

# ***SIGNAL RECOVERY* Model 3820**

## **Universal Counter Firmware Update Utility**

### **Instruction Manual**

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### **Purpose**

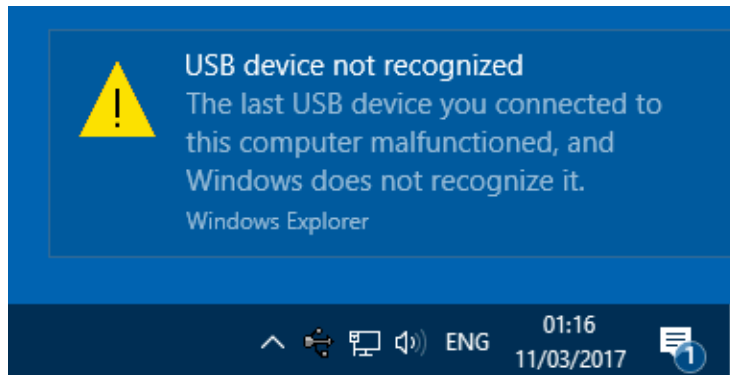
This document describes the purpose of the Firmware Update Utility for the ***SIGNAL RECOVERY*** Model 3820 Universal Counter, and how to install and run it.

### **Background**

The ***SIGNAL RECOVERY*** Model 3820 Universal Counter uses internal firmware stored in a programmable memory device. There is a bug in Version A of this firmware whereby when the unit is plugged into the controlling computer it returns an incorrect value in the Configuration Descriptor.

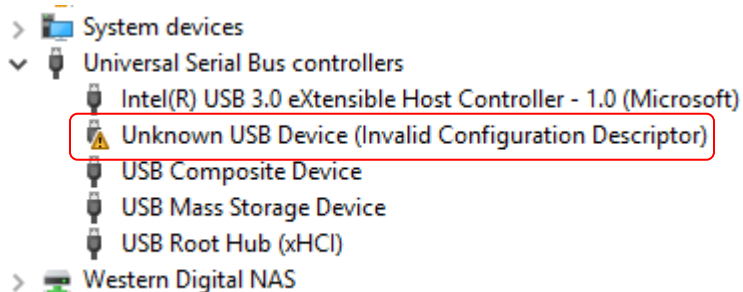
With versions of Windows up to and including Windows 7 this error did not cause a problem, but with versions since Windows 8 and where the computer has more recent USB hardware (especially if this complies with the USB 3.0 specification) then it can mean that the unit is not recognized, making it unusable with these machines.

If the SR3820 Universal Counter software is installed on these computers, then when the counter is connected a message similar to that shown in figure 1 will be displayed.



**Figure 1, Error Message**

If Device Manager is opened, then the counter will be shown as an unknown USB device (figure 2).



**Figure 2, Device Manager (part listing), with Installation Error**

## Firmware Update Utility

The program SR3820Update.exe version 1.0 is designed to resolve the problem, by updating the firmware in the connected counter to Version B. Once this has been done the unit will correctly operate on all versions of Windows from XP onwards.

The only potential difficulty is that in order to run the update program the counter needs to be connected to a computer where it does operate correctly. This will be the case on any PC running Windows XP, Vista or 7, as well as many computers running Windows 8 or later if they do not use the latest USB hardware. However, if a computer displays a warning message similar to that shown in figure 1 is when the multiplexer is connected then it is not suitable for performing the upgrade and other computers will have to be tried until one is found where this does not happen.

The utility is supplied with a setup program which also installs the correct USB driver software, which makes it very easy to use any suitable computer for the update process, even if this has not previously been used to operate the counter. Of course, once the upgrade is complete then the software can be removed from the computer.

## Operating Instructions

Having identified a suitable computer, proceed as follows:

- 1) Locate the installation file SetupSR3820Update.msi and double click it to start the setup, following the displayed instructions.
- 2) As the program runs, a security dialog similar to that shown in figure 3 will be displayed, showing that the code is digitally signed by Ametek, Inc, the parent company of **SIGNAL RECOVERY**

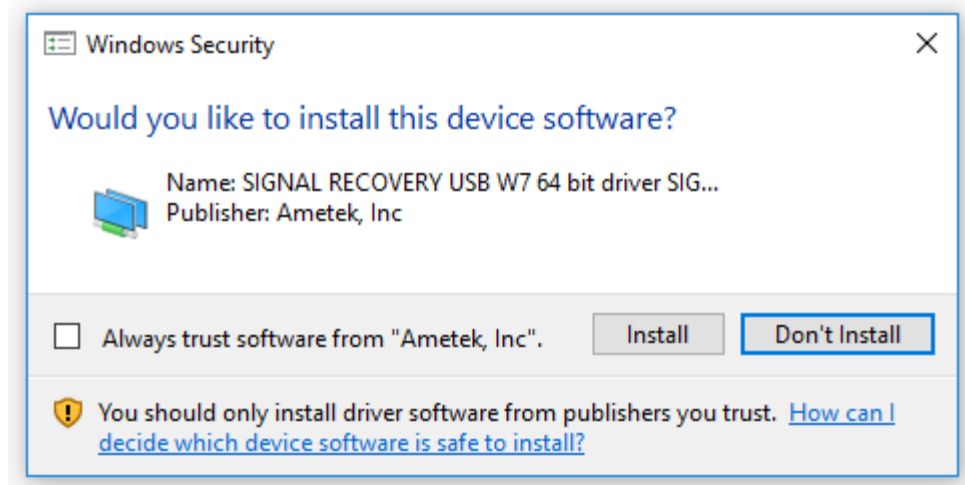


Figure 3, Security Dialog – SRUSB Driver (64 bit version)

Click Install to allow the driver to be installed.

- 3) On completion, close the setup program.

- 4) Take a USB 2.0 type A to type B cable, shown below in figure 4, and plug the A plug end into a free USB port on the computer and the B plug end into the Model 3820 Universal Counter.



Figure 4, USB 2.0 A to B Cable

- 5) The computer will complete the installation of the driver, displaying the screen shown in figure 5. The process can be speeded up by choosing not to search Windows Update for suitable drivers, as they are not available via that source.

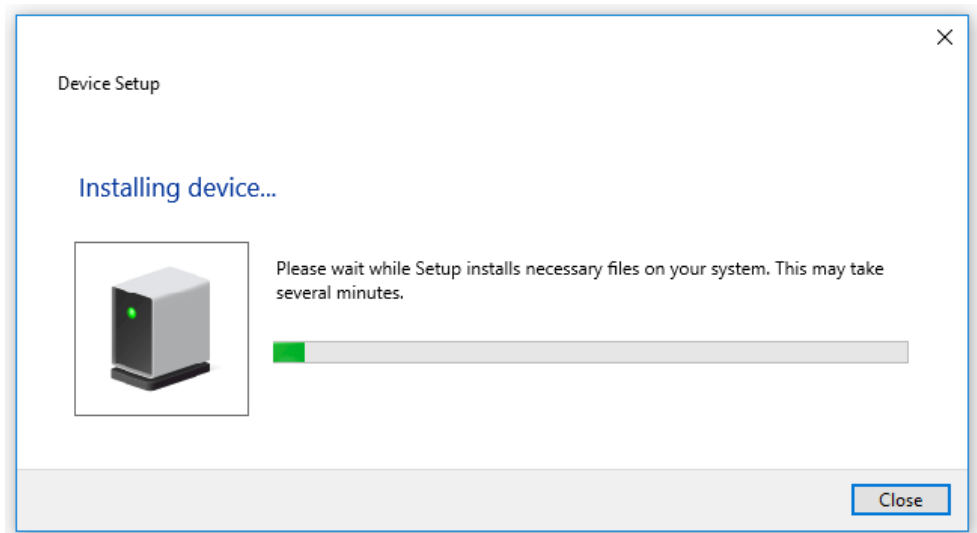


Figure 5, Installing Device Dialog

On computers running Windows XP the Found New Hardware dialog will be displayed (figure 6). Choose not to connect to Windows Update to search for software, and at the next screen (figure 7) select the **Install the software automatically** option.



Figure 6, Windows XP Found New Hardware Wizard – Opening Dialog

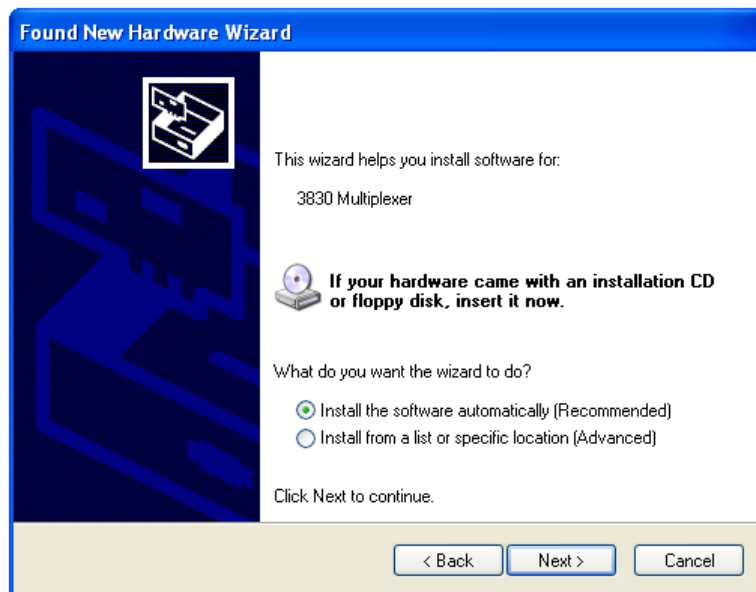


Figure 7, Windows XP Found New Hardware Wizard – Second Dialog

- 6) Once the driver is correctly installed, Device Manager will show the counter as a SIGNAL RECOVERY item in the device tree, as shown in figure 8.

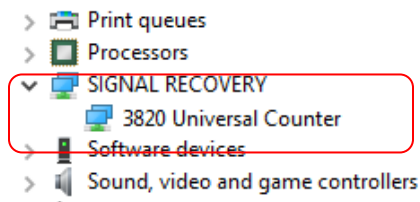


Figure 8, Device Manager (part listing), with 3820 Counter Correctly Installed

- 7) Start the 3820 Counter Firmware Updater by clicking on the **3820 Counter Firmware Updater** item in the Start Menu, as shown in figure 8.

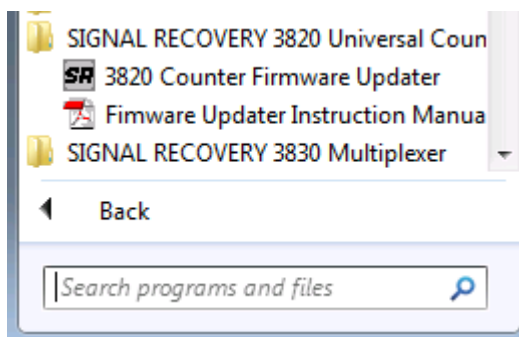


Figure 8, Start Menu access to 3820 Counter Firmware Updater

- 8) The SR3820 Universal Counter Firmware Update Utility dialog, shown in figure 9, will be displayed.

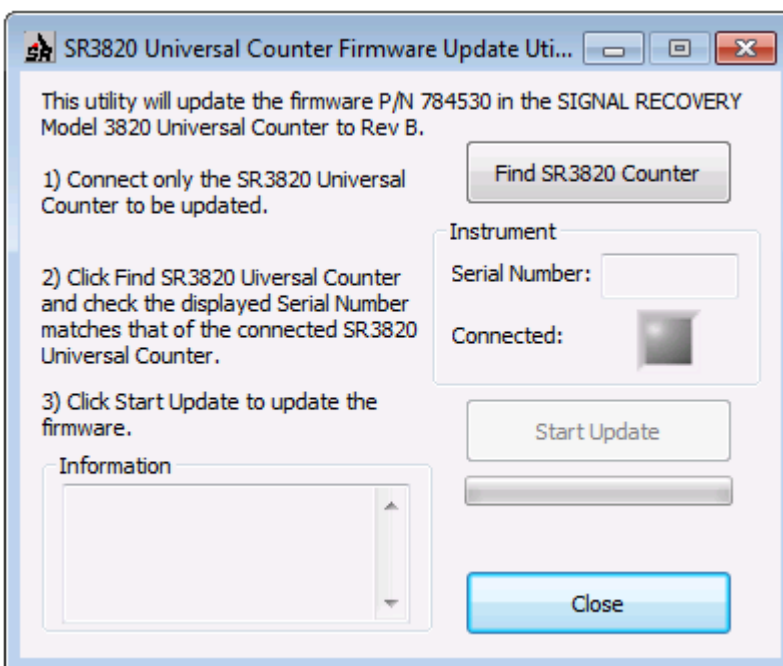


Figure 9, SR3820 Universal Counter Firmware Update Utility

- 9) Click **Find SR3820 Counter** and verify that the displayed Serial Number matches that of the connected Model 3820 Counter. If no counter is detected, then make sure that the USB cable is properly connected and that it is listed in the Device Manager tree. If more than one counter is found, unplug all but the one that is to be updated and click the **Find SR3820 Counter** button again.

- 10) When one, and only one, Model 3820 is identified then the **Start Update** button will be enabled. Click it to install the new firmware, which only takes a few seconds.
  
- 11) Click **Close** to exit the program. If no other counters need updating then to avoid possible future confusion it is suggested that the update utility be removed from the computer via the **Add/Remove Programs** (or equivalent) function in the Windows Control Panel.

## Further Advice

If you require further help or assistance then please contact our service department via e-mail at [si.info@ametek.com](mailto:si.info@ametek.com)

## **SIGNAL RECOVERY**

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