HamLinkUSB™

USB Rig Controller Plus

Revision 1.1 - RTS
Driver Revision 5.4.24

Microsoft® **Windows™ Version**

⚠ **IMPORTANT!**   DO NOT insert the HamLinkUSB module before installing the drivers!

All U232/HamLinkUSB Drivers are certified.

Windows and the Windows logo are trademarks of the Microsoft group of companies.
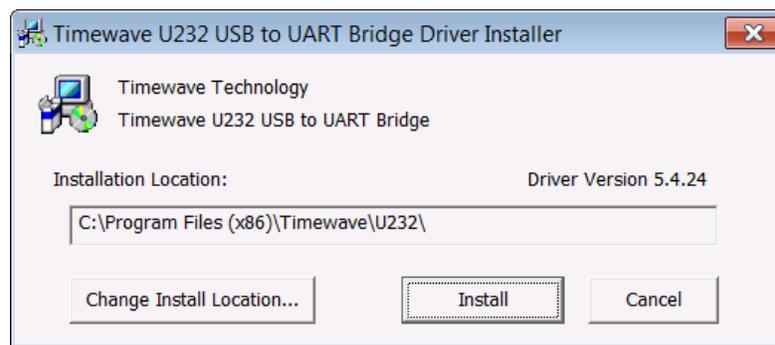Windows Vista and the Windows logo are trademarks of the Microsoft group of companies.

Quick Install

⚠️ **IMPORTANT!** DO NOT insert the HamLinkUSB module before installing the drivers!
If you have already done so, please unplug it before installation.
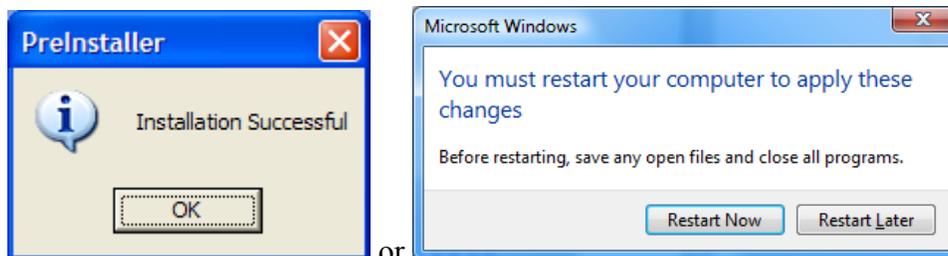
STEP 1:

Insert the TIMEWAVE U232 USB to UART Drivers CD into your computer.

The Install Driver dialog should appear. If not, run *U232VCPInstaller.exe* from the CD.

Click on *Install*.

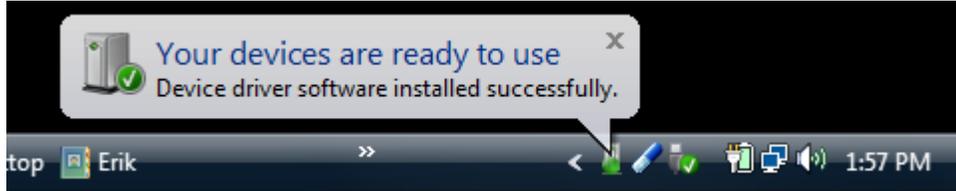After a minute, the *Installation Successful* dialog will appear. You may also get a restart dialog.

 or

If you get the restart dialog, click on "Restart Now" to reboot your computer.

The drivers are now on your system.

STEP 2:

Connect the HamLinkUSB™.

If you are using Windows Vista or Windows 7, the *Ready to Use* notice will appear. Please skip ahead to Step #3.
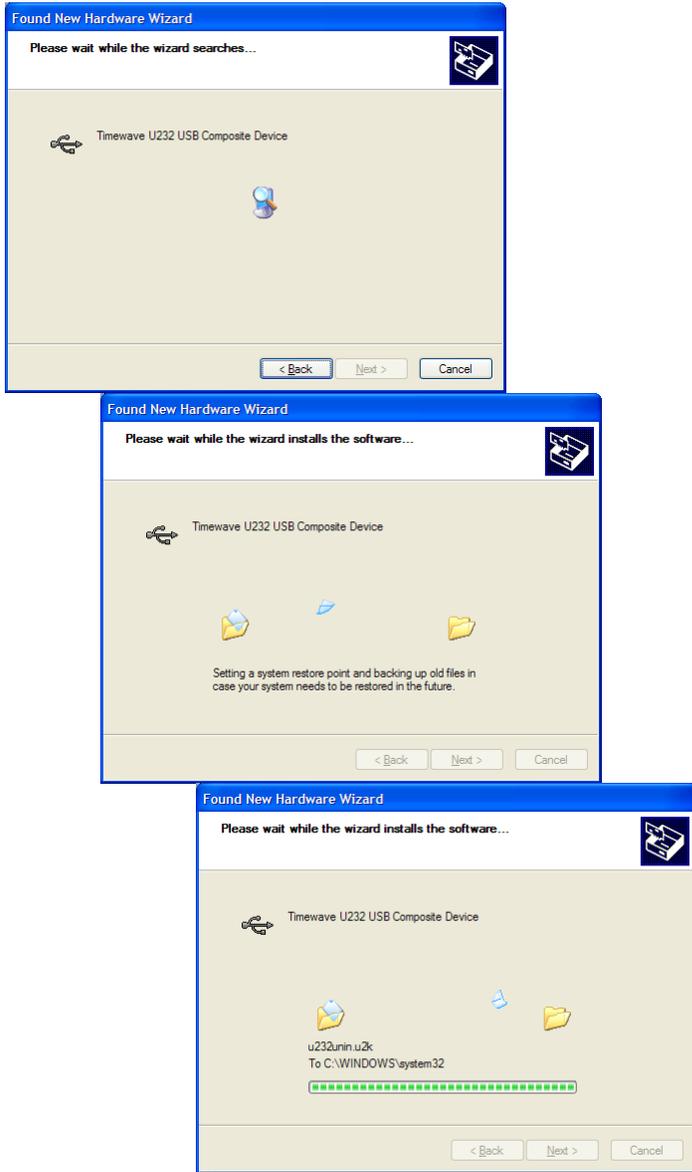

If you are using XP, the *Found New Hardware* notify box should appear. If not, manually uninstall the driver from the *Device Manager* and reconnect.
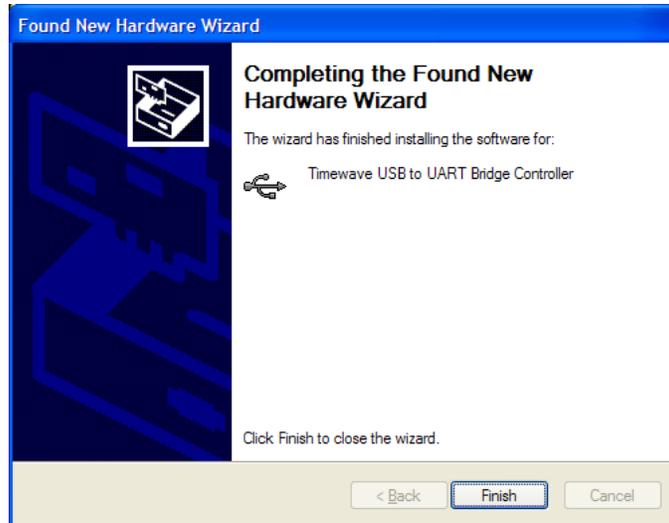

The *Found New Hardware Wizard* should appear. Click on *Next* to begin the driver installation.

The driver should begin installation. The software signing dialog may appear as mentioned above. Click on *Continue Anyway*.
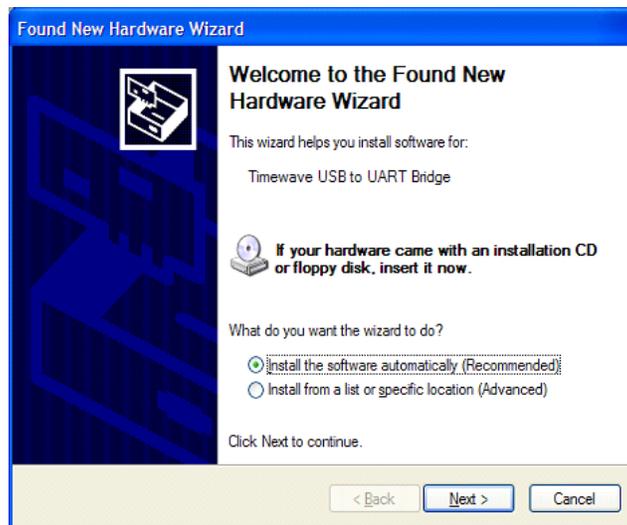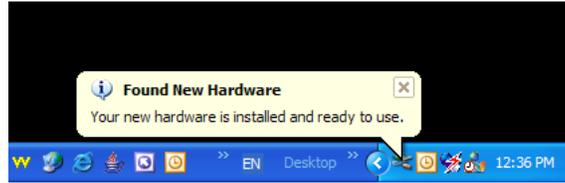

The USB driver is now installed.

IMPORTANT! The GREEN light inside of the HamLinkUSB will light up.

Next, the wizard will restart for the COM port driver. Follow the same setup instructions as for the USB driver.

The COM driver is now installed and your COM port should appear.

Your computer now has the Timewave HamLinkUSB™ completely installed.

STEP 3:

There are several Timewave cable assemblies that may connect to your radio, these include:

- Timewave p/n WC.40560
  CI-V Cable Assembly for Icom® and Ten-Tec® radios

- Timewave p/n WC.40562
  MiniDin-8 Cable Assembly for CAT-enabled radios (Yaesu® FT-857, FT-817, FT-100, FT-100D)

- Timewave p/n WC.40664
  Din-6 Cable Assembly for Yaesu® CAT-enabled radios

- Timewave p/n WC.40564
  4 conductor Cable Assembly, 3.5mm plug to stripped end

Please check with Timewave for additional cable assemblies.

IMPORTANT! This step will help prevent possible damage to the HamLinkUSB™ Rig Control Plus module and your other equipment.

Before connecting this cable assembly between your radio and HamLinkUSB™ Rig Control Plus module, check the ground connection between your computer and your radio.

Use a voltmeter to measure the voltage between your computer and your radio. It should be zero (0) volts. If it is not zero (0) volts, you may have a ground problem with your radio equipment, your computer or the electrical wiring in your building. Fix that problem before continuing with any further installation of the HamLinkUSB™ Rig Control Plus module or any other computer or radio equipment.
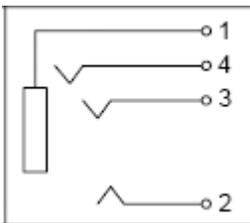
After you have measured zero (0) volts between your computer and your radio, then measure the resistance between the two units to verify there is a direct electrical connection. It should be very close to zero (0) ohms. If it is, you may proceed to connect the HamLinkUSB™ cable assembly between your radio and the HamLinkUSB™ Rig Control Plus module. If not, check your ground system before proceeding.

HamLinkUSB™ Rig Control Plus Pin-Out - RTS version

The jack in the HamLinkUSB™ Rig Control Plus is a four conductor 3.5 mm phone jack. The matching 4 conductor cable assembly is Timewave p/n WC.40564. It is un-terminated on one end. Other complete cable assemblies are available to match specific radios. If your radio does not require a separate PTT connection, you may use a three conductor 3.5 mm phone plug to connect to this jack..
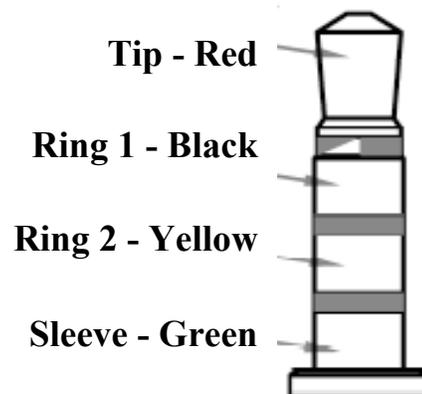
The connections for the RTS version are:

- Tip - RX data input from radio TX data output – logic level only! Do not connect to RS-232 levels!

- Ring 1 – TX data output to radio RX data input – logic level only! Do not connect to RS-232 levels!

- Ring 2 – RTS output to radio – This is an FET Open Drain output that pulls low when activated. Use only with a radio that has a maximum positive voltage of 18 volts on the PTT or CW keying input. Do Not use with older radios that have a negative keying voltage! Your software will allow you to select the function of this output. PTT is the most commonly assigned function. Often this connection is not used with radios that have a PTT command in the RX-TX rig control command set (Check your radio manual).

- Sleeve - Ground

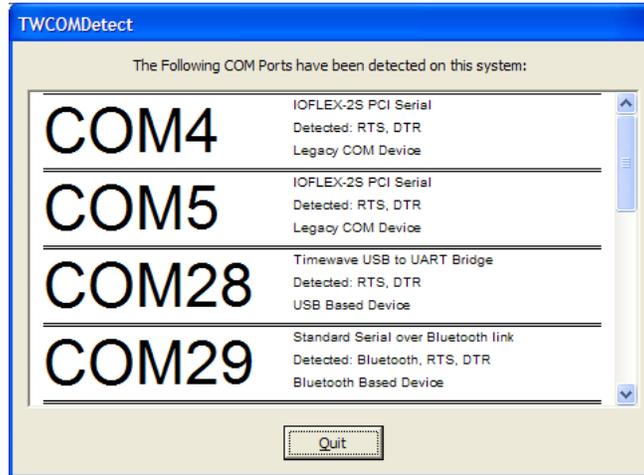|		
1	Sleeve	Ground
2	Tip	RX data input from radio
3	Ring 1	TX data output to radio
4	Ring 2	RTS output to radio

HLUSB Plug Connections

Tip - Red

Ring 1 - Black

Ring 2 - Yellow

Sleeve - Green

STEP 4:

To use the HamLinkUSB™, you need to determine the COM port that it is using. On the Timewave Driver CD, run the program "TWCOMDetect" to determine which COM ports are on your computer. You may do this by choosing "Run" from the Windows START menu, and then typing "*n*:\TWCOMDetect" where *n* is the drive letter of your CD-ROM.

The HamLinkUSB™ COM port is labeled (in this case it is COM28). If you are using Win98 or WinME, the port may be labeled "Generic". Older versions of the HamLinkUSB™ may also be labeled "CP210x USB Driver".

Note: If, for some reason, the TWCOMDetect program does not tell you the COM port, you may find the COM ports listed in the System Device Manager. This is found on the Devices tab of the System Control Panel.

STEP 5:

You will need software on your PC to control the radio. HamLinkUSB™ comes with an evaluation copy of PKTerm™/Radio Operations Center™ 3.0. There are also several programs available on the Internet.

PKTerm 3.0 may be found on the Timewave Drivers CD in the folder labeled "PKTerm".

Commander	http://www.dxlabsuite.com/commander/
VisualRadio	http://www.visualradio.de/
Ham Radio Deluxe	http://hrd.ham-radio.ch/
TRX-Manager	http://www.trx-manager.com/
Radio Commander 2052	http://www.qsl.net/kd5lmy/software1.htm
Radio Manager for Windows	http://www.bensware.com/rm2002.htm
Scan Manager 1.1 Pro	http://www.mindspring.com/~tonyc/scnmgr.html
FTBasicMMO	http://www.g4hfq.co.uk/ftbasic.html
EA4TX	http://www.ea4tx.com/
BuTEL	http://www.butel.nl/start.html
Control Cat (French)	http://alain.st.free.fr/site1/aspicsite/logiciel/plogic.htm

Kenwoord RCP-2	http://www.kenwood.co.jp/i/software/ts570.html
KMIJ Kenwood Remote	http://xoomer.virgilio.it/ham-radio-manuals/
AirSCAN	http://www.slyster.com/radio/airscan/as.htm
ARCS II	http://www.qsl.net/wb5kia/arcs/arcslite.htm
EchoStation	http://www.synergenics.com/sc/

A site that maintains a list of available Rig Control programs is at:

http://www.dxzone.com/catalog/Software/Radio_Control/