "64".
- Locate Latency Timer and set the value to "4".
- Locate Disable Modem Ctrl At Startup and set the value to true (checked).
- Press the OK button. The window will close.
- Press the OK button on the Properties window. The changed setting is now saved. The window will close.
- Close the other forms.

15.EMM CONNECTION WARNING Examples.

USB SERIAL DEVICE ERROR

EvDiagnostics Help

Hide Back Forward Print Options

Contents Search

- Welcome
- Introduction
- Getting Started
 - Outline
 - Application Starting
 - Initial Setup
 - Application Registra
 - Communications Set
 - GUI Effects Setup
 - Main Window Walk-
 - ECU/EMM Connectio
 - Application Closing
- Windows, Forms, Fram
- Frequently Asked Ques
- Technical

Controls (for Figure 4)

Control	Type	Description Comments
OK	Button	Closes this dialog box. Pressing the Esc key or Alt+F4 also closes this dialog box.

USB SERIAL DEVICE ERROR

The following dialog box will appear (depending of the operating system used) if using a USB Serial Device that may not communicate. See [RS-232 Serial Adapters](#) for more information about USB Serial Devices.

Attention

USB SERIAL DEVICE WARNING

The connected USB Serial Device can exhibit problems with proper communications which can cause the application to lock up (freeze) and/or cause the computer to inadvertently shutdown.

HINT: If the application appears to be frozen, removing the USB Serial Device will unfreeze the application.

Do you wish to continue?

Yes No

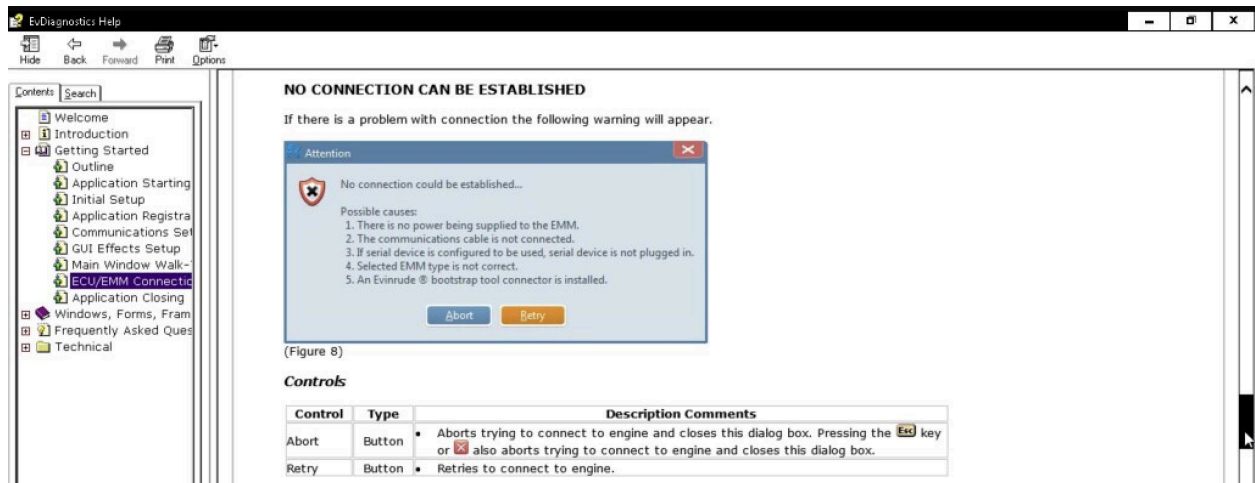
☐ Do not show this message again (Reset in "Options")

(Figure 6)

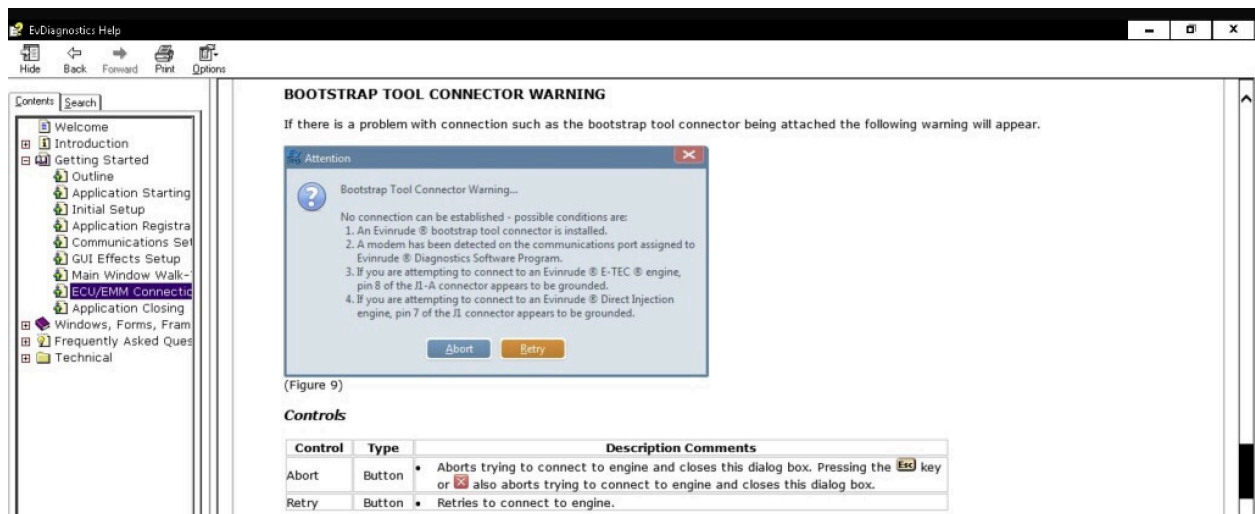
Controls

Control	Type	Description Comments
Yes	Button	Proceed with attempt to go online.
No	Button	Cancel attempt to go online. Pressing the Esc key or Alt+F4 also cancels attempt to go online.

NO CONNECTION CAN BE ESTABLISHED



BOOTSTRAP TOOL CONNECTOR WARNING

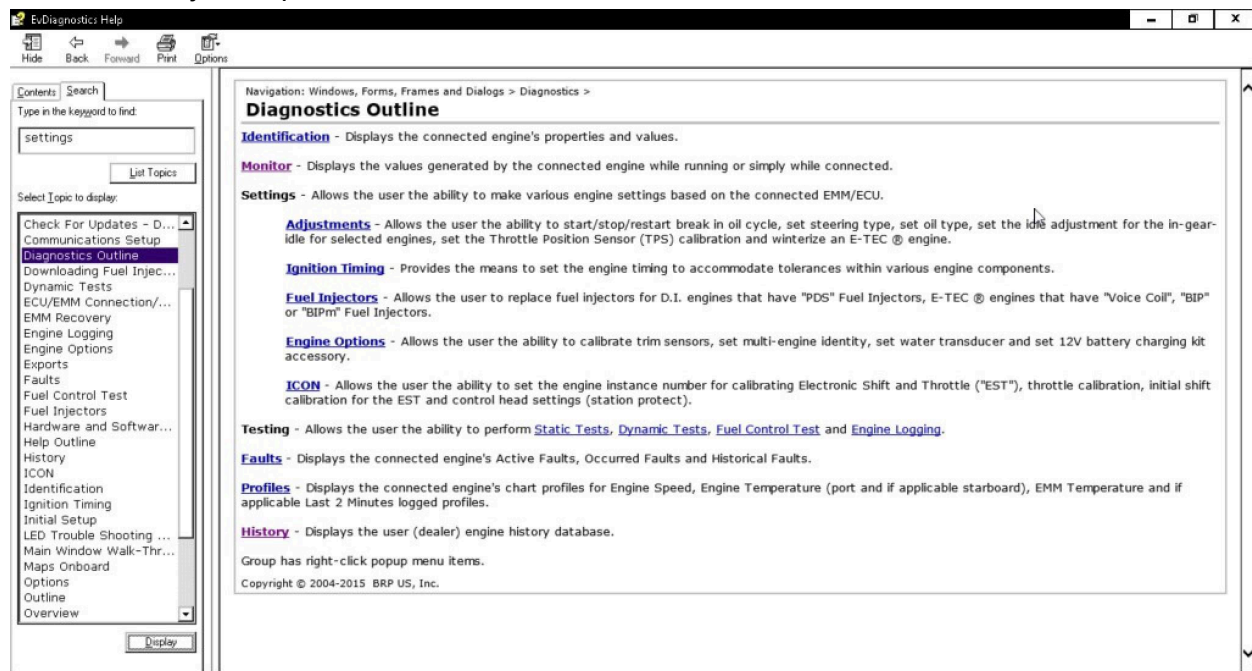


Notes. Never connect or disconnect the Bootstrap when the EMM is Powered ON as this may result in loss of communications with the EMM.

16.DIAGNOSTICS OUTLINE

Navigation. Windows, Forms, Frames and Dialogs -> Diagnostics ->

Select the subject required for more information.

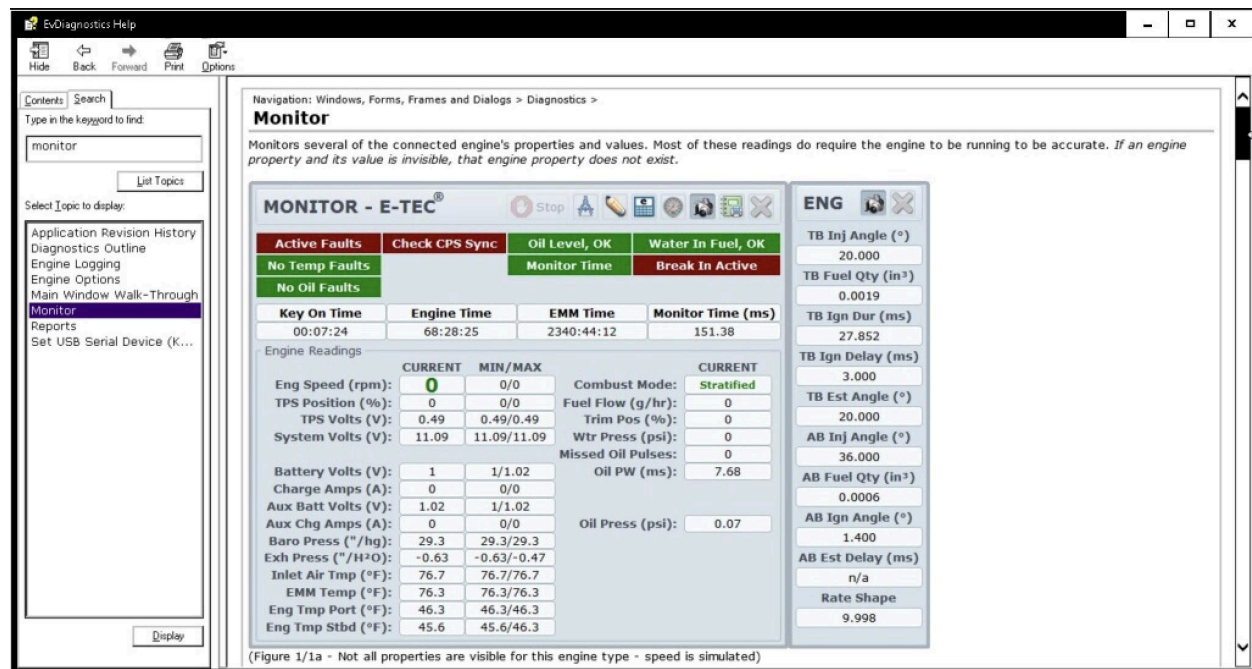


Notes. Selecting a subject listed in **Diagnostics Outline** allows the user to explore the subject in much more detail and to learn more about it from the very detailed information provided.

17. Monitor Mode monitors several of the CONNECTED engine's properties and values.

Monitor is only available when the EMM is powered ON.

Navigation. Main Menu -> Diagnostics -> Monitor.



Notes. In the Monitor screenshot above, the EMM is powered ON but as the engine is not running, **Check CPS Sync** is displayed and the box is **red**.

If there are any active faults the **Active Faults** box will flash.

Navigation. Main Menu -> Diagnostics -> Faults.

Camera Icon. To take a snapshot of the screen when the camera Icon is displayed click on the Camera Icon and an SLR camera sound will be heard when the snapshot is taken. The snapshot will be saved to the Exports folder. See also **18.Snapshots**.

The screenshot shows the 'MONITOR - E-TEC' software interface. The left sidebar contains a 'Diagnostics' menu with options like Identification, Monitor, Settings, Testing, Faults, Profiles, History, and Report... Below this is a 'Utilities' section with 'Information' and 'View' options. At the bottom of the sidebar is a 'CONNECT STATUS' section showing 'CONNECTION OPEN @ 38:00' and 'ENGINE FAMILY ID 30011', with a 'DISCONNECT' button.

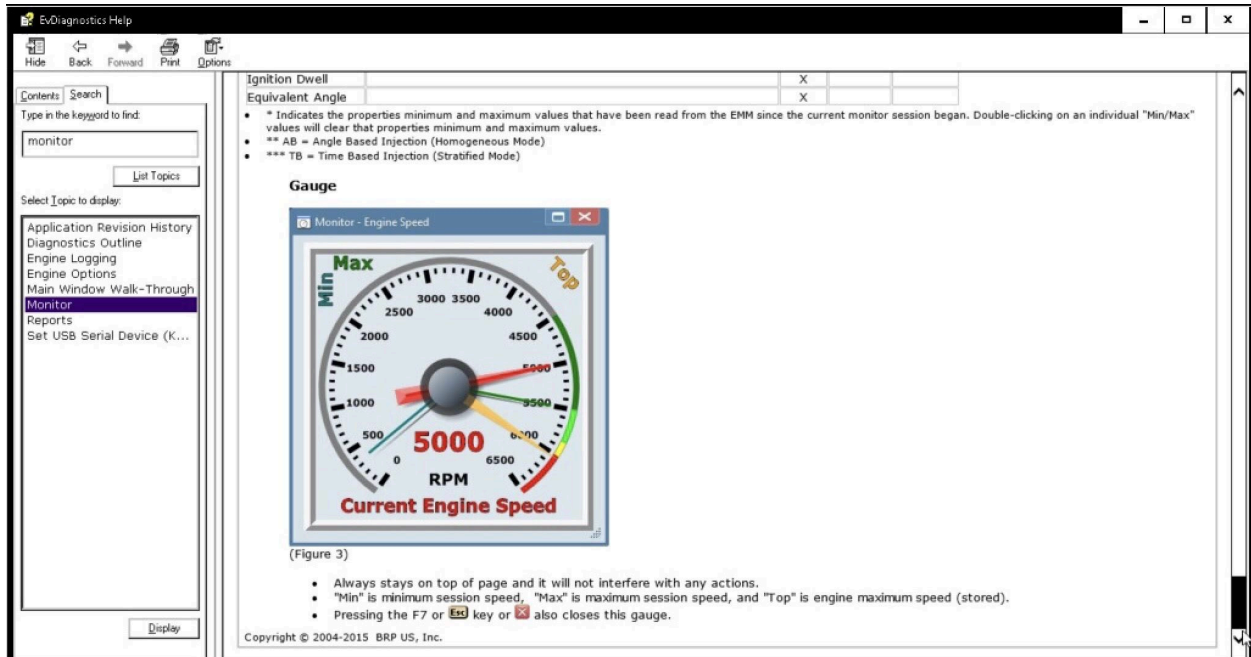
The main display area shows various engine parameters and status indicators. At the top, there are status boxes for 'No Active Faults', 'CPS Sync, OK', 'No Temp Faults', 'Bootstrap, OK', 'No Oil Faults', and 'Shift In Neutral'. Below these are time counters for 'Key On Time', 'Engine Time', 'EMM Time', and 'Monitor Time (ms)'. The central part of the screen displays a table of engine parameters with 'CURRENT' and 'MIN/MAX' values. To the right of this table are additional parameters like 'Combust Mode', 'Missed Oil Pulses', 'Oil PW (ms)', 'Oil Freq (hz)', and 'Oil Flow (g/hr)'. At the bottom, there are more temperature and pressure readings.

Parameter	Current	Min/Max
Eng Speed (rpm):	589	589/609
TPS Position (%):	0.30	0.10/0.30
TPS Volts (V):	0.50	0.50/0.51
System Volts (V):	55.39	55.04/55.39
Ignition Volts (V):	201.21	201.21/201.48
Battery Volts (V):	12.85	12.85/12.87
Charging Amps (A):	1.63	1.63/1.75
Baro Press ("Hg):	29.52	29.50/29.52
Inlet Air Temp (°F):	74.5	74.3/74.5
EMM Temp (°F):	82.3	82.3/82.3
Engine Temp (°F):	95.5	95.2/95.5

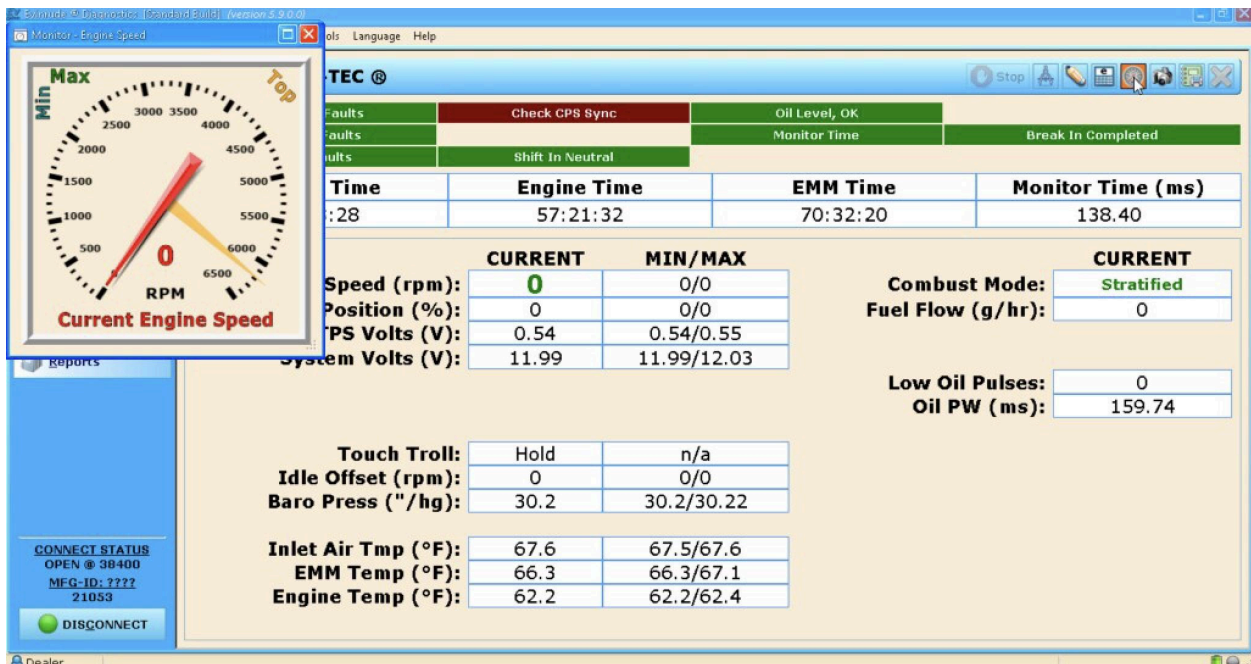
Parameter	Value
Combust Mode:	Stratified
Missed Oil Pulses:	127
Oil PW (ms):	92.16
Oil Freq (hz):	0.7
Oil Flow (g/hr):	0.0003

Notes. In the Monitor screenshot above as the engine is running, **CPS Sync, OK** is displayed and the box is **green**.

Select the Tachometer Icon on the Monitor page to display RPM.

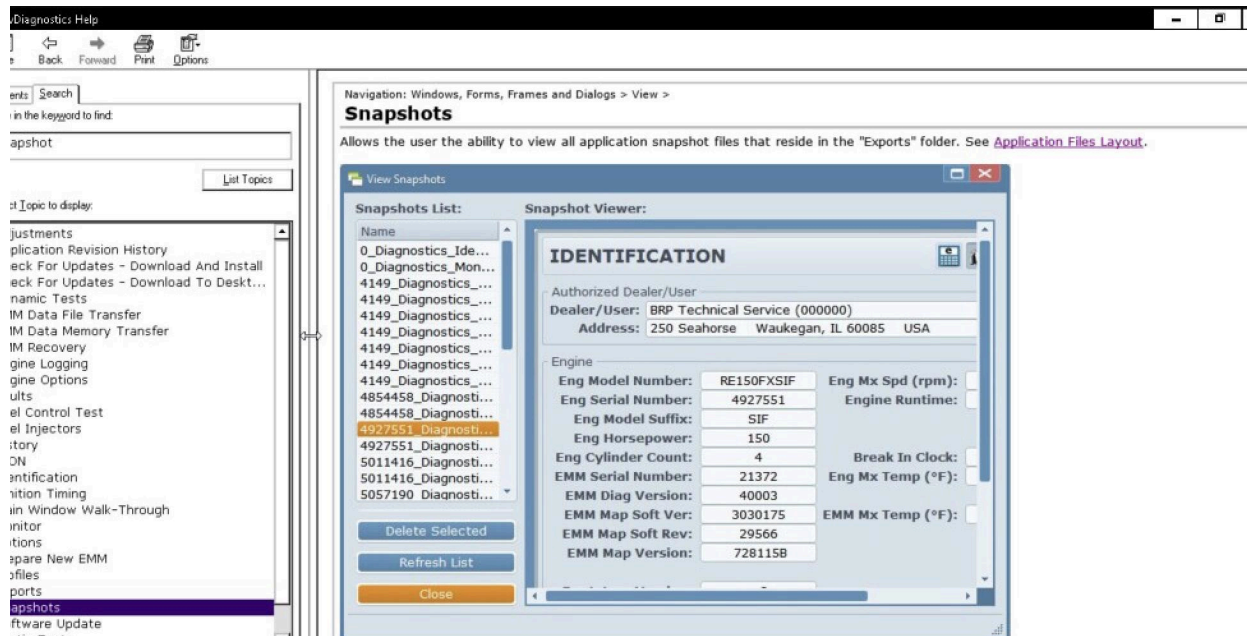


When the Tachometer Icon is selected the tachometer always stays at the top of the Monitor page and will not interfere with any actions.



18.Snapshots allows the user the ability to view all application snapshot files that reside in the Exports folder.

Navigation. Main Menu -> View -> Snapshots.



Notes.

To View Snapshots.

Navigation. Main Menu -> View -> Snapshots. While snapshots can be viewed here they can't be emailed (from Snapshots).

Email a Snapshot

Navigation. Main Menu -> View -> Exports (**Not Snapshots**) -> Select File (.jpg) -> Right click -> Open -> Share -> Email.

Also see **Topic 6 Application Starting** Figure 1 - Email or print an engine History Report.

19.APPLICATION DISCONNECT and CLOSE

1 Click on DISCONNECT and it will change back to CONNECT.

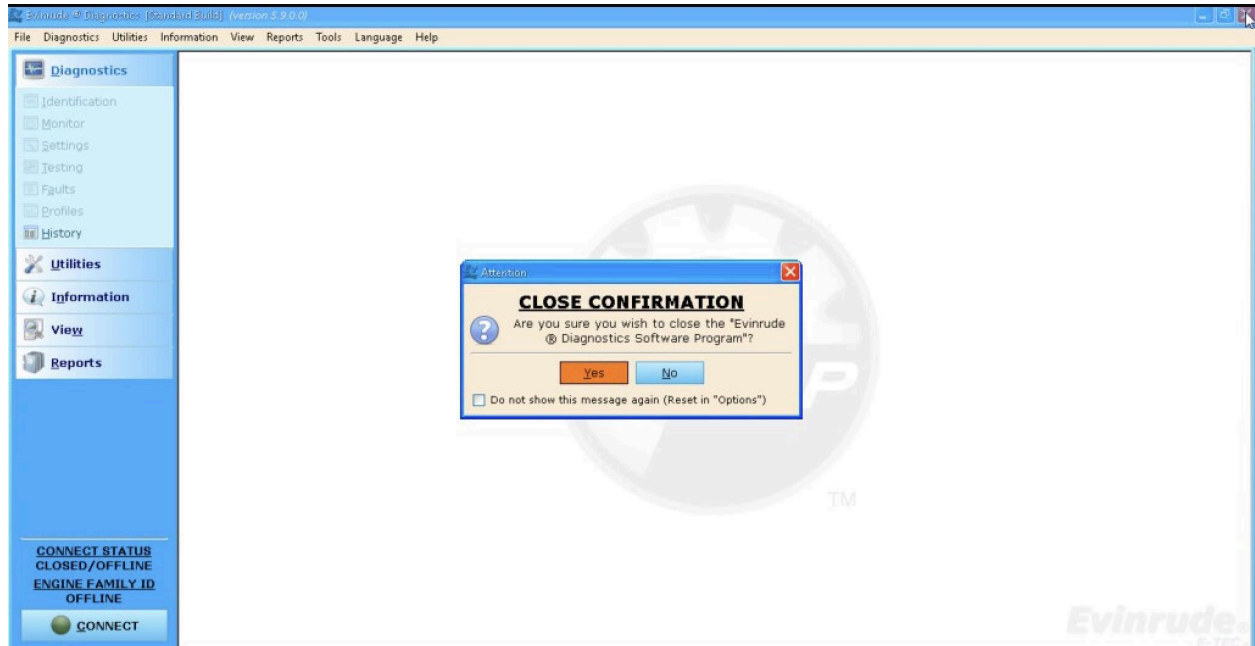
2 Close Evinrude Diagnostics program.

Click on Yes to confirm Close if that option was selected.

3 Turn Key to OFF / DISCONNECT power from the EMM.

4 Disconnect Diagnostics interface connection cable.

5 Return engine Diagnostics connector to its storage receptacle.



NOTES Close Confirmation is optional but does help prevent accidental CLOSE.
See also **Topic 6. Application Starting-** Confirm Close.

After completing the installation of Evinrude Diagnostics the user is encouraged to read through the Help section. This should give the user a good understanding of how to correctly set up and use Evinrude Diagnostics. Many of the service and repair procedures in the Service and Repair Manual require the competent use of Evinrude Diagnostics.

END