55410 PC INTERFACE CABLE KIT

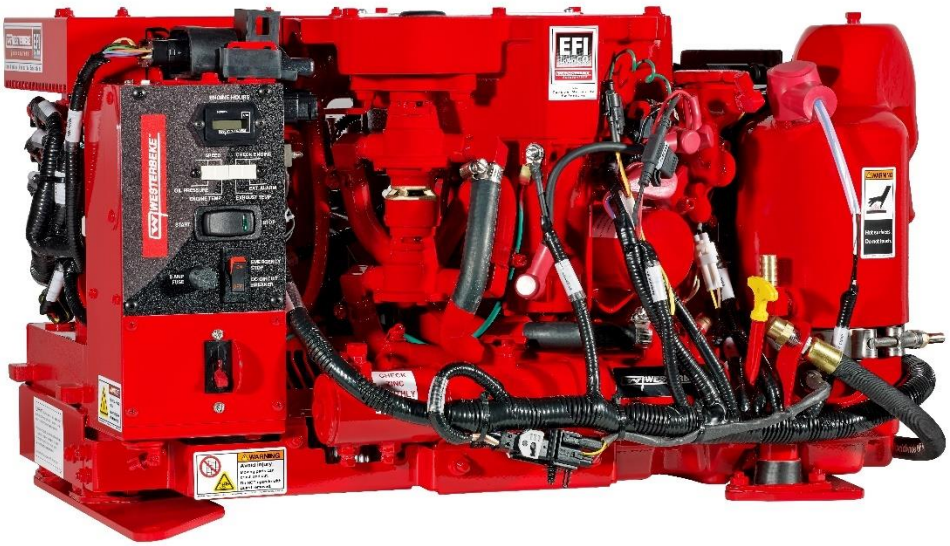
INSTALLATION AND SETUP INSTRUCTIONS

FOR

FUEL INJECTED GASOLINE GENERATORS

AND

D-NET DIESEL GENERATORS



Form 55683 rev.A
published 7/29/2021

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What is new with Westerbeke PC Interfaces?

The new versions of the Westerbeke PC Interfaces were developed using Visual Studio. This is an upgrade from previous versions which were developed using stand-along Visual Basic 6.0. The previous interfaces were installed as executable files. With the latest versions, they will be installed as a regular software program. This means that there will no longer be an executable file that can be copied and moved from one computer to another. A new installation will have to be done on each computer that the interface will be used on. This is a more secure way of installing the interfaces. This also means that after having installed an interface, when there is an update required, the old interface will have to be uninstalled before the updated one can be installed.

The new interfaces can be recognized by the change in icons:

The older interfaces (Visual Basic) will have the  nuclear icon,

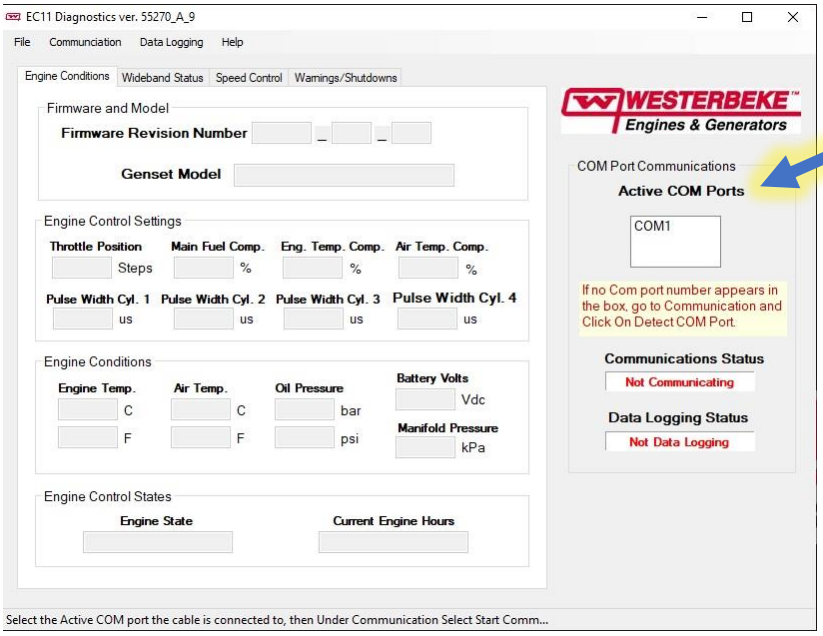
The new interfaces (Visual Studio) will have the  Westerbeke logo as an icon.

It will be okay to have an older PC Interface version (Visual Basic 6.0) installed at the same time as the newer version (Visual Studio). However, only one version can be run at a time.

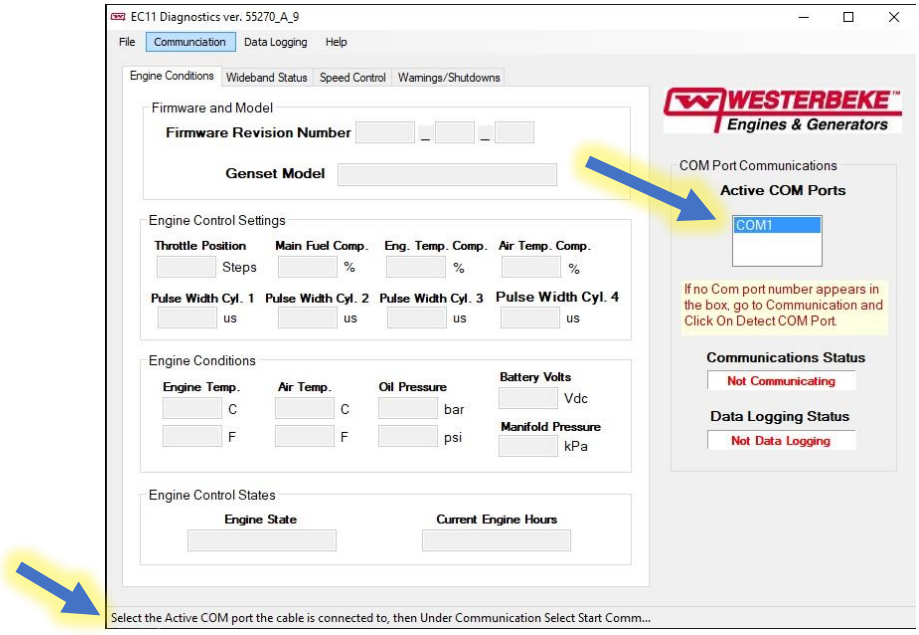
Remember – To install an update to either version, the older revision will have to be uninstalled before the new revision can be installed. The new versions of interfaces are compatible to all our product line.

NEW FEATURES

You will no longer have to know what COM port your communication cable is connected to. When the interface opens and you have a PC Interface cable plugged into one of your computer's USB ports, the active COM ports will automatically be detected and will appear in the Active COM Ports window.

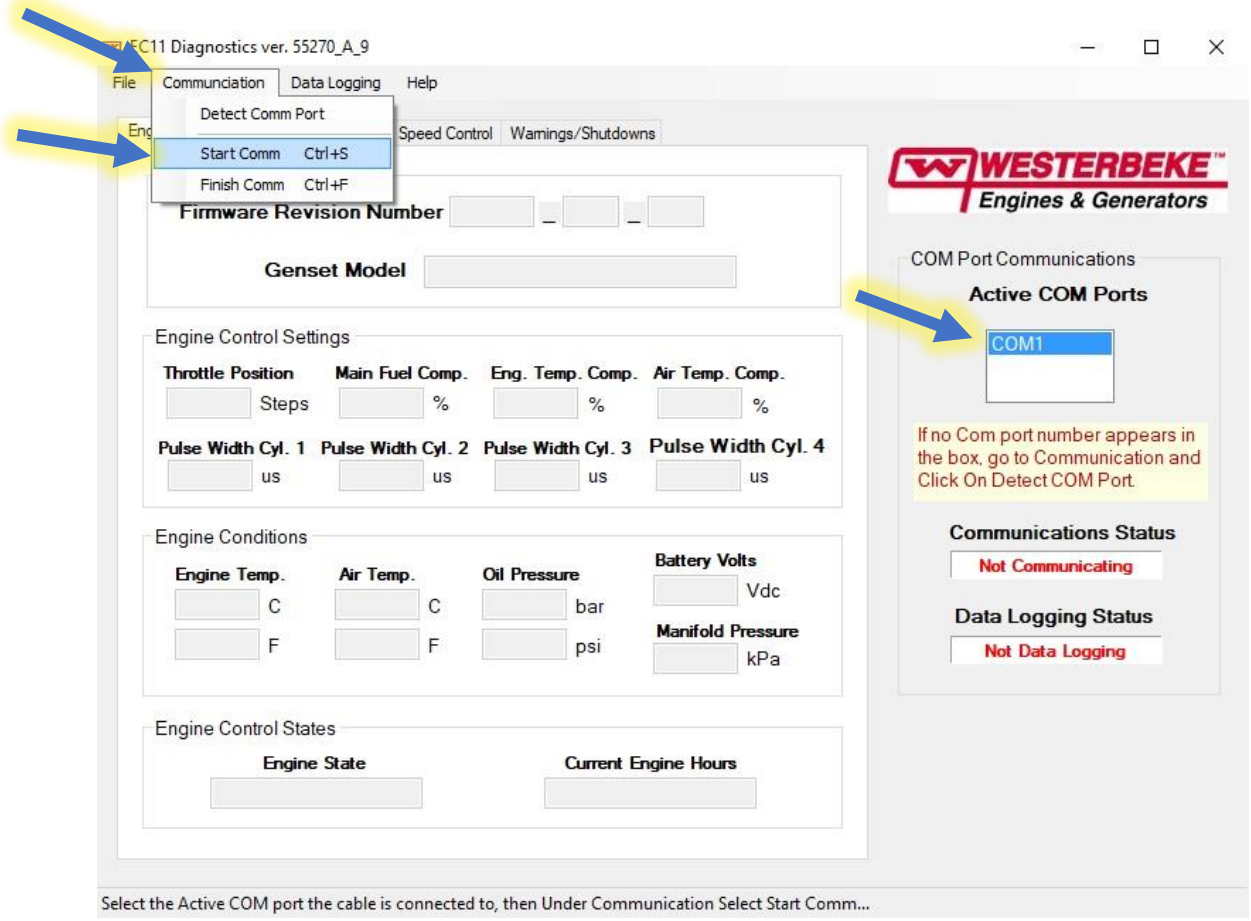


You will then select the COM port that the cable is connected to by clicking on the word COM# that appear in the box.



Note: Follow the instructions that appear in the Task Bar.

If the cable is not plugged in when you open the interface, you will be prompted to Detect the Active COM port. This is done under the Communication menu item, select Detect Active COM Port. Then select the Active COM port.



Select "**Start Comm**" from the Communication menu pulldown or use the shortcut keys **<Ctrl>+S**, to start communicating with the ECU you are connected to.

Unlike earlier PC Interface versions, you will no longer be limited to COM ports 1 through 8. The latest interface will use whatever COM port the cable takes, potentially COM 1 through COM 254.

Note: For detection purposes, it is best that the Westerbeke communications cable is the only COM or USB device connected to the monitoring computer or laptop. If multiple active COM ports appear in the *Active COM Ports* box, then you will have to select the specific port the cable is connected to. If the wrong port is connected, no communication will occur. Select the correct port and try again.

If there are any questions as to which port the cable has taken, you can find this out in the computer's Device Manager.

Modifying the Device Driver to Improve PC Interface Communications

The following discussion applies to the device driver associated with Westerbeke Communication's cable part number 55684. This 3rd party device driver turns a computer's USB port into a **virtual com port (VCP)**.

Introduction

The purpose of this application note is to provide users of the Westerbeke USB Communication Cable #55684 with a simple procedure for modifying the device driver to work properly with the Westerbeke USB cable using **Windows10, Windows 8**, **Windows 7**.

Background

With the release of the latest driver for the Westerbeke USB Communication cable #55684, once the VCP driver has been installed, one must manually change the Cable driver's latency timer from 16ms to 8ms or there will be communication issues.

Installing VCP Driver

Following the instructions provided in the device driver Readme file to do the initial install of the virtual com port driver.

Modifying the Device Driver's Latency Timer Setting

This modification must be done manually by going to the Windows Device Manager. Follow the steps below to make the modification:

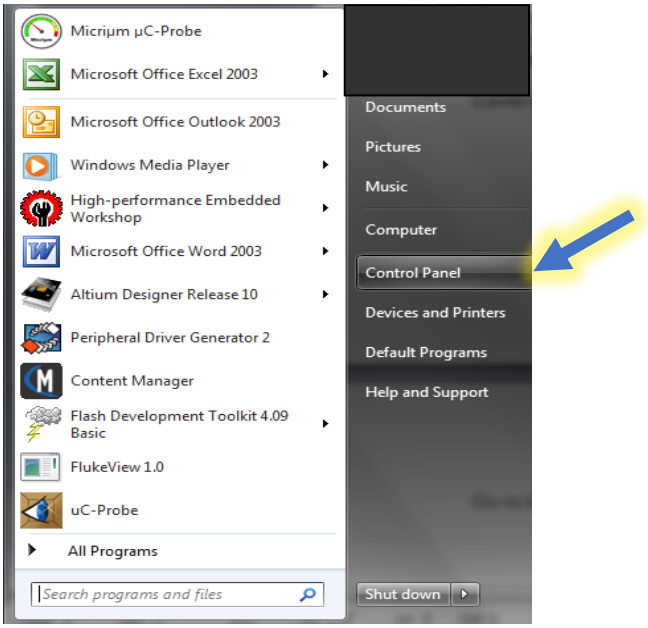
1) Go to the Device Manager.
2) Expand "Ports (COM & LPT)".
3) Select "USB Serial Port"
4) Select the "Port Settings" tab.
5) Select "Advanced" button.
6) Change Latency Timer from 16ms to 8ms and hit OK to accept the change.

The following sections illustrate the different ways of finding your computer's Device Manager when using Windows 7, Windows 8 or Windows 10. Once you are into the Device Manager Window, all the operating systems look just about the same.

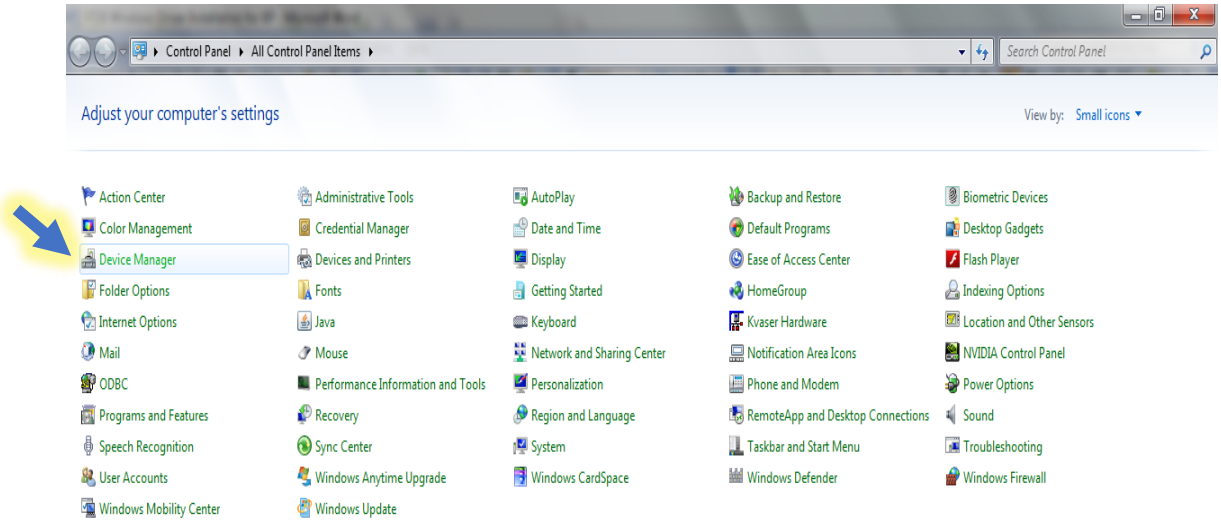
See Page 9 for more detailed instruction on changing the Latency Timer.

To find the device manager for Windows 7:

Click on the **START** button on the lower left corner of your computer screen, and then click on **Control Panel**, which is located on the right side of the panel that pops up.

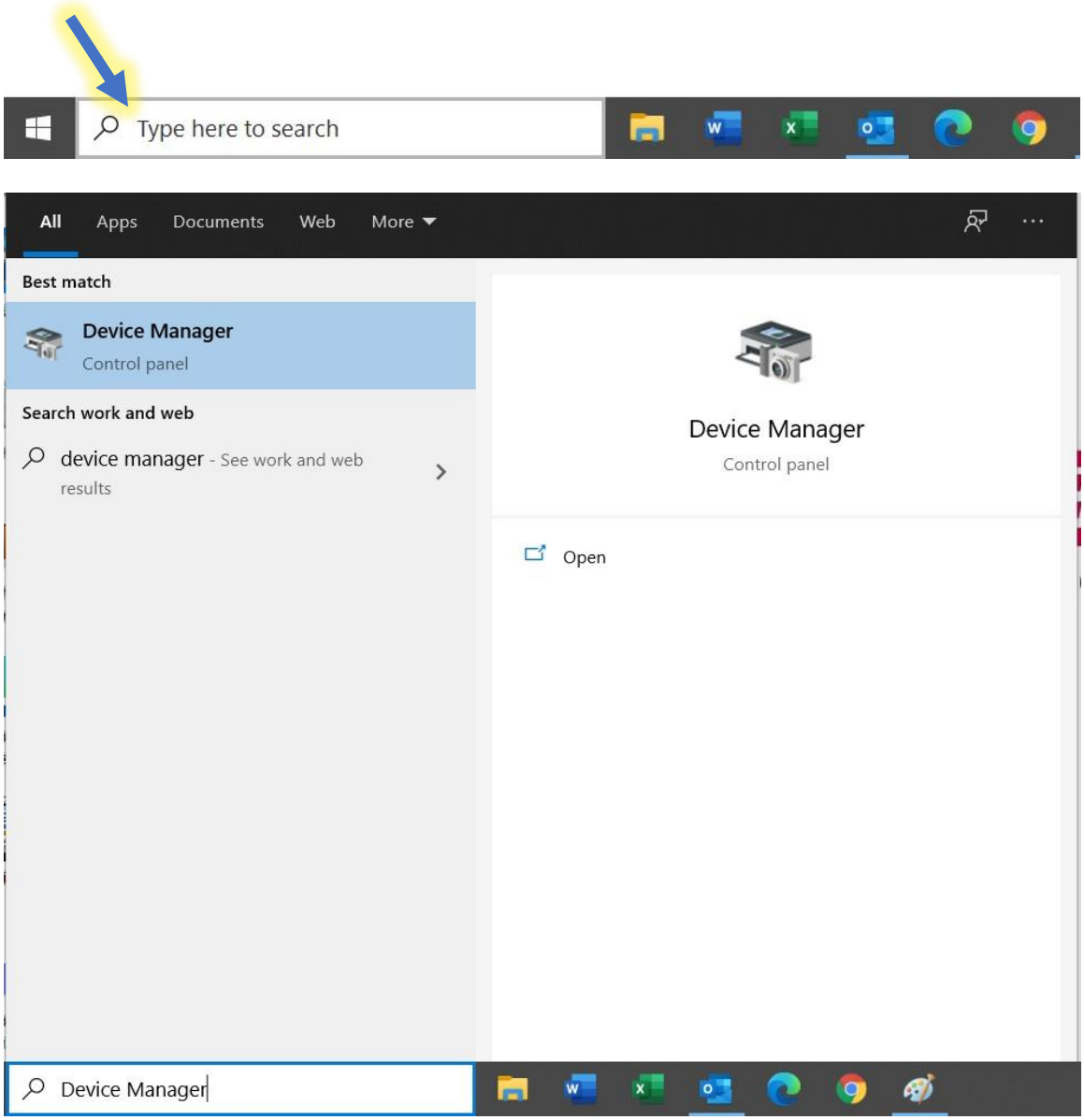


In the control panel select the Device Manager.



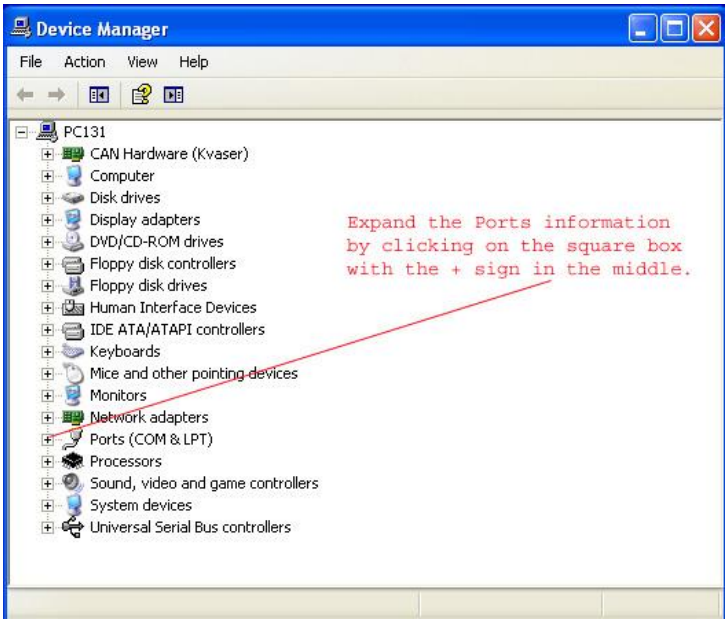
For Window 8 and Windows 10

Perhaps the easiest way to find the device manager is to use the toolbar search tool.
Type in “Device Manager”, then click on Open.



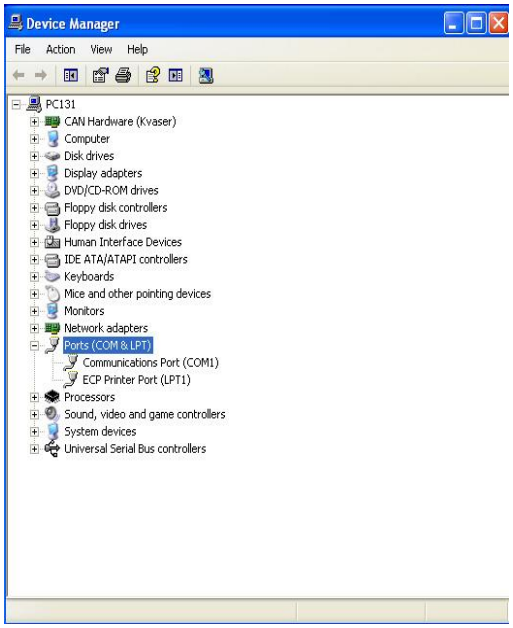
Latency Timer

The following is more details on changing the Latency Timer: Once the **Device Manager** window opens, expand the **Ports (Com & LPT)** information by clicking on the square box with the (+) sign in the middle. **(Note: The communications cable must NOT be plugged in at this time.)**

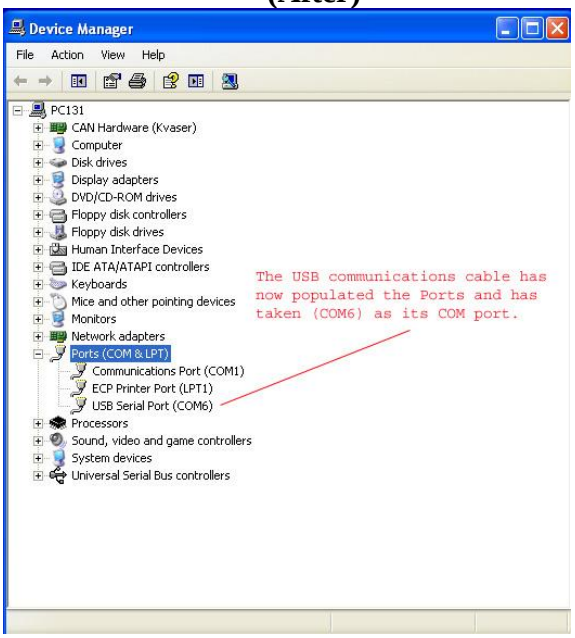


Once the Ports information menu is expanded, you will be able to see devices that have taken a Port number. Now plug in the communication cable and wait for it to populate a Port. The images below demonstrate a typical setup.

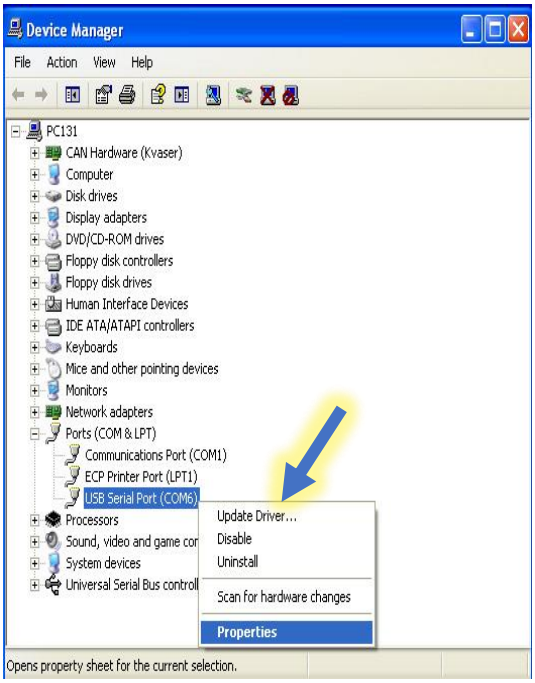
(Before)



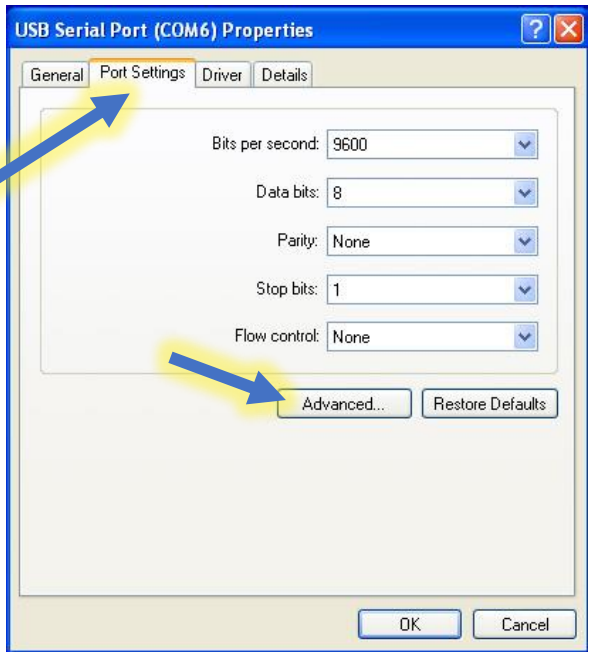
(After)



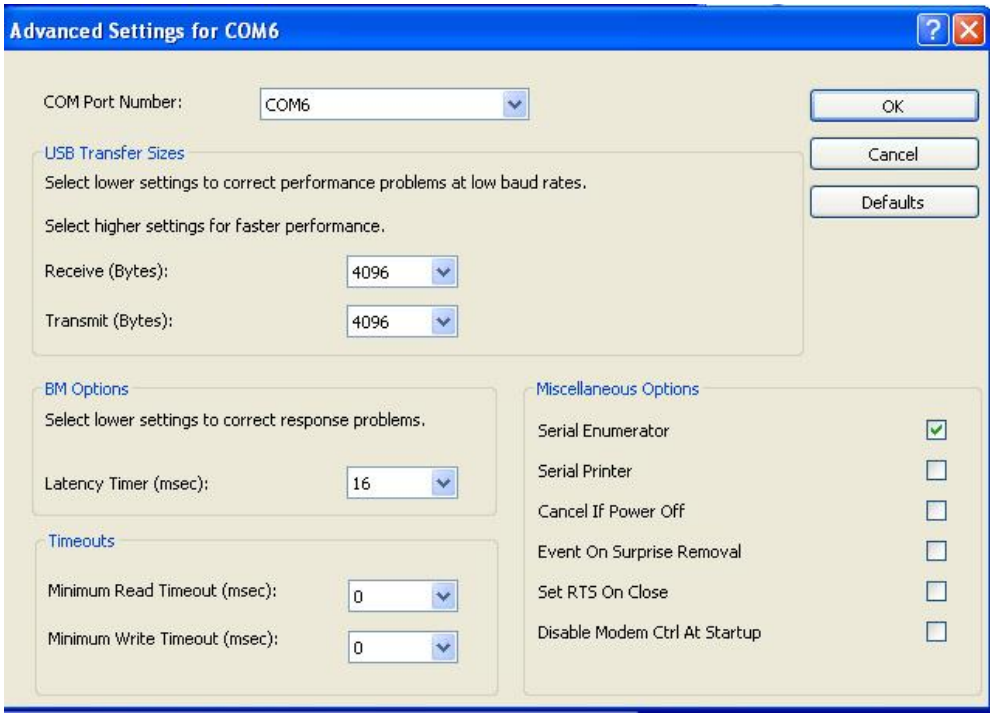
The communication cable has taken COM6 as displayed in the image above labeled (After). After the properties window opens, right-click on the USB Serial Port (COM6) item, and then click on **Properties**. You can verify that you have selected the right device by confirming the Manufacturer is listed as FTDI.



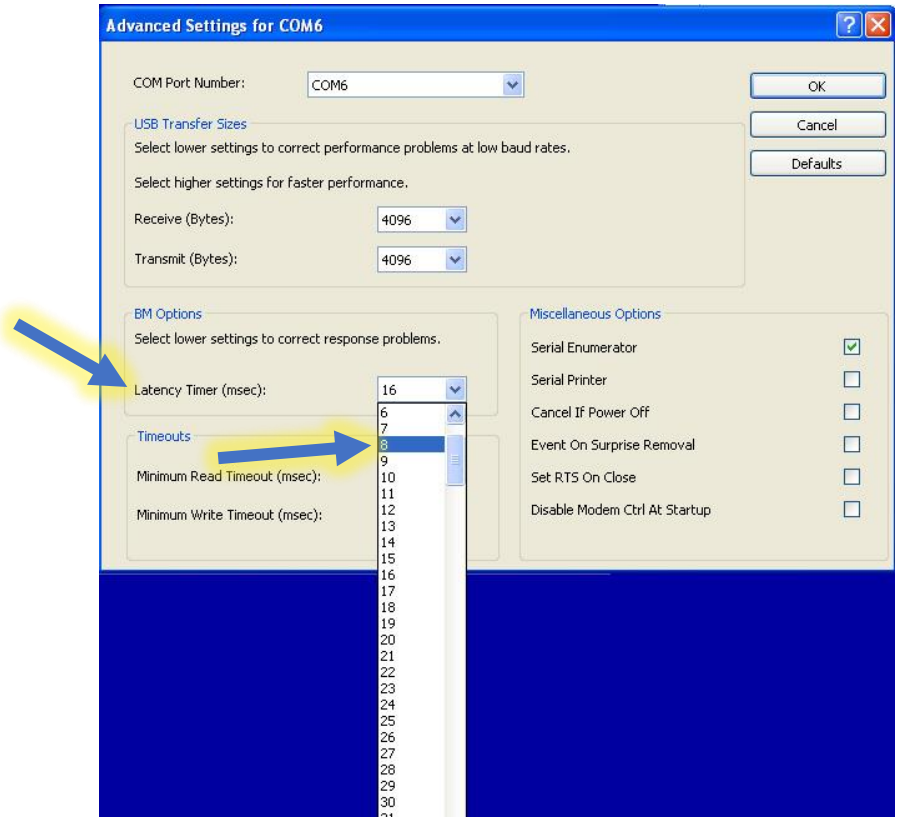
Click on **Port Settings**; then click on the **Advanced** button.



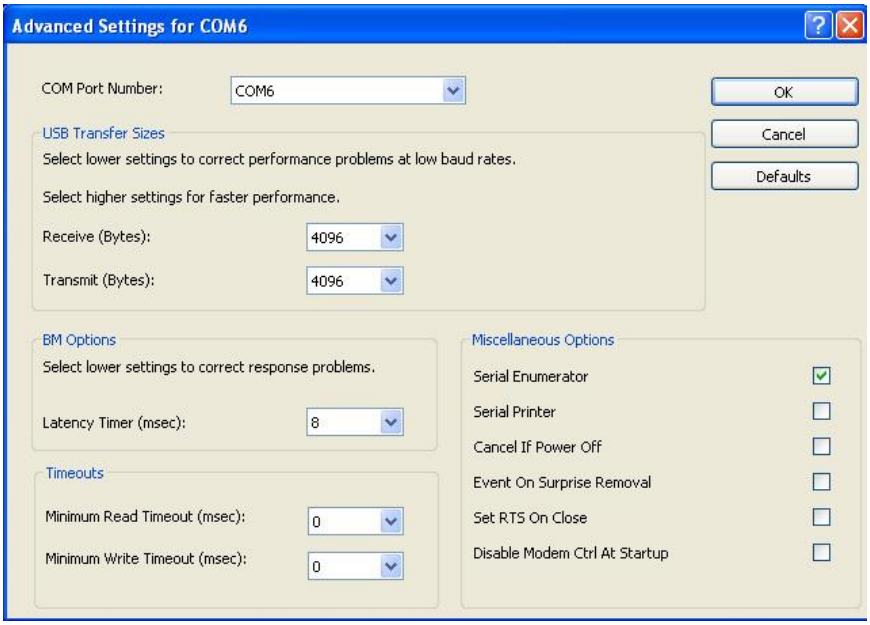
Once the Advanced Settings window opens, it should look like the image below.



Now under **BM Options**, you need to change the value of the Latency Timer from 16 msec to 8 msec. This is done by clicking on the checkbox to the right of the window to expand the values, and then select the 8 from the list.



When you are done, the Advance Settings for the COM port should look like the image below, with your unique COM Port number.



At this time, you should note the COM port number that the communications cable has taken. When you first open the interface, the communications cable should be already plugged into one of your computer's USB ports. When the interface opens it will automatically detect the cable as an active COM port. Next you will click on the Active COM port and then select Start Comm… under the Communication menu item.

You can remove and re-insert the cable and the cable will continue to take the same COM port number every time. However, if you were to try to use another communication cable it would be treated as a separate new device and would have to be re-configured to the new Latency Timer value of 8.

Using the USB Communication Cable #55684 with the different ECU types

Using the new USB cable is very similar to using the old-style cable with a serial connection. Most likely you were using a USB to Serial adapter to connect to your PC. With this new USB cable, the operation still includes turning off the DC breaker before connecting the cable, then picking the correct Communications (COM) port, then clicking on "Start Communicating" to start the communications link. In the case of using the new Interfaces released in July of 2021, the interface will automatically detect the COM port for you.

Aligning the connector properly to Pin #1 is a little different that the older cable. The older cable had the wires exposed and you could see the RED wire that would align on top of Pin #1. Now the connector is covered, there is no more RED wire, and you cannot see the wiring. There is now a label on the connector indicating to align the label with the outer edge of the ECU. If for some reason your label falls off and you cannot tell which way to connect it, simply try it in one direction and if you cannot communicate, flip the connector over in the other direction and try it. Once you are communicating you can add a label of your own to identify the proper orientation.

There is a slight change in operation on the older Low CO products. These products can be identified by the ECU type, which will be the EC10 family of ECU's. They can also be identified by having two Oxygen sensors in the exhaust system instead of one, and they do not have and IDLE mode. With no IDLE mode, the engine must be running before you can communicate with the ECU.

After connecting the cable to the ECU and turning on the DC power you must depress the START/STOP switch in the Stop or Prime position before trying to start your genset.

Failure to do this step may prevent the genset from starting or may cause the engine to run poorly if it does start. So please depress the STOP button after connecting the communications cable.

If your genset is an OBD1 model (models 15.0/20.0/22.5 SBEGA) the ECU will be of the EC10 family. This procedure is not necessary because although it is an EC10, it has an IDLE Mode. After connecting the cable and powering on the genset you should be able to start communications before you start the genset.

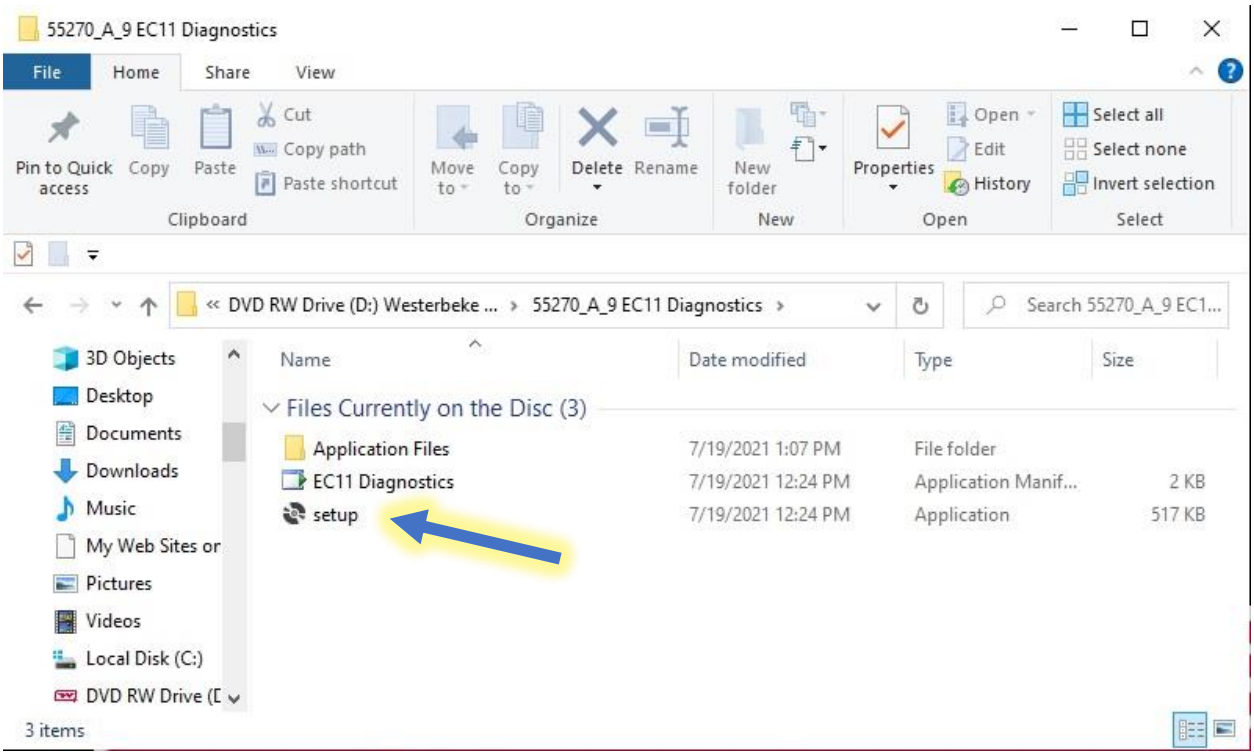
All the gensets designed for the EC11 ECU will have no issue with the cable connection. This ECU is used on the multiport injection models.

Also, all the Diesel Line of D-Net products can use the cable without any issues.

When in doubt, you cannot go wrong by briefly depressing the STOP button before trying to start your genset.

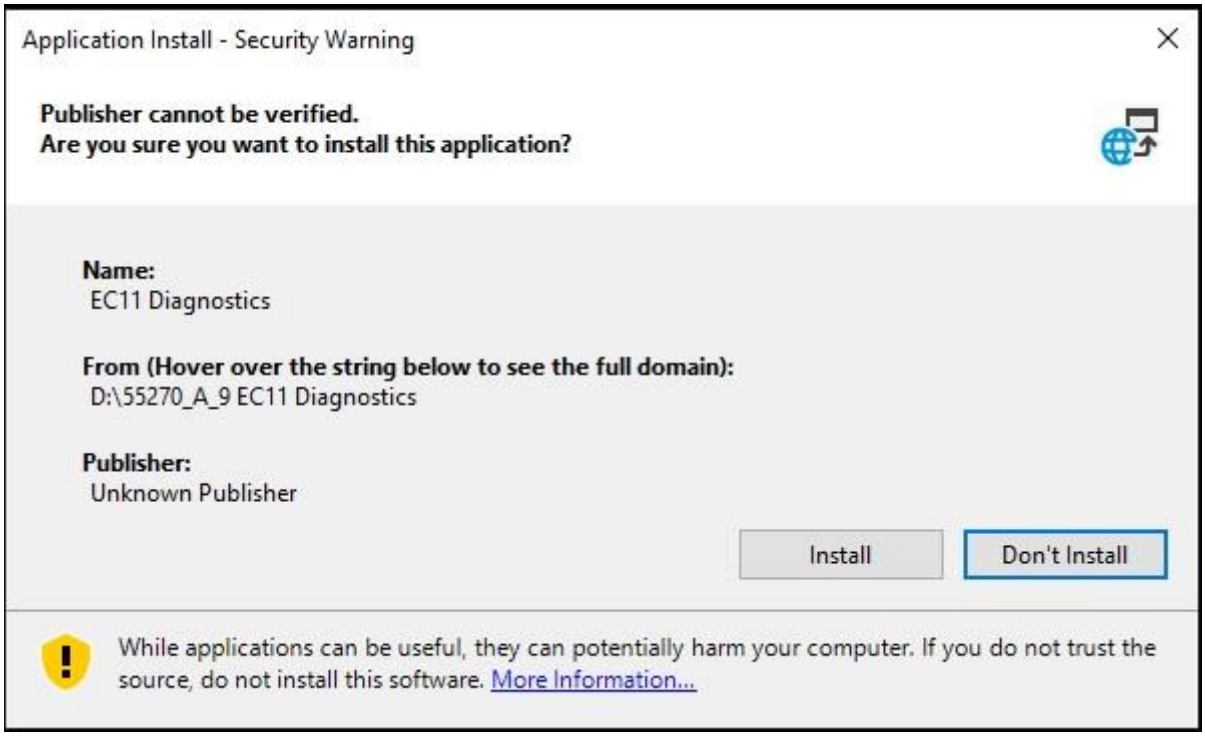
Westerbeke PC Interface Installation

Once you have clicked on the link to download the interface and have opened the file the image below is an example of the contents of the folder for the PC Interface that will be used for the EC11 ECU.



To install the PC Interface, click on the ***setup.exe*** file.

Once you have clicked on the setup.exe file, the following windows will appear.



Click **Install** to start the installation or **Don't Install** to cancel the installation. Just ignore any warnings about installing this app.

To find the program in your Program Group, navigate to the **START** button and expand the Program Group. Look for Westerbeke EC11. It will probably be the top item in the list being the most recently installed program. Click on the Icon for **WesterbekeEC11** to open the Interface.
Below is an example showing Windows 10. A shortcut to the desktop may be made by right-clicking on the WesterbekeEC11 icon and then selecting *Send To… Desktop, (Create Shortcut)*.

For the actual use of the PC Interface, refer to the help files that are available in each interface.

You can uninstall the program at any time by going to your computer's Control Panel and selecting Add or Remove programs. Then select the program to uninstall.