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MVE Tech Tips

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RENTAL PROGRAM FOR IATA BIOHAZARD VAPOR SHIPPER

Chart/MVE is pleased to announce a new program designed to allow customers access to IATA approved vapor shippers on a short-term basis. This program can provide vapor shippers for transfer of biohazards anywhere in the world without having to purchase the entire system. It is intended for labs or clinics that are moving locations but don't normally have a need to routinely ship bio-samples. Included in the IATA rental package is the shipping container, XC Cryoshipper vapor shipper, secondary container, charging and packaging manuals. The IATA labels are included with the package but must be attached to the plastic shipping container, the aluminum vapor shipper dewar and the secondary container. The primary container and the absorbent material will need to be purchases separately. The rental protocol is explained below:

1. Call customer service for an RMA / rental number.
2. Determine about how long you will need to rent dewar.
3. You will be invoiced for $2500
4. Credit will be issued, less weekly rent due, upon return of IATA shipper
5. Weekly **rental** rate is $425 whereas total invoice will not exceed $2500
6. Decontamination must be verified before unit can be returned.

PROTOCOL FOR TESTING ALARMS ON TEC-2000 ALARMS

There are 11 alarms that can **be** engage**d** both visually and by audio on the TEC-2000. Some GMP labs require these alarms to be tested before installation qualification and periodically tested to satisfy operation qualification. Attached are brief instructions on how to put the various alarm sceneries into alarm mode.

1. LN2 supply: LN2 supply is empty. If a fill cycle has not been completed within 60 minutes. (60 minutes is factory default time. This is adjustable using FILT COMMAND IN Chapter 5 of manual.) To test alarm, close the valve of the LN2 supply and press fill start button on controller.
2. Low level: If LN2 level in the dewar falls below the low-level alarm set point. To test alarm, raise the low- level alarm set point to a level higher than what is being displayed on the front panel.
3. High level: If LN2 level in the dewar rises above the Hi level alarm set point. To test alarm, lower the high level set point to a point lower than the level being displayed on the front panel.
4. Low Temp A: If temperature of Probe A falls below the Lo temp A set point. Test by setting Lo temperature setting to a temperature level higher than temp A is displayed on front panel.
5. High Temp A: If temperature of probe A raises above the Hi temp A alarm set point. There are three ways to initiate this alarm. One is to set temperature level lower than temp A level displayed on front panel. Two is to remove A probe from freezer. The third is to press and hold the up arrow (^) until the front display reads Hi temp test Temp A. Then release immediately. Remember the temperature display on front panel must be showing A probe temperature when performing the A probe alarm test. Direction on performing this Hi temp test is found in the TEC-2000 manual in section 4.5.1.1.
6. Open temp A: If probe A fails to an open circuit or is disconnected. To engage alarm disconnect temperature probe A from temperature connectors on the TEC-2000.
7. Low temp B: If temperature of probe B falls below the Lo temp B alarm set point. Test by setting Lo temperature setting to a temperature level higher than what temp B is displaying on front panel.

PROTOCOL FOR TESTING ALARMS ON TEC-2000 ALARMS (Con't)

8. High Temp B: If temperature of probe B rises above the Hi temp B alarm set point.
   Here as with probe A there are three ways to initiate this alarm. 1. Set temperature level lower than temp B level as it is displayed on the front panel. 2. Remove B probe from freezer. 3 Press and hold the up arrow (^) until the front display reads Hi temp test Temp B. Release immediately. When performing this test the temperature display on front panel must be showing B probe.
9. Open Temp B: If probe B fails to an open circuit or is disconnected.
   Engage alarm by disconnecting B probe from controller connector.
10. (No display): If main power is lost. (No battery backup option employed).
    Will not alarm to this scenario.
11. Power failure: If main power to the system monitor is lost. (With battery back up option). Power needs to be off for more than 10 minutes.
    Disconnect power supply and allow controller to run off battery backup for 30 minutes. Reconnect power supply so controller is once again energized by the power transformer.
12. Bypass valve: If hot gas bypass valve remains energized for longer than the bypass time delay in the maintenance menu at the start of a fill cycle.
    Engage alarm by shutting off LN2 supply and press fill start button. Alarm will sound once valve is energized for longer than what is set for time limit in maintenance menu.
13. Low battery: If backup battery voltage drops below its useable minimum threshold (21VDC) for longer than 30 minutes.
    Unless you can figure out a way to drop the voltage output of the two – 12VDC batteries, the easiest way is to unplug the power supply and allow the freezer to operate on its' battery backup for 3 days. Eventually it will drop below 21 volts and alarm. After reconnecting power supply the batteries will trickle charge back to full voltage. **NOTE: THE POWER FAILURE ALARM WILL BE ACTIVE BEGINNING AT 30 MINUTES INTO THE TEST FOR THE REMAINING DURATION OF THIS TEST.**
14. Fill valve: If fill valve remains energized (or in the "powered open" condition. Please note that the TEC2000 cannot determine that the valve is stuck open due to debris or ice) after achieving the "hi level Fill" setting, and reaches the "Hi Level Alarm" setting within 60 minutes.
    There are two ways to make it happen. The first requires quick finger work and is not always successful.
    - Start fill cycle with the fill start button
    - During the 30 second purge cycle: Change the high fill and high alarm settings so that the high alarm is below the current level in the freezer.
    - When the controller takes the first level reading after the purge cycle, it should realize that the level is now above the high alarm setting and valve is still powered on by the logic circuit and trigger the alarm.

    Again, this is not always successful. With cabinet units, this is the easiest approach if you can get it to work

    The second is more likely to be successful, and is the easiest approach with non-cabinet units where the sensor tube connection is readily accessible.
    - Change the high fill and high alarm settings so that the current level is above the high alarm setting. This will trigger the high alarm.
    - Pull the vinyl sensor tube loose from the bottom of the controller.
    - When the level reading drops and it starts a fill cycle, reconnect the vinyl tube to the controller before the 30 second purge cycle is completed.
        - When the purge cycle is completed, the first reading taken will be above the high-level alarm setting, and the alarm will be triggered.

    This approach can be used with cabinet units, but you will have to remove the rear panel and remove the vinyl tube from the purge valve connection. Pressing fill start and depressing the manual fill button until it reaches the high alarm parameter will not make it happen.

PROTOCOL FOR TESTING ALARMS ON TEC-2000 ALARMS (Con't)

15. Bypass sensor: If the controller detects an open bypass sensor when initiating a bypass cycle. To engage this alarm Disconnect the valve wire harness from the controller or control panel. If the bypass has been activated in the maintenance menu, the alarm will activate when the wire harness is disconnected.

VAPOR SHIPPING CONTAINER DIMENSIONS

Listed below are the important dimensions for our entire line of shipping containers:

MODEL	top I.D.	OAH	base OD.	Useable ht.
9719449	12.3"	22.75"	15"	up to 20"
9722149	15.1"	23.67"	18.08"	up to 22.5"
10537506	15.1"	24.67"	18.08"	up to 23.5"
10741726	19.25"	26.5"	22"	up to 24.5"
11358817	15.11"	24.67"	18.08"	up to 23.5"
11912460	19.25"	26.5"	22"	up to 24.5"

Although some containers have the same dimensions, there are different thicknesses, spacers, and foam pads. To determine which carton will fit your dewar please contact:

MVE/Chart Customer Service
800 482-2473 toll free
770 **257-1299**
770 **257-1300** fax

Technical Service
866 819-5897 toll free
952 641-6115 direct
612 382-6678 cell

AMAZING BUT TRUE

A Charlotte, NC, lawyer purchased a box of very rare and expensive cigars then insured them against fire among other things. Within a month having smoked his entire stockpile of these great cigars and without yet having made even his first premium payment on the policy, the lawyer filed a claim against the insurance company.
In his claim, the lawyer stated the cigars were lost "in a series of small fires."
The insurance company refused to pay, citing the obvious reason: that the man had consumed the cigars in the normal fashion.
The lawyer sued…and won!

In delivering the ruling the judge agree with the insurance company that the claim was frivolous. The Judge stated nevertheless, that the lawyer held a policy from the company in which it had warranted that the cigars were insurable and also guaranteed that it would insure them against fire, without defining what is considered to be unacceptable fire, and was obligated to pay the claim.

Rather than endure lengthy and costly appeal process, the insurance company accepted the ruling and paid $15,000.00 to the lawyer for his loss of the rare cigars lost in the "fires".

BUT WAIT THERE'S MORE

After the lawyer cashed the check, the insurance company had him arrested on 24 counts of ARSON! With his insurance claim and testimony from the previous case being used against him, the lawyer was convicted of intentionally burning his insured property and was sentenced to 24 months in jail and a $24,000.00 fine.