



Technical Note

Gloria 1 Programmer

This is a guide for setting up the software and USB drivers for the Gloria 1 programmer on Windows 10. The drivers are too old for Windows 10, so the software has to run in Windows XP installed in a virtual machine (VM). Follow these steps in order:

1. Install VirtualBox
2. Create a VM with VirtualBox and install Windows XP
3. Install the Gloria 1 USB driver in Windows 10 (yes, really!)
4. Install the Gloria 1 USB driver in the Windows XP VM
5. Connect the Gloria 1 programmer
 - 5.1. Confirm the connection in Windows 10
 - 5.2. Attach the connection to VirtualBox
 - 5.3. Confirm the connection in Windows XP
6. Run the programmer software in Windows XP

Windows XP VM

Windows 10 no longer has the built-in XP Mode VM that came with Windows 7, so you'll have to set up your own. VirtualBox works well as a VM platform for this application. You can download and install it for free.

Create a new VM and install Windows XP. You will need your own XP installation CD or ISO, with a valid installation key. Check one of the many guides on the internet if you need help creating an XP VM in VirtualBox. You will also need to install the VirtualBox Guest Additions in the XP VM.

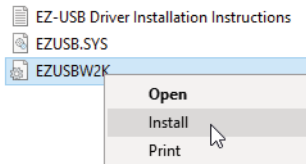
Note that the Gloria 1 software will not work with the VMware Player platform. In fact, if VMware is already

installed on your PC you will need to uninstall it for the Gloria 1 software to work. VMware automatically takes over unknown or unused USB devices with its own driver, preventing the Gloria USB driver from connecting to the programmer.

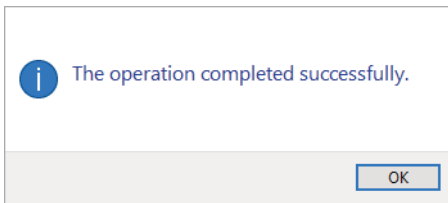
Gloria 1 USB Driver in Windows 10

It seems strange to install the Gloria 1 USB driver in Windows 10, seeing as it doesn't actually work. However, installing the driver allows Windows 10 to correctly report the programmer's USB connection to VirtualBox. This step may be optional, so proceed at your discretion.

Copy the <Gloria1> folder to the system drive of Windows 10. In that folder, open the <ezusb driver 1> folder and right-click on the file <EZUSBW2K.INF> and click <Install>.



If all goes well, you'll get a confirmation like this:



Generally though, Windows will complain that the driver has no digital signature and will refuse to install it. If so, follow this process:

1. Click the Start menu
2. Click Settings

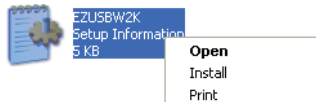
3. Click Update & Security
4. Click Recovery
5. Under Advanced Startup, click Restart Now
6. Click Troubleshoot
7. Click Advanced Options
8. Click Startup Settings and click Restart
9. Wait for the system to reboot, and then press 7 to select Disable driver signature enforcement
10. Wait for the system to finish rebooting, then repeat the earlier instructions for installing the Gloria 1 USB driver



Gloria 1 USB Driver in Windows XP

Drag the <Gloria1> folder from the Windows 10 system drive onto the Windows XP desktop (the VirtualBox Guest Additions will have to be installed for this to work).

In XP, open that folder, open the <ezusb driver 1> folder and right-click on the file <EZUSBW2K.INF> and click <Install>.

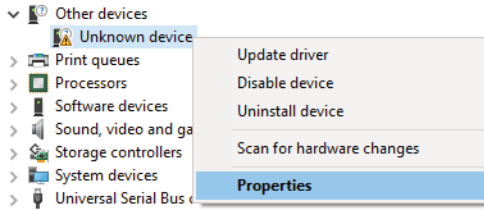


Connect the Programmer

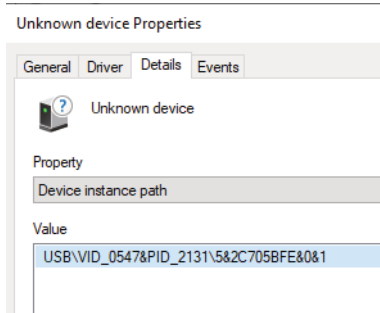
Shut down the XP VM and close VirtualBox. Connect the USB programmer to the PC and turn it on. The programmer will need batteries or an external adapter. Windows 10 will show a confirmation message.

Open the Windows 10 device manager to check the connection. Right-click the Start menu and click Device

Manager. In the list of devices, find the Unknown device. Right-click the Unknown device and click Properties.

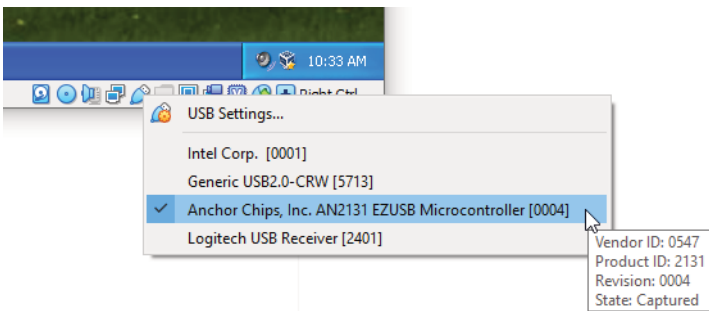


In the properties box, click the Details tab and confirm the Vendor ID and Product ID are 0547 and 2131 respectively.



Close the properties box.

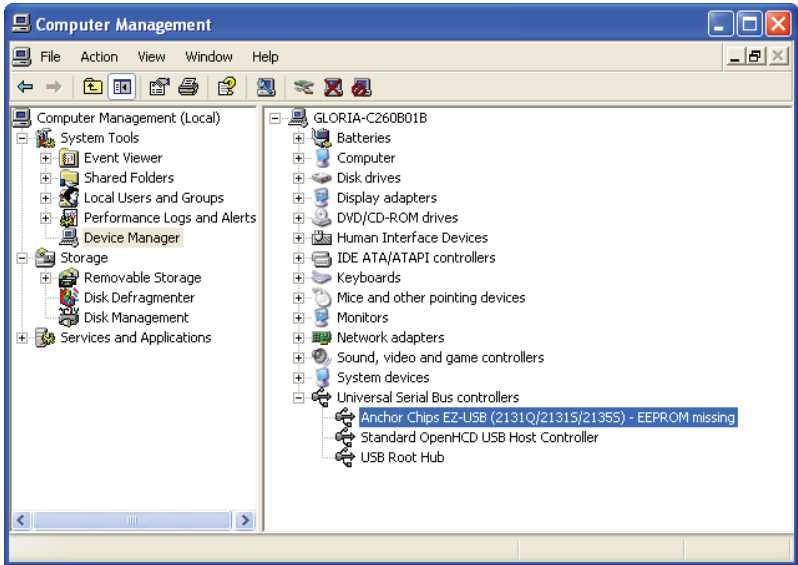
With the programmer still connected, open VirtualBox and start the Windows XP VM.



Once XP has finished booting, right-click the USB icon at the bottom of the VirtualBox window, and click the <Anchor

Chips, Inc. AN2131 EZUSB Microcontroller> device so it has a check mark. Don't click if it already has a check mark. The mouseover text should indicate <State: Captured>.

Open the Windows XP device manager to check the connection. Click the Start menu, click Control Panel, double-click Administrative Tools, double-click Computer Management, and click Device Manager in the list on the left of the window.



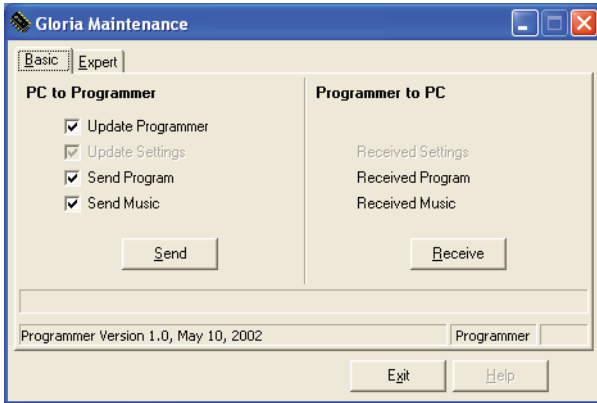
Click the + next to <Universal Serial Bus controllers> to expand the list. The <Anchor Chips EZ-USB> device should be listed.

Programmer Software

In XP, open the <Gloria1> folder and double-click Programmer.



The software will display <Programmer Version 1.0, May 10, 2002> at the bottom of the window when everything is working correctly.



Test Environment

Windows 10 Home Version 1809 (64-bit)

PC: Core i3-6100U CPU, 8GB RAM

USB 3.0

VirtualBox 6.0.8

Windows XP Professional SP2 (32-bit)

VM: 1 core, 512MB RAM