ASC-400 firmware upgrade instruction

Software installation and description for upgrading firmware on the ASC-400 circuit board.

Requirements

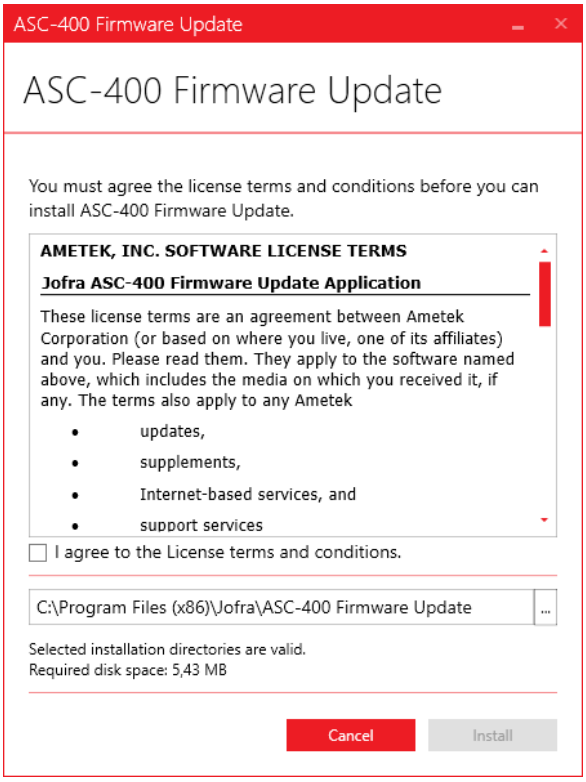
- PC running Microsoft OS Windows 7 / 10 (32&64bit) with USB port.
- USB communication cable to the ASC.

Software & driver installation

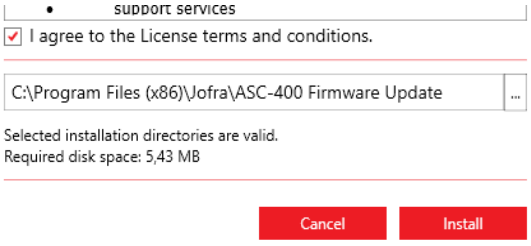
This section explains the installation of the software and drivers required for the firmware update process.

Start installation

Select the “JofraASC-400FirmwareUpdateSetup3.2.14.exe” installation file to begin installation and click the Next button.

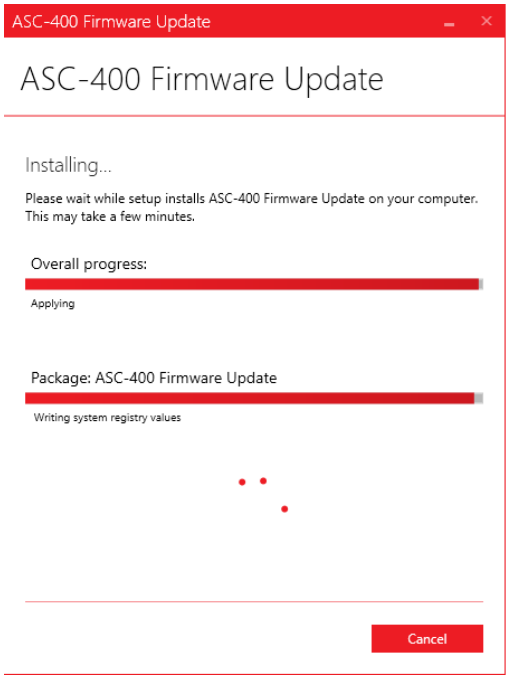


Terms of software license are displayed for review and acceptance



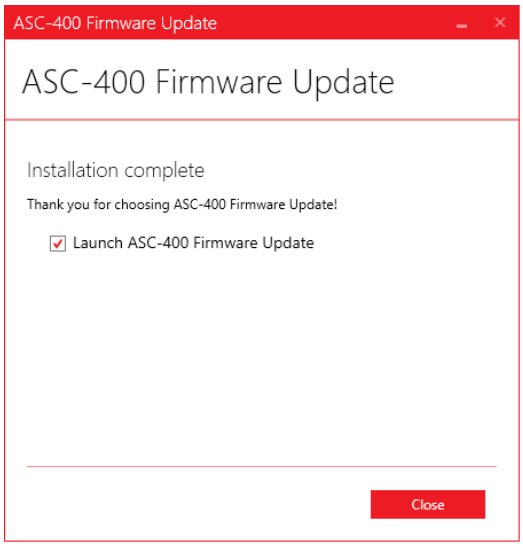
Agree to license terms to activate Install button.

NOTE: Software requires .NET Framework to be installed on the host and installation may prompt for the downloading and installation of this software before proceeding. See section .NET Framework 4.0 FULL.



Progress of software installation display…

Installation of software should take only a few seconds before the driver installation begins….



Installation complete.

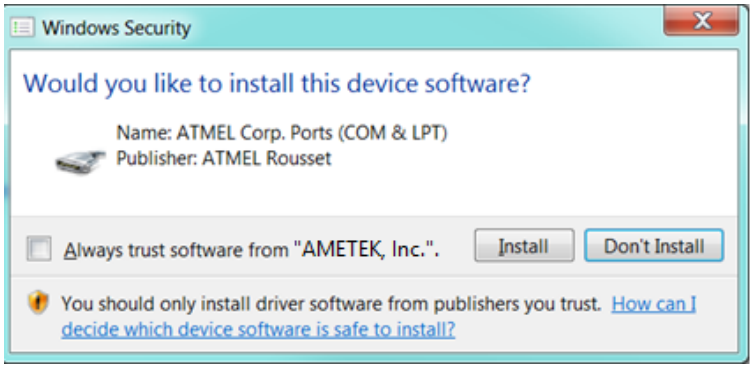
The ASC-400 Firmware Update can be started automatically using the Launch checkbox.

Driver installation

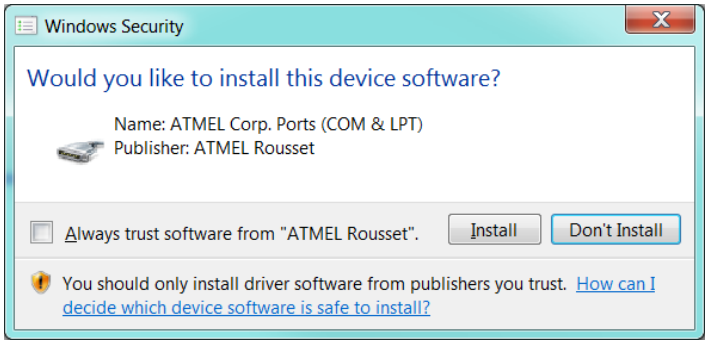
Two drivers are now installed

- ATMEL. Used for initial communication with processor prior to any hosted firmware.
- AMETEK ASC-400. Used for communication with processor hosting ASC-400 firmware.

Select the Install button to continue with driver installation.



Select the “Install this driver software anyway” to continue.



The driver is not digitally signed causing a prompt from the OS requiring confirmation that you wish it installed.

Select “Install” to continue.

Both ATMEL and AMETEK drivers are now installed.

Please note!!

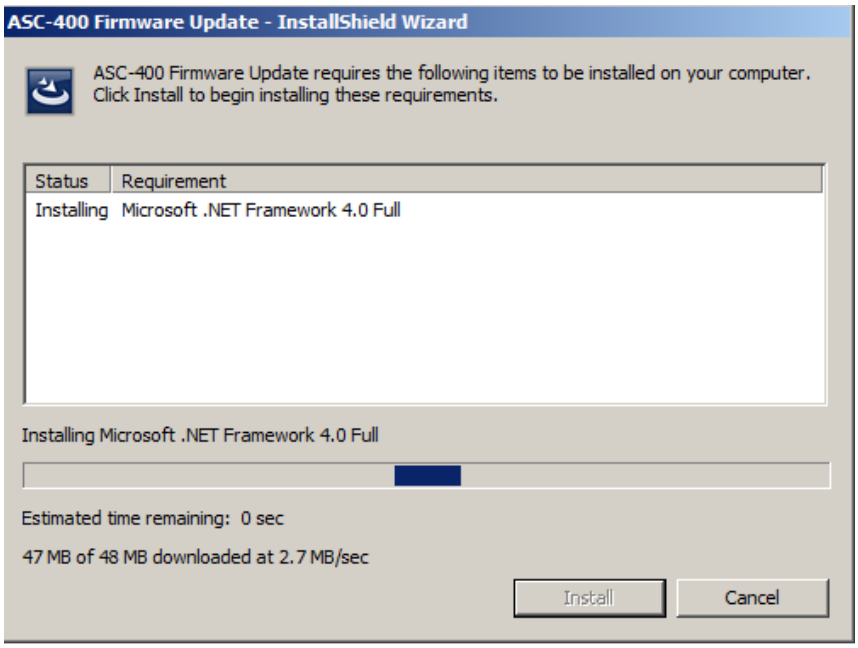
The upgrade executable is found in the following location.

”C:\Programs (x86)\Jofra\ASC-400 Firmware Update\ASC 400 Firmware Update.exe”.

For easy access a good practice is to create a shortcut on your computers Desktop.

.NET Framework 4.0 FULL

The upgrade software requires .NET Framework 4.0 installed on the host PC:
If not found the user is prompted by the installation



Select the Install button to initiate downloading and installation of .NET Framework 4.0.

NOTE: Access to the internet is required to download the installation files from Microsoft.

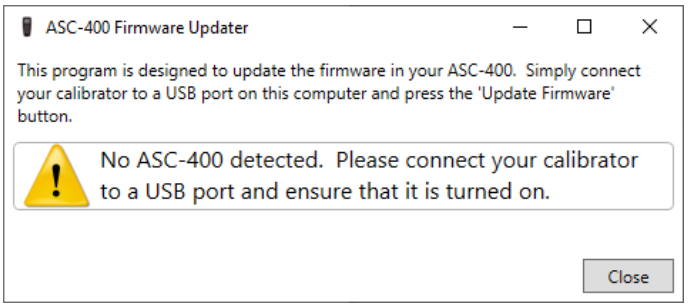
PROGRAM INTERFACE DESCRIPTION

Startup

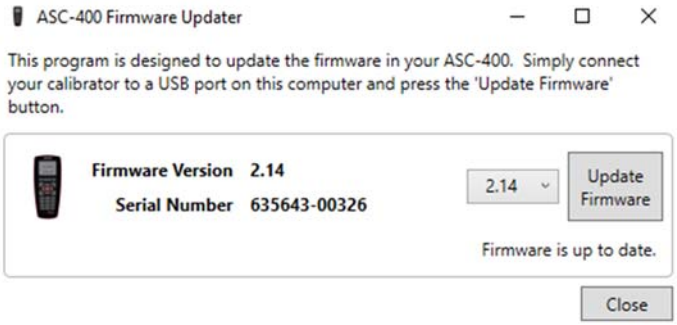
On start-up the Upgrade software scans the PC's USB ports for the presence of any ASC-400.

The start-up interface depends on the presence of and condition of any connected ASC-400.

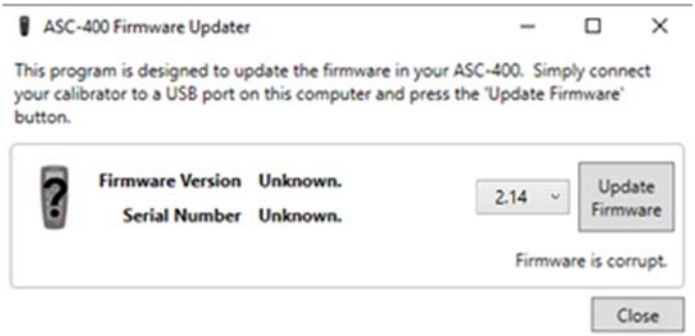
1. No ASC-400 currently connected.



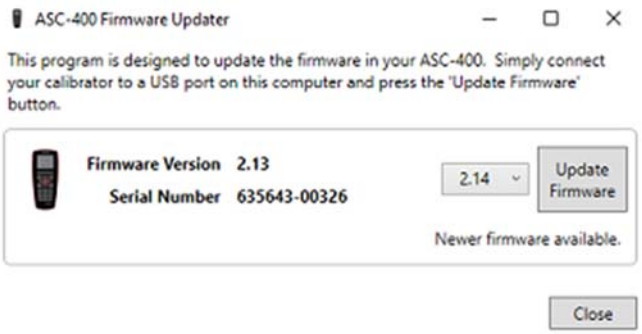
2. ASC-400 detected with current firmware version displayed.

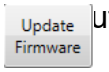


3. ASC-400 detected without firmware installed.

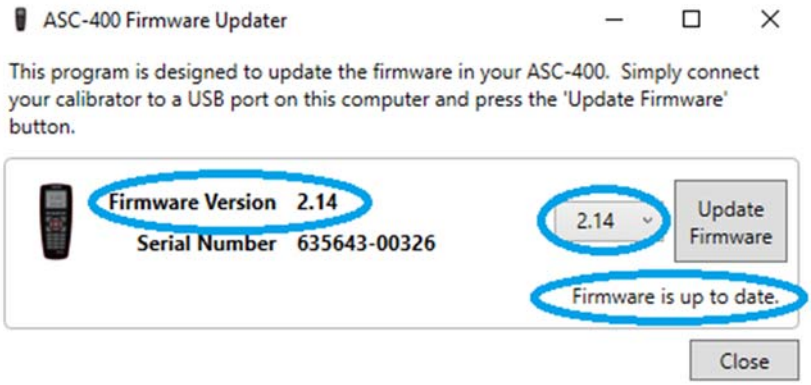


4. ASC-400 detected with out of date firmware installed.



If an ASC-400 is connected, the latest available firmware version is displayed in the list box (2.14) and the 

utton is activated ready for download.

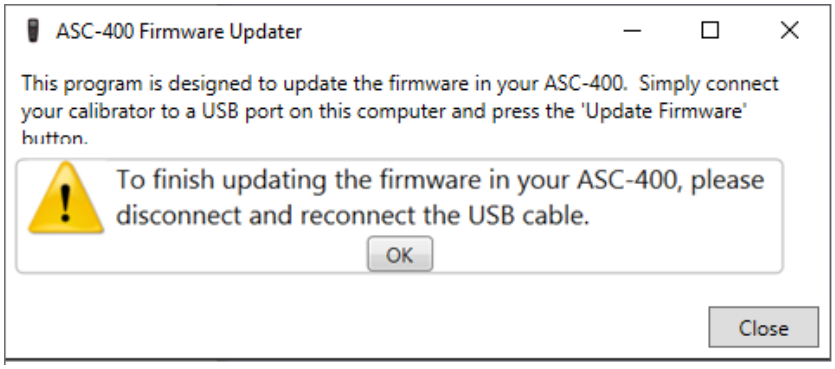


If the latest available firmware matches the version on the ASC-400, the above text is shown and no action is necessary.

Upgrade firmware

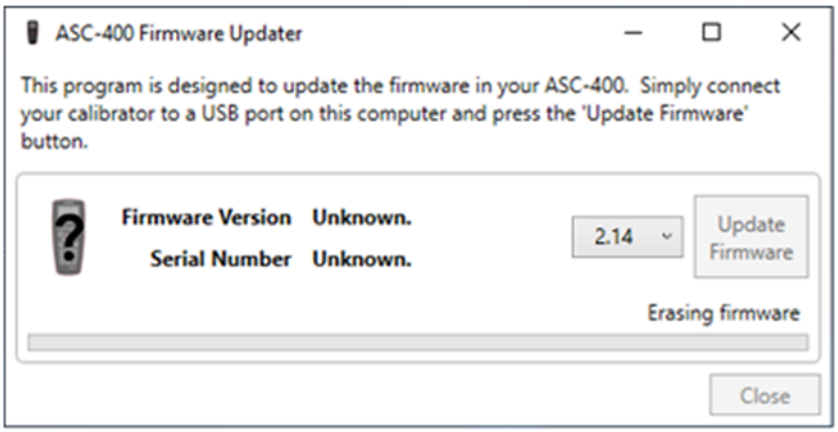
To begin the upgrade, select the Update Firmware button

To ensure the firmware is upgraded correctly, the program will request to you to restart the ASC-400.

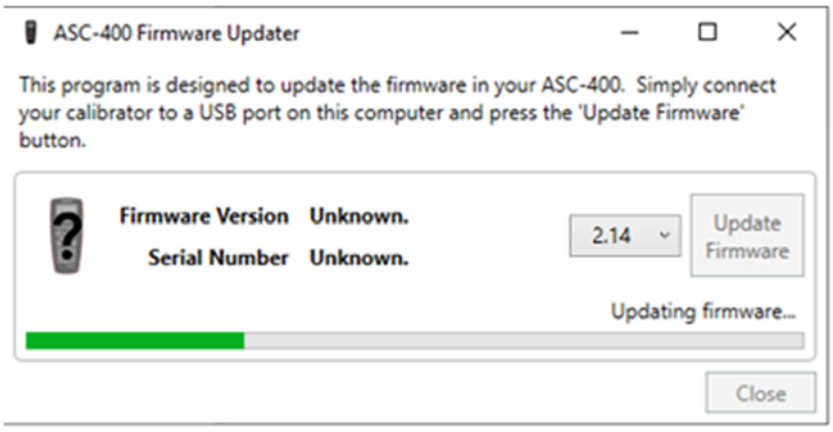


After a while, the software begins updating the current firmware.

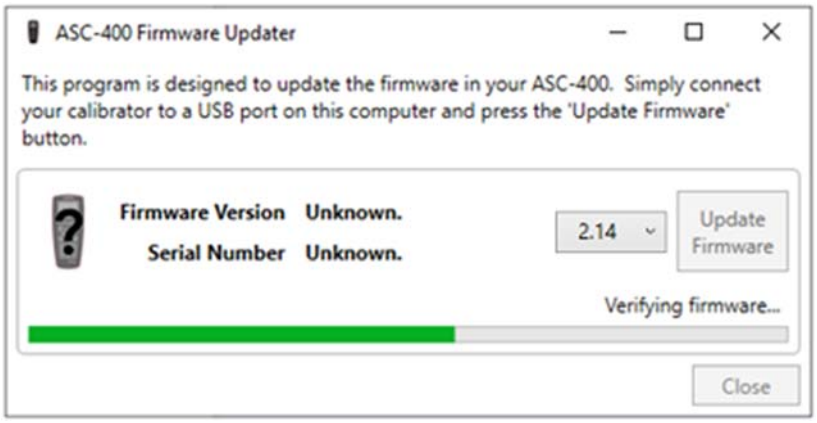
Erasing the firmware….



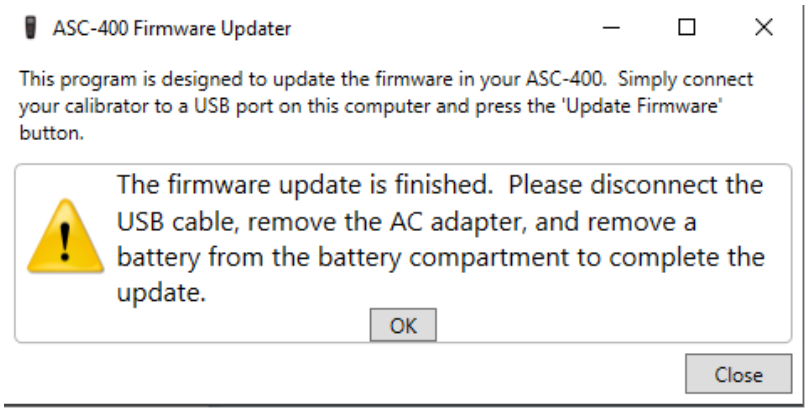
Updating firmware….



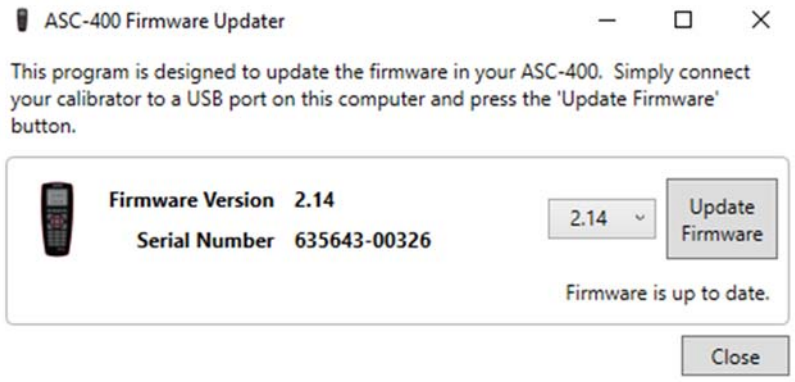
Verifying firmware…



To complete the firmware update, remove AC adaptor and batteries from ASC-400.



Connect AC-adaptor and/or batteries again.



The ASC-400 firmware is now updated and verified.

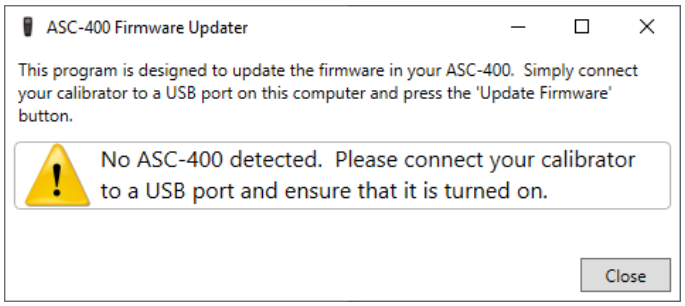
Troubleshooting upgrade of existing firmware

Occasionally an upgrade of an existing firmware version can freeze after erasing the firmware resulting in the ASC-400 displaying a blank screen after reboot.

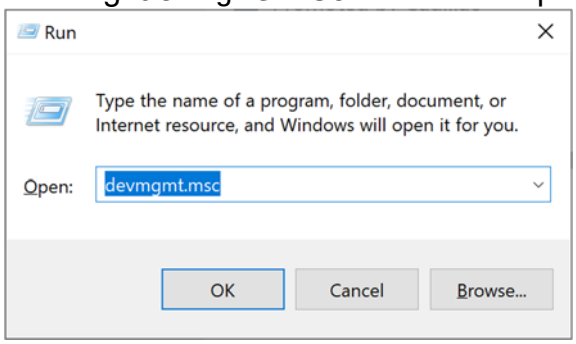
Should this occur follow the instructions below.

1. Simply shutdown the program and restart it.
2. The program will see the ASC-400 as if no firmware were installed.
3. Select the Upgrade button and repeat the process.

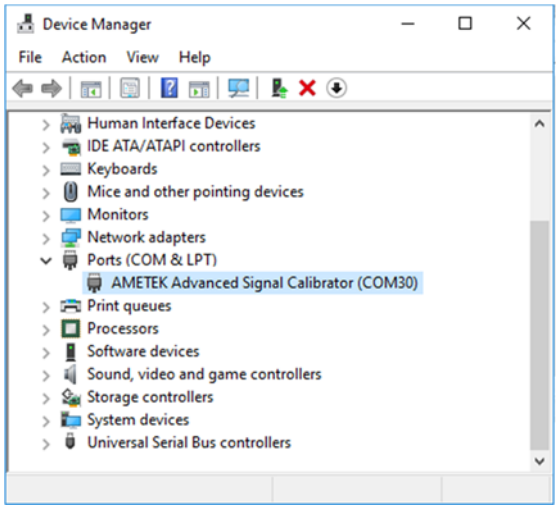
If the calibrator displays ‘Firmware Update In Progress’ and the Firmware Upgrade tool does not recognize the ASC-400, please follow the instructions below:



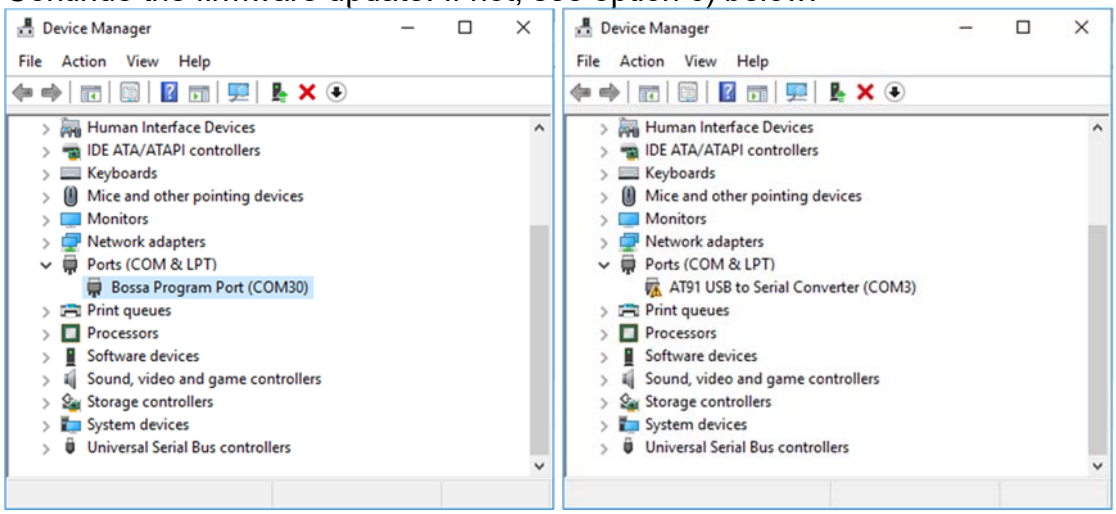
1. Check that all cables are connected properly and that the ASC-400 is powered on.
2. Open Windows’ *Device Manager* (i.e. by pressing [Windows-button] + [R] and entering ‘`devmgmt.msc`’ in the text input field).



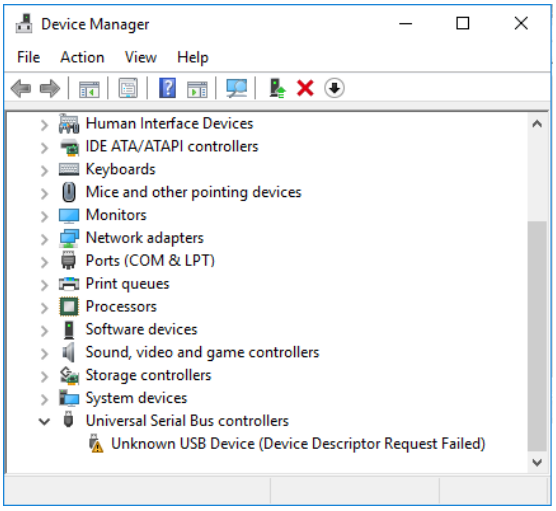
3. Check that the calibrator shows up under ‘Ports (COM & LPT)’.
    a. If there is an entry called ‘AMETEK Advanced Signal Calibrator’, the driver is properly installed and should be visible to the Firmware Update tool. If not, restart the program and try again.



b. If there is an entry called ‘Bossa Program Port’, Windows has chosen a wrong driver for the ASC-400. Ensure that you have administrator privileges. Remove the device driver by right clicking on the Bossa entry and selecting ‘Uninstall device’.
Disconnect and reconnect the USB cable to the ASC-400.
It should now show up in Device Manager as ‘AT91 USB to Serial Converter’.
Continue the firmware update. If not, see option c) below.



c. If no COM ports are displayed, the operating system does not recognize the connected unit. Remove the USB cable and reinstall the drivers. Re-connect the USB cable.


Device Manager
File
Action
View
Help
Human Interface Devices
IDE ATA/ATAPI controllers
Keyboards
Mice and other pointing devices
Monitors
Network adapters
Ports (COM & LPT)
Print queues
Processors
Software devices
Sound, video and game controllers
Storage controllers
System devices
Universal Serial Bus controllers
Unknown USB Device (Device Descriptor Request Failed)