599 EAGLE RADIO
USB TO UART DRIVER INSTALLATION INSTRUCTIONS
FOR WINDOWS XP, VISTA, AND WINDOWS 7
32-BIT AND 64-BIT VERSION 1.xxx FIRMWARE
Rev. B 2/24/2011

Overview

The Eagle provides a standard USB 1.0/2.0 interface for two purposes:
1) Connection to a PC or other USB Hub device for control or logging or monitoring purposes.
2) Connection to a PC for firmware updates using the standard TenTec upgrade utility.

The physical interface used to connect with the Eagle is a standard USB cable. A standard USB cable will have a type A connector (rectangular in shape) for the computer / Hub and a USB type B connector (square in shape) for the Eagle.

The software interface for the Eagle uses the standard usbser.sys driver supplied with Windows XP through Windows 7. A self-extracting installation program has been provided by TenTec to make the installation process easier for the customer.

There are two different programs supplied by TenTec that have been tested on various hardware platforms running Windows XP, Vista, and Windows 7.
• EagleUSB32.exe   For 32 bit Windows on 32-bit hardware
• EagleUSB64.exe   For 64 bit Windows on 64-bit hardware

Be sure to download and utilize the correct version. If the incorrect version is utilized, then an error message will be shown.

Both of these files are available via the TenTec download web page for the Eagle Model 599 transceiver, beginning from www.tentec.com.
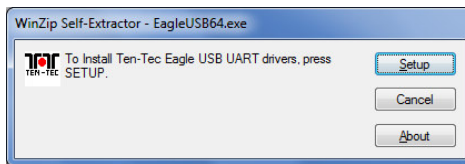
Installation Process

Note, for presentation purposes, screen captures of Windows Dialog Boxes from two different computers are shown in this Installation Process. Some come from a Windows XP 32 bit install and some come from Windows 7 64-bit install. The path for both is almost identical. However, some text or steps may vary due to the variation in Windows versions, Virus programs, User Access Control featuring on Windows Vista and Windows 7, etc.
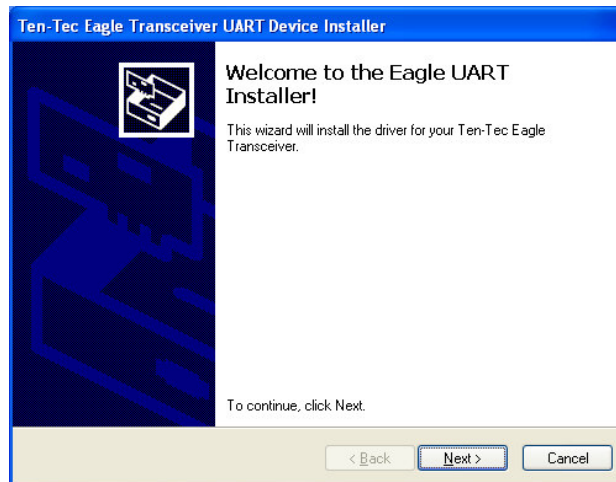
1. Download EagleUSB32.exe to your computer, noting the download location.
    (or EagelUSB64.exe when installing to a Windows 64-bit OS on a 64-bit hardware platform)

2. Once download is complete, double click the file to run it.
    The following Windows Dialog Box will be shown., Note: If the User Account Control warning is shown, then select "Yes" to continue the installation.
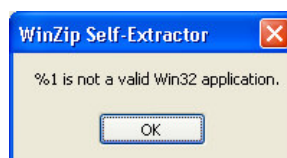

- or the EagleUSB64.exe on a Windows 7 computer -

3. Select Setup to start the installation, you should then see the following Windows Dialog Box:
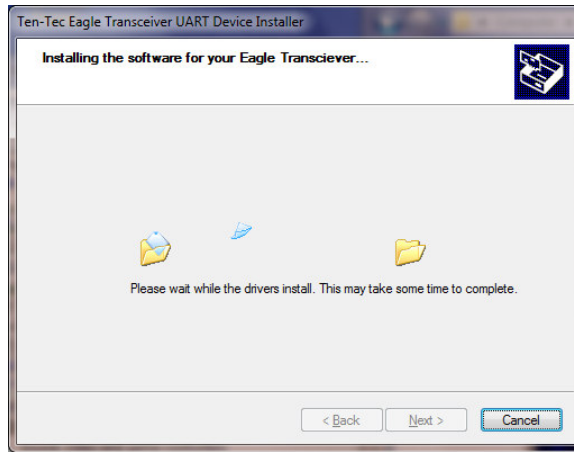

If you see the following Windows Dialog Box instead of the one shown above, then the wrong installer is being run for this computer. Select "OK" to exit the installation process. Then download the other EagleUSBxx.exe and try the installation process over again.
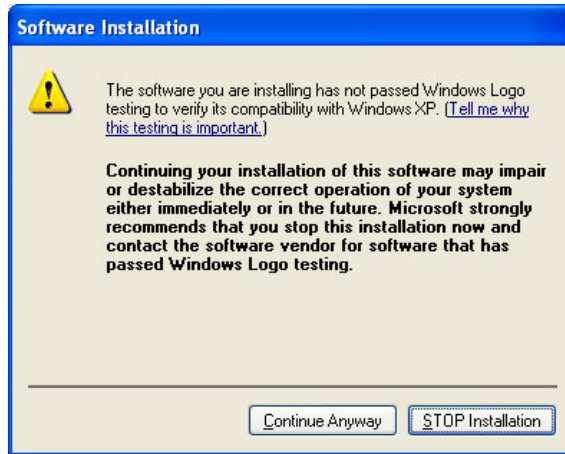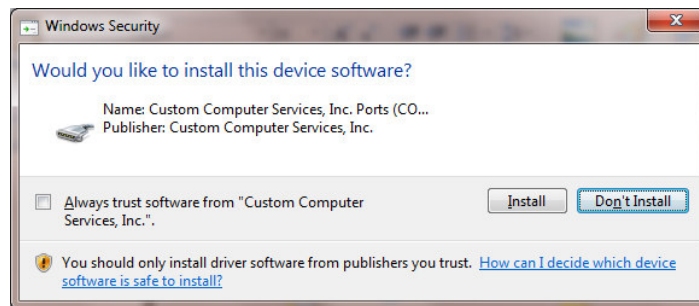
4. Select Next>
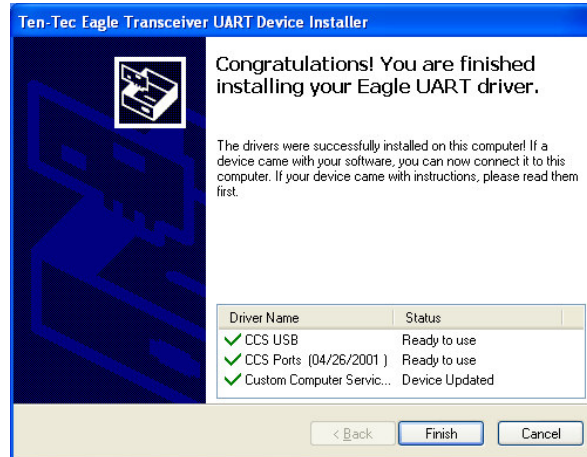   The following Windows Dialog Box will pop up. (64-bit Windows 7 version shown)

5. If at anytime you see Windows Dialog Boxes pop up such as this, Select "Continue Anyway"
   The interface used is as published by Custom Computer Services Inc. to operate with Microchip USB Serial Interfaces.

6. When Running Windows Vista or 7, Security Center may pop up the following Windows Dialog Box: Select Install and the process will continue. It is suggested that you NOT check the "Always trust…." check box.

7. When the process of installing the driver is completed, you will see the following Windows Dialog Box:

8. Select Finish.

The Drivers are now successfully setup and ready for the Eagle.

The next steps will require a powered Eagle and a USB cable.

9. Apply Power to the Eagle, verify that the Eagle's main frequency readout display is seen on the front panel fo the Eagle.
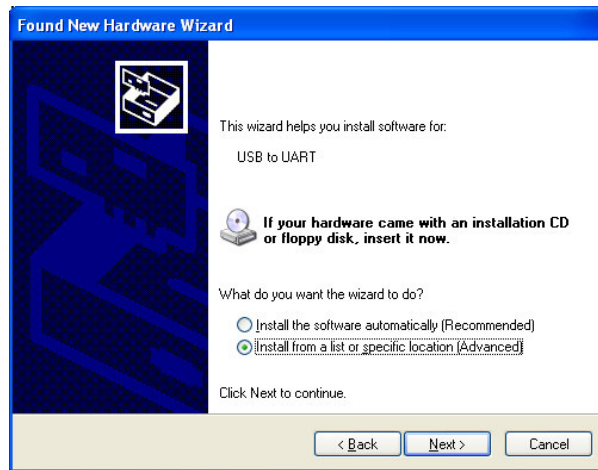
10. Connect the USB cable to the USB port you want to use on your Computer.

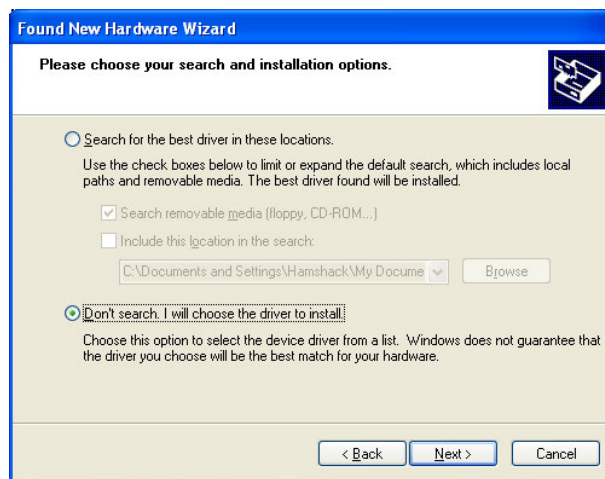11. Connect the other end of the USB cable to the Eagle.

   The computer should bring up the following Windows Dialog Box.
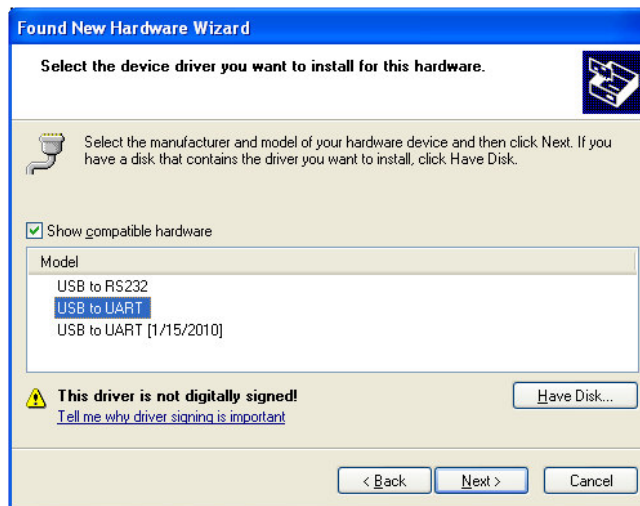

12. Since the drivers are already installed, select "No, not this time", and select "Next >"
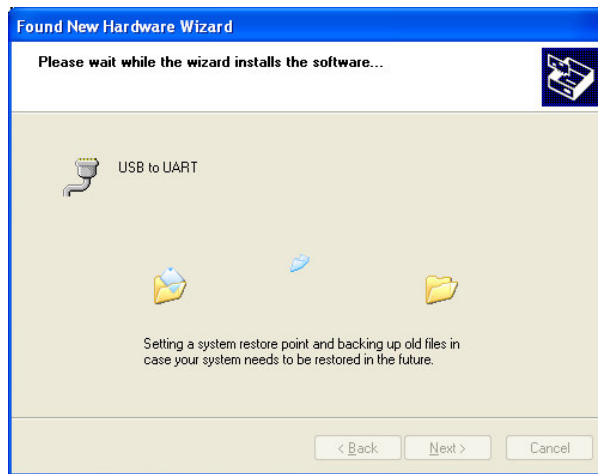
13. Select "Install from a list or specific location (Advanced)", and select "Next >"

14. Select "Don't search. I will choose the driver to install", and select "Next >"

15. Select "USB to UART", and select "Next >"
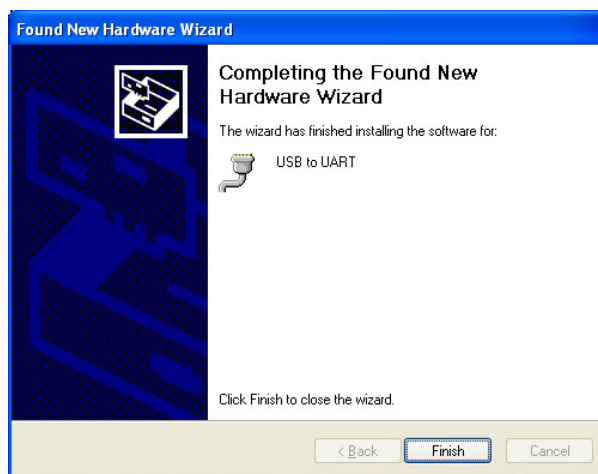
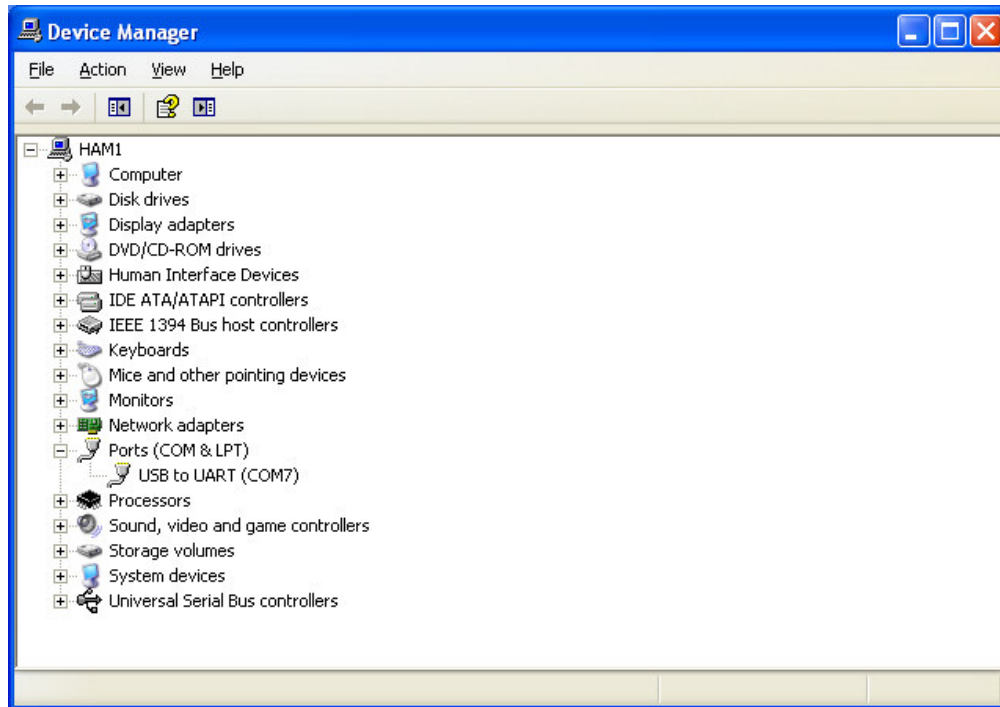The above Windows Dialog Box will be shown for a period of time.

16. If the above Windows Dialog Box appears, select "Continue Anyway". As stated before, the interface used is as published by Custom Computer Services Inc. to operate with Microchip USB Serial Interfaces

17. When the above Windows Dialog Box is shown on the computer, this means that the Eagle is now ready for use.

During the installation process, a virtual serial comm port number was assigned to this physical USB connector when the Eagle is connected. In order to control or update the Eagle, the control program needs to be set up with the comm port number allocated for the Eagle for this physical USB connector. The virtual serial comm port number assigned to the Eagle is visible and modifiable in Windows Device Manager when the Eagle is connected, and running. Note: When the Eagle is not connected, the "USB to UART (COMx)" for the Eagle will not be shown in Device Manager.

The following Windows Dialog Box for Device Manager shows the USB to UART interface for the Eagle assigned to COM7.

Windows will:
1 – Automatically runs the hardware installation wizard the first time the USB cable is plugged into each physical USB connector on the Computer. So if there are four physical USB ports on a given computer, it will run the hardware installation wizard four times, once for each physical USB port, the first time the Eagle USB cable is connected to said port.
2 – Automatically assigns the virtual comm port numbers for each physical USB port, normally unique from the others. This means that Windows could assign COM8, COM9, COM10, and COM11 separately for the physical USB ports on this 4 USB connector Computer.

It is thereby advisable to do two things once the first USB connection is setup properly and verified to work with your logging and control software. Do both of these items for each physical USB connector on your computer.
1 – Go through the process of connecting the physical USB cable to each of the USB connectors, one at a time, letting the Wizard install the firmware per the steps above.
2 – While the Eagle is connected to a given physical USB connection on the Computer, change the virtual comm port number to one that you know all of your software will support. (through Device Manager)

The above two items will help out in several ways, including:
1 – The ham will have set up the drivers at leisure, and would not have to re-install a driver during a contest in case the USB connector needs to change to another physical USB connector, or if the process is forgotten or misplaced.
2 – The ham will be able to set up the loggers and control programs to this single port, and not have to change them to a different port when time is of the essence, such as during a contest.