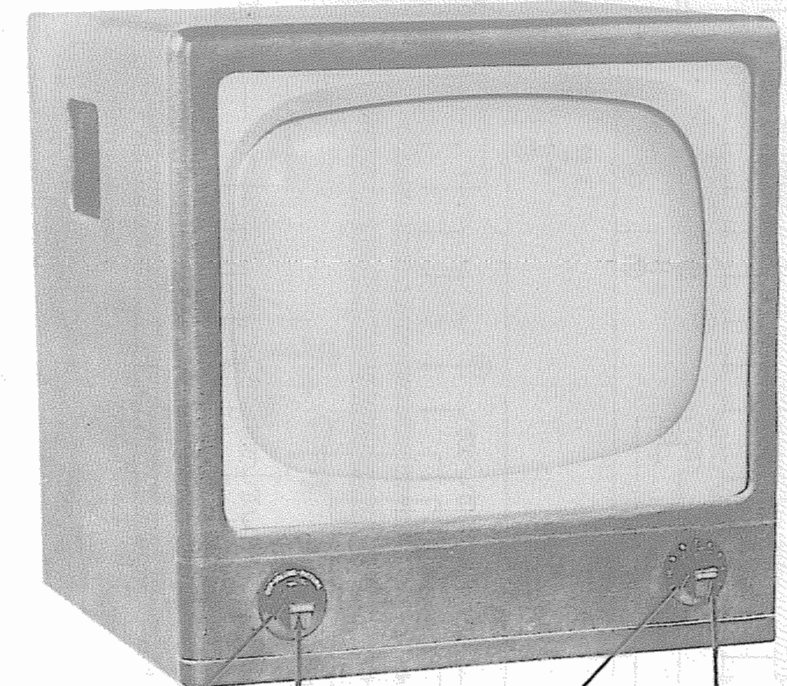




SILVERTONE MODELS 1117-17, 1130-17, 1130A-17, 1141-20, 1145-20, 1162-17, 1172-17, 1173-20, 1181-20, 1183-21, 1188-20, 2100, 2150 (Ch. 110.700-100, -104, -120, -140, -150)



PICTURE CONTROL

ON-OFF SWITCH
VOLUME CONTROL

FINE TUNING

CHANNEL SELECTOR SWITCH

SILVERTONE MODEL 2100

TRADE NAME	Silvertone Models 1117-12, 1130-17, 1130A-17, 1162-17, 1172-17, 2100 (Ch. 110.700-100, -104) 1141-20, 1181-20 (Ch. 110.700-120) 1145-20, 1173-20, 1188-20, 2150 (Ch. 110.700-140) 1183-21 (Ch.110.700-150)		
SUPPLIER	Sears Roebuck & Co., 925 S. Homan, Chicago, Ill.		
TYPE SET	Television Receiver		
TUBES	Twenty		
POWER SUPPLY	110-120 Volts AC-60 Cycle	RATING 1.78 Amp. @ 117 Volts AC	
TUNING RANGE	Channels 2 thru 13, Video IF 25.7MC, Sound IF 21.2MC (Intercarrier).		

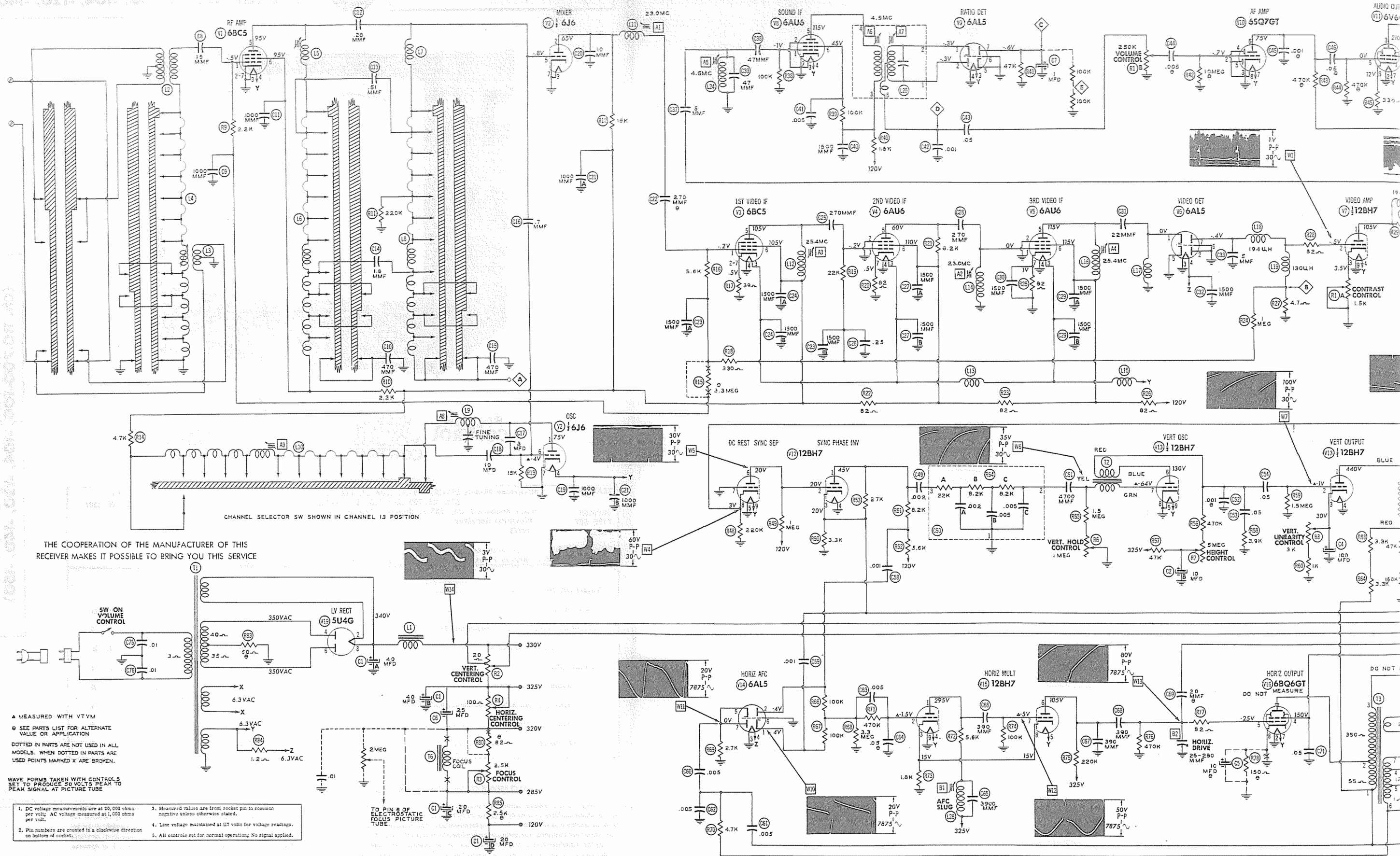
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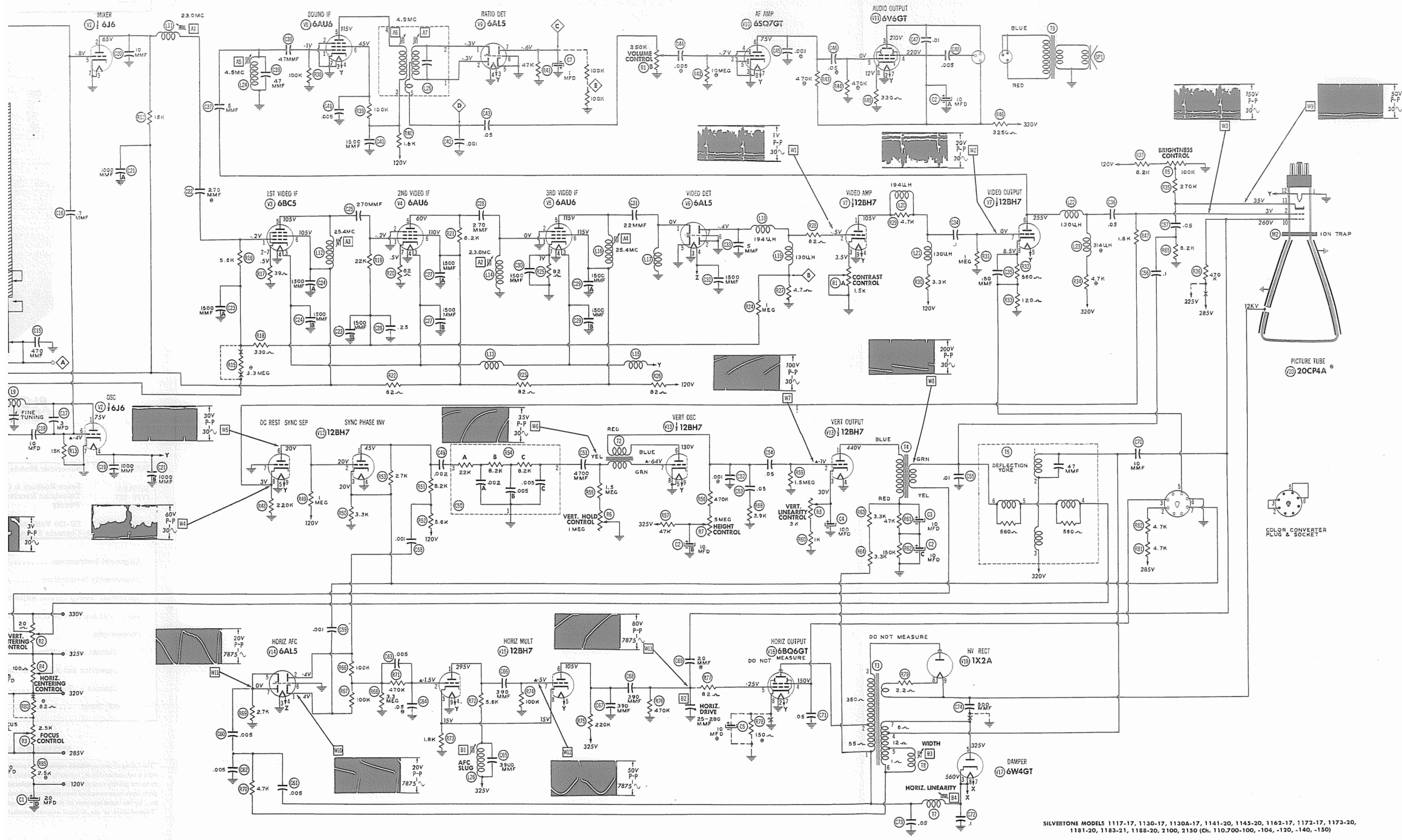
HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

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DATE 4-53 SET 201 FOLDER 8

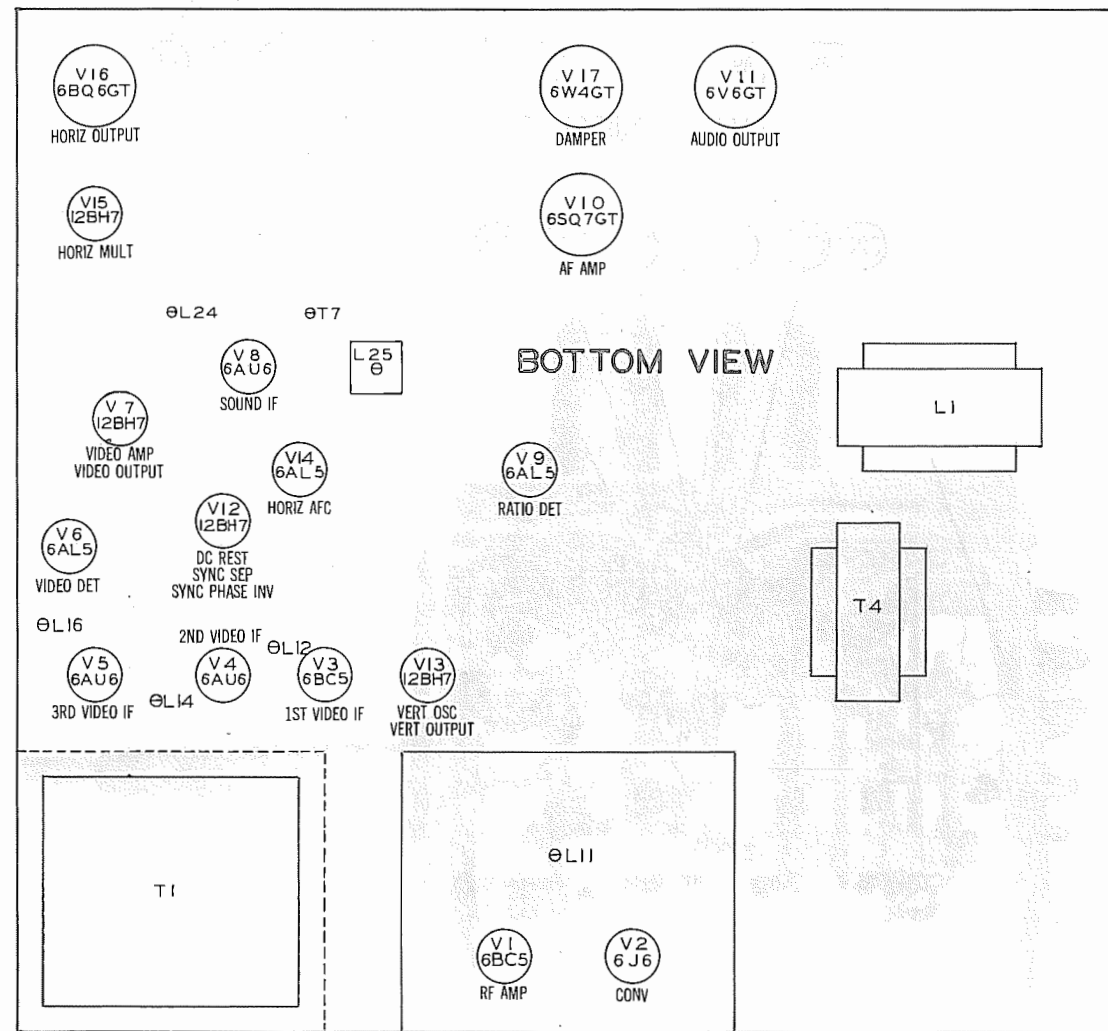


SILVERTONE MODELS 1117-17, 1130-17, 1130A-17, 1141-20, 1145-20, 1162-17, 1172-17, 1173-20, 1181-20, 1183-21, 1188-20, 2100, 2150 (Ch. 110.700-100, -104, -120, -140, -150)



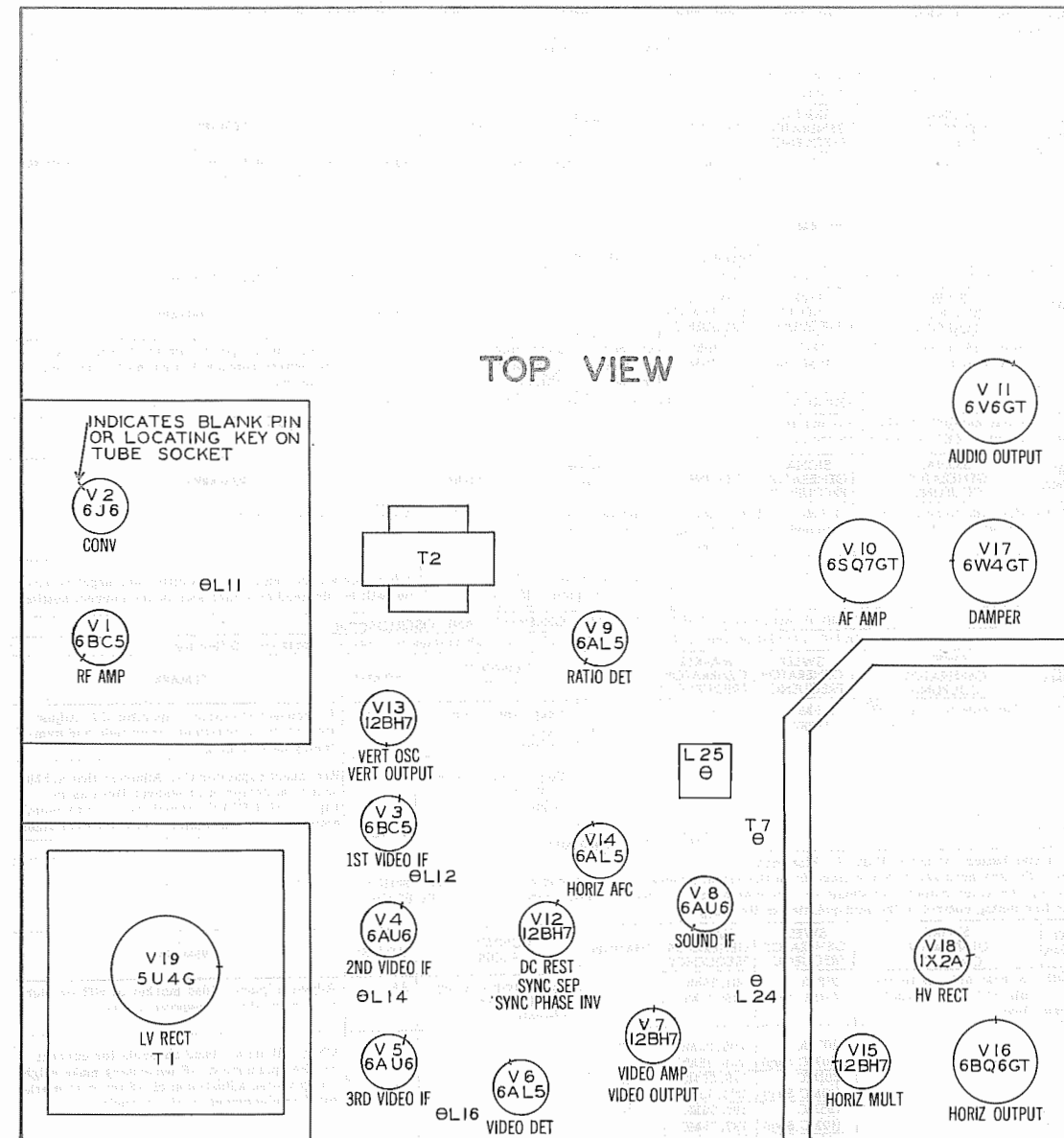
SILVERTONE MODELS 1117-17, 1130-17, 1130A-17, 1141-20, 1145-20, 1162-17, 1172-17, 1173-20, 1181-20, 1183-21, 1188-20, 2100, 2150 (Ch. 110.700-100, -104, -120, -140, -150)

† MEASURED FROM PIN 8 OF V19
MEASURED FROM PIN 3 OF V17
‡ MEASURED FROM CENTER TAP OF T1



TUBE PLACEMENT CHART

2-TUBE PLACEMENT CHART



TUBE FAILURE CHECK CHART

The following chart lists tubes whose failures are most likely to produce the indicated symptoms. Refer to tube placement chart for location and type of tube.

POWER SUPPLY FAILURE

No raster, no sound - V19

LOSS OF PICTURE OR SOUND

No pic, no sound, has raster, - V2, V3, V4, V5, V6, V7

No pic, no sound, has snow - V1, V2, V3

No pic, has sound, has raster - V7, V20
Has pic, no sound, no raster - V1, V2, V3, V4, V5, V6, V8, V9, V10, V11, V12, V13, V14, V15, V16, V17, V18, V19, V21, V22, V23, V24, V25, V26, V27, V28, V29, V30, V31, V32, V33, V34, V35, V36, V37, V38, V39, V40, V41, V42, V43, V44, V45, V46, V47, V48, V49, V50, V51, V52, V53, V54, V55, V56, V57, V58, V59, V60, V61, V62, V63, V64, V65, V66, V67, V68, V69, V70, V71, V72, V73, V74, V75, V76, V77, V78, V79, V80, V81, V82, V83, V84, V85, V86, V87, V88, V89, V90, V91, V92, V93, V94, V95, V96, V97, V98, V99, V100, V101, V102, V103, V104, V105, V106, V107, V108, V109, V110, V111, V112, V113, V114, V115, V116, V117, V118, V119, V120, V121, V122, V123, V124, V125, V126, V127, V128, V129, V130, V131, V132, V133, V134, V135, V136, V137, V138, V139, V140, V141, V142, V143, V144, V145, V146, V147, V148, V149, V150, V151, V152, V153, V154, V155, V156, V157, V158, V159, V160, V161, V162, V163, V164, V165, V166, V167, V168, V169, V170, V171, V172, V173, V174, V175, V176, V177, V178, V179, V180, V181, V182, V183, V184, V185, V186, V187, V188, V189, V190, V191, V192, V193, V194, V195, V196, V197, V198, V199, V200, V201, V202, V203, V204, V205, V206, V207, V208, V209, V210, V211, V212, V213, V214, V215, V216, V217, V218, V219, V220, V221, V222, V223, V224, V225, V226, V227, V228, V229, V230, V231, V232, V233, V234, V235, V236, V237, V238, V239, V240, V241, V242, V243, V244, V245, V246, V247, V248, V249, V250, V251, V252, V253, V254, V255, V256, V257, V258, V259, V260, V261, V262, V263, V264, V265, V266, V267, V268, V269, V270, V271, V272, V273, V274, V275, V276, V277, V278, V279, V280, V281, V282, V283, V284, V285, V286, V287, V288, V289, V290, V291, V292, V293, V294, V295, V296, V297, V298, V299, V300, V301, V302, V303, V304, V305, V306, V307, V308, V309, V310, V311, V312, V313, V314, V315, V316, V317, V318, V319, V320, V321, V322, V323, V324, V325, V326, V327, V328, V329, V330, V331, V332, V333, V334, V335, V336, V337, V338, V339, V340, V341, V342, V343, V344, V345, V346, V347, V348, V349, V350, V351, V352, V353, V354, V355, V356, V357, V358, V359, V360, V361, V362, V363, V364, V365, V366, V367, V368, V369, V370, V371, V372, V373, V374, V375, V376, V377, V378, V379, V380, V381, V382, V383, V384, V385, V386, V387, V388, V389, V390, V391, V392, V393, V394, V395, V396, V397, V398, V399, V400, V401, V402, V403, V404, V405, V406, V407, V408, V409, V410, V411, V412, V413, V414, V415, V416, V417, V418, V419, V420, V421, V422, V423, V424, V425, V426, V427, V428, V429, V430, V431, V432, V433, V434, V435, V436, V437, V438, V439, V440, V441, V442, V443, V444, V445, V446, V447, V448, V449, V450, V451, V452, V453, V454, V455, V456, V457, V458, V459, V460, V461, V462, V463, V464, V465, V466, V467, V468, V469, V470, V471, V472, V473, V474, V475, V476, V477, V478, V479, V480, V481, V482, V483, V484, V485, V486, V487, V488, V489, V490, V491, V492, V493, V494, V495, V496, V497, V498, V499, V500, V501, V502, V503, V504, V505, V506, V507, V508, V509, V510, V511, V512, V513, V514, V515, V516, V517, V518, V519, V520, V521, V522, V523, V524, V525, V526, V527, V528, V529, V530, V531, V532, V533, V534, V535, V536, V537, V538, V539, V540, V541, V542, V543, V544, V545, V546, V547, V548, V549, V550, V551, V552, V553, V554, V555, V556, V557, V558, V559, V560, V561, V562, V563, V564, V565, V566, V567, V568, V569, V570, V571, V572, V573, V574, V575, V576, V577, V578, V579, V580, V581, V582, V583, V584, V585, V586, V587, V588, V589, V590, V591, V592, V593, V594, V595, V596, V597, V598, V599, V600, V601, V602, V603, V604, V605, V606, V607, V608, V609, V610, V611, V612, V613, V614, V615, V616, V617, V618, V619, V620, V621, V622, V623, V624, V625, V626, V627, V628, V629, V630, V631, V632, V633, V634, V635, V636, V637, V638, V639, V640, V641, V642, V643, V644, V645, V646, V647, V648, V649, V650, V651, V652, V653, V654, V655, V656, V657, V658, V659, V660, V661, V662, V663, V664, V665, V666, V667, V668, V669, V670, V671, V672, V673, V674, V675, V676, V677, V678, V679, V680, V681, V682, V683, V684, V685, V686, V687, V688, V689, V690, V691, V692, V693, V694, V695, V696, V697, V698, V699, V700, V701, V702, V703, V704, V705, V706, V707, V708, V709, V710, V711, V712, V713, V714, V715, V716, V717, V718, V719, V720, V721, V722, V723, V724, V725, V726, V727, V728, V729, V730, V731, V732, V733, V734, V735, V736, V737, V738, V739, V740, V741, V742, V743, V744, V745, V746, V747, V748, V749, V750, V751, V752, V753, V754, V755, V756, V757, V758, V759, V760, V761, V762, V763, V764, V765, V766, V767, V768, V769, V770, V771, V772, V773, V774, V775, V776, V777, V778, V779, V780, V781, V782, V783, V784, V785, V786, V787, V788, V789, V790, V791, V792, V793, V794, V795, V796, V797, V798, V799, V800, V801, V802, V803, V804, V805, V806, V807, V808, V809, V810, V811, V812, V813, V814, V815, V816, V817, V818, V819, V820, V821, V822, V823, V824, V825, V826, V827, V828, V829, V830, V831, V832, V833, V834, V835, V836, V837

Has pic, no sound - V8, V9, V10, V11

SYNC FAILURE

No vert. sync - V12, V13

No horiz. sync - V12, V14, V15

No vert. or horiz. sync - V12

SWEEP FAILURE

No raster, has sound - V15, V16, V17, V18, V20

No vertical deflection - V13

Poor vert. linearity or foldover - V13

Poor horz. linearity or foldover - V15, V16, V17

Narrow Picture - V15, V16, V17, V18, V19

Vert. Off Freq. - V12, V13

Horiz. Off Freq. - V12, V14, V15

SERVICING IN THE FIELD

TUNER OSCILLATOR ADJUSTMENTS

For touch-up adjustment of the RF Tuner Oscillator Adjustments, it is necessary to remove the chassis from the cabinet (See disassembly instructions.)

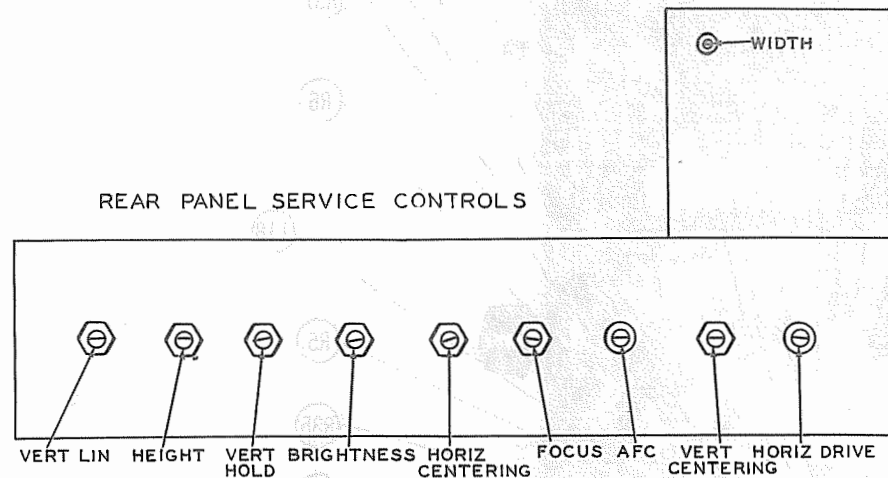
PICTURE TUBE SAFETY GLASS CLEANING

For safety glass cleaning, remove 8 metal screws and 4 clamps and remove safety glass. Use extreme caution when removing safety glass.

PICTURE TUBE REMOVAL

For picture tube removal it is necessary to remove chassis. (See disassembly instructions).

SERVICE ADJUSTMENT LOCATION



HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

Adjustment of the Horiz. AFC slug (L26) can be made from rear of chassis. For location see rear panel service control chart above.

SOUND DETECTOR BUZZ ADJ.

To eliminate Sound IF Detector buzz, adjust the Ratio Detector Secondary (L25) located on top of chassis. (See tube placement chart)

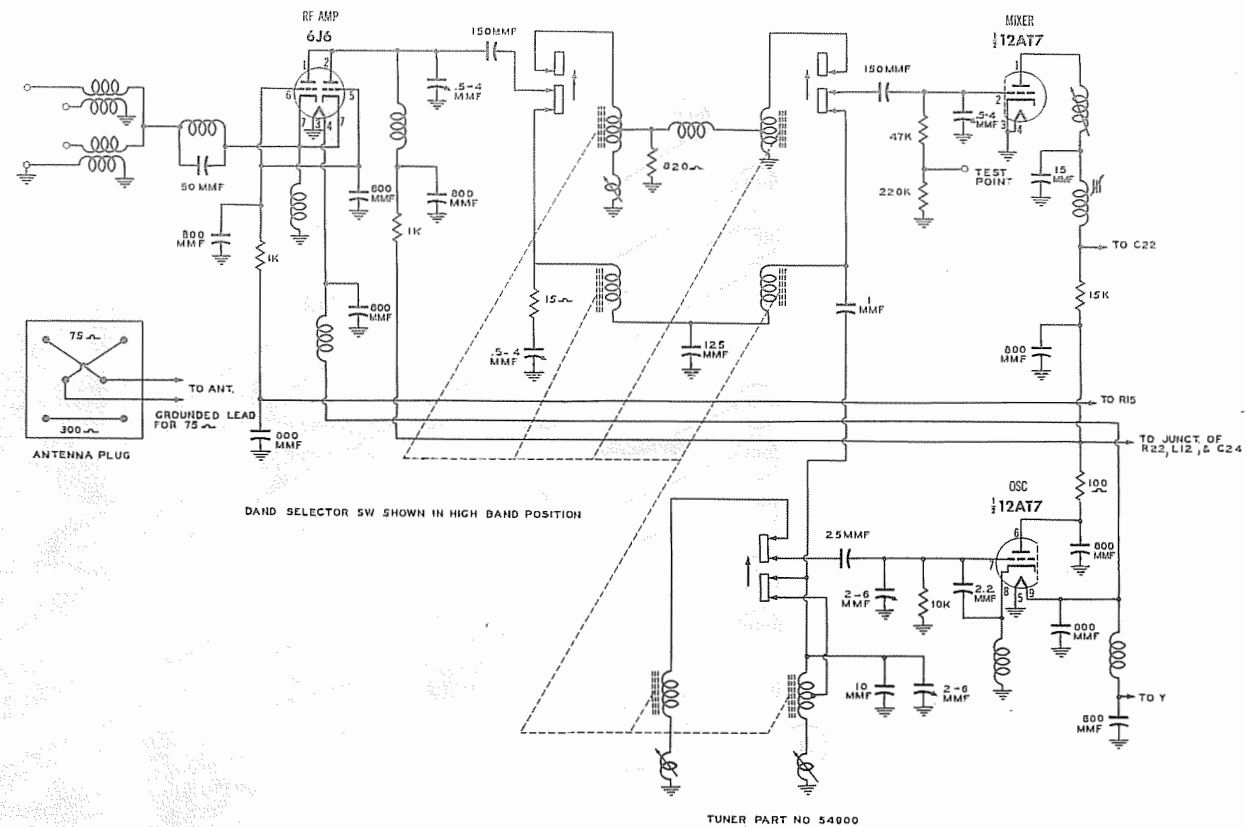
CENTERING

Vert. and Horiz. centering can be accomplished by electrical centering controls, located on rear of chassis.

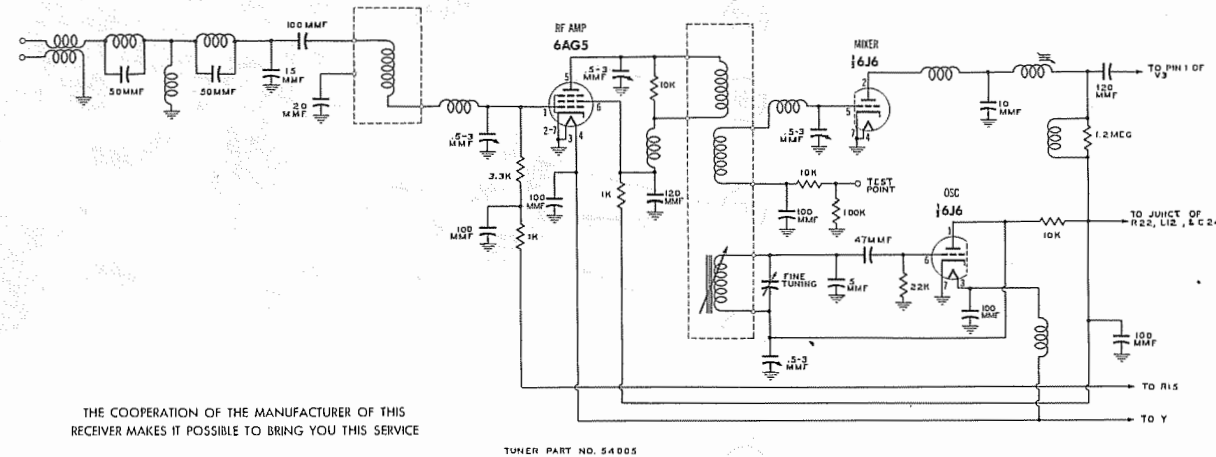
For location see rear panel service control chart above.

DISASSEMBLY INSTRUCTIONS

1. Remove 4 push on type control knobs from front panel.
2. Remove 16 metal screws. Remove rear cover.
3. Remove 2 metal screws. Remove antenna bracket.
4. Disconnect speaker. Remove 2 speaker nuts. Remove speaker.
5. Remove 4 chassis bolts. Remove chassis.



ALTERNATE TUNER SCHEMATIC-CONTINUOUS TYPE



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

A PHOTOFACT STANDARD NOTATION SCHEMATIC
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ALTERNATE TUNER SCHEMATIC- TURRET TYPE

SILVERTONE MODELS 1117-17, 1130-17, 1130A-17, 1141-20, 1145-20, 1162-17, 1172-17, 1173-20, 1181-20, 1183-21, 1188-20, 2100, 2150 (Ch. 110.700-100, -104, -120, -140, -150)

PARTS LIST AND DESCRIPTIONS (Continued)

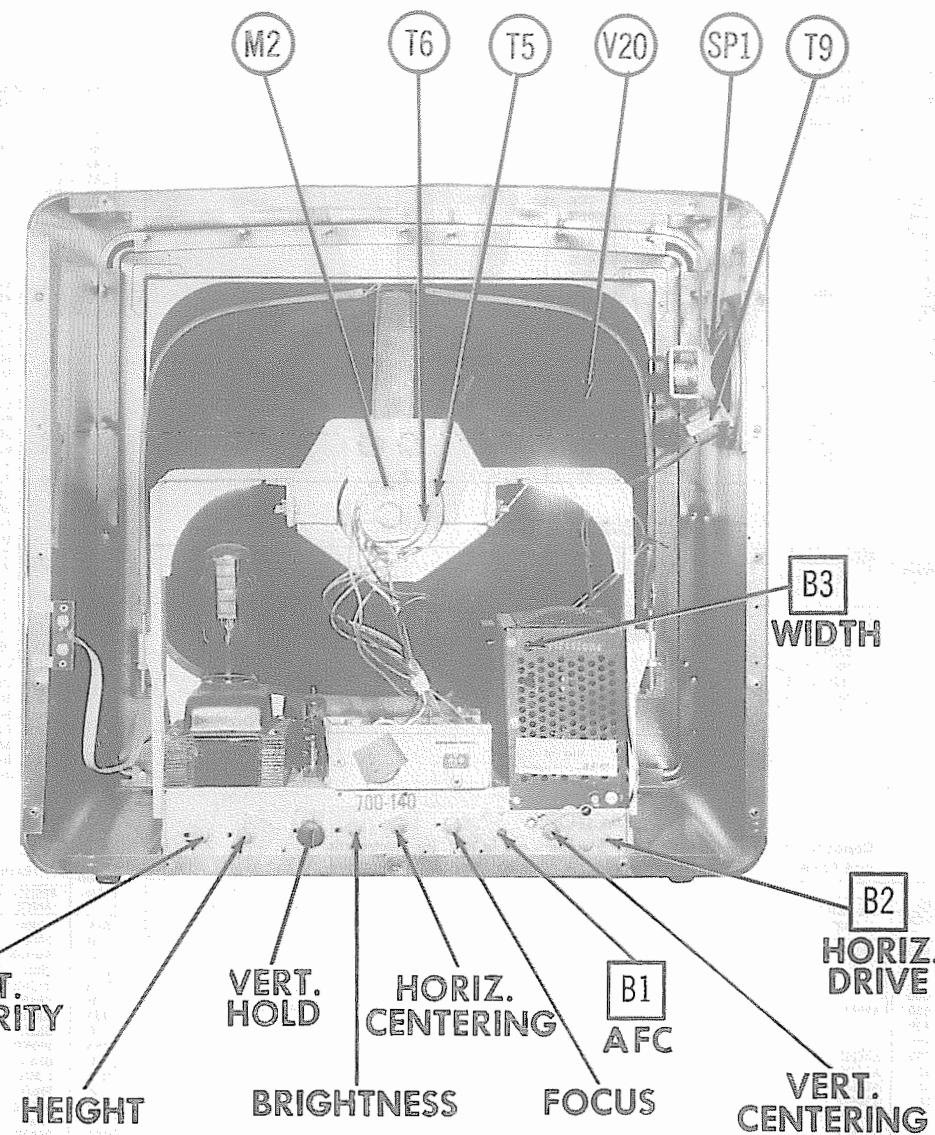
COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA			NOTES
		PRI.	SEC.	SILVERTONE PART No.	MILLER PART No.	IRC PART No.	
L2	Ant. Trans.	0Ω CT	0Ω	A28280-14			High Band
L3	Ant. Trans.	0Ω CT	0Ω	A28280-15			Low Band
L4	Ant. Coils	0Ω					
L5	RF Coil	0Ω					Channel 13
L6	RF Coils	0Ω					
L7	Mixer Grid Coil	0Ω					Channel 13
L8	Mixer Grid Coils	0Ω					
L9	Osc. Plate Coil	0Ω CT		A28280-3			Channel 13
L10	Osc. Coils	0Ω					
L11	1st. Video IF	.6Ω		A28280-19	6189		
L12	2nd. Video IF	.1Ω		A3392	6188		
L13	Fl. Choke	.27Ω		A28276	6175	CL-1	.82 Microhenry
L14	3rd. Video IF	.1Ω		A3392	6189		
L15	Fl. Choke	.27Ω		A28276	6175	CL-1	.82 Microhenry
L16	4th. Video IF	.1Ω		A3392	6188		
L17	RF Choke	2.8Ω		A28253			
L18	Series Peaking Coil	9.5Ω		A28255-2	6180		194 Microhenries
L19	Shunt Peaking Coil	5Ω		A28255-1	4644		130 Microhenries
L20	Series Peaking Coil	9.5Ω		A28255-2	6180		194 Microhenries
L21	Shunt Peaking Coil	5Ω		A28255-1	4644		130 Microhenries
L22	Series Peaking Coil	7Ω		A28255-1	4644		130 Microhenries
L23	Shunt Peaking Coil	9.5Ω		A28255-4			314 Microhenries
L24	Sound IF	1.8Ω		A28286	1470		
L25	Ratio Det.	5.5Ω	1.8Ω CT	A1201 *	6205		
L26	Horiz. Osc.	60Ω		A28263	6210		Tertiary Winding -.7Ω

* Alternate part #A1202
n Enlarge mounting hole.

MISCELLANEOUS

ITEM No.	PART NAME	SILVERTONE PART No.	NOTES
M1A	RF Tuner	A54946	TT3-TT3X (Less Tubes)
B	RF Tuner	A541114	TT5AL (Less Tubes)
C	RF Tuner	A54805	Turret Type (Less Tubes)
D	RF Tuner	A54900	Continuous Type (Less Tubes)
M2	Ion Trap	A3206	
B2	Trimmer	A1772	Horiz. Drive (25-280MMF)
	Knob	PA39220	Vert. Hold
	Knob	PC39209-2	Channel Selector
	Knob	PC39212-2	Fine Tuning
	Knob	PC30211-2	Off/On Volume
	Knob	PC39213-2	Contrast



CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Turn the set on and tune in a TV station, preferably a test pattern.

Adjust the AFC slug (B1) for horizontal synchronization.

Adjust the horizontal drive trimmer (B2) counter clockwise as far as possible without the presence of a vertical white line or compression of the center of the picture.

Adjust the width slug (B3) for a picture slightly wider than necessary to fill the picture mask horizontally.

Adjust the horizontal linearity slug (B4) for a picture that is symmetrical from left to right.

SILVERTONE MODELS 117-17, 1130-17, 1130A-17, 1141-20, 1145-20, 1162-17, 1172-17, 1173-20, 1181-20, 1183-21, 1188-20, 2100, 2150 (Ch. 10, 700-100, -104, -120, -140, -150)

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RTMA BASE TYPE	NOTES
		SILVERTONE	STANDARD		
		PART No.	REPLACEMENT		
V1	RF Amplifier	6BC5	6BC5	7BD	
V2	Converter	6J6	6J6	7BF	
V3	1st Video	6BC5	6BC5	7BD	
V4	2nd Video IF Amp.	6AU6	6AU6	7BK	
V5	3rd Video IF Amp.	6AU6	6AU6	7BK	
V6	Video Detector	6AL5	6AL5	6BT	
V7	Video Amplifier - Sync Separator - Sync Phase Inv.	12BH7	12BH7	9A	
V8	Sound IF Amp.	6AU6	6AU6	7BK	
V9	Ratio Detector	6AL5	6AL5	6BT	
V10	AF Amplifier	6SQ7GT	6SQ7GT	8Q	
V11	Audio Output	6V6GT	6V6GT	7S	
V12	DC Restorer - Sync Separator - Sync Phase Inv.	12BH7	12BH7	9A	
V13	Vert. Oscillator - Vert. Output	12BH7	12BH7	9A	
V14	Horiz. AFC	6AL5	6AL5	6BT	
V15	Horiz. Mult.	12BH7	12BH7	9A	
V16	Horiz. Output	6BQ6GT	6BQ6GT	6AM	
V17	Damper	6W4GT	6W4GT	4CG	
V18	HV Rectifier	1X2A	1X2A	9Y	
V19	LV Rectifier	5U4G	5U4G	9T	

CATHODE-RAY TUBE

ITEM No.	REPLACEMENT DATA		RTMA BASE TYPE	NOTES
	SILVERTONE PART No.	SYLVANIA PART No.		
V20A	17HP4		12C	① Used on Ch. 110,700-100
B	17BP4A ①		12D	② Used on Ch. 110,700-120, -140
C	20CP4 ②	20CP4	12D	③ Used on Ch. 110,700-150
		20CP4A ④	12D	④ Circuit change necessary
		20DP4 ⑤	12D	⑤ 3/8" longer
		20DP4A ④ ⑤	12D	
		20LP4 ④ ⑤	12C	
D	21EP4 ③		12D	

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							NOTES
	CAP.	VOLT	SILVERTONE	AEROVOX	CENTRALAB	CORNELL-DUBILIER	ERIE	MALLORY	SPRAGUE	
			PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	
C1A	40	450	A20144	PRS450/40-		BO45		FP447	TVA-2740	Red
B	40	450		40		BRD2245			TVA-2730	Blue
C	20	450		PRS450/20-						Orange
D	20	450		20						Green
C2A	10	450	A20135	PRS450/10-10		UP1145		4N727	TVA-2722	Red
B	10	450		PRS450/10					TVA-1705	Yellow
C	10	450								Blue
C3	10	250	A20145	PRS250/12		BR1225A		TC52	TVA-1504	
C4	1000	25	A20130	PRS25/100		BR1225A		TC2501	TVA-1207	
C5	10	25	A20137	PRS25/10		BR102A		TC22	TVA-1204	
C6	25	12	A20147	PRS25/25		BR252A		TC26	TVA-1205	
C7	1	50	A20138	PRS150/4		BBR-1-50T		TC31	TVA-1300	
C8	15		A555-203	SI15	D6-150		GPIK-150	UC-5415	5GA-Q15	
C9	10000		A19132	BPD-001	DD-102	TM5D1	801-001	DC-521	5HK-D1	
C10	470		A19139	SI470	D6-471	TM5T5	GP2K-471	UC-5347	5GA-T47	
C11	1000		A19132	BPD-001	DD-102	TM5D1	801-001	DC-521	5HK-D1	
C12	.28		A19151							
C13	.51		A19152		TCZ-.5		NP0K-R50			
C14	.8		A19153				NP0K-R8			
C15	470		A19139	SI470	D6-471	TM5T5	GP2K-471	UC-5347	5GA-T47	
C16	.7				TCZ-.68		NP0K-R68			
C17	3		A19154							
C18	10		A555-201-2	SI10N750	TCN-10	TM5D1	N750K-100	NT-541	5TCU-Q1	
C19	1000		A19132	BPD-001	DD-102	TM5D1	801-001	DC-521	5HK-D1	
C20	10		A555-201-2	SI10N750	TCN-10	TM5D1	N750K-100	NT-541	5TCU-Q1	
C21A	1000			BPD-2X001	DD-2-102	TM5DD1	812-001	DCD-521	5HK-2D1	
B	1000									
C22	270	500	A190-133	SI270	D6-271	TM5DD15	812-0015	UC-5327	5GA-T27	
C23A	1500		A19147	BPD-2X0015	DD-2-152	TM5DD15	812-0015	DCD-5215	5HK-2D15	
B	1500									
C24A	1500		A19147	BPD-2X0015	DD-2-152	TM5DD15	812-0015	DCD-5215	5HK-2D15	
B	1500									
C25	270	500	A190-133	SI270	D6-271	TM5DD15	812-0015	UC-5327	5GA-T27	
C26	.25	200	A194-167	P488-25	DD-152	PT4025	812-0015	DCD-5215	5HK-2D15	
C27A	1500		A19147	BPD-2X0015	DD-2-152	TM5DD15	812-0015	DCD-5215	5HK-2D15	
B	1500									
C28	270	500	A190-133	SI270	D6-271	TM5DD15	812-0015	UC-5327	5GA-T27	
C29A	1500		A19147	BPD-2X0015	DD-2-152	TM5DD15	812-0015	DCD-5215	5HK-2D15	
B	1500									
C30	1500		A19148	BPD-0015	DD-152	TM5D15	801-0015	DC-5215	5HK-D15	
C31	22	500	A190-107	SI22	D6-220	SR5Q25	GPIK-220	UC-5422	5GA-Q22	
C32	1500		A190-148	BPD-0015	DD-152	TM5D15	801-0015	DC-5215	5HK-D15	
C33	.5		A555-100	SI5NP0	TCZ-4.7		NP0K-050	ZT-555	5TCCB-V47	
C34	.1	600	A194-162	P688-1	DF-104	PTE6P1		PT601	6TM-P1	
C35	180	500	A190-129	SI180	D6-181	PTE6P1	GP2K-101	UC-5318	5GA-T18	
C36	.05	600	A194-160	P688-05	DF-503	PTE6S5		PT615	6TM-S5	
C37	5		A55-100	SI5	TCZ-4.7		GPIK-050	UC-555	5GA-V5	
C38	47		A555-113-2	SI47	D6-470	TM5Q5	GPIK-470	UC-5447	5GA-Q47	
C39	47	500		1469-00005		SR5Q5		MC3225	MS-45	
C40	1500		A19148	BPD-0015	DD-152	TM5D15	801-0015	DC-5215	5HK-D15	
C41	.005	600	A194-151	P688-005	D6-502	PTE6D5	GP2-333-502	PT625	6TM-D5	
C42	.001	600	A194-145	P688-001	D6-102	PTE6D1	GP2L-102	PT621	6TM-D1	
C43	.05	600	A194-160	P688-05	DF-503	PTE6S5		PT615	6TM-S5	

PARTS LIST AND DESCRIPTIONS

CAPACITORS (CONT.)

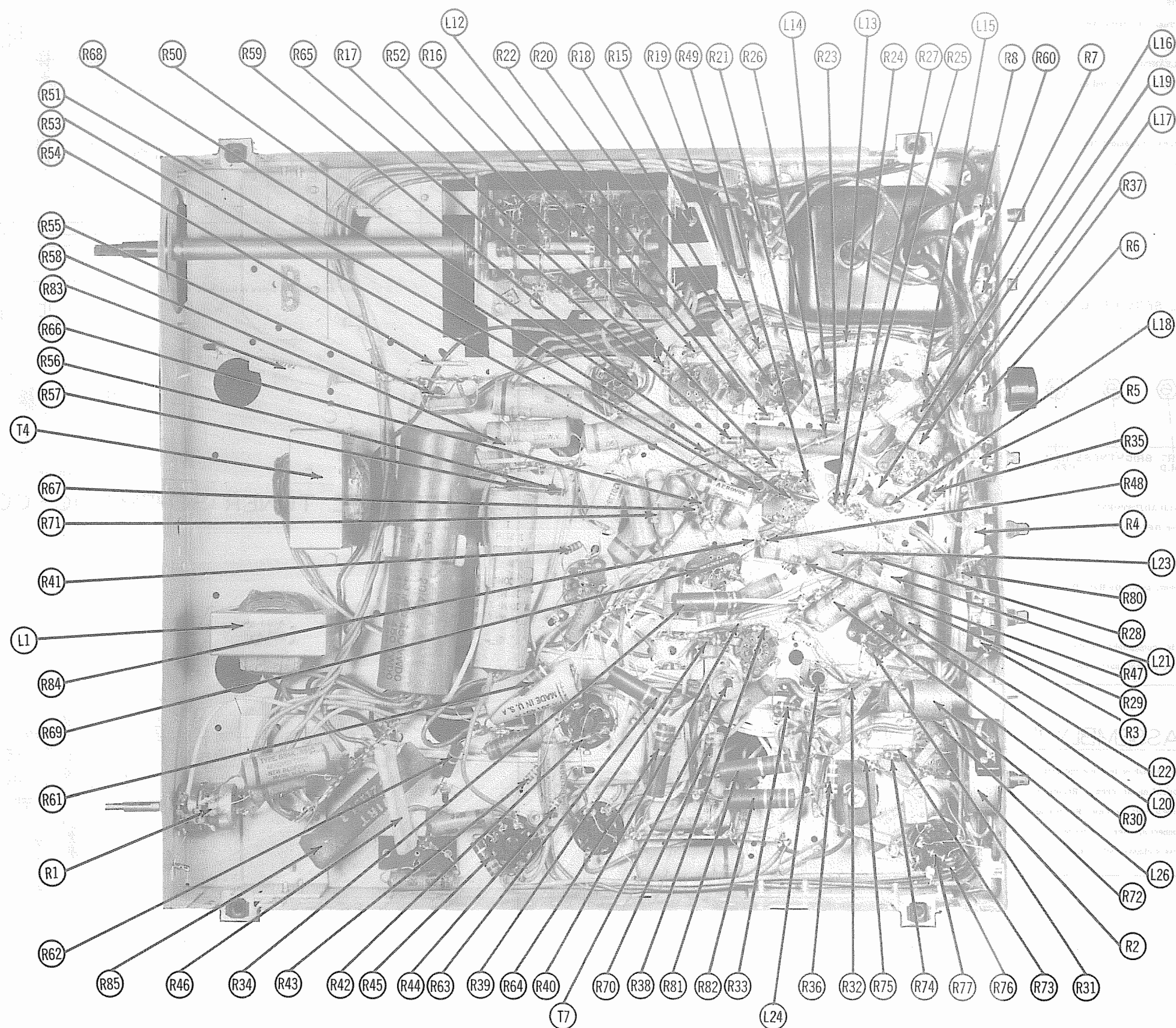
ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	SILVERTONE	AEROVOX	CENTRALAB	CORNELL-DUBILIER	ERIE	MALLORY	SPRAGUE	
			PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	
C44	.005	600	A194-151	P688-005	D6-502	PTE6D5	GP2-333-502	PT625	6TM-D5	Note 7
C45	.001	600	A194-145	P688-001	D6-102	PTE6D1	GP2L-102	PT621	6TM-D1	Note 7
C46	.05	600	A194-160	P688-05	DF-503	PTE6S5		PT615	6TM-S5	Note 7
C47	.01	600	A194-155	P688-01	D6-103	PTE6S1	GP2-333-103	PT611	6TM-S1	
C48	.005	600	A194-151	P688-005	D6-502	PTE6D5	GP2-333-502	PT625	6TM-D5	
C49	.002	600	A194-146	P688-002	D6-202	PTE6D2	GP2-333-202	PT622	6TM-D2	
C50A	.002			P688-002		PTE6D2		PT622		
B	.005		*PB20150	P688-005		PTE6D5	*A405-01	PT625	410C1	
C	.005			P688-005		PTE6D5		PT625		
C51	.001	500	A192-163	P688-001	D6-102	PTE6D1	GP2L-102	PT621	6TM-D1	Note 3
C52	.001	600	A194-145	P688-001	D6-102	PTE6D1	GP2L-102	PT621	6TM-D1	
C53	.05	600	A194-160	P688-05	DF-503	PTE6S5		PT615	6TM-S5	
C54	.05	600	A194-160	P688-05	DF-503	PTE6S5		PT615	6TM-S5	
C55	.01	600	A194-155	P688-01	D6-103	PTE6S1	GP2-333-103	PT611	6TM-S1	
C56	.1	600	A194-162	P688-01	DF-104	PTE6P1		PT601	6TM-P1	
C57	.05	600	A194-160	P688-05	DF-503	PTE6S5		PT615	6TM-S5	
C58	.001	600	A194-145	P688-001	D6-102	PTE6D1	GP2L-102	PT621	6TM-D1	
C59	.001	600	A194-145	P688-001	D6-102	PTE6D1	GP2L-102	PT621	6TM-D1	
C60	.005	600	A194-151	P688-005	D6-502	PTE6D5	GP2-333-502	PT625	6TM-D5	
C61	.005	600	A194-151	P688-005	D6-502	PTE6D5	GP2-333-502	PT625	6TM-D5	
C62	.005	600	A194-151	P688-005	D6-502	PTE6D5	GP2-333-502	PT625	6TM-D5	
C63	.005	600	A194-151	P688-005	D6-502	PTE6D5	GP2-333-502	PT625	6TM-D5	
C64	.05	200	A195-261	P288-05	DF-503	PJ255		PT415	2TM-S5	Note 4
C65	.005	500	A190-137	1469-0004		DR5D4		MCB463	MS-24	
C66	.390	500	A190-137	1469-0004		SR5T4		MCB243	MS-34	
C67	.390	500	A190-137	1469-0004		SR5T4		MCB243	MS-34	
C68	.390	500	A190-137	1469-0004		SR5T4		MCB243	MS-34	
C69	.20	1500	A19172							Note 5
C70	.10	2500	A19146					MCP410	60GAB-Q1	
C71	.05	600	A194-160	P688-05	DF-503	PTE6S5		PT615	6TM-S5	
C72	.1	600	A194-162	P688-01		PTE6P1		PT601	6TM-P1	
C73	.05	600	A194-160	P688-05		PTE6S5		PT615	6TM-S5	
C74	.500	20000	A1958-3	HV20C		MM-C20T5	413-501		20DK-T5	Note 6
C75	.01	600	A19106	689ZGXV-01	TV3-501	PJ6S1		PT611	6TM-S1	
C76	.01	600	A19106	689ZGXV-01		PJ6S1		PT611	6TM-S1	

- Note 1. Not used in all Models.
Note 2. On Models using turret type tuner this item is part of tuner.
Note 3. Used only with Vert. Osc. Trans. part #PB10125.
Note 4. Some Models use .1MFD in this application (Part #A194-60)
Note 5. Chassis 110,700-100 and 110,700-104 use 270 KMF in this application (Part #A190-133)
Note 6. Models having 17" picture tubes use Part #A1998-2 in this application.
Note 7. Items C44, C45, C46, R42, R43, R44 may be combined in one unit (Part #PB20152).
Items C50A, C50B, C50C, R54A, R54B, R54C are combined in one unit.
Some Models may use separate items, C50A (A194-151) 005, C50B (A194-155) 01, C50C (A194-151) 005.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESIST-ANCE	WATTS	SILVERTONE	IRC	CLAROSTAT	CENTRALAB	MALLORY	
			PART No.	PART No.	PART No.	PART No.	PART No.	
R1A	1500Ω	2	A24124	QJ-231*	RTV-305	SBB-684-S	UF152L	Contrast-Panel Volume-Rear Attach to R1B
B	250KΩ						UR254A	
C	Switch						US-26	
R2	20Ω	2	A24118	W20X10	RTV-9B	SVT-901	R20CT	Vert. Centering-Wire Wound
R3A	2500Ω	4	A24113	4WS-2500	A10-2500	SVP-988	TVF143	
B	Shaft		Not Req.	Not Req.	FKS-1/4	Not Req.	Not Req.	Attach to R3A
R4A	100Ω	2	A24116	W-100	A43-100	VK-121	R100L	Horiz. Centering-Wire Wound
B	Shaft		Not Req.	Not Req.	FKS-1/4	Not Req.	Not Req.	
R5A	100KΩ	Not Req.	A24110	QJ1-128	AG-49-S	AB-40	SU-41	Brightness
B	Shaft		Not Req.	Not Req.	FKS-1/4	AK-1	Not Req.	Attach to R5A
R6A	1 Meg		A24112	QJ1-137	AG-61-S	AB-69	SU-54	Vert. Hold
B	Shaft	Not Req.	Not Req.	FKS-1/4	AK-1	Not Req.	Attach to R6A	
R7A	5 Meg	Not Req.	A24111	QJ1-141	AG-85-S	AB-87	SU-67	Height
B	Shaft		Not Req.	Not Req.	FKS-1/4	AK-1	Not Req.	Attach to R7A
R8A	3000Ω		A24114	WK-3000	A43-3000	AB-8	U-8	Vert. Linearity
B	Shaft	Not Req.	Not Req.	FKS-1/4	AK-1	Not Req.	Attach to R8A	

SILVERTONE MODELS 117-17, 130-17, 130A-17, 141-20, 145-20, 162-17, 172-17, 173-20,
181-20, 183-21, 188-20, 2100, 2150 (Ch. 110.700-100, -104, -120, -140, -150)



CHASSIS BOTTOM VIEW-RESISTOR AND INDUCTOR IDENTIFICATION

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

The high voltage lead should be securely taped and kept away from the chassis. Do not remove the horizontal multivibrator tube to disable the high voltage.

VIDEO IF ALIGNMENT

Connect the negative lead of a 3 volt battery to the AGC terminal on the tuner. Connect the positive lead to chassis. Set contrast control at 1/4 turn from counter clockwise position.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1. .001MFD	High side to point A Low side to chassis.	23MC	Any non-interfering channel.	DC probe to point B Common to chassis.	A1, A2	Adjust for maximum deflection. Attenuate generator to maintain 2.5 volts at VTVM.
2. "	"	25.4MC	"	"	A3, A4	"

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
3. .001MFD	High side to point A Low side to chassis.	24MC (10MC Swp)	21.20MC 25.70MC	Any non-interfering channel.	Vert. amp. to point B Low side to chassis.		Check for response similar to Fig. 1. If necessary retouch A1 thru A4 for desired response.

SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

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

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
4. .001MFD	High side to point B Low side to chassis.	4.5MC (Unmod)	Any non-interfering channel.	DC probe to point C Common to chassis.	A5, A6	Adjust for maximum deflection.
5. "	"	"	"	DC probe to point D Common to point B	A7	Adjust for a zero reading. A positive and negative reading will be obtained on either side of the correct setting.

SOUND 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	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
4. .001MFD	High side to point B Low side to chassis.	4.5MC (450KC Swp)	4.5MC	Any non-interfering channel.	Vert. amp. to point C Low side to chassis.	A5, A6	Disconnect stabilizer capacitor C7. Adjust for curve of maximum amplitude and symmetry as in Fig. 2.
5. "	"	"	"	"	Vert. amp. to point D Low side to chassis.	A7	Reconnect capacitor C7. Adjust so that 4.5MC occurs at center of crossover lines as in Fig. 3. SLIGHTLY retouch A6 for maximum amplitude and straightness of crossover lines

OSCILLATOR ALIGNMENT

Connect bias battery as under Video IF Alignment. Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection. 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	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
6. Two 120Ω Carbon Resistors	Across antenna terminals with 120Ω in each lead.	213MC (10MC Swp)	211.25MC 215.75MC	13	Vert. amp. to point B Low side to chassis.	A8	Adjust to place Video marker at 50% on high frequency side of response curve.
7. "	"	207MC (10MC Swp) 201MC (10MC Swp) 195MC (10MC Swp) 189MC (10MC Swp) 183MC (10MC Swp) 177MC (10MC Swp)	205.25MC 209.75MC 199.25MC 203.75MC 193.25MC 197.75MC 187.25MC 191.75MC 181.25MC 185.75MC 175.25MC 179.75MC	12 11 10 9 8 7	"	"	Check all high band channels for correct marker placement. If necessary make slight compromise adjustment of A8 for best marker placement on all channels.
8. "	"	85MC (10MC Swp)	83.25MC 87.75MC	6	"	A9	Adjust to place video marker at 50% on high frequency side of response curve.
9. "	"	79MC (10MC Swp) 69MC (10MC Swp) 63MC (10MC Swp) 57MC (10MC Swp)	77.25MC 81.75MC 67.25MC 71.75MC 61.25MC 65.75MC 55.25MC 59.75MC	5 4 3 2	"	"	Check low band channel for correct marker placement. If necessary make slight compromise adjustment of A9 for best marker placement on all channels.

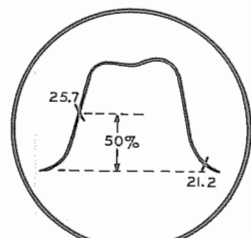


FIG. 1

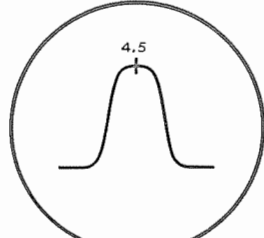


FIG. 2

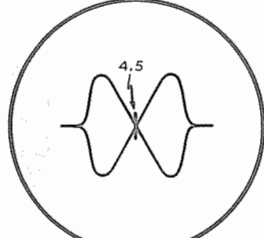
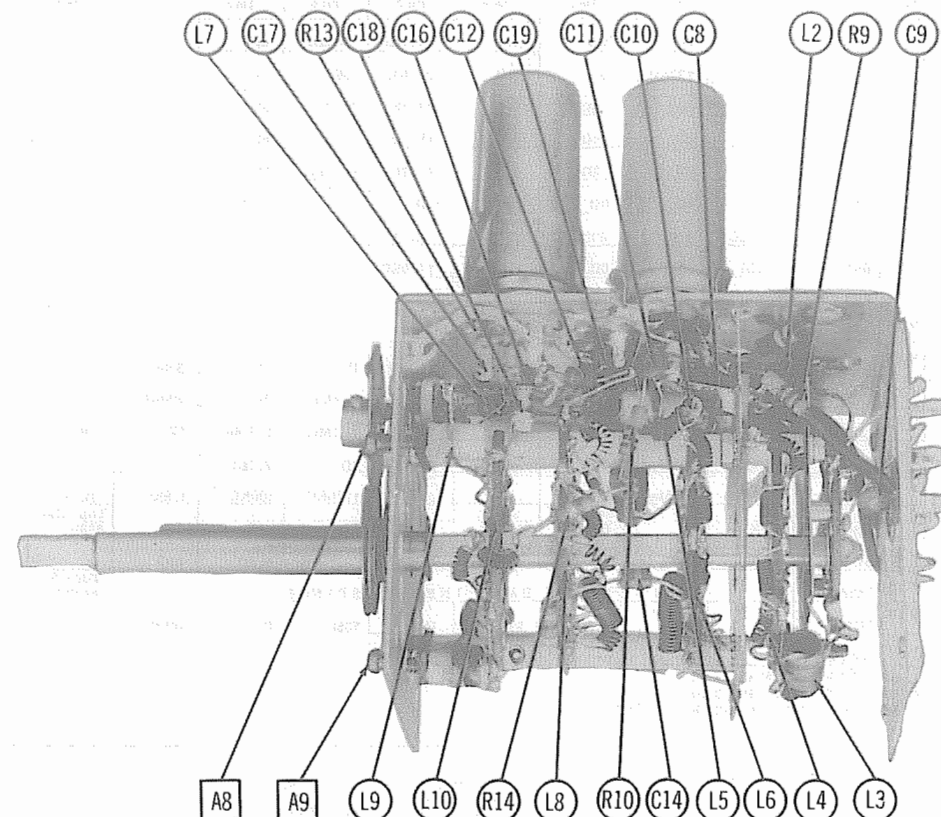
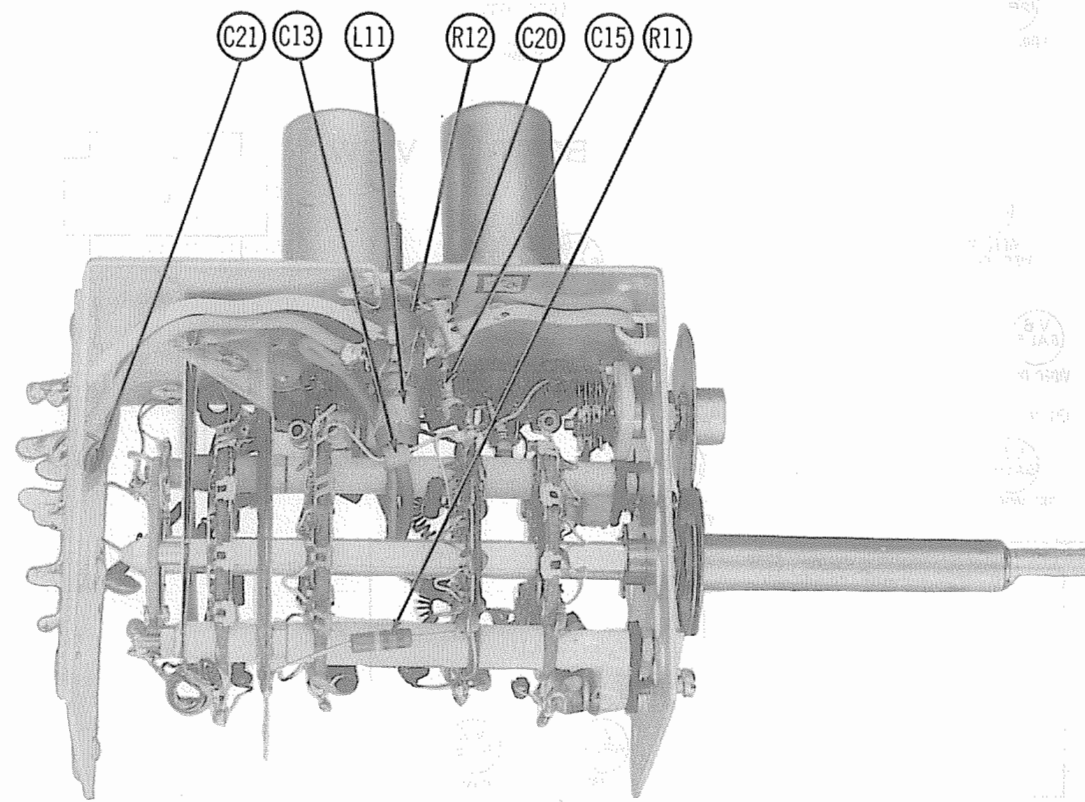


FIG. 3



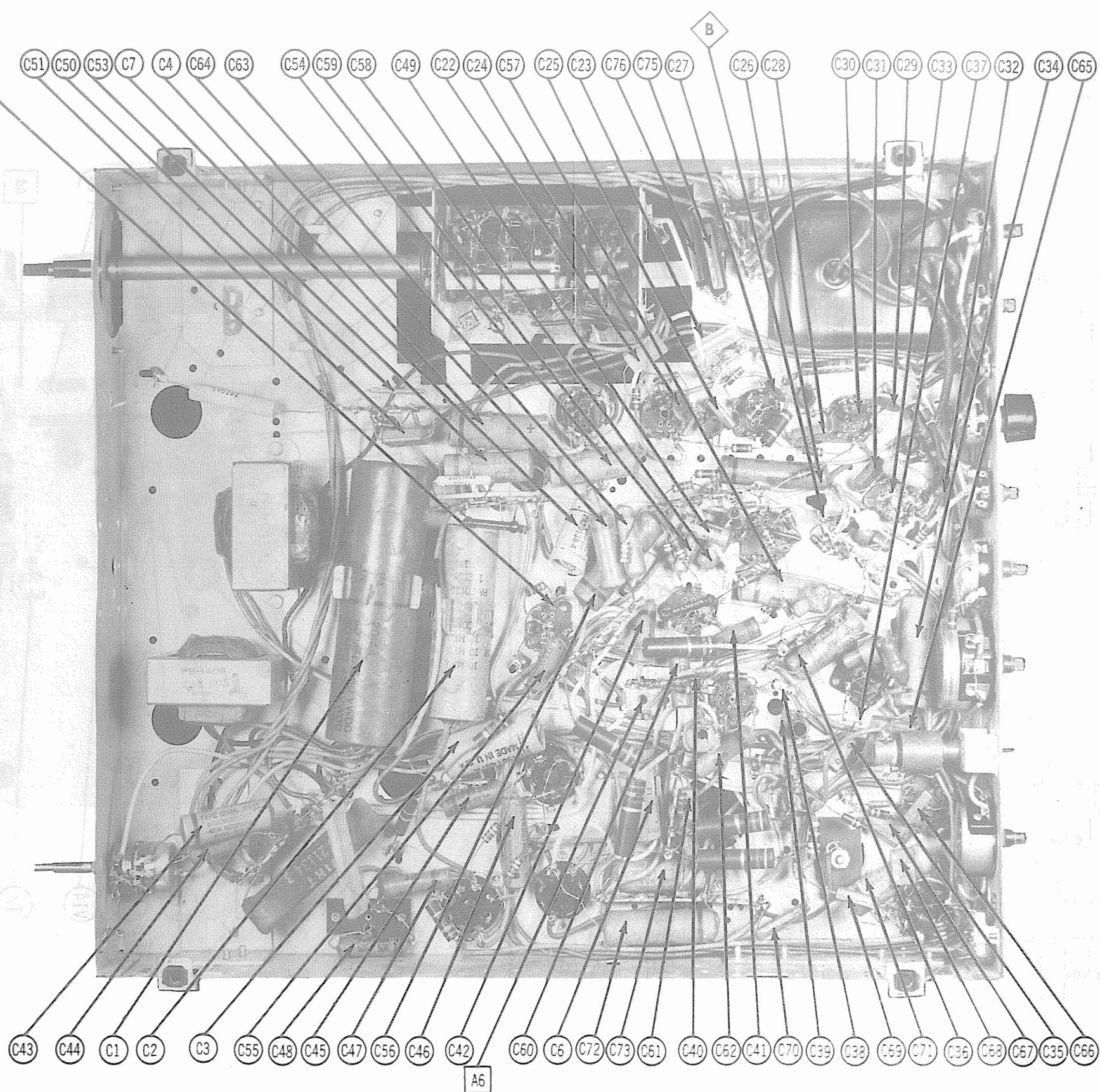
RF TUNER—RIGHT SIDE



RF TUNER—LEFT SIDE

SILVERTONE MODELS 1117-17, 1130-17, 1130A-17, 1141-20, 1145-20, 1162-17, 1172-17, 1173-20, 1181-20, 1183-21, 1188-20, 2100, 2150 (Ch. 110.700-100, -104, -120, -140, -150)

SILVERTONE MODELS 1117-17, 1130-17, 1130A-17, 1141-20, 1145-20, 1162-17, 1172-17, 1173-20, 1181-20, 1183-21, 1188-20, 2100, 2150 (Ch. 110,700-100, -104, -120, -140, -150)



CHASSIS BOTTOM VIEW-CAPACITOR AND ALIGNMENT IDENTIFICATION