

OPERATION
AND
SERVICE MANUAL
NO. 490290

MODEL 1204A/1234A
SWEEP SIGNAL
GENERATOR

3db bandwidth

*Filter TBA 140-17-4
centre frequency*



TELONIC INSTRUMENTS LTD

Boyn Valley Road, Maidenhead, Berkshire SL6 4EG
Tel: Maidenhead (0628) 739333, Telex: 849131 (Tlonic-G), Fax: (0628) 770529

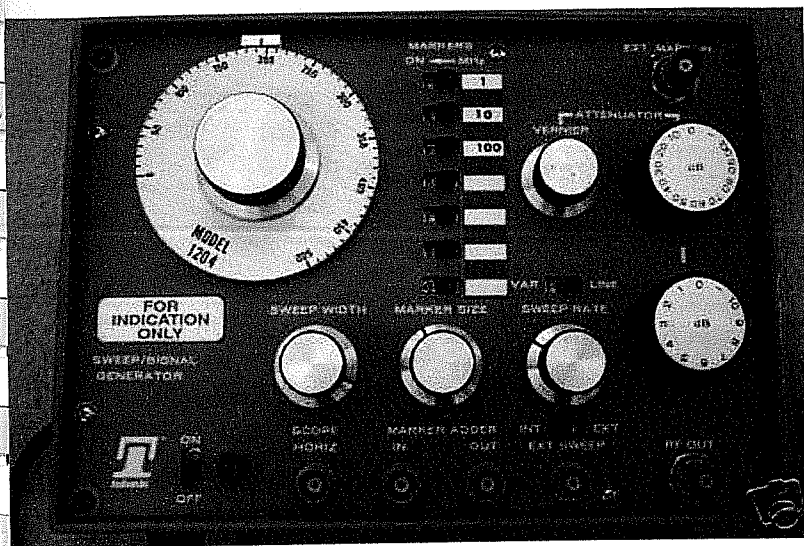
1986

*Timbley Works, Timbley Rd, Wokingham RG11 5QN
01734 - 786911 (John Strong)*

2011

as above. R&H. 10/11. 0118 9786911

West Mall Engineers - WME



Telonic 1204 1204
0-500 MHz

fixed 900
variable 900-1600
amplifier 1-500

500 output on 1204
750 output on 1234

Similar is:
Telonic 1205 (similar panel) lot 3
Rf ranges 0-500
450-950
900-1500

SECTION I INTRODUCTION

1.1 GENERAL INFORMATION

The Model 1204A/1234A is a Sweep/Signal Generator covering the frequency range of 1 to 500 MHz in one band. The instrument provides all necessary versatility for laboratory use while maintaining small size and rugged construction required for production use.

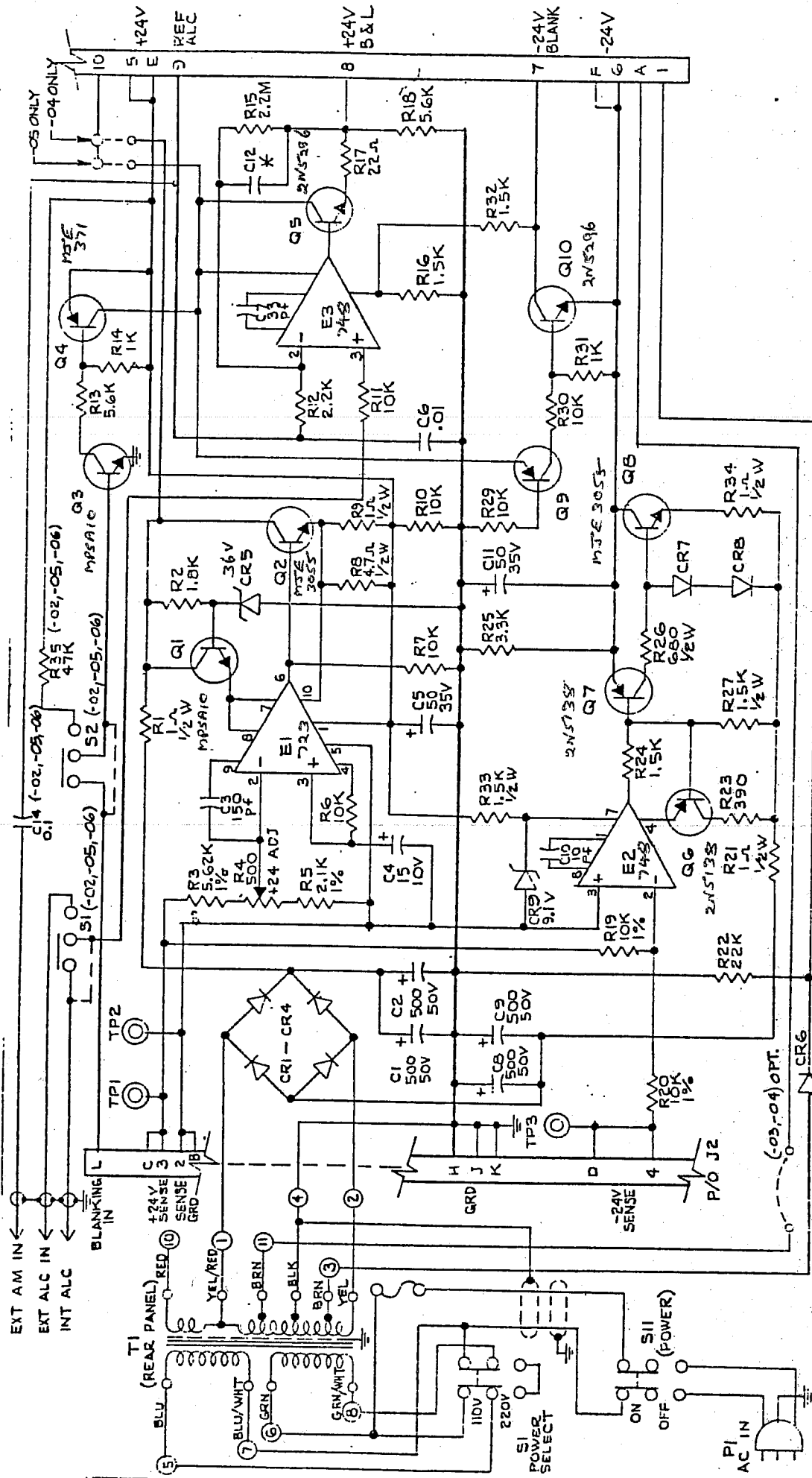
For accurate determination of frequencies, this instrument is capable of being equipped with harmonic (Model 8020) and single frequency (Model 8015) markers. These are birdy-bypass markers. The individual marker frequencies are determined by the particular application of the instrument. The instrument will accept a maximum of seven birdy marker plug-in cards.

1.2 SPECIFICATIONS

Table 1-1 lists the principal functional, electrical, and mechanical specifications of the Model 1204A/1234A Sweep Generator.

Table 1-1 Model 1204A/1234A Specifications

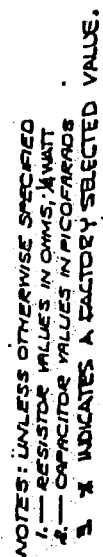
Specification	Characteristics
Frequency Range	1 to 500 MHz
Sweep Width	100 KHz to 500 MHz
Output Level	0.7 Vrms
Output Impedance Model 1204A Model 1234A	50 ohms 75 ohms
Leveling Range	3dB
Flatness	± 0.25 dB
Attenuators Model 1204A Model 1234A	110dB in 1dB steps 80dB in 1dB steps
Signal Purity	Harmonics: -26dB 1 to 10 MHz Spurious : -30dB 10 to 500 MHz
Linearity	1% of full sweep width
Dial Accuracy	2% of full scale
Residual FM	20 KHz max.
Drift (after 1 hr. warmup)	1% of maximum frequency/hr. max.



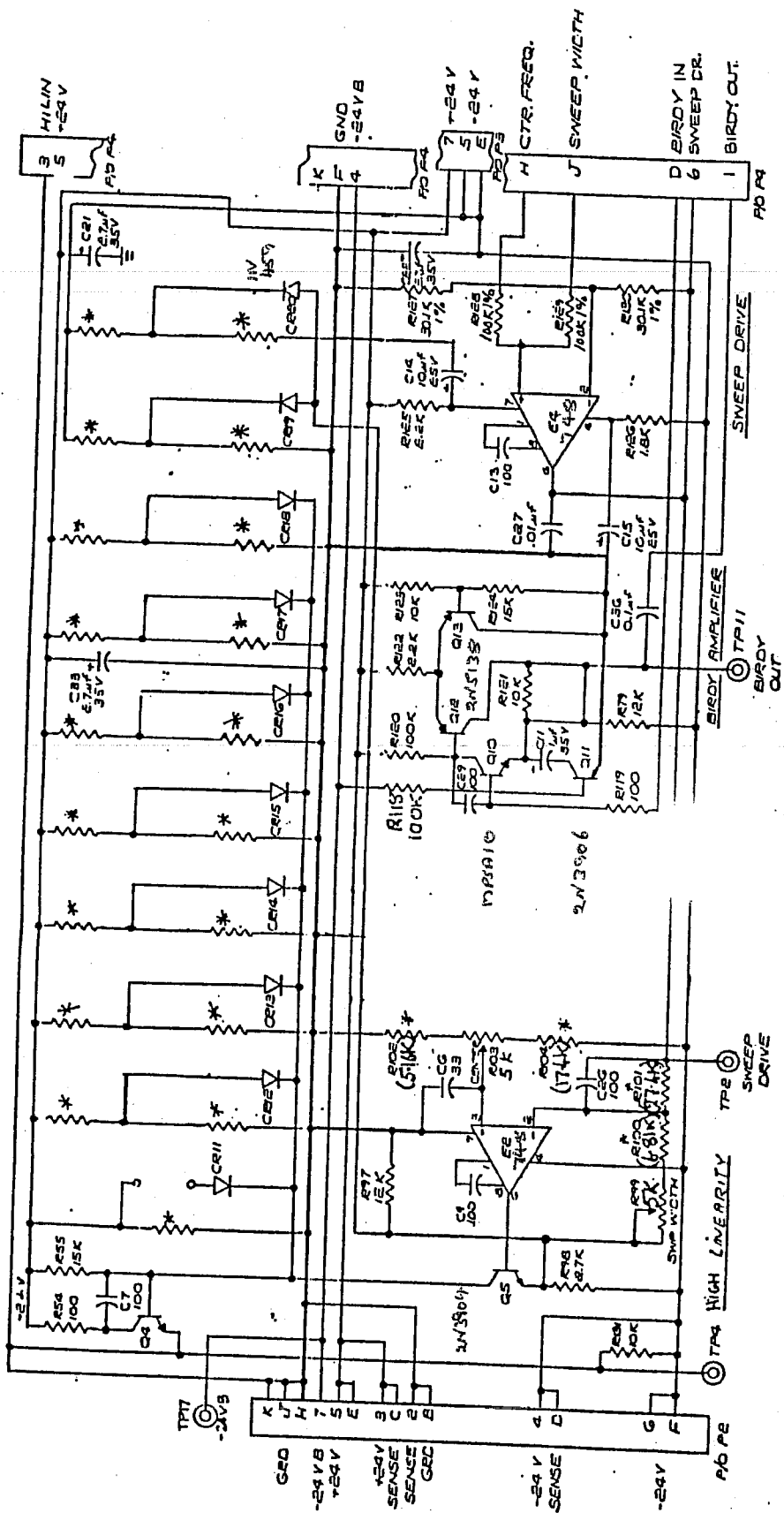
- NOTES: UNLESS OTHERWISE SPECIFIED
 1. CAPACITOR VALUES IN MICROFARADS.
 2. RESISTOR VALUES IN OHMS, 10%, 1/4 WATT.
 3. Q2 & Q6 ARE MJE3055, TELONIC #40-0103-01
 4. T1 IS TELONIC #34-0075-01.

POWER SUPPLY SCHEMATIC

B54-0273-() N

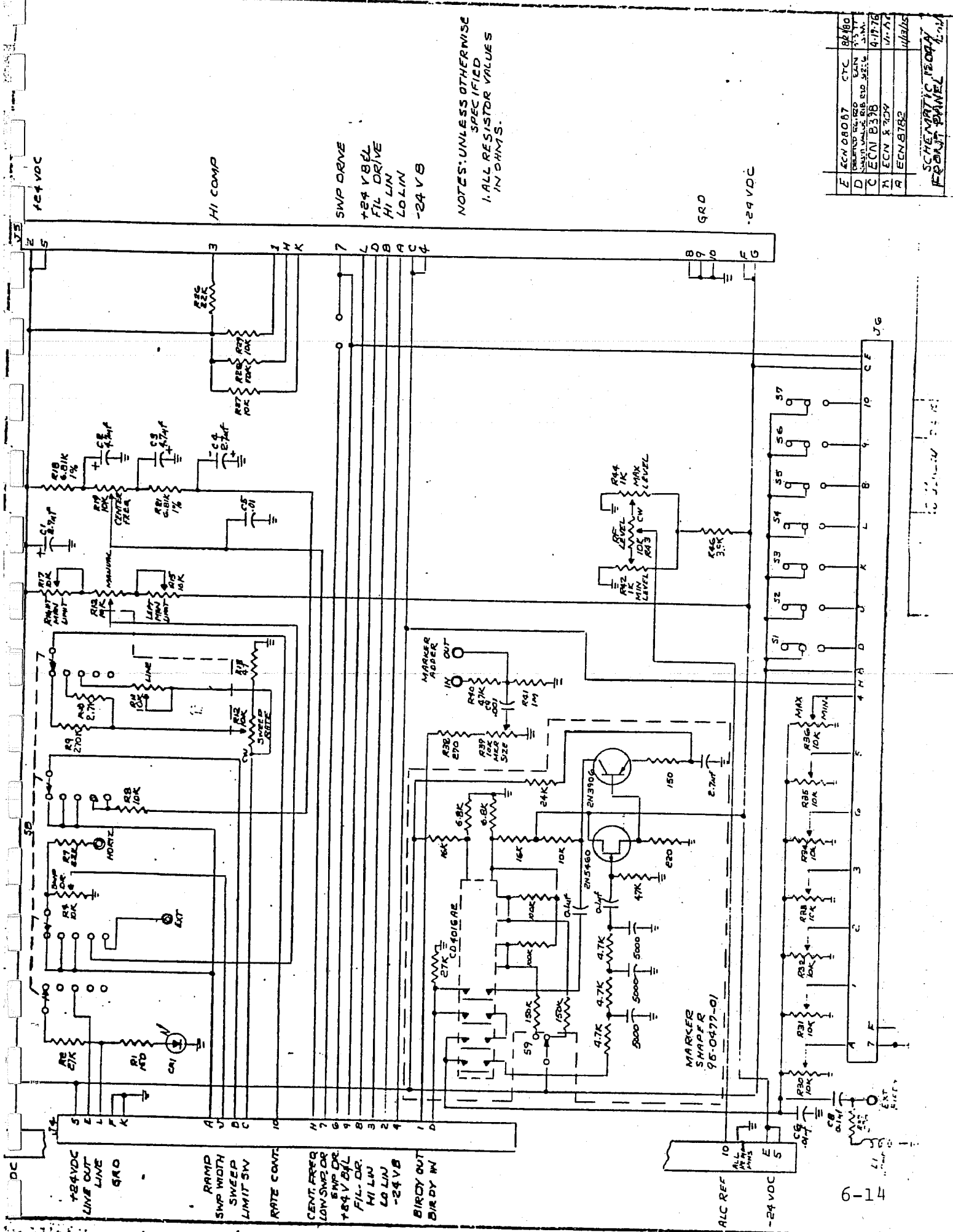


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NOTES: SEE SHEET 1
 * SELECT CN TEST
 (AVERAGE VALUE SHOWN)

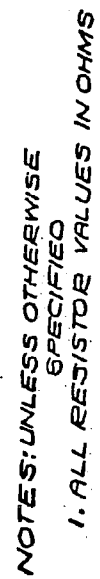
TOLERANCES		DATE		REV	
RES	1%	1/1/71	1/1/71	1/1/71	1/1/71
CAP	5%	1/1/71	1/1/71	1/1/71	1/1/71
PARTS LIST		QUANTITY		REMARKS	
Q1	2N3904	1			
Q2	2N3906	1			
Q3	2N3904	1			
R1	100K	1			
R2	100K	1			
R3	100K	1			
R4	100K	1			
R5	100K	1			
R6	100K	1			
R7	100K	1			
R8	100K	1			
R9	100K	1			
R10	100K	1			
R11	100K	1			
R12	100K	1			
R13	100K	1			
R14	100K	1			
R15	100K	1			
C1	100K	1			
C2	100K	1			
C3	100K	1			
C4	100K	1			
C5	100K	1			
C6	100K	1			
C7	100K	1			
C8	100K	1			
C9	100K	1			
C10	100K	1			
C11	100K	1			
C12	100K	1			
C13	100K	1			
C14	100K	1			
C15	100K	1			
TELECOM INDUSTRIES, INC.					
1000 W. 10th St., Suite 100, Lincoln, NE 68502					
TEL: (402) 441-1111 FAX: (402) 441-1112					
ELECTRONIC INDUSTRIES, INC.					
1000 W. 10th St., Suite 100, Lincoln, NE 68502					
TEL: (402) 441-1111 FAX: (402) 441-1112					



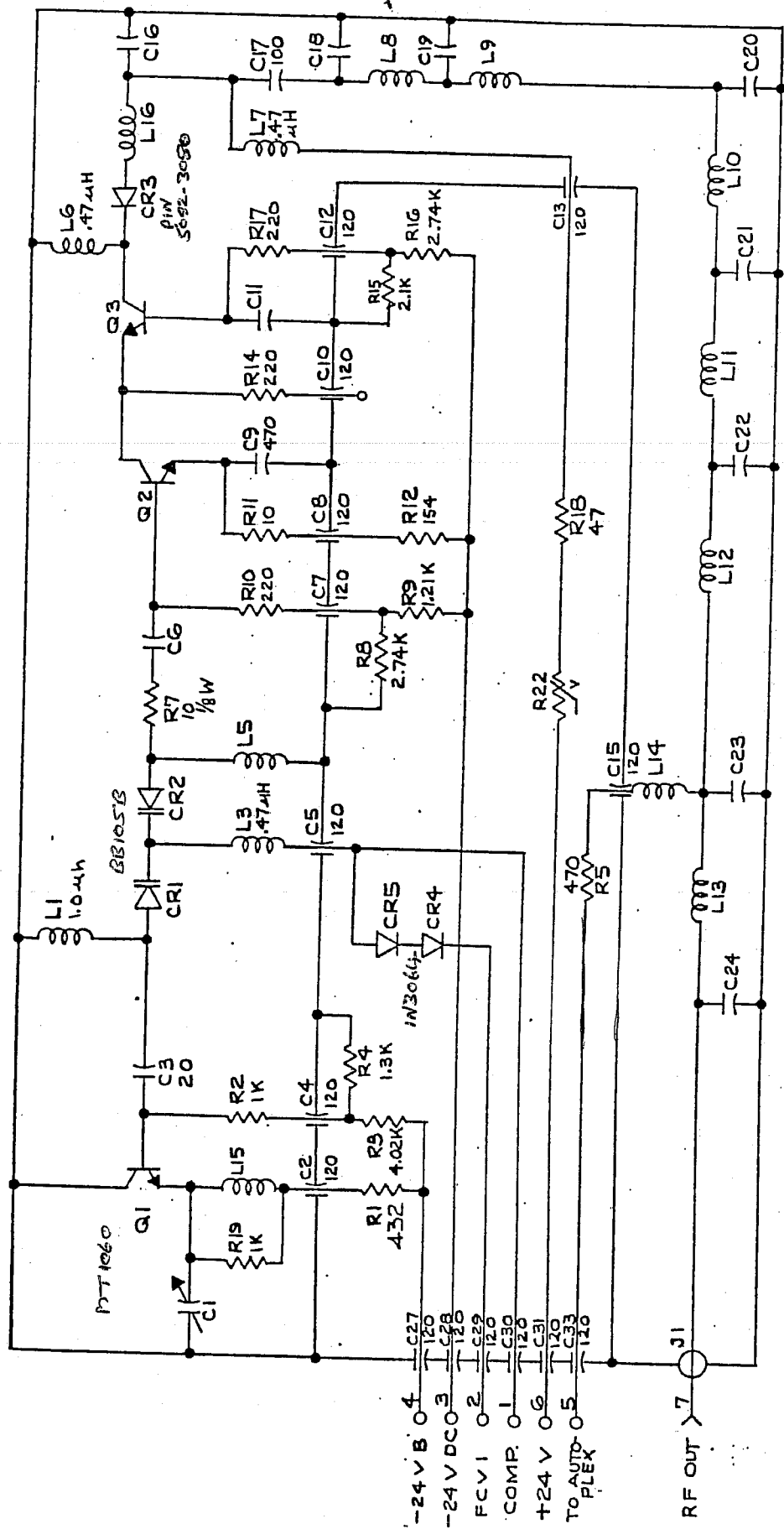
NOTES: UNLESS OTHERWISE SPECIFIED
ALL RESISTOR VALUES
IN OHMS.

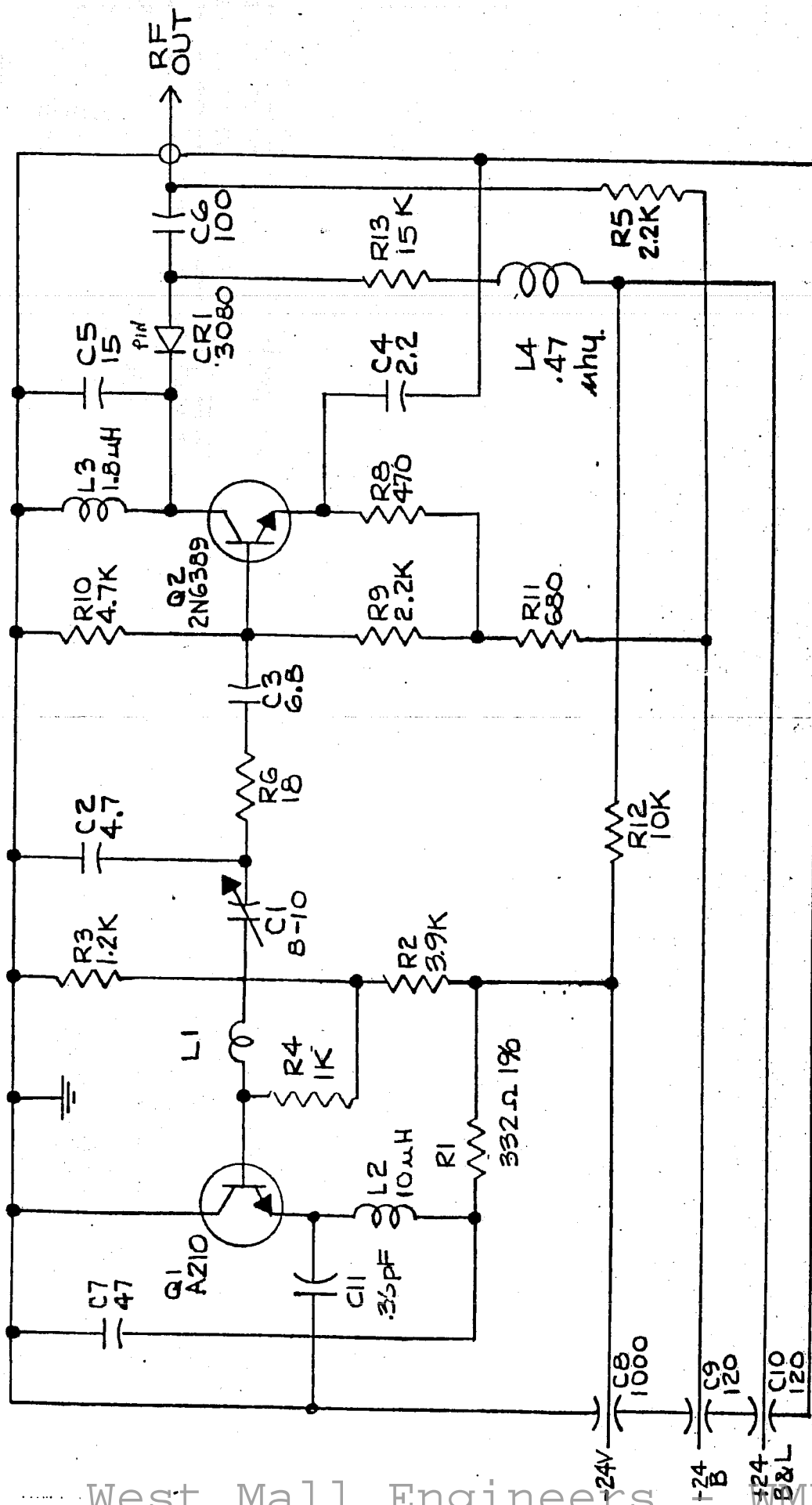
E	ECN 08087	CTC	82180
D	ECN 08087	CTC	82180
C	ECN 08087	CTC	82180
B	ECN 08087	CTC	82180
A	ECN 08087	CTC	82180

SCHEMATIC PANEL
PANEL



B54-0477-01B

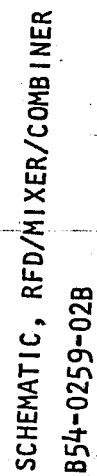


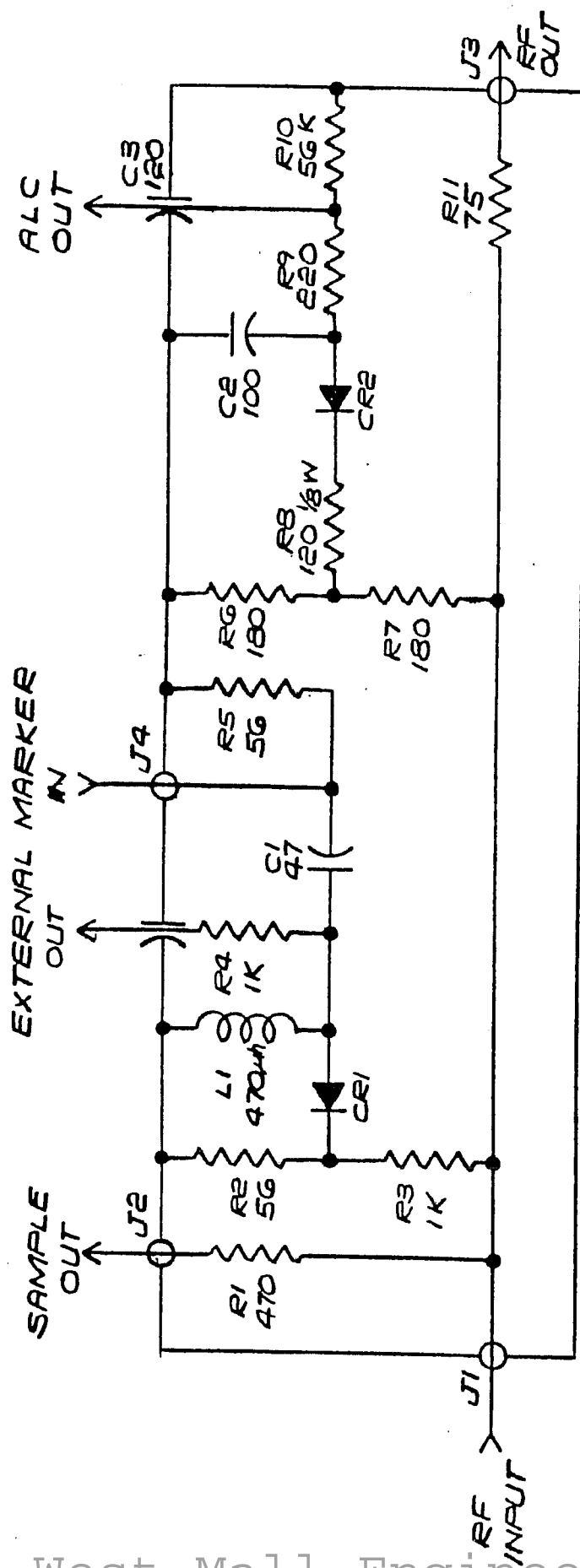


NOTE:

1. RESISTOR VALUES IN OHM, $\pm 5\%$, $\frac{1}{4}$ W.
2. CAPACITOR VALUES IN PICOFARADS.

SCHEMATIC, (1000 MHz) OSCILLATOR ASSEMBLY Q₁₀₀ MH₃
A54-0403-01B





NOTES: UNLESS OTHERWISE SPECIFIED

1. RESISTOR VALUES IN OHMS $\pm 5\%$, $\frac{1}{4}$ WATT
2. CAPACITOR VALUES IN PICOFARADS
3. DIODES TYPE IN 82A (CR2)
1S2198 (CR1)

MONITOR MODULE SCHEMATIC, 1234A
A54-0493-01