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The Incufridge Professional

Instruction Manual

Revolutionary Science
Shafer, MN
USA



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	Incufridge may be in need	See calibration instructions
Display screen does not turn on	Power cord may be	Inspect all power supply
	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	Contact Revolutionary

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



Instruction Manual for the Revolutionary Science Incufridge Professional Line



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 Incufridge by Alternative Pioneering Research & Development, Inc. (APR&D, Inc.)

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REVOLUTIONARY SCIENCE

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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.

Warranty Registration Card for the 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 Incufridge:

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 15 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 Incufridge.
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 Incufridge 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 Incufridge in water.

Operating Instructions

PLACEMENT:

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

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.

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. After power is connected, flip power switch on side of unit to On position.



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 Incufridge 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 Incufridge 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 Incufridge 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 14.

Incufridge Professional Line Specifications

Precision: $\pm 0.7^{\circ}\text{C}$ (at 21°C ambient)
 Uniformity: Internal temperature uniformity $\pm 1.0^{\circ}\text{C}$ (at 21°C ambient)
 Display: 3 digits, 0.1°C resolution
 Controller: Digital microcomputer
 Temperature Range: Accurately holds from 4°C to 75°C (at 21°C ambient)
 Warranty: 2 year, repair or replacement

Model #	Chamber Capacity	Interior Dimensions Width x Depth x Height	Exterior Dimensions Width x Depth x Height	Power
RS-IF-233pro	1.2 cu.ft. (33L)	12.25in x 16in x 10in	15in x 23in x 16.5in	120-240VAC, 50-60 Hz, 120 W, 12 VDC
RS-IF-253pro	1.9 cu.ft. (53L)	12in x 16.5in x 16.5in	15in x 23in x 21.5in	120-240VAC, 50-60 Hz, 120 W
RS-IF-273pro	2.6 cu.ft. (73L)	12in x 16.5in x 22.5in	15in x 23in x 27.5in	120-240VAC, 50-60 Hz, 420 W

Contact Us

Mailing address: Toll Free: (800) 775-7942
 Revolutionary Science Fax: (775) 218-7015
 17319 Lake Blvd. E-mail: support@revsci.com
 Shafer, MN 55074 USA Web site: www.revsci.com

SET THE TEMPERATURE:

On the home screen of the display the actual chamber temperature is shown in large text, in the upper left corner and the set temperature is in the lower left corner. To increase chamber temperature, press and hold the up arrow button. To decrease chamber temperature, press and hold the down arrow button.



INTERNAL LIGHT:

On the home screen press the Light icon on right side under the arrow buttons to turn on and off the internal chamber light.

MENU SCREEN:

To display the Menu screen press the menu icon in the lower right side of the home screen. On the Menu screen the following options will appear



PROGRAM:

Press the program button from the menu screen.

Step Button: Step Select.

Press delete button to delete current selection

Press stop button to cancel the currently running program

D: Press D to select the number of days the program will run.

H: Press H to select the number of hours the program will run.

M: Press M to select the number of minutes the program will run.

S: Press S to select the number of seconds the program will run.

Set Temp: Set temperature the program will run.

Repeat: Set the number of times the program sequence will repeat.

No Wait: True-Time will count down immediately, False-Time will count down once set temp is reached.

Run: Run Current Selected Program.

Save: Save Current Selected Program.

UP/DOWN: Arrows to increase or decrease the setting.

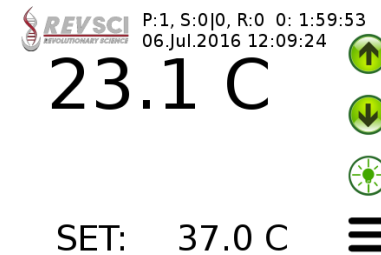
Back Button: To return to main screen.



MAIN SCREEN PROGRAM DISPLAY:

Current Running Program is Displayed:

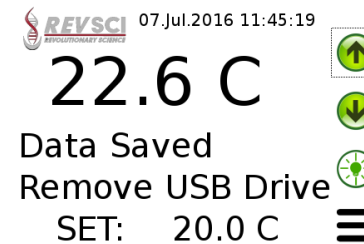
Program Number (P:x), Current Step of total Steps (S:x|x), Number of times Steps Repeat (R:x), Count down to step completion, days, hours, minutes, seconds.



MAIN SCREEN REMOVE USB:

When the USB is inserted, data is saved and transferred to the USB thumb drive, then the data is erased from Incufridge.

Data Saved and Remove USB: Is displayed when data is transferred to drive and it is safe to remove USB drive



Care and Maintenance

Your Incufridge should be cleaned periodically to ensure optimal performance, to promote cleanliness, and to eliminate contamination. Clean your REVOLUTIONARY SCIENCE Incufridge 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.

SET TIME:

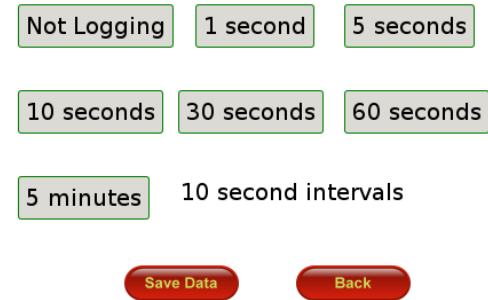
Time is normally synced to internet source, however, if no internet connection is available, one can set the time manually.
 Time Zone: To change time zone use UP/DOWN arrows to scroll through available choices. Note: Time Zone is defaulted to US Central Time.
 Select month, day, year: To set the appropriate setting.
 Select hour, minute, second: To set the appropriate setting.
 Press the set time button to save the settings. Note: Set time will not be updated until button is pressed.
 Back Button: To return to main screen.



DATA LOGGING:

Select data logging interval.

Not Logging: Press to turn off data logging feature.
 1 second: Log every sec.
 5 second: Log every 5 sec.
 10 seconds: Log every 10sec.
 30 seconds: Log every 30sec.
 60 seconds: Log every min.
 5 minutes: Log every 5 min., most efficient memory storage.
 Save Data button: Will immediately save cached data to internal storage. Note: Data is stored in a cache in memory until cache is full, then it is written to internal storage.
 When turning machine off, press Save Data button to ensure no data is lost.
 Back Button: To return to main screen.



THE CALIBRATE SCREEN:

Displays the current calibrated temperature with offset.
 Press UP/DOWN arrows to increase/decrease the offset. Calibration offset and calibrated temp will reflect any change.
 Back Button: To return to main screen.

22.9 C 
 Offset: 0.0 C 

Back

ABOUT:

Displays Incufridge Pro:
 When connected to the internet, the display will show the IP and website address.
 Press Update button to get latest firmware updates from Revolutionary Science. Then restart the Incufridge for updates to take effect.
 Back Button: To return to main screen.

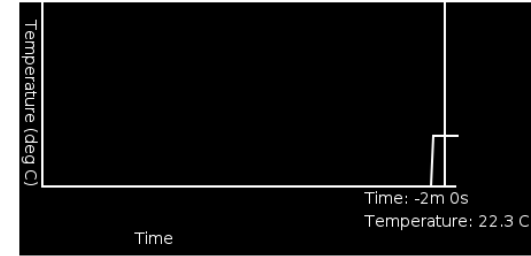
Incufridge Pro 1.0
 Revolutionary Science
 www.revsci.com

Update

Back

GRAPH:

The Incufridge Pro graphs temperature vs time lapsed.
 Press graph to show (time, temperature) coordinate.
 Time is counted backwards from current time.
 Back Button: To return to main screen.



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WIFI CONFIGURATION:

Select SSID
 WIFI: *Type in Wi-Fi Key.
 DATA URL: *Type in URL website to access the data log remotely.
 API Key: *Type in API Key associated with data logging site.
 Device ID: *Type in Device ID associated with data logging site, if any.
 Connect: Press Connect to WIFI or save changes in data logging URL
 Back Button: To return to main screen.

WIFI **SSID1**
 DATA URL **SSID2**
 API Key **SSID3**
 Device ID **SSID4**

Connect **Back**

Esc	`	1	2	3	4	5	6	7	8	9	0	- =	Del
	q w	e r	t y	u i	o p	{ }	\	Home					
	Caps	a s	d f	g h	j k	l ;	'	←	PgUp				
	Shift	z x	c v	b n	m	, .	/	Shift	PgDn				
R	Ctrl	Alt						@	↑	↓	←	→	⋮

*A USB keyboard may also be used to type in information. If using the onscreen keyboard a stylus should be used.