Model 9T89 "Sedgwick"
Walnut, Mahogany or Oak

RCA VICTOR

TELEVISION, AM-FM RADIO PHONOGRAPH COMBINATION MODEL 9T89

Chassis Nos. KCS60 or KCS60T and RC1092
Record Changers RP168 or RP190 and 960284
— Mfr. No. 274 —

SERVICE DATA

— 1950 No. T17 —

PREPARED BY RCA SERVICE CO., INC.
FOR
RADIO CORPORATION OF AMERICA
RCA VICTOR DIVISION
CAMDEN, N. J., U. S. A.

GENERAL DESCRIPTION

Model 9T89 is a deluxe television—AM-FM radio phonograph combination. The receiver employs 26 tubes plus 3 rectifiers and a 19 inch kinescope.

Two record changers are provided to play 45 and 78/33⅓ RPM records.

The receiver is provided with cabinet antennas for AM, FM and TV where local conditions permit their use.

ELECTRICAL AND MECHANICAL SPECIFICATIONS

PICTURE SIZE.....204 square inches on a 19AP4A kinescope

TELEVISION R-F FREQUENCY RANGE

All 12 television channels, 54 mc. to 88 mc., 174 mc. to 216 mc.
Fine Tuning Range....±250 kc. on chan. 2, ±650 kc. on chan. 13
Picture Carrier Frequency .....25.50 mc.
Sound Carrier Frequency .....21.00 mc.

RADIO TUNING RANGE

Broadcast .....540-1,600 kc.
Frequency Modulation .....88-108 mc.
Intermediate Frequency—AM .....455 kc.
Intermediate Frequency—FM .....10.7 mc.

POWER SUPPLY RATING .....115 volts, 60 cycles, 315 watts

AUDIO POWER OUTPUT RATING .....11 watts max.

CHASSIS DESIGNATIONS

Television Chassis .....KCS60 or KCS60T
Radio Chassis RC1092
78/33⅓ RPM Record Changer 960284
45 RPM Record Changer .....RP168 or RP190
Refer to Service Data 960284 or RP168 or RP190 for information on the record changers.

LOUDSPEAKER—92569-12 .....12 inch PM Dynamic
Voice Coil Impedance .....3.2 ohms at 400 cycles

WEIGHT

Chassis with Tubes in Cabinet .....222 lbs.
Shipping Weight .....277 lbs.

DIMENSIONS (inches)	Width	Height	Depth
Cabinet (outside)	43⅝	41½	27¼
TV Chassis (Overall)	19¼	12	21

RECEIVER ANTENNA INPUT IMPEDANCE

Choice: 300 ohms balanced or 72 ohms unbalanced.

RCA TUBE COMPLEMENT

	Tube Used	Television Chassis	Function
(1)	RCA 6CB6		R-F Amplifier
(2)	RCA 6J6		R-F Oscillator and Mixer
(3)	RCA 6AU6		1st Sound I-F Amplifier
(4)	RCA 6AU6		2nd Sound I-F Amplifier
(5)	RCA 6AL5		Sound Discriminator
(6)	RCA 6AV6	(KCS60T)	Bias Clamp
(7)	RCA 6AU6		1st Picture I-F Amplifier
(8)	RCA 6CB6		2nd Picture I-F Amplifier
(9)	RCA 6AU6		3rd Picture I-F Amplifier
(10)	RCA 6CB6		4th Picture I-F Amplifier
(11)	RCA 6AL5		Picture 2nd Detector and AGC Detector
(12)	RCA 12AU7		1st and 2nd Video Amplifier
(13)	RCA 12AU7		DC Restorer and Sync Separator
(14)	RCA 6SN7	(KCS60)	Vert. Sweep Osc. & Bias Clamp
	or RCA 6SN7GT		Sync. Amp. & Vert. Swp. Osc.
(15)	RCA 6K6GT		Vertical Sweep Output
(16)	RCA 6SN7GT		Horizontal Sweep Oscillator and Control
(17)	RCA 6BG6G		Horizontal Sweep Output
(18)	RCA 6W4GT		Damper
(19)	RCA 1B3-GT/8016		High Voltage Rectifier
(20)	RCA 19AP4A		Kinescope
(21)	RCA 5U4G		Rectifier

(RC1092 Radio Chassis)

(1)	RCA 6CB6	R-F Amplifier
(2)	RCA 6J6	Oscillator and Mixer
(3)	RCA 6BA6	I-F Amplifier
(4)	RCA 6AV6	Driver
(5)	RCA 6AL5	Ratio Detector
(6)	RCA 6AV6	AM Det., AVC and Audio Amplifier
(7)	RCA 6C4	Phase Inverter
(8)	RCA 6V6GT (2 tubes)	Audio Output
(9)	RCA 5Y3GT	Rectifier

Specifications continued on page 2

ELECTRICAL AND MECHANICAL SPECIFICATIONS

(Continued)

PICTURE INTERMEDIATE FREQUENCIES

Picture Carrier Frequency	25.50 Mc.
Adjacent Channel Sound Trap	27.00 Mc.
Accompanying Sound Traps	21.00 Mc.
Adjacent Channel Picture Carrier Traps	19.50 Mc.

SOUND INTERMEDIATE FREQUENCIES

Sound Carrier Frequency	21.00 Mc.
Sound Discriminator Band Width between peaks	400 kc.

VIDEO RESPONSE	To 4 Mc.
FOCUS	Magnetic
SWEEP DEFLECTION	Magnetic
SCANNING	Interlaced, 525 line
HORIZONTAL SWEEP FREQUENCY	15,750 cps
VERTICAL SWEEP FREQUENCY	60 cps
FRAME FREQUENCY (Picture Repetition Rate)	30 cps

OPERATING INSTRUCTIONS

The following adjustments are necessary when turning the receiver on for the first time:

1. Turn the radio FUNCTION switch to TV.
2. Turn the receiver "ON" and advance the SOUND VOLUME control to approximately mid-position.
3. Set the STATION SELECTOR to the desired channel.
4. Adjust the FINE TUNING control for best sound fidelity and the SOUND VOLUME control for suitable volume.
5. Turn the BRIGHTNESS control fully counter-clockwise, then clockwise until a light pattern appears on the screen.
6. Adjust the VERTICAL hold control until the pattern stops vertical movement.
7. Adjust the HORIZONTAL hold control until a picture is obtained and centered.
8. Adjust the PICTURE and BRIGHTNESS controls for suitable picture contrast and brightness.
9. After the receiver has been on for some time, it may be necessary to readjust the FINE TUNING control slightly for improved sound fidelity.
10. In switching from one channel to another, it may be necessary to repeat steps 4 and 8.
11. When the set is turned on again after an idle period it should not be necessary, to repeat the adjustments if the positions of the controls have not been changed. If any adjustment is necessary, step No. 4 is generally sufficient.
12. If the positions of the controls have been changed, it may be necessary to repeat steps 1 through 8.

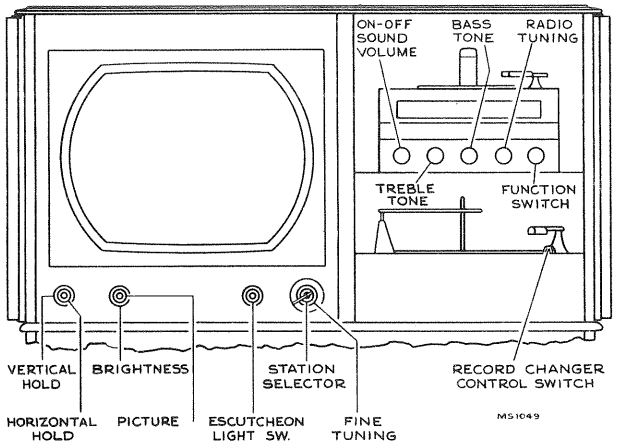


Figure 1—Receiver Operating Controls

RADIO OPERATION

1. Turn the radio FUNCTION switch to AM.
2. Tune in the desired station with the TUNING control.

PHONOGRAPH OPERATION

1. Turn the radio FUNCTION switch to 78-33 for operation of the 78/33⅓ RPM changer or to 45 for operation of the 45 RPM changer.
2. Place a record on the appropriate changer and slip the changer power switch to "ON."

THE TELEVISION CHASSIS USED IN MODEL 9T89 IS VERY SIMILAR TO THE CHASSIS USED IN MODELS 6T53, 6T64, 6T71, ETC. REFER TO PAGES 372 TO 385 FOR TELEVISION ALIGNMENT DATA AND WAVEFORM PHOTOGRAPHS.

THE RADIO CHASSIS USED IN MODEL 9T89 IS IDENTICAL TO THE RADIO CHASSIS (RC-1092) USED IN MODELS 6T86 AND 6T87. REFER TO PAGES 418, 419, 420, 421 AND 422 FOR SERVICE INFORMATION ON CHASSIS NO. RC-1092.

HIGH VOLTAGE WARNING

OPERATION OF THIS RECEIVER OUTSIDE THE CABINET OR WITH THE COVERS REMOVED, INVOLVES A SHOCK HAZARD FROM THE RECEIVER POWER SUPPLIES. WORK ON THE RECEIVER SHOULD NOT BE ATTEMPTED BY ANYONE WHO IS NOT THOROUGHLY FAMILIAR WITH THE PRECAUTIONS NECESSARY WHEN WORKING ON HIGH VOLTAGE EQUIPMENT. DO NOT OPERATE THE RECEIVER WITH THE HIGH VOLTAGE COMPARTMENT SHIELD REMOVED.

Connect the antenna transmission line to the receiver antenna terminals. Plug a power cord into the 115-volt a-c power source and into the receiver interlock receptacle. Turn the receiver power switch to the "on" position, the brightness control fully clockwise, and the picture control counter-clockwise.

ION TRAP MAGNET ADJUSTMENT.—Set the ion trap magnet approximately in the position shown in Figure 2. Starting from this position immediately adjust the magnet by moving it forward or backward at the same time rotating it slightly around the neck of the kinescope for the brightest raster on the screen. Reduce the brightness control setting until the raster is slightly above average brilliance. Turn the focus control (shown in Figure 2) until the line structure of the raster is clearly visible. Readjust the ion trap magnet for maximum raster brilliance. The final touches of this adjustment should be made with the brightness control at the maximum clockwise position with which good line focus can be maintained.

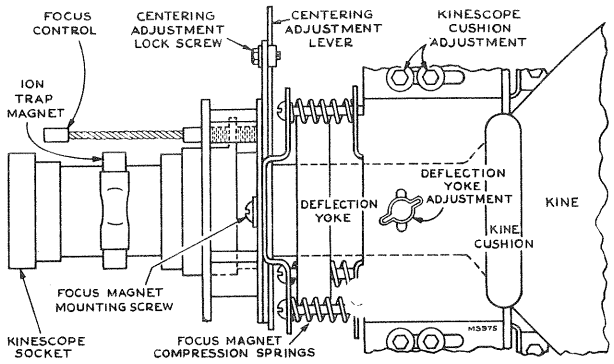


Figure 2—Yoke and Focus Magnet Adjustments

DEFLECTION YOKE ADJUSTMENT.—If the lines of the raster are not horizontal or squared with the picture mask, rotate the deflection yoke until this condition is obtained. Tighten the yoke adjustment wing screw.

PICTURE ADJUSTMENTS.—It will now be necessary to obtain a test pattern picture in order to make further adjustments.

If the Horizontal Oscillator and AGC System are operating properly, it should be possible to sync the picture at this point. However, if the AGC control is misadjusted, and the receiver is overloading, it may be impossible to sync the picture.

If the receiver is overloading, turn S106 on the rear apron (see Figure 3) counter-clockwise until the set operates normally and the picture can be synced.

CHECK OF HORIZONTAL OSCILLATOR ALIGNMENT.—Turn the horizontal hold control to the extreme counter-clockwise position. The picture should remain in horizontal sync. Momentarily remove the signal by switching off channel then back. Normally the picture will be out of sync. Turn the control clockwise slowly. The number of diagonal black bars will be gradually reduced and when only 2 bars sloping downward to the left are obtained, the picture will pull into sync upon slight additional clockwise rotation of the control. Pull-in should occur when the control is approximately 90 degress from the extreme counter-clockwise position. The picture should remain in sync for approximately 90 degrees of additional clockwise rotation of the control. At the extreme clockwise position, the picture should be out of sync and should show 1 vertical or diagonal black bar in the raster.

If the receiver passes the above checks and the picture is normal and stable, the horizontal oscillator is properly aligned. Skip "Alignment of Horizontal Oscillator" and proceed with "Focus Magnet Adjustment."

ALIGNMENT OF HORIZONTAL OSCILLATOR.—If in the above check the receiver failed to hold sync with the hold control at the extreme counter-clockwise position or failed to hold sync over 90 degrees of clockwise rotation of the control from the pull-in point, it will be necessary to make the following adjustments.

Horizontal Frequency Adjustment.—Turn the horizontal hold control to the extreme clockwise position. Tune in a television station and adjust the T108 horizontal frequency adjustment on top of the chassis until the picture is just out of sync and the horizontal blanking appears as a vertical or diagonal black bar in the raster.

Horizontal Locking Range Adjustment.—Set the horizontal hold control to the full counter-clockwise position. Momentarily remove the signal by switching off channel then back. The picture may remain in sync. If so turn the T108 top core slightly and momentarily switch off channel. Repeat until the picture falls out of sync with the diagonal lines sloping down to the left. Slowly turn the horizontal hold control clockwise and note the least number of diagonal bars obtained just before the picture pulls into sync.

If more than 2 bars are present just before the picture pulls into sync, adjust the horizontal locking range trimmer C147A slightly clockwise. If less than 2 bars are present, adjust C147A slightly counter-clockwise. Turn the horizontal hold control counter-clockwise, momentarily remove the signal and recheck the number of bars present at the pull-in point. Repeat this procedure until 2 bars are present.

Repeat the adjustments under "Horizontal Frequency Adjustment" and "Horizontal Locking Range Adjustment" until the conditions specified under each are fulfilled. When the horizontal hold operates as outlined under "Check of Horizontal Oscillator Alignment" the oscillator is properly adjusted.

If it is impossible to sync the picture at this point and the AGC system is in proper adjustment it will be necessary to adjust the Horizontal Oscillator by the method outlined in the alignment procedure. For field purposes paragraph "A" under Horizontal Oscillator Waveform Adjustment may be omitted.

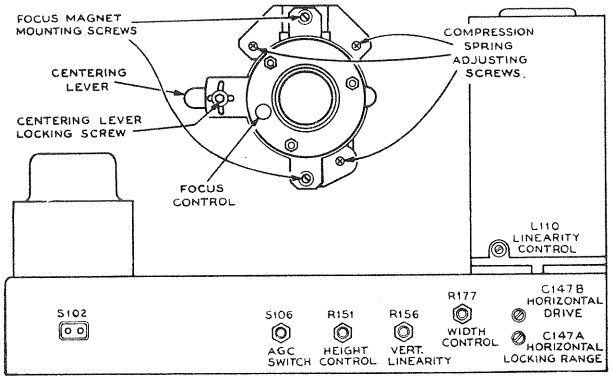


Figure 3—Rear Chassis Adjustments

FOCUS MAGNET ADJUSTMENT.—The focus coil should be adjusted so that there is approximately three-eighths inch of space between the rear cardboard shell of the yoke and the flat of the front face of the focus magnet. This spacing gives best average focus over the face of the tube.

The axis of the hole through the magnet should be parallel with the axis of the kinescope neck with the kinescope neck through the middle.

CENTERING ADJUSTMENT.—No electrical centering controls are provided. Centering is accomplished by means of a separate plate on the focus magnet. Some centering plates include a locking screw which must be loosened before centering, and others are held in adjustment by friction. Up and down adjustment of the plate moves the picture side to side and sidewise adjustment moves the picture up and down.

If a corner of the raster is shadowed, check the position of the ion trap magnet. Reposition the magnet within the range of maximum raster brightness to eliminate the shadow and recenter the picture by adjustment of the focus magnet plate. In no case should the magnet be adjusted to cause any loss of brightness since such operation may cause immediate or eventual damage to the tube. In some cases it may be necessary to shift the position of the focus magnet in order to eliminate a corner shadow.

WIDTH, DRIVE AND HORIZONTAL LINEARITY ADJUSTMENTS.—Adjustment of the horizontal drive control affects the high voltage applied to the kinescope. In order to obtain the highest possible voltage hence the brightest and best focused picture, adjust horizontal drive counter-clockwise as far as possible without stretching the left side of the picture As a first adjustment, set the horizontal drive trimmer C147B one-half turn out from maximum capacity.

Turn the horizontal linearity coil out until appreciable loss in width occurs, then in until nearly maximum width and the best linearity is obtained.

Adjust the width control R177 to obtain correct picture width.

A slight readjustment of these three controls may be necessary to obtain the best linearity.

HEIGHT AND VERTICAL LINEARITY ADJUSTMENTS.—Adjust the height control (R151 on chassis rear apron) until the picture fills the mask vertically. Adjust vertical linearity (R156 on rear apron), until the test pattern is symmetrical from top to bottom. Adjustment of either control will require a readjustment of the other. Adjust centering to align the picture with the mask.

FOCUS.—Adjust the focus magnet for maximum definition in the test pattern vertical "wedge" and best focus in the white areas of the pattern.

On focus magnets using two shunts, the one with the cable is the "fine adjustment" and the other is the "focus range" adjustment. In general, the two shunts should be adjusted to approximately equal positions.

Recheck the position of the ion trap magnet to make sure that maximum brightness is obtained.

Check to see that the cushion and yoke thumbscrews and the focus coil mounting screws are tight.

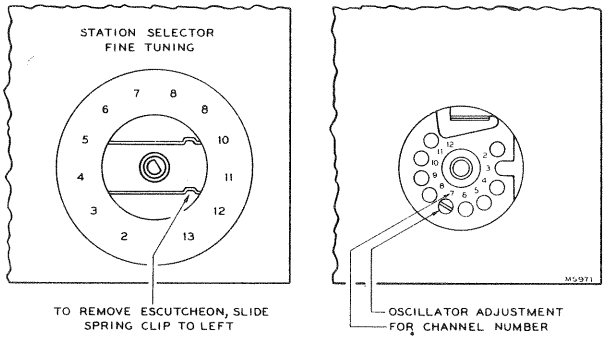


Figure 4—R-F Oscillator Adjustments

CHECK OF R-F OSCILLATOR ADJUSTMENTS.—Tune in all available stations to see if the receiver r-f oscillator is adjusted to the proper frequency on all channels. If adjustments are required, these should be made by the method outlined in the alignment procedure. The adjustments for channels 2 through 12 are available from the front of the cabinet by removing the station selector escutcheon as shown in Figure 4. Adjustment of channel 13 is on top of the chassis.

AGC CONTROL.—The AGC control switch is provided as an installation adjustment. The normal position for strong signal areas is with the switch in the number 1 or counter-clockwise position. If impulse type of interference is experienced, turn the switch to the number 2 or center position. In very weak signal areas in which impulse type interference is experienced, turn the switch to position number 3 or fully clockwise. In this position, all AGC is removed and the receiver will overload if the input signal exceeds 200 microvolts. However, for signals under 200 microvolts, this position of the AGC control switch gives best noise immunity of sync.

FM TRAP ADJUSTMENT.—In some instances interference may be encountered from a strong FM station signal. A trap is provided to eliminate this type of interference. To adjust the trap tune in the station on which the interference is observed and adjust the L203 core on top of the r-f unit for minimum interference in the picture.

CAUTION.—In some receivers, the FM trap L203 will tune down into channel 6 or even into channel 5. Needless to say, such an adjustment will cause greatly reduced sensitivity on these channels. If channels 5 or 6 are to be received, check L203 to make sure that it does not affect sensitivity on these two channels.

Replace the cabinet back and reconnect the receiver antenna leads to the cabinet back. Tighten the back retaining screws securely otherwise the back may rattle or buzz when the receiver is operated at high volume.

RADIO OPERATION.—Turn the receiver function switch to the AM and FM positions and check the radio for proper operation. In switching from radio to television or from television to radio, approximately 30 seconds warm-up time is required.

RECORD CHANGER OPERATION.—Turn the receiver function switch to each phono position and check each record player for proper operation.

CABINET ANTENNA.—A cabinet antenna is provided for use in strong signal areas in which no reflections are experienced. The leads from the antenna are brought out near the receiver antenna terminal board. To connect the cabinet antenna, attach the leads to the terminal board. If reception is satisfactory, no other antenna is necessary. However, if reception is unsatisfactory, it will be necessary to employ an outdoor antenna or an indoor antenna which can be oriented

CHASSIS REMOVAL.—To remove the chassis from the cabinet for repair or installation of a new kinescope, remove the control knobs, the cabinet back, unplug the speaker cable, the kinescope socket, the antenna cable, the yoke and high voltage cable. Remove the yoke frame grounding strap. Take out the six chassis bolts under the cabinet. Withdraw the chassis from the back of the cabinet.

KINESCOPE HANDLING PRECAUTION.—Do not install, remove, or handle the kinescope in any manner, unless shatterproof goggles and heavy gloves are worn. People not so equipped should be kept away while handling the kinescope. Keep the kinescope away from the body while handling.

To remove the kinescope from the cabinet, take out the four screws and one wing screw which hold the yoke frame to the cabinet. Remove the kinescope, the yoke frame with yoke and focus magnet as an assembly.

INSTALLATION OF KINESCOPE.—Handle this tube by the metal rim at the edge of the screen. Do not cover the glass bell of the tube with fingermarks as it will produce leakage paths which may interfere with reception. If this portion of the tube has inadvertently been handled, wipe it clean with a soft cloth moistened with "dry" carbon tetrachloride.

Wipe the kinescope screen surface and front panel safety glass clean of all dust and fingermarks with a soft cloth moistened with "Windex" or similar cleaning agent.

Turn the tube so that the key on the base of the tube will be down and insert the neck of the kinescope through the deflection coil and focus magnet. If the tube sticks, or fails to slip into place smoothly, investigate and remove the cause of the trouble. Do not force the tube.

Replace the kinescope and yoke frame assembly in the cabinet. Insert the four screws and wing screw and tighten.

Slip the kinescope as far forward as possible. Slide the kinescope cushion firmly up against the flare of the tube and tighten the adjustment wing screws. Slide the deflection yoke as far forward as possible. If this is not done, difficulty will be encountered in adjusting the ion trap and focus magnets because of shadows on the corner of the raster.

Slide the chassis into the cabinet, then insert and tighten the six chassis bolts.

Slip the ion trap magnet over the neck of the kinescope.

Connect the kinescope socket to the tube base and connect the high voltage lead clip from the rim of the kinescope into the high voltage bushing on the high voltage compartment.

Reconnect all other cables. Perform the entire set-up procedure beginning with Ion Trap Magnet Adjustment.

TELEVISION CHASSIS TOP VIEW

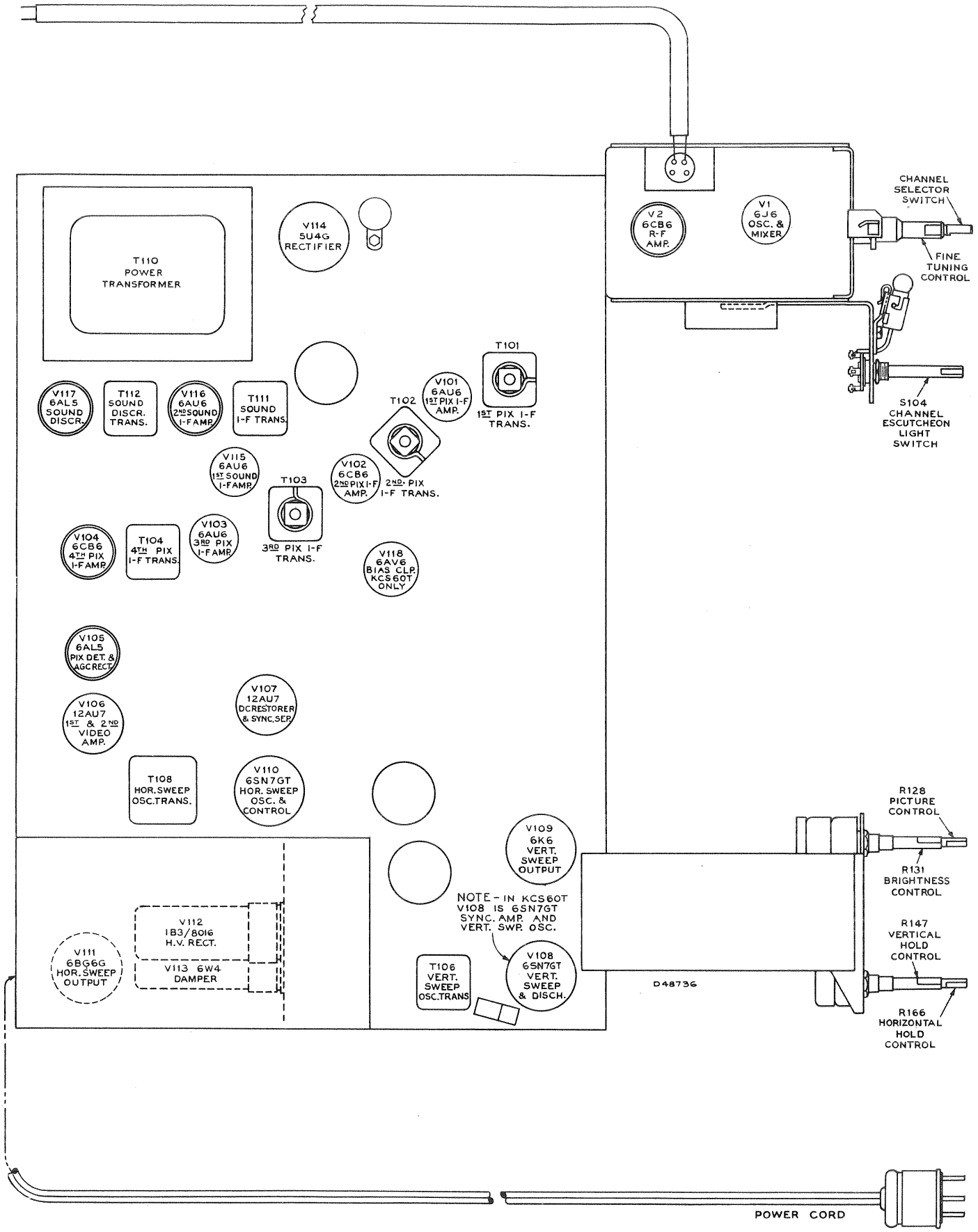
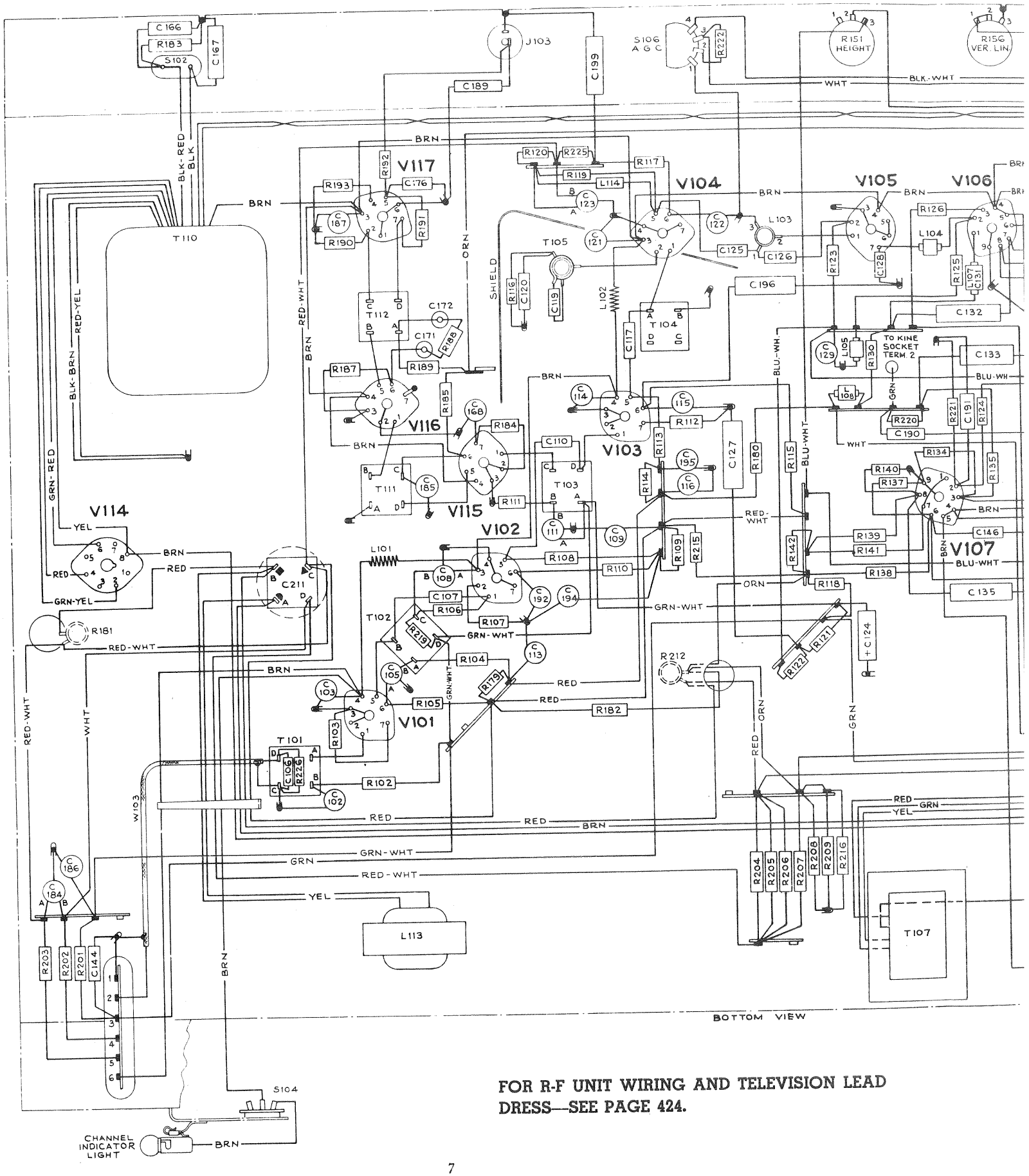


Figure 5—Chassis Top View

VOLTAGE CHART

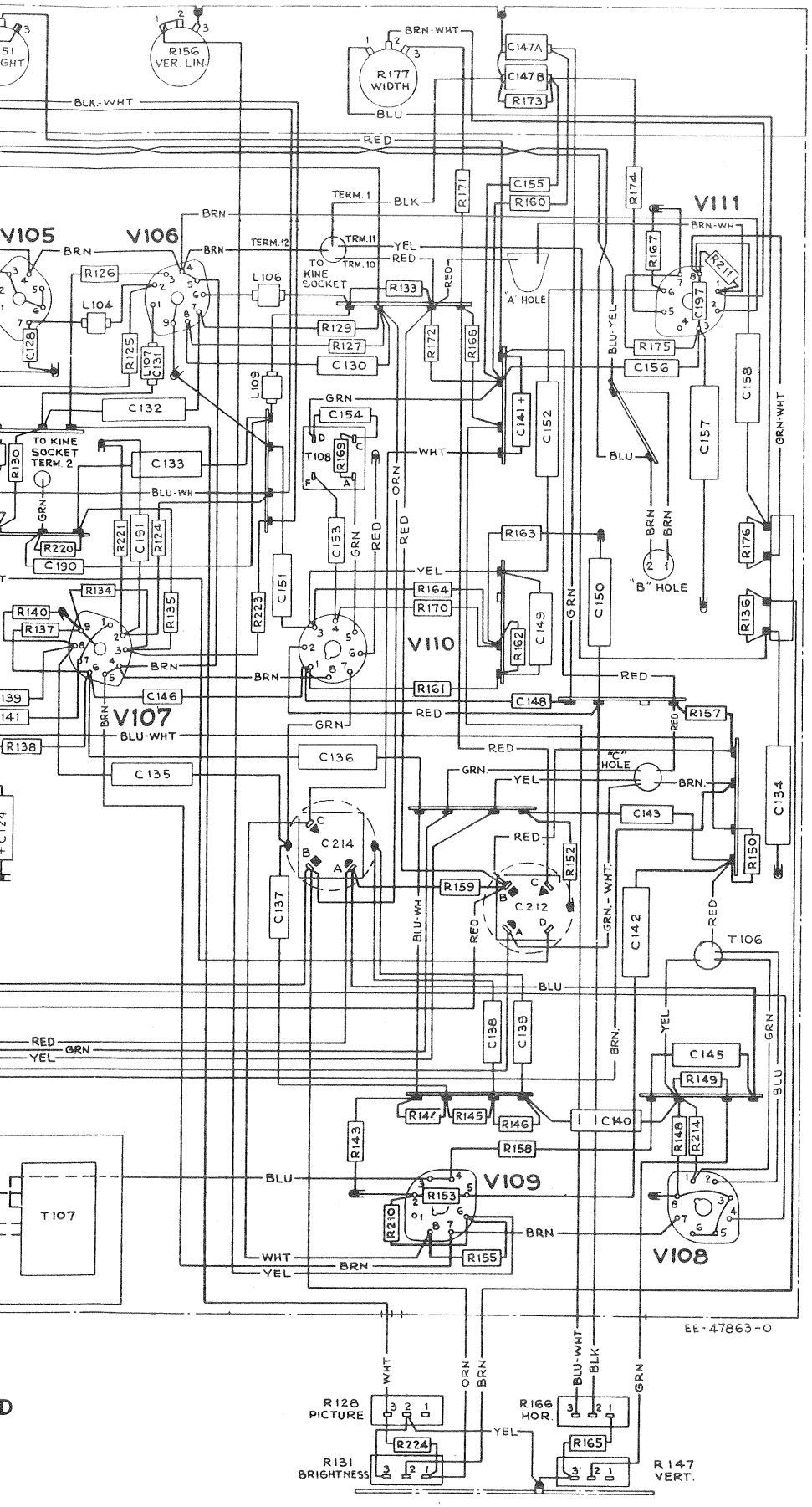
The following measurements represent two sets of conditions. In the first condition, a 2500 microvolt test pattern signal was fed into the receiver, the picture synced and the AGC control properly adjusted. The second condition was obtained by removing the antenna leads and short circuiting the receiver antenna terminals. Voltages shown are read with a WV97A Senior "VoltOhmyst" between the indicated terminal and chassis ground and with the receiver operating on 117 volts, 60 cycles, a-c. The symbol < means less than.

Tube No.	Tube Type	Function	Operating Condition	E. Plate		E. Screen		E. Cathode		E. Grid		I Plate (ma.)	I Screen (ma)	Notes on Measurements
				Pin No.	Volts	Pin No.	Volts	Pin No.	Volts	Pin No.	Volts			
V1	6J6	Mixer	2500 Mu. V. Signal	2	144	—	—	7	0	5	–2.3	6.8	—	
			No Signal	2	135	—	—	7	0	5	–2.1	5.6	—	
V1	6J6	R-F Oscillator	2500 Mu. V. Signal	1	100	—	—	7	0	6	–3.0	4.0	—	*Depending upon channel
			No Signal	1	95	—	—	7	0	6	–2.7	3.9	—	
V2	6AG5	R-F Amplifier	2500 Mu. V. Signal	5	250	6	130	2	0.1	1	–3.4	3.0	0.6	
			No Signal	5	166	6	84	2	0.4	1	–0.2	10.3	2.3	
V101	6AU6	1st Pix. I-F Amplifier	2500 Mu. V. Signal	5	195	6	222	7	0.3	1	–5.0	1.7	0.8	
			No Signal	5	121	6	135	7	0.8	1	–0.8	5.2	2.2	
V102	6CB6	2nd Pix. I-F Amplifier	2500 Mu. V. Signal	5	222	6	203	2	0.3	1	–5.0	2.0	0.7	
			No Signal	5	124	6	112	2	0.8	1	–0.8	5.5	1.6	
V103	6AU6	3d Pix. I-F Amplifier	2500 Mu. V. Signal	5	185	6	225	7	0.2	1	–5.0	1.7	0.7	
			No Signal	5	94	6	132	7	0.5	1	–0.75	4.9	2.0	
V104	6CB6	4th Pix. I-F Amplifier	2500 Mu. V. Signal	5	165	6	142	2	2.25	1	0	9.6	3.1	
			No Signal	5	118	6	132	2	2.1	1	0	9.0	3.1	
V105	6AL5	Picture 2d Det.	2500 Mu. V. Signal	7	–2.0	—	—	1	0	—	—	0.3	—	
			No Signal	7	–0.5	—	—	1	0	—	—	<0.1	—	
V105	6AL5	AGC Rectifier	2500 Mu. V. Signal	2	–9.5	—	—	5	0	—	—	<0.1	—	
			No Signal	2	–2.0	—	—	5	0	—	—	<0.1	—	
V106	12AU7	1st Video Amplifier	2500 Mu. V. Signal	1	100	—	—	3	1.2	2	–2.3	3.6	—	At maximum contrast
			No Signal	1	54	—	—	3	0.9	2	–0.5	2.6	—	
			2500 Mu. V. Signal	1	190	—	—	3	9.0	2	–2.6	0.9	—	At minimum contrast
			No Signal	1	122	—	—	3	6.9	2	–0.5	0.6	—	
V106	12AU7	2d Video Amplifier	2500 Mu. V. Signal	6	330	—	—	8	125	7	118	9.3	—	At maximum contrast
			No Signal	6	295	—	—	8	121	7	110	13.6	—	
			2500 Mu. V. Signal	6	300	—	—	8	131	7	120	12.9	—	At minimum contrast
			No Signal	6	295	—	—	8	121	7	110	13.6	—	
V107 A	12AU7 KCS60	D-C Rest. & Sync Sep.	2500 Mu. V. Signal	1	5.0	—	—	3	45.5	2	–4.7	<0.1	—	At maximum contrast
	KCS60		No Signal	1	5.5	—	—	3	8.5	2	–0.7	<0.1	—	
V107 B	12AU7 KCS60	V. Sep. & Amplifier	2500 Mu. V. Signal	6	36	—	—	8	6.0	7	4.7	4.0	—	
	KCS60		No Signal	6	36	—	—	8	6.0	7	5.5	2.8	—	
V107	12AU7 KCS60T	D-C Rest. & Sync Sep.	2500 Mu. V. Signal	1	10	—	—	3	45	2	–4.5	—	—	At maximum contrast
	KCS60T		No Signal	1	8	—	—	3	1.7	2	–0.4	—	—	
	KCS60T		2500 Mu. V. Signal	6	7.2	—	—	8	54	7	0	—	—	
	KCS60T		No Signal	6	7.0	—	—	8		7	0	—	—	
V108 A	6SN7 KSC60T	Sync Amplifier	2500 Mu. V. Signal	5	50	—	—	6	7.8	4	7.4	—	—	
	KCS60T		No Signal	5	46	—	—	6	7.0	4	7.0	—	—	
V108	6SN7 GT	Vertical Oscillator	2500 Mu. V. Signal	2	*395	—	—	3	0	1	*–58	0.4	—	*Depends on setting of height control
			No Signal	2	*395	—	—	3	0	1	*–58	0.4	—	
V109	6SN7 GT	Vertical Output	2500 Mu. V. Signal	3	370	4	370	8	51	5	0	11.5	1.9	
			No Signal	3	365	4	365	8	51	5	0	11.4	1.9	
V110	6K6 GT	Horizontal Osc. Control	2500 Mu. V. Signal	2	*160	—	—	3	*–4.6 25.0	1	*–14.6 –2.0	0.32	—	*Depends on setting of hold control
			No Signal	2	*152 181	—	—	3	*–4.4 16.3	1	*–3.5 –2.9	0.28	—	
V110	6SN7 GT	Horizontal Oscillator	2500 Mu. V. Signal	5	230	—	—	6	0	4	–82	1.8	—	
			No Signal	5	225	—	—	6	0	4	–85	1.8	—	
V111	6BG6G	Horizontal Output	2500 Mu. V. Signal	5	*630	8	325	3	7.2	5	–33	67	5.0	*6000 volt pulse present
			No Signal	5	*630	8	329	3	7.2	5	–33	67.1	4.9	
V112	1B3GT /8016	H. V. Rectifier	Brightness Min.	Cap	*	—	—	2&7	*14,500	—	—	.0	—	*14,500 volt pulse present
			Brightness Maximum	Cap	*	—	—	2&7	*12,700	—	—	0.1	—	
V113	6W4 GT	Damper	2500 Mu. V. Signal	5	387	—	—	3	*	—	—	69	—	*3000 volt pulse present
			No Signal	5	380	—	—	3	*	—	—	70	—	
V114	504G	Rectifier	2500 Mu. V. Signal	4 & 6	*368	—	—	2 & 25	391	—	—	185	—	*AC measured with AC voltmeter
			No Signal	4 & 6	*367	—	—	2 & 8	387	—	—	199	—	
V115	6AU6	1st Sound I-F. Amp.	2500 Mu. V. Signal	5	120	6	120	7	0.8	1	–0.2	6.8	2.9	
			No Signal	5	108	6	108	7	0.8	1	–0.1	6.2	2.8	
V116	6AU6	2d Sound I-F Amp.	2500 Mu. V. Signal	5	118	6	87	7	0	1	–1.3	4.9	2.8	
			No Signal	5	110	6	76	5	0	1	–0.5	6.9	3.1	
V117	6AL5	Sound Discrim.	2500 Mu. V. Signal	2	–7.2	—	—	5	0	—	—	<0.1	—	
			No Signal	2	–10.0	—	—	5	0	—	—	<0.1	—	
V118	6AV6 KCS60T	Bias Clamp	2500 Mu. V. Signal	7	0	—	—	2	0	1	–3.4	—	—	
	KCS60T		No Signal	7	0	—	—	2	0	1	–0.2	—	—	
V120	19AP4	Kinescope	2500 Mu. V. Signal	Cone	14,000	10	384	11	100	2	46	<0.1	<0.1	
			No Signal	Cone	13,500	10	375	11	74	2	8.3	<0.1	<0.1	



FOR R-F UNIT WIRING AND TELEVISION LEAD DRESS—SEE PAGE 424.

HASSIS WIRING DIAGRAM



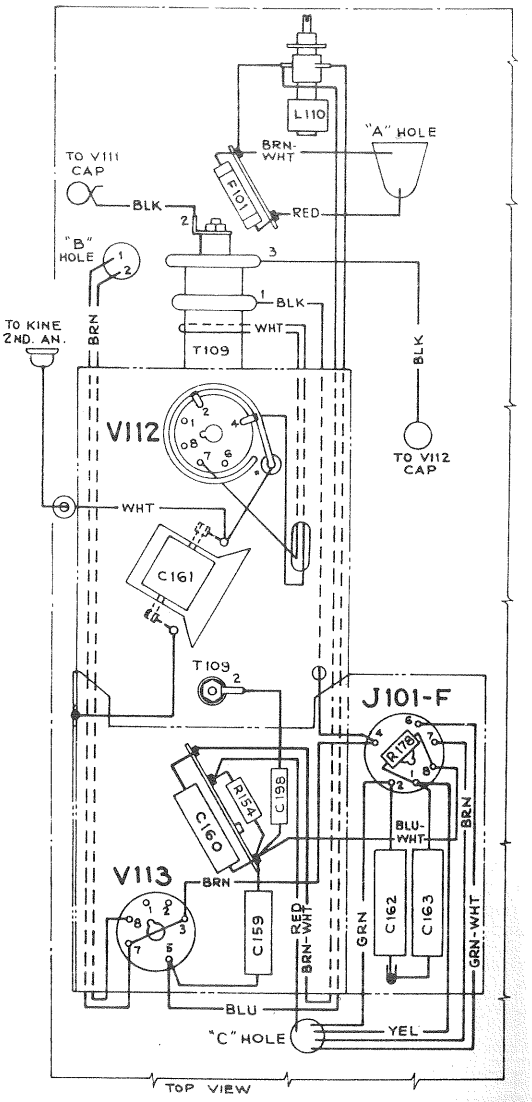
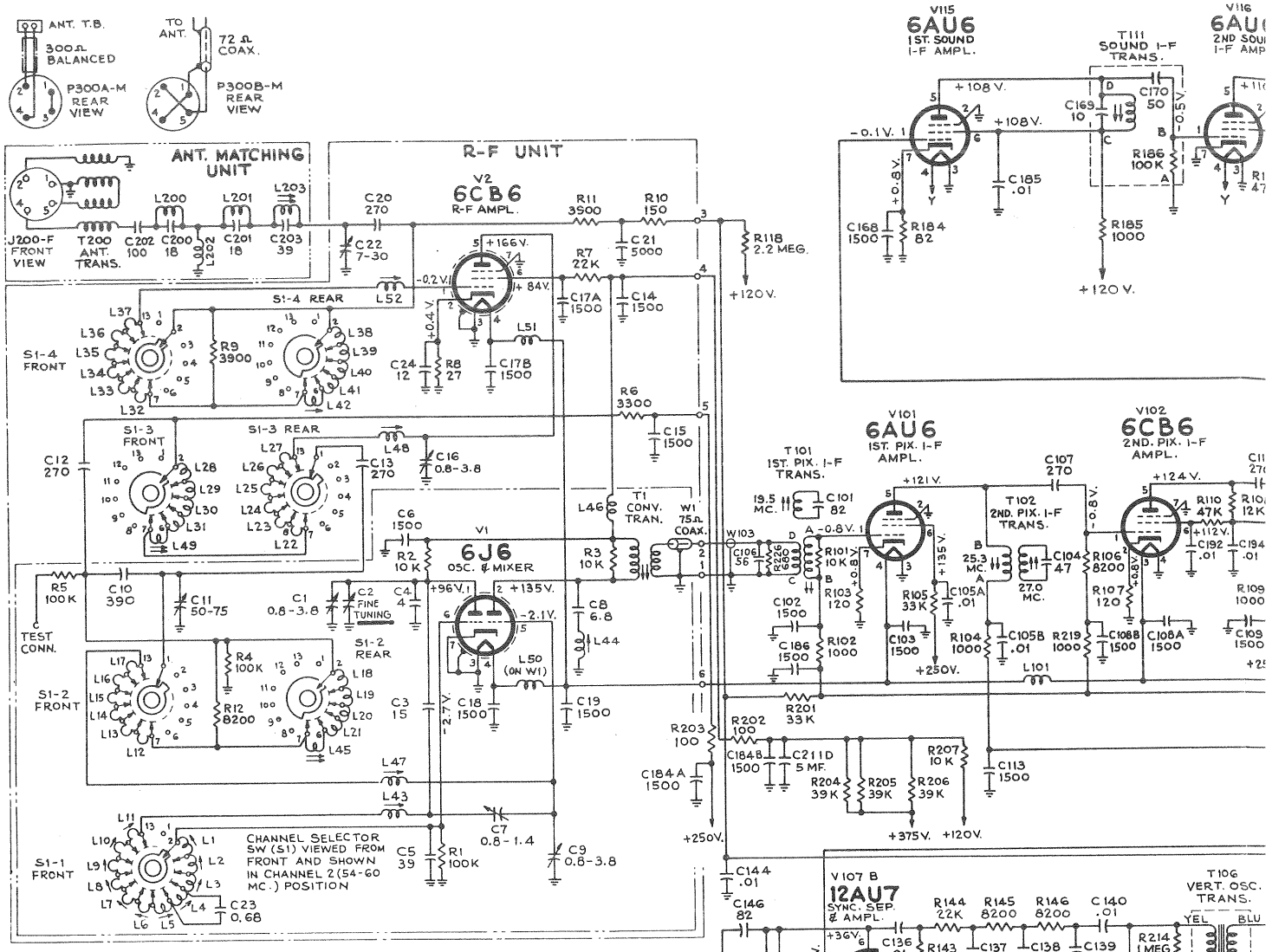


Figure 6— KSC60 Chassis Wiring Diagram



PRODUCTION CHANGES IN KCS60

In some receivers, C160 was .022, C161 was 250, C105A and C105B were 1500, R129 was 390K, R180 was 22K, R176 was 8200, C141 was connected between R151, R154 and plus 120 volts. C144 and R226 were omitted.

In some receivers, the connections to terminals 1 and 3 of R177 were reversed.

In some receivers, R142 was 1.2 meg and was connected to plus 250 volts.

In some receivers, C198 was 4.7, R134 was 470K, C190 was connected at R135.

In some receivers, R113 was 3900, R119 was 8200, and L114 was omitted, T104 bottom was tuned to 24.35 MC and L103 was tuned to 22.5 MC.

In some receivers, C189 was omitted.

In some receivers, R134 was 820K, and R142 was connected to R104, C113, etc.

Due to a severe resistor shortage during the production of this series of receivers it was found necessary to substitute resistors of different values from the nominal value shown on the schematic. These substitutions were approved by the engineering department for each particular application in the circuit only if the change in value did not impair receiver operation. In some such instances, these substitutions involved a change in the value of 5%, 10%, 20% or in a few instances even greater change.

In critical circuits where a change of value could not be tolerated, the proper resistance was obtained by the use of series, parallel or even series-parallel combinations of resistors in order to obtain the correct value of resistance or wattage.

If it should become necessary to replace a resistor or group of resistors, the values shown in the schematic and parts list should be employed.

If the value of the resistor to be replaced is different from the value shown in the schematic, and the schematic value is not available, then it is permissible to replace it with the value found in the receiver or some value between that and the value shown in the schematic. Some of the commercially available, low resistance value, molded body types are of wire wound construction. Such resistors should not be employed in the r-f unit, i-f or video sections as the inductive affect of these resistors may impair circuit operation.

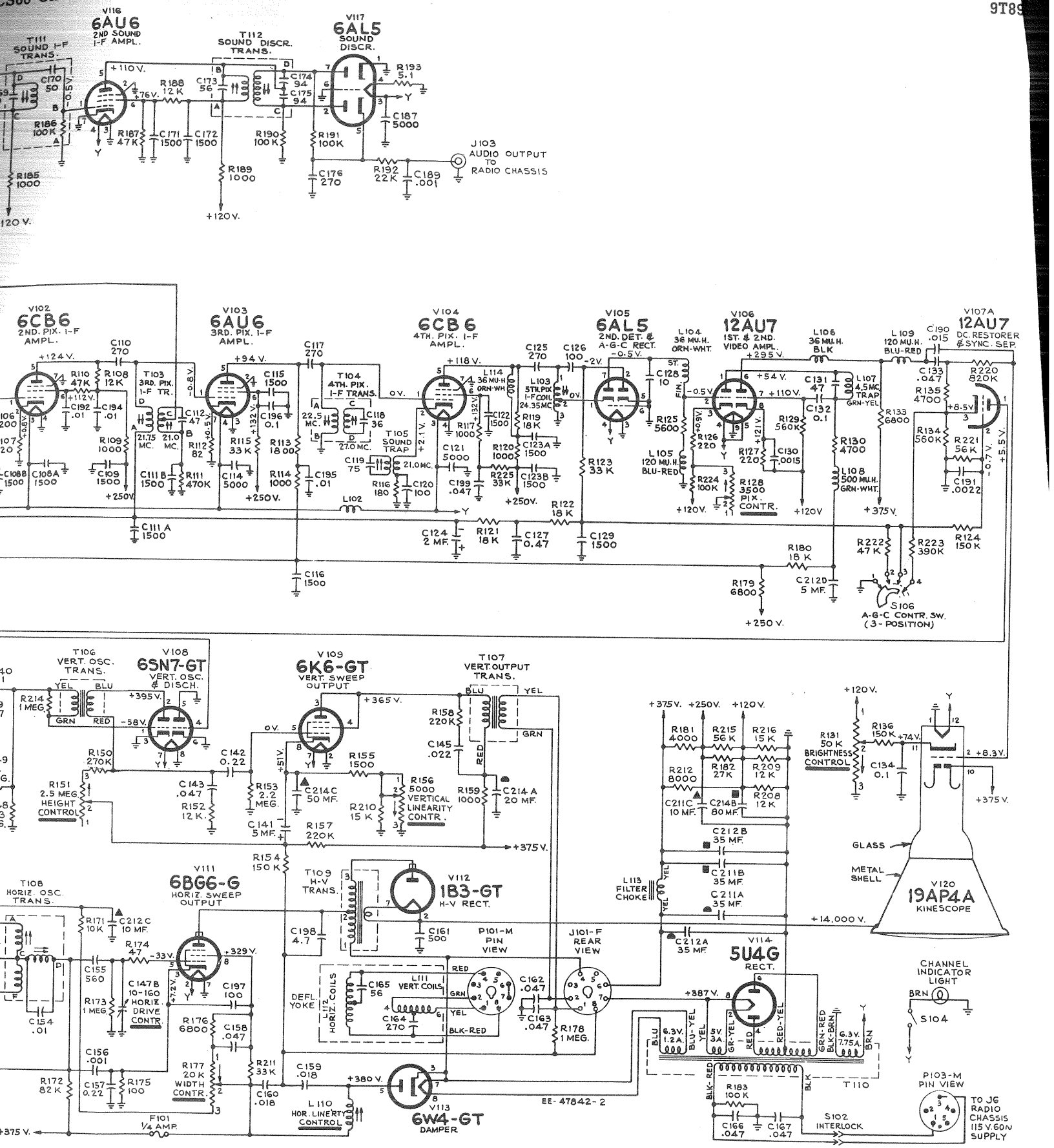
All resistance values in ohms. K = 1000.

All capacitance values less than 1 in MF and above 1 in MMF unless otherwise noted.

Coil resistance values ohm are not shown.

Direction of arrows at c cates clockwise rotation.

CS60 CIRCUIT SCHEMATIC DIAGRAM

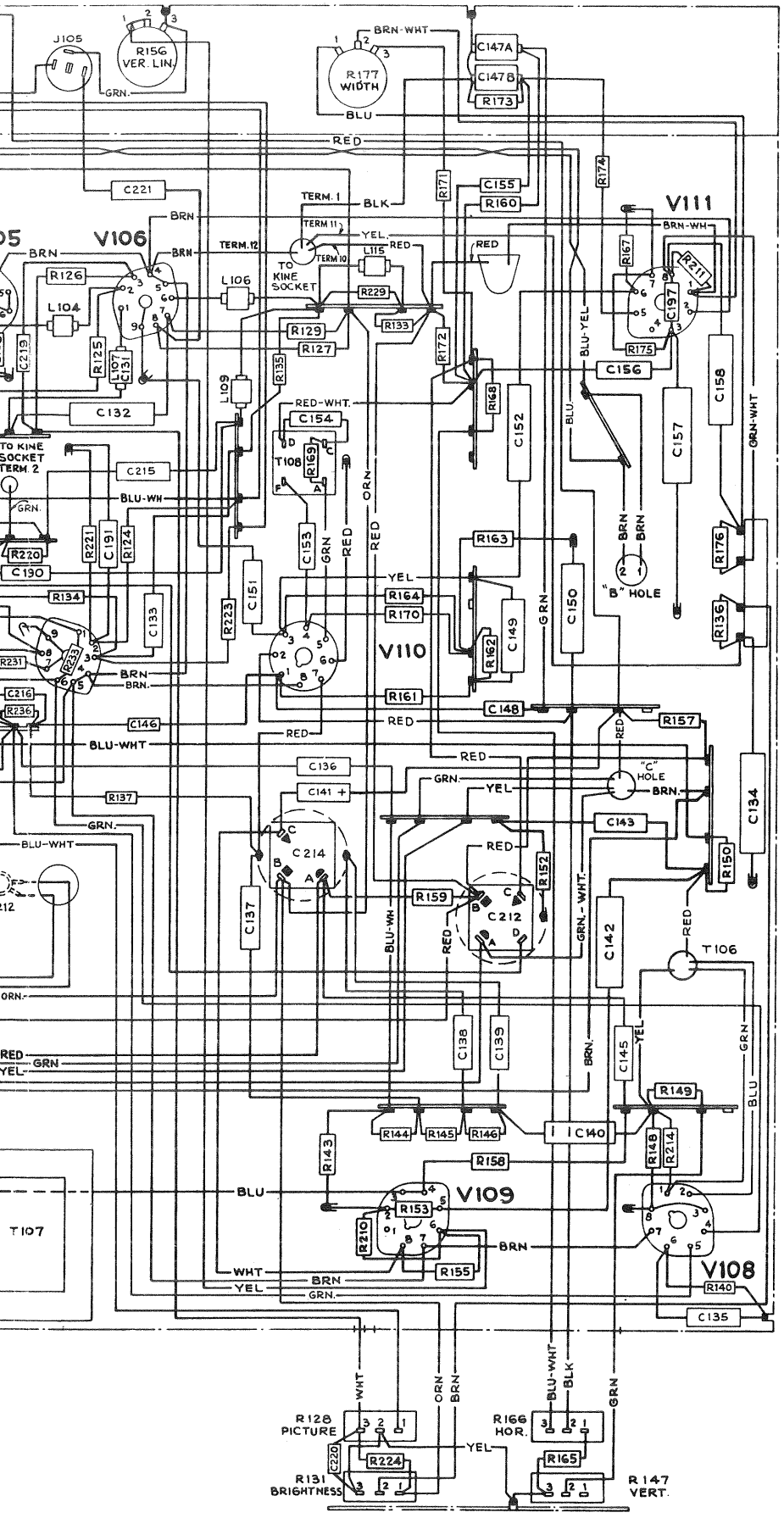


sistance values less than 1 ot shown.
n of arrows at controls indi- kwise rotation.

In some receivers, substitutions have caused changes in component lead color codes, in electrolytic capacitor values and their lug identification markings.

All voltages measured with "Volt-Ohmyst" and with no signal input. Voltages should hold within ±20% with 117 v. a-c supply.

Figure 7—Circuit Schematic Diagram for KCS60 chassis



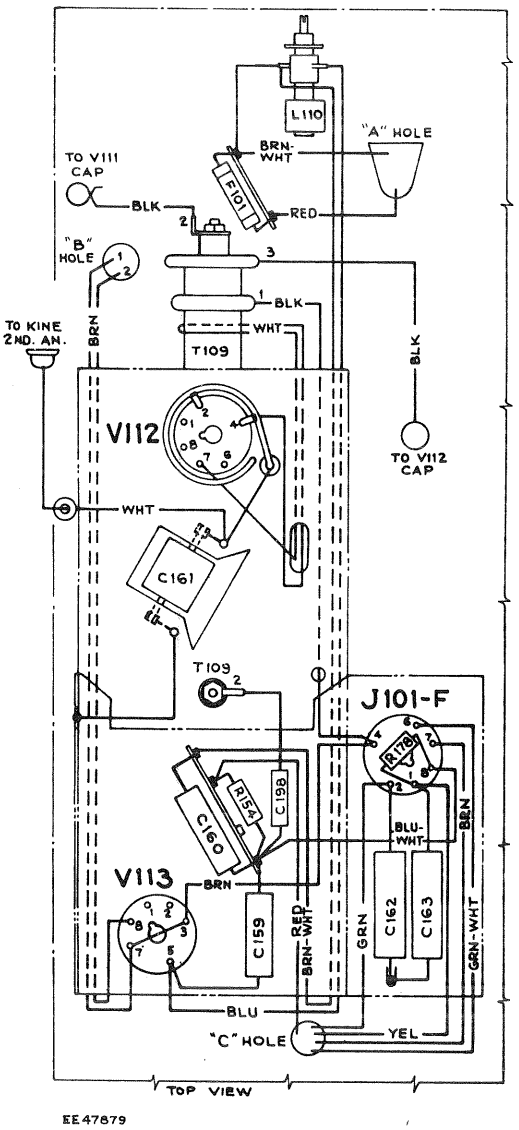
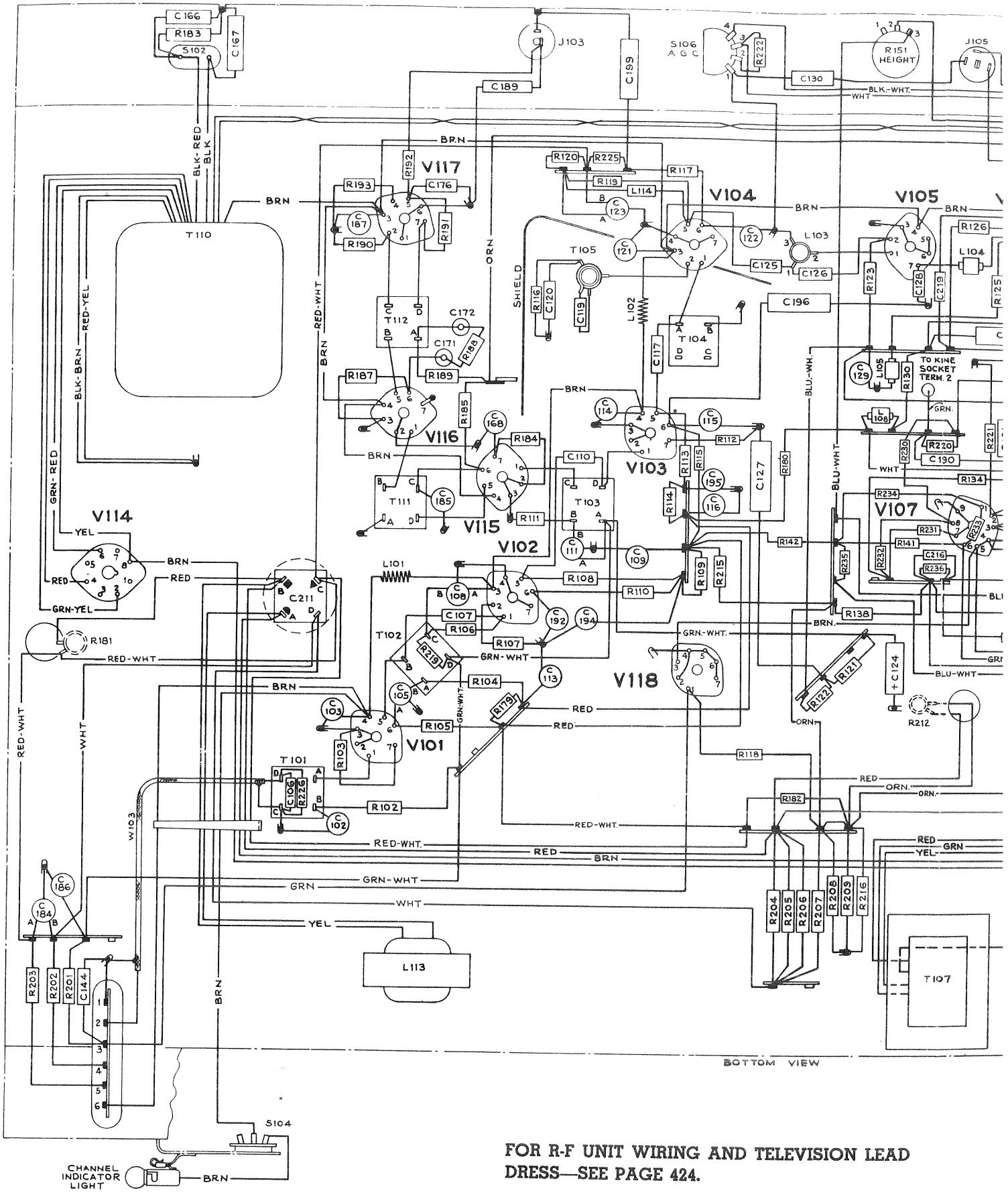
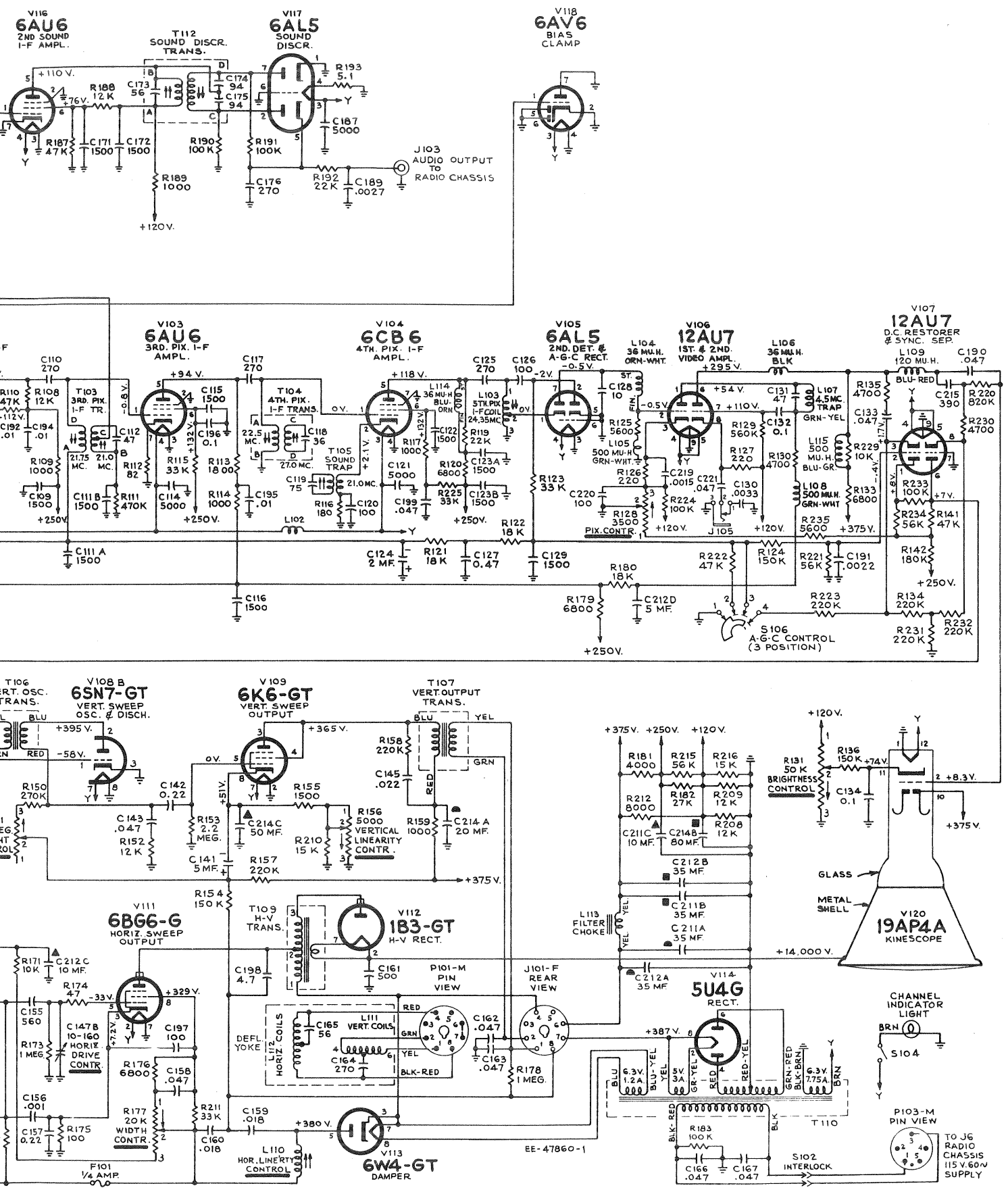


Figure 9—
KSC60T Chassis
Wiring Diagram



FOR R-F UNIT WIRING AND TELEVISION LEAD DRESS—SEE PAGE 424.

SCHEMATIC DIAGRAM

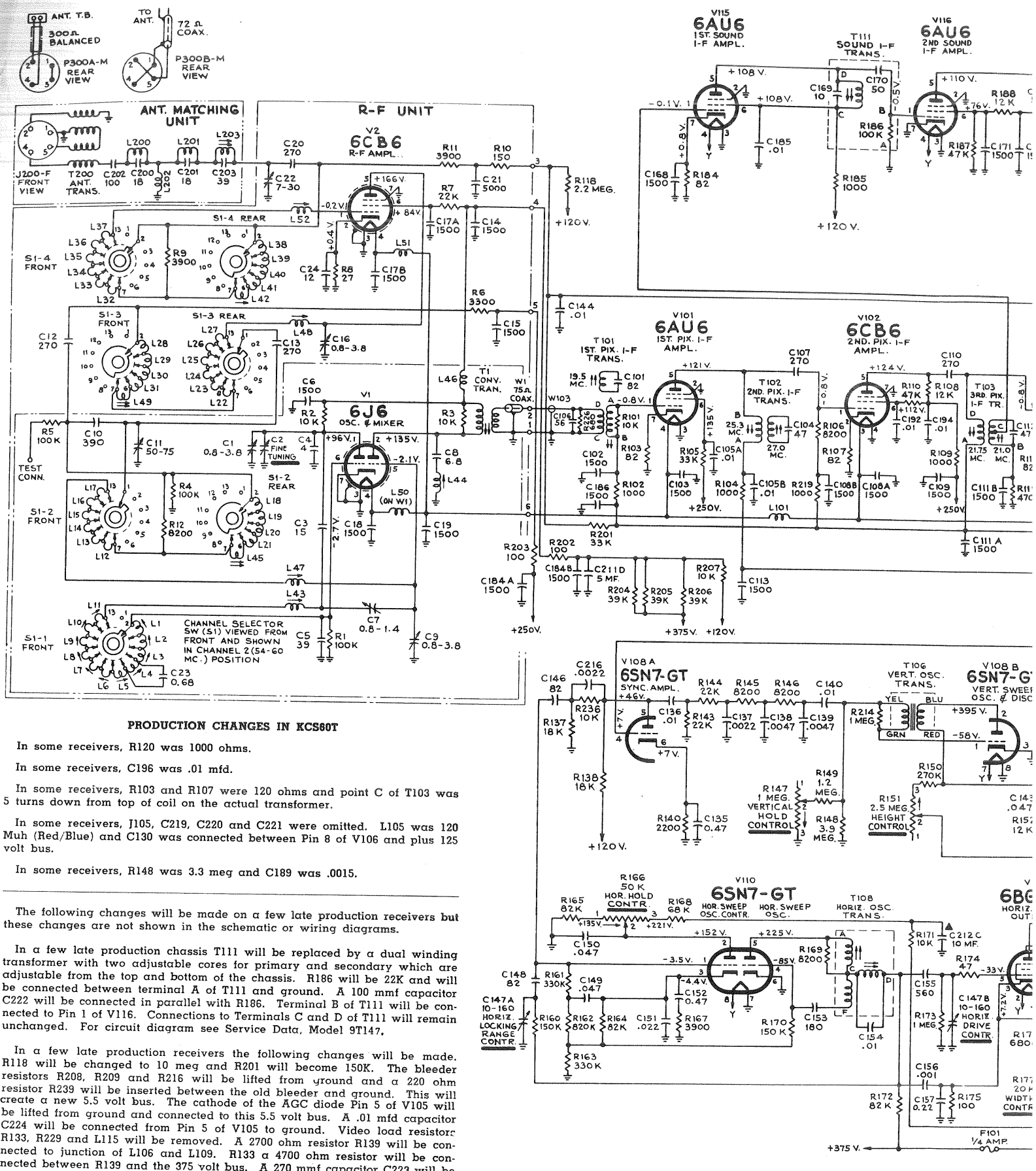


values less than 1
.
ws at controls indi-
ation.

In some receivers, substitutions have caused changes in component lead color codes, in electrolytic capacitor values and their lug identification markings.

All voltages measured with "Volt-Ohmyst" and with no signal input. Voltages should hold within ±20% with 117 v. a-c supply.

Figure 8—Circuit Schematic Diagram for KCS60T chassis



PRODUCTION CHANGES IN KCS60T

In some receivers, R120 was 1000 ohms.

In some receivers, C196 was .01 mfd.

In some receivers, R103 and R107 were 120 ohms and point C of T103 was 5 turns down from top of coil on the actual transformer.

In some receivers, J105, C219, C220 and C221 were omitted. L105 was 120 Muh (Red/Blue) and C130 was connected between Pin 8 of V106 and plus 125 volt bus.

In some receivers, R148 was 3.3 meg and C189 was .0015.

The following changes will be made on a few late production receivers but these changes are not shown in the schematic or wiring diagrams.

In a few late production chassis T111 will be replaced by a dual winding transformer with two adjustable cores for primary and secondary which are adjustable from the top and bottom of the chassis. R186 will be 22K and will be connected between terminal A of T111 and ground. A 100 mmf capacitor C222 will be connected in parallel with R186. Terminal B of T111 will be connected to Pin 1 of V116. Connections to Terminals C and D of T111 will remain unchanged. For circuit diagram see Service Data, Model 9T147.

In a few late production receivers the following changes will be made. R118 will be changed to 10 meg and R201 will become 150K. The bleeder resistors R208, R209 and R216 will be lifted from ground and a 220 ohm resistor R239 will be inserted between the old bleeder and ground. This will create a new 5.5 volt bus. The cathode of the AGC diode Pin 5 of V105 will be lifted from ground and connected to this 5.5 volt bus. A .01 mfd capacitor C224 will be connected from Pin 5 of V105 to ground. Video load resistors R133, R229 and L115 will be removed. A 2700 ohm resistor R139 will be connected to junction of L106 and L109. R133 a 4700 ohm resistor will be connected between R139 and the 375 volt bus. A 270 mmf capacitor C223 will be connected from the junction of R133, R139 and to Pin 8 of V107. C130 will be changed to .0033 mfd. For circuit diagram, see the Service Data for Model 9T147.

All resistance values in ohms. K = 1000.

All capacitance values less than 1 in MF and above 1 in MMF unless otherwise noted.

Coil resistance values less than 1 ohm are not shown.

Direction of arrows at controls indicates clockwise rotation.

STOCK No.	DESCRIPTION
	R-F UNIT ASSEMBLIES KRK8B
10705	Ball—Steel ball for detent (5/32" dia.)
75188	Board—Terminal board, 5 contact and ground
75067	Bracket—Vertical bracket for holding oscillator tube shield
75201	Cable—75 ohms, coax cable (7 1/4") complete with coil (W1, L50)
75186	Capacitor—Ceramic, variable, for fine tuning—plunger type (C2)
75289	Capacitor—Ceramic, 4 mmf., ∓0.5 mmf. (C4)
75189	Capacitor—Adjustable, 7-30 mmf. (C22)
75200	Capacitor—Ceramic, 12 mmf. (C24)
45465	Capacitor—Ceramic, 15 mmf. (C3)
75196	Capacitor—Ceramic, 39 mmf. (C5)
75174	Capacitor—Ceramic, trimmer, 50-75 mmf. (C11)
75199	Capacitor—Ceramic, 270 mmf. (C12, C13, C20)
75641	Capacitor—Ceramic, 390 mmf. (C10)
75166	Capacitor—Ceramic, 1500 mmf. (C6, C14, C15, C19)
75089	Capacitor—Ceramic, dual, 1500 mmf. (C17A, C17B)
73748	Capacitor—Ceramic, 1500 mmf. (C18)
73473	Capacitor—Ceramic, 5000 mmf. (C21)
75172	Capacitor—Tubular, steatite, adjustable, 0.8-1.4 mmf. (C7)
71504	Capacitor—Ceramic, 0.68 mmf. (C23)
75184	Capacitor—Ceramic, adjustable, 0.75-4 mmf., complete with adjusting stud (C1)
75197	Capacitor—Ceramic, 6.8 mmf. (C8)
75167	Clip—Tubular, clip for mounting stand-off capacitors
75182	Coil—Trimmer coil (1 1/2 turns) with adjustable inductance core and capacitor stud (screw adjustment) for convertor section (C9, L47)
75183	Coil—Trimmer coil (3 turns) with adjustable inductance core and capacitor stud (screw adjustment) for r-f section (L48, C16)
75185	Coil—Converter plate loading coil (L44)
75202	Coil—Choke coil .56 muh. (L46)
73477	Coil—Choke coil (L51)
75187	Core—Adjustable core for fine tuning capacitor C2
75162	Detent—Detent mechanism and fibre shaft
73453	Form—Coil form for L45 and L49
75165	Link—Link assembly for fine tuning
14343	Retainer—Fine tuning shaft retaining ring
	Resistor—Fixed, composition: 27 ohms, ±10%, 1/2 watt (R8) 150 ohms, ±20%, 1/2 watt (R10) 3300 ohms, ±10%, 1/2 watt (R6) 3900 ohms, ±10%, 1/2 watt (R9, R11) 8200 ohms, ±10%, 1/2 watt (R12) 10,000 ohms, ±5%, 1/2 watt (R3) 10,000 ohms, ±20%, 1/2 watt (R2) 22,000 ohms, ±10%, 1/2 watt (R7) 100,000 ohms, ±20%, 1/2 watt (R1, R4, R5)
75164	Rod—Actuating plunger rod (fibre) for fine tuning link
71476	Screw—No. 4-40 x 1/4" binder head machine screw for adjusting L6, L7, L8, L9, L10, L11
75176	Screw—No. 4-40 x 3/8" fillister head screw for adjusting L5
75177	Screw—No. 4-40 x 5/16" fillister head screw for adjusting L1, L2, L3, L4, L43
74575	Screw—No. 4-40 x .359" adjusting screw for L42
73640	Screw—No. 4-40 x 7/16" adjusting screw for L52
75159	Shaft—Channel selector shaft and plate
75160	Shaft—Fine tuning shaft and cam
75168	Shield—Oscillator and convertor sections shield for R-F unit—snap-on type
75193	Shield—Tube shield for V1
75192	Shield—Tube shield for V2
75088	Socket—Tube socket, 7 contact, miniature, ceramic saddle mounted
75191	Spacer—Insulating spacer for front plate (4 req'd)
75163	Spring—Friction spring (formed) for fine tuning cam
75068	Spring—Retaining spring for oscillator tube shield
74578	Spring—Retaining spring for adjusting screws
73457	Spring—Return spring for fine tuning control
30340	Spring—Hair pin spring for fine tuning link
75175	Stator—Oscillator section stator complete with rotor, segment, coils, adjusting screws and capacitors C3 and C23 (S1-1, C3, C23, L1, L2, L3, L4, L5, L6, L7, L8, L9, L10, L11, L43)
75178	Stator—Convertor stator complete with rotor, coils, capacitors (C10 and C12) and resistors (R4 and R5) (S1-2, C10, C12, L12, L13, L14, L15, L16, L17, L18, L19, L20, L21, L45, R4, R5, R12)
75179	Stator—R-F amplifier stator complete with rotor, coils, capacitor (C13) and resistor (R6) (S1-3, C13, L22, L23, L24, L25, L26, L27, L28, L29, L30, L31, L49, R6)
75180	Stator—Antenna stator complete with rotor, coils, capacitors (C20 and C21) and resistors (R9, R10, R11) (S1-4, C20, C21, L32, L33, L34, L35, L36, L37, L38, L39, L40, L41, L42, L52, R9, R10, R11)
75169	Strip—Coil segment mounting strip—RH center
75170	Strip—Coil segment mounting strip—LH lower
75171	Strip—Coil segment mounting strip—LH upper—less trimmer C7
75173	Stud—No. 6-32 x 13/16" adjusting stud for C7 trimmer
75446	Stud—Capacitor stud—brass—No. 4-40 x 13/16" with 3/64" screw driver slot for trimmer coils L47, L48 and capacitor C1 uncoded and coded "ER"
75447	Stud—Capacitor stud—brass—No. 4-40 x 13/16" with 3/64" screw driver slot for trimmer coils L47, L48 and capacitor C1 coded numerically and "Hi Q"
75181	Transformer—Convertor transformer
75190	Washer—Insulating washer (neoprene) for capacitor C7
75607	Washer—Insulating washer (hex)
	TELEVISION CHASSIS ASSEMBLIES KCS60
75515	Bracket—Channel indicator lamp bracket
75228	Bracket—Focus magnet mounting bracket—upper
75229	Bracket—Focus magnet mounting bracket—lower
75646	Capacitor—Ceramic, 4.7 mmf., 5000 volts (C198)
53511	Capacitor—Ceramic, 10 mmf. (C128)
75217	Capacitor—Mica trimmer, dual 10-160 mmf. (C147A, C147B)
75450	Capacitor—Ceramic, 39 mmf. (C203)
71924	Capacitor—Ceramic, 56 mmf. (C106)
73090	Capacitor—Mica, 82 mmf. (C146, C148)
75437	Capacitor—Ceramic, 100 mmf. (C202)
45469	Capacitor—Ceramic, 100 mmf. (C120)
39396	Capacitor—Ceramic, 100 mmf. (C126, C197, C220)
73102	Capacitor—Mica, 180 mmf. (C153)
75244	Capacitor—Ceramic, 270 mmf. (C176)
73091	Capacitor—Mica, 270 mmf. (C107, C110, C117, C125)
73094	Capacitor—Mica, 390 mmf. (C215 in KCS60T)
74947	Capacitor—Ceramic, 500 mmf. 20,000 volts (C161)
74250	Capacitor—Mica, 560 mmf. (C155)
75166	Capacitor—Ceramic, 1500 mmf. (C171, C172)
73748	Capacitor—Ceramic, 1500 mmf. (C102, C103, C109, C113, C115, C116, C122, C129, C168, C186)
75089	Capacitor—Ceramic, dual, 1500 mmf. (C108A, C108B, C111A, C111B, C123A, C123B, C184A, C184B)
73473	Capacitor—Ceramic, 5000 mmf. (C114, C121, C187)
73960	Capacitor—Ceramic, 10,000 mmf. (C144, C185, C192, C194, C195)
75877	Capacitor—Ceramic, dual, 10,000 mmf. (C105A, C105B)
73747	Capacitor—Electrolytic, 2 mfd., 50 volts (C124)
28417	Capacitor—Electrolytic, 5 mfd., 450 volts (C141)
75592	Capacitor—Electrolytic comprising 1 section of 20 mfd., 450 volts, 1 section of 80 mfd., 200 volts and 1 section of 50 mfd., 50 volts (C214A, C214B, C214C)
75510	Capacitor—Electrolytic comprising 2 sections of 35 mfd., 450 volts, 1 section of 10 mfd., 450 volts and 1 section of 5 mfd., 450 volts (C211A, C211B, C211C, C211D, C212A, C212B, C212C, C212D)
75643	Capacitor—Tubular, moulded paper, oil impregnated, .001 mfd., 1000 volts (C156)
73598	Capacitor—Tubular, paper, oil impregnated, .0015 mfd., 600 volts (C130, C219)
73595	Capacitor—Tubular, paper, oil impregnated, .0022 mfd., 600 volts (C137, C191, C216 in KCS60T)
73599	Capacitor—Tubular, paper, oil impregnated, .0027 mfd., 600 volts (C189)
73920	Capacitor—Tubular, paper, oil impregnated, .0047 mfd., 600 volts (C138, C139)
73561	Capacitor—Tubular, paper, oil impregnated, .01 mfd., 400 volts (C136)

STOCK No.	DESCRIPTION
73594	Capacitor—Tubular, moulded paper, oil impregnated, .01 mfd., 600 volts (C140, C154)
74727	Capacitor—Tubular, paper, oil impregnated, .018 mfd., 1000 volts (C159, C160)
73562	Capacitor—Tubular, paper, oil impregnated, .022 mfd., 400 volts (C145, C151)
73553	Capacitor—Tubular, paper, oil impregnated, .047 mfd., 400 volts (C149, C199, C221)
75071	Capacitor—Tubular, moulded paper, .047 mfd., 400 volts (C166, C167)
73592	Capacitor—Tubular, paper, oil impregnated, .047 mfd., 600 volts (C133, C150, C190)
73597	Capacitor—Tubular, moulded paper, oil impregnated, .047 mfd., 1000 volts (C143)
73551	Capacitor—Tubular, paper, oil impregnated, 0.1 mfd., 400 volts (C132, C196)
73557	Capacitor—Tubular, paper, oil impregnated, 0.1 mfd., 600 volts (C134)
73794	Capacitor—Tubular, paper, oil impregnated, 0.22 mfd., 400 volts (C157)
74957	Capacitor—Tubular, paper, oil impregnated, 0.22 mfd., 600 volts (C142)
73787	Capacitor—Tubular, moulded paper, 0.47 mfd., 200 volts (C127, C135, C152)
73154	Choke—Filter choke (L113)
75167	Clip—Tubular, clip for mounting stand-off capacitor 75166
75210	Coil—Fifth pix, i-f coil complete with adjustable core (L103)
71449	Coil—Horizontal linearity coil (L110)
73591	Coil—Antenna matching coil (2 req'd) (Part of T200)
75241	Coil—Antenna shunt coil (L202)
73477	Coil—Choke coil (L101, L102)
75299	Coil—Peaking coil (36 muh) (L104)
71793	Coil—Peaking coil (36 muh) (L106)
76285	Coil—Peaking coil (36 muh) (L114, R119)
75253	Coil—Peaking coil (120 muh) (L109)
75252	Coil—Peaking coil (500 muh) (L105, L108)
76132	Coil—Peaking coil (500 muh) (L115 in KCS60T)
35787	Connector—Single contact female connector for audio cable (J103)
74594	Connector—2 contact male connector for power cord
35383	Connector—8 contact male connector—part of deflection yoke (P101)
68592	Connector—8 contact female connector for deflection yoke leads (J101)
38853	Connector—4 contact female connector for antenna transformer (J200)
75517	Contact—Anode connector contact only
75215	Control—Horizontal and vertical hold control (R147, R166)
75216	Control—Picture and brightness control (R128, R131)
71441	Control—Vertical linearity control (R156)
71440	Control—Height control (R151)
75516	Control—Width control (R177)
71498	Core—Adjustable core and stud for FM trap 75449
74956	Cushion—Rubber cushion for deflection yoke hood (2 req'd)
74839	Fastener—Push fastener for mounting ceramic tube socket (2 req'd)
73600	Fuse—.25 amp., 250 volts (F101)
16058	Grommet—Rubber grommet for 2nd anode lead exit
37396	Grommet—Rubber grommet to mount ceramic tube socket (2 req'd)
75445	Hood—Deflection yoke hood less rubber cushions
75644	Insulator—2nd anode insulator assembly
75482	Jack—Video jack (J105)
76322	Magnet—Ion trap magnet (P.M.)
75504	Magnet—Focus magnet complete with adjustable plate and stud for standard 19AP4A tubes
75935	Magnet—Focus magnet complete with adjustable plate and stud for special 19AP4A tubes coded with a dot of green paint
75518	Plate—Hi-voltage plate—bakelite—less transformer, capacitor and tube socket
72067	Resistor—Wire wound, 5.1 ohms, ½ watt (R193)
75512	Resistor—Wire wound, 4000 ohms, 10 watts (R181)
75593	Resistor—Wire wound, 8000 ohms, 15 watts (R212)
	Resistor—Fixed composition:
	47 ohms, ±20%, ½ watt (R174)
	82 ohms, ±10%, ½ watt (R103, R107, R112, R184)
	100 ohms, ±20%, ½ watt (R202, R203)
	100 ohms, ±10%, 2 watts (R175)
	180 ohms, ±10%, ½ watt (R116)
	220 ohms, ±10%, ½ watt (R126, R127)
	680 ohms, ±10%, ½ watt (R226)
	1000 ohms, ±20%, ½ watt (R102, R104, R109, R114, R117, R159, R185, R189, R219)
	1500 ohms, ±10%, 1 watt (R155)
	1800 ohms, ±10%, ½ watt (R113)
	2200 ohms, ±20%, ½ watt (R140)
	3900 ohms, ±10%, ½ watt (R167)
	4700 ohms, ±5%, ½ watt (R130)
	4700 ohms, ±10%, ½ watt (R135) (R230 in KCS60T)
	5600 ohms, ±5%, ½ watt (R125)
	5600 ohms, ±10%, ½ watt (R235 in KCS60T)
	6800 ohms, ±10%, 1 watt (R120, R176)
	6800 ohms, ±10%, 2 watts (R133, R179)
	8200 ohms, ±5%, ½ watt (R106, R169)
	8200 ohms, ±10%, ½ watt (R145, R146)
	10,000 ohms, ±10%, ½ watt (R171) (R236 in KCS60T)
	10,000 ohms, ±10%, 2 watts (R207)
	12,000 ohms, ±5%, ½ watt (R152)
	12,000 ohms, ±10%, ½ watt (R188) (R139 in KCS60)
	12,000 ohms, ±5%, 1 watt (R108)
	12,000 ohms, ±10%, 2 watts (R208, R209)
	15,000 ohms, ±10%, ½ watt (R210)
	15,000 ohms, ±10%, 2 watts (R216)
	18,000 ohms, ±10%, ½ watt (R121, R122, R137)
	18,000 ohms, ±10%, 1 watt (R138, R180)
	22,000 ohms, ±10%, ½ watt (R143, R144)
	22,000 ohms, ±20%, ½ watt (R192)
	27,000 ohms, ±10%, 2 watts (R182)
	33,000 ohms, ±10%, ½ watt (R105, R115, R201, R211, R225)
	33,000 ohms, ±20%, ½ watt (R123)
	39,000 ohms, ±10%, 2 watts (R204, R205, R206)
	47,000 ohms, ±10%, ½ watt (R141, R187, R222)
	47,000 ohms, ±20%, ½ watt (R110)
	56,000 ohms, ±10%, ½ watt (R221) (R234 in KCS60T)
	56,000 ohms, ±10%, 1 watt (R215)
	68,000 ohms, ±10%, 1 watt (R168)
	82,000 ohms, ±5%, 1 watt (R172)
	82,000 ohms, ±10%, 1 watt (R164, R165)
	100,000 ohms, ±5%, ½ watt (R190, R191)
	100,000 ohms, ±10%, ½ watt (R224) (R233 in KCS60T)
	100,000 ohms, ±20%, 2 watts (R183)
	150,000 ohms, ±10%, ½ watt (R136, R154, R160)
	150,000 ohms, ±20%, ½ watt (R124)
	150,000 ohms, ±5%, 1 watt (R170)
	180,000 ohms, ±10%, ½ watt (R142 in KCS60T)
	220,000 ohms, ±10%, ½ watt (R157, R158) (R134, R223, R231, R232 in KCS60T)
	270,000 ohms, ±10%, ½ watt (R150)
	330,000 ohms, ±10%, ½ watt (R161)
	330,000 ohms, ±5%, 1 watt (R163)
	390,000 ohms, ±10%, ½ watt (R142, R223 in KCS60)
	470,000 ohms, ±10%, ½ watt (R111)
	560,000 ohms, ±10%, ½ watt (R129) (R134 in KCS60)
	820,000 ohms, ±10%, ½ watt (R162, R220)
	1 megohm, ±10%, ½ watt (R173)
	1 megohm, ±20%, ½ watt (R178, R214)
	1.2 megohm, ±5%, ½ watt (R149)
	2.2 megohm, ±10%, ½ watt (R118, R153)
	3.9 megohm, ±5%, ½ watt (R148)
75083	Screw—No. 8-32 x ¼" wing screw for mounting deflection yoke
75236	Screw—No. 8-32 x ⅜" pan head screw (brass) to mount focus magnet (2 req'd)
74602	Screw—No. 10-32 x 1¾" round head machine screw for focus magnet adjustment (3 req'd)
73584	Shield—Tube shield
31251	Socket—Tube socket, octal, wafer
31319	Socket—Tube socket, octal moulded

STOCK No.	DESCRIPTION
73117	Socket—Tube socket, 7 pin, miniature
75223	Socket—Tube socket, 9 pin, miniature
73249	Socket—Tube socket, octal, ceramic, plate mounted
71508	Socket—Tube socket for 1B3/8016
68592	Socket—Tube socket, 6 contact, moulded for V113
74834	Socket—Kinescope socket
75718	Socket—Channel indicator lamp socket
75233	Spring—Compression spring for focus magnet adjustment (3 req'd)
75506	Support—Bakelite support only—part of hi-voltage shield
75594	Switch—Channel indicator lamp switch (S104)
76010	Switch—AGC switch (S106)
75508	Transformer—Power transformer 115 volt, 60 cycle (T110)
74950	Transformer—Vertical output transformer (T107)
74144	Transformer—Vertical oscillator transformer (T106)
74589	Transformer—First pix. i-f transformer (T101, C101, R101)
74590	Transformer—Second pix. i-f transformer (T102, C104)
76264	Transformer—Third pix. i-f transformer (T103, C112)
73574	Transformer—Fourth pix. i-f transformer (T104, C118)
75211	Transformer—Sound i-f transformer, single winding type (T111, C169, C170, R186)
71424	Transformer—Sound i-f transformer—dual winding type (T111, C169, C170)
75212	Transformer—Sound discriminator transformer (T112, C173, C174, C175)
75213	Transformer—Horizontal oscillator transformer (T108)
75509	Transformer—Antenna matching transformer complete with antenna connector, i-f and FM traps and shunt coil (T200, C200, C201, C202, C203, J200, L200, L201, L202, L203)
75585	Transformer—Hi-voltage transformer (T109)
71778	Trap—Sound trap (T105, C119)
75242	Trap—i-f trap (L200, C200, L201, C201)
75449	Trap—FM trap complete with adjustable core and stud (L203, C203)
75251	Trap—4.5 mc. trap (L107, C131)
74952	Yoke—Deflection yoke complete with cable and connector (L111, L112, C164, C165, P101)
	RADIO CHASSIS ASSEMBLIES RC 1092
75567	Capacitor—Variable tuning capacitor complete with drive drum (C1-1, C1-2, C1-3, C1-4, C1-5, C1-6)
76423	Capacitor—Ceramic, 3 mmf. (C10)
75613	Capacitor—Ceramic, 5 mmf. (C13)
39044	Capacitor—Ceramic, 15 mmf. (C12)
75609	Capacitor—Ceramic, 47 mmf. (C45)
75612	Capacitor—Ceramic, 68 mmf. (C9, C11)
39396	Capacitor—Ceramic, 100 mmf. (C4)
75437	Capacitor—Ceramic, 100 mmf. (C31)
75614	Capacitor—Ceramic, 150 mmf. (C14, C30, C43, C54)
75611	Capacitor—Ceramic, 220 mmf. (C3)
39640	Capacitor—Mica, 330 mmf. (C37, C38)
72571	Capacitor—Mica, 470 mmf. (C7)
75610	Capacitor—Ceramic, 1500 mmf. (C19)
74850	Capacitor—Ceramic, 1800 mmf. (C17)
73473	Capacitor—Ceramic, 5000 mmf. (C2, C5, C6, C15, C24, C25, C27, C28, C29, C34, C36)
73920	Capacitor—Tubular, paper, .005 mfd., 400 volts (C33)
73747	Capacitor—Electrolytic, 2 mfd., 50 volts (C40)
72052	Capacitor—Electrolytic, comprising 1 section of 30 mfd., 450 volts, 1 section of 30 mfd., 350 volts, and 1 section of 40 mfd., 25 volts (C23A, C23B, C23C)
73801	Capacitor—Tubular, paper, .001 mfd., 400 volts (C8)
70642	Capacitor—Tubular, paper, .001 mfd., 1000 volts (C42, C44)
71926	Capacitor—Tubular, paper, .005 mfd., 200 volts (C26, C39, C41)
71925	Capacitor—Tubular, paper, .01 mfd., 400 volts (C32)
72120	Capacitor—Tubular, paper, .015 mfd., 200 volts (C22)
58476	Capacitor—Tubular, paper, oil impregnated, .018 mfd., 400 volts (C21)
74010	Capacitor—Tubular, paper, .02 mfd., 400 volts (C20, C35)
73553	Capacitor—Tubular, paper, .05 mfd., 400 volts (C16)
73935	Clip—Mounting clip for AM i-f transformer
75627	Clip—Clip for main cable—on rear of chassis
75569	Coil—Oscillator coil—AM—complete with adjustable screws (L3, L4, L5)
75570	Coil—R-F coil — AM — complete with adjusting screws (L6, L7)
75615	Coil—FM antenna coil (L1)
71942	Coil—Filament choke coil (L9)
74817	Coil—FM oscillator coil (L8)
74815	Coil—FM r-f coil (L2)
35787	Connector—Single contact female connector for record changer's pickup cables and television (J2, J3, J5)
75542	Connector—8 contact male connector for power input cable (J4)
75543	Connector—2 contact female connector for 45 RPM motor cable (P1)
74879	Connector—2 contact female connector for antenna leads
75537	Control—Volume control and power switch (R22, S2)
75561	Control—Tone control—L.F. (R19)
75562	Control—Tone control—H.F. (R34)
72953	Cord—Drive cord—250 ft. (approx. 66" overall length required)
75564	Coupling—Spring coupling for function switch extension shaft
75556	Cover—Insulating cover for electrolytic
74839	Fastener—Push fastener for mounting R-F shelf (4 req'd)
16058	Grommet—Rubber grommet for mounting R-F shelf (4 req'd)
75547	Grommet—Rubber grommet to mount slides to bottom—rear (2 req'd)
75548	Grommet—Rubber grommet to mount slides to bottom—front (2 req'd)
11765	Lamp—Dial lamp—Mazda 51
75544	Nut—Rivnut to fasten screw for mounting chassis (4 req'd)
18469	Plate—Bakelite mounting plate for electrolytic
75535	Plate—Dial back plate complete with three (3) pulleys
75536	Pointer—Station selector pointer
72602	Pulley—Drive cord pulley
72323	Resistor—Wire wound, 3 ohms, ½ watt (R25)
73637	Resistor—Wire wound, 2200 ohms, 5 watts (R24)
	Resistor—Fixed, composition:
	68 ohms, ±10%, ½ watt (R1, R26)
	100 ohms, ±10%, ½ watt (R15, R38, R43)
	120 ohms, ±10%, ½ watt (R27)
	270 ohms, ±5%, 2 watts (R42)
	390 ohms, ±10%, ½ watt (R9)
	680 ohms, ±10%, ½ watt (R4)
	680 ohms, ±20%, ½ watt (R30, R31)
	1000 ohms, ±10%, ½ watt (R6)
	1200 ohms, ±5%, ½ watt (R46)
	3300 ohms, ±5%, ½ watt (R40, R45)
	8200 ohms, ±10%, 1 watt (R3)
	15,000 ohms, ±10%, ½ watt (R44)
	18,000 ohms, ±10%, ½ watt (R7, R20)
	22,000 ohms, ±10%, ½ watt (R28, R29)
	27,000 ohms, ±10%, ½ watt (R18, R21)
	39,000 ohms, ±5%, ½ watt (R47)
	56,000 ohms, ±10%, ½ watt (R32)
	68,000 ohms, ±10%, ½ watt (R39)
	82,000 ohms, ±10%, ½ watt (R36)
	120,000 ohms, ±10%, ½ watt (R8, R16)
	150,000 ohms, ±10%, ½ watt (R12, R14)
	220,000 ohms, ±20%, ½ watt (R11)
	270,000 ohms, ±10%, ½ watt (R35)
	470,000 ohms, ±10%, ½ watt (R2, R37, R41, R48)
	1.5 megohm, ±10%, ½ watt (R17, R51)
	2.2 megohm, ±20%, ½ watt (R5, R10, R13)
	10 megohm, ±20%, ½ watt (R23)
	22 megohm, ±20%, ½ watt (R33)
75540	Shaft—Tuning knob shaft
75565	Shaft—Extension shaft for function switch
73584	Shield—Tube shield
75546	Slide—Slide mechanism complete for radio chassis bottom
31251	Socket—Tube socket, octal, wafer
73117	Socket—Tube socket, 7 pin, miniature

STOCK No.	DESCRIPTION
74179	Socket—Tube socket, 7 pin, miniature for V1 and V2
31364	Socket—Dial lamp socket
75563	Spring—Retaining spring for function switch extension shaft
76332	Spring—Drive cord tension spring
74847	Support—Polystyrene support for FM oscillator coil complete with mounting bracket
75568	Switch—Function switch (S1-1, S1-2, S1-3, S3)
75557	Transformer—Output transformer (T7)
73743	Transformer—Radio detector transformer (T5)
75558	Transformer—First i-f transformer (AM) complete with adjustable cores (T2)
75559	Transformer—First i-f transformer (FM) complete with adjustable cores (T1)
73037	Transformer—Second i-f transformer (AM) complete with adjustable cores (T4)
75560	Transformer—Second i-f transformer (FM) complete with adjustable cores (T3)
75566	Transformer—Power transformer 117 volts, 60 cycles (T6)
33726	Washer—"C" washer for tuning knob shaft
	RADIO ROLLOUT CARRIAGE
75573	Decal—Function decal for radio controls
75572	Dial—Polystyrene dial scale
75571	Frame—Moulded frame (maroon) for mounting radio chassis and 45 RPM changer for mahogany or walnut instruments
75551	Handle—Metal pull-out handle for mounting frame
75555	Screw—No. 8-32 x 5/8" cross recessed pan head machine screw to mount radio chassis (4 req'd)
	SPEAKER ASSEMBLY 92569-12W RMA 274 RL 111-A1
13867	Cap—Dust cap
75682	Cone—Cone and voice coil assembly (3.2 ohms)
75681	Speaker—12" P.M. speaker complete with cone and voice coil (3.2 ohms) NOTE: If stamping on speaker does not agree with above number, order replacement parts by referring to model number of instrument, number stamped on speaker and full description of part required.
	MISCELLANEOUS
75705	Antenna—Antenna loop less cable
75688	Back—Back cover for radio—45 RPM phono compartment—assembled to cabinet
75692	Back—Back cover for radio—45 RMP phono compartment—assembled to rollout
75772	Back—Back complete with terminal board, power cord and connector for television chassis compartment
75473	Board—TV antenna terminal board (2 contact) part of back
75707	Board—"A—F-M" antenna terminal board (3 contact)
75694	Bracket—Stop bracket less rubber bumper for radio—45 RPM phono rollout mechanism
71599	Bracket—Lamp bracket
75696	Bumper—Rubber bumper for radio — 45 RPM phono rollout stop bracket
72447	Cable—Shielded audio cable complete with two (2) pin plugs
74545	Cable—Shielded pickup cable complete with pin plug for 33/78 RPM phono
72437	Coble—Shielded pickup cable complete with pin plug for 45 RPM phono
13103	Cap—Pilot lamp cap
71892	Catch—Bullet catch and strike for doors
X3188	Cloth—Grille cloth
75703	Connector—5 contact male connector — part of back assembly
74882	Connector—2 contact (polarized) male connector for radio antenna loop cable
75709	Connector—8 contact female connector—part of main cable—less shell
75710	Connector—5 contact female connector—part of main cable—less shell
30868	Connector—2 contact female connector—part of main cable
30870	Connector—2 contact male connector for motor leads for 45 RPM phono
75474	Connector—Single contact male connector for television antenna or speaker cable
74752	Connector—2 contact male connector for F-M antenna leads
39153	Connector—4 contact male connector for television antenna cable
75702	Cord—Power cord and two contact female connector less 5 contact male connector
70392	Cord—Power cord and plug—part of main cable
75608	Cushion—Dust seal cushion (rubber) for kinescope mask
74273	Decal—Trade mark decal (Victrola)
71984	Decal—Trade mark decal (RCA Victor)
75640	Decal—Television controls function decal
74809	Emblem—"RCA Victor" emblem
75455	Escutcheon—Channel marker escutcheon
75619	Glass—Safety glass
74838	Grommet—Power cord strain relief (1 set)
37396	Grommet—Rubber grommet for mounting speaker (4 req'd)
75697	Grommet—Rubber grommet for mounting 45 RPM phono (3 req'd)
74308	Hinge—Cabinet door hinge (1 set) for radio-phono compartment, television compartment (L.H. door) or record storage compartments
36817	Hinge—Cabinet door hinge (1 set) for television compartment (R.H. door)
75636	Hinge—Cabinet door hinge (1 set) for speaker compartment—R.H.
75637	Hinge—Cabinet door hinge (1 set) for speaker compartment—L.H.
74959	Knob—Television fine tuning control knob—maroon (outer)
73996	Knob—Television channel selector knob—maroon (inner)
74962	Knob—Television brightness control or vertical hold control knob—maroon (outer)
74969	Knob—Television channel marker light switch knob—maroon
74963	Knob—Television picture control or horizontal hold control knob—maroon (inner)
75712	Knob—Radio tone control, tuning control or volume control and power switch knob—maroon
75714	Knob—Function switch knob—maroon
11765	Lamp—Pilot or channel indicator lamp—Mazda 51
75459	Mask—Channel indicator light mask
73634	Nut—Speed nut for speaker mounting screws
75638	Pull—Door pull for upper doors
75639	Pull—Door pull for lower doors
71456	Screw—No. 8-32 x 7/16" wing screw for deflection yoke and focus magnet mounting support
75623	Screw—No. 8-32 x 5/8" trimit head screw for door pull
74279	Screw—No. 8-32 x 7/8" trimit head screw for door pull
75704	Shell—Shell for 5 contact male connector 75703
75708	Shell—Shell for 8 contact female connector 75709
75711	Shell—Shell for 5 contact female connector 75710
74736	Slide—Slide mechanism complete for 33/78 RPM changer drawer
31364	Socket—Pilot lamp stocket
72845	Spring—Retaining spring for knob 74959
14270	Spring—Retaining spring for knobs 73996, 74962 and 74969
30330	Spring—Retaining spring for knob 74963
73643	Spring—Spring clip for channel marker escutcheon
75587	Spring—Formed spring for kinescope masking panel
74734	Spring—Retaining spring for knobs 75712 and 75714
75691	Spring—Suspension spring (coil type) for main cable
72936	Stop—Door stop
75500	Washer—Felt washer for television chassis back assembly
75146	Washer—"C" washer for 33 1/3/78 RPM changer mounting
75457	Washer—Felt washer between knob and channel marker escutcheon

To obtain resistors for which no stock number is given, order by stating type, value of resistance, tolerance and wattage.

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