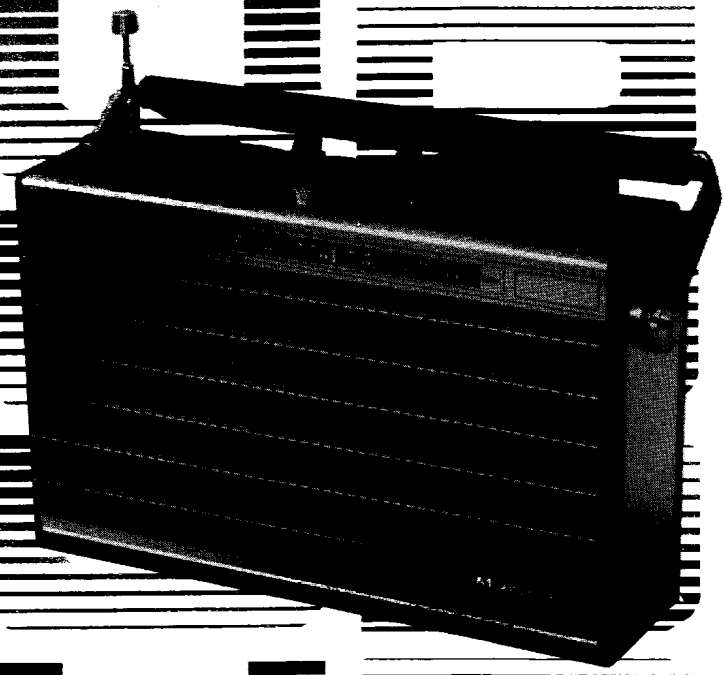




# RANK RADIO INTERNATIONAL

## Murphy Model

### MW5775AA



## AUDIO SERVICE INFORMATION

# ALIGNMENT PROCEDURE

## Equipment required

AM signal generator  
 VHF sweep signal generator  
 Loop aerial  
 Dummy load (8Ω resistor on 3·5mm jack.)

Output meter  
 Oscilloscope  
 Trimming tools  
 13pF capacitor

**Dismantling:** Remove the five screws in the base of the unit and lift out of the cabinet which separates just below the tuning scale.

### VHF IF ALIGNMENT LINEAR "S" CURVE

OPERATION	GENERATOR CONNECTION	INPUT SIGNAL FREQUENCY	BAND	POSITION OF TUNING "C"	OSCILLOSCOPE OR OUTPUT METER	ADJUST FOR MAX OUTPUT
1	TP1	10·7MHz	VHF	HIGH	R26-C48	Tr1
2	TP1	10·7MHz	VHF	HIGH	R26-C48	Tr2
3	TP1	10·7MHz	VHF	HIGH	R26-C48	Tr3

Repeat steps 1, 2 and 3 as necessary to obtain "S" curve linearity

### AM IF ALIGNMENT

4	Loop	470kHz	MW	LOW	R20-C73	Tr4
5	Loop	470kHz	MW	LOW	R20-C73	Tr5
6	Loop	470kHz	MW	LOW	R20-C73	Tr6

Repeat steps 4, 5 and 6 until no further improvement can be obtained

### MW RF ALIGNMENT

7	Loop	510kHz	MW	510kHz	Dummy load	L11
8	Loop	1650kHz	MW	1650kHz	Dummy load	TC7

Repeat steps 7 and 8 until no further improvement can be obtained

9	Loop	600kHz	MW	600kHz	Dummy load	L8
10	Loop	1400kHz	MW	1400kHz	Dummy load	TC4

Repeat steps 9 and 10 to minimize tracking error

### LW RF ALIGNMENT

11	Loop	140kHz	LW	140kHz	Dummy load	L12
12	Loop	310kHz	LW	310kHz	Dummy load	TC8

Repeat steps 11 and 12 until no further improvement can be obtained

13	Loop	175kHz	LW	175kHz	Dummy load	L9
14	Loop	300kHz	LW	300kHz	Dummy load	TC5

Repeat steps 13 and 14 to minimize tracking error

### SW RF ALIGNMENT

15	13pF to TP1	5·8MHz	SW	5·8MHz	Dummy load	L10
16	13pF to TP1	16·6MHz	SW	16·6MHz	Dummy load	TC6

Repeat steps 15 and 16 until no further improvement can be obtained

17	13pF to TP1	6·5MHz	SW	6·5MHz	Dummy load	L7
18	13pF to TP1	15MHz	SW	15MHz	Dummy load	TC3

Repeat steps 17 and 18 to minimize tracking error

### VHF RF ALIGNMENT

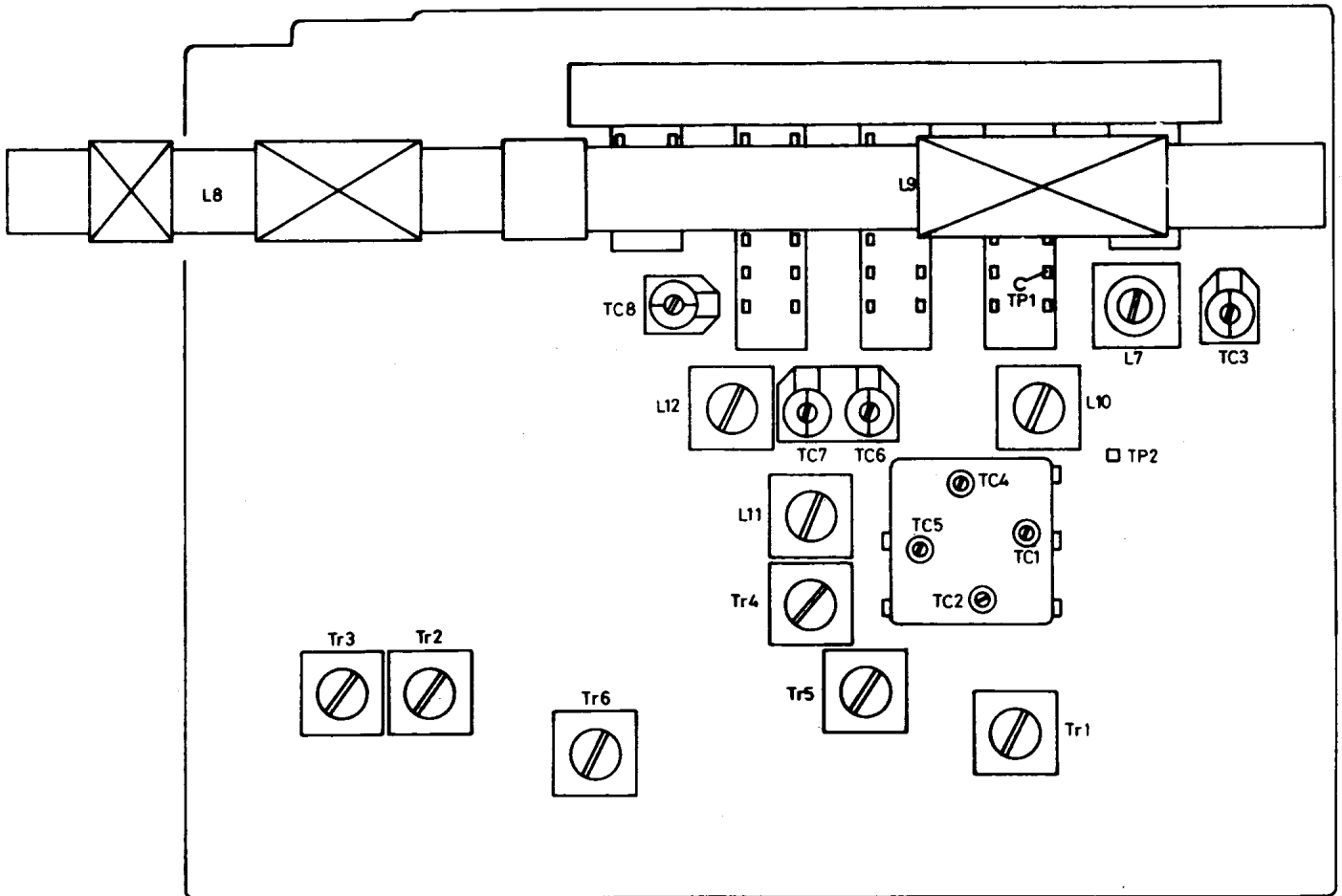
19	TP1	87·2MHz	VHF	87·2MHz	Dummy load	L5
20	TP1	104·5MHz	VHF	104·5MHz	Dummy load	TC2

Repeat steps 19 and 20 until no further improvement can be obtained

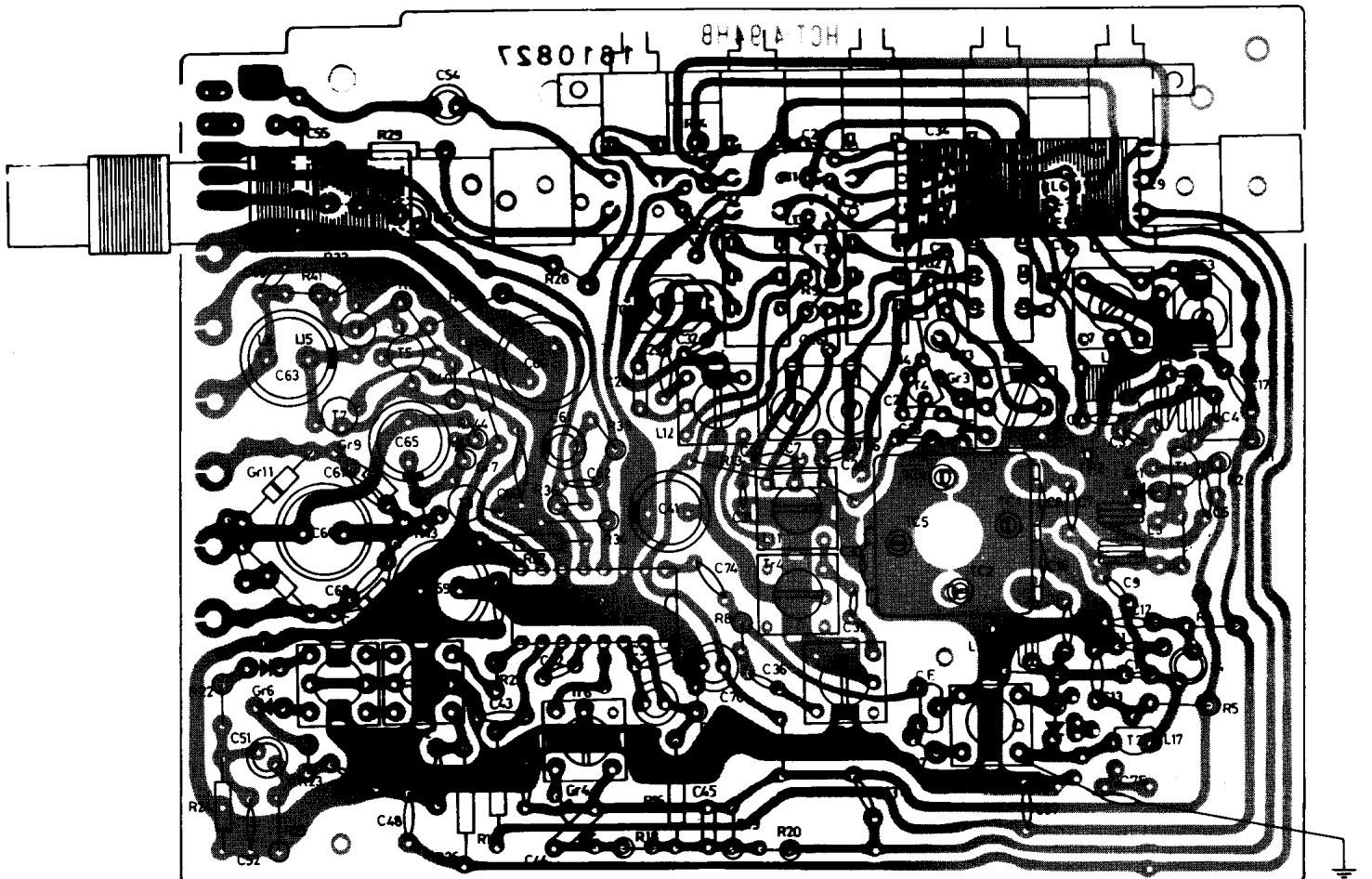
21	TP1	90MHz	VHF	90MHz	Dummy load	L3
22	TP1	104MHz	VHF	104MHz	Dummy load	TC1

Repeat steps 21 and 22 to minimize tracking error

# ALIGNMENT POINTS

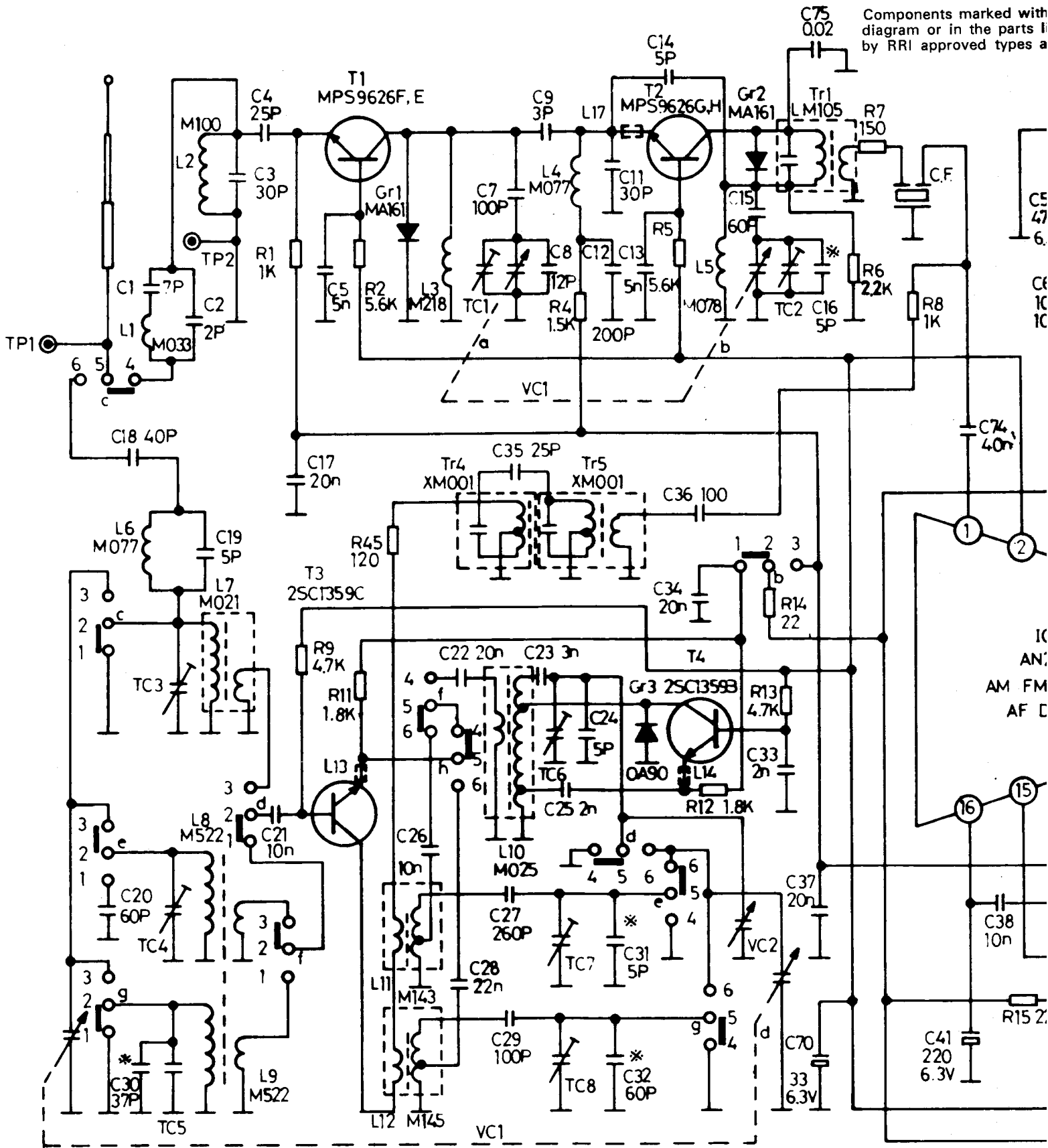


# COMPONENT LAYOUT

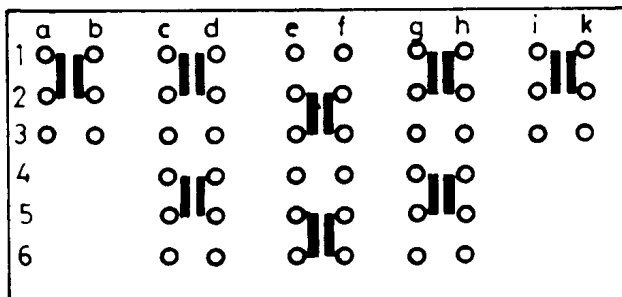


TO D.C. BATTERY  
TERMINAL

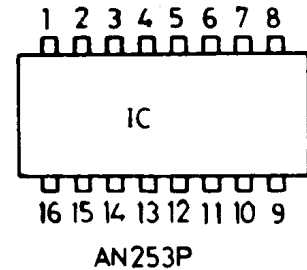
Components marked with diagram or in the parts list by RRI approved types a



UKW KW MW LW TA/TB



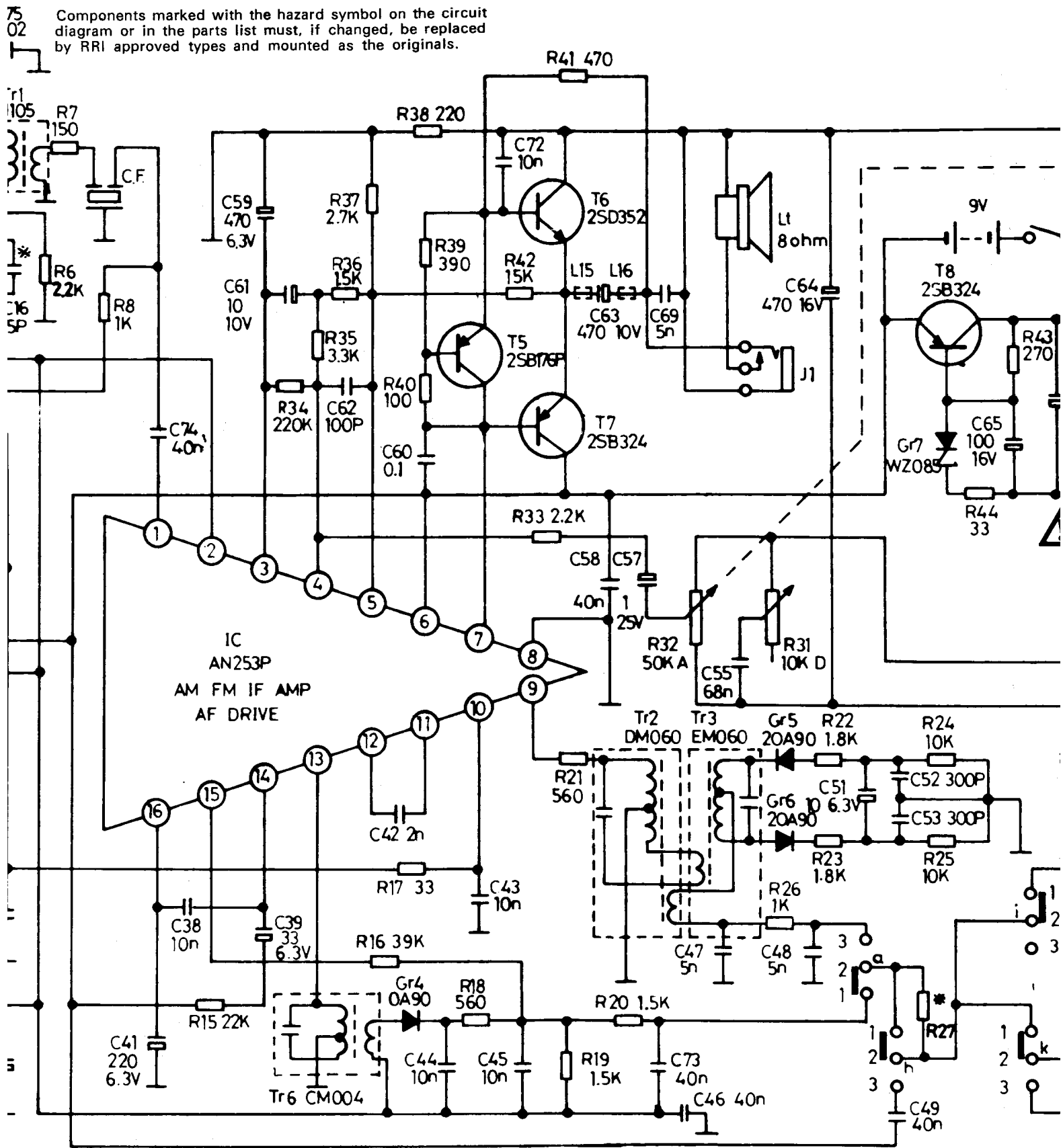
VIEWED FROM



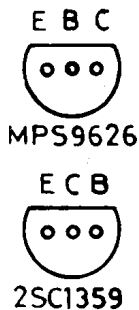
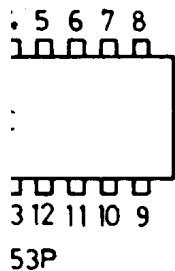
E B  
MPS9  
E C  
25C13

# CIRCUIT DIAGRAM

Components marked with the hazard symbol on the circuit diagram or in the parts list must, if changed, be replaced by RRI approved types and mounted as the originals.



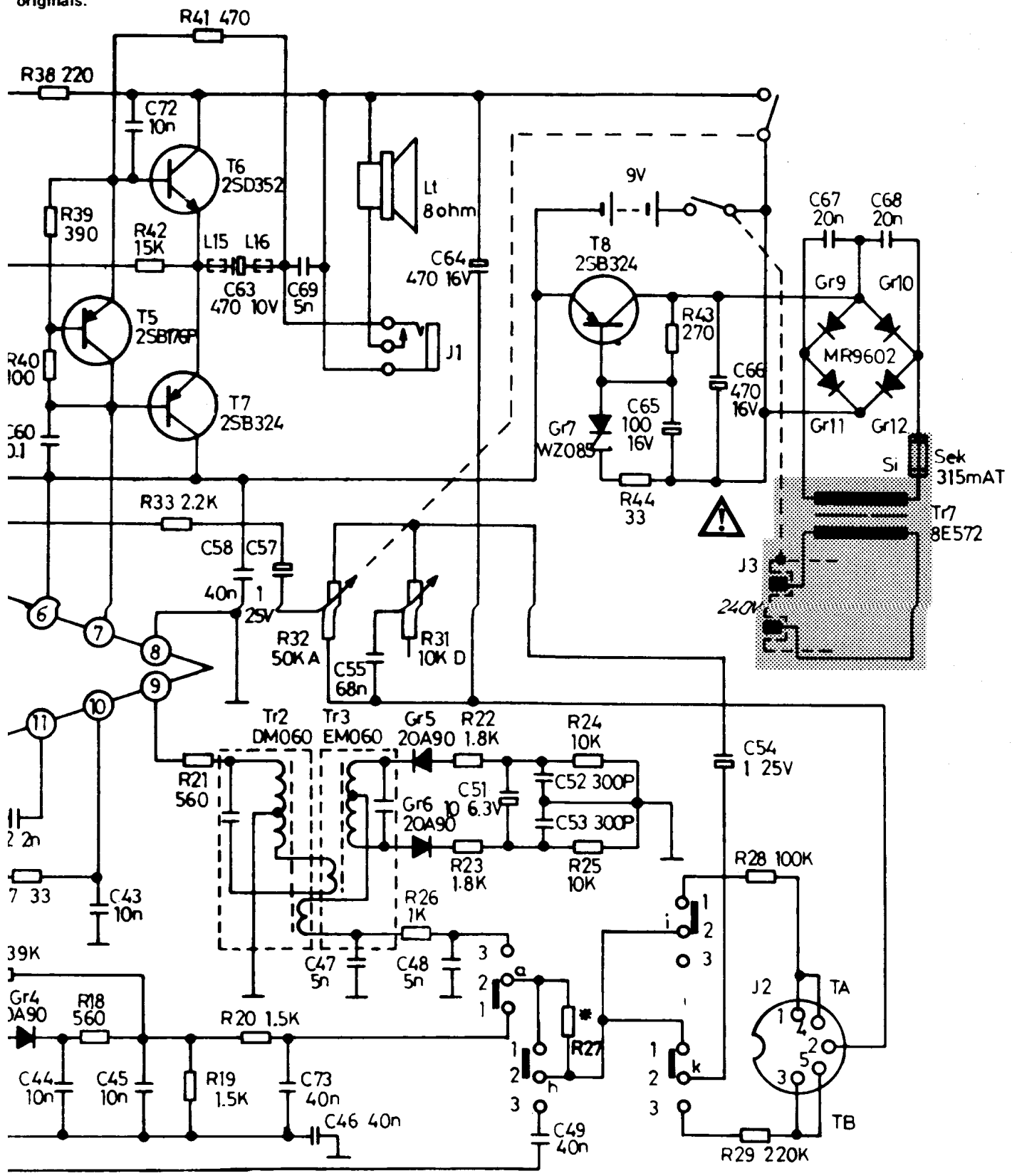
## VIEWED FROM BASE



### NOTE

1. ALL RESISTANCE VALUES ARE IN OHMS
2. ALL CAPACITANCE VALUES ARE IN FARADS
3. T.P: TEST POINT
4. ✱ VALUES MAY VARY FROM UNIT TO UNIT

on the circuit  
 1. be replaced  
 originals.



**NOTE**

1. ALL RESISTANCE VALUES ARE IN OHMS
2. ALL CAPACITANCE VALUES ARE IN FARADS
3. T.P: TEST POINT
4. \* VALUES MAY VARY FROM UNIT TO UNIT



# PARTS LIST MW5775

Components marked with the hazard symbol on the circuit diagram or in the parts list must, if changed, be replaced by RRI approved types and mounted as the originals.

All capacitors measured in Farads.

## CAPACITORS

Ref.	Description	Part Number
C1	7p0 ±0.5p Ceramic	9512 1262
C2	2p0 ±0.5p Ceramic	9512 1274
C3	30p 10% Ceramic	9512 1286
C4	25p 10% Ceramic	9512 1298
C5	5n0 20% Ceramic	9512 1304
C7	100p 10% Ceramic	9512 1316
C8	12p 10% Ceramic	9512 1328
C9	3p0 ±0.5p Ceramic	9512 1341
C11	30p 10% Ceramic	9512 1286
C12	200p 10% Ceramic	9512 1353
C13	5n0 20% Ceramic	9512 1304
C14	5p0 ±0.5p Ceramic	9512 1365
C15	60p 5% Ceramic	9512 1377
C16	5p0 ±0.5p Ceramic	9512 1365
C17	20n +80-20% Ceramic	9512 1389
C18	40p 10% Ceramic	9512 1390
C19	5p0 ±0.5p Ceramic	9512 1365
C20	60p 5% Ceramic	9512 1377
C21	10n 20% Ceramic	9512 1407
C22	20n +80-20% Ceramic	9512 1389
C23	3n0 5% Polystyrene	9512 1419
C25	2n0 20% Mylar	9512 1420
C26	10n 20% Mylar	9512 1432
C27	260p 5% Polystyrene	9512 1444
C28	22n 20% Mylar	9512 1456
C29	100p 10% Ceramic	9512 1316
C30	37p 10% Ceramic	9512 1468
C31	5p0 ±0.5p Ceramic	9512 1365
C32	60p 5% Ceramic	9512 1377
C33	2n0 20% Ceramic	9512 1481
C34	20n +80-20% Ceramic	9512 1389
C35	25p 10% Ceramic	9512 1298
C36	100p 10% Ceramic	9512 1316
C37	20n +80-20% Ceramic	9512 1389
C38	10n 20% Ceramic	9512 1407
C39	33μ 6v3 Electrolytic	9512 1493
C41	220μ 6v3 Electrolytic	9512 1511
C42	2n0 20% Ceramic	9512 1481
C43	40n +80-20% Ceramic	9512 1523
C44	10n 20% Mylar	9512 1432
C45	10n 20% Mylar	9512 1432
C46	40n +80-20% Ceramic	9512 1523
C47	5n0 20% Ceramic	9512 1304
C48	5n0 20% Ceramic	9512 1304
C49	40n +80-20% Ceramic	9512 1523
C51	10μ 6v3 Electrolytic	9512 1535
C52	300p 10% Ceramic	9512 1547
C53	300p 10% Ceramic	9512 1547
C54	1μ0 25v Electrolytic	9512 1559
C55	68n 20% Mylar	9512 1560
C57	1μ0 25v Electrolytic	9512 1559
C58	40n +80-20% Ceramic	9512 1523
C59	470μ 6v3 Electrolytic	9512 1572
C60	100n +80-20% Ceramic	9512 1584
C61	10μ 6v3 Electrolytic	9512 1535
C62	100p 10% Ceramic	9512 1316
C63	470μ 10v Electrolytic	9512 1596
C64	470μ 16v Electrolytic	9512 1602
C65	100μ 16v Electrolytic	9512 1614
C66	470μ 16v Electrolytic	9512 1602
C67	20n +80-20% Ceramic	9512 1389
C68	20n +80-20% Ceramic	9512 1389
C69	5n0 20% Ceramic	9512 1304
C70	33μ 6v3 Electrolytic	9512 1493
C72	10n 20% Ceramic	9512 1407
C73	40n +80-20% Ceramic	9512 1523
C74	40n +80-20% Ceramic	9512 1523
C75	20n +80-20% Ceramic	9512 1389

## CAPACITORS VARIABLE

Ref.	Description	Part Number
VC1	Tuning capacitor and trimmers	9512 0968
VC2	Fine tuning capacitor	9512 1006
TC3	Trimmer 1 gang	9512 0981
TC6/7	Trimmer 2 gang	9512 0993
TC8	Trimmer 1 gang	9512 0981

All resistors are Carbon Film 20% W25.

## RESISTORS

Ref.	Description	Part Number
R1	1k0	9512 1626
R2	5k6	9512 1638
R4	1k5	9512 1651
R5	5k6	9512 1638
R6	2k2	9512 1663
R7	150R	9512 1675
R8	1k0	9512 1626
R9	4k7	9512 1687
R11	1k8	9512 1699
R12	1k8	9512 1699
R13	4k7	9512 1687
R14	22R	9512 1705
R15	22k	9512 1717
R16	39k	9512 1729
R17	33R	9512 1730
R18	560R	9512 1742
R19	1k5	9512 1651
R20	1k5	9512 1651
R21	560R	9512 1742
R22	1k8	9512 1699
R23	1k8	9512 1699
R24	10k	9512 1754
R25	10k	9512 1754
R26	1k0	9512 1626
R27	100k	9512 1766
R29	220k	9512 1778
R31	10k Variable slider-Tone	9512 1018
R32	50k Variable rotary-Volume	9512 1043
R33	2k2	9512 1663
R34	220k	9512 1778
R35	3k3	9512 1791
R36	1k5	9512 1651
R37	2k7	9512 1808
R38	220R	9512 1821
R39	390R	9512 1833
R40	100R	9512 1845
R41	470R	9512 1857
R42	15k	9512 1869
R43	270R	9512 1870
R44	33R	9512 1730
R45	120R	9512 1882

## SEMI-CONDUCTORS

Ref.	Description	Part Number
IC	Integrated circuit-AN253P	9512 1134
T1	Transistor-MPS9626F	9512 1146
T2	Transistor-MPS9626G	9512 1250
T3	Transistor-2SC1359C	9512 1158
T4	Transistor-2SC1359C	9512 1158
T5	Transistor-2SB176P	9512 1171
T6	Transistor-2SD352	9512 1183
T7	Transistor-2SB324	9512 1195
T8	Transistor-2SB324	9512 1195
Gr1	Diode-MA161	9512 1201
Gr2	Diode-MA161	9512 1201
Gr3	Diode-OA90	9512 1213
Gr4	Diode-OA90	9512 1213
Gr5	Diode-2OA90	9512 1225
Gr6	Diode-2OA90	9512 1225
Gr7	Zener diode-WZ085	9512 1237
Gr9	Diode-MR9602	9512 1249
Gr10	Diode-MR9602	9512 1249
Gr11	Diode-MR9602	9512 1249
Gr12	Diode-MR9602	9512 1249

## INDUCTANCES

Ref.	Description	Part Number
L1	Choke	9512 0774
L2	FM coil	9512 0786
L3	FM coil	9512 0798
L4	Trap coil	9512 0804
L5	FM coil	9512 0816
L6	Trap coil	9512 0804
L7	SW aerial coil	9512 0841
L8/9	MW/LW ferrite aerial assembly	9512 0853



# PARTS LIST (continued)

## INDUCTANCES (continued)

Ref.	Description	Part Number
L10	SW oscillator coil	9512 0865
L11	MW oscillator coil	9512 0877
L12	LW oscillator coil	9512 0889
L13	Ferrite bead	9512 0890
L14	Ferrite bead	9512 0890
L15	Ferrite bead	9512 0890
L16	Ferrite bead	9512 0890
L17	Ferrite bead	9512 0828
Tr1	FM IF transformer	9512 0907
Tr2	FM IF transformer	9512 0919
Tr3	FM IF transformer	9512 0944
Tr4	AM IF transformer	9512 0920
Tr5	AM IF transformer	9512 0920
Tr6	AM IF transformer	9512 0932
Tr7	Mains transformer	△ 9512 0956

## MISCELLANEOUS ELECTRICAL COMPONENTS

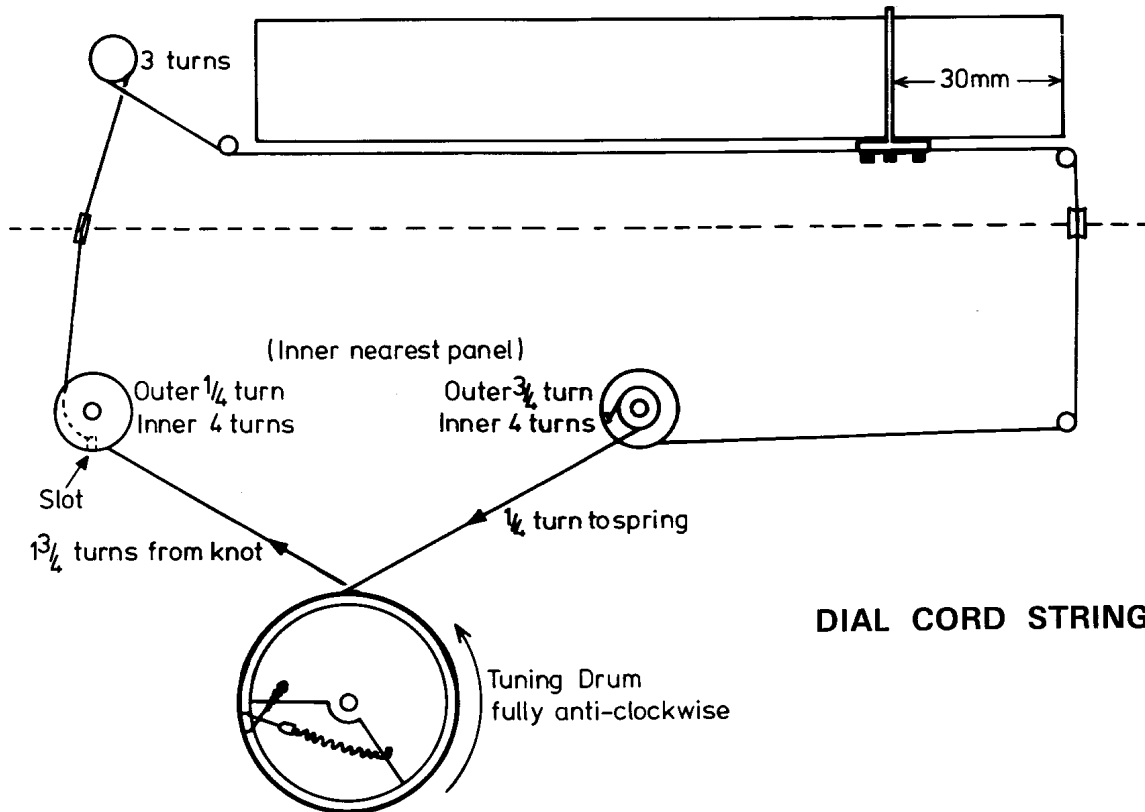
Description	Part Number
315mA thermal fuse	△ 9512 1110
Loudspeaker	9512 1067
Mains lead	△ 9512 2217
Earphone socket-3.5mm-J1	9512 1079
Auxillary socket-5 pin DIN-J2	9512 1080
Mains socket	△ 9512 1092
Wavechange switch	9512 1031
Telescopic aerial	9512 0221
Fuse holder	9512 0476
Earphone	9512 1122
Ceramic filter-CF	9512 1055

## MISCELLANEOUS MECHANICAL COMPONENTS

Description	Part Number
Tuning drum	9512 0324
Cord spring	9512 0373
Tuning shaft	9512 0415
Battery terminal plate-positive	9512 0385
Battery terminal plate-negative	9512 0397
Chassis	9512 0269
PCB only	9512 0762

## CABINET

Description	Part Number
Cabinet bottom assembly	9512 2229
Top escutcheon assembly	9512 2242
Knob-Volume	9512 0142
Knob-Tone	9512 0154
Knob-Fine tuning	9512 0166
Knob-Wavechange, Aux, MW, LW, SW or VHF	9512 0178
Handle assembly	9512 0177
Handle pivot	9512 0129
Battery case cover	9512 2230
Fuse cover	9512 0208
Tuning pointer assembly	9512 2254
Knob-Tuning	9512 0130



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