

Instruction Note

Loader Embedded Firmware Upgrade

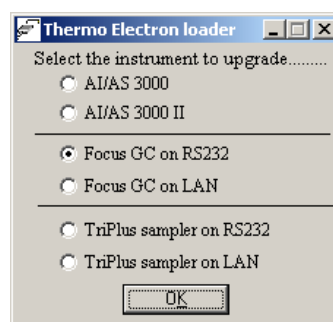
The Thermo Fisher Scientific instruments like FOCUS GC, TriPlus, AI/AS 3000 and AI/AS 3000 II autosamplers feature a Flash memory that can easily be updated without any technical support to the instrument. Just through the RS232 it is possible to upgrade the firmware in few seconds.

Please follow the here-described steps for an easy and rapid upgrade:

Make sure the Instrument is OFF.

Run the “**Thermo Electron firmware loader**” from Windows® Desktop-Start-Programs. The program will show the starting window.

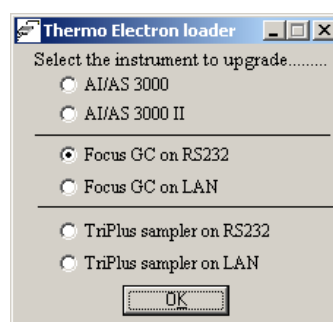
Figure 1. Starting Window



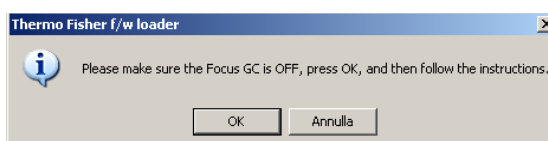
- To update **FOCUS GC, AI/AS 3000 or TriPlus sampler**, please refer to the operating sequence “[To Update FOCUS GC, AI/AS 3000 Sampler and TriPlus Sampler](#)” on [page 1](#).
- To update **AI/AS 3000 II** autosampler, please refer to the operating sequence “[To Update AI/AS 3000 II Sampler](#)” on [page 3](#).

❖ To Update FOCUS GC, AI/AS 3000 Sampler and TriPlus Sampler

1. In the starting window, tick the radio button corresponding to the instrument to update. In the example the FOCUS GC is considered.

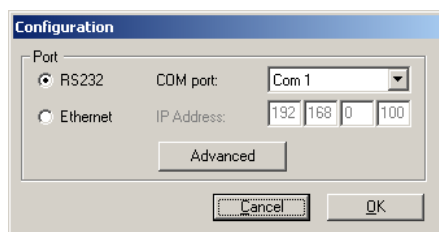


2. Click **OK**, a confirmation message will be shown.

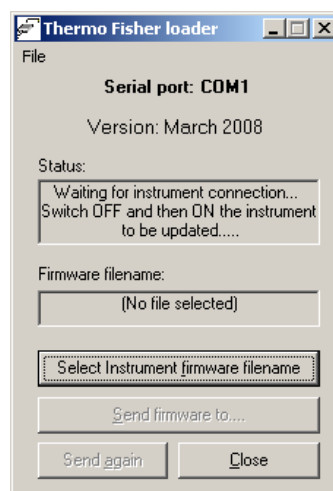


3. Click **OK** to access the communication settings.

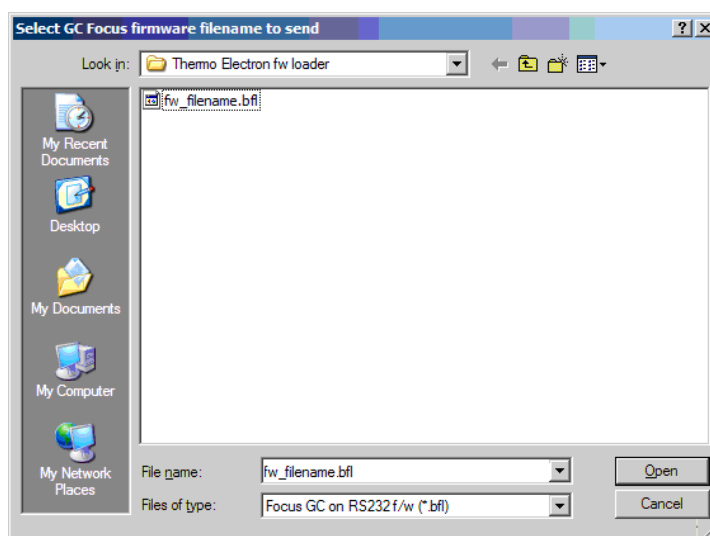
Note Please note that AI/AS 3000 as well as the TriPlus autosamplers, needs to be connected directly to PC COM port for direct connection update. If the AI/AS 3000 or the TriPlus autosampler is connected through the GC, it should be connected to PC directly for update procedure.



4. In the **Configuration** dialog window you can set communication with the instrument of interest by selecting the appropriate Port item where the Instrument is connected.
To change RS232 or TCP timeout defaults enter the Advanced Settings by clicking **Advanced** button.
5. Click **OK**, the following window, common for FOCUS GC, AI/AS 3000 and TriPlus, is displayed.



6. Switch the instrument ON and the Loader program will show the message of established connection with the instrument.
7. Click **Select Instrument firmware filename** and the file selection window is automatically displayed.



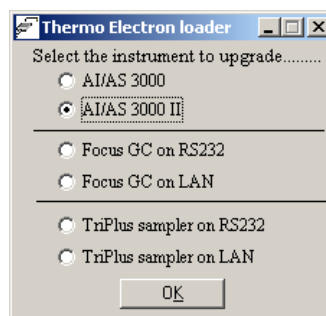
8. Specify the filename of interest containing the latest received firmware for the instrument update. The autosampler file extension of the firmware version are as follows:

Instrument	FW File extension
FOCUS GC	BFL
TriPlus sampler	BFL
AI/AS 3000 sampler	BIN

9. The selected filename will appear in the box and the program is ready to send the firmware. Just press the relevant button and watch the status informing you about the progress.
10. Once the Status arrives to 100% the program informs about the transfer success or failure. Should the program show an error, please restart from point #1 or otherwise the success message will appear and the instrument is updated.

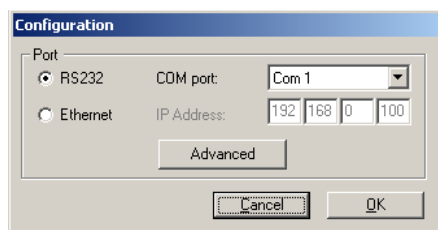
❖ To Update AI/AS 3000 II Sampler

1. In the starting window, tick the AI/AS 3000 II radio button.

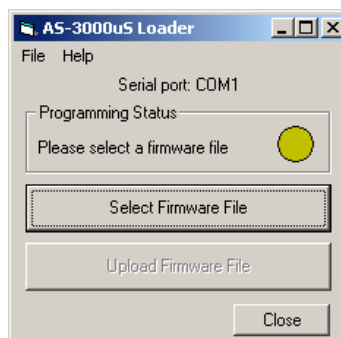


Note Please note that AI/AS 3000 II samplers needs to be connected directly to PC COM port for direct connection update. If the AI/AS 3000 II is connected through the GC, it should be connected to PC directly for update procedure.

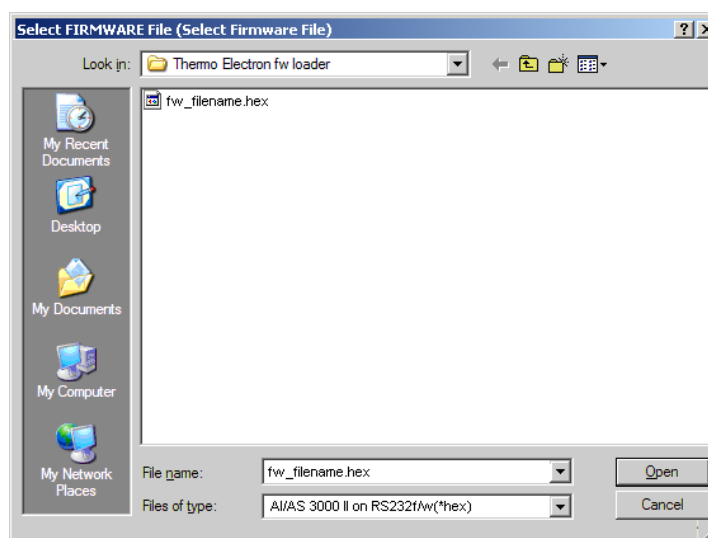
2. Click **OK** to access the communication settings.



3. In the **Configuration** dialog window you can set communication with the instrument of interest by selecting the appropriate Port item where the Instrument is connected.
To change RS232 or TCP timeout defaults enter the Advanced Settings by clicking **Advanced** button.
4. Click **OK**, the following window is displayed.



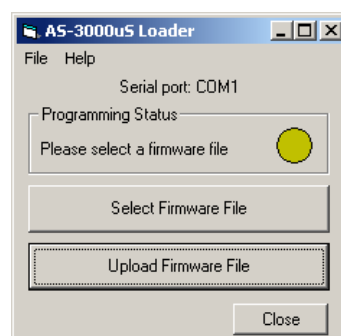
5. Click **Select firmware file** and the file selection window is automatically displayed.



6. Specify the filename of interest containing the latest received firmware for the instrument update. The autosampler file extension of the firmware version are as follows:

Instrument	FW File extension
AI/AS 3000 II sampler	HEX

7. The selected filename will appear in the box and the program is ready to send the firmware. Just click **Open**, the following window is displayed.



8. Switch the instrument ON. When the LED on the front panel of the sampler is blinking click **Upload Firmware File**.
9. Once the Status arrives to 100% the program informs about the transfer success or failure. Should the program show an error, please restart from point #1 or otherwise the success message will appear and the instrument is updated.