1/10/84

S1000 One Second Digital Delay 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-8 (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).

3. Clock Frequency

(A) Using maximum delay setting, multiplier CW all other settings CCW probe Tp 15 with frequency counter:
Adjust T-4 for 132KHz.
(B) With multiplier CCW:
Adjust T-5 for 1.058MHz.

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.
Clock noise will be present at Tp 4 and Tp 5 when at maximum delay Multiplier setting.
(E) Turn multipulier 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 Offeset 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 5mV.
(B) Probe Tp 7 adjust T-1 for 4.5m V 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 40ms with Multiplier CW probe Tp 8 and adjust T-3 CW into near self oscillation.
(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 signal, signal will remain on infinite hold until released.

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. ).

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