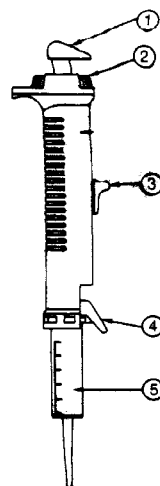


# Labpette R Instruction Manual



## 1. Components and functions

### (1) Plunger

Depressing the plunger dispenses the set volume of liquid

### (2) Volume adjustment dial

Select position 1 to 5 to set desired volume (see table 1)

### (3) Fill lever

Fills tip with liquid when pushed upwards

### (4) Locking lever

Secures reservoir tip in place

### (5) Reservoir tip

Reservoir for holding liquid to be dispensed. For best results use Labnet Combi-Syringes.

## 2. Selecting the volume

- Locate the volume to be dispensed in table 1
- Set the volume adjustment dial to the position indicated at the top of the column.
- Choose the appropriate reservoir tip from the left hand column of the chart.
- The maximum number of dispensing steps for the selected tip and volume is located at the bottom of the column.

Table 1

| Dial position      | 1            | 2            | 3            | 4            | 5            |
|--------------------|--------------|--------------|--------------|--------------|--------------|
| using 0.05 ml tip  | 1 $\mu$ l    | 2 $\mu$ l    | 3 $\mu$ l    | 4 $\mu$ l    | 5 $\mu$ l    |
| using 0.50 ml tip  | 10 $\mu$ l   | 20 $\mu$ l   | 30 $\mu$ l   | 40 $\mu$ l   | 50 $\mu$ l   |
| using 1.25 ml tip  | 25 $\mu$ l   | 50 $\mu$ l   | 75 $\mu$ l   | 100 $\mu$ l  | 125 $\mu$ l  |
| using 2.50 ml tip  | 50 $\mu$ l   | 100 $\mu$ l  | 150 $\mu$ l  | 200 $\mu$ l  | 250 $\mu$ l  |
| using 5.00 ml tip  | 100 $\mu$ l  | 200 $\mu$ l  | 300 $\mu$ l  | 400 $\mu$ l  | 500 $\mu$ l  |
| using 12.50 ml tip | 250 $\mu$ l  | 500 $\mu$ l  | 750 $\mu$ l  | 1000 $\mu$ l | 1250 $\mu$ l |
| using 25.00 ml tip | 500 $\mu$ l  | 1000 $\mu$ l | 1500 $\mu$ l | 2000 $\mu$ l | 2500 $\mu$ l |
| using 50.00 ml tip | 1000 $\mu$ l | 2000 $\mu$ l | 3000 $\mu$ l | 4000 $\mu$ l | 5000 $\mu$ l |
| Steps              | 48           | 23           | 15           | 11           | 8            |

## 3. Inserting reservoir tip

- Push the fill lever down until it stops.
- Push the locking lever upwards.
- Insert a reservoir tip with slight pressure to lock it in place.
- Push the fill lever down slightly and press down on the locking lever to secure the tip in place.
- Use the volume adjustment dial to set the required volume.

## 4. Filling the reservoir tip

- Immerse the end of the reservoir tip into the liquid to be drawn up.
- Slowly raise the fill lever upwards to draw liquid into the tip.
- Dispense the first step with the plunger.

## 5. Dispensing

- Check that the volume setting is correct.
- Wipe the end of the tip with a lint free wipe or other appropriate material.
- Place the tip at an angle to the wall of the vessel. Press the plunger down to the stop to dispense.

### Please note :

25 ml und 50 ml tips require the use of an adapter (adapters are supplied free with each Labpette R repeating pipettors).

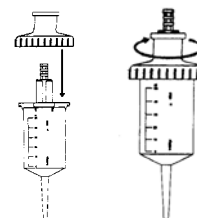
Attach the adapter by placing it on the tip as shown in the illustration and turning clockwise. After the tip has been used, the adapter may be removed and reused.

0,05 ml tips should be used with a 10  $\mu$ l pipette tip on the liquid end.

The fill lever must be raised slowly to prevent negative pressure and air bubbles in the liquid.

A small air bubble in the upper part of the reservoir will not affect the accuracy as the last step is not carried out.

After using the 25 ml and 50 ml tips, the adapter can be removed by turning it counter-clockwise and reused with another tip.



The reservoir tip does not need to be filled completely.

The 0.5 ml, 1, 1.25 ml and 2.5 ml tips may be used with a 100  $\mu$ l pipette tip affixed to the end. This facilitates filling from vessels with narrow necks and provides better accuracy with small volumes.

Avoid touching the end of the tip when removing it from the pipette.

When using viscous solutions, the fit of the tip may loosen after several pipettings.

## 6. Removing the tip

- Empty the tip completely.
- Push the locking lever upwards.
- Remove the tip from the dispenser.

Do not attempt to disassemble the Labpette R repeating pipettor. Doing so will void the warranty.

## 7. Maintenance

Labpette R repeating pipettors requires no maintenance. Potential clogs are best removed with warm water or isopropanol.

## 8.

### Troubleshooting

| Problem                             | Possible cause                                    | Remedy   |
|-------------------------------------|---|--|
| Tips will not fit in pipette        | Fill lever has not been pushed down completely    | Push fill lever down to the stop   |
| Locking lever cannot be pushed down | Tip has not been inserted Properly                | Remove the tip and push tip piston in. Be sure the filling lever is in the down position, replace tip and press locking lever down again |
| Fill lever cannot be moved upwards  | Locking lever has not been pushed down completely | Push the locking lever down to the stop  |
| Dispensed volume is not correct     | Volume adjustment wheel is not locked in place    | Lock adjustment wheel in place   |

Table 2

## 9. Technical data

**Weight** : Approx. 100 grams

**Accuracy and precision** : see Table 2

**Liquid** : bidistilled water

**Reference temperature** : 20° - 25° C  
± 0.5° C constant

**Measurement** : according to DIN 12650

**Subject to technical modifications**

**Made in Germany**

| Dial position      | 1       | 2       | 3       | 4       | 5       | Inpre-<br>cision (%) | Inaccur-<br>acy(%) |
|--------------------|---------|---------|---------|---------|---------|----------------------|--------------------|
| Steps              | 48      | 23      | 15      | 11      | 8       |                      |                    |
| using 0.05 ml tip  | 1 µl    | 2 µl    | 3 µl    | 4 µl    | 5 µl    | < 5                  | < ± 2,5            |
| using 0.50 ml tip  | 10 µl   | 20 µl   | 30 µl   | 40 µl   | 50 µl   | < 0,7                | < ± 0,8            |
| using 1.25 ml tip  | 25 µl   | 50 µl   | 75 µl   | 100 µl  | 125 µl  | < 0,5                | < ± 0,8            |
| using 2.50 ml tip  | 50 µl   | 100 µl  | 150 µl  | 200 µl  | 250 µl  | < 0,4                | < ± 0,8            |
| using 5.00 ml tip  | 100 µl  | 200 µl  | 300 µl  | 400 µl  | 500 µl  | < 0,3                | < ± 0,4            |
| using 12.50 ml tip | 250 µl  | 500 µl  | 750 µl  | 1000 µl | 1250 µl | < 0,3                | < ± 0,3            |
| using 25.00 ml tip | 500 µl  | 1000 µl | 1500 µl | 2000 µl | 2500 µl | < 0,3                | < ± 0,2            |
| using 50.00 ml tip | 1000 µl | 2000 µl | 3000 µl | 4000 µl | 5000 µl | < 0,2                | < ± 0,2            |

## 10. Ordering information

Labnet Combi-Syringe tips may be ordered from your Labnet dealer. All sizes are supplied in stackable dispenser boxes and are available in sterile or non-sterile packaging.

## 11. Warranty

Labpette R repeating pipettors are guaranteed against defects in materials and workmanship for a period of 6 months from the date of purchase. This warranty is valid only if the dispenser has been used in compliance with these instructions. If a failure cannot be remedied using the troubleshooting guide above, contact Labnet for further assistance.

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