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PrincetonCryo.com
Cryogenic Delivery and Storage Systems

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MVE Chart Tech Tips

PRODUCT INFORMATION

Optional Step Assembly for the MVE 800-190°C High Efficiency Freezer

Chart offers an optional step assembly for the MVE 800 -190°C High Efficiency Freezer allowing for easy insertion and retrieval of freezer racks. This provides an easy and safe way to perform regular inspection and maintenance service. Contact Chart for product details and information.



Safety Information for Chart MVE Brand SC, XC, and Lab Series Container(s)

To avoid injury by frostbite, use extreme care whenever handling liquid nitrogen, liquid nitrogen storage, transfer vessels or any objects which have come in contact with liquid nitrogen.

- Leave no areas of skin exposed.
- Always wear proper safety attire over clothing: face shield, cryogenic gloves, cryogenic apron.
- Never overfill liquid nitrogen vessels.
- Always keep liquid nitrogen vessel in an upright position. Do not tightly seal liquid nitrogen container or prevent nitrogen gas from escaping.
- Prior to use, remove any excessive moisture or ice that has formed on the cork (lid) assembly.

- Use extreme care to prevent spilling and splashing liquid nitrogen during transfer.
- Immediately remove any clothing or safety attire on which liquid nitrogen has been spilled.
- Get immediate medical attention for any frostbite injuries due to liquid nitrogen.

WARNING: The venting of nitrogen vapors will deplete oxygen in the air, possibly leading to asphyxiation or even death. DO NOT store or use liquid container in areas that have poor ventilation.

For more detailed safety and filling instructions, refer to the appropriate Operating Manual. The latest revisions of operating manuals are located at www.chartbiomed.com.

HELPFUL HINTS / FAQs

TEC 3000 Power Failure Alarm

When the controller loses power, if there is no battery backup (optional in US), it will shut off. If the unit does have the battery backup option and the power is lost, the unit will continue to run. If it has been operating using battery backup for 30 minutes, the unit will go into alarm for power failure.

Q: Can a battery backup be installed on an existing freezer?

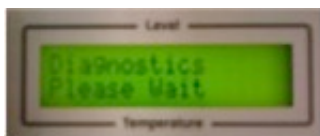
A: Yes. Chart sells upgrade kits that allow a freezer with a TEC 3000 to easily be upgraded to include a battery backup. The TEC 3000 is able to run fully functional on the Battery Backup for approximately 72 hours in the event of a power failure. While the TEC 3000 is running on its primary power source, it continuously provides a 27 volt trickle charge to keep the Battery Backup fully charged. A Low Battery Alarm will trigger if the TEC 3000 is running on Battery Backup and the voltage falls below 21 volts. Contact Chart Technical Support for further questions or upgrade part numbers.

Q: How does one disable the temperature probe on a TEC 2000?

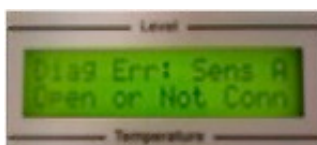
A: The procedure to disable a temperature probe on a TEC 2000 is outlined below:

1. Unplug the main power and disconnect the battery backup from the TEC 2000, if so equipped.
2. Disconnect the temperature probe that you wish to disable (both probes if you wish to disable both).
3. Restart the TEC 2000 using only the A/C power; the screen will display, "Diagnostic Please Wait".

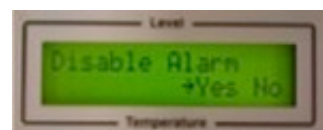
4. Screen will scroll for a few seconds to, "Diag Err: Sens "X" Open or Not Conn".
5. Screen will display for a few seconds, "Disable Alarm Yes or No".
6. Press the up and down arrow keys to scroll to "Yes" and press "Enter".
7. This will disable the temperature "X" probe.
8. If both probes were disconnected, Steps 4 and 5 will repeat on the screen for the second probe.
9. Repeat Step 6 to disable the second probe.
10. Re-connect the battery backup, if so equipped.



Diagnostic Screen



Sensor A Open



Disable Alarm

ACCESSORIES

Transfer Hoses

Chart sells transfer hoses available in 4' and 6' lengths. PN 9713159 4ft (1.2m) PN 9713109 6ft (1.8m). Chart also sells a brass union fitting (P/N 1110862) which can join two transfer hoses. This method can cause an increase in evaporation rates and is not recommended for extended use, but can be used temporarily while waiting for professional vacuum jacketed piping installation (VJ).

Part Number	Description
9713159	4' (1.2 m) transfer hose
9713109	6' (1.8 m) transfer hose

