

## **Installing the USB driver for Firmware 7 or later** **For use with E-blocks programmer boards and PICmicro Development boards.**

Matrix Multimedia USB PICmicro programmer boards with Firmware version 7 or later require drivers to be installed in order for the programmer to function correctly.

The following document is a guide to installing the USB drivers.

### **Contents**

[When to install, and Driver file locations](#)

[Installing the drivers](#)

[Automatic install for Windows 2000/XP](#)

[For Microsoft Windows 98SE](#)

[Manual install for Microsoft Windows 2000 Desktop](#)

[Manual install for Microsoft Windows XP](#)

[Confirming that the Driver is installed](#)

[Removing the driver entry if installation failed](#)

[Checking the board](#)

[Technical Support](#)

### **When to install, and Driver file locations**

When a USB board is plugged into a USB port it is detected and if a driver is required then the Add new hardware wizard is launched.

NOTE: This happens for each USB Port on the System. If you plug a device into a different port the wizard will be launched again for that port.

Installing PPP V3.5 or later installs a copy of the USB Driver files into a subfolder of the PPP folder:

C:\Program Files\Matrix Multimedia\Common\PPPv3\USB\_Driver by default.

The files are located on the Matrix ELSAM mini CD shipped with Matrix hardware. They can be found in a USB\_FIRMWARE\_DRIVER folder.

The files are located on the Matrix ELSAM mini CD shipped with Matrix hardware. They can be found in a USB\_FIRMWARE\_DRIVER folder. However it is advised that you use the PPP installed Drivers, as these are stored on your system.

[Back to top](#)

### **Installing the drivers**

Because of the differences in USB implementation for different versions of Microsoft Windows, the installation of the driver varies with the operating system being used. Please refer to the appropriate section below for your operating system.

Windows 2000 and Windows XP users can run the New Driver Installer Program - Automatic install for Windows 2000/XP, or install the Drivers Manually.

[Manual install for Microsoft Windows 2000 Desktop](#)

[Manual install for Microsoft Windows XP](#)

Unfortunately Windows 98 does not support the new Driver Installer Program, so you will need to install manually.

[For Microsoft Windows 98SE](#)

Regardless of the operating system, it should not be necessary to close any open applications prior to the driver installation.

Note: If you are unable to add USB devices and their associated drivers due to security restrictions you will need to contact your system administrator.

[Back to top](#)

### **Automatic install for Windows 2000/XP**

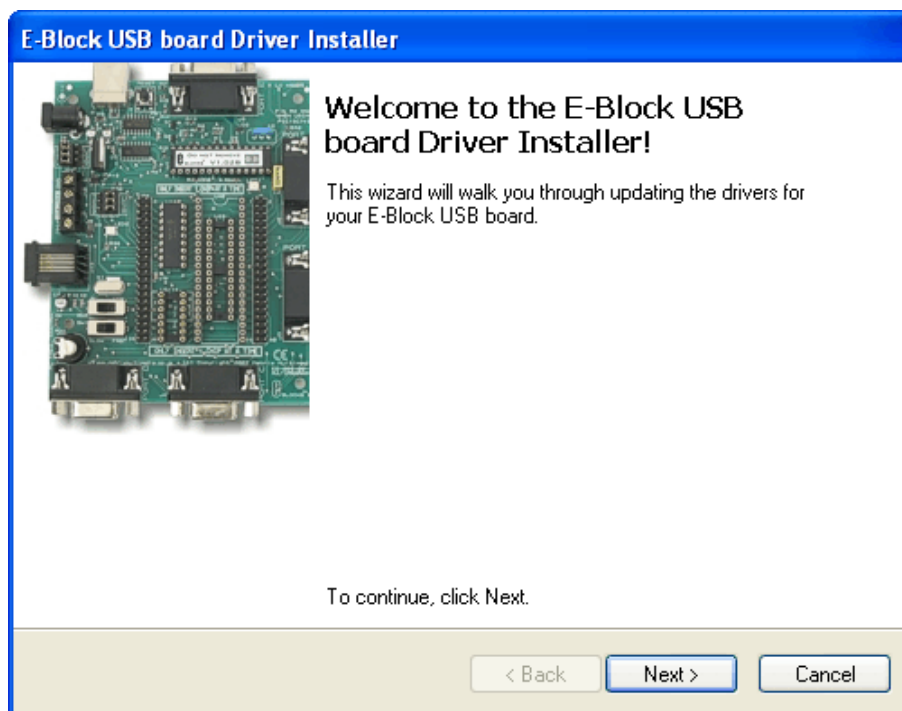
The new Driver Install Program simplifies Driver installation by running the process in the same way an application is installed. This enables the driver to be pre-installed and able to be modified, repaired or removed in the same way as programs can be. Re-installing can also help fix an incorrectly installed driver.

The install is in two parts – Part 1 is pre-installing the drivers. Part 2 is plugging in the board.

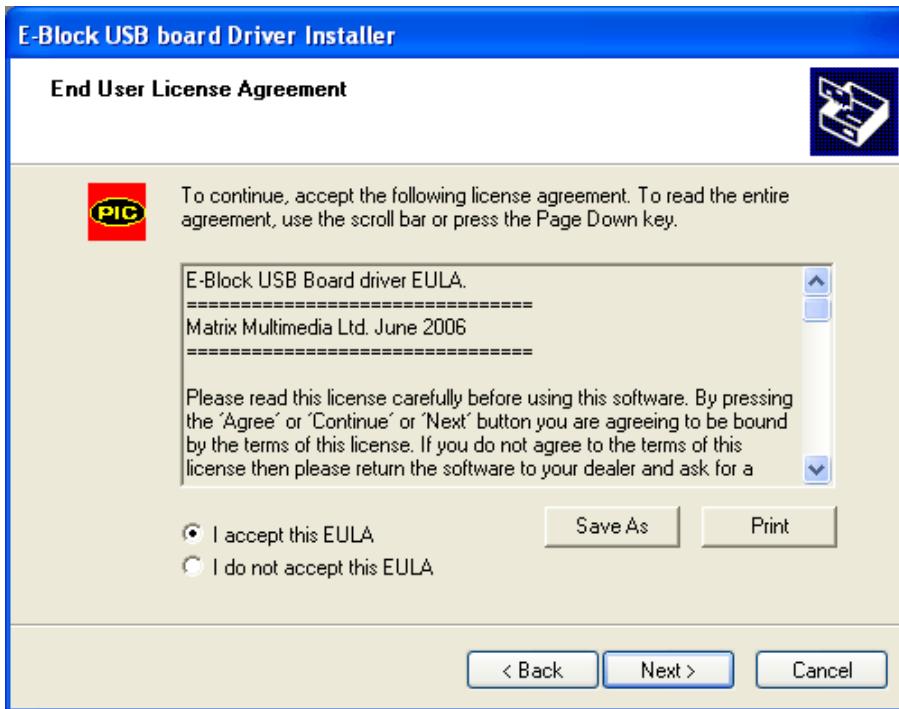
### **Part 1: Pre-installing the drivers**

The Driver Install Program is automatically launched as part of the PPP installation for PPP V3.8 or later.

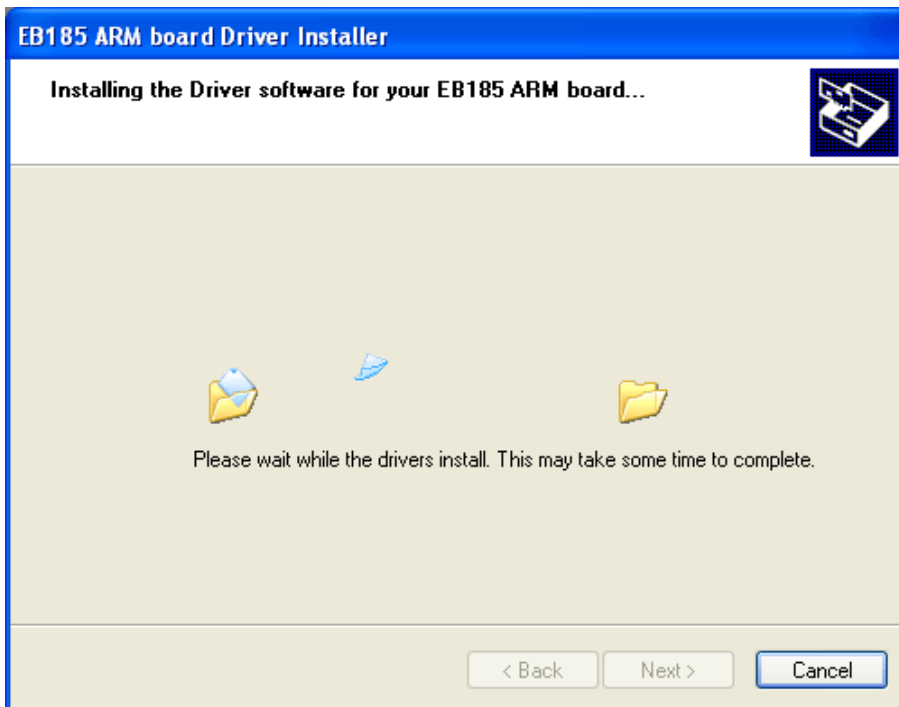
To install separately (or to re-install) run the Program Matrix\_USB\_Board\_Driver\_install.exe and follow the instructions provided.



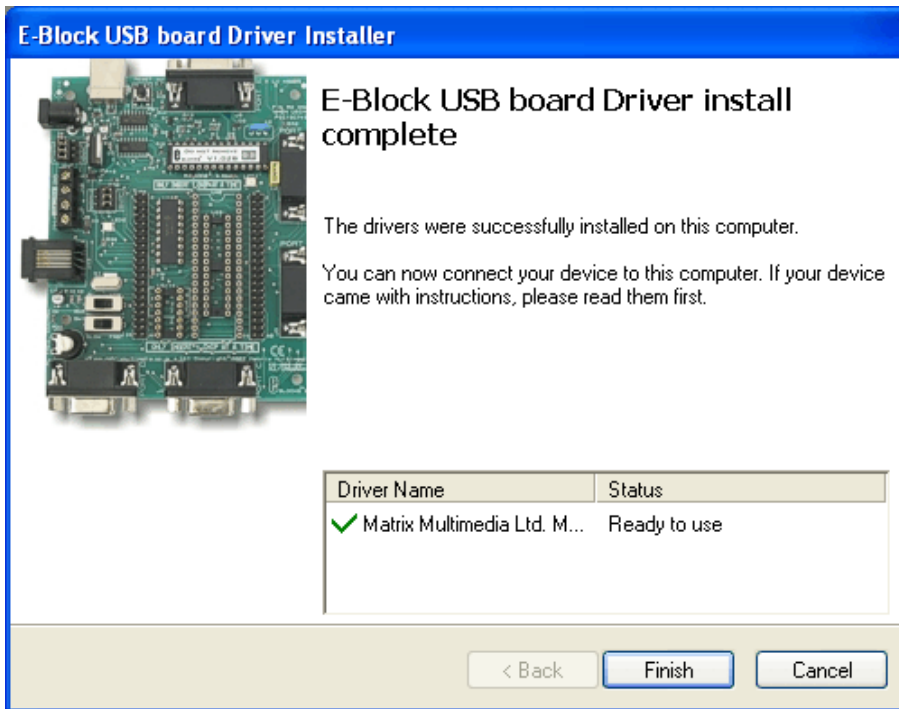
The first thing you will see after the initial welcome screen will be an End user Licence agreement that you will need to agree to.



The files will then be installed onto the PC.



And a Finished dialogue will appear once the Drivers have been installed.



## Part 2: Plugging in the board

The following assumes you are installing onto Windows XP.

The USB driver installation process differs slightly between Windows XP and Windows 2000. You can check the manual Install section for details of the differences.

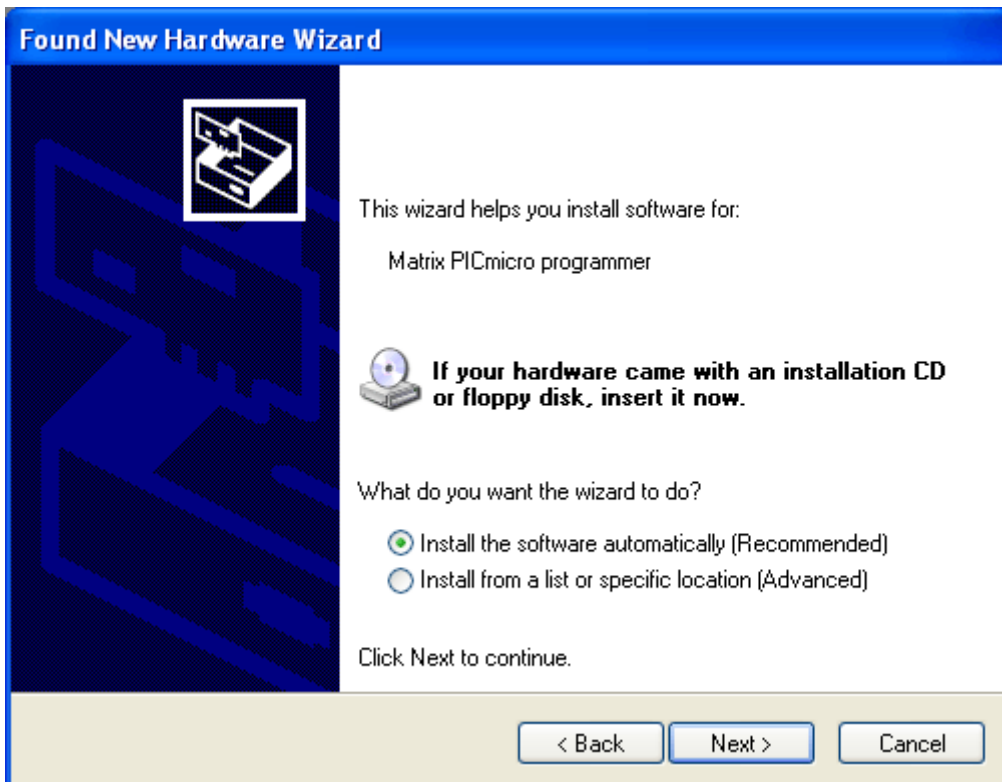
1. Plug the board in. the board will be detected by Windows.



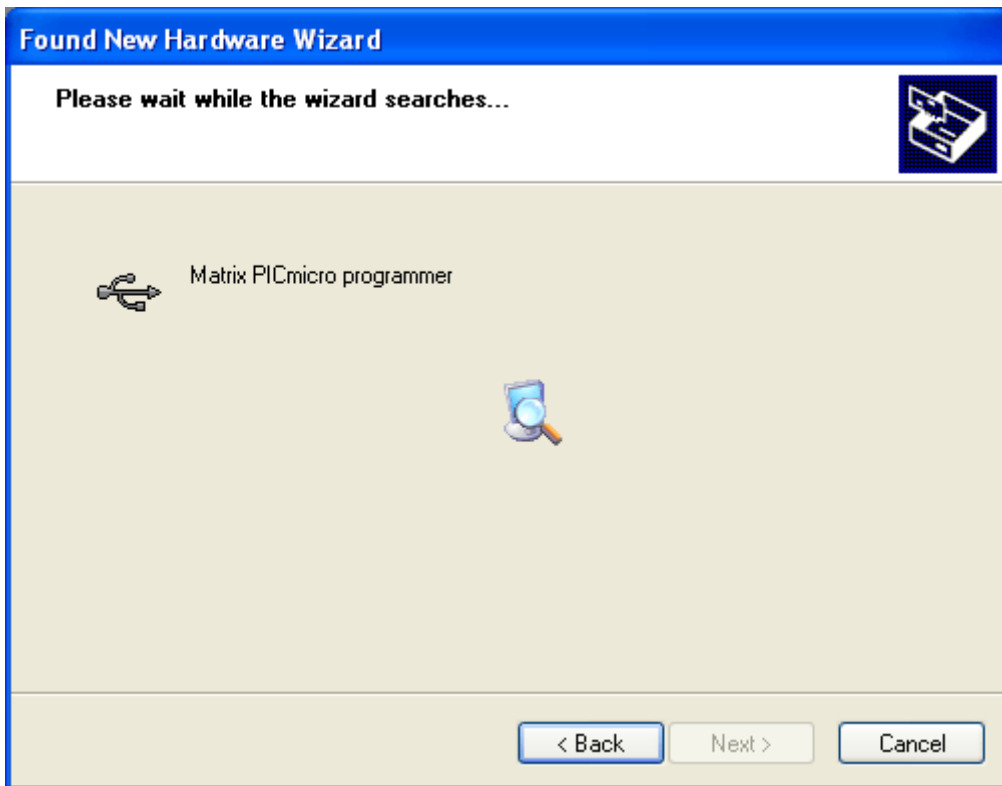
2. After the USB cable is connected, the initial Hardware Wizard dialogs appear. Select "No, not this time" if asked to connect to Windows update.



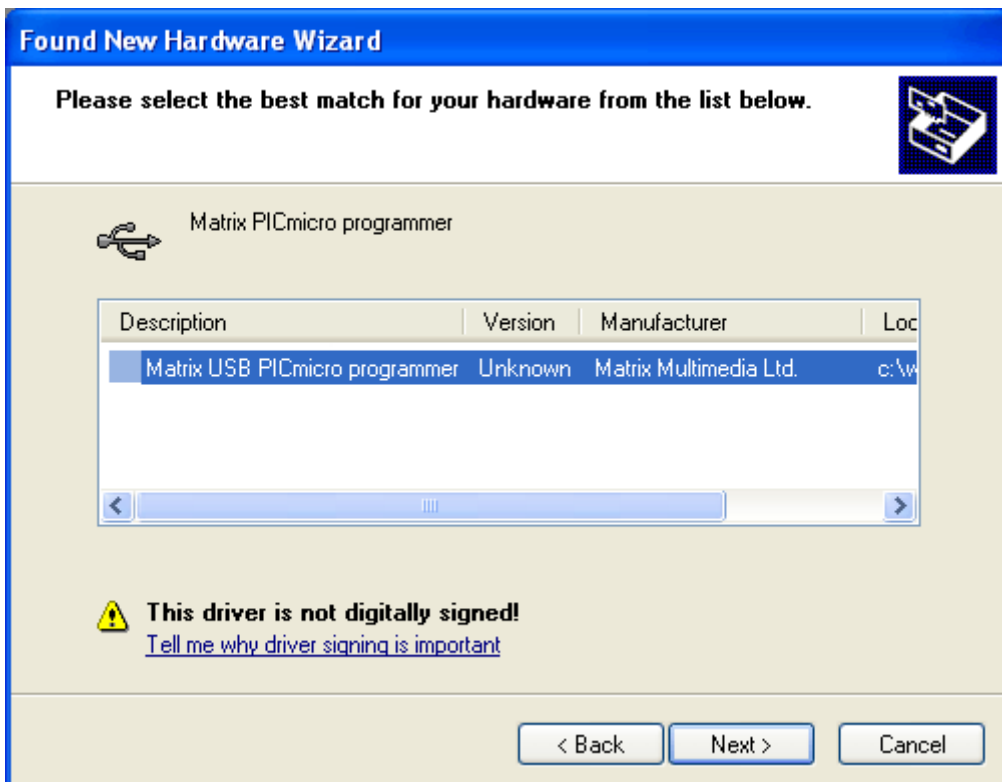
Next select the "Install the software automatically (Recommended)" option. Click Next.



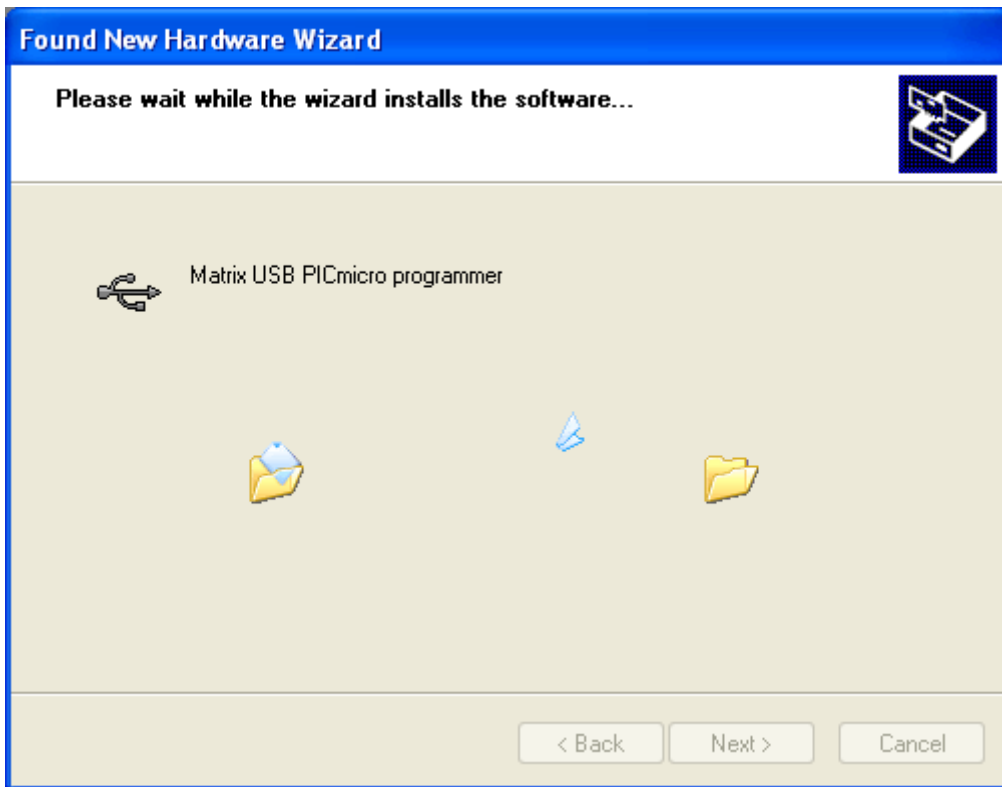
The Wizard will then search for a suitable driver...



... and will find the one we pre-installed.



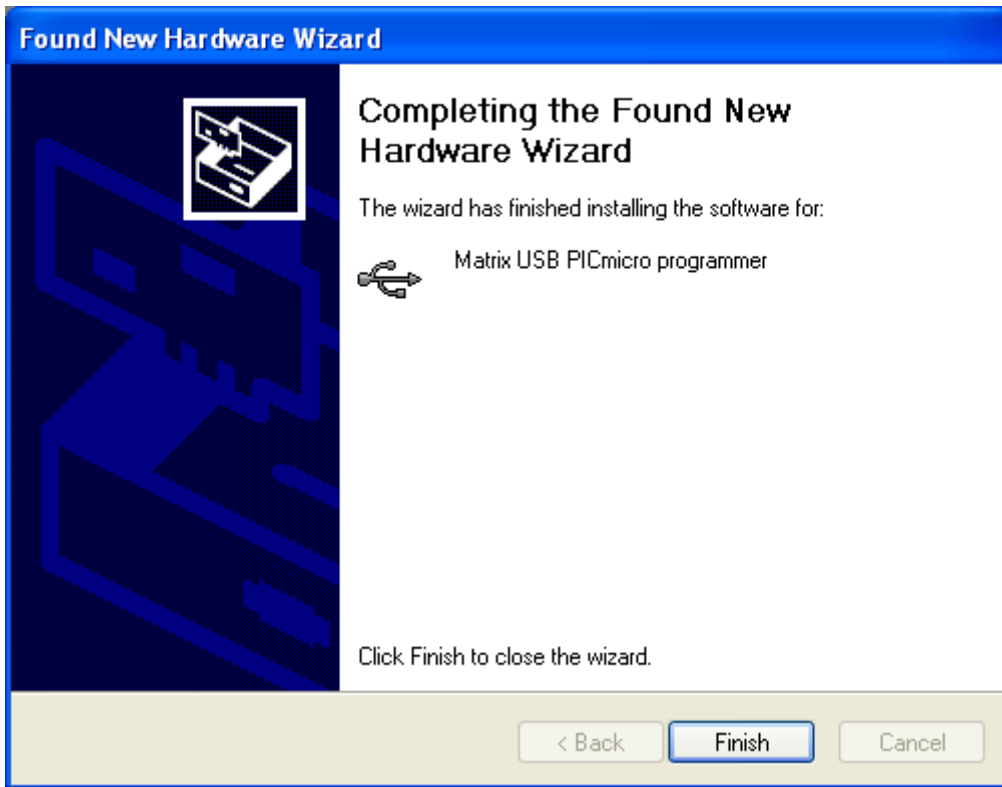
Select the driver and click Next to install it.



If the Windows Logo warning appears you can safely ignore it and click "Continue Anyway" button to proceed with the Installation



The wizard will continue to install the drivers until it has finished.



Now you should have the Driver installed and the Board now working.



[Back to top](#)

**For Microsoft Windows 98SE:**

1. When the USB cable is connected, the “Add New Hardware Wizard” dialog will appear. Click Next.



2. At the following dialog, you will be asked to choose a driver search method. Select the "Search for the Best Driver" option, and click Next.



3. At the next dialog, select the "Specify a location" option. Click on Browse to open the Windows Open File dialog. Navigate to the folder in which the USB Driver files were installed and click Open.  
This is "C:\Program Files\Matrix Multimedia\Common\PPPv3\USB\_Driver" by default



4. At the next dialog, verify that the path displayed is correct. The Driver file mchpusb.inf should have been selected. Click Next.



5. After a brief interval, the final Add Hardware Wizard dialog will confirm that the driver has been installed. Click Finish.



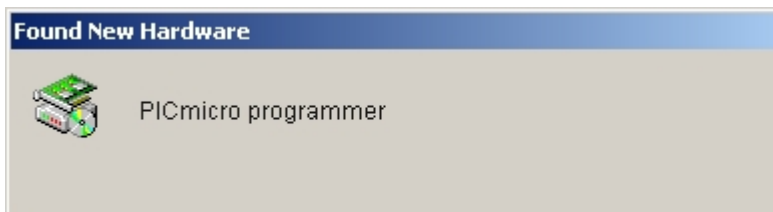
The USB driver is now installed.

Note: For some USB driver installations you may be asked to insert the Windows 98SE installation CD ROM. Insert the Windows 98SE CD ROM and click on OK. You may need to reinsert the previous CD ROM to continue with installation tasks.

[Back to top](#)

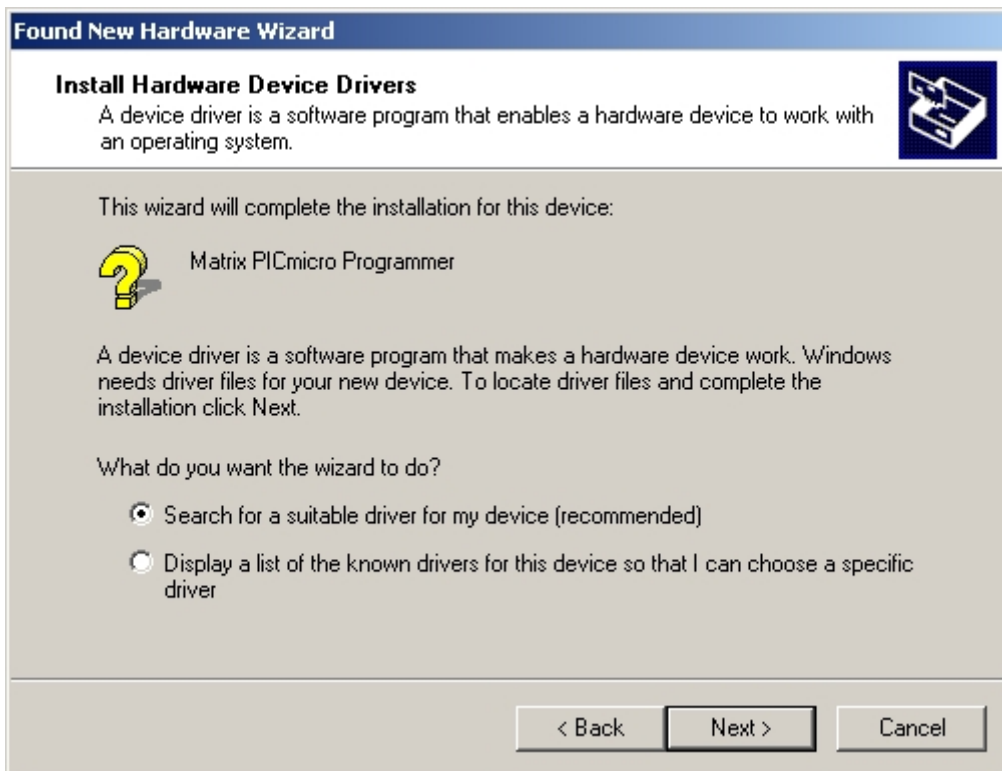
**For Microsoft Windows 2000 Desktop:**

1. When the USB cable is connected, a "Found New Hardware" message appears. After a brief interval, this will be replaced by the "Found New Hardware Wizard" dialog. Click Next.



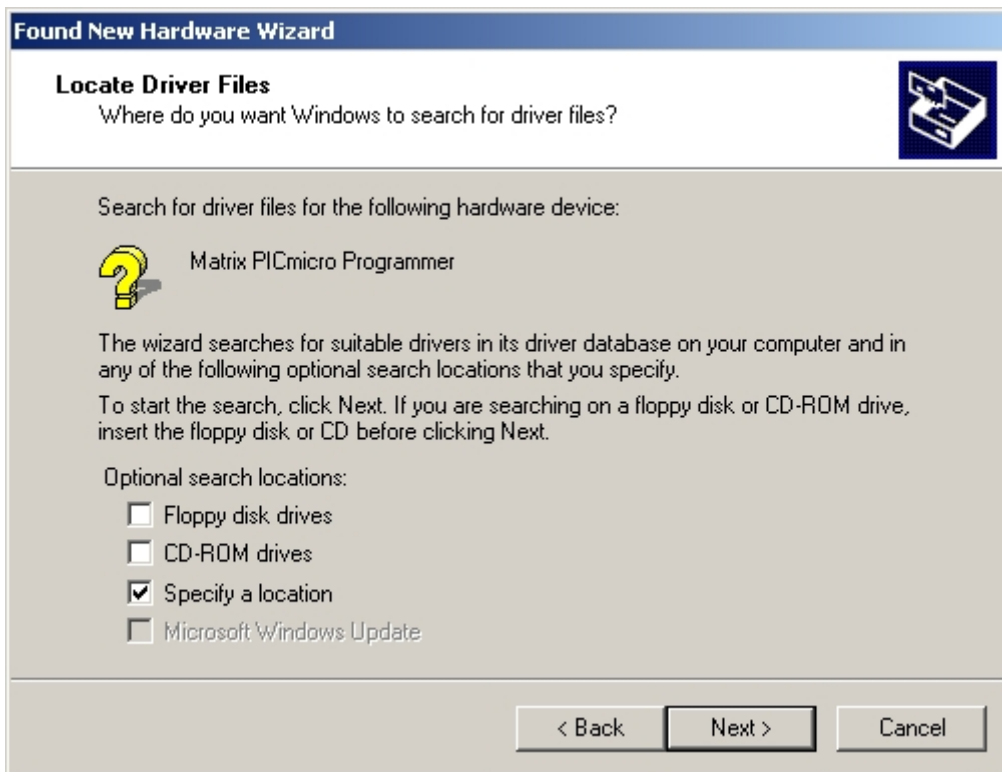


2. At the “Install Hardware Device Drivers” dialog, select the “Search for a suitable driver” option. Click Next.

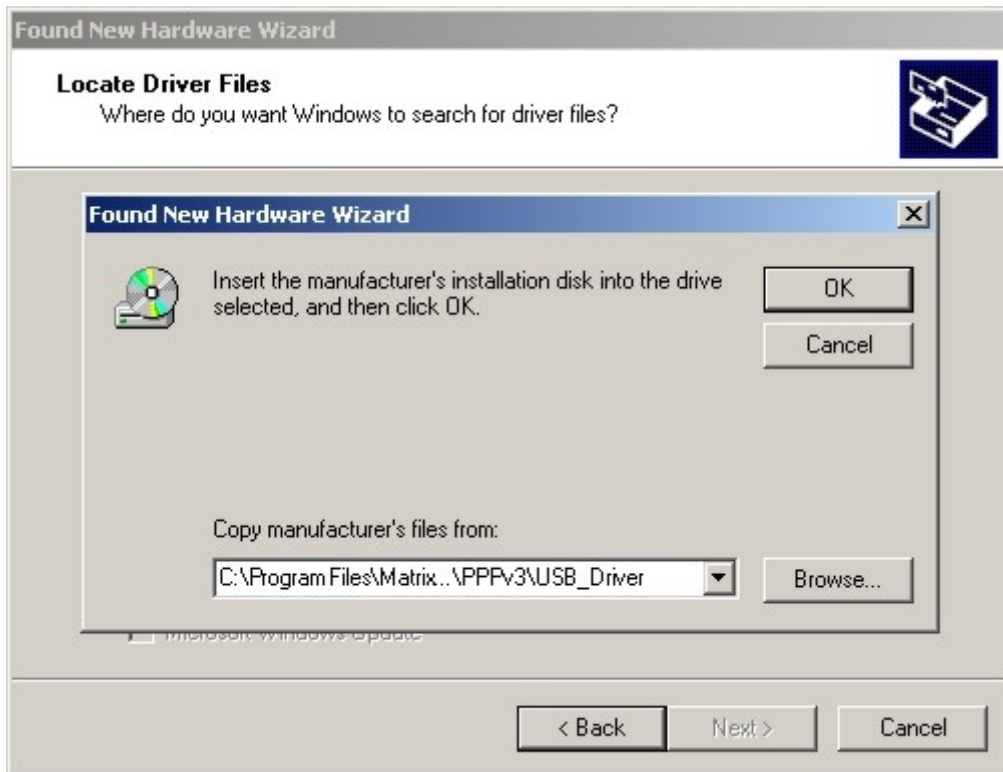


3. At the “Locate Driver Files” dialog, select the “Specify a location” check box.

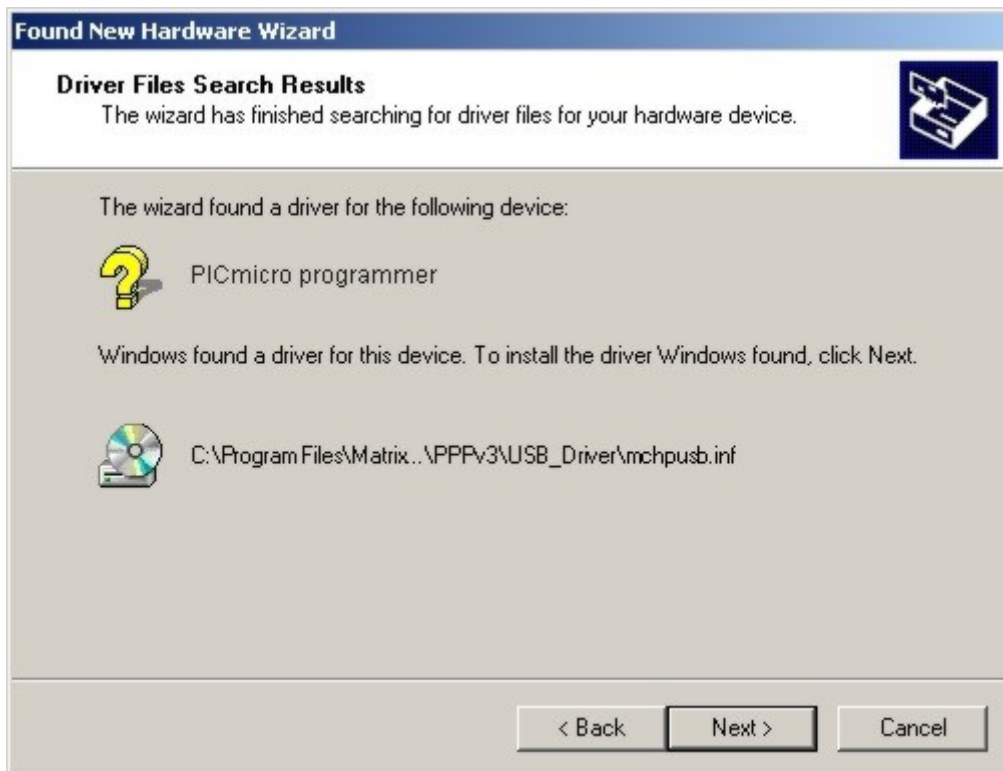
Click Next.



4. At the next dialog, click the Browse button to open the Windows Locate File dialog. Navigate to the folder in which the USB Driver files were installed and click Open. This is "C:\Program Files\Matrix Multimedia\Common\PPPv3\USB\_Driver" by default



5. At the "Driver Installation" dialog, confirm that the wizard has located the file mchpusb.inf. Click Next.



6. After a brief interval, the final Hardware Wizard dialog will confirm that the driver has been installed.

Click Finish.



It will not be necessary to restart the system.

[Back to top](#)

**For Microsoft Windows XP:**

The USB driver installation process is similar to that of Windows 2000, but requires fewer steps.

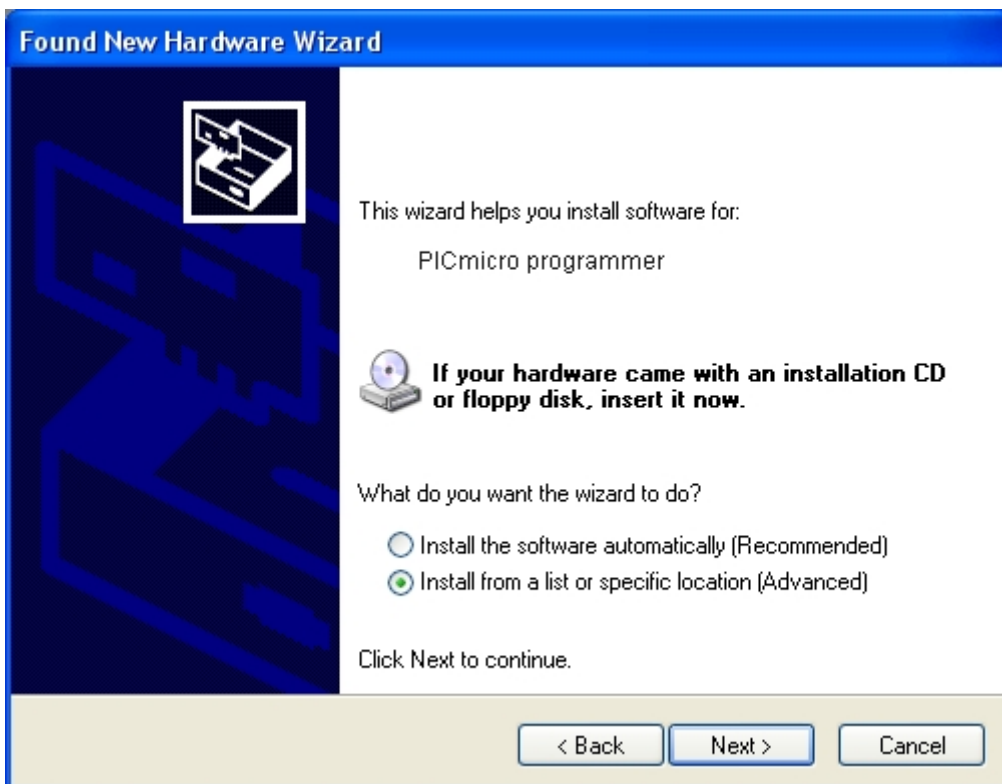
1. After the USB cable is connected, the initial Hardware Wizard dialogs appear.

Select "No, not this time" if asked to connect to Windows update.

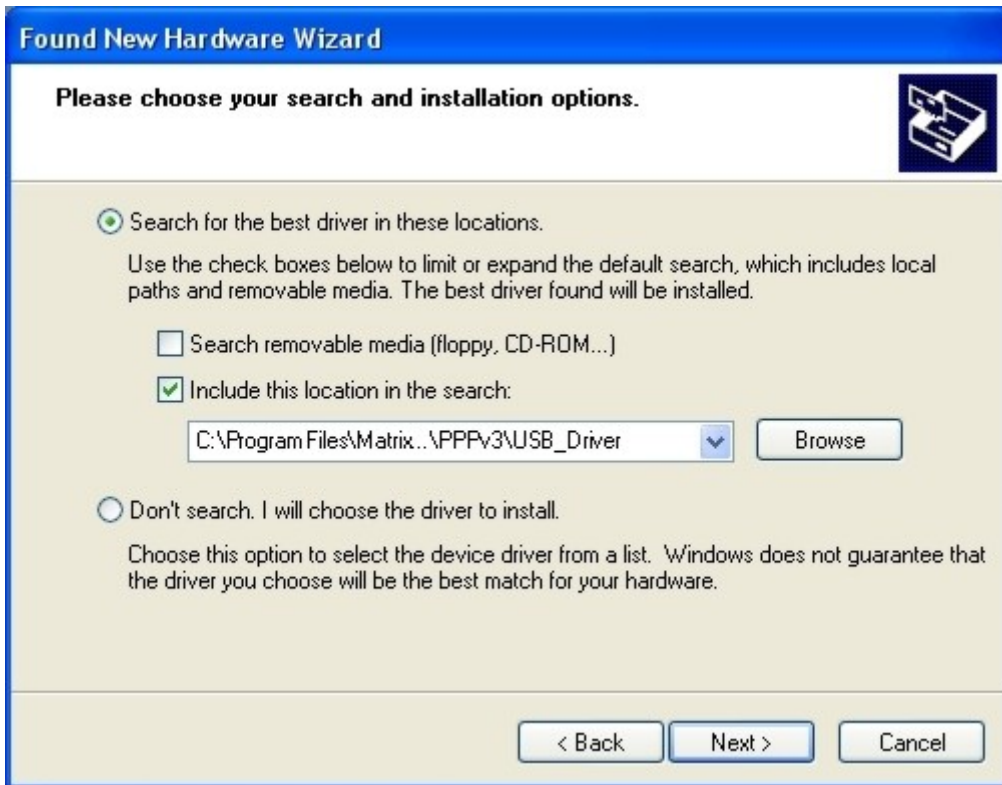




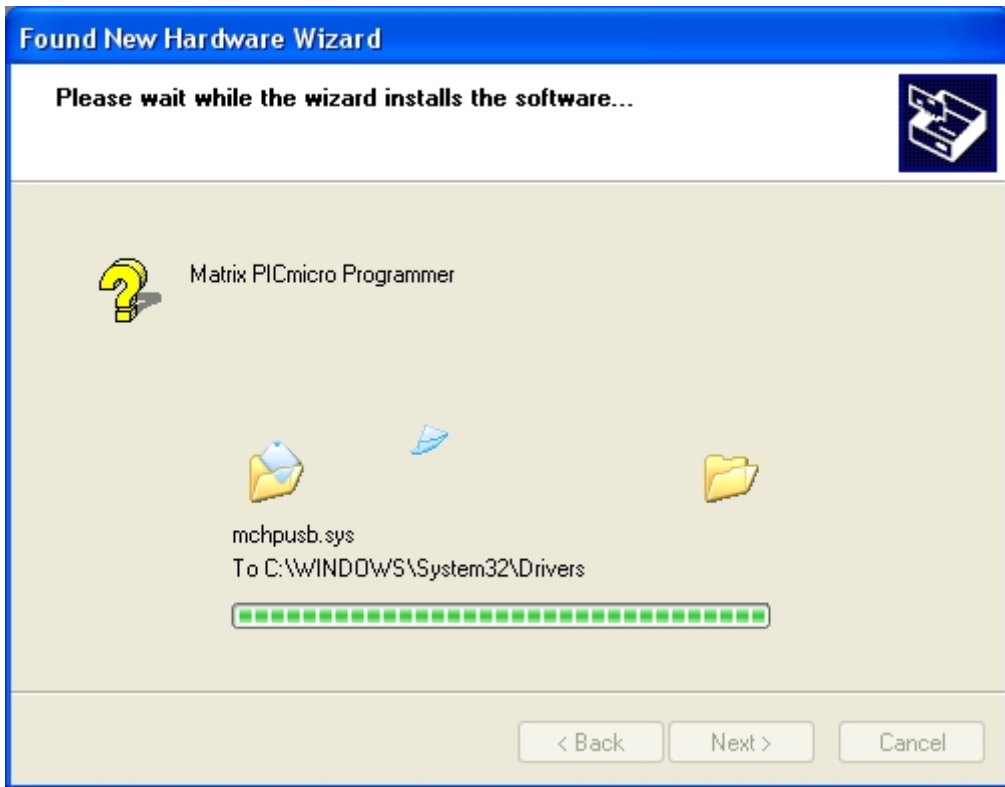
Next select the "Install from a list of specific locations" option. Click Next.



2. At the "Search and Installation Options" dialog, select the "Include this location..." option. Click the Browse button to open the Windows Browse for Folder dialog. Navigate to the folder in which the USB Driver files were installed and click Open. This is "C:\Program Files\Matrix Multimedia\Common\PPPV3\USB\_Driver" by default



3. The system will copy and install the driver files, and indicate when the process is finished. Click Next.



4. The final dialog will indicate that the driver has been successfully installed. Click Finish. It will not be necessary to restart the system.





[Back to top](#)

### **Confirming that the Driver is installed:**

Regardless of the versions of the operating system, the Matrix PICmicro programmer USB board will appear in the Device Manager view (available from the System applet in the Control Panel) when the installation is complete. The Matrix PICmicro programmer entry will appear under the category of "Other Devices". The icon and name will be the same in all versions of Windows.



(Partial window shown)

[Back to top](#)

### **Removing the driver entry if installation failed**

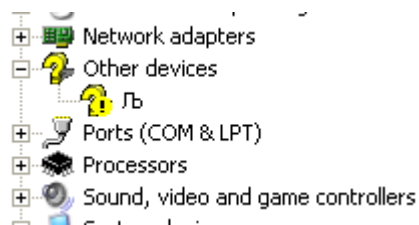
If you attempted to install the Driver without pointing the install wizard at the correct drivers the device will be recorded in Device manager but will not work.

Open the **System** applet in the Control Panel (may be in the **Performance and Maintenance** section in XP).

Go to the **Hardware** tab and click on **Device Manager** button to display the **Device Manager** dialog.

The board will show up as Unknown Device with the Question Mark icon with an exclamation mark superimposed on top of it.

The entry may be in various places such as Other Devices, or in the USB section.



(Partial window shown)

Select the device and click on **Remove** (or right click and select **Remove**) to delete the device from the list.

Unplug the board.

You can now plug the board back in to restart the install procedure.

[Back to top](#)

### **Checking the board**

You can confirm that the USB driver is installed by checking that the board is detected, and that the Firmware is version 6 or later.

As an additional test you can download a program to the board.

1. Connect and power up the board.
2. Open PPP and select the Options screen.
3. Click on Auto detect in the Board version section.  
PPP should detect a V3+ USB board.
4. Close the options screen
5. Got to About in the Help menu.
6. The About dialog will list the firmware version. This should be version 7 or later.

Whilst the above test should be sufficient to show that the driver is loaded you may want to test the board by downloading a HEX file to the board.

Select a convenient PICmicro device and an associated test HEX file, or one that you know to be have downloaded successfully in the past.

Configure the PICmicro and send the HEX file.

[Back to top](#)

### **Technical Support**

Technical support is available from the Matrix Multimedia website at:

<http://www.matrixmultimedia.com>

There is a Support section with FAQs and updates. Please check the website before contacting support as many common issues will be covered there.

Support is available via email at: [support@matrixmultimedia.co.uk](mailto:support@matrixmultimedia.co.uk)

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Matrix Multimedia Ltd.

[www.matrixmultimedia.com](http://www.matrixmultimedia.com)

[Back to top](#)