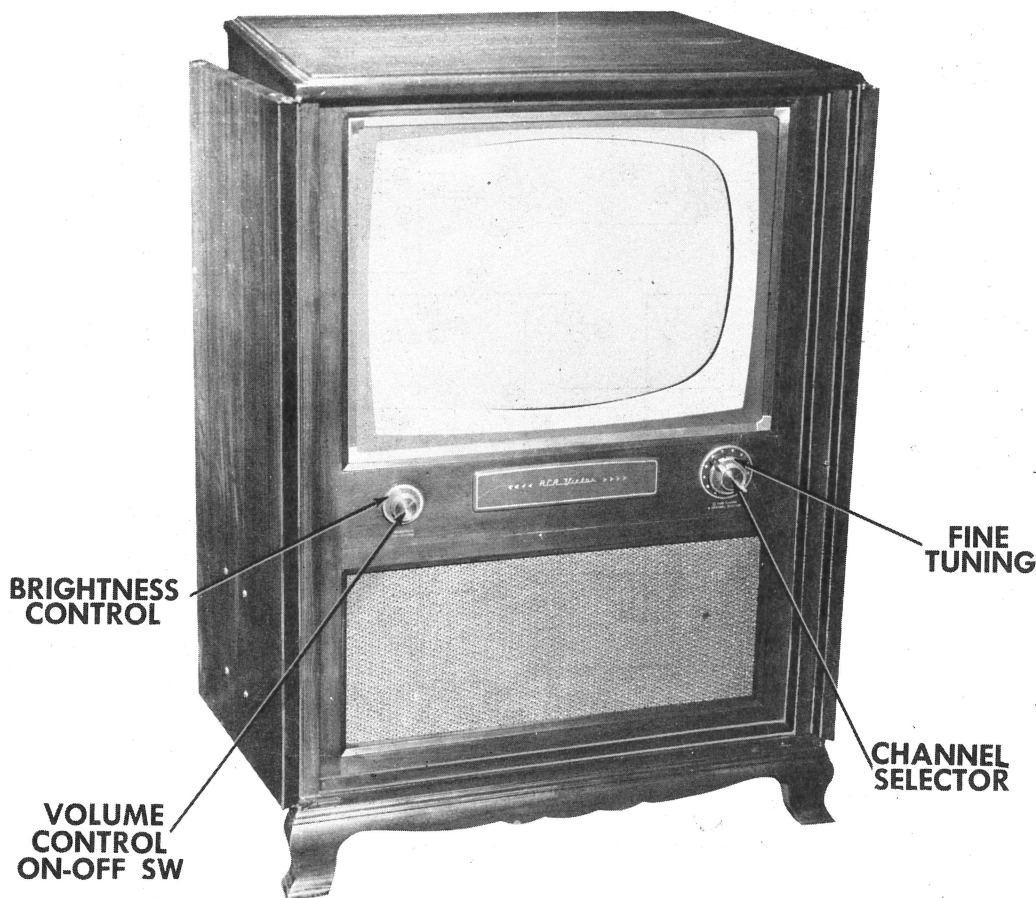




RCA VICTOR MODELS
 21-T-303, U, 21-T-313, U, 21-T-314,
 U, 21-T-315, U, 21-T-316, U, 21-T-322, U,
 21-T-323, U, 21-T-324, U (Ch. KCS82, B)

RCA VICTOR MODEL 21-T-324

TRADE NAME	RCA Victor Models 21-T-303, U, 21-T-313, U, 21-T-314, U, 21-T-315, U, 21-T-316, U, 21-T-322, U, 21-T-323, U, 21-T-324, U (Ch. KCS82, KCS82B)	
MANUFACTURER	RCA Victor Div., Radio Corp. of America, Camden, N.J.	
TYPE SET	Television Receiver	
TUBES	Twenty-Two	
POWER SUPPLY	110-120 Volts AC-60 Cycle	RATING 1.98 Amp. @ 117 Volts AC
TUNING RANGE	Channels 2 thru 13, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)	

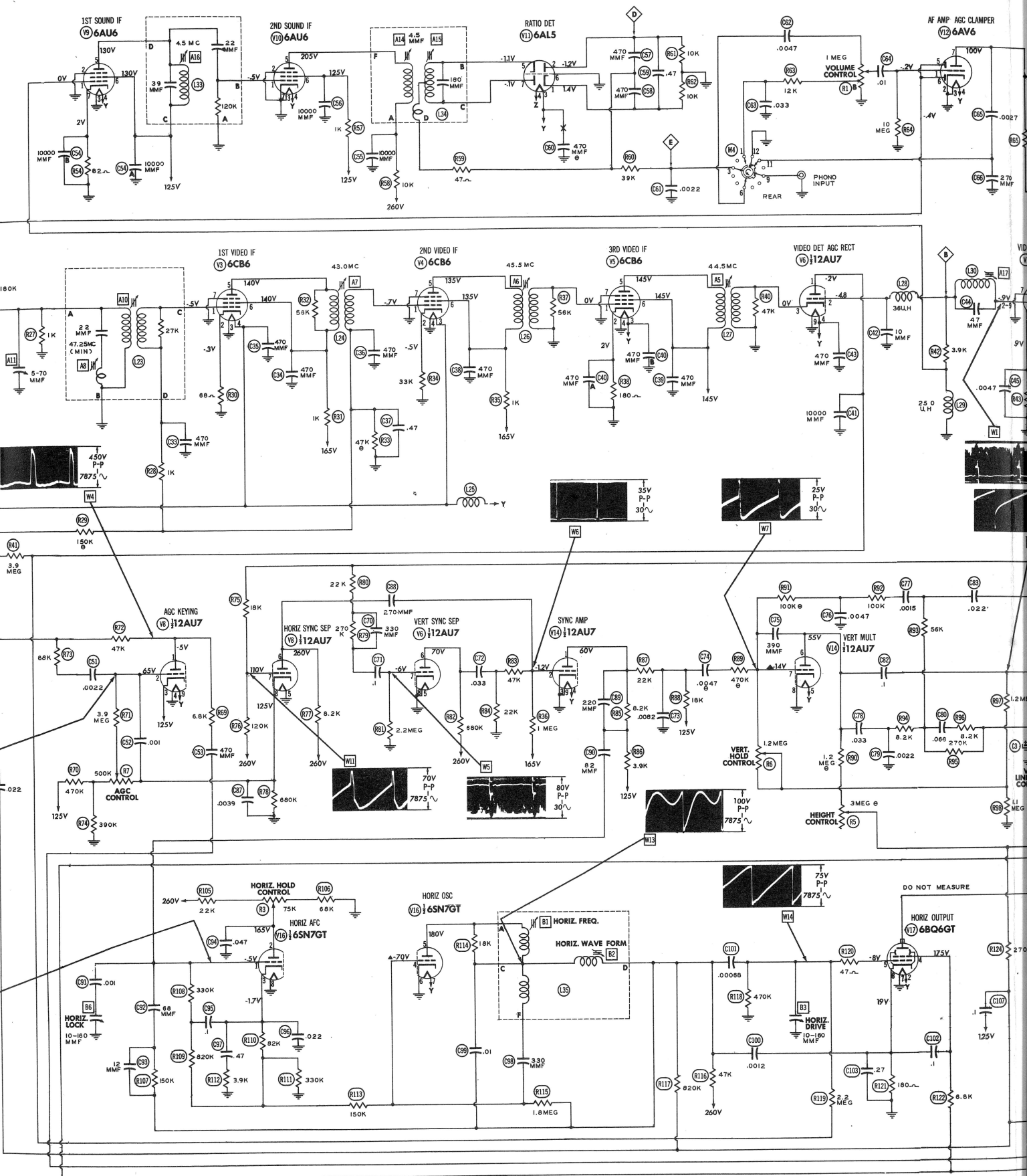
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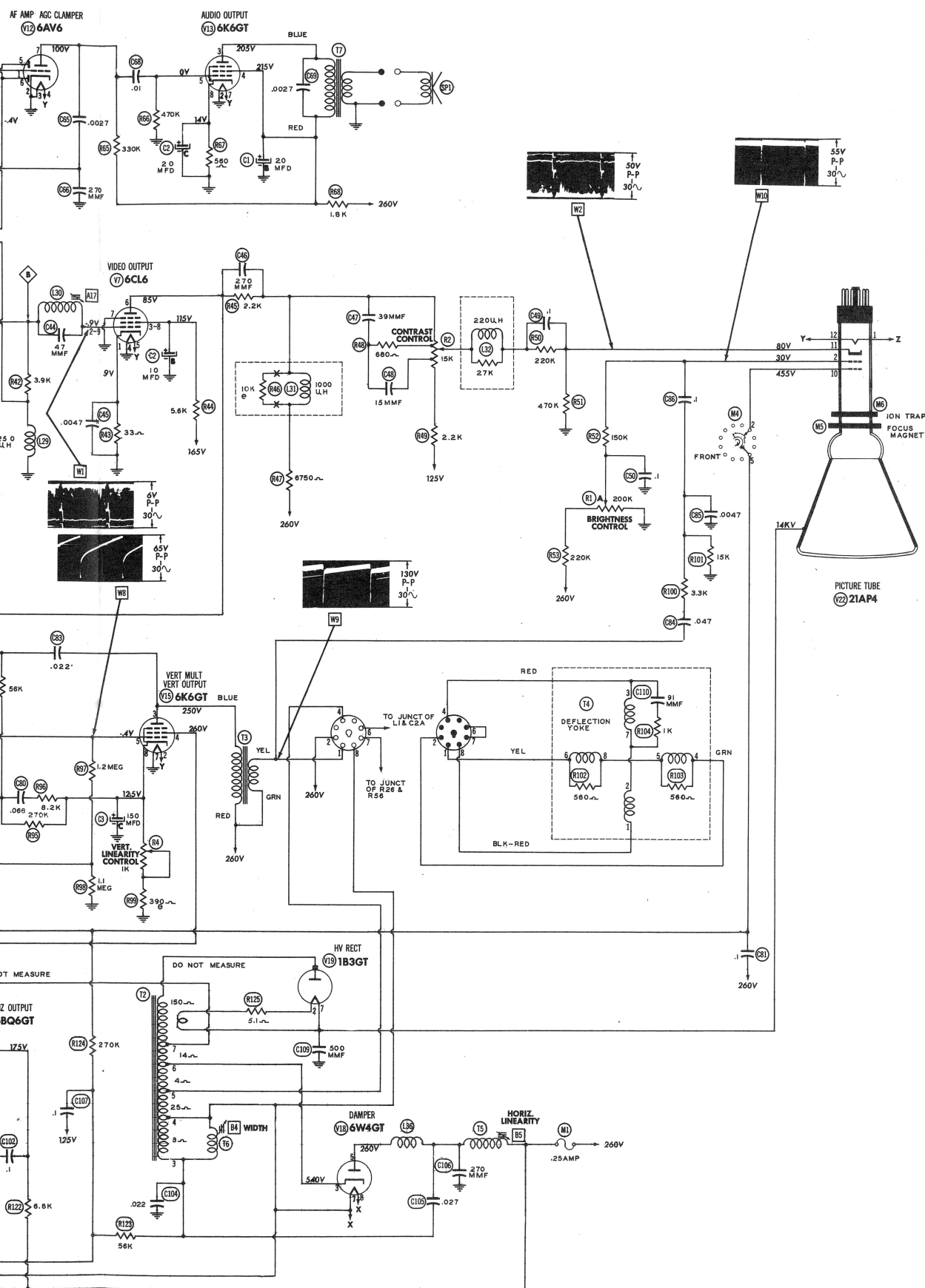
HOWARD W. SAMs & CO., INC. • Indianapolis 5, Indiana

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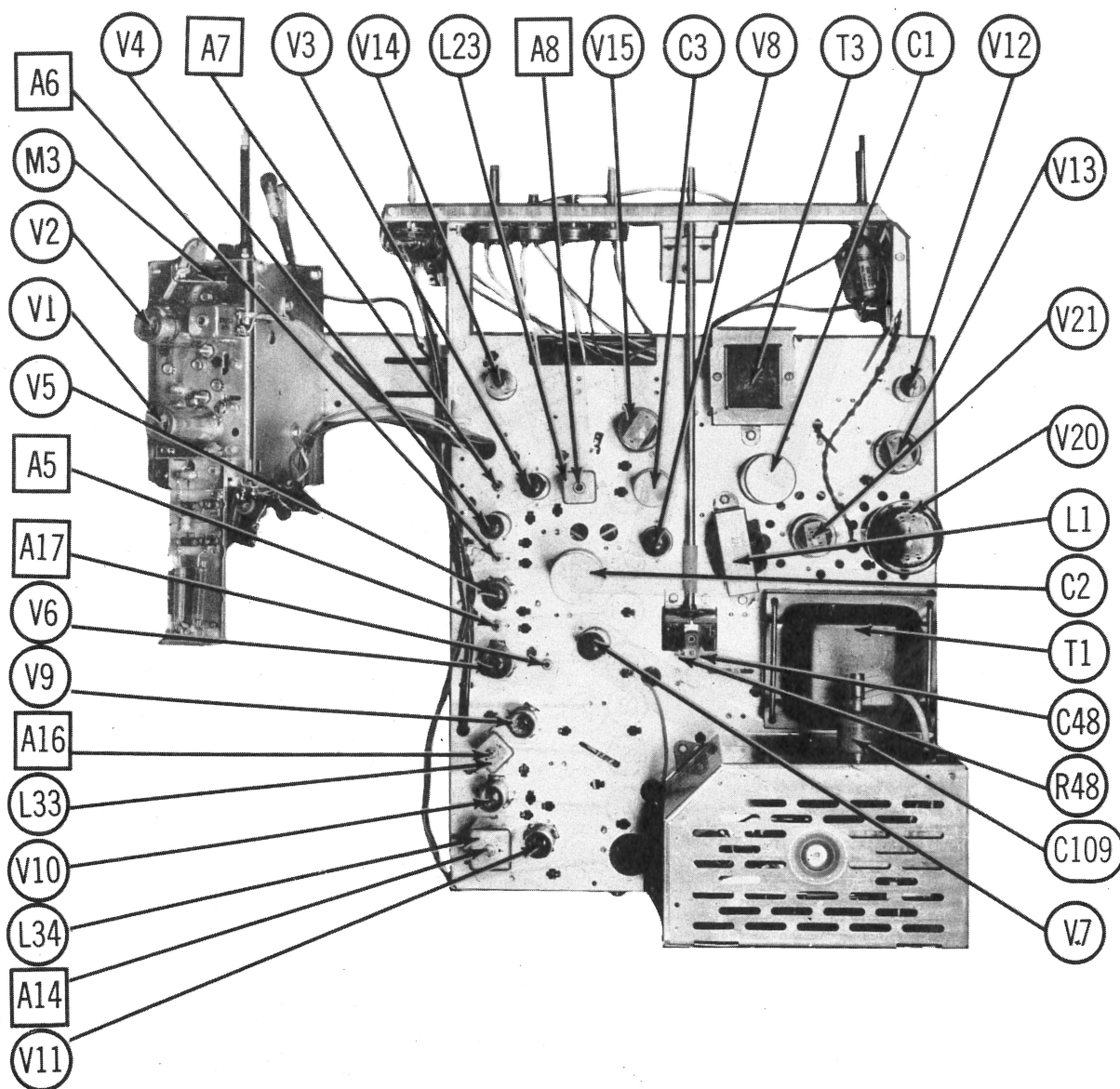


21-T-316, U, 21-T-322, U, 21-T-323, U, 21-T-324, U (Ch. KCS82, B)

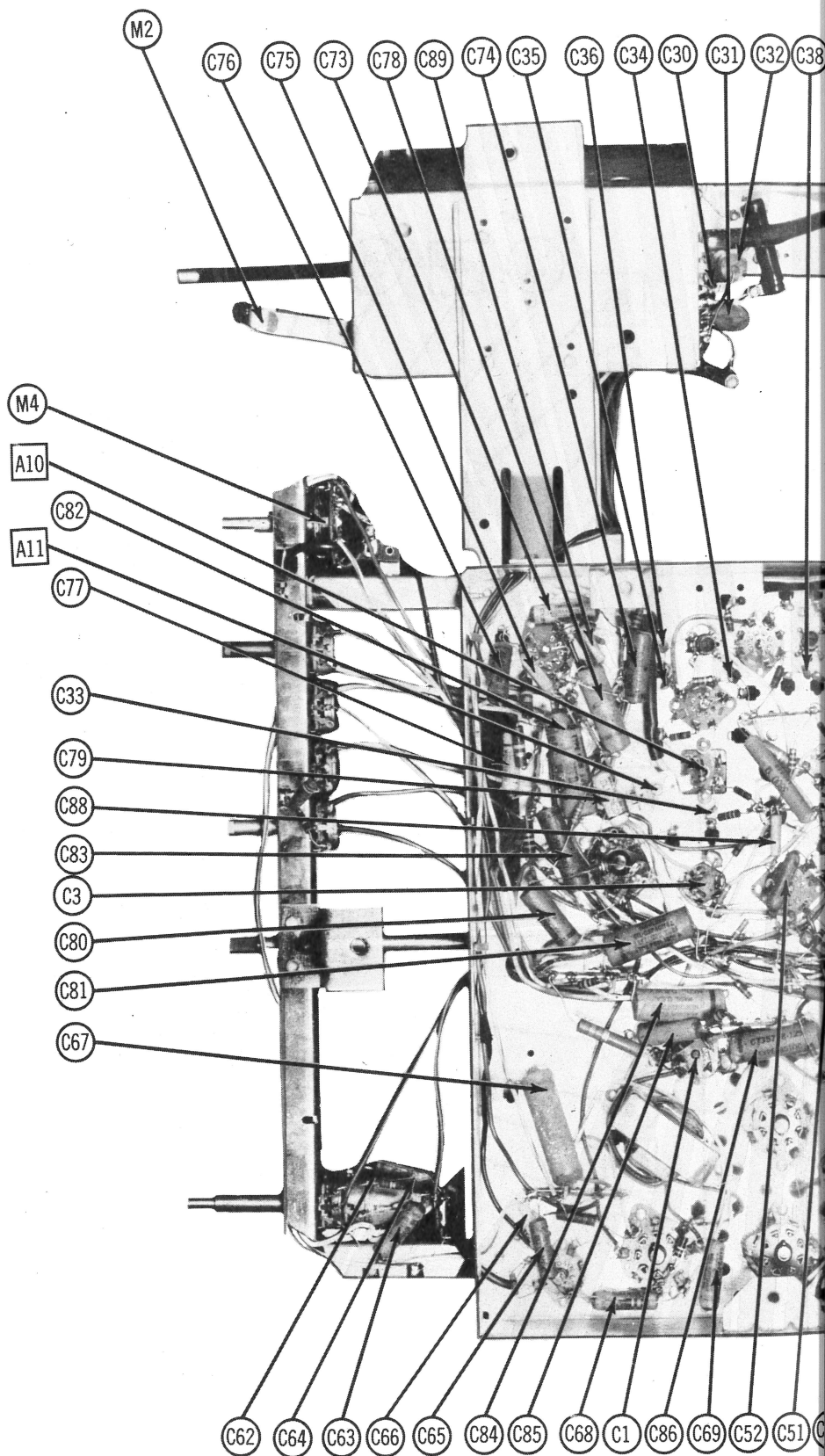


RCA VICTOR MODELS 21-T-303, U, 21-T-313, U, 21-T-314, U, 21-T-315, U, 21-T-316, U, 21-T-322, U, 21-T-323, U, 21-T-324, U (Ch. KCS82, B)

RCA VICTOR MODELS 21-T-303, U, 21-T-313, U, 21-T-314, U, 21-T-315, U,
21-T-316, U, 21-T-322, U, 21-T-323, U, 21-T-324, U (Ch. KCS82, B)



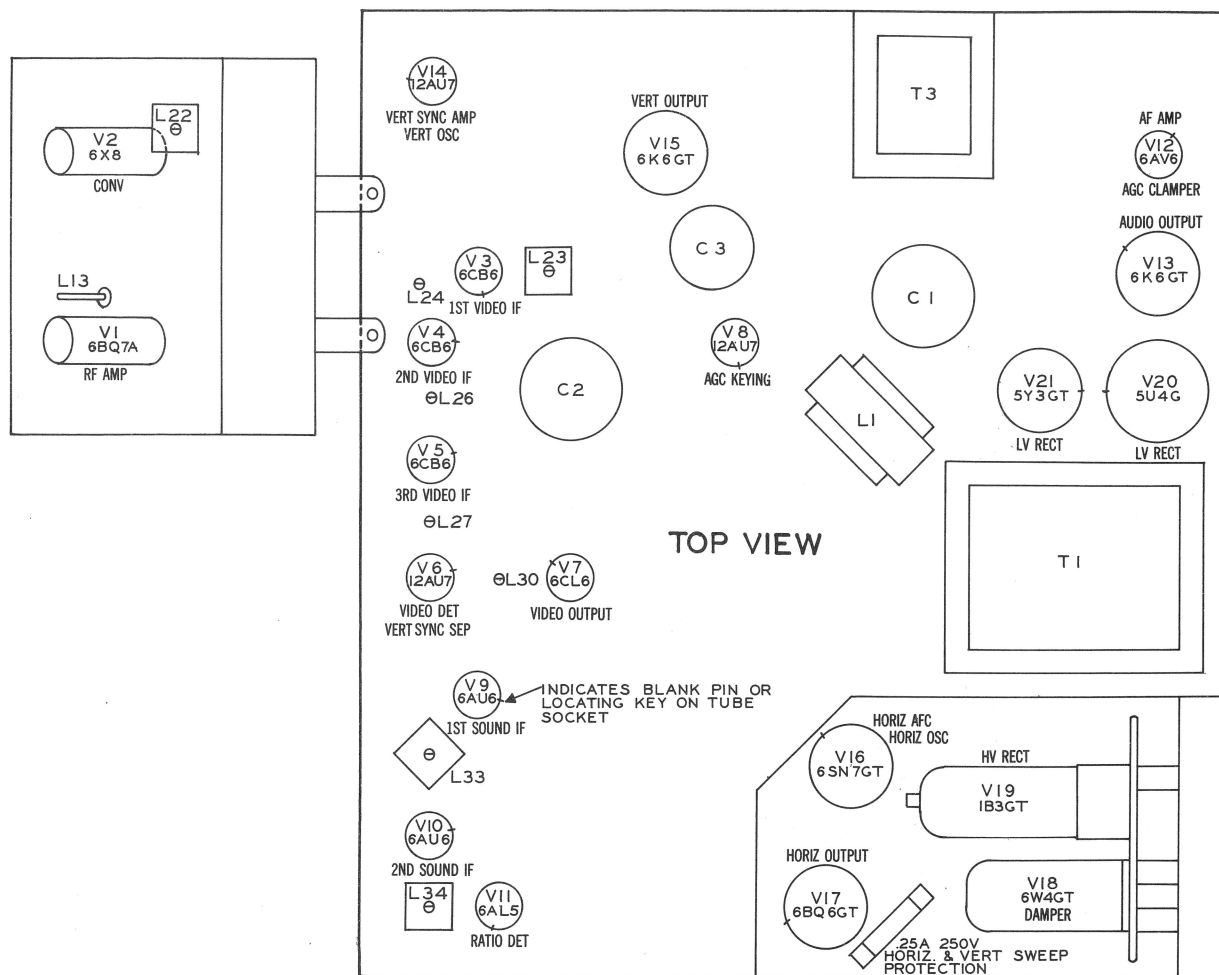
CHASSIS TOP VIEW



CHASSIS BOTTOM VIEW-CAPACITOR

PAGE 9

TUBE PLACEMENT CHART



TUBE FAILURE CHECK CHART

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

POWER SUPPLY FAILURE

No raster, no sound - V20, V21

LOSS OF PICTURE OR SOUND

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

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

No pic, has sound, has raster - V7, V22

Has pic, no sound - V9, V10, V11, V12, V13

Overloaded picture - V8

SYNC FAILURE

No vert. sync - V14

No horiz. sync - V14, V16

No vert. or horiz. sync - V6, V8, V14

SWEEP FAILURE

No raster, has sound - V16, V17, V18, V19, V22, Fuse (M1)

No vert. deflection - V14, V15

Poor vert. linearity or foldover - V14, V15

Poor horiz. linearity or foldover - V16, V17, V18

Narrow picture - V16, V17, V18, V19, V20, V21

Vert. off freq. - V14

Horiz. off freq. - V14, V16

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

The high voltage shock hazard can be eliminated by removing the horizontal oscillator tube, V16.

ANTENNA MATCHING UNIT ALIGNMENT

The antenna matching unit is properly aligned at the factory. The RF unit is aligned with a particular antenna matching unit in place. If a new antenna unit is installed, the RF unit should be realigned. Alignment should not be attempted without the proper alignment facilities.

Disconnect the lead from the FM trap, L8, to the channel selector switch.

Use a short jumper to connect point **A** on the matching unit through a .001MFD capacitor to pin 1, grid, of 6CB6 (V4).

Remove 6CB6, V3, from its socket.

Cover of the matching unit must be in place during alignment.

Connect the ends of a 1000Ω potentiometer across a 7.5 volt battery capable of withstanding considerable current drain. Connect the positive terminal to chassis and the potentiometer arm to the junction of R28 and R29.

Set the potentiometer arm to obtain -5 volts at this point.

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

The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. Two 130Ω Carbon Resistors	Across antenna terminals with 130Ω in each lead.	Not Used.	45.75MC (400% Mod)	Any	Vert. amp to point B . Low side to chassis.	A1	Set oscilloscope gain to maximum and adjust A1 for MINIMUM 400% response.
2. "	"	"	41.25MC (400% Mod)	"	"	A2	Adjust for MINIMUM 400% response on scope.
3. "	"	50MC (10MC Swp)	50MC 52MC 53MC	"	Vert. amp thru detector probe (Fig. 1) to point A . Low side to chassis.	A3, A4	Remove the .001MFD capacitor (See instructions above) from point A and connect a 300Ω carbon resistor from point A to chassis using short leads. Adjust A3 and A4 to obtain response curve as in Fig. 2. Repeat steps 1, 2 and 3 until no further improvement is made. Remove the 300Ω resistor and the detector probe. Restore the connection between L8 and the channel switch. Replace V3.

VIDEO IF ALIGNMENT FOR RECEIVERS USING VHF TUNER KRK11-B

Connect bias supply as under Antenna Matching Unit Alignment and adjust for -5 volts.

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

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
4. .001MFD	High side to terminal "A" of L23. Low side to chassis.	Not Used.	44.5MC	Any not used locally.	Use VTVM. DC probe to point B . Common to chassis.	A5	Adjust for maximum deflection. Attenuate generator to maintain not more than 3 Volt indication on VTVM.
5. "	"	"	45.5MC	"	"	A6	"
6. "	"	"	43.0MC	"	"	A7	"
7. "	"	"	47.25MC	"	"	A8	Adjust for MINIMUM deflection.
8. .0015MFD Ceramic Capacitor	High side thru .0015 MFD to point C . Low side to tuner chassis. Use very short leads.	43MC (10MC Swp)	42.5MC 45.75MC 47.25MC	4	Vert. amp of scope thru detector (Fig. 1) to pin 5 (Plate) of 6CB6 (V3). Low side to chassis.	A9, A10, A11	Set AGC control fully clockwise. Preset A11 to minimum capacity. Clip 330Ω resistors across primaries of L26 and L27. Connect a 180Ω carbon resistor from plate to screen of 6CB6 (V3). Adjust A9 and A10 for maximum gain with 45.75MC at 70% response as in Fig. 3. Attenuate generator to maintain .3 Volt peak to peak response on scope. Adjust A11 to place 42.5MC at 70% on response curve.
9. "	"	"	42.5MC 45.0MC 45.75MC 46.5MC	"	Vert. amp to point B . Low side to chassis.		Disconnect the 180Ω and the two 330Ω resistors. Adjust output of generator for 3 Volts peak to peak on scope. Retouch A5, A6 and A7 for response similar to Fig. 4.

VIDEO IF ALIGNMENT FOR RECEIVERS USING UHF-VHF TUNER KRK12

Connect bias supply as under Antenna Matching Unit Alignment and adjust for -5 volts.

Turn the AGC control fully clockwise.

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

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
4. .0015MFD Ceramic Capacitor	High side to junction of 1N82 and the IF grid transformer. Low side to tuner chassis. Use short leads.	Not Used.	44.5MC	Any not used locally.	Use VTVM. DC probe to point B . Common to chassis.	A5	Adjust for maximum deflection. Attenuate generator to maintain not more than 3 Volt indication on VTVM.
5. "	"	"	45.5MC	"	"	A6	"
6. "	"	"	43.0MC	"	"	A7	"
7. "	"	"	47.25MC	"	"	A8	Adjust for MINIMUM deflection.
8. "	"	43MC (10MC Swp)	43.25MC 45.75MC	5	Vert. amp of scope thru detector (Fig. 1) to pin 5 (Plate) of 6CB6 (V3).	A12, A10, A13, A11	Connect a 180Ω carbon resistor from plate to screen of V3. Clip 330Ω resistors across primaries of L26 and L27. Preset A11 at minimum capacity. Adjust A12 and A10 for maximum gain at 43.5MC with 45.75MC at 70% response. Adjust A11 for proper band width. Adjust A13 for maximum gain. Retouch A10, A11 and A12, if necessary, for response similar to Fig. 3.
9. "	"	"	42.5MC 45.0MC 45.75MC 46.5MC	"	Vert. amp to point B . Low side to chassis.		Disconnect the 180Ω and the two 330Ω resistors. Adjust output of generator for 3 Volts peak to peak on scope. Retouch A5, A6 and A7 for response similar to Fig. 4.

RCA VICTOR MODELS 21-T-303, U, 21-T-313, U, 21-T-314, U, 21-T-315, U, 21-T-316, U, 21-T-322, U, 21-T-323, U, 21-T-324, U (Ch. KCS82, B)

SOUND IF ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
10. .001MFD	High side to pin 1 (grid) of 6AU6 (V9). Low side to chassis.	4.5MC (Unmod.)	Any not used locally.	DC probe to point $\diamond$. Common to chassis.	A14	Adjust for maximum deflection. Attenuate generator output for 6 volts at VTVM.
11. "	"	"	"	DC probe to point $\diamond$. Common to chassis.	A15	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting. Repeat steps 10 and 11 making final adjustments with generator output set to produce 6 volts on VTVM at point $\diamond$.
12. "	"	"	"	DC probe to point $\diamond$. Common to chassis.	A16	Adjust for maximum as in Step 10.

4.5MC TRAP ALIGNMENT

Short pin 1 (grid) of 6CB6 (V5) to chassis to prevent noise from masking the output indication.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
13. 1000 Ω Resistor	High side thru 1000 Ω to pin 2 (grid) of V6A. Low side to chassis.	Not used	4.5MC (400% Mod)	Any	Vert. Amp. thru detector (Fig. 1) to pin 6 (plate) of 6CL6 (V7). Low side to chassis.	A17	Set generator output to approximately .5 volts. Adjust A17 for MINIMUM 400% indication.

If receiver employs an RCA KRK11-B VHF tuner continue alignment with Step 14.
If receiver employs an RCA KRK12 UHF-VHF tuner proceed to Step 34.

KRK11-B TUNER ALIGNMENT

An RF unit which is operative and requires only minor touch-up adjustments will require no presetting of adjustments. Where complete alignment is necessary make the following pre-adjustments:
Set A23 so that the screw head projects approximately 3/8" above chassis. Set A21 1/4 turn from maximum capacity.
Disconnect the link from terminals "A" and "B" of L23 and terminate the link with a 39 Ω carbon resistor.
Connect the potentiometer arm of the bias supply to terminal 3 on the tuner. Connect the positive lead to tuner chassis. Adjust bias supply to produce -3.5 volts at AGC terminal of tuner.
Tuner alignment as outlined below requires the use of a heterodyne frequency meter.
Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection.
The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
14. .0015MFD	Remove 6X8 (V2) from socket and twist one end of small piece of wire around pin 7. Replace tube in socket and connect high side of generator to free end of wire. Low side to chassis.	Not used	43.5MC (400% Mod)	2	Vert. Amp. to point $\diamond$. Low side to chassis.	A18	Adjust for MINIMUM 400% indication on scope. Remove the wire lead from pin 7 of V2 and replace V2 tube and shield.
15.	RF input of heterodyne frequency meter to end of insulated wire inserted in hole in tuner provided for adjustment of A21.	"	Set freq. meter to 227MC	8	Not used	A19	Set fine tuning control 30 degrees clockwise from mechanical center of its range. Adjust for audible beat on frequency meter.
16. Two 130 Ω Carbon Resistors	Across antenna terminals with 130 Ω in each lead.	183MC (10MC Swp)	181.25MC 185.75MC	"	Vert. Amp. to point $\diamond$. Low side to chassis.	A20, A21 A22, A23	Set A9 to maximum counter clockwise rotation. Adjust A20, A21, A22 and A23 for response similar to Fig. 5.
17.	Connect frequency meter as in Step 15.	Not used	Freq. Meter to 129MC	6	Not used	A24	Adjust for audible beat on frequency meter.
18. Two 130 Ω Carbon Resistors	Across antenna terminals with 130 Ω in each lead.	85MC (10MC Swp)	83.25MC 87.75MC	"	Vert. Amp. to point $\diamond$. Low side to chassis.	A25, A26 A27	Adjust for response similar to Fig. 5.
19.	Turn off all generators, connect VTVM to point $\diamond$ of chassis and adjust A28 for -3.5 volts or maximum if less than 3.5 volts.						
20.	Repeat step 18.						
21.	Repeat step 15.						
22.	Repeat step 16.						
23.	If A20 was adjusted in step 22 recheck voltage at point $\diamond$ as in Step 19. If original setting of A28 was far off it may be necessary to alternately perform steps 15, 16 and step 19 several times before proper setting is obtained.						
24.	Connect frequency meter as in step 15.	Not used	Freq. meter to 257MC	13	Not used	A29	Adjust for audible beat on freq. meter. Slightly overshoot the adjustment a little more in same direction from original setting then adjust A19 to again obtain audible beat.
25. Two 130 Ω Carbon Resistors	Across antenna terminals with 130 Ω in each lead.	213MC (10MC Swp) 207MC (10MC Swp) 201MC (10MC Swp) 195MC (10MC Swp) 189MC (10MC Swp) 183MC (10MC Swp) 177MC (10MC Swp)	211.25MC 215.75MC 205.25MC 209.75MC 199.25MC 203.75MC 193.25MC 197.75MC 187.25MC 191.75MC 181.25MC 185.75MC 175.25MC 179.75MC	13 12 11 10 9 8 7	Vert. Amp. to point $\diamond$. Low side to chassis.		Check for response similar to Fig. 5. If markers fall below 80% switch to channel 8 and readjust A20, A21, A22 and A23 as necessary.
26.	Connect frequency meter as in Step 15.	Not used	Set freq. meter to 227MC	8	Not used		Check for audible beat on freq. meter. If necessary, adjust A19, overshoot the adjustment and correct by adjusting A29.

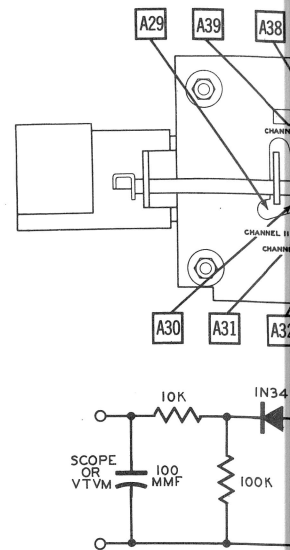


FIG. 1

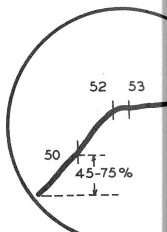


FIG. 2

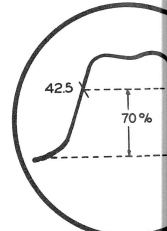


FIG. 3

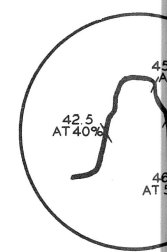


FIG. 4

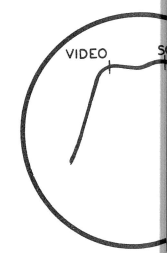


FIG. 5

INSTRUCTIONS (CONT.)

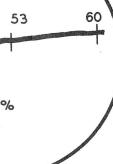
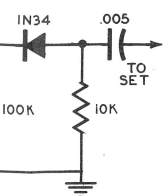
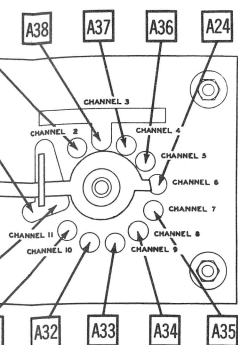


FIG. 2

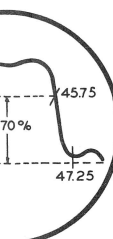


FIG. 3

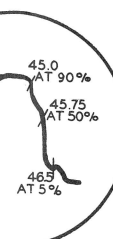


FIG. 4



FIG. 5

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
27.	Connect frequency meter as in step 15.	Not Used	Set freq. meter to 129MC	6	Not Used	A24	Adjust for audible beat on freq. meter.
28.	Two 130Ω Carbon Resistors	85MC (10MC Swp)	83.25MC 87.75MC	6	Vert. Amp. to point Φ . Low side to chassis.		Check for response as in Fig. 5. If necessary retouch A25, A26 and A27.
29.	"	57MC (10MC Swp)	55.25MC 59.75MC	2	"	A9	Adjust A9 clockwise to point where further adjustment causes no change in response curve.
30.	Two 130Ω Carbon Resistors	85MC (10MC Swp) 79MC (10MC Swp) 89MC (10MC Swp) 63MC (10MC Swp) 57MC (10MC Swp)	83.25MC 87.75MC 81.75MC 87.25MC 71.75MC 61.25MC 65.75MC 55.25MC 59.75MC	6 5 4 3 2	Vert. Amp. to point Φ . Low side to chassis.		Check for response as in Fig. 5 and for proper oscillator injection voltage at point Φ . If excessive tilt occurs on channel 2, 3 and 4 adjust A23 on channel 2 overshoot the correction of tilt then adjust A27 on channel 6 for maximum amplitude of response between markers. This should produce flat response on low channels if other adjustments, especially A25 are correct.
31.	Check channels 7 thru 13 for proper response as in Step 25.						
32.	Connect frequency meter as in step 15.	Not used	Set freq. meter to 257MC	13	Not used		Check for audible beat on frequency meter. Adjust A19 if necessary.
33.	"	"	251MC 245MC 239MC 233MC 227MC 221MC 129MC 123MC 113MC 107MC 101MC	12 11 10 9 8 7 6 5 4 3 2	"	A30 A31 A32 A33 A34 A35 A24 A36 A37 A38 A39	Adjust for audible beat on frequency meter.

KRK12 TUNER VHF ALIGNMENT

It is necessary to meter the non-oscillating plate current of the 684 voltage control tube. This can be accomplished by use of an adaptor or similar arrangement. The circuit diagram for the adaptor is shown in Fig. 6.

Remove 684 from its socket and insert the adaptor plug. Plug 684 into adaptor.

Connect 0-50 MA meter to adaptor and turn the switch on.

Remove the tuner cover shield.

Set channel selector midway between channels to disable local oscillator. Some tubes may oscillate even with the tuned circuits disengaged.

As a check, short circuit the spring contacts 12 and 13, nearest the tuner front, with a finger. (Contacts are at zero DC potential). If plate current rises keep finger on contacts while adjusting the oscillator voltage control for 28 MA indication on meter.

Replace tuner cover shield.

The oscilloscope used should have sensitivity of 1 mill watt per inch. If sensitivity is less a suitable preamplifier may be used with the scope.

A heterodyne frequency meter is used while making VHF oscillator adjustments.

To find oscillator frequency for any UHF or VHF channel add 45.75MC to the picture carrier frequency for that channel as listed in the frequency chart.

Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection. The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.

Set the fine tuning control to the mid-position of its range.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
None	Couple loosely to antenna terminals	Set sweep to cover channel being aligned. See channel frequency chart.	Set alternately to video and sound carrier frequency of channel being aligned see chart.	2 thru 13	Vert. Amp. to point $\diamond$. Low side to chassis.	A40 A41 A42 A43 See Remarks	Ground the AGC line at tuner terminal board. Turn off the adaptor switch, removing plate voltage from oscillator. Adjust for response similar to Fig. 7. Each channel strip adjustment for an individual channel strip has a corresponding adjustment on all other VHF channel strips. Since these adjustments are identical in position and function they are indicated by the same "A" number in the interests of simplification. Adjustments A40, A41 and A42 for each channel strip are accessible through holes in top of tuner as the channel switch is turned to each channel. Adjustment A43 refers to coupling capacitor whose positioning affects bandwidth of response curve.
Remove the ground placed on AGC line in above step. Turn the AGC control fully clockwise. Connect the potentiometer arm of the bias supply to the tuner AGC terminal. Connect the positive lead to the tuner case. Adjust for -5 volts at AGC terminal. Connect the potentiometer arm of a second bias supply to the junction of R28 and R29 and the positive lead to chassis. Adjust for -5 volts at potentiometer arm. Turn the 684 adaptor switch on to apply plate voltage to the oscillator. Connection of the heterodyne frequency meter for oscillator adjustment is made as follows: Insert the end of an insulated piece of wire into either of two holes next to the oscillator tube at the right top corner of the tuner. Use care so that wire does not touch any tuned circuits. Connect other end of wire to RF input of the frequency meter.							
	Connect frequency meter as above.	Not used	Freq. meter to 257MC	13	Not used	A44	Adjust for audible beat on freq. meter.
Two 130Ω Carbon Resistors	Across antenna terminals with 130Ω in each lead.	213MC (10MC Swp)	211.25MC 215.75MC	13	Vert. Amp. to point $\diamond$. Low side to chassis.		Adjust A13 for maximum gain on scope. Adjust A42 for maximum gain and flat-topped curve. Recheck A13 for maximum gain at center of band.
	Connect frequency meter as in Step 35.	Not used	Freq. meter to oscillator frequency, channels 12 thru 2 See chart.	12 thru 2	Not used	A44 A42	Adjust A44 on each channel for audible beat on freq. meter. Connect sweep generator and scope as in step 37, set sweep and marker to proper frequencies for each channel and adjust A42, if necessary, for maximum gain and proper response curve.
Direct	High side to point $\diamond$. Low side to chassis.	Not used	43.5MC (400%Mod)	An y	Vert. Amp. to point $\diamond$. Low side to chassis.	A45	Adjust for MINIMUM 400% indication on scope.

RCA VICTOR MODELS 21-T-303, U, 21-T-313, U, 21-T-314, U, 21-T-315, U, 21-T-316, U, 21-T-322, U, 21-T-323, U, 21-T-324, U (Ch. KCS82, B)

ALIGNMENT INSTRUCTIONS (CONT.)

KRK12 TUNER UHF ALIGNMENT

Alignment of the UHF portion of the tuner should not be attempted unless the following test equipment is available, in addition to the usual VHF test equipment: A UHF sweep generator covering the frequency range of 470MC to 890MC. A marker generator of crystal accuracy covering the same frequency range. Leave 6S4 adaptor connected as under KRK12 Tuner VHF Alignment. Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection. The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms. Set the fine tuning control to the mid-position of its range.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
40. 10 db attenuator pad	Sweep generator thru attenuator to antenna terminals. Couple UHF marker generator loosely to antenna terminals.	Set sweep to cover channel being aligned. See chart. Use 10MC swp width	Set alternately to video and sound carrier frequency of channel being aligned. See chart.	14 thru 83	Vert. Amp. to point $\odot$. Low side to chassis.	A46, A47, A48	Turn off the adaptor switch, removing plate voltage from oscillator. Ground the AGC line at the tuner terminal board. Adjust for maximum gain, symmetrical response curve centered about the pass band. See Fig. 8 for acceptable variations.
41.	Connect both bias supplies and adjust as under Tuner VHF Alignment. Remove the ground from the AGC line. Turn the adaptor switch on to apply plate voltage to the oscillator. Connect the VHF signal generator to point $\odot$ using very short leads. Set generator to 45.75MC for remainder of tuner alignment.						
42. 10 db attenuator pad	Sweep generator thru attenuator to antenna terminals. Connect UHF marker generator to point $\odot$, and tuner chassis.	Set sweep to cover channel being aligned. See chart. Use 10MC swp width	Set to video carrier frequency of channel being aligned. See chart.	14 thru 83	Vert. Amp. to point $\odot$. Low side to chassis.	A49	Adjust A49 for channel strip being aligned until 45.75MC and video carrier marker coincide on response curve. Adjust A48 of channel strip being aligned for maximum gain with proper wave shape. Connect VTVM to point $\odot$. Common to chassis. Set oscillator injection adjustment for reading on VTVM between .1 volt and .3 volt on all channel strips.

FM TRAP ADJUSTMENT

Tune in a TV station on which FM interference is noted and adjust A50 to minimize the interference. On some receivers A50 will tune into channels 6 or 5. Care must be used to avoid this possibility as reduced sensitivity on these channels will result.

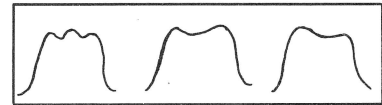
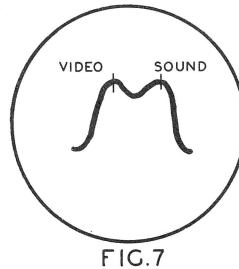
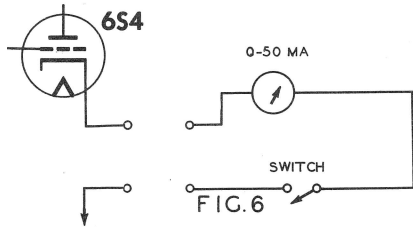


FIG. 8

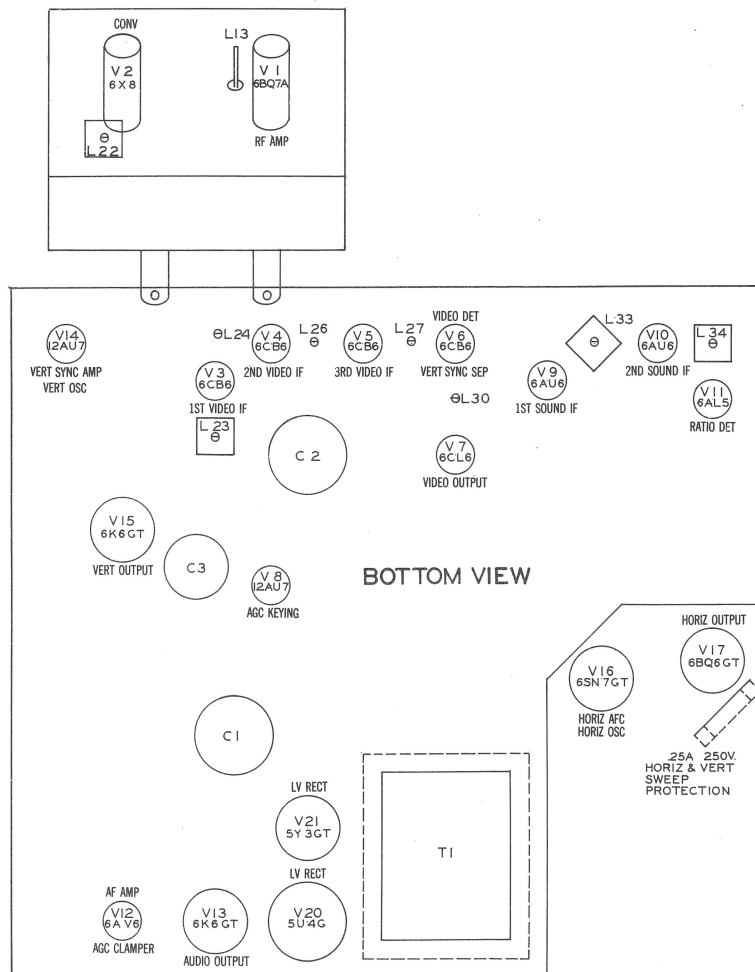
TELEVISION CHANNEL FREQUENCIES

Channel No.	Frequency Band (Mc)	Video Carrier	Sound Carrier	Channel No.	Frequency Band (Mc)	Video Carrier	Sound Carrier	Channel No.	Frequency Band (Mc)	Video Carrier	Sound Carrier	Channel No.	Frequency Band (Mc)	Video Carrier	Sound Carrier
2	54-60	55.25	59.75	23	524-530	525.25	529.75	44	650-656	651.25	655.75	64	770-776	771.25	775.75
3	60-66	61.25	65.75	24	530-536	531.25	535.75	45	656-662	657.25	661.75	65	776-782	777.25	781.75
4	66-72	67.25	71.75	25	536-542	537.25	541.75	46	662-668	663.25	667.75	66	782-788	783.25	787.75
5	72-78	73.25	77.75	26	542-548	543.25	547.75	47	668-674	669.25	673.75	67	788-794	789.25	793.75
6	78-84	79.25	83.75	27	548-554	549.25	553.75	48	674-680	675.25	679.75	68	794-800	795.25	799.75
7	174-180	175.25	179.75	28	554-560	555.25	559.75	49	680-686	681.25	685.75	69	800-806	801.25	805.75
8	180-186	181.25	185.75	29	560-566	561.25	565.75	50	686-692	687.25	691.75	70	806-812	807.25	811.75
9	186-192	187.25	191.75	30	566-572	567.25	571.75	51	692-698	693.25	697.75	71	812-818	813.25	817.75
10	192-198	193.25	197.75	31	572-578	573.25	577.75	52	698-704	699.25	703.75	72	818-824	819.25	823.75
11	198-204	199.25	203.75	32	578-584	579.25	583.75	53	704-710	705.25	709.75	73	824-830	825.25	829.75
12	204-210	205.25	209.75	33	584-590	585.25	589.75	54	710-716	711.25	715.75	74	830-836	831.25	835.75
13	210-216	211.25	215.75	34	590-596	591.25	595.75	55	716-722	717.25	721.75	75	836-842	837.25	841.75
14	470-476	471.25	475.75	35	596-602	597.25	601.75	56	722-728	723.25	727.75	76	842-848	843.25	847.75
15	476-482	477.25	481.75	36	602-608	603.25	607.75	57	728-734	729.25	733.75	77	848-854	849.25	853.75
16	482-488	483.25	487.75	37	608-614	609.25	613.75	58	734-740	735.25	739.75	78	854-860	855.25	859.75
17	488-494	489.25	493.75	38	614-620	615.25	619.75	59	740-746	741.25	745.75	79	860-866	861.25	865.75
18	494-500	495.25	499.75	39	620-626	621.25	625.75	60	746-752	747.25	751.75	80	866-872	867.25	871.75
19	500-506	501.25	505.75	40	626-632	627.25	631.75	61	752-758	753.25	757.75	81	872-878	873.25	877.75
20	506-512	507.25	511.75	41	632-638	633.25	637.75	62	758-764	759.25	763.75	82	878-884	879.25	883.75
21	512-518	513.25	517.75	42	638-644	639.25	643.75	63	764-770	765.25	769.75	83	884-890	885.25	889.75
22	518-524	519.25	523.75	43	644-650	645.25	649.75								

RESISTANCE MEASUREMENTS

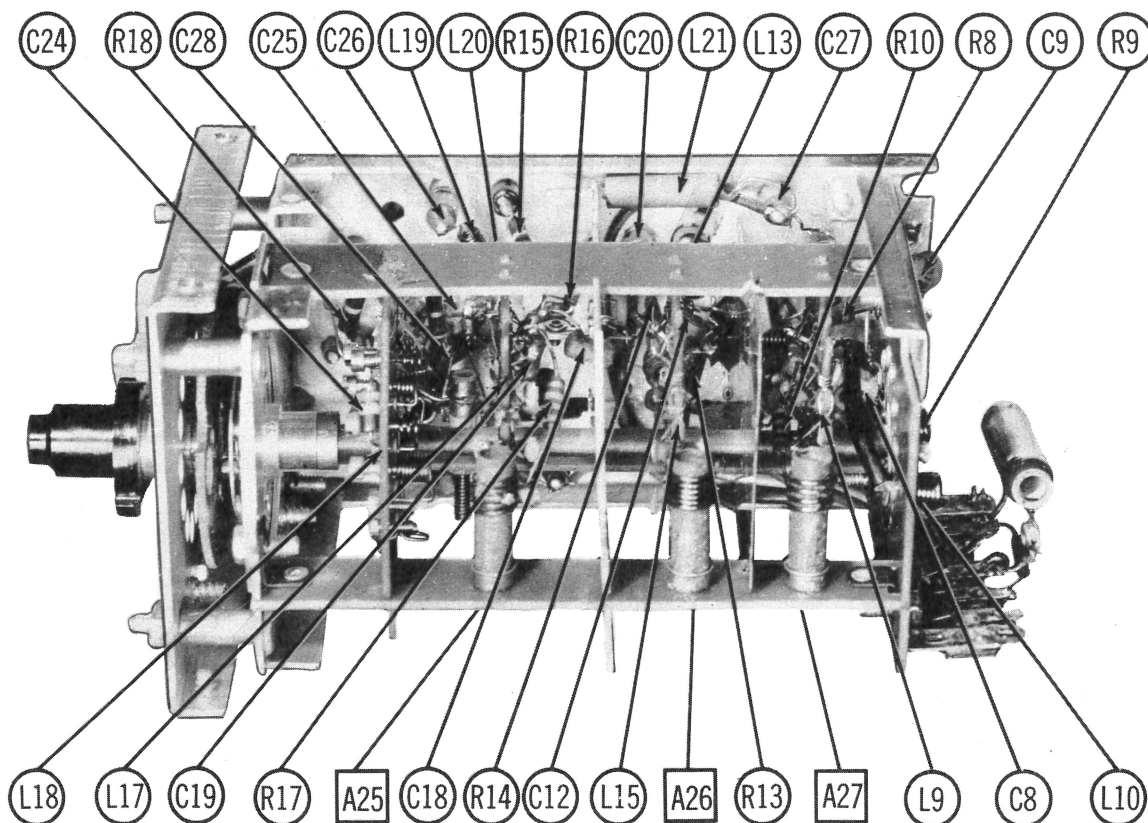
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6BQ7A	†1.5KΩ	†8.2Meg	†8.7Meg	0Ω	.1Ω	†8.7Meg	280KΩ	120Ω	0Ω
V 2	6X8	0Ω	100KΩ	†8KΩ	0Ω	.1Ω	0Ω	100KΩ	†3.7KΩ	†3.7KΩ
V 3	6CB6	45KΩ	68Ω	0Ω	.1Ω	†4.8KΩ	†4.8KΩ	0Ω		
V 4	6CB6	47KΩ	33Ω	.1Ω	0Ω	†4.8KΩ	†4.8KΩ	0Ω		
V 5	6CB6	.2Ω	180Ω	.1Ω	0Ω	†3.8KΩ	†3.8KΩ	0Ω		
V 6	12AU7	100KΩ	3.9KΩ	.2Ω	.1Ω	.1Ω	†680KΩ	2.2Meg	0Ω	0Ω
V 7	6CL6	33Ω	3.9KΩ	†9.4KΩ	0Ω	.1Ω	†6.8KΩ	0Ω	†9.4KΩ	3.9KΩ
V 8	12AU7	1.3Meg	4.5Meg	†3.8KΩ	0Ω	0Ω	†8.2KΩ	†27KΩ	360KΩ	.1Ω
V 9	6AU6	7Ω	0Ω	0Ω	.1Ω	†3.8KΩ	†4.3KΩ	82Ω		
V 10	6AU6	120KΩ	0Ω	0Ω	.1Ω	†10KΩ	†5.3KΩ	0Ω		
V 11	6AL5	10KΩ	10KΩ	.1Ω	0Ω	INF	0Ω	INF		
V 12	6AV6	10Meg	0Ω	0Ω	.1Ω	280KΩ	280KΩ	†330KΩ		
V 13	6K6GT	INF	0Ω	†2.2KΩ	†1.8KΩ	470KΩ	INF	.1Ω	560Ω	
V 14	12AU7	†13KΩ	70KΩ	0Ω	.1Ω	.1Ω	▲3.1Meg	1.5Meg	0Ω	0Ω
V 15	6K6GT	INF	.1Ω	†570Ω	†41Ω	2.3Meg	1.1Meg	0Ω	630Ω	
V 16	6SN7GT	1.5Meg	†45KΩ	380KΩ	480KΩ	†47KΩ	0Ω	.1Ω	0Ω	
V 17	6BQ7GT	INF	.1Ω	INF	†6.8KΩ	460KΩ	100KΩ	0Ω	180Ω	Top Cap ▲14Ω
V 18	6W4GT	INF	INF	1 Meg	INF	†62Ω	INF	▲29Ω	▲29Ω	
V 19	1B3GT	PINS 1 - 8 HAVE INF RESISTANCE								Top Cap ▲164Ω
V 20	5U4G	INF	11KΩ	INF	12Ω	INF	13Ω	INF	11KΩ	
V 21	5Y3GT	INF	11KΩ	INF	13Ω	INF	12Ω	INF	11KΩ	
V 22	21AP4	0Ω	190KΩ	Pin 10 ▲350KΩ	Pin 11 160KΩ	Pin 12 .1Ω				

▲ MEASURED FROM PIN 3 OF V18.
† MEASURED FROM PIN 2 OF V21.

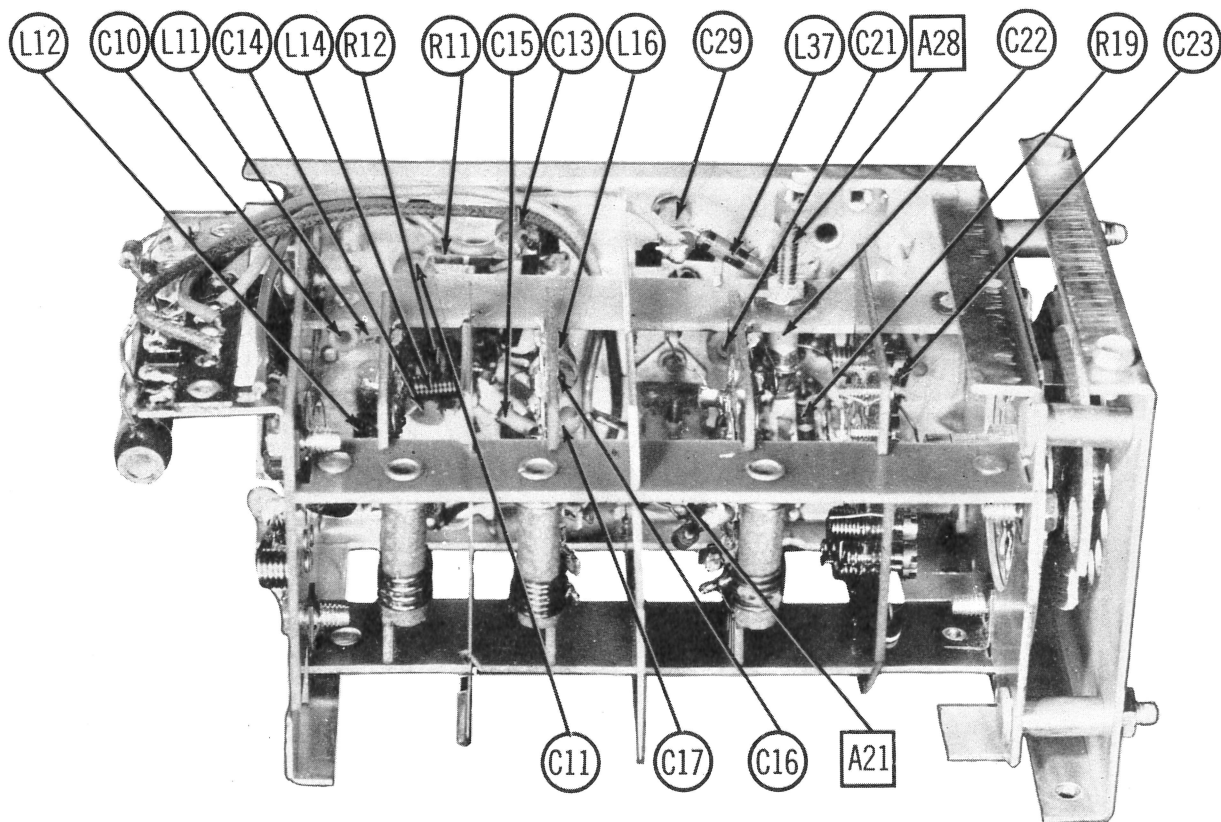


TUBE PLACEMENT CHART

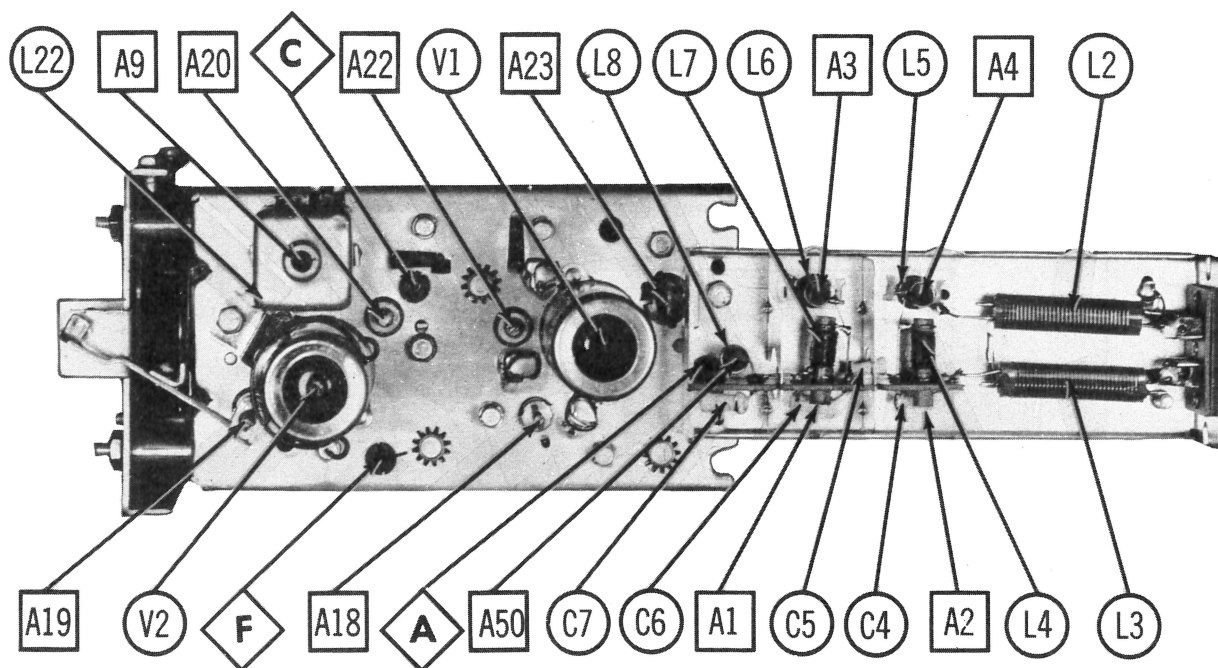
RCA VICTOR MODELS 21-T-303, U, 21-T-313, U, 21-T-314, U, 21-T-315, U, 21-T-316, U, 21-T-322, U, 21-T-323, U, 21-T-324, U (Ch. KCS82, B)



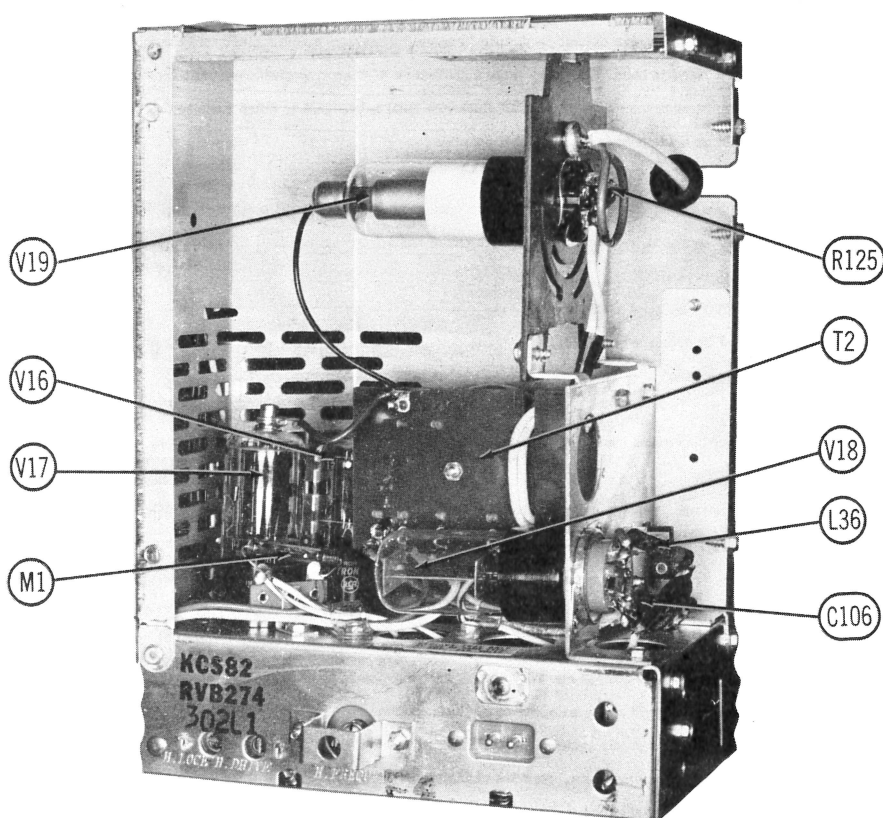
RF TUNER-RIGHT SIDE



RF TUNER-LEFT SIDE



RF TUNER - TOP VIEW



HIGH VOLTAGE COMPARTMENT

SERVICING IN THE FIELD

TUNER OSCILLATOR ADJUSTMENT

Touch up adjustment of the RF Tuner oscillator circuit may be accomplished by removing the channel selector, fine tuning knobs and selector escutcheon. To remove escutcheon slide clip spring to the left.

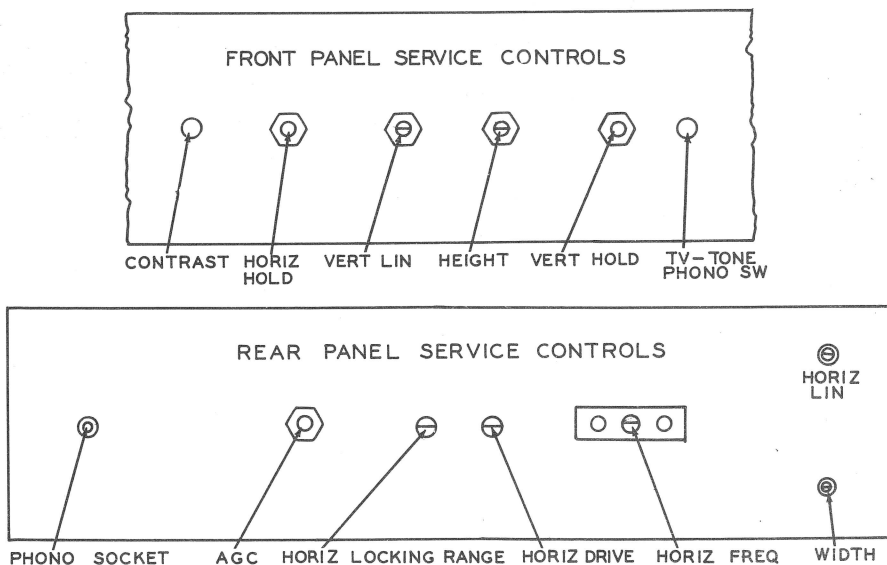
PICTURE TUBE SAFETY GLASS CLEANING

Remove 8 retainers from inside front of cabinet. Hold safety glass while removing metal frame. Remove safety glass. Use extreme caution when removing safety glass.

PICTURE TUBE REMOVAL

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

SERVICE ADJUSTMENT LOCATION



SPECIAL ADJUSTMENTS - AGC CONTROL (On rear apron of chassis)

Turn brightness control fully clockwise. Turn AGC control fully counter clockwise, then clockwise until a very slight bend or change of bend in picture is noted. Then turn counter clockwise enough to remove bend or change in bend. With very weak signals turn AGC control clockwise until snow in picture becomes more pronounced, then counter clockwise until best signal to noise ratio is obtained. Adjustment should be made on a strong signal if possible.

HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

Adjustment of the horizontal oscillator circuit can be made from the rear panel of the chassis. Set the horizontal hold control at the mid-position of its range and adjust the horiz. freq. slug until the picture synchronizes horizontally.

SOUND IF DETECTOR BUZZ ADJUSTMENT

To eliminate sound IF detector buzz, adjust the ratio detector secondary (L34) located on bottom of chassis. (See tube placement chart).

FUSES

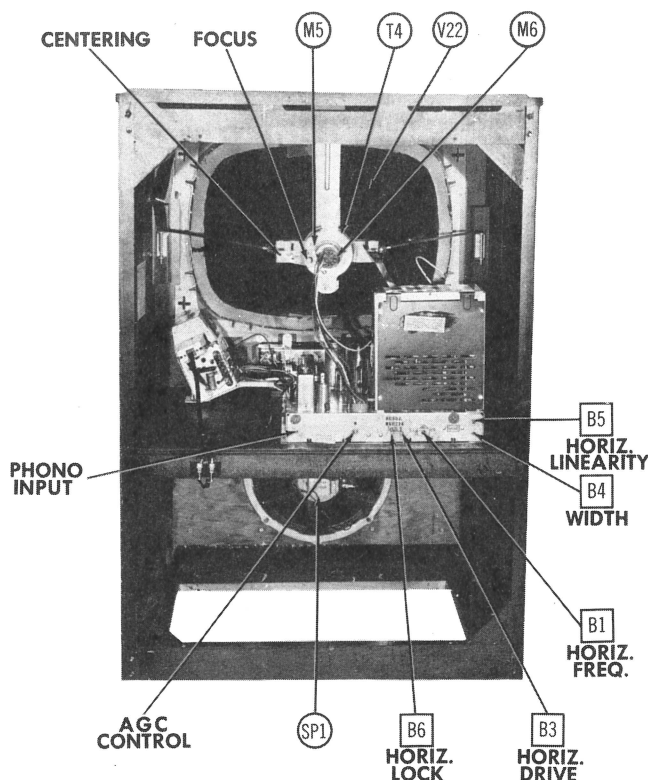
One fuse is used for horizontal sweep circuit protection. (See tube placement chart for location).

CENTERING

Centering is accomplished mechanically by means of a centering lever on the PM focusing assembly. Adjust the centering lever from side to side, and up and down until the picture is properly centered.

DISASSEMBLY INSTRUCTIONS

1. Remove 6 push on type control knobs from front panel.
2. Remove 2 wood and 2 metal screws. Remove rear cover.
3. Disconnect speaker, yoke plug, CRT socket, HV lead and yoke bracket ground strip.
4. Remove 6 chassis bolts. Remove chassis.
5. Remove 3 speaker nuts. Remove speaker.



CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

HORIZONTAL FREQUENCY ADJUSTMENT

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

If the picture cannot be synchronized horizontally with the horizontal hold control, adjust the horizontal frequency slug (B1) until picture will synchronize. If picture still will not synchronize adjust the horizontal waveform slug (B2) several turns out of the coil and readjust B1 to synchronize the picture.

If picture width or linearity is incorrect adjust the horizontal drive trimmer (B3) the width control slug (B4) and the horizontal linearity control slug (B5) for proper results.

HORIZONTAL WAVEFORM ADJUSTMENT

The horizontal waveform adjustment is made at the factory and normally will require no readjustment. B1 and B2 are adjusted simultaneously while watching the picture.

Set the horizontal hold control fully clockwise. Turn B1 until picture falls out of sync and 4 or 4 diagonal black bars sloping down to the right appear on the screen.

Turn B2 clockwise, at the same time adjusting B1 to maintain 3 or 4 bars on screen.

Continue adjusting B1 and B2 in that manner until the oscillator begins to motorboat, then adjust B2 counter clockwise until motorboating stops. To check adjustment turn B1 until picture synchronizes, then reverse the direction of core rotation until the picture falls out of sync with diagonal bars sloping down to the right. Continue to turn B1 in same direction. No more than 3 or 4 bars should appear on screen. Instead the horizontal oscillator should start to motorboat. Retouch B2 until this condition is obtained.

To observe the horizontal waveform connect the low capacity probe of an oscilloscope to terminal C of L35. Turn the horizontal hold 1/4 turn from counter clockwise so that picture is in sync.

The waveform on the scope should appear as in Fig. 9. Adjust B2 for broad and narrow peaks of equal height as in Fig. 9.

If necessary while adjusting B2 keep the picture in sync with the horizontal hold control.

HORIZONTAL LOCKING RANGE ADJUSTMENT

With the horizontal hold control in full counter clockwise position momentarily interrupt the signal by switching off channel and back. If picture remains in sync turn B1 slightly and again switch off channel, repeating until picture loses sync with diagonal lines sloping down to the left. Slowly turn the horizontal hold control clockwise and note the least number of bars obtained just before the picture pulls into sync. If the number is more than 3 adjust the horizontal locking trimmer (B6) slightly clockwise. If the number is less than 2 adjust B6 counter clockwise. Recheck as above for the least number of bars and readjust B6, if necessary, until 2 or 3 bars are present.

Turn the horizontal hold control fully clockwise and adjust B1 until the diagonal bar sloping down to the right appears on the screen, then reverse direction of adjustment of B1 until the diagonal bar just disappears, leaving the picture in synchronization.

AGC CONTROL ADJUSTMENT

Connect an oscilloscope to pin 6 (plate) of 6CL6 (V7). Turn the AGC control fully counter clockwise. Tune in a strong TV signal and adjust the scope to see the video waveform. Turn the AGC control clockwise until the sync tips begin to be compressed, then counter clockwise just enough to remove the compression.

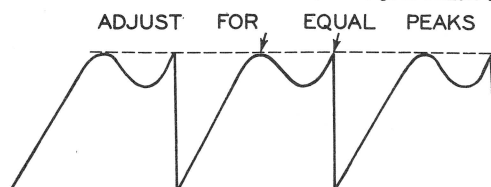


FIG. 9

TROUBLE SHOOTING AIDS

SWEEP

HORIZONTAL	VERTICAL												
<u>LOSS OF SWEEP</u> (Fig. 1) Check yoke. Check solder connections in yoke, yoke plug and socket. <u>INSUFFICIENT SWEEP</u> Check by substitution V16, V17, V18, V20 and V21 Check amplitude of waveform W14 <table border="0"> <tr> <td>If Insufficient</td><td>If Sufficient</td></tr> <tr> <td>Check components of V16. Check C101 and R118.</td><td>Check components V17 and V18 especially R120, R121, R122, C102 and C103</td></tr> </table> <u>DRIVE LINES</u> Check by substitution V16 and V17. Check C101 and B3 (Horizontal drive control). <u>COMPRESSED AT LEFT SIDE</u> Substitute V17 and V18. Check waveform W14: <table border="0"> <tr> <td>If Unsatisfactory</td><td>If Satisfactory</td></tr> <tr> <td>Check coupling network between V16 and V17.</td><td>Check T2 and T5. Check associated components.</td></tr> </table> <u>FOLDS</u> Substitute V18. Check C104, C105 and C106. Check associated components.	If Insufficient	If Sufficient	Check components of V16. Check C101 and R118.	Check components V17 and V18 especially R120, R121, R122, C102 and C103	If Unsatisfactory	If Satisfactory	Check coupling network between V16 and V17.	Check T2 and T5. Check associated components.	<u>LOSS OF SWEEP</u> Check V14 and V15. Check waveform W8: <table border="0"> <tr> <td>If Unsatisfactory</td><td>If Satisfactory</td></tr> <tr> <td>Check components of vertical oscillator and coupling capacitor C82.</td><td>Check R6, R97, R98, R99, T3 and associated components.</td></tr> </table> <u>INSUFFICIENT SWEEP</u> Substitute V14 and V15. Check associated components, especially C81 for leakage and C74 for open. <u>COMPRESSED AT BOTTOM</u> Substitute V14 and V15. Check C3C for open and C78 for leakage. <u>COMPRESSED AT TOP</u> Substitute V14 and V15. Check coupling network between V14 and V15. <u>COMPRESSED AT TOP, STRETCHED AT BOTTOM</u> Check C79 for leakage. Check V16 and yoke components. <u>FOLDS</u> Substitute V15. Check T4 and components.	If Unsatisfactory	If Satisfactory	Check components of vertical oscillator and coupling capacitor C82.	Check R6, R97, R98, R99, T3 and associated components.
If Insufficient	If Sufficient												
Check components of V16. Check C101 and R118.	Check components V17 and V18 especially R120, R121, R122, C102 and C103												
If Unsatisfactory	If Satisfactory												
Check coupling network between V16 and V17.	Check T2 and T5. Check associated components.												
If Unsatisfactory	If Satisfactory												
Check components of vertical oscillator and coupling capacitor C82.	Check R6, R97, R98, R99, T3 and associated components.												

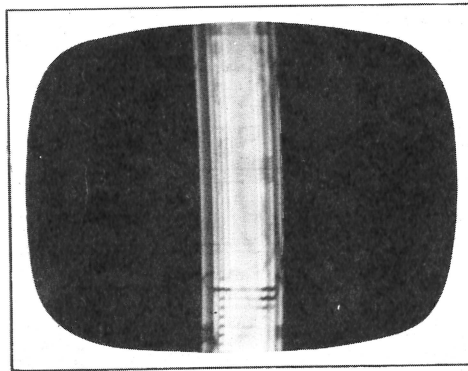


Fig. 1. LOSS OF SWEEP (See Horizontal Sweep).

SYNC

HORIZONTAL	VERTICAL								
<u>LOSS OF SYNC</u> Substitute V6, V13, and V16, Check waveform W12: <table border="0"> <tr> <td>If Unsatisfactory,</td><td>If Satisfactory</td></tr> <tr> <td>Check components of V6B and V14A. Check coupling from V14A to V16.</td><td>Check V16 components particularly C95 for leakage and C97 for open.</td></tr> </table> <u>CRITICAL SYNC</u> Check C96 for open. <u>PULLING PICTURE</u> Check C90 and C94 for open. Fig. 2 results from C97 being open.	If Unsatisfactory,	If Satisfactory	Check components of V6B and V14A. Check coupling from V14A to V16.	Check V16 components particularly C95 for leakage and C97 for open.	<u>LOSS OF SYNC</u> Substitute V6, V14 and V15, Check waveform W7: <table border="0"> <tr> <td>If Unsatisfactory</td><td>If Satisfactory</td></tr> <tr> <td>Check components of V6 and V14. Check C74 and C75 for leakage.</td><td>Check components of V14 plate and cathode circuits.</td></tr> </table> <u>CRITICAL SYNC</u> Substitute V6, V14 and V15. Check associated components for change in values. <u>TRIGGERING</u> Substitute V14. Check filament lead dressing around grid circuit.	If Unsatisfactory	If Satisfactory	Check components of V6 and V14. Check C74 and C75 for leakage.	Check components of V14 plate and cathode circuits.
If Unsatisfactory,	If Satisfactory								
Check components of V6B and V14A. Check coupling from V14A to V16.	Check V16 components particularly C95 for leakage and C97 for open.								
If Unsatisfactory	If Satisfactory								
Check components of V6 and V14. Check C74 and C75 for leakage.	Check components of V14 plate and cathode circuits.								

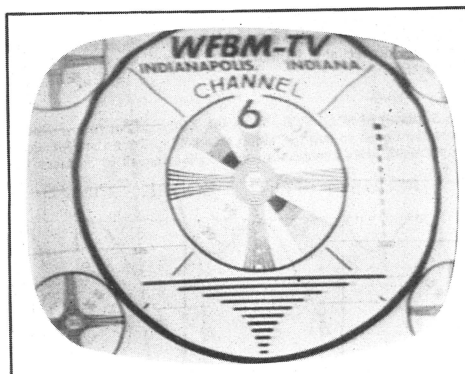


Fig. 2. PULLING PICTURE (See Horizontal Sync).

TROUBLE SHOOTING AIDS (CONT.)

VIDEO

SOUND BARS

Check adjustment of All (4.5MC Trap) in video amplifier grid circuit.
Check local oscillator adjustment video IF alignment.

POOR RESOLUTION

Check by substitution video IF tubes. Check alignment of video IF stages.

SMEAR

Check video amplifier V7 and associated components, particularly the peaking coils.

ONE WIDE BLACK BAR

Check tuner, video IF, video detector and video amplifier tubes for filament to cathode leakage.

POOR CONTRAST

Check waveform W1.

If Unsatisfactory

Check V3, V4, V5 and V6. Check alignment.

Check waveform W2.

If Unsatisfactory

Substitute V7 and check associated components.

If Satisfactory

Check waveform W2;

If Satisfactory

Check picture tube and grid circuit components.

AUDIO

WEAK OR NO SOUND

Substitute V9, V10, V11, V12 and V13. Check associated components. Check speaker. Check sound IF and ratio detector alignment. Check function switch contacts.

BUZZ

Adjust ratio detector secondary for minimum buzz. If still noticeable, substitute V11 and readjust.

DISTORTED

Check audio amplifier stages V12 and V13 using audio signal generator and scope.

If Undistorted

Substitute V9, V10, and V11. Check adjustment of ratio detector.

If Distorted

Check components of stage where distortion occurs.

HIGH VOLTAGE

LOSS OF HIGH VOLTAGE

Check by substitution V16, V17, V18 and V19. Check fuse in high voltage cage.
Check waveform W14.

If Unsatisfactory

Check horizontal oscillator components and coupling network between V16 and V17.

If Satisfactory

Check components of V17. Check T2 and T4. Check all associated components.

WEAK HIGH VOLTAGE

Follow procedure outlined under loss of high voltage.

BLOOMING

Substitute V17, V19, V20 and V21. Check associated components. Check picture tube.

LOSS OF FOCUS

Check C102 for open. Follow procedure outlined under blooming.

POWER

SMALL RASTER, WEAK SOUND

Check B plus circuits for shorts. If no shorts are present and B plus is low, check V20 and V21.

DIM PICTURE

Measure B plus.

If Low

Substitute V20 and V21. Check for shorts.

If Normal

Check V18 and boost B plus circuit.

GENERAL

RASTER, BUT NO PICTURE, SOUND OR SNOW

Check by substitution V2, V3, V5, V6 and V7. Check associated components.

WEAK PICTURE AND WEAK SOUND

Substitute V4 and check components.

SOUND BUT NO PICTURE

Check by substitution V8 and V14. Check associated components.

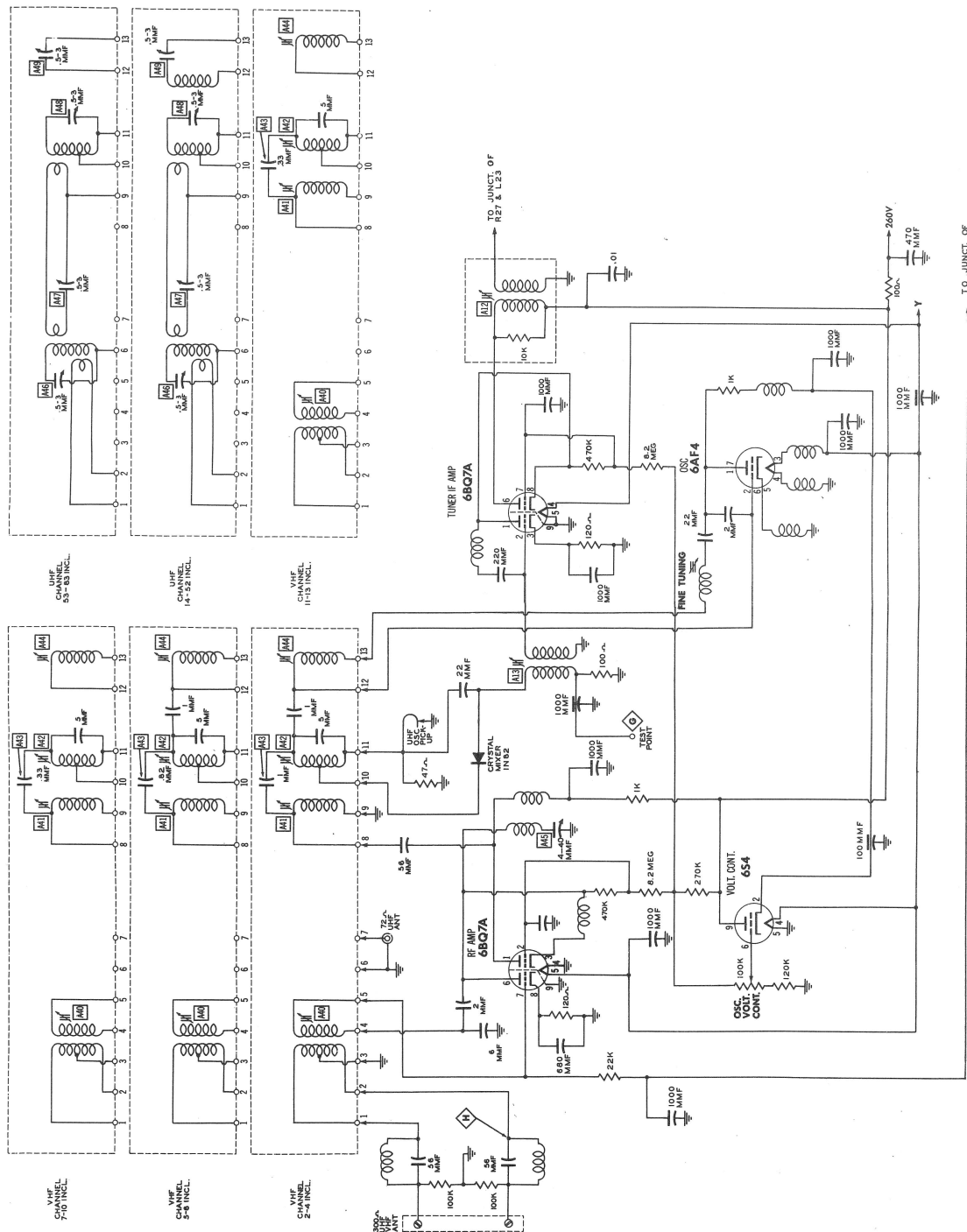
SNOWY PICTURE, GOOD SOUND

Substitute V1 and check components.

INTERMITTANT STREAKS

Check high voltage circuit for corona discharge and arcing. This may best be done by looking for a blue glow in the dark.

The Trouble - Shooting photographs shown above are made with permission of transmitting station WFBM-TV and in no way reflect the quality of the transmitted picture. Similarly, symptoms shown are assumed and are not indicative of the quality and workmanship of this receiving equipment.



ALTERNATE RCA KRM12 UHF-VHF TUNER

A PHOTOFACT STANDARD NOTATION SCHEMATIC
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ALTERNATE TUNER SCHEMATIC

PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RTMA BASE TYPE	NOTES
		RCA Victor PART No.	STANDARD REPLACEMENT		
V1	RF Amplifier	6BQ7A	6BQ7A	9AJ	
V2	Converter	6X8	6X8	9AK	
V3	1st. Video IF Amp.	6CB6	6CB6	7CM	
V4	2nd. Video IF Amp.	6CB6	6CB6	7CM	
V5	3rd. Video IF Amp.	6CB6	6CB6	7CM	
V6	Video Detector-Vert. Sync Sep.	12AU7	12AU7	9A	
V7	Video Output	6CL6	6CL6		
V8	AGC Keying-Horiz. Sync Sep.	12AU7	12AU7	9A	
V9	1st. Sound IF Amp.	6AU6	6AU6	7BK	
V10	2nd. Sound IF Amp.	6AU6	6AU6	7BK	
V11	Ratio Detector	6AL5	6AL5	6BT	
V12	AF Amplifier-AGC Clamper	6AV6	6AV6	7BT	
V13	Audio Output	6K6GT	6K6GT	7S	
V14	Vert. Sync Amp.-Vert. Oscillator	12AU7	12AU7	9A	
V15	Vert. Output	6K6GT	6K6GT	7S	
V16	Horiz. AFC-Horiz. Oscillator	6SN7GT	6SN7GT	8BD	
V17	Horiz. Output	6BQ6GT	6BQ6GT	6AM	
V18	Damper	6W4GT	6W4GT	4CG	
V19	HV Rectifier	1B3GT	1B3GT	3C	
V20	LV Rectifier	5U4G	5U4G	5T	
V21	LV Rectifier	5Y3GT	5Y3GT	5T	

CATHODE-RAY TUBE

ITEM No.	REPLACEMENT DATA			RTMA BASE TYPE	NOTES
	RCA Victor PART No.	SYLVANIA PART No.			
V22	21AP4	21AP4		12D	

CAPACITORS

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

ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	RCA Victor PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C1A	.80	400	77644	AFH2-63		CO36		FP245.3	TVL-2673	
B	.20	400								
C2A	.100	400	76970	AFH3-40		CI52		FP431.4	TVL-3672	
B	.10	350		PR550/25						
C	.20	50								
C3A	.10	350	75218	AFH3-112		CO74		FP387.1	TVL-3638	
B	.5	350								
C	.150	50								
C4	.18		54207				NP0K-180			
C5	.5		93056	SI5NP0	TCZ-4.7		NP0K-050	ZT-555	5TCCB-V47	
C6	.27		70935				NP0K-270			
C7	.33		76739	SI33NP0	TCZ-33		NP0K-330	ZT-5433	5TCC-Q33	
C8	.22		76557	SI22	D6-220		GPIK-220	UC-5422	5GA-Q22	
C9	1500		73748	BPD-0015	DD-152	TM5D15	801-0015	DC-5215	5HK-D15	
C10	1-4		76532		829-4					
C11	1500		73748	BPD-0015	DD-152	TM5D15	801-0015	DC-5215	5HK-D15	
C12	1500		73748	BPD-0015	DD-152	TM5D15	801-0015	DC-5215	5HK-D15	
C13	1500		75166	CS-1B-0015	SI-152				501C-1500	
C14	1500		73748	BPD-0015	DD-152	TM5D15	801-0015	DC-5215	5HK-D15	
C15	.8		70597				NP0K-080			
C16	.8-3.8									
C17	.270		75199	SI270	D6-271		GP2K-271	UC-5327	5GA-T27	
C18	.270		75199	SI270	D6-271		GP2K-271	UC-5327	5GA-T27	
C19	.470			SI470	D6-471		GP2K-471	UC-5347	5GA-T47	
C20	1500		75166	CS-1B-0015	SI-152				501C-1500	
C21	.8-3.8		75184							
C22	.8-3		77151		829-3			CT565A		
C23	.10		55326	SI10N080			N080-331-100			
C24	.68		71504		TCZ-.68		NP0K-R68			
C25	.22		76558	SI22N750	TCN-22		N750K-220		5TCU-Q22	
C26	1500		75166	CS-1B-0015	SI-152				501C-1500	
C27	1500		75166	CS-1B-0015	SI-152				501C-1500	
C28	1500		76510	SI1500	D6-152	TM5D15	GP2L-152	UC-5215	5HK-D15	
C29	1500		75166	CS-1B-0015	SI-152				501C-1500	
C30	.470		77293	BPD-00047	DD-471	TM5T5	GP2K-471	UC-5347	5GA-T47	
C31	10000		73960	BPD-01	DD-1032	TM5S1	811-01	DC-511	5HK-S1	Note 1
C32	.047	400	73553	P488-047	DF-503	PTE4847		PT4147	4TM-547	Note 1
C33	.470		77293	BPD-00047	DD-471	TM5T5	GP2K-471	UC-5347	5GA-T47	Note 1
C34	.470		77293	BPD-00047	DD-471	TM5T5	GP2K-471	UC-5347	5GA-T47	
C35	.470		77293	BPD-00047	DD-471	TM5T5	GP2K-471	UC-5347	5GA-T47	
C36	.470		77293	BPD-00047	DD-471	TM5T5	GP2K-471	UC-5347	5GA-T47	
C37	.47	200	73787	P288-47		PJ2P5		PT405	2TM-P47	
C38	.470		77293	BPD-00047	DD-471	TM5T5	GP2K-471	UC-5347	5GA-T47	
C39	.470		77293	BPD-00047	DD-471	TM5T5	GP2K-471	UC-5347	5GA-T47	
C40A	.470		77672	BPD-00047	DD-471	TM5T5	GP2K-471	UC-5347	5GA-T47	
B	.470			BPD-00047	DD-471	TM5T5	GP2K-471	UC-5347	5GA-T47	
C41	10000		73960	BPD-01	DD-1032	TM5S1	811-01	DC-511	5HK-S1	
C42	.10		33098	SI10N750	TCN-10		N750K-100	NT-541	5TCU-Q1	
C43	.470		77293	BPD-00047	DD-471	TM5T5	GP2K-471	UC-5347	5GA-T47	
C44	.47				TCZ-47		NP0-333-470		5TCC-Q47	
C45	.0047	600	73920	P688-0047	D6-472	PTE6D47	GP2-333-472	PT6247	6TM-D47	
C46	.270	500	39638	1469-0003		5R5T3		MCB241	MS-33	
C47	.39		73664		TCN-39		N750K-390			
C48	.15		39044		TCN-15		N750K-150			
C49	.1	200	73784	P288-1	DF-104	PJ2P1		PT401	5TCU-Q15	
C50	.1	400	73551	P488-1	DF-104	PTE4P1		PT401	2TM-P1	
C51	.0022	600	73595	P688-0022	D6-222	PTE6022		PT6222	4TM-P1	
C52	.001	600	75643	P688-001	D6-102	PTE6D1	GP2-333-222	PT621	6TM-D22	
C53	.470	1500	77673				GP2L-102		6TM-D1	

RCA VICTOR MODELS 21-T-303, U, 21-T-313, U, 21-T-314, U, 21-T-315, U, 21-T-316, U, 21-T-322, U, 21-T-323, U, 21-T-324, U (Ch. KCS82, B)

CAPACITORS (CONT.)

ITEM No.	RATING		REPLACEMENT DATA								NOTES
	CAP.	VOLT	RCA Victor Part No.	AEROVOX Part No.	CENTRALAB Part No.	CORNELL-DUBILIER Part No.	ERIE Part No.	MALLORY Part No.	SPRAGUE Part No.		
C54A	10000		76991	BPD-01	DD-3-103	TM5DS1	811-01	DC-511	5HK-2S1	Note 2	
B	10000			BPD-01			811-01	DC-511			
C55	10000		73960	BPD-01	DD-1032	TM5S1	811-01	DC-511	5HK-S1		
C56	10000		73960	BPD-01	DD-1032	TM5S1	811-01	DC-511	5HK-S1		
C57	470	500	39644	1467-0005	D6-471	5W5T5	GP2K-471	MC245	MS-35		
C58	470	500	39644	1467-0005	D6-471	5W5T5	GP2K-471	MC245	MS-35		
C59	.47	200	73787	P288-47		PJ2P5		PT405	2TM-P47		
C60	470		77293	BPD-00047	DD-471	TM5T5	GP2K-471	UC-5347	5GA-T47		
C61	.0022	600	73595	P688-0022	D6-222	PTE6D22		PT6222	6TM-D22		
C62	.0047	600	73920	P688-0047	D6-472	PTE6D47	GP2-333-472	PT6247	6TM-D47		
C63	.033	200	73552	P488-033				PT4133			
C64	.01	400	73561	P488-01	D6-103	PTE4S1	GP2-333-103	PT411	4TM-S1		
C65	.0027	600	73599	P688-003	D6-272	PTE6D3	GP2-333-272	PT623	6TM-D3		
C66	270		47617		TCN-270			PT4025	4TM-P22		
C67	.22	200	73794	P488-22		PTE4D22		PT411	4TM-S1		
C68	.01	400	73561	P488-01	D6-103	PTE4S1	GP2-333-103	PT1623	MB-D3		
C69	.0027	1000	73818	P1088-003		PTE16D3					
C70	330	500	39640	I469-00035				PT401	4TM-P1		
C71	.1	400	73551	P488-1	DF-104	PTE4P1		PT4133	6TM-S3		
C72	.033	400	73552	P488-033		PTE6S3					
C73	.0082	400	73808								
C74	.0047	600	73920	P688-0047	D6-472	PTE6D47	GP2-333-472	PT6247	6TM-D47		
C75	.390	1000	73094	P688-0047	D6-472	PTE6D47	GP2-333-472	PT6247	6TM-D47		
C76	.0047	600	73920	P688-0047	D6-472	PTE6D47	GP2-333-472	PT6247	6TM-D47		
C77	.0015	1000	77123								
C78	.033	600	73596	P688-033				PT6133			
C79	.0022	600	73595								
C80	.068	200	73792								
C81	.1	400	73551	P488-1	DF-104	PTE4P1		PT401	4TM-P1		
C82	.1	600	73557	P688-1	DF-104	PTE6P1		PT601	6TM-P1		
C83	.022	600	73798	P688-022		PTE6S22		PT6122	6TM-S22		
C84	.047	600	73592	P688-047	DF-503	PTE6S47		PT6147	6TM-S47		
C85	.0047	600	73920	P688-0047	D6-472	PTE6D47	GP2-333-472	PT6247	6TM-D47		
C86	.1	400	73551	P488-1	DF-104	PTE4P1		PT401	4TM-P1		
C87	.0039	600	73796	P688-004	D6-402	PTE6D4	GP2-333-402	PT624	6TM-D4		
C88	270	1000	76579								
C89	220	500	39636								
C90	82	1000	76474								
C91	.001	600	75643	P688-001	D6-102	PTE6D1	GP2L-102	PT621	6TM-D1		
C92	68	1000	76475								
C93	12		33380		TCN-12		N750K-120				
C94	.047	400	73553	P488-047	DF-503	PTE4S47		PT4147	4TM-S47		
C95	.1	400	73551	P488-1	DF-104	PTE4P1		PT401	4TM-P1		
C96	.022	400	73562	P488-022	DD-203	PTE4S22		PT4122	4TM-S22		
C97	.47	200	73787	P288-47		PJ2P5		PT405	2TM-P47		
C98	330	1000	76476								
C99	.01	600	73594								
C100	.0012	600	76995								
C101	.00068	600	76479								
C102	.1	600	73557	P688-1	DF-104	PTE6P1		PT601	6TM-P1		
C103	.27	200	73786								
C104	.022	1000	73810	P1088-022		PTE16S25		PT16122	MB-S22		
C105	.027	1000	73811								
C106	270	1000	76579								
C107	.1	600	73557	P688-1	DF-104	PTE6P1		PT601	6TM-P1		
C108	.022	1000	73810	P1088-022		PTE16S25		PT16122	6TM-S22		
C109	500	20000	76461	HV11	TV4-502		413-501		20DK-T5		
C110	91	2000									
C111	.047	400		489ZX-05		PJ485		PT4147	4TM-S47		
C112	.047	400		489ZX-05		PJ485		PT4147	4TM-S47		
									Note 4		

Note 1. Not used in Ch. KCS82B.

Note 2. Not used in all Models.

Note 3. Some Models use .001MFD in this application (part #75643).

Note 4. Some Models use .01MFD in this application (part #73594).

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESIST-ANCE	WATTS	RCA Victor PART No.	IRC PART No.	CLAROSTAT PART No.	CENTRALAB PART No.	MALLORY PART No.	
R1A	200K Ω	$\frac{1}{2}$	77655	QJ-447 *	RTV-406		UF254L	Brightness-Panel Volume-tapped @ 200K Ω -rear Attach to R1B
B	1Meg	$\frac{1}{2}$					UR16-T25	
C	Switch						US-26	
R2	15K Ω	$\frac{1}{2}$	76445	Q13-118XX				Contrast-tapped @ 4875 Ω and 10K Ω
R3A	75K Ω	$\frac{1}{2}$	77639	Q11-125	AG-47-S	AB-35	U-41	Horiz. Hold
B	Shaft		Not Req.	Not Req.	KSS-3	AK-4	Not Req.	Attach to R3A
R4A	100K Ω	$\frac{1}{2}$	77643	Q11-108	AG-8-S	AB-5	U-4	Vert. Linearity
B	Shaft		Not Req.	SQ	KSS-3	AK-1	Not Req.	Attach to R4A
R5A	3Meg	$\frac{1}{2}$	77924	Q11-140	AG-85-S	AB-84	U-59	Height-see note
B	Shaft		Not Req.	SQ	KSS-3	AK-1	Not Req.	Attach to R5A
R6A	1.2Meg	$\frac{1}{2}$	77642	Q11-138	AG-83-S	AB-75	U-155	Vert. Hold
B	Shaft		Not Req.	Not Req.	KSS-3	AK-4	Not Req.	Attach to R6A
R7A	500K Ω	$\frac{1}{2}$	76975	Q11-133	AG-58-S	AB-59	SU-50	AGC
B	Shaft		Not Req.	Not Req.	FKS-1/4	AK-1	Not Req.	Attach to R7A

* CONCENTRIKIT EQUIVALENT- KIT K-2, BASE ELEMENTS & SHAFTS B11-129 & P1-200 (Panel)

B13-137X & R1-216 (Rear) & SWITCH 76-1

† Universal Replacement- (Mallory exact duplicate part #UE1360S)

Note, Some Models use a 2.5Meg control in this application.

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA				NOTES
	OHMS	WATT	RCA Victor PART No.	IRC PART No.			
R8	3300 Ω	$\frac{1}{2}$	503233	BTS-3300			Note 1
R9	150 Ω	$\frac{1}{2}$	503115	BTS-150			
R10	3300 Ω	$\frac{1}{2}$	503233	BTS-3300			Note 1
R11	120 Ω	$\frac{1}{2}$	503112	BTS-120			
R12	470K Ω	$\frac{1}{2}$	503447	BTS-470K			Note 1
R13	1000 Ω	$\frac{1}{2}$	503210	BTS-1000			
R14	1000 Ω	$\frac{1}{2}$	503410	BTS-100K			Note 1
R15	100K Ω	$\frac{1}{2}$	503410	BTS-100K			
R16	100K Ω	$\frac{1}{2}$	503233	BTS-3300			Note 1
R17	3300 Ω	$\frac{1}{2}$	503233	BTS-3300			

ITEM No.	RATING		REPLACEMENT DATA			NOTES	ITEM No.
	OHMS	WATT	RCA Victor Part No.	IRC Part No.			
R27	1000Ω	$\frac{1}{2}$	503210	BTS-1000			R78
R28	1000Ω	$\frac{1}{2}$	503210	BTS-1000			R79
R29	150KΩ 5%	1	512415	BTA-150K 5%	Note 3		R80
R30	68Ω 5%	$\frac{1}{2}$	34763	BTS-68 5%			R81
R31	1000Ω	$\frac{1}{2}$	503210	BTS-1000			R82
R32	56KΩ 5%	$\frac{1}{2}$	502356				R83
R33	47KΩ	$\frac{1}{2}$	503347	BTS-47K	Note 2		R84
R34	33Ω 5%	$\frac{1}{2}$	30789	BTS-33 5%			R85
R35	1000Ω	$\frac{1}{2}$	503210	BTS-1000			R86
R36	1Meg	$\frac{1}{2}$	503510	BTS-1Meg			R87
R37	56KΩ 5%	$\frac{1}{2}$	502356				R88
R38	180Ω 5%	$\frac{1}{2}$	502118	BTS-180 5%			R89
R39	470Ω	$\frac{1}{2}$	503447	BTS-470			R90
R40	47KΩ	$\frac{1}{2}$	503347				R91
R41	3.9Meg	$\frac{1}{2}$	503539	BTS-3.9Meg			R92
R42	3900Ω 5%	$\frac{1}{2}$	502239	BTS-3900 5%			R93
R43	33Ω	$\frac{1}{2}$	503033	BTS-33			R94
R44	5600Ω	1	513256	BTA-5600			R95
R45	2200Ω	2	523222	BTB-2200			R96
R46	10KΩ 5%	$\frac{1}{2}$	502310	BTS-10K 5%	Note 8		R97
R47	6750Ω	10	76642				R98
R48	680Ω	$\frac{1}{2}$	503168	BTS-680			
R49	2200Ω	$\frac{1}{2}$	503222	BTS-2200			R99
R50	220KΩ	$\frac{1}{2}$	503447	BTS-220K			R100
R51	470KΩ	$\frac{1}{2}$	503447	BTS-470K			R101
R52	150KΩ	$\frac{1}{2}$	503415	BTS-150K			R102
R53	220KΩ	$\frac{1}{2}$	503422	BTS-220K			R103
R54	82Ω	$\frac{1}{2}$	503082	BTS-82			R104
R55	1000Ω	$\frac{1}{2}$	513210	BTA-1000			R105
R56	3300Ω	1	77670				R106
R57	1000Ω	$\frac{1}{2}$	503210	BTS-1000			R107
R58	10KΩ	1	513310	BTA-10K			R108
R59	47Ω	$\frac{1}{2}$	503047	BTS-47			R109
R60	39KΩ	$\frac{1}{2}$	503339	BTS-39K			R110
R61	10KΩ 5%	$\frac{1}{2}$	502310	BTS-10K 5%			R111
R62	10KΩ 5%	$\frac{1}{2}$	502310	BTS-10K 5%			R112
R63	12KΩ	$\frac{1}{2}$	503312	BTS-12K			R113
R64	10Meg	$\frac{1}{2}$	503610	BTS-10Meg			R114
R65	330KΩ	$\frac{1}{2}$	503433	BTS-330			R115
R66	470KΩ	$\frac{1}{2}$	503447	BTS-470K			
R67	560Ω	$\frac{1}{2}$	513156	BTA-560			R116
R68	1800Ω	2	523218	BTB-1800			R117
R69	6800Ω	$\frac{1}{2}$	513268	BTA-6800			R118
R70	470KΩ	$\frac{1}{2}$	503447	BTS-470K			R119
R71	3.9Meg	$\frac{1}{2}$	503539	BTS-3.9Meg			R120
R72	47KΩ	$\frac{1}{2}$	503347	BTS-47K			R121
R73	68KΩ	$\frac{1}{2}$	503368	BTS-68K			R122
R74	390KΩ	$\frac{1}{2}$	503439	BTS-390K			R123
R75	18KΩ	$\frac{1}{2}$	503318	BTS-18K			R124
R76	120KΩ	$\frac{1}{2}$	503142	BTS-120K			R125
R77	8200Ω	$\frac{1}{2}$	503282	BTS-8200			R126

DESCRIPTIONS (Continued)

RES (CONT.)

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	RCA Victor PART No.	IRC PART No.	
R78	680KΩ		503468	BTS-680K	
R79	270KΩ		503427	BTS-270K	
R80	22KΩ		503322	BTS-22K	
R81	2.2Meg		503522	BTS-2.2Meg	
R82	680KΩ		503468	BTS-680K	
R83	47KΩ		503347	BTS-47K	
R84	22KΩ		503322	BTS-22K	
R85	8200Ω		503282	BTS-8200	
R86	3900Ω 5%		502239	BTS-3900 5%	
R87	22KΩ		503322	BTS-22K	
R88	18KΩ		503318	BTS-18K	
R89	470KΩ		503447	BTS-470K	Note 4
R90	1.2Meg		503512	BTS-1.2Meg	Note 5
R91	100KΩ		513410	BTA-100K	Note 6
R92	100KΩ		513410	BTA-100K	
R93	56KΩ 5%		512356	BTA-56K 5%	
R94	8200Ω		503282	BTS-8200	
R95	270KΩ 5%		502427	BTS-270K 5%	
R96	8200Ω		503282	BTS-8200	
R97	1.2Meg		503512	BTS-1.2Meg	
R98	1.1Meg 5%		502511	BTS-1.1Meg 5%	Note 7
R99	390Ω	1	513139	BTA-390	
R100	3300Ω		503233	BTS-3300	
R101	15KΩ		503315	BTS-15K	
R102	560Ω			BTS-560	
R103	560Ω			BTS-560	
R104	1000Ω			BTS-1000	
R105	22KΩ		503322	BTS-22K	
R106	68KΩ		503368	BTS-68K	
R107	150KΩ		503415	BTS-150K	
R108	330KΩ		503433	BTS-330K	
R109	820KΩ		503482	BTS-820K	
R110	82KΩ		503382	BTS-82K	
R111	330KΩ		503433	BTS-330K	
R112	3900Ω 5%		502239	BTS-3900 5%	
R113	150KΩ 5%		512415	BTA-150K 5%	
R114	18KΩ		503318	BTS-18K	
R115	1.8Meg 5%	1	39063	BTA-1.8Meg 5%	
R116	47KΩ 5%	1	512347	BTA-47K 5%	
R117	820KΩ		503482	BTS-820K	
R118	470KΩ		503447	BTS-470K	
R119	2.2Meg		503522	BTS-2.2Meg	
R120	47Ω		503047		
R121	180Ω	2	76639	BW-2-180	
R122	6800Ω	2	523268	BTB-6800	
R123	56KΩ		503356	BTS-56K	
R124	270KΩ		503427	BTS-270K	
R125	5.1Ω		76796		
R126	100KΩ		503410	BTS-100K	

RES (POWER)

REPLACEMENT DATA					
STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	TRIAD PART No.	RCA TYPE No.	
P-8167		TP-319			

SWEEP CIRCUITS

REPLACEMENT DATA				NOTES
CHICAGO PART No.	TRIAD PART No.	RCA TYPE No.		
D-9	D-19 ①			Horiz. Output Trans.
038 ② F-70	TSO-7 TY-3	A-99X ② Y-17		Vert. Output Trans.
C-14 ⑤ C-14 ⑤	TWL-1 TWL-1	WC-12 ⑥ WC-11 ⑤		Horiz. Deflection Coils. Vert. Deflection Coils. Horiz. Lin. Coil Width Coil

(AUDIO OUTPUT)

REPLACEMENT DATA				NOTES
MERIT PART No.	CHICAGO PART No.	TRIAD PART No.	RCA TYPE No.	
① A-3019	RO-301 ①	S-5X ①		① Drill one new mtg. hole.

SPEAKER

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	SIZE	FIELD	V. C. IMP.	RCA Victor PART No.	VIKING PART No.	QUAM PART No.	
SPI	12"	PM	3.7Ω	76093 77777 ① 75022 ② 77000 ③	12J11	12A31	① 10" PM speaker used in models 21-T-314, 314U, 21-T-315, 315U, 21-T-316, 316U and 21-T-322, 322U. ② 8" PM Used in models 21-T-313, 313U. ③ 5" PM Used in models 21-T-303, 303U.

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA				
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 ~)	RCA Victor PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	TRIAD PART No.
L1	.290ADC	41Ω	1.06 Hy.	77676	C-2326 ①	C-2996 ①	TR-1733 ①	C-17X ①

① Drill one new mounting hole.

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA				NOTES
		PRI.	SEC.	RCA Victor PART No.	MILLER PART No.	MEISSNER PART No.	IRC PART No.	
L2	Ant. Trans.	.6Ω	.6Ω	73591				
L3	Ant. Trans.	.6Ω	.6Ω	73591				
L4	IF Trap	0Ω		76542				Includes core
L5	Ant. Shunt Coil	0Ω		76538				Includes core
L6	Ant. Shunt Coil	0Ω		76537				Includes core
L7	IF Trap	0Ω		76541				Includes core
L8	FM Trap	0Ω		76540				Includes core, core part #76543
L9	Ant. Coils	0Ω		76556				Includes stator complete with rotor coils C8, R8 and R10
L10	Ant. Shunt Coils	0Ω		77664				Includes stator complete with rotor, coils, C9 & R9 Channel 13
L11	Ant. Coil	0Ω		76561				
L12	Fil. Choke	0Ω		73477				
L13	IF Trap	0Ω		76535				
L14	Neutr. Coil	0Ω		76562				
L15	RF Coils	0Ω		76553				Includes stator complete with rotor, coils C17 & R14 Channels 13, part no. includes .8-3.8 MMF Capacitor
L16	RF Coil	0Ω		76529				
L17	Mixer Grid Coil	0Ω		77922				Includes stator complete
L18	Osc. Coils	0Ω		77205				Includes stator complete with rotor, coils, C23 & C24
L19	Fil. Choke	0Ω		76763				
L20	Fil. Choke	0Ω		76763				
L21	Fil. Choke	0Ω		77206				
L22	Conv. Plate	.2Ω	0Ω	77663				Includes 27KΩ resistor
L23	1st. Video IF	.1Ω	.2Ω	77637				Includes trap & 27KΩ resistor
L24	2nd. Video IF	.2Ω	.2Ω	77638	6219			1.36 Microhenries
L25	Fil. Choke	0Ω		73477	4604			
L26	3rd. Video IF	.2Ω	.2Ω	76433	6219			
L27	4th. Video IF	.2Ω	.2Ω	76433	6219			
L28	Series Peaking Coil	3.4Ω		76011		19-3036		36 Microhenries
L29	Shunt Peaking Coil	7Ω		71526	6181	19-3250		250 Microhenries
L30	4.5MC Trap	3.2Ω		76983	1470	20-1004		
L31	Shunt Peaking Coil	26Ω		77124	4652 †			1000 Microhenries, wound on 10KΩ resistor in some Models.
L32	Series Peaking Coil	10Ω		77925	4646 ■	19-3250 ■		220 Microhenries * Wound on 27KΩ resistor Includes 22MMF capacitor and 120KΩ resistor
L33	Sound IF	1.7Ω		76981				Tertiary windings .3Ω Tapped @ 55Ω, horiz. waveform winding=45Ω
L34	Ratio Det.	11Ω	.4Ω CT	77112	1468	17-1033		1.5 Microhenries
L35	Horiz. Osc.	70Ω		76440	6183	20-1402		
L36	RF Choke	.72Ω		76640	4604		CL-1	
L37	RF Choke	.2Ω		77135				

* Some Models use 250 microhenries series peaking coil in this application.

† Parallel with 10KΩ resistor

■ Parallel with 27KΩ resistor

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			RCA Victor PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	3AG-P/T	1/4A ⓐ 250V	73600	P/T	318.250 (3AG-1/4A-P/T)		GJV-1/4	

MISCELLANEOUS

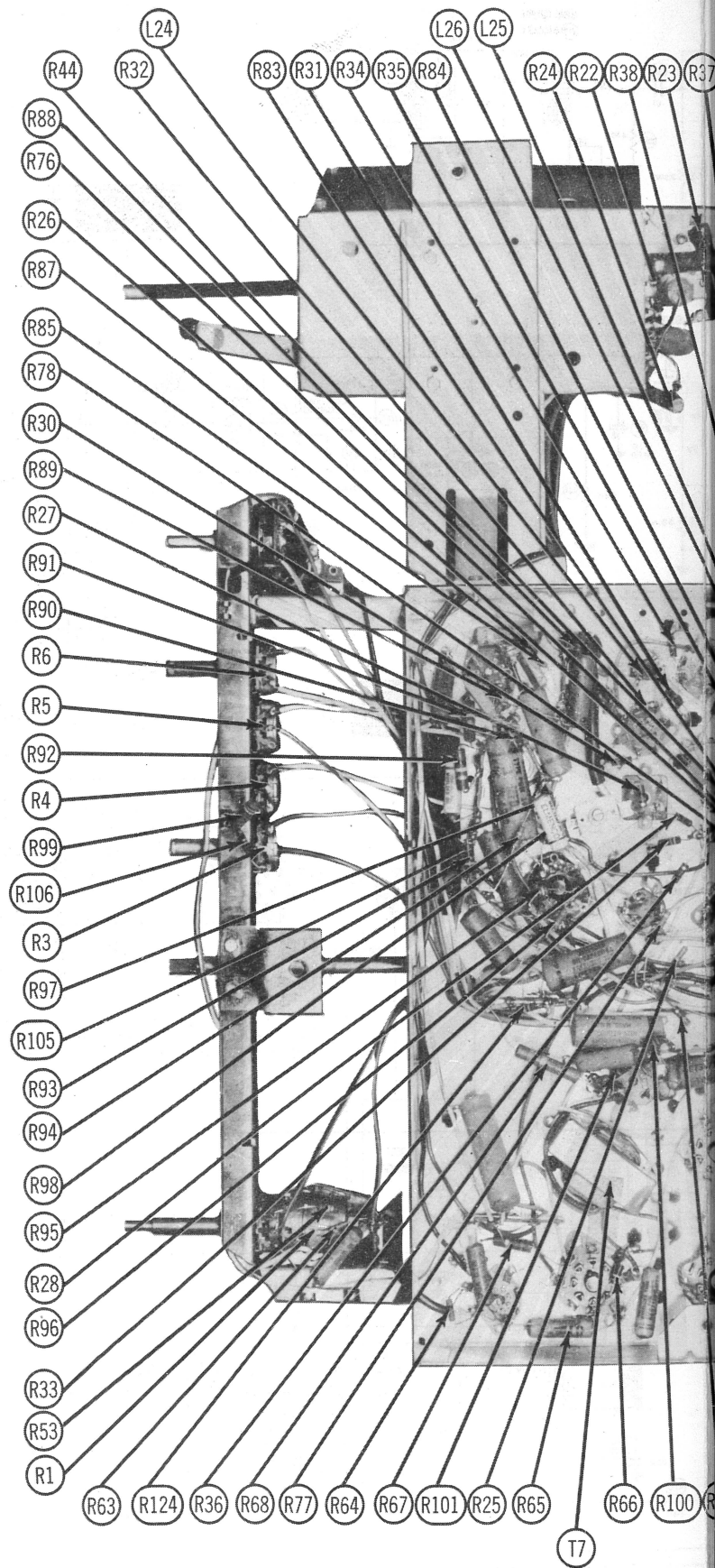
ITEM No.	PART NAME	RCA Victor PART No.	NOTES
M2	Dial Lite		Mazda 51
M3A	RF Tuner	KRK11-B	Models 21-T-303, 313, 314, 315, 316, 322, 323, 324
B	RF Tuner	KRK12	Models 21-T-303U, 313U, 314U, 315U, 316U, 322U, 323U, 324U
M4	Switch	77656	Phono-Tone Control
M5	Magnet	76168	Focus
M6	Magnet	76141	Ion Trap
A11	Trimmer Capacitor	71496	IF Link Trimmer 5-70MMF
B3, B6	Trimmer Capacitor	75217	Horiz. Drive, locking range dual 10-160MMF

RCA VICTOR MODELS 21-T-303, U, 21-T-313, U, 21-T-314, U, 21-T-315, U, 21-T-316, U, 21-T-322, U, 21-T-323, U, 21-T-324, U (Ch. KCS82, B)

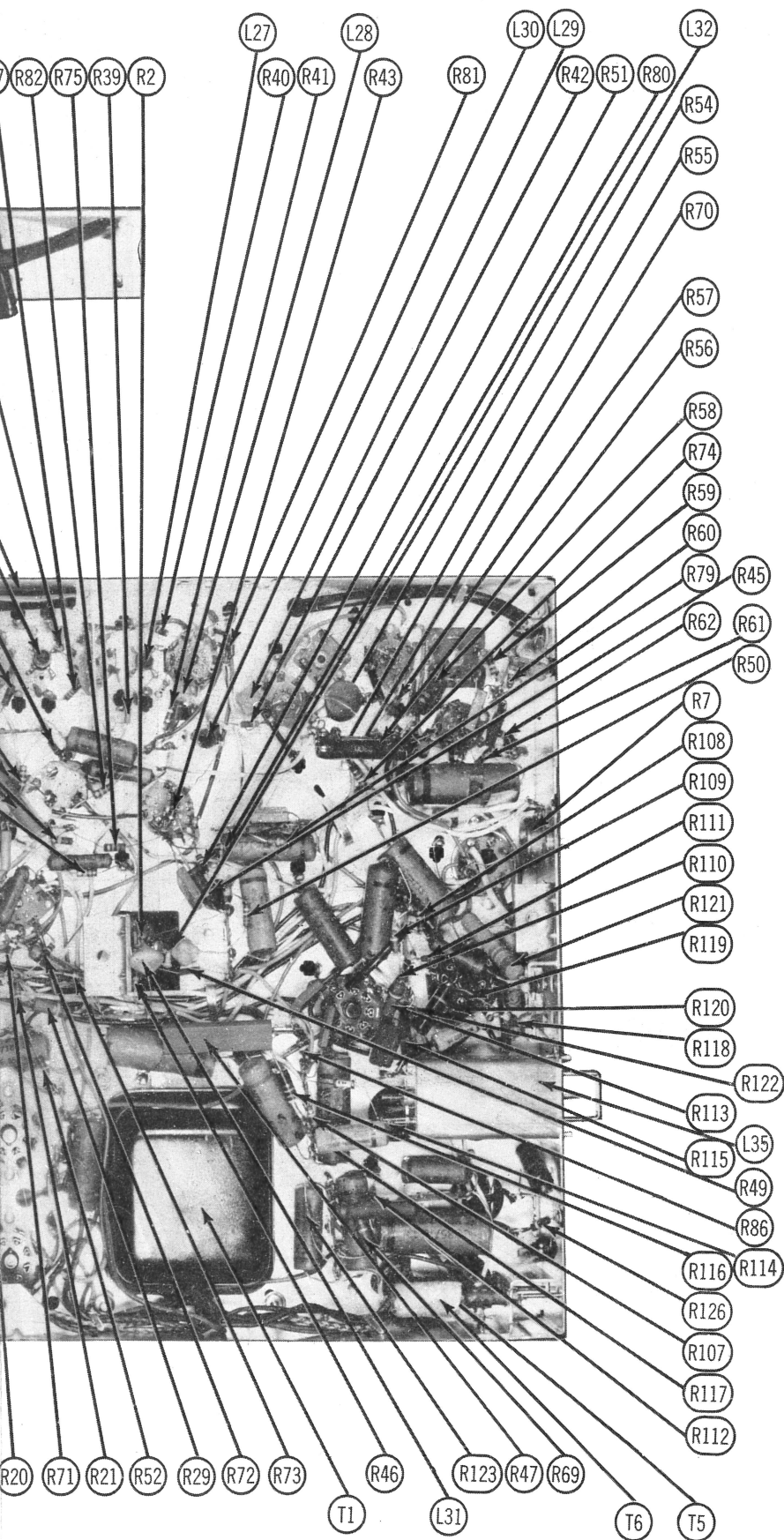
PARTS LIST AND DESCRIPTIONS (Continued)

MISC. (CONT.)

ITEM No.	PART NAME	RCA Victor PART No.	NOTES
	Cabinet Back	77791	Includes terminal board & power cord, Models 21T303, 303U
	Cabinet Back	77743	Includes power cords, for Models 21-T-313, 313U, 323, 323U, 324, 324U
	Cabinet Back	77744	Includes power cords, for Models 21-T-314, 314U, 315, 315U, 322, 322U
	Cabinet Back	77792	Includes power cords, for Models 21-T-316, 316U
	Safety Glass	77745	All Models
	Knob	77709	Brightness control for Mahogany, walnut or red cherry
	Knob	77718	Brightness control for blonde mahogany or oak
	Knob	77734	Brightness control for maple
	Knob	77699	Picture control for mahogany, walnut or red cherry
	Knob	77719	Picture control for blonde mahogany or oak
	Knob	77738	Picture control for maple
	Knob	77735	TV-Phono-Tone for mahogany, walnut or red cherry
	Knob	77736	TV-Phono-tone for blonde mahogany or oak
	Knob	77737	TV-Phono-Tone for maple
	Knob	77708	Channel Selector for Models using KRK11-B Tuners
	Knob	77751	Channel Selector for Models using KRK12 tuner (Mahogany, Blonde mahogany or oak instr.)
	Knob	77752	Channel Selector for Models using KRK12 Tuners (Blonde mahogany or oak instr.)
	Knob	77753	Channel Selector for Models using KRK12 Tuner (for maple instr.)
	Knob	77707	Fine Tuning (Mahogany, walnut or red cherry) for Models using KRK11-B Tuners
	Knob	77717	Fine Tuning (blonde mahogany or oak) for Models using KRK11B tuners
	Knob	77733	Fine Tuning (maple) for models using KRK11-B Tuners
	Knob	77750	Fine Tuning for models using KRK12 tuners
	Knob	77710	Off/On Volume



CHASSIS BOTTOM VIEW-RESIST



RESISTOR AND INDUCTOR IDENTIFICATION