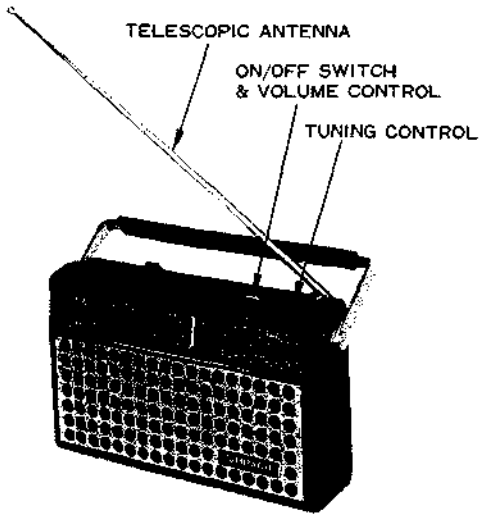
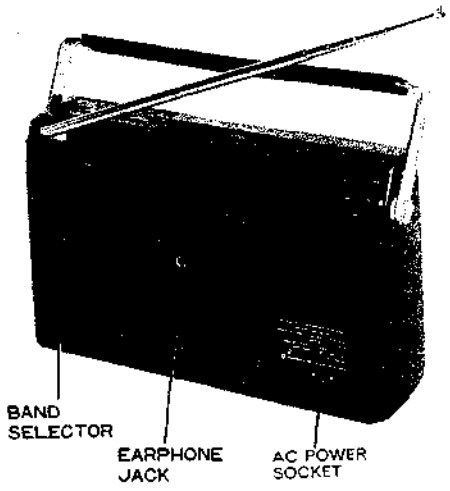
HITACHI

KH-832E

SERVICE MANUAL

NO. 7 7 1 77





SPECIFICATIONS

CIRCUIT SYSTEM ..... FM/AM superheterodyne

TUNING RANGE ..... FM: 88~108MHz
AM: 530~1605kHz

INTERMEDIATE FREQUENCY ..... FM: 10.7MHz
AM: 465kHz

TRANSISTOR 9

DIODE 11

VARISTOR 1

THERMISTOR 1

POWER SUPPLY ..... AC: 220-240V, 50Hz
DC: 6V (IEC R6×4)

CURRENT CONSUMPTION ..... 15mA (with no signal)

SPEAKER ..... 2⅝" (6.6cm) P.M., 8Ω

AUDIO OUTPUT ..... 350mW (Max.)
200mW (THD 10%)

SENSITIVITY ..... FM: 10 dB (Max.), 15 dB (practical)
AM: 35 dB (Max.), 48 dB (practical)

ANTENNA ..... FM: Telescpic antenna
AM: Buile-in ferrite-core antenna

DIMENSIONS ..... 4¼"(H)×7⅛"(W)×1⅝"(D)

WEIGHT ..... 1 lbs 6 oz

ACCESSORIES ..... Earphone 1
Power cord 1

PORTABLE RADIO

July 1 9 7 5

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BLOCK DIAGRAM

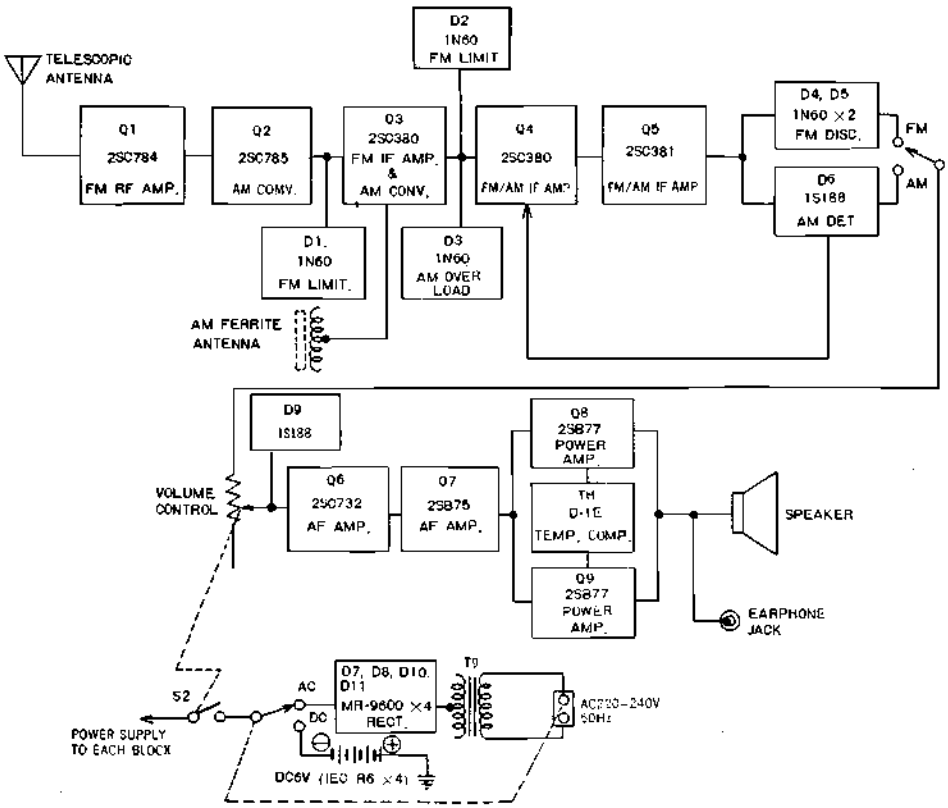


Fig. 1

DISASSEMBLY

1. Removal of rear case

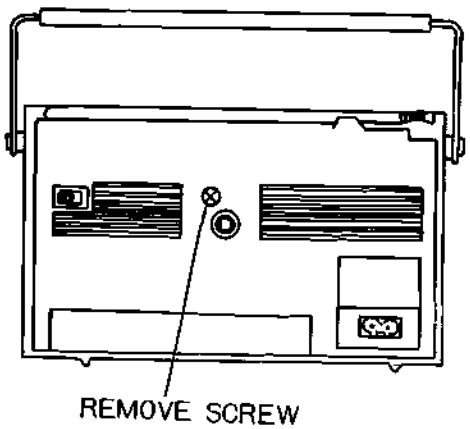


Fig. 2

2. Removal of circuit board

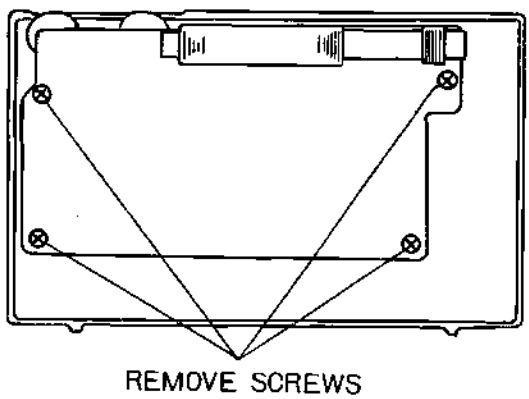


Fig. 3

DIAL CORD STRINGING

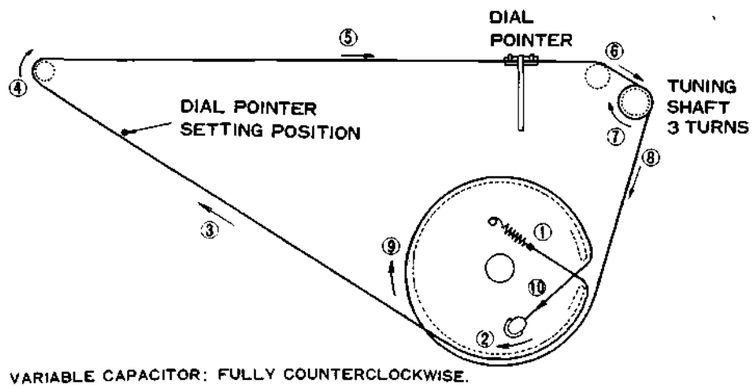
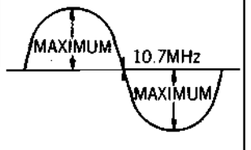


Fig. 4

CIRCUIT ADJUSTMENT

Step	Adjustment circuit		Connection	Signal or Sweep generator	Pointer position	Adjustment parts	How to adjust
			FM CIRCUIT				
①	FM-IF		Sweep Generator···Connect output terminal to TP1. Oscilloscope ·····Connect vertical terminal to TP2.	10.7±1MHz	High freq. end	T5, T4, T3, T2, T1	① Turn core (T5) fully clockwise. ② Adjust core (T4, T3, T2, T1) to be this waveform. 
②	FM-DISCRI					T5	Adjust core (T5) for maximum output. 
③	FM-RF	Covering	Signal Generator···Connect to telescopic antenna through a dummy antenna shown in Fig. 5. Vacuum Tube Voltmeter ····· Connect AC probe to TP2.	87MHz (For Germany:87.5MHz)	Low freq. end	L4	Adjust core for maximum output.
				109MHz (For Germany: 108MHz)	High freq. end	CT2	
		Tracking		90MHz	90MHz	L2	Adjust core for maximum output.
				106MHz	106MHz	CT1	

Step	Adjustment circuit		Connection	Signal or sweep generator	Pointer position	Adjustment parts	How to adjust
			AM CIRCUIT				
①	AM-IF		Signal Generator···Connect output terminal to loop antenna. Vacuum Tube Voltmeter···Connect AC probe to TP3.	High freq. end	465kHz	T8, T7, T6	Adjust core for maximum output.
②	AM-RF	Covering		Low freq. end	515kHz	L6	
				High freq. end	1,650kHz	CT3	
		Tracking		600kHz	600kHz	L5	
				1,400kHz	1,400kHz	CT4	

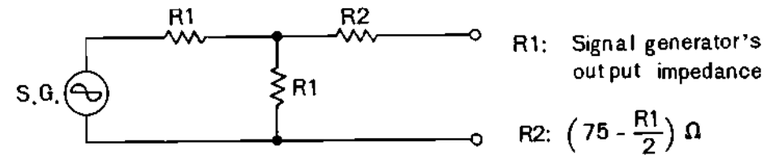


Fig. 5

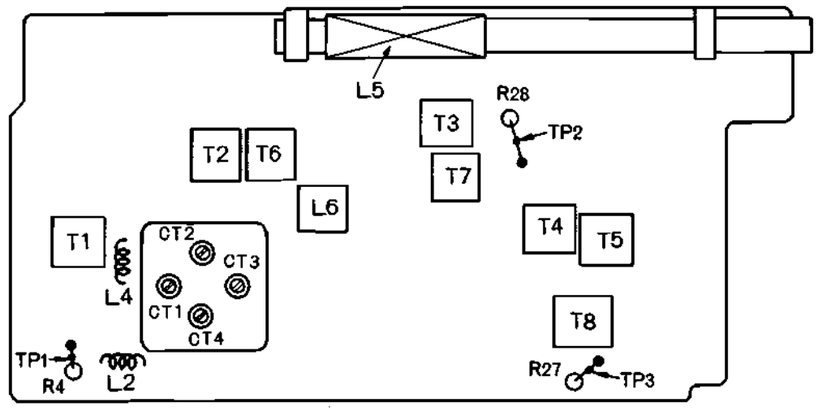
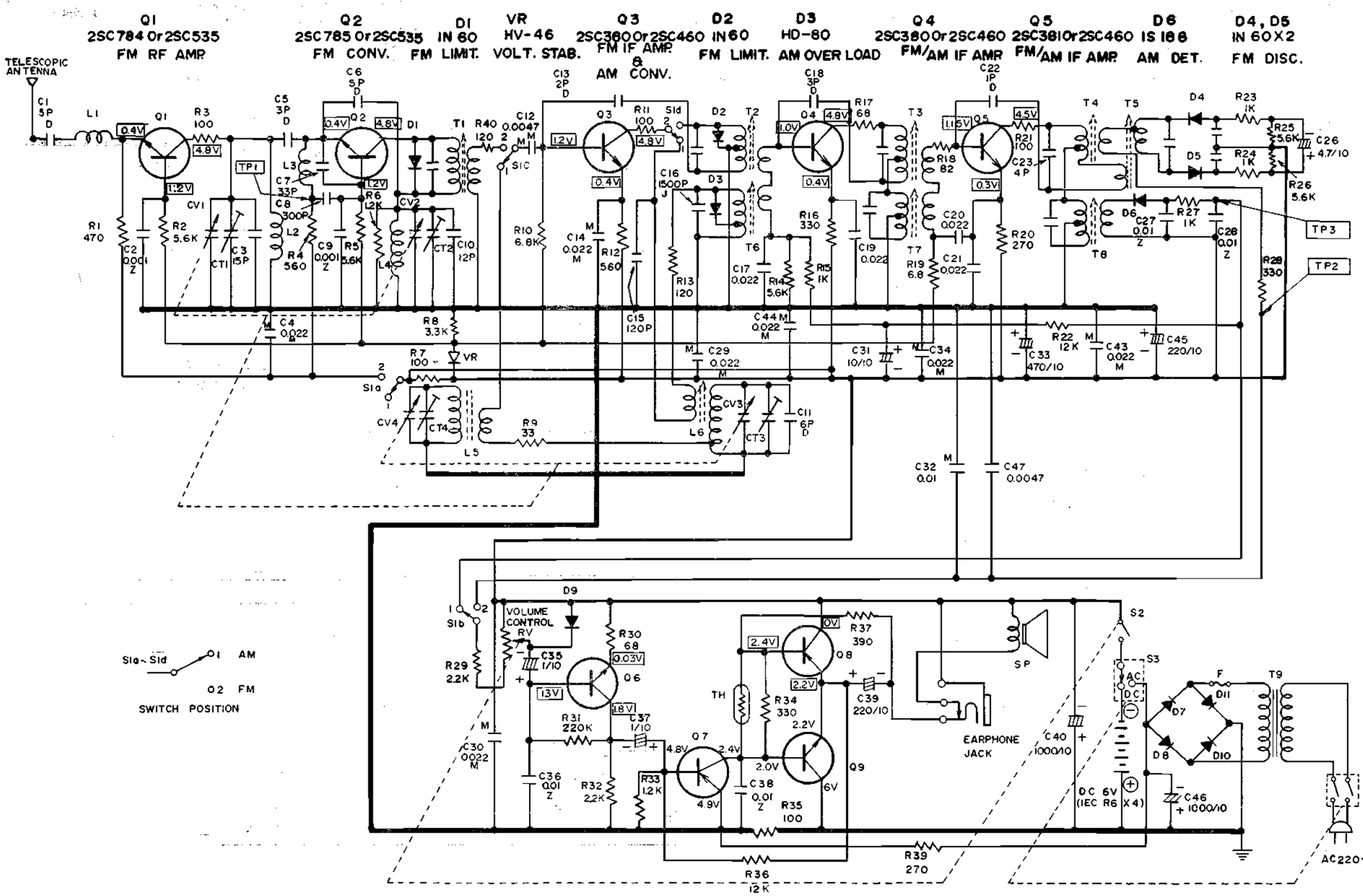


Fig. 6

SCHEMATIC DIAGRAM



D9 IS188 | Q6 2SC732 Or 2SC458 AF AMP | Q7 2SB75 AF AMP | TH D-1E TEMP. COMP. | Q8, Q9 2SB77 2SD77 POWER AMP. | D7, D8, D10, D11 MR-9600 X 4 Or V03CX4 RECTIFIER

NOTE

1. Voltage measured at base of chassis with minimum volume control and no signal.
2. Nomenclature of Rasistors and Capacitors.

RESISTORS

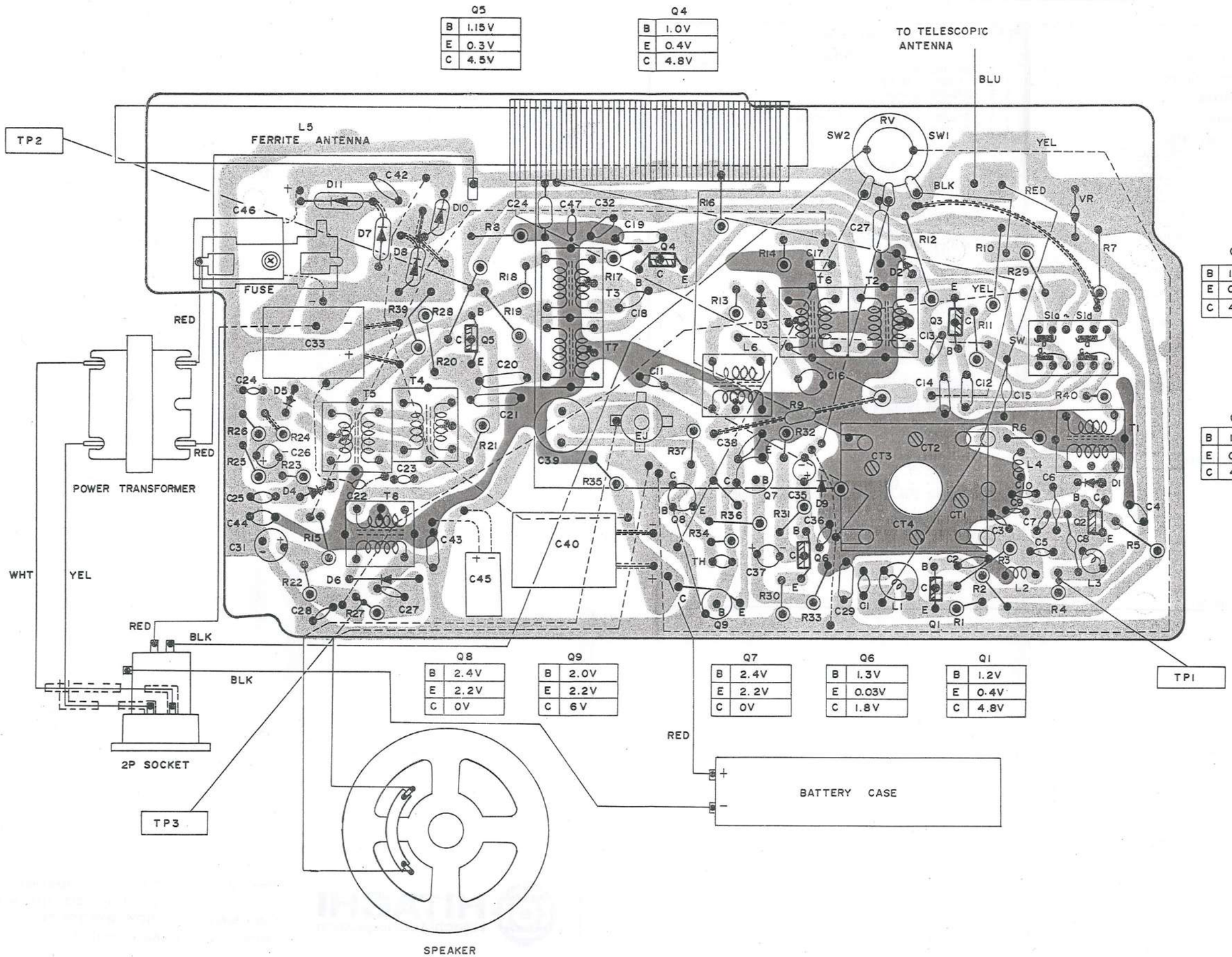
Value	No indicated : Ω K : 1000Ω
Wattage	No indicated : ¼W.
Tolerance	No indicated : ± 5% K : ±10%
Sort	No indicated : Carbon film RC : Composition RS : Metal oxide
Example	R101.....Circuit No. 150.....Value RS · 1 · K.....Sort · Wattage · Tolerance

CAPACITORS.

Value	No indicated : μF P : pF	
Voltage	No indicated : 50WV	
Tolerance	No indicated : ±10% J : ± 5% M : ±20% Z : +80, −20% D : ±0.5 pF C : ±0.25 pF	
Sort		Ceramic
		Electrolitic
		Mylar
Example	C101.....Circuit No. 10/25.....Value/ voltage .....Sort	

3. Be sure to make your orders of resistors and capacitors with value, Voltage, tolerance and sort.
4. When replacing capacitors marked with ✱, Use specified ones stated on parts list since required temperature characteristics.

CIRCUIT BOARD DIAGRAM



REPLACEMENT PARTS

Symbol No.	Stock No.	Description	
CAPACITORS:			
C V1~4 C T1~4	5052081	Plastic Variable capacitor	
RESISTORS:			
R V	0151430	Variable resistor	
SEMI-CONDUCTOR:			
Q 1	0573511	Transistor	2SC535C
Q 2	0573511	Transistor	2SC535C
Q 3	0573487	Transistor	2SC460C
Q 4	0573487	Transistor	2SC460C
Q 5	0573487	Transistor	2SC460C
Q 6	5320064	Transistor	2SC458D
Q 7	0573117	Transistor	2SB75C
Q 8	5320295	Transistor	2SB77C
Q 9	5320305	Transistor	2SD77C
V R	5340022	Varistor	HV-46
T H	0576056	Thermistor	D-1E
D 1 D 2 D 3	0575019	Diode	1N60P
D 4 D 5	0575019	Diode	1N60P
D 6 D 9	5330331	Diode	1S188FM-1
D 7 D 8 D10 D11	5330001	Diode	VO3C
TRANSFORMER:			
T 1	0329603	FM IFT	
T 2 T 3	0329602	FM IFT	
T 4	0326026	Discri	
T 5	0326028	Discri	
T 6	0329501	AM IFT	
T 7	0322115	AM IFT	
T 8	0322118	AM IFT	
T 9	5211821	Power trans former	

Symbol No.	Stock No.	Description
COILS:		
L 1	0324003	FM Antenna
L 2	5126381	FM RF
L 3	0324003	Choke
L 4	0318526	FM OSC.
L 5	5112921	Ferrite-core Antenna
L 6	5220198	AM OSC.
for Final assembly		
	6290181	Knob for tuning
	6290171	Knob for volume
	5731001	Earphone
	5743898	Power cord
for Front case assembly		
	6101091	Front case assembly
	5411191	Speaker
for Rear case assembly		
	6101111	Rear case assembly
	6331091	Handle
	6726971	Handle ring
	6325361	Handle spring
	7534381	Handle shaft
	6172021	Battery lid assembly
	5750251	Telescopic antenna
for Chassis assembly		
	6342831	Pulley
	6342881	Pulley
	0711306	Panhead screw 2.6mm⌀×6mm for pulley mounting
	6316232	Spring
	6394111	Pointer
	6171111	Battery case
	5651043	2P socket
for P.C.B assembly		
	0721304	Pan head screw 2.6mm⌀×4mm for V.C mounting
	0532163	Slide switch
	0543217	Earphone jack

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Printed in Japan
'75 (K)