



## A.W.A. TELEVISION RECEIVER <u>34 CHASSIS</u> \* FAULT FINDING CHART

## THIS CHART IS DESIGNED TO ASSIST IN SERVICING THE 34 SERIES CHASSIS AND IS ONLY TO BE USED AS A GUIDE TO FAULT DIAGNOSIS. FAULTS INDICATED HAVE ONLY OCCURRED INFREQUENTLY AND CANNOT BE CLASSED AS "STOCK FAULTS".

SYMPTOMS		CAPACITORS					RESISTORS				VALVES TRANSFORMER COILS			MISCELLANE	SOUS	5
Raster Faults:	NUMBER	CAPACITANCE	o/c	s/c	LEAKY	NUMBER	RESISTANCE	o/c	нідн	NUMBER	TYPE	o/c	s/TURNS		o/c	′c s/c
No Raster	C407	270pf	X	X	X	R424	IK	X	-	6CG7/V402	Horiz. osc.	+	+	IN1763/MR402	X	
	C410	.0012	X	X		R222	470	X		6CM5/V403	Horiz. output	1	+	(IN3194/MR402)	X	
	C413	.0012	X	X		R415	3.9K	X		6AU4/V404	Damper-diode					
	C415	2		Х						1B3/V405	E.H.T. Rectifier					
	C416	.47		X						6EB8/V204A	Video-Amp.	_				
	C417	.047	+	X						CRT/V206	Picture-tube	+	+		+	
	C418 C225	68pf .01	-	X X				+-+-	-+	TR401	Horiz.osc. coil	+v	X			
	C223	.1	-	X				+		RT401	Horiz. output Trans.		X	+		
	0220	• 1	+					+-+-	-+	N1402	nonz. output mans.	+^	1			
			1					+-+-	-	L403	Horiz. linearity coil	X	+	+	+	
										L406/407	Deflection yoke		X		-	
																-
Vert. Stretching top + bottom.	C320	.0068		X												
Foldover on L/H. side of CRT	C416	.047	X					++-								
Insufficient width with dark vert. bars on L/H. side	C417	.047	X	v		DUADID	The	-		COME INTOO		+	+	TITURA		
Insufficient width	C422 C415	.5	X	X		RV401B	IM	Fault		6CM5/V403 6AU4/V404		+	+	IN1763/MR401	X	
	C415 C410	.0012	-	$\left  \right $	x			+		0AU4/ V404		+	+	(IN3194/MR401)	X	·
	C410	270pf	+	X	X			+	+		· · · · · · · · · · · · · · · · · · ·	+	+	+		+
·	C421	.15		X				+ +	-			+	+			
	C418	68pf			X							+	+		-	+
	C427	200	X									1	1		+	
	C426	200	X													
Severe cramping and foldover at bottom top stretched	C325	.047	_	X						6EM5/V302	Vert. output					
	C319	.1			Х				_			_	_		_	
Foldover at bottom + top stretched	C322	.1		X	Х			+								
Slight cramping at bottom	C326A C326B	10 50	X			R334	47K	x x	-			+	+			
Cramping at bottom + top stretched Cramping at top + bottom	C320B	4			x	R329	IM		X			+	+	+		
Slight bottom stretch	C317	4	X		-	1(02)			-			+	+		+-	+
Horizontal Key stoning		-	1				1	+-+-	-	L406 or L407	Horiz. deflec. coils	X	+			+
												-			-	
Horizontal osc., buffer + phase-disc. stage					1										-	
Horiz. frequ. low	C405	.047		X	Х	R402	33K	X	K							
	C404	390pf				R407	180K	X	<			_				
	C403	.0015		X				+ +	_	(000 (T1 100						
Horiz. frequ. high	C402 C407	150pf		X	XX			+		6CG7/V402	Horiz.osc. + buffer		-			
Gear wheel effect at top half of picture, varying with	C407 C405	270pf .047	X		^			++	+			+	+			
horiz. hold setting	0403	.047						+	-			+	+			
101111 1014 00001B												+	+	+	+-	+
Vertical oscillator and output stage													1			-
No vert. deflection	C314	.0068				R325	680K	X		TR301	Vert. osc. Transf.		X		8.	
2	C317	4		Х				1		TR302	Vert. o/p. Transf.		X			
	C318	.012		X	X			+		L404 or L405	Vert. deflect. coils	X	+			
Vert ere off freque	C319	.1		Х	v	R325	680K	- v	-			+	+			
Vert. osc. off frequ.	C314	.0008	+	$\left  \right $	A	1,525	NOOK	X	-			+	+		+	+
Synchronisation - stage			+	$\left  \right $	-		<u> </u>	+ +				+	+	+	+-	
No synch.	C303	.022	1	X	X	R312	IM	X	1	6HS8/V301	A6C+synch-sep.	+	+	+		
	C304	.0039		X	X	R315	IM				Synch-Amp.	1	1			
	C308	.033		Х	X								-			
	C309	.001	X		-				_			-				
West such with basis willing	C312	.01	X	X	X		+	+	$\rightarrow$			+	+	+	+	
Weak synch. with horiz. pulling	C310 C306	330pf 24	X X	$\left  - \right $				+	-+			+	+		+	
Weak synch.	C306	24 330pf	X				+	+	-+			+	+	+	+-	
		150pf	-	x	~			+	-	6AL5/V401		+	+			+
No horizontal synch.	C401														1	_
No horizontal synch.	C401 C404		+							0/11/0/ 1401			+			
No horizontal synch.	C401 C404 C406	390pf 470pf		X X X						01123/ 1401		-	-			

## A.W.A. TELEVISION RECEIVER <u>34 CHASSIS</u> \* FAULT FINDING CHART

PAGE 2.

		TROLI				0 011										
SYMPTOMS		CAPACITORS					RESISTORS				VALVES TRANSFORMER COILS			MISCELLANEOU	JS	
	NUMBER	CAPACITANCE	0/0	s/c	LEAKY	NUMBER	RESISTANCE	o/c	нен	NUMBER	TYPE	0/C	S/TURNS	1	o/ç s	5/C
Picture Faults:																
Smeary picture			_							L207	Peaking coil	X				
Very smeary picture with low contrast	C227	. 47	X	+						1.205	Declair receil	V				
Very smeary picture Poor H.F. response			+	+		R217	3.9K		X	L205	Peaking coil	X				
No picture but weak sound						K217	5.7K			L204	Peaking coil	X			-+	
No picture, no sound	C16	.001	+	X					+	6HG8/V2	Mixer-osc.					
	C17	.001	+	X						6BZ6/V201	lst I.F. Amp.				<u> </u>	
			+							6EW6/V202	2nd I.F. Amp.				-+	
									1	6CB6/V203	3rd I.F. Amp.					
										6EB8/V204A	Video-Amp.					
Snowy Picture	C301	.1		X		R302	4.7M		X	6ES8/V1	R.F. Amp.					
	C203	.0047	_	X						6BZ6/V201	lst I.F. Amp.					
	C8	220pf		X												
	C9	100pf .001		X X									_			
Weak picture no snow	C10	.001	+							TR201	I.F. Transf. sec.	X			r+	
No picture very weak sound			+	+ +	_					TR201	I.F. Transf. prim.	X			+	
Very weak picture and sound no snow			+	+					+	TR202	I.F. Transf. sec.	X			-+	
for y work produce and bound no onon			+							111202					+	
Sound - Stage:													-			
No Sound	C112	.039	X							6AU6/V101	Sound I.F. Amp.		A	udio-o/p. Transf.	X	
	C113	.01	X							6AL5/V102	Ratio-Detector		T	°R102		
	C114	.047	X							6AV6/V103	Voltage-Amp.					
	C104	. 0033	_	Х				-		6AQ5/V104	Audio-Output					
Weak sound	C104	.0033			Х								_		<b></b>	
	C105	100pf	V	+ +	Х										<b>⊢</b>	
	C113 C114	.01 .047	X						+			+				
	C114 C116	10	X						+							
	C110 C117	.0022	X						+							
Weak sound + buzzing	C104	.0033	X						+							
Very bad distortion			+			R116	680		X							
Picture shrinks horiz. when brightness control turned fully																
clockwise, hum present in sound	C428	150	X													
Severe cramping at L/H. side when brightness-control turned			_										-		$ \longrightarrow $	
fully clockwise, uncontrollable brightness, very weak				+ $+$		D 107	150					+			<b>├</b> ── <b>├</b>	
signal, weak or no synch., hum in sound				+		R427	150		X			+ +				
Keeps blowing H.T. fuses				++						TR403	Horiz.feedback Trans.	Fault	TT IN	N1763/MR401/402		X
Keeps blowing 11. 1. Tubes			+	+ +					+	11(400	Horiz: Iccuback Hails.	1 aure		N3194/MR401/402		X
Low brightness	C425	270pf	+	+ +	Х			-	1							,
	,C316	2			Х											
Low brightness, snowy picture, loss of synch.	C412	2.2pf		X	Х											
								_								
Bottom creeps up after $\frac{1}{2}$ hour of running			_	++							Deflection yoke	Fault	ty		$\vdash$	
· · · · · · · · · · · · · · · · · · ·				++		D240	1002		v	CDT (11206	Distance to be				<b>├</b> ── <b>├</b>	
Uncontrollable - brightness				+ +		R349	100K		X	CRT/V206	Picture-tube	+			┝──┼	
Snowy Raster for about 1 - 2 minutes then picture comes on			+	+			·			6HG8/V2	OscMixer	+			+	
Showy Raber for about 1 2 minutes then picture comes on			-	+-+				1		01100/12						
Uncontrollable width	C414	.01	-	X				-							$\square$	•
															+	
				+						-					$\vdash$	
				+											<b>├</b> ── <b>├</b>	
				+								+			<u>├</u>	
· · · · · · · · · · · · · · · · · · ·				+								+			<u>├</u> ──┼	
			+	++								+			-+	
			+	+								+			-+	
				-		L	l				I	1 L			<u> </u>	

N.B. Capacitors are marked in MFD. unless otherwise stated. Resistors " " " Ohms " " "

\* THIS CHART CAN GENERALLY BE APPLIED TO THE 36 SERIES CHASSIS PROVIDING CARE IS USED IN CHECKING THE CODE NUMBER OF COMPONENTS AND REMEMBERING THERE ARE CIRCUIT DIFFERENCES.

## January, 1966.

## A.W.A. TV TECHNICAL INFORMATION

Some months ago a comprehensive Fault Finding Chart, covering AWA 34 Series T.V. Chassis, was issued. Since the chart was compiled several "hard to find" faults have occurred in a few chassis. Details of these faults are listed below and should be used in conjunction with the previous chart. It must be stressed that the faults have only occurred infrequently and cannot be classed as "stock faults".

The charts may also be used for 34-40, 34-50, 36, 36-50 and 36-70 Series chassis. These chassis are only minor variations on the original 34 and 36 Series.

SYMPTOMS		FAULT
Vertical Wavy Patterning	C217	470PF 0/C
Picture Blacks out with high A.G.C. and Video Amp Grid Voltages	C217	470PF 0/C
White raster no sound	C306	24uf or .5uf S/C
White raster with traces of picture	C419	560PF S/C
Low Brightness	C331	.luf leaky
Vertical Lin. Pot. Arcing		to 50K pot., VDR y be intermittent 0/C
Picture creeping up from bottom	V205B	6CG7
Top Cramp	R333	330K High

### ERRATA.

R204 at junction of C207 and C208 should read R205. R420 connected to Focus control should read R422.

### CIRCUIT VARIATIONS

On some early chassis:

- CI10 was 0.0068µf 600VW paper capacitor 226223.
- CI15 was 25µf 25VW Electrolytic capacitor 222914.

C306 was 0.5 $\mu$ f  $\pm$  20% 200VW Hunts W48 capacitor 229116.

- C330 was 0.001 μf + 100% 0% Hi-K tubular capaci-tor 225010 from wiper of Brightness Control to earth.
- C331 was 0.047 $\mu$ f  $\pm$  10% 1000VW paper capacitor 226831 and connected to terminal 3 of TR402.
- R230 was 680K ohms  $\pm$  10% 1 watt resistor 617669 from kinescope cathode to ground.
- R345 was 330K ohms  $\pm$  10% I watt resistor 617111 in which case R349 was missing.
- R348 was 470K ohms  $\pm$  10%  $\frac{1}{2}$  watt resistor 617356.
- MR202 was a GD8 diode now replaced by R231.
- Changes since circuit was drawn:
- R306 and RV303 have now been deleted.
- R340 is now a | Megohm resistor.

## A.G.C. ADJUSTMENT.

N.B.: Three different procedures are provided to cover the three following circuit arrangements that have been used in this chassis series.

A. Partial D.C. coupled kinescope with no black level adjustment. (Identified by no Black Level control on the pre-set control panel at rear.)

B. Partial D.C. coupled kinescope with black level adjustment. (Identified by Black Level control on the preset control panel but no diode in kinescope cathode circuit.)

C. D.C. coupled kinescope. (Identified by Black Level control and diode and kinescope cathode circuit.)

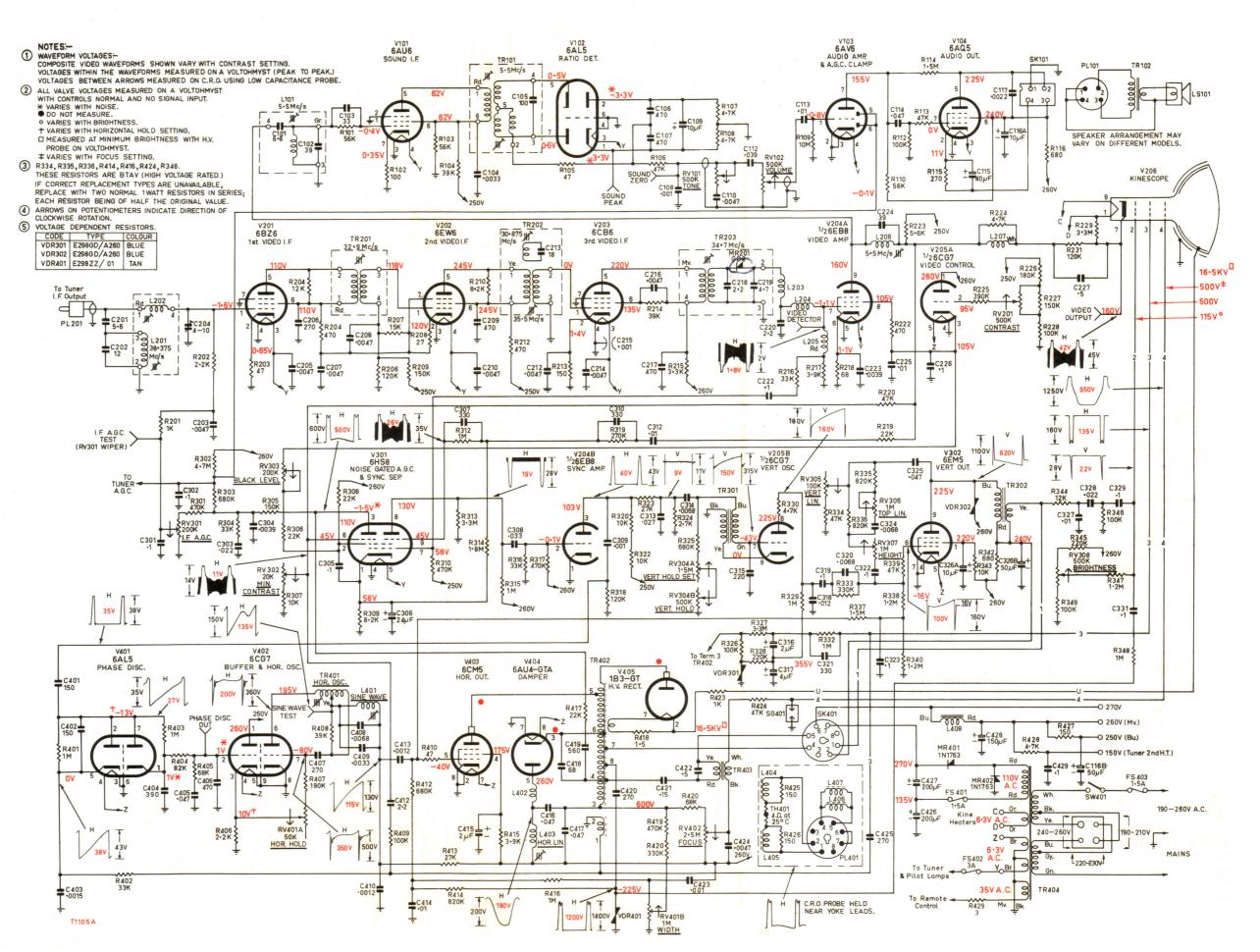
Procedure for Case A above:

- I. Set the Min. Contrast and IF A.G.C. controls at their mid-positions. 2. Tune the receiver to a channel of medium strength
- (ImV) or suitable attenuated strong signal.
- 3. Set the Contrast control to minimum (fully anticlockwise).
- 4. Adjust the Min. Contrast control to give 15 volts p-p at the kinescope cathode.
- 5. Adjust Contrast control to increase this to 20 volts p-p.
- 6. Adjust the I.F. A.G.C. for snow threshold. A clockwise rotation increases snow.
- Procedure for Case B is identical with that above with Black Level control initially set fully clockwise.

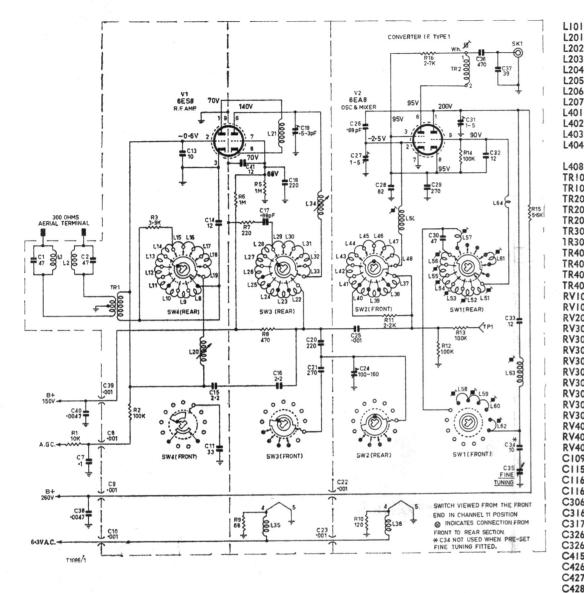
**Procedure for Case C:** 

- I. Set Min. Contrast, Black Level and I.F. A.G.C. controls to their mid-positions.
- 2. Adjust the Contrast control to obtain 20 volts p-p at the kinescope cathode and if necessary adjust the Min. Contrast control to obtain this figure.
- 3. Adjust Brightness control for normal brightness and adjust the I.F. A.G.C. control for snow threshold. A clockwise rotation of the I.F. A.G.C. control increases snow.
- 4. Carry out steps 5 and 6 with Brightness control fully anti-clockwise (minimum brightness).
- 5. (a) Check that the blanking level remains fairly con-stant, as viewed on a D.C. coupled C.R.O. connected to the kinescope cathode, as the Contrast control is rotated. If blanking level is constant proceed to step 6, if not, rotate the Black Level control by small increments, say 30°, and check results. N.B.: A more clockwise setting of the Black Level control results in a shift towards white as the Contrast control is rotated from minimum to maximum.
  - (b) If a D.C. coupled C.R.O. is unavailable the constancy of the blanking level can be judged by observing that the black area of the picture on the kinescope remains constant as the Contrast control is varied.
- 6. Having obtained constant blanking level, adjust the Min. Contrast control to obtain 15 volts p-p at the kinescope cathode with the Contrast control at minimum. A clockwise rotation of the Min. Contrast control increases the output.
- 7. Check step 5 and repeat if necessary.

## CIRCUIT A.W.A. TELEVISION RECEIVER CHASSIS-34 SERIES (Tuner Circuit see over)



## MF1H (43446), MF1L (43442) and MF1M (43981) TYPE TUNER



D.C. RESISTANCE

1.3

\*

# FIELD TEST SHEET

COMPONENT REPLACEMENTS

		RT or
		DE No.
1	Sound I.F. 38.375 Mc/s Trap	6
2	Video I.F. Input	43580
3	Detector Filter	
4	Detector Filter	49671
5	Detector Peaking Coil 250µH	40117
5	5.5 Mc/s Trap	43593
7	Video Amp. Series Peaking	41423
i	Sine Wave	40050
2		014514
3	Horizontal Linearity	43264
4-7	Yoke with chassis behind kinescope	43660
	H.F. Choke 1.5 μH Horizontal Linearity Yoke with chassis behind kinescope with chassis under kinescope	43661
8	H.T. Filter	40113F
01	Ratio Detector	
02	Speaker Transformer	
01	Ist Video I.F.	40902
02	2nd Video I.F.	41407
03	3rd Video I.F.	41933
01	Vertical Blocking Oscillator Vertical Output	43643A
02	Vertical Output	43340A
01 02	Horizontal Blocking Oscillator	415/9
02	Horizontal Output Horizontal Feedback	43040
03	Power Transformer	Chart
01	Power Transformer see 500K ohms Curve "F" Carbon, Tone W/S see	Chart
02	500K ohms Curve "C" Carbon, Volume see	Chart
01	500K ohms Linear Carbon, Contrast	Chart
01	500K ohms Linear Carbon, Contrast	620487
02	20K ohms Linear Carbon, Min. Contrast	620262
03*	200K share Linese Coster Bled Indi	120407
04A	1.5 Megohm Linear Carbon, Vert. Hold Set	100771
04B	500K ohms Linear Carbon, Vert. Hold	020114
05	100K ohms Linear Carbon, Vert. Linearity	620322
06	I Megohm Linear Carbon, Top Linearity I Megohm Linear Carbon, Height	620769
07	I Megohm Linear Carbon, Height	620769
08	500K ohms Linear Carbon, Brightness see	Chart
OIA	500K ohms Linear Carbon, Brightness see 50K ohms Linear Carbon, Hor. Hold	620861
01B 02		
9	2.5 Megohms Linear Carbon, Focus 10μF 25VW Electrolytic	020781
5	40μF 16VW Electrolytic	228771 229552
6A	IO F 450VW	229352
6B	IOμF 450VW 50μF 350VW } Electrolytic	229612
6	24μF 500VW Electrolytic	229319
6	2µF 500VW Electrolytic	227922
7	4μF 500VW Electrolytic	228188
6A	10µF 450VW ] Flater 14	000/10
6B	$ \begin{array}{c} 10\mu F & 450VW \\ 50\mu F & 350VW \end{array} $ Electrolytic	229612
5	2µF 300VW Electrolytic	227923
6	200 JE 200 VW Electrolytic	229751
7	200µF 200VW Electrolytic	229751
8	150µF 400VW Electrolytic	229739
	*Note: PV202 deleted on latest models	

\*Note: RV303 deleted on latest models. (See A.G.C. Alignment over.)

D.C. RESISTANCE

 $50153 = 9'' \times 6''$  speaker  $50117 + 2\mu f$  200VW capacitor

350

TRANSFORMERS

MODEL	CHASSIS		1		TRANSF	ORMERS		POTEN	TIOMETERS			KN	IOBS	
No.	No.	TUNER	KINESCOPE	SPEAKER(S)	SPEAKER	POWER	POWER- TONE	VOLUME	BRIGHTNESS	CONTRAST	CHAN. SEL.	TUNING	VOLUME	VERT
1X	34-11	43446	23MP4	6" x 4" 50172	50545C	43261C	620662	620628	620544	620544	43119	41518	41520	4284
2V	34-12	43446	23MP4	7″ x 5″ 50173	50545D	43261C	620651	620556	620540	620540	43119	41518	60103	4284
3Y 3Z	34-12 34-00	43446	23CP4	6" x 4" 50172	50545C	43261C	620651	620556	620540	620540	43119	41518	60103	4284
4Z	34-13	43446	23CP4	7″ x 5″ 50173	50545D	43261C	620651	620556	620540	620540	43119	41518	60103	4284
5Z	34-14	43446	23CP4	6" x 4" 50174	50545E	43261C	620547	620546	620545	620545	43780	41369	42644	4284
D12T	34-15	43442	23CP4	9″ x 6″ 50176	50545D	43261C	620658	620553	620542	620542	43412	42151	42644	4284
D50Z	34-00	43442	23CP4	9″ x 6″ 50177 4″ 50069	51785A	43261C	620658	620553	620542	620542	43412	42151	42644	4284
D51Z	34-01	43442	23CP4	9″ x 6″ 50153 4″ 50069	51785A	43504B	620658	620553	620542	620542	43412	42151	42644	4284
D52 D52Y	34-00 34-03	43981	23ÇP4	9" x 6" 50178 4" 50007	50537C	43261C	620547	620546	620545	620545	43850	43852	43852	4284
D7T	34-07	43442	19AKP4	6″ x 4″ 50175	50545D	43261D	620660	620592	620543	620543	42283A	42151	42205A	4284
D53Y	34-04	43981	23CP4	9″ x 6″ 50178 4″ 50007	50537C	432610	620547	620546	620545	620545	43897	43911	43911	4284
D54Y	34-06	43981	23CP4	9″ x 6″ 50178 4″ 50007	50537C	43261C	620547	620546	620545	620545	43850	43852	43852	4284
D55Y	34-08	43981	23CP4	9″ x 6″ 50178 4″ 50007	50537C	43261C	620547	620546	620545	620545	43850	43852	43852	4284
D56	34-02	43981	23CP4	9" x 6" 50117 4" 50007	50537B	43504B	620547	620546	620545	620545	43850	43852	43852	4284
244R	34-05	43442	19AKP4	6" x 4" 50175	50545D	43261D	620660	620592	620543	620543	42283	42151	42205	4284

V2 SEA8 V1 behind V ŏ 0 0

The following tuners are used The following tuners are used depending on the T.V. model. Concentric Fine Tuning:- 43446 Pre-set Fine Tuning:- 43442 Off-set Pre-set Fine Tuning 43981

Video I.F. *	TR102	Speaker Transformer		TR401	Horizontal Oscillator Transformer	Pre-set Fine Tuning:- 4: Off-set Pre-set Fine Tunin
Detector Filter Choke 4		Primary Secondary	500 2		Primary Ye-Anode 24 Secondary Ye-C405	
Detector Filter Choke * Detector Peaking Coil	TR201	Ist Video I.F.	-	TR402	Horizontal Output Transformer	
5.5 Mc/s Trap 1.5		Primary 1-2 Secondary 3-4	*		Primary 3-5	N.B.: Some of the speakers listed above are assemblies, below is a break up of
Video Amp. Series Peaking 5	TR202	2nd Video I.F.			Tertiary 5-Top Cap 415	those involved.
Sine Wave Coil		Primary 1-4	*	TD (02	Tertiary 1-2 1.5	$50172 = 6'' \times 4''$ speaker $50021 + 50545C$ transformer + $38672$ mtg. bracket
Horizontal Linearity Coil	TR203	Secondary 3rd Video I.F.		TR403	Horizontal Feedback Transformer Primary Ye-Rd	$50173 = 7'' \times 5''$ speaker $50023 + 50545D$ transformer + $33611$ mtg. bracket $50174 = 6'' \times 4''$ speaker $50021 + 50545E$ transformer + $38672$ mtg. bracket
Deflection Yoke   2.5     Deflection Yoke   2.5	11200	Primary	*		Secondary Wh-Bk 450	$50174 = 6^{\circ} \times 4^{\circ}$ speaker $50021 + 505450$ transformer + $38672$ mtg. bracket
Deflection Yoke	TR301	Secondary Vertical Oscillator Transformer		TR404	Power Transformer Primary Gn-Wh	$50176 = 9'' \times 6''$ speaker $50117 + 50545D$ transformer + 25225 mtg. bracket
Deflection Yoke 17	1,1301	Primary Bu-Gn	525		Secondary Rd-Rd	50177 = 9" x 6" speaker 50117 + 51785A transformer + 35818 mtg. bracket
H.T. Filter Choke 40		Secondary Ye-Bk	140		Motor Winding 2	$50178 = 9'' \times 6''$ speaker $50117 + 50537C$ transformer + 25225 mtg. bracket

TR302

WINDING

Secondary Rd-Ye

Vertical Output Transformer Primary Bu-Rd

D.C. RESISTANCE

9.5

## \* Less than I ohm.

WINDING

38.375 Mc/s Trap

Sound I.F.

Tuner Windings

L101

L201

1.202

L203

L204

L205

L206

L207

L401

L402

L403

L404

L405

L406

L407

L408

The above readings were taken on a standard chassis, but substitution of materials during manufacture may cause variations, and it should not be assumed that a component is faulty if a slightly different reading is obtained.

## D.C. RESISTANCE OF WINDINGS

WINDING

Primary

Secondary

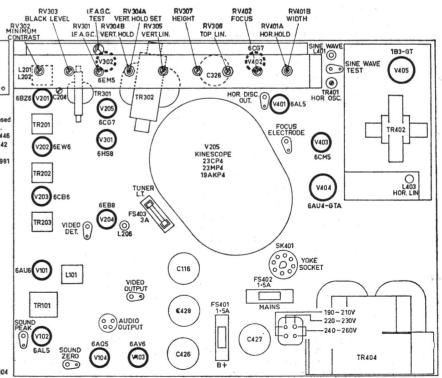
**Ratio Detector** 

TRIOI

T1104

# MODEL AND CHASSIS DESIGNATION 34 SERIES TV RECEIVERS KNOBS POTENTIOMETERS

## CHASSIS LAYOUT



## A.G.C. ADJUSTMENT

Set the Min. Contrast and I.F. A.G.C. controls at their mid positions.

Set the Contrast and A.G.C. controls at their maximum clockwise positions.

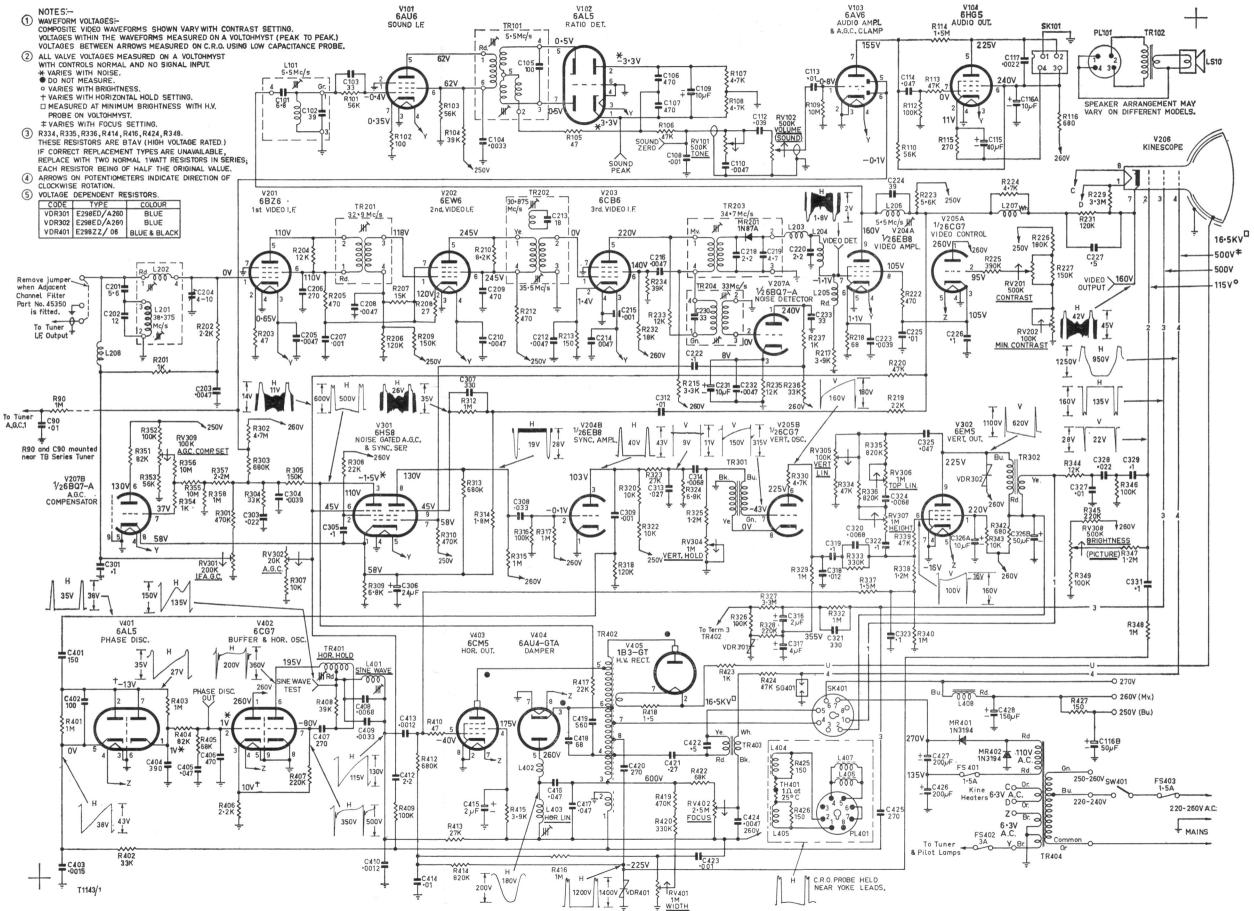
With no signal input, short circuit the plate to screen of V202 (2nd Video I.F.) and adjust the A.G.C. Comp. Set control (RV309) to give + 130V D.C. at the plate of V207B (A.G.C. Compensator). Remove the short circuit.

Tune the receiver to a channel of medium strength (ImV) or suitable attenuated strong signal.

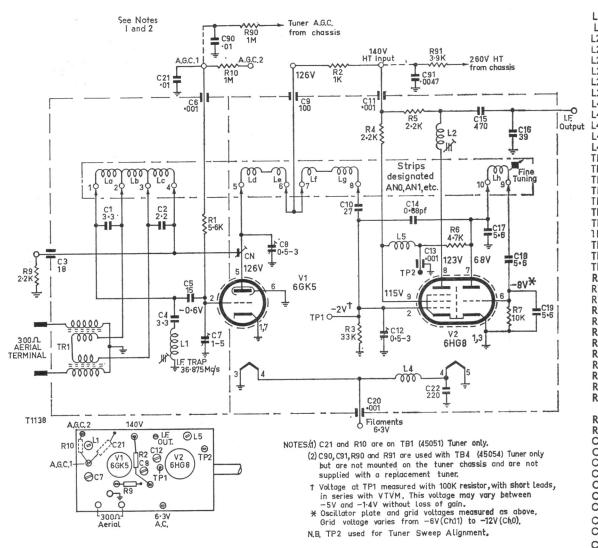
Set the fine tuning and with the Contrast control at maximum contrast adjust the A.G.C. control (RV302) for sync. clipping in the video amplifier and then back off until clipping stops.

Set the Contrast control for minimum contrast and adjust the Min. Contrast control to give 20 volts P-P at the kinescope cathode. Adjust the Brightness control for normal brightness and the I.F. A.G.C. control for snow thresh-hold.

## CIRCUIT A.W.A. TELEVISION RECEIVER CHASSIS-34-50 SERIES (Tuner Circuit see over)



## TB4 (45054) NEUTRODE TURRET TUNER



# FIELD TEST SHEET

## COMPONENT REPLACEMENTS

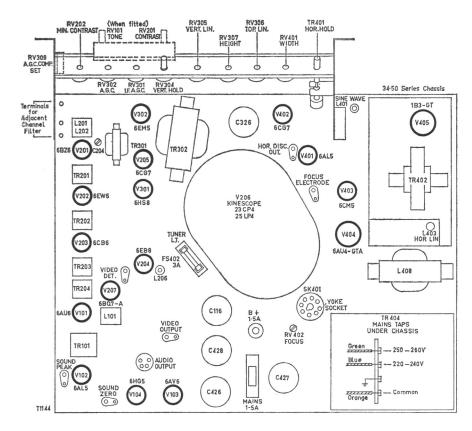
		RT or
		DE No.
LIOI	Sound I.F.	43336
L201	38.375 Mc/s Trap	4358 <b>0</b>
L202	Video I.F. Input	40323
L203	Detector Filter Detector Filter	49671
L204 L205	Detector Peaking Coil 250µH	40117
L205	5.5 Mc/s Trap	43593
L207	Video Amp. Series Peaking	41423
L401	Sine Wave	52150
L402	H.F. Choke I.5 µH	.214516
L403	Horizontal Linearity	43264
L404-7	Yoke	43660
L408	H.T. Filter	40113C
TRIOI	Ratio Detector	40077
TR102	Speaker Transformer se	
TR201	Ist Video I.F.	40902
TR202	2nd Video I.F.	41407
TR203	3rd Video I.F.	41933
TR204	Noise Detector	43338
TR301	Vertical Blocking Oscillator	43643A
1R302	Vertical Output Horizontal Hold	43340A 45295
TR401	Horizontal Output	43646
TR402		51893A
TR404 RV101	FOOK alma Curve "C" Carbon Tone	Chart
RVI02	Power Transformer 500K ohms Curve "C" Carbon, Tone see 500K ohms Curve "C" Carbon, Volume see	Chart
RV201		Chart
RV202	100K ohms Linear Carbon, Contrast see 100K ohms Curve "A" Carbon, Min. Contrast 200K ohms Curve "A" Carbon, I.F. A.G.C 20K ohms Curve "A" Carbon, A.G.C 1 Megohm Curve "A" Carbon, Vert. Hold 100K ohms Curve "A" Carbon, Vert. Linearity 1 Megohm Curve "A" Carbon, Top Linearity	620322
RV301	200K ohms Curve "A" Carbon, I.F. A.G.C.	620487
RV302	20K ohms Curve "A" Carbon, A.G.C.	620262
RV304	Megohm Curve "A" Carbon, Vert. Hold	600786
RV305	100K ohms Curve "A" Carbon, Vert. Linearity	620322
RV306	Megohm Curve "A" Carbon, Top Linearity	620769
RV307	I Medonm Curve A Carbon, neight	620769
RV308	500K ohms Curve "A" Carbon, Brightness, se	e Chart
RV309	100K ohms Curve "A" Carbon, A.G.C. Comp.	
	Set	620322
RV401	I Megohm Curve "A" Carbon, Width	600769
RV402	2.5 Megohms Curve "A" Carbon, Focus	620781
C109	10μF 25VW Electrolytic	228771
CI15	40µf 16VW Electrolytic	229552
CI16A	$ \begin{array}{c} 10\mu F 450VW \\ 50\mu F 350VW \end{array} $ Electrolytic	229612
CI16B	$24\mu$ F 80VW Electrolytic	229319
C306	2uF 500 VW Electrolytic	227922
C316		228188
C317		220100
C326A	$ \begin{array}{c} 10 \mu F & 450 VW \\ 50 \mu F & 350 VW \end{array} \bigg\} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	229612
C326B	50μF 350VW ∫ Liecholync	007007
C415	2µF 300VW Electrolytic	227923
C426	200µF 200VW Electrolytic	229751
C427	200uF 200 VW Electrolytic	229751
C428	150μF 400VW Electrolytic	229739

## MODEL AND CHASSIS DESIGNATION 34-50 SERIES TV RECEIVERS

MODEL	CHASSIS	TUNED	KINESCORE	SPEAKER(S)	TRANSF	DRMERS		POTENT	IOMETERS		KNOBS				
No.	No.	TUNER	KINESCOPE		SPEAKER	POWER	TONE	VOLUME	BRIGHTNESS	CONTRAST	CHAN. SEL.	TUNING	VOLUME	TONE	
D73	34-51	45054	25LP4	9″ x 6″ 50260 4″ 50007	52436C	51893A	620556	620532	620533	620540	45111	45178	45115	45116	
D75	34-51	45054	23CP4	6″ x 4″ 50268	52448D	5189 <b>3A</b>	620556	620532	620533	620540	45111	45343	45115	45116	
D76	34-52	45054	23CP4	9″ x 6″ 50260 4″ 50007	52436C	51893A	620556	620455	620454	620540	45187	45194	45184	45116	
D79	34-51	45054	25LP4	7″ x 5″ 50267	52448D	5189 <b>3A</b>	620556	620532	620533	620540	45111	45178	45115	45116	

N.B.: Some of the speakers listed above are assemblies. Below is a break up of those involved.

 $50260 = 9" \times 6"$  speaker 50229 + 52436C transformer + 25225 mtg. bracket  $50268 = 6" \times 4"$  speaker 50215 + 52448D transformer + 38672 mtg. bracket  $50267 = 7" \times 5"$  speaker 50093 + 52448D transformer + 33611 mtg. bracket



## D.C. RESISTANCE OF WINDINGS

	WINDING	D.C. RESISTANCE IN OHMS		WINDING	D.C. RESISTANCE		WINDING	.C. RESISTANCE
L101 L201 L202 L203 L204 L205 L206 L207 L401 L402 L403 L404	Windings Sound I.F. 38.375 Mc/s Trap Video I.F. Detector Filter Choke Detector Filter Choke Detector Peaking Coil 5.5 Mc/s Trap Video Amp. Series Peaking Sine Wave Coil H.F. Choke Horizontal Linearity Coil Deflection Yoke	IN OHMS     *        *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *     *	TR101 TR102 TR201 TR202 TR204	Ratio Detector   Primary   Secondary   Speaker Transformer   Primary   Secondary   Ist Video I.F.   Primary 1-2   Secondary 3-4   2nd Video I.F.   Primary 1-4   Secondary   Noise Detector   Primary	9,5 1 500 2 * *	TR301 TR302 TR401 TR402 TR403		IN OHMS PT 525 140 350 24 88 7 23 7 415 1.5 er
L405 L406 L407 L408	Deflection Yoke Deflection Yoke Deflection Yoke H.T. Filter Choke	17 17	TR203	Secondary 3rd Video I.F. Primary Secondary	*	TR404	Secondary Wh-Bk Power Transformer Primary Gn-Wh Secondary Rd-Rd Motor Winding	. 10 . 4

\* Less than I ohm.

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## **CHASSIS LAYOUT**