MVE HE & MVE Series Freezers with CryoVerse™ Connect

Quick Reference Guide

MVE Biological Solutions stainless steel vacuum insulated, non-pressurized cryogenic freezers are designed for the safe and efficient storage of biological samples. The MVE CryoVerse™ Connect Controller is designed to automatically maintain the freezer LN2 level and monitor the temperature of the storage chamber to store biological samples in cryogenic stasis state. The CryoVerse™ Connect controller incorporates an easy-to-use setup routine that helps avoid nuisance alarms as the freezer reaches equilibrium (cools down). The freezer should be installed in an area appropriate for LN2 service with adequate ventilation, oxygen monitoring, and an even floor with sufficient load support. LN2 safety precautions must be followed. Please refer to the Technical Manual for more information.

CE

Intended Use & Indication for Use for Cryogenic Storage and/or Transport

LIFE SCIENCE INTENDED USE STATEMENT

STORAGE ONLY

MVE FREEZERS ARE INTENDED FOR THE INDICATION OF PRESERVING HUMAN BIOLOGICAL PRODUCTS, SAMPLES, AND/OR SPECIMENS (E.G., BLOOD, BLOOD PRODUCTS, CELLS, TISSUES, ETC.) AT CRYOGENIC AND ULTRACOLD TEMPERATURES DURING STORAGE.

STORAGE AND TRANSPORT

MVE DEWARS AND VAPOR SHIPPERS ARE INTENDED FOR THE INDICATION OF PRESERVING HUMAN BIOLOGICAL PRODUCTS, SAMPLES, OR SPECIMENS (E.G., BLOOD, BLOOD PRODUCTS, CELLS, TISSUES, ETC.) AT CRYOGENIC AND ULTRACOLD TEMPERATURES DURING STORAGE AND/OR TRANSPORTATION.

MVE Inc. reserves the right to discontinue its products, or change the prices, materials, equipment, quality, descriptions, specifications and/or processes to its products at any time without prior notice and with no further obligation or consequence. All rights not expressly stated herein are reserved by us, as applicable.

Copyright © 2026 MVE Industries

MVE Biological Solutions

Customer / Technical Service:

Location	Phone	Fax	Email
The Americas	844-MVE-CRYO +1 844-683-2796	+1 470 552 2200	customerservice.usa@mvebio.com techservice@mvebio.com
Asia, Australia, Pacific Rim	Asia: +1 844-683-2796 Australia: +61 (2) 974 94333	+61 (2) 974 94666	csasia@mvebio.com techservice@mvebio.com
Europe	+44 (0) 7718 488236	Not Available	customerservice.europe@mvebio.com techservice@mvebio.com

Read this Quick Reference guide; this guide is intended to be used with the Technical Manual. Failure to follow the instructions in this guide can result in damage to the unit, injury to personnel, and/or poor equipment performance. The Technical manual covers the use and maintenance of MVE Cryogenic Freezers and the CryoVerse™ Connect Control system. It is intended for use by qualified personnel only. Installation, service, and maintenance should only be performed by an authorized MVE Distributor. If any alarms occur, contact your authorized MVE Distributor or Technical Service.

NOTE: All models are Class II, externally powered, continuous operation medical devices. They are not suitable for use with flammable anesthetics. This equipment has been tested and found to comply with the limits for medical devices to IEC 61010-1:2010+A1:2016 and EMC standard IEC 60601-1-2:2020.

CAUTION:

Failure to follow MVE's best operating practices, as set forth in the technical manual, can result in loss of contents	Active monitoring required	Investigate all alarms or abnormal operating conditions immediately and address root causes	Contact your Distributor for support

Table of Contents

1. Symbols, Safety, Equipment Usage, First Aid and Hazards

The following symbols are used in this guide, on the device, and on device packaging:

Symbol	Title	Description
	**Operating Instructions**	The operating instructions should be considered for additional information when operating this device.
	**Serial Number**	Unique identifier for the device.
	**Model Number**	MVE model number for the device.
	**Caution**	Signifies a CAUTION of a potentially hazardous situation when operating the device that may result in minor to moderate injury or property damage.
	**Warning**	Signifies a WARNING of a potentially hazardous situation when operating the device that may result in serious injury or property damage.
	**Warning; Low Temperature**	Indicates low temperature or freezing conditions. Take care to avoid exposure to skin, eyes, and clothing.
	**Warning; Asphyxiating Atmosphere**	Indicates the potential for an oxygen-depleted atmosphere due to nitrogen vapor. Take care to operate device in a well-ventilated area.
	**Warning; Electricity**	Indicates a potential electrical hazard. Take care to avoid contact with electricity.
	**Warning; Explosive**	It indicates a potential explosive hazard. The expansion ratio of liquid nitrogen to gas is 1:700 and can cause explosive conditions if placed into a sealed container.
	**Wear Protective Gloves**	Thermal gloves must be worn during indicated procedures.
	**Wear a Face Shield**	A face shield must be worn during indicated procedures.
	**No Pushing**	For the MVE 200 series of freezers. Indicates the area of the freezer that should not be pushed due to potential overbalance.
	**Temperature Limit**	Indicates minimum and maximum temperature limits at which the freezer should be stored or transported.
	**Humidity Limit**	Indicates minimum and maximum humidity limits at which the freezer should be stored or transported.
	**SGS Listed Mark for US and Canada**	MVE Cryogenic Freezers conform to relevant SGS safety standards.
	**CE Mark**	MVE Cryogenic Freezers are assessed to meet electrical safety requirements for Europe.
	**Manufacturer**	Indicates manufacturer's name and address.

 **Warning: Do not modify this equipment without authorization of the manufacturer**

Liquid Nitrogen Safety

This section reviews the safety guidelines for MVE Cryogenic Freezers equipped with CryoVerse Connect controllers. Read before using this equipment. This product is intended for use by MVE Trained personnel only. All service and maintenance should be performed by MVE Trained personnel.

Liquid Nitrogen Safety

Liquid nitrogen (LN2) is used in MVE Cryogenic Freezers as a refrigerant. Understanding potential hazards and following safety precautions is important when handling LN2 and these freezers. Nitrogen is a colorless, odorless, and tasteless gas that makes up approximately 78.1% of the Earth's atmosphere in its gaseous state. LN2 becomes vapor at temperatures greater than -320.8°F (-196°C). In liquid state, nitrogen has a temperature range from -320.4°F to -346°F (-195.8°C to -210°C).

- **Nitrogen vapor is a potential asphyxiant as it displaces Oxygen (O2) in confined spaces. Rapid suffocation can occur without warning in an Oxygen-deficient atmosphere (less than 19.5% O2). MVE Cryogenic Freezers must be installed and operated in well-ventilated areas.**
- **DO NOT vent container in confined spaces.**
- **DO NOT enter confined spaces where excess nitrogen gas may be present.**
- **If exposure has occurred move to ventilated area or fresh air. If breathing is difficult, supplement oxygen may be required. If not breathing, give artificial respiration, and,**
- **SEEK IMMEDIATE MEDICAL ATTENTION!**

- **Contact with liquid nitrogen or uninsulated equipment containing nitrogen can result in cold contact burns or tissue damage. Nitrogen vapor can cause damage to skin or eyes.**
- **In the case of frostbite, warm areas with warm water not exceeding 105°F (40°C) and SEEK IMMEDIATE MEDICAL ATTENTION!**

- **Never place LN2 in a sealed container without a pressure relief device. The expansion ratio of liquid nitrogen to gaseous nitrogen is 1 to 700 (1 cubic foot of liquid nitrogen becomes 700 cubic feet of gaseous nitrogen when evaporated).**

Recommended protective clothing

- **Cryogenic gloves (loose fitting)**
- **Full-face shield or chemical splash goggles**
- **Cryogenic apron**
- **Long sleeve shirt and cuffless pants**
- **Closed toe shoes (no sandals)**

General lab air exchange rate minimums are typically sufficient for LN2 freezers; however, recommend consulting with your Health and Human Safety Officer or equivalent group. Oxygen monitoring systems are strongly recommended for any LN2 setups.

Equipment Usage

Cryogenic Freezers must be operated in accordance with the manufacturer/supplier instructions. Cryogenic Freezers are non-pressurized vessels and are vented through the lid into the surrounding environment. Safety instructions will also be posted on the side of each Freezer. Cryogenic Freezers must be kept in a well- ventilated area protected from weather and away from heat sources. In applications that use a modular liquid cylinder as a source of LN2, the supply will need to be replenished at regular intervals to ensure proper operation of the freezer. When exchanging liquid cylinders, follow the procedure below:

1. Allow all plumbing components to warm to room temperature before attempting to change supplies
2. Close all valves associated with the liquid supply cylinder
3. Relieve pressure in the plumbing assembly by initiating a brief fill by pressing “Start Fill”
4. Loosen the plumbing connection for the transfer hose at the liquid cylinder
5. Remove empty liquid cylinder and replace with full liquid cylinder pressurized to 22 - 35 psig (1.52 - 2.41 bar)
6. Attach the transfer hose to the plumbing connection on the liquid cylinder. Ensure that the hose is connected to the connection labeled “LIQUID”
7. Tighten the transfer hose plumbing connection at the liquid cylinder
8. Open the liquid supply valve on the liquid cylinder
9. Inspect plumbing for audible and visual leaks. Repair if necessary
10. Manually initiate a fill to verify proper operation

Recommended First Aid

Every site that stores and uses LN2 should have an appropriate Material Safety Data Sheet (MSDS) present. The MSDS may be obtained from the manufacturer/distributor. The MSDS will specify the symptoms of overexposure and first aid to be used. Here is a typical summary.

- If symptoms of asphyxia such as headache, drowsiness, dizziness, excitation, excess salivation, vomiting, or unconsciousness are observed, remove to fresh air. If breathing has stopped, give artificial respiration. **CALL A PHSYICIAN IMMEDIATELY.** If breathing is difficult, supplemental oxygen may be required.
- If exposure to cryogenic liquids or cold vapor occurs, restore tissue to normal, body temperature (37°C) as rapidly as possible, and then protect the injured tissue from further damage and infection. Rapid warming of the affected areas is best achieved by bathing it in warm water. The temperature of the water used should not exceed 105°F (40°C). Under no circumstances should the frozen part be rubbed either before or after warming. If the eyes are involved, flush them thoroughly with warm water for at least 15 minutes. In case of massive exposure, remove clothing while showering with warm water. The patient should not drink alcohol or smoke. **CALL A PHYSICIAN IMMEDIATELY**.

Pinch Hazard

CAUTION: Pinch hazard, use caution when opening and closing the plumbing and electrical enclosures. Potential pinch hazards exist on the hinged step, lid, and rotating turn tray if not operated properly. Carefully raise and lower the step and lid with caution. Rotate and stop the turn tray slowly and with caution.

2. Installation (Uncrating)

The freezer should be uncrated following the procedures below. Always inspect the bill of lading for accuracy and external crate/packaging for damage before accepting the shipment.

Included with each MVE Freezer:

- Literature Packet
  - Quick Reference Guide – https://mvebio.com/resources
  - Manual Freezer Status Log – PN 10936355
- CryoVerse™ Connect Controller – Packaged in a box separately
- Transfer hose – 6 ft. – Packaged Inside freezer
- MVE Dipstick – Packaged Inside freezer
- Desiccant bag – To be removed and discarded – Inside freezer
- Liquid Nitrogen handling instructions
- MVE Certificate of Quality

Figure 1: Removal of Crate Top and Walls

1. As shown in Figure 1, unscrew and remove the top and then all the sides.
2. Use a prybar to remove any stapled materials. Save all wood materials.
3. Remove the freezer from the pallet:
   a. For the MVE 205, 510, 616, 1426, and 800 series freezers, use a wall from the crate as a ramp and roll the freezer off the pallet.
   b. For the MVE 1500 and 1800 series freezers, first remove the 2”x4” supports, then use a forklift with extender forks to remove the freezer from the pallet. As shown in Figure 2, slowly slide the forks underneath the rear of the freezer making sure to clear the casters. Slowly lift the freezer just enough to slide away the pallet and then carefully lower the freezer.
4. Move the empty freezer on its casters to the room or area it will operate for further setup.

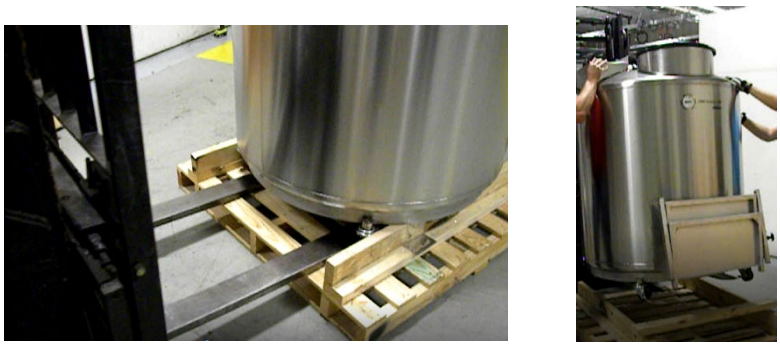


Figure 2: Removal of Freezer From Skid with Forklift

3. Installation and Freezer Setup

Installation

NOTE: Verify A/C power source is 100-240VAC and is properly grounded. Do not apply power to the CryoVerse™ Connect Controller or connect an LN2 supply until later in this procedure to avoid injury or damage to the equipment.

Following the careful uncrating and unpacking of the freezer, install using these basic instructions. The MVE HE Series freezers will be shipped with most connections described per below, factory installed and connected.

NOTE: Only install the freezer on a level surface. Never fill freezer and move to another location. Always fill the freezer where it is to be installed/used.

NOTE: The freezer should be installed in an area appropriate for LN2 service with adequate ventilation, and the room should be equipped with an oxygen monitoring system.

NOTE: Do not position the freezer in an orientation that makes it difficult to remove the power supply from main power. Recommend spacing MVE freezers at a minimum of 6 inches or more apart.

1. Verify A/C power source is 100-240VAC and is properly grounded. Do not connect the power source until later in the installation.
2. Locate the temperature sensor tube assembly that will house the two MVE temperature probes.
3. The MVE HE Series freezers are equipped with a three-tube temperature sensor assembly that is factory installed in the center of the top of the freezer. The two smaller tubes are designed to house the included MVE temperature sensors. The third larger tube is designed to accommodate a third-party temperature sensor. A silicone plug will be installed in this third tube. If the third tube is going to be used, simply remove the silicone plug. If not, please use silicone to seal this hole.

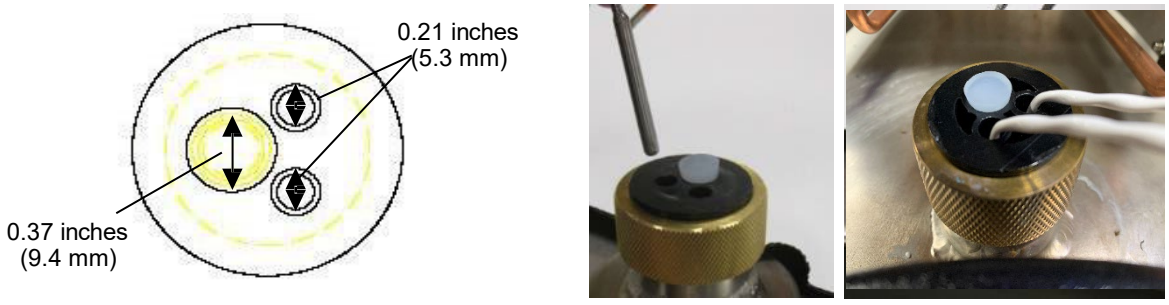


Figure 3. Temperature Sensor Tube Assembly

4. Insert the two temperature sensors into the open sensor tubes and position the sensors at the preferred height within the freezer storage chamber. The brass nut should be hand tightened. Designating sensors A and B as well as sensor placement within the freezer are adjustable. Distributors should check with the end user for preference. MVE recommends placing one temperature sensor (Temp A) at the “top box” level. This refers to the level in the freezer space where the highest sample is being stored. If storing vials in boxes, then this would be at the level within the top box. The second temperature sensor (Temp B) is usually placed at the bottom box location.

5. Connect the temperature sensors to the CryoVerse™ Connect temperature ports using the threaded circular connectors as shown in Figure 4.

Figure 4. Temperature Sensor Connection to CryoVerse Connect

6. Once the temperature sensors are in their desired position, apply a small amount of silicone sealant, included with the freezer, surrounding the temperature sensors where they enter the sensor tube assembly. This will help maintain their position and prevent moisture ingress from entering the freezer storage chamber.

7. As shown in Figure 5, connect the clear vinyl tube to the CryoVerse™ controller Level Input hose barb fitting and verify, connect the other end of the tube to the 3-way purge valve.

Figure 5. Pressure Tube Connect to CryoVerse Connect

8. Verify the plumbing assembly cable connections from the controller are secured.

NOTE: **Verify A/C power source before connecting** the battery backup (if equipped). Do not connect until later in the installation procedure.

Connect the 25-pin wire harness to the CryoVerse™ Connect controller as shown in Figure 6.

Figure 6. Freezer Harness Connection to CryoVerse Connect DB-25

9. Connect the power supply to an appropriate wall outlet with the proper AC voltage. Avoid wall outlets that are connected to emergency generator power, if possible, as this power source may be inconsistent and may cause voltage fluctuation. False power failure alarms or falsely triggered global and discrete contacts may occur as a result. A surge protector or a power conditioner is recommended.

NOTE: Only use the MVE factory provided power supply

10. To avoid the risk of electrical shock, this equipment must only be connected to a properly grounded power source or outlet.
11. The backup battery assembly is an optional accessory. If supplied, remove the battery backup assembly from its packaging and install the assembly on the plumbing shroud using the supplied screws. Finally, connect the battery backup electrical connector to the main wire harness.

4. MVE CryoVerse™ Connect Initial Setup (Quick Start & Initial Fill)

The CryoVerse™ Connect controller incorporates an easy-to-use setup routine that helps avoid nuisance alarms as the freezer reaches equilibrium (cools down). After power is applied, the Initial Setup page will appear if the initial setup step has never been performed on the CryoVerse Connect controller.

1. Connect the DC power cable DIN connector to the CryoVerse Connect as shown in Figure 7.

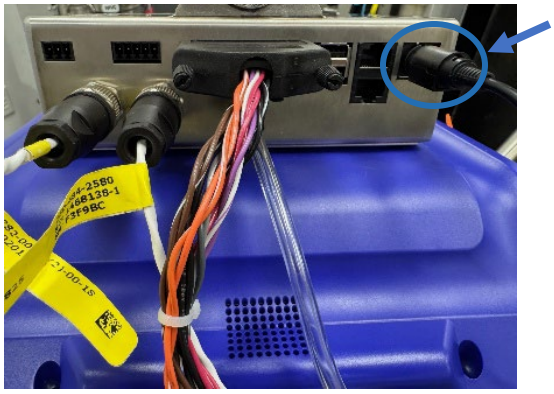


Figure 7. DC Power Connection (far right) to CryoVerse Connect

2. The Initial Setup page will appear as shown in Figure 8, Touch the “Set Admin Password”. A popup window will appear with a keyboard; enter a ****New password**. The password requirement is any 8 or more characters, alpha or numeric, upper or lower case.

3. After the password is entered, set the Temp A & B High alarms, Liquid Level setpoints, Liquid Level High and Low Alarm Levels, Time Zone and Language, or simply touch “Finish Setup” to complete later.
    a. The setpoints can be adjusted in the Settings tab and are not required to be set at this time.

By default, the person performing the initial setup is the “Admin”. Once logged in, additional Admins, Distributors and Users can be added. Once Finish Setup is pressed the Setup Screen will not appear when restarting. When restarting, simply log in, with username “Admin” and use the **New password you created. ****Important:** save the password in a secure location** **Forgetting the password will delay the quick start procedure. If the Admin password is forgotten it can be reset

using the forgot password option when attempting to login or by contacting MVE Technical Service (1-844-MVE-CRYO). Setting the controller back to factory defaults does not reset the Admin password.

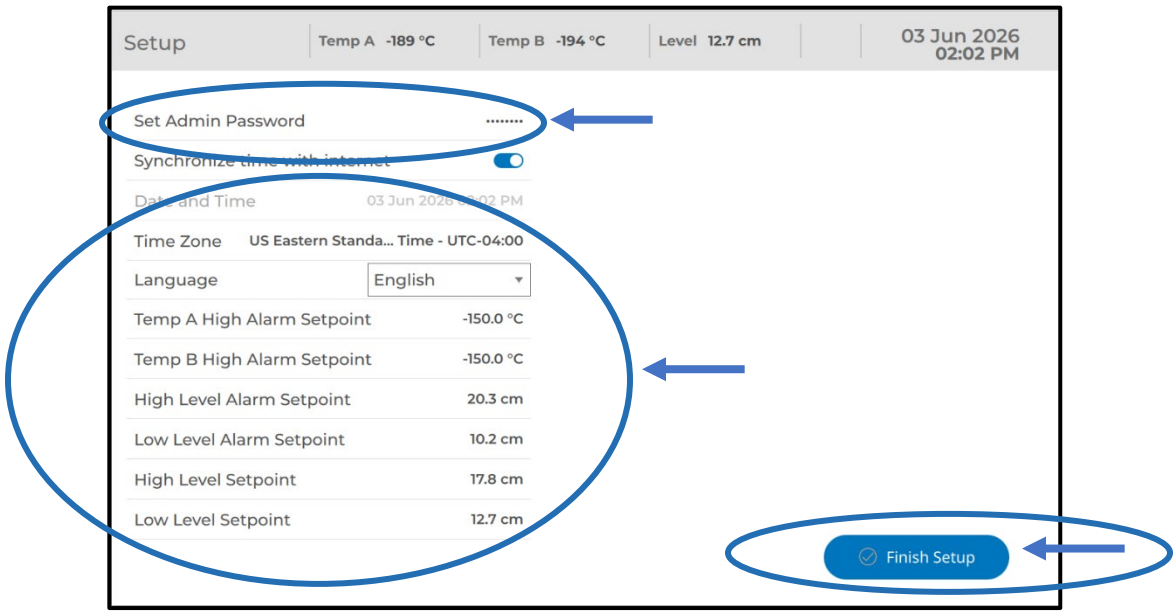


Figure 8. CryoVerse Connect Initial Setup Page

4. If the freezer is not already filled with LN2 and temperature equilibrated, alarms will immediately sound after the controller has exited the Initial Startup screen. We recommend logging in as this allows permission to swipe right and silence the alarm. The alarm will be silent for 30 mins.

Figure 9. Swipe right to silence an alarm

After the Initial Setup screen is finished, if you log out or restart the controller, simply touch the Login Icon to sign in (Upper right-hand corner) as shown in Figure 10. The “Fog Clear”, “Fill Stop”, “Task Light”, “Slide to Silence Alarm”, Alarm page and Journal page can now be accessed without logging in. Once you are logged in you can set up new Admin, Distributor or User profiles. ***Refer to Section 10 of this QRG or the “Log in and Setting up Usernames and Passwords” section of the Technical Manual.***

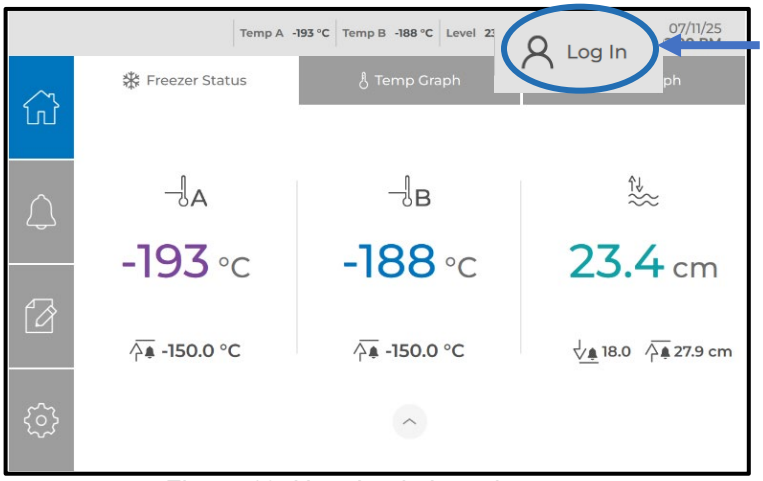
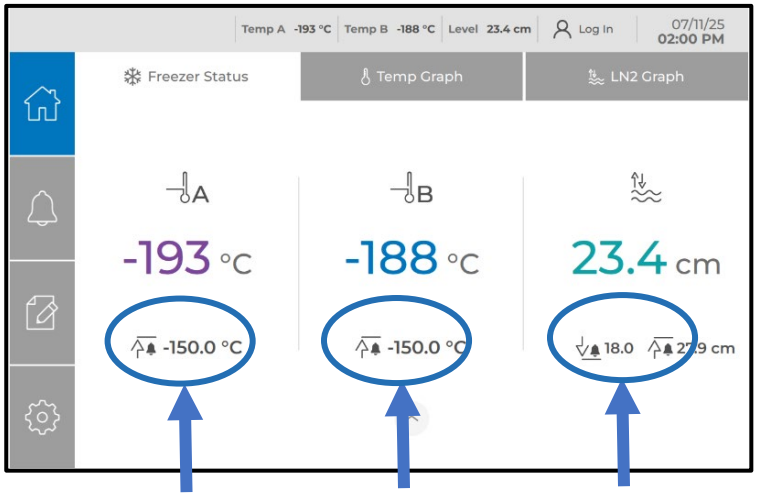


Figure 10. User Login Location

On the Home screen, below Temp A, B, and LN2 Level are “Quick Access Hot Keys”, to change setpoints as shown in Figure 11. Touch to change setpoints. **Must be logged in with Admin or Distributor privileges to change.**



Touch to access setpoints. Must be logged in as Admin or Distributor.

Figure 11. Setpoint Hot Key Locations

The CryoVerse™ Connect controller has a new feature to Clone controllers. This feature allows copying controller settings and transferring those settings to another CryoVerse™ Connect controller. ***See QRG section 13 or Advanced Settings in the Technical Manual.***

The default language is set to English. The language can be changed from English to Simple Chinese. The freezer can also be named and the Logging interval can also be changed. ***See General Settings in the Technical Manual.***

Connect to a Wi-Fi or wired ethernet network by navigating to the Network page within Settings. The freezer must be connected to Wi-Fi or wired ethernet for email notifications and data upload to the MVE cloud. ***See QRG Sections 11 and 12 or the Technical Manual for more details***.

The global and discrete contacts configurations are also available from the Settings tab.

5. Start Initial Fill Cycle

Verify LN2 supply source pressure, 22-35 psi (1.5 – 2.4 bar).

Initial setup must be completed and user must be logged in.

1. Inspect and verify LN2 Supply source pressure, connect provided LN2 transfer hose, check for leaks.

2. Inspect and open/remove lid, remove internal packaging components and desiccant packs.

3. Load the empty inventory system.

4. Press “Start Fill” to commence the fill cycle. Must be logged in.

5. When the fill cycle completes, wipe down any frost or condensation to keep the neck dry, then install/close the lid.

Once the fill cycle completes the CryoVerse™ Connect controller will continue to maintain LN2 levels if Auto Fill or Scheduled Fill are enabled while monitoring and logging storage conditions. Allow the freezer to cool down for approximately 48 hours. Only after the top box temperature has stabilized can samples then be introduced. Make sure to routinely verify freezer LN2 level and ensure there is sufficient LN2 supply volume and pressure.

Note: The CryoVerse™ Connect Controller has a built in restricted idle feature that is set for 10 minutes. Pressing Stop Fill will disable the Auto Fill and Scheduled Fill functions for 10 minutes. Filling can be restarted manually by pressing Start Fill on the Controller keypad.

6. Alarm Conditions During the Initial Fill Cycle

Alarm conditions during the Start of an Initial Fill Cycle (New Freezer First Fill)

1. When doing the initial fill (e.g. filling an empty tank) with a new controller, manually pressing the Start Fill button will:
    a. Ignore the alarms for Temp A&B, Low Level, Pressure Loss, Fill Time, and Stuck Valve until the level is above the low level setpoint
    b. When the level is above the low level setpoint, controller will automatically enable alarms for Temp A&B, Low Level, and Pressure Loss
    c. Once it reaches its high level setpoint the controller will stop the fill and automatically enable the Fill Time and Stuck Valve alarms.
    d. The initial fill mode will happen only once and will not recur.
2. The controller will perform normal auto-fill cycles with all alarms activated. (Manually pressing the Start Fill, Auto Fill, and Scheduled Fill)If doing an initial fill and Stop Fill is pressed while the level is below the low level setpoint, the controller stays in the initial fill state until the liquid level is greater than the low level setpoint from a subsequent fill cycle.
3. If installing a new controller on a tank that has liquid, and you manually press the “Start Fill” button, if the fill level is below the low-level set point it will enter the initial fill mode state; otherwise, it will enter the normal manual fill state
4. When it is in initial fill mode the display will appear normal, showing the freezer is filling

7. Beacon Light Descriptions: Normal and Alarm States

With AC Power:

1. Slow rotating blue & white = Idle
2. Rapid rotating blue & white = Filling
3. Blinking red = Critical Alarm
4. Rotating red = Critical Alarm while Filling
5. Blinking yellow = Non-Critical Alarm
6. Rotating yellow = Non-Critical Alarm While Filling
7. Purple = Software Update

Running on backup battery, no AC power:

1. Blinking red LEDs at each upper corner of the beacon and reduced screen brightness

8. Touchscreen Navigation

Figure 12 shows the Home screen for the CryoVerse Connect Controller. The gray banner at the very top of the screen is always visible and pressing the Log In area will bring up the Login window. The left vertical column of icons allows instant access to the Home, Alert Status, Logs and Settings pages by pressing the corresponding icon.

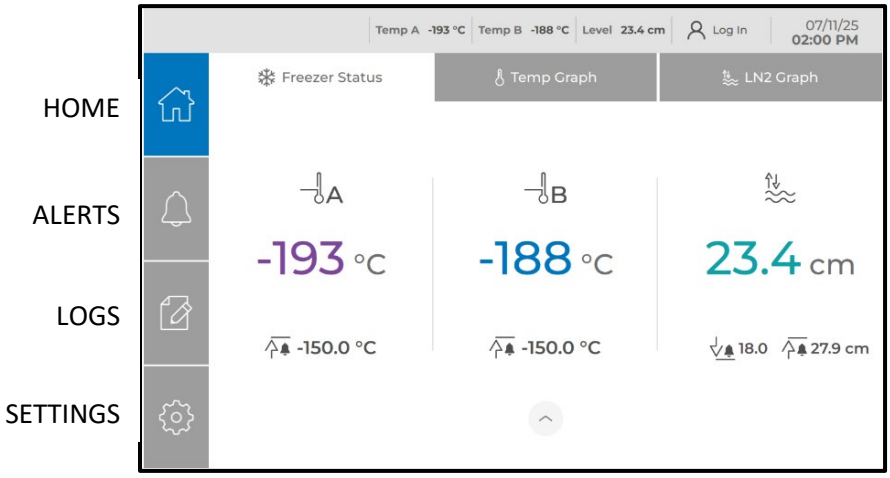


Figure 12. Touchscreen Navigation

9. Setting Alarm Limits and LN2 Fill Setpoints

To set liquid level alarms limits and LN2 fill, press the Settings navigation button and then the Liquid Level button on the main Settings page. As shown in Figure 13, the High and Low fill and alarm setpoints are set by pressing the screen at the corresponding number on the General tab.

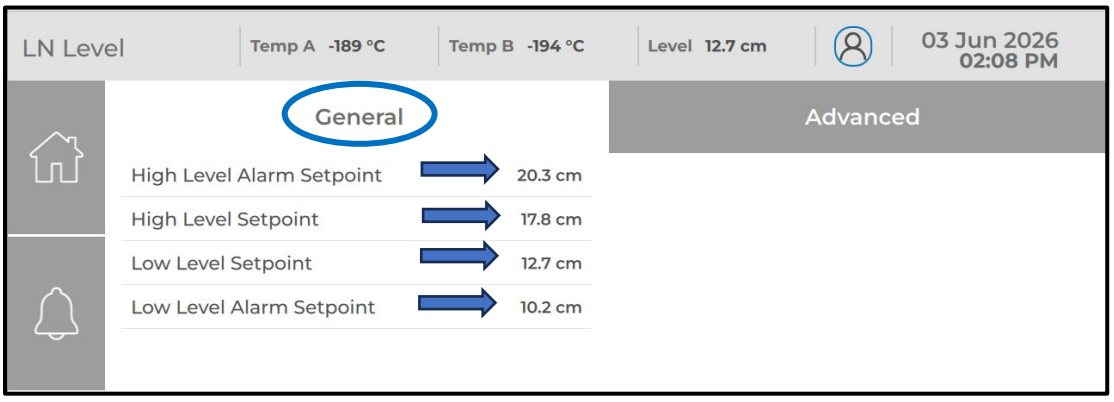


Figure 13. Setting LN2 Level Alarms and Fill Setpoints

The Advanced tab for LN2 level allows the Admin or Distributor to enable Auto Fill Control or Scheduled Fill, set the maximum fill time for the freezer (up to 240 minutes), and set a liquid level calibration offset if desired.

To set Temperature sensor alarm thresholds and enable a temperature sensor, press the Settings navigation button and then Temperature. As shown in Figure 14, Temp A, Temp B and Inlet Temperature can be configured by pressing the corresponding tab.

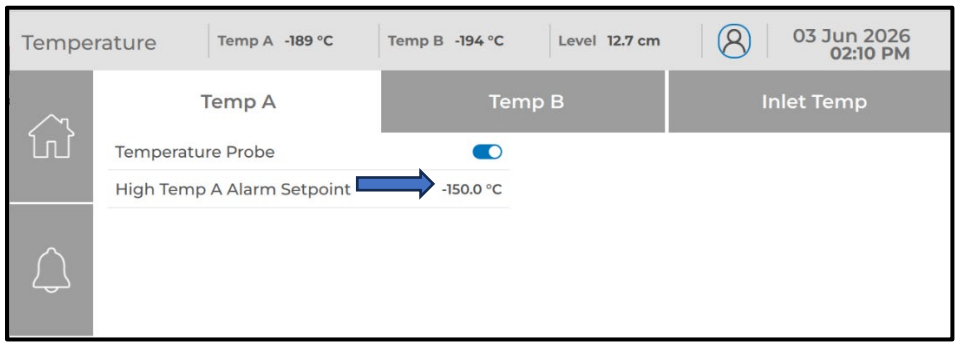


Figure 14. Setting Temperature Alarms and Enabling Temperature Sensors

As shown in Figure 15, the Inlet Temp tab allows an Admin or Distributor to enable and set the hot gas bypass inlet temperature to switch from bypass to filling the freezer. The hot gas bypass maximum time can also be set and the Stuck Valve alarm can be enabled or disabled on this tab.

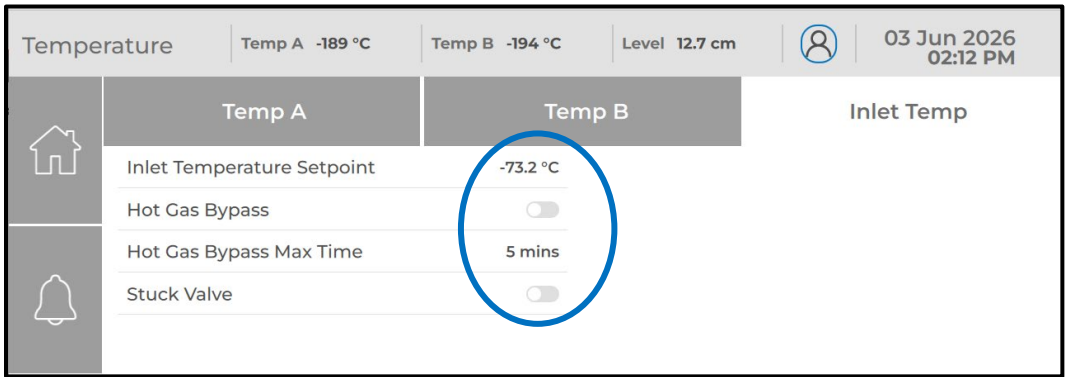


Figure 15. Setting Hot Gas Bypass Parameters

10. Adding Users

To add a new user, press the Settings navigation button, then press the Advanced button and select the Users tab (Figure 16). On the Users tab, press Add User and fill in the fields including User ID, user's first and last Name, Email address, Phone number, access Level, Password, optional auto log out and log out time in minutes and option to Notify by Email.

Figure 16. Adding Users

11. Network Configuration & Cloud Access

You must **login as an admin** to configure the CryoVerse Connect Controller network connection. To configure the Network, press the Settings navigation button, then press Network and select the Wifi & Ethernet tab (Figure 17). From this tab you can enable Wifi or wired Ethernet. It may be necessary to white list the Controller for either Wifi or wired ethernet networks. The displayed MAC addresses are needed for white listing on the respective networks. NOTE: The controller does not currently support simultaneous connection to Wifi and wired Ethernet, you must choose one.

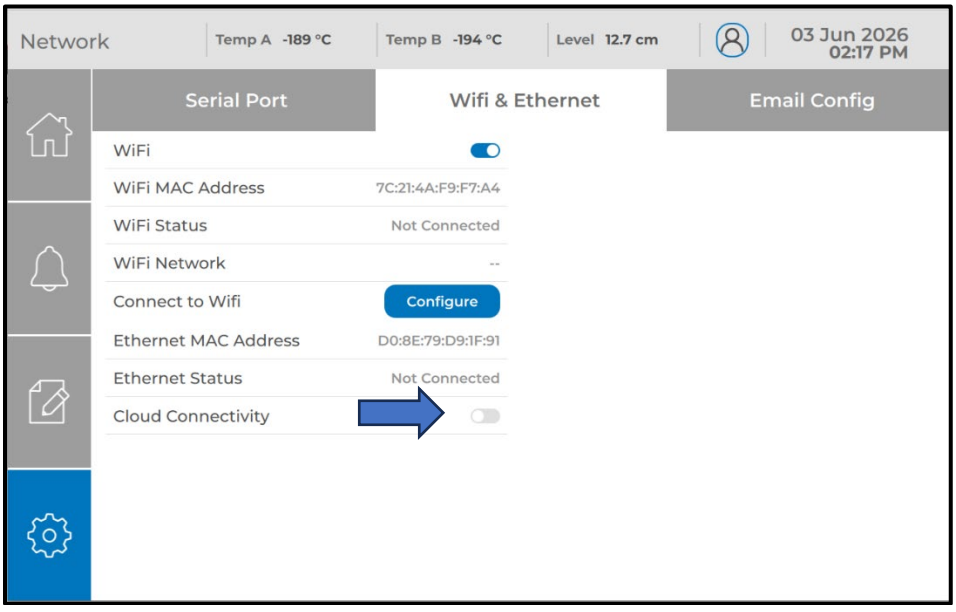


Figure 17 WiFi & Ethernet Configuration Tab

To enable uploading of logs, alerts and settings to the MVE CryoVerse Cloud, slide the Cloud Connectivity control to the right as shown in Figure 17. You must have a CryoVerse Cloud user

account and the freezer must be registered in the CryoVerse Cloud to access the uploaded information in the CryoVerse Cloud.

The CryoVerse Cloud is accessed from the URL https://www.mvebio-cloudconnect.com/.

MVE Customer Service will set-up initial cloud access for new customers and once established your company CryoVerse Cloud administrator can add users and freezers.

12. Email Configuration for Alerts and Logs

To configure email for alerts and log files, press the Settings navigation button and then Network. Select the Email Config tab as shown in Figure 18. On this tab you can enable emails, set the SMTP host and port number, enable SSL and configure the email with a certificate via a USB file. If needed, an email username and password can be set along with a sender email address to allow a test email to be generated to validate the email configuration. Users must have email alerts enabled for their account in order to receive alerts. SMTP configuration may require IT support.

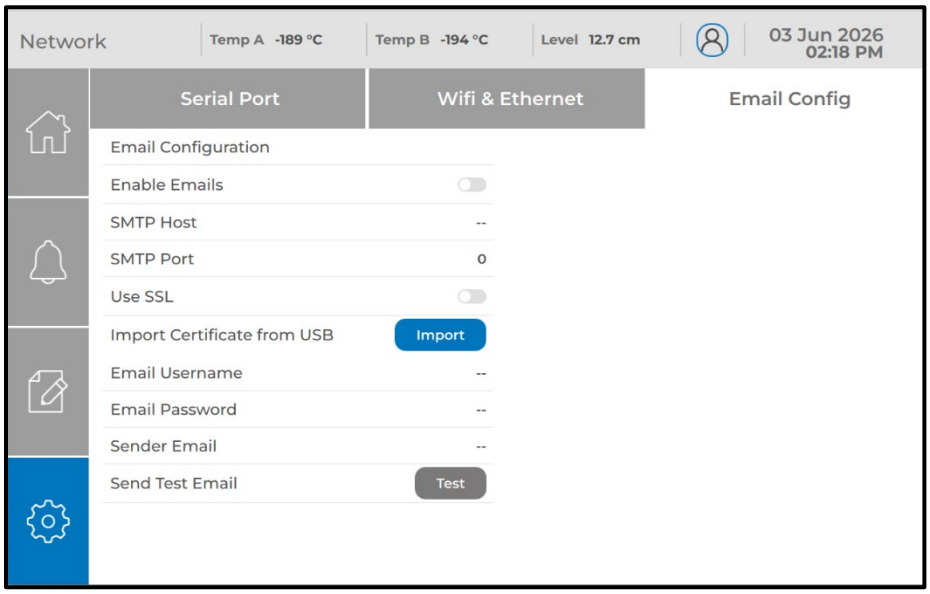


Figure 18: Email Configuration Tab

The CryoVerse Connect uses SMTP (Simple Mail Transfer Protocol) to send email notifications. This requires access to a valid email account and mail server. In many organizations, email settings are controlled by IT policies, so assistance from your IT department may be required.

The settings below apply to the **email account that will be used to send messages from the CryoVerse Connect** (the "sender" account). This is typically a dedicated account created or provided by your IT team (for example, alerts@mvebio.com).

To enable email notifications, ensure you have the following provided by your IT administrator for the email account that will be used to send message from:

- **SMTP Server (Host):** Name of your mail server
- **Port:** Typically 587 for secure connections
- **Username:** Usually the full email address of the sender account
- **Password:** The password for the sender account or an app-specific password
- **From Email:** The sender address (typically the same as the username)

The following are typical settings for Microsoft 365 (Outlook). These may vary depending on your

organization's IT policies and security configuration.

- **SMTP Server:** smtp.office365.com
- **Port:** 587
- **Encryption:** SSL Enabled
- **Username:** the full email address of the sender account (e.g., alerts@mvebio.com)
- **Password:** usually an app password
- **From Email:** same as username

In Microsoft 365 environments, SMTP access is often restricted by default. The following settings may need to be enabled by your IT department **for the sender account**:

- **SMTP AUTH must be enabled** for the mailbox
- **Authenticated SMTP must be allowed** at the tenant or mailbox level
- **Basic authentication for SMTP must be permitted** (if still in use by your organization)
- **Conditional Access policies** must allow sign-in from the device's network/location
- **Multi-Factor Authentication (MFA):** if enabled, an app password must be used
- The device's network must allow connection to smtp.office365.com on port 587

In some organizations, SMTP AUTH is disabled globally or restricted to specific accounts. If authentication fails even with correct credentials, your IT department may need to explicitly allow SMTP for the sender account.

The following are typical settings for Gmail. These may vary depending on your organization's IT policies and account security settings.

- **SMTP Server:** smtp.gmail.com
- **Port:** 587
- **Encryption:** SSL Enabled
- **Username:** the full email address of the sender account
- **Password:** an app password (required if MFA is enabled)
- **From Email:** same as username

Some organizations restrict SMTP access for Gmail accounts, so additional setup or approval from IT may be required.

If the sender email account uses multi-factor authentication (MFA):

- The normal account password will not work for SMTP
- An **app password** must be generated and used instead

App passwords are created in the email account's security settings. They allow devices like the CryoVerse Connect to send email without requiring interactive login (such as entering a code from a phone). If you are unsure how to create an app password, contact your IT department.

Email providers may apply additional security checks based on network location or region. In some cases, SMTP authentication may be blocked even when the username and password are correct.

If issues occur, your IT department may need to adjust security policies, allow the device's network, or provide an alternative email configuration.

If email sending fails, check the following:

- Verify that the controller time and date are correct

- Verify all SMTP settings are entered correctly
- Confirm the username is the full email address of the sender account
- Test that the sender account can log in through webmail
- If MFA is enabled, confirm an app password is being used
- Confirm SMTP AUTH is enabled for the sender account
- Check for security or conditional access policies that may block the login
- Ensure the network allows outbound connections to the SMTP server on port 587

13. Cloning Freezer Configurations

The CryoVerse™ Connect Controller provides the convenience to “Export” freezer settings onto an external USB Storage Device and “Import” settings from the USB Thumb drive to additional freezers of the same model to save setup time. To access this feature:

1. Press the Settings navigation button and then Advanced Settings.
2. Open the Clone Config tab.
3. Insert a USB drive into the controller (USC-C or USB-A)
4. Press Export to save configuration to the USB drive.
5. Remove the USB drive and install it on another controller.
6. Open the Clone Config tab and press Import.

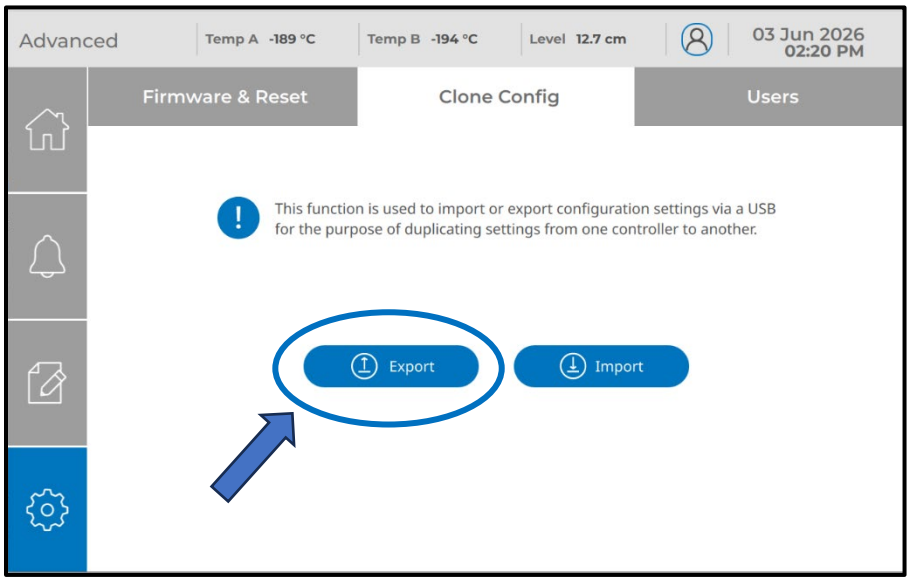


Figure 19: Freezer Configuration Export and Import

MVE Biological Solutions US, LLC
3055, Torrington Dr
Ball Ground, GA 30107 USA.
www.mvebio.com

MVE Inc. reserves the right to discontinue its products, or change the prices, materials, equipment, quality, descriptions, specifications and/or processes to its products at any time without prior notice and with no further obligation or consequence. All rights not expressly stated herein are reserved by us, as applicable. Copyright © 2026 MVE Industries