User Manual
FlowAnalyser™

Firmware Download

Art. Nr.: 300.750.000
Version 3.0

Content

imtmedical

General Information

Introduction   With Firmware we understand the instrument software of the FlowAnalyser. During each recalibration the Firmware and Software CD is upgraded automatically and for free. Therefore, it is not necessary to upgrade immediately if a new Firmware is released, unless you need one of the new functions.

Compatibility   Please note that the Firmware needs to be compatible with the PC-Software FlowLab. In general, the latest FlowLab Software can work with instruments that have an older Firmware installed.
If you are using an instrument with the latest Firmware version installed, you have to upgrade also your FlowLab version. Please refer to the release notes for detailed information regarding compatibility.

USB or RS-232 ?   Firmware can be downloaded over the USB port or over the RS-232 port. Over USB the download performs much faster.
The download over USB can only be performed if the according USB-Monitor program is available on the main board of the FlowAnalyser. Since September 6, 2007 imtmedical is loading this monitor Program on all new instruments as well as on all recalibrated instruments.
So if the calibration date of your instrument is **September 6, 2007** or later you can use the USB Port, otherwise you should use the RS-232 Port.

Required Parts
- Download Tool (**Download Tool V3.0.6.0.exe** - or later), can be downloaded from the Support Site at www.imtmedical.com.

- Firmware File to be downloaded (**PF300-V4.3.2(9).Tim** – or later), can be downloaded from the Support Site at www.imtmedical.com.

- Standard USB Cable

- RS-232 Cable with Part number: 400.006.000 (only if the RS-232 port shall be used)

Warnings
> ⚠️ **Never load an older Version of Firmware over a newer one** (e.g. V3.3.0 over V4.0.0) This will destroy some of the calibration data which means that the Instrument needs to be returned to imtmedical for calibration.

USB Firmware Download

Description

This chapter describes in detail how to download new firmware to the FlowAnalyser PF-300 over the USB port.

Warning

> ⚠️   **Never interrupt the Download Process.** This can destroy the calibration data which means that the Instrument needs to be returned to imtmedical for calibration.
>
> **The following issues will stop the process:**
> - **Pull out the USB Cable** - ensure that it does not come loose
> - **Switch off the FlowAnalyser or Notebook e.g. due to empty batterys**.
> - **Shut down the PC**
> - **Close the Application on PC**

Connection

1. Connect the USB cable to the PC.

2. Connect the other side to the corresponding port in the back of the FlowAnalyser and switch the instrument off.

Download

1. Execute the Program *Download Tool.exe*.

2. Click *Select File*.

3. Select the file *PF30X-V4.3.2(9).Tim*, (or later version) and click *Open.*

4. Click *Next.*

5. Select for COM port **USB** and press *Next.*

6. Switch the FlowAnalyser *ON* to establish the connection (within 30 sec).

7. There will be a message that the connection could have been established successful.
Start the download by clicking on *Start Download*.

8. Wait until the download process is finished (e.g. 30 sec).

9. *Exit* the download tool.

RS-232 Firmware Download

Description   This chapter describes in detail how to download new firmware to the
                                 FlowAnalyser PF-30X over the RS-232 port.
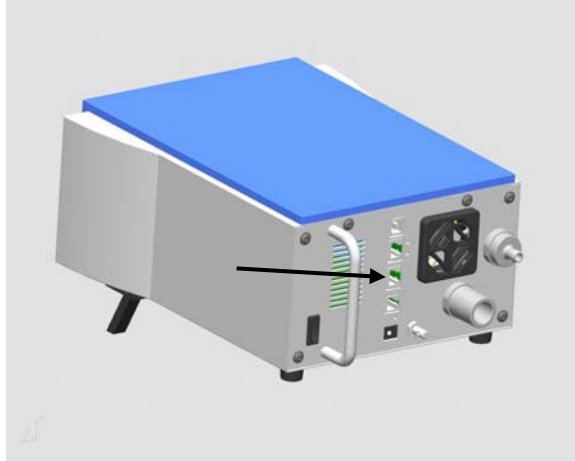
Warning

⚠️   **Never interrupt the Download Process.** This can destroy the
calibration data which means that the Instrument needs to be returned to
imtmedical for calibration.

The following issues will stop the process:
- **Pull out the RS-232 Cable** - ensure that it does not come loose
- **Switch off the FlowAnalyser or empty battery on FlowAnalyser** when using on battery. The download process can take up to 15 Minutes!
- **Shut down the PC**
- **Close the Application on PC**
- **Some screen safer programs can stop the process,** to be save please disable the screen safer.
- **When using a notebook an empty battery can stop the process**

RS-232 Connection   1. Connect the RS-232 download cable to the PC.

                                 2. Connect the other side to the RS-232 interface of the FlowAnalyser and
                                     switch the instrument on.

Download

1. Execute the Program *Download Tool.exe*.

2. Click *Select File*.

3. Select the file *PF30X-V4.3.2(9).Tim*, (or later version) and click *Open*.

4. Click *Next.*

5. Choose the corresponding COM port and click *Next.* (Auto will search automatically on all available ports.)

6. Switch the device *OFF* and *ON* to establish the connection (within 30 s).

7. There will be a message that the connection could have been established successful. It is possible that the Device ID could not be detected but this is no problem

8. Start the download by clicking the *Start Download* button.

9. Wait until the download process is finished (10 to 15 min).

10. *Exit* the download tool.

Troubleshooting

If no connection could be established with your device.

⇒ Check if the serial cable is correctly connected to the PC (COM 1/2) and also to the FlowAnalyser.

⇒ If you are using a USB to Serial adapter the COM port is different, e.g. Port 9. Refer to the instruction manual of your adapter for further information.

⇒ The serial cable must be correctly plugged in on both sides; take care of the locking clips.

⇒ Services running in the background, such as synchronization programs for personal digital assistants (PDA) or mobile phones often use one of the serial ports. Stop these programs and retry.

⇒ Notebook computers often have only one physical serial port (typically COM1). Avoid using the non-existing serial port.