



# RCA VICTOR

## TELEVISION RECEIVER MODEL 721TCS

Chassis No. KCS 26A-1 (60 cycles)

KCS 26A-2 (50 cycles)

Mfr. No. 274

## SERVICE DATA

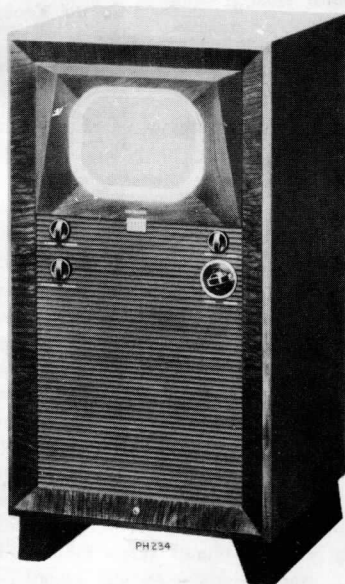
— 1947 No. T6 —

Supplement to 1947 No. T1

RADIO CORPORATION OF AMERICA

RCA VICTOR DIVISION

CAMDEN, N. J., U. S. A.



Model 721TCS  
Walnut or  
Mahogany

### GENERAL DESCRIPTION

Model 721TCS is a twenty-one tube, direct-viewing, console-model Television Receiver having a 10" picture tube (kinescope). The receiver is complete in one unit and is operated by the use of seven front-panel controls.

This publication includes all the data applicable only to the 721TCS such as the Installation Instructions, Wiring Diagram, Circuit Diagram and Replacement Parts List. For service information, refer to the Service Data for Model 721TS.

### ELECTRICAL AND MECHANICAL SPECIFICATIONS

PICTURE SIZE ..... 6 $\frac{3}{8}$ " x 8 $\frac{1}{2}$ "

#### RADIO FREQUENCY RANGES

Channel Number	Channel Freq. Mc	Picture Carrier Freq. Mc	Sound Carrier Freq. Mc	Receiver R-F Osc. Freq. Mc
1	44-50	45.25	49.75	71
2	54-60	55.25	59.75	81
3	60-66	61.25	65.75	87
4	66-72	67.25	71.75	93
5	76-82	77.25	81.75	103
6	82-88	83.25	87.75	109
7	174-180	175.25	179.75	201
8	180-186	181.25	185.75	207
9	186-192	187.25	191.75	213
10	192-198	193.25	197.75	219
11	198-204	199.25	203.75	225
12	204-210	205.25	209.75	231
13	210-216	211.25	215.75	237

#### FINE TUNING RANGE

Plus and minus approximately 800 kc on channel 1, and plus and minus approximately 1.9 mc on channel 13.

#### POWER-SUPPLY RATING

KCS 26A-1 ..... 115 volts, 60 cycles, 220 watts

KCS 26A-2 ..... 115 volts, 50 cycles, 220 watts

#### AUDIO POWER-OUTPUT RATING

Undistorted.....2 watts

Maximum.....3 watts

#### LOUDSPEAKER (92567-3)

Type ..... 12 inch Electro Magnet Dynamic

Voice-Coil Impedance ..... 2.2 ohms at 400 cycles

#### WEIGHT

Chassis with Tubes in Cabinet (less kinescope) ..... 101 lbs.

Shipping Weight (less kinescope) ..... 117 lbs.

#### RECEIVER ANTENNA

INPUT IMPEDANCE.....300 ohms balanced

#### DIMENSIONS (inches)

	Length	Height	Depth
Cabinet (Outside) .....	20	40 $\frac{1}{2}$	17 $\frac{1}{2}$
Chassis Base (Outside).....	15 $\frac{3}{8}$	4 $\frac{3}{8}$	14 $\frac{3}{4}$
Chassis Overall .....	15 $\frac{5}{8}$	14 $\frac{1}{2}$	16 $\frac{1}{4}$

#### RCA TUBE COMPLEMENT

Tube Used	Function
(1) RCA 6J6.....	R-F Amplifier
(2) RCA 6J6.....	R-F Oscillator
(3) RCA 6J6 .....	Converter
(4) RCA 6BA6.....	1st Sound I-F Amplifier
(5) RCA 6AU6.....	2nd Sound I-F Amplifier
(6) RCA 6AL5.....	Sound Discriminator
(7) RCA 6AT6.....	1st Audio Amplifier and Bias Clamp
(8) RCA 6K6-GT.....	Audio Output
(9) RCA 6AG5.....	1st Picture I-F Amplifier
(10) RCA 6AG5.....	2nd Picture I-F Amplifier
(11) RCA 6AG5.....	3rd Picture I-F Amplifier
(12) RCA 6AL5.....	Picture 2nd Detector and Sync Limiter
(13) RCA 12AU7.....	1st and 2nd Video Amplifier
(14) RCA 6SN7-GT.....	Sync Amplifier and Sync Separator
(15) RCA 6SN7-GT.....	Vertical Sweep Oscillator, Discharge and Vertical Sweep Output
(16) RCA 6SN7-GT .....	Horizontal Sweep Oscillator and Control
(17) RCA 6BG6-G.....	Horizontal Sweep Output
(18) RCA 5V4-G.....	Damper
(19) RCA 1B3-GT/8016.....	High Voltage Rectifier
(20) RCA 5U4-G.....	Power Supply Rectifier
(21) RCA 10BP4.....	Kinescope

Specifications continued on page 2

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## PICTURE INTERMEDIATE FREQUENCIES

Picture Carrier Frequency.....25.75 Mc  
 Accompanying Sound Traps.....21.25 Mc

## SOUND INTERMEDIATE FREQUENCIES

Sound Carrier Frequency.....21.25 Mc  
 Sound Discriminator Band Width (between peaks).....350 Kc

VIDEO RESPONSE.....To 3 Mc

FOCUS.....Magnetic

SWEEP DEFLECTION.....Magnetic

SCANNING.....Interlaced, 525 line

HORIZONTAL SCANNING FREQUENCY.....15,750 cps

VERTICAL SCANNING FREQUENCY.....60 cps

FRAME FREQUENCY (Picture Repetition Rate).....30 cps

## OPERATING CONTROLS (front panel)

Station Selector } .....Dual Control Knobs  
 Fine Tuning }  
 Sound Volume and On-Off Switch.....Single Control Knob

Horizontal (Picture Horizontal Hold) } .....Dual Control Knobs  
 Vertical (Picture Vertical Hold) }  
 Picture (Contrast) } .....Dual Control Knobs  
 Brightness (Brilliance) }

## NON-OPERATING CONTROLS (not including r-f and i-f adjustments)

Horizontal Centering.....rear chassis adjustment  
 Vertical Centering.....rear chassis adjustment  
 Width.....rear chassis screwdriver adjustment  
 Height.....rear chassis adjustment  
 Horizontal Linearity.....top chassis screwdriver adjustment  
 Vertical Linearity.....rear chassis adjustment  
 Horizontal Drive.....rear chassis screwdriver adjustment  
 Horizontal Oscillator Frequency (Fine) .....rear chassis screwdriver adjustment  
 Horizontal Oscillator Frequency (coarse) .....bottom chassis screwdriver adjustment  
 Horizontal Locking Range.....rear chassis screwdriver adjustment  
 Focus.....rear chassis adjustment  
 Focus Coil.....top chassis wing screw adjustment  
 Ion Trap Magnet.....top chassis thumb screw adjustment  
 Deflection Coil.....top chassis wing nut adjustment

## 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.

## KINESCOPE HANDLING PRECAUTIONS

DO NOT OPEN THE KINESCOPE SHIPPING CARTON, 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 KINESCOPES. KEEP THE KINESCOPE AWAY FROM THE BODY WHILE HANDLING.

The kinescope bulb encloses a high vacuum and, due to its large surface area, is subjected to considerable air pressure. For these reasons, kinescopes must be handled with more care than ordinary receiving tubes.

The large end of the kinescope bulb—particularly the rim of the viewing surface—must not be struck, scratched, or subjected to more than moderate pressure at any time. In installation, if the tube sticks or fails to slip smoothly through the deflecting yoke, investigate and remove the cause of the trouble. Do not force the tube. Refer to the Receiver Installation section for detailed instructions on kinescope installation. All RCA kinescopes are shipped in special cartons and should be left in the cartons until ready for installation in the receiver. Keep the carton for possible future use.

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

1. Turn the receiver "ON" and advance the SOUND volume control to approximately mid-position.
2. Set the STATION SELECTOR to the desired channel.
3. Turn the PICTURE control fully counterclockwise.
4. Turn the BRIGHTNESS control fully counterclockwise, then clockwise until a faint glow just appears on the screen.
5. Turn the PICTURE control approximately three-fourths clockwise.
6. Adjust the FINE TUNING control for best sound fidelity and the SOUND control for suitable volume.
7. Adjust the VERTICAL hold control until the pattern stops vertical movement.
8. Adjust the HORIZONTAL hold control until the picture appears on the screen.
9. Adjust the PICTURE control for suitable picture contrast.
10. After the receiver has been on for some time, it may be necessary to readjust the FINE TUNING control slightly for improved sound fidelity.
11. In switching from one station to another, it may be necessary to repeat steps number 6 and 9.
12. 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 number 6 is generally sufficient.
13. If the positions of the controls have been changed, it may be necessary to repeat steps number 1 through 9.

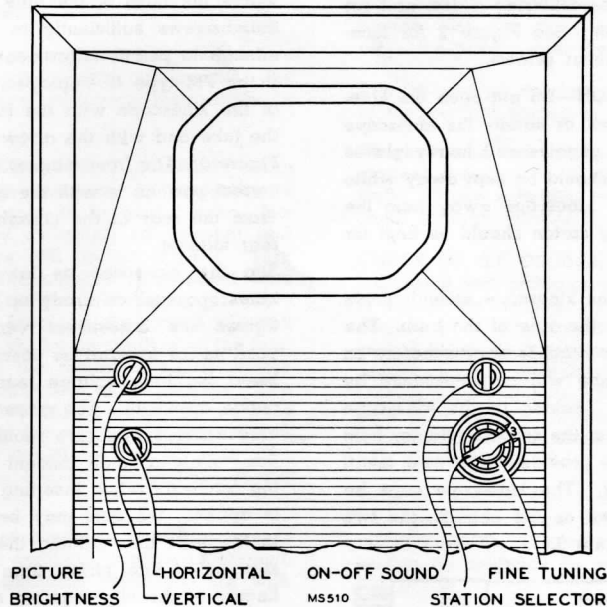


Figure 1—Receiver Operating Controls

## INSTALLATION INSTRUCTIONS

The Model 721TCS television receiver is shipped complete in one carton except for the 10BP4 kinescope. The kinescope is shipped in a special carton and should not be unpacked until ready for installation.

**UNPACKING**—To unpack the receiver, turn the shipping carton on its side and tear open the carton bottom flaps. Fold the flaps up along the side of the carton and turn the carton back up. Lift the carton up and off of the cabinet.

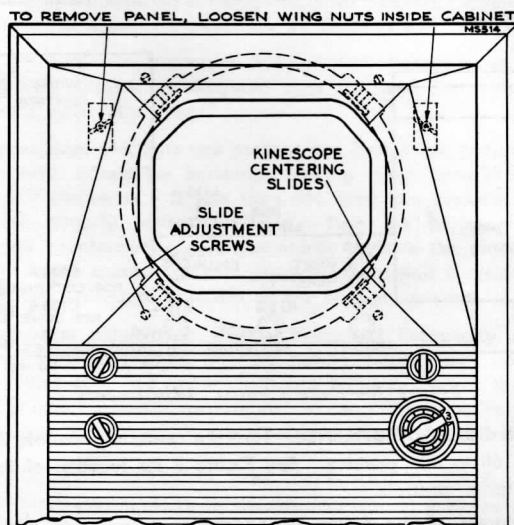


Figure 2—Cabinet, Front View

Take the metal grill off the back of the cabinet. Remove the front panel from the cabinet as indicated in Figure 2.

The operating control knobs are packed in a paper bag which is tied to the focus coil mounting bracket inside the cabinet. Remove the bag.

Remove the protective cardboard shield from the 5U4G rectifier. Make sure all tubes are in place and are firmly seated in their sockets.

Loosen the two kinescope cushion adjustment wing screws and slide the cushion toward the rear of the chassis. Loosen the deflection yoke adjustment, slide the yoke toward the rear of the chassis and tighten. See Figure 3 for the location of the cushion and yoke adjustments.

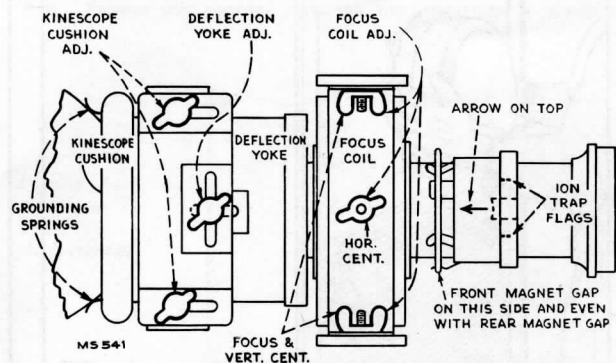


Figure 3—Yoke and Focus Coil Adjustments



From the front of the cabinet, look through the deflection yoke and check the alignment of the focus coil with the yoke. If the focus coil is not in line, loosen the three focus coil adjustment wingnuts and raise, lower, or rotate the coil until alignment is obtained. Tighten the wingnuts with the coil in this position.

Loosen the two lower kinescope face centering slides, and set them at approximately mid position. See Figure 2 for location of the slides and their adjustment screws.

**KINESCOPE HANDLING PRECAUTION**—Do not open the kinescope shipping carton, 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. The shipping carton should be kept for use in case of future moves.

**INSTALLATION OF KINESCOPE**—The kinescope second anode contact is a recessed metal well in the side of the bulb. The tube must be installed so that this contact is approximately on top. The final orientation of the tube will be determined by the position of the ion trap flags. Looking at the kinescope gun structure, it will be observed that the second cylinder from the base inside the glass neck is provided with two small metal flags, as shown in Figure 4. The kinescope must be installed so that when looking down on the chassis, the two flags will be seen as shown in Figure 3.

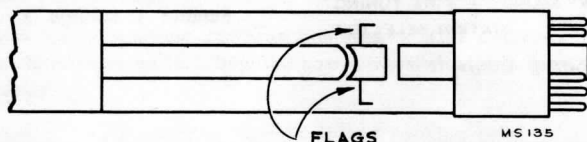


Figure 4—Ion Trap Flags

Insert the neck of the kinescope through the deflection and focus coils as shown in Figure 5 until the base of the tube protrudes approximately two inches beyond the focus coil.

If the tube sticks, or fails to slip into place smoothly, investigate and remove the cause of the trouble. Do not force the tube.

Adjust the four centering slides until the face of the kinescope is in the center of the cabinet opening. Tighten the four slides securely.

Wipe the kinescope screen surface and front panel safety glass clean of all dust and finger marks with a soft cloth moistened with the Drackett Co.'s "Windex" or similar cleaning agent.

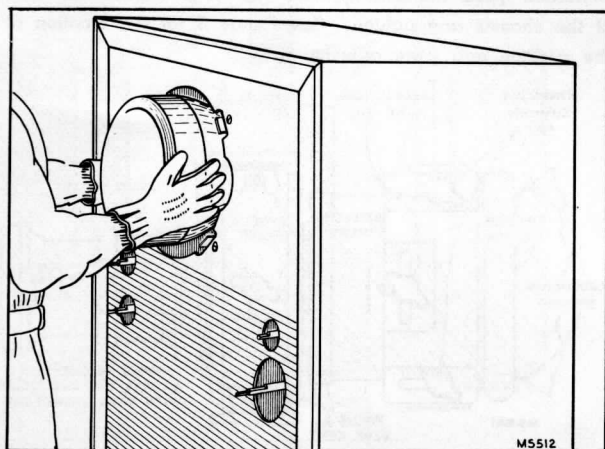


Figure 5—Kinescope Insertion

Replace the cabinet front panel.

Early production receivers employed an EM type ion trap magnet like that in the model 630TS receiver. Late production receivers employed a PM type magnet as shown in Figure 3.

If an EM type is employed, slip the assembly over the neck of the kinescope with the coils down and the large coil towards the base of the tube. Tighten the magnet adjustment thumbscrews sufficiently to hold it in position but still free enough to permit adjustment.

If the PM type is employed, slip the assembly over the neck of the kinescope with the large magnet towards the base of the tube and with the arrow on the assembly up as shown in Figure 3. The front magnet is movable on the assembly. The correct position is with the gap of the front magnet to the left (from the rear of the chassis) and even with the gap of the rear magnet.

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.

Insert the high voltage lead clip into the kinescope second anode connector. The glass to metal seal of this connector is very delicate and care should be used in making the connection. Only a small amount of pressure should be applied to the connector when inserting the clip. If appreciable pressure is applied, the seal may be fractured, permitting air to leak in the tube thus ruining the kinescope. If the clip does not slip easily into place, take a pair of pliers and bend the fingers of the clip together slightly in order to facilitate connection.

The antenna and power connections should now be made. Turn the power switch to the "on" position, the brightness control fully clockwise, and picture control counter-clockwise.

**ION TRAP MAGNET ADJUSTMENT**—The ion trap rear magnet poles should be placed over the ion trap flags as shown in Figure 3. Starting from this position 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. Adjust the focus control (R129 on the chassis rear apron) until the line structure of the raster is clearly visible. Readjust the ion trap magnet for maximum raster brilliance. The final touches on this adjustment should be made with the brightness control at the maximum position with which good line focus can be maintained.

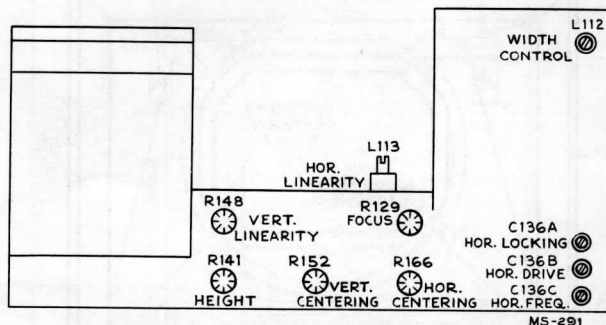


Figure 6—Rear Chassis Adjustments

**FOCUS COIL ADJUSTMENTS**—Turn the centering controls R152 and R166 to mid position. See Figure 6 for location of these rear apron controls.

If a corner of the raster is shadowed, it indicates that the electron beam is striking the neck of the tube. Loosen the focus coil adjustment wing nuts and rotate the coil about its

vertical and horizontal axes until the entire raster is visible, approximately centered and with no shadowed corners. Tighten the focus coil adjustment wing nuts with the coil in this position.

**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. See steps 2 through 9, of the receiver operating instructions on page 3.

**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 and then back. Normally the picture will be out of sync. Turn the control clockwise slowly. The number of diagonal bars will be gradually reduced and when only  $3\frac{1}{2}$  to  $4\frac{1}{2}$  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 degrees from the extreme counterclockwise 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 from  $3\frac{1}{2}$  to  $4\frac{1}{2}$  bars sloping downward to the right.

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" adjustment.

**ALIGNMENT OF HORIZONTAL OSCILLATOR**—If in the above check the receiver failed to hold sync with the hold control at the extreme counterclockwise position or failed to hold sync for at least 60 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 rear apron horizontal frequency trimmer C136C until the picture is out of sync and shows  $3\frac{1}{2}$  to  $4\frac{1}{2}$  bars sloping downward to the right. If the trimmer has insufficient range, set the trimmer to mid-position (1 turn out from max. capacity and adjust the L121 horizontal frequency adjustment until this condition is obtained. See figure 13 for the location of L121.

**Horizontal Locking Range Adjustment**—Set the horizontal hold control to the full counter-clockwise position. Momentarily remove the signal by switching off channel and then back.

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  $4\frac{1}{2}$  bars are present just before the picture pulls into sync, adjust the horizontal locking range trimmer C136A slightly clockwise. If less than  $3\frac{1}{2}$  bars are present, adjust C136A slightly counterclockwise. Turn the horizontal hold control counterclockwise, momentarily remove the signal and recheck the number of bars present at the pull in point. Repeat this procedure until  $3\frac{1}{2}$  to  $4\frac{1}{2}$  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.

**HEIGHT AND VERTICAL LINEARITY ADJUSTMENTS**—Adjust the height control (R141 on chassis rear apron) until the picture fills the mask vertically (6 $\frac{3}{8}$  inches). Adjust vertical linearity (R148 on rear apron), until the test pattern is symmetrical from top to bottom. Adjustment of either control will require a read-

justment of the other. Adjust vertical centering to align the picture with the mask.

**WIDTH, DRIVE AND HORIZONTAL LINEARITY ADJUSTMENTS**—Turn the width control L112 to the maximum clockwise position. Vary the horizontal drive trimmer C136B to yield the best compromise between brightness and linearity. Adjust the horizontal linearity control L113 for best linearity of the right half of the picture. Readjust the width control until the picture just fills the mask. Adjust horizontal centering to align the picture with the mask.

**FOCUS**—Adjust the focus control R129 for maximum definition of the vertical wedge of the test pattern.

Check to see that all cushion, yoke, focus coil and ion trap magnet thumb screws are tight. Replace the cabinet back grille. Make sure that the back is on tight, otherwise it may rattle at high volume.

**CHECK OF R-F OSCILLATOR ADJUSTMENTS**—With a crystal calibrated test oscillator or heterodyne frequency meter, check 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 on page 10 of the Service Data for Model 721TS. The adjustments for channels 1 through 5 and 7 through 12 are available from the front of the cabinet by removing the station selector escutcheon as shown in Figure 8. Adjustments for channels 6 and 13 are under the chassis.

Tune in all available Television Stations. Observe the picture for detail, for proper interlacing and for the presence of interference or reflections. If these are encountered, see the section on antennas on page 6 of the Service Data for Model 721TS.

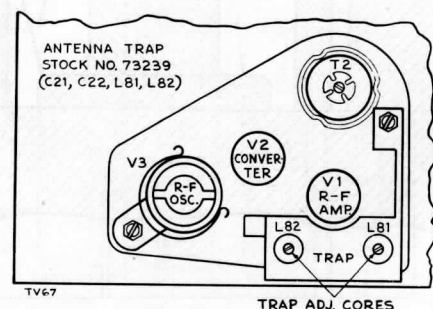
**VIDEO PEAKING LINK**—A video peaking link is provided to permit changing the video response. This link is connected at the factory with the peaking in. However, if transients are produced on high contrast pictures the peaking should be taken out by removing the link on the terminal board under the chassis near the V104 socket. See Figures 13 and 14 for the connection and location of the link.

**ANTENNA TRAP**—In some instances interference may be encountered from FM stations that are on the image frequency of channel 2. In other instances, interference may be observed on channel 6 from a station on channel 10 or on channel 5 from a station on channel 7.

In some sets a series resonant trap across the r-f amplifier grid circuit is provided to eliminate this type of interference. In production, this trap is adjusted to reject the channel 6-10 interference. However, in the field, it may be necessary to retouch the adjustments or to readjust the trap for channel 5-7 or FM image interference.

To adjust the trap in the field, tune in the station on which the interference is observed. Tune both cores of the trap for minimum interference in the picture. See Figure 7 for the location of the trap. Keep both cores approximately the same by visual inspection. Then, turn one core  $\frac{1}{2}$  turn from the original position and repeat the second for maximum rejection. Repeat this process until the best rejection is obtained.

Figure 7—  
Antenna  
Trap  
Adjustments



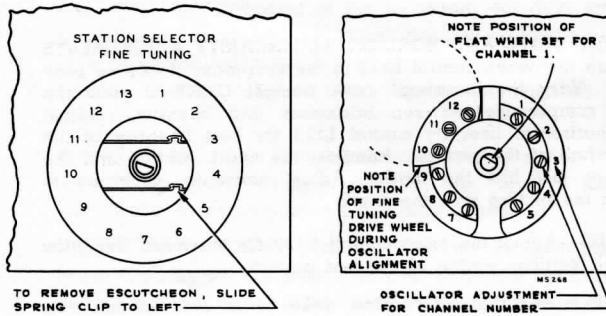


Figure 8—R-F Oscillator Adjustments

**VIDEO PEAKING**—Optional video peaking is provided by the video peaking link. Normally the link is wired in place. However, if transients are produced on high contrast pictures, the link should be opened. See figure 13 for location of the link.

#### CRITICAL LEAD DRESS

1. Do not permit any strains to be placed on the leads of R126, R157, R158, R164, R165, R173, R188 and R191. Do not permit these resistors to be exposed to the heat of a soldering iron any more than is absolutely necessary.
2. Dress the temperature compensating resistor R191 approximately one-quarter inch from the power transformer and the chassis.
3. Dress all video coupling capacitors and peaking coils up and away from the chassis.
4. Contact between the r-f oscillator frequency adjustment screws and the oscillator coils or channel switch eyelets must be avoided.
5. Dress T105 winding leads as shown in Figure 9.

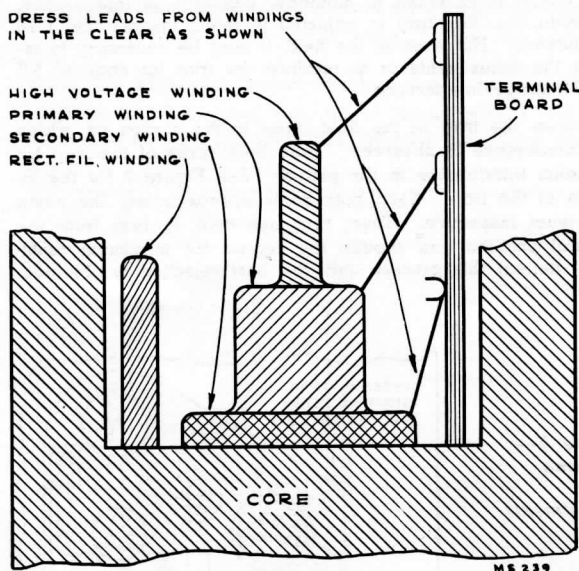


Figure 9—T105 Lead Dress

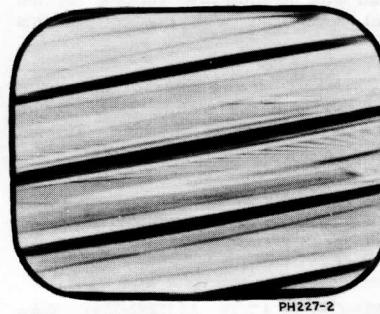


Figure 10—Test Pattern Showing Out of Sync Condition When Horizontal Hold Control Is in a Counterclockwise Position—Just Before Pulling Into Sync.

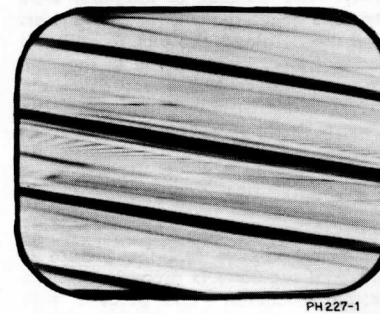


Figure 11—Test Pattern Showing Out of Sync Condition When Horizontal Hold Control Is at the Maximum Clockwise Position.

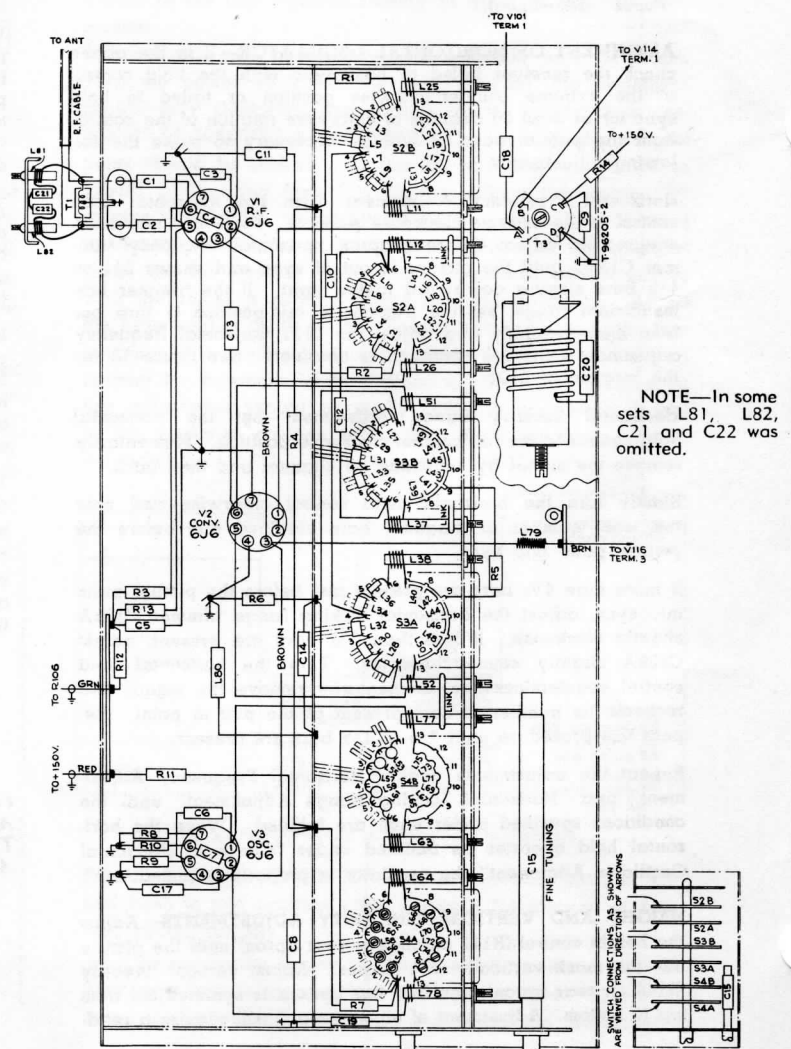
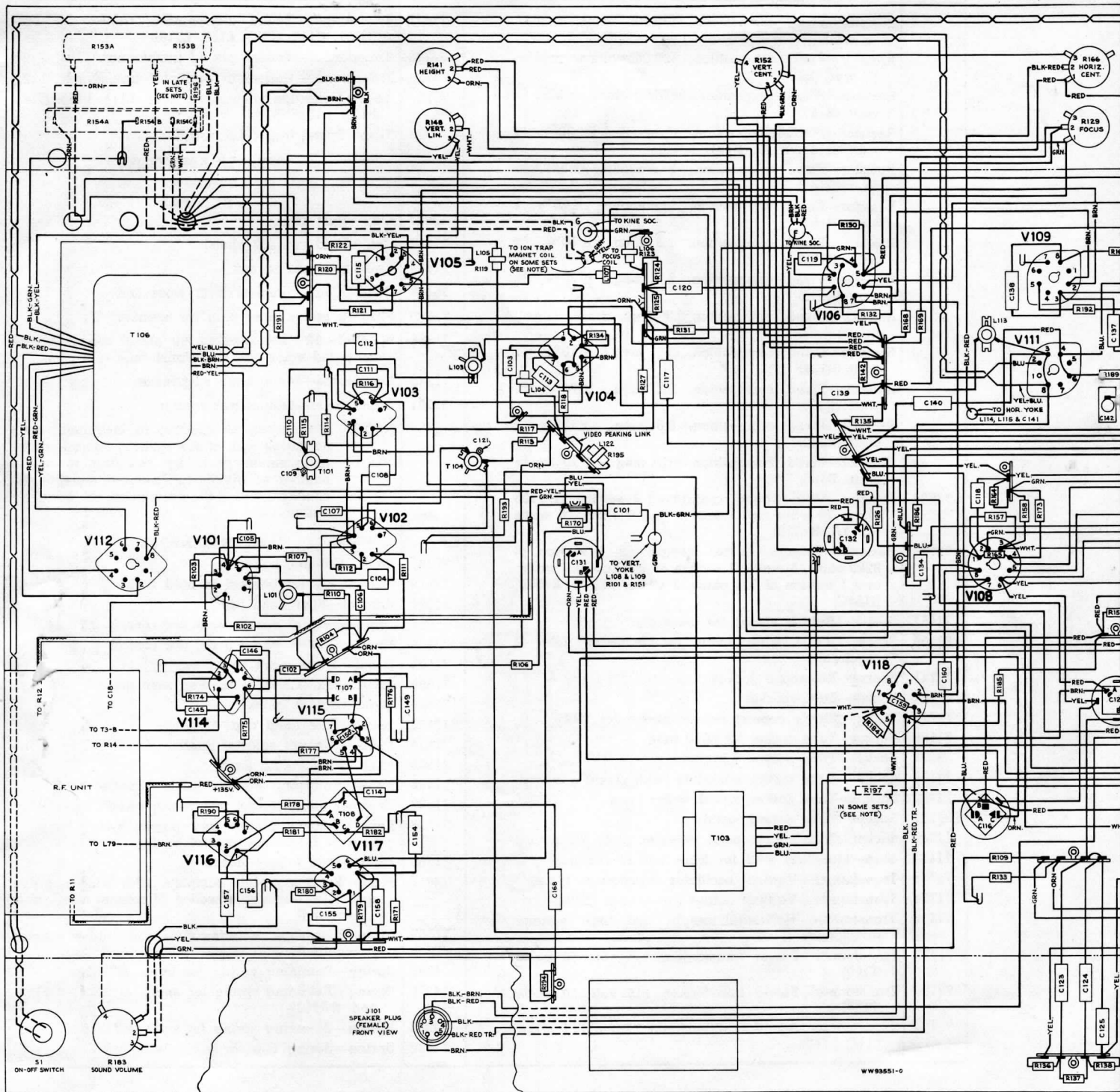


Figure 12—R-F Unit Wiring Diagram



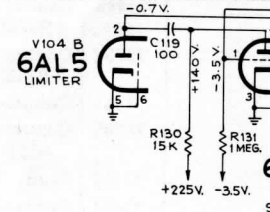
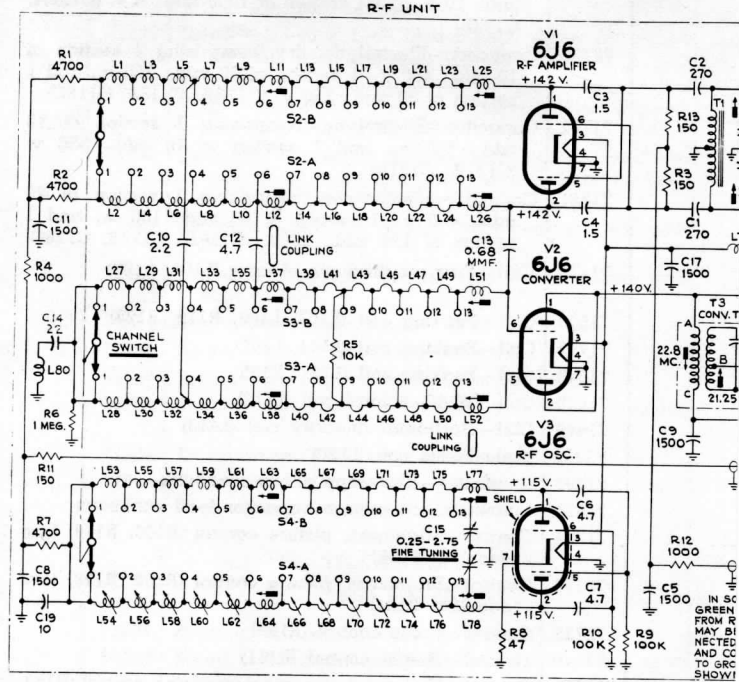
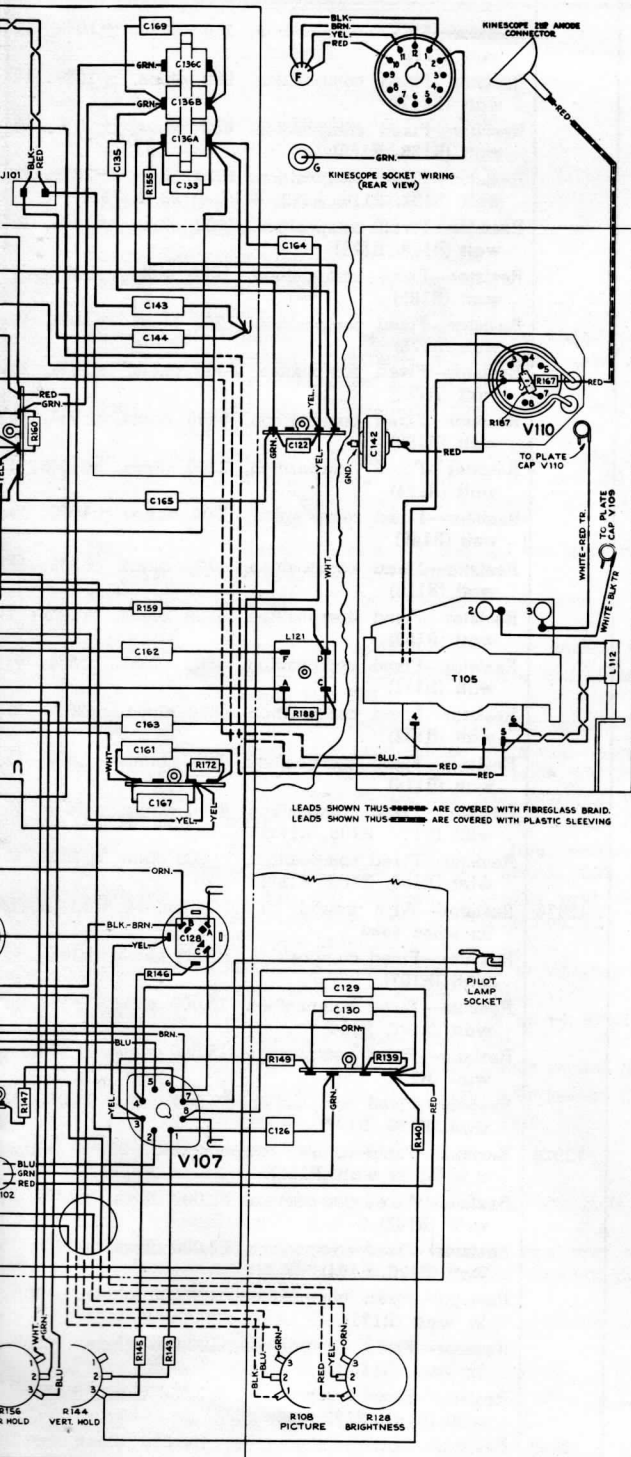
# CHASSIS WIRING DIAGRAM



R197 was employed only in receivers with the 247-ohm focus coil. See Figure 14.

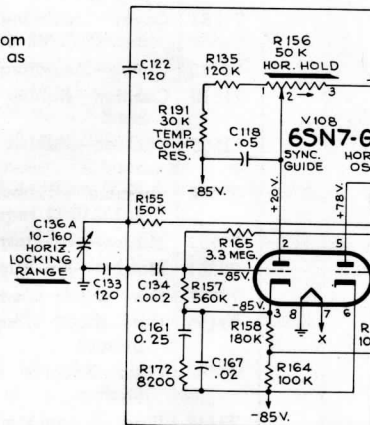
In early production receivers, an EM type of ion trap magnet was employed and was connected as shown by the dotted lines.

Figure 13—Chassis Wiring Diagram



#### Note

In some receivers the green lead from the r-f unit is disconnected to ground as shown by the dotted line.



All resistance values in ohms. K = 1000.

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

Direction of arrows at controls indicates clockwise rotation.

All voltages measured with "VoltOhmyst" and with picture control counterclockwise. Voltages should hold within  $\pm 20\%$  with 117 v. a-c supply.

Coil resistance values less than 1 ohm are not shown.

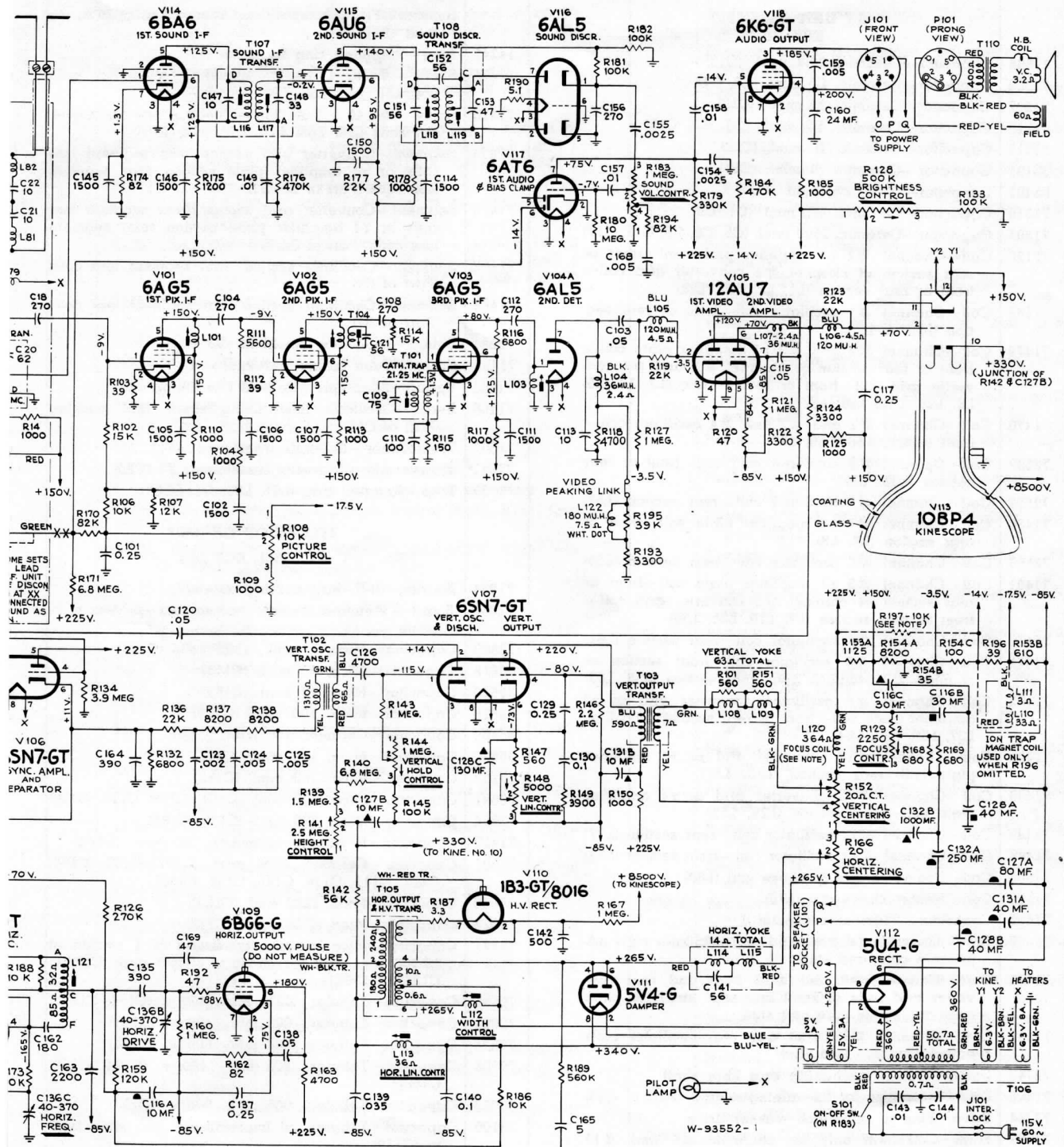
In some receivers, caused changes in c codes, in electrolytic their lug identifier

Optional video pea the video peaking link is connected in place. sients are produced ures, the link should ure 13 for location of

In early production type of ion trap magni was connected as sh lines.

R196 was omitted in receivers employ- ing an EM type magnet.





substitutions have component lead color capacitor values and markings.

king is provided by . Normally the link However, if tran high contrast pic-be opened. See fig-the link.

n receivers an EM et was employed and own by the dotted

R196 was omitted in receivers employing an EM type magnet.

In some receivers, R-149 was 3300 ohms.

In early production receivers the resistance of the focus coil was 247 ohms.

R197 was employed only in receivers with the 247-ohm focus coil.

In some receivers, the trap winding of T104 was omitted and the primary coil was designated as L102.

Figure 14—Circuit Schematic Diagram

STOCK No.	DESCRIPTION	STOCK No.	DESCRIPTION
	<b>R-F UNIT ASSEMBLY KRK 2B-1</b>		Resistor—Fixed composition, 1 megohm, $\pm 20\%$ , $\frac{1}{2}$ watt (R6)
71504	Capacitor—Ceramic, 0.68 mmf. (C13)	14343	Ring—Retaining ring for drive
71500	Capacitor—Ceramic, 1.5 mmf. (C3, C4)	71475	Screw—#4-40 x 15/32" adjusting screw for coils L54, L56, L58, L60, L62
71502	Capacitor—Ceramic, 2.2 mmf. (C10)	71476	Screw—#4-40 x 1/4" binder head screw for adjusting coils L66, L68, L70, L72, L74, L76
71520	Capacitor—Ceramic, 4.7 mmf. (C6, C7, C12)	71474	Segment—Converter grid section rear segment less coils or r-f amplifier plate section rear segment less coils (Part of S2, S3)
53511	Capacitor—Ceramic, 10 mmf. (C19)	71473	Segment—Converter grid section front segment less coils or r-f amplifier plate section front segment less coils (Part of S2, S3)
33101	Capacitor—Ceramic, 22 mmf. (C14)	71467	Segment—Oscillator section front segment less coils (Part of S4)
65401	Capacitor—Mica, 270 mmf. (C18)	71468	Segment—Oscillator section rear segment less coils (Part of S4)
71540	Capacitor—Ceramic, 270 mmf. (C1, C2)	72951	Shield—Lead tube shield for V3
71501	Capacitor—Ceramic, 1500 mmf. (C5, C8, C9, C11, C17)	71494	Socket—Tube socket—miniature
72122	Coil—Channel #1 r-f amplifier plate coil—front or rear section of channel #1 converter grid coil—front or rear section (L1, L2, L27, L28)	71461	Spring—Snap spring to hold fine tuning disc
71469	Coil—Channel #1 oscillator coil—front or rear section (L53, L54)	71466	Stator—Oscillator fine tuning stator and bushing (Part of C15)
71479	Coil—Channel #2 and #3 r-f amplifier plate coil—front or rear section or channel #2 and #4 converter grid coil—front or rear section (L3, L4, L5, L6, L29, L30, L33, L34)	71507	Transformer—Antenna transformer (T1)
71470	Coil—Channel #2 and #3 and #4 oscillator coil—front section L56, L58, L60)	72811	Transformer—Converter transformer T3 (C20)
72597	Coil—Channel #3 converter grid coil—front or rear section (L31, L32)	73239	Trap—Antenna trap (L81, L82, C21, C22)
72552	Coil—Channel #3 oscillator coil—rear section (L57)		<b>TELEVISION CHASSIS KCS 26-1, KCS 26-2</b>
71480	Coil—Channel #4 r-f amplifier plate coil—front or rear section (L7, L8)	71894	Bearing—R-F shaft bearing assembly
72553	Coil—Channel #4 oscillator coil—rear section (L59)	72857	Board—"Antenna" board—two contact—solders to r-f cable
71481	Coil—Channel #5 r-f amplifier plate coil—front or rear section or channel #5 converter grid coil—front or rear section (L9, L10, L35, L36)	72809	Capacitor—Mica, 5 mmf., 1500 volts (C165)
71472	Coil—Channel #5 oscillator coil—rear section (L61)	72615	Capacitor—Mica, 10 mmf. (C113)
71471	Coil—Channel #5 oscillator coil—front section or channel #2 oscillator coil—rear section (L55, L62)	39620	Capacitor—Mica, 47 mmf. (C169)
71492	Coil—Channel #6 oscillator, converter grid or r-f amplifier plate coil—front or rear section (L11, L12, L37, L38, L63, L64)	39628	Capacitor—Mica, 100 mmf. (C119)
71491	Coil—Channel #13 converter grid or r-f amplifier plate coil—rear section (L25, L51)	45469	Capacitor—Ceramic, 100 mmf. (C110)
71490	Coil—Channel #13 converter grid or r-f amplifier plate coil—front section (L26, L52)	39630	Capacitor—Mica, 120 mmf. (C122, C133)
71489	Coil—Channel #13 oscillator coil—rear section (L77)	73102	Capacitor—Mica, 180 mmf. (C162)
71488	Coil—Channel #13 oscillator coil—front section (L78)	73091	Capacitor—Mica, 270 mmf. (C104, C108, C112, C156)
71506	Coil—Converter grid i-f choke coil (L80)	73094	Capacitor—Mica, 390 mmf. (C135, C164)
71505	Coil—Heater choke coil (L79)	71450	Capacitor—Hi-voltage capacitor, 500 mmf. (C142)
71493	Connector—Segment connector	71501	Capacitor—Ceramic, 1500 mmf. (C102, C105, C106, C107, C111, C114, C145, C146, C150)
71497	Core—Channel #6 front and rear oscillator coils adjustable core and stud	39660	Capacitor—Mica, 2200 mmf. (C163)
71498	Core—Channel #6 and #13 front and rear converter grid coils or front and rear amplifier plate coils adjustable core and stud	72524	Capacitor—Mica, 4700 mmf. (C126)
71597	Core—Channel #13 front and rear oscillator coils adjustable core and stud	72771	Capacitor—Mica trimmer, consisting of 1 section of 10-160 mmf. and 2 sections of 40-370 mmf. (C136A, C136B, C136C)
72743	Detent—Detent mechanism and fibre shaft	70602	Capacitor—Tubular, .0025 mfd., 400 v. (C154, C155)
71465	Disc—Rotor disc for fine tuning control (Part of C15)	70601	Capacitor—Tubular, .002 mfd., 400 v. (C123)
72744	Drive—Fine tuning pinch washer drive	70622	Capacitor—Tubular, .002 mfd., 600 v. (C134)
71487	Form—Coil form only for channels #6 and #13 coils—less winding	70606	Capacitor—Tubular, .005 mfd., 400 v. (C124, C125, C168)
71462	Loop—Oscillator to converter grid coupling loop	70627	Capacitor—Tubular, .005 mfd., 600 v. (C159)
	Resistor—Fixed composition, 47 ohms, $\pm 20\%$ , $\frac{1}{2}$ watt (R8)	73100	Capacitor—Tubular, oil impregnated, .035 mfd., 1000 v. (C139)
	Resistor—Fixed composition, 150 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R3, R11, R13)	70610	Capacitor—Tubular, .01 mfd., 400 v. (C149, C157, C158)
	Resistor—Fixed composition, 1000 ohms, $\pm 20\%$ , $\frac{1}{2}$ watt (R4, R12, R14)	71770	Capacitor—Molded paper, .01 mfd., 400 v. (C143, C144)
	Resistor—Fixed composition, 4700 ohms, $\pm 20\%$ , $\frac{1}{2}$ watt (R1, R2, R7)	70611	Capacitor—Tubular, .02 mfd., 400 v. (C167)
	Resistor—Fixed composition, 10,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R5)	70615	Capacitor—Tubular, .05 mfd., 400 v. (C103, C115, C118, C120)
	Resistor—Fixed composition, 100,000 ohms, $\pm 20\%$ , $\frac{1}{2}$ watt (R9, R10)	70636	Capacitor—Tubular, .05 mfd., 600 v. (C138)
		73101	Capacitor—Tubular, oil impregnated, 0.1 mfd., 1000 v. (C130, C140)
		70618	Capacitor—Tubular, 0.25 mfd., 400 v. (C101, C117, C129, C137, C161)
		72740	Capacitor—Electrolytic, dry, 24 mfd., 300 v. (C160)

STOCK No.	DESCRIPTION	STOCK No.	DESCRIPTION
71780	Capacitor—Electrolytic, comprising 1 section of 80 mfd., 450 v. and 1 section of 10 mfd., 450 v. (C127A, C127B)		Resistor—Fixed composition, 150 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R115)
71436	Capacitor—Electrolytic, comprising 1 section of 250 mfd., 10 v. and 1 section of 1000 mfd., 6 v. (C132A, C132B)		Resistor—Fixed composition, 560 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R147)
72736	Capacitor—Electrolytic, dry, comprising 1 section of 10 mfd., 400 v., 1 section of 30 mfd., 350 v., and 1 section of 30 mfd., 250 v. (C116A, C116B, C116C)		Resistor—Fixed composition, 680 ohms, $\pm 20\%$ , $\frac{1}{2}$ watt (R168, R169)
71782	Capacitor—Electrolytic, comprising 1 section of 40 mfd., 450 v., and 1 section of 10 mfd., 350 v. (C131A, C131B)		Resistor—Fixed composition, 1000 ohms, $\pm 20\%$ , $\frac{1}{2}$ watt (R104, R110, R113, R117, R150, R178)
71781	Capacitor—Electrolytic, comprising 1 section of 40 mfd., 450 v., 1 section of 40 mfd., 150 v., and 1 section of 130 mfd., 50 v. (C128A, C128B, C128C)		Resistor—Fixed composition, 1000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R109, R125)
71426	Coil—First, or third pix i-f coils (L101, L103)		Resistor—Fixed composition, 1000 ohms, $\pm 20\%$ , 1 watt (R185)
71529	Coil—Peaking coil (L105, L106, R119, R123)		Resistor—Fixed composition, 1200 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R175)
71793	Coil—Peaking coil (L104, L107)		Resistor—Fixed composition, 3300 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R122)
71528	Coil—Peaking coil (L122, R195)		Resistor—Fixed composition, 3300 ohms, $\pm 5\%$ , $\frac{1}{2}$ watt (R193)
71429	Coil—Width control coil (L112)		Resistor—Fixed composition, 3300 ohms, $\pm 10\%$ , 1 watt (R124)
71449	Coil—Horizontal linearity coil (L113)		Resistor—Fixed composition, 3900 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R149)
73233	Coil—Focus coil (L120)		Resistor—Fixed composition, 4700 ohms, $\pm 5\%$ , $\frac{1}{2}$ watt (R118)
71789	Connector—Kinescope anode connector		Resistor—Fixed composition, 4700 ohms, $\pm 10\%$ , 1 watt (R163)
71521	Connector—Hi-voltage capacitor lead connector		Resistor—Fixed composition, 5600 ohms, $\pm 5\%$ , $\frac{1}{2}$ watt (R111)
71784	Control—Brightness, picture control (R108, R128) (use decal #72805)		Resistor—Fixed composition, 6800 ohms, $\pm 20\%$ , $\frac{1}{2}$ watt (R132)
73193	Control—Brightness, picture control (R108, R128) (use decal #73194)		Resistor—Fixed composition, 6800 ohms, $\pm 5\%$ , $\frac{1}{2}$ watt (R116)
72735	Control—Focus control (R129)		Resistor—Fixed composition, 8200 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R137, R138, R172)
71440	Control—Height control (R141)		Resistor—Fixed composition, 10,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R106, R186, R188)
71443	Control—Horizontal or vertical centering control (R152, R166)		12876 Resistor—Wire wound, 10,000 ohms, 10 watt (R197) (in some sets)
72734	Control—Vertical and horizontal hold control (R144, R156)		Resistor—Fixed composition, 12,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R107)
71441	Control—Vertical linearity control (R148)		Resistor—Fixed composition, 15,000 ohms, $\pm 5\%$ , $\frac{1}{2}$ watt (R102, R114)
71785	Control—Volume control and power switch (R183, S101)		Resistor—Fixed composition, 15,000 ohms, $\pm 20\%$ , 1 watt (R130)
71457	Cord—Power cord complete with connector		Resistor—Fixed composition, 22,000 ohms, $\pm 20\%$ , $\frac{1}{2}$ watt (R136, R177)
71437	Cover—Insulating cover for electrolytics RCA #71780 and #71781		72928 Resistor—Temperature compensating, 30,000 ohms, $\pm 20\%$ , $\frac{1}{4}$ watt (R191)
71783	Cover—Insulating cover for electrolytics RCA #71436 and #71782		Resistor—Fixed composition, 56,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R142)
72772	Cover—Insulating cover for electrolytic RCA #72736		Resistor—Fixed composition, 82,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R170, R194)
71510	Cushion—Rubber cushion—lower—for deflection yoke hood		Resistor—Fixed composition, 100,000 ohms, $\pm 20\%$ , $\frac{1}{2}$ watt (R133)
71509	Cushion—Rubber cushion—upper—for deflection yoke hood		Resistor—Fixed composition, 100,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R145)
37396	Grommet—Rubber grommet to mount socket RCA #73249 (2 required)		Resistor—Fixed composition, 100,000 ohms, $\pm 5\%$ , $\frac{1}{2}$ watt (R181, R182)
71792	Magnet—Ion trap magnet (EM type) (L110, L111)		72893 Resistor—Carbon film, type, 100,000 ohms, $\pm 1\%$ , $\frac{1}{2}$ watt (R173)
73301	Magnet—Ion trap magnet (PM type)		Resistor—Fixed composition, 100,000 ohms, $\pm 5\%$ , 1 watt (R164)
72737	Nut—#8-32 speed nut for r-f unit shield (2 required)		Resistor—Fixed composition, 120,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R135)
71455	Nut—#8-32 wing nut for mounting focus coil (3 required)		Resistor—Fixed composition, 120,000 ohms, $\pm 10\%$ , 1 watt (R159)
18469	Plate—Bakelite mounting plate for electrolytic capacitor		Resistor—Fixed composition, 150,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R155)
71448	Plug—2 prong male plug for power cord		Resistor—Fixed composition, 180,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R158)
12493	Pulg—5 contact female plug for speaker cable		Resistor—Fixed composition, 270,000 ohms, $\pm 10\%$ , 1 watt (R126)
71513	Resistor—Wire wound, 3.3 ohms, $\frac{1}{8}$ watt (R187)		Resistor—Fixed composition, 330,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R179)
72067	Resistor—Wire wound, 5.1 ohms, $\frac{1}{2}$ watt (R190)		
32813	Resistor—39 ohms, 1 watt (R196)		
	Resistor—Fixed composition, 39 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R103, R112)		
	Resistor—Fixed composition, 47 ohms, $\pm 20\%$ , $\frac{1}{2}$ watt (R120, R192)		
	Resistor—Fixed composition, 82 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R174)		
	Resistor—Fixed composition, 82 ohms, $\pm 10\%$ , 1 watt (R162)		



STOCK No.	DESCRIPTION	STOCK No.	DESCRIPTION
	Resistor—Fixed composition, 470,000 ohms, $\pm 20\%$ , $\frac{1}{2}$ watt (R176, R184)	71427	Transformer—Sound discriminator transformer T108 (C151, C152, C153, L118, L119))
	Resistor—Fixed composition, 560,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R189)	73708	Transformer—Second pix, i-f transformer (T104, C121)
	Resistor—Fixed composition, 560,000 ohms, $\pm 5\%$ , $\frac{1}{2}$ watt (R157)	72770	Transformer—Horizontal oscillator transformer (L121)
	Resistor—Fixed composition, 1 megohm, $\pm 20\%$ , $\frac{1}{2}$ watt (R121, R127, R131, R160)	71777	Yoke—Deflection yoke (L108, L109, L114, L115, C141, R101, R151)
	Resistor—Fixed composition, 1 megohm, $\pm 5\%$ , $\frac{1}{2}$ watt (R143)	71778	Trap—Sound trap (T101, C109)
	Resistor—Fixed composition, 1 megohm, $\pm 20\%$ , 1 watt (R167)		<b>SPEAKER ASSEMBLIES</b>
	Resistor—Fixed composition, 1.5 meg., $\pm 10\%$ , $\frac{1}{2}$ watt (R139)		92567-3W
	Resistor—Fixed composition, 2.2 meg., $\pm 20\%$ , $\frac{1}{2}$ watt (R146)		RL 70R4
	Resistor—Fixed composition, 3.3 meg., $\pm 5\%$ , 1 watt (R165)	13867	Cap—Dust cap
	Resistor—Fixed composition, 3.9 meg., $\pm 10\%$ , $\frac{1}{2}$ watt (R134)	71557	Coil—Field coil (60 ohms)
	Resistor—Fixed composition, 6.8 meg., $\pm 20\%$ , $\frac{1}{2}$ watt (R171)	11469	Coil—Neutralizing coil
	Resistor—Fixed composition, 6.8 meg., $\pm 10\%$ , $\frac{1}{2}$ watt (R140)	36145	Cone—Cone complete with voice coil
	Resistor—Fixed composition, 10 meg., $\pm 20\%$ , $\frac{1}{2}$ watt (R180)	71560	Plug—5 prong male plug for speaker
72738	Resistor—Wire wound, comprising 1 section of 1125 ohms, 20 watts and 1 section of 610 ohms, 20 watts (R153A, R153B)	71556	Speaker—12" EM speaker (60 ohms) complete with cone and voice coil less transformer and plug
72739	Resistor—Voltage divider, comprising 1 section of 8200 ohms, 5 watts; 1 section of 35 ohms, 0.8 watts; and 1 section of 100 ohms, 2 watts (R154A, R154B, R154C)	71145	Suspension—Metal cone suspension
71452	Sleeve—Rubber sleeve for focus coil	31301	Transformer—Output transformer
71456	Screw—#8-32 wing screw for deflection yoke (3 required)		NOTE: If stamping on speaker in instrument does not agree with above speaker number, order replacement parts by referring to model number of instrument, number stamped on speaker and full description of part required.
72741	Socket—Kinescope socket		<b>MISCELLANEOUS</b>
31364	Socket—Lamp socket	72786	Back—Cabinet back
72773	Socket—Single contact female socket for C142	72819	Bracket—Grille bracket to hold baffle
71508	Socket—Tube socket for 8016 tube	71599	Bracket—Pilot lamp bracket
9914	Socket—Tube socket, miniature	72805	Decal—Control panel decal (for control #71784)
72516	Socket—Tube socket, miniature (with shield attached)	73194	Decal—Control panel decal (for control #73193)
72927	Socket—Tube socket, noval wafer type	71984	Decal—Trade mark decal
31251	Socket—Tube socket, octal	71598	Escutcheon—Channel marker escutcheon
73249	Socket—Tube socket, octal, ceramic, plate mounted	*70126	Glass—Safety glass
71453	Stud—Mounting stud for focus coil (2 required)	13103	Jewel—Pilot lamp cap
71775	Transformer—Vertical oscillator transformer (T102)	71534	Knob—Channel selector knob
71774	Transformer—Vertical output transformer (T103)	71533	Knob—Fine tuning knob
71416	Transformer—Horizontal output and high voltage transformer (T105)	71536	Knob—Horizontal hold or picture control knob
71772	Transformer—Power transformer, 115 volt, 60 cycle (T106)	71537	Knob—Volume control and power switch knob
*73150	Transformer—Power transformer, 115 volt, 50 cycle (T106)	71535	Knob—Volume control and power switch, vertical hold or brightness control knob
71424	Transformer—Sound i-f transformer T107 (C147, C148, L116, L117))	11765	Lamp—Pilot lamp—Mazda 51
		72817	Plate—Retaining plate complete with wing nut and spring for removable section of cabinet front panel (2 required)
		71539	Slide—Kinescope centering slide with rubber cushion (4 required)
		4982	Spring—Retaining spring for knob #71533
		14270	Spring—Retaining spring for knobs #71534, #71535 and #71537
		30330	Spring—Retaining spring for knob #71536
		71538	Spring—Spring clip for escutcheon

## APPLY TO YOUR RCA DISTRIBUTOR FOR PRICES OF REPLACEMENT PARTS

\* This is the first time this Stock No. has appeared in Service Data.

Resistors in the above list for which no stock number is given, may be ordered by specifying type, resistance value, tolerance and wattage rating.