

MVE Tech Tips

A monthly publication for the MVE Biological Products Distributors

June 2004

INSTRUCTIONS FOR PREPARING DATA LOGGER/DEWAR FOR SHIPMENT

Objective:

To provide a standard method for preparing the charged vapor shipper for transport, including initialization of data logger.

Equipment:

1. Vapor shipper, prepared for use as per vapor shipper manual p/n 11562640.
2. Replacement shipper lid fitted with Shipslog Data Logger.
3. Standard RS232C cable; nine pin, male to female.
4. Copy of Shipslog software on 3.5" diskette.
5. Standard PC with windows 95 or higher, with Shipslog software loaded.
6. Transport container for Shipper.
7. Shipslog Key.

Method:

- Replace the standard shipper lid with the lid fitted with data logging device.
- Open the Shipslog software by double clicking on the icon. To prepare the system for shipping, it is necessary to check the alarm points and delay period and to initialise the system for data collection.
- Click on "Shipslog Settings".
- System settings may be inspected and, subject to password authorization changed, from the System Settings option of the System Menu.
- If your password access permission does not permit you to change system settings, you will only be able to inspect the existing settings.
- Any changes to System settings become operative as soon as they have been saved, and remain until subsequently changed again.

Procedure:

1. From System menu, select System Settings.
2. All current system settings will be displayed.
3. To change any System Settings, select Change Settings from the system settings display, and enter a valid password, if prompted.
4. Edit any or all system settings as required.
5. Select Save Changes to save any changes, or Cancel Changes to display the unchanged settings again.
6. Finally, select Cancel to return to the main menu.

The lower alarm limit is irrelevant for this application, but can be set to -196 degrees. The upper limit should be set at the nominal temperature standard for the shipper, which in the case of the MVE Cryoshipper is -150 degrees. As the logging unit measures the warmest point in the shipper, it is guaranteed that the sample will be at a lower temperature than this point. The logging interval should be set such that the expected duration of the shipment is completely covered, with a safety limit of 30%. As a guide the following table gives logging interval time equivalents, including the 30% safety margin.

Logging Interval	Shipment Time	Alarm Delay
0.5 Minute	2 days (approx)	10
1 Minute	4 days (approx)	5
2 Minutes	8 days (approx)	2
5 Minutes	20 days (approx)	1
10 Minutes	40 days (approx)	1

These Shipment times have been calculated based on a total number of stored data points of 6000, allowing a better than 30% safety margin on the actual 8192 data points possible.

The alarm delay should be set for the equivalent of 5 minutes. Note that the value for the alarm delay is set in logging intervals, thus if the logging interval is 0.5 minutes, the log interval will be 10 - see table for details. Note that fractions of a unit cannot be used, and therefore the minimum delay is one interval.

Once the settings have been completed, click on "Save Changes" (see above) to download.

To initialise the unit:

1. From Shipslog menu, select Shipslog Control.
2. Enter valid password, if prompted.
3. The program will immediately establish communication with the Shipslog and read existing settings and status data from it. During communication, a bar graph will be displayed showing progress of data transfer, together with a command panel showing the available command option
 - Start Logging, Stop Logging or Reset Shipslog, depending on the current Shipslog operating status.
4. Select the Reset Shipslog action, which will empty the logger memory in preparation for shipment, or select Main Menu to exit, leaving the existing Shipslog operating status unchanged.

Warning:

- If you elect to reset a Shipslog, any existing previously logged data within the Shipslog will be irretrievably destroyed. Make sure that any required data has been read from the Shipslog before resetting.
- Place the shipper into the transport container and, using the key, initialise the logging function by placing the key flat onto the point on the top cover of the Shipslog indicated by an eye motif.
- Visually check that the logger has started by viewing the 3 LED's on the top surface of the unit. If all is OK the green lamp will blink every 2 seconds.
- Place a padlock on the system lid to prevent tampering (US Internal Shipments Only) and fasten the lid of the transport container.
- The system is now ready to ship.
- In a separate shipping envelope, place a copy of the Shipslog software, the PC connection cable and the Shipslog Key.
- If applicable include the padlock key as well and ship all separately to the intended recipient of the Cryoshipper.
- Fax or email the following data download instructions.

INSTRUCTIONS TO THE RECIPIENT OF CRYOSHIPPER UNIT FITTED WITH SHIPSLOG

- On arrival, check the outer condition of the transport container.
- If any external damage is obvious, inform the shipping company and the sender immediately.
- Open the transport container and look at the LED's on the top of the Data logger. If only the green lamp is blinking, open the shipper and remove the inner sample container - place the sample in storage immediately unless the sample is due for immediate use.
- If either the red or amber lamp is also lit, remove the sample to storage as above, take the Data logger, and lid to any available PC running Windows 95 or 98.
- Load the software as per instructions on the diskette.
- Connect the PC cable to the Com1 serial port and to the logger.
- Open the software and click on "New Data". Once the data has been downloaded it is possible to graph the data to view the temperature history during shipment.
- As soon as the data has been saved, stop the logging function by placing the key flat over the eye motif - the lamps should stop blinking at this point.
- Data may be faxed back to the sender on 303 XXX XXXX or the data file - from the archive on the computer at the path Drive:\folder\shipslog\archive: may be emailed to XXXX@ZZZZZZZZ.
- Replace the inner sample furniture and lid, fasten the lid of the transport container and return the shipper to the sender.

BATTERY BACK-UP

Tec 2000 controller displaying low battery does not necessarily mean the batteries need replacing. If the unit runs on battery power for an extended period of time, the low battery alarm can activate, but this would only mean that the batteries need main power to be charged. The low battery alarm would indicate replacement if it has been running on main power for more than 24 hours after a power failure.

Even if they do not remember a power failure to the building, power to the unit can be accidentally shut off if the unit is connected to a circuit that is turned off by a room light switch (don't laugh, this would not be the first time that has happened) or a circuit that someone routinely shuts off from a breaker panel overnight. If this were happening, the 8 to 10 hours that it is charging during working hours would not be enough to completely recharge the batteries. Over time with 10 hours on main power and 14 on batteries each day, the batteries would eventually be drained enough to initiate the low battery alarm.

FRONT PANEL

Micro Dynamics has never made a TEC-2000 that will display Asian text. Asian characters in the display are a symptom of a defective display or a partial lockup of the main control.

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



www.PrincetonCryo.com | Sales@PrincetonCryo.com | 800.232.2796