

5/24/84



<http://www.adadepot.com>

1-Series Digitals Calibration and Bench Test Procedure

1. Power Supply

(A) Check supply voltages at the following test points:

- Tp 13: GND
- Tp 12: +5V
- Tp 11: +15V
- Tp 10: -15V

All supplies must be within +/-4%

2. LED's

- (A) Turn on power, L-10 (triangular LED) should light.
- (B) Check Headroom LED's (L-1,2,3,and 4) turn power on and off watch for peaking and declination of LED's.
- (C) Check Effect IN/OUT LED (L-5).
- (D) Check Repeat Hold LED (L-6).
- (E) Check Rate LED (L-7),LED should blink in sync with delay setting.

3. Clock Frequency

- (A) Using maximum delay setting, multiplier CW all other settings CCW, probe Tp 17 with frequency counter: Adjust T-4 for 204.8KHz.
- (B) With multiplier CCW: Adjust T-5 for 1.638MHZ .

4. Signal Path

- (A) Inject 1KHz signal at input jack (J-1) or KA pin 1 on disassembled units, probe Tp2 adjust Input Level for 10V p-p.
- (B) Probe Tp 3 check for 10V p-p.
- (C) Probe Tp 4 check for 10V p-p.
- (D) Probe Tp 5 check for 10V p-p.

NOTE: Clock noise will be present at Tp 4 and Tp5 when at maximum delay Multiplier setting.

- (E) Turn multiplier CCW, signal should attenuate momentarily, turn CW and signal should momentarily sustain increase for duration of Time Delay setting then return to 10V p-p.

5. Encode/Decode Offset Adjustment

- (A) Remove input signal and short input to ground, set multiplier CW, using a VOM (preferably analog) probe Tp 6,adjust T-2 for 8mV.
- (B) Probe Tp 7, adjust T-1 for 7.5mV,go back and check Tp 6 for any interaction of trims.

6. Regeneration, Phase Invert and Repeat Hold

- (A) Inject 1KHz signal, set delay to 20ms (1.28i) or 40ms (.64i and 2.56i) with multiplier CW probe Tp 8 and adjust T-3 CW into self oscillation, remove signal and turn T-3 CCW slowly until signal begins to attenuate and finally disappear.
- (B) Inject 1KHz signal, with external trigger probe Tp 8, push Phase switch in, a 180 degree phase shift should occur.
- (C) Push in Repeat Hold switch (L-6 will light) remove injected signal, signal will remain on infinite hold until switch is pushed again.

7. LFO

- (A) Probe Tp 14 with Depth CW and Speed CCW observe signal for 25 sec. sweep, (make sure LFO does not stall) with Speed CW observe triangle waveform (.1sec.), turn Waveform select to 12 o'clock sine wave should be present, turn CW square wave should be present.