

INSTRUCTION MANUAL

AND

SETUP PROCEDURES

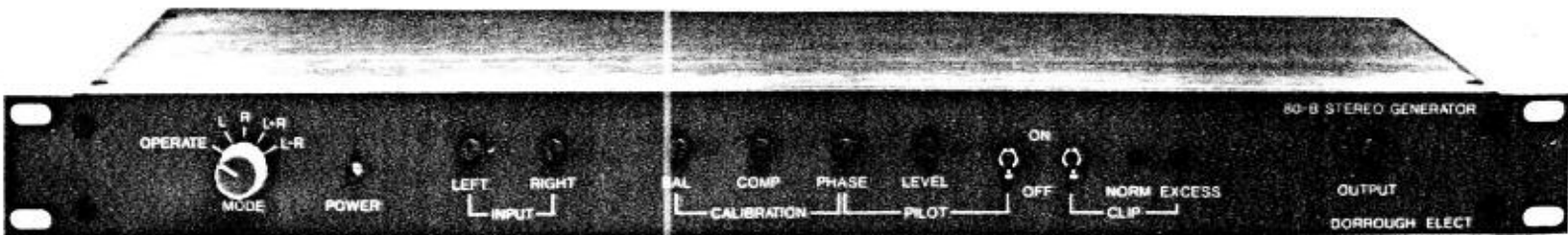
DORROUGH STEREO GENERATOR

MODEL 80-B

DORROUGH ELECTRONICS
5221 Collier Place
Woodland Hills, Calif.

91364

(818) 999-1132



STEREO GENERATOR MODEL 80-B

SPECIFICATIONS

Input	20K balanced bridging, 10K unbalanced.
Audio Response	Flat within $\frac{1}{2}$ dB, 25 Hz to 15 kHz
Harmonic Distortion	Less than .1%
Signal-to-Noise Ratio	Better than 70 dB
Cross Talk	Better than 45 dB
Channel Separation	Better than 40 dB
Power Requirements	120 as standard, 240 on request
Size	1 3/4" by 19", 8" deep
Weight	Four pounds
Features	Built-in composite clipper for enhanced loudness - Removable pre-emphasis

SPECIFICATIONS

Input	20 K balanced bridging, 10 K unbalanced
Audio Response	Flat within $\frac{1}{4}$ dB, 25 Hz to 15 kHz
Harmonic Distortion	Less than .1%
Signal-to-Noise Ratio	Better than 70 dB
Channel Separation	Better than 40 dB
Cross Talk	Better than 45 dB
Power Requirements	120 as standard, 240 on request, 50-60 Hz
Size	1 3/4" by 19", 8" deep
Weight	Four pounds

STEREO GENERATOR MODEL 80-B

Utilizing digital technology along with simplicity of design, the Model 80-B was designed to operate with audio processing incorporating pilot protection and preemphasis, such as the Discriminate Audio Processor Model 610 and the Model 310, as the 80-B does not contain these features.

INSTALLATION & OPERATION

IMPORTANT: Turn Pilot and Output controls fully counterclockwise. Set Tone Generator to 1 kHz at +8 level.

Turn Mode Switch on Stereo Generator to L position and adjust Left control until the clip lite just illuminates. Turn switch to R position and adjust Right control until the clip lite again just illuminates. Assuming the Modulation Monitor to be in correct calibration, turn the Mode Switch to Operate and adjust the Output control to 90% modulation on the wide band Modulation Monitor. With Pilot Switch up in the on position, adjust Pilot for normal injection.

Proof measurements with the Modulation Monitor can be made by stepping the Mode Switch on the Stereo Generator to the various functions required. This should be done with the Clip Switch in the down or off position.

DYNAMIC ADJUSTMENTS

Stereo Generator is now ready for final touch up. Feed program material to both inputs and turn Mode Switch to L position and adjust Left control until LED flickers. Turn Mode Switch to R position and adjust Right control to clipping threshold as indicated by the LED flickering.

With the Mode Switch in the R position, observe Left Modulation Meter and adjust phase control for minimum reading on the Left Meter. Adjust Mode Switch to L position and verify that Right Modulation Meter drops in equal amplitude.

The amount of clipping desired is determined by the amount of loudness required. This is done with the input controls, both Left and Right.

ALIGNMENT PROCEDURES

Requirements: Oscilloscope and Sine Wave Generator.

Adjust Pilot Switch down in the off position, and Clip Switch up in the on position.

Feed a 400 Hz tone to both left and right inputs with the front panel Mode Switch in the L+R position.

Note polarity on back terminals.

Connect oscilloscope to composite output on back of unit and set sensitivity on scope to approximately .1 volts.

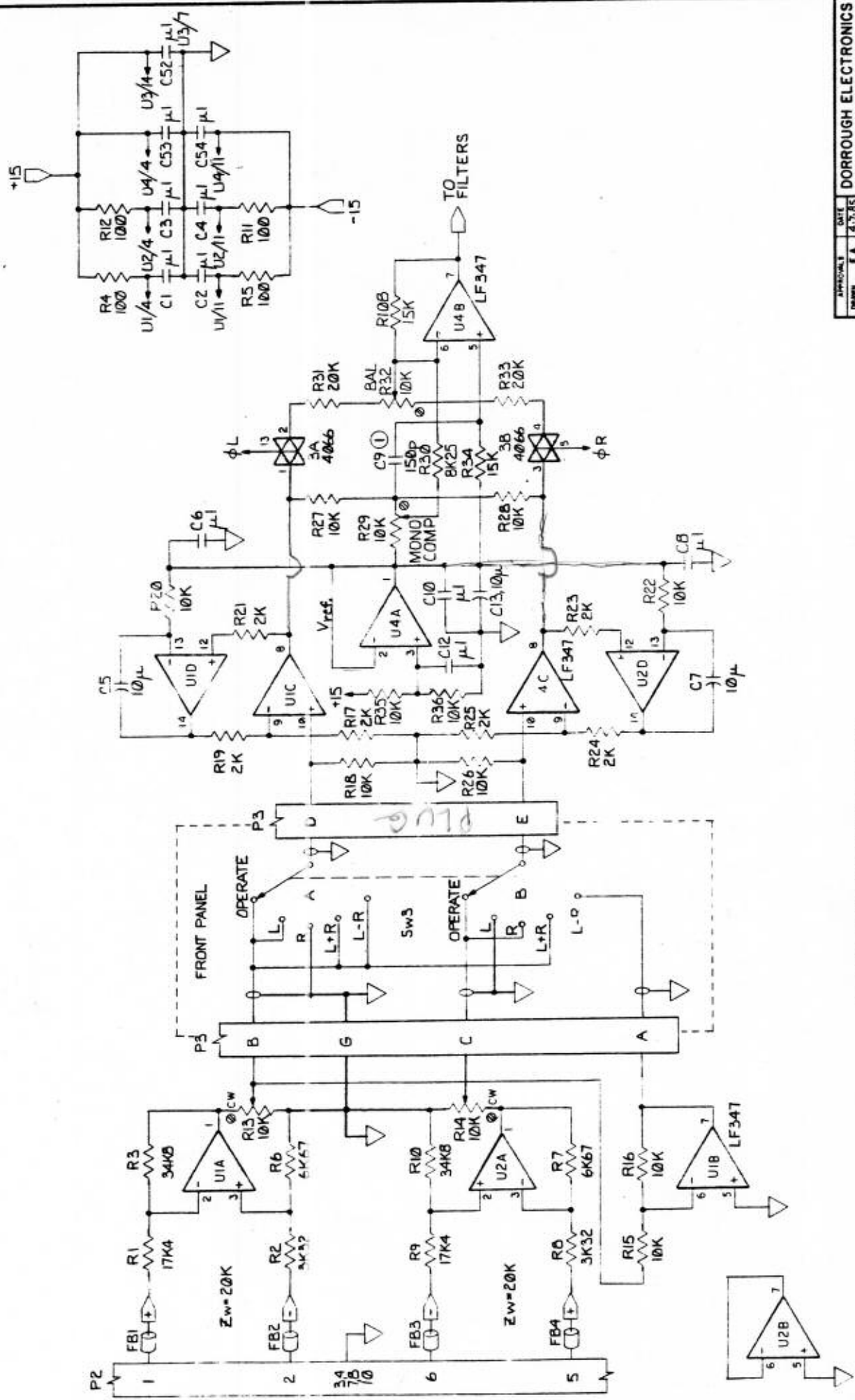
1. Set Mode Switch on front panel of generator to 'L' position and turn Left Input clockwise to slightly below clipping threshold. This can be confirmed by the illumination of the clip LED on the front panel. (Set so Norm Lamp is off.)
2. Repeat step 1 (for the Right Channel) using the Right Input with the Mode Switch in the 'R' position.
3. Adjust front panel Mode Switch to 'L+R' position. Adjust generator

output for discernable level on scope of approximately four divisions.

Rotate Balance Control to achieve internal balance confirmed by a pure waveform on the Oscilloscope.

4. Rotate Mode Switch to 'L-R' position and turn control marked Pilot clockwise to approximately 3/4 open. Adjust time division switch on oscilloscope so that two, but not more than four out-of-phase waveforms can be discerned. Adjust Pilot Switch up to the on position and while adjusting Phase Control on generator note the baseband crossover points and adjust phase so that crossover points from left to right are equal along baseline.

5. Turn Pilot Switch to off position and the Mode Switch to the 'L' position. Adjust Comp Control to achieve flat baseline on scope.



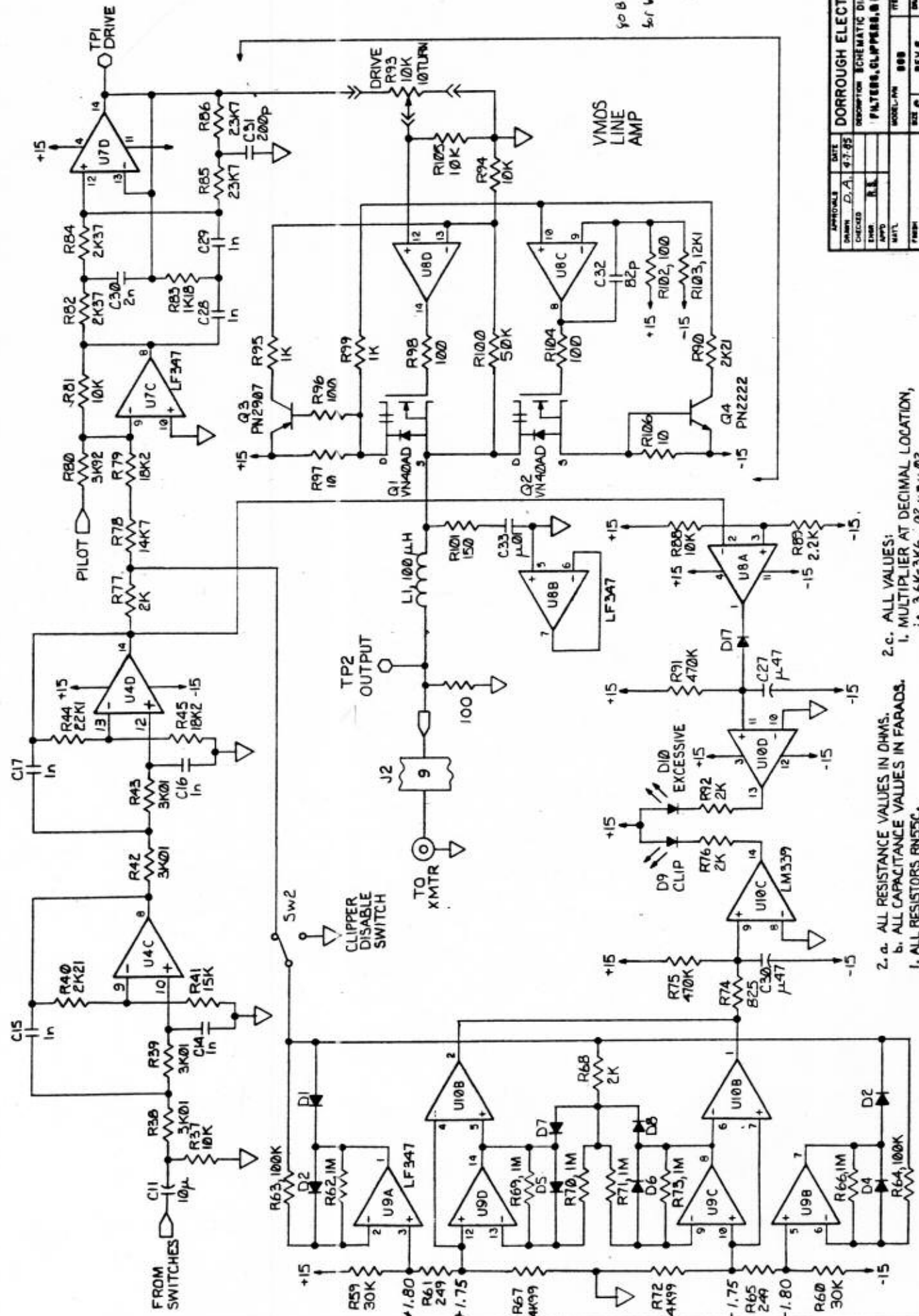
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10 Hz. H.P.

55 KHz. L.P.

EMPHASIS & PILOT MIX

67 KHz. NOTCH

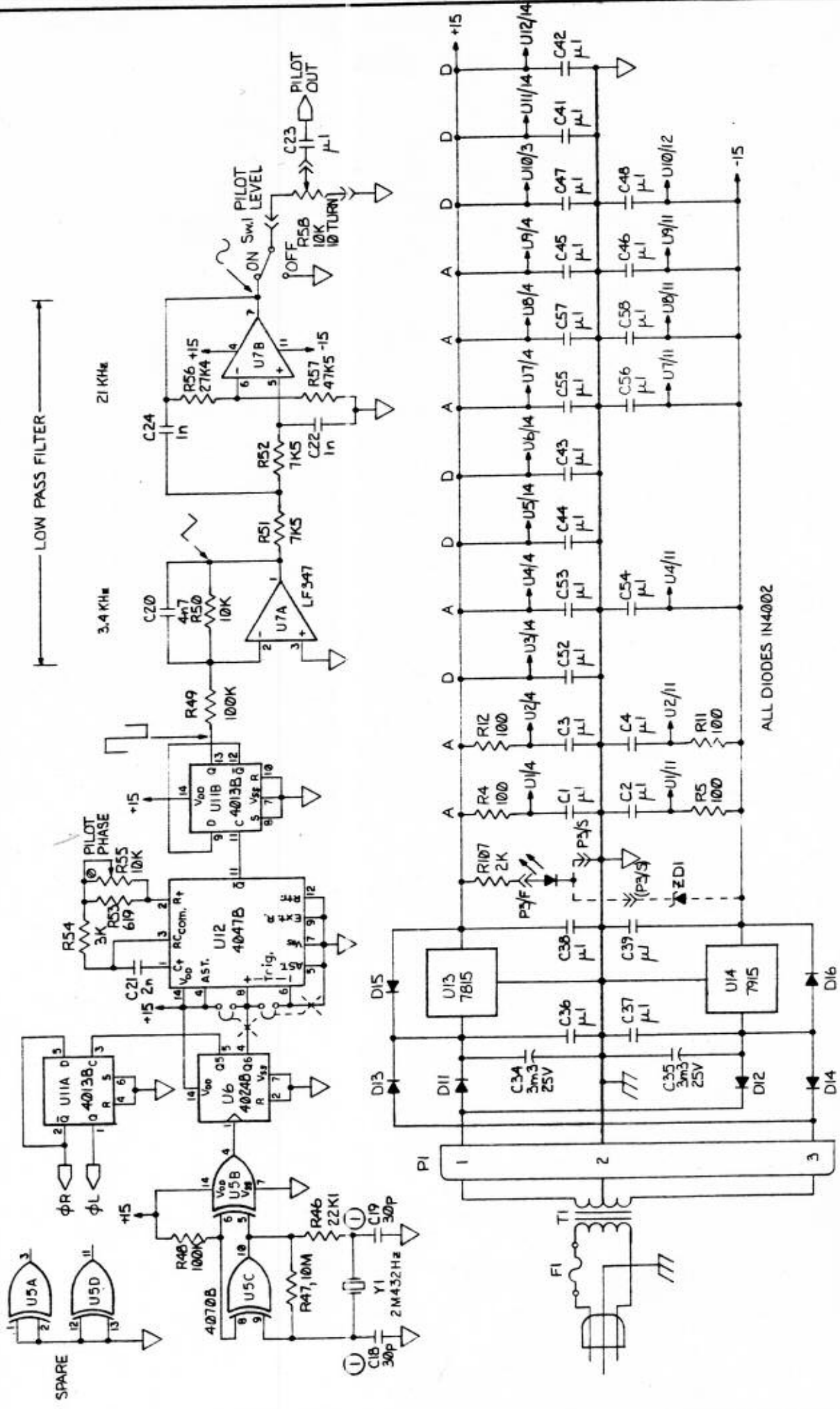


50 B P.M. Servo
64A
50.610 frequency

APPROVALS	DATE	DESCRIPTION
DESIGN	D.A.	4-7-85
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DORROUGH ELECTRONICS			
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 b. ALL CAPACITANCE VALUES IN FARADS.
 1. ALL RESISTORS RN55C.
 NOTES: UNLESS OTHERWISE SPECIFIED.
2. c. ALL VALUES:
 1. MULTIPLIER AT DECIMAL LOCATION,
 i.e. 3.6K=3K6, .02 μ=μ.02
 2. p=10⁻¹², n=10⁻⁹, μ=10⁻⁶, m=10⁻³, K=10³, M=10⁶



2. a. ALL RESISTANCE VALUES IN OHMS
 b. ALL CAPACITANCE VALUES IN FARADS
 c. ALL VALUES:
 1. MULTIPLIER AT DECIMAL LOCATION,
 i.e. 3.6K = 3x10³, .02μ = 2x10⁻⁸
 2. p=10⁻¹², n=10⁻⁹, μ=10⁻⁶, m=10⁻³, K=10³, M=10⁶
 ① SELECT IN TEST.

NOTES: UNLESS OTHERWISE SPECIFIED

3. ALL RESISTORS RN55C

ALL DIODES IN4002

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DORROUGH ELECTRONICS
 10 KHZ PILOT FILTER, 0
 POWER SUPPLY
 MODEL: PN 888
 REV. 0
 SHEET 1 OF 1