



# IQ / OQ

Installation and Operational Qualification

## ULTF SERIES

**ARCTIKO**

## **IQ/OQ for ULTF 220 with G-214 Controller:**

The objective of this Installation and Operational Qualification (IQ/OQ) Checklist is to qualify the installation and operation of the Arctiko -86 °C Freezer type ULTF for routine laboratory use.  
This Installation and Operation Qualification Check will define the minimum test procedures and acceptance criteria to be used to establish that the Arctiko -86°C Freezers are installed and operated as per our specifications.

This checklist is mentioned to be used as input for distributors of Arctiko -86 °C Freezers.  
Please be aware that local circumstance can require additional control and verification during validation.

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## 1 Basic information

### 1.1 Basic information about the unit

Serial number: \_\_\_\_\_

Arctiko Purchase order: \_\_\_\_\_

Date of quality control: \_\_\_\_\_

Quality control carried out by: \_\_\_\_\_

Date & Sign: \_\_\_\_\_

<i>Comments</i>

## 2 Component Verification

### 2.1 Cabinet check points:

<i>Scope of supply</i>		<i>Check</i>
<i>Delivered versus P.O.</i>	<i>All Items are delivered as stated in P.O.</i>	

<i>Cabinet check points</i>		<i>Check</i>
<i>Body</i>	<i>All packing material has been removed</i>	
	<i>No scratches. No dents. No rust</i>	
	<i>No cracks on plastic frames</i>	
<i>Lid</i>	<i>Can open and close</i>	
	<i>Can be locked via the key</i>	
	<i>No gab between gasket and frame</i>	
<i>Controller</i>	<i>No scratches on display</i>	
	<i>All cable mounted as per safety requirements</i>	
<i>Sublids</i>	<i>No crack on sublids</i>	
<i>Inside compartment</i>	<i>No scratches. No dents. No rust</i>	
<i>Documentation</i>	<i>Operating Instruction Manual available</i>	

<i>Comments</i>

## 3 Environmental Conditions Verification

### 3.1 Verify that the following is correct

<i>Cabinet check points</i>		<i>Check</i>
<i>Alarms</i>	<i>High temp alarm</i>	
	<i>Low temp alarm</i>	
	<i>Power failure</i>	
<i>Fan</i>	<i>No unusual noise</i>	
<i>Compressor</i>	<i>No unusual noise</i>	

<i>Environment</i>		<i>Check</i>
<i>Clima</i>	<i>Max. ambient temp. 25°C Class N. No direct sun on the freezer</i>	
<i>Electrical supply</i>	<i>As per stated in Operating Instruction Manual and in accordance to local regulations</i>	
<i>Surface</i>	<i>Freezer kept on a solid flat surface to eliminate any vibrations &amp; irritating noise</i>	
<i>Airflow</i>	<i>The unit is installed with at least 10 cm free space to the sides and 15 cm free space at the back</i>	

<i>Comments</i>

## 4 Equipment File Verification

### 4.1 Verify that the documentation is available

<i>Documentation</i>	<i>Check</i>
<i>Purchase Order</i>	
<i>Operating Instruction Manual</i>	
<i>Spare Parts List</i>	
<i>Declaration of Conformity (only for EU)</i>	

<i>Comments</i>

## 5 Operational Qualification Data Sheet

### 5.1 Make sure that the following parameters will be noted and filled:

Settings:

Description	Arctiko default settings	Customer setting.
<b>Custom Settings</b>		
<b>Password</b>	0000	
<b>Set point</b>		
Freezer	-80,0	
<b>Alarm Settings:</b>		
<b>Alarm Delay</b>		
Freezer	15 min.	
<b>Door open alarm</b>		
Freezer	Enable	
<b>High temp. alarm</b>		
Freezer	-65	
<b>Low temp. alarm</b>		
Freezer	-90	
<b>Probe/eprom failure</b>		
Freezer	Enable	
<b>Power failure</b>		
Freezer	Enable	
<b>Alarm log time interval</b>		
Freezer	1	

<i>Comments</i>

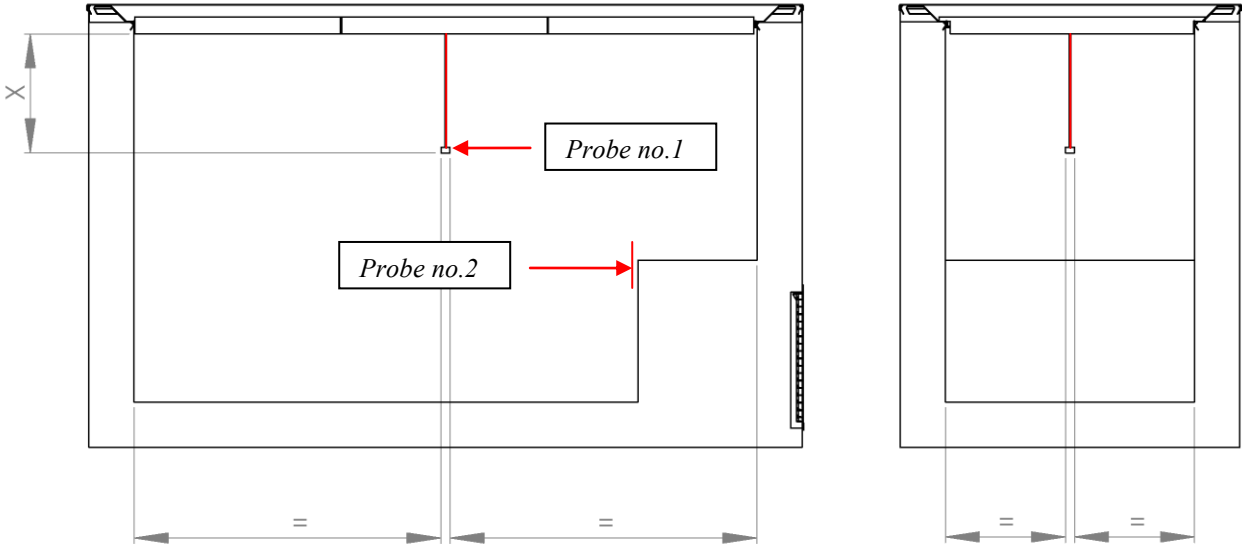


Description	Arctiko default settings	Customer setting.
<b>Advanced Settings</b>		
<b>Password</b>	0000	
<b>Calibration</b>		
Freezer	0,0	
<b>Automatic defrost</b>		
Freezer	0	
<b>Manual defrost</b>		
Freezer	OK	
<b>Hysteresis</b>		
Freezer	2,0	
<b>Temp. range limits</b>		
Freezer Max.	-40,0	
Freezer Min.	-86,0	

<i>Comments</i>

## 6 Placement of test probes.

X = 250 mm



Comments

## 7 Requirement for accept.

### 7.1 Max. deviation and performance limits.

Max. Ambient temperature 25°C +/- 2K

Set point of controller \_\_\_\_\_

Max. deviation between warmest and coldest spot in the unit: 5K

Actual value for probe no. 1: Probe no. on pull down

Max. temperature \_\_\_\_\_

Min. temperature \_\_\_\_\_

Passed Yes / No.: \_\_\_\_\_

Actual value for probe no. 2:

Max. temperature \_\_\_\_\_

Min. temperature \_\_\_\_\_

Passed Yes / No.: \_\_\_\_\_

If there are deviation between probe placed beside the probe for controller and display then change the parameter “calibration” .  
Start new test if the controller has been calibrate.

Pull down time Max. 6h

Passed Yes / No \_\_\_\_\_

<i>Comments</i>



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