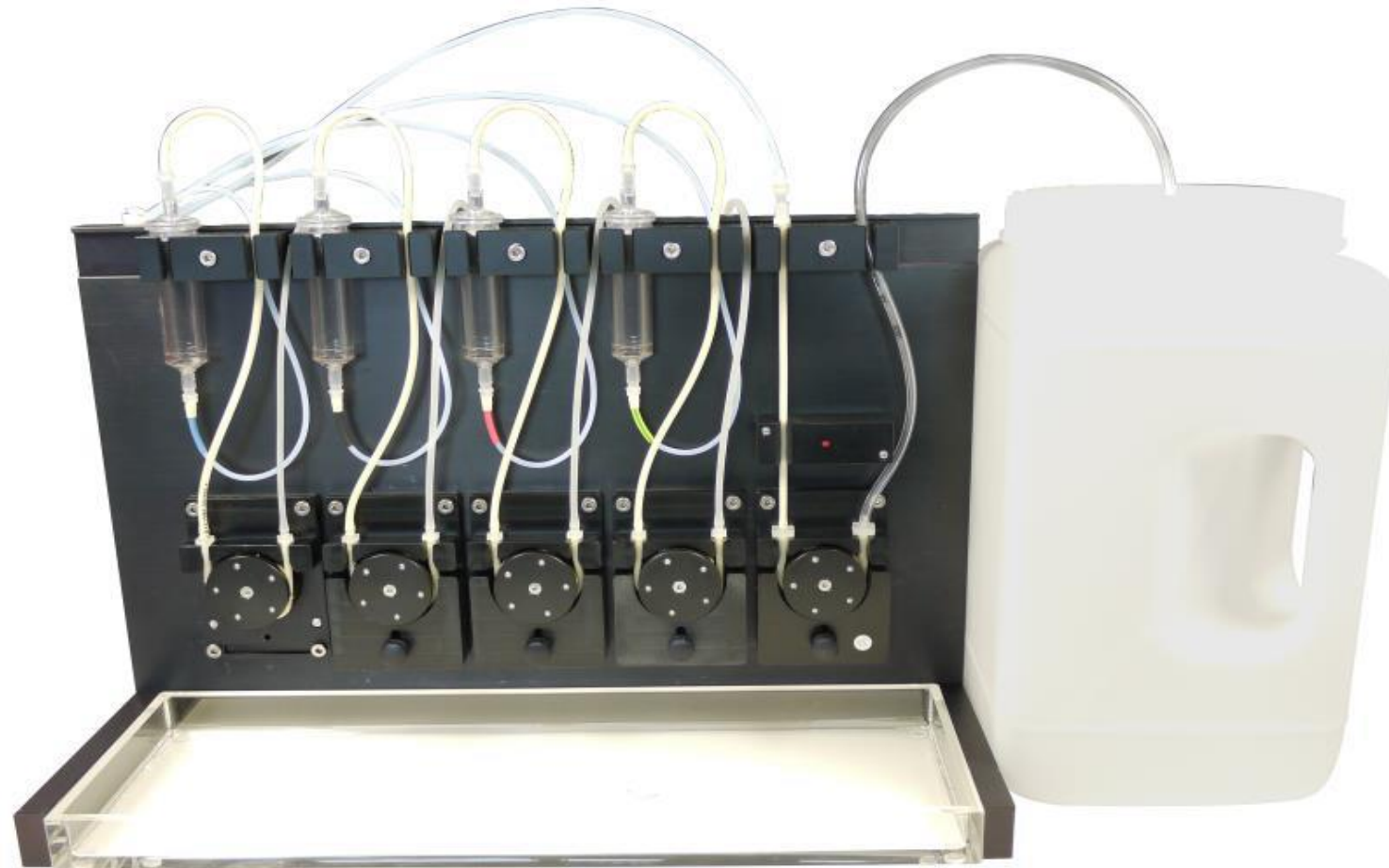
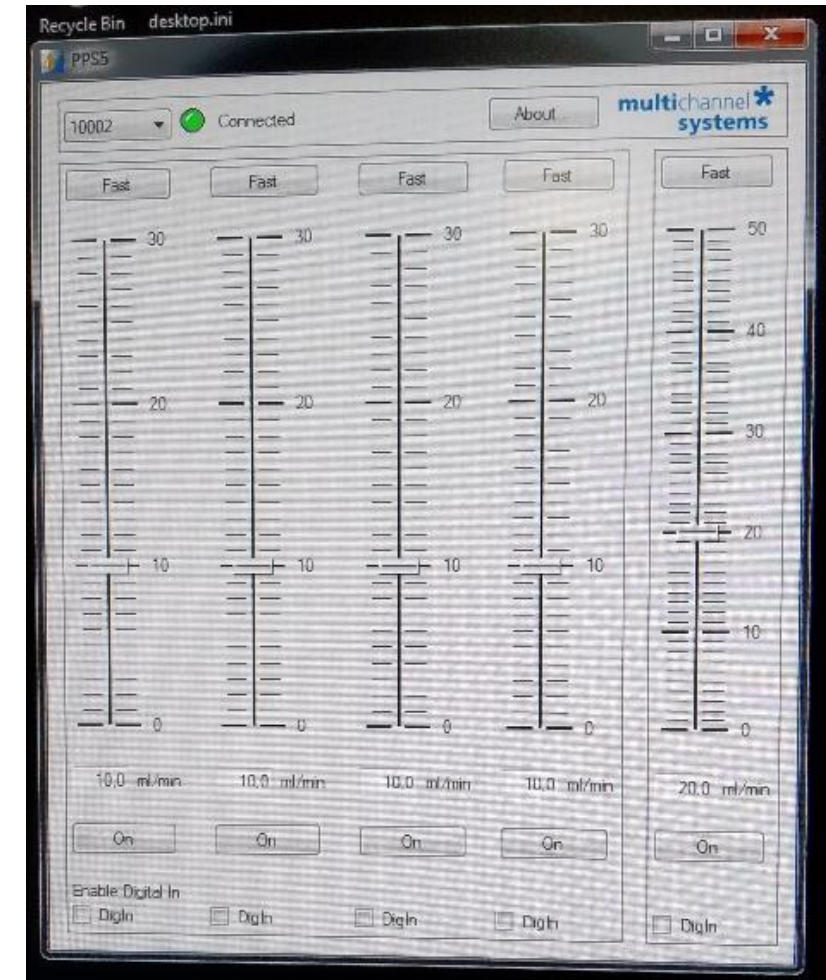


Manual for the PPS5 Peristaltic Perfusion System



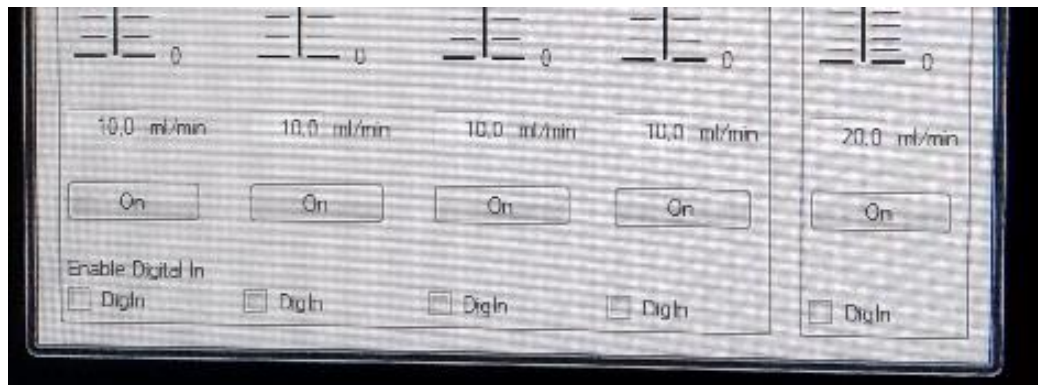
First Step: Connection

- Connect the power cable to the socket
- Connect the 5 BNC cables from the pump with the numbered sockets in the trigger box
- Connect the USB cable with the computer
- Switch ON the main power of the pump
- Start the PPS5 software on the computer
- Check whether the software is connected (green lamp)
- Check the pumps manually by pressing "ON" with different speeds (without medium)

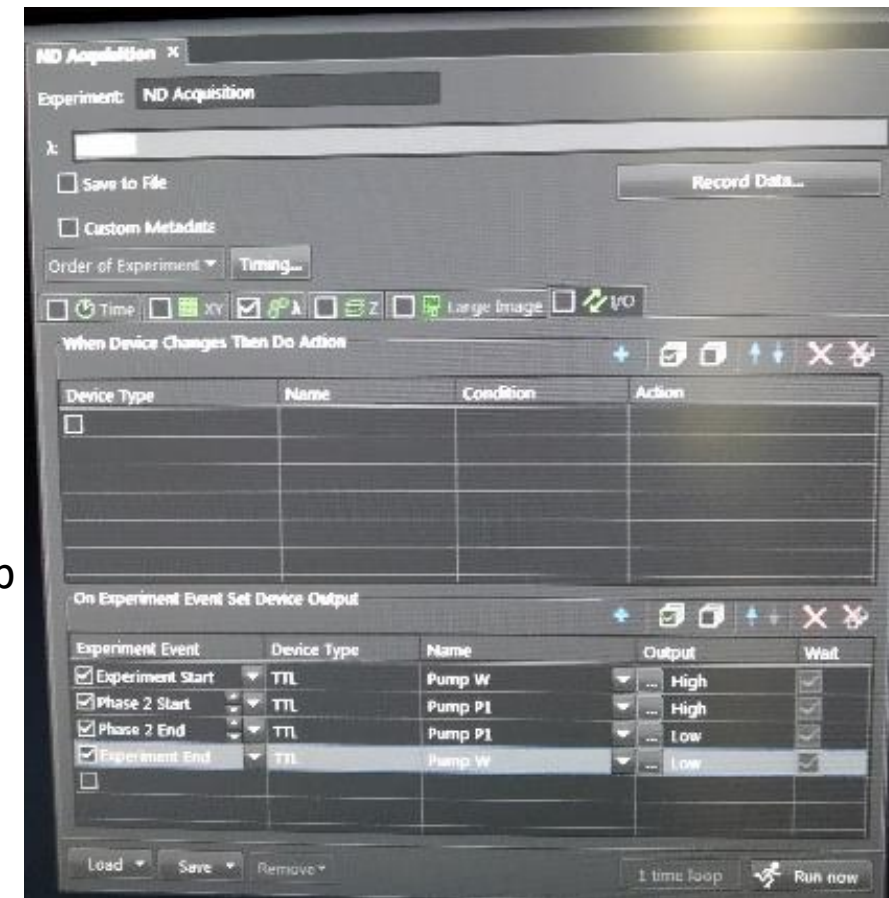


Second Step: Connecting the sample and NIS software

- Connect the sample to the pumps (vacuum grease) and the waste as required
- Test your system outside the microscope with water/medium
- **Make sure there is NO LEAKAGE !!!**
- **Waste speed MUST always be equal or a bit higher than Perfusion/Input speed !!!**
- In NIS software open “ND Acquisition” and activate I/O
- Activate in the PPS5 software the trigger mode by enable Digital in “DigIn”



- Choose “Experiment Event”
(First: “Experiment Start”, “Pump W”, “high”, ..., Last: “Experiment End”, “Pump W”, “low”)
- Choose Name (choose pump), Choose Output (High = ON, Low = OFF)
- Activate I/O and Time phases, Run now



Shutdown procedure:

- Take your sample off the microscope
- Disconnect your sample
- Change to an empty dish / tube

- Clean used tubes : 15 min flow with aqua dest
- Stop the flow, set the speed to zero
- Shut off the software
- Shut off the pump
- Disconnect pump from computer, trigger box and power socket

- Discard liquid waste safely (vacuum pump)