

Fresenius Medical Care

SERVICE BULLETIN

Equipment: All Hemodialysis Machines
Bulletin: 05-FRS-003 Rev A
Subject: Level Detector Optical Detector Calibration

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1.0 PURPOSE

To inform all Field Service and Technical Support personnel of process used to calibrate the optical detector on the Level Detector module. This calibration method is for information only and is not mandatory.

2.0 TOOLS

Oscilloscope and a Pot Tweaker.

3.0 PROCEDURE

1. With the Level Detector module ribbon cable attached, turn the 2008H/K machine on.
2. Open the door of the optical detector housing on the face of the Level Detector.
3. Insert a water filled tubing set line through the optical sensor assembly and close the door. Make sure there are no air bubbles in the tube going through the optical sensor.
4. Connect an oscilloscope to appropriate measuring point dependent upon the level detector circuit board being calibrated (See Figure 1 on page 2).
5. Connect the oscilloscope ground lead to MP3 or chassis ground on the Level Detector module.
6. Configure the oscilloscope* to the following settings: 1.00 volts/division (vertical) and 2.50 milliseconds/division (horizontal) or equivalent.
** Refer to your oscilloscopes operator's manual for instructions on how to configure the settings.*
7. The oscilloscope should display a square wave with a 5 volt peak and look similar to Figure 2 on the page 3.
8. If the peak of the square wave is not 5 volts, then calibrate the peak of the square wave using the appropriate potentiometer dependent upon the level detector circuit board being calibrated (See Figure 1 on page 2).

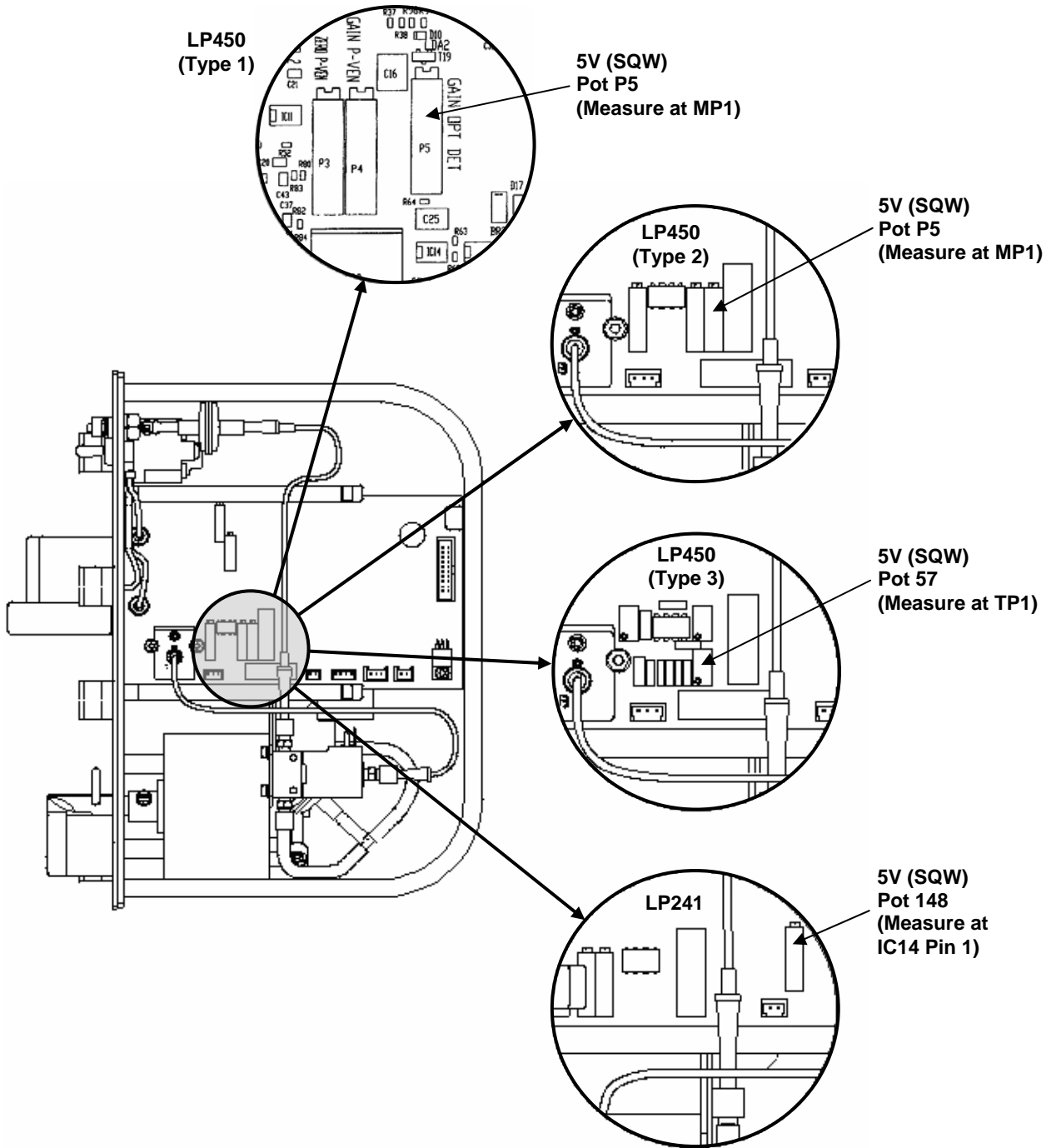


Figure 1 – 5V Square wave Pot Locations

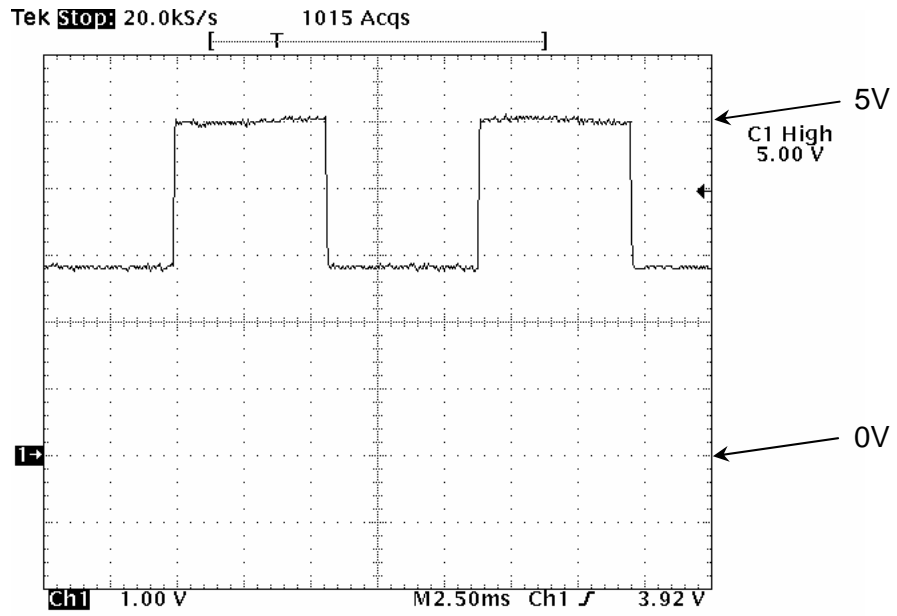


Figure 2 – Oscilloscope Screen

If there are any questions regarding this bulletin, contact Fresenius Technical Support at 800-227-2572 x7003.