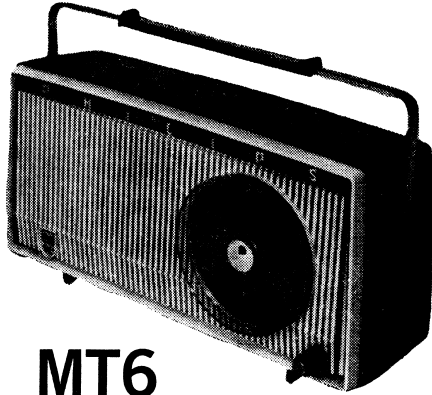
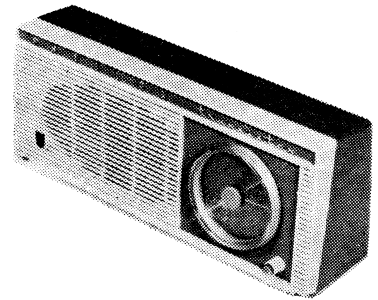


PHILIPS *Service*

notes



MT6



MT7

MODELS MT6 & MT7

SPECIFICATIONS

Tuning range	.....	520-1620 kc/s
Intermediate frequency	.....	455 kc/s
Power supply:		
MT6 (battery)	.....	Type 276P
MT7 (power pack)	.....	Type NP1480
Current consumption	.....	12.5 mA (no signal)

REMOVAL OF PRINTED BOARD—MT6

The rear portion of the case is held to the front portion by one screw. Remove the case back and the tuning handspan knob from the tuning capacitor shaft by unscrewing centre retaining screw. Remove volume knob taking care to support the printed board in order to prevent damage. Unsolder the connections to the speaker. Unscrew the three self tapping screws which mount the board, ease the rod aerial assembly from its mounting bracket and lift board together with rod aerial assembly clear. Refitting the board is a reversal of the above procedure.

REMOVAL OF PRINTED BOARD—MT7

Remove case rear which is held to front grille by three screws. Remove volume knob, also tuning handspan knob from tuning capacitor shaft by unscrewing centre retaining screw. Unsolder speaker connections. Ease aerial rod assembly from mounting bracket, unscrew four self tapping board mounting screws and lift board together with aerial rod assembly clear. Refitting the board is a reversal of the above procedure.

WARNING: Care should be taken to refit the volume knob with minimum pressure to avoid damage to printed board.

ALIGNMENT

The locations of the various trimming points used in alignment are shown in an inset drawing on the circuit diagram.

I.F. Alignment

Fully open tuning capacitor, put volume control at maximum, and apply signal generator at 455 kc/s, via I.F. dummy to TR1 base. Peak the cores of I.F. transformers (in the lower position) in order of I.F.T.3, I.F.T.2, and I.F.T.1. Recheck those adjustments.

R.F. Alignment

Fully close the tuning capacitor and position dial pointer to the stop mark of the dial scale. Put volume control at maximum. Apply signal generator through I.F. dummy with a 4K7, ½ watt carbon resistor in series, to TR1 base.

With tuning capacitor fully closed, peak oscillator coil at 520 kc/s (slug in top position). Fully open tuning capacitor and peak oscillator trimmer at 1620 kc/s. Repeat these adjustments.

Set dial pointer at 600 kc/s (7ZL) and peak aerial coil. Set dial pointer at 1500 kc/s (3AK) and peak aerial trimmer. Repeat these two adjustments until calibration is satisfactory.

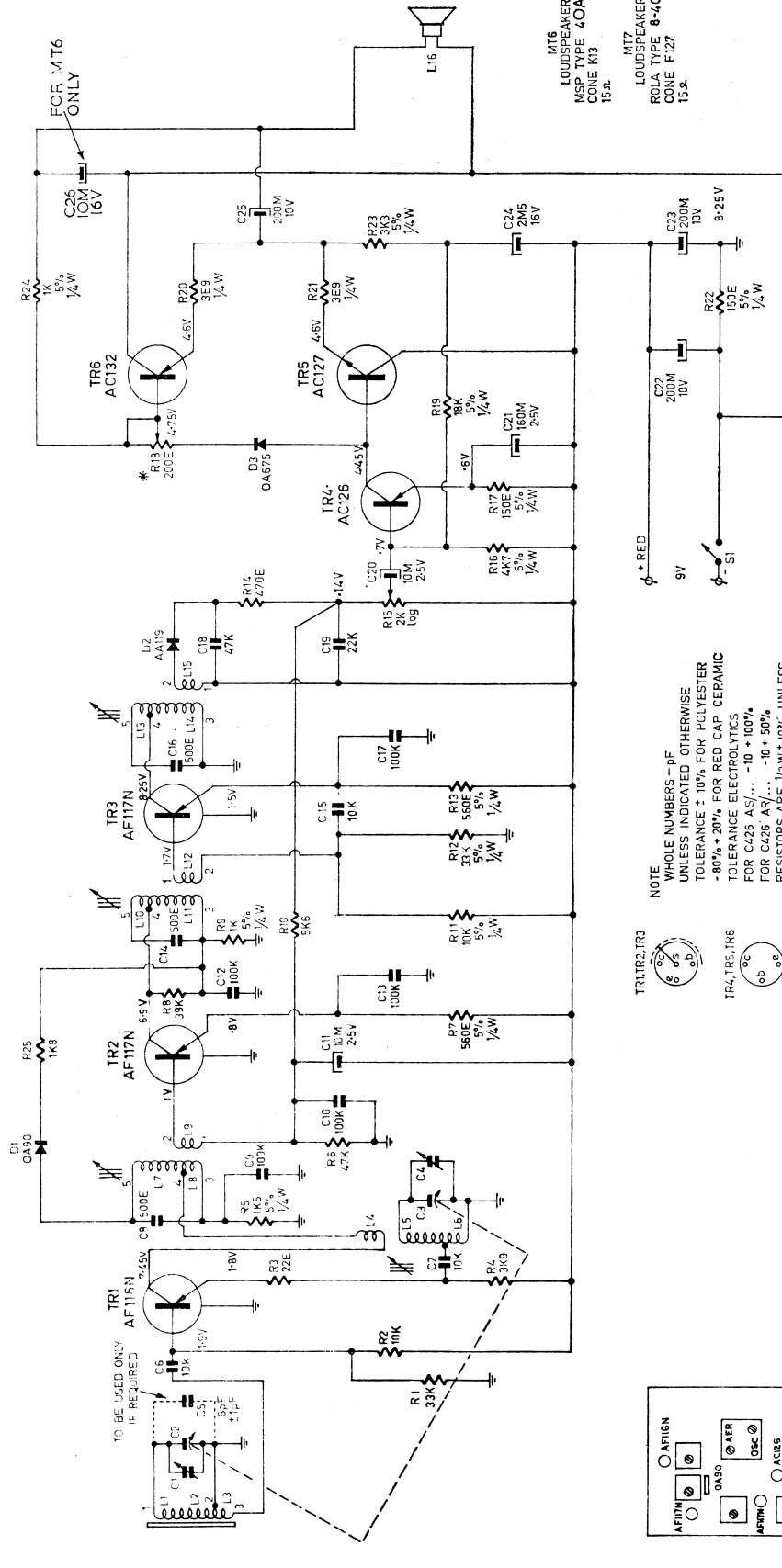
OUTPUT TRANSISTOR ADJUSTMENT

With no signal input, by means of R18, adjust output transistor collector current according to the following temperature table—

Temp. °F.	Ic (TR5/TR6)mA	Temp. °F.	Ic (TR5/TR6)mA
65	2.5	95	4.7
70	2.7	100	5.1
75	3.0	105	5.8
80	3.3	110	6.5
85	3.7	115	7.4
90	4.3		

MT6/MT7

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	25
L				4.5.5	7.8	9					10.11	12	13	14	15	16	17	18.19	20	21	22	23	25
C																							
R																							
TR																							



MT6
LOUDSPEAKER
MSP TYPE 40A
CONE K13
15.4

MT7
LOUDSPEAKER
ROLA TYPE 8-4C
CONE F127
15.4

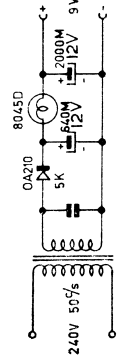


NOTE
WHOLE NUMBERS - μ F
UNLESS INDICATED OTHERWISE
TOLERANCE $\pm 10\%$ FOR POLYESTER
-80% $\pm 20\%$ FOR RED CAP CERAMIC
TOLERANCE ELECTROLYTICS
FOR C426 ASY... -10 $\pm 100\%$
FOR C425 ARY... -10 $\pm 50\%$
RESISTORS ARE $1/2W \pm 10\%$ UNLESS
SHOWN OTHERWISE

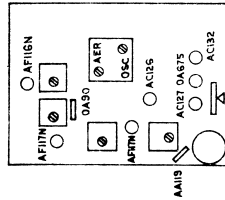
VOLTAGES MEASURED WITH VTVM
S1 IS MOUNTED ON VOLUME CONTROL

*ZERO SIGNAL COLLECTOR CURRENT TR5/TR6 IS SET BY MEANS OF R18 TO 3MA AT 75°F
COLLECTOR PNP: RED SPOT
COLLECTOR NPN: BLUE SPOT

POWER PACK NP1480



FOR MT7 ONLY



ELECTRICAL PARTS LIST

MT6/MT7

CAPACITORS				RESISTORS				INDUCTORS				
C. No.	DESCRIPTION	V.W.	TOL. ±%	TYPE OR CODE No.	R. No.	DESCRIPTION	W.	TOL. ±%	TYPE OR CODE No.	L. No.	DESCRIPTION	TYPE OR CODE No.
1,2	Tuning Capacitor			CZ.107.529	1	33K carbon	½	10	I.R.C. B.T.S.	1, 2, 3	Rod aerial assembly (green)	CZ.323.079
3,4	and trimmers				2	10K carbon	½	10	I.R.C. B.T.S.		Ferroxcube rod for above	CS.152.428
5	6E ceramic, pin up	—	1pF	C.322.BD/M6E	3	22E carbon	½	10	I.R.C. B.T.S.	4, 5, 6	Oscillator coil (brown)	CZ.323.063
6	10K Polyester	125	10	C.296.AA/A10K	4	3K9 carbon	½	10	I.R.C. B.T.S.	7, 8, 9	1st I.F. Transformer (white, green)	CZ.320.520
7	10K Polyester	125	10	C.296.AA/A10K	5	1K5 cracked carbon	¼	5	B8.305.05B/1K5	10, 11, 12	2nd I.F. Transformer (blue)	CZ.320.524
8	Part of 1st I.F.T.				6	47K carbon	½	10	I.R.C. B.T.S.	13, 14, 15	3rd I.F. Transformer (white, brown)	CZ.320.539
9	100K ceramic	25	+80—20	Ducon CDR	7	560E cracked carbon	¼	5	B8.305.05B/560E	16	MT6 Loudspeaker, MSP 40A, 15Ω	CZ.161.016
10	100K ceramic	25	+80—20	Ducon CDR	8	39K carbon	½	10	I.R.C. B.T.S.		MT7 Loudspeaker, Rola 8-4C, 15Ω	CZ.162.537
11	10M electrolytic	2.5		C.426.AS/A10	9	1K cracked carbon	¼	5	B8.305.05B/1K			
12	100K ceramic	25	+80—20	Ducon CDR	10	5K6 carbon	½	10	I.R.C. B.T.S.			
13	100K ceramic	25	+80—20	Ducon CDR	11	10K cracked carbon	¼	5	B8.305.05B/10K			
14	Part of 2nd I.F.T.				12	33K cracked carbon	¼	5	B8.305.05B/33K			
15	10K ceramic	25	+80—20	Ducon CDR	13	560E cracked carbon	¼	5	B8.305.05B/560E			
16	Part of 3rd I.F.T.				14	470E carbon	½	10	I.R.C. B.T.S.			
17	100K Polyester	125	10	C.296.AA/A100K	15	2K carbon potentiometer, log. taper (volume), S.P.S.T. rotary switch			E.088.ZZ/26			
18	47K ceramic	25	+80—20	Ducon CDR	16	4K7 cracked carbon	¼	5	B8.305.05B/4K7			
19	22K ceramic	25	+80—20	Ducon CDR	17	150E cracked carbon	¼	5	B8.305.05B/150E			
20	10M electrolytic	2.5		C.426.AS/A10	18	200E carbon trim potentiometer (bias adj.)			E.097.AC/200E			
21	160M electrolytic	2.5		C.426.AR/A160	19	18K cracked carbon	¼	5	B8.305.05B/18K			
22	200M electrolytic	10		C.426.AR/D200	20	3E9 metal oxide	¼	10	E.012.AC/3E9			
23	200M electrolytic	10		C.426.AR/D200	21	3E9 metal oxide	¼	10	E.012.AC/3E9			
24	2M5 electrolytic	16		C.426.AS/E2.5	22	150E cracked carbon	¼	5	B8.305.05B/150E			
25	200M electrolytic	10		C.426.AR/D200	23	3K3 cracked carbon	¼	5	B8.305.05B/3K3			
26	10M electrolytic (MT6 only)	16		C.426.AR/E10	24	1K cracked carbon	¼	5	B8.305.05B/1K			
					25	1K8 carbon	½	10	I.R.C. B.T.S.			

Note:—The interspersed letter system of value designation is used in parts lists and in the circuit drawing. M is used to indicate a multiplier of 10⁶, K for a multiplier of 10³ and E a multiplier of 1 and each indicator is appropriately placed in the position of the decimal point. Thus 6K8 = 6,800 and 3E9 = 3.9.

PARTS LIST FOR NP1480

DESCRIPTION	TYPE OR CODE No.
Power transformer	CZ.344.142
5K ceramic capacitor	CZ.097.568
640M electrolytic capacitor, 12V	Dual Ducon type
200M electrolytic capacitor, 12V	EDT5C. CZ.100.142

MT6/MT7

MECHANICAL PARTS LIST

DESCRIPTION	CODE No.	DESCRIPTION	CODE No.
MODEL MT6		MODEL MT7	
Badge—Philips	CS.436.548	Badge—Philips	S8.160.38
Cabinet assembly (consists of case back and handle securing bushes)—Red	CR.570.798	Cabinet assembly (consists of rear portion plus wedges glued in)—	
Grey	CR.570.862	Coral Rose	CR.574.194
Turquoise	CR.570.863	Gunmetal	CR.574.195
Charcoal	CR.570.864	Jenolan Blue	CR.574.196
Dial scale	CS.412.487	Claret	CR.574.197
Grille assembly (consists of grille, badge, dial scale and spacer)	CR.520.889	Dial scale	CS.412.492
Handle—carrying	CS.432.448	Grille assembly (consists of grille, decorative panel, badge, dial scale, spacers) to match cabinet colour—	
Handle grip	CS.432.452	Coral Rose	CR.520.888
Handle securing pin, 2x	CS.279.855	Gunmetal	CR.520.872
Handle pin retaining clip, 2x	CH.629.235	Jenolan Blue	CR.520.886
Knob—tuning	CR.523.579	Claret	CR.520.887
Knob—volume	CR.523.581	Standard grille assembly—gold	CR.520.890
Plug—battery	CZ.365.120	Knob—tuning	CS.432.566
	C/F 691-5-2	Knob—volume	CR.523.569
Screw—cabinet to grille	CH.058.160.0Y	Plug—battery	CZ.365.120
Screw—tuning knob ret.	CR.310.600		C/F 691-5-2
Screw—gang mounting, 2x	B.054.ED/2.6x4	Screw—cabinet to grille, 3x	CS.258.631
Spacer—tuning spindle	CS.284.068	Screw—gang mounting, 2x	B.054.ED/2.6x4
		Screw—tuning knob ret.	CR.310.600
		Spacer—tuning spindle	CS.284.057