



# Multipette® plus Repeater® plus

Operating manual

**eppendorf**



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5,620,660

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384, 163

384, 162

387, 426

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## 1 User instructions

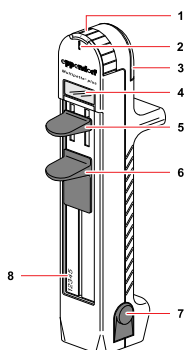
### 1.1 Using this manual

- ▶ Please read this operating manual completely before using the device for the first time.
- ▶ Please view this operating manual as part of the product and keep it somewhere easily accessible.
- ▶ When passing the device on to third parties, be sure to include this operating manual.

## 2 Product description

### 2.1 Features

In combination with Eppendorf Combitips advanced, the Multipipette plus/the Repeater plus forms a dispensing system for repeat dispensing operations.



**Fig. 1: Multipipette plus/Repeater plus**

|                         |                      |
|-------------------------|----------------------|
| 1 Volume selection dial | 2 Position indicator |
| 3 Battery compartment   | 4 Digital display    |
| 5 Dispensing lever      | 6 Filling lever      |
| 7 Ejection keys         | 8 Serial number      |

## 2.2 Combitips advanced

A supply of liquid is aspirated into the Combitip advanced and then dispensed step by step.

The built-in electronics automatically recognize

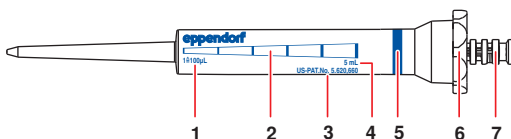
- the Combitip advanced inserted and
- the position of the volume selection dial,

and the current dispensing volume appears in the display.

Nine Combitips advanced with a variety of filling volumes are available for single use (see *Choose Combitip on p. 7*). The Combitips advanced 25 mL and 50 mL can only be used in combination with an adapter. The adapter is a wear part.

For each Combitip advanced, you can use the volume selection dial to set 20 different volumes.

The smallest volume can be dispensed up to a max. of 100 times and the largest volume a max. of 5 times.



**Fig. 2: Combitip advanced**

|                                                                            |                  |
|----------------------------------------------------------------------------|------------------|
| 1 Dispensing volume with the manual dispenser at selection dial position 1 | 2 Graduation     |
| 3 US patent numbers                                                        | 4 Maximum volume |
| 5 Color code                                                               | 6 Coding         |
| 7 Piston                                                                   |                  |

## 2.3 Combitips plus

Multipipette plus/Repeater plus can also be used with Combitips plus (predecessor model).

## 3 Safety

### 3.1 Intended use

The Multipette plus/Repeater plus is a lab device and, in combination with a Combitip plus/Combitip advanced, it is intended for dispensing aqueous solutions in the volume range between 1 µL and 10.00 mL. In vivo applications (applications in or on the human body) are not permitted.

The Multipette plus/Repeater plus may only be operated by trained specialist staff. All users must have read the operating manual carefully and familiarized themselves with the device's mode of operation.



#### **CAUTION! Danger to persons from careless use.**

- ▶ Never point the opening of a Multipette plus / Repeater plus equipped with a Combitip at yourself or anyone else.
- ▶ Only perform dispensing operations when you do not endanger yourself or anyone else.



#### **CAUTION! Poor safety due to incorrect accessories and spare parts.**

The use of accessories and spare parts other than those recommended by Eppendorf may impair the safety, function and precision of the device. Eppendorf cannot be held liable or accept any liability for damage resulting from the use of incorrect or non-recommended accessories and spare parts or from the improper use of such equipment.

- ▶ Only use accessories and original spare parts recommended by Eppendorf.



#### **NOTICE! Damage to device from opening the housing.**

- ▶ Do not remove the housing of the Multipette plus/ Repeater plus.
- ▶ Do not allow the housing to be opened by anyone except service staff authorized by Eppendorf.



#### **NOTICE! Damage to sensor from damaged or incorrectly inserted Adapter plus.**

- ▶ When using 25 mL and 50 mL Combitips, make sure that the adapter is in a perfect condition. The adapter is a wear part.
- ▶ Do not use the Adapter if it is damaged or visibly worn.
- ▶ Connect the Adapter and the Combitip always outside of the Multipette plus/Repeater plus.
- ▶ Do not turn the inserted Combitip.
- ▶ Always hold the Multipette plus/Repeater plus by the housing.



#### **NOTICE! Damage to device from penetration of liquids.**

- ▶ Do not allow any liquids to penetrate the inside of the housing.
- ▶ If liquid has penetrated the inside of the housing, have the inner parts of the Multipette plus / Repeater plus repaired only by service partners of Eppendorf AG. Contact your responsible sales office before returning a product.



**NOTICE! Material damage from incorrect use.**

- ▶ Only use the product for its intended purpose as described in the operating manual.
- ▶ Ensure adequate material resistance when using chemical substances.
- ▶ Do not use the Multipette plus/Repeater plus with liquids which attack the materials ABS, ASA, PBT, PC, POM and PPS.
- ▶ Do not use the Combitip with liquids which attack the materials PP, PE or LCP.
- ▶ In case of doubt, contact your local Eppendorf partner.

## 4 Operation

### 4.1 Choose Combipip

► Use the volume table to select volumes and Combipip.

| Position of the volume selection dial |        | 0.5    | 1      | 1.5    | 2       | 2.5    | 3       | 3.5    | 4       | 4.5    | 5       | 5.5    | 6       | 6.5    | 7       | 7.5    | 8       | 8.5    | 9       | 9.5    | 10 |
|---------------------------------------|--------|--------|--------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|----|
| Maximum number of dispensing steps    |        | 100    | 50     | 33     | 25      | 20     | 16      | 14     | 12      | 11     | 10      | 9      | 8       | 7      | 7       | 6      | 6       | 5      | 5       | 5      | 5  |
| <b>Combipip</b> mit den Volumina      |        |        |        |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |    |
| <b>0.1 mL</b>                         | 1 µL   | 2 µL   | 3 µL   | 4 µL   | 5 µL    | 6 µL   | 7 µL    | 8 µL   | 9 µL    | 10 µL  | 11 µL   | 12 µL  | 13 µL   | 14 µL  | 15 µL   | 16 µL  | 17 µL   | 18 µL  | 19 µL   | 20 µL  |    |
| <b>0.2 mL</b>                         | 2 µL   | 4 µL   | 6 µL   | 8 µL   | 10 µL   | 12 µL  | 14 µL   | 16 µL  | 18 µL   | 20 µL  | 22 µL   | 24 µL  | 26 µL   | 28 µL  | 30 µL   | 32 µL  | 34 µL   | 36 µL  | 38 µL   | 40 µL  |    |
| <b>0.5 mL</b>                         | 5 µL   | 10 µL  | 15 µL  | 20 µL  | 25 µL   | 30 µL  | 35 µL   | 40 µL  | 45 µL   | 50 µL  | 55 µL   | 60 µL  | 65 µL   | 70 µL  | 75 µL   | 80 µL  | 85 µL   | 90 µL  | 95 µL   | 100 µL |    |
| <b>1.0 mL</b>                         | 10 µL  | 20 µL  | 30 µL  | 40 µL  | 50 µL   | 60 µL  | 70 µL   | 80 µL  | 90 µL   | 100 µL | 110 µL  | 120 µL | 130 µL  | 140 µL | 150 µL  | 160 µL | 170 µL  | 180 µL | 190 µL  | 200 µL |    |
| <b>2.5 mL</b>                         | 25 µL  | 50 µL  | 75 µL  | 100 µL | 125 µL  | 150 µL | 175 µL  | 200 µL | 225 µL  | 250 µL | 275 µL  | 300 µL | 325 µL  | 350 µL | 375 µL  | 400 µL | 425 µL  | 450 µL | 475 µL  | 500 µL |    |
| <b>5 mL</b>                           | 50 µL  | 100 µL | 150 µL | 200 µL | 250 µL  | 300 µL | 350 µL  | 400 µL | 450 µL  | 500 µL | 550 µL  | 600 µL | 650 µL  | 700 µL | 750 µL  | 800 µL | 850 µL  | 900 µL | 950 µL  | 1.0 mL |    |
| <b>10 mL</b>                          | 100 µL | 200 µL | 300 µL | 400 µL | 500 µL  | 600 µL | 700 µL  | 800 µL | 900 µL  | 1.0 mL | 1.1 mL  | 1.2 mL | 1.3 mL  | 1.4 mL | 1.5 mL  | 1.6 mL | 1.7 mL  | 1.8 mL | 1.9 mL  | 2.0 mL |    |
| <b>25 mL*</b>                         | 250 µL | 500 µL | 750 µL | 1.0 mL | 1.25 mL | 1.5 mL | 1.75 mL | 2.0 mL | 2.25 mL | 2.5 mL | 2.75 mL | 3.0 mL | 3.25 mL | 3.5 mL | 3.75 mL | 4.0 mL | 4.25 mL | 4.5 mL | 4.75 mL | 5.0 mL |    |
| <b>50 mL*</b>                         | 0.5 mL | 1.0 mL | 1.5 mL | 2.0 mL | 2.5 mL  | 3.0 mL | 3.5 mL  | 4.0 mL | 4.5 mL  | 5.0 mL | 5.5 mL  | 6.0 mL | 6.5 mL  | 7.0 mL | 7.5 mL  | 8.0 mL | 8.5 mL  | 9.0 mL | 9.5 mL  | 10 mL  |    |

\* 25 mL and 50 mL Combipips must be used with the supplied adapter.



See the safety instructions and the general illustration (see Fig. on p. 4).

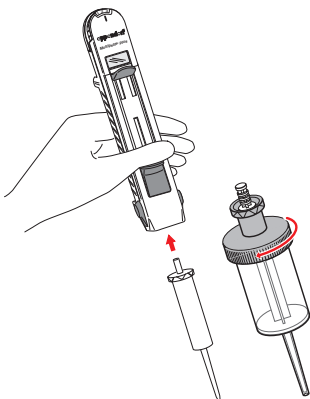
## 4.2 Insert Combitip



**NOTICE! Damage to property due to incorrect insertion of the Combitip.**

- ▶ For Multipette plus/Repeater plus manufactured before 12/15/2009: Do **not** press the ejection keys when a Combitip is inserted.

1. If using 25 mL or 50 mL Combitips, connect the adapter to the Combitip outside the Multipette plus/Repeater plus.



2. Slide the filling lever right to the bottom and hold it there.
3. Push the Combitip from below into the Multipette plus / Repeater plus and, in doing so, hold the filling lever slid downwards. Or insert the Combitip and then push the filling lever downward.

## 4.3 Select volume

- ▶ Turn the volume selection wheel until it locks into the desired position.

The volume selection wheel has 20 positions. They are indicated with the figures 1 to 10. Positions between these numbers, and position 0.5, are indicated with a spot.



When setting small volumes (position 5 and below), the operating path of the dosage lever is reduced automatically. The dosage lever changes its position when the volume selection wheel is turned.

You cannot turn the volume selection wheel beyond position 10.

Do not turn the volume selection wheel beyond 10 or 0.5. Turn the volume wheel back to its initial position.

### 4.3.1 Filling Combitip and reverse stroke

1. Immerse the tip of the Combitip in the liquid.
2. Slowly and uniformly push the filling lever up to the stop.  
The display is blinking, the Multipette plus/Repeater plus is not yet ready for operation.



### 4.3.2 Discard first dispensing step (reverse stroke).

1. Wipe the Combitip tip using lint-free cell tissue.
2. Place the Combitip tip on the tube wall.
3. Actuate the dispensing lever once and discard the liquid (reverse stroke).

This step, which brings the system to the basic position, should be completed independent of the volume setting.

The display is no longer blinking, and displays the dispensing volume. The Multipette plus/Repeater is ready for operation, the full range of dispensing steps are available.

#### Comments

- If you do not fully fill the Combitip, the display will not blink. Press the dispensing lever fully downward as often as necessary until liquid escapes from the Combitip plus. Discard the liquid. Then, you can dispense the set volume.
- Between dispensing steps, you can change the volume using the volume selection dial.
- Pressing the filling lever too quickly may create a too high vacuum. The liquid is enriched with air bubbles which could cause dispensing inaccuracies.  
With a volume selection dial setting larger 5, the aspiration of a large air bubble can lead to drip formation after each dispensing step, particularly with 10, 25 and 50 mL Combitips.
- A small air bubble in the upper cylinder chamber has no effect on dispensing.
- The Combilong/Combitube is an aspiration aid for the Multipette plus/Repeater plus. The Combilong/Combitube enables direct liquid aspiration from bottles.

## 4.4 Dispense

1. Place the tip of the Combitip against the wall of the tube.
2. Push the dispensing lever up to the stop.



If the remaining liquid is not enough for complete dispensing of the set volume for the last dispensing step, the residual stroke lock automatically prevents an insufficient amount from being dispensed.

---

After the Combitip has been refilled, discard the first dispensing step.

## 4.5 Release Combitip

1. Hold the Combitip in a tube and push the filling lever right to the bottom.  
The residual liquid is emptied.
2. Hold the Multipette plus/the Repeater over a waste container.
3. Press both ejection keys at the same time.  
The Combitip (in the case of 25 mL and 50 mL including adapter) is released from the Multipette plus/the Repeater plus. The display goes out.
4. On the Combitip 25 mL and 50 mL: unscrew the reusable adapter from the Combitips.

The adapter is a wear part. If significant wear is apparent, do not reuse the adapter.

## 4.6 Quick Start



Only trained staff already familiar with the operating manual and the Multipette plus/the Repeater plus may work to these short instructions. Follow the safety instructions.

1. Select Combitip.
2. With Combitip 25, 50 mL: connect adapter to the Combitip.
3. Insert Combitip (see p. 8).
4. Fill Combitip:
  - a Immerse the tip of the Combitip in the liquid.
  - b Slowly draw up the filling lever.
5. Reverse stroke:
  - a Press the dispensing lever.
  - b Discard the first dispensing step (reverse stroke).
6. Dispense:
  - a Place the tip of the Combitip against the wall of the tube.
  - b Press the dispensing lever.
7. Discard the Combitip:
  - a Push the filling lever right to the bottom.
  - b Press both ejection keys at the same time.

## 4.7 Empty Battery

The Multipette plus/Repeater plus can still function if the electronics fail or the battery is empty.

To set volumes, use the volume table (see p. 7) or proceed as follows in order to determine the position required on the volume selection wheel:

1. Read the volume for position 1 on the volume wheel from the Combitip (fig. 2-1).
2. Divide the desired volume by the volume with position 1.

### Examples for Combitip

|                          |                 |
|--------------------------|-----------------|
| Volume for position 1    | 100 µL          |
| Desired volume of dosage | 200 µL          |
| Calculation              | $200 / 100 = 2$ |
| Position to be set       | <b>2</b>        |

|                          |                   |
|--------------------------|-------------------|
| Desired volume of dosage | 750 µL            |
| Calculation              | $750 / 100 = 7.5$ |
| Position to be set       | between 7 and 8   |

|                          |                  |
|--------------------------|------------------|
| Desired volume of dosage | 50 µL            |
| Calculation              | $50 / 100 = 0.5$ |
| Position to be set       | before 1         |

## 5 Troubleshooting

### 5.1 General errors



Should you require service, contact your official dealer for Eppendorf products or our sales office. You can find the addresses of our dealers on our website [www.eppendorf.com](http://www.eppendorf.com). The addresses of our sales offices are listed on the penultimate page of these Instructions for Use.

Read the note on decontamination (see *Decontamination before shipment* on p. 12).

| Error                                                     | Cause                                                                                                                                                                                                                                                                                                       | Solution                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Battery symbol appears.                                   | <ul style="list-style-type: none"> <li>Battery is running down.</li> </ul>                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>Replace the battery within the next two weeks.</li> </ul>                                                                                                                                                                                                                                                                                                      |
| Blank display.                                            | <ul style="list-style-type: none"> <li>No Combipip has been inserted.</li> <li>Battery is run down.</li> <li>Battery has been installed incorrectly.</li> <li>Electronics are defective.</li> <li>25 mL Combipip in old Multipette 4980 (gray operating controls).</li> <li>Combipip is leaking.</li> </ul> | <ul style="list-style-type: none"> <li>Replace the Combipip.</li> <li>Insert a new battery.</li> <li>Insert the battery correctly, making sure that the positive pole is visible.</li> <li>Operation and volume selection are possible without the electronics.</li> <li>Send in the Multipette plus/Repeater plus for repair.</li> <li>Use new Multipette 4981 (blue operating controls).</li> </ul> |
| Air bubble increases in size; liquid cannot be aspirated. | <ul style="list-style-type: none"> <li>Combipip is leaking.</li> </ul>                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>Replace the Combipip.</li> </ul>                                                                                                                                                                                                                                                                                                                               |
| Poor accuracy/precision values.                           | <ul style="list-style-type: none"> <li>Combipip is leaking.</li> <li>Liquid contains air bubbles.</li> <li>Pipetting stroke has not been executed completely.</li> <li>Reverse stroke not discarded.</li> </ul>                                                                                             | <ul style="list-style-type: none"> <li>Replace the Combipip.</li> <li>Aspirate the liquid slowly and evenly.</li> <li>Use degassed liquid.</li> <li>Use the entire path of the dispensing lever.</li> <li>After filling the Combipip: always discard the first volume.</li> </ul>                                                                                                                     |
| Displays S 2                                              | <ul style="list-style-type: none"> <li>Volume selection dial has not locked into position.</li> </ul>                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>Lock the volume selection dial into position.</li> </ul>                                                                                                                                                                                                                                                                                                       |
| Displays C 2<br>C 4<br>C 6                                | <ul style="list-style-type: none"> <li>Rim of the Combipip barrel or the Combipip mounting area is not clean.</li> <li>Combipip is not positioned correctly in the mounting area (i.e. is not straight).</li> <li>Combipip sensor is defective.</li> <li>Adapter worn.</li> </ul>                           | <ul style="list-style-type: none"> <li>Wipe with a moist cloth or use a new Combipip.</li> <li>Insert the Combipip correctly without touching the ejection key.</li> <li>Send in the Multipette plus/Repeater plus for repair.</li> <li>Use new adapter.</li> </ul>                                                                                                                                   |

The precision and correctness of the Multipette plus/of the Repeater plus must be checked regularly to prevent dispensing errors. You can find an SOP (Standard Operation Procedure) for the test on our website: [www.eppendorf.com](http://www.eppendorf.com).

## 6 Maintenance

### 6.1 Cleaning



Any servicing activities above and beyond cleaning or changing the battery must be performed only by Eppendorf AG or an Eppendorf AG service partner.



#### **NOTICE! Damage to device from penetration of liquids.**

- ▶ Do not allow any liquids to penetrate the inside of the housing.
- ▶ If liquid has penetrated the inside of the housing, have the inner parts of the Multipette plus / Repeater plus repaired only by service partners of Eppendorf AG. Contact your responsible sales office before returning a product.

Clean any dirt off the Multipette plus / Repeater plus as follows:

- ▶ Moisten a cloth with soap solution and remove the dirt.
- ▶ To disinfect the Multipette plus/Repeater plus, use isopropanol (70%).

### 6.2 Change battery

When the battery symbol appears in the digital display, you can use the battery for approximately another two weeks.

1. Push the lid in the direction of the arrow to open the battery compartment.
2. Remove the old battery.
3. Wipe over the new battery with a soft dry cloth.
4. Insert the battery with the plus symbol and the labeling facing upwards.
5. Close the battery compartment.



You can also use the Multipette plus/the Repeater plus without a battery (see *Empty Battery* on p. 10).

### 6.3 Decontamination before shipment

If you wish to return the pipette to Eppendorf AG or an Eppendorf AG service partner to be checked or repaired, please note the following:



#### **CAUTION! Use of a contaminated device may result in personal injuries and damage to the device.**

- ▶ Clean and decontaminate the Multipette plus/Repeater plus before shipping or storage according to the cleaning instructions.

Hazardous substances are:

- solutions presenting a hazard to health
  - potentially infectious agents
  - organic solvents and reagents
  - radioactive substances
  - proteins presenting a hazard to health
  - DNA
1. Please note the information in the document "Decontamination certificate for product returns".  
You can find it as a PDF file on our homepage [www.eppendorf.com](http://www.eppendorf.com).
  2. Enter the serial number of the Multipette plus/Repeater plus in the decontamination certificate.
  3. Enclose the fully-completed decontamination certificate for returned goods with the Multipette plus / Repeater plus.

## 7 Technical data

| Combitip advanced | Testing volume | Error limits     |        |              |       |
|-------------------|----------------|------------------|--------|--------------|-------|
|                   |                | Error            |        |              |       |
|                   |                | Systematic error |        | Random error |       |
|                   |                | ± %              | ± µL   | ± %          | ± µL  |
| 0.1 mL white      | 2 µL           | ±1.6             | ±0.032 | ±3.0         | ±0.06 |
|                   | 20 µL          | ±1.0             | ±0.2   | ±2.0         | ±0.4  |
| 0.2 mL light blue | 4 µL           | ±1.3             | ±0.052 | ±2.0         | ±0.08 |
|                   | 40 µL          | ±0.8             | ±0.32  | ±1.5         | ±0.6  |
| 0.5 mL violet     | 10 µL          | ±0.9             | ±0.09  | ±1.5         | ±0.15 |
|                   | 100 µL         | ±0.8             | ±0.8   | ±0.6         | ±0.6  |
| 1 mL yellow       | 20 µL          | ±0.9             | ±0.18  | ±0.9         | ±0.18 |
|                   | 200 µL         | ±0.6             | ±1.2   | ±0.4         | ±0.8  |
| 2.5 mL green      | 50 µL          | ±0.8             | ±0.4   | ±0.8         | ±0.4  |
|                   | 500 µL         | ±0.5             | ±2.5   | ±0.3         | ±1.5  |
| 5 mL blue         | 100 µL         | ±0.6             | ±0.6   | ±0.6         | ±0.6  |
|                   | 1 000 µL       | ±0.5             | ±5.0   | ±0.25        | ±2.5  |
| 10 mL orange      | 200 µL         | ±0.5             | ±1.0   | ±0.6         | ±1.2  |
|                   | 2 000 µL       | ±0.5             | ±10    | ±0.25        | ±5.0  |
| 25 mL red         | 500 µL         | ±0.4             | ±2.0   | ±0.6         | ±3.0  |
|                   | 5 000 µL       | ±0.3             | ±15    | ±0.25        | ±12.5 |
| 50 mL light grey  | 1 000 µL       | ±0.3             | ±3.0   | ±0.5         | ±5.0  |
|                   | 10 000 µL      | ±0.3             | ±30    | ±0.3         | ±30   |

The data is valid for the following test conditions, in accordance with ISO 8655:

|                          |                                                                    |
|--------------------------|--------------------------------------------------------------------|
| Liquid                   | Water, double distilled, degased                                   |
| Test temperature         | 20 to 25 °C, constant to ±0.5 °C with original Eppendorf Combitips |
| Number of determinations | 10, before dispensing, Combitip completely filled                  |
| Operating temperature    | +4 °C to +40 °C                                                    |
| <b>Battery</b>           |                                                                    |
| Lithium button cell      | 3 V<br>210 mAh<br>Service life about 2 years                       |

## 8 Ordering Information



### CAUTION! Poor safety due to incorrect accessories and spare parts.

The use of accessories and spare parts other than those recommended by Eppendorf may impair the safety, function and precision of the device. Eppendorf cannot be held liable or accept any liability for damage resulting from the use of incorrect or non-recommended accessories and spare parts or from the improper use of such equipment.

- Only use accessories and original spare parts recommended by Eppendorf.

## 8.1 Multipipette plus/Repeater plus

| Order No.<br>(International) | Order No.<br>(North America) | Description              |
|------------------------------|------------------------------|--------------------------|
| 4981 000.019                 | –                            | <b>Multipipette plus</b> |
| –                            | 022260201                    | <b>Repeater plus</b>     |

### 8.1.1 Accessories Multipipette plus/Repeater plus

| Order No.<br>(International) | Order No.<br>(North America) | Description                                                                                                                        |
|------------------------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 3115 000.003                 | 022444905                    | <b>Pipette carousel 3115</b><br>with 6 pipette holder for<br>Research and Reference<br>Pipettes                                    |
| 4981 201.006<br>4980 210.001 | 022260588<br>022261592       | <b>Multipipette plus, Repeater plus,<br/>Varipipette - adapter</b><br>for pipette carousel 3115<br>for pipette carousel 4807 (old) |
| 4981 203.009                 | 022260596                    | <b>Wall mounting device for<br/>Multipipette plus, Repeater plus,<br/>Varipipette</b><br>with adhesive surface                     |
| 4980 215.003                 | 022269119                    | <b>Battery</b><br>3 V                                                                                                              |

### 8.1.2 Combitips advanced

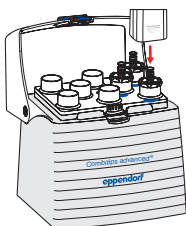
| Order No.<br>(International)                      | Order No.<br>(North America)                | Description                                                                                                                                       |
|---------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 0030 089.405<br>–<br>0030 089.618<br>0030 089.766 | 0030089405<br>0030089510<br>0030089618<br>– | <b>Combitips advanced 0.1 mL</b><br>100 pieces<br>Eppendorf Quality<br>Sterile, individually wrapped<br>Biopur, individually wrapped<br>PCR clean |
| 0030 089.413<br>–<br>0030 089.626<br>0030 089.774 | 0030089413<br>0030089529<br>0030089626<br>– | <b>Combitips advanced 0.2 mL</b><br>100 pieces<br>Eppendorf Quality<br>Sterile, individually wrapped<br>Biopur, individually wrapped<br>PCR clean |
| 0030 089.421<br>–<br>0030 089.634<br>0030 089.782 | 0030089421<br>0030089537<br>0030089634<br>– | <b>Combitips advanced 0.5 mL</b><br>100 pieces<br>Eppendorf Quality<br>Sterile, individually wrapped<br>Biopur, individually wrapped<br>PCR clean |
| 0030 089.430<br>–<br>0030 089.642<br>0030 089.790 | 0030089430<br>0030089545<br>0030089642<br>– | <b>Combitips advanced 1.0 mL</b><br>100 pieces<br>Eppendorf Quality<br>Sterile, individually wrapped<br>Biopur, individually wrapped<br>PCR clean |
| 0030 089.448<br>–<br>0030 089.650<br>0030 089.804 | 0030089448<br>0030089553<br>0030089650<br>– | <b>Combitips advanced 2.5 mL</b><br>100 pieces<br>Eppendorf Quality<br>Sterile, individually wrapped<br>Biopur, individually wrapped<br>PCR clean |
| 0030 089.456<br>–<br>0030 089.669<br>0030 089.812 | 0030089456<br>0030089561<br>0030089669<br>– | <b>Combitips advanced 5.0 mL</b><br>100 pieces<br>Eppendorf Quality<br>Sterile, individually wrapped<br>Biopur, individually wrapped<br>PCR clean |

| Order No.<br>(International)                      | Order No.<br>(North America)                | Description                                                                                                                                      |
|---------------------------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 0030 089.464<br>–<br>0030 089.677<br>0030 089.820 | 0030089464<br>0030089570<br>0030089677<br>– | <b>Combitips advanced 10 mL</b><br>100 pieces<br>Eppendorf Quality<br>Sterile, individually wrapped<br>Biopur, individually wrapped<br>PCR clean |
| 0030 089.472<br>–<br>0030 089.685<br>0030 089.839 | 0030089472<br>0030089588<br>0030089685<br>– | <b>Combitips advanced 25 mL</b><br>100 pieces<br>Eppendorf Quality<br>Sterile, individually wrapped<br>Biopur, individually wrapped<br>PCR clean |
| 0030 089.480<br>–<br>0030 089.693<br>0030 089.847 | 0030089480<br>0030089596<br>0030089693<br>– | <b>Combitips advanced 50 mL</b><br>100 pieces<br>Eppendorf Quality<br>Sterile, individually wrapped<br>Biopur, individually wrapped<br>PCR clean |

### 8.1.3 Adapter advanced

| Order No.<br>(International) | Order No.<br>(North America) | Description                                                               |
|------------------------------|------------------------------|---------------------------------------------------------------------------|
| 0030 089.715                 | 0030089715                   | <b>Adapter advanced 25 mL</b><br>1 piece<br>Eppendorf Quality             |
| 0030 089.723                 | 0030089723                   | <b>Adapter advanced 50 mL</b><br>1 piece<br>Eppendorf Quality             |
| 0030 089.731                 | 0030089731                   | <b>Adapter advanced 25 mL</b><br>7 pieces<br>Biopur, individually wrapped |
| 0030 089.740                 | 0030089740                   | <b>Adapter advanced 50 mL</b><br>7 pieces<br>Biopur, individually wrapped |

### 8.1.4 Accessories Combitips advanced



**Fig. 3: Combitips advanced Rack**

A Combitips advanced Rack is available for storing Combitips advanced ( $\leq 10$  mL).

| Order No.<br>(International) | Order No.<br>(North America) | Description                                                                                                       |
|------------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 0030 059.506                 | –                            | <b>Combilong</b><br>Aspirating aid for removing<br>liquids from volumetric flasks and<br>tall bottles<br>2 pieces |

| Order No.<br>(International) | Order No.<br>(North America) | Description                                                                                                       |
|------------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------|
| –                            | 022261550                    | <b>Combitube</b><br>Aspirating aid for removing<br>liquids from volumetric flasks and<br>tall bottles<br>2 pieces |
| 0030 089.758                 | 0030089758                   | <b>Combitips advanced Rack</b><br>1 piece<br>Eppendorf Quality                                                    |

Eppendorf Biopur® disposable articles are guaranteed to be sterile and free from pyrogen, RNase, DNA and ATP.

## 9 Warranty

In the event of claims under warranty, please contact your Eppendorf distributor.

Wear parts are excluded from the warranty.

When returning the Multipette plus/Repeater plus, please follow the instructions relating to decontamination (see *Decontamination before shipment* on p. 12).

## 10 Disposal

### 10.1 Disposal

In case the product is to be disposed of, the relevant legal regulations are to be observed.

#### Information on the disposal of electrical and electronic devices in the European Community:

Within the European Community, the disposal of electrical devices is regulated by national regulations based on EU Directive 2002/96/EC pertaining to waste electrical and electronic equipment (WEEE).

According to these regulations, any devices supplied after August 13, 2005, in the business-to-business sphere, to which this product is assigned, may no longer be disposed of in municipal or domestic waste. They are marked with the following symbol to indicate this:

As disposal regulations may differ from country to country within the EU, please contact your supplier if necessary.



#### **WARNING! Risk of explosion and fire due to overheated accumulators and batteries.**

- ▶ Do not heat accumulators and batteries to over 80 °C and do not throw them into fires.

#### **Disposing of accumulators and batteries**

Do not dispose of accumulators and batteries as household waste. Dispose of accumulators and batteries according to the locally applicable legal regulations.





## EG-Konformitätserklärung EC Conformity Declaration

Das bezeichnete Produkt entspricht den einschlägigen grundlegenden Anforderungen der aufgeführten EG-Richtlinien und Normen. Bei einer nicht mit uns abgestimmten Änderung des Produktes oder einer nicht bestimmungsgemäßen Anwendung verliert diese Erklärung ihre Gültigkeit.

The product named below fulfills the relevant fundamental requirements of the EC directives and standards listed. In the case of unauthorized modifications to the product or an unintended use this declaration becomes invalid.

Produktbezeichnung, Product name:

Multipette® plus 4981

Produkttyp, Product type:

Manueller Dispenser / Manual dispenser

Einschlägige EG-Richtlinien/Normen, Relevant EC directives/standards:

2004/108/EG, EN 55011/B, EN 61000-6-1, EN 61000-3-2, EN 61000-3-3

2011/65/EU

EN ISO 8655-5

Vorstand, Board of Management:

21.06.2012

Hamburg, Date:

Projektsmanagement, Project Management:

**eppendorf**

Eppendorf AG · Barkhausenweg 1 · 22339 Hamburg · Germany

0015 033 509-02

4981 500 999 02



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