

# UTILIZING AN EXTERNAL PMT HIGH VOLTAGE POWER SUPPLY IN LIEU OF THE OL 750-645 PROGRAMMABLE HV SUPPLY

Prior to employing the external HV supply, disable the existing OL 750-645 HV supply located within the OL 750-C Controller.

- 1 Disconnect the AC power cord from the OL 750-C rear panel and remove the (4) Philips head screws that secure the top cover then remove the cover.
- 2 Identify the HV supply PCB mounted near the rear wall of the controller. Disconnect the MHV cable attached to the PCB that has the opposite end attached to the MHV connector on the rear panel of the controller.
- 3 Disconnect the power supply cable attached to the right edge of the PCB.
- 4 Disconnect the ribbon cable attached to the bottom edge of the PCB.
- 5 Secure the loose end of the high voltage cable so the metal MHV connector does not come in contact with other electrical components inside the controller. It may be secured by fastening it with a restraint to the end of the cable attached to the inside rear wall of the controller.
- 6 Replace the top cover and secure it with the (4) Philips head screws.

The external high voltage supply is a Matsusada model number ES-1.5N2-L configured to operate from a 230V 50/60 Hz AC mains supply. Reference the supplied manufacturer's manual for proper operation and ensure a proper AC line cord is used.

- 1 Prior to connecting the high voltage supply to the DH-318 PMT apply power to the supply and preset the output to -1250 V using the 10 turn potentiometer located on the front panel then lock the knob in position.
- 2 Remove power from the external supply then using the coaxial high voltage cable attach the MHV connector on the rear of the supply to the MHV connector on the PMT housing.

- 3 Apply power to the OL 750-NVG system components in the following order:

- a) Apply power to the PMT TE cooler controller.
- b) Apply power to the OL 750-C controller.
- c) Allow sufficient time for the PMT chamber to reach the temperature set point and stabilize (+/- 1°C), then apply power to the external power supply and allow 15 minutes for it to stabilize. If necessary, make fine adjustment to the potentiometer to reset the output to -1250 V.

The OL 750-NVG system should now be ready to resume normal operation. When the system is to remain idle, remove power to the external HV power supply before removing power to the other system components.

Keep in mind that the external HV supply is set only from its own front panel controls. The OL 750 Application Software has no effect on the HV level. It is recommended that the HV Setup Parameter for the OL 750-HSD-319 be checked to be sure that the software setting is also set to 1250 volts, matching the actual setting of the external HV supply. In this way the .dat and .cal files generated by the OL 750 Application Software will include the correct HV value in the file headers.

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As part of our policy of continuous product improvement, we reserve the right to change specifications at any time.