


FILM-TECH

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	E480 PLL Adjustment		TN-E889		1 of 1
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This procedure shows how to adjust the phase lock loop (PLL) circuit in the E480 Timecode Converter. Correct calibration of this circuit optimizes timecode reading and tracking in the E480. *Distribution of this document is limited to internal DTS use or for specific customers.*

 **Caution:** This is a bench test procedure ONLY. Do not adjust when connected to other operational equipment.

The E480 unit must NOT be referenced to “Internal 30Hz” or unit will not calibrate properly.

Necessary Tools and Equipment

- Frequency counter

Instructions

Projector 1 PLL Calibration

1. Remove power from unit and remove its top cover.
2. Attach a frequency counter to TP1 and TP GND.
3. Power ON the E480 unit.
4. Remove shunt from W2 and apply shunt to W1. Adjust R16 for 20 Hz at TP1.
5. Apply shunt to W2. DO NOT REMOVE SHUNT FROM W1 YET. Adjust R17 for 30 Hz at TP1.
6. Remove Shunt W1.

Projector 2 PLL Calibration

Steps 7 through 10 should be skipped on versions 1.02 or older since there are no software provisions for projector 2 input.

7. Attach a frequency counter to TP2 and TP GND.
8. Remove shunt from W4 and apply shunt to W3. Adjust R21 for 20 Hz at TP2.
9. Apply shunt to W4. DO NOT REMOVE SHUNT FROM W3 YET. Adjust R28 for 30 Hz at TP2.
10. Remove Shunt W3.

End of adjustment

11. Put top cover back on unit and return to service.

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