

README

OctaFlow Version 2.0.0.0
ALA Scientific Instruments, Inc.
1100 Shames Drive
Westbury, NY 11590
(516) 997-5780
www.alascience.com

***** HARDWARE SPECIFICATIONS *****

*** Valve Banks *****
4 DB9 connectors - 8 valves perbank
Each bank supply is programmatically adjustable from 0-24 VDC, maximum 500 mA per pin.
Total valve current not to exceed 3 Amps.
Valve 1 - pin 1
Valve 2 - pin 2
Valve 3 - pin 3
Valve 4 - pin 4
Valve 5 - pin 5
Valve 6 - pin 6
Valve 7 - pin 7
Valve 8 - pin 8
Valve 9 - Common positive supply 0-24 VDC

*** Sync Output *****
BNC connector
Output Voltage Digital Logic Levels 0-5 VDC, maximum 25mA.
Activates during ON time of selected valves.

*** Trigger Input/Output *****
BNC connector
Bidirectional Digital Logic input/output 0-5 VDC, maximum 25mA.

*** Analog Output *****
BNC connector
Output analog voltage 0-5 VDC, 25 mA maximum.

*** USB Interface *****
USB 2.0, Full-speed USB-serial CDC emulation
Requires drivers Microsoft usbser.sys, Microchip Driver MCHPCDC.inf
Compatible with Microsoft OS Windows 98SE, 2000, XP

***** SOFTWARE SPECIFICATIONS *****

OctaFlow Version 2.0.0.0 Automated Perfusion System
Compatible with Microsoft OS Windows 98SE, 2000, XP
Build 0 includes:

- 1. Automated valve sequence control to 1.5 ms resolution
- 2. Manual valve control
- 3. Default sequence, configuration settings
- 4. Pressure test
- 5. Valve channel continuity test
- 6. Integrated Cleaning/Valve Flush Manager
- 7. Valve selectable On indication
- 8. External Sequence trigger control
- 9. Analog output valve, step and pressure reference
- 10. Automated pressure control
- 11. Excel interface

***** FIRMWARE SPECIFICATIONS

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Octaflow 4550.1 Control

Requires Microchip drivers MCHPCDC.inf, Microsoft usbser.sys for CDC communication

Requires Microchip drivers cc3260.dll, mpushapi.dll, PICBOOT.dll and Microchip

PDFSUSB application tool

for auto firmware update

***** FIRMWARE UPDATES

Octaflow System Firmware 2.00.00.01 Nov 13, 2006 - Build update to correct following problems

1. Corrects error in failing to setup pressure for first step at start of sequence run.

***** SOFTWARE UPDATES

Octaflow Version 2.0.1.0 Sept 18, 2006 - Build update to correct following problems:

1. Corrects file linking problems enabling sequence and configuration files to be linked/unlinked in either Octaflow or Excel format.
2. Corrects SaveAs option allowing files to be opened saved in either Octaflow or Excel format.
3. Problems with auto loading of most recently used files corrected.
4. Perfusion Manager Title bar given correct title.

Octaflow Version 2.0.1.1 Nov 13, 2006 - Build update to correct following problems:

1. Corrects manual mode activation error. Now it is possible to operate manual mode directly without needing to open or create a sequence file.
2. Corrects value conversion error when changing pressure units.
3. Auto detects error and warns user when incorrectly loading Excel files (.xls) of the wrong format, e.g., loading Sequence files and Configurati on files and vice versa.
4. Corrects omission auto loading user name, serial number, build date and software/firmware revisions.
5. Enhanced valve voltage system accuracy.

Octaflow Version 2.0.2.2 Jan 2, 2007 - Build update to correct following problems:

1. Correct download error for sequence file SYNC signal which prevented sequences from downloading when SYNC set using auto select user defaults.
2. Correct error in saving Trigger Mode user default setting.
3. Correct errors in Cleaning Manager and enhance user interface to allow better time value entry.
4. Add 5 minutes ON, 1 minute OFF thermal safety limit to Cleaning Manager.
5. Add help files.
6. Add the following Key Shortcuts:
 - ALT+C Open Configurati on File
 - ALT+S Open Sequence File
 - ALT+F ON/OFF Flush Valve
 - ALT+1 ON/OFF Alt Valve 1
 - ALT+2 ON/OFF Alt Valve 2
 - ALT+3 ON/OFF Alt Valve 3
 - ALT+4 ON/OFF Flush Valve
 - ALT+T Open User Settings

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- ALT+W Open Valve Cleaning Manager
- ALT+V Run Valve Check
- ALT+P Run Pressure Test
- ALT+N Open Notes Manager
- ALT+L Open Log Manager

OctaFlow Version 2.0.2.3 March 1, 2007 REQUIRES FIRMWARE UPDATE 2.0.0.1 TO FUNCTION PROPERLY.

1. Correct triggering synchronization errors.
2. Correct unit USB connect/disconnect stability problems.
3. Disable menu edge trigger option for trigger output.
4. Enable Prepressure trigger function.
5. Add time unit menu selection.
6. Add print function.

Known issues to be addressed in the next version include:

1. Print sequence function does not print loop information.
2. Label 2 column for naming solutions does not automatically update from configuration file when entering valve 2 in dual valve sequence mode.

OctaFlow Firmware Version 2.0.0.1 March 1, 2007 - Build update to correct following problems:

1. Correct triggering and runtime sequencing errors.

