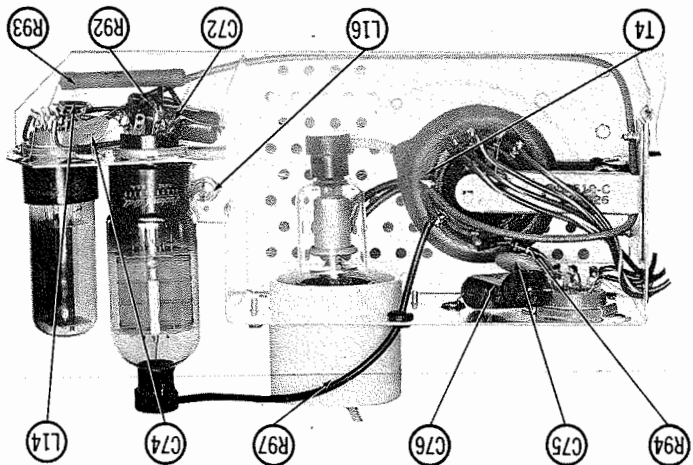


VIDEO, SOUND, SYNC CHASSIS - BOTTOM VIEW
RESISTOR, INDUCTOR, MISC. IDENT.

HIGH VOLTAGE
COMPARTMENT



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

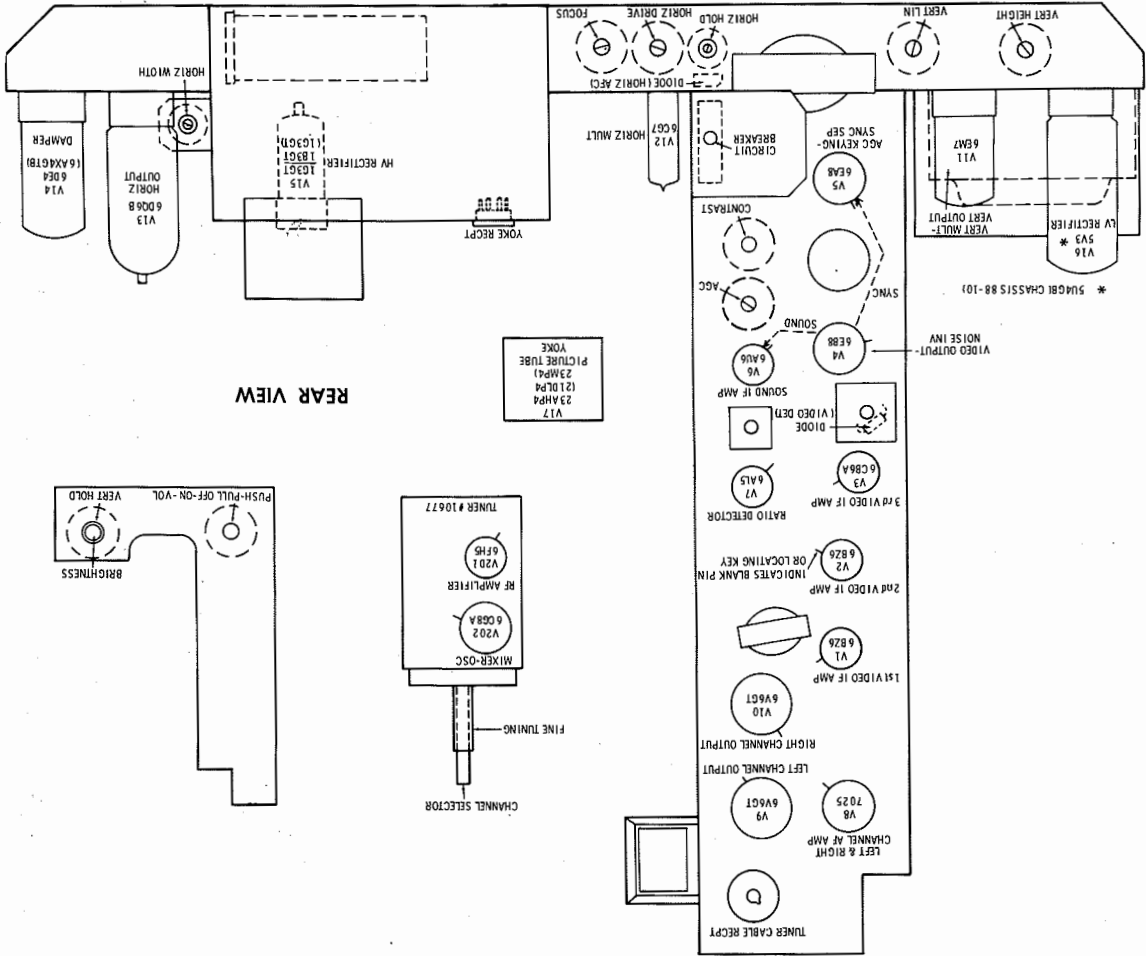
POWER SUPPLY FAILURE
No raster, no sound Circuit Breaker, V16, Fuse Wire (F11.)

SWEEP FAILURE
No raster, has sound V12, V13, V14, V15, V17
No vertical deflection V11
Poor vert. linearity or foldover V11
Narrow picture V12, V13, V14, V16
Vert. off freq. V11
Horiz. off freq. Diode (Horiz. AFC), V12

SYNC FAILURE
No vert. sync V5
No horiz. sync V5 (Diode, Horiz. AFC)
No vert. or horiz. sync V5


LOSS OF PICTURE OR SOUND
No pic, no sound, has raster V1, V2, V3, Diode (Video Det.), V4
No pic, no sound, has snow V201, V202, V1
Has pic, has sound, has raster V4, V17
No pic, no sound V6, V7, V8 (See F.M.-AM Tuner Preamplifier or TV Audio Amp Section)
Overloaded picture V5

TUBE FAILURE CHECK CHART







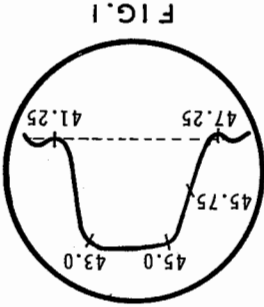
Connect the negative lead of a 6 volt bias supply to point TP-1. Positive to chassis. Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. The generator output lead should be terminated with its characteristic impedance, usually 50 ohms. Use only enough generator output to provide a usable indication.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	Not Used	Place a thin insulated metal strip between the mixer-osc. tube and the tube shield. Connect the operator to the metal strip low side to chassis.
MARKER GENERATOR FREQUENCY	41.25 MC	(Unmod.)	high side of sweep generator to the metal strip low side to chassis.
CHANNEL	Any non-interfering	channel	
CONNECT SCOPE	Use VTVM	DC probe thru 10K resistor to point of common to chassis.	
ADJUST	AI		
REMARKS	Adjust for MINIMUM deflection.		

"	"	47. 25MC	"	"	A2	"
"	"	44. 0MC	"	"	A3	Adjust for maximum deflection.
"	"	43. 0MC	"	"	A4	"
"	"	45. 0MC	"	"	A5	"
"	"	45. 75MC	"	"	A6	"
"	"	43. 0MC	"	"	Mixer Plate Coil	"
"	"	41. 25MC 43. 0MC 45. 0MC 45. 75MC 47. 25MC	"	Vert. Amp. of scope thru 22K to point  Low side to chassis.		Check for response similar to Fig. 1 with Mixer Plate Coil to adjust low frequency markers as indicated. If necessary, retouch slope of curve, A6 to adjust high frequency slope of curve and A3 to control tilt or flat-ten top of response. A5 may be adjusted to place 45. 0MC marker at corner of response.

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT	ADJUST	REMARKS
High side thru ∇ Low side to chassis.	4.5MC (Unmod.)	Any non-interfering channel	AC probe to point B.	A7	Adjust for MINIMUM deflection.


SIGNAL GENERATOR	High side thru .01mfd to point  . Low side to chassis.	4.5MC (Unmod.)	Any non-interfering channel	DC probe to point  . Common to chassis.	A8, A9	Adjust for maximum deflection.	REMARKS
SIGNAL GENERATOR	"	"	"	DC probe to point  . Common to point  .	A10	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.	







The High Voltage lead should be securely taped and kept away from the chassis.
Allow a 20 minute warm-up period for the receiver and test equipment.
Suggested Alignment Tools: A1, A4, A5, A6, A9 GENERAL CEMENT #8721, 8722
WALSCO #2519
A2, A3, A7, A8, A10 GENERAL CEMENT #8282, 8606, 8606L, 8295, 9440
WALSCO #2520, 2543, 2544, 2545

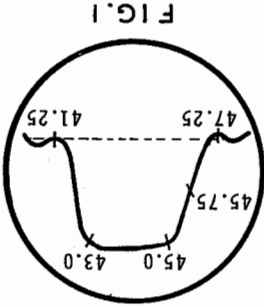
Connect the negative lead of a 6 volt bias supply to point TP-1. Positive to chassis. Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. The generator output lead should be terminated with its characteristic impedance, usually 50 ohms. Use only enough generator output to provide a usable indication.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	Not Used	Place a thin insulated metal strip between the mixer-osc. tube and the tube shield. Connect the operator to the metal strip low side to chassis.
MARKER GENERATOR FREQUENCY	41.25 MC	(Unmod.)	high side of sweep generator to the metal strip low side to chassis.
CHANNEL	Any non-interfering	channel	
CONNECT SCOPE	Use VTVM	DC probe thru 10K resistor to point of common to chassis.	
ADJUST	AI		
REMARKS	Adjust for MINIMUM deflection.		

"	"	47. 25MC	"	"	A2	"
"	"	44. 0MC	"	"	A3	Adjust for maximum deflection.
"	"	43. 0MC	"	"	A4	"
"	"	45. 0MC	"	"	A5	"
"	"	45. 75MC	"	"	A6	"
"	"	43. 0MC	"	"	Mixer Plate Coil	"
"	"	41. 25MC 43. 0MC 45. 0MC 45. 75MC 47. 25MC	"	Vert. Amp. of scope thru 22K to point  Low side to chassis.		Check for response similar to Fig. 1 with Mixer Plate Coil to adjust low frequency markers as indicated. If necessary, retouch slope of curve, A6 to adjust high frequency slope of curve and A3 to control tilt or flat-ten top of response. A5 may be adjusted to place 45. 0MC marker at corner of response.

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT	ADJUST	REMARKS
High side thru ∇ Low side to chassis.	4.5MC (Unmod.)	Any non-interfering channel	AC probe to point B.	A7	Adjust for MINIMUM deflection.


SIGNAL GENERATOR	High side thru .01mfd to point  . Low side to chassis.	4.5MC (Unmod.)	Any non-interfering channel	DC probe to point  . Common to chassis.	A8, A9	Adjust for maximum deflection.	REMARKS
SIGNAL GENERATOR	"	"	"	DC probe to point  . Common to point  .	A10	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.	







The High Voltage lead should be securely taped and kept away from the chassis.
Allow a 20 minute warm-up period for the receiver and test equipment.
Suggested Alignment Tools: A1, A4, A5, A6, A9 GENERAL CEMENT #8721, 8722
WALSCO #2519
A2, A3, A7, A8, A10 GENERAL CEMENT #8282, 8606, 8606L, 8295, 9440
WALSCO #2520, 2543, 2544, 2545

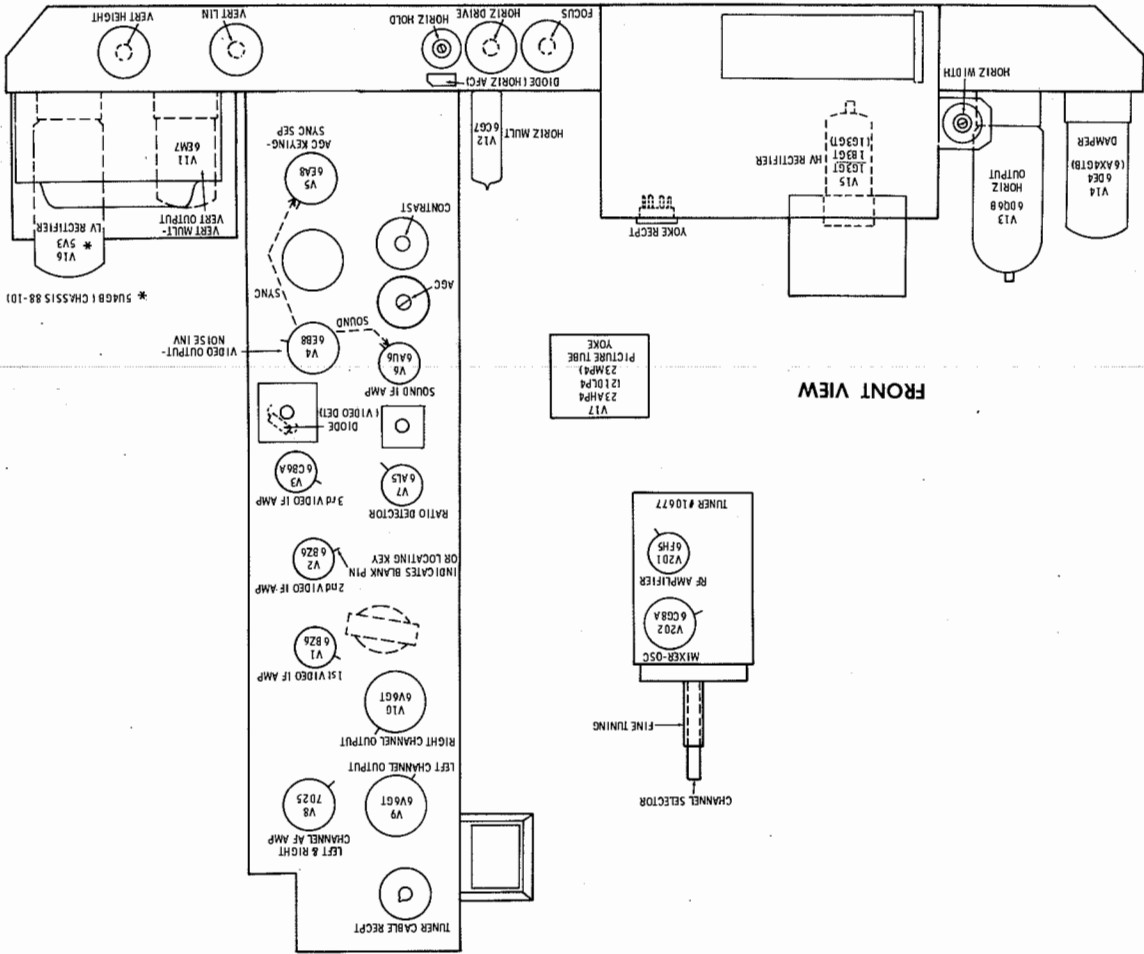
Connect the negative lead of a 6 volt bias supply to point TP-1. Positive to chassis. Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. The generator output lead should be terminated with its characteristic impedance, usually 50 ohms. Use only enough generator output to provide a usable indication.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	Not Used	Place a thin insulated metal strip between the mixer-osc. tube and the tube shield. Connect the operator to the metal strip low side to chassis.
MARKER GENERATOR FREQUENCY	41.25 MC	(Unmod.)	high side of sweep generator to the metal strip low side to chassis.
CHANNEL	Any non-interfering	channel	
CONNECT SCOPE	Use VTVM	DC probe thru 10K resistor to point of common to chassis.	
ADJUST	AI		
REMARKS	Adjust for MINIMUM deflection.		

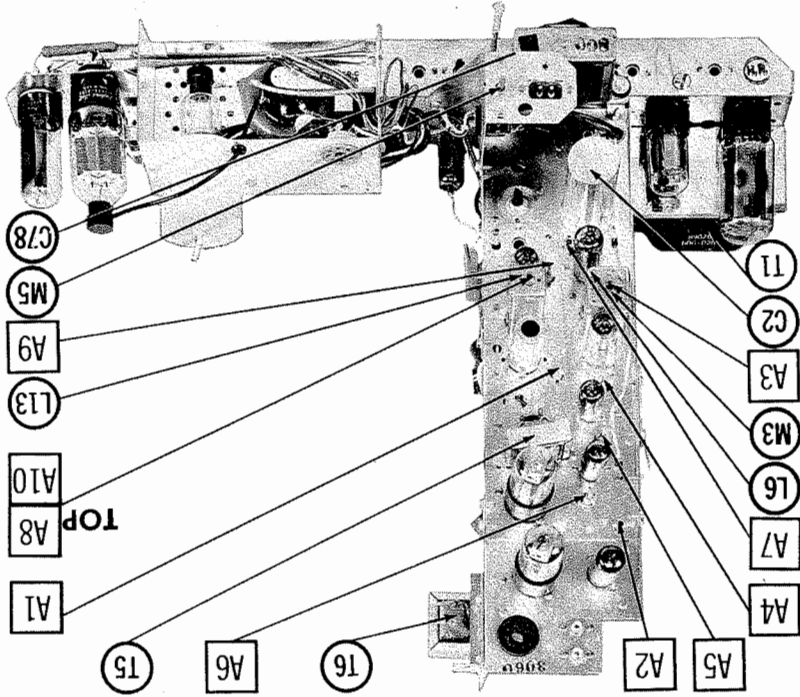
"	"	47. 25MC	"	"	A2	"
"	"	44. 0MC	"	"	A3	Adjust for maximum deflection.
"	"	43. 0MC	"	"	A4	"
"	"	45. 0MC	"	"	A5	"
"	"	45. 75MC	"	"	A6	"
"	"	43. 0MC	"	"	Mixer Plate Coil	"
"	"	41. 25MC 43. 0MC 45. 0MC 45. 75MC 47. 25MC	"	Vert. Amp. of scope thru 22K to point  Low side to chassis.		Check for response similar to Fig. 1 with Mixer Plate Coil to adjust low frequency markers as indicated. If necessary, retouch slope of curve, A6 to adjust high frequency slope of curve and A3 to control tilt or flat-ten top of response. A5 may be adjusted to place 45. 0MC marker at corner of response.

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT	ADJUST	REMARKS
High side thru ∇ Low side to chassis.	4.5MC (Unmod.)	Any non-interfering channel	AC probe to point B.	A7	Adjust for MINIMUM deflection.

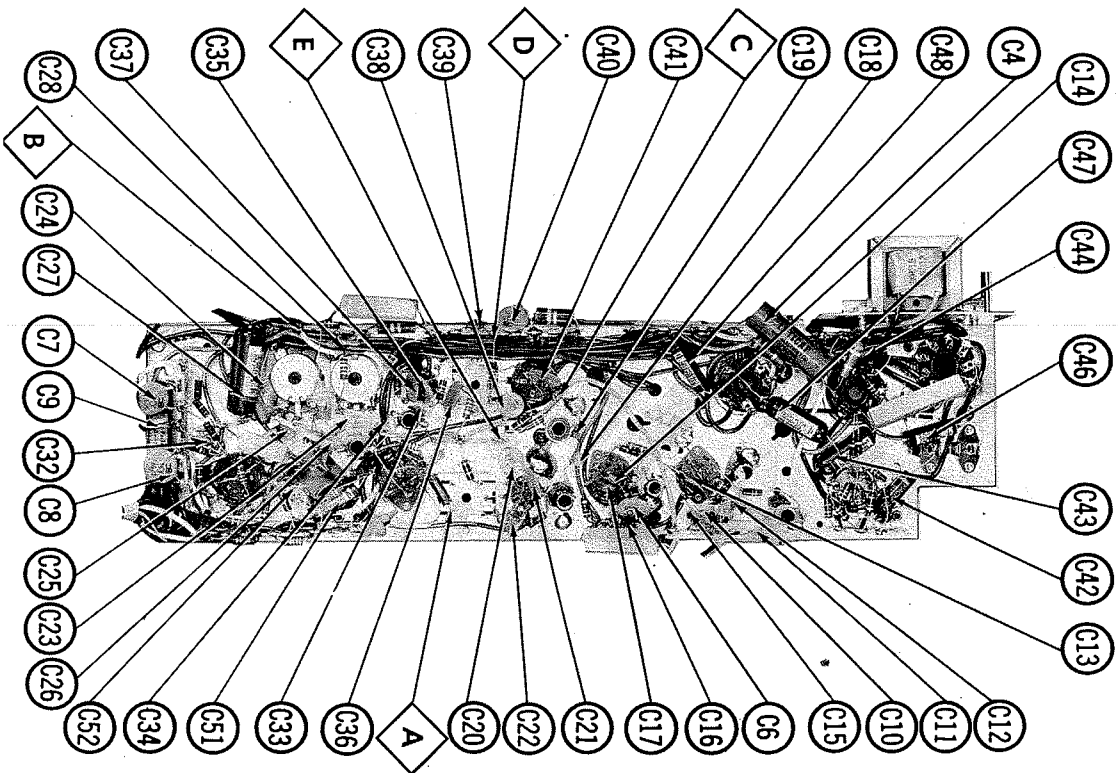
SIGNAL GENERATOR	High side thru .01mfd to point  . Low side to chassis.	4.5MC (Unmod.)	Any non-interfering channel	DC probe to point  . Common to chassis.	A8, A9	Adjust for maximum deflection.	REMARKS
SIGNAL GENERATOR	"	"	"	DC probe to point  . Common to point  .	A10	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.	



TV TUBE PLACEMENT CHART



TV CHASSIS—REAR VIEW



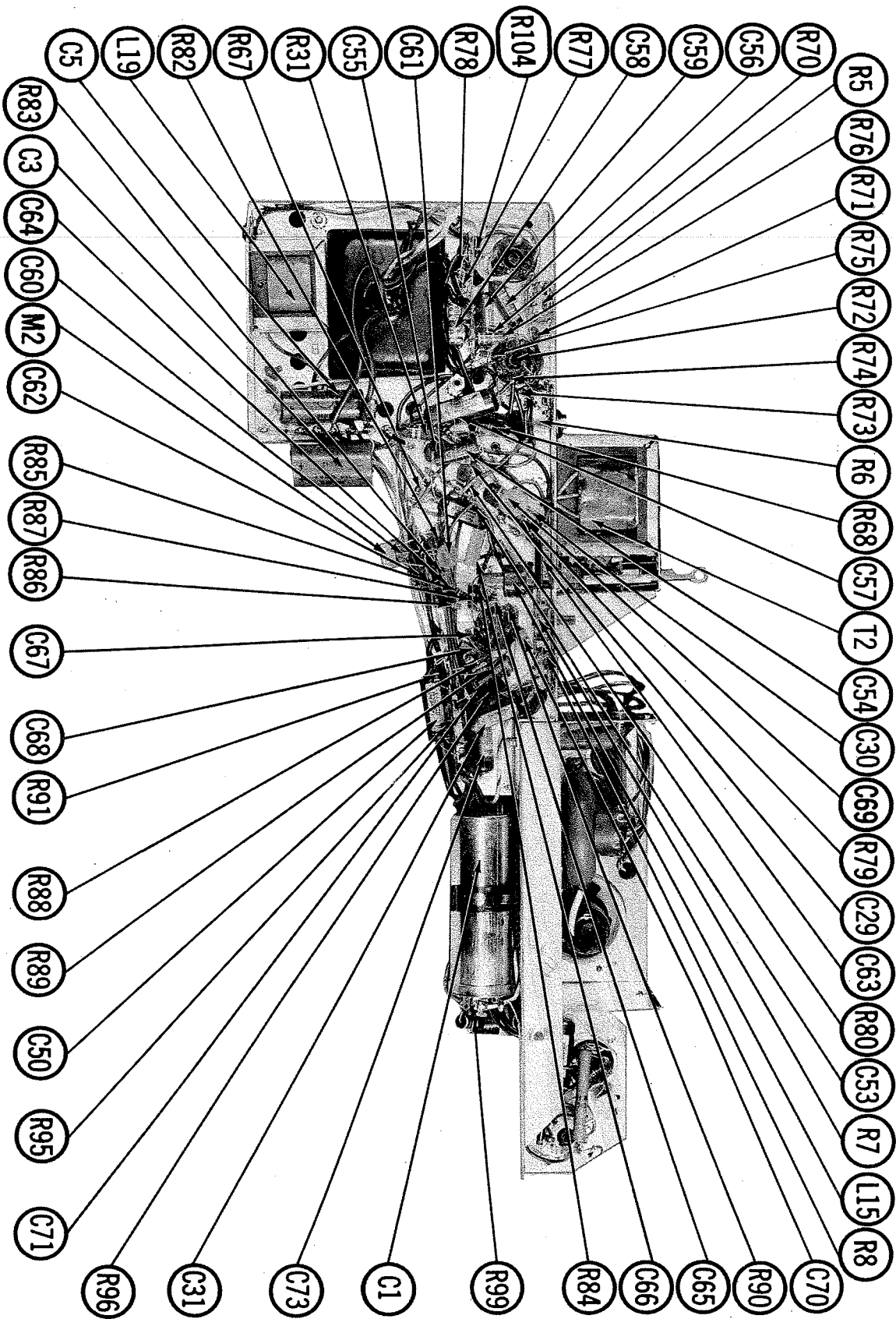
VIDEO, SOUND, SYNC CHASSIS - BOTTOM VIEW
ALIGN., CAPACITOR IDENT.

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6BZ6	68K	56Ω	FIL	FIL	††525Ω	††525Ω	0Ω		
V2	6BZ6	62K	††INF	FIL	FIL	†500Ω	†500Ω	††56Ω		
V3	6CB6A	.1Ω	270Ω	FIL	FIL	†4900Ω	†4900Ω	0Ω		
V4	6EB8	1800Ω	70K	†25K	FIL	FIL	0Ω	2800Ω	†22K	†4000Ω
V5	6EA8	†470K	•48K	†35Ω	FIL	FIL	330K	†3900Ω	0Ω	4.7meg
V6	6AU6	1.2Ω	0Ω	FIL	FIL	†7200Ω	†22K	120Ω		
V7	6AL5	INF	INF	FIL	FIL	24K	0Ω	0Ω		
V8	7025	†220K	4.7meg	470Ω	FIL	FIL	†220K	4.7meg	470Ω	FIL
V9	6V6GT	NC	FIL	†420Ω	†10K	470K	TP	FIL	390Ω	
V10	6V6GT	TP	FIL	†420Ω	†10K	470K	NC	FIL	390Ω	
V11	6BM7	•2.5meg	†840Ω	330Ω	•1.8meg	†•5meg	0Ω	FIL	FIL	
V12	6CG7	†100K	100K	1200Ω	FIL	FIL	†6800Ω	2.4meg	1200Ω	0Ω
V13	6D06B	TP	FIL	NC	†47K	540K	NC	FIL	0Ω	TOP CAP †18Ω
V14	6D8A	NC	TP	6meg	NC	†35Ω	TP	FIL	FIL	
V15	1B3GY 1G3GY			PINS 1 THRU 8	HAVE	INFINITE	RESISTANCE			TOP CAP †463Ω
V16	5V3	NC	540K	NC	27Ω	NC	29Ω	NC	540K	
V17	23AHP4	FIL	22K	Pin 6 •†4.5meg †1meg	Pin 10 •130K FIL	Pin 11 •130K FIL	Pin 12			
V20	6FH5	0Ω	1.5meg	FIL	FIL	†7800Ω	0Ω	0Ω		
V20.6	CG8A	4700Ω	†8600Ω	0Ω	FIL	FIL	†7800Ω	†3900Ω	0Ω	220K
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9

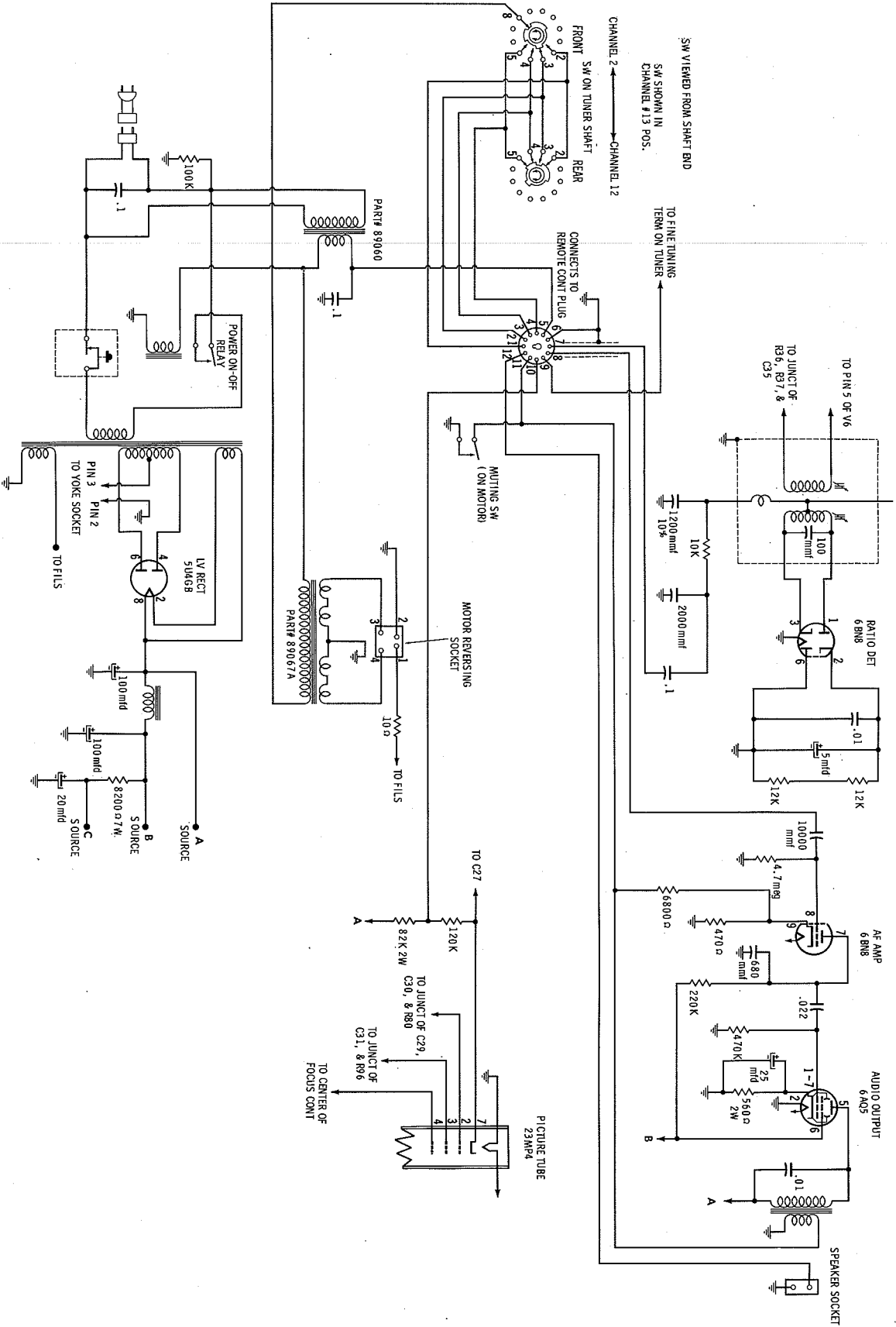
ALL MEASUREMENTS MADE IN "TV" POSITION UNLESS OTHERWISE DESIGNATED.
Ω THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
†† THIS READING WILL VARY. CONTROL SET FOR NORMAL OPERATION.
• MEASURED FROM PIN 2 OF V2.
† MEASURED FROM PIN 2 OF V16.
+ MEASURED FROM PIN 3 OF V14.

NC NO CONNECTION
TP TIE POINT

TV RESISTANCE MEASUREMENTS



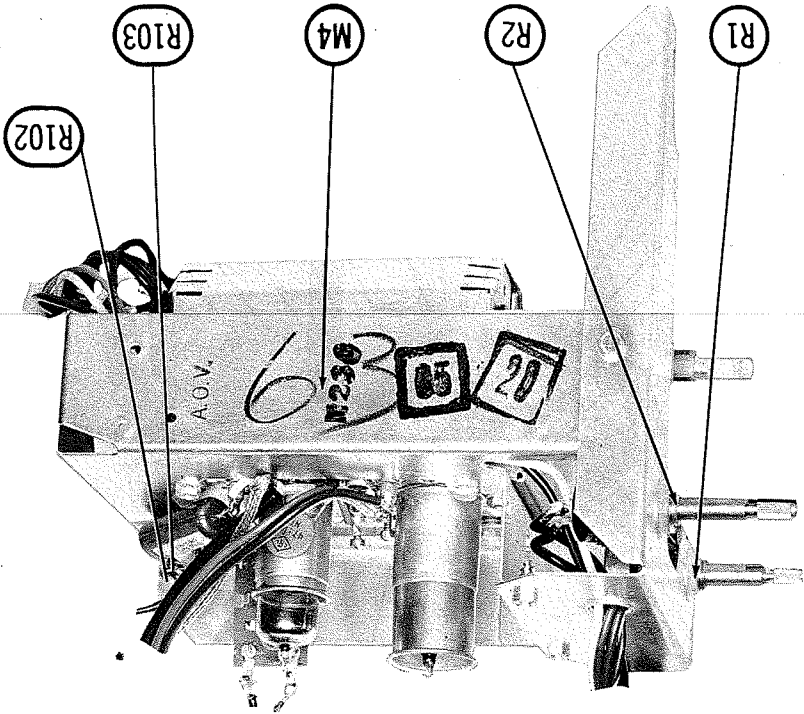
POWER & SWEEP CHASSIS - BOTTOM VIEW



A PHOTOFACT STANDARD NOTATION SCHEMATIC
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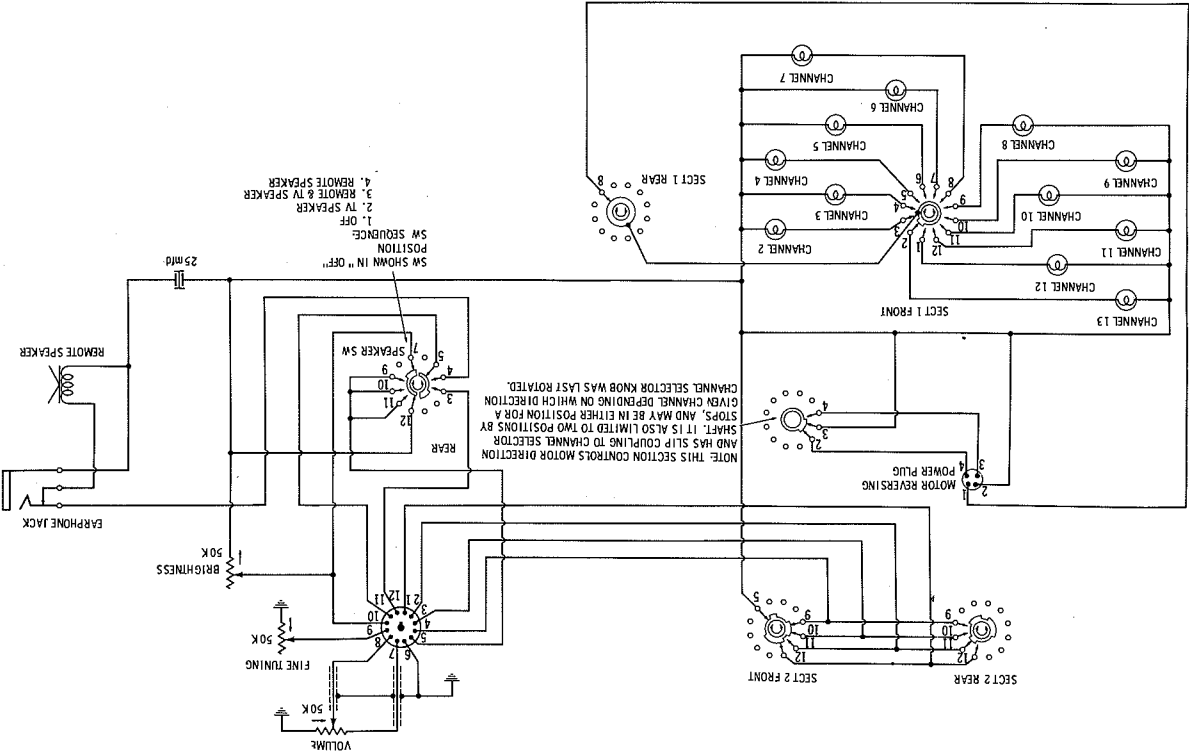
LV SUPPLY, AUDIO, REMOTE CONTROL CIRCUITS - TV CHASSIS 88-10

VHF TUNER 10677 - CONTROL BRACKET



REMOTE CONTROL RM-500

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VHF TUNER PARTS LIST AND DESCRIPTIONS

10677

TUBES

GENERAL ELECTRIC			RAYTHEON			SYLVANIA		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V201	RF Amp.	6FH5	V202	Mixer - Osc.	6CG8A			

FIXED CAPACITORS

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

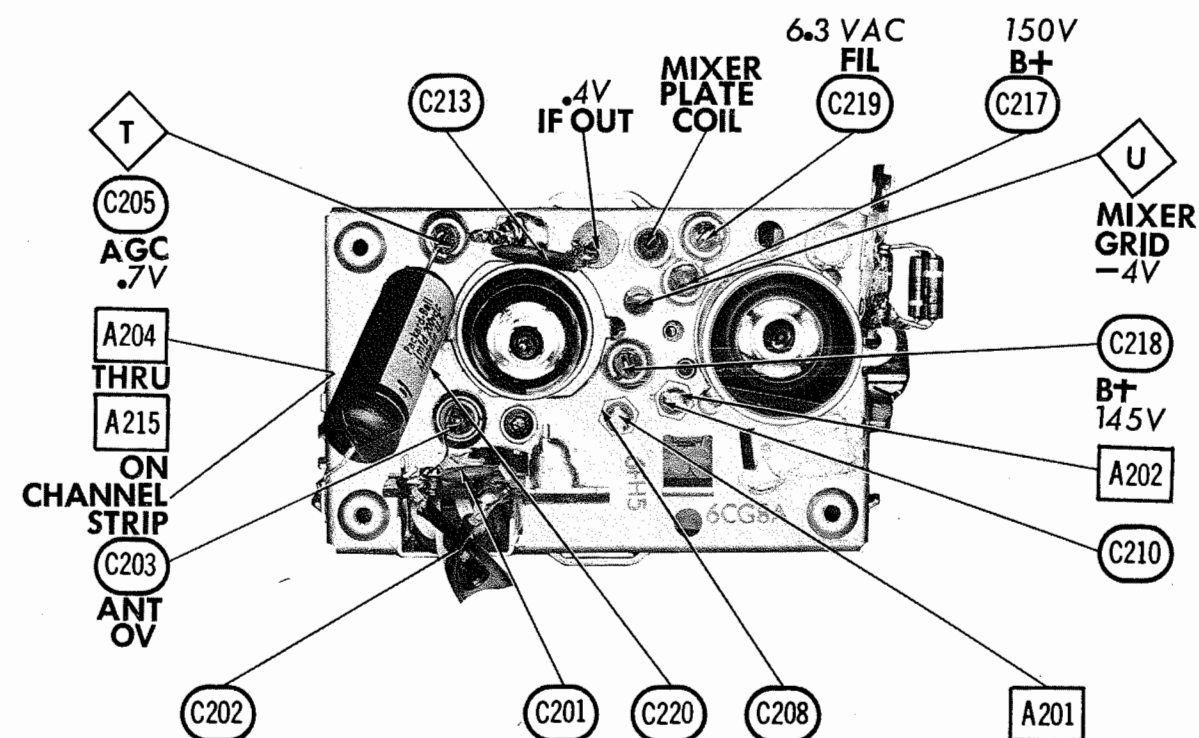
ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMCO PART No.	MAILORY PART No.	SPRAGUE PART No.
C201	120 N750 10%		NPO-DI 15	TCN-120	C10T12U	CCTN-121	CN7-312	10TCU-T12
C202	15 NPO 10%			DTZ-15	C10Q15C	CCTO-150	CNO-415	10TCC-Q15
C203	30							
C204	28			TCZ-27	C10Q27C	CCTO-270	CNO-427	10TCC-Q27
C205	1000		EF-001	MFT-1000		CCF-102	CT280A	
C206	.5-3.5		EF-0001	MFT-100				
C207	100							
C208	.5-3.5							
C209	33		NPO-DI 33	DTZ-33	C10Q33C	CCTO-330	CNO-433	10TCC-Q33
C210	.5-3.5							
C211	2 N1500							
C212	1000		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C213	47 NPO 10%		NPO-DI 47	DTZ-47	C10Q47C	CCTO-470	CNO-447	10TCC-Q47
C214	1000		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C215	7.25							
C216	18 N220							10TCR-Q18
C217	1000		EF-001	MFT-1000		CCF-102	CT280A	
C218	1000		EF-001	MFT-1000		CCF-102	CT280A	
C219	1000		EF-001	MFT-1000		CCF-102	CT280A	
C220	.1 200V		P288N-1	DF-104	CUB2P1	2DP-3-104	GEM-201	2TM-P10

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

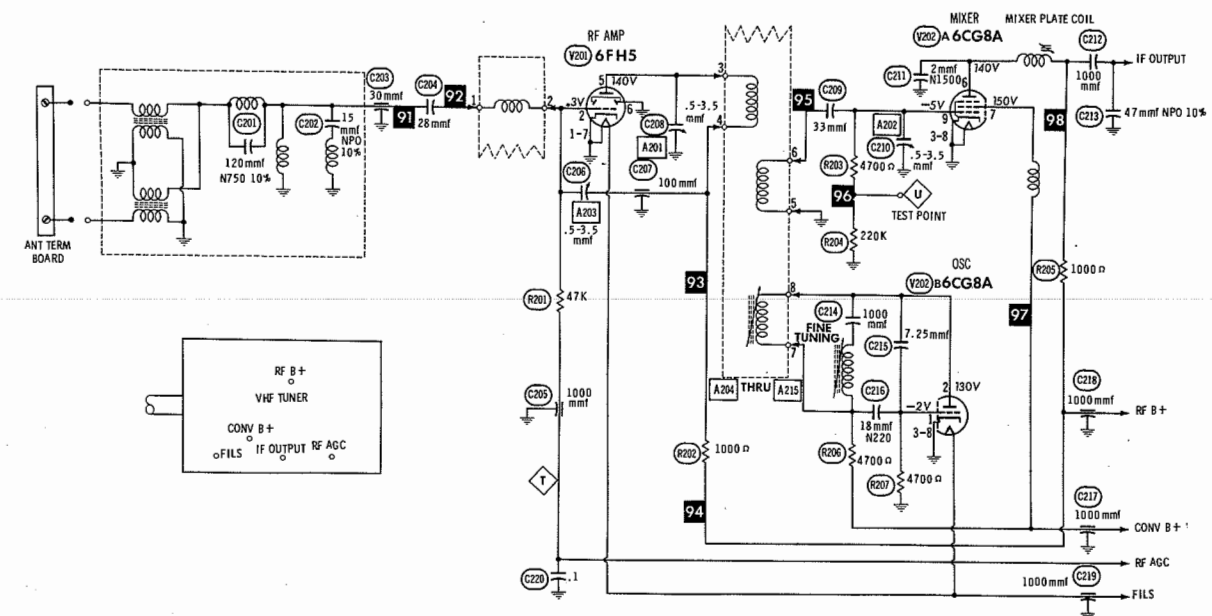
RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN TV PART No.	REMARKS			IRC PART No.	WORKMAN TV PART No.	REMARKS
R201	47K				R205	1000Ω			
R202	1000Ω				R206	4700Ω			
R203	4700Ω				R207	4700Ω			
R204	220K								



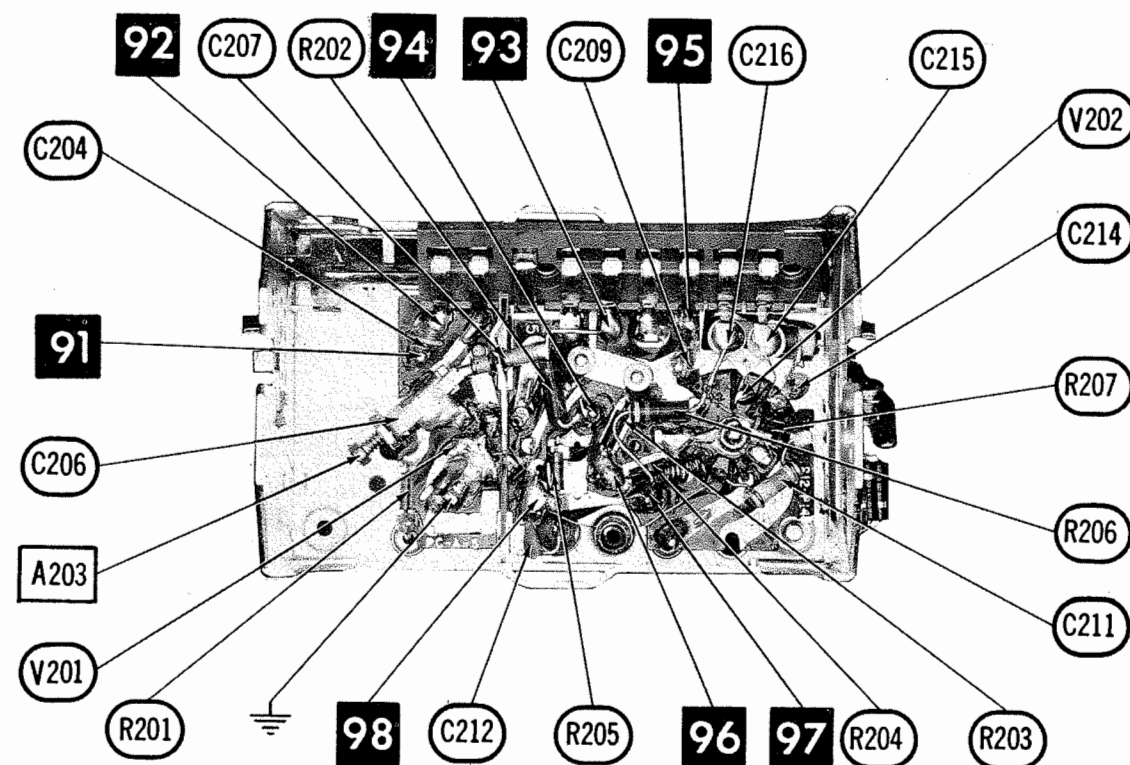
VHF TUNER 10677—TOP VIEW



A PHOTOFACT STANDARD NOTATION SCHEMATIC
with CIRCUITRACE

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VHF TUNER 10677



A Howard W. Sams CIRCUITRACE Photo

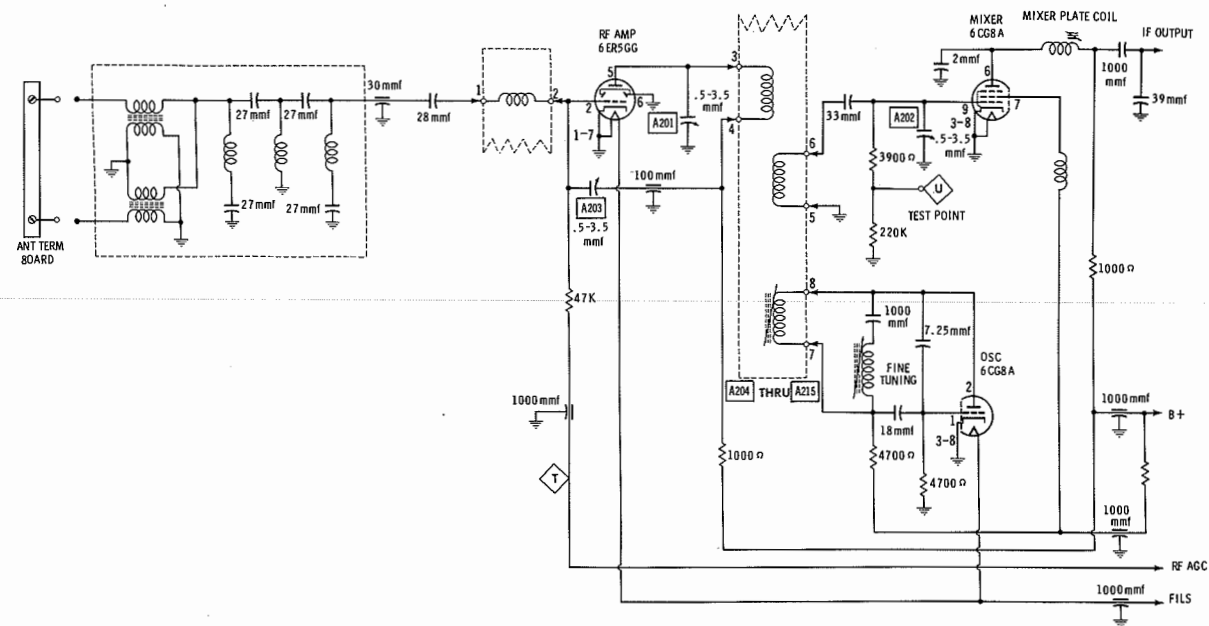
ARROWS INDICATING TUBE LOCATIONS ARE
POINTING TO PIN 1 UNLESS OTHERWISE INDICATED

VHF TUNER 10677 - BOTTOM VIEW

SET 539 FOLDER 1

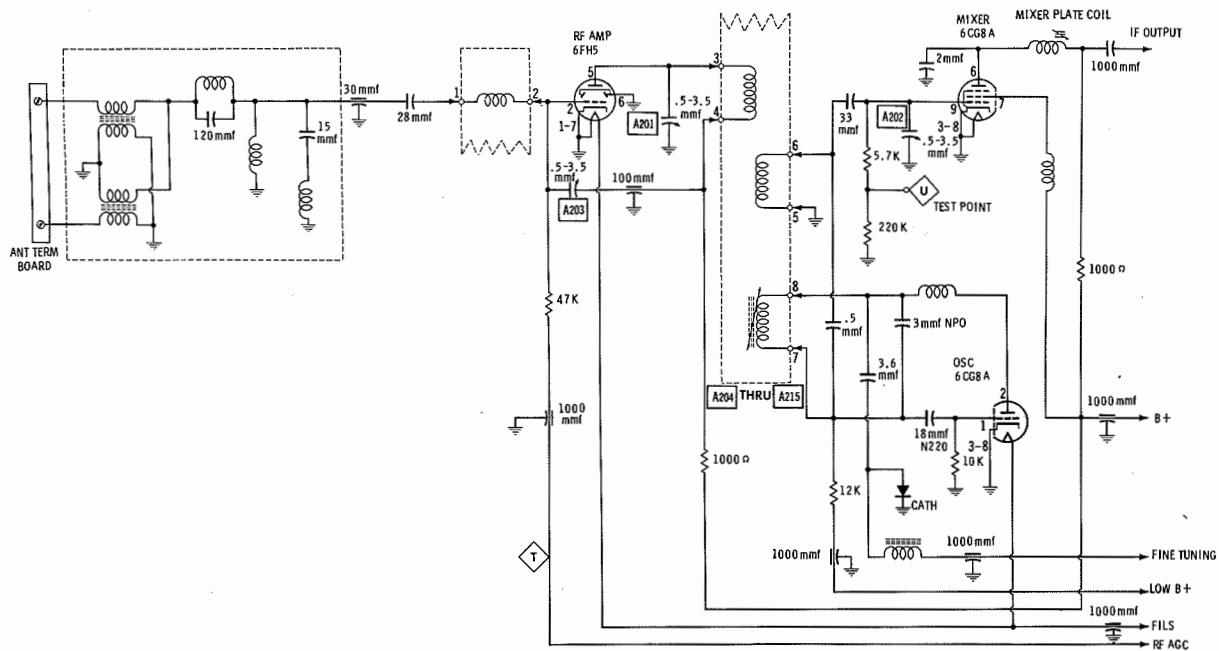
PACKARD-BELL MODELS 21K3,
23C4, 23K1, 23K2 (Ch. 88-10, 88-11)

FOLDER 1



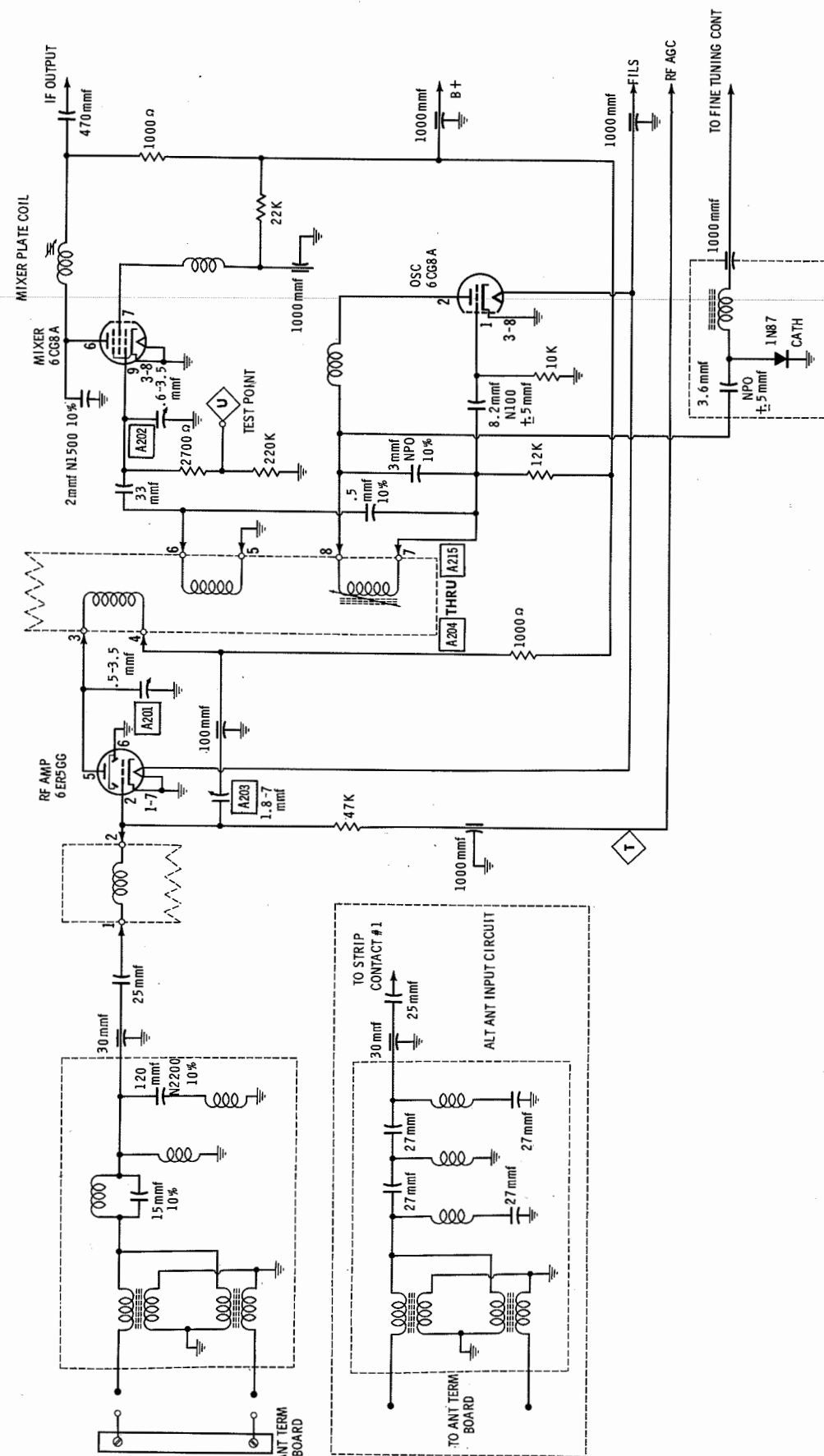
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VHF TUNER 10672



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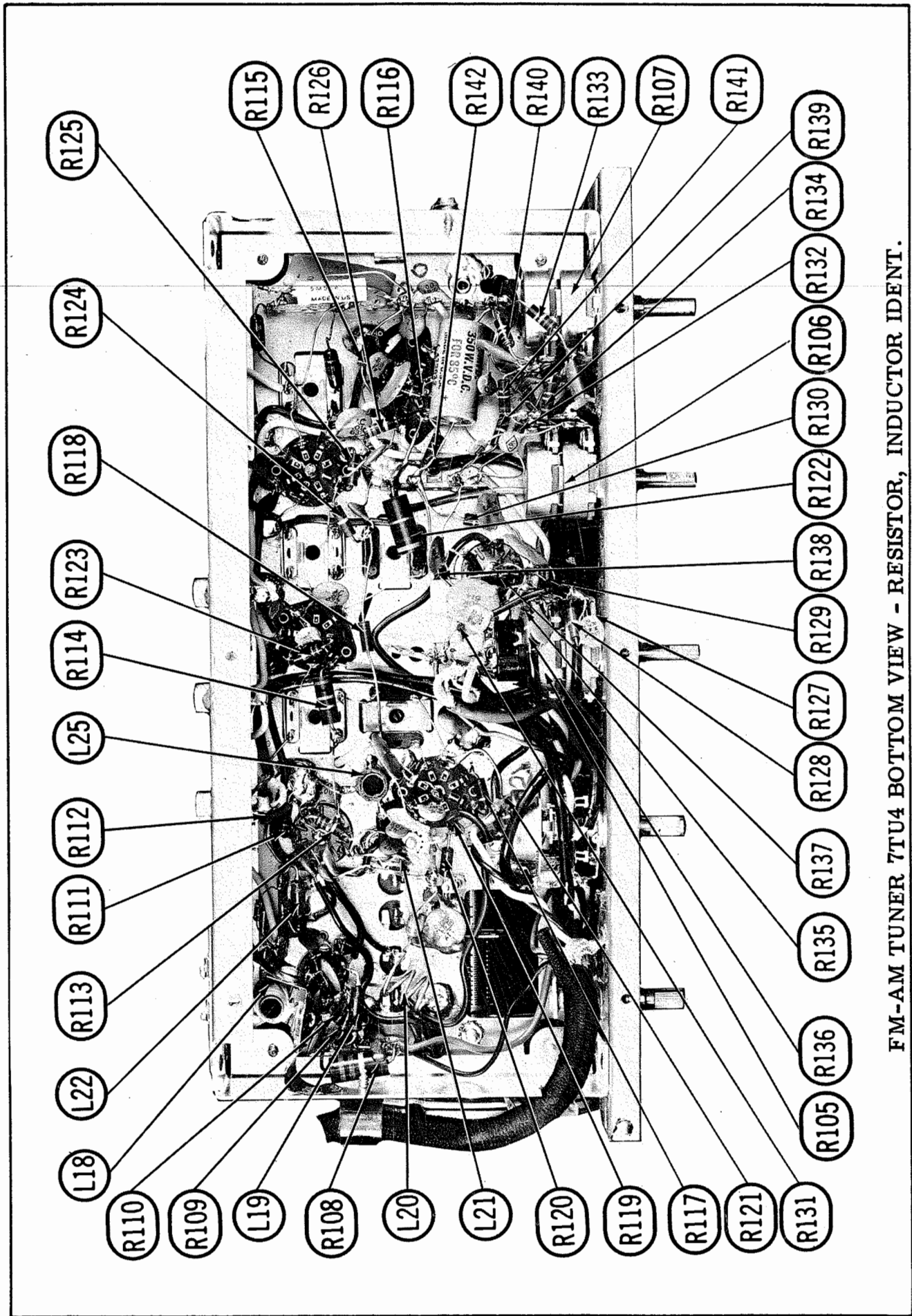
VHF TUNER 10684



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PACKARD-BELL MODELS 21K3, 23C4, 23K1, 23K2 (Ch. 88-10, 88-11) BE9691 RENUT FHA

FOLDER 1



FM-AM TUNER 7TU4 BOTTOM VIEW - RESISTOR, INDUCTOR IDENT.

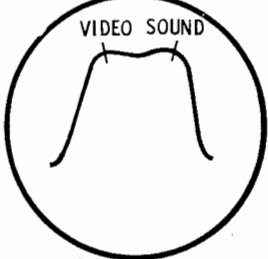
TUNER ALIGNMENT INSTRUCTIONS

PRE-ALIGNMENT INSTRUCTIONS

The High Voltage lead should be securely taped and kept away from the chassis.
Allow a 20 minute warm-up period for the receiver and test equipment.
Suggested alignment tools: A201, A202 and A203.....GENERAL CEMENT #5000, 5003, 8276, 8290
WALSCO #2512, 2525
A204 thru A215.....GENERAL CEMENT #8607, 9291
WALSCO #2520, 2522, 2523, 2524, 2537

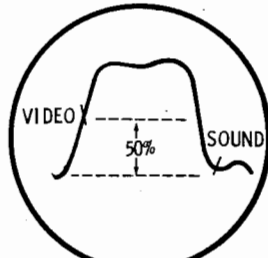
RF AND MIXER ALIGNMENT

Connect the negative lead of a 4.5 volt bias supply to point Φ . Positive to chassis.
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.
The generator output lead should be terminated with its characteristic impedance, usually 50 ohms.
Use only enough sweep generator output to provide a usable pattern on scope.
Use 10MC sweep unless otherwise noted.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. Two 120 Ω Carbon Resistors	Across antenna terminals with 120 Ω in each lead.	195MC	193.25MC 197.75MC	10	Vert. Amp. thru 10K to point Φ . Low side to chassis	A201 A202 A203	Adjust A201 and A202 for maximum amplitude and symmetry with markers as shown in Fig. 201. Increase bias for MINIMUM amplitude of response curve. Without changing the bias adjust A203 to obtain MINIMUM response on the scope.
2. "	"	213MC	211.25MC 215.75MC	13	"		Check for response similar to Fig. 201. If markers fall below 70% on any channel, make compromise adjustment of A201 and A202 with channel switch set to that channel. Check all other channels to see that they have not been seriously affected.  FIG. 201
		207MC	205.25MC 209.75MC	12			
		201MC	199.25MC 203.75MC	11			
		195MC	193.25MC 197.75MC	10			
		189MC	187.25MC 191.75MC	9			
		183MC	181.25MC 185.75MC	8			
		177MC	175.25MC 179.75MC	7			
		85MC	83.25MC 87.75MC	6			
		79MC	77.25MC 81.75MC	5			
		69MC	67.25MC 71.75MC	4			
		63MC	61.25MC 65.75MC	3			
		57MC	55.25MC 59.75MC	2			

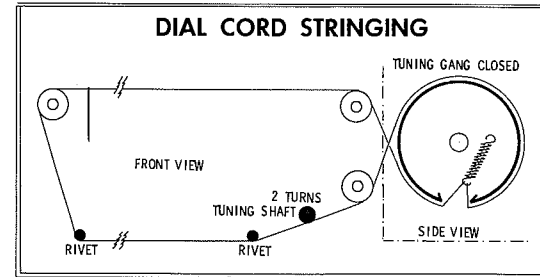
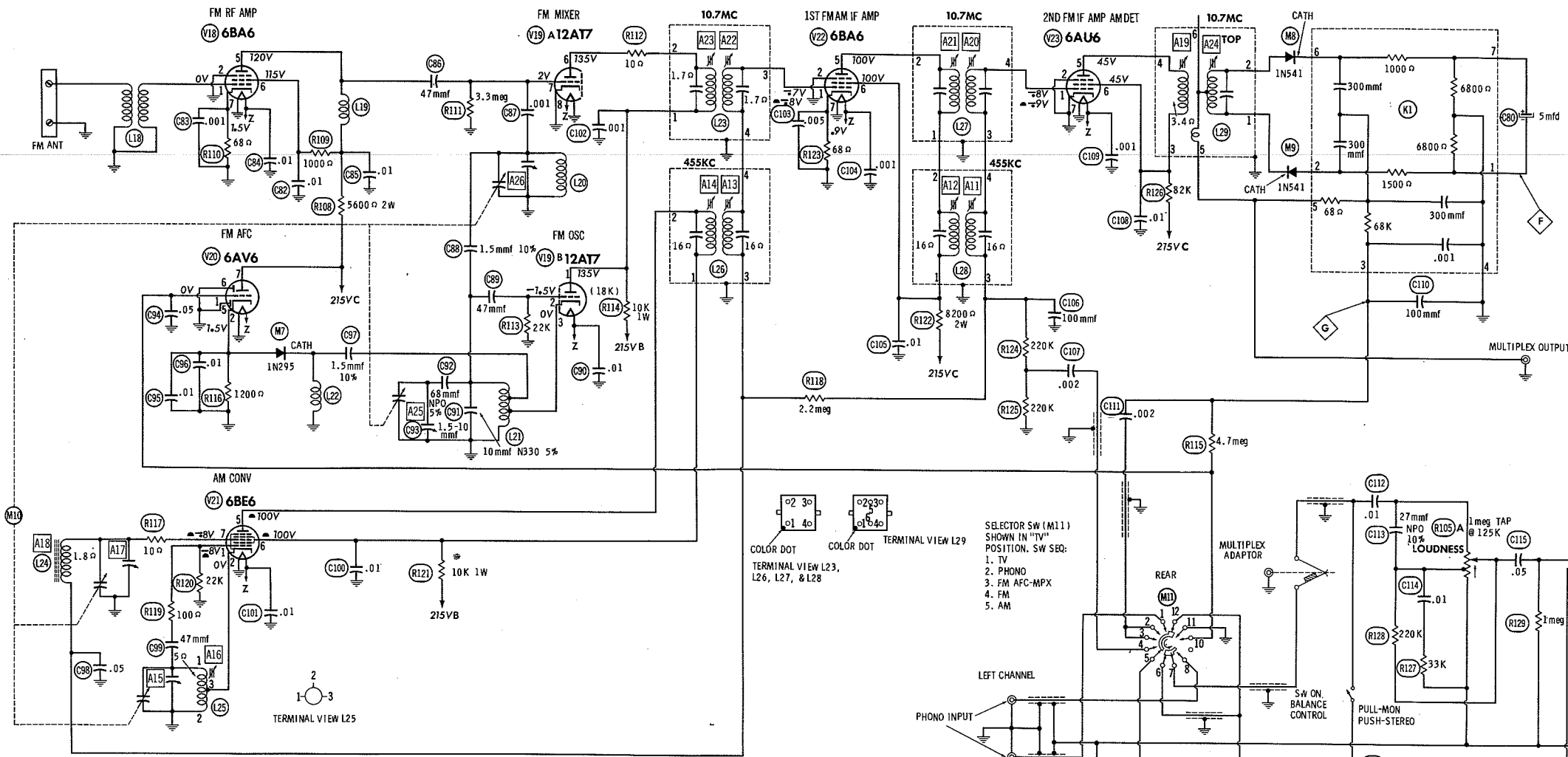
VHF OSCILLATOR ALIGNMENT

Connect variable bias to IF AGC line. Adjust bias to obtain response curve which shows no indication of overloading.
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.
The generator output lead should be terminated with its characteristic impedance, usually 50 ohms.
Set the Fine Tuning to the center of its range.
Use only enough sweep generator output to provide a usable pattern on scope.
Use 10MC sweep unless otherwise noted.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
3. Two 120 Ω Carbon Resistors	Across antenna terminals with 120 Ω in each lead.	213MC	211.25MC 215.75MC	13	Vert. Amp. thru 47K across video det. load.	A204	Adjust to place sound marker in trap notch as in Fig. 202. Video marker should fall at 50%.  FIG. 202
		207MC	205.25MC 209.75MC	12		A205	
		201MC	199.25MC 203.75MC	11		A206	
		195MC	193.25MC 197.75MC	10		A207	
		189MC	187.25MC 191.75MC	9		A208	
		183MC	181.25MC 185.75MC	8		A209	
		177MC	175.25MC 179.75MC	7		A210	
		85MC	83.25MC 87.75MC	6		A211	
		79MC	77.25MC 81.75MC	5		A212	
		69MC	67.25MC 71.75MC	4		A213	
		63MC	61.25MC 65.75MC	3		A214	
		57MC	55.25MC 59.75MC	2		A215	

PACKARD-BELL MODELS 21K3,
23C4, 23K1, 23K2 (Ch. 88-10, 88-11)

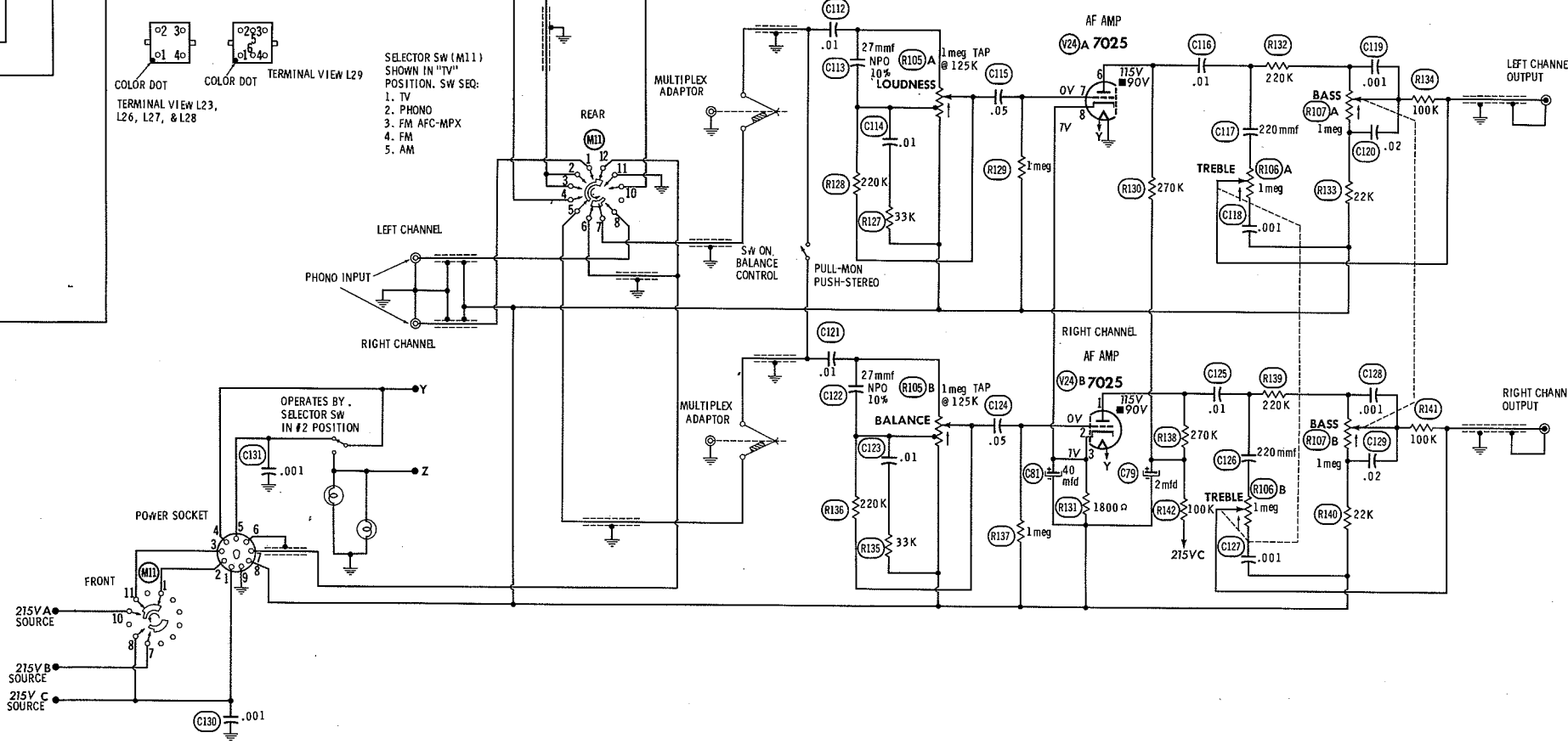
FOLDER 1

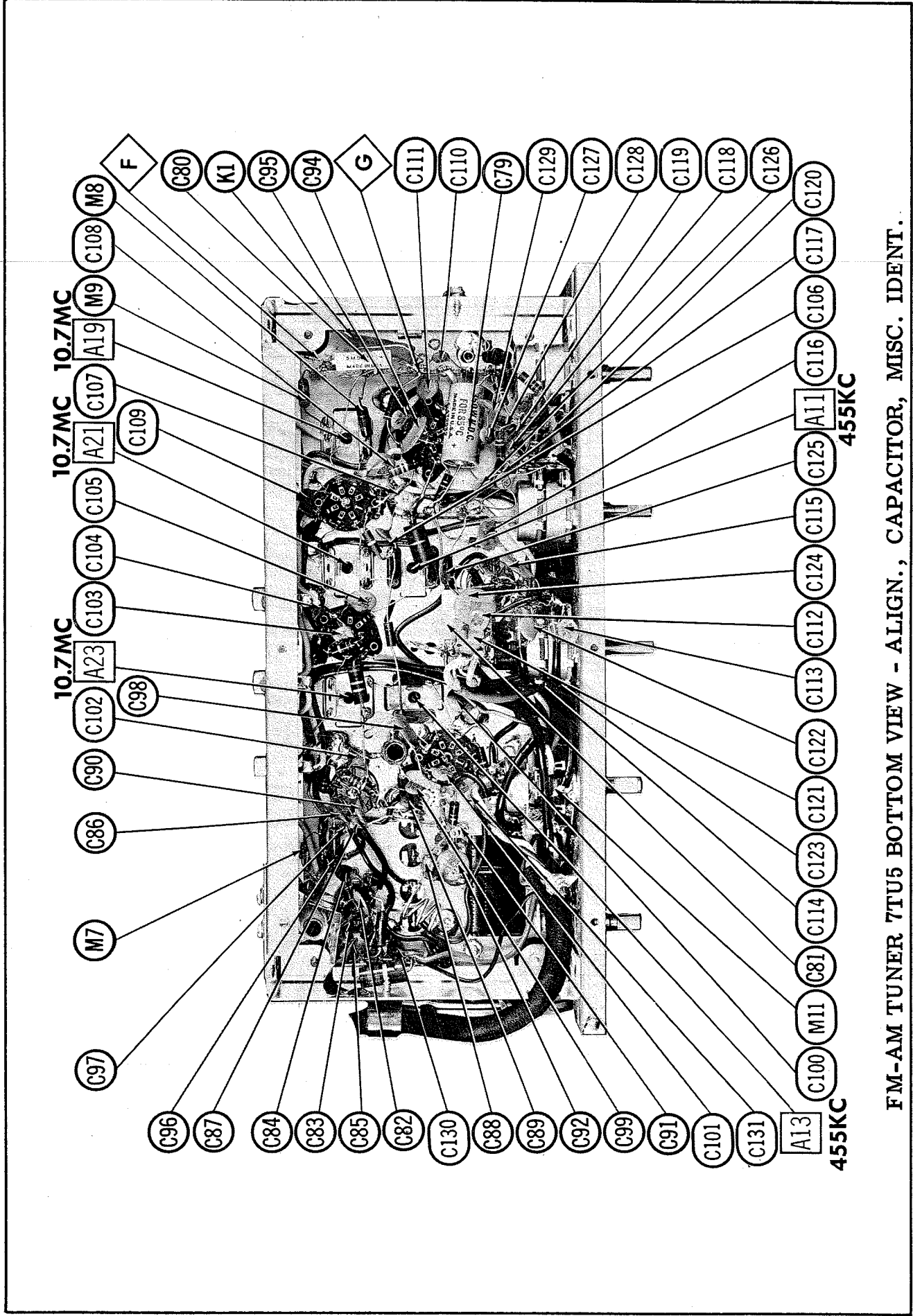


RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V18	6BA6	.1 Ω	0 Ω	FIL	FIL	$\pm 8300 \Omega$	$\pm 9300 \Omega$	68 Ω		
V19	12A7	$\pm 13K$	22K	.1 Ω	FIL	FIL	$\pm 13K$	3.3 meg	0 Ω	FIL
V20	6AV6	0 Ω	± 4.8 meg	1200 Ω	FIL	FIL	0 Ω	$\pm 2700 \Omega$		
V21	6BE6	22K	.8 Ω	FIL	FIL	$\pm 12K$	$\pm 12K$	± 2.6 meg		
V22	6BA6	2.6 meg	0 Ω	FIL	FIL	$\pm 10K$	$\pm 10K$	68 Ω		
V23	6AU6	440K	0 Ω	FIL	FIL	$\pm 85K$	$\pm 85K$	0 Ω		
V24	7025	$\pm 370K$	1 meg	1800 Ω	FIL	FIL	$\pm 370K$	1 meg	1800 Ω	FIL

ALL MEASUREMENTS MADE IN "FM" POSITION WITH "AFC" OFF UNLESS OTHERWISE DESIGNATED.
 1. MEASURED FROM PIN 2 OF V16. 2. MEASURED IN "RADIO" OR "PHONO" POSITION.
 3. MEASURED WITH "AFC" ON. 4. MEASURED IN "AM" POSITION.





FM-AM TUNER 7TU5 BOTTOM VIEW - ALIGN., CAPACITOR, MISC. IDENT.

FM-AM TUNER PARTS LIST AND DESCRIPTIONS (Cont'd)

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN TV PART No.	REMARKS			IRC PART No.	WORKMAN TV PART No.	REMARKS
R108	5600Ω 2W				R126	82K			
R109	1000Ω				R127	33K			
R110	68Ω				R128	220K			
R111	3.3meg				R129	1meg			
R112	10Ω				R130	270K			
R113	22K			(18K) *	R131	1800Ω			
R114	10K 1W				R132	220K			
R115	4.7meg				R133	22K			
R116	1200Ω				R134	100K			
R117	10Ω				R135	33K			
R118	2.2meg				R136	220K			
R119	100Ω				R137	1meg			
R120	22K				R138	270K			
R121	10K 1W				R139	220K			
R122	8200Ω 2W				R140	22K			
R123	68Ω				R141	100K			
R124	220K				R142	100K			
R125	220K								

* Alternate Value

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	Packard-Bell PART No.	REPLACEMENT DATA
K1	Ratio Detector Network	300mmfd, 300mmfd, 300mmfd, .001mfd, 68Ω, 1000Ω, 1500Ω, 6800Ω, 6800Ω, 68K	23627A	Aerovox PA-694 Centralab PC-342 Sprague C-12

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		Packard-Bell PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Workman TV PART No.	
L18	FM Ant.	29428C					
L19	RF Choke (1uh)	29124	BC-561	4602	RTC-8515	T855	
L20	FM RF	29165					
L21	FM Osc.	29243A					
L22	RF Choke (1uh)	29124	BC-561	4602	RTC-8515	T855	
L23	1st FM IF	29164	FM-254	1463	RTC-8599	T633	
L24	Loopstick	29364	BC-419	705-A		T532	
L25	AM Osc.	29247B	BC-393	71-OSC	RTC-8648	T510	
L26	1st AM IF	29077	BC-352	12-C1	RTC-8632	T607	
L27	2nd FM IF	29167	FM-254	1463	RTC-8599	T633	
L28	2nd AM IF	29078	BC-353	12-C2	RTC-8633	T608	
L29	Ratio Detector	29084	FM-255	1465	RTC-8600	T635	

PHONO CARTRIDGE & NEEDLES

*NEEDLE LISTINGS SHOWN ARE FOR RESPECTIVE REPLACEMENT CARTRIDGES ONLY.

ITEM No.	REPLACEMENT DATA								NOTES
	Packard-Bell PART No.		ASTATIC PART No.		ELECTRO-VOICE PART No.		SONOTONE PART No.		
	CARTRIDGE	NEEDLE*	CARTRIDGE	NEEDLE*	CARTRIDGE	NEEDLE*	CARTRIDGE	NEEDLE*	
M6	63045	Not Req.	13TBX	Not Req.	26DS	SI-1 * & S3-3 *	8TA4-SD	N-8TA-SD *	

SIGNAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA				NOTES
		Packard-Bell PART No.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M7	1N295	72080		1N295	1N295	AFC, Pigtail Ratio Detector, Pigtail Matched Pair
M8	1N541	72027		1N541	1N541	
M9	1N541	72027		1N541	1N541	

MISCELLANEOUS

ITEM No.	PART NAME	Packard-Bell PART No.	NOTES
M10	Tuning Cap.	23557A	4 Gang (AM Section: Ant. 31-328mmf, Osc. 14-120mmf) Off-On, Function Selector (Rotary Wafer Type)
M11	Switch	86089A	

WIRING DATA

General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in Ten Colors
8524 (Stranded) Available in Ten Colors
Low-Loss Shielded Lead (Interconnecting) Use BELDEN No. 8401
Phono Pick-up Arm Cable Use BELDEN No. 8430 (Two Conductor - Twisted)

PACKARD-BELL MODELS 21K3,
23C4, 23K1, 23K2, (Ch. 88-10, 88-11)

FOLDER 1

FM-AM TUNER PARTS LIST AND DESCRIPTIONS

TUBES

GENERAL ELECTRIC			RAYTHEON			SYLVANIA		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V18	FM RF Amplifier	6BA6	V22	1st FM IF Amp. - AM IF Amp	6BA6			
V19	FM Mixer - FM Osc.	12AT7	V23	2nd FM IF Amp. - AM Det.	6AU8			
V20	AFC Amp.	6AV6	V24	Left Channel AF Amp. -				
V21	AM Converter	6BE6		Right Channel AF Amp.	7025			

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	Packard-Bell PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	NOTES
C79	2	350	24165	PRSI705	BR245	TC595	TD-2-450	TVA-1701	
C80	5	50	24164	PTT90	NLW5-50	TT50X5	MLV5-50	TE-1303	
C81	40	10	24151	PTT44	NLW40-10	TT15X40	MLV40-10	TE-1119	

FIXED CAPACITORS

ITEM No.	RATING		REMARKS	REPLACEMENT DATA						
	CAP.	VOLT.		AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCOPART No.	MALLORY PART No.	SPRAGUE PART No.	
C82	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C83	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C84	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C85	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C86	.47			DI-47	DD-470	L10Q47	CCD-470	GP447	10TS-Q47	
C87	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C88	1.5	10%		NPO-SI 1.5	TCZ-1R5	C10V15C	CNO-515	10TCC-V15		
C89	.47			DI-47	DD-470	L10Q47	CCD-470	GP447	10TS-Q47	
C90	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C91	10	N330 5%							10TCS-Q10	
C92	68	NPO 5%							10TCC-Q68	
C93	1.5-10				DTZ-68	C10Q68C		CNO-468		
C94	.05			BPD-05	DD-503	CUB2S5	IDP-2-503	GP150	5HK-S50	
C95	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C96	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C97	1.5	10%		NPO-SI 1.5	TCZ-1R5	C10V15C	IDP-2-503	CNO-515	10TCC-V15	
C98	.05			BPD-05	DD-503	CUB2S5	IDP-2-503	GP150	5HK-S50	
C99	.47			DI-47	DD-470	L10Q47	CCD-470	GP447	10TS-Q47	
C100	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C101	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C102	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C103	.005			BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50	
C104	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C105	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C106	100			DI-100	DD-101	L10T1	CCD-101	GP310	10TS-T10	
C107	.002			BPD-002	DD-202	BYA10D2	CCD-202	B-220	5HK-D20	
C108	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C109	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C110	100			DI-100	DD-101	L10T1	CCD-101	GP310	10TS-T10	
C111	.002			BPD-002	DD-202	BYA10D2	CCD-202	B-220	5HK-D20	
C112	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C113	27	NPO 10%		NPO-DI 25	TCZ-27	C10Q27C	CCTO-270	CNO-427	10TCC-Q27	
C114	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C115	.05			BPD-05	DD-503	CUB6S5	IDP-2-503	GP150	5HK-S50	
C116	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C117	220			DI-220	DD-221	L10T22	CCD-221	B-322	10TS-T22	
C118	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C119	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C120	.02			BPD-02	DD-203	BYB6S2	CCD-203	GP120	5HK-S20	
C121	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C122	27	NPO 10%		NPO-DI 25	TCZ-27	C10Q27C	CCTO-270	CNO-427	10TCC-Q27	
C123	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C124	.05			BPD-05	DD-503	CUB6S5	IDP-2-503	GP150	5HK-S50	
C125	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C126	220			DI-220	DD-221	L10T22	CCD-221	B-322	10TS-T22	
C127	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C128	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C129	.02			BPD-02	DD-203	BYB6S2	CCD-203	GP120	5HK-S20	
C130	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C131	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESIST-ANCE	WATTS	Packard-Bell PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R105A	1meg	1/2	25095					Loudness, Left Channel
B	125 K Tap							Balance, Right Channel
R106A	1meg	1/2	25541	F1-51			UE4227	Push-Pull (Stereo - Mono.)
B	125 K Tap			R2-51				Treble, Left Channel
C	Switch			Not Req.				Treble, Right Channel
R107A	1meg	1/2	25541	F1-51			UE4227	Bass, Left Channel
B	1meg			R2-51				Bass, Right Channel
C	Shaft			Not Req.				

▲ "STA-LOC" Equivalent: FA16L, RU16L, OS625, ISI250.

TV PARTS LIST AND DESCRIPTIONS

TUBES

GENERAL ELECTRIC			RAYTHEON			SYLVANIA		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	1st Video IF Amp.	6BZ6	V9	Left Channel Output	6V6GT			
V2	2nd Video IF Amp.	6BZ6	V10	Right Channel Output	6V6GT			
V3	3rd Video IF Amp.	6CB6A	V11	Vert. Mult. - Vert. Output	6EM7			
V4	Video Output - Noise Inv.	6EB8	V12	Horiz. Mult.	6CG7			
V5	AGC Keying - Sync Sep.	6EA8	V13	Horiz. Output	6DQ6B			
V6	Sound IF Amp.	6AU6	V14	Damper	6DE4 (6AX4GTB) ①			
V7	Ratio Det.	6AL5	V15	HV Rectifier	1B3GT/1G3GT (1G3GT) ①			
V8	Left Channel AF Amp. -							
	Right Channel AF Amp.	7025	V16	LV Rectifier	5V3 ②			

① Alternate

② Chassis 88-10 uses 5U4GB in this application.

PICTURE TUBE

ITEM No.	REPLACEMENT DATA					NOTES
	Packard-Bell PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
V17	23AHP4 * 21DLP4 † 23MP4 ▲	21DLP4 ①	23AHP4 ① 21DLP4 ① 23MP4 ①	21DLP4 ①	23AHP4 ② 21DLP4 ② 23MP4 ②	① Aluminized ② Silver Screen "85" * Models 23K1, 23K2 † Model 21K3 ▲ Model 23C4

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						NOTES
	CAP.	VOLT.	Packard-Bell PART No.	AEROVOX PART No.	CORNELL- DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	
C1A	100	350	24088	AFH3-29-85	C0238	FP332.4	TMT-3447	TVL-3689.3	
B	100	350							
C	10	350							
C2A	100	350	24204	AFH4-53-90	D0473.3	FP420.405	TMQ-4448	TVLS-4607.5 *	
B	25	350							
C	5	50							
D	25	25							
C3	20	350	24064	PRSI735	BR2035	TC65	TD-20-350	TVA-1608	
C4	25	25	24006A	PRSI260	BBR25-25	TC26	TD-25-25	TVA-1205	
C5	100	25	24205	PRSI270	BBR100-25	TC2501	TD-100-25	TVA-1207	

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

FIXED CAPACITORS

ITEM No.	RATING		REMARKS	REPLACEMENT DATA					
				AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCOPART No.	MALLORY PART No.	SPRAGUE PART No.
C6	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C7	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C8	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C9	1.0	100V		P288N-1.0		CUB2W1	IDP-5-105	GEM-21	2TM-M1
C10	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C11	.12	NPO 5%			TCZ-12	C10Q22C	CCTO-120	CNO-412	10TCC-Q12
C12	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C13	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C14	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C15	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C16	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C17	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C18	1	NPO ±.25mmf		NPO-DI 1.0	TCZ-1			CNO-510	10TCC-V10
C19	30	5%		1469-00003	TCZ-30	22R5Q3	CM-19B-300J	MS-43	
C20	.001	10%		DI-1000	DD-102	5R5D1	CCD-102	GP210	10TS-D10
C21	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C22	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C23	56	NPO 10%		NPO-DI 56	TCZ-56	C10Q56C	CCTO-560	CNO-456	10TCC-Q56
C24	39	NPO 10%		NPO-DI 39	TCZ-39	C10Q39C	CCTO-390	CNO-439	10TCC-Q39
C25	22	NPO 10%		NPO-DI 22	DTZ-22	C10Q22C	CCTO-220	CNO-422	10TCC-Q22
C26	56	NPO 10%		NPO-DI 56	TCZ-56	C10Q56C	CCTO-560	CNO-456	10TCC-Q56
C27	.1	600V		P688N-1	DF-104	CUB6P1	6DP-4-104	GEM-601	6TM-P10
C28	.01		Note 1	BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C29	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C30	.033	600V		P688N-033	DD-303	CUB6S33	6DP-3-333	GEM-6133	6TM-S33
C31	.01	600V		P688N-01	DD-103	CUB6S1	6DP-2-103	GEM-611	6TM-S10
C32	.001			BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C33	75	N750		N750-DI 75	DTN-75	C10Q75U	CCTN-750	CNT-475	10TCU-Q75
C34	4.7	NPO 10%		NPO-DI 7.5	DTZ-4R7	C10V47C	CCTO-4R7	CNO-547	10TCC-V47
C35	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C36	.0015	10%		DI-1500	DD-152	PM6D15	CCD-152	GP215	10TS-D15
C37	.01			BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C38	.0012	10%	DI-1200	DD-121	5R5D12	CCD-121	GP212	10TS-D12	
C39	.002		BPD-002	DD-202	BYA10D2	CCD-202	B-220	5HK-D20	
C40	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C41	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C42	.01	400V	P488N-01	D6-103	CUB4S1	4DP-1-103	GEM-411	4TM-S10	
C43	.022	400V	P488N-022	DD-203	CUB4S22	4DP-2-223	GEM-4122	4TM-S22	
C44	.0033	600V 10%	V84CED33-10%		PM6D33	6DP-1-332	GEM-16233	6TM-D33	
C45	1.0	100V	P288N-1.0		CUB2W1	IDP-5-105	GEM-21	2TM-M1	
C46	.01	400V	P488N-01	D6-103	CUB4S1	4DP-1-103	GEM-411	4TM-S10	
C47	.022	400V	P488N-022	DD-203	CUB4S22	4DP-2-223	GEM-4122	4TM-S22	
C48	.0033	600V 10%	V84CED33-10%		CUB6D33	6DP-1-332	GEM-16233	6TM-D33	
C49	1.0	100V	P288N-1.0		CUB2W1	IDP-5-105	GEM-21	2TM-M1	
C50	.1	200V	P288N-1	DF-104	CUB2P1	2DP-3-104	GEM-201	2TM-P10	
C51	.0033	400V	P488N-0033	D6-332	CUB6D33	6DP-1-332	GEM-6233	6TM-D33	
C52	470		DI-470	DD-471	BYA10T47	CCD-471	B-347	10TS-T47	
C53	.01	600V	P688N-01	D6-103	CUB6S1	6DP-2-103	GEM-611	6TM-S10	
C54	.0047	600V 10%	V84CED47-10%		PM6D47	6DP-1-472	GEM-16247	6TM-D47	
C55	.022	600V	P688N-022	DD-203	CUB6S22	6DP-2-223	GEM-4122	6TM-S22	

TV PARTS LIST AND DESCRIPTIONS (Continued)

FIXED CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNIELL-DUBIER PART No.	ELMENDO PART No.	MALLORY PART No.	SPRAGUE PART No.
C56	.0047 600V 10%		V84C8D47-10%	DF-104	PM8D47	6DP-1-472	GEM-6247	6TM-D47
C57	.1 600V		P888N-1		CUB8P1	6DP-4-104	GEM-601	6TM-P10
C58	.001 600V 10%		V84C8D1-10%	D6-103	PM8D1	6DP-1-102	GEM-1621	6TM-D10
C59	.01 600V		P888N-01	DTZ-68	CUB8S1	6DP-2-103	GEM-611	6TM-S10
C60	68 NPO 5%			DTZ-68	CUB8C8C		CNO-468	10TCC-Q68
C61	68 NPO 5%			DTZ-68	CUB8C8C		CNO-468	10TCC-Q68
C62	.001 400V 10%		V84C8D1-10%	DD-102	PM8D1	6DP-1-102	GEM-1621	6TM-D10
C63	.001 400V 10%		V84C8D1-10%	DD-102	PM8D1	6DP-1-102	GEM-1621	6TM-D10
C64	.15 200V		P288N-15	DD-102	CUB2P15	2DP-3-154	GEM-2015	2TM-P15
C65	.001 10%		DL-1000	DD-102	GR5D1	CCD-102	GP210	10TS-D10
C66	.004 10%		1464-004	DD-102	GR5D1	CCD-102	GP210	10TS-D10
C67	68 NPO 5%			DTZ-68	CUB8C8C		CNO-468	10TCC-Q68
C68	470 5%		1469-00047	DTZ-68	SR5T47	CM-19B-471K	MCJ244	MS-347
C69	.01 400V 5%		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C70	470 5%		1469-00047	DD-103	SR5T47	CM-19B-471K	MCJ244	MS-347
C71	.022 600V		P888N-022	DD-203	CUB8S22	6DP-2-223	GEM-6122	6TM-S22
C72	.1 600V		P888N-1	DF-104	CUB8P1	6DP-4-104	GEM-601	6TM-P10
C73	.1 600V		P888N-1	DF-104	CUB8P1	6DP-4-104	GEM-601	6TM-P10
C74	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C75	82 5000V N1500 10%	#24518 (120) †						
C76	.068 1000V 10%							
C77	58 2500V 10%	(82) †						
C78	.1 200V		P288N-1	DF-104	CUB2P1	2DP-3-104	GEM-201	2TM-P10

Note 1. Not used in Chassis 88-10.

† Value used in Chassis 88-10.

Packard-Bell Part Number.

CONTROLS

ITEM No.	RATING	REPLACEMENT DATA						INSTALLATION NOTES
		Packard-Bell PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.		
R1A	(Not Used)	86091	BPL-70	C478-1meg-Z	B11-137 *	PP16A		Volume
B	Shaft		Not Req.	KSS-3	Not Req.	Not Req.		
C	Switch		Not Req.	Not Req.	SKT *	Not Req.		Push-Pull Off-On
R2A	3meg	25602 ①	FL-76	Not Req.				Vert. Hold
R3A	50K		R2-29					Brightness
R4A	100K	25633	TT-40					AGC
R5A	25K	25628	Not Req.					Contrast
R6A	20K Tap							Height
R7A	3meg	25887	AB-87	B47-5meg-S	B11-128	PTA56L		
R8A	5meg	25910	AK-1	Not Req.	TM4	Not Req.		
R9A	5meg	25992	TT-26	B47-3meg-S	HLC-5	Not Req.		
R10A	5meg	25910	AK-1	B47-25K-S	HLC-3	Not Req.		
R11A	5meg	25910	AK-1	Not Req.	B11-120	TA253L		
R12A	5meg	25910	AK-1	B47-5meg-S	TM4	Not Req.		
R13A	5meg	25910	AK-1	Not Req.	HLC-5	Not Req.		
R14A	5meg	25910	AK-1	Not Req.	Not Req.	Not Req.		

① Chassis 88-10 uses single 3meg Vert. Hold (Part #25632A).
"STA-LOC" Equivalent: FA36L, RU54L, OS875A, ISL375.

* Factory Assembled Part #PPQ1-137 (SKT).

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN TV PART No.	REMARKS			IRC PART No.	WORKMAN TV PART No.	REMARKS
R9	1meg				R57	82K			
R10	8.2meg				R58	39K			
R11	1.5meg				R59	220K			
R12	6800Ω 5% 7W ①	PW7-6800	7G-6800		R60	270K			
R13	12K				R61	3300Ω			
R14	120Ω				R62	56K			
R15	120K				R63	470K			
R16	470Ω				R64	4.7meg			
R17	56Ω				R65	33K			
R18	22K				R66	470K			
R19	6800Ω				R67	39K			
R20	120K				R68	22K			
R21	470Ω				R69	2.2meg			
R22	56Ω				R70	2.2meg			
R23	3300Ω				R71	3.3meg			
R24	1000Ω				R72	1meg			
R25	270Ω				R73	470K			
R26	1000Ω				R74	1.5meg			
R27	1800Ω				R75	22K			
R28	68K				R76	330Ω 1W			
R29	4700Ω 7W	PW10-4700	10W-SQ-4700		R77	220K			
R30	22K				R78	33K			
R31	24K				R79	3300Ω			
R32	2200Ω				R80	22K			
R33	120K				R81	2.3Ω (Cold)			
R34	82K 2W				R82	1meg			
R35	33K				R83	1meg			
R36	3300Ω				R84	3300Ω			
R37	15K				R85	470K			
R38	120Ω				R86	47K			
R39	39K				R87	6800Ω 1W			
R40	12K				R88	1200Ω			
R41	12K				R89	100K 5% 1W			
R42	4.7meg				R90	100K			
R43	250K				R91	470K			
R44	470Ω				R92	100Ω			
R45	470K				R93	47K 7W	PW7-47K	7G-47K	
R46	10K 2W				R94	4700Ω			
R47	390Ω 1W				R95	33K			
R48	4.7meg				R96	1meg			
R49	220K				R97	1.2Ω 5%			
R50	470Ω				R98	3900Ω 5W ②	PW5-3900	5W-SQ-3900	(4700Ω) *
R51	470K				R99	470Ω 5W ③	PW5-470	5W-SQ-470	
R52	390Ω 1W				R100	100K 2W			
R53	6800Ω				R101	2700Ω 10W	PW10-2700	10W-SQ-2700	
R54	6800Ω				R102	10Ω			
R55	47K				R103	10Ω			
R56	47K				R104	100K			

① 6800Ω 5% 7W used with VHF Tuner #10677.
4700Ω 5% 5W used with VHF Tuner #10672.
2700Ω 5W used with VHF Tuner #10684.
3900Ω 7W used with VHF Tuner #10643.

② Chassis 88-10 uses 8200Ω 5% 7 Watt.
③ 470Ω 2W used in early production chassis.
* Alternate Value
† Value used in TV Chassis 88-10.

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA						NOTES
		Packard-Bell PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Workman TV PART No.		
L1	47.25MC Trap	29759 ①	TV-153	6225	RTC-8556	T218		① Part #29757 (Ch. 88-10)
L2	1st Video IF	29755	TV-131	6225	RTC-8556	T218		
L3	2nd Video IF	29585	TV-130	6219	RTC-8551	T217		
L4	3rd Video IF	29585	TV-130	6219	RTC-8551	T217		
L5	41.25MC Trap	29565	TV-152	6225	RTC-8556	T218		
L6A	4th Video IF	29750 ②						② Includes Complete Assy.
B	RF Choke (1uh)		BC-561	4802	RTC-8515	T855		
C	RF Choke (20uh)		TV-192	6152	RTC-8584	T300		
L7	RF Choke (10uh)	29568	BC-568	4612	RTC-8522	T860		
L8	Peaking (250uh)	29509	TV-185	6161	RTC-8598	T315		
L9	4.5MC Trap	29545	TV-151	1470	RTC-8603	T250		
L10	Peaking (600uh)	29713	TV-205	6146	RTC-8582	T250		
L11	Peaking (100uh)	29752 ③	TV-184	6160	RTC-8597	T310		③ Wound on 6800Ω Res.
L12	Sound IF	29714	TV-151	1469	RTC-8602	T249		▲ Parallel with 6800Ω Resistor
L13	Ratio Detector	29694	TV-122B	1486-RD	RTC-9060	T237		
L14	RF Choke (12uh)	29646	BC-566	4612	RTC-8523	T861		

COILS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA						NOTES
		Packard-Bell PART No.	Merit PART No.	Miller PART No.	Rogers PART No.	Stancor PART No.	Thordorson PART No.	
L15	Horiz. Stabilizer (Hold)	29753	TV-163	6211	RC110	RTC-8628	HS-7	WLC-25 T103
L16	Width Coil 3-17MB	29718	MWC-11	6329 ①	QRC109 ②	WC-11	WC-28 ③	WLC-6 T 119

① Disregard Tap.

② Drill new mounting hole(s).

③ Use Black and White Terminals.

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (10 CURRENT 1000 A)	Packard-Bell PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triod PART No.	
L17	.240A	35Ω	.9 Hy.	27013A		C-2343		C-34X	

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	Packard-Bell PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triod PART No.	
T1	117V @ 2A	540VCT @ .340A DC	5V @ 3.8A	89076 ①				R-77BC ②	① Alternate Part #89076B. ② Phase and parallel 5A and 8A 6.3V windings. Tape 2A 6.3V winding.
	SEC. 3	SEC. 4	SEC. 5						
	8.3V @ 9.5A								

TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA						NOTES
		Packard-Bell PART No.	Merit PART No.	Rogers PART No.	Stancor PART No.	Thordorson PART No.	Triod PART No.	
T2	Vert. Output	89529 *						A-115X
	Vert. Output	89522B †						
	Yoke (Horiz. 18MB)	29716 * or						
	(90°) (Vert. 11MB)	29716A * or						
	Yoke	29696 † or						
		29758A †						
T3		PCM-2017						
T4	Horiz. Output	89519C						
	Alt. Horiz. Output	89519D						
	Rear Cover (Yoke)	34106B *						
	Rear Cover (Yoke)	34103 †						

① May require use of new rear cover and centering device.

② Use original yoke damping network if necessary.

③ Remove horizontal damping network; use original.

* Chassis 88-11.

† Chassis 88-10. (Use Pt. #29758A as replacement).

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
			Packard-Bell PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triad PART No.	
	PRI.	SEC.						
T5	6500Ω	3-4Ω	89515 ①	A-2930	A-3877	24S51	S-3X	① Alternate Part #69515A.
T6	6500Ω	3-4Ω	89515A	A-2930	A-3877	24S51	S-3X	