

EMERSON MODEL 771A (Ch. 120192-B)			
TRADE NAME	Emerson	MODELS	CHASSIS
		752A, 755A, 784A,	
		752B, 755B	120174-B
		753D, 761C	120180-D
		732G, 742E	120185-B
		760H, 762F	120190-D
		760D, 762D	120191-D
		767A, 767B, 771A,	
		771B, 773A, 795C	120192-B
		771D	120192-D
		775A, 775B	(TV) 120192-F, (Radio) 120184-B
		768A, 772A, 774A	120193-B
		753F, 785C, 785E	120198-D
		770C	120209-D
		799E	120209-F
		766D, 791D	120210-D
MANUFACTURER	Emerson Radio & Phono Corp., 111 8th. Ave., New York, N. Y.		
TYPE SET	Television Receiver		
TUBES	Twenty-four		
POWER SUPPLY	110-120 Volts AC-60 Cycles		
TUNING RANGE	Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)		
	AM Radio 535-1630KC, AM IF 455KC		

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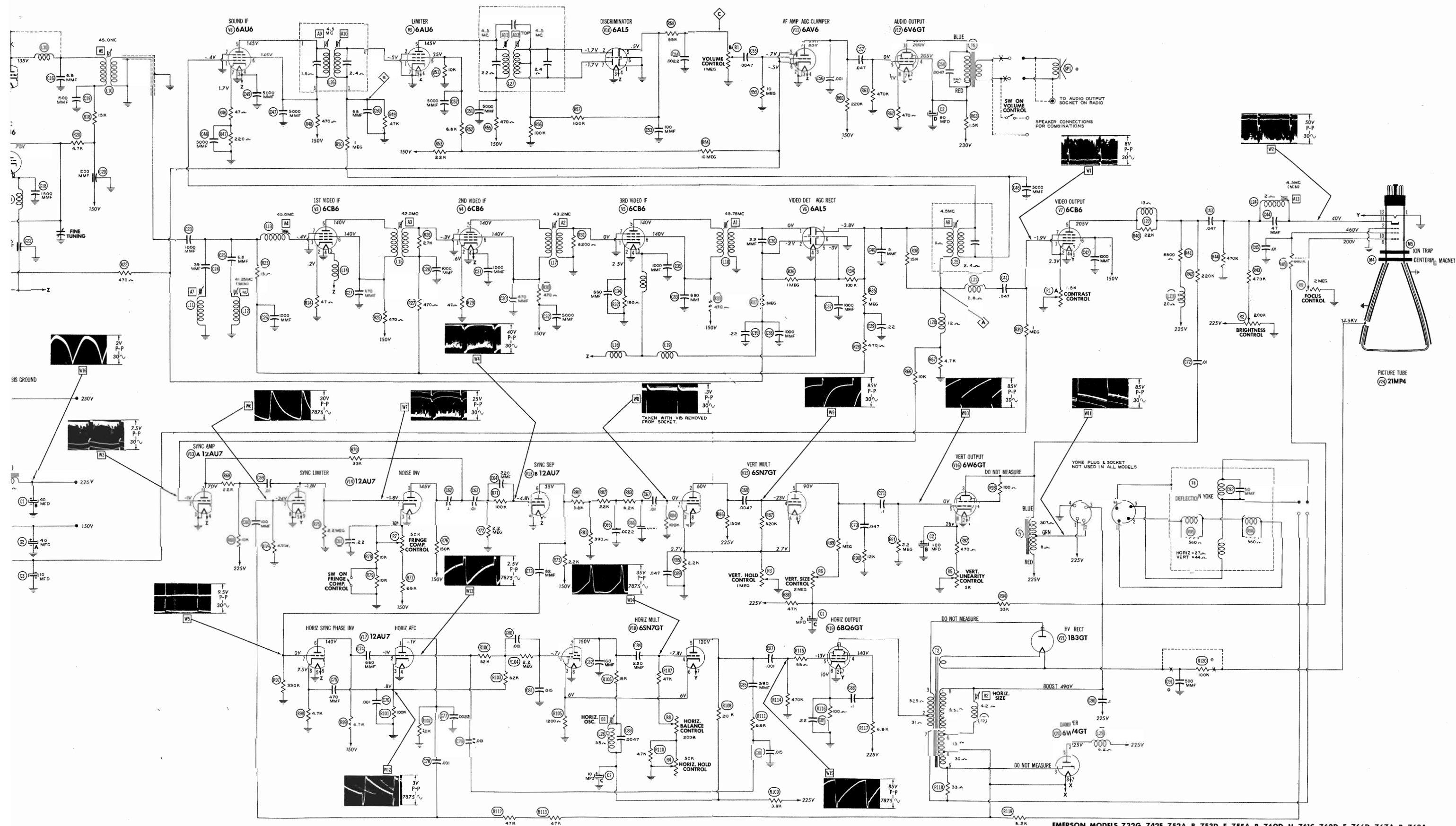
HOWARD W. SAMs & CO., INC. • Indianapolis 5, Indiana

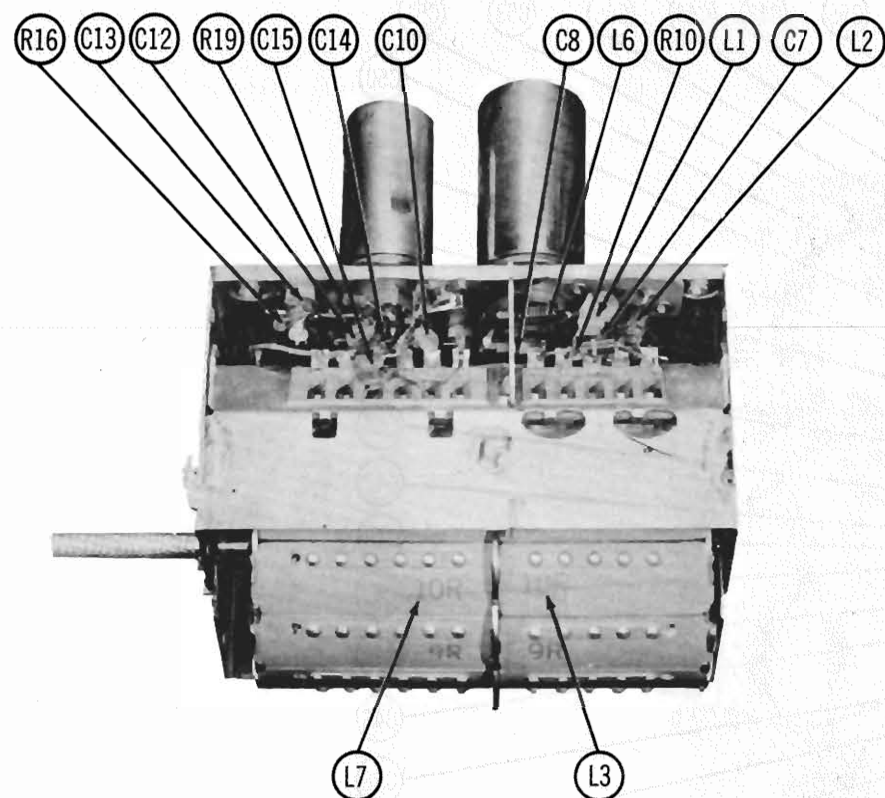
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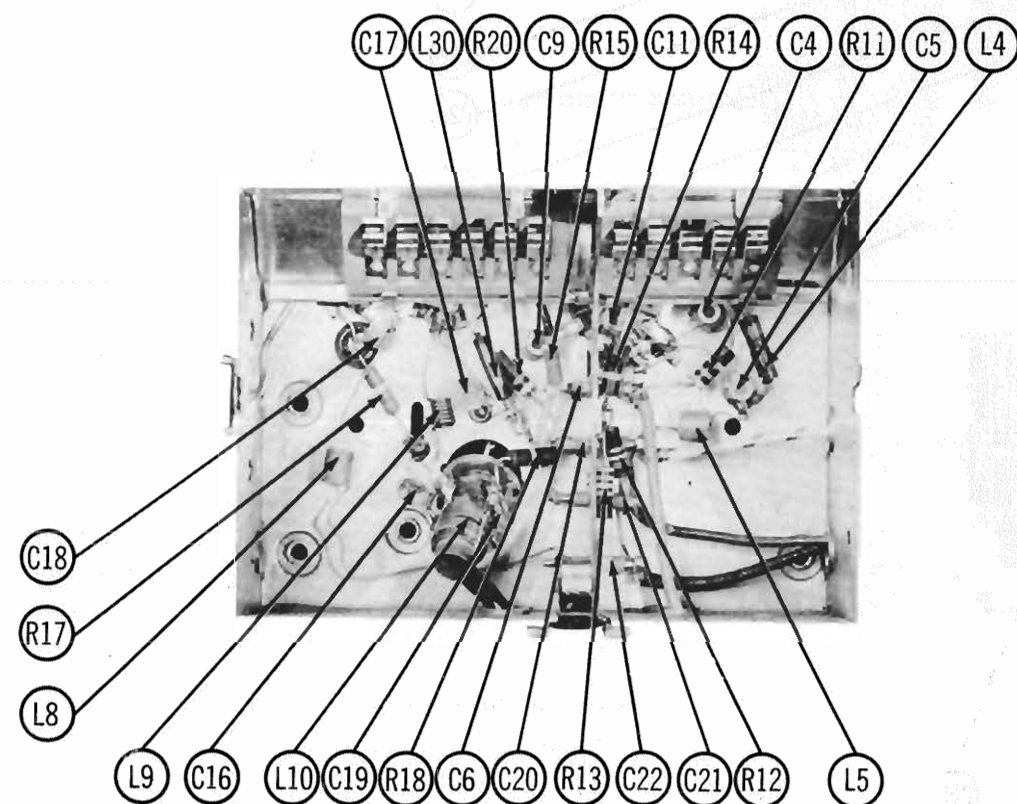
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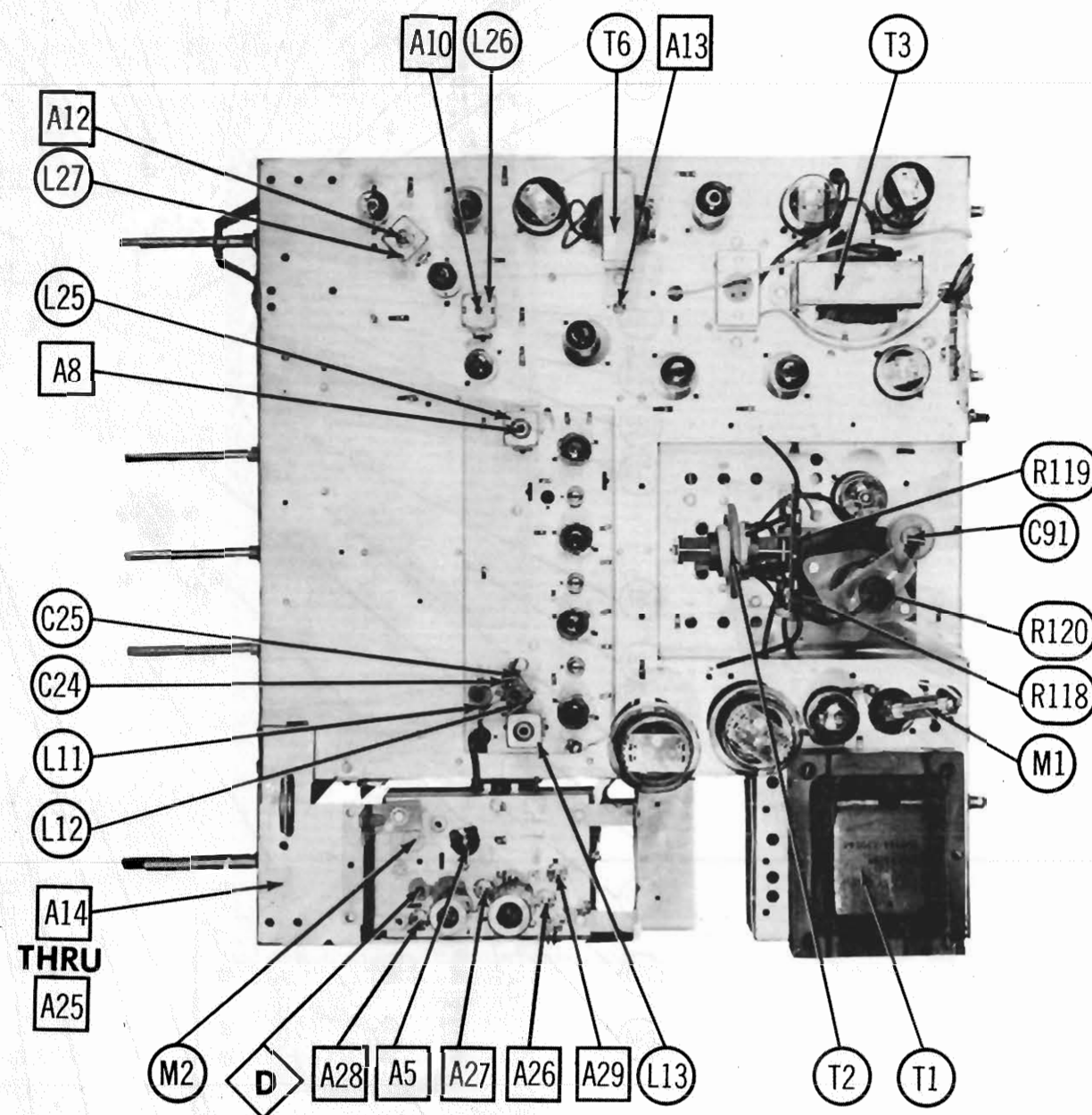




VHF TUNER-RIGHT SIDE

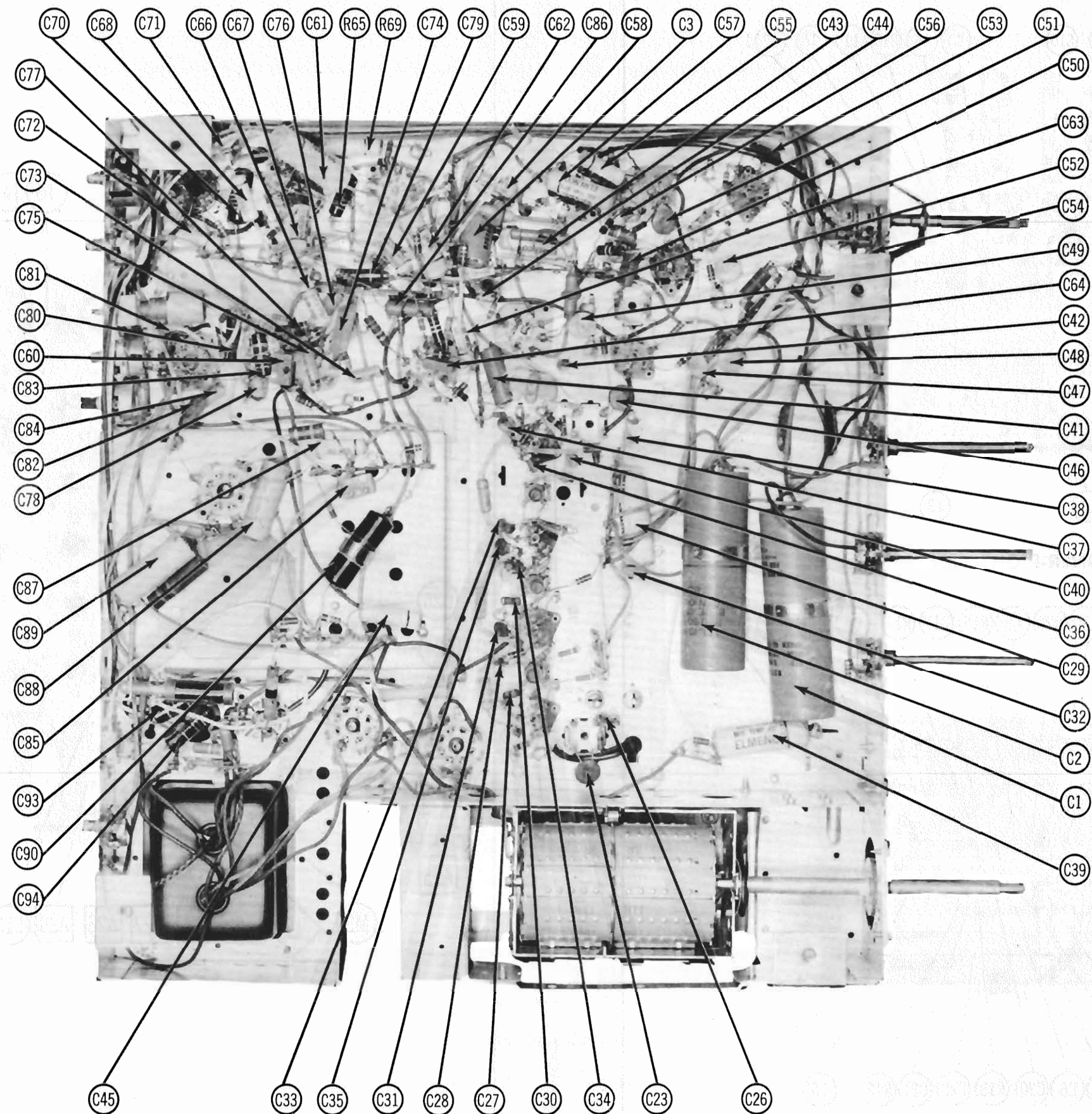


VHF TUNER- BOTTOM VIEW



CHASSIS-TOP VIEW

EMERSON MODELS 732G, 742E, 752A, B, 753D, F, 755A, B, 760D, H, 761C, 762D, F, 766D, 767A, B, 768A, 770C, 771A, B, D, 772A, 773A, 774A, 775A, B, 784A, 785C, E, 791D, 795C, 799E (Ch. 120174-B, 120180-D, 120184-B, 120185-B, 120190-D, 120191-D, 120192-B, -F, 120193-B, 120198-D, 120209-D, F, 120210-D)



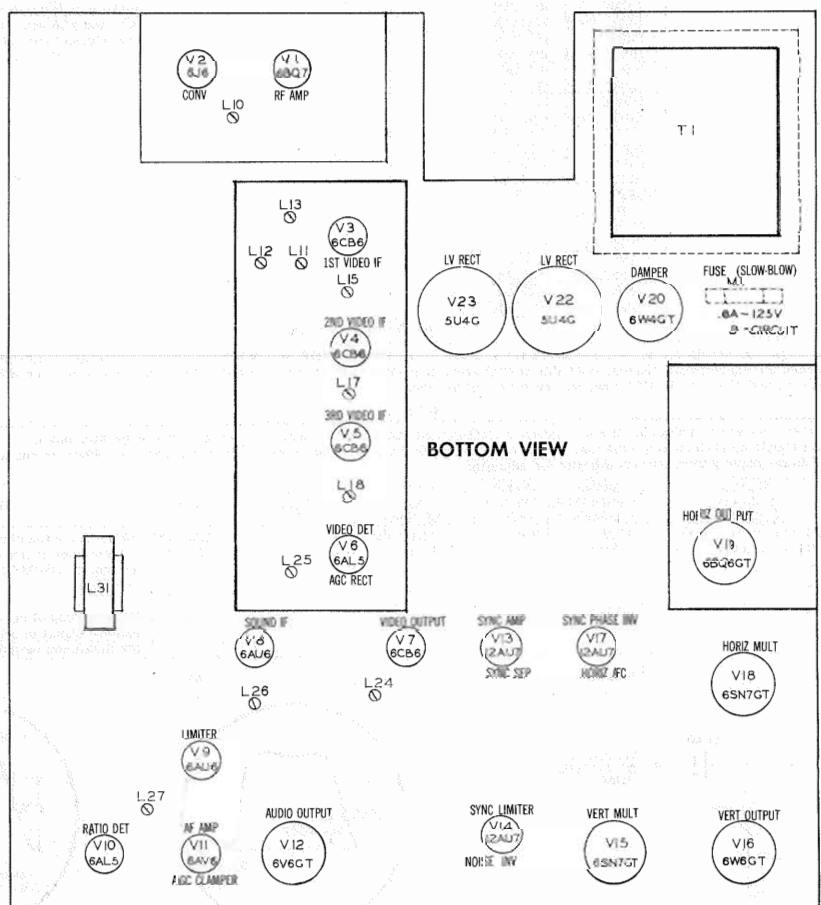
CHASSIS BOTTOM VIEW-CAPACITOR IDENTIFICATION

EMERSON MODELS 732G, 742E, 752A, B, 753D, F, 755A, B, 760D, H, 761C, 762D, F, 766D, 767A, B, 768A, 770C, 771A, B, D, 772A, 773A, 774A, 775A, B, 784A, 785C, E, 791D, 795C, 799E (Ch. 120174-B, 120180-D, 120184-B, 120185-B, 120190-D, 120191-D, 120192-B, -F, 120193-B, 120198-D, 120209-D, F, 120210-D)

RESISTANCE MEASUREMENTS

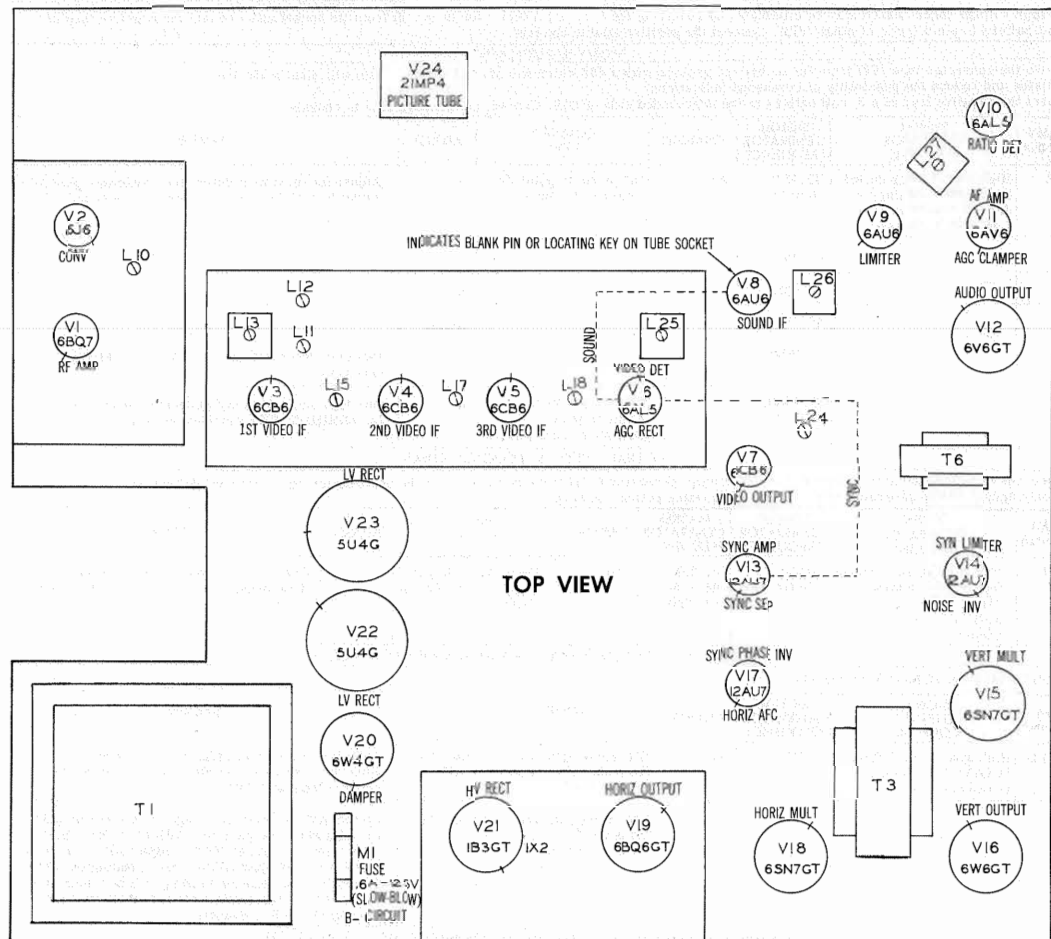
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6BQ7	INF	2.1Meg	0Ω	.1Ω	0Ω	†580Ω	230KΩ	INF	0Ω
V 2	6J6	†6KΩ	†18.2KΩ	.1Ω	0Ω	235KΩ	10KΩ	0Ω		
V 3	6CB6	1Meg	47Ω	.1Ω	0Ω	†1.7KΩ	†1.7KΩ	0Ω		
V 4	6CB6	1Meg	47Ω	.1Ω	0Ω	†1.7KΩ	†1.7KΩ	0Ω		
V 5	6CB6	.1Ω	180Ω	.1Ω	0Ω	†1.7KΩ	†1.7KΩ	0Ω		
V 6	6AL5	.1Ω	1.1Meg	.1Ω	0Ω	105KΩ	0Ω	4.7KΩ		
V 7	6CB6	1Meg	1.5KΩ	.1Ω	0Ω	†6.9KΩ	†1.2KΩ	1.5KΩ		
V 8	6AU6	1Meg	0Ω	0Ω	.1Ω	†1.7KΩ	†1.7KΩ	267Ω		
V 9	6AU6	47KΩ	0Ω	0Ω	.1Ω	†1.7KΩ	†29KΩ	0Ω		
V 10	6AL5	0Ω	100KΩ	0Ω	.1Ω	200KΩ	0Ω	100KΩ		
V 11	6AV6	10Meg	0Ω	0Ω	.1Ω	2.1Meg	2.1Meg	†220KΩ		
V 12	6V6GT	INF	.1Ω	†1.8KΩ	†1.5KΩ	470KΩ	100KΩ	0Ω	470Ω	
V 13	12AU7	†32KΩ	15KΩ	0Ω	.1Ω	†23KΩ	2.3Meg	0Ω	0Ω	
V 14	12AU7	†150KΩ	2.2Meg	20KΩ	0Ω	0Ω	2.2Meg	470KΩ	0Ω	.1Ω
V 15	6SN7GT	100KΩ	†150KΩ	2.2KΩ	1.4Meg	†2.1Meg	2.2KΩ	.1Ω	0Ω	
V 16	6W6GT	INF	0Ω	†400Ω	†500Ω	2.2Meg	†1.1Meg	.1Ω	1.2KΩ	
V 17	12AU7	22KΩ	265KΩ	100KΩ	0Ω	0Ω	†9KΩ	330KΩ	4.7KΩ	.1Ω
V 18	6SN7GT	2.4Meg	†20KΩ	1.2KΩ	130KΩ	†125KΩ	1.2KΩ	.1Ω	0Ω	
V 19	6BQ6GT	INF	0Ω	INF	†6.9KΩ	470KΩ	INF	.1Ω	100Ω	TOP CAP ▲64Ω
V 20	6W4GT	INF	INF	100KΩ	INF	†95Ω	INF	▲30Ω	▲30Ω	TOP CAP ▲590Ω
V 21	1B3GT	PINS 1 - 8		HAVE		INF		RESISTANCE		TOP CAP ▲590Ω
V 22	5U4G	INF	13KΩ	INF	26Ω	8.5Ω	26Ω	INF	13KΩ	
V 23	5U4G	INF	13KΩ	INF	27Ω	INF	27Ω	INF	13KΩ	
V 24	21MP4	0Ω	0Ω	PIN 6 25Ω	PIN 10 ▲680KΩ	PIN 11 †280KΩ	PIN 12 .1Ω			

† MEASURED FROM PIN 8 OF V23
▲ MEASURED FROM PIN 3 OF V20



TUBE PLACEMENT CHART

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 - V22, V23, Fuse (M1)

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, V24
Has pic, no sound - V8, V9, V10, V11, V12
Overloaded picture - V6, V7

SYNC FAILURE
No vert. sync - V13, V15
No horiz. sync - V13, V17, V18
No vert. or horiz. sync - V13, V14

SWEEP FAILURE
No raster, has sound - V18, V19, V20, V21, V24
No vertical deflection - V18, V19
Poor vert. linearity or foldover - V15, V16
Poor horiz. linearity or foldover - V18, V19, V20
Narrow picture - V18, V19, V20, V21, V22, V23
Vert. off freq. - V13, V15
Horiz. off freq. - V13, V17, V18

EMERSON MODELS 732G, 742E, 752A, B, 753D, F, 755A, B, 760D, H, 761C, 762D, F, 766D, 767A, B, 768A, 770C, 771A, B, D, 772A, 773A, 774A, 775A, B, 784A, 785C, E, 791D, 795C, 799E (Ch. 120174-B, 120180-D, 120184-B, 120185-B, 120190-D, 120191-D, 120192-B, -F, 120193-B, 120198-D, 120209-D, F, 120210-D)

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

The high voltage shock hazard may be eliminated by removing the horizontal oscillator tube (V18) from its socket and connect the negative lead of a 6 volt battery to pin 5 (grid) of 6BQ6 (V19). Connect the positive lead to chassis.

VIDEO IF ALIGNMENT

Remove the converter tube (V2) from its socket and replace with a 9J6 which has pin 1 removed. This will disable the local oscillator and reduce the possibility of erroneous indications. Connect the negative lead of a 3 volt battery to the ungrounded side of C29. Connect the positive lead to chassis.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1. Direct	High side to ungrounded tube shield floating over dummy converter tube. Low side to chassis.	45.75MC (Unmod)	Any	DC probe to point A. Common to chassis.	A1	Adjust for maximum deflection. Attenuate generator output to maintain not more than -2 volts at VTVM.
2. "	"	43.2MC	"	"	A2	"
3. "	"	42.0MC	"	"	A3	"
4. "	"	45.0MC	"	"	A4, A5	"
5. "	"	41.25MC	"	"	A6	Increase generator output. Adjust for MINIMUM deflection.
6. "	"	47.25MC (400% mod.)	"	Use scope. Vert. Amp. to point A. Low side to chassis.	A7	Use high scope gain and generator output. Adjust for MINIMUM 400% response on scope.

OVERALL VIDEO IF RESPONSE CHECK

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use only enough sweep generator output to provide useable pattern on scope.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
7. Direct	High side to ungrounded tube shield floating over dummy converter tube. Low side to chassis.	44MC (10MC Swp)	41.25MC 45.75MC 47.25MC	Any	Vert. Amp. to point A. Low side to chassis.		Check for response curve similar to Fig. 1. If necessary, retouch A1 thru A5 to obtain desired response.

SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

Short pin 1 (grid) of 6CB6 (V5) to chassis.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
8. .01MFD	High side to pin 7 (plate) of 6AL5 (V6). Low side to chassis.	4.5MC (Unmod.)	Any	DC probe thru 10KΩ to point B. Common to chassis.	A8, A9, A10	Adjust for maximum deflection. Attenuate generator output to maintain about 1 volt above noise voltage at VTVM.
9. "	"	"	"	DC probe thru 10KΩ to point C. Common to chassis.	A11, A12	Detune A12 for maximum negative deflection (A12 is top adjustment on part nos. 708018, 708151, bottom adjustment on part #708017). Adjust A11 for maximum deflection. Readjust A12 for zero reading on VTVM. A positive and negative reading will be obtained on either side of the correct setting. Remove short from grid of V5 to chassis.

SOUND IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE

Short pin 1 (grid) of 6CB6 (V5) to chassis. Use frequency modulated signal with 60% modulation and 450KC sweep. Use 120V sawtooth voltage in scope for horizontal deflection.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
8. .01MFD	High side to pin 7 (plate) of 6AL5 (V6). Low side to chassis.	4.5MC (450KC Swp)	4.5MC	Any	Vert. Amp. thru 10KΩ to point B. Low side to chassis.	A8, A9, A10	Adjust for curve of maximum amplitude and symmetry as in Fig. 2.
9. "	"	"	"	"	Vert. Amp. thru 10KΩ to point C. Low side to chassis.	A11, A12	Adjust A11 for maximum amplitude and straightness of crossover lines as in Fig. 3. Adjust A12, (A12 is top adjustment on part nos. 708018, 708151, battery adjustment on part #708017) so that 4.5MC occurs at center of crossover lines as in Fig. 3. SLIGHTLY retouch A11 for maximum amplitude and straightness of crossover lines. Remove short from grid of V5 to chassis.

4.5 MC TRAP ALIGNMENT

Set contrast control fully clockwise.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
10. .01MFD	High side to pin 1 (grid) of 6CB6 (V5). Low side to chassis.	4.5MC (Unmod)	Any	DC probe thru detector (Fig. 4) to pin 11 of picture tube. Low side to chassis.	A13	Adjust for MINIMUM deflection.

ALTERNATE 4.5 MC TRAP ALIGNMENT

Tune in a TV station and adjust fine tuning control to emphasize 4.5MC beat interference in picture. Adjust A13 to minimize the 4.5MC beat interference.

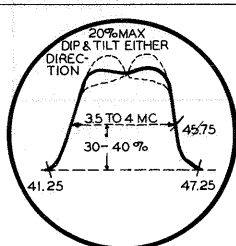


FIG. 1

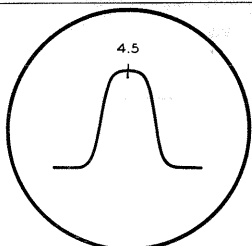


FIG. 2

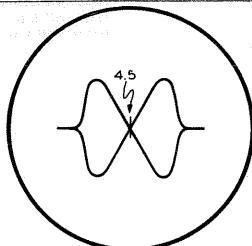


FIG. 3

ALIGNMENT INSTRUCTIONS (cont)

OSCILLATOR ALIGNMENT

Remove the dummy converter tube and replace the original 6J6 in its socket. Connect the bias battery as under "Video IF Alignment". Also, connect a jumper from the negative lead to the ungrounded side of C39. The channel oscillator adjustment screws are reached thru a hole just to the right and slightly above the channel switch shaft. The correct adjustment screw is accessible thru this hole as the channel switch is turned to each channel. Connect the synchronized sweep voltage from the sweep 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	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
11. Two 120Ω Carbon Resistors	Across antenna terminals with 120Ω in each lead.	207MC (10MC Swp) 213MC (10MC Swp) 201MC (10MC Swp) 195MC (10MC Swp) 189MC (10MC Swp) 183MC (10MC Swp) 177MC (10MC Swp) 171MC (10MC Swp) 165MC (10MC Swp) 159MC (10MC Swp) 153MC (10MC Swp) 147MC (10MC Swp) 141MC (10MC Swp) 135MC (10MC Swp) 129MC (10MC Swp) 123MC (10MC Swp) 117MC (10MC Swp) 111MC (10MC Swp) 105MC (10MC Swp) 99MC (10MC Swp) 93MC (10MC Swp) 87MC (10MC Swp) 81MC (10MC Swp) 75MC (10MC Swp) 69MC (10MC Swp) 63MC (10MC Swp) 57MC (10MC Swp)	205.25MC 211.25MC 203.75MC 193.25MC 187.25MC 181.25MC 175.25MC 179.75MC 183.25MC 177.25MC 171.25MC 165.25MC 159.25MC 153.25MC 147.25MC 141.25MC 135.25MC 129.25MC 123.25MC 117.25MC 111.25MC 105.25MC 99.25MC 93.25MC 87.25MC 81.25MC 75.25MC 69.25MC 63.25MC 57.25MC	12 13 11 10 9 8 7 6 5 4 3 2	Vert. Amp. to point A. Low side to chassis.	A14 A15 A16 A17 A18 A19 A20 A21 A22 A23 A24 A25	Advance scope gain so that sound trap notch is visible on response curve. Adjust to place sound marker in trap notch. Video marker should fall at 30 to 40% response on opposite slope of response curve as in Fig. 5.

RF AND MIXER ALIGNMENT (Tuner # 470712 and # 470696)

Connect bias battery as under "Oscillator Alignment". Connect the synchronized sweep voltage from the sweep 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. Tuner 470696 utilizes an IF trap (A29) in the tuner. Normally, A29 is set for maximum capacitance (screw fully clockwise). Should a near by transmitter cause interference on channel 2, A29 may be adjusted in the field to minimize this interference.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
12. Two 120Ω Carbon Resistors	Across antenna terminals with 120Ω in each lead.	207MC (10MC Swp)	205.25MC 209.75MC	12	Vert. Amp. thru 10KΩ to point D. Low side to chassis.	A26, A27 A28	Adjust for maximum response similar to Fig. 6.
13. "	"	213MC (10MC Swp) 201MC (10MC Swp) 195MC (10MC Swp) 189MC (10MC Swp) 183MC (10MC Swp) 177MC (10MC Swp) 171MC (10MC Swp) 165MC (10MC Swp) 159MC (10MC Swp) 153MC (10MC Swp) 147MC (10MC Swp) 141MC (10MC Swp) 135MC (10MC Swp) 129MC (10MC Swp) 123MC (10MC Swp) 117MC (10MC Swp) 111MC (10MC Swp) 105MC (10MC Swp) 99MC (10MC Swp) 93MC (10MC Swp) 87MC (10MC Swp) 81MC (10MC Swp) 75MC (10MC Swp) 69MC (10MC Swp) 63MC (10MC Swp) 57MC (10MC Swp)	211.25MC 215.75MC 203.75MC 193.25MC 187.25MC 181.25MC 175.25MC 179.75MC 183.25MC 177.25MC 171.25MC 165.25MC 159.25MC 153.25MC 147.25MC 141.25MC 135.25MC 129.25MC 123.25MC 117.25MC 111.25MC 105.25MC 99.25MC 93.25MC 87.25MC 81.25MC 75.25MC 69.25MC 63.25MC 57.25MC	13 11 10 9 8 7 6 5 4 3 2	"	"	Check for response similar to Fig. 6. If markers fall below 70% on any channel make compromise adjustments of A26, A27 and A28 with channel switch set to that channel then recheck all other channels to see that they have not been seriously affected.

UHF TUNER ALIGNMENT

Complete tuner alignment should not be required in the field. If the oscillator tube (6J6) is replaced it may be necessary to adjust A36. Adjust A36 to track the highest UHF channel available in that area. If the output IF transformer slug (A37) has been tampered with readjust A37 for best picture and sound on all UHF channels received in that area.

RADIO ALIGNMENT

Use isolation transformer, if available. If not, connect a .01MFD capacitor in series with low side of signal generator and B-. Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
14. .01MFD	High side to pin 1 (grid) of RF Amp (6BJ6). Low side to B-.	455KC (400% Mod)	Radio	Tuning gang fully open	Across voice coil	A30, A31 A32, A33	Adjust for maximum output. If isolation transformer is not used, reduce dummy antenna to .001MFD to reduce hum modulation.
15. "	Loop	1630KC	"	"	"	A34	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
16. "	"	1400KC	"	"	"	A35	"

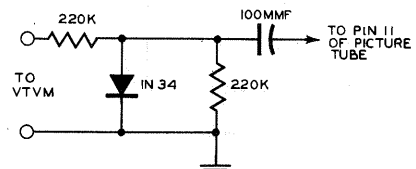


FIG. 4

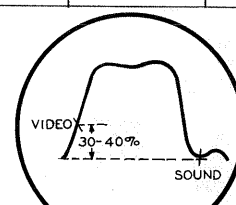


FIG. 5

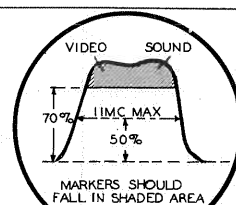


FIG. 6

EMERSON MODELS 732G, 742E, 752A, B, 753D, F, 755A, B, 760D, H, 761C, 762D, F, 766D, 767A, B, 768A, 770C, 771A, B, D, 772A, 773A, 774A, 775A, B, 784A, 785C, E, 791D, 795C, 799E (Ch. 120174-B, 120180-D, 120184-B, 120185-B, 120190-D, 120191-D, 120192-B, -F, 120193-B, 120198-D, 120209-D, F, 120210-D)

SERVICING IN THE FIELD

TUNER OSCILLATOR ADJUSTMENTS

Touch-up adjustments of the VHF tuner oscillator circuit may be accomplished by removal of the channel selector and fine tuning knobs. The adjustments are accessible, one at a time, thru the small hole in the cabinet to the right of the channel selector shaft.

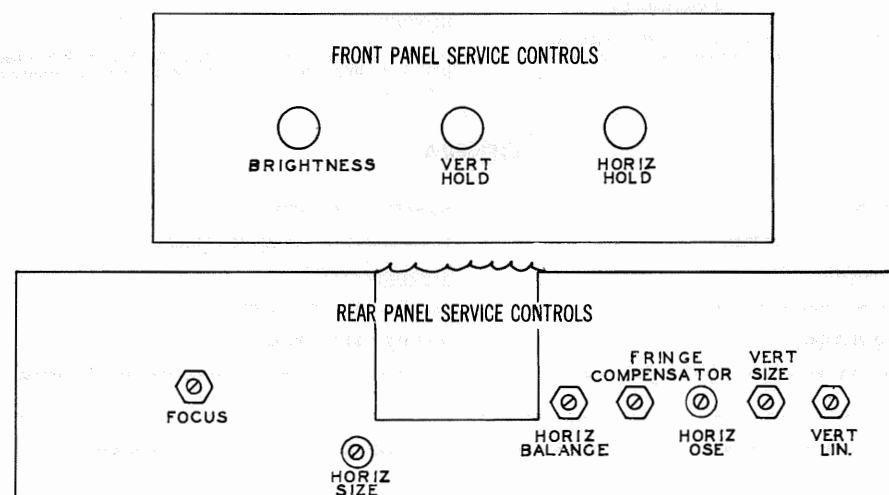
PICTURE TUBE SAFETY GLASS CLEANING

To clean safety glass remove twelve (12) wood screws holding three metal strips at the front of the cabinet. Remove metal strips and 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 - FRINGE COMPENSATOR ADJUSTMENT

Tune in the weakest TV signal available and adjust the fringe compensator control (R7A) for the most stable picture. Repeat procedure on all channels and adjust R7A as necessary for best overall picture stability. In strong signal areas the fringe compensator should be left in "off" position to prevent picture instability.

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 horizontal oscillator slug (L28) until the picture synchronizes horizontally.

SOUND IF DETECTOR BUZZ ADJUSTMENT

To eliminate sound IF detector buzz, adjust the discriminator secondary (L27) located on top of chassis. (See tube placement chart).

FUSES

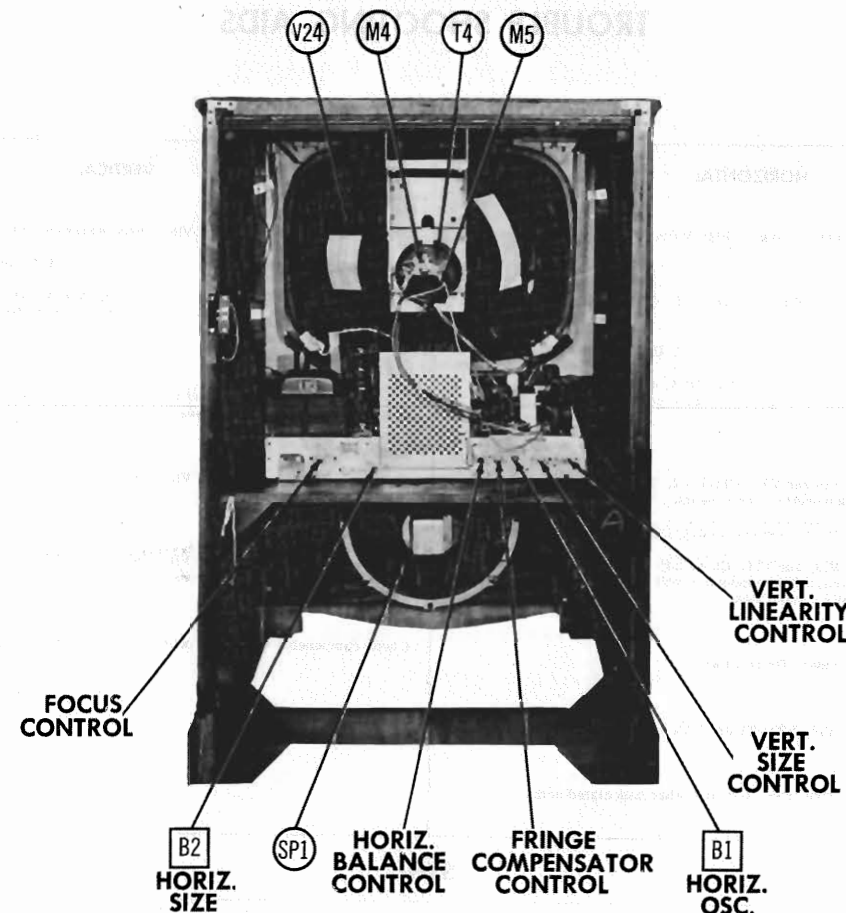
One fuse is used for LV power supply protection. (For location see tube placement chart).

CENTERING

Centering is accomplished mechanically by adjusting two magnetic rings around the neck of the picture tube. Located flush against the deflection yoke. Rotate the two rings around the neck of the tube until the picture is properly centered.

DISASSEMBLY INSTRUCTIONS

1. Remove 4 push-on type control knobs from front panel.
2. Disconnect built-in antenna. Loosen 2 wood screws. Remove transmission line from cabinet.
3. Remove 8 wood screws. Remove rear cover.
4. Disconnect speaker leads, yoke leads, CRT socket and HV lead.
5. Remove 4 chassis bolts. Remove chassis.
6. Remove 4 speaker nuts. Remove speaker.



CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Turn the set on and tune in a TV station, preferably a test pattern. Turn the fringe compensator switch to "off" position.

Adjust the horizontal oscillator as follows:

1. Turn the horizontal hold control to its mid-range position.
2. Short the horizontal oscillator coil (L28) by means of a clip lead from the yellow to the white wire on the terminal strip on top of chassis near V18.
3. Short the horizontal control grid (pin 1) of V18 to chassis. (Brown wire on same terminal strip as in step 2).
4. Adjust the horizontal balance control on rear of chassis until picture pulls into sync. (picture may sway from side to side).
5. Remove short from horizontal oscillator coil and adjust the horizontal oscillator slug (B1) for same synchronous condition as in step 4.
6. Remove short from horizontal control grid.
7. Momentarily remove signal by switching off channel and back again. If picture does not fall in sync readjust horizontal hold control until picture falls in sync after momentary removal of signal.

Adjust the horizontal size slug (B2) for a picture slightly wider than necessary to fill picture mask horizontally.

FRINGE COMPENSATOR ADJUSTMENT

Tune in the weakest TV signal available and adjust the fringe compensator control (R7A) for the most stable picture. Repeat procedure on all channels and adjust R7A as necessary for best overall picture stability. In strong signal areas the fringe compensator should be left in "off" position to prevent picture instability.

EMERSON MODELS 732G, 742E, 752A, B, 753D, F, 755A, B, 760D, H, 761C, 762D, F, 766D, 767A, B, 768A, 770C, 771A, B, D, 772A, 773A, 774A, 775A, B, 784A, 785C, E, 791D, 795C, 799E (Ch. 120174-B, 120180-D, 120184-B, 120185-B, 120190-D, 120191-D, 120192-B, -F, 120193-B, 120198-D, 120209-D, F, 120210-D)

TROUBLE SHOOTING AIDS

SWEEP

HORIZONTAL	VERTICAL								
<p>LOSS OF SWEEP</p> <p>Follow procedure outlined under "Loss of High Voltage".</p> <p>INSUFFICIENT SWEEP</p> <p>Check by substitution V18, V19, V20, V22 and V23. Check adjustments B2. Check waveform W15.</p> <table> <tr> <td>If Satisfactory</td><td>If Unsatisfactory</td></tr> <tr> <td>Check C88, C89, R117, R118, R119, T2, T4A and other associated components.</td><td>R108, R114, C85, C87 and other associated components.</td></tr> </table> <p>DRIVE LINES</p> <p>Check by substitution V18, V19 and V20. Check T2, T4A, C92, C90, R111, R114, R119 and other associated components.</p> <p>COMPRESSED LEFT SIDE</p> <p>Check by substitution V18, V19, and V20. Check adjustment of the horizontal size slug, B2. Check components associated with the horizontal output and damper stages especially T2 and T4A.</p> <p>FOLDS</p> <p>Follow procedure outlined under "Drive Lines".</p> <p>PIE CRUST EFFECT</p> <p>Check C81 for open. Check V19, V20, T2 and T4A for internal arcing.</p> <p>XMAS TREE EFFECT</p> <p>Substitute V18. Check C82, C83, C84, L28 and other associated components.</p>	If Satisfactory	If Unsatisfactory	Check C88, C89, R117, R118, R119, T2, T4A and other associated components.	R108, R114, C85, C87 and other associated components.	<p>LOSS OF SWEEP</p> <p>Check by substitution V15 and V16. Check waveform W10.</p> <table> <tr> <td>If Satisfactory</td><td>If Unsatisfactory</td></tr> <tr> <td>Check T3, T4B, R5, R92 and other associated circuit components.</td><td>Check R89, R91, C68, C71 and other associated components.</td></tr> </table> <p>INSUFFICIENT SWEEP</p> <p>Check adjustment of height and vertical linearity controls. Proceed as outlined under "Loss of Sweep".</p> <p>COMPRESSED AT BOTTOM</p> <p>Check by substitution V15 and V16. Check T3, T4B, C2B and other associated circuit components.</p> <p>COMPRESSED AT TOP</p> <p>Check by substitution V15 and V16. Check C69, C70, C71, R89, R90, R91 and other associated components.</p> <p>FOLDS</p> <p>Check components associated with the vertical oscillator and output stages.</p>	If Satisfactory	If Unsatisfactory	Check T3, T4B, R5, R92 and other associated circuit components.	Check R89, R91, C68, C71 and other associated components.
If Satisfactory	If Unsatisfactory								
Check C88, C89, R117, R118, R119, T2, T4A and other associated components.	R108, R114, C85, C87 and other associated components.								
If Satisfactory	If Unsatisfactory								
Check T3, T4B, R5, R92 and other associated circuit components.	Check R89, R91, C68, C71 and other associated components.								

SYNC

<p>LOSS OF VERTICAL AND HORIZONTAL SYNC</p> <p>Check by substitution V13 and V14. Check C59, C60, C61, C62, C63, R68, R70, R72, R73 and other associated components.</p> <p>LOSS OF VERTICAL SYNC-HORIZONTAL SYNC SATISFACTORY</p> <p>Check by substitution V13, V14 and V15. Check waveform W8.</p> <table> <tr> <td>If Satisfactory</td><td>If Unsatisfactory</td></tr> <tr> <td>Check components associated with V15 especially C68, R86 and R87.</td><td>Check vertical integrator and other associated components. Check the video and IF stages for overloading.</td></tr> </table>	If Satisfactory	If Unsatisfactory	Check components associated with V15 especially C68, R86 and R87.	Check vertical integrator and other associated components. Check the video and IF stages for overloading.	<p>LOSS OF HORIZONTAL SYNC-VERTICAL SYNC SATISFACTORY</p> <p>Check by substitution V17 and V18. Check waveform W12.</p> <table> <tr> <td>If Satisfactory</td><td>If Unsatisfactory</td></tr> <tr> <td>Check C82, C83, C84 and other associated components.</td><td>Check components associated with V17.</td></tr> </table> <p>HORIZONTAL BENDING</p> <p>Check by substitution V17, V18 and V19. Check the horizontal AFC filter network for component failure or change of value.</p>	If Satisfactory	If Unsatisfactory	Check C82, C83, C84 and other associated components.	Check components associated with V17.
If Satisfactory	If Unsatisfactory								
Check components associated with V15 especially C68, R86 and R87.	Check vertical integrator and other associated components. Check the video and IF stages for overloading.								
If Satisfactory	If Unsatisfactory								
Check C82, C83, C84 and other associated components.	Check components associated with V17.								

VIDEO

<p>LOSS OF VIDEO</p> <p>Substitute V7 and V6. Check associated components including picture tube for failure or change of value.</p> <p>SOUND BARS (4.5MC BEAT)</p> <p>Adjust tuner fine tuning for best picture and sound. Check adjustment A13 and video IF alignment.</p> <p>POOR CONTRAST</p> <p>Check by substitution V6 and V7. Check contrast control, picture tube and other associated components.</p>	<p>NEGATIVE PICTURE</p> <p>Check by substitution V6, V7, V1, V3 and V4. Check AGC network components. Check picture tube and other associated circuit components.</p> <p>SMEAR</p> <p>Substitute V6 and V7. Check C41, C43, R39, R41, R44, L20, L21, L22, L23, picture tube and other associated components.</p> <p>WIDE BLACK BAR ACROSS PICTURE</p> <p>Check V1, V3, V4, V5, V6 and V7 for heater to cathode leakage.</p>
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AUDIO

<p>WEAK OR NO SOUND</p> <p>Check by substitution V8, V9, V10, V11 and V12. Check stages V11 and V12 using audio signal generator. Apply audio signal across R59.</p> <table> <tr> <td>If Satisfactory</td><td>If Unsatisfactory</td></tr> <tr> <td>Check ratio detector and audio IF alignment at components.</td><td>Check R60, R61, R62, R63, T6, C57 and other associated circuit components.</td></tr> </table>	If Satisfactory	If Unsatisfactory	Check ratio detector and audio IF alignment at components.	Check R60, R61, R62, R63, T6, C57 and other associated circuit components.	<p>BUZZ</p> <p>Adjust tuner fine tuning for best picture and sound. Adjust A12 for minimum buzz. If still unsatisfactory, substitute V10 and realign audio IF and ratio detector stages.</p> <p>DISTORTED</p> <p>Follow procedure outlined under "Weak or No Sound".</p>
If Satisfactory	If Unsatisfactory				
Check ratio detector and audio IF alignment at components.	Check R60, R61, R62, R63, T6, C57 and other associated circuit components.				

TROUBLE SHOOTING AIDS (cont)

POWER

<p>DEAD SET</p> <p>If filaments fail to light, check AC interlock assembly, switch on volume control and T1. If filaments light, check fuse M1. Substitute V22 and V23. Check B+ filter and decoupling network components.</p>	<p>SMALL AND/OR DIM PICTURE</p> <p>Substitute V22 and V23. Check B+ filter and decoupling components for failure or change of value.</p>
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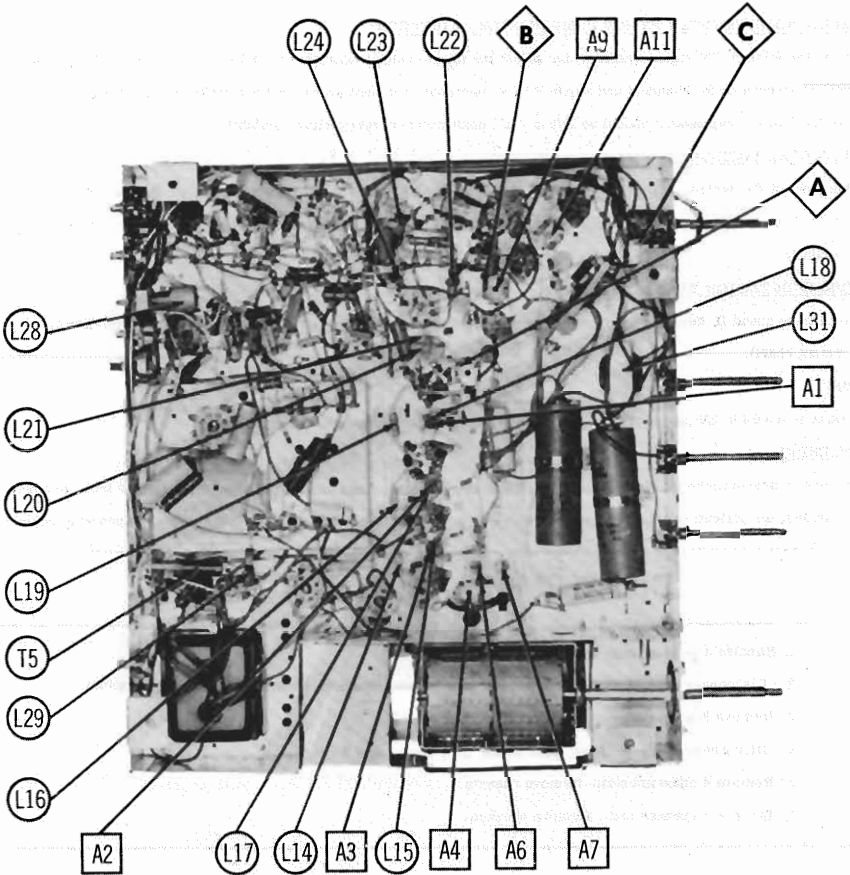
HIGH VOLTAGE

<p>LOSS OF HIGH VOLTAGE</p> <p>Check by substitution V18, V19, V20 and V21. Check waveform W15.</p> <table> <tr> <td>If Satisfactory</td><td>If Unsatisfactory</td></tr> <tr> <td>Check T2, T4A, T5, R116, R117, R118, R119, R120, C59, C61 and other associated components.</td><td>Check C87, C84, R106, R108, R114 and other associated components.</td></tr> </table>	If Satisfactory	If Unsatisfactory	Check T2, T4A, T5, R116, R117, R118, R119, R120, C59, C61 and other associated components.	Check C87, C84, R106, R108, R114 and other associated components.	<p>INSUFFICIENT HIGH VOLTAGE</p> <p>Check by substitution V18, V19, V20, V21, V22 and V23. Check picture tube. Proceed as outlined under "Loss of High Voltage".</p> <p>BLOOMING</p> <p>Check by substitution V18, V19, V20, V21, V22 and V23. Check T2, T4A, R116, R117, R118, R119, R120, C59, C61 and other associated circuit components.</p>
If Satisfactory	If Unsatisfactory				
Check T2, T4A, T5, R116, R117, R118, R119, R120, C59, C61 and other associated components.	Check C87, C84, R106, R108, R114 and other associated components.				

GENERAL

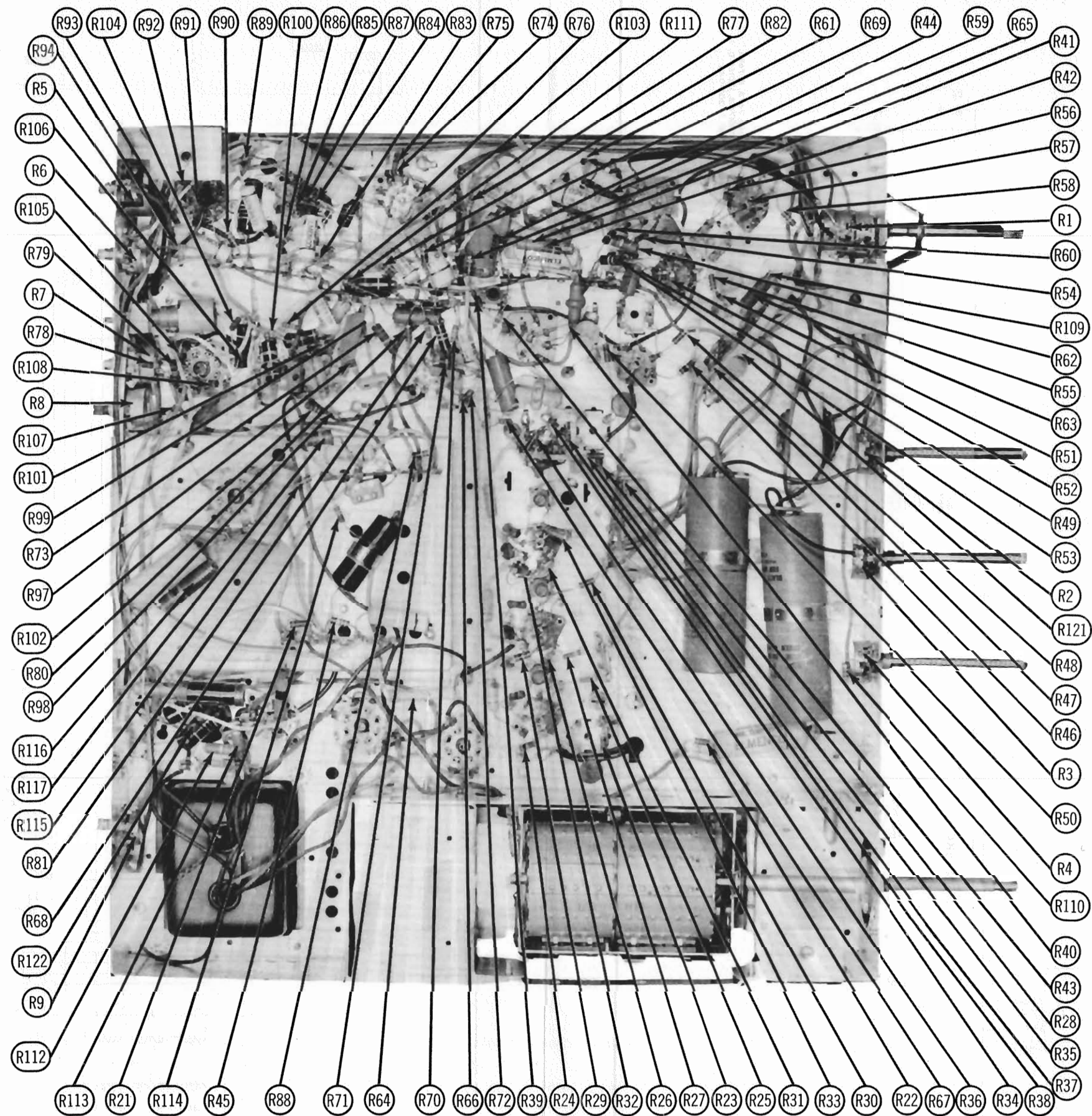
<p>RASTER SOUND NO PICTURE</p> <p>Follow procedure outlined under "Loss of Video".</p> <p>RASTER PICTURE NO SOUND</p> <p>Follow procedure outlined under "Weak or No Sound".</p> <p>RASTER NO SOUND NO PICTURE</p> <p>Check by substitution V1, V2, V3, V4, V5, and V6. Check tuner and video IF components.</p>	<p>NO RASTER NO SOUND</p> <p>Follow procedure outlined under "Dead Set".</p> <p>KEystone EFFECT</p> <p>Check T4, R95, R96, and C92.</p> <p>INTERMITTENT STREAKS</p> <p>Check high voltage section for corona discharge and arcing.</p>
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Symptoms shown are assumed and are not indicative of the quality and workmanship of this equipment.



CHASSIS BOTTOM VIEW-TRANS., INDUCTOR & ALIGN. IDENTIFICATION

EMERSON MODELS 732G, 742E, 752A, B, 753D, F, 755A, B, 760D, H, 761C, 762D, F, 766D, 767A, B, 768A, 770C, 771A, B, D, 772A, 773A, 774A, 775A, B, 784A, 785C, E, 791D, 795C, 799E (Ch. 120174-B, 120180-D, 120184-B, 120185-B, 120190-D, 120191-D, 120192-B, -F, 120193-B, 120198-D, 120209-D, F, 120210-D)



CHASSIS BOTTOM VIEW-RESISTOR IDENTIFICATION

EMERSON MODELS 732G, 742E, 752A, B, 753D, F, 755A, B, 760D, H, 761C, 762E, F, 766D, 767A, B, 768A, 770C, 771A, B, D, 772A, 773A, 774A, 775A, B, 784A, 785C, E, 791D, 795C, 799E (Ch. 120174-B, 120180-D, 120184-B, 120185-B, 120190-D, 120191-D, 120192-B, -F, 120193-B, 120198-D, 120209-D, F, 120210-D)

PARTS LIST AND DESCRIPTIONS (Continued)

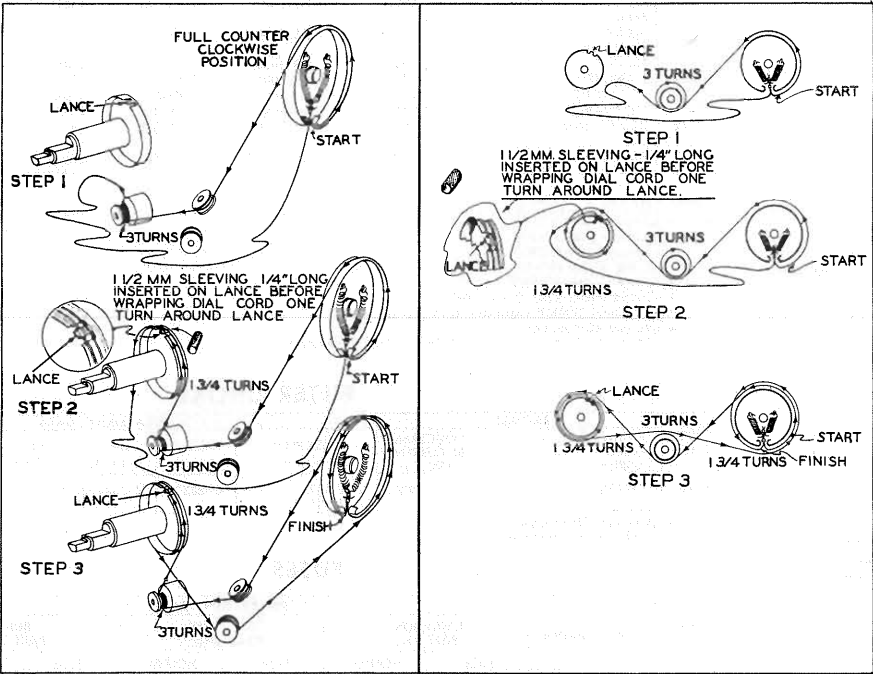
MISCELLANEOUS

ITEM No.	PART NAME	EMERSON PART No.	NOTES
M2A	Tuner	470696	VHF- Chassis 120185-B, 190-D, 191-D, 192-B, D
B	Tuner	470712	VHF- Chassis 120174-B
M3A	Tuner	470713	UHF- Chassis 120174-B
B	Tuner	470729	UHF-Chassis 120198-D
M4	Centering Magnet	708149 or 708134	
M5	Ion Trap	708129 or 708161	
	Cabinet	140488	Model 753D & F
	Cabinet	140486	Model 732G
	Cabinet	140510 & A	Model 742E
	Cabinet	140517	Model 752A
	Cabinet	140524 & A	Model 785C
	Cabinet	140527	Model 755A
	Cabinet	140532 & A	Model 775A & B
	Cabinet	140534 & A	Models 760D & H, 761C
	Cabinet	140535	Model 762D & F
	Cabinet	140546 & A	Models 767A & B, 768A
	Cabinet	140547 & A	Models 771A, B & D, 772A
	Cabinet	140558	Models 773A, 774A
	Cabinet	140554 & A	Model 785E
	Cabinet	140555 & A	Models 784A
	Cabinet	140573 & A	Model 791D
	Cabinet	140575 & A	Models 766D, 770C
	Cabinet	140577 & A	Model 785C
	Cabinet	140583	Model 789E
	Knob	450138	Contrast
	Knob	450137	Fine tuning
	Knob	450134	Off/volume, shank
	Knob	460262	Off/volume, flange
	Knob	450133	Selector, shank
	Knob	460261	Selector, flange
	Knob	460424	Contrast
	Knob	460423	Fine tuning
	Knob	460422	Off/volume
	Knob	460421	Selector
	Knob	460425	UHF dial
	Safety Glass	520159	Models 753D & F, 760D & H, 761C, 762D & F
	Safety Glass	520179	Models 732G, 742E, 752A, 755A, 784A
	Safety Glass	520181	Models 785C & E
	Safety Glass	520189	Models 767B, 771B
	Safety Glass	520192	Models 766D, 767A, 768A, 770C, 771A & D, 772A, 773A, 774A, 775A & B, 795C
	Safety Glass	520211	Model 791D, 789E

Note: Letter "A" following cabinet numbers designate blond finish

Used with Chassis 120185-B, 120190-D, 120191-D, 120192B, D & F, 120210-D

Used with chassis 120193-B, 120209-D, 120180-D, 120174-B, 120198-D



UHF DRIVE CORD STRINGING

PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA, GENERAL ELECTRIC, WESTINGHOUSE)

ITEM No.	USE	REPLACEMENT DATA		RETMA BASE TYPE	NOTES
		EMERSON PART No.	STANDARD REPLACEMENT		
V1	RF Amplifier	6BQ7	6BQ7	9AJ	
V2	Converter	6J6	6J6	7BF	
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 Amplifier-AGC Rectifier	6AL5	6AL5	6BT	
V7	Video Output	6CB6	6CB6	7CM	
V8	Sound IF Amp.	6AU6	6AU6	7BK	
V9	Limiter	6AU6	6AU6	7BK	
V10	Discriminator	6AL5	6AL5	6BT	
V11	AF Amplifier-AGC Clamper	6AV6	6AV6	7BT	
V12	Audio Output	6V6GT	6V6GT	7S	
V13	Sync Amplifier-Sync Separator	12AU7	12AU7	9A	
V14	Sync Limiter-Noise Inverter	12AU7	12AU7	9A	
V15	Vert. Mult.	6SN7GT	6SN7GT	8BD	
V16	Vert. Output	6W6GT	6W6GT	7S	
V17	Horiz. Sync-Phase Inv.-Horiz. AFC	12AU7	12AU7	9A	
V18	Horiz. Mult.	6SN7GT	6SN7GT	8BD	
V19	Horiz. Output	6BQ6GT	6BQ6GT	6AM	
V20	Damper	6W4GT	6W4GT	4CG	
V21A	HV Rectifier	1B3GT	1B3GT	3C	
B	RV Rectifier	1X2	1X2	9Y	
V22	LV Rectifier	5U4G	5U4G	5T	
V23	LV Rectifier	5U4G	5U4G	5T	

CATHODE-RAY TUBE

ITEM No.	REPLACEMENT DATA					RETMA BASE TYPE	NOTES
	EMERSON PART No.	CBS-HYTRON PART No.	GENERAL ELECTRIC PART No.	SYLVANIA PART No.	WESTINGHOUSE PART No.		
V24A	810028	2IMP4	2IMP4	2IMP4	2IMP4	12M	① Circuit changes necessary
B		2IYP4 2IYP4A	2IYP4	2IYP4 2IYP4A 2IAFP4 ①	2IYP4	12L 12L 12M	
C	810029	17LP4 17VP4	17LP4	17LP4 17VP4	17LP4	12L 12L 12L	

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	EMERSON PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MAILORY PART No.	SPRAGUE PART No.	
C1A	80	300	925232	AFH2-64 PR8450/4		XB014 BR445		FP378	TVL-3792	Blue
B	40	300								Green
C	5	450								Red
C2A	40	250	925221	AFH3-182 PR8250/40		C141 BR4025		FP378 TC3501	TVL-4711	Blue
B	100	50								Green
C	10	450								Yellow
D	80	300								Red
C3	10	25	925180	PR825/10		BR102		TC22	TVA-1204	
C4	3-8		960635		829-10					
C5	3-8		960635		829-10					
C6	1000		960407	EF-001	MFT-1000					
C7	3.3		960638	SI3.3NP0	TCZ-3.3	Z008	NP0K-3R3	ZT-5533	508C-D1	
C8	1000		960407	EF-001	MFT-1000				5TCCB-V33	
C9	.5-3		960634		829-3		3115-01-0R5	CT565A	508C-D1	
C10	120			BPD-00012	D6-121	G044	GP2K-121	UC-5312	5GA-T12	
C11	1500			BPD-00015	DD-152	K071	801-0015	DC-5215	5HK-D15	
C12	51			BPD-000047	D6-470	G035	GP1K-470	UC-5447	5GA-Q47	
C13	.5-3		960634		829-3		3115-01-0R5	CT565A		
C14	10		960636	SI10NP0	TCZ-10	Z018	NP0K-100	ZT-541	5TCC-Q1	
C15	5		960637	SI5N750	TCN-5	N011	N750K-050	ZT-5568	5TCCB-V68	
C16	6.8		960639	SI6.8NP0	TCZ-6.8	Z013	NP0K-6R8	ZT-5568	5HK-D15	
C17	1500			BPD-00015	DD-152	K071	801-0015	DC-5215	5HK-D15	
C18	1500			BPD-00015	DD-152	K071	801-0015	DC-5215	5HK-D15	
C19	1500			BPD-00015	DD-152	K071	801-0015	DC-521	508C-D1	
C20	1000		960407	EF-001	MFT-1000				508C-D1	
C21	1000		960407	EF-001	MFT-1000				508C-D1	
C22	1000		960407	EF-001	MFT-1000				5HK-D5	
C23	5000		928109	BPD-005	DD-502	K080	811-005	DC-525	5TCC-Q39	
C24	39		928082	SI39NP0	TCZ-39	T220	NP0K-390	ZT-5568	5TCCB-V68	
C25	6.8		928084	SI6.8NP0	TCZ-6.8	Z013	NP0K-6R8	DC-521	5HK-D1	
C26	1000		928077	BPD-001	DD-102	K069	801-001	UC-5347	5GA-T47	
C27	470		928081	SI470	D6-471	TP46	GP2K-471	DC-521	5HK-D1	
C28	1000		928077	BPD-001	DD-102	K069	801-001	PT4022	2TM-P22	
C29	.22	200	922325	P288-22		CUB2P22			5GA-T47	
C30	470		928081	SI470	D6-471	TP46	GP2K-471	UC-5347	5GA-T47	
C31	1000		928077	BPD-001	DD-102	K069	801-001	DC-521	5HK-D1	
C32	5000		928109	BPD-005	DD-502	K080	811-005	DC-525	5HK-D5	
C33	680		928076	SI680	D6-681	TP50	GP2K-681	UC-5368	5GA-T68	
C34	680		928076	SI680	D6-681	TP50	GP2K-681	UC-5368	5GA-T68	
C35	1000		928077	BPD-001	DD-102	K069	801-001	DC-521	5HK-D1	
C36	22		928012	SI22	D6-220	TP22	GP1K-220	UC-5422	5GA-Q22	
C37	1000		928077	BPD-001	DD-102	K069	801-001	DC-521	5HK-D1	
C38	1000		928077	BPD-001	DD-102	K069	801-001	DC-521	5HK-D1	
C39	.22	200	922325	P288-22		CUB2P22		PT4022	2TM-P2 2	
C40	5		928017	SI5NP0	TCZ-4.7	Z011	NP0K-050	ZT-555	5TCCB-V47	
C41	.047	400	922554	P488-047	DF-503	CUB4S47		PT4147	4TM-S47	
C42	1000		928077	BPD-001	DD-102	K069	801-001	DC-521	5HK-D1	
C43	.047	400	922554	P488-047	DF-503	CUB4S47		PT4147	4TM-S47	
C44	47			SI47	D6-470	TP29	GP1K-470	UC-5447	5GA-Q47	
C45	.01	600	922714	P688-01	D6-103	CUB6S1	GP2-333-103	PT611	6TM-S1	
C46	5000		928109	BPD-005	DD-502	K080	811-005	DC-525	5HK-D5	
C47	5000		928109	BPD-005	DD-502	K080	811-005	DC-525	5HK-D5	

EMERSON MODELS 732G, 742E, 752A, B, 753D, F, 755A, B, 760D, H, 761C, 762D, F, 766D, 767A, B, 768A, 770C, 771A, B, D, 772A, 773A, 774A, 775A, B, 784A, 785C, E, 791D, 795C, 799E (Ch. 120174-B, 120180-D, 120184-B, 120185-B, 120190-D, 120191-D, 120192-B, -F, 120193-B, 120198-D, 120209-D, F, 120210-D)

PARTS LIST AND DESCRIPTIONS (Continued)

CAPACITORS (cont)

ITEM No.	RATING CAP. VOLT	REPLACEMENT DATA						NOTES
		EMERSON PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNFILL DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	
C48	5000	928109	BPD-005	DD-502	K080	811-005	DC-525	5HK-D5
C49	5000	928109	BPD-005	DD-502	K080	811-005	DC-525	5HK-D5
C50	68	91181	SI68	D6-580	5W5Q68	GP1K-960	UC-5488	
C51	5000	928109	BPD-005	DD-502	K080	811-005	DC-525	5HK-D5
C52	5000	928109	BPD-005	DD-502	K080	811-005	DC-525	5HK-D5
C53	100	91182	I468-0001	D6-101	5W5T1	GP1K-101	MC235	1FM-31
C54	.0022	400	922523	P688-0022	D6-222	CUB6D22	GP2-333-222	PT6222
C55	.0047	400	922553	P688-0047	D6-472	CUB6D47	GP2-333-472	PT6247
C56	.001	400	922513	P688-001	D6-102	CUB6D1	GP2L-102	PT621
C57	.047	400	922554	P688-0047	DF-503	CUB4847	GP2-333-472	PT6247
C58	.0047	400	922553	P688-0047	D6-472	CUB481	GP2-333-103	PT611
C59	.01	400	922514	P688-001	D6-103	22R5T1	MCB235	MS-31
C60	100	500	911486	I469-0001	D6-103	CUB2P22	GP2-333-103	PT4022
C61	.22	200	922325	P288-22	DF-104	CUB2P1	GP2-333-103	PT401
C62	.1	200	922315	P288-1	D6-103	CUB4S1	GP2-333-103	PT411
C63	.01	400	922514	P488-01	D6-103	22R5T22	MCB240	MS-31
C64	220	500	91184	I469-00025	D6-222	CUB6D22	GP2-333-222	PT6222
C65	.0022	400	922523	P688-0022	D6-472	CUB6D47	GP2-333-472	PT6247
C66	.0047	400	922553	P688-0047	D6-103	CUB481	GP2-333-103	PT411
C67	.01	400	922514	P488-01	DF-503	IR5D47	MCB465	MS-25
C68	.0047	400	922453	I464-005	DF-503	P288-047	PT4147	2TM-847
C69	.047	200	922354	P288-047	DF-503	IR5D47	MCB465	MS-25
C70	.047	400	922454	P288-047	DF-503	IR5D47	MCB465	MS-25
C71	.1	600	922515	P688-1	DF-104	CUB6P1	GP2-333-103	PT601
C72	.01	600	922714	P688-01	D6-103	CUB6S1	GP2-333-103	PT611
C73	82	500	91160	I479-0007	D6-102	22R5Q82	MCB245	MS-35
C74	680	500	911276	I469-0005	D6-102	CUB6D1	GP2L-102	PT621
C75	470	500	91169	I469-0005	D6-222	CUB6D22	GP2-333-222	PT6222
C76	.001	400	922513	P688-001	D6-102	CUB6D1	GP2L-102	PT621
C77	.0022	400	922523	P688-0022	D6-102	CUB6D1	GP2L-102	PT621
C78	.001	400	922713	P688-001	D6-102	CUB6D1	GP2L-102	PT621
C79	.001	400	922513	P688-001	D6-102	CUB6D1	GP2L-102	PT621
C80	.001	400	922513	P688-001	D6-102	CUB6D1	GP2L-102	PT621
C81	.015	400	922320	P688-005	D6-102	CUB6D1	GP2L-102	PT621
C82	100	500	91161	I469-0001	D6-102	CUB6S1	GP2L-102	PT621
C83	.0047	600	922653	I464-005	DF-503	IR5D47	MCB235	MS-31
C84	220	500	91165	I464-005	DF-503	IR5D47	MCB235	MS-31
C85	390	500	91168	I469-0004	DF-503	IR5D47	MCB235	MS-31
C86	.015	200	922220	P288-001	DF-104	CUB4P1	PT401	4TM-P1
C87	.001	400	922413	P488-01	DF-104	CUB2P22	PT4022	2TM-P22
C88	.1	400	922515	P688-001	DF-104	CUB6P1	PT601	6TM-P1
C89	.22	200	922325	P288-22	DF-104	CUB2P22	PT601	20DK-T5
C90	.1	600	922715	P688-01	DF-104	CUB6P1	PT601	6TM-P1
C91	500	20000	928097	HV20C	TV3-503	MMU20T5	413	20DK-T5
C92	50	2000	928097	HV20C	TV3-503	MMU20T5	413	20DK-T5
C93	.047	400	922220	4892X-05	DF-503	CUB4847	PT4147	4TM-847
C94	.047	400	922220	4892X-05	DF-503	CUB4847	PT4147	4TM-847
C95	1000	400	928077	BPD-001	DD-102	801-001	5HK-D1	5HK-D1

Note 1. Not used in Ch. 120190D, 120191D, 120192D, 120198D
Note 2. Used in Ch. 120174B and 120198D only.

CONTROLS

ITEM No.	RATING RESISTANCE WATTS	REPLACEMENT DATA						INSTALLATION NOTES
		EMERSON PART No.	IRC PART No.	CLAROSTAT PART No.	CENTRALAB PART No.	MALLORY PART No.		
R1A	1500Ω	390201	*Q7-313	RTV-296	SBB-701-S	UF152R		Contrast - Panel
B	1 Meg					U16A		Volume - Rear
C	Switch					US-26		Attach to R1B
R2A	200KΩ	390181	Q11-129	A47-200K-S	AB-46	US-36		Brightness
B	Shaft	Not Req.	C3	KSS-5	AK-4	DS-36		Attach to R2A
R3A	1 Meg	390156	Q11-137	A47-1Meg-S	AB-59	U-54		Vert. Hold
B	Shaft	Not Req.	C3	KSS-3	AK-4	DS-36		Attach to R3A
R4A	50KΩ	390183	Q11-123	A47-50K-S	AB-31	U-35		Horiz. Hold
B	Shaft	Not Req.	C3	KSS-5	AK-4	DS-36		Attach to R4A
R5A	5000Ω	390197	WK-5000	A43-5000	VK-135	R5000L		Vert. Linearity
B	Shaft	Not Req.	C3	FKS-1/4	Not Req.	Not Req.		Attach to R5A
R6A	2 Meg	390196	Q11-139	A47-2Meg-S	AB-75	SU-56		Vert. Size
B	Shaft	Not Req.	C3	FKS-1/4	AK-1	Not Req.		Attach to R6A
R7A	50KΩ	390225	Q11-123	A47-50K-S	AB-31	U-53		Fringe compensator
B	Shaft	Not Req.	C3	FKS-1/4	AK-1	Not Req.		Attach to R7A
C	Switch	Not Req.	C3	SW-12	KB-1	US-26		Attach to R7A
R8A	200KΩ	390210	Q11-129	A47-200K-S	AB-46	U-43		Horiz. Distance
B	Shaft	Not Req.	C3	FKS-1/4	AK-1	Not Req.		Attach to R8A
R9A	2Meg	390196	Q11-139	A47-2 Meg-S	AB-75	SU-56		Focus
B	Shaft	Not Req.	C3	FKS-1/4	AK-1	Not Req.		Attach to R9A

* CONCENTRIK EQUIVALENT KIT K-2 BASE ELEMENTS & SHAFTS D17-110 & P1-224 (Panel)

B13-137 & R1-308 (Rear) & SWITCH 76-L

† UNIVERSAL REPLACEMENT (MALLORY EXACT DUPLICATE PART NO. UE208S)

RESISTORS

ITEM No.	RATING OHMS WATT	REPLACEMENT DATA		NOTES
		EMERSON PART No.	IRC PART No.	
R10	470Ω		BTS-15K	
R11	47KΩ		BTS-47K	
R12	180KΩ		BTS-180K	
R13	330KΩ		BTS-330K	
R14	100KΩ		BTS-100K	
R15	470Ω		BTS-470	
R16	15KΩ		BTS-15K	
R17	220KΩ		BTS-220K	
R18	15KΩ		BTS-15K	
R19	10KΩ		BTS-10K	
R20	4700Ω		BTS-4700	
R21	470Ω	350412	BTS-470	
R22	470Ω	350412	BTS-470	
R23	15Ω	340052	BTS-15	
R24	47Ω	340172	BTS-47	
R25	470Ω	350412	BTS-470	
R26	27KΩ	340832	BTS-27K	
R27	470Ω	350412	BTS-470	
R28	470Ω	350412	BTS-470	
R29	47Ω	340172	BTS-47	

RESISTORS

ITEM No.	RATING OHMS WATT	REPLACEMENT DATA		NOTES
		EMERSON PART No.	IRC PART No.	
R30	470Ω	350412	BTS-470	
R31	8200Ω 5%	340712	BTS-8200 5%	
R32	180Ω	340332	BTS-180	
R33	470Ω	350412	BTS-470	
R34	100KΩ	350972	BTS-100K	
R35	1 Meg	351212	BTS-1 Meg	
R36	1 Meg	351212	BTS-1 Meg	
R37	1 Meg	351212	BTS-1 Meg	
R38	15KΩ	340772	BTS-15K	
R39	1 Meg	351212	BTS-1 Meg	
R40	22KΩ	340812	BTS-22K	
R41	6800Ω 5%	770692	BTS-6800 5%	
R42	220KΩ	351052	BTS-220K	
R43	470KΩ	351132	BTS-470K	
R44	470KΩ	351132	BTS-470K	
R45	680KΩ	351172	BTS-680K	
R46	470Ω	340172	BTS-47	
R47	220Ω	340332	BTS-220	
R48	470Ω	350412	BTS-470	
R49	47KΩ	350892	BTS-47K	

Note 1. Used in chassis No. 120174-B & 120198-D only.
Note 2. Not used in chassis 120190-D, 120191-D or 120192-D

TRANSFORMER (POWER)

ITEM No.	RATING PRI. SEC. 1 SEC. 2	REPLACEMENT DATA						
		EMERSON PART No.	Stancor PART No.	Merit PART No.	Triad PART No.	RCA TYPE No.	Hallderson PART No.	Thorderson PART No.
T1	117VAC @1.76A 462VCT @270ADC 5VAC @6A	730044 730037 ①						
	SEC. 3 SEC. 4 SEC. 5 6.3VAC @1.2A 12.6VCT @4.7A							

① Used in chassis 120185-B, and 120190-D

TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA						
		EMERSON PART No.	Stancor PART No.	Merit PART No.	Triad PART No.	RCA TYPE No.	Hallderson PART No.	Thorderson PART No.
T2	Horiz. Output Trans.	738068 738062 ① 738067 ① 738063 ① 738066	*A-8232	*HV0-9	*D-19	*225T1	*FB411	*FLY-13
T3	Vert. Output Trans.		A-8142 ② ④	A-3038 ④	A-108X		Z1802 ④	T-26S53 ④
T4A	Yoke - Horiz. (20MH)	708137	DY-11A	MDF-73	Y-22-1	222D1	DF605	Y-10
T5	Yoke - Vert. (37MH)	708068 708156 ⑤	WC-8	MWC-6 ⑥	WC-12 ⑦	211R1		

① Alternate horizontal output transformer.
② Drill new mounting holes.
③ Remove resistor R118.
④ Connect an auto transformer.
⑤ Alternate width coil.
⑥ Enlarge mounting hole.
⑦ Connect to coded blue and green terminals.

* HORIZONTAL OUTPUT TRANSFORMER CONNECTION DATA

Use Original Width Coil Unless Replacement Type Is Listed

ORIGINAL TERMINAL CONNECTIONS	REPLACEMENT DATA					
	Stancor Replacement Connections	Merit Replacement Connections	Triad Replacement Connections	RCA Replacement Connections	Hallderson Replacement Connections	Thorderson Replacement Connections
3	2	9	9	9	9	2
2	3	9	9	9	9	2
7	7	7	8	8	5	7
5	5	8	7	7	8	5
4	4	4	4	4	4	4
6	6	3	3	3	3	6
8	8	1	1	1	1	8
Connect Width Coil Across	6 & 8	6 & 8	3 & 1	3 & 1	3 & 1	6 & 8
Special Notes		② ③	②	②	② ③	

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE PRI. SEC.	REPLACEMENT DATA						NOTES
		EMERSON PART No.	Stancor PART No.	Merit PART No.	Triad PART No.	Hallderson PART No.	Thorderson PART No.	
T6	4.6KΩ 3.4Ω	734074	A-3877 ①	A-3019	S-3X ①	Z1002	26849	

SPEAKER

ITEM No.	RATINGS SIZE FIELD V. C. IMP.	REPLACEMENT DATA			NOTES
		EMERSON PART No.	VIKING PART No.	QUAM PART No.	
SP1A	12" 8" PM	351092 351052 ①	12711 6J4	12A31 6A1	① Used with Ch. 120190-D and 120191-D

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA				NOTES
		PRI.	SEC.	EMERSON PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	IF Trap	0Ω						
L2	IF Trap	0Ω						
L3	Ant. Coils	0Ω CT	0Ω					Wound on 68MMF Cap.
L4	IF Trap	.9Ω						
L5	Fl. Choke	0Ω						
L6	Neutr. Coil	0Ω						
L7	RF Mixer Grid & Osc. Coils	0Ω						
L8	Fl. Choke	0Ω						
L9	Feedback Coil	1.4Ω						
L10	Conv. Plate	0Ω	0Ω					6.8 Microhenries
L11	Adj. Channel Sound Trap	0Ω		720154	20-1047 #		6219 ■	
L12	Associated Sound Trap	0Ω		720149	20-1046		6219 ■	
L13	1st. Video IF	0Ω		705020 *			6231 ■	
L14	Fl. Choke	.44Ω		705020	19-3001	TV-189	6175	.68 Microhenry (IRC part #CLA)
L15	2nd. Video IF	.1Ω	.1Ω	720148 †	17-4523		6219	
L16	Fl. Choke	.44Ω		705020	19-3001	TV-189	6175	.68 Microhenry (IRC part #CLA)
L17	3rd. Video IF	.1Ω	.1Ω	720148 †	17-4523		6219	
L18	4th. Video IF	.1Ω	.1Ω	720148 †	17-4523		6219	
L19	Fl. Choke	.44Ω		705020	19-3001	TV-189	6175	.68 Microhenry (IRC part #CLA)
L20	Shunt Peak-ing Coil	12Ω		708114	19-1923	TV-188	4566	440 Microhenries
L21	Series Peak-ing Coil	2.2Ω		705014	19-6022	TV-180	6152	20 Microhenries
L22	Series Peak-ing Coil	13Ω		708100	19-3250	TV-185	6181	250 Microhenries
L23	Shunt Peak-ing Coil	20Ω		708115	19-3660		4650	660 Microhenries
L24	1.5MC Trap	2Ω		708032 *	20-1004	TV-151	1470	
L25	1st. Sound IF	1Ω	2.4Ω	720146 ▲	18-3445	TV-113	6203	
L26	2nd. Sound IF	1.6Ω	2.4Ω	720081 ▲	18-3445	TV-113	6203	
L27	Discriminator	2.2Ω	2.4Ω CT	708151 †	17-1023 **	TV-144	6204	
L28	Horiz. Osc.	55Ω		716084	19-1576	TV-163	6210	
L29	RF Choke	8.2Ω		705021	19-1005		4612	10 Microhenries (IRC part #CL-1)
L30	RF Choke	0Ω						