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# Mastercycler<sup>®</sup> nexus

SOP - Installation Qualification - English

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### **Notice**

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## 1 Introduction

### 1.1 Using this manual

- ▶ Ensure that you have a copy of the latest versions of the service manual and operating instructions. Check this using the version numbers at [www.eppendorf-support.com](http://www.eppendorf-support.com) and [www.eppendorf.com](http://www.eppendorf.com).
- ▶ Read the service manual before starting work on the device.
- ▶ Read the chapters "Installation" and "Operation" of the operating manual.
- ▶ Observe the safety instructions in the operating manual.

### 1.2 Liability

The Eppendorf service partner entrusted with maintenance, servicing or testing is liable for ensuring that all work is carried out in a professional manner.

- ▶ The constructional features of the device must not be modified by servicing, maintenance or testing. The device must always be as safe as in its original state.
- ▶ Only accessories and original spare parts recommended by Eppendorf as well as measuring and test equipment recommended by Eppendorf may be used for any maintenance, servicing or testing work.

### 1.3 User profile

The specialist entrusted with maintenance, repair or testing must meet the following prerequisites:

- Successful participation in service trainings with certification by Eppendorf AG for the product that is to be maintained, repaired or tested.
- Qualification as a specialist with knowledge of the applicable local and international standards.
- Qualification to evaluate the work assigned to him.
- Recognition of potential hazards and how to prevent or correct them.

### 1.4 Note on this document

- ▶ Include other documents, such as explanations, printouts, recordings and results, with the IQ. List these documents under "Appendices".

### 1.5 Abbreviations

OM – Operating Manual  
IQ – Installation Qualification  
HWM - Hardware Manual  
SF – Service Function  
SM – Service Manual  
SWM - Software Manual

**Introduction**

Mastercycler® nexus  
English (EN)

**1.6 Device data****1.6.1 Mastercycler nexus**

Company / Operator:

Location where the device is used (building, floor, room, lab etc.):

Place where the operating manual is kept:

Place where the service manual is kept:

Inventory number of the device:

Manufacturer: Eppendorf AG

Type designation:

Serial number:

Voltage in volts:

Frequency in Hz:

Installation date (day/month/year):

### 1.6.2 Mastercycler nexus eco 1

Company / Operator:

Location where the device is used (building, floor, room, lab etc.):

Place where the operating manual is kept:

Place where the service manual is kept:

Inventory number of the device:

Manufacturer: Eppendorf AG

Type designation:

Serial number:

Voltage in volts:

Frequency in Hz:

Installation date (day/month/year):

### 1.6.3 Mastercycler nexus eco 2

Company / Operator:

Location where the device is used (building, floor, room, lab etc.):

Place where the operating manual is kept:

Place where the service manual is kept:

Inventory number of the device:

Manufacturer: Eppendorf AG

Type designation:

Serial number:

Voltage in volts:

Frequency in Hz:

Installation date (day/month/year):





## 2 IQ – Mastercycler nexus

### 2.1 Checking the factory default and delivery package



Perform all tests on the Mastercycler nexus and the corresponding Mastercycler nexus eco devices.

#### 2.1.1 Checking packaging for damage

No.	SM/OM section	Check	Yes	No
IQ 01	————	Are there any signs of external damage on the packaging of the Mastercycler nexus and the Mastercycler nexus eco?		
IQ 02	————	Does the information on the labels of the packaging correspond with the order?		



Keep the transport boxes for future use! Only send the devices in the original transport box.

#### 2.1.2 Inspecting the devices and accessories for damage

No.	SM/OM section	Check	Yes	No
IQ 03	————	Is the Mastercycler nexus free from external damage?		
IQ 04	————	Are the accessories of the Mastercycler nexus free from external damage?		
IQ 05	————	Is the Mastercycler nexus eco free from external damage?		
IQ 06	————	Are the accessories of the Mastercycler nexus eco free from external damage?		

#### 2.1.3 Checking the delivery package

No.	SM/OM section	Check	Yes	No
IQ 07	OM, Chapter 2.2	Does the delivery package match the details in the operating manual? Is the delivery complete?		
IQ 08	————	Does the supplied mains connection cable match the country-specific power socket form?		

## 2.2 Setting up the device

Read the chapters Installation and Technical data in the operating manual.

No.	SM/OM section	Check	Yes	No
IQ 09	OM Chapter 13.2	Is the installation site large enough for the Mastercycler nexus and the Mastercycler nexus eco devices? Dimensions of each device: <ul style="list-style-type: none"> <li>• Width: 25.0 cm (9.8 inch)</li> <li>• Height: 41.0 cm (16.1 inch)</li> <li>• Depth: 32.0 cm (12.6 inch)</li> <li>• Height with heated lid open: 44.5 cm (17.5 inch)</li> </ul>		
IQ 10	OM Chapter 4.1	Is free air circulation ensured? A distance of at least 10 cm must be maintained between the rear of the devices and the wall. The underside of the devices must be kept clear.		
IQ 11	OM Chapter 13.2	Is the installation site stable enough, horizontal and resonance-free? The Mastercycler nexus and the Mastercycler nexus eco each weigh 11.0 kg (24.3 lb)		
IQ 12	OM Chapter 13.3	Are the following ambient conditions met? <ul style="list-style-type: none"> <li>• Room temperature 15 °C to 35 °C.</li> <li>• Relative humidity to 70 %.</li> </ul>		
IQ 13	————	Is the disconnection of the power supply possible (emergency switch)?		
IQ 14	————	Are the power supply and the power frequency compatible with the information given on the ID plate of the devices?		
IQ 15	————	Is there 1 power socket available per device for the Mastercycler nexus and the Mastercycler nexus eco devices?		
IQ 16	OM Chapter 13.1	Is the power supply sufficient for the Mastercycler nexus and the Mastercycler nexus eco devices? <ul style="list-style-type: none"> <li>• Power consumption: 700 W</li> </ul> Are all power sockets sufficiently fused?		

### 2.3 Test equipment

Type	Type/serial number	Calibration on	Calibration certificate no.
Temperature Verification System			

### 2.4 Overview of the Mastercycler nexus variants

Device number	Device name	Control pad	Thermoblock	Gradient function
6330	Mastercycler nexus flat eco	-	Thermoblock nexus flat	-
6331	Mastercycler nexus flat	x	Thermoblock nexus 96 Well Al	x
6332	Mastercycler nexus eco	-	Thermoblock nexus 96 Well Al	-
6333	Mastercycler nexus	x	Thermoblock nexus 96 Well Al	-
6334	Mastercycler nexus eco gradient	-	Thermoblock nexus 96 Well Al	x
6335	Mastercycler nexus flat	x	Thermoblock nexus flat	-
6336	Mastercycler nexus GX2	x	Thermoblock nexus X2 32/64	x
6337	Mastercycler nexus X2	x	Thermoblock nexus X2 32/64	-
6338	Mastercycler nexus GX2e	-	Thermoblock nexus X2 32/64	x
6339	Mastercycler nexus X2e	-	Thermoblock nexus X2 32/64	-
6345	Mastercycler nexus GSX1	x	Thermoblock nexus X1 96 Well Ag	x
6346	Mastercycler nexus SX1	x	Thermoblock nexus X1 96 Well Ag	-
6347	Mastercycler nexus GSX1e	-	Thermoblock nexus X1 96 Well Ag	x
6348	Mastercycler nexus SX1e	-	Thermoblock nexus X1 96 Well Ag	-

## 2.5 Checking the devices and instructing the user

## 2.5.1 Checking the devices

No.	SM/OM section	Check	Yes	No
IQ 17	OM Chapter 4.2	Are the mains cables for the Mastercycler nexus and the Mastercycler nexus eco devices connected to the power supply?		
IQ 18	OM Chapter 4.2.5	Are the switches on the Mastercycler nexus and on the Mastercycler nexus eco devices set correctly?		
IQ 19	OM Chapter 4.2.5	Are all Mastercycler nexus eco devices connected to the Mastercycler nexus and ready for operation?		
IQ 20	—————	Switch on the Mastercycler nexus and all the Mastercycler nexus eco devices. No error message appears on the Mastercycler nexus display.		
IQ 21	OM, Chapter 5	The heated lid of each device can be opened and closed with the lever.		
IQ 22	SM Chapter 5	The microswitch on the heated lid of each device works.		
IQ 23	—————	<b>Only Mastercycler nexus:</b> test the display, key pad and mouse. On the Mastercycler nexus open the following nodes in succession: <i>Eppendorf/System/Service Functions/Panel/</i>		
IQ 23a		To test the display, press the <i>Display</i> softkey. The display is OK.		
IQ 23b		To test the key pad, press the <i>Key pad</i> softkey. The key pad is OK.		
IQ 23c		To test the mouse, press the <i>Mouse</i> softkey. The mouse is OK.		
IQ 24	OM of the Temperature Verification System	The devices have been verified successfully.		
IQ 25	OM Chapter 4.2.4	<b>Only Mastercycler nexus:</b> The USB printer was successfully tested for proper functioning on both USB interfaces.		
IQ 26	OM Chapter 4.2.4	<b>Only Mastercycler nexus:</b> The USB stick was successfully tested for proper functioning on both USB interfaces.		
IQ 27	OM Chapter 8.7	Establish the network connection. The devices work without errors in the network.		

2.5.2 Instructing the user

No.	SM/OM section	Check	Yes	No
IQ 28	OM Chapter 6	The user has been instructed in the programming of the sample temperature control.		

2.5.3 Test run

No.	SM/OM section	Check	Yes	No
IQ 29	OM Chapter 7	A PCR test run was carried out successfully with the Mastercycler®nexus and the Mastercycler nexus eco devices.		

Remarks

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Appendices (e.g., calibration certificates, technician’s certificates)

- 1:
- 2:
- 3:
- 4:
- 5:

\_\_\_\_\_  
 City, date

\_\_\_\_\_  
 Signature of technician

The user confirms that he has received training on the device and its functions.

\_\_\_\_\_  
 City, date

\_\_\_\_\_  
 Signature of user





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