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Revolutionary Science  
Shafer, MN  
USA

## **The Incufridge 233 Basic**

### **Instruction Manual**

**RS-IF-233**





## Troubleshooting

Symptom	Fault	Action
Temperature on the display is higher than the actual	Incufridge may be in need of calibration	See calibration instructions in the manual
Temperature on the display is lower than the actual	Incufridge may be in need of calibration	See calibration instructions in the manual
Display screen does not turn on	Power cord may be disconnected	Inspect all power supply conditions
	Power switch may be off	Inspect power switch
Fan buzzes during operation	Something may be caught in the fan	Turn off Incufridge and inspect internal and external fans. Carefully remove foreign objects if any are found
Temperature stays at ambient and does not heat or cool	Possible defective components	Contact Revolutionary Science
Fan is not operational	Possible defective components	Contact Revolutionary Science

If symptoms persist, please contact Revolutionary Science Support Center at [support@revsci.com](mailto:support@revsci.com) or call (800) 775-7942.



## Instruction Manual for the Revolutionary Science RS-IF-233 Incufridge



REVOLUTIONARY SCIENCE

*Manufacturer of Precision Laboratory Equipment*

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NOTE: This manual contains important information, safeguards and operating Instructions for the operation of the REVOLUTIONARY SCIENCE model RS-IF-233 Incufridge by Alternative Pioneering Research & Development, Inc. (APR&D, Inc.)

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REVOLUTIONARY SCIENCE

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**Introduction**

Thank you for purchasing the Revolutionary Science RS-IF-233 Incufridge. We are confident that when used correctly, our Incufridge will provide years of reliable service in your lab, classroom, or fieldwork. We have made every effort to use high quality, durable parts to deliver the performance expected of instruments costing 3 to 4 times as much.

Please let us know what you think of our products, positive or negative, so we can continue to enhance and improve our products in the future.

Sincerely yours,

*REVOLUTIONARY SCIENCE*



**Checklist**

Before packaging material is discarded please make sure all parts are accounted for:

- 2 Shelves
- 8 shelf supports
- Incufridge
- 1 Handbook

**Notes, Service Record, etc.**

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Please fill out this page, or a copy of it, and send it to the address below to validate your warranty.

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**Warranty Registration Card** for the  
REVOLUTIONARY SCIENCE RS-IF-233 Basic Incufridge  
(Please Print)

Date Purchased: \_\_\_\_\_ Serial Number: \_\_\_\_\_

Purchased From: \_\_\_\_\_

Name of Purchaser: \_\_\_\_\_

Company  School  Individual (Please check one)

Name of institution: \_\_\_\_\_

Department: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Intended use: \_\_\_\_\_

Where did you hear of our product?: \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_

Mail to: Revolutionary Science  
17319 Lake Blvd., Shafer, MN 55074



To maximize the use of this Incufridge, please complete this short list before using the RS-IF-233:

1. Examine carton and packaging for possible damage caused during shipping. If damage is present contact carrier at once. Failure to do so immediately may release the carrier from any liability of damage.
2. Fill out the checklist (page 9 of instruction manual). If something is missing please contact Revolutionary Science.
3. Carefully read the instruction manual.
4. Fill out warranty registration card and mail it to Revolutionary Science.

**Recommended Safeguards**

1. Never attempt to disassemble or modify the RS-IF-233.
2. Do not clean any parts with solvents.
3. Do not drop.
4. Keep door closed for effective temperature stabilization.
5. Do not operate on wet surfaces.
6. Make sure the power cord is clear of hot surfaces and other hazards. We recommend any slack in the cord to be wrapped up and held together with a twisty tie.
7. Avoid spills of any kind on or in the unit. This may contaminate or corrode the surfaces.
8. Do not use around flammables, combustible materials, or explosives.
9. Keep back vents clear (at least two inches in every direction) from other equipment and avoid setting unit on unstable surfaces. This will allow for effective air convection.
10. Do not heat any substances that may release fumes considered to be toxic.
11. Avoid placing samples directly on floor of chamber, instead use shelf to insure even distribution of temperature.
12. Like all heating and cooling equipment their efficiency depends upon the external or ambient temperature. This product has a maximum efficiency at an ambient temperature of 21°C, provided that all other safeguards are met. If the ambient temperature increases or decreases, the maximum efficiency will decrease.



Recommended Room and Storage Conditions:

- Do not store your REVOLUTIONARY SCIENCE RS-IF-233 in direct sunlight, or in dusty or poorly ventilated areas.
- Do not store in a cold or moist room for extended periods of time.
- Never immerse your REVOLUTIONARY SCIENCE RS-IF-233 in water.

### Operating Instructions

#### (1) PLACEMENT:

Place unit on a stable, hard surface away from the edge of the counter and other moving equipment.

#### (2) LOADING:

Open the Incufridge by gently pulling outward (away from the unit) on the left side door edge. With the door open and shelves properly inserted, load your samples leaving adequate space between samples for proper air circulation. Avoid placing samples directly on floor of chamber, instead use shelf to insure even distribution of temperature.

#### (3) CONNECTING THE POWER:

120-240V use: Insert power cord into an outlet designed for 120-240v use. Make sure the power cord is clear of hot surfaces and other hazards. Any slack in the cord should be wrapped up and held together with a twisty tie.

#### (4) SET THE TEMPERATURE:

After power is connected, flip power switch on side of unit to On position. Default display is actual chamber temperature. To increase chamber temperature, press and hold the arrow button pointed up for 2+ seconds. To decrease chamber temperature, press and hold the arrow button pointed down for 2+ seconds. To display current set temperature, press either button.



### Registration

For your future reference and to expedite answers to your questions, please complete the following information:

Date Purchased: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Model Number: \_\_\_\_\_

Purchased From: \_\_\_\_\_

### Full Two Year Warranty

Your REVOLUTIONARY SCIENCE RS-IF-233 is warranted to be free from defects of material or workmanship under normal use for a period of two years from date of purchase. If your RS-IF-233 proves to be defective within this warranty period, Revolutionary Science will repair or replace your unit at our option. This warranty will be void if malfunction is caused by accident, misuse, or negligence, including tampering, abuse, or damage in transit. This warranty excludes any relief for incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights, you may also have other rights, which may vary from state to state. Your RS-IF-233 comes with several built in safety features. Any attempt to interfere with the operation of these features makes this warranty null and void.

To validate this warranty, be sure to complete and return the Warranty Registration Card, found on page 8.

## Incufridge Specifications

Model No.:	RS-IF-233Basic
Precision:	±0.7°C (at 21°C ambient)
Uniformity:	Internal temperature uniformity ±1.0°C (at 21°C ambient)
Display:	3 digits, 0.1°C resolution
Controller:	Digital microcomputer
Power Requirements:	100-240VAC, 50-60 Hz, 120 W, 12 VDC
Net Weight:	34 lb.
Outside Dimensions:	15" wide x 23" deep x 16.5" tall
Inside Dimensions:	12.25" wide x 16" deep x 10" tall
Capacity:	33L (1.2 cu. ft.)
Temperature Range:	Accurately holds from 7°C to 60°C (at 20°C ambient)
Warranty:	2 year, repair or replacement

## Contact Us

Mailing address:	Toll Free: (800) 775-7942
Revolutionary Science	Fax: (775) 218-7015
17319 Lake Blvd.	E-mail: <a href="mailto:support@revsci.com">support@revsci.com</a>
Shafer, MN 55074 USA	Web site: <a href="http://www.revsci.com">www.revsci.com</a>

## Care and Maintenance

Your Incufridge should be cleaned periodically to ensure optimal performance, cleanliness, and to eliminate contamination. Clean your REVOLUTIONARY SCIENCE RS-IF-233 only when it is not plugged in. Using a soft cloth soaked in water and bleach or mild detergent, wipe the inside and outside of the unit. Then let air dry or wipe with a dry cloth. Be careful not to scratch surfaces with abrasive cleaners or dirty cloths.

## User Calibration Instructions

Note: To set temperature, follow instructions on page 4.

### Setup:

Set desired temperature on Incufridge and insert calibrated thermocouple or thermometer closest to the geometric center of the chamber. Close door and check accuracy of temperature 1 to 2 hours later. If temperature is off by more than 0.5°C, record Incufridge display reading and thermometer reading and calibrate accordingly, following these three simple steps.

1. Press up and down buttons simultaneously. Display should read "CAL."
2. After "CAL" times out a new number will display. This is the calibration off-set number. Press up arrow if you desire to increase the temperature on the display reading or down arrow if you wish to decrease the temperature on the display.
3. Wait for three seconds for the display to return to the temperature reading.

NOTE: Incufridge will maintain adjusted calibration if it is turned off or restarted. Calibration may be adjusted anytime.

### Temperature Uniformity:

Geometric extremes (i.e. within an inch or two from the inside of the door, ceiling, fan, walls etc) may be less precise. For best results, it is recommended to place specimens and samples on the trays, and if possible, close to the geometric center.