



CH-“EX” Series Ovens



Service Manual
Original, American English

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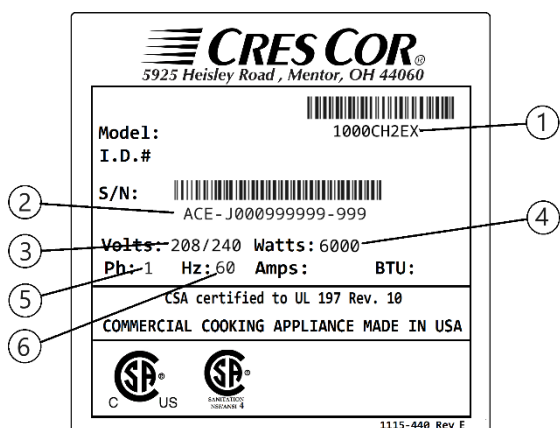
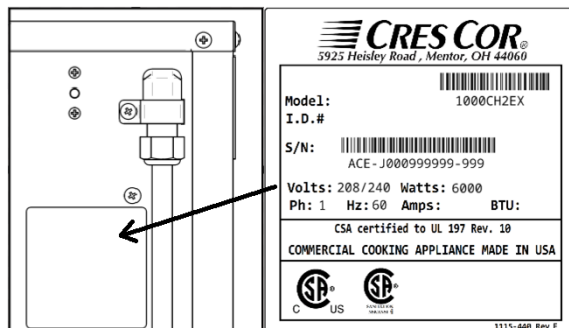
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1. General Information

a. Identifying Your Oven:

Look for this label on the back of your oven. This information is required when calling for questions or service.



ITEM	NAME
1	MODEL NUMBER
2	SERIAL NUMBER
3	VOLTAGE
4	WATTS
5	PHASE
6	FREQUENCY (Hz)

Please have the following information in the event you need to contact customer service:

1. Model Number
2. Serial Number

2. Use and Precautions

a. Symbols, Signal Words, and Precautionary Statements:

Danger symbol	Meaning
	Used to warn of possible injury. Comply with all instructions following the Danger symbol to avoid possible injury or death.

Signal word	Meaning
 DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury
 CAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE	Indicates a hazardous situation which, if not avoided, could result in property damage.

Warning symbol	Meaning
	High Voltage Area / Electric Shock Hazard Warning There is a risk of electrical shock from live parts if cover is removed or if unit is sprayed with water.
	Hot Surface Warning There is a risk of burns from hot surfaces

Additional symbols

Symbol	Meaning
	Read and understand the operating instructions before using the oven.

b. Electrical Safety:

WARNING : ELECTRICAL SHOCK HAZARD

- Do not use extension cords.
- Do not use the oven if the cord or plug are damaged in any way.
- Do not use the oven in excessively wet conditions.
- Do not remove any covers from the oven. There are no user serviceable parts inside.
- If the power supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons to avoid a hazard.

CAUTION : ELECTRICAL SHOCK HAZARD

- Only connect this oven to power outlets that match the specifications on the label on the back of the oven near the cord entry.

c. Heat Safety:

CAUTION : BURN HAZARD

- The outside surfaces of the oven may become hot. Do not touch them or place anything on them that may be damaged by heat.
- Use only in an adequately ventilated area.
- The inside of the oven will become hot. Use personal protective equipment.
- Hot air will escape when the oven door is opened.
- Keep all flammable materials away from the oven.
- Keep any materials that can be damaged by heat away from the oven.
- Do not put any heat sensitive food packaging or containers in the oven.
- Do not put food into the oven until the First Time Start-up burn-off procedure has been completed.
- Do not put anything inside the oven that may emit harmful fumes when heated.

d. Handling Safety:

WARNING : MOVING HEAVY LOAD HAZARD

- Make sure you have the appropriate lifting equipment when unpacking or loading equipment onto a truck.
- Make sure you have enough personnel to move the oven.
- Make sure to wear the required personal protective equipment.
- Do not move equipment on too steep of incline.
- Be careful when moving equipment over thresholds.

e. Personal Protective Equipment:

It is mandatory that Personal Protective Equipment is worn according to the job performed while moving, installing, and using the oven.

1. Moving oven to worksite

Task	Tools used	Personal Protective Equipment
• Removing packaging • Removing oven from pallet	• Utility knife/box cutter • Lifting straps	• Protective eyewear • Protective gloves • Safety footwear
• Moving equipment within the facility • Stacking on a stacking kit	• Forklift or pallet jack • Lifting straps	• Protective eyewear • Protective gloves • Safety footwear

2. Installing and preparing oven for service

Task	Tools used	Personal Protective Equipment
• Removing packaging • Removing oven from pallet	• Utility knife/box cutter • Lifting straps	• Protective eyewear • Protective gloves • Safety footwear
Installing electrical connection if necessary	Tools and equipment necessary for specific tasks	Personal protective equipment and clothing based on the required task in accordance with country-specific regulations
• Preparing the oven for service • Briefing the oven user	Tools and equipment necessary for specific tasks	Wear appropriate work clothes for kitchen work as required by country-specific standards and regulations, including: • Protective clothing • Heat-resistant gloves • Safety footwear

3. Using the oven

Task	Tools used	Personal Protective Equipment
Loading/Unloading	Utensils	Heat protective gloves
Cleaning	• Cleaning agents • Scrub pad or brush	• Protective gloves designed for use with cleaning chemicals • Protective clothing • Protective eyewear • Face protection

4. Removing oven from service

Task	Tools used	Personal Protective Equipment
Removing electrical connection from service if necessary	Tools and equipment necessary for specific tasks	Personal protective equipment and clothing based on the required task in accordance with country-specific regulations
Removing the oven from service	• Forklift or pallet jack • Lifting straps	• Protective eyewear • Protective gloves • Safety footwear

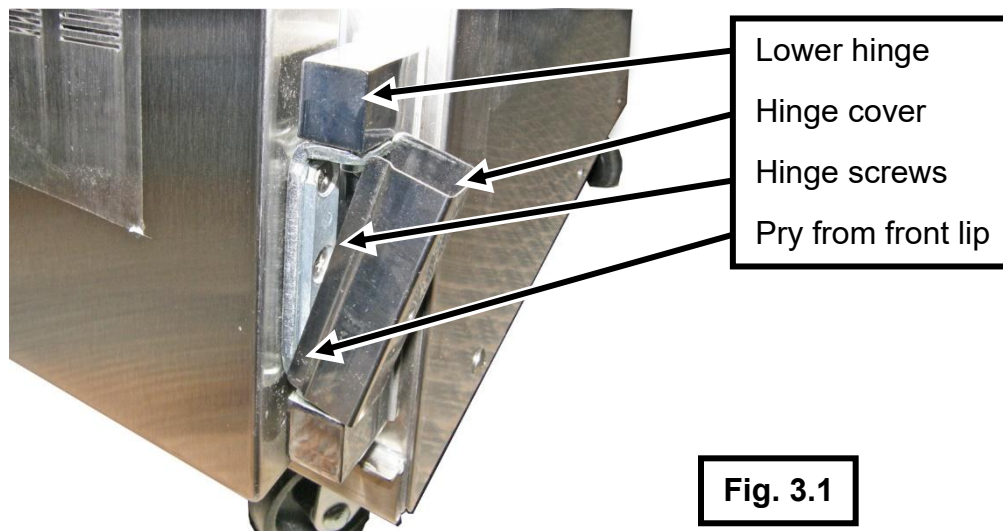
3. Oven Setup

a. Changing the Hinge Position:

A feature of the *CRESCOR* cabinet is the door hinge can be reversed if needed to better suit the workflow of the foodservice operation. To change the orientation of the hinges on the cabinet, follow the steps below:

NOTE: The screws are installed with thread locking compound. Significant inward force and turning force may be needed to loosen them.

1. Pry the covers off the hinges using a small straight blade screwdriver, being careful not to damage the cover.



2. If possible, support the door with a wood block or similar item that will not scratch the finish. Corrugated cardboard makes useful shims. If supporting the door is not feasible.



Fig. 3.2

3. Remove the 3 screws that fasten each hinge to the cabinet using a #2 Phillips head screwdriver.
4. Remove the door and place the door onto a convenient work surface that will not scratch the door.
5. Measure and note the location of the hinges. The hinge mounts are adjustable.

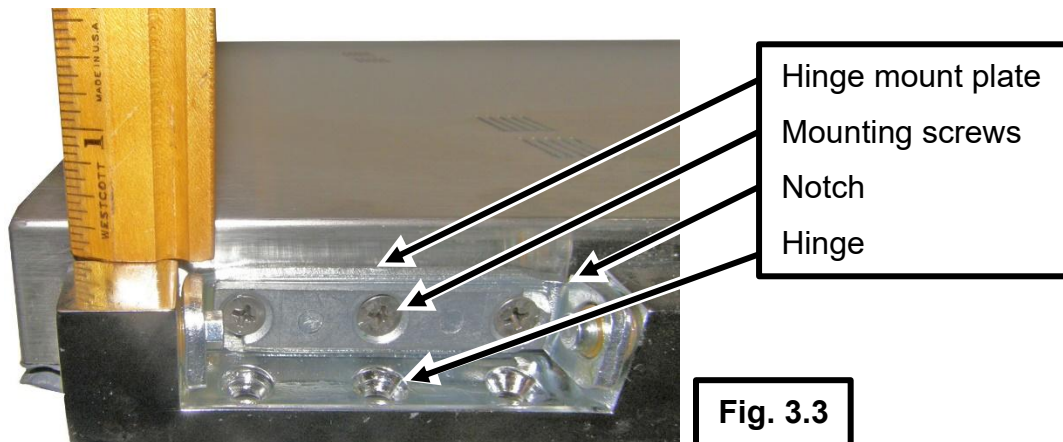
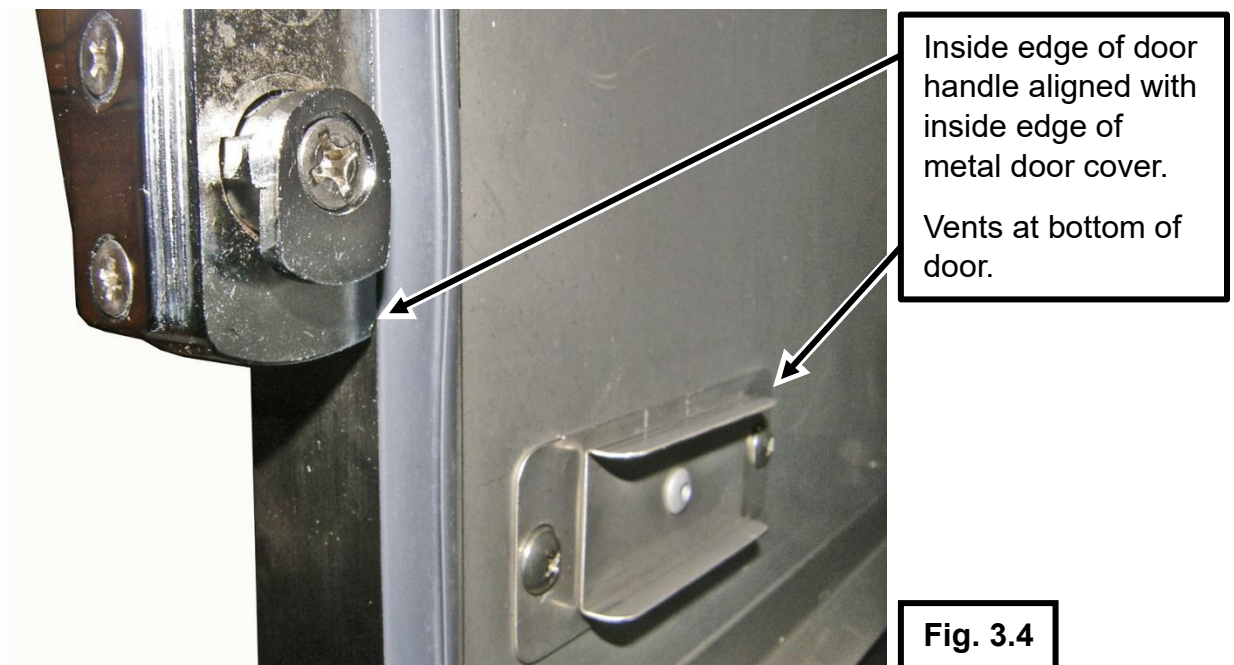


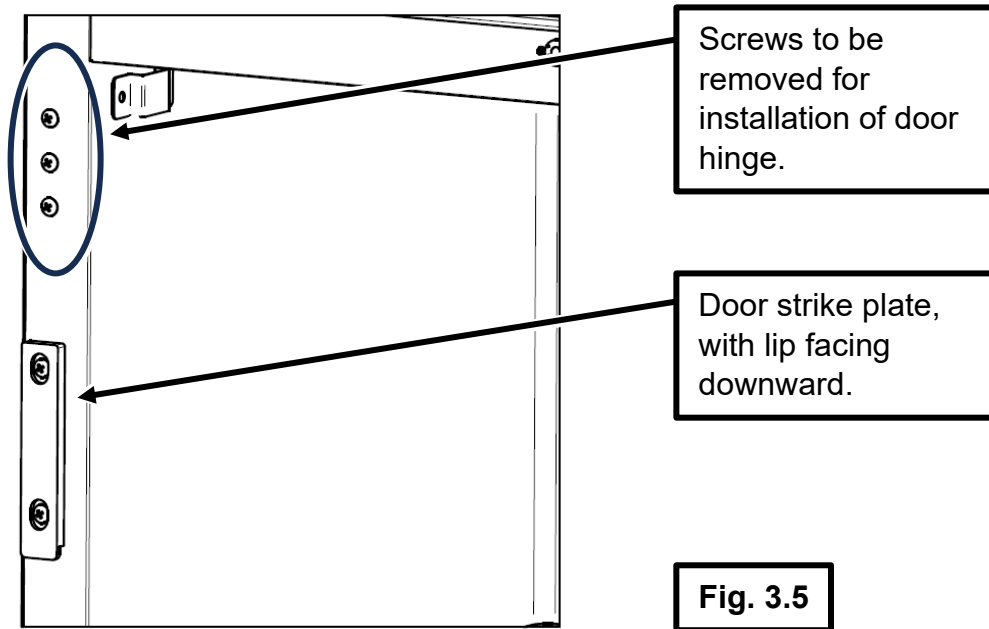
Fig. 3.3

6. Remove the 3 screws that hold each hinge and hinge mount plate to the side of the door.
7. Remove the corresponding filler screws from the opposite side of the door.
8. Install the filler screws in the holes that held the hinge screws.

9. Install the hinges onto the side of the door, matching the original location of the hinge relative to the front surface of the door. Make sure the notch on the hinge mount plate is in the front.
 10. Remove the 4 screws that hold the door handle and mount plate from the edge of the door.
 11. Remove the corresponding door filler screws from the opposite side of the door.
 12. Install the filler screws into the holes that held the handle.
- NOTE:** Correct orientation- The vents should be at the bottom of the door. The door handle faces upward for easy operation by standing personnel.
13. Install the handle mounting plate to the other side of the handle. move the handle to the opposite side of the door. The inside edge of the door handle should be flush with the inside edge of the metal part of the door.

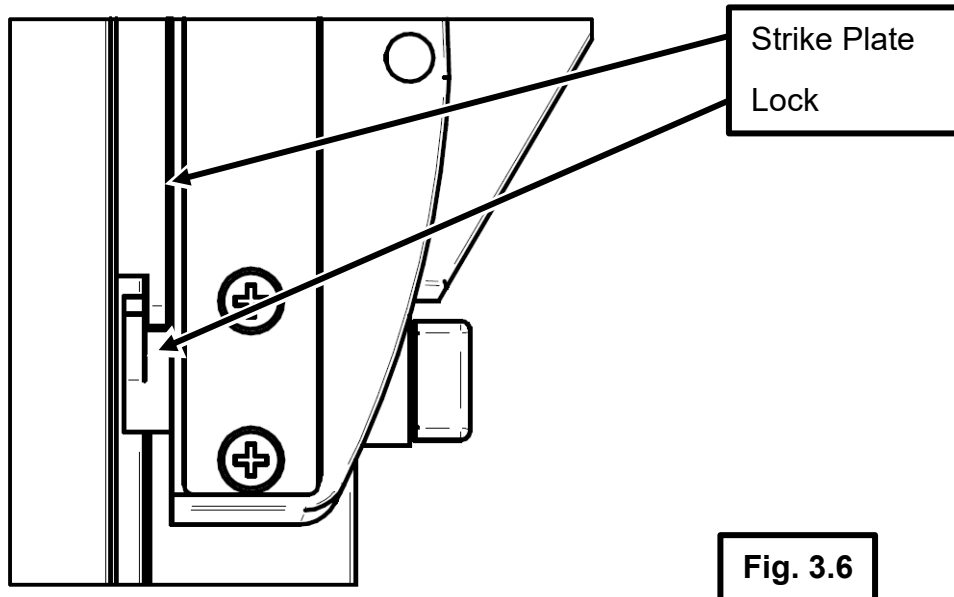


14. Remove the 2 screws that hold the strike plate to the frame on the left of the cabinet.



15. Remove the corresponding screws from the right side of the cabinet frame. Install those screws in the holes left by the removal of the strike plate.
16. Remove the 3 screws from where each hinge will be installed to the cabinet frame. Install them in the holes left empty by the removal of the hinges.
17. Mount the door-
- Support the door on the block used for removal.
 - Confirm that the door is square to the cabinet and that the door completely clears the lip near the base of the cabinet.
 - Carefully align the hinge mounting screws, hinges, and shims. Start the screws.
 - Check the door fit and alignment as the screws are tightened.

18. Install the strike plate- The strike plate is adjustable for height. It should be mounted so that the lock engages the lip at the bottom of the strike plate.

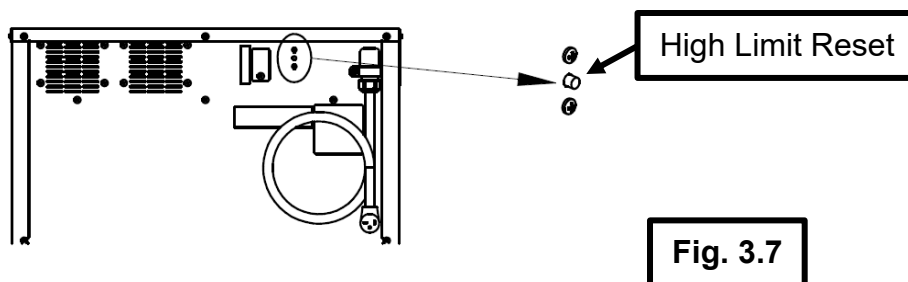


19. Confirm that the rubber gasket around the door seals against the cabinet face all the way around the door. Use a strip of paper to check for any gaps in the gasket seal. Place the small piece of paper, trapping it between the gasket and the cabinet face. Slowly pull the paper out. You should feel some tension as you do so; if not, the gasket may be weak at this point. Repeat this test around the entire length of the gasket. Loosen the hinge screws and door latch screws as needed to make the adjustments, then tighten them to secure the adjustments.

20. Install the hinge covers.

b. High Limit Reset:

The high limit may disengage during shipment of the unit. Press the high limit reset button located on the back of the unit. If the unit has two high limits, be sure to press both high limit reset buttons.



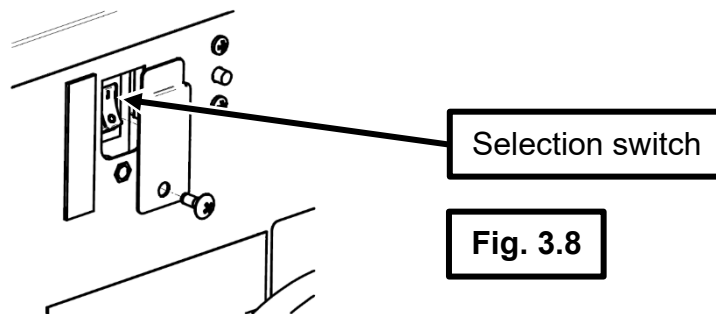
c. Voltage Selection Switch:

The voltage selection switch is preset from the factory in the 208V, up or on (I) position.

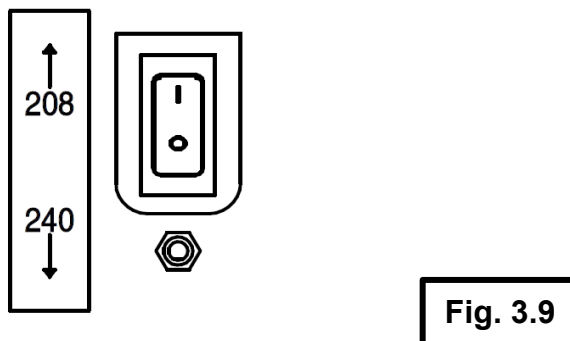
Make sure the voltage selection switch position matches the supply voltage to the oven.

To verify/change voltage selection switch position:

1. Locate the voltage selection switch cover on the back of the oven.
2. Remove the screw and the voltage selection switch cover to access the voltage switch.



3. Verify/change the position of the switch to match the incoming voltage to the oven. Push the switch up or on (I) for 208V. Push the switch down or off (O) for 240V.



4. Install the voltage selection switch cover.

d. Connecting Oven to Power:

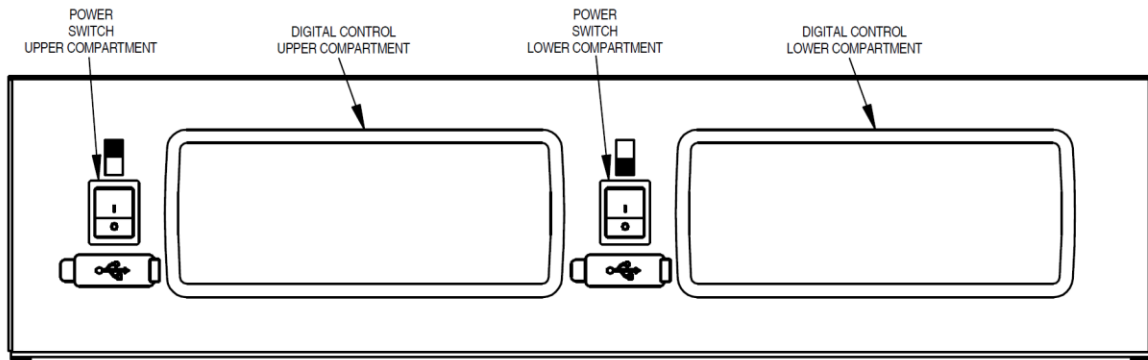
1. Plug the oven into the proper wall outlet per the “ELECTRICAL SPECIFICATIONS” or identification label on the back of the oven.

ELECTRICAL SPECIFICATIONS:

Model No.	Volts	Watts	Amps	Hertz	Phase	Plug
500CH1EX120 750CH1EX120 750CHSK1EX120	120	2000	16.7	60	1	NEMA 5-20P
500CH1EX 750CH1EX 750CHSK1EX 1000CH1EX 1000CHSK1EX 1200CH1EX	208	3000	14.4	60	1	NEMA 6-20P
	240	3000	12.5			
500CH1EX3 750CH1EX3 750CHSK1EX3 1000CH1EX3 1000CHSK1EX3 1200CH1EX3	208	3000	8.3	60	3	NEMA L15-20P
	240	3000	7.2			
1000CH2EX 1200CH2EX	208	6000	28.8	60	1	NEMA 6-30P
	240	6000	25			
1000CH2EX3 1200HH2EX3	208	6000	16.6	60	3	NEMA L15-20P
	240	6000	14.4			

NOTE: The above model numbers are basic models. They may include letters: **B, C, K, L, M, P, S, T, U, Z.**

e. Turn ON and OFF Oven:



1. To turn on the oven, push the power switch to the ON (I) position. The light on the power switch will illuminate.
2. To turn off the oven, Push the power switch to the OFF (O) position. The light on the power switch will go out.

f. Initial Start-up and Settings:

1. Plug the oven into an outlet that matches the specifications on the model identification label.
2. Press the “I” on the rocker switch at the left of the control. The switch will illuminate to confirm that it is ON, and the oven has power. The HMI screen will display various messages as the controller boots-up.
3. The HOME Screen will be displayed.

HOME Screen Layout:

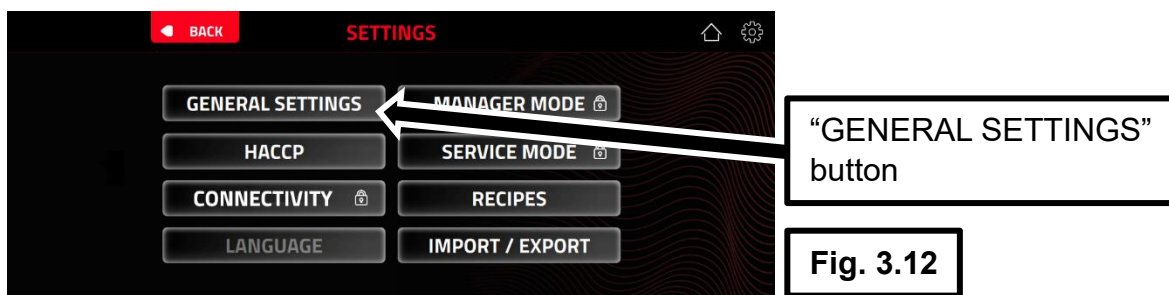


Fig. 3.11

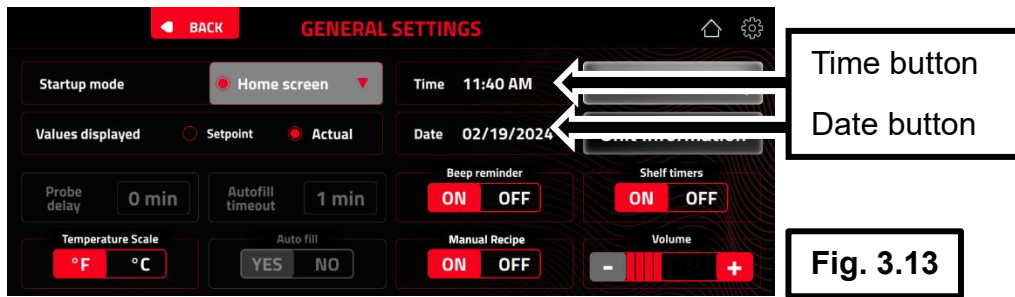
NO.	DESCRIPTION	FUNCTION
1	SETTINGS icon	Press the SETTINGS icon to display the SETTINGS screen anytime it is displayed.
2	RECIPES icon	Press the RECIPES icon to display the “RECIPES” screen. Press the RECIPES icon to display the “RECIPES” screen to create a recipe, edit, delete or start an existing recipe.
3	Time and date display	Displays the current time and date.
4	Temperature display	Displays the current temperature of the cabinet. Tap the display to see the current temperature setting.
5	Favorite Recipe buttons	These buttons are used to begin a recipe. Five of your favorite recipes can be displayed and accessed from the HOME screen. NOTE: Programmed recipes will display a picture of the product with the recipe name under the picture on the button. Any buttons that select an unpopulated recipe file will display as gray buttons with a “+” symbol.
6	Recipe type buttons	Press any of the recipe type buttons to go to the desired cooking or holding mode setup screen. These screens will allow you to choose a recipe or to manually set up a recipe for your oven.
7	Heating progress bar	The heating progress bar shows the progress for the heating of the oven to the last HOLD temperature setting. This bar will only function if the “Auto-Heat” is turned “ON” in the “MANAGER SETTINGS 2” screen. See “MANAGER SETTINGS” for more information.
8	Error icon	Displays when there is an error. Press icon to see the error.

4. Set the time:

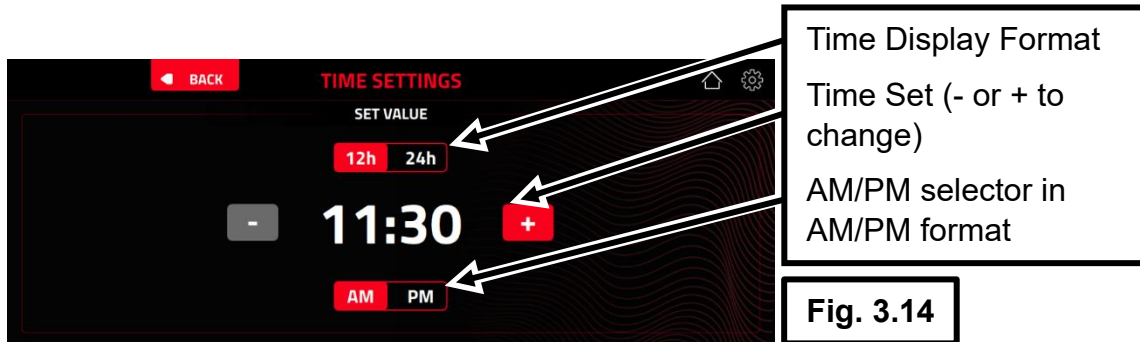
- a. Press the “Settings” button to reach the SETTINGS screen.
- b. Press the “GENERAL SETTINGS” button on the SETTINGS screen.



- c. Press the “Time” button to reach the TIME SETTINGS screen.



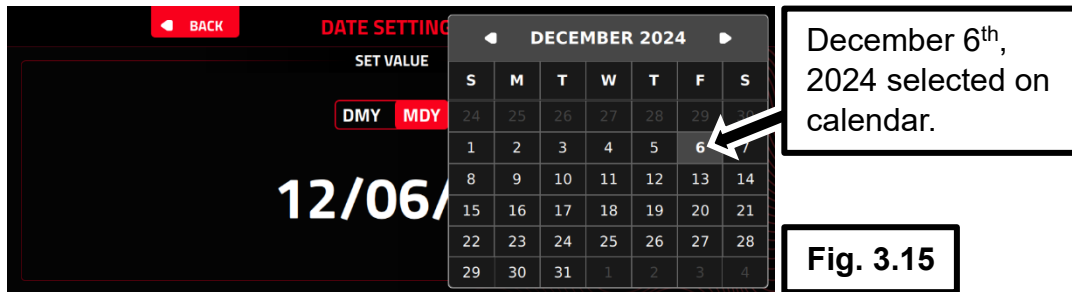
- d. Select 12h or 24h format by sliding the red button to the desired setting. 12h will display hours in A.M. and P.M. 24h will display hours from 01 to 24.
- e. If 12h is selected, an AM/PM button will appear below the hour:minute display. Slide the red button to shift between AM and PM hours.
- f. Press the blue “-” button to the left of the hour:minute display to make the time earlier. Press the red “+” button to the right of the display to make the time later. It will advance or decrement one minute for a short press and release. Holding either button will cause it to advance or decrement fast.
- g. When setting is done, press the red “BACK” button near the top left of the screen to return to the SETTINGS screen.



5. Set the date.

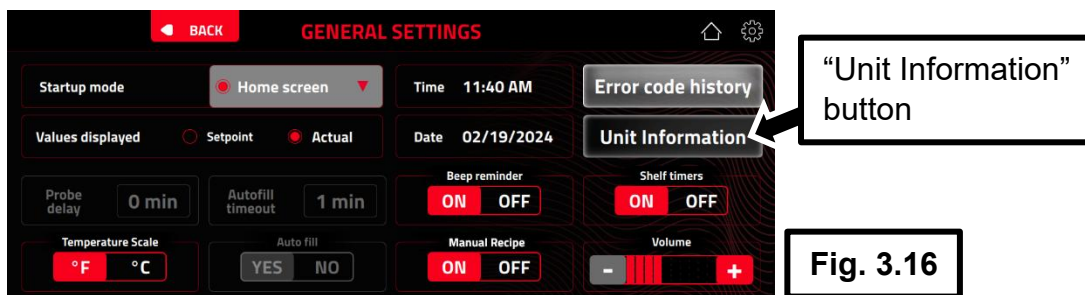
- From the SETTINGS screen, Press the “Date” button.
- Slide the button in the DMY/MDY field to the desired format.
 - DMY displays the date as Day, Month, Year.
 - MDY displays the date as Month, Day, Year.
- Press the “SET” button to the left of the date displayed on the screen, this will produce a drop-down calendar.
- Use the arrows in the month field to set the calendar to the current month.

- e. Press the square on the calendar that represents the current date to select the date. Once the date is selected, the calendar will vanish.
- f. Use the “Back” button to return to the Settings screen.

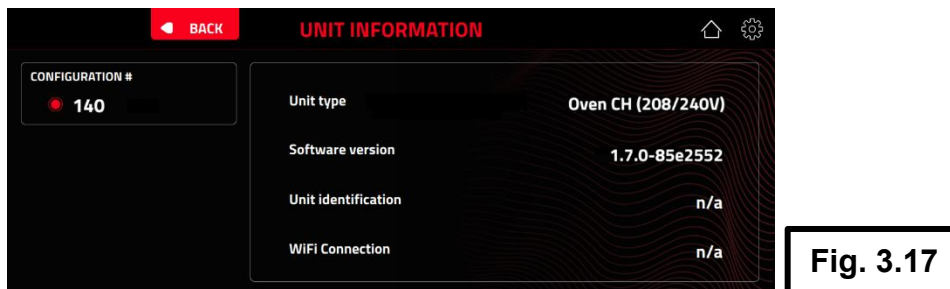


g. Unit Information / Software Version:

Unit Information is primarily useful for identifying the Software version. It may be reached through the GENERAL SETTINGS screen.



The “UNIT INFORMATION” screen will be displayed.

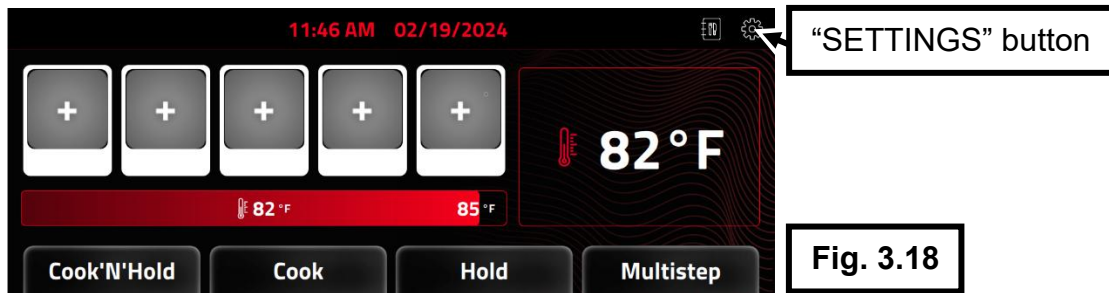


The Unit Information screen contains information about:

- Configuration
- Unit type (Model and description)
- Software version
- Unit Identification
- Wi-Fi connection availability

h. Firmware Update:

1. Plug the oven into an outlet that matches the specifications on the specification plate.
2. Press the “I” on the rocker switch at the left of the control. The switch will illuminate to confirm that the oven is ON and has power. The HMI screen will display various messages as the controller boots-up.
3. The “HOME” Screen will be displayed.
4. Press the “SETTINGS” button.



The “SETTINGS” screen will be displayed.

5. Press the “IMPORT / EXPORT” button.



The “IMPORT / EXPORT” screen will be displayed.

6. Press the “FIRMWARE UPDATE” button.



The “FIRMWARE UPDATE” screen will be displayed.



Fig. 3.21

7. Insert the FIRMWARE UPDATE USB stick into the USB port next to the control. The screen showing the file name will be displayed.
8. Press the “Update” button to begin the update.

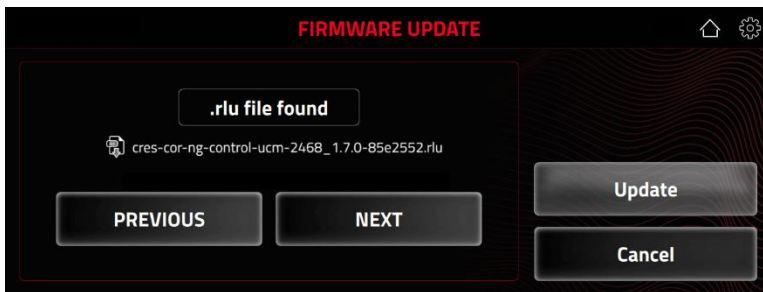


Fig. 3.22

9. Press the “Yes” button to update the firmware.
10. Press the “No” button to cancel and return to the previous screen.



Fig. 3.23

Upon completion of the download, the following screen may briefly display.



Fig. 3.24

The control will begin to reboot. Do not remove USB stick until the control completely reboots and the “HOME” screen is displayed.



DO NOT TURN OFF THE POWER TO THE CONTROL UNTIL THE "HOME" SCREEN IS DISPLAYED.

4. Cleaning

a. Before Cleaning:

 WARNING : ELECTRICAL SHOCK

- Push the power switch to the off “0” position and unplug oven from electrical outlet.
- Do NOT spray cabinet with water.
- Do NOT clean cabinet with a steam cleaner.

 CAUTION : BURN HAZARD

- Allow the oven to cool before cleaning.

 CAUTION : CORROSIVE CHEMICAL HAZARD

- Wear proper Personal Protective Equipment when cleaning.

 NOTICE : RISK OF DAMAGE TO OVEN

- Do NOT use harsh abrasives, solvents, or harsh chemicals to clean oven.
- Do NOT use metallic pads, brushes or scrapers to clean the oven.

b. For Best Results:

- DO Wipe-up spills as soon as possible.
- DO Clean the oven regularly to avoid heavy dirt build-up.
- DO Use the mildest cleaning procedure that will yield good results.
- DO Follow cleaning product manufacturers’ instructions.
- DO Test cleaners on a small area before using on the entire oven.
- DO Use only soft cloth or nylon scrub bristle brush/pad for routine cleaning.
- DO Clean door gasket with mild detergent and rinse with water.
- DO Clean glass components with glass cleaner if equipped.
- DO NOT mix cleaners.
- Do NOT use “*CRESCLEAN*” or any citrus based cleaner on plastic parts or labels.
- Do NOT spray cleaning agent or water onto control panel. Use a soft cloth to clean and rinse.
- The exterior metal finish has a directional grain. Wipe with the grain.

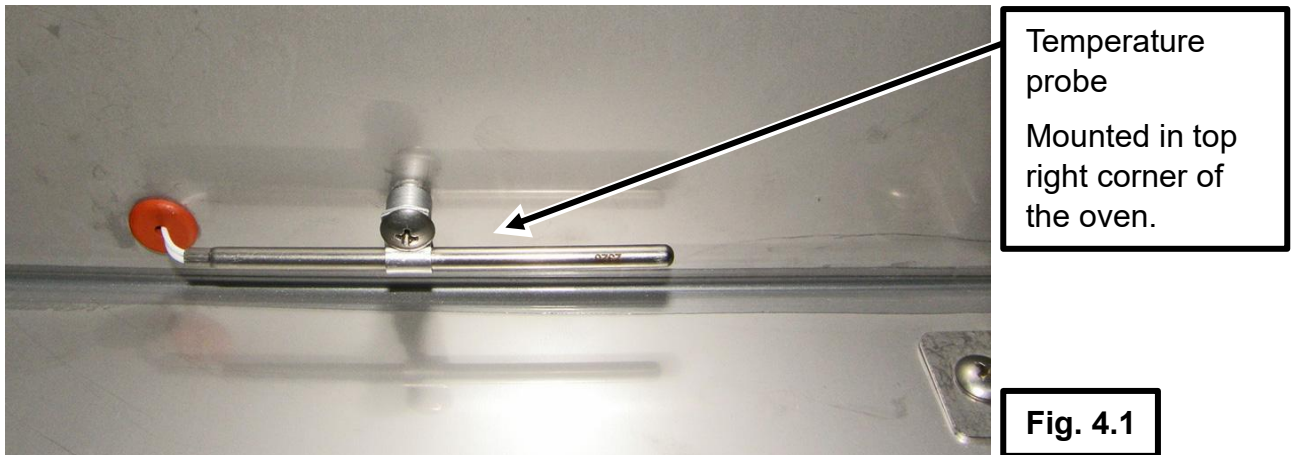
c. Cleaning Solution Chart:

Soil	Cleaner	Method
Dirt	Mild Detergent* and hot water, or mild abrasive cleaner.	1. Wipe with soft, damp cloth. 2. Rinse with hot water. 3. Wipe Dry.
	Steam (no strong alkaline additive)	1. Rinse after steam cleaning. 2. Wipe Dry
Fingerprints, grease, oil	Mild abrasive cleaner. Oily or waxy cleaner.	Apply with soft, clean cloth.
	Chemical oven cleaner.	Follow oven cleaner manufacturer's instructions
Water Spots	Mild abrasive cleaner.	1. Apply with soft, clean cloth. 2. Wipe with damp cloth.
<i>*Mild detergent includes soaps and non-abrasive cleaners.</i>		

d. Cleaning Temperature Probe:

Use care in cleaning around the temperature probe.

- Do not damage the temperature probe wires.
- Do not damage the temperature probe.
- Do not position the probe so that it touches the interior of the chamber.

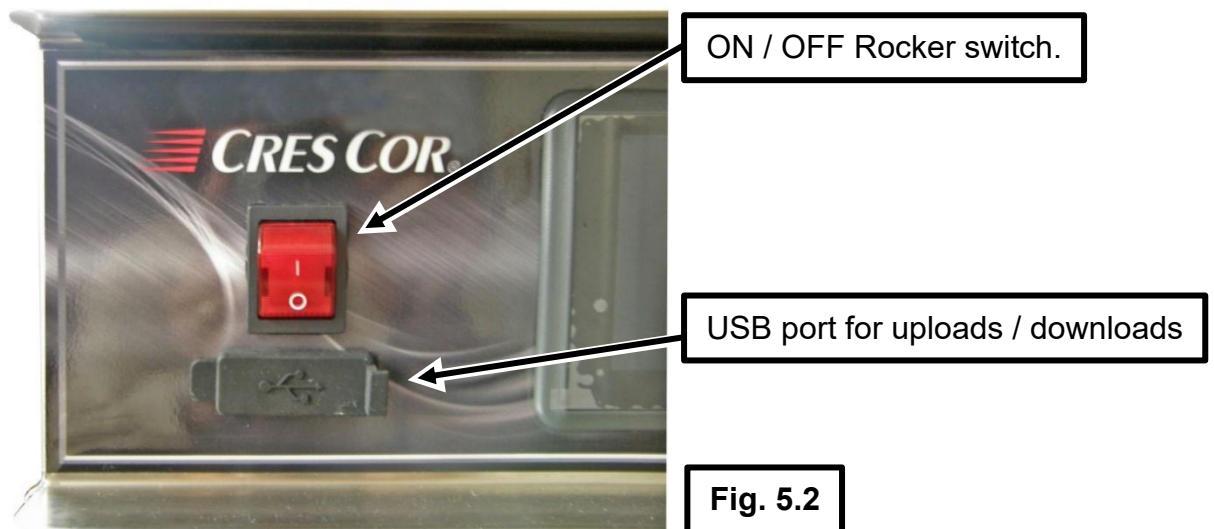
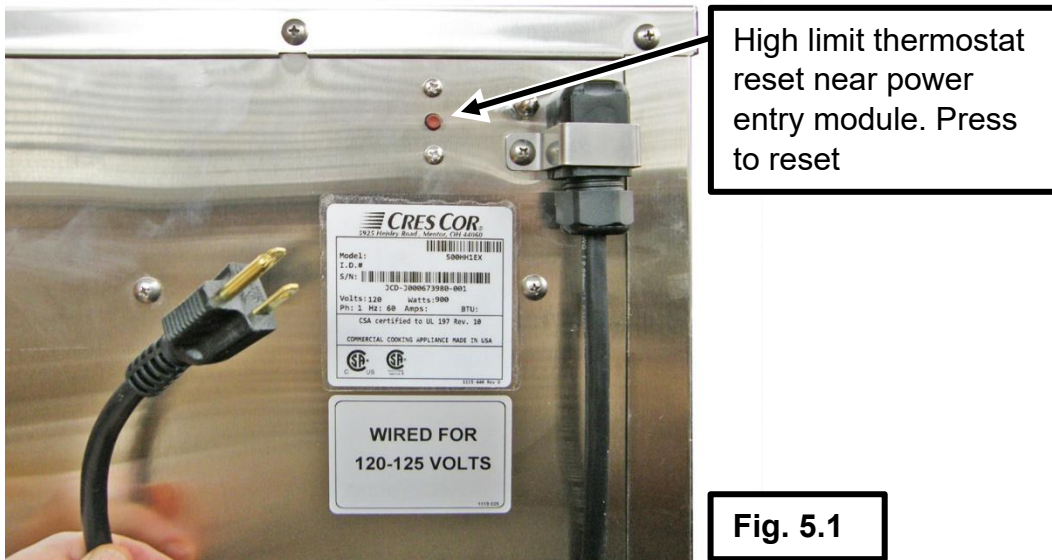


5. Troubleshooting

⚠ WARNING: If the Oven gets too hot, or will not turn off, disconnect power at the supply panel circuit breaker before disconnecting the plug. Contact your authorized service agency for service.

a. If the Oven is not working, check the following:

- Make sure the cord is plugged into the outlet.
- Make sure the circuit breaker that supplies power to the Oven is ON.
- Make sure the rocker switch next to the control is turned ON.
- Make sure the temperature high limit on the back of the oven is not tripped.



b. TROUBLE-SHOOTING CHART:

WARNING : ELECTRICAL SHOCK HAZARD

- Use caution when working around electrical components.
- Wear appropriate Personal Protective Equipment.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Cabinet does not turn on (no light on switch and no power to control)	1. Oven disconnected from wall outlet. 2. Breaker at electric panel is "off". 3. Power switch is defective.	1. Plug in oven. 2. Turn on breaker. 3. Replace.

IF THE CABINET TURNS ON:

PROBLEM	POSSIBLE CAUSE	SOLUTION
Control screen remains blank	1. Software issue. 2. Defective Control module (Should be 5VDC between red and black wires leading to the digital control (touchscreen)). 3. Control defective.	1. Turn off and turn back on the hot cabinet. 2. Check wires for continuity between Control Module and Touchscreen/Replace. 3. Replace.
Cabinet does not heat, or does not heat properly	1. High Limit tripped. 2. Cabinet air sensor defective. (Should be $1087\Omega \pm 10\Omega$ at 72°F, 22°C) 3. Heater relay defective. 4. Heater defective. 5. Temperature control defective.	1. Check if tripped-reset/Replace. 2. Replace. 3. Replace. 4. Replace. 5. Replace.
Heater will not shut off	1. Heater relay defective. 2. Control defective.	1. Replace. 2. Replace.
Vent fan does not operate.	1. Vent fan defective. 2. Disconnected or broken wire(s).	1. Replace. 2. Connect, repair wires.
GFCI device trips	1. Electrical short. 2. Defective heater.	1. Check for disconnected or damaged wires. Reconnect or replace wire. 2. Replace.

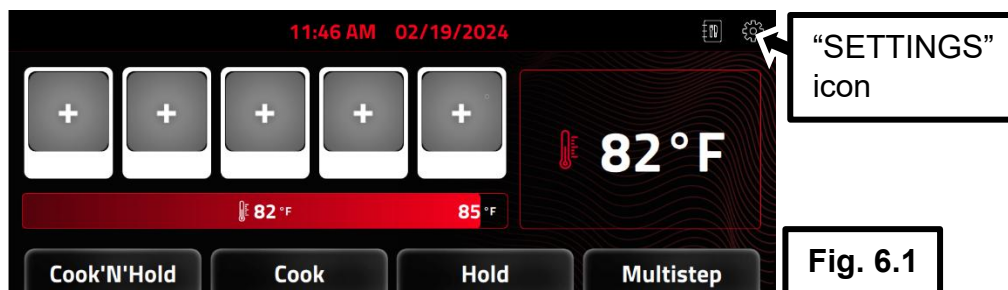
c. ERROR CODES:

CODE DISPLAYED	MEANING	POSSIBLE CAUSE	SOLUTION
Err00.0	No signal from air sensor.	1. Air sensor disconnected. 2. Air sensor defective. (Should be $1087\Omega \pm 10\Omega$ at 72°F, 22°C) 3. Temperature control defective.	1. Reconnect air sensor. 2. Replace. 3. Replace.
Err03.1	Module HMC12 communication problem (Control Module)	1. Software issue. 2. Loose wire/connector. 3. Defective module.	1. Turn off then turn back on oven. 2. Fix wire 3. Replace.
Err03.4	Module SB100 communication problem (Audible Alarm)	1. Software issue. 2. Loose wire/connector. 3. Defective Audible Alarm.	1. Turn off then turn back on oven. 2. Repair wire, attach connector(s). 3. Replace alarm.
Err0.5.1	Power was out for < 5 minutes, recipe cycle is undisturbed	1. Short power interruption.	1. Continue cooking cycle.
Err0.5.2	Power was out for 5 minutes, recipe cycle cancelled	1. Power interruption.	2. Determine if cycle can continue or if cycle is to be cancelled and food disposed.
Err05.4	System time and date reset	1. Power loss.	1. Input time and date.
Err06.1	Food Probe sensor is not connected or is defective.	1. Food probe not plugged into connector. 2. Defective food probe. (Should be $1087\Omega \pm 10\Omega$ at 72°F, 22°C) 3. Broken connector wire(s). 4. Defective probe connector.	1. Plug in Food Probe 2. Replace Food Probe 3. Check for damaged wires. Repair/replace wire. 4. Replace probe connector.
Err06.2	Food Probe sensor defective or temperature out of range	1. Defective food probe. (Should be $1087\Omega \pm 10\Omega$ at 72°F, 22°C) 2. Shorted connector wires. 3. Defective probe connector.	1. Replace Food Probe 2. Check for damaged wires. Repair/replace wire. 3. Replace probe connector.
Err09	High Limit opened.	1. Rough handling of the cabinet. 2. Heater relay defective. Cabinet temperature is too high. 3. Disconnected/damaged wires.	1. Reset high limit 2. Replace relay 3. Connect/repair/replace wires.

6. SERVICE MODE

a. To Access SERVICE MODE:

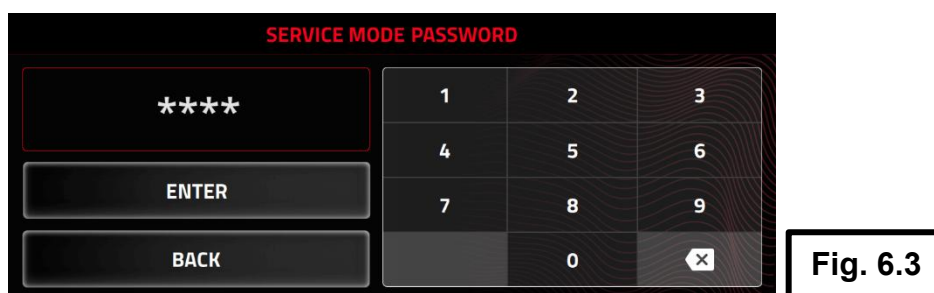
1. From most any screen, press the SETTINGS icon.



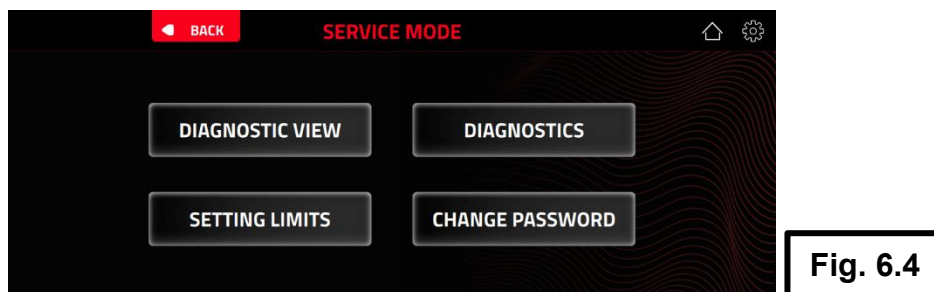
2. From the SETTINGS screen, Press the “SERVICE MODE” button.
This mode is password protected. Note the lock icon on the button.



3. Enter the password for SERVICE MODE access.
Default password: **5925**



On the SERVICE MODE screen, various option buttons are displayed.



- **DIAGNOSTIC VIEW:** This screen will show the current operation data of the oven, such as the current temperature of the available temperature sensors and the condition of the various outputs and devices.
- **DIAGNOSTICS:** This screen allows the technician to activate individual devices for troubleshooting.
- **SETTINGS LIMITS:** This screen allows the technician to set the available upper and lower limits to various setpoints, make offset adjustments and activate devices.
- **CHANGE PASSWORD:** Allows the technician to change the password for access to the SERVICE MODE. Also allows the technician to reset the password for the MANAGER MODE in the event the MANAGER MODE password is lost or corrupted.

b. Diagnostics View:

Press the “DIAGNOSTIC VIEW” button to enter the DIAGNOSTIC VIEW screen.

NOTE: Any selections greyed out are not available. These selections are used for other *CRESCOR* equipment.

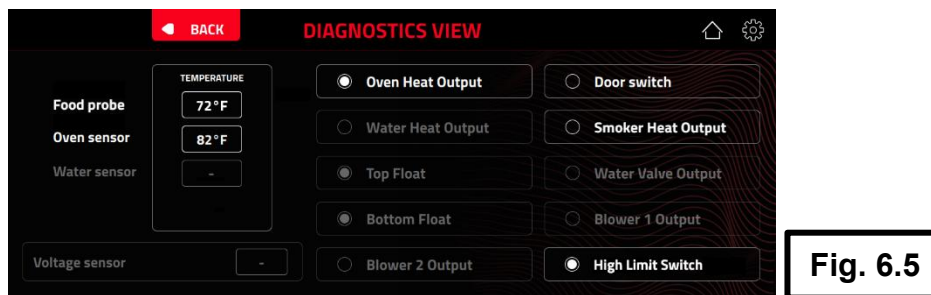


Fig. 6.5

At the left of the screen are the analog inputs for temperature:

- “Food probe”: will measure the internal temperature of the food product. The probe is used to determine cook duration based on the internal temperature of the food instead of using timed cooking. If the oven is not equipped with an insert probe, or if the probe thermocouple is not plugged-in, or is broken, the temperature will display an unrealistically high temperature.
- “Oven sensor”: will display the air temperature read by the fixed cabinet temperature sensor mounted inside the cabinet (See Fig. 4.1). If the cabinet temperature sensor is disconnected or is faulty, the temperature will display an unrealistically high temperature.

On the right of the screen are the digital inputs for ON/OFF outputs and Open/Closed inputs.

- **Oven Heat Output:** The indicator in this field will be lit when the oven heat element is powered, It is normal for it to come on steadily as the oven is

building heat, then cycle on and off as the heat elements are powered intermittently to maintain a set temperature.

- Smoker Heat Output (if equipped): The indicator will be lit when the smoker heat element on.
- High Limit Switch: The indicator will be lit when the high limit switch is closed. If there is no indicator, the high limit is open (tripped).

c. Diagnostics:

Press The “DIAGNOSTICS” button to enter the DIAGNOSTICS screen.

NOTE: Any selections greyed out are not available for adjustment. These selections are used for other *CRESCOR* equipment.

Outputs with red borders are enabled and can be turned-on/off by pressing and releasing the output button.

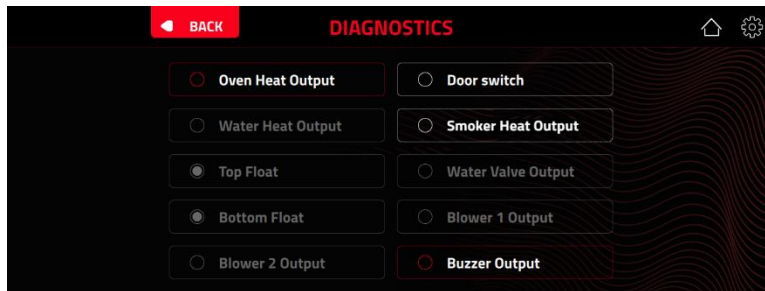


Fig. 6.6

d. Setting Limits:

Operating minimums, maximums, offsets, gain, etc. can be set using the SETTING LIMITS screen.

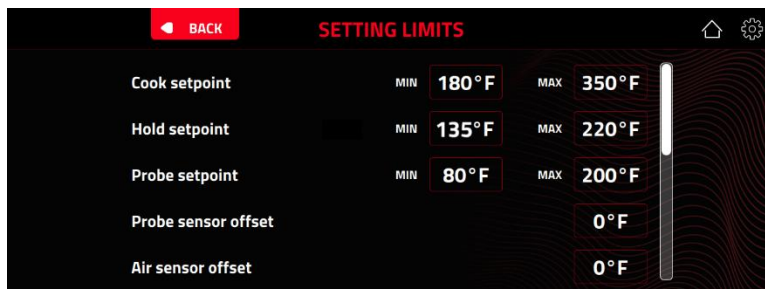
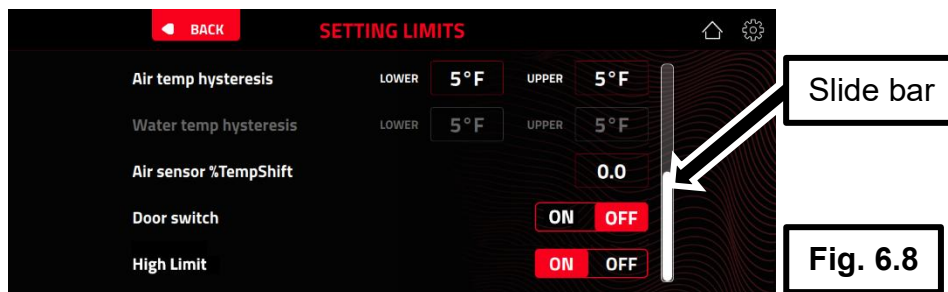


Fig. 6.7

- Cook setpoint MIN: This setting should be at the coolest allowable temperature for safely cooking meat. Typically, this is 180°F. (82°C.)
- Cook setpoint MAX: This setting governs the hottest allowable temperature for the oven in Cook mode. Typically, this is 350°F. (177°C.). Increasing this temperature may exceed codes for cooking appliances that can be used without a vent hood.

- Hold setpoint MIN: This setting is the coolest allowable temperature for holding food prior to serving. Typically, this is 135°F. (57°C.). Reducing this temperature may allow serving temperatures below HACCP standards.
- Hold setpoint MAX: This setting is the hottest temperature that the controller will allow the Hold mode to operate at. Typically, this is 220°F. (104°C.).
- Probe setpoint MIN: This is the coolest setting that the controller will allow for the water tray probe. Typically, this is set to 80°F. (27°C.).
- Probe setpoint MAX: This is the hottest setting that the controller will allow for the meat probe. Typically, this is set to 200°F. (93°C.).
- Probe sensor offset: This is the adjustment used for the external (meat) probe sensor for the calibration process.
- Air sensor offset: This is the adjustment used for the chamber temperature sensor for the calibration process.

Move the slide bar down the SETTING LIMITS screen to reach additional settings.



- Air temp hysteresis establishes the temperature range of when the control turns the air heater elements on or off. (Factory set LOWER=0, HIGHER=0)
- Air sensor %TempShift is a multiplier factor that can be used to adjust the air temperature display to match a calibrated standard. If the reading is consistently 5% from the calibrated standard, entering “5” in the %TempShift field will adjust the temperature display up a constant 5% over the entire temperature range of the cabinet. Entering a “-5” in the %TempShift field will adjust the temperature display down a constant 5%.
- The Door switch can be activated (ON) or deactivated (OFF) using the associated slide button. This would be turned “ON” for equipment with a door switch. This would be turned off for equipment that does not use a door switch. The door switch can also be temporarily turned off in the event of a door switch malfunction, allowing the cabinet to be operated until the switch is repaired or replaced. The door switch would be turned back on upon completion of the repair.

- The High Limit Switch is used to alert the user and suspend the operation of the cabinet in the event of a high limit switch that has been disengaged (tripped). The high limit switch sensing can be activated (ON) or deactivated (OFF) using the associated slide button. This would be turned “ON” for equipment that uses a manual-reset high limit switch. Turning this setting “OFF” does not affect the operation of the high limit switch.

e. To Calibrate Temperature Probes:

The temperature probe calibration should be checked once a year against a calibrated standard. The Probe sensor offset, Air sensor offset and Water sensor offset are means of adjusting the readings from the oven probes to match the calibrated standard device.

The offset adds or subtracts a specific value to adjust the probe temperature reading to match the calibrated standard. See Fig. 6.7.

f. Change Password:

Press the “CHANGE PASSWORD” button to enter the SERVICE MODE PASSWORDS screen.

The default password is “5925”.

To change the password, press the “****” button under “Enter old password”.

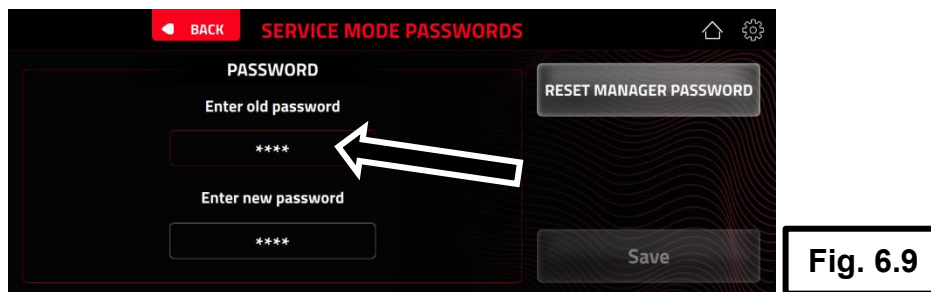


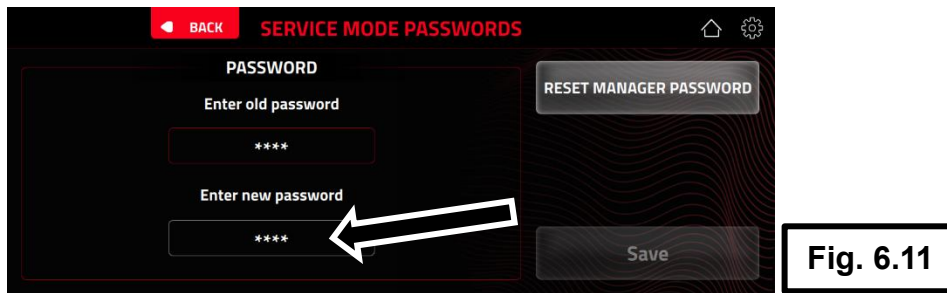
Fig. 6.9

Enter the “OLD” 4-digit password and press the “ENTER” button.

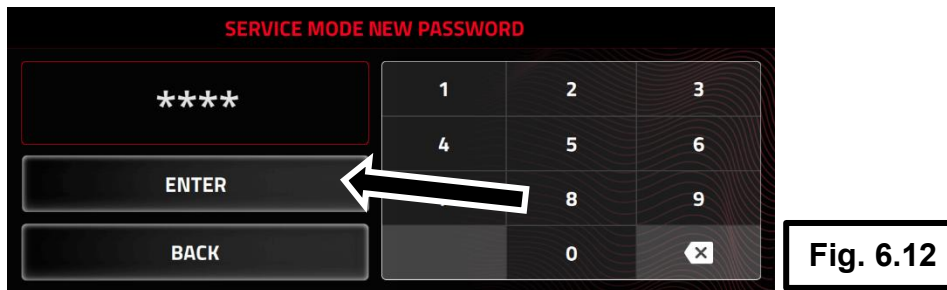


Fig. 6.10

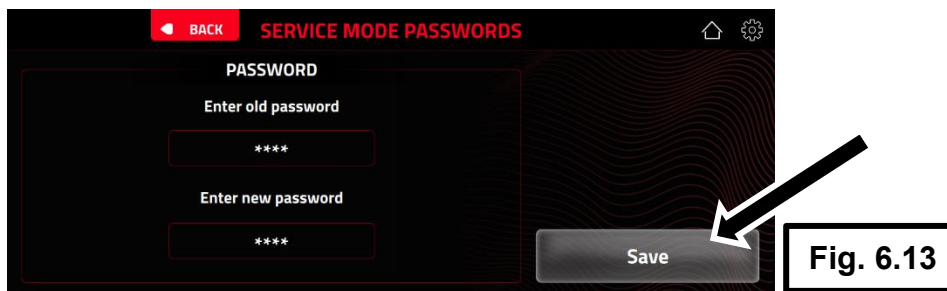
To change the password, press the “****” button under “Enter old password”.



Enter the “NEW” 4-digit password and press the “ENTER” button.



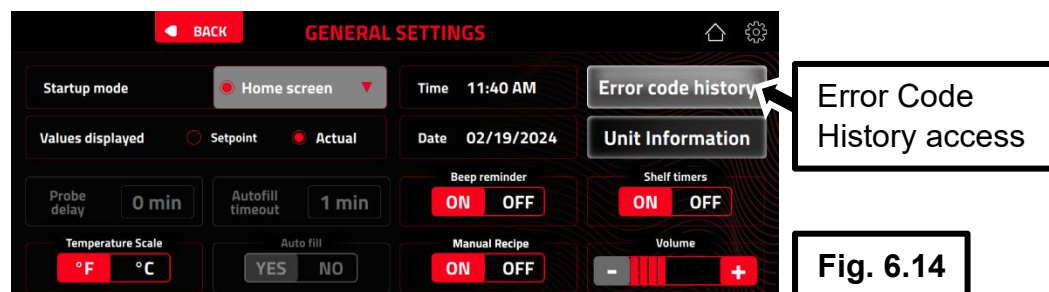
Press the “SAVE” button to save the new password.



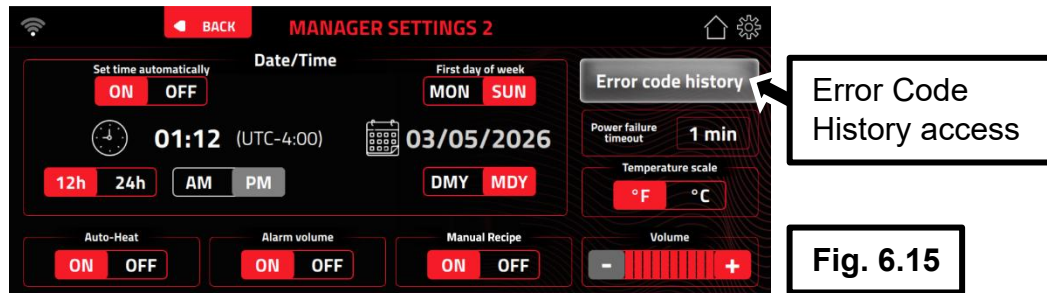
g. Error Code History:

Error Code History can provide some diagnostic guidance when working with *CRESCOR* technical support. The “ERROR CODE HISTORY” screen may be viewed and exported through the GENERAL SETTINGS screen.

1. Press the “Error code history” button.



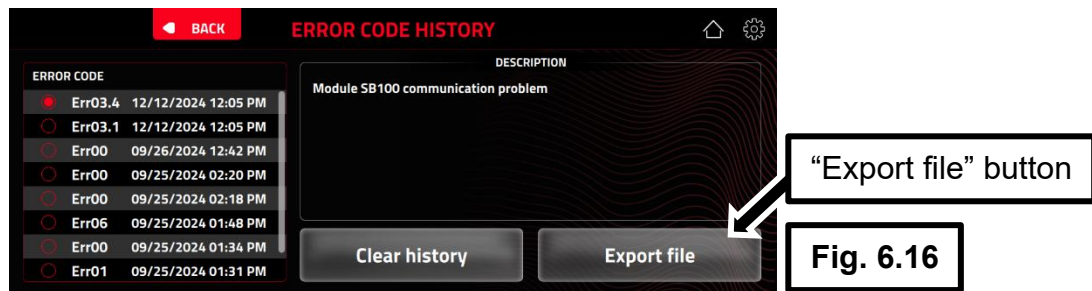
If the button is deactivated, the “Error code history” button can be accessed from the “MANAGER SETTINGS 2” screen.



The “ERROR CODE HISTORY” screen will show the error codes the control has experienced.

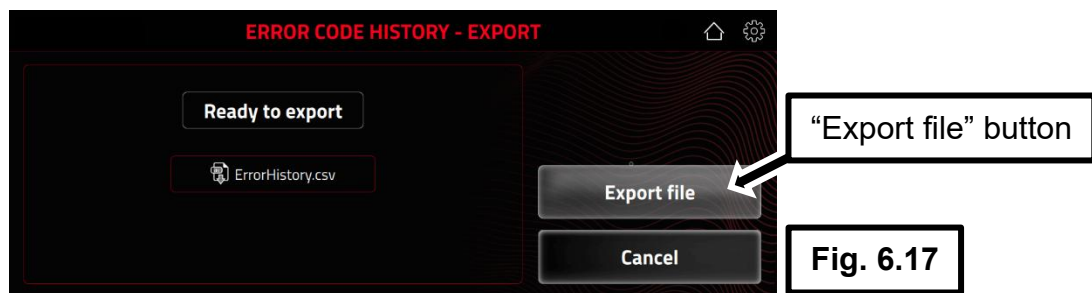
An Error Code History file can be exported and sent to *CRESCOR* for diagnostic assistance.

2. To export an ERROR CODE HISTORY file, place an empty, FAT32 format USB stick into the USB port on the front of the control panel next to the control that is displaying the error.
3. Press the “Export file” button.



4. To export another file, press the “Export file” button.
- To cancel and return to the “ERROR CODE HISTORY” screen, press the “Cancel” button.

To return to the HOME screen, press the “HOME” icon.



5. Press the “YES” button to download the file or press the “NO” button to cancel and return to the previous screen.

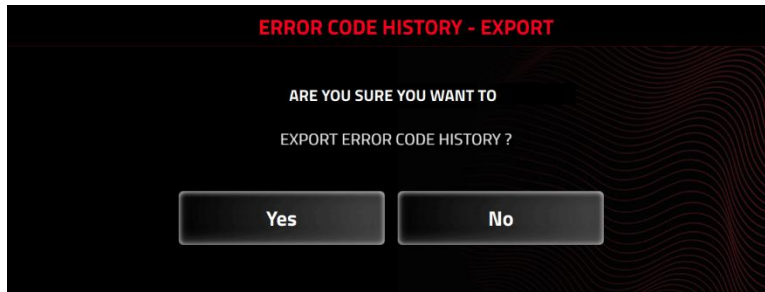


Fig. 6.18

Upon completion of the download, the following screen will briefly display.



Fig. 6.19

The "ERROR CODE HISTORY-EXPORT" screen will be displayed.

6. To export another file, press the "Export file" button.

To cancel and return to the "ERROR CODE HISTORY" screen, press the "Cancel" button.

To return to the HOME screen, press the "HOME" icon.

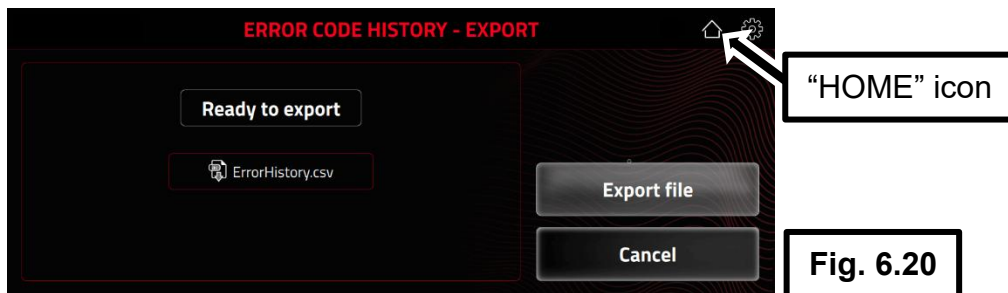


Fig. 6.20

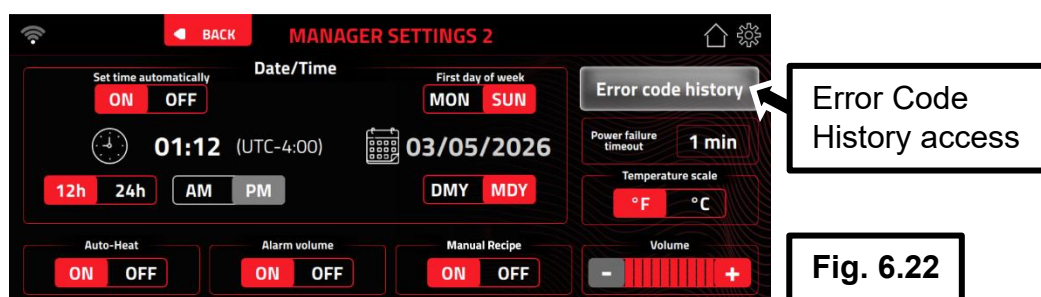
The file will be saved as a ".csv" (comma delimited data) format. This file can be opened and saved in most spreadsheet programs.

HINT: When saving the file for storage, give the file a unique name that best describes the oven the file came from and, for 2 compartment ovens, if the file was from the upper or lower compartment control.

7. To clear the ERROR CODE HISTORY, press the “Clear history” button.

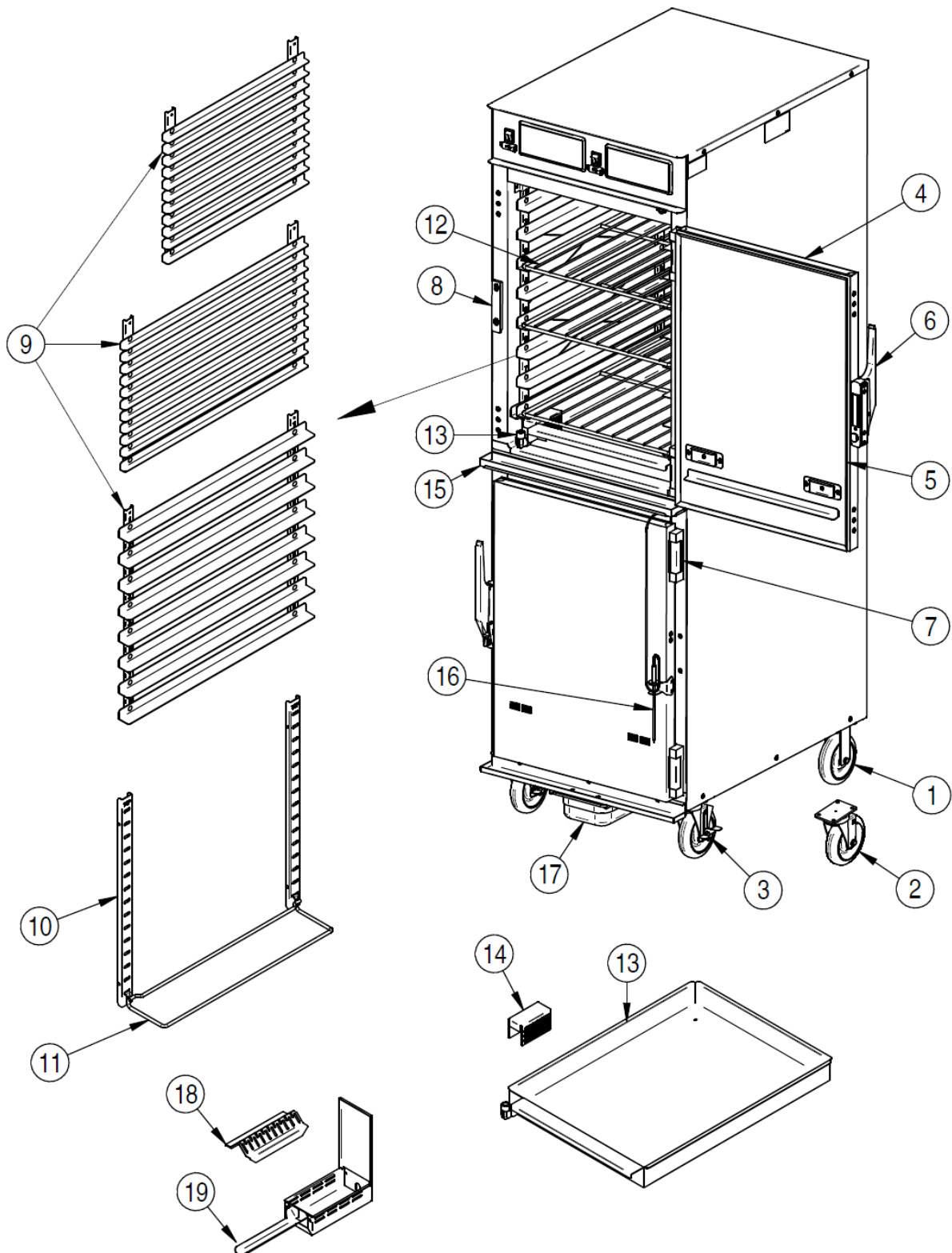


8. If the “Clear history” button is not accessible in the ERROR CODE HISTORY screen, the history can be cleared from the MANAGER SETTINGS 2 screen.



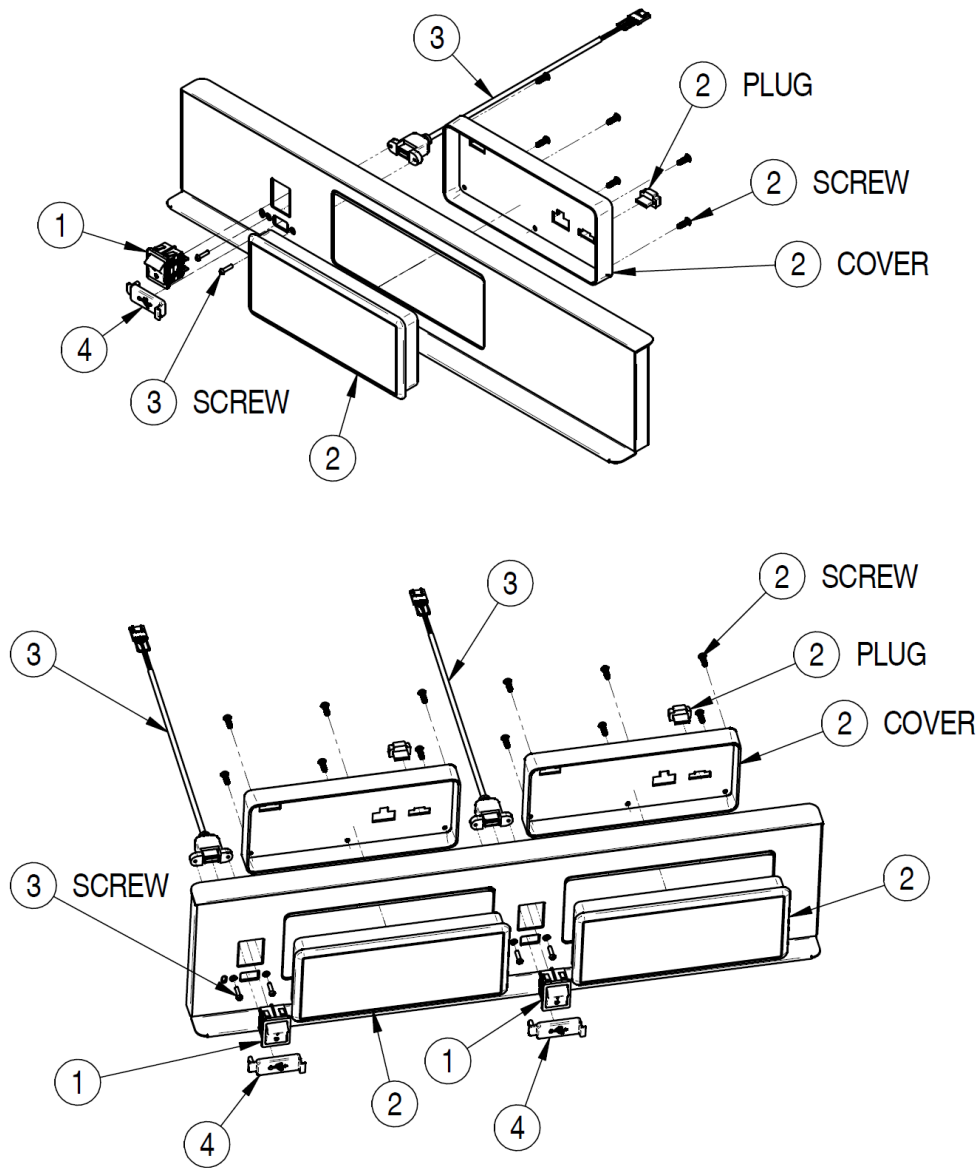
7. REPLACEMENT PARTS

a. OVEN REPLACEMENT PARTS:



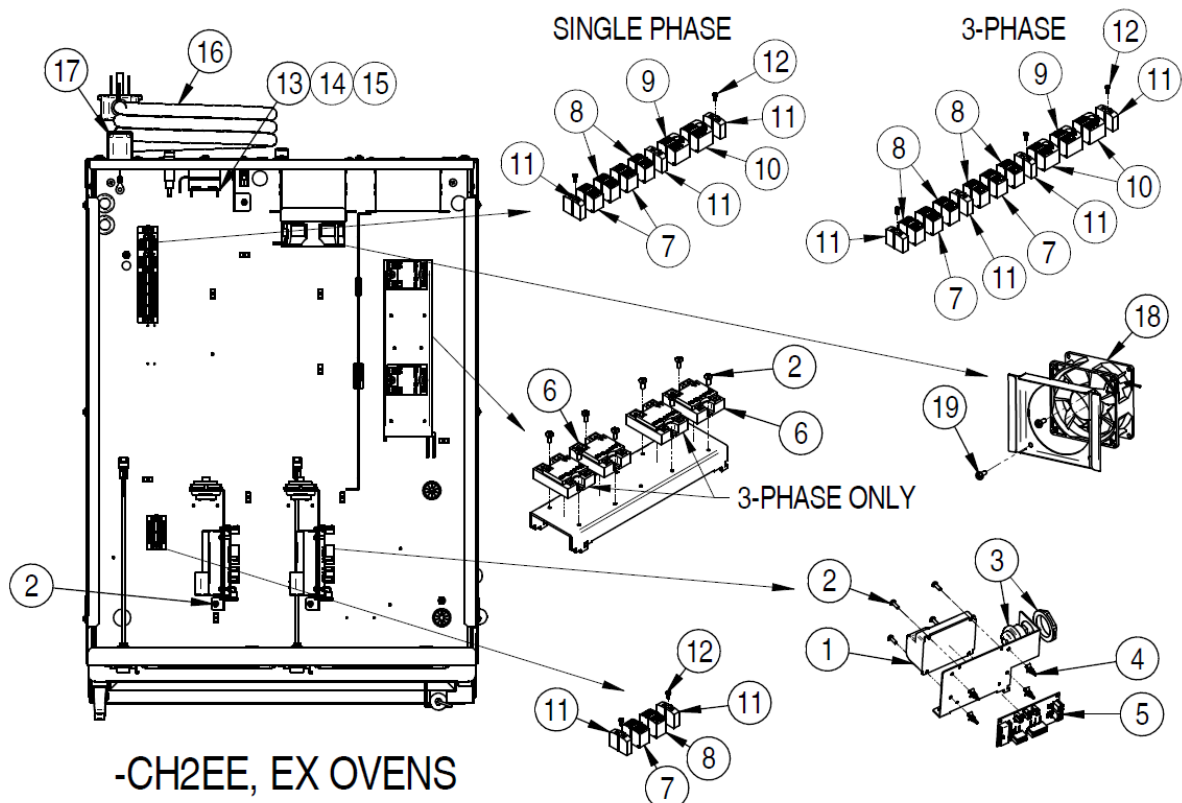
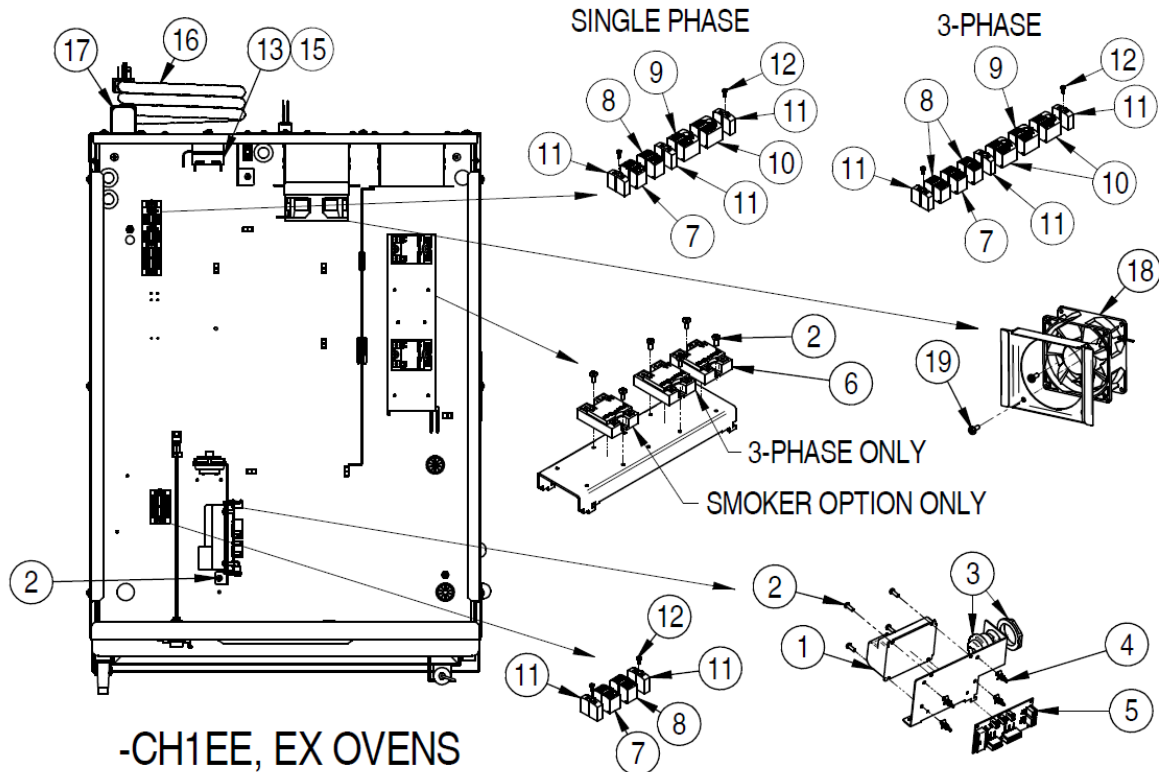
No.	Model Nos.	1000CH2EX	1200CH2EX	500CH1EX	750CH1EX
		1000CH1EX	1200CH1EX		
1	Caster, Rigid	0569-306-R	--	--	--
2	Caster, Swivel	--	0569-306	0569-313	0569-313
3	Caster, w/ brake	0569-306-B	0569-306-B	0569-313-B	0569-313-B
4	Door Asm.	1221-702-V-K	1221-689-V-K	1221-710-V-K	1221-711-V-K
	Door Asm., Window	1221-702-MV-K	1221-689-MV-K	1221-710-MV-K	1221-711-MV-K
5	Door Gasket	0861-309	0861-303	0861-306	0861-314
6	Door Latch Kit (Knob)	1006-122-01-K	1006-122-01-K	1006-122-01-K	1006-122-01-K
	Door Latch Kit (Key)	1006-121-01-K	1006-121-01-K	1006-121-01-K	1006-121-01-K
7	Hinge Kit (2)	0519-109-K	0519-109-K	0519-109-K	0519-109-K
8	Latch Strike Kit	1006-122-02-K	1006-122-02-K	1006-122-02-K	1006-122-02-K
9	Pan Slide Insert (1)	0692-200-N	--	0692-202	0692-203
10	Post, Angle (1)	--	0696-296	--	--
11	Angle Kit (2 per kit)	--	0621-281-K	--	--
12	Wire Shelf	1170-212	1170-217	1170-030-SS	1170-217
13	Drip Pan (interior)	1017-115	1017-145	1017-109	1017-117
14	Drip Pan Strainer	1052-094	1052-094	1052-094	1052-094
15	Drip Tray (center)	1017-159	1017-146	--	--
16	Meat Probe (6in)	0848-112	0848-113	0848-112	0848-112
	Meat Probe (3in)	0848-109-01	0848-109	0848-109-01	0848-109-01
17	Drip Pan (exterior)	1017-058	1017-058	1017-098	1017-098
18	Wood Chip Shelf (smoker only)	6018-014	6018-014	--	6018-014
19	Smoker Box (smoker only)	6018-017	6018-017	--	6018-017

b. ELECTRICAL COMPONENTS-CONTROL:



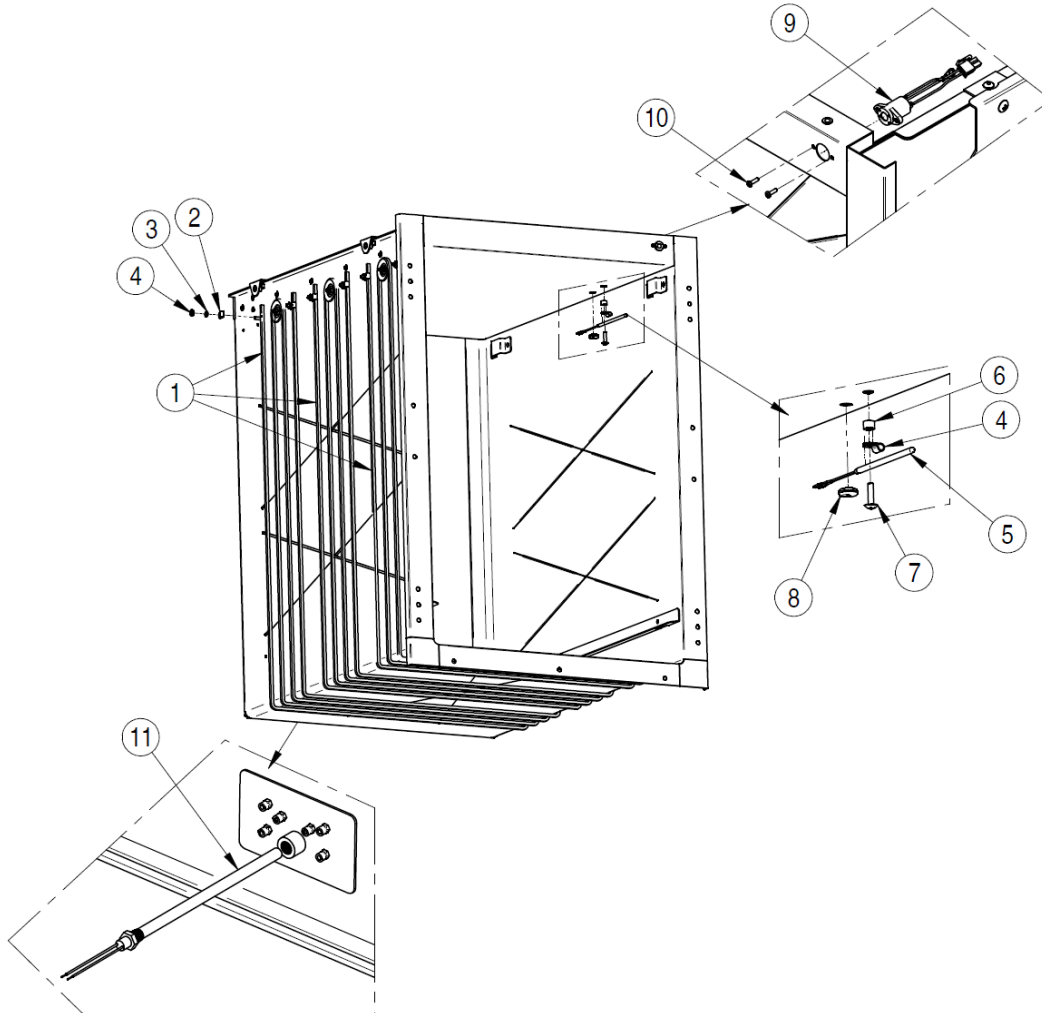
	Model Nos.	-CH2EX UNITS	-CH1EX UNITS
No.	Part Description		
1	Switch, On/Off, 120V	0808-136	0808-136
1	Switch, On/Off, 240V	0808-139	0808-139
2	Digital Control	0848-127-K	0848-127-K
3	USB Cable	5813-064	5813-064
4	Cover, USB Port	0847-097	0847-097

c. ELECTRICAL COMPONENTS-PANEL:



	Model Nos.	-CH2EX UNITS	-CH1EX UNITS
No.	Part Description		
1	Control Module (HMC12)	0848-129	0848-129
2	Screw, #8 X 3/8"	0567-093	0567-093
3	Alarm, Audible	0908-009	0908-009
4	Standoff, .250	0567-882	0567-882
5	Jumper Board	0848-134	0848-134
6	Solid State Relay	0857-136	0857-136
7	Term Block, 6-pole, BL	0852-134	0852-134
8	Term Block, 6-pole, BR	0852-138	0852-138
9	Term Block, 7-pole, BL	0852-135	0852-135
10	Term Block, 7-pole, BR	0852-139	0852-139
11	Term Block, END	0852-142	0852-142
12	Screw, 4-40 X 3/8	0567-874	0567-874
13	High Limit (upper)	0848-126	0848-126
14	High Limit (lower)	0848-126-01	--
15	Screw, M4-0.7 X 6mm	0565-002	0565-002
16	Power Cord, 120V	--	0810-065-72-01
	Power Cord, 1Ph, 240V	0810-163-03	0810-173-03
	Power Cord, 3Ph, 240V	0810-164-03	0810-164
17	Strain Relief	0818-095	0818-110
18	Vent Fan, 100-240V	0769-225	0769-225
19	Screw, 10-32 X 1/2	0567-396	0567-396
20	Thermostat, Limit, 130°F	0848-034	0848-034

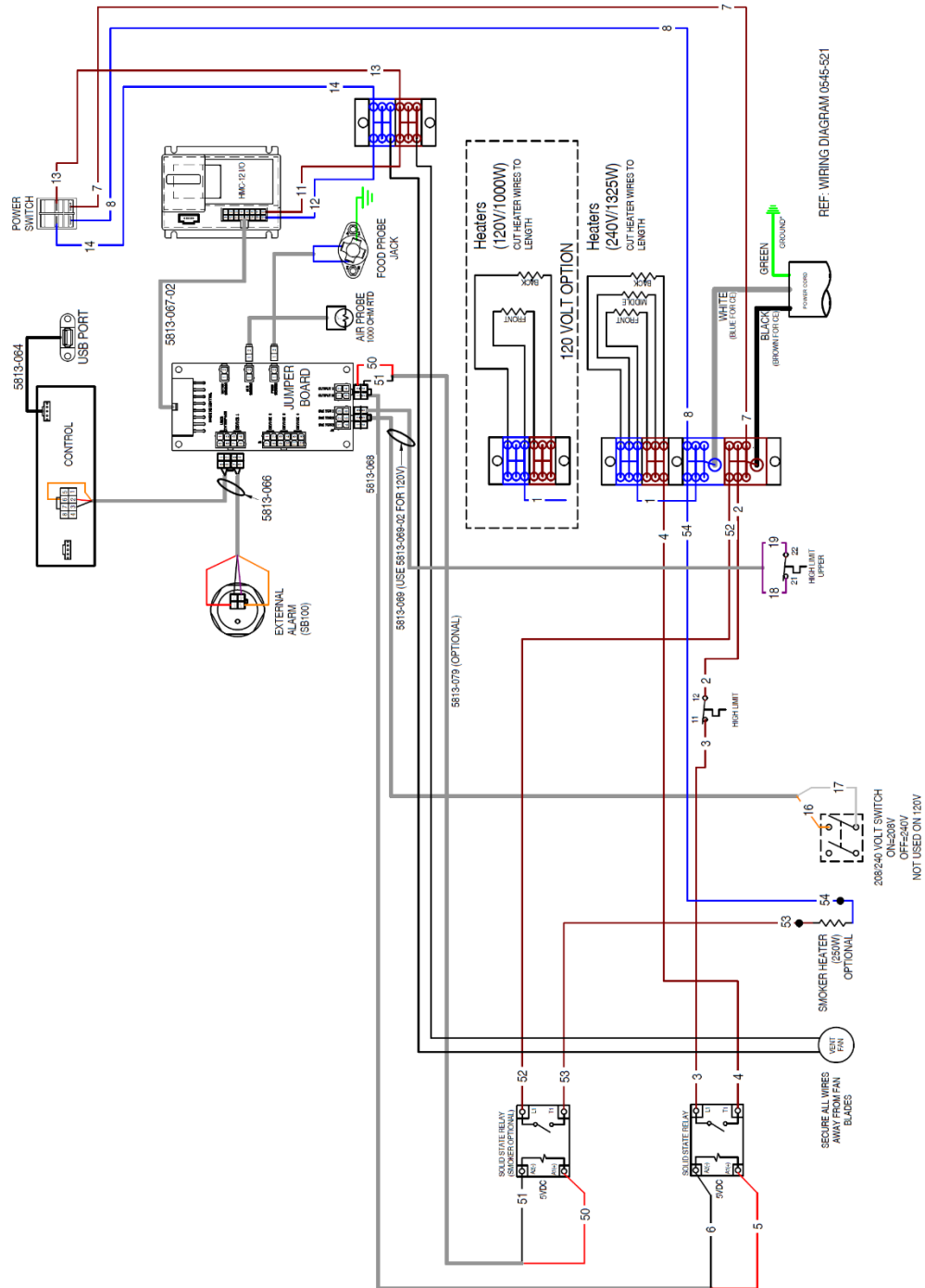
d. ELECTRICAL COMPONENTS-OVEN:



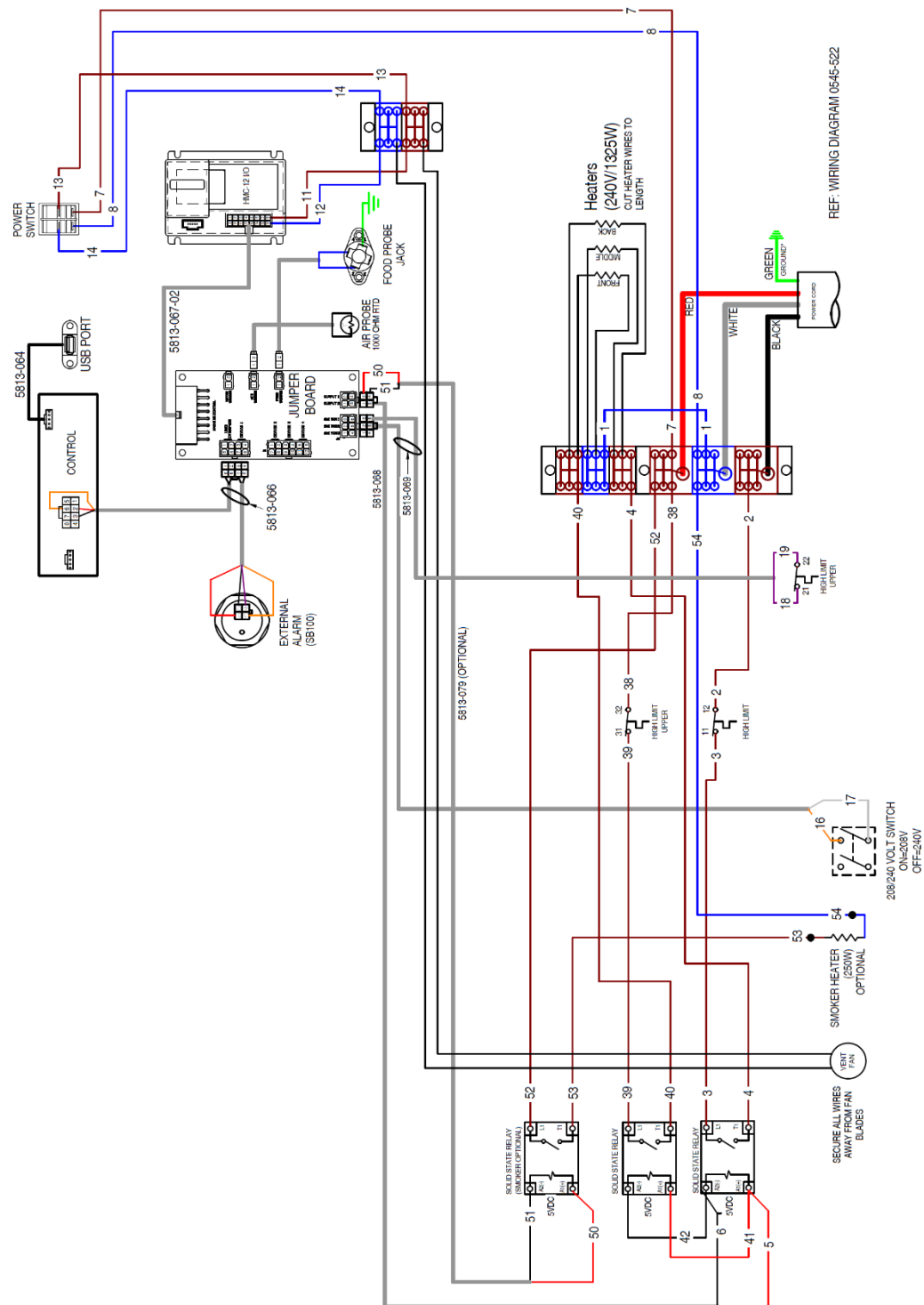
No.	Part Description	Part Number
1	Heater, 120V	0811-341-K
	Heater, 240V	0811-341-01-K
2	Clamp, Tube	0806-069
3	Washer, Lock, #10	0567-074
4	Nut, #10	0567-060
5	Sensor, Control	0848-091-01
6	Spacer	0818-017
7	Screw 10-24 X 3/4	0567-123-P
8	Grommet	1202-016
9	Meat Probe Connector	0848-106-05
10	Screw, 4-40 X 3/8	0567-679
11	Heater, Cartridge, 120V (smoker only)	0811-318
	Heater, Cartridge, 240V (smoker only)	0811-317

8. WIRING DIAGRAMS:

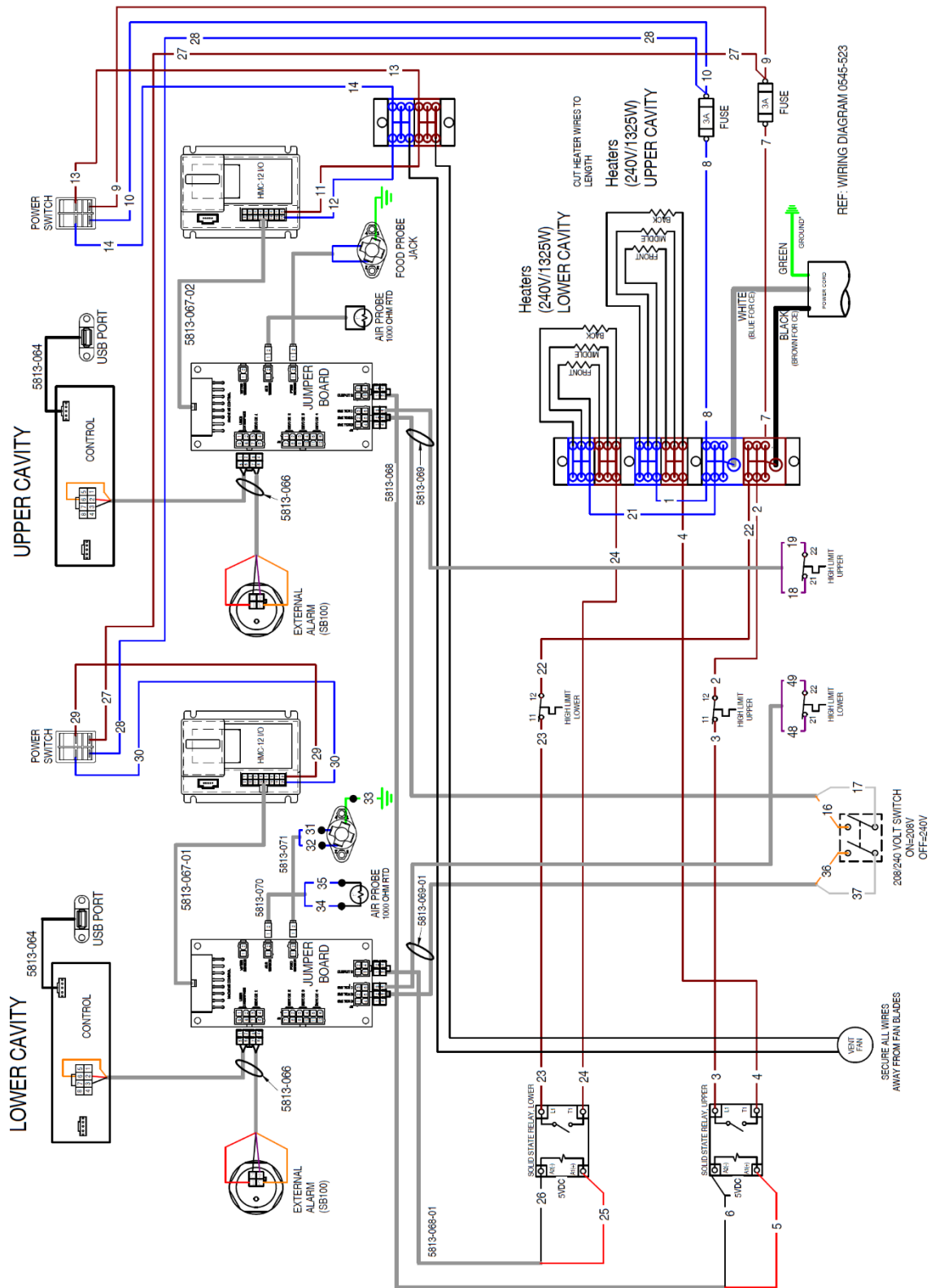
Models: 500CHEX, 750CH1EX, 750CHSK1EX, 1000CH1EX, 1000CHSK1EX, 1200CH1EX (Single Phase)



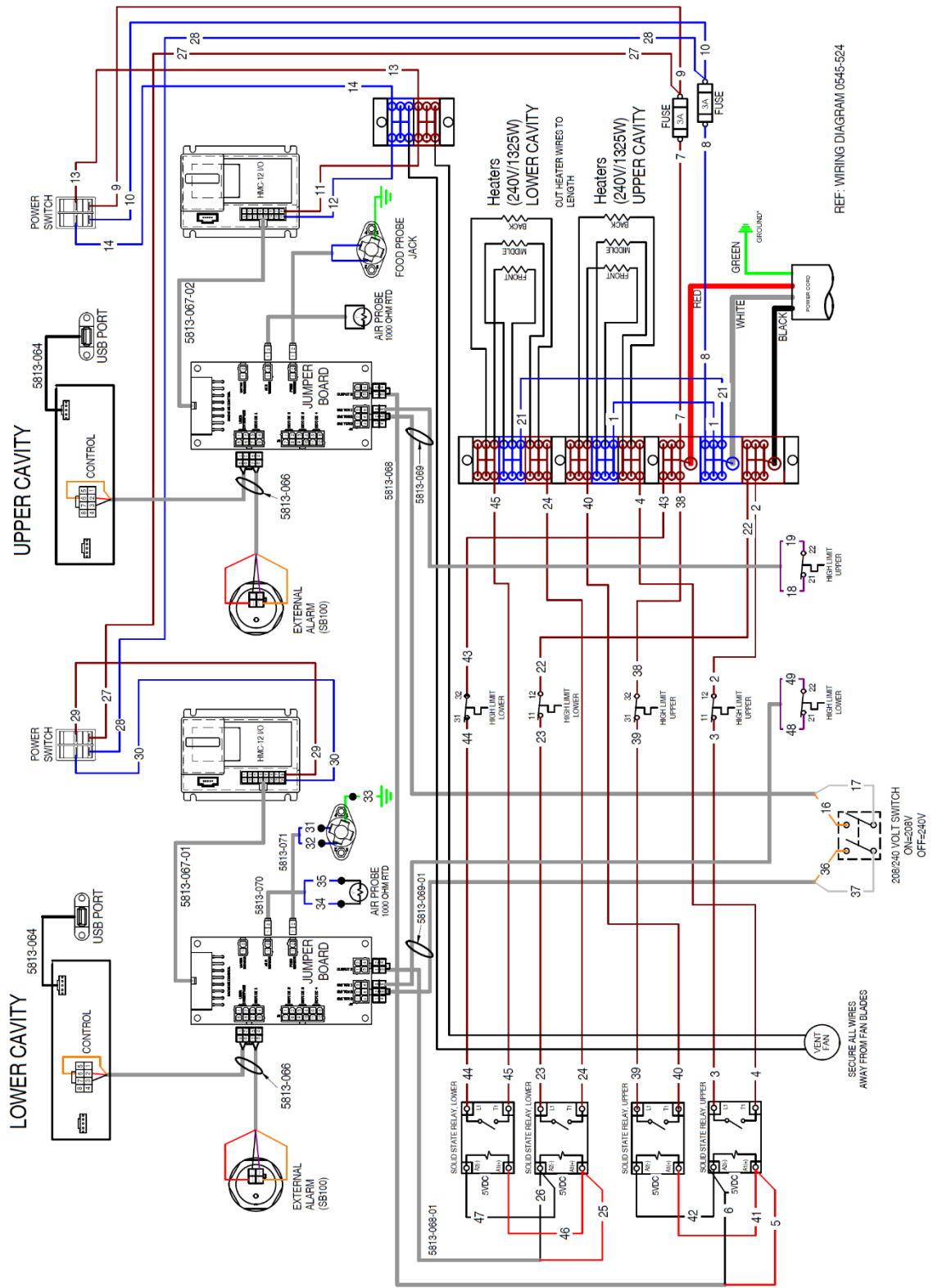
Models: 500CH1EX3, 750CH1EX3, 750CHSK1EX3, 1000CH1EX3, 1000CHSK1EX3, 1200CH2EX3 (3-Phase)



Models: 1000CH2EX, 1200CH2EX (Single Phase)



Models: 1000CH2EX3, 1200CH2EX3 (3-Phase)



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www.crescor.com

Oven

500CH1EX
750CH1EX
750CHSK1EX
1000CH1EX
1000CHSK1EX
1000CH2EX
1200CH1EX
1200CH2EX

Model No. _____
Serial No. _____
Order No. _____



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