

SERVICE INFORMATION FOR THE

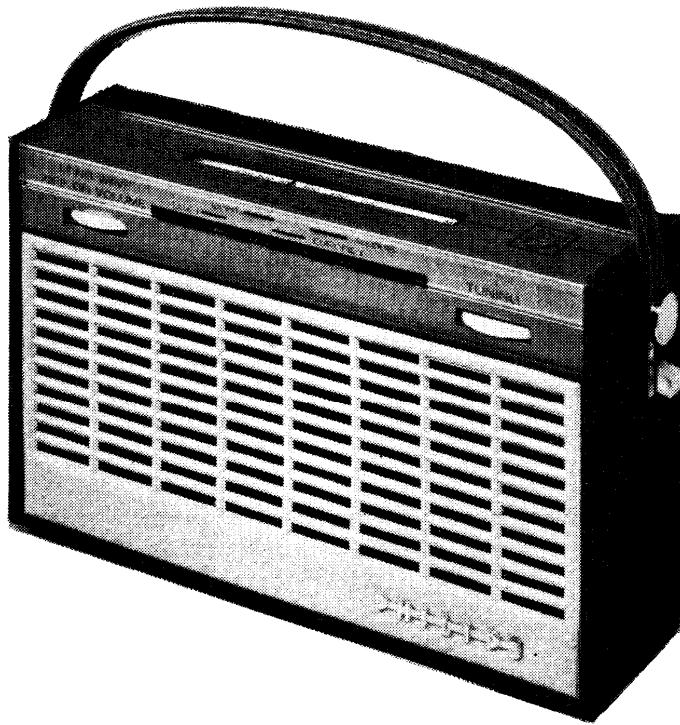
PHILIPS

Stella

L2G32T

ST427T

RADIO RECEIVERS



The L2G32T is a battery-operated portable receiver, incorporating a Continental Bandspread waveband in addition to the normal Medium and Long wavebands. Six transistors and two diodes are employed, and sockets are provided for the connection of a car radio aerial and an earphone. The moulded cabinet is in Atlantic blue or brown with a beige, padded front grille. The ST427T is electrically similar to the L2G32T, and has a two-tone grey cabinet with a dark blue scale.

SPECIFICATION

Semi-conductors and their functions

T1	AF117	Mixer and oscillator
T2	AF117	I.F. amplifier
T3	OC71	Detector
T4	OC81D	Driver
T5 } T6 }	OC81 } OC81 }	Push-pull output
X1	OA79	Damping diode

Loudspeaker	3" x 5" elliptical (15Ω impedance)
Output	500 mW
Supply voltage	9 volts D.C.
Battery	Ever Ready PP7, Vidor VT7 or equivalent
Consumption	15 m/A average (no signal)
Waveband ranges	M.W. — 200–535 m. L.W. — 1215–2000 m. B. — 180–214 m.

Dimensions (both models)	Height 5¼". Width 9⅝". Depth 3".
Weight (both models)	2½ lbs. approx. (including battery)

ISSUED BY:—

AMALGAMATED ELECTRIC SERVICES LTD.

WADDON FACTORY ESTATE

CROYDON

SURREY

Telephone: CROydon 7722

Grams: AMELSERVE CROYDON

DECEMBER, 1964

AES 398

DISMANTLING

Removing the cabinet

Place the receiver face down on a soft cloth, release the two captive retaining screws in the back, then lift off the cabinet backplate. To detach the chassis from the front moulding remove the two chassis screws, one either side of the printed panel. Detach the earphone socket from the side of the cabinet, remove the wave-change switch knob (pull out), withdraw the chassis, then unsolder the speaker leads.

Replacing the drive cord

Make up the new cord to the dimensions shown in Fig. 4. Turn the tuning drum to the fully clockwise position, then hook one end of the cord through the tension spring. Lead the cord clockwise round the drum 1 turn, keeping the tension spring fully extended, then pass up to pulley A (see Fig. 4). Lead the cord across to pulley B then back to the tuning knob. Wind the cord 2 turns anti-clockwise round the knob, then pass over pulley C, ½ turn clockwise round the tuning drum and hook the cord end over the tension spring. Allow the tension spring to take up any slackness in the cord then check that no slipping occurs when the tuning knob is rotated.

Pointer setting

Turn the tuning knob to the fully anti-clockwise position (gang closed) then align the pointer over the notch in the diffusion screen.

TRIMMING INSTRUCTIONS

General

- (a) Output should be observed on an output meter set for 15Ω load, trimming level 50 mW. Alternatively, an A.C. voltmeter (2.5 v. range) with a 15Ω resistor in parallel may be used, trimming level 1 v. Disconnect the loudspeaker and set the volume control to maximum.

- (b) When trimming the aerial circuits, a convenient coupling between the generator and receiver may be made by winding a loop of insulated wire around the receiver. A low impedance output from the generator should be connected to this coil.

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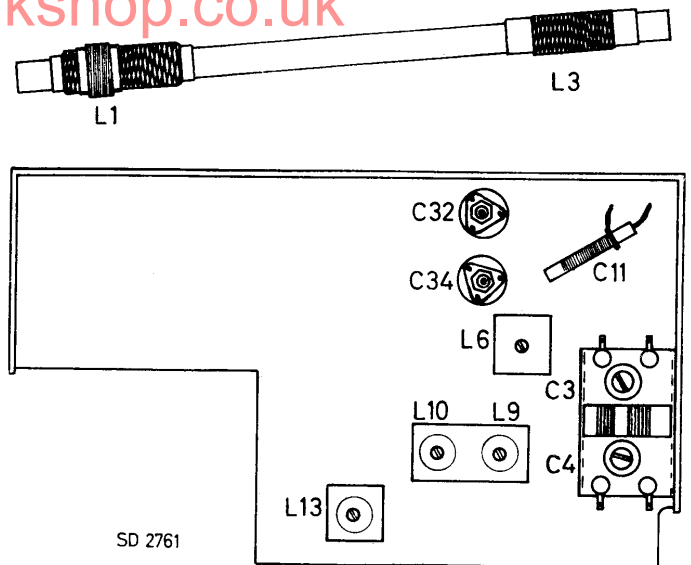


Fig. 1 TRIM PLAN

ALIGNMENT TABLE

Switch to:—	Set gang to:—	Injection point	Sig. Gen. Freq.	Adjust
I.F. ALIGNMENT				
M.W.	Minimum	Aerial side of C7 via 470Kpf cap.	470 Kc/s	L13-max. output
"	"	" "	"	L10 " "
"	"	" "	"	L9 " "
M.W. ALIGNMENT				
M.W.	Maximum	" "	535 Kc/s	L6 " "
"	Minimum	" "	1500 Kc/s	C4 " "
"	600 Kc/s	via coupling loop	600 Kc/s	L3 " "
"	1300 Kc/s	" "	1300 Kc/s	C3 " "
Repeat as necessary				
L.W. ALIGNMENT				
L.W.	Maximum	Aerial side of C7 via 470Kpf cap.	145 Kc/s	C11 " "
"	190 Kc/s	via coupling loop	190 Kc/s	L1 " "
Repeat as necessary				
BANDSPREAD ALIGNMENT				
B.W.	Maximum	Aerial side of C7 via 470Kpf cap.	1400 Kc/s	C32 " "
"	1438 Kc/s	via coupling loop	1438 Kc/s	C34 " "
Repeat as necessary				

L	15 17 16.	18.	1.	2.																		4.	3.		19.			
C	23.				5.																				20.		3.	
R	28.	23.	22.	14.	26.	27.	24.	19.	18.	15.	17.	10.	7.													2.	1.	4.

COIL RESISTANCES > I_n

L1	6.5 Ω	L15	220 Ω
L3	1.5 Ω	L16	60 Ω
L6	3.5 Ω	L17	60 Ω
L9	2 Ω	L18	15 Ω
L11	3.5 Ω	L19	12 Ω
L13	1.5 Ω	L20	75 Ω

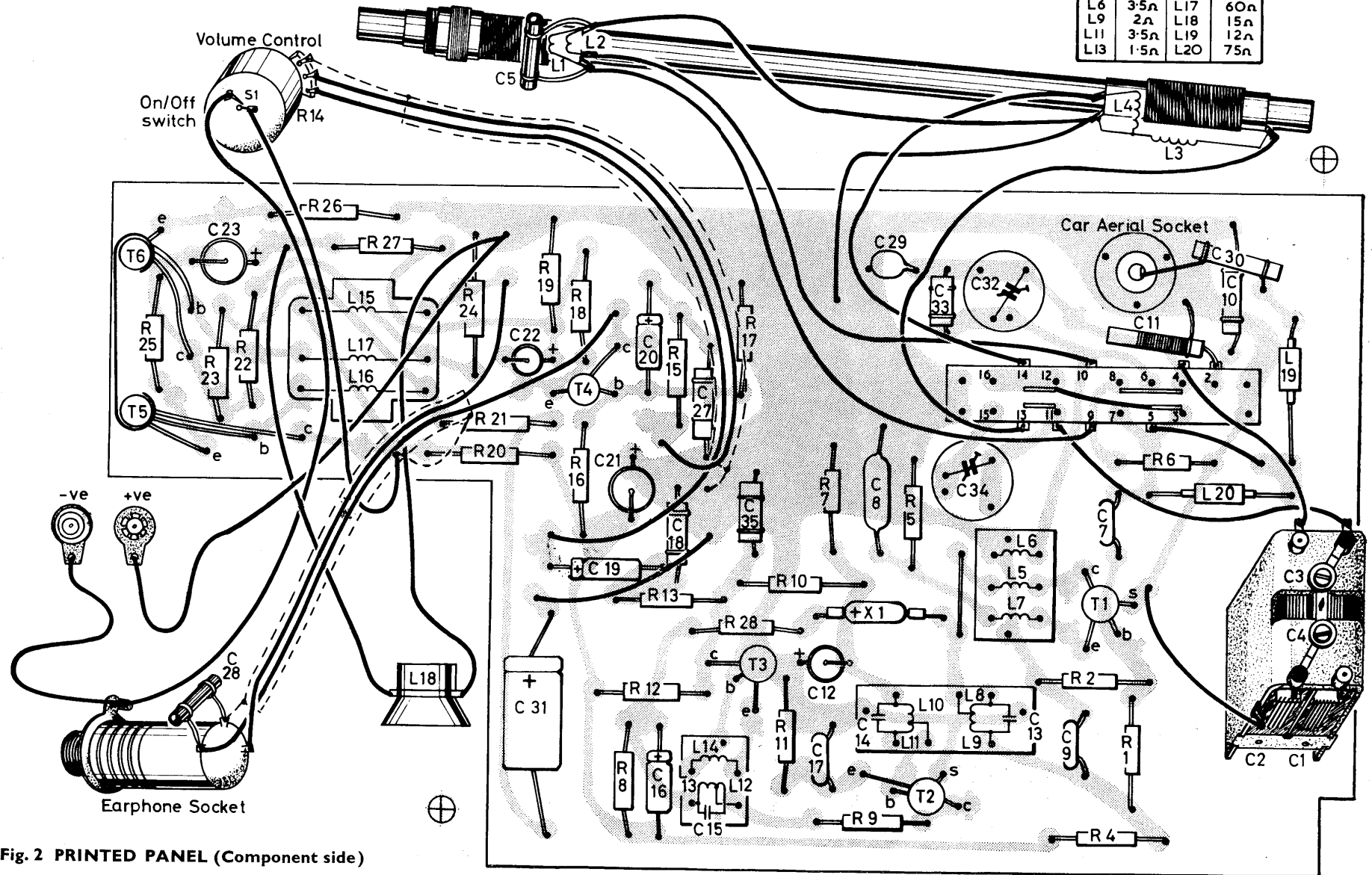


Fig. 2 PRINTED PANEL (Component side)

L	19.	20.	3.	4.	5.	9.	10.	13.	16.	L																			
C	30.	34.	1.	2.	8.	13.	33.	32.	14.	12.	16.	15.	17.	28.	31.	23.	R												
R	1.	3.	5.	9.	7.	8.	29.	2.	4.	10.	11.	12.	16.	15.	17.	21.	20.	27.	22.	28.	18.								
					1.	2.	5.	4.	28.	6.	7.	8.	9.	11.	10.	12.	13.	14.	15.	17.	18.	19.	23.	22.	24.	21.	25.	26.	27.

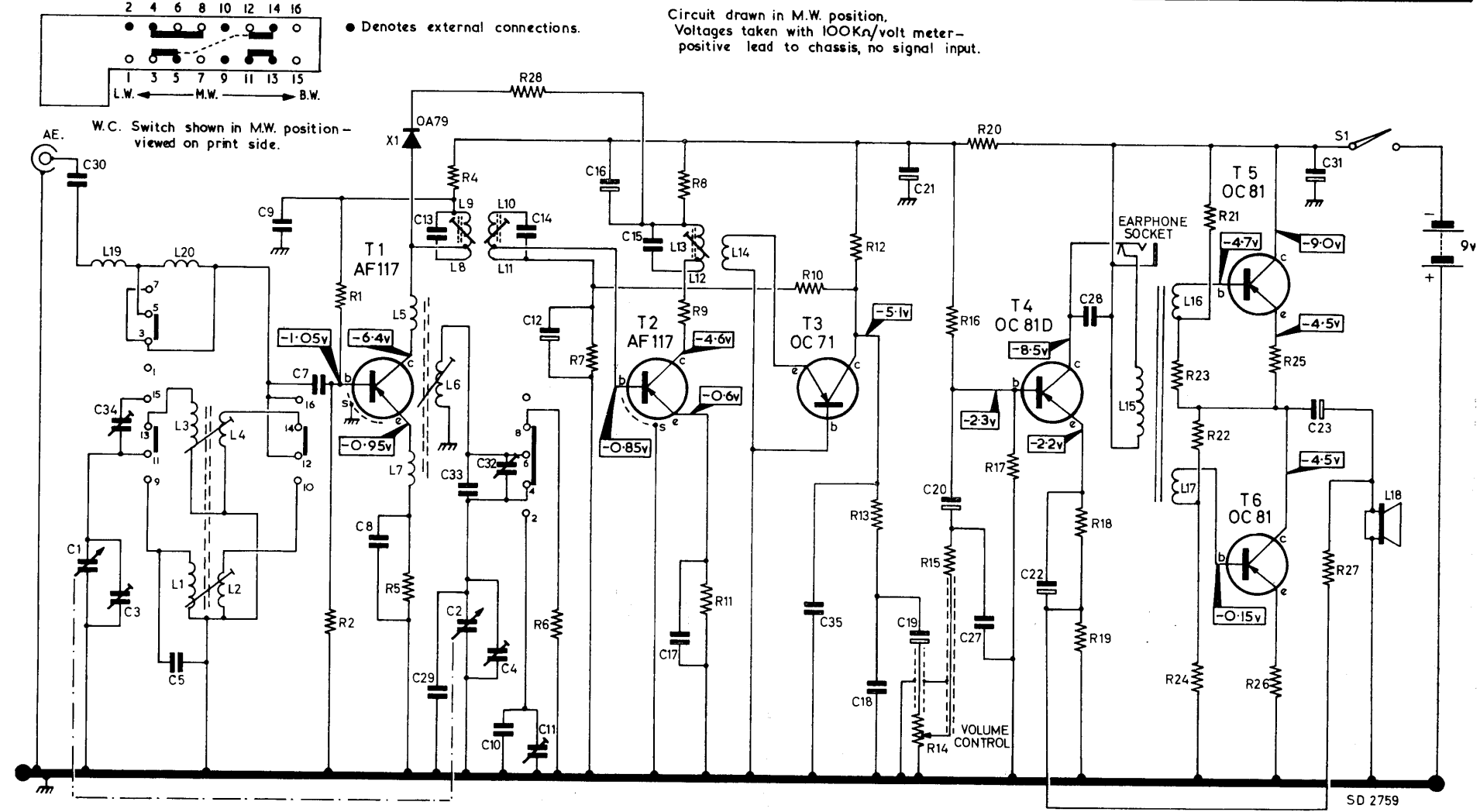


Fig. 3 CIRCUIT DIAGRAM

CAPACITORS				RESISTORS											
C1-4 ...	Gang	C13 ...	200pF	C21 ...	160uF	C32 ...	3-30pF	R1 ...	3.3K	R9 ...	180	R17 ...	18K	R25 ...	3.3
C5 ...	56pF	C14 ...	200pF	C22 ...	80uF	C33 ...	18pF	R2 ...	6.8K	R10 ...	47K	R18 ...	1K	R26 ...	3.3
C7 ...	10KpF	C15 ...	91pF	C23 ...	160uF	C34 ...	3-30pF	R4 ...	1.5K	R11 ...	270	R19 ...	15	R27 ...	2.2K
C8 ...	18KpF	C16 ...	10uF	C27 ...	4.7KpF	C35 ...	8.2KpF	R5 ...	1K	R12 ...	27K	R20 ...	270	R28 ...	820
C9 ...	0.1uF	C17 ...	0.1uF	C28 ...	10KpF		or 3.9KpF	R6 ...	82K	R13 ...	4.7K	R21 ...	2.2K		
C10 ...	180pF	C18 ...	3.9KpF	C29 ...	3pF			R7 ...	10K	R14 (V/C)	47K	R22 ...	2.2K		
C11 ...	100pF	C19 ...	4uF	C30 ...	10KpF			R8 ...	1.5K	R15 ...	470	R23 ...	82		
C12 ...	25uF	C20 ...	4uF	C31 ...	640uF				or 1.8K	R16 ...	39K	R24 ...	82		

SD 2759

STATION SCALE AND DRIVE ASSEMBLY

Scale and escutcheon assembly—silver	} (L2G32T)	MK.843.12
Scale and escutcheon assembly—silver/gold		MK.843.01
Scale and escutcheon assembly—grey (ST427T)		MK.843.14
Clip for scale		MK.991.57
Escutcheon only—silver	} L2G32T	MK.992.84
Escutcheon only—gold		MK.992.72
Escutcheon only—(ST427T)		MK.992.86
Diffusion screen (L2G32T)		MK.338.33
Diffusion screen (ST427T)		MK.843.16
Pointer (L2G32T)		MK.841.70
Pointer (ST427T)		3113.108.00430
Drive cord		K.299.ZZ/923
Tension spring for drive cord		MK.740.56
Drive drum		MK.963.15
Small pulley (3)		A3.680.02
Pin (1)	} for small pulley	MK.617.46
Retaining ring (3)		B.108.AF/1.9
Bracket and pulley assembly		MK.838.84
Screw for bracket assembly		B.070.AD/5N × $\frac{1}{8}$
Screw (3)	} for gang mounting	B.808.AD/4N × $\frac{1}{8}$
Washer (3)		B.053.AD/4

PRINTED PANEL ASSEMBLY

Printed panel	MK.841.71
Screw for printed panel (4)	B.070.AD/5N × $\frac{1}{8}$
Solder tags (9)	A3.320.38
Sleeving	K.558.LB/size
Insulating beads (2)	MK.117.66

CORES FOR COILS

L1-L4 (aerial rod)	MK.425.19
L5-7, L8-11, L12-14	K5.120.00

CAPACITORS

Type	Value pF	
C1-4 Gang		MK.211.33
C5 Ceramic	56pF	C.304.GB/D56E
C7 Foil	10,000pF	C.280.AA/P10K
C8 Polyester	18,000pF	906/L18K
C9 Foil	0.1uF	C.280.AA/P100K
C10 Ceramic	180pF	C.304.GH/A180E
C11 Trimmer	100pF	49.005.51/100
C12 Elco	25uF	C.426.CE/F25
C13	200pF	} In L8-11
C14	200pF	
C15	91pF	} In L12-14
C16 Elco	10uF	
C17 Foil	0.1uF	C.426.AR/E10
C18 Ceramic	3,900pF	C.280.AA/P100K
C19 Elco	4uF	C.301.GA/H3K9
C20	4uF	C.426.AR/G4
C21	160uF	C.426.CE/D160
C22	80uF	C.426.CE/C80
C23	160uF	C.426.CE/D160
C27 Ceramic	4,700pF	C.301.GA/H4K7
C28	10,000pF	C.301.GB/H10K
C29	3pF	C.322.BD/M3E
C30	10,000pF	C.301.GB/H10K
C31 Elco	640uF	C.435.AL/D640
C32 Trimmer	3-30pF	C.005.CC/30E
C33 Ceramic	18pF	C.304.GC/A18E
C34 Trimmer	3-30pF	C.005.CC/30E
C35 Ceramic	8,200pF	C.301.BA/H8K2
C35 (Some sets only)	3,900pF	C.301.GA/H3K9

TRANSISTORS AND DIODES

T1	AF117
T2	AF117
T3	OC71
T4	OC81D
T5	OC81
T6	OC81
X1	OA79

COILS AND TRANSFORMERS

L1-L4	Rod aerial complete	MK.820.91
L1/L2	L.W. aerial coil	MK.571.52
L3/L4	M.W. aerial coil	MK.571.68
L5-7	Oscillator coil	MK.571.61
L8-11	1st. bandpass I.F. coil	MK.570.24
L12-14	I.F. detector coil	MK.570.27
L15-17	Driver transformer	MK.516.61
L18	Loudspeaker	AD.2351PY
L19	Aerial choke	MK.550.29
L20	Aerial choke L.W.	MK.550.50

ACCESSORIES

Earphone	AF.9120/10
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This accessory must be ordered from the General Sales Division of the Company concerned:—

PHILIPS ELECTRICAL LTD.

Beddington Farm Road,
Croydon, Surrey.

STELLA RADIO & TELEVISION CO., LTD.

Beddington Farm Road,
Croydon, Surrey.

(Stella Retailers should order accessories through their Appointed Wholesalers.)

RESISTORS

Type	Value Ω	
R1	3,300Ω	48.426.10/33K
R2	6,800Ω	48.426.10/6K8
R4	1,500Ω	48.426.10/1K5
R5	1,000Ω	48.426.10/1K
R6	82,000Ω	48.426.10/82K
R7	10,000Ω	48.426.10/10K
R8	1,500Ω	48.426.10/1K5
R8 (Some sets only)	1,800Ω	48.426.10/1K8
R9	180Ω	48.426.10/180E
R10	47,000Ω	48.426.10/47K
R11	270Ω	48.426.10/270E
R12	27,000Ω	48.426.10/27K
R13	4,700Ω	48.426.10/4K7
R14 Volume (with S.I.)	47,000Ω	E.088.AA/15B07
R15	470Ω	48.426.10/470E
R16	39,000Ω	48.426.10/39K
R17	18,000Ω	48.426.10/18K
R18	1,000Ω	48.426.10/1K
R19	15Ω	48.426.10/15E
R20	270Ω	48.426.10/270E
R21	2,200Ω	48.426.05/2K2
R22	2,200Ω	48.426.05/2K2
R23	82Ω	48.426.05/82E
R24	82Ω	48.426.05/82E
R25	3.3Ω	B8.031.05A/3E3
R26	3.3Ω	B8.031.05A/3E3
R27	2,200Ω	48.426.10/2K2
R28	820Ω	48.426.10/820E