



# MVE Tech Tips



*A monthly publication for the MVE Biological Products Distributors*

*June 2005*

## MAC AND TEC-2000

Is it possible to connect the TEC-2000 to an Apple Mac computer?

The main problem is the connectors/adaptors. Most of Mac's plugs at the back of Mac computers are completely different from the ones on PC's. That is why the USB port was created, so that both systems can use the same printers, scanners, etc. There is a RS485/USB adaptor, so connecting the TEC-2000 to an Apple Mac should not be a problem. (Chart does not offer this adaptor.) I do not think Apple Mac has got the HyperTerminal but you can download something similar from the Internet by going to this link:

<http://www.networkingfiles.com/Telnet/HyperTerminal.htm>

## NEW REPAIR PROGRAM PRICING

Newly commissioned requirements have forced us to rethink our decontamination protocols. We will continue to require the customer to decontaminate the freezers prior to shipping back for repair. This will still be verified by a signed/dated copy of the decontamination statement required for each RMA and before any freezer or dewar can be received to our dock.

### Aluminum Repair Program

Please note that MVE-Chart will not decontaminate any freezer on receipt. MVE-Chart will not accept delivery of any unit for which a declaration of decontamination has not been received prior to shipment.

<b>LEVEL I</b>	<b>INSPECTION/SCRAP FEE</b> · MASS SPEC	<b>PN 10643712</b>	<b>\$50.00</b>
<b>LEVEL II</b>	<b>REVAC ONLY</b> · INSPECTION · RE-EVACUATION · LIQUID TEST (NER) · 1 YEAR VACUUM WARRANTY · 3 WEEK TURNAROUND	<b>PN 10643739</b>	<b>\$225.00</b>
<b>LEVEL III</b>	<b>COMPLETE REPAIR</b> · INSPECTION · RE-EVACUATION · LIQUID TEST · PAINT · NEW LABELS · NEW CORK/COVER · ONE YEAR VACUUM WARRANTY · 4 WEEK TURNAROUND	<b>PN 10643739</b>	<b>\$325.00</b>

### **NEW REPAIR PROGRAM PRICING (CONTINUED)**

<b>LEVEL IV</b>	<b>NON-MVE MANUF'D DEWAR</b>	<b>PN 10910201</b>	<b>\$325.00</b>
	. INSPECTION		
	. RE-EVACUATION OF VACUUM SPACE		
	. NO WARRANTY		
	. PAINT	<b>ADDITIONAL</b>	<b>\$75.00</b>

REMOVE CANISTER AND CORK/COVER BEFORE SHIPPING.

MVE-CHART CANNOT REPAIR NON MVE VAPOR SHIPPERS.

NOTE: NEW REPAIR PROGRAM PRICING TO TAKE EFFECT JULY 1, 2005.

### **Stainless XLC Repair Program**

Please note that MVE-Chart will not decontaminate any freezer on receipt. MVE-Chart will not accept delivery of any unit for which a declaration of decontamination has not been received prior to shipment

<b>INSPECTION FEE/SCRAP FEE</b>	<b>\$100.00</b>
. Charged only if freezer is not repaired. Waved if Chart repairs unit.	

<b>LEVEL I</b>	<b>REVAC ONLY</b>	<b>\$900.00</b>
	. TEST REPAIR	
	. LN2 TEST	
	. REVAC	
	. ONE YEAR VACUUM WARRANTY	

NOTE: There will be a \$250.00 additional charge if cabinet has to be removed and reinstalled.

<b>LEVEL II</b>	<b>COMPLETE REPAIR/COSMETIC</b>	<b>\$1150.00</b>
	. LN2 TEST	
	. REVAC	
	. MASS SPEC	
	. 2 <sup>ND</sup> NER TEST	
	. BUFFING AND CLEANING	
	. ONE YEAR VACUUM WARRANTY	

NOTE: This does not include any electrical work or parts. Those items are additional.

<b>LEVEL III</b>	<b>REPAIRS INVOLVING CUT APART</b>	
	. XLC-611 AND SMALLER	<b>\$1650.00</b>
	. XLC-800 AND LARGER	<b>\$2450.00</b>
	. ELECTRICAL AND PLUMBING PARTS ADDITIONAL.	

NOTE: NEW REPAIR PROGRAM PRICING TO TAKE EFFECT JULY 1, 2005.

### **FRONT PANEL DISPLAYS**

If you haven't seen the new front panel symbol pads yet don't be too surprised. The international symbols used on the display are required for our auto fill freezers that are to be commissioned to Europe. There is a quick reference (pn 11858221) if you need one. Call customer service to have the file e-mailed to you. If your customer wishes, they can replace the symbolic keypad with the text keypad. The distributor will need to switch the front panel out. Simply call customer service and ask for P/N 10713434. The keypad that will be returned is P/N 11857659.

All TEC-2000 sold domestically will have the text panel. Units sold in Europe and parts of Asia will keep the symbolic keypad.

## QUESTION AND ANSWER

**Q: A customer with an 1830 Eterne has 2 inches of LN2 on the bottom of the inner but level is still reading 0. Also, why do the temperatures fluctuate and are not close to the -190C?**

**A:** The controller will not display a level above 0 inches until level is above the level sensor port in the bottom of the freezer because it does not have a level signal to determine a level from. The level sensor port in this model freezer is around 2 inches from the absolute bottom of the freezer.

On the temperature issue: On Eterne models, the perimeter band of the turn tray is aluminum and extends ~ 3 inches below the tray that the racks sit on. It is this extension of the aluminum below the tray into the LN2 that allow the Eterne models to maintain -190. The high level should be set at the level of the bottom of the tray and the low setting should be 2" below that. If the level drops below 3" of the tray, the temperature will increase to a point equivalent to the performance of a standard HE freezer.

**Q: I attempted to calibrate the LN2 temperature for both probes A & B and in both instances the display read (LN2 Aborted). I then went into the Maintenance Menu and found that LN2 was -273.1C. I rebooted the controller only to find the same LN2 temperature. Can you please explain (1) how this reading occurred and (2) how to rectify the problem?**

**A:** The calibration was aborted because the LN2 temperature in the maintenance menu is now set too far below the temperature that it was previously calibrated at. The temperature of LN2 in the maintenance menu should be entered based on the chart in the manual that provides LN2 temperature vs. altitude on page 4-11. Once the correct LN temperature is entered in the maintenance menu, the calibration should work properly. Rebooting the controller will not reset the LN2 temperature in the maintenance menu. That value is retained in nonvolatile memory. Reinitializing with the escape key (press and hold for 30 seconds) will reset all programmed parameters back to MDC factory defaults. If you do not want to reset everything, just enter the maintenance menu and enter the correct LN2 temperature, then perform the calibration.

One question that comes to mind, is how the LN2 temperature got set at the value that you indicate. Although it is possible for voltage spikes, static discharge and other types of electrical interference to alter programmed setting, I suspect that this one was done manually by someone who was confused. The value of -273.1 just happens to be absolute zero. I am guessing that someone thought that LN2 temperature was absolute zero. On the occasions when I have seen settings altered by electrical interference, the value frequently ends up in the -220C range. If you did not check all the other programmed settings, that would be a good idea.

## JOKE OF THE MONTH

A woman came into the kitchen to find her husband stocking around with a flyswatter.

"What are you doing?" she asked.

"Hunting flies", he responded

"Oh. Killing any?" she asked.

"Yep, 3 males and 2 females", he replied.

Intrigued, she asked, "How can you tell?"

"3 were on a beer can, 2 were on the phone."

Chart Bio-Medical Customer Service:		Technical Service:	
800 482-2473	Toll free	866 819-5897	Toll free
770 257-1299	direct	952 641-6115	direct
888 932-2473	Fax Toll free	612 382-6678	cell
770 257-1300	fax	952 882-5172	fax

For copies of past Tech Tips or for more information on maintaining your nitrogen storage dewars please contact Jim Bachman at (952) 641-6115.

