

INTEGRA



PIPETBOY pro Operating instructions

156750_V02

INTEGRA



Declaration of conformity | Konformitätserklärung |
Déclaration de conformité | Declaración de conformidad |
Dichiarazione di conformità

INTEGRA Biosciences AG – 7205 Zizers, Switzerland

declares on its own responsibility that the product | erklärt in alleiniger
Verantwortung, dass das Produkt | déclare sous sa responsabilité exclusive,
que le produit | declara bajo su propia responsabilidad que el producto |
dichiara sotto la propria responsabilità che il prodotto

PIPETBOY pro Models: 156400, 156401, 156402, 156403, 156404

in accordance with EC directives | gemäss der EU-Richtlinien |
est conforme au terme de la directives CE | de acuerdo con las directivas CE |
in conformità alle direttive CE

2006/95/EC Low voltage equipment

2004/108/EC Electromagnetic compatibility

2002/95/EC Restriction of Hazardous Substances

2002/96/EC Waste Electrical and Electronic Equipment

2009/129/EC Eco Design Directive

2006/66/EC Battery Directive

is in compliance with the following normative documents: | mit den folgenden
normativen Dokumenten übereinstimmt: | aux documents normatifs ci-après: |
cumple las documentos normativos: | soddisfa le normative seguenti:

EN 61010-1 Safety requirements for electrical equipment for measurement,
control and laboratory use - General requirements.

EN 61326-1 Electrical equipment for measurement, control and laboratory
use - EMC requirements.

Standards for Canada and USA

CAN/CSA-C22.2
No. 61010-1 Safety requirements for electrical equipment for measurement,
control and laboratory use - General requirements.

UL Std. No. 61010-1 Safety requirements for electrical equipment for measurement,
control and laboratory use - General requirements.

FCC, Part 15, Class A Emission

Zizers, June 10th 2011

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Table of Contents

1 Introduction 3
 2 Description of the device 4
 3 Installation 5
 4 Operation 7
 5 Maintenance 9
 6 Technical Data 10
 7 Accessories 10

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1 Introduction

1.1 Intended use

The PIPETBOY pro is a pipetting aid designed for aspirating and dispensing aqueous solutions with plastic or glass pipettes of 1 to 100 ml volumes.

1.2 Safety notes

- 1) Do not use or charge the PIPETBOY pro in an atmosphere with danger of explosion. Also, do not pipette highly flammable liquids such as acetone or ether.
- 2) When handling dangerous substances, comply with the material safety data sheet (MSDS) and with all safety guidelines such as the use of protective clothing and safety goggles. Never point a pipette in anyone's direction.
- 3) Avoid pipetting of liquids whose vapours could attack the materials PA (polyamide), POM (polyoxymethylene), FPM (fluor-rubber), NBR (nitrile-rubber), CR (chloroprene), silicone. Corrosive vapours could also damage metallic parts inside the device.
- 4) Use an original INTEGRA Biosciences mains adapter only and protect it from moisture, otherwise the PIPETBOY pro might be damaged.
- 5) Prolonged exposure of the PIPETBOY pro to UV-light can cause discolouration and/or yellowing of the plastic housing. However, this will not affect the performance of the device in any way.

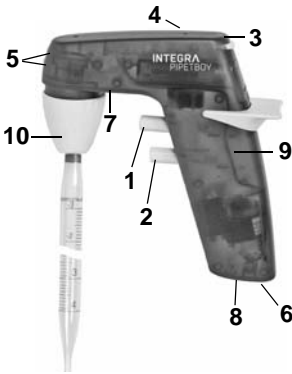
Regardless of the listed safety notes, additionally applicable regulations and guidelines of trade associations, health authorities, trade supervisory offices, etc. must be observed.

2 Description of the device

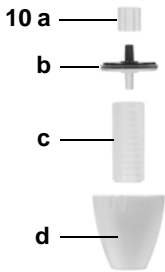
2.1 Scope of delivery

- PIPETBOY pro device
- 2 rechargeable batteries (AAA, NiMH, 1.2 V, 1000 mAh)
- Mains adapter
- Wall holder
- Sterile filter (spare)
- Operating instructions

2.2 Overview of the PIPETBOY pro



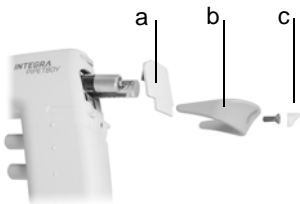
- 1 Aspiration button
- 2 Dispensing button
- 3 Thumb wheel for speed control
- 4 Battery charge indicator (red, green)
- 5 Contacts for charging station
- 6 Socket for mains adapter cable
- 7 LED illumination
- 8 On/off switch for LED illumination function
- 9 Handle



- 10 Nose piece
 - 10a Filter rubber
 - 10b Sterile filter
 - 10c Pipette mount
 - 10d Nose piece housing

3 Installation

3.1 Inserting or replacing the batteries



- 1) Remove the silicone plug (c), unscrew the flexor (b) and remove it with the cover (a).
- 2) Insert two original INTEGRA rechargeable batteries (1.2 V, 1000 mAh) with the correct polarity (+/-).
- 3) Put the cover and flexor back in place and tighten the screw not excessively. Cover the screw with the silicone plug (c).

3.2 Charging the batteries

A full charge takes 10 hours, but before the first use, the PIPETBOY pro should be charged at least 16 hours.

When the battery charge indicator (4) lights up red, the PIPETBOY pro needs charging immediately. PIPETBOY pro has an integrated overcharge protection.

The battery charge indicator (4) lights up green when the mains adapter is connected. The PIPETBOY pro can be used while it is being charged.

3.3 Mounting of the wall holder

The supplied wall holder serves to park the PIPETBOY pro.

To mount the wall holder, remove the protective foil from the adhesive tape at the back of the holder and press it to the desired place. Make sure that the surface onto which the wall holder is mounted is smooth, clean and grease-free. Wait 24 hours before using the wall holder for the first time. Alternatively the wall mount can be fixed with the included screws.

3.4 Set-up and use of the charging station (optional accessory)

The optionally available charging station (Part No 156 450) serves to simultaneously park and charge the PIPETBOY pro.



To mount the charging station on a wall, use one of the following means:

- double-sided adhesive tape
- screw fixation

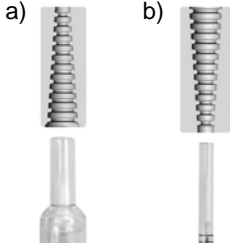
Alternatively, the charging station can be placed on the bench when fitted with rubber feet that prevent its sliding.

Plug the cable of the mains adapter in the socket on the side of the charging station and connect the mains adapter to the power supply.

Parking the PIPETBOY pro in the charging station starts charging.

4 Operation

4.1 Inserting the pipette



The pipette mount (10c) has a special conical channel to guarantee a firm and leak-proof grip of the pipette independently of its diameter.

Unscrew the nose piece housing (10d) and orient the pipette mount:

- a) with the large opening facing down for pipettes > 2 ml (factory setting), or
- b) with the small opening facing down for pipettes < 2 ml.



WARNING

Do not insert pipettes with force into the PIPETBOY pro, because they can break and cause injury, particularly thin pipettes made of glass.

4.2 Pipetting

Press the aspiration button (1) to fill the pipette and the dispensing button (2) to empty it.

The aspiration and dispensing speed can be controlled in two manners:

- Fine speed adjustment by varying the finger pressure on the buttons (1, 2).
- Step-less presetting of the maximum pump speed by turning the thumb wheel (3) to optimally match the pipette capacity (turning to the left = slower pump speed, for small pipettes; to the right = faster, for large pipettes).

To empty the pipette by gravity force, press the dispensing button only slightly in order to avoid reaching the trigger point where the pump starts running. Gravity dispensing is used for “to deliver” (TD) pipettes that are not of the “blow-out” type (blow-out pipettes have two thin rings or a frosted band around the neck).

4.3 LED illumination

The LED (7) near the nose piece illuminates the work area around the pipette when the buttons (1, 2) are pressed. After release of the button, the LED remains alight for a approx. five seconds. The on/off-switch (8) at the base of the handle (9) serves to switch the LED function on (I) or off (O).

4.4 Troubleshooting

Problem	Probable cause	Remedy
Pipette drips (leak in the system).	Pipette is damaged or not fully inserted in the nose piece (10).	Reinsert a new pipette by pushing it all the way into the nose piece. Make sure that the pipette mount orientation is correct for the used pipette (see “4.1 Inserting the pipette” on page 7).
	The inside of the pipette mount (10c) is damaged resulting in insufficient sealing of the pipette neck.	Replace the pipette mount (Part No. 151 020).
	The filter rubber (10a) or the filter (10b) in the nose piece are damaged or missing causing a leak.	Replace the filter rubber (Part No. 153225) and/or the filter (Part No. see “7 Accessories” on page 10).
Reduced aspiration efficiency or no liquid aspiration.	The filter (10b) is wet or dirty.	Replace filter.
	The nose piece (10) is not tight.	Tighten the nose piece, or replace defective parts.
	The battery is discharged (battery charge indicator lights red).	Charge the battery.
	The battery is missing.	Insert the battery, or connect the instrument to the mains adapter.
	The battery is defective.	Replace the battery.
Reduced operating time with fully charged battery.	The battery is wrongly inserted.	Insert correctly, note polarity (+) and (-).
	The battery is worn.	Replace the battery.
	Wrong battery type is inserted.	Use only original consumables.

5 Maintenance

5.1 Cleaning and servicing

The PIPETBOY pro can be cleaned with a cloth moistened with soapy water or with a 70% ethanol. Never use acetone or other solvents. The nose piece (10), the pipette mount (10c) and the filter rubber (10a) can be autoclaved at 121 °C.

It is recommended to change the hydrophobic filter (10b) every three months. Should the filter get wetted or soiled, it has to be changed immediately. The filter must be oriented with the blue side facing upwards towards the PIPETBOY pro.

After maintenance work, perform a leak test to ascertain correct functioning of the PIPETBOY pro: liquid should not leak out of a filled pipette before the dispensing button is pressed.

5.2 Equipment disposal



The PIPETBOY pro device must not be disposed of with unsorted municipal waste.

Dispose of the PIPETBOY pro in accordance with the laws and regulations in your area governing disposal of devices.

6 Technical Data

Pipetting speed	max. 10 ml/s
Batteries	Type: rechargeable, AAA, NiMH, 1.2 V, 1000 mAh Charging cycles: 500-1000 (when charging as indicated) Running time: at least 4000 cycles of aspiration and dispensing of 25 ml.
Mains adapter	Input: 100-240 VAC, 50/60 Hz Output: 9 VDC/500 mA
Materials	Housing: ABS Nose piece: POM Pipette mount: Silicone Filter rubber: Silicone
Dimensions (H x W x D)	145 x 130 x 35 mm
Weight	190 g
Ambient conditions	Operation: 5 – 40°C, max. 80% RH Storage: -10 – 50°C, max. 95% RH

7 Accessories

Accessories		Part No.
Charging station	for parking and charging the PIPETBOY pro	156 450
Stand for PIPETBOY and VACUBOY	for parking the PIPETBOY pro with inserted pipette and for a well organised work area	155 065
Vacuum tweezers	for picking and placing small objects such as microscopy cover slips	155 890
Nose piece	for holding filter rubber, filter and pipette mount	156 104
Wall holder	for parking the PIPETBOY pro on the wall	156 708
Mains adapter (100-240 VAC, 50/60 Hz)	US version	156 630
	EU version	156 631
	UK version	156 632
	AU version	156 633
	JP version	156 634

Consumables		Part No.
Filter 0.45 µm	sterile	153 015
	unsterile	153 016
Filter 0.2 µm	sterile	156 608
	unsterile	156 607
Pipette mount	for holding pipette in the nose piece, silicone	151 020
Filter rubber	for holding the filter in the nose piece, silicone	153 225
Battery set	2 AAA batteries (NiMH, 1.2 V, 1000 mAh)	156 151

Battery cover set	Colour	Part No.
Set contains: coloured lid, flexor, screw and cover	white	156 430
	pink	156 431
	green	156 432
	orange	156 433
	blue	156 434