



Cryostorage Monitoring

Model: IMB-306



Innovate
Integration
Elevate

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1. Safety Instructions



WARNING: READ THIS QUICK START GUIDE.

Please familiarize yourself with the contents of the quick start guide and the manual before using the device. Failure to comply with these instructions may result in damage to the device, device contents, and/or user injury.



INFORMATION: CHANGE AND INSTALLATION OF BATTERIES

The CRYOTRIO™ Monitoring Base uses two ER34615 Li-SOCL₂ battery cells with capacity of 19000 mAh each. Change and install two identical battery cells simultaneously. Do not mix old battery cells with new ones. The battery cells are connected in parallel, and both cells are installed with positive mark upside.



WARNING: DO NOT CHARGE THE ER34615 BATTERY CELLS

Do not charge, crush, disassemble, heat over 100°C(212°F), incinerate, or expose contents to water.



INFORMATION: BATTERY CELLS NOT SHIPPED ALONG WITH THE DEVICE

The ER34615 battery cells are not shipped along with the device.



WARNING: TRANSPORTATION OF THE CRYOTRIO™ MONITORING BASE

It is highly recommended removing all battery cells before transportation of the device using vehicles, shipping or aviation, etc. Transportation of Li-based battery cells should abide by local regulations.



WARNING: MOVING THE CRYOTRIO™ MONITORING BASE

Do not pull or push the bumper bars when the Base is heavily loaded. Do not use the temperature cable for traction. Do not move the Base with caster brake applied.



WARNING: OPEN THE LID

Watch the inner temperature sensor on the inner side of the lid while removing the lid from the device. Detach the sensor first before takeoff of the lid.



WARNING: WATCH FOR FROSTBITE

Watch for frostbite when dealing with liquid nitrogen tanks with liquid nitrogen loaded in the tank. The Base does not reduce any risk to frostbite.



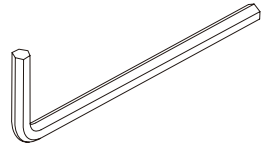
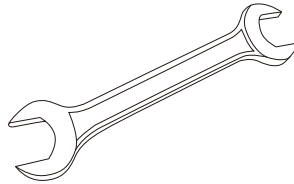
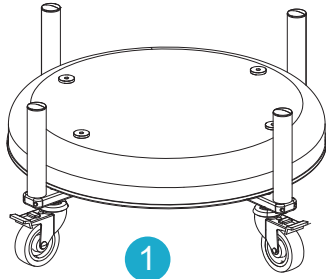
Disposal of this product must be undertaken according to WEEE directive (2012/19/EU).

2. Installation and Set-up

2.1 Unpacking

Items supplied.

Please find the following items supplied:



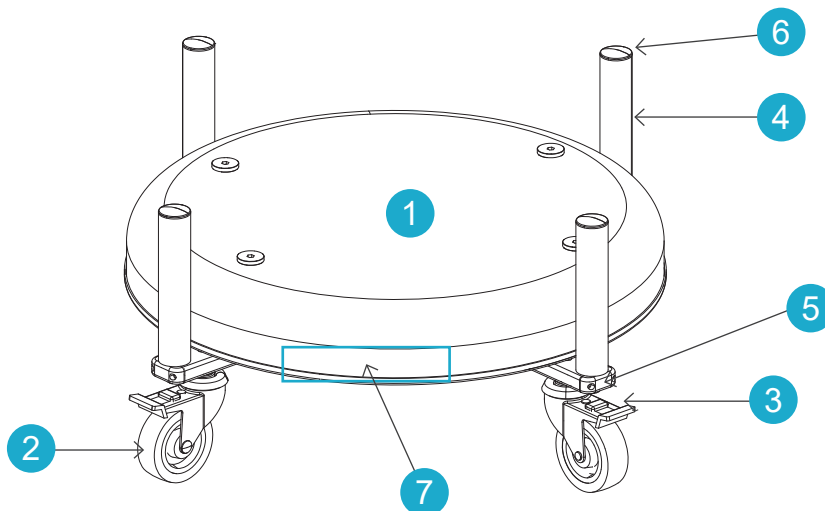
- ①. CRYOTRIO™ Monitoring Base
- ②. Thin Wrench
- ③. Allen Key

Check all items immediately upon receipt to make sure the contents are complete and that all the items in the package are intact. The manufacturer will only honor claims for compensation which are forwarded immediately to the sales representative or the authorized service provider.

Check the following:

- All items have been supplied.
- All items are intact upon unpacking.

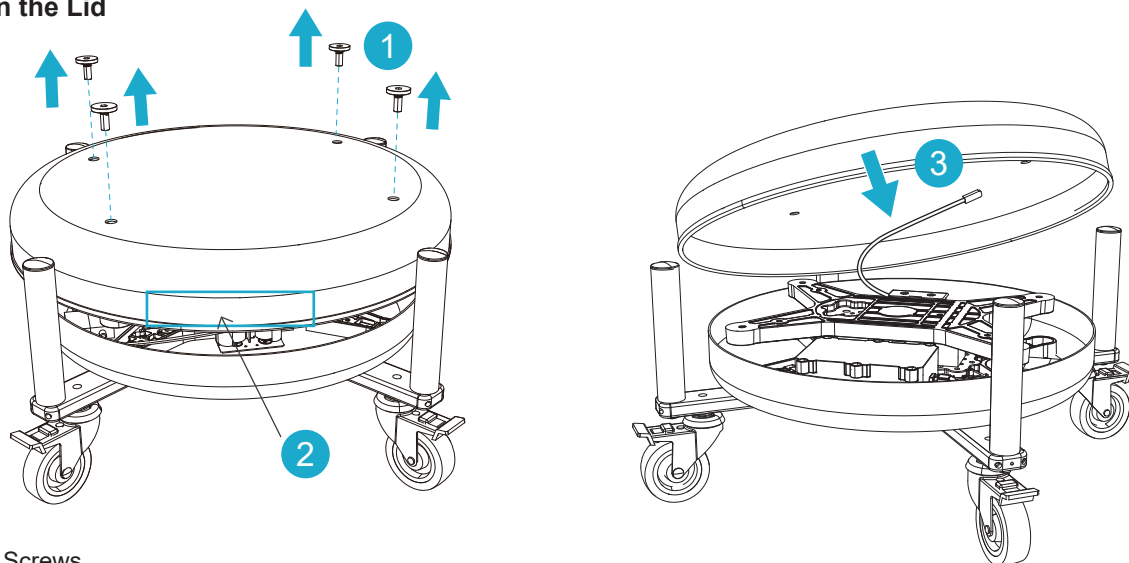
2.2 The CRYOTRIO™ Monitoring Base



- ①. Base body.
- ②. Casters
- ③. Caster Brake
- ④. Bumper bars
- ⑤. LED indicator
- ⑥. Temperature sensor for liquid nitrogen
- ⑦. Opening Lid marker

2.3 Installing and Changing Battery Cells

• Open the Lid



- ①. Screws
- ②. Opening Lid marker
- ③. Inner temperature sensor

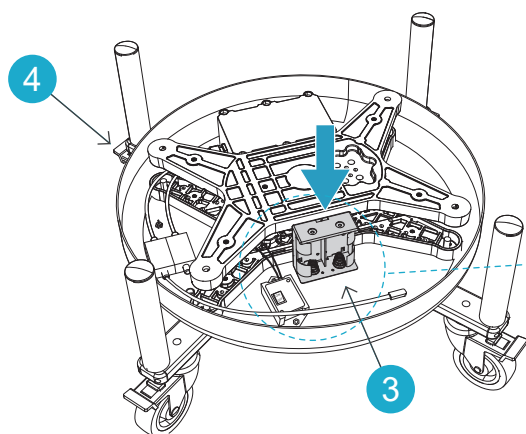
1. Active all the caster brakes.
2. Use the attached Allen Key or equivalent tools to loosen and remove the four screws on the lid.
3. Lift the lid side carefully from the side with the opening marker. There is a temperature sensor attached to the inner side of the lid.
4. Detach the temperature sensor from the lid and take off the lid.



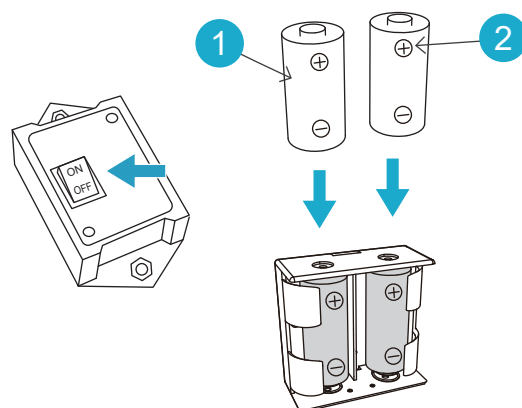
WARNING: OPEN THE LID

Watch the inner temperature sensor on the inner side of the lid while removing the lid from the device. Detach the sensor first before takeoff of the lid.

• Install the Battery Cells



- ①. ER34615 battery cell
- ②. Positive marker of cell
- ③. Battery container
- ④. LED indicator



1. Turn off the Switch
2. Remove old batteries.
3. Install two identical new ER34615 batteries.
4. Turn on the Switch

1. Install two new ER34615 battery cells into the battery container with both cells positive mark upside.
2. Observe the LED indicator. The LED indicator will flash every 30 seconds after the batteries are correctly installed.
3. The device can work with one or two battery cells. Using two battery cells is recommended for long time operation.



WARNING: CHECK THE POLARITY OF BATTERY CELLS INSTALLED

Check the polarity of the ER34615 battery installed in the battery container. Confirm that both positive markers are upside.



INFORMATION: CHANGE AND INSTALLATION OF BATTERIES

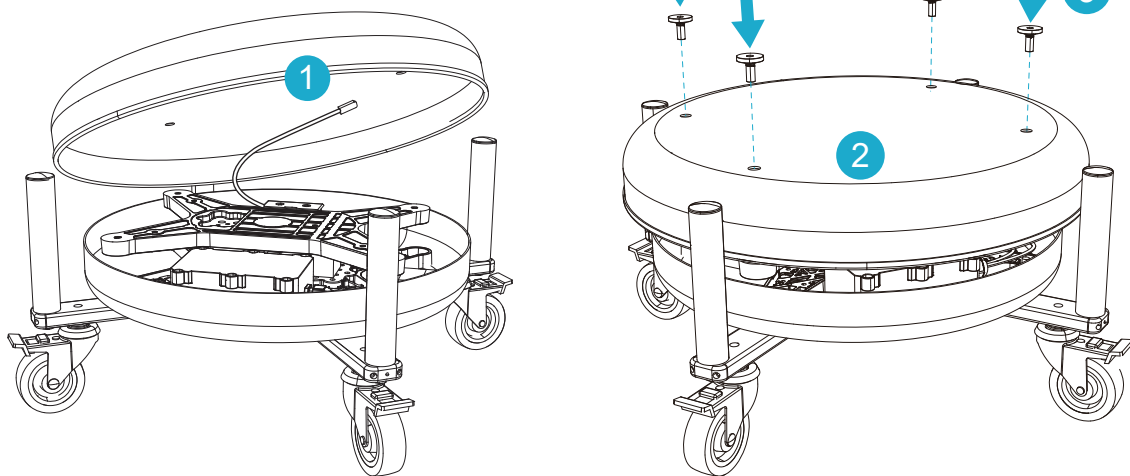
The CRYOTRIO™ Monitoring Base uses two ER34615 Li-SOCL₂ battery cells with capacity of 19000 mAh each. Change and install two identical battery cells simultaneously. Do not mix old battery cells with new ones. The battery cells are connected in parallel, and both cells are installed with positive mark upside.



WARNING: DO NOT CHARGE THE ER34615 BATTERY CELLS

Do not charge, crush, disassemble, heat over 100°C(212°F), incinerate, or expose contents to water.

- Close back the Lid



- ①. Attach the temperature sensor to the lid.
- ②. Put the lid back on the CRYOTRIO™ Monitoring Base and align the screw holes with the Base.
- ③. Use Allen Key or equivalent tool to install the screws.

2.4 CRYOTRIO™ Monitoring Base Placement

The CRYOTRIO™ Monitoring Base should be placed on a level secure surface, away from heaters, coolers, air-conditioning outlets, mist, splashes and exposure to direct sunlight.

The ambient temperature should be between +5°C and +35°C for the device to function correctly.

The Base should have the four casters land on the surface firmly and all caster brakes are active before putting on loads.

2.5 Moving the Base and Anchor the Base

- Release all the caster brakes.
- Push the Base body to move the Base.
- Do not pull or push bumper bars with heavy load on the Base.
- Do not use the temperature sensor cable for traction.
- Pressing down the caster brakes to anchor the Base.



WARNING: MOVING THE CRYOTRIO™ MONITORING BASE

Do not pull or push the bumper bars when the Base is heavily loaded. Do not use the temperature cable for traction. Do not move the Base with caster brake applied.

RF Specification

01 RF Frequency

The device uses RF frequency band 915 MHz.

02 RF Transmission Power

The device transmit RF energy is no more than 22 dBm.

03 RF Antenna

The antenna's gain is 3 dBi.



WARNING: DO NOT CHANGE THE ANTENNA WITHOUT PERMISSION

The device uses a propriatory antenna. Do not change the antenna without permission.

Quick Diagnosis

01 LED Indicator not flashing

Check if batter cells are in good health and correctly installed.
The opening voltage of the new battery cell should be around 3.6V.
Activate the new cells by discharge at a current of 1mA to 2mA for 1 hour before installing if the battery cell is below 2.0V.

02 Cannot Move the Base

Check the caster brakes. Release all the caster brakes before moving the Base.

03 Cannot anchor the Base

Pressing down all the caster brakes to immobilize the Base.

04 The Base loses balance

Check the caster positions. Make sure all the casters are near to the bottom of the bumper bars.
Use the attached thin wrench to adjust the position of the casters.
Use the attached thin wrench to adjust the height of the casters.

05 The Inner Temperature Sensor peeled off from the Lid

This might happen when opening the lid when not following this guide.
Use tape or band to attach the temperature sensor to the inner side of the lid.

06 No Data received or the RF transmission distance is too small

Check the Antenna.
Ensure that the Antenna is correctly installed.

FCC WARNING

01 FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body