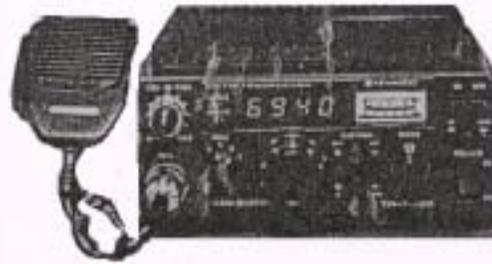


## Service Manual



### SPECIFICATIONS [K, W type]

#### GENERAL

Semiconductors:	Transistors: 48 (K), 47 (W) FETs: 9 ICs: 17 Diodes: 88 (K), 77 (W)
Frequency Range:	144.00 to 147.995 MHz (K), 144.00 to 145.995 MHz (W)
Frequency Synthesizer:	Digital control of phase locked VCO
Synthesizer Stability:	Better than $\pm 750$ Hz at 25°C
Mode:	FM
No. of Channels:	800 (K), 400 (W)
Operating Temperature:	-20 to +50°C
Power Voltage:	11.5V DC to 16.0V DC (13.8V DC standard)
Grounding:	Negative grounding
Antenna Impedance:	50 $\Omega$
DC Current:	Less than 0.5A in receive with no input signal Less than 6A in HI transmit (at 13.8V DC)
Dimensions:	161 mm (6-5/16") wide 61 mm (2-3/8") high 230 mm (9-1/16") deep
Weight:	1.75 kg (3.85 lbs) Approx.

#### TRANSMITTER SECTION

RF Output Power:	High: 25 watts (min.) Low: 5 watts approx. (adjustable to 25 watts)
Modulation:	Variable reactance direct shift
Max. Frequency Deviation:	$\pm 5$ kHz
Spurious Radiation:	Less than -60 dB
Touch Tone Input Impedance:	600 $\Omega$
Microphone:	Dynamic microphone with PTT switch, 500 $\Omega$

#### RECEIVER SECTION

Circuitry:	Double superheterodyne
Intermediate Frequency:	1st: IF 10.7 MHz 2nd: IF 455 kHz
Sensitivity:	Less than 0.4 $\mu$ V for 20 dB quieting (Less than 1 $\mu$ V for 30 dB S/N) Less than 0.25 $\mu$ V
Squelch Sensitivity:	Better than 12 kHz at 6 dB down
Pass Band Width:	Better than 76 dB at 30 kHz (K), 70 dB at 25 kHz (W) of adjacent channel
Selectivity (2 Signal):	Better than 70 dB
Image Rejection:	Better than 60 dB
Spurious Interference:	Better than 66 dB (K), 60 dB (W)
Intermodulation:	Better than 1.5 watts across 3 $\Omega$ load (10% distortion)
Audio Output:	

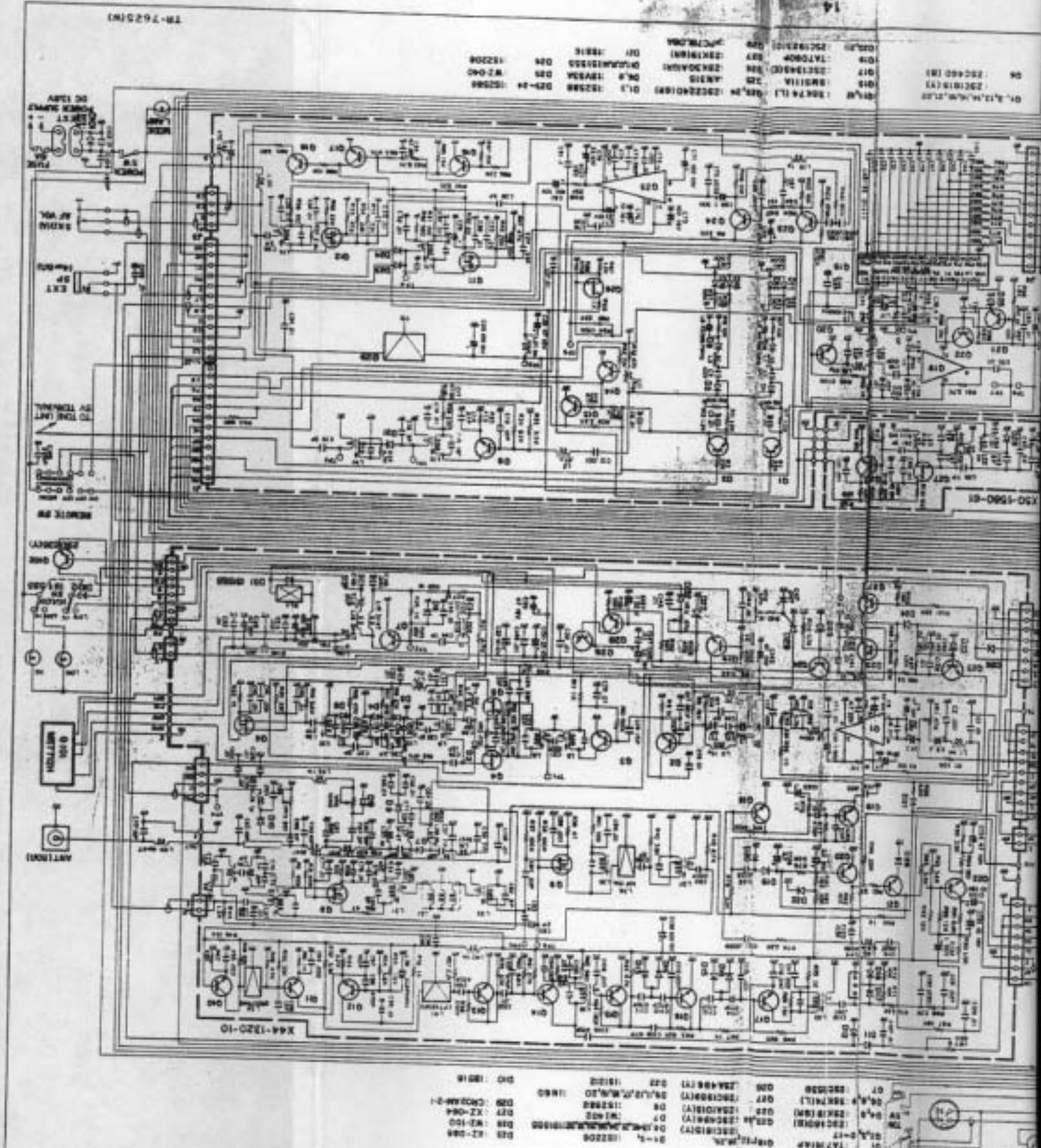
NOTE: The circuit and ratings may change without notice due to developments in technology.

TR-7625 SCHEMATIC DIAGRAM

Handwritten: Hand Drawing

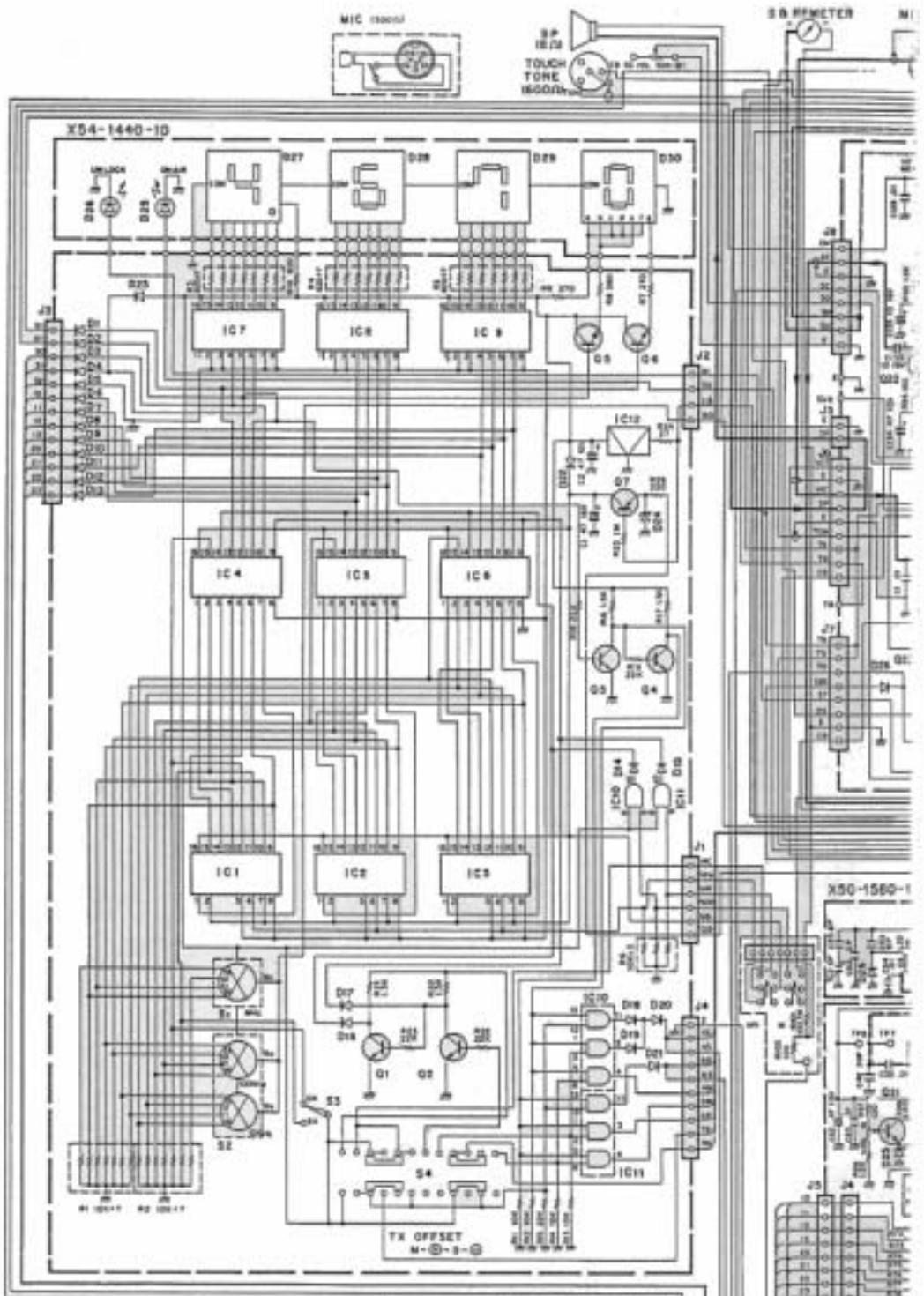
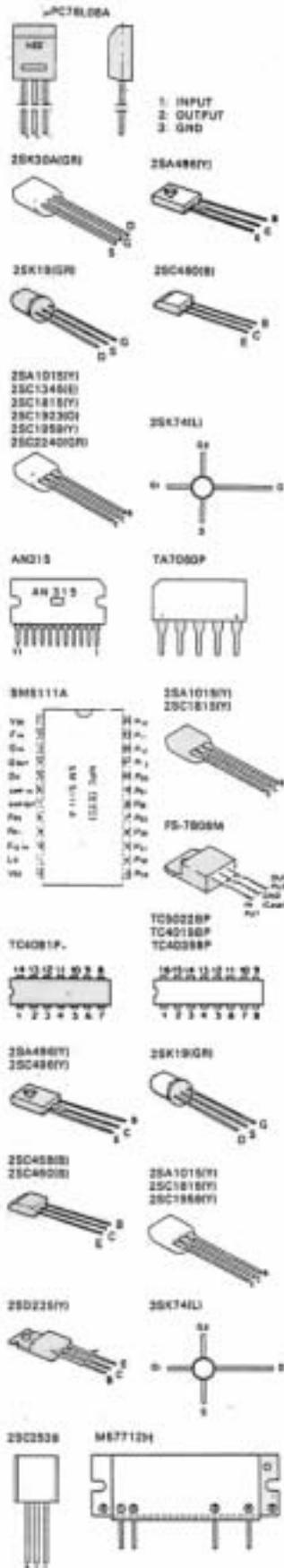
Circuits and specifications are subject to change for improvement

Q1	12AX7	12AX7
Q2	6X4	6X4
Q3	6X4	6X4
Q4	6X4	6X4
Q5	6X4	6X4
Q6	6X4	6X4
Q7	6X4	6X4
Q8	6X4	6X4
Q9	6X4	6X4
Q10	6X4	6X4
Q11	6X4	6X4
Q12	6X4	6X4
Q13	6X4	6X4
Q14	6X4	6X4
Q15	6X4	6X4
Q16	6X4	6X4
Q17	6X4	6X4
Q18	6X4	6X4
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Q20	6X4	6X4
Q21	6X4	6X4
Q22	6X4	6X4
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Q97	6X4	6X4
Q98	6X4	6X4
Q99	6X4	6X4
Q100	6X4	6X4



Q1	12AX7	12AX7
Q2	6X4	6X4
Q3	6X4	6X4
Q4	6X4	6X4
Q5	6X4	6X4
Q6	6X4	6X4
Q7	6X4	6X4
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Q98	6X4	6X4
Q99	6X4	6X4
Q100	6X4	6X4

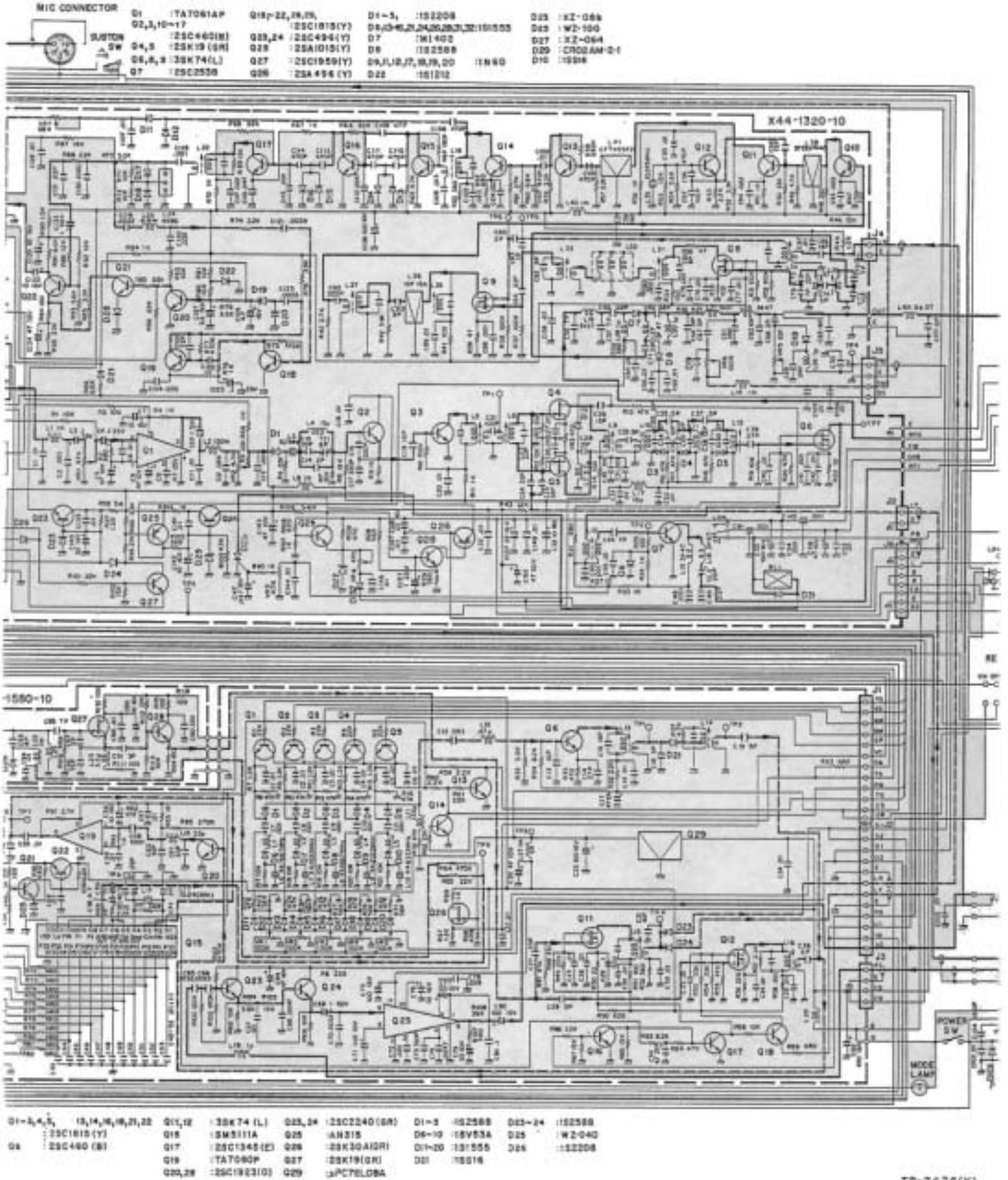
TR-7625 (W)



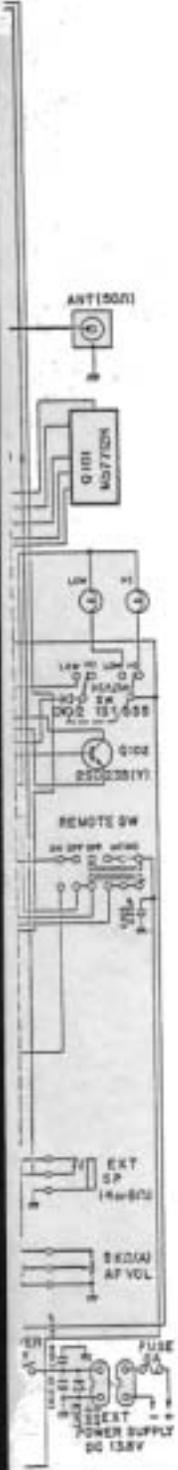
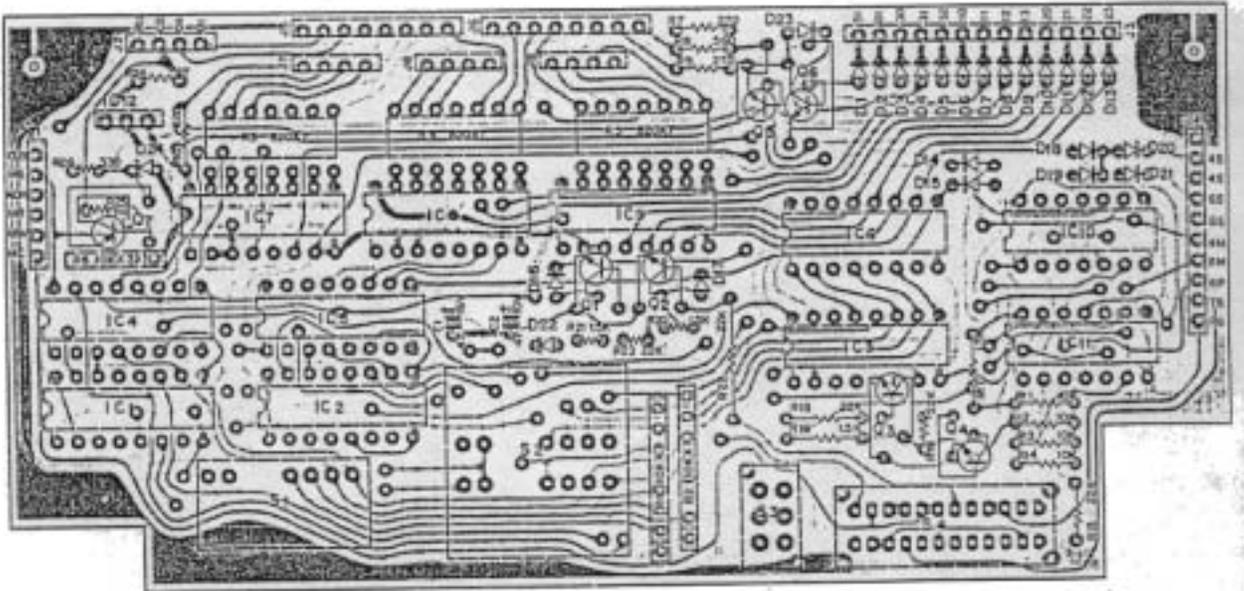
IC1-3	: TC40358P	Q1-8	: 25C1815(Y)
IC4-6	: TC40186P	Q7	: 25A1015(Y)
IC7-9	: TC90228P	D1-12, 20-25	: IN60
IC10, 11	: TC4081P-3/4	D23	: 181558
IC10, 11	: TC4081P-1/4	D24	: WZ-100
IC12	: PS-7806M	D25	: TL8-205
		D26	: TL8-205
		D27-30	: 5130K

Q1-Q7

# K TYPE



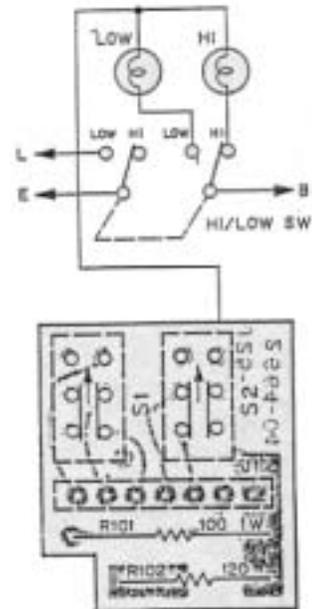
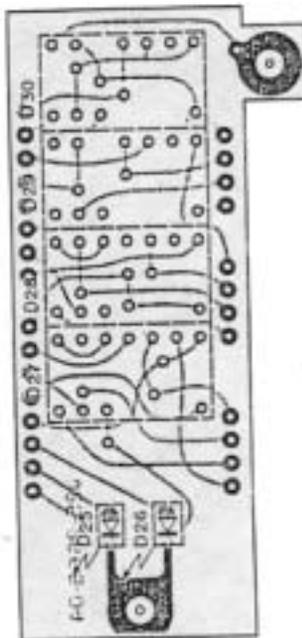
■ CONTROL UNIT (X54-1440-10)

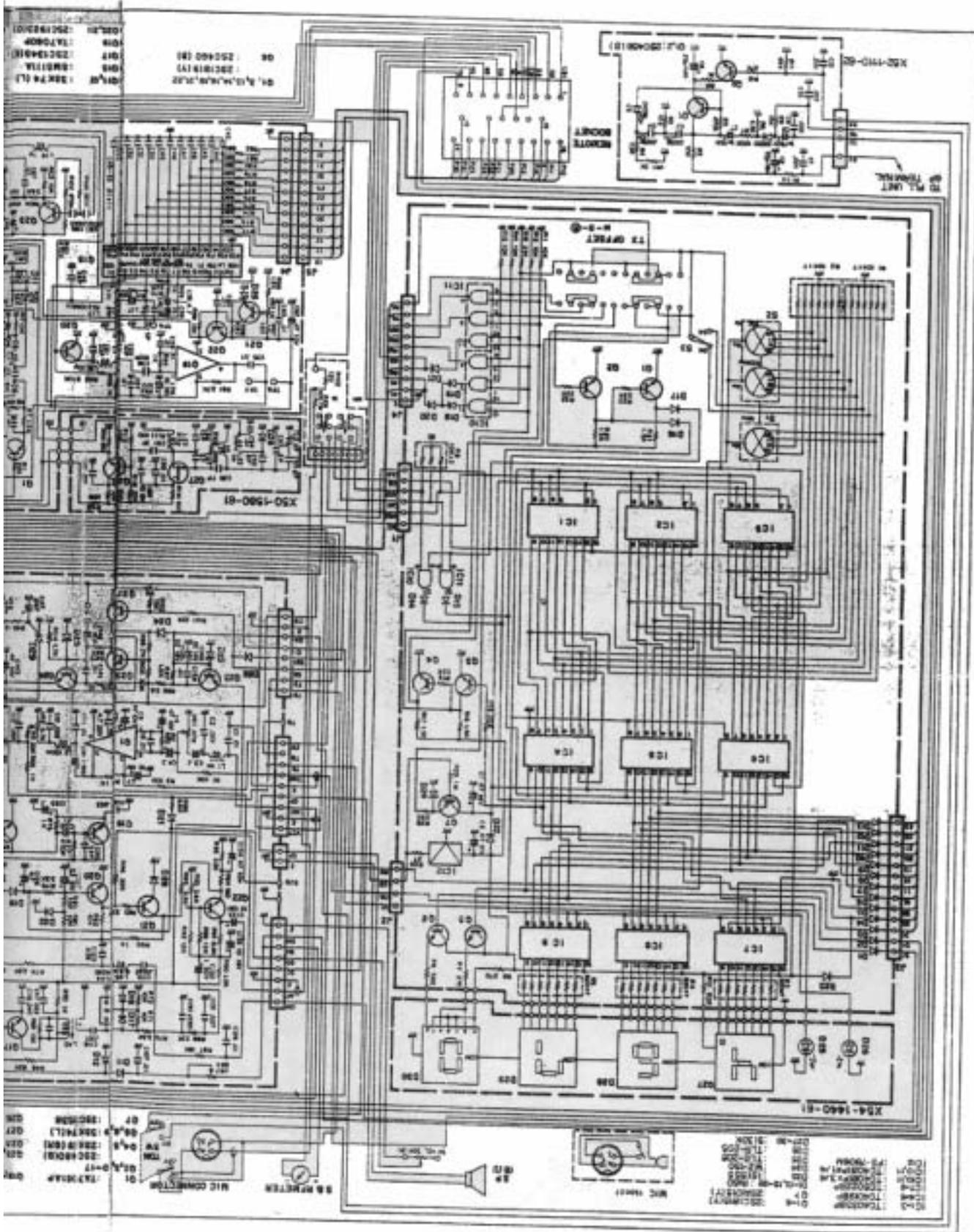


25A1015(V)	FS-7906M	TC4081P	TC5022BP TC4015BP TC4028BP	IC1-3 : TC4058BP IC4-6 : TC4088BP IC7-8 : TC5022BP IC9,11 : TC4081P-2/4 IC10,10 : TC4081P-1/4 IC12 : FS-7906M	Q1-4 : 2SC1815(V) Q5 : 2SA1015(V) Q6-Q8 : 2N40 Q9-Q12 : 2N1555 Q13 : 1W2-100 Q14 : 1TL0-200 Q15 : 1TL0-200 Q16-Q17 : 2N1555 Q18-Q19 : 2N1555
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J25-2668-04 (Indicator)

J25-2664-04 (Switch)





TR-7625 SCHEMATIC

2-METER FM-Transceiver "Kenwood"