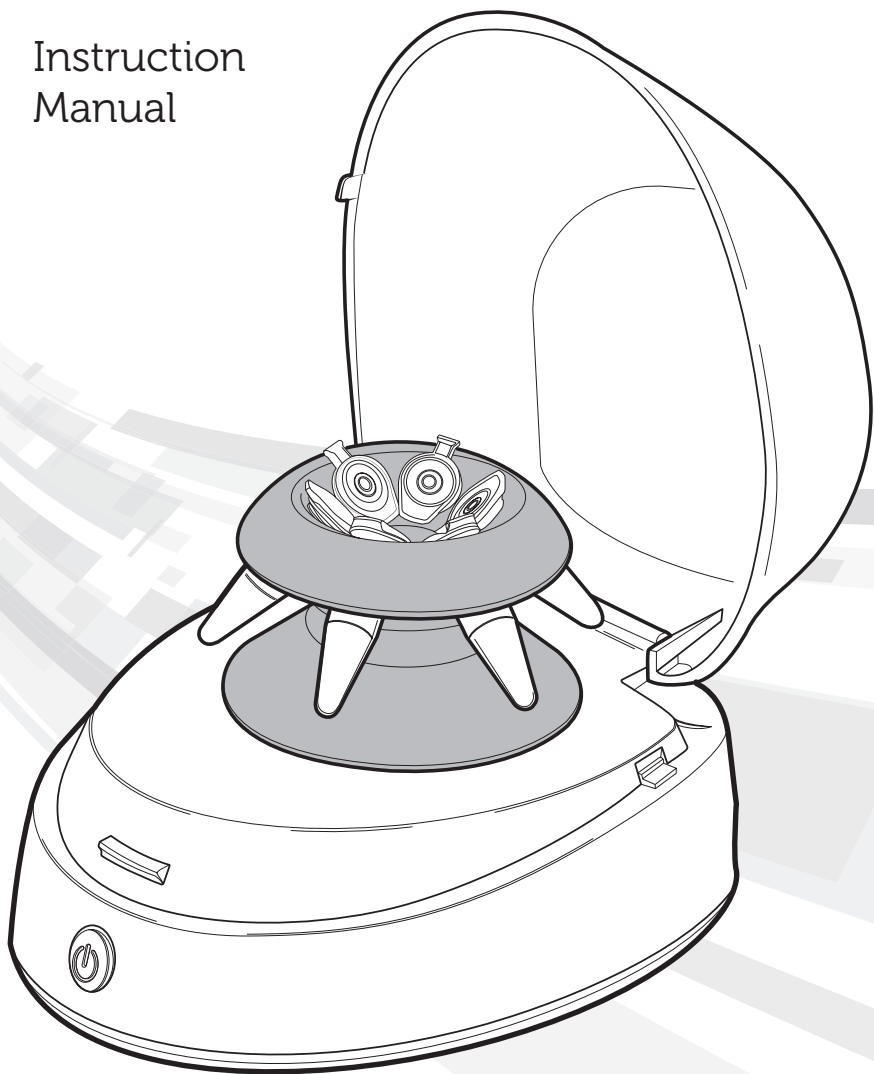


Instruction Manual



Safety Precautions

Sprout® is a personal mini-centrifuge designed for laboratories in the bioscience, medical, and chemistry fields. It may be involved with biohazardous and/or hazardous materials. This instruction manual cannot address all safety hazards. It is the responsibility of the user to consult and observe all health and safety precautions and to assess the instrument's suitability to the task.

Caution!

Before starting Sprout® for the first time, please read this instruction manual carefully. This manual contains important information, safeguards, and operating instructions.

1. Never use this product in any manner inconsistent with these instructions.
2. This product is intended to be used indoors only.
3. This product is intended for separating aqueous solutions in approved test tubes compatible to the RCF of this unit.
4. This product is not intended to centrifuge very dense materials. Do not use materials with a density greater than 1.2g/cm.
5. Use only the power adapter delivered with the product. Use of other power adapters will void warranty.
- 6. Do not put hands in the rotor area unless the rotor is completely stopped.**
7. Only use the originally supplied rotors, AC adapters, tube adapters and any other spare parts delivered with the unit. These parts have been designed to safely meet the maximum RCF that the centrifuge is able to deliver. **DO NOT USE ROTORS OR COMPONENTS FROM ANY OTHER MANUFACTURER.**
8. Always make sure the Sprout rotors are securely seated.
9. Observe general laboratory safety precautions and regulations.
10. Do not attempt to operate with the cover removed or open.
11. The rotor and lid must always be securely fastened when in operation.
12. Do not use damaged rotors.
13. Do not move unit while the rotor is spinning.
14. Do not attempt to stop the rotor while the unit is running. Doing so may cause injury or the unit to fail and will void the warranty.
15. Do not immerse unit in water. Injury due to shock or fire may result.
16. The rotor must be loaded symmetrically. Operating this unit with an unbalanced rotor will cause severe vibration and damage, which is not covered by warranty.
17. Do not fill tubes while inserted in rotor. Spilled liquid may harm unit.
18. Close tube lids before starting centrifuge. Open lids can be ripped

off during centrifugation and damage the unit. Open lids can cause fluid to be dispersed inside the centrifuge.

19. Do not insert non-standard tubes or other foreign articles into the rotor.
20. Follow all precautions from the Material Safety Data Sheet (MSDS) for any reagent you use with this instrument.
21. Do not use solvent or flammable liquids near this or other electrical equipment.
22. Do not centrifuge materials that in combination or alone are flammable, explosive, or corrosive, or may cause any other hazard.
23. Do not operate in a hazardous or flammable environment.
24. Do not use any solvent on the unit that may attack plastic or rubber or cause cracks in the rotor.
25. Ensure the rotor is protected from corrosion and mechanical damage. The rotor must be cleaned with a pH-neutral cleaning liquid.
26. Before using any cleaning or decontamination methods except those recommended in this manual; please contact Heathrow Scientific® LLC to ensure that the proposed method will not damage the device.
27. If a single level of hazard protection is required, make sure to use containers that are tested to Risk Group II or above and that more than one level of protection is provided in the case of materials of a higher Risk Group.
28. Should the unit fail to work to specification, immediately stop centrifuging and allow the rotor to come to a complete stop. Clean and troubleshoot the product according to the instructions under "Trouble Shooting" before any further use of the product. Contact an authorized dealer or the manufacturer if trouble persists.
29. Always work in a manner which endangers neither the user nor any other person.
30. Repairs are to be performed by trained and authorized service personnel only. Contact Heathrow Scientific® LLC.
31. Opening the instrument housing or improper use of the instrument voids the warranty. If there is a failure during the warranty period, contact Heathrow Scientific® LLC for warranty service.
32. Do not use units that have not been correctly installed or repaired.
33. Do not attempt to disassemble or modify this product.
34. Store at room temperature in a dry area. Do not expose to sunlight, moisture, or extreme temperatures for prolonged periods of time.

Warning!

The laboratory procedure should ensure that no person or hazardous substances are present within a 12" (30 cm) zone around the centrifuge when operating.

Warning!

If this product is not used as recommended by the manufacturer, the overall safety will be impaired.

Warning!

Check MSDS, wear required Personal Protective Equipment, and observe all applicable local and national regulations before dispensing and disposing of hazardous materials.

Warning!

This product does not contain bio-seals as per IEC/EN/CSA 61010-2-020 and cannot provide any level of containment in case of a spill or release of toxic, radioactive, or pathogenic micro-organisms. Thus these materials are not recommended to be used with this product.

Specifications

Environmental Ratings:

Note: for Indoor use

Altitude: up to 2 000m

Temperature: 2°C to 40°C

Maximum Relative Humidity: 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C

Technical Features:

Dimensions:

153mm x 128mm x104mm (LxWxH)

Weight:

1.6 lb (0.73 kg) (Sprout with rotor)

1.9 lb (0.86kg) (Sprout with power adapter)

Maximum speed:

6,000 rpm Approx.(with fully loaded rotor)

Maximum RCF:

2,000 x g

Electrical:

Power Adapter rating

Input: 100-240VAC
50/60Hz
0.8A

Output: 12VDC

Sprout®:

Input: 12VDC

Current (under load): Approx. 0.6A

Power: Approx. 7.3W

Accessories: (All accessories are rated for Maximum speed)

Six tube adapters for 0.2mL tubes (120350)

Six tube adapters for 0.5mL tubes

One SnapSpin™ strip tube rotor (HEA 100012)

(can be used in place of installed round rotor, HEA 100011)



This mark is the confirmation that the unit conforms to the EU guidelines and has been tested according to the following EU Declaration of Conformity.



Conforms to:
ANSI/UL Std. 61010-1
IEC/EN 61010-1
IEC/EN 61010-2-020
CAN/CSA C22.2 No. 61010-1.



This product has been tested to the requirements of CAN/CSA C22.2 No. 61010-1 second edition, including Amendment 1, or a later version of the same standard incorporating the same level of testing requirements.

EC Declaration of Conformity

Manufacturer: Heathrow Scientific® LLC

Model: Sprout, Catalog # HS120301, HS120395, HS120396, HS120334, HS120424, HS120425

This unit has been constructed and conforms to the following:

Safety Standards:

IEC/EN 61010-1

ANSI/UL 61010-1

IEC/EN 61010-2-020

CAN/CSA C22.2 No.61010-1

EMC Standards:

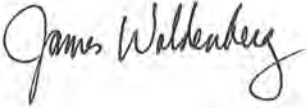
IEC 61326

FCC Part 15, Subpart B: 2015

2012/19/EU (WEEE))

2011/65/EU RoHS2

Signed:



Jim Woldenberg, CEO
Vernon Hills, Illinois, USA
March 2017

Disposal Responsibilities:

The equipment you purchased may contain hazardous substances that could impact the environment. Per regulations on electronic devices in the European Community, you must use the appropriate disposal systems to avoid exposure of these substances to the environment. The disposal systems will reuse or recycle hazardous materials from your equipment responsibly.

The crossed-out wheeled bin symbol invites you to use those systems.



If you need more information on the collection, reuse and recycling systems, please contact your local or regional waste administration. You can also contact us for more information on the environmental performance of our products.

Operation:

1. Remove the contents from the package, examining them carefully for breakage, defects, or missing parts. Save the packaging.
2. Place Sprout® on a sturdy, level surface away from the edge of the counter and other moving equipment. Make sure the power cord is clear of hot surfaces and other hazards.

Warning!

Spin balanced loads only!

Do not place the tubes asymmetrically nor load unequal volume tubes. Improper placement of tubes will lead to insufficient centrifugation and may cause injury or accident.

3. Verify that the power switch is in the OFF position. Plug the power adapter cord into the rear of the unit and the power cord into an approved outlet.

Turn power switch ON. If there is a smooth whirring sound and the unit accelerates with little or no vibration, Sprout® is ready to use. If there are loud or unusual sounds, or excessive vibration, DO NOT OPERATE. Contact Heathrow Scientific® LLC Technical Support.

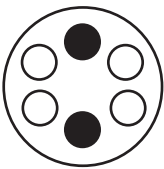
4. On benchtop prepare samples tubes in rack so that tubes are filled to equal levels. Close tube lids.
5. To open lid, firmly tilt lid toward rear of unit.

Warning!

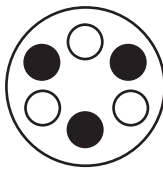
The laboratory procedure should ensure that no person or hazardous substances are present within a 12" (30 cm) zone around the centrifuge when operating.

6. Tubes of equal weight and size should be placed opposite each other. Use sample or water in tube to provide balance. Proper sample balancing illustrated below.

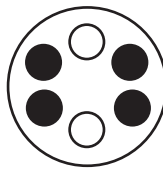
SnapSpin™ Circular Rotor



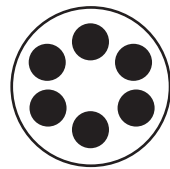
2 Tubes



3 Tubes

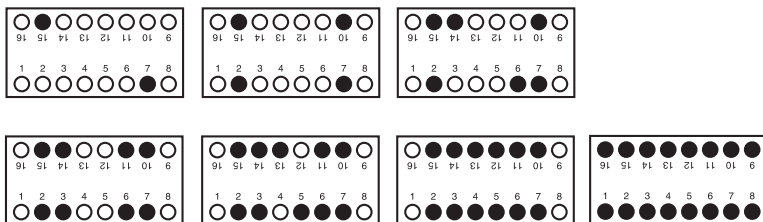


4 Tubes



6 Tubes

SnapSpin™ Strip Tube



7. Do not force tubes into the rotor. Use adapters and correctly sized rotors for your application.
8. Close lid securely. A properly closed lid will grasp the front silicon tab keeping the lid closed. If a clicking sound is heard while the unit is operating, the lid is not fully closed. Do not attempt to operate with the lid removed or open.

Turn power switch ON. Unit will not operate with lid open.

If there is a smooth whirring sound and the unit accelerates with little or no vibration, Sprout® is ready to use. If there are loud or unusual sounds, or excessive vibration, DO NOT OPERATE. Contact the Heathrow Scientific® LLC Technical Support.

9. To stop centrifugation, press power switch and wait until the rotor has completely stopped rotating before opening the lid.

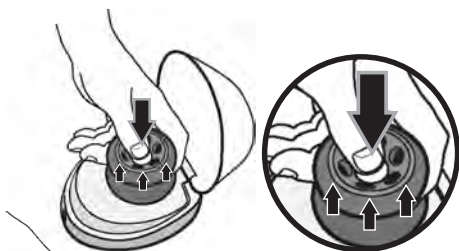
Warning!

Do not open lid until rotor has completely stopped! Avoid severe personal injury or property damage from moving parts.

Rotor Replacement

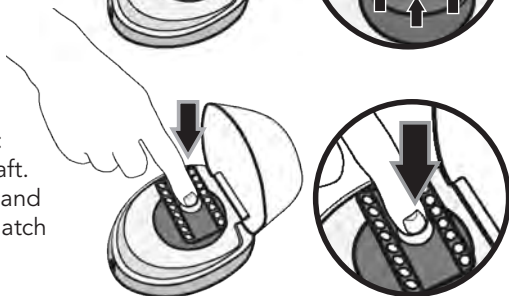
To remove SnapSpin™ rotor:

-Press center button firmly and at the same time lift rotor upwards.



To install SnapSpin™ rotor:

-Set rotor onto the hex shaft. Press center button firmly and downward. Rotor should latch with a click sound.



Warning!

Do not use damaged or cracked rotors!

Maintenance

Sprout® is normally maintenance-free. Clean unit only when it is not plugged into an electrical outlet. When necessary, the housing and rotor can be wiped using a damp cloth and a mild, non-corrosive detergent.

Warning!

Do not use any solvent on the unit that may attack plastic or cause cracks in the rotor. Ensure the rotor is protected from corrosion and mechanical damage. The rotor must be cleaned with a neutral cleaning liquid.

Notes

—Ensure all parts are thoroughly dry prior to operation.

Trouble Shooting

Trouble	Possible Cause	Solution
Not working No light	<ul style="list-style-type: none">— Cord Loose— Front ON/OFF switch— Lid not closed	<ul style="list-style-type: none">— Check Cord— Press front ON/OFF switch— Close Lid
Excessive vibration	<ul style="list-style-type: none">— Rotor not installed correctly— Rotor not balanced correctly	<ul style="list-style-type: none">— Reinstall rotor— Check for tubes of equal weight and location (see Operation)
Noise - clicking sound	<ul style="list-style-type: none">— Lid not fully closed	<ul style="list-style-type: none">— Close Lid engaging silicon tab with cover
Rotor falls off	<ul style="list-style-type: none">— Rotor not attached	<ul style="list-style-type: none">— Reattach rotor (See Rotor Replacement)

Return for Repair

Important:

Transporting hazardous materials without a permit is a violation of federal law.

Heathrow Scientific® LLC will not accept any Sprout® that is not appropriately cleaned and decontaminated.

In the unlikely event of repair, or when damage to the unit necessitates return, contact Heathrow Scientific® LLC and obtain return authorization before sending your Sprout® for service.

Warranty

- ACCESSORY PARTS, SUCH AS RUBBER PARTS, THAT ARE DAMAGED BY LIQUIDS OR MISUSE.

IN NO EVENT WILL HEATHROW SCIENTIFIC® LLC'S OBLIGATION UNDER THIS WARRANTY EXCEED THE PRICE OF THE PRODUCT.

Limited Warranty

Heathrow Scientific® LLC warrants that Sprout® will be free from defects in workmanship and material for 1 year from the date of purchase.

If you believe that there is a defect in the product, you must, during the warranty period, notify Heathrow Scientific® LLC, provide proof of purchase, and return the product to Heathrow Scientific® LLC with a Return Authorization form. To obtain a Return Authorization form, please call 1-847-816-5070.

If Heathrow Scientific® LLC is properly notified and, after inspection, confirms that there is a defect and the warranty period has not expired, Heathrow Scientific® LLC will repair, modify, or replace the product, at its sole option, at no charge.

OTHER THAN THIS LIMITED WARRANTY, HEATHROW SCIENTIFIC® LLC MAKES NO WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE QUALITY OR PERFORMANCE OF THE PRODUCT, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE WHICH ARE HEREBY DISCLAIMED AND EXCLUDED. HEATHROW SCIENTIFIC® LLC WILL IN NO EVENT BE LIABLE FOR ANY LOSS OF USE, LOSS OF PROFITS, CONSEQUENTIAL, SPECIAL, EXEMPLARY OR PUNITIVE DAMAGES.

THIS WARRANTY DOES NOT COVER:

- ANY DEFECT OR DAMAGE CAUSED BY IMPROPER OR UNREASONABLE USE OF THE PRODUCT. (SPROUT® IS DESIGNED FOR USE ONLY BY TRAINED LABORATORY TECHNICIANS. USE BY ANYONE ELSE WILL VOID THIS WARRANTY.)
- ANY PRODUCT THAT HAS BEEN, IN HEATHROW SCIENTIFIC® LLC'S SOLE JUDGEMENT, TAMPERED WITH, ALTERED, OR REPAIRED BY ANYONE OTHER THAN HEATHROW SCIENTIFIC® LLC.
- ANY PRODUCT THAT IS INOPERATIVE BECAUSE OF: (a) WEAR OCCASIONED BY USE, (b) NEGLIGENCE, (c) ACCIDENT, (d) INCORRECT MAINTENANCE, OR (e) USE UNDER ABNORMAL CONDITIONS OF TEMPERATURE, DIRT OR CORROSION, OR USE WITH ABRASIVE OR CORROSIVE MATERIALS.

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