

HORIZONTAL FREEZERS AND COOLERS

INSTRUCTIONS OF INSTALLATION, OPERATION & MAINTENANCE

Before use, please read and follow all safety rules and operating instructions. CRYSTAL has a policy of continuous improvement on its products and reserves the right to change materials and specifications without notice.

1. SAFETY

-  This safety symbol alerts you of potential hazards.
-  To reduce the risk of fire, electrical shock, burns, personal injury, follow carefully the instructions with this symbol in § "4.Electrical connection".
-  DANGER / Do not clean or store therein containers with flammable liquids or gases. Their vapors may create fire or explosion hazard.
-  DANGER / Before proceeding with cleaning and maintenance operations, ensure that the power line of the unit is disconnected. Failure to do so can result in electrical shock, fire.
-  DANGER / Do not connect or disconnect the electrical plug when your hands are wet.
-  DANGER / The maintenance operations must be executed by an authorized technician.
-  WARNING / The fuse or circuit breaker size should be 16 Amperes.
-  WARNING / Do not use solvent cleaning agents or abrasive on the interior. These cleaners may damage or discolor the interior.
-  WARNING / If on your appliance there is a sticker with the  symbol, means that the refrigerant containing appliance is R290 (propane) or R600a (isobutane), flammable hydrocarbon, environmentally friendly.
-  WARNING / Do not exceed the limitation of the red load line to the internal of the appliance. If products are placed outside the limits of the  load line, they might not be frozen/cooled successfully.
-  WARNING /  
-  WARNING / Do not damage the refrigerant circuit.
-  WARNING / Information regarding the maximum loading per shelf:

Appliance	Kg/Shelf	Appliance	Kg/Shelf
Optimus	40	Elegante, Venus Vitrine	55

2. TRANSPORTATION

Always transport the appliance in vertical position, as shown in Fig 1a. Do not transport the appliance in horizontal position, as shown in Figure 1b.



Fig 1a

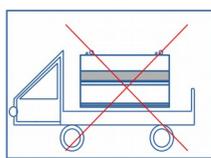


Fig 1b

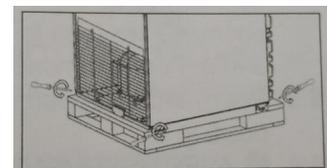


Fig 2

3. INSTALLATION INTRUCTIONS

3.1 Before using your appliance:

3.1.a Remove the exterior and interior packing. In order to remove it from the pallet, use a screwdriver and unscrew and four screws, as shown in Fig 2.

3.1.b The user manual with the instructions of installation, operation & maintenance is enclosed in every appliance. Some appliances contain additional parts. Consult the table below to ensure that all the required parts are included in your appliance:

Appliances	Figures						
	ATLAS	ATLAS FF	IRAKLIS	EKTOR HGL	EKTOR SGL	VENUS SGL	VENUS NEW LINE
Pieces							
Hinge cover	2	2	2	2			
Key	1	1	1	1	1	1	1

Appliance	VENUS VETRINE	ATHENA	OPTIMUS	ELEGANTE	AEGEAN	CRYSTALLITE	FESTIVAL
Figures							
Handles	2					2/4*	
Hyperstructure	1			1			1
Hyperstructure adjusters	1			1			1
Lighting	1			1			1
Scoop			1				
Scoop base			1	1			
Base holders		11/15**	16				
Grills		2/3**				12/16****	
Scoop cover				1			
Commercial logo				1			

* Crystallite 15,20: 2 / Crystallite 25: 4

** Athena 9: 11 / Athena 13: 15

*** Athena 9: 2 / Athena 13: 3

**** Aegean 20: 12 / Aegean 25:16



Fig 3. Manual, Hinge covers handles



Fig 4. scoop, base scoop type 2, scoop cover, base holders



Fig 5. Grills

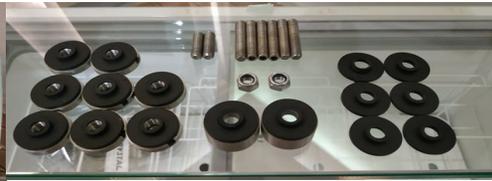


fig 6. Hyperstructure (type 1), hyperstructure adjusters (set 1), scoop, scoop base (type 1), lighting (aluminum cover), commercial logo



fig 7. Hyperstructure (type 2), hyperstructure adjusters (set 2), handles, lighting (tube), handles



fig 8. Hyperstructure (type 3), hyperstructure adjusters (set 3), scoop, scoop base (type 1), lighting (tube)

3.1.c To assembly the required parts, follow the steps, as described below



Fig 9. Hinge cover placement



Fig 10. Handle placement



Fig 11. Scoop (type 1)



Fig12. Scoop (type 2)



Fig 13. Hyperstructure (type 1) assembly



Fig 14. Hyperstructure (type 2), commercial logo assembly



Fig 15. Hyperstructure (type 3), lighting tube assembly

- 3.1.d Before connecting the appliance to the power source, it is mandatory to let it stand upright for some time. By doing so, the possibility of a malfunction to the cooling system, by the transportation is reduced significantly.
- 3.1.e If needed, clean the interior surface and gasket with water using a soft cloth or sponge.
- 3.2 Installation of your appliance:
- 3.2.a Locate the appliance preferably in dry areas.
Only for appliances: Aegean, Athena, Optimus, Festival:
 Too much moisture in the air will cause frost to form quickly on the interior surface, requiring more frequent defrosting of the appliance.
- 3.2.b Locate the appliance away from direct sunlight and heat devices, such as: oven, radiator and other. This way the increase of electrical consumption will be avoided and the colors of plastic and metallic parts will be protected.
- 3.2.c Place the appliance on a horizontal floor that is strong enough to support the appliance, when it is fully loaded.
- 3.2.d Check the level of the appliance with a leveler, as shown in Fig 16.



Fig 16. Level of the appliance

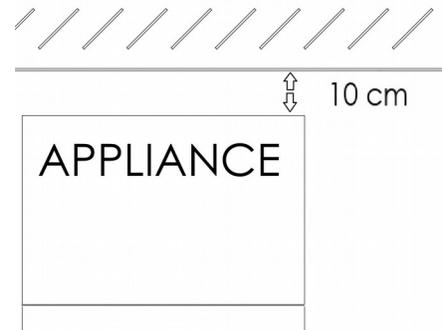


Fig 17. Spacing of the appliance

- 3.2.e Allow at least **10 cm** of space in front of the engine compartment opening, to improve air circulation for compressor and condenser cooling, as shown in Fig 11.
- 3.2.f After plugging the appliance, allow the unit to cool down before placing products inside.

4. ELECTRICAL CONNECTION

-  **WARNING / Fire-Electrical shock hazard.**
Do not use extension cord. If you do, you can cause electrical shock, fire. If the power cord is too short, have a qualified electrician or service technician install an outlet near the appliance.
-  **WARNING / Fire-Electrical shock hazard.**
Plug the appliance into a grounded wall outlet. Do not remove ground. If you do, you can cause electrical shock, fire.
-  **WARNING / Fire-Electrical shock hazard.**
If the power cord is damaged, call an authorized electrician or service technician to replace it.
-  **WARNING / Fire-Electrical shock hazard.**
If the interior lighting is damaged, or not operating, have it replaced by an authorized electrician or service technician. Each different LED lighting connection is demonstrated

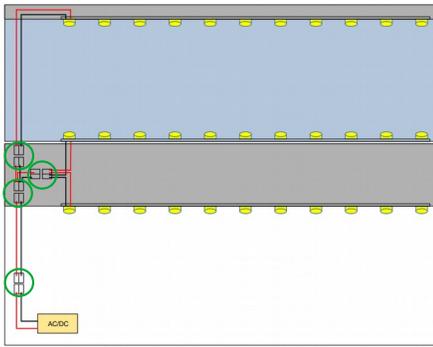


Fig 18.a Optimus

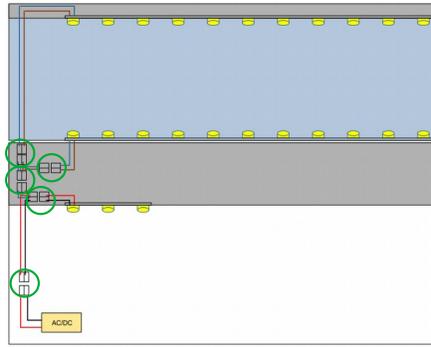


Fig 18.b Athena

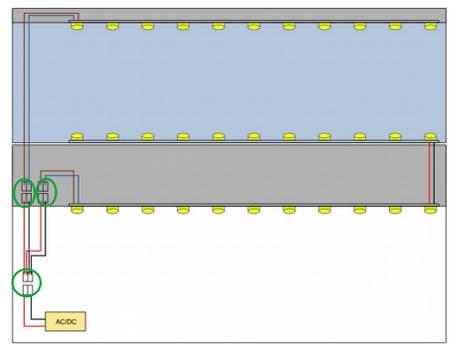
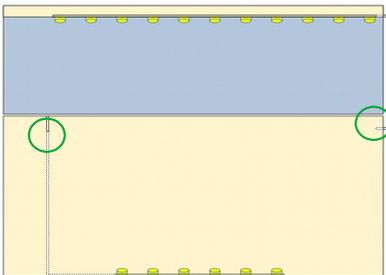


Fig 18.c Elegante



18.d Festival

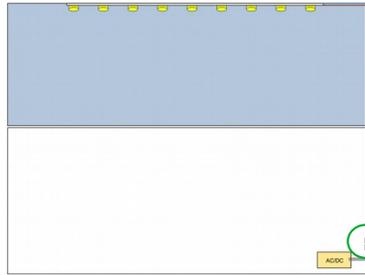


Fig 18.e Venus Vitrine

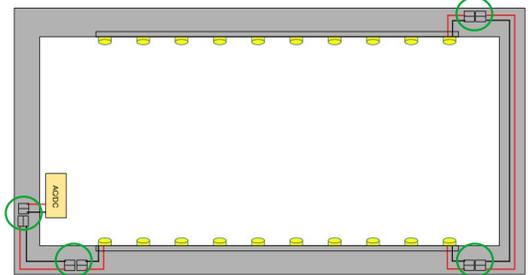


Fig 18.f Aegean

On the following table, each appliance is linked to its corresponding LED lighting connection.

Appliance	Fig
Optimus	18.a
Athena	18.b
Elegante	18.c
Festival	18.d
Venus vetrine	18.e
Aegean	18.f

4.1 LED lighting replacement procedure



Fig 19.a

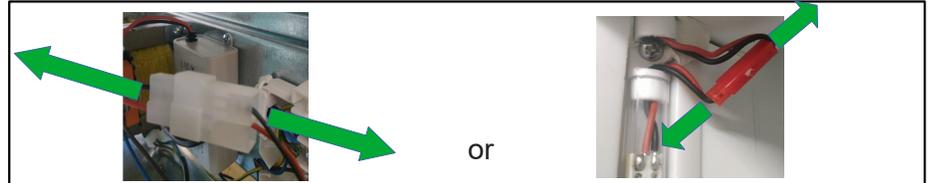


Fig 19.b



WARNING / Fire-Electrical shock hazard.

Before any actions, unplug the power supply(Fig 19.a)! The disconnection presented in Fig19.b referred to the connection point marked with circles on Fig18.a – Fig18.f. To install the new LED lighting, follow the presented steps with the reversed order.



WARNING / Fire-Electrical shock hazard.

Plug the appliance into a grounded wall outlet. Do not remove ground. If you do, you can cause electrical shock, fire.



WARNING / Fire-Electrical shock hazard.

The position of the light switch and the thermostat is presented on the following table and corresponding figures, for each appliance:

Appliance	Light switch	Mechanical thermostat	Electronic thermostat	Fig 20.
Optimus	✓		✓	a
Athena	✓		✓	b
Aegean	✓		✓	c
Festival			✓	d
Elegante	✓	✓		e
Other appliances		✓		f



Fig 20.a Optimus

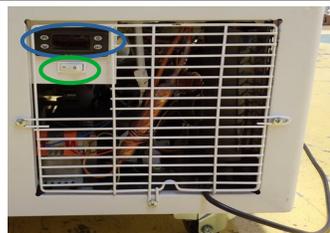


Fig 20.b Athena



Fig 20.c Aegean



Fig 20.d Festival



Fig 20.e Elegante



Fig 20.f Other appliances



WARNING / Fire-Electrical shock hazard.

If the light switch, or thermostat gets wet, or is not operating, have it replaced by an authorized electrician. If not, you can cause electrical shock, fire.

5. TEMPERATURE CONTROL AND ADJUSTMENT

5.1 When the appliance is turned on for the first time, let it operate for a few minutes. This will ensure that the cabinet is thoroughly chilled, before products are placed inside. During this time, the compressor will operate constantly. This is normal.

5.2 The thermostat is located, according to figures 20.a-14.f.

5.3 The thermostat is preset by the manufacturer and typically can cover regular needs. However, if it is necessary, the manufacturer's settings can be modified.

5.3a Mechanical Thermostat(figures 20.e,20.f): The position of the mechanical thermostat can be adjusted by turning the knob clockwise, from position No.1, which is the warmest temperature set point, to position No.7, which is the coldest temperature set point. The recommended thermostat set position is between positions No.3 and No.4.

5.3b Electronic thermostat(figures 20.a,20.d): The set point of the electronic thermostat, the activation of manual Defrost, the Standby and the Auxiliary function can be adjusted



UP BUTTON

Press and release: Scroll menu, increase values

Press for at least 5 sec:

a) Activation of Manual Defrost function:

Only for appliances: Aegean, Athena, Optimus, Festival



DOWN BUTTON

Press and release:

a) Scroll menu items, decrease values

b) ON/OFF lighting:



STAND-BY BUTTON

Press and release: Return to the previous menu

Press for at least 5 sec: Activates the Standby function(ON/OFF)



SET (ENTER) BUTTON

Press and release:

a) Setpoint display and confirm, or change, parameter value with UP and DOWN buttons

b) Displays alarms(if active),

Press for at least 5 sec: Open user's menu for adjusting parameters. We strongly recommend that this action should only be executed by an authorized technician.

5.4 To turn the appliance off:

5.4.a Mechanical thermostat: Turn the thermostat knob to 0

5.4.b Electronic thermostat: Activate the Standby function to OFF.



WARNING / By turning off the thermostat, the cooling cycle is interrupted, but the power supply to the appliance does **not** shut down.

6. DEFROST AND CLEANING OF THE APPLIANCES

6.1 When frost has build up to about 10mm thickness, manual defrost should be activated and the appliance should be cleaned. If the area has exceeding moisture, the appliance may need defrosting and cleaning more frequently.



WARNING / Unplug the appliance before cleaning.

6.2 Use a soft sponge or cloth to clean the gasket and the interior.



WARNING / Do not apply electrical devices, such as fans, hair dryers, etc for faster defrosting. If you do, you can cause electrical shock, fire.

6.3 Remove all frozen products before defrosting. Place the frozen products in another appliance or a cool area.

6.4 Leave the door open.

6.5 Open the defrost water drain tap(located on the inner bottom) and use a large sponge to remover water faster.

6.6 Use a plastic scraper to remove frost more effectively.



DANGER / Do not use a knife, or any other sharp tool for defrosting, or cleaning. You can cause damage to either yourself, or the appliance.

6.7 When the interior of the freezer is dry, replace the water drain tap.

6.8 Close the door.

6.9 Plug in and turn on the freezer for at least 1 hour before placing the removed frozen products.

7. MAINTENANCE

7.1 If the appliance does not work, or if it does not work properly, before calling for service, see the troubleshooting guide on §12.TROUBLESHOOTING GUIDE

7.2 Depending on the type of the condenser, different actions shall be taken.

7.2.a Copper tube-aluminum sheet condenser(Fig 21.a):

If the condenser has dirt or dust on the aluminum sheet, a soft paint brush or vacuum cleaner can be used to remove it. It is recommended that the condenser should be cleaned every 6 months.



WARNING / Unplug the appliance from the power outlet before performing maintenance.

7.2.b Wire-On-Tube(WOT) condenser(Fig21.b): Free on maintenance condenser.



WARNING / Other maintenance actions can be proceeded only by authorized technicians.

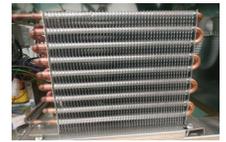


Fig 21.a



Fig 21.b

8. WATER CONDENSATION ON THE DOORS

8.1 If the relative humidity of the place where the appliance is placed is below 55% relative humidity, water condensation does not form on the glass surface, or the frame of the doors.

8.2 If the relative humidity exceeds 55%, a moderate water condensation on the glass surface, or the frame of the doors, is considered acceptable.

9. TIPS ON SAVING ENERGY

9.1 Install the application properly: Away from heat sources, direct sunlight, in a well-aired place and keeping at least 100mm of free space between the engine compartment and the nearest wall, or neighboring object.

9.2 Do not open the doors of the appliance for no reason. Also, make sure that the doors is closed properly.

9.3 Clean the interior tank, if needed. Defrost the appliances referred at §5.3.b, if needed.

9.4 Maintain the aluminum sheets of the copper tube-aluminum sheet condenser(Fig 21.a) clean.

10. DISPOSAL RECYCLING PROCEDURE OF APPLIANCE

10.1 Under its normal operation, the appliance does not cause environmental pollution. At the end of its life expectancy, or in any other case of possible disposal, we suggest the following procedures:



This symbol on the product, or on the packaging indicates that the product should not be considered and disposed as household waste, but should be transported to the appropriate collection point for recycling of electrical and electronic equipment. By providing appropriate disposal of this product, you are helping to avoid potential negative consequences, which could result from its inadequate product disposal. For more detailed information about recycling this product, contact your local waste disposal service, or the store where the product was bought.

10.2 Recommended procedure of disposal:

10.2.a Turn off the equipment and disconnect the power plug.

10.2.b Remove the lighting(§4.1) and discard it separately.

10.2.c Remove the control units and the electronic boards and dispose them separately.

10.2.d Disassemble all independent or moving parts (doors, grids, wheels, profiles, etc.) and separate them to homogeneous material characteristics.

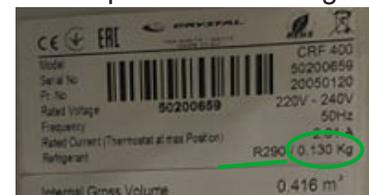
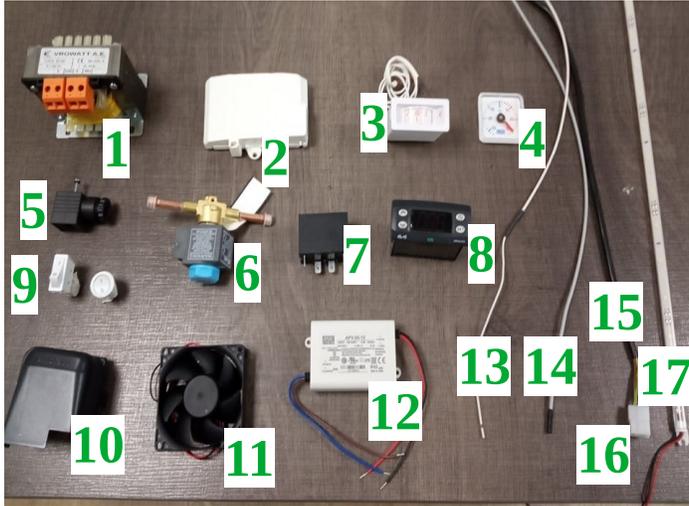
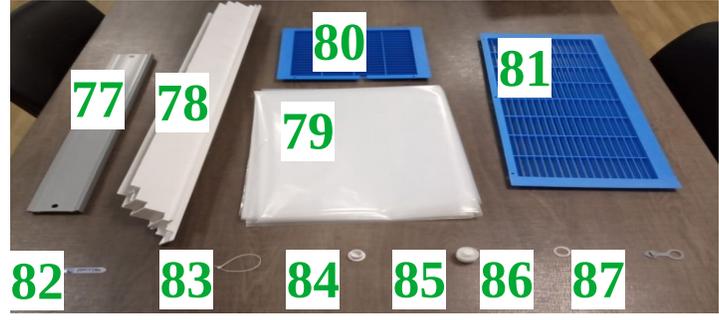
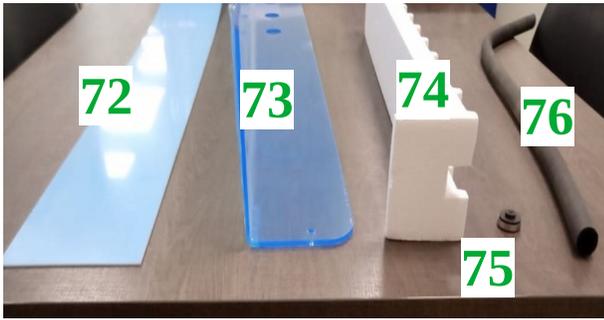
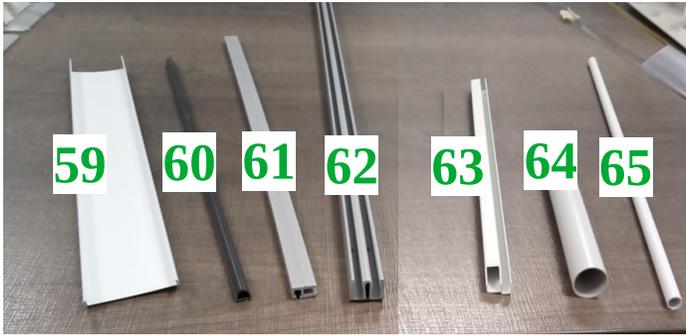


Fig 22

- 10.2.e Check the type of coolant on the rating plate(Fig22). Remove the refrigerant by disposing it through an authorized service facility. Be careful not to damage the cooling unit.
- 10.2.f Disassemble heat exchangers, fans, pipes, cables, etc. They consist of copper, aluminum, steel, which must be disposed separately.
- 10.2.g Once all the components have been removed from the body, separate the different types of materials (metal sheet, polyurethane, copper, aluminum, etc.)
- 10.2.h Each different plastic part of every appliance is demonstrated with numbered pictures. These pictures correspond to a table, in which the material type and the position of the part onto the appliance can be found for every model.





Λόγω χώρου άλλαξε η αρίθμηση στα 96-100 από το αρχικό μείλ που λάβατε



All recyclable materials and waste must be treated and recycled professionally, in accordance with the instructions of the corresponding country. The company responsible for recycling must be registered and certified as a waste disposal service, in accordance with the specific instructions of the corresponding country.



Abusive disposal of the product by its owner imposes penalties and administrative measures as defined by the applicable regulations. Comply with the applicable laws regarding the disposal of refrigerants and oils.



For foam disposal, keep in mind that the polyurethane foams used are CFC, HFC and HCFC free

10. WIRING DIAGRAM

The wiring diagram is printed on a sticker on the back side of the appliance, near the engine compartment.

11. CLIMATE CLASSES RATING

The climate class of the appliance is rated on the rating plate. The rating plate is located over the engine room of the appliance, as shown in Fig 23.



Fig 23

12. TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	SUGGESTED SOLUTION
The appliance does not operate.	1) Not plugged in. 2) The circuit breaker is tripped or fuse is blown. 3) Compressor is out of order.	1) Plug in the power supply. 2) Replace the circuit breaker, or the fuse. 3) Contact an authorized technician.
Temperature inside the appliance is too cold.	Thermostat is not set correctly or is out of order.	Advice §5.3 or contact an authorized technician for replacement.
Temperature inside the appliance is too warm / Compressor seems to run too long.	1) A large amount of warm / unfrozen products might have been stored recently. 2) The doors are not closed properly 3) The condenser is covered with dust and dirt (only for condensers with aluminum sheets).	1) Wait until the freezer reach its targeted temperature. 2) Make sure that the gasket is sealed properly to the interior. If that does not resolve the issue, contact an authorized technician to repair, or replace the gasket.

	<p>4) The outside temperature is hotter than normal.</p> <p>5) There is no enough air circulation space in front of the engine compartment openings.</p> <p>6) The condenser, or evaporator fan motor is out of order.</p> <p>7) Products are placed too close to the evaporator fan cover, blocking the air circulation.</p> <p>8) Products are attached to the back sheet of interior of the appliance.</p> <p>9) Ice has build-up on the evaporator aluminum sheets.</p> <p>10) There is a refrigerant leakage in the refrigerant circuit.</p>	<p>3) Advice §7.</p> <p>4) Advice §3.2.b.</p> <p>5) Advice §3.2.e.</p> <p>6) Contact an authorized technician to replace the fan motor.</p> <p>7) Advice an authorized technician to replace the refrigerant gas and seal the refrigerant circuit.</p> <p>7) Advice §9.5.a.</p> <p>8) Advice §9.5.b.</p> <p>9) Advice §5.3. If that does not resolve the issue, contact an authorized technician.</p> <p>10) Contact an authorized technician.</p>
Popping or cracking sound when compressor comes on.	This is normal.	Sound will level off or disappear as the appliance continues to operate. If that does not resolve the issue, contact an authorized technician.
Bubbling or gurgling sound, like water boiling.	This is normal.	It is due to the refrigerant circulating.
Vibrations	<p>1) The appliance is touching the wall.</p> <p>2) The appliance is not on a level surface.</p>	<p>1) Move it from the wall.</p> <p>2) Advice §3.2.d.</p>
Moisture forms into frost on the interior surface of the appliance.	<p>1) This is normal. It is caused by the air flow to the interior of the appliance, when the door opens.</p> <p>2) If the frost is significant, the doors might not have been closed properly.</p>	<p>2) Make sure that the gasket is sealed properly to the interior. If that does not resolve the issue, contact an authorized technician to repair, or replace the gasket.</p>