VESTFRØST
SOLUTIONS

INSTALLATION / OPERATIONAL QUALIFICATION PROTOCOL

The following Installation Qualification (IQ) & Operation Qualification (OQ) is intended to be a guideline. Local IQ & OQ procedures can vary depending on intended use. The IQ & OQ is concluded if all the criteria of acceptance are verified, and the possible deviations are accepted.

This IQ & OQ is intended for the following products:

Tabletop	Undercounter	Upright
R-90i	R-138i	R-427i

Location	
Model	
Serial number	
Name of distributor	
Warranty Start	
Signature	
Date	

Revision: 21-07-2022

Acceptance criteria
The IQ/OQ is concluded if all criteria of acceptance are approved and the possible deviations are accepted.

Reference
User manual

Persons performing IQ & OQ
All personnel entering information in this protocol must be identified in the table below by name, full signature and initials.
Personnel must be fully aware of all the procedures to follow.

Name	Company	Signature	Initials	Date

IQ - Installation Qualification

Objective

To verify that the refrigerator has been installed to a satisfactory standard and is safe to use.

Pre-Requisites

User manual is available for review

Step	Reference to chapter in manual	Description	Verification		Comments
			Pass	Fail	
IQ-1	Before Use	Ensure the appliance has not been damaged during transport.			
IQ-2	Before Use	Ensure the protective foil on the shelves are removed before cleaning and using the unit.			
IQ-3	Before Use	Ensure that the inside of the cabinet is clean.			
IQ-4	Before Use	Ensure the appliance has been in an upright position for at least an hour before being switched on.			
IQ-5	Before Use	Allow the refrigerator to operate at the desired temperature for a minimum of 12 hours before loading.			
IQ-6	Electrical connection	Ensure to connect the appliance to the socket outlet.			
IQ-7	Ventilation guards	Ensure the ventilation guards are mounted behind the appliance.			
IQ-8	Location and ventilation	Ensure the appliance is not exposed to direct sunlight.			
IQ-9	Location and ventilation	Ensure the appliance is not exposed to rain.			
IQ-10	Location and ventilation	Ensure the appliance is installed in a dry, well ventilated room with minimal variations in temperature.			
IQ-11	Location and ventilation	Ensure the appliance is away from sources of heat.			
IQ-12	Location and ventilation	Ensure ventilation, above, below and around the appliance.			
IQ-13	Location and ventilation	Ensure enough space for the door to open in at least 90 degrees.			

IQ-15	Levelling the appliance	Ensure the appliance is levelled.			
IQ-16	Probe bottle	Ensure the probe bottle is filled.			

Conclusion

This section of the protocol has been completed and is deemed to (initial appropriate box below):					
Pass		**Pass with comment**		**Fail**	
Comments				**Non-conformance**	

OQ - Operation Qualification

Objective

To verify that all refrigerator components function correctly as specified for normal operation.

Pre-Requisites

Appliance is installed

Step	Reference to chapter in manual	Description	Verification		Comments
			Pass	**Fail**	
OQ-1	Refrigerator Components	Ensure all doors operate as expected.			
OQ-2	Controller – operation and function	Ensure the appliance is turned on.			
OQ-3	Controller – operation and function	Ensure the time and date are set on the controller.			
OQ-4	Controller – operation and function	Hold the door open to confirm the alarm activates. Close door and confirm alarm de-activates.			
OQ-5	Controller – operation and function	Record temperature set points (for both operating level and the alarm limits) and confirm these meet the acceptance criteria.			
OQ-6	Controller – operation and function	Increase the temperature set point by ≥4°C. Confirm that the refrigerator system responds to increased temperature and the alarm activates (visual and audible) when temperature exceeds alarm high limit.			
OQ-7	Controller – operation and function	Ensure temperature set point is returned to the original value on completion and confirm alarm de-activates.			
OQ-8	Controller – operation and function	Decrease the temperature set point by ≥4°C. Confirm that the refrigerator system responds to decreased temperature and the alarm activates (visual and audible) when temperature exceeds alarm low limit.			

OQ-9	Controller – operation and function	Ensure temperature set point is returned to the original value on completion and confirm alarm de-activates.			

Conclusion

This section of the protocol has been completed and is deemed to (initial appropriate box below):		
Pass	**Pass with comment**	**Fail**
Comments		**Non-conformance**