Instructions For Use
IntelliCold® Breast Milk Refrigerator
RLBM0224/0524/1024/1524

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CAUTION!
Please read the following instructions carefully before using the device.
Follow the directions for installing and using the device.

CAUTION!
Ensure these instructions are kept in a safe location and are easily accessible to user of the instrument.

This equipment is designed to be safe at least under the following conditions (based upon EN 61010-1):

- Indoor use
- Altitude up to 2000 m
- Ambient temperature 5°C to 40°C
- Maximum relative humidity 80% for temperature up to 31°C decreasing linearly to 50% relative humidity at 40°C
- Mains supply voltage fluctuations up to ±10% of the nominal voltage
- Transient overvoltages up to the levels of overvoltage category II
- Temporary overvoltages occurring on the mains supply
- Intended environment of Pollution degree 2.

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Every effort was made to avoid mistakes in the text and illustrations. Should any errors come to light, Labcold Ltd accepts no liability for them.

The pictures and screenshots contained in this manual may deviate from the actual product.

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1 GENERAL INFORMATION

1.1 Introduction

Thank you for purchasing a Labcold IntelliCold® Breast Milk Refrigerator. Your fridge has been purposely designed and precision built for the safe storage of expressed breast milk (EBM), between the temperatures of 0˚C and 5˚C, at a set point of 3˚C.

You have opted for a high-quality product that will give you many years of reliable service.

Within these instructions you will find all the information needed to use your IntelliCold® Breast Milk Refrigerator, please read them carefully before using the product and follow them for safe operation.

This product is supplied subject to Labcold Ltd's Terms & Conditions of Sale. These govern warranty, servicing, and limitations of liability. For full details, please visit https://labcold.com/terms-and-conditions or request a printed copy from our Customer Service team.

Please keep these instructions in a safe place so that they can be referred to as required.

1.2 Serial Number Record

Your IntelliCold® Breast Milk Refrigerator serial number is located on the ratings label inside the chamber (see Figure 3). Please record it here for future reference:

Serial Number	

(Required for warranty claims and service support)

1.3 Available Models

These instructions relate to the following Labcold-manufactured models of refrigerator:

Model Designation	Model Type	Size Code	Volume (litres) Gross/Net
RLBM0224	Solid Door	02	66/47
RLBM0524	Solid Door	05	150/125
RLBM1024	Solid Door	10	342/318
RLBMF1524	Solid Door	15	439/419

1.4 Intended Use

The IntelliCold® Breast Milk Refrigerator is designed for the safe storage and cooling of expressed human breast milk in maternity, neonatal, paediatric and milk-bank environments.
Freshly expressed milk may be placed into the refrigerator while still warm, as this is normal clinical practice. When warm milk is loaded, the air temperature in the refrigerator may rise temporarily, and high-temperature alarms may activate until the milk has cooled.
Only breast milk should be stored in this appliance. Storing other materials or modifying the product may impair performance and will invalidate the warranty.

The refrigerators use a compression cooling system and include a purpose-built electronic controller that monitors and logs temperatures, door openings, power interruptions, and min/max values. These records can be accessed via Bluetooth using the Labcold Connect App (see sections 8.1.8, 8.1.9 & 8.1.10) for convenient compliance and quality assurance.

1.5 Scope of Supply

The following items are supplied;

- IntelliCold® Breast Milk Refrigerator
- Shelves (quantity and type are model-specific (see section 13.5 for details)
- Shelf Clips (for relevant models only, 4 per shelf plus 2 spare)
- Quick Start Guide (includes QR-Code link to these Instructions For Use).
- 1 x Labcold Penguin (stress reliever)

The Labcold Penguin stress reliever is not a toy. It is a branded promotional item intended for adults only. Keep out of reach of children. Small parts or pieces may detach if bitten or torn, posing a choking hazard. Do not allow children or pets to play with or chew this item.

1.6 Declaration of Conformity

A full Declaration of Conformity for the IntelliCold® Breast Milk Refrigerator range is maintained by Labcold Ltd. This document confirms compliance with all applicable UK legislation and standards relevant to the product.

To access the Declaration of Conformity, scan the QR code below using your mobile device's camera, or click/tap the QR code if viewing this manual electronically.

2 WARNINGS AND PRECAUTIONS

It is essential that you comply with these instructions for use, they contain important safety information essential to the safe operation of the product. The following symbols are used throughout these instructions to warn of potential hazards or to provide procedural clarification.

	Warning! Indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death.
	Caution! Risk of Electrocution. Indicates a potentially hazardous electrical situation which, if not avoided, may result in serious injury or damage to the device and associated property.
	Caution! Indicates the presence of flammable components (refrigerants). Special care should be taken when working on these components, failure to do so may result in minor or moderate injury or damage to the device and associated property.
	Caution! Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or damage to the device and associated property.
	Caution! Tipping Hazard. Indicates a potentially hazardous situation which, if not avoided, may result in serious injury or damage to the device and associated property.
	Caution! Danger: Risk of Slipping. Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or damage to the device and associated property.
	Caution! Indicates a potentially hot surface which, if not avoided, may result in minor or moderate injury or damage to the device and associated property.
	Note Indicates important advice not related to physical injury.

2.1 General Device Safety

Use the device only as specified by Labcold Ltd and as described in this manual. If the operator does not follow the instructions given in this manual, or if the operator uses the product for anything other than the intended purpose, the protection afforded by this equipment may be impaired. In this instance, Labcold Ltd accepts no responsibility for injury to personnel, damage to the equipment, damage to the contents stored therein, or damage to other proximate equipment.

Ensure that personnel operating the device have received instructions on general safety practices and specific safety practices for the device.

Do not operate the device in a potentially explosive environment.

Servicing and repairs must be carried out by a suitably qualified engineer.
Only engineers who have been trained in the safe handling and use of hydrocarbon refrigerants can work on the refrigeration system.

Do not store explosive substances such as aerosol cans with flammable propellant in this device.

Do not place hands or fingers into the IntelliCold® Breast Milk Refrigerator when the door is being opened or closed. Pinching hazard!

Do not place hands or fingers near the hinge side of the IntelliCold® Breast Milk Refrigerator door when the door is being opened or closed. Pinching hazard!

Do not use the device near strong electromagnetic fields.

This refrigerator contains gas under pressure which may explode if heated.

The refrigerator MUST NOT be located in a room or area with a volume less than $10m^3$.

If you suspect a refrigerant leak, contact the manufacturer or its service agents immediately.

Do not touch the refrigerant, it can cause severe eye irritation, redness, tearing, blurred vision, and possible freeze burns. Contact with evaporating liquid may cause frostbite or freezing of the skin.

2.2 Electrical Safety

Do not use device outdoors. Risk of current leakage or electric shock!

Improper fuses or line voltage supply can damage the device wiring system and can cause a fire. Before turning on the device, verify that all fuses are installed properly and that the device voltage matches your power supply.

Grounding circuit continuity is crucial for safe operation of the device. Always connect equipment to a correctly grounded power outlet. If in doubt have the outlet checked by a qualified electrician. Do not use an adapter to a two-terminal outlet since this does not provide positive ground protection.

Any connected devices/signal equipment must be provided with reinforced or double insulation for protection against electric shock.

Do not remove covers that require tool access. Electric shock hazard!

Do not use electrical appliances inside the refrigerator.

Do not touch any switches or outlets with wet hands. Electric shock hazard!

Do not use the device if the power cable is damaged.

Replace all fuses with exactly the same type and rating.

Only use the mains supply cord supplied or one of an equivalent rating.

For cleaning or repair work on the device, it must be disconnected from the mains power supply. In order to avoid an electric shock, disconnect the power supply, unplug the power cable, and wait at least one minute before working on the device.

In case of an emergency switch off the device at the on-off switch at the mains supply or spur isolator switch.

If a large quantity of water accumulates in the device, disconnect it from the power supply and immediately mop up spilled liquid completely. If you suspect that fluid has entered the mechanisms or electronics of the device, please refer to your local Labcold representative.

3 INTELLICOLD® BREAST MILK REFRIGERATOR LAYOUT

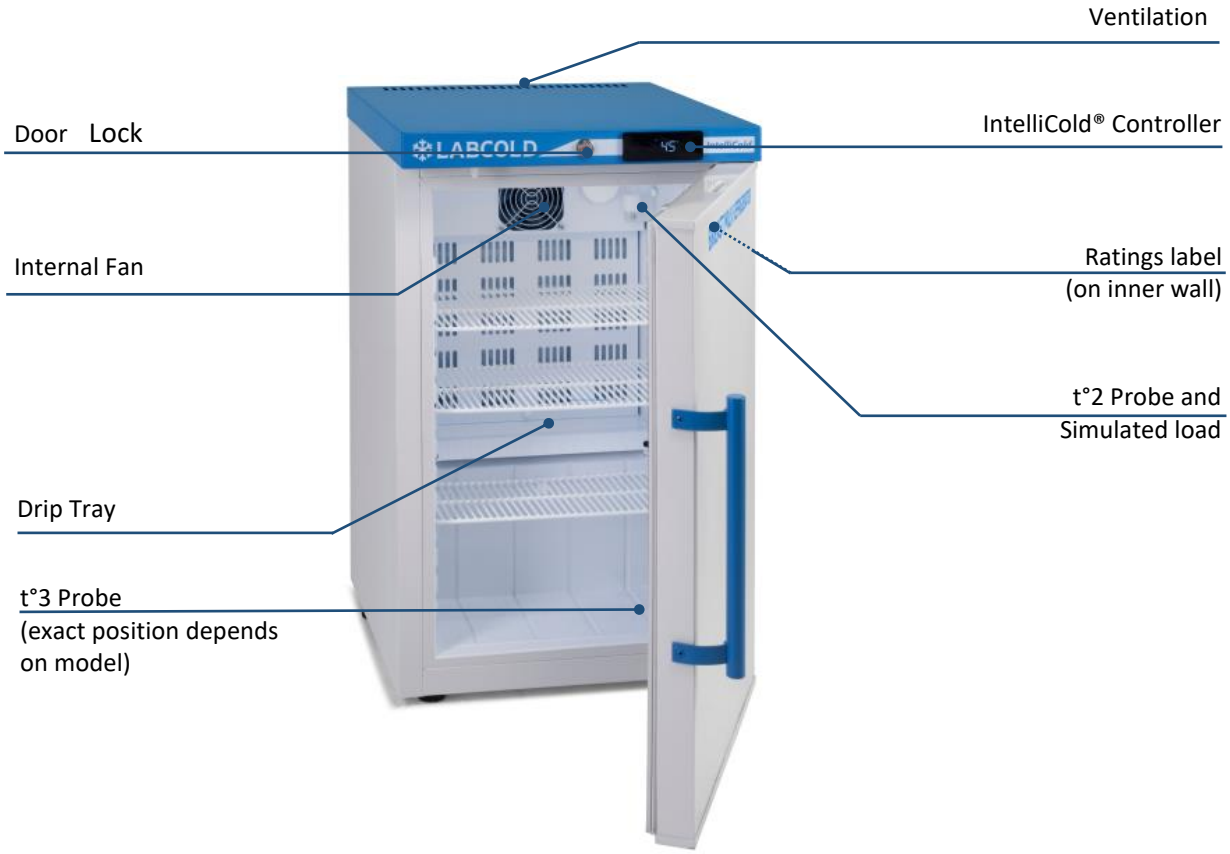


Figure 1: Front view of IntelliCold® Breast Milk Refrigerator (pictured RLBM0224)

Figure 2: Rear view of IntelliCold® Breast Milk Refrigerator (pictured: RLBM0224)

3.1 Labels on the Device

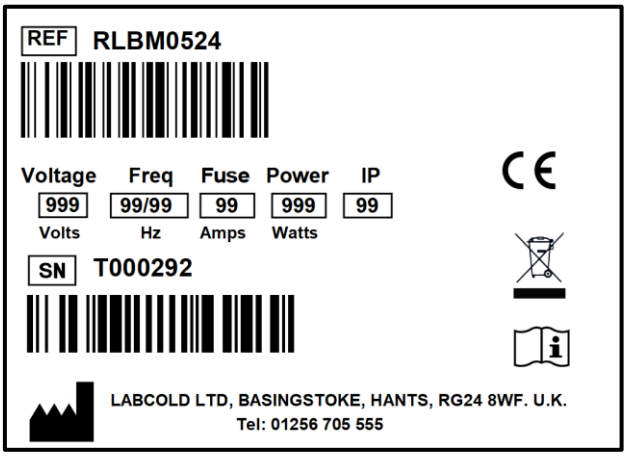


Figure 3: Ratings Label (found on the inside of the chamber)

Symbols found on IntelliCold® Breast Milk Refrigerator Ratings Label

CE	CE Mark. Indicates compliance with EU safety, health, and environmental protection requirements.
	Do not dispose of with normal domestic waste
	Consult Instructions For Use
SN	Serial Number
	Manufacturer

Further symbols used on the IntelliCold® Breast Milk Refrigerator and throughout this document:

	Protective conductive terminal connection point.
R600a	Indicates the presence of flammable refrigerant. Symbol is accompanied by indication of refrigerant type (i.e. R600a)
	Flammable refrigerant gas warning label

4 HANDLING AND POSITIONING

The IntelliCold® Breast Milk Refrigerator must be handled and positioned by the customer or by personnel appointed by the customer. The safety of any system incorporating this equipment is the responsibility of the assembler of the system.

In case you want to install, relocate, or lift the device seek assistance of others and use appropriate moving equipment. Use proper lifting techniques.

4.1 Unpacking

- Inspect the packaging for any signs of transport damage. Report any damage immediately.
- Ensure all items are present (see section 1.5).
- Lift the device using appropriate assistance or lifting equipment to avoid injury.
- Remove all packaging and dispose of it responsibly.
- Confirm electrical rating on the rating label matches your supply. The label is located inside the door on the right-hand side.

4.2 Location

- Place the IntelliCold® Breast Milk Refrigerator on a solid, sturdy, even surface. Adjust levelling feet if necessary. (See section 8.5)
- Do not mount on a flammable surface.
- Apply brakes to castors if fitted.
- Ensure that the socket and its switch is easily accessible.
- Ensure sufficient space on the sides, behind, and above the device to ensure that adequate ventilation is provided. Clearances of at least 6 cm in all cases must be observed.
- Ensure that specified environmental conditions are met (See section 13.5)

Do not obstruct ventilation openings**.** Risk of fire!

Ensure location is free from flammable or corrosive gases. Risk of explosion/fire!

Do not place the device in areas where it may be exposed to strong vibrations or harsh sunlight; this may impair performance.

Do not place the device near to sources of heat (e.g. radiators, steam pipes, autoclaves or ovens); this may impair performance.

Do not place the device directly under air conditioning units or ceiling fans; this may impair performance.

Protect the device from dust, harsh solvents, and acidic vapours.

4.3 Connecting to the Mains Supply

– Plug the IntelliCold® Breast Milk Refrigerator into the mains supply (or switch on the fused spur if wired into a secure supply), but do not switch it on at this stage**.**

This device must only be connected to a mains supply with a protective earth. Risk of electric shock!

The refrigerator must remain switched off until all installation steps are complete and the device has been upright for at least 6 hours. Switching on too early may cause compressor damage and impair performance.

4.3.1 Plug Connection (Standard Installation)

The IntelliCold® Breast Milk Refrigerator supplied with a factory-fitted power cord and plug.

– Connect the plug to an easily accessible socket outlet.
– Ensure the socket includes a switch to allow isolation of the device from the mains supply.

4.3.2 Permanent Connection (Optional Installation)

If the device is to be hard-wired into the building supply, the installation shall include a disconnecting device (such as a switch or circuit breaker) in the fixed wiring. The disconnecting device shall:

– Comply with relevant standards for isolation and switching (e.g., BS EN 60947-3)
– Provide all-pole disconnection and be rated for the device's supply voltage and current (see section 13.5).
– Be easily accessible and located near the device.

Overcurrent protection shall be provided by a suitable protective device in accordance with local regulations.

5 INITIAL SETUP / ASSEMBLY

– Fit door handle (see section 8.2)
– Install Backup batteries (see section 8.3)
– Install shelves (see section 8.11**Error! Reference source not found.**)
– Connect external alarm system, if applicable (see section 10.1)

6 SWITCH ON

– Switch on the IntelliCold® Breast Milk Refrigerator using the socket outlet switch (or fused spur if hard-wired).
– After a brief period, the IntelliCold® Breast Milk Refrigerator will begin cooling, and the IntelliCold® Controller will display the current temperature as it decreases toward the operating setpoint.

6.1 Initial Start-Up Behaviour

– When first switched on, all icons and buttons will illuminate. Because the refrigerator interior has not yet reached operating temperature, the controller will alarm; the alarm will sound, and the display will show the red alarm indicator.

– After a few seconds, the controller will start alternating between the current temperatures, either t°1 (air probe) or t°2 (load probe) and active temperature-high alarm screens, (example below shows screens for t°1)

– Press to  temporarily silence the audible alarm.

– The alarm will recall and resound periodically until the refrigerator has reached set temperature, this is quite normal; just wake the controller (see section 8.1.2) and repeat the mute process if required.

Although the refrigerator will reach 3 °C within approximately one hour, allow it to stabilise for 24 hours before loading temperature-sensitive product.

7 GENERAL USE

Once stabilised at its set temperature you can begin using your IntelliCold® Breast Milk Refrigerator. When loading it is important that the following guidelines are followed;

Only store expressed human breast milk in this appliance. It is not designed for food, pharmaceuticals, or general storage

Store milk in sealed, clean containers approved for clinical use.

Only store items on the shelves provided. Ensure that stored items do not touch each other, as this can restrict airflow and may lead to ice formation

Do not allow stored items to touch the door, wall or the bottom of the fridge. Contact with surfaces can block airflow and cause uneven cooling or freezing, risking product damage and temperature excursions.

Do not block airflow to the internal fan. Blocking the fan will disrupt air circulation, causing temperature instability.

Always distribute stock evenly throughout the device. Even distribution prevents hot/cold spots and maintains uniform temperature

Keep frequency and duration of door openings to a minimum to minimise temperature fluctuation and condensation build-up. Frequent openings let warm air in, causing temperature swings and moisture build-up.

The device's Air Temperature will rise quickly when the door is opened. This is normal, the temperature will recover after a brief period once the door is closed.

Please refer to section 19 for authoritative guidance on breast milk storage and handling.

7.1 Repacking the Refrigerator

In the event that the IntelliCold® Breast Milk Refrigerator needs to be returned to Labcold the customer must carry out the following preparation steps:

- Switch off the device and disconnect from its mains supply.
- Disconnect any wiring to the External Alarm Connector at its rear (see section 10.1).
- Remove the 4 x AA batteries.
- Clean the device carefully and decontaminate (see section 11).
- When lifting, always follow applicable health and safety regulations.

Any deviation from these instructions may cause severe damage to the device. Warranty cannot be claimed for damage due to inappropriate packaging.

Labcold will arrange collection using our approved specialist transport provider. The collection team will professionally pack, secure and transport the device using the correct materials and methods to ensure safe return to Labcold.

7.2 Moving the Refrigerator

- When lifting, always follow applicable health and safety regulations.
- If the device is to be relocated, it is important to follow the procedures outlined in the above paragraphs.
- Disconnect the device from its mains supply.
- Disconnect any wiring to the External Alarm Connector at its rear (see section 10.1).
- If the device is to be transported over longer distances, it must be prepared as described in section 7.1.
- A qualified person should be assigned to supervise the safe movement and relocation of the device.

Do not move the device with its door open - risk of toppling over / risk of damage to door hinges.

Empty the device fully before moving - risk of shifting load / toppling over.

Risk of slippage. Ensure device is fully dry before moving.

8 OPERATING ELEMENTS

8.1 The IntelliCold® Controller

8.1.1 Overview

The IntelliCold® Controller, located on the front of your IntelliCold® Breast Milk Refrigerator , has been specifically designed by Labcold to ensure the safe storage of temperature-sensitive breast milk. This advanced touchscreen controller displays the temperature measured by two probes:

- Fixed Probe (t°1): Located at the back of the refrigerator to monitor air temperature.
- Movable Load Probe: (t°2): Can be positioned by you, for example inside a product pack, to monitor load temperature.

In addition, the refrigerator includes a third probe:

- Low Limit Detection Probe (t°3): Permanently located at the bottom of the chamber to help prevent contents from freezing. This probe does not display on the controller screen, but it continuously monitors for low temperatures. If it detects an air temperature below 2°C, the controller will:
  - Trigger an alarm
  - Display t3L on the screen
  - Temporarily stop the compressor to allow the temperature to recover

This feature protects against freezing in situations such as fan failure, where cold air may settle at the bottom while the t°1 probe still reads a safe temperature.

If t3L appears on the display, the anti-freeze countermeasure has activated and your samples remain safe. However, this alarm indicates a fault condition that requires attention. Contact the Labcold Service Team (see section 18) immediately for advice and to arrange inspection or repair. Do not ignore this alarm, even if the temperature appears normal.

8.1.2 Waking the Controller

Unlike traditional controllers with physical buttons, the IntelliCold® Controller uses capacitive touch technology, similar to a smartphone or tablet. When you place your hand near the screen the controller will wake, the icons and controls will appear, allowing you to access various functions.

Like a mobile phone screen, the touch interface may not respond if you are wearing gloves.

30 seconds after waking the controller the icons/buttons will disappear from the front of the controller, and it will return to normal running mode; displaying temperature alternately with any active alarms.

Terminology in this manual:

- Press means touch the icon or button as you would an app on your phone.
- Press and hold means keep your finger on the icon or button until the controller confirms the action. (The controller emits an audible tone to confirm that your input has been registered).

8.1.3 Controller Screen Layout

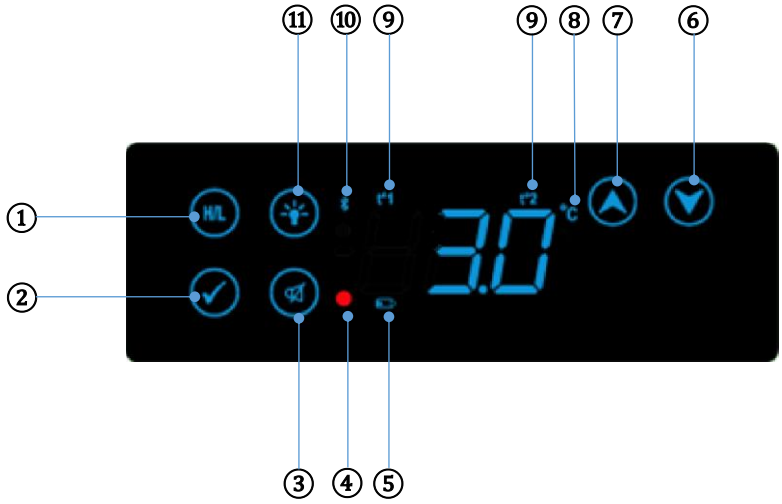


Figure 4: IntelliCold® Controller Screen

①	High/Low	Press to view recorded minimum/maximum temperatures
②	Tick	Press to select a menu option. Hold to confirm an adjustment. Long press to enable Bluetooth.
③	Mute	Press to mute alarms, cancel an adjustment, or return to the previous menu.
④	Alarm Indicator	Red light illuminates when the refrigerator is in an alarm state. Remains lit as long as alarm conditions persist, even if muted.
⑤	Battery Status Indicator	Indicates battery alarm state for backup power.
⑥	Down Arrow Key	Scroll down through menu options. Press and hold together with the Up Arrow Key to access the main menu.
⑦	Up Arrow Key	Scroll up through menu options. Press and hold together with the Down Arrow Key to access the main menu.
⑧	Temperature Scale	Indicates the unit of measurement (°C / °F).
⑨	t°1 and t°2	Shows which probe the displayed temperature relates to.
⑩	Bluetooth Active	Icon appears when Bluetooth is enabled.
⑪	Light	Press to switch the internal light on. Press and hold to quick access the light settings menu.

8.1.4 Alarm Conditions

t1H - Displayed when probe t°1 detects air temperature above 5 °C. An audible alarm will sound when this message appears.

⚠ High temperatures can compromise stored items and must be investigated immediately.

t1L - Displayed when probe t°1 detects air temperature below 0 °C. An audible alarm will sound when this message appears.

⚠ Low temperatures can damage contents and should be addressed promptly.

t2H - Displayed when probe t°2 detects load temperature above 5 °C. An audible alarm will sound when this message appears.

⚠ High temperatures can compromise stored items and must be investigated immediately.

t2L - Displayed when probe t°2 detects load temperature below 0 °C. An audible alarm will sound when this message appears.

⚠ Low temperatures can damage contents and should be addressed promptly.

t3L - Displayed when probe t°3 (bottom chamber) detects temperature below 0 °C. This indicates a risk of freezing, which may damage stored breast milk. An audible alarm will sound when this message appears.

The IntelliCold® Controller has temporarily stopped the compressor to allow the temperature to recover (see section 8.1.1).

⚠ Low temperatures can damage contents and should be addressed promptly. Contact Labcold Service (See section 18).

d-o - Displayed if the door remains open for more than 90 seconds. The alarm will sound and does not cancel automatically when the door is closed.

To clear the alarm, press  .

The red light will turn off when cancelled.

L-b - Indicates that the controller has detected low battery power. This alarm only activates if batteries are installed and battery monitoring is enabled. See section 8.3 for battery installation instructions. An audible alarm will sound when this message appears.

n-b - Displayed when no batteries are installed but battery monitoring is enabled, for example, when first powering the refrigerator without batteries. An audible alarm will sound when this message appears. If you do not intend to use batteries, disable this alarm (see section 8.1.7).

n-P - Displayed when mains power is lost and batteries are installed. An audible alarm will sound when this message appears.

If batteries are present during a power failure, the controller enters hibernation mode after the n-P alarm, indicated by a red dot. This conserves battery power so the controller can continue logging temperature data throughout the outage.

8.1.5 Acknowledging / Muting an Alarm

To mute the alarm, wake the controller and press  .

Any active alarms will then be muted and the alarm will stop sounding.

Muting an alarm will not cancel it, should the alarm condition remain uncorrected the alarm will sound again after the alarm timeout period (default: 15 minutes). To change the interval between muting and the alarm sounding again please see section 8.1.7**.**

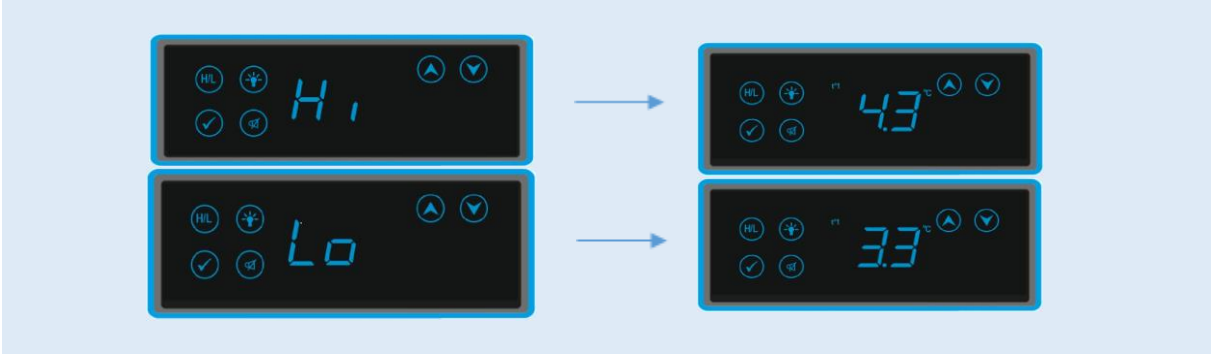
8.1.6 Max / Min Temperatures

8.1.6.1 Checking the Max / Min Temperatures

To view the recorded minimum and maximum temperatures:

1. Wake the controller
2. Press H/L
3. The display will cycle through the following sequence for t°1
   - Hi = (indicating the maximum recorded temperature is about to be displayed)
   - The maximum recorded temperature (e.g. 4.3°C)
   - Lo = (indicating the minimum recorded temperature is about to be displayed)
   - The minimum recorded temperature (e.g. 3.3°C)
4. After completing the cycle for t°1, the display will repeat the same sequence for Probe t°2.
5. When both probes have been shown, the controller returns to displaying current temperatures.

The screen will indicate which probe the values relate to by showing t°1 or t°2 above the temperature reading.



8.1.6.2 Resetting the Max / Min Temperatures

After recording the minimum and maximum temperatures, you can reset the values as follows:

1. Wake the controller

2. Press and hold H/L until CFΠ (Confirm) flashes on the display.

If you do not want to reset the temperatures, simply press to return to the normal display.

3. Press and hold ✓ until the screen returns to the normal temperature display.
4. The minimum and maximum values for both t°1 and t°2 probes will now be reset.

8.1.7 Accessing the Settings Menu

To open the settings menu, wake the controller and press and hold both for ▲ ▼ at least 2 seconds.

8.1.7.1 Viewing / Editing the Settings

1. Use ▲ and ▼ to scroll between the various settings of the menu.
2. Press ✓ to view/edit a setting, and adjust its value using the ▲ and ▼ keys if necessary.
3. To return to the normal display, press 🔇 or wait for 30 seconds.

The following settings are available;

SEt – Displays the refrigerator's set temperature.

Default: 3.0 °C

The set point is factory-set to 3 °C and can only be changed by a Labcold engineer. To request a change, contact Labcold Service (see section 18)

Sft - Displays the software version.

This cannot be changed. It may be requested by Labcold if you contact us about an issue.

C F - Changes the temperature scale between Celsius and Fahrenheit.

Default C (options: C , F)

Ato - Sets the alarm timeout — the interval between muting an alarm and it sounding again.

Default: 15 minutes (Range: 5–30 minutes)

Lt - Controls the internal light.

Default: Aut (on when door opens, off when closed)
Other options: on (always on), oFF (always off)

bAt – Turns the battery alarm on or off.

Default: on (Options: on, oFF)

t2 – Enables or disables the simulated load probe t°2.

Default: on (Options: on, oFF)

t3 – Enables or disables the low-level detection probe t°3.

Default: on (Options: on, oFF)

Lnt – Displays factory-set alarm limits.

Default:
t°1 Hi: 8.0 °C | t°1 Lo: 2.0 °C
t°2 Hi: 8.0 °C | t°2 Lo: 2.0 °C

8.1.8 Data Logging

The IntelliCold® Controller automatically logs temperature, door status, and alarm condition data.

You can access these data logs via Bluetooth using the Labcold Connect App for Android devices, which can be downloaded via the Labcold website.

8.1.8.1 Mobile device compatibility and System Requirements

The Labcold Connect App is designed for Android devices only. Minimum requirements:

- Operating System: Android 14 or later
- Internet Access: Required to download the app
- Storage: At least 50 MB free space
- Bluetooth enabled.

8.1.8.2 Download and Install the “Labcold Connect” App

To request access to the Labcold Connect App for Android devices, please complete the online request form. To access the form, scan the QR code below using your mobile device’s camera, or click/tap the QR code if viewing this manual electronically.

Once the form is submitted, you will receive a confirmation email containing your secure download link and further installation instructions.

Only download the app from the official Labcold website to ensure security and integrity

Installation Overview

1. Download the App File:
   - After completing the online form, follow the link provided in the confirmation email to download the official Labcold Connect .apk file.

2. Allow Installation from Unknown Sources:
   - Open your device Settings.
   - Navigate to Security or Privacy.
   - Enable Install unknown apps or Allow from this source for your browser or file manager.

3. Install the App:
   - Locate the downloaded .apk file (usually in your Downloads folder).
   - Tap the file and confirm installation.

4. Enable Bluetooth:
   - Turn on Bluetooth on your mobile device before pairing.

8.1.8.3 Deployment on Managed Mobile Devices

The Labcold Connect App is designed for installation on compatible mobile devices and does not require network connectivity or integration with IT systems for normal operation.

Installation on managed devices is subject to local IT policies, security controls, and approval processes. These vary between organisations and are outside the control of the manufacturer.

The application:
- Operates via local Bluetooth connection to the refrigerator
- Does not require user login credentials
- Does not transmit patient-identifiable data
- Stores data locally on the mobile device unless explicitly exported by the user

It is the responsibility of the deploying organisation to determine suitability for use on managed devices in accordance with local IT and information governance policies.

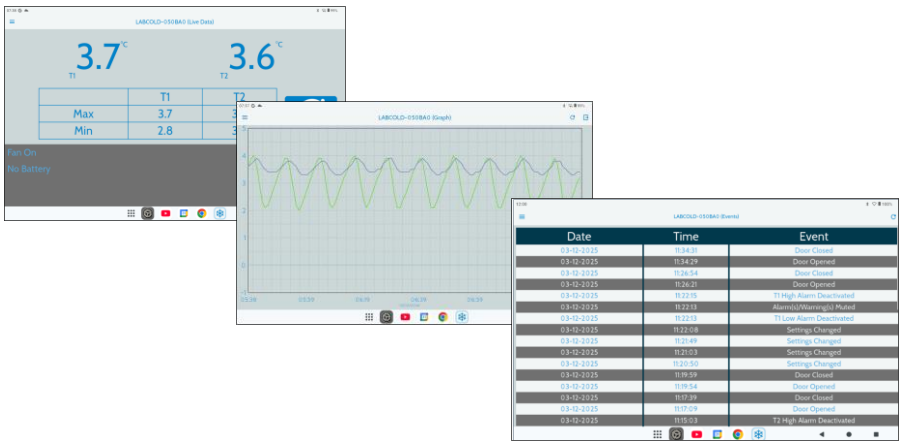
8.1.8.4 Connecting to your Labcold IntelliCold® Controller for the First Time

1. Power up the Controller: Ensure that the controller / refrigerator is on
2. Enable Bluetooth mode: Press and  hold until a beep is heard (the Bluetooth symbol will appear).
3. Open the App: Move the mobile device near the controller (max distance 10m) and launch the Labcold Connect App on your device.
4. Connect to the Controller: Use the app to search for available Labcold devices (LABCOLD-XXXXX) and select your Labcold controller / refrigerator to pair.
5. Pairing using the Labcold Connect App: Follow the notifications to enter the 6-digit PIN code displayed by the Controller (The first 3-digits are noted as t°1 and the second 3-digits as t°2)
6. Enter the fridge's serial number: Enter the fridge's serial number (located on the serial plate affixed to the right-hand side of the inner chamber) into the app. This can be scanned-in using the camera of your mobile device or entered manually.

The option to skip this step is provided, if skipped only Live data is viewable until the serial number is entered.

8.1.9 Viewing Live Data and Log File Data

Once connected, you can view the IntelliCold® Breast Milk Refrigerator settings, monitor real-time data, view historical data, investigate alarms and events, and export data, all using the app.



The IntelliCold® Controller will store logged data for 12 months, but we recommend that you download the data once a week, especially as the more data there is to download, the longer it takes.

8.1.10 Viewing Exported Data

The csv file provides a summary of all the IntelliCold® Breast Milk Refrigerator details and settings together with a table of temperature readings against time, and fridge operation data such as whether the door was open etc and the time it happened.

Controller Name	LABCOLD-020D40	Serial Number	24803002 4000216																	
Generation Date	16/08/2025																			
Fridge Type	Light Mode	T2 Enabled	T3 Enabled	Battery Alarm Enabled	LLD Enabled	Temperature Units	Alarm Timeout Minutes	Setpoint	T1 Offset	T2 Offset	T3 Offset	T1 Low Alarm	T1 High Alarm	T2 Low Alarm	T2 High Alarm	T3 Low Limit	T3 High Alarm	Hysteresis	Compressor Rest Seconds	
01-5	AUTO	On	On	On	On	C	5	5	0.1	0.2	0	3	8	3	8	3	8	2.5	300	
Log Type	DateTime	T1 Value	T2 Value	T3 Value	T2 Enabled	T3 Enabled	Compressor Event	Light Event	Real Time Event											
RealTimeEvent	01/01/2010 12:00	5.2	4.1	5.8	N/A	N/A	N/A	N/A	[40]											
Minute	01/01/2010 12:00	5.2	4.1	5.8	On	On	--	--	[00]											
Minute	01/01/2010 12:01	5.2	4.3	5.8	On	On	--	--	N/A											
DateTimeChange	01/01/2010 12:01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A											
DateTimeChange	13/08/2024 13:01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A											
Minute	13/08/2024 13:02	5.3	4.8	5.8	On	On	--	--	[01]											
RealTimeEvent	13/08/2024 13:02	5.3	4.9	5.9	On	On	--	--	N/A											
RealTimeEvent	13/08/2024 13:02	5.3	4.9	5.9	On	On	--	--	N/A											
Minute	13/08/2024 13:03	5.4	5	6	On	On	--	--	N/A											
...																				
Minute	13/08/2024 13:07	4.4	4.2	5.8	On	On	--	--	N/A											
Minute	13/08/2024 13:08	4.3	3.9	5.6	On	On	--	--	[14]											
Minute	13/08/2024 13:09	4.6	4.2	5.7	On	On	--	--	N/A											
Minute	13/08/2024 13:10	4.9	4.5	5.7	On	On	--	--	N/A											
Minute	13/08/2024 13:11	5.2	4.9	5.9	On	On	--	--	[16]											
Minute	13/08/2024 13:12	5.6	5.3	6.1	On	On	On	--	N/A											
Minute	13/08/2024 13:13	5.6	5.4	6.2	On	On	--	--	N/A											
Minute	13/08/2024 13:14	5.1	4.9	6.1	On	On	--	--	N/A											
...																				
Minute	13/08/2024 13:24	4.3	4	5.7	On	On	--	--	N/A											
Minute	13/08/2024 13:25	4.5	4.1	5.6	On	On	--	--	[24]											
Minute	13/08/2024 13:26	4.8	4.4	5.7	On	On	--	--	N/A											
Minute	13/08/2024 13:27	5.1	4.8	5.8	On	On	--	--	[17]											
Minute	13/08/2024 13:28	5.5	5.2	6	On	On	On	--	N/A											
Minute	13/08/2024 13:29	5.7	5.4	6.2	On	On	--	--	[25]											
Minute	13/08/2024 13:30	5.4	5.2	6.1	On	On	--	--	N/A											
Minute	13/08/2024 13:31	4.7	4.6	5.9	On	On	Off	--	N/A											
Minute	13/08/2024 13:32	4.4	4	5.7	On	On	--	--	[26]											
Minute	13/08/2024 13:33	4.4	4	5.7	On	On	--	--	N/A											
Minute	13/08/2024 13:34	4.8	4.4	5.7	On	On	--	--	[25]											
Minute	13/08/2024 13:35	5.1	4.7	5.8	On	On	--	--	N/A											
Minute	13/08/2024 13:36	5.4	5.1	6	On	On	--	--	N/A											
Minute	13/08/2024 13:37	5.7	5.4	6.1	On	On	On	--	N/A											
Minute	13/08/2024 13:38	5.5	5.3	6.2	On	On	--	--	[27]											
Minute	13/08/2024 13:39	4.9	4.7	6	On	On	Off	--	N/A											
Minute	13/08/2024 13:40	4.4	4.1	5.7	On	On	--	--	N/A											
Minute	13/08/2024 13:41	4.4	4	5.6	On	On	--	--	[70]											
Minute	13/08/2024 13:42	4.6	4.2	5.7	On	On	--	--	[34]											
Minute	13/08/2024 13:43	5	4.6	5.8	On	On	--	--	N/A											
Minute	13/08/2024 13:44	5.3	5	5.9	On	On	--	--	[36]											
Minute	13/08/2024 13:45	5.6	5.4	6.1	On	On	On	--	N/A											
...																				
Minute	13/08/2024 13:48	4.6	4.4	5.9	On	On	Off	--	N/A											
Minute	13/08/2024 13:49	4.3	4	5.7	On	On	--	--	[35]											
Minute	13/08/2024 13:50	4.5	4.1	5.6	On	On	--	--	[52]											
Minute	13/08/2024 13:51	4.8	4.4	5.7	On	On	--	--	N/A											
Minute	13/08/2024 13:52	5.1	4.8	5.8	On	On	--	--	N/A											
Minute	13/08/2024 13:53	5.5	5.2	6	On	On	On	--	N/A											
Minute	13/08/2024 13:54	5.6	5.4	6.1	On	On	--	--	[37]											
Minute	13/08/2024 13:55	5.3	5.1	6.1	On	On	--	--	N/A											
...																				

8.2 Door Handle

Before using the IntelliCold® Breast Milk Refrigerator, fit the door handle as shown below. Correct installation ensures smooth operation and prevents damage.

Figure 5: Fitting the door handle (pictured: RLBM0224)

To fit the door handle:

1. Remove the two screws from the door: The IntelliCold® Breast Milk Refrigerator is supplied with two screws already fitted in the door. Unscrew them and keep them for attaching the handle.

Use a No. 2 Phillips screwdriver to avoid damaging the screw heads.

2. Check the handle orientation: Orientate the handles as shown above and align it so its holes match the holes on the door.
3. Position the handle: Align the handle so its holes match the holes on the door. Place the handle against the door so it sits flush and straight.
4. Attach the handle using the screws: Insert the two screws through the handle into the holes on the door. Tighten them securely with the No. 2 Phillips screwdriver.

Do not overtighten screws, as this may damage the door or handle.

5. Check the handle: Pull gently to confirm it is firmly attached. Ensure the door opens and closes smoothly.

Handle fitting instructions are also provided on the label affixed to the front of the unit for convenience.

8.3 Battery Backup

The battery backup is designed to maintain power to the IntelliCold® Controller if mains power is lost.

The batteries do not power the refrigeration system and will not keep the fridge cold if mains power is lost.

If you have opted for a digital lock model, the batteries also power the lock mechanism. Without them, the door cannot be opened during a power failure unless you have purchased the optional master key. (All digital lock models are supplied with batteries as standard for this reason).

To install the batteries:

1. Remove the battery compartment cover on the right-hand side of the IntelliCold® Breast Milk Refrigerator (see Figure 2).
2. Insert 4 x AA 1.5 V long-life alkaline batteries, ensuring the correct orientation as indicated inside the compartment (+/-).
3. Replace the cover securely.

Figure 6: The battery compartment

Use only alkaline batteries. Do not use rechargeable batteries.

Do not mix old and new batteries.

Ensure batteries are inserted according to the polarity markings (+/-).

Remove the batteries if the refrigerator will not be used for an extended period.

8.4 Door Lock

Your IntelliCold® Breast Milk Refrigerator is supplied as standard with a key-operated door lock (see Figure 1) and two keys, unless a digital lock has been specified.

- To Lock: Insert the key gently and turn 90° to the left.
- To Unlock: Turn 90° to the right.

The key can be removed in both the locked and unlocked positions.

Do not leave the key in the lock. It protrudes from the door and may present a health and safety hazard or be accidentally knocked, which could damage the lock.

If you have opted for a Digital Door Lock please see Appendix B for operation.

8.5 Positioning and Levelling your Refrigerator

To ensure proper door alignment, stability, and optimal performance, your IntelliCold® Breast Milk Refrigerator must be level.

8.5.1 Compact Models

1. Place the refrigerator in its final position.
2. Use a spirit level on the top surface to check if the unit is level from side to side and front to back.
3. Adjust the front levelling feet:
   - Turn clockwise to raise the fridge.
   - Turn counterclockwise to lower the fridge.

Figure 7: Adjusting a levelling foot

4. Re-check with the spirit level and repeat adjustments until level.

If the floor is uneven, you may need to adjust both front and rear feet to achieve stability.

8.5.2 Larger Models

These units have four rollers and two front levelling feet.

On some models the levelling feet are supplied separately in a bag. If so, fit the feet into the threaded holes on the front underside of the unit before adjusting. Tilt the unit only slightly and only as much as required to access the threaded holes.

When fitting the levelling feet have a second person support the unit. Do not attempt to fit the feet while the unit is unsupported

- For roller models adjust the two front levelling feet as above to stabilise and level the unit.

8.6 Internal Fan

The air within the refrigerated chamber of the IntelliCold® Breast Milk Refrigerator is fan-circulated. The operation of this internal fan(s) (see Figure 1) is vital to the correct operation of the device.

Do not block airflow to the internal fan. Doing so will lead to loss of performance.

The fan will turn off whenever the door is opened, this helps to prevent warm air from entering.

8.7 Simulated Load

All IntelliCold® Breast Milk Refrigerators are fitted with a maintenance-free, solid-sate, 'Simulated Load' (see Figure 1). This component replicates the thermal characteristics of a small vial and is equivalent to the thermal capacity of 5mL of water.

The Simulated Load houses the t°2 probe, allowing the controller the ability to accurately estimate stock temperature.

By default, the Simulated Load and its probe are secured in the storage clip. However, they can be unclipped and repositioned anywhere within the refrigerated chamber if monitoring a specific area is required.

Alternatively, the t°2 probe can be removed from the Simulated Load and placed within a load that better represents typical stock, if desired.

8.8 Drip Tray

All IntelliCold® Breast Milk Refrigerators are fitted with a Drip Tray. This can be found inside the refrigerated chamber at the rear (see Figure 1).

Any condensation that forms will be collected by the Drip Tray and directed, via its drain port, to the external Condensate Removal Tray so that it will be evaporated-off.

8.9 Condensate Removal Tray

All IntelliCold® Breast Milk Refrigerators are fitted with a maintenance-free, heated, Condensate Removal Tray. Any condensate collected by the Drip Tray passes into the Condensate Removal Tray where it is automatically evaporated-off. The Condensate Removal Tray can be found at the rear of the IntelliCold® Breast Milk Refrigerators

8.10 Access Port

All IntelliCold® Breast Milk Refrigerators are fitted with an Access Port.

In circumstances where the use of a supplementary, external temperature monitoring system is required any wired sensors passing from it and into the refrigerated chamber should be routed through the Access Port provided. This port can be found at the rear of the IntelliCold® Breast Milk Refrigerator (see Figure 2).

Once the sensors are fitted, the area around their wires, where they pass through the Access Port, should be sealed with a pliable, non-hardening sealing compound, such as a putty, to prevent condensation.

Do not route wires / cables through the door. Doing so will compromise the effectiveness of the seal and can lead to loss of performance.

Replace caps/bung when Access Port is not in use. Failure to do so may cause condensation to form around the port and can lead to loss of performance.

When placing supplementary temperature sensors, ensure they do not make direct contact with shelves or walls of the device. Doing so may lead to inaccurate air temperature readings

Labcold offer several temperature monitoring systems, including wireless monitoring systems (see section 9.4) and data loggers (see section 9.5).

8.11 Shelves

For models RLBM0524**,** 1024**,** and 1524, fit shelves as follows:

Steps:

1. Insert the shelf clips into the racking slots at the desired height. Ensure clips are level and fully engaged.

2. Place the shelf securely on top of the clips.

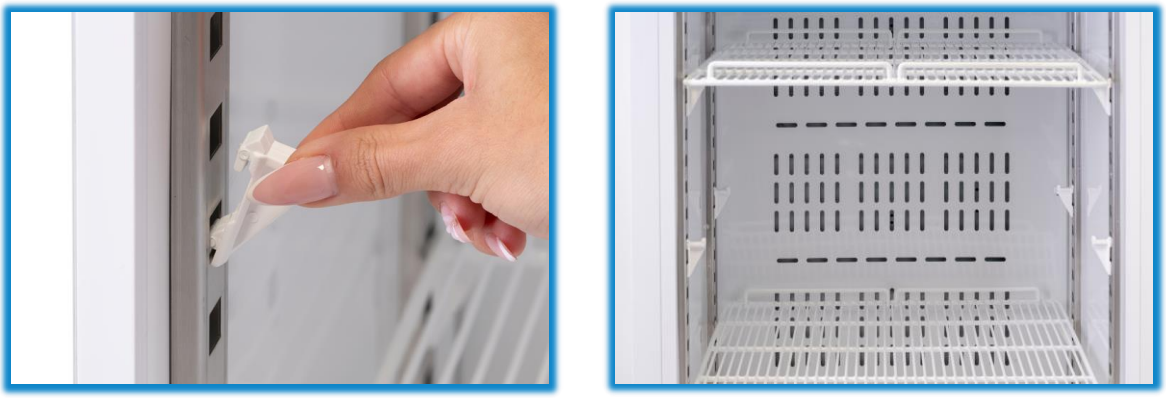


Figure 8: Fitting shelf clips

When positioning shelves, ensure there is sufficient space for air circulation around the items. Inadequate airflow can create hot spots inside the refrigerator.

For RLBM0224 model, shelves fit into the slots provided as part of the interior design.

9 ACCESSORIES

9.1 Pharmacy Drawers

Pharmacy Drawers are optional accessories designed for IntelliCold® Breast Milk Refrigerators to improve organisation and accessibility. They can be used in place of shelves or alongside them, depending on your storage requirements.

Figure 9: Labcold Pharmacy Drawers

Available drawers include:

- PHARMDRAWER1901 (above left)
  Compatible with IntelliCold® Breast Milk Refrigerator models RLBM1024 and RLBM1524
- PHARMDRAWER0519 (above right)
  Compatible with IntelliCold® Breast Milk Refrigerator model RLBM0524

If you have opted for Pharmacy Drawers, please see **Appendix A** for installation and removal instructions.

If you require additional drawers, please contact our Sales Department (see section 18).

9.2 Repeat Alarm

The Labcold Repeat Alarm RLDR0001 is designed to work with Labcold IntelliCold® Breast Milk Refrigerators and will alarm when the refrigerator alarms.

If you have opted for a Repeat Alarm, it can be connected directly to the External Alarm Connector (see section 10.1). For additional Repeat Alarms, please contact our Sales Department (see section 18).

9.3 Stacking Kits

Labcold devices can be stacked to save floor space or to provide different storage temperatures in the same footprint. This is achieved using a Labcold Stacking Kit, designed exclusively for Labcold products. This kit enables safe and secure stacking of compatible devices without compromising performance or safety.

Figure 10: The Labcold Stacking Kit

Only use an approved Labcold stacking kit. Never attempt to stack devices without it. Improper stacking or use of non-approved kits may result in instability, tipping, damage, or impaired performance

Do not move stacked devices without separating them first.

Purpose and Safety
The stacking kit ensures the upper device is firmly secured to the lower device, eliminating any risk of tipping or slipping. It also provides sufficient clearance for door operation, ventilation, and optimal performance.

Compatible Models
Labcold 150 Litre Refrigerators (Ward, IntelliCold® Pharmacy & Breast Milk, Sparkfree models)
Labcold 124 Litre Sparkfree Freezer

Key Guidelines
The stacking kit should be specified at the time of ordering. It will be factory-fitted to the lower device.

Alternatively, the kit can be supplied for customer installation. Only basic skills are required, and drill templates are available on request. Contact the Labcold sales department (see section 18).

Units are delivered separately, making it simple for customers to stack them themselves. For convenience, optional on-site assembly by Labcold couriers is available to stack the two units correctly (not to fit the stacking kit), by prior arrangement only.

9.4 Wireless Monitoring

For enhanced temperature monitoring and compliance, Labcold offers CloudTemp, a wireless data logging solution that works with compatible Labcold refrigerators. CloudTemp wireless monitoring is available as an optional upgrade for compatible Labcold refrigerators and can be purchased separately.

Figure 11: The CloudTemp Wireless Monitoring System

Why Use Wireless Monitoring?

- Continuous 24/7 monitoring without manual checks.
- Automatic data storage for complete traceability.
- Real-time alerts to prevent temperature excursions.
- Tamper-proof records for audits and compliance.

How It Works

CloudTemp uses Wi-Fi data loggers and the secure Ratifi-Cloud platform to provide fully automated monitoring and reporting. Data is encrypted and stored securely, ensuring integrity and compliance.

Key Features

- Automatic temperature recording and secure storage.
- Configurable daily, weekly, or monthly reports sent to multiple recipients.
- Alarm and alert logging with graphical display on your computer.
- Email notifications for alarms and alerts.
- Re-calibration reminders.
- Battery life and Wi-Fi signal strength indicators.
- Late data alarms for added assurance.
- Continues recording up to six channels even if Wi-Fi signal is lost.

Security and Compliance

- Data is transmitted using WPA2 Enterprise security with over-the-air encryption for maximum protection.
- Over-the-air data protection.
- Once recorded, data cannot be altered, supporting compliance with FDA 21 CFR Part 11 requirements.

9.5 Data Loggers

Labcold offers a range of data loggers designed to provide accurate, traceable temperature records for cold chain management, vaccine storage, and transport. These devices help ensure compliance, maintain product integrity, and provide peace of mind through reliable monitoring.

Why Use Data Loggers?

- Verify that stored or transported items remain within safe temperature limits.

- Provide tamper-proof records for audits and regulatory compliance.
- Detect temperature excursions quickly to prevent product loss.

9.5.1 Our Data Logger Range

RMBL2019-M1 USB Data Logger
Ideal for monitoring vaccine refrigerators or cold chain transit where a simple, standalone solution is needed.

Key Features:

- LED screen with real-time alarm alerts
- Waterproof design
- USB connection for configuration and data download
- Generates PDF reports with data curves and summaries
- Optional UKAS calibration and external probe

Best For: Routine monitoring and compliance in storage or transport.

RMBL1510 Transport Logger
Designed for in-transit monitoring of sensitive products.

Key Features:

- Sealed, crevice-free design for hygiene and durability
- Green LED for normal operation; red LED for temperature deviations
- Records time, date, and temperature for later analysis
- Requires reader (RMBL1500R) and software for setup and data download
- Long battery life (up to 4 years)

Best For: Proving temperature integrity during transportation.

10 EXTERNAL CONNECTIONS

10.1 Connection of External Alarm Systems

The IntelliCold® Breast Milk Refrigerator can be connected to an external alarm system, Building Management System (BMS), or paging system via the External Alarm Connector, which can be found at the rear of the IntelliCold® Breast Milk Refrigerator (see Figure 2). This interface includes contacts that 'Close on Alarm', it is connected to the IntelliCold® Controller. Its contacts will change state to indicate one or more active alarms (see section 8.1.4). If you have a Labcold Repeat Alarm (see section 9.2) this is where its wires need to be connected.

Figure 12: External Alarm Connector

The contacts are designed to integrate with an alarm system, Building Management System (BMS), or paging system that utilises either normally open or normally closed volt free contacts. They are not designed to switch any load.

Max Load 30VDC 1.0A DO NOT EXCEED.

The use of filament bulbs, relays, buzzers or bells will damage the contacts and will not be covered by warranty.

If the system you wish to connect to only has switchboard connections of a higher loading than allowed by the External Alarm Connector, contact the Labcold service department for advice (see section 18).

Labcold Ltd accepts no responsibility for any failure of an external monitoring or management system to properly report upon alarm signals generated by the IntelliCold® Breast Milk Refrigerator.

To test the alarm is working, leave the refrigerator door open for more than 90 seconds. If the external alarm system then indicates an alarm condition it is working correctly.

11 CLEANING AND MAINTENANCE

The following routine cleaning and maintenance work should be carried out in order to ensure that the IntelliCold® Breast Milk Refrigerator continues to function effectively when in use.

11.1 Cleaning

When cleaning the device, it must be disconnected from the mains power supply. In order to avoid an electric shock, disconnect the power supply, unplug the power cable, and wait at least one minute before working on the device.

11.1.1 General Cleaning

All internal surfaces should be cleaned regularly using a solution of water and a mild detergent. Pay particular attention to door gaskets shelves and drawers (if fitted) to remove any potential build-up of dirt or debris. Rinse surfaces with clean water and wipe dry with a soft cloth.

11.1.2 Decontamination

Whenever there is a spillage on the internal or external surface of the device, the spill should be wiped immediately clean and the surface decontaminated using a suitable disinfectant (see table below for recommendations). Only use disinfectants that comply with local guidelines and regulations. Regular validation and monitoring are essential to maintain a contamination-free environment.

Recommended Disinfectants	
Isopropyl alcohol (70% concentration)	Dilute isopropyl alcohol with water (70% concentration). Apply the alcohol solution to a clean cloth or disposable wipe and wipe down the surfaces. Allow the alcohol to evaporate completely before restocking the device
Ethanol (70% concentration)	Dilute ethanol with water (70% concentration). Apply it to a clean cloth or disposable wipe and wipe down surfaces. Allow the alcohol to evaporate completely before restocking the device
Hydrogen peroxide (3% concentration)	Dilute hydrogen peroxide with water (3% concentration) and use it to wipe down surfaces. Avoid leaving it on the surface for extended periods and rinse promptly to prevent any potential discolouration or damage

Do not use chlorine-releasing agents (e.g. bleach). These can be corrosive and may damage the device.

Avoid abrasive cleaners that could scratch surfaces.

Always use appropriate personal protective equipment (PPE).

11.1.3 Drip Tray

It is recommended that the Drip Tray (see Figure 1) and drainage hole be checked and cleared of any debris, if required, once a week during normal use, to prevent accidental blockages.

Should standing water be observed in the drip tray then the drainage hole has been obstructed and should be cleared using a suitable semi-flexible implement.

11.2 Maintenance

11.2.1 Door Gasket (Seal)

The door gasket(s) should be visually checked for deterioration and air leakage at least once each week.

The integrity of the door gasket is crucial. An ineffective seal can lead to frost build-up and compromised thermal performance

To check the door gasket for air leakage;

1. Open the door.

2. Hold a suitable length strip of paper (approximately 50mm wide) against the frame of the device and close the door on it.

3. Gently pull the paper strip; an effective gasket should grip the paper, you should feel some resistance.

4. Repeat this test at 200mm intervals all around the door.

The most unfavourable points may be found by inspecting the area round the seal with the device closed and illuminated from the inside.

If the door does not seal properly, the gasket may need replacing or the door may need adjustment.

11.2.2 Defrosting

Although your IntelliCold® Breast Milk Refrigerator features automatic off-cycle defrosting, it is recommended that it is defrosted manually if there is a build-up of ice. This can happen for a number of reasons, for example in times of high humidity, if the door has been opened for a long time, the refrigerator is overstocked or the ambient temperature is high.

It is essential that you unplug the refrigerator from the mains to prevent electric shock and transfer the contents where they can be stored and monitored at the correct temperatures before defrosting.

To defrost you should:

1. Leave the refrigerator unplugged with the door open for at least 6 hours at room temperature or until any ice is melted.

Do not use a sharp implement to remove ice as this will damage the internal surface of the fridge.

2. Dry thoroughly and remove any surplus water before returning to use

Risk of slippage. During defrosting water may leak from the device.

It may be prudent to place paper towels or similar around the device to catch any excess water that cannot be accommodated by the condensate removal tray.

3. Leave cooling for at least 6 hours or until the temperature display shows the correct temperature for at least 30 minutes before reloading with temperature sensitive breast milk.

To stop the alarm sounding during loss of mains power, temporarily remove the four AA batteries from the device.

11.2.3 Maintenance Service Contracts

Labcold offers a variety of annual maintenance service contracts designed to provide users with support and peace of mind. Please visit www.labcold.com for further details.

12 SERVICING AND REPAIR

It is considered good practice that IntelliCold® Breast Milk Refrigerator are serviced and calibrated on at least an annual basis by a Labcold service technician or similarly approved and trained person.

All servicing and repair work must be carried out by an authorised, qualified engineer familiar with hydrocarbon refrigerants. Any work carried out by unauthorised personnel may adversely affect performance of the cabinet or cause physical injury or damage to the equipment

Use genuine IntelliCold® Breast Milk Refrigerator spare parts only! Failure to do so may affect performance or cause physical injury or damage to the equipment

For any servicing and repair work on the device, it must be disconnected from the mains power supply. In order to avoid an electric shock, disconnect the power supply, unplug the power cable, and wait at least one minute before working on the device

Device contains flammable refrigerant! Risk of fire/explosion!
Special care should be taken when working on any part of the refrigeration system.

13 TECHNICAL INFORMATION

13.1 Refrigeration System

The refrigeration system fitted to the IntelliCold® Breast Milk Refrigerator is hermetically sealed and incorporates a suitably sized cooling evaporator coil and condenser coil. The evaporator and condenser coils are fan-cooled.

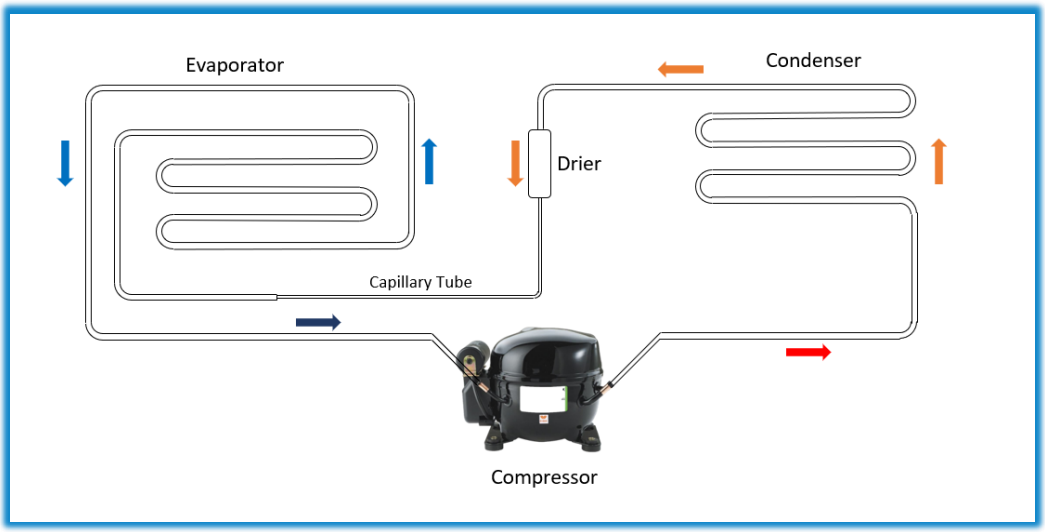


Figure 13: The IntelliCold® Breast Milk Refrigerator refrigeration system

13.2 Parts Lists

Parts lists and spare parts are available to approved contractors or customer engineering departments upon request.

13.3 Wiring Diagrams

Wiring diagrams are available to approved contractors or customer engineering departments upon request.

13.4 Service Manual

A Service Manual is available to approved contractors or customer engineering departments upon request.

13.5 Specifications

Specifications are subject to change without notice.

	RLBM0224	RLBM0524	RLBM1024	RLBM1524
General				
Operating Temperature	+3°C (0 to 5°C)			
Probes	t°1 (Air) | t°2 (fitted with 5mL simulated load) | t°3 (Low Limit Detection)			
Display resolution (°C)	0.1			
Door Type	Solid			
Door Hinging	Right (Left available upon request)			
No. of Doors				
Door Lock	Mechanical lock as standard (2 keys) – Optional Digital Lock & Master Key			
Maximum Shelf Loading (Kg/m²)	40			
Gross/net Volume (Litres)	66/47	150/125	342/318	439/419
Exterior Dimensions h x w x d (mm)	735 x 450 x 530	[1] 835 X 600 X 640	1510 x 600 x 740	1875 x 600 x 740
Interior Dimensions (Max) h x w x d (mm)	588 x 331 x 256	690 x 480 x 410	1358 x 480 x 500	1724 x 480 x 500
Weight empty (Kg)	34	51	79	93
Internal Arrangement	Adjustable Shelves			
Number of shelves supplied	3 (2 large, 1 small)	3 (2 large, 1 small)	6	6
Shelf dimensions, h x w x d (mm)	Large: 6 x 346 x 203 Small: 6 x 346 x 150	Large: 8 x 475 x 385 Small: 8 x 475 x 245	8 x 475 x 470	8 x 475 x 470
Shelf construction	Steel, plastic-coated			
Wall mountable	Yes	No		
Castors / Feet	4 Levellers M8		4 Rollers + 2 Levellers M8	
Compressors	1			
Condensate removal tray	1			
Refrigerant	R600a			
Refrigerant Charge per system (g)	22	38	45	
Defrost Mode	Automatic			
Interior Construction	Plastic	Pre-coated Steel		
Exterior Construction	Pre-Coated Steel			
Electrical				
Power Supply	220 - 240 VAC / 50Hz			
Typical Power Consumption (kWh/24h)	1.4	1.4	1.2	2.1
Maximum Wattage (W)	170	200	250	250
Average Wattage (W)	56	60	52	86
Current consumption, Max (A)	0.9	1.2	1.5	
Inrush current (A)	7	10	13	
Fusing	13A, 240V, ceramic, 6.3 x 25mm, BS1362			
Battery Backup	4 x AA 1.5V Alkaline Batteries			
Environmental				
Average Heat Rejection (kW)	0.15	0.2	0.3	0.3
Operating conditions	Indoor use, +16°C to +32°C, maximum relative humidity 80%, maximum altitude 2000M			
Climate Class	N (Normal +16°C to +32°C)			
Transport and Storage conditions	–10 to 60°C, 80% relative humidity			
Noise Level (dB(A))	53		47	50
Pressure Range	70 to 106 KPa			
Overvoltage Category	II			
Pollution Degree	2			
Regulatory & Compliance				
Approvals	CE | UKCA (Tested to EN 60335, EN 61010 & relevant EMC standards)			
Features & Functionality				
Controller	Labcold IntelliCold® Controller, Capacitive Touchscreen, Bluetooth			
Access port	Yes – located at rear as standard			
Internal Light	LED			
Alarms	Air & Load Temperature | Door Open | Battery | Mains Power Failure			
Remote alarm connection	Yes – located at rear as standard			
Low level detection	Yes – as standard (T3)			

14 TROUBLESHOOTING

Please refer to the following table for a description of potential problems and recommended actions that you should take.

If the recommended action fails to resolve the problem then the IntelliCold® Breast Milk Refrigerator may have developed a fault and your local Labcold representative should be contacted.

Problem	Possible Cause(s)	Recommended Action
Mains Power Failure Alarm appears.	1. Power cable not plugged in.	1. Connect to power.
	2. Fuse(s) blown.	2. Check fuse(s), Replace fuse(s) if necessary.
	3. Circuit breaker tripped	3. Check circuit breaker and reset if necessary.
	4. Faulty power cable	4. Check power cable is okay
Temperature Alarm Activation (Displayed temperature is higher/lower than set temperature)	1. Warm expressed milk has recently been placed into the refrigerator	1. Allow refrigerator time to stabilise — temperatures will fall as milk cools.
	2. Refrigerator is over-stocked	2. Ensure Refrigerator isn't over-stocked. Adjust stock accordingly to improve airflow, (see section 7).
	3. Refrigerator is incorrectly stocked	3.Ensure Refrigerator is properly stocked, (see section 7).
	4. Door is opened too frequently / for too long.	4. Minimise door openings / duration. Consider sharing workload with another Refrigerator.
	5. Condenser fins blocked	5. Ensure regular maintenance is carried out by an approved Labcold Engineer.
	6. Refrigerator is overheating	6. Ensure adequate airflow around refrigerator, (see section **4.2**). Ensure ambient temperature conditions are suitable, (see section 13.5). Ensure location of Refrigerator is away from sources of intense heat/light, (see section **4.2**).

Problem	Possible Cause(s)	Recommended Action
Heavy ice build-up found inside chamber	1. Refrigerator is over-stocked	1. Ensure Refrigerator isn't over-stocked, (see section 7). Adjust stock accordingly to improve airflow.
	2. Door gasket is not sealing and humid air is being drawn into the chamber.	2. Ensure the door gasket is providing an effective seal all around the door(s) when the door(s) is closed and that there are no gaps, (see section 11.2.1). Check that there are no objects that compromise seal effectiveness (e.g. leads of external temperature probes) Check gaskets for tears. Replace door gasket(s) if necessary. Gasket damage can be an indication that the door is being opened incorrectly. Please ensure the door is opened by its handle (and not by the door edge).
	3. Relative Humidity levels are too high	3. Ensure the Refrigerator is located in a suitable environment (see section 4.2).
	4. Internal Fan Failure	4. Open door and operate door switch manually, fan should come on and light should extinguish.
Battery Alarm	1. No batteries fitted	1. Fit backup batteries.
	2. Battery charge is low	2. Fit new backup batteries.
	3. Incorrect battery type fitted	3. Ensure 4 x AA 1.5V Alkaline batteries are fitted (Not rechargeable batteries).
High accumulation of water in drip tray	1. Drip tray drainage hole blocked	1. Clear drainage hole (see sections 8.8 and 11.1.3). If the drainage hole is becoming blocked regularly, review cleaning frequency & process, and consider implementing a regular check of the drip tray & drainage hole.

15 WARRANTY

The IntelliCold® Breast Milk Refrigerator is supplied with a two-year UK parts and labour warranty, valid from the date of shipment to the customer. This warranty covers all standard components of the refrigerator. It does not apply to any damage arising from incorrect use.

If the refrigerator is fitted with the optional Labcold Digital Combination Lock, this component is covered by a one-year UK parts and labour warranty only.

Important:
The customer should inspect the unit immediately upon receipt for any signs of damage. Failure to report shipping damage promptly may invalidate the warranty.

Labcold Ltd reserves the right to make technical improvements to the IntelliCold® Breast Milk Refrigerator and to update documentation as part of a continuous program of product development without prior notice.

Please note: Additional conditions apply to consumable items, high-wear components, and products located outside mainland Great Britain. For full details, exclusions, and warranty procedures, please refer to

- Website: https://www.labcold.com/warranty-terms-and-conditions
- Printed Copy: Available on request from our Customer Service team

16 TERMS AND CONDITIONS

This product is supplied subject to Labcold Ltd's Terms & Conditions of Sale. These Terms & Conditions govern important aspects such as warranty, servicing, and limitations of liability. By using this product, you agree to comply with these Terms & Conditions.

For full details, please refer to:

- Website: https://labcold.com/terms-and-conditions
- Printed Copy: Available on request from our Customer Service team.

Warranty coverage applies only when the product is used as intended and in accordance with this manual. Unauthorised modifications or misuse may void the warranty. Our liability is limited as described in the Terms & Conditions.

17 DISPOSAL

The Waste Electrical and Electronic Equipment Regulations 2013 (WEEE Regulations) provides the scope of a UK-wide valid take back and recovery of WEEE.

Products labelled with the symbol of a crossed-out wheeled bin must not be disposed of with normal domestic waste.
For information on current disposal routes please contact your local Labcold representative.

The device has to be decontaminated thoroughly before decommissioning (see section 11.1.2).

Special Recycling Requirements:

- Refrigerants: Must be recovered and disposed of in accordance with local environmental regulations. Contact a certified refrigerant disposal service for assistance.
- Batteries: Should be recycled at designated battery recycling facilities. Do not dispose of with regular waste.

For further details on disposal and recycling, please consult your local waste management authority or your Labcold representative.

18 CONTACT US

For all queries regarding Labcold products and services contact:
Labcold Ltd
Cherrywood
Chineham Park
Basingstoke
Hants
RG24 8WF
United Kingdom

www.labcold.com

For Service enquiries, spares and repairs:
Tel: (+44) 01256 705 580
Fax: (+44) 01256 705 575
E-mail: service@labcold.com

For Sales enquires:
Tel: (+44) 01256 705570
Fax: (+44) 01256 705575
E-mail: sales@labcold.com

19 BIBLIOGRAPHY / FURTHER READING

NHS – Expressing and Storing Breast Milk
Official UK guidance on expressing, cooling, refrigerating, freezing and handling breast milk.
https://www.nhs.uk/baby/breastfeeding-and-bottle-feeding/breastfeeding/expressing-breast-milk/

Donor Human Milk, Human Milk Banking – Global Guidelines and Reviews
https://www.gfmer.ch/Guidelines/Breastfeeding/Donor-human-milk.htm

APPENDIX A FITTING DRAWERS

A.1 Installing the PHARMDRAWER1901

Before Use

- Clean drawers thoroughly with warm soapy water and dry completely before installation.

Installing Drawers

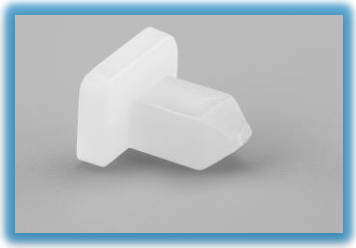
1. Position Shelf Supports
   - Place four shelf supports at the desired height inside the refrigerator.
   - Ensure all supports are level. (Remove any existing shelf if necessary).

2. Mount Drawer Frame

- Separate the drawer from its metal frame (the two are packed together for shipping purposes)
- Lower the drawer frame onto the four shelf supports.
- Ensure the supports fully engage with the holes on the underside of the drawer frame.

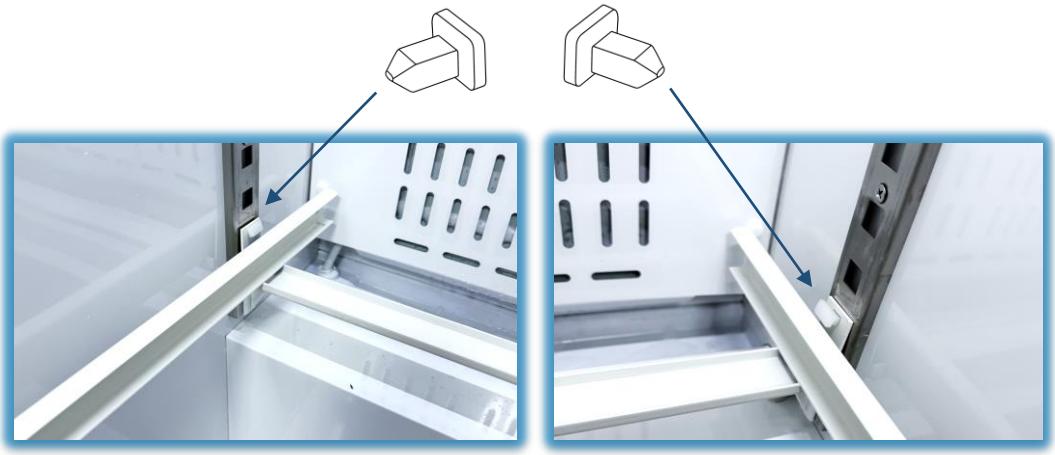
3. Insert White Clips

Each drawer comes with two white plastic clips.



How to fit them:

- Find the holes at the back of the drawer runner frame (one on each side).
- Push a clip into each hole, making sure:
  - The pointed end of the clip is at the bottom.
  - The point faces outward (away from the drawer).



Push the white clips into the shelf racking as far as they will go.
Clips will not fully engage but will prevent tipping when the drawer is fully extended.

4. Fit drawer

- Hold the drawer horizontally, with its roller wheels facing the frame.
- Position the drawer so the roller wheels are just behind the metal runner wheels on both sides.
- Lower the drawer gently until the wheels drop into place.
- Push the drawer fully inward. It is now correctly fitted.

After Installation

Arrange the internal dividers to suit your storage needs.

Ensure contents are not tightly packed; allow airflow to prevent temperature variations.

Drawers are designed for ventilation, but overloading can cause hot spots.

Removing the Drawer

- Pull the drawer out as far as it will go.
- Lift the drawer slightly so the roller wheels clear the drawer frame wheels.
- The drawer can then be removed.

A.2 Installing the PHARMADRAWER0519

Before Use

- Remove all packaging, shelf dividers and protective film.
- Clean drawers thoroughly with warm soapy water and dry completely before installation.

Installing Drawers

1. Attach the Shelf Support Clips

    - Start with the bottom part: Position the clip so its lower part wraps over the outside of the rail.
    - Engage the top part: Gently squeeze the top section of the clip together to make it narrower and insert it into hole in the rail hole.
    - Slide down to lock in place: Once the top is in, slide the whole clip downward until it locks into place securely.

    Repeat this for all four clips, making sure they're aligned at the same level.

2. Mount the runners

- Position the Runner: Hold the runner so that it aligns with the side wall of the refrigerator. Make sure the tangs (small metal tabs) on the runner are facing the correct direction to engage with the support clips.
- Engage the Rear Tang: Push the runner backward until the rear tang fits securely into the slot on the rear support clip. You should feel it lock into place.
- Secure the Front Tang: Next, align the front tang with the hole in the front support clip. Insert the tang into the hole, then push down firmly on the runner to ensure the tang is fully engaged and locked into position.

Push runner backwards to engage rear tang

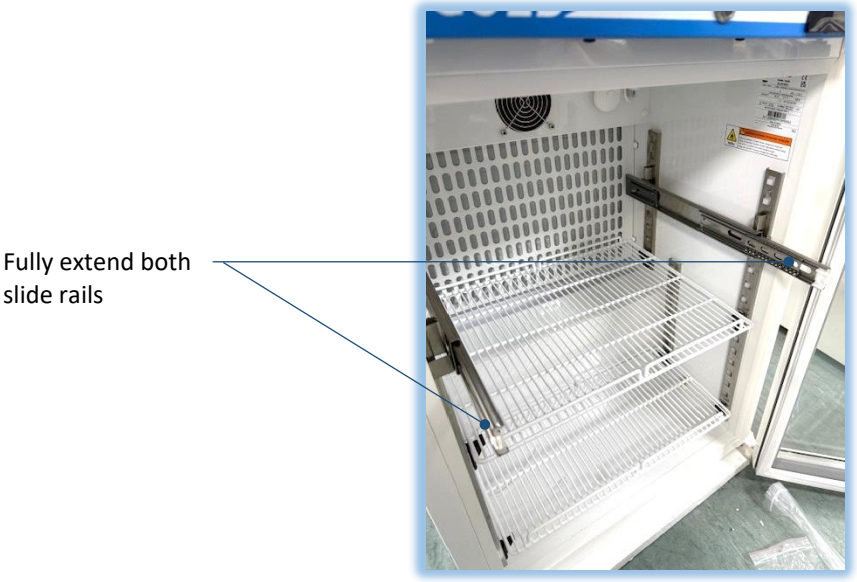
Push runner downwards to engage front tang

- Repeat for second runner: Assemble the second runner in the same way

3. Fit drawer

- Prepare the Cabinet:

  Fully extend both metal slide rails on the left and right sides of the cabinet.



- Position the Drawer:

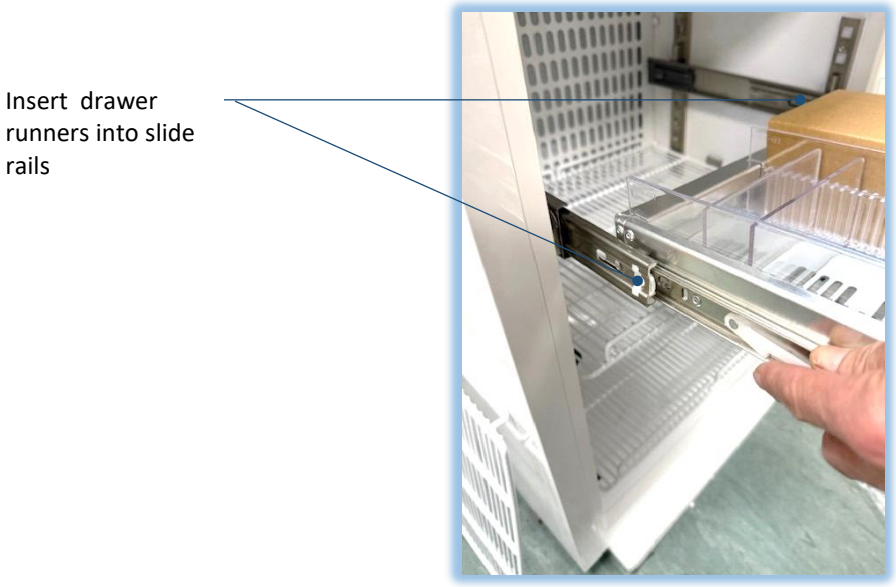
  Hold the drawer horizontally, with the runners aligned to match the slide rails.

  Make sure the drawer is level and centred between the slide rails.

- Engage the Runners:

  Carefully insert the drawer runners into the extended slide rails.

  Push gently until both sides are fully engaged.



- Secure the Drawer:

  Once the runners are engaged, slide the drawer fully inward, this action locks the runners into place and secures the drawer.

- Final Check:

  Pull the drawer out and push it back in to confirm smooth operation.

  Ensure there's no wobble or misalignment.

After Installation

Arrange the internal dividers to suit your storage needs.

Ensure contents are not tightly packed; allow airflow to prevent temperature variations.

Drawers are designed for ventilation, but overloading can cause hot spots.

Removing the Drawer

- Pull the drawer out as far as it will go.
- Locate the release levers on both sides of the drawer.
- Push the levers (left up, right down) to disengage the runners and slide the drawer out.
- The drawer can now be completely removed.

APPENDIX B DIGITAL LOCK OPERATION

If your IntelliCold® Breast Milk Refrigerator is fitted with a digital combination lock, the standard key lock will be replaced by the digital unit.

The digital lock provides enhanced security for stored items and is operated using a user-set combination. An optional master override key is available for emergency access or convenience. The internal batteries act as a backup power supply, ensuring the digital lock remains fully operational even if mains power is lost. This allows you to unlock the refrigerator during a power failure, provided the batteries have been fitted.

Without batteries installed, the door cannot be unlocked during a mains outage unless you have purchased a master key

Opening the Door
Once the IntelliCold® Breast Milk Refrigerator has power, you can unlock the door using the factory-set user code 2244:

1. Enter the code. After each correct digit, a green LED will illuminate.

Tip: Wait for the LED to light before pressing the next button.

2. After the fourth digit, the lock will emit a sound indicating it has unlocked.
3. Rotate the lock handle 90° clockwise to open the door.

If the Red LED Flashes:
This means an incorrect digit was entered or the lock did not register the code. The IntelliCold® Breast Milk Refrigerator will remain locked. Wait 4 seconds before re-entering the code.

Auto re-lock:
If the door is not unlocked within 4 seconds, the lock will automatically re-engage (provided the handle remains in the closed position).

Locking the Door
To lock the IntelliCold® Breast Milk Refrigerator:

1. Close the door.

2. Rotate the lock handle 90° anticlockwise.

The digital lock does not self-lock, but once the handle is in the closed position, the lock will automatically engage.

Changing the User Code

It is recommended that you change the factory-set code to control access to your IntelliCold® Breast Milk Refrigerator.

- The initial change requires the factory code **2244**.
- After the first change, the current user code will be required for any future changes.
- All codes must be **four digits long**.

Press the logo button and key in:

Existing user code i.e. 2244
02
New 4 digit user code
New 4 digit user code

Write the new user code for reference here

☐ ☐ ☐ ☐

The IntelliCold® Breast Milk Refrigerator will now only open using the new user code or a master key

If you do not press a button within 4 seconds during code entry, the red LED will flash and you will need to start again.

Using the Master Key

We recommend purchasing a master key and keeping it with a responsible person. The master key allows the refrigerator to be unlocked in the event of:

- A mains power failure
- A forgotten user code

The master key is unique to Labcold digital combination locks.

If the user code is forgotten please contact our service team (see section 18).

APPENDIX C CONTROLLER PARAMETERS

C.1 Logged Alarms and Events

Event List
Door Opened
Door Closed
Door Open Alarm Triggered
Door Open Alarm Deactivated
T1 Low Alarm Triggered
T1 Low Alarm Deactivated
T1 High Alarm Triggered
T1 High Alarm Deactivated
T1 Failure Warning Triggered
T1 Failure Warning Deactivated
T2 Enabled
T2 Disabled
T2 Low Alarm Triggered
T2 Low Alarm Deactivated
T2 High Alarm Triggered
T2 High Alarm Deactivated
T2 Failure Warning Triggered
T2 Failure Warning Deactivated
T3 Enabled
T3 Disabled
T3 Low Alarm Triggered
T3 Low Alarm Deactivated
T3 High Alarm Triggered
T3 High Alarm Deactivated
T3 Failure Warning Triggered
T3 Failure Warning Deactivated
No Mains Warning Triggered
No Mains Warning Deactivated
No Battery Warning Triggered
No Battery Warning Deactivated
Low Battery Warning Triggered
Low Battery Warning Deactivated
Alarm(s)/Warning(s) Muted
Serial Number or Name changed
Power Back On
Settings Changed

C.2 Firmware Settings

Setting	Range	Default Value
t2	On / Off	On
t3	On / Off	On
bAt	On / Off	On
Lt	On / Off / Aut	Aut
Ato	5 mins to 30 mins	15
C F	C / F	C
SFt	x.xx	e.g. 0.44
SEt	+2.0°C to +8.0°C	+3.0°C
t°1 Hi LΠt	+2.5°C to +20.0°C	+5.0°C
t°1 Lo LΠt	-10°C to +7.5°C	+0.0°C
t°2 Hi LΠt	+2.5°C to +20.0°C	+5.0°C
t°2 Lo LΠt	-10°C to +7.5°C	+0.0°C
LLd	On / Off	On

APPENDIX D SHELF DIMENSIONS AND MAXIMUM LOAD CAPACITY

Model	Shelf Type	Dimensions (mm)	Area (m^2)	Max Load (kg)
RLBM0224	Large	346 × 203	0.0702	2.8
RLBM0224	Small	346 × 150	0.0519	2.1
RLBM0524	Large	475 × 385	0.1829	7.3
RLBM0524	Small	475 × 245	0.1164	4.7
RLBM1024	Standard	475 × 470	0.2233	8.9
RLBM1524	Standard	475 × 470	0.2233	8.9

Maximum load values are based on a loading rate of 40 kg/m^2 and assume uniform distribution across the shelf

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