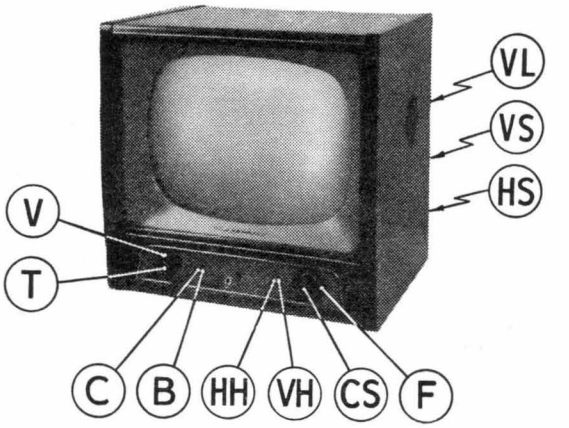
PHILIPS

Television Receiver

MODEL 21 TT 205/01



SPECIFICATION

Channel Selector

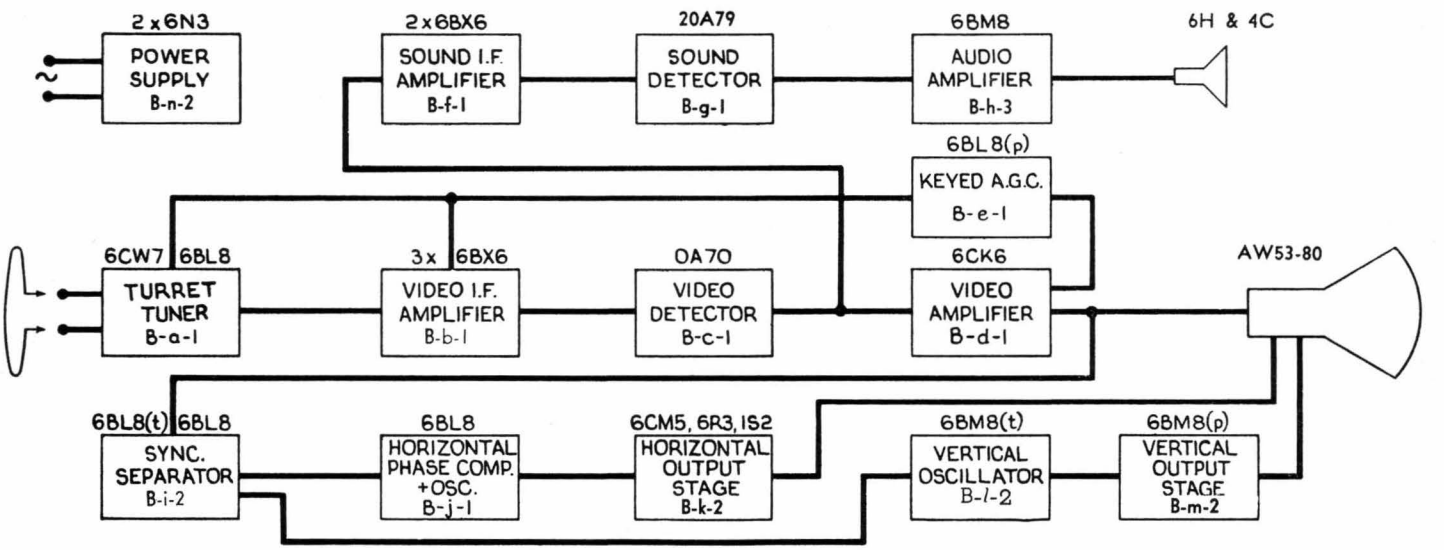
Channel 1 - - - - - -	49 - 56 Mc/s
" 2 - - - - - -	63 - 70 Mc/s
" 3 - - - - - -	85 - 92 Mc/s
" 4 - - - - - -	132 - 139 Mc/s
" 5 - - - - - -	139 - 146 Mc/s
" 6 - - - - - -	174 - 181 Mc/s
" 7 - - - - - -	181 - 188 Mc/s
" 8 - - - - - -	188 - 195 Mc/s
" 9 - - - - - -	195 - 202 Mc/s
" 10 - - - - - -	209 - 216 Mc/s
" 11 - - - - - -	Reserved
" 12 - - - - - -	Reserved

Aerial input impedance -	300 ohm
Turret tuner - - - - -	Type AT7580
Video I.F. - - - - - -	36 Mc/s
Sound I.F. - - - - - -	30.5 Mc/s
Supply voltage - - -	190, 215, 240V AC
Power consumption - -	150 watts, approx.
Picture tube (21") - - -	Type AW53-80
" " focus - - -	Electrostatic
" " deflection -	Magnetic
Deflection unit - - - -	Type AT1007/T10
Horizontal output transformer	Type AT2002
Loudspeaker (6") - - -	Rola type 6H
" (4") - - -	Rola type 4C
Dimensions (cabinet) - -	24$\frac{7}{8}$"w. x 24$\frac{1}{8}$"h. x 20"d.
Weight, packed/unpacked -	140 lbs./114 lbs.

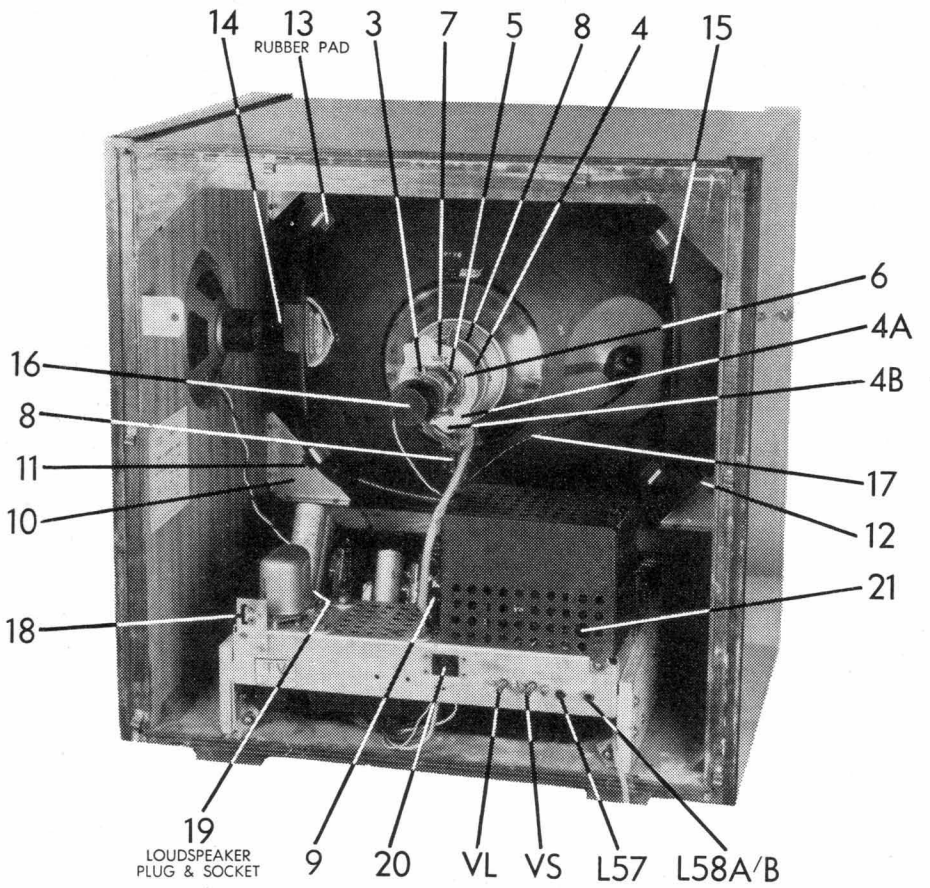
IDENTIFICATION

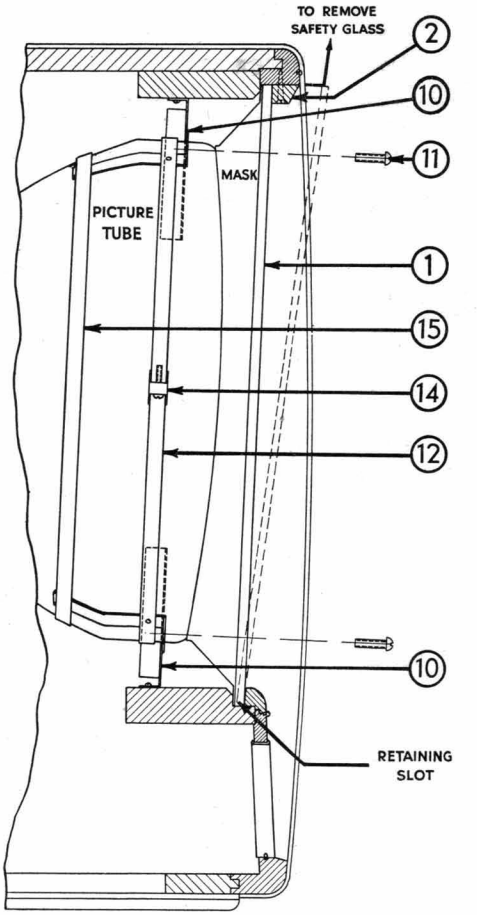
V - Sound Volume
T - Tone plus On/Off Switch
C - Contrast
B - Brightness
HH - Horizontal Hold
VH - Vertical Hold
CS - Channel Selector
F - Fine Tuning
HS - Horizontal Size
VS - Vertical Size
VL - Vertical Linearity

BLOCK DIAGRAM



For details of Blocks refer "Service Handbook"





1. Glass, p. tube, protective
2. Rail, retaining (for above)
3. Magnet, ion trap
4. Housing assy., defl. unit
4a. "Ear", centre adjusting
4b. "Ear", centre adjusting
5. Bracket, clamping
6. Screw, knurled
7. Plate, square, locating
8. Bracket, p. tube earthing
9. Lead—and plug assy., defl. unit
10. Bracket, corner (x4)
11. Screw, p. tube mounting
12. Strap assy., front
13. Pad, rubber (x4)
14. Brkt., clamping—strap assy., front
15. Strap, rear
16. Socket, p. tube
17. E.H.T. lead
18. Socket, aerial
19. Plug, speaker
20. Plug, v. selector
21. Select. switch, horiz. size

CHASSIS, MASK, SAFETY GLASS, PICTURE TUBE, AND KNOB REMOVAL

TO REMOVE CHASSIS FROM CABINET

Remove cabinet back panel and extract the two bolts securing chassis cradle to cabinet base.

Disconnect the loudspeaker plug (19), deflection yoke plug (9), picture tube socket (16) and E.H.T. lead (17). The chassis, complete with knob panel, may now be withdrawn from the cabinet. Do not remove knobs to withdraw chassis.

When replacing chassis ensure that mains lead does not entangle and is in the correct position relative to adjacent chassis mounting bracket.

TO REMOVE MASK AND SAFETY GLASS PLATE

Remove the three wood screws securing glass retaining rail (2) to cabinet, and ease top of safety glass forward until edge is just clear of cabinet. Note that free hinge movement in glass locating slot is limited, and if exceeded will result in damage to cabinet.

The safety glass, complete with mask (attached at top edge), may now be lifted clear of cabinet.

Refitting procedure is the reverse of removal, but in all cases careful handling of safety glass in avoiding edge contact with polished surfaces of cabinet is necessary.

TO REMOVE PICTURE TUBE

The method of mounting picture tube in this receiver provides for withdrawal from the front of cabinet.

Chassis removal, although not essential for withdrawal of picture tube, is recommended.

Follow procedure for withdrawal of chassis and remove safety glass, together with mask, as described previously. Remove ion trap magnet (3), employing a semi-rotary action. Loosen the knurled screw (6) of securing bracket (5) and slowly withdraw the complete deflection and earthing strip assembly, again employing a semi-rotary action, while simultaneously supporting weight of unit.

Carefully rest cabinet face upwards on a suitable raised platform, providing adequate (not less than 2") protective clearance for protruding picture tube neck and also the preset controls VS and VL if chassis has been left in position.

Extract the four corner bracket screws (11), and with care lift picture tube, complete with front (12) and rear (15) supporting straps, clear of cabinet. Note that the two brackets (14) joining the upper and lower sections of front strap must line up with the slots in the cabinet.

At all times the weight of the picture tube should be supported at the screen. In no circumstances must the neck be subjected to undue stress.

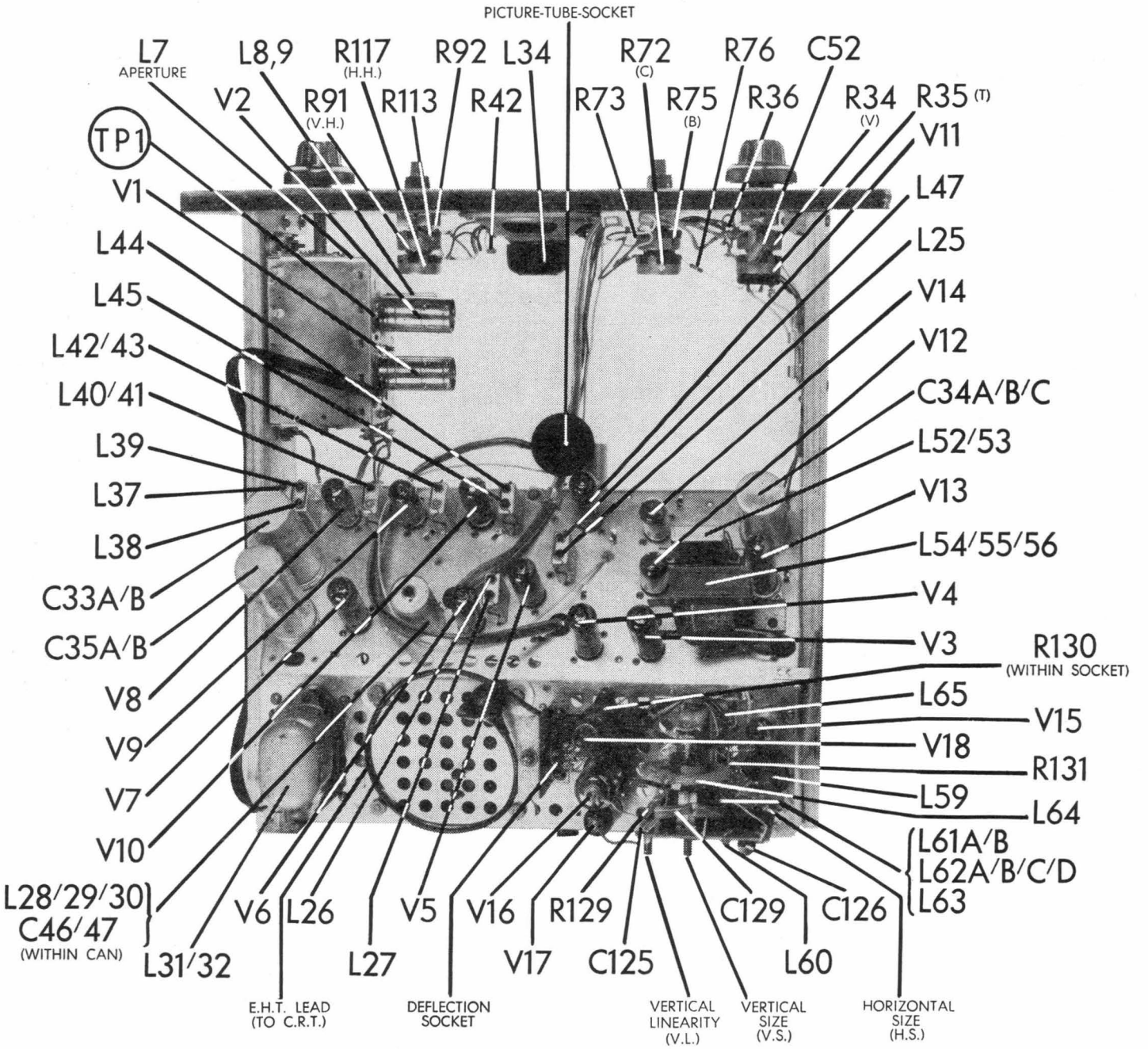
Procedure is reversed when refitting.

NOTE—Safety goggles must be worn at all times during the handling of picture tube.

KNOB REMOVAL

All front knobs are push fitted, and when necessary may be removed by carefully pulling from spindle in the conventional manner. The location moulding inside channel selection knob is, however, fixed to spindle by means of a 3 mm. grub screw, which must be completely withdrawn. Note relative grub screw/knob pointer position for correct channel indication.

ABOVE CHASSIS VIEW



RECENT MODIFICATIONS

Minor changes incorporated in later versions of receiver affect audio amplifier and video amplifier sections of circuit as follows:

AUDIO AMPLIFIER

Resistance value of R43 in 205V line to V7 increased from 1,500 ohms to 2,700 ohms and resistor R41 (560 ohms) deleted to effect a slight reduction in screen dissipation while retaining original operating characteristic of amplifier.

CAPACITOR STYLE CHANGE

Bead type N750 ceramicon capacitors replace original style A in positions C79 and C80. Capacitance value, tolerance and rating remain unchanged.

ALIGNMENT PROCEDURE

RATIO DETECTOR

Connect V.T.V.M. (10V DC range) to TP3 and chassis.
Apply an unmodulated 5.5 Mc/s signal to TP2.
Unscrew core of L30 (under chassis) until flush with former.
Proceed as follows:

Align	V.T.V.M. Deflection	V.T.V.M. Connected to Test Point
L28/29 (top)	Peak and adjust input to obtain 10V reading	TP3
L30	With input setting as above adjust for 2V reading	TP4
—	Re-adjust input signal to obtain 6V reading	TP3
L30	With input setting unaltered adjust for 3V reading	TP4

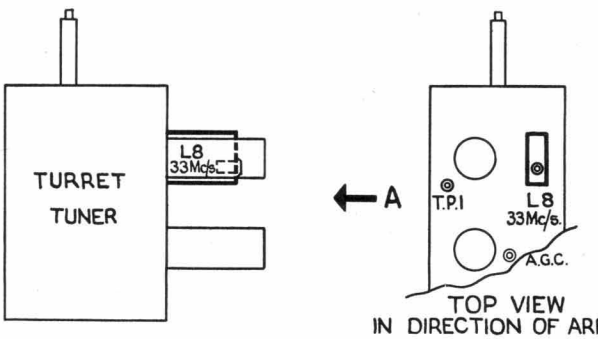
Repeat last two steps until DC potential at TP4 is half that at TP3.

SOUND I.F.

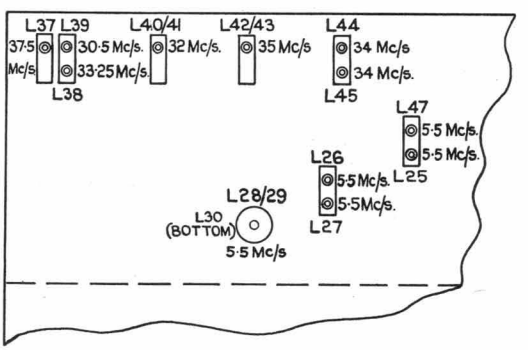
Switch channel selector to position 11 or 12.
Connect V.T.V.M. (10V DC range) to TP3.
Apply an unmodulated 5.5 Mc/s signal to TP.7.
Connect damping network (470 ohms + 1,500 pF in series) across L26 and peak L27.
Transfer damping network to position across L27 and peak L26.
Remove damping network and peak L25.
To check overall sound response curve:
Connect C.R.O. to TP4 and apply sweep signal (5.5 Mc/s FM ± 2 Mc/s deviation) to TP7.
Check that "S" curve is straight each side of 5.5 Mc/s marker.

5.5 Mc/s SOUND TRAP

Connect TP8 to TP2 via 1,500 pF condenser and connect a V.T.V.M. (3V DC range) to TP3 and chassis.
Apply a 5.5 Mc/s unmodulated signal to TP7 and adjust L47 for minimum V.T.V.M. deflection.



DO NOT ATTEMPT ANY ALIGNMENT ADJUSTMENT ON TURRET TUNER OTHER THAN TO L7 & L8.



Location Diagram—Above Chassis Alignment

VIDEO I.F.

Switch channel selector to position 11 or 12.

Apply 2 volts negative to TP5 and TP6 (positive to chassis).

Connect filter network of 10,000 ohms and 1,500 pF in series from TP8 to chassis (condenser to chassis) and connect V.T.V.M. (3V A.C. range) to filter condenser.

Set "Contrast" to maximum and "Brightness" to minimum.

Unscrew L8 core (on tuner) until flush to former and apply a 30% AM signal to TPI (on tuner) as follows:

Set Signal Freq. to:	Connect Damping Network (470 ohms + 1,500 pF in series) Across:	Adjust Core of:	For V.T.V.M. Deflection:
34.0 Mc/s	L45	L44	Peak
"	L44	L45	"
35.0 Mc/s	—	L42/43	"
32.0 Mc/s	—	L40/41	"
33.25 Mc/s	—	L38	"
33.0 Mc/s	L38	L8	"
30.5 Mc/s	—	L39	Minimum
37.5 Mc/s	—	L37	"

Note—In order to avoid overloading, keep signal voltage at minimum consistent with adequate V.T.V.M. deflection.

Check video I.F. response curve by connecting CRO to filter condenser in place of V.T.V.M. and applying a sweep signal (33 Mc/s FM ± 5 Mc/s deviation) to TPI.

Adjust input signal to obtain a peak to peak output of 45 volts. Wave-form should closely resemble the typical response curve shown below. Where necessary modify curve shape by re-adjusting L8, L38, L40/41 and L42/43 cores. If spot alignment is correct re-adjustment of L44 and L45 cores will not be necessary. Initial setting of cores L37 and L39 must not be altered.

HORIZONTAL OSCILLATOR AND FLYWHEEL COIL

Connect CRO via 15,000 ohms resistor to TP9 and set sweep control (time base) to half the line frequency.

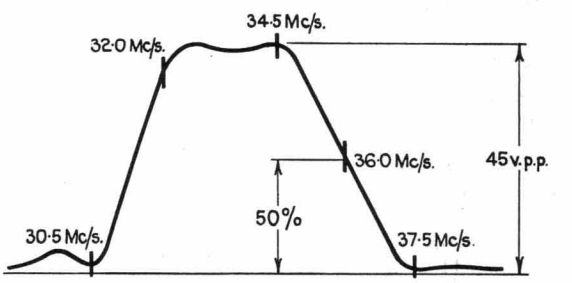
Apply picture signal to receiver aerial terminal and set horizontal hold control to the central position.

Unscrew core of L57 until flush with former and synchronise picture by adjusting core of L58.

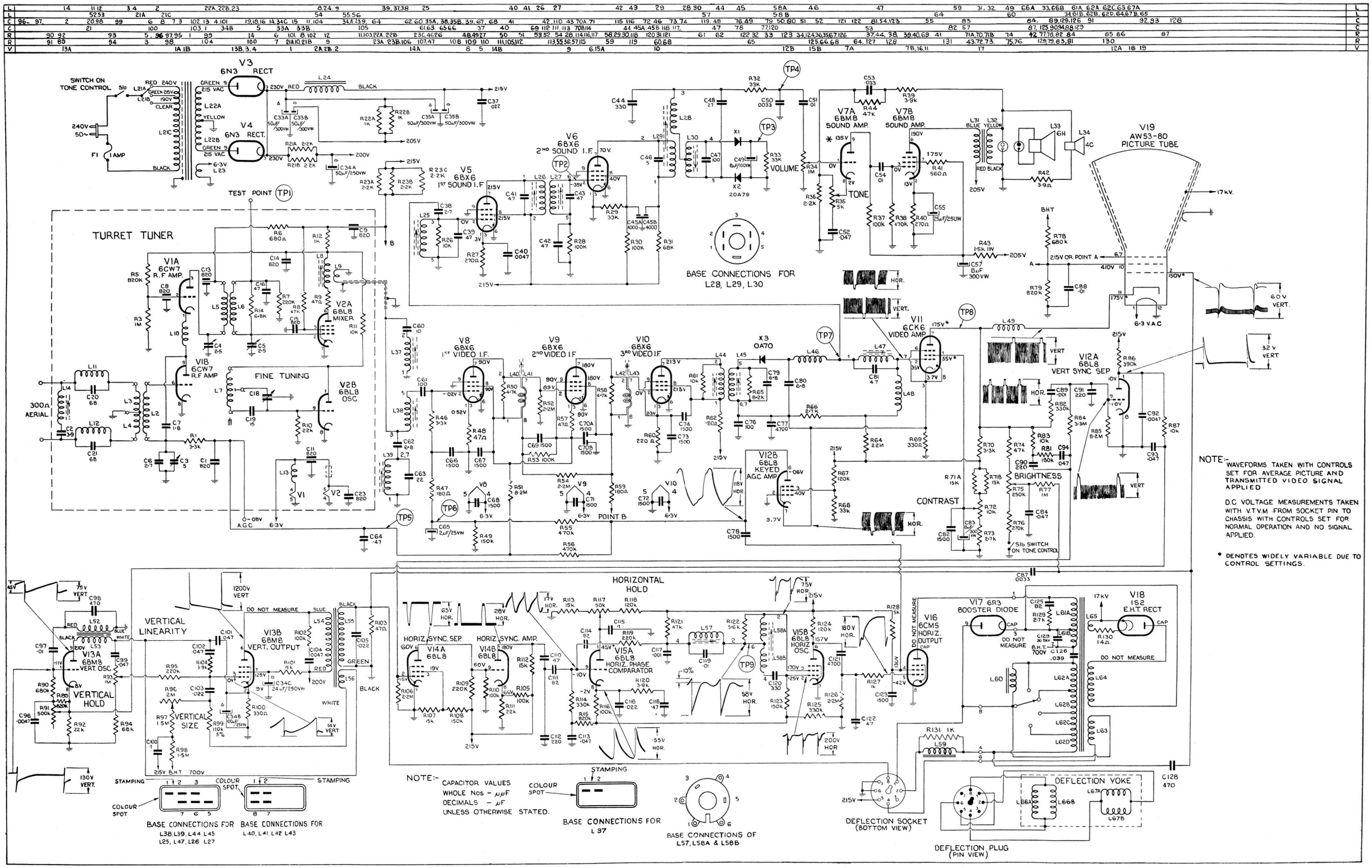
Adjust core of L57 to obtain C.R.O. wave-shape shown on circuit diagram while keeping picture in synchronism by re-adjusting core of L58.

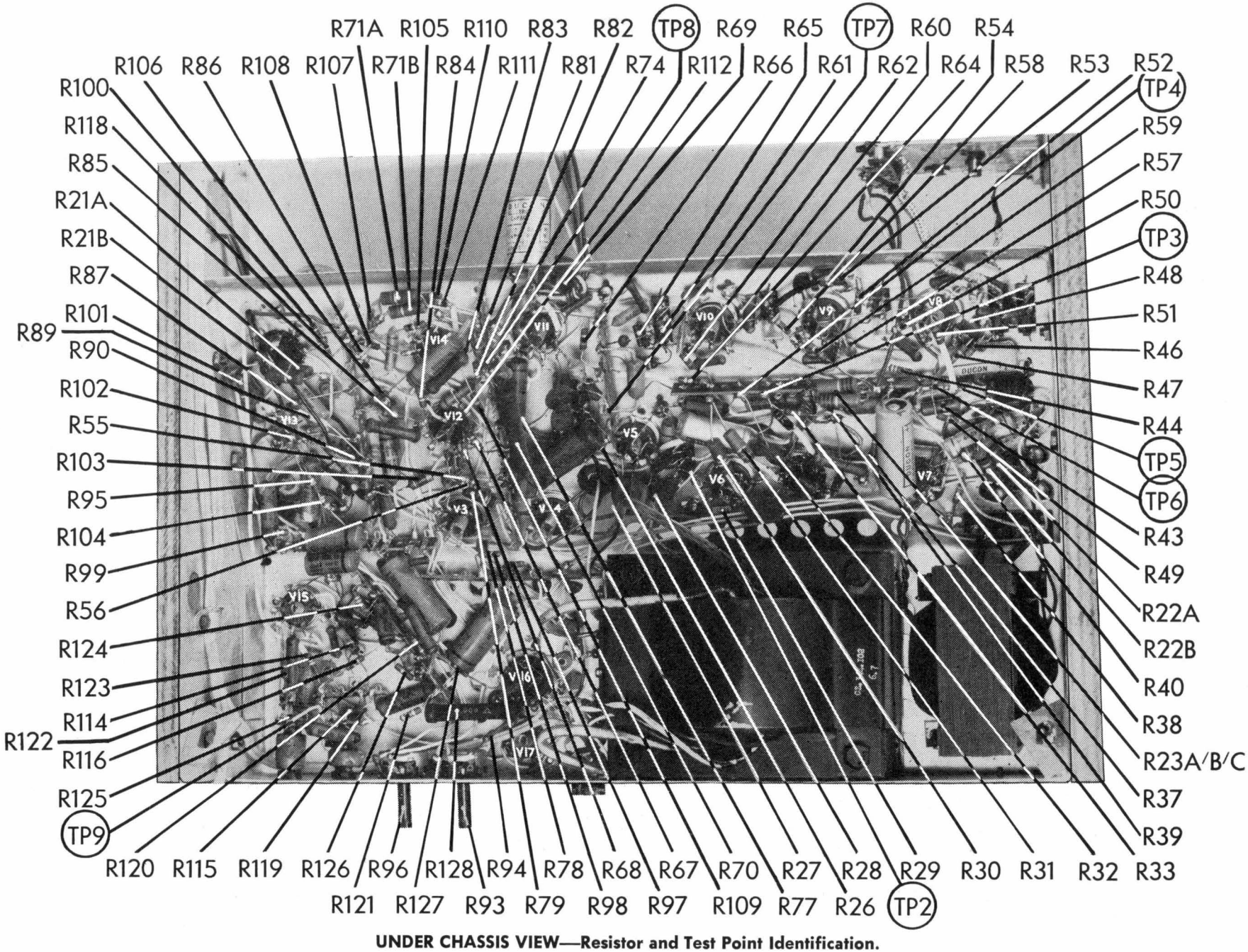
Repeat L57, L58 core adjustment until CRO wave-shape is correct while picture is synchronised.

Remove CRO and, if necessary, re-synchronise picture by re-adjusting core of L58 only.

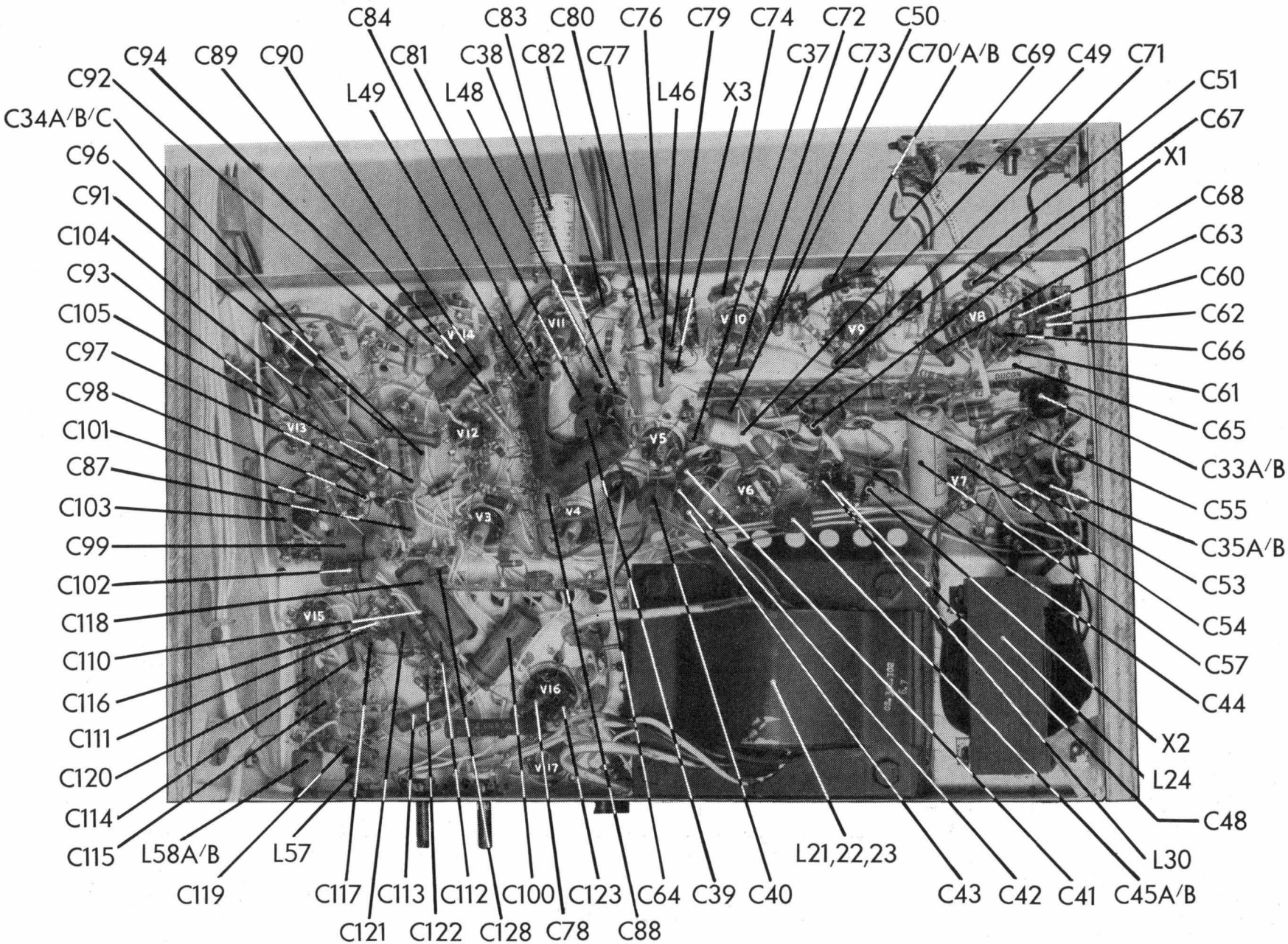


Typical I.F. Response Curve


V3 6N3 RECT
V4 6N3 RECT.
SWITCH ON TONE CONTROL
240V 50~
F1 1 AMP
TEST POINT (TP1)
TURRET TUNER
V1A 6CW7 R.F AMP.
V1B 6CW7 R.F AMP
V2A 6BL8 MIXER
V2B 6BL8 OSC
FINE TUNING
300Ω AERIAL
A.G.C.
V5 6BX6 1ST SOUND I.F.
V6 6BX6 2ND SOUND I.F.
VOLUME
TONE
V7A 6BM8 SOUND AMP.
V7B 6BM8 SOUND AMP.
V19 AW53-80 PICTURE TUBE
BASE CONNECTIONS FOR L28, L29, L30
V8 6BX6 1ST VIDEO I.F.
V9 6BX6 2ND VIDEO I.F.
V10 6BX6 3RD VIDEO I.F.
X3 OA70
V11 6CK6 VIDEO AMP.
V12A 6BL8 VERT SYNC SEP
V12B 6BL8 KEYED AGC AMP
POINT B
CONTRAST
BRIGHTNESS
S1b SWITCH ON TONE CONTROL
BHT
NOTE:- WAVEFORMS TAKEN WITH CONTROLS SET FOR AVERAGE PICTURE AND TRANSMITTED VIDEO SIGNAL APPLIED
D.C VOLTAGE MEASUREMENTS TAKEN WITH V.T.V.M. FROM SOCKET PIN TO CHASSIS WITH CONTROLS SET FOR NORMAL OPERATION AND NO SIGNAL APPLIED.
* DENOTES WIDELY VARIABLE DUE TO CONTROL SETTINGS.
V13A 6BM8 VERT. OSC.
VERTICAL HOLD
VERTICAL LINEARITY
VERTICAL SIZE
V13B 6BM8 VERT. OUTPUT
HORIZONTAL HOLD
HORIZ. SYNC. SEP.
V14A 6BL8
HORIZ. SYNC. AMP.
V14B 6BL8
V15A 6BL8 HORIZ. PHASE COMPARATOR
V15B 6BL8 HORIZ. OSC.
V16 6CM5 HORIZ. OUTPUT
V17 6R3 BOOSTER DIODE
V18 1S2 E.H.T. RECT
NOTE:- CAPACITOR VALUES WHOLE Nos - μμF DECIMALS - μF UNLESS OTHERWISE STATED.
BASE CONNECTIONS FOR L38, L39, L44, L45 L25, L47, L26 L27
BASE CONNECTIONS FOR L40, L41, L42 L43
BASE CONNECTIONS FOR L37
BASE CONNECTIONS OF L57, L58A & L58B
DEFLECTION SOCKET (BOTTOM VIEW)
DEFLECTION PLUG (PIN VIEW)
DEFLECTION YOKE



UNDER CHASSIS VIEW—Resistor and Test Point Identification.



UNDER CHASSIS VIEW—Germanium Diode, Inductor and Capacitor Identification.

RESISTORS

Item No.	Description	Type or Code No.
R1	3,300 ohms ½W	I.R.C. Type BTS
R3	1 megohm ½W	" " "
R5	820,000 ohms ½W	" " "
R6	680 ohms ½W	" " "
R7	220,000 ohms ½W	" " "
R8	47,000 ohms ½W	" " "
R9	47 ohms ½W	ERIE Type 9
R10	22,000 ohms ½W	I.R.C. Type BTS
R11	10,000 ohms 2W	I.R.C. Type BTB
R12	1,000 ohms ½W	I.R.C. Type BTS
R14	6,800 ohms ½W	" " "
R21A, B	2,200 ohms 1W (x2)	I.R.C. Type BTA
R22A, B	1,000 ohms 1W (x2)	" " "
R23A, B, C	2,200 ohms 1W (x3)	" " "
R26	10,000 ohms ½W	I.R.C. Type BTS
R27	270 ohms ½W	" " "
R28	100,000 ohms ½W	" " "
R29	33,000 ohms ½W	" " "
R30	100,000 ohms 1W	I.R.C. Type BTA
R31	68,000 ohms 1W	" " "
R32	33,000 ohms ½W	I.R.C. Type BTS
R33	33,000 ohms ½W	" " "
R34	1 megohm pot. (V)	CZ.032.017
R35	5,000 ohms pot. (T) + D.P. sw.	CZ.032.017
R36	2,200 ohms ½W	I.R.C. Type BTS
R37	100,000 ohms ½W	" " "
R38	470,000 ohms ½W	" " "
R39	3,900 ohms ½W	" " "
R40	270 ohms 1W	I.R.C. Type BTA
R41	560 ohms ½W	I.R.C. Type BTS
R42	3.9 ohms ½W (ww)	I.R.C. Type BW
R43	1,500 ohms 1W	I.R.C. Type BTA
R44	47,000 ohms ½W	I.R.C. Type BTS
R46	3,300 ohms ½W	" " "
R47	180 ohms ½W	" " "
R48	47 ohms ½W	" " "
R49	150,000 ohms ½W	" " "
R50	4,700 ohms ½W	" " "
R51	8.2 megohms ½W	" " "
R52	2.2 megohms ½W	" " "
R53	100,000 ohms ½W	" " "
R54	2.2 megohms ½W	" " "
R55	470,000 ohms ½W	" " "
R56	470,000 ohms ½W	" " "
R57	47 ohms ½W	" " "
R58	4,700 ohms ½W	" " "
R59	180 ohms ½W	" " "
R60	220 ohms ½W	" " "
R61	10,000 ohms ½W	" " "
R62	180 ohms ½W	" " "
R64	2.2 megohms ½W	" " "
R65	8,200 ohms ½W	" " "
R66	2,700 ohms ½W	" " "
R67	120,000 ohms ½W	" " "
R68	33,000 ohms ½W	" " "
R69	330 ohms 1W	I.R.C. Type BTA
R70	3,300 ohms 5% 5W (ww)	I.R.C. Type AB coat A
R71A, B	15,000 ohms 1W (x2)	I.R.C. Type BTA
R72	10,000 ohms (ww) pot. (C)	CZ.029.054
R75	250,000 ohms pot. (B)	CZ.029.054
R73	2,700 ohms ½W	I.R.C. Type BTS
R74	47,000 ohms ½W	" " "
R76	270,000 ohms ½W	" " "
R77	1 megohm ½W	" " "
R78	680,000 ohms 1W	I.R.C. Type BTA
R79	820,000 ohms 1W	" " "
R81	180,000 ohms ½W	I.R.C. Type BTS
R82	330,000 ohms ½W	" " "
R83	10,000 ohms ½W	" " "
R84	3.3 megohms ½W	" " "
R85	8.2 megohms ½W	" " "
R86	390,000 ohms ½W	" " "
R87	10,000 ohms ½W	" " "
R89	820,000 ohms ½W	" " "
R90	680,000 ohms ½W	" " "
R91	0.5 megohms pot. (VH)	CZ.029.055
R117	50,000 ohms pot. (HH)	CZ.029.055
R92	22,000 ohms ½W	I.R.C. Type BTS
R93	1 megohm pot. (VL)	CZ.029.315
R94	68,000 ohms ½W	I.R.C. Type BTS
R95	220,000 ohms ½W	" " "
R96	2 megohms pot. (VS)	CZ.029 316
R97	1.5 megohms ½W	I.R.C. Type BTS
R98	1.5 megohms ½W	" " "
R99	110,000 ohms ½W 5%	" " "
R100	330 ohms ½W	" " "
R101	15,000 ohms 1W	I.R.C. Type BTA
R102	100,000 ohms ½W	I.R.C. Type BTS
R103	47 ohms ½W	" " "
R104	3,900 ohms ½W	" " "
R105	100,000 ohms ½W	" " "
R106	2.2 megohms ½W	" " "
R107	15,000 ohms ½W	" " "
R108	150,000 ohms ½W	" " "
R109	220,00 ohms ½W	" " "
R110	100,000 ohms ½W	" " "
R111	22,000 ohms ½W	" " "
R112	15,000 ohms ½W	" " "
R113	15,000 ohms ½W	" " "
R114	330,000 ohms ½W	" " "
R115	820,000 ohms ½W	" " "
R116	100,000 ohms ½W	" " "
R118	120,000 ohms ½W	" " "
R119	220,000 ohms ½ W	" " "
R120	3,900 ohms ½W	" " "
R121	47,000 ohms ½W	" " "
R122	5,600 ohms ½W	" " "
R123	150,000 ohms ½W	" " "
R124	120,000 ohms ½W	" " "
R125	330,000 ohms ½W	" " "
R126	2.2 megohms ½W	" " "
R127	1,000 ohms ½W	" " "
R128	5,000 ohms 5% 5W (ww)	I.R.C. Type AB coat A
R129	2,700 ohms 1W	I.R.C. Type BTA
R130	1.4 ohms (ww) (part of E.H.T. Socket)	
R131	1,000 ohms 1W	I.R.C. Type BTA

CAPACITORS

Item No.	Description	Type or Code No.
C1	820 pF GMV ceramic	Ducon DS Style A, Hi-K5000
C2	3.9 pF ceramic	48.200.20/3E9
C3	5 pF ceramic, trimmer	49.627.50
C4	2.5 pF ceramic, trimmer	49.005.62
C5	2.5 pF ceramic, trimmer	"
C6	2.7 pF ceramic	Ducon Style BEA, P100
C7	1.8 pF ceramic	" " " "
C8, 9, 11, 13	820 pF $^{+100\%}_{-20\%}$ cereamic, feed thru	B1.664.13
C14	820 pF GMV ceramic	Ducon DS Style A, Hi-K5000
C15	820 pF GMV ceramic	" " " " "
C16	47 pF ceramic	48.203.02/47E
C19	15 pF ± 1 pF ceramic	Ducon Style A, N750
C20	68 pF ± 2% ceramic	" " " "
C21	68 pF ± 2% ceramic	" " " "
C23	820 pF GMV ceramic	Ducon DS Style A, Hi-K5000
C33A, B	50 μF 300V elec. (x2)	Ducon Type ECD 367
C34A	50 μF 250V elec.	Ducon Type ECT196
C34B	100 μF 25V elec.	Ducon Type ECT196
C34C	24 μF 250V elec.	Ducon Type ECT196
C35A, B	50μF 300V elec. (x2)	Ducon Type ECD367
C37	0.022 μF 400VW paper	Ducon Type TPB, Hi-Seal "85" or U.C.C. Type PPS
C38	2.7 pF ± 1 pF ceramic	Ducon Style A, N750
C39	47 pF ± 10% ceramic	Ducon DS Style C, P100
C40	0.0047 μF 400V paper	Ducon Type TPB, Hi-Seal "85" or U.C.C. Type PPS
C41	47 pF ± 10% ceramic	Ducon DS Style C, P100
C42	47 pF ceramic	Ducon Style A, N750
C43	47pF ± 10% ceramic	Ducon DS Style C, P100
C44	330 pF ceramic	Ducon Style C, N750
C45A, B	4,000 pF GMV ceramic (x2)	Ducon DP Style D, Hi-K
C46	5 pF mica	Simplex Type 1F
C47	100 pF ± 2% mica	" " "
C48	27 pF ± 10% ceramic	Ducon Style A, N750
C49	8 μF 100V elec.	Ducon Type ET1B
C50	0.0033 μF 400V paper	Ducon Type TPB, Hi-Seal "85" or U.C.C. Type PPS
C51	0.01 μF 200V paper	" " " " " " " " "
C52	0.047 μF 200V paper	" " " " " " " " "
C53	0.033 μF 200V paper	" " " " " " " " "
C54	0.01 μF 400V paper	" " " " " " " " "
C55	25 μF 25VW elec.	Ducon Type ET1B
C57	8 μF 300 VW elec.	Ducon Type ET2D
C60	10 pF ± 10%	Ducon Bead Type N750
C61	100 pF ceramic	Ducon Style B, N750
C62	6.8 pF ± 1pF ceramic	Ducon Bead Type N750
C63	22 pF ceramic	Ducon Style A, N750
C64	0.47 μF 100V paper	Ducon "Miniseal" Type TPA or U.C.C. Type PPS
C65	2 μF 25VW elec.	Ducon Type ET1B
C66, 7, 8, 9	1,500 pF ceramic	Ducon Style B, Hi-K
C70A, B	1,500 pF GMV ceramic (x2)	Ducon Style DP Hi-K5000
C71, 2, 3, 4	1,500 pF ceramic	Ducon Style B, Hi-K
C 6	100 pF ceramic	Ducon Style B, N750
C77	0.0047 μF 400V paper	Ducon Type TPB, Hi-Seal "85" or U.C.C. Type PPS
C78	1,500 pF ceramic	Ducon Style B, Hi-K
C79	6.8 pF ± 1pF ceramic	Ducon Style A, N750
C80	6.8 pF ± 1 pF ceramic	" " " "
C81	47 pF ± 10% ceramic	Ducon DS Style C, P100
C82	1,500 pF ceramic	Ducon Style B, Hi-K
C83	8 μF 300VW elec.	Ducon Type EC5B
C84	0.047 μF 200V paper	Ducon Type TPB, Hi-Seal "85" or U.C.C. Type PPS
C87	0.0033 μF 400V paper	" " " " " " " " "
C88	0.01 μF 600V paper	" " " " " " " " "
C89	0.001 μF 400V paper	" " " " " " " " "
C90	220 pF ceramic	Ducon Style C, N750
C91	220 pF ceramic	" " " "
C92	0.0047 μF 400V paper	Ducon Type TPB, Hi-Seal "85" or U.C.C. Type PPS
C93	0.047 μF 200V paper	" " " " " " " " "
C94	0.047 μF 400VW	" " " " " " " " "
C96	0.0047 μF 400V paper	" " " " " " " " "
C97	0.01 μF ± 10% 200V paper	" " " " " " " " "
C98	470 pF ceramic	Ducon Style A, Hi-K
C99	0.047 μF 400V paper	Ducon Type TPB, Hi-Seal "85" or U.C.C. Type PPS
C100	0.1 μF 600V paper	" " " " " " " " "
C101	0.047 μF ± 10% 400V paper	" " " " " " " " "
C102	0.047 μF ± 10% 400V paper	" " " " " " " " "
C103	0.022 μF ± 10% 400V paper	" " " " " " " " "
C104	0.0047 μF 2,000V paper	" " " " " " " " "
C105	0.022 μF 200V paper	" " " " " " " " "
C110	47 pF ceramic	Ducon Style A, N750
C111	82 pF ceramic	Ducon Style B, N750
C112	220 pF ceramic	Ducon Style C, N750
C113	0.047 μF 200V paper	Ducon Type TPB, Hi-Seal "85" or U.C.C. Type PPS
C114	82 pF ceramic	Ducon Style B, N750
C115	0.1 μF 200V	Ducon Type TPB, Hi-Seal "85" or U.C.C. Type PPS
C116	0.022 μF 200V paper	" " " " " " " " "
C117	0.001 μF ± 10% 400V paper	" " " " " " " " "
C118	0.47 μF 100V paper	Ducon "Miniseal" Type TPA or U.C.C. Type PPS
C119	0.01 μF ± 10% 200V paper	Ducon Type TPB, Hi-Seal "85" or U.C.C. Type PPS
C120	330 pF ceramic	Ducon Style C, N750
C121	0.0047 μF 400V paper	Ducon Type TPA, Hi-Seal "85" or U.C.C. Type PPS
C122	47 pF ceramic	Ducon Style A, N750
C123	1,500 pF ceramic	Ducon Style B, Hi-K
C125	82 pF ± 10% 700VW ceramic	U.C.C. Type CC140H0
C126	0.039 μF ± 10% 1,000V paper	Ducon Type TPB, 1060
C128	470 pF ceramic	Ducon Style A, Hi-K
C129	30 pF 5,000V ceramic	U.C.C. Type CAA33

INDUCTORS

No. Item	Description	DC Resistance (ohms)	Type or Code No.
	TURRET TUNER		A3.767.32
L2, L3, L4	Aerial Coils:—		
	Channel 1		A3.747.07
	Channel 2		A3.747.08
	Channel 3		A3.747.09
	Channel 4		A3.747.10
	Channel 5		A3.747.11
	Channel 6		A3.746.75
	Channel 7		A3.746.76
	Channel 8		A3.746.77
	Channel 9		A3.746.78
	Channel 10		A3.746.79
L5, L6 & L7	R.F. Band Pass & Osc. Coils:—		
	Channel 1		A3.747.02
	Channel 2		A3.747.03
	Channel 3		A3.747.04
	Channel 4		A3.747.05
	Channel 5		A3.747.06
	Channel 6		A3.746.70
	Channel 7		A3.746.71
	Channel 8		A3.746.72
	Channel 9		A3.746.73
	Channel 10		A3.746.74
L8	1st. Video I.F.T. (Prim.)		A3.126.70
L9	1st. Video I.F.T. (link)		
L10	Coupling Coil		A3.117.72
L11	36 Mc/s Aerial Trap		A3.119.95
L12	36 Mc/s Aerial Trap		
L14	30.5 Mc/s Aerial Trap		
L13	Heater Choke		A3.117.71
	POWER TRANSFORMER		CZ.344.102
L21A	Primary, mains	0.66	
L21B	Primary, mains	0.64	
L21C	Primary, mains	4.5	
L22A	Secondary, H.T.	15	
L22B	Secondary, H.T.	16	
L23	Secondary, heaters		
L24	FILTER CHOKE	86	CZ.341.008
L25	1ST. SOUND I.F. COIL	1.5-2.0	CZ.320.439
L47	VIDEO SOUND TRAP	1.5-2.0	
	2ND. SOUND I.F.T.		CZ.320.440
L26	Primary	1.5-2.0	
L27	Secondary	1.5-2.0	
	RATIO DETECTOR TRANS.		CZ.324.037
L28	Tertiary		
L29	Primary	3.0-3.5	
L30	Secondary		
	LOUDSPEAKER TRANS.		Rola CCG55
L31	Primary	366	
L32	Secondary		
L33	LOUDSPEAKER (6")		Rola 6H
L34	LOUDSPEAKER (4")		Rola 4C
L37	ADJ. CHANNEL SOUND TRAP		CZ.320 442
L38	1ST. VIDEO I.F.T., SEC.		CZ.320.435
L39	I.F. SOUND TRAP		
	2ND. VIDEO I.F.T.		CZ.320.436
L40	Primary		
L41	Secondary		
	3RD. VIDEO I.F.T.		CZ.320.437
L42	Primary		
L43	Secondary		
	4TH. VIDEO I.F.T.		CZ.320.438
L44	Primary		
L45	Secondary		
L46	TWEET COIL	7.0-8.0	CZ.321.298
L48	PEAKING COIL	12-13	CZ.321.297
L49	PEAKING COIL	12-13	CZ.321.306
	VERT. BL. OSC. TRANS		CZ.346.016
L52	Primary	300	
L53	Secondary	115	
	VERT. OUTPUT TRANS.		CZ.344.813
L54	Primary	650	
L55	Secondary	0.44	
L56	Feedback	705	
L57	FLYWHEEL COIL	75	CZ.330.617
	HORIZ. BL. OSC. TRANS.		CZ.323.410
L58A	Primary	70-75	
L58B	Secondary	200	
L59	HORIZ. LINEARITY COIL		A3.802.89
	HORIZ. OUTPUT TRANS.		A3.767.94
L60	Compensating coil		
L61A	Primary	6.1-7.3	
L61B	Secondary	15.5-18.8	
L62A, B, C, D,	Secondary		
L63	Secondary		
L64	Secondary (E.H.T.)	190-230	
L65	E.H.T. HEATER LOOP		CZ.358.081
	DEFLECTION UNIT		CZ.320.911
L66A, B	Deflec. coils, vertical	3.5-4.3 (total)	(pin 6 and 8)
L67A, B	Deflec. coils, horiz.	3.3-4.0 (total)	(pin 2 and 4)

MISCELLANEOUS COMPONENTS

Ref. No.	Description	Type or Code No.
	DISC, channel selector	CS.414.001
	KNOB, fine tuning (F)	CR.523.718
	KNOB, channel selector (CS)	CR.523.719
	KNOB, dummy	CS.432.671
	SCREW, grub (3mm)	CS.261.806
	KNOB, volume (V)	CR.523.720
	KNOB, tone, on/off (T)	CR.523.721
	KNOB, vertical hold (VH)	CR.523.717
	KNOB, horiz. hold (HH)	CS.432.666
	KNOB, brightness (B)	CR.523.717
	KNOB, contrast (C)	CS.432.666
	MASK, picture tube	CS.050.434
1	GLASS, p. tube protective	CS.420.614
2	RAIL, retaining	CS.257.823
	INSIGNIA, Philips	A3.308.24
	BADGE, Philips	CR.531.422
	BACK ASSY., cabinet	CR.572.129
	CLIP, back mounting (x6)	CS.282.467
	COVER, cabinet bottom	CS.463.032
3	MAGNET, ion trap	VZ.205.OC
	COIL ASSY., deflection	A3.802.35
4	HOUSING ASSY., deflection unit	CR.571.823
5	BRACKET ASSY., retaining	A3.685.97
6	SCREW, knurled	A3.714.36
7	PLATE, square, locating	A3.527.49
8	BRACKET ASSY., p. tube earthing	CR.340.05
9	PLUG & LEAD ASSY., deflection unit	A3.593.02
10	BRACKET, corner (x4)	CS.229.239
11	SCREW, p. tube mounting (x4)	CH.662.294
12	STRAP ASSY., front (x2)	CR.269.60
13	PAD, rubber (x4)	CS.424.173
15	STRAP, rear	CR.526.104
	PANEL ASSY., h. output transf.	A3.540.15
21	MOULDING, switch, h. size	P4.381.34
	WASHER, switch, h. size	A3.577.42
	SPRING, switch, h. size	A3.645.09
	SELECTOR, switch, h. size	A3.823.23
	CIRCLIP, switch, h. size	BO48AF/5
	SOCKET, E.H.T. rectifier	P5.170.02
	SHIELD, corona, E.H.T. socket	CS.077.003
	SHIELD, heat, E.H.T. socket	CR.059.006
17	LEAD, p. tube E.H.T.	CZ.360.438
	LOOP, heater, E.H.T. rectifier	CZ.358.081
	SOCKET, valve t. tuner	B8.700.22
	SHIELD, valve t. tuner	B8.700.11
	GROMMET, t. tuner mounting (x3)	CS.422.458
	SPACER, t. tuner mounting (x3)	CS.284.202
	PLUG, aerial	A3.407.35
18	SOCKET ASSY., aerial	CR.280.616
	SPRING, I.F.T., retaining (x7)	A3.652.58
	SOCKET, ceramic (V13)	B8.700.19
19	PLUG, speaker	CZ.365.118
	SOCKET, speaker	CZ.370.116
20	PLUG, v. selector	CZ.365.122
	SOCKET, v. selector	CZ.370.508

NOTES:—

RESISTORS

Tolerance ± 10% unless otherwise specified. Wire wound resistors shown (ww), remainder carbon.

CAPACITORS

Tolerance ± 20% unless otherwise specified. Tolerance GMV (guaranteed minimum value) over temperature range −10° to +60°C.

INDUCTORS

DC resistance tolerance ± 10% unless otherwise specified. Values less than 0.5 ohms have been omitted.

IMPORTANT! In ordering spare parts, quote CODE NUMBER of part and MODEL NUMBER of Receiver. In claiming free replacement under GUARANTEE, return defective part PROMPTLY and quote MODEL and SERIAL NUMBER of Receiver and DATE OF PURCHASE.

Published by PHILIPS ELECTRICAL INDUSTRIES PTY. LIMITED

SYDNEY — MELBOURNE — BRISBANE — ADELAIDE — PERTH — HOBART

AUGUST, 1957

Printed by HARMAN & JACKA LTD.