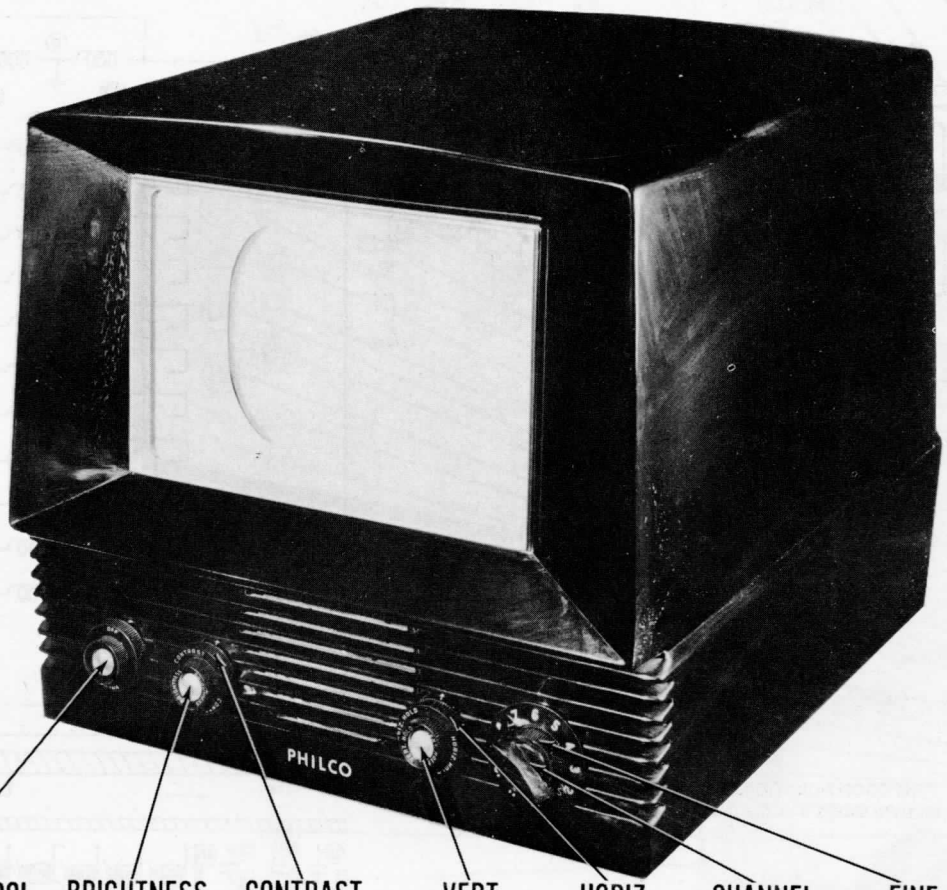


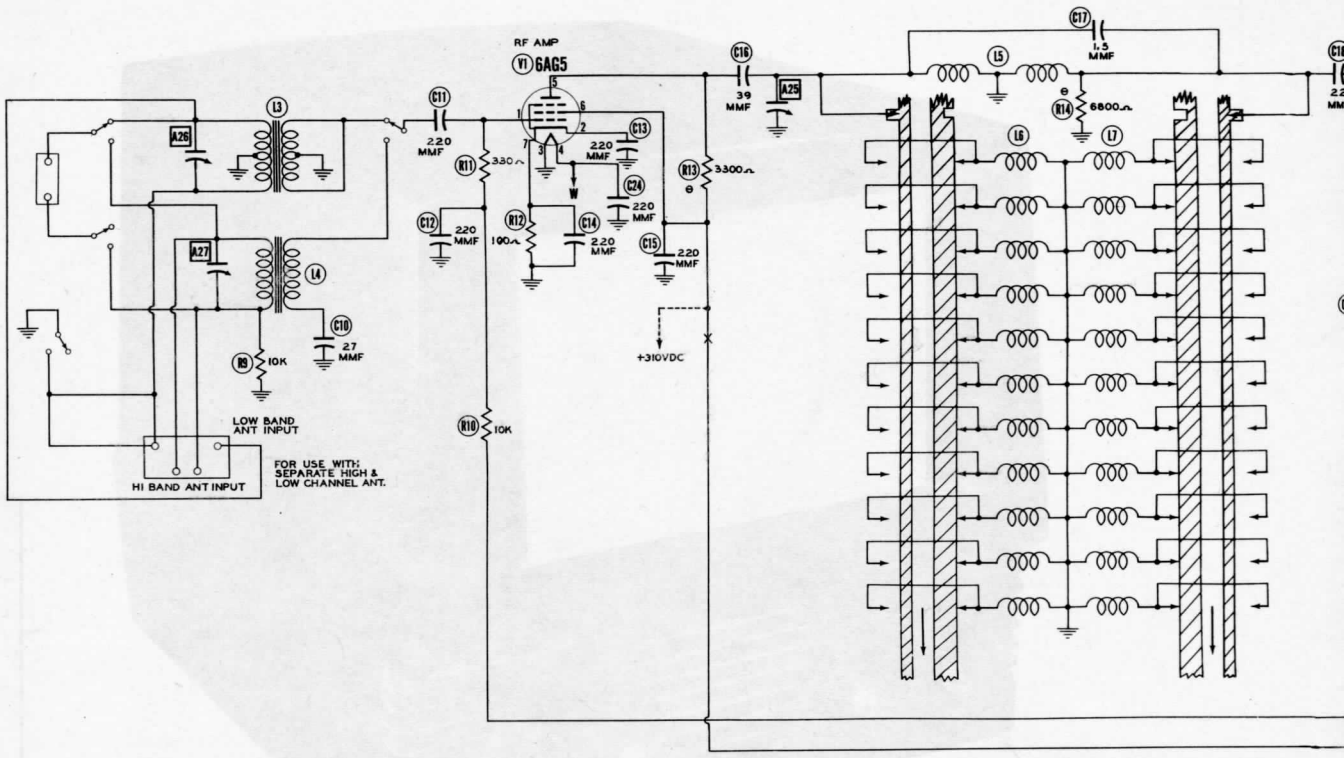
PHILCO MODELS
50-T701, 50-T702 (Code 122)

PHILCO MODEL 50-T702

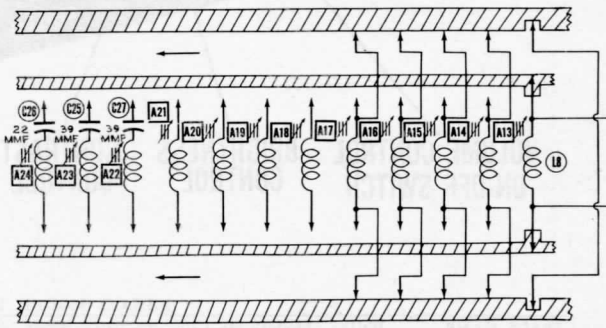
TRADE NAME	Philco, Models 50-T701, 50-T702 (Code 122)
MANUFACTURER	Philco Corp., Tioga And "C" Sts., Philadelphia, Pa
TYPE SET	Television Receiver
TUBES	Eighteen
POWER SUPPLY	110-120 Volts AC - 60 Cycle — RATING 1.12 Amp. @ 117 Volts AC
TUNING RANGE-	Channels 2 thru 13

INDEX

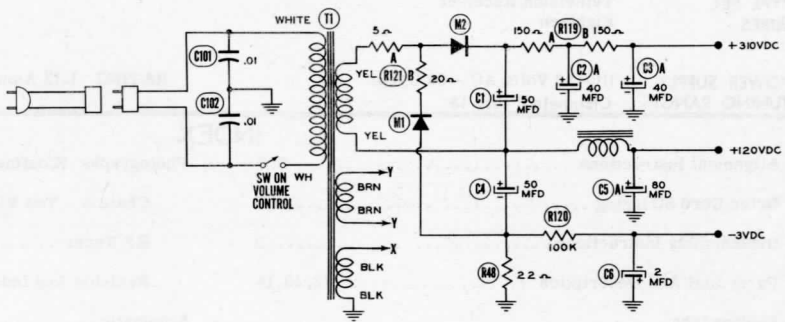
HOWARD W. SAMS & CO., INC. • Indianapolis 1, Indiana



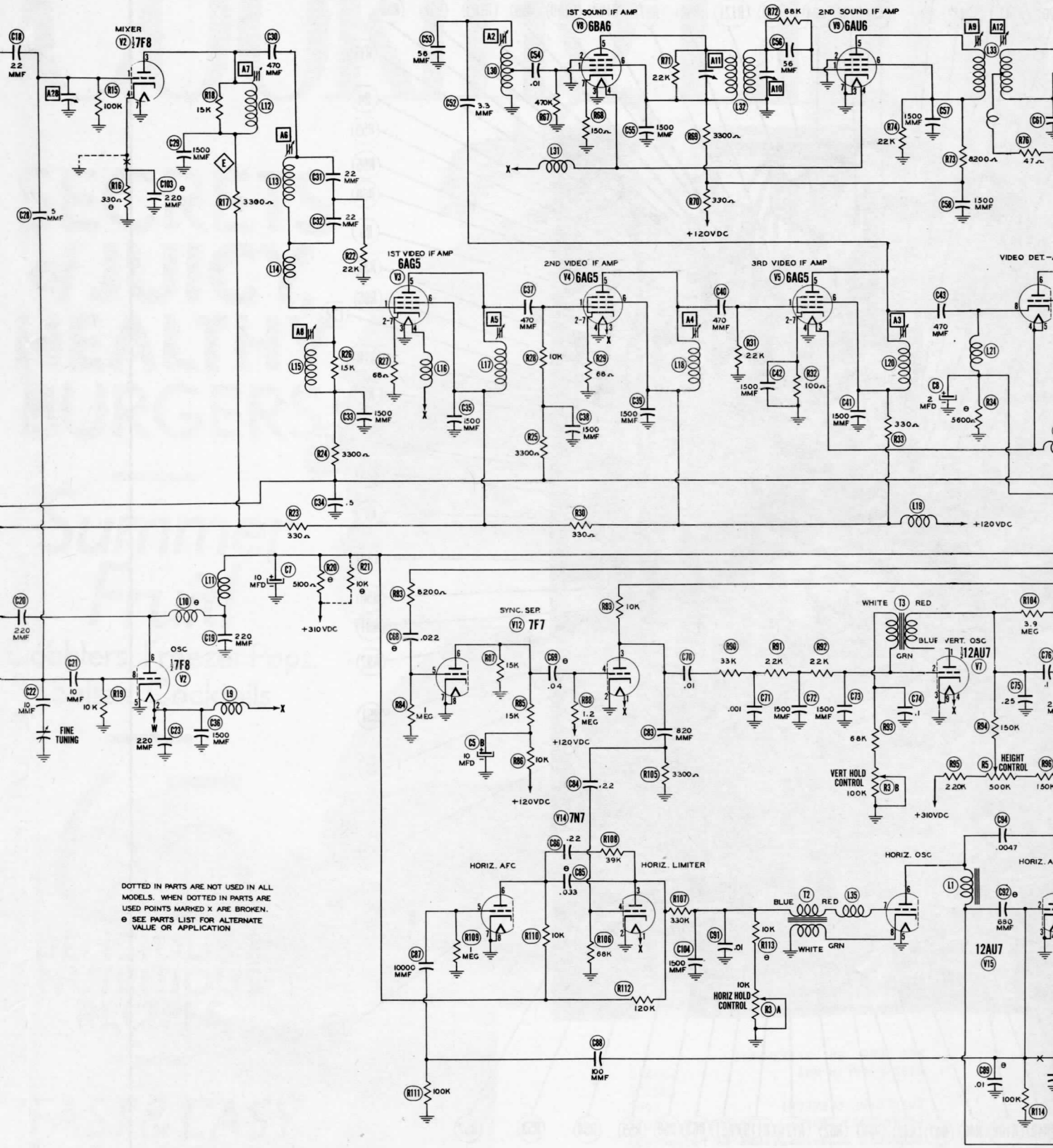
THE COOPERATION OF THE MANUFACTURER OF THIS RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE

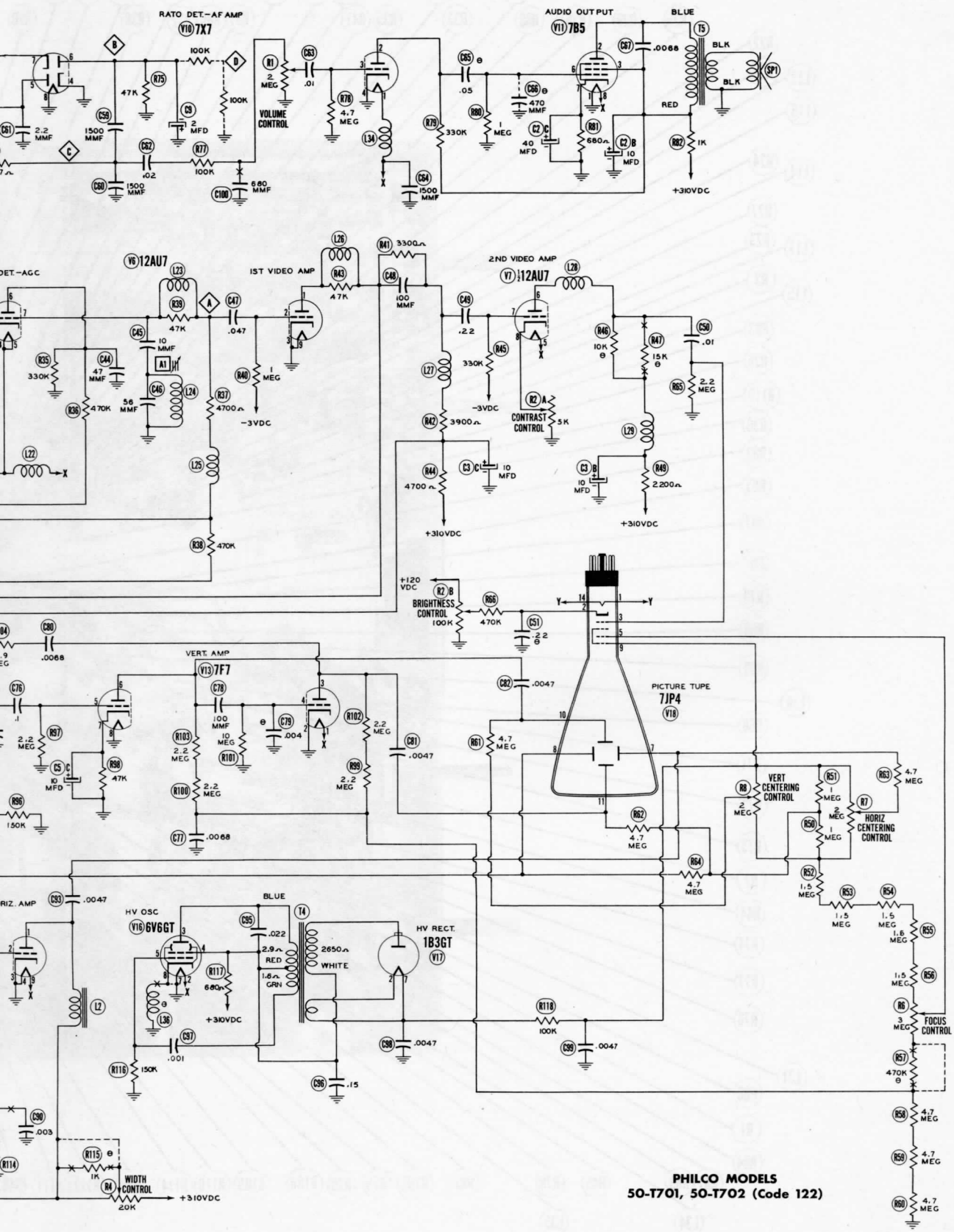


CHANNEL SW. SHOWN IN CHANNEL 2 POSITION



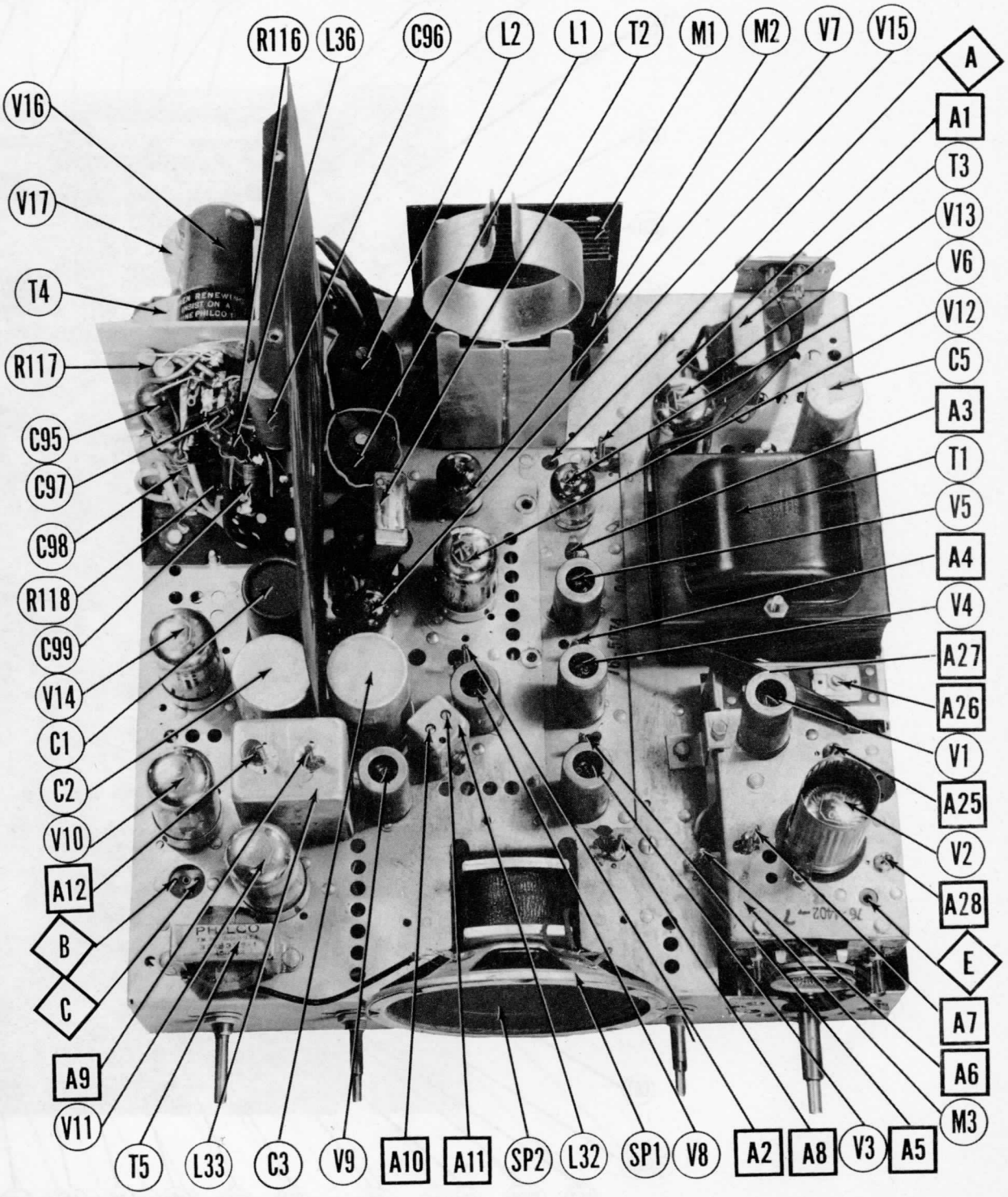
A PHOTOFACT STANDARD NOTATION SCHEMATIC


MIXER
V2 1/2 7F8
1ST SOUND IF AMP
V8 6BA6
2ND SOUND IF AMP
V9 6AU6
1ST VIDEO IF AMP
V3 6AG5
2ND VIDEO IF AMP
V4 6AG5
3RD VIDEO IF AMP
V5 6AG5
VIDEO DET.
OSC
V2 1/2 7F8
SYNC. SEP.
V12 7F7
VERT. OSC.
V7 12AU7
HORIZ. AFC
HORIZ. LIMITER
V14 7N7
HORIZ. OSC
V15 12AU7
FINE TUNING
VERT HOLD CONTROL
HEIGHT CONTROL
HORIZ HOLD CONTROL
+120VDC
+310VDC
DOTTED IN PARTS ARE NOT USED IN ALL MODELS. WHEN DOTTED IN PARTS ARE USED POINTS MARKED X ARE BROKEN.
θ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

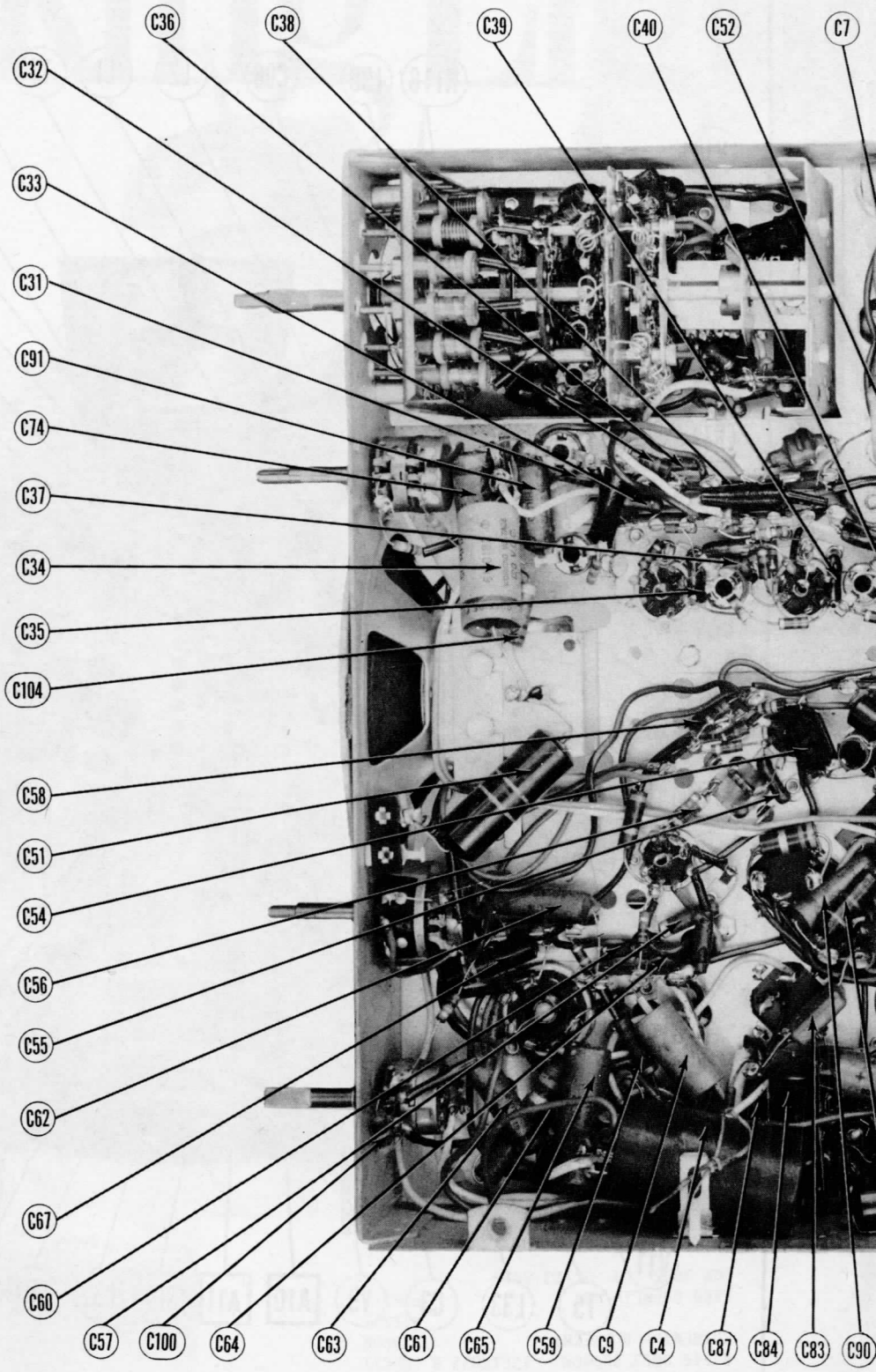


PHILCO MODELS
50-T701, 50-T702 (Code 122)

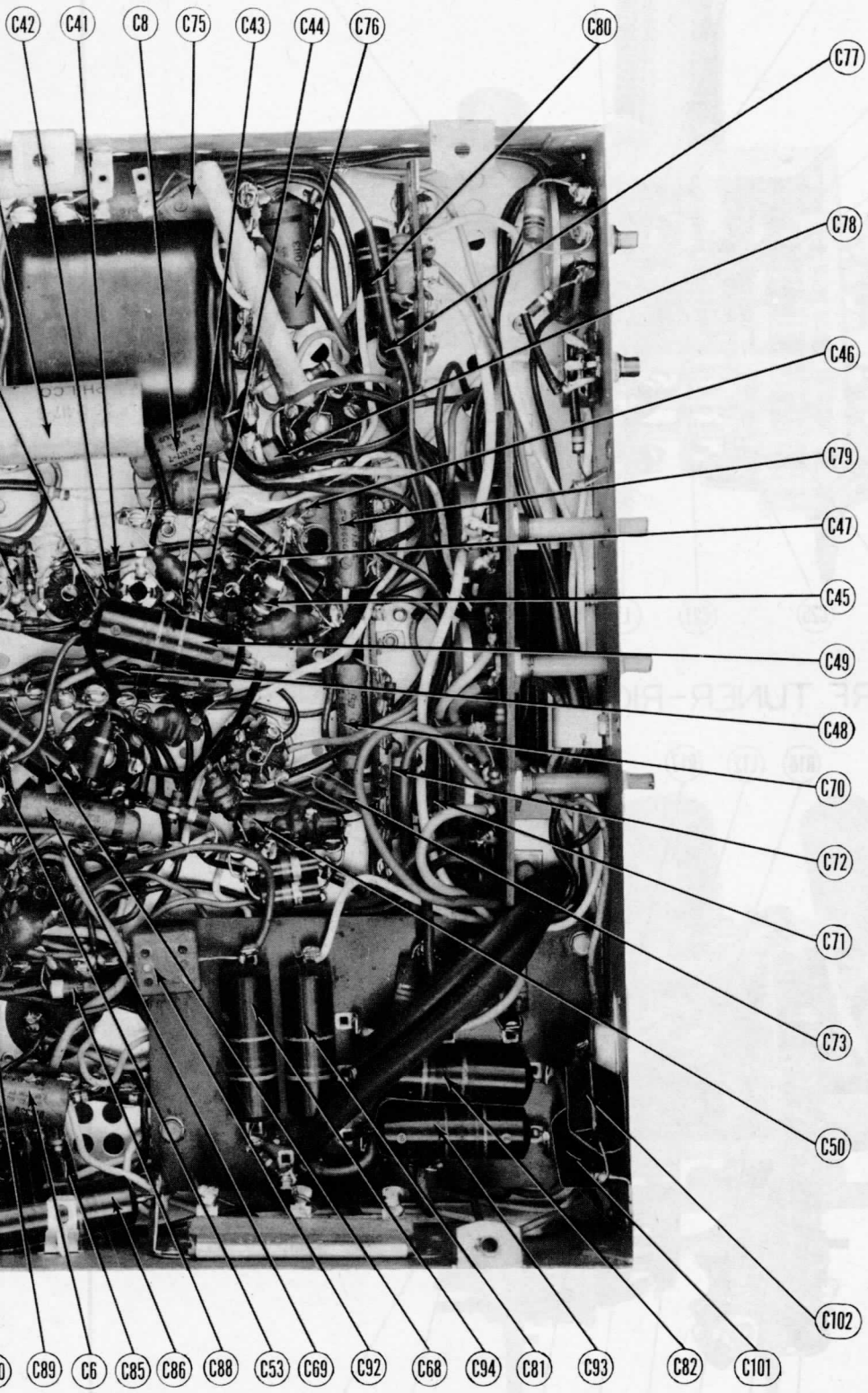
PHILCO MODELS
50-T701, 50-T702 (Code 122)



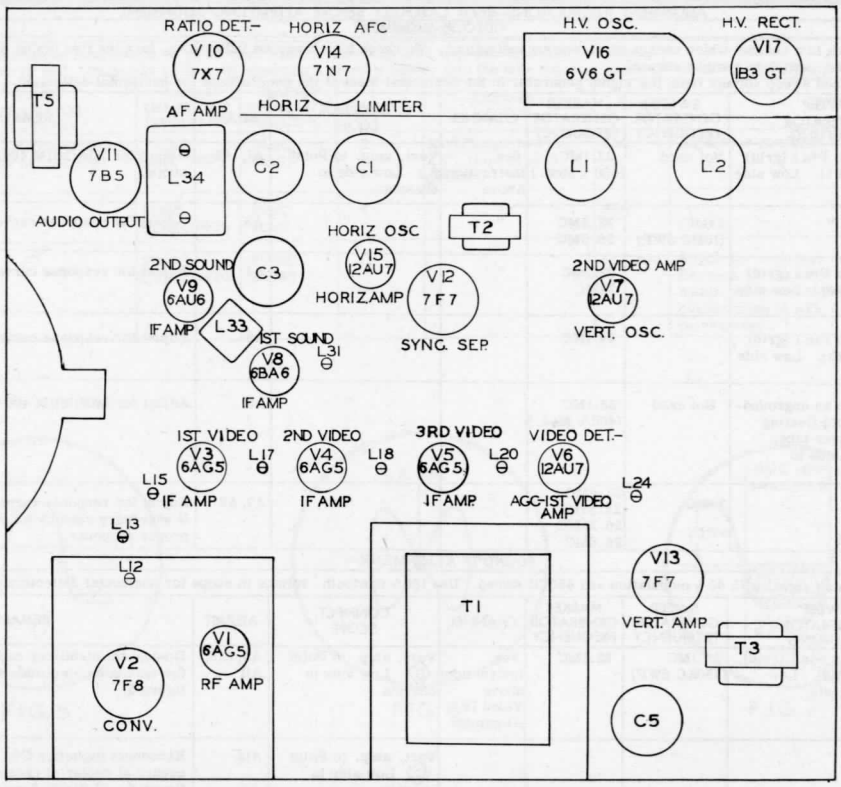
CHASSIS TOP VIEW



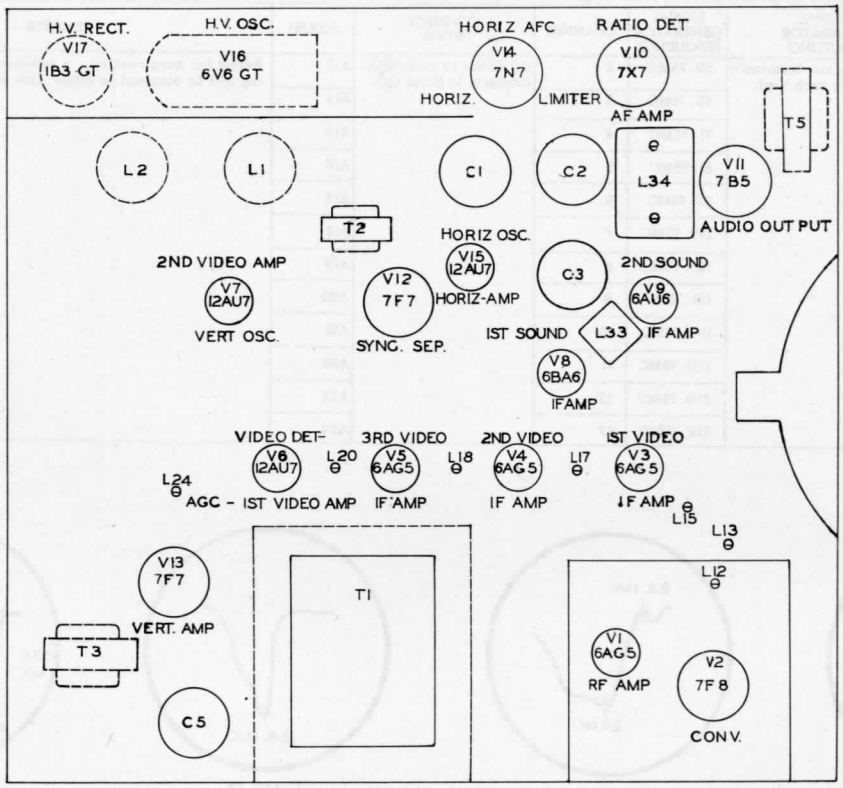
CHASSIS BOTTOM VIEW- CAPACITOR



R AND ALIGNMENT IDENTIFICATION



TOP VIEW



BOTTOM VIEW

TUBE PLACEMENT CHART

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

VIDEO IF ALIGNMENT

Turn the channel switch to a channel which causes no erroneous indications. To check for erroneous indications, turn the fine tuning control. If the response curve changes, switch to another channel.
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.	.001MFD	High side to Pin 1 (grid) of 6AG5, (V5). Low side to chassis.	Not used	22.1MC (400 ∿ Mod.)	See Instructions Above	Vert. amp. to Point (A). Low side to chassis.	A1, A2	Adjust for MINIMUM 400 ∿ indication on scope.
2.	"	"	24MC (10MC SWP)	22.5MC 26.5MC	"	"	A3	Adjust for response curve similar to figure 1.
3.	"	High side to Pin 1 (grid) of 6AG5, (V4). Low side to chassis.	"	22.1MC 24MC	"	"	A4	Adjust for response curve similar to figure 2.
4.	"	High side to Pin 1 (grid) of 6AG5, (V3). Low side to chassis.	"	24.1MC	"	"	A5	Adjust for response curve similar to figure 3.
5.	Direct	High side to an ungrounded tube shield floating over converter tube, (V2). Low side to chassis.	Not used	28.1MC (400 ∿ Mod.)	"	"	A6	Adjust for MINIMUM 400 ∿ indication on scope.
6.	"	"	24MC	23.6MC 24.25MC 26.25MC 26.6MC	"	"	A7, A8	Adjust for response curve similar to figure 4. If necessary retouch A3, A4, and A5 for proper response.

SOUND IF ALIGNMENT

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

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
7.	.001MFD	High side to Pin 1 (grid) of 6AG5, (V5). Low side to chassis.	22.1MC (450KC SWP)	22.1MC	See instructions above Video IF Alignment	Vert. amp. to Point (B). Low side to chassis.	A9, A10, A11	Disconnect stabilizer capacitor C9. Adjust for maximum amplitude and symmetry as per figure 5.
8.	"	"	"	"	"	Vert. amp. to Point (C). Low side to chassis.	A12	Reconnect capacitor C9. Adjust A12 so 4.5MC occurs at center of crossover lines as per figure 6. SLIGHTLY retouch A9 for maximum amplitude and straightness of crossover lines.

OSCILLATOR ALIGNMENT

Connect two matched 100KΩ (± 1%) resistors in series from Point B to chassis. The junction of these two resistors is alignment Point D as shown on the schematic.
The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.
Set the fine tuning control to the mid-position of its range.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
9.	Two 120Ω carbon resistors	Across antenna terminals with 120Ω in each lead.	59.75MC	2	DC probe to Point (B). Common to Point (D).	A13	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
			65.75MC	3		A14	
			71.75MC	4		A15	
			81.75MC	5		A16	
			87.75MC	6		A17	
			179.75MC	7		A18	
			185.75MC	8		A19	
			191.75MC	9		A20	
			197.75MC	10		A21	
			203.75MC	11		A22	
			209.75MC	12		A23	
			215.75MC	13		A24	

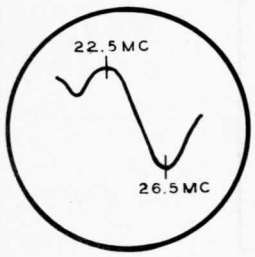


FIG.1

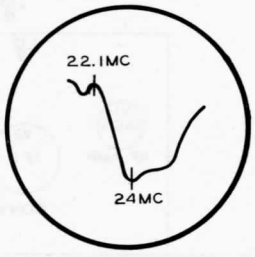


FIG.2

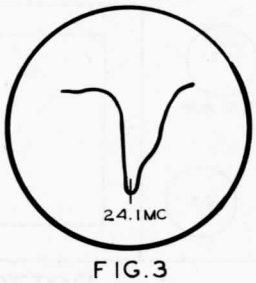


FIG.3

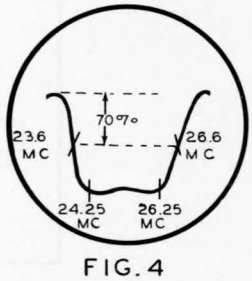


FIG.4

ALIGNMENT INSTRUCTIONS (CONT.)

RF ALIGNMENT

The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.
Short the first video IF coil. This may be done by inserting a piece of solder into the hole adjacent to the IF adjusting trimmer, A7.

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
10.	Two 120Ω carbon resistors	Across antenna terminals with 120Ω in each lead.	57MC (12MC SWP)	54MC 60MC	2	Vert. amp. to Point E . Low side to chassis.	A25	Adjust for response curve similar to figure 7.
11.	"	"	85MC (12MC SWP)	82MC 88MC	6	"	A26	"
12.	"	"	213MC (10MC SWP)	210MC 216MC	13	"	A27, A28	Adjust for response curve similar to figure 7. Recheck all channels to see that they fall within the limits of figure 7. If not slight compromise of A25, A26, A27 and A28 may be required.

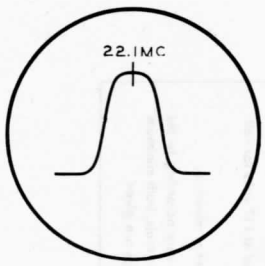


FIG. 5

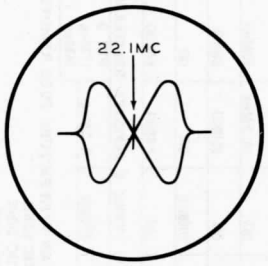


FIG. 6

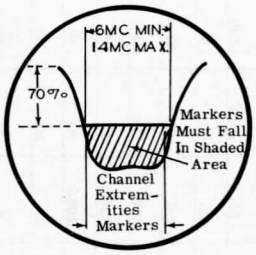


FIG. 7

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	6AG5	-.5VDC	.6VDC	0V	6.3VAC	95VDC	110VDC	.6VDC		
V 2	7F8	-4.4VDC	6.3VAC	100VDC	1.2VDC	0V	185VDC	0V	§-5.5VDC	
V 3	6AG5	-.4VDC	.1VDC	0V	6.3VAC	115VDC	115VDC	.1VDC		
V 4	6AG5	-.5VDC	.5VDC	6.3VAC	0V	120VDC	120VDC	.5VDC		
V 5	6AG5	0V	1VDC	6.3VAC	0V	115VDC	115VDC	1VDC		
V 6	12AU7	170VDC	-.8VDC	0V	6.3VAC	6.3VAC	-.2VDC	2VDC	2.1VDC	0V
V 7	12AU7	45VDC	-14VDC	0V	6.3VAC	6.3VAC	280VDC	-1.3VDC	12VDC	0V
V 8	6BA6	0V	0V	0V	6.3VAC	85VDC	85VDC	1.6VDC		
V 9	6AU6	-.4VDC	0V	0V	6.3VAC	65VDC	65VDC	0V		
V 10	7X7	6.3VAC	90VDC	-.6VDC	0V	-.5VDC	-.8VDC	-15VDC	0V	
V 11	7B5	0V	255VDC	265VDC	0V	0V	0V	20VDC	6.3VAC	
V 12	7F7	6.3VAC	0V	190VDC	.1VDC	-.7VDC	46VDC	0V	0V	
V 13	7F7	6.3VAC	0V	235VDC	-.6VDC	.1VDC	470VDC	5VDC	0V	
V 14	7N7	6.3VAC	0V	16VDC	-3.5VDC	-1.4VDC	115VDC	0V	0V	
V 15	12AU7	155VDC 245VDC	-3VDC	0V	0V	0V	170VDC 270VDC	-24VDC	0V	6.3VAC
V 16	6V6GT	0V	6.3VAC	270VDC	270VDC	-50VDC	0V	0V	1.4VDC	
V 17	1B3GT	* DO NOT MEASURE								
V 18	7JP4	■6.3VAC	110VDC	0V.	* DO NOT MEASURE PINS 5, 7, 8, 9, 10, 11					PIN 14 ■6.3VAC

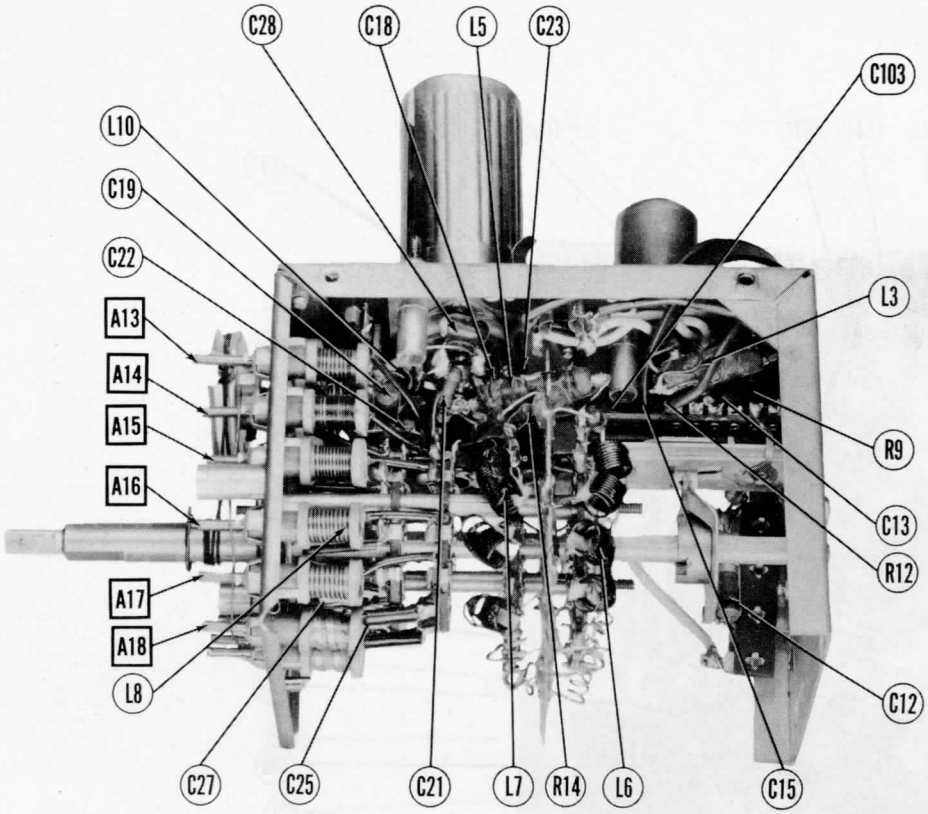
ALL MEASUREMENTS TAKEN WITH PICTURE TUBE REMOVED
* DO NOT MEASURE
■ MEASURED ACROSS PINS 1 AND 14 OF V18
§ TAKEN WITH VACUUM TUBE VOLTMETER

RESISTANCE READINGS

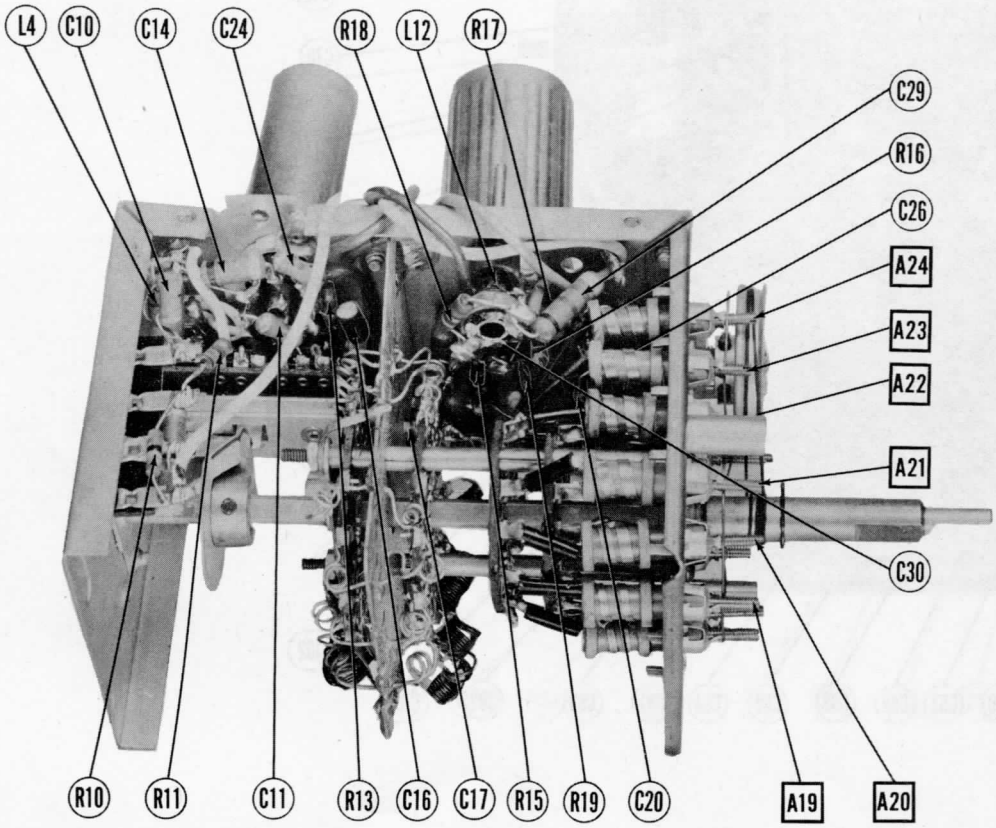
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6AG5	810KΩ	100Ω	0Ω	.1Ω	▲4KΩ	▲660Ω	100Ω		
V 2	7F8	100KΩ	.1Ω	▲4KΩ	330Ω	0Ω	†5.1KΩ	0Ω	10KΩ	
V 3	6AG5	800KΩ	68Ω	0Ω	.1Ω	▲330Ω	▲330Ω	68Ω		
V 4	6AG5	815KΩ	68Ω	.1Ω	0Ω	▲.3Ω	▲.1Ω	68Ω		
V 5	6AG5	22KΩ	100Ω	.1Ω	0Ω	▲330Ω	▲330Ω	100Ω		
V 6	12AU7	†12KΩ	¶1Meg	0Ω	.1Ω	.1Ω	330KΩ	10KΩ	5.6KΩ	0Ω
V 7	12AU7	†350KΩ † 300KΩ	168KΩ	0Ω	.1Ω	.1Ω	†8.2KΩ	¶330KΩ	5KΩ	0Ω
V 8	6BA6	470KΩ	0Ω	0Ω	.1Ω	▲3.6KΩ	▲3.6KΩ	150Ω		
V 9	6AU6	68KΩ	0Ω	0Ω	.1Ω	▲7.5KΩ	▲7.5KΩ	0Ω		
V 10	7X7	.1Ω	†330KΩ	4.7Meg	0Ω	Inf.	47KΩ	Inf.	0Ω	
V 11	7B5	0Ω	†1.5KΩ	†1KΩ	Inf.	Inf.	1Meg	680Ω	.1Ω	
V 12	7F7	.1Ω	0Ω	†15KΩ	▲1.2Meg	1Meg	▲14KΩ	0Ω	0Ω	
V 13	7F7	.1Ω	0Ω	18.5Meg	10Meg	2.2Meg	18.5Meg	47KΩ	0Ω	
V 14	7N7	.1Ω	0Ω	130KΩ	68KΩ	1Meg	†15KΩ	0Ω	0Ω	
V 15	12AU7	†12KΩ †2.5KΩ	100KΩ	0Ω	0Ω	0Ω	†12KΩ †2.5KΩ	18KΩ	2.2Ω	.1Ω
V 16	6V6GT	Inf.	.1Ω	†680Ω	†680Ω	150KΩ	Inf.	0Ω	30Ω	TOP CAP †3.3KΩ
V 17	1B3GT	PINS 1 THRU 8 INFINITE RESISTANCE								
V 18	7JP4	■.5Ω	470KΩ	2.2Meg	PIN 5 17Meg 14Meg	PIN 7 #6.8Meg #4.8Meg	PIN 8 #5.8Meg	PIN 9 #100KΩ	PIN 10 #6.8Meg #4.8Meg	PIN 11 #5.8Meg	PIN 14 ■.5Ω

ALL MEASUREMENTS TAKEN WITH PICTURE TUBE REMOVED
† MEASURED FROM 310VDC LINE
▲ MEASURED FROM 120VDC LINE
¶ MEASURED FROM -3VDC LINE
■ MEASURED ACROSS PINS 1 AND 14 OF V18
MEASURED FROM PIN 7 OF V17

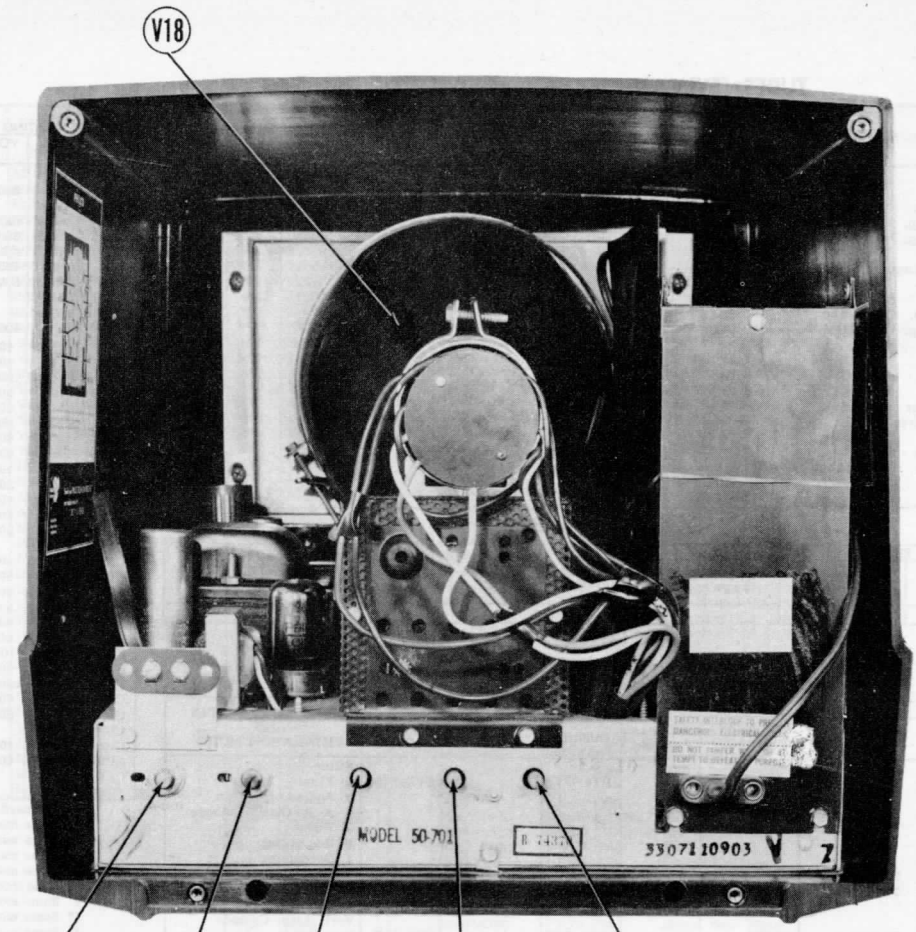
1. DC Voltage measurements are at 20,000 ohms per volt; AC Voltage measured at 1,000 ohms.
2. Pin numbers are counted in a clockwise direction on bottom of socket.
3. Measured values are from socket pin to common negative unless otherwise stated.
4. Line voltage maintained at 117 volts for voltage readings.
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.



RF TUNER-RIGHT SIDE



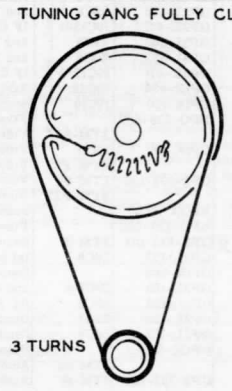
RF TUNER-LEFT SIDE



CABINET–REAR VIEW
DISASSEMBLY INSTRUCTIONS

1. Remove seven push-on type control knobs.
2. Remove three phillips head screws from rear cover. Remove rear cover.
3. Remove four 5/16" hex head bolts from chassis. Remove chassis.

NOTE: FOR PICTURE TUBE REMOVAL, IT IS NECESSARY TO REMOVE THE CHASSIS AS OUTLINED ABOVE.



FINE TUNING DRIVE CORD STRINGING

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA: PHILCO PART No.	REPLACEMENT DATA: STANDARD REPLACEMENT	RMA BASE TYPE	NOTES
V1	RF Amplifier	6AG5	6AG5	7BQ	
V2	Converter	7F8	7F8	8BW	
V3	1st Video IF Amp.	6AG5	6AG5	7BD	
V4	2nd Video IF Amp.	6AG5	6AG5	7BD	
V5	3rd Video IF Amp.	6AG5	6AG5	7BD	
V6	Video Detector - AGC-1st Video Amp.	12AU7	12AU7	9A	
V7	2nd Video Amp. - Vertical Osc.	12AU7	12AU7	9A	
V8	1st Sound IF Amp.	6BA6	6BA6	7BK	
V9	2nd Sound IF Amp.	6AU6	6AU6	7BK	
V10	Ratio Detector - AF Amplifier	7X7	7X7	8BZ	
V11	Audio Output	7B5	7B5	6AE	
V12	Sync. Separator	7F7	7F7	8AC	
V13	Vertical Amplifier	7F7	7F7	8AC	
V14	Horiz. AFC - Horiz. Limiter	7N7	7N7	8AC	
V15	Horiz. Oscillator - Horiz. Amplifier	12AU7	12AU7	9A	
V16	H.V. Oscillator	6V6GT	6V6GT	7AC	
V17	H.V. Rectifier	1B3GT	1B3GT	3C	

CATHODE-RAY TUBE

ITEM No.	REPLACEMENT DATA: PHILCO PART No.	REPLACEMENT DATA: SYLVANIA PART No.	REPLACEMENT DATA: THOMAS PART No.	RTMA BASE TYPE	NOTES
V18	7JP4	7JP4		14G	

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: CAP.	RATING: VOLT	REPLACEMENT DATA: PHILCO PART No.	REPLACEMENT DATA: AEROVOX PART No.	REPLACEMENT DATA: CENTRALAB PART No.	REPLACEMENT DATA: CORNELL-DUBILIER PART No.	REPLACEMENT DATA: ERIE PART No.	REPLACEMENT DATA: SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
C1	50	250	30-2568-32						Filter
C2A	40	450	30-2570-36	AF88J2K		UPT4145V10		TVL-3754	▲ Filter
B	10	450							■ Audio Output Dec.
C	40	50							▲ Audio Output Cathode
C3A	40	450		AF822X					▲ Filter
B	10	450							■ Decoupling
C	10	450							▲ Decoupling
C4	50	250	30-2568-32	E3A60		UPT5030		TVL-1522	Filter
C5A	80	250	30-2570-37	AF1622J		UP8025		R1113	■ Filter
B	10	250				BRD-2225			▲ Decoupling
C	10	250							Vert. Amp. Cathode
C6	2	50	30-2417-7	E26E6		BBR2-50T		TVA-1301	Bias Filter
C7	10	450	30-2417-6	PRS450/10		BR1045A		TVA-1705	Decoupling
C8	2	50	30-2417-7	E26E6		BBR2-50T		TVA-1301	Video Det. Cathode
C9	2	50	30-2417-7	E26E6		BBR2-50T		TVA-1301	Stabilizing Cap
C10	27				TCZ-27		NPOK-270		Fixed Trimmer
C11	220			SI220	D6-221		GP2K-221	19C13	RF Coupling
C12	220			SI220	D6-221		GP2K-221	19C13	AGC Filter
C13	220			SI220	D6-221		GP2K-221	19C13	RF Amp. Cathode
C14	220			SI220	D6-221		GP2K-221	19C13	RF Amp. Cathode
C15	220			SI220	D6-221		GP2K-221	19C13	RF Amp. Screen
C16	39			SI39	D6-390		GP1K-390		RF Coupling
C17	1.5			SI1.5NPO	TCZ-1.5		NPOK-1R5		RF Coupling
C18	22			SI22	D6-220		GP1K-220	19C23	RF Coupling
C19	220			SI220	D6-221		GP2K-221	19C13	Osc. Plate Decoupling
C20	220			SI220	D6-221		GP2K-221	19C13	Osc. Feedback
C21	10			SI10NPO	TCZ-10		NPOK-100	19C3	Osc. Grid Cap
C22	10			SI10NPO	TCZ-10		NPOK-100	19C3	Fixed Trimmer
C23	220			SI220	D6-221		GP2K-221	19C13	Fil. Bypass
C24	220			SI220	D6-221		GP2K-221	19C13	Fil. Bypass
C25	39			SI39	D6-390		GP1K-390		Fixed Padder
C26	22				TCZ-22		NPOK-220	29C12	Fixed Padder
C27	39			SI39	D6-390		GP1K-390		Fixed Padder
C28	5			SI5NPO			NPOK-050		Osc. Coupling
C29	1500		62-215001011	SI1500	D6-152		GP2L-152	29C8	Mixer Plate Decoupling
C30	470		62-147001001	SI470	D6-471		GP2K-471	19C15	IF Coupling
C31	22		62-022009001		TCZ-22		NPOK-220	29C12	Fixed Trimmer
C32	22		62-022009001		TCZ-22		NPOK-220	29C12	Fixed Trimmer
C33	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	29C8	AGC Filter
C34	.5	120	61-0133	P288-5		GT2P5		2TM-P5	AGC Filter
C35	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	29C8	1st Video IF Dec.
C36	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	29C8	Fil. Bypass
C37	470		62-147001001	SI470	D6-471	5R5T5	GP2K-471	19C15	IF Coupling
C38	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	29C8	AGC Filter
C39	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	29C8	2nd Video IF Dec.
C40	470		62-147001001	SI470	D6-471	5R5T5	GP2K-471	19C15	IF Coupling
C41	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	29C8	3rd Video IF Dec.
C42	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	29C8	3rd Video IF Cathode
C43	470		62-147001001	SI470	D6-471	5R5T5	GP2K-471	19C15	IF Coupling
C44	47		30-1224-2	SI47	D6-470	5W5Q5	GP1K-470	19C25	AGC Filter
C45	10		62-010009001	SI10	D6-100	5W5Q1	GP1K-100	19C19	Sound IF Coupling
C46	56		62-056409001		TCZ-56		NPO-333-560		Fixed Trimmer
C47	.047	200		P288-047	DF-503	PTE4S5		2TM-S47	Video Coupling
C48	100		62-110009001	SI100	D6-101	5W5T1	GP1K-101	19C11	Video Coupling
C49	.22	400	45-3500-9	P488-22		GT4P25		4TM-P22	Video Coupling
C50	.01	600	61-0120	P688-01	D6-103	PTE6S1	GP2-333-103	6TM-S1	Video Coupling
C51	.22	400		P488-22		GT4P25		4TM-P22	Picture Tube Cathode †
C52	3.3		30-1224-30	SI3.3NPO	TCZ-3.3		NPOK-3R3		Sound IF Coupling
C53	56		62-056409001		TCZ-56		NPO-333-560		Fixed Trimmer
C54	.01	100	60-0120	P488-01	D6-103	PTE4S1	GP2-333-103	4TM-S1	Sound IF Coupling
C55	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	29C8	1st Sound IF Dec.
C56	56		60-056409001	SI56	D6-560	5R5Q5	GP1K-560		Sound IF Coupling
C57	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	29C8	2nd Sound IF Dec.
C58	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	29C8	RF Bypass
C59	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	29C8	Diode Load Cap
C60	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	29C8	Diode Load Cap
C61	2.2		30-1221-4		TCZ-2.2		NPOK-2R2		Balancing Cap
C62	.02	200	61-0108	P488-02	DF-203	PTE4S2		2TM-S2	Audio Coupling
C63	.01	400	61-0120	P488-01	D6-103	PTE4S1	GP2-333-103	4TM-S1	Audio Coupling

ITEM No.	RATING: CAP.	RATING: VOLT	REPLACE: PHILCO PART No.	REPLACE: AEROVOX PART No.	REPLACE: CENTR PART
C64	1500		62-215001011	SI1500	D6-15
C65	.05	600		P688-05	DF-5
C66	470		62-147001001	SI470	D6-4
C67	.0068	1000	61-0174	P1088-0068	D6-6
C68	.022	600		P688-022	DF-2
C69	.04	400		P688-04	DF-5
C70	.01	400	61-0120	P488-01	D6-1
C71	.001	600	45-3500-5	P688-001	D6-1
C72	1500		62-215001011	SI1500	D6-15
C73	1500		62-215001011	SI1500	D6-15
C74	.1	400	45-3500-8	P488-1	DF-1
C75	.25	400	61-0122	P488-25	
C76	.1	400	61-0113	P488-1	DF-
C77	.0068	1600	61-0127	P1688-0068	
C78	100	500	62-110009001	1468-0001	D6-1
C79	.004	400	45-3500-17	P688-004	D6-4
C80	.0068	1600	61-0127	P1688-0068	
C81	.0047	6000	30-4661-2	6089-005	TV6
C82	.0047	6000	30-4661-2	6089-005	TV6
C83	820	500	60-10825401	1464-0008	
C84	.22	200	61-0125	P488-22	
C85	.033	400		P488-033	
C86	.22	400	61-0125	P488-22	
C87	10000	500	61-0120	1467-01	D6-1
C88	100		62-110009001	SI100	D6-1
C89	.01	400	61-0120	P488-01	D6-1
C90	.003	600		P688-003	D6-3
C91	.01	400	61-0120	P488-01	D6-1
C92	680	500		1479-0007	D6-6
C93	.0047	6000	30-4661-2	6089-005	TV6
C94	.0047	6000	30-4661-2	6089-005	TV6
C95	.022	1000	61-0118	P1088-022	
C96	.15	600	61-0193	684-15	
C97	.001	600	45-3500-5	P688-001	D6-1
C98	.0047	6000	30-4661-2	6089-005	TV6
C99	.0047	6000	30-4661-2	6089-005	TV6
C100	680			SI680	D6-6
C101	.01	400	60-0120	P488-01	D6-1
C102	.01	400	60-0120	P488-01	D6-1
C103	220			SI220	D6-2
C104	1500		62-215001011	SI1500	D6-15

* Not used in all models.
† Some models use .25MFD. Mfgrs. Part # 61-0125
‡ Some models use .047MFD. Mfgrs. Part # 61-012
†† Some models use .002MFD. Mfgrs. Part # 61-006
‡‡ Some models use .05MFD. Mfgrs. Part # 61-0170
** Some models use .03MFD. Mfgrs. Part # 61-0119
¶ Some models use .015MFD in this application and C
¶¶ Some models use 820MMF. Mfgrs. Part # 60-1082
♦ Some models use .0047MFD. Mfgrs. Part # 30-46

CON

ITEM No.	RATING: RESIST-ANCE	RATING: WATTS	REPLACEMENT DATA: PHILCO PART No.	REPLACEMENT DATA: IRC PART No.	CLAR PART
R1A	2Meg	±1/-	33-6566	Q13-139	AG-66
B	Shaft		Not req.	Not req.	FS-3
C	Switch		Not req.	76-1	SWB
R2A	5000	2	33-5546-11		RTV-2
B	100KΩ	±1/-			
				Concentrikit	
R3A	10KΩ	±1/-		B11-116 ø	
B	100KΩ	±1/-	33-5563-2	B11-128 ø	RTV-7
C	Shaft End			E-187 ø	
R4	20KΩ	3	33-5546-18		58-20K
R5A	500KΩ	±1/-	33-5565-2	Q11-133	AG-58
B	Shaft		Not req.	Not req.	FKS-1/
R6A	3Meg	±1/-	33-5565-4	Q11-140	AM-84
B	Shaft		Not req.	TQ	RN-3
R7A	2Meg	±1/-	33-5565-3	Q11-139	AM-83
B	Shaft		Not req.	TQ	RN-3
R8A	2Meg	±1/-	33-5565-3	Q11-139	AM-83
B	Shaft		Not req.	TQ	RN-3

ø Additional parts to be used with " Concentrikit".
Fashion shaft to duplicate original.

RES

ITEM No.	RATING: RESISTANCE	RATING: WATTS	REPLACEMENT DATA: PHILCO PART No.	REPLACEMENT DATA: IRC PART No.
R9	10KΩ			
R10	10KΩ			BTS-10K
R11	330Ω 5%			BTS-330-5%
R12	100Ω			BTS-100
R13	3300Ω 5%			BTS-3300-5%
R14	6800Ω			
R15	100KΩ			
R16	330Ω			BTS-330
R17	3300Ω 5%			BTS-3300-5%
R18	15KΩ			
R19	10KΩ			
R20	5100Ω	5	33-1335-18	1 3/4A-5000
R21	10KΩ		66-3108340	BTS-10K
R22	22KΩ		66-3228340	
R23	330Ω		66-1338340	BTS-330
R24	3300Ω 20%		66-2338340	BTS-3300
R25	3300Ω 20%		66-2338340	BTS-3300
R26	15KΩ		66-3158340	
R27	68Ω		66-0688340	
R28	10KΩ		66-3108340	
R29	68Ω		66-0688340	
R30	330Ω		66-1338340	BTS-330
R31	22KΩ		66-3228340	BTS-22K
R32	100Ω		66-1108340	BTS-100
R33	330Ω		66-1338340	BTS-330
R34	5600Ω		66-2568340	BTS-5600
R35	330KΩ		66-4338340	BTS-330K

PARTS LIST AND DESCRIPTIONS

CAPACITORS (CONT.)

NOTES

NOTES

r Electrolytic
c Capacitors.

SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
	Filter
TVL-3754	▲ Filter
	■ Audio Output Dec.
	▲ Audio Output Cathode
	▲ Filter
	■ Decoupling
	▲ Decoupling
TVL-1522	Filter
R1113	■ Filter
	▲ Decoupling
	Vert. Amp. Cathode
TVA-1301	Bias Filter
TVA-1705	Decoupling
TVA-1301	Video Det. Cathode
TVA-1301	Stabilizing Cap
	Fixed Trimmer
19C13	RF Coupling
19C13	AGC Filter
19C13	RF Amp. Cathode
19C13	RF Amp. Cathode
19C13	RF Amp. Screen
	RF Coupling
	RF Coupling
19C23	RF Coupling
19C13	Osc. Plate Decoupling
19C13	Osc. Feedback
19C3	Osc. Grid Cap
19C3	Fixed Trimmer
19C13	Fil. Bypass
19C13	Fil. Bypass
	Fixed Padder
29C12	Fixed Padder
	Fixed Padder
	Osc. Coupling
29C8	Mixer Plate Decoupling
19C15	IF Coupling
29C12	Fixed Trimmer
29C12	Fixed Trimmer
29C8	AGC Filter
2TM-P5	AGC Filter
29C8	1st Video IF Dec.
29C8	Fil. Bypass
19C15	IF Coupling
29C8	AGC Filter
29C8	2nd Video IF Dec.
19C15	IF Coupling
29C8	3rd Video IF Dec.
29C8	3rd Video IF Cathode
19C15	IF Coupling
19C25	AGC Filter
19C19	Sound IF Coupling
	Fixed Trimmer
2TM-S47	Video Coupling
19C11	Video Coupling
4TM-P22	Video Coupling
6TM-S1	Video Coupling
4TM-P22	Picture Tube Cathode †
	Sound IF Coupling
	Fixed Trimmer
4TM-S1	Sound IF Coupling
29C8	1st Sound IF Dec.
	Sound IF Coupling
29C8	2nd Sound IF Dec.
29C8	RF Bypass
29C8	Diode Load Cap
29C8	Diode Load Cap
	Balancing Cap
2TM-S2	Audio Coupling
4TM-S1	Audio Coupling

ITEM No.	RATING CAP.	RATING VOLT	REPLACEMENT DATA PHILCO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
C64	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	29C8	AF Amp. Fil.
C65	.05	600		P688-05	DF-503	PTE6S5		6TM-S5	Audio Coupling †
C66	470		62-147001001	SI470	D6-471	5R5T5	GP2K-471	19C15	Audio Output Grid *
C67	.0068	1000	61-0174	P1088-0068	D6-682	1D3D7	GP2-333-682	6TM-D68	Aduio Output Plate
C68	.022	600		P688-022	DF-203	PTE6S2		6TM-S22	Sync. Coupling ††
C69	.04	400		P688-04	DF-503	PTE6S4		6TM-S4	Sync. Coupling ‡‡
C70	.01	400	61-0120	P488-01	D6-103	PTE4S1	GP2-333-103	4TM-S1	Vert. Sync. Coupling
C71	.001	600	45-3500-5	P688-001	D6-102	PTE6D1	GP2L-102	6TM-D1	Integrator Net
C72	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	29C8	Integrator Net
C73	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	29C8	Integrator Net
C74	.1	400	45-3500-8	P488-1	DF-104	PTE4P1		4TM-P1	Vert. Osc. Grid
C75	.25	400	61-0122	P488-25		GT4P25		4TM-P25	Vertical Discharge
C76	.1	400	61-0113	P488-1	DF-104	PTE4P1		4TM-P1	Vert. Sweep Coupling
C77	.0068	1600	61-0127	P1688-0068		PTE16D7		MB-D68	Decoupling
C78	100	500	62-110009001	1468-0001	D6-101	5W5T1	GP1K-101	1FM-31	Vert. Sweep Coupling
C79	.004	400	45-3500-17	P688-004	D6-402	PTE6D4	GP2-333-402	6TM-D4	Vert. Amp. Grid ♦
C80	.0068	1600	61-0127	P1688-0068		PTE16D7		MB-D68	Vert. Feedback
C81	.0047	6000	30-4661-2	6089-005	TV6-502	PTE60D5		TVM-256	Vert. Sweep Coupling
C82	.0047	6000	30-4661-2	6089-005	TV6-502	PTE60D5		TVM-256	Vert. Sweep Coupling
C83	820	500	60-10825401	1464-0008		2R5T8		MS-38	Differentiating Cap
C84	.22	200	61-0125	P488-22		GT4P25		2TM-P22	Horiz. Sync. Coupling
C85	.033	400		P488-033		PTE6S3		6TM-S3	AFC Filter **
C86	.22	400	61-0125	P488-22		GT4P25		4TM-P22	AFC Filter
C87	10000	500	61-0120	1467-01	D6-103	1D3S1	GP2-333-103	1FM-11	Horiz. Feedback
C88	100		62-110009001	SI100	D6-101	5W5T1	GP1K-101	19C11	Differentiating Cap
C89	.01	400	61-0120	P488-01	D6-103	PTE4S1	GP2-333-103	4TM-S1	Integrator Net ¶
C90	.003	600		P688-003	D6-302	PTE6D3	GP2-333-302	6TM-D3	Integrator Net
C91	.01	400	61-0120	P488-01	D6-103	PTE4S1	GP2-333-103	4TM-S1	Integrator Net
C92	680	500		1479-0007	D6-681	1W5T7	GP2K-681	1FM-37	Horiz. Sweep Coupling ¶¶
C93	.0047	6000	30-4661-2	6089-005	TV6-502	PTE60D5		TVM-256	Horiz. Sweep Coupling
C94	.0047	6000	30-4661-2	6089-005	TV6-502	PTE60D5		TVM-256	Horiz. Sweep Coupling
C95	.022	1000	61-0118	P1088-022		PTE16S2		MB-S22	Fixed Trimmer
C96	.15	600	61-0193	684-15					HV Osc. Screen
C97	.001	600	45-3500-5	P688-001	D6-102	PTE6D1	GP2L-102	6TM-D1	HV Osc. Feedback
C98	.0047	6000	30-4661-2	6089-005	TV6-502	PTE60D5		TVM-256	HV Filter
C99	.0047	6000	30-4661-2	6089-005	TV6-502	PTE60D5		TVM-256	HV Filter
C100	680			SI680	D6-681	1W5T7	GP2K-681	19C17	Tone Comp.
C101	.01	400	60-0120	P488-01	D6-103	PTE4S1	GP2-333-103	4TM-S1	Line Filter
C102	.01	400	60-0120	P488-01	D6-103	PTE4S1	GP2-333-103	4TM-S1	Line Filter
C103	220			SI220	D6-221		GP2K-221	19C13	Mixer Cathode *
C104	1500		62-215001011	SI1500	D6-152	1W5D15	GP2L-152	5HK-D15	Integrator Net

* Not used in all models.
† Some models use .25MFD. Mfgrs. Part # 61-0125 in this application.
‡ Some models use .047MFD. Mfgrs. Part # 61-0122 in this application.
†† Some models use .002MFD. Mfgrs. Part # 61-0062 in this application.
‡‡ Some models use .05MFD . Mfgrs. Part # 61-0170 in this application.
** Some models use .03MFD. Mfgrs. Part # 61-0119 in this application.
¶ Some models use .015MFD in this application and C90 is not used.
¶¶ Some models use 820MMF. Mfgrs. Part # 60-10825401 in this application.
♦ Some models use .004¶MFD. Mfgrs. Part # 30-4661-2 in this application.

CONTROLS

ITEM No.	RATING RESIST-ANCE	RATING WATTS	REPLACEMENT DATA PHILCO PART No.	IRC PART No.	CLAROSTAT PART No.	CENTRALAB PART No.	INSTALLATION NOTES
R1A	2Meg	½	33-6566	Q13-139	AG-66-Z	B-76-S	Volume Control
B	Shaft		Not req.	Not req.	FS-3	Not req.	Attach to R1A Per Instructions
C	Switch		Not req.	76-1	SWB	Not req.	Attach to R1A Per Instructions
R2A	5000	2	33-5546-11		RTV-283		Contrast Control - Wire Wound - Front
B	100KΩ	½					Brightness Control - Rear
				Concentrikit			
R3A	10KΩ	½		B11-116 ø			Horizontal Hold Control - Front
B	100KΩ	½	33-5563-2	B11-128 ø	RTV-76 #	SBB-675	Vertical Hold Control - Rear
C	Shaft End			E-187 ø			Attach Per Instructions in "Concentrikit"
R4	20KΩ	3	33-5546-18		58-20K		Width Control - Wire Wound
R5A	500KΩ	½	33-5565-2	Q11-133	AG-58-S	AN-59	Height Control
B	Shaft		Not req.	Not req.	FKS-1/4	AK-1	Attach to R5A Per Instructions
R6A	3Meg	½	33-5565-4	Q11-140	AM-84-S	AN-84	Focus Control
B	Shaft		Not req.	TQ	RN-3	AK-19 #	Attach to R6A Per Instructions
R7A	2Meg	½	33-5565-3	Q11-139	AM-83-S	AN-75	Horizontal Centering Control
B	Shaft		Not req.	TQ	RN-3	AK-19 #	Attach to R7A Per Instructions
R8A	2Meg	½	33-5565-3	Q11-139	AM-83-S	AN-75	Vertical Centering Control
B	Shaft		Not req.	TQ	RN-3	AK-19 #	Attach to R8A Per Instructions

ø Additional parts to be used with " Concentrikit".
Fashion shaft to duplicate original.

RESISTORS

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA PHILCO PART No.	IRC PART No.	IDENTIFICATION CODES ALL RESISTORS ± 10% UNLESS OTHERWISE SPECIFIED
R9	10KΩ	½			Antenna Loading
R10	10KΩ	½		BTS-10K	AGC Network
R11	330Ω 5%	½		BTS-330-5%	RF Amp. Grid
R12	100Ω	½		BTS-100	RF Amp. Cathode
R13	3300Ω 5%	½		BTS-3300-5%	RF Amp. Plate - See Note 2
R14	6800Ω	½			RF Coil Shunt - See Notes 3 and 4
R15	100KΩ	½			Mixer Grid
R16	330Ω	½		BTS-330	Mixer Cathode - See Note 1
R17	3300Ω 5%	½		BTS-3300-5%	Mixer Decoupling
R18	15KΩ	½			Converter Plate Coil Shunt
R19	10KΩ	½			Oscillator Grid
R20	5100Ω	5	33-1335-18	1 3/4A-5000	Decoupling - Wire Wound - See Note 5
R21	10KΩ	½	66-3108340	BTS-10K	Decoupling - See Note 1
R22	22KΩ	½	66-3228340		RF Filter Network
R23	330Ω	½	66-1338340	BTS-330	Decoupling
R24	3300Ω 20%	½	66-2338340	BTS-3300	AGC Network
R25	3300Ω 20%	½	66-2338340	BTS-3300	AGC Network
R26	15KΩ	½	66-3158340		1st Video IF Transformer Shunt
R27	68Ω	½	66-0688340		1st Video IF Amp. Cathode
R28	10KΩ	½	66-3108340		2nd Video IF Amp. Grid
R29	68Ω	½	66-0688340		2nd Video IF Amp. Cathode
R30	330Ω	½	66-1338340	BTS-330	Decoupling
R31	22KΩ	½	66-3228340	BTS-22K	3rd Video IF Amp. Grid
R32	100Ω	½	66-1108340	BTS-100	3rd Video IF Amp. Cathode
R33	330Ω	½	66-1338340	BTS-330	3rd Video IF Amp. Decoupling
R34	5600Ω	½	66-2568340	BTS-5600	Video Det. Diode Load - See Note 6
R35	330KΩ	½	66-4338340	BTS-330K	AGC Network

ITEM No.	RATING RESISTANCE	RATING WATTS	PHI PA
R36	470KΩ	½	66-44
R37	4700Ω	½	66-24
R38	470KΩ	½	66-44
R39	47KΩ	½	66-34
R40	1Meg	½	66-51
R41	3300Ω	½	66-23
R42	3900Ω	1	66-23
R43	47KΩ	½	66-34
R44	4700Ω	2	66-24
R45	330KΩ	½	66-43
R46	10KΩ	2	66-31
R47	15KΩ	2	66-31
R48	22Ω	½	66-02
R49	2200Ω	1	66-22
R50	1Meg	½	66-51
R51	1Meg	½	66-51
R52	1.5Meg	1	66-51
R53	1.5Meg	1	66-51
R54	1.5Meg	1	66-51
R55	1.5Meg	1	66-51
R56	1.5Meg	1	66-51
R57	470KΩ 20%	½	66-44
R58	4.7Meg	1	66-54
R59	4.7Meg	1	66-54
R60	4.7Meg	1	66-54
R61	4.7Meg 20%	½	66-54
R62	4.7Meg 20%	½	66-54
R63	4.7Meg 20%	½	66-54
R64	4.7Meg 20%	½	66-54
R65	2.2Meg	½	66-52
R66	470KΩ	½	66-44
R67	470KΩ 20%	½	66-44
R68	150Ω	½	66-11
R69	3300Ω	½	66-23
R70	330Ω	½	66-13
R71	22KΩ	½	66-32
R72	68KΩ	½	66-36
R73	8200Ω	1	66-28
R74	22KΩ	½	66-32
R75	47KΩ	½	66-34
R76	47Ω	½	66-04
R77	100KΩ	½	66-41
R78	4.7Meg 20%	½	66-54
R79	330KΩ	½	66-43
R80	1Meg	½	66-51
R81	680Ω	2	66-16
R82	1000Ω	5	66-21
R83	8200Ω	½	66-28
R84	1Meg	½	66-51
R85	15KΩ	½	66-31
R86	10KΩ	½	66-31
R87	15KΩ	½	66-31
R88	1.2Meg	½	66-51
R89	10KΩ	1	66-31
R90	33KΩ	½	66-33
R91	22KΩ	½	66-32
R92	22KΩ	½	66-32
R93	68KΩ	½	66-36
R94	150KΩ	½	66-41
R95	220KΩ	½	66-42
R96	150KΩ	½	66-41
R97	2.2Meg	½	66-52
R98	47KΩ	½	66-34
R99	2.2Meg	1	66-52
R100	2.2Meg	1	66-52
R101	10Meg	½	66-61
R102	2.2Meg	1	66-52
R103	2.2Meg	1	66-52
R104	3.9Meg	1	66-53
R105	3300Ω	½	66-23
R106	68KΩ	½	66-36
R107	330KΩ	½	66-43
R108	39KΩ	½	66-33
R109	1Meg	½	66-51
R110	10KΩ	1	66-31
R111	100KΩ	½	66-41
R112	120KΩ	½	66-41
R113	10KΩ	½	66-31
R114	100KΩ	½	66-41
R115	1000Ω	1	66-21
R116	150KΩ	½	66-41
R117	680Ω	2	66-16
R118	100KΩ	½	66-41
R119A	150Ω	10	33-343
B	150Ω		
R120	100KΩ	½	66-41
R121A	5Ω	10	33-134
B	20Ω		

Set slider to read 150Ω from e
Note 1. Not used in all models.
Note 2. Some models use 4700Ω r
Note 3. Some models use 3300Ω r
Note 4. Some models use 10KΩ re
Note 5. Some models use 12KΩ re
Note 6. Some models use 6800Ω r
Note 7. Some models use 8200Ω r
Note 8. Some models use 5600Ω r

ITEM No.	RATING PRI.	RATING SEC. 1	RATING SEC. 2
T1	117VAC @ 1.12A	150VAC .200ADC	6.3VAC @ .6A

DESCRIPTIONS

S (CONT.)

B	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
	1W5D15	GP2L-152	29C8	AF Amp. Fil.
	PTE6S5		6TM-S5	Audio Coupling †
	5R5T5	GP2K-471	19C15	Audio Output Grid *
	1D3D7	GP2-333-682	6TM-D68	Aduio Output Plate
	PTE6S2		6TM-S22	Sync. Coupling ††
	PTE6S4		6TM-S4	Sync. Coupling ††
	PTE4S1	GP2-333-103	4TM-S1	Vert. Sync. Coupling
	PTE6D1	GP2L-102	6TM-D1	Integrator Net
	1W5D15	GP2L-152	29C8	Integrator Net
	1W5D15	GP2L-152	29C8	Integrator Net
	PTE4P1		4TM-P1	Vert. Osc. Grid
	GT4P25		4TM-P25	Vertical Discharge
	PTE4P1		4TM-P1	Vert. Sweep Coupling
	PTE16D7		MB-D68	Decoupling
	5W5T1	GP1K-101	1FM-31	Vert. Sweep Coupling
	PTE6D4	GP2-333-402	6TM-D4	Vert. Amp. Grid ♦
	PTE16D7		MB-D68	Vert. Feedback
2	PTE60D5		TVM-256	Vert. Sweep Coupling
2	PTE60D5		TVM-256	Vert. Sweep Coupling
	2R5T8		MS-38	Differentiating Cap
	GT4P25		2TM-P22	Horiz. Sync. Coupling
	PTE6S3		6TM-S3	AFC Filter **
	GT4P25		4TM-P22	AFC Filter
	1D3S1	GP2-333-103	1FM-11	Horiz. Feedback
	5W5T1	GP1K-101	19C11	Differentiating Cap
	PTE4S1	GP2-333-103	4TM-S1	Integrator Net ¶
	PTE6D3	GP2-333-302	6TM-D3	Integrator Net
	PTE4S1	GP2-333-103	4TM-S1	Integrator Net
	1W5T7	GP2K-681	1FM-37	Horiz. Sweep Coupling ¶¶
2	PTE60D5		TVM-256	Horiz. Sweep Coupling
2	PTE60D5		TVM-256	Horiz. Sweep Coupling
	PTE16S2		MB-S22	Fixed Trimmer
				HV Osc. Screen
	PTE6D1	GP2L-102	6TM-D1	HV Osc. Feedback
2	PTE60D5		TVM-256	HV Filter
2	PTE60D5		TVM-256	HV Filter
	1W5T7	GP2K-681	19C17	Tone Comp.
	PTE4S1	GP2-333-103	4TM-S1	Line Filter
	PTE4S1	GP2-333-103	4TM-S1	Line Filter
		GP2K-221	19C13	Mixer Cathode *
	1W5D15	GP2L-152	5HK-D15	Integrator Net

his application.
this application.
this application.
is application.
is application.
is not used.
in this application.
2 in this application.

ROLS

AT o.	CENTRALAB PART No.	INSTALLATION NOTES
	B-76-S	Volume Control
	Not req.	Attach to R1A Per Instructions
	Not req.	Attach to R1A Per Instructions
		Contrast Control - Wire Wound - Front
		Brightness Control - Rear
		Horizontal Hold Control - Front
#	SBB-675	Vertical Hold Control - Rear
		Attach Per Instructions in "Concentrikit"
		Width Control - Wire Wound
	AN-59	Height Control
	AK-1	Attach to R5A Per Instructions
	AN-84	Focus Control
	AK-19 #	Attach to R6A Per Instructions
	AN-75	Horizontal Centering Control
	AK-19 #	Attach to R7A Per Instructions
	AN-75	Vertical Centering Control
	AK-19 #	Attach to R8A Per Instructions

TORS

IDENTIFICATION CODES

ALL RESISTORS ± 10% UNLESS OTHERWISE SPECIFIED

ntenna Loading
GC Network
F Amp. Grid
F Amp. Cathode
F Amp. Plate - See Note 2
F Coil Shunt - See Notes 3 and 4
ixer Grid
ixer Cathode - See Note 1
ixer Decoupling
onverter Plate Coil Shunt
scillator Grid
ecoupling - Wire Wound - See Note 5
ecoupling - See Note 1
F Filter Network
ecoupling
GC Network
GC Network
t Video IF Transformer Shunt
t Video IF Amp. Cathode
nd Video IF Amp. Grid
nd Video IF Amp. Cathode
ecoupling
rd Video IF Amp. Grid
rd Video IF Amp. Cathode
rd Video IF Amp. Decoupling
ideo Det. Diode Load - See Note 6
GC Network

RESISTORS (CONT.)

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	PHILCO PART No.	IRC PART No.	
R36	470KΩ	½	66-4478340	BTS-470K	AGC Network
R37	4700Ω	½	66-2478340	BTS-4700	Isolation
R38	470KΩ	½	66-4478340	BTS-470K	Isolation
R39	47KΩ	½	66-3478340	BTS-47K	Video Peaking Coil Shunt
R40	1Meg	½	66-5108340	BTS-1Meg	1st Video Amp. Grid
R41	3300Ω	½	66-2338340	BTS-3300	1st Video Amp. Plate
R42	3900Ω	1	66-2394340	BTA-3900	1st Video Amp. Plate
R43	47KΩ	½	66-3478340	BTS-47K	Video Peaking Coil Shunt
R44	4700Ω	2	66-2485340	BTB-4700	Decoupling
R45	330KΩ	½	66-4338340	BTS-330K	2nd Video Amp. Grid
R46	10KΩ	2	66-3105340	BTB-10K	2nd Video Amp. Plate - See Note 8
R47	15KΩ	2	66-3155340	BTB-15K	2nd Video Amp. Plate - See Note 1
R48	22Ω	½	66-0228340	BW-½-22	Bias Net
R49	2200Ω	1	66-2224340	BTA-2200	2nd Video Amp. Decoupling
R50	1Meg	½	66-5108340	BTS-1Meg	Voltage Divider
R51	1Meg	½	66-5108340	BTS-1Meg	Voltage Divider
R52	1.5Meg	1	66-5158340	BTA-1.5Meg	Voltage Divider
R53	1.5Meg	1	66-5158340	BTA-1.5Meg	Voltage Divider
R54	1.5Meg	1	66-5158340	BTA-1.5Meg	Voltage Divider
R55	1.5Meg	1	66-5158340	BTA-1.5Meg	Voltage Divider
R56	1.5Meg	1	66-5158340	BTA-1.5Meg	Voltage Divider
R57	470KΩ 20%	½	66-4478340	BTS-470K	Voltage Divider - See Note 1
R58	4.7Meg	1	66-5478340	BTA-4.7Meg	Voltage Divider
R59	4.7Meg	1	66-5478340	BTA-4.7Meg	Voltage Divider
R60	4.7Meg	1	66-5478340	BTA-4.7Meg	Voltage Divider
R61	4.7Meg 20%	½	66-5478340	BTS-4.7Meg	Vertical Deflection Load
R62	4.7Meg 20%	½	66-5478340	BTS-4.7Meg	Vertical Deflection Load
R63	4.7Meg 20%	½	66-5478340	BTS-4.7Meg	Horizontal Deflection Load
R64	4.7Meg 20%	½	66-5478340	BTS-4.7Meg	Horizontal Deflection Load
R65	2.2Meg	½	66-5228340	BTS-2.2Meg	Picture Tube Grid
R66	470KΩ	½	66-4478340	BTS-470K	Picture Tube Cathode
R67	470KΩ 20%	½	66-4478340	BTS-470K	1st Sound IF Amp. Grid
R68	150Ω	½	66-1158340	BTS-150	1st Sound IF Amp. Cathode
R69	3300Ω	½	66-2338340	BTS-3300	1st Sound IF Amp. Decoupling
R70	330Ω	½	66-1338340	BTS-330	Decoupling
R71	22KΩ	½	66-3228340		2nd Sound IF Transformer Shunt
R72	68KΩ	½	66-3688340	BTS-68K	2nd Sound IF Amp. Grid
R73	8200Ω	1	66-2824340	BTA-8200	2nd Sound IF Amp. Decoupling
R74	22KΩ	½	66-3228340	BTS-22K	Voltage Divider
R75	47KΩ	½	66-3478340	BTS-47K	Ratio Det. Diode Load
R76	47Ω	½	66-0478340		Balancing
R77	100KΩ	½	66-4108340	BTS-100K	De-emphasis
R78	4.7Meg 20%	½	66-5478340	BTS-4.7Meg	AF Amp. Grid
R79	330KΩ	½	66-4338340	BTS-330K	AF Amp. Plate
R80	1Meg	½	66-5108340	BTS-1Meg	Output Grid
R81	680Ω	2	66-1685340	BTB-680	Output Cathode
R82	1000Ω	5	66-2104340	1 3/4A-1000	Decoupling - Wire Wound
R83	8200Ω	½	66-2828340	BTS-8200	Isolation
R84	1Meg	½	66-5108340	BTS-1Meg	Sync. Sep. Grid
R85	15KΩ	½	66-3158340	BTS-15K	Sync. Sep. Plate
R86	10KΩ	½	66-3108340	BTS-10K	Sync. Sep. Decoupling
R87	15KΩ	½	66-3158340	BTS-15K	Voltage Divider
R88	1.2Meg	½	66-5128340	BTS-1.2Meg	Sync. Sep. Grid
R89	10KΩ	1	66-3104340	BTA-10K	Sync. Sep. Plate
R90	33KΩ	½	66-3338340	BTS-33K	Integrator
R91	22KΩ	½	66-3228340	BTS-22K	Integrator
R92	22KΩ	½	66-3228340	BTS-22K	Integrator
R93	68KΩ	½	66-3688340	BTS-68K	Vertical Oscillator Grid
R94	150KΩ	½	66-4158340	BTS-150K	Vertical Oscillator Plate
R95	220KΩ	½	66-4228340	BTS-220K	Vertical Oscillator Plate
R96	150KΩ	½	66-4158340	BTS-150K	Voltage Divider
R97	2.2Meg	½	66-5228340	BTS-2.2Meg	Vertical Amp. Grid
R98	47KΩ	½	66-3478340	BTS-47K	Vertical Amp. Cathode
R99	2.2Meg	1	66-5228340	BTA-2.2Meg	Vertical Amp. Plate
R100	2.2Meg	1	66-5228340	BTA-2.2Meg	Vertical Amp. Plate
R101	10Meg	½	66-6108340	BTS-10Meg	Vertical Amp. Grid
R102	2.2Meg	1	66-5228340	BTA-2.2Meg	Vertical Amp. Plate
R103	2.2Meg	1	66-5228340	BTA-2.2Meg	Vertical Amp. Plate
R104	3.9Meg	1	66-5398340	BTA-3.9Meg	Vertical Feedback
R105	3300Ω	½	66-2338340	BTS-3300	Differentiating
R106	68KΩ	½	66-3688340	BTS-68K	Horizontal Limiter Grid
R107	330KΩ	½	66-4338340	BTS-330K	Horizontal Limiter Plate
R108	39KΩ	½	66-3398340	BTS-39K	Horizontal AFC Filter
R109	1Meg	½	66-5108340	BTS-1Meg	Horizontal AFC Grid
R110	10KΩ	1	66-3104340	BTA-10K	Horizontal AFC Plate
R111	100KΩ	½	66-4108340	BTS-100K	Differentiating
R112	120KΩ	½	66-4128340	BTS-120K	Isolation
R113	10KΩ	½	66-3108340	BTS-10K	Horizontal Oscillator Grid - See Note 7
R114	100KΩ	½	66-4108340	BTS-100K	Horizontal Amp. Grid
R115	1000Ω	1	66-2104340	BTA-1000	Width Control Shunt - See Note 1
R116	150KΩ	½	66-4158340	BTS-150K	HV Oscillator Grid
R117	680Ω	2	66-1685340	BTB-680	HV Osc. Decoupling
R118	100KΩ	½	66-4108340	BTS-100K	HV Filter
R119A	150Ω	10	33-3435-21	1 3/4AA-300 #	Filter - Wire Wound
B	150Ω				Filter - Wire Wound
R120	100KΩ		66-4108340	BTS-100K	Bias Filter
R121A	5Ω	10	33-1344		Surge Limiter - Wire Wound
B	20Ω				Surge Limiter - Wire Wound

Set slider to read 150Ω from each end.

Note 1. Not used in all models.
Note 2. Some models use 4700Ω resistor in this application.
Note 3. Some models use 3300Ω resistor in this application.
Note 4. Some models use 10KΩ resistor in this application.
Note 5. Some models use 12KΩ resistor in this application.
Note 6. Some models use 6800Ω resistor in this application.
Note 7. Some models use 8200Ω resistor in this application.
Note 8. Some models use 5600Ω resistor in this application.

TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA			
	PRI.	SEC. 1	SEC. 2	SEC. 3	PHILCO PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.
T1	117VAC @ 1.12A	150VAC .200ADC	6.3VAC @ .6A	6.3VAC @ 5.5A	32-8381			

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (SWEEP CIRCUITS)

ITEM No.	RATING DC RESISTANCE PRI.	SEC.	REPLACEMENT DATA PHILCO PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	NOTES
T2	5.6Ω	2.2Ω	32-8307-3	A-8110 ①	A-3002 ①		Horizontal Block Osc. Trans.
T3	345Ω	180Ω	32-8304-4				Vertical Block Osc. Trans.
T4	4.5Ω	2.65KΩ	32-9619				Horiz. Output Trans.
	Tap 1.6Ω	SEC. 2					
		0Ω					

① Drill one new mounting hole.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING IMPEDANCE PRI.	SEC.	DC RES. PRI.	SEC.	REPLACEMENT DATA PHILCO PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	INSTALLATION NOTES
T5	5.9KΩ	3.3Ω	480Ω	.52Ω	32-8356-1	A-3877	A-2930	R0-9 ①	① Drill one new mounting hole.

SPEAKER

ITEM No.	RATINGS FIELD RES.	V. C. IMP.	REPLACEMENT DATA PHILCO PART No.	JENSEN PART No.	QUAM PART No.	NOTES
SP1	580	3.3Ω	36-1625-7		5E600S	
	CONE DIA.	V. C. DIA.				
SP2	4 3/4"	9/16"				

FILTER CHOKE

ITEM No.	RATINGS TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 ~)	REPLACEMENT DATA PHILCO PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	INSTALLATION NOTES
L1	.015A	1.7KΩ	3 Henries	32-9618				
L2	.015A	1.7KΩ	3 Henries	32-9618				

COILS (RF-IF)

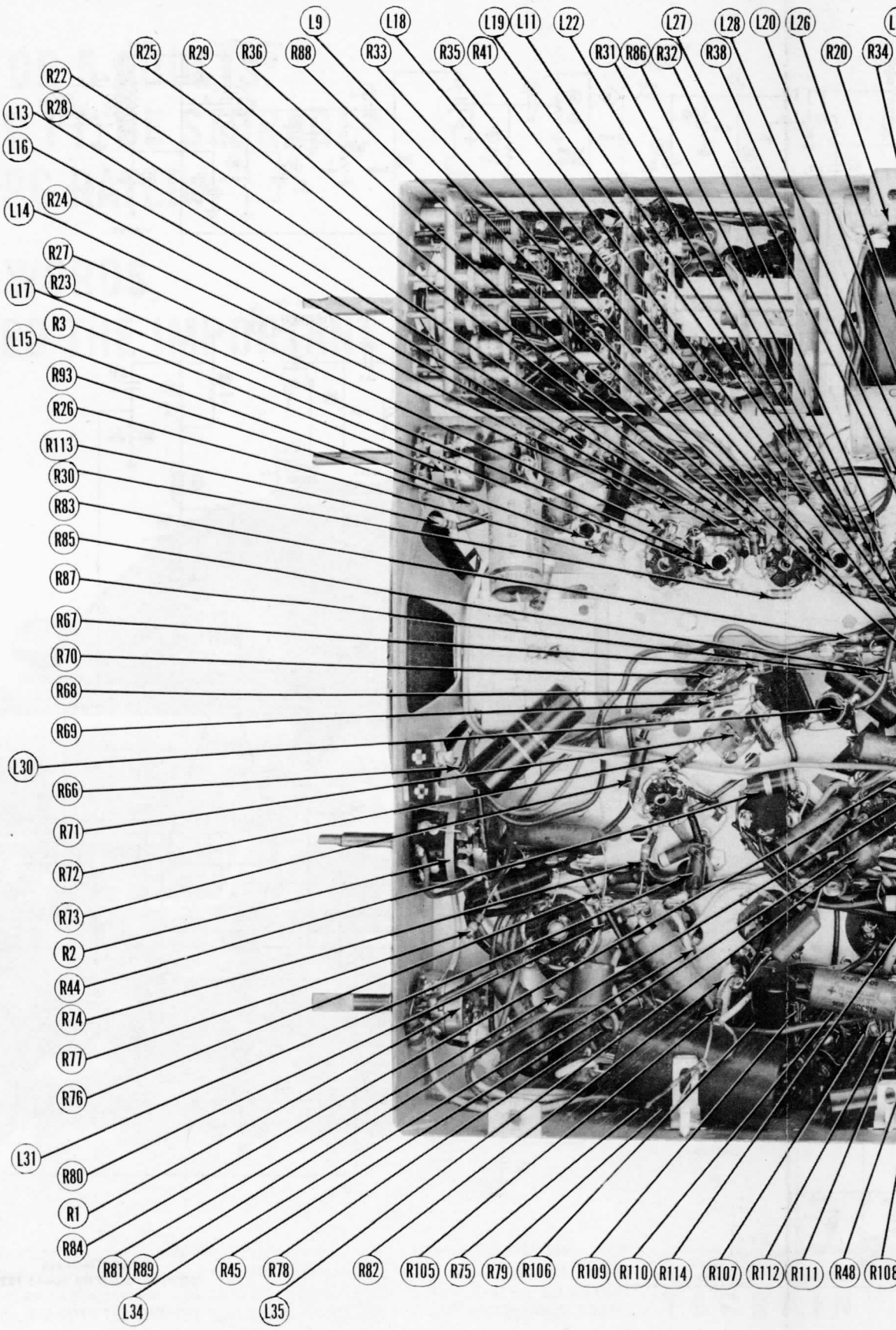
ITEM No.	USE	DC RES. PRI.	SEC.	REPLACEMENT DATA PHILCO PART No.	MEISSNER PART No.	NOTES
L3	Low Band Antenna Coil	0Ω	0Ω	*		* Part of Tuner # 76-4402-7
L4	High Band Antenna Coil	0Ω	0Ω	*		
L5	RF Coil	0Ω	0Ω	*		
L6	RF Coils	0Ω		*		
L7	Mixer Grid Coils	0Ω		*		
L8	Osc. Coils	0Ω				
L9	Fil. Choke	.1Ω		32-4112-11		
L10	RF Choke	0Ω		*		Not used in all Models
L11	RF Choke	0Ω		33-5565-4 *		
L12	Conv. Plate Coil	.3Ω		32-4359		
L13	Adj. Sound Trap	.1Ω		32-4234-4		
L14	RF Choke	0Ω		32-4112-15		
L15	1st Video IF	.2Ω		32-4233-2		
L16	Fil. Choke	.1Ω		32-4112-11		
L17	2nd Video IF	.2Ω		32-4234-1		
L18	3rd Video IF	.2Ω		32-4234-1		
L19	RF Choke	.1Ω		32-4112-11		
L20	4th Video IF	.2Ω		32-4234-1		
L21	Cathode Choke	2Ω		32-4134-1		
L22	Fil. Choke	.1Ω		32-4112-11		
L23	Peaking	5Ω		32-4143		
L24	Sound Trap	0Ω		32-4303		
L25	Peaking	6Ω		32-4143-7		
L26	Peaking	6Ω		32-4143-7		
L27	Peaking	6Ω		32-4143-7		
L28	Peaking	4.7Ω		32-4143-5		
L29	Peaking	6Ω		32-4143-7		
L30	1st Sound IF	0Ω		32-4303		
L31	Fil. Choke	.1Ω		32-4112-11		
L32	2nd Sound IF	.7Ω	.7Ω	32-4236		
L33	Ratio Det. Trans.	.1Ω	0Ω	30-4317		Tap .4Ω
L34	Fil. Choke	.1Ω		32-4112-11		
L35	Horiz. Osc. Grid Choke	6Ω		32-4143-7		
L36	Cathode Choke	30Ω				Not in all models

SELENIUM RECTIFIER

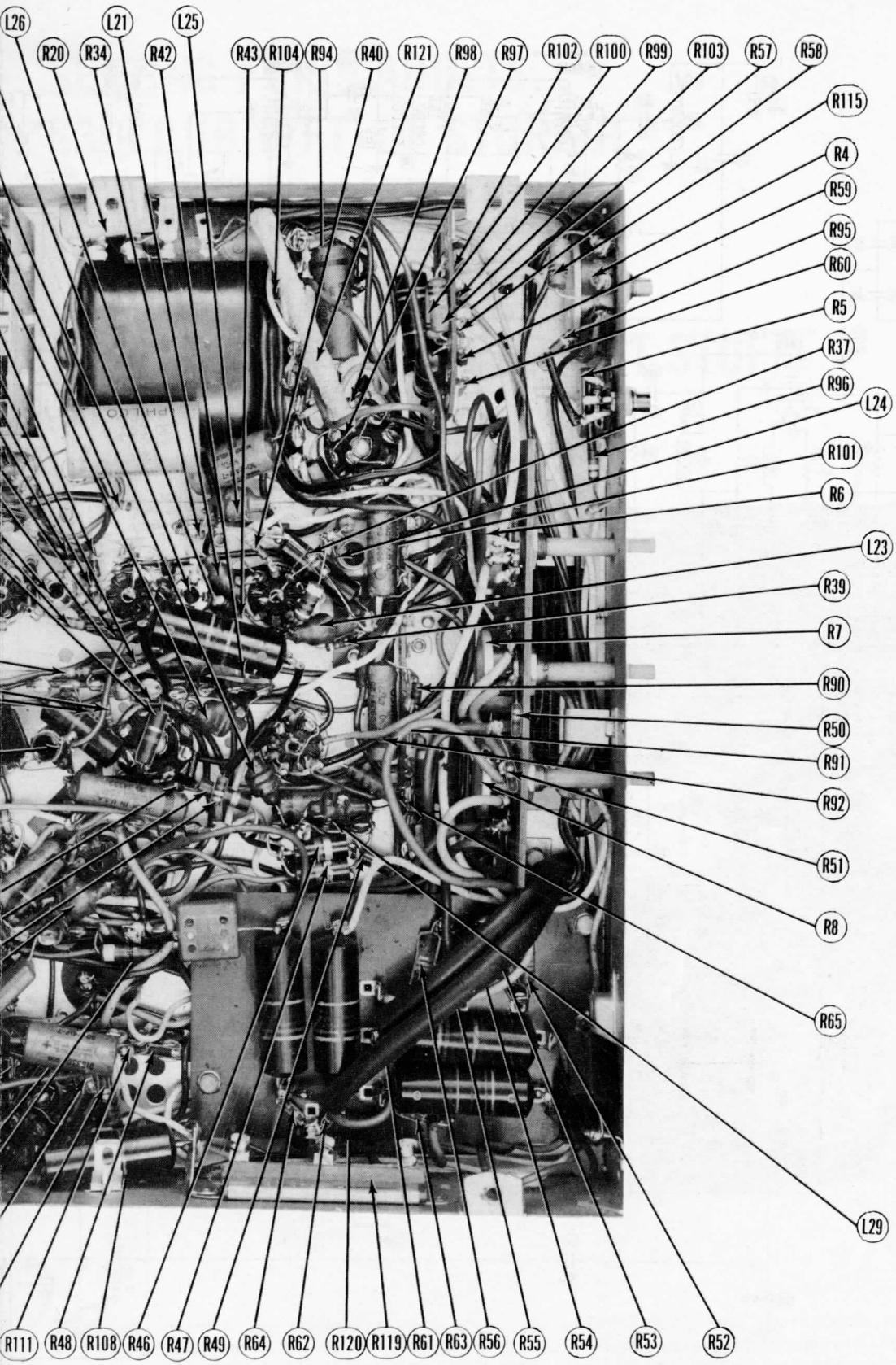
ITEM No.	RATING CURRENT	REPLACEMENT DATA PHILCO PART No.	SYLVANIA PART No.	SELETRON PART No.	NOTES
M1	.200A	34-8003-5	NE-5	6Q1	
M2	.130A	34-8003-4	ND-5	6P2	

MISCELLANEOUS

ITEM No.	PART NAME	PHILCO PART No.	NOTES
M3	RF Tuner	76-4402-7	
	Knob	54-4661-1	Off-On- Volume
	Knob	54-4659-1	Brightness
	Knob	54-4662-1	Fine Tuning
	Knob	54-4659-3	Vertical Hold
	Knob	54-4664-3	Horizontal Hold
	Knob	54-4664-1	Contrast
	Knob	56-6596	Channel Selector



CHASSIS BOTTOM VIEW-RESISTOR AN



OR AND INDUCTOR IDENTIFICATION