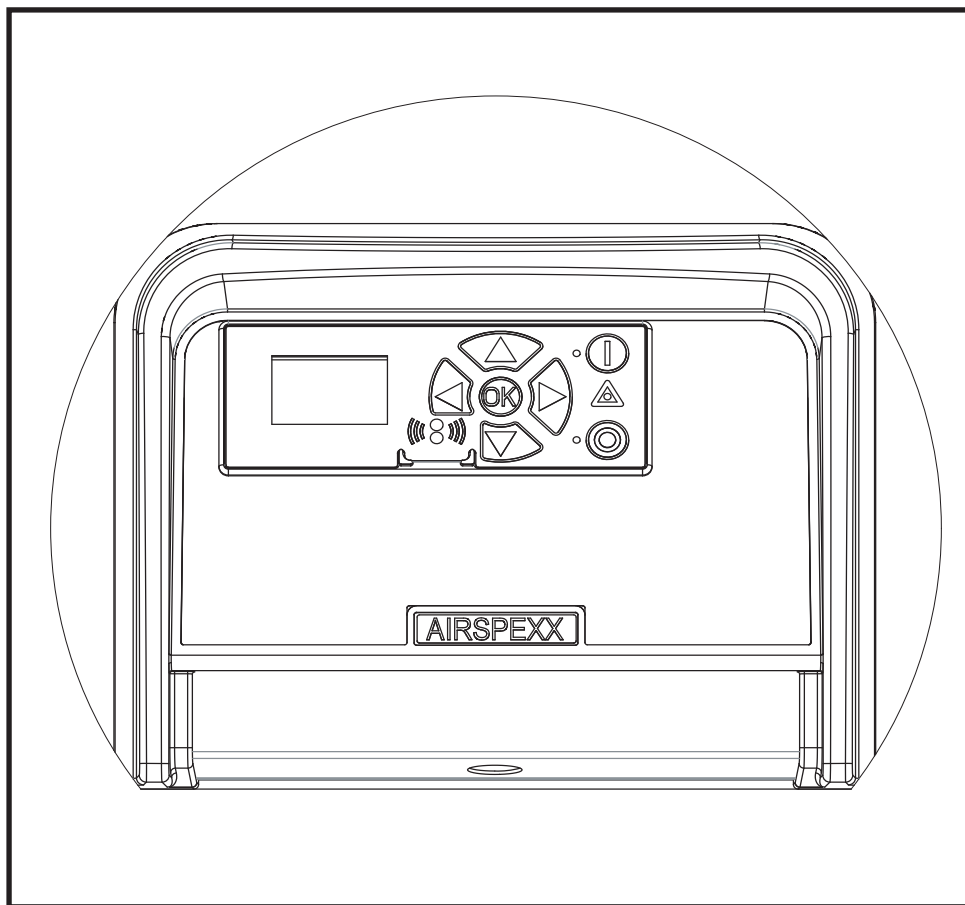


# Airspexx Dispensing System

**Models: DS1-RMT  
DS1-SST  
DS2  
DS2-HH**



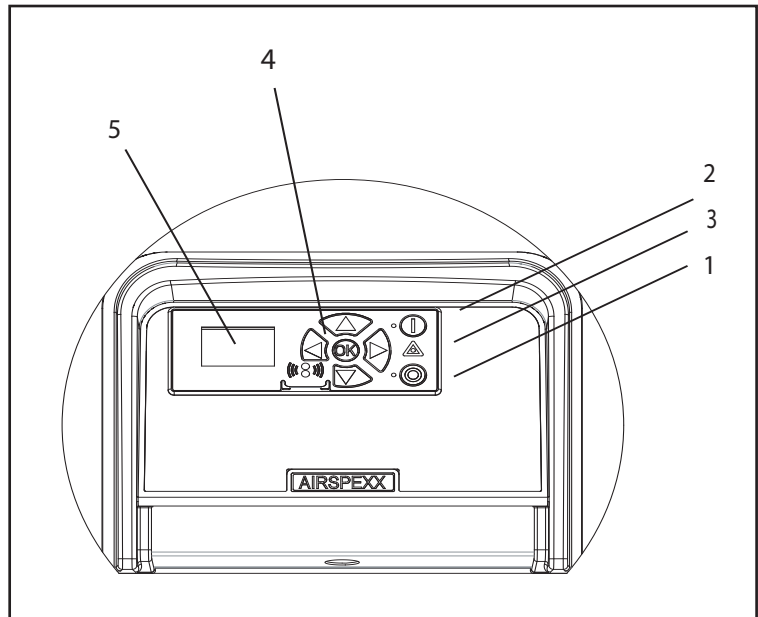
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## 1. Description

This Chapter describes the operation of the control panel of the Airspexx Unit

1. OFF  
Button (1) switches OFF the unit.
2. ON/STANDBY  
Button (2) switches ON the unit.
3. ERROR  
Error light indicator (3).
4. NAVIGATION BUTTONS  
The four "arrow" navigation buttons (4) are used for navigation in the display menu. Pressing the "OK" button activates the menu and confirms any activity displayed.
5. DISPLAY



110002999

## 2. Display layout



(1)

When switched on the display will show an arrow symbol in the top right corner equivalent to the active navigation buttons on the control board.

The arrows illustrate that it is possible to scroll up and down between the menus. Scrolling to the right makes it possible to enter a value. Set the value scrolling up (+) or down (-) to set the value higher or lower accordingly. Confirm by pressing ok.

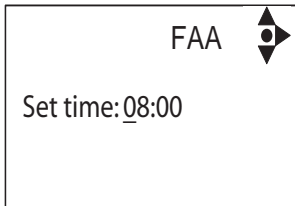
(2)

A letter combination for easy reference in connection with service work will appear in the top right corner of the display.

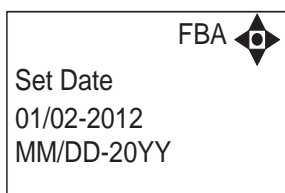
## 3. Modes

### 3.1 Power On

The very first time the unit is switched on, we recommend setting date and time in the settings menu, Time (FA), Date (FB). If date and time is not set, date and time will count from the pre-set default date and time.



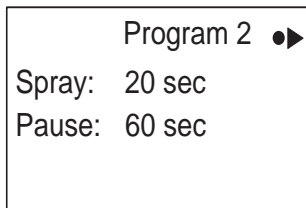
Set time, confirm by pressing "OK".



Set date, confirm by pressing OK button.

### 3.2 Standby/Run

The start up display will look as the below.



Green ON indicator light up. By default the green indicator will flash for 10 seconds before going "on". This can be changed in menu "delayed start".

In RUN mode green on indicator will be constant on, and the spray-time will start to count down to 0, the AIRSPEXX unit will in this period be active. (Program 1 will not start to count down, in this setting the AIRSPEXX unit is continuously on).

### 3.3 Power Off

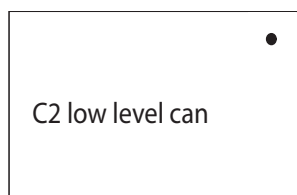


When the unit is off the display will only show a small dot in the top right corner.

In Off mode it is possible to access all menus without activating the unit by pressing the OK button on the panel.

Dot is equivalent to the OK confirm button on the panel.

### 3.4 Error/Warning



In case of an error/event, a description of the error will appear on the display screen, and the red error indicator will flash.

Press OK to remove the error text from the display, and return to the menu/startscreen. the ERROR indicator will still flash, OFF button will stop the error indicator flash

If an error occurs, the relay of terminal block "OUT1" will be activated (see electrical drawing in "Directions for Use").

To see further error/warnings, a list of errors/warnings and possible cause and remedy go to section 4.7.2.

## 4. Overview of Main- and Sub-menus

The control panel contains the below main menu screen displays.

Scroll between the menus using the navigation buttons.

Each main menu contains submenus which will be described subsequently.

### 1. Password (A) (Default password 6802)

### 2. Programs (B)

Program 1 (BA)

Program 1, Continuous operation (BAA)

Program 2 (BB)

Program 2, spray time (BBA)

Program 2, pause time (BBB)

Program 3 (BC)

Program 3, spray time (BCA)

Program 3, pause time (BCB)

### 3. Timer (C)

Timer (CA)

Start time (CB)

Stop time (CC)

Start days (CD)

Timer Program (CE)

Day/night Enable (CF)

Day start time (CG)

Day stop time (CH)

Day Program (CI)

Night Program (CJ)

### 4. Release Signal (D)

Release signal on (DA)

### 5. Delayed start (E)

Program 1 (EA)

Program 2 (EB)

Program 3 (EC)

### 6. Settings (F)

Time (FA)

Date (FB)

Language (FC)

Reset (FD)

Reset counters (FDA)

Reset err. log (FDB)

Factory settings

Password (FE)

Password on (FEA)

Password (FEB)

Display Settings (FF)

Backlight intensity (FFA)

Display contrast (FFB)

LL warning activated (FG)

### 7. Errors (G)

### 8. Info (H)

Running Hours (HA)

Valve on time (HB)

No of Cycles (HC)

Software version (HD)

### 9. Communication (I)

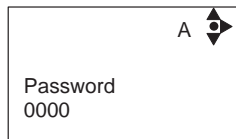
Firmware upgrade display by cable (IC)

Firmware upgrade display by infrared (ID)

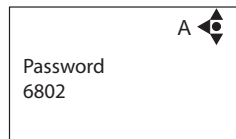
Firmware upgrade controller PCB (IE)

## 4.1 Content of the Main menu

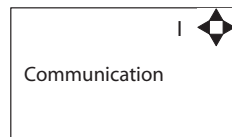
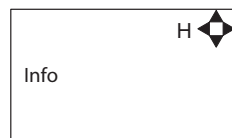
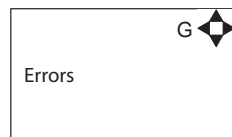
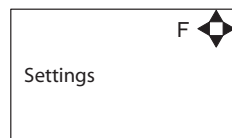
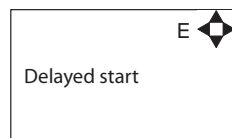
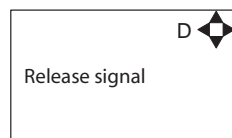
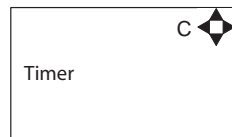
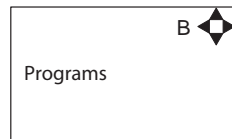
The control panel contains the below main menu screen displays.  
Scroll between the menus using the navigation buttons.  
Each main menu contains submenus which will be described subsequently.



(optional)

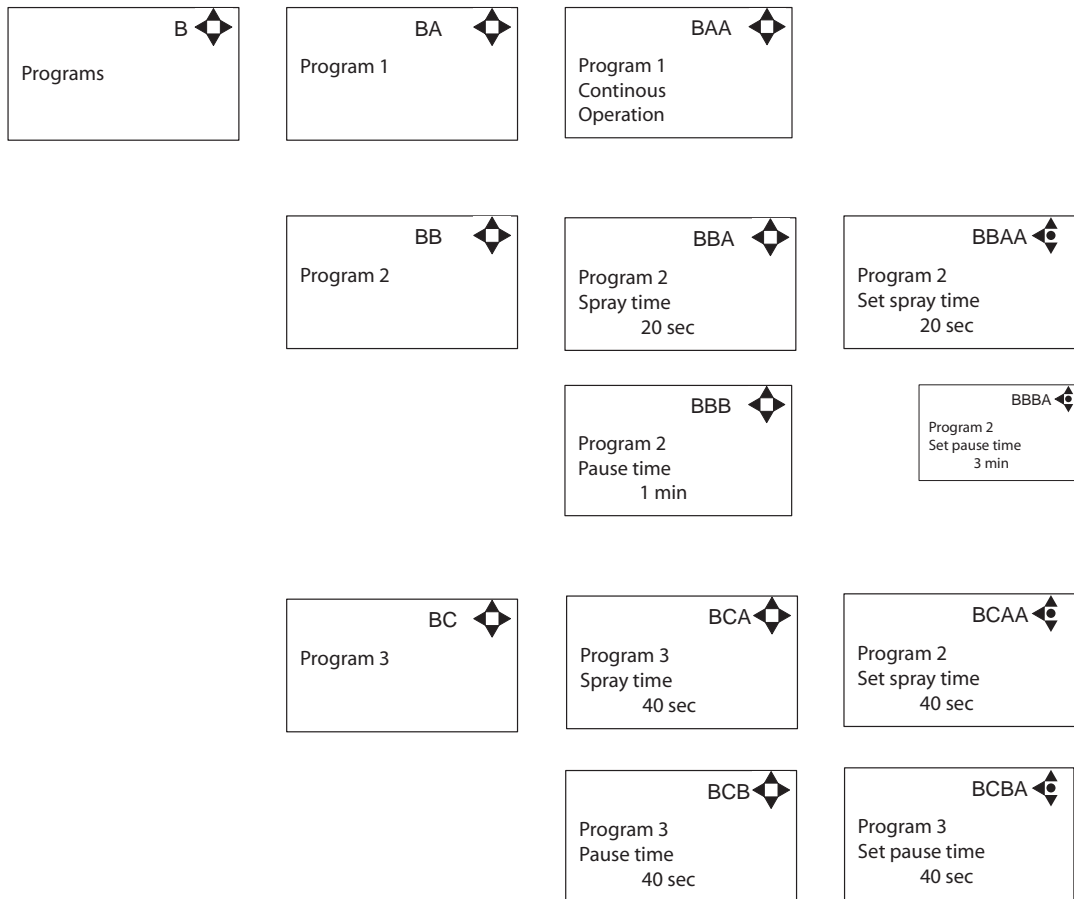


(optional)



















## 4.2 Content of the Programs menu



## 4.3 Content of the Timer menu

Timer C	Timer Off CA	Enable Timer Off CAA	
	Start time 08:00 CB	Timer start Set time: 08:00 CBB	Timer start Set time: 08:00 CBB
	Stop time 16:00 CC	Timer stop Set time: 16:00 CCC	Timer stop Set time: 16:00 CCC
	Start days 0000000 CD	Every day CDA	
		Monday Not active CDB	
		Tuesday Not active CDC	
		Wednesday Not active CDD	
		Thursday Not active CDE	
		Friday Not active CDF	
		Saturday Not active CDG	
		Sunday Not active CDH	








CE  Timer program Not preset	CEA  Set timer prg. Not preset	
CF  Day/night disable	CFA  Day/night disable	
CG  Day start Time: 08:00	CGA  Day start Set time: 08:00	CGA  Day start Set time: 08:00
CH  Day stop time: 16:00	CHA  Day stop Set time: 16:00	CHA  Day stop Set time: 16:00
CI  Day Program Program 1	CIA  Set day prg. Program 1	
CJ  Night Program Program 2	CJA  Set NightPrg. Program 1	

#### 4.4 Content of the Release menu

D  Release signal	DA  Release Signal Off	DAA  Enable Release Signal Off
---	---	--

If enabled a signal of 5-10Vdc must be applied to terminal block "in", to release the unit (see electrical drawing in "Directions for Use").

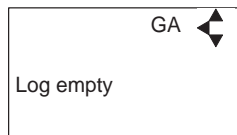
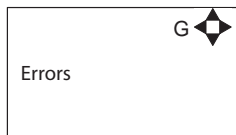
#### 4.5 Content of the Delayed start menu

E  Delayed start	EA  Program 1 Off	EAA  Delayed start Off
	EB  Program 2 Off	EBA  Delayed start Off
	EC  Program 3 10 sec	ECA  Delayed start 10 sec

## 4.6 Content of the Settings menu

Settings F	Time FA	Set time: 08:00 FAA	Set time: 08:00 FAA
Date FB	Set date: 01/15-2012 MM/DD-20YY FBA	Set date: 01/15-2012 MM/DD-20YY FBA	
Language FC	Language English FCA		
Reset FD	Reset counters FDA	Reset counters confirm FDAA	
	Reset err. log FDB	Reset err. log confirm FDBA	
	Factory settings FDC	Factory settings confirm FDCA	
Password FE	Password On FEA	Enable Password off FEAA	
	Password 6802 FEB	Set Password 6802 FEBA	
Display Settings FF	Backlight Intensity FFA	Backlight 75 FFAA	
	Display Contrast FFB	Contrast 8 FFBA	
LL Warning act. Enable FG	LL Warning label act. Enable FGA		

## 4.7 Content of the Errors menu



### 4.7.1 Example of Error log screen display

All error occurrences will be stamped with date and time.  
E indicates Error number.



The error log stores up to 30 occurrences. When max. memory is reached, the errors will be deleted according to "First in" First out" principle.

### 4.7.2 Error List

Error	Cause	Remedy
C1 Empty can	1. No liquid in can	1. Press "OFF" fill liquid in can or replace can.
C2 Low level can	1. Can almost empty	1. Press "OFF" fill liquid in can or replace can.

If an error occurs, the relay of terminal block "OUT1" will be activated (see electrical drawing in "Directions for Use").

## 4.8 Content of the Info menu

Info H	Running hours 00 HA
	Valve On time 3:22 Hours:Min HB
	No of Cycles 000 HC
	Software Display: V1.01 Control: V1.01 HD

## 4.9 Content of the Communication menu

Communication I	Firmware upgrade Display by cable IC	Confirm, Display Firmware upgrade by cable ICA
	Firmware upgrade Display by infrared ID	Confirm, Display Firmware upgrade by infrared IDA
	Firmware Upgrade Controller PCB IE	Confirm Firmware Upgrade Controller PCB IEA

## 5. Upgrade Firmware

### 5.1 Upgrade using USB Cable

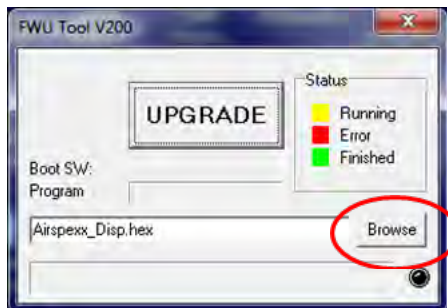
1. Connect USB cable (Item No. 110001526) to PC USB port (Remove other USB cables connected to PC)
2. Connect Display cable to USB cable
3. In the menu go to, Communication-> Firmware upgrade Display by cable->Confirm, Display Firmware upgrade By cable and press "OK"
4. Display should now be looking like this:

Upgrade Ready  
Power Cycle and  
Start PC app.

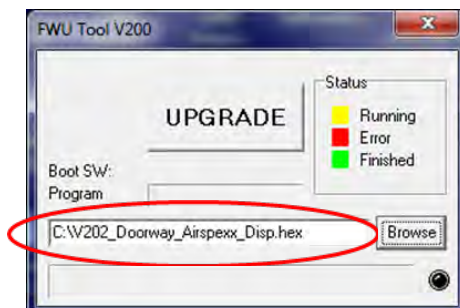
5. Disconnect display from usb cable and connect it again (Power cycle)
6. Make sure the Green "ON" led and the red "OFF" led at the display is both on, display is blank
7. Startup PC program FWU200.exe (can be downloaded from Nilfisk Food website)
8. Window should be looking like this



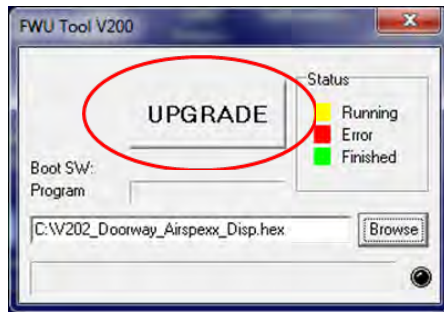
9. Press "Browse" button



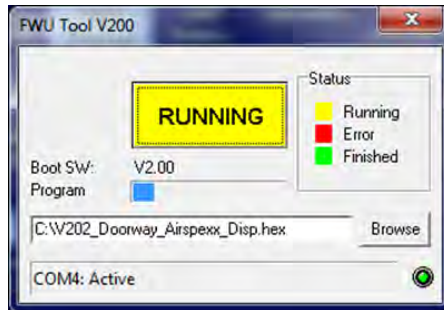
10. Select the file you will use for upgrade. Software File can be downloaded from Nilfisk Food website. The name of the file should end with ".hex".  
Ex V202\_Doorway\_Airspexx\_Dis.hex
11. When the file is located press "Open" in browser window
12. The file name will now be written in file text line



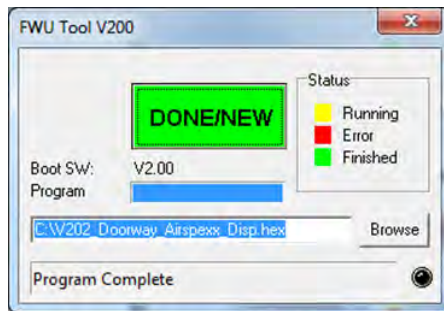
13. Press UPGRADE button in FWU 200 tool



14. After a short while the FWU tool should start upgrading, the upgrade button should turn Yellow and change to "RUNNING"



15. The progress bar "Program" must go to the end before the upgrade is complete (less than 1 minute)
16. When the upgrade is complete the FWU tool should be looking like this, Button turns Green and text changes to "DONE/NEW"



17. Now the display is upgraded
18. To verify software version in display, in the menu go to, Info->Software
19. Here you will find display software version and control software version (if display is not connected to a control board, control software will be V0.00)



## 5.2 Upgrade using IrDA Cable

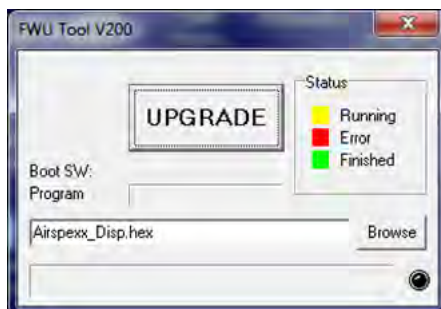
1. Connect power to equipment (Doorway or Airspexx)
2. In the menu go to, Communication-> Firmware upgrade Display by Infrared->Confirm, Display Firmware upgrade By cable and press "OK"
3. Display should now be looking like this:

Upgrade Ready  
Power Cycle and  
Start PC app.

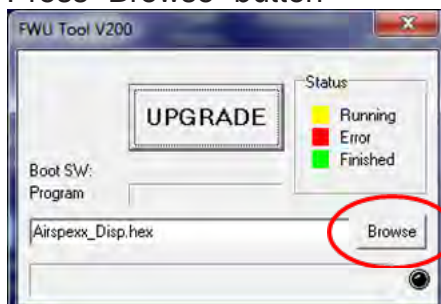
4. Turn Off equipment and turn it on again (Power cycle)
5. Make sure the All three led's are on (Green "ON", red "ERROR" and red "OFF") and the display is blank
6. Connect Irda module (Item No. 110001558) to PC USB port
7. Place Irda module on display module like this



8. Startup PC program FWU200.exe (can be downloaded from Nilfisk Food website)
9. Window should be looking like this

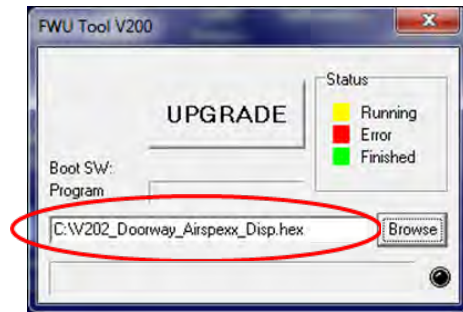


10. Press "Browse" button

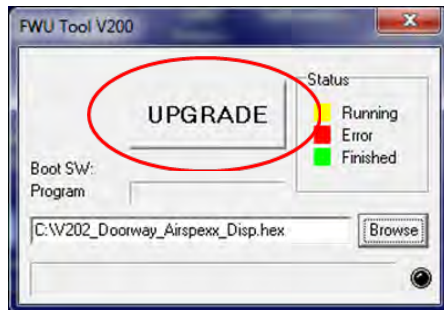


11. Select the file you will use for upgrade. This file needs to be downloaded from the internet or copied from a mail etc. The name of the file should end with .hex.  
Ex V202\_Doorway\_Airspexx\_Dispatch.hex
12. When the file is located press "Open" in browser window

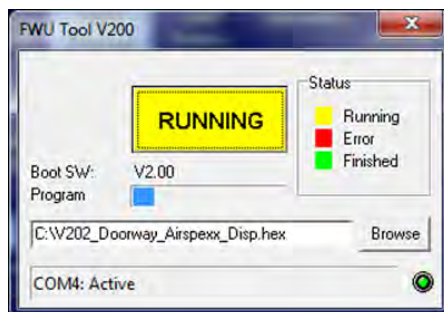
13. The file name will now be written in file text line



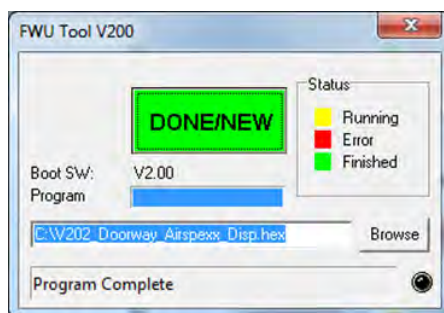
14. Press UPGRADE button in FWU 200 tool



15. After a short while the FWU tool should start upgrading, the upgrade button should turn Yellow and change to "RUNNING"



16. The progress bar "Program" must go to the end before the upgrade is complete (less than 1 minute)
17. When the upgrade is complete the FWU tool should be looking like this, Button turns Green and text changes to "DONE/NEW"



18. Now the display is upgraded
19. To verify software version in display, in the menu go to, Info->Software
20. Here you will find display software version and control software version (if display is not connected to a control board, control software will be V0.00)

## 5.3 Upgrade Controller Board

1. Make sure display is connected to controller
2. Power up equipment
3. Go to menu Communication-> Firmware upgrade Controller PCB->Confirm, Firmware upgrade Controller PCB and press "OK"
4. Display restarts
5. After restart the display will start erasing the control board, display will start counting from 0% to 100%

Control upgr.  
Erasing 0%

6. When Erasing reaches 100%, the display will automatically start to program control board

Control upgr.  
Erasing 0%  
Programming 0%

7. Programming will now start to count from 0% to 100%
8. When programming reaches 100%, the programming is complete
9. The display will be looking like this

Control upgr.  
Erasing 100%  
Programming 100%  
Power off unit

10. Turn Off equipment and turn it on again (Power cycle)
11. Now the control PCB is upgraded
12. To verify software version in display, in the menu go to, Info->Software
13. Here you will find display software version and control software version

