

# CTC firmware upgrade manual

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Software installation and description for upgrading  
firmware on the CTC series circuit board.

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## Requirements.

- PC running Microsoft OS Windows XP, 7 (32&64bit), 8, 10 with USB port.
- USB communication cable to the CTC.

## Software & driver installation.

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

### *Start installation.*

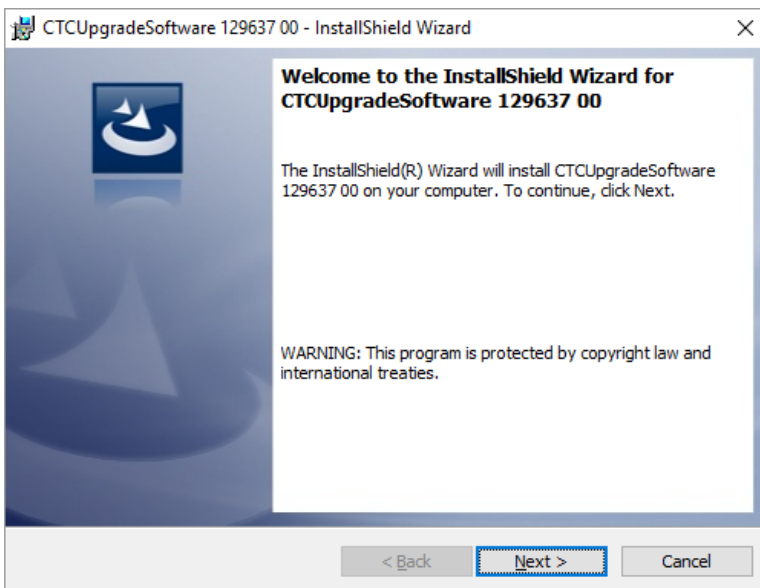
Select the installation file to begin installation and click Next button.

“CtcFirmwareUpgradeSetup 32bit.exe” ( windows 32 bit OS)

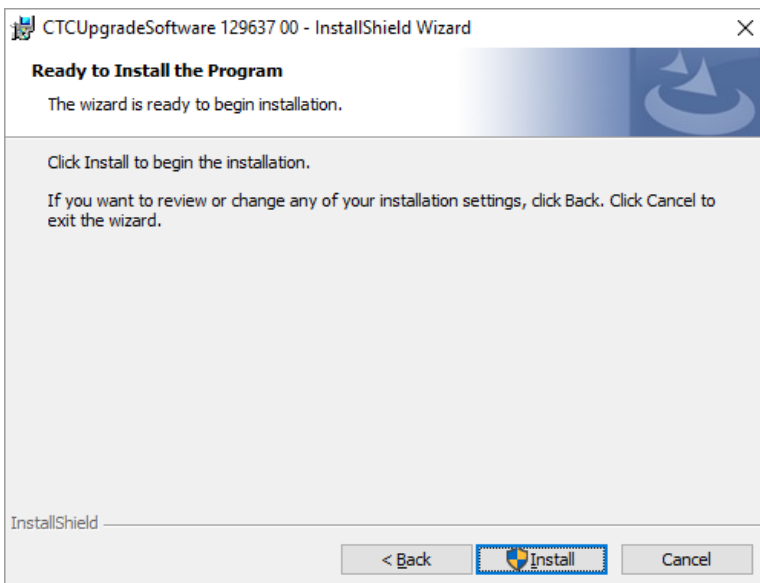
OR

“CtcFirmwareUpgradeSetup 64bit.exe” ( windows 64 bit OS)

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.](#)



Select Next to continue installation...



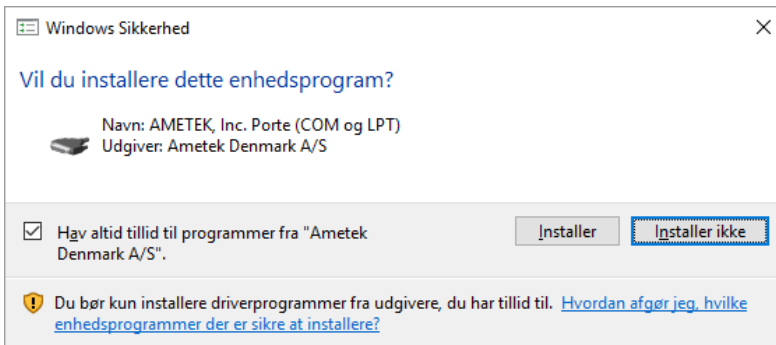
Select the install button to continue....

After a few seconds the driver installation begins....

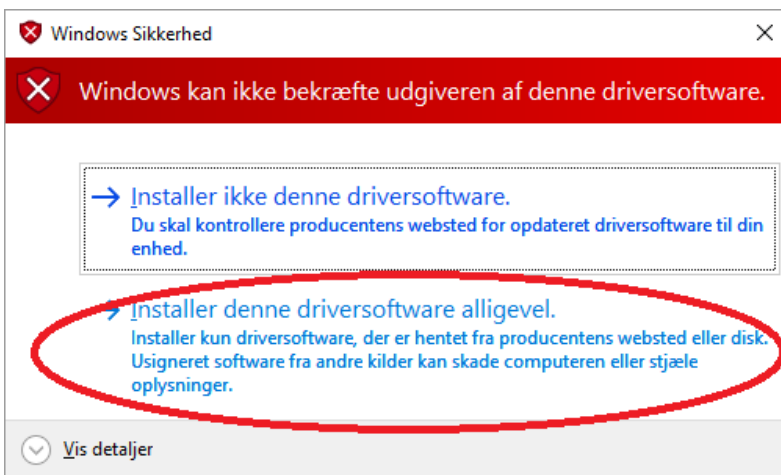
## Driver installation.

Two drivers are now installed

- Ametek CTC. Used for communication with processor hosting CTC firmware.
- ATMEL. Used for initial communication with processor prior to any hosted firmware.

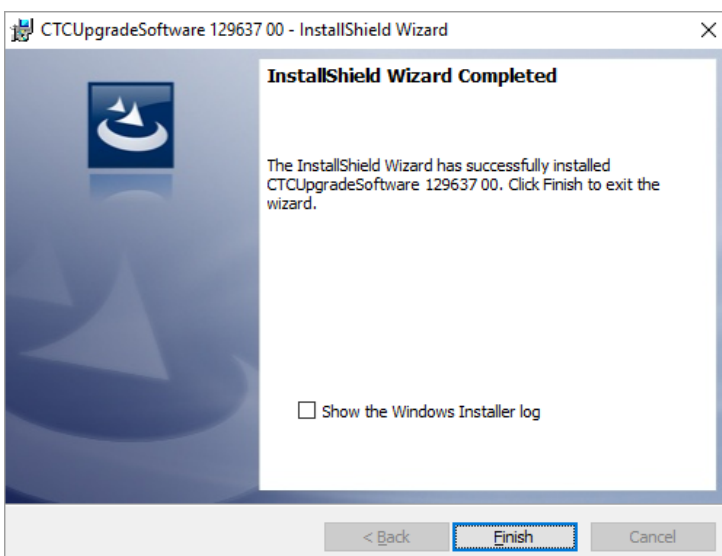


Select the Installer button to continue with Ametek CTC series driver installation.



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

Both ATMEL and Ametek drivers are now installed.



**Please note.**

The upgrade executable is found in the following location.

**” C:\Ametek\CtcFirmwareUpgrade\CTC 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 must download and install the latest from Microsoft Web page.

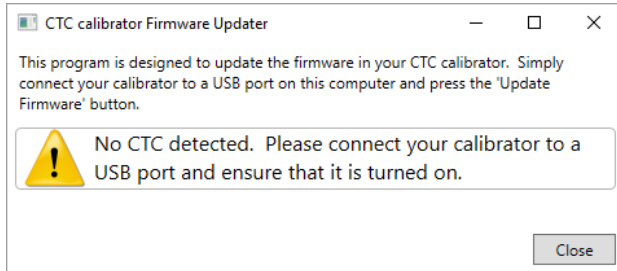
# PROGRAM INTERFACE DESCRIPTION.

## Startup.

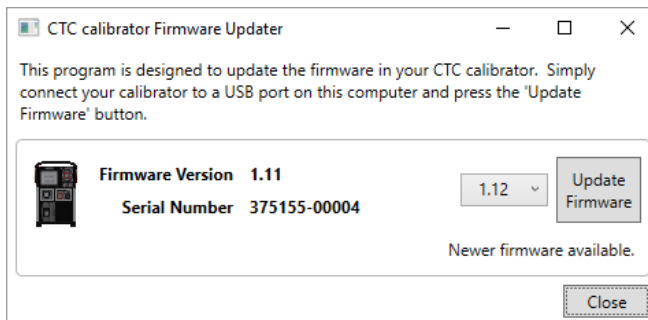
On start-up the Upgrade software scans the PC's USB ports for the presence of any CTC.

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

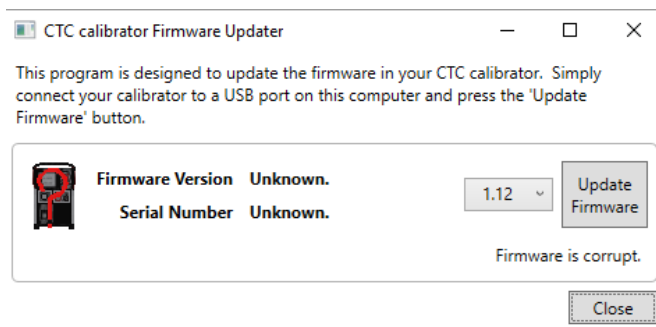
1. No CTC series calibrator currently connected.




2. CTC series detected with current firmware version displayed.



3. CTC detected without firmware installed.

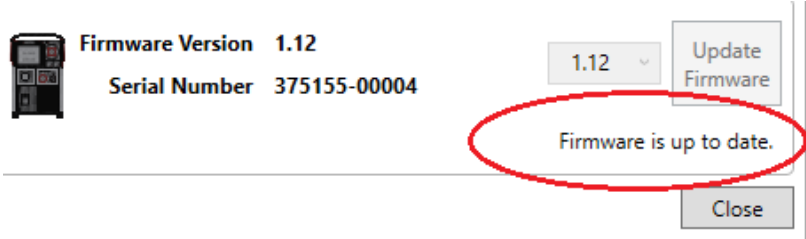


If an CTC is connect and latest available firmware version is displayed in the list box ( 1.12 ) and the


 update button is activated ready for download.

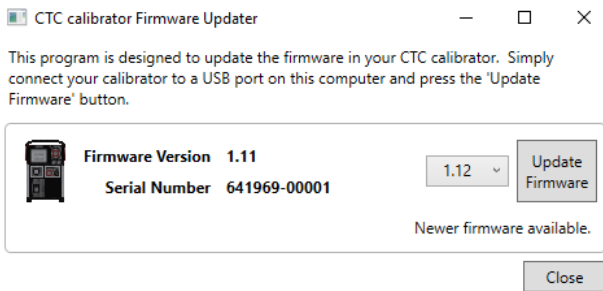
4. Firmware is current, no update required.

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



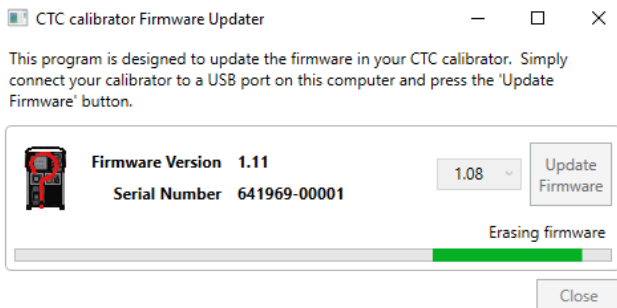
## Upgrade firmware.

To begin the upgrade, select the  button

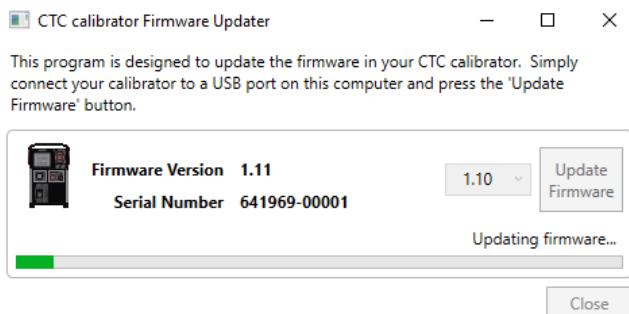


After a while, the software begins updating the current firmware.

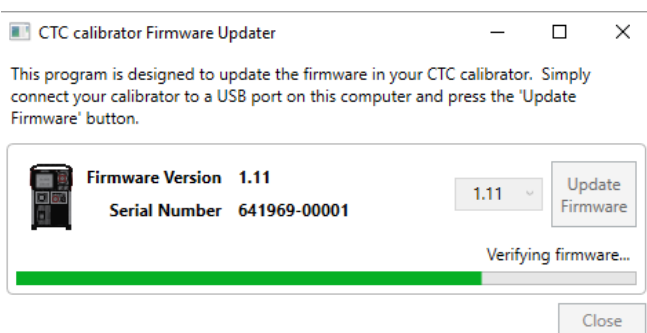
Erasing the firmware....



Updating firmware....

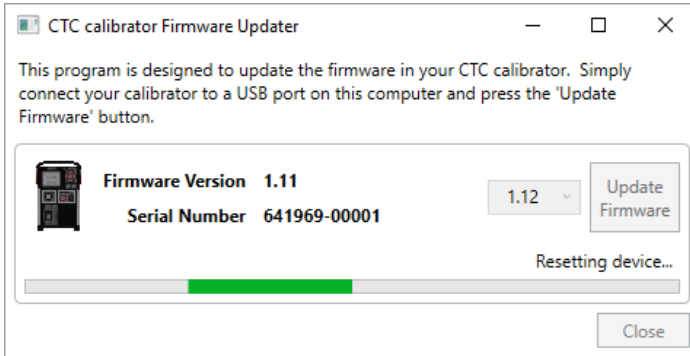


Verifying firmware...

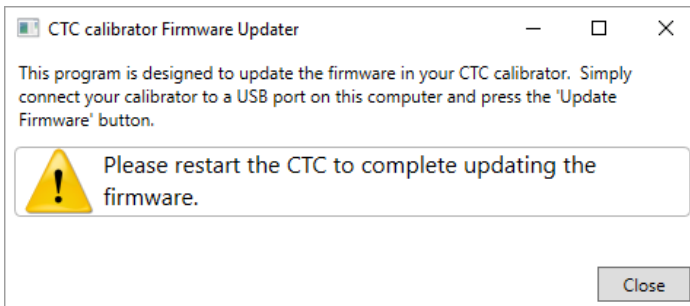




Resetting device...

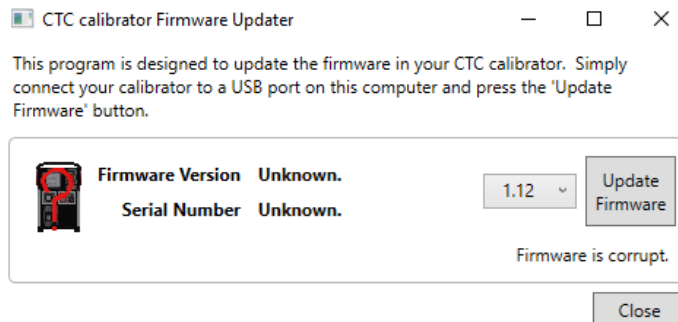


To complete the firmware update, restart the CTC.



To ensure the firmware is upgraded correctly the program will request to you to restart the CTC.

Connect AC-adaptor and/or batteries again.

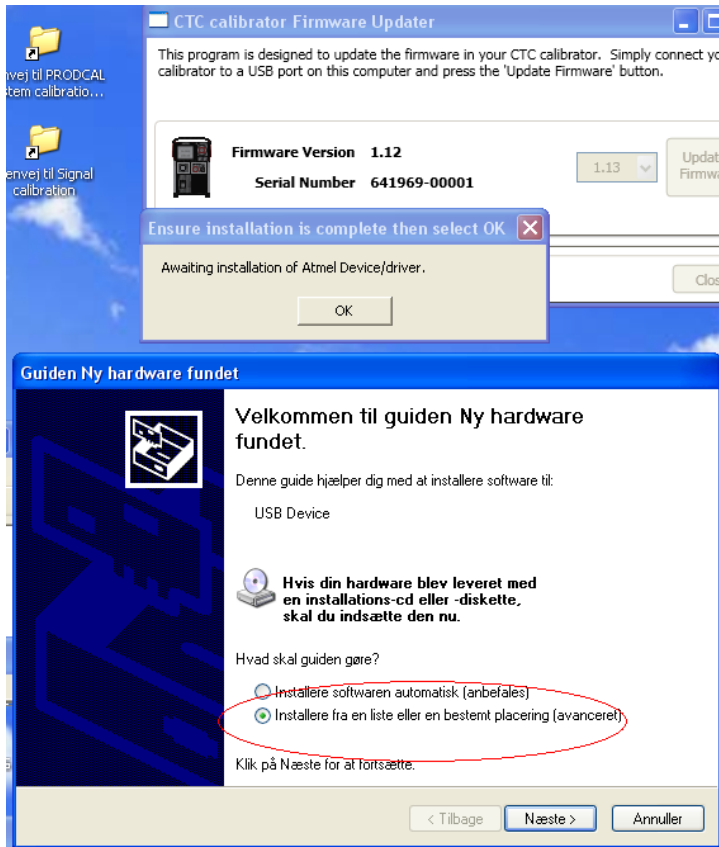


The CTC firmware is now updated and verified.

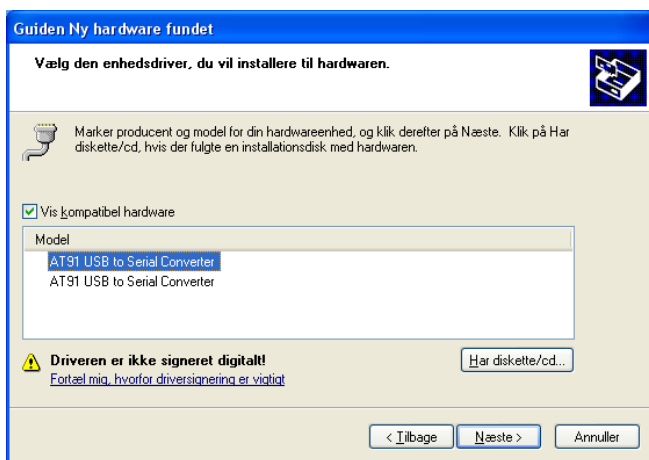
## Running upgrade tool on Windows xp and 7.

The firmware upgrade process requires both loading of both the Atmel processor driver and the CTC calibrator driver, of which are both installed during installation of the CTC upgrade software. During the update process the CTC is rebooted and announces itself to the host computer that it is now an Atmel device and the Atmel driver needs to be loaded by windows.

If this is the first time such a device is used by the computer, the user is requested to find and load the appropriate driver as is done with all new devices in windows.

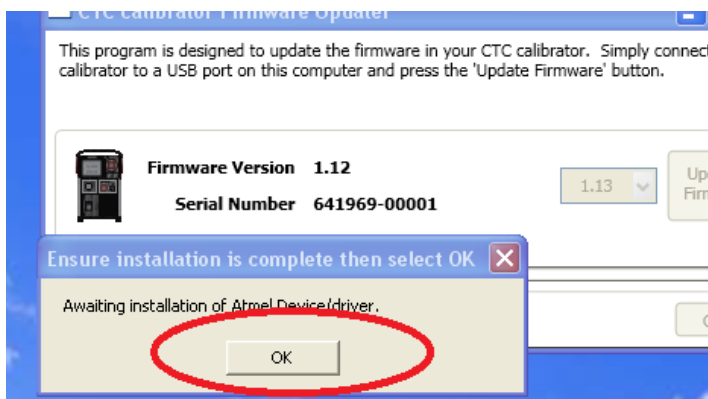


The upgrade program will display a message for the user to manually install the driver before selecting the OK button to proceed with the upgrade.





After completion of the Atmel driver select the OK button and continue with the firmware upgrade.



#### NOTE!

The location of the Atmel driver is located in the following folder should you need to install the driver manually.

C:\Ametek\CtcFirmwareUpgrade\Atmel

## Trouble shooting upgrade of existing firmware.

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

Should this occur do the follow the instructions below.

1. Simply shutdown down the program and restart it.
2. The program will see the CTC as if no firmware was installed.
3. Select the Upgrade button and repeat the process.