

Product Information

New One-Piece Wheel Caster Assemblies on Chart MVE 1800 Series Freezers

Effective 12/29/2016, MVE 1800 series freezers will be manufactured with new one-piece poly wheel caster assemblies. The new one-piece wheel caster assembly are far superior in strength. This will increase the quality and longevity of our MVE products. The one-piece wheel caster assembly have replaced the previous two-piece wheel caster assemblies, and the part numbers have changed. The two-piece wheel caster assemblies have become obsolete and will no longer be available. Please see table below for description of the part number changes and table 2 for freezers affected by this change.



Table 1. Comparison of New Part Numbers vs. Obsolete Part Numbers

New Part Number	Description	Obsolete Part Number	Description
20974544	CASTER SWIVEL 4"DIA W/O BRAKE	14244680	CASTER SWIVEL 4"DIA W/O BRAKE
20974545	CASTER SWIVEL 4" W/BRAKE GALV	14244701	CASTER SWIVEL 4" W/BRAKE GALV

Table 2. Freezers Affected by Change in Casters

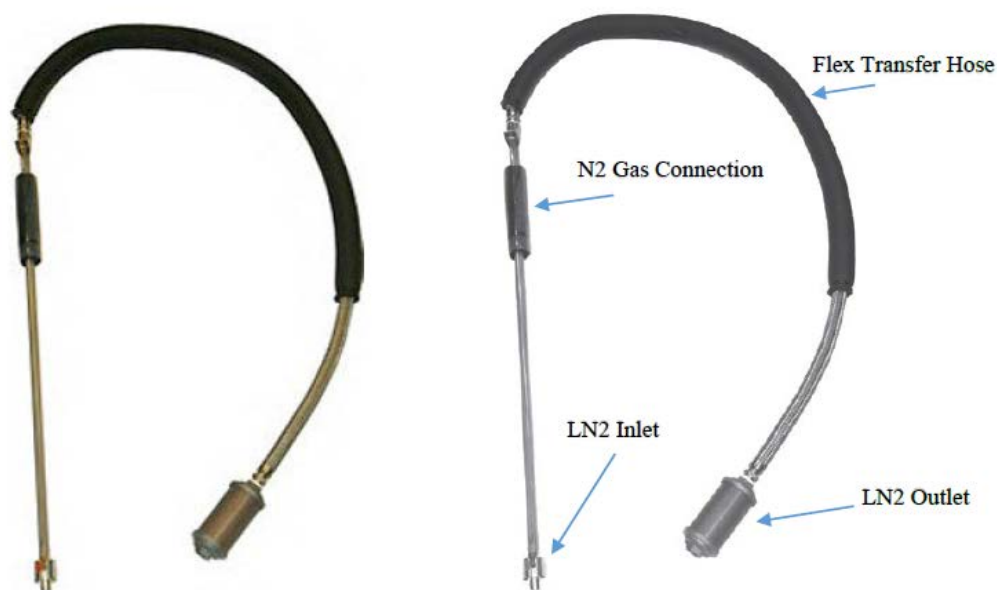
MVE HE Freezers	MVE HEco Freezers	MVE VARIO Freezers	MVE Open Top
1879P	1879P	1879P	1839
1881R	1881R	1881R	
1892P	1892P	1894R	
1894R	1894R		

Chart MVE LN2 TX - Liquid Nitrogen Transfer System

Chart MVE's LN2 TX is designed specifically to allow the safe and easy removal of liquid nitrogen from an open vessel. Instead of lifting and pouring liquid nitrogen from heavy Dewars, one can simply utilize the MVE LN2 TX to transfer liquid nitrogen from one open vessel to another. The MVE LN2 TX uses a high velocity nitrogen gas stream to create suction (vacuum) at the inlet that draws liquid up into the transfer device. Once the liquid is drawn into the gas stream, the liquid is pushed through the transfer tube and hose.

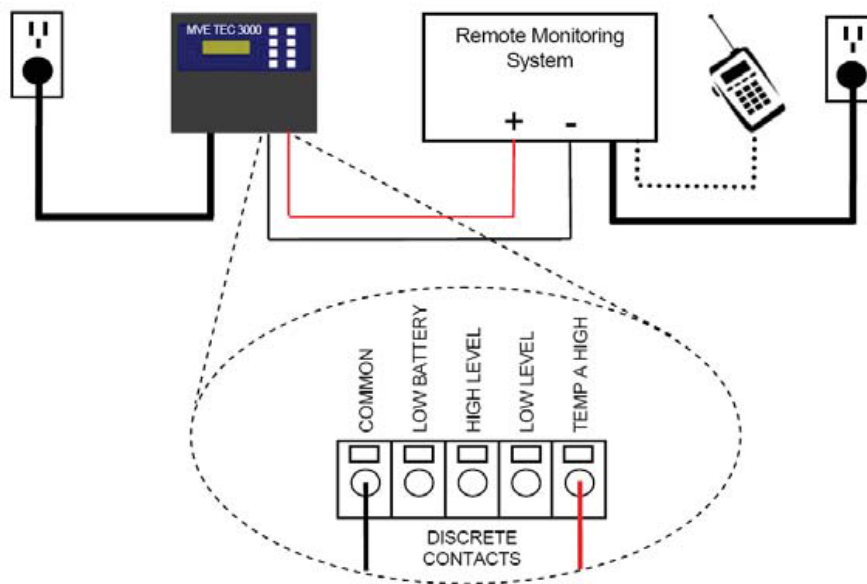
The MVE LN2 TX Assembly is PN 15098872 and pictured below.

NOTE: The minimum neck opening for the vessel that liquid nitrogen is to be removed from is 3.25" (83 mm), and the minimum neck opening for the vessel that the liquid nitrogen is being transferred to is 4"(102 mm).



The TEC3000 and Third Party Alarm Systems

The TEC3000 has the ability to connect to an external alarm system via its discrete and global contacts, both located at the rear of the panel. The discrete contacts are open collectors and are polarity sensitive, whereas the global contacts are dry contacts and are not polarity sensitive. Once the TEC3000 goes into alarm, these latching contacts change state. The global common terminal is not connected to the chassis.



Typical Remote Monitoring System Schematic

Helpful Hints/FAQ's

PDF loggers and MVE CryoShipper Series

Q: Does having the PDF logger mounted on the lid reduce the hold time of my Vapor Shipper?

A: Yes, having the PDF logger mounted to the lid will cause an added heat leak and will reduce the hold time. We recommend to our customers to test the hold time with any third party accessories attached to verify performance.

TEC3000 Global Remote and Discrete Contacts Alarm

Q: How do I connect the physical wiring to the global and discrete alarm contacts?

A: The TEC3000 has two physical-style discrete connectors. The discrete connection will have either the white push button style (See Figure 1) or the slotted lever style (See Figure 2). For the white button style, wires can be inserted and removed by pressing on the white button with a small flathead screwdriver. For the slotted lever style, wires can be inserted and removed by placing a jeweler flathead screwdriver in the slot above the contact and prying down on the latch until the clamp connector opens (See Figures 2 and 3). Remove the screwdriver to close the connector.

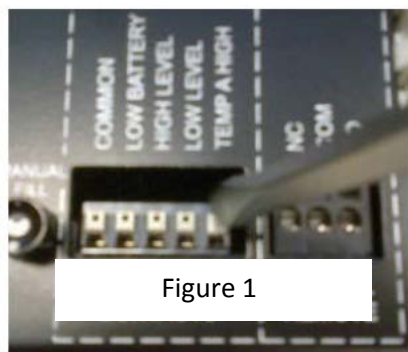


Figure 1

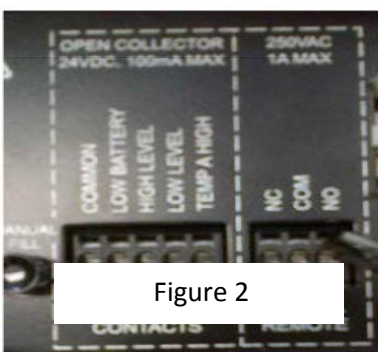


Figure 2

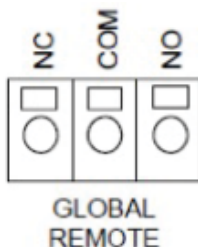


Figure 3

TEC3000 Global Contact Alarm Connections

Q: How does the global connection trigger a remote alarm system?

A: The global remote connection is a latching type of contact that will change its state should the TEC3000 begin to alarm. Once the alarm condition has been corrected and after the ALARM MUTE button has been pressed, the global contacts will revert back to their original state. For example, the normally closed (NC) to common (COM) contacts are in continuity during the no alarm state. When the controller enters into an alarm state, these contacts will change state and open, no longer making contact. The same principle applies to the normally open (NO) to the common (COM) contacts. In the no alarm state these connections are open. If the TEC3000 enters an alarm state, the normally open (NO) to common (COM) contacts close, establishing continuity. The global contact specifications are 250 VAC at 1A maximum and are not polarity sensitive.



Global Remote
Normally Open or Normally Closed
Dry Contact Relay
Latching
Non-Polarity Sensitive
230 VAC at 1 A Max

TEC3000 Global and Discrete Contact Test

Q: How do I test the global and discrete alarm connections on the TEC3000?

A: To test the global and discrete alarm connections you may use a regular multimeter by following the steps below:

Global Remote Contacts:

Normal State (No Alarms):

1. Check for continuity across the leads of the multimeter.
2. During normal state, there should be continuity between the COM and NC terminals of the Global Remote connections. The COM-NO circuit should be open.

Alarm State:

1. There should be continuity between the COM and NO terminals of the Global Remote. The COM-NC circuit should be open.

Discrete Contacts:

Check for continuity using the multimeter on the diode setting. Because the discrete contacts are open collectors, the diode check function should be used.

Normal State (No Alarms):

1. All discrete contact terminals should be open with respect to COMMON.

Alarm State:

1. There should be continuity between the specific active alarm terminal and COMMON. Inactive alarms should remain open with respect to COMMON.

Accessories

Canes for Straws and Vials

Chart MVE offers canes to hold straws and 1.0, 1.2, and 2.0 ml vials.

PN: 9717009 1.0ml vials and straws

PN: 9717029 1.2ml vials

PN: 9717089 2.0ml vials



Cool Reach Sample Retrieval Tool

Chart MVE offers a Cool Reach tool that may help retrieve samples on the vapor platform or through the freezer access panel. Below are the materials needed and instructions for opening the access panel.

Materials Needed

1. Piece of Wire (Bent into a hook)
2. Cool Reach (PN: 13051579)

Cool Reach - PN 13051579



Instructions for Opening Access Panel

1. Shape a piece of wire into a hook. (MVE does not provide hook)
2. Turn tray until the section with the access panel is located.
3. Insert the bent wire into the oval hole.



4. Lift the access panel until it is completely open.



5. Retrieve samples using the Cool Reach (PN 13051579).

Note: The Part Number for replacement cup-sets for the Cool Reach is 13051608. Not designed to be submerged in liquid nitrogen.

PLEASE CONSULT THE APPLICABLE PRODUCT INSTRUCTIONS FOR USE FOR PRODUCT INDICATIONS, CONTRAINDICATIONS, WARNINGS, PRECAUTIONS, AND DETAILED SAFETY INFORMATION.