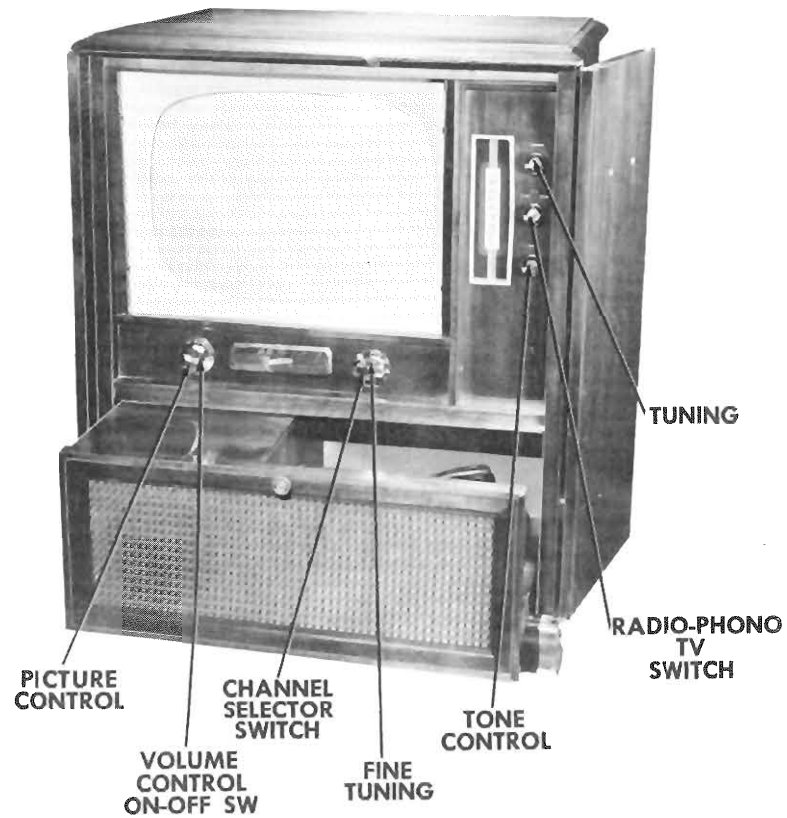


OR AND INDUCTOR IDENTIFICATION



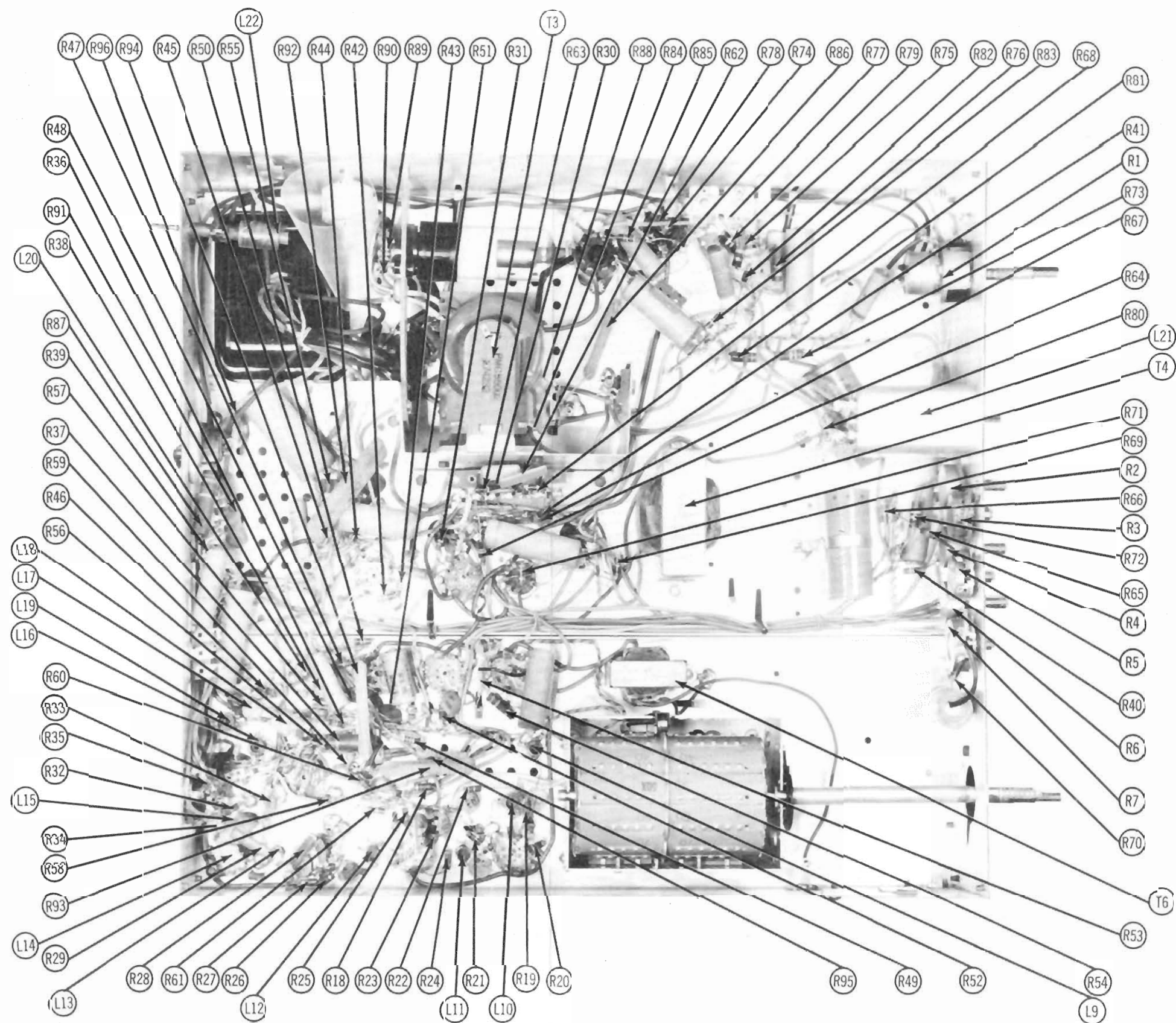
MERCURY 2181	
TRADE NAME	Mercury Models 2081, 2181 (Ch. 150-4, 150-31, 150-61) Radio Ch. 155
MANUFACTURER	Pacific Mercury Tel. Mfg. Corp., 5955 Van Nuys Blvd., Van Nuys, Calif.
TYPE SET	TV-Radio-Phono Combination
TUBES	Twenty-three
POWER SUPPLY	110-120 Volts AC-60 Cycle
TUNING RANGE	(TV) Channels 2 thru 13, Sound IF 26.1 MC, Sound IF 21.6 MC (Inter-carrier), 540-1850 KC (Radio)
RATING 1.83 Amp. @ 117 Volts AC	
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"The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed."

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PACIFIC MERCURY MODELS 2081, 2181  
(Ch. 150-4, -31, -61 & Radio Ch. 155)



CHASSIS BOTTOM VIEW-RESISTOR AND INDUCTOR IDENTIFICATION

TRADE NAME  
MANUFACTURER  
TYPE SET  
TUBES

POWER SUPPLY  
TUNING RANGE

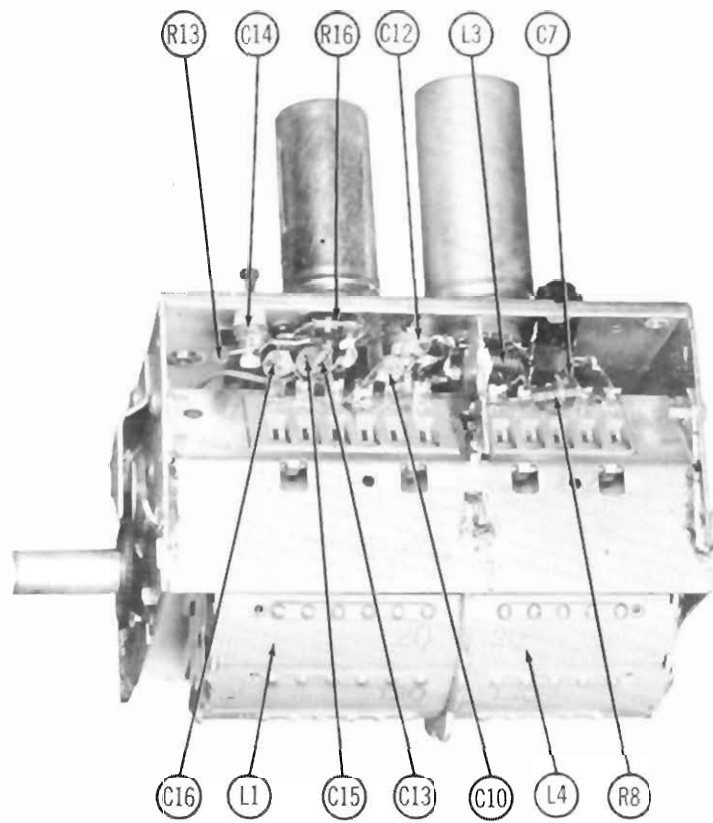
Alignment In-  
Drive Cord St  
Disassembly  
Horizontal Sw  
Parts List an  
Photographs  
Cabinet  
Capacit  
Chassis  
Radio C  
RF Tun

"The listing of any avail  
case a recommendation  
as to the quality and su  
parts have been compile  
Inc., by the manufactur  
"Reproduction or use,

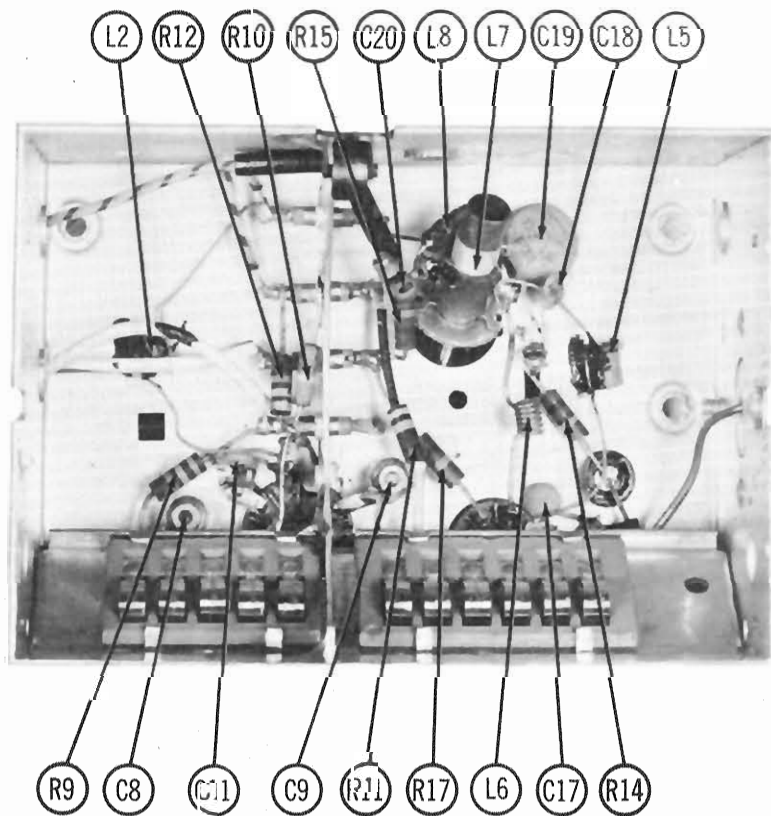




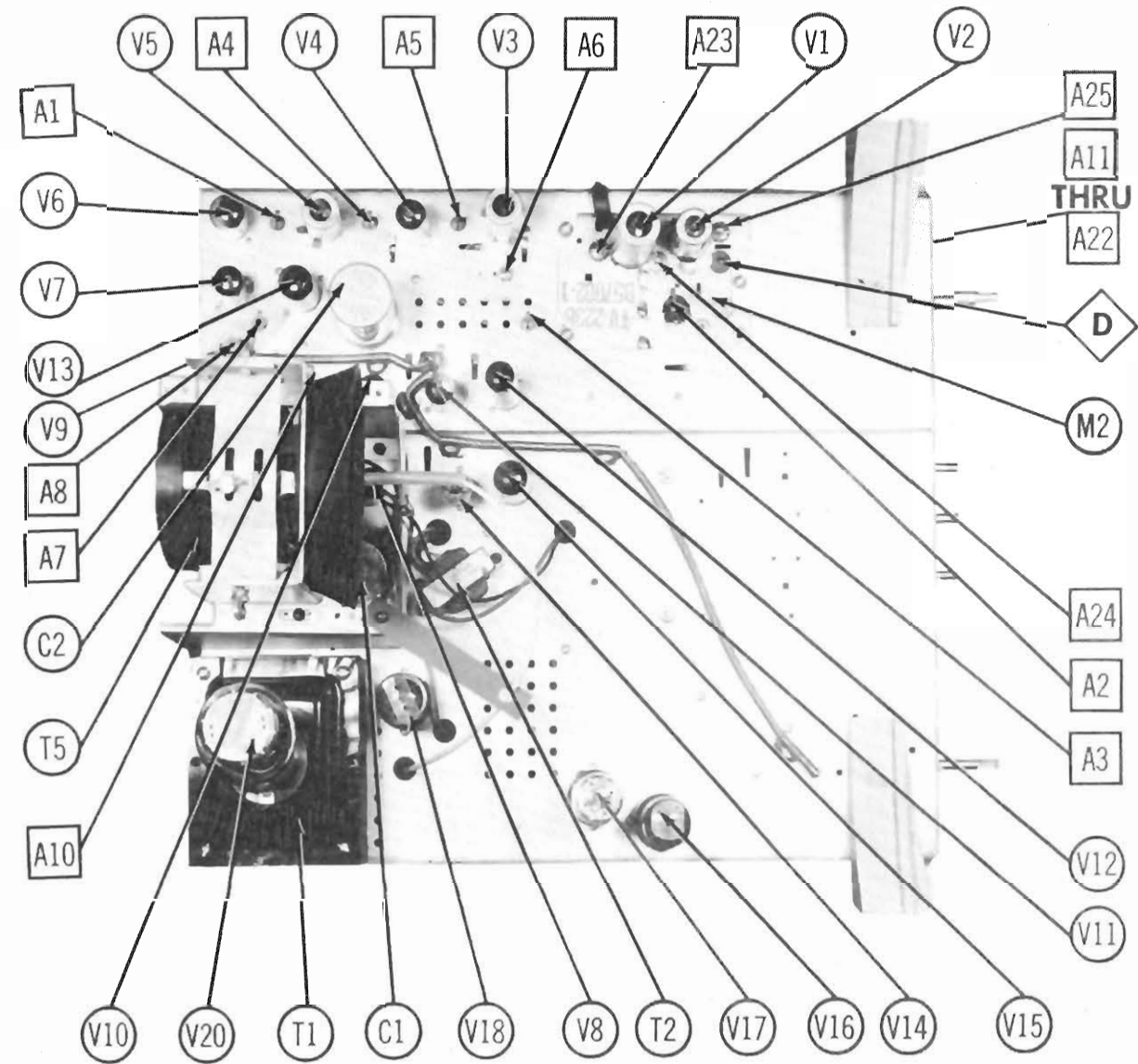




RF TUNER-RIGHT SIDE



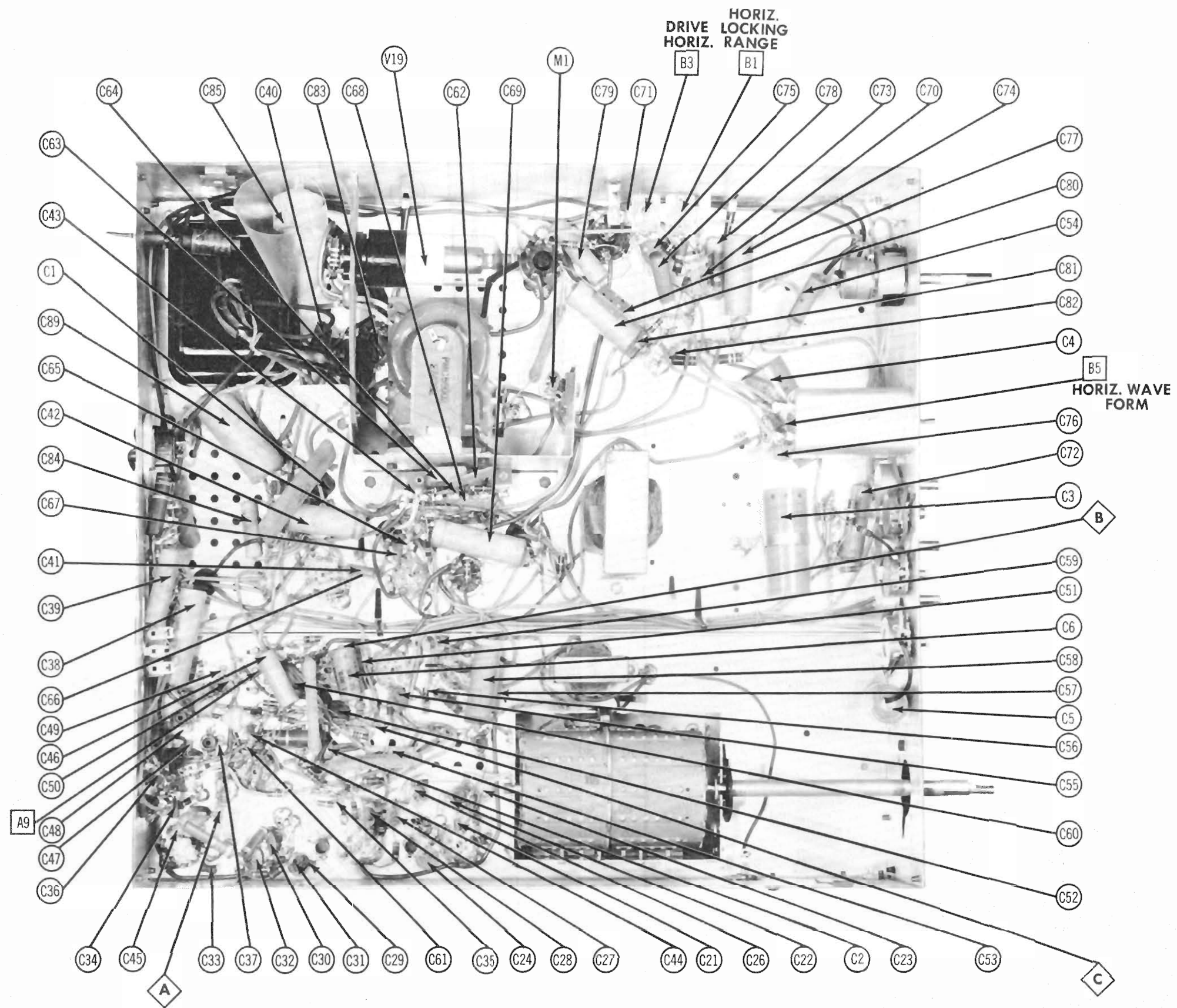
RF TUNER-BOTTOM VIEW



CHASSIS TOP VIEW

MODELS 2087, 2181 (Ch. 150-4, -31, -61 & Radio Ch. 155)

PACIFIC MERCURY



CHASSIS BOTTOM VIEW-CAPACITOR AND ALIGNMENT IDENTIFICATION

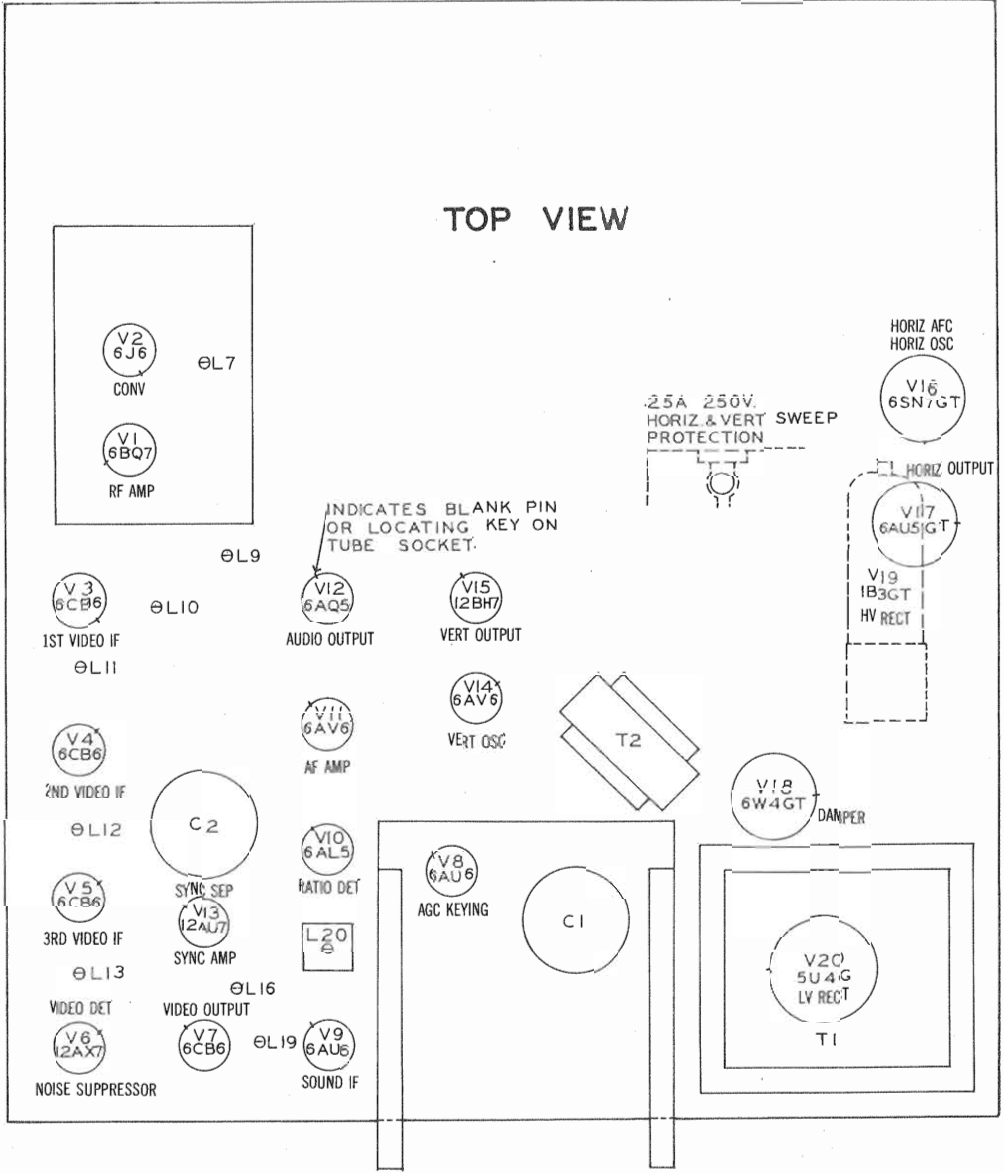
PACIFIC MERCURY  
MODELS 2081, 2181 (Ch. 150-4, -31, -61 & Radio Ch. 155)

RESISTANCE MEASUREMENTS

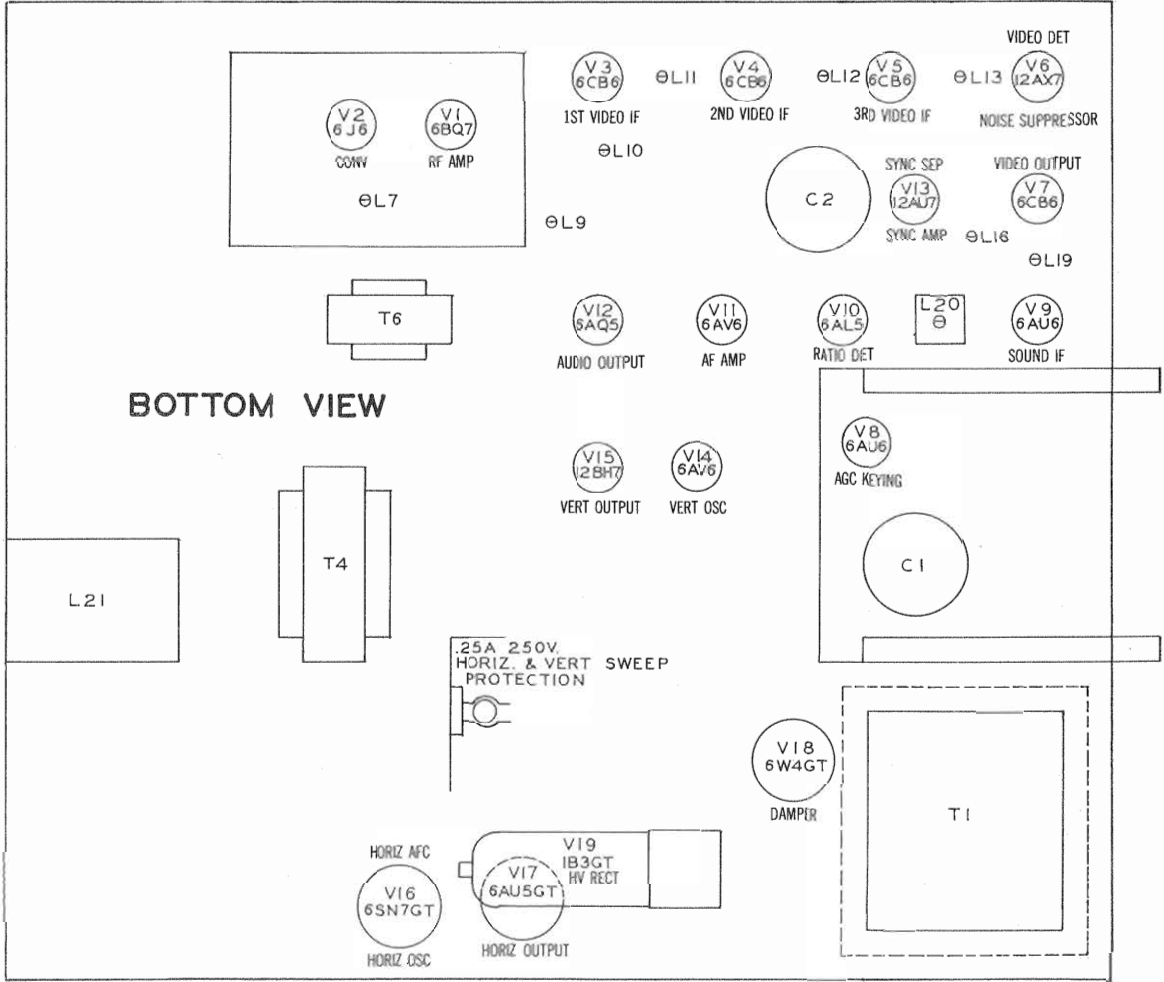
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6BQ7	INF	150KΩ	0Ω	.1Ω	0Ω	†220Ω	†100KΩ	INF	0Ω
V 2	6J 6	†17KΩ	†17KΩ	.1Ω	0Ω	230KΩ	10KΩ	0Ω		
V 3	6CB6	100KΩ	47Ω	0Ω	.1Ω	†3.4KΩ	†3.4KΩ	0Ω		
V 4	6CB6	100KΩ	47Ω	.1Ω	0Ω	†3.2KΩ	†3.2KΩ	0Ω		
V 5	6CB6	7.5KΩ	150Ω	.1Ω	0Ω	†9.8KΩ	†9.8KΩ	0Ω		
V 6	12AX7	4.7KΩ	4.7KΩ	.4Ω	.1Ω	.1Ω	†110KΩ	150KΩ	4.7KΩ	0Ω
V 7	6CB6	1 Meg	300Ω	.1Ω	0Ω	†8KΩ	†2.2KΩ	300Ω		
V 8	6AU6	†24KΩ	†1.2KΩ	†0Ω	†.1Ω	200KΩ	†250Ω	†1.2KΩ		
V 9	6AU6	1.9Ω	0Ω	.1Ω	0Ω	†3.2KΩ	†3.2KΩ	82Ω		
V 10	6AL5	INF	INF	0Ω	.1Ω	10KΩ	0Ω	10KΩ		
V 11	6AV6	10 Meg	0Ω	0Ω	.1Ω	0Ω	0Ω	†500KΩ		
V 12	6AQ5	500KΩ	330Ω	0Ω	.1Ω	†1.5KΩ	†1.1KΩ	500KΩ		
V 13	12AU7	†470KΩ	5.1Meg	0Ω	.1Ω	.1Ω	†6.2KΩ	†470KΩ	2.7KΩ	0Ω
V 14	6AV6	1.5Meg	0Ω	0Ω	.1Ω	0Ω	470KΩ	†600KΩ		
V 15	12BH7	†2.5KΩ	1 Meg	1.8KΩ	.1Ω	.1Ω	†2.5KΩ	1 Meg	1.8KΩ	0Ω
V 16	6SN7GT	850KΩ	†60KΩ	300KΩ	250KΩ	†68KΩ	0Ω	.1Ω	0Ω	
V 17	6AU5GT	470KΩ	.1Ω	220Ω	INF	†20Ω	INF	0Ω	†7KΩ	
V 18	6W4GT	†33Ω	INF	100KΩ	INF	†250Ω	200KΩ	†23Ω	†23Ω	
V 19	1B3GT		PINS 1 - 8 HAVE INF RESISTANCE							Top Cap #450Ω
V 20	5U4G	INF	25KΩ	INF	†30Ω	INF	†33Ω	INF	25KΩ	
V 21	21MP4	0Ω	†2KΩ	Pin 6 #1KΩ	Pin 10 #1KΩ	Pin 11 150KΩ	Pin 12 .1Ω			

ALL MEASUREMENTS TAKEN IN TV POSITION ONLY  
† MEASURED FROM PIN 8 OF V20  
# MEASURED FROM PIN 3 OF V18  
‡ MEASURED FROM PIN 3 OF V8  
■ MEASURED FROM CENTERTAP OF T1

TUBE PLACEMENT CHART



PACIFIC MERCURY MODELS 2081, 2181  
(Ch. 150-4, -31, -61 & Radio Ch. 155)



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
- 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 - V8, V21  
Has pic, no sound - V9, V10, V11, V12  
Overloaded picture - V8
- SYNC FAILURE**  
No vert. sync - V13, V14  
No horiz. sync - V13, V16  
No vert. or horiz. sync - V6, V13
- SWEEP FAILURE**  
No raster, has sound - V16, V17, V18, V19, V21, Fuse (M1)  
No vert. deflection - V14, V15  
Poor vert. linearity or foldover - V13, V14, V15  
Poor horiz. linearity or foldover - V16, V17, V18  
Narrow picture - V16, V17, V18, V19, V20  
Vert. off freq. - V13, V14  
Horiz. off freq. - V13, V16



# TV ALIGNMENT INSTRUCTIONS

## ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

The high voltage shock hazard can be eliminated by removing the horizontal oscillator tube (V16) from its socket.

### VIDEO IF ALIGNMENT

Remove the converter tube (V2) from its socket and replace with a 6J6 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 C42. Connect the positive lead to chassis.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1. Direct	High side to an ungrounded tube shield floating over dummy converter tube. Low side to chassis.	24.35MC (Unmod)	Any	DC probe to point $\Delta$ Common to chassis.	A1	Adjust for maximum deflection. Attenuate generator output to maintain 1 to 1.5 Volt reading on VTVM.
2. "	"	"	"	"	A2	Connect a 1K $\Omega$ resistor across the grid resistor R19, of V3. Adjust A2 for maximum deflection. Remove the 1K resistor.
3. "	"	"	"	"	A3	Adjust for maximum deflection.
4. "	"	23.2MC	"	"	A4	"
5. "	"	25.2MC	"	"	A5	"
6. "	"	21.6MC	"	"	A6	Adjust for MINIMUM deflection.

### OVERALL VIDEO IF RESPONSE CHECK

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

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
7. Direct	High side to an ungrounded tube shield floating over dummy converter tube. Low side to chassis.	24MC (10MC Swp)	21.6MC 26.1MC	Any	Vert. Amp. to point $\Delta$ . Low side to chassis.		Check for response similar to Fig. 1 with 21.6MC in trap notch and 26.1MC at 50% response. If necessary readjust A1 thru A5 for desired response.

### 4.5MC TRAP ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
8. .01MFD	High side to point $\Delta$ . Low side to chassis.	4.5MC (Unmod)	Any	DC probe thru detector (Fig. 2) to pin 11 of picture tube. Common to chassis.	A7	Adjust for MINIMUM deflection.

### SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
9. .01MFD	High side to point $\Delta$ . Low side to chassis.	4.5MC (Unmod)	Any	DC probe to point $\Delta$ Common to chassis.	A8, A9	Adjust for maximum deflection.
10. "	"	"	"	DC probe to point $\Delta$ Common to chassis.	A10	Adjust for a zero reading. A positive and negative reading will be obtained on either side to the correct setting.

### SOUND IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE

Use frequency modulated signal with 60% modulation and 450KC sweep. Use 120V sawtooth voltage in scope for horizontal deflection.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
9. .01MFD	High side to point $\Delta$ . Low side to chassis.	4.5MC (450KC Swp)	4.5MC	Any	Vert. Amp. to point $\Delta$ . Low side to chassis.	A8, A9	Disconnect stabilizer capacitor C6. Adjust for maximum amplitude and symmetry as in Fig. 3.
10. "	"	"	"	"	Vert. Amp. to point $\Delta$ . Low side to chassis.	A10	Reconnect capacitor C6. Adjust so that 4.5MC occurs at center of crossover lines as in Fig. 4. SLIGHTLY retouch A9 for maximum amplitude and straightness of crossover lines.

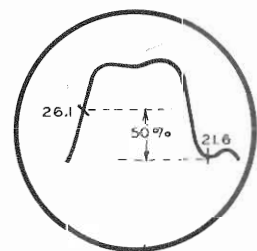


FIG. 1

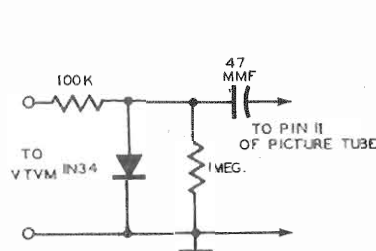


FIG. 2

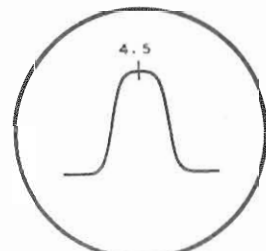


FIG. 3

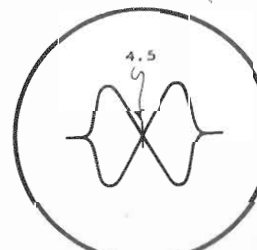


FIG. 4

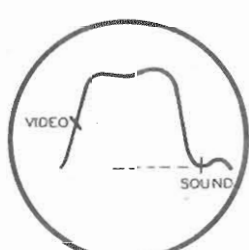


FIG. 5

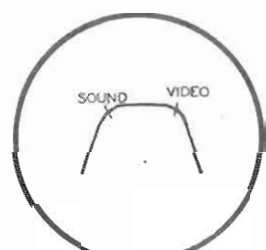


FIG. 6

# TV ALIGNMENT INSTRUCTIONS (CONT.)

## OSCILLATOR ALIGNMENT

### PENTODE TUNER

Complete oscillator alignment may not be necessary. If the oscillator seems to be off frequency approximately the same amount for a majority of the channels it may be possible to correct them in one step using A26. It should be noted that this is an all channel oscillator circuit adjustment and should not be used to correct any individual channel. If adjustment of A26 will not bring all channels well within the range of the fine tuning control it will be necessary to adjust the channel strip adjustment for each channel that is off frequency.

### THE FOLLOWING APPLIES TO BOTH PENTODE AND CASCODE TUNERS

The channel oscillator adjustment screws are reached through a hole just to the right of the channel switch shaft. The correct adjustment screw is accessible through this hole as the channel switch is tuned to each channel. 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
11. Two 120 $\Omega$ Carbon Resistors	Across antenna terminals with 120 $\Omega$ in each lead.	213MC (10MC Swp) 207MC (10MC Swp) 201MC (10MC Swp) 195MC (10MC Swp) 189MC (10MC Swp) 183MC (10MC Swp) 177MC (10MC Swp) 85MC (10MC Swp) 79MC (10MC Swp) 73MC (10MC Swp) 67MC (10MC Swp) 61MC (10MC Swp) 55MC (10MC Swp) 49MC (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 83.25MC 87.75MC 77.25MC 81.75MC 71.25MC 65.75MC 59.75MC	13 12 11 10 9 8 7 6 5 4 3 2	Vert. Amp. to point $\Delta$ . Low side to chassis.	A11 A12 A13 A14 A15 A16 A17 A18 A19 A20 A21 A22	Adjust to place sound marker in trap notch as shown in Fig. 5. Video marker should be at 50%.

### RF AND MIXER ALIGNMENT

Reduce the battery bias to 1.5 volts. 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
12. Two 120 $\Omega$ Carbon Resistors	Across antenna terminals with 120 $\Omega$ in each lead.	207MC (10MC Swp)	205.25MC 209.75MC	12	Vert. Amp. thru 10K $\Omega$ to point $\Delta$ . Low side to chassis.	A23, A24, A25	Adjust for curve of maximum amplitude with band width as shown in Fig. 6.
13. "	"	213MC (10MC Swp) 201MC (10MC Swp) 195MC (10MC Swp) 189MC (10MC Swp) 183MC (10MC Swp) 177MC (10MC Swp) 85MC (10MC Swp) 79MC (10MC Swp) 73MC (10MC Swp) 67MC (10MC Swp) 61MC (10MC Swp) 55MC (10MC Swp) 49MC (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 83.25MC 87.75MC 77.25MC 81.75MC 71.25MC 65.75MC 59.75MC	13 11 10 9 8 7 6 5 4 3 2	"		Check for response curve similar to Fig. 6. If markers fall below 70% on any channel make slight compromise adjustments of A23, A24 and A25 with channel selector set to that channel. Recheck all other channels to see that they have not been seriously affected.

# RADIO ALIGNMENT INSTRUCTIONS

## RADIO ALIGNMENT

Turn Radio-Photo-TV switch to "Radio". Set tone control fully clockwise. Turn tuning gang fully closed and set pointer 7/8 inch from left edge of dial back plate. 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. Loop should be maintained in same relative position to chassis as when receiver is in cabinet.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
14. .01MFD	High side to pin 7 (grid) of 6BE6 (V22). Low side to chassis.	455KC	Radio	Tuning gang fully open	Across voice coil	A27, A28, A29, A30	Adjust for maximum output.
15. "	Loop	1400KC	"	1400KC	"	A31	Tune pointer to 1 1/2" from right hand edge of dial back plate for 1400KC dial setting. Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
16. "	"	600KC	"	Tune to 600 KC signal	"	A32	Adjust for maximum output while rocking gang.
17. "	"	1400KC	"	1400KC	"	A31, A33	Adjust in order given for maximum output.

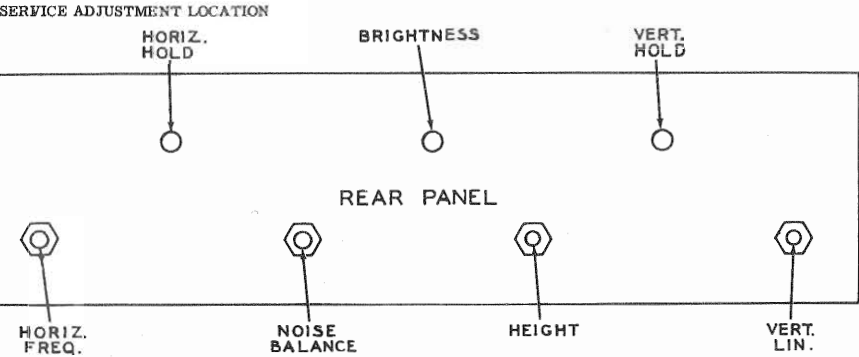


SERVICING IN THE FIELD

**TUNER OSCILLATOR ADJUSTMENTS**  
Touch-up adjustments of the RF Tuner Oscillator Circuit may be accomplished by removal of the Channel Selector and fine tuning knobs. The adjustments are accessible, one at a time, through the small hole in the cabinet to the right of the channel selector shaft.

**PICTURE TUBE SAFETY GLASS CLEANING**  
Remove 4 wood screws and 2 wood strips (1 on each side of safety glass). 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).



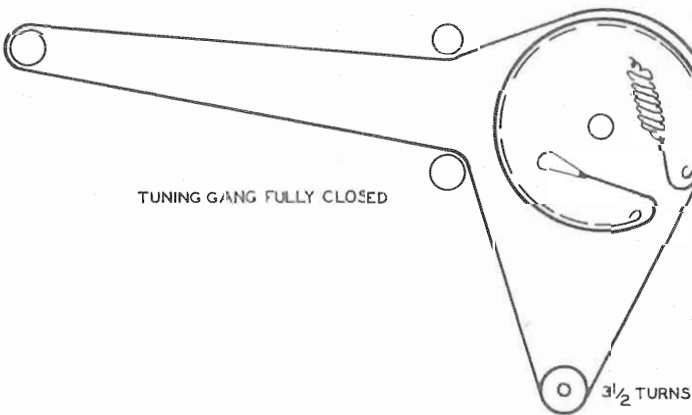
**SPECIAL ADJUSTMENTS - NOISE BALANCE CONTROL**  
Adjustment of noise balance control can be made from the front panel. For correct adjustment see Horiz. Sweep Circuit Adj. on page 11.

**HORIZONTAL OSCILLATOR FIELD ADJUSTMENT**  
Adjustment of the Horiz. Oscillator slug (L21) can be made from the front panel. For correct adjustment see Horiz. Sweep Circuit Adj. on page 11.

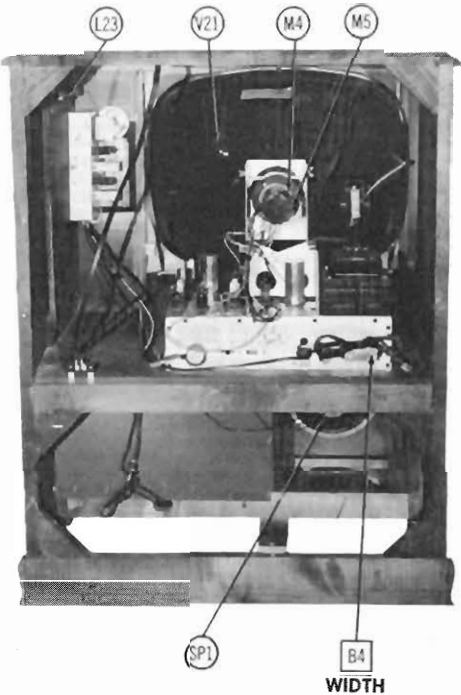
**SOUND IF DETECTOR BUZZ ADJUSTMENT**  
To eliminate Sound IF Detector buzz, adjust the Ratio Detector Secondary (L20) located on top of chassis. (See tube placement chart).

**FUSES**  
One fuse is used for Horiz. Sweep Circuit 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 yoke. Rotate the two rings around the neck of the picture tube until proper centering of picture is obtained.



RADIO DRIVE CORD STRINGING



CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Turn the set on and tune in a TV station, preferably a test pattern.  
Set the horizontal lock control fully counter clockwise, and the horizontal lock trimmer (B1) fully clockwise.  
Turn the horizontal oscillator slug (B2) counter clockwise until the picture loses sync, then clockwise until the picture falls into synchronization.  
Turn the horizontal lock control to the middle of its range and adjust the horizontal drive trimmer (B3) counter clockwise as far as possible without crowding of the picture. Adjustment of B3 may make it necessary to readjust B2, as before, to maintain sync.  
With the horizontal lock at maximum clockwise position, momentarily interrupt the signal by switching to another channel and back again.  
Turn the horizontal lock control slowly counter clockwise and note the least number of diagonal bars present just before the picture falls into sync. If this number is not between 2 and 4 adjust B1 for that condition.  
Adjust the width slug (B4) for a picture slightly wider than necessary to fill the picture mask.

**HORIZONTAL WAVEFORM ADJUSTMENT**  
Connect the vertical amplifier of an oscilloscope to terminal C of L21. If necessary adjust the horizontal waveform slug (B5) for a waveform on the scope as in Fig. 7 with broad and narrow peaks of equal height.  
**NOISE BALANCE CONTROL ADJUSTMENT**  
Tune set to strongest available TV signal.  
Turn noise balance control fully clockwise, then slowly counter clockwise until picture begins to distort. Turn the control clockwise just enough to eliminate the distortion.

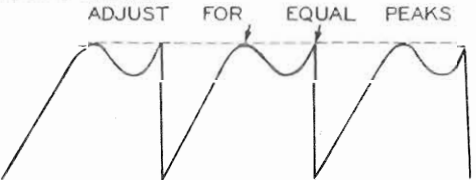
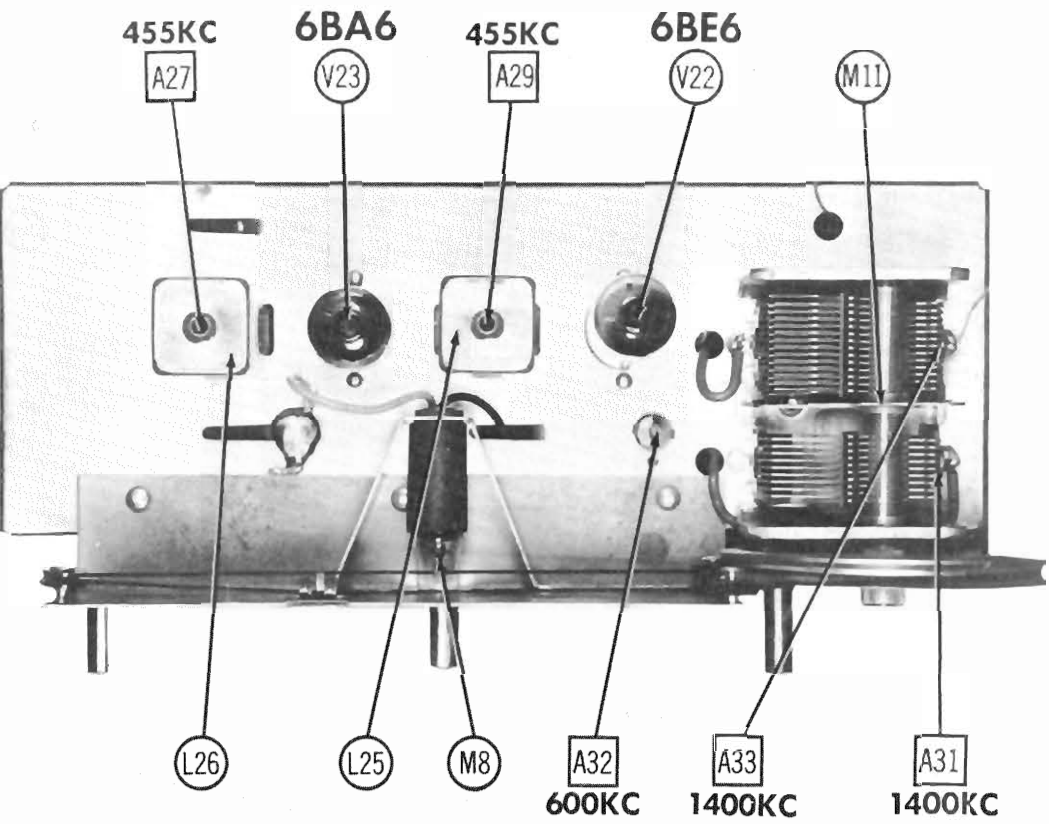


FIG. 7

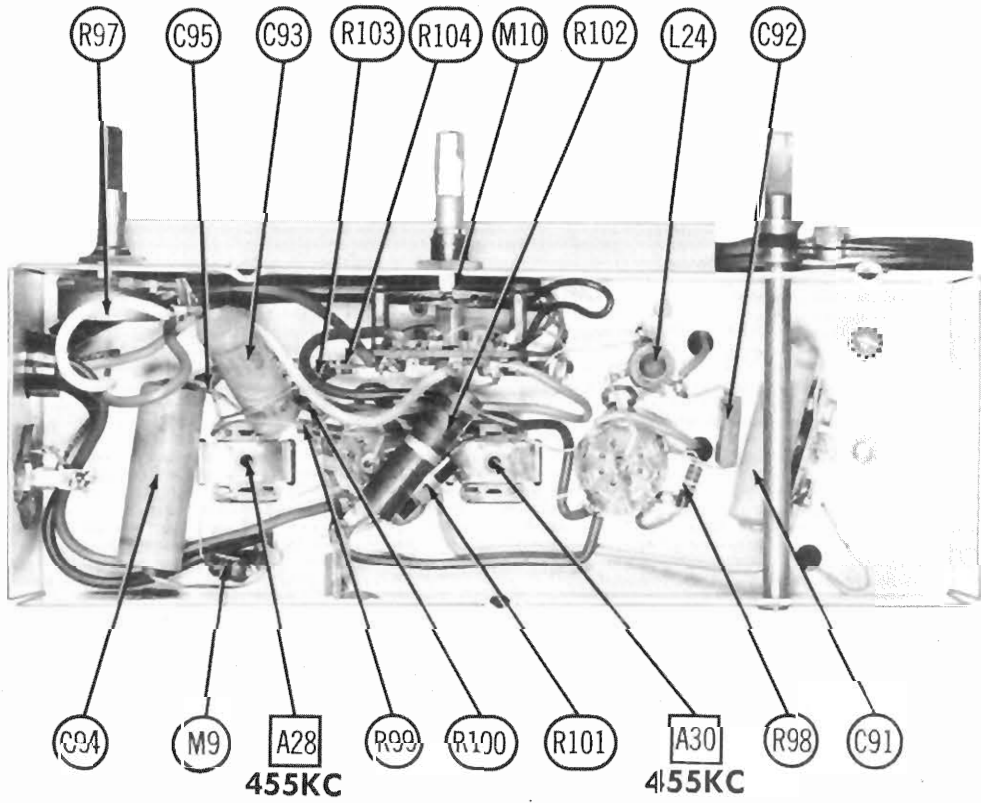
DISASSEMBLY INSTRUCTIONS

- |  |   |
|--|---|
| 1. Remove 4 push on type control knobs from front panel.                       | 1. Remove 3 push on type control knobs from front panel.          |
| 2. Remove 10 wood screws. Remove rear cover.                                   | 2. Remove 8 chassis mounting board screws. Remove mounting board. |
| 3. Disconnect built-in antenna. Remove 2 wood screws. Remove antenna bracket.  | 3. Remove 3 metal screws. Remove radio from mounting board.       |
| 4. Disconnect AC plug (phono motor), radio power plug, phono audio cable plug. |   |
| 5. Remove 4 chassis bolts. Remove chassis.                                     |   |

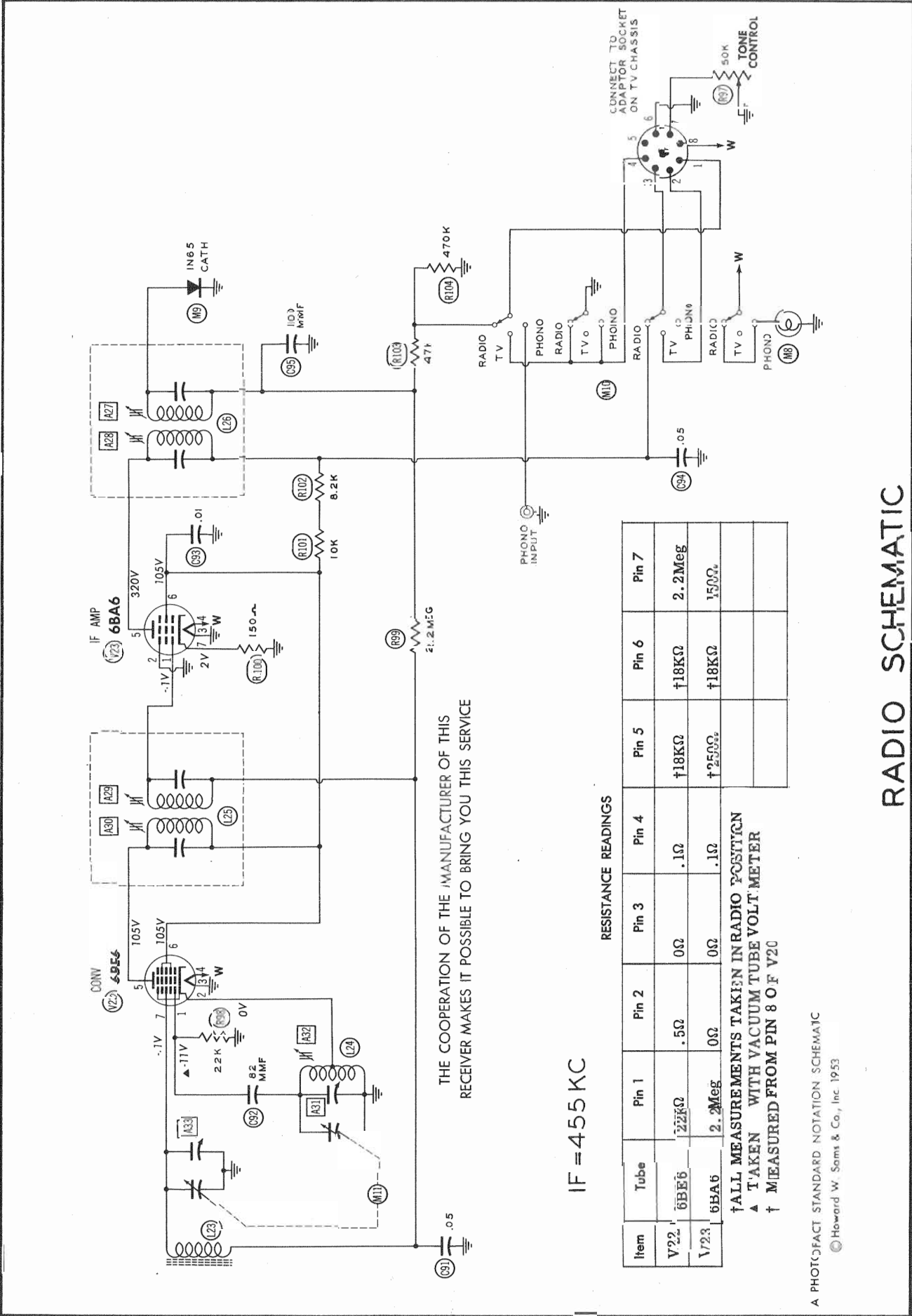
PACIFIC MERCURY MODELS 2081, 2181  
(Ch. 150-4, -31, -61 & Radio Ch. 155)



RADIO CHASSIS-TOP VIEW



RADIO CHASSIS-BOTTOM VIEW



PACIFIC MERCURY  
MODELS 2081, 2181 (Ch. 150-4, -31, -61 & Radio Ch. 155)  
RADIO SCHEMATIC

RADIO PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	MERCURY PART No.	MERIT PART No.	
L23	Loop Ant.	.60		PMB-52034		Tapped @ 42
L24	Osc. Coil	4.20		PMA-52032		
L25	Input IF	14.50	14.50	PMD-52033-1	BC-352	
L26	Output IF	14.50	14.50	PMD-52033-2	BC-353	

DIAL LIGHTS

ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA		NOTES
					MERCURY PART No.		
M8	Bayonet	6-8	.15	Brown			Type No. 47

MISCELLANEOUS

ITEM No.	PART NAME	MERCURY PART No.	NOTES
M9	Crystal		1N65
M10	Switch	PMB-60006	Radio-TV-Phono
M11	Tuning Capacitor	PMB-44001	38-468MMF, 34-193MMF

TV PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RTMA BASE TYPE	NOTES
		MERCURY PART No.	STANDARD REPLACEMENT		
V1A	RF Amplifier	6BQ7 (or)	6BQ7	9AJ	Cascode Tuner
B	RF Amplifier	6BK7	6BK7	9AJ	
V2	Converter	6CB6	6CB6	7CM	
V3	1st. Video IF Amp.	6J6	6J6	7BF	
V4	2nd. Video IF Amp.	6CB6	6CB6	7CM	
V5	3rd. Video IF Amp.	6CB6	6CB6	7CM	
V6	Video Detector	6CB6	6CB6	7CM	
V7	Noise Suppressor	12AX7	12AX7	9A	
V8	Video Output	6CB6	6CB6	7CM	
V9	AGC Keying	6AU6	6AU6	7BK	
V10	Sound IF Amp.	6AU6	6AU6	7BK	
V11	Ratio Detector	6AL5	6AL5	6BT	
V12	AF Amplifier	6AV6	6AV6	7BT	
V13	Audio Output	6AQ5	6AQ5	7BZ	
V14	Sync Separator	12AU7	12AU7	9A	
V15	Vert. Oscillator	6AV6	6AV6	7BT	
V16	Bias Rectifier	12BH7	12BH7	9A	
V17	Vert. Output	6SN7GT	6SN7GT	8BE	
V18	Horiz. AFC	6AU6GT	6AU6GT	6CR	
V19	Horiz. Oscillator	6W4GT	6W4GT	4CG	
V20	Damper	1B3GT	1B3GT	3C	
V21	HV Rectifier	5U4G	5U4G	5T	

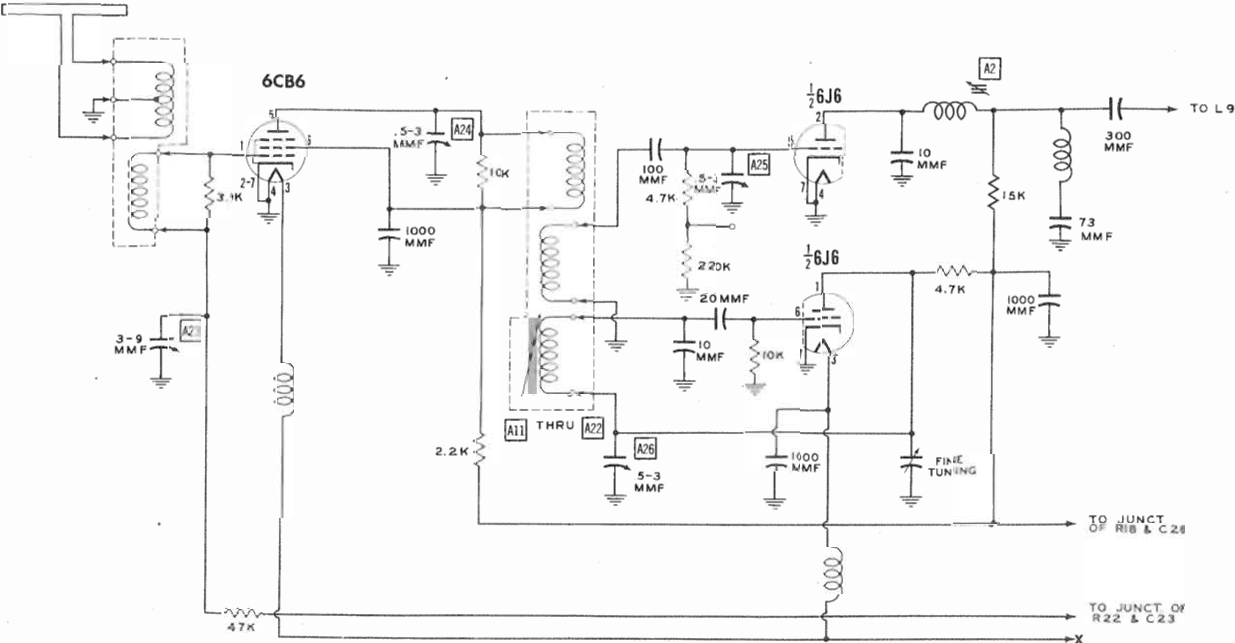
CATHODE-RAY TUBE

ITEM No.	REPLACEMENT DATA		RTMA BASE TYPE	NOTES
	MERCURY PART No.	SYLVANIA PART No.		
V21A	21MP4	21MP4	12C	① Chassis 150-4
B	20CP4 ①		12D	② Chassis 150-3
C	21AP4 ②		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 CAP. VOLT	REPLACEMENT DATA							NOTES
		MERCURY PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C1A	.80	PMA-42000	AFH2-62		EO17		FP245	TVL-2776	
B	.10								
C2A	.40	PMA-42001	AFH3-44		CO35		FP240		
B	.35						TC78		
C	.30								
C3	.20	PMA-42006	PRS450/20		BR2045A		TC65	TVA-1603	
C4	.20	PMA-42006	PRS450/20		BR2045A		TC65	TVA-1603	
C5	.100	PMA-42005	PRS50/100		BRH501		TC3501	TVA-1314	
C6	.1	PMA-42002	PRS150/4		BBR1-50T		TC31	TVA-1305	
C7	3.9								
C8	3.9			829-10					
C9	.5-3			829-3					
C10	.51								
C11	1000								
C12	1.5								
C13	.51								
C14	.5-3								
C15	10			829-3					
C16	5			TCZ-4					
C17	1000			TCN-5					
C18	6.8			DD-102					
C19	.73			TCZ-6.8					
C20	130								
C21	.1								
C22	.12	PMA-40519-1	SH3	DD-102					
C23	.1540			TCZ-1.5					
C24	.1540	PMA-40517-2	BPD-0015	TM5D1	801-001		CT565A		
C25	.1540	PMA-40517-2	BPD-0015	DD-152	NP0K-JR5		DC-521	5HK-D1	
C26	.1540	PMA-40517-2	BPD-0015	DD-152			ZT-5515	5TCCB-V15	
C27	.1540	PMA-40517-2	BPD-0015	DD-152					
C28	.1540	PMA-40517-2	BPD-0015	DD-152					
C29	.1540	PMA-40517-2	BPD-0015	DD-152					
C30	.1540	PMA-40517-2	BPD-0015	DD-152					
C31	.1540	PMA-40517-2	BPD-0015	DD-152					
C32	.1540	PMA-40517-2	BPD-0015	DD-152					
C33	.5	PMA-40518-1	SH5	TCZ-4.7					
C34	5000	PMA-40517-3	BPD-005	DD-502					
C35	1500	PMA-40517-2	BPD-0015	DD-152					
C36	.220	PMD-40518-1b	SH20	DD-221					
C37	.47			TCZ-47					
C38	.1	PMB-41006-51	P688-1	DF-104					
C39	.05	PMB-41006-30	P488-05	DF-503					
C40	.220	PMA-40005-1							
C41	.47	PMB-40003-15	1468-00005	D6-470					
C42	.5	PMA-41008	P288-5						
C43	1500	PMA-40517-2	BPD-0015	DD-152					
C44	1500	PMA-40517-2	BPD-0015	DD-152					
C45	.220	PMB-40518-19	SH20	D6-221					
C46	.02	PMB-41006-28	P488-02	DF-203					
C47	.2	PMB-40519-3		TCZ-2.2					
C48	.47								
C49	1500	PMB-40518-24	SH47NP0	TCZ-47					
C50	1500	PMA-40517-2	SH500	D6-152					
C51A	1500	PMA-40517-4	BPD-2X0015	DD-2-152					
B	1500								
C52	1500	PMA-40517-2	BPD-0015	DD-152					
C53	5000	PMB-40518-32	SH5000	D6-502					



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ALTERNATE TUNER SCHEMATIC

PACIFIC MERCURY MODELS 2081, 2181  
(Ch. 150-4, -31, -61 & Radio Ch. 155)



## TV PARTS LIST AND DESCRIPTIONS (Continued)

CAPACITORS (CONT.)										
ITEM No.	RATING		REPLACEMENT DATA							
	CAP.	VOLT	MERCURY PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C54	.01	400	PMB-41006-7	P488-01	D6-103	PT451	GP2-333-103	PT411	4TM-S1	Note 1
C56	.005		PMA-40517-3	BPD-005	DD-502	TM5D5	81L-008	DC-525	5HK-D5	
C56A	.250		PMA-95001		PC-70		1406-01		1404C4	
C57	.01	600	PMB-41006-45	P688-01	D6-103	PT681	GP2-333-103	PT611	6TM-S1	
C58	.05	600	PMB-41006-49	P688-05	DF-503	PT685		PT615	6TM-S5	
C59	1500		PMA-40517-2	BPD-0015	DD-152	TM5D15	801-0015	DC-5215	5HK-D15	
C60	2000		PMB-40518-27	S12000	D6-202	TM5D2	GP2-333-202	UC-522	5HK-D2	
C61	.150		PMB-40518-17	S1150	D6-151	TM5T15	GP2K-151	UC-5315	5GA-T15	
C62A	.002			P688-002		PT682		PT622		
C62B	.005			P688-005		PT685		PT625		
C63	4700	500	PMB-40003-63	P488-005	DF-503	PT451	GP2-333-103	PT411	4TM-S1	Note 1
C64	1500		PMB-40517-2	BPD-0015	DD-152	TM5D15	801-0015	DC-5215	5HK-D15	
C65	1500		PMB-40518-24	S11500	D6-152	TM5D15	GP2L-152	UC-5215	5HK-D15	
C66	1500		PMA-40517-2	S11500	D6-152	TM5D15	GP2L-152	UC-5215	5HK-D15	
C67	470		PMA-40518-23	S1170	D6-471	TM5D15	GP2K-471	UC-5247	5HK-D15	
C68	.05	600	PMB-41006-49	P688-05	DF-503	PT685		PT615	6TM-S5	
C69	.1	600	PMB-41006-51	P688-1	DF-104	PT681		PT601	6TM-P1	
C70	.180	500	PMB-40003-29							
C71	2200	500	PMB-40003-55							
C72	.05	400	PMB-41006-30	P488-05	DF-503	PT451	GP2-333-103	PT411	4TM-S5	
C73	.02	400	PMB-41006-28	P488-02	DF-203	PT452		PT412	4TM-S2	Note 1
C74	.25	200	PMB-41006-16	P488-25		PT4025		PT4025	2TM-P25	
C75	500	500	PMB-40003-37	1469-0004		5R5T4		MCB243	MS-34	
C76	.01	200	PMA-41009	489-01		OT101		MCB255	MS-21	
C77	1000	500	PMB-40003-47	1464-001	D6-102	PT681	GP2L-102	PT621	6TM-D1	
C78	.001	600	PMB-41006-39	P688-001		PT621		PT4025	2TM-P25	
C79	.025	600	PMB-41006-47	P688-025		PT4025		MCB225	MS-45	
C80	.25	200	PMB-41006-15	P488-25		5R5T5		5GA-T1		
C81	47	500	PMB-40003-15	1469-00005	D6-101	5R5T1	GPIK-101	MCB225	MS-45	
C82	100	1500	PMA-40005-2							
C83	100	1500	PMA-40005-2							Note 1
C84	.03	400	PMB-41006-75	P488-03	TV3-502	PT453	413-501	PT413	4TM-S3	
C85	.50	20000	PMB-40003-37	HY20C		MM-C20T5		HY20035	20DK-T5	
C86	.04	600	PMB-41006-78	P688-04		PT684		PT614	6TM-S4	
C87	.01	600	PMA-41007-45	6892CXY-01		P7681		PT611	6TM-S1	
C88	.01	600	PMA-41007-45	6892CXY-01		P7681		PT611	6TM-S1	
C89	.25	600	PMB-41006-53	684-25		PT6825		PT6025	6TM-P25	
C90	1500		PMA-40517-2	BPD-0015	DD-152	TM5D15	801-0015	DC-5215	5HK-D15	

Note 1. Not used in all Models.  
 Note 2. Some Models use 56MMF in this application.  
 Note 3. Not used in Chassis with serial numbers lower than 47610.  
 \* Items C62A, C62B, C62C, R62A, R62B, R62C are combined in one unit.  
 † Items C56A, C56B, C56C, R53A, R53B are combined in one unit.  
 When replacing items separately, C56B and C56C should total 250MMF.

### CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	MERCURY PART No.	IRC PART No.	CLEARSTAT PART No.	CENTRALAB PART No.	MALLORY PART No.	
R1A	750K	2	PMB-48015	Q1-415*	RTV-382		WFT51	Contrast-Wire Wound-Panel Volume-Rear Attach to R1B
R1B	500K	1					UR55A	
R2A	50K	1	PMB-48014-1	Q11-123	AG-44-S	AB-31	U-35	HORIZ. Hold Attach to R2A Noise Balance
R2B	50K	1	Not Req.	Not Req.	KSS-3	AK-1	Not Req.	
R3A	250K	1	PMB-48014-3	Q11-130	AG-55-S	AB-50	SU-46	Attach to R3A Brightness
R3B	250K	1	Not Req.	Not Req.	FKS-1/4	AK-1	Not Req.	
R4A	100K	1	PMB-48014-2	Q11-128	AG-49-S	AB-40	U-41	Attach to R4A Height
R4B	100K	1	Not Req.	Not Req.	KSS-3	AK-1	Not Req.	
R5A	2.5Meg	1	PMB-48014-5	Q11-239	AG-84-S	AB-83	SU-565	Attach to R5A Vert. Hold
R5B	2.5Meg	1	Not Req.	Not Req.	FKS-1/4	AK-1	Not Req.	
R6A	1.5Meg	1	PMB-48014-7	Q11-138	AG-83-S	AB-75	U-155	Attach to R6A Vert. Linearity
R6B	1.5Meg	1	Not Req.	Not Req.	KSS-3	AK-1	Not Req.	
R7A	5000K	1	PMA-48016	Q11-114	AG-19-S	AB-10	SU-14	Attach to R7A
R7B	5000K	1	Not Req.	Not Req.	FKS-1/4	AK-1	Not Req.	

\* CONCENTRIC EQUIVALENT - KIT K-3, BASE ELEMENTS & SHAFTS W11-105 & P3-114 (Panel)  
 B13-133 & R1-205 (Rear) & SWITCH 76-1.  
 † UNIVERSAL REPLACEMENT (MALLORY EXACT DUPLICATE PART NO. UE21WS).

### RESISTORS

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	MERCURY PART No.	IRC PART No.	
R8	15K	1			
R9	47K	1			
R10	220K	1		BTS-220K	
R11	470K	1		BTS-470	
R12	180K	1		BTS-180K	
R13	10K	1			
R14	220K	1			
R15	15K	1			
R16	10K	1			
R17	15K	1			
R18	150	1	PMA-45015-15	BTS-150	
R19	4700	1	PMA-45015-49	BTS-4700	
R20	470	1	PMA-45015-9		
R21	1000K	1	PMA-45015-23	BTS-1000	
R22	330K	1	PMA-45015-19	BTS-330	
R23	10K	1	PMA-45015-37		
R24	470	1	PMA-45015-9		
R25	1000K	1	PMA-45015-23	BTS-1000	
R26	7500K-55	1	PMA-45014-70		
R27	1500	1	PMA-45015-15	BTS-150	
R28	4700K	1	PMA-45015-33	BTS-4700	
R29	4700K	1	PMA-45015-33	BTS-4700	
R30	220K	1	PMA-45015-53	BTS-220K	
R31	100K	1	PMA-45015-41	BTS-100K	
R32	27K	1	PMA-45015-42	BTS-27K	

### RESISTORS (CONT.)

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	MERCURY PART No.	IRC PART No.	
R57	4.7Meg	1	PMA-45015-60	BTS-4.7Meg	
R58	470K	1	PMA-45015-57	BTS-470K	
R59	270K	1	PMA-45015-30	BTS-270K	
R60	1800K	1	PMA-45015-28	BTS-1800	
R61	2200K	1	PMA-45015-23	BTS-2200	
R62A	22K	1		BTS-22K	
R62B	10K	1		BTS-10K	
R63	820K	1	PMA-45015-60	BTS-820K	
R64	150K	1	PMA-45015-51	BTS-150K	
R65	270K	1	PMA-45015-54	BTS-270K	
R66	47K	1	PMA-45015-45	BTS-47K	
R67	8200K	1	PMA-45015-36	BTS-8200	
R68	2200K	1	PMA-45015-29	BTS-2200	
R69	1 Meg	1	PMA-45015-61	BTS-1 Meg	
R70	470K	1	PMA-45015-21	BTS-470	
R71	470	1	PMA-45015-9		
R72	120K	1	PMA-45017-56	BTA-120K	
R73	68K	1	PMA-45017-47	BTA-68K	
R74	820K	1	PMA-45015-60	BTS-820K	
R75	150K	1	PMA-45017-51	BTA-150K	

† Items R53A, R53B, C56A, C56B, C56C are combined in one unit.  
 \* Items R62A, R62B, R62C, C62A, C62B, C62C are combined in one unit.

### TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA				
	PRI.	SEC. 1	SEC. 2	SEC. 3	MERCURY PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	TRIAD PART No.
T1	117VAC @ 1.83A	700VCT .220ADC	5VAC @ 3A	6.3VAC @ 3A	PMB5003				
			SEC. 4	SEC. 5					
			6.3VAC @ 1.2A	6.3VAC @ 6.9A					

### TRANSFORMER (SWEEP CIRCUITS)

ITEM No.	RATING		REPLACEMENT DATA					NOTES
	DC RESISTANCE	SEC.	MERCURY PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	TRIAD PART No.	
T2	180K	1000K	PMA-56005-2	A-8111	A-3000	TBO-1	A-97X	Vert. Osc. Trans.
T3	440K tap @ 200K	35K tap @ 40, 11.7K, 31.7K	PMC-56002		HVO-9		D-19	Horiz. Output Trans.
T4	1500K tap @ 50		PMA-56004	A-8141	A-3039	TSO-12	A-104X	Vert. Output Trans.
T5A	24K		PMA-56000	DY-9A	MDF-70	TY-3	Y-17	Horiz. Deflection Coils
T5B	45K							Vert. Deflection Coils

① Mount on top of chassis.  
 ② Drill one new mounting hole.  
 ③ Wire as in original circuit (no connection to D-19 terminal "T")

### TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING		REPLACEMENT DATA					NOTES
	IMPEDANCE	DC RES.	MERCURY PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	TRIAD PART No.	
T6	7.5K	3-4K 425K .6K	PMB-51005	A-3878	A-2931	RO-13	S-9X	

### COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	MERCURY PART No.	MERIT PART No.	
L1	Ant. Coils	0K CT	0K			
L2	Fl. Choke	0K				
L3	Neutralizing Coil	0K				
L4	RF Mixer Grid & Osc. Coils	0K				
L5	Fl. Choke	0K				
L6	RF Choke	0K				
L7	Conv. Plate	.6K				
L8	RF Choke	.4K				
L9	1st. Video IF	.3K		PMA-52021	TV-112	
L10	21.6MC Trap	.2K		PMA-52020	TV-150	
L11	2nd. Video IF	.4K	.4K	PMA-52029		
L12	3rd. Video IF	.3K		PMA-52021	TV-112	
L13	4th. Video IF	.4K	.4K	PMA-52029		
L14	Series Peak-ing Coil	3.4K		PMA-52023	TV-181	100 Microhenries
L15	Shunt Peaking Coil	1K		PMA-52024	TV-185	450 Microhenries
L16	4.5MC Trap	1.9K		PMA-52028-2	TV-151	
L17	Series Peaking Coil	6.8K		PMA-52025	TV-184 *	200 Microhenries, wound on 22K resistor
L18	Shunt Peaking Coil	1K		PMA-52024	TV-188	450 Microhenries
L19	Sound IF	1.9K		PMA-52028-2	TV-151	
L20	Ratio Det.	5.5K	.9K	PMA-52027	TV-115	Tertiary Winding-.55K
L21	Horiz. Osc.	65K		PMB-52019	TV-162	Pri. tapped @ 22K, Horiz. waveform winding -47K
L22	Width Coil	6K		PMA-56003		

\* Parallel with 22K resistor.

### SPEAKER

ITEM No.	RATINGS				REPLACEMENT DATA			NOTES
	SIZE	FIELD	V.	C. IMP.	MERCURY PART No.	JENSEN PART No.	QUAM PART No.	
SP1	8"	PM	3-4K			ST-115 Mod. PS-V	8A21	

### FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA
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