

MVE Tech Tips

A monthly publication for the MVE Biological Products Distributors

October 2004

511 RESIGN

The following are the new part numbers for the GEN2 MVE 511. The units are basically shorter and use a similar plumbing configuration that is used on the 600 & 1400 freezers.

11905016 FNL MVE 511 GEN2 – BASIC

110-volt systems

11905067 FNL MVE 511 GEN2 – F
11905075 FNL MVE 511 GEN2 – F-GB-BB

240-volt systems

11905083 FNL MVE 511 GEN2 - FD
11905091 FNL MVE 511 GEN2 – FD-GB-BB
11905104 FNL MVE 511 GEN2 – FD-GB-BB-MDDCE

ORDERING FULL AUTO FREEZERS

Effective immediately, Chart will no longer allow orders to be placed for BB's or GB's to be added to full auto units when a customer only wants one of the options. Customer may order a full auto and on a separate line item order a BB or GB. It will then be up to the distributor to connect the option to the freezer on their own. We will not install a singular option at the factory. There was a notice that went out earlier this year stating the same message.

Listed below is the optional part number for each model:

- 11864171 Battery Backup MDDCE MVE 600/611/1400/1411/511 GEN2
- 11864162 Battery Backup MDDCE Stand Alone-HE's, Eterne's, Stock, 230GEN2
- 11877983S Battery Backup MDDCE 1841/1211
- 10800870S Battery Backup XLC 1840/1841/1211
- 10753938 Battery Backup XLC Stand Alone-HE's, Eterne's, Stock, 230GEN2
- 11482877 Battery Backup MVE 600/611/1400/1411/511 GEN2
- 11836461 Gas Bypass HE/Eterne
- 11836508 Gas Bypass Stock/230 GEN2
- 11062194 Gas Bypass MVE 600/611/1400/1411/51 GEN2

HELPFUL TIDBITS OF INFORMATION

PLASTIC SHIPPING CONTAINERS

9719449	12.3"ID	19.5" useable ht	Fits 4/2, 4/3, 2/1, 2/1-11
9722149	15.125"ID	20.5" useable ht	Fits 11/7, Doble 11
10537506	15.125"ID	20.5" useable ht	Fits 22/5, Cryoshipper 14/2,
10741726	19.25"ID	27.5" useable ht	Fits Cryomover, 20/3, 19" OD & up to 27" ht.
11358817	15.12"ID	24.67" useable ht	Fits Cryoshipper mini
11912460	19.25"ID	27.5" useable ht	Doble 28, Doble 20, 20/12

HELPFUL TIDBITS OF INFORMATION (CONTINUED)

ROLLER BASE

500# cap

			CABOSIL MINI INSERTS	
10937391	14.5"ID	20ltr	11046952	SMALL
10937403	18.2"ID	30/50ltr	11046944	MEDIUM
10937411	20"ID	47ltr	11046936	LARGE
10937420	22"ID	360/510	11046928	1" sq. insert
10937438	26.16"ID	Cryosystem		

DIPPERS

VOLUME

9711569LAB 5	16.25"OAL	45ml	1.53oz	012gl
9711589LAB 10	19.625"OAL			
9711619LAB 20	21.75"OAL			
9711639LAB 30	21.5"OAL	OBS-REPLACED W/9711619		
9711669LAB 50	28.25"OAL			

PICASSO DIPPER

VOLUME

9711679	21.25"OAL	17ml	.5oz	.004gl
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EXTENDED DIPPER

11555669	LAB 20	21.75"OAL	103ml	3.5oz	.028gl
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PHASE SEPERATORS

10615869	CRYO-BIO	5.1875"OAL X 1.625"OD	for filling XLC units	
10615877	LARGE	4.563"OAL X 1.313"OD	for filling large aluminum dewars	
10615885	SMALL	2.625"OAL X .625"OD	for filling dewars with small necks and vapor shippers	

DIVIDERS FOR CANISTER TUBES-fits XC47/11-6 canisters

10873286	4 place	CryoClaw 11068705
10873278	6 place	Replacement cup 1185714

TOOL BOX KIT for XLC REPAIR

11883259

LEVEL ALARMS

<i>THERM-ALERT</i>		PROBES
9710879	110V or battery, no remote alarm,	10941234
10769489	240V or battery, no remote alarm.	9710879 + 4613399(transformer)
BAT LEVEL ALARM		
11068668	9V battery, no remote alarm	11866441

HELPFUL TIDBITS OF INFORMATION (CONTINUED)

DATA LOGGERS

Logger only with adjustable probe	11554324
Cryomoover	11554383
Cryoshipper	11371181
SC4/2V	11554341
SC4/3V	11554367
XC20/3V	11554375
Probe only	11878353
Disc type logger attached to Cryoshipper C/C only	11787304
Logger w/fixed probe attached to Cryoshipper C/C only	11809155
Refurbished data loggers:	
Adjustable type logger for Cryoshipper 11371181R	
Disc type logger for Cryoshipper 11787304R	
Fixed type logger for Cryoshipper	11809155R

COMMON CONVERSIONS

1 INCH=25.4MM OR 2.54CM

1KG=2.2LBS.

1 LITER OF LN2=1.782LBS.

1LB OF LN2= .5606 LITERS

1GAL OF LN2=3.785 LITERS

LN2 IS -195.76 DEGREES CELSIUS -320.36 DEGREES FAHRENHEIT

LOX IS -182.96 DEGREES CELSIUS -297.33 DEGREES FAHRENHEIT

HELIUM IS THE COLDEST LIQUID KNOWN TO MAN. NITROGEN IS COLDER THAN ARGON AND ARGON IS COLDER THAN OXYGEN. IT IS POSSIBLE TO SOLIDIFY ARGON AND OXYGEN WITH NITROGEN

QUESTION AND ANSWER

Q: *A customer is experiencing a problem where they have changed the "LN2 supply" (FILT) from 60 to 360 minutes, logging every minute. However the problem that they have encountered is that the system alarms after 3 hours.*

A: Testing has determined that there is an error in the manual. The maximum delay for the FILT (supply alarm) is 180 minutes. In this case I would hope they have a gas bypass on the unit. If they do not, it should be installed. If they need more than 3 hours, they will need to make up the difference with the bypass time delay.

Q: *We would like to remotely monitor and alarm the liquid nitrogen level in our MVE freezers. Can this be done?*

A: The TEC-2000 cannot provide an analog level signal for remote monitoring. The upcoming new controller will include analog output for level and temperature, user switchable between 4-20ma and 0-10vdc. When these come out in the next few months the only issue would be how to retrofit to an existing freezer. It will not be a direct bolt-in replacement.

QUESTION AND ANSWER (CONTINUED)

It may be possible to find an add-on autonomous device that will provide analog output. There are issues with this approach as well that the customer must understand and accommodate. The issues are as follows:

- The level/pressure signal for the device would probably be obtained by teeing into the clear vinyl level sensor tubing. This would provide it with a "raw" pressure signal that would not include the offset adjustment that the TEC-2000 includes. Thus, they would have to somehow accommodate the offset in their system.
- The clear vinyl level sensor tube is isolated from the annular line during the purge cycle at the beginning of each fill cycle. Some testing would have to be done to determine what effect that would have on the signal from the external device. The TEC-2000 simply displays the last reading before the purge, but the external device would not be able to do that. In theory, barring any leaks or significant heat input to the gas trapped in the system, it should continue to indicate the same level that it did prior to isolation. However, most of the devices that would be available for this application would use a resistance device to measure the pressure. Resistance devices generally add some heat to the system, which would increase the pressure in the system, which would cause the indicated level to increase. This would cause them to see a false higher level during the purge cycle. Testing would have to be done to show how much the increase would be.

YOU KNOW YOU ARE FROM MINNESOTA IF:

1. You consider it a sport to gather your food by drilling through 18" of ice and sitting there all day hoping that the food will swim by.
2. You are proud that your state makes the national news 96 nights each year because International Falls is the coldest spot in the nation.
3. Your local Dairy Queen is closed from November through March.
4. Your town has an equal number of bars and churches.
5. You carry jumper cables in your car and your girlfriend knows how to use them.
6. You install security lights on your house and garage and leave both unlocked.
7. You see people wearing hunting clothes at social events.
8. There are 7 empty cars running in the parking lot at Mill's Fleet Farm at any given time.
9. Your idea of creative landscaping is a statue of a deer next to your blue spruce.
10. You often switch from "heat" to "A/C" in the same day and back again.
11. You have worn shorts and a parka at the same time.

BIO-MEDICAL CUSTOMER AND TECHNICAL SERVICE

Customer Service	888 683-2796 toll free / 952 882-5000 Burnsville receptionist 800 232-9683 fax
Technical Service	952 641-6115 direct line / 866 819-5897 toll free / 612 382-6678 cell 800 232-9683 fax

If you have questions concerning your MVE/Chart dewars or cryogenic freezers please contact Customer Service: Mary or Marae at 888 683-2796 or Jim in Technical Service at 866 819-5897.



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