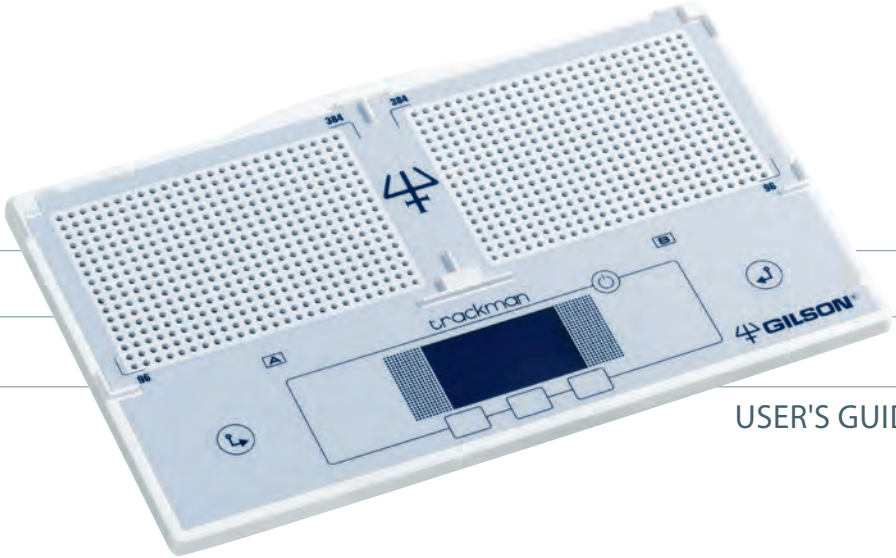
trackman™

Guiding You To Success!



USER'S GUIDE

GILSON®

Warranty

Gilson warrants this product against defects in material under normal use and service for a period of 12 months from the date of purchase.

Gilson is not responsible for incidental damage resulting from physical shock, continuous exposure to corrosive reagents or technical handling not in accordance with the guidelines described in the user's guide.

Table of Contents

1 INTRODUCTION

Congratulations on the purchase of the **TRACKMAN**, the professional assistant who keeps track of pipetting from microtube to microtube and from microplate to microplate!

The TRACKMAN is ideal for tracking pipetting. It holds two microplates (96-well or 384-well)* or two optional Gilson Microtube Holders (0.5 mL, 1.5 mL and 2 mL), A and B, for transferring liquids from microtube to microtube or microplate to microplate. The TRACKMAN tracks and displays the position of the liquids.

** Patent pending.*

The TRACKMAN:

- helps eliminate pipetting mistakes and cross-contamination.
- is a high quality Gilson product and is CE compliant.
- can be used manually or with a pedal for hands-free operation.
- simplifies your work, improves your productivity and will guide you to success!

2 PARTS CHECKLIST AND ACCESSORIES

Verify that the following items are present

• TRACKMAN	Ref. F70301
• Power supply with AC adapter and cable	Ref. F30705
• User's Guide	Ref. LT801522
• 4 reagent reservoirs (25 mL)	Ref. F267660

Optional Accessories

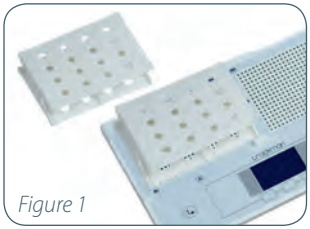


Figure 1

- Pedal for TRACKMAN Ref. F70261
- 0.5 mL, 1.5 mL and 2 mL Microtube Holder (vessel capacity: 16 microtubes) Ref. F70105

The Microtube Holder allows for placing 0.5 mL tubes into one side and 1.5 mL or 2.0 mL tubes into the other side, thus enabling use of the TRACKMAN to track pipetting between microtubes.

The TRACKMAN can be used with any kind of pipette (mechanical or electronic, single, multichannel and repetitive), like all models of Gilson's PIPETMAN® product line, DISTRIMAN®, REPETMAN® and MICROMAN®.

For ordering information please contact your Gilson distributor or http://www.gilson.com.

3 SAFETY NOTES

Possible dangers if the safety precautions are not observed

The TRACKMAN is a state-of-the-art instrument and is safe to use. All persons working with the TRACKMAN must read the operating and safety instructions before operating the instrument.

Safety at work

In addition to any safety precautions listed here, all other relevant safety aspects–e.g., GLP, GMP, professional trade associations, Department of Health, trade supervisory authorities–must be observed.

The TRACKMAN has an IP 32 rating. It is protected against direct sprays of water up to 15° from the vertical.

For more information, refer to Chapter 7.

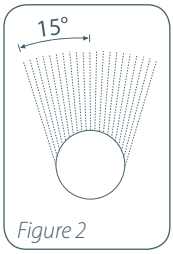


Figure 2

Do not autoclave the TRACKMAN. Extreme heat will damage electronic components.

Do not immerse the TRACKMAN; liquid inside can damage its internal components.

Do not clean the keypad with bleach solutions or other solvents. Caustic cleaning solutions can damage the keypad.

Do not use the TRACKMAN in a potentially explosive environment or with potentially explosive chemicals.

Changes in configuration/design by user

No changes may be made to the TRACKMAN.

Any parts that become defective must be replaced by original Gilson parts.

The TRACKMAN may not be altered in design or in any of their safety aspects without the express written permission of Gilson. In particular, no alterations may be made to any of the protective functions. Any alteration releases Gilson from any liability for damage caused.

Do not dispose of the product with general waste, when a unit reaches its end of life, use a recognized organization to collect and recycle the products.

The TRACKMAN may not be opened! Repairs must be carried out by Gilson or a service company authorized by Gilson!

Do not carry the TRACKMAN by the retractable stand.

Make sure that the TRACKMAN is well positioned on the bench. Do not use the TRACKMAN on an irregular surface.

4 DESCRIPTION

TRACKMAN

① Location A
② Location B
③ LED light box
④ Position indicators (for 96- or 384-well microplates)
⑤ Plate holder (for 96- or 384-well microplates)
⑥ Power touch pad = ON/OFF
⑦ Step touch pads
⑧ LCD screen
⑨ Operator touch pads

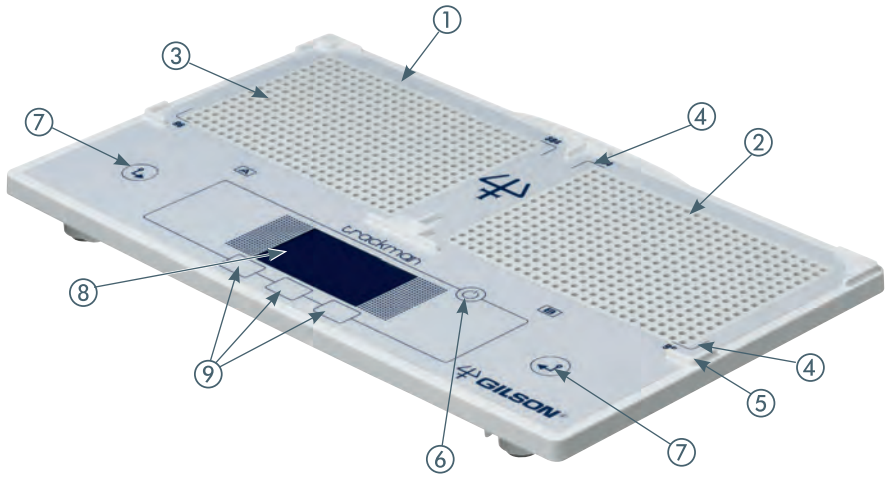


Figure 3 - TRACKMAN Front Panel

⑩ Four antiskid rubber feet
⑪ Reset (see Chapter 8)
⑫ Retractable stand
⑬ Cable guide on left and right side

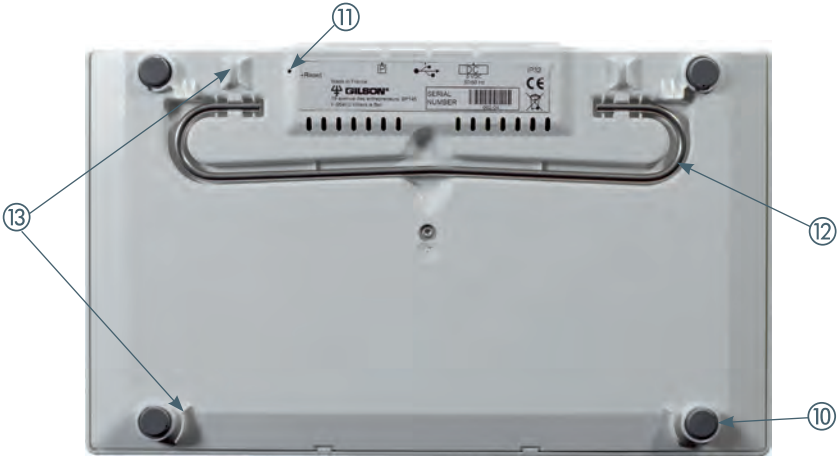


Figure 4 - TRACKMAN Bottom Side

Angle Adjustment

The TRACKMAN may be positioned flat or slightly inclined. To raise the TRACKMAN, lift the retractable stand on the underside.

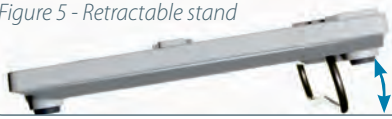


Figure 5 - Retractable stand

Reset

In case of malfunction, first reset the TRACKMAN. To reset, insert a paper clip into the reset hole on the rear panel of the TRACKMAN for at least 3 sec.

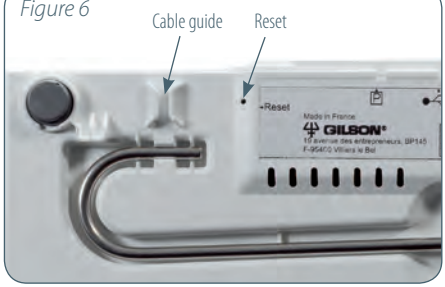


Figure 6

Cable Guide

The TRACKMAN provides you with a cable guide on the bottom side. To align the pedal cable or power supply cable for more comfortable working, insert the cable into the cable guide found near the rubber feet.

Description of TRACKMAN connections

Figure 7

Display

The display is an LCD screen. It shows the current mode and operating step, battery indicator, sound, timer, and an indicator for manual or automatic timer operation.

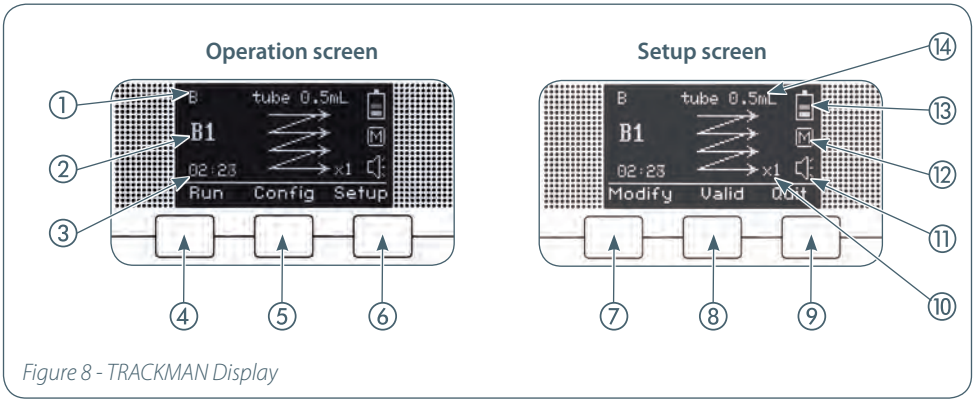


Figure 8 - TRACKMAN Display

① Selected location(s)
② Indicator of well or tube position
③ Timer selection **On/Off** for automatic run
④ **Run**, to start a run
⑤ **Config**, to set up a run
⑥ **Setup**, to set sound, timer and transport function
⑦ **Modify**, appears when **Config** or **Setup** are chosen, modification can be done
⑧ **Valid**, to accept the selection
⑨ **Quit**, to return to the Operation screen
⑩ Indicator for single or multichannel pipette type
⑪ Beeper selection **On/Off**
⑫ **Selected mode:** M = manual, P = pedal (with accessory pedal, ref. F70261) or T = automatic operation using timer (between pipetting steps)
⑬ Indicator for battery level
⑭ Indicator for vessel type (microplate or Microtube Holder)

Microplate and/or Microtube Holder positioning:

The TRACKMAN is ideal for tracking pipetting to 96-well microplates, as well as to 384-well microplates. To position your microplate or Microtube Holder, use the position indicators on the TRACKMAN (see fig. 9) and the indication displayed on the front panel. Select the vessel type in the software (see Chapter 6). The LED lights will indicate the chosen pattern and help you place the microplate or Microtube Holder. Before starting a "run" the LED light pattern will illuminate again for a final positioning verification.

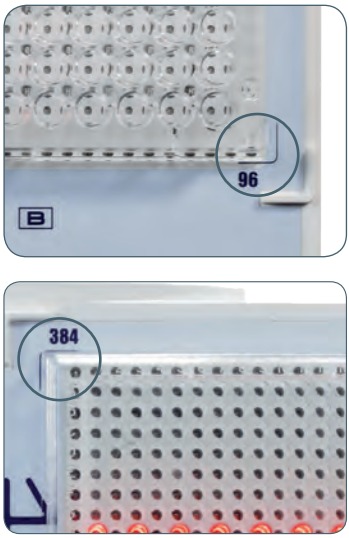


Figure 9 - Position indicators on the TRACKMAN

5 GETTING STARTED

Power Management

The TRACKMAN is provided with a minimal battery charge. Before using a new TRACKMAN, it is recommended to fully charge the battery. The TRACKMAN battery has been designed to ensure up to 8 hours of cordless operation. For service continuity when needing more capacity, your TRACKMAN can also be used while charging.

Only use a power supply approved or supplied by Gilson. Use of an incompatible power supply can damage the TRACKMAN!

Use indoors.

Battery Charging

The TRACKMAN charges 80% of its full battery capacity in less than an hour. It takes three hours to fully charge the battery. The battery charges fastest with the unit power off.

Use the power supply and power supply cable, supplied with the TRACKMAN, to make the connection between the power receptacle on the TRACKMAN and a power source. The TRACKMAN starts charging.

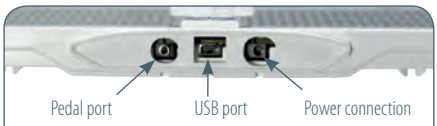


Figure 10

Low Battery Warning

The TRACKMAN has a low battery alert. As the battery runs down, the "low battery level" message appears, followed by a warning beep. Press ok before continuing to work. The warning is replaced by a blinking symbol of an empty battery. If it is not recharged, a second "low battery" warning will appear. The TRACKMAN will switch off automatically after a few minutes if it is still not recharged. Your last program and position will be saved.

Changing the battery

If the following symptoms occur, please contact your Gilson Service Center:

1. The battery will not charge or will not operate even if connected to the charger for at least five minutes.
2. The battery operates for a very short time or permanently needs to be used in connected mode.

The TRACKMAN uses a Lithium-Ion battery. Operation on the battery is done at user's risk only.

Opening the TRACKMAN voids the warranty.

Sleep Mode

The TRACKMAN goes into sleep mode and the display will shut off after five minutes of inactivity. Press ON/OFF to reactivate the TRACKMAN; the last program and position will appear on the screen. The stand-by mode lasts 15 minutes before TRACKMAN switches off.

If you switch off the TRACKMAN, the last program will be saved but not the last position; you may start again, but cannot continue the run.

Switch ON or OFF

Press and hold the power touch pad "ON/OFF" for at least two seconds.
If TRACKMAN is switched off, it can hold a battery charge of up to 40 days.

Transport Mode

The TRACKMAN is preset to Transport Mode "on". To start working with the TRACKMAN, press the key combination that is indicated on the screen.

The TRACKMAN is now ready to use (see Chapter 6).

6 USING THE TRACKMAN

Use the TRACKMAN in several different ways.

You can pipette with:	Symbol	Message
1x channel pipette	**x1**	
8 x multichannel pipette	**x8**	
12 x multichannel pipette	**x12**	
You can pipette:		
to 0.5 mL/1.5 mL and 2.0 mL microtubes	**A or B**	tube 0.5 mL or tube 1.5 mL
to 96 /384 well microplates	**A or B**	96-well or 384-well
from microtubes to microtubes	**A → B**	tube 0.5 mL or tube 1.5 mL
from microplates to microplates	**A → B**	96-well or 384-well
a sequence of microtubes or microplates	**A + B**	tube 0.5 mL, tube 1.5 mL, 96-well or 384-well

Choose between different patterns: individually, entire rows or columns and in serpentine.

		microplate						microtubes holder
		96 well			384 well			0.5 mL and 1.5 mL
		single channel	8 x channel	12 x channel	single channel	8 x channel	12 x channel	single channel
patterns	→	A B A + B A → B	A B A + B A → B		A B A + B A → B		A B A + B A → B	A B A + B A → B
	↓	A B A + B A → B		A B A + B A → B	A B A + B A → B			A B A + B A → B
	⌐	A B A + B A → B			A B A + B A → B			A B A + B A → B
	⌐	A B A + B A → B			A B A + B A → B			A B A + B A → B

Overview of all programming possibilities

▶ How to program the TRACKMAN:

The screen will guide you through your programming.

You can change the pipette type, vessel type, pipette pattern, location and timer.

Note before starting:
The TRACKMAN is touch sensitive. So, please keep in mind that you need to lift your finger between clicks.

1. Switch on the TRACKMAN.
2. Press **Config**; the indicator of pipette type is blinking.
3. Press **Modify** until the desired pipette type is selected.
4. Press **Valid**; the next symbol on the screen will blink and can be changed. Continue programming as described in steps 2–4 until all required items are selected.
5. After programming your run, the first screen appears again.
6. Press **Run** to start the program (see "How to use the TRACKMAN").

After all parameters are selected, the TRACKMAN may be operated using the step touch pads on the keypad or a pedal (optional, ref. F70261). If you chose automatic timer mode, the step touch pads and pedal are disabled during the run.

*If you have to pause before you have finished a run, press "**Stop**". This will automatically pause your run. The question "**Are you sure?**" appears and you are in "pause" mode. All parameters will be retained and you can continue without a risk of pipetting error. If you want to continue your run press "**No**", this will cancel the stop function. If you confirm the option by selecting "**Yes**" you will reset the run.*

▶ How to use the TRACKMAN:

1. Switch on the TRACKMAN.
2. Place your vessel using the position indicators.
3. Press **Run** to start the program.
4. The LED light pattern will appear. Verify that the vessels are in the correct positions and then confirm the question **"Are you ready"** with **"Yes"** or **"No"**.

If you choose "Yes", the run starts, if you choose "No", you will return to the previous menu.

5. Press one of the step touch pads to advance the light sequence

*If you want to go one step backwards, press "**Back**". The question "**Are you sure?**" appears. Press "**Yes**" to go backwards or "**No**" to continue.*
*If you want to stop the run, press "**Stop**". The question "**Are you sure?**" appears. Press "**Yes**" to stop, or "**No**" to continue.*

6. When the run is finished, the first screen appears again and you can start another run.

*The TRACKMAN goes to sleep and the display will shut off after five minutes of inactivity. Press **ON/OFF** to reactivate TRACKMAN and continue working. Your last settings and operating step appear on the screen.*

▶ How to use the TRACKMAN with timer mode:

1. Switch on the TRACKMAN.
2. Place your vessel by using the position indicators.
3. Press **Config**; the indicator of pipette type is blinking.
4. Press **Modify** until the desired pipette type is selected.
5. Press **Valid**; the next symbol on the screen will blink and can be changed. Continue programming as described in steps 2–4 until all required items are selected.
6. When you reach the item to change between automatic timer mode [T] and manual mode [M], select [T] and then press **Valid** to accept your selection.
7. Next, set the **Time Interval** by using [+] and [-]. The valid range is between 1 sec. and 99 sec. Click **Valid** to confirm your choice and return to the operation screen.
8. Press **Run** to start the program. The LED light pattern will appear. Verify the vessel is in the correct position, and then respond to the question **"Are you ready"** with **"Yes"** or **"No"**.

☞ *If you choose "Yes", the run starts, if you choose "No", you will return to the previous menu.*

9. The pattern will light automatically to track your pipetting.
10. When the run is finished, the first screen appears again and you can start another run.

▶ How to use the TRACKMAN with the pedal:

1. Switch on the TRACKMAN.
2. Plug the pedal into the TRACKMAN (see Chapter 4, Fig. 4). A beep signals that the pedal is connected and a P (for pedal) appears on screen.
3. Press **Run** to start the program.
4. Step the pedal to advance the light sequence.

☞ *If you want to go one step backwards, press **BACK**, the question **"Are you sure?"** appears. Press "**Yes**" to go backwards or "**No**" to continue.*
*If you want to stop the run, press "**Stop**", the question "**Are you sure?**" appears. Press "**Yes**" to stop, or "**No**" to continue.*

6. When the run is finished, you return to the first position where you can start another run.

☞ *If you use the pedal, you cannot use the step touch pads.*

▶ How to change the setup parameters:

You can change following parameters:

Timer: Indication of pipetting time.

Beeper: Beep sound.

Transport function: to lock the TRACKMAN before transport or for security.

1. Switch on the TRACKMAN.
2. Press **Setup**; the timer symbol starts blinking.
3. To change it, press **Modify**. Click **Valid** to confirm your choice. The next item, the beeper symbol, starts blinking.

☞ *If you do not want to change it, press **Valid**, the beeper symbol starts blinking.*

4. If you want to switch the beeper on or off press **Modify** and then **Valid** to accept the selection.

☞ *If you do not want to change it, press **Valid**. Set the next item, the transport function, by using the **Modify** soft touch. Press **Valid** to accept the selection and return to the operation screen.*

5. To exit the **Setup** menu, press **Quit**.

7 CLEANING, DECONTAMINATION AND MAINTENANCE

Cleaning and Decontamination

→ To clean the TRACKMAN, wipe it with a soft-cloth or lint-free tissue dipped in a simple soap solution or 70 % Ethanol, to remove all marks. If the TRACKMAN is very dirty, a brush with soft plastic bristles may be used.
→ To rinse, wipe the TRACKMAN with a soft cloth or lint-free tissue dipped in distilled water.
→ Allow it to air dry or dry it carefully with a soft cloth or lint-free tissue.

If you use chemical solutions for decontamination or detergents for cleaning other than those specified below, you should check with your supplier that the solution or detergent is safe for use with the following materials: *ABS (Acrylonitrile Butadiene Styrene), polyester, rubber and stainless steel.*

***Do not autoclave TRACKMAN**. Extreme heat will damage electronic components.*

***Do not immerse the TRACKMAN**; liquid inside can damage its internal components.*

Do not clean the keypad with bleach solutions or other solvents. Caustic cleaning solutions can damage the keypad.

Maintenance

The TRACKMAN must be cleaned regularly.

If necessary, you can replace the antiskid rubber feet (Refer to Chapters 4 and 9).

The TRACKMAN may not be opened! Repairs must be carried out by Gilson or a service company authorized by Gilson! Please contact your local Gilson Service for the replacement of spare parts or battery.

8 TROUBLESHOOTING

In case of malfunction, first reset the TRACKMAN. To reset, insert a paper clip into the reset hole on the rear panel of the TRACKMAN for at least 3 sec.

If the problem persists, you may consult the following table which identifies potential problems and possible solutions.

Problem	Possible Cause	Refer to page
No LCD display.	Recharge battery. Reset the software.	7 5
No operation possible.	Recharge battery. Reset the software.	7 5
Step touch pads do not work.	Set program to Manual mode. Lift finger between clicks.	10 10
No activity after sleep mode.	Reset the software. Recharge battery.	5 7
No move of light sequence.	Reset the software. Recharge battery.	5 7
No operation possible.	Recharge battery. Reset the software.	7 5
Calibration impossible.	Reset the software.	5

9 REPLACEMENT PARTS

Description	Reference
Antiskid rubber feet	5462105001

EC DECLARATION OF CONFORMITY

The company

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Here by certifies on its sole responsibility that the products listed below:

TRACKMAN™

comply with the requirements of the following European Directives:

2004/108/EC
Electromagnetic Compatibility

2006/95/EC
Low Voltage Equipment

2002/95/EC
Restriction of hazardous substances

Villiers-le-Bel, August 1st, 2011

Atika El Sayed
General Manager

Hervé Ledorze
Quality Manager

CE

GILSON®

TECHNICAL DATA SHEET

Dimensions	(L x W x H) Instrument 280 mm x 170 mm x 23 mm
Weight	0.490 kg
Screen	LCD (Liquid Crystal Display)
LED light box	No-heat emitting diodes will have no effect on samples.
Capacity	Microplates ISO/ANSI SBS 1-2004, 2-2004, 3-2004 and 4-2004 are accepted, height: 10 mm to 45 mm, two microplates can be placed side by side, transparent and translucent.
AC Adapter	Input: 100-240V ~ 0.4A 47-63Hz Output: 5VDC 2.0A Class II ⧈ Indoor use only
Battery	Gilson Lithium Polymer Cell, Battery Rating: 3.7V, 1Ah (3.7 Wh), autonomy up to 8 hours (single channel pipette) or 5 h (multichannel pipette) with one charge!
Temperature	Storage: -20°C to + 45°C Operating: +4°C to + 40°C
Humidity	20%–80%
Air pressure	800–1200 mbar
UV-resistance	If the TRACKMAN will be exposed to ultraviolet light, the plastic housing might discolour and become yellow. This will not affect the functioning efficiency of the device.

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August 2011
English
Printed in France

Specifications subject to change without notifications - errors omitted.

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