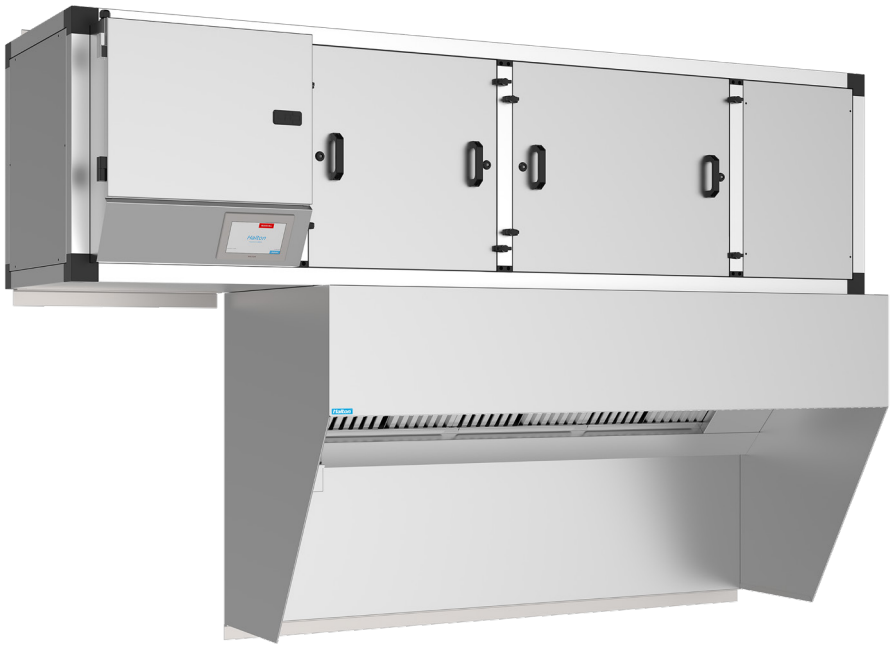
OPERATION, CLEANING & MAINTENANCE

READ ALL INSTRUCTIONS BEFORE USE

This Manual must be viewed by Staff and Contractors involved in the operation, cleaning and maintenance of the Pollufresh Ventilation System.

Pollufresh Features:
Halton Proprietary Kitchen Ventilation Exhaust Hoods



This manual is suitable for the following models:

PFR Pollufresh - Halton KVL Extraction Canopy - With Controlled Air Purification

The Pollufresh captures and filters the cooking effluent from the cooking equipment.
It contains multiple filters to progressively remove large and fine contaminants and adsorb odours from the kitchen exhaust so that the air can be discharged within the kitchen. To ensure ongoing performance, the unit must be cleaned regularly, and the filters must be serviced and/or replaced before they become overloaded.

The Pollufresh control system monitors the system to shut down the system if filters become overloaded and to prevent exhaust operation if the filters are not in place.

The user interface displays two screen views to observe the status of the fan and to observe the status of the filters. This informs operators to do the maintenance to ensure ongoing effective contaminant removal.

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Warranty & Registration

1.1 Australia and New Zealand Warranty

1.1.1 Warranty Period

All Stoddart manufactured and distributed products are covered by Stoddart's standard Australia and New Zealand Product Warranty (minimum 12 month on-site parts and labour, terms and conditions apply). Further to this standard warranty, certain products have access to an extended warranty. Full terms, conditions and exclusions can be found using the below Link/QR code.

1.1.2 Warranty Registration

To register your new product, Follow the below Link/QR code.

Australia
www.stoddart.com.au/warranty-information

New Zealand
https://stoddart.co.nz/warranty-information

1.2 Attention

Carefully read this instruction booklet, as it contains important advice for safe installation, operation and maintenance. Keep this booklet on hand until commissioning has been completed. This manual is to be passed onto the owner/facility at the project completion. New personnel must have training provided before operating the equipment

Disclaimer

The manufacturer and distributor cannot be held responsible or liable for any injuries or damages of any kind occurred to persons, units or others, due to **abuse and misuse** of this unit in regards to installation, removal, operation, servicing or maintenance, or lack of conformity with the instructions indicated in this documentation.

All units made by the manufacturer are assembled, where possible, and ready to install. Any installation, removal, servicing, maintenance and access or removal of any parts, panels or safety barriers that is not permitted, does not comply in accordance to this documentation, or not performed by a **trained and authorised specialist** will result in the **immediate loss of the warranty.**

The manufacturer cannot be held responsible or liable for any **unauthorized modifications** or repairs. All modifications or repairs must be approved by the manufacturer in writing before initiating. All modifications or repairs performed to this unit **must** be performed at all times by a **trained and authorised specialist**.

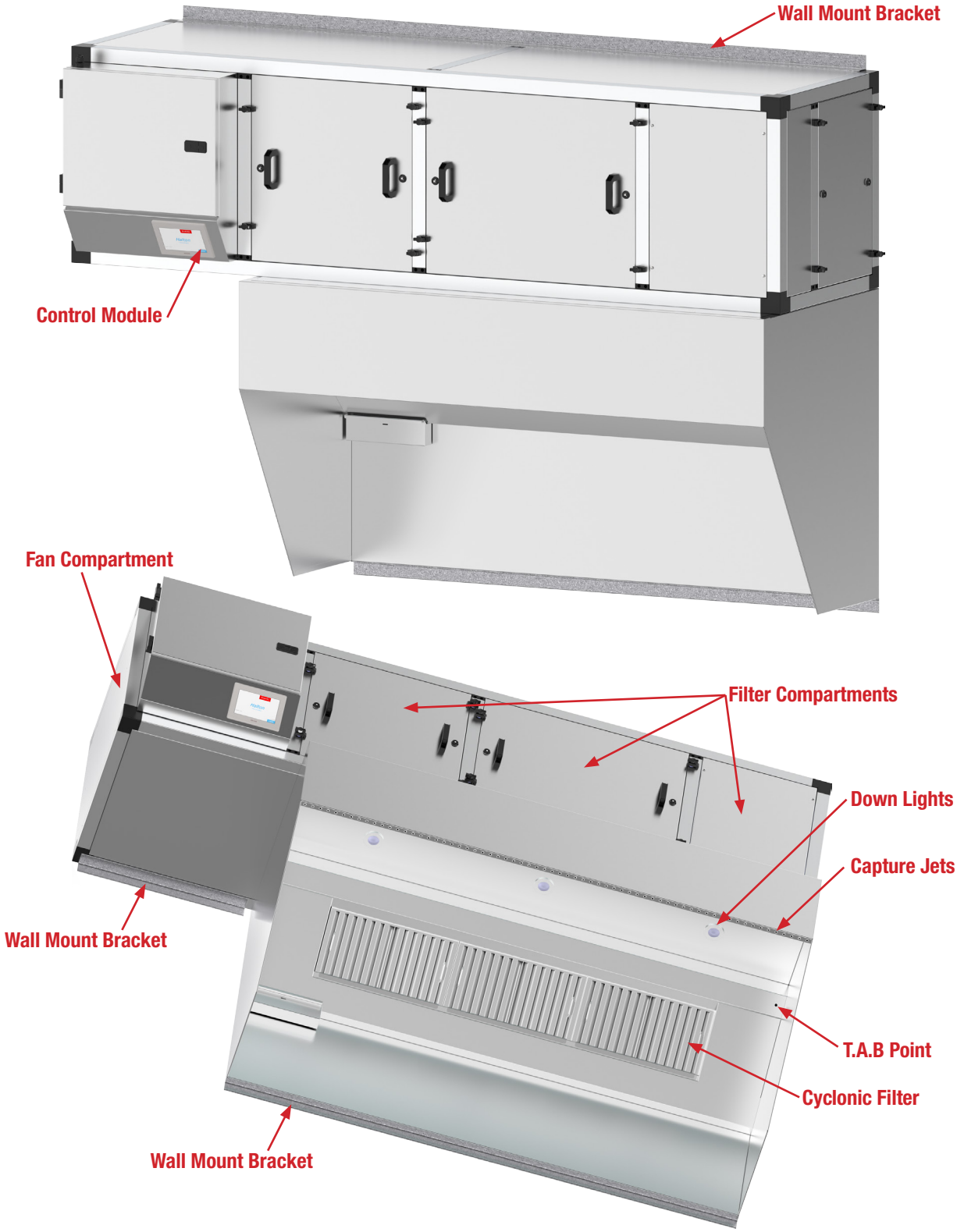
1.3 General Information

When using any electrical unit, safety precautions must always be observed.
Our units have been designed for high performance. Therefore, the unit must be used exclusively for the purpose which it has been designed. Read these instructions carefully and retain for future reference.

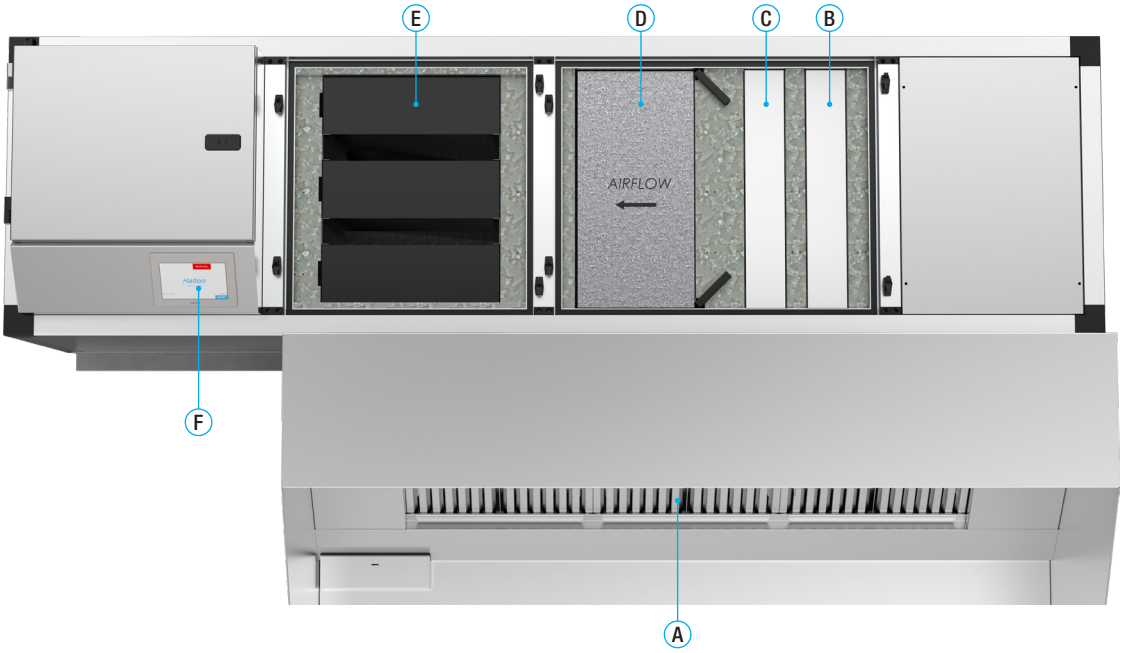
- DO NOT use this unit for any other purpose than its intended use
- Keep fingers out of “pinch point” areas
- Threaded fasteners can loosen in service. Regular inspection and tightening should be carried out as required
- If any fault is detected, refer to the troubleshooting guide

1.3 Pollufresh Overview

Note: The bellow Pollufresh is an example only. Your Pollufresh will be a different size and may have more/less modules. However, the layout of the components/modules remains the same. It may also be supplied in separate parts, requiring site connections



1.4 Components of the Pollufresh

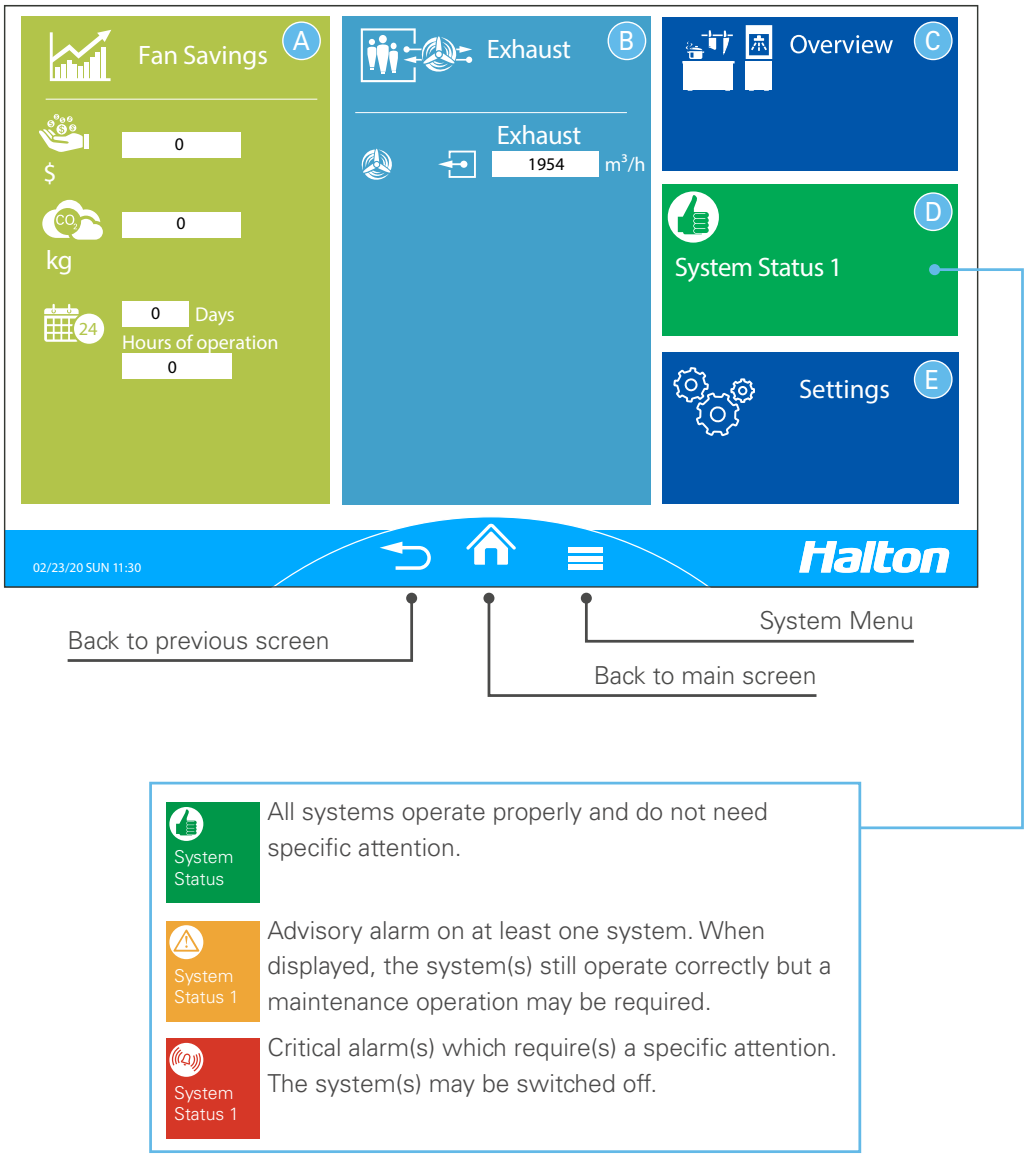


A. Cyclonic Grease Filters Stainless Steel Cyclonic Filters. UL1046 Classified. Efficiently removes most of the grease, moisture and food from the cooking emissions. Pressure drop; 95 Pa -constant **Part ID:** CMHAL.0019 (500 x 330 x 50mm) **Qty.** x3	
B. 1st Pleated Filter Disposable MERV 8 (G4 or F5) grade filter to protect subsequent finer filters from larger grease, moisture and food particles that get past the Cyclonic Filters. Pressure drop; Clean 20 - 30 Pa, Dirty 125Pa, Overload 150Pa. **Part ID:** CMGE.0054 (G4) or CMFIL.0069 (F5) (600 x 600 x 95mm) **Qty.** x1	
C. 2nd Pleated Filter (Bag Filter (BF) on touch screen) Disposable MERV 13 (F7) grade filter removes finer particles to extend the service life of the subsequent HEPA Filter. Pressure drop; Clean 20 – 40 Pa, Dirty 125Pa, Overload 150Pa. **Part ID:** CMFIL.0055 (600 x 600 mm x 95mm) **Qty.** x1	
D. HEPA Filter Disposable MERV 16 (H11) grade filter captures the very fine grease and smoke particles (95% DOP efficiency 0.3 microns and above). Pressure drop; Clean 100 - 150Pa, Dirty 400 Pa, Overload 550 Pa. **Part ID:** CMFIL.0056 (NH) (600 x 600 x 300mm) **Qty.** x1	
E. Carbon Filters Disposable Activated Carbon Filter adsorbs most gas phase contaminants to reduce odour emissions into a sensitive environment. Pressure drop; Clean 50-100 Pa, Dirty 140 Pa, Overload 160 Pa. **Part ID:** CMFIL.0048 (600 x 600 x 25mm) **Qty.** x6	
F. Control Touchscreen The Touchscreen user interface shows Fan and Filter Status. Blue tabs turn red to draw attention if there are any issues. **Part ID:** CMHAL.0076)	

2.1 Touch Screen Interface

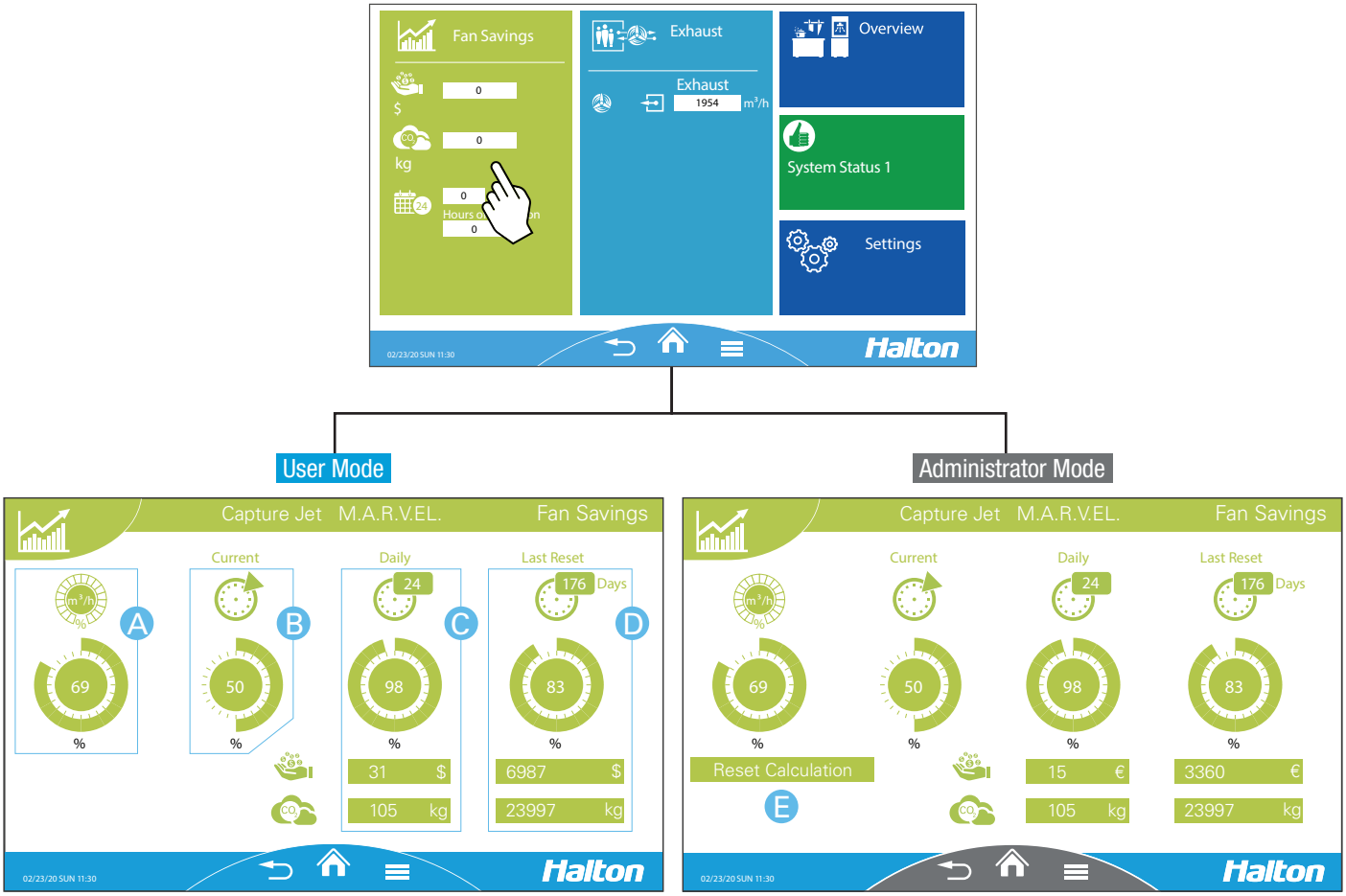
2.1.1 Main Screen

Touch screen interface display may vary depending on specific application. Below is a generic overview.



A. Estimation of the total cumulative savings / Access to the saving counters
B. Quick overview of the exhaust and supply fans airflow rates / Access to the fans' status and start-stop function.(Visible only when the technology is used).
C. Access to a quick view on all systems and their respective status.
D. Status of all systems managed by the Touch Screen When the kitchen is equipped with Aerolys supply AHU, an additional and specific box 'F' appears on the main screen.
E. Access to the system Settings.

2.1.2 Savings Screen



A. Current reduction of the total exhaust airflow rate Reduction expressed in comparison with traditional hoods or ventilated ceilings. The reduction is fixed when they are equipped with the Capture Jet™ technology only. It varies only when they are also equipped with M.A.R.V.E.L. technology.

B. Estimation of the current savings on the fans' electricity consumption Savings expressed as percentage in comparison with the fans' size to be used for traditional hoods or ventilated ceiling(s) operating full time full speed.

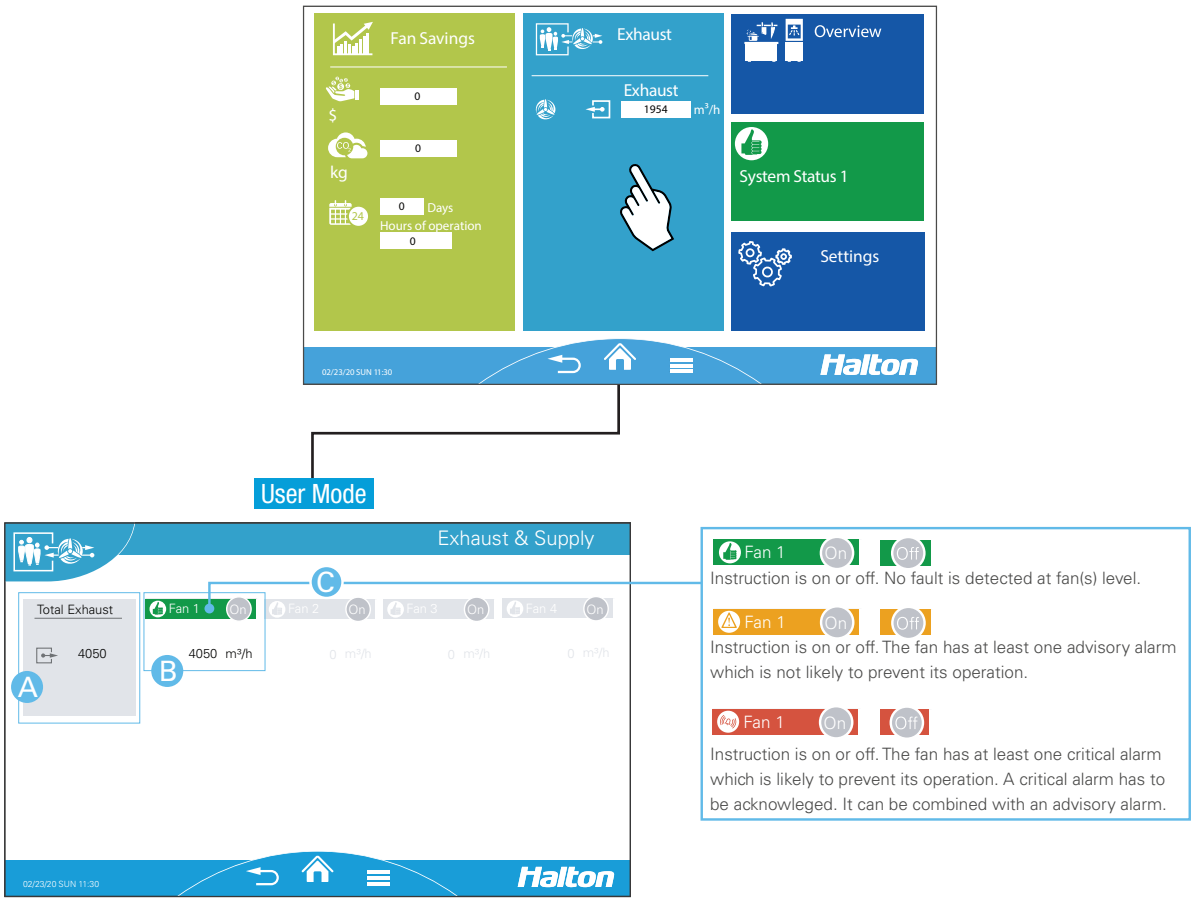
C. Estimation of the daily electricity savings Cumulative savings expressed as percentage and calculated over the last 24h, floating period, still in comparison with the fans' size to be used for traditional hoods or ventilated ceiling(s) operating full time full speed. The corresponding money and CO^2 savings are calculated on that base.

D. Estimation of the cumulative electricity savings on period Cumulative savings extended to a period starting from the systems start up or from the last reset.

E. Administrator only: Reset the cumulative savings on period (only).

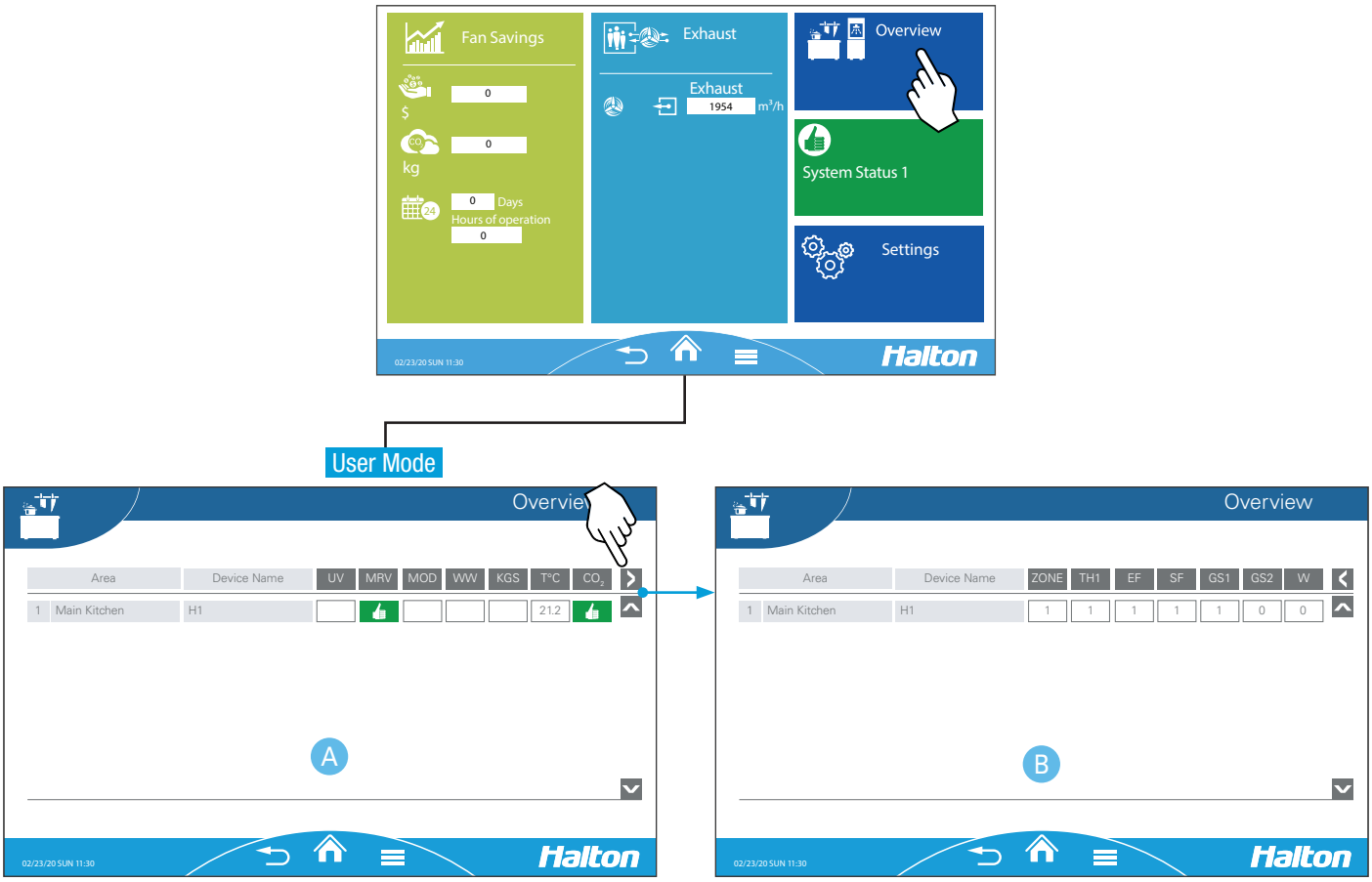
2.1.3 Exhaust Screen

This menu relates to the Pollustop Exhaust Air Treatment unit. It monitors the contaminant load of the filters and adjusts the speed of the fan to maintain exhaust airflow.



A. Total airflow rates of the exhaust and/or supply of the Air Handling Units (AHUs) controlled by the Touch Screen.
B. Airflow rates of the exhaust and supply fan(s).
C. Status of the exhaust and supply fan(s) and run/stop instruction received by the control system from the BMS or a local and manual on/off switch. /!\ The run/stop instruction is not a confirmation the fan(s) are actually on or off.

2.1.4 Overview Screen



A. Technologies and systems status (1/2):

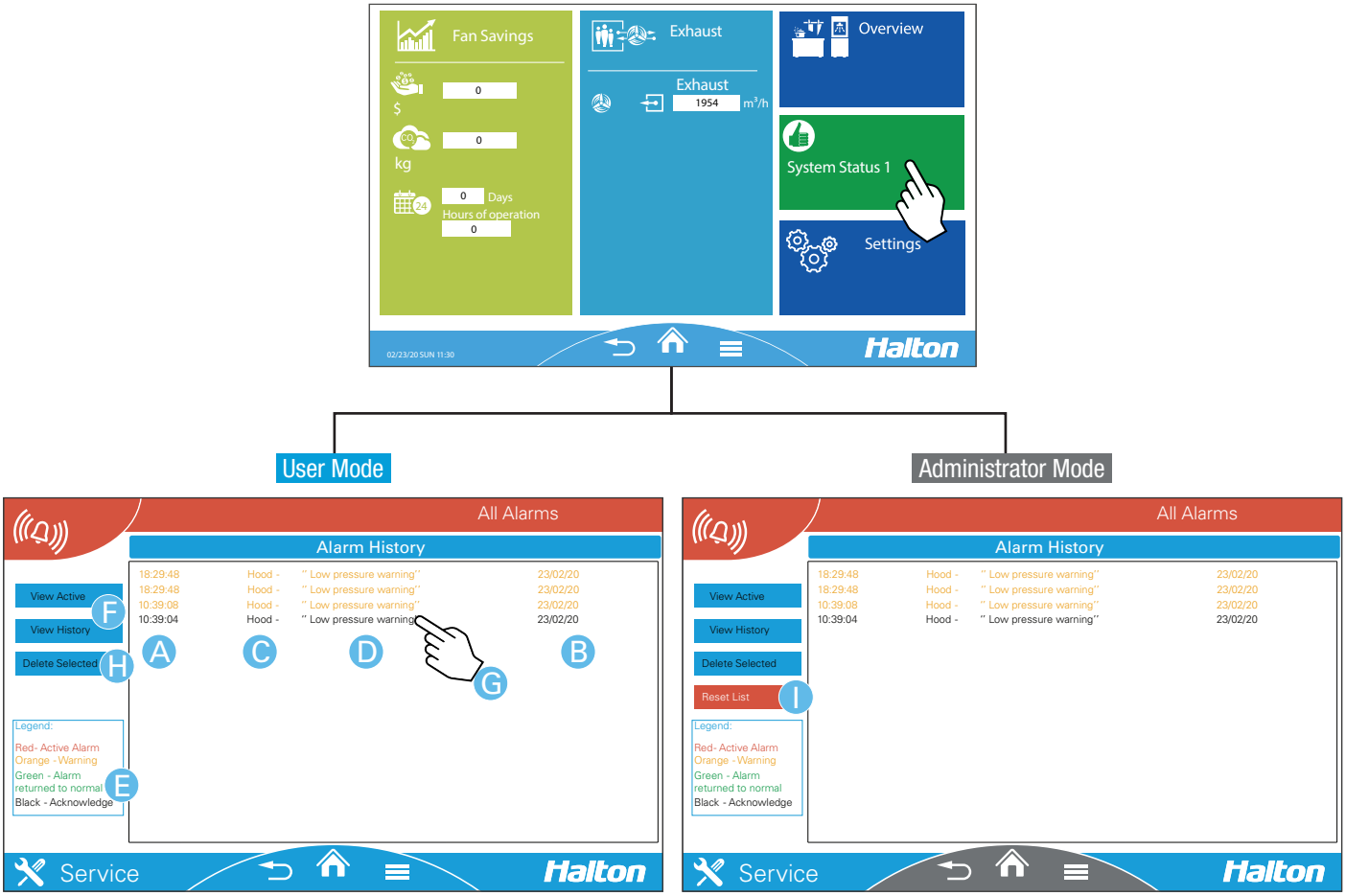
- System operates correctly.
- Advisory alarm which does not prevent system to operate. All advisory alarms require to be acknowledged.
- Critical alarm that prevents the system to operate correctly. All critical alarms require to be acknowledged after fixing.
- Technology not embedded.

UV	UV-C Capture Ray™ technology
MRV	M.A.R.V.E.L. Demand Controlled Ventilation system
MOD	Cold Mist on Demand technology
WW	Water Wash technology
KGS	Ductwork grease sensors
T°C	Temperature in the considered zone
C02	CO_2 concentration in the considered zone

B. Technologies and systems status (2/2)

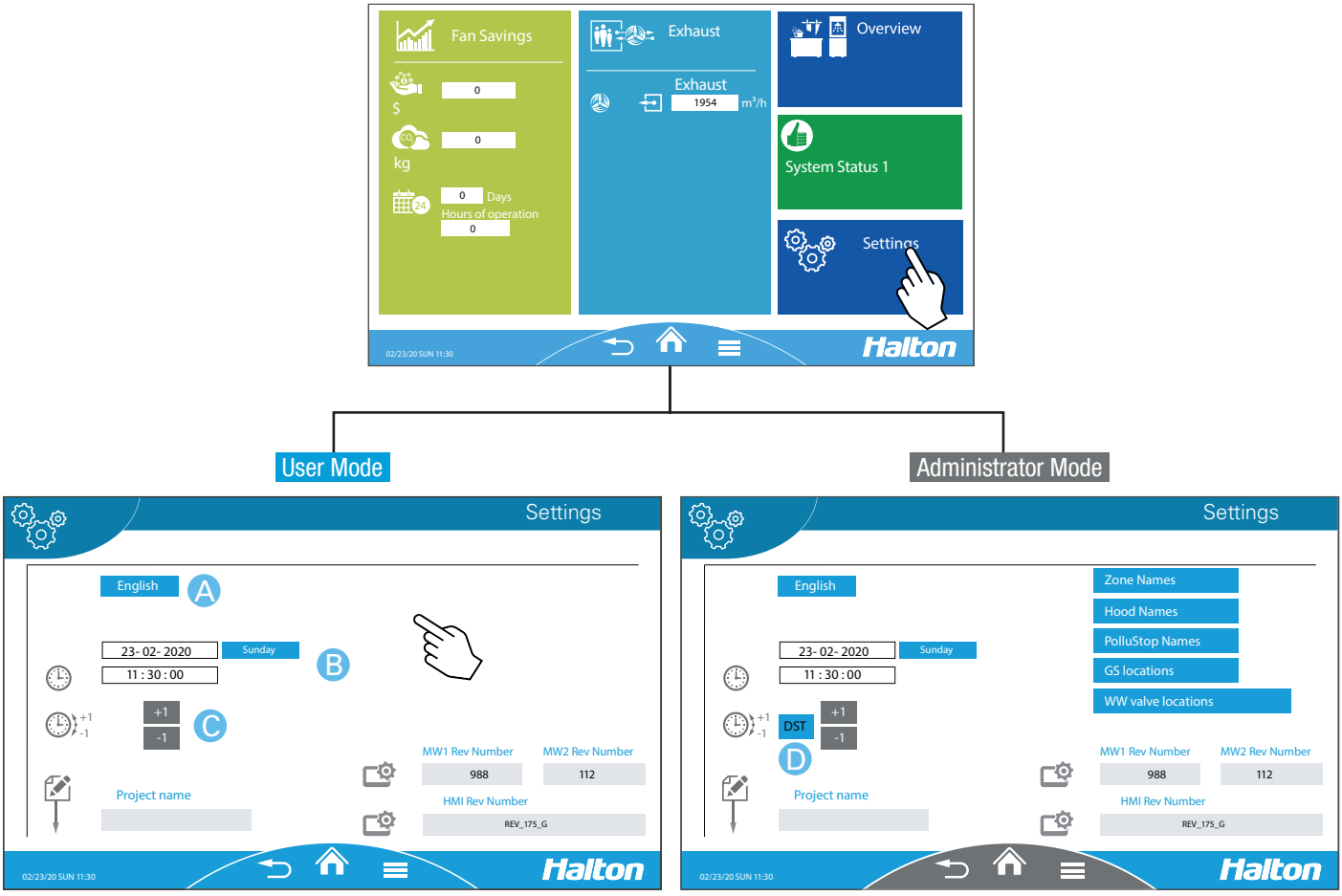
ZONE	Zone system number of the area
TH1	Room temperature sensor system number
EF	System number of the exhaust fan serving the area
SF	System number of the supply fan serving the area
GS1	Grease sensor number fitted in the devices listed.
GS2	Number of the 2nd grease sensor fitted in the devices listed, if applicable.
W	Number of the solenoid valve fitted in the devices listed.

2.1.5 System Status Screen

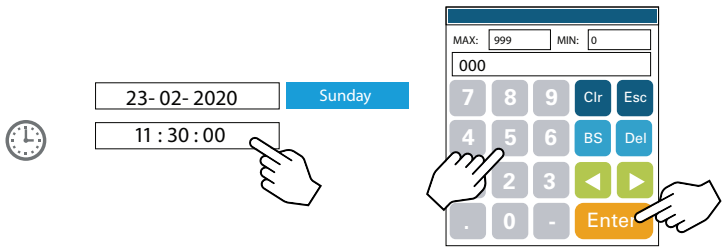


A. Time
B. Date
C. Exhaust system
D. Alarm description
E. Alarm legend
F. Selection of alarms to display: Active only or full history
G. Select alarm
H. Delete selected alarm
I. Administrator Mode: Resetting the alarm list. Applies only to the critical alarms which have been fixed and acknowledged (in black) or the advisory alarms which are not any longer active (in green).

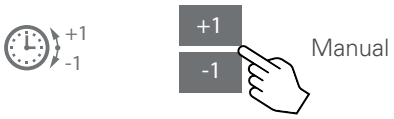
2.1.6 Settings Screen



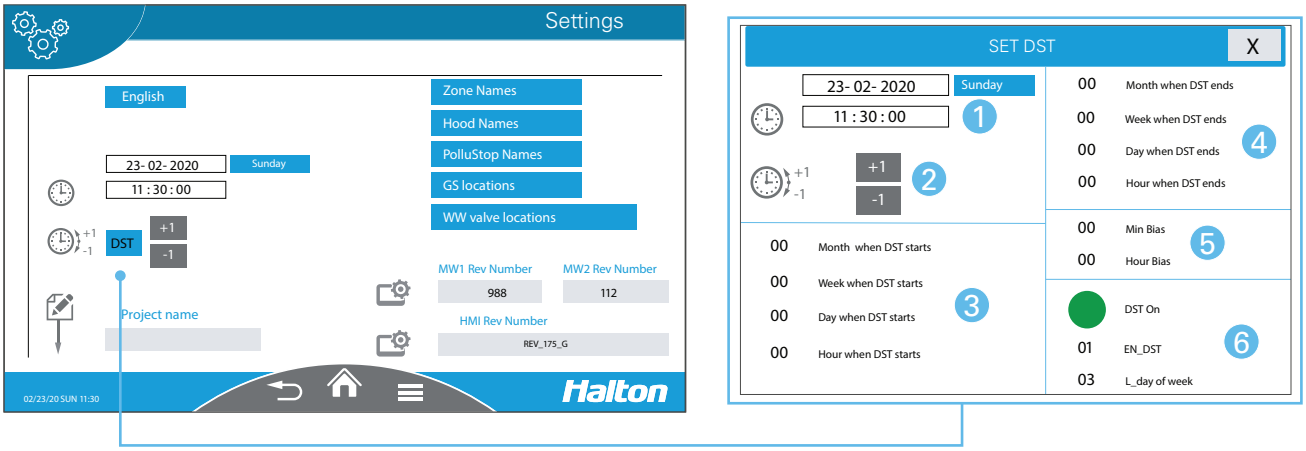
A. Language selection. Click on button to go through the languages available and stop on the one desired.
B. Setting of the date and time



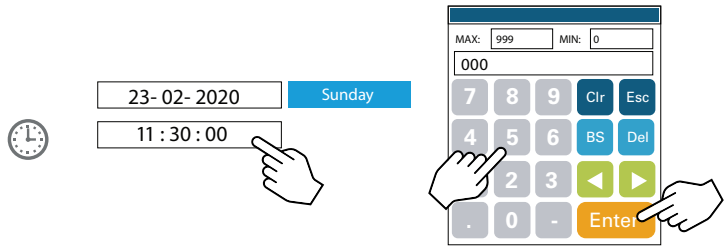
C. DST manual time adjustment +/- 1 hour



D. Administrator Mode: DST automatic time adjustment



1. Setting of the date and time



2. DST time adjustment +/- 1 hour

3. Date and time of the change to summer time:

Month when DST starts > Month number [1..12]
Week when DST starts > Week number in the month [01..04]
Day when DST starts > Day number [00..06]*
Hour when DST starts > Hour in the day [0..23]

Example:
Paris Time Zone
Month:03 / Week:04 / Day:00 / Hour:02

4. Date and time of the change to winter time:

Month when DST ends > Month number [10..12]
Week when DST ends > Week number [01..04]
Day when DST ends > Day number [00..06]*
Hour when DST ends > Hour in the day [00..23]

Example:
Paris Time Zone
Month:10 / Week:04 / Day:00 / Hour:03

5. Time difference between summer and winter:

Hour Bias > Number of hours [1..12]
Min Bias > Number of minutes [0..59]

Example:
Paris Time Zone
Hour Bias:1 / Min Bias:0
> +1 hour on winter time change (DST ends).
> -1 hour on summer time change (DST starts).

6. DST infos

DST On DST Off

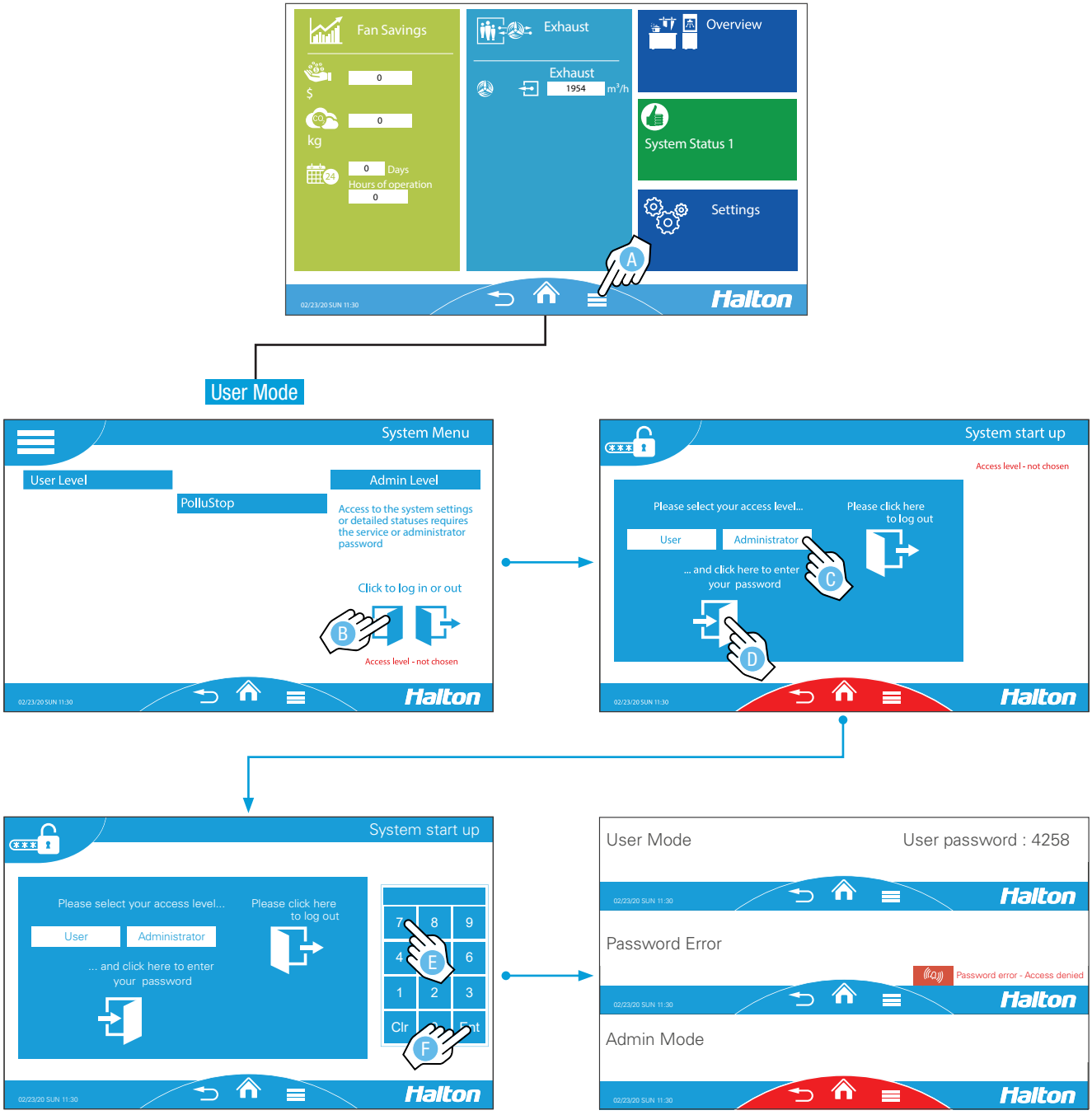
EN_DST: 1: Activated 0: Deactivated
L_Day of week: Actual day number

2.2 Administrator Access

2.2.1 Admin Login

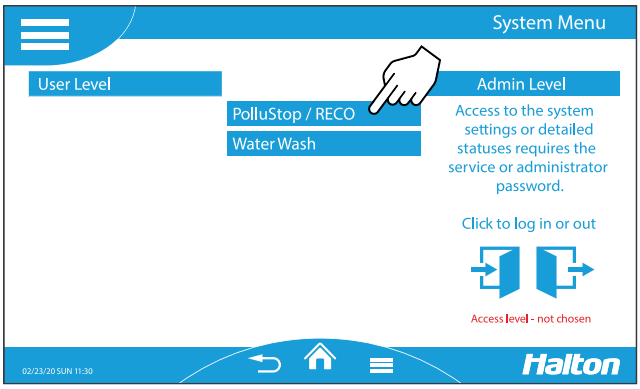
A. Select the 3 Bars at the bottom of the screen.
B. Select Administrator
C. Press the enter door symbol.
D. Enter the Admin password 4258
E. Press Ent.

NOTE: The bottom of the screen is grey in Admin mode. To exit Admin mode, select the back arrow and the exit door symbol.

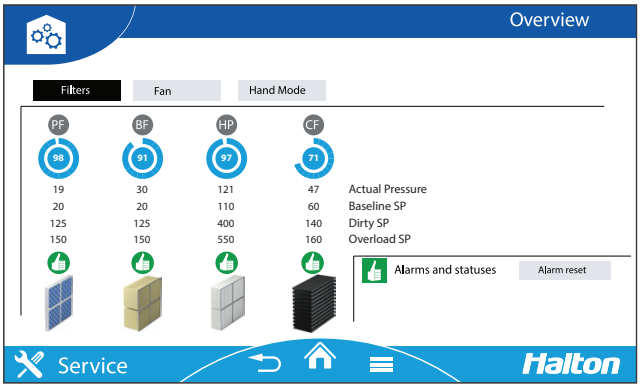


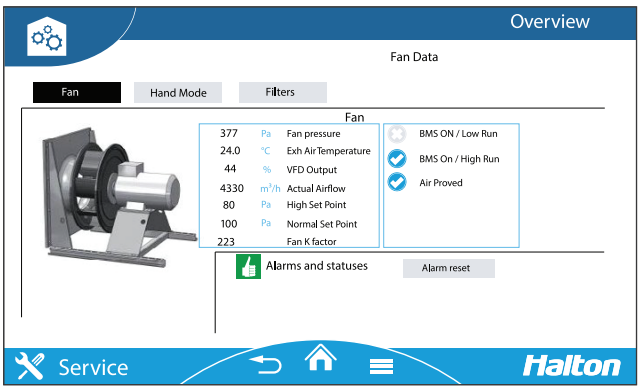
2.3 Pollustop Fan & Filter

Filter module alarms can be reset in both user and administrator modes. When this function is carried out in User Mode, the administrator functions are not displayed at all. An alarm can be reset only if it has been fixed beforehand. If this is not the case the “Reset Alarms” button won’t prompt effective action. When clicking on the button, it turns from blue to white. The resetting procedure is complete when the button turns back to blue.



2.3.1 Filters





PF Pre-filter

BF Bag-filter

HP HEPA-filter

CF Carbon-filter

87 Cleanliness level
0 is dirty
100 is clean

Clean

Dirty

Overload

Actual pressure:
Differential pressure on each filter

Baseline SP (Administrator mode only):
Pressure loss of the filter clean

(set from factory or during commissioning)

Dirty SP (Administrator mode only):
Pressure loss of the filter dirty
(set from factory or during commissioning)

Overload SP (Administrator mode only):
Pressure loss of the filter overloaded
(set from factory or during commissioning)

2.3.2 Fan

Fan pressure

Exhaust Air Temperature

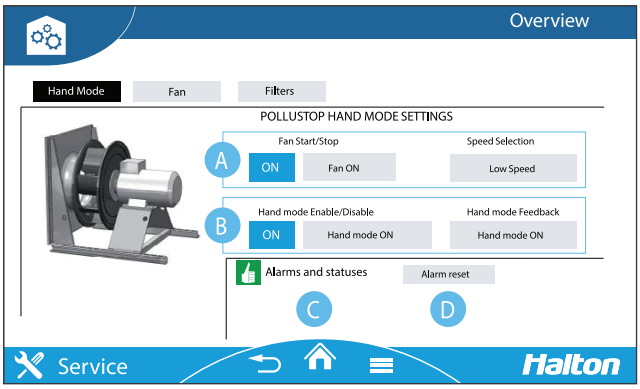
VFD Output:
Speed set point sent to the fan's frequency drive, expressed in % (0-10v output).

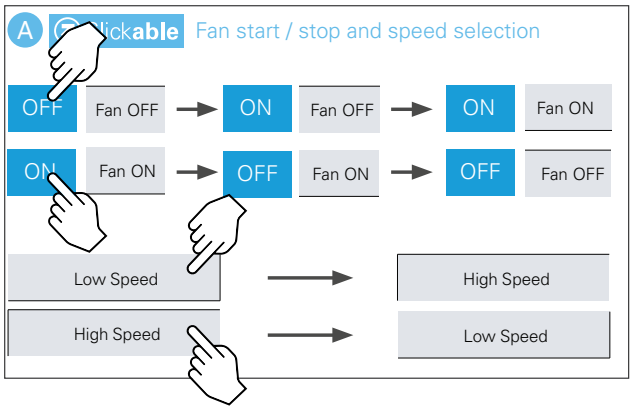
Actual Airflow:
Exhaust airflow rate at fan level calculated based on the fan pressure and its k airflow factor.

High and normal set points:
For constant pressure control logic only - High run and low run pressure set points.

Fan k factor:
k factor of the fan (provided by the manufacturer)

2.3.2 Hand Mode





3.1 Recommended Cleaning And Maintenance Schedule

IMPORTANT

Some commercial stainless steel cleaners leave residue or film on the metal that may entrap fine particles of food, deeming the surface not FOOD SAFE

WARNING

Wait until the unit has cooled to a safe temperature before undertaking any cleaning or maintenance. Contact with hot surfaces can cause burns and serious injury

For good kitchen hygiene, the exhaust hood should be visually inspected by management at least once per week. The below 'Cleaning and Maintenance Schedule' can also be found attached on the inside of the exhaust hood. These provide a cleaning guide for Extreme, Heavy and Light duty operation. Regular tasks for the operator include cleaning the hood's surfaces, emptying the grease pots and washing the filters. Additionally, a service technician is required to periodically perform routine maintenance tasks.

This schedule is only a guide. The frequency of cleaning will depend on the type and duration of cooking as well as the product and cooking oils used.
Legend:

- X – extreme usage
- H – heavy usage
- L – light usage

Item	6-12 Hours	Daily	Weekly	2 Weeks	1 Month	3 Months	6 Months	12 Months
Check Indicator Lights Match Operation	X	H	L					
3.2 Clean Exposed Hood Surfaces	X	H	L					
3.3 Grease Pots - Inspect and Empty	X	H	L					
3.4 KSA Cyclonic Filters – Inspect and Wash		X	H	L				
3.5 Replace Pleated Filters (when touchscreen shows dirty or before) Maximum period cycle is monthly			X	H	L			
3.5 Replace HEPA Filter (when touchscreen shows dirty or before) Maximum period cycle is 6 monthly					X	H	L	
3.5 Replace Carbon Filters (when touchscreen indicates or before) Maximum period cycle is 12 months						X	H	L
** Inspect And Service Exhaust Fan						X	H	L
Check Exhaust Hood Airflow Balance						X	H	L
Clean and Service Capture Jet Fans Check fasteners are all tight								X, H, L
Test Emergency Stop Button								X, H, L

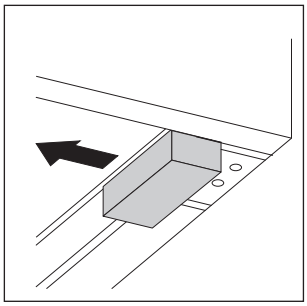
3.2 Exposed Pollufresh Surface

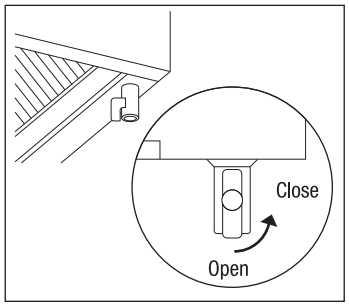
Check all metal surfaces to ensure that there is no accumulation of grease or dirt and that there is no surface damage that could harbour dirt and bacteria. Clean exposed interior and exterior surfaces of hood and light fixture with mild soapy water or a neutral product. Carefully rinse away all surplus cleaning product.

Cleaning Task	Cleaning Agent	Comments
Routine cleaning	Use mild detergent and warm water	Use a sponge or clean cloth, rinse with clean water, wipe dry if necessary
Oil or Grease	Use cleanser or organic solvents (e.g. acetone, alcohol or methylated spirits)	Apply cleanser to a damp cloth or sponge and rub cleanser on the metal
Stubborn stains, soil and burnt deposits	Mild cleaning solutions (e.g. specialty stainless steel cleaners)	Use rag or fibre brush (soft nylon or natural bristle) or scotch-brite™ scouring pads. Do not use steel wool. Rub in the direction of the grain and polish lines. Rinse well with clean water and wipe dry

3.3 Grease Pots – Inspect and Empty

1. Regularly check grease collection pots as they collect the oil separated from the exhaust air
2. To remove the pot from the hood, lift and slide the pot forward out of its holder (carefully if it is full and hot)
3. Empty the oil into a waste oil container for recycling
4. Wash the pot with hot soapy water before re-fitting it to the hood
5. Replace the pot immediately as oil will continue to drip from the drain
   Note: for hoods that have a drain tap instead of a grease pot, hold a bucket under the drain and turn the tap to release collected oil

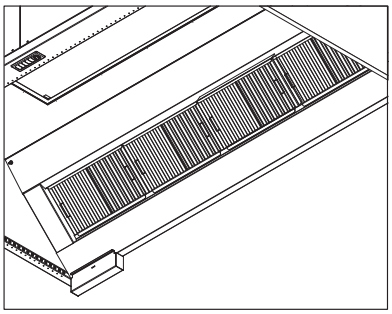




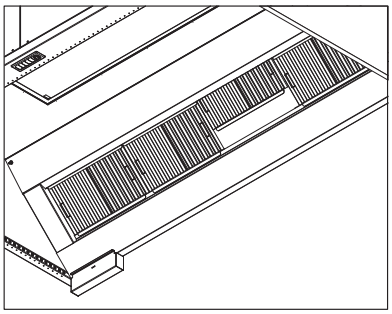
3.4 KSA Cyclonic Filters – Inspect and Wash

The KSA filters in the exhaust hood should be inspected daily and removed for washing as required. Depending on the cooking activity and intensity the frequency of cleaning can range from daily to weekly.

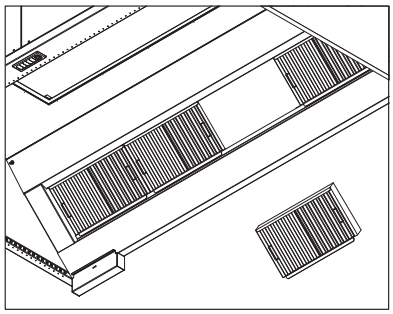
1. Switch off the exhaust fan
2. Remove the blanking panels
3. Take note of filter positions (to ensure any blind panels are positioned in same location)
4. Remove each KSA filter from the hood
5. Wash particulate off the filter in the pot sink with detergent, using spray-rinse and a brush or cloth
6. Place filters in a dishwasher basket, and pass through the dishwasher
7. Dry the filters & re-fit into the hood
8. Make sure the filters are properly located with both top and bottom hanging rails in place. (If there is a Filter to fan interlock, the fan will not restart when a filter is removed or not positioned properly)



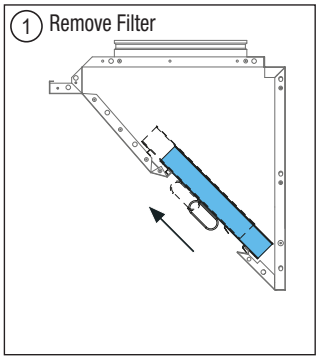
Filter Arrangement

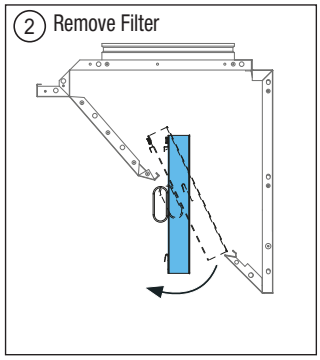


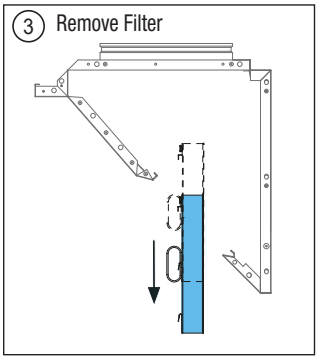
Filter Removal

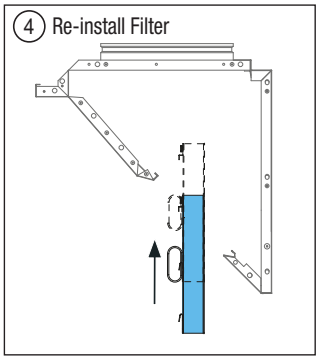


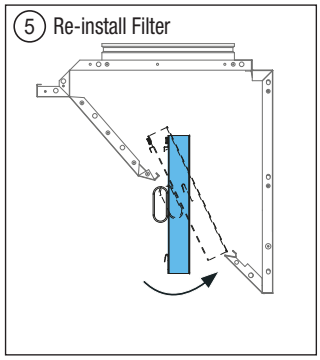
Filter Arrangement Post Removal

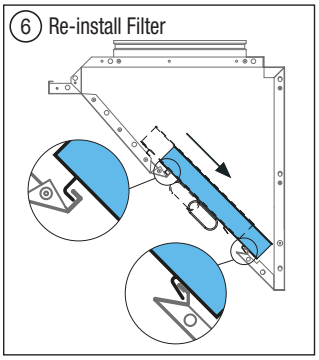










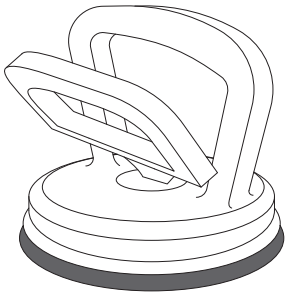


3.5 Pollufresh Filter Inspection and Replacement

(Must be completed by Qualified & Trained Service operator)

The touch screen filter indicates the pressure drop across each filter. The filters should be replaced when dirty (or earlier - according to an agreed service schedule). The filters must not be left in service when overloaded. If the filters are not replaced before pressure increases to “overload” the shutdown timer will commence & the system will shut down the fan and cooking appliances if the filters are not serviced. Spare filters should be kept ready so that productivity is not unduly interrupted.

- Turn the Fan off and switch the Power isolation switch to OFF
- Use the Key to unlock the filter panels
- Loosen and rotate the off-centre latches
- Pull the door outwards and downward. (CAUTION: Doors are heavy. A little effort may be required to release the seal, be careful not to fall backwards)
- Note the direction of the filters (arrows, marks, etc.)
- Slide the dirty filter out and dispose of the dirty filters responsibly. (Use Suction Cup Grips)



- Wipe down the area to remove free oil and dirt
- Inspect the foam tape around the sealing surfaces. Replace foam tape if damaged
- Insert the new filters. (Check arrows and marks are correctly orientated)
- Refit doors and ensure the off-centre latches are secured. Tighten latches so the door is secure and sealed
- Lock the panels & return the key to the storage spot so it can be found next time
- Restart the system and inspect the touch panel to see pressures measured are consistent with new filters

3.6 Down Lights:

IMPORTANT

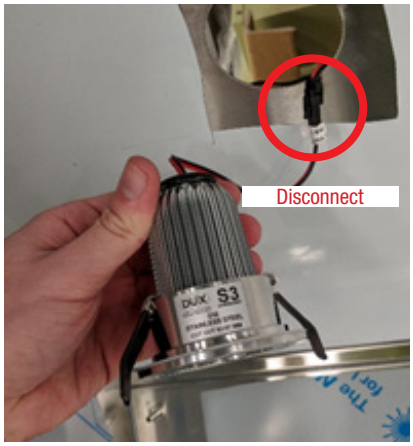
Before accessing the lights,
Ensure all power to the hood is switched off

WARNING

A qualified electrician or service technician is required for removing/ replacing the Down Lights and/or Driver.

1. Pull the down light down and out of the hood, this can be difficult. There are two spring clamps holding the lamp in. You may need to pry the light off the surface of the hood and use a screwdriver (or similar) to hold the clamps back. If it is possible, reach on top of the hood and hold the clamps back

2. Disconnect the light and replace it with a new one



3. If replacing the light doesn't fix the problem, the driver needs to be replaced by a qualified electrician, service technician or similarly qualified persons. The driver is attached with Velcro next to the light opening with enough cable to pull it through the hole

4. To replace the driver, pull it through the hole, undo the connections and replace it with a new one

5. Re-fit all lights and drivers as they were before. Ensure the driver is connected to the hood with Velcro again (reuse the Velcro from the old driver if need be)

4.7 Service the Capture Jet Fan

Every 12 months (typically) the Capture Jet fan will need to be serviced by a qualified technician. Contact the Stoddart service department.

3.7 Troubleshooting Procedures

- If any faults/issues occur with the unit, follow the below troubleshooting procedures
- If the troubleshooting procedures do not correct the problem, contact the Stoddart Service Department

Problem / Alarm Indication	Possible Cause(s)	Corrective Action(s)
Exhaust Fan not operating	• Power Isolated and/or "Fan Run" button is off • Filters not fitted properly or missing will interrupt fan start • Emergency stop • Shutdown • Fan run switch fault • Fan failure	• Check Isolator and Fan run button is on (Red LED illuminated and Hood Lights are illuminated). Check Touch screen Fan Tab for Fan. Run Signal (dot should be green) • Check Filter error status on touch screen. Fit filters properly. Reset Alarms • Filter Missing Alarm activates the Emergency Stop • Overloaded Filters initiates Fan shut down timer. (shuts when timed out) • Switch off and isolate for 10 seconds, try to restart. If fault persists, call to service switch or control module • Check status, contact Stoddart service department
Measured exhaust pressures at hood not as per rating plate	• Target Set Pressure in Touch screen is incorrect • Fan is in hand mode & manual speed set is not suited for the operation	• Check values on the touch screen (admin mode) • Set system to auto mode. The system adjusts the speed for the operating requirements
Exhaust Hood is not removing cooking fumes	• Filters are blocked or missing • Capture Jet not operating • Exhaust air not operating	• Check filter pressures and check filters are in position • Check capture jet fan is operating • Check exhaust fan is operating
Lights not working	• LED Bulbs or Drivers are faulty • LED Bulbs or Drivers are faulty	• Replace defective component • Fix damaged wiring
Cooking appliances not working	• The exhaust fan is not running • The exhaust fan has shut down • Cooking appliance fault	• Power Isolated or "Fan Run" button is off. Turn on • Emergency stop activates if filter missing alarm activates. Fit filters. Fan shuts down if filters are not replaced before reaching Overload status. Replace Filters • Contact Stoddart service department
Fire Alarm	• Fire alarm triggered • Fire alarm input not bridged • Alarm not reset • Fault with wiring	• Release fire alarm button/switch • Bridge fire alarm input if it's not being used • Reset the alarm on the touch screen • Inspect all wiring • If problem persists, contact Stoddart
Inverter Alarm	• Problem with VSD • Fault with wiring	• Inspect screen for alarms/warnings and refer to the VSD manual • Inspect all wiring • If problem persists, contact Stoddart
Communication Alarm	• Sections not connected together • Pollufresh not connected to touch screen • Communication cable fault	• Connect power/data connections between sections • Connect communication cable between Pollufresh modules and touchscreen • Inspect the communication cables for any signs of damage • If problem persists, contact Stoddart
Fire alarm doesn't work	• No input on fire terminals • Contact isn't normally closed • Fault with wiring	• Check that the chosen method of activation has an open circuit to trigger the fire alarm • Check that the fire alarm button/switch is normally closed • Inspect all wiring • If problem persists, contact Stoddart

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Australia

Australian Business Number: 16009690251

Service / Spare Parts

https://customerservice.stoddart.com.au

Sales

Tel: 1300 79 1954

Email: sales@stoddart.com.au

Web: www.stoddart.com.au

Customer Service Portal

New Zealand

New Zealand Business Number: 6837694

Service / Spare Parts

https://customerservice.stoddart.com.au

Sales

Tel: 0800 79 1954

Email: sales@stoddart.co.nz

Web: www.stoddart.co.nz

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