



Prodigi[™] Classic Control Firmware qt.8.101.22 or higher

6-10E Classic	6-10G Classic
10-10E Classic	10-10G Classic
7-20E Classic	7-20G Classic
10-20E Classic	10-20G Classic
20-10E Classic	20-10G Classic
20-20E Classic	20-20G Classic



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EN

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Manufacturer's Information

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Manufacturer

Alto-Shaam, Inc.

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W164 N9221 Water Street

Menomonee Falls, WI 53052

Original instructions

The content in this manual is written in American English.



DANGER: Before starting the oven, make sure you do not detect the odor of gas.

If you smell gas:

- Shut off the gas supply immediately.
- Do not attempt to light any appliance.
- Do not touch any electrical elements.
- Extinguish any open flame.
- Evacuate the area.
- Use a telephone outside of the property and immediately contact your gas supplier.
- If unable to contact your supplier, contact the fire department.

Alto-Shaam 24/7 Emergency Repair Service

Call	Call 800-558-8744 to reach our 24-hour emergency service call center for immediate access to local authorized service agencies outside standard business hours. The emergency service access is provided exclusively for Alto-Shaam equipment and is available throughout the United States through Alto-Shaam's toll free number.
Availability	Emergency service access is available seven days a week, including holidays.

Parts Information

Parts Finder Tool	Interactive diagrams for spare parts for this appliance are available online at our Parts Finder Tool: https://www.alto-shaam.com/en/customer-support/parts . Or, scan the QR code below.
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Parts Ordering Information	Original manufacturer's replacement parts may be ordered directly from the Alto-Shaam network of Authorized Service Agents and Parts Distributors. Follow this link for a map to a local partner: https://www.alto-shaam.com/en/how-to-buy . If you are an Authorized Service Agent or Parts Distributor, please submit your purchase order to parts@alto-shaam.com .
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Non-OEM parts may be substituted; however, these parts must be of equal quality and specifications as those provided by Alto-Shaam.

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The Meaning of Signal Words

This manual contains signal words where needed. These signal words must be obeyed to reduce the risk of death, personal injury, or equipment damage. The meaning of these signal words is explained below.

**DANGER**

Danger indicates a hazardous situation which, if not avoided, will result in serious injury or death.

**WARNING**

Warning indicates a hazardous situation which, if not avoided, could result in serious injury or death.

**CAUTION**

Caution indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

Notice indicates a situation which, if not avoided, could result in property damage.



NOTE: Note indicates additional information that is important to a concept or procedure.

Safety Precautions

Before you begin

Read and understand all instructions in this manual.

Electrical precautions

Obey these electrical precautions when using the appliance:

- All electrical connections must be made by a qualified and trained service technician in accordance with applicable electrical codes.
 - Consult local codes and Specification Sheets for the electrical cable and breaker size.
 - Power source must match voltage identified on appliance tag.
 - CE-approved appliances include an equipotential-bonding terminal marked with the equipotential symbol.
 - For CE models, use a Type B current protection device that accommodates a leakage current of 30mA.
-

Gas precautions

Obey these gas precautions when using the appliance:

- Only use the oven when the exhaust hood is turned on.
 - Keep the area around the oven clear of any obstructions that might slow down the flow of cooling air.
 - Do not place objects near the oven's exhaust vents.
 - Do not touch the exhaust vents while the oven is running or immediately after it has been turned off.
 - Do not spray aerosols in the area of the oven during operation.
 - Do not store flammable materials in the area of the oven.
-

Usage precautions

Obey these usage precautions when using the appliance:

- Only use this appliance for its intended use of heating or cooking food.
- Always keep liquids, or foods that can become liquid when heated, level and at or below eye level where they can be seen.
- Always open the oven door slowly. Escaping hot vapors or steam can cause injury.
- Use utensils and protective clothing such as dry oven mitts when loading and unloading the appliance.
- Use caution when using the appliance. Floors adjacent to the appliance may become slippery.
- If the appliance is installed on casters, freedom of movement of the appliance must be restricted so that utility connections (including gas, water, and electricity) cannot be damaged when the appliance is moved. If the appliance is moved, make sure that all utility connections are properly disconnected. If the appliance is returned to its original position, make sure that any retention devices and utility connections are properly connected.

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- Do not cover or block any of the openings of this appliance.
- Do not cover racks or any other part of this appliance with metal foil.
- Do not keep anything underneath the oven that could block the vents.
- Do not use this appliance near water such as a sink, in a wet location, near a swimming pool, or similar locations.

Maintenance precautions

Obey these maintenance precautions when maintaining the appliance:

- Obey precautions in the manual, on tags, and on labels attached to or shipped with the appliance.
- Only clean the exterior of the appliance when appliance is OFF.
- Do not store the appliance outdoors.
- Do not clean the appliance with metal scouring pads.
- Do not use corrosive chemicals when cleaning the appliance.
- Do not use a hose, water jet, or steam cleaner to clean the appliance.
- Do not use the appliance cavity for storage.
- Do not leave flammable materials, cooking utensils, or food inside the appliance when it is not in use.

Operator training

Before using the appliance:

- Read and understand the operating instructions contained in all the documentation delivered with the appliance.
- Know the location and proper use of all controls.
- Contact Alto-Shaam for additional training if needed.

Operator qualifications

Only trained personnel are permitted to use the appliance. They must meet the following qualifications:

- Have received proper instruction on how to use the appliance
- Are familiar with commercial kitchens and commercial appliances

The appliance must not be used by:

- Persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision concerning use of the appliance by person responsible for their safety.
- People impaired by drugs or alcohol.

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- Children should be supervised to ensure that they do not play with the appliance.
 - Children shall neither clean nor maintain the appliance.
-

Condition of appliance

Only use the appliance when:

- All controls operate correctly
 - The appliance is installed correctly
 - The appliance is clean
 - The appliance labels are legible
-

Servicing the appliance

- Only trained personnel are permitted to service or repair the appliance. Repairs that are not performed by an authorized service partner or trained technician, or the use of non-factory parts, will void the warranty and relieve Alto-Shaam of all liability.
 - To prevent serious injury, death or property damage, have the appliance inspected and serviced at least every twelve (12) months by an authorized service partner or trained technician.
 - Contact Alto-Shaam for the authorized service partner in your area.
-

Noise emissions

- Without hood system, a maximum 67 dB(A) was measured at 3.3 ft (1m) from unit.
 - With hood system, a maximum 73 dB(A) was measured at 3.3 ft (1m) from unit.
-

Massachusetts compliance

In accordance with NFPA 54 for the Commonwealth of Massachusetts only: Where automatically operated appliances are vented through a ventilation hood or exhaust system equipped with a damper or with a power means of exhaust, provisions shall be made to allow the flow of gas to the main burners only when the damper is open to a position to properly vent the appliance and when the power means of exhaust is in operation.

Personal Protective Equipment (PPE)

Wear the following Personal Protective Equipment (PPE) while cleaning the appliance:

- Protective gloves
 - Protective clothing
 - Eye protection
 - Face protection
-

Use of restraining devices

A restraining device (tether) must be installed to any appliance that is hard-wired and mounted on casters. The tether must:

- Be secured to the building's structure.
- Limit the movement of the appliance so that no stress is transmitted to the electrical conduit.

A connection point for the tether is located on the back of the appliance.

A tether is not supplied by nor available from the manufacturer.

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How to Turn On and Turn Off the Oven

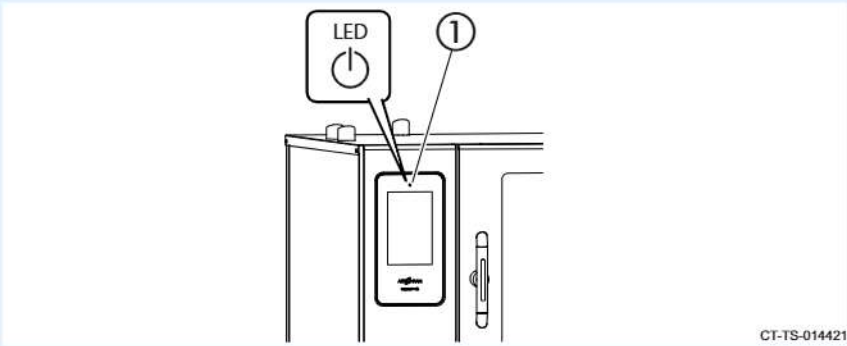
Before you begin

- The oven must be connected to electric power.
- Make sure the gas supply is connected.
- Make sure the water supply is connected.

Turning on the oven

To turn on the oven, do the following.

Step	Action
1.	Touch the ON/OFF button ①.



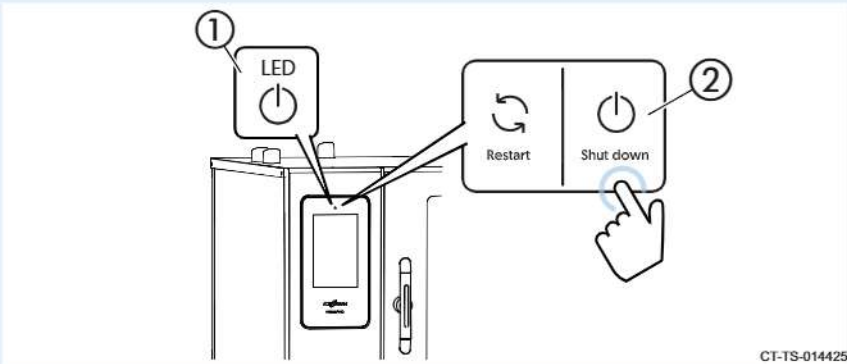
CT-TS-014421

The oven is now on.

Turning off the oven

To turn off the oven, do the following.

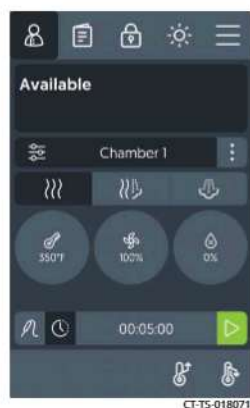
2.	Touch and hold the ON/OFF button ① until the "Shut Down Options" screen displays. Touch "Shut down" ②.
----	--



CT-TS-014425

The oven is now off.

Icon Identification



Icon	Icon name	Description
	Recipe book	Touch to browse recipes.
	Lock	Touch to lock the control.
	Lights	Touch to turn on or turn off the cavity lights.
	Menu	Touch to view the control menu.
	Professional cook	Touch to use professional cook mode.
	Preheat	Touch to set a preheat temperature.
	Cool down	Touch to set a cool down temperature.
	Back arrow	Touch to return to the previous screen.
	Convection	Touch to select convection mode.

	Combi	Touch to select combi mode.
	Steam	Touch to select steam mode.
	Action	Touch to select an action step or touch to continue during the cooking process.
	Cook time	Touch to cook by time.
	Probe	Touch to cook by probe.
	Humidity	Touch to set the humidity percentage.
	Temperature	Touch to set the temperature.
	Fan speed	Touch to set the fan speed.
	Power level	Touch to select the power level.
	Shelf timer	Touch to cook using multiple shelf timers.
	Proofing	Touch to use Proofing mode.
	Plus	Touch to add stage or action.
	Recipe edit icon	Touch to edit a recipe.
	Save	Touch to save a recipe.

	Tag	Touch to change from time reading to name reading.
	Start	Touch to start a cook.
	Cancel	Touch to cancel a cook, preheat, and close screens.

How to Preheat the Oven

Before you begin

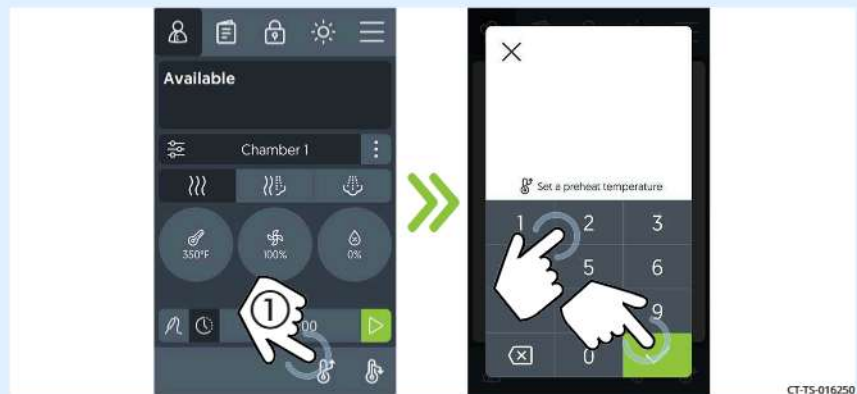
Make sure:

- The oven is turned on.
- The oven door is closed.

Procedure

To preheat the oven, do the following.

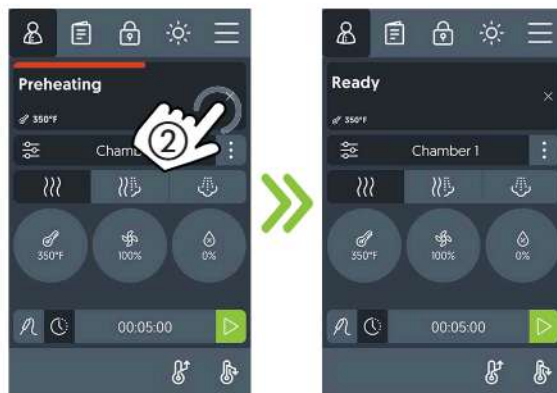
- | Step | Action |
|------|--|
| 1. | From the professional cook screen, touch the preheat icon ①.
Enter the preheat temperature using the number pad. Touch the check mark. |



CT-TS-016250

Screen loading bars

The loading bar indicates the progress towards reaching the set temperature. If necessary, touch the cancel icon ② to cancel the preheating process before the oven reaches its preheat temperature.



CT-TS-016247

Result

The oven is preheating. When the preheat process is complete, the screen displays Ready.

How to Cool Down the Oven

Background

There are two methods to cool down the oven. The regular cool down uses the convection fan and requires the door to be open. The rapid cool down uses water and requires the door to be closed.



WARNING: Burn hazard.

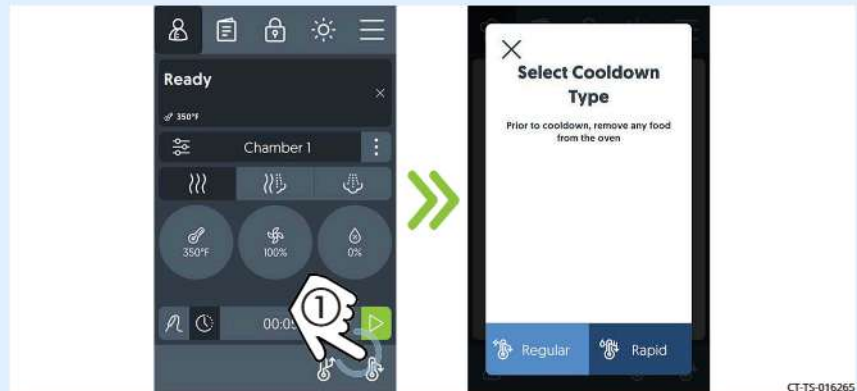
Open the door carefully. Escaping hot vapors or steam can cause injury.

Procedure

To cool down the oven, do the following.

Step	Action
------	--------

- | | |
|----|--|
| 1. | From the manual cooking screen, touch the cool down icon ①. The select cool down screen displays. |
|----|--|



CT-T5-016265

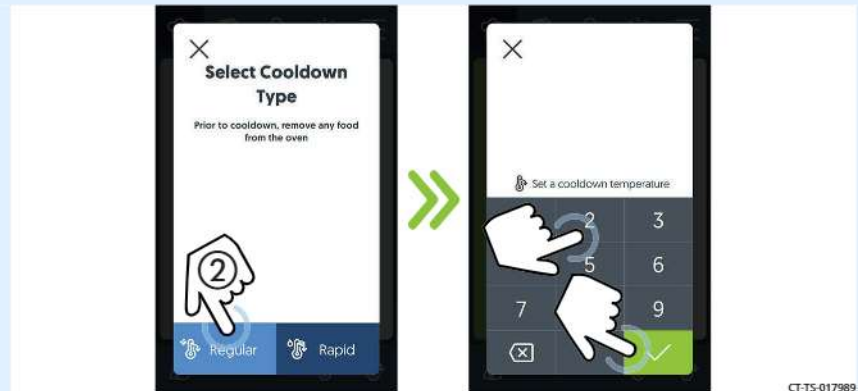
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Regular cool down

- For a regular cool down, **touch** the "Regular" ② cool down icon.

Enter the cool down temperature using the number pad. **Touch** the check mark. **Open** the door slowly to vent any steam for 3-5 seconds. Then, leave the door open 4 to 6 inches (10 to 15 cm).



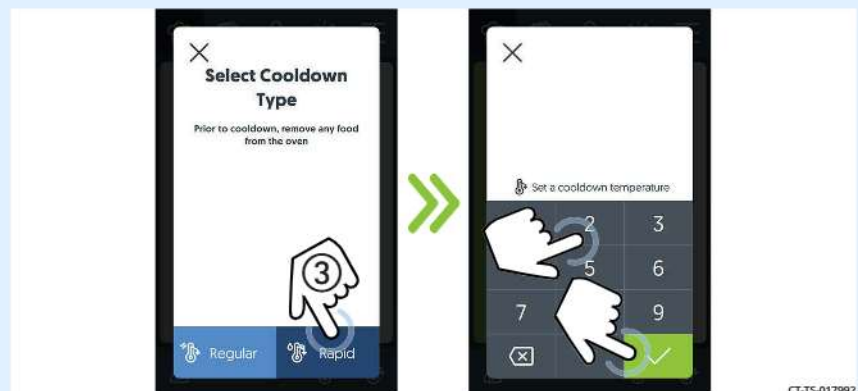
CT-TS-017989

NOTE: The oven activates the convection fan for the cool down process. The oven deactivates the convection fan when the cool down process is complete.

Rapid cool down

- For a rapid cool down, **touch** the "Rapid" ③ cool down icon.

Make sure the door is closed. **Enter** the cool down temperature using the number pad. **Touch** the check mark.



CT-TS-017992

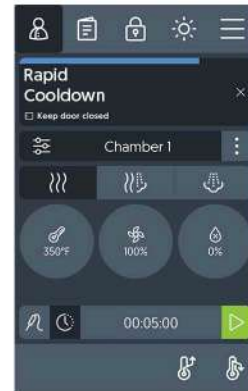
NOTE: The rapid cool down system sprays water into the oven cavity when the temperature is 500°F (260°C) or lower.

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Cooling down progress bars

The progress bar indicates the oven's progress towards reaching its cool down temperature.



CT-TS-016268

Result

The oven is now cooled down.

How to Update Software with a USB Drive

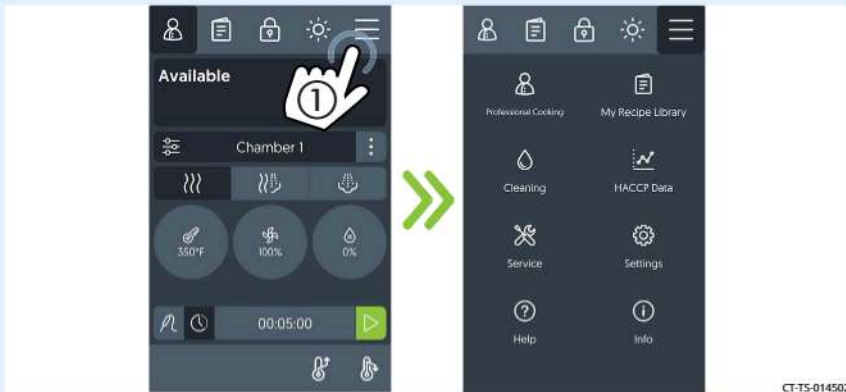
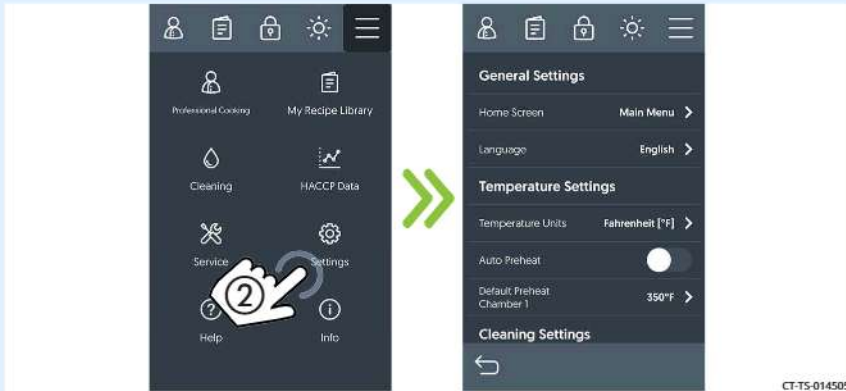
Before you begin

Make sure:

- The oven is on and cool to the touch (room temperature).
- You will need a USB drive with the updated software. To download the most up to date oven software and register for email notifications when new software versions are released, please visit <https://www.alto-shaam.com/en/customer-support/software-downloads>.
- Do not remove the USB drive during the update process.

Procedure

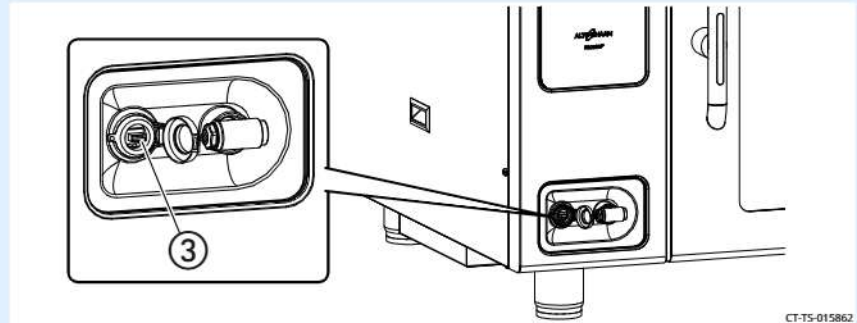
To update the software, do the following.

Step	Action
1.	Touch the menu icon ①. The menu screen displays. 
2.	Touch the "Settings" icon ②. The "General Settings" screen displays. 

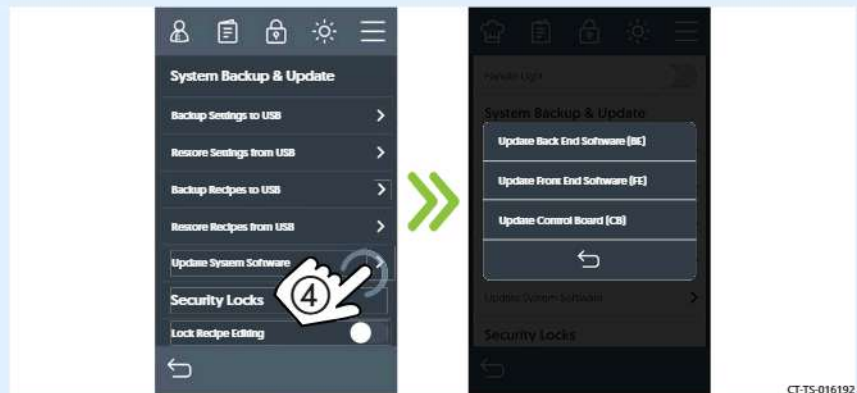
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3. **Plug** the USB drive ③ into the port.

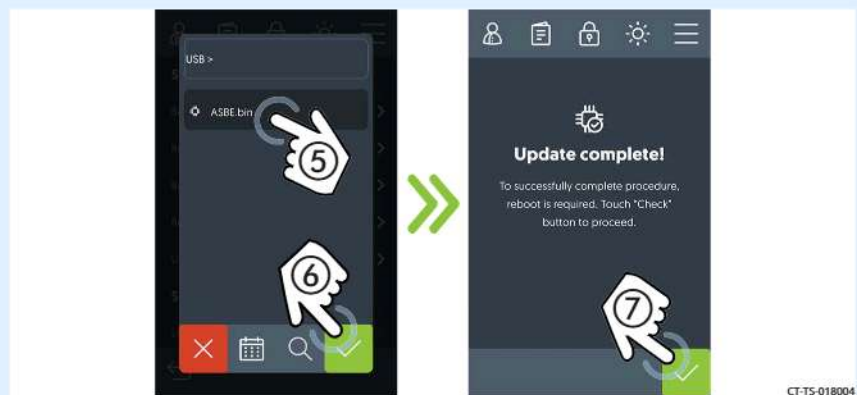


4. **Scroll** to “System Backup & Update.”
Touch the “Update System Software” ④ setting.



NOTICE Do not remove the USB drive during the update process.

5. **Touch** “Update Back End Software (BE)” to update the supporting software between the control board (CB) and interface board (IB). **Select** the ASBE.bin file ⑤. **Touch** the check mark ⑥. The oven loads the selected software. Touch the check mark ⑦ when the update is complete to restart the oven.

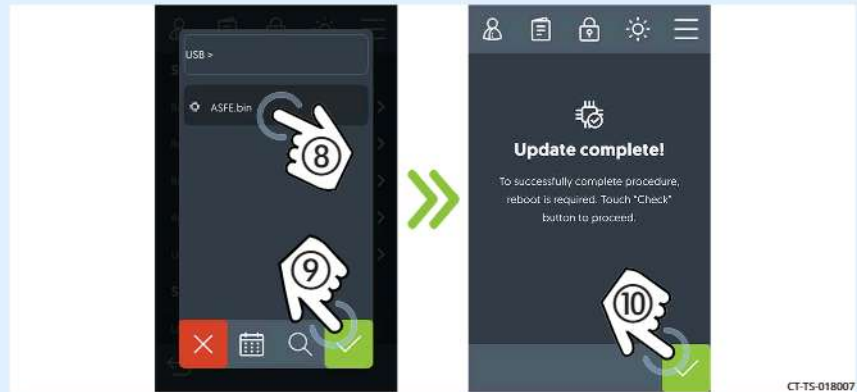


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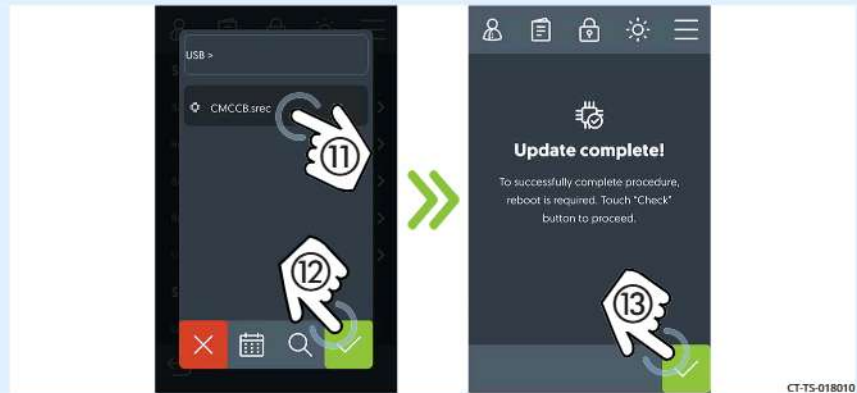
6. **Repeat** steps 1 through 4.

Touch "Update Front End Software (FE)" to update the user interface software. Select the ASFE.bin file ⑧. Touch the check mark ⑨. The oven loads the selected software. Touch the check mark ⑩ when the update is complete to restart the oven.



7. **Repeat** steps 1 through 4.

Touch "Update Control Board (CB)" to update the control board. Select the file ⑪. **Touch** the check mark ⑫. The oven loads the selected software. The oven verifies the file and then updates the CB. **Touch** the check mark ⑬ when the update is complete to restart the oven.

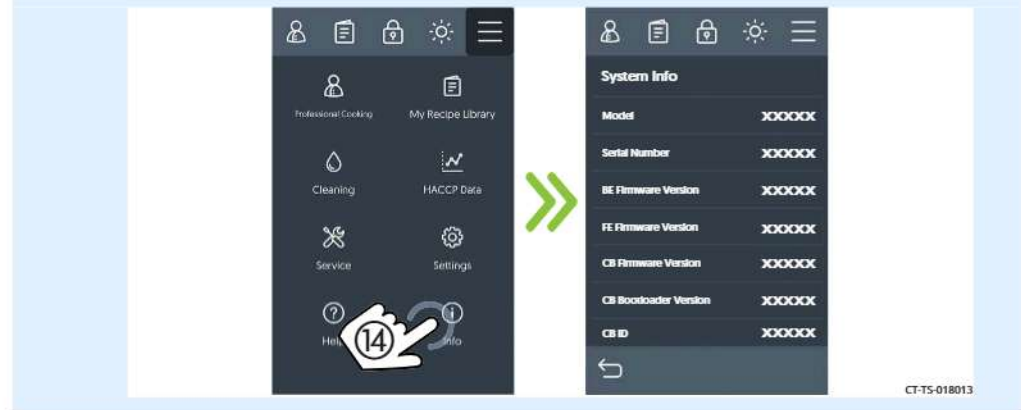


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8. **Remove** the USB drive.

9. **Touch** the "Info" icon ⑭ to validate the software versions.



Result

The software has now been updated.

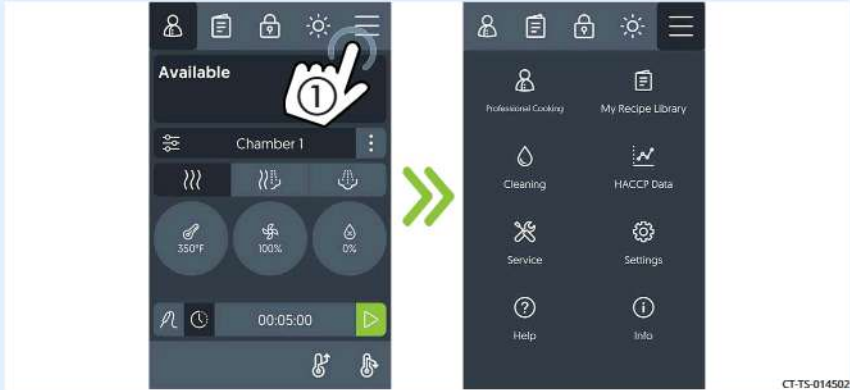
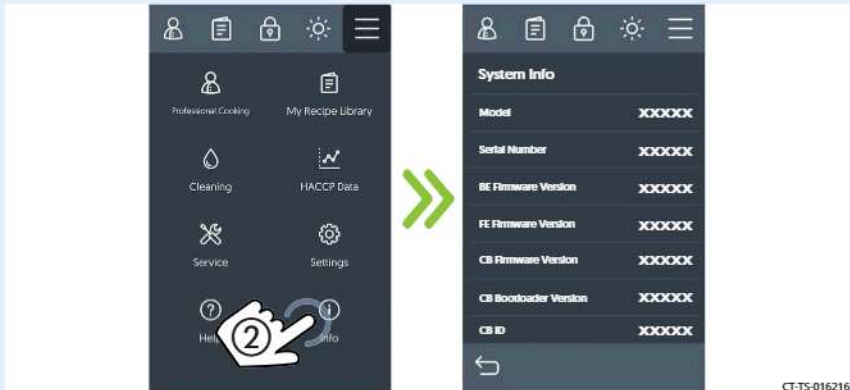
How to View Oven Information

Background

The oven information screen shows the oven model, serial number, software version, and system information.

Procedure

To view oven information, do the following.

Step	Action
1.	Touch the menu icon ①. The menu screen displays.  CT-TS-014502
2.	Touch the "Info" icon ②. The "System Info" screen displays. Scroll to view the oven model, serial number, software version, and system information.  CT-TS-016216

Result

The oven's information has been viewed.

How to Calibrate the Temperature Probe

Before you begin

Make sure:

- The oven is on, but not in cooking mode.
- You have a thermometer.
- You have a container filled with ice and water.

Procedure

To calibrate the probe, do the following.

Step	Action
1.	Insert the probe and the thermometer in a container of ice water and allow the temperature to settle to 32°F (0°C).
2.	Touch the menu icon ①. The menu screen displays. 
3.	Touch the "HACCP Data" icon ②. The "HACCP Data" screen displays. 

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4. **Touch** the calibrate probes icon ③.



CT-TS-016272

5. **Compare** the probe temperature reading against 32°F (0°C).
Touch the "+" or "-" symbols ④ until the temperature displayed is 32°F (0°C).



CT-TS-016275

6. **Remove** the probe from the ice water.

Result

The probe is now calibrated.

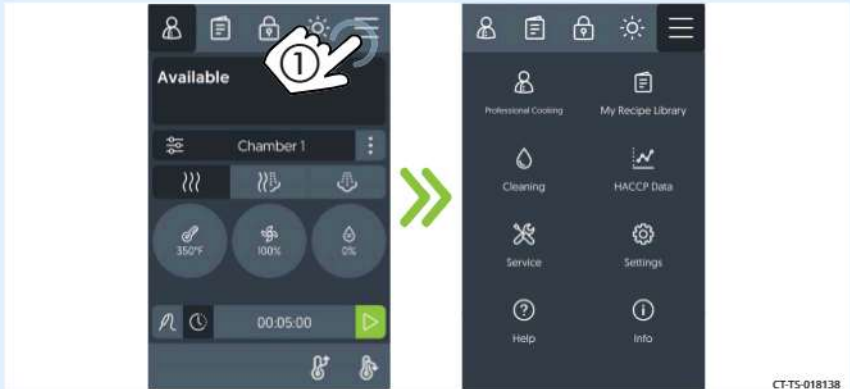
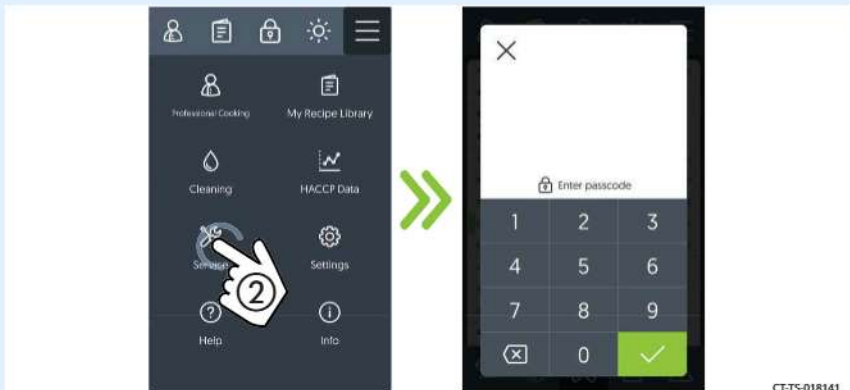
How to View the Service Screen

Before you begin

The oven must be connected to electric power and turned on.

Procedure

To view the service screen, do the following.

Step	Action
1.	Touch the menu icon ①. The user menu screen displays.  CT-TS-018138
2.	Touch the "Service" icon ②. The "Enter passcode" screen displays.  CT-TS-018141

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3. **Enter** the pass code 6702.

Touch the check mark. The “System Info” screen displays.



NOTE: Touching an indicator will test that function.



4. **Scroll down** ③ to view more service information.



Result

The procedure is now complete.

How to Test the Water Solenoid Valves

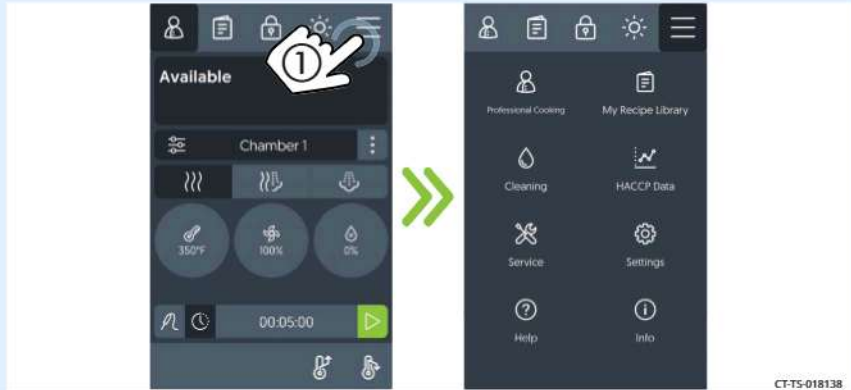
Before you begin

- The oven must be connected to electric power.
- The oven must be connected to water supply.

Procedure

Valve/Pump name	Valve/Pump action
Y1 Valve	Flows water to injection tube.
Y2 Valve	Flows water to fill condensate tank.
Y3 Valve	Flows water to injection tube.
Y4 Wash Pump	Pumps water from condensate tank to injection tube.

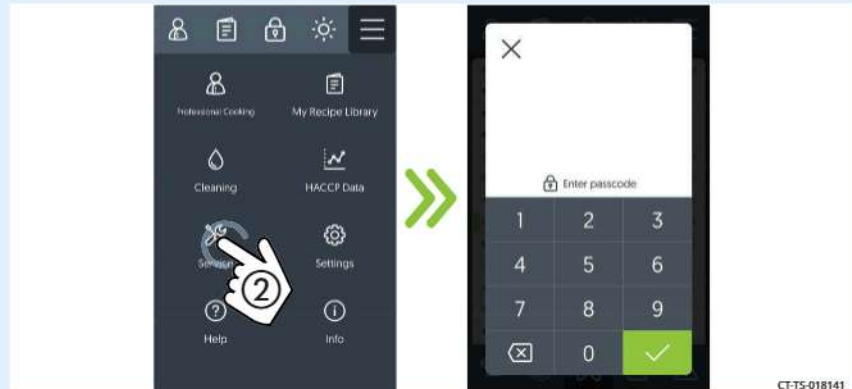
To test the water solenoid valves, do the following.

Step	Action
1.	Touch the menu icon ①. The user menu screen displays. 

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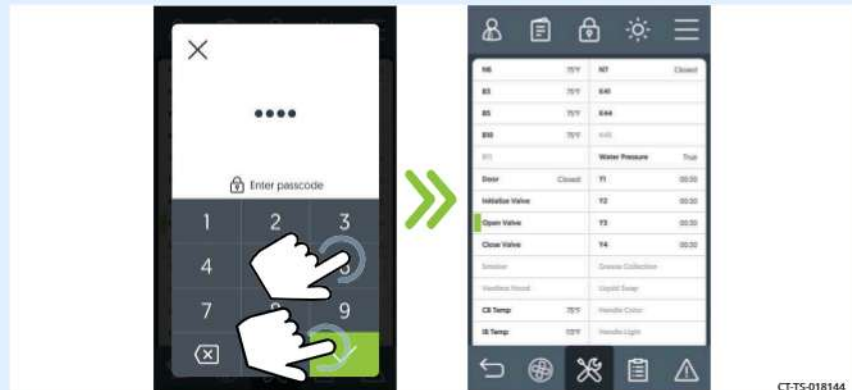
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2. **Touch** the “Service” icon ②. The “Enter passcode” screen displays.

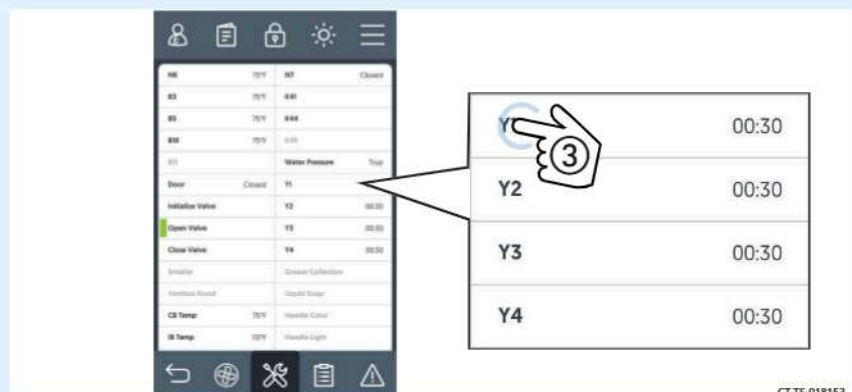


3. **Enter** the pass code 6702.

Touch the check mark. The service menu screen displays.



4. **Touch** the valve ③ to turn on the valve for testing. When timer ends, the valve will turn off.



Result

The water valve has now been tested.

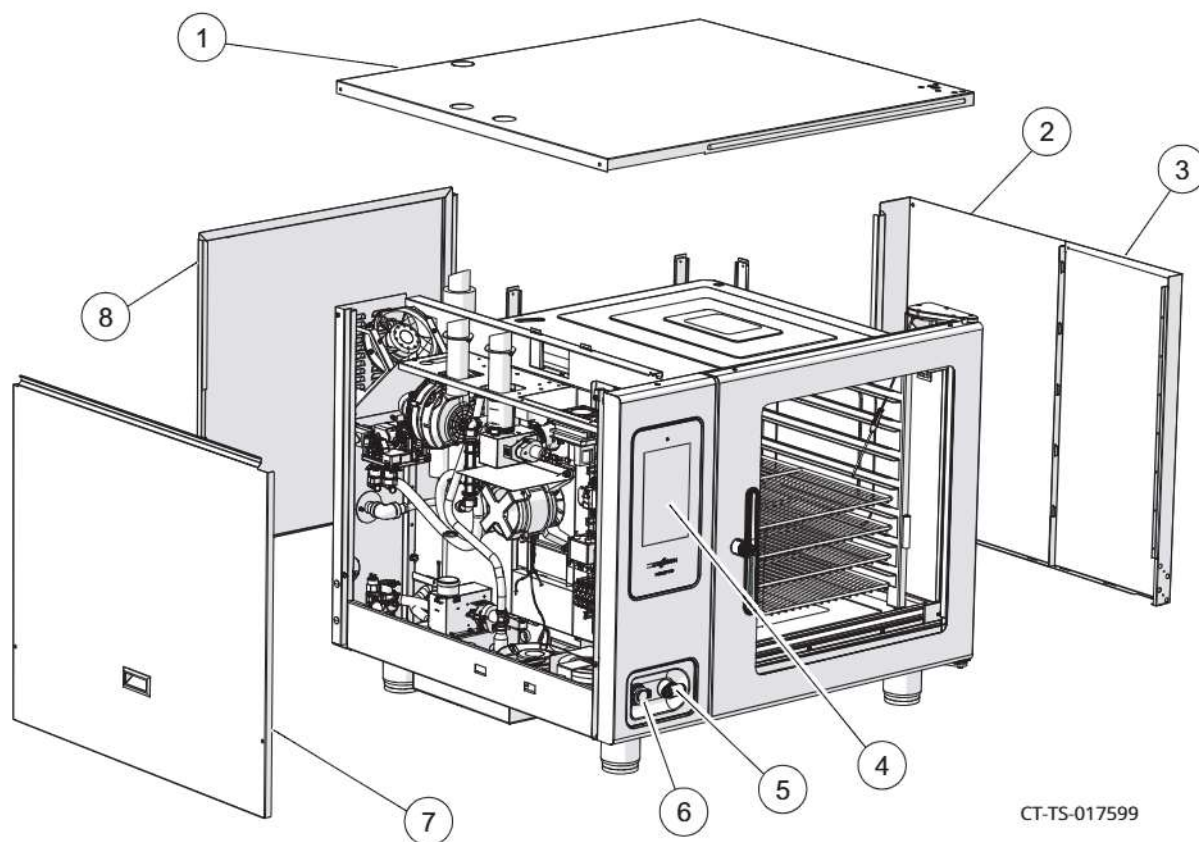
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Component Identification



COMPONENTS

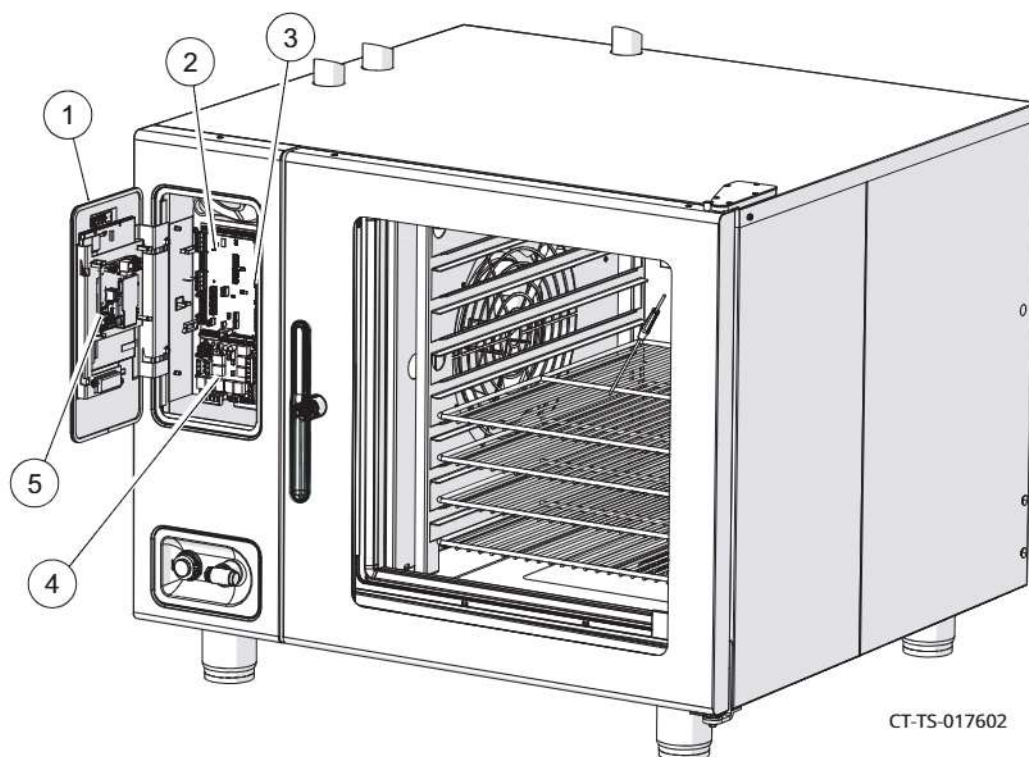
Service Panels Identification



CT-TS-017599

Ref.	Description	Ref.	Description
1	Top panel	5	Hand shower hose reel
2	Right side rear panel	6	USB port
3	Right side front panel	7	Left side panel
4	Control panel	8	Rear panel

Front Panel Component Identification

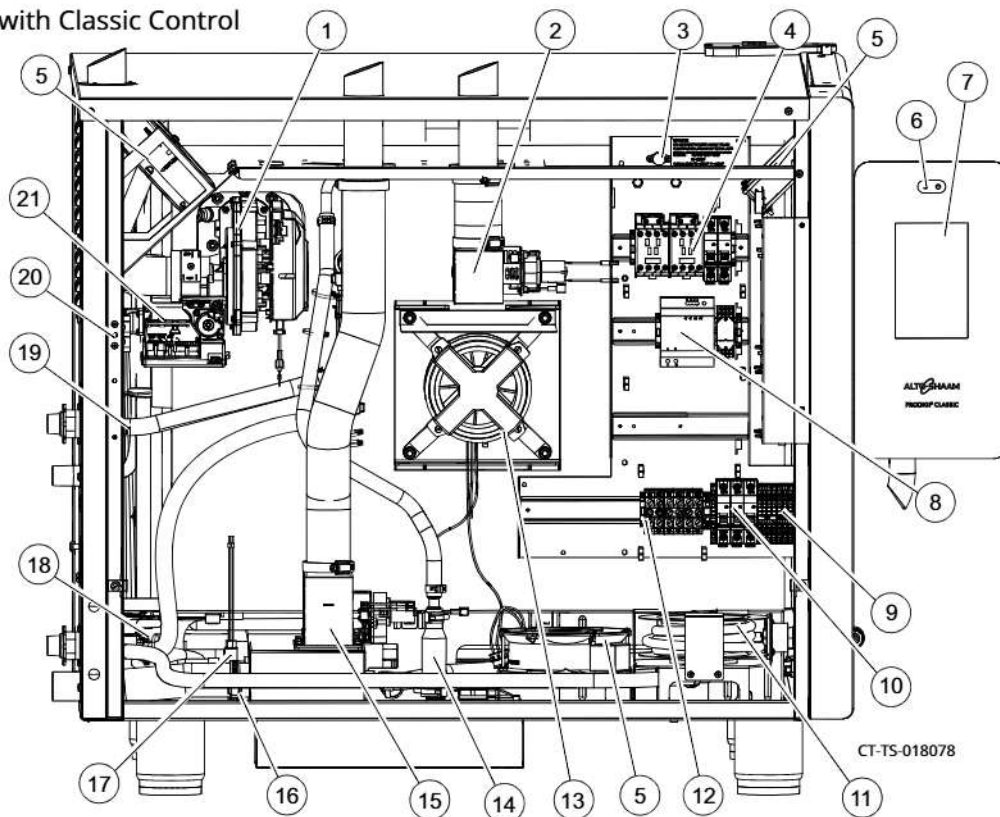


CT-TS-017602

Ref.	Description
1	Control panel
2	Control board
3	Option board
4	Relay board
5	Interface board

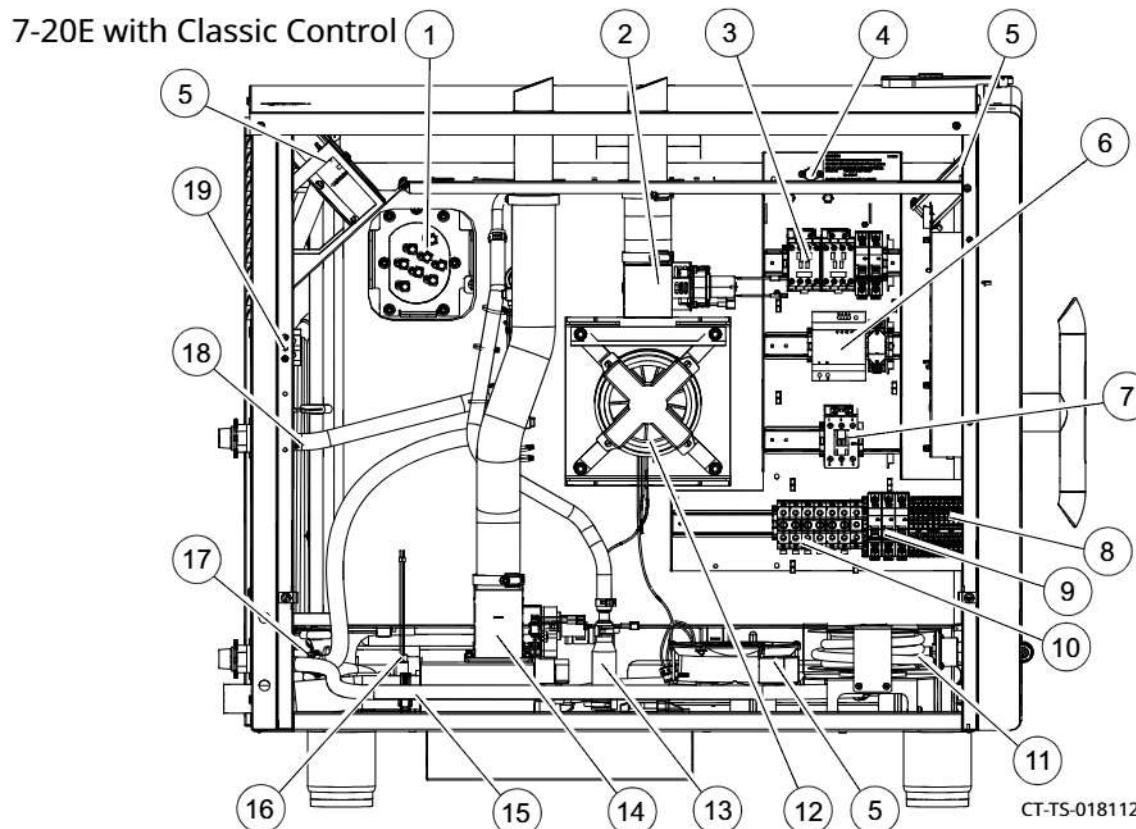
Left Side Gas Component Identification

7-20G with Classic Control



Ref.	Description	Ref.	Description
1	Gas burner assembly	12	Terminal blocks
2	Browning valve, upper	13	Convection Fan Assembly
3	Thermostat, cooling fans	14	Wash pump
4	Contactors, Motor Speed	15	Browning valve, lower
5	Cooling fan	16	Temperature Probe, B3
6	ON/OFF touch point	17	Temperature Probe, B5
7	Liquid Crystal Display (LCD)	18	Solenoid valve, hand shower
8	12VDC Power Converter	19	Solenoid valve, steam
9	Terminal blocks	20	High limit switch
10	Circuit breakers	21	Gas igniter control assembly
11	Hand shower hose reel	-	-

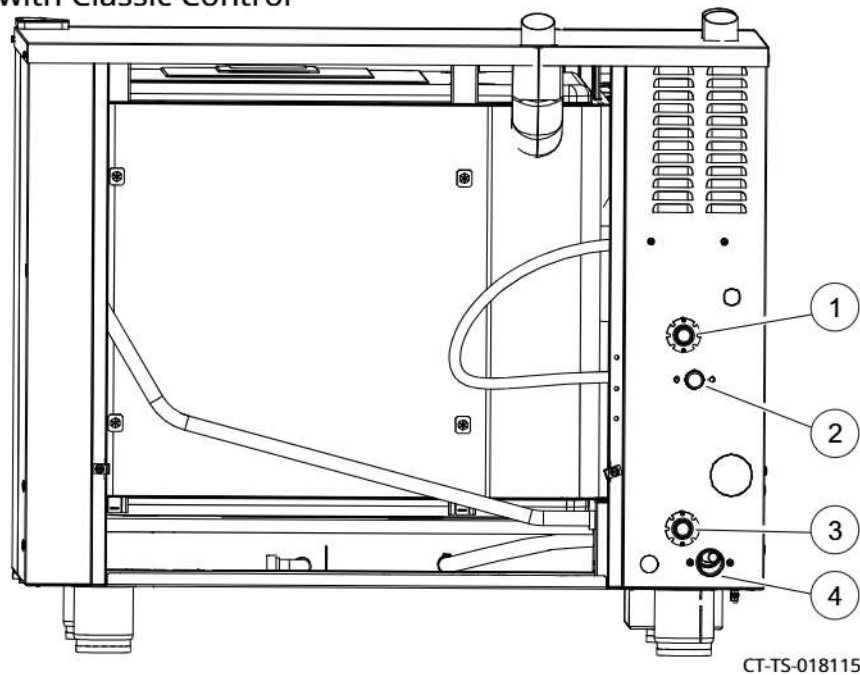
Left Side Electric Component Identification



Ref.	Description	Ref.	Description
1	Heating element	11	Hand shower hose reel
2	Browning valve, upper	12	Convection Fan Assembly
3	Contactors, motor control	13	Wash system pump
4	Thermostat, cooling fans	14	Browning valve, lower
5	Cooling fan	15	Temperature Probe, B3
6	12VDC Power Converter	16	Temperature Probe, B5
7	Contactor, convection heat	17	Solenoid valve, hand shower
8	Terminal blocks	18	Solenoid valve, steam
9	Circuit breakers	19	High limit switch
10	Terminal blocks	-	-

Rear Panel Components Identification

7-20G with Classic Control

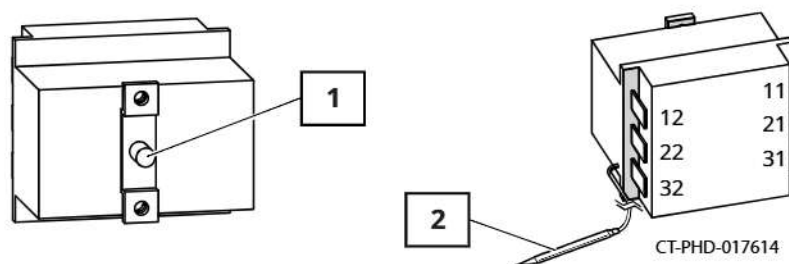


Ref.	Description
1	Treated water connection Y1 Steam injection
2	Gas line inlet (if equipped)
3	Untreated water connection Y2 Condensate water Y3 Wash water Y5 Hose reel
4	Oven drain

High Limit Switch

Resettable

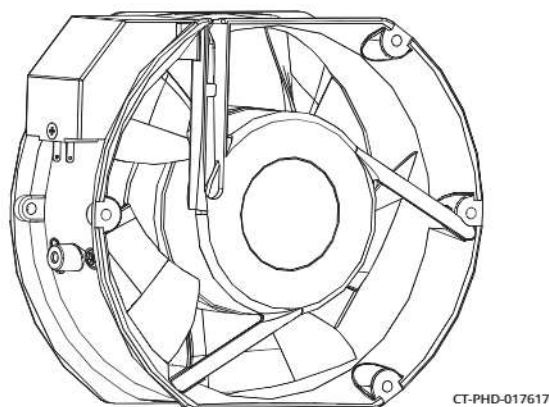
Contacts open at 572°F (300°C)



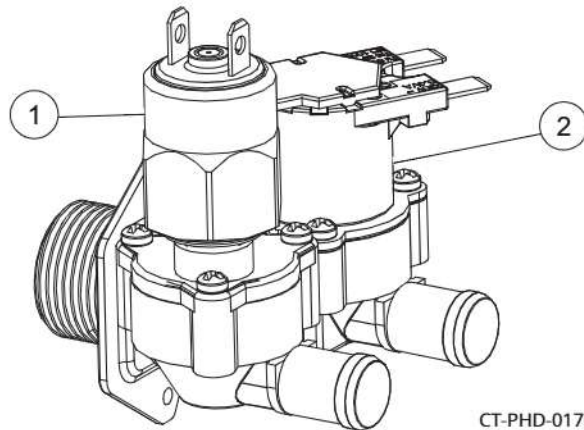
Ref.	Description
1	Reset button
2	Temperature bulb

Cooling Fan

- 120V or 240V depending on model.



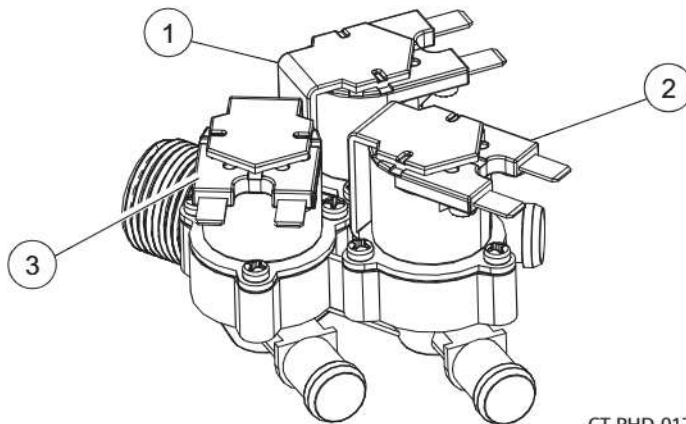
Water Solenoid- Y1 Valve



CT-PHD-017620

Ref.	Description
1	Pressure switch
2	Y1 Solenoid, steam

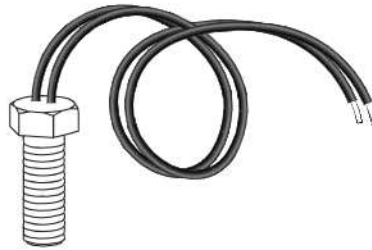
Water Solenoid- Y2, Y3, Y5 Valve



CT-PHD-017623

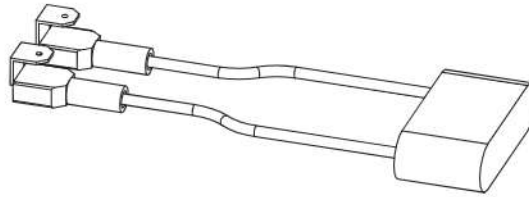
Ref.	Description
1	Y2 Solenoid, condensate tank
2	Y3 Solenoid, wash cycle
3	Y5 Solenoid, hand shower

Temperature Probe, B3 & B5



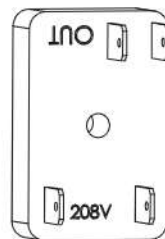
CT-PHD-017903

RF Filter



CT-PHD-017876

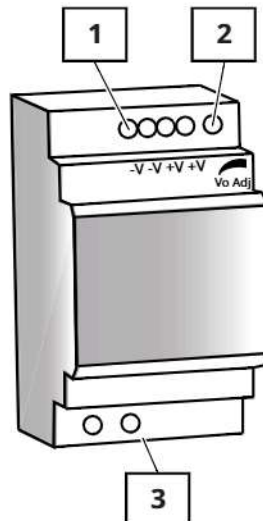
Voltage Converter



CT-PHD-017879

12VDC Power Supply

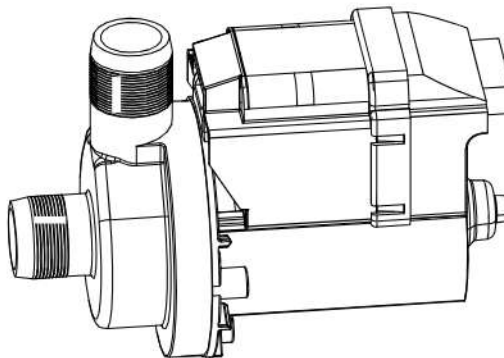
Supplies DC voltage to the control board and the ON/OFF switch.



VMC-PHD-001935

Ref.	Description
1	12VDC terminals
2	12VDC adjustment
3	240VAC terminals

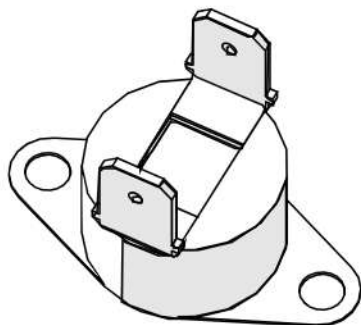
Wash Pump



CT-PHD-014182

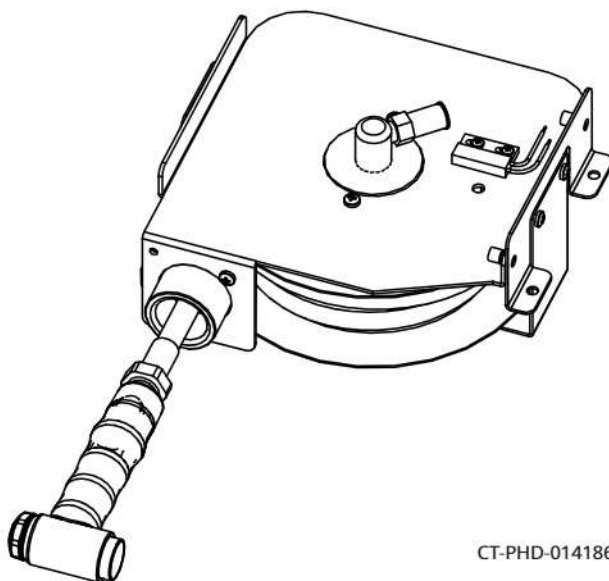
Cooling Fans Switch

Contacts close at or above 100°F (38°C)



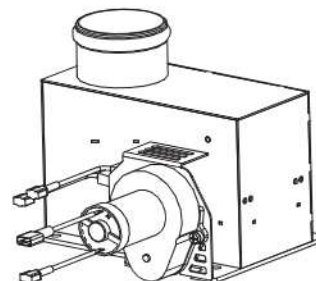
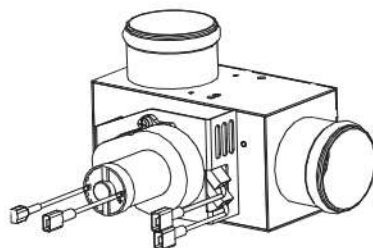
VMC-PHD-001903

Switch, Hose Reel/Hand Shower



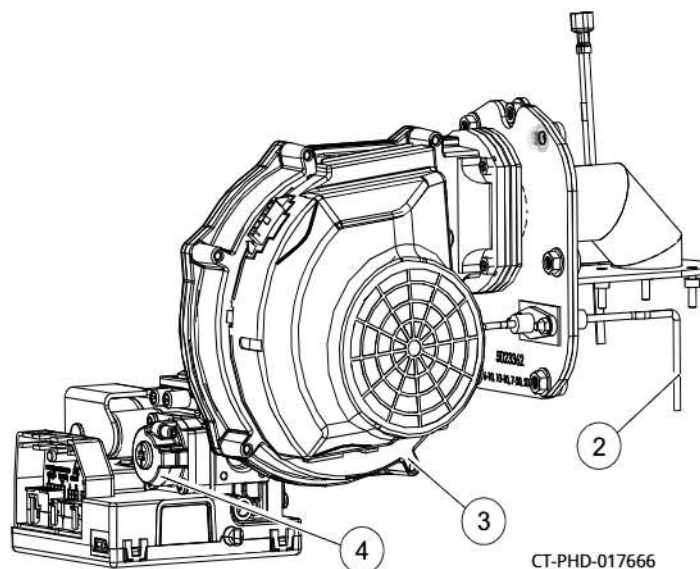
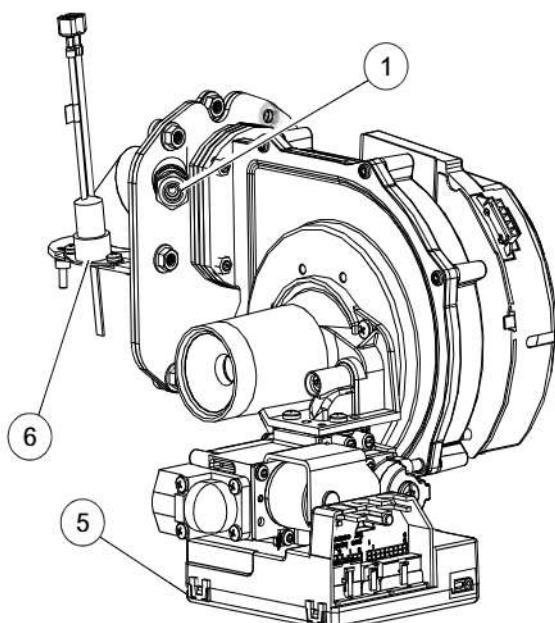
CT-PHD-014186

Browning Valve



CT-PHD-017626

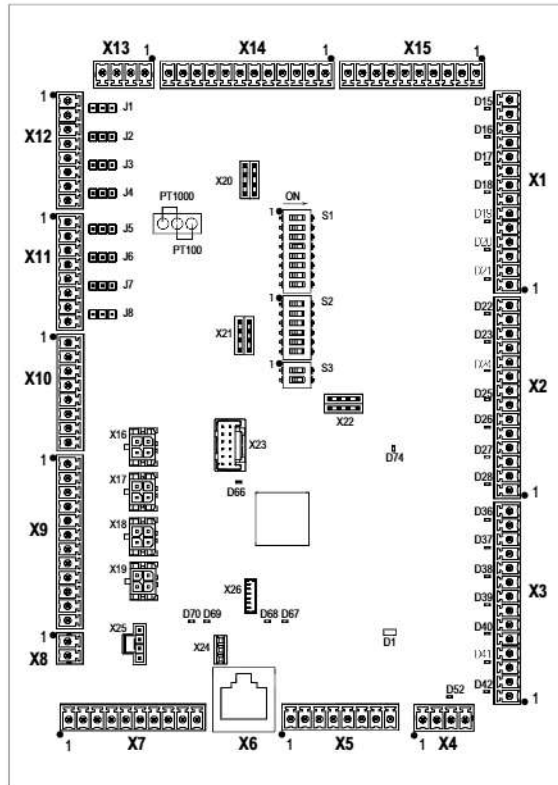
Gas Burner Assembly



CT-PHD-017666

Ref.	Description	Ref.	Description
1	Igniter pass through	4	Gas Valve
2	Flame Sensor	5	Ignition Module
3	Gas Blower Assembly	6	Igniter

Control Board



DIP SWITCH TABLE S1

	1	2	3	4	5	6	7	8
ON	BOILER	GAS	CLASSIC	ROLL-IN	OPTION	V-HOOD	MULTI-POINT PROBE	SPARE
OFF	BOILER-LESS	ELECTRIC	PRO	TABLE TOP	NO OPTION	NO V-HOOD	SINGLE-POINT PROBE	SPARE

DIP SWITCH TABLE S2

	1	2	3 - 8
ON	SPARE	PRODIGI	SPARE
OFF	SPARE	CMC	SPARE

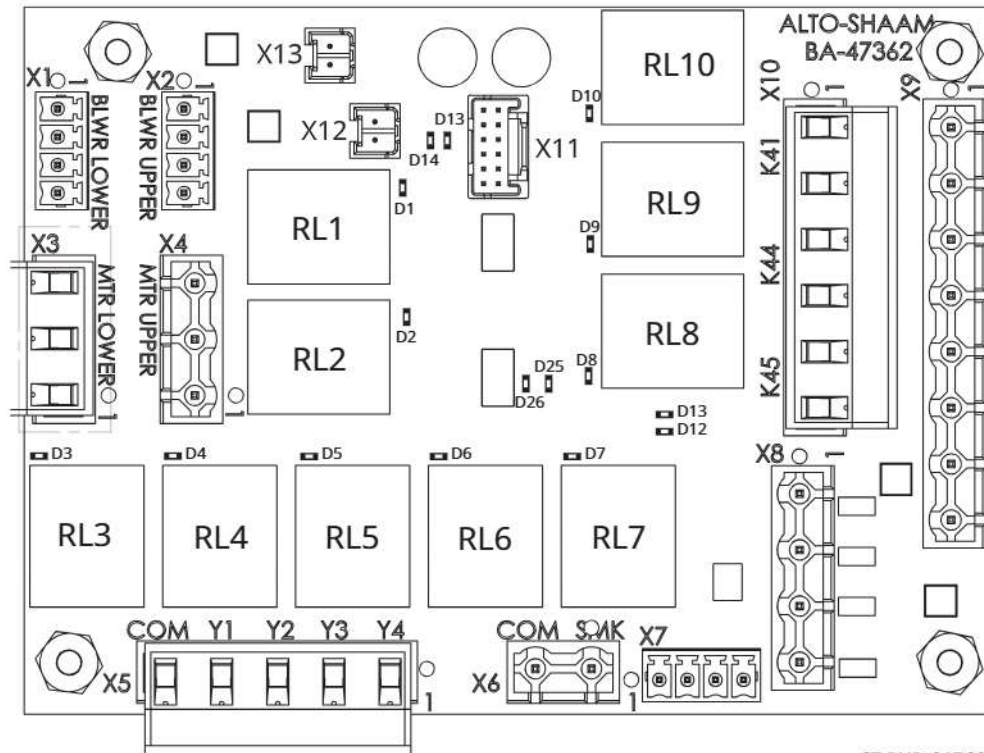
DIP SWITCH TABLE S3

	1	2
ON	SPARE	SPARE
OFF	SPARE	SPARE

CT-PHD-017663

Ref.	Pin(s)	Description
D1	–	Green / Red LED 5V
D15–D28	–	Yellow LEDs – Function Outputs
D36–D42	–	Yellow LEDs – Function Outputs
D52	–	Amber LED 12V at 5V Converter
D66	–	White Led - Heart Beat Blinking
D67-68	–	Blue LEDs – Blinking
D69-D70	–	Blue LEDs – Not Used
D74	–	Green LED 3.3V
J1-J8	–	Probe Jumpers, 100 Ω or 1000 Ω

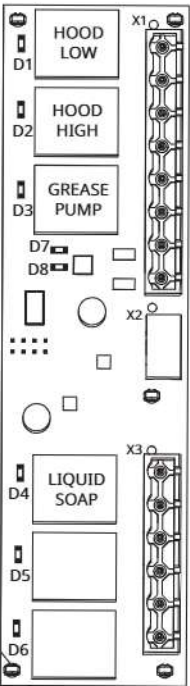
Relay Board



CT-PHD-017660

Ref.	Description
D1- D10	Yellow LEDs – Function Outputs
D11	Green LED Lower Gas Function Check
D12	Green LED Lower Gas Function Check
D13	Amber LED 12VDC
D14	Green LED 5VDC
D25	Red LED – Lower Gas Alarm
D26	Red LED – Upper Gas Alarm
RL-1	Fan Motor - High Speed - Classic
RL-2	Fan Motor - Low Speed - Classic
RL-3	Y1 Water Solenoid
RL-4	Y2 Water Solenoid
RL-5	Y3 Water Solenoid
RL-6	Y4 Cleaning Pump
RL-7	Smoker
RL-8	Reset - Lower (Gas)
-	K45 Contractor (Electric)
RL-9	Reset - Upper (Gas)
-	K44 Contractor (Electric)
RL-10	Heat Demand Upper and Lower (Gas)
-	K41 Contractor (Electric)

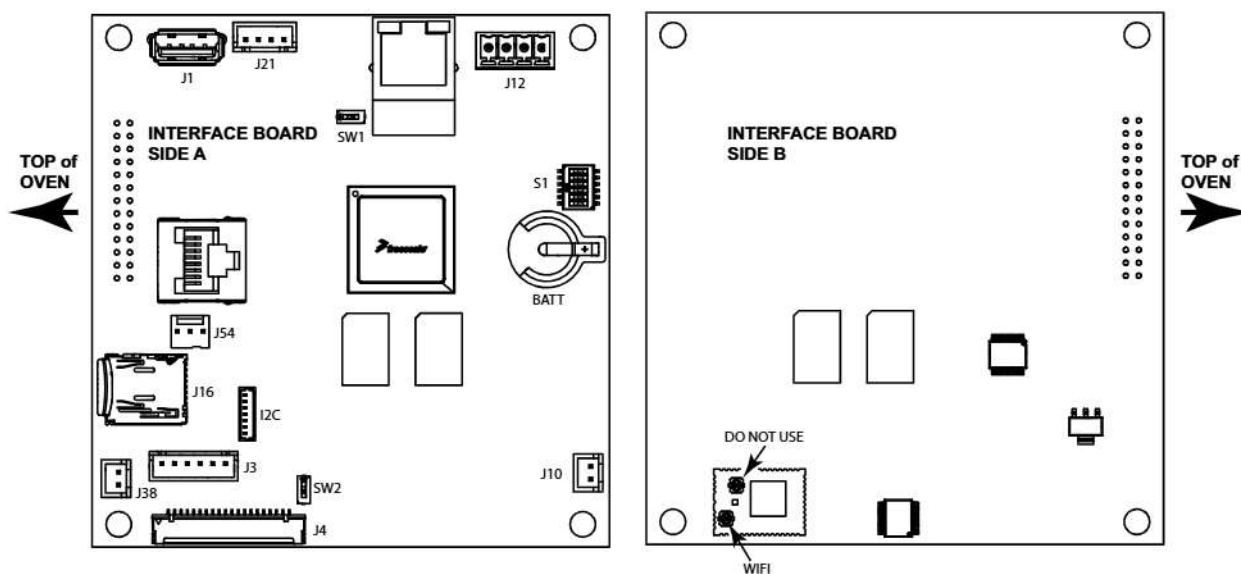
Option Board



CT-PHD-017882

Ref.	Description
D1	Yellow LED, Hood Low Speed
D2	Yellow LED, Hood High Speed
D3	Yellow LED, Grease Pump
D4	Yellow LED, Liquid Soap Pump
D5	Unused
D6	Unused
D7	Amber LED, 12VDC
D8	Green LED, 5VDC

Interface Board

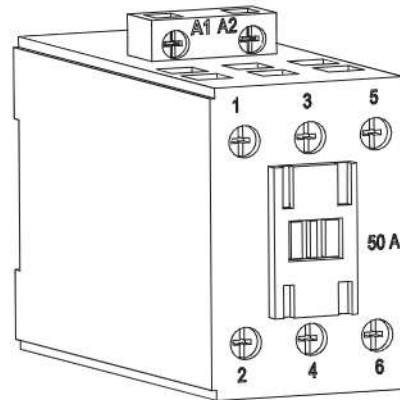


VMC-TS-008222

Ref.	Description	Product	Screen Orientation	SW 6	SW 5	SW 4	SW 3	SW 2	SW 1
BATT	Clock battery	Prodigi Pro Electric	Portrait	OFF	OFF	OFF	ON	OFF	ON
I2C	Capacitive touch cable	Prodigi Pro Gas	Portrait	ON	OFF	ON	ON	OFF	ON
J1	USB connections	Prodigi Classic Elect	Portrait	OFF	OFF	OFF	ON	ON	ON
J3	Display back light	Prodigi Classic Gas	Portrait	ON	OFF	ON	ON	ON	ON
J4	LCD interface								
J10	Speaker								
J12	12 VDC power								
J13	Ethernet								
J16	8 GB micro SD card								
J21	ON/OFF board								
J38	Speaker								
J54	RS 485/232 LVIO								
S1	DIP switches (see table)								
SW1	DIP switch (off)								
SW2	DIP switch (off)								

CT-PHD-018156

Contactor- 50amp

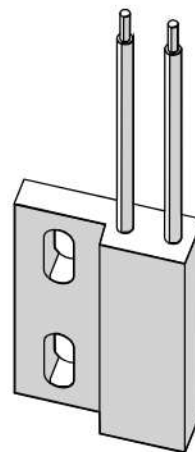


CT-PHD-017635

Ref.	Description
A1	A1 terminal, AC line voltage from relay board
A2	A2 terminal, AC line voltage from high limit switch

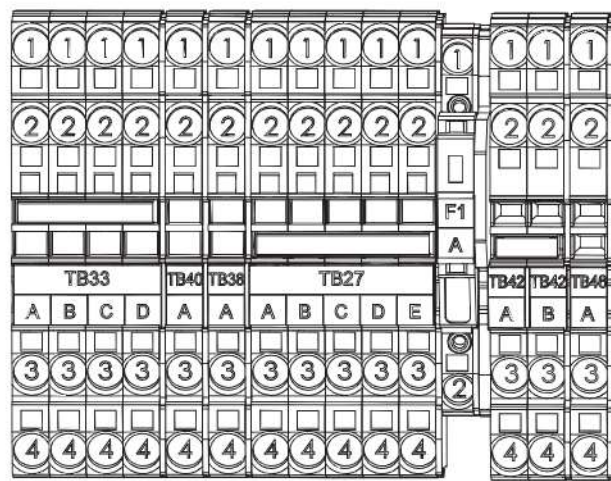
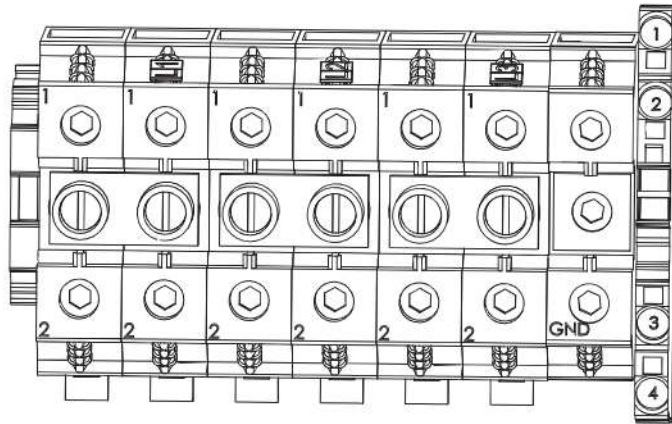
Door Switch

- **Door closed** 0 Ohms; 0 VDC across terminals 1 and 2 of connector P3 on the control board.
- **Door open** Infinite Ohms; 8 VDC across terminals 1 and 2 of connector P3 on the control board.



VMC-PHD-001999

Terminal Blocks

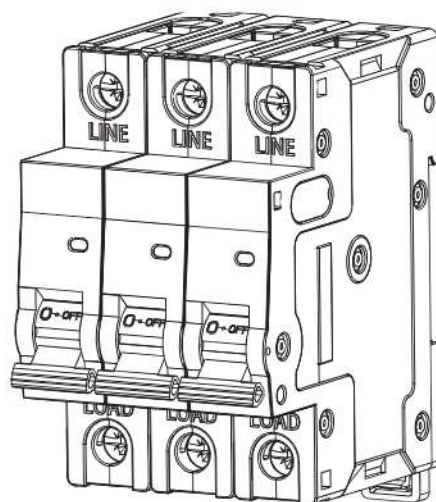


CT-PHD-017699

For specific terminal locations, refer to Parts Finder using the oven serial number for identification. Look under the ELEC CHASSIS part assembly. Click on the image of Electrical Chassis with Terminal Blocks. Then click on "Click here for terminal details."

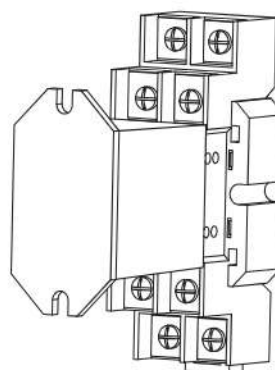


Circuit Breakers



CT-PHD-017702

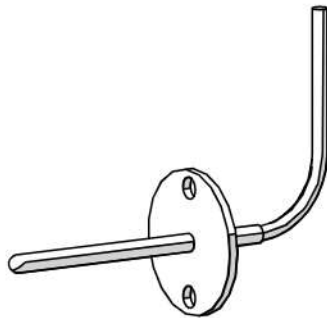
Relay



CT-PHD-017708

Chamber Temperature Probe

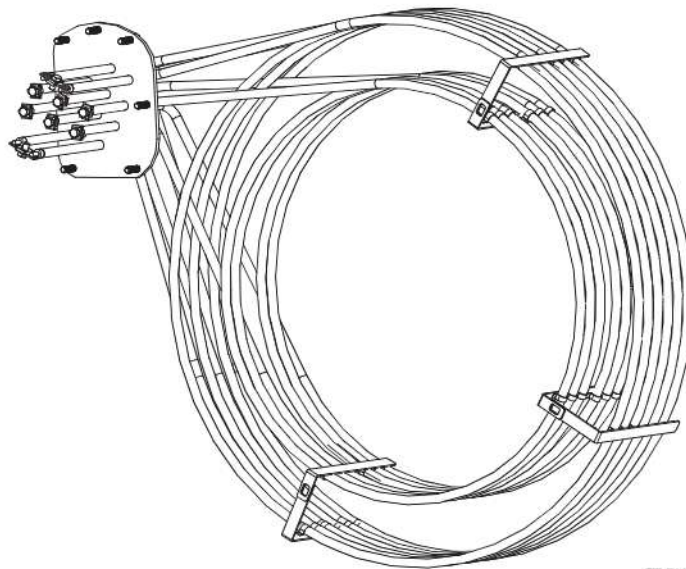
Type K thermocouple



VMC-PHD-001991

100°C = 4.096 mV	100°F = 1.521 mV
200°C = 8.138 mV	200°F = 3.820 mV
300°C = 12.209 mV	300°F = 6.094 mV

Steam and Chamber Heating Elements



CT-PHD-017629

Sequence of Operation, Electric

AC Power to the oven

1. Electrical power comes into the oven at the main terminal blocks, mounted on the DIN rail at the bottom of the electrical chassis. Mounted on the DIN rail next to the main terminal blocks are circuit breakers. Line voltage from main terminal blocks is supplied to circuit breakers. One leg of line voltage is supplied from the circuit breakers to TB27. One leg of line voltage is supplied from the circuit breakers to TB33.
2. The main terminal blocks supply line voltage for the convection heat elements through the convection heat elements contactors. The oven will have one contactor and up to four contactors depending on the oven. Each contactor is controlled by line voltage sent by the relay board.
3. Circuit breakers supply line voltage for the convection fan motor through the convection fan motor contactors. The oven will have two contactors and up to four contactors depending on the oven. Each contactor is controlled by line voltage sent by the relay board.
4. The voltage from the TB27 is then supplied to the high limit switch and then to the convection heat elements contactors. TB27 also supplies power to the 12VDC power supply, vent hood (if equipped), cooling fans, water valves, wash pump, TB 40, and Relay 60.
5. The voltage from the TB33 is then supplied to the cooling fans bi-metal switch, 12VDC power supply, relay board, option board, and vent hood (if equipped).

DC Power to the oven

1. The 12VDC power supply converts line voltage to 12 volts DC output.
2. DC voltage is supplied to the control board.
3. DC voltage is also supplied to terminal blocks TB46 and Fuse 1. Voltage from Fuse 1 goes to TB42.
4. TB46 supplies power to Hand Shower switch.
5. TB42 supplies power to Relay 60, Fuse 12, and Fuse 13 (if equipped).
6. Fuse 12 and Fuse 13 supply power to the Cavity LEDs.

Screen 'ON' Preheat and Convection mode 85–525°F

1. The oven preheats in convection mode only, not in steam mode.
 - The preheat can be set in the settings screen to auto preheat or be started manually.
 - The door must be closed for preheat to function.
2. When preheat or convection mode is activated, the motor speed contactor is energized and the convection fan starts rotation. The motor speed contactor will be energized for 10 seconds before the heating element contactor can be energized.
3. The N6 chamber temperature probe provides a signal to the oven control indicating the chamber air temperature.
4. The convection heating element will be energized when the N6 signal indicates an actual chamber temperature that is below the preheat set point.
5. On a call for heat the control board sends 12VDC to the relay board.
6. The relay LED on the relay board will illuminate when the relay is energized.
7. When the relay is energized, it completes the second leg of line voltage to the heating element contactor coil.
8. The heating element contactor now closes and provides line voltage to the heating elements.
9. As the oven chamber heats up and reaches the set point temperature, the heating element contactor will cycle off. The N6 probe will be used to cycle the contactor on and off to maintain the temperature.

Steam mode 85–250°F

1. When a steam cook mode is activated, the motor speed contactor is energized and the convection fan starts rotation. The motor speed contactor will be energized for 10 seconds before the heating element contactor can be energized.
2. The N6 chamber temperature probe provides a signal to the oven control indicating the chamber air temperature.
3. The B5 temperature probe provides a signal to the oven controls indicating the temperature of the steam.
4. The convection heating element will be energized when the N6 signal indicates an actual chamber temperature that is below the set point.
5. The Y1 valve will be energized to put water into the injection tube. This will flow into the disintegration box on the convection fan to distribute the water to the convection heating element.
6. The Y1 valve will de-energize once the B5 temperature probe senses the steam has reached the predetermined set point by the oven controls.
7. The oven controls will compare the cooking set point and the B5 probe to maintain the level of steam required by the cooking process. At set point of 212°F or below, the oven controls will maintain B5 probe at 25 degrees below the set point. If the cooking set point is above 212°F, it will maintain the B5 probe at 194°F.
8. The chamber humidity valve will also cycle open and closed in accordance with the recipe until the end of a cook cycle. At the end of the cooking cycle, the humidity valve will open during the last 60 seconds or last 5 degrees if cooking by probe.

Combi Mode 85–525°F

1. Same as steam mode except the oven controls will maintain the steam temperature of B5 probe at a higher temp (198°F in standard mode)

Cleaning mode

1. The oven must be at the required temperature before the cleaning cycle starts.
2. Use only Alto-Shaam cleaner when running a cleaning cycle. For a catalyst cleaning cycle, use only Alto-Shaam descaler. The use of any other cleaning chemical may void the warranty.
3. The oven has five different cleaning modes.
 - The rinse cycle is a mid-day rinse to reduce the grease and requires no cleaner packets.
 - The light clean cycle is for light debris and requires one cleaner packet.
 - The medium clean is for medium debris and requires one cleaner packet.
 - The heavy clean is for heavy debris and requires two cleaner packets.
 - The heavy plus clean is for very heavy debris and requires two cleaner packets.
4. When the oven needs to be descaled, you add 7oz of descaler powder to condensate tank and run a heavy clean cycle.
5. The cleaning pump circulates the cleaning solution from the condensate tank to the cleaning manifold where it is distributed through hoses and injected into each chamber.

Sequence of Operation, Gas

AC Power to the oven

1. Electrical power comes into the oven at the main terminal blocks, mounted on the DIN rail at the bottom of the electrical chassis. Mounted on the DIN rail next to the main terminal blocks are circuit breakers. Line voltage from main terminal blocks is supplied to circuit breakers. One leg of line voltage is supplied from the circuit breakers to TB27. One leg of line voltage is supplied from the circuit breakers to TB33.
2. The main terminal blocks supply line voltage for the convection fan motor through the convection fan motor contactors. The oven will have two contactors and up to four contactors depending on the oven. Each contactor is controlled by line voltage sent by the relay board.
3. The voltage from the TB27 is then supplied to the high limit switch and then to the gas combustion motor transformer (if equipped). TB27 also supplies power to the 12VDC power supply, vent hood (if equipped), cooling fans, water valves, wash pump, TB 40, and Relay 60.
4. The voltage from the TB33 is supplied to an in-line fuse then to the gas combustion blower transformer. TB33 also supplies power to the cooling fans bi-metal switch, 12VDC power supply, relay board, option board, and vent hood (if equipped).

DC Power to the oven

1. The 12VDC power supply converts line voltage to 12 volts DC output.
2. DC voltage is supplied to the control board.
3. DC voltage is also supplied to terminal blocks TB46 and Fuse 1. Voltage from Fuse 1 goes to TB42.
4. TB46 supplies power to Hand Shower switch and Liquid Soap Injection pump (if equipped).
5. TB42 supplies power to Relay 60, Fuse 12, and Fuse 13 (if equipped).
6. Fuse 12 and Fuse 13 supply power to the Cavity LEDs.

Screen 'ON' Preheat and Convection mode 85-525°F

1. The oven preheats in convection mode only, not in steam mode.
 - The preheat can be set in the settings screen to auto preheat or be started manually.
 - The door must be closed for preheat to function.
2. When preheat or convection mode is activated, the motor speed contactor is energized and the convection fan starts rotation. The motor speed contactor will be energized for 10 seconds before the gas combustion process can start.
3. The gas combustion process will start when the N6 signal indicates an actual chamber temperature that is below the set point and the door is closed.
4. The Control Board (CB) will check for error codes prior to starting the ignition sequence.
5. The CB will send a signal to the gas blower to start running.
6. Once the CB detects the gas blower running, it will turn on Relay 10 on the Relay Board (RB).
7. Relay 10 sends a Call for Heat signal to the Ignition Module (IM).
8. The IM will supply gas to the blower and turn on the Hot Surface Igniter.
9. The IM will look for a flame sense signal to know it has ignited.
10. The IM will send a signal to the CB to confirm the ignition and to start controlling the blower speed depending on the power level needed.
11. When the set point is reached, the CB will signal the IM to turn off the gas and run the combustion blower for 90 seconds to clear the heat exchanger.
12. The N6 will signal the CB when needs to restart the combustion process to maintain temperature.

Steam mode 85–250°F

1. When a steam cook mode is activated, the motor speed contactor is energized and the convection fan starts rotation. The motor speed contactor will be energized for 10 seconds before the gas combustion process can start.
2. The gas combustion process will operate the same as convection mode with the following differences to add steam to the process.
3. The N6 chamber temperature probe provides a signal to the oven control indicating the chamber air temperature.
4. The B5 temperature probe provides a signal to the oven controls indicating the temperature of the steam.
5. The convection heating element will be energized when the N6 signal indicates an actual chamber temperature that is below the set point.
6. The Y1 valve will be energized to put water into the injection tube. This will flow into the disintegration box on the convection fan to distribute the water to the convection heating element.
7. The Y1 valve will de-energize once the B5 temperature probe senses the steam has reached the predetermined set point by the oven controls.
8. The oven controls will compare the cooking set point and the B5 probe to maintain the level of steam required by the cooking process. At set point of 212°F or below, the oven controls will maintain B5 probe at 25 degrees below the set point. If the cooking set point is above 212°F, it will maintain the B5 probe at 194°F.
9. The chamber humidity valve will also cycle open and closed in accordance with the recipe until the end of a cook cycle. At the end of the cooking cycle, the humidity valve will open during the last 60 seconds or last 5 degrees if cooking by probe.

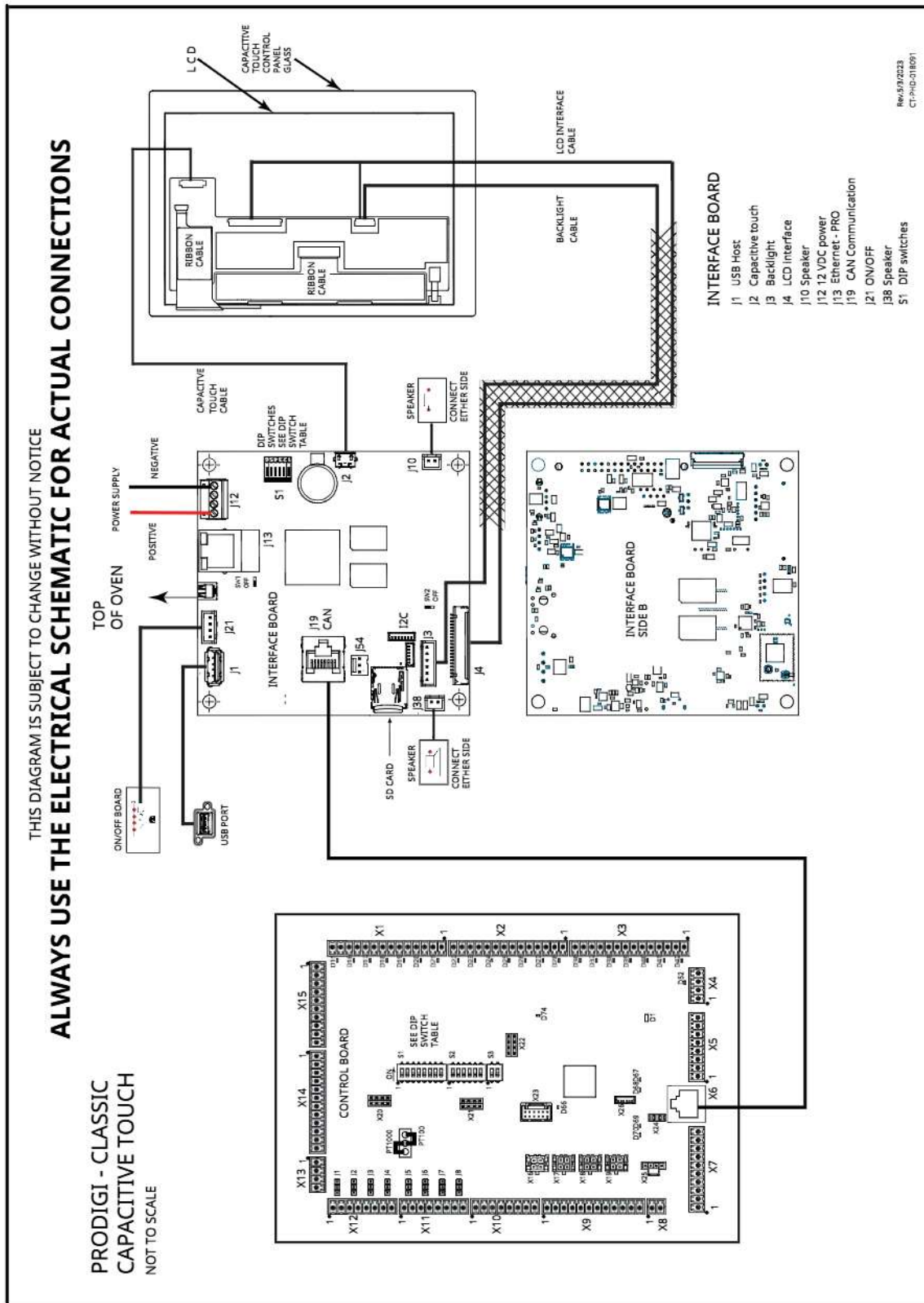
Combi Mode 85–525°F

1. Same as steam mode except the oven controls will maintain the steam temperature of B5 probe at a higher temp (198°F in standard mode)

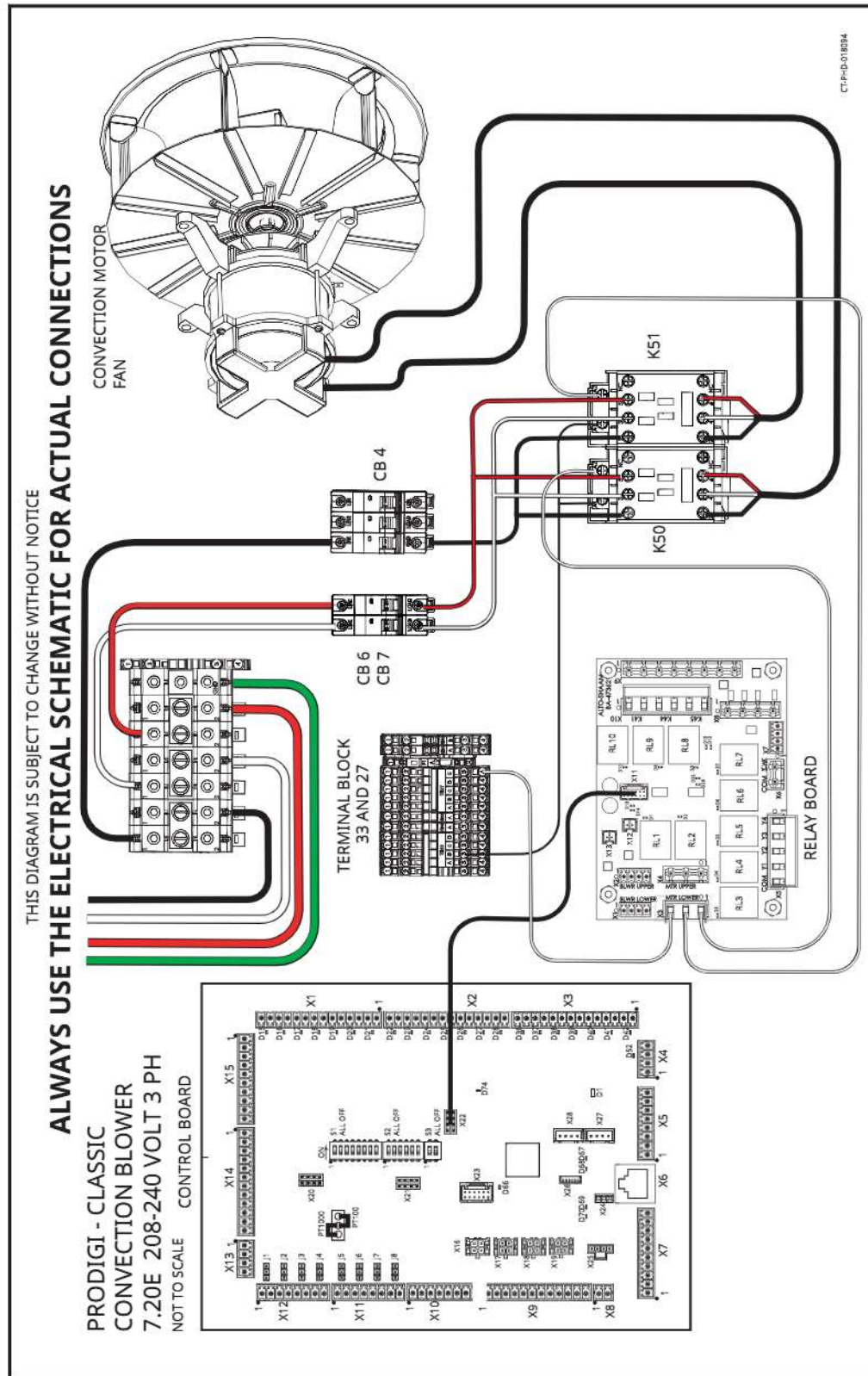
Cleaning mode

1. The oven must be at the required temperature before the cleaning cycle starts.
2. Use only Alto-Shaam cleaner when running a cleaning cycle. For a catalyst cleaning cycle, use only Alto-Shaam descaler. The use of any other cleaning chemical may void the warranty.
3. The oven has five different cleaning modes.
 - The rinse cycle is a mid-day rinse to reduce the grease and requires no cleaner packets.
 - The light clean cycle is for light debris and requires one cleaner packet.
 - The medium clean is for medium debris and requires one cleaner packet.
 - The heavy clean is for heavy debris and requires two cleaner packets.
 - The heavy plus clean is for very heavy debris and requires two cleaner packets.
4. When the oven needs to be descaled, you add 7oz of descaler powder to condensate tank and run a heavy clean cycle.
5. The cleaning pump circulates the cleaning solution from the condensate tank to the cleaning manifold where it is distributed through hoses and injected into each chamber.

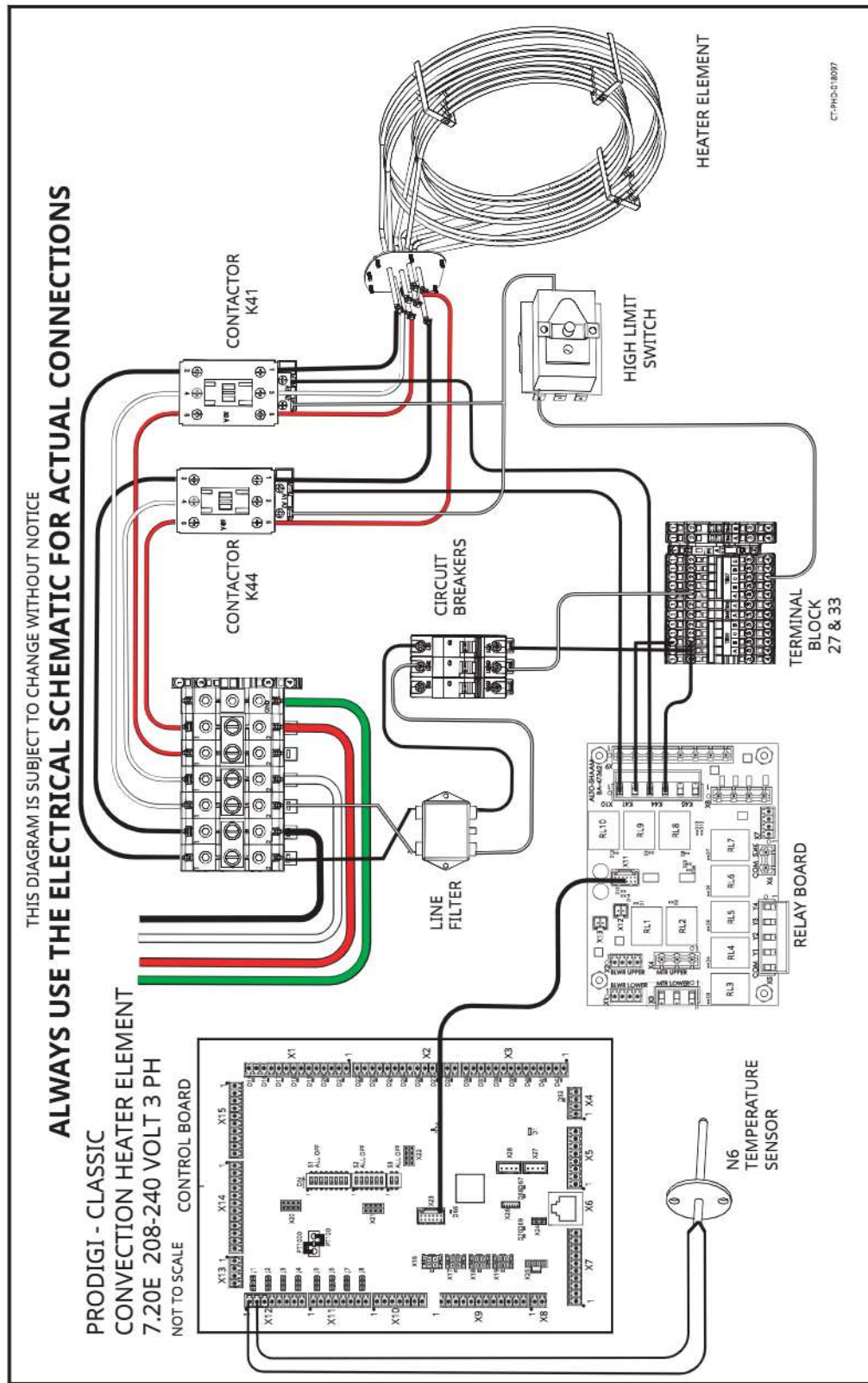
Capacitive Touch Diagram



Convection Blower Diagram

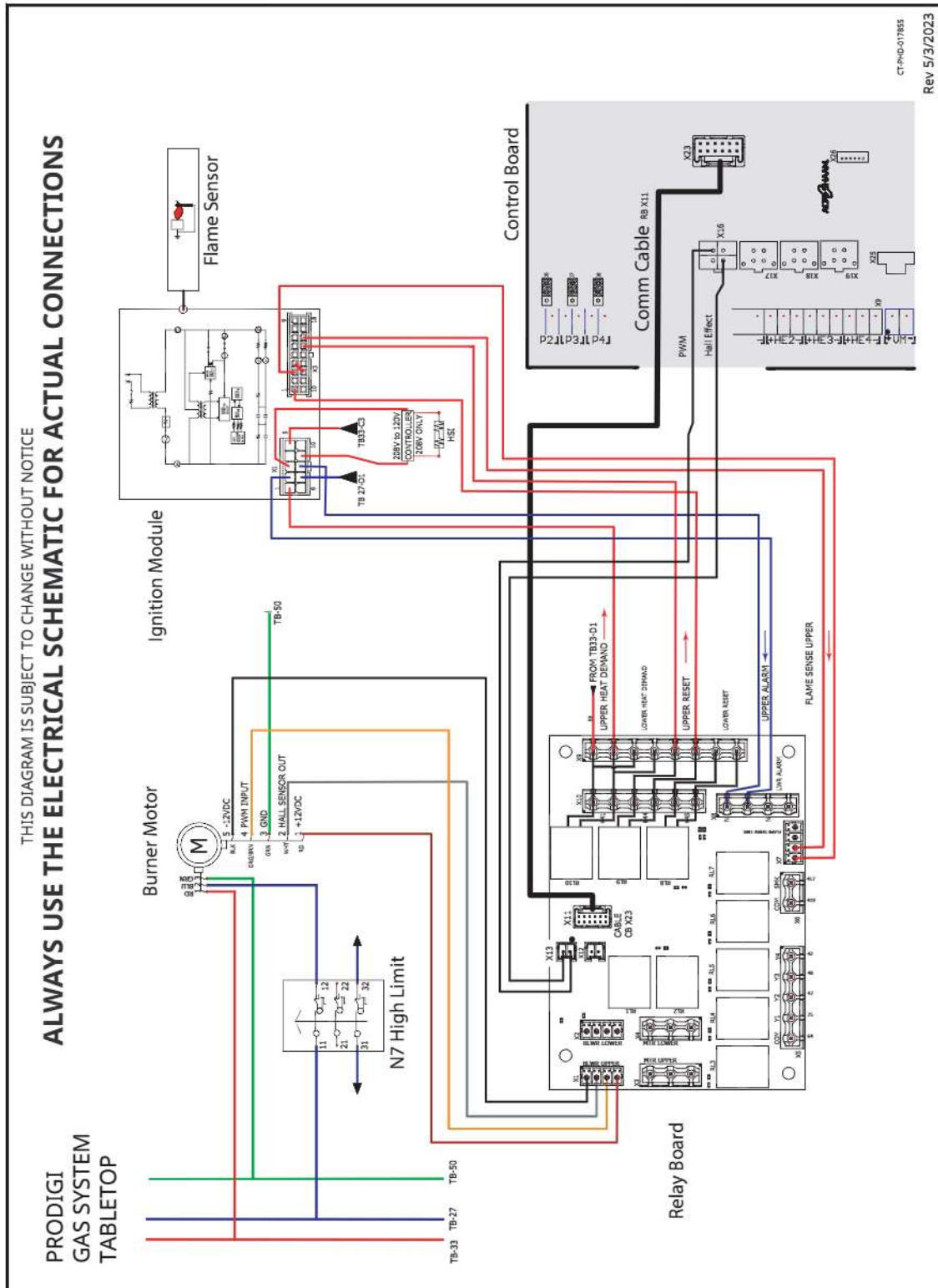


Convection Heat Diagram

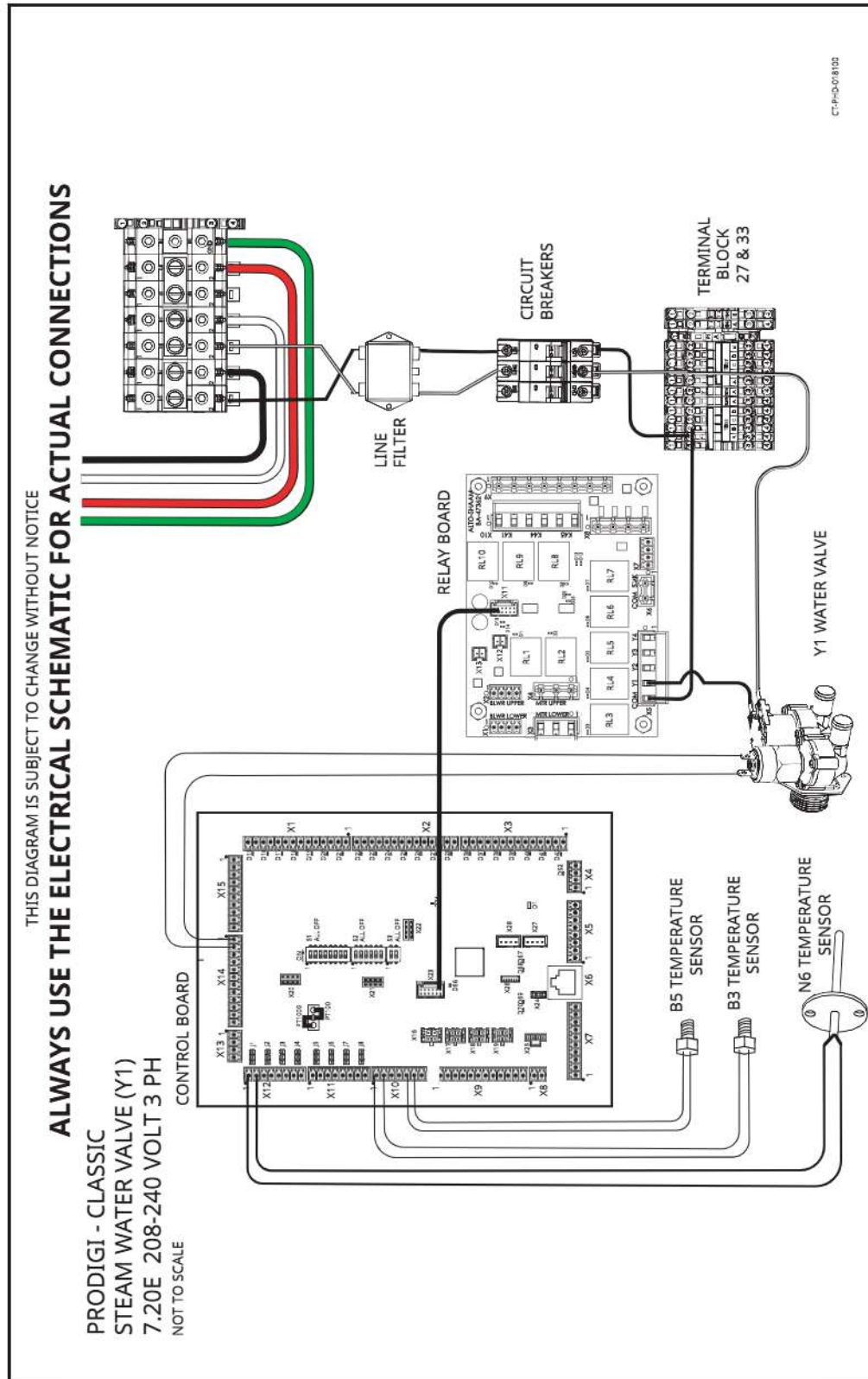


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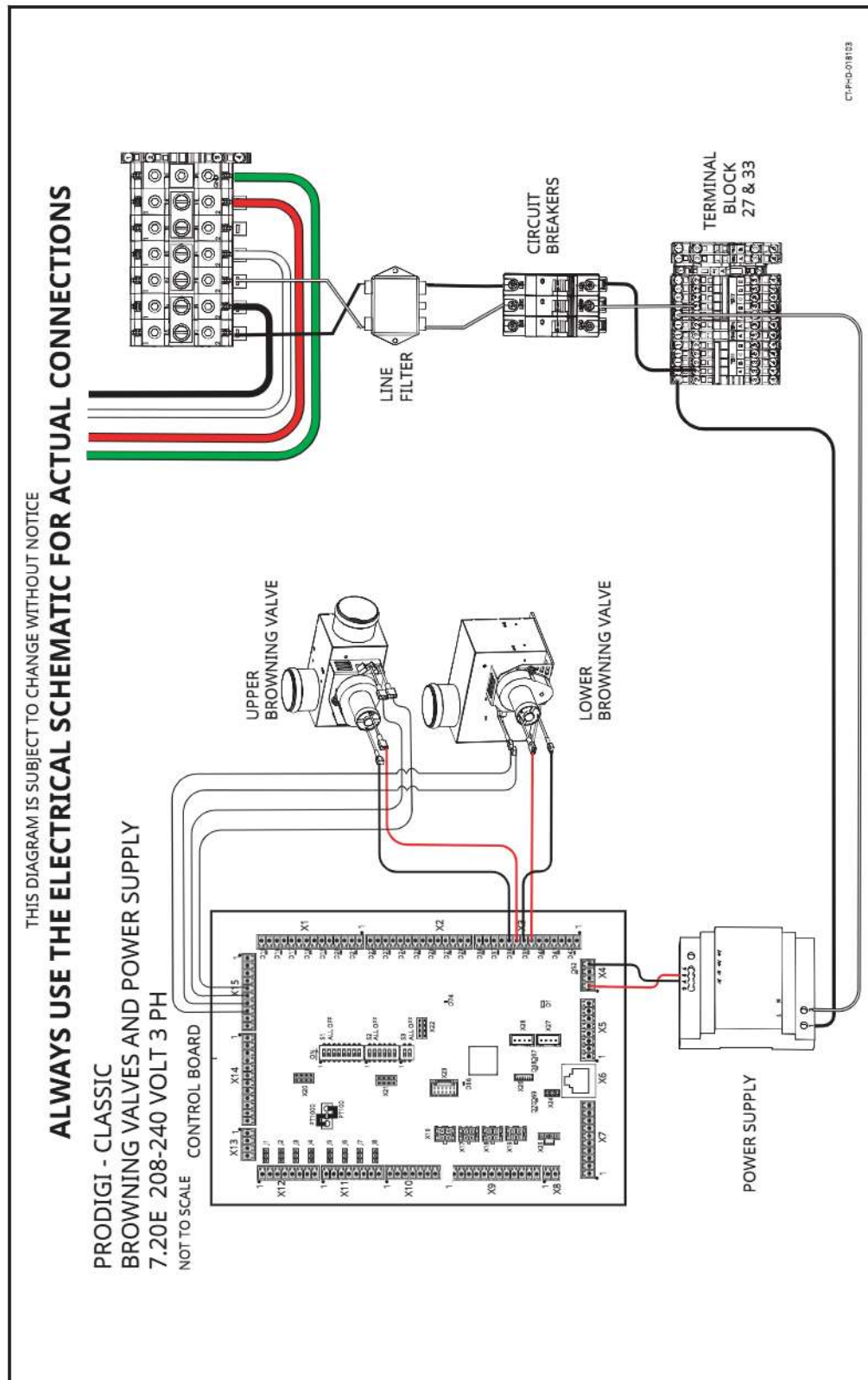
Gas System Diagram



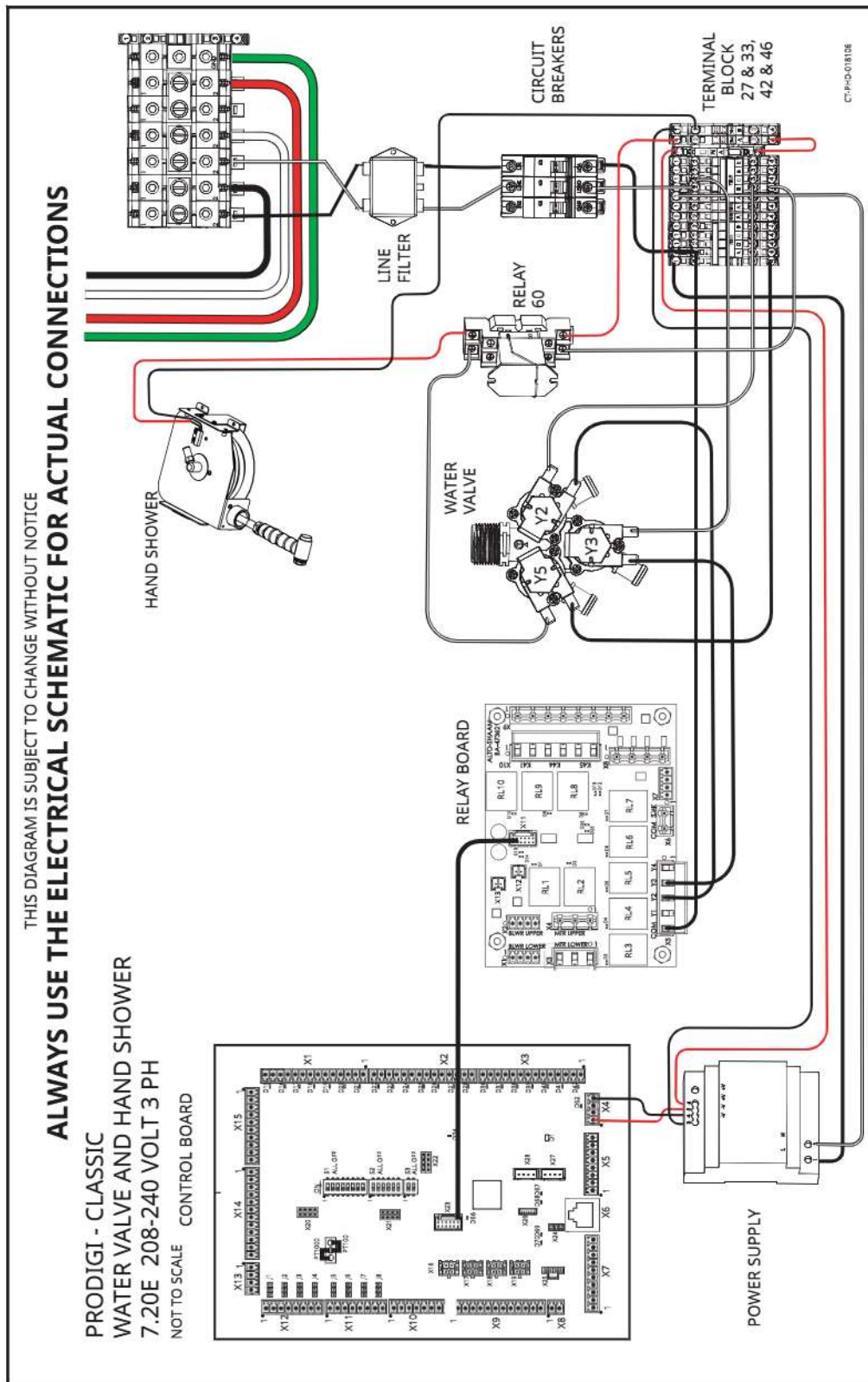
Steam (Y1) Water Valve System Diagram



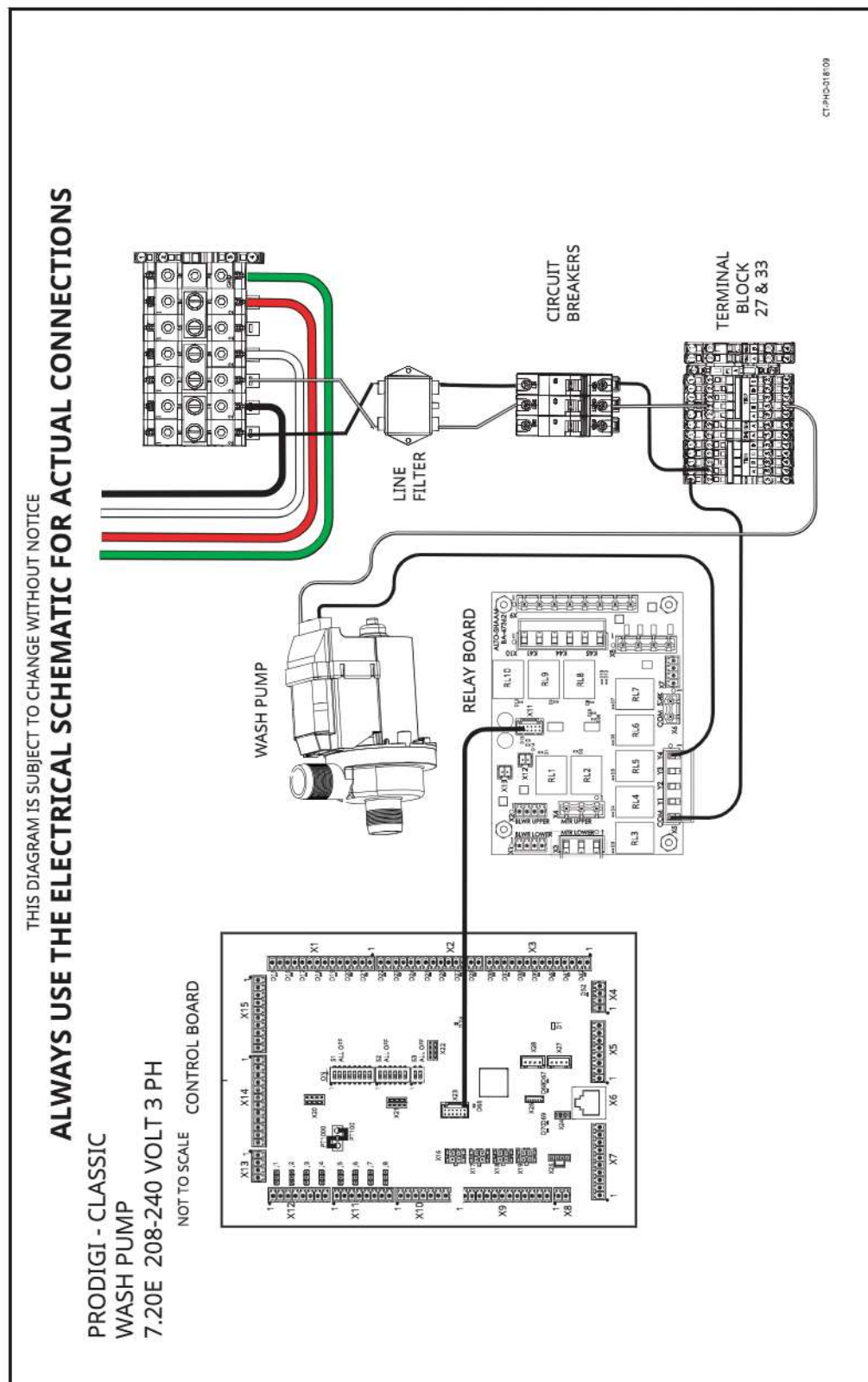
Browning Valves and Power Supply Diagram



Water Valve and Hand Shower Diagram



Cleaning System Diagram



Maintenance Schedule

Requirements

- See topic *How to Clean the Oven*.
- Make sure the oven is cooled down and off—inside of chamber 140°F (60°C) or less.

Daily

For daily maintenance, do the following.

- **Remove** any spills with disposable paper wipes or a damp cloth.
- **Wipe** the outside of the oven with a damp cloth.
- **Wipe** the oven gaskets with soap and water.
- **Inspect** the oven gaskets for damage.
- **Wipe** the front door glass.
- **Check** the product probe.
- **Check** the screen for cracking or peeling. Contact Technical Service if needed.

Weekly

For weekly maintenance, do the following.

- **Clean** the entire oven. **Make sure** to use a non-abrasive nylon scrub pad.
- Do not spray the cleaner directly into the fan openings located in the rear of the oven.
- **Inspect** the door LEDs.
- **Inspect** the oven cavity for signs of grease/carbon buildup.
- **Check** behind the fan panel inside the oven cavity for signs of grease/carbon buildup.
- **Check** behind the fan panel inside the oven cavity for signs of scale buildup.
- **Inspect** the heat exchanger for any signs of major deformation. If there are signs of deformation, immediately remove from service and take corrective action.
- **Inspect** the heat exchanger for any loose/disconnected pipes or flanges. If pipes or flanges are loose/disconnected, immediately remove from service and take corrective action.
- **Inspect** the convection elements for signs of cracking, deformation, or damage.
- **Clean** the ventless hood grease filters (if ventless hood is equipped).

Monthly

For monthly maintenance, do the following.

- **Clean** out the drip tray line.
- **Check** the supplied water filtration and change as needed.
- **Check** for software updates.
- **Inspect** and test the proper draining of the oven cavity.
- **Inspect** the drain lines for leaks or clogs.

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- **Inspect** the oven cavity for any signs of scale buildup.
- **Inspect** the ventless hood paper filter (if ventless hood is equipped, replace as needed).
- **Test** the ventless hood drain for proper drainage and signs of leaking.
- **De-scale** as needed. See topic *How to Descale the Oven*.

Yearly

For yearly maintenance, do the following.



NOTE: Must be performed by a qualified professional.

- **Replace** the steam bypass hose.
 - **Inspect** and test the humidity control.
 - **Inspect** the cleaning system pump and hoses for leaks and proper operation.
 - **Inspect** and test the proper draining of the oven cavity.
 - **Inspect** all steam water injection lines and clamps for leaks or potential issues.
 - **Inspect** the hand shower handle and hose.
 - **Test** steam injection solenoid.
 - **Test** condensate solenoid.
-
- **Inspect** the upper browning valve hose.
 - **Inspect** the low pressure relief valve and hose.
 - **Inspect** the convection element seal from the electrical compartment.
 - **Inspect** the gas heat exchanger seal from the electrical compartment.
 - **Inspect** wiring to heating elements. Re-tighten or secure as needed. Record the amp draw.
 - **Inspect** the N6 oven temperature probe seal.
 - **Check** operation of all electrical cooling fans.
 - **Check** all electrical connections are properly connected and secure to the boards.
-
- **Check** door hinges and handles. Tighten, secure, or adjust as needed.
 - **Run** the oven in convection mode and test operation.
 - **Run** the oven in steam mode and test operation.

How to Clean the Oven using Cleaning Tablets

Precautions


WARNING: Burn hazard.

Wear protective gloves, protective clothing, eye protection, and face protection when handling oven cleaner. Do not open the oven door during the cleaning cycle.

NOTICE

Do not use steel pads, wire brushes, or scrapers when cleaning.

Background

The oven has five different cleaning modes.

- The rinse cycle (10 minutes).
- The light clean cycle (35 minutes).
- The medium clean cycle (1 hour and 18 minutes).
- The heavy clean cycle (2 hours and 5 minutes).
- The heavy plus clean cycle (3 hours and 30 minutes).



CT-TS-014567

Cleaning the oven

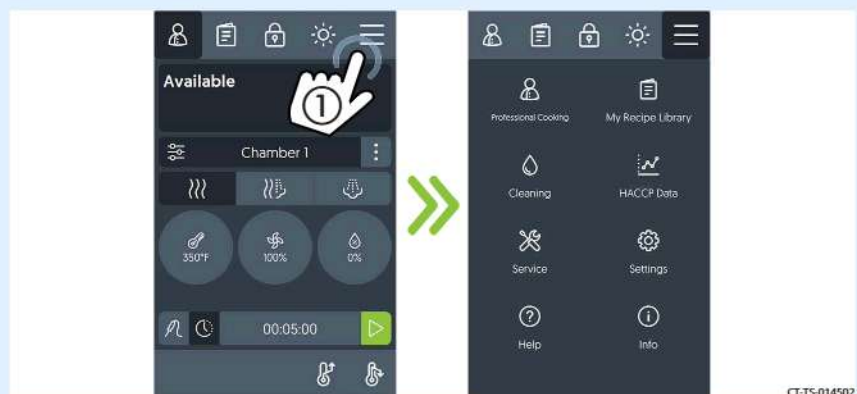
To clean the oven, do the following.

Step	Action
1.	Clean the door glass with Windex® or equivalent glass cleaner.
2.	Clean the door gasket with soap and water.
3.	Close the door. Spray the exterior of the oven with stainless steel polish. Wipe the exterior of the oven with a non-abrasive scrub pad. Follow safety instructions on the bottle of the stainless steel polish.
	NOTICE Use only non-caustic cleaners. Do not spray directly into the fan openings on the rear of the oven. Do not use cleaners that contain sodium hydroxide (lye) or phosphorus.

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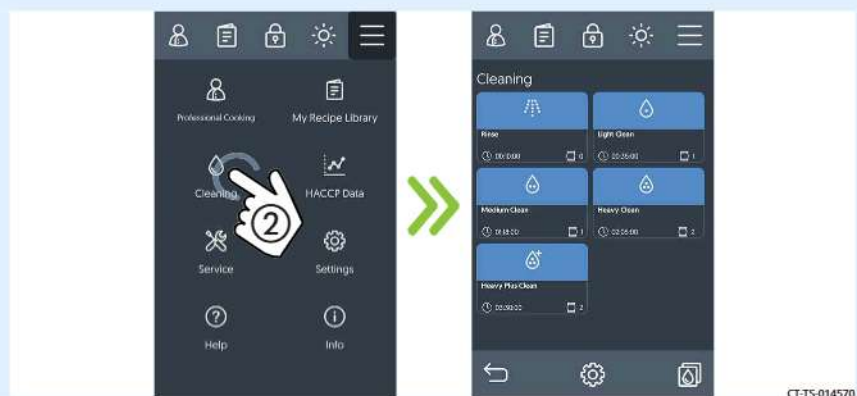
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4. **Touch** the menu icon ①. The menu screen displays.



CT-T5-014502

5. **Touch** the “Cleaning” icon ②. The Cleaning screen displays.

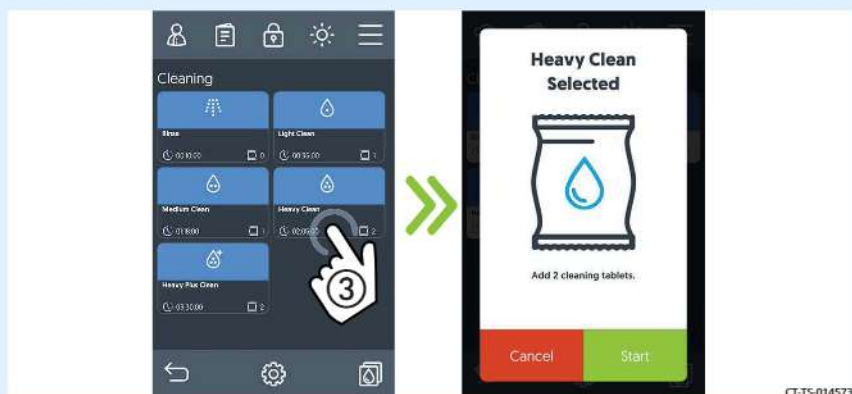


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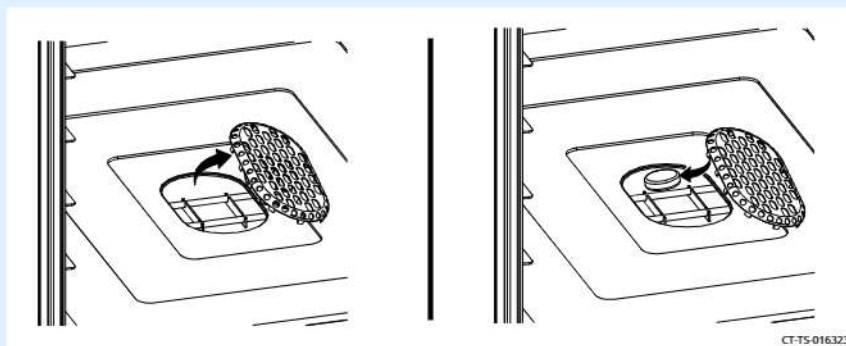
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6. **Select** the desired cleaning level, for example Heavy Clean ③.



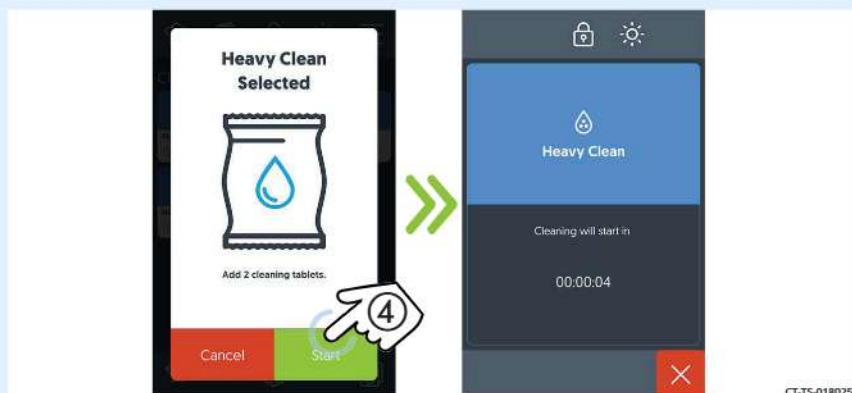
Insert the appropriate number of cleaning tablets into the drain.

Close the drain screen.



7. **Touch** the "Start" icon ④.

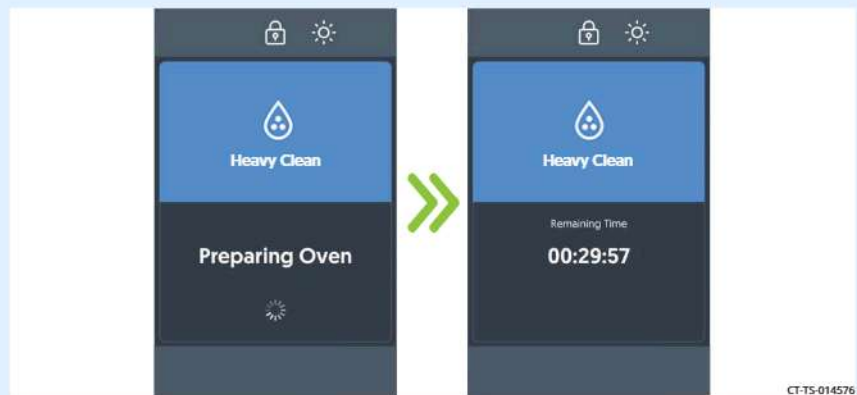
NOTE: If needed, touch the cancel icon to stop the cleaning process. The cancel option is available for five seconds.



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8. The oven heats to the required temperature for the cleaning cycle, then the cleaning cycle starts.



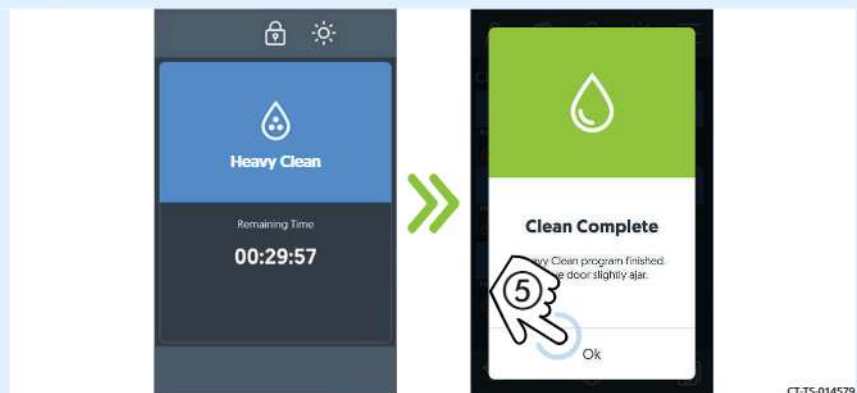
CT-TS-014576

9. **Touch "Ok" ⑤** when the cleaning cycle is complete.



WARNING: Burn hazard.

Open the door carefully when the cleaning cycle is complete. Escaping hot vapors or steam can cause injury.



CT-TS-014579

10. **Leave** the door slightly ajar if the cleaning has been done at the end of the day.

Result

The oven is now clean.

How to Descale the Oven

Before you begin



WARNING: Burn hazard.

Wear protective gloves, protective clothing, eye protection, and face protection when handling oven cleaner. Do not open the oven door during the wash or rinse cycle.

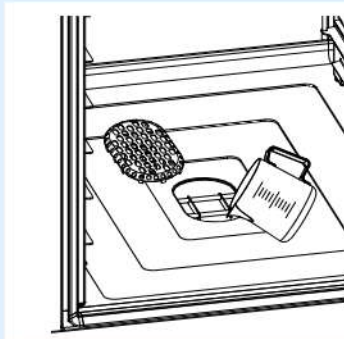
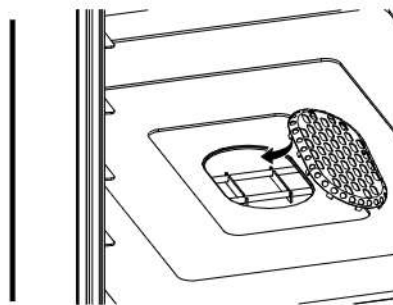
NOTICE

Do not use steel pads, wire brushes, or scrapers when cleaning.

Make sure you have Alto-Shaam ScaleFree Descaling Powder (CE-27889).

Procedure

To descale the oven, do the following.

Step	Action
1.	Place 7 oz. (198 g) of Alto-Shaam ScaleFree Descaling Powder into the cavity drain. Close the drain screen.   CT-TS-016419
2.	Disconnect the liquid cleaner hose, if equipped.
3.	Clean the oven with a medium clean cycle. See topic <i>How to Clean the Oven Using Cleaning Tablets</i> or <i>How to Clean the Oven Using Liquid Clean</i> .
4.	Spray the interior of the oven using the hand shower.
5.	If necessary, open the interior fan guard and rinse down the area behind the panel.
6.	Run a rinse cycle.

Result

The oven is now descaled.

How to Winterize the Oven

Winterization

Winterization is required if the oven is stored in a location where the ambient temperature falls below 32°F (0°C). Freezing temperatures can permanently damage internal components, especially if water is not completely drained from the unit before storage.

Winterize the oven

To winterize the oven, do the following.

Step	Action
1.	Allow the oven to cool.
2.	Drain all hoses, solenoids, and tanks (condensate and pump housing).
3.	Flush RV antifreeze through the tanks and hoses.
 WARNING: Poison hazard. Use only RV antifreeze specifically intended for potable water systems. Flush system thoroughly as directed before putting back into use.	
4.	Inspect all hoses, and components connected to hoses, for signs or cracking or splitting.
5.	Flush cold water through each hose and each solenoid for a minimum of two minutes.
6.	Spray cold water directly into oven cavity drain for a minimum of two minutes.
NOTICE Do not use pressurized water for this step. Use only the oven's hand shower.	
7.	Run a forced rinse cycle.
8.	Inspect drained water to verify all RV antifreeze has been flushed through all hoses and tanks.
9.	Run a 30-minute steam cycle and 30-minute clean cycle.

Restart the oven

Result

The oven is now ready for operation.

Error Codes Index

Code	Component	Description	Troubleshooting steps
E-5	2 - Convection fan	Convection fan (upper) under speed	1. Check if motor or fan wheel locked. 2. Check all connectors on the motor control. Inspect pins and confirm wires are secure in the connector. 3. If LED on motor control flashes, see error codes for motor control. 4. Check if Hall Effect sensor does not detect motor rotation.
E-5	2 - Convection fan	Convection fan (lower) under speed	1. Check if motor or fan wheel locked. 2. Check all connectors on the motor control. Inspect pins and confirm wires are secure in the connector. 3. If LED on motor control flashes, see error codes for motor control. 4. Check if Hall Effect sensor does not detect motor rotation.
E-10	44 - Cavity sensor	Cavity sensor short	Check if sensor (N6) mis-wired or has malfunctioned.
E-10	47 - Food probe	Food probe short	Check if probe (B10, B11) mis-wired or has malfunctioned.
E-10	52 - Steam injector	Steam injector sensor short	Check if sensor (B5) mis-wired or has malfunctioned.
E-10	55 - Tank	Tank sensor short	Check if sensor (B3) mis-wired or has malfunctioned.
E-11	44 - Cavity sensor	Cavity sensor open	1. Check if oven cavity temperature sensor (N6) has malfunctioned. 2. Check if oven cavity temperature sensor (N6) wires disconnected.
E-11	52 - Steam injector	Steam injector sensor open	1. Check if bypass steam temperature sensor (B5) has malfunctioned. 2. Check if bypass steam temperature sensor (B5) wires disconnected.
E-11	55 - Tank	Tank sensor open	1. Check if condenser temperature sensor (B3) has malfunctioned. 2. Check if condenser temperature sensor (B3) wires disconnected.
E-31	2 - Convection fan (Classic control)	Motor (upper) over temperature	1. Check for a blocked fan blade. 2. Check for physical damage of the motor. 3. Check motor high limit.
E-31	2 - Convection fan (Classic control)	Lower motor over temperature	1. Check for a blocked fan blade. 2. Check for physical damage of the motor. 3. Check motor high limit.

Code	Component	Description	Troubleshooting steps
E-31	2 - Convection fan	Motor VFD (upper) over temperature	1. Make sure cooling fan(s) are operating. 2. Make sure exhaust vents are clean and free of debris. 3. Make sure oven clearances are met. 4. Verify ambient temperature is not greater than 105°F (41°C).
E-31	2 - Convection fan	Lower motor VFD over temperature	1. Make sure cooling fan(s) are operating. 2. Make sure exhaust vents are clean and free of debris. 3. Make sure oven clearances are met. 4. Verify ambient temperature is not greater than 105°F (41°C).
E-31	44 - Cavity sensor	Chamber over temperature	1. Check if oven cavity temperature sensor (N6) has malfunctioned. 2. Check if oven cavity temperature sensor (N6) wires disconnected.
E-31	55 - Tank	Tank sensor over temperature	1. Verify water supply is on. 2. Check for plugged steam bypass hose. 3. Check for mis-wired condenser temperature sensor (B3). 4. Check for condenser temperature sensor (B3) has malfunction. 5. Check for cooling water solenoid valve (Y2) has malfunction.
E-31	8 - Control Board	Control board too warm	1. Make sure cooling fan(s) are operating. 2. Make sure exhaust vents are clean and free of debris. 3. Make sure oven clearances are met. 4. Verify ambient temperature is not greater than 105°F (41°C). 5. Check door gasket for damage and proper seal.
E-31	9 - Interface Board	Interface board too warm	1. Make sure cooling fan(s) are operating. 2. Make sure exhaust vents are clean and free of debris. 3. Make sure oven clearances are met. 4. Verify ambient temperature is not greater than 105°F (41°C). 5. Check door gasket for damage and proper seal.
E-44	8 - Control Board	Control board SPI bus warning	1. Touch screen to acknowledge error. 2. Continue to use equipment. 3. Cycle equipment power before attempting to update software. 4. If error continues, contact service.
E-55	56 - Vent valve	Vent (upper) not open	1. Check for vent valve monitoring switch has malfunction. 2. Check for vent valve (motor) has malfunction. Check for 12 VDC on the motor.

Code	Component	Description	Troubleshooting steps
E-55	56 - Vent valve	Vent (lower) not open	1. Check for vent valve monitoring switch has malfunction. 2. Check for vent valve (motor) has malfunction. Check for 12 VDC on the motor.
E-62	2 - Convection fan	Motor VFD (upper) over current	1. Check oven fan wheel for obstruction. 2. Check all connectors on the motor control. Inspect pins and confirms wires are secure in the connector. 3. If LED on motor control flashes, see error codes for motor control. 4. Power down control using on/off button. 5. Cycle power to the oven by unplugging the oven or by turning the power source off and then back on. 6. Resume operation of oven. If error code reappears, contact Alto-Shaam technical service.
E-62	2 - Convection fan	Motor VFD (lower) over current	1. Check oven fan wheel for obstruction. 2. Check all connectors on the motor control. Inspect pins and confirms wires are secure in the connector. 3. If LED on motor control flashes, see error codes for motor control. 4. Power down control using on/off button. 5. Cycle power to the oven by unplugging the oven or by turning the power source off and then back on. 6. Resume operation of oven. If error code reappears, contact Alto-Shaam technical service.
E-66	2 - Convection fan	VFD (upper) error	1. Check oven fan wheel for obstruction. 2. Check all connectors on the motor control. Inspect pins and confirms wires are secure in the connector. 3. If LED on motor control flashes, see error codes for motor control. 4. Power down control using on/off button. 5. Cycle power to the oven by unplugging the oven or by turning the power source off and then back on. 6. Resume operation of oven. If error code reappears, contact Alto-Shaam technical service.

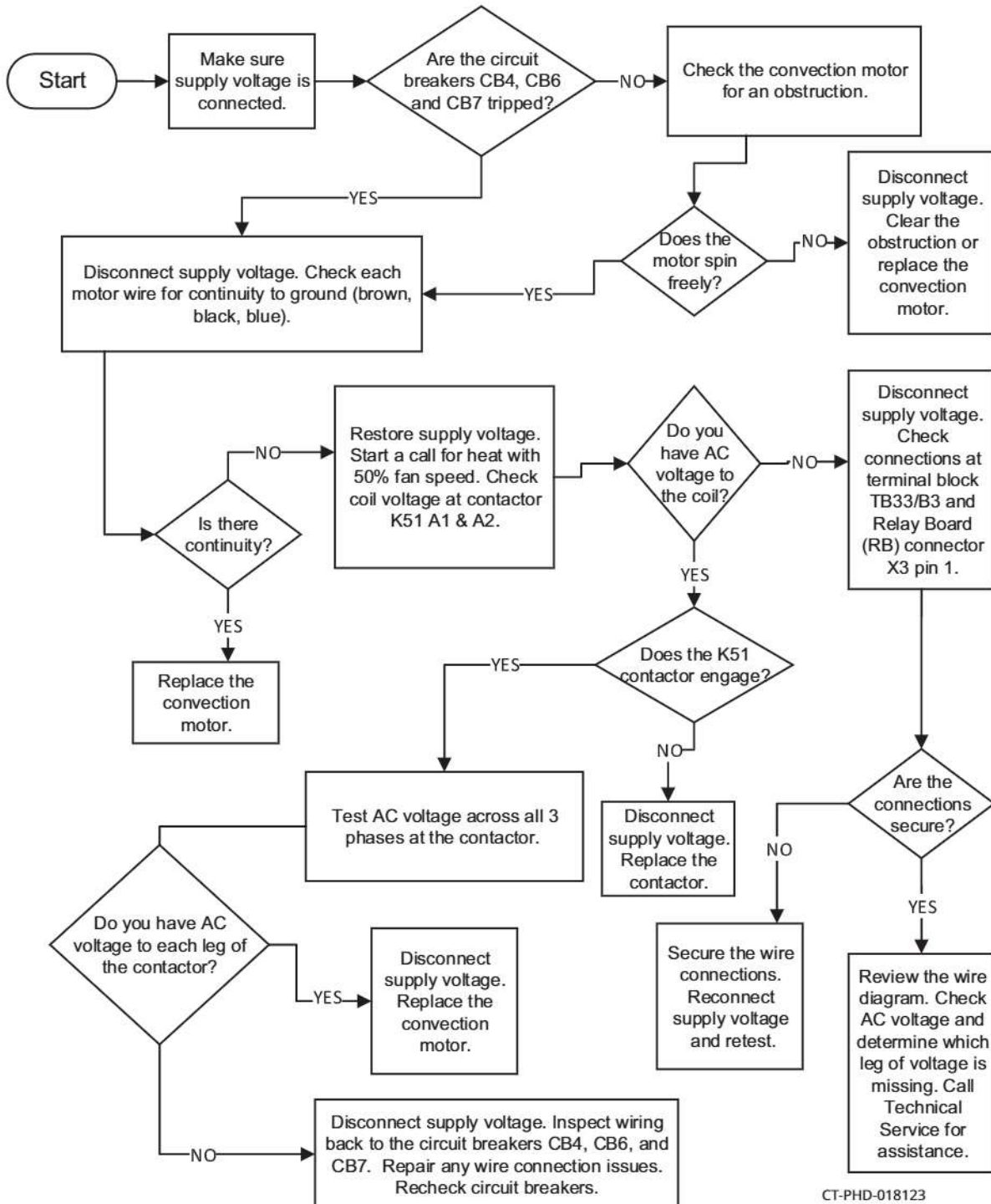
Code	Component	Description	Troubleshooting steps
E-66	2 - Convection fan	VFD (lower) error	1. Check oven fan wheel for obstruction. 2. Check all connectors on the motor control. Inspect pins and confirms wires are secure in the connector. 3. If LED on motor control flashes, see error codes for motor control. 4. Power down control using on/off button. 5. Cycle power to the oven by unplugging the oven or by turning the power source off and then back on. 6. Resume operation of oven. If error code reappears, contact Alto-Shaam technical service.
E-78	19 - Voltage sensor	Voltage monitor too low	1. Check for possible VFD failure. 2. Check supply voltage at the main terminal block. 3. Check supply voltage to the VFD.
E-78	2 - Convection fan	VFD (upper) under voltage	1. Check for possible VFD failure. 2. Check supply voltage at the main terminal block. 3. Check supply voltage to the VFD.
E-78	2 - Convection fan	VFD (lower) under voltage	1. Check for possible VFD failure. 2. Check supply voltage at the main terminal block. 3. Check supply voltage to the VFD.
E-79	19 - Voltage sensor	Voltage monitor too high	1. Check for possible VFD failure. 2. Check supply voltage at the main terminal block. 3. Check supply voltage to the VFD.
E-79	2 - Convection fan	VFD (upper) over voltage	1. Check for possible VFD failure. 2. Check supply voltage at the main terminal block. 3. Check supply voltage to the VFD.
E-79	2 - Convection fan	VFD (lower) over voltage	1. Check for possible VFD failure. 2. Check supply voltage at the main terminal block. 3. Check supply voltage to the VFD.
E-80	2 - Convection fan	VFD (upper) memory error	1. Check for possible VFD failure. 2. Check supply voltage at the main terminal block. 3. Check supply voltage to the VFD.
E-80	2 - Convection fan	VFD (lower) memory error	1. Check for possible VFD failure. 2. Check supply voltage at the main terminal block. 3. Check supply voltage to the VFD.

Code	Component	Description	Troubleshooting steps
E-88	1 - Heater	Gas ignition failure (upper)	1. Power down control using on/off icon. 2. Cycle power to the oven either by unplugging the unit or turning off the breaker. 3. Inspect the top of oven for anything blocking the exhaust flue of the oven. 4. Make sure the ventilation hood is turned on and working properly. 5. Make sure the gas line is properly connected to the unit and the gas shut off valve is in the open position. 6. Check gas pressure on the inlet of the gas valve. (NG 5.5"-14" w.c., LP 7"- 14" required). 7. Follow troubleshooting tree in the service manual.
E-88	1 - Heater	Gas ignition failure (lower)	1. Power down control using on/off icon. 2. Cycle power to the oven either by unplugging the unit or turning off the breaker. 3. Inspect the top of oven for anything blocking the exhaust flue of the oven. 4. Make sure the ventilation hood is turned on and working properly. 5. Make sure the gas line is properly connected to the unit and the gas shut off valve is in the open position. 6. Check gas pressure on the inlet of the gas valve. (NG 5.5"-14" w.c., LP 7"- 14" required). 7. Follow troubleshooting tree in the service manual.
E-90	1 - Heater	Gas blower failure (upper)	1. Check if power supply cable is not connected to combustion blower motor. 2. Check if speed control cable is not connected to combustion blower motor. 3. Check for supply voltage at combustion blower. 4. Remove speed control cable and verify combustion blower RPMs increases. 5. Check if combustion blower motor is blocked, rotation is impeded, or motor has malfunctioned.
E-90	1 - Heater	Gas blower failure (lower)	1. Check if power supply cable is not connected to combustion blower motor. 2. Check if speed control cable is not connected to combustion blower motor. 3. Check for supply voltage at combustion blower. 4. Remove speed control cable and verify combustion blower RPMs increases. 5. Check if combustion blower motor is blocked, rotation is impeded, or motor has malfunctioned.

Code	Component	Description	Troubleshooting steps
E-93	8 - Control Board	State synchronization error between the interface board and control board	1. Check if power supply cable is not connected to combustion blower motor. 2. Check if speed control cable is not connected to combustion blower motor. 3. Check if combustion blower motor is blocked, rotation is impeded, or motor has malfunctioned. 4. Replace faulty control board.
E-94	10 - Control Board Communications	Communication error between Interface Board and Control Board	1. Cycle power to the oven either by unplugging the unit or by turning the power source off and then back on. 2. Check CAN cable connections. 3. Check for low voltage at control board connector. 4. Check display board connector.
E-94	2 - Convection fan	VFD (upper) communication error	1. Cycle power to the oven either by unplugging the unit or by turning the power source off and then back on. 2. Check communication cable between the motor control and the control board. 3. Check if motor control connector defective. 4. Check if control board connector defective. 5. Replace defective cable.
E-94	2 - Convection fan	VFD (lower) communication error	1. Cycle power to the oven either by unplugging the unit or by turning the power source off and then back on. 2. Check communication cable between the motor control and the control board. 3. Check if motor control connector defective. 4. Check if control board connector defective. 5. Replace defective cable.
E-102	59 - Ventless hood	Ventless hood filter fault	1. Check if filters are installed. 2. Check if filters are clogged. 3. Check operation of hood motor.
E-105	6 - Chamber	Low water pressure	1. Check if water supply is not connected. 2. Check if water supply is shut off. 3) Check if water supply to unit blocked or obstructed (check filter).
E-109	6 - Chamber	Chamber high limit	1. Check if cooling fan has malfunctioned. 3. Check if heat relay is stuck closed. 4. Check connection between high limit switch and control board. 5. Check if high limit switch has malfunctioned.
E-606	6 - Chamber	Error during cleaning cycle	1. Manually Clean Oven. 2. Manually Rinse Oven. 3. Ensure chemicals removed before use. 4. Resume use of oven. If error repeats contact Alto-Shaam technical service.

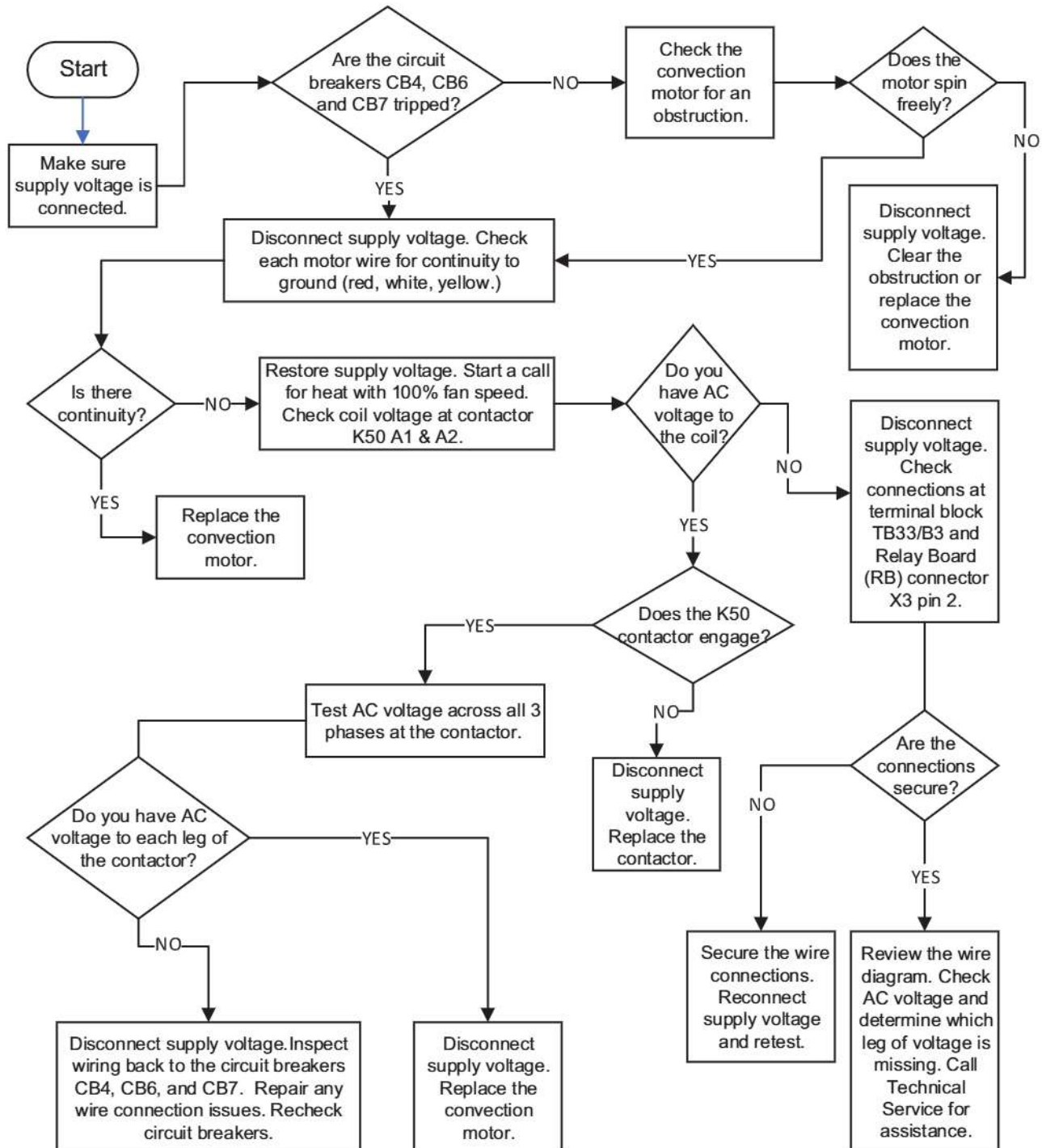
Code	Component	Description	Troubleshooting steps
E-999	48 - Personality handler	IB and CB dip switch settings not set correctly	1. Power down control using on/off icon. 2. Cycle power to the oven either by unplugging the unit or by turning the main power switch off and then back on. 3. Resume use of oven. If error reappears contact Alto-Shaam technical service.

No Convection Motor Operation on Low Speed (Classic)



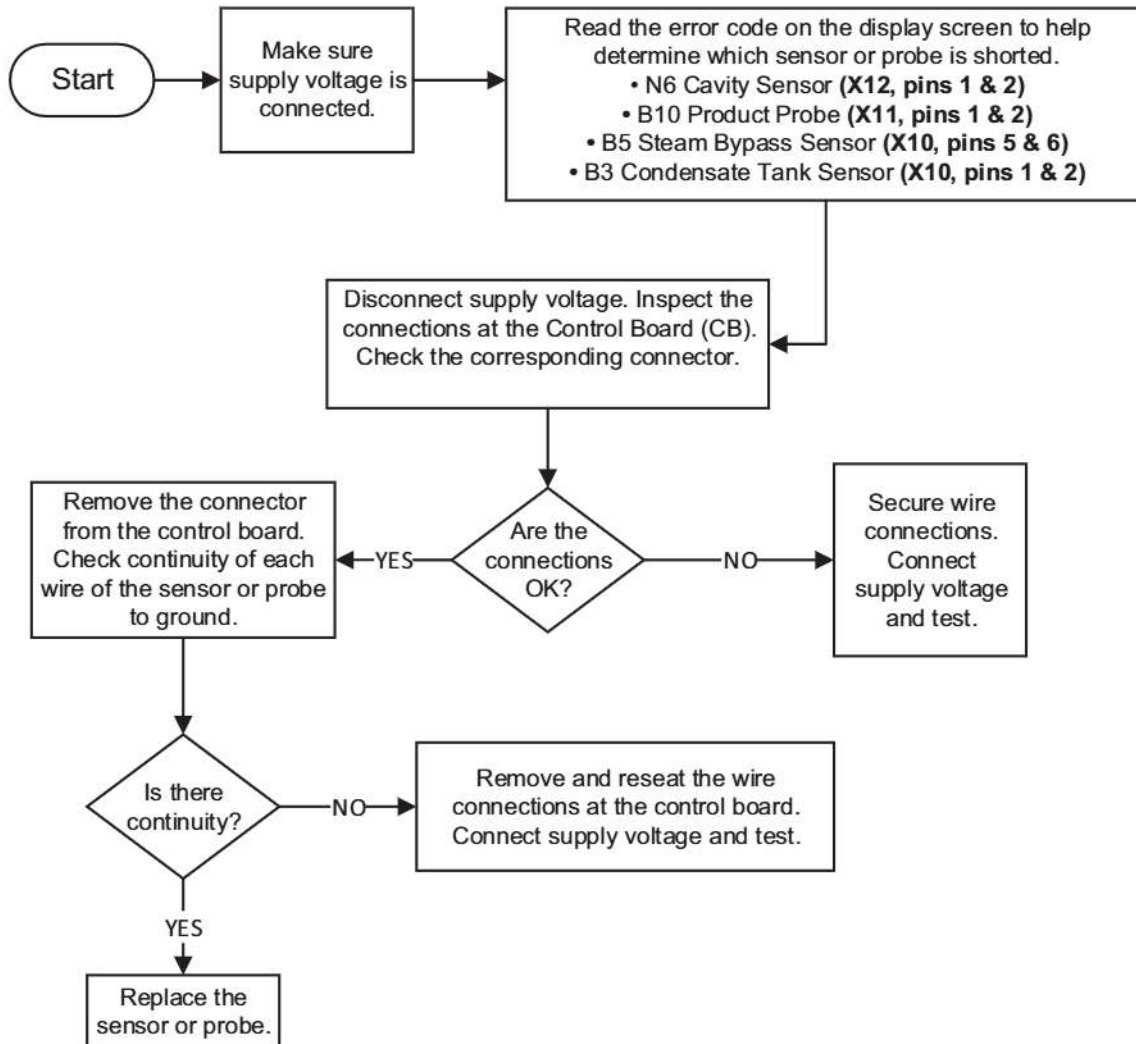
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No Convection Motor Operation on High Speed (Classic)



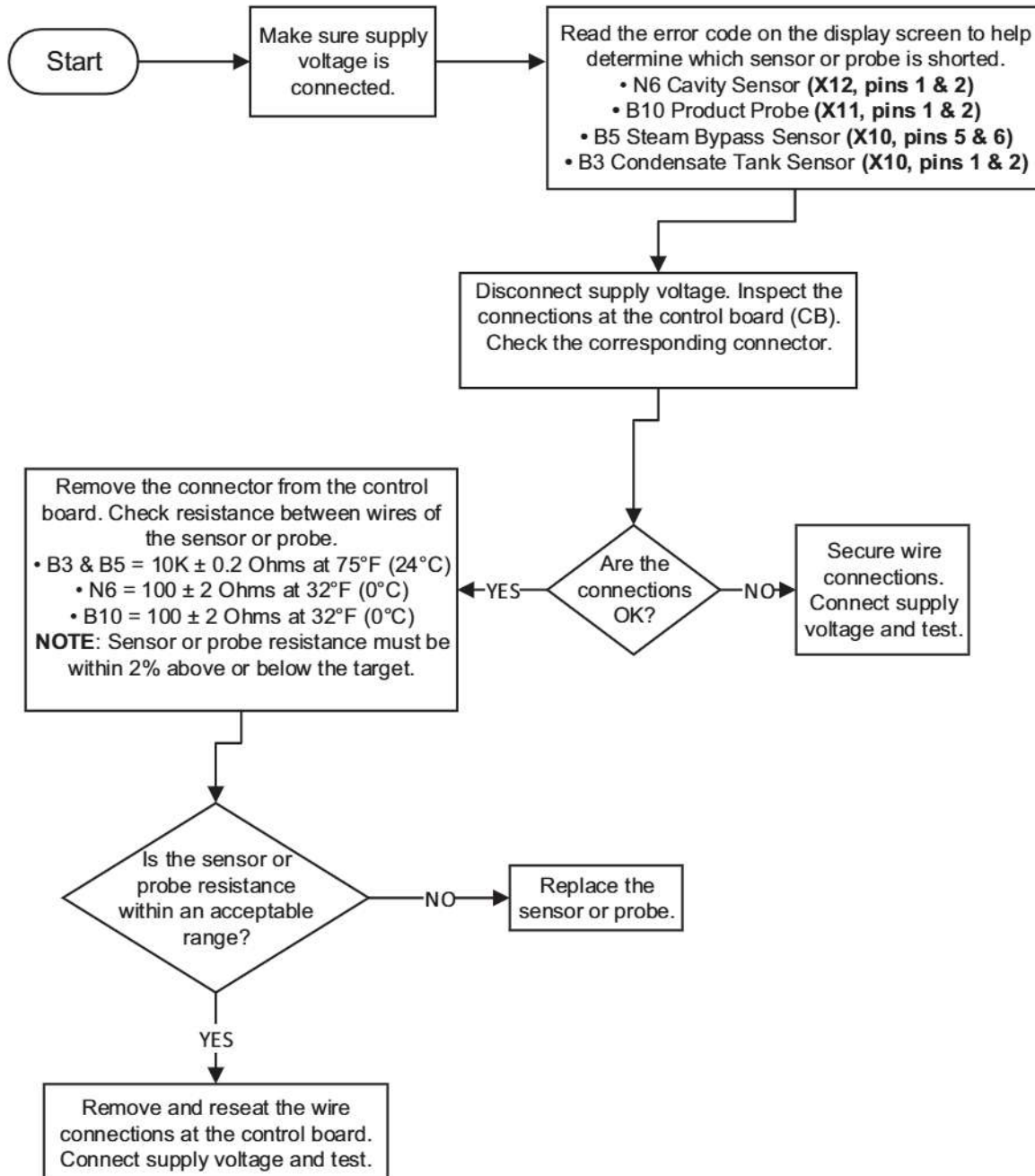
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E10 Shorted Sensor or Probe



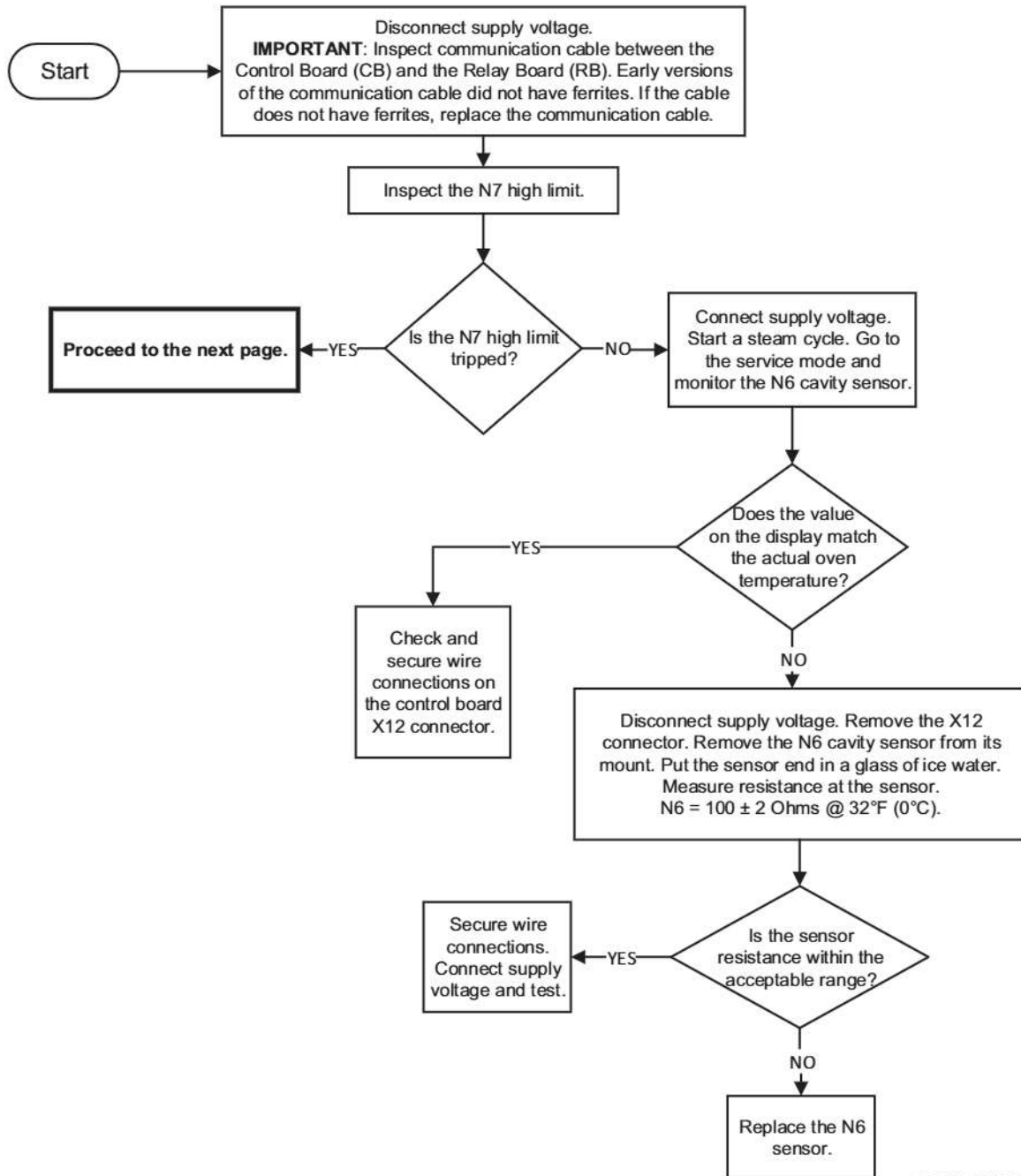
CT-PHD-017726

E11 Open Sensor or Probe

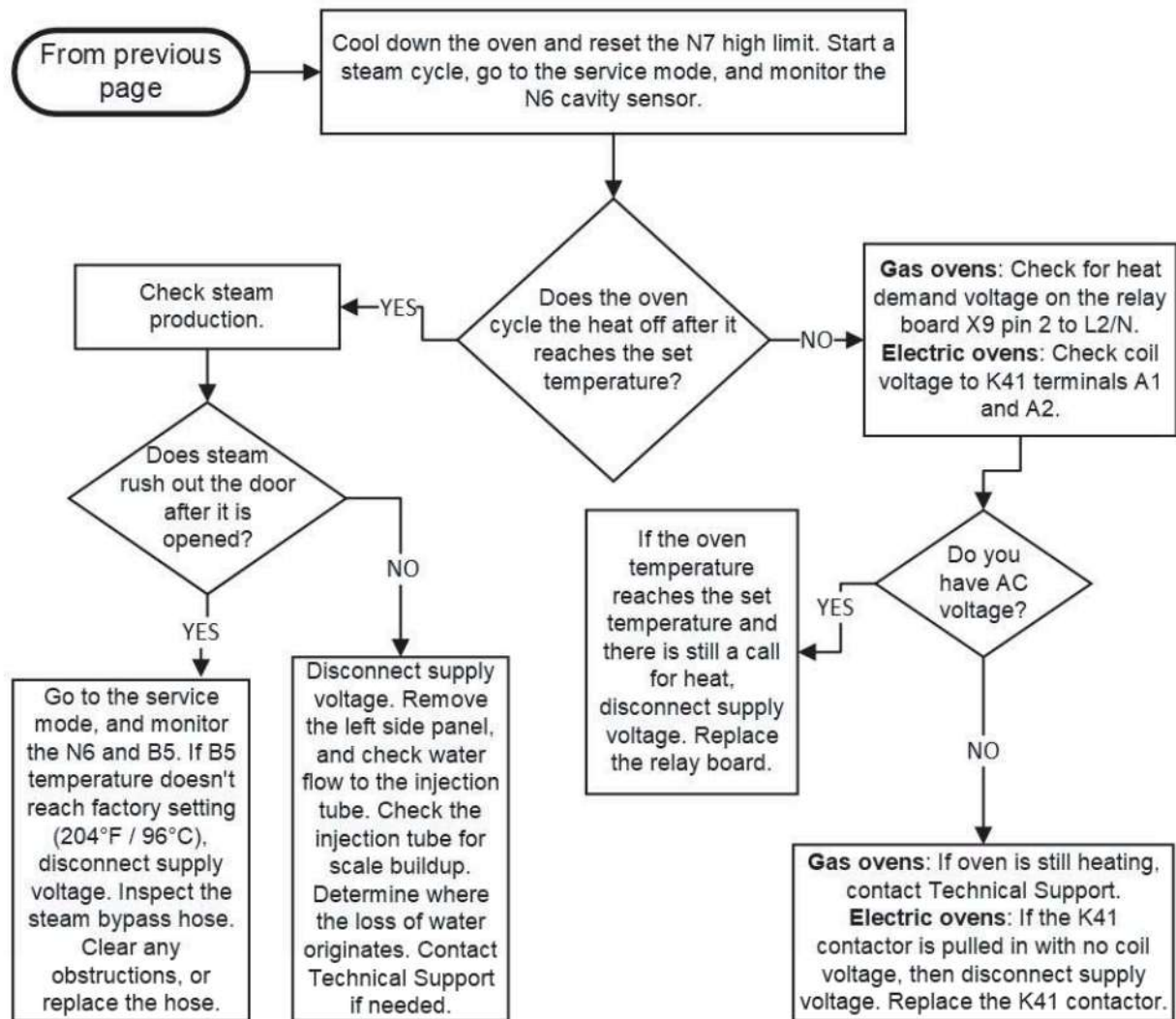


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E31 Cavity Sensor Over Temp

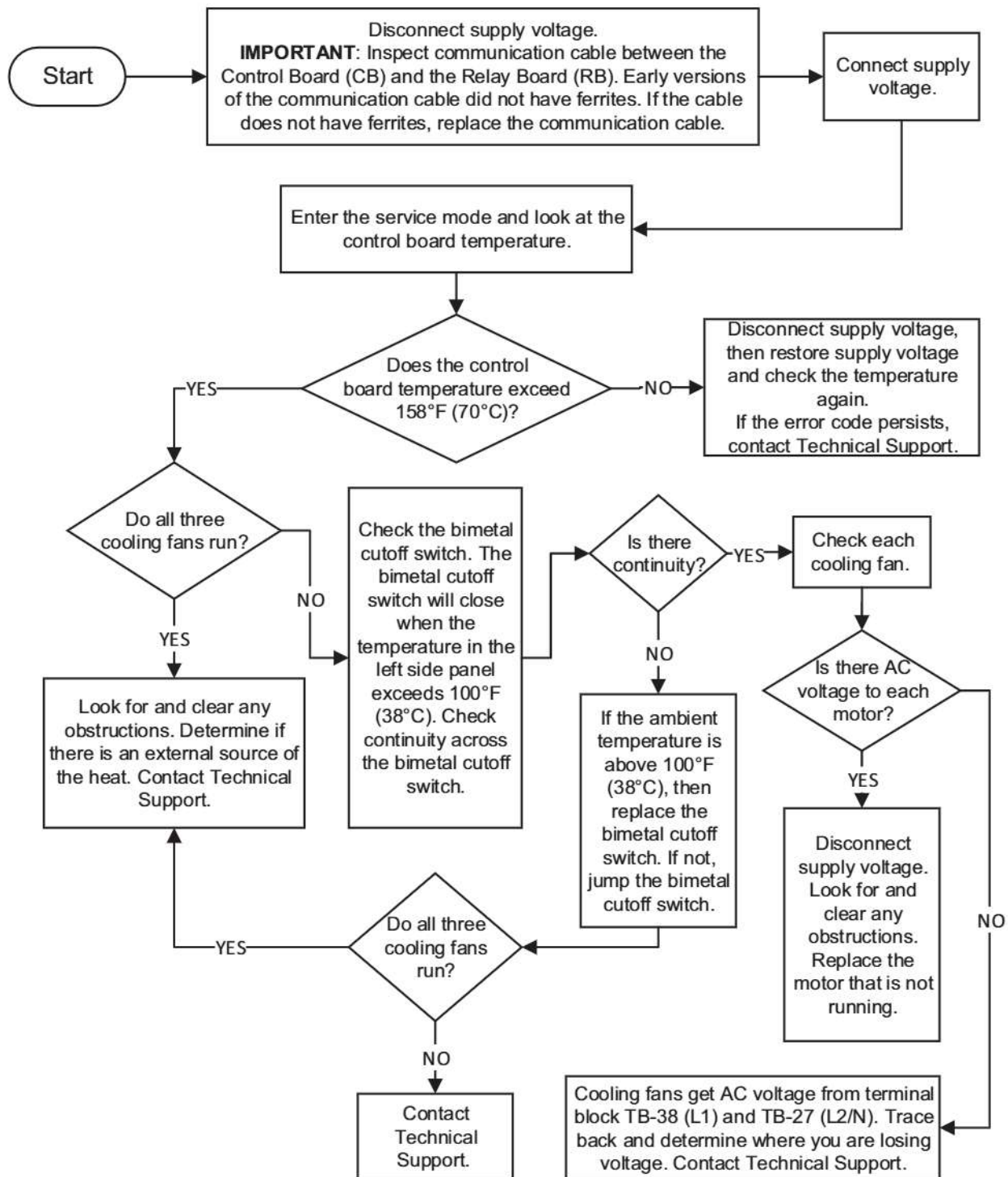


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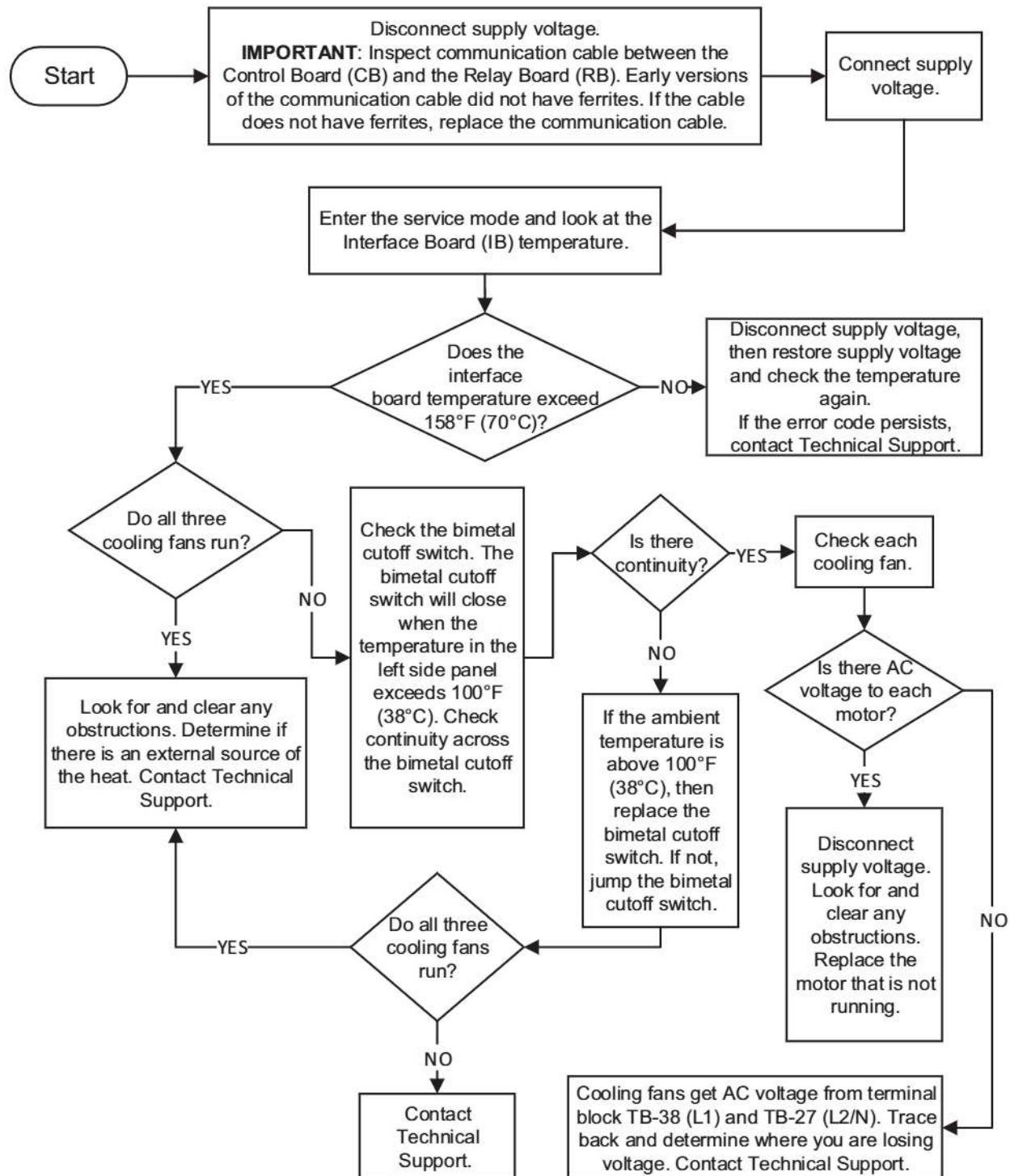
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E31 Control Board (CB) Over Temp



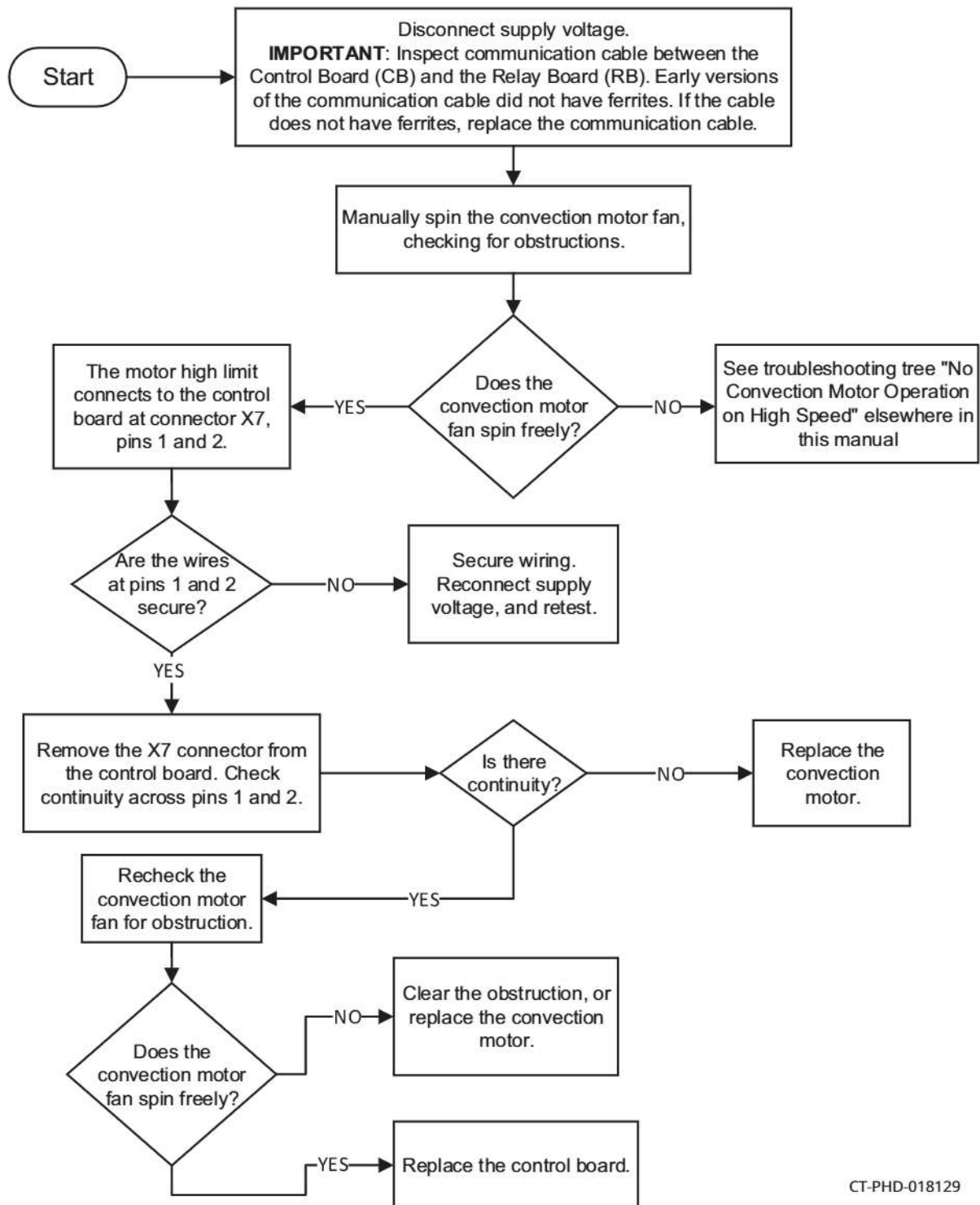
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E31 Interface Board (IB) Over Temp



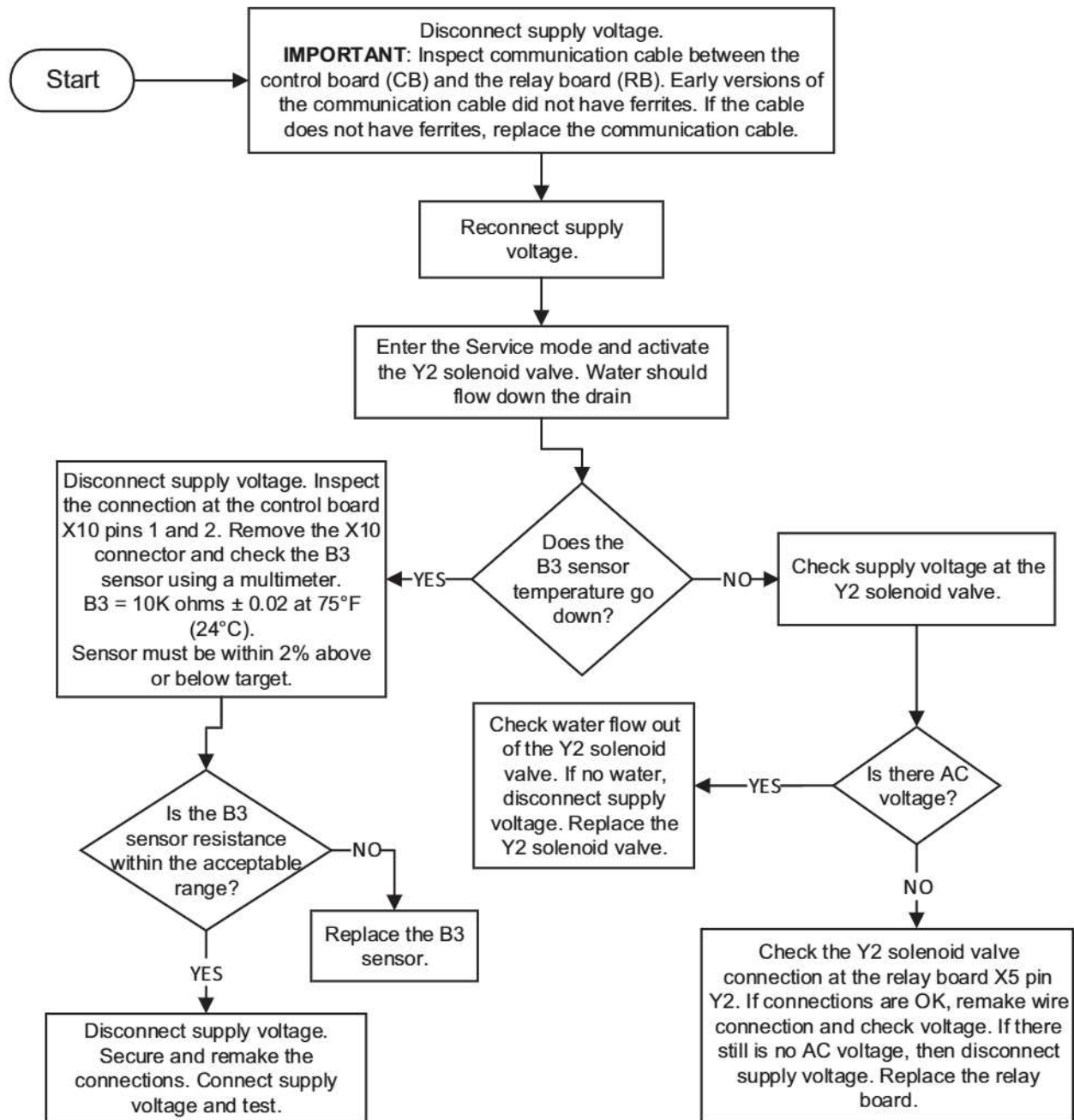
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E31 Convection Motor Over Temp (Classic)



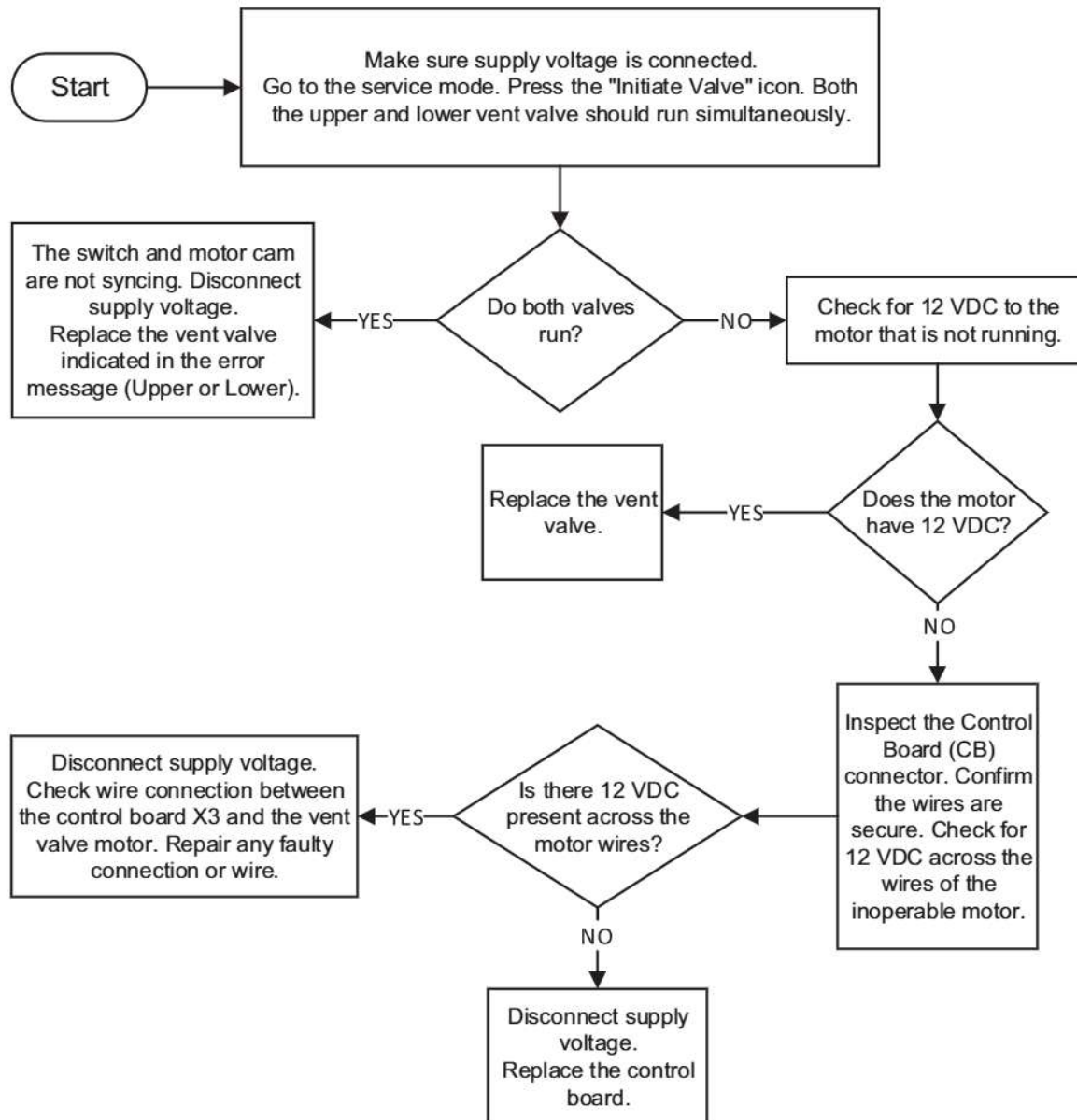
CT-PHD-018129

E31 Tank Sensor Over Temp



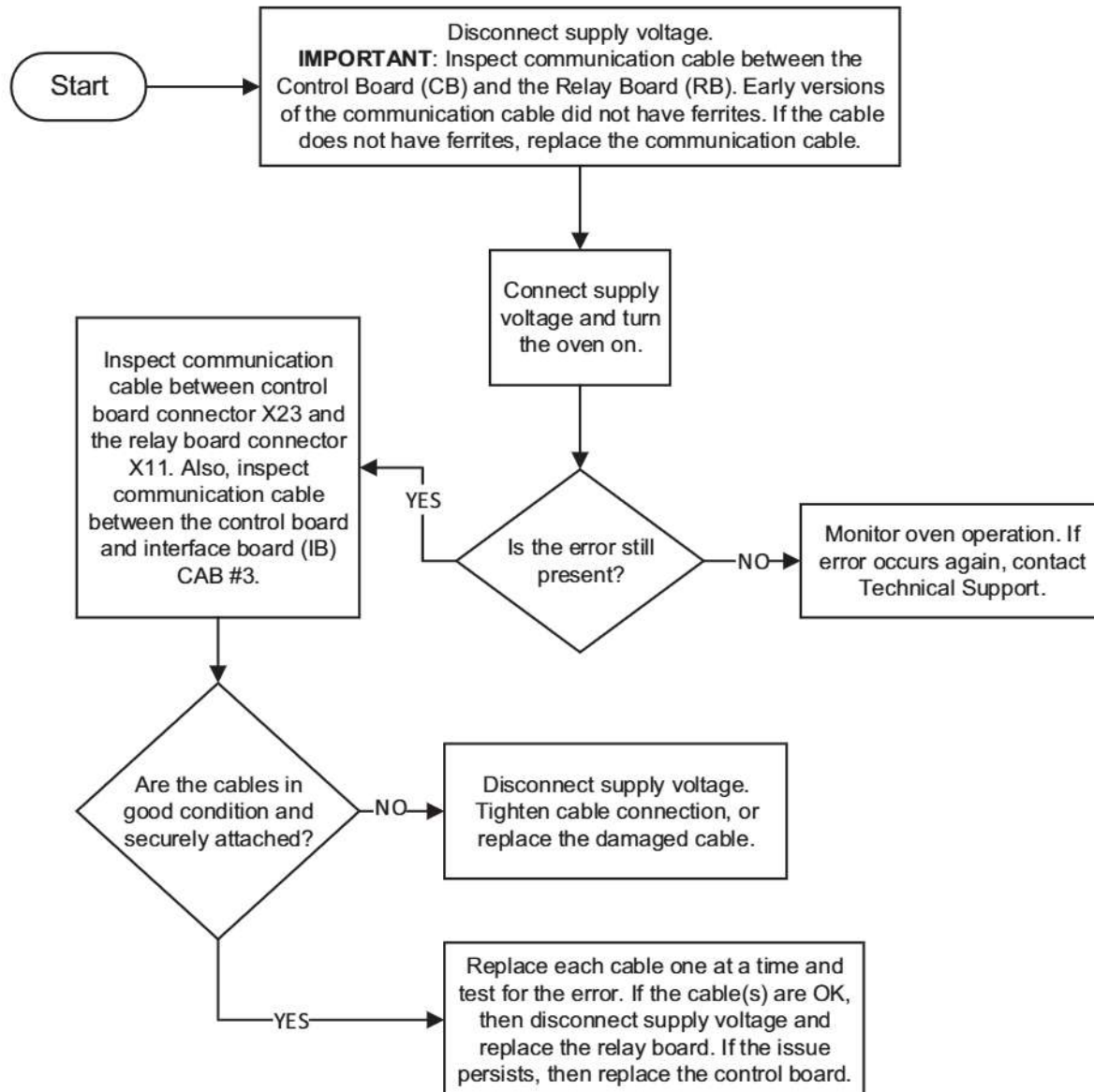
CT-PHD-017747

E55 Vent Valve (Upper/Lower) Not Open



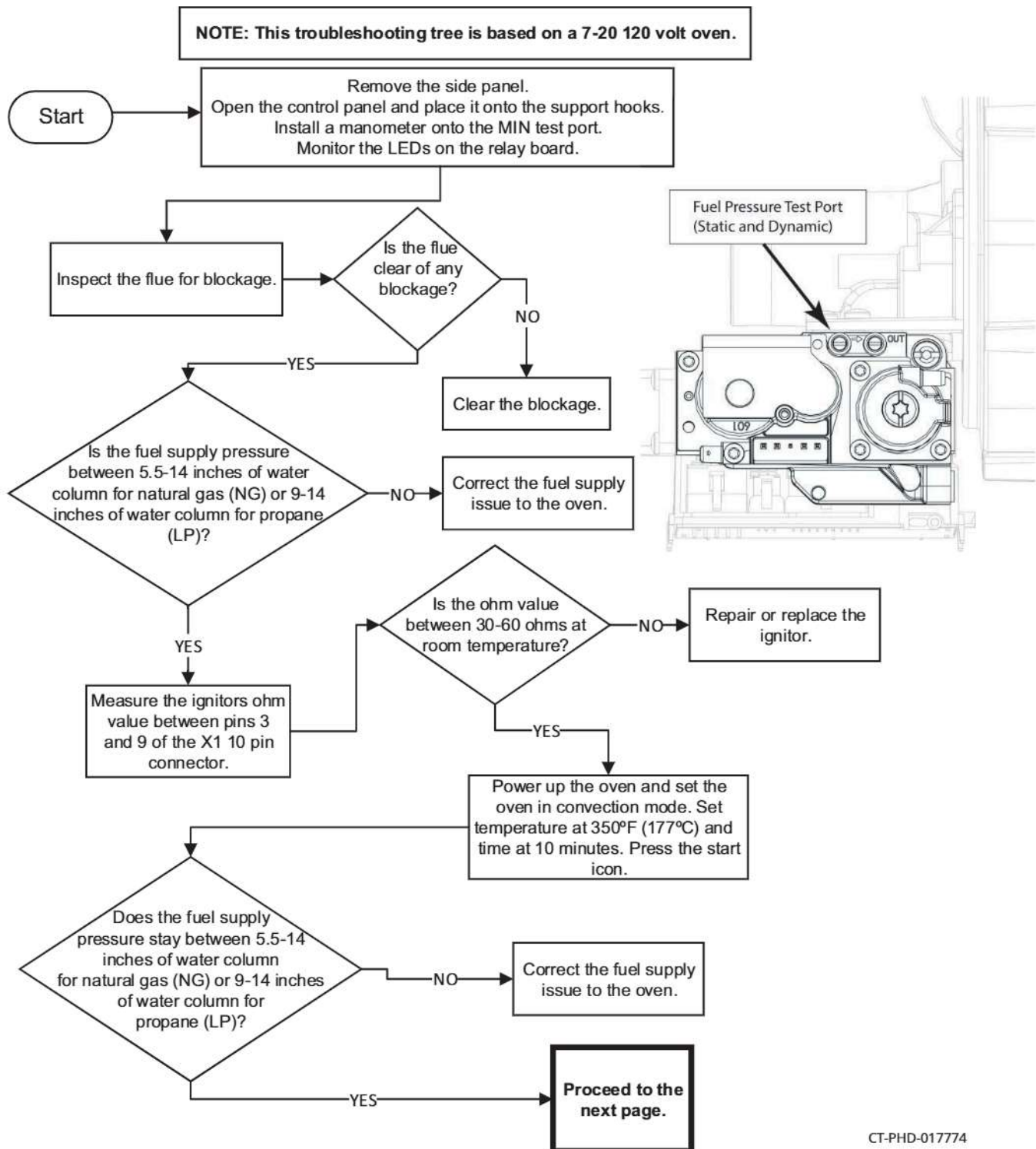
CT-PHD-017750

E66 Control Board Communication Error

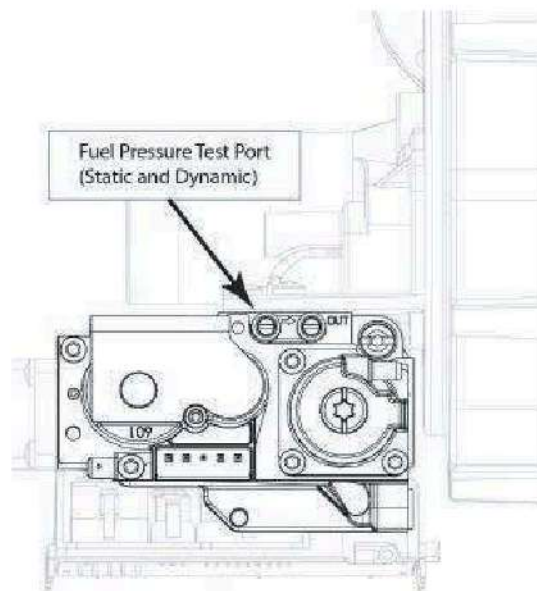
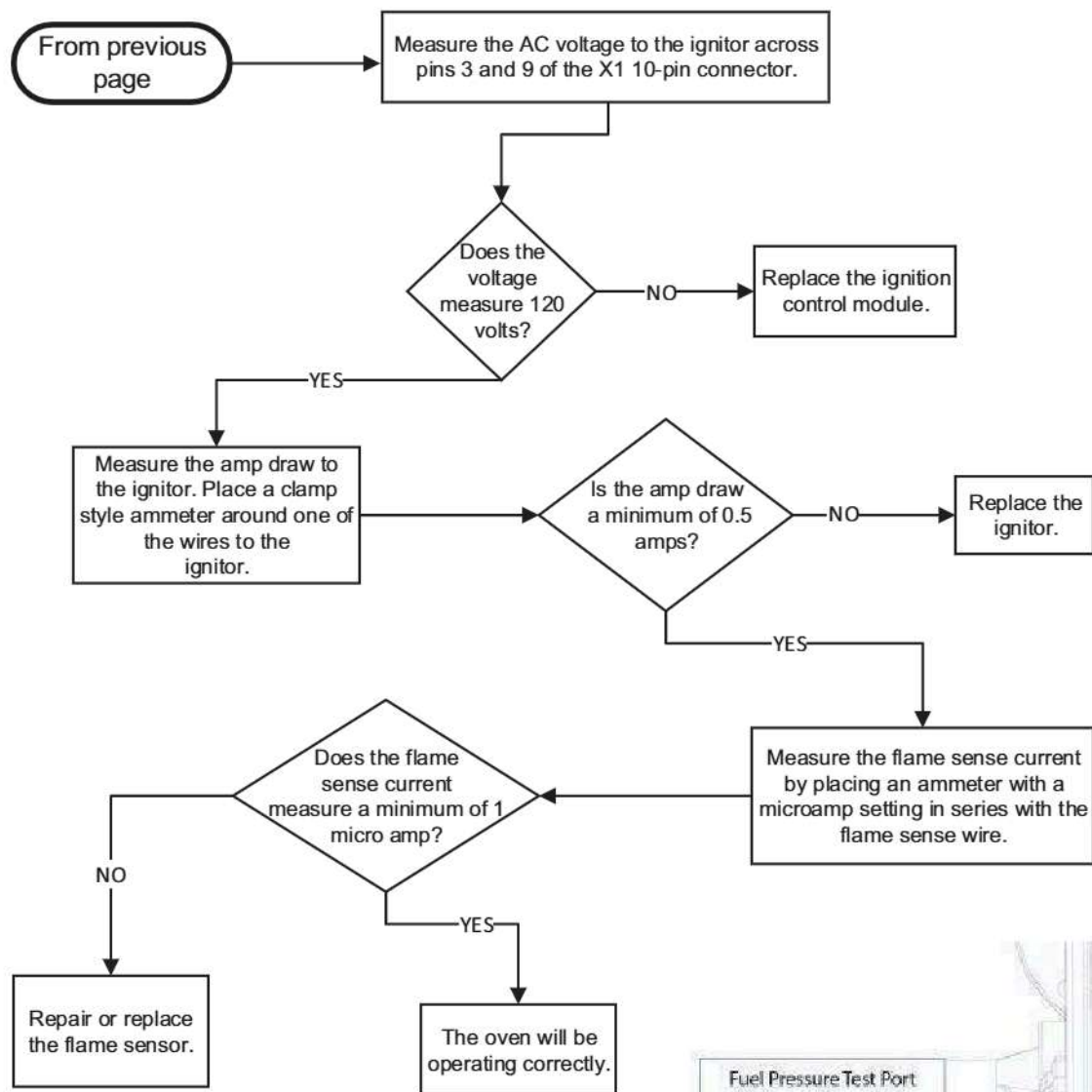


CT-PHD-017756

E88 Gas Ignition Failure

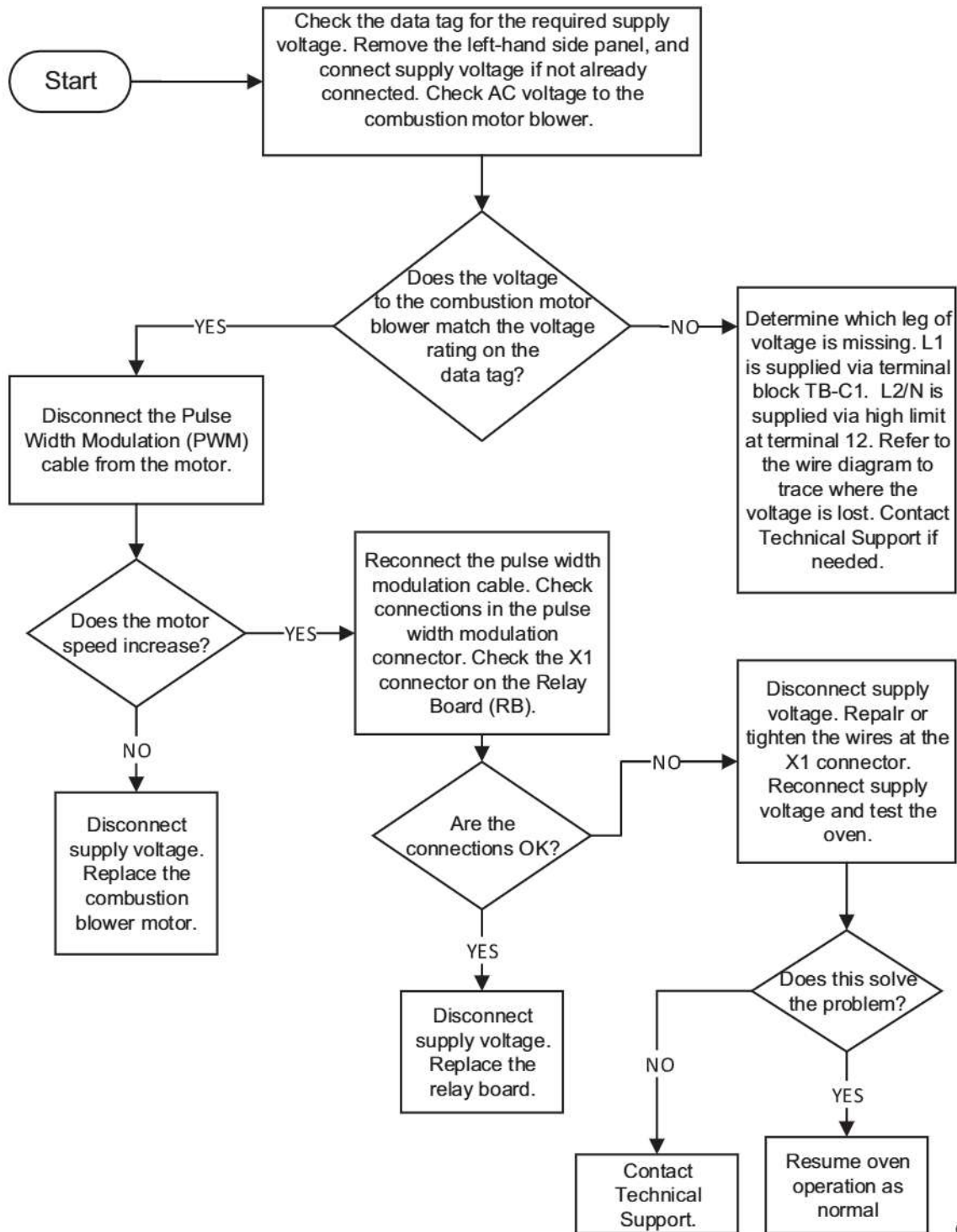


CT-PHD-017774



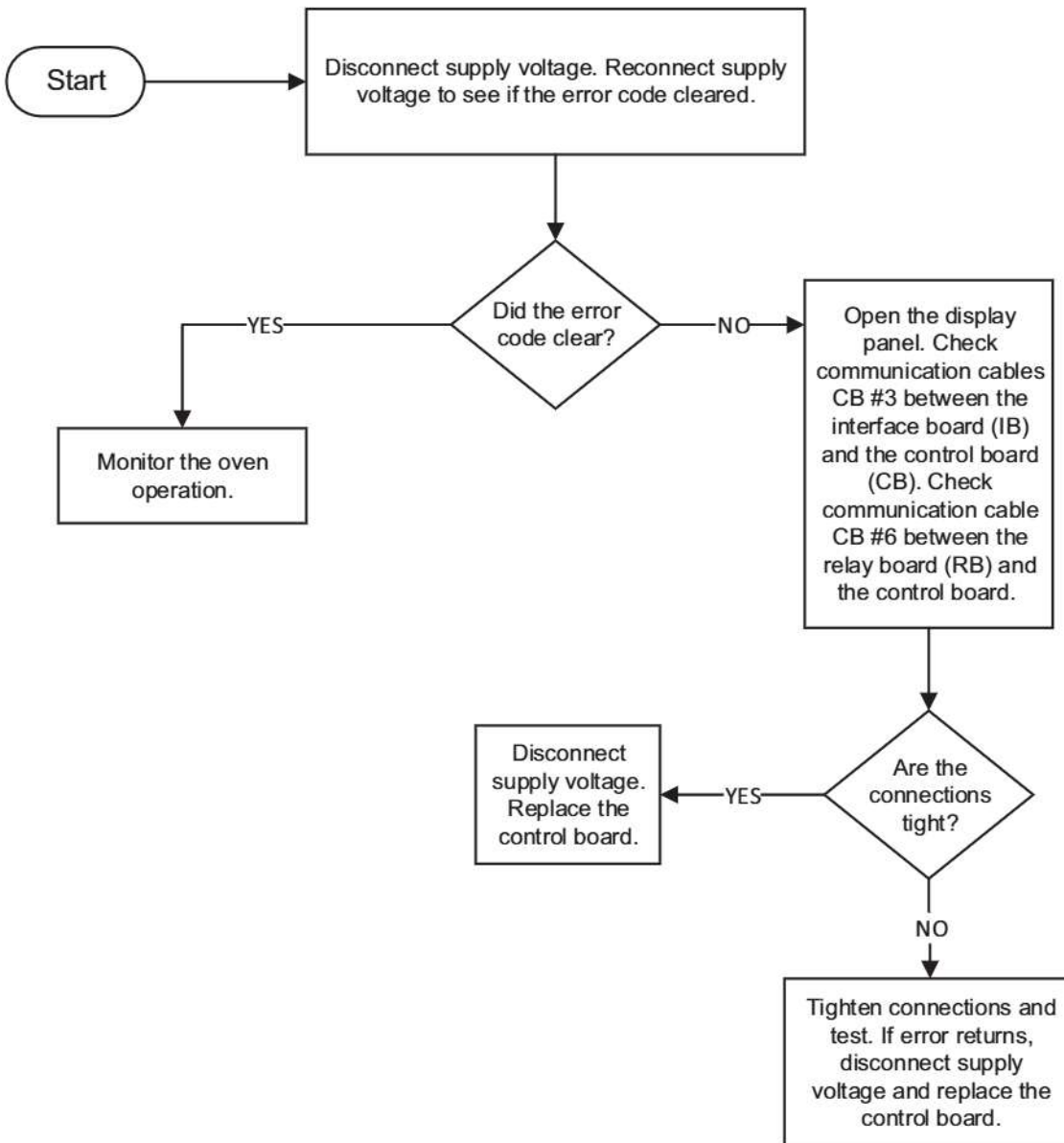
CT-PHD-017777

E90 Gas Blower (Upper/Lower) Failure



CT-PHD-017780

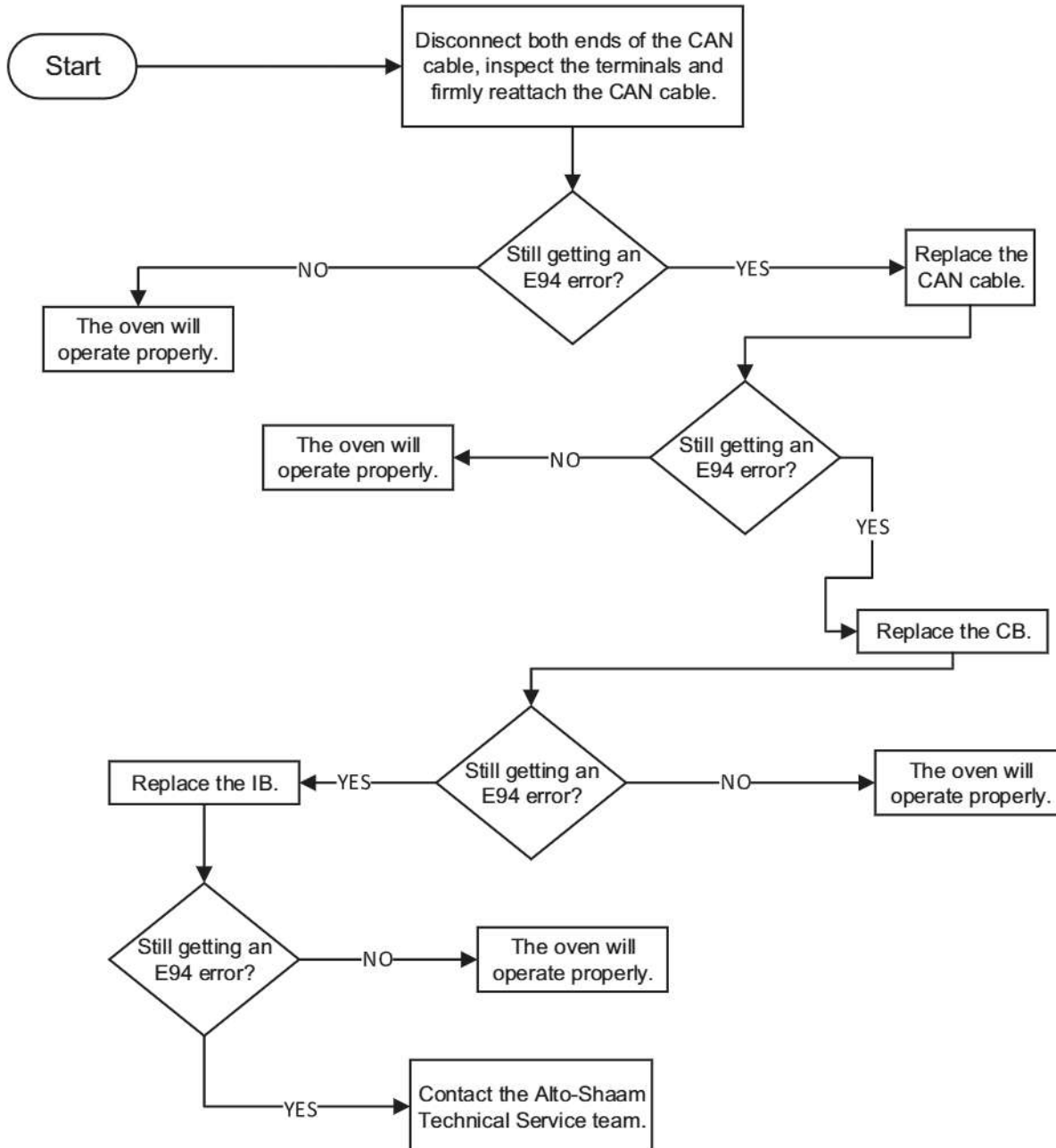
E93 Control Board (CB) Synchronization Error



CT-PHD-017783

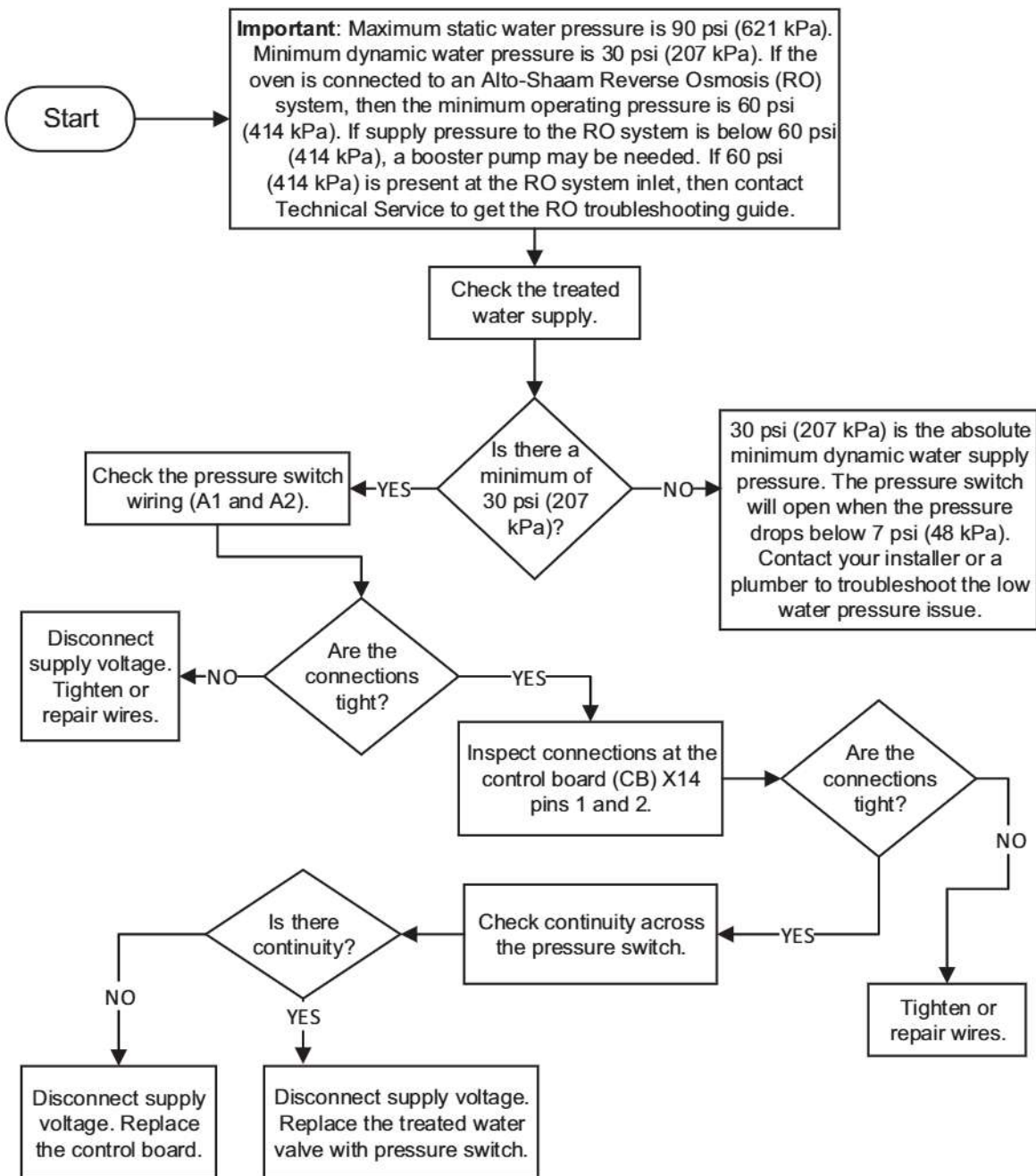
E94 Communication Error (Classic)

NOTE: The computer area network (CAN) cable is connected to the control board (CB) at connector X6 and the interface board (IB) at connector J19.



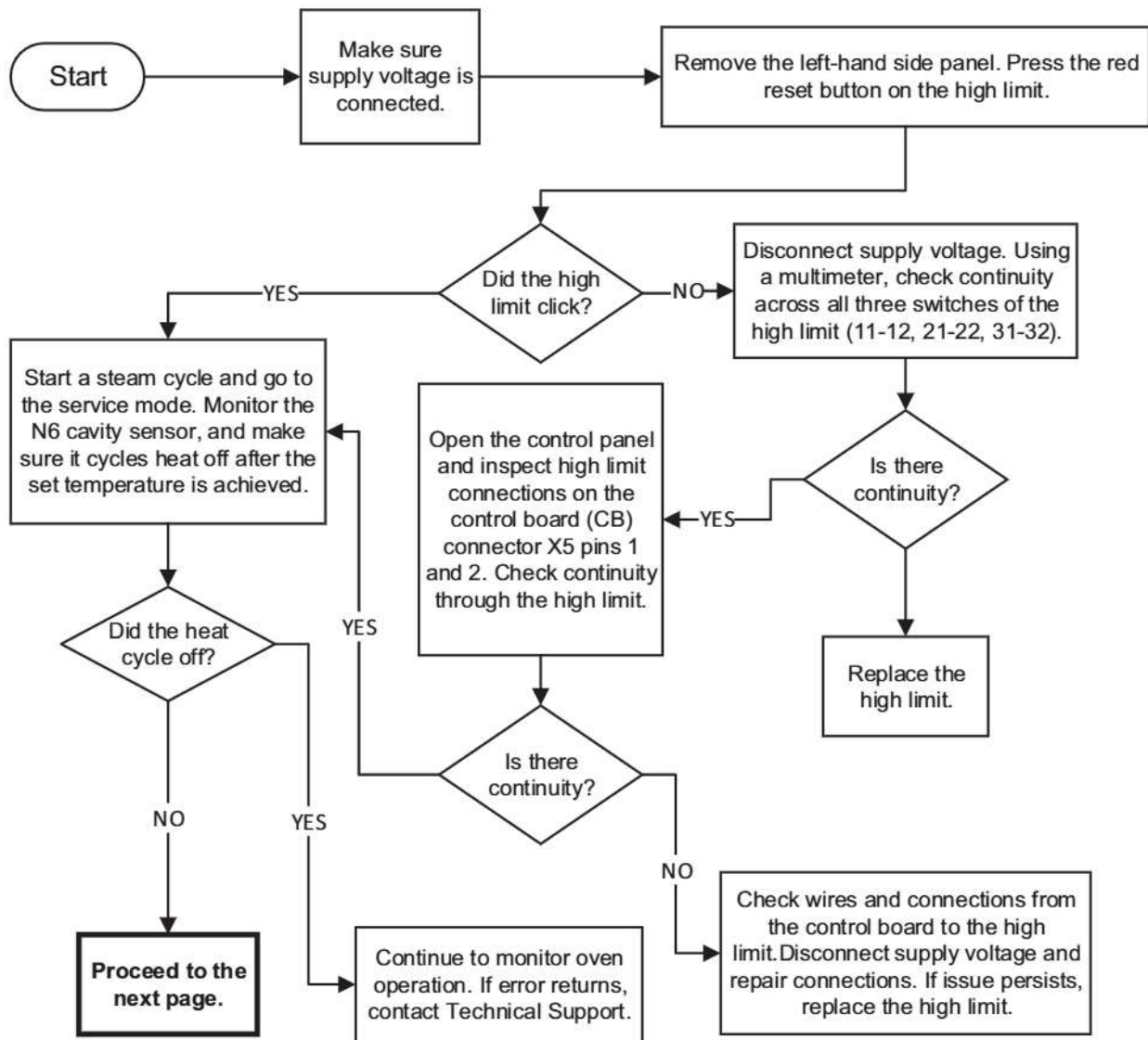
CT-PHD-018132

E105 Low Water Pressure

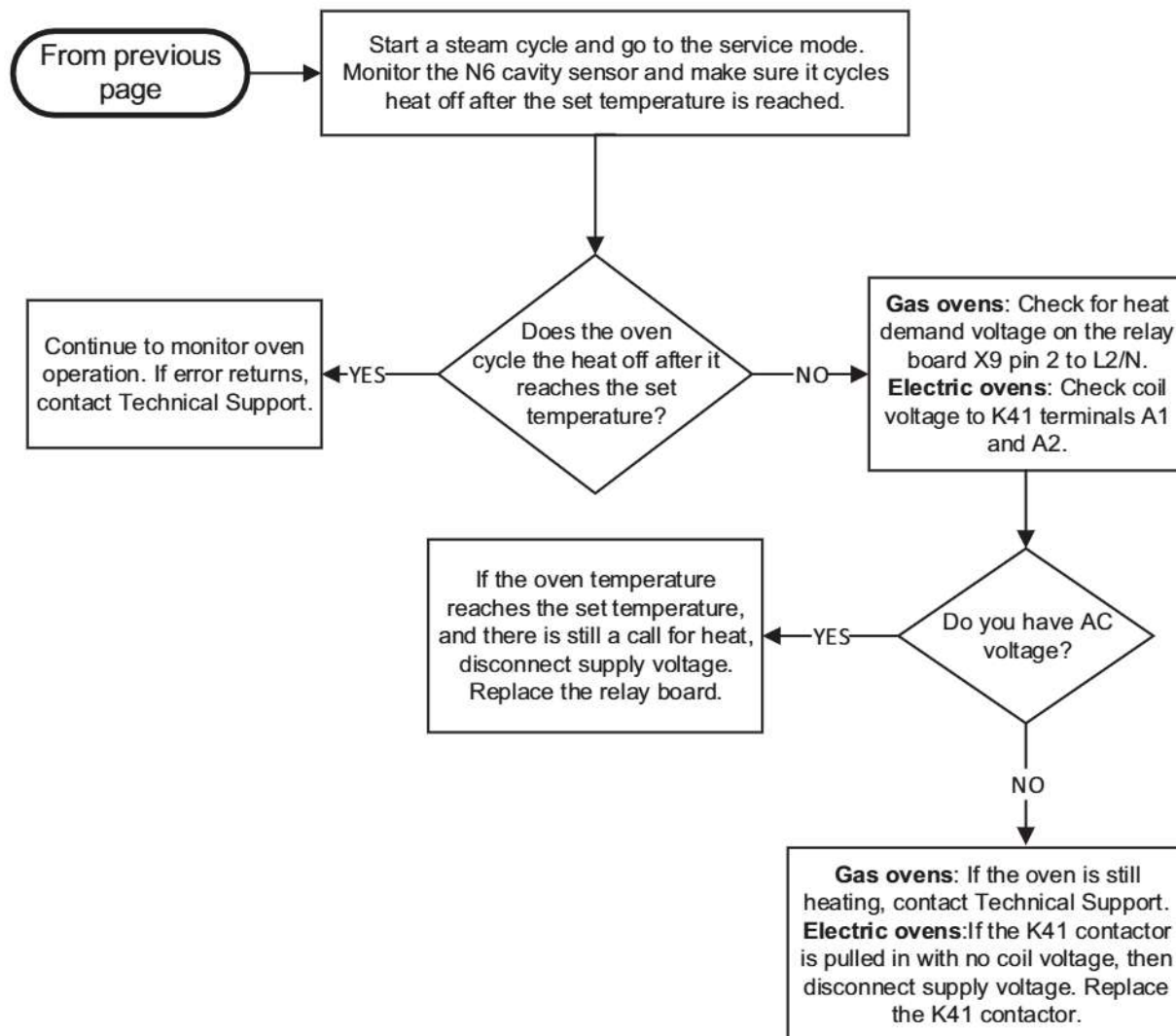


CT-PHD-017789

E109 High Limit Error

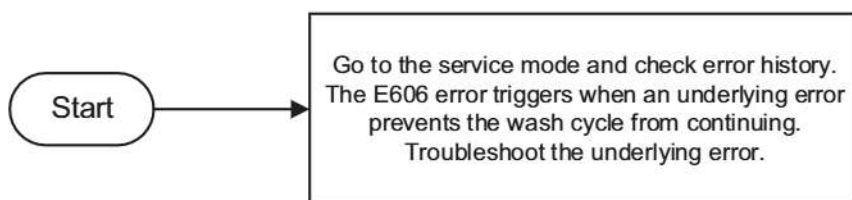


CT-PHD-017792



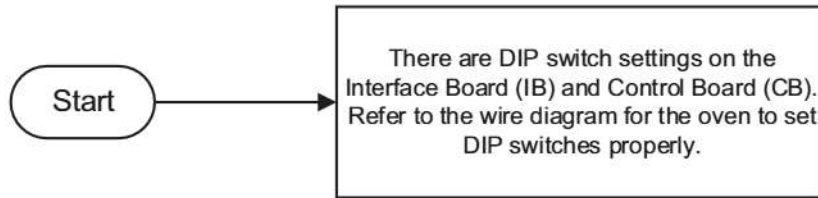
CT-PHD-017795

E606 Error During Clean Cycle



CT-PHD-017798

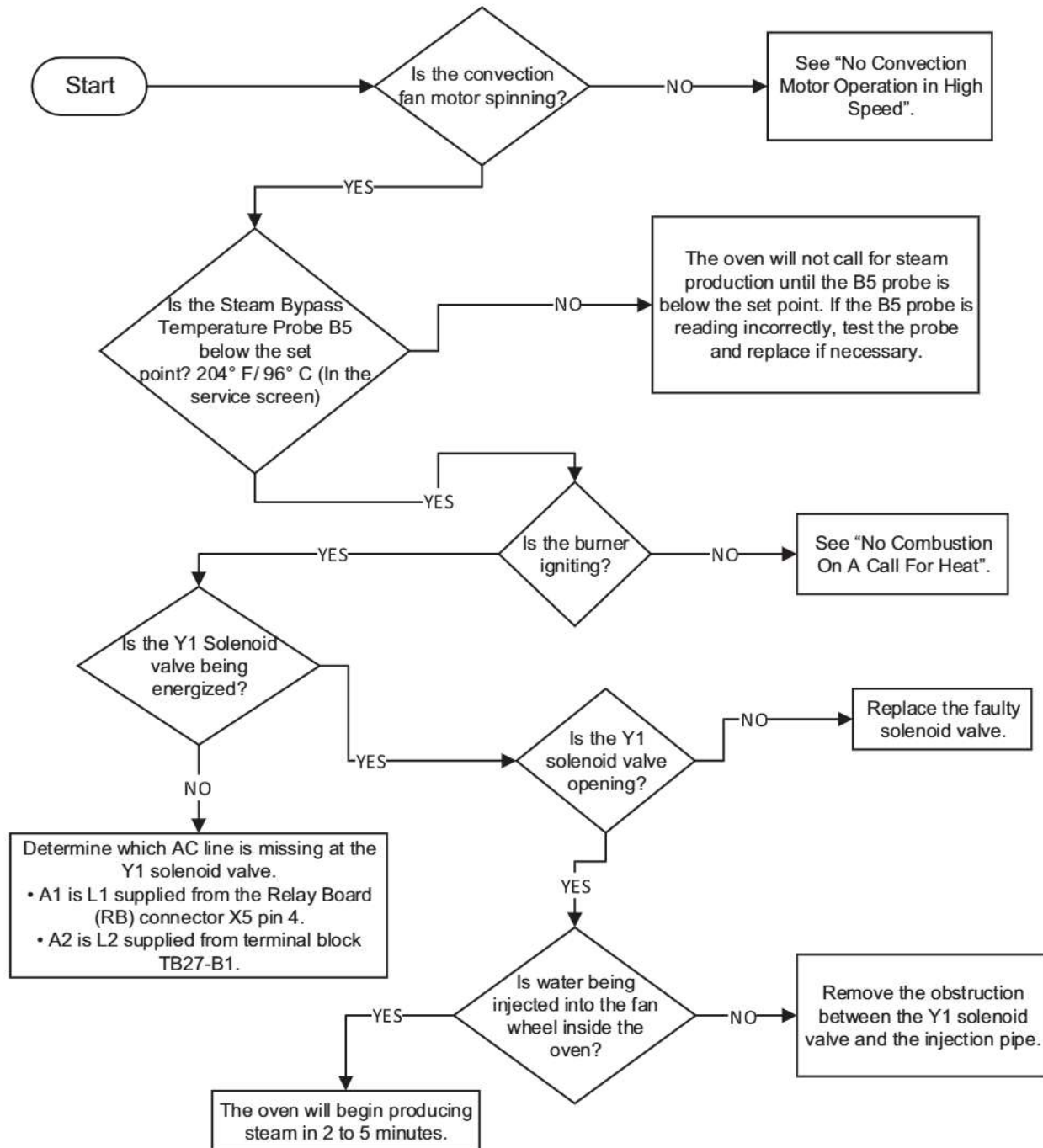
E999 DIP Switch Not Set Properly



CT-PHD-017801

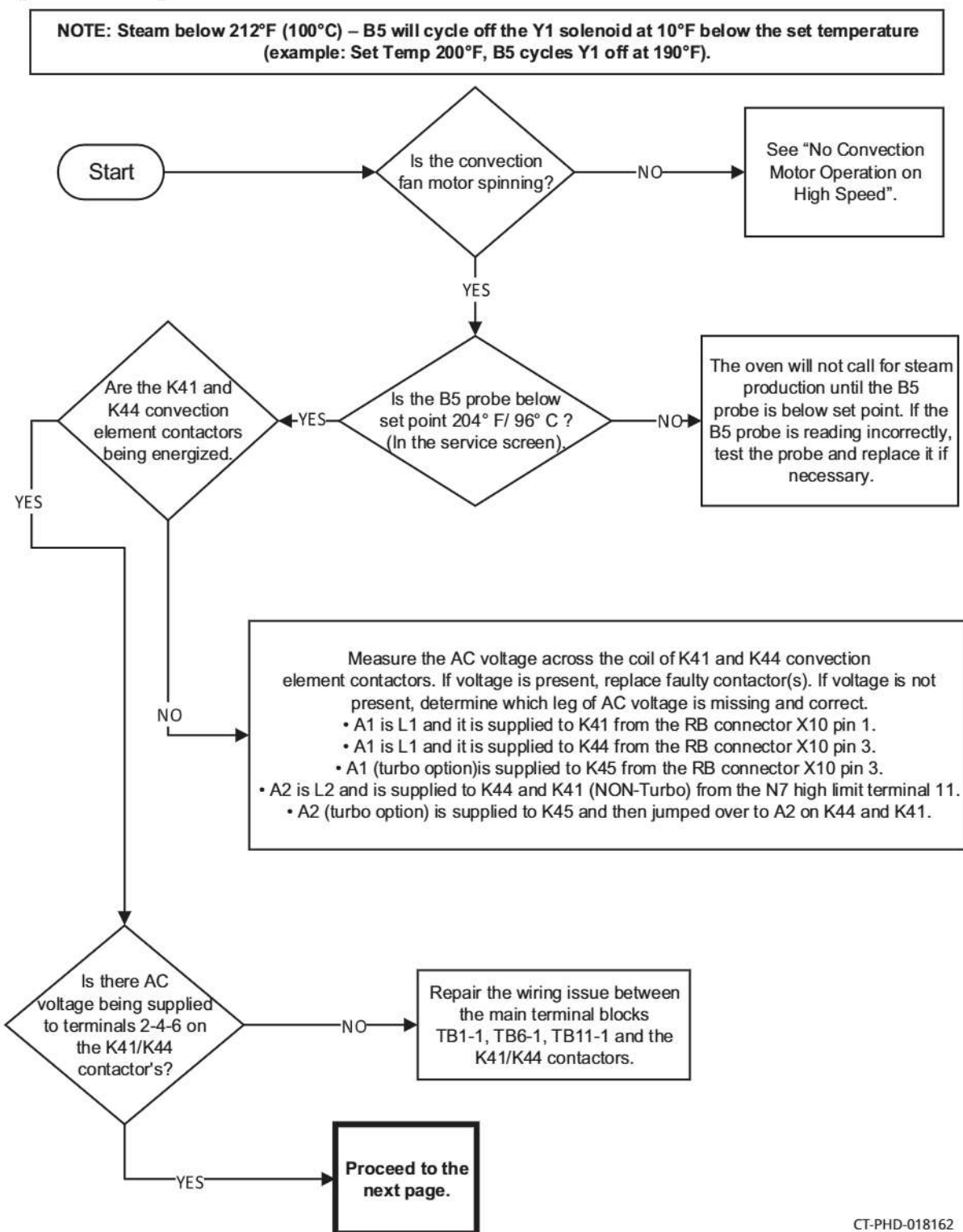
No Steam (Gas) at 212°F (100°C), Classic

NOTE: Steam below 212°F (100°C) – B5 will cycle off the Y1 solenoid at 10°F below the set temperature (example: Set Temp 200°F, B5 cycles Y1 off at 190°F).



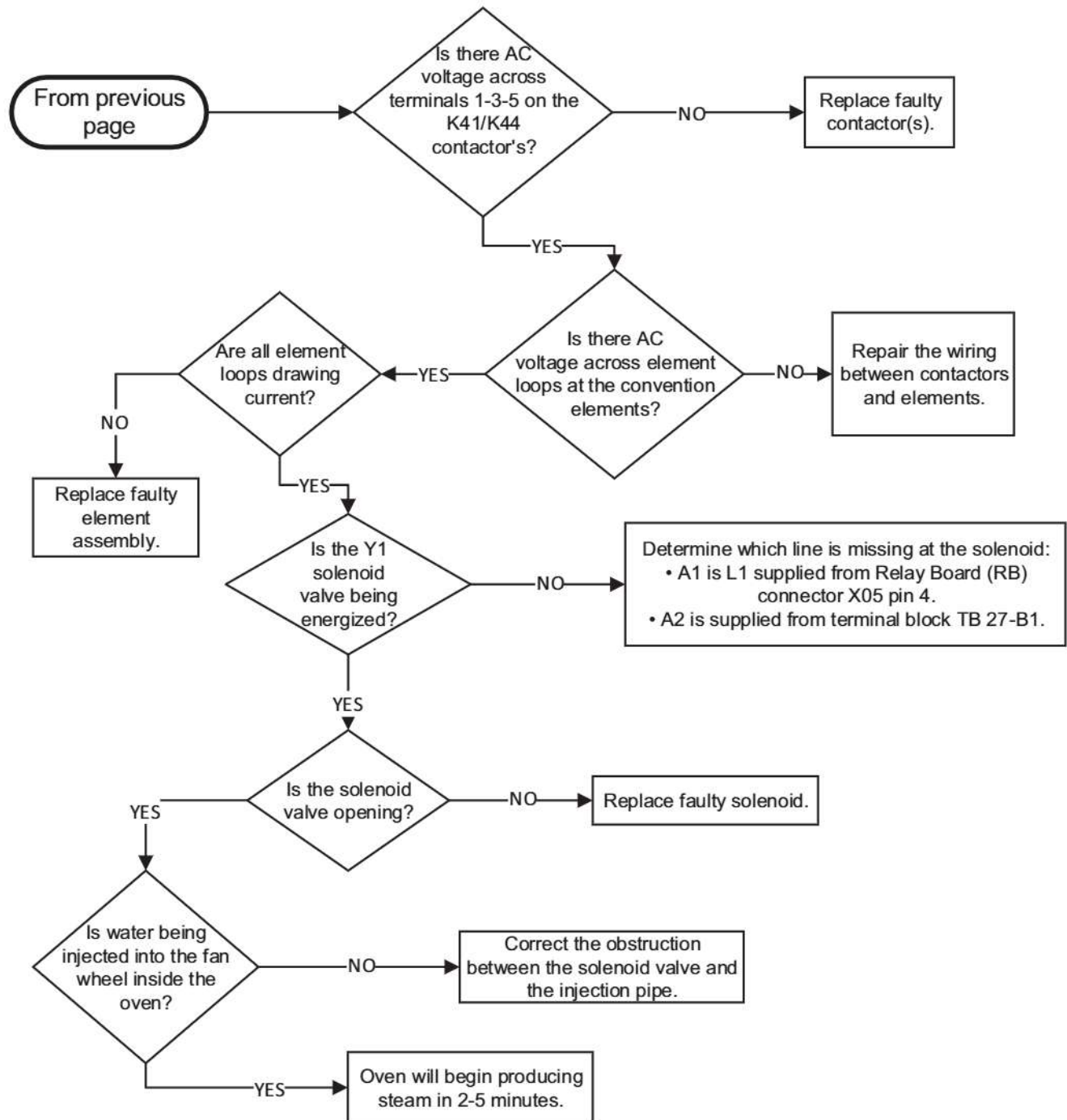
CT-PHD-018165

No Steam (Electric) at 212°F (100°C), Classic



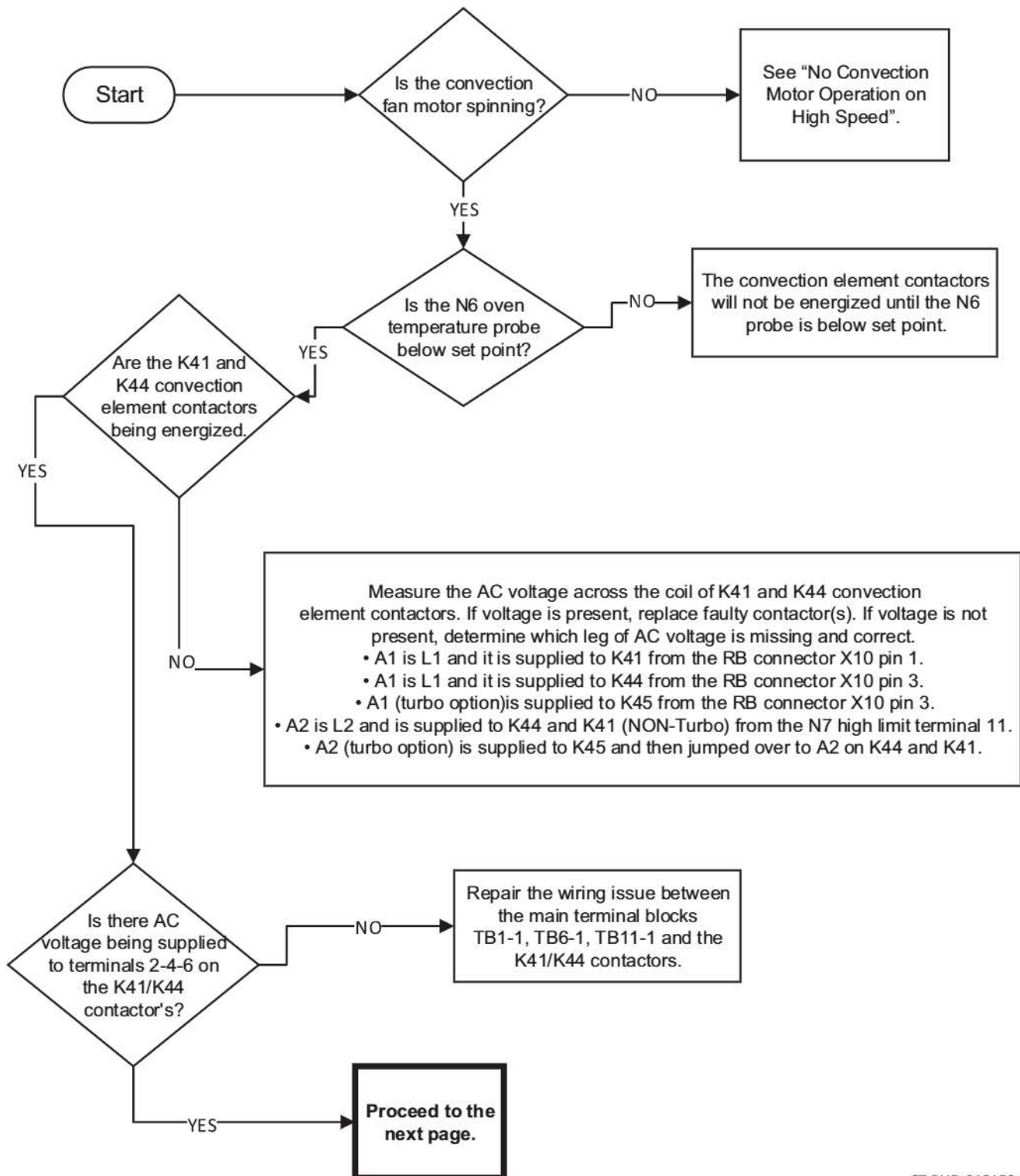
CT-PHD-018162

Continued



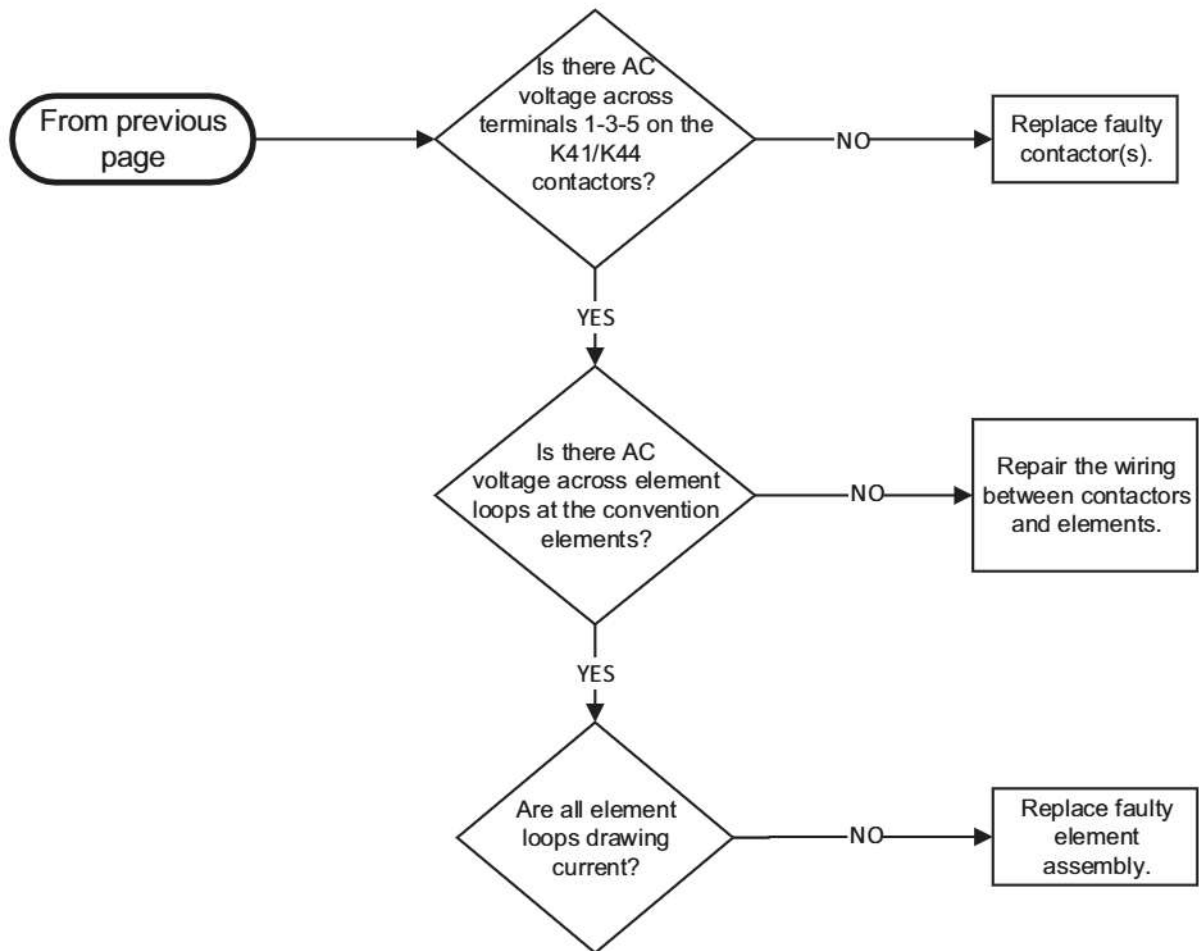
CT-PHD-017810

No Convection Heat (Electric), Classic



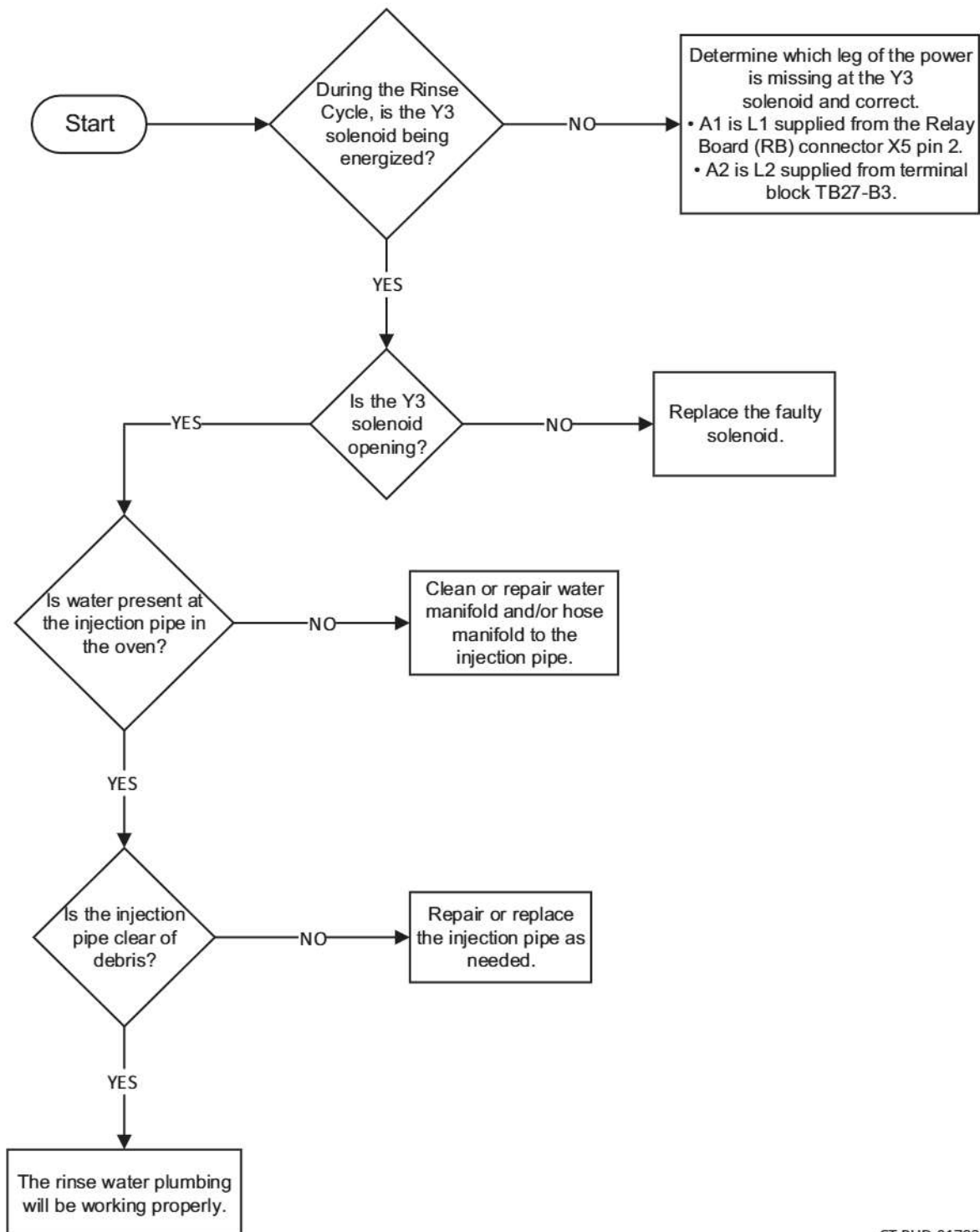
CT-PHD-018159

Continued



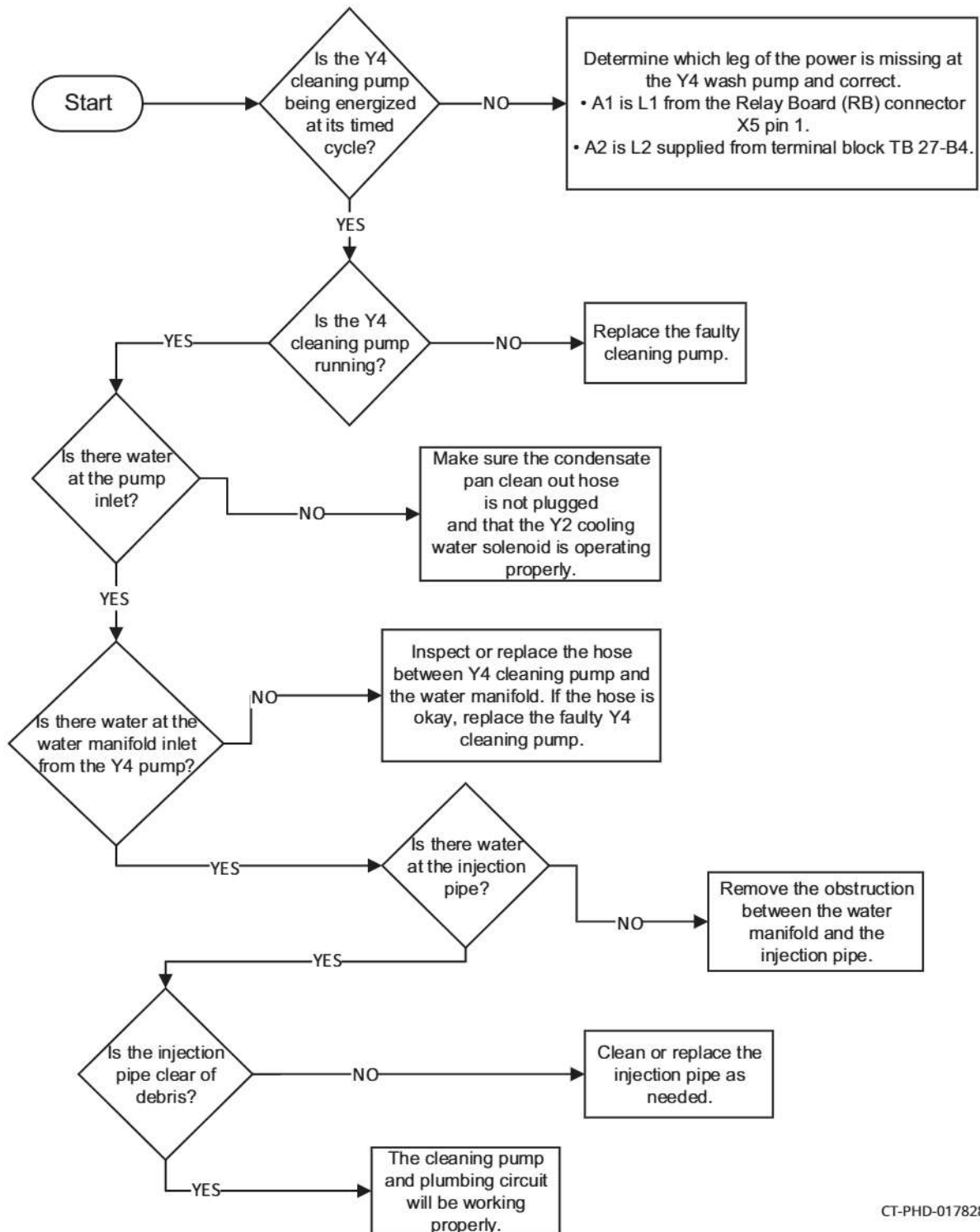
CT-PHD-017816

No Rinse Water During the Cleaning Cycle



CT-PHD-017825

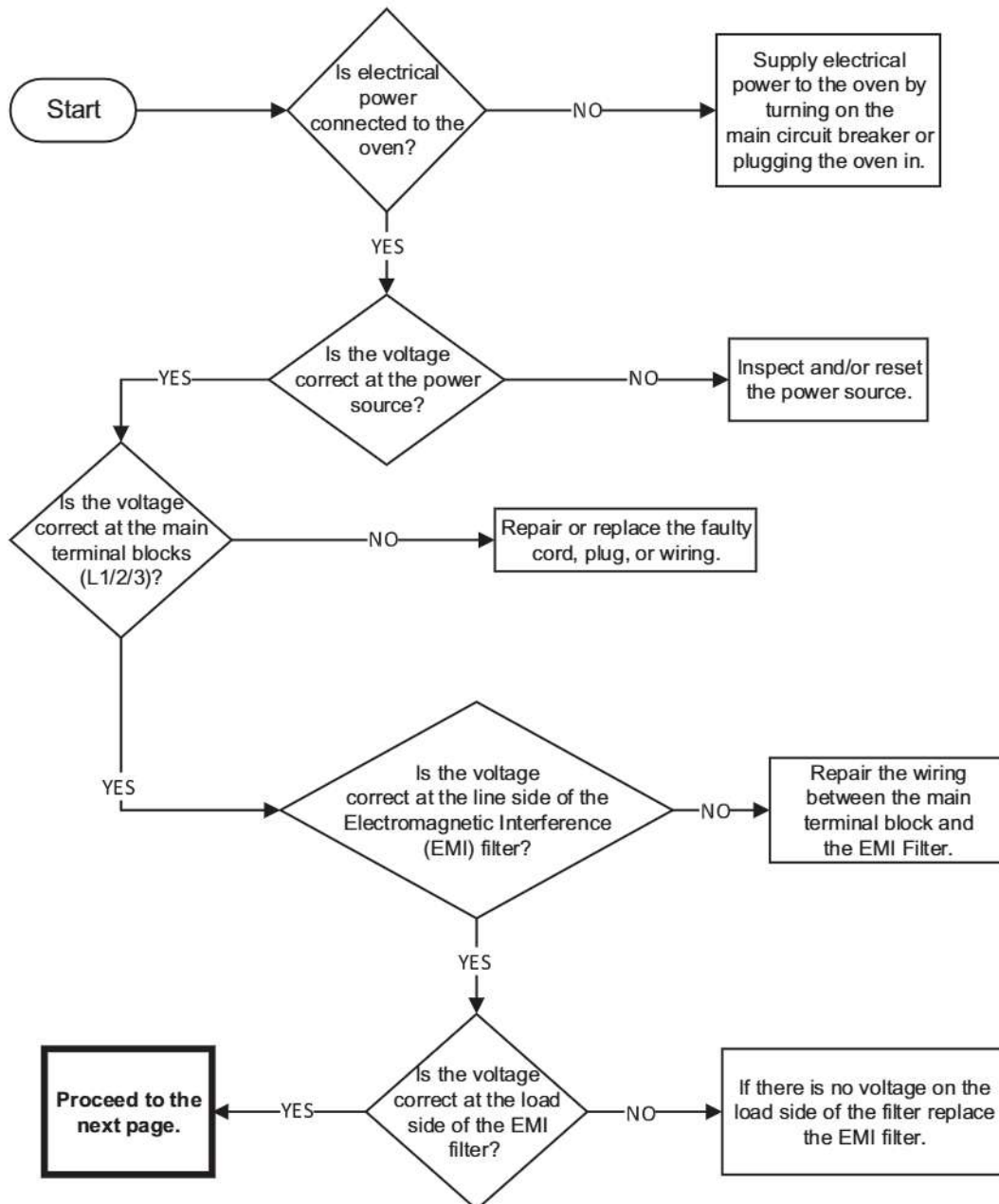
Cleaning System is Not Operating



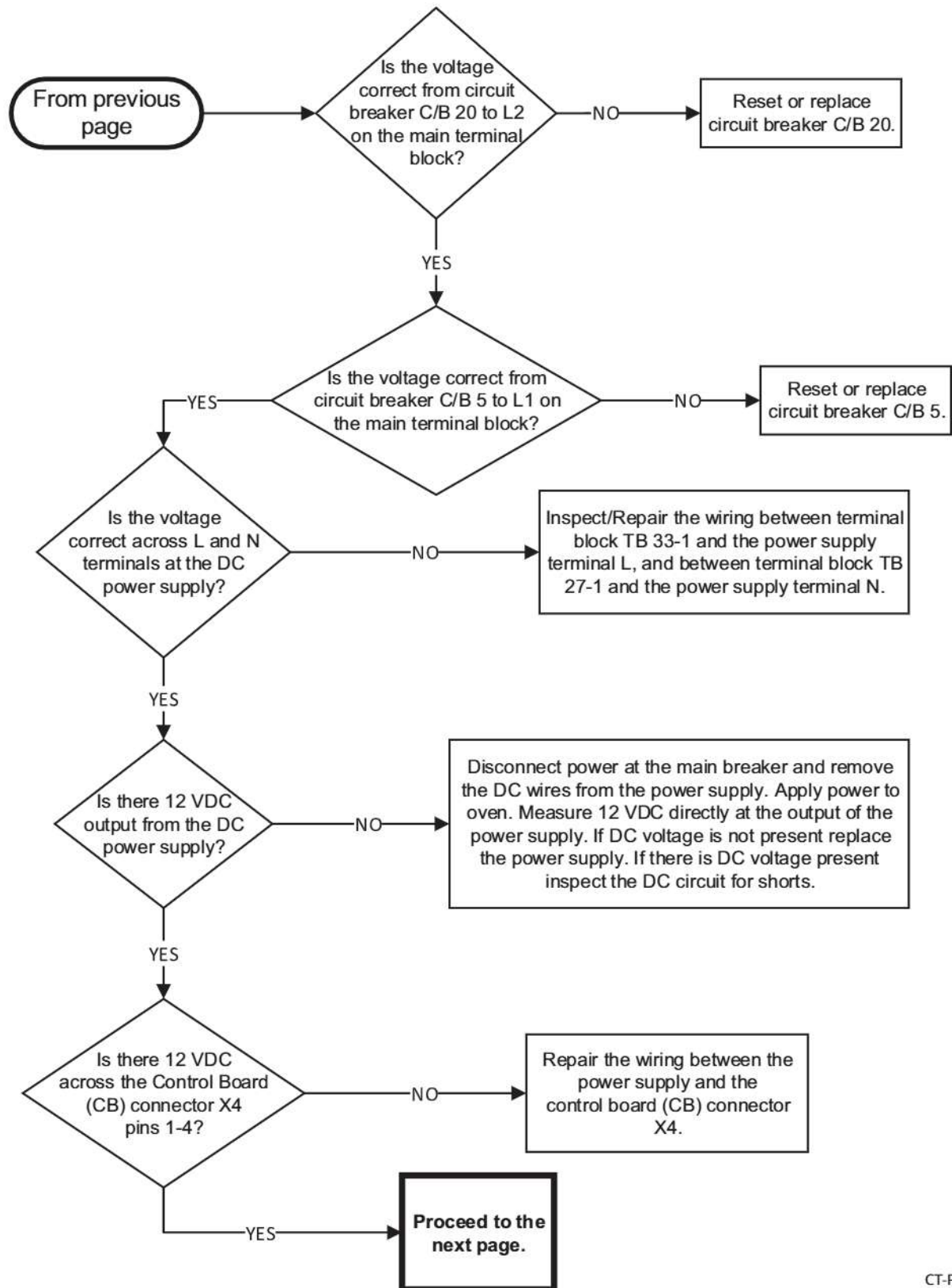
CT-PHD-017828

Oven Dead - No Display or Operation

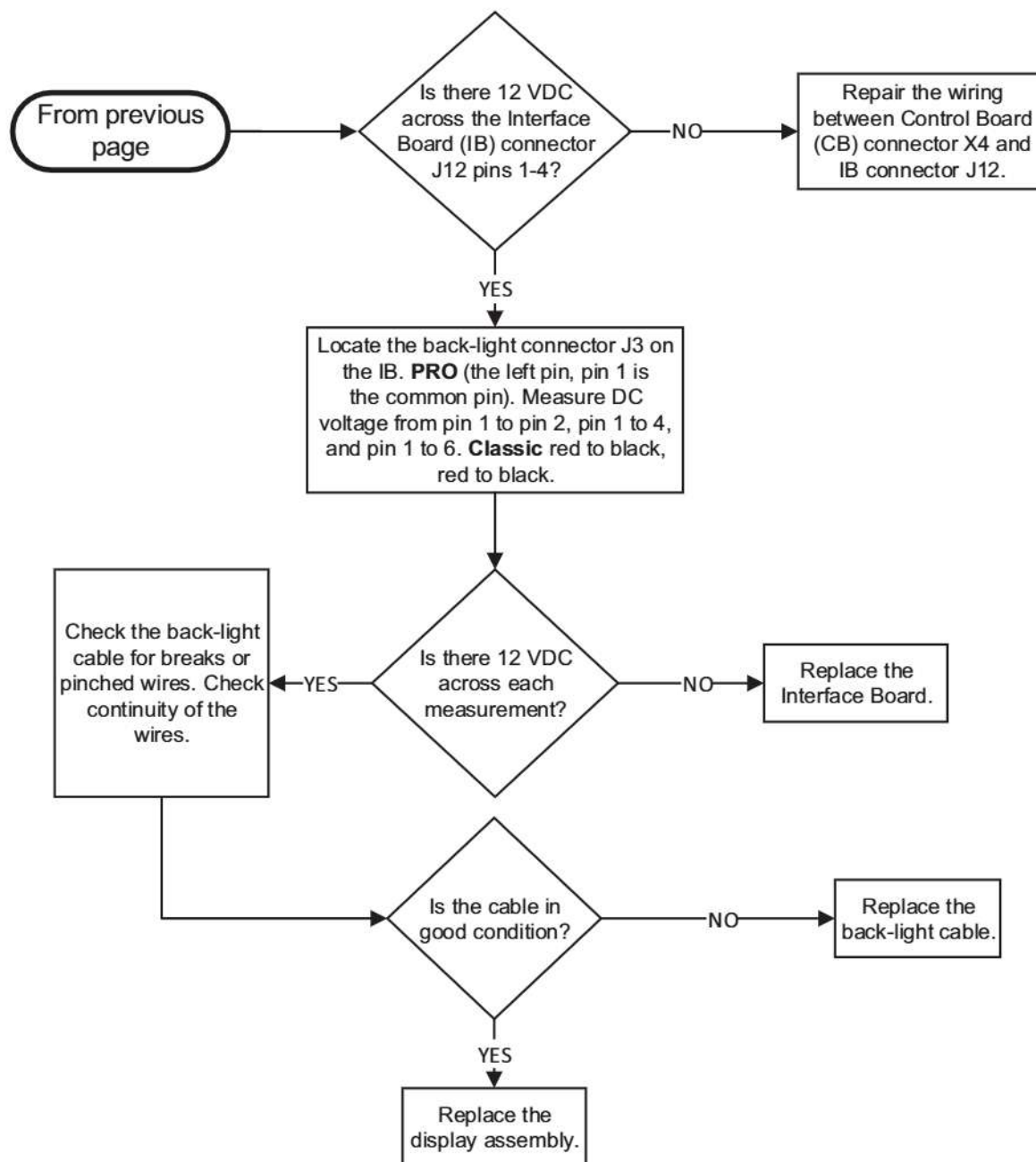
NOTE: This troubleshooting tree is based on a 7-20 208/240V 3ph oven.



CT-PHD-017837



CT-PHD-017840



CT-PHD-017843

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For specific terminal locations, refer to Parts Finder using the oven serial number for identification. Look under the ELEC CHASSIS part assembly. Click on the image of Electrical Chassis with Terminal Blocks. Then click on “Click here for terminal details.”



For the most current schematics, use the QR code or click link.

Prodigi 77790, 6.10,10.10, 7.20, 380-415V 3Ph	
Prodigi 77791, 6.10, 208-240V 1Ph	
Prodigi 77792, 6.10,10.10, 7.20, 208-240V 3Ph	
Prodigi 77794, 6.10,10.10, 7.20, 440-480V 3Ph	
Prodigi 77796, 10.20, 208-240V 3Ph	
Prodigi 77797, 10.20, 380-415V 3Ph	
Prodigi 77798, 10.20, 440-480V 3Ph	

Prodigi 77799, 20.10, 208-240V 3Ph	
Prodigi 77800, 20.10, 380-415V 3Ph	
Prodigi 77801, 20.10, 440-480V 3Ph	
Prodigi 77802, 20.20, 208-240V 3Ph	
Prodigi 77803, 20.20, 380-415V 3Ph	
Prodigi 77804, 20.20, 440-480V 3Ph	
Prodigi 77807, 6.10,10.10, 7.20, 10.20 120V GAS	
Prodigi 77808, 6.10,10.10, 7.20, 10.20 208-240V GAS	
Prodigi 77809, 20.10, 20.20 120V GAS	
Prodigi 77812, 20.10, 20.20 208-240V GAS	

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