Resfab

Auto-Lift Electric Fryer Series:

MB-50AT/ATV

MB-85AT/ATV

MB-502AT/ATV

Installation & Operations Manual

www.resfab.com

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RECORD THE FOLLOWING INFORMATION HERE FOR

EASY & QUICK REFERENCE.

Model: _____

Serial Number(s)_____

_____

Voltage: _____ Phase: _____

Date Installed: _____

Location: _____

Be ready to provide this information when calling for service or repair parts.

Service/Parts: CALL 1-866-359-0808 or EMAIL technicalsupport@resfab.com

Parts List Specific for MB-50

- Fryer Basket Double Basket for Low Boy & Ventless Models 14739DH
- Fryer Basket Single Basket for Low Boy & Ventless Models 14739P
- HEPA & Charcoal Filters for Ventless 89071

Parts List Specific for MB-85

- Fryer Basket Double Basket for Low Boy & Ventless Models 14839DH
- Fryer Basket Single Basket for Low Boy & Ventless Models 14839P
- HEPA & Charcoal Filters for Ventless 89072

Parts List Specific for MB-502

- Fryer Basket Double Basket for Low Boy & Ventless Models 14739DH
- Fryer Basket Single Basket for Low Boy & Ventless Models 14739P
- HEPA & Charcoal Filters for Ventless 89075

Parts List General for all Fryer Models

- O-Ring Gasket for Drain Pan Nozzle 74103
- Grease Cup 89120
- Drain Brush 99204
- Square Pot Brush 99207
- L Shaped Brush 99208
- Brush Kit (3 Above Brushes) 99200
- Crumb Shovel 99205

LIMITED WARRANTY STATEMENT

Resfab Equipment warrants that, at the time of shipment, the Product(s) shall be free of defects in material and workmanship, for a period of 2 (two) years from the date of original installation. Resfab Equipment reserves the right to change or improve its equipment and parts in any way without obligation to alter such equipment or parts previously manufactured. Limited warranty coverage is extended to the original owner only, and is void if the unit is resold.

THIS WARRANTY IS LIMITED TO PRODUCT(S) SOLD BY RESFAB, AN AUTHORIZED DISTRIBUTOR, AND/OR AN AUTHORIZED FOODSERVICE EQUIPMENT DEALER, TO THE ORIGINAL USER/OPERATOR IN THE CONTINENTAL UNITED STATES, CANADA, AND MEXICO. THIS WARRANTY IS THE COMPLETE AND ONLY WARRANTY, EXPRESSED OR IMPLIED IN LAW OR IN FACT, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND/OR FOR DIRECT, INDIRECT OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH RESFAB PRODUCTS. This warranty is void if it is determined that, upon inspection of an authorized service agency, the equipment has been modified, misused, misapplied, improperly installed, or damaged in transit, or by fire, flood, power surges, cosmetic damage, or act of God. The warranty also does not apply if the serial nameplate has been removed or if the service is performed by unauthorized personnel. The prices charged by Resfab Equipment for its products are based upon the limitation in this warranty. Sellers obligation under this warranty is limited to the repair of defects without charge by a Resfab Equipment authorized service agency.

Resfab will assume normal labor charges incurred in the repair or replacement of warranted equipment within 50 (fifty) miles of an authorized service agency. Time and travel in excess of 100 (one hundred) miles ROUND TRIP will be the responsibility of the person or firm requesting service. All labor shall be performed during Service Agencies regular working hours. Overtime, holiday, weekend rates, and/or additional fees will be charged to the requestor. All genuine Resfab replacement parts must be used. No generic, similar, or aftermarket parts are allowed. Charges incurred by delays, waiting time, or operating restrictions that hinder the service technician's ability to perform service are not covered by warranty. Under no circumstance shall Resfab be liable for the loss of use, loss of revenue, loss of product, loss of profit, or for indirect, incidental, special or non-sequential damages.

The obligations of Resfab under this warranty shall be limited to repairing or replacing (at Resfab's option) any part, with the exception of lamps, fuses, indication lights and glass, resetting of circuit breakers, fuse replacement, resetting of pumps, resetting of high-limit devices, pump replacement due to clogs or from use of non-Resfab filter or paperless filter, improper care of filter pan, misapplication of filter powder, replacement of O-rings and/or gaskets and/or silicon caulking, tightening of loose fittings, minor adjustments, equipment maintenance or cleaning, boil overs (causing damage to switches, PLC, touch-screens, communication cables, PCB, relays), breakage of thermostat, breakage of bulb or capillary or reset switch of high-limit, defects in the ventless blower caused by the accumulation of grease due to poorly maintained hood and/or exterior exhaust duct, and/or any LOSS OF PRODUCT or PROFIT resulting from equipment malfunction, power surge affecting the controller or any other electrical part.

All problems due to electrical connections not made in accordance with electrical code requirements and supplied wiring diagrams are not covered. All problems related to voltage fluctuations or variations are not covered.

Resfab does not recommend or authorize the use of any Resfab product(s) for non-commercial applications, including but not limited to residential use. The use of installation product(s) in non-commercial applications renders all warranties, expressed or implied, including the warranty of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE, null and void, including any responsibility for damage, costs, and legal costs and action(s) resulting from the use or installation of product(s) in any non-commercial setting.

This warranty is exclusive. All other warranties, expressed or implied, are excluded.

Warranty includes: 90 (ninety) day Fryer Basket warranty.

Misuse of the equipment may result in void of warranty. Resfab, at its sole discretion, determines if a warranty is to be void.

INDEMNITY: Buyer agrees to indemnify, hold harmless, and defend Resfab from and against any and all liabilities and expenses arising out of any injury or damage with results form Buyer's use, misuse, negligence, misapplication, modification, ownership, failure to inspect, maintain, repair the product(s), or Buyer's violation or alleged violation of any federal, state, provincial, county, municipal, or local laws and/or regulations. Including, without limitation, the laws and regulations governing product safety and labor practices.

SAFETY OVERVIEW

The instructions contained in this manual are intended to aid in learning the proper procedures for installing, operating and servicing this unit.

Throughout this manual, safety precautions are identified by use of safety alert symbols and three alert keywords: **DANGER …WARNING…CAUTION**. Safety alert information precedes the step(s) or activity to which it applies. Suggested, recommended, or other noteworthy information is identified by use of the keyword **NOTE.**

Safety Alert Symbols
Used in conjunction with key alert words (DANGER…WARNING…CAUTION) to signify potential personal injury hazards. These alerts immediately precede precautionary information. Adhere to all safety notices following these symbols to avoid possible injury or death. Failure to comply with safety precautions identified by the safety alert symbols may also void the manufacturer's warranty.

DANGER

Indicates an imminently hazardous situation, which will result in serious personal injury and possible death, if not avoided. Use of this alert is limited to the most extreme situations.

WARNING

Indicates a potentially hazardous situation or unsafe practice, which may result in minor to moderate personal injury, if not avoided.

CAUTION

Indicates a potentially hazardous situation, which could result in serious personal injury and possible death, if not avoided.

CAUTION

When used without the safety alert symbol, CAUTION indicates a potentially hazardous situation which, may result in equipment or property damage and void the warranty, if not avoided.

SAFETY RULES

WARNING: Always meet FDA / CFIA Food Handling and Temperature Guidelines.

RECOMMENDATION: Before using the fryer, it is important to read and understand all the instructions and recommendations of this manual.

SAFETY RULES:

1. Keep the area and the floor around the fryer clean
2. Do not overfill the fryer with oil, oil must be at the fill line to operate safely
3. Never operate the filter system without oil in the system
4. Never operate the filter system w/water in fryer pot: Warranty is VOID
5. Do not overload the fryer with food
6. Keep the casters locked, unless moving “COOL” fryer to clean floor
7. Always turn the power off and unplug the fryer before cleaning or servicing
8. Never turn the fryer on if the back panel is not in place
9. At the end of the day, before closing, make sure that the fryers are OFF
10. Certain surfaces of the fryer can be very hot; To prevent any burns, locate the fryer in an area inaccessible to the public
11. **Always wear heat resistant gloves when cleaning all parts of the fryer**

RECOMMENDATION: Great care must be taken when handling food products. These following basic rules must be applied to prevent contamination.

HYGIENIC RULES:

1. Always wear a hair net where food is going to be handled
2. Before handling food, always wash your hands with soap and water
3. The use of plastic gloves is recommended
4. Never touch food that has been cooked after you have handled uncooked food
5. Always wash your hands before handling cooked food
6. Be sure to use a clean and disinfected sink to clean and rinse food
7. The food that has been cooked must be kept at a minimum internal temperature of 140°

SAFETY RULES

DANGER

1. **Hot oil** is very dangerous. It can cause serious injuries and death. NEVER attempt to move a fryer containing hot oil or to transfer hot oil from one container to another
2. Turn off the Fryer before cleaning or performing any maintenance activity.
3. DO NOT wash down the unit's exterior with water from a spray hose
4. Failure to comply with these DANGER notices can result in serious injury or death, equipment or property damage and void the warranty
5. Consult a qualified electrician to ensure that:
   - All electrical specification and code requirements are met
   - Circuit breakers and wiring are of sufficient rating and gauge for this equipment
6. During installation, the unit must be properly grounded and must comply with all local & county electrical requirements
7. Improper installation or adjustment, unauthorized alteration, or improper service and maintenance could result in serious personal injury or death, equipment or property damage
8. **DO NOT** use or store; gasoline, other flammable liquids, or materials that release flammable vapors in the vicinity of this or any other electrical appliance
9. During cooking operations, the oil level **MUST** be maintained at the indicated level. If not maintained at that level the heating elements will be exposed causing a possible oil fire
10. Failure to comply with **WARNING** notices could result in serious personal injury or death, equipment or property damage, and void the warranty

UNPACKING

WARNING

- Exercise care when lifting or moving the palletized unit, when removing packing materials, or removing unit from the shipping skid.

STICKER ON CARTON: NOTICE

PLEASE BE AWARE THAT IT IS THE RECEIVING PARTY'S RESPONSIBILITY TO REPORT ANY DAMAGE CONCEALED OR NON-CONCEALED WITH THE FREIGHT COMPANY.

Resfab's responsibility for damages to the unit ends when the freight company's agent signs for the freight at the time of shipment.

CHECK FOR DAMAGE!

Immediately inspect the unit for any freight damage
If any damage is evident:

1. Retain the shipping carton
2. Record damage with the truck driver on the bill of lading, sign and give to the driver
3. TAKE PICTURES at time of receiving the equipment
4. Call the freight company at once to file a claim

UNPACKING:

1. Open the fryer box by cutting the steel straps
2. Remove the fryer from the wood skid
3. Remove the box by pulling straight up on the cardboard
4. Remove the wrapping material carefully.
5. Visually inspect the fryer. If something is wrong, immediately advise Resfab contact, and freight carrier

Each unit is shipped with the following accessories:

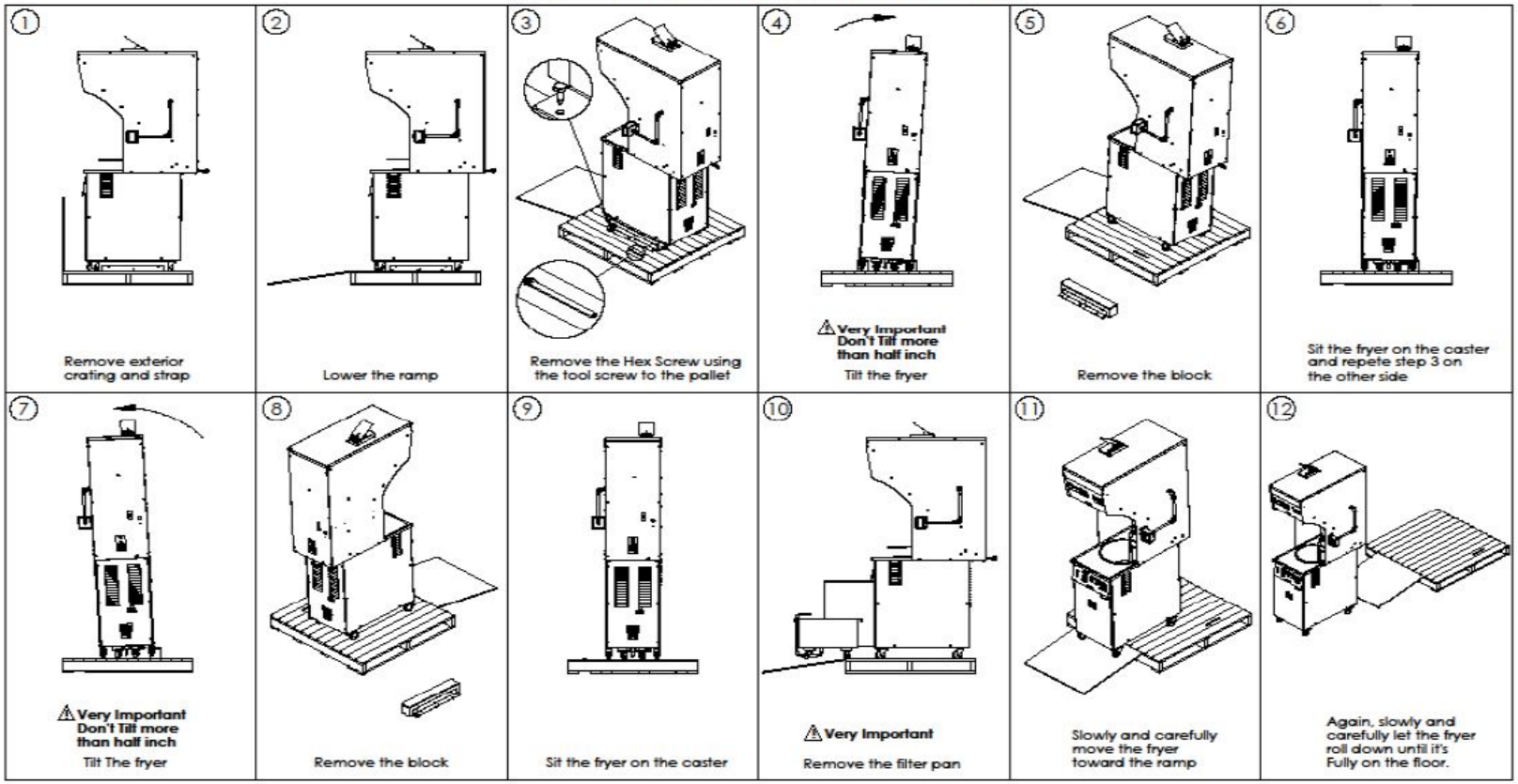
ACCESSORIES

1. Square Brush (2)
2. "L" Shaped Brush (1)
3. Straight Drain Brush (1)
4. Crumb Shovel (1)
5. Metal Stir Paddle (1)
6. Baskets (MB-50/85 1 full & 2 half baskets, MB-502 2 full & 4 half baskets)
7. Oil Discharge Hose (1)
8. Filter Pan Pull Handel (1)
9. Pot Lid (1)
10. Paperless Filter (1)
11. Instruction Manual (1)
12. Warranty Card (to be filled out and emailed to customerservice@resfab.com)

FRYER UNCRATING

VENTLESS FRYER CRATING

VENTLESS UNCRATING INSTRUCTION



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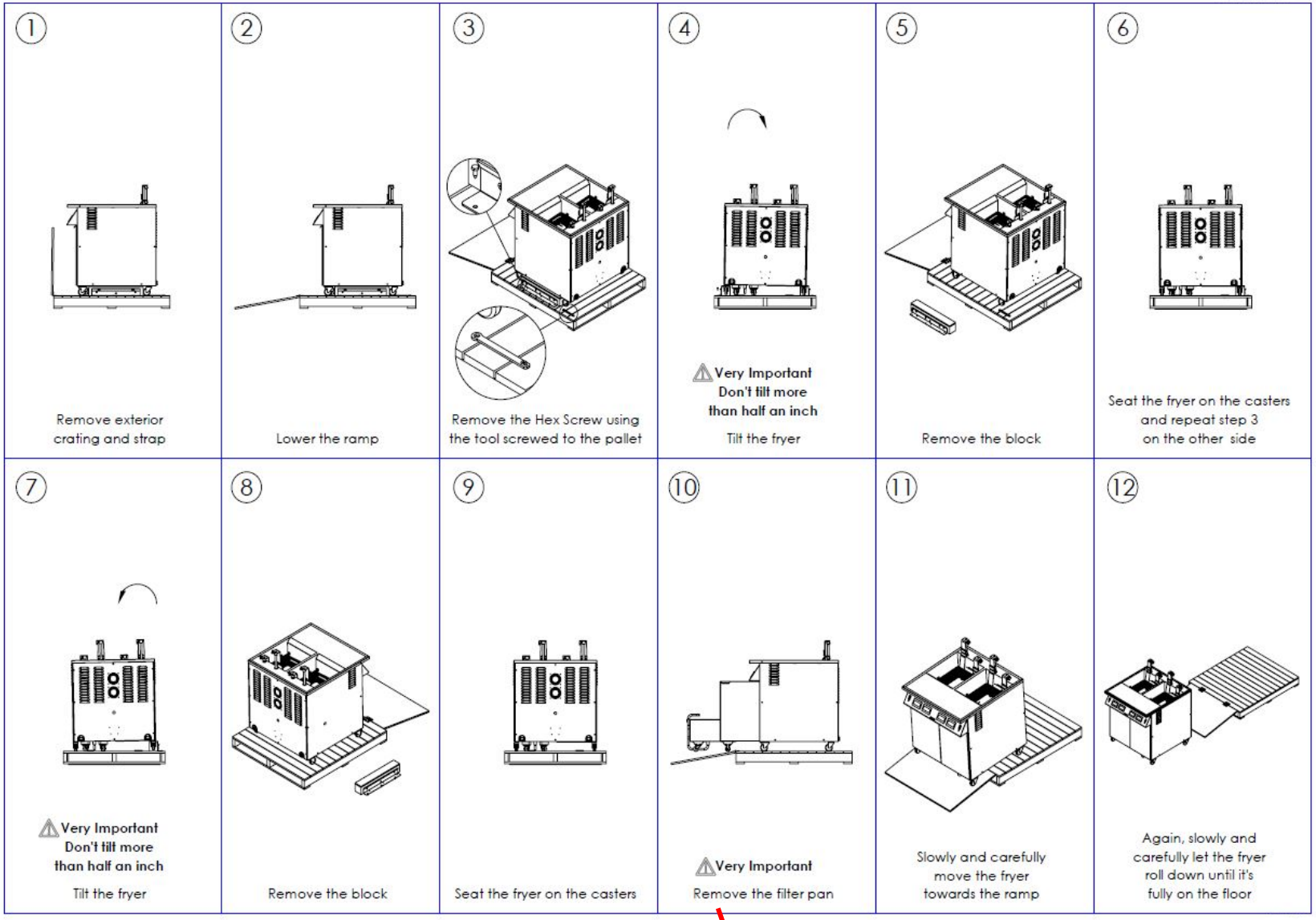
Very important
Remove the filter pan.

MB-502 UNCRATING INSTRUCTION



Very important Remove the filter pan

ELECTRICAL INSTALLATION AND CONNECTIONS

General Installation Requirements

Proper installation is essential for the safe, efficient, trouble-free operation of this fryer.

Qualified, licensed, and/or authorized installation or service personnel, should perform all installation and service on Resfab equipment.

Failure to use qualified, licensed, and/or authorized installation or service personnel to install or otherwise service this equipment can void the Resfab warranty and may result in damage to the fryer or injury to personnel.

Where conflicts exist between instructions and information in this manual and the local or national codes or regulations, installation and operation shall comply with the codes or regulations in force in the Municipality, County, State / Province, Country, in which the equipment is installed.

If service is required, contact RESFAB – technicalsupport@resfab.com 1-866-359-0808

POWER REQUIREMENT

The fryer must be connected to the voltage and phase specified on the Name Plate. Use a copper electric wire having temperature rating of not less than 194°F (90°C). Installation must conform with your local electrical codes.

⚠DANGER

Adequate means must be provided to limit the movement of this appliance without depending on or transmitting stress to the electrical conduit. ***Hard wired units must include installation of restraint devices.***

⚠DANGER

This appliance must be connected to a power supply having the same voltage and phase as specified on the name plate located on the inside of the fryer door or warranty is voided

⚠DANGER

All wiring connections for this fryer must be made in accordance with the wiring diagram(s) furnished with the fryer.

⚠DANGER

Building codes prohibit a fryer with its open tank of hot oil being installed beside an open flame of any type, including those of broilers and ranges.

NOTICE

All fryers are shipped without cords and must be hardwired using flexible conduit to the electrical base located on the rear of the fryer or with cord & plug. These fryers should be wired to NEC specifications.

NOTICE

If the electrical power supply cord is damaged, it must be replaced by a qualified/licensed electrical to avoid a hazard.

Electrical Installation and Connections Continued

This information is for reference only.

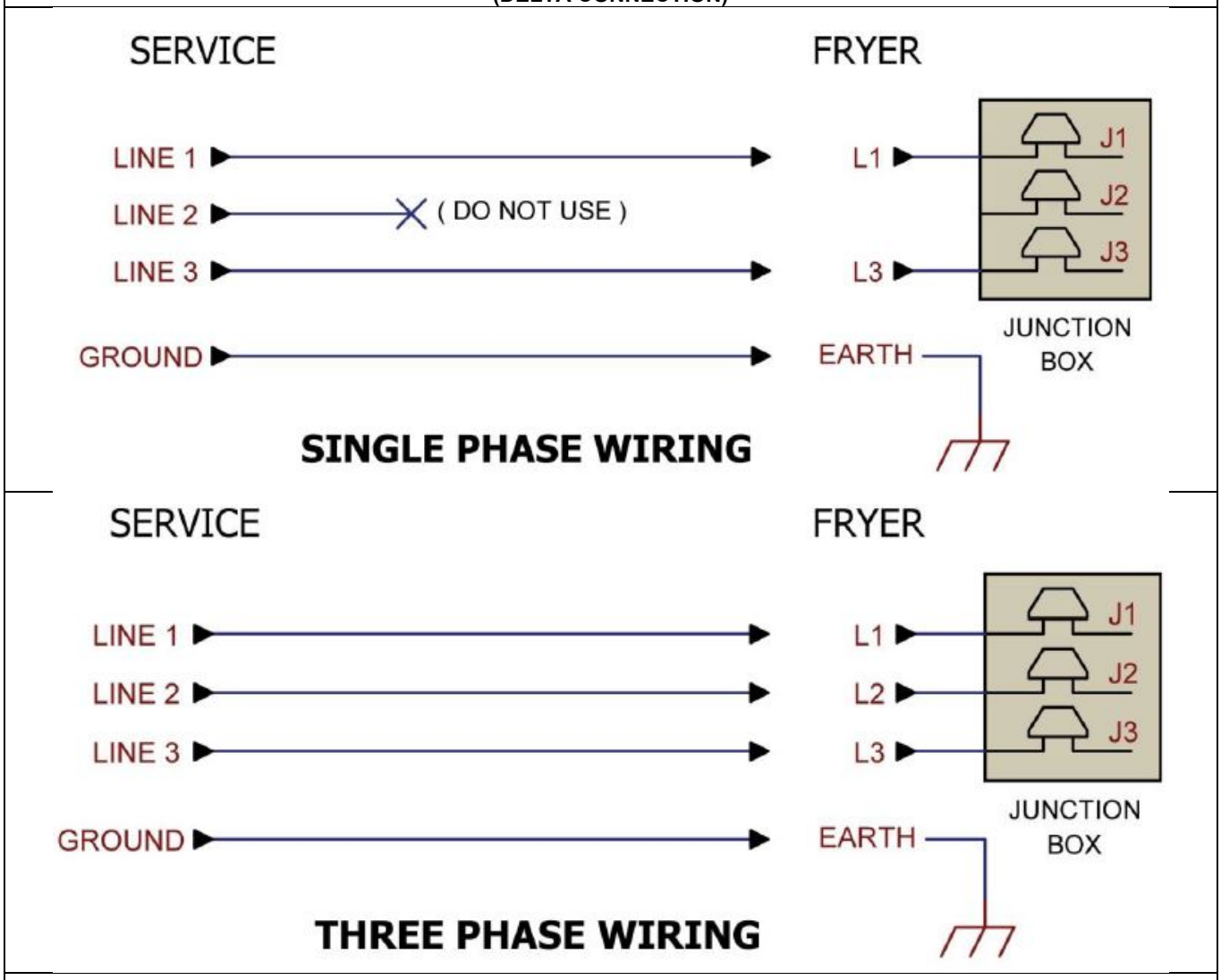
•The local electric code always prevails in the case of a conflict of information.

IMPORTANT: A New, dedicated (single) Circuit Breaker MUST be Installed!

MODEL	WATTAGE HEATER	VOLTAGE	PHASE	AMPERAGE	BREAKER
MB-50AT	14400	208	1	74	90
		240	1	65	80
		208	3	45	60
		240	3	39	50
MB-50ATV	14400	208	1	76	90
		240	1	67	80
		208	3	47	60
		240	3	41	60
MB-502AT	2 X 14400	208	1	74/72	2 X 90
		240	1	65/63	2 X 80
		208	3	45/63	2 X 60
		240	3	39/37	3 X 60
MB-502ATV	2X 14400	208	1	78/72	2 X 90
		240	1	69/63	2 X 80
		208	3	49/43	2 X 60
		240	3	43/37	3 X 60
MB-85AT	19800	208	3	60	80
		240	3	52	70
MB-85ATV	19800	208	3	64	80
		240	3	56	70

SERVICE WIRE CONNECTIONS

(DELTA CONNECTION)



NOTES:

1) **MUST BE CONNECTED TO THE VOLTAGE AND PHASE SPECIFIED ON THE SERIAL NUMBER PLATE**
2) **USE A COPPER WIRE SUITABLE FOR AT LEAST 194°F (90°C)**
3) **INSTALLATION MUST CONFORM WITH YOUR LOCAL ELECTRIC CODES**

RESFAB VENTLESS FRYERS

With Ansul R-102 Fire Suppression System

For the **MB-50ATV** & **MB-85ATV**:

- 1.5-gallon fire suppression agent liquid
- Supply nitrogen model LT-20-R or Co2 101-10 cartridge

For the **MB-502ATV**

- 3 gallons fire suppression agent liquid
- Supply nitrogen model LT-30-R or Co2 101-20 cartridge

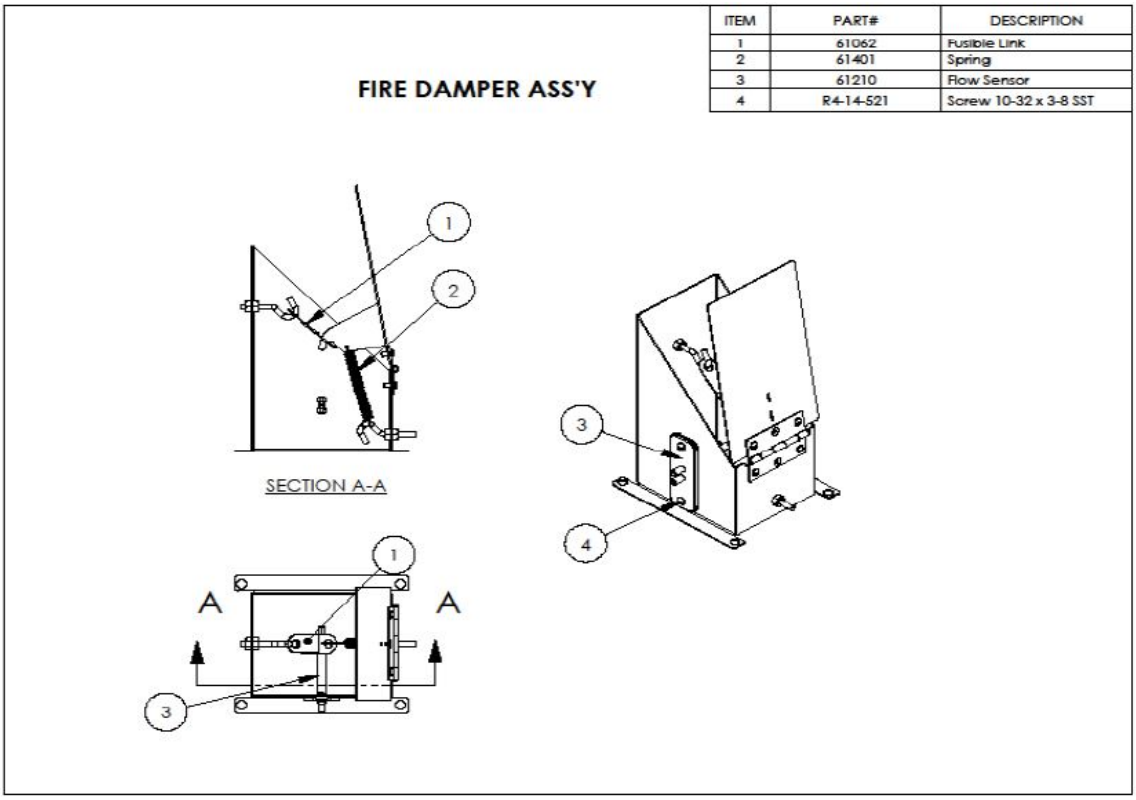
PLEASE FORWARD THIS TO YOUR ANSUL R-102 CERTIFIED DEALER SO THEY BRING THE APPROPRIATE LIQUID AGENT AND CARTRIDGE TO YOUR SITE.

END USER RESPONSIBLE FOR THE COST OF CHARGING THE SYSTEM.

Services :

System must be charged by authorized technician after a discharge incident of the R-102.
System must be serviced for semi-annual examination every 6 months by a certified technician.
System must be serviced for 12 year examination by a certified technician

https://www.ansul.com/find-a-distributor **1-800-862-6785**



ITEM	PART#	DESCRIPTION
1	61062	Fusible Link
2	61401	Spring
3	61210	Flow Sensor
4	R4-14-521	Screw 10-32 x 3-8 SST

Technician will also need to set the damper system ON THE TOP OF THE HOOD.

DAILY PROCEDURES

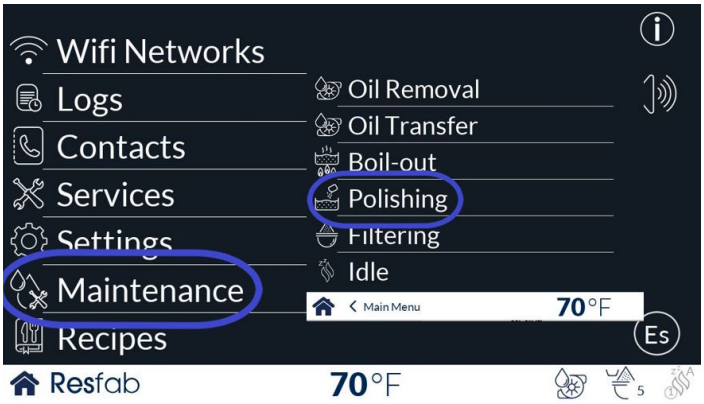
STIR AFTER:
-SLEEP MODE
-FILTERING
-FIRST LOAD OF THE DAY
-NOTIFIED DURING COOK CYCLE

FRYER CLEANING / POLISHING

- **TURN FRYER ON**
- **CHECK OIL LEVEL – TOP OFF TO THE FILL LINE IF NEEDED**
- **PREPARE FILTER POWDER QUANTITY FOR THE POLISHING**

Follow the Directions and quantity from Filter Powder manufacturer

- **HAVE POT BRUSH AND GLOVES READY**
- **START POLISHING OPERATION:**



- **SCRAPE OUT CRUMBS FROM THE FRYER POT**
- **FOLLOW POLISHING INSTRUCTIONS ON THE FRYER'S SCREEN**
- **ONCE ALL THE OIL IS PUMPED OUT OF THE FILTER PAN, OBSERVE AIR BUBBLES MINIMUM 30 SECONDS**
- **POLISHING COMPLETED**

PAPERLESS FILTER AND FILTER TANK CLEANING

- **DISSASEMBLE AND CLEAN PAPERLESS FILTER: HOT WATER ONLY – AIR DRY PAPERLESS FILTER**
- **WIPE OUT ALL CRUMBS FROM FILTER TANK, ENSURE CRUMBS DO NOT ENTER DRAIN HOLE**
- **RUN HOT WATER THROUGH HOLE OF FILTER PAN TO ENSURE PIPE IS UNOBSTRUCTED**
- **ALLOW PIPE TO DRY COMPLETELY**
- **CLEAN THE INTERIOR AND EXTERIOR OF THE FILTER TANK WITH A PAPER TOWEL**

VENTLESS FRYER CLEANING

- **REMOVE AND CLEAN GREASE BAFFLE & DRIP CUP**

WEEKLY MAINTENANCE:

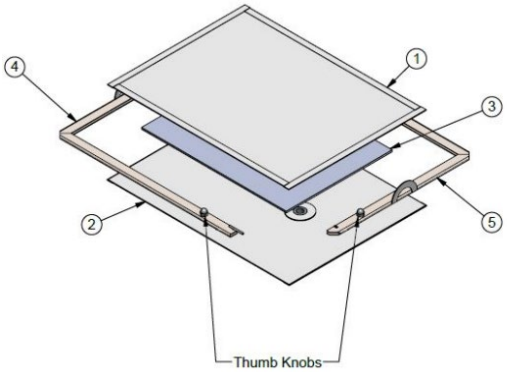
- **BOIL OUT – FOLLOW INSTRUCTIONS ON THE FRYER'S SCEEN**
- **CHECK OIL TO SEE IF IT NEEDS DISPOSED OF USE OIL TEST KIT**

FOR OIL REMOVAL TO OIL CADDY, JUGS OR RTI ➔

CAUTION **NEVER RUN WATER THROUGH THE FILTER SYSTEM**

PAPERLESS FILTER

Disassembly, Assembly and Cleaning Instructions

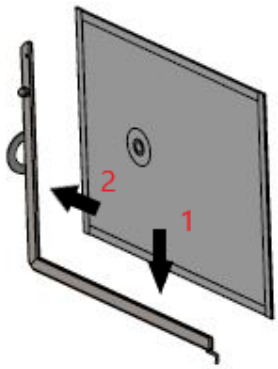


#			Qt
1	89220	LOWER FILTER ASSEMBLY	1
2	89210	DRAIN PLUG FILTER ASSEMBLY	1
3	89202	INSERT FILTER TUB. SLIT BRIDGE SCREEN	1
4	89240	OUTER FILTER FRAME	1
5	89230	OUTER FILTER FRAME WITH HOOKE	1

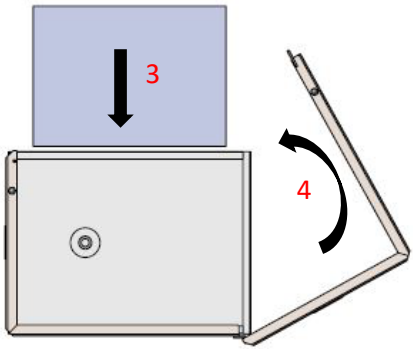
To disassemble the Paperless Filter Assembly

Grasp the outer frame thumb knobs and pull apart. The outer frame will be in two pieces as shown below.

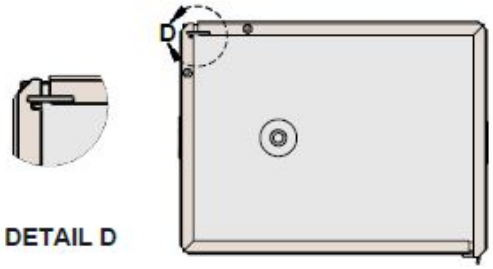
To assemble the Paperless Filter Assembly



Put filter #① and #② together and put them in the channel of the part #5



Put filter #③ between the two other filters



Attach part #④ to the Hook of the part #⑤ and slide the filter in the channel of that part

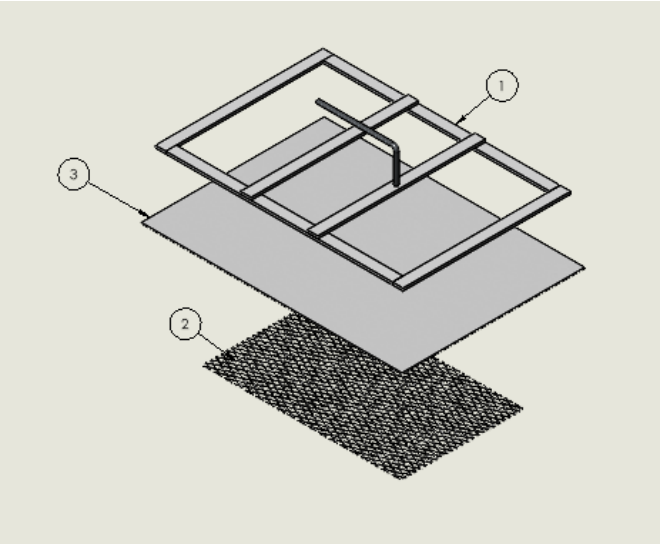
Cleaning the Paperless Filter Assembly

1) Disassemble the Paperless Filter as shown above.
2) Clean the two outer seal frame pieces (1), screen (2), and insert (3) with hot water from a spay nozzle. If necessary, the channel in the outer frame pieces (1) can be cleaned with the edge of a SCOTCH-BRITE type pad.
3) Each time a fryer is boiled out, the disassembled Paperless Filter should be placed in the fryer being boiled out. The Paperless Filter should then be placed in a neutralizing bath of weak vinegar solution followed by a water rinse.
4) Thoroughly dry all Paperless Filter parts. (Air drying is OK.)
5) Reassemble the Paperless Filter as instructed above in the assembly portion; ensure that the outer frame thumbs knobs (the welded acorn nuts) are facing up.

PAPER FILTER

To disassemble the Paper Filter Assembly

1. Pull part 1 (paper filter holder) up and out of the oil pan.
2. Replace paper filter with a new one (part 3)
3. If needed, rinse part 2 (filter screen mesh)



#				Qt
1	14862	PAPER FILTER HOLDER ASSY MB-85		1
2	14867B	ÉCRAN FILTREUR MB-85	Acier déployé 1/16	1
3	89006	PAPER FILTER MB-85	FILTRE EN PAPIER	1

CLEANING THE FILTER PAN

Instructions: using **Paperless Filter**

1. Scrape with crumb shovel entire Filter Pan to remove crumbs
2. Perform manual filter
3. Pull Filter Pan out to cool (to the touch)
4. Remove Paperless Filter
5. Remove any remaining crumbs w/crumb shovel
6. Wipe out any remaining crumbs with paper towels
7. Use sprayer, hose, or waterspout and run water through drain hole in bottom of filter pan or fryer connection tube to remove any crumbs/sediment that may have gone into drain hole when removing paperless filter
8. Wipe down sides, bottom & casters
9. Wash with HOT WATER ONLY, DO NOT USE SOAP or DETERGENTS, rinse, sanitize and air-dry paperless filter
10. Reassemble dry paperless filter and then place the paperless filter in pan

Instructions: Using **Paper Filter**

1. Scrape with crumb shovel entire Filter Pan to remove crumbs
2. Perform manual filter

3. Pull Filter Pan out to cool (to the touch)
4. Remove hold down bracket
5. Remove filter paper and discard
6. Remove any remaining crumbs w/crumb shovel. Wipe out any remaining crumbs with paper towels
7. Use sprayer, hose, or waterspout and run water through drain hole in bottom of filter pan or fryer connection tube to remove any crumbs/sediment that may have gone into drain hole when removing paper filter
8. Wipe down sides, bottom & casters
9. Stall Spacer in Paper Filter Pocket, place down over drain hole
10. Replace hold down bracket

NEVER run water though the Pump

CLEANING VENTLESS HOOD

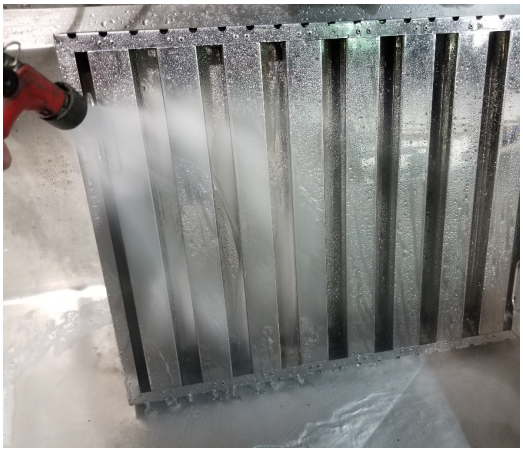
WEEKLY, and AFTER BOIL-OUT

1. Remove Grease Baffle Filter
2. Remove HEPA and Charcoal Filters
3. Using a damp soapy cloth, wipe entire inside of Ventless Hood, up to and including fan cage. When cleaning the blower cage be careful when cleaning the blades
4. Reinstall HEPA and Charcoal Filters
5. Reinstall Grease Baffle Filter

CAUTION Not cleaning the ventless hood may damage the blower and void the warranty.

GREASE BAFFLE FILTER DAILY CLEANING INSTRUCTIONS

Use a mild soap and brush to clean Grease Baffle Filter or run through dishwasher using non-caustic (aluminum-safe) soap only.



Rinse with water

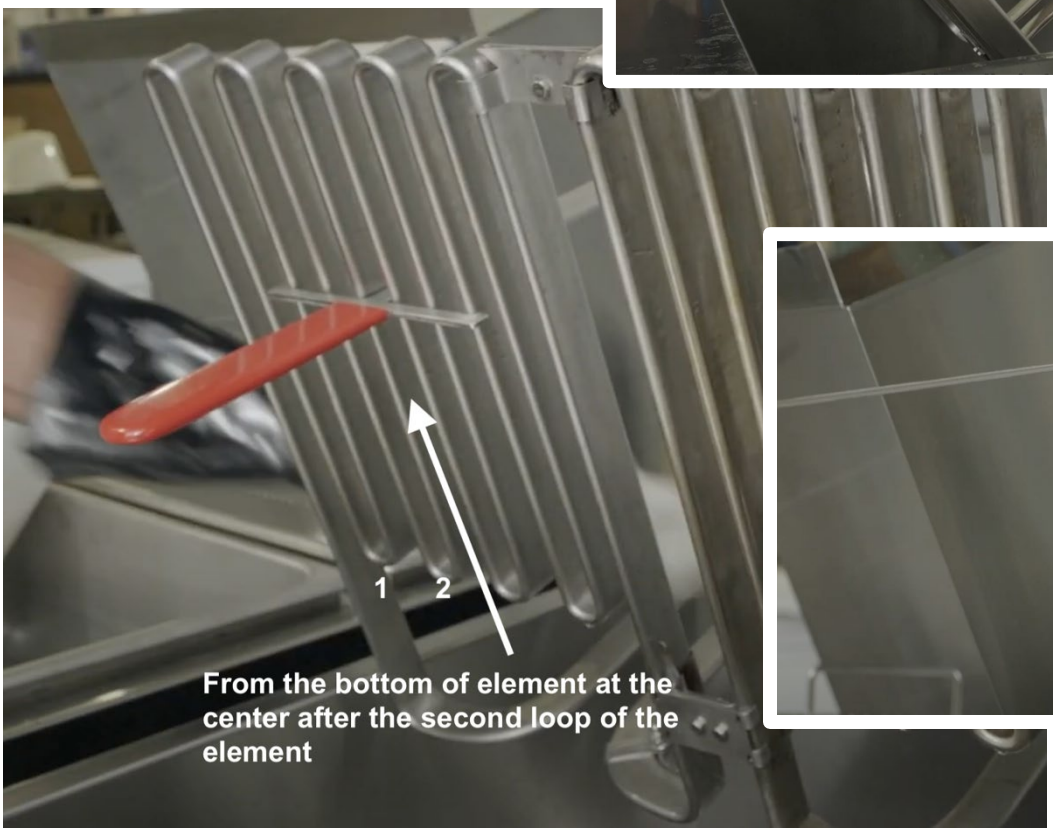
Wipe with a cloth and let dry overnight

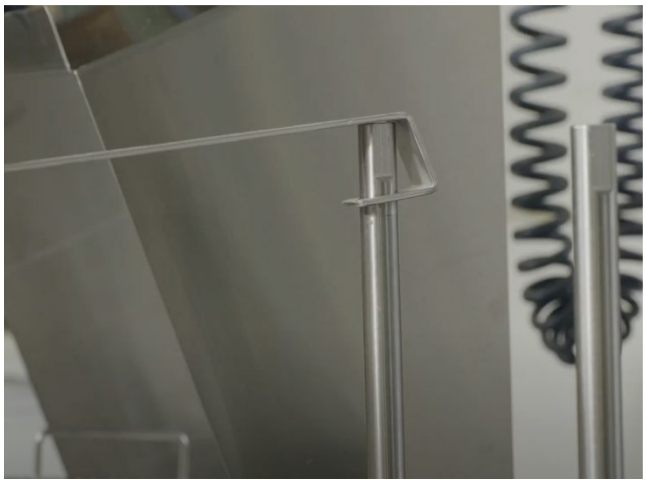
MB-85 SERIES ELEMENT LIFT TOOL PROCEDURES

<u>For drying after Boil-Out / Extra cleaning during Oil Filtration</u>

When all the oil / or water is drained from the fryer pot, use the red handled Element Lift Tool and heat-resistant gloves, lift the elements by inserting the tool and attach to either of the round Basket Lift Posts. The Basket Lift Posts must be in the up position.

Insert the Element Lift Tool sideways into the center ribbon of the left or right element. Twist the tool to the narrowest width (closest to the red handle)





To remove the Element Lift Tool

- Using heat-resistant gloves, support the element with one hand, and with the other, raise the tool off the Basket Lift, turn sideways and remove from the element.

⚠️ Lower the element with the other hand gently until it’s fully in the resting position, do not let the element drop into place.

FRYING GUIDE / TROUBLE SHOOTING

Tips for Good Frying

When Frying, Skim Frequently
Skim floating food particles frequently, especially after busy periods.

Keep Frozen Food Frozen
Frozen food should be kept frozen until it is fried. Load fry basket away from fryer so ice and breading do not fall into oil.

Do not season food over the fryer
(ie, salt, pepper, spices)

Fry Food at the recommended temperature and time
Fry food for the recommended time to ensure it is fried to proper color and cooked to proper core temperature.

Drain Properly
Drain finished fried foods over fryer for 15 –45 seconds, then place in holding pan with grate.

Serve Promptly
Serve Food promptly to prevent it from becoming greasy.
or place in Hot Case or Holding Cabinet for proper holding.

Daily Frying Checklist

Proper Temperature
Fry at proper temperature based on food setting directions. Frying at a higher temperature decreases fry life. Check temperature of fryers daily using calibrated thermometer.

Filter Regularly
Filter the frying oil according to the determined Batch Setting has been set at.

Clean Daily
Clean outside surface of fryers daily. Clean Ventless Hood baffle and drip cup. Do not allow cleaning products or water to contaminate oil.

Determining Oil Breakdown
Check the oil daily using an Oil Test Kit. Discard oil as needed.

Top-Off
Top-off fryer to proper level with oil.

Fryer Troubleshooting

Oil Turns Dark During Normal Fry Life
Possible Causes
- Defective thermostat, temperature too high.
- Insufficient/Improper filtering.
- Equipment not clean.
- Use of improperly prepared food.

Fryer Smoking
Possible Causes
- Wet or frost-covered foods.
- Insufficient filtering and/or skimming.
- Oil overheated (defective or broken thermostat)
- Oil level low –elements exposed.

Foods Not Cooked and/or Browned in Expected Time Possible Causes
- Fry basket overloaded.
- Changes in product size
- Using fresh oil.
- Defective thermostat, temperature too low.

Food Too Dark or Overdone in Expected Time
Possible Causes
- Oil at throw-away point.
- Defective thermostat, temperature too high.
- Fryer Temperature set too high.

Oil Foams Excessively
Possible Causes
- Overheated oil.
- Defective thermostat, temperature too high.
- Equipment not clean.
- Fryer overfilled with oil.

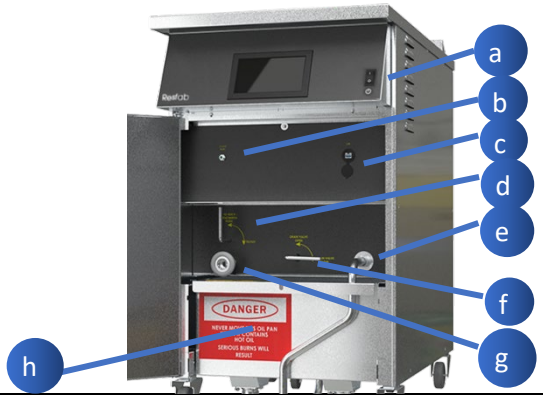
Too Much Oil Absorbed; Oil Dripping; Oil Used Up Too Rapidly
Possible Causes
- Frying at too low temperature.
- Defective thermostat, temperature too low.
- Overloading fry basket.
- Frying in foaming oil.
- Food remaining over oil after frying.
- Refrying foods to reheat them.
- Potatoes that have been thawed, then refrozen.
- Insufficient draining of food after frying.

Unappetizing Fryer Odor; Unpleasant Food Flavor
Possible Causes
- Equipment not clean.
- Inferior food quality being fried.
- Insufficient filtering and/or skimming.
- Oil at throw-away point.

Fryer Operation – Touchscreen Control

Fryer Overview

a. Main Switch
b. Hi-Limit Reset
c. USB Port
d. Rinse/Diverter Valve
e. Filter Pan Port
f. Drain Valve
g. Rinse Hose Quick-Connect Coupler
h. Filter Pan



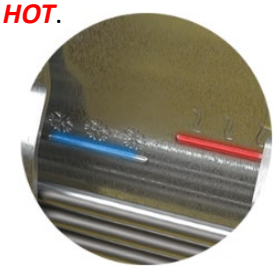
Start-up - Oil Level Validation

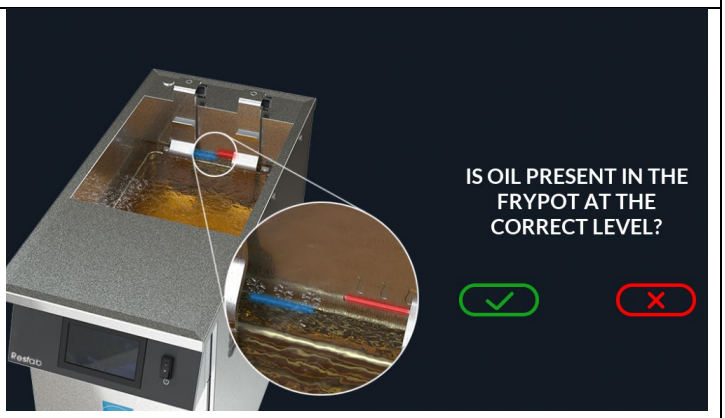
- Before frying, **ALWAYS** make sure ***Oil Level*** is at the correct level.

Note: At startup and at the completion of filtration, the fryer will prompt an acknowledgment on screen for the user to make sure oil is at the *correct* ***level*** in the fryer

- Refill to this level ❄ ❄ ❄ when oil is ***COLD***.
- Refill to this level ≀ ≀ ≀ when oil is ***HOT***.

Press ✓ when done.





- Press ✓ to acknowledge that the ***Correct Oil Level*** has been reached.

Note: this information is logged in the ***Oil Management Log***.

Press ✗ to access the pumping mode to ***pump*** additional oil from bottom filter pan to frying vat.

Note: Add fresh oil if it is not at the correct level.
-**Frying or heating with oil level below the fill line level increase the risk of fire**.
- Always pay attention to oil level to have enough oil at all times

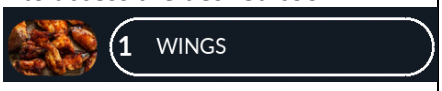
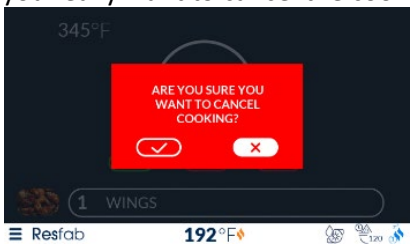
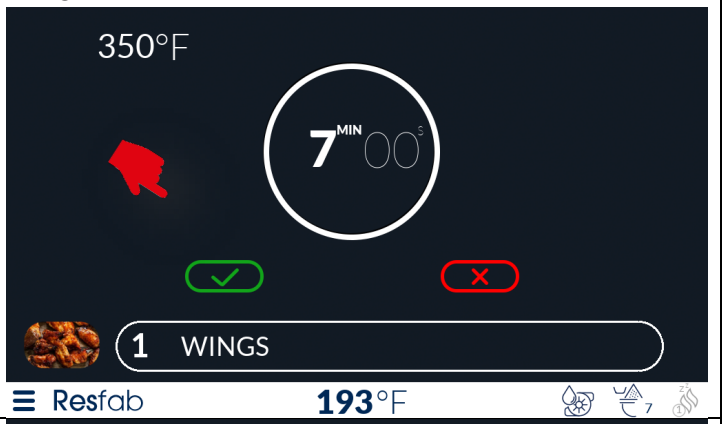
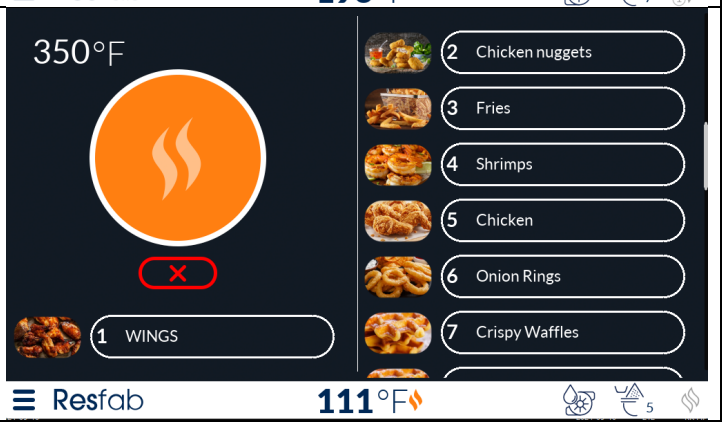
BURN HAZARD / SERIOUS INJURY COULD RESULT FROM SPLATTER HOT LIQUIDS

Main Screen Overview

a. ***Parameters*** menu
b. Return to ***Main Screen***
c. Basket toggle mode button

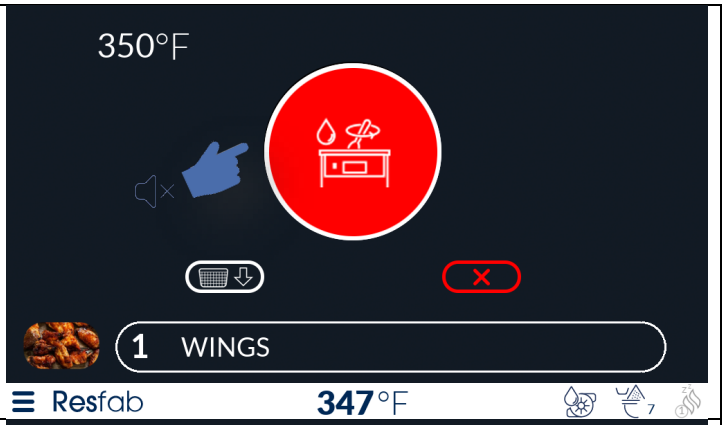
2-Single-basket ② / ***1-Double Basket*** ①

d. Actual ***Oil Temperature***
e. ***Oil Pump*** shortcut
f. ***Filtering*** mode shortcut
g. ***Idle*** mode shortcut

Fry with the MB Series Fryer	
Cooking Main Menu	
• Scroll up and down to select the desired ***Recipe***.	
• Press the ***Recipe*** button to access the desired cook. 	
• Press ✓ to ***start*** a ***recipe***. • Press ✕ To ***cancel***. Confirm if you really want to cancel the cook: 	2.125 
• ***Pre-heat*** mode will heat to set temperature Fryer is heating when the ***heat symbol*** is displayed beside temperature value.	

- After ***Pre-Heat***, we recommend Stirring the oil to make temperature uniform.

  Note: Pressing ***Stir*** button will shut off the buzzer.

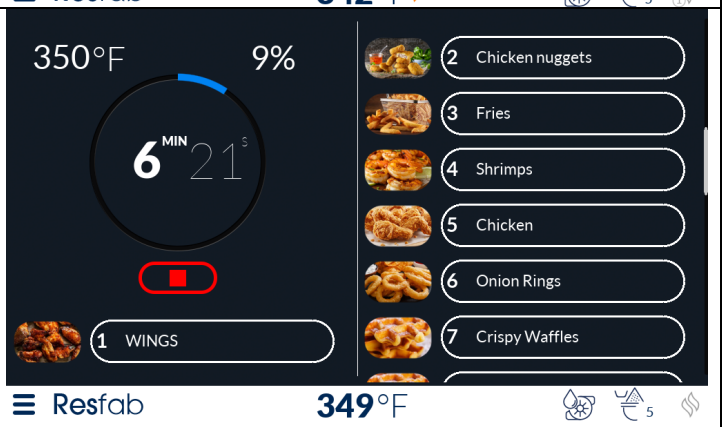


- Press to ***Start*** cooking (countdown will start).

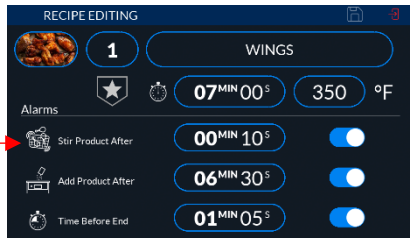
  Lower basket without starting cooking time.

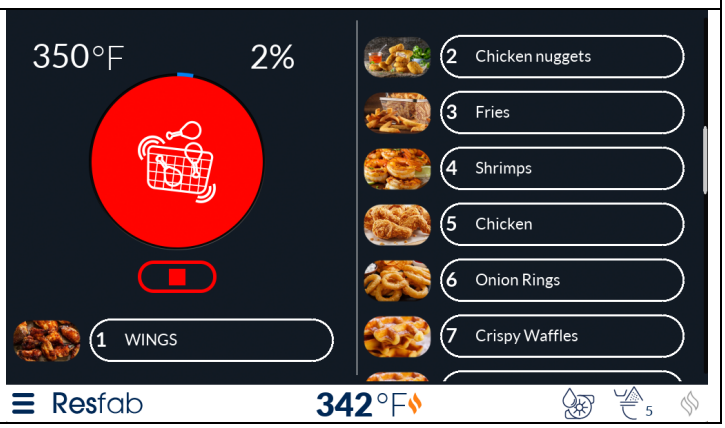
  Basket can be ***raised***.

- ***Cooking*** is in progress.

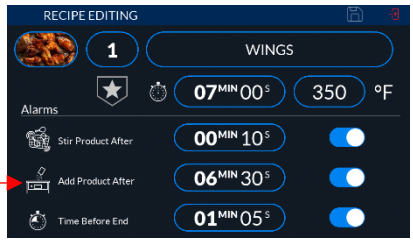


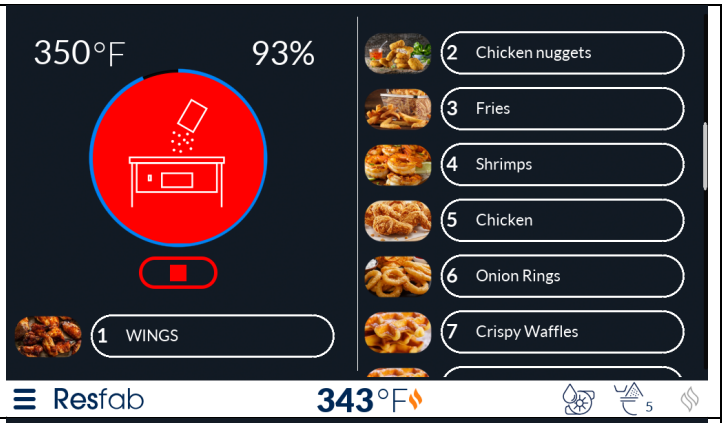
- ***"Stir Product After Alarm"*** icon is showed when enabled.



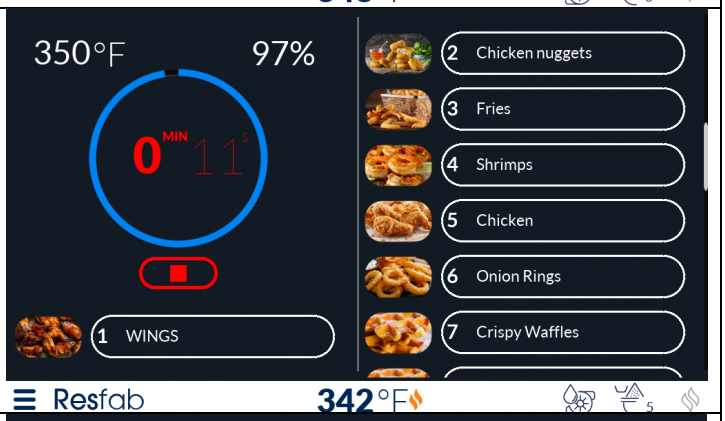


"Add Product After Alarm" icon is showed when enabled.

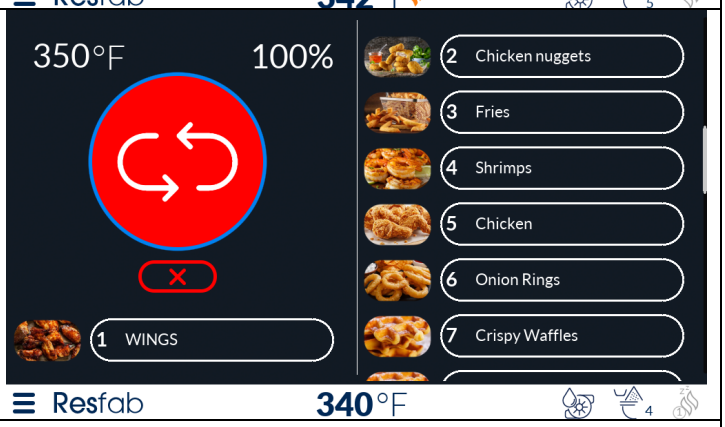




"Time Before End" Alarm, when enabled, countdown color will change from white to red and buzzer will warn indicating end of cook is coming soon.



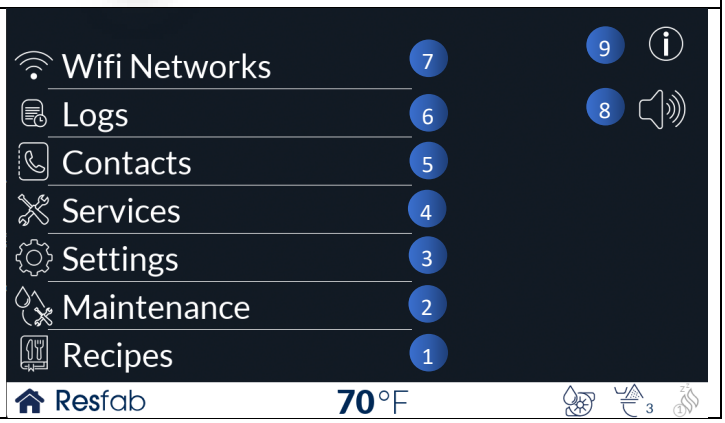
Pressing will ***Restart*** the last recipe used.



Parameters Menu

- Pressing ≡ ***3-line*** button in bottom toolbar will access the parameters menu.
- Pressing ***Home*** button will return to the main menu.

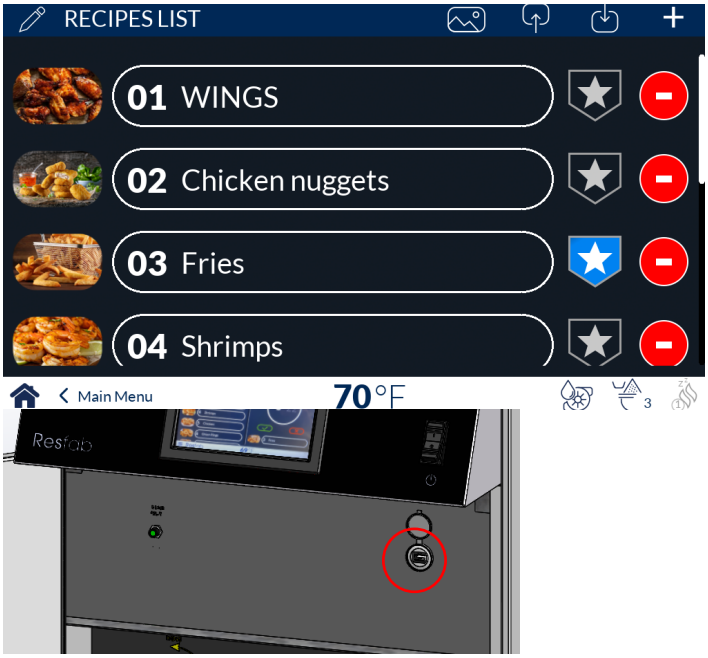
1 Recipes Editing
2 Maintenance procedures (Filtering, Polishing, Boil-Out…)
3 Settings *(Date & Time, language, Manager PIN…)*
4 Service – *Service technicians only*
5 Contacts – *Resfab contact (phone number, address, email)*
6 Logs – *Cooking logs (HACCP), Oil Management, Errors,*
7 WIFI Networks
8. Buzzer – Sound adjustment level
9. Information – Fryer information *(Serial No, Model…)*



Recipes Editing – Main Menu

- Press Recipes to access ***Recipe Editing*** menu
- Press 01 WINGS to ***Edit*** the recipe.
- Pressing will make the recipe as a ***Favorite***. Use when frying frequent recipes in a large menu to save time by avoiding scrolling always from top to bottom. Recipes are primarily sorted by numbers on main screen like *01, 02, 03…* Enabling *03* as ***Favorite*** will make appear this recipe at the beginning of the list. ***Example***: *03, 01, 02, 04*.
- Use to ***delete*** a recipe.
- Allow to toggle between ***show*** or ***hide pictures*** to enlarge name of recipes on main screen.

  Export recipes to USB , follow instructions on screen (See picture beside for ***USB port location***, open door to access.)
- ***Import*** recipes from USB ,follow instructions on screen
- Program a new recipe.

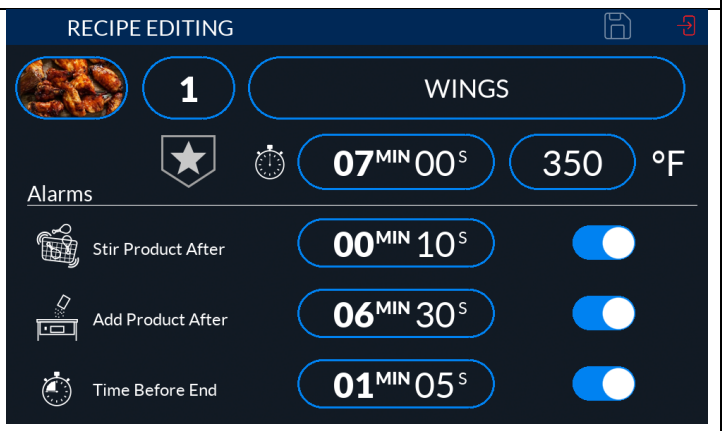


Recipe Editing

1. Enter ***Recipe Name***. (Length is limited, recipe names are not translated in other languages if multiple language's function is enabled.
2. Enter cook ***time***.
3. Enter cook ***temperature***.
4. By default, ***recipe number*** is assigned by the system in order. You can change a number by attributing a number that is not already attributed. **Note**: On the main screen, recipe will be sorted by this number (Lowest to Highest).
5. Favorite Icon
6. ***Recipe picture***, to assign a new picture from the pool of pictures already present.
   - **Note**: If you want to add new pictures that are not present on the fryer, you must use the USB stick to upload them and assign it the current recipe. Please refer to ***the Excel Recipe Editor*** section for more details.
7. ***Alarms***: to enable or disable, use toggle button. Clicking time field will allow to set time of alarms:
   - ***Stir Product After***: buzzer will warn *X* time after start of the cooking.
   - ***Add Product After***: buzzer will warn to add seasoning product *X* time after start of the cooking.
   - Time Before End: buzzer will warn X time before the end of cook.

Note: Time of alarm must be less than the recipe duration, system does not allow this impossibility. Ex.: An alarm at 2 min cannot be programmed if the recipe last 1 min.

8. **Save** your recipe.
9. Exit recipe editing.



Maintenance

1. Access ***Idle*** Settings (Manual or Auto).
   Press In bottom toolbar to have a ***Quick Access*** to ***Idle.***

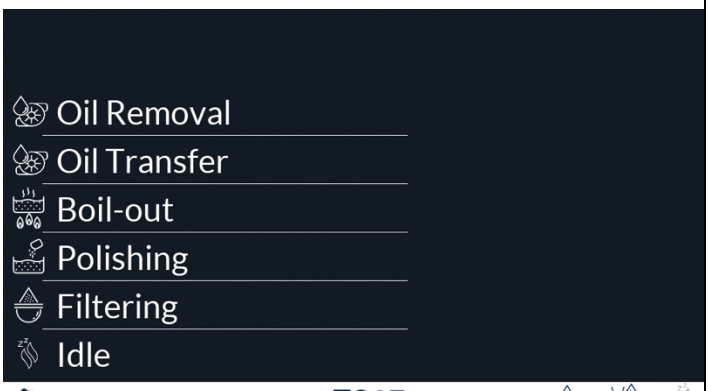
≡ Resfab **253**°F

2. ***Filtering*** – Set filtering parameters and ***Forced Filtering*** Press in bottom toolbar for having a ***Quick Access*** to ***Manual Filtering.***

≡ Resfab **246**°F

3. ***Polishing*** – Set filtering parameters and ***Forced Polishing.***
4. ***Boil-Out*** – Set filtering parameters and ***Forced Boil-Out.***
5. Access to ***Oil Transfer.***
6. Access to ***Oil Removal -***
   Press on the toolbar to have a Quick Access to both Oil Transfer & Oil Removal.

≡ Resfab **241**°F



Idle

You can manually select ***Idle 1*** 200 °F

When Blue 200 °F ***idle*** is ***enabled*** and heating will start if oil temperature is below the set temperature. Bottom Idle icon will pass from grey to blue meaning enabled.

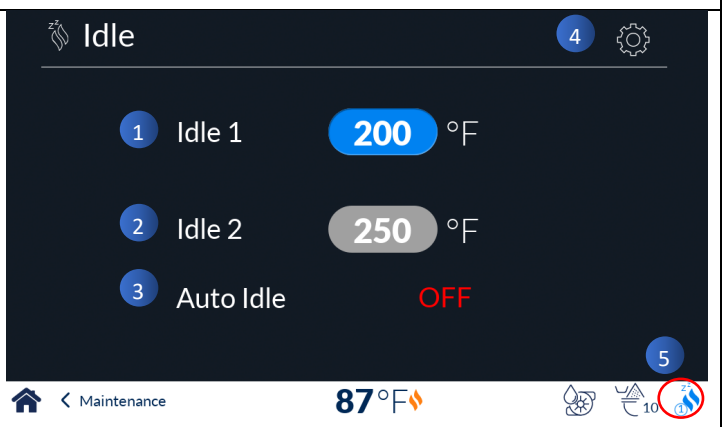
You can manually select ***Idle 2*** 250 °F

Auto Idle can be enabled ON or disabled OFF

Press ***Idle Parameters*** to set ***default idle temperature*** and ***Auto Idle settings***. *(See next section for details)*

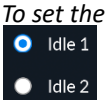
If ***Idle icon*** is displaying ***1*** ***it*** means ***Idle 1*** is enabled.

If ***2*** is displayed, ***Idle 2*** is enabled.



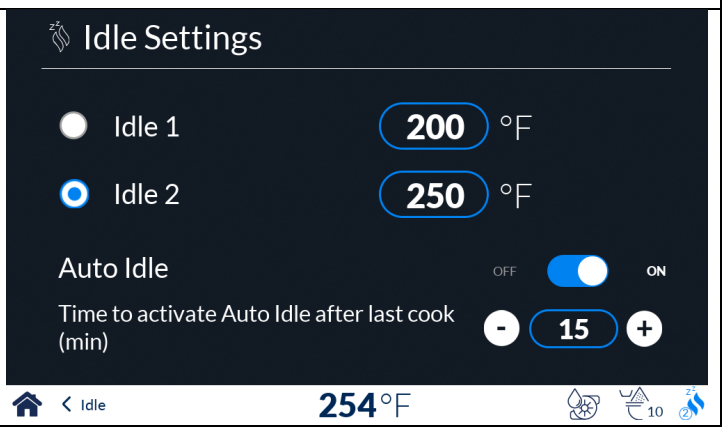
Idle & Auto Idle Parameters

- *To set the default Auto-Idle temperature, select **Idle 1** or **Idle 2***



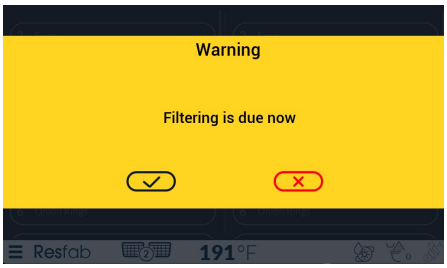
  - *Press* 200 *to adjust Idle temperature with the keypad.*
  - *Move left or right to enabled or disable **Auto Idle** function.*

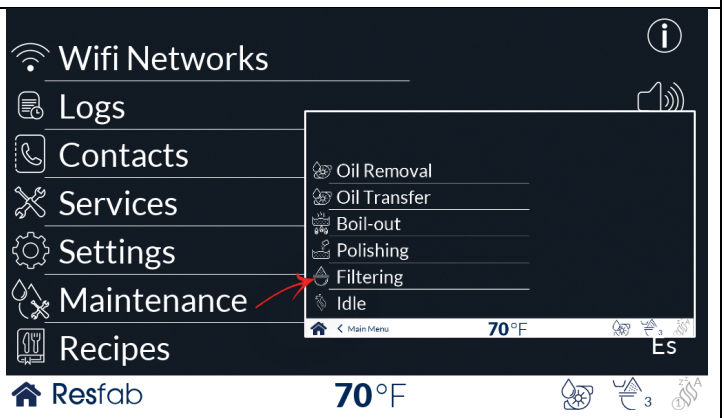
- *By default, **Auto Idle** is **enabled.***
- *Adjust the **time** to **activate Auto Idle** after last cook.*
  - Auto Idle will be active by itself only if one (1) cook has occurred after fryer power up.



Filtering

1. ***Scrape crumbs*** out of filter pan, place back under fryer ensuring it is tightly in place.
2. Press Filtering to start the ***Manual Filtering*** Process
3. Press ✓ if ***Force Filtering*** mode is enabled:

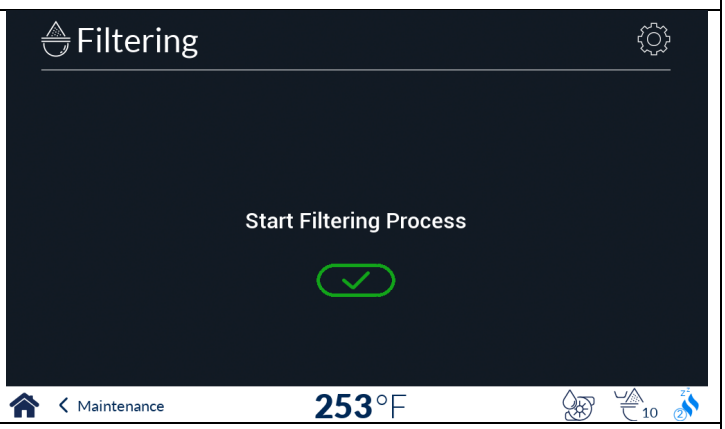




4. Press ⚙ to access ***Filtering Settings*** to adjust filtering settings and enable the forced filtering.

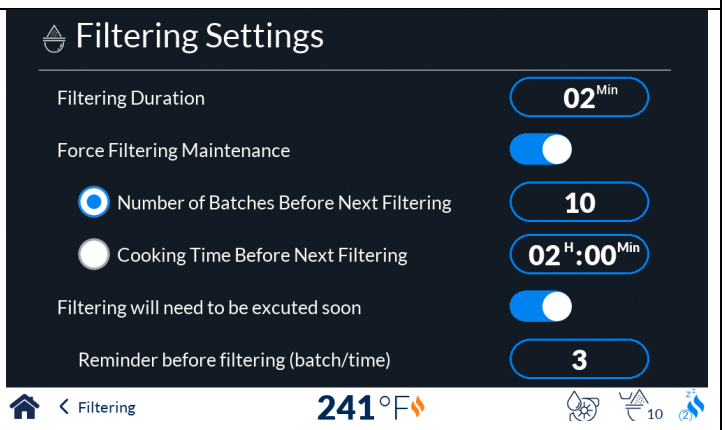
- Note: If ***Manager Access prompt*** is enabled, the ***Manager PIN*** will be required to make modifications.

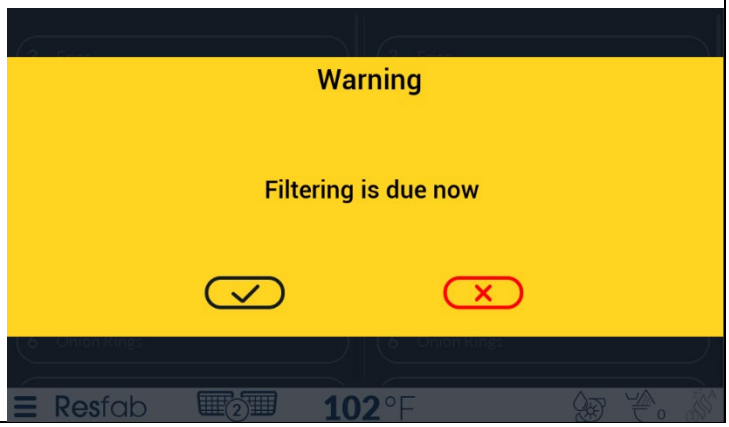
5. Press ✓ to start Filtering process.
6. Rinse / Discharge Hose can be used for filtering with caution

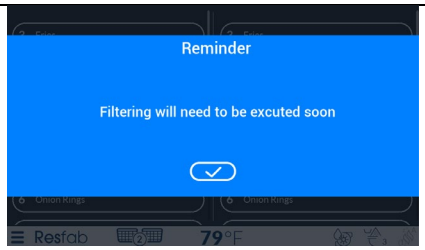


Adjust Filtering Parameters

- Press on 02Min to edit the ***Filtering Duration***.
- Enable the ***Force Filtering Mode***. When enabled, the user will be forced to execute the Filtering procedure.
- **Note**: The ***Force Filtering*** procedure can be only by-passed ✗ by entering the Manager PIN when required.
- ***Force Filtering*** mode can be done either by ***Batch*** or by ***Cooking Time*** (no matter of ***Single-Basket*** or ***Double-Basket*** mode. For Time mode, the total of cooking time (addition of all recipes) is taken in account.)
- On the bottom toolbar, ***Filtering Shortcut Icon*** shows the remaining **batches** or the remaining **time** depending on the enabled mode.
  As examples:
  - By ***Batch*** 7 : **7 batches** are remaining before next Force Filtering.
  - By ***Cooking Time*** 119 : **119 minutes** are remaining before next Forced Filtering.
- Number of batches 10 or time 02H:00Min can be edited for when the reminder will pop-up before the filtering.
- ***Reminder*** for forced filtering can be enabled.







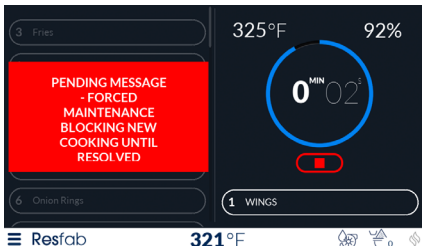
- When ***Reminder*** is enabled, ***Time*** or ***Number of Batches*** can be set

to when the reminder window will pop up, to let the user knows in advance that ***Force Filtering*** is coming soon.

Batches:

Time:

Note: In ***Single-Basket Mode***, if time or batch are reached, it is not possible to re-start another cook. One side will display a blocking message like the following:



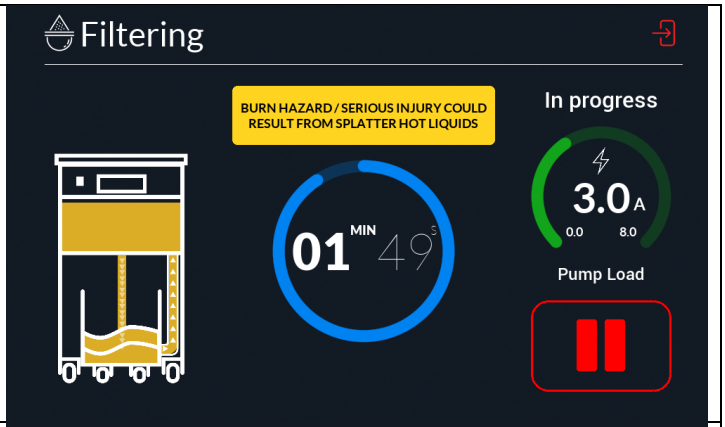
- Open Drain valve.
- Press to cancel.

Note: if ***Force Filtering*** and ***Manager Access Prompt*** are enabled, ***PIN Manager*** will be required to bypass filtering

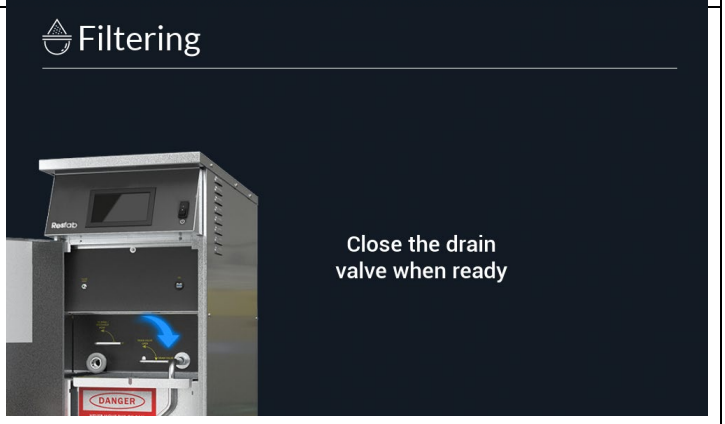
- Let the oil drain sufficiently.

- ***Oil Pump*** will start by itself automatically. If not press to start it.

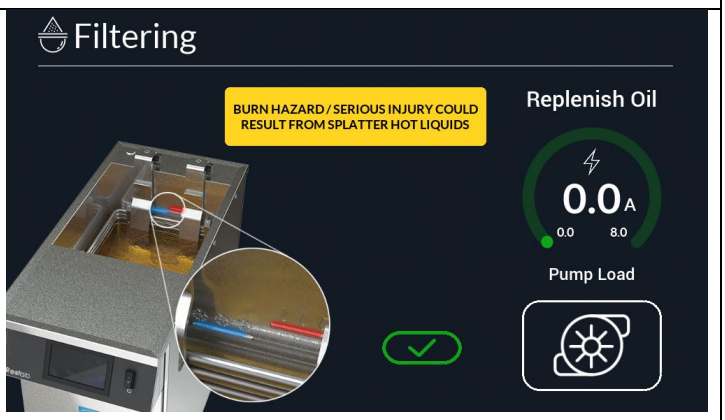
Note: During the filtering, use *Pot Brush* to clean side and stir crumbs at bottom of fry pot. Use drain brush / straight brush should clog occurs in drain hole.



- ***Close Drain*** valve after completion.

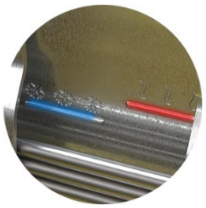


- Press to ***Start Oil Pump*** and ***Refilling*** to the <u>correct level</u> or press when completed.

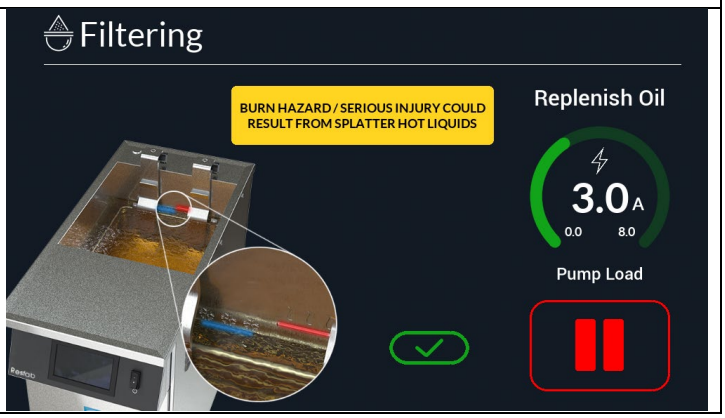


- Press to ***stop*** the ***oil pump*** when the oil level is reached and **the vat bubbles with air for 15 – 30 sec**

- Refill to this level ❄ ❄ ❄ when oil is ***COLD***.
- Refill to this level ≀ ≀ ≀ when oil is ***HOT***.



- Press when done.



- Press to acknowledge that the ***correct Oil Level*** has been reached. Refer to previous point for correct Oil Level information.

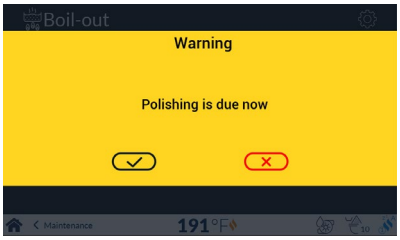
Note: this information is logged in the ***Oil Management Log***.

- Press to return to pumping mode to ***pump*** additional oil from bottom filter pan to frying vat.

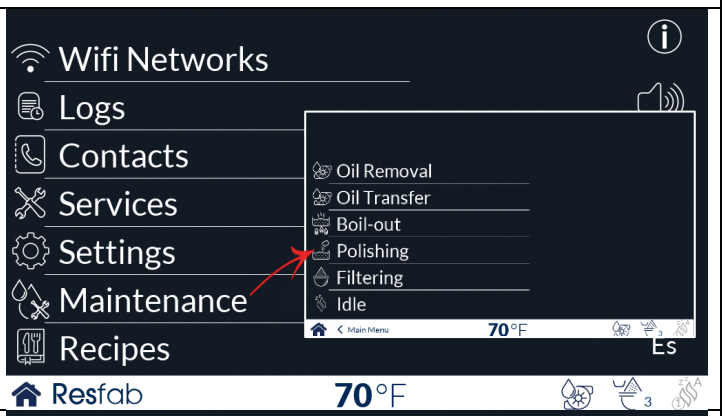
Note: **Add manually fresh oil if below the fill line of the fryer.**
-Frying or heating with oil level below the recommended level is a risk for fire.
- Always pay attention to oil level, ensuring oil is consistently at correct level.

Polishing Process

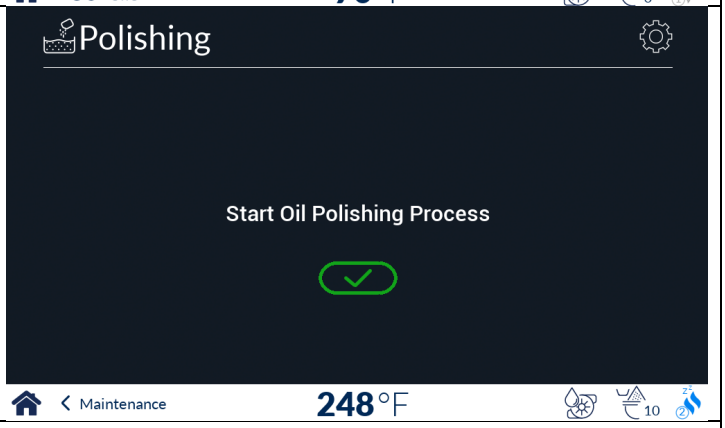
- Press Polishing to start the ***Manual Polishing*** Process
- Press if ***Force Polishing*** mode is enabled:



-



- Press to start the ***Polishing Process***.
- Press to access ***Polishing Settings***.



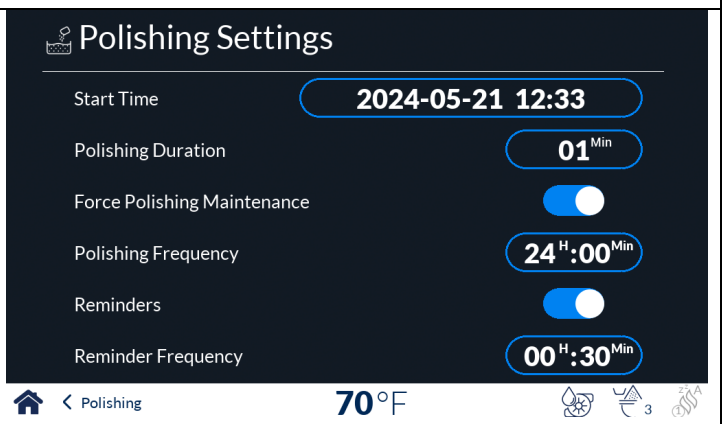
Polishing Settings

- Press 2023-12-15 09:44 to set the ***Start Time*** to start when ***Force Polishing*** will be executed when ***Force Polishing*** ③ is enabled.
- **Example**: If ***Start Time*** for ***Force Polishing*** is ***2023-12-15***, with a Frequency of ***24H***, this means the next Force Polishing will occur next day 2023-12-16 at 09:44.

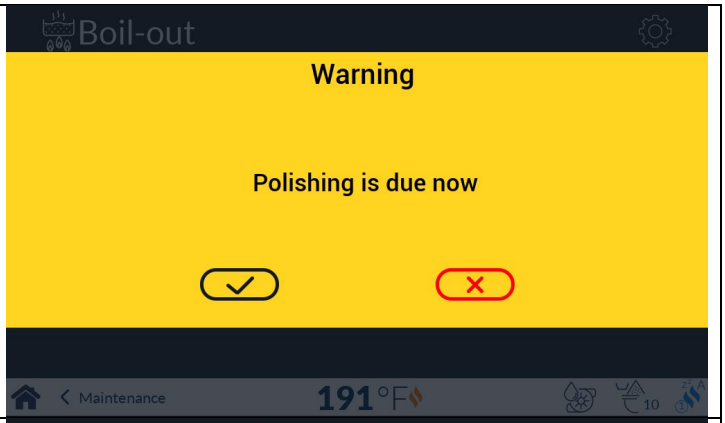
Note: If during the day, ***Force Polishing*** is constantly by-passed, the system will force the Polishing the next morning no matter the Polishing Frequency is set.

- -Disabling the ***Force Polishing*** mode, will reset all counters.
- Press 10Min to set the ***Polishing Duration.***
- Press to enable or disable ***Force Polishing***.

Note: If the ***Manager Access Prompt*** is enabled, ***Force Polishing*** can only be by-passed with the ***Manager PIN***.

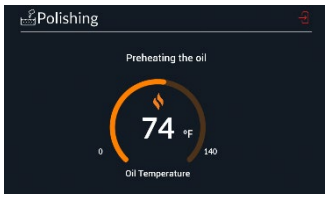


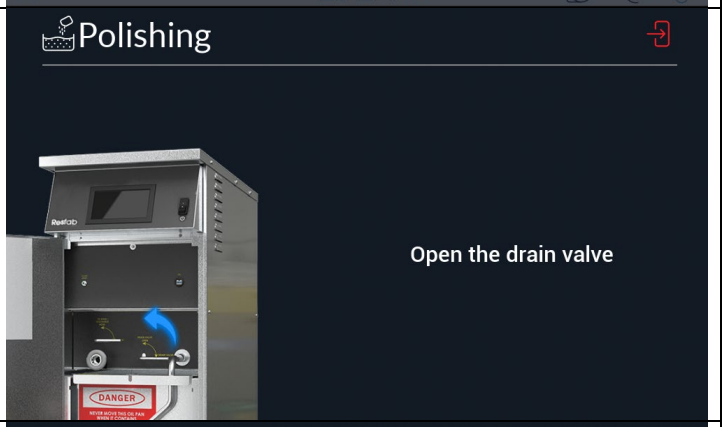
- Adjust by clicking 24H:00Min to set the ***Polishing Frequency***. (24h to 48h).
- Enable ***Reminders*** if you want a reminder that will show in advance before getting the Force Polishing starting window.
- Press 00H:30Min to set the ***Time*** to show the ***Reminder*** prior to be obliged to start the ***Force Polishing***.
- In this example, the reminder will pop-up 30 minutes before the start of the Force Polishing (09:44) so 30 minutes before, the reminder will be shown at 09:14.



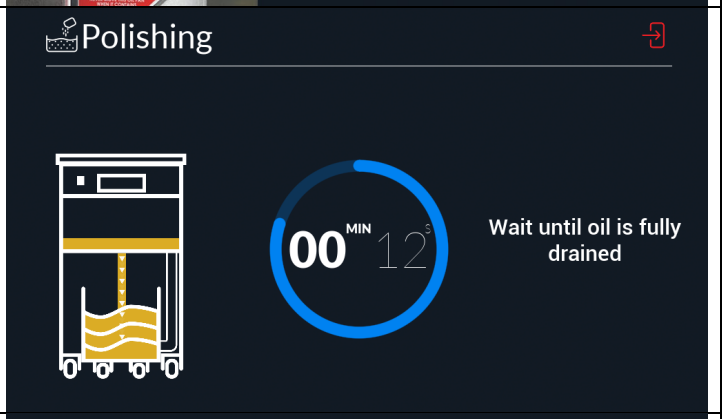
- Open Drain valve.
- Press to cancel.
- Note: If Force Polishing and Manager Access Prompt are enabled, PIN Manager will be required.

Note: If oil temperature is below 140°F (60°C) heating will start.

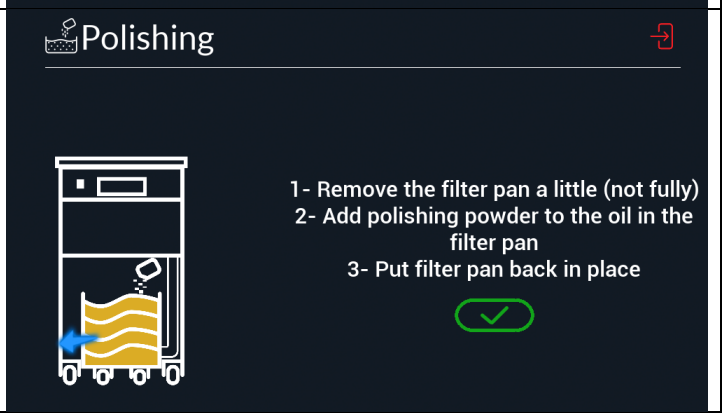




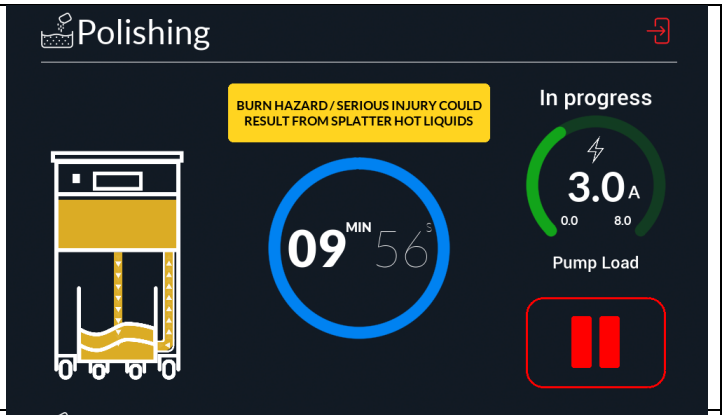
- Let the oil drain sufficiently



- Remove the ***Filter Pan*** a little (not fully).
- Add Polishing Powder.
- Put filter pan back in place and press to continue.

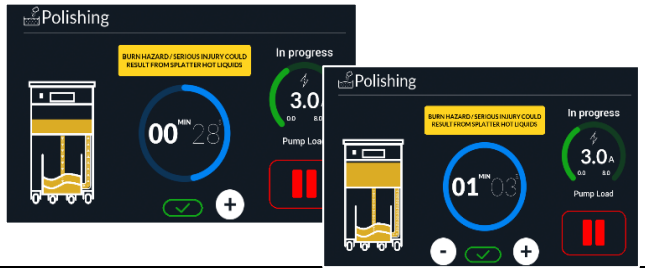


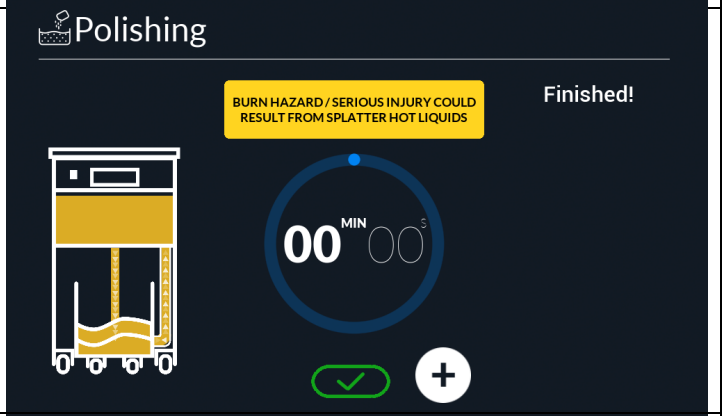
- ***Polishing*** is in process.



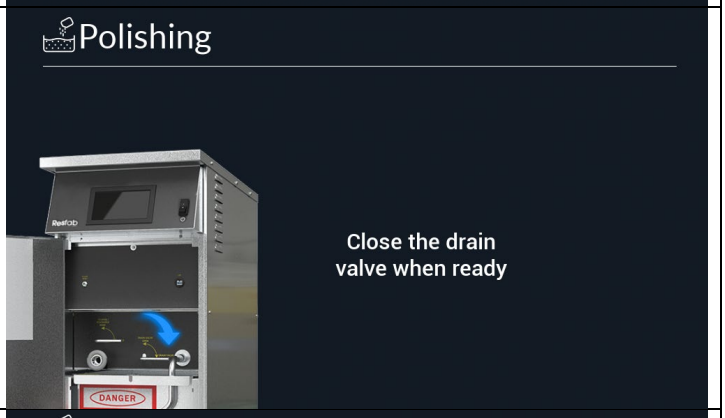
- ***Polishing Process*** is completed.

Note: At the end, press + to add extra ***Polishing*** time (each press adds 30s) Press - to reduce additional time added.

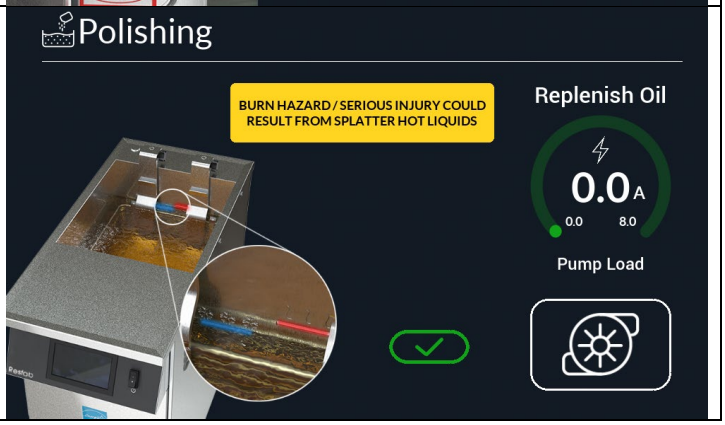




7. ***Close Drain*** valve after completion.



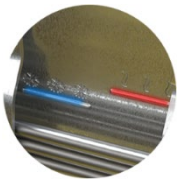
8. Press to ***Start Oil Pump*** and ***Refilling*** to the <u>correct level</u> or press when completed.

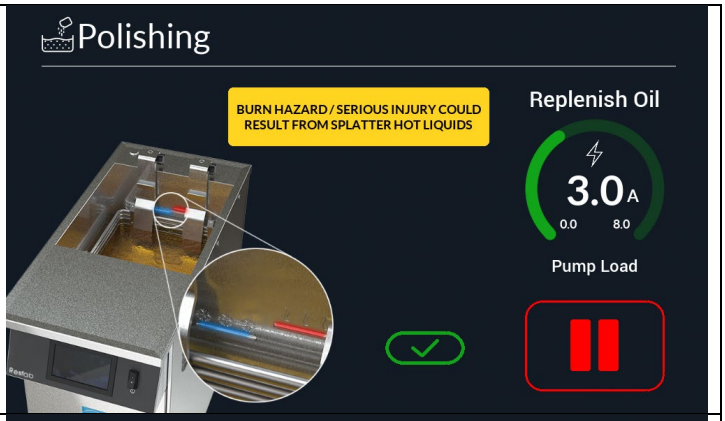


- Press ⏸ to ***stop*** the ***oil pump*** when the level has been reached **and vat bubbles with air for 15 – 30 seconds.**

- Refill to this level ❄ ❄ ❄ when oil is ***COLD***.
- Refill to this level ≀ ≀ ≀ when oil is ***HOT***.

9. Press ✓ when done.





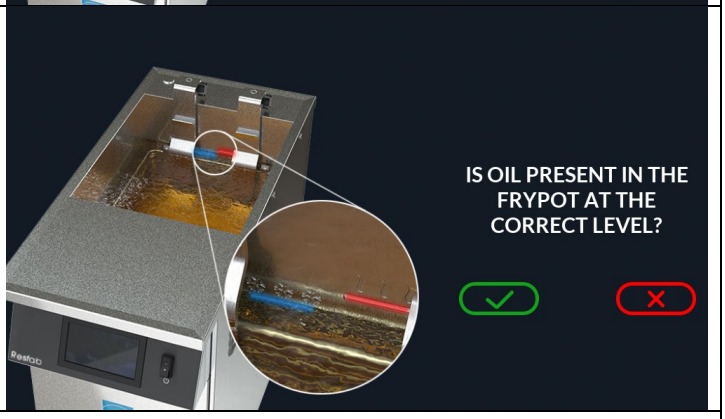
10. Press ✓ to acknowledge that the ***correct Oil Level*** has been reached. Refer to previous point for correct Oil Level information.

Note: this information is logged in the ***Oil Management Log***.

11. Press ✕ to return to pumping mode to ***pump*** additional oil from bottom filter pan to frying vat.

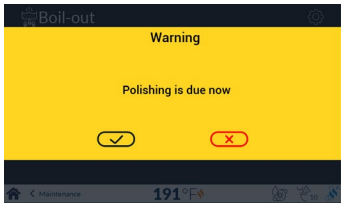
⚠ **Note**: **Add manually fresh oil if below the fill line of the fryer.**
-Frying or heating with oil level below the recommended level is a risk for fire.

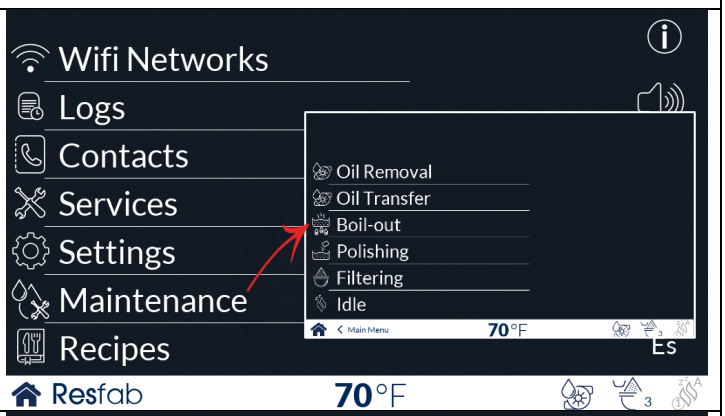
⚠ **- Always pay attention to oil level, ensuring oil is consistently at correct level.**



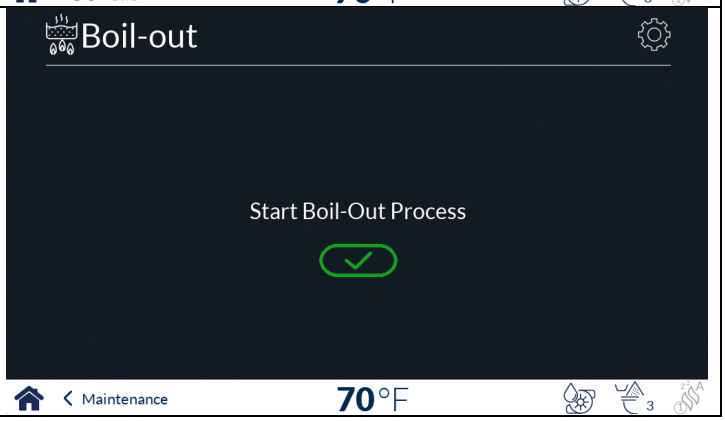
Boil-Out

- Press Boil-out to start the ***Manual Boil-Out*** Process.
- Press ✓ if ***Force Boil-Out*** mode is enabled:



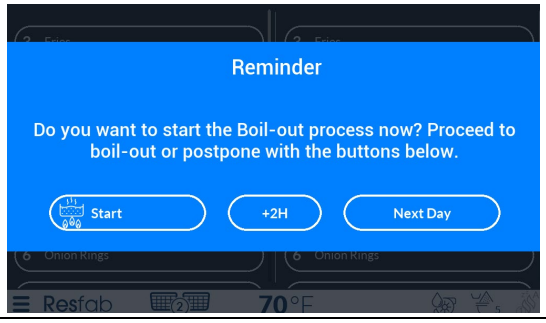


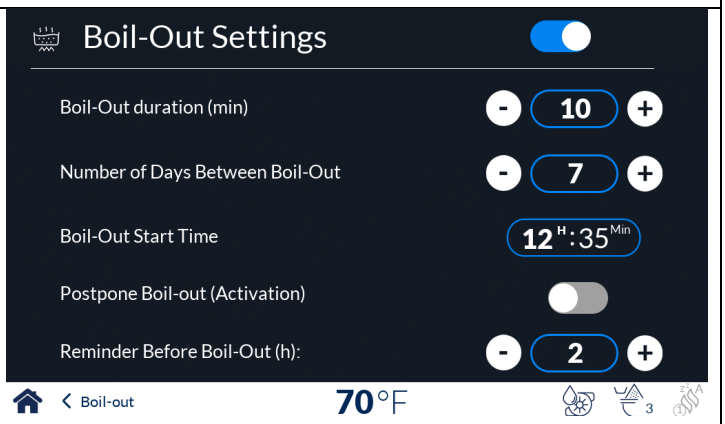
- Press ✓ to start the ***Boil-Out Process***.
- Press ⚙ to access ***Boil-Out Settings***.



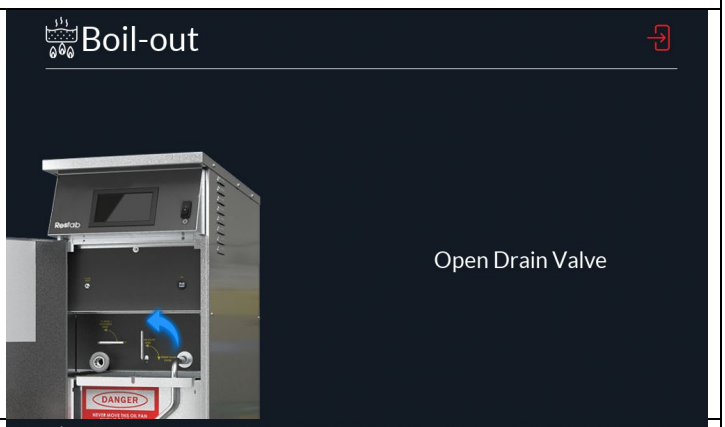
Boil-Out Settings

- Slide to activate ***Force Boil-Out*** function.
- Use - + to change the ***Boil-Out Duration*** (in minutes).
- Press - + to adjust the ***Interval*** (days) between 2 Boil-Out.
- Press 12H:35Min to schedule ***Boil-Out Time Execution***.
- Slide the button to enable the ***Postpone Boil-Out*** function.
- **Note**: this function allows the user to postpone the Boil-Out if a rush occurs. If Manager Access Prompt is enabled, the user must enter the PIN Manager to allow him to postpone the Boil-Out execution.
- Use - + to adjust the ***Time*** to show ***Boil-Out Reminder*** before the Force Boil-Out actually occurs. When the reminder is shown, three possibilities are possible: **Start**, postpone in **2 hours** or postpone to **next day**.

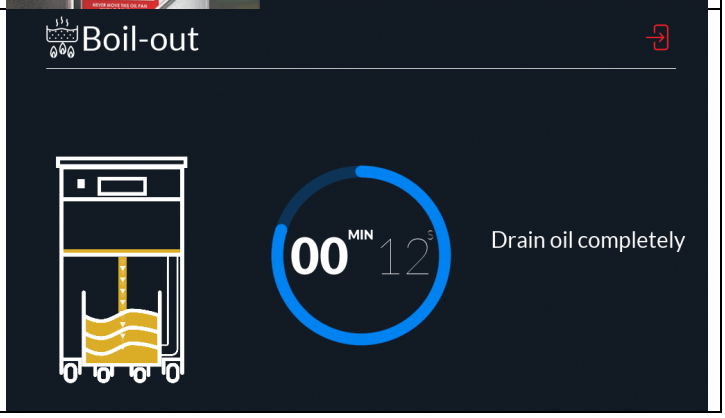


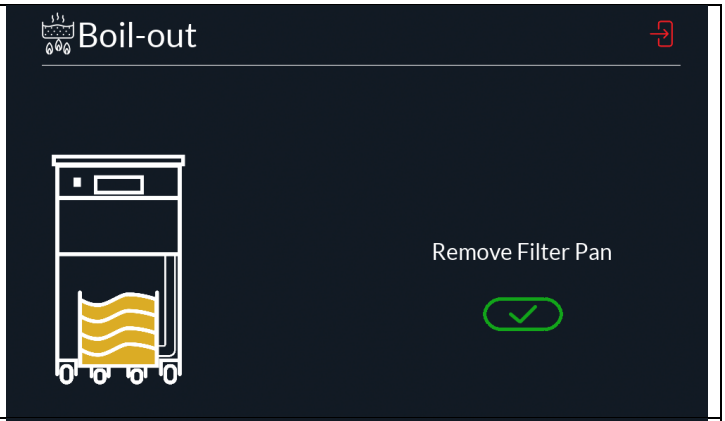
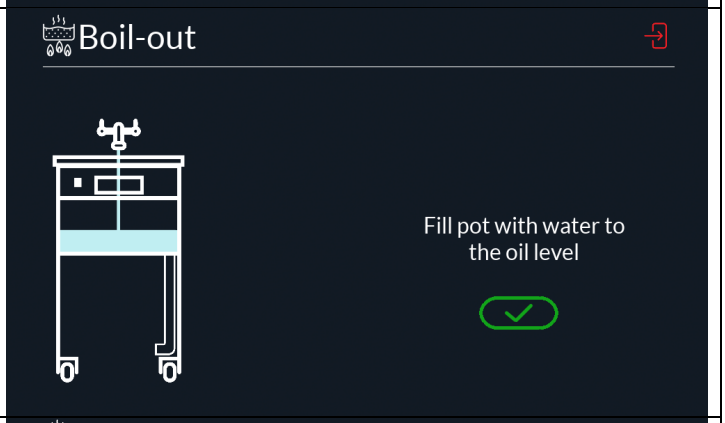
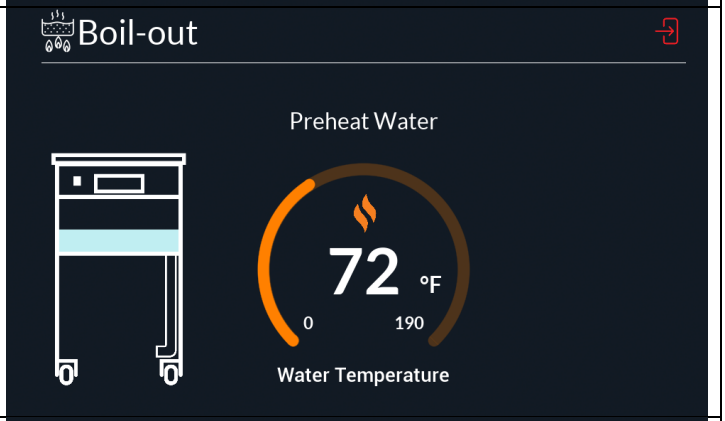
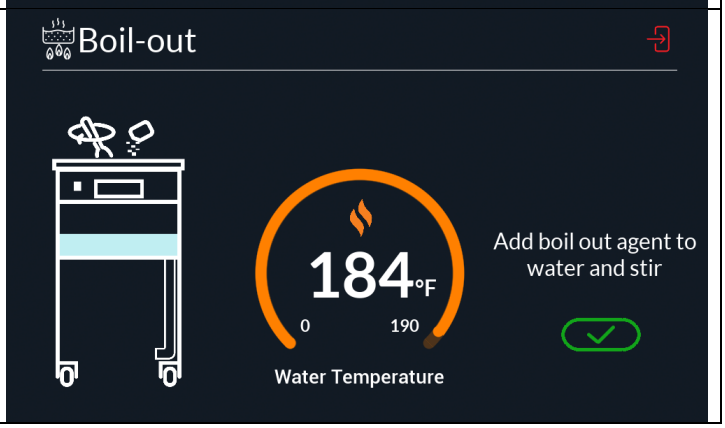


- Open Drain valve.
- Press to cancel.
- **Note:** If *Force Boil-Out* and *Manager Access Prompt* are enabled, *PIN Manager* will be required to cancel.

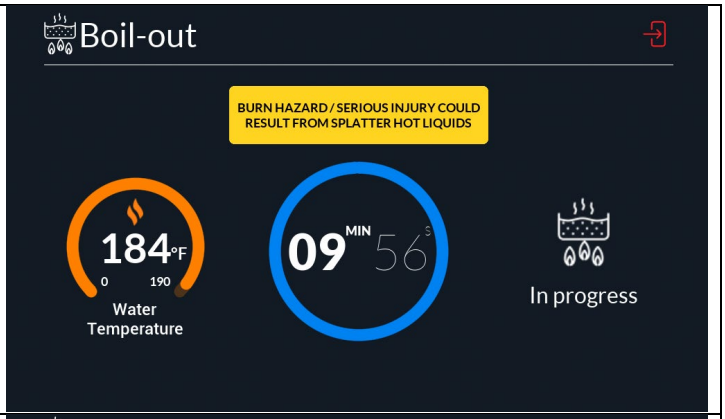


- Let the ***oil*** drain sufficiently.

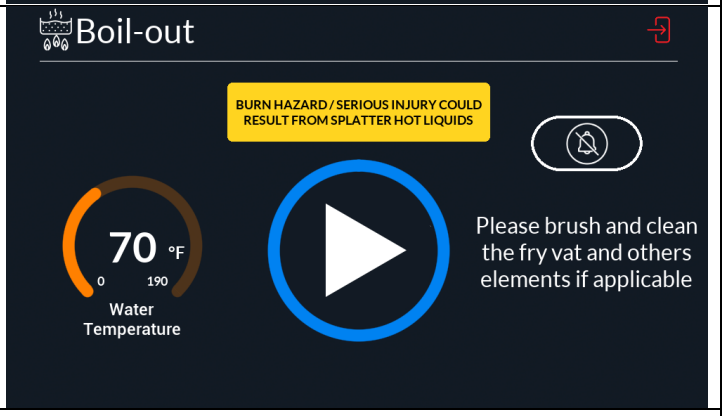


• Remove the ***Filter Pan*** and press when done if reusing the oil. If disposing the oil, use the Rinse / Discharge hose to pump the oil out into the OM-80 and dispose oil accordingly. ⚠ • Disposing of the oil into plastic or open pots must be done with oil below 150°F	
• Fill the frying vat with water and press when done. ⚠ • **<u>Ensure there is a Bucket to collect soiled water under the fryer vat)</u>** ⚠ • DO NOT RUN WATER THROUGH THE FILTER SYSTEM	
• ***Boil-Out Pre-heating*** in process. Water will heat to 190°F (88°C)	
• Add ***Boil-Out Agent*** to the water and stir. Press when done. Always follow the instructions of the label of the boil-out agent, if not using lemon juice.	

- Boil-Out in process.

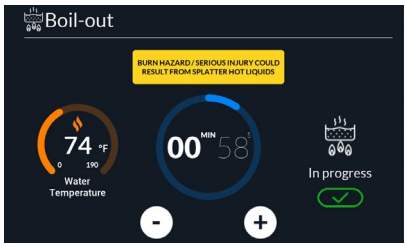


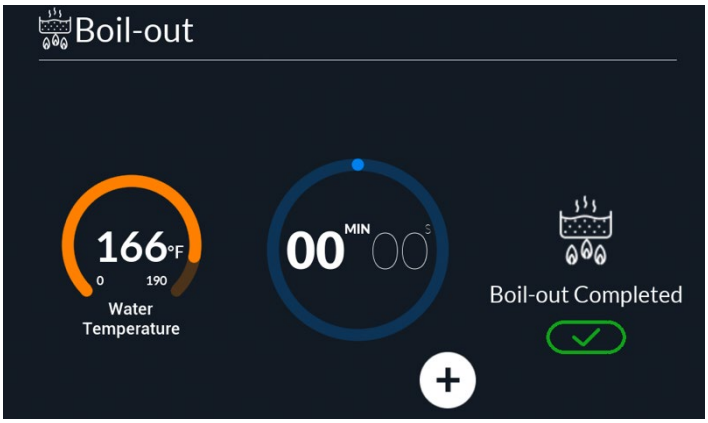
- In the middle of the ***Boil-Out*** process, brush and clean the frying vat, and the heating elements
- Press to turn off the buzzer.
- Press to continue the Boil-Out process.



- Boil-Out Process completed. Press to continue.

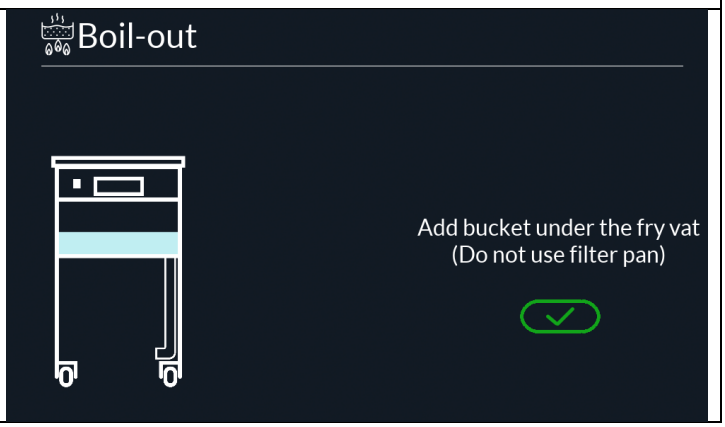
  .1. **Note**: At the end, press to add extra ***Boil-Out*** time (each press adds 30s) Press to reduce additional time added...

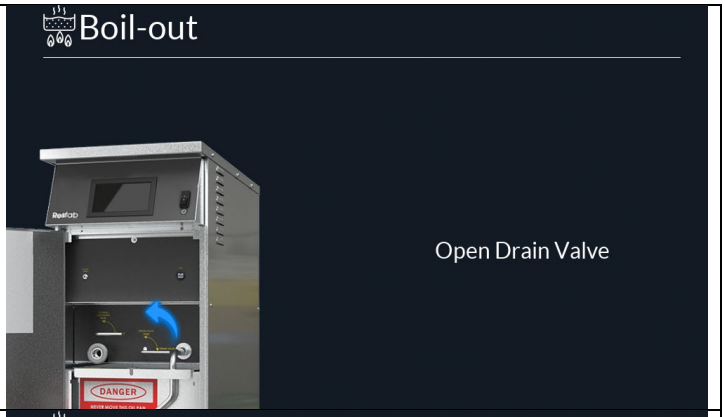
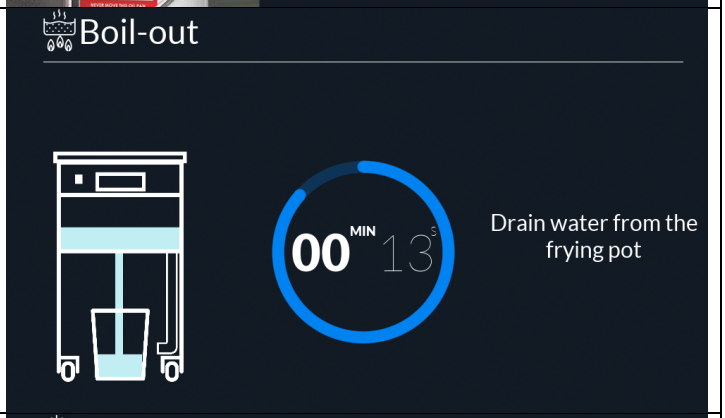
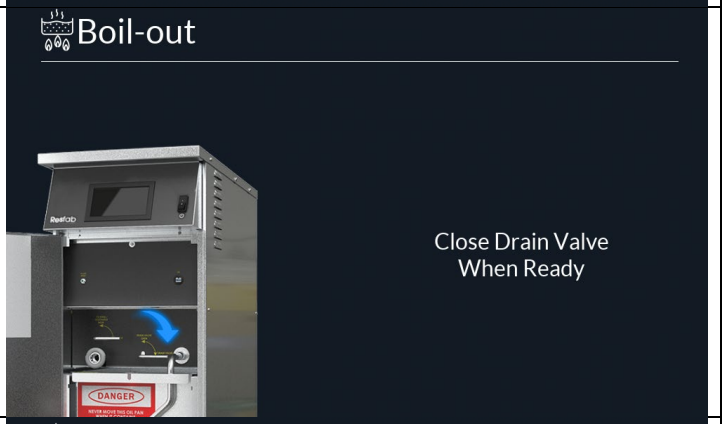
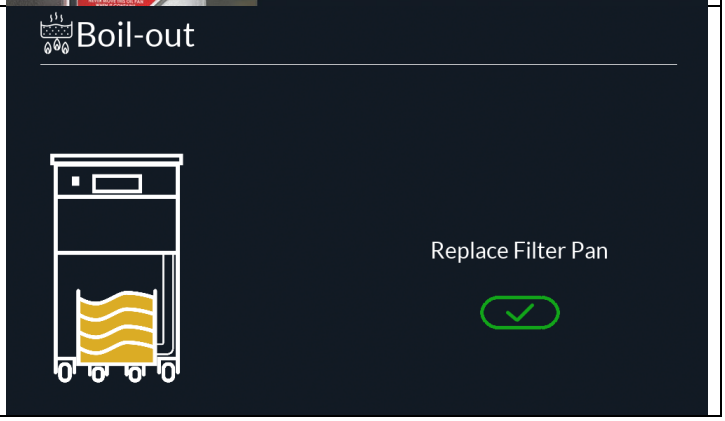




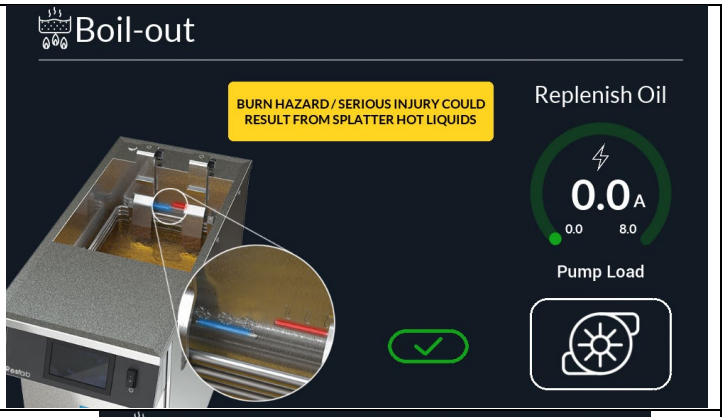
- **Check to ensure the bucket is under to collect the water** press to continue.

Do not use the Filter Pan to collect any water.

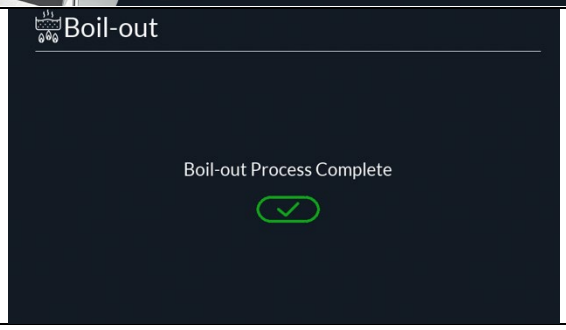


• Open the ***Drain valve*** to empty the cleaning water.	
• Fully drain the ***cleaning water.***	
• Close the ***drain valve***.	
• Replace the ***Filter Pan*** in place and press ✓.	

- Press to ***complete*** or press to ***pump back oil*** in the frying vat.



- Press to ***Exit*** after completion.

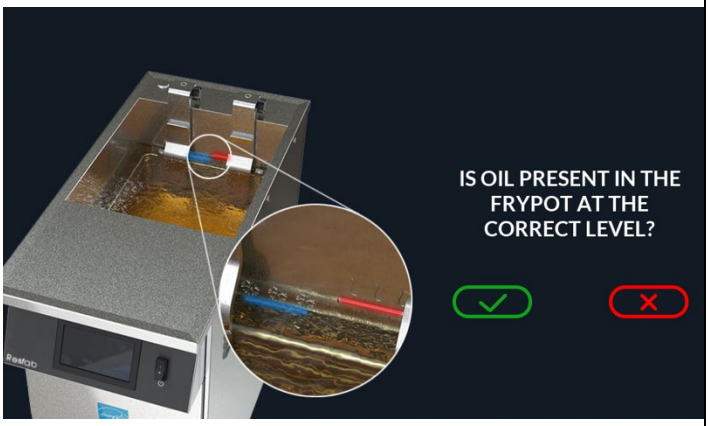


- Press to acknowledge that the ***correct Oil Level*** has been reached.

Note: This information is logged in the ***Oil Management Log***.

- Press to return to pumping mode to ***pump*** additional oil from bottom filter pan to frying vat.
  Note: Add manually new oil if not at correct level in the fryer

Note: **Add manually fresh oil if below the fill line of the fryer.**
-Frying or heating with oil level below the recommended level is a risk for fire.
- Always pay attention to oil level, <u>ensuring oil is consistently at correct level.</u>

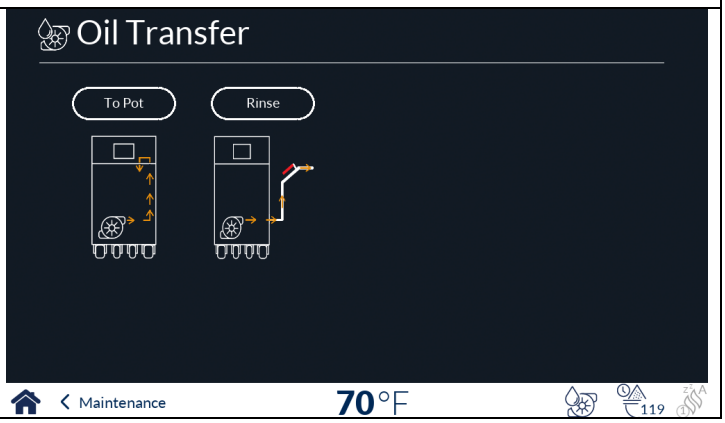


Oil Transfer – Oil Pump

1. Press

to ***Pump*** oil from Filter pan to frying vat. See details at next section.
2. Press

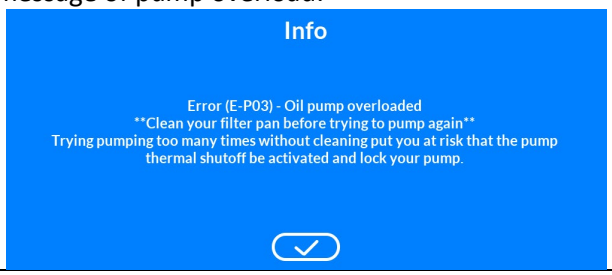
to use ***Rinse mode***. See details at next section called ***Rinse***.

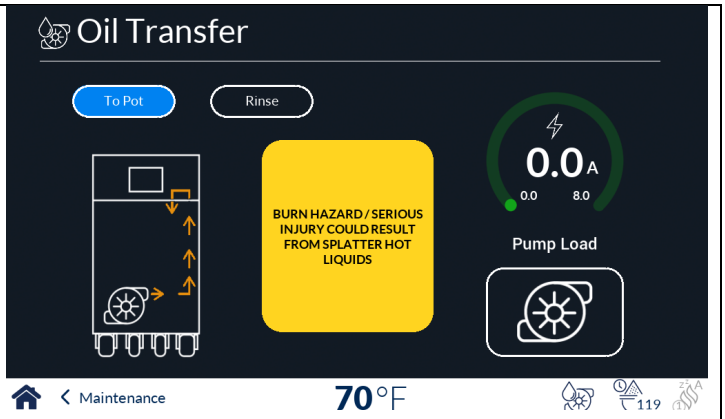


3. Select to active ***Oil Pump*** and pumping oil from Filter Pan to Frying Vat.

- ***Pump Load*** indicates **saturation** of filter in filter pan. If the ***filter*** is too saturated and pump is drawing too much current, a warning message will pop asking to clean filter. A default ***6A load value*** is set. If the pump runs for a certain time over this limit, the warning message will be displayed (see example below). If the filter has not been cleaned and the warning is repeating a certain number of occurrences, the oil pump's thermal protection may trip. In that case, pump must cool down (it can take up to an hour) and user have to manually reset the thermal protection by pushing the button located on the pump on the side of the fryer (MB-50/85) or on the front left side for MB-502

Example of message of pump overload:



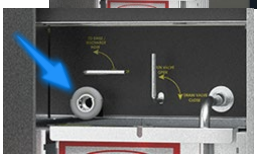


Rinse

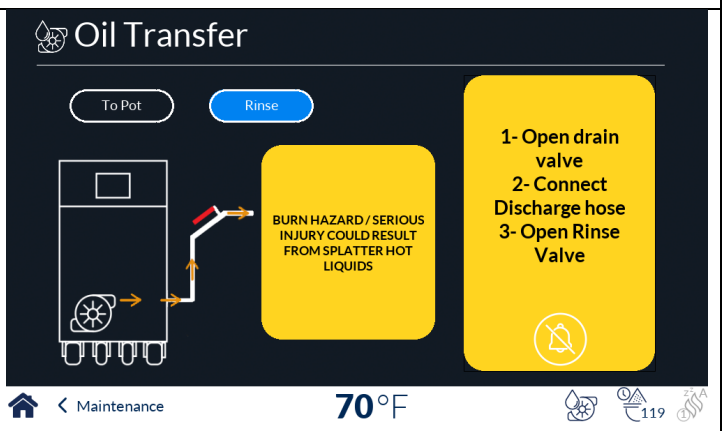
- ***Open*** the ***Drain Valve*** (Open the door to access drain valve).

- Connect the ***Discharge Hose*** to the ***Discharge Quick-Connect Coupler***.

Note: Push the white ring on the quick-connect coupler, insert the hose fitting and release the white ring.



- Open the ***Rinse Valve***.

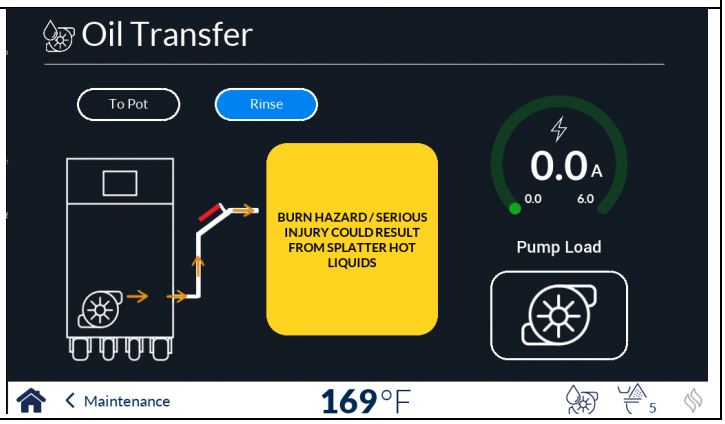


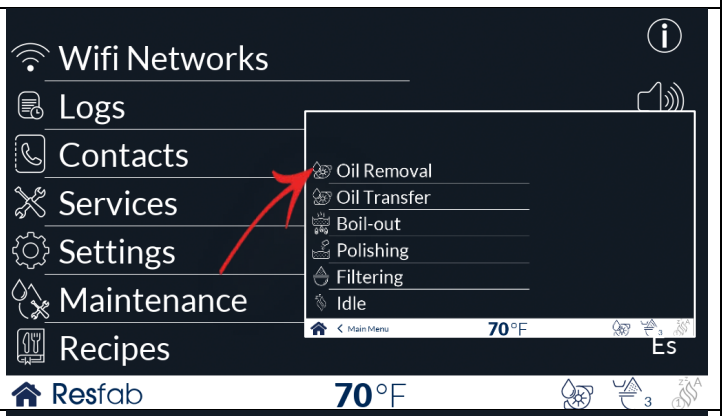
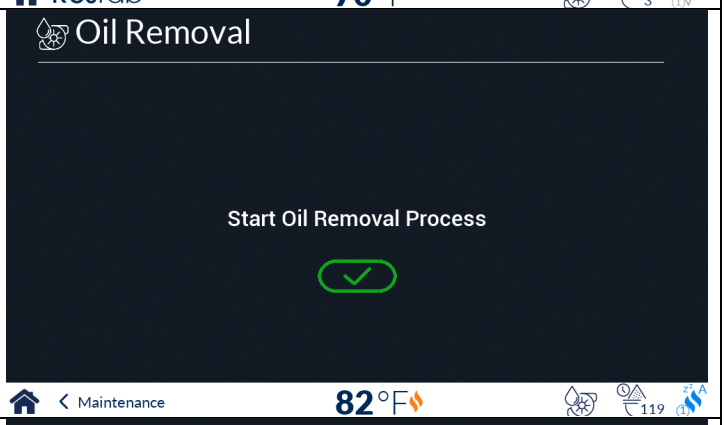
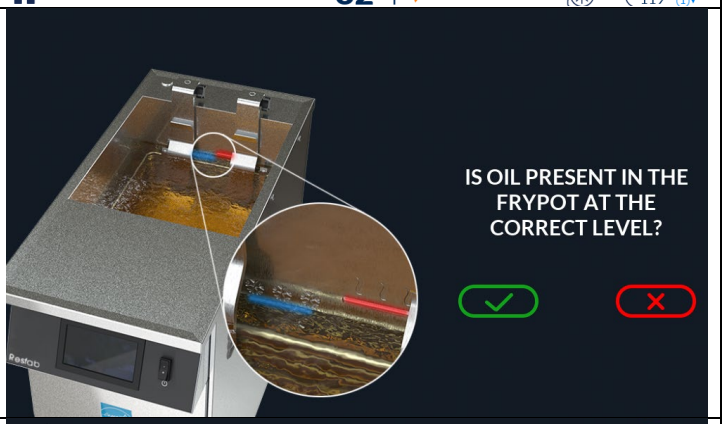
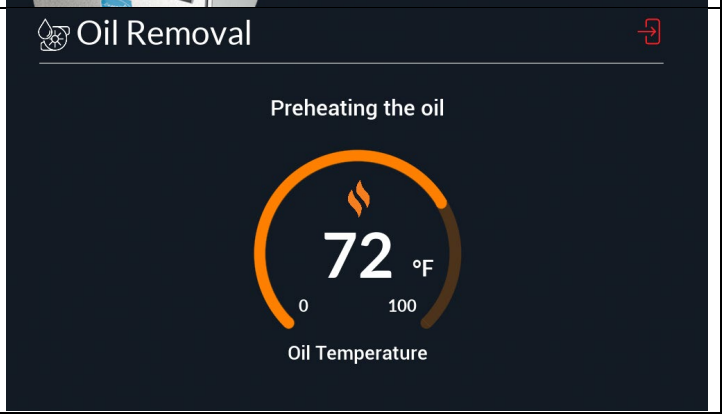
- Press to start the ***Pump***.

Note: Make sure to direct the ***Discharge Hose*** into the frying vat to avoid any spillage on the kitchen floor

BURN HAZARD / SERIOUS INJURY COULD RESULT FROM SPLATTER HOT LIQUIDS

- When completed, close the drain valve, remove the discharge hose. Pump back frying oil into frying vat by pressing To Pot and start the pump . Or you can perform a ***Manual Filtering*** (See Filtering section for details.)



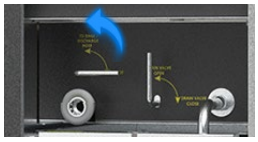
Oil Removal	
• Press Oil Removal to access the ***Oil Removal*** Process.	
• Press to start.	
• Acknowledge by pressing to make sure oil level is adequate. *To prevent any risk of fire. • Press to go in the pumping oil function and pump oil from filter pan to fryer vat.	
• Oil will ***heat*** to 100°F (38°C) to make the ***Removal*** easier for the oil pump.	

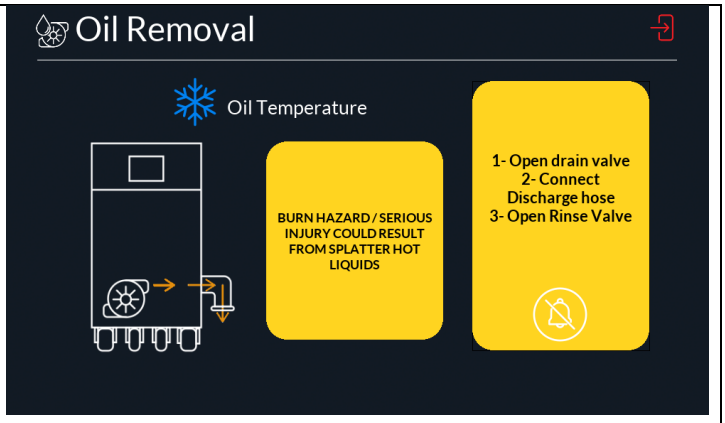
- ***Open*** the ***Drain Valve*** (Open the bottom door to access drain valve).

- Connect the ***Discharge Hose*** to the ***Discharge Quick-Connect Coupler***.

Note: Push the white ring on the quick-connect coupler, insert the hose fitting and release the white ring.

- Open the ***Rinse Valve***.



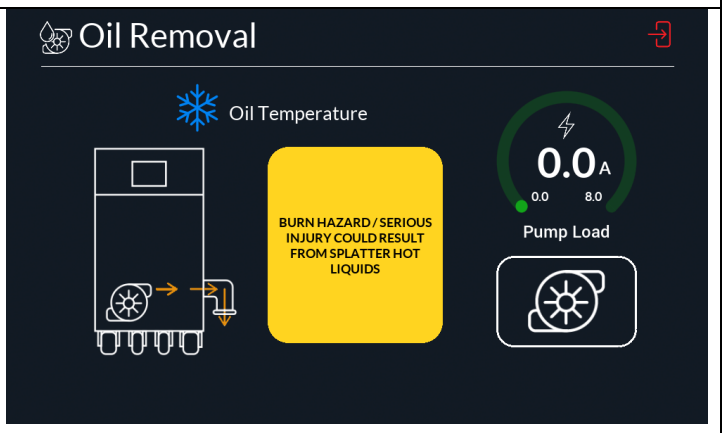


- Press to start the pump and proceed with ***Oil Removal*** from fryer into an oil caddy, jug, or ***RTI feature***.

⚠ **Note**: use a container resistant to hot oil. We suggest using ***Oil Caddy OM-80***

It is suggested to perform the following ***cleaning tasks*** before refilling with new oil:

- Clean ***Paperless Filter*** entirely.
- Clean ***Filter Pan***.
- Proceed with ***Boil-Out***.



Oil Removal- Temperature Lock-Out

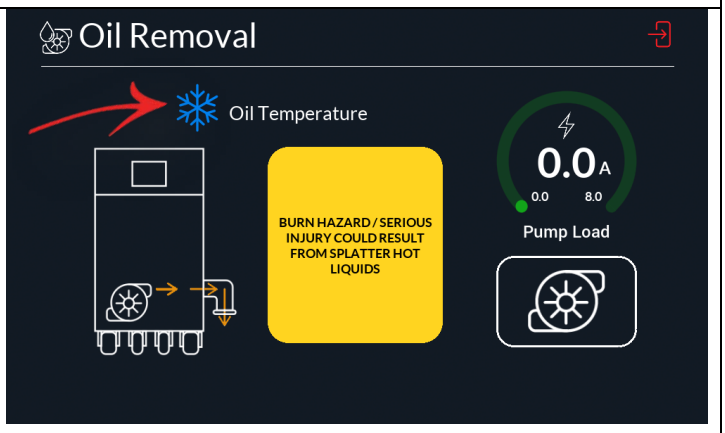
4. If the ***temperature Lock-Out*** for Oil Removal is enabled, the follow icon will be displayed

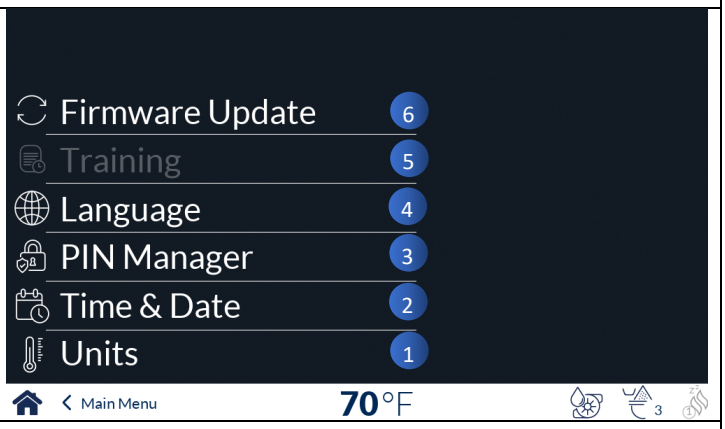
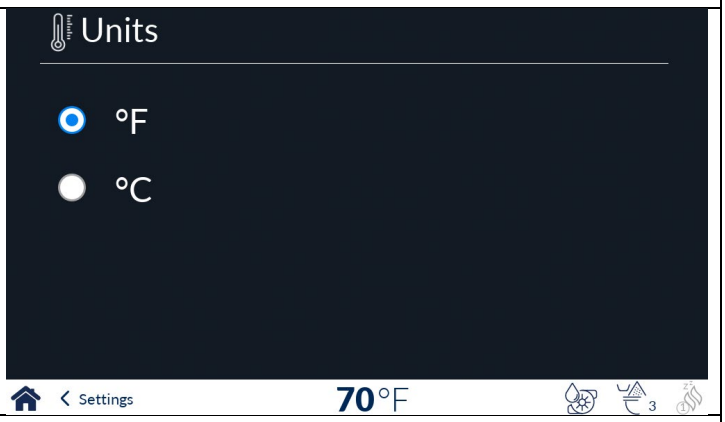
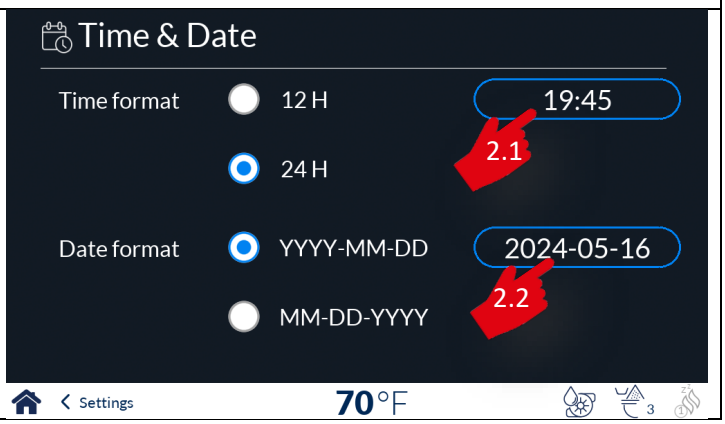
- If oil is cold (<140°F / 60°C) than the logo will show blue snowflake:

It is safe to proceed with Oil Removal.

- If oil is too hot (>140°F / 60°C), the red flame log will be displayed:

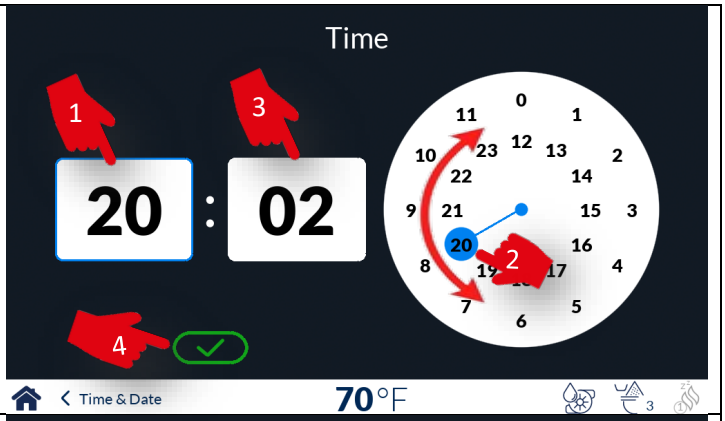
It is not recommended to proceed with Oil Removal.



Settings Menu	
1. Change ***Temperature units***. 2. Adjust ***Time & Date***. 3. Activate, change or reset ***PIN Manager*** & Service. 4. Change ***Language*** of fryer. 5. ***Training*** section. 6. Proceed with ***Firmware Update***.	
Units Selection	
• Select the desired ***Temperature Unit*** (Fahrenheit or Celsius).	
Time & Date Adjustment	
1. Chose the right ***Time Format***: 12h (AM/PM) or 24H. 2. Chose the appropriate ***Date Format***: **US**: MM-DD-YYYY **International**: YYYY-MM-DD **Notes**: - If using ***Logs*** (***HACCP*** for instance)***,*** it is very important to adjust date & time to get right time and date stamp. The system does not adjust by itself for time zones or daylight-saving time (DST) or standard time. • ***Logs*** will always use international format system for date & time for display and when exporting data in CSV file.	

Time Adjustment

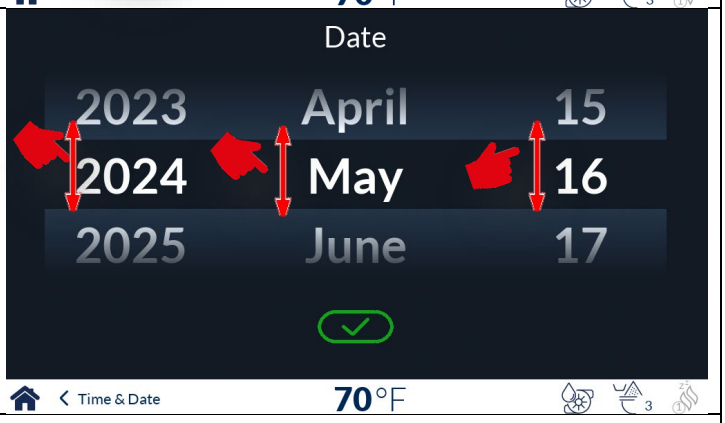
1. Click on the ***hour*** field.
2. Click on the ***blue dot*** in the dial and move to set at the specific hour.
3. Repeat the same actions for ***minute*** field.
4. Set time with ***green check*** button



Date Adjustment

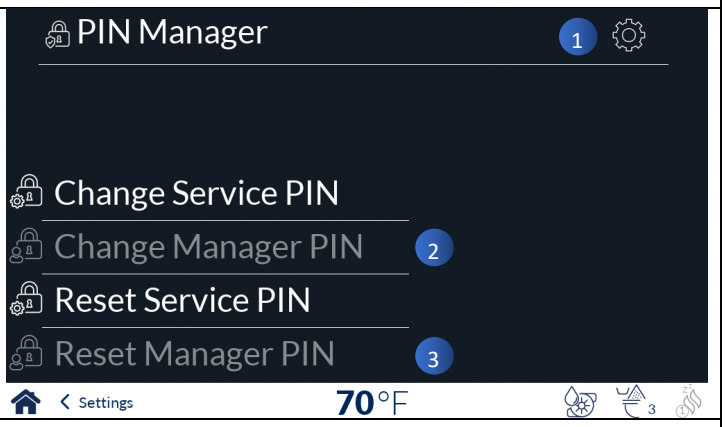
Scrolling up or down on the ***Year***, ***Month*** and ***Day*** fields to adjust the current date.

Set Date with ***green check*** button



PIN Manager Settings

1. Settings to activate ***Manager Access Prompt***
2. ***Change*** Manager ***PIN***
3. ***Reset*** Manager ***PIN***



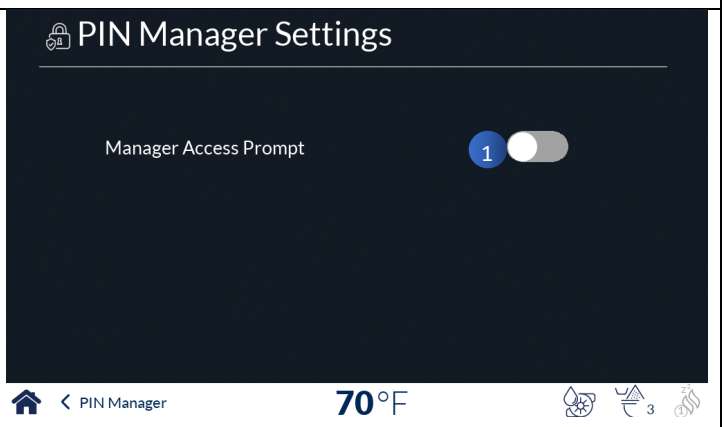
Manager Access Prompt

1. Slide right to enable ***Manager Access Prompt***

   When ***Manager Access Prompt*** is enabled, the following functions will require the ***Manager PIN*** to ***access*** some settings or ***cancel*** an operation.

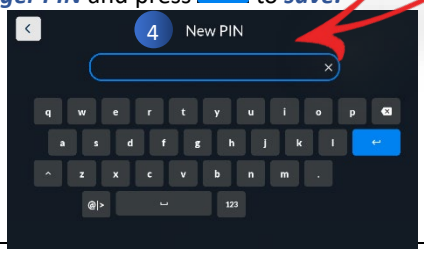
Here is the list:

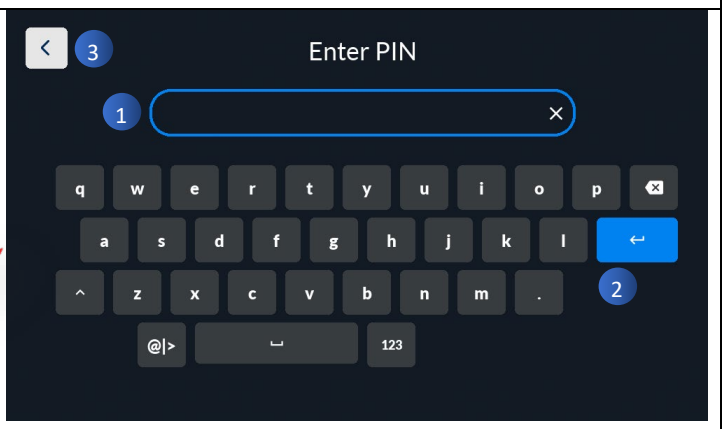
- Change or Reset ***PIN Manager***
- ***Recipes Editing*** (Edition, Addition, Deletion)
- ***Force Filtering*** (Enabling, Settings adjustments, cancel a force filtering)
- ***Force Polishing*** (Enabling, Settings adjustments, cancel a force polishing)
- ***Force Boil-Out*** (Enabling, Settings adjustments, cancel a force Boil-Out)
- Access to ***Logs***
- Access to ***Date & Time***
- Access to ***Firmware Update***



Change PIN Manager

1. Click Change Manager PIN and input with the keyboard your ***PIN Manager*** to enter in the menu and
   - You can use letters, numbers, symbols and PIN are case sensitive.
2. Press ↵ to ***save.***
3. Use ‹ to ***go back.***
4. Enter your ***new Manager PIN*** and press ↵ to ***save.***

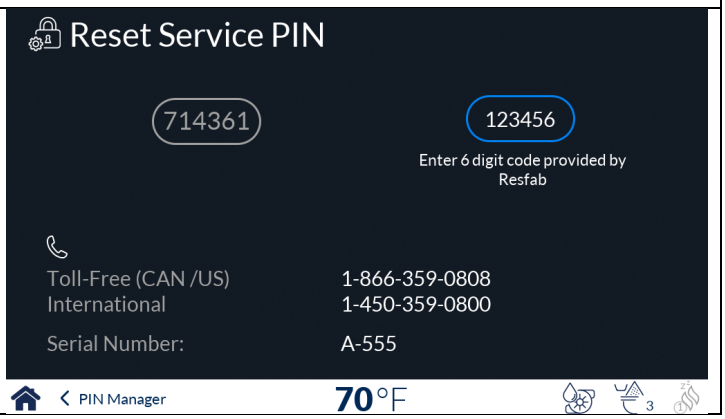


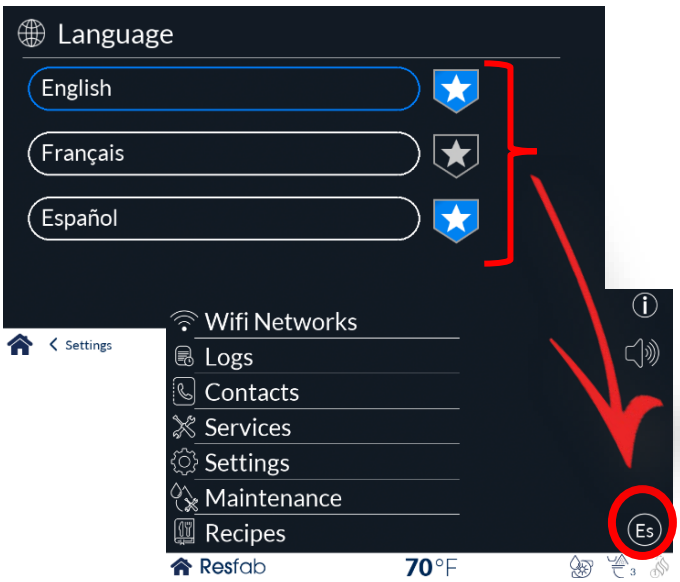


Reset Manager PIN

- If your ***Manager PIN*** is ***lost***, click Reset Manager PIN

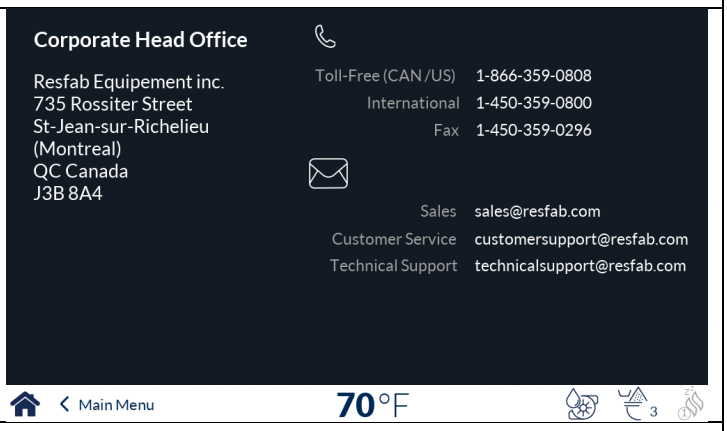
1. Call ***Resfab Technical Support***
   - Toll-Free (CAN/US): 1-866-359-0808
   - International: 1-450-359-0800
2. Communicate ***Serial Number*** to Resfab Technical Support. Ex.: ***A-55555***
3. Give to Technical Support the ***6-digit code***: Ex.: ***714361***
4. Resfab Technical support will give you a new ***6-digit validation code*** that you will *input* in the field 123456
5. Input a ***new Manager PIN***. (Memorize it or keep it in a safe location to avoid repeating this action).



Language Settings	
• ***Blue Language*** English is the active language. • When ***Favorites*** are selected (2 favorites minimum) a toggle shortcut button Es is appearing in the bottom right corner of the ***Settings Screen***. This will allow users to toggle from one favorite language to another favorite.	
• In this example, language will be toggled from ***English*** to ***Española*** (Spanish). If you toggle another time, language will toggle back to ***English***.	
Services	
• Section reserved for Technical Services for troubleshooting	

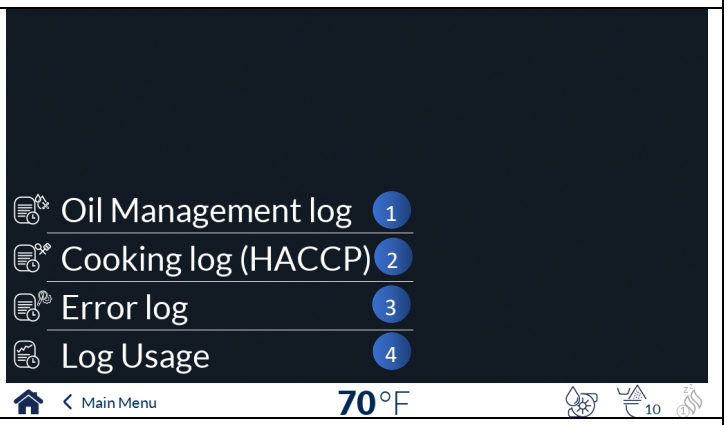
Contacts

- Use these ***coordinates*** to communicate with ***Resfab***.



Logs

1. ***Access Oil Management*** log to see the events related to ***Filtering***, ***Polishing***, ***Boil-Out*** and ***Oil Level***.
2. Access ***Cooking log (HACCP)*** to access your ***cooking production data.***
3. ***Error logs*** will show all errors related to the fryer itself from software to a component like Auto lift motor.
4. ***Log Usage*** will display a summary of all events.

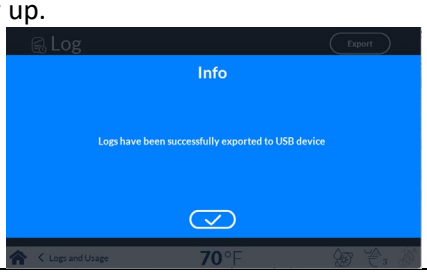


Oil Management Log

1. All events related to ***Oil Management*** are logged. Procedure like ***Filtering***, ***Polishing*** are ***Boil-out*** are logged even if they are cancelled. For safety reasons, always, when drain and discharge valves are activated***, Oil Level Question screen*** will always be shown to ask user to validate if enough oil is present in the vat and avoid fire. ***It is at the sole responsibility of the user to make sure the oil level is always at the appropriate level when frying to avoid fire.***

2. Press Export to ***Export Data*** to USB device. Connected USB device in the USB port prior of exporting.

- Data will export in as a ***CSV*** file and a confirming message will show up.

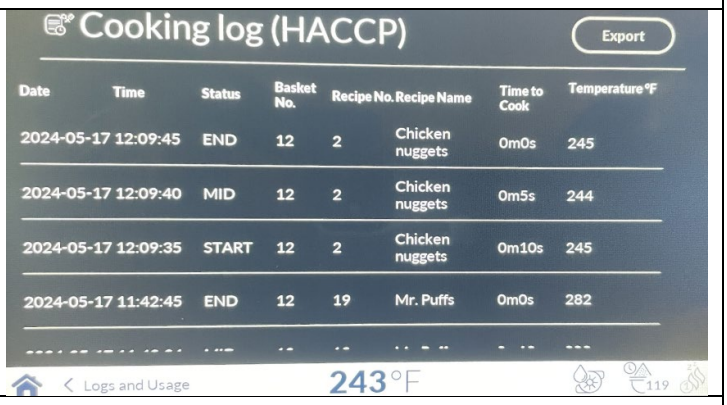


Cooking Log (HACCP)

1. All ***Cooks*** are logged. Log are taken at three intervals during the cooking including recipe name, cooking temperature at the time of reading.
2. ***Intervals***: At the ***Start***, at ***Mid*** cook at the ***End***.
3. Press

to ***Export Cooking HACCP Data*** to USB device. Connected USB device in the USB port prior of exporting.

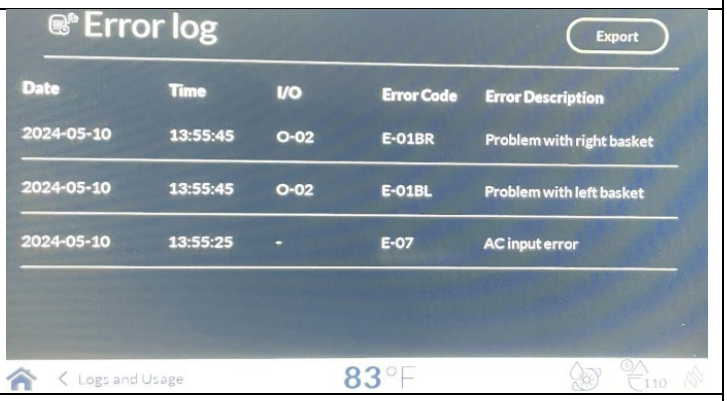
- Data will export as a ***CSV*** file.



Errors Log

1. Errors of components in the fryer are logged.
2. Data can be exported as a CSV file, press

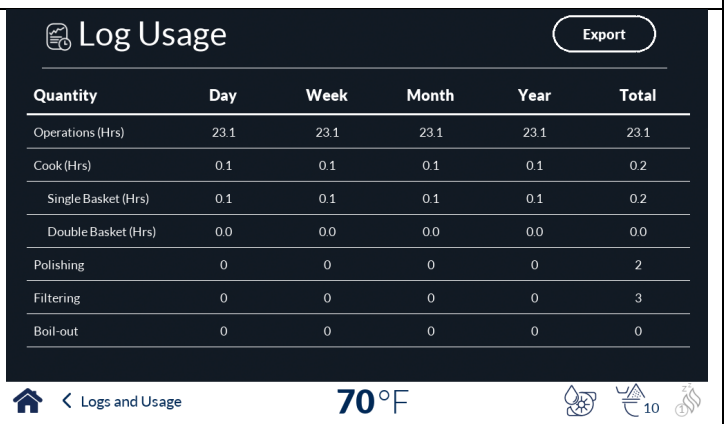
to do so. (Insert USB device prior to press Export).



Log Usage

- ***Log Usage Summary*** will show the total number of events related to ***Cooking*** (Hours of cooking, ***Operation*** = fryer is ON) and Maintenance Procedures (***Filtering***, ***Polishing*** and ***Boil-Out***) done during the specific periods:
- For the ***Full Day***
- For the current ***Week-to-date*** (from Monday to Sunday)
- For the entire current ***Month-to-Date***
- During the current ***Year-to-Date***
- For the ***Total Life-to-Date*** of the fryer.
- Press

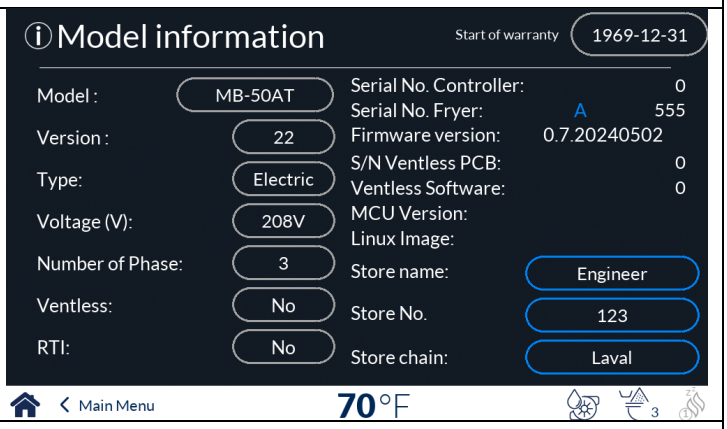
to ***download CSV file*** on the USB device. (Insert USB device prior to press Export).

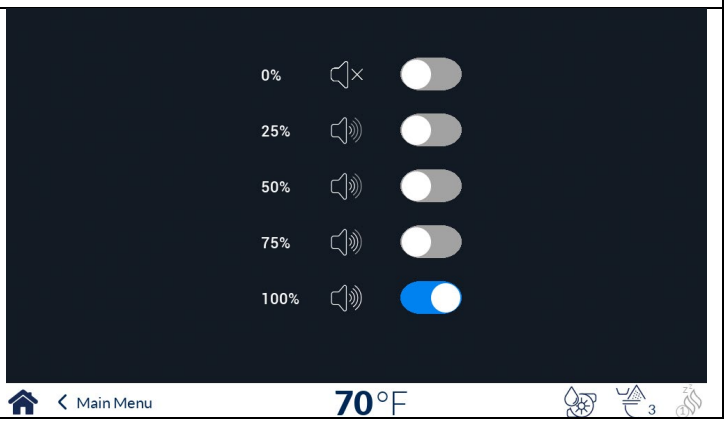


Log Reset

After 13 months of operation, the fryer will prompt the user to ***download*** all data to a USB device to free up memory and create room for new data.

- If the user does not execute this action, the fryer will repeat the prompt daily at every start-up for a 30-day period. Once the user downloads the data, the repeating message will no longer appear.
- If the download has still not been executed after 30 days, all ***data will be lost***.

Fryer Information	
• In this screen you will find all information related to your ***fryer model***. This can be useful when communicating with Technical Services. ***Model*** of Fryer, ***Serial Number*** of Fryer. You have also the ***starting date*** of the ***warranty***. This date will be memorized the first time you will power up your fryer. The fields ***Store name***, ***Store No.*** and ***Store Chain*** will be used with Wifi connectivity. Please refer to ***Wifi Networks*** section for more details.	
Buzzer	

• ***Buzzer*** can be muted or adjusted at 4 sound levels:
  • 0%
  • 25%
  • 50%
  • 75%
  • 100%
	

PUMP MOTOR AND HIGH LIMIT THERMOSTAT RESET

PUMP MOTOR RESET
Explanations:

The pump motor is equipped with a thermally activated switch. The purpose of this safety device is to cut the power of the pump motor in case the motor is over-heating (and creates a fire hazard) due to several causes:

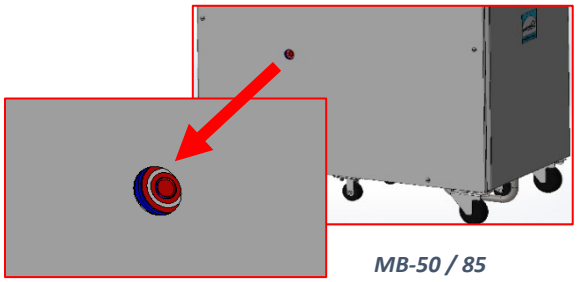
1. If discharge valve is not in the pot position and no discharge hose is installed: This way, there is no flow, and the pump motor is working but the circuit is closed, pressure is built in the system, and motor starts to over-heat and the thermal switch activates to protect the equipment. This only takes a minute or two and will trip the Pump Motor protection.
2. If filtration system is clogged by breading, filtration pan, flex hoses, pump motor, and valves. The pump motor works harder trying to create a flow, then the motor starts to over-heat. To protect the equipment, the thermal switch activates and shuts down the pump. M**ay take an hour or more for the pump to cool down so that can reset the pump**.

Solution:

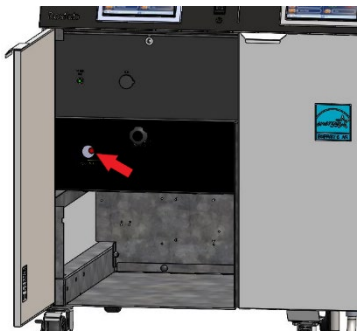
- Depending how hot the motor was, time is required to let cool down the motor, approximately 45-60 minutes. Time to cool down depends of many factors such as temperature of the motor when thermal switch shut down the pump, and how long the fryer was cooking.
- After the pump is cooled, reset by pushing the button located on the left side (MB-50, 85) or front (MB-502).

Note: Pump Reset issues are not covered under warranty.

Direct Access Pump Reset



MB-50 / 85



MB-502

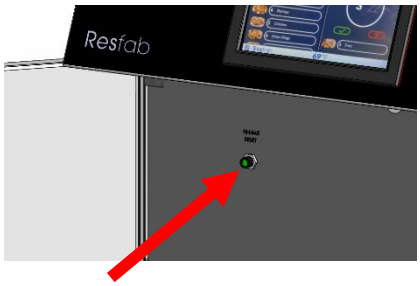
HI-LIMIT THERMOSTAT RESET

Explanations:

- ***Hi-Limit*** thermostat will pop-out when fryer elements have been turned on without enough oil or with no oil in the fryer pot.
- Or, when cleaning, if ***Hi-limit*** thermostat bulb and/or capillary has been hit.

Solution:

1. Reset ***Hi-limit*** thermostat using a pen to reset button – Push button.
2. If ***Hi-limit*** is not resetting, allow extra cooling time.



In rare occasions, the thermostat may have been permanently damaged and requires replacement.

Note: ***Damaged Hi-limit*** thermostat is <u>not covered under warranty</u>.

TROUBLESHOOTING

LIST OF ERROR CODES

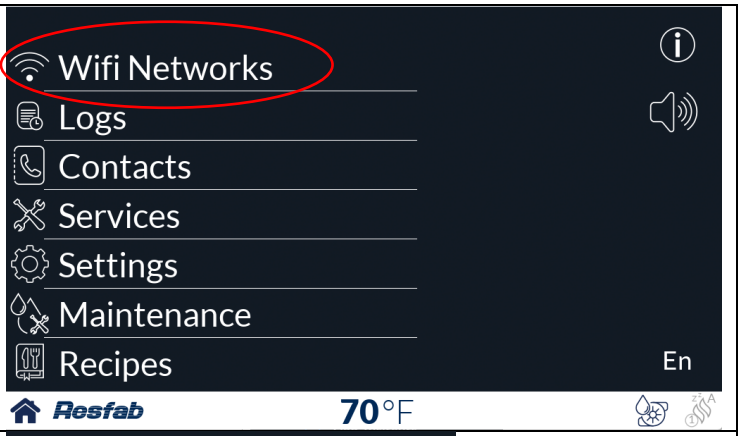
Error Cod	Message	Severi	Description	Error Message Displayed on Fryer	Possible Causes / Resolutions
E-01BL	Left Autolift Basket Problem	Problem	Issue with basket position/travel when not expected	LEFT BASKET AUTOLIFT ERROR (Error code: E-01BL)	-Restart the fryer to reset autolift motor sequence. - Check for fuse of **Motor Lift 2** on PCB. Replace fuse if needed. - Check motor switch, replace it if faulty. - Check if motor brake if working as it should. (if lift always down, probably the brake motor is faulty. Change de motor) -Check wire connections, redo connections if faulty. - Check if PCB controler is sending signal to lift motor. If not change PCB
E-01BR	Right Autolift Basket Problem	Problem	Issue with basket position/travel when not expected	RIGHT BASKET AUTOLIFT ERROR (Error code: E-01BR)	Same as above but for **Motor Lift 1**.
E-02	Oil Pump Issue	**Caution**	If the pump current is low when running	OIL PUMP ISSUE. CHECK PUMP RESET BUTTON FIRST, IF ISSUE IS NOT RESOLVED THEN CALL SERVICE (Error code: E-P02)	- Wait until pump cools down. Reset the pump's thermal protection.Use a tool like a big screwdriver and push hard on the red button of the pump (MB-50 / MB-85 : Left side, MB-502: front left - open door) -Check connections from pump to PCB.
E-03	Oil Pump Overloaded	Warning	If pump is on and current is too high	Error (E-P03) - Oil pump overloaded **Clean your filter pan before trying to pump again** Trying pumping too many times without cleaning put you at risk that the pump thermal shutoff be activated and lock your pump.	- Clean your Filter and Filter Pan regularly. Filtering with crumbs filter saturated will make the pump to workd harder and then to heat more. - Make sure filtering circuit is not clogged by crumbs or food pieces. -If pump's thermal protection is enabled:Wait until pump cools down. Reset the pump's thermal protection.Use a tool like a big screwdriver dasn push hard on the red button of the pump (MB-50 / MB-85 : Left side, MB-502: front left - open the door). - You can increase pump threashold value (default 6) Menu: Service/Pump Settings
E-04	High Temperature Limit Reached	Problem		HIGH LIMIT TEMPERATURE HAS BEEN REACHED (Error code: E-04) Let the fryer cool down and try to reset the hi-limit device (with a screwdriver) (Location: open the front door and located on the left of the panel under the screen controls)	- **Make sure you fry with the right level of oil at all times.** (frying with less oil put you at risk of fire and may trigger the Hi-limit thermostat protection). -Wait to let cool down the fryer. Reset with a pen or a small scredriver the hi-limit thermostat (physically push the small reset button - located in front of the fryer - open door. Re-start the fryer. (if the thermostat is still too hot, you won't be able to reset it.) - If Hi-limit issue is repeating, check connections. - Check if capillary of bulb is not damaged, kinked, squeezed or deformed. - Check if the bulb is at the right location, not touching heating elements. -If problem persist, change hi-limit.
E-05	Back Cooling Fan Speed Low	Warning		COOLING FAN SPEED TOO LOW. VERIFY IF COOLING FAN IS FREE OF MOVEMENT IF NO ACTION IS TAKEN FRYER MIGHT STOP WORKING (Error code: E-05)	- Make sure the cooling fan is cleaned. - Check the fan has enough clearance from walls. - Check if it spins freely. If hard to turn, bearing might be worn, change the fan.
E-06	Back Cooling Fan Speed Error	Problem		COOLING FAN HAS A PROBLEM (Error code: E-06)	-Check connections/wires -Check if the fan is rotating freely, change the fan if it is hard to rotate.
E-07	AC Input Error	**Error**	Bad AC Voltage input	AC INPUT ERROR (Error code: E-07): 1- If equipped with ventless hood, make sure ventless ON/OFF switch is at ON. 2- Make sure all filters are in place or change with new filters. (Fryer must be ON) 3- Validate Hi-limit device and re-arm it when cold if required. 4- If none of the above has resolved the issue, call a service technician.	- If equipped with Ventless Unit (MB-502) make sure ON/OFF switch of Ventless is ON. Restart fryer. - If equipped with Ventless Unit, make sure all filters are installed and fully in place. Restart fryer. - Check if Hi-limit thermostat is not enabled. Reset if needed (cold state) - Make sure connection of AC Input connector **J10** is connected properly. Check connector on PCB or connectorof wire harness.
E-09	Thermocouple Module Issue	**Error**	Temperature out of range or MCU reports error	THERMOCOUPLE IS IN ERROR Restart the fryer, if issue persists call a service technician (Error code: E-09)	- Restart fryer to reset the software and see if it resolves the issue. - Validate if the thermocouple (TC) is working properly. - Check connection of TC on the PCB. (Look if connector on PCB is not damaged) - Check if TC is not damage - Change the TC or look if the issue comes from the PCB.
E-10	Temperature Problem (not heating or not heating enough)	Problem	If heater is on, and temperature is steady for too long	TEMPERATURE HAS NOT CHANGED OVER TIME (Error code: E-10)	- Check if heaters are heating properly ***(Menu: Service/Troubleshooting I_O/Heaters)*** : - Check heater connexions - Check Fuse **F4** (AC COIL HEATER) on PCB - Check if contactor C2 is working properly. - If not heating enough: make sure connections are done on the **appropriate voltage** and **phase**. Refers to Serial Number plate to get the proper voltage/phase) or info screen . - Check if the thermocouple seems accurate and working. Otherwise change it.
E-11	Electric Cooling FanSpeed Error	Problem	electric cooling fan speed to low	ELECTRIC COOLING FAN SPEED TOO LOW. VERIFY IF FAN IS FREE OF MOVEMENT IF NO ACTION IS TAKEN FRYER MIGHT STOP WORKING (Error code: E-11)	- Make sure the cooling fan is cleaned. - Make sure the fan has enough clearance from walls (back and side). - Check if it spins freely. If hard to turn, bearing might be worn, change the fan.
E-12	Electric Cooling Fan Speed Error	Problem	electric cooling fan speed to low	COOLING FAN HAS A PROBLEM (Error code: E-12)	-Check connections/wires -Check if the fan is rotating freely, change the fan if it is hard to rotate.

FUNDAMENTUM WEBSITE : SET-UP GUIDE

This section covers how to set-up your fryer to have access to all the wi-fi enabled features.

For these features to work properly, you will need :

- Wi-Fi network
- Phone, tablet, or computer
- Fryer powered on
- Account created in Fundamentum – you should have received a link to sign-up. If you have not received the link, please contact us at 1-866-359-0808 or by e-mail at technicalsupport@resfab.com

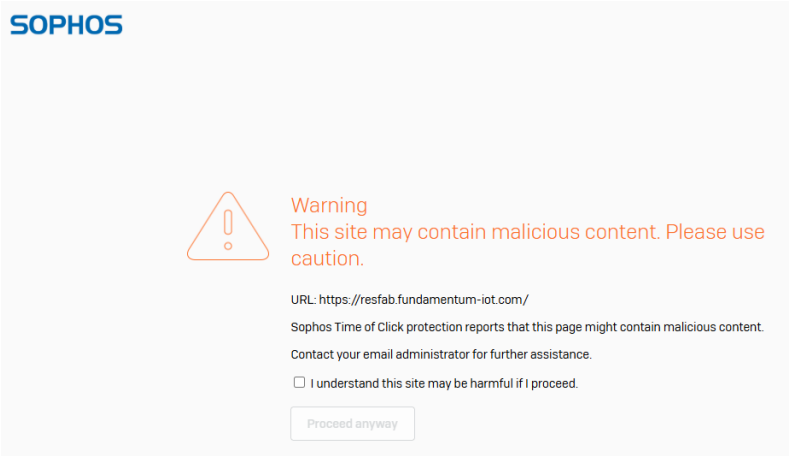
1.On the main menu: Tap on wi-fi	
2.Select the wi-fi network you would like to connect to and enter the password. *Networks with less than 3 bars may be less reliable and fast.	

4.Congratulations ! You are now connected to the wi-fi. Your fryer should appear as online in Fundamentum.	

FUNDAMENTUM WEBSITE : FEATURES

This section covers the wi-fi enabled features of the fryer on the Fundamentum website : https://resfab.fundamentum-iot.com/

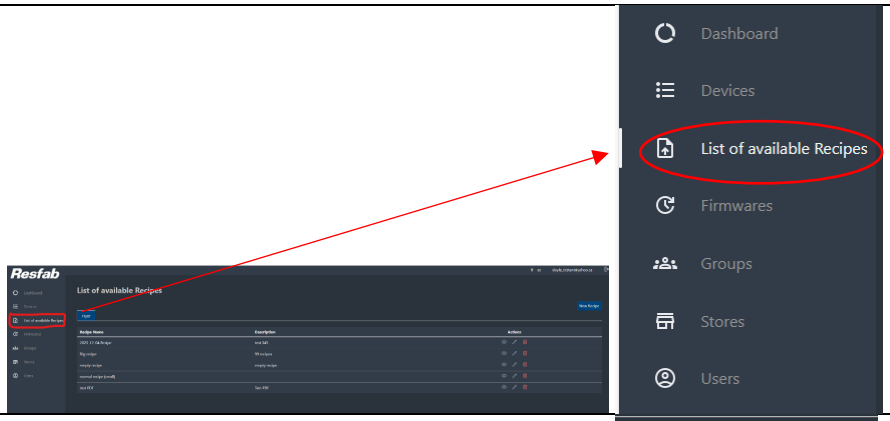
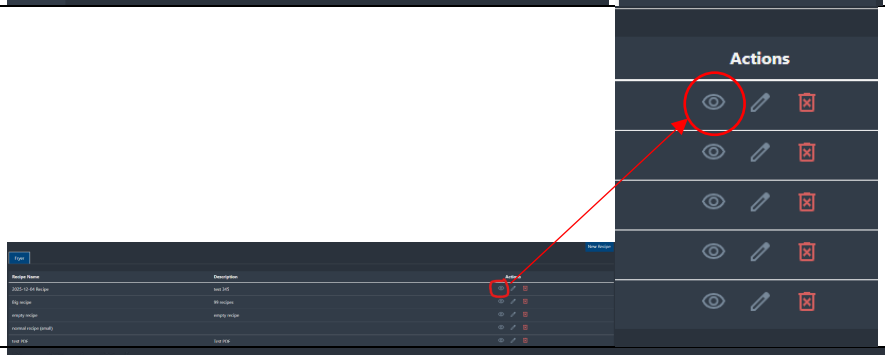
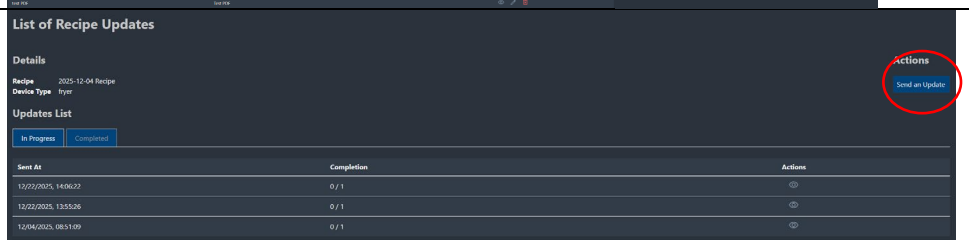
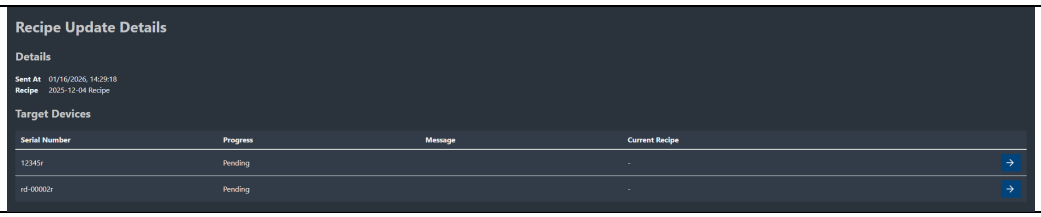
If there is a problem with the security :



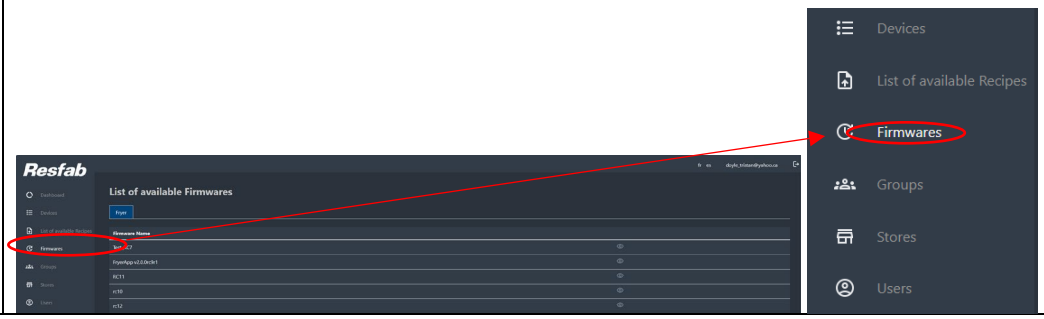
1. Attempt to give access on settings in Explorer or chrome.
2. Call IT departement and have them whitelist this website in the Firewall.

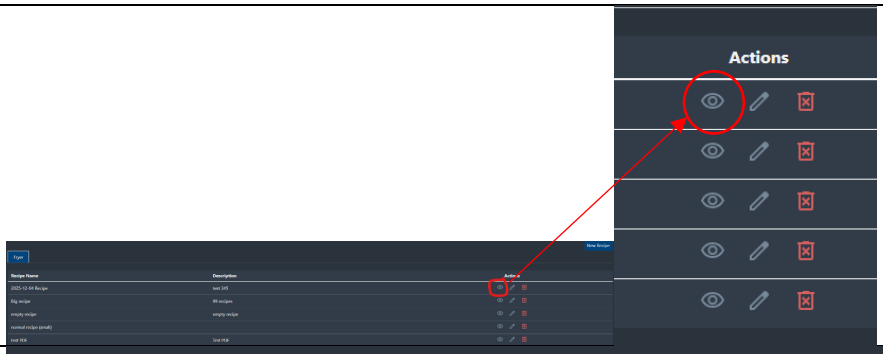
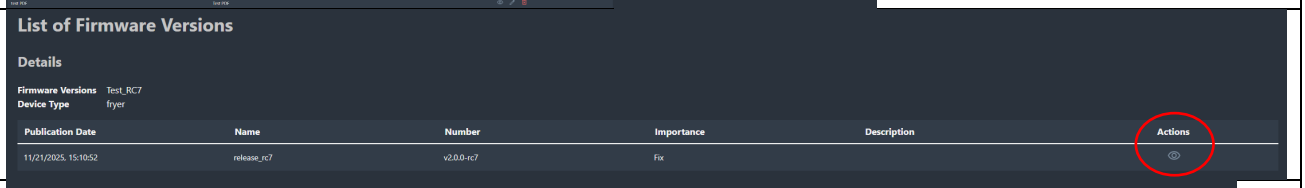
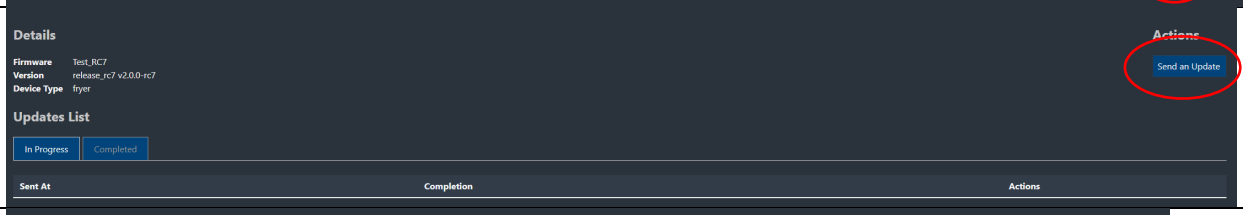
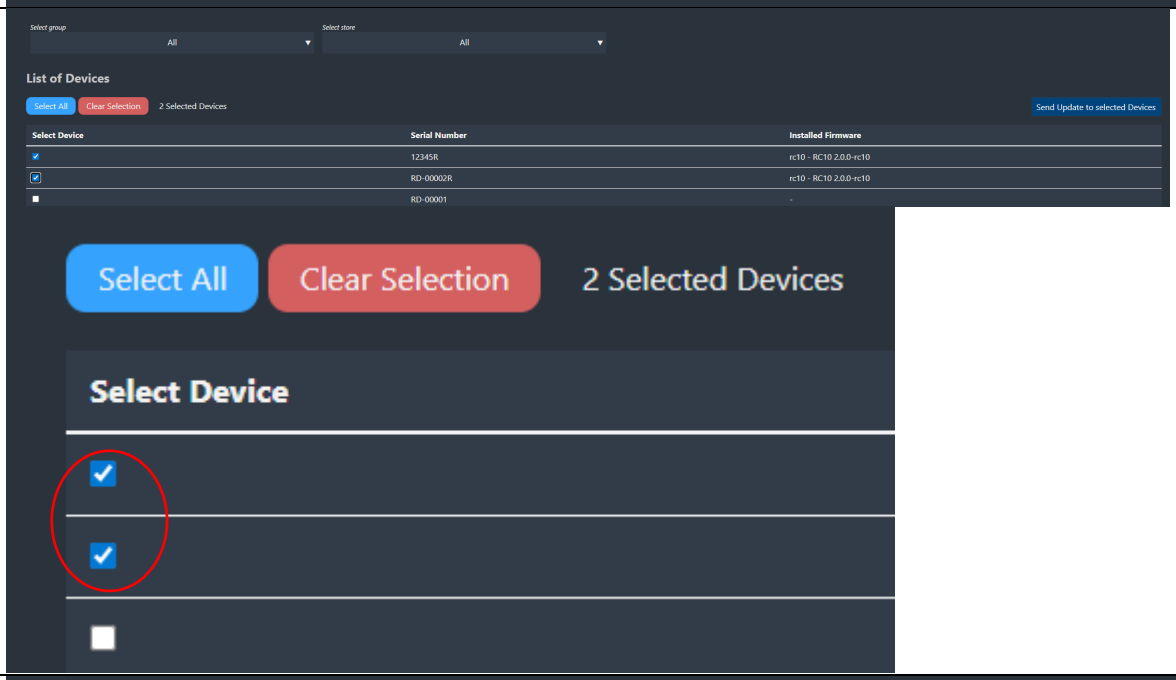
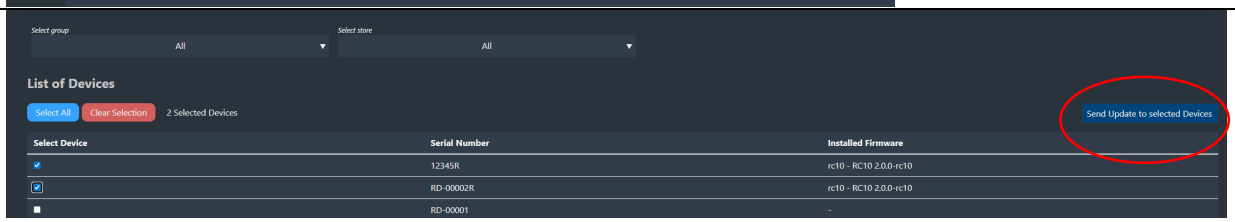
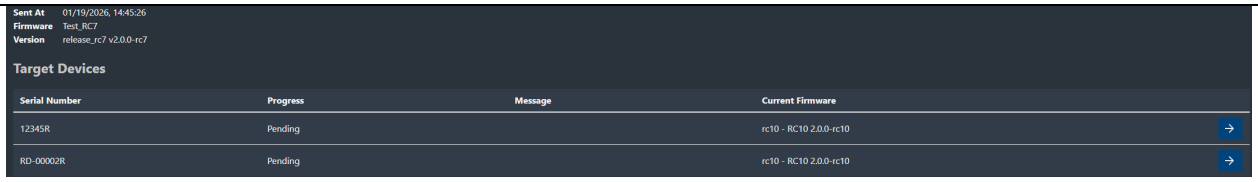
The fryer can connect to Wi-Fi and be monitored through a secure website named Fundamentum. This allows you to view fryer status, usage and send new recipes remotely.

<u>How to send a new recipe :</u>

1. Go to the List of available recipes tab	
2. Click on the eye icon of your desired recipe	
3. Click on Send an Update	
4. Select the fryers you want to receive the update and click 'send update to selected devices'.	
5. You can now track which devices have received and accepted/rejected the update.	

How to send a firmware update :

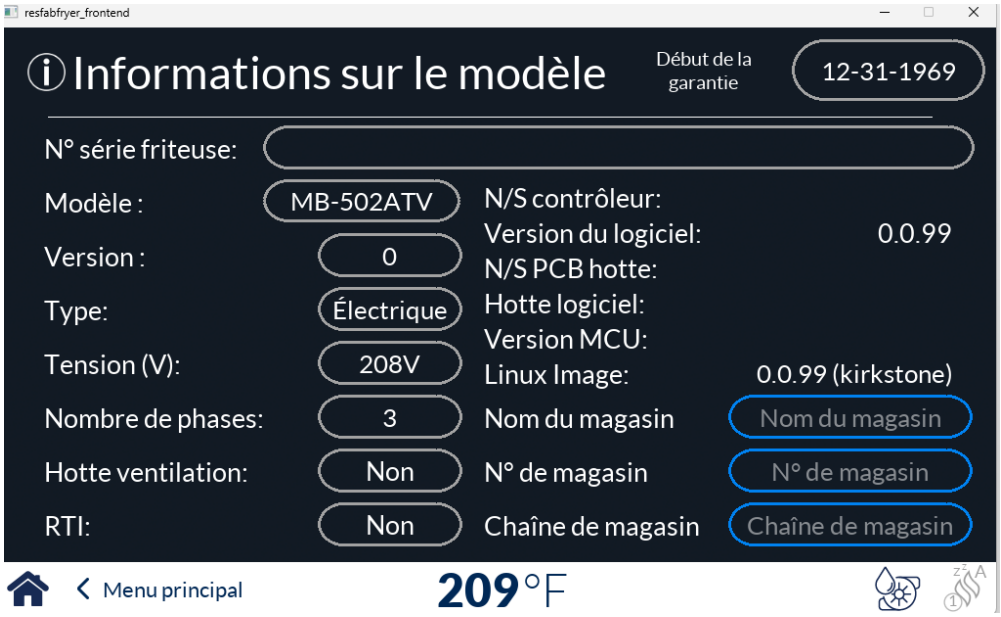
1. Go to the Firmwares tab	

2. Click on the eye icon of your desired Firmware	
3. Click on the eye of the selected update.	
4. Click on 'Send an Update'	
5. Select the devices you want to update	
6. Click on 'Send Update to selected Devices'	
7. You can now track which devices have received and accepted/	

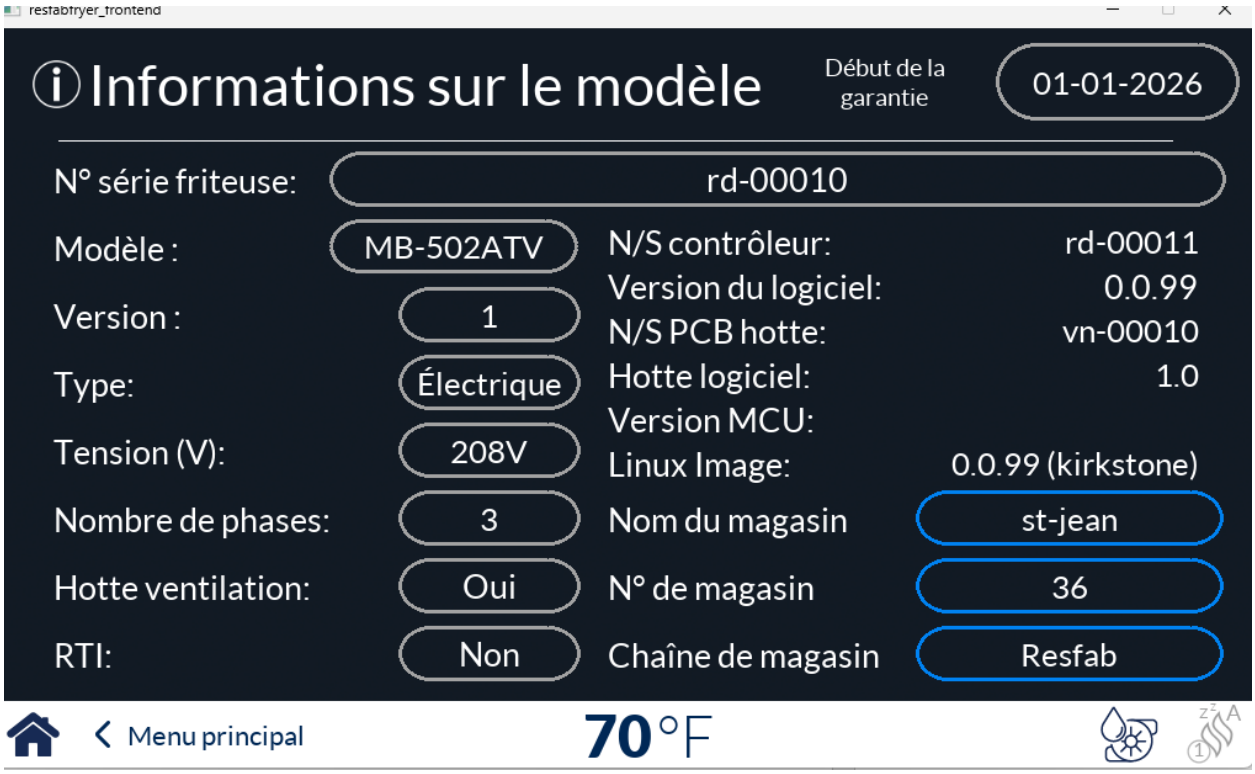
rejected the update.	

FRYER ATTRIBUTES

If the fryer does not have a serial number, store number or chain number, the website will not be able to locate the fryer properly.



This will not connect.



With information properly loaded. The machine will be able to do the provisioning and appear in Fundamentum.