



Cook & Hold Ovens Smoker Ovens

Deluxe Control

300-TH 750-SK 500-TH 1000-SK 750-TH 1200-SK 1000-TH 1750-SK 1200-TH

1750-TH



MN-46712-EN

REV.01 11/20

EN





Manufacturer's Information

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Original instructions The content in this manual is written in American English.

Alto-Shaam 24/7 Emergency Repair Service

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.



FOREWORD

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SAFETY

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:

- Connect the appliance to a properly grounded outlet. Do not use the appliance if it is not properly grounded. Consult an electrician if there is any doubt that the outlet used is properly grounded.
- Keep the cord away from hot surfaces.
- Do not attempt to service the appliance or its cord and plug.
- Do not operate the appliance if it has a damaged cord or plug.
- Do not immerse the cord or plug in water.
- Do not let the cord hang over the edge of a table or counter.
- Do not use an extension cord.

Usage precautions

Obey these usage precautions when using the appliance:

- Only use this appliance for its intended use of heating or cooking.
- 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 appliance door very slowly. Escaping hot vapors or steam can cause serious 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.
- Do not cover or block any of the openings of this appliance.
- Do not cover shelves or any other part of this appliance with metal foil.
- 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 appliance when the oven is disconnected from the power source.
- 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 or water jet 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.

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Operator training

All personnel using the appliance must have proper 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.
- Keep this manual and all supplied instructions, diagrams, schematics, parts lists, notices, and labels with the appliance if the appliance is sold or moved to another location.
- Contact Alto-Shaam for additional training if needed.

Operator qualifications

Only trained personnel with the following operator qualifications are permitted to use the appliance:

- Have received proper instruction on how to use the appliance.
- Have demonstrated their ability 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.
- 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 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.



SAFETY

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.

Service Technician Training

Only trained personnel are permitted to service or repair the appliance. Service technicians must be knowledgeable in current codes and standards as stated by the appropriate agencies, such as:

- The National Fire Protection Association (NFPA)
- National Electrical Code (NEC)
- The Service Technician's employer



OPERATION

How to Turn On and Turn Off the Oven

Before you begin

The oven must be connected to electric power.

Turning on the oven

To turn on the oven, do the following.

1. Set the power switch ① to the ON position (300-TH only). Touch and hold the ON/OFF button ② for two (2) seconds. LED Only The oven is now on.

Turning off the oven

2. To turn off the oven, do the following.

Touch and hold the ON/OFF button for 5 seconds. The Shut Down Options screen displays.



Choose the desired shut-down option. On 300-TH ovens, set the power

switch to the OFF position.

Result The oven is now off.



3.

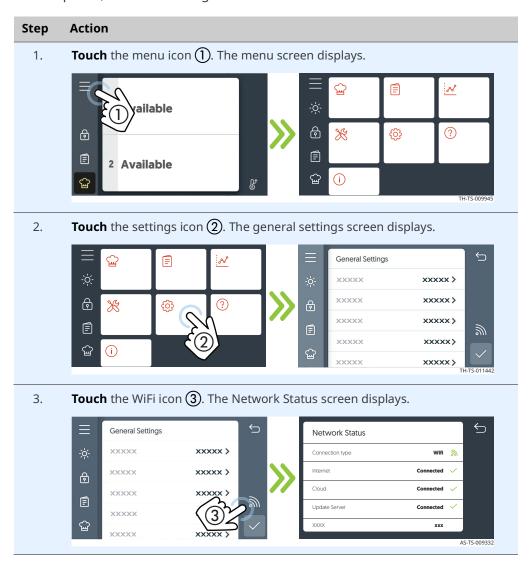
How to View and Set up WiFi Connection

Before you begin

- The facility must have WiFi.
- Do not connect to a guest network.

Procedure

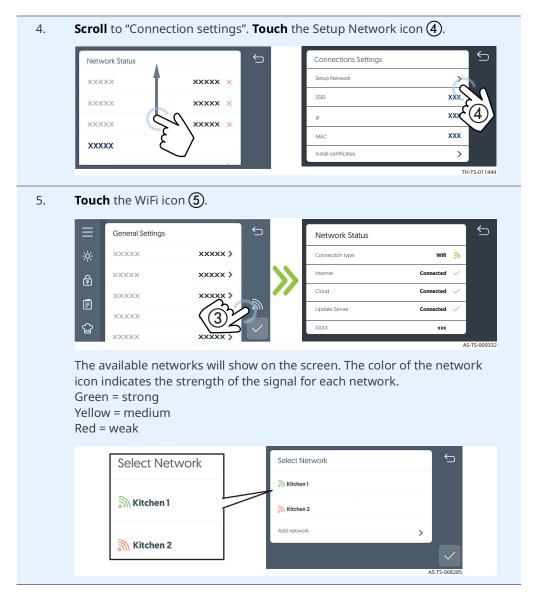
To set up WiFi, do the following.



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6. If the network is not displayed, **touch** the "Add network" icon (a).

Select Network

Kitchen 1

Kitchen 2

Add network

Enter the SSID using the keypad. Then, **touch** the arrow key.

Enter the security type. Then, **touch** the check mark.

Enter the password using the keypad. Then, **touch** the arrow key.

Touch the check mark when finished.

Result

The procedure is now complete.



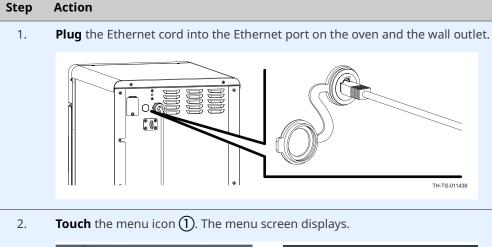
How to Set up an Ethernet Connection

Before you begin

- The facility must have an Ethernet port.
- You will need an Ethernet cable.

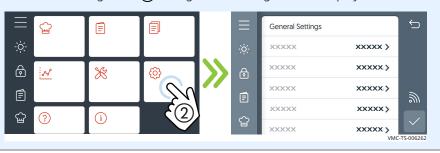
Procedure

To set up an Ethernet connection, do the following.





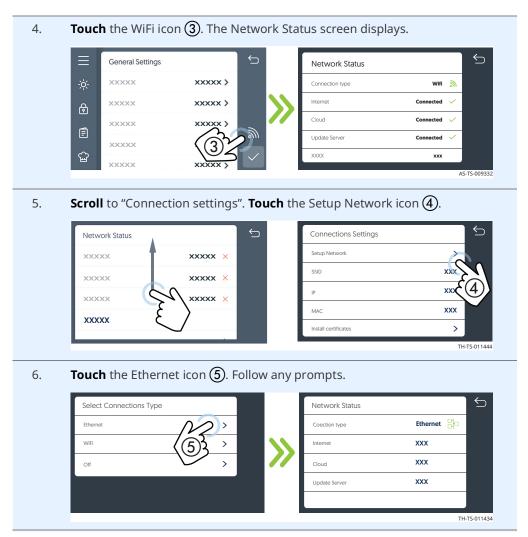
3. **Touch** the settings icon ②. The general settings screen displays.



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Result

The Ethernet connection is now set up.

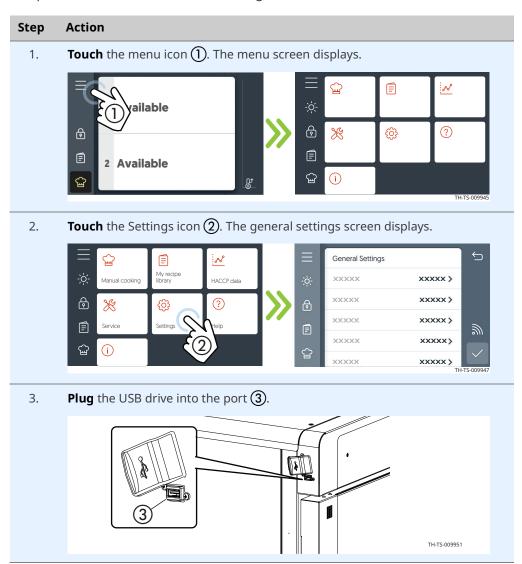
How to Update Software with a USB Drive

Before you begin

- 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.



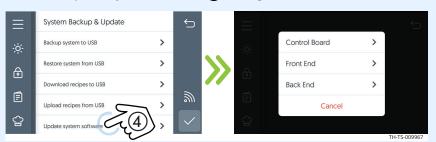
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4. **Scroll** to System Backup & Update.

Touch the Update system software (4) setting.



Touch Control Board (CB) to update the control board. The oven loads the selected software. The oven verifies the file and then updates the CB.

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

Touch Front End to update the user interface software. The oven loads the selected software.

Touch Back End to update the supporting software between the control board (CB) and interface board (IB). The oven loads the selected software.

5. **Touch** the green check mark when the update is complete to restart the oven.



6. **Remove** the USB drive.

Result

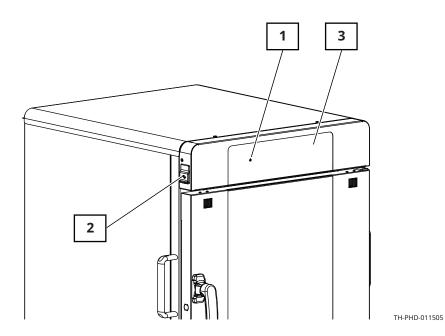
The software has now been updated.

COMPONENTS

Component Identification

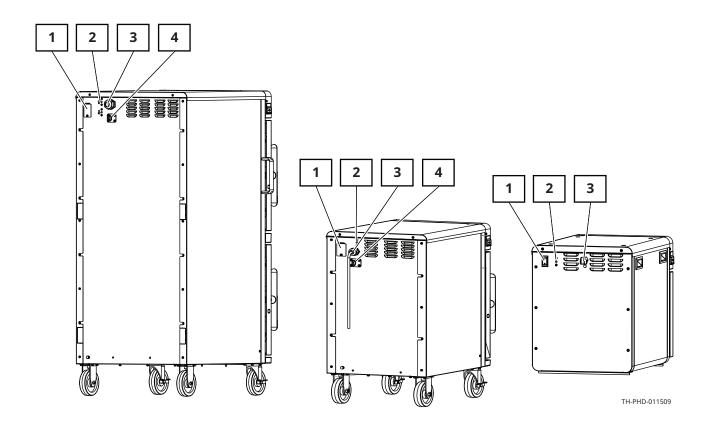


Front Panel Identification



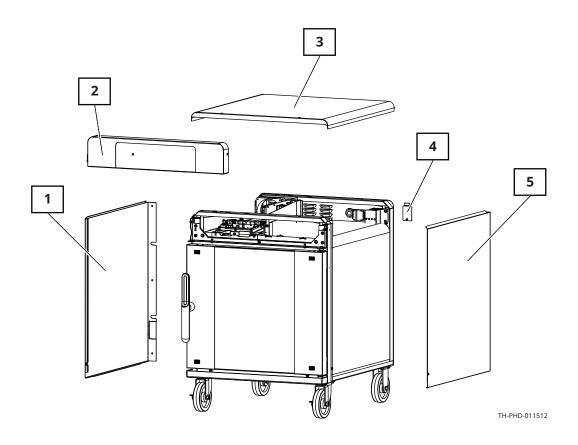
| Ref. | Description | | |
|------|-----------------------|--|--|
| 1 | ON/OFF button | | |
| 2 | USB port | | |
| 3 | Control panel display | | |

Back Panel Identification



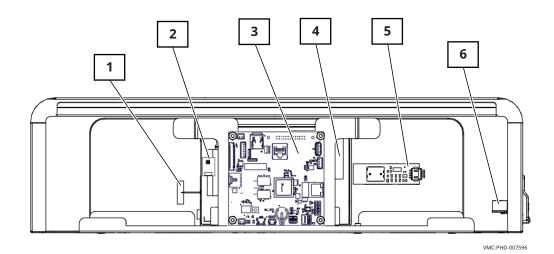
| Ref. | Description | | |
|---------------------|-----------------------------|--|--|
| 1 Circuit breakers | | | |
| | ON/OFF switch (TH-300 only) | | |
| 2 | High limit(s) | | |
| 3 Electrical supply | | | |
| 4 | Tether ring | | |

Component Access Panels Identification



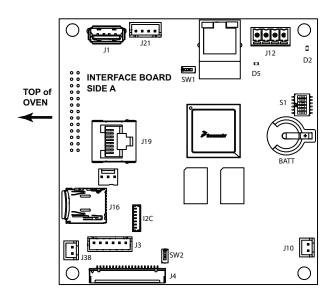
| Ref. Description | | Provides access to | | |
|------------------|------------------------------|--|--|--|
| 1 | Left side panel | Door switch (right hand hinge door) Heating element terminal block (500-TH) | | |
| 2 | Control panel | Interface board | | |
| 3 | Top service panel | Electrical components | | |
| 4 | Circuit breaker access panel | Circuit breakers (500-TH and larger) | | |
| 5 | Right side panel | Door switch (left hand hinge door) Heating element terminal blocks (all except the 300-TH) | | |

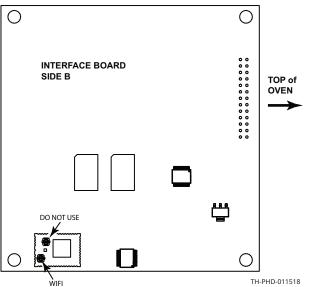
Control Panel



| Ref. | Description | | | | |
|---|---|--|--|--|--|
| 1 | WIFI antenna (Not serviceable) | | | | |
| 2 Capacitive touch controller board (Not serviceable) | | | | | |
| 3 Interface board | | | | | |
| 4 | Liquid Crystal Display (LCD) (Not serviceable) | | | | |
| 5 ON/OFF board (Not serviceable) | | | | | |
| 6 | USB port | | | | |

Interface Board

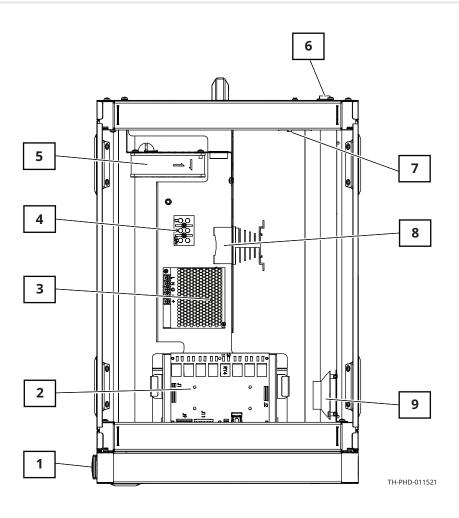




| Ref. | Description | | | |
|----------------------|---|--|--|--|
| BATT | Clock battery | | | |
| D2 5V IN | | | | |
| D5 12V IN | | | | |
| I2C | Capacitive touch cable | | | |
| J1 | USB connector | | | |
| J3 | Display back light | | | |
| J4 LCD interface | | | | |
| J10 | Speaker | | | |
| J12 | 12 VDC power | | | |
| J16 | 8 GB micro SD card | | | |
| J21 | ON/OFF board | | | |
| J38 | Speaker | | | |
| S1 | DIP switches (#4 on) | | | |
| SW1 DIP switch (off) | | | | |
| SW2 | DIP switch (off) | | | |
| WIFI | WIFI antenna (conductor closest to the edge of the board) | | | |

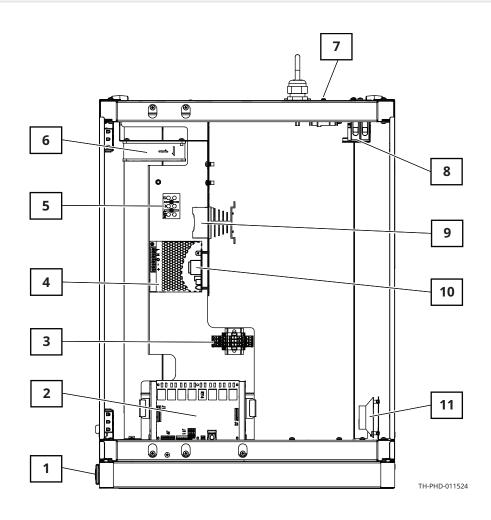


300-TH—Electrical Component Identification



| Ref. | Description | Ref. | Description |
|------|---------------------------------|------|-------------------------|
| 1 | USB port | 6 | ON/OFF switch |
| 2 | Control board | 7 | High limit switch |
| 3 | 12VDC power supply | 8 | Solid State Relay (SSR) |
| 4 | Terminal blocks (L1, GND, L2/N) | 9 | Speaker |
| 5 | Cooling fan | _ | _ |

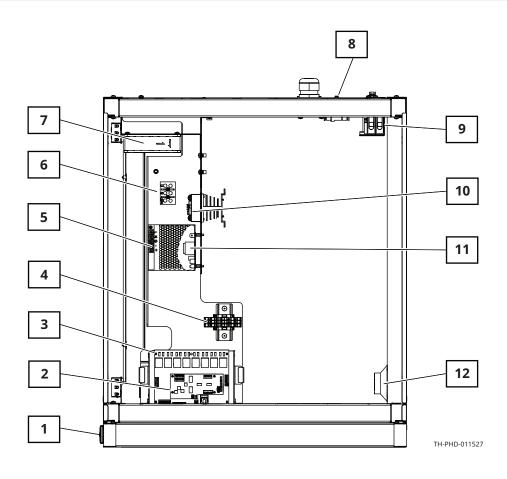
500-TH, 750-TH, 1000-TH—Electrical Component Identification



| Ref. | Description | Ref. | Description |
|------|---------------------------------|------|-------------------------|
| 1 | USB port | 7 | High limit switch |
| 2 | Control board | 8 | Circuit breakers |
| 3 | Terminal blocks | 9 | Solid State Relay (SSR) |
| 4 | 12VDC power supply | 10 | Voltage monitor |
| 5 | Terminal blocks (L1, GND, L2/N) | 11 | Speaker |
| 6 | Cooling fan | _ | _ |

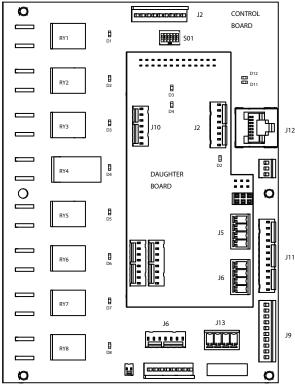


1250-TH, 1750-TH—Electrical Component Identification



| Ref. | Description | Ref. | Description |
|------|---------------------------------|-------------------------------------|-------------------------|
| 1 | USB port | 7 | Cooling fan |
| 2 | Daughter board | aughter board 8 High limit s | |
| 3 | Control board | 9 | Circuit breakers |
| 4 | Terminal blocks | 10 | Solid State Relay (SSR) |
| 5 | 12VDC power supply | 11 | Voltage monitor |
| 6 | Terminal blocks (L1, GND, L2/N) | 12 | Speaker |

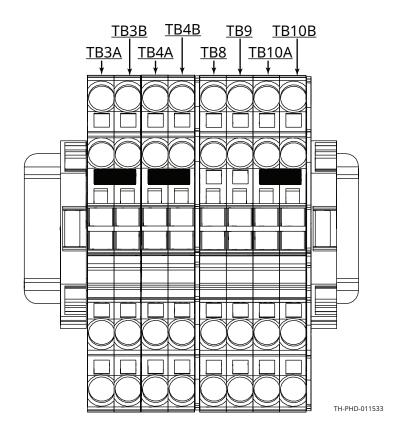
Control Board (CB) and Daughter Board (DB)



| TH-PHD-01 | 1530 |
|-----------|------|

| Ref. | Description (CB) | Ref. | Description (CB) | Ref. | Description (DB) |
|--------|----------------------|------|--|------|---|
| RY1-D1 | Smoker - bottom oven | D12 | LED | D2 | 5 VDC |
| RY2-D2 | Smoker - top oven | J1 | Voltage monitor | J2 | Cooking probes Bottom cavity temperature sensor |
| RY3-D3 | Not used | J2 | 12VDC power supply | J5 | Door handle lights |
| RY4-D4 | Fan | J4 | Cooking probes Top cavity temperature sensor | J6 | Door handle lights |
| RY5-D5 | Lock - bottom oven | J6 | Cooking probes | J10 | Cooking probes |
| RY6-D6 | Lock - top oven | J9 | Door switch(es) High limit(s) | _ | _ |
| RY7-D7 | Not used | J10 | Cavity lights | _ | _ |
| RY8-D8 | Not used | J12 | Ethernet - IB | _ | _ |
| D11 | LED | S01 | DIP switches - ON 1=Spare 2=Dual cavity 3=208-240V 4=Smoker 5=Latch 6=Demo | _ | _ |

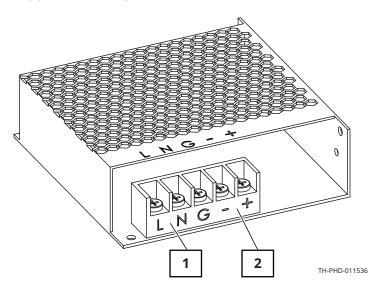
Terminal Blocks



| Ref. | Description | Model |
|-------|----------------------------|-----------------------------------|
| ТВЗА | L1 | 750-TH, 1000-TH, 1200-TH, 1750-TH |
| ТВЗВ | Smoker option | 1200-TH, 1750-TH |
| TB4A | L2/N | 750-TH, 1000-TH, 1200-TH, 1750-TH |
| TB4B | Smoker option | 1200-TH, 1750-TH |
| TB8 | DC - Lights, top cavity | 1200-TH |
| ТВ9 | DC - Lights, bottom cavity | 1200-TH |
| TB10A | DC + Lights | 1000-TH, 1200-TH, 1750-TH |
| TB10B | DC + Lights | 1200-TH |

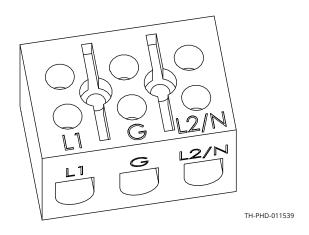
12VDC Power Supply



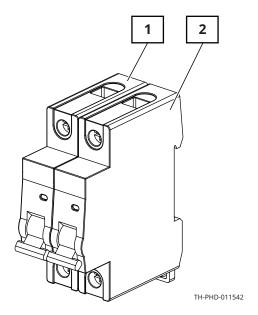


| Ref. | Description | |
|------|----------------------|--|
| 1 | 120–240VAC terminals | |
| 2 | 12VDC terminals | |

Terminal Blocks (L1, GND, L2/N)



Circuit Breakers

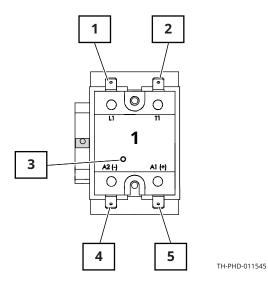


| Ref. | Description |
|------|----------------------|
| 1 | Circuit breaker L1 |
| 2 | Circuit breaker L2/N |

Solid State Relay (SSR)

Single cavity

Heater element control.



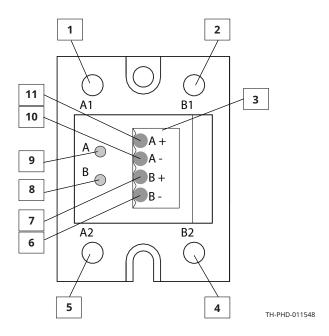
| Ref. | Description |
|------|---|
| 1 | L1 terminal, AC line voltage into the SSR |
| 2 | T1 terminal, AC load voltage to the heating element |
| 3 | Call for heat indicator light |
| 4 | A2 (-) terminal, DC control voltage from the control board to the SSR |
| 5 | A2 (+) terminal, DC control voltage from the control board to the SSR |

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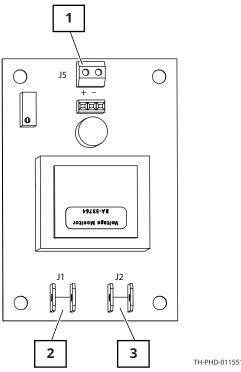
Continued from previous page

Dual cavity



| Ref. | Description |
|------|-----------------------------------|
| 1 | Terminal A1 - Circuit A |
| 2 | Terminal B1 - Circuit B |
| 3 | Connector |
| 4 | Terminal B2 - Circuit B |
| 5 | Terminal A2 - Circuit A |
| 6 | Circuit B DC- from control board |
| 7 | Circuit B DC+ from control board |
| 8 | Circuit B call for heat indicator |
| 9 | Circuit A call for heat indicator |
| 10 | Circuit A DC- from control board |
| 11 | Circuit A DC+ from control board |

Voltage Monitor (208–240V Ovens Only)



| TH | -PF | ID- | 01 | 15 | 51 |
|----|-----|-----|----|----|----|
| | | | | | |
| | | | | | |

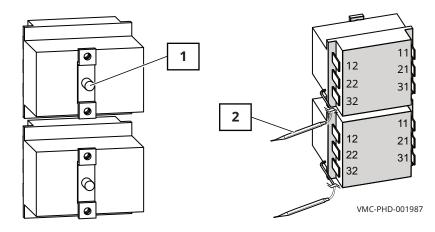
| Input | DC Range |
|---------|-----------|
| 200-209 | 4.58-5.00 |
| 210-219 | 4.17-4.53 |
| 220-229 | 3.82-4.13 |
| 230-239 | 3.51-3.78 |
| 240-249 | 3.22-3.48 |
| 250+ | 3.20 |

| Ref. | Description |
|------|--------------|
| 1 | J5 DC output |
| 2 | J1 AC input |
| 3 | J2 AC input |

High Limit Switches

Resettable

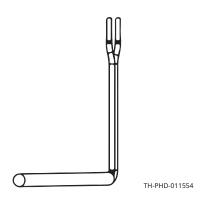
Contacts open at 300°F (149°C)



| Ref. | Description |
|------|------------------|
| 1 | Reset button |
| 2 | Temperature bulb |

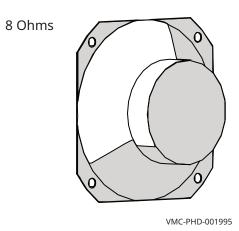
Chamber Air Temperature Probe

100 Ohm at 0°C



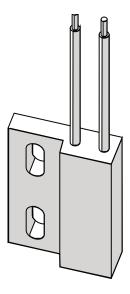


Speaker



Door Switch

- **Door closed** 0 Ohms; 0 VDC across terminals 1 and 2 (top oven) or 5 and 6 (bottom oven) of connector J9 on the control board.
- **Door open** Infinite Ohms; 8 VDC across terminals 1 and 2 (top oven) or 5 and 6 (bottom oven) of connector J9 on the control board.



VMC-PHD-001999

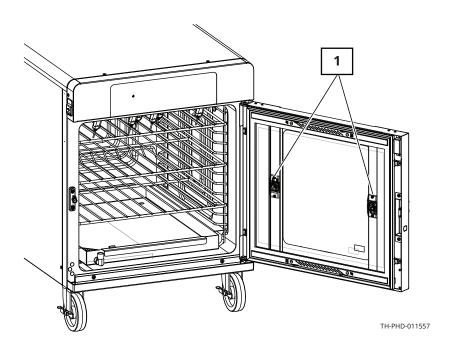
Fan

- Impedance protected
- 240 Volt
- 581 Ohm



VMC-PHD-002011

Internal Components Identification

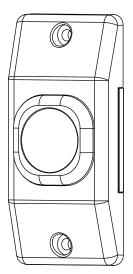


| Ref. | Description |
|------|---------------|
| 1 | Cavity lights |

Internal Components

Cavity Light

12 VDC



VMC-PHD-007587



COMPONENTS

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MAINTENANCE

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.

- See topic *How to Clean the Oven*, and follow the Daily Cleaning procedure.
- **Check** the screen for cracking or peeling. Contact Technical Service if needed.

Weekly

For weekly maintenance, do the following.

- See topic *How to Clean the Oven*, and follow the Weekly Cleaning procedure.
- **Check** the oven for any damage or loose parts.

Monthly

For monthly maintenance, do the following.

- Inspect door gasket.
- **Inspect** door window gasket for proper seal.
- **Inspect** cavity door vent slides for proper operation.
- **Inspect** side racks, shelves, and shelf supports for damage.
- **Calibrate** the removable product probe (if applicable)
- **Clean** the cooling fan intake area and exhaust vents.
- **Inspect** door handle screws and tighten if necessary.
- **Inspect** the smoke element (if applicable). If any deformation, cracks or breaks are seen, remove the oven from service and contact a factory authorized service technician.

Yearly

For yearly maintenance, do the following.



NOTE: Must be performed by a qualified professional.

- Check and tighten all wire connections.
- **Inspect** the smoke element and smoke element wiring.
- **Measure** the current draw of each cavity. Operate with smoker on if applicable.
- **Test** the heating elements for electrical short to ground.
- **Inspect** the condition of the cord and plug.

Continued on next page



MAINTENANCE

Continued from previous page

- **Check and tighten** the cord connection inside of the appliance control area.
- **Inspect** the control cooling fans (if applicable).
- **Measure** the site voltage.
- **Inspect and adjust** voltage monitor board if needed.
- **Inspect** and test the product probe and product probe receptacle.
- **Inspect** and test the control and control functions.
- **Inspect** the cavity for structural integrity.
- **Inspect** the door gaskets for correct shape and seal. Replace/repair as needed.
- **Inspect** the door handle and hinges. Replace/repair as needed.
- **Inspect** the full perimeter bumper.
- **Inspect** the casters.
- **Do** a cavity temperature calibration procedure per manufacturer's recommendations.



How to Clean the Oven

Before you begin



WARNING: Electric shock hazard.

Set the power switch to the OFF position and unplug the oven before cleaning it.



CAUTION: Burn hazard.

Allow the oven, drip pans, and racks to cool before cleaning.



CAUTION: Corrosive materials hazard.

Wear eye protection and hand protection when cleaning.

NOTICE

Using improper cleaning procedures will damage the oven and void the warranty.

Only use spray cleaner when the electric power is completely removed from the oven.

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

Daily cleaning procedure

To clean the oven daily, do the following.

| Step | Action |
|------|--|
| 1. | Make sure the oven is turned off and cool—cavity is less than 140°F (60°C). |
| 2. | Remove any all detachable items such as wire shelves, side racks, drip pan, and drip tray and clean these items separately. |
| 3. | Remove any spills with disposable paper wipes or a damp cloth. |
| 4. | Wipe the outside of the oven and the drip tray holder with a damp cloth. |
| 5. | Wipe the control panel, door vents, door handles and door gaskets with a non-abrasive nylon scrub pad. |
| 6. | If oven has an optional glass door, clean each side of the window pane with an all-purpose glass cleaner. |
| 7. | Wipe probe, cable assembly, and probe prongs with a non-abrasive nylon scrub pad. Wipe probes with disposable alcohol pad or sanitizing solution recommended for food contact surfaces. |
| 8. | Wipe the outside of the oven with a stainless steel cleaner. |

Continued on next page



Continued from previous page

Weekly cleaning procedure

To clean the oven weekly, do the following.

| Step | Action | | | | | |
|------|--|--|--|--|--|--|
| 1. | Set the power switch to the OFF position and unplug the appliance. | | | | | |
| 2. | Wipe the exterior areas of the oven with a non-abrasive nylon scrub pad. | | | | | |
| 3. | Spray the exterior areas of the oven with stainless steel polish. | | | | | |
| | NOTICE Use only non-caustic cleaners. Do not spray directly into the fan openings on the back of the oven. Do not use cleaners that contain sodium hydroxide (lye) or phosphorus. | | | | | |
| 4. | Spray the interior areas of the oven with oven cleaner. Let the cleaner work for 3–5 minutes. | | | | | |
| 5. | Wipe the interior of the oven with a non-abrasive nylon scrub pad. | | | | | |
| 6. | Clean the door gasket with a warm water and detergent solution. | | | | | |
| 7. | If oven has an optional glass door, clean each side of the window pane with an all-purpose glass cleaner. | | | | | |
| 8. | Plug the appliance in and set the power switch to the ON position when complete. | | | | | |
| | | | | | | |

Result

The oven is now clean.

Error Codes

| DELUXE CONTROL | | | | | | |
|----------------|--|---|--|--|--|--|
| Code | Description | Cause | Remedy | | | |
| E-10 | Cavity probe shorted | Short circuit detected on sensor wires. | Sensor connection Sensor Control Board | | | |
| E-30 | Unit under temperature | Cavity temperature remains 25°F (14°C) below target for more than 90 minutes. | Troubleshoot heating element | | | |
| E-31 | Unit over temperature | Cavity temperature is 50°F (28°C) above max allowable cook temperature of 325°F (163°C). | Cooling fan not operating Installation clearance requirements not met | | | |
| E-78 | Under voltage | Supply voltage falls below 200V (error doesn't show on screen). | Correct the supply voltage | | | |
| E-79 | Over voltage | Supply voltage exceeds 250V (error doesn't show on screen). | Correct the supply voltage | | | |
| E-94 | Communication | No signal transfer for more than 5 seconds between the Interface Board and the Control Board. | Connection of Modbus Cable Modbus Cable Control Board Interface Board | | | |
| E-108 | Check fans | Insufficient internal cooling airflow. | Cooling fan filters dirty Cooling fans not operating Installation clearance requirements not met | | | |
| E-109 | High Limit NOTE: Any oven experiencing this error should be investigated by an authorized Alto-Shaam service provider. | Open circuit detected across High Limit Switch | 1.Heat Relay(s) stuck closed 2.Connection between High Limit Switch and Control Board 3.High Limit Switch | | | |



High Limit Alarm

Reset the high limit for the corresponding cavity.

Does the alarm clear?

No

Test the oven to make sure the cavity is not overheating. See Troubleshooting Tree for Overheating scenario if necessary.

Yes

Remove power to the oven. Disconnect the wires on terminals 21 and 22 of the high limit. Measure continuity across the terminals of the high limit. Do you have continuity?

No

Reset the high limit again. If pressing the red reset button does not close the internal switch between terminals 21 and 22, the high limit is faulty. Replace the high limit and retest the oven.

Yes

Reconnect the wires to the high limit at terminals 21 and 22. Disconnect the J9 connector on the control board. Measure continuity between the wires for the corresponding cavity's high limit. Do you have continuity?

No

Inspect wiring from high limit to the control board. Repair any damaged wires and re-install the J9 connector.

Retest.

Yes

Re-install the J9 connector to the control board and cycle power to the oven. Do you still have a high limit alarm?

No

The oven should be operating properly now.

Yes

Check dipswitch 2 on the control board. If the oven is a single cavity unit, dipswitch 2 should be off. If the oven is a double cavity unit, dipswitch 2 should be on.

Are the dipswitch settings correct?

No

Replace the control board.

Yes

Correct the dipswitch setting and cycle power to the oven. Do you still have a high limit alarm?

No

The oven should be operating properly now.

Yes

Replace the control board.



The Display does not Illuminate



WARNING: Electric shock and arc flash hazard. Use caution when measuring line voltage. Wear Personal Protective Equipment (PPE).

| Do you have 12VDC to the interface board? | No | See steps below. |
|---|----|---|
| Yes | | |
| Do you have 1 LED illuminated on the interface board? | No | Replace the interface board. |
| Yes | | |
| Press the power button. Does the second LED illuminate on the interface board? | No | Inspect the wired connection to on/off board. If the button continues not to light up, replace the on/off board. |
| Yes | | |
| Do you have DC voltage out of the backlight connector on the interface board? | No | Press and hold the power button until only 1 LED is illuminated on the interface board. Then press and release the power button so that the second LED comes back on. Recheck the backlight voltage. If no voltage, replace the interface board. |
| Yes | | |
| Disconnect the I2C cable from the interface board to the LCD display, inspect and re-install the connector. Do you get a display now? | No | Screen working again. |
| Yes | | |
| Replace the backlight cable. Do you get a display now? | No | Screen working again. |
| Yes | | |
| Replace the I2C cable. Do you get a display now? | No | Screen working again. |
| Yes | | |
| Replace the interface board. | No | Screen working again. |
| Yes | | |
| Replace the display. | No | Should be working now. |
| Yes | | |



TROUBLESHOOTING

If you are not getting 12VDC to the interface Inspect/repair wiring and connections board, measure the DC voltage output of the No between power supply and the control board. power supply. Do you get 12VDC? Yes Measure the AC voltage coming into the power No Replace the power supply and retest supply. Do you read line voltage? Yes Measure the AC voltage between the output of the Inspect/repair wiring and connections circuit breakers (or power switch for 300-TH). Do between circuit breakers/power switch and No you read line voltage? the power supply. Retest. Yes Reset the circuit breakers. If a circuit breaker trips right away, you will need to diagnose for the shorted component. If a circuit breaker Measure the AC voltage between the input of the circuit breakers (or power switch for 300-TH). Do No does not close after resetting, replace it. If the you read line voltage? power switch does not pass voltage when in the ON position, replace the power switch. Yes Measure the incoming AC voltage to the oven at Inspect/repair wiring and connections the power terminal block. Do you measure line between incoming power terminal block and No circuit breakers/power switch. Retest. voltage? Yes Do you have AC voltage at the outlet the unit is Check continuity through power cord and No plugged into (if applicable)? replace as needed. Yes Check the facility breaker. Reset as needed.



The Oven does not Heat



WARNING: Electric shock and arc flash hazard. Use caution when measuring line voltage. Wear Personal Protective Equipment (PPE).

Test Cavity Sensor: 100±2Ω at 32°F Is the cavity sensor temperature below the cavity set Outside Tolerance: Replace Sensor No temperature? Within Tolerance: Re-install connection Yes On the control board, measure 12VDC between [11 pins 1 and 2 (upper / single cavity) or J11 pins 3 and 4 Replace the control board. No (lower cavity)? Yes Inspect the wiring between the coil Is there 12VDC at the coil of the SSR A (+) to A (-) for of SSR and connector J11 on control No upper/single cavity or B (+) to B (-) for lower cavity? board. Inspect and repair connections and wiring as needed. Yes Inspect the wiring between A1/B1 Is there L1 voltage at A1 (upper/single cavity SSR) or and the circuit breaker/on-off power B1 (lower cavity SSR)? Measure in reference to a switch (300-TH). Inspect and repair No known N/L2 the connections and wiring as needed. Yes Is the SSR closing? No Replace the SSR. Yes Inspect the wiring between A2 or B2 Is there L1 voltage at terminal 11 of the high limit for terminal of the SSR to the high limit. upper/single cavity or terminal 31? Measure in No Inspect and repair the connections reference to a known N/L2 and wiring as needed. Yes Inspect and repair the connections Is there line voltage between one side of the heat No cable to the other? and wiring as needed. Yes Remove power to unit and check the resistance of the heat cables. With the heat cables isolated and Replace heat cable kit for the No

> reading 42Ω? Yes

jumpers removed, is each individual cable wrap

If the heat cables have resistance and are receiving line voltage from one side to the other, they should be drawing a current and heating.



corresponding cavity.

The Product Probe does not Work

Check the condition of the product probe and product probe wiring. Is there any damage, kinks, or cuts to the wiring, damage to the probe sensing tip, or damage to the female connecting port of the probe?

No

Utilize an undamaged probe and go to the next step.

Ves

Check the condition of the product probe receptacle and clean the prongs. Re-attach the probe. Does the probe read temperature now?

No

Dirty receptacle.

Yes

Measure the resistance of the product probe with the probe inserted in a cup of ice water (approximately 32°F). Does the probe read $100\Omega \pm 2\Omega$?

No

Faulty product probe. Discard and utilize a new product probe. Retest. If probe has the correct resistance, but the probe temperature is still not coming up, continue with next step.

Yes

With product probe in a cup of ice water and attached to the probe receptacle, measure the resistance of the wires coming from the probe receptacle to the control board at the J4/J6 connectors. Is the resistance still $100\Omega \pm 2\Omega$?

No

Remake wired connection to the plug on the control board. If resistance still does not fall within the $100\Omega \pm 2\Omega$ tolerance, replace the probe receptacle and retest.

Yes

Is the oven configured to look for the correct number of probe receptacles?

No

Correct the probe receptacle configuration in the oven set-up menu and retest. If no product probe temperature shown, continue to next step.

Yes

If the oven has more than 1 receptacle, swap wires at the control board from a product probe receptacle that is working (receptacle X) with the product probe receptacle that is not working (receptacle Y). Does receptacle Y continue to not read product probe temperature correctly or is receptacle X now reading incorrectly?

No

Control board faulty. Replace and retest.

Yes

Restore the wiring to original state and retest. Is receptacle Y reading correctly now?

No

Faulty wiring connection.

Yes

Replace product probe receptacle and retest.



The Smoke Function does not Operate



WARNING: Electric shock and arc flash hazard. Use caution when measuring line voltage. Wear Personal Protective Equipment (PPE).

Check dipswitch settings on the control board. Dipswitch 4 needs to in the ON position. Cycle power to the oven after setting dipswitch. If the Is the smoke icon available to be selected on cook No screen? icon is now able to be selected, but the oven does not smoke, continue with the troubleshooting tree. Yes While the smoke element is activated, measure the Smoke element should be making heat. current draw of the smoke element at RY2-1. Do you No read any current draw? Yes Disconnect smoker element wires and measure the resistance of the smoke element. Does the element No Replace smoke element. read OL? Yes While the smoke element is activated, check the AC voltage supplied to the smoke element. Do you have No If still no LED, replace the control board. line voltage? Yes Measure the AC Voltage supplied to the smoke relay If you have L1 coming into the relay, but nothing out when the relay is activated (LED illuminated), on the control board in reference to a known neutral No or L2. Do you have line voltage coming into the smoke the relay is faulty. Replace the control board. relay on the control board? Yes Inspect and repair the wired connections. Measure the AC Voltage between TB3 and TB4. Do No Measure the incoming voltage to the smoke you have line voltage? relay. Yes Measure the AC Voltage between TB1 L1 and TB1 L2/ Inspect and repair the wired connections. No N. Do you have line voltage? Measure the incoming voltage to TB3 and TB4. Yes Reset circuit breakers and retest incoming Check circuit breakers. Are either tripped? No voltage to TB3 and TB4. Yes If you have line voltage on the incoming side of Measure the AC voltage between both circuit the circuit breaker but not on the outgoing, No breakers. Do you have line voltage? replace the circuit breaker.



TROUBLESHOOTING

Measure the incoming voltage at the L1 and L2/N terminal block. Do you have line voltage?

No

No power coming to the oven. Recheck facility breaker to the oven and power cord.

Yes

Inspect and repair wired connections. Measure voltage at the circuit breakers.



The Screen is not Responsive/Incorrect Response to the Selected Icon

Is the touch glass damaged? (cracked, scratched, cut, Replace the touch screen/display panel No etc). assembly. Yes Inspect the touch controller board on the back of the Replace the touch screen/display panel No display. Is the connection or board damaged? assembly. Yes Inspect the I2C cable from the touch screen to the interface board and check for continuity. Is the cable No Replace the I2C cable. damaged (kinked, ripped, cut, etc) or do any of the wires not have continuity? Yes Re-install the I2C Cable connection at the interface board and at the touch controller board on the No Bad cable connection. display. Does the screen respond now? Yes Replace the interface board. Does the screen respond Bad interface board. No now? Yes Replace the touch screen/display panel assembly. Screen should now respond.



The Oven Overheats



WARNING: Electric shock and arc flash hazard. Use caution when measuring line voltage. Wear Personal Protective Equipment (PPE).

Measure the internal oven temperature with an independent thermometer. Is this measured temperature higher than the registered temperature on the display?



Measure the ohm value of the cavity sensor: $100\pm2\Omega$ at 32°F Outside of the tolerance: Replace sensor Within the tolerance: Reconnect the sensor

Yes

Is the registered temperature at or above the set temperature?



Allow the oven to continue heating. Measure and monitor the current draw of the heat cables to see if the SSR opens when the set temperature is reached.

Yes

Measuring current draw to the heat cables, does the current draw drop out when the unit reaches the set temperature?



Continue monitoring the internal temperature. If the internal temperature rises, peaks, and then drops below the set temperature cycling the SSR back on, the unit is operating properly.

Yes

Measure the AC voltage at the high limit going to the heat cables between terminals 11 and 31. Do you read line voltage between these points?



Remove power to the oven. Isolate each heat cable wrap by removing jumper wires at the mounting studs and check for continuity to ground on both sides of each heat cable. If there is continuity to ground, the heat cable is faulty and would need to be replaced. Check for signs of moisture or damage to the heat cable which could have caused this failure.

Yes

Is there 12VDC at the coil of the SSR A (+) to A (-) for upper / single cavity or B (+) to B (-) for lower cavity?



Faulty SSR.

Yes

Is there 12VDC at the J11 plug on the control board between pins 1 and 2 for the upper / single cavity SSR or 3 and 4 for the lower cavity SSR?



Inspect and repair wiring from SSR to control board.

Yes

Update the oven software and cycle power. Does the J11 plug continue outputting 12VDC to the SSR while the registered temperature is above the set temperature?

No

Measure and monitor the current draw to the heat cable wraps to ensure the oven is now cycling at the set temperature.

Yes

Inspect the communication cable between CB and IB. Does the J11 plug continue outputting 12VDC to the SSR while the registered temperature is above the set temperature?

No

Measure and monitor current draw to heat cable wraps to ensure the oven is now cycling at the set temperature.

Yes



Replace CB. Does the J11 plug continue outputting 12VDC to the SSR while the registered temperature is above the set temperature?

No

Measure and monitor current draw to heat cable wraps to ensure oven is now cycling at the set temperature.

Yes

Replace IB. Does the J11 plug continue outputting 12VDC to the SSR while the registered temperature is above the set temperature?

No

Measure and monitor current draw to heat cable wraps to ensure the oven is now cycling at the set temperature.



Cheflinc.alto-shaam.com is Not Available on Your Device

Are other websites available on your device from the same network being used to access Cheflinc?

No

If other websites are not available, contact your network provider or IT department.

Yes

Is the following website address blocked? https://cheflinc.alto-shaam.com No

If the website is blocked, contact your network provider or IT department.

Yes

Using a different device on the same network, is the following address accessible? https://cheflinc.alto-shaam.com



If you are still unable to access the website, the website is blocked on your network. Contact your network provider or IT department to investigate accessing the address.

Yes

If you are able to connect with a different device, correct the problem with the original device being used.



Cannot Connect to cheflinc.alto-shaam.com

Check the URL and make sure it is https://cheflinc.alto-shaam.com

(no extra characters)

Yes

Have you set up an account on Cheflinc?

No

Create a Cheflinc account.

You will need to provide your name, address, phone number, and email.

Yes

Use the reset your password link and set up a new password.

A recovery link will be sent to the email associated with the Cheflinc account.

If you are still unable to log in, contact Alto-Shaam technical support.

The Oven is not Displayed on the Dashboard

Prerequisite: The operator is on a device connected to the Internet and is able to login to cheflinc.alto-shaam.com. See topic The Oven will not Power Up Does the oven No troubleshooting tree power up? in the Service Manual. Yes On the oven Complete the Is the nformation page oven WiFi setup oven does it indicate No No instructions connected? that the oven is again. connected? Yes Was the desired SSID viewed No during the scan? Check that access to On the oven www.alto-shaam.com is information page not being blocked. No does it say Check the router Internet Internet connection. connected? Check the service provider's Yes Check the router modem/gateway. access point, Contact the Internet check the SSID service provider. Yes password, possible hardware problem with the What color are the WIFI module or Check that the following addresses are not being blocked signal strength bars antenna. (iotupdate@alto-shaam.com and cheflinc.alto-shaam.com). of the network icon? If the oven is still not connected, use a different device on If red, you need to the same network and check the access to those two sites. improve the signal If the sites are available on a separate device, then contact strength. Alto-Shaam technical support to make sure the oven has If yellow or green, been provisioned with the Cheflinc services. If those sites check for the correct are not accessible on a separate device, then contact SSID password. your network provider or IT department for assistance. VMC-PHD-008206



Unable to Assign Recipes from the Dashboard to Ovens in the Field

Is the oven(s) visible on the dashboard?

No

See topic The Oven is not Displayed on the Dashboard troubleshooting tree.

Yes

In the dashboard, does the oven indicate it is connected (yes) or offline (no)?

Yes

Contact Alto-Shaam technical support for assistance.

TROUBLESHOOTING

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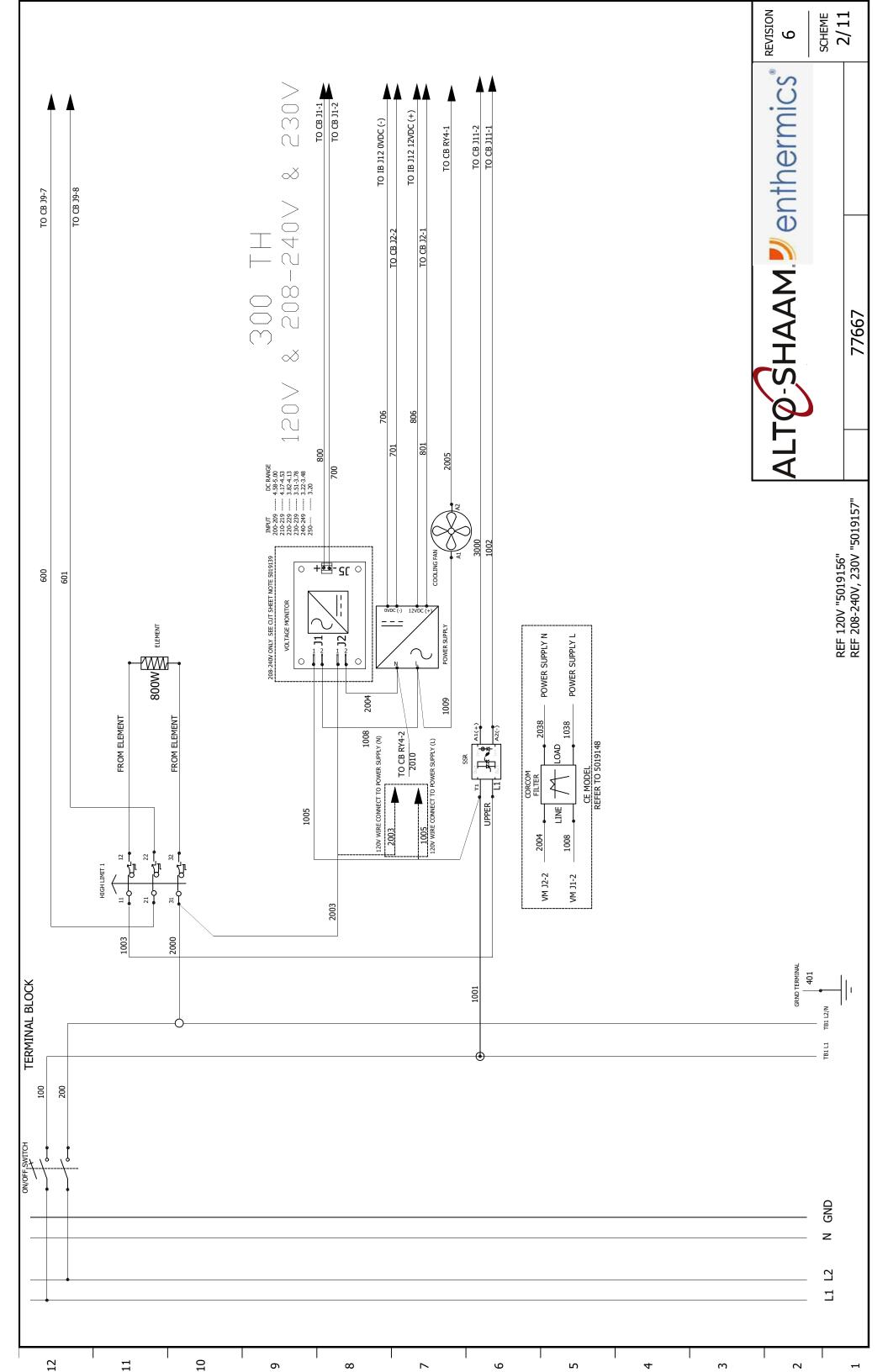
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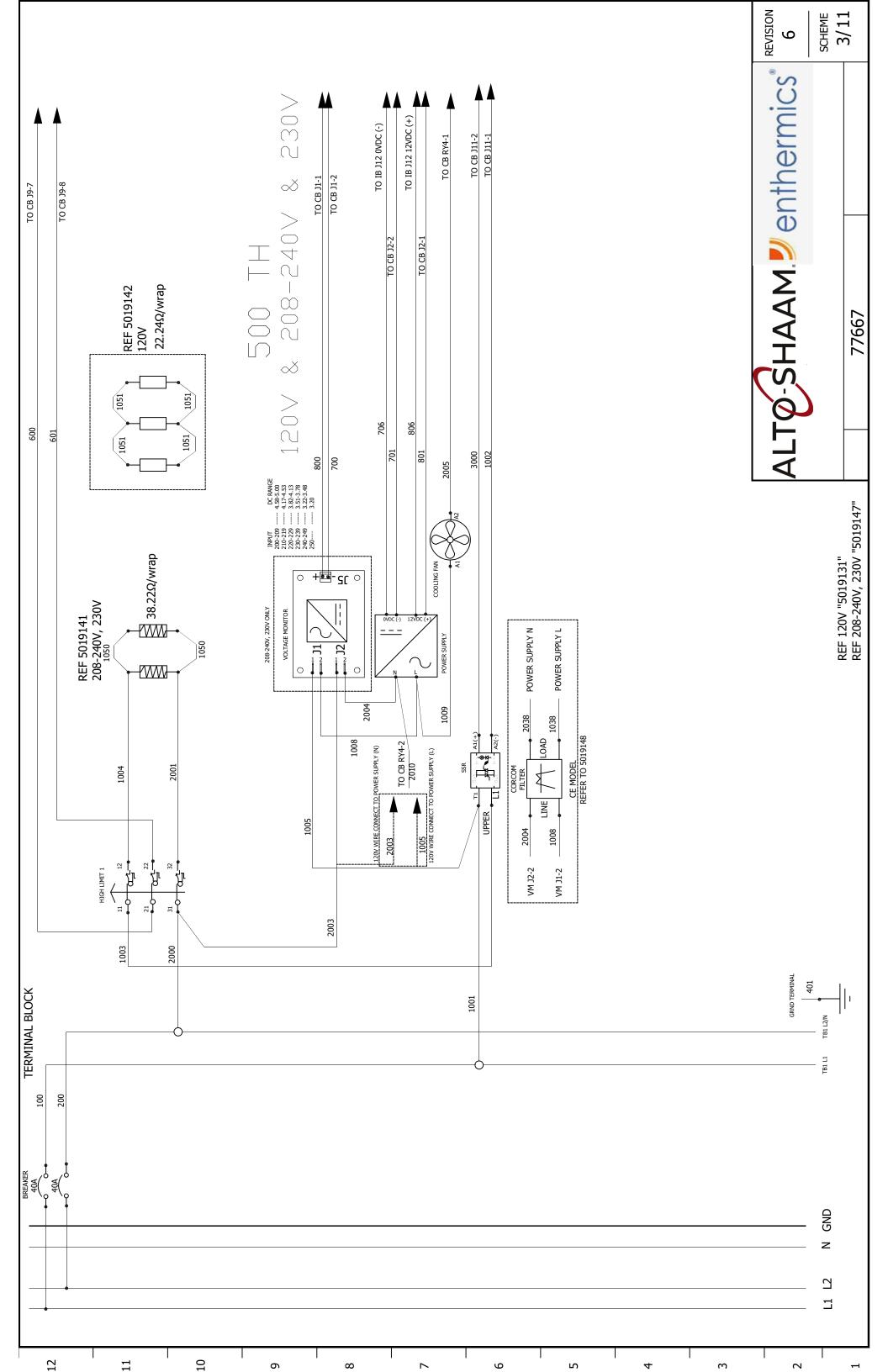
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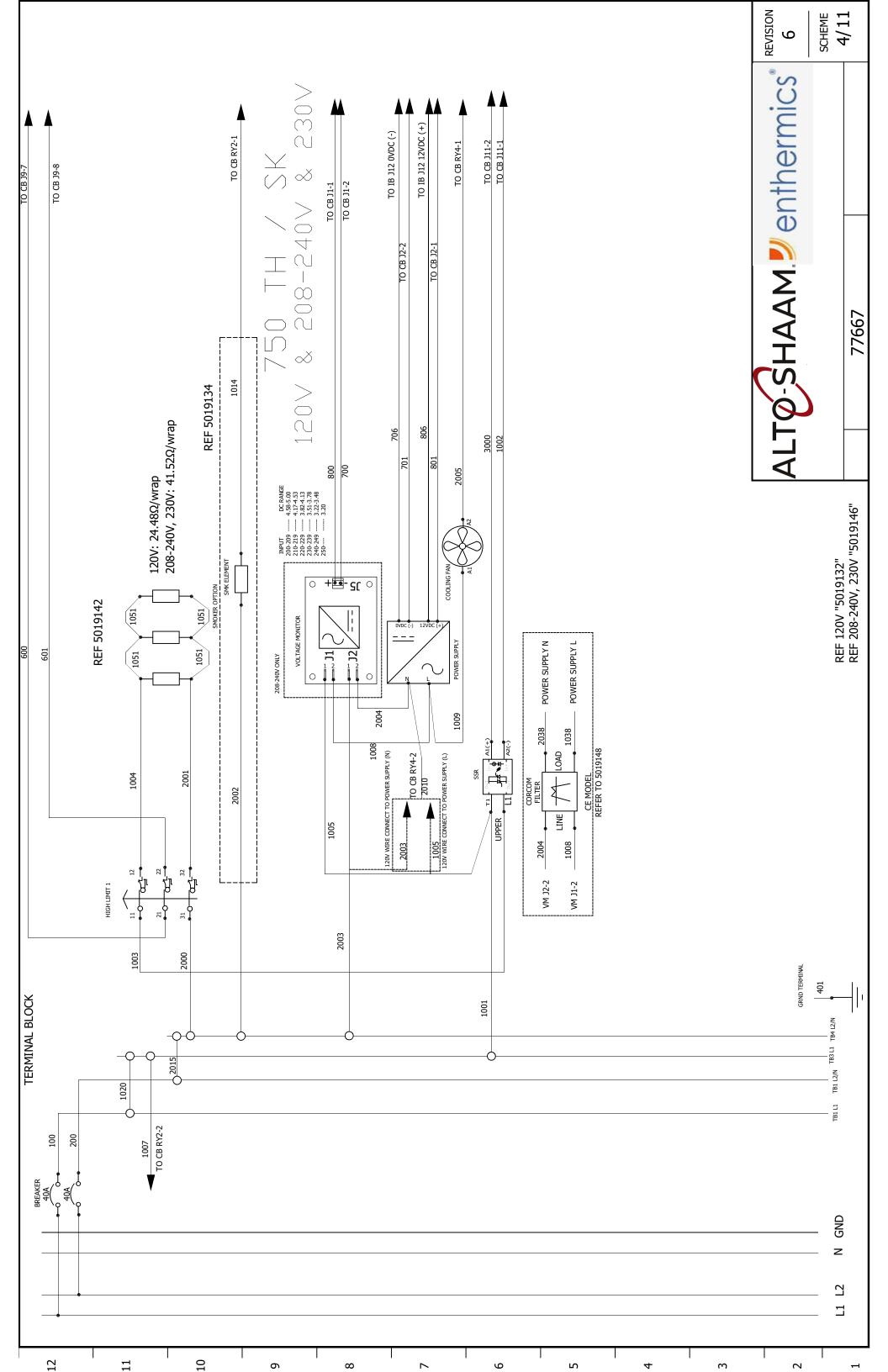
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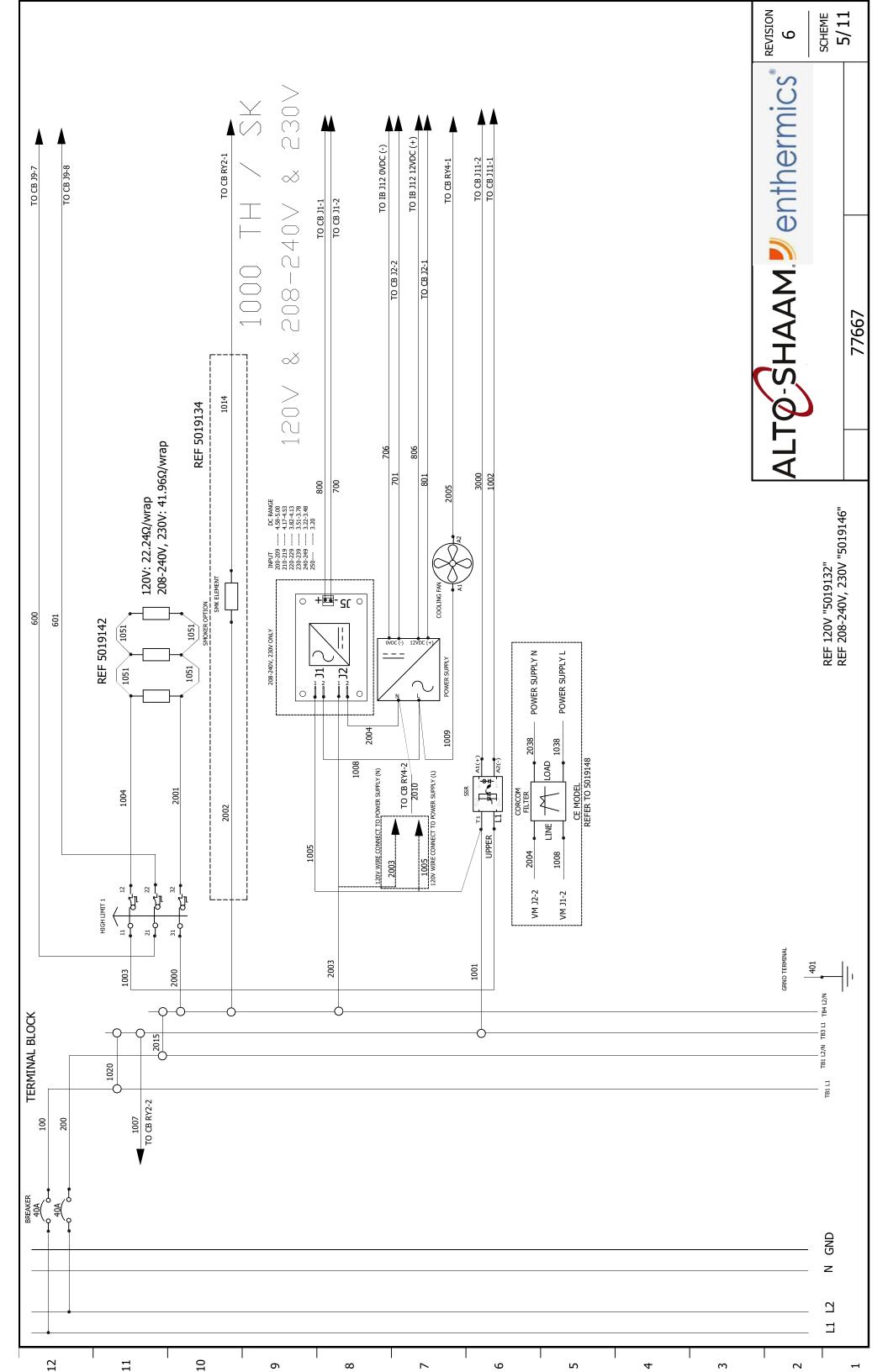
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| | 2 | 3/16/2020 | montev | ontev 181489 | Remove page 2 and 8 adding EMI filter for CE units, add gnd simple control | ontrol |
| | 4 | 1/10/2020 | montev | | Change Dip Switch 6 to LED, | |
| | æ | 7/31/2019 | montev | ontev 181192 | Revert to two High Limit and F199 beta build feedback | |
| | 7 | 5/6/2019 | montev NPD | NPD | Update DB add cavity LED | |
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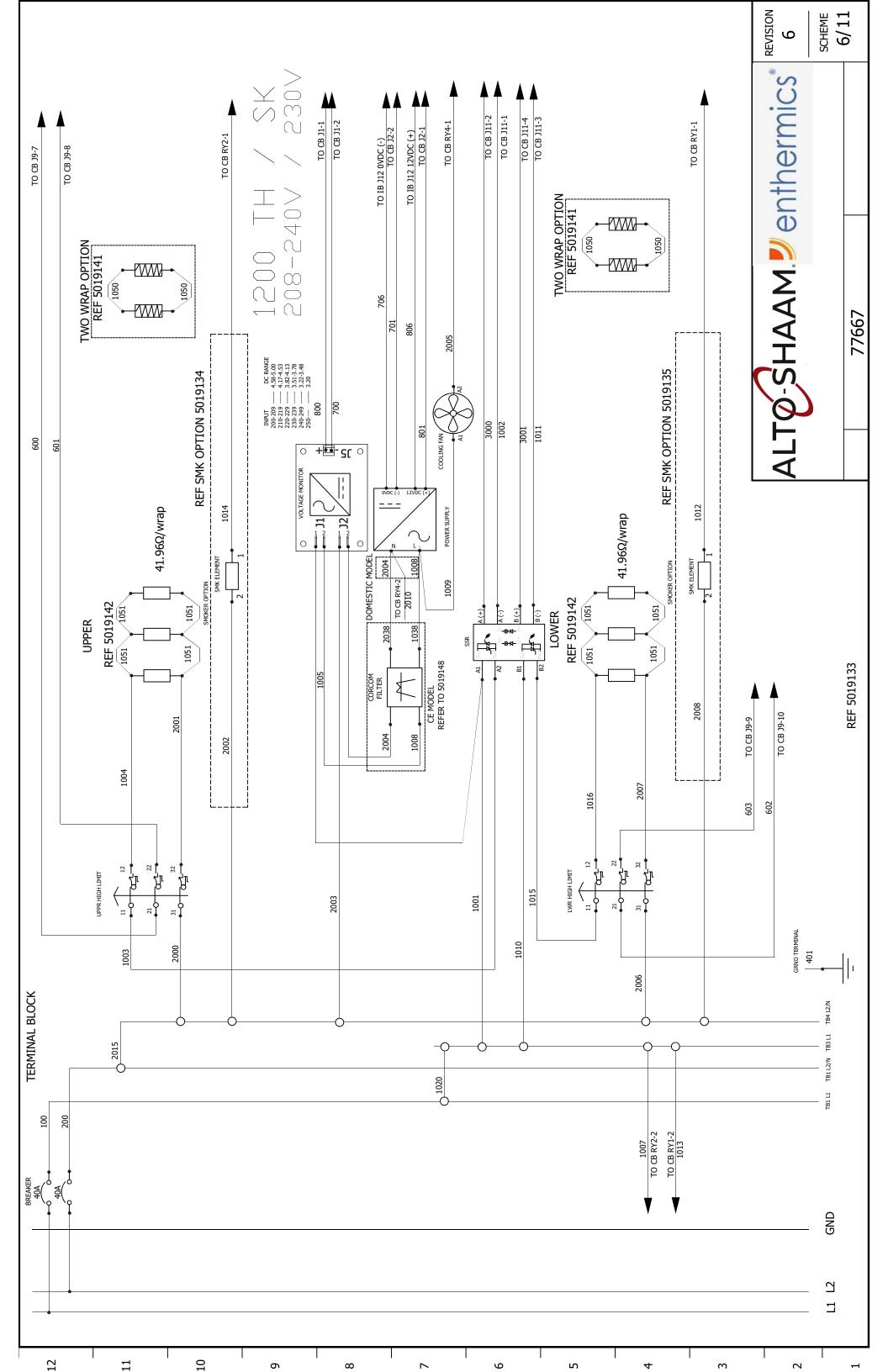
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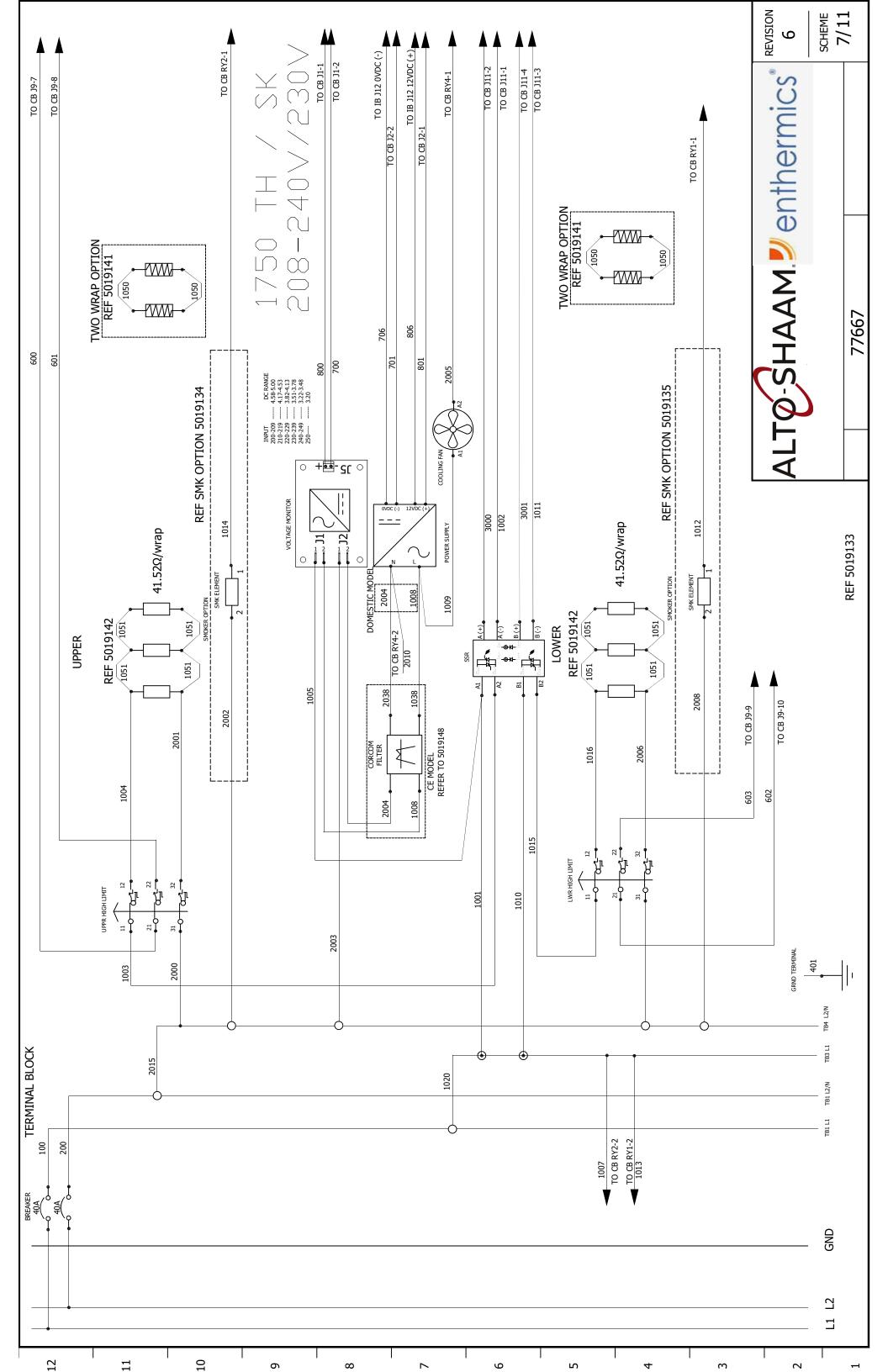


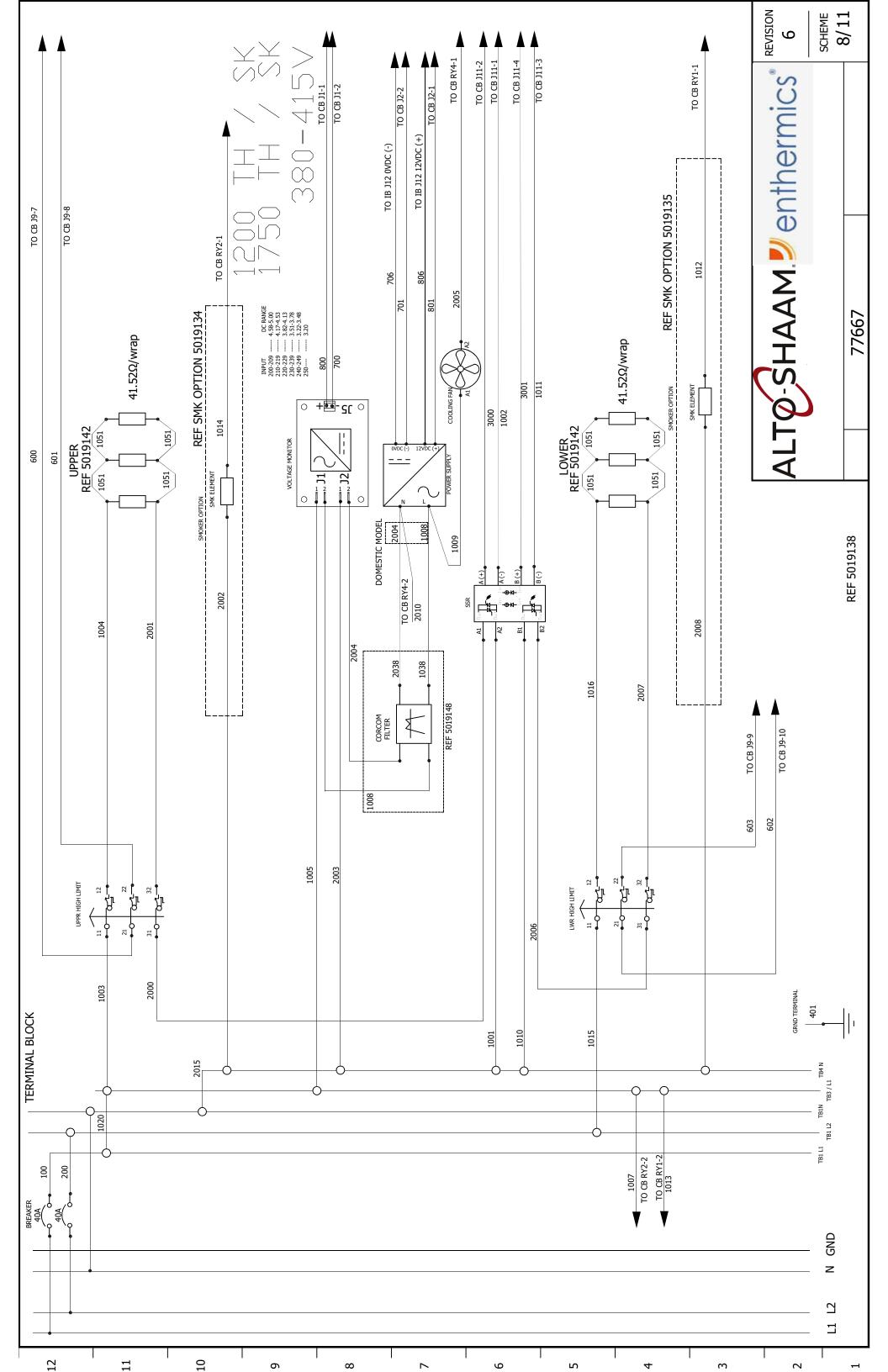


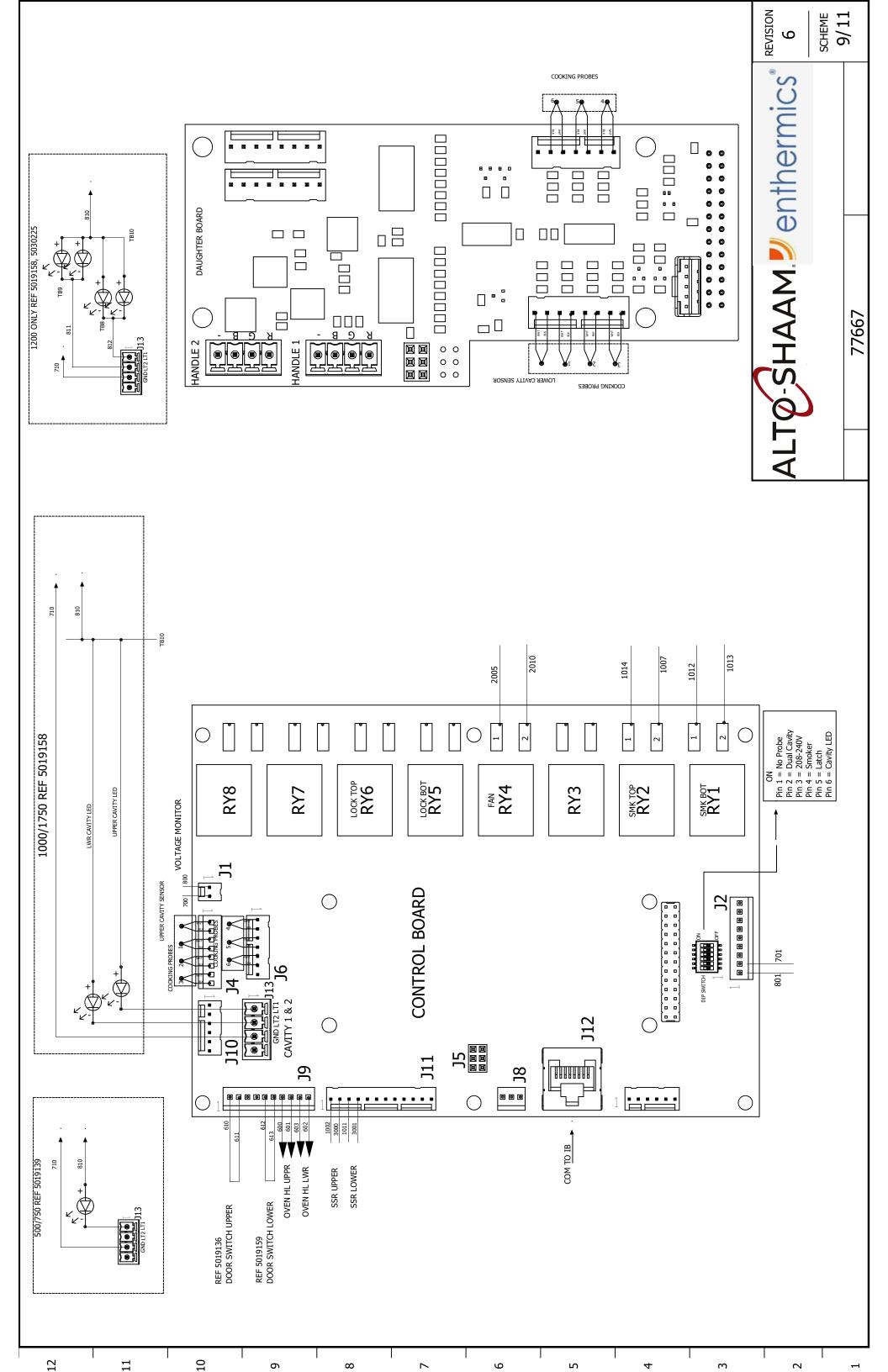


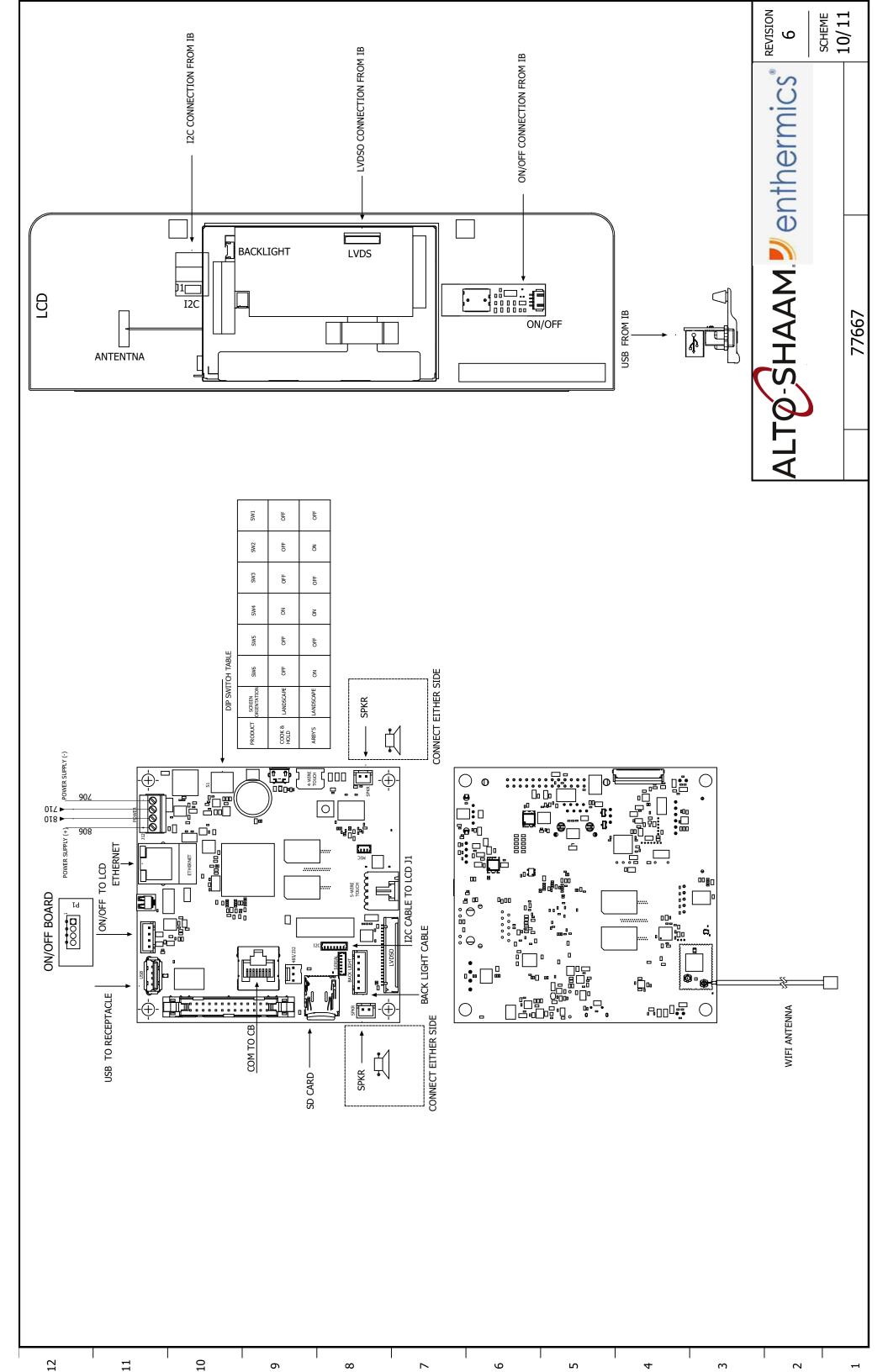


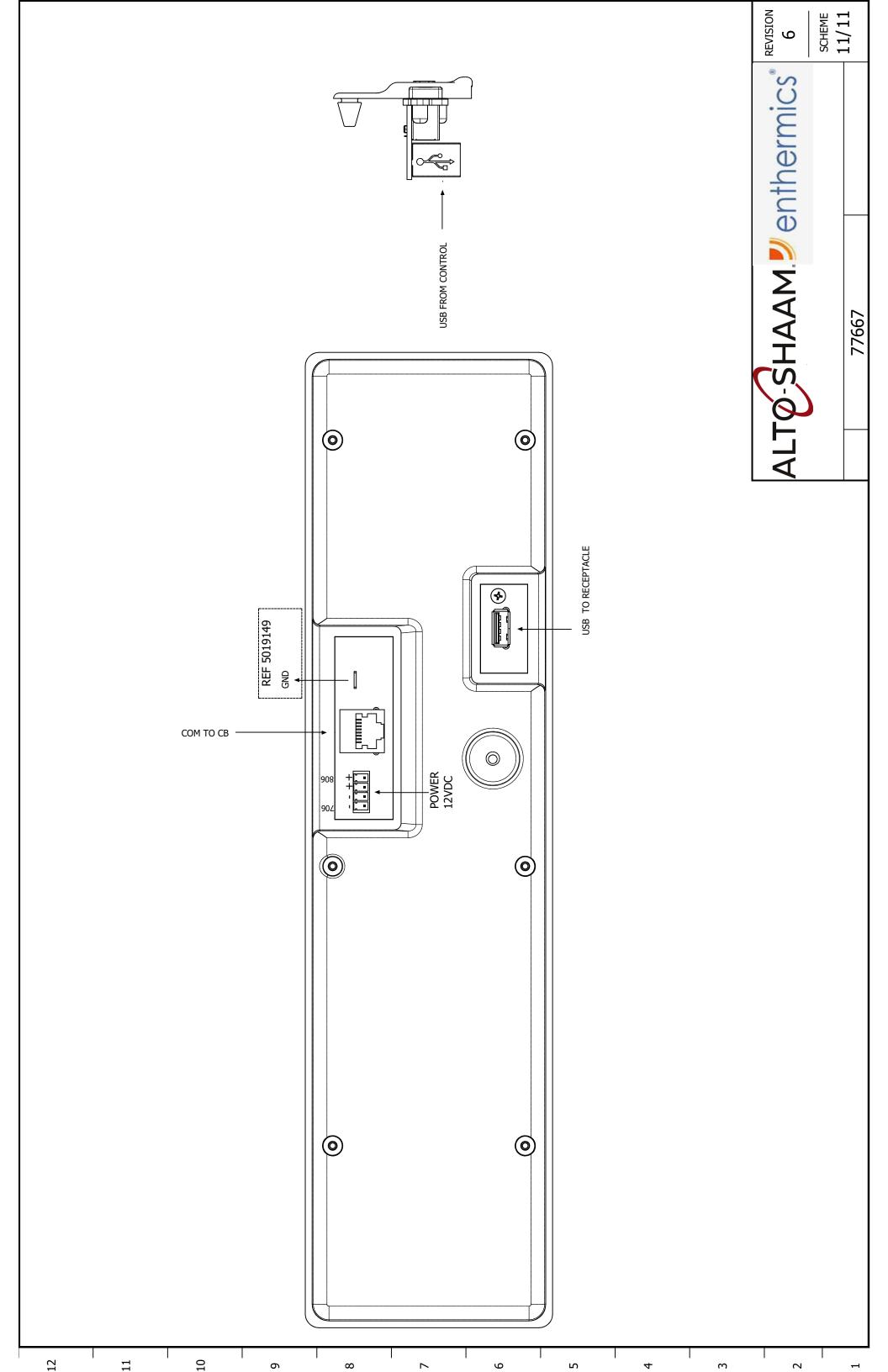














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