

# **Operator's Manual**

# **Vector<sup>®</sup> Multi-Cook Oven**

**Deluxe Control** 

VMC-H2	VMC-H2H	VMC-H2HW
VMC-H3	VMC-H3H	VMC-H3HW
VMC-H4	VMC-H4H	





# Structured Air Technology®

MN-46295-EN

REV.06 1/22

EN

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## **Manufacturer's Information**

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Manufacturer Alto-Shaam, Inc.

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



# FOREWORD

### **Enjoy your Alto-Shaam Vector Oven!**

Structured Air Technology<sup>®</sup>

The Alto-Shaam Vector Oven features Structured Air Technology, giving you two, three or four ovens in one. It gives you the flexibility to simultaneously cook a variety of menu items with no flavor transfer. It provides the ability to control temperature, fan speed, and time in each individual oven chamber.

Cook up to twice the food than a traditional convection oven, with no microwaves, and no water.

# **Extend Your Manufacturer's Warranty**

Register

Register your Alto-Shaam appliance online. Registering your appliance ensures prompt service in the event of a warranty claim.

Your personal information will not be shared with any other company.

alto-shaam.com/warranty

# 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.

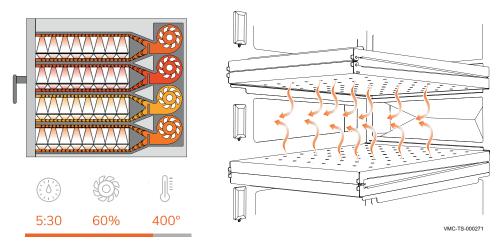


**NOTE:** Note indicates additional information that is important to a concept or procedure.

# **Appliance Description and Intended Use**

Structured Air Technology<sup>®</sup>

Alto-Shaam Vector's Structured Air Technology system allows for multiple, unique cooking chambers within the same oven. Air is delivered by a blower located in the rear of each cooking chamber. Air travels vertically through the jet plates into each chamber. The food product is blown with hot air from above and below. Structured Air plates at the top and bottom of the oven complete the upper and lower cooking chambers. Each cooking chamber is independent from the other and includes its own blower and heat source. The operator can select the optimal cooking temperature, air velocity, and cook time for each chamber either manually or through programmed recipes.



**Configurations** 

The Vector H Series is available in three configurations: two-, three-, and four-chamber.

Intended use

The Vector series ovens are intended to cook and warm food only. Any other use is prohibited.

**Residual risks** 

This oven is manufactured using ISO-certified processes. The oven is designed with maximum safety in mind; however, there are residual risks to operators of this oven. Residual risks include exposure to heat and exposure to hot food products.

Possible misuse

Misuse of this oven includes loading the oven with anything other than a food product. Misuse also includes heating or cooking any food product that contains alcohol or other flammable substance.



# **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.
- 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 racks 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.
- Do not unplug or disconnect the appliance immediately after cooking. The cooling fans must stay on to protect electrical components.

# 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 main disconnect switch is in the OFF position.
- 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.
- Do not remove the top cover or side panels. There are no user-serviceable components inside.



#### **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. Original manufacturer's replacement parts may be substituted; however, these parts must be of equal quality and specifications as those provided by Alto-Shaam.
- 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.

#### Sound power

The A-weighted sound pressure level is below 70 dB(A).



# Personal Protective Equipment (PPE)

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

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



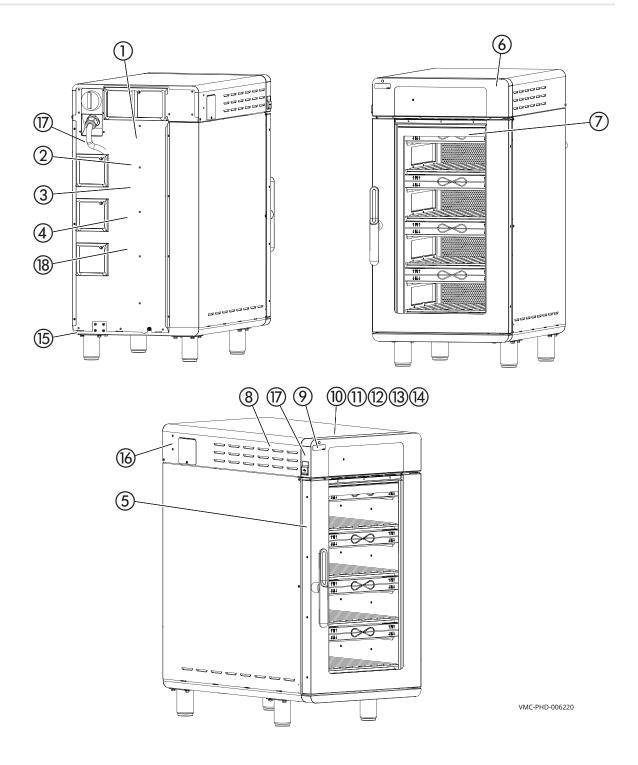
**SAFETY** 

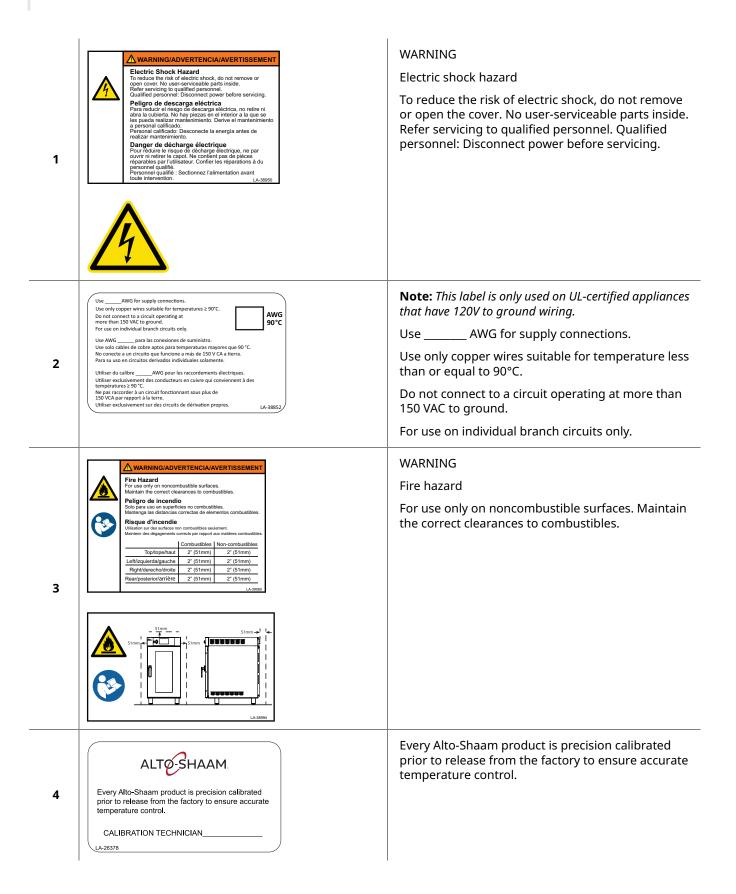
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# LABELS

# **Label Locations**





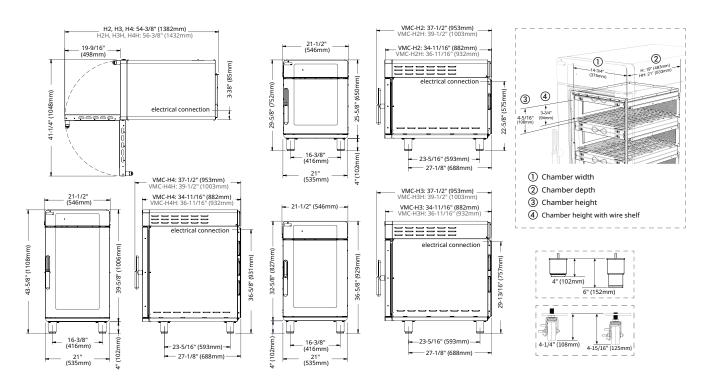


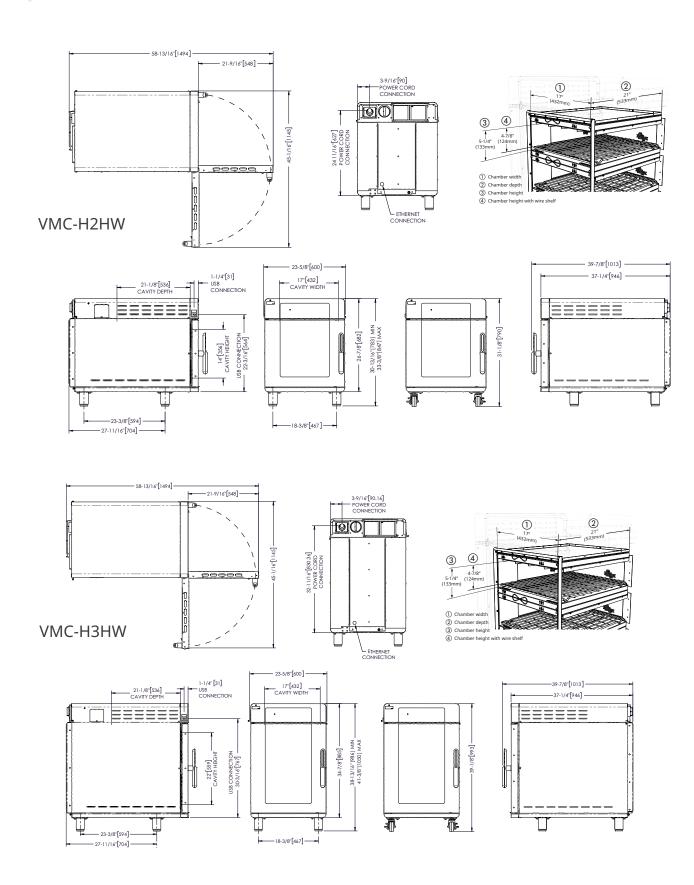
5		WARNING Hot surface
6	MADE IN U.S.A.	Made in U.S.A.
7	WARNING / ADVERTENCIA / AVERTISSEMENT  Burn hazard. Always load liquids, or foods that can become liquid when heated, at an eye level where they can be seen.  Peligro de quemaduras. Siempre coloque liquidos, o alimentos que se puedan volver liquidos cuando se calientan, a nivel de los ojos donde se puedan ver.  Risque de brûlure. Toujours charger les liquides, ou les aliments qui deviennent liquides au chauffage, à hauteur des yeux où ils peuvent être vus.  LA:39123	WARNING Burn hazard Always load liquids, or foods that can become liquid when heated, at an eye level where they can be seen.
8	GROUNT ERROR GROUN	Security seal
9	Check fans Compruebe los ventiladores Vérifiez les ventilateurs  LA-39033	Check fans
10	L1 LA:36443-L1	Line 1 supply terminal
11	L2 LA-36443-L2	Line 2 supply terminal
12	LA36443-L3	Line 3 supply terminal

13	N LA-36443-N	Neutral
14	LA-36443-G	Ground terminal
15	LA-36443-E	Equipotential terminal
16	VMC-H2, VMC-H3, VMC-H4 VMC-H2H, VMC-H3H, VMC-H4H	Press and release the high limit temperature reset button(s).
17	COA #5879	Certificate of Approval number, Fire Department - City of New York.
18		WARNING Electric Shock Hazard Appliances with permanent electrical connection that are mounted on casters must be secured to building structure. Read installation instructions.



# **Dimension Drawings**







# **How to Receive the Appliance**

#### **Responsible parties**

When an Alto-Shaam<sup>®</sup> preferred carrier is used, shipping damage is a matter between Alto-Shaam and the carrier. In such cases, contact Alto-Shaam customer service.

When an Alto-Shaam non-preferred carrier is used, shipping damage is a matter between the carrier and the consignee. In such cases, the carrier is assumed to be responsible for the safe delivery of the merchandise, unless negligence can be established on part of the shipper.

# Receive the appliance

When receiving the appliance, do the following.

Step	Action
1.	<b>Inspect</b> the equipment while it is still in the truck or immediately after it is moved to the receiving area. Do not wait until after the equipment is moved to a storage area.
2.	<b>Inspect and count</b> all merchandise received. Do not sign a delivery receipt or a freight bill until you have done so.
3.	<b>Note</b> all damage to packaging and to the equipment on the carrier's receipt.
4.	<b>Request</b> the driver sign the delivery receipt. If the driver refuses to sign, make a note of this refusal on the delivery receipt.
5.	<b>Write</b> the following on the delivery receipt if the driver refuses to allow an inspection: Driver refuses to allow inspection of containers for visible damage.
6.	<b>Contact</b> the carrier immediately upon finding damage, and request an inspection. <b>Follow</b> the carrier's policies and procedures.

#### **Alto-Shaam policy**

It is the policy of Alto-Shaam to assist customers in collecting claims that have been properly filed and actively pursued. Alto-Shaam cannot, however, file damage claims, assume the responsibilities for damage claims, or accept deductions in payment for damage claims.



# **How to Unpack the Oven**

#### Before you begin

#### Make sure you have:

- An appropriate lifting device and enough personnel to safely move and position the weight of the oven.
  - VMC-H2/H2H: 213 lb (97 kg)
    VMC-H3/H3H: 278 lb (126 kg)
    VMC-H4/H4H: 348 lb (158 kg)
    VMC-H2HW: 243 lb (110 kg)
  - □ VMC-H3HW: 312 lb (142 kg)
- Cutting tools to remove the packaging.

#### Unpack the oven

To unpack the oven, do the following.

#### Step Action

1. **Remove** the box. **Save** all packing materials for inspection by the carrier.

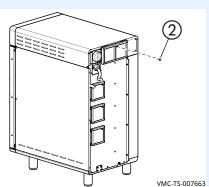


**NOTE:** Examine the appliance for damage. If the appliance has been damaged, do not use the appliance until it has been inspected by an authorized service provider. Contact your carrier or Alto-Shaam customer service.

- 2. **Remove** the shrink wrap.
- 3. **Cut** the restraining straps.
- 4. **Remove** the tape 1 that holds the filters (if equipped).

**Remove** the screws ② that holds the filters (if equipped).





- 5. **Remove** the foam from each chamber.
- 6. **Remove** the oven from the pallet.

Result

The oven is now unpacked.



# **Vector Pre-Installation Checklist**

Installation of the oven is to be completed only by an authorized Alto-Shaam service partner.

Place this form with the oven's records.



**WARNING:** Electric shock and arc flash hazard.

Use caution when measuring line voltage and line current.

Wear Personal Protective Equipment (PPE).

#### **Location Information**

Installation date:	Start up date:
Location name:	Location address:
Contact name:	
Contact phone number:	Number of ovens to be installed:
Contact email:	Oven model number(s):
IT Administrator name: (if applicable)	Oven serial number(s):
Phone number:	Oven rated voltage:

#### **Pre-Installation Company Information**

Company name:	Mailing address:
Technician name:	
Technician phone number:	Technician email:
Date of Site Survey:	

Clearance	Record	Pass	Fail
Measure door/entry way clearance (smallest dimension)			
Measure path clearance (smallest dimension)			
Elevator opening, if applicable (smallest dimension)			
Elevator interior dimensions, if applicable (HXWXD)			
Oven Clearance Right side:			
Rear:			
Left side:			
Top:			
Based on the oven's designated spot in the kitchen, is the oven accessible for service?	Yes / No		
If NO, comment on the issue:			
Other comments:			





#### **Electrical**

Alto-Shaam oven ratings	Breaker:	Voltage:	Phase:	
The following fields must be co	mpleted by the se	ervice technician o	on site.	
What is the measured voltage at the site?	L1-N:	L2-N:	L3-N:	L1-L2:
	L2-3:	L1-L3:	Pass	Fail
What is the on-site breaker size supplying power to the oven(s)?	Size:		Pass	Fail
Is there a disconnect or junction box within 3' (914mm) of where the oven(s) will be installed?	Pass	Fail		

Comments:

#### **Gas-F Series only**

What is the gas type for the oven(s) to be installed?	Natural	Propane		
What is the gas type confirmed at installation site?	Natural	Propane	Pass	Fail
Is there a minimum of one 3/4" gas supply line within 3' (914mm) of where the oven(s) will be installed?	Pass	Fail		
On the gas line, is there a 3/4" NPT pipe connection with a shut-off valve within 3' (914mm) of where the oven(s) will be installed?	Pass	Fail		

Comments:

#### Wi-FI equipped ovens

Is the Wi-Fi system that be used secure, Wi-Fi Protected Access 2 (WPA2)? The Wi-Fi system to be used cannot be Point of Sales Wi-Fi.	Yes	No
Have you been provided the Service Set Identifier (SSID) for the system to be used?	Yes	No
Have you been provided the password for the Wi-Fi system to be used?	Yes	No
At the final location that the oven will be installed, can you connect to the Wi-Fi system with your phone?	Yes	No
At the final location that the oven will be installed, can you connect to Alto-Shaam.com with your phone using the Wi-Fi system?	Yes	No
Is site action required?	Yes	No

Action required:



#### Other site information

Is there a proper ventilation hood installed above where the oven(s) will be installed? (If required)	Pass	Fail
Does the designated location for the oven have a level surface, i.e., no more than 1.5" (38mm) change in elevation from its highest to lowest surface point?	Pass	Fail
Is the ambient temperature range of the site 60°F – 110°F° (16°C – 43°C)?	Pass	Fail
Is the site 100% ready for oven(s) installation?	Pass	Fail
Is site action required?	Pass	Fail

Action required:



# Please provide a copy of this document to an on-site manager.

Service company name:
Service company number:
Model of oven(s) to be installed:
The site is ready for installation of the oven(s); planned install location passes inspection. Once the oven(s) arrive at the site (or the delivery date is certain), please contact the service company listed above to schedule the installation.
The site is NOT ready for installation of the oven(s); planned install location needs the following changes made before installation can proceed:
On-site manager should make the necessary contacts to move forward with these changes as soon as possible. If there are any questions, please contact Alto-Shaam Technical Service Department at
800-558-8744 ext. 6702. Or, review documentation regarding the equipment www.alto-shaam.com/en/resource-library.
Once the necessary site changes have been made and the oven(s) have arrived (or the delivery date is certain), please contact the service company listed above to schedule the installation.
Technician name and signature:
On-site manager name and signature:
on sice manager name and signature.



# **Post-Installation Checklist**

Installation of the oven is to be completed only by an authorized Alto-Shaam service partner.

Place this form with the oven's records.



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

Installation date:	Start up date:
Location name:	Location address:
Contact name:	
Contact phone number:	Oven model number:
Contact email:	Oven serial number:
IT Administrator name:	Oven rated voltage:
(if applicable)	
Phone number:	

Oven physical condition	Damaged		Record any damage with details before or after	
	Yes	No	uncrating, location of damage, etc. Take pictures.	
Front of oven				
Left side				
Back of oven				
Right side				
Top and bottom/legs				

Oven visual inspection (outside)	Yes	No
Is all packing material removed from the outside of the oven?		
Is all packing material removed from the inside of the oven?		
Are all of the cooling fan filters installed correctly?		
Are all of the internal grease filters installed correctly? (H Series models only)		
Are all of the jet plates in place and installed correctly?		

Over visual inspection (internal)		Loose/Damaged	
Oven visual inspection (internal)	Yes No		
Check all electrical connections at each terminal block.			
Check all circuit board connections.			
Check all components for loose connections and hardware.			
Check the overall system for any damage from shipping or installation.			





Electrical:	Record		
Measure the voltage at the wall outlet.	L1 to L2:	L1 to L3:	L2 to L3:
Measure the voltage at the oven's main disconnect switch.	L1 to L2:	L1 to L3:	L2 to L3:
Measure the voltage at the oven's main terminal block.	L1 to L2:	L1 to L3:	L2 to L3:
Measure the AC voltage to the 12 VDC power supply.		1	
Measure the DC output from the power supply.			

#### Turn the oven on. Press and release the high limit temperature reset buttons. Start the preheat cycle for all of the oven chambers.

Terminals A1 to A2	Record	F Models	Record
SSR 1 DC voltage		SSR 5 DC voltage	
SSR 2 DC voltage		SSR 6 DC voltage	
SSR 3 DC voltage		SSR 7 DC voltage	
SSR 4 DC voltage		SSR 8 DC voltage	

Heating elements:	Left side		Right side	
	Record	F Models	Record	
Amperage for chamber 1		Amperage for chamber 1		
Amperage for chamber 2		Amperage for chamber 2		
Amperage for chamber 3		Amperage for chamber 3		
Amperage for chamber 4		Amperage for chamber 4		

#### Wi-Fi equipped ovens:

TTTTT CHAIPPER OVERIS.		
Navigate to the settings screen, touch the network ico	n. <b>3)))</b>	
On the Your network status screen:	Wireless	Ethernet
What is the connection type?	VVII eless	Luiernet
What color is the network icon?	Red Yellov	v Green
What is the Internet status?		
What is the Cloud status?		
What is the SSID?		
What is the IP Address?		

# **ChefLinc Installation Checklist**

Place this form with the oven's records.

#### **Connectivity Pre-Installation Checklist**

Will you connect the oven to the Internet using Wi-Fi or Ethernet?	Wi-Fi	Ethernet	Unable to answer	
Wi-Fi Connections				
Is the Wi-Fi network that is to be used a WPA2 secured network?	Yes	No	Unable to answer	
Is this network also used to send and receive point of sale information (credit card data, register receipts)? This is NOT recommended for any installation.	Yes	No	Unable to answer	
Have you been provided with the network name (SSID) for the oven to connect to?	Yes	No	Unable to answer	
Have you been provided the password for the Wi-Fi network to be used?	Yes	No	Unable to answer	
At the final location that the oven will be installed, can you connect to the Wi-Fi system with your phone?	Yes	No	Unable to answer	
Using your phones Wi-Fi connection, are you able to connect to alto-shaam.com? You are testing for any additional security on the network to block access to external sites. You will need to turn off your cellular service on your phone to make sure you're using the Wi-Fi network.	Yes	No	Unable to answer	
Ethernet Connections				
At the final location that the oven will be installed, is there an open Ethernet port conveniently located?	Yes	No	Unable to answer	
Is the Ethernet port live (providing Internet access)?	Yes	No	Unable to answer	
Is the Ethernet harness accessory ordered with the unit?	Yes	No	Unable to answer	
Is there site action required?	Yes	No		

Action required:





# **Connectivity Installation Checklist** Refer to Network Status screen

What is your connection type?	Wi-Fi	Ethernet
What color is the network status icon?	Red Yellov	w Green
What is the Internet status?	Connected	Not connected
What is the cloud status?	Connected	Not connected
What is the update server status?	Connected	Not connected
What is the SSID (network name)?		
What is the password?		
What is the IP address?		
What is the Front End (FE) software version number?		
What is the Back End (BE) software version number?		
What is the Control Board (CB) software version number?		
Is this the latest software version?		
Validate via: https://www.alto-shaam.com/en/customer-support/software-downloads	Yes	No



## How to Install the Oven (60 Hz Cord and Plug Models)

#### Before you begin

#### Make sure you have:

■ An appropriate lifting device, and enough personnel, to safely move and position the weight of the oven.

VMC-H2/H2H: 213 lb (97 kg)
VMC-H3/H3H: 278 lb (126 kg)
VMC-H4/H4H: 348 lb (158 kg)
VMC-H2HW: 243 lb (110 kg)
VMC-H3HW: 312 lb (142 kg)

#### Requirements

■ The oven must be installed on a level surface.

■ The oven must not be installed in any area where it may be affected by steam, grease, dripping water, high temperature, or any other severely adverse conditions.

■ The oven is not intended for built-in installation.

#### **Voltages**

	V	Ph	Hz	A	Breaker*	kW	Plug Configuration
VMC-H2/	208	1	60	25	30	5.2	NEMA 6-30P
VMC-H2H	240	1	60	28	30	6.7	NEMA 6-30P
VMC-H3/	208	1	60	38	50	7.9	NEMA 6-50P
VMC-H3H	240	1	60	43	50	10.3	NEMA 6-50P
	208	3	60	22	30	7.9	NEMA 15-30P
	240	3	60	25	30	10.3	NEMA 15-30P
VMC-H4/	208	3	60	33	40	10.6	NEMA 15-50P
VMC-H4H	240	3	60	38	40	13.9	NEMA 15-50P
VMC-H2HW	208	1	60	33	50	6.9	NEMA 6-50P
	240	1	60	38	50	9.1	NEMA 6-50P
	208	3	60	19	40	6.9	NEMA 15-30P
	240	3	60	22	40	9.1	NEMA 15-30P
VMC-H3HW	208	3	60	29	50	10.5	NEMA 15-50P
	240	3	60	33	50	13.6	NEMA 15-50P

<sup>\*</sup>Electrical connections must meet all applicable federal, state, and local codes.

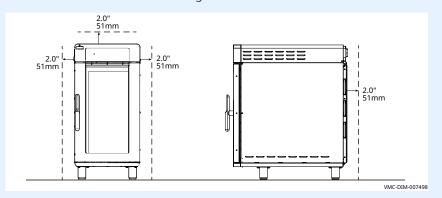


#### Position the oven

To position the oven, do the following.

#### Step Action

- 1. **Make sure** that:
  - The location where the oven is being installed is rated to support the weight of the oven;
  - The oven is within five feet (1.5m) of the appropriate electrical outlet;
  - You follow the oven clearance guidelines.



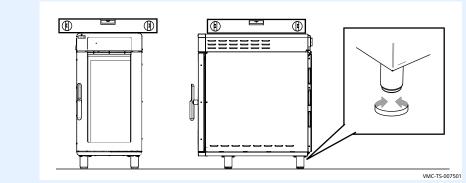
2. **Move** the oven to the installation location and onto the final resting surface.

The oven is now correctly positioned.

#### Level the oven

To level the oven, do the following.

3. **Check** the level of the oven using a spirit (bubble) level. Check front to back and side to side.



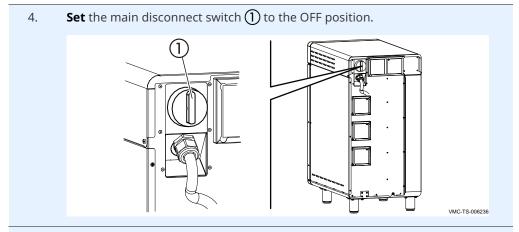
**Adjust** the legs, if necessary, to achieve levelness.

The oven is now correctly positioned.

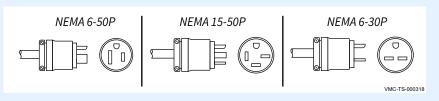


#### **Connect power**

To connect electric power to the oven, do the following.

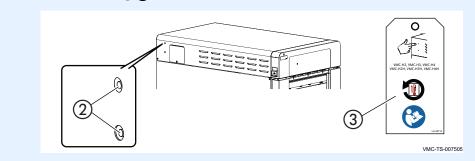


5. **Connect** the plug to the electrical outlet.



#### Press reset button(s)

6. **Press and release** the high limit temperature reset button(s) ②. **Remove** the tag ③.



Result

The oven is now installed and ready to be used.

# How to Install the Oven (60 Hz Models Without Cords or Plugs)

#### Before you begin

#### Make sure you have:

- Appropriate cord and plug. See local codes and regulations.
- Screwdriver (Phillips #2)
- Nut driver (1/4-inch)
- An appropriate lifting device, and enough personnel, to safely move and position the weight of the oven.
  - □ VMC-H2/H2H: 213 lb (97 kg)
  - □ VMC-H3/H3H: 278 lb (126 kg)
  - □ VMC-H4/H4H: 348 lb (158 kg)
  - □ VMC-H2HW: 243 lb (110 kg)
  - VMC-H3HW: 312 lb (142 kg)

#### Requirements

- The oven must be installed on a level surface.
- The oven must not be installed in any area where it may be affected by steam, grease, dripping water, high temperature, or any other severely adverse conditions.
- The oven is not intended for built-in installation.



#### **Voltages**

	V	Ph	Hz	A	Breaker*	kW
VMC-H2/	220	1	50/60	25	32	5.4
VMC-H2H	240	1	50/60	28	32	6.4
	380 415	3	50/60 50/60	12 13	16 16	5.4 6.4
VMC-H3/	220	1	50/60	37	63	8.1
VMC-H3H	240		50/60	41	63	9.6
	380	3	50/60	12	16	8.1
	415	3	50/60	13	16	9.6
VMC-H4/	380	3	50/60	23	32	10.8
VMC-H4H	415	3	50/60	25	32	12.7
VMC-H2HW	208	1	60	33	50	6.9
	240	1	60	38	50	9.1
	208	3	60	19	40	6.9
	240	3	60	22	40	9.1
VMC-H3HW	208 240	3	60 60	29 33	50 50	10.5 13.6

<sup>\*</sup>Electrical connections must meet all applicable federal, state, and local codes.

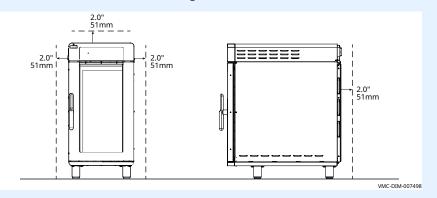


#### Position the oven

To position the oven, do the following.

#### Step Action

- 1. **Make sure** that:
  - The location where the oven is being installed is rated to support the weight of the oven,
  - The oven is within five feet of the appropriate electrical outlet,
  - You follow the oven clearance guidelines.



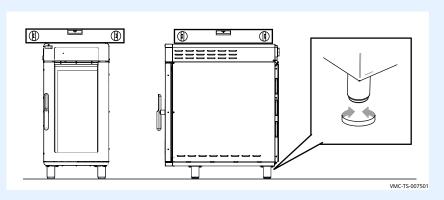
2. **Move** the oven to the installation location and onto the final resting surface.

The oven is now correctly positioned.

#### Level the oven

To level the oven, do the following.

3. **Check** the level of the oven using a spirit (bubble) level. Check front to back and side to side.



**Adjust** the legs, if necessary, to achieve levelness.



VMC-TS-007943

Continued from previous page

#### **Connect the wiring**

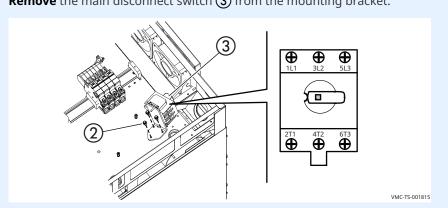
To connect the wiring, do the following.

4. Remove the pivot screws. Remove the top cover ①.

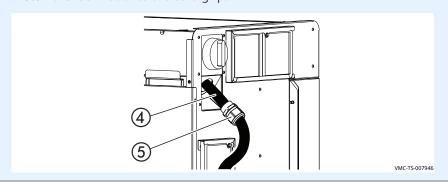
WARNING: Electric shock hazard.

Make sure the supply cord is not connected to a power supply.

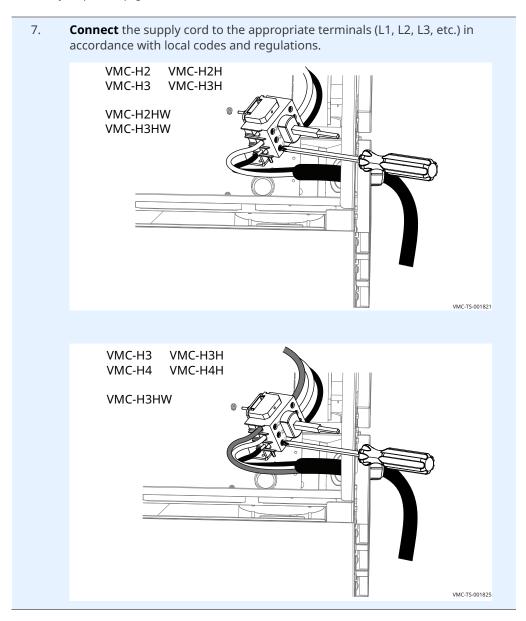
5. **Remove** the bottom 3 screws ② from the mounting bracket. **Remove** the main disconnect switch ③ from the mounting bracket.



6. **Install** the cord **(4)** through the cord grip **(5)** and install to oven. **Install** the lock nut onto the cord grip.



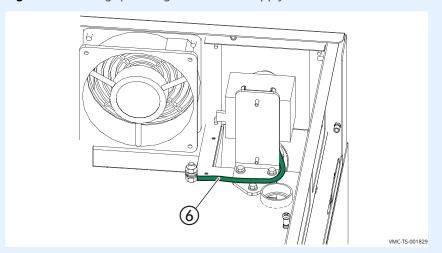




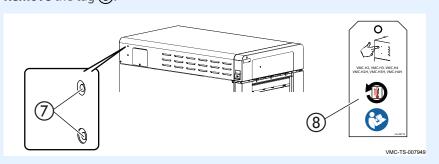
8. **Install** the ground wire **6**.

**Adjust** the cord length.

**Tighten** the cord grip sealing nut onto the supply cord.



- 9. **Re-install** the main disconnect switch.
- 10. **Re-install** the mounting bracket.
- 11. **Re-install** the top cover.
- Press reset button(s)
- 12. **Press and release** the high limit temperature reset button(s) **7**. **Remove** the tag **8**.



Result

The oven is now installed.



# How to Install the Oven

# (50/60 Hz Models Without Cords or Plugs)



WARNING: Electric shock hazard.

Make sure the supply cord and plug have an earth connection (ground).

# Before you begin

### Make sure you have:

- Appropriate cord and plug, minimum oil resistant HO7RN-F. See local codes and regulations.
- Screwdriver (Phillips #2)
- Nut driver (1/4-inch)
- An appropriate lifting device, and enough personnel, to safely move and position the weight of the oven.
  - □ VMC-H2/H2H: 213 lb (97 kg)
  - VMC-H3/H3H: 278 lb (126 kg)
  - □ VMC-H4/H4H: 348 lb (158 kg)
  - VMC-H2HW: 243 lb (110 kg)
  - VMC-H3HW: 312 lb (142 kg)

# Requirements

- The oven must be installed on a level surface.
- The oven must not be installed in any area where it may be affected by steam, grease, dripping water, high temperature, or any other severely adverse conditions.
- If required by local codes, use Type F RCD.
- The oven is not intended for built-in installation.



# **Voltages**

	V	Ph	Hz	A	Breaker*	kW	Wire Size (mm)
VMC-H2H 220-240V	220 240	1 1	50 50	25 28	32 32	5.4 6.4	4 4
380-415V	380 415	3	50 50	12 13	16 16	5.4 6.4	1.5 1.5
VMC-H3H 220-240V	220 240	1	50 50	37 41	63 63	8.1 9.6	10 10
380-415V	380 415	3	50 50	12 13	16 16	8.1 9.6	1.5 1.5
VMC-H4H 380-415V	380 415	3	50 50	23 25	32 32	10.8 12.7	4 4
VMC-H2HW 200-240V	200 240	1 1	50/60 50/60	32 38	50 50	6.5 9.1	8 8
200-240V	200 240	3	50/60 50/60	18 22	40 40	6.5 9.1	10 10
220-240V	220 240	1 1	50/60 50/60	35 38	63 63	7.7 9.1	10 10
380-415V	380 415	3	50/60 50/60	20 22	32 32	7.7 9.1	4 4
VMC-H3HW 200-240V	200 240	3	50/60 50/60	28 33	50 50	9.7 13.6	8 8
380-415V	380 415	3	50/60 50/60	30 33	63 63	11.5 13.6	6 6

<sup>\*</sup>Electrical connections must meet all applicable federal, state, and local codes.



# Wire sizes

60335-1 IEC:2010

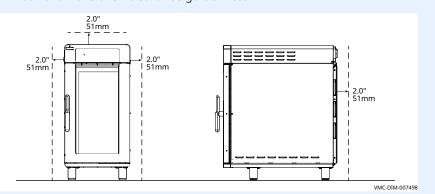
Rated current of appliance A	Nominal cross-sectional area mm <sup>2</sup>
>0.2 - ≤3	0.5
>3 - ≤0	0.75
>6 - ≤10	1.0
>10 - ≤16	1.5
>16 - ≤25	2.5
>25 - ≤32	4
>32 - ≤40	6
>40 - ≤63	10
	I

# Position the oven

To position the oven, do the following.

# Step Action

- 1. **Make sure** that:
  - The location where the oven is being installed is rated to support the weight of the oven,
  - The oven is within five feet of the appropriate electrical outlet,
  - You follow the oven clearance guidelines.



2. **Move** the oven to the installation location and onto the final resting surface.

The oven is now correctly positioned.



# Level the oven

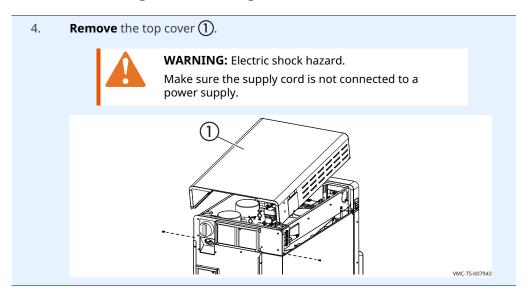
To level the oven, do the following.

3. **Check** the level of the oven using a spirit (bubble) level. Check front to back and side to side. 1 **(II**) VMC-TS-007501 **Adjust** the legs, if necessary, to achieve levelness.

The oven is now level.

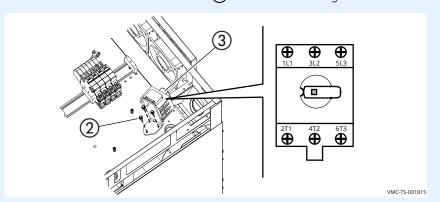
# Connect the wiring

To connect the wiring, do the following.

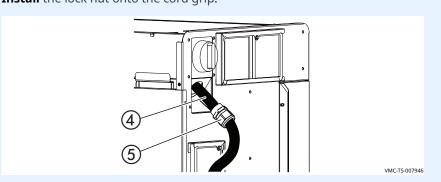




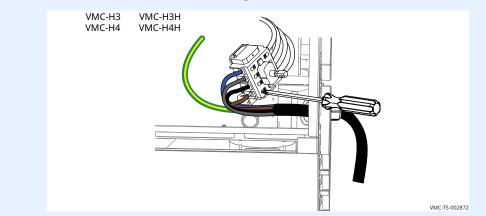
Remove the bottom 3 screws ② from the mounting bracket.
 Remove the main disconnect switch ③ from the mounting bracket.



Install the cord 4 through the cord grip 5.
 Install the cord and cord grip into the oven.
 Install the lock nut onto the cord grip.



7. **Connect** the supply cord to the appropriate terminals (L1, L2, L3, etc.) in accordance with local codes and regulations.

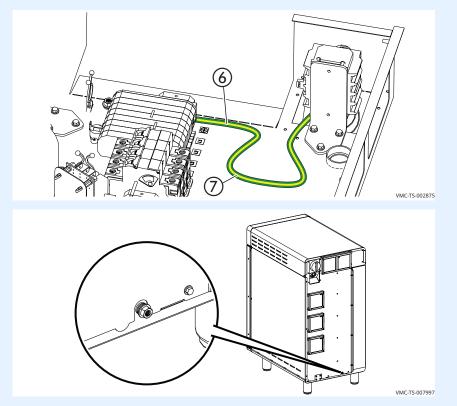




8. **Install** the ground wire **6**.

**Leave** an extra loop  $\bigcirc{7}$  so that current-carrying conductors become taut before the ground wire if the cord is accidentally pulled. Follow applicable regulations.

**Tighten** the cord grip sealing nut onto the supply cord.



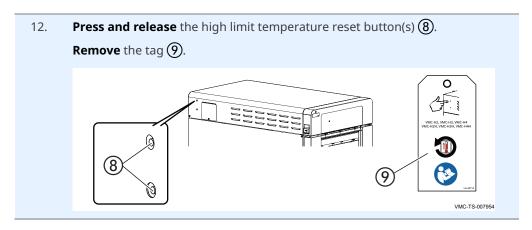
- U t
- **NOTE:** The equipotential-bonding terminal is located at the bottom rear of the oven.
- 9. **Re-install** the main disconnect switch.
- 10. **Re-install** the mounting bracket.
- 11. **Re-install** the top cover.



# **INSTALLATION**

Continued from previous page

# Press reset button(s)



Result

The oven is now installed.

# How to Install the Oven on a Stand (VMC-H2/H2H, VMC-H3/H3H, VMC-H4/H4H)

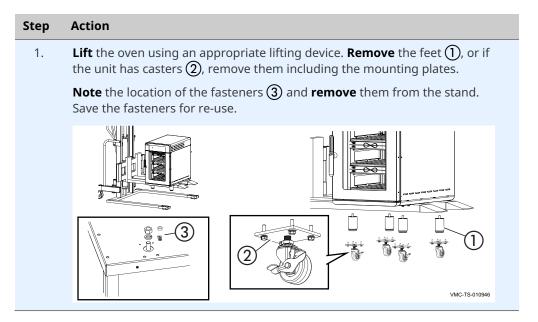
# Before you begin

# Make sure you have:

- The appropriate stand for your oven
- Regulation UL 197, 91.8
- An appropriate lifting device, and enough personnel, to safely move and position the weight of the oven.
  - □ VMC-H2/H2H: 213 lb (97 kg)
  - □ VMC-H3/H3H: 278 lb (126 kg)
  - □ VMC-H4/H4H: 348 lb (158 kg)

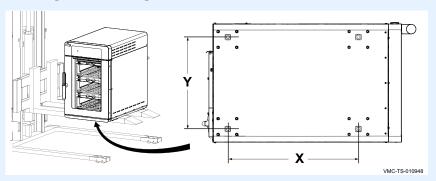
### **Procedure**

To install the ovens on a stand, do the following.

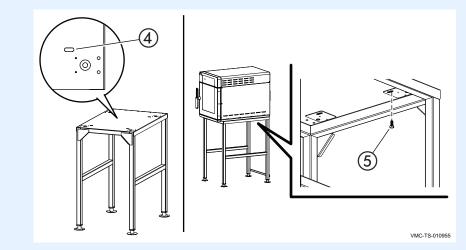




2. While the oven is still on the lifting device, **measure** the distance between the mounting holes of the legs/casters (**X** and **Y**).



3. **Place** the oven on the stand. Use the hole pattern **4** on the stand that corresponds to the hole pattern of the oven measured in step 2. **Connect** the oven to the stand using the hardware **5** removed in step 1.



Result

The oven is now installed to the stand.

# How to Install the Oven on a Stand (VMC-H2HW, VMC-H3HW)

# Before you begin

# Make sure you have:

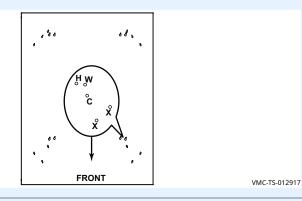
- The appropriate stand for your oven
- Regulation UL 197, 91.8
- An appropriate lifting device, and enough personnel, to safely move and position the weight of the oven.
  - □ VMC-H2HW: 243 lb (110 kg)
  - □ VMC-H3HW: 312 lb (142 kg)

### **Procedure**

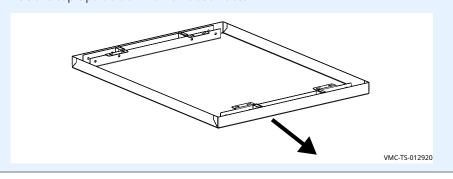
To install the ovens on a stand, do the following.

# Step Action

1. **Locate** the front of the top panel.

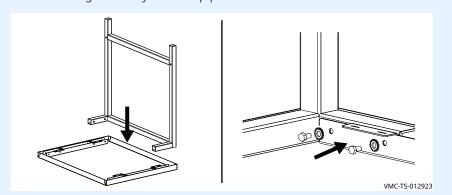


2. **Put** the top upside down on a flat surface.

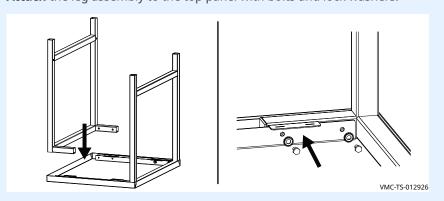




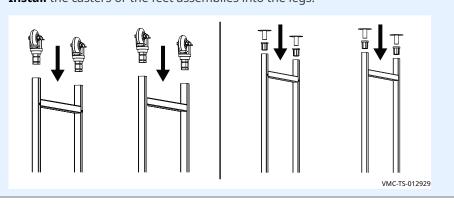
Install the leg assembly into the top panel.
 Attach the leg assembly to the top panel with bolts and lock washers.



Install the second leg assembly into the top panel.
 Attach the leg assembly to the top panel with bolts and lock washers.



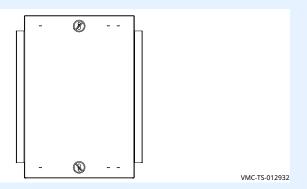
5. **Install** the casters or the feet assemblies into the legs.





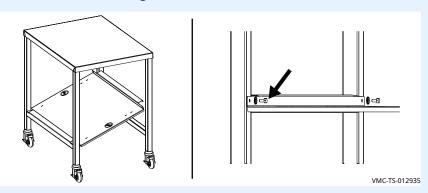
# Installing the shelf (optional)





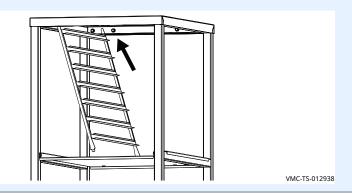
7. **Install** the shelf onto the leg assemblies.

**Attach** the shelf to the leg assemblies with bolts and lock washers.



# Installing the racks (optional)

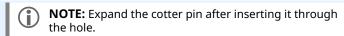
8. **Install** the rack into the slots on the underside of the top.

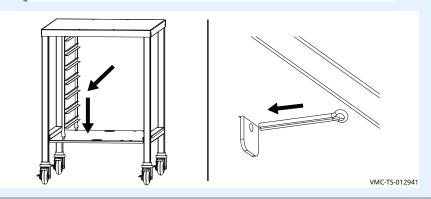




9. **Rotate** the rack and lower it into the slots on the shelf.

**Attach** the rack to the shelf with cotter pins.

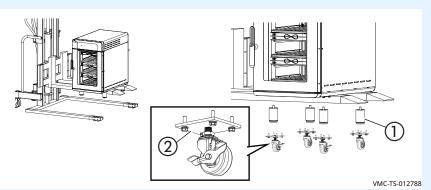




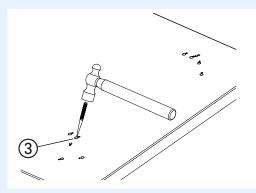
10. **Repeat** the process for the other rack.

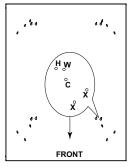
# Installing the oven on a stand

11. **Lift** the oven using an appropriate lifting device. **Remove** the feet ①, or if the unit has casters ②, remove them including the mounting plates.



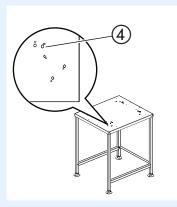
- 12. **Remove** the knock-outs **3** that correspond to your oven. The following letters represent the oven models.
  - C—Converge
  - H—Vector H Series
  - W—Vector Wide
  - X—Combitherm CTX

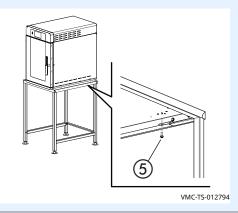




VMC-TS-012791

13. **Place** the oven on the stand. Use the hole pattern **4** on the stand that corresponds to the hole pattern of the oven. **Connect** the oven to the stand using the hardware **5**.





Result

The oven is now installed to the stand.

# How to Install the Oven on Casters (if required)

# Before you begin

# Make sure you have:

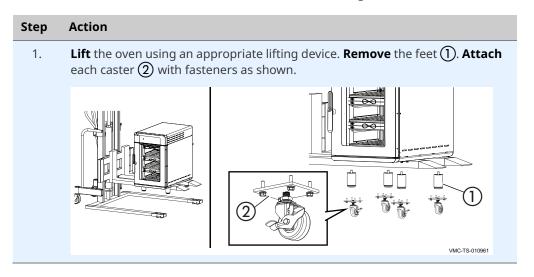
- The appropriate stand for your oven
- Regulation UL 197, 91.8
- An appropriate lifting device, and enough personnel, to safely move and position the weight of the oven.

VMC-H2/H2H: 213 lb (97 kg)
VMC-H3/H3H: 278 lb (126 kg)
VMC-H4/H4H: 348 lb (158 kg)
VMC-H2HW: 243 lb (110 kg)
VMC-H3HW: 312 lb (142 kg)

Install casters on lower oven (if required)

Some stand-oven combinations require installing casters on the oven meant to be under the stand.

To install the casters on the lower oven, do the following.

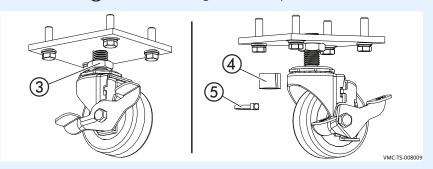




2. **Level** the unit as necessary. To do so, screw the wheel up or down until the unit is level. Tighten the jam nut (3).

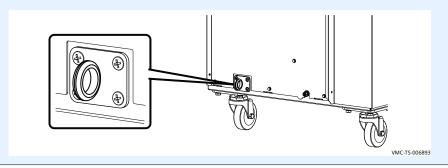
**Slide** a piece of the tubing **4** over the exposed screws if more than 1/4-inch of thread is exposed.

**Attach** wire tie **(5)** around the tubing to hold it in place.



# Install the tether

3. **Install** the tether to the lower oven. Install the tether so that no stress is transmitted to the electrical cord when the oven moves.



### Result

The casters are now installed.



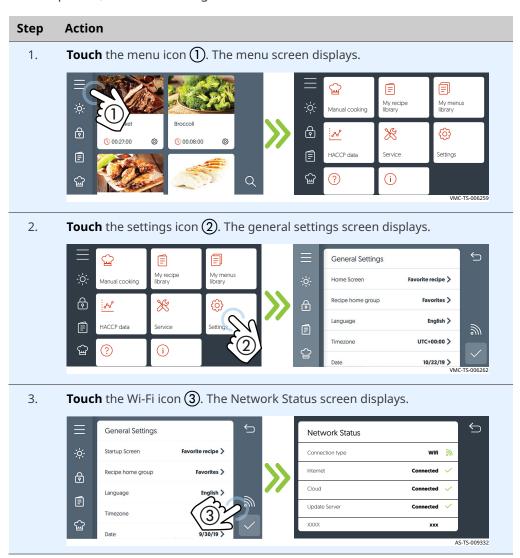
# **How to View and Set up Network Connections**

# Before you begin

- The facility must have Wi-Fi.
- The oven will only recognize networks that require a password to connect.
- Do not connect to a guest network.

### **Procedure**

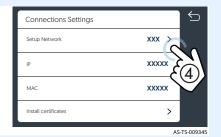
To set up Wi-Fi, do the following.





4. **Scroll** to "Connection settings". **Touch** the Setup Network icon **4**.



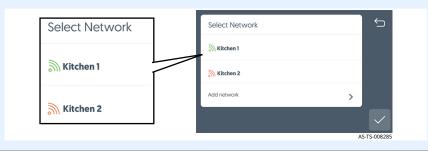


The available networks will show on the screen. The color of the network icon indicates the strength of the signal for each network.

Green = strong

Red = weak

If the network to be used is not displayed, continue with step 5.



5. If the network is not displayed, **touch** the "Add network" icon **(5)**.





**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.



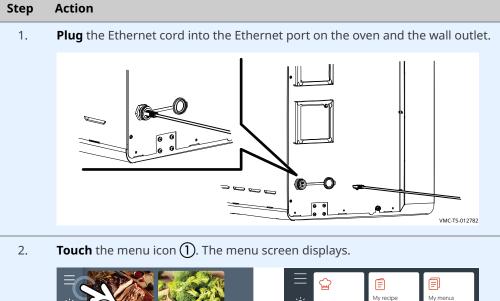
# How to Set up an Ethernet Connection

# 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.

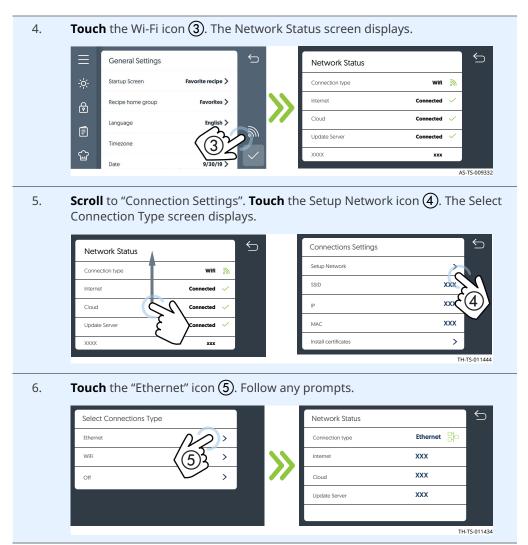




3. **Touch** the settings icon ②. The general settings screen displays.







Result

The Ethernet connection is now set up.

# Installation

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# OPERATION

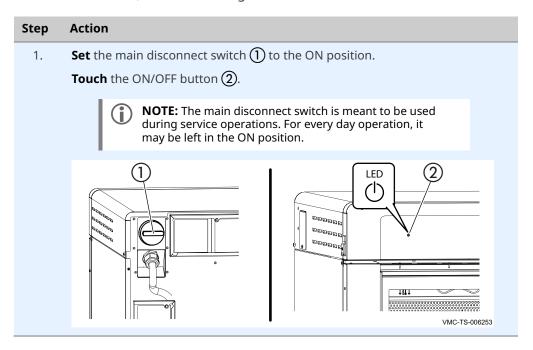
# How to Turn On and Turn Off the Oven

Before you begin

The oven must be connected to electric power.

Turning on the oven

To turn on the oven, do the following.

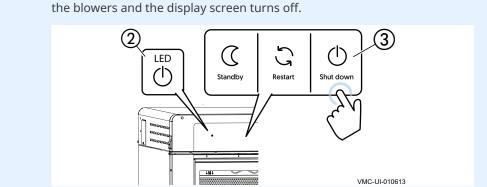


The oven is now on.

# Turning off the oven

To turn off the oven, do the following.

2. **Touch** and hold the ON/OFF button ② until the "Shut down options" screen displays. **Touch** "Shut down" ③. The oven activates the blowers for the cooldown process. The cool-down process is complete when the oven deactivates the blowers and the display screen turns off.



The oven is now off.



# How to Preheat the Oven

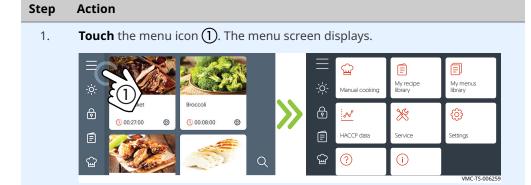
# Before you begin

# Make sure:

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

### **Procedure**

To preheat the oven, do the following.



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



3. **Scroll** to the Temperature Settings.

**Touch** the preheat chamber setting ③. The existing temperature displays. **Enter** the preheat temperature using the number pad. **Touch** the check mark.





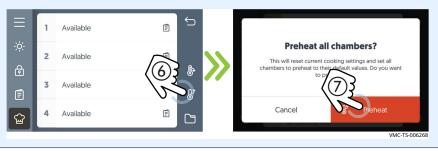
4. **Touch** the check mark **4** to save the preheat temperature settings.

**Touch** the manual cook icon (5) to return to the manual cook screen.



5. **Touch** the preheat icon **(6)**. The preheat all chambers confirmation screen displays.

**Touch** "Preheat" (7). All chambers start to preheat to their preset temperatures.



# **Screen loading bars**

Red loading bars indicate each chamber's progress towards reaching its set temperature.

Touch the cancel icon **(8)** to cancel the preheating process before the individual chamber reaches its preset preheat temperature. Each chamber must be canceled individually.





# Result

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

# **How to Cook with Programmed Recipes**

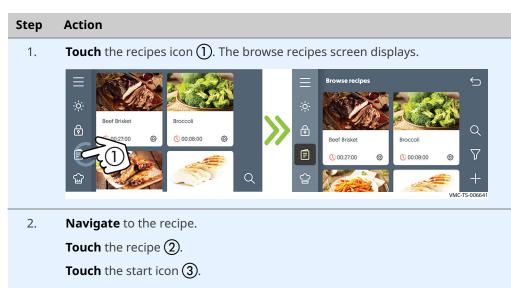
# Before you begin

# Make sure:

- The oven is preheated.
- Your food is prepared and ready to cook.

### **Procedure**

To cook using a programmed recipe, do the following.

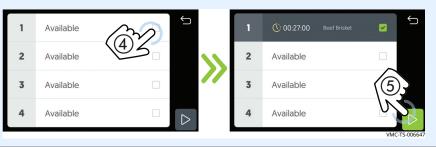




3. **Select** the available chamber(s) **4**.

**Open** the door and load the food into the chamber. **Close** the door.

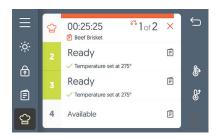
**Touch** the start icon (5).





# During the cooking process

The cooking status screen displays the details on the current cook setting.





# During the cooking process:

Action	Result		
Touch the hand icon when action is required	to continue the cooking process.		
Touch the chamber	to show the recipe details.		
Touch and hold the chef's hat next to the cooking parameters	to show the current chamber temperature.		
Touch "X"	to cancel the cooking process.		

# Result

At the end of the cooking process, the oven sounds an alert and both the chamber light and door handle light flash. Remove the cooked food.



**NOTE:** Be sure to remove the cooked food after pressing "Continue". By pressing "Continue" the oven will revert back to the preheat temperature. If left inside the oven, the food will continue to cook.





# **How to Cook in Manual Mode**

# Before you begin

Be sure your food is prepared and ready to cook.

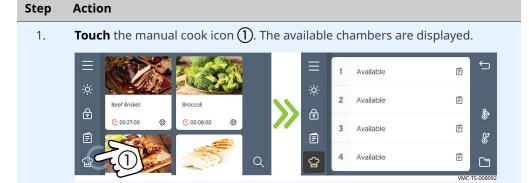
# **Background**

This procedure consists of:

- Setting the preheating stage;
- setting the food loading action;
- and setting the cooking stage parameters (temperature, time, and fan speed).

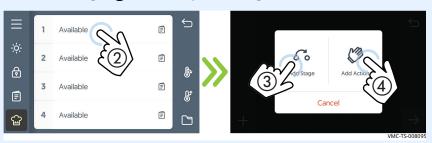
### **Procedure**

To cook in manual mode, do the following.



2. **Touch** any available chamber **②**.

**Touch** "Add Stage" (3) to add the preheat stage.



# **(i)**

### NOTE:

Touching "Add Stage" (3) adds a cooking stage to the recipe. A stage is a set of cooking parameters: cooking temperature, cooking time, and fan speed.

Touching "Add Action" (4) adds an action step to the recipe. An action adds manual tasks to be completed during the recipe such as loading the food or adding an ingredient.



3. **Touch** the temperature regulation icon **(5)**. The oven may need to warm up or cool down to reach your cooking temperature.

**Enter** a preheat temperature using the key pad. **Touch** the check mark.



4. Now set the cooking parameters. **Touch** the cooking temperature **(6)**. **Enter** the cooking temperature using the key pad.

**Touch** the cooking time **7**. Enter the cooking time using the key pad.

**Slide** the slider (8) to set the fan speed.



5. **Touch** the start icon **9**. The preheat process starts.

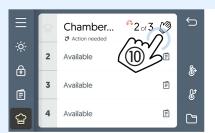




At the end of the preheat stage, the oven sounds an alert, and both the chamber light and the door handle light flash.



6. **Load** the food into the appropriate chamber. **Touch** the action hand **①**. The cooking stage timer starts to count down.





At the end of the cooking stage, the oven sounds an alert, and the chamber light and door handle light flash.

7. **Open** the door and remove the hot food.



**NOTE:** Be sure to remove the cooked food after pressing "Continue". By pressing "Continue" the oven will revert back to the preheat temperature. If left inside the oven, the food will continue to cook.

Result

The food is now cooked.

# How to Lock and Unlock the Screen

Before you begin The

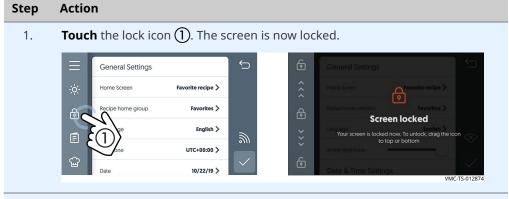
The oven is turned on.

**Background** 

The screen can be locked to prevent changes being made during the cooking process.

**Procedure** 

To lock and unlock the screen, do the following.



2. To unlock the screen, **touch and hold** the lock icon and drag it to the top or bottom of the screen.



Result

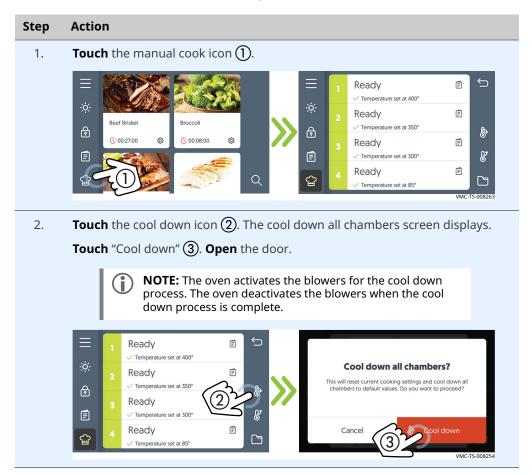
The screen is now locked or unlocked.



# How to Cool Down the Oven

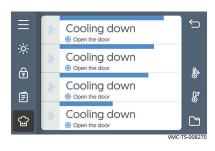
### **Procedure**

To cool down the oven, do the following.



# Cooling down progress bars

Above each chamber on the screen, blue progress bars indicate each chamber's progress towards reaching its cool down temperature.



Result

The oven is now cooled down.



# **How to Create a Recipe**

# **Background**

Creating a recipe consists of:

- Setting the cooking stage(s) parameters (temperature, time, and fan speed);
- setting an action step if desired such as adding an ingredient;
- naming the recipe;

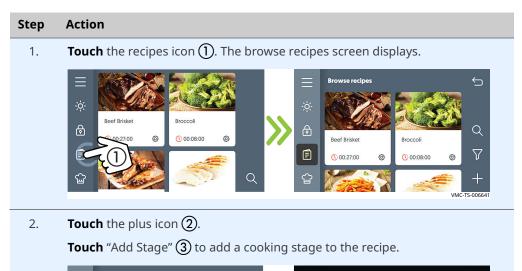
Ē

(0) 00:08:00

- adding a description to the recipe;
- adding a photo to the recipe;
- and adding the recipe to a category.

### **Procedure**

To create a recipe, do the following.



Add Action

Cancel



3. Set the cooking parameters. **Touch** the cooking temperature **(6)**. Enter the cooking temperature using the key pad. **Touch** the check mark.

**Touch** the cooking time ⑦. Enter the cooking time using the key pad. **Touch** the check mark.

**Slide** the slider **(8)** to set the fan speed.

**Touch** the forward arrow icon **4** when finished.



- 4. **Touch** the plus icon to add an additional stage or action, if needed.
- 5. **Touch** the forward arrow icon (5). The recipe name screen displays.





6. **Enter** the recipe name. **Touch** the forward arrow icon **9**. The recipe description screen displays.

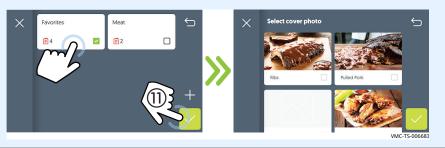


7. **Enter** the recipe description. **Touch** the forward arrow icon **①**. The recipe category screen displays.



8. **Select** the recipe category. A check mark displays on the selected recipe category.

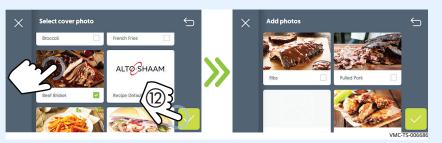
**Touch** the check mark ①. The select cover photo screen displays.





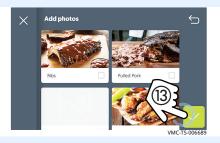
9. **Select** the cover photo for the recipe. A check mark displays on the selected photo.

**Touch** the check mark ②. The add photos screen displays.



10. **Select** additional photos for the recipe, if needed. A check mark displays on any selected photos.

**Touch** the check mark (3) when finished to save the recipe.



Result

A new recipe has been created.

# How to Modify, Duplicate, or Delete a Recipe

#### **Procedure**

To modify, duplicate, or delete a recipe, do the following.

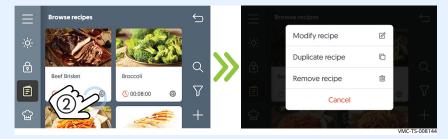
#### Step Action

1. **Touch** the recipes icon (1). The browse recipes screen displays.



#### Modifying

2. To modify a recipe, **Touch** the recipe settings icon ② of the desired recipe.



**Touch** "Modify recipe". The first stage of the recipe displays. There will be a screen for each stage. Scroll to the stage you want to modify.

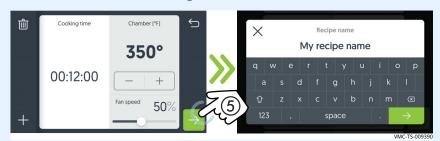


**Touch** the time or temperature space then modify the value using the key pad. **Slide** the slider to change the fan speed. **Touch** the forward arrow icon when finished.

**Touch** the trash icon to delete the stage, if desired.



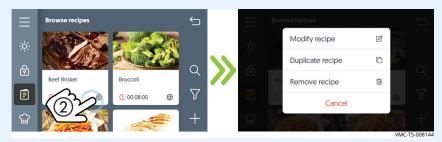
3. **Touch** the forward arrow icon (5). The recipe name screen displays.



Step through the remaining screens using the forward arrow icon. You will be given the opportunity to change the description and any photos you have included in the recipe. When you get back to the browse recipes screen, the changes will be saved.

**Duplicating** 

4. To duplicate a recipe, **Touch** the recipe settings icon (2) of the desired recipe.



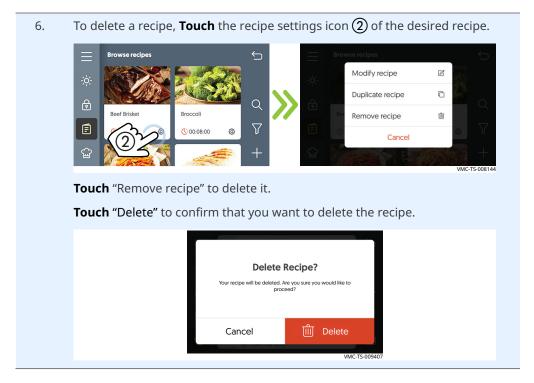
**Touch** "Duplicate recipe" to copy it.

5. Step through the remaining screens using the forward arrow icon. When you get to the naming screen, enter a new name using the keypad.



Step through the remaining screens using the forward arrow icon. Change the parameters of the recipe as desired. When you get back to the browse recipes screen, the changes will be saved and the recipe will be visible on the display.

#### Deleting



Result

The procedure is now complete.



# How to Backup or Restore Settings with a USB Drive

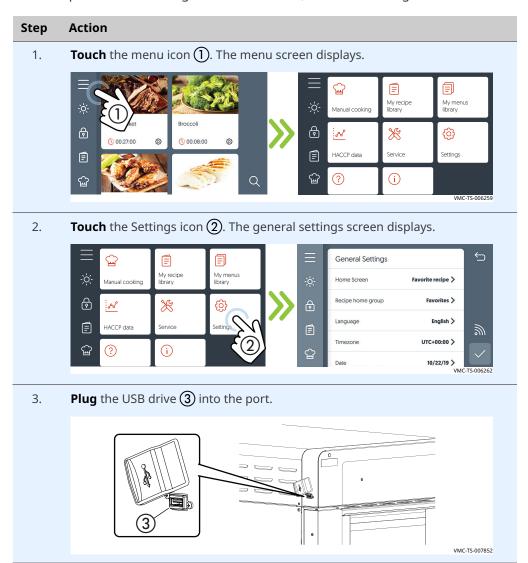
#### Before you begin

#### Make sure:

- The oven is on, but not in a cooking mode.
- You will need a USB drive.

#### **Procedure**

To backup or restore settings with a USB drive, do the following.



4. Scroll to System Backup & Update.

Touch the Backup settings to USB or Restore settings from USB 4.

System Backup & Update

Backup settings to USB

Restore settings from USB

Download recipes to USB

Upload simple recipes from USB

VMC-TS-012800

#### **Loading the recipes**

The oven downloads or restores the settings. When the process is complete, **touch** the check mark to return to the settings screen. **Remove** the USB drive.



#### Result

The settings have now been saved to the USB drive or restored from the USB drive.



# **How to Load Recipes from a USB Drive**

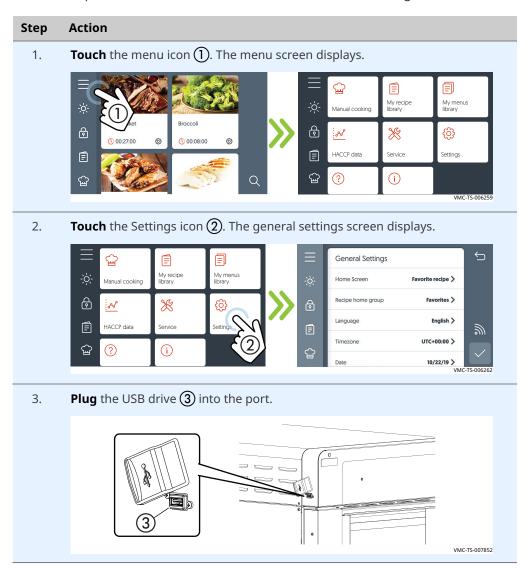
#### Before you begin

#### Make sure:

- The oven is on, but not in a cooking mode.
- You will need a USB drive loaded with recipes.

#### **Procedure**

To load recipes from the USB drive to the oven, do the following.



4. Scroll to System Backup & Update.

Touch the Upload recipes from USB 4 setting.

System Backup & Update

Backup settings to USB

Restore settings from USB

Download recipes to USB

Upload simple recipes from USB

VMC-TS-008113

#### **Loading the recipes**

The oven loads the recipe file. When the process is complete, the Recipes uploaded screen displays. **Touch** the check mark to return to the settings screen. **Remove** the USB drive.



#### Result

The recipes are now loaded.



# **How to Save Recipes to a USB Drive**

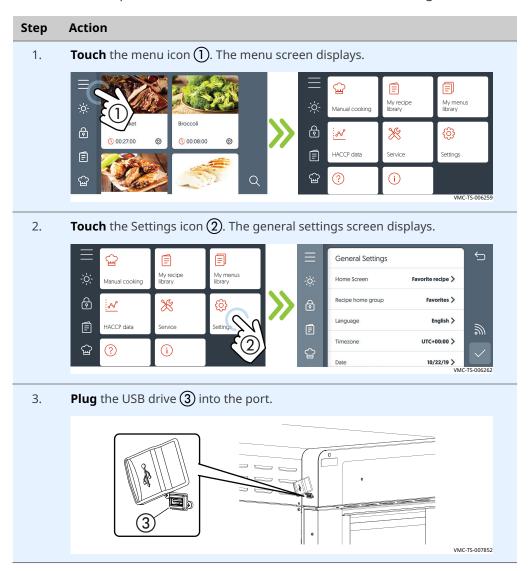
#### Before you begin

#### Make sure:

- The oven is on, but not in a cooking mode.
- You will need a USB drive.

#### **Procedure**

To download recipes from the oven to a USB drive, do the following.





#### **Loading the recipes**

The oven downloads the recipes onto the USB drive. When the process is complete, the Recipes uploaded screen displays. **Touch** the check mark to return to the settings screen. **Remove** the USB drive.



Result

The recipes are now saved to the USB drive.

# **How to Update Software with a USB Drive**

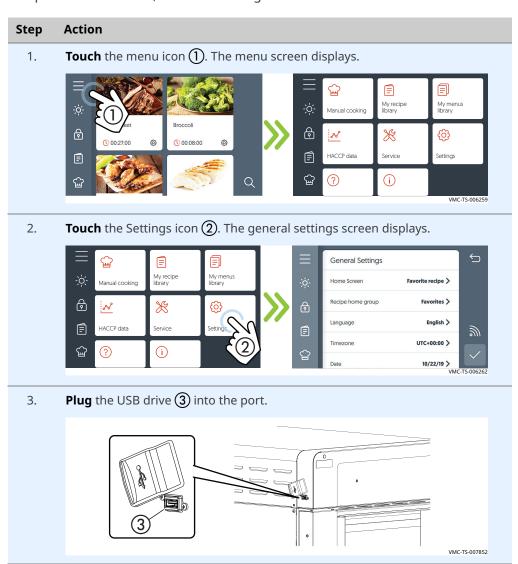
#### Before you begin

#### Make sure:

- The oven is on, but not in a cooking mode.
- 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 <a href="https://www.alto-shaam.com/en/customer-support/software-downloads">https://www.alto-shaam.com/en/customer-support/software-downloads</a>.
- Do not remove the USB drive during the update process.

#### **Procedure**

To update the software, do the following.





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 check mark when the update is complete to restart the oven.



6. **Remove** the USB drive.

Result

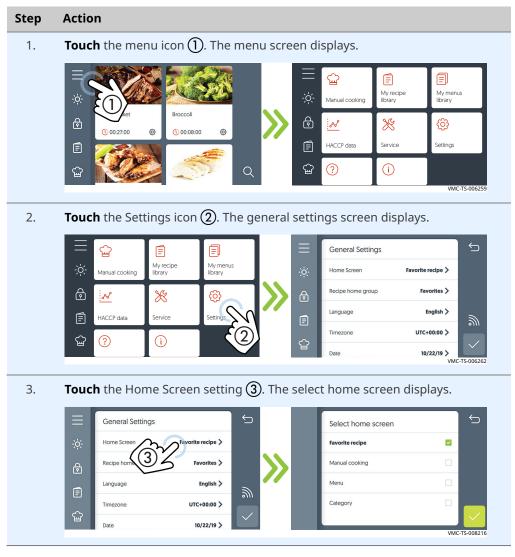
The software has now been updated.



# **How to Change the Home Screen**

**Procedure** 

To change the home screen, do the following.



4. Select your desired home screen from the list. Touch the check mark 4.

Touch the check mark 5 to save the home screen setting.

Select home screen

Favorite recipe

Manual cooking

Menu

Category

America/C

Date

Time

NUCLTS 008319

Result

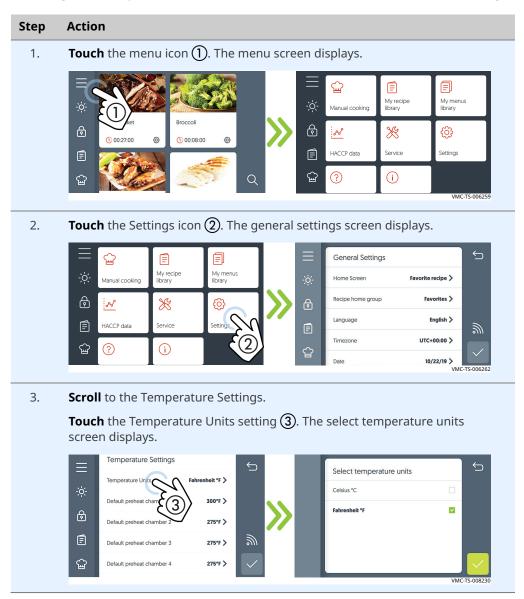
The home screen has now been changed.



# **How to Change the Temperature Scale**

**Procedure** 

To change the temperature scale from °F to °C and vice versa, do the following.



4. Select your desired temperature scale. Touch the check mark 4.

Touch the check mark 5 to save the temperature scale setting.

Select temperature units

Celsius \*C

Fahrenheit \*F

Default preheat chamber 1

Default preheat chamber 2

Default preheat chamber 3

Default preheat chamber 4

NMC-TS-008234

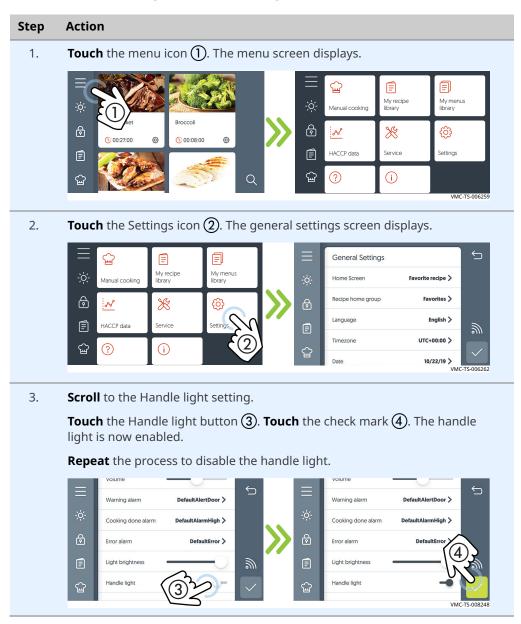
Result

The temperature scale has now been changed.

# **How to Enable the Handle Light**

**Procedure** 

To enable the handle light, do the following.



Result

The handle light is now enabled.

### **How to View Oven Information**

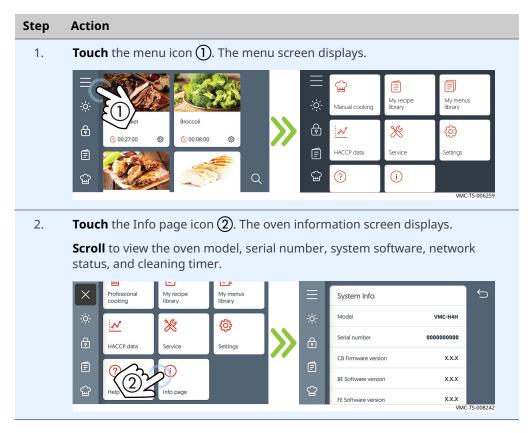
#### Background

This procedure is to be done through the touchscreen on the Deluxe control, not through the ChefLinc™ oven management system.

The oven information screen shows the system info, serial number, network status, and connection settings.

#### **Procedure**

To view oven information, do the following.



Result

The oven's information has been viewed.



#### **How to Download HACCP Data**

#### Before you begin

#### Make sure:

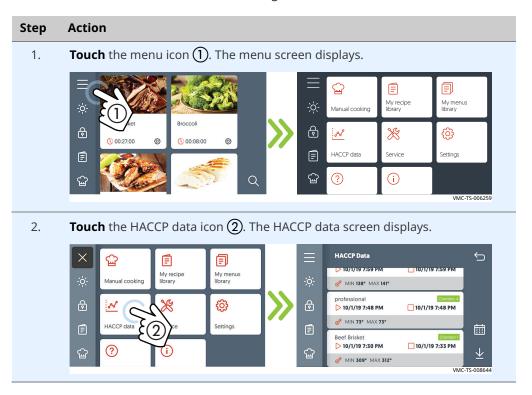
- The oven is on, but not in a cooking mode.
- You will need a USB drive.

#### **Background**

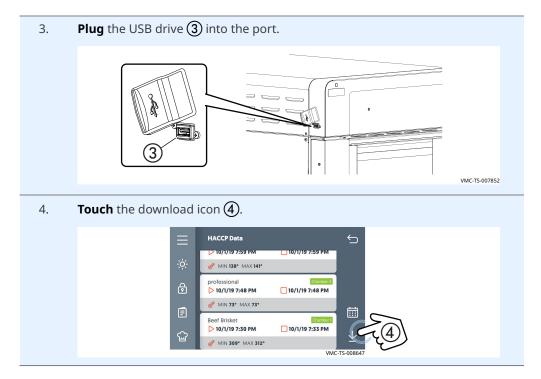
HACCP data provides automated record keeping, set-point validation, recipes used, dates and times. The data is stored until the information is downloaded. Once downloaded, the information is removed from the oven's memory. Best practice would be to download the information every 30 days to a USB drive. The file format is plain text file (.csv). The file can be viewed in Microsoft® Excel.

#### **Procedure**

To download HACCP data, do the following.







#### Loading the data

The oven downloads the data onto the USB drive. When the process is complete, the download successful screen displays. **Touch** the check mark to return to the menu screen. **Remove** the USB drive.



Result

The HACCP data has now been downloaded.

#### **OPERATION**

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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.

- **Remove** any spills with disposable paper wipes or a damp cloth.
- **Wipe** the outside of the oven with a damp cloth.
- **Check** the screen for cracking or peeling. Contact Technical Service if needed.

#### Weekly

For weekly maintenance, do the following.

- **Restart** the oven to reboot the screen.
- **Clean** the entire oven. **Make sure** to use a non-abrasive nylon scrub pad.
- **Inspect** and clean the grease filters (if equipped)
- Do not spray the cleaner directly into the fan openings located in the rear of the oven.

#### Monthly

For monthly maintenance, do the following.

Inspect and clean the cooling fan filters.

#### Yearly

For yearly maintenance, do the following.



**NOTE:** Must be performed by a qualified professional.

- **Remove** the convection element(s) and inspect the return air path for grease buildup. **Remove** any grease buildup.
- **Inspect** the catalyst for any signs of degradation (Vector H Series models only).
- **Inspect** the heater flange area for grease leakage.
- **Inspect** the motor flange area for grease leakage.
- Inspect the door gaskets for correct shape and seal.
- Inspect the inner and outer door window panes for cracking or chipping.
- Check and tighten all wire connections.
- **Check and tighten** all display, interface and control board connections.
- Check and tighten the door hinges.



#### **MAINTENANCE**

#### Continued from previous page

- **Record** the software versions and update if necessary.
- **Record** the amp draw of all elements on the service screen individually.
- **Record** the incoming supply line voltage.
- **Test** each chamber fan for correct operation.
- **Test** each chamber heater for correct operation.
- **Test** the chamber lights.



## How to Clean the Oven

#### **Precautions**

#### WARNING: Burn hazard.

Wear eye protection and hand protection while cleaning the oven.



Do not spray cleaner into the oven while the blowers are running.

Allow the oven, racks, and jet plates to cool before cleaning the oven.

#### NOTICE

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

Do not spray the catalyst or any opening inside the oven with water or cleaning solution.

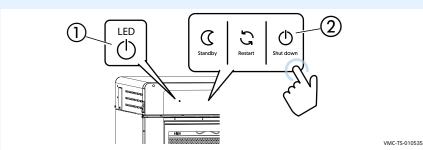
Do not use steel pads, wire brushes, or scrapers when cleaning.

# Daily cleaning procedure

For the daily cleaning, do the following.

#### Step Action

1. **Touch and hold** the ON/OFF button ① until the Shut down options screen displays.



**Touch** "Shut down" (2).

The oven activates the blowers for the cool-down process. The cool-down process is complete when the oven deactivates the blowers and the display screen turns off. When the cool-down process is complete, it is safe to clean the oven.

- 2. **Remove** any spills with disposable paper wipes or a damp cloth.
- 3. **Wipe** the outside of the oven with a damp cloth.
- 4. **Wipe** the outside of the oven with a stainless steel cleaner.

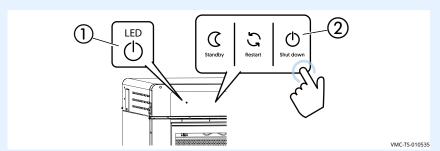


# Monthly or as needed cleaning procedure

For the monthly cleaning or as needed if the oven is dirty, do the following.

#### Step Action

1. **Touch and hold** the ON/OFF button ① until the Shut down options screen displays.



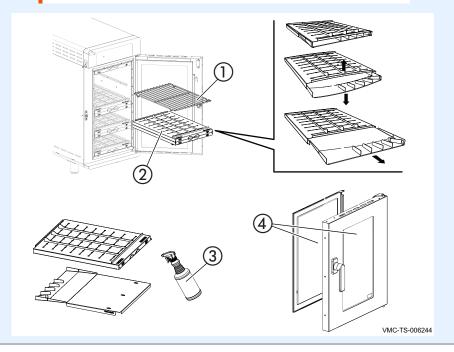
#### Touch "Shut down" (2).

The oven activates the blowers for the cool-down process. The cool-down process is complete when the oven deactivates the blowers and the display screen turns off. When the cool-down process is complete, it is safe to clean the oven.

2. **Remove** the cooking racks ① and jet plates ②.

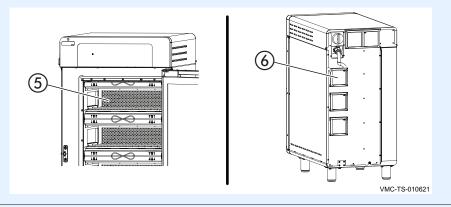


**CAUTION:** Personal injury hazard. Use hand protection when handling the jet plates.





- 3. **Separate** the jet plates. Flexing the jet plates outward can aid in separating the jet plates.
- 4. **Spray** the cooking racks and jet plates with Alto-Shaam non-caustic oven cleaner ③, CE-46828. Follow safety instructions on cleaner bottle. Let the cleaner work for 3–5 minutes. **Scrub** with a non-abrasive scrub pad. **Rinse** with water. **Wipe** with a soft cloth.
- 5. **Remove** the grease filters **(5)** if equipped.



- 6. **Spray** the interior surfaces of the oven with Alto-Shaam non-caustic oven cleaner, CE-46828. Also spray the grease filters. Let the cleaner work for 3–5 minutes. **Scrub** with a non-abrasive scrub pad. **Remove** any residue with a water-soaked towel.
- 7. **Remove** the cooling fan filters **(6)**. Clean with a mild cleaner and rinse with hot water.
  - **NOTE:** Replace the cooling fan filters at least once a year.
- 8. **Re-install** the grease filters and the cooling fan filters.
- 9. **Clean** the door glass **4**) with Windex® or equivalent glass cleaner.
- 10. **Re-install** the jet plates and cooking racks.
  - NOTE: Make sure the jet plates are installed correctly. The nozzles on the jet plates should be pointing towards the food.



#### **MAINTENANCE**

Continued from previous page

**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.

Result

The oven is now clean.



# **Error Codes**

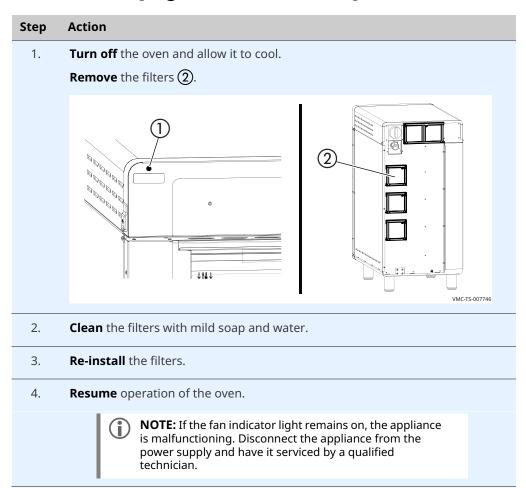
Code	Description	Parameters that trigger the error	Possible Cause(s)	
E-3	Motor error	No cavity motor rotation detected for greater than 30 seconds.	Connection between Variable Frequency     Drive (VFD) and control board     Connection between fan motor and VFD     Fan motor     VFD     Control board	
E-10	Sensor short	Short circuit detected on sensor wires.	<ol> <li>Sensor connection</li> <li>Sensor</li> <li>Control board</li> </ol>	
E-11	Sensor open	Cavity air sensor reading > 650°F (343°C).	<ol> <li>Sensor connection</li> <li>Sensor</li> <li>Control board</li> </ol>	
E-30	Unit under temperature	Cavity temperature remains 25°F (14°C) below target for more than 90 minutes.	Troubleshoot heating element	
E-31	Electronics over temperature	Control board temperature exceeds 158°F (70°C) and/or interface board temperature exceeds 184°F (84°C).	<ol> <li>Cooling fan filters blocked or dirty</li> <li>Cooling fan not operating</li> <li>Installation clearance requirements not met</li> </ol>	
E-87	Gas lockout	Loss of flame three times within 5 minutes.	Lack of fuel pressure.	
E-88	Ignition module/valve failure	Two, 4-second tries for light at the ignition module with a 30-second delay between.	1. Valve status is not open after call for heat.	
E-90	Gas combustion blower speed failure	Blower RPM is outside +/- 10% of expected RPMs at start of call for heat, or post-ramping when the end speed is reached.	<ol> <li>Power supply cable is not connected to blower motor.</li> <li>Speed control cable is not connected to blower motor.</li> <li>Blower motor is blocked, rotation is impeded, or motor is faulty.</li> <li>Faulty PWM daughter board.</li> </ol>	
E-94	Interface Board - Control Board communication error	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	Bi-metal thermostat open	Open circuit detected across bi-metal switch.	1. Cooling fan filters blocked or dirty 2. Cooling fan not operating 3. Connection between bi-metal switch and control board 4. Installation clearance requirements not met 5. Bi-metal switch	
E-109	High limit error <b>Note:</b> Contact an authorized Alto-Shaam service partner.	Open circuit detected across high limit switch.	<ol> <li>Jet plate(s) improperly installed</li> <li>Cavity fan not operating</li> <li>Optional grease filters blocked with debris</li> <li>Heat relay(s) stuck closed</li> <li>Connection between high limit switch and control board</li> <li>High limit switch</li> </ol>	



# What to do if the Fan Indicator Light Illuminates

#### **Procedure**

If the fan indicator light (1) illuminates, do the following.



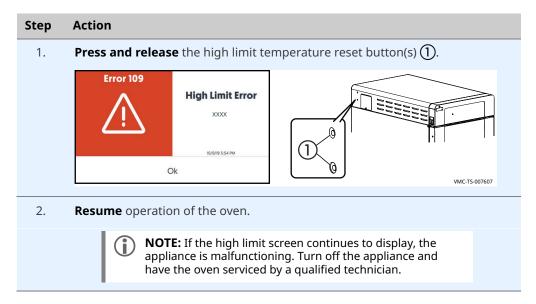
Result

The procedure is now complete.

# What to do if the High Limit Screen Displays

#### **Procedure**

If the high limit screen displays, do the following.



#### Result

The procedure is now complete.



# 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 not 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. See topic How to Set up an 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 at 800-558-8744.



# 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 Wi-Fi 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. Nο 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 Wi-Fi module or signal strength bars Check that the serial number on the control panel matches antenna. of the network icon? the number in ChefLinc. Check that the following addresses If red, you lost are not being blocked (iotupdate@alto-shaam.com and connection with your cheflinc.alto-shaam.com). If the oven is still not connected, network. If yellow, use a different device on the same network and check the access to those two sites. If the sites are available on a your signal strength is marginal. If green, separate device, then contact Alto-Shaam technical your fully connected. support at 800-558-8744 to make sure the oven has been Check for the correct provisioned with the ChefLinc services. If those sites are not accessible on a separate device, then contact your network SSID password. 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 at 800-558-8744 for assistance.

# TROUBLESHOOTING

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# NOTIFICATIONS

#### **Notifications**

FCC ID: N6C-SDPAC IC ID: 4908A-SDPAC

#### **NOTICE**

#### Federal Communication Interference Statement (United States only)

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be colocated or operating in conjunction with any other antenna or transmitter.



# Canadian Department of Communications Industry Canada Notice (Canada only)

This Class B digital apparatus complies with Canadian ICES-003.

#### FCC Rules, Part 15 / Industry Canada

This device complies with Part 15 of FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference, including interference that may cause undesired operation of this device.

This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment should be installed and operated keeping the radiator at least 20 cm or more away from a person's body.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This radio transmitter (identify the device by certification number, or model number if Category II) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

For product available in the USA/Canada market, only channels 1–11 can be operated. Selection of other channels is not possible. If this device is to be operated in the 5.15~5.25GHz frequency range, it is restricted to indoor environments only.

Antenna: Proprietary

Antenna gain information: Embedded Antenna: 3.25dBi (2.4 GHz), 5.0dBi (5 GHz)

Frequency Tolerance: +/-20ppm

#### **WARNING**

The FCC / The Industry Canada regulations provide that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



**General Specifications** 

**Chipset:** QCA9377-3, (Qualcomm Atheros)

**Host Interface:** Wifi: SDIO v3.0; BT: High Speed UART

Operating Voltage: 3.30 VDC +/- 5%

**Operating** -20 to +70 degrees C **Temperature:** 

**Dimensions:** 18.0 x 13.0 x 2.2 mm (L x W x D)

**Connector Type:** 52-pin proprietary

**Radio Specifications:** 802.11b/g/n: 2.412–2.484 GHz;

802.11a/n: 5.18-5.825 GHz

BT: 2.402-2.480 GHz

Link Rates (1 stream): IEEE 802.11b: 1–11 Mbps

IEEE 802.11g: 6-54 Mbps IEEE 802.11a: 6-54 Mbps

IEEE 802.11n HT20: 6.5-65.0 Mbps

IEEE 802.11n HT40: 13.5–135.0 Mbps IEEE 802.11ac VHT20: 6.5–78.0 Mbps I

EEE 802.11ac VHT40: 13.5–180.0 Mbps IEEE 802.11ac VHT80: 29.3–390.0 Mbps

Modulation Modes: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK), DSSS (CCK, DQPSK, DBPSK),

GFSK (1Mbps), π/4 DQPSK (2Mbps), 8DQPSK (3Mbps)

Hardware Encryption:

WEP, WPA/WPA2 (TKIP/AES-CCMP), WAPI

**Quality of Service** 

(QoS):

WMM, WMM-PS, 802.11e

Japanese Security

Standard

This oven cannot be connected directly to the telecommunications circuits (or public wireless LANs) of any telecommunication carriers (example: mobile communications carriers, fixed communications carriers, or Internet providers). In the case of connecting the oven to the Internet, make sure to connect it via a

router.

# Conditions for Ovens Installed in New York City

- Operating instructions in the manual must be read and understood by all persons using the appliance. The person responsible for training of the operators is responsible for the safekeeping of the manual.
- Prior to installation, plans specifying the exact product name/model number and dimensions/specifications shall be filed with and approved by New York City Department of Buildings (DOB). A copy of DOB docketed (Stamped, numbered and dated) plans shall be transmitted to the Fire Department for review and approval, as applicable.
- Installation, maintenance, and cleaning procedures shall comply with all applicable New York City Fire Code, New York City Electric Code, New York City Construction Codes (including the Building Code and the Mechanical Code), and rules.
- The cooking equipment shall be used for light duty cooking ad food warming only, and shall be provided with catalyst to limit the emission of grease-laden air.
- The cooking equipment shall be installed in an area approved by the New York City Department of Buildings.
- Underwriters Laboratories, Inc.'s listing requirements and manufacturer's installation, operation and maintenance requirements shall be complied with.
- The cooking equipment (including filters and catalyst) shall be inspected, cleaned and replaced if necessary, by a qualified person holding a Fire Department Certificate of Fitness. They catalyst shall be maintained in proper working order. A record of such inspection and cleaning shall be kept on the premises for inspection.
- All installations are subject to inspection by representatives of the Bureau of Fire Prevention which may result in additional requirements being imposed.
- The Fire Department's condition of approval shall be provided to all New York City buyers, users and installers.
- Certificate of Approval number shall be plainly and permanently stamped or otherwise fixed upon each product by the manufacturer or the local representative of the manufacturer.
- The equipment's technology does not violate any patent, trade name, trade secret or other intellectual right.
- The Certificate of Approval does not constitute an endorsement or recommendation of the product by the Fire Department, but is a certification that the product is acceptable as of the date of issuance.
- The Fire Department may withdraw this approval at any time in the event there is a reasonable doubt that the product does not operate or perform as required by code, the conditions of the resolution or as represented in the application.
- Any end user who fails to comply with the conditions as outlined in this approval will be subject to enforcement action.



# WARRANTY

# Warranty

#### Introduction

Alto-Shaam, Inc. warrants to the original purchaser only, that any original part found to be defective in material or workmanship will be replaced with a new or rebuilt part at Alto-Shaam's option, subject to provisions hereinafter stated.

#### **Warranty Period**

The original parts warranty period is as follows:

- For all other original parts, one (1) year from the date of installation of appliance or fifteen (15) months from the shipping date, whichever occurs first.
- The labor warranty period is one (1) year from the date of installation or fifteen (15) months from the shipping date, whichever occurs first.
- Alto-Shaam will bear normal labor charges performed during standard business hours, excluding overtime, holiday rates or any additional fees.
- For the refrigeration compressor, if installed, the warranty period is five (5) years from the date of original installation of the appliance.
- For heating elements on Halo Heat® Cook and Hold ovens, the warranty period is for as long as the original owner owns the oven. This warranty period applies to units sold after 2/1/2009 and excludes holding-only ovens.
- To be valid, a warranty claim must be asserted during the applicable warranty period. This warranty is not transferable.

#### **Exclusions**

This warranty does not apply to:

- Calibration.
- Replacement of light bulbs, rubber gaskets, grease filters, air filters, racks, jet plates, and/or the replacement of glass due to damage of any kind.
- Equipment damage caused by accident, shipping, improper installation or alteration.
- Equipment used under conditions of abuse, misuse, carelessness or abnormal conditions, including but not limited to, equipment subjected to harsh or inappropriate chemicals, including but not limited to, compounds containing chloride or quaternary salts, poor water quality, or equipment with missing or altered serial numbers.
- Equipment damage caused by use of any cleaning agents other than those recommended by Alto-Shaam, including but not limited to damage due to chlorine or other harmful chemicals.
- Any losses or damage resulting from malfunction, including loss of food product, revenue, or consequential or incidental damages of any kind.
- Equipment modified in any manner from original model, substitution of parts other than factory authorized parts, unauthorized removal of any parts including legs, or unauthorized addition of any parts.





- Equipment damage incurred as a direct result of poor water quality\*, inadequate maintenance of steam generators and/or surfaces affected by water. Water quality and required maintenance of steam generating equipment is the responsibility of the owner/operator.
- Equipment damage incurred as a result of not following the required maintenance schedule published in the manuals for the equipment.

#### Conclusion

This warranty is exclusive and is in lieu of all other warranties, express or implied, including the implied warranties of merchantability and fitness for a particular purpose. No person except an officer of Alto-Shaam, Inc. is authorized to modify this warranty or to incur on behalf of Alto-Shaam any other obligation or liability in connection with Alto-Shaam equipment.

\*Refer to the product spec sheet for water quality standards.



#### **DECLARATION OF CONFORMITY**

Manufacturer:

Alto-Shaam, Inc. W164 N9221 Water Street Menomonee Falls, WI 53202-0450



**EQUIPMENT TYPE:** Household and Similar Electric Appliances

**EQUIPMENT DESCRIPTION:** Commercial Electric Convection Ovens

MODEL NUMBER: VMC-H2, VMC-H3, VMC-H4, VMC-H2H, VMC-H2HW, VMC-H3H, VMC-H3HW,

VMC-H4H, VMC-F3E, VMC-F4E with or without a V after the dash.

**APPLIED DIRECTIVES:** Low Voltage Directive 2014/35/EU

MD (Machinery Directive) 2006/42/EC

EMC - 2014/30/EURED - 2014/53/EU

APPLIED STANDARDS: EN 60335-1:2014

EN 60335-2-42:2003 + A1:2008 + A11:2012 EN 55014-1: CISPR 14, EN 55014-2: CISPR 14 EN 62479, EN 300 328, EN 301 489, EN 300 893



We the undersigned, hereby declare that the equipment specified above conforms to the above Directives and Standards

Manufacturer Name:
ALTO-SHAAM INC.
NAME: Christa Pieper

TITLE: Certification Manager

SIGNATURE: Muth Typer DATE: December 1, 2021







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