User Guide

Medisafe Plus 80
Medisafe Plus 311
Medisafe Plus 371

Powered by

Avem Quirks

Acknowledgement

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

Contact Information

Should you require assistance, guidance, or technical support, please contact us on **1800 658 120**.

Avem Quirks Australia Pty Ltd.
9 Business Park Drive, Lynbrook VIC 3975
Email : medisafeplus@avemquirks.com.au

Medisafe Plus Warranty

Your new Medisafe Plus vaccine refrigerator is covered by a 24-month warranty on parts and labour. Avem 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.

Avem 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 Plus refrigerator operates as it should.

Please be aware that failure to follow instructions and the correct operation of the unit , especially in relation to set up and start-up of units may result in loss or damage to valuable products.

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

Please refer to the Australian Department of Health's National Vaccine Storage Guidelines: Strive for 5 for further information about vaccine storage management or contact your local State or Territory health authority.

Contents

Getting Started

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

⚠️ Medisafe Plus 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. Medisafe Plus units are designed to operate at 220- 240V, 50Hz.
- Do not plug several appliances into the same multiple receptacles.
- Electrical components should not come in 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 Avem Quirks. Contact us on 1800 658 120 or servicedesk@avemquirks.com.au

Installation

- Place the Medisafe Plus refrigerator in a location with a flat level surface, 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. Medisafe Plus 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 Plus refrigerator. Ensure the power point is secure, that the refrigerator cannot be accidentally unplugged or switched off.
- Plug in and turn on the power to the AQ Box Cloud Temperature Monitoring system. This is to be plugged into the same power point as the Medisafe Plus refrigerator. Ensure the plug is secure and cannot be accidentally unplugged.

⚠️ When the power is first turned on, the Min-Max temperature display will flash a "**PF**" alert as shown below. This informs the operator there was a loss of power and can be acknowledged by pressing the red "**SET**" button on the Min-Max display.
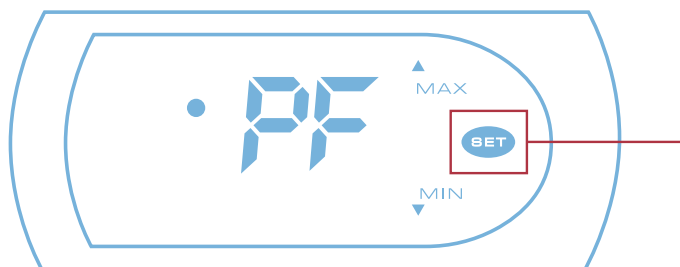
Press 'SET' button once, this will mute the alarm

Basic Operation-First use

- As advised on previous page, the power failure alert "PF" should be acknowledged by pressing the red "SET" button once on the Min-Max temperature display.
- It is recommended the Min/Max Thermometer is reset on first start up.
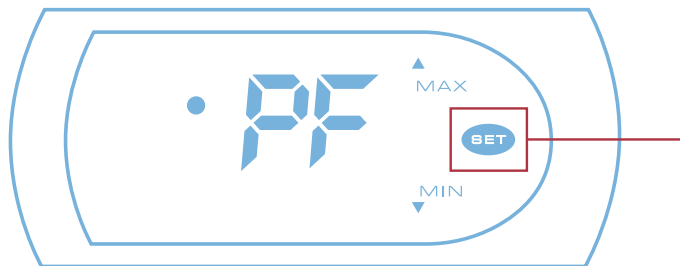
Press and hold the red 'SET' button for 8 seconds to ensure the Min-Max values have been reset.

The Min-Max display will first show rT-NNN-rE—°C (rT is the number of hours since the last reset), before displaying the rE (reset) confirmation.

The Medisafe Plus refrigerator is pre-set for operation between +2° and +8°.

The AQ Box Cloud Monitoring device will begin to log data as soon as it is powered.

Stocking the Medisafe Plus Refrigerator

The Medisafe Plus 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. It is therefore important that an appropriate level of care is taken in stocking the refrigerator.

- Cool the vaccine refrigerator before stocking with vaccine. We recommend allowing the refrigerator to run for at least six (6) hours prior to loading with vaccines.

  There will be a small amount of condensation produced inside the refrigerator. This will dissipate over time.

- 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 supply air panel 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 evenly place them 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 that they are spaced evenly on the shelves.

- **DO NOT** overstock the refrigerator.

- If very few vaccines are stocked, thermal mass (such as pre-cooled water bottles) should be added to the refrigerator in areas of open space.

Silencing the Alarm

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

To silence the alarm:

Press the SET button ONCE on the display screen.

⚠️ When you first turn the cabinet on, if it does not reach a temperature below 8°C within 10 minutes, the alarm will sound. **This is a normal function**. All that is required is that you press the 'SET' button to silence the alarm and restart the cooling process.
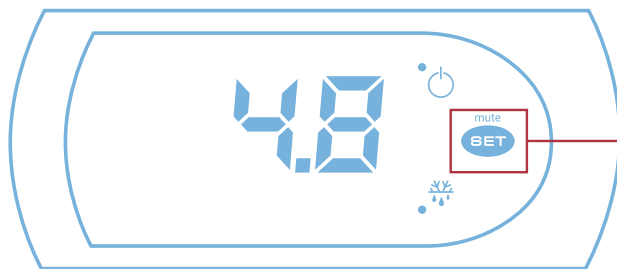
Press SET to mute the alarm

Light Activation

Medisafe Plus 80 model:
The light can be controlled on the internal fan plate.

Medisafe Plus 311 and 371 models:
The light can be controlled from the toggle switch, located on the underside of the cover strip, above the door.

Temperature Control System

- This highly accurate electronic control, located in the top right of the control panel, 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°C 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 minutes) is programmed into the system to prevent unnecessary false alarms (such as the door being open for extended periods of time).

Press the SET button ONCE to silence the audible alarm.

The electronic controller is pre-programmed during the manufacturing process.
The only button you are required to press is the PRG/MUTE button. If the cabinet alarm sounds, you can press this to silence it. **Any reprogramming of the controller must be done by a qualified Avem Quirks service technician.**

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

Should you experience any issues with the Medisafe Plus refrigerator maintaining temperature within the set parameters, please contact our national **Service Support line on 1800 658 120**.

Min-Max Temperature Display

- The top left display is the minimum and maximum temperature recorder. This displays the current air temperature inside the cabinet, and also provides the minimum and maximum air temperatures reached inside the refrigerator since the last reset.

- To display the minimum air temperature the cabinet 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 before returning to the current air temperature inside the cabinet.

- Similarly, to **display the maximum air temperature** the cabinet 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 before returning to the current air temperature inside the cabinet.

- To **reset the Min-Max display**, press and hold the red '**SET**' button for approximately 8 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.

- ***Please Note:*** *As your unit is fitted with an AQ Box cloud monitoring device, the maximum temperature will rise if the door is left open for an extended period of time, resulting in a **'Temperature Fault'** notification being sent from the AQ Box.*

It is essential that the reset is performed on the Min/Max thermometer before leaving the premises to ensure a true reading is viewed the following morning.

(Some regulations governing vaccine storage may require a reset of the display more frequently than once a day. Please check with your State or 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.

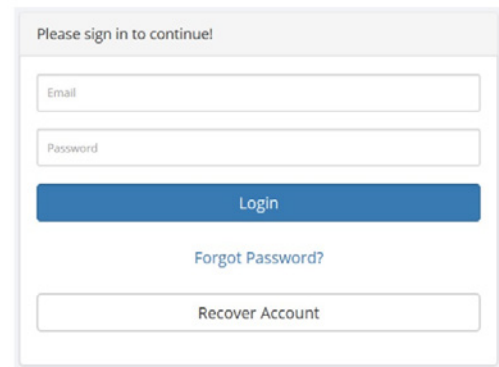# AQ Box Cloud Temperature Monitoring Device

All new Medisafe Plus vaccine refrigerators are pre-installed with the AQ Box Cloud Temperature monitor.

Please complete the supplied Medisafe Plus 'Cloud Monitoring Product Registration' form and return it to medisafeplus@avemquirks.com.au to gain access to your portal and all reporting.

- The AQ Box is connected to the Mobile Data Network through a SIM card.
- It sends Temperature, Communication and Power Fault notifications via SMS and email to your nominated numbers and email addresses.
- In the event of a network fault, data will be cached for up to 30 days. All data will be released to the cloud when the network is re-established.
- The AQ Box portal will store information for up to 90 days.

Logging into The AQ Box

- Open Google Chrome, Microsoft Edge, Internet Explorer, Fire Fox or Safari
- In seacrh area at the top of the page type - http://aqbox.avemquirks.com.au/login
- Type in your email address and the password you requested on your subscription form and press 'login'.

From here you will go to the front page

On the left of the page are 'TABS' to manoeuvre or by using the dropdown "Updated Now" area of each box to select the device.

1. **DASHBOARD** - gives an overview of the monitored devices
2. **DEVICES** - if you have multiple devices this is where you can choose which device to view
3. **USER SETTINGS** - add or delete notification responses and who receives them and how often. Also allows the user to manage passwords.
4. **REPORTS** - view and download the monitored device temperature history and fault reports
5. **LOGOUT** - this is to logout as a user.
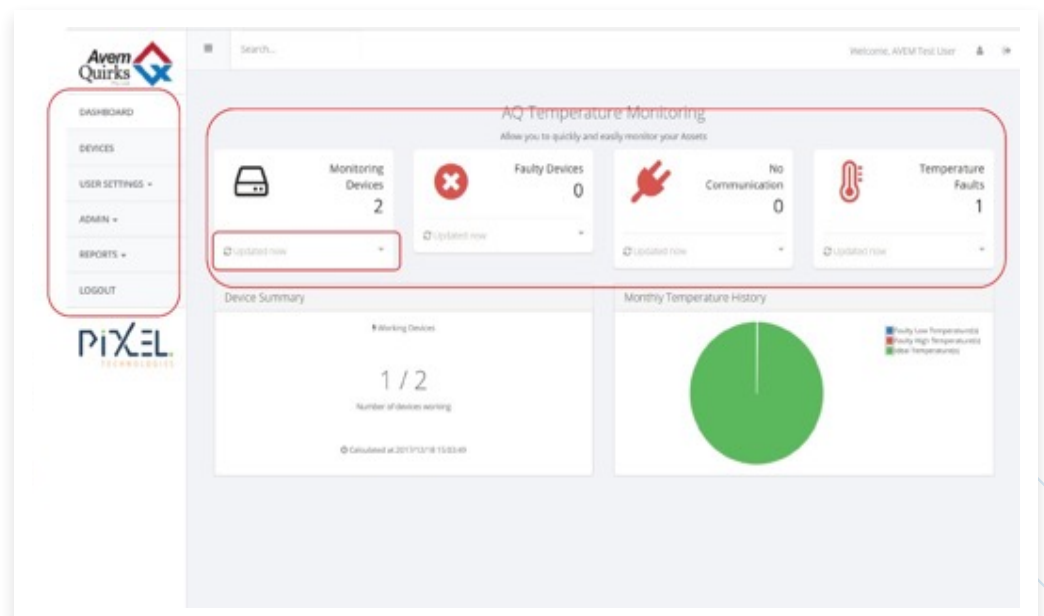
User Settings

Under the 'USER SETTINGS' tab is where you can manage passwords and notifications.

Running Temperature Reports

- Under REPORTS choose - "Device Temperature"
- Select the Device in the dropdown box
- Choose the desired 'From' date and time
- Choose the desired 'To' date and time
- Choose 'Reading every (minutes) - this can be from 1-99 minutes.

Once all parameters are set, click the 'Generate' button and the report will generate in the background.

A video on how to generate a report is also available here.

Printing the Report

- Once the report has been generated - go to the end of the report and click on the 'blue' highlighted link -*"Click here to print report"*
- Choose the printer that you want to print to, and click print
- You can also export your file and save as Excel. Click on the blue highlighted link *"Click here to export CSV"*.
- Once the file has downloaded save the file to your computer but change the file type from CSV to EXCEL.
- Reports can be exported to **CSV** and saved as **EXCEL** files or printed directly from your computer.
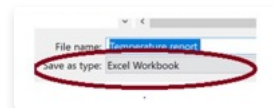
Troubleshooting

Service on all Medisafe Plus units should only be performed by qualified maintenance or refrigeration service technicians. **Please contact Avem Quirks directly on 1800 658 120 for all service requests.**

Issue	Solution
Refrigerator will not start/ run after delivery	Please check that power is supplied to the unit. Ensure the power plug is in the 'ON' position. Before turning on, check to see if it is safe! Check fuses from main power supply. If there is an electrical supply issue, please contact your electrician. If it is a Medisafe fridge issue, please contact Avem Quirks on 1800 658 120.
Why did the fridge alarm go off when I turned it on?	When the fridge was turned on, it would not have been inside the pre-set temperature range of +2°C to +8°C. You can press the PRG/MUTE button on the controller or the red button on the Min/Max display to silence the alarm. The fridge will continue to come down into the pre-set temperature range.
Temperature is too low	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. A 'Temperature Fault' notification will be sent.
Temperature is too high	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 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 Avem Quirks for service. A 'Temperature Fault' notification will be sent.
In case of a power outage, how long will my Medisafe Plus fridge stay cold?	There is no determinable time frame for this. It will depend on variables such as current stock levels in the fridge as body mass will hold temperature for longer periods, and the current temperature in the room. We recommend you follow the 'Strive for 5' Australian guidelines for vaccine storage and ensure that your cold chain management system aligns with these. For more information about correct storage of vaccines, please contact one of our experienced support staff or visit the link above.
My unit needs to be serviced. How do I arrange this?	Your AQ Box will send a 'Service Notification' at the 11-month mark from when your unit was installed, to remind you. Please call our national Service number on 1800 658 120 or email: medisafeplus@avemquirks.com.au and provide the serial number of your Medisafe Plus fridge. We will arrange for one of our experienced service technicians to visit.

Issue	Solution
The AQ Box will not display data	Please call our national service number on 1800 658 120 and we will troubleshoot the issue for you. If we cannot assist you over the phone, we will send one of our technicians to assist on site.
Can I obtain my own SIM card?	No, you cannot. The SIM card placed inside the AQ Box has a serial number linked to an Avem Quirks software license. Replacing this with another SIM card that is not registered with us, will not allow you to view your data and the graphs via the cloud.
What happens if I have forgotten my password?	It is recommended you keep records of all your passwords. In the event a password has been lost or forgotten, please send an email to medisafeplus@avemquirks.com.au requesting a new password for your email login.
Why doesn't the map display correctly where the AQ Box monitoring device is located?	This is because the AQ Box is fitted with a SIM card that 'pings' a location generated by the Network.
If power is lost in the fridge, will the AQ Box continue to send data to the cloud?	Yes, the AQ Box has a 7-hour battery backup to ensure it continues to send data to the cloud. You will still be able to view the data via any web-enabled device. A 'Power Fault' notification will also be sent.
If the Mobile Data Network is down, will the AQ Box continue to record data?	Yes, the monitoring system will cache data and send all lost data to the cloud when the signal is restored. The AQ Box will cache data for up to 30 days. A 'No Connectivity' notification will also be sent.
If the Network is down and the power is out will the data still be sent to the cloud?	Yes, the AQ Box will cache data, until the battery discharges (approximately 7 hours). When the network is back online, the cached data will be sent to the cloud. The AQ Device will continue sending data to the cloud until its own battery backup is fully exhausted. A 'No Connectivity' Notification will be sent. A battery pack or UPS is the best solution to run the fridge, which will also recharge the AQ Device as well. Please contact Avem Quirks if you wish to purchase these units. Once connectivity is re-established, a Notification will be sent.
Can additional features be added to the AQ Box?	Not currently. However, we are continually looking for improvements, including adding additional probes to monitor compressor irregularities, door alarms, strobe lighting for the hearing impaired, and many other user-friendly features.
Can two fridges be connected to the AQ Box device?	No, not currently. Each vaccine refrigerator will be required to have an individual AQ Box fitted.

Issue	Solution
Can I buy more GLYCEROL B.P in case of a mishap?	Yes, you can acquire this at most local pharmacies. 100mL bottles of Glycerol B.P are available at most pharmacies for approximately $5.00. However, it is best to call our service team as this means the 'putty/sealant compound' has come away from the vial bottle and will need replacing. We recommend that an approved technician attends your site to resolve this issue.
What is the 'DASHBOARD' for, when viewing the AQ Box portal?	The dashboard provides an overview of the monitored device or devices assigned for you to view.
What are 'USER SETTINGS' for, when viewing the AQ Box portal?	This is where you can add or delete notification responses and who receives them and how often. It is also where you can manage your passwords.
What is 'REPORTS' for, when viewing the AQ BOX Portal?	This is where you view and download the monitored device temperature history and fault reports. Data is retained in the portal for up to 90 days.
What is the 'ADMIN' tab for, when viewing the AQ BOX Portal?	To add a device – Administrator user –adding device
	To modify the device –This is only for approved users. It will enable added features or to change settings.
	To add users –Add a standard or Administrator user
	To manage users –Change/delete user contact or select level of access
	User Password –Change password by user. System administrator rights are needed.
	To add a group –Add a group to manage multiple devices.
	Manage groups –this is where you manage the email notifications and who can have authority to view devices, if you have multiple devices.
	Add notification –add what information is sent on the notification and how often.
	Manage notifications – to remove notification set up.
	Email Templates, Remove Note –Super User Only Call History –Device information -Backend Data
	Signal Strength, Service Status, System Info –Selected Device communication information –Backend Data

Issue	Solution
REPORTS	Device Temperature –Users can choose a device, day and time range and print the report or Print to PDF, OneNote (if installed).
	Twice Daily -This report will give two (2) readings for any device and print the report or Print to PDF, OneNote (if installed).
	Faulty Temperatures –This can show all devices in a group or individual devices and show total readings as well as faults.
	Faulty Probe –This will show any device listed with total probe readings for each set output - air temperature, simulated product temperature, ambient, etc.
	Asset History –used for device diagnostics.
	Device Trip –will show if the device has moved. Note this is based on the nearest signal tower in the area and will reflect that base location.
	Faulty Device Duration –will show device probe temperatures outside of the set temperature and duration.
	Compressor Decay –if installed, will allow the technician to diagnose compressor fatigue.
	A video on how to generate a report can be found by clicking here.
How to run a report on data?	Under 'Report' choose 'Device Temperature'. Select the device in the dropdown box. Choose the 'From' date and time (Historical Data, up to 90 Days). Please note only one month of data can be generated into a report at any time.
	Choose the 'To' date and time.
	Choose the 'Reading every (minutes)' – this can be from 1-99 minutes.
	Once all parameters are set, click the 'Generate" button and the report will generate in the background.
	A video on how to generate a report can be found by clicking here.
Printing a Report	Once the report has been generated, go to the end of the report, and click on the 'blue' highlighted link – 'Click here to print report'.
	Choose the printer that you want to print to and click print.
	To save the report to your PC you will need to save it as a PDF file.
	From the generated report, press Ctrl + P.
	Destination - Save as PDF (this will need to be changed from your default printer).
WARRANTY	Medisafe Plus refrigeration units come with a 24-month parts and labour warranty.
	The AQ Box temperature monitoring device remains the property of Avem Quirks at all times. As such, it is warranted for parts and labour during paid and active subscription periods.
	The AQ Box warranty is void if incorrect installation or unauthorised modifications are performed without prior approval from Avem Quirks.