DATREND Systems Inc.

Phase 3 VLM
Variable Load Module

Quick Start Guide

Package Contents:

8000-460	VARIABLE LOAD MODULE
3140-010	CABLE, DB9(f) – DB9(m) RS-232
7200-460	VLM INTERFACE CABLE
7200-461	RANGE SELECTOR JUMPERS (x2)

INTRODUCTION
This Quick Start Guide will provide basic information about Datrend Systems' Phase 3 Variable Load Module.

UNPACKING AND INSPECTION
Follow standard receiving practices upon receipt of the instrument. Check the shipping carton for damage. If damage is found, stop unpacking the instrument. Notify the freight carrier and ask for an agent to be present while the instrument is unpacked. There are no special unpacking instructions, but be careful not to damage the instrument when unpacking it. Inspect the instrument for physical damage such as bent or broken parts, dents, or scratches, and ensure all accessories are present. If any accessories are missing, immediately contact Datrend Customer Service and provide the Phase 3 serial number.

WHAT YOU'LL NEED
In order to run the Variable Load Tests, you will need the following devices and interface cables:

- *Phase 3 Defibrillator / Pacer Analyzer*
- *Phase 3 Paddle Adapter*
- *Phase 3 VLM Variable Load Module*
- *Cardiac Defibrillator with paddles*
- *PC or Laptop with Phase 3pc and Phase 3VL installed*
- *Paddle Plate Adapter interface cable*
- *VLM interface cable*
- *USB cable (supplied with Phase 3)*
- *DB9(f) – DB9(m) RS-232 cable*

SETUP
1) The VLM software application, Phase3VL.exe, is placed on your computer during the installation of Phase 3pc software.
    a) If you elected to have shortcuts placed on your desktop, the Phase 3VL shortcut will accompany the Phase 3pc icon.
    b) Alternatively, locate this file in the same subdirectory where Phase 3pc was installed (by default - C:\Program Files\Datrend\Phase 3pc)
    c) Double-click Phase3VL.exe.
2) To review previous tests, select "Open Test Report" and proceed to the TEST REPORTS section on the following page.
3) To begin a new test, select "New Variable Load Test"
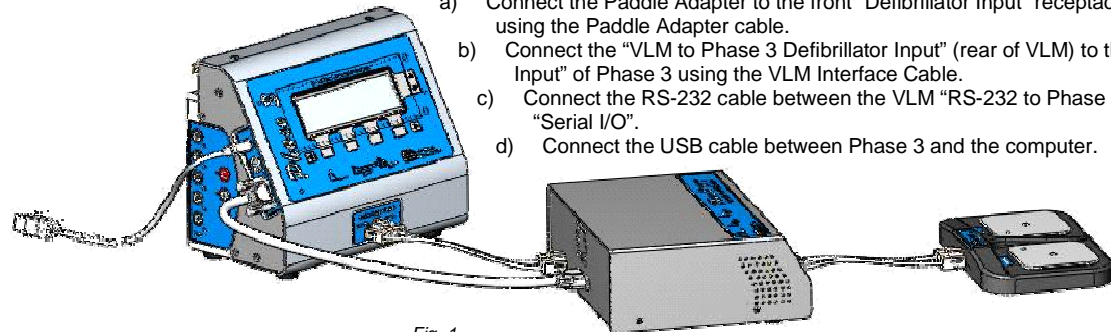4) A window (Fig. 1) will appear which describes how to connect the required devices.
    a) Connect the Paddle Adapter to the front "Defibrillator Input" receptacle of the VLM using the Paddle Adapter cable.
    b) Connect the "VLM to Phase 3 Defibrillator Input" (rear of VLM) to the "Defibrillator Input" of Phase 3 using the VLM Interface Cable.
    c) Connect the RS-232 cable between the VLM "RS-232 to Phase 3" and Phase 3 "Serial I/O".
    d) Connect the USB cable between Phase 3 and the computer.

Fig. 1

5) Turn Phase 3 power ON, acknowledge the results of the self-test and press the REMOTE softkey from the Main Menu.
6) The Phase 3 / VLM system is now ready for testing.

STARTING A NEW TEST

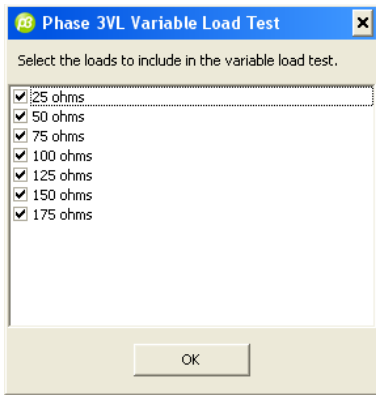1) From the setup screen in Phase 3VL, press the "Start Test" button to setup the test.

Fig. 2

2) The Test Load selection box (Fig. 2) will appear. Select the loads under which the Defibrillator is to be tested (all checked is the default), and press OK.

Fig. 3

3) The VLM configuration screen (Fig. 3) will appear which shows the jumper settings for the test to be conducted. Ensure the Bank and Load jumper colors correspond (Bank A [orange] for 25 and 50 ohm loads, and Bank B [yellow] for 75 through 175 ohms), and that the load jumper is in the proper position for the test to be conducted.
   a) Any time the Configuration screen is active, the Device information can be entered/edited by selecting the "Edit Device Information" button. This will open the Device Information screen (Fig. 4) where the Device ID, Serial Number, Make,

Model , Facility, Location and Tech ID can be entered. If the Device information is not entered during the course of testing, the Edit Device ID screen will open after the last test and you will be prompted to enter, at a minimum, the Device ID.
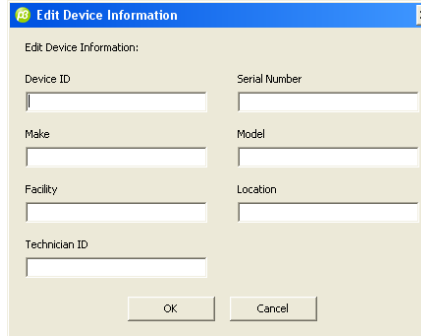

Fig. 4

4) After entering the desired information, Press OK.
   a) If the VLM is not properly configured for a particular test, an error message will appear which indicates the nature of the setup error.
   b) If this occurs, acknowledge the error message(s), correct the configuration settings and press OK.
5) Phase 3VL will indicate that it is awaiting a discharge at the appropriate load.
6) Turn the Defibrillator on and charge to its maximum delivery (200 – 360 Joules, depending on the Defibrillator model).
7) Discharge the Defibrillator into the paddle adapter and wait for Phase 3VL to calculate the delivered energy.
8) When a discharge is detected, Phase 3VL will make the necessary calculations and open the Waveform Viewer. In the Viewer, all necessary data and a graphical representation of the energy waveform are presented.
   a) Do not attempt to change the jumper settings until the Viewer has displayed the test results. Removing or changing the jumpers will result in an error and require the test step be repeated.
9) After the Viewer displays the test results, the Phase 3VL configuration screen will advance to a depiction of the next setup configuration, as described above.
10) After all selected loads have been tested, the configuration screen will show that tests are done.
   a) If not already completed, the Edit Device Information screen will appear where, at a minimum, the Device ID must be entered.
11) The Test Report Viewer will open.

TEST REPORT VIEWER

1) In the Test report Viewer (Fig 5), the report can be printed or saved as a .vlm file (for use with Phase 3VL) or a .csv file.
2) The Waveform Viewer for a single waveform can be opened by highlighting the load in the left column and :
   a) Clicking the Waveform Viewer Button
   b) Selecting **View**, then **View Waveform** from the menu drop-down buttons.
   c) Ctl+W on the PC keyboard.
   d) Double-clicking the test load in the left column (opens the view for the highlighted load only)
3) Multiple waveforms can be selected using the mouse-pointer with standard MS Windows key combinations (Ctl, Alt and Shift), then using steps a) through c), above.
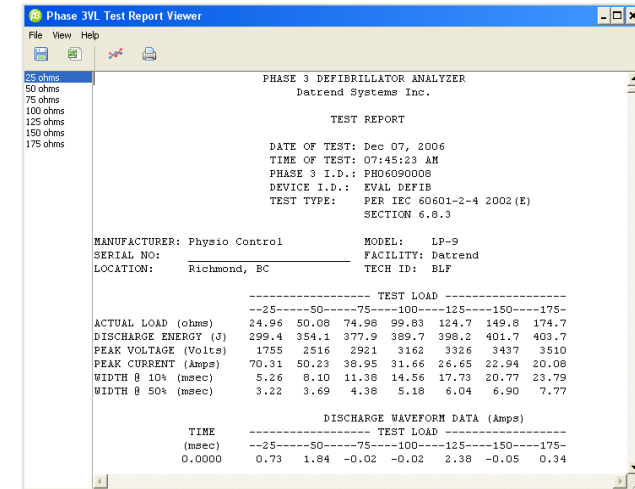

Fig. 5

For Questions or Support, contact:

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