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## External Touch Server Pipette Manager

Operating Manual

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## 1 About this manual

### 1.1 Notes on this manual

1. Please read this manual before you use the product.
2. Please ensure that you have the manual available during the use of the product.



You can find the current version of the manual at [www.eppendorf.com/manuals](http://www.eppendorf.com/manuals).

- Please contact Eppendorf SE to obtain a different version of the manual.

### 1.2 Warning notice structure



#### **HAZARD LEVEL! Type of danger**



Source of danger  
Consequences of disregarding the danger

- Measures to avoid the danger

Symbol	Hazard level	Type of danger	Meaning
	<b>DANGER</b>	Personal injury	Will lead to severe injuries or death.
	<b>WARNING</b>	Personal injury	May lead to severe injury or death.
	<b>CAUTION</b>	Personal injury	May lead to minor or moderate injuries.
	<b>NOTE</b>	Material damage	May lead to material damage.

### 1.3 Graphics

Depiction	Meaning
1.	Work steps
2.	
•	Bullet point
<i>Text</i>	Display text

<b>Depiction</b>	<b>Meaning</b>
<b>Key</b>	Name for port, button, status lamp, or key
	Important information
	Hint

#### **1.4 Other applicable documents**

The following documents supplement this manual:

- Installation guide for "Pipette Manager"
- Quick setup guide for "Pipette Manager"
- Regulatory information for "Pipette Manager"

## **2 Safety**

### **2.1 Intended use**

The Pipette Manager is a product intended for general laboratory use. It has been designed for setting parameters on manual electronic dosing devices from Eppendorf. The parameters are adjusted on the control panel or using a mobile terminal (e.g. a tablet). The parameter settings are transmitted wirelessly to the electronic dosing devices in a private network.

The Pipette Manager offers a user management that facilitates the management of access rights. It is possible to automatically document all saved parameters, information relating to the dosing device used, the date, time and user.

The product is intended for indoor use only. Do not use it on a wet work surface.

The product may only be used by users who have been trained according to the operating manual. Users must carefully read the operating manual and become familiar with the operation of the product.

### **2.2 Residual risks when used as intended**

If the product is not used as intended, the installed safety devices may not function correctly. To reduce the risk of personal injury and material damage and to avoid dangerous situations, please observe the general safety instructions.

#### **2.2.1 Material damage**

##### **2.2.1.1 Electrical hazards**

Connecting the device to an incorrect mains/power supply will damage the device.

- Only connect the device to a mains/power supply that meets the requirements on the name plate.

##### **2.2.1.2 Incorrect handling**

The use of accessories and spare parts other than those recommended by Eppendorf SE may impair the safety, functioning, and precision of the device. Eppendorf SE cannot be held liable or accept any liability for damage resulting from the use of accessories and spare parts other than those recommended.

- Only use the accessories and spare parts recommended by Eppendorf SE.
- Only use accessories and spare parts that are in perfect technical condition.

Aggressive cleaning agents or sharp objects can damage the surface of the device.

- Do not use any corrosive cleaning agents, solvents or abrasive polishing agents.
- Take note of the material specifications.

- Clean the device with a soft cloth.
- Do not clean the device with Acetone or organic solvents that have a similar effect.

If the touch screen is damaged, the device may malfunction.

- Turn off the device and pull out the mains/power plug.
- Have the touch screen replaced by a service technician authorized by Eppendorf SE.

### **2.3 Target groups**

This manual is intended for the following target groups, who have different qualifications and levels of knowledge.

#### **Owner**

The owner is any natural or legal person who operates or owns the device.

The owner provides the product and the necessary infrastructure. The owner has a special responsibility to ensure the safety of all persons working on the product.

#### **User**

The user operates the product and works with it. The user must be instructed in the use of the product. The user must have read and fully understood the manual.

Any tasks that go beyond operation may only be performed by the user if this is specified in this manual. The owner must explicitly assign these tasks to the user.

#### **Authorized service technician**

The authorized service technician is trained and certified by Eppendorf SE to service, maintain and repair the product.

### **2.4 Information for the owner**

The owner must ensure the following:

- The product is in a safe operating condition.
- The safety devices are all available and functional.
- The product is serviced and cleaned according to the information in this manual.
- The product is disposed of in accordance with local regulations.
- All work on the product is carried out by users, technical personnel or authorized service technicians who are suitably qualified.
- Personal protective equipment is available and is worn.
- The manual is available during the use of the product.
- The manual is part of the product. The product will only be passed on to others with its manual.

## 2.5 Personal protective equipment

Personal protective equipment serves to ensure the safety and protection of the user when working with the product.


Personal protective equipment must comply with country-specific regulations and the regulations of the laboratory.

## 2.6 Information on product liability

The owner of the device will be held liable for personal and material damage in the following cases:

- The device is used outside of its intended use
- The device is not used in accordance with the operating manual
- Manipulation of safety devices
- The device has spare parts installed that are not authorized by Eppendorf SE
- The device is used with accessories or consumables that are not recommended by Eppendorf SE
- Cleaning agents are used that are not recommended by Eppendorf SE
- Chemicals are used that are not recommended by Eppendorf SE
- Shipment not in original packing or in improper substitute packing
- The device is maintained or repaired by persons not authorized by Eppendorf SE
- Unauthorized modifications

## 2.7 Information on the device

Symbol	Meaning
	General warning sign

### 3 Product description

#### 3.1 Product overview

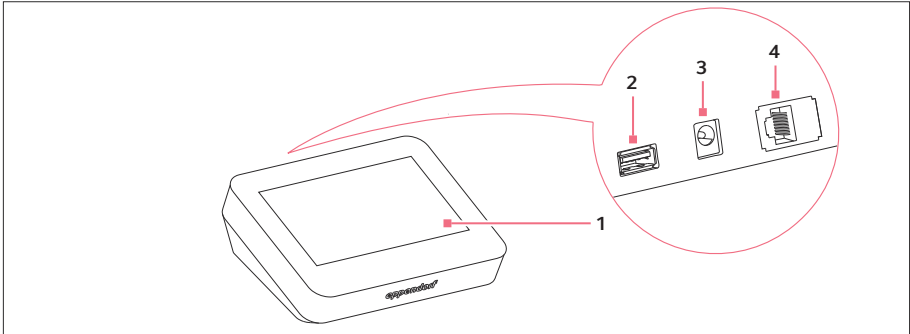


Fig. 3-1: Overview Pipette Manager

- |   |              |   |  |
|---|--------------|---|--|
| 1 | Touch screen | 3 | Connection for mains/power supply device |
| 2 | USB port     | 4 | LAN port (for Service only)              |

#### 3.2 Features

The Pipette Manager control panel has been designed for wireless communication with electronic dispensing devices from Eppendorf SE. The dispensing devices must be equipped with a radio module. Communication between the control panel and the dispensing devices takes place in an independent radio network.

The Pipette Manager software is used for setting up and managing as many as 30 dispensing devices, transferring parameters, combining pipettes in sets and reserving pipettes. Predefined liquid types are available to choose from in the *Liquid Manager* menu, which have been optimized for volatile, foaming and viscous liquids.

### 3.3 Product components

#### LAN port

The LAN interface port is only relevant for Service. Only devices tested in accordance with IEC 62368 may be connected.

#### 3.3.1 Supported dispensing devices

The pipette must be equipped with a suitable radio module.

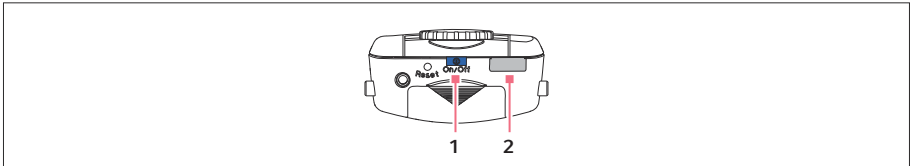


Fig. 3-2: Eppendorf Xplorer/Eppendorf Xplorer plus

1 On/Off key

2 USB interface

Dispensing device	On/Off switch	Interface
Eppendorf Xplorer	On/Off key	USB
Eppendorf Xplorer plus	On/Off key	USB

### 3.3.2 The Pipette Manager software

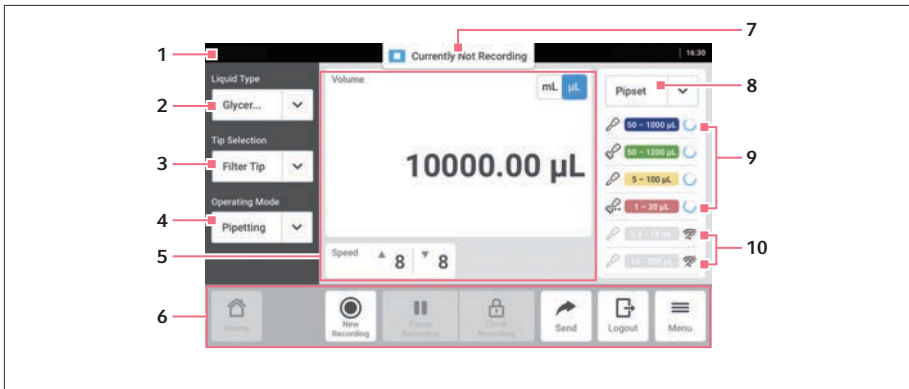


Fig. 3-3: Home screen

- |   |   |    |  |
|---|---|----|--|
| 1 | Status bar  | 6  | Toolbar  |
| 2 | Display selected liquid type/Call up Liquid Manager | 7  | Status display for <i>Pipetting Records</i>            |
| 3 | Select pipette tip                                  | 8  | Selected pipette set                                   |
| 4 | Select operating mode                               | 9  | Active pipettes in pipette set, with active radio link |
| 5 | Display range                                       | 10 | Inactive pipettes in pipette set, no radio link        |

#### 3.3.3 Status bar

The status bar contains information about the user, time, device status and messages. The user information will only be shown if user administration is activated and the user is logged in.

#### 3.3.4 Pipette tips

- epT.I.P.S. (Default)
- ep Dualfilter T.I.P.S.
- epT.I.P.S. LoRetention
- ep Dualfilter T.I.P.S. LoRetention

**Product description**

Pipette Manager  
English (EN)

**3.3.5 Display area**






Various function areas are shown in the display:


- Unit selected
- Volume set
- Aspiration speed
- Dispensing speed
- Dispensing steps
- etc.

**3.3.6 Toolbar**

The toolbar contains buttons for navigating the software.

**3.3.7 Operating controls**

Operating control	Description
	Inactive filter
	Active filter
	Function active
	Function inactive
	Exporting data




Operating control	Description
	Entering parameters












### 3.3.8 Menu structure

Menu	Submenu	Description
<i>Settings</i>	<i>About this Control Panel</i>	Information about the control panel.
	<i>System Settings</i>	Software system data (time and date, network, software updates).
	<i>Device Settings</i>	Touch screen settings.
	<i>User Management</i>	Activating and deactivating user administration settings, setting up and managing user accounts.
<i>Contacts &amp; Support</i>	<i>Contacts &amp; Support</i>	Enter contact data.
	<i>Diagnostics</i>	Call up service functions.
	<i>Service</i>	Call up service functions.
<i>Clean Screen</i>	–	Lock touch screen.
<i>Events</i>	–	Software events displayed.
<i>Liquid Manager</i>	<i>Favorite Liquid Types</i>	Liquid types marked as favorites.
	<i>Eppendorf Liquid Types</i>	Factory-set liquid types.
	<i>Liquid Types</i>	User-defined liquid types.


Menu	Submenu	Description
	<i>My Liquid Types</i>	User-defined liquid types if user administration is activated.
	<i>Archive</i>	Collection of personalized liquid types if user administration deactivated again.
<i>Export</i>	<i>Events</i>	Export of software events.
	<i>System Information for Service</i>	Export of system information.
<i>Pipette Manager</i>	<i>New Set</i>	Create a new pipette set.
	<i>Edit Set</i>	Edit an existing pipette set.
	<i>Add Pipettes</i>	Add pipettes to the selected pipette set.
	<i>Rename</i>	Rename the pipette.
	<i>Remove</i>	Remove the pipette from the pipette set.
	<i>Pair New Pipette</i>	Register pipette on radio network.
	<i>Unpair Pipette</i>	Remove pipette from radio network.
<i>Login</i>	–	Log in to the user administration.

### 3.3.9 Symbols used by the Pipette Manager software












Symbol	Description	Meaning
	Single-channel pipette	–
	Multi-channel pipette	With fixed cone spacing
	Multi-channel pipette	With adjustable cone spacing

Symbol	Description	Meaning
	Selected pipette	–
	Pipette status	The value entered is outside the permitted range. The value will be rounded to the next possible value.
	Pipette status	Parameters sent successfully.
	Pipette status	Parameters could not be sent (e.g. no suitable pipette available or value outside the permitted range).
	Pipette status	Pipette has been reserved by another user.
	Charge status of battery is low	No actions possible. Battery needs to be charged.
	Predefined liquid type from Eppendorf	–
	Freely definable liquid type	–
	Create liquid type	–
	Import data	–
	Export data	–


**Product description**Pipette Manager  
English (EN)



Symbol	Description	Meaning
	Radio link not active	–

**3.3.10 Pipette marking**

Marking	Color name	Design
	Medium gray	Single-channel 8-/12-multi-channel, fixed cone spacing
	Dusky pink	16-/24-multi-channel, 8-/12-multi-channel, fixed cone spacing, adjustable cone spacing
	Bright yellow	16-/24-multi-channel, 8-/12-multi-channel, fixed cone spacing, adjustable cone spacing
	Yellow	Single-channel 8-/12-multi-channel, fixed cone spacing
	Yellow	Single-channel
	Orange	Single-channel 8-/12-multi-channel, fixed cone spacing, 4-/6-/8-multi-channel, adjustable cone spacing
	Blue	Single-channel
	Green	8-/12-multi-channel, fixed cone spacing, 4-/6-/8-multi-channel, adjustable cone spacing
	Red	Single-channel
	Violet	Single-channel
	Turquoise	Single-channel

**3.3.11 Symbols for alarm, warning and information**

Symbol	Description
	Alarm

Symbol	Description
	Warning
	Information

### 3.3.12 Liquid types

The stored liquid types include optimized parameters for the dispensing device (e.g. aspiration and dispensing speed, number of pre-wettings, adapted volume, etc.). If there is no liquid type selected, the parameters will be reset to the standard values.

None of the liquids will foam.

#### **Volatile liquids**

The pipette tips are automatically pre-wetted for all volatile liquid types. The pipette tips must remain in the liquid until the process is complete!

Example of volatile liquids:

- Ethanol
- Methanol
- Acetone

Parameters:

- Pre-wetting

#### **Foaming liquids**

Example of foaming liquids:

- Protein solution

### Viscous liquids

Example of viscous liquids:

- Antibody solution
- Paraffin oil
- Tween 20

Parameters:

- Aspiration speed
- Dispensing speed
- Operating mode

Adapted parameters	< 30 mPa·s	< 300 mPa·s	< 1000 mPa·s
Aspiration speed	reduced	reduced	reduced
Dispensing speed	reduced	reduced	reduced
Scope of operating modes (epT.I.P.S. standard)	unchanged	reduced	reduced
Scope of operating modes (epT.I.P.S. LoRetention)	unchanged	unchanged	reduced

## 4 Installation

### 4.1 Checking the delivery



Do not use the product if the packing or the contents are damaged. In case of damaged or missing parts, contact the Eppendorf SE customer service or your Eppendorf partner.

1. Check the packing and the contents for any visible external damage.
2. Check whether the delivery is complete and matches the order.

### 4.2 Registering the pipette on the control panel

Prerequisites:

- The pipette software is up-to-date

1. Call up the *Menu* screen.
2. Start the Pipette Manager.
3. Tap the *Pair New Pipette* button.
4. Turn the selection dial of the pipette to **Opt** mode.
5. Select the pipette.
6. Select the *Wi-Fi* menu.
7. Select the *Connect AUTO* menu item.

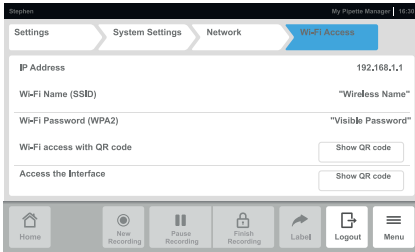
The pipette is registered on the control panel.

The pipettes can be used on their own or assigned to a pipette set.

### 4.3 Connecting the mobile terminal device

A mobile terminal device (such as a tablet) can be connected to the control panel. To do this, there must be a radio link established between the control panel and tablet. A web application is then used to enter the parameters and manage the pipettes.

### Establishing a radio link



1. Call up the menu *Settings > System Settings > Network > Wi-Fi Access*.
2. Tap the *Wi-Fi Access with QR Code* button.
3. Scan the QR code with the mobile terminal device.

A radio link is established between the Pipette Manager control panel and the tablet.

The Pipette Manager web application can be called up.

### Calling up the web application for the Pipette Manager

1. Open a browser on your tablet.
2. Enter the IP address (in screenshot 10.0.0.1, factory settings 192.168.0.1) in the address line of the browser.

The Pipette Manager web application starts.

The functions of the web application correspond to the functions on the control panel.



If you copy the address and set it up as a link on your home screen, an icon for the Pipette Manager will be created.

## 5 User management

### 5.1 User administration concept

User management is used to organize the access to the device.

3 user roles have been defined:

- Administrator
- User with standard rights
- User with restricted rights

If user management has not been set up, all users have the same rights as an administrator. The first user account that is created will automatically be the administrator account.

### 5.2 User rights

#### Home screen

Action	User with restricted rights	User with standard rights	Administrator/ User (without user administration)
Select liquid type	x	x	x
Select pipette tip	x	x	x
Select operating mode	x	x	x
Enter parameters	x	x	x
Select pipette set	x	x	x
Login/logout	x	x	x

#### Settings menu

Action	User with restricted rights	User with standard rights	Administrator/ User (without user administration)
View device information	x	x	x
Edit device information	–	x	x
View system settings	x	x	x

<b>Action</b>	<b>User with restricted rights</b>	<b>User with standard rights</b>	<b>Administrator/ User (without user administration)</b>
Set an acoustic alarm	–	–	x
Edit system settings	–	x	x
Update the software	x	x	x
Call up user administration	–	–	x
View network settings	x	x	x
Configure network settings	–	–	x

#### **Users menu**

<b>Action</b>	<b>User with restricted rights</b>	<b>User with standard rights</b>	<b>Administrator/ User (without user administration)</b>
Change own password	x	x	x
View administrator settings (does not apply to user administration)	x	x	x
View user settings	x	x	x
Create a user account	–	–	x (Administrator)
Change the user name	–	–	x
Change user rights	–	–	x
Reset a user password	–	–	x
Delete a user account	–	–	x

### 5.3 Setting up user management

To set up user management, you need to create an administrator account.

#### Creating an administrator account



If the administrator's credentials are lost, it is no longer possible to make any changes to the user administration and system settings. In this case, an authorized service engineer must reset the factory default settings on the device. All user accounts as well as all data and settings stored on the device will be deleted.

- Keep the user ID and the administrator password in a safe location.
- Create a second user account with administrator rights.

1. Tap on *Menu > Settings > User Management*.
2. Activate *User Management*.
3. Select whether users log in with a password or a PIN.
4. Tap on *Continue*.
5. Enter the user name for the administrator.
6. Tap on *Continue*.
7. Enter the password or the PIN. Repeat the entry.
8. Tap on *Confirm*.  
 The user account for the administrator has been created.  
 User management is now active and can be edited.  
 Login data is displayed.
9. Note down the login data for the administrator account.

## 5.4 Editing the user management

Prerequisites:

- You have administrator rights.

1. Tap on *Menu > Settings > User Management*.
2. Define the user management settings:
  - *User Management*: Enable or disable the user management.
  - *Automatic Logout*: Time after which an inactive user will be logged out automatically.
  - *Login Mode*: Login via password or PIN.
  - *Grant all users extra privileges*: If this function is enabled, no login is required and all users of the device have the rights of the selected user role. Even users who are not registered in the user administration can operate the device with the rights that were set.

## 5.5 Disabling the user management



Disabling the user management will delete all user accounts.

Prerequisites:

- You have administrator rights.

1. Tap on *Menu > Settings > User Management*.
2. Disable the user management.
3. Tap on *Continue*.
4. Enter the password or the PIN.
5. Tap on *Confirm*.  
The user management is disabled.

## 5.6 Creating a user account

You can create 999 user accounts.

Prerequisites:

- You have administrator rights.

1. Tap on *Menu > Users*.  
The overview of user accounts appears.

2. Tap on *Add User*.  
The *New User Credentials* window appears.
3. Enter the name of the new user in the *Enter user name* field and confirm the entry.
4. Assign either the password or the four-digit PIN for the new user. Repeat the entry to confirm.
5. Tap on *Continue*.
6. Select the desired user group from the *Select role* drop-down menu.  
User name, user ID and role are displayed.  
The new user is assigned to the selected user group.
7. Write down or export the user data you just created.

## 5.7 Editing a user account

### Editing your own user account

Prerequisites:

- A user is logged in.

1. Tap on *Menu > Users*.
2. Select your user account.
3. Edit the required user data.

### Editing user accounts as administrator

Prerequisites:

- You have administrator rights.

1. Tap on *Menu > Users*.
2. Select a user account.
3. Tap on the corresponding field to change the data.

You can change the entries in the following fields:

- *Full Name*
- *E-mail*
- *User ID*
- *Role*

## 5.8 Deleting a user account



It is not possible to delete the last remaining user account of the user group Administrator.

Prerequisites:

- You have administrator rights.

1. Tap on *Menu > Users*.
2. Highlight the user account you wish to delete.
3. Tap on the recycling bin symbol and confirm your selection.

## 5.9 Logging in as a User

If you are logging in for the first time or have received a new password, change the old password.

Prerequisites:

- User management has been enabled.
- The user accounts have been created.

1. Tap on *Login*.
2. Enter your login details.

## 5.10 Editing password or PIN

### Changing the password or PIN

Prerequisites:

- A user is logged in.

1. Tap on *Menu > Users*.
2. Select your user account.
3. Tap on *Change Password/PIN*.
4. Enter the current password in the *Enter current password/PIN* field.
5. Enter the new password in the *Enter new password/PIN* field.
6. Repeat the entry in the *Repeat new password/PIN* field.
7. Confirm the entry.

## Resetting the password or PIN

If a user has forgotten his or her password, the administrator can generate a new password.

Prerequisites:

- You have administrator rights.

1. Tap on *Menu > Users*.
2. Select a user account.
3. Tap on *Reset password/PIN*.
4. Tap on *Reset*.

The new password or PIN is generated and displayed automatically.

### 5.11 Logging off as a user

Prerequisites:

- You are logged in as a user.

1. Tap on *Logout*.

## 6 **Operation**

### 6.1 **Switching the control panel on or off**

The control panel can be switched on or off via the mains/power plug.

### 6.2 **Operating the user interface**

The touch screen is operated with your fingers only and does not require any auxiliary equipment. Laboratory gloves made from nitrile or latex may be worn. A capacitive touch pen can also be used, e.g. if thicker gloves need to be worn in the laboratory.

If liquid comes into contact with the touch screen, the functions displayed on the touch screen may be triggered.

- Do not drop any liquid onto the touch screen.
- Do not spill any liquid on the touch screen.

### 6.3 **With preset parameters**

Prerequisites:

- The parameters suitable for the liquid type selected are preset.

1. Call up the *Liquid Manager*.
2. Tap the *New* button.
3. Select a liquid type.
4. Follow the instructions on the screen.

### 6.4 **With freely selectable parameters**

All parameters must be manually set.

Parameters to be set:

- Pre-wetting steps
- Aspiration speed
- Dispensing speed
- Name, description and abbreviation (appears in pipette display)

1. Select the menu *Menu > Liquid Manager*.
2. Tap the *New* button.
3. Select the *Custom* liquid type.
4. Follow the instructions on the screen.

## 6.5 Exporting liquid type

Prerequisites:

- USB stick (FAT32 file system) available.
- A liquid type has been created.

1. Insert the USB stick.
2. Select the *Menu > Liquid Manager* menu.
3. Select the *Liquid Type* folder.
4. Call up the option for the preferred liquid type.
5. Tap the *Button to start an export of data to an excel file* button.
6. Follow the instructions on the screen.

## 6.6 Importing the liquid type

Prerequisites:

- USB stick (FAT32 file system) available.
- There is an import file on the USB stick.

1. Insert the USB stick.
2. Select the *Menu > Liquid Manager* menu.
3. Tap the *Import* button.
4. Follow the instructions on the screen.

## 6.7 Using a single pipette

A pipette does not need to be assigned to a pipette set before it can be used.

Prerequisites:

- There is a pipette with radio module.

1. Call up the home screen.
2. Open the *Pipetten-Set* drop-down list.
3. Select *Select Single Pipette*.
4. Select the preferred pipette.

## 6.8 Assigning pipettes to a set

Pipettes can be assigned to a set in the Pipette Manager menu. A set can be selected in the home screen and there will be several pipettes to choose from.

Prerequisites:

- In the *Manage Pipettes* menu, there are pipettes to choose from.
1. Call up the *Pipette Manager*.
  2. Tap the *New Set* button.
  3. Enter the name for the set and a description.

## 6.9 Calling up the *Pipetting Records* log function

With the *Pipetting Records* function, all pipetting settings, pipetting processes and the pipettes used are recorded and saved to a file. The file can be exported for documentation purposes.

### 6.10 Starting the recording

1. Call up the home screen.
2. Tap the *New Recording* button.
3. Follow the instructions on the screen.  
The recording is saved to the *Open Recordings* list.

### 6.11 Pausing the recording

1. Call up the home screen.
2. Tap the *Pause Recording* button.  
The pause is documented in the current recording.  
The current recording is stopped.  
Undocumented pipetting processes can be carried out.  
Another recording can be started.

## 6.12 Continuing the last recording

Prerequisites:

- A recording has been paused.

1. Call up the home screen.
2. Tap the *Continue Recording* button.  
 The last paused recording is continued.

## 6.13 Selecting and continuing a paused recording

1. Call up the home screen.
2. Tap the *Pipetting Records* status display.
3. Call up the *Open Recordings* menu.
4. Select a recording from the list.
5. Tap the *Switch Recording* button.  
 The selected recording is active and will be continued.

## 6.14 Finishing the recording

1. Call up the home screen.
2. Tap the *Finish Recording* button.  
 The recording is finished and saved.  
 The recording is locked against changes

## 6.15 Exporting the recording

A saved recording can be exported as a file to a USB stick.

1. Call up the home screen.
2. Call up the *Pipetting Records* menu.
3. Select the preferred recording from the list.
4. Tap the *Export* button.
5. Follow the instructions on the screen.

## 7 Maintenance

### 7.1 Cleaning

#### 7.1.1 Cleaning the device

##### Cleaning the housing



##### **NOTICE! Damage to the device and accessories**

The use of unsuitable cleaning agents or sharp objects may damage the device and its accessories.

- Do not use any aggressive cleaning agents, strong solvents or abrasive polishes.
- Check the compatibility with the materials used.
- Do not clean the device with acetone or organic solvents with a similar effect.
- Do not use any sharp or pointed objects to clean the device.

Material:

- Cloth
  - Soap-based cleaning agent
1. Wet a cloth with cleaning agent.
  2. Remove any dirt from the exterior of the device.
  3. Wet a new cloth with water.
  4. Wipe down the housing.

##### **Locking and cleaning the touch screen**

1. Under *Menu*, select *Clean Screen*.  
The touch screen is locked.
2. Wipe down the glass plate of the touch screen with a cloth and mild cleaning agent.

##### **Unlocking the touch screen**

1. Tap the corners in the numbered order.

## 8 Troubleshooting

### 8.1 Radio link

Error description	Cause	Solution
Parameters are not transferred.	Software is outdated.	Update the pipette software.
No radio link.	Operating mode <b>Opt</b> not set.	Set the <b>Opt</b> operating mode at the pipette.
	The radio module is inactive.	Set the pipette radio module to <i>ON</i> in the <i>Wi-Fi on/off</i> menu.
	The driver for the radio module was not loaded.	Restart the control panel.
	The pipette is always offline.	Restart the control panel. Restart the pipette.

### 8.2 USB stick

Error description	Cause	Solution
USB stick not recognized.	USB stick incorrectly formatted.	Format the USB stick in format FAT32.
	USB stick not supported.	Use a different USB stick.

### 8.3 Software update

Error description	Cause	Solution
Software update is not working.	The USB stick is not recognized.	Use a different USB stick.
	The necessary files are missing.	Make sure that all files are present.
	Software package unpacked twice.	Only unpack the software package once.

## 9 Transport

### 9.1 Shipping the device



Use the original packing to transport the device. If the original packing is no longer available, please ensure that the device is sufficiently protected by replacement packing during storage and further transport. Eppendorf SE is not liable for damage caused by improper replacement packing.



#### **WARNING! Contamination**

Shipping or storing a contaminated device may lead to contamination of persons and to damage to health.

- Clean and decontaminate the device before shipping it or putting it into storage.

Material:

- Packing

Prerequisites:

- The device has been taken out of operation.
  - The device has been cleaned and decontaminated.
1. Download the decontamination certificate for product returns from the webpage [www.eppendorf.com](http://www.eppendorf.com).
  2. Complete the decontamination certificate.
  3. Pack the device.
  4. Attach the decontamination certificate to the outside of the packing so that it is safe for transport.
  5. Ship the device.

## **10 Disposal**

### **10.1 Preparing for disposal**

#### **Preparing disposal in accordance with legal regulations**



For information on the legal regulations that apply in your country, please contact your local competent authority or your Eppendorf partner.



Dispose of non-decontaminable devices as hazardous waste.

1. Check which legal regulations apply to disposal in your country.
2. Choose a certified disposal company or contact your Eppendorf partner.

#### **Creating a decontamination certificate**

Prerequisites:

- The device has been decontaminated.

1. Download a decontamination certificate from our webpage [www.eppendorf.com](http://www.eppendorf.com).
2. Complete the decontamination certificate.

## 11 Technical data

### 11.1 Ambient conditions

#### Operation

Operating temperature	5 °C – 40 °C
Relative humidity	10 % – 95 %

#### Storage in transport packing

Air temperature	-25 °C – 55 °C
Relative humidity	10 % – 95 %

#### Storage without transport packing

Air temperature	-5 °C – 45 °C
Relative humidity	10 % – 95 %

### 11.2 Dimensions

Height	75 mm
Width	196 mm
Depth	153.7 mm

### 11.3 Weight

Weight	954 g
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### 11.4 Radio module

Transmission power	0.063 W
Power level	≤ 20 dBm
Frequency band	2400 MHz – 2483.5 MHz
Radio channel	1
Operating mode	Access Point
Access-Points	1

Approval	FCC, IC
Standard	IEEE 802.11 n

### 11.5 Impact resistance

Tested according to and IEC 60068-2-75.

Impact energy	max. 1 J
IK code	IK06

### 11.6 Mains/power supply

#### Electrical connection data – Device

Input voltage	DC 5 V, $\pm 6\%$
Maximum current consumption	DC 4 A
Power consumption (normal operation)	5 W
Pollution degree	2
Protection class	III

#### Electrical connection data – USB port

Max. current load	500 mA
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**Electrical connection data – Mains/power supply device**

Type	Mains/power adapter with interchangeable power plug adapters
Input voltage	100 V – 240 V, $\pm 10$ %
Frequency	50 – 60 Hz, $\pm 5$ %
Output voltage	DC 5 V, $\pm 6$ %
Maximum output	20 W
Maximum power consumption	24 W
Power consumption (without load)	< 0.1 W (230 V AC)
Overvoltage category	II
Pollution degree	2
Protection class	II

**11.7 Material**

Cover plate	Glass
Housing	Polycarbonate (PC) and Acrylonitrile butadiene styrene (ABS Blend)





# Evaluate Your Manual

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