

## SPECIFICATIONS [K, W type]

### GENERAL

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

### TRANSMITTER SECTION

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

### RECEIVER SECTION

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

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

# TR-7625

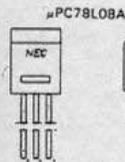
A

B

C

D

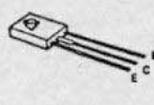
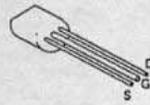
**SCHEMATHEEK**  
Beh. T. Hultermans  
Postbus 4228  
5604 EE Eindhoven



- 1: INPUT
- 2: OUTPUT
- 3: GND

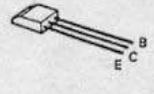
2SK30A(GR)

2SA496(Y)



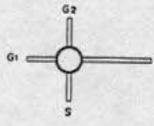
2SK19(GR)

2SC460(B)



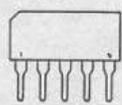
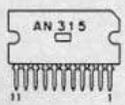
2SA1015(Y)  
2SC1345(E)  
2SC1815(Y)  
2SC1923(O)  
2SC1959(Y)  
2SC224(OGR)

3SK74(L)



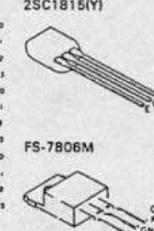
AN315

TA7060P



SM5111A

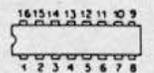
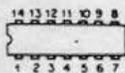
2SA1015(Y)  
2SC1815(Y)



FS-7806M

TC4081P.

TC5022BP  
TC4019BP  
TC4035BP



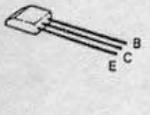
2SA496(Y)  
2SC496(Y)

2SK19(GR)



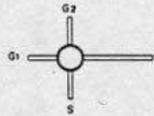
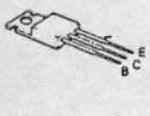
2SC458(B)  
2SC460(B)

2SA1015(Y)  
2SC1815(Y)  
2SC1959(Y)



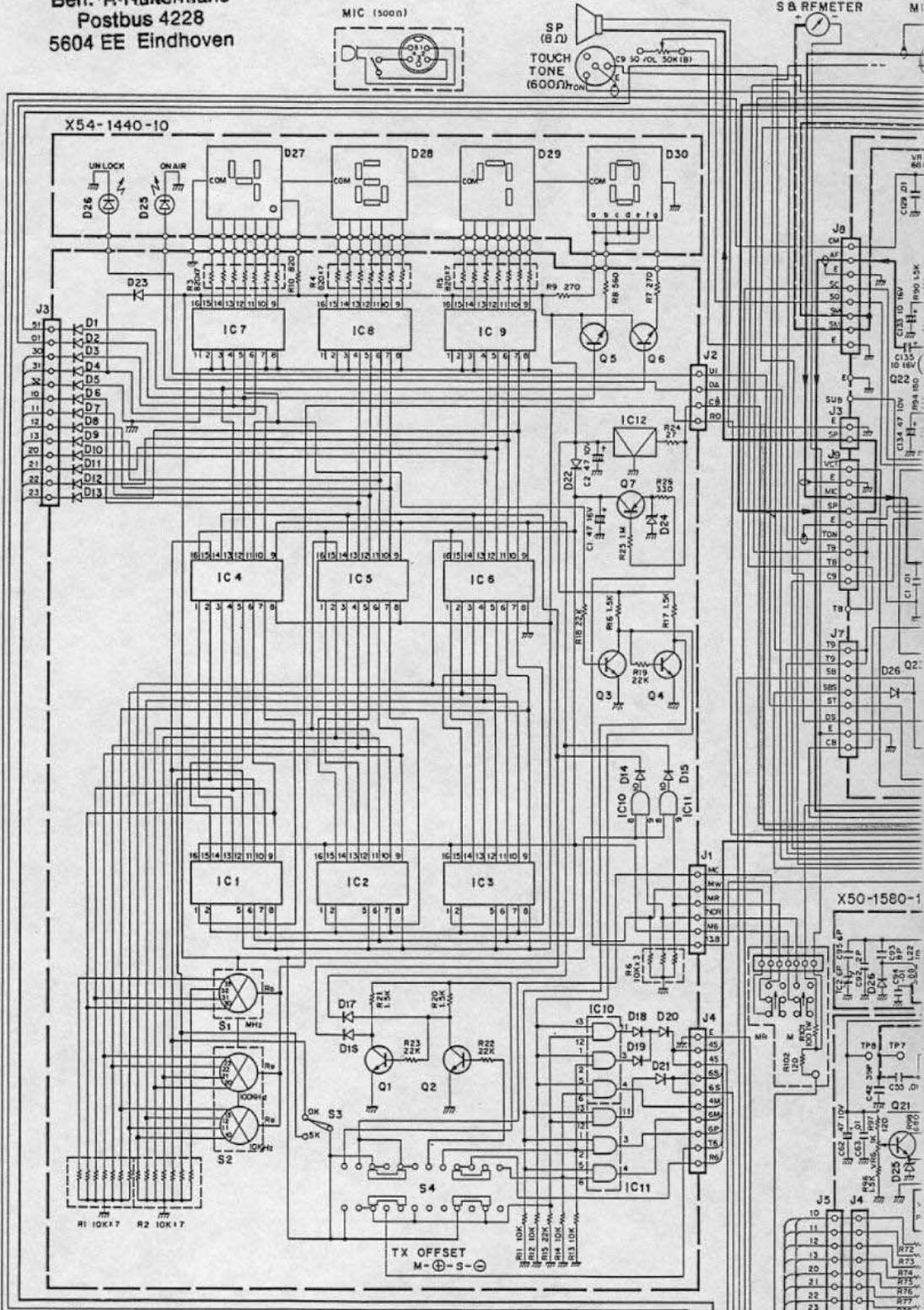
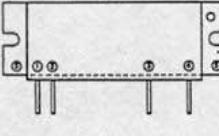
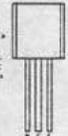
2SD235(Y)

3SK74(L)



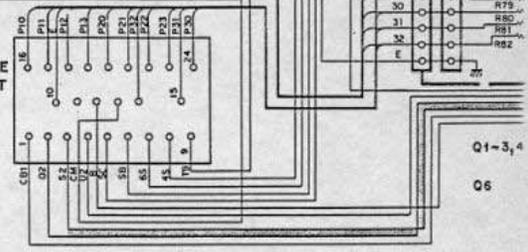
2SC2538

M57712H



- IC1~3 : TC4035BP
- IC4~6 : TC4019BP
- IC7~9 : TC5022BP
- IC10,11 : TC4081P\*3/4
- IC10,11 : TC4081P\*1/4
- IC12 : FS-7806M
- Q1~6 : 2SC1815(Y)
- Q7 : 2SA1015(Y)
- D1~13,15~22 : 1N60
- D23 : 1S1555
- D24 : WZ-150
- D25 : TLG-205
- D26 : TLR-205
- D27~30 : 5130K

REMOTE SOCKET



2

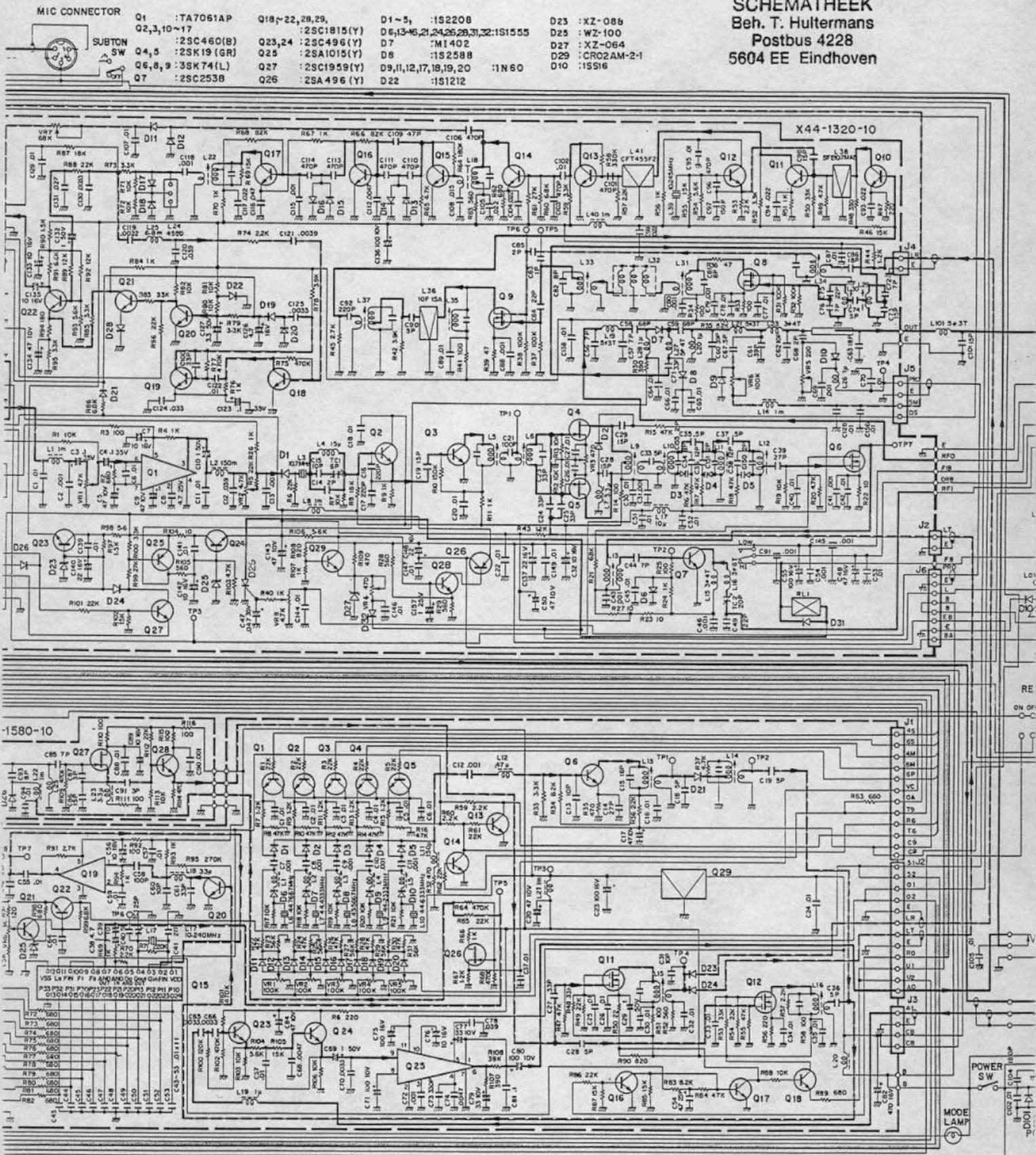
4

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6

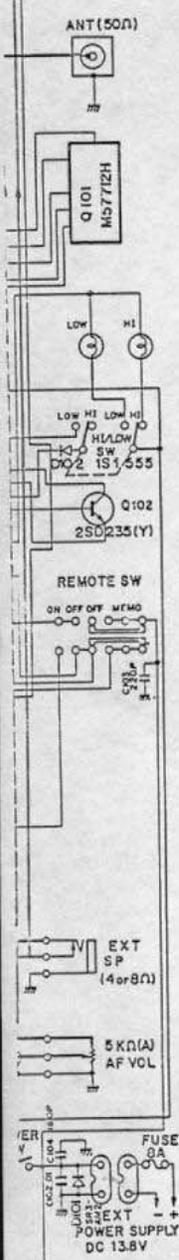
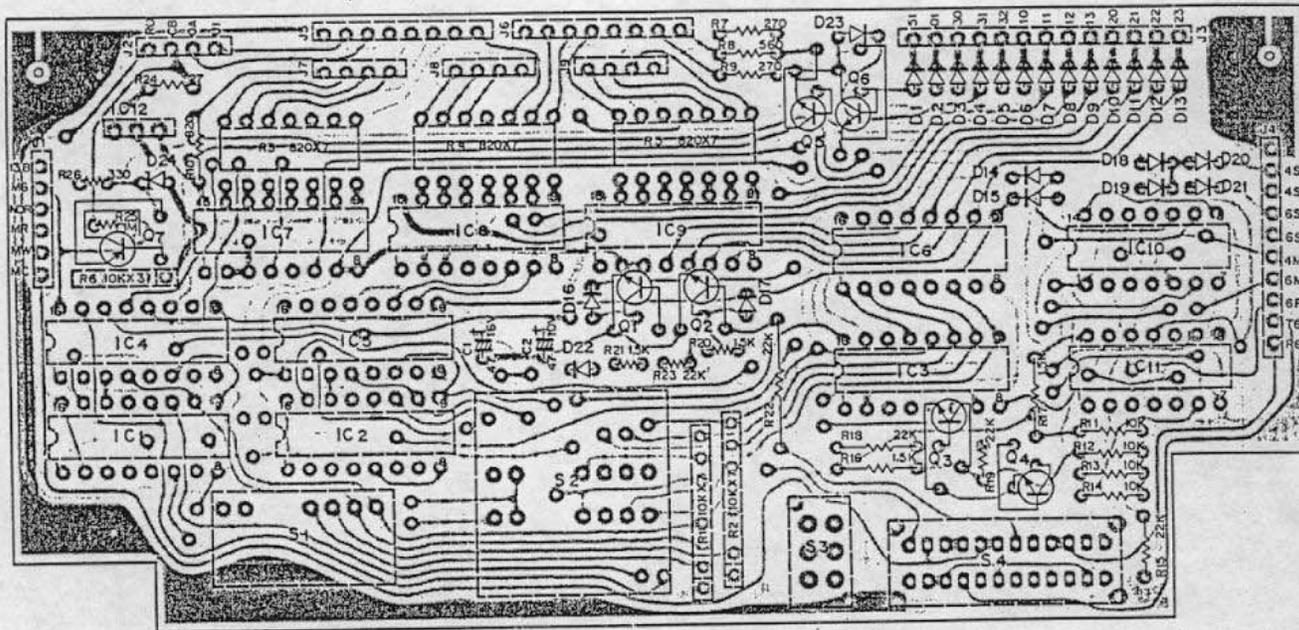
K TYPE

SCHEMATEEK  
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Postbus 4228  
5604 EE Eindhoven

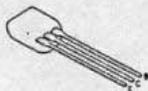


- |            |                        |         |               |         |                |        |          |        |          |
|------------|------------------------|---------|---------------|---------|----------------|--------|----------|--------|----------|
| Q1-3, 4, 5 | 13, 14, 16, 18, 21, 22 | Q11, 12 | : 35K 74 (L)  | Q23, 24 | : 25C2240 (GR) | D1-5   | : 1S2588 | D23-24 | : 1S2588 |
|            | : 25C1815 (Y)          | Q15     | : SM511A      | Q25     | : AN315        | D6-10  | : 1S953A | D25    | : WZ-040 |
| Q6         | : 25C460 (B)           | Q17     | : 25C1345 (E) | Q26     | : 25K30A (GR)  | D11-20 | : 1S1555 | D26    | : 1S2208 |
|            |                        | Q19     | : TA7080P     | Q27     | : 25K19 (GR)   | D21    | : 1S516  |        |          |
|            |                        | Q20, 28 | : 25C1923 (O) | Q29     | : μPC76LOBA    |        |          |        |          |

■ CONTROL UNIT (X54-1440-10)



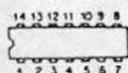
2SA1015(Y)  
2SC1815(Y)



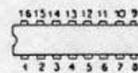
FS-7806M



TC4081P



TC5022BP  
TC40198P  
TC40358P

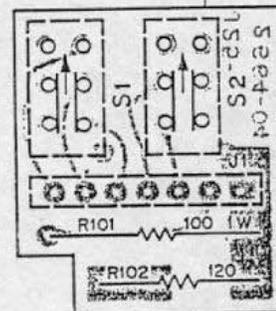
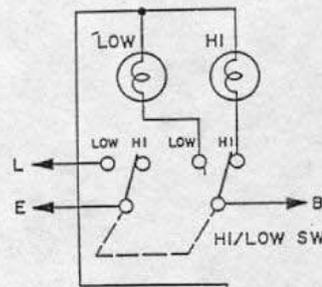
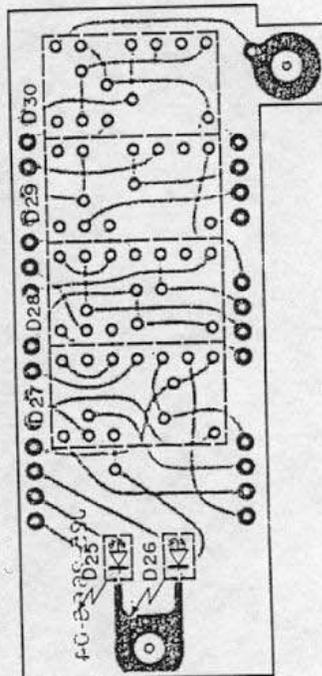


- IC1-3 : TC40358P
- IC4-6 : TC40198P
- IC7-9 : TC3022BP
- IC10,11 : TC4081P\*3/4
- IC10,11 : TC4081P\*1/4
- IC12 : FS-7806M
- Q1-6 : 2SC1815(Y)
- Q7 : 2SA1015(Y)
- D1-22 : 1N60
- D23 : 1S1555
- D24 : WZ-150
- D25 : TLG-205
- D26 : TLR-205
- D27-30 : 5130K

**SCHEMATHEEK**  
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J25-2668-04 (Indicator)

J25-2664-04 (Switch)



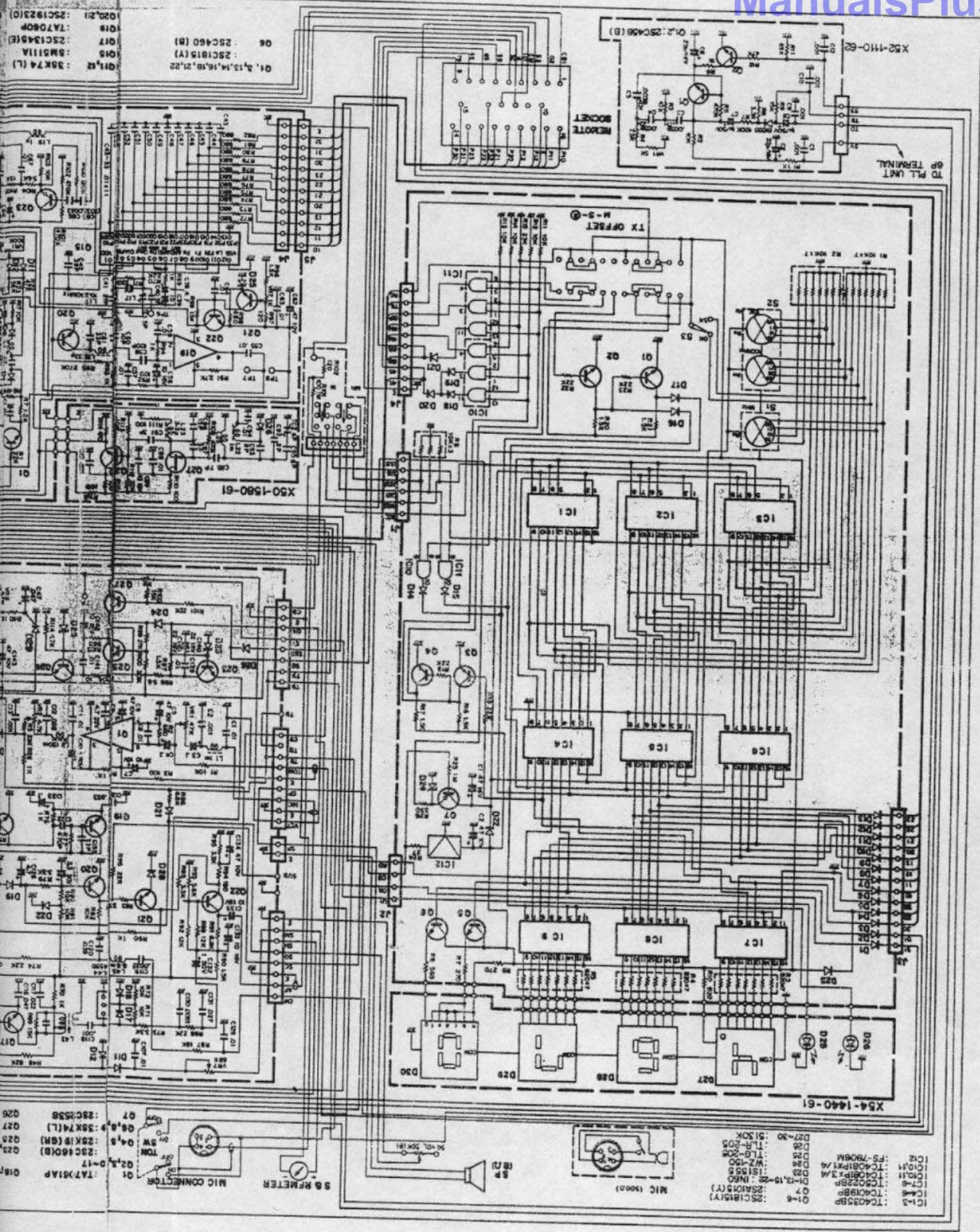
Q14, R : 3SK74 (L)  
 Q15 : 5M211A  
 Q17 : 25C134B(E)  
 Q18 : TAT760P  
 Q20, Z1 : 25C1923(O)

Q1, 2, 3, 4, 16, 19, 21, 22 : 25C1815 (Y)  
 Q5 : 25C460 (B)

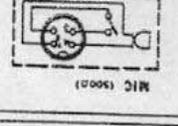
Q18, R : TAT761AP  
 Q17 : 25C134B(E)  
 Q20, Z1 : 25C1923(O)  
 Q26 : 25C553B

TR-7625 SCHEMATIC

2-METER FM-TRANSCIVER "KENWOOD"



- IC1-3 : TC4038P
- IC4 : TC4019P
- IC5 : TC4022BP
- IC6 : IN60
- IC7 : IN60
- IC8 : 25C1815 (Y)
- IC9 : 25C1815 (Y)
- IC10 : 25C1815 (Y)
- IC11 : TC4081P (x1/4)
- IC12 : FS-7908M
- D26 : 1N-205
- D27 : 1N-205
- D28 : 1N-205
- D29 : W-2-50
- D30 : 1S155
- D31 : 1S155
- D32 : 1S155
- D33 : 1S155
- D34 : 1S155
- D35 : 1S155
- D36 : 1S155
- D37 : 1S155
- D38 : 1S155
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- D40 : 1S155
- D41 : 1S155
- D42 : 1S155
- D43 : 1S155
- D44 : 1S155
- D45 : 1S155
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- D96 : 1S155
- D97 : 1S155
- D98 : 1S155
- D99 : 1S155
- D100 : 1S155



S & R METER

MIC CONNECTOR

TX OFFSET

REMOTE SOCKET

TO PLL UNIT

OF TERMINAL

M-5-0

IC1

IC2

IC3

IC4

IC5

IC6

IC7

IC8

IC9

IC10

IC11

IC12

IC13

IC14

IC15

IC16

IC17

IC18

IC19

IC20

IC21

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IC34

IC35

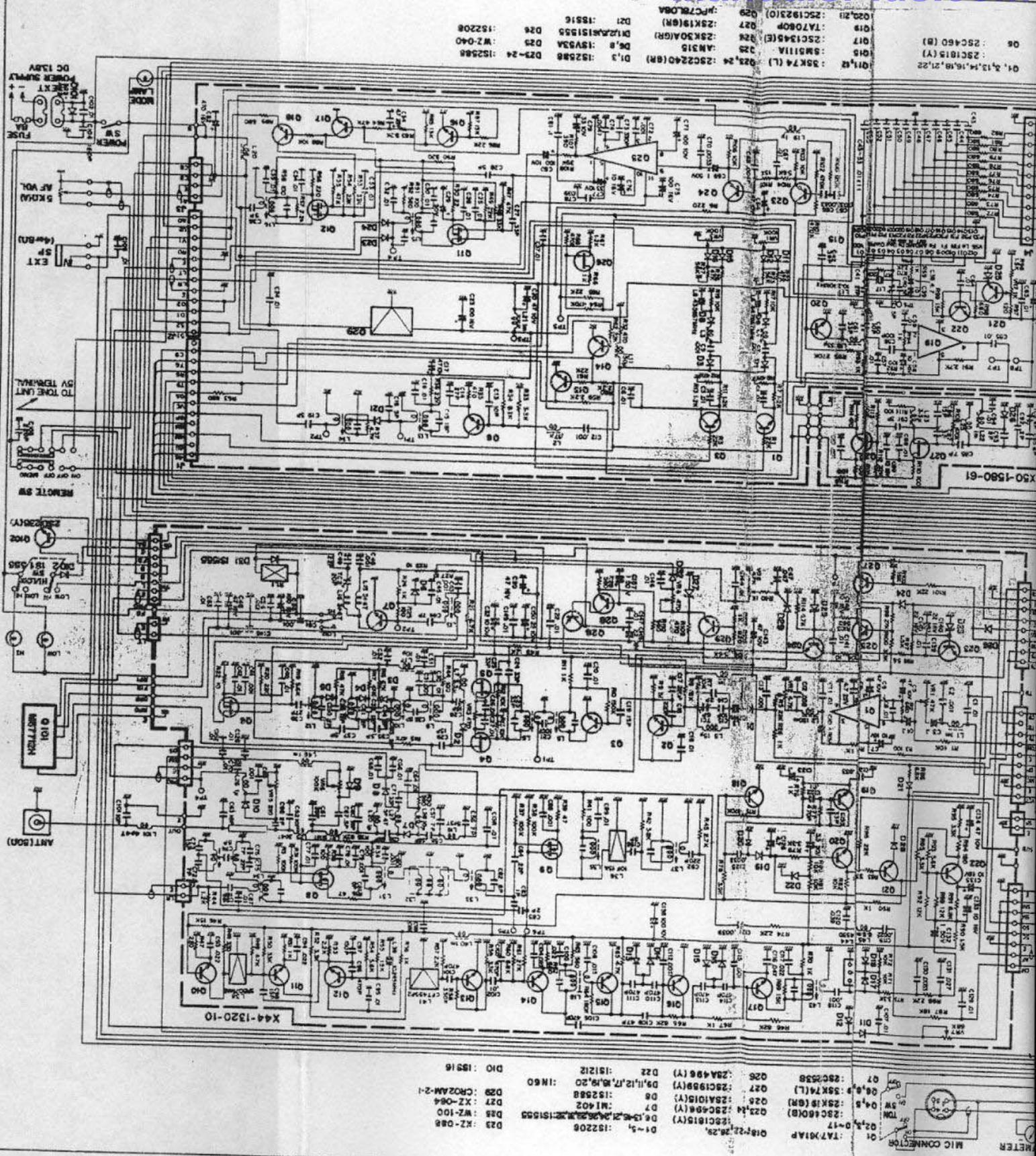
IC36

IC37

IC38

IC39

IC40



Circuits and specifications are subject to change for improvement.

- Q1: T7701AP
- Q2: 2SC1815(Y)
- Q3: 2SC160(B)
- Q4: 2SK15(BR)
- Q5: 2SK15(BR)
- Q6: 2SK74(L)
- Q7: 2SC253B
- Q8: 2SC1938(Y)
- Q9: 2SK1938(Y)
- Q10: 2SK498(Y)
- Q11: 2SC1815(Y)
- Q12: 2SC1815(Y)
- Q13: 2SC1815(Y)
- Q14: 2SC1815(Y)
- Q15: 2SC1815(Y)
- Q16: 2SC1815(Y)
- Q17: 2SC1815(Y)
- Q18: 2SC1815(Y)
- Q19: 2SC1815(Y)
- Q20: 2SC1815(Y)
- Q21: 2SC1815(Y)
- Q22: 2SC1815(Y)
- Q23: 2SC1815(Y)
- Q24: 2SC1815(Y)
- Q25: 2SC1815(Y)
- Q26: 2SC1815(Y)
- Q27: 2SC1815(Y)
- D1: 1S2208
- D2: 1S1212
- D3: 1S2208
- D4: 1S2208
- D5: 1S2208
- D6: 1S2208
- D7: 1S2208
- D8: 1S2208
- D9: 1S2208
- D10: 1S1516
- D11: 1S2208
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- C95: 100P
- C96: 100P
- C97: 100P
- C98: 100P
- C99: 100P
- C100: 100P
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- R3: 10K
- R4: 10K
- R5: 10K
- R6: 10K
- R7: 10K
- R8: 10K
- R9: 10K
- R10: 10K
- R11: 10K
- R12: 10K
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Handwriting: HANDLE/DWG :