



# Transferpette® pro -8/-12

Mikroliterpipetten | Micropipettes

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# 1 Use operating manual

- Please carefully read the operating manual before using the device for the first time.
- Keep the operating manual in an easily accessible place. It is part of the instrument.
- Be sure to include the operating manual if you transfer possession of this device to a third party.

## 1.1 Signal words and their meaning

Signal word	Meaning
<b>⚠ WARNING</b> or <b>⚠WARNING! ...</b>	WARNING indicates a dangerous situation that, if not avoided, could result in death or serious injury.
<b>⚠ CAUTION</b> or <b>⚠CAUTION! ...</b>	CAUTION indicates a hazardous situation that, if not avoided, could result in moderate or minor injury.
<b>NOTICE</b> or <b>NOTICE ...</b>	NOTE is used to address actions that are not related to physical injury. Example: Possible property damage.

## 1.2 Presentation of descriptions of actions

Format	Meaning
<b>1. Task</b>	Indicates a task.
a., b., c.	Indicates the individual steps of a task.
>	Indicates a prerequisite for a task.
⇒	Indicates a result of a completed task.

## 2 Safety regulations

### 2.1 Safety regulations

#### **Please read carefully!**

The laboratory device Transferpette® pro -8/-12 Can be used in combination with hazardous materials, operations and equipment. However, the instructions for use cannot identify all the safety problems that may occur. It is the responsibility of the user to ensure compliance with safety and health regulations and to determine the appropriate restrictions before use.

- Each user must have read and observe the instructions for use accompanying the laboratory device before using the device. The laboratory equipment must only be used by trained and qualified personnel.
- Follow general hazard warnings and safety regulations, e.g. wear protective clothing, eye protection and protective gloves.
- When working with infectious or hazardous samples/media (e.g. hazardous materials), the general safety rules in the laboratory must be followed and regulations for handling the samples/media must be observed. The information provided by the media manufacturers (e.g. safety data sheets) must be observed.
- Use the laboratory equipment only for pipetting or dispensing media within the defined limits and limitations of use. Observe usage exclusions.
- When working with flammable media, take precautions to avoid electrostatic charges, e.g. do not dose into plastic containers and do not rub equipment with a dry cloth. Do not use the laboratory equipment in explosive atmospheres. If in doubt, it is essential to contact the manufacturer or dealer.

- Always check that the laboratory equipment is in good condition before use. If there are any signs of malfunctions in the laboratory equipment (e.g. Stiff piston, leaks or power supply), immediately stop working with the appliance and refer to the troubleshooting section in the user manual. If necessary, contact the manufacturer.
- Always work in such a way that neither users nor other persons are at risk. Avoid splashes. Use only suitable vessels. Never use unnecessary force or force while operating, cleaning, or maintaining the laboratory equipment.
- If the laboratory equipment is powered by a power supply, batteries or rechargeable batteries, the correct condition of the components and the connection to the equipment must be checked regularly. Do not operate the laboratory equipment or its accessories in an unprotected, damp or wet environment.
- Do not make any technical changes. Use only original manufacturer's spare parts, and do not use power supplies or batteries of identical sizes and specifications from other manufacturers. Do not disassemble the laboratory equipment and its accessories (e.g., power supplies, cables, stands, batteries, etc.) any further than the instructions for use.
- Do not autoclave the laboratory equipment unless permitted by the instructions for use.

## 2.2 Target group

The operating manual is intended for users who use the laboratory instrument in the course of their professional activities. Users are familiar with the typical safety regulations and working methods in laboratories and have been trained accordingly. They can recognize potential hazards and protect themselves from them. The operating manual assumes this expertise and does not replace basic laboratory training or specific safety training.

## 2.3 Purpose

This is an air displacement pipette for pipetting liquids of medium density and low to medium viscosity.

## 2.4 Use

Use the laboratory device Transferpette® pro -8/-12 only for pipetting or dispensing liquids within the defined limits of use.

## 2.5 Improper use

Various risks may arise if the laboratory instrument is used improperly. These risks include: inaccurate liquid delivery, damage to the laboratory instrument, and the risk of contamination, infection, and injury from contact with the pipetted media.

Any use other than for pipetting or dispensing liquids within the defined operating limits is considered improper use.

## 2.6 Foreseeable misuse

A typical misuse is pipetting or dispensing liquids with too high viscosity or using unsuitable tips.

## 2.7 Operating Limitations

Volume accuracy may be affected by liquid density, special tip shapes, or deviations from ambient temperature.

However, the temporary user adjustment enables you to correct any resulting deviations and improves accuracy under conditions that differ from the factory setting (aqueous medium, ISO 8655). See Temporary adjustment: User Adjustment, p. 72 .

## 2.8 Limitations of use

The pipette is used for dispensing liquids within the following limits:

- Operating temperature from +15 °C to +40 °C (59 °F to 104 °F).  
Additional temperatures upon request
- vapor pressure up to 500 mbar
- Viscosity: 260 mPa s

With viscous liquids, the dispensing speed may need to be adjusted.

## 2.9 Operating exclusions

The user must verify the suitability of the instrument for the intended purpose, as aggressive liquids and their vapors can damage the instrument (corrosion!). The instrument cannot be used for the following liquids:

- for liquids with very high steam pressure
- Liquids that corrode the following materials:
  - Fluoroelastomer rubber (FKM)
  - Polyamide (PA)
  - Polycarbonate (inspection window)
  - Polyetheretherketone (PEEK)
  - Polyphenylene sulfide (PPS)
  - Polypropylene (PP)
  - Polyvinylidene fluoride (PVDF)
  - Silicone (SI)

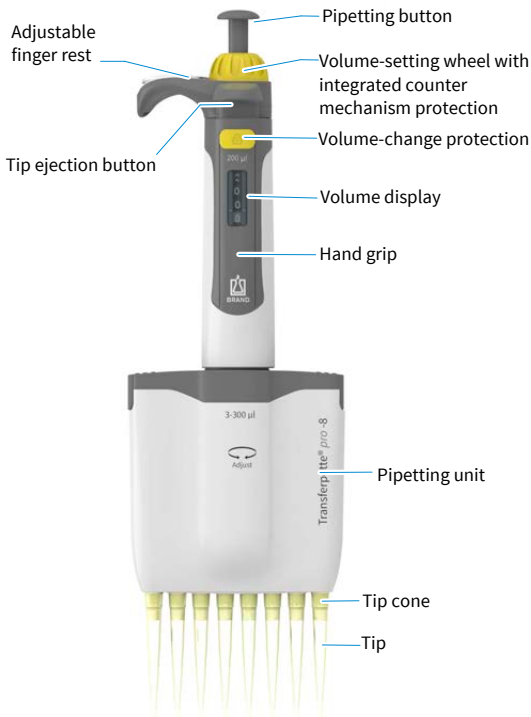
Additional information on the chemical resistance of plastics can be found at [www.brand.de](http://www.brand.de).

### 3 Scope of delivery

Transferpette® pro -8/-12, variable type, marked DE-M, with quality certificate, shelf mount, and silicone grease.

## 4 Functional and operational components

### Front



Adjustable finger rest	<p>The laboratory instrument Transferpette® pro -8/-12 has an adjustable finger rest. This allows you to adapt the pipette to your preferred grip, see " Pipetting</p> <p>The instrument can be labeled at the finger rest: to do so, remove the label window from the finger rest and take out the label strip.</p>
Volume-change protection	<p>The volume adjustment lock prevents the volume from being changed during pipetting work. To unlock it, slide the volume adjustment lock toward the pipetting button.</p>
Volume display	<p>The numbers in the display are read from top to bottom; the white dash corresponds to the decimal point.</p>
Counter mechanism protection	<p>Once the volume adjustment lock is released, set the volume using the volume-setting wheel. The integrated counter mechanism protection overrides the volume-setting wheel once the maximum or minimum volume setting is reached: the volume-setting wheel remains rotatable but no longer adjusts the volume.</p>
Hand grip	<p>Screw the pipetting unit into the hand grip. Attach the tip onto the tip cone.</p>

## Rear

Permanent adjustment to factory settings:  
Easy Calibration

Temporary adjustment to  
changing conditions:  
User Adjustment

Step value scale

Cover

Seal

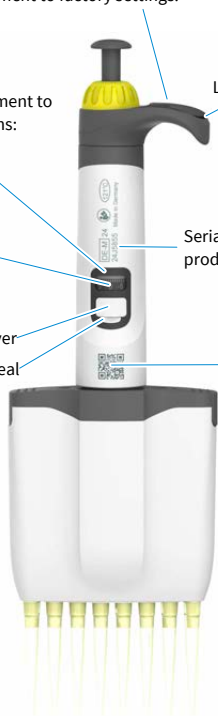
Label window

Serial number and  
product markings

QR code:

Use your smartphone, tablet,  
or webcam to scan and visit  
the following website:  
[www.brand.de/myproduct](http://www.brand.de/myproduct)

The website contains  
serialized information about  
your laboratory instrument.



## Easy Calibration Technology

The Easy Calibration function is located in the finger rest and is used to reset the pipette to its factory settings (see Adjusting – User and factory adjustment, p. 70).

## User Adjustment Technology

The hand grip also includes the User Adjustment function. This allows the pipette to be adjusted for specific liquids and dispensing conditions. See Temporary adjustment: User Adjustment, p. 72

The switch for user adjustment is located behind the cover. A seal is applied at delivery. Remove it upon first use and dispose of it.

## QR Code and serialized information

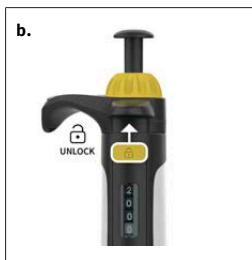
The QR code provides access to [www.brand.de/myproduct](http://www.brand.de/myproduct) and serialized information about your pipette.

If you wish to access the MyProduct information without the QR code, you will also need the order number and serial number of your pipette.

## 5 Pipetting



- a. Turn the finger rest to a comfortable working position.



- b. Slide the volume adjustment lock in the direction shown, against slight resistance.

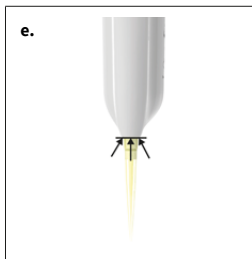


- c. Set the volume using the volume-setting wheel.

**NOTICE** If the volume-setting wheel is turned beyond the maximum or minimum volume, the counter mechanism protection prevents damage to the instrument: you can turn the volume-setting wheel, but it no longer changes the volume.



- d. Close the volume adjustment lock.  
**NOTICE** You can turn the volume-setting wheel, but it no longer adjusts the volume.



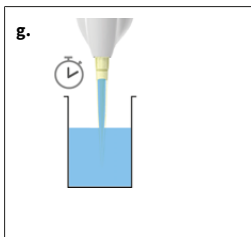
- e. Attach the pipette tips. Ensure a secure fit.

The 2 ml to 10 ml pipettes should only be used with a built-in PE filter (see UV sterilization, p. 76).

**NOTICE** Pipette tips are disposable products!



- f. Press the pipetting button down to the first stop.



g. Immerse the tips in the liquid.



h. Slowly release the pipetting button.

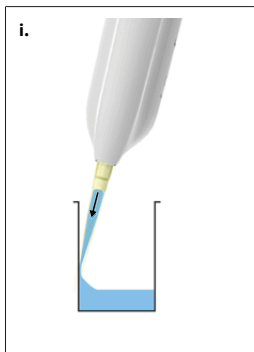
⇒ Liquid is aspirated.

**NOTICE** The ISO 8655 standard requires that pipette tips are pre-wetted once before the actual pipetting procedure.

**⚠CAUTION!** Do not lay the pipette down with filled tips. Contamination may occur!

With more viscous liquids and larger volumes, keep the tip immersed for a waiting time to ensure the volume is fully aspirated.

Volume range	Immersion depth [mm]	Wait time [s]
0.1–1 $\mu\text{l}$	1–2	1
1–100 $\mu\text{l}$	2–3	1
100–1,000 $\mu\text{l}$	2–4	1
> 1,000 $\mu\text{l}$	3–6	3



- i. To dispense the liquid, hold the tips at an angle against the vessel wall, slowly press the pipetting button, and wipe the tips.

To improve accuracy, comply with the corresponding wait time for serums, highly-viscous or low-density fluids.

To fully empty the tips, press the pipetting button down to the second stop (Fig. f).



- j. To remove the tips, hold the pipette over a container and press the tip ejection button.

## Storage



You can also hook the Transferpette® pro -8/-12 in the holder or rack with an adjustable finger rest.

**⚠CAUTION!** Do not hang the pipette with a filled tip in the holder. Contamination may occur!



## 7 Checking the volume

We recommend testing the instrument every three to 12 months depending on the level of use. However, the testing cycle can be adapted to meet individual requirements. The complete testing procedure (SOP) can be downloaded at [www.brand.de](http://www.brand.de).

The detailed test instruction (SOP) can be downloaded from [www.brand.de](http://www.brand.de). For GLP- and ISO-compliant evaluation and documentation, we recommend the calibration software EASYCAL™ from BRAND. A demo version is available for download at <https://shop.brand.de/>.

Gravimetric volume testing of the pipette is carried out according to the following steps and complies with DIN EN ISO 8655:2022.

- a. Set User Adjustment to 0 (for procedure, see Temporary adjustment: User Adjustment, p. 72)
- b. Set the maximum specified instrument volume (for procedure, see Pipetting, p. 62).
- c. Condition the pipette before testing by aspirating and dispensing the test liquid (distilled water) with a pipette tip five times.
- d. Aspirate the test liquid and pipette into the weighing vessel.
- e. Weigh the pipetted amount with an analysis scale. (refer to the operating manual of the balance manufacturer.)
- f. Calculate the pipetted volume. In doing so, take into account the temperature of the test liquid.
- g. At least 10 pipetting series and weighings in three volume ranges (100%, 50%, 10%) are recommended. Two tips must be used for each volume range to be tested.

**Calculation (for nominal volume)** $x_i$  = Weighing results

N = number of weighings

 $V_0$  = nominal volumeZ = correction factor (e.g. 1.0029  $\mu\text{l}/\text{mg}$  at 20 °C, 1013 hPa)**Mean value:**

$$\bar{x} = \frac{\sum x_i}{n}$$

**Mean volume:**

$$\bar{V} = \bar{x} * Z$$

**Accuracy\*:**

$$R\% = \frac{\bar{V} - V_0}{V_0} * 100$$

**Standard deviation\*:**

$$s = Z * \sqrt{\frac{\sum (x_i - \bar{x})^2}{n - 1}}$$

**Coefficient of variation\*:**

$$VK\% = \frac{100 s}{\bar{V}}$$

\*) Accuracy and coefficient of variation are calculated according to the formulas of statistical quality control.

## 8 Accuracy table

Volume range [μl]	Partial volume [μl]	A* ± %	CV* ± %	Tip type [μl]
0.5–10	10	1.6	1	0.5–20
	5	2	2	
	1	8	6	
5–50	50	0.8	0.4	2–200
	25	1.4	0.8	
	5	6	3	
10–100	100	0.8	0.3	2–200
	50	1.4	0.6	
	10	4	2	
20–200	200	0.8	0.3	2–200
	100	1.4	0.6	
	20	4	1.5	
30–300	300	0.8	0.3	5–300
	150	1.4	0.6	
	30	4	1.5	
50–1250	1250	1	0.3	50–1250
	625	1.2	0.6	
	125	5	1.5	

\*A = Accuracy, CV = Coefficient of Variation



Final test values based on the nominal volume (= max. volume) printed on the device and the specified partial volumes at the same temperature (20 °C/68 °F) of the device, surroundings and distilled water, in accordance with DIN EN ISO 8655.

## 9 Adjusting – User and factory adjustment

You have the following options to adjust the instrument:

- **Factory adjustment:**  
The factory adjustment is used for permanent calibration of the instruments to aqueous media according to ISO 8566 in cases of volume deviations.
- **Temporary User Adjustment:**  
The User Adjustment is used for temporary volume adjustment under changing conditions. It can be reset to the original state (factory adjustment).

### 9.1 Permanent factory adjustment: Easy Calibration

The instrument is factory-calibrated to aqueous solutions in accordance with ISO 8655. If it is determined that the pipette is inaccurate, it can be adjusted using the Easy Calibration technique.

a.



- a. Check whether the User Adjustment is set to 0 (see Temporary adjustment: User Adjustment, p. 72).

**NOTICE** If the User Adjustment is not set to **0**, the pipette will be misaligned when attempting to perform factory adjustment. In this case, set the User Adjustment to **0** and repeat the factory adjustment as described.

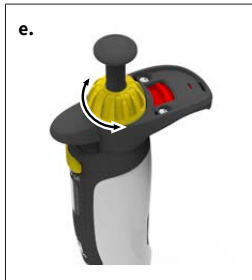
- b. Perform a volume check and determine the actual value (see Checking the volume).



- c. Slightly lift and set aside the labeling window (1) on the finger rest with your thumb. Use a paperclip or an unused pipette tip to remove and dispose of the protective foil (2).



- d. Slide the red adjustment slider back completely, lift the volume-setting wheel (decoupling) and release the adjustment slider.



- e. Set the volume adjustment lock to the UNLOCK position and adjust the previously determined actual volume using the volume-setting wheel. Position UNLOCK (see Pipetting, p. 62 > “Set volume”). Set the volume adjustment lock back to the LOCK position. After each adjustment, a volume check is recommended.

f.



- f. Slide the adjustment slider completely back again, allow the volume-setting wheel to slide downward and release the adjustment slider. If the volume-setting wheel does not slide down easily, move it slightly back and forth until it clicks into place. Reinsert the label window.

**NOTICE** The change to factory settings is indicated by the red adjustment slider now visible in the label window.

## 9.2 Temporary adjustment: User Adjustment

Temporary User Adjustment improves accuracy under conditions that deviate from the factory settings (aqueous medium, ISO 8655). This enables temporary volume corrections under changing conditions because deviations from water in physical properties, temperature differences between liquid and ambient conditions, specific tip designs, and environmental factors can all affect accuracy.

**NOTICE** User Adjustment modifies the volume setting by a certain volume offset (e.g.  $100\ \mu\text{l} + 2\ \mu\text{l} = +2\%$ ). If the volume setting changes significantly (e.g.  $10\ \mu\text{l} + 2\ \mu\text{l} = +20\%$ ), the adjustment value must be recalculated.

## Setting the User Adjustment



- Pry off and remove the cover (1) and seal (2) (e.g., using a paperclip). Dispose of the seal.
- Slide the slider (3) down into the recess and hold it there. Use the volume-setting wheel (4) to set the desired User Adjustment value (see below) on the scale. Release the volume-setting wheel and slowly return the slider (3).

**NOTICE** If the slider is stuck, gently push it back toward the recess (3) and slowly return it again.

- ⇒ The value is set when the user adjustment value aligns with the marking (5).
- Reinsert the cover (1).
  - Verify the adjustment gravimetrically.

## Determining the User Adjustment

Example: Pipetting 180 µl with a 20–200 µl pipette

- Perform control weighings on a precision balance and calculate the actual volume:  
Actual volume: 178.4 µl
- Calculate the volume to be corrected:  
Volume offset: 1.6 µl (= 180 µl – 178.4 µl)

## c. Determine and set the User Adjustment value:

For our 200 µl instrument, each dash corresponds to a step value of 0.2 µl (see assignment table). A volume offset of 1.6 µl is added by setting to +8 (= 1.6 µl / 0.2).

$$\text{Actual volume} = \frac{\text{Mean of liquid weights}}{\text{Density of liquid} - \text{Density of air (0.0012 g/ml)}}$$

$$\text{Volume offset} = \text{Target volume} - \text{Actual volume}$$

$$\text{User Adjustment value} = \frac{\text{Volume offset}}{\text{Step value}}$$

## Assignment table for User Adjustment

Nominal volume [µl]	The highlighted column [1] indicates the step value for the respective instrument.														
	-25	-20	-15	-10	-5	-1	0	1	5	10	15	20	25	30	35
	The step value corresponds to a volume compensation in µl:														
1	-0,025	-0,02	-0,015	-0,01	-0,005	-0,001	0	0,001	0,05	0,01	0,015	0,02	0,025	0,03	0,035
2,5	-0,05	-0,04	-0,03	-0,02	-0,01	-0,002	0	0,002	0,01	0,02	0,03	0,04	0,05	0,06	0,07
10	-0,25	-0,2	-0,15	-0,1	-0,05	-0,01	0	0,01	0,05	0,1	0,15	0,2	0,25	0,3	0,35
20	-0,5	-0,4	-0,3	-0,2	-0,1	-0,02	0	0,02	0,1	0,2	0,3	0,4	0,5	0,6	0,7
50	-1,25	-1	-0,75	-0,5	-0,25	-0,05	0	0,05	0,25	0,5	0,75	1	1,25	1,5	1,75
100	-2,5	-2	-1,5	-1	-0,5	-0,1	0	0,1	0,5	1	1,5	2	2,5	3	3,5
200	-5	-4	-3	-2	-1	-0,2	0	0,2	1	2	3	4	5	6	7
300	-6,225	-4,98	-3,735	-2,49	-1,245	-0,249	0	0,249	1,245	2,49	3,735	4,98	6,225	7,47	8,715
1000	-25	-20	-15	-10	-5	-1	0	1	5	10	15	20	25	30	35
1250	-25	-20	-15	-10	-5	-1	0	1	5	10	15	20	25	30	35
2500	-50	-40	-30	-20	-10	-2	0	2	10	20	30	40	50	60	70
5000	-125	-100	-75	-50	-25	-5	0	5	25	50	75	100	125	150	175
10000	-250	-200	-150	-100	-50	-10	0	10	50	100	150	200	250	300	350

← Volume offset for excess volume
Volume offset for missing volume →

**NOTICE** The table shows the mechanical relationship between the steps of the User Adjustment. The volume changes indicated are approximate values and apply to the entire volume range of the instrument.

## User Adjustment calculation tool

[www.brand.de/uad](http://www.brand.de/uad)

### Recognizing user adjustment

If the red switch is visible on the back of the instrument, it has already been adjusted by a user with the user adjustment. Check whether this adjustment still suits your application (e.g., by performing a control weighing of the pipetted volume). Reset User Adjustment if necessary.

### Restore factory adjustment, reset User Adjustment

To reset the User Adjustment, set it to 0 on the scale. This restores the factory adjustment state. We recommend performing a volume check afterward.

## 10 Disinfection/autoclaving

### 10.1 Autoclaving

**NOTICE** Carry out a self-test of the effectiveness of the autoclave.

Maximum safety is achieved through vacuum sterilization. We recommend using sterilization bags.

- a. Eject the pipette tip.
- b. Pack the instrument in a sterilization bag, observing any applicable packaging regulations.
- c. Autoclave the complete pipette without further disassembly. Recommendation for autoclaving according to DIN EN 285 (see table below).
- d. Allow the pipette to completely cool and dry.

Temperature	121 °C
Pressure	2 bar
Holding time in autoclaves	15 min

If you autoclave your instrument frequently, lubricate the piston and seal with the supplied silicone grease. This ensures smooth operation.

After autoclaving, tighten the connection between the hand grip and the pipette shaft if necessary.

### 10.2 UV sterilization

The device is resistant to normal exposure to a UV disinfection lamp. The effects of the UV exposure may cause some color change.

## 11 Maintenance

- Check the pipette pick-up cone for damage.
- Inspect the piston and seal for contamination.
- Check the device for leaks.

We recommend using the BRAND PLT unit leak tester. Alternatively, vacuum up the sample, hold the device vertically for approx. 10 s. If a drop is formed at the tip of the pipette, follow the troubleshooting Troubleshooting, p. 86 , see Troubleshooting, p. 86 .

### 11.1 Separate the pipetting unit from the handle

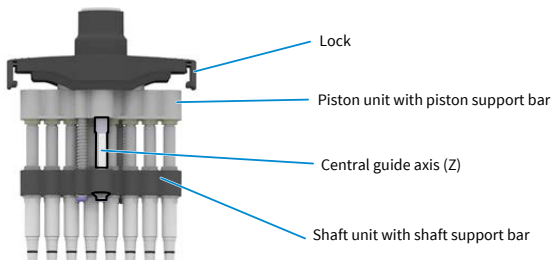


- Eject the pipette tips.
- To separate, press the pipetting unit downward as far as possible, **only then**, turn it clockwise.

**NOTICE** After one revolution, the unit no longer needs to be pulled downward while turning.

**NOTICE** When assembling, the pipetting unit must be screwed onto the hand grip counter-clockwise until it audibly clicks into place. Do not pull the pipetting unit down when assembling! This may cause damage!

## 11.2 Pipetting unit up to 300 µl



### NOTICE

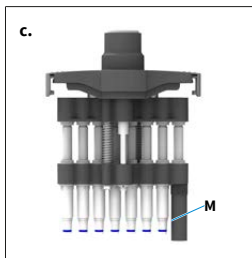
#### Cleaning instructions

- > Clean the individual shafts, pistons and shaft/piston bars (only these parts) with a soap solution or isopropanol, and then rinse with distilled water.
- > Allow the parts to completely dry and cool. Liquid residues in the shafts result in deviations in accuracy.
- > Re-grease pistons with a very thin coat of the supplied silicone grease. For the central guide axis (Z), use only the prescribed fluorine static grease!

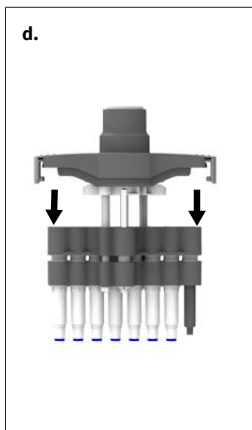
#### Shafts and seals



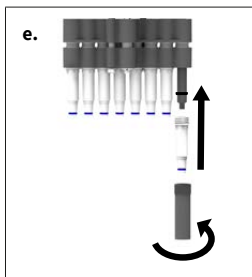
- a. Separate the pipetting unit from the hand grip.
- b. Slide both locks of the pipetting housing cover to the side. Remove the pipetting housing.



- c. Place the installation tool (M) onto a single shaft and unscrew the shaft.



- d. Push the piston unit all the way down so the seal becomes accessible. After removing the shaft, the seal is located either in the shaft or on the piston. Remove and inspect the seal and clean or change as necessary. If required, re-grease the piston with the supplied silicone grease. To clean the Transferpette® PRO -8/-12 30 - 300 µl, remove the additional pressure ring from the piston.

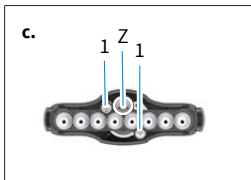


- e. Slide the seal onto the piston with the flat side upwards. For Transferpette® PRO -8/-12 30 - 300 µl, first re-install the additional pressure ring! Tighten the cleaned or new shaft using the installation tool.

## Cleaning or replacing the piston

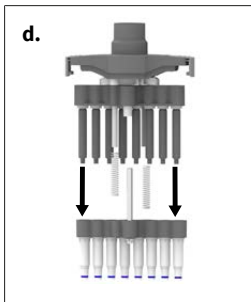


- Separate the pipetting unit from the hand grip.
- Slide both locks of the pipetting housing cover to the side. Remove the pipetting housing.



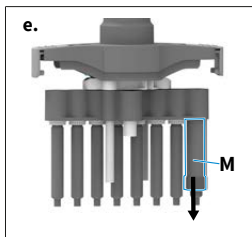
- Remove both outer Phillips-head screws (1) on the shaft unit.

**NOTICE** The central guide axis (Z) must not be removed!

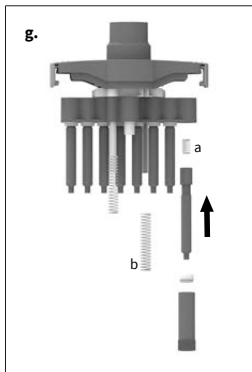


- Pull apart and separate the piston and shaft unit.

Remove stroke springs.

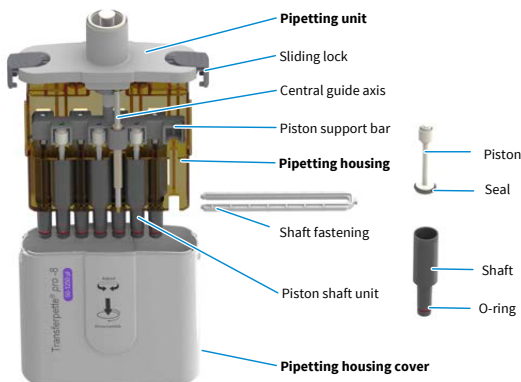


- e. Place the installation tool onto the piston nut and unscrew it.
- f. Remove the piston nut and pull off the piston with piston spring.



- g. Insert piston spring (a) and cleaned or new piston.  
Tighten the piston nut using the installation tool.  
Insert stroke springs (b).
- h. Slide the shaft unit onto the central guide axis and tighten the Phillips-head screws.
- i. Attach the pipetting housing and close the locks.

## 11.3 Pipetting unit 50-1250 µl

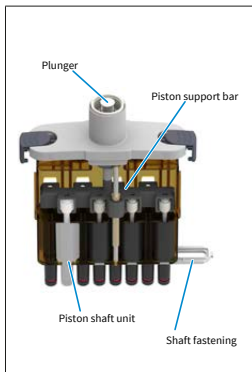
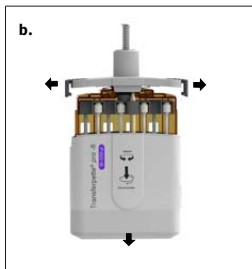


### NOTICE

#### Cleaning instructions

- Clean the individual shafts, pistons and shaft/piston bars (only these parts) with a soap solution or isopropanol, and then rinse with distilled water.
- Allow the parts to completely dry and cool. Liquid residues in the shafts result in deviations in accuracy.
- Re-grease pistons with a very thin coat of the supplied silicone grease. For the central guide axis (Z), use only the prescribed fluorine static grease!

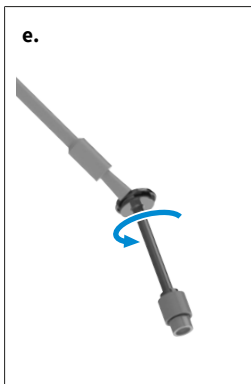
## Shafts and pistons



- a. Unscrew pipetting unit: Separate the pipetting unit from the handle.
- b. Pull off the pipetting housing: Pull out the sliding locks of the pipetting housing cover sideways until the stop and remove the pipetting housing.
- c. Remove shaft fastening: Pull the shaft fastening out sideways.
- d. Gently push the piston-shaft unit directly out of the pipetting housing and remove the piston-shaft unit.

**NOTICE** You can easily remove the piston-shaft units by pressing the support bar (1) and the plunger (2) downward.

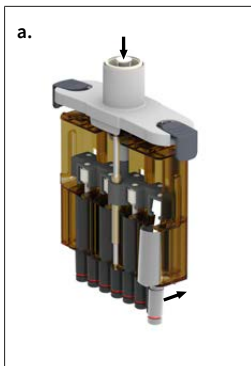
Only the entire piston-shaft unit can be replaced.



- e. Pull the piston with seal out of the shaft. Dip the brush into the enclosed piston grease and wipe well against the vessel wall. Hold the brush against the seal and turn the piston with seal 1-2 turns. Insert the piston with seal back into the shaft.

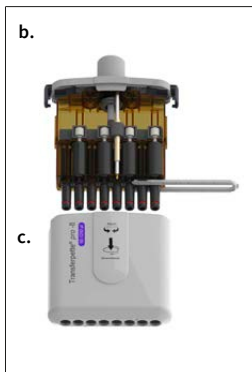
**NOTICE** Only apply a very thin layer of piston grease to the seal with the brush. Only use the enclosed grease (order no.: 703675). Do not use silicone grease or fluorostatic grease!

## Assembly



- a. Reinsert the piston-shaft unit. To do this, push the shaft into the holder and carefully press the piston into its original position. The shafts must then be aligned again.

Proceed as described with all 4 or 6 piston-shaft units on this page. Turn the pipetting unit to remove/replace the remaining 4 or 6 channels.






- b. Reassemble the pipetting unit:  
Slide the shaft fastening over the shafts from the side of channel 8 or channel 12 until it clicks into place. Note the direction from channel 8/12 to channel 1 (see marking on the pipetting housing cover).
- c. Then secure the pipetting housing again and mount the pipetting unit on the hand grip. Check the device for leaks, movement, and accuracy.

**NOTICE** The pipetting unit must be screwed onto the hand grip in a counter-clockwise direction until it clicks into place. Do not pull the pipetting unit down!

## 12 Troubleshooting

Problem	Possible cause	Corrective action
Tip dripping (device leaking)	Unsuitable tip	Only use high-quality tips
	Tip not seated tightly	Firmly press tip on
The instrument does not aspirate or aspirates too little; the dispensed volume is too low	Seal contaminated	Clean seal
	Seal or cone is damaged	Replace seal or shaft
	Piston is contaminated or damaged	Clean or replace piston
Aspiration is very slow	Shaft is clogged	Clean shaft
Pipette is misadjusted	Calibrated with altered User Adjustment	Set User Adjustment to 0. Readjust
Volume dispensed too large	The pipetting button is pressed too far into the overstroke before suction	Ensure correct handling.
Pistons are stiff	Piston dirty or without grease	Clean and grease the piston

## 13 Product markings

Character or number	Meaning
	Read the user manual.
XXZXXXXX	Serial number
	The device is marked in accordance with the German Weights and Measures Act and the Weights and Measures Ordinance. Character sequence DE-M (DE for Germany), framed by a rectangle, as well as the two last digits of the year the marking was added.
	Autoclavable up to the temperature shown
Data Matrix Code or Quick Response Code	These codes link to BRAND MyProduct Website.
<a href="http://www.brand.de/ip">www.brand.de/ip</a>	Link to BRAND Patents page

## 14 Order Information

### 8-channel microliter pipettes



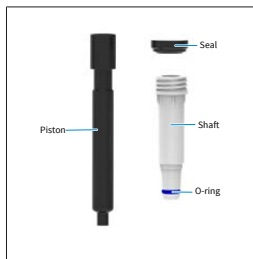
Nominal volume	Cat. No.
0.5-10 $\mu$ l	<a href="#">706900</a>
5-50 $\mu$ l	<a href="#">706906</a>
10-100 $\mu$ l	<a href="#">706908</a>
20-200 $\mu$ l	<a href="#">706910</a>
30-300 $\mu$ l	<a href="#">706912</a>
50-1250 $\mu$ l	<a href="#">706916</a>

### 12-channel microliter pipettes



Nominal volume	Cat. No.
0.5-10 $\mu$ l	<a href="#">706920</a>
5-50 $\mu$ l	<a href="#">706926</a>
10-100 $\mu$ l	<a href="#">706928</a>
20-200 $\mu$ l	<a href="#">706930</a>
30-300 $\mu$ l	<a href="#">706932</a>
50-1250 $\mu$ l	<a href="#">706936</a>

## Spare parts - volumes up to 300 µl



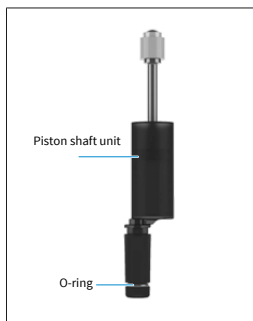
Volume [µl]	Piston	Shaft <sup>1,2</sup>	Seal	O-ring
0.5-10 µl	<a href="#">705659</a>	<a href="#">705677</a>	<a href="#">703340</a>	<a href="#">703380</a>
5-50 µl	<a href="#">705666</a>	<a href="#">705634</a>	<a href="#">703343</a>	<a href="#">705618</a>
10-100 µl	<a href="#">705662</a>	<a href="#">705635</a>	<a href="#">703344</a>	<a href="#">705618</a>
20-200 µl	<a href="#">705663</a>	<a href="#">705636</a>	<a href="#">703345</a>	<a href="#">705618</a>
30-300 µl	<a href="#">705664</a>	<a href="#">705638</a>	<a href="#">703346</a>	<a href="#">705618</a>

<sup>1</sup>to 03/23 other product no., see [shop.brand.de](http://shop.brand.de)

<sup>2</sup>including seal, O-ring and mounting wrench Transferpette® pro -8/-12 30-300 µl also with pressure ring.

**NOTICE** The appearance and dimensions of the spare parts correspond to the respective nominal volume.

## Spares - volume 50-1250 µl



Volume	Piston shaft unit	O-ring
50-1250 µl	705665	705619

## Accessories

Table stand for 1 pipette  
Cat. No. [703440](#) or [705384](#)



Wall mount  
Cat. No. [704882](#)



Table stand for 6 single-channel or multi-channel pipettes  
(Can be used with the holders of the Transferpette® pro)  
Cat. No. [704807](#)



Shelf mount  
Cat. No. [704881](#)



Labeling window  
Cat. No. [704752](#)



Labeling foil  
Cat. No. [704753](#)



Silicone grease for pistons  
Cat. No. [703677](#)



Piston grease for volume 50-1250 µl  
Cat. No. [703675](#)

Fluorostatic grease for volume 1250 µl  
Cat. No. [703678](#)

PLT unit (pipette leak detector)  
Cat. No. [703970](#)



## 15 Repairs

### 15.1 Sending for repair

**NOTICE** Transporting hazardous materials without approval is prohibited by law.

#### Clean the instrument thoroughly and decontaminate!

- When returning products, please enclose a general description of the type of malfunction and the media used. If information regarding media used is missing, the instrument cannot be repaired.
- Shipment is at the risk and the cost of the sender.

#### Outside USA and Canada

Complete the “Declaration on Absence of Health Hazards” and send the instrument to the manufacturer or supplier. Ask your supplier or manufacturer for the form. The form can also be downloaded from [www.brand.de](http://www.brand.de).

#### Within USA and Canada

Please clarify the requirements for the return delivery with BrandTech Scientific, Inc **before** sending the instrument in for service.

Return only cleaned and decontaminated instruments to the address provided with the Return Authorization Number. Place the Return Authorization number so that it is clearly visible on the outside of the package.

#### Contact addresses

**Germany:**

BRAND GMBH + CO KG  
Otto-Schott-Straße 25  
97877 Wertheim (Germany)  
T +49 9342 808 0

**USA and Canada:**

BrandTech® Scientific, Inc.  
11 Bokum Road  
Essex, CT 06426-1506 (USA)  
T +1-860-767 2562

F +49 9342 808 98000  
info@brand.de  
www.brand.de

**India:**

BRAND Scientific Equipment Pvt. Ltd.  
303, 3rd Floor, 'C' Wing, Delphi  
Hiranandani Business Park,  
Powai  
Mumbai-400 076 (India)  
T +91 22 42957790  
F +91 22 42957791  
info@brand.co.in  
www.brand.co.in

F +1 - 860 - 767 2563  
info@brandtech.com  
www.brandtech.com

**China:**

BRAND (Shanghai) Trading Co., Ltd.  
Rm 201-202, North Tower,  
No. 199 Kaibin Rd, Xuhui District, Shanghai  
Shanghai 200030 (P.R. China)  
T +86 21 6422 2318  
F +86 21 6422 2268  
info@brand.com.cn  
www.brand.cn.com

## 16 Calibration service

ISO 9001 and GLP guidelines require regular testing of your volumetric measuring devices. We recommend that you perform a volume check every 3-12 months. The cycle depends on the individual requirements of the device. In case of high frequency of use or aggressive liquids, more frequent testing should be carried out.

The complete SOP for testing can be downloaded from [www.brand.de](http://www.brand.de) or [www.brandtech.com](http://www.brandtech.com).

BRAND also offers you the option of having your devices calibrated through our factory calibration service or through our accredited calibration laboratory. Just send us the devices to be calibrated, indicating the type of calibration you would like. You will get your devices back in a few days. A detailed calibration report (factory calibration) or an accredited calibration certificate in accordance with DIN EN ISO/IEC 17025 is enclosed with each device. More information can be obtained from your retailer or directly from BRAND. The order document is available for download at [www.brand.de](http://www.brand.de) (Service & Support).

### For customers outside Germany

If you would like to use our calibration service, please contact one of our service partners in your region. Our service partners can forward your devices to BRAND for factory calibration, if required.

## 17 Information about your laboratory instrument

The online service MyProduct (<https://www.brand.de/myproduct>) offers quality certificates, accessories, and technical documentation for your laboratory instrument Transferpette® pro -8/-12. By entering the serial and article number there, you will receive information specific to your individual instrument.

On Transferpette® pro -8/-12, you will also find serialized information encoded in the quick response code. This also links to the MyProduct website, where you can access this operating manual and additional certificates for your instrument.

You will also find a data matrix code on some instruments (Transferpette® S, HandyStep® touch, and HandyStep touch® S). Scan this using a standard reader app to access the above-mentioned information via the URL <https://www.brand.de/myproduct>.

## 18 Warranty

We shall not be liable for the consequences of improper handling, use, maintenance, operation or unauthorized repair of the device or for the consequences of normal wear and tear, in particular of wear parts such as pistons, seals, valves or glass breakage. The same applies to non-observance of the instructions for use. In particular, we assume no liability for damage caused if the device has been disassembled further than described in the user manual or if external accessories or spare parts have been installed.

### **USA and Canada:**

Find more warranty information on [www.brandtech.com](http://www.brandtech.com).

## 19 Disposal

Before disposal, observe the relevant national disposal regulations and ensure that the product is disposed of properly.