

# pipetman<sup>®</sup>

CLASSIC

## Quick Guide

EN



 **GILSON<sup>®</sup>**

## Introduction

PIPETMAN® Classic is a fully adjustable, air-displacement pipette that is used with disposable tips.

Eight single channel models cover a volume range from 0.2 µL to 10 mL for many applications.

## Parts Checklist

- PIPETMAN Classic
- PIPETMAN Classic Quick Guide
- Dual-position adapter (for P2 and P10 models only; refer to [Fitting the Tips](#) on page 5)
- Safety bag
- Certificate of Conformity (including barcode sticker)

## GLP Compliant

The **serial number** is engraved on the body of the pipette. It provides unique identification of your pipette and the date of manufacture. For more details, refer to *PIPETMAN Classic User's Guide LT801120*. Ex: **QG10369**

The **barcode** on the box and the Certificate of Conformity provide traceability of your pipette.

Serial Number



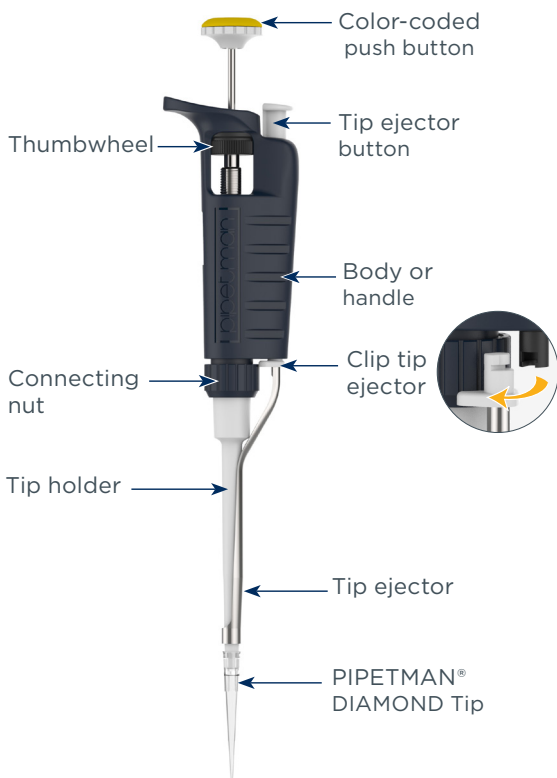
### Figure 1

Serial number location

#### **NOTE**

The updated line of PIPETMAN Classic is identified with an underlined serial number starting from **QG**.

## Description



### Figure 2

PIPETMAN® Classic single channel model

## Specifications

PIPETMAN Classic is a high quality pipette that offers excellent accuracy and precision. The data provided in the [Maximum Permissible Errors](#) table on page 4 were obtained using PIPETMAN® DIAMOND Tips. These values are guaranteed only when genuine PIPETMAN® DIAMOND Tips are used.

Each pipette is inspected and validated by qualified technicians in accordance with the Gilson Quality System. Gilson declares that its manufactured pipettes comply with the requirements of the ISO 8655 standard by type testing. The adjustment is carried out under strictly defined and monitored conditions (ISO 8655-6).

## Maximum Permissible Errors

The data provided in the following tables conform to the ISO 8655-2 Standard.

VOLUME ( $\mu\text{L}$ )	GILSON		ISO 8655	
	SYSTEMATIC ERROR ( $\mu\text{L}$ )	RANDOM ERROR ( $\mu\text{L}$ )	SYSTEMATIC ERROR ( $\mu\text{L}$ )	RANDOM ERROR ( $\mu\text{L}$ )
<b>P2 (P/N F144801) WITH D10 OR DL10 TIPS</b>				
0.2	$\pm 0.024$	$\leq 0.012$	$\pm 0.08$	$\leq 0.04$
0.5	$\pm 0.025$	$\leq 0.012$	$\pm 0.08$	$\leq 0.04$
1	$\pm 0.025$	$\leq 0.012$	$\pm 0.08$	$\leq 0.04$
2	$\pm 0.030$	$\leq 0.014$	$\pm 0.08$	$\leq 0.04$
<b>P10 (P/N F144802) WITH D10 OR DL10 TIPS</b>				
1	$\pm 0.025$	$\leq 0.012$	$\pm 0.12$	$\leq 0.08$
5	$\pm 0.075$	$\leq 0.030$	$\pm 0.12$	$\leq 0.08$
10	$\pm 0.100$	$\leq 0.040$	$\pm 0.12$	$\leq 0.08$
<b>P20 (P/N F123600) WITH D200 TIPS</b>				
2	$\pm 0.10$	$\leq 0.030$	$\pm 0.2$	$\leq 0.1$
5	$\pm 0.10$	$\leq 0.040$	$\pm 0.2$	$\leq 0.1$
10	$\pm 0.10$	$\leq 0.050$	$\pm 0.2$	$\leq 0.1$
20	$\pm 0.20$	$\leq 0.060$	$\pm 0.2$	$\leq 0.1$
<b>P100 (P/N F123615) WITH D200 TIPS</b>				
10	$\pm 0.35$	$\leq 0.10$	$\pm 0.8$	$\leq 0.3$
50	$\pm 0.40$	$\leq 0.12$	$\pm 0.8$	$\leq 0.3$
100	$\pm 0.80$	$\leq 0.15$	$\pm 0.8$	$\leq 0.3$
<b>P200 (P/N F123601) WITH D200 TIPS</b>				
20	$\pm 0.50$	$\leq 0.20$	$\pm 1.6$	$\leq 0.6$
100	$\pm 0.80$	$\leq 0.25$	$\pm 1.6$	$\leq 0.6$
200	$\pm 1.60$	$\leq 0.30$	$\pm 1.6$	$\leq 0.6$
<b>P1000 (P/N F123602) WITH D1000 TIPS</b>				
100	$\pm 3.0$	$\leq 0.6$	$\pm 8.0$	$\leq 3.0$
500	$\pm 4.0$	$\leq 1.0$	$\pm 8.0$	$\leq 3.0$
1000	$\pm 8.0$	$\leq 1.5$	$\pm 8.0$	$\leq 3.0$
<b>P5000* (P/N F123603) WITH D5000 TIPS</b>				
500	$\pm 12$	$\leq 3$	$\pm 40$	$\leq 15.0$
2500	$\pm 15$	$\leq 5$	$\pm 40$	$\leq 15.0$
5000	$\pm 30$	$\leq 8$	$\pm 40$	$\leq 15.0$
<b>P10mL* (P/N F161201) WITH D10ML TIPS</b>				
1000	$\pm 30$	$\leq 6$	$\pm 60$	$\leq 30.0$
2000	$\pm 30$	$\leq 6$	$\pm 60$	$\leq 30.0$
5000	$\pm 40$	$\leq 10$	$\pm 60$	$\leq 30.0$
10000	$\pm 60$	$\leq 16$	$\pm 60$	$\leq 30.0$

\*P5000 and P10mL do not have tip ejectors.

### NOTICE

Do not lubricate this pipette. The use of lubricant cancels the warranty of this pipette.

## Setting the Volume

The volume of liquid to be aspirated is set using the volumeter. The dials are colored either black or red to indicate the position of the decimal point, depending on the model (refer to Figure 3).

The volume is set by turning the thumbwheel or the push button. The push button makes it easier and faster to set volumes, especially when wearing gloves. The thumbwheel may be turned to slowly reach the required setting.

To achieve maximum accuracy when setting the volume:

- When **decreasing** the volume setting, slowly reach the required setting, making sure to not pass the setting.
- When **increasing** the volume setting, pass the required value by 1/3 of a turn and then slowly decrease to reach the volume, making sure to not pass the setting.



**Figure 3**  
Dial colors by model

MODEL	COLOR OF VOLUMETER NUMBERS		
	BLACK	RED	INCREMENT
P2	µL	0.01 µL	0.002 µL
P10 to P20	µL	0.1 µL	0.02 µL
P100–P200	µL	—	0.2 µL
P1000–P5000	0.01 mL	mL	0.002 mL
P10mL	mL	0.1 mL	0.02 mL

## Fitting the Tips

To fit a new PIPETMAN DIAMOND Tip, push the tip holder into the tip using a slight twisting motion to ensure a firm and airtight seal.

### NOTE

For the P2 and P10 models, a dual-position adapter (plastic) is required to fit DL10 tips (long tips) or D10 tips (short tips). The metallic rod of the tip ejector is shaped so that the adapter may be clipped to it in either position.

P2 and P10 models are delivered with the adapter in place ready to use DL10 tips. When D10 tips are used, the adapter must be repositioned in the shorter slot as follows:

1. Pull the adapter down from the metallic rod.
2. Turn the adapter 180°.
3. Refit the adapter so the end of the metallic rod engages the shorter slot of the adapter.



**Figure 4**  
Dual-position adapter for P2 and P10

### NOTE

Plastic tip ejector can be used and ordered separately, (refer to *PIPETMAN Classic User's Guide LT801120*).

## Pre-Rinse the Tips

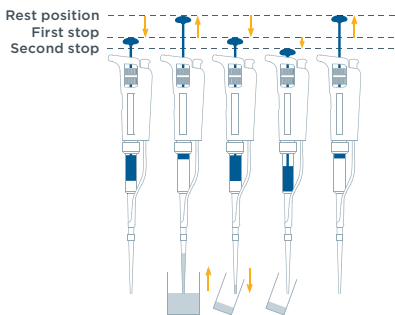
Some liquids (e.g., protein-containing solutions and organic solvents) can leave a film of liquid on the inside wall of the tip. Pre-rinse the tip to minimize any errors that may be related to this phenomenon.

Pre-rinsing consists of aspirating the first volume of liquid and then dispensing it back to waste.

Subsequent volumes you pipette will have levels of accuracy and precision within specifications.

## Aspirate

1. Press the push button to the **first stop** (this corresponds to the set volume of liquid).
2. Hold the pipette vertically and immerse the tip in the liquid (refer to *PIPETMAN Classic User's Guide LT801120 Guidelines for Good Pipetting*).
3. Release the push button slowly and smoothly (to the **top** position) to aspirate the set volume of liquid.
4. Wait one second. The time depends on the model (refer to the table). Then, withdraw the pipette tip from the liquid. You may wipe any droplets away from the outside of the tip using a medical wipe; however, if you do so, take care to avoid touching the tip's orifice.



**Figure 5**

Pipetting motion - aspirate and dispense

## Dispense

1. Place the end of the tip against the inside wall of the recipient vessel (at an angle of  $10^\circ$  to  $40^\circ$ ).
2. Press the push button slowly and smoothly to the **first stop**.
3. Wait for at least a second, then press the push button to the **second stop** to expel any residual liquid from the tip. Keep the push button pressed fully down and (while removing the pipette) draw the tip along the inside surface of the vessel.
4. Release the push button smoothly. Eject the tip by pressing firmly on the tip of the ejector button.

## Maintenance

Routine maintenance will help keep your pipette in good condition, ensuring a continued high level of performance. Maintenance is limited to cleaning or autoclaving the parts specified in the [Cleaning and Decontamination](#) chapter of the *PIPETMAN Classic User's Guide (LT801120)*.

### NOTICE

PIPETMAN P2 and P10 should not be disassembled; you may only replace the push button, tip ejector, and the dual position adapter. With these pipettes if the tip holder is damaged, the piston may also be damaged. After replacing any parts you should verify the performance of your pipette following the verification procedure available on the Gilson website ([www.gilson.com](http://www.gilson.com)). If the pipette needs to be readjusted, please contact your local authorized Gilson Service Center.

## Warranty

Gilson warrants this pipette against defects in material under normal use and service for a period of **three years** from the date of purchase.

This warranty shall not apply to pipettes which are subject to abnormal use and/or improper or inadequate maintenance (contrary to the recommendations given in the user's guide), including, but not limited to pipettes which have been subjected to physical damage, improper handling, or spillage or exposure to any corrosive environment. This warranty shall also be void in the event pipettes are altered or modified by any party other than Gilson or its designates. Gilson's sole liability under this warranty shall be limited to, at Gilson's sole option, repair or replacement of any defective components of pipettes or refund of the purchase price paid for such pipettes. **Routine cleaning, control and recalibration are not covered under the warranty. The replacement of wearing parts such as seals, O-rings, broken pistons assembly, and broken tip holders are not covered under the warranty.**

### NOTICE

Yearly routine maintenance is highly recommended to keep your pipette in good condition, ensuring a continued high level of performance.

## Web Resources

Visit Gilson's website at [www.gilson.com](http://www.gilson.com) for:

- Service contact information
- *PIPETMAN Classic User's Guide LT801120* pdf
- Information about accessories, spare parts, and related products
- Additional product information and special offers



[www.gilson.com/contactus](http://www.gilson.com/contactus)

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