ALFA DISPENSER

Operational Manual

Installation, Calibration, Maintenance of ALFA dispensers and software

Contents

1. Laptop / PC IP Config

To connect direct to the alfa dispensers, the IP must be configured manually under Adapter Settings. Depending on the version Windows, this may be found in different locations. Ensure you are logged in as Admin before continuing.

Go to **Control Panel** -> **Network and Internet** -> **View Network Status** -> on the left side of the screen click **Change Adapter Settings**. Right click on **Ethernet2** and click **Properties**.
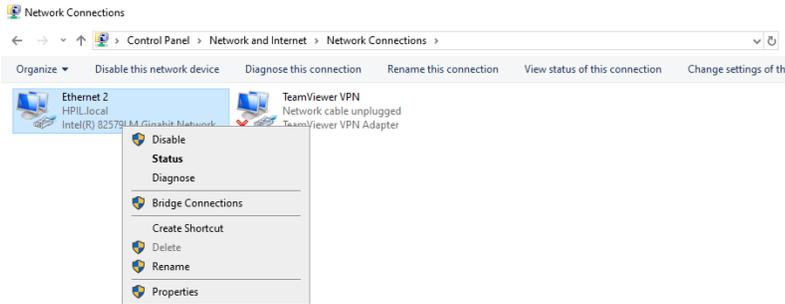
Double click **Internet Protocol Version 4 (TCP/IPv4)** from the list and enter the following settings.
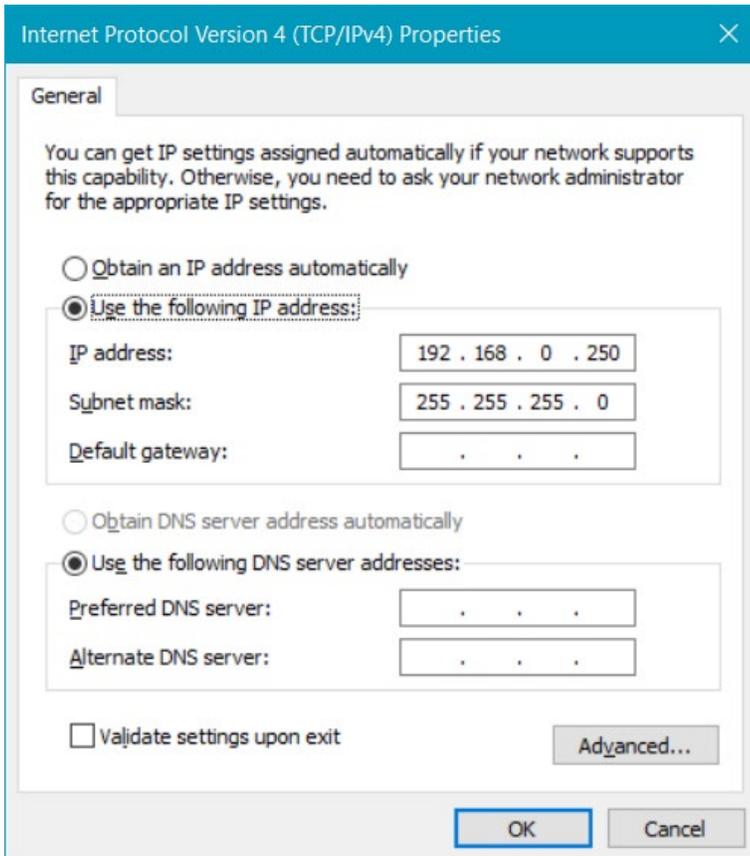
3. Alfa Admin Home Screen

Connect the PC/Laptop to the 0.100 port on the back of the THOR and after ensuing the IP address has be set manually as above, open any web browser and type this IP Address into the address bar:
192.168.0.100/admin
Enter the user name and password: **alfadesk**

The admin home screen should then open. Take note of the canister asginments before continuing.

# 4. Thor Calibration Procedure

To calibrate the Thor follow the below steps. Must be done from with-in the admin login. For each colourant/base, a calibration table must be created using preinstalled templates for the dispense speeds required. In our case we use 2 speeds, Single Stroke and Continuous.

4.1. Click on **Calibration** on the left side menu listing, then click **Tables** from the sub list

**4.2.** Click **+ Add Table** to create a new calibration table.

4.3. After clicking Add Table, ensure the **Description** has the correct canister/pipe assignment number with the corresponding colorant code.

4.4. Select the correct **Template**, **Profile** and **Pipe** from the respective dropdown menus.

4.5. Under **Data Acquisition Option**, uncheck the box **Leave unchecked to perform unassisted data acquisition**. This would allow the use of the scale manually (not connected to the dispenser).

4.6. Use the settings on the following pages for each Colorant and pump speed. Be sure to have the correct canister/pipe assignment number with the corresponding colourant code.

4.7. Click **Save and add another** to add the next table. Click **Save and exit** after adding the last table

4.8. Once the tables are created, go back to the **Tables** screen and select the first table to be calibrated by clicking the table name under the **Table** column.

4.9. Once the correct Table is selected, under **Samples** on the right-side menu list, click **Acquire All** to begin the calibration of that table.

4.10. After calibration is completed scroll down and click **Install** from the right-side menu list

Save

Save and exit

Save and add another

Delete

Tools
- History
- Add table

Samples
- Acquire all
- Clear all

Checkpoints
- Interpolate
- Acquire all
- Clear all
- Delete all

Export
- Export as CSV

Transfer
- Download

Install
- Install

Samples

Sample	Sampled on	Iterations	Steps	Weight [g]	Volume [cc]	Std deviation (abs)	Std deviation (pct)	Clear?	Delete?
SP15186dca-b282-4c4b-9479-e48a49b81327	Aug. 27, 2019, 10:26 a.m.	2	3700	13.1399	9.3856	0.0051	0.05 %	Clear	Delete
SPfac2129d-5cdb-4075-8ea3-6d9e778865d3	Aug. 27, 2019, 10:37 a.m.	2	3000	10.6185	7.5846	0.0023	0.03 %	Clear	Delete
SPad95bf48-09a3-4134-b930-ea9da7072f62	Aug. 27, 2019, 10:25 a.m.	2	1500	5.2406	3.7433	0.0001	0.00 %	Clear	Delete
SP17a7902a-855c-4713-bd2f-7c0b5f1804dc	Aug. 27, 2019, 10:27 a.m.	2	500	1.7098	1.2212	0.0002	0.02 %	Clear	Delete
SP05dc8536-4af5-4b0c-992b-166172d3f5c1	Aug. 27, 2019, 10:28 a.m.	2	100	0.3211	0.2293	0.0014	0.61 %	Clear	Delete
SPbe2b9750-75a9-47da-ae8c-b6a478f17aaa	Aug. 27, 2019, 10:28 a.m.	2	50	0.1398	0.0999	0.0008	0.79 %	Clear	Delete
SP2207685f-0ede-45fd-b630-be48b728c02a	Aug. 27, 2019, 10:29 a.m.	2	40	0.1029	0.0735	0.0010	1.41 %	Clear	Delete

4.11. Click **Save and exit** after completing each table.

NB: These steps must be done for each table created.

5. Calibration Table Settings

5.1. Black (B) Colourant Settings

C1 - B - Single Stroke

C1 - B - Continuous

5.2. Green (D) Colourant Settings

C3 - D - Single Stroke

C3 - D - Continuous

5.3. Organic Yellow (AXX) Colourant Settings

C4 - AXX - Single Stroke

C4 - AXX - Continuous

5.4. Blue (E) Colourant Settings

C5 - E - Single Stroke

C5 - E - Continuous

5.5. Red Oxide (F) Colourant Settings

C7 - F - Single Stroke

C7 - F - Continuous

5.6. Yellow Oxide (C) Colourant Settings

C8 - C - Single Stroke

C8 - C - Continuous

5.7. Magenta (V) Colourant Settings

C9 - V - Single Stroke

C9 - V - Continuous

5.8. Ext. Yellow (AN) Colourant Settings

C11 - AN - Single Stroke

C11 - AN - Continuous

5.9. Titanium White (KX) Colourant Settings

C12 - KX - Single Stroke

C11 - KX – Continuos

5.10. Ext. Red (RN) Colourant Settings

C13 - RN - Single Stroke

C13 - RN - Continuous

5.11. Organic Red (R) Colourant Settings

C16 - R - Single Stroke

C16 - R - Continuous

6. Adding Pump Profiles

If any of the required profiles for the settings above are missing, for example some dispensers did not have the Thor continuous suction 80 profile installed which is to be used for the RN, use the steps below to add a new profile.

Click the ➕ sign next to the **Profile** dropdown list. It should say **Add another profile** if highlighted.
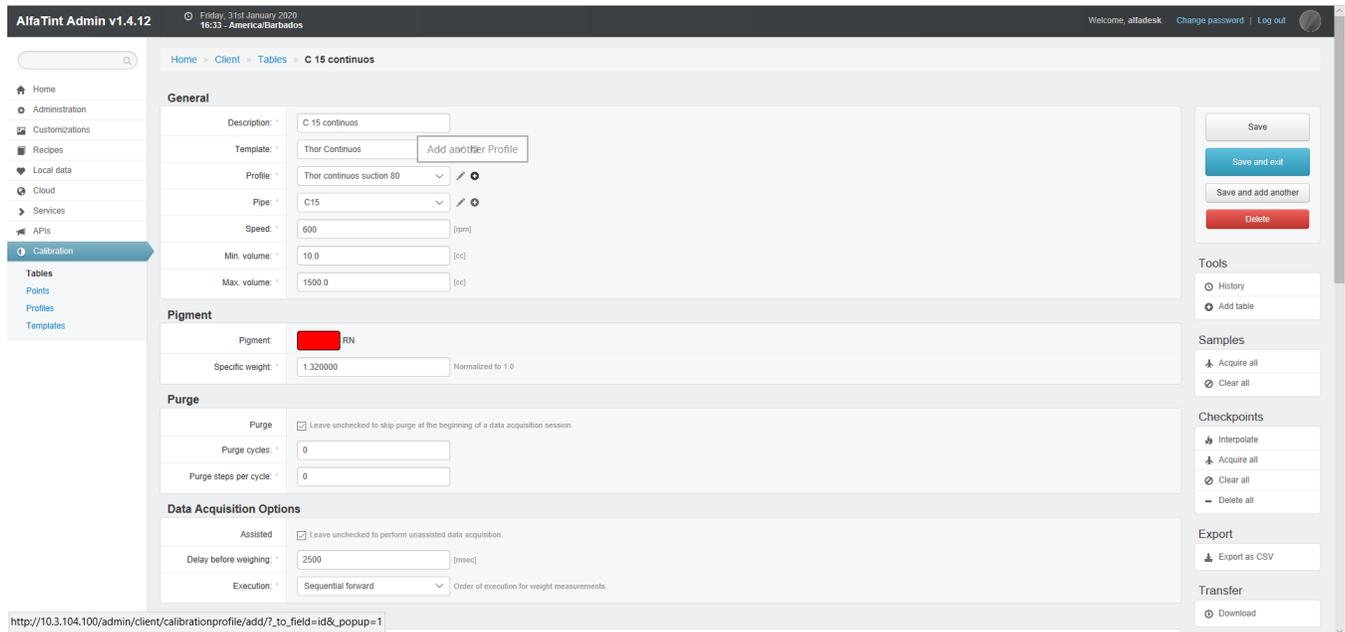
The below window should pop up. Enter the following info:
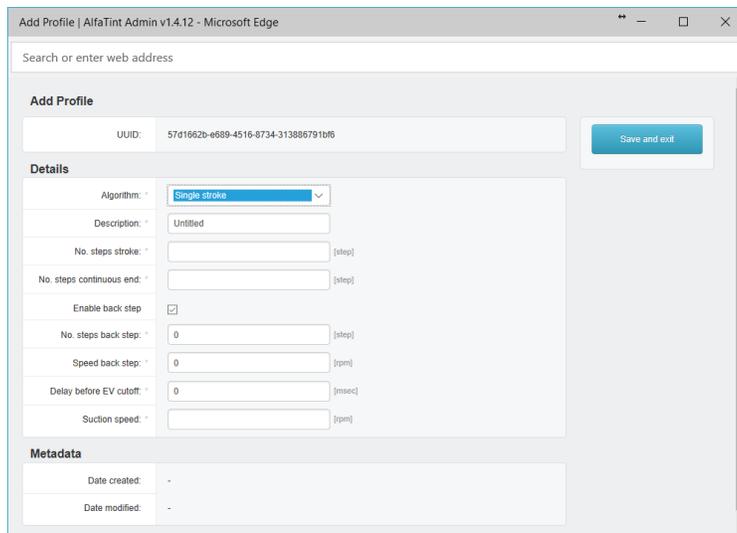
Algorithm: **Single Stroke / Asymmetrical Continuous**

*dependent on Single Stroke or Continuous config.

Description: **eg. Thor Continuous Suction 80**

No. steps stroke: **3700**

No. Seps continuous end: **0**

Enable step back: **ticked**

No step back step: **80** *this is what determines the

suction number in the description.

Speed back step: **100**

Delay before EV cutoff: **0**

Suction speed: **600**

Then click **Save and exit** to add the created profile and return to the pump setup screen. Select the added profile and continue as above.

7. Assigning the Tables to the Canisters/Pipes

After creating the tables and the calibrations, each table then needs to be assigned to its respective canister.

4.12. Click on **Home** to return to the Home screen then the Pipe number for the canister you want to assign the tables to.

4.13. Scroll down to Calibrations Tables and select the correct table from the list on the left (**Available Installed Tables**) and click the arrow in the middle to add to the list on the right (**Chosen Installed Tables**). Each pipe must have 2 tables chosen as shown below. Continuous and Single Stroke.

4.14. Also verify the other configuration parameters are entered as shown below.

4.15. Click **SAVE and EXIT** to continue. Repeat for each canister/pipe.

8. Adding Can Sizes

Last task to be completed is to add the can sizes. This is to ensure the correct can sizes are available within **Alfa Tint.**

4.16. Click on **Recipes** and then **Packages**

4.17. Click **Add Package** and the following would open
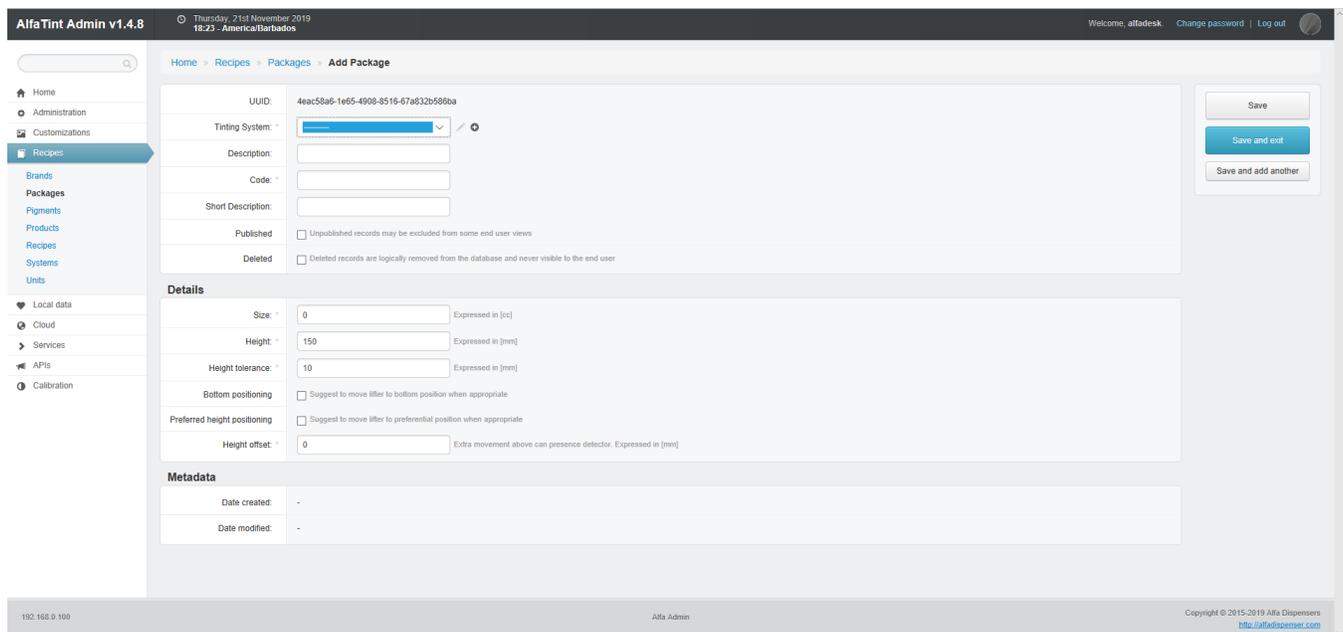
4.18. Enter the below information for each can size we carry. Quart, Gallon and 5 Gallon. Be sure to enter the information exactly as shown below and click **Save and add another** after adding each can size.

Quart Settings

Gallon Settings

5 Gallon Settings

Thursday, 21st November 2019
16:20 - America/Barbados

Welcome, alfadesk. | Change password | Log out

Home » Recipes » Packages » 5 Gallon

- Home
- Administration
- Customizations
- **Recipes**
  - Brands
  - Packages
  - Pigments
  - Products
  - Recipes
  - Systems
  - Units
- Local data
- Cloud
- Services
- APIs
- Calibration

Package: 5 Gallon

UUID:	c82a7ac9-526f-4516-a384-605d5225e1e7
Tinting System:	Harris
Description:	5 Gallon
Code:	5 Gallon
Short Description:	
Published	☑ Unpublished records may be excluded from some end user views
Deleted	☐ Deleted records are logically removed from the database and never visible to the end user

Details

Size:	18925	Expressed in [cc]
Height:	355	Expressed in [mm]
Height tolerance:	20	Expressed in [mm]
Bottom positioning	☑ Suggest to move lifter to bottom position when appropriate	
Preferred height positioning	☐ Suggest to move lifter to preferential position when appropriate	
Height offset:	7	Extra movement above can presence detector. Expressed in [mm]

Metadata

Date created:	Aug. 30, 2019, 3:14 p.m.
Date modified:	Oct. 10, 2019, 8:28 p.m.

Save

Save and exit

Save and add another

Delete

Tools

- History
- Add Package

192.168.0.100

Alfa Admin

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http://alfadispenser.com

9. Using ALFA TINT

Each ALFA dispenser has its own onboard Linux PC which drives the dispenser and its onboard software can be accessed with any web browser. The computer on the dispenser already has the address set as the default and once the browser is opened it will automatically take you to its startup page. If the page does not load automatically, type this into the address bar of the browser:

192.168.0.100

Formulas can be disepnsed directly from the ALFA Tint software or from ColorDesigner Plus. During the initial testing period, the exisiting Ulttima Plus bases must be tinted using ColorDesigner Plus and ONLY the Master Products and bases should be dispensed using ALFA Tint.

Once loaded, the screen should look like this.
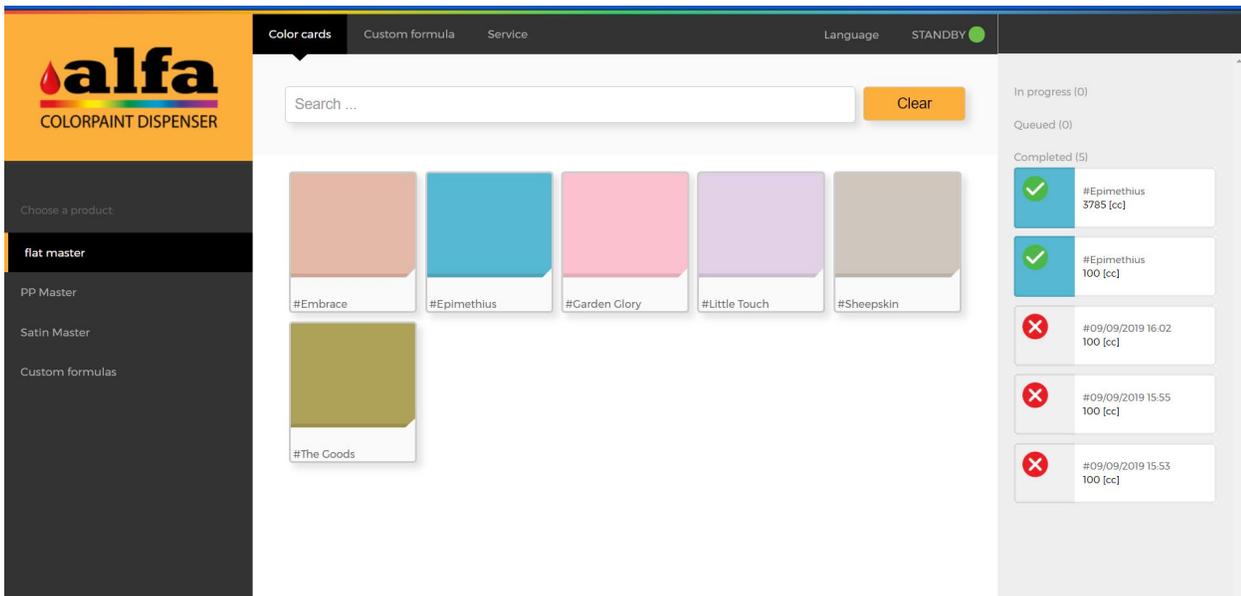
11.1. Main Screen Options
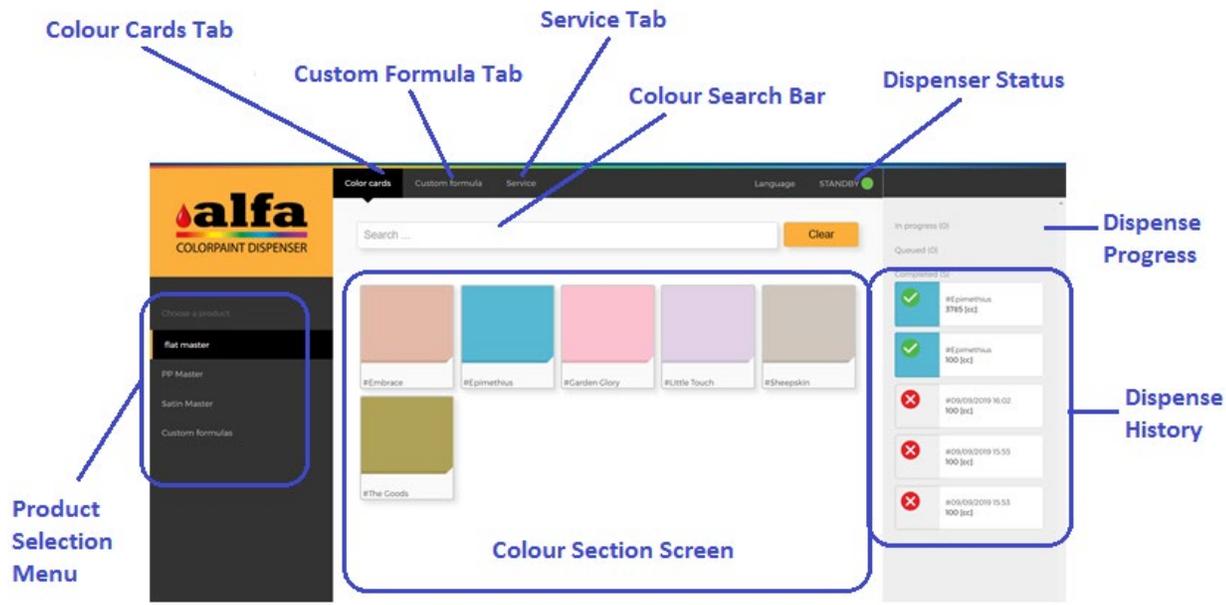
Product Selection Menu –	Used to select the product type to be dispensed. Currently only setup to use Satin Emulsion, Exterior Flat Emulsion and Porch & Patio Acrylic Enamel Master porducts.
Colour Card Tab -	Used to bring up this main screen for tinting.
Custom Formula Tab -	Used to create custom formulations.
Service Tab -	Used to access the service functions of the dispenser. Also used to adjust the colourant fill, purge and reset options.
Dispenser Status -	Displays dispenser status.
	STANDBY – Green - Normal condition
	ALARM – RED - Dispenser error present and needs to be reset
	DIAGNOSTIC – Yellow - Service mode.
	RESET – Yellow - Reset in progress.
Colour Search Bar -	Smart search for Colour Name.
Colour Selection Screen -	Display of available Colours to be dispensed.
Dispense Progress -	Displays status of current colour being dispensed.
Dispense History -	Displays last 5 colours dispensed and dispense status.
	Green tick = Successful Dispense
	Red X = Unsccessful Dispesnse

11.2. Service Menu Options
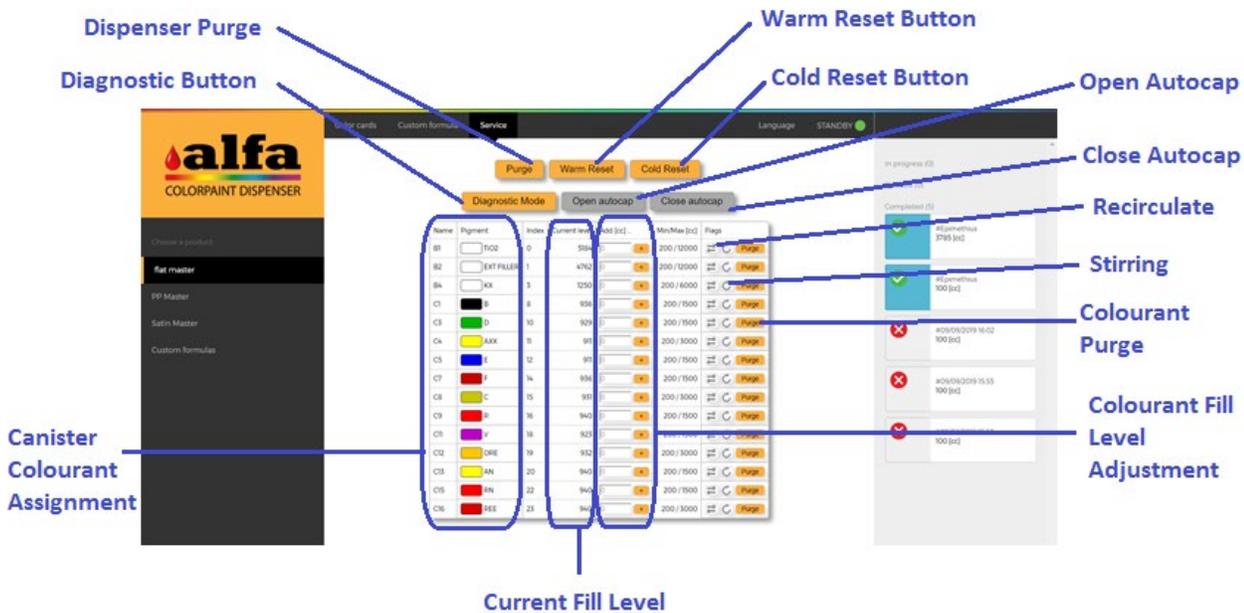
Dispenser Purge -	Used to purge all of the colourants and fillers.
Warm Reset -	Carries out a quick systems check on the dispenser. Used to clear most alerts or errors.
Cold Reset -	Carries out a full system reboot and check on the dispenser.
Diagnostic -	Puts the dispenser into Diagnositic Mode which is neccsary for some functions.
Open Autocap -	Opens autocap. Only in diagnostice mode.
Close Autocap -	Closes autocap. Only in diagnostice mode.
Recirculate -	Commands the recirculation of the selected colourant/circuit. THOR – Rotates the carosel and brings the selected colorant to the dispense position. Used for filling.
Stirring (Aggitation) -	Commandes a stirring of the selected colourant/circuit.
Purge -	Manual dispense of the selected colourant/circuit.
Fill Level Adjustment -	Used to add or adjust the fill levels. Refer to the maximum fill level diagram for each canister type. Measurements are in CC/ml (1 liter = 1000 cc)
Current Fill Level -	Displays current fill level. Refer to the maximum fill level diagram for each canister type. Measurements are in CC/ml. (1 liter = 1000 cc)

11.3. Purging The Dispenser

The ALFA dispenser must be purged every morning. Use the following steps to do so. Please note this MUST be done manually as the machine will not prompt you to do it.

Click on the Service Tab to open the Service Menu. Click the Purge button.
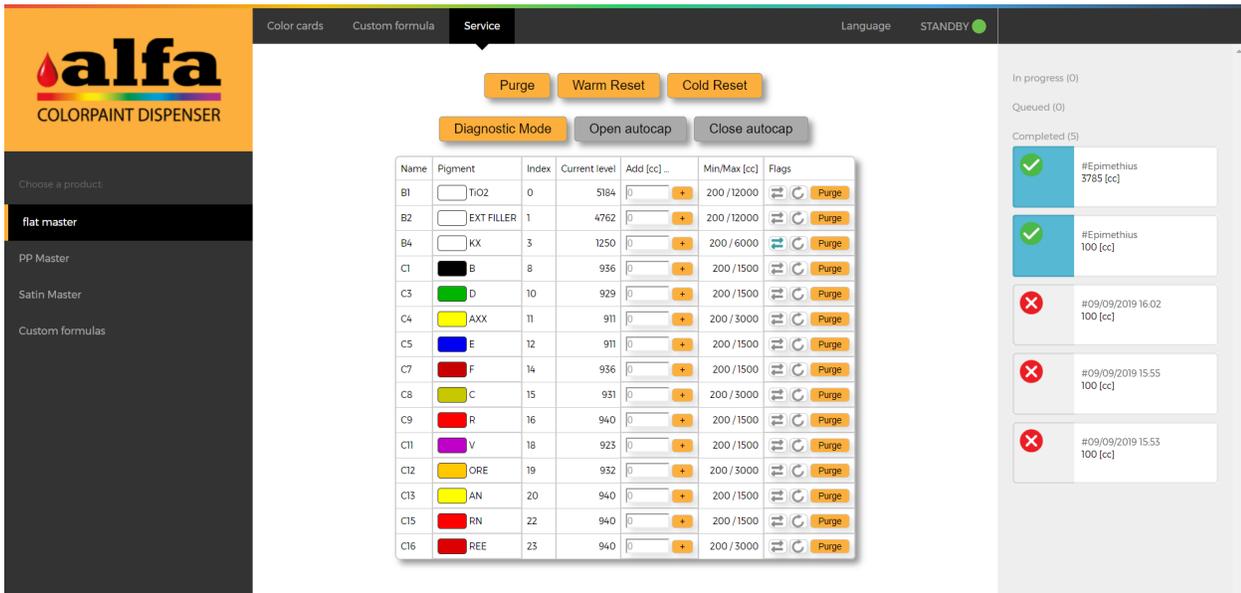
The following window will then be displayed. Change nothing in this window and click the Purge button at the bottom of the screen (you may have to scroll down).
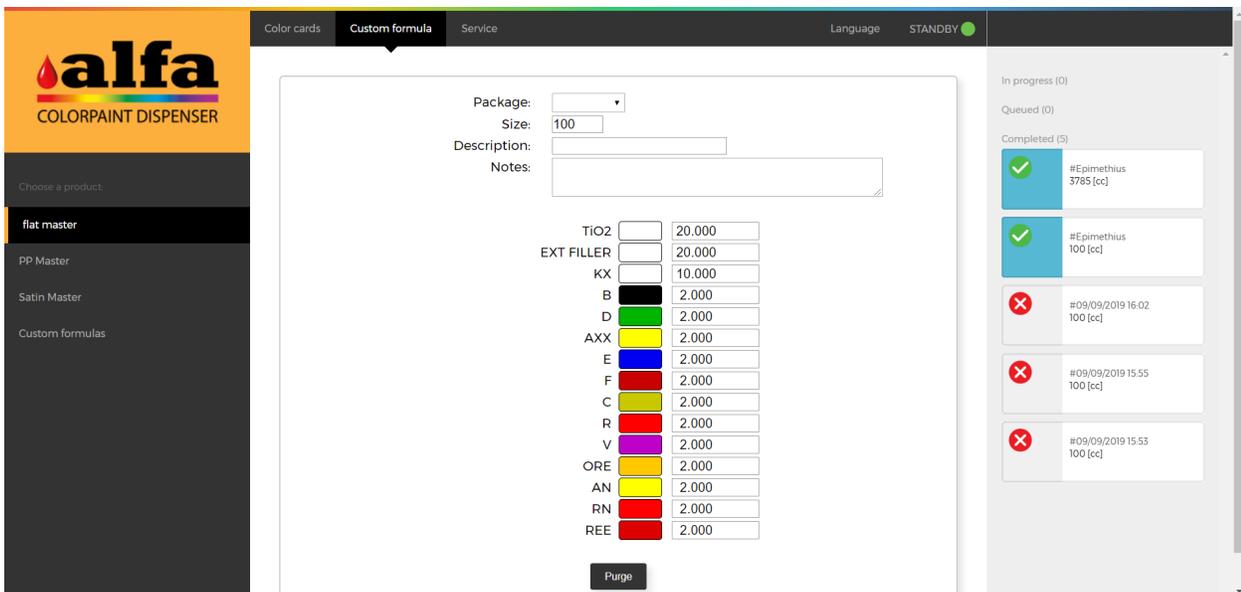
After clicking Purge the following Dispense Confirmation window will pop up. Ignore the package size, place the purge can on the dispense shelf and once the can is detected, click Erogate (Bad translation for Dispense). When purge is completed it will prompt you to remove can.
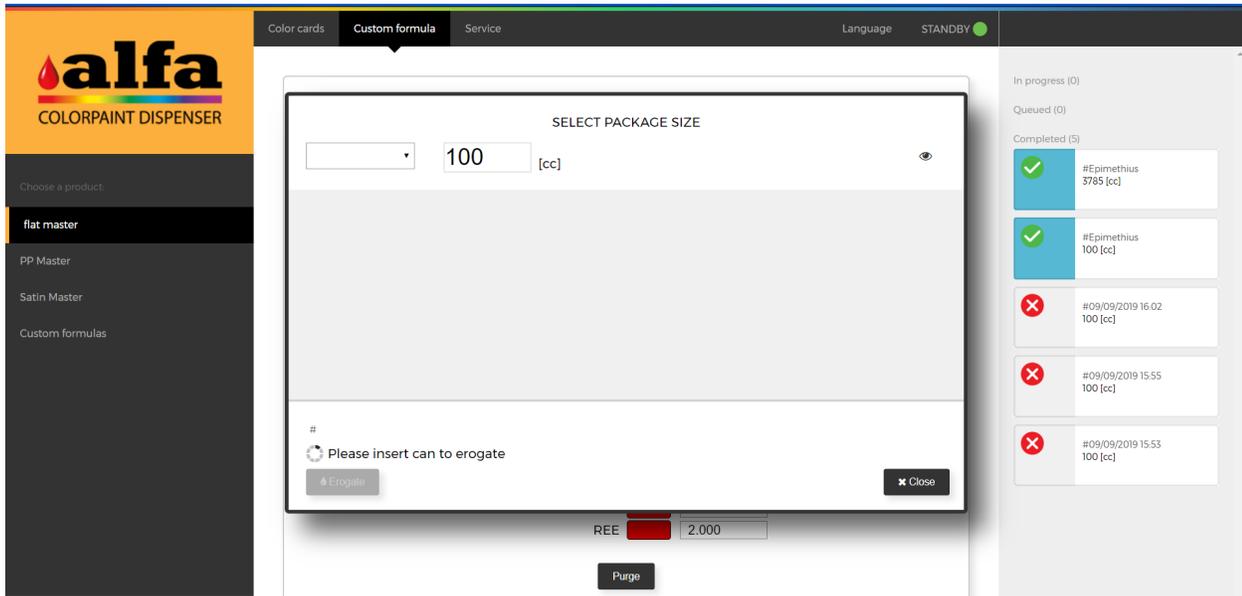
11.4. How to Reset the ALFA Dispenser

Any time an Error or Alert is detected by the dispenser, a reset must be done to clear the error to proceed. To do this go to the Service Menu, and most Alerts can be cleared by using a Warm Reset. In some cases a Cold Reset is neccesary. The Warm reset takes around 45 seconds to complete and the dispenser goes through a basic series of tests, whereas the Cold Reset takes just over a minute and the dispenser does a full systems check as if it was now turned on. When finished the Status indicator should say STANDBY.
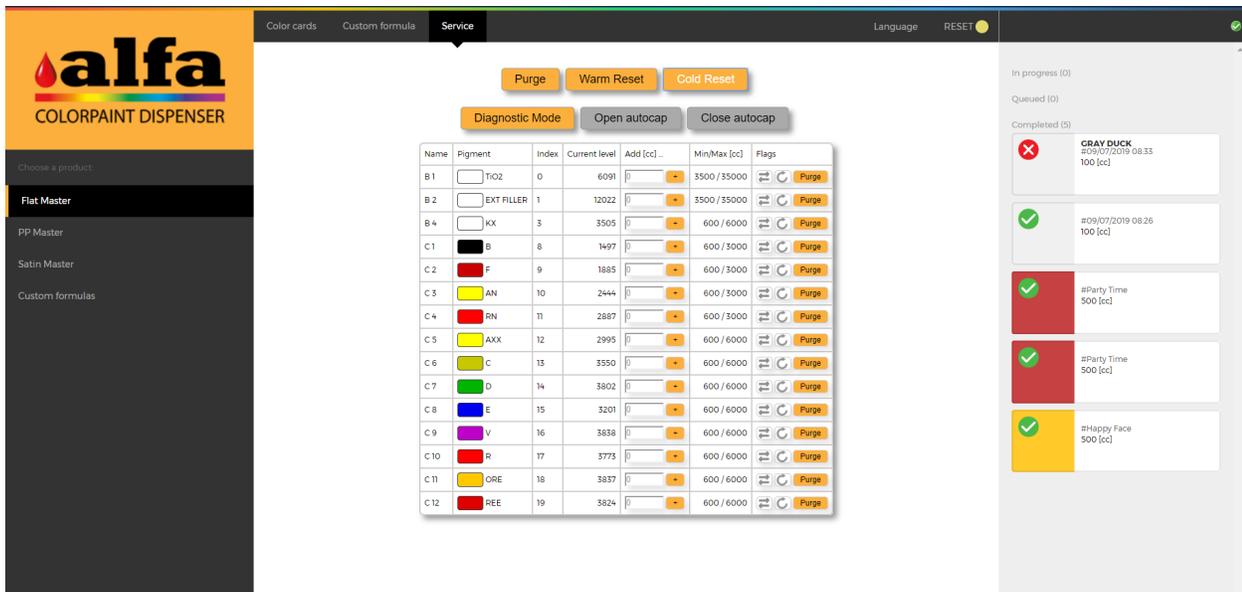
11.5. Filling the ALFA Dispenser

Refer to the Service Menu options above. For the THOR, select the colorant to be filled, enter the amount to be added and click the + (add) button, this will rotate the carrusel to bring the selected canister to the front. DO NOT OPEN THE LID UNTIL IT HAS ROTATED. You may get an error stating the lid is opened and will have to do a Warm Reset to continue. Once rotated, pour the colorant into the canister. To add multiple colourants, leave the cover open, select the next colorant and repeat the steps above.

Once finished, close the lid and click Warm Reset.

11.6. Dispensing from ALFA Tint

Tinting the Master base products will initially be done with the ALFA Tinting Software. This allows us the flexibility to quickly adjust or amend formulations during the test period as we aim to improve color accuracy. One limitation of this software is the inability to scan a sample to achieve a formula.

To tint a color, go to the ALFA Tint main screen.
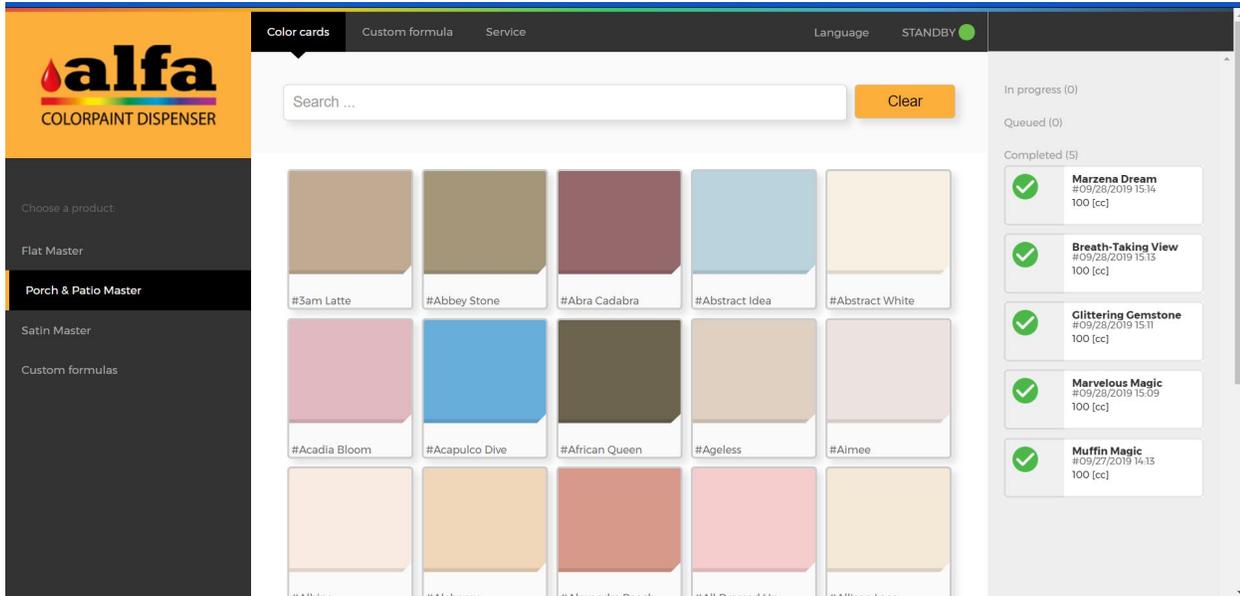
First select the product type from the list on the left, then type the name of the color in the search bar or scroll for the color. For example, to tint Pink Explosion in Porch & Patio choose Porch & Patio Master from the product list, then type Pink Explosion in the search bar. As seen below, once you start to type the smart search finds all results with "Pink". From here you can click the color tab with Pink Explosion.
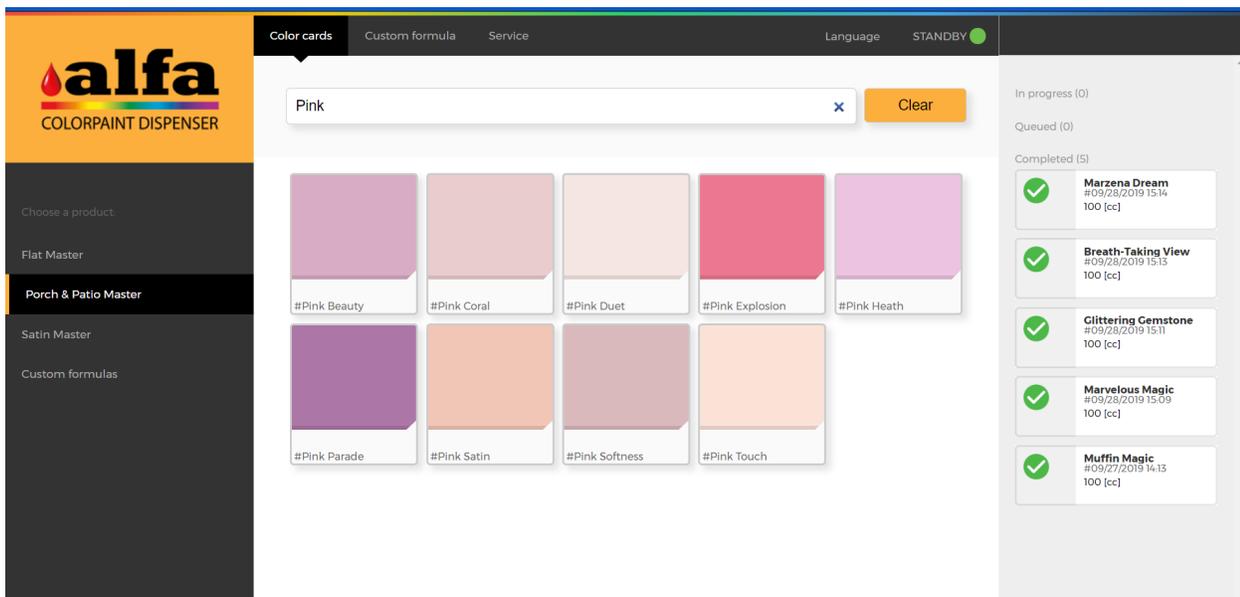
Once the correct colour tab has been selected, the dispense confirmation window will open.
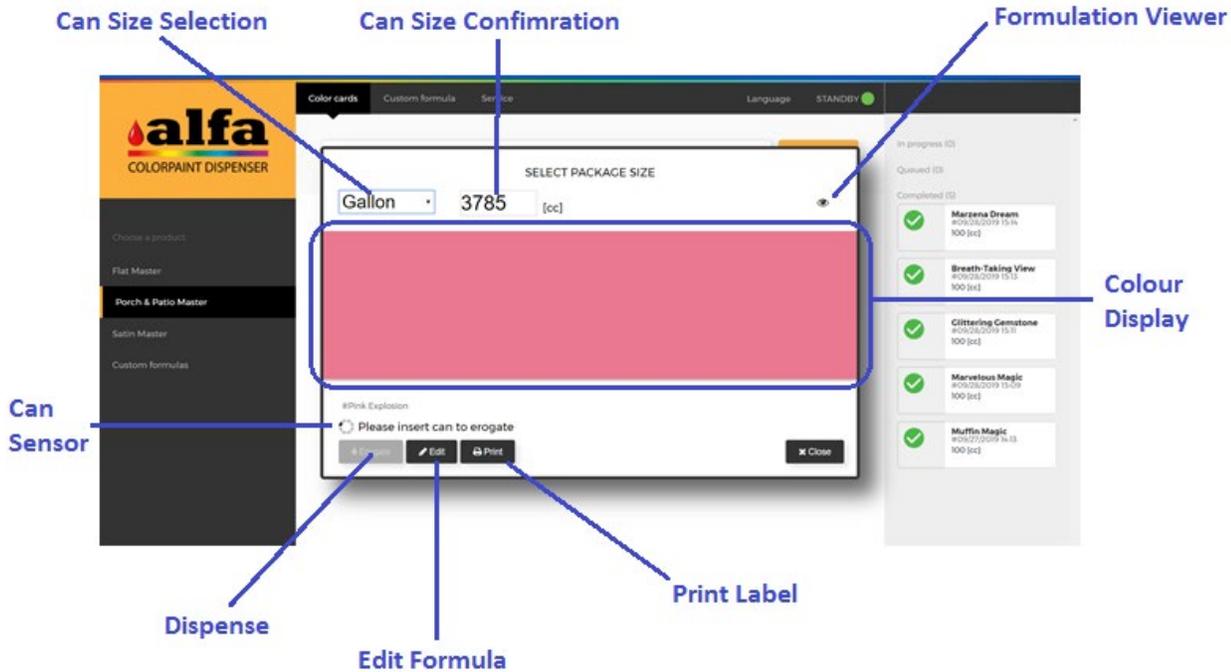
Can Size Selection -	Choose can size to be dispensed.
Can Size Confirmation -	Displays the can size volume in CC (ml). The can size can also be manually entered here if the size to be tinted is not in the list.
Formulation Viewer -	Select this to view the formulation to be dispensed.
Color Display -	Sample of the color to be dispensed is displayed.
Edit Formula -	Used to edit the existing formulation.
Print Label -	Prints the label for the currently selected formulation.
Can Sensor -	Displays the can status.
Dispense -	Only available if can is detected. Begins to dispense once clicked.

Confirmation window with formulation displayed.
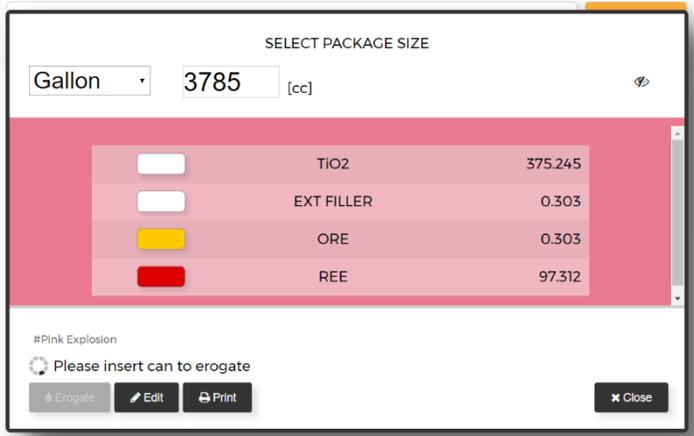
Click Print to print a label, then Click Dispense once the can is in place.

Once dispense is finished you will be prompted to remove the can in the can status line. When the can is removed the window will automatically close.

To tint multiple gallons this will need to be repeated.

11.8. Maintenance & Troubleshooting

ALFA dispensers will give and error message or Alarm for any issue detected with the dispenser. These errors are presented with a flashing status light on the dispenser and also an Alert message in ALFA Tint where the Dispenser Status indicator will be Red. Clicking on this Status indicator will give a pop up window with the current error.

Make a note of the error message and report it to your respective ColourCentre Technician or to the Colour Technology Officer. ALFA dispensers have remote access and these errors can be investigated without requiring a service visit.

The Alfa dispensers will get an annual service visit to verify calibration and full dispenser check.

Software updates can be done via remote log in or via ALFA Cloud service.

Firmware updates must be done directly at the dispenser.