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**Jencons Scientific Ltd**  
 Cherrycourt Way Ind. Est.  
 Stanbridge Rd, Leighton Buzzard  
 LU7 4UA, ENGLAND

Phone: 01525 372010  
 Fax: 01525 379547  
 Int. Phone: +44 1525 372010  
 Int. Fax: +44 1525 851461

Email: [uksales@jencons.co.uk](mailto:uksales@jencons.co.uk)  
 Int. Email: [export@jencons.co.uk](mailto:export@jencons.co.uk)  
 Website: [www.jencons.co.uk](http://www.jencons.co.uk)  
 Online sales: [www.ecomcat.co.uk](http://www.ecomcat.co.uk)

**Jencons Scientific Inc (USA)**  
 800 Bursca Drive, Suite 801  
 Bridgeville, PA 15017

Phone: 412 257-8861  
 Toll Free: 800 846-9959  
 Fax: 412 257-8809

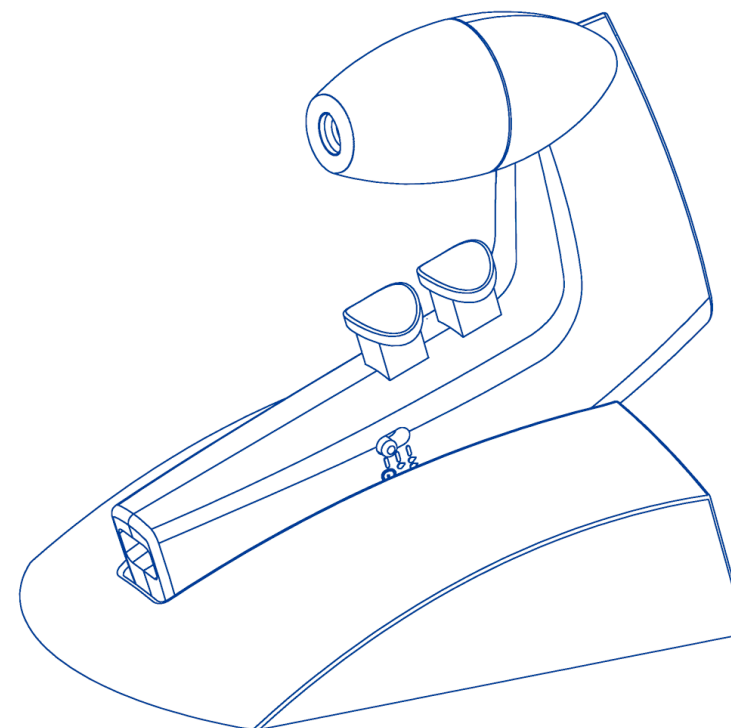
Email: [info@jencons.com](mailto:info@jencons.com)  
 Website: [www.jenconsusa.com](http://www.jenconsusa.com)



# **POWERPETTE PRO**

## **Operator Instructions**

Powerpette Pro  
 Pipette Controller



## Introduction

The Jencons Powerpette® Pro has been carefully designed and manufactured as a lightweight, cordless pipetting aid for use with all plastic or glass pipettes from 1–100ml.

This new Powerpette is constructed in recyclable materials and operates on two rechargeable, long life, environmentally friendly, 1.2V nickel metal hydride batteries. Powerpettes have uniquely formed finger triggers to minimize any high pressure points. These triggers also control intake and dispense speeds.

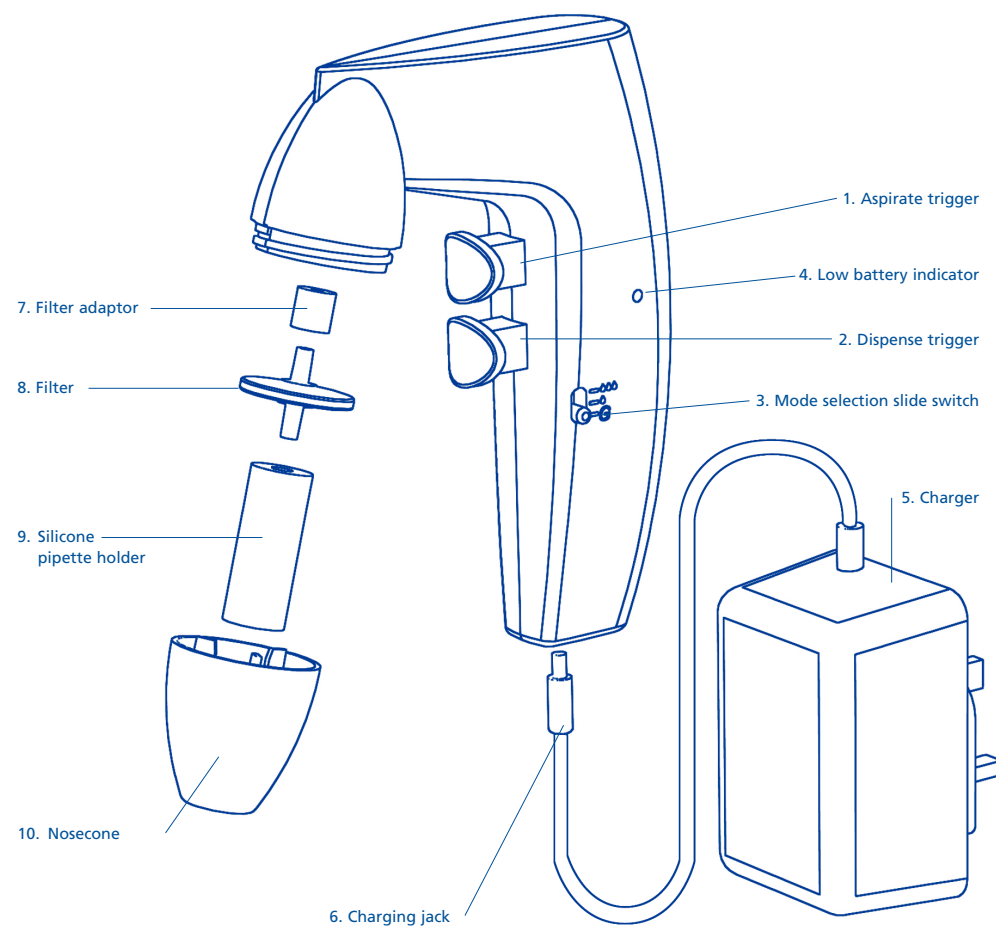
A battery warning light (4) is triggered whenever the charge in the batteries is low and they should then be recharged. Pipetting with Powerpettes can also take place while the units are connected to their chargers (5).

Powerpettes have a conveniently located slide switch (3) which allows the user to select between three modes of operation:

Slide switch position 'High' (top) $\Delta\Delta\Delta$	Suction and dispense at full speed (Blow-out)
Slide switch position 'Low' (middle) $\Delta$	Suction and dispense at reduced speed (Blow-out)
Slide switch position 'G' (bottom)	Suction at reduced speed, dispense by gravity (To Deliver)

## Technical Data

Batteries	2 x 1.2V nickel metal hydride
Battery service Life	500–1000 cycles from empty
Charger	75mA/h for 16 hours plug-in; UK, European, USA, Indian, Japanese or Australian versions
	Installation (over voltage) category II
	Double insulation indicated on charger by symbol $\square$
Overall weight	180g without stand
Filter (8)	Hydrophobic 25mm dia 0.45 $\mu$ m (fitted) plus two additional spare filters 1x 0.45 $\mu$ m 1x 0.20 $\mu$ m
Case material	ASA
Nosecone material	(10) ASA
Pipette holder	Silicone (9)
Pipette types	Plastic or glass 1–100ml



## Contents

The Powerpette® Pro kit comprises

- (a) Powerpette® pipette controller
- (b) Charger
- (c) Two spare hydrophobic filters, 1x 0.45µm and 1x 0.20µm
- (d) Bench stand / wall bracket
- (e) Instruction manual

## Safety Instructions

The Powerpette® Pro has been designed with safety in mind. They are lightweight and balance safely in the hand. The triggers have been carefully designed to eliminate pressure points and control of intake and delivery is therefore made easier.

It is recommended when using deleterious liquids that the user wears protective clothing including goggles and gloves. If in doubt ask your safety officer. Please consult and establish appropriate health and safety practices applicable to the liquid being dispensed within your working environment.

## WARNING!

- Only use this instrument within the recommended limits of its chemical resistance.
- Never use with fuming liquids which are incompatible with ASA, ABS, silicone or polypropylene.
- Never use with highly flammable liquids.
- Observe the reagent manufacturer's safety information.
- Never use the instrument in an atmosphere with danger of explosion.
- When not in use store on bench stand or wall bracket.
- Never use force when in use.
- Should the instrument fail to work to specification stop pipetting and check instructions headed Trouble Shooting (page 7).
- Only recharge with manufacturer's original charger.
- All repairs must be carried out by an authorized dealer.
- Only use the manufacturer's accessories and spare parts.
- Charger must only be used indoors and protected against moisture.

## Recharging the Powerpette® Pro

Before starting to operate, carefully check mains voltage and recharge batteries.

To charge the Powerpette® Pro

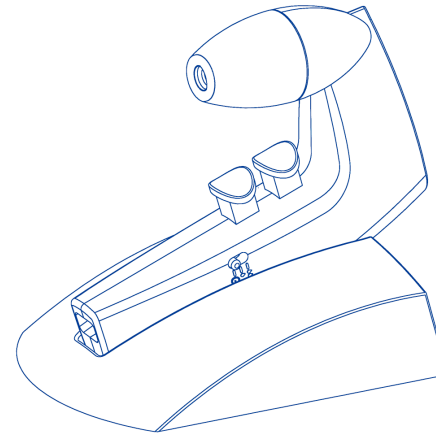
- 1 Recharging temperature +10°C to +35°C.
- 2 Plug the charger jack (6) into the base of the Powerpette®.
- 3 Plug the charger (5) into a suitable wall socket. The red indicator on the charger will light up.
- 4 Place Powerpette® onto bench stand.
- 5 Allow unit to charge for 16 hours from empty to fully charged.
- 6 Once the Powerpette® is fully charged, the charger automatically switches to a trickle charge operation and the red indicator will turn green. If the charge to the Powerpette® is interrupted and then re-started, the charger starts its full 16 hour charging cycle again.  
This will not damage the battery.

Only use the charger indoors and protect against moisture.

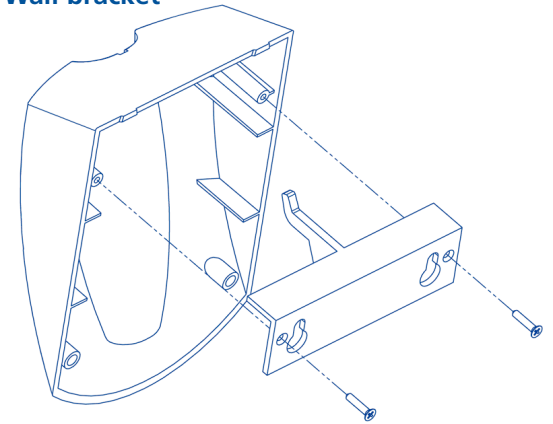
## Fitting the Powerpette® Pro wall bracket

The Powerpette® Pro bench stand is supplied ready to use as a wall bracket. When used as a bench stand it is recommended that the wall fitting is removed.

### Bench stand



### Wall bracket



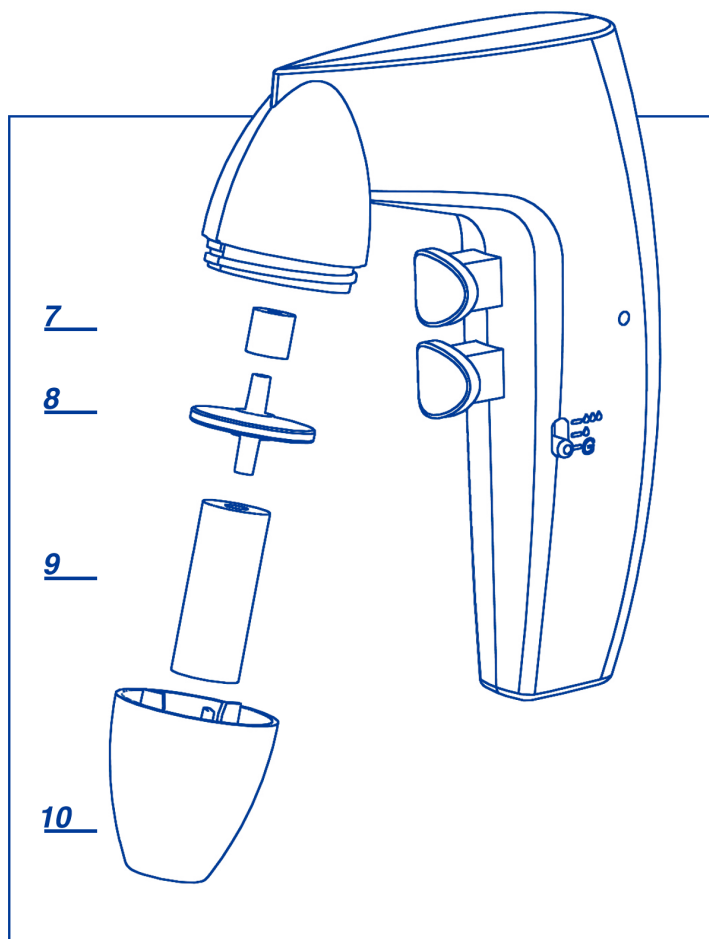
## Cleaning

**Before cleaning disconnect from the mains charger. Do not clean the mains charger.**

The Powerpette® Pro can be cleaned with most common laboratory disinfectants. The silicone pipette holder (9) can be autoclaved.

To remove the nosecone and pipette holder turn the nosecone anti-clockwise. When the nosecone is removed the silicone pipette holder can also be disengaged from the filter by gently turning.

The hydrophobic filter (8) will require occasional replacement when wetted by the liquid and whenever suction capacity is slowing.



## Pipetting

To aspirate

- 1 Carefully hold the pipette and insert it securely into the polypropylene nose cone and silicone holder.
- 2 Select mode of operation—High, Low, for blowout pipettes. 'G' for 'to deliver'.
- 3 Depress upper trigger (1) (The harder the pipetting triggers are pressed the faster the aspiration.)

To dispense

- 1 In BLOW-OUT mode, (mode switch on high or low) depress the lower trigger (2) (The harder the pipetting triggers are pressed, the faster the dispense).
- 2 If 'G' gravity mode is chosen, the upper aspirate trigger automatically operates at low speed while the lower trigger opens the pipette to atmosphere, allowing liquid to run out.

## WARNING!

Please ensure that no liquid enters the instrument. The Powerpette® Pro should never be used without the filter (8). The filter also prevents liquid from entering the instrument. Where liquid has entered please clean and replace filter.

## Trouble Shooting

The Powerpette® Pro is virtually service-free. If the recommendations below do not resolve the problem, please contact your authorized dealer.

TROUBLE	POSSIBLE CAUSE	REMEDY
Suction capacity slow	Filter blocked, dirty or damaged	Clean or replace membrane filter
	Batteries low	Recharge
Pipette drips	Pipette not securely positioned in silicone pipette holder	Re-attach
	Pipette holder or pipette damaged	Replace

## Note

When the meniscus level has been reached liquid should not drip out of the pipette. If the pipette does drip, check that the adaptor assembly and filter are correctly assembled and the pipette is properly located into the silicone pipette holder.

## Return for Repair

In the unlikely event of repair, or where the damage to the unit necessitates return to your distributor or the manufacturer, please decontaminate the unit and complete the required decontamination certificate where appropriate. Please also give details of the fault.

## Ordering Data

### Powerpette® Pro

Powerpette® Pro complete with charger, bench stand/ wall bracket with two spare membrane filters.

	<b>UK</b>	<b>Europe</b>	<b>USA</b>	<b>Japan</b>	<b>India</b>	<b>Aust./NZ</b>
	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.
Pro	266-185	266-185/EUR	266-185/US	266-185/JPN	266-185/IND	266-185/AUS/NZ
Box of 5 spare 0.45µm filters . . . . .						266-003
Box of 5 spare 0.20µm filters . . . . .						266-089
0.45µm sterile filter (1 off) . . . . .						266-006
Silicone Pipette holder . . . . .						266-004
ASA nosecone (white) . . . . .						266-092