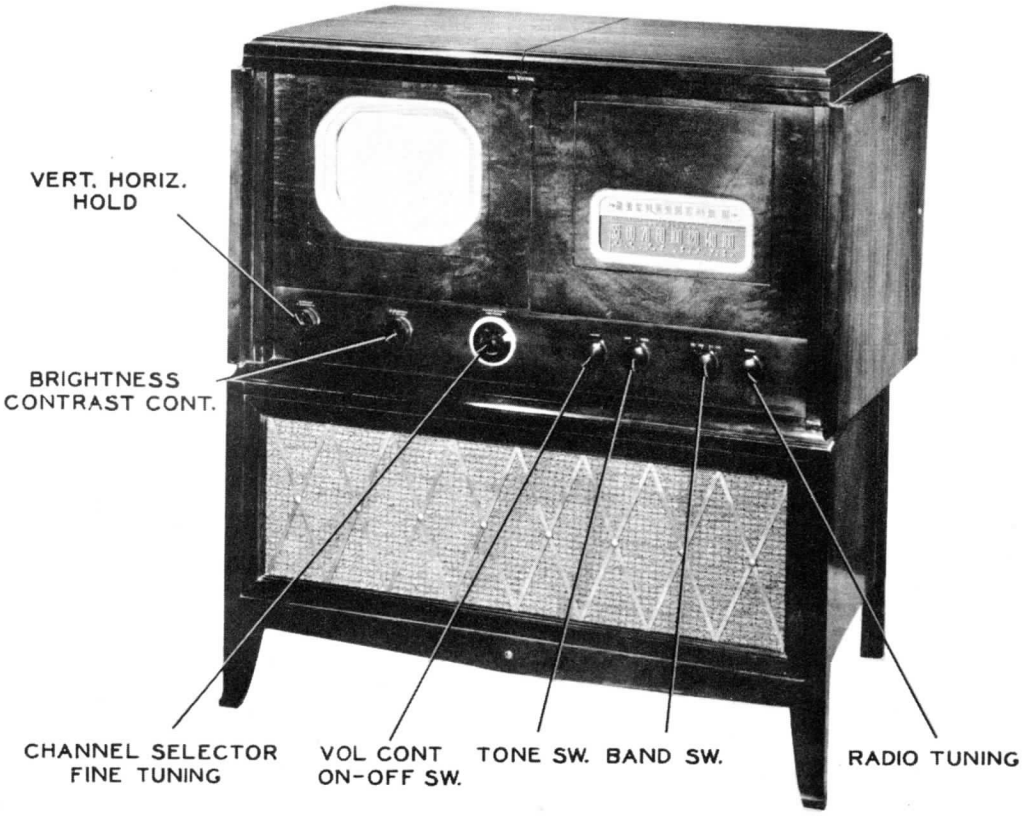
PHOTOFACT* Folder

*TRADE MARK

RCA VICTOR
MODELS 730TV1, 730TV2,
(Ch. KCS27-1)



RCA VICTOR MODEL 730TV1

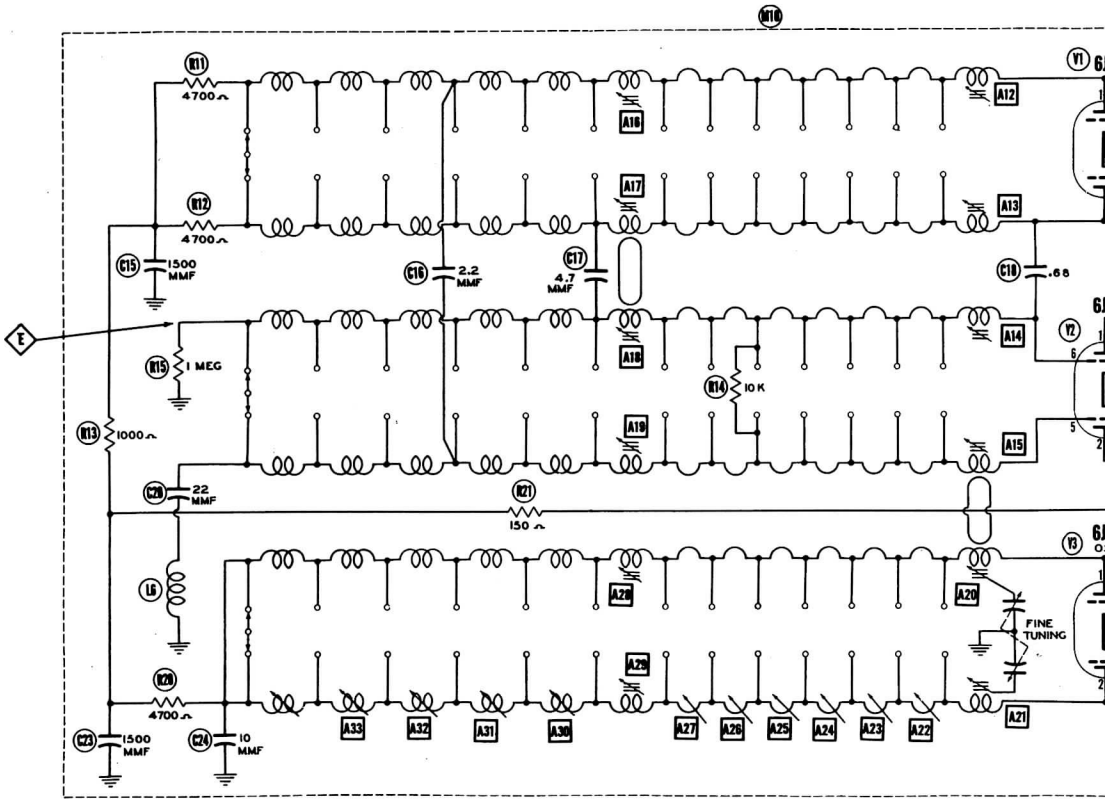
TRADE NAME	RCA Victor, Models 730TV1, 730TV2 (Ch. KCS 27-1)
MANUFACTURER	RCA Victor Div., Radio Corp. of America, Camden, New Jersey
TYPE SET	AM-FM-Phono-TV Receiver
TUBES	Thirty
POWER SUPPLY	115 Volts-60 Cycles AC
TUNING RANGE	TV Channels 1 thru 13 (44-88MC, 174-216MC) AM 540-1600KC FM 88-108MC
RATING:	TV 2.44 Amp. @ 117 Volts AC Radio .6 Amp. @ 117 Volts AC

INDEX

RCA VICTOR
MODELS 730TV1, 730TV2,
(Ch. KCS27-1)

HOWARD W. SAMS & CO., INC. • Indianapolis 7, Indiana

DATE 9/49 4918-7 SET #70 FOLDER 7



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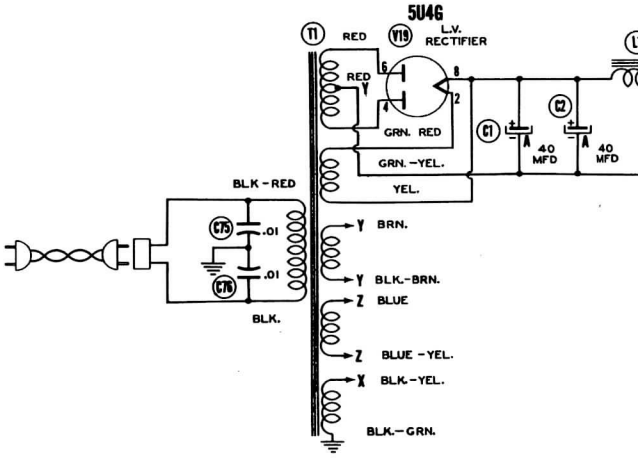
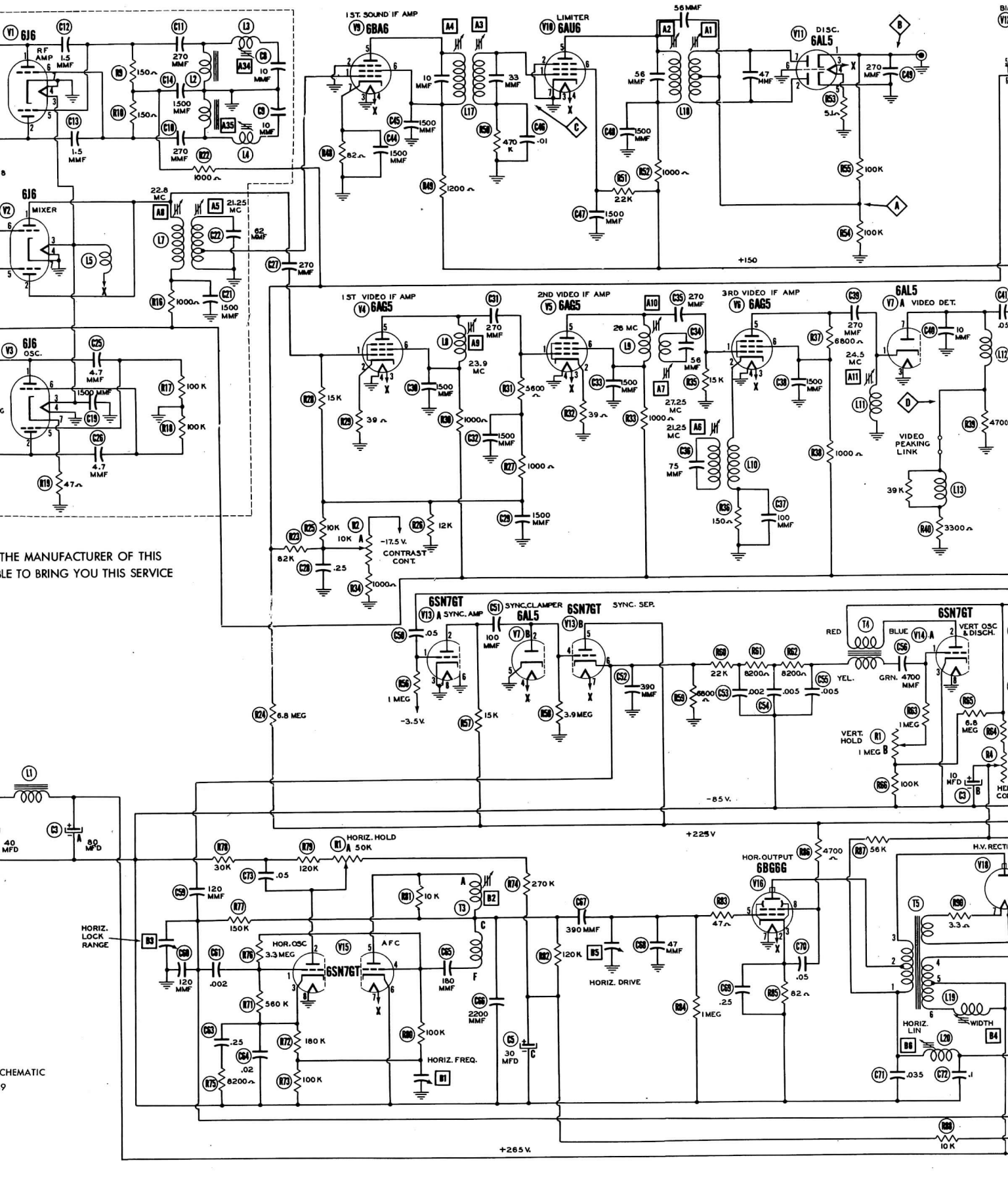
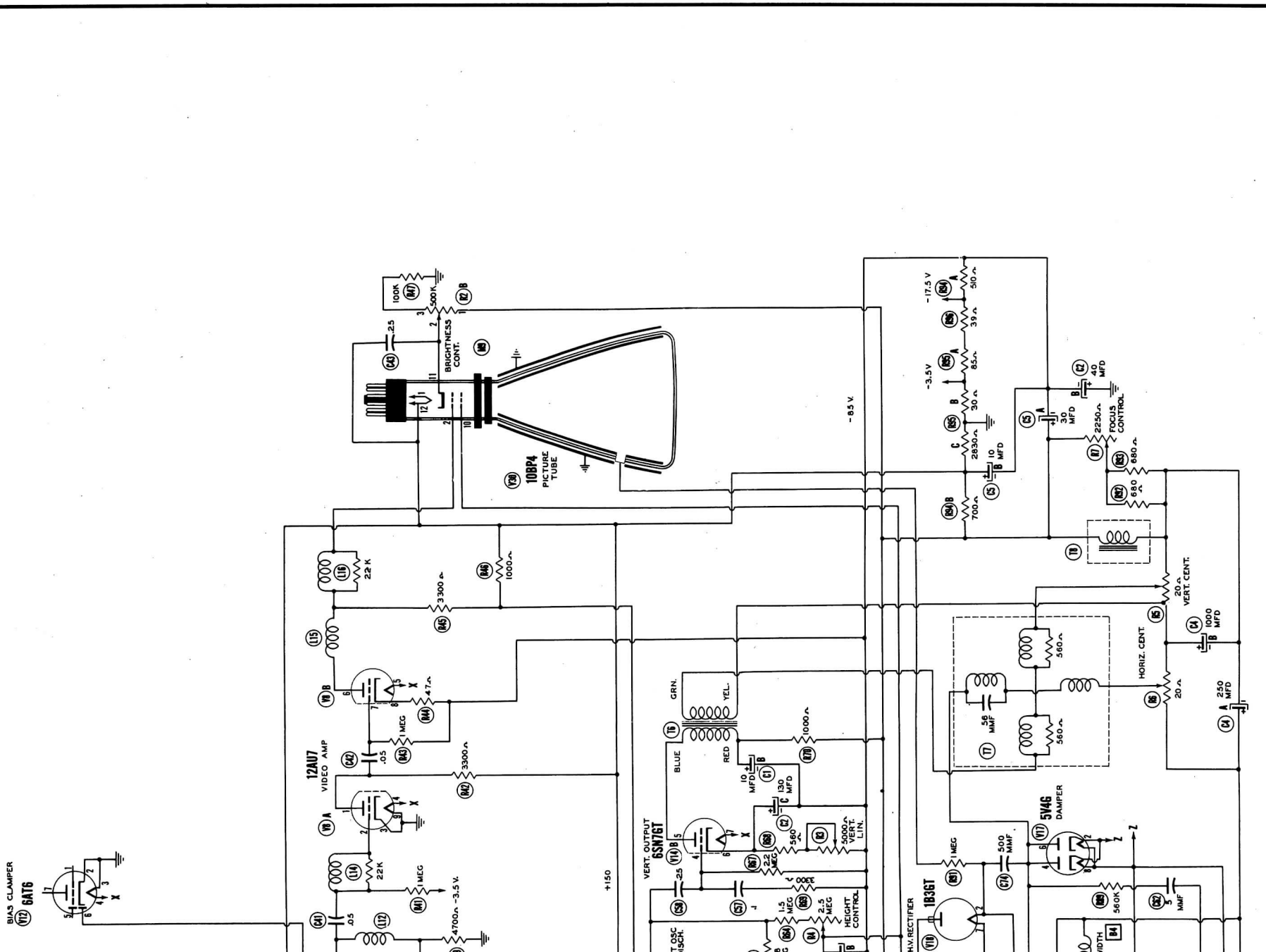


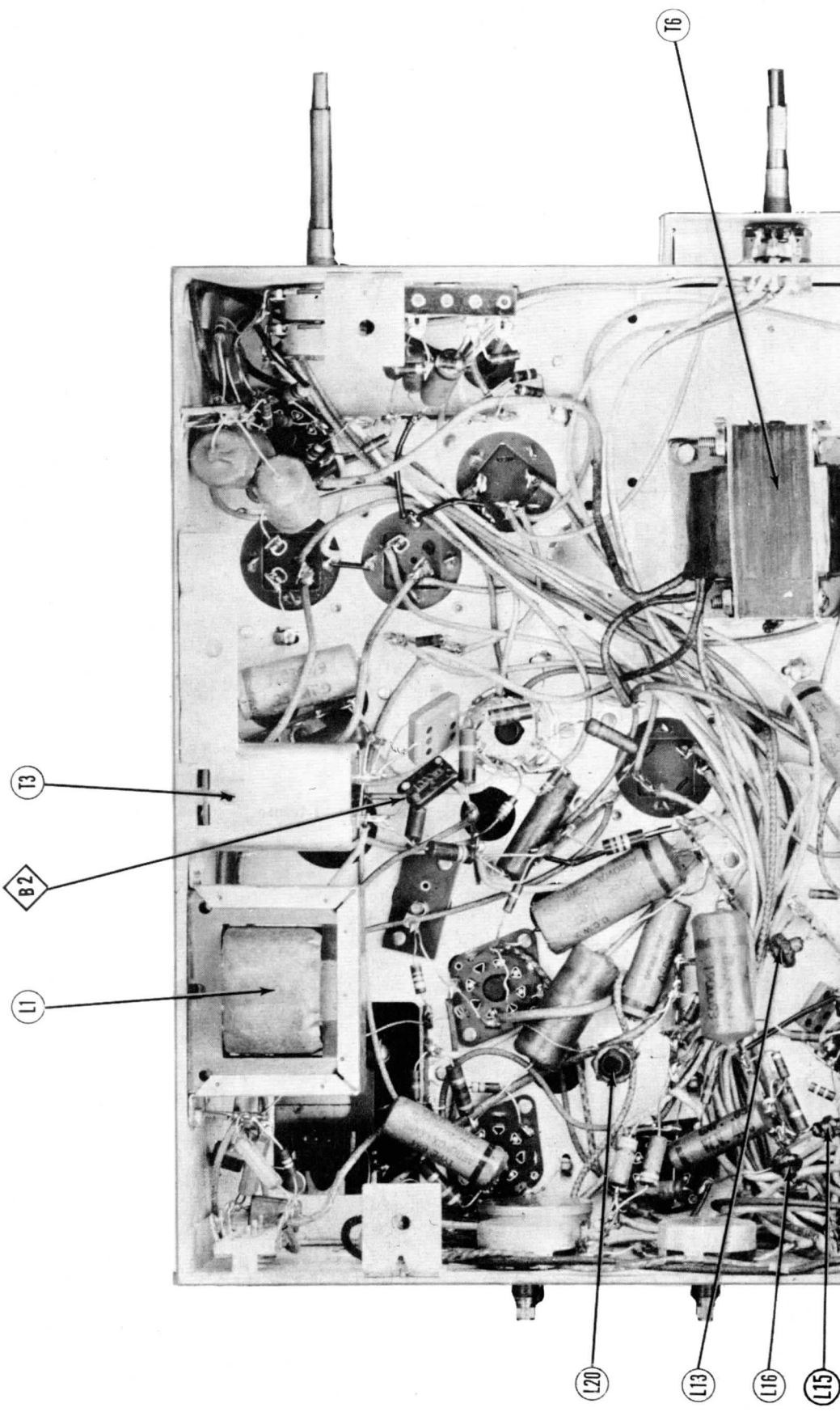
A PHOTOFACT STANDARD NOTATION SCHEMA


1ST. SOUND IF AMP
6BA6
LIMITER
6AU6
DISC.
6AL5
6J6
RF AMP
MIXER
OSC.
1ST VIDEO IF AMP
6AG5
2ND VIDEO IF AMP
6AG5
3RD VIDEO IF AMP
6AG5
6AL5
A VIDEO DET.
VIDEO PEAKING LINK
+150
CONTRAST CONT.
-17.5 V.
6SN7GT
A SYNC. AMP
SYNC. CLAMPER
6AL5
6SN7GT
SYNC. SEP.
6SN7GT
VERT OSC & DISCH.
RED
BLUE
YEL.
GRN.
VERT. HOLD
1 MEG B
-85 V.
+225V
HORIZ. HOLD
HORIZ. LOCK RANGE
HOR. OSC
AFC
6SN7GT
HORIZ. FREQ.
HORIZ. DRIVE
HOR. OUTPUT
6BG6G
HORIZ. LIN
WIDTH
+265 V.
THE MANUFACTURER OF THIS
LE TO BRING YOU THIS SERVICE
CHEMATIC

RCA VICTOR
MODELS 730TV1, 730TV2,
(Ch. KCS27-1)

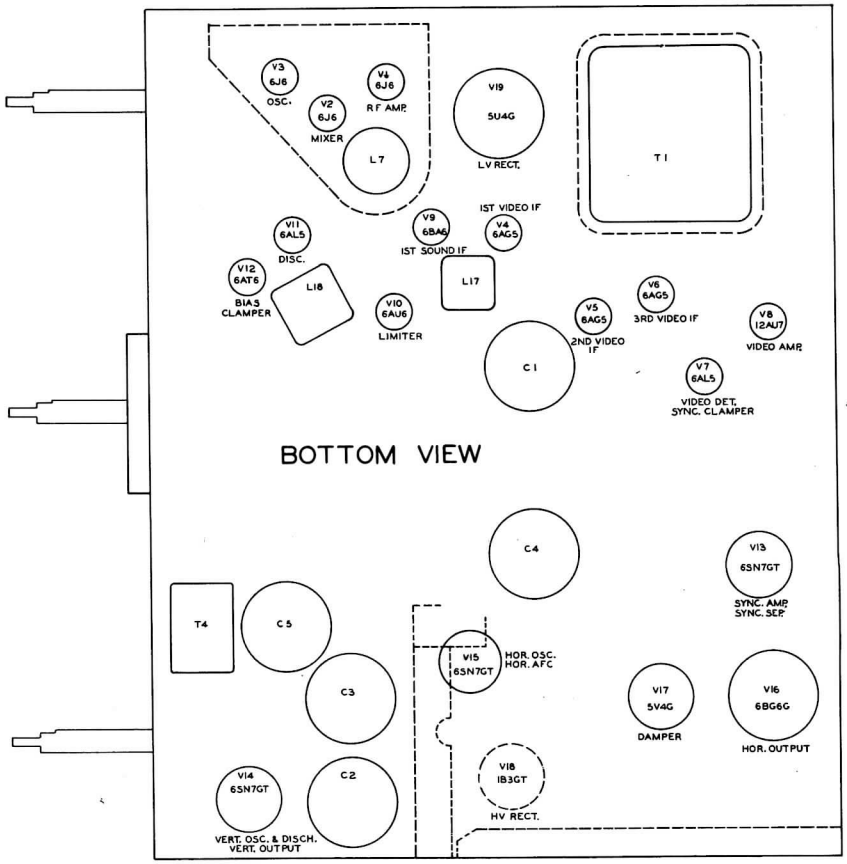


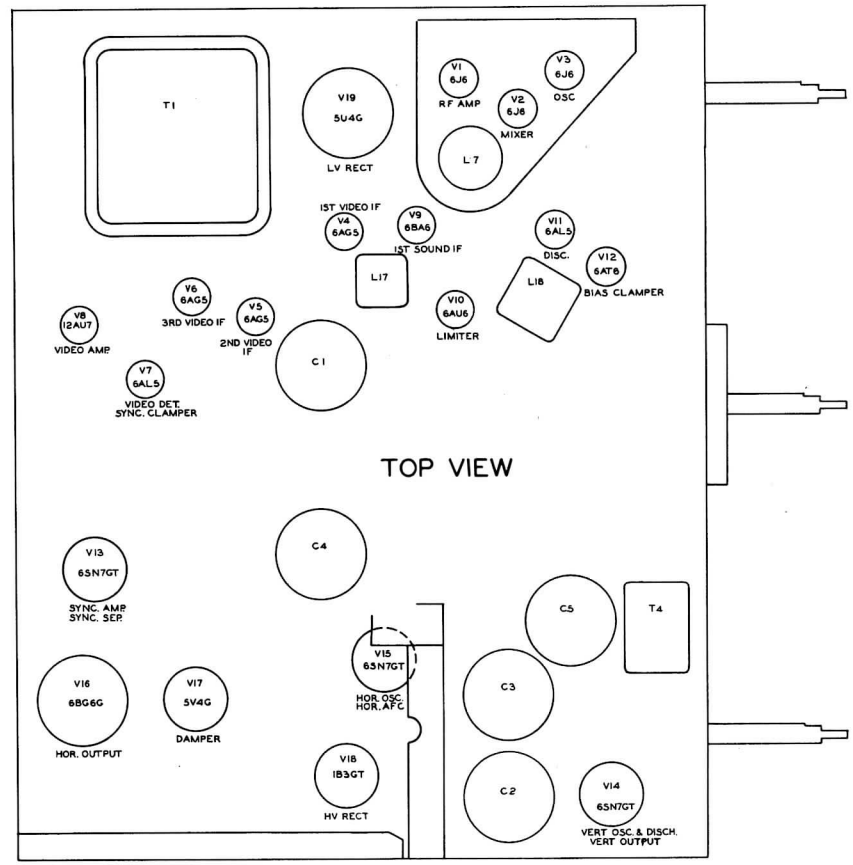
CHASSIS TOP VIEW



CHASSIS BOTTOM VIEW-TRANS., INDUCTO

CTOR AND ALIGNMENT IDENTIFICATION





TUBE PLACEMENT CHART

TV ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

If receiver is to be aligned with picture tube removed, it is recommended to also remove the 6SN7GT (V15) horizontal oscillator tube to eliminate high voltage shock hazard.

When complete alignment is to be performed, it can most conveniently be done in the order outlined.

SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1.	.05MFD	High side to pin 1 (Grid) of 6AU6 (V10) Low side to chassis.	21.25MC (Unmod.)	13	DC Probe thru 1 Meg to Point (A) Common to chassis.	A1,A2	Detune A1. Adjust A2 for maximum deflection.
2.	.05MFD	"	"	"	DC Probe thru 1 Meg to Point (B) Common to chassis.	A1	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
3.	.05MFD	High side to pin 1 (Grid) of 6BA6 (V9). Low side to chassis.	"	"	DC Probe thru 1 Meg to Point (C) Common to chassis.	A3,A4	Adjust for maximum deflection.

SOUND IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE

Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection.

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1.	.05MFD	High side to pin 1 (Grid) of 6BA6 (V9). Low side to chassis.	21.25MC (1MC Sweep)	21.25MC	13	Vert. Amp. to Point (C) Low side to chassis.	A3,A4	If 60\ sweep rate is used shunt R50 with 5600Ω. Adjust A3 and A4 for maximum amplitude and symmetry as per Fig 1.
2.	.05MFD	"	"	"	"	Vert. Amp. to Point (B) Low side to chassis.	A1,A2	Adjust A2 for maximum amplitude and straightness of diagonal line as per Fig 2. Adjust A1 so 21.25MC marker is at center of diagonal line. Continue with step 4.

VIDEO IF ALIGNMENT

Before starting video IF alignment connect VTVM between junction of R25 and R26 and chassis. Adjust contrast control to give VTVM reading of -3V. Leave contrast control at this setting for entire video IF alignment.

Remove 6J6 local oscillator tube V3 to prevent erroneous indications.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
4.		High side to ungrounded tube shield floating over mixer tube (V2). Low side to chassis.	21.25MC	13	DC Probe to Point (D) Common to chassis.	A5,A6	Adjust for minimum deflection.
5.		"	27.25MC	"	"	A7	Adjust for minimum delfection. (Some models may not have this trap.)
6.		"	22.8MC	"	"	A8	Adjust for maximum deflection.
7.		"	23.9MC	"	"	A9	" " " "
8.		"	26.0MC	"	"	A10	" " " "
9.		"	24.5MC	"	"	A11	" " " "

OVERALL VIDEO IF RESPONSE CHECK

Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection.

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
10.		High side to ungrounded tube shield floating over mixer tube (V2). Low side to chassis.	24MC (10MC Sweep)	21.25MC 23.0MC 25.0MC 25.75MC 27.25MC	13	Vert. Amp. to Point (D) Low side to chassis.		Check response curve obtained on scope. If necessary, slightly retouch A5 thru A11 for proper wave shape and placement of markers as per Fig 3.

RF AMP. & MIXER ALIGNMENT

Before starting RF alignment connect VTVM to junction of R25 and R26 and chassis and adjust contrast control to give VTVM reading of -1V. Leave contrast control at this setting for entire RF alignment.

Connect a 1000MMFD capacitor from pin 1 of 6AG5 1st Video IF Amp (V4) to chassis.

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
11.	Two 120Ω carbon res.	Across antenna terminals with 120Ω resistor in each generator lead.	177MC (10MC Sweep)	175.25MC 179.75MC	7	Vert. Amp. thru 10KΩ to Point (E) Low side to chassis.	A12,A13 A14,A15	Adjust for approximately flat topped response curve as per Fig 4. Markers must be above 70%. Keep slug pairs in same relative positions.
12.	"	"	183MC (10MC Sweep) 189MC (10MC Sweep) 195MC (10MC Sweep) 201MC (10MC Sweep) 207MC (10MC Sweep) 213MC (10MC Sweep)	181.25MC 185.75MC 187.25MC 191.75MC 193.25MC 197.75MC 199.25MC 203.75MC 205.25MC 209.75MC 211.25MC 215.75MC	8 9 10 11 12 13	"		Check to see that response is as above. Slight readjustment of A12, A13,A14,A15 may be necessary to obtain optimum response for all high band channels.

TV ALIGNMENT INSTRUCTIONS (CONT.)

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
13.	"	"	85MC (10MC Sweep)	83.25MC 87.75MC	6	"	A16,A17 A18,A19	Adjust for approximately flat topped response curve as per Fig 4. Markers must be above 70%. Keep slug pairs in approximately same relative position.
14.	"	"	79MC (10MC Sweep) 69MC (10MC Sweep) 63MC (10MC Sweep) 57MC (10MC Sweep)	77.25MC 81.75MC 67.25MC 71.75MC 61.25MC 65.75MC 55.25MC 59.75MC	5 4 3 2	"		Check to see that response is as above. Slight readjustment of A16, A17,A18,A19 may be necessary to obtain optimum performance on all low band channels.

OSCILLATOR ALIGNMENT

Replace oscillator tube (V3).
Set fine tuning control to the mid-point of its tuning range.
The sound IF system must be accurately aligned before starting the oscillator alignment.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
15.	Two 120Ω carbon res.	Across antenna terminals with 120Ω resistor in each lead.	215.75MC	13	DC Probe thru 1 Meg to Point (B+) Common to chassis.	A20,A21	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting. Keep slug pairs in same relative position.
16.	"	"	209.75MC 203.75MC 197.75MC 191.75MC 185.75MC 179.75MC	12 11 10 9 8 7	"	A22 A23 A24 A25 A26 A27	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
17.	"	"	87.75MC	6	"	A28 A29	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting. Keep slug pairs in same relative position.
18.	"	"	81.75MC 71.75MC 65.75MC 59.75MC	5 4 3 2	"	A30 A31 A32 A33	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.

WAVE TRAP ADJUSTMENT

Wave traps A34 and A35 are used for specific types of interference and their alignment will depend upon the type encountered. With the receiver tuned to the channel having the interference set fine tuning control until interference is at maximum. Adjust A34 and A35 for minimum interference in the picture and sound. Keeping the cores at approximately the same relative position. Turn one core 1/2 turn, adjust the other for minimum interference.

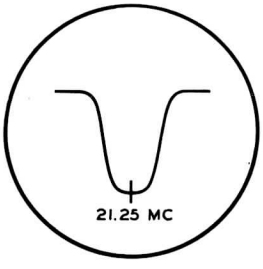


FIG. 1

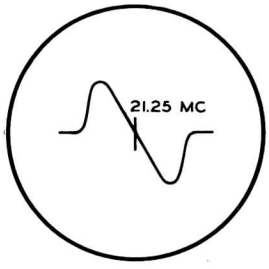


FIG. 2

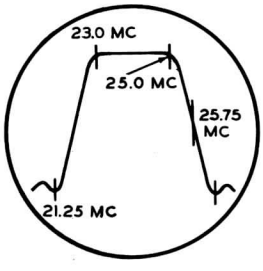


FIG.3

FIG. 4

RADIO ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

When complete receiver alignment is to be performed align the FM IF Amp. before aligning AM IF Amps. To set pointer turn tuning cap fully closed and set pointer to last reference mark at low frequency end of dial. Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.

FM IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

Connect two matched 100KΩ (± 1%) resistors in series from Point (F) to chassis. The junction of these two resistors is alignment Point (H) as shown on the schematic.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
19	.01MFD	High side to pin 1 (Grid) of 6AU6 (V23). Low side to chassis.	10.7MC (Unmod.)	FM (Ext. clock-wise.)	Tuning gang fully closed	DC Probe to Point (F). Common to chassis.	A36	Adjust for maximum deflection.
20	.01MFD	"	"	"	"	DC Probe to Point (G). Common to Point (H)	A37	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting. Repeat steps 19 and 20 if A37 required much adjustment.
21	.01MFD	Across antenna terminals.	10.7MC	"	"	DC Probe to Point (F). Common to chassis.	A38, A39, A40, A41	Adjust for maximum deflection. Alternately load the primary and secondary windings of the IF transformers with 680Ω while the opposite side of the same transformer is being adjusted.

FM IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE

Use frequency modulated signal with 60∿ modulation and 450KC sweep. Use 120∿ sawtooth voltage in scope for horizontal deflection.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT SCOPE	ADJUST	REMARKS
19	.01MFD	Across antenna terminals.	10.7MC (450KC Sweep)	FM	Tuning gang fully closed	Vert. Amp. to Point (F). Low side to chassis.	A36, A38, A39, A40, A41	Disconnect stabilizer C7. Adjust for maximum amplitude and symmetry as per Fig 5.
20	.01MFD	"	"	"	"	Vert. Amp. to Point (G). Low side to chassis.	A37	Reconnect stabilizer cap C7. Adjust A37 so crossover point occurs at center of pattern as per Fig 6. Slightly retouch A36 for maximum amplitude and straightness of crossover lines. Continue with step 22.

FM RF ALIGNMENT

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
22	Two 120Ω carbon res.	Across antenna terminals with 120Ω resistor in each lead.	106MC	FM	106MC (5 3/4" to right of left hand calibration mark at low freq. end of dial back plate).	DC Probe to Point (F). Common to chassis.	A42, A43	Adjust for maximum deflection.
23	"	"	90MC	"	90MC (1 1/8" to right of the reference point listed above).	"	A44, A45	"

AM ALIGNMENT

FM IF alignment must be complete before starting AM alignment. Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
24	.01MFD	High side to pin 7 (Grid) of 6BE6 (V21). Low side to chassis.	455KC (400∿ Mod.)	AM (3 positions clock-wise)	Tuning gang fully closed	Across voice coil	A46, A47, A48, A49	Adjust for maximum output. Alternately load the primary and secondary windings of the AM IF transformers with 47KΩ while the opposite side of the same transformer is being aligned.
25	200MMFD	High side to terminal 2 of antenna terminal strip. Low side to chassis.	1400KC	"	1400KC (5 15/16" to the right of left hand calibration mark at low freq. end of dial back plate).	"	A50, A51	Adjust for maximum output.
26	200MMFD	"	600KC	"	600KC (1 1/4" to the right of the reference point listed above.	"	A52, A53	Adjust for maximum output. Repeat steps 24 and 25.

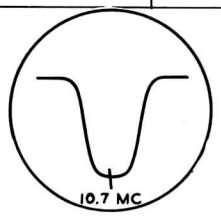
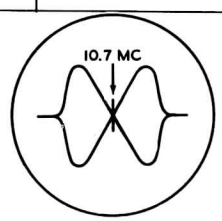
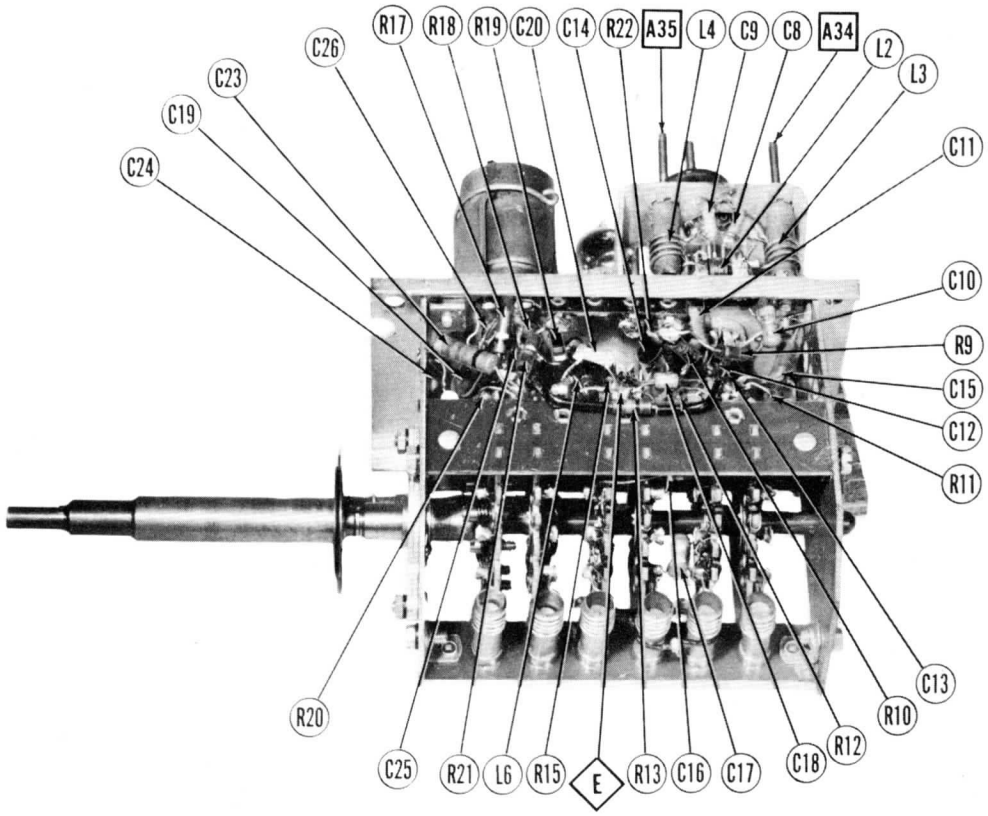


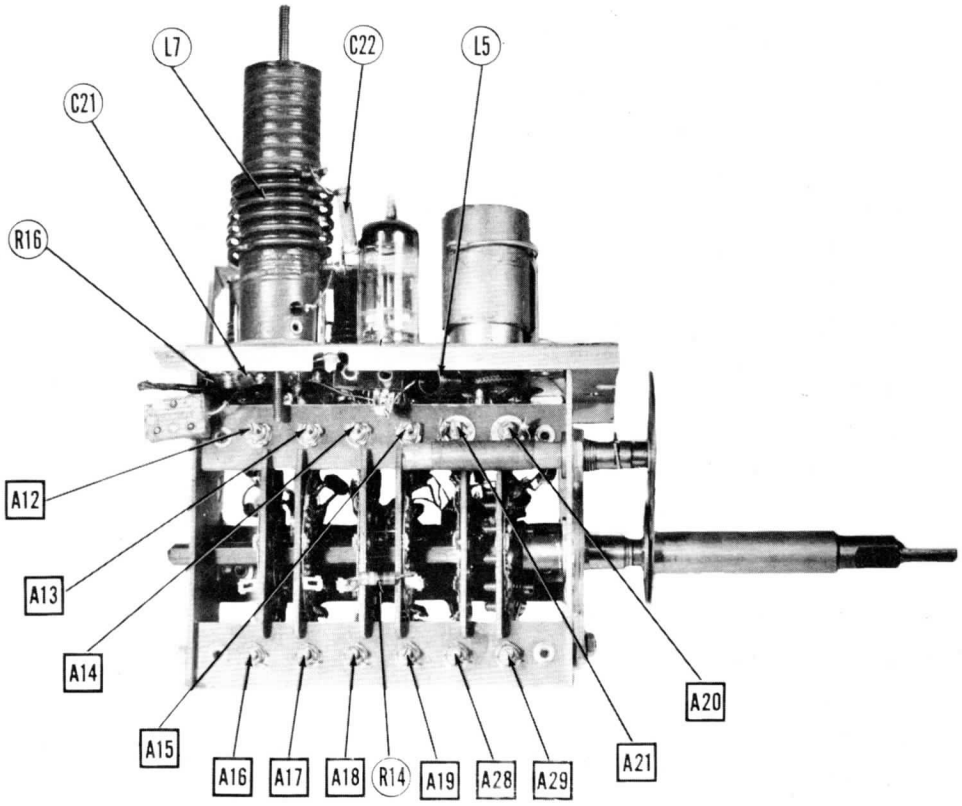
FIG. 5

FIG. 6

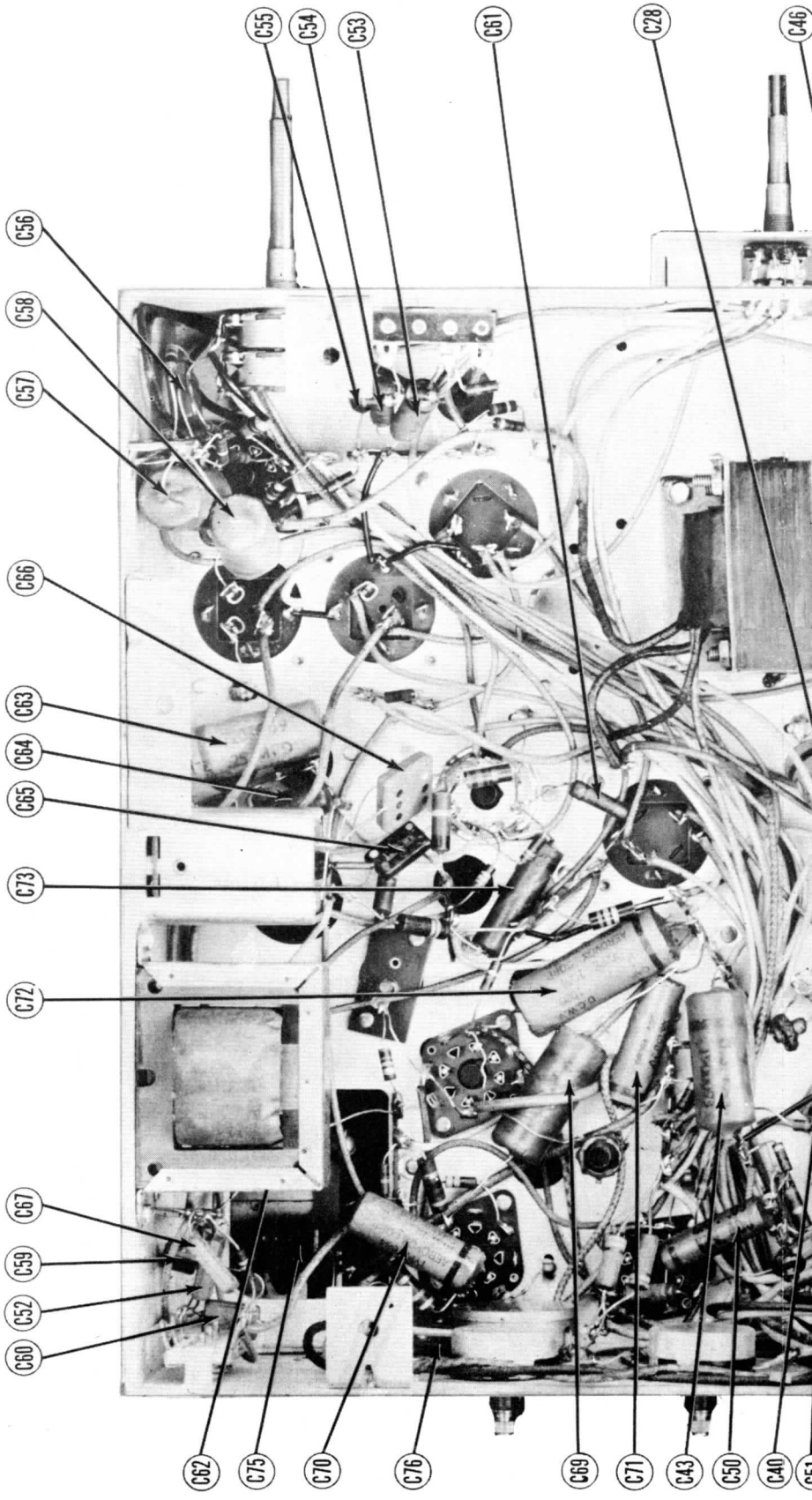




RF TUNER-RIGHT SIDE

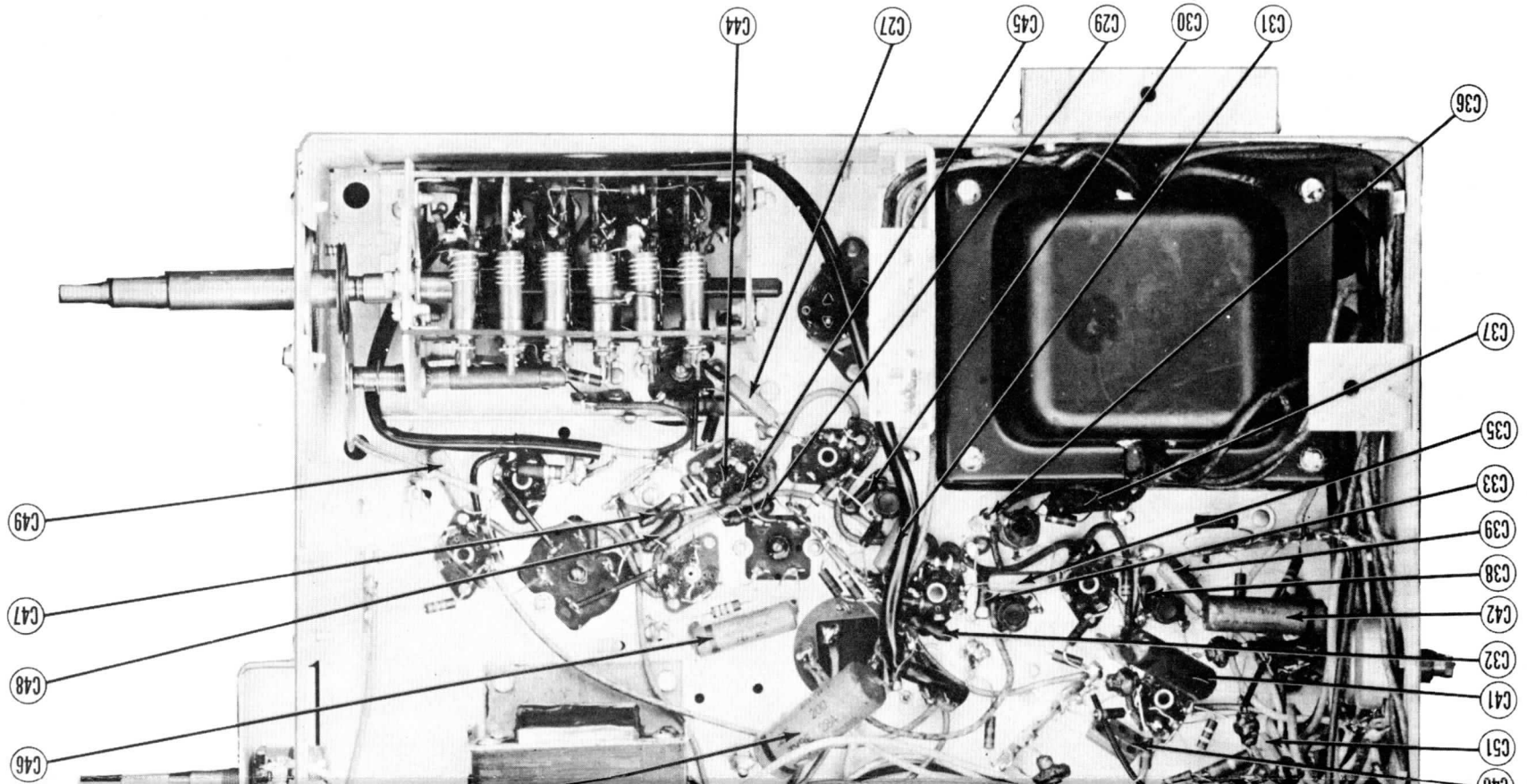


RF TUNER-LEFT SIDE

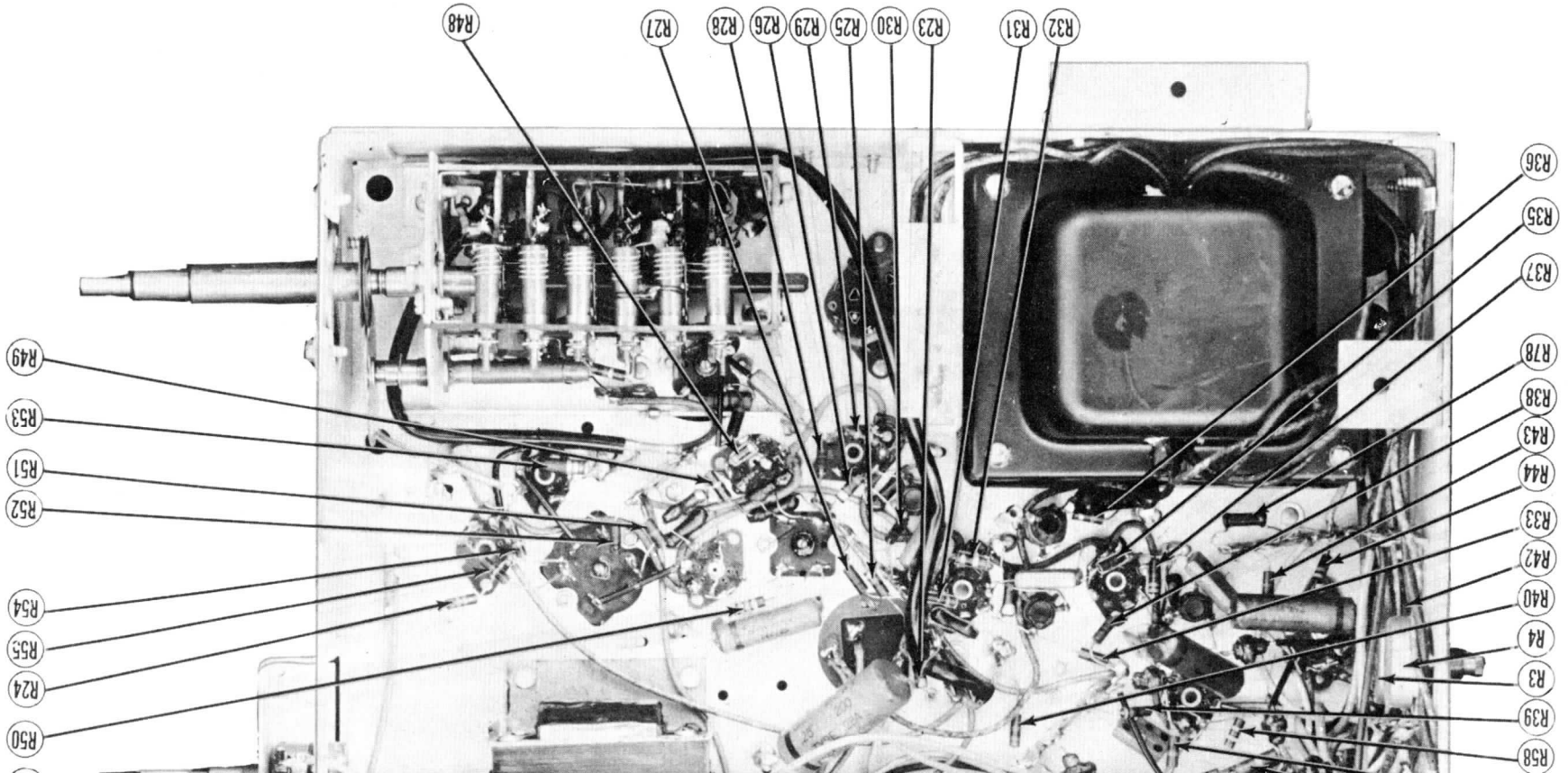


CHASSIS BOTTOM VIEW-CA

CAPACITOR IDENTIFICATION



CHASSIS BOTTOM VIEW- R



RESISTOR IDENTIFICATION

PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	NOTES
		RCA PART No.	STANDARD REPLACEMENT		
V1	RF Amp.	6J6	6J6	7BF	
V2	Mixer	6J6	6J6	7BF	
V3	Oscillator	6J6	6J6	7BF	
V4	1st Video IF Amp	6AG5	6AG5	7BD	
V5	2nd Video IF Amp	6AG5	6AG5	7BD	
V6	3rd Video IF Amp	6AG5	6AG5	7BD	
V7	Video Det.-Clamper	6AL5	6AL5	6BT	
V8	Video Amp.	12AU7	12AU7	9A	
V9	1st Sound IF Amp.	6BA6	6BA6	7BK	
V10	Limiter	6AU6	6AU6	7BK	
V11	Discriminator	6AL5	6AL5	6BT	
V12	Bias Clamper	6AT6	6AT6	7BT	
V13	Sync. Amp.-Sync. Sep.	6SN7GT	6SN7GT	8BD	
V14	Vert. Osc. and Disch.-Vert. Output	6SN7GT	6SN7GT	8BD	
V15	Hor. Osc.-AFC	6SN7GT	6SN7GT	8BD	
V16	Hor. Output	6BG6G	6BG6G	5BT	
V17	Damper	5V4G	5V4G	5L	
V18	HV Rectifier	1B3GT	1B3GT	3C	
V19	LV Rectifier	5U4G	5U4G	5T	
V20	FM Conv.	6BE6	6BE6	7CH	
V21	AM Conv.	6BE6	6BE6	7CH	
V22	1st IF Amp.	6BA6	6BA6	7BK	
V23	2nd IF Amp.	6AU6	6AU6	7BK	
V24	Ratio Det.	6AL5	6AL5	6BT	
V25	Det.-AVC-Phase Inv.	6SQ7	6SQ7	8Q	
V26	AF Amp.	6SQ7	6SQ7	8Q	
V27	Power Output	6K6GT	6K6GT	7S	
V28	Power Output	6K6GT	6K6GT	7S	
V29	Rectifier	5Y3GT	5Y3GT	5T	
V30	Picture Tube	10BP4	10BP4		

CAPACITORS

Capacity values given in the rating column are in mfd. for Electrolytic and Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING		REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES
	CAP.	VOLT	RCA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	
C1A	40	450	71782	AF82J2H#	UP7BJ		TVL-69	◓ Filter
B	10	350			920			▲ Vert. Output Dec.
C2A	40	450	71781	AF88J26B	UP9CJ		D-12647	◓ Filter
B	40	150			887			■ Filter
C	130	50						▲ Vert. Output Cath.Byp.
C3A	80	450	71780	AF164J	UP9BJ		TVL-47	◓ Filter
B	10	450			857			▲ Vert. Osc. Decoupling
C4A	250	10	71436	AF50R200S	UP7BJ		TVL-66	◓ Hor. Cent. Cont. Byp.
B	1000	6			808			▲ Vert.Cent. Cont. Byp.
C5A	30	350	72736	AF862J4A‡	UP8CJ		TVL-56	■ Filter
B	10	400			898			◓ Filter
C	30	250						▲ Decoupling
C6A	30	450	72052	AF66J4A	UP2245		EL330	◓ Filter
B	30	350			CC		TVA-6	■ Filter
C	40	25						▲ Output Cath. Bypass
C7	5	50	72121	PRS150/4	BBR5-50T		TVA-13	Stabilizing Cap.
C8	10					NPOK-10		Fixed Trimmer *
C9	10					NPOK-10		Fixed Trimmer *
C10	270		71540			GP2K-250		RF Coupling
C11	270		71540			GP2K-250		" "
C12	1.5		71500			NPOK-1.5		Neutralizing
C13	1.5		71500			NPOK-1.5		"
C14	1500		71501			GP2L-0015		Bias Filter
C15	1500		71501			GP2L-0015		RF Plate Decoupling
C16	2.2		71502					RF Coupling
C17	4.7		71520					" "
C18	.68		71504					" "
C19	1500		71501			GP2L-0015		Filament Bypass
C20	22		33101					Fixed Trimmer
C21	1500		71501			GP2L-0015		Conv. Plate Dec.
C22	62							Fixed Trimmer
C23	1500		71501			GP2L-0015		Osc. Plate Decoupling
C24	10		45466			GP1K-10		" " "
C25	4.7		71520					Osc. Feedback
C26	4.7		71520					" "
C27	270	500	65401	1468-00025	5W5T25	GP2K-250	1FM-325	IF Coupling
C28	.25	200	70618	P488-25	GT2P25		TC-2	Bias Filter
C29	1500		71501	1467-0015	1W5D15	GP2L-0015	1FM-215	Bias Filter
C30	1500		71501	1467-0015	1W5D15	GP2L-0015	1FM-215	1st V. IF Decoupling
C31	270	1000	73091	1468-00025	5W5T25	GP2K-250	1FM-325	IF Coupling
C32	1500		71501	1467-0015	1W5D15	GP2L-0015	1FM-215	Bias Filter
C33	1500		71501	1467-0015	1W5D15	GP2L-0015	1FM-215	2nd V. IF Decoupling
C34	56							Fixed Trimmer *
C35	270	1000	73091	1468-00025	5W5T25	GP2K-250	1FM-325	IF Coupling
C36	75			1469-000075		NPOM-75		Fixed Trimmer
C37	100		45469	1468-0001	5W5T1	GP1K-100	1FM-31	3rd V. IF Cath. Bypass
C38	1500		71501	1467-0015	1W5D15	GP2L-0015	1FM-215	3rd V. IF Decoupling
C39	270	1000	73091	1468-00025	5W5T25	GP2K-250	1FM-325	IF Coupling
C40	10	500	72615	1468-00001	5W5Q1	GP1K-10	MS-41	V. Diode Filter
C41	.05	400	70615	P488-05	GT4S5		TM-15	Video Coupling
C42	.05	400	70615	P488-05	GT4S5		TM-15	Video Coupling
C43	.25	200	70618	P488-25	GT2P25		TC-2	Pic. Tube Cath. Dec.
C44	1500		71501	1467-0015	1W5D15	GP2L-0015	1FM-215	1st S. IF Cath. Bypass
C45	1500		71501	1467-0015	1W5D15	GP2L-0015	1FM-215	1st S. IF Decoupling
C46	.01	400	70610	P488-01	GT4S1	GP2-335-01	TM-11	Limiter Grid Filter
C47	1500		71501	1467-0015	1W5D15	GP2L-0015	1FM-215	Limiter Screen Bypass
C48	1500		71501	1467-0015	1W5D15	GP2L-0015	1FM-215	Limiter Plate Dec.
C49	270	1000	73091	1468-00025	5W5T25	GP2K-250	1FM-325	RF Bypass
C50	.05	400	70615	P488-05	GT4S5		TM-15	Video Coupling
C51	100	500	39628	1468-0001	5W5T1	GP1K-100	1FM-31	Sync. Coupling
C52	390	1000	73094	1468-0004	5W5T4		1FM-34	Sync. Amp. Cath. Bypass

CAPACITORS (CONT.)

ITEM No.	RATING CAP.	RATING VOLT	REPLACEMENT DATA RCA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
C53	.002	600	70601	P688-002	GT6D2	GP2M-002	TM-22	Integrator Net.
C54	.005	400	70606	P688-005	GT6D5	GP2M-005	TM-25	" "
C55	.005	400	70606	P688-005	GT6D5	GP2M-005	TM-25	" "
C56	4700	500	72524					Vert. Osc. Grid Cap.
C57	.1	1000	73101	1084-1				Vert. Discharge
C58	.25	200	70618	P488-25	GT2P25		TC-2	Vert. Sweep Coupling
C59	120	500	39630					Hor. Sync. Coupling
C60	120	500	39630					Voltage Divider
C61	.002	400	70622	P688-002	GT6D2	GP2M-002	TM-22	Hor. Sync. Coupling
C62	5	1500	72809					AFC Feedback
C63	.25	200	70618	P488-25	GT2P25		TC-2	AFC Filter
C64	.02	400	70611	P488-02	GT4S2		TM-12	" "
C65	180	1000	73102					Hor. Osc. Grid Cap.
C66	2200	500	39660					Hor. Discharge
C67	390	1000	73094	1469-0004	5R5T4		MS-34	Hor. Sweep Coupling
C68	47	500	39620	1468-00005	5W5Q5	GP1K-50	1FM-45	Voltage Divider *
C69	.25	200	70618	P488-25	GT2P25		TC-2	Hor. Output Cath. Byp.
C70	.05	600	70636	P688-05	GT6S5		TM-15	Hor. Output Screen Byp.
C71	.035	600	73100					Damper Filter
C72	.1	1000	73101	1084-1				" "
C73	.05	400	70615	P488-05	GT4S5		TM-15	AFC Plate Bypass
C74	500	10000	71450			410-500		HV Filter
C75	.01	400	71770	P488-01	GT4S1		TM-11	Line Filter
C76	.01	400	71770	P488-01	GT4S1		TM-11	" "
C77	27		72570	1468-000025	5W5Q25	GP1K-25	MS-425	Osc. Grid Cap.
C78	330	500	72793	1468-00035	5W5T4	GP2K-300	1FM-335	FM Osc. Anode Bypass
C79	.01	400	71925	P488-01	GT4S1	GP2-335-01	TM-11	FM Osc. Plate Dec.
C80	1000			1468-001	1W5D1	GP2L-001	1FM-21	Voltage Divider *
C81	56		71924	1468-00005	5W5Q5	GP1K-50	1FM-45	Ant. Coupling
C82	120		71614					Fixed Trimmer
C83	120		71614	1468-00015	5W5T15	GP2K-150	1FM-315	RF Coupling
C84	56		71924	1468-00005	5W5Q5	GP1K-50	1FM-45	Osc. Grid Cap.
C85	390	500	72875	1469-0004	5R5T4		MS-34	Fixed Padder
C86	.01	400	71925	P488-01	GT4S1	GP2-335-01	TM-11	AM Osc. Anode Bypass
C87	.05	200	71551	P288-05	GT2S5		TM-15	AVC Filter
C88	47		39042	1468-00005	5W5Q5	GP1K-50	1FM-45	AM Conv. Fil. Bypass
C89	.005	400	71553	P688-005	GT6D5	GP2M-005	TM-25	1st IF Screen Bypass
C90	.005	400	71553	P688-005	GT6D5	GP2M-005	TM-25	1st IF Decoupling
C91	.005	200	72490	P688-005	GT6D5	GP2M-005	TM-25	2nd IF Cath. Bypass
C92	.005	400	71553	P688-005	GT6D5	GP2M-005	TM-25	2nd IF Screen Bypass
C93	.005	400	71553	P688-005	GT6D5	GP2M-005	TM-25	2nd IF Plate Dec.
C94	.01	400	71925	P488-01	GT4S1	GP2-335-01	TM-11	RF Bypass
C95	330	500	72793	1468-0003	5W5T3	GP2K-300	1FM-325	Diode Load Cap. †
C96	330	500	72793	1468-0003	5W5T3	GP2K-300	1FM-325	" " " †
C97	.005	200	72490	P688-005	GT6D5	GP2M-005	TM-25	RF Bypass
C98	.005	200	72490	P688-005	GT6D5	GP2M-005	TM-25	" "
C99	.005	200	72490	P688-005	GT6D5	GP2M-005	TM-25	De-emphasis
C100	.005	200	72490	P688-005	GT6D5	GP2M-005	TM-25	AVC Filter
C101	.005	200	72490	P688-005	GT6D5	GP2M-005	TM-25	Audio Coupling
C102	.015	200	72120	P288-015	GT6S15			Tone Compensation
C103	.015	200	72120	P288-015	GT6S15			Tone Compensation
C104	.003	400	72573	P688-003	GT6D3	GP2M-003	TM-23	" "
C105	.003	400	72573	P688-003	GT6D3	GP2M-003	TM-23	" "
C106	.01	400	71925	P488-01	GT4S1	GP2-335-01	TM-11	Audio Coupling
C107	120		71614	1468-00015	5W5T15	GP2K-150	1FM-315	AF Plate Bypass
C108	.01	400	71925	P488-01	GT4S1	GP2-335-01	TM-11	Audio Coupling
C109	.005	200	72490	P688-005	GT6D5	GP2M-005	TM-25	" "
C110	.02	400	70611	P488-02	GT4S2		TM-12	" "
C111	.0035	1000	70646	P1088-0033	GT16D3		MB-23	Output Plate Bypass
C112	.0035	1000	70646	P1088-0033	GT16D3		MB-23	" " "
C113	.003	600	72874	P688-003	GT6D3		TM-23	Line Filter

* Not used in all models.
† When either item C95 or C96 are replaced, replace both with capacitors of equal value.
‡ Omit bypass section.
# Omit one 10MFD section.

CONTROLS

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA RCA PART No.	IRC PART No.	CLAROSTAT PART No.	INSTALLATION NOTES
R1A	50KΩ	½	72734		970111-24	Horiz. Hold Control
B	1 Meg.	½				Vert. Hold Control (Dual Concentric)
R2A	10KΩ	½	71784 *		970111-18	Contrast Control
B	500KΩ	½				Brightness Control (Dual Concentric)
R2A	10KΩ	½	73193 §		970111-18	Contrast Control
B	500KΩ	½				Brightness Control (Dual Concentric)
R3A	5000Ω	½	71441	Q11-114	M-19-S	Vert. Linearity Control
B	Shaft		Not Req.		Not. Req.	Attach to R3A Per Instructions (Dual Concentric)
R4	2.5 Meg	½	71440	Q11-237		Height Control
R5	20Ω	2	71443	W-20x10	43-20CT	Vert. Centering Control, Tapped @ 10Ω Wire Wound
R6	20Ω	2	71443	W-20x10	43-20	Horiz. Centering Control, Wire Wound
R7	2250Ω	4	72735		P-10-2500	Focus Control, Wire Wound
R8A	1.5 Meg	½	72851	Q18-139XX	T-95	Volume Control
B	Switch		Not Req.	76-1	SW-A	Attach to R8A Per Instructions

§ Used only when Decal. Part #73196 or 73197 is used.
* Used only when Decal. Part #73028 or 73045 is used.

RESISTORS

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA RCA PART No.	IRC PART No.	IDENTIFICATION CODES ALL RESISTORS ARE ± 10% UNLESS OTHERWISE STATED.	
R9	150Ω	½			RF Grid	20%
R10	150Ω	½			" "	20%
R11	4700Ω	½			RF Plate	20%
R12	4700Ω	½			" "	20%
R13	1000Ω	½			RF Plate Decoupling	20%
R14	10KΩ	½			Mixer Grid Shunt	
R15	1 Meg.	½			Mixer Grid	20%
R16	1000Ω	½			Mixer Plate Decoupling	20%
R17	100KΩ	½			Osc. Grid	20%
R18	100KΩ	½			" "	20%
R19	47Ω	½			Osc. Cathode	20%
R20	4700Ω	½			Osc. Plate	20%
R21	150Ω	½			Decoupling Network	20%

RESISTO

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA RCA PART No.	IRC PART No.
R22	1000Ω	½		BTS-1000
R23	82KΩ	½		BTS-82K
R24	6.8 Meg.	½		BTS-6.8 Me
R25	10KΩ	½		BTS-10K
R26	12KΩ	½		BTS-12K
R27	1000Ω	½		BTS-1000
R28	15KΩ	½		
R29	39Ω	½		
R30	1000Ω	½		
R31	5600Ω	½		
R32	39Ω	½		
R33	1000Ω	½		
R34	1000Ω	½		BTS-1000
R35	15KΩ	½		
R36	150Ω	½		
R37	6800Ω	½		
R38	1000Ω	½		
R39	4700Ω	½		BTS-4700-5
R40	3300Ω	½		BTS-3300-5
R41	1 Meg.	½		BTS-1 Meg.
R42	3300Ω	½		BTS-3300
R43	1 Meg.	½		BTS-1 Meg.
R44	47Ω	½		BW-½-47
R45	3300Ω	1		BTA-3300
R46	1000Ω	½		BTS-1000
R47	100KΩ	½		BTS-100K
R48	82Ω	½		
R49	1200Ω	½		
R50	470KΩ	½		
R51	22KΩ	½		
R52	1000Ω	½		
R53	5.1Ω	½	72067	BW-½-4.7
R54	100KΩ	½		BTS-100K-5
R55	100KΩ	½		BTS-100K-5
R56	1 Meg.	½		BTS-1 Meg.
R57	15KΩ	1		BTA-15K
R58	3.9 Meg.	½		BTS-3.9 Meg
R59	6800Ω	½		BTS-6800
R60	22KΩ	½		BTS-22K
R61	8200Ω	½		BTS-8200
R62	8200Ω	½		BTS-8200
R63	1 Meg.	½		BTS-1 Meg-5
R64	1.5 Meg.	½		BTS-1.5 Meg
R65	6.8 Meg.	½		BTS-6.8 Meg
R66	100KΩ	1		BTA-100K
R67	2.2 Meg.	½		BTS-2.2 Meg
R68	560Ω	½		BTS-560
R69	3300Ω	½		BTS-3300
R70	1000Ω	½		BTS-1000
R71	560KΩ	½		BTS-560K-5%
R72	180KΩ	½		BTS-180K
R73	100KΩ	1		
R74	270KΩ	1		BTA-270K
R75	8200Ω	½		BTS-8200
R76	3.3 Meg.	1		BTA-3.3Meg 5%
R77	150KΩ	½		BTS-150K
R78	30KΩ	½	72928	
R79	120KΩ	½		BTS-120K
R80	100KΩ	½	72893	
R81	10KΩ	½		BTS-10K
R82	120KΩ	1		BTA-120K
R83	47Ω	½		
R84	1 Meg.	½		BTS-1 Meg.
R85	82Ω	1		BW-1-82
R86	4700Ω	1		BTA-4700
R87	56KΩ	½		BTS-56K
R88	10KΩ	½		BTS-10K
R89	560KΩ	½		BTS-560K
R90	3.3Ω	½	71513	
R91	1 Meg.	1		
R92	680Ω	1		BTA-680
R93	680Ω	1		BTA-680
R94A	510Ω	10	72848	AB-500
B	700Ω	12		DG-700
R95A	85Ω	2	72849	BW-2-82
B	30Ω	1		BW-1-30
C	2830Ω	7		AB-3000
R96	39Ω	1		BW-1-39
R97	1 Meg.	½		BTS-1 Meg.
R98	1000Ω	½		BTS-1000
R99	22KΩ	½		BTS-22K
R100	8200Ω	1		BTA-8200
R101	6800Ω	1		BTA-6800
R102	2.2 Meg.	½		BTS-2.2 Meg
R103	22KΩ	½		BTS-22K
R104	18KΩ	2		BTS-18K
R105	47Ω	½		BW-½-47
R106	22KΩ	1		BTA-22K
R107	2200Ω	1		BTA-2200
R108	2.2 Meg.	½		BTS-2.2 Meg
R109	270KΩ	½		BTS-270K
R110	270KΩ	½		BTS-270K
R111	68Ω	½		BW-½-68
R112	33KΩ	½		BTS-33K
R113	1000Ω	½		BTS-1000
R114	100Ω	½		BW-½-100
R115	15KΩ	½		BTS-15K
R116	910Ω	½		BTS-1000-5%
R117	820Ω	½		BTS-820-5%
R118	10KΩ	½		BTS-10K
R119	1.5 Meg.	½		BTS-1.5 Meg
R120	22 Meg.	½		BTS-22 Meg.
R121	27KΩ	½		BTS-27K
R122	27KΩ	½		BTS-27K
R123	220KΩ	½		BTS-220K
R124	470KΩ	½		BTS-470K
R125	10 Meg.	½		BTS-10 Meg.
R126	270KΩ	½		BTS-270K
R127	10 Meg.	½		BTS-10 Meg.

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS (CONT.)

IDENTIFICATION CODES AND INSTALLATION NOTES
ntegrator Net.
" "
" "
ert. Osc. Grid Cap.
ert. Discharge
ert. Sweep Coupling
or. Sync. Coupling
oltage Divider
or. Sync. Coupling
FC Feedback
FC Filter
" "
or. Osc. Grid Cap.
or. Discharge
or. Sweep Coupling
oltage Divider *
or. Output Cath. Byp.
or. Output Screen Byp.
amper Filter
" "
FC Plate Bypass
V Filter
ine Filter
" "
sc. Grid Cap.
M Osc. Anode Bypass
M Osc. Plate Dec.
oltage Divider *
nt. Coupling
ixed Trimmer
F Coupling
sc. Grid Cap.
ixed Padder
M Osc. Anode Bypass
VC Filter
M Conv. Fil. Bypass
st IF Screen Bypass
st IF Decoupling
nd IF Cath. Bypass
nd IF Screen Bypass
nd IF Plate Dec.
F Bypass
iode Load Cap. †
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one Compensation
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ALLATION NOTES
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Instructions
ontrol, Tapped @ 10Ω Wire Wound
Control, Wire Wound
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Instructions

ICATION CODES
0% UNLESS OTHERWISE STATED.
20%
20%
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20%

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA RCA PART No.	REPLACEMENT DATA IRC PART No.	IDENTIFICATION CODES	
R22	1000Ω	½		BTS-1000	Bias Network	20%
R23	82KΩ	½		BTS-82K	" "	
R24	6.8 Meg.	½		BTS-6.8 Meg.	" "	20%
R25	10KΩ	½		BTS-10K	" "	
R26	12KΩ	½		BTS-12K	" "	
R27	1000Ω	½		BTS-1000	" "	20%
R28	15KΩ	½			1st Video IF Grid	5%
R29	39Ω	½			1st Video IF Cathode	
R30	1000Ω	½			1st Video IF Decoupling	20%
R31	5600Ω	½			2nd Video IF Grid	5%
R32	39Ω	½			2nd Video IF Cathode	
R33	1000Ω	½			2nd Video IF Decoupling	20%
R34	1000Ω	½		BTS-1000	Voltage Divider	
R35	15KΩ	½			3rd Video IF Grid	5%
R36	150Ω	½			3rd Video IF Cathode	
R37	6800Ω	½			3rd Video IF Plate	5%
R38	1000Ω	½			3rd Video IF Decoupling	20%
R39	4700Ω	½		BTS-4700-5%	Video Det. Diode Load	5%
R40	3300Ω	½		BTS-3300-5%	" " " "	5%
R41	1 Meg.	½		BTS-1 Meg.	Video Amp. Grid	20%
R42	3300Ω	½		BTS-3300	Video Amp. Plate	
R43	1 Meg.	½		BTS-1 Meg.	Video Output Grid	20%
R44	47Ω	½		BW-½-47	Video Output Cathode	20%
R45	3300Ω	1		BTA-3300	Video Output Plate	
R46	1000Ω	½		BTS-1000	" " "	
R47	100KΩ	½		BTS-100K	Voltage Divider	20%
R48	82Ω	½			1st Sound IF Cathode	
R49	1200Ω	½			1st Sound IF Decoupling	20%
R50	470KΩ	½			2nd Sound IF Grid	20%
R51	22KΩ	½			2nd Sound IF Screen Decoupling	20%
R52	1000Ω	½			2nd Sound IF Plate Decoupling	20%
R53	5.1Ω	½	72067	BW-½-4.7	Disc. Filament Wire Wound	
R54	100KΩ	½		BTS-100K-5%	Disc. Diode Load	5%
R55	100KΩ	½		BTS-100K-5%	" " "	5%
R56	1 Meg.	½		BTS-1 Meg.	Sync. Amp. Grid	20%
R57	15KΩ	1		BTA-15K	Sync. Amp. Plate	20%
R58	3.9 Meg.	½		BTS-3.9 Meg.	Sync. Sep. Grid	20%
R59	6800Ω	½		BTS-6800	Sync. Sep. Cathode	20%
R60	22KΩ	½		BTS-22K	Integrator	20%
R61	8200Ω	½		BTS-8200	"	
R62	8200Ω	½		BTS-8200	"	
R63	1 Meg.	½		BTS-1 Meg-5%	Vert. Osc. Grid	5%
R64	1.5 Meg.	½		BTS-1.5 Meg.	Vert. Osc. Plate	
R65	6.8 Meg.	½		BTS-6.8 Meg.	Voltage Divider	
R66	100KΩ	1		BTA-100K	" "	
R67	2.2 Meg.	½		BTS-2.2 Meg.	Vert. Output Grid	20%
R68	560Ω	½		BTS-560	Vert. Output Cathode	
R69	3300Ω	½		BTS-3300	Vert. Peaking	20%
R70	1000Ω	½		BTS-1000	Filter	20%
R71	560KΩ	½		BTS-560K-5%	Horiz. AFC Grid	5%
R72	180KΩ	½		BTS-180K	Horiz. AFC Cathode	
R73	100KΩ	1			" " " Temp. Comp.	
R74	270KΩ	1		BTA-270K	Horiz. AFC Plate	
R75	8200Ω	½		BTS-8200	Horiz. AFC Filter Network	20%
R76	3.3 Meg.	1		BTA-3.3Meg-5%	Voltage Divider	
R77	150KΩ	½		BTS-150K	Feedback	
R78	30KΩ	½	72928		Voltage Divider Temp. Comp.	
R79	120KΩ	½		BTS-120K	" "	
R80	100KΩ	½	72893		Horiz. Osc. Grid Carbon Film Type	1%
R81	10KΩ	½		BTS-10K	Horiz. Osc. Transformer Shunt	
R82	120KΩ	1		BTA-120K	Horiz. Osc. Plate	
R83	47Ω	½			Parasitic Suppressor	20%
R84	1 Meg.	½		BTS-1 Meg.	Horiz. Output Grid	20%
R85	82Ω	1		BW-1-82	Horiz. Output Cathode	
R86	4700Ω	1		BTA-4700	Horiz. Output Screen	
R87	56KΩ	½		BTS-56K	Feedback	
R88	10KΩ	½		BTS-10K	Filter	
R89	560KΩ	½		BTS-560K	Feedback.	
R90	3.3Ω	2	71513		HV Rect. Filament Wire Wound	
R91	1 Meg.	1			HV Filter	
R92	680Ω	1		BTA-680	Focus Coil Shunt	20%
R93	680Ω	1		BTA-680	" " "	20%
R94A	510Ω	10	72848	AB-500	Bias Network Wire Wound	
B	700Ω	12		DG-700	Filter Wire Wound	
R95A	85Ω	2		BW-2-82	Bias Network Wire Wound	
B	30Ω	1	72849	BW-1-30	Voltage Divider Wire Wound	
C	2830Ω	7		AB-3000	Bleeder Wire Wound	
R96	39Ω	1		BW-1-39	Bias Network See Note	
R97	1 Meg.	½		BTS-1 Meg.	FM Ant. Isolation	20%
R98	1000Ω	½		BTS-1000	FM Conv. Decoupling	20%
R99	22KΩ	½		BTS-22K	FM Osc. Grid	
R100	8200Ω	1		BTA-8200	FM Osc. Plate	
R101	6800Ω	1		BTA-6800	FM Osc. Plate	
R102	2.2 Meg.	½		BTS-2.2 Meg.	AM Conv. Grid	20%
R103	22KΩ	½		BTS-22K	AM Osc. Grid	
R104	18KΩ	2		BTS-18K	AM Osc. Plate	
R105	47Ω	½		BW-½-47	1st IF Cathode	
R106	22KΩ	1		BTA-22K	1st IF Screen	
R107	2200Ω	1		BTA-2200	1st IF Decoupling	20%
R108	2.2 Meg.	½		BTS-2.2 Meg.	AVC Network	20%
R109	270KΩ	½		BTS-270K	" "	
R110	270KΩ	½		BTS-270K	Diode Load	
R111	68Ω	½		BW-½-68	2nd FM IF Cathode	
R112	33KΩ	½		BTS-33K	2nd FM IF Screen Decoupling	
R113	1000Ω	½		BTS-1000	2nd FM IF Plate Decoupling	20%
R114	100Ω	½		BW-½-100	Balancing	
R115	15KΩ	½		BTS-15K	De-emphasis	
R116	910Ω	½		BTS-1000-5%	Balancing	5%
R117	820Ω	½		BTS-820-5%	"	5%
R118	10KΩ	½		BTS-10K	Ratio Det. Diode Load	
R119	1.5 Meg.	½		BTS-1.5 Meg.	AVC Network	20%
R120	22 Meg.	½		BTS-22 Meg.	Delayed AVC	20%
R121	27KΩ	½		BTS-27K	Tone Compensation	
R122	27KΩ	½		BTS-27K	" "	
R123	220KΩ	½		BTS-220K	" "	
R124	470KΩ	½		BTS-470K	" "	
R125	10 Meg.	½		BTS-10 Meg.	Phase Inv. Grid	20%
R126	270KΩ	½		BTS-270K	Phase Inv. Plate	
R127	10 Meg.	½		BTS-10 Meg.	AF Grid	20%

ITEM No.	RATING RESISTANCE	RATING WATTS	REP RCA PART
R128	270KΩ	½	
R129	470KΩ	½	
R130	8200Ω	½	
R131	470KΩ	½	
R132	560Ω	2	72865
R133	100Ω	½	
R134	3300Ω	2	
R135	3300Ω	2	

Note. Used only when Ion

ITEM No.	RATING PRI.	SEC. 1	SEC. 2
T1A	117VAC @ 1.84A	720VCT @ .24A DC	5VAC @ 3A
		SEC. 4	SEC. 5
		6.3VAC @ 7.1A	6.3VAC @ .6A
B			
T2	117VAC @ .60A	680VCT @ .073 ADC	5VAC @ 2A

†† Add series resistor to r
# Drill new mounting holes.
‡‡ 50∿ transformer.

TR

ITEM No.	RATING DC RESISTANCE PRI.	RATING DC RESISTANCE SEC.	RCA PART N
T3	117Ω Tap @ 85Ω		72770
T4	165Ω	131Ω	71775
T5	410Ω Tap @ 170Ω	SEC. 1 10.6Ω Tap @ .6Ω	71416
		SEC. 2 0Ω	
T6	590Ω	7Ω	71774
T7A	14Ω		71420
B	63Ω		
T8	255Ω		73233

TI

ITEM No.	RATING IMPEDANCE PRI.	IMPEDANCE SEC.	DC RES. PRI.	DC RES. SEC.
T9	12KΩ CT	2.6Ω	630Ω CT	.2Ω

ITEM No.	RATING FIELD RES.	RATING V. C. IMP.
SP1	PM	2.6Ω
	CONE DIA.	V. C. DIA.
SP2	12"	1"

ITEM No.	RATINGS TOTAL DIRECT CURRENT	RATINGS D. C. RESISTANCE	INDU (0 C 10
L1	.240A	64Ω	2.5

ITEM No.	USE	DC RES. PRI.	DC RES. SEC.
L2	Ant. Input	0Ω	
L3	Inter-ference Trap	0Ω	
L4	Inter-ference Trap	0Ω	
L5	Fil. Chk.	0Ω	
L6	Mixer Grid Trap	0Ω	
L7	1st Video IF and Sound Trap	.2Ω	0Ω
L8	2nd Video IF	.1Ω	
L9	3rd Video IF	.1Ω	
L10	Sound Trap	0Ω	0Ω
L11	4th Video IF	.1Ω	
L12	Peaking	2.2Ω	
L13	Peaking	6Ω	

TIONS (Continued)

NT.)

IDENTIFICATION CODES	
Network	20%
"	
"	20%
"	
"	
"	20%
ideo IF Grid	5%
ideo IF Cathode	
ideo IF Decoupling	20%
ideo IF Grid	5%
ideo IF Cathode	
ideo IF Decoupling	20%
ge Divider	
ideo IF Grid	5%
ideo IF Cathode	
ideo IF Plate	5%
ideo IF Decoupling	20%
Det. Diode Load	5%
" "	5%
Amp. Grid	20%
Amp. Plate	
Output Grid	20%
Output Cathode	20%
Output Plate	
" "	
ge Divider	20%
ound IF Cathode	
ound IF Decoupling	20%
ound IF Grid	20%
ound IF Screen Decoupling	20%
ound IF Plate Decoupling	20%
Filament Wire Wound	
Diode Load	5%
" "	5%
Amp. Grid	20%
Amp. Plate	20%
Sep. Grid	20%
Sep. Cathode	20%
rator	20%
Osc. Grid	5%
Osc. Plate	
ge Divider	
"	
Output Grid	20%
Output Cathode	
Peaking	20%
r	20%
. AFC Grid	5%
. AFC Cathode	
" " Temp. Comp.	
. AFC Plate	
. AFC Filter Network	20%
ge Divider	
ack	
ge Divider Temp. Comp.	
"	
. Osc. Grid Carbon Film Type	1%
. Osc. Transformer Shunt	
. Osc. Plate	
itic Suppressor	20%
. Output Grid	20%
. Output Cathode	
. Output Screen	
ack	
r	
ack.	
ct. Filament Wire Wound	
lter	
Coil Shunt	20%
" "	20%
Network Wire Wound	
r Wire Wound	
Network Wire Wound	
ge Divider Wire Wound	
er Wire Wound	
Network See Note	
t. Isolation	20%
nv. Decoupling	20%
c. Grid	
c. Plate	
c. Plate	
nv. Grid	20%
c. Grid	
c. Plate	
F Cathode	
F Screen	
F Decoupling	20%
etwork	20%
"	
Load	
M IF Cathode	
M IF Screen Decoupling	
M IF Plate Decoupling	20%
cing	
phasis	
cing	5%
	5%
Det. Diode Load	
etwork	20%
ed AVC	20%
Compensation	
"	
"	
Inv. Grid	20%
Inv. Plate	
d	20%

RESISTORS (CONT.)

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	RCA PART No.	IRC PART No.	
R128	270KΩ	½		BTS-270K	AF Plate
R129	470KΩ	½		BTS-470K	Output Grid
R130	8200Ω	½		BTS-8200	" "
R131	470KΩ	½		BTS-470K	" "
R132	560Ω	2	72865	BW-2-560	Output Cathode Wire Wound
R133	100Ω	½			Parasitic Suppressor
R134	3300Ω	2		BW-2-3300	Filter
R135	3300Ω	2		BW-2-3300	"

Note. Used only when Ion trap magnet coil is not used.

TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA			
	PRI.	SEC. 1	SEC. 2	SEC. 3	RCA PART No.	STANCOR PART No.	CHICAGO PART No.	MERIT PART No.
T1A	117VAC @ 1.84A	720VCT @ .24A DC	5VAC @ 3A	5VAC @ 2A	71772	P-8153	TP-392	P-3059
		SEC. 4	SEC. 5					
		6.3VAC @ 7.1A	6.3VAC @ .6A					
B					73150 ‡ ‡			
T2	117VAC @ .60A	680VCT @ .073 ADC	5VAC @ 2A	6.3VAC @ 3.9A	71975	P-6012 # ††	PH-70B # ††	P-2951 #

†† Add series resistor to reduce plate voltage.
# Drill new mounting holes.
‡‡ 50\ transformer.

TRANSFORMER (SWEEP CIRCUITS)

ITEM No.	RATING		REPLACEMENT DATA				NOTES
	DC RESISTANCE		RCA PART No.	STANCOR PART No.	CHICAGO PART No.	MERIT PART No.	
	PRI.	SEC.					
T3	117Ω Tap @ 85Ω		72770				Hor. Osc. Coil
T4	165Ω	1310Ω	71775	A-8121	TBO-1	A-4000	Vert.Block. Osc.Trans
T5	410Ω Tap @ 170Ω	SEC. 1 10.6Ω Tap @ .6Ω	71416	A-8117	TFB-1		Hor. Output Trans.
		SEC. 2 0Ω					
T6	590Ω	7Ω	71774	A-8115	TSO-1	A-3035	Vert. Output Trans.
T7A	14Ω		71420	DY-1			Hor.Deflection Coil
B	63Ω						Vert.Deflection Coil
T8	255Ω		73233	FC-10			Focus Coil

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA				INSTALLATION NOTES
	IMPEDANCE		DC RES.		RCA PART No.	STANCOR PART No.	CHICAGO PART No.	MERIT PART No.	
	PRI.	SEC.	PRI.	SEC.					
T9	12KΩ CT	2.6Ω	630Ω CT	.2Ω	37899	A-3823	RO-111	A-2901	

SPEAKER

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	FIELD RES.	V. C. IMP.	RCA PART No.	JENSEN PART No.	QUAM PART No.	
SP1	PM	2.6Ω	71961	ST-102 § MOD.P12-S	12A4A	§ Replace output transformer to match 6-8Ω voice coil.
	CONE DIA.	V. C. DIA.				
SP2	12"	1"				

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA				INSTALLATION NOTES
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 ∽)	RCA PART No.	STANCOR PART No.	CHICAGO PART No.	MERIT PART No.	
L1	.240A	64Ω	2.5Henries	71970	C-2325	TR-4225	C-2991	

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	RCA PART No.	MEISSNER PART No.	
L2	Ant. Input	0Ω		71507		Part of Tuner
L3	Inter-ference Trap	0Ω				" " "
L4	Inter-ference Trap	0Ω				" " "
L5	Fil. Chk.	0Ω		71505		" " "
L6	Mixer Grid Trap	0Ω		71506		" " "
L7	1st Video IF and Sound Trap	.2Ω	0Ω	72811		Includes 62MMF capacitor. Part of tuner.
L8	2nd Video IF	.1Ω		71426		
L9	3rd Video IF	.1Ω		73708		Trap winding not used in all receivers. Includes 56MMF capacitor.
L10	Sound Trap	0Ω	0Ω	71778		Includes 75MMF capacitor.
L11	4th Video IF	.1Ω		71426		
L12	Peaking	2.2Ω		71793		36 Microhenries
L13	Peaking	6Ω				180 Microhenries. Wound on 39KΩ resistor Not used in all receivers.

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF) CONT.

ITEM No.	USE	DC RES. PRI.	DC RES. SEC.	REPLACEMENT DATA RCA PART No.	REPLACEMENT DATA MEISSNER PART No.	NOTES
L14	Peaking	4.5Ω		71529		120 Microhenries. Wound on 22KΩ resistor.
L15	Peaking	2.2Ω		71793		36 Microhenries.
L16	Peaking	4.5Ω		71529		120 Microhenries
L17	Sound IF	0Ω	0Ω	71424		Includes 10MMF capacitor and 33MMF cap.
L18	Disc. Trans.	0Ω	0Ω	71427		Includes 2-56MMF capacitor and 47MMF cap.
L19	Width Cont.	0Ω		71429		
L20	Hor. Linearity	36Ω		71449		
L21	FM Ant.	0Ω	0Ω	72335		
L22	FM Osc.	0Ω		72336		
L23	AM Ant.	26Ω	1.5Ω	72071		
L24	AM Osc.	4Ω		72333	14-1060	
L25	FM 1st IF	.5Ω	.8Ω	72887		
L26	AM 1st IF	12Ω	12Ω	71625	16-6658	
L27	FM 2nd IF	1.2Ω	.5Ω	72888		
L28	AM 2nd IF	8Ω	8Ω	71631	16-6660	
L29	Ratio Det. Trans.	.1Ω	.1Ω	72889		
L30	Fil. Chk.	0Ω		72574		

DIAL LIGHTS

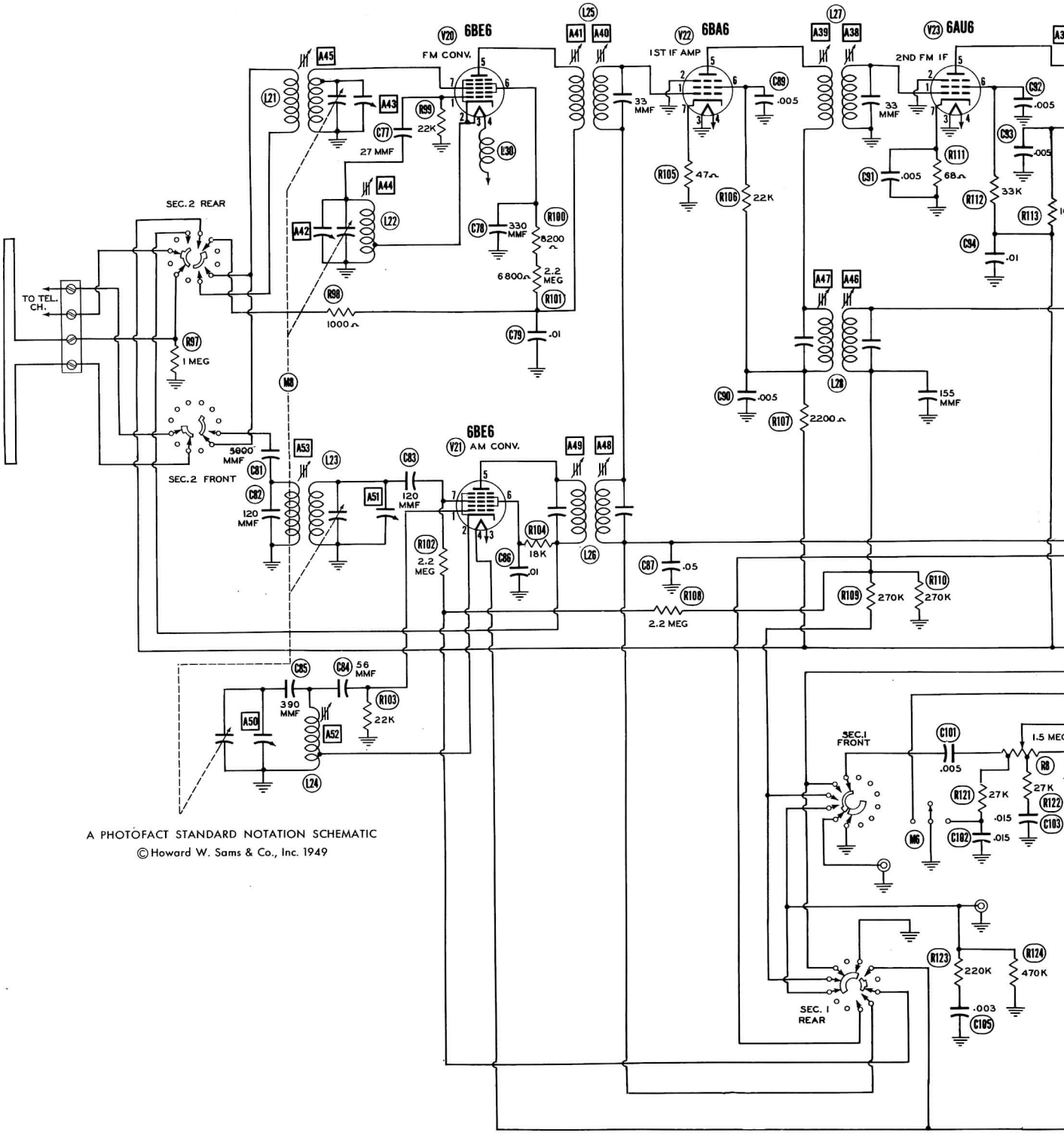
ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA RCA PART No.	REPLACEMENT DATA	NOTES
M1	Bayonet	7.5	.2	White	11765		Type #51
M2	Bayonet	7.5	.2	White	11765		Type #51
M3	Bayonet	7.5	.2	White	11765		Type #51
M4	Bayonet	7.5	.2	White	11765		Type #51

MISCELLANEOUS

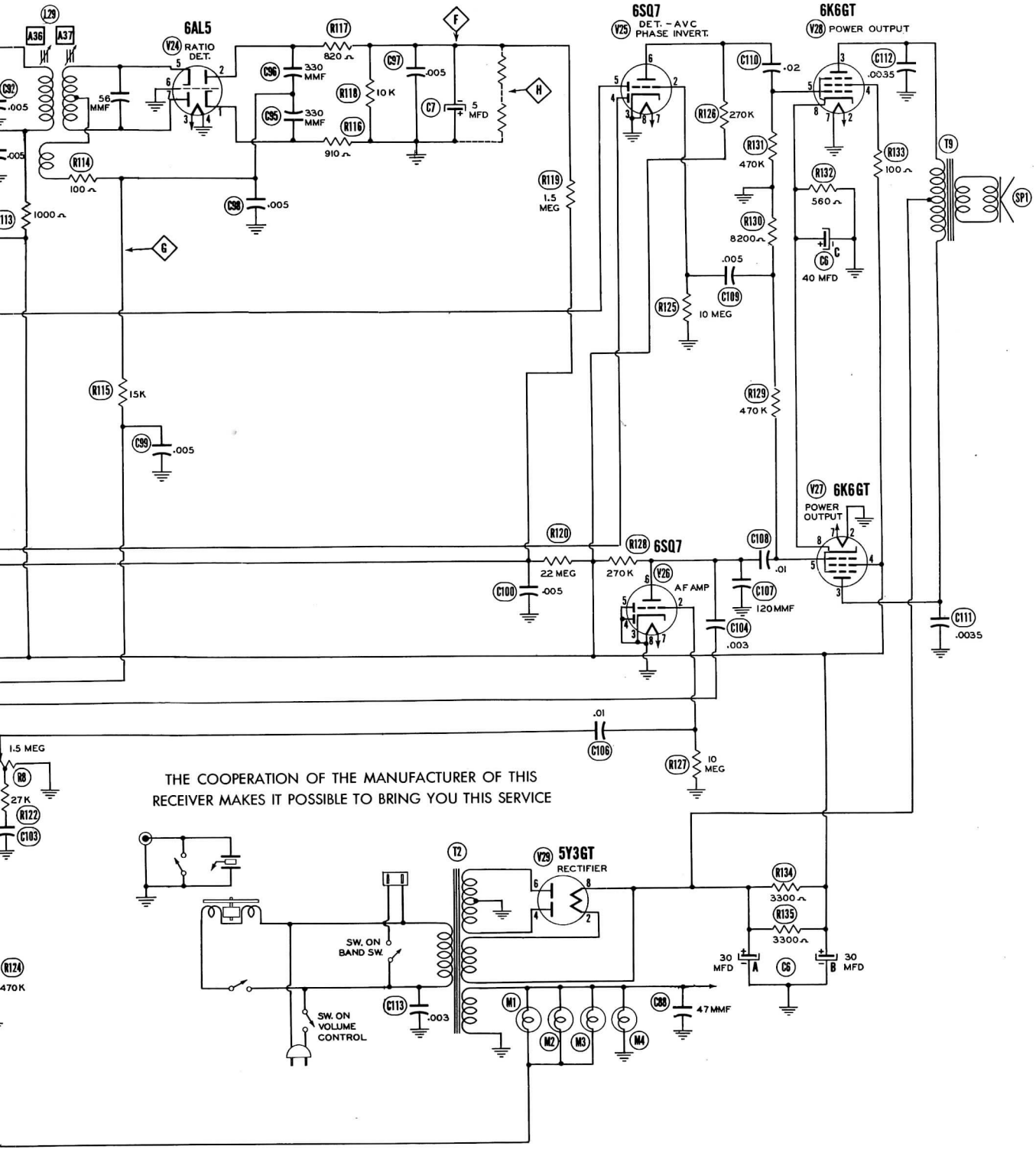
ITEM No.	PART NAME	RCA PART No.	NOTES
M5	Band Switch	72852	Includes TV Power Switch
M6	Tone Switch	71603	
M7	Fuse		Not used in all sets
M8	Tuning Cap	72059	26-568MMF, 13-368MMF W/T
M9	Ion Trap	71792	Electo-Magnet
M10	Tuner	KRK2B-1	
	Safety Glass	73027	
	Dial Scale	73070	For model 730TV1
	Dial Scale	72682	For model 730TV2
	Knob	71821	For radio tuning, band switch, off-volume, and tone switch for walnut or mahongany instruments.
	Knob	72800	For radio tuning, band switch, off-volume and tone switch for toasted mahogany instruments.
	Knob	71533	For fine tuning for walnut or mahogany instruments.
	Knob	71534	For station selector for walnut or mahogany instruments.
	Knob	71535	For brightness and vertical hold for walnut or mahogany instruments.
	Knob	71536	For contrast or horizontal hold for walnut or mahogany instruments.
	Knob	72565	For brightness and vertical hold for toasted mahogany instruments.
	Knob	72566	For contrast and Hor. hold for toasted mahogany instruments.
	Knob	72567	For fine tuning for toasted mahogany instruments.

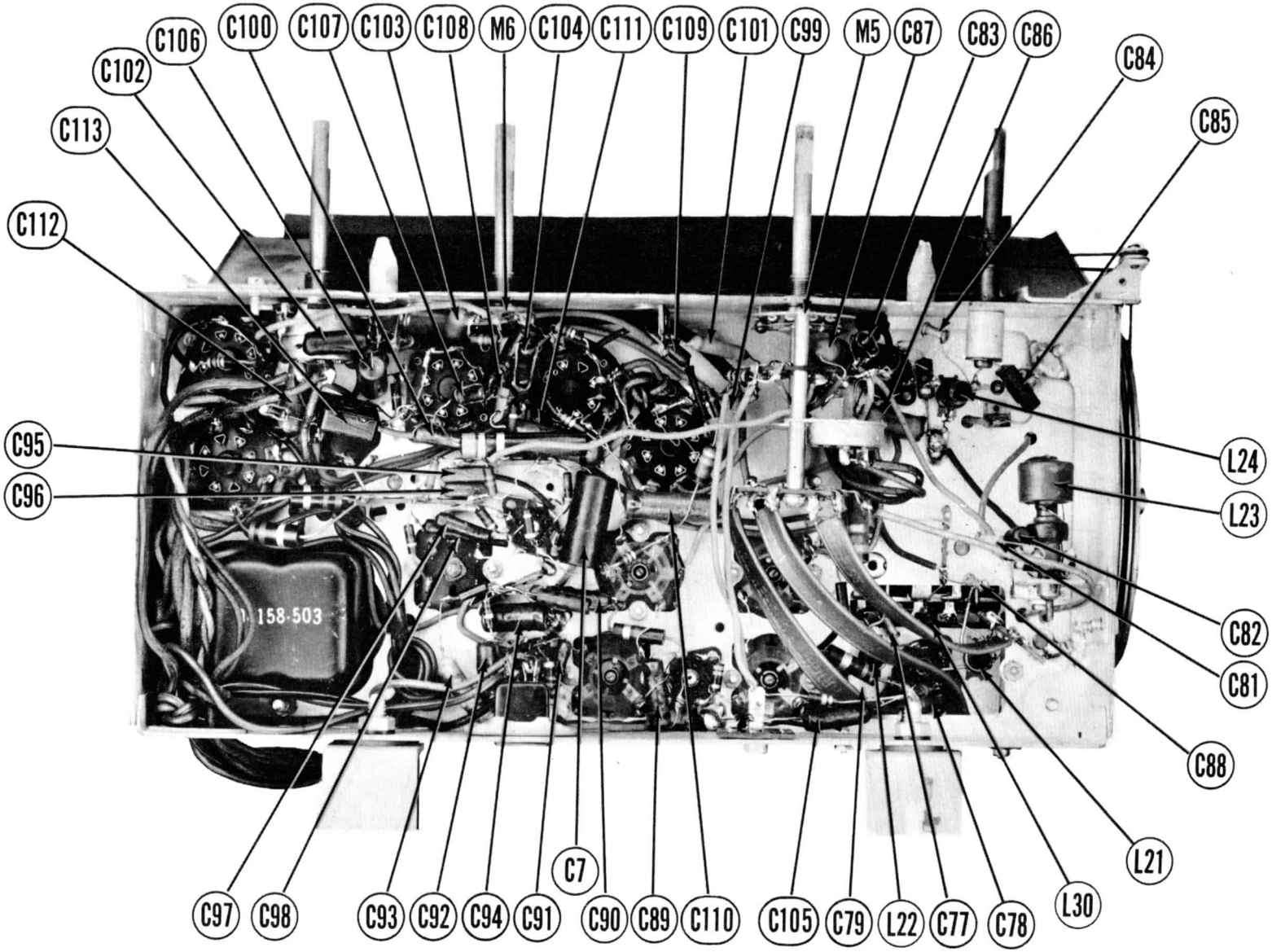
DISASSEMBLY INSTRUCTIONS

1. Remove 3 push-on type knobs from TV controls.
2. Remove 4 push-on type knobs from receiver controls.
3. Remove 9 screws holding rear cover.
4. Remove picture tube base socket and Ion trap.
5. Remove HV cap from picture tube.
6. Remove 2 phillips-head screws from upper corners of picture tube front plate. Remove front plate.
7. Loosen 4 screws holding clamps at large end of picture tube. Remove tube, slide forward.
8. Remove TV power plug from rear of receiver chassis.
9. Remove TV audio plug from rear of receiver chassis.
10. Remove TV antenna plug from rear of receiver chassis.
11. Remove 7 hex head bolts holding TV chassis.
12. Remove TV chassis.
13. Remove speaker plug at speaker.
14. Remove phono audio plug from rear of receiver chassis.
15. Remove receiver antenna plug from rear of receiver chassis.
16. Disconnect phono power plug.
17. Remove panel lamp from inside bottom front center of cabinet.
18. Remove panel lamp from phono section.
19. Remove two hex head bolts from rear of receiver mounting board.
20. Remove two hex nuts holding receiver chassis to mounting board. Remove hooked studs by pushing up and turn.
21. Remove receiver chassis.
22. Remove four hex nuts holding speaker.
23. Remove speaker.



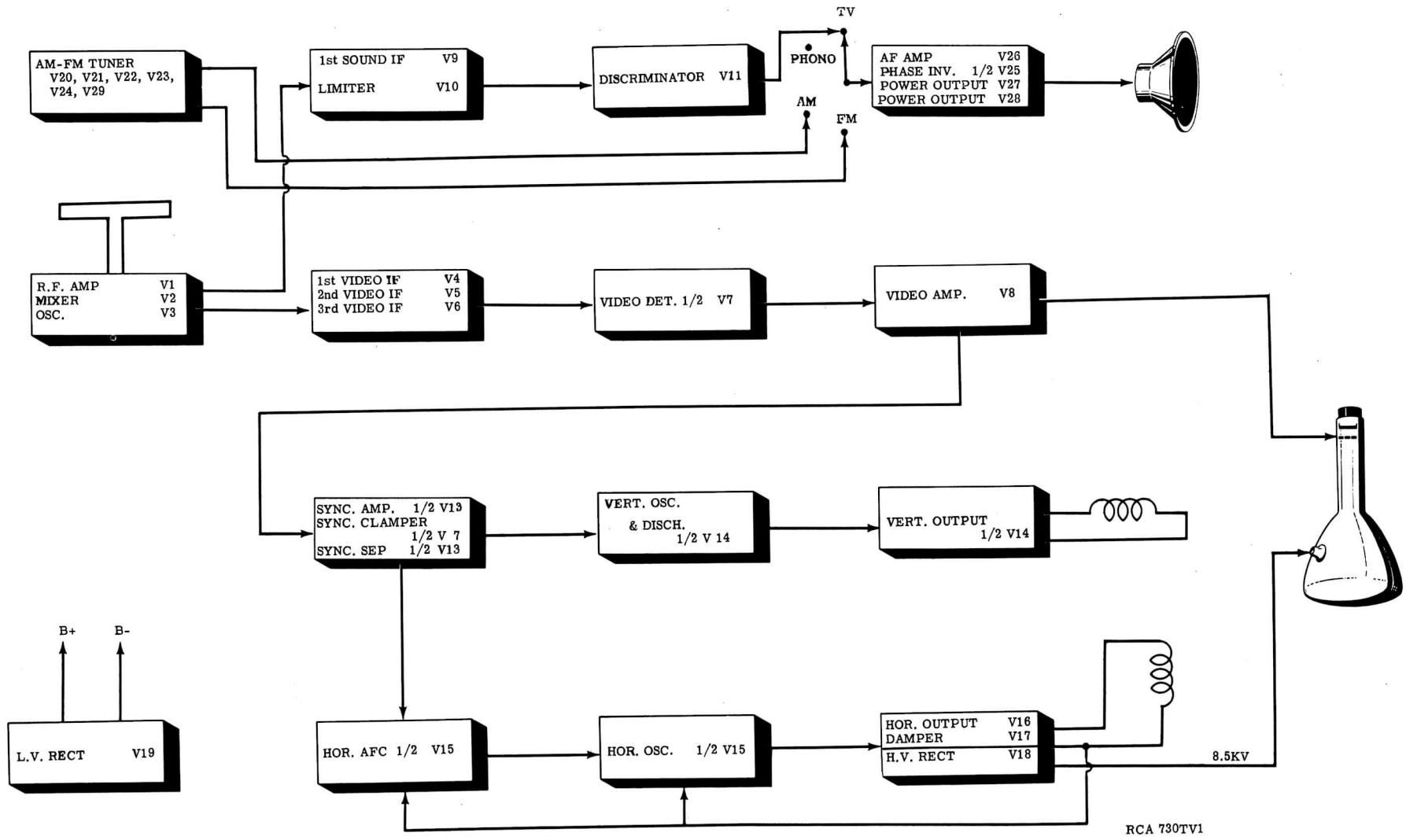
A PHOTOFACT STANDARD NOTATION SCHEMATIC


6AL5
RATIO DET.
6SQ7
DET. - AVC PHASE INVERT.
6K6GT
POWER OUTPUT
6K6GT
POWER OUTPUT
6SQ7
AF AMP
5Y3GT
RECTIFIER
THE COOPERATION OF THE MANUFACTURER OF THIS
RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE
SW. ON BAND SW.
SW. ON VOLUME CONTROL

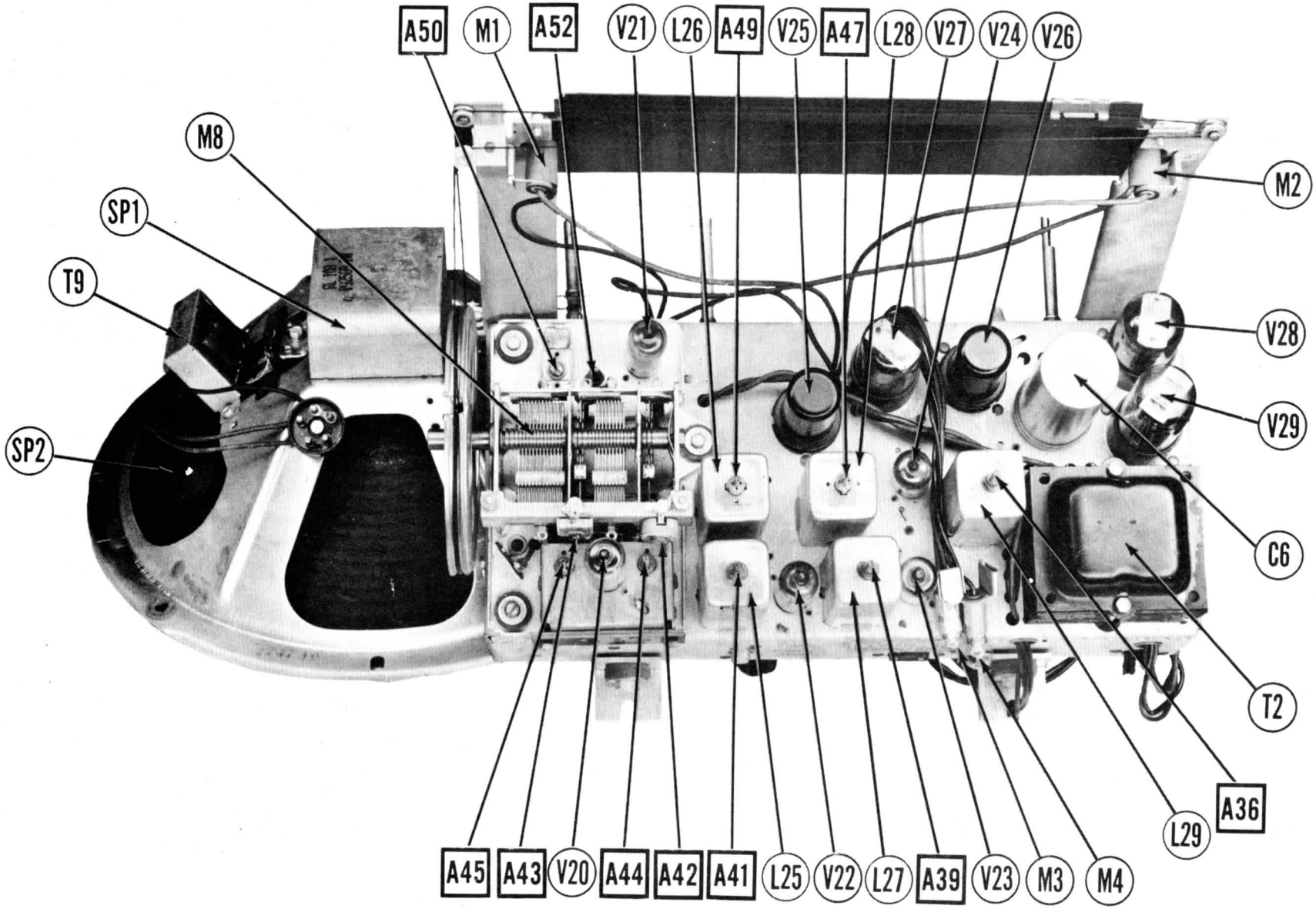


RADIO CHASSIS-BOTTOM VIEW-CAPACITOR IDENTIFICATION

RADIO CHASSIS-BOTTOM VIEW-RESISTOR IDENTIFICATION

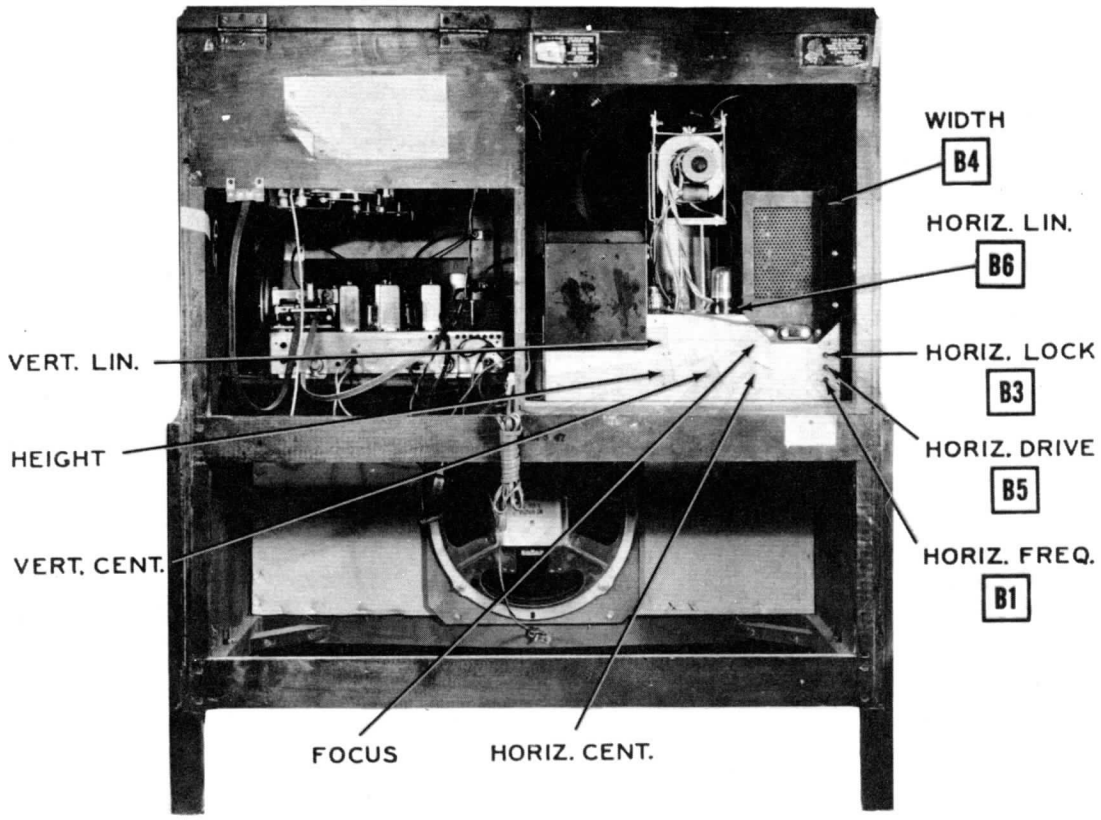


BLOCK DIAGRAM



RADIO CHASSIS-TOP VIEW

RADIO CHASSIS-BOTTOM VIEW



CABINET-REAR VIEW

HORIZONTAL OSCILLATOR AND LINEARITY ADJUSTMENTS

HORIZONTAL OSCILLATOR ALIGNMENT CHECK:

Tune in test pattern and turn horizontal hold control to extreme counter-clockwise position. Picture should remain in synchronization. Turn channel switch to another channel and then back to the original channel. Normally, the picture should be out of synchronization. Turn the control clockwise and the picture should slowly begin to synchronize and finally lock-in. This should occur when the control is approximately 90° from the extreme counter-clockwise position. The picture should remain in synchronization for another 90° in the clockwise direction of the control. At the extreme clockwise position the picture should again drop out of synchronization and 3½ to 4½ bars should be seen sloping downard to the right. If the receiver fails to hold synchronization during this check with the hold control at the extreme counter-clockwise position or fails to hold synchronization for at least 60° in the clockwise direction from the point when it drops into "sync" it will be necessary to align the horizontal oscillator circuit as follows:

(A) HORIZONTAL OSCILLATOR ALIGNMENT:

Turn horizontal hold control to extreme clockwise position. Tune in test pattern and adjust trimmer B1 until picture is out of sync. and shown 3½ to 4½ bars sloping downward to the right. If the trimmer has insufficient range, set it to its mid-position (one turn from tight) and adjust slug B2 until bars appear.

(B) HORIZONTAL LOCKING ALIGNMENT:

Turn the horizontal hold control to full counter-clockwise position. Switch to another channel and back to the original again.

Slowly turn horizontal hold control clockwise and note the least number of diagonal bars present just before picture syncs. If more than 4½ bars are present just before picture sync. adjust "horizontal lock" trimmer B3 slightly clockwise. If less than 3½ bars are present adjust B3 slightly counter-clockwise and switch channel selector to another channel and back again. Recount bars present at the "lock-in" point. Repeat this procedure until 3½ to 4½ bars are present.

Repeat Steps (A) & (B) until conditions exist as outlined under "Horizontal Oscillator Alignment Check".

WIDTH, DRIVE & HORIZONTAL LINEARITY ADJUSTMENTS:

Turn width control B4 to maximum clockwise position. Adjust "horizontal drive" trimmer B5 for maximum brightness and linearity. Adjust horizontal linearity B6 for best linearity in the right half of the picture. Readjust width control until picture fills the mask.

HEIGHT & VERTICAL LINEARITY ADJUSTMENTS:

Adjust the height control until picture fills mask vertically. Adjust the vertical linearity control until the test pattern is symmetrical from top to bottom.

Due to intraction between these two controls it is necessary to repeat the adjustment. Adjust the vertical centering control to align the picture with the mask.

VOLTAGE AND RESISTANCE MEASUREMENTS

VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6J6	145VDC	145VDC	6.3VAC	0V	-8.8VDC	-8.9VDC	0V		
V 2	6J6	140VDC	140VDC	6.3VAC	0V	-2.2VDC	-3.9VDC	0V		
V 3	6J6	75VDC	75VDC	6.3VAC	0V	§-4.8 VDC	§-6.4 VDC	.3VDC		
V 4	6AG5	-8.5VDC	0V	6.3VAC	0V	145VDC	145VDC	0V		
V 5	6AG5	-8.8VDC	0V	6.3VAC	0V	145VDC	145VDC	0V		
V 6	6AG5	0V	1.3VDC	6.3VAC	0V	95VDC	140VDC	1.3VDC		
V 7	6AL5	0V	-.2VDC	0V	6.3VAC	0V	0V	-.1VDC		
V 8	12AU7	127VDC	-.5VDC	0V	6.3VAC	6.3VAC	♦150VDC	♦0V	♦.7VDC	0Ω
V 9	6BA6	0V	0V	0V	6.3VAC	125VDC	125VDC	1.5VDC		
V 10	6AU6	-.5VDC	0V	0V	6.3VAC	140VDC	85VDC	0V		
V 11	6AL5	0V	-.1VDC	6.3VAC	1.8VDC	0V	0V	-.1VDC		
V 12	6AT6	0V	0V	0V	6.3VAC	0V	-9VDC	0V		
V 13	6SN7GT	-.6VDC	150VDC	0V	-.2VDC	232VDC	9.4VDC	6.3VAC	0V	
V 14	6SN7GT	♦-6VDC	♦72VDC ♦137VDC	♦0V	♦-.1VDC	♦290VDC	♦25VDC ♦85VDC	6.3VAC	0V	
V 15	6SN7GT	♦0V	♦95VDC	♦9.2VDC	♦-31VDC	♦137VDC	♦0V	6.3VAC	0V	
V 16	6BG6	0V	6.3VAC	-65VDC	0V	♦0V	0V	0V	175VDC	*
V 17	5V4G	0V	320VDC	320VDC	260VDC	0V	260VDC	0V	320VDC	
V 18	1B3GT	* DO NOT MEASURE.								
V 19	5U4G	0V	275VDC	0V	380VAC	0V	380VAC	0V	275VDC	
‡V20	6BE6	§-.2 VDC	0V	0V	6.3VAC	260VDC	130VDC	0V		
V 21	6BE6	§-8.6 VDC	0V	0V	6.3VAC	250VDC	95VDC	0V		
V 22	6BA6	-.3VDC	0V	0V	6.3VAC	210VDC	120VDC	.7VDC		
‡V23	6AU6	0V	0V	0V	6.3VAC	240VDC	150VDC	.8VDC		
‡V24	6AL5	2.5VDC	-.1VDC	6.3VAC	0V	-.1VDC	0V	2.9VDC		
V 25	6SQ7	0V	-.2VDC	0V	-.3VDC	-.4VDC	105VDC	6.3VAC	0V	
V 26	6SQ7	0V	-.3VDC	0V	0V	0V	105VDC	6.3VAC	0V	
V 27	6K6GT	0V	0V	310VDC	240VDC	0V	0V	6.3VAC	20VDC	
V 28	6K6GT	0V	6.3VAC	310VDC	240VDC	0V	0V	0V	20VDC	
V 29	5Y3GT	0V	310VDC	240VDC	320VAC	0V	320VAC	0V	310VDC	
V 30	10BP4	140VDC	75VDC	PIN 10 290VDC	PIN 11 220VDC	PIN 12 140VDC				

♦ Measured from Pin 3 of V14.
* Do Not Measure.

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6J6	†6.5KΩ	†6.5KΩ	.1Ω	0Ω	100KΩ	100KΩ	0Ω		
V 2	6J6	†2KΩ	†2KΩ	.1Ω	0Ω	1 Meg.	1 Meg.	0Ω		
V 3	6J6	†5.5KΩ	†5.5KΩ	.1Ω	0Ω	100KΩ	100KΩ	47Ω		
V 4	6AG5	20KΩ	39Ω	.1Ω	0Ω	†2KΩ	†2KΩ	39Ω		
V 5	6AG5	12KΩ	39Ω	.1Ω	0Ω	†2KΩ	†2KΩ	39Ω		
V 6	6AG5	15KΩ	150Ω	.1Ω	0Ω	†8.5KΩ	†2KΩ	150Ω		
V 7	6AL5	.2Ω	4 Meg.	0Ω	.1Ω	0Ω	0Ω	2KΩ		
V 8	12AU7	†4.5KΩ	1 Meg.	0Ω	.1Ω	.1Ω	†5.5KΩ	♦1 Meg.	♦ 47Ω	0Ω
V 9	6BA6	0Ω	0Ω	0Ω	.1Ω	†2.2KΩ	†2.2KΩ	82Ω		
V 10	6AU6	470KΩ	0Ω	0Ω	.1Ω	†2KΩ	†23KΩ	0Ω		
V 11	6AL5	200KΩ	100KΩ	.1Ω	2.1Ω	0Ω	0Ω	100KΩ		
V 12	6AT6	Inf.	0Ω	0Ω	.1Ω	Inf.	100KΩ	Inf.		
V 13	6SN7GT	♦ 1 Meg.	†15KΩ	0Ω	4 Meg.	†300Ω	6.8KΩ	.1Ω	0Ω	
V 14	6SN7GT	♦ 1 Meg.	♦2.3 Meg ♦1.2 Meg	♦ 0Ω	2.2 Meg.	†2KΩ	♦5KΩ ♦500Ω	.1Ω	0Ω	
V 15	6SN7GT	♦850KΩ	◓320KΩ	♦280KΩ	♦200KΩ	◓140KΩ	♦0Ω	.1Ω	0Ω	
V 16	6BG6	Inf.	.1Ω	♦82Ω	Inf.	♦1 Meg.	Inf.	0Ω	†5.5KΩ	TOP CAP ◓200Ω
V 17	5V4G	Inf.	200KΩ	200KΩ	‡70Ω	Inf.	†70Ω	Inf.	200KΩ	
V 18	1B3GT	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	TOP CAP ◓450Ω
V 19	5U4G	Inf.	4.5KΩ	Inf.	670Ω	Inf.	660Ω	Inf.	4.5KΩ	
V 20	‡6BE6	22KΩ	0Ω	0Ω	.1Ω	#3KΩ	#18KΩ	0Ω		
V 21	6BE6	22KΩ	0Ω	0Ω	.1Ω	#2KΩ	#20KΩ	4.5 Meg		
V 22	6BA6	2.5 Meg.	0Ω	0Ω	.1Ω	#4KΩ	#26KΩ	68Ω		
V 23	‡6AU6	1Ω	0Ω	0Ω	.1Ω	#3KΩ	#33KΩ	68Ω		
V 24	‡6AL5	920Ω	11KΩ	.1Ω	0Ω	Inf.	0Ω	Inf.		
V 25	6SQ7	0Ω	10 Meg.	0Ω	2.5 Meg	270KΩ	#270KΩ	.1Ω	0Ω	
V 26	6SQ7	0Ω	10 Meg.	0Ω	0Ω	0Ω	#270KΩ	.1Ω	0Ω	
V 27	6K6GT	0Ω	0Ω	#330Ω	#2KΩ	480KΩ	8.2KΩ	.1Ω	560Ω	
V 28	6K6GT	0Ω	.1Ω	#300Ω	#2KΩ	470KΩ	Inf.	0Ω	560Ω	
V 29	5Y3GT	0Ω	800KΩ	800KΩ	250Ω	Inf.	260Ω	Inf.	800KΩ	
V 30	10BP4	†1000Ω	†5KΩ	PIN 10 ◓56KΩ	PIN 11 †280Ω	PIN 12 †1000Ω				

† Measured From Pin 8 Of V19.
♦ Measured From Pin 3 Of V14.
◓ Measured From Pin 8 Of V17.
Measured From Pin 8 Of V29.

1. DC Voltage measurements are at 20,000 ohms per volt; AC Voltage measured at 1,000 ohms.
2. Pin numbers are counted in a clockwise direction on bottom of socket.
3. Measured values are from socket pin to common negative unless otherwise stated.
4. Line voltage maintained at 117 volts for voltage readings.
5. Front panels controls set at minimum.
6. Where readings may vary according to the setting of the service controls, both minimum and maximum readings are given.

RCA VICTOR
MODELS 730TV1, 730TV2,
(Ch. KCS27-1)