

# Engineering Note

**Topic:** EEPROM Recovery for CHEMUSB4000

**Product Affected:** CHEMUSB systems

**Date Issued:** 04/07/2011

## Description

This document contains instructions on how to recover a CHEMUSB4000 system after its EEPROM has been corrupted.



## Setting Up

### ► Procedure

1. Disconnect the USB-ISS-UV/VIS from the USB4000. To do this, remove the two screws from the bottom of the USB-ISS-UV/VIS and then pull it out slightly away from the USB4000.
2. Install USB EEPROM Programmer from <http://www.oceanoptics.com/technical/softwaredownloads.asp>

3. Plug in the spectrometer and verify that the device drivers have been loaded correctly. Navigate to the PC's Device Manager window and verify that you can view your USB4000. To reach the Device Manager:
  - a. Click **Start | Control Panel | System** and select the **Hardware** tab. This path may vary depending on your operating system
  - b. Click the Device Manager button. Your USB4000 Spectrometer should be listed under Ocean Optics devices, but it may show up under Universal Serial Bus Controllers. It should appear as Ocean Optics USB4000.
4. Be sure that the USB4000 does not have a question mark or exclamation point displayed beside it. If there is an exclamation point, then
  - a. Right-click on the USB4000 and select uninstall, follow the steps to uninstall the device.
  - b. When you are done, unplug the USB4000 wait 10 seconds and plug it back again. Wait for the Found New Hardware Wizard and follow the instructions; select Install Software Automatically (recommended).
5. If you see something like Unprogrammed EZB:
  - a. Plug your spectrometer and open the USB programmer.
  - b. Click on your USB4000 (with your serial number).
  - c. Click the Program button. A Select Eeprom Program dialog box appears.
  - d. Search for the firmware version (contact Ocean Optics) and select it, then click **Open**.

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### Note

Do not interrupt the programming process for any reason! If the programming process is interrupted, permanent corruption can occur on the USB device. Programming will take a few minutes.

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6. When programming is complete, unplug the USB device from the PC, and then plug the device back into the PC to allow the new program to take effect.
7. If everything runs successfully, open the USB Programmer again and see if it is awake, close it and open the SpectraSuite. Then reattach the USB-ISS-UV/VIS.

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### Caution

**Please remember to always plug first the power supply, then the USB cable. When turning off, unplug the USB cable first, then the power supply. See <http://www.oceanoptics.com/technical/usbissuv.pdf> for more information.**

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