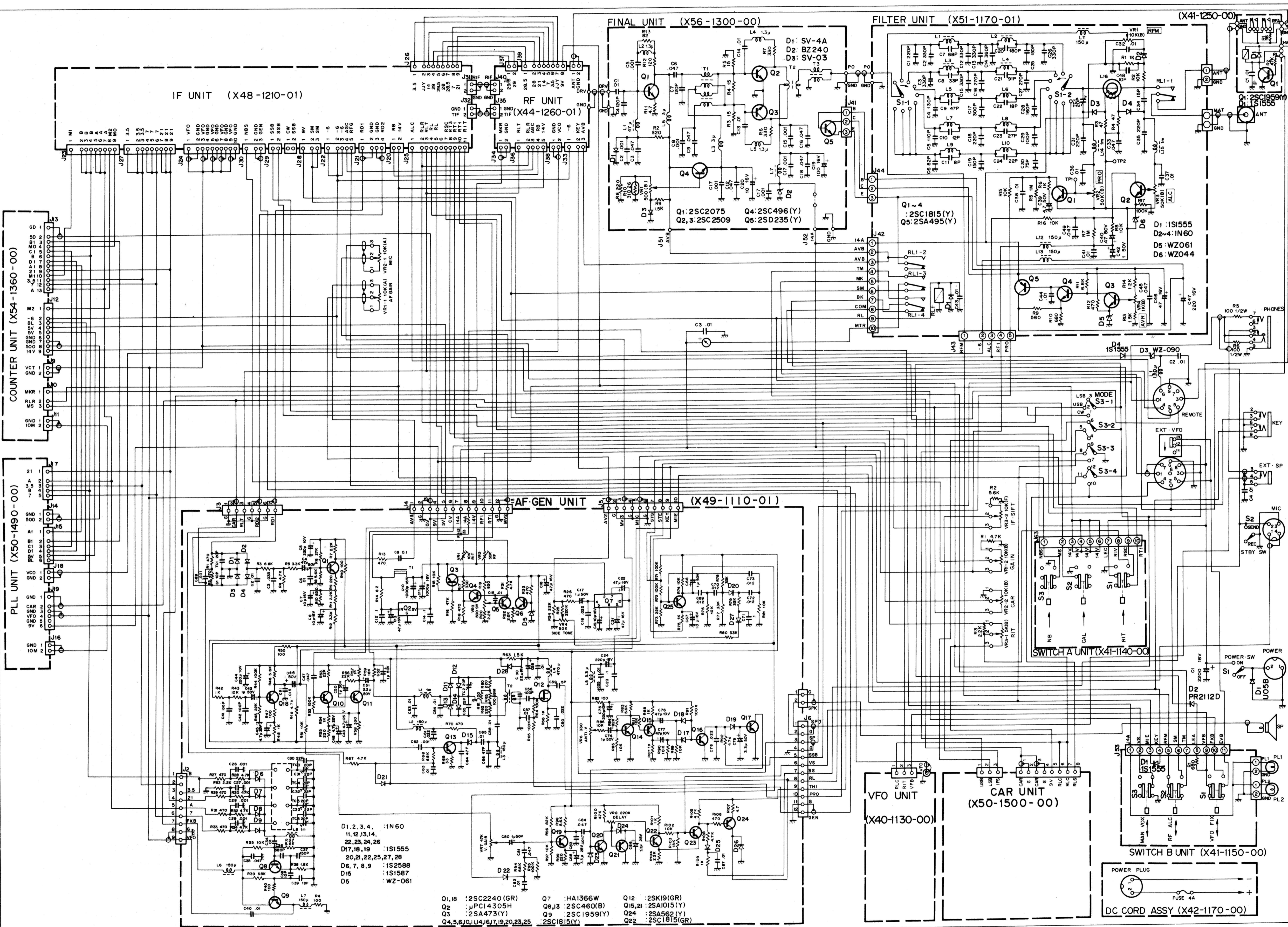


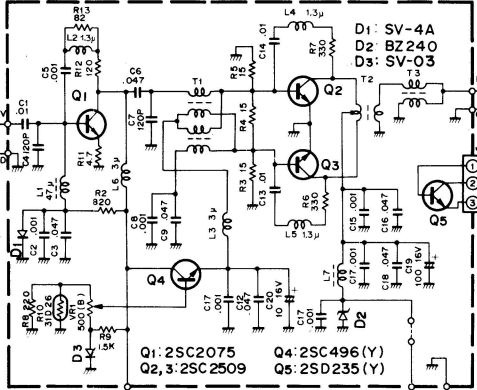
TS-120V SCHEMATIC DIAGRAM



- D1, 2, 3, 4, :1N60
 11, 12, 13, 14, 22, 23, 24, 26
 D17, 18, 19 :1S1555
 20, 21, 22, 25, 27, 28
 D6, 7, 8, 9 :1S2588
 D15 :1S1587
 D5 :WZ-061

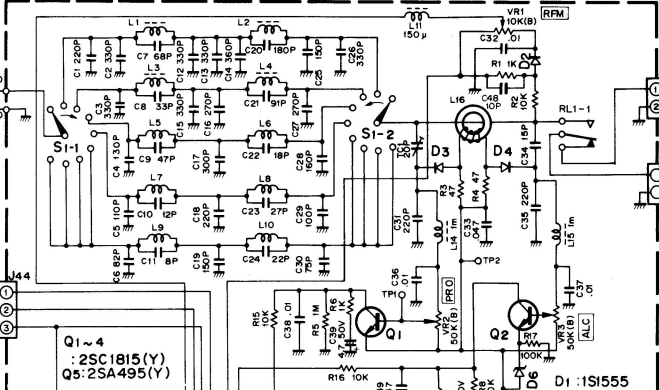
- Q1, 18 :2SC2240 (GR) Q7 :HA1366W Q12 :2SK19 (GR)
 Q2 :μPC14305H Q8, 13 :2SC460 (B) Q15, 21 :2SA1015 (Y)
 Q3 :2SA473 (Y) Q9 :2SC1959 (Y) Q24 :2SA562 (Y)
 Q4, 5, 6, 10, 11, 14, 16, 17, 19, 20, 23, 25 :2SC1815 (Y) Q22 :2SC1815 (GR)

FINAL UNIT (X56-1300-00)



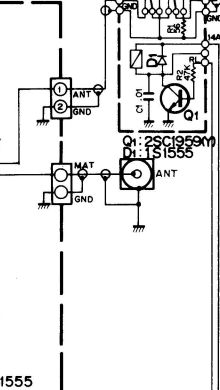
- Q1: 25C2075
 Q2, 3: 25C2509
 Q4: 25C496(Y)
 Q5: 25D235(Y)

FILTER UNIT (X51-1170-01)

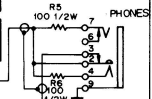
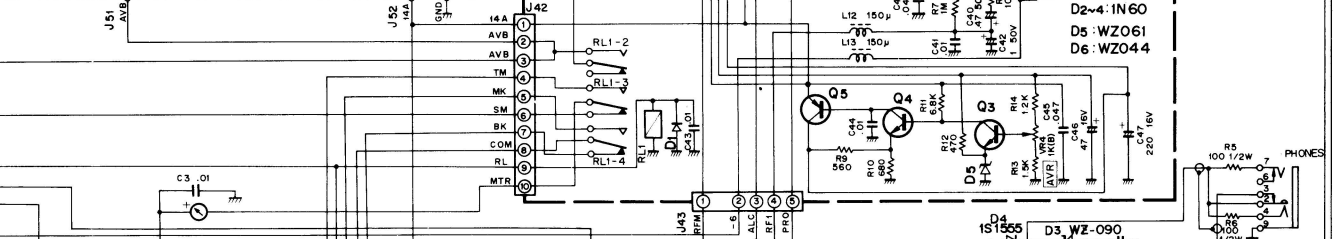


- Q1 ~ 4 : 25C1815(Y)
 Q5: 25A495(Y)

(X41-1250-00)

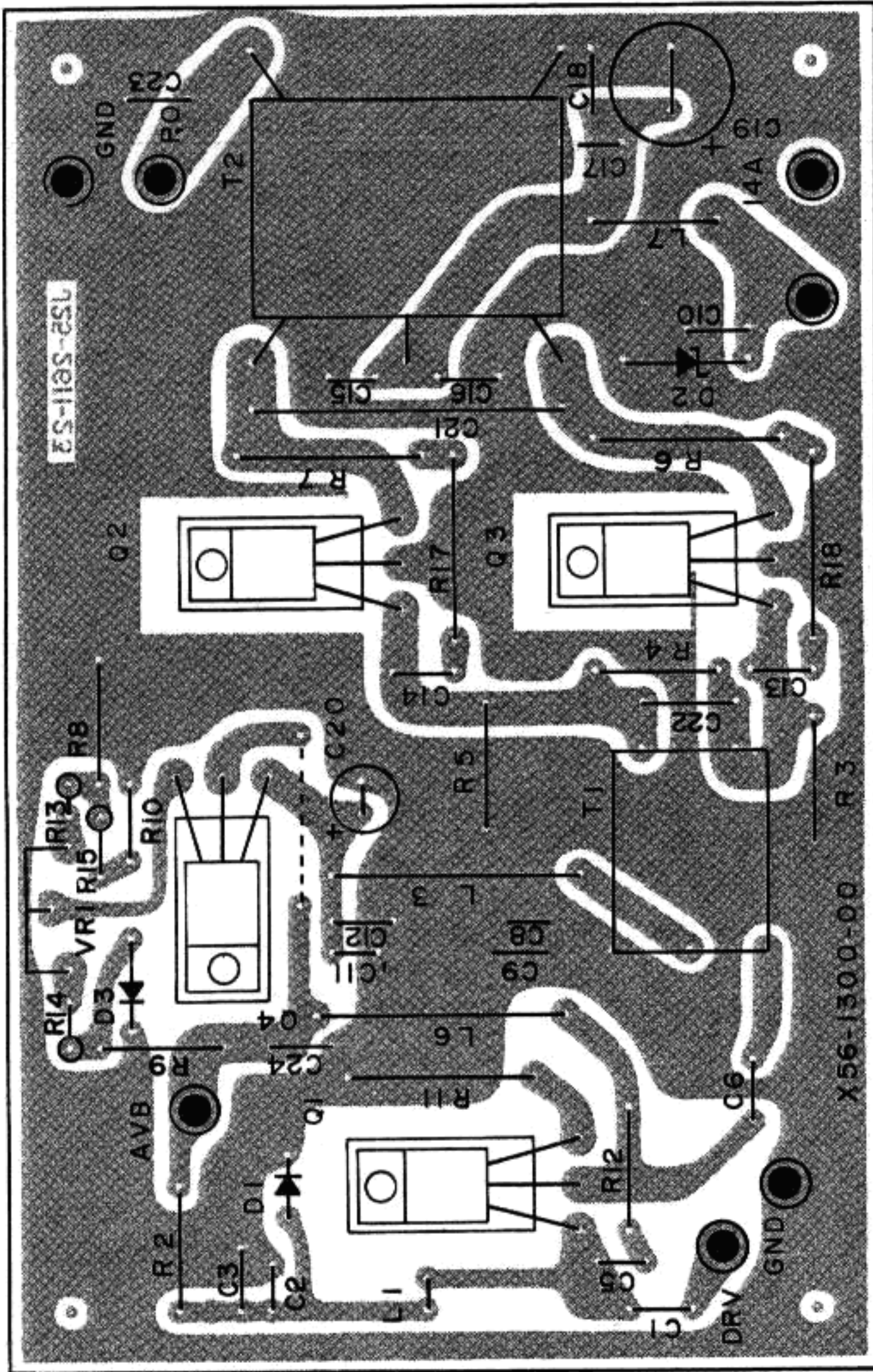


- D1: 1S1555
 D2 ~ 4: 1N60
 D5: WZ061
 D6: WZ044

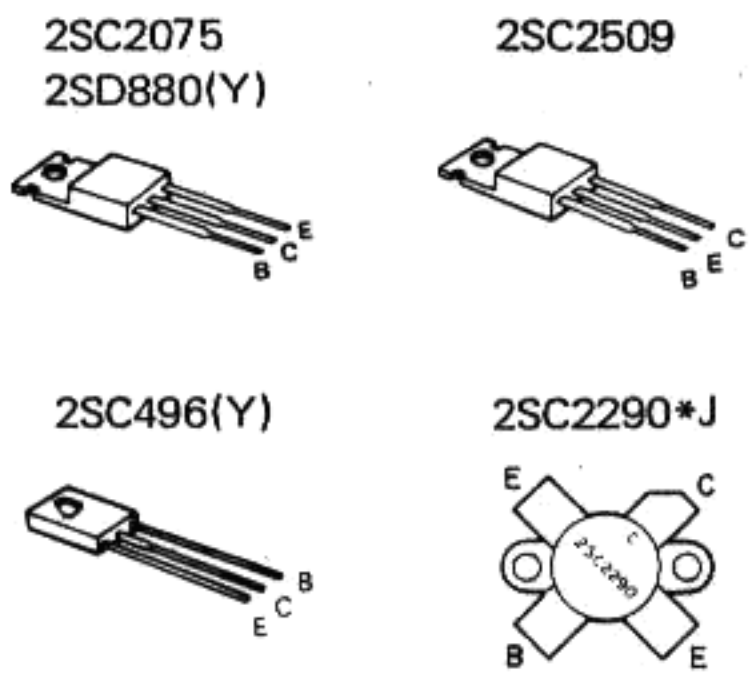


TS-130S,V PC BOARD VIEWS

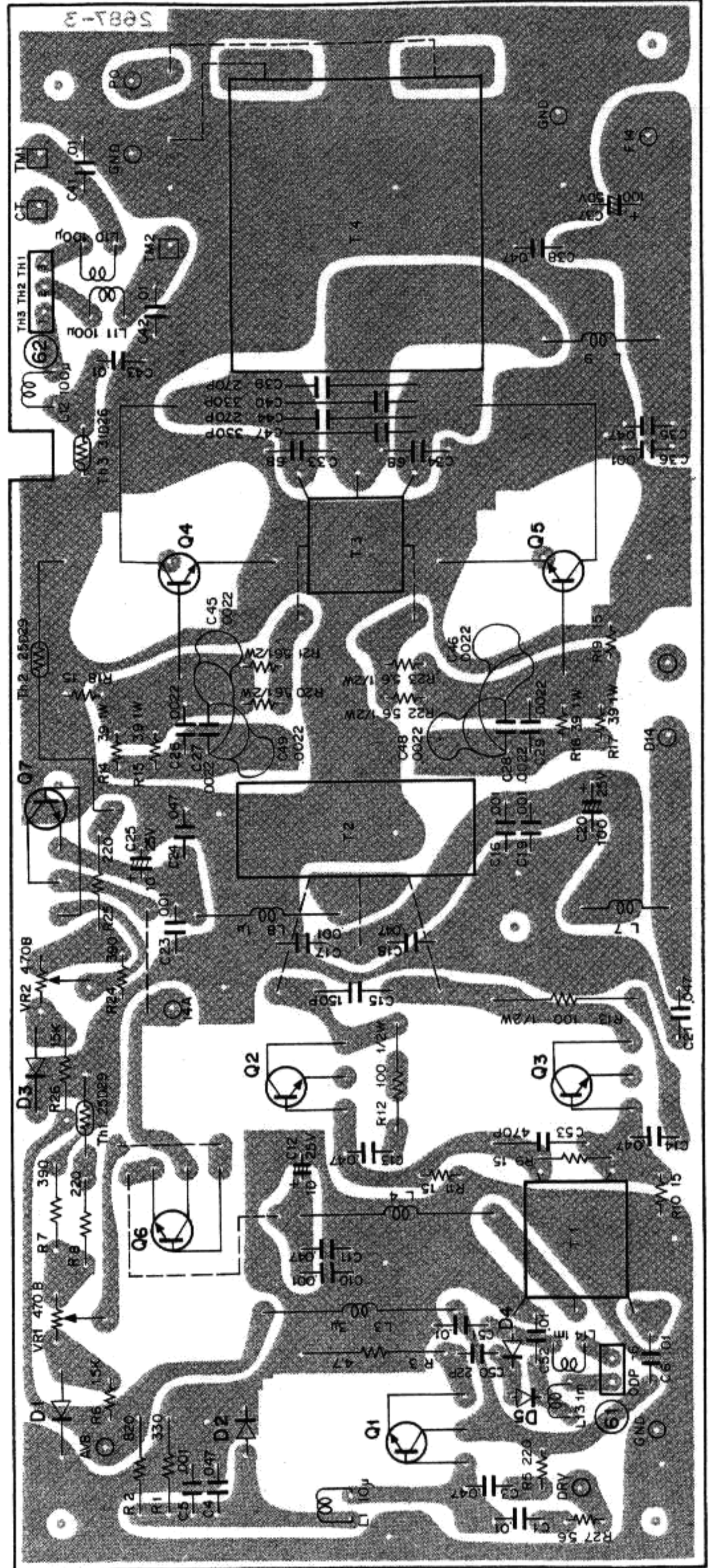
▼ FINAL UNIT (X56-1300-00) V TYPE Components side view



Q1: 2SC2075 Q2,3: 2SC2509 Q4: 2SC496(Y) Q5: 2SD880(Y)
D1: SV-4A D2: BZ-240 D3: SV-03



▼ FINAL UNIT (X56-1350-00) S TYPE Components side view



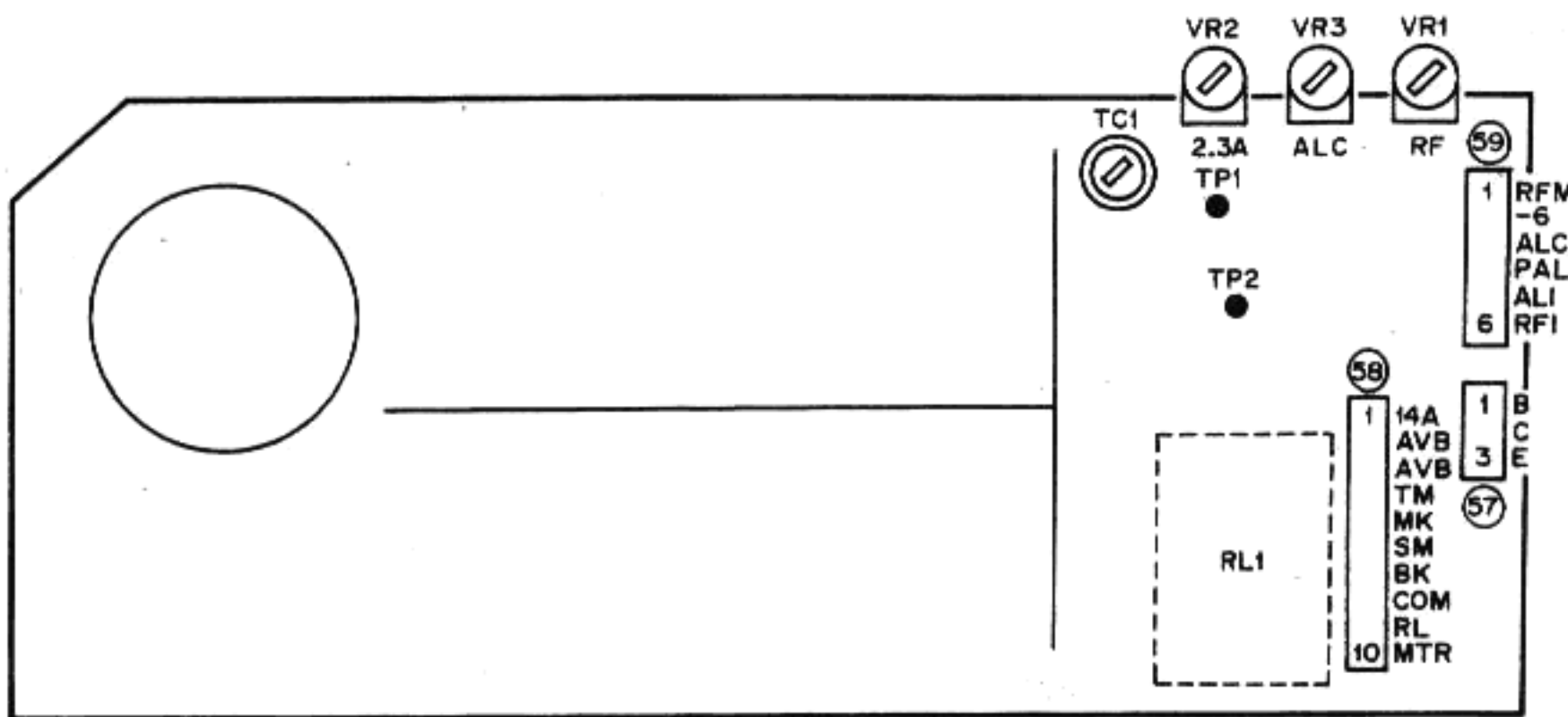
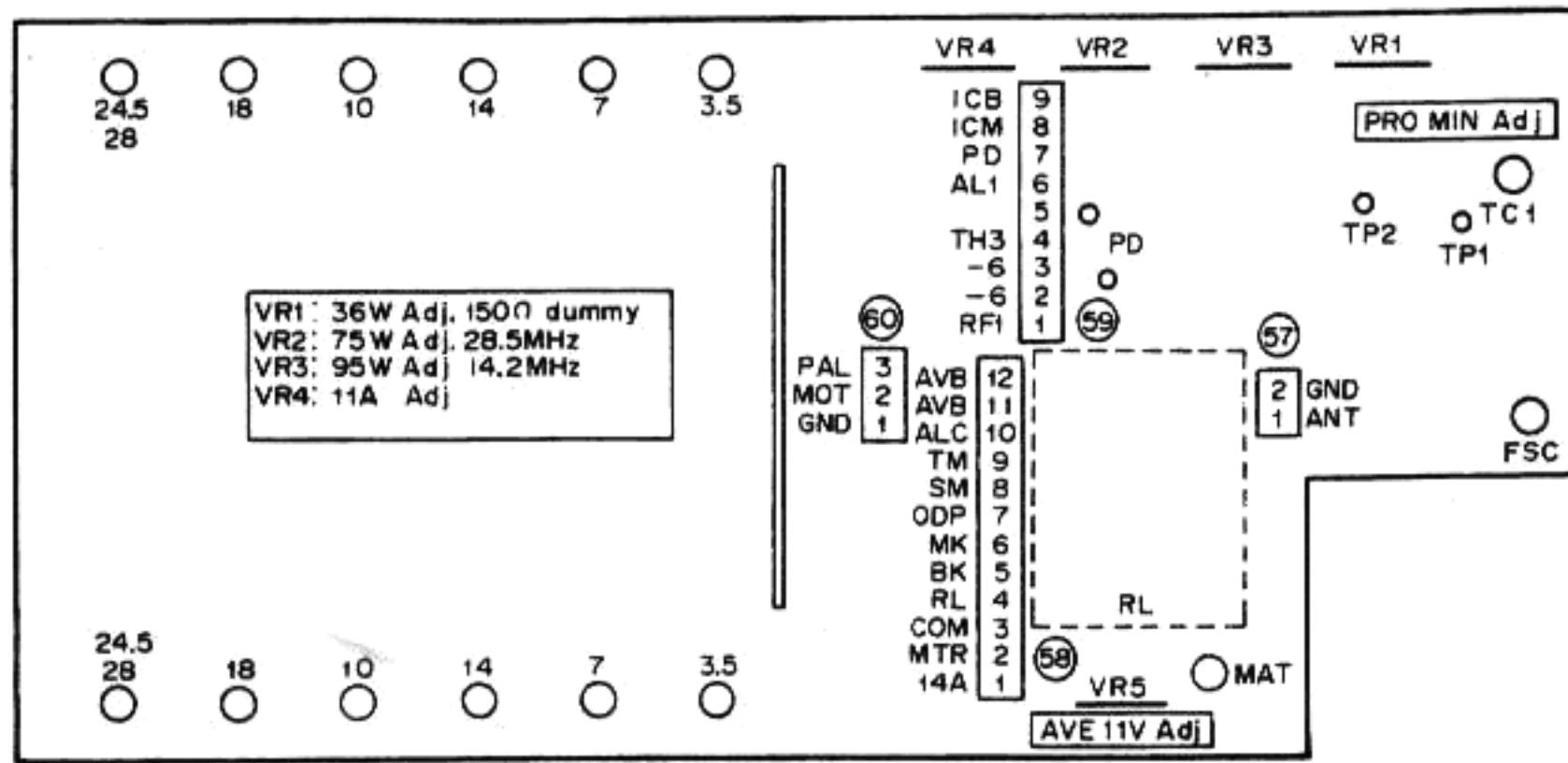
Q1: 2SC2075 Q2,3: 2SC2509 Q4,5: 2SC2290*J
Q6,7: 2SD880(Y) D1,3: SV-03 D2: SV-4A D4,5: 1N60

PARTS LIST

Ref.No.	Parts No.	Description	Re- marks	Ref.No.	Parts No.	Description	Re- marks
FINAL UNIT (X-56-1300-00) V TYPE							
C1,3	C91-0456-05	C 0.047μF 25V		E23-0043-04	Antenna earth lug		
C5,6,10	C91-0456-05	C 0.047μF 25V		E23-0046-04	Square terminal		
C12~14	C91-0456-05	C 0.047μF 25V		E23-0401-05	Round terminal		
C16,18	C91-0456-05	C 0.047μF 25V		E23-0420-05	Earth lug		
C19	CE04W1C101	E 100μF 16V		E40-0273-05	Mini connect wafer 2P		
C20	CE04W1C100	E 10μF 16V		E40-0373-05	Mini connect wafer 3P		
C21	CC45SL2H151J	C 150pF 500V		F01-0735-05	Heat sink		
C22	CC45SL1H471J	C 470pF		F20-0078-05	Insulating board		
C23	CC45SL2H680J	C 68pF 500V		F29-0014-05	Shoulder washer		
C24	C91-0456-05	C 0.047μF 25V		J31-0503-05	Bees		
	E23-0401-05	Round terminal		J32-0730-04	Hex. boss		☆
	F01-0717-13	Heat sink A	☆	L1	L40-1001-04	Ferri-inductor 10μH	
	F20-0078-05	Insulating board		L3,4	L33-0032-05	RFC	
	F29-0014-05	Shoulder washer		L7	L33-0617-05	RFC	
L1	L40-4701-03	Ferri-inductor 47μH		L8	L33-0025-05	RFC	
L3,6	L33-0032-05	RFC 3μH		L9	L33-0625-15	RFC	☆
L7	L33-0617-05	RFC	☆	L10~12	L40-1011-04	Ferri-inductor 100μH	
T1	L19-0315-15	Wide bandwidth trans		L13,14	L40-1021-03	Ferri-inductor 1mH	
T2	L19-0306-15	Output trans	☆	T1	L19-0315-25	Wide bandwidth trans	
R6,7	RC05GF2H560J	Solid 56Ω 1/2W		T2	L19-0311-05	Input trans	☆
R11	RC05GF2H4R7J	Solid 4.7Ω 1/2W		T3	L19-0313-15	NF trans	☆
R17,18	RC05GF2H560J	Solid 56Ω 1/2W		T4	L19-0312-05	Output trans	☆
VR1	R12-0412-05	Trim. pot 200Ω(B)			N19-0611-04	Washer	☆
	R92-0150-05	Short jumper		R3	RC05GF2H4R7J	Solid 4.7Ω 1/2W	
FINAL UNIT (X56-1350-00) S TYPE							
C1	C91-0455-05	C 0.01μF 25V		R12,13	RC05GF2H101J	Solid 100Ω 1/2W	
C3,4	C91-0456-05	C 0.047μF 25V		R14~17	RS14A83A3R9J	Metal film 3.9Ω 1W	
C6	C91-0455-05	C 0.01μF 25V		R18,19	RC05GF2H150J	Solid 15Ω 1/2W	
C11	C91-0456-05	C 0.047μF 25V		R20~23	RC05GF2H5R6J	Solid 5.6Ω 1/2W	
C12	CE04W1E100	E 10μF 25V		VR1,2	R12-0058-05	Trim. pot 470Ω(B)	
C13,14	C91-0456-05	C 0.047μF 25V			R92-0150-05	Short jumper	
C15	CM93AD2H151J	MC 150pF 500V		TM1	S59-1404-05	Thermostat Heat sink	
C18,19	C91-0456-05	C 0.047μF 25V		TM2	S59-1403-05	Thermostat core	
C20	CE04W1E101	E 100μF 25V		VFO ASS'Y UNIT (X60-1160-00)			
C21,24	C91-0456-05	C 0.047μF 25V		B01-0621-04	Dial escutcheon		☆
C25	CE04W1E100	E 10μF 25V		B08-4301-04	Dial back board		☆
C33,34	C91-0448-05	Laminated cap. 0.68μF	☆	B10-0634-04	Front glass (A)		
C35	C91-0456-05	C 0.047μF 25V		B20-0811-04	Dial scale (B) 25K		☆
C37	CE04W1H101Q	E 100μF 50V		B20-0817-04	Dial scale (A) 500K		
C38	C91-0456-05	C 0.047μF 25V		B42-1645-04	Seal Bottom		
C39	CM93AD2H271J	MC 270pF 500V		B42-1671-04	Seal Top		
C40	CM93AD2H331J	MC 330pF 500V		G01-0804-04	Coil spring		
C41~43	C91-0455-05	C 0.01μF 25V		J19-1317-04	Diode holder		
C44	CM93AD2H271J	MC 270pF 500V		K21-0722-04	Main knob		
C47	CM93AD2H331J	MC 330pF 500V		N19-0613-04	washer B		
C50	CC45SL1H220J	C 22pF		X40-1170-00	VFO unit		
C51,52	C91-0455-05	C 0.01μF 25V		X54-1450-01	INDICATOR unit		☆
C53	CC45SL1H471J	C 470pF					
	E04-0152-05	UHF type receptacle					
	E08-0271-05	DC socket FAN					

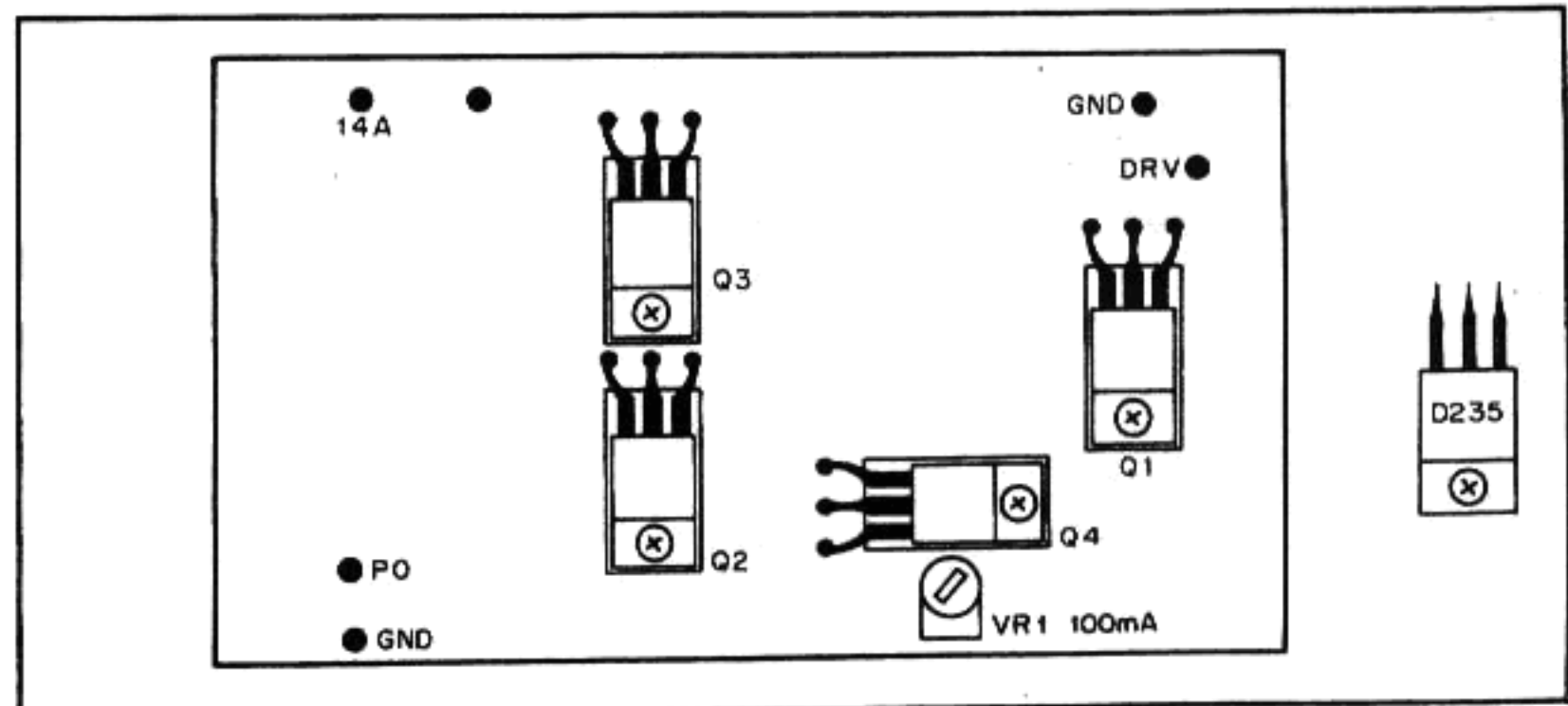
ADJUSTMENTS

▼ FILTER UNIT (X51-1240-00) S TYPE

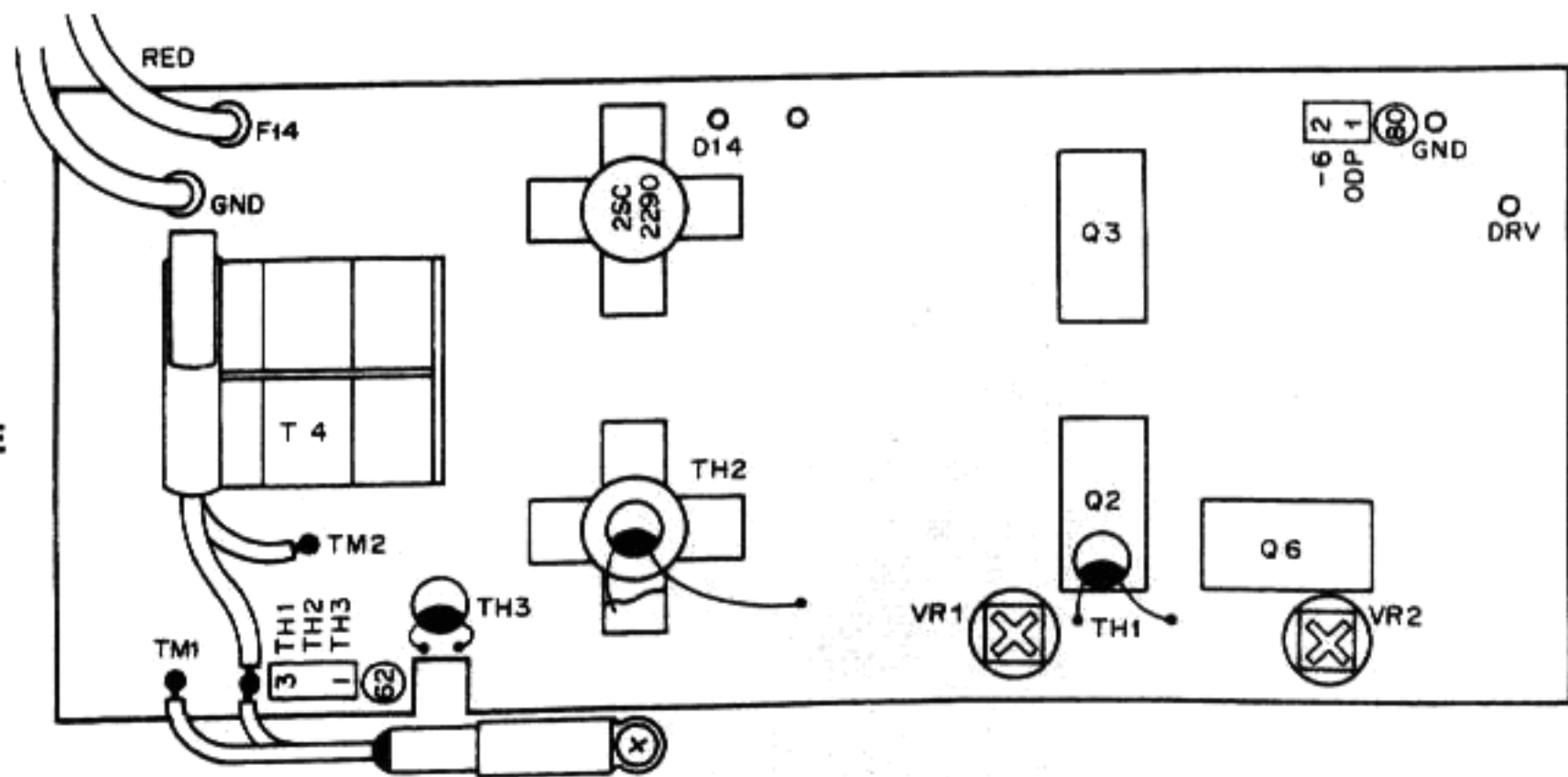


◀ FILTER UNIT (X51-1250-00) V TYPE

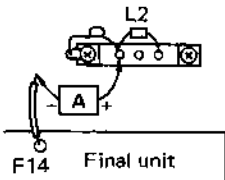
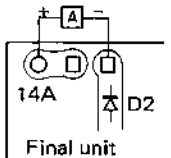
FINAL UNIT ► (X56-1300-00) V TYPE



FINAL UNIT ► (X56-1350-00) S TYPE



ADJUSTMENTS

Item	Condition	Measuring point			Adjust			Specifications/Remarks
		Instruments	Unit	Terminal	Unit	Parts	Reference	
17. Base current 1) S type	MODE:SSB MIC GAIN: Full counter-clockwise DC current meter: Connect ⊕ to D14 lead, ⊖ to D14 terminal. STBY:SEND STBY:REC	DC current meter	Final	D14	Final	VR1	150mA	
						VR2	100mA	
	2) V type	DC current meter: Connect ⊕ to red wire from F14 terminal, ⊕ to 3P terminal. STBY:SEND STBY:REC			F14 3P terminal			
18. Carrier level	BAND:14 MODE:CW STBY:SEND Reduce RF power(S type) to 30W, RF meter(V type) to 3 by CAR level control. STBY:REC	DC current meter	Final	14A	Final	VR1	100mA	
19. ALC (RF power) 1) S type	BAND:14 CAR LEVEL: Centered VFO:200 MODE:CW STBY:SEND Filter unit, VR2:Counter-clockwise BAND:28.5	Power meter			AF-GEN RF	T2 T4	Adjust for maximum RF output.	
2) V type	Same as above.				Filter	VR3	Set to 95W.	
						VR2	Set to 75W.	
20. RF meter (V type only)	BAND:14 MODE:CW Meter: RF(IC) STBY:SEND STBY:REC	Power meter			Filter	VR3	Set to 11W.	
						VR1	Set to 8W.	
21. IC meter (S type only)	MODE:CW DC current meter: Connect ⊖ to red wire from F14 terminal ⊕ to 3P terminal. STBY:SEND STBY:REC	Power meter, DC current meter			Filter	VR4	Set to 11A on IC meter.	