▲hydroware elevation technology ab Box 66, Fabriksgatan 13 SE-342 21 ALVESTA, Sweden	Drive and control system Hydroelite 3G-1	Technical documentation
	HydroeliteFlash 1.4 - Use version 1148.b	**T 100 41 EN**
	Update program in controller	25.07.2014 | Edit 2
	TECHNIC	JHK/MO | Side 1

1 How to Update the Program in the Hydroelite Controller

Hydroelite can be updated with new functions by upload new program to the controller.

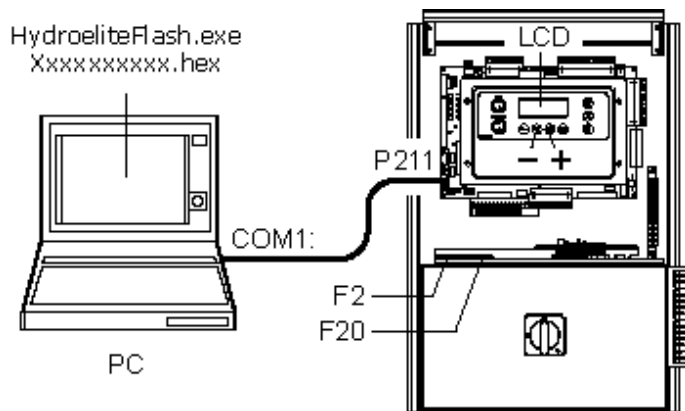## 1.1 To update the software in the controller, you require the following:

1 A portable computer with one idle serial port and with Win95 or newer installed, the serial port of portable computer is normally called COM1: you can also use COM2: to COM6: the baudrate can be set between 9600-57600 bps (COM1:38400 is standard)

2 A serial cable with a 9-pin female D-sub at the computer end and a 9-pin male D-Sub for connection to the controller, the cable must be of a straight-through type where the pin 2-2, 3-3 and 5-5 are connected, the same type of cable as used for Dynahyd power unit.

3 HydroeliteFlash.exe, a PC software for update the program, delivered by Hydroware via e-mail (to be saved on the portable computer. If the file name ends with .xxx, rename it to .exe)

4 Program file (.hex), new software for update the control functions, delivered by Hydroware via e-mail (to be saved on the portable computer. If the file name ends with .xxx, rename it to .exe)

1.2 Installation of HydroeliteFlash.exe and .hex fil for update the controller

(The files are normally compressed and have to be unpacked before being used)

1 Create a new library on the Hard Disk Drive ex. "c:\program\hydroware\hydroeliteflash"

2 Double-click at this new file saved according to 1.1.3 above, and select unpack files to this created library.

3 Double-click at this new file saved according to 1.1.4 above and select unpack files into this created library.

1.3 Update the controller with new program

1 Connect a serial cable between the port P211 (lower port) on the Hydroelite controller and your portable computer's serial port

2 Switch off the power to the controller (Fuse F2 and F20 off)

3 Press the + (plus) and - (minus) buttons (the two buttons in the middle on top row) on the display simultaneously and switch on the power to the controller (Fuse F2 on)

4 Check that the text "Program Update - Connect PC" appears on the LCD display (if not repeat from step 1.3.2)

5 Double-click at HydroeliteFlash.exe in the created library, acc. to step 1.2.1 above, and select port and baudrate on the menu Setup/Port (standard is COM1:38400)

6 Click at the icon "Open" and select the progam file (.hex) you have unpacked acc. to step 1.2.3 above.

The following text should now appear in the status window (If you receive any errors check the size of the .hex file, it should be about 2Mb)

HEX FILE: Xxxxxxxxxxx.HEX
HEX FILE: CONVERTED OK
NUMBER OF BLOCKS TO ERASE: 11-13
NUMBER OF BLOCKS TO WRITE: 20000-26000

7   Click at the icon "Update" to upload the new program file to the controller.

The following text should appear in the status window after you have uploaded the new program to the controller, it will take 5-15 minutes depending on the selected baudrate)

(if you receive any errors check the serial cable between the controller and your computer and that you have configured the serial port correctly)

OPEN SERIAL PORT COMx:

ERASE FLASH MEMORY

UPDATE PROGRAM   (it will take 5-15 minutes)

VERIFY CHECKSUM

CHECKSUM OK   (NOTE! Very important!)

UPDATE COMPLETED IN
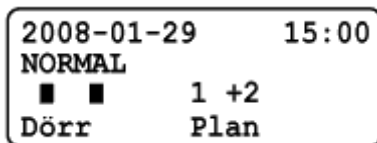
CHANGE BAUDRATE 9600

CLOSE SERIAL PORT

8   Check for errors during the flash update procedure and that the text "CHECKSUM OK" appears in the status window ***(If not writing, which could be caused by the USB-adapter: please check if the program starts, but probably all is ok; If not, repeat the upload procedure step 1.3.7 until it succeeds without any errors)***

9   Switch off the power to the controller (Fuses F2 and F20 off) and wait 5-10 seconds

10 Switch on the power to the controller again (Fuses F2 and F20 on) and the controller will now start with the updated program.

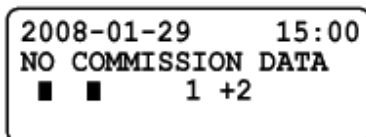## 2   Update/Backup of parameters

2.1 Uppdate the controller with new parameters

(valid only for software versions v0812a and newer)

1   Connect a serial cable between the port P211 (lower port) on the Hydroelite controller and your portable computers serial port

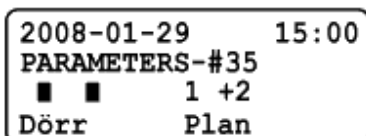2   Switch on the controller and wait until the display shows:

```
2008-01-29      15:00
NORMAL
■  ■      1 +2
Dörr      Plan
```

or shows the following, if it is a board without parameters:

```
2008-01-29      15:00
NO COMMISSION DATA
■  ■      1 +2
```

3   Start Hydroeliteflash and press the icon "Param" and select "Update".

4   Select the file (setup_XXXXX_vXXXX.txt) with the new parameters and press "Open".

5   Now the data transfer of the parameters will start.

When the data transfer is finished, compare the number of transferred parameters in the status field: ex. "Number of parameters 35", with the number of received parameters in the controller:
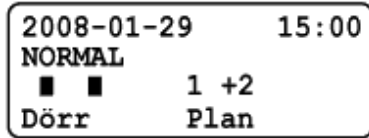
```
2008-01-29      15:00
PARAMETERS-#35
■  ■      1 +2
Dörr      Plan
```

If it is not the same number - perform the data transfer again!

6   Now the parameters are transferred and saved. Time to test!

2.2 **Backup of parameters**

1 Connect the serial cable between serial port P211 (lower) on the controller and the serial port on the computer (see fig 1.3)

2 Switch on the controller and wait until the display shows:

```
2008-01-29      15:00
NORMAL
  ■   ■      1 +2
Dörr      Plan
```
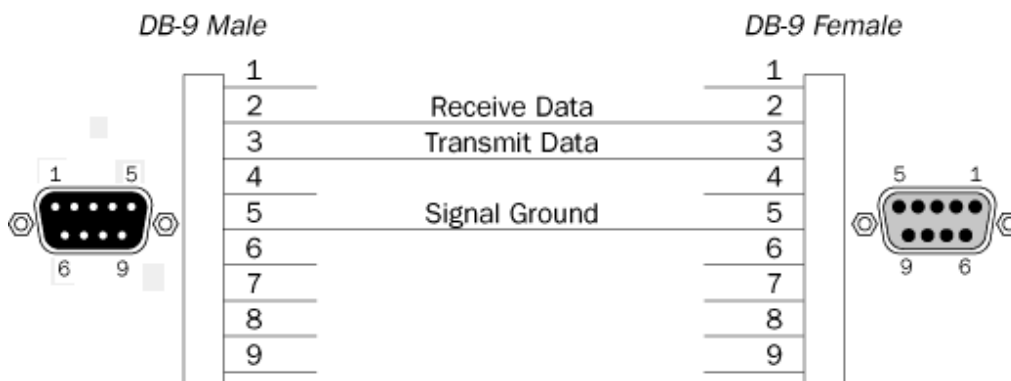
3. Start Hydroeliteflash and press the icon "Param" and select "Backup".
4. Select the folder where you want to save the file and name the file. Then press "Save".

3 Connection between PC to Hydroelite

3.1 Serial cable (RS-232, DB9F-DB9M, PIN-PIN 2-2, 3-3, 5-5)

The Cable for connection between Hydroelite controller and the computer serial port should be a straight-through RS-232 9-Pin D-Sub serial cable with female in one end and male in the other, pin 2-2, 3-3 and 5-5 should be connected. The same type as used for the Dynahyd power unit.

3.2 Adapter USB to Serial RS232 DB9HA

Newer computers are often delivered without serial port, if so you have to use an USB to serial adapter.

Ex. VScom USB-COM Mini-619 (Dustin Id.no 5010065547)