



User Guide



RENTAL • SALES • SERVICE • LOGISTICS

www.quirksaustralia.com.au

Toll free number: 1800 804 627

Acknowledgement

Thank you for purchasing this Quirks Medisafe Refrigerator. This refrigerator is purpose-built, for the storage of medical vaccines. We recommend that you read this user guide before operating the Medisafe refrigerator and retain it for future reference.

Contact Information

Should you require assistance, guidance or technical support, please contact:

Quirks Australia Pty Ltd. (Head Office)

198 Power Street

Glendenning NSW 2761

Phone: 1800 686 672 (24 Hour National Service Support)

Fax: (02) 8805 2544

Email: service@quirksaustralia.com.au

Medisafe Warranty

Your new Medisafe vaccine refrigerator is covered by a 24 month warranty on parts and labour. Quirks Australia will repair or replace, at our discretion, any component found to be faulty in workmanship or operation for a period of 24 months from the time of installation.

Quirks Australia would like to stress the importance of reading all provided documentation and instructions PRIOR to the storage of any vaccine or product stock.

Full instructions on the safe and appropriate operation of your unit, along with telephone support, are available in order to ensure that your new Medisafe refrigerator operates efficiently and to its capacity.

Failure to follow instructions, especially involving setting of cabinets and start up, may result in the loss of or damage to valuable stock through incorrect operation of the unit.

Quirks Australia cannot be held responsible for the loss of or damage to stock.

Please refer to the *National Vaccine Storage Guidelines: Strive for 5* (available from the Department of Health at <http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/provider-store>) for further information about vaccine storage management, or contact your local State/Territory health authority (contacts provided on Page 17).


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QUIRKS
Medisafe Quick Start Checklist

1. Place the Medisafe refrigerator in a location with a flat, level surface, with reasonable clearance from walls, and not in direct sunlight. ☐
2. Before plugging the refrigerator in, please allow it to stand in position for a minimum of 3 hours after shipping, so the oil in the compressor will have time to settle. ☐
3. Ensure that a 220-240V, 50Hz power source is available. Connect the Medisafe refrigerator to the power point, and mark the power point with appropriate signs to ensure the refrigerator will not be accidentally unplugged or switched off. ☐
4. When the refrigerator is first plugged in, it will display a flashing “PF” alert on the Min-Max temperature display, to inform the operator there has been a loss of power. To acknowledge this alert, press the red **set** button on the Min-Max temperature display. ☐
5. It is recommended to run the Medisafe refrigerator for at least 6 hours, prior to stocking with vaccines. The refrigerator may take time to reach the desired temperature range, resulting in an alarm condition. To silence the alarm, press the **set/mute** button on the electronic controller. ☐
6. Install the LogTag Analyser software on your computer, following instructions on Pages 7-11 to configure and start the LogTag recorder for the first time. ☐
7. Configure the LogTag recorder, using the Wizard, and immediately connect the LogTag recorder to the Medisafe refrigerator by plugging the white cable, located at the rear of the data control box, into the outlet on the side of the logger. Press **Start** to begin recording temperatures (The OK and ALERT lights will flash simultaneously, to acknowledge the logger has started recording). ☐
8. Before stocking the refrigerator, perform one (1) download of the LogTag, following the procedure on Page 6. Please check that the LogTag is recording temperature correctly. ☐
9. Press and hold the red **set** button on the Min-Max temperature display to reset all values (the display will show “**rE**” to acknowledge the values have been reset). ☐
10. Ensure the temperature inside the refrigerator is stable, within the safe range of +2°C to +8°C. You may now stock the refrigerator with vaccines. Take care to allow for sufficient air flow throughout the refrigerator. Minimise door openings to maintain a stable temperature while the refrigerator is being stocked. ☐
11. *If your Medisafe refrigerator is fitted with an Auto Dialer, you may now connect it to the wall socket, using the standard telephone cable provided. Move the switch at the back of the header control panel to the ON position.* ☐


Getting Started

 **If the vaccine cabinet was shipped to you, please wait at least three hours prior to turning it on. This will allow the oil in the compressor time to settle after shipping.**

 **Quirks Medisafe refrigerators are powered by electric current, which can cause serious injury. Any installation, cleaning, or troubleshooting must be conducted with the electrical power source disconnected from the unit.**


The following precautions should be taken while the unit is in operation:

- Ensure the appropriate power is supplied to the unit. Note: Quirks Medisafe units are designed to operate at 220-240V, 50Hz.
- Do not plug several appliances into the same multiple receptacle
- Electrical components should not come into contact with water
- Ensure the power cord is not damaged. If the cord becomes damaged, it must be replaced by the manufacturer, a certified service agent or qualified service professional.

 **It is strongly recommended that any servicing of the unit be performed by Quirks Australia.**


Installation

- Place the Medisafe refrigerator in a location with a flat surface that is approximately level, with reasonable clearance from any walls, and without exposure to direct sunlight.
- Allow clearance to the right, left, back and top. This will reduce power consumption and allow the internal cooling system to function correctly. The unit is not to be placed in confined areas where air flow and heat dissipation are restricted.
- Ensure that the appropriate power is supplied to the unit. Note: Quirks Medisafe refrigerators are designed to operate at 220-240V, 50Hz. National and local codes provide specific electrical and mechanical installation requirements and recommendations covering equipment and equipment wiring.
- Plug in and turn on the power to the Medisafe refrigerator. Ensure the power point is secure, that the refrigerator cannot be accidentally unplugged or switched off.

 **When the power is first turned on, the Min-Max temperature display will show an alert “PF” flashing on the display. This informs the operator there has been a loss of power, and can be acknowledged by pressing the red “set” button on the Min-Max display.**

Basic Operation

- The power failure alert “PF” should be acknowledged by pressing the red “set” button on the Min-Max temperature display.
- The Medisafe refrigerator is pre-set for operation. No buttons on the controller are to be touched except the red “set/mute” button, used to silence the audible alarm.

 **It is recommended to run the Medisafe refrigerator for 6 hours prior to loading with vaccines.**

Stocking the Medisafe Refrigerator

The Medisafe vaccine refrigerator is designed to maintain a uniform temperature inside the cabinet. To do so, sufficient air flow is required to prevent “cold spots” from forming. Thus, it is important that an appropriate level of care be taken in stocking the refrigerator.

- Cool the vaccine refrigerator before stocking with vaccine. Quirks Australia recommends allowing the refrigerator to run for at least 6 hours prior to loading with vaccines.
- Distribute stock evenly throughout the refrigerator.
- Ensure vaccines with the shortest expiry are stored at the front of the refrigerator.
- DO NOT place stock directly against the evaporator plate, at the rear of the refrigerator. This could cause the stock to freeze.
- DO NOT place large cartons inside the refrigerator (i.e. at the bottom of the cabinet). Remove smaller boxes from the carton, and place them evenly spaced on the shelves.
- Some vaccines are sensitive to ultraviolet (UV) light. Please check the specific vaccine storage guidelines before removing vaccines from their boxes.
- If trays are used, ensure they are made of plastic, with holes to allow for sufficient air flow, and spaced evenly on the shelves.
- DO NOT overstock the refrigerator.
- If very few vaccines are stocked, thermal mass (such as cooled water bottles) should be added to the refrigerator in areas of open space.

Silencing the alarm

The cooling system of the Medisafe refrigerator is controlled by an electronic controller, incorporating an audible and visual alarm, should the cabinet temperature fall or rise outside the specified range(+2 to +8°C). This is likely to occur during the first cooling cycle, and may occur if the door is left open for an extended period of time.

To silence the alarm: press the **set/mute** button on the electronic controller.



When you first turn the cabinet on, if it does not reach a temperature below 8 degrees within 10 minutes, it will alarm. This is a normal function. All the operator is required to do is press the *set/mute* button to silence the alarm and restart the cooling process.

Temperature Control System:

This highly accurate electronic control, located in the top right of the control panel (pictured below), incorporates a temperature probe and thermostat.

- A temperature probe measures the air temperature in the cabinet.
- The electronic controller is programmed to the required temperature parameters (+2 to +8°C).
- The controller cycles the refrigeration system to maintain the air temperature inside the cabinet, within the required parameters.

Should the temperature of the cabinet fall or rise outside the set parameters, the controller will trigger both an audible and visual alarm (the digital display will flash –“LO” for below set parameter or “HI” for above set parameter).

A suitable delay (5-10 min.) is programmed into the system to prevent unnecessary false alarms (such as door being open for extended periods).



If an alarm condition occurs, press the **alarm mute button** to silence the audible alarm.



The electronic controller is pre-programmed, during the manufacturing process.

The only button the operator is required to press is the **set/mute** button. If the cabinet alarms, you can press this to silence it. Any reprogramming of the controller must be done by a person approved by Quirks Australia.

When the cabinet is first powered on, if it does not reach a temperature below +8 °C within 10 minutes, it will alarm. This is a normal function. All the operator is required to do is press the **set/mute** button to silence the alarm and restart the cooling process

If an alarm condition has occurred, please allow 10-15 minutes for recovery.

Should you experience any issues with the Medisafe refrigerator maintaining temperature within the set parameters, please contact Quirks Australia.

Min-Max Temperature Display:

The top left display (pictured to the right) is the minimum and maximum temperature recorder. This displays the current air temperature inside the cabinet, and also provides the user with the minimum and maximum air temperatures reached inside the refrigerator since the last reset.



To display the minimum air temperature the cabinet has reached, since the last reset, press the **min** button on the Min-Max display, identified with a ‘down’ arrow. The temperature will flash for several seconds, then the display will return to the current air temperature inside the cabinet.

Similarly, **to display the maximum air temperature** the cabinet has reached, since the last reset, press the **max** button on the Min-Max display, identified with an ‘up’ arrow. The temperature will flash for several seconds, then the display will return to the current air temperature inside the cabinet.

***Please Note:** The maximum temperature will rise if the door is left open for an extended period of time.*

To reset the Min-Max display, press and hold the red **set** button for approximately 5 seconds. The display will show the number of hours that have been logged since the last reset, then “**rE**” will be shown on the display to confirm all values have been reset.



It is essential that the reset button is pressed before leaving the premises to ensure a true reading is viewed the following morning.

(Some regulations governing vaccine storage may require you to reset the display more frequently than once daily, please check with your State/Territory health authority for further information).



The current temperature before pressing the re-set button should be between the required temperatures of +2°C to +8°C.



The Min-Max Temperature Display is to be used as a guide only, providing an early indication of developing conditions inside the refrigerator. Always refer to your LogTag for an accurate record of vaccine core temperature.

Auto Dialer (Optional):

The auto dialer is an optional remote monitoring device contained within the control panel, connected to a dedicated analogue telephone line (it cannot be connected to digital or PABX systems). In the event of a power failure, the auto dialer will dial 5 pre-programmed phone numbers, in sequence, until the alarm is acknowledged. This will provide specified persons with notification that alternate vaccine storage arrangements are required to prevent loss of stock.

Setup:

- Connect the Auto Dialer phone jack to the wall socket, using the standard telephone cable provided.
- Move the switch at the back of the header control panel to the ON position.

The auto dialer has been programmed to ring the following phone numbers, in rotation, if an alarm condition occurs when the premises are unattended. (such as a power failure).

- 1.
- 2.
- 3.
- 4.
- 5.

Acknowledgement of Auto Dialer notification:

- When the phone is answered, a unique (“whish”) sound will be heard.
- The call must also be acknowledged by pressing “5” on the telephone keypad.
- If the call is not answered, or rings out and goes to message bank, the auto dialer will not have received any acknowledgement and continue to dial the pre-programmed phone numbers in rotation until the call is acknowledged.

** Should reprogramming of the auto dialer be required, please contact Quirks Australia at **1800 686 672***

LogTag Temperature Recorder:

The LogTag temperature recorder (pictured to the right) records vaccine temperature data over time

- Temperature is recorded from a probe inside the refrigerator cabinet, surrounded by transfer gel, providing a *simulated vaccine core temperature*.
- Temperature information is downloaded to a PC, using the LogTag Analyser software provided (see **Setting up the LogTag** on **Page 7**).
 - This information can be used in regulatory audits and insurance claims, to provide an accurate representation of vaccine core temperature inside the Medisafe refrigerator, during its operation.
 - Temperature patterns are recorded over time, providing indication of damaged seals, or changes in operating temperature.



! The LogTag recorder must be connected to the PC immediately after it has been removed from the Medisafe for downloading, and reconnected to the Medisafe prior to starting, otherwise false readings will result!

! DO NOT USE vaccines exposed to temperatures below +2°C or above +8°C, as recorded by your LogTag, without obtaining further advice. Do not discard these vaccines. Isolate vaccines and contact the State/Territory health authorities for advice on the National Immunisation Program vaccines and the manufacturer/supplier for privately purchased vaccines. Recommendations for the discarding of vaccines may differ between health authorities and manufacturers. Do not discard any vaccines until you discuss the necessary actions.

Using the LogTag Recorder

The LogTag Analyser software is designed for use with Windows 2000/XP, Windows Vista, and Windows 7. Please contact Quirks Australia if your operating system is not supported.

Step 1. Installing the LogTag Analyser Software on your PC

- i. It is strongly recommended that you close down all other applications prior to the installation of your new LogTag Analyser software. **Note:** You must be logged in as an administrator on your computer to install the LogTag Analyser software.
- ii. Insert the CD in your computer's optical disc drive. The installation program should start automatically. If it does not, navigate to the optical drive in **My Computer** and double-click on **Setup.exe** to launch the LogTag Analyser Installer.
- iii. The installation process will guide you through the relevant steps to install the software. To proceed through each step of the installation process, click the "Next" button. If you want to change a previous step you can click the "Back" button. When the process is ready to be completed, clicking the "Finish" button, when it appears, will finish the installation process. If you want to stop installing the software, click the "Cancel" button.

Please note:

- All options should be left to their default setting, especially if you are unsure of what option to select or what the actual implications are if the option was to be changed.
- The drivers required to operate your USB interface are installed as part of the main installation process. From time to time updated drivers may be released by LogTag Recorders. If you are operating on Windows XP or Windows Vista these drivers will be available through the Microsoft Windows ® Update feature, as an optional hardware update.

Step 2. Starting the LogTag Analyser software

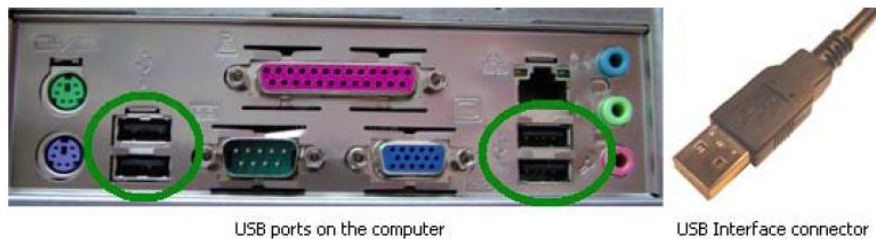
At the conclusion of the installation process, the final screen will provide you with an option to immediately start the LogTag Analyser software.

The installation of the LogTag Analyser software will also provide you with two simple methods to start the LogTag Analyser at a later time:

- i. A shortcut on the desktop, which you can double click to start the software.
- ii. A shortcut from the Start Menu, located in **All Programs → LogTag Recorders**



Step 3. Connecting the USB interface



The sockets for the USB communication ports are typically located at the rear of the computer. Please ensure that the software has been installed prior to connecting the USB Interface Cradle to the computer, as the software installation also installs the drivers required to successfully connect and use the USB Interface Cradle.

Step 4. Using the LogTag with USB interface

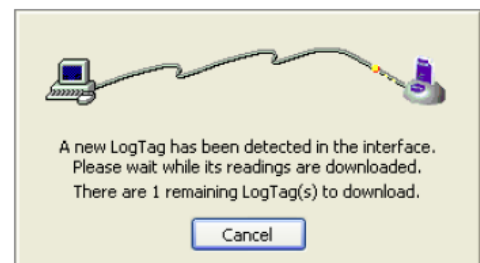
The LogTag recorder fits into the Interface Cradle slot with the front of the LogTag facing towards the front label of the Interface Cradle with the contacts on the reverse side, as shown in the picture to the right.

When placing the LogTag into the Interface Cradle slot, you should be able to feel a very slight resistance as the contacts "grab" the LogTag. This is normal. Removal of the LogTag will cause a slight clicking noise as the contacts snap back into their "unloaded position".



Please note: If the LogTag recorder has readings stored within its memory, the software will automatically start to download the data and will also display an animated picture during the download process, similar to the following picture (please ensure the LogTag Analyser software is open before inserting the LogTag recorder in the USB interface).

The download process can be stopped by clicking on the "Cancel" button below the download animation or by pressing the "Esc" key.



Step 5. Configuring the LogTag Recorder

- i. From the Menu Bar, locate "LogTag" sub-menu and then click and select **Wizard**.
- ii. A window will open with actions list, welcoming you to the **LogTag Access Wizard**. (This will assist you in setting up your LogTag, particularly for the first time.) Please note that the LogTag Interface must be plugged in to the PC's USB Port and that the LogTag must be completely inserted into the interface.
- iii. Click the **Next** button at the bottom of the window.

- iv. The **LogTag Configure** window will appear on the screen (as shown below).

LogTag Configure

Action List

- ✓ 1. Locate and identify LogTag(s)
- 2. Configure LogTag(s) for next use
- 3. Prepare LogTag(s) for next use

User ID: MEDISAFE DEMO 010410

Push button start

☐ Enable pre-start logging

☒ Record readings continuously, overwrite oldest when memory full

☐ Record readings so that:

Readings recorded will span at least 55 days

Number of readings to record 8,031 maximum is 8031

Record a reading every 10 Minutes

Begin recording after a delay of 0 Minutes

☒ Enable the OK (Green) indicator

☒ Enable the Alert (Red) indicator, when:

Readings below 2 or above 8 °C.

☒ After 2 consecutive alert readings (20 Minutes)

☐ After 0 alert readings have occurred (None)

☒ Leave alert indicator enabled even if readings return within alert range

☒ Clear and reset alert when START MARK button pressed

☐ Configure requires a password

☐ Download requires a password ← ☐ Upgrade logger to enable this feature

< Back Next > Close Help

LogTag Configure Window

- v. In the **User ID** field, please record your business name. It is also recommended that the location of the Medisafe unit be added to the description, as this will appear on all reports, etc.
- vi. The LogTag may be configured to start recording at a specific date/time, or using the **Start** button (recommended). This option can be selected from the drop-down menu in the LogTag Configure window, as shown below.

LogTag Configure

Action List

- ✓ 1. Locate and identify LogTag(s)
- 2. Configure LogTag(s) for next use
- 3. Prepare LogTag(s) for next use

User ID: MEDISAFE DEMO 010410

Push button start

Push button start

Date/Time start

☒ Record readings continuously, overwrite oldest when memory full

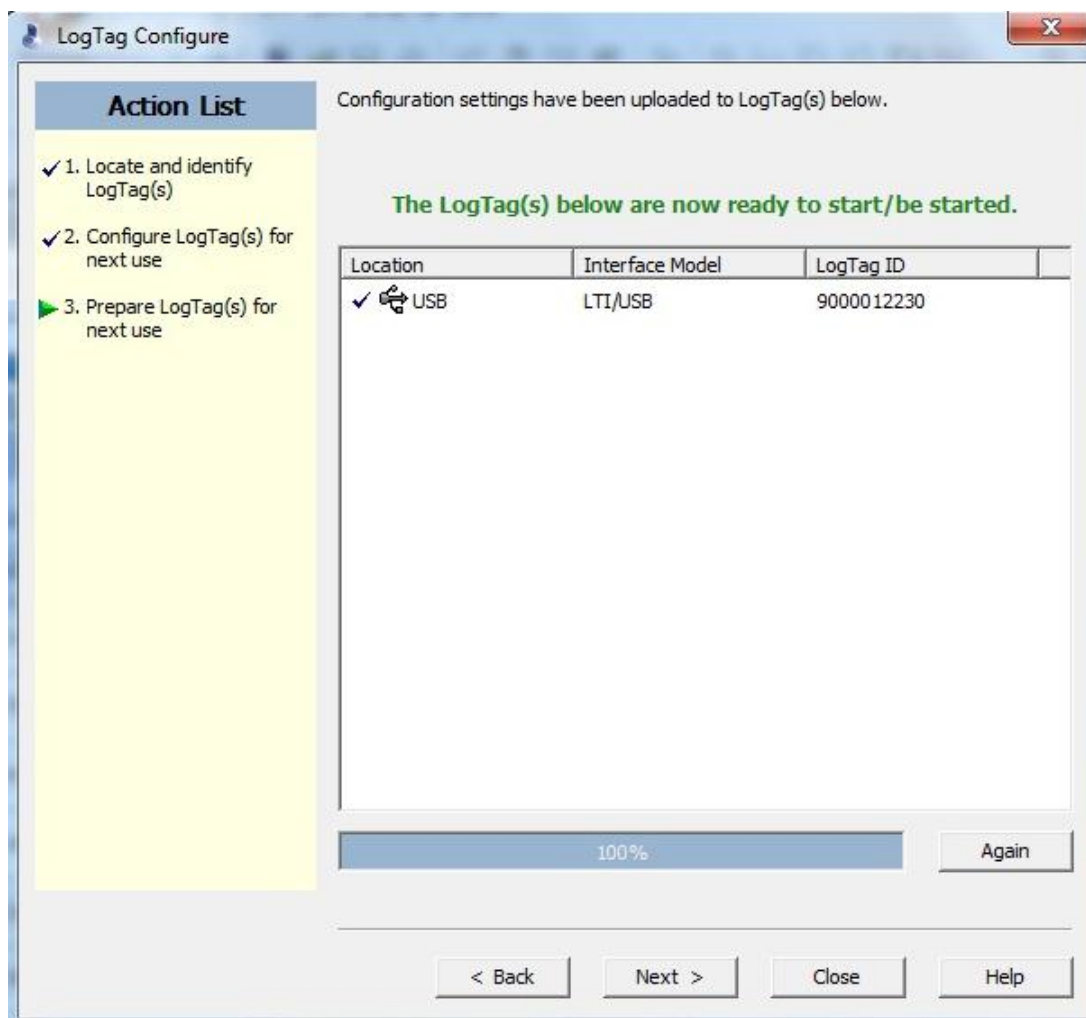
☐ Record readings so that:

Readings recorded will span at least 55 days

Number of readings to record 8,031 maximum is 8031

- vii. Select the **Record readings continuously** option.

- viii. Set the logging interval to **Record a reading** every **3-5 minutes**. (The interval may be adjusted to suit regulatory/insurance requirements).
- ix. Set the logger to **Begin recording after a delay** of **0 minutes**, to ensure the logger begins recording temperatures immediately.
- x. Enable the **OK (Green)** and **Alert (Red)** indicators, ticking both boxes
 - i. The Alert (Red) indicator should be enabled when readings are **below 2** or **above 8 °C**. This will provide an additional alert to the operator, in the event of a cold chain breach.
 - ii. Tick the box to enable the Alert (Red) indicator after **2** consecutive readings
 - iii. Tick the box to **Leave alert indicator enabled even if readings return within alert range**.
 - iv. Tick the box to **Clear and reset alert when START MARK button pressed**.
- xi. Leave the password fields blank, unless additional security is required for your recorder configuration.
- xii. At the bottom of the window, click the NEXT button to progress to the next stage, which will confirm the LogTag recorder is ready to be started. A confirmation message (shown below in green) will be displayed on screen.



LogTag status confirmation

Step 6. Recording using the LogTag

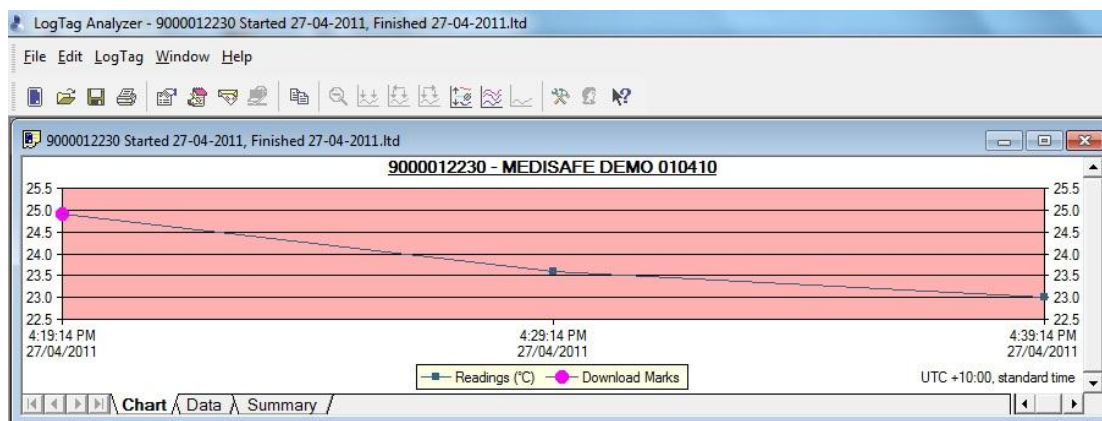
- i. Once you have completed the **Wizard**, and received confirmation the LogTag is ready to be started, remove the LogTag recorder from the USB interface and plug the recorder into the white temperature probe lead (located at the rear of the control panel).
- ii. Press **Start** on the LogTag, to begin recording. The Alert and OK indicators should flash simultaneously to confirm the LogTag has started recording.
- iii. During recording, the **OK** indicator will flash every 5 seconds. Should the temperature reach a value below +2°C or above +8°C, the **ALERT** indicator will flash every 5 seconds, until acknowledged.



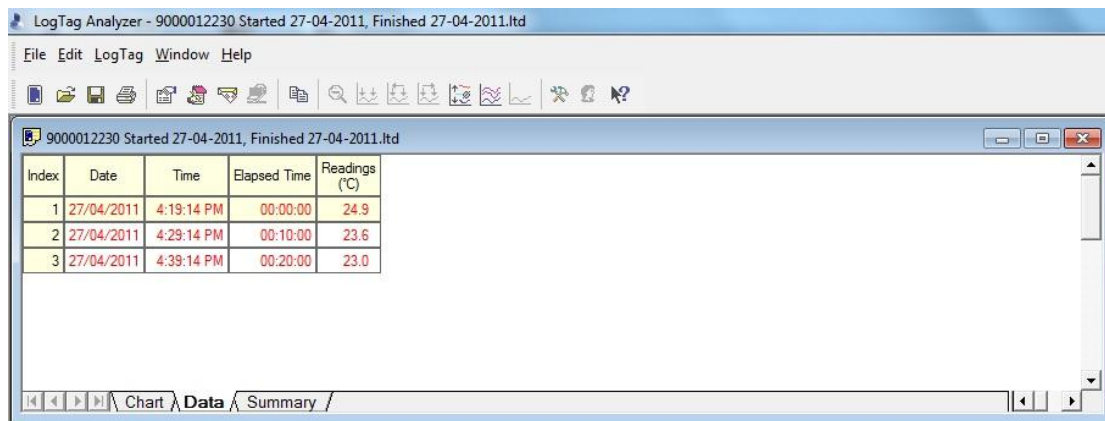
***Please note:** When the door is left open, such as when the refrigerator is being stocked, the temperature inside the refrigerator will rise. The operator may wish to indicate this specific event in the temperature log, which can be done by pressing **Mark** on the LogTag recorder (this will clear the Alert indicator and display a red point in the temperature log).*

Step 7. Retrieving data from the LogTag Recorder

- i. Ensure the USB interface is connected to the PC USB port, as shown in **Step 3** on **Page 8 (Connecting the USB Interface)**.
- ii. Open the LogTag Analyser software, using the desktop shortcut or navigating to the **LogTag Recorders** folder from the **Start Menu** (refer to **Step 2** on **Page 7** if you are experiencing difficulty finding the LogTag Analyser software on your PC).
- iii. With the LogTag Analyser software open, insert the LogTag recorder into the USB interface, as pictured below. The software will download the data and open a graph of the temperature data (LogTag data will be downloaded and automatically saved in **My Documents → My LogTag Data**).

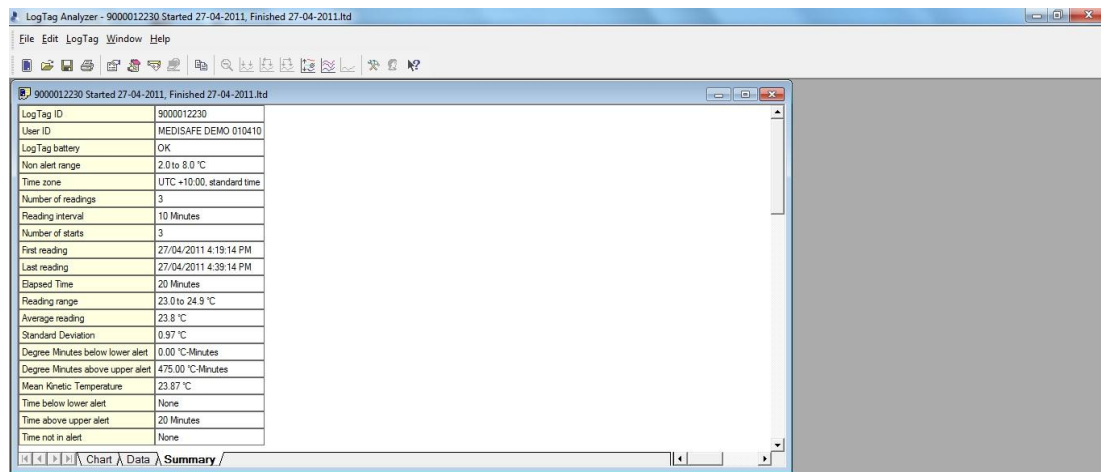


- iv. Temperature readings can also be displayed in a table format, by clicking the **Data** tab at the bottom of the window. **Note:** if Alert limits were set, temperatures outside the specified range will be displayed in red text.



Index	Date	Time	Elapsed Time	Readings (°C)
1	27/04/2011	4:19:14 PM	00:00:00	24.9
2	27/04/2011	4:29:14 PM	00:10:00	23.6
3	27/04/2011	4:39:14 PM	00:20:00	23.0

- v. A summary table may also be displayed, by selecting the **Summary** tab at the bottom of the window. The summary displays Number of Readings, Average temperature, etc, providing a useful snapshot of elapsed recording.



LogTag ID	9000012230
User ID	MEDISAFE DEMO 010410
LogTag battery	OK
Non alert range	2.0 to 8.0 °C
Time zone	UTC +10:00, standard time
Number of readings	3
Reading interval	10 Minutes
Number of starts	3
First reading	27/04/2011 4:19:14 PM
Last reading	27/04/2011 4:39:14 PM
Elapsed Time	20 Minutes
Reading range	23.0 to 24.9 °C
Average reading	23.8 °C
Standard Deviation	0.97 °C
Degree Minutes below lower alert	0.00 °C-Minutes
Degree Minutes above upper alert	475.00 °C-Minutes
Mean Kinetic Temperature	23.87 °C
Time below lower alert	None
Time above upper alert	20 Minutes
Time not in alert	None

- vi. Once you are finished reviewing the data, you may reconfigure the LogTag recorder for its next use, following **Step 5 Configuring the LogTag Recorder** on **Page 8** and **Recording using the LogTag** (Step 6).

Please note: LogTag data is automatically downloaded and saved in **My Documents → My LogTag Data**, for future reference.

Troubleshooting



Caution: Service should be performed only by qualified maintenance or refrigeration mechanics. For assistance, please contact Quirks Australia.

Issue	Possible Cause	Further Information / Action to be taken
Refrigerator will not run	No power	<ul style="list-style-type: none"> Check that appropriate power is supplied to the unit. Before turning on check to see if it is safe! Check fuses from main power supply.
Temperature is too low	Operating conditions	<ul style="list-style-type: none"> Check that there is sufficient air flow inside the refrigerator cabinet; that there are no large boxes or trays, stock is evenly distributed throughout the shelves, and there is space between stock and the evaporator plate at the rear of the cabinet.
Temperature is too high	Operating conditions	<ul style="list-style-type: none"> Ensure that the unit is not located in direct sunlight, or in an area where the ambient temperature is above 30°C. Check the condenser coil (located at the back of the unit) to ensure it is clean and not located in a confined space, so that air flow and heat dissipation are not restricted. Check that the door has not been left open. Check that the seal has not been damaged, allowing cold air to escape from the refrigerated cabinet. If a new seal is required, please contact Quirks Australia.
	System operating with low or high refrigerant pressures	<ul style="list-style-type: none"> If system is operating with pressure lower or higher than design refrigerant pressures. It will have less cooling capacity. High pressure can be the result of service issues such as dirty condenser coils, failed condenser fans, non condensables in the refrigeration system, system over-charge, or high ambient conditions. A qualified refrigeration technician should be called to determine the problem and repair as required. Low pressure problems can be the result of a low refrigerant charge, dirty evaporator, plugged refrigerant filter dryer, damaged capillary valve, high superheat adjustment, or failed evaporator fan. A qualified refrigeration technician should be called to determine the problem and repair as required.
	Compressor problem	<ul style="list-style-type: none"> Compressor has internal damage, causing less cooling capacity.

Issue	Possible Cause	Further Information / Action to be taken
Min-Max Temperature Display flashing “PF”	Power failure has occurred	<ul style="list-style-type: none"> Press the red set button on the display to acknowledge the alert. Refer to the LogTag temperature data, to ensure the vaccines have not been compromised.
Min-Max Temperature values did not reset	Reset was not acknowledged by Min-Max display	<ul style="list-style-type: none"> Press and hold the red set button until “rE” is displayed, to confirm the Min-Max values have been reset. (Note: the Min-Max display will first show the number of hours since the last reset, before displaying the “rE” confirmation).
Min-Max Display shows a different temperature than the Electronic Controller	Variation in Air temperature	<ul style="list-style-type: none"> The Min-Max Display and Electronic Controller operate using two separate temperature probes, reading the air temperature inside the refrigerator. Air temperature can vary, given the movement of air and amount of stock inside the cabinet. A normal acceptable variance is from 0.1-0.3°C. If the variance of temperature readings on the displays is consistently more than 0.4°C, please contact Quirks Australia to arrange an inspection and calibration. Please refer to LogTag recorded temperature data for the most accurate readings of simulated vaccine core temperature.
	Probe fault	<ul style="list-style-type: none"> A temperature probe fault will generally result in an error message displayed on the controller or Min-Max temperature display. It may also result in an exceedingly high or low temperature, or simply a blank display.
LogTag not recording (OK and/or ALERT indicators do not flash)	Not connected	<ul style="list-style-type: none"> When recording, ensure the temperature probe (white cable at the back of the control unit) is connected to the LogTag recorder. When downloading, ensure the LogTag is connected to the computer using the USB interface cradle provided. Recorded data is downloaded and saved automatically.
	LogTag not configured	<ul style="list-style-type: none"> Ensure the LogTag has been configured, following the process in Step 5 Configuring the LogTag Recorder on Page 8.
	LogTag not started	<ul style="list-style-type: none"> Ensure the Start button is pushed to begin recording, acknowledged by flashing of the OK and ALERT indicators.
	Battery needs replacement	<ul style="list-style-type: none"> LogTag batteries are not user replaceable (Battery status is indicated in the LogTag configuration window. Please contact Quirks Australia for more information, or to order a new LogTag Recorder.

For further information regarding vaccine storage and handling, please refer to the *National Vaccine Storage Guidelines: Strive for 5* (available from the Department of Health and Ageing, at <http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/provider-store>), or contact one of the following:

National Immunisation Infoline 1800 671 811

**State and Territory Health Department
telephone contact details for immunisation**

Australian Capital Territory 02 6205 2300
ACT Health

New South Wales 02 9391 9000 (Switchboard)
Department of Health Contact your local Public Health Unit (look under "Health" in the White pages) for region-specific information

Northern Territory 09 8922 8315
Department of Health and Families

Queensland 07 3234 1500
Queensland Health

South Australia 08 8226 7177
Department of Health

Tasmania 03 6222 7724 or 1800 671 738 (within Tasmania only)
Department of Health and Human Services

Victoria 1300 882 008
Department of Human Services

Western Australia 08 9321 1312
Department of Health