

Calibration Procedure for Soredex/Cranex/Philips Panoramic (and Panceph) X-ray systems with Pulse logic bd.

A high quality, high impedance digital Meter such as the Fluke 75 is required

Before starting calibration procedure, you must confirm that Buck-boost transformer is set to tap closest to 220VAC.

This is done by measuring AC voltage at 2-pin AMP connector located in center of Mains Power Unit (MPU). The wire on the back side of the white terminal strip (rear right of MPU) is moved right or left to increase or decrease voltage at 2 pin connector. Each position is different by about 20 Volts. (See diagram of MPU)

The test points listed in the following procedure are located on the Pulse Logic Bd (PLU). Older units do not have these test points. If the test points cannot be located, use D-8 for mA+, & mA-. Use R-55 for PKV+, & PKV-. Use R-53 for CKV+, CKV-.

Remove power from Machine, Remove trim covers from MPU, PLU, and technic selectors. Place a lead cover over collimator to absorb X-ray.

Place the "TA" switch (Lower right) in the Up position. (disable rotation)

Turn PLU trim pots as follows: R-56 fully CW, R-65 fully CCW.

Connect DMM to PKV+, PKV- (or across R-55 if there are not test points) set meter for DC volts.

Select 81 kV, 10 mA, no compensation. Note that the audible indicator does not make noise until kV exceeds 50.

Press and hold exposure switch. Adjust R-65 (far left), until meter reads 7.5 to 7.6 Vdc (85 kV). Then adjust R-56 (far right) to a meter reading of 7.34 Vdc. (81 kV)

7. Connect dc Voltmeter to mA+, mA- (or across D-8) on PLU. Switch the PRE switch (above center pot) to the left position.

8. Select 81 kV, 10 mA, no compensation.

9. Press and hold exposure switch, adjusting R-41 (center pot) for 1.40 Vdc. (5 mA). Return PRE switch to right position (normal).

10. Press and hold Exposure switch, adjusting R-51 to 2.78 Vdc (10 mA).

11. Select 6 mA, make exposure, confirm meter reading of ~1.67 Vdc (6 mA).

IF the machine is Panoramic only, this completes the cal.

If Ceph is installed, proceed with the following steps:

12. Remove IC-6, if it has been replaced. Move lead cover to Ceph head.

13. Connect DC volt meter to CKV+, CKV-.

14. Select 81 kV, 10 mA, 3.2 seconds, No compensation.

15. Press, and hold exposure switch, adjust R-54 for 7.34 Vdc. (multiple exposures may be needed, as you now only have 3.2 seconds to adjust !)

16. Connect DC volt meter to mA+, mA- or across D-8.

17. Set PRE switch (above middle pot) to left position.

Make more exposures, adjusting R-42 to 1.40 Vdc (5 mA). Return PRE switch to Right position.

Make additional exposures, adjusting R-52 for 2.78 Vdc (10 mA).

This completes Pan/Ceph calibration. Replace IC-6, return TA switch to down position, make a test rotation at 71 kV, 10 mA.

Replace all covers, make an additional test rotation.