Operator's Manual



Vector™ Multi-Cook Oven

Deluxe Control

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



Structured Air Technology™



MN-46295-EN

REV.01 11/19

Manufacturer's Information

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	This manual or any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of Alto-Shaam, Inc.		
Trademarks	All trademarks referenced in this documentation are the property of their respective owners.		
Manufacturer	Alto-Shaam, Inc.		
	P.O. Box 450		
	W164 N9221 Water Street		
	Menomonee Falls, WI 53052		
Original instructions	The content in this manual is written in American English.		



Enjoy your Alto-Shaam Vector Oven!

Structured AirThe Alto-Shaam Vector Oven features Structured Air Technology, giving you two,Technology™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. You will also receive direct notifications of software updates and additional product information.

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

www.alto-shaam.com/warranty

Alto-Shaam 24/7 Emergency Repair Service

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

Availability Emergency service access is available seven days a week, including holidays.



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The Meaning of Signal Words

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



DANGER

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



WARNING

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



CAUTION

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



Notice 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™

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.

	Ê		
5:30	60%	400°	VMC-TS-000271

 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	Obey these maintenance precautions when maintaining the appliance:			
precautions	 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			

Do not remove the top cover or side panels. There are no user-serviceable components inside.

SAFETY

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



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Label Locations









5	<u></u>	WARNING Hot surface
6	MADE IN U.S.A.	Made in U.S.A.
7	Image: Constraint of the second sec	WARNING Burn hazard Always load liquids, or foods that can become liquid when heated, at an eye level where they can be seen.
8	Escultificad could be a could be could be could be a could be a could be a could be a co	Security seal
9	Check fans Compruebe los ventiladores Vérifiez les ventilateurs LA-39033	Check fans
10	LA-36443-L1	Line 1 supply terminal
11	L2 LA-36443-L2	Line 2 supply terminal







Dimension Drawings



INSTALLATION



How to Receive the Appliance

Responsible parties	When an Alto-Shaam preferred carrier is used, shipping damage is a matter between Alto-Shaam and the carrier. In such cases, contact Alto-Shaam customer service.		
	When ar betweer be respo be estat	n Alto-Shaam non-preferred carrier is used, shipping damage is a matter in the carrier and the consignee. In such cases, the carrier is assumed to possible for the safe delivery of the merchandise, unless negligence can plished on part of the shipper.	
Receive the When receiving the appliance, do the following.			
	Step	Action	
	1.	Inspect 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.	Inspect and count all merchandise received. Do not sign a delivery receipt or a freight bill until you have done so.	
	3.	Note all damage to packaging and to the equipment on the carrier's receipt.	
	4.	Request the driver sign the delivery receipt. If the driver refuses to sign, make a note of this refusal on the delivery receipt.	
	5.	Write 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.	Contact the carrier immediately upon finding damage, and request an inspection. Follow the carrier's policies and procedures.	
Alto-Shaam policy	It is the been pro damage deductio	policy of Alto-Shaam to assist customers in collecting claims that have operly filed and actively pursued. Alto-Shaam cannot, however, file claims, assume the responsibilities for damage claims, or accept ons 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)		
	□ VI	MC-H3/H3H: 278 lb (126 kg)	
	□ VI	MC-H4/H4H: 348 lb (158 kg)	
	 Cutting tools to remove the packaging. 		
Unpack the oven	t he 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 $\textcircled{1}$ 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:			
Тор:			
Based on the oven's designated spot in the kitchen, is	V	as / No	
the oven accessible for service?	fes7 No		
If NO, comment on the issue:			
Other comments:			

ALTO-SHAAM

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:	1	Pass	Fail
Is there a disconnect or junction box within 3' (914mm) of where the oven(s) will be installed?	Pass	Fail		
Commonts:				1

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:

Wifi equipped ovens

Is the Wifi system that be used secure, Wifi Protected Access 2 (WPA2)? The Wifi system to be used cannot be Point of Sales Wifi.	Yes	No
Have you been provided the Service Set Identifier (SSID) for the system to be used?	Yes	No
Have you been provided the pass phrase for the Wifi system to be used?	Yes	No
At the final location that the oven will be installed, can you connect to the Wifi 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 Wifi 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 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:



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: (if applicable)	Oven rated voltage:
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?		

Oven visual inspection (internal)		Loose/Damaged	
oven visual hispection (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.			

ALTO-SHAAM

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.			
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	

Wifi equipped ovens:

Navigate to the settings screen, touch the network icon.

On the Your network status screen: What is the connection type?	Wireless	Ethernet		
What color is the network icon?	Red Yellow Green			
What is the Internet status?				
What is the Cloud status?				
What is the SSID?				
What is the IP Address?				



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)
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	

Voltages	
----------	--

	v	Ph	Hz	А	Breaker*	kW	Plug Configuration**
VMC-H2/	208	1	60	25	30	5.2	NEMA 6-30P
VMC-H2H	240		60	28	30	6.7	NEMA 6-30P
VMC-H3/ VMC-H3H	208 240 208 240	1 1 3 3	60 60 60 60	38 43 22 25	50 50 30 30	7.9 10.3 7.9 10.3	NEMA 6-50P NEMA 6-50P NEMA 15-30P/L15-30P NEMA 15-30P/L15-30P
VMC-H4/	208	3	60	33	40	10.6	NEMA 15-50P
VMC-H4H	240	3	60	38	40	13.9	NEMA 15-50P

*Electrical connections must meet all applicable federal, state, and local codes.

**No cord, no plug in Canada.



Position the oven

To position the oven, do the following.

Step Ac	tion
---------	------

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.



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.
Image: Spirit (bubble) level. Check front to back and side to side.
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Image: Spirit (bubble) level. Check front to back and side to side.
Image: Spirit (bubble) level. Check front to back and side to side.

The oven is now correctly positioned.



INSTALLATION

Continued from previous page

Connect power

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



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)							
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	Α	Breaker*	kW	
	VMC-H2/ VMC-H2H	220 240	1	50/60 50/60	25 28	32 32	5.4 6.4	

3

3

1

1

3

3

3

3

380

415

220

240

380

415

380

415

VMC-H3/

VMC-H3H

VMC-H4/

VMC-H4H

*Electrical connections must meet all applicable federal, state, and local codes.

50/60

50/60

50/60

50/60

50/60

50/60

50/60

50/60

12

13

37

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63

63

16

16

16

16

Continued on next page

5.4

6.4

8.1

9.6

8.1

9.6

10.8

12.7



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.



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.





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 and install to oven.
 Install the lock nut onto the cord grip.



Continued on next page







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

Adjust the cord length.

Tighten the cord grip sealing nut onto the supply cord.



Result

The oven is now installed.



How to Install the Oven (50 Hz Models Without Cords or Plugs)

Before you begin	Make sure you have:						
	 Appropriate cord and plug, minimum oil resistant HO7RN-F. See local codes and regulations. Screwdriver (Phillips #2) 						
	 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)						
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	1	50	25	32	5.4	4
	240	1	50	28	32	6.4	4
	380	3	50	12	16	5.4	1.5
	415	3	50	13	16	6.4	1.5
VMC-H3H	220	1	50	37	63	8.1	10
	240	1	50	41	63	9.6	10
	380	3	50	12	16	8.1	1.5
	415	3	50	13	16	9.6	1.5
VMC-H4H	380	3	50	23	32	10.8	4
	415	3	50	25	32	12.7	4

*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 ²
>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

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. 2.0" 51mm 2.0" 51mm 2.0" 51mm 2.0" 51mm VMC-DIM-007498 2. Move the oven to the installation location and onto the final resting surface.

The oven is now correctly positioned.



INSTALLATION

Continued from previous page

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.



The oven is now level.

Connect the wiring To connect the wiring, do the following.






6. 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 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.





Press reset button(s)



Result

The oven is now installed.

How to Install the Oven on a Stand

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, do the following. Step Action					
	1. Remove the feet ①.					

- 2. **Lift** the oven and set it on the stand.
- 3. **Connect** the oven to the stand with the supplied fasteners **(2)**.



(1)

Continued on next page

VMC-TS-008000



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

Install wheels on lower oven



5. 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 1/4inch of thread is exposed.

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



- Install the tether
- 6. 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 oven is now installed to the stand.



How to View and Set up Network Connections

Before you begin

The facility must have WIFI.

Do not connect to a guest network.

Procedure

To set up WIFI, do the following.

Step Action

1. **Touch** the menu icon **()**. The menu screen displays.



2. **Touch** the settings icon **(2)**. The general settings screen displays.



3. **Touch** the WIFI icon (3). The network status screen displays.

Ξ	General Settings		1 L	Network Status			⇐
÷ờ:-	Startup Screen	Favorite recipe >		Connection type	Not connected	×	
⋳	Recipe home group	Favorit 3		Internet	Not connected	×	
Ē	Language	Englis		Cloud	Not connected	×	
\sim	Timezone	UTC+00:00 >		Connections Settings			
Ъ	Date	9/30/19 >				AS-TS	-008





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. If the network to be used is visible, go to step 7.



5. If the network is not available, **touch** the insert SSID manually > icon (5).





6. **Touch** the box ⑦ for the network to be used. The box will turn green with a small check mark. **Touch** the check mark ⑧.



7. **Enter** your network password, then **touch** the check mark (9). The connection type WIFI screen is displayed. The cloud connection may take several minutes.



8. **Scroll** to see the SSID and the IP address.



Result

The procedure is now complete.



How to Turn On and Turn Off the Oven

Before you begin	The oven must be connected to electric power.	
Turning on the oven	Γο turn on the oven, do the following.	
	Step Action	
	1. Set the main disconnect switch ① to the ON position.	
	Touch the ON/OFF button 2.	
	NOTE: The main disconnect switch is meant to be used during cleaning or service operations. For every day operation, it may be left in the ON position.	
	Image: state	
	The oven is now on.	
Turning off the oven	Γο turn off the oven, do the following.	
	2. Touch and hold the ON/OFF button until the Shut down options screen displays.	
	Touch Shut down to turn off the oven.	
	The oven activates the blowers for the cool down process. The oven deactivates the blowers when the cool down process is complete.	
	Γhe oven is now off.	



How to Preheat the Oven

Step

Before you begin

Make sure:

The oven is turned on.

Action

The oven door is closed.

Procedure

To preheat the oven, do the following.

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



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 cooking 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.



Before you begin

How to Cook with Programmed Recipes

Make sure:

The oven is preheated. Your food is prepared and ready to cook. **Procedure** To cook using a programmed recipe, do the following. Step Action **Touch** the recipes icon (1). The browse recipes screen displays. 1. Browse recipes ∽ Beef Brisket ₿ Q 63 () 00:08:00 Beef Brisket Broccoli Ē ∇ () 00:27:00 6 00:08:00 Q ഹ്ഷ 2. Navigate to the recipe. **Touch** the recipe (2). **Touch** the start icon (3). ∽ ∽ **Beef Brisket** Beef brisket with homemade BBQ sauce 00:27:00 Total cooking time: Q Beef Briske Broccoli Cooking instructions ∇ Ē Ē () 00:27:00 00:88:00 63 Step 0 250°F (00:25:00 പ്പ ഹ്ഷ (00:02:0 **Select** the available chamber(s) (4). 3. **Open** the door and load the food into the chamber. **Close** the door. **Touch** the start icon (5). Available () 00:27:00 ~ 2 Available 2 Available 3 Available Available 3 Available Available

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 chamber number,	to show the current chamber temperature.

Result

At the end of the cooking process, the oven sounds an alert and the chamber light and door handle flashes. The cooking done screen displays.



How to Cook in Manual Mode

Before you begin

Be sure your food is prepared and ready to cook.

Procedure

To cook in manual mode, do the following.

Step	Action				
1.	Touch the manua	l cook icon (1).			
				Available	E S
	- O: Beef Brisket	Broccoli	ў А	2 Available	a a
	() 00:27:00 @	00:08:00	Ē	& Available	E &
		م 🐔	<u>د</u>	Available	
					VMC-TS-008092

2. **Touch** the available chamber **②**.

Touch Add Stage ③ to add a cooking stage to the recipe. A stage adds another cooking temperature, cooking time, and fan speed to the recipe.

Touch Add Action ④ to add an action step to the recipe. An action adds manual tasks to be completed during the recipe.



3. **Touch** the temperature regulation icon (5).

Enter a preheat time. Touch the check mark.





4. **Touch** the cooking temperature, cook time, and fan speed to enter the recipe information for that stage.

If needed, **touch** the plus icon (6) to add an additional stage or action.

If needed, **touch** the delete icon \bigcirc to delete a current cooking stage.



Touch the gear icon (8) to add recipe, save recipe, or reset settings.

- 5. **Load** the food into the oven.
- 6. **Touch** the start icon **(9)**. The timer starts counting.

If needed, **press** the X icon (10) to cancel the cooking process.



At the end of the cooking process, the oven sounds an alert and the chamber light and door handle light flashes. The cooking done screen displays.

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

Result

The food is now cooked.



How to Cool Down the Oven

Procedure

To cool down the oven, do the following.

- Action Step **Touch** the manual cook icon (1). 1. ∽ Ē Ready ✓ Temperature set at 400° Ready Ē Beef Brisket Broccoli Temperature set at 350° ⋳ ⋳ ₽ () 00:27:00 0 () 00:08:00 0 Ready Ē E Ē Temperature set at 300° ß Ready Ē Q ଦ୍ଧ C / Temperature set at 85° /MC-TS-00 2. **Touch** the cool down icon (2). The cool down all chambers screen displays. Touch "Cool down" (3). Open the door. NOTE: The oven activates the blowers for the cool down i) process. The oven deactivates the blowers when the cool down process is complete. ∽ Ready Ē Temperature set at 400°
 - **Cool down all chambers?** Ready Ē This will reset current cooking settings and cool down all chambers to default values. Do you want to proceed? Temperature set at 350° ⋳ Ready Ē Ľ Temperature set at 300° Ready Ē Cance ଦ୍ଧ C Temperature set at 85°

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

Procedure

To create a recipe, do the following.

Step Action

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



2. **Touch** the plus icon **(2)**.

Touch Add Stage ③ to add a cooking stage to the recipe. A stage adds another cooking temperature, cooking time, and fan speed to the recipe.

Touch Add Action (4) to add an action step to the recipe. An action adds manual tasks to be completed during the recipe.



3. **Touch** the cooking temperature, cook time, and fan speed to enter the recipe information for that stage.

Touch the plus icon (5) to add an additional stage or action, if needed.

Touch the forward icon **(6)**. The recipe name screen displays.





4. **Enter** the recipe name. **Touch** the forward icon **(7)**. The recipe description screen displays.



5. **Enter** the recipe description. **Touch** the forward icon **(a)**. The recipe category screen displays.



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

Touch the check mark **(9)**. The select cover photo screen displays.





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

Touch the check mark (10). The add photos screen displays.



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

Touch the check mark (1) when finished to save the recipe.



Result

A new recipe has been created.

How to Edit, Duplicate, or Delete a Recipe

Procedure

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

Step Action

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



Touch the recipe settings icon 2 of the desired recipe.
 Touch Modify recipe to edit a recipe.
 Touch Duplicate recipe to copy a recipe.
 Touch Remove recipe to delete a recipe.



Result

The procedure is now complete.



How to Load Recipes from a USB Drive

Before you begin

You will need a USB drive loaded with recipes.

Procedure

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



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



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



Continued on next page



4.	Scroll to System Backup & Update.												
	Touch the Upload recipes from USB ④ setting.												
		\equiv	System Backup & Update		5								
		·ờ·	Backup system to USB	>									
		ه	Restore system from USB	>									
			Download recipes to USB	>									
			Upload recipes from USB	>									
		С.	Update system software	> VM0	CTS-008113								

Loading the recipesThe 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

You will need a USB drive.

Procedure

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

Step Action **Touch** the menu icon (1). The menu screen displays. 1. \times പ്പ E E My recipe library My menus library Manual cooking ⋳ N * ලා () 00:27:00 0 00:08:00 6 Settings HACCP data Service Ē ? **(i)** ഹ്ഷ Q ഹ്ഷ VMC-TS-0062

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



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



Continued on next page



4.	Scroll to System Back	kup 8	d Update.									
	Touch the Download recipes to USB ④ setting.											
		\equiv	System Backup & Update		5							
		.ò́.	Backup system to USB	>								
		ि	Restore system from USB	>								
			Download recipes to USB	> >								
		<u>د</u>	Upload recipes from USB	>	•)))							
	I	Ъ	Update system software	> VMC	IC-TS-008122							

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

- The chambers should be off (not preheated).
- You will need a USB drive with the updated software.
- Do not remove the USB drive during the update process.

Procedure

To update the software, do the following.

Step Action

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



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



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







Result

The software has now been updated.



How to Change the Home Screen

Procedure

To change the home screen, do the following.

Step	Action													
1.	Touch the menu icon (1) . The menu screen displays.	Touch the menu icon ①. The menu screen displays.												
	∴	My menus library												
	Original Broccoli Description Description <thdescrindescription< th=""> <thdescription< th=""></thdescription<></thdescrindescription<>	ø												
	E HACCP data Service	Settings												
	6 6 6 C C C C C C C C C C C C C C C C C													
		VMC-TS-006												
2.	Touch the Settings icon ②. The general settings screen displays	5.												
	Image: Section of the section of t	e recipe >												
	Recipe home group	avorites >												
	HACCP data Servi Settings	English >												
		C+00:00 >												
	Date	0/22/19 > VMC-TS-006												
3.	Touch the Home Screen setting (3). The select home screen disc	olavs.												
		(
	General Settings Select home screen	`												
	Fivorite recipe													
	Recipe home Favorites > Manual cooking													
	E Language English A Menu Timozone Litte40000 > Category													



Select your desired home screen from the list. **Touch** the check mark **(4)**. 4. **Touch** the check mark (5) to save the home screen setting. Select home screen General Settings Favorite recipe Startup Screen Manual cooking > ~ Manual cooking Language English > Menu Timezone America/ Category Date ଳ୍ମ Time

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.

Step	Action											
1.	Touch the menu icon ①. The menu screen displays.											
		Image: Second										
	Broccoli											
		HACCP data Service Settings										
	ଳ 💓 🖉 🖉 🖉	☆ ⑦										
		VMC-TS-006259										
2.	Touch the Settings icon ②. The genera	l settings screen displays.										
		⊟ General Settings										
	Manual cooking My recipe My menus library library	-ở: Home Screen Favorite recipe >										
		Recipe home group Favorites >										
	HACCP data Servia Settings	E Language English >										
		Timezone UTC+00:00 >										
		Date 10/22/19 >										

3. Scroll to the Temperature Settings.

> **Touch** the Temperature Units setting (3). The select temperature units screen displays.







Result

The temperature scale has now been changed.



How to Enable the Handle Light

Procedure

Result

To enable the handle light, do the following.

	Image: state of the state
2.	Image: Section of the section of t
3.	Image: Settings Image: Settings
	Touch the Handle light button ③. Touch the check mark ④. The hand light is now enabled. Repeat the process to disable the handle light. Vourne Vour
	·



OPERATION

How to View Oven Information

Background

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

Procedure

To view oven information, do the following.

Step Action

1. **Touch** the menu icon (1). The menu screen displays.



2. **Touch** the Info page icon **(2)**. The oven information screen displays.

Scroll to view the oven model, serial number, system software, network status, and cleaning timer.



Result

The oven's information has been viewed.



How to Download HACCP Data

Before you begin	You will need a USB drive.	
Background	HACCP data provides automated record keeping, set-point validation used, dates and times. The data is stored until the information is dow Once downloaded, the information is removed from the oven's mem practice would be to download the information every 30 days to a US file format is plain text file (.csv). The file can be viewed in Microsoft®	, recipes vnloaded. ory. Best B drive. The Excel.
Procedure	To download HACCP data, do the following.	
	Step Action	
	 1. Touch the menu icon (). The menu screen displays. 1. Touch the menu icon (). The menu screen displays. Image: A the stress of th	Settings
	3. Plug the USB drive ③ into the port.	VMC-TS-007852



4.	Touch the down	load i	con ④.					
			HACCP Data	10/1/19 7:59 PM	¢			
		¢	Imin 138° MAX 141° professional 10/1/19 7:48 PM	Chamber 4				
		Ē	 MIN 73° MAX 73° Beef Brisket 10/1/19 7:30 PM 	Chamber 1		$\overline{(4)}$		
		¥	♂ MIN 309° MAX 312°	VMC-	TS-008647	J.		

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.



Maintenance Schedule

Requirements	 See topic <i>How to Clean the Oven</i>. 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.
	 Wine 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.
	Clean the entire oven. Make sure to use a non-abrasive nylon scrub pad.
	Do not spray the cleaner directly into the fan openings located in the rear of the oven.
Monthly	For monthly maintenance, do the following.
	Inspect and clean the cooling fan filters.
	Inspect and clean the chamber filters (if equipped).
Yearly	For yearly maintenance, do the following.
	NOTE: Must be performed by a qualified professional.
	Check and tighten all wire connections.
	Inspect the heater flange area for grease leakage.
	Inspect the motor flange area for grease leakage.
	Check and tighten all display, interface and control board connections.
	Check and tighten the door hinges.
	Inspect the inner and outer door window panes for cracking or chipping.
	Test each chamber fan for correct operation.
	Test each chamber heater for correct operation.
	Test the chamber lights.
	Record the software versions and update if necessary.
	Inspect the door gaskets for correct shape and seal.
	Record the amp draw of all elements on the service screen individually.
	Record the incoming supply line voltage.



ALTO-SHAAM

How to Clean the Oven

Before you begin



WARNING: Electric shock hazard. Set the main disconnect switch to the OFF position to remove electric power from the appliance.



CAUTION: Burn hazard. Allow the oven, utensils, and racks to cool before cleaning.



CAUTION: Corrosive materials hazard. Wear eye protection and hand protection when cleaning.

NOTICE	Using improper cleaning procedures will damage the catalyst and void the warranty.
	Only use spray cleaner when the electric power is completely removed from the oven.
	Do not spray water or cleaning solution on the catalyst.
	Do not spray cleaner into the oven while the recirculation blower is running.
	Do not use steel pads, wire brushes, or scrapers when cleaning.

Daily cleaning procedure

To clean the oven daily, do the following.

Step	Action
1.	Make sure the oven is turned off and cool—chambers are less than 140°F (60°C).
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.


Weekly cleaning procedure

To clean the oven weekly, do the following.

Step Action

1. **Set** the main disconnect switch (1) to the OFF position.

Make sure the oven is cool—chambers are less than 140°F (60°C).



2. **Spray** the exterior areas of the oven with stainless steel polish.



- 4. **Spray** the interior areas of the oven with EcoLab Greaselift[™] or Chemco Dirt Buster III[™] oven cleaner. Let the cleaner work for 3–5 minutes.
- 5. **Wipe** the interior of the oven with a non-abrasive nylon scrub pad.
- 6. **Clean** each side of the window pane with an all-purpose cleaner.
- 7. **Set** the main disconnect switch (1) to the ON position when complete.

Continued on next page



Monthly cleaning procedure

To clean the oven monthly, do the following.

Step Action

Set the main disconnect switch to the OFF position.
 Make sure the oven is cool—chambers are less than 140°F (60°C).

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



Continued on next page





Result

The oven is now clean.



MAINTENANCE

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Error Codes

Code	Description	Parameters that trigger the error	Possible Cause(s)
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
10	Sensor short	Short circuit detected on sensor wires.	1. Sensor connection 2. Sensor 3. Control board
11	Sensor open	Cavity air sensor reading > 650°F (343°C).	1. Sensor connection 2. Sensor 3. Control board
31	Electronics over temperature	Control board temperature exceeds 158°F (70°C) and/or interface board temperature exceeds 184°F (84°C).	 Cooling fan filters blocked or dirty Cooling fan not operating Installation clearance requirements not met
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
108	Bi-metal thermostat open	Open circuit detected across bi-metal switch.	 Cooling fan filters blocked or dirty Cooling fan not operating Connection between bi-metal switch and control board Installation clearance requirements not met Bi-metal switch
109	High limit error Note: Contact an authorized Alto-Shaam service partner.	Open circuit detected across high limit switch.	 Jet plate(s) improperly installed Cavity fan not operating Optional grease filters blocked with debris Heat relay(s) stuck closed Connection between high limit switch and control board High limit switch



Procedure

What to do if the Fan Indicator Light Illuminates

If the fan indicator light (1) illuminates, do the following. Step Action **Turn off** the oven and allow it to cool. 1. **Remove** the filters (2). (2)1811 VMC-TS-007746 2. **Clean** the filters in a dishwasher. 3. **Re-install** the filters. Resume operation of the oven. 4. **NOTE:** If the fan indicator light remains on, the appliance i) is malfunctioning. Disconnect the appliance from the power supply and have it serviced by a qualified technician.

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





Cannot Connect to cheflinc.alto-shaam.com





The Oven is not Displayed on the Dashboard



ALTO-SHAAM

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





TROUBLESHOOTING

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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 licenceexempt 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 Temperature:	-20 to +70 degrees C	
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	



NOTIFICATIONS

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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.
	Continued on next page

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- 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.





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