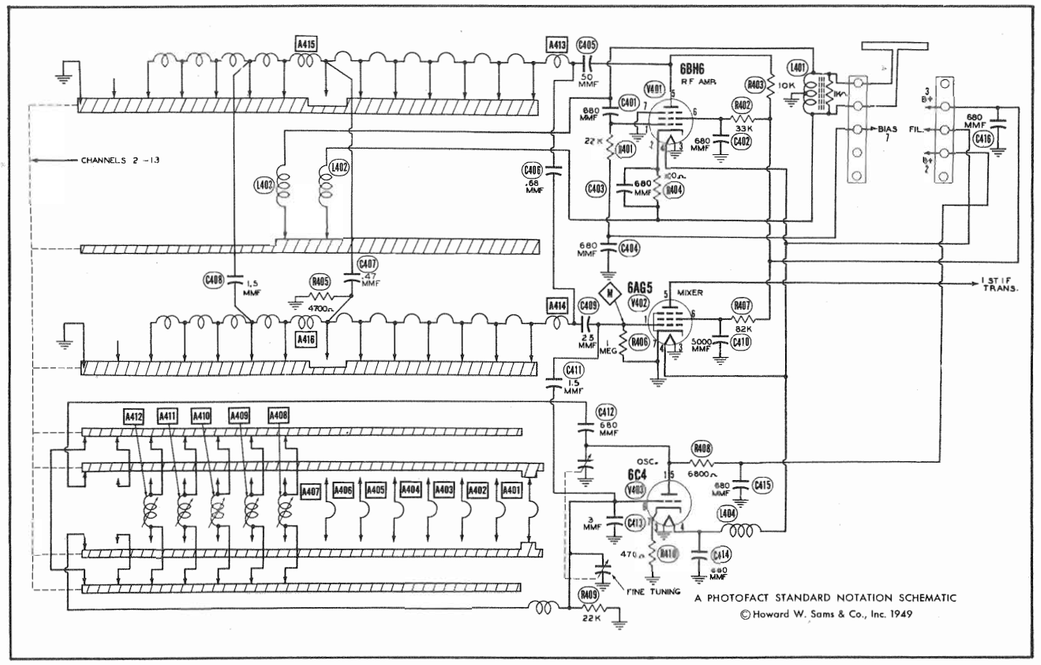
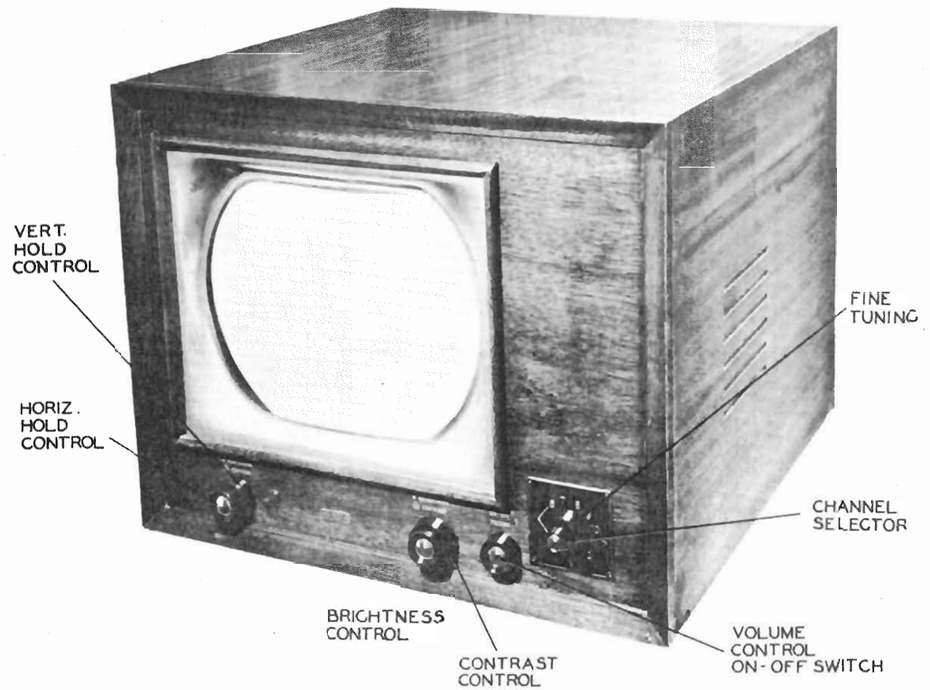
MECK MODELS XF-777, XN-752, XP-775, XQ-776, XQA-776, XR-778, XS-786, XT-785



A PHOTOFACT STANDARD NOTATION SCHEMATIC

RF TUNER



PARTS LIST AND DESCRIPTIONS

TUBES

ITEM No.	USE	REPLACEMENT DATA: STANDARD REPLACEMENT	RMA BASE TYPE	
V401	RF Amp.	6BH6	7CM	
V402	Mixer	6AG5	7BD	
V403	Oscillator	6C4	6BG	

RESISTORS

ITEM No.	RATING: RESISTANCE	RATING: WATTS	IDENTIFICATION
R401	22KΩ	½	RF Grid
R402	33KΩ	½	RF Screen
R403	10KΩ	1	RF Plate
R404	100Ω	½	RF Cathode
R405	4700Ω	½	Mixer Coil Shunt
R406	1 Meg.	½	Mixer Grid
R407	82KΩ	½	Mixer Screen
R408	6800Ω	1	Osc. Plate
R409	22KΩ	½	Osc. Grid
R410	470Ω	½	Osc. Cathode

CAPACITORS

ITEM No.	RATING: CAP.	RATING: VOLT	IDENTIFICATION
C401	680		RF Coupling
C402	680		RF Screen Bypass
C403	680		RF Cathode Bypass
C404	680		Bias Filter
C405	50		RF Coupling
C406	.68		RF Coupling
C407	.47		RF Coupling
C408	1.5		RF Coupling
C409	25		RF Coupling
C410	5000		Mixer Screen Bypass
C411	1.5		Osc. Coupling
C412	680		Osc. Feedback
C413	3		Osc. Feedback
C414	680		Filament Bypass
C415	680		RF Bypass
C416	680		RF Bypass

COILS

ITEM No.	USE	DC RES.: PRI.	DC RES.: SEC.	
L401	Ant. Input	0Ω		Wound on powdered iron core & 1000Ω resistor
L402	Ant. Input High Band	0Ω		
L403	Ant. Input High Band	0Ω		
L404	Fil. Choke	0Ω		

MECK MODEL XQ-776

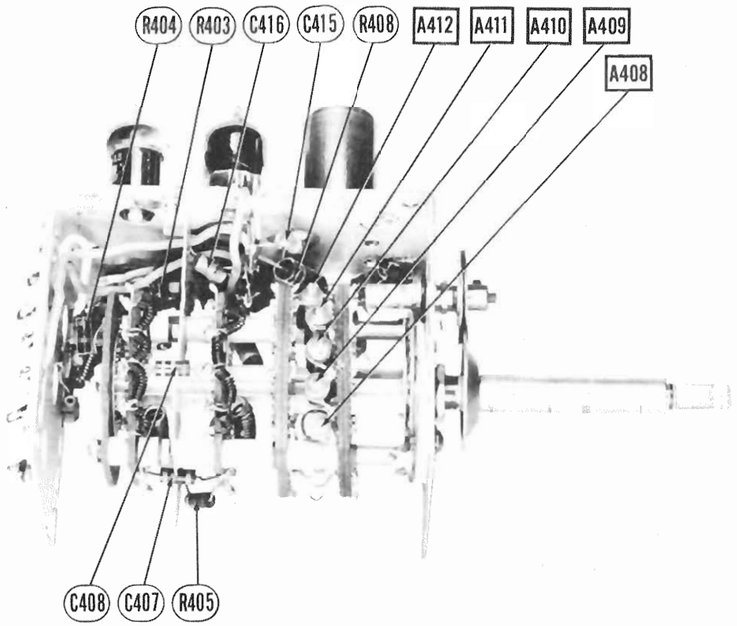
TRADE NAME	Meck Models XF-777, XN-752, XP-775, XQ-776, XQA-776, XR-778, XS-786, XT-785
MANUFACTURER	John Meck Industries, Plymouth, Indiana
TYPE SET	Television Receiver
TUBES	Nineteen (2 tube tuner) Twenty (3 tube tuner)
POWER SUPPLY	110-120 Volts AC-60 Cycle — RATING 1.6 Amp. at 117 Volts AC
TUNING RANGE—	Channels 2 thru 13

INDEX

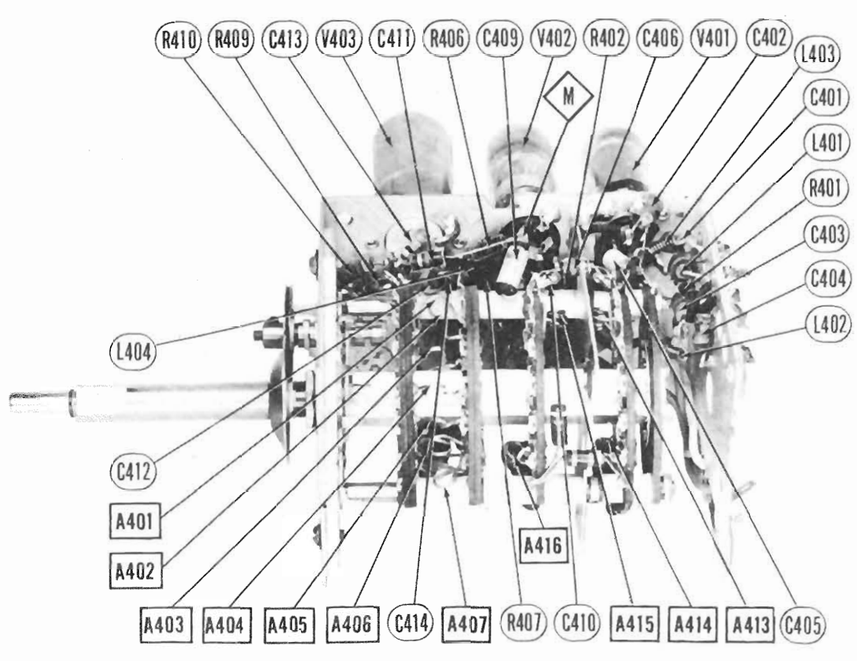
HOWARD W. SAMS & CO., INC. • Indianapolis 1, Indiana

DATE 7-50 SET 101 FOLDER 5

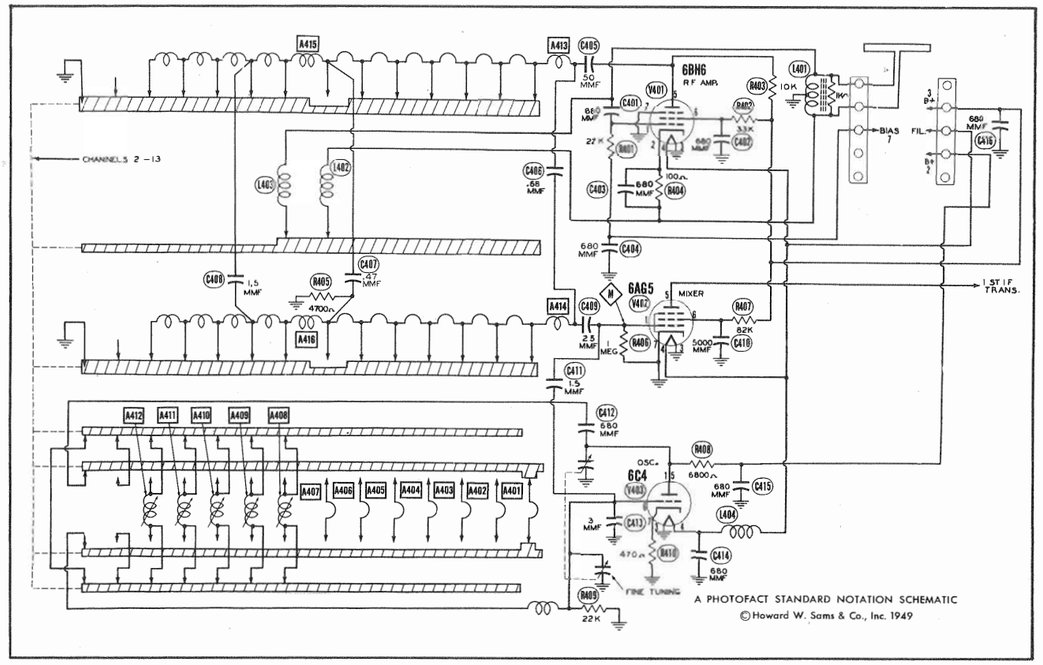
MECK MODELS XF-777, XN-752, XP-775, XQ-776, XQA-776, XR-778, XS-786, XT-785



RF TUNER-LEFT SIDE



RF TUNER-RIGHT SIDE



RF TUNER

PARTS LIST AND DESCRIPTIONS

TUBES

ITEM No.	USE	REPLACEMENT DATA STANDARD REPLACEMENT	RMA BASE TYPE	
V401	RF Amp.	6BH6	7CM	
V402	Mixer	6AG5	7BD	
V403	Oscillator	6C4	6BG	

RESISTORS

ITEM No.	RATING RESISTANCE	RATING WATTS	IDENTIFICATION
R401	22KΩ	1	RF Grid
R402	33KΩ	1	RF Screen
R403	10KΩ	1	RF Plate
R404	100Ω	1	RF Cathode
R405	4700Ω	1	Mixer Coil Shunt
R406	1 Meg.	½	Mixer Grid
R407	82KΩ	1	Mixer Screen
R408	6800Ω	1	Osc. Plate
R409	22KΩ	½	Osc. Grid
R410	470Ω	½	Osc. Cathode

CAPACITORS

ITEM No.	RATING CAP.	RATING VOLT	IDENTIFICATION
C401	680		RF Coupling
C402	680		RF Screen Bypass
C403	680		RF Cathode Bypass
C404	680		Bias Filter
C405	50		RF Coupling
C406	.68		RF Coupling
C407	.47		RF Coupling
C408	1.5		RF Coupling
C409	25		RF Coupling
C410	5000		Mixer Screen Bypass
C411	1.5		Osc. Coupling
C412	680		Osc. Feedback
C413	3		Osc. Feedback
C414	680		Filament Bypass
C415	680		RF Bypass
C416	680		RF Bypass

COILS

ITEM No.	USE	DC RES. PRI.	DC RES. SEC.	
L401	Ant. Input	0Ω		Wound on powdered iron core & 1000Ω resistor
L402	Ant. Input High Band	0Ω		
L403	Ant. Input High Band	0Ω		
L404	Fil. Choke	0Ω		

PHOTO

VERT. HOLD CONTROL

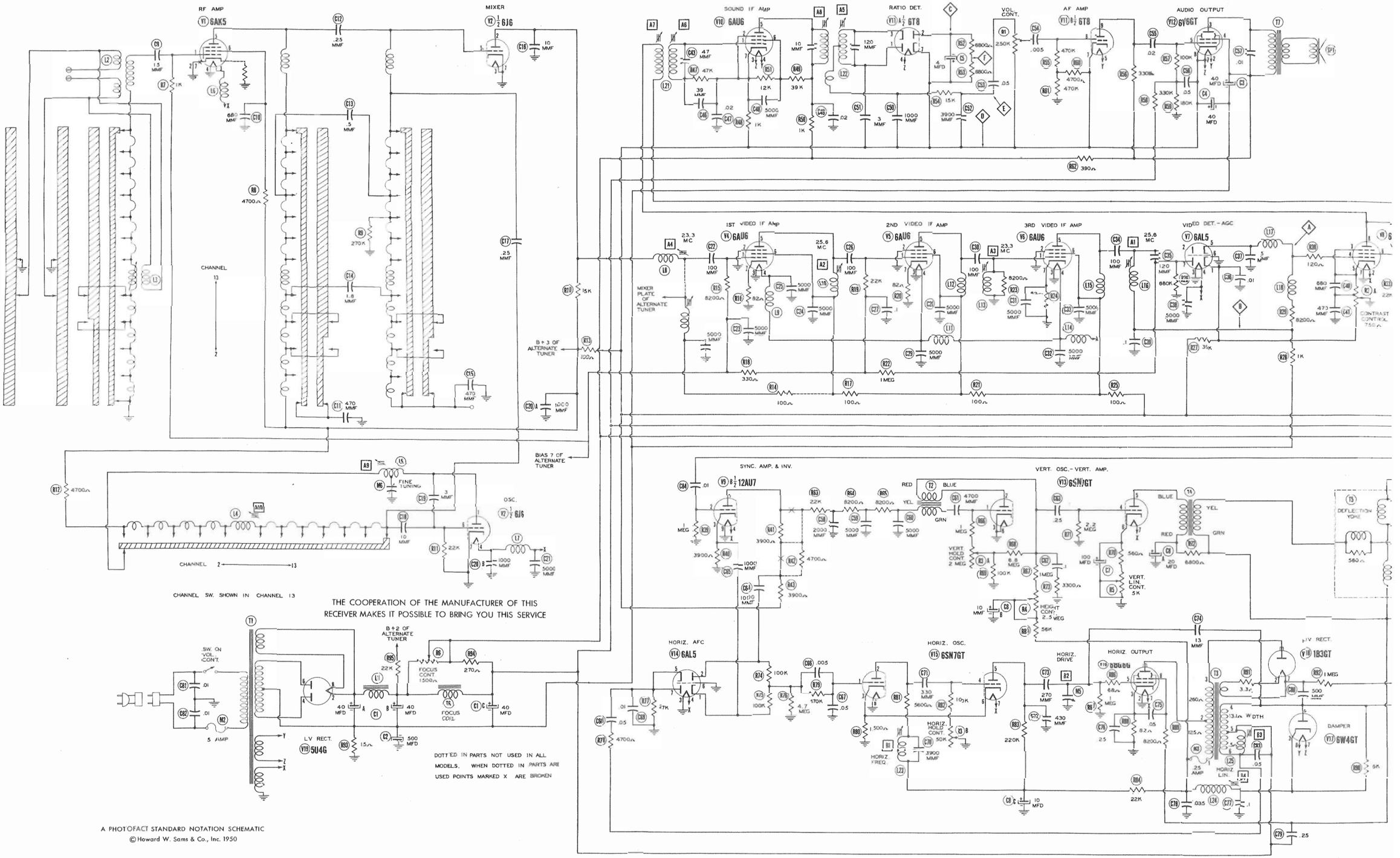
HORIZ. HOLD CONTROL

TRADE NAME
MANUFACTURER
TYPE SET
TUBES

POWER SUPPLY
TUNING RANGE—

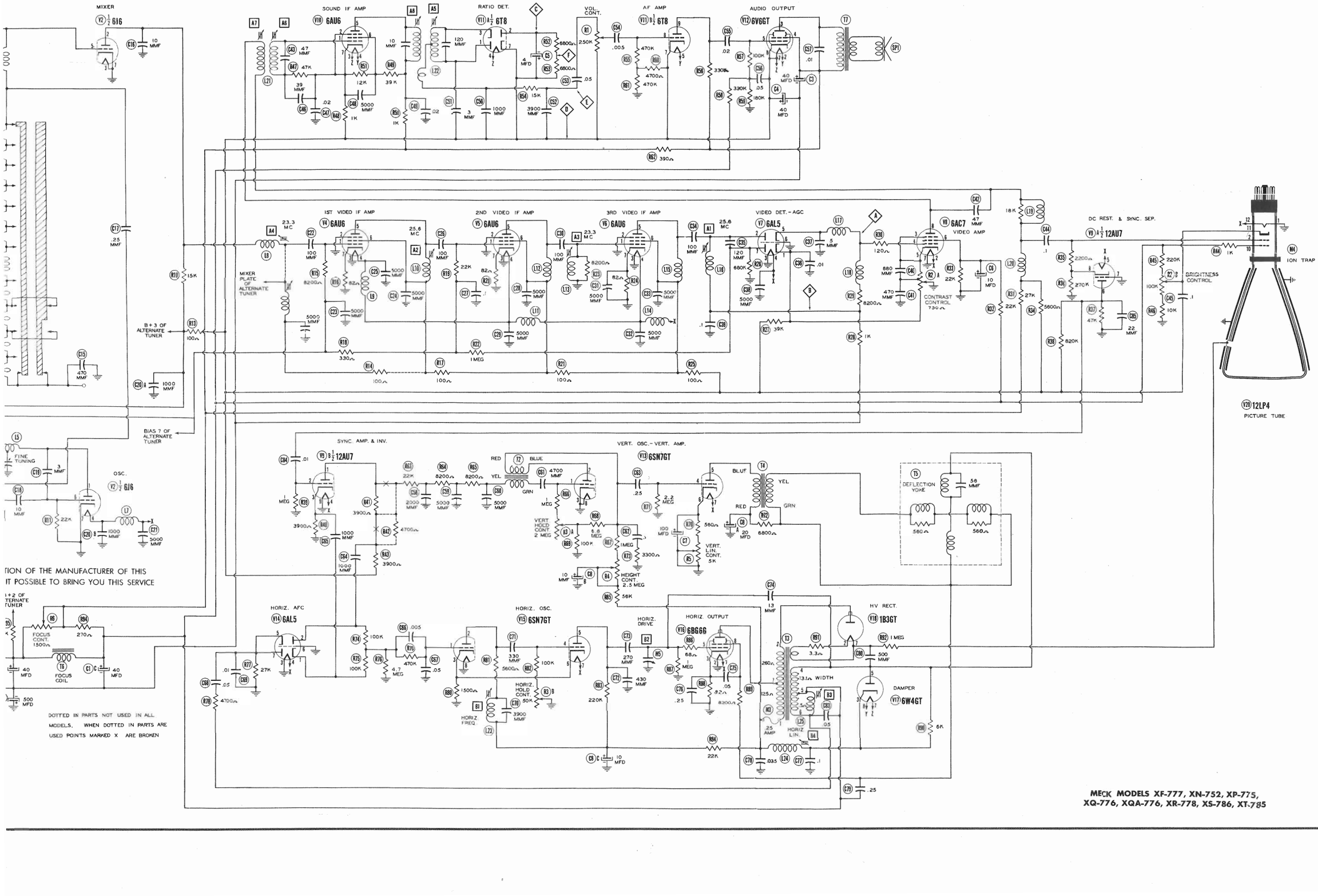
Alignment Instr
Disassembly In
Horiz. Sweep C
Parts List and
Photographs
Cabinet-Rear
Capacitor Ide
Chassis-Top
RF Tuner (2

"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,

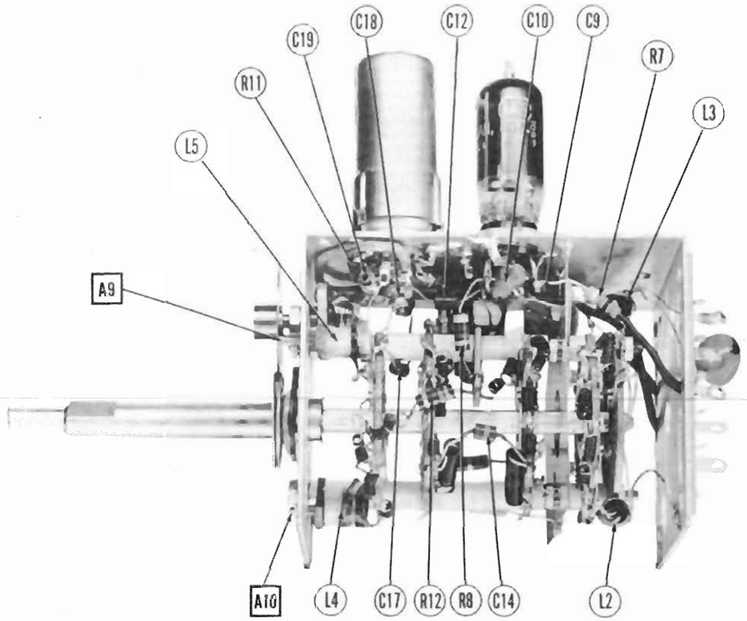


THE COOPERATION OF THE MANUFACTURER OF THIS RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE

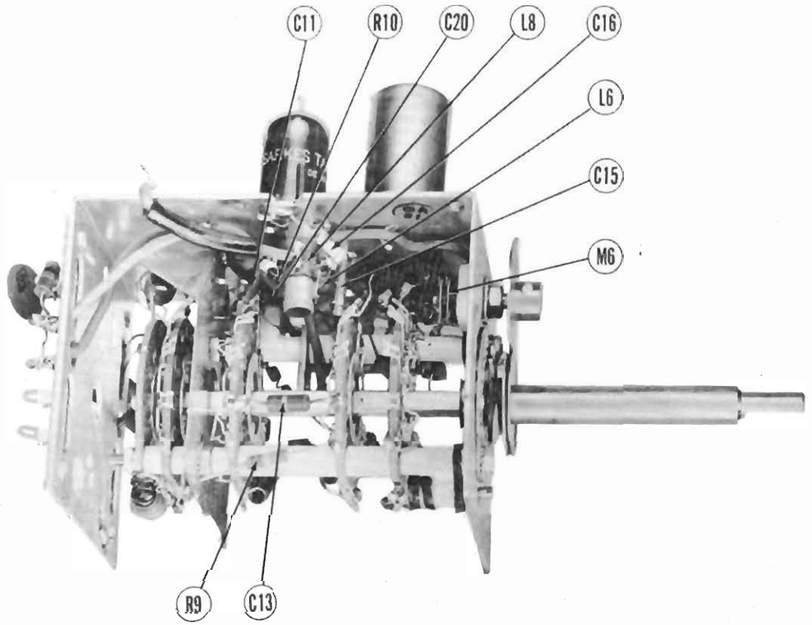
DOTTED IN PARTS NOT USED IN ALL MODELS. WHEN DOTTED IN PARTS ARE USED POINTS MARKED X ARE BROKEN



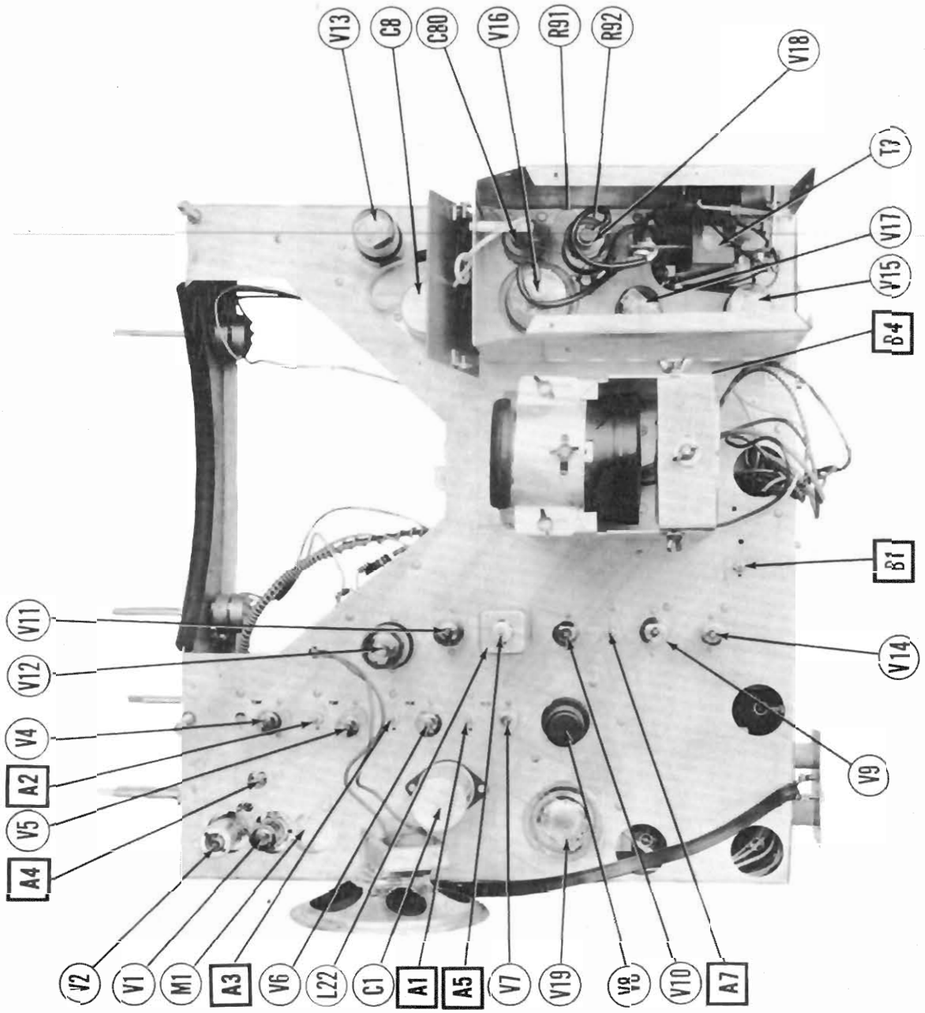
MECK MODELS XF-777, XN-752, XP-775,
XQ-776, XQA-776, XR-778, XS-786, XT-785



RF TUNER-RIGHT SIDE



RF TUNER-LEFT SIDE



CHASSIS TOP VIEW

MECK MODELS XF-777, XN-752, XP-775, XQ-776, XQA-776, XR-778, XS-786, XT-785

CHASSIS BOTTOM VIEW-TRANS., INDUCTOR AND ALIGNMENT IDENTIFICATION

MECK MODELS XF-777, XN-752, XP-775, XQ-776, XQA-776, XR-778, XS-786, XT-785

VOLTAGE AND RESISTANCE MEASUREMENTS

VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6AG5	-.2VDC	0V.	6.3VAC	0V.	145VDC	130VDC	0V.		
V2	6J6	110VDC	85VDC	0V.	6.3VAC	-2VDC	8-6VDC	0V.		
V3	6C4	NOT USED IN ALL MODELS.								
V4	6AU6	-.6VDC	0V.	0V.	6.3VAC	145VDC	145VDC	.5VDC		
V5	6AU6	-.4VDC	0V.	0V.	6.3VAC	145VDC	145VDC	1.2VDC		
V6	6AU6	0V.	0V.	0V.	6.3VAC	150VDC	150VDC	.9VDC		
V7	6AL5	.1VDC	-3VDC	0V.	6.3VAC	-.3VDC	0V.	-1.7VDC		
V8	6AC7	0V.	6.3VAC	1.2VDC	-2.6VDC	1.3VDC	175VDC	0V.	195VDC	
V9	12AU7	130VDC	0V.	6.3VDC	6.3VAC	6.3VAC	7.1VDC	0V.	1.1VDC	0V.
V10	6AU6	▲4.8VDC	▲7.5VDC	▲0V.	▲6.3VAC	▲225VDC	▲55VDC	▲7.5VDC		
V11	6T8	▲-.2VDC	▲-.2VDC	▲-.2VDC	▲0V.	▲6.3VAC	▲0V.	▲0V.	▲-4VDC	▲110VDC
V12	6V6GT	▲0V.	▲6.3VAC	▲205VDC	▲225VDC	▲-8VDC	▲0V.	▲0V.	▲0V.	
V13	6SN7GT	15VDC	215VDC 105VDC	0V.	0V.	360VDC	6.2VDC 19VDC	6.3VAC	0V.	
V14	6AL5	1.8VDC	-1.2VDC	0V.	6.3VAC	0V.	0V.	0V.		
V15	6SN7GT	.1VDC	265VDC	11VDC	-3.8VDC	110VDC	11VDC	6.3VAC	0V.	
V16	6BG6G	-1.7VDC	0V.	9.1VDC	0V.	-1.7VDC	0V.	6.3VAC	280VDC	TOP CAP *
V17	6W4GT	0V.	0V.	460VDC	0V.	380VDC	0V.	▲0V.	▲6.3VAC	
V18	1B3GT	* DO NOT MEASURE.								
V19	5U4G	0V.	440VDC	0V.	390VAC	0V.	390VAC	0V.	440VDC	
V20	12LP4	0V.	1.3VDC	PIN 10 385VDC	PIN 11 140VDC	PIN 12 6.3VAC				

§ TAKEN WITH VACUUM TUBE VOLTMETER.
* DO NOT MEASURE.
▲ MEASURED FROM PIN 8 OF V12.

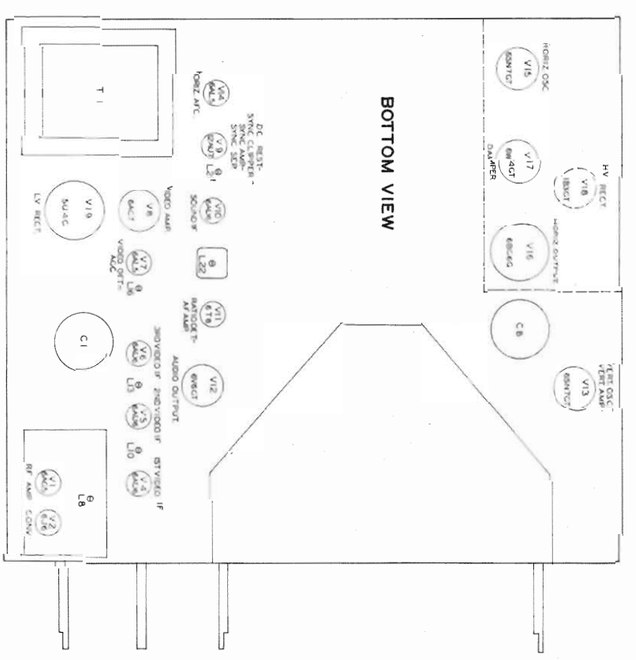
RESISTANCE READINGS

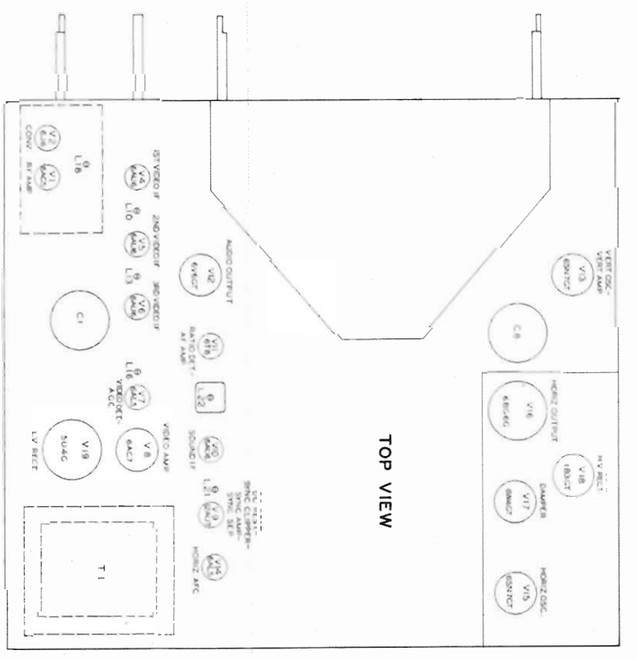
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6AG5	1.5 Meg.	0Ω	.1Ω	0Ω	▲100Ω	▲4.8KΩ	0Ω		
V2	6J6	▲4.8KΩ	▲15KΩ	0Ω	.1Ω	270KΩ	22KΩ	0Ω		
V3	6C4	NOT USED IN ALL MODELS.								
V4	6AU6	1.7 Meg.	0Ω	0Ω	.1Ω	▲300Ω	▲300Ω	82Ω		
V5	6AU6	1.7 Meg.	0Ω	0Ω	.1Ω	▲200Ω	▲200Ω	82Ω		
V6	6AU6	.2Ω	0Ω	0Ω	.1Ω	▲100Ω	▲100Ω	82Ω		
V7	6AL5	15Ω	1000Ω	0Ω	.1Ω	9.2KΩ	0Ω	680KΩ		
V8	6AC7	Inf.	.1Ω	750Ω	9.3KΩ	750Ω	†17KΩ	0Ω	†15KΩ	
V9	12AU7	▲8KΩ	1 Meg.	3.9KΩ	.1Ω	.1Ω	47KΩ	0Ω	270KΩ	0Ω
V10	6AU6	▲48KΩ	▲1000Ω	▲0Ω	▲.1Ω	†1000Ω	▲11KΩ	▲1000Ω		
V11	6T8	Inf.	▲13.6KΩ	Inf.	▲0Ω	▲.1Ω	▲0Ω	▲0Ω	▲475KΩ	†330KΩ
V12	6V6GT	Inf.	▲.1Ω	†750Ω	†450Ω	280KΩ	Inf.	▲0Ω	▲0Ω	
V13	6SN7GT	3 Meg.	#1 Meg. #2.5 Meg.	0Ω	2.2 Meg.	#12.8KΩ	5.5KΩ 560Ω	.1Ω	0Ω	
V14	6AL5	4.8 Meg.	4.8 Meg.	0Ω	.1Ω	27KΩ	0Ω	27KΩ		
V15	6SN7GT	5 Meg.	#33KΩ	1.5KΩ	150KΩ	#250KΩ	1.5KΩ	.1Ω	0Ω	
V16	6BG6G	1 Meg.	0Ω	82Ω	Inf.	1 Meg.	Inf.	.1Ω	#15KΩ	TOP CAP #V600Ω
V17	6W4GT	Inf.	Inf.	†6KΩ	Inf.	#6KΩ	Inf.	▲0Ω	▲ 1Ω	
V18	1B3GT	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	TOP CAP #400Ω
V19	5U4G	Inf.	22KΩ	Inf.	60Ω	Inf.	60Ω	Inf.	22KΩ	
V20	12LP4	0Ω	272KΩ	PIN 10 †1.3KΩ	PIN 11 85KΩ	PIN 12 .1Ω				

FOCUS CONTROL SET FULLY COUNTERCLOCKWISE FOR THESE MEASUREMENTS.
MEASURED FROM PIN 3 OF V17.
† MEASURED FROM PIN 2 OF V19.
▲ MEASURED FROM PIN 8 OF V12.

1. DC voltage measurements are at 20,000 ohms per volt; AC Voltage measured at 1,000 ohms.
2. Pin numbers are counted in a clockwise direction on bottom of socket.
3. Measured values are from socket pin to common negative unless otherwise stated.
4. Line voltage maintained at 117 volts for voltage readings.
5. Front panels controls set at minimum.
6. Where readings may vary according to the setting of the service controls, both minimum and maximum readings are given.

TUBE PLACEMENT CHART





ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

The high voltage shock hazard may be eliminated by removing the horizontal oscillator tube (V15) from its socket.

VIDEO IF ALIGNMENT

If the set has the three tube tuner, remove the local oscillator tube (V3) from its socket to prevent erroneous indications. If the set has the two tube tuner, remove the converter tube (V2) and replace it with a 6J6 which has pin 1 removed to disable the local oscillator.
Keep output of signal generator as low as possible to maintain a usable reading (not more than 2 volts).

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1.	Direct	High side to ungrounded tube shield floating over converter tube (V2). Low side to chassis.	25.6MC (Unmod.)	Any	DC Probe to Point (A). Common to Point (B).	A1, A2	Adjust for maximum deflection.
2.	Direct	"	23.3MC	"	"	A3, A4	"

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
3.	Direct	High side to ungrounded tube shield floating over converter tube (V2). Low side to chassis.	24MC (10MC SWP)	21.6MC 23.3MC 25.6MC 26.1MC	Any	Vert. Amp. to Point (A). Low side to chassis.		Check for response curve similar to figure 1. If necessary retouch A1 thru A4 for proper response.

SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
4.	.01MFD	High side to pin 4 (Grid) of 6AC7 (V8). Low side to chassis.	4.5MC (Unmod.)	Any	DC Probe to Point (C). Common to Point (D).	A5, A6, A7	Adjust for maximum deflection.
5.	.01MFD	"	"	"	DC Probe to Point (C). Common to Point (D).	A8	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.

SOUND IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE

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

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
4.	.01MFD	High side to pin 4 (Grid) of 6AC7 (V8). Low side to chassis.	4.5MC (450KC Sweep)	4.5MC	Any	Vert. Amp. to Point (C). Low side to chassis.	A5, A6, A7	Remove stabilizer capacitor C5. Adjust for maximum amplitude and symmetry as per figure 2.
5.	.01MFD	"	"	"	"	Vert. Amp. to Point (E). Low side to chassis.	A8	Reconnect capacitor C5. Adjust A8 so 4.5MC occurs at center of crossover lines as per figure 3. Slightly retouch A5 for maximum amplitude and straightness of crossover lines.

(TWO TUBE TUNER) OSCILLATOR ALIGNMENT

Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection.
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
6.	Two 120Ω carbon res.	Across antenna terminals with 120Ω in each lead.	213MC (10MC SWP)	211.25MC 215.75MC	13	Vert. Amp. to Point (A). Low side to chassis.	A9	Adjust to place sound marker as shown in figure 4. The video marker should be at 50%.
7.	"	"	207MC (10MC SWP)	205.25MC 209.75MC	12	"		Check all high band channels to see that the sound marker can be properly placed well within the range of the fine tuning control. If not compromise adjustment of A9 may be necessary.
			201MC (10MC SWP)	199.25MC 203.75MC	11			
			195MC (10MC SWP)	193.25MC 197.75MC	10			
			189MC (10MC SWP)	187.25MC 191.75MC	9			
			183MC (10MC SWP)	181.25MC 185.75MC	8			
			177MC (10MC SWP)	175.25MC 179.75MC	7			
8.	"	"	85MC (10MC SWP)	83.25MC 87.75MC	6	"	A10	Adjust to place sound marker as shown in figure 4. The video marker should be at 50%.
9.	"	"	79MC (10MC SWP)	77.25MC 81.75MC	5	"		Check all low band channels to see that the sound marker can be properly placed well within the range of the fine tuning control. If not compromise adjustment of A10 may be necessary.
			69MC (10MC SWP)	67.25MC 71.75MC	4			
			63MC (10MC SWP)	61.25MC 65.75MC	3			
			57MC (10MC SWP)	55.25MC 59.75MC	2			

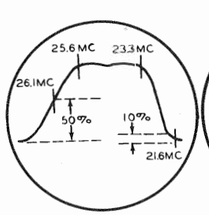


FIG. 1

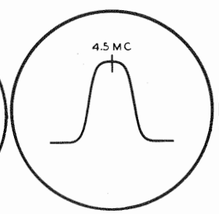


FIG. 2

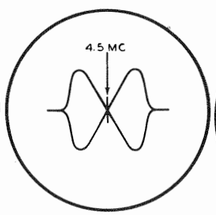


FIG. 3

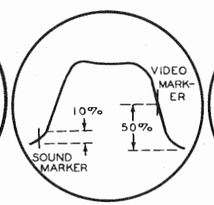


FIG. 4

FIG. 5

(THREE TUBE TUNER) OSCILLATOR ALIGNMENT

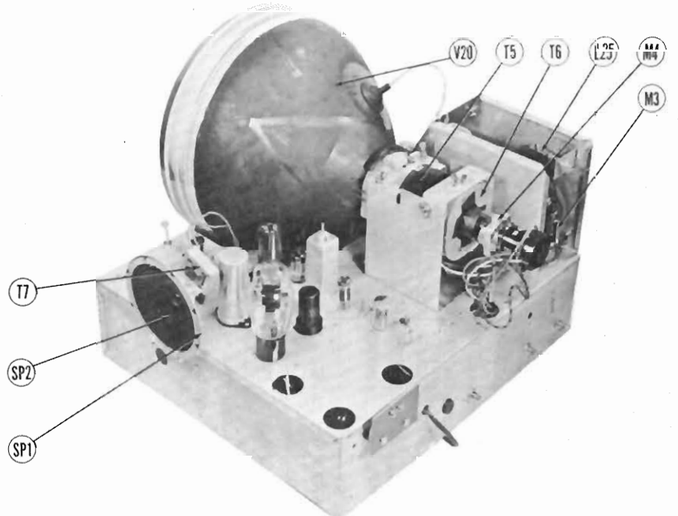
Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection.
Set the fine tuning control to the mid-position of its range.

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
6.	Two 120Ω carbon res.	Across antenna terminals with 120Ω in each lead.	213MC (10MC SWP)	211.25MC 215.75MC	13	Vert. Amp. to Point (A). Low side to chassis.	A401	Expand or compress coil turns to place sound marker as shown in figure 4. The video marker should be at 50%.
			207MC (10MC SWP)	205.25MC 209.75MC	12		A402	
			201MC (10MC SWP)	199.25MC 203.75MC	11		A403	
			195MC (10MC SWP)	193.25MC 197.75MC	10		A404	
			189MC (10MC SWP)	187.25MC 191.75MC	9		A405	
			183MC (10MC SWP)	181.25MC 185.75MC	8		A406	
			177MC (10MC SWP)	175.25MC 179.75MC	7		A407	
7.	"	"	85MC (10MC SWP)	83.25MC 87.75MC	6	"	A408	Adjust to place sound marker as shown in figure 4. The video marker should be at 50%.
			79MC (10MC SWP)	77.25MC 81.75MC	5		A409	
			69MC (10MC SWP)	67.25MC 71.75MC	4		A410	
			63MC (10MC SWP)	61.25MC 65.75MC	3		A411	
			57MC (10MC SWP)	55.25MC 59.75MC	2		A412	

(THREE TUBE TUNER) RF ALIGNMENT

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

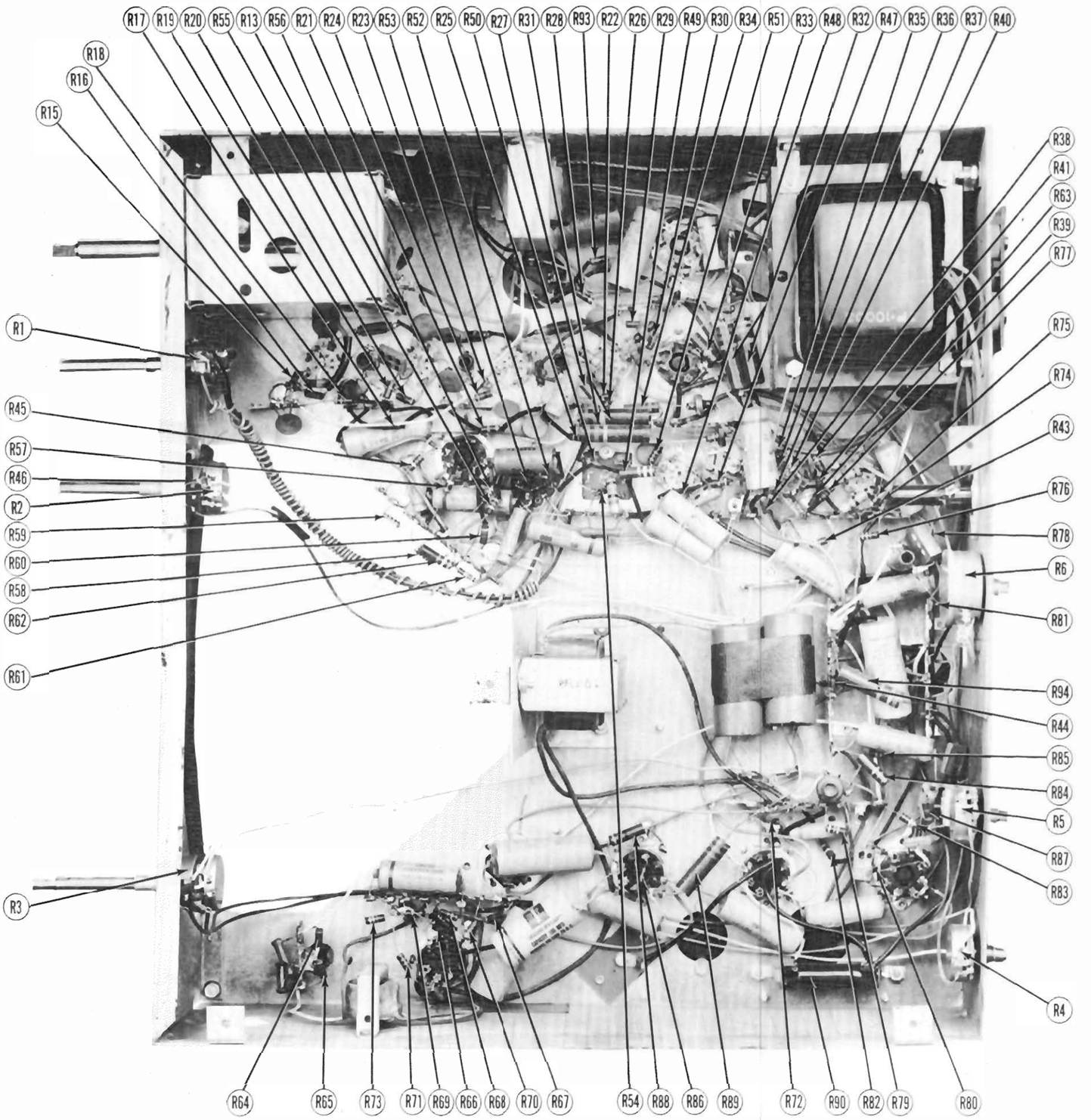
	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
8.	Two 120Ω carbon res.	Across antenna terminals with 120Ω in each lead.	213MC (10MC SWP)	211.25MC 215.75MC	13	Vert. Amp. thru 10KΩ to Point (M). Low side to chassis.	A413, A414	Expand or compress coil turns for response curve similar to figure 5 with markers above 80%.
9.	"	"	207MC (10MC SWP)	205.25MC 209.75MC	12	"		Check all high band channels for response curve similar to figure 5. If markers fall below 70% on any channel, make slight adjustment of A413 and A414 with channel switch set for that channel. Recheck all high band channels to see that they have not been seriously effected.
			201MC (10MC SWP)	199.25MC 203.75MC	11			
			195MC (10MC SWP)	193.25MC 197.75MC	10			
			189MC (10MC SWP)	187.25MC 191.75MC	9			
			183MC (10MC SWP)	181.25MC 185.75MC	8			
			177MC (10MC SWP)	175.25MC 179.75MC	7			
10.	"	"	85MC (10MC SWP)	83.25MC 87.75MC	6	"	A415, A416	Expand or compress coil turns for response curve similar to figure 5 with markers above 80%.
11.	"	"	79MC (10MC SWP)	77.25MC 81.75MC	5	"		Check all low band channels for response similar to figure 5. If markers fall below 70% on any channel, make slight adjustment of A415 and A416 with channel selector set for that channel. Recheck all low band channels to see that they have not been seriously effected.
			69MC (10MC SWP)	67.25MC 71.75MC	4			
			63MC (10MC SWP)	61.25MC 65.75MC	3			
			57MC (10MC SWP)	55.25MC 59.75MC	2			



CHASSIS-TOP VIEW

CHASSIS BOTTOM VIEW-CAPACITOR IDENTIFICATION

MECK MODELS XF-777, XN-752, XP-775, XQ-776, XQA-776, XR-778, XS-786, XT-785



CHASSIS BOTTOM VIEW-RESISTOR IDENTIFICATION

MECK MODELS XF-777, XN-752, XP-775, XQ-776, XQA-776, XR-778, XS-786, XT-785

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA				INSTALLATION NOTES
	IMPEDANCE		DC RES.		MECK PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
	PRI.	SEC.	PRI.	SEC.					
T7	4.5KΩ	3.3Ω	300Ω	.7Ω	Part of SP1	A-3877 (6)	A-2930 (8)	RO-8 (6)	(8) Bend mounting tabs down and mount on original bracket.

SPEAKER

ITEM No.	RATINGS		REPLACEMENT DATA			INSTALLATION NOTES
			MECK PART No.	JENSEN PART No.	QUAM PART No.	
	FIELD RES.	V. C. IMP.		ST-105 (9)		
SP1A	PM	3.3Ω	SR-10019	MOD. P5-X	5A07 (9)	(9) Remount output transformer.
B	PM	3.3Ω	SR-10020	ST-117 MOD. P6-T	8A21	(10) Replace output transformer to match 6-8Ω voice coil.
C	PM	3.3Ω	ST-10021	ST-120 (10) MOD. P10-S	10A31	
	CONE DIA.	V. C. DIA.				
SP2A	4 3/4"	9/16"				

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA				INSTALLATION NOTES
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 ∿)	MECK PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
L1	.200ADC	32Ω	1.5 Henry	LG-10021	C-2325 (4)	C-2974	TR-4200 (4)	(4) Drill one new mounting hole.

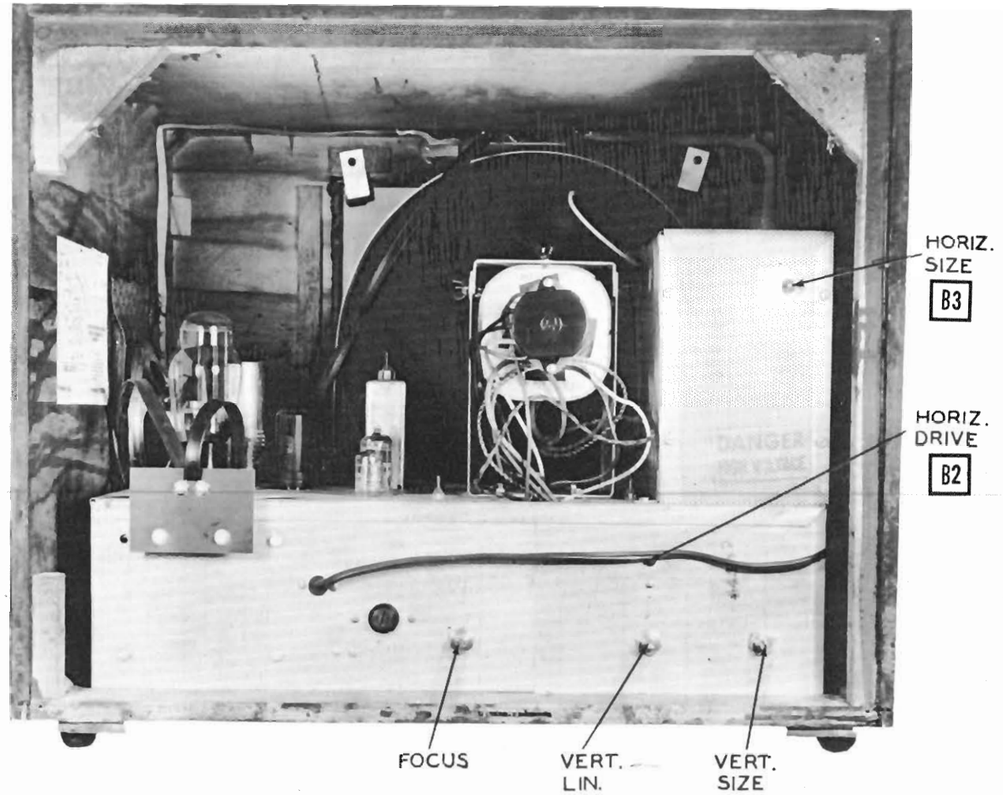
COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	MECK PART No.	MEISSNER PART No.	
L2	Ant. Coil	0Ω				Low Band
L3	Ant. Coil	0Ω				High Band
L4	Osc. Coil	.1Ω				Channel 6
L5	Osc. Coil	.1Ω				Channel 13
L6	Fil. Choke	.1Ω				
L7	Fil. Choke	.1Ω				
L8	1st Video IF	.3Ω				
L9	Fil. Choke	0Ω		LG-10019		
L10	2nd Video IF	.1Ω				
L11	Fil. Choke	0Ω		LG-10019		
L12	RF Choke	4.5Ω		LG-10020		
L13	3rd Video IF	.1Ω				
L14	Fil. Choke	0Ω		LG-10019		
L15	RF Choke	4.5Ω		LG-10020		
L16	4th Video IF	.1Ω				
L17	Peaking	9.3Ω		LG-10014	19-1921	120 microhenries
L18	Peaking	22.5Ω		LG-10016		600 microhenries
L19	Peaking	10Ω		LG-10018	19-1921 †	Wound on 18KΩ resistor 150 microhenries
L20	Peaking	14Ω		LG-10016		600 microhenries
L21	Sound IF	1.9Ω	1.9Ω			
L22	Ratio Det. Trans.	4.9Ω	.2Ω			
L23	Ringing	110Ω				
L24	Horiz. Lin.	39Ω		TO-10024		
L25	Horiz. Size	.2Ω		TO-10023		

† Add 18KΩ resistor in parallel.

MISCELLANEOUS

ITEM No.	PART NAME	MECK PART No.	NOTES
M1A	RF Tuner		Two tubes
B	RF Tuner		Three tubes
M2	Fuse		5A 250V Type 3AG
M3	Fuse		.25A 250V Type 3AG
M4	Ion Trap		
M5	Trimmer		Horiz. drive
M6	Trimmer		Fine Tuning
	Knob	K-10083	Volume
	Knob	K-10084	Channel selector
	Knob	K-10085	Fine Tuning
	Knob	K-10086	Vert. hold, Horiz. hold, Contrast, Brightness (Inner dual control)
	Knob	K-10087	Vert. hold, Horiz. hold, Contrast, Brightness, (Outer dual control)



CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

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

Turn the horizontal hold control to the mid-position of its range.

Adjust the horizontal frequency slug (B1) until the picture synchronizes horizontally.

Adjust the horizontal drive trimmer (B2) clockwise as far as possible without crowding the right half of the picture.

Adjust the horizontal size slug (B3) until the picture fills the mask horizontally.

Adjust the horizontal linearity slug (B4) until the picture is symmetrical from left to right. Readjustment of B2 may be necessary for optimum results.

DISASSEMBLY INSTRUCTIONS

1. Remove seven push-on type control knobs.
2. Remove five 1/4" hex head screws holding rear cover. Remove cover.
3. Disconnect built-in antenna lead at chassis terminal.
4. Remove six 5/16" hex head bolts holding chassis. Remove chassis.

PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA: MECK PART No.	REPLACEMENT DATA: STANDARD REPLACEMENT	RMA BASE TYPE	NOTES
V1A	RF Amp.	6AG5 or 6CB6	6AG5 or 6CB6	7BD	Two tube tuner
B	RF Amp.	6AK5	6AK5	7BD	Alternate two tube tuner
C	RF Amp.	6AG5	6AG5	7BD	Three tube tuner
V2A	Converter	6J6	6J6	7BF	Two tube tuner
B	Converter	6J6	6J6	7BF	Alternate two tube tuner
C	Mixer	6AG5	6AG5	7BD	Three tube tuner
V3	Oscillator	6C4	6C4	6BG	Three tube tuner
V4	1st Video IF	6AU6	6AU6	7BK	
V5	2nd Video IF	6AU6	6AU6	7BK	
V6	3rd Video IF	6AU6	6AU6	7BK	
V7	Video Det.-AGC	6AL5	6AL5	6BT	
V8	Video Amp.	6AC7	6AC7	8N	
V9	DC Rest.-Sync. Clipper-Amp.-Sep.	12AU7	12AU7	9A	
V10	Sound IF	6AU6	6AU6	7BK	
V11	Ratio Det.-AF Amp.	6T8	6T8	9E	
V12	Audio Output	6V6GT	6V6GT	7AC	
V13	Vert. Osc.-Vert. Amp.	6SN7GT	6SN7GT	8BD	
V14	Hor. AFC	6AL5	6AL5	6BT	
V15	Hor. Osc.	6SN7GT	6SN7GT	8BD	
V16	Hor. Output	6BG6G	6BG6G	5BT	
V17	Damper	6W4GT	6W4GT	4CG	
V18	HV Rect.	1B3GT	1B3GT	3C	
V19	LV Rect.	5U4G	5U4G	5T	
V20	Picture Tube	12LP4	12LP4	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.	RATING: VOLT	REPLACEMENT DATA: MECK PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
C1A	40	475	CL-10039	AF8X88J				TVL-304	▪ Filter
B	40	450							■ Filter
C	40	450							▲ Filter
C2	500	5	CL-10038	PRS6/500				UHC-506	Bias Filter
C3	40	350	CL-10041	PRS450/40				TVA-24	Output Decoup.
C4	40	350	CL-10041	PRS450/40				TVA-24	Decoupling
C5	4	50	CL-10027	PRS50/4				TVA-13	Stabilizing Cap.
C6	10	250	CL-10037	PRS250/12				UT-122	V. Amp. Screen Bypass
C7	100	25	CL-10009	PRS25/100				TVA-8	Vert. Output Cath. Byp.
C8A	20	450	CL-10040	AFH2221J				TVL-419	▪ Vert. Output Decoup.
B	10	450							■ Vert. Osc. Decoup.
C	10	450							▲ Decoupling
C9	15			GP15K	D6-150		GP1K-15		RF Coupling
C10	680			GP680M	D6-681		GP2K-680		RF Screen Bypass
C11	470			GP470M	D6-471		GP2K-470		RF Plate Decoup.
C12	.25								RF Coupling
C13	.5				D2-.5				RF Coupling
C14	1.8								RF Coupling
C15	470			GP470M	D6-471		GP2K-470		RF Bypass
C16	10			CN10FNPO	D2-10		NPOK-10		Fixed Trimmer
C17	.25								Osc. Coupling
C18	10			CN10FNPO	D2-10		NPOK-10		Osc. Grid Cap.
C19	3			CN3DNPO	D2-3.3		NPOK-3		Osc. Feedback
C20A	1000			GP1000M	D6-102		882-2 x 0015	29C7	RF Bypass
B	1000			GP1000M	D6-102				Osc. Fil. Bypass
C21	5000			BPD-5	D6-502		811-005	29C1	Filament Bypass
C22	100	500		1468-0001	D6-101	SW5T1	GP1K-100	1FM-31	IF Coupling
C23	5000			BPD-5	D6-502	DD5D5	811-005	29C1	AGC Filter
C24	5000			BPD-5	D6-502	DD5D5	811-005	29C1	1st V. IF Decoupling
C25	5000			BPD-5	D6-502	DD5D5	811-005	29C1	1st V. IF Fil. Bypass
C26	100	500		1468-0001	D6-101	SW5T1	GP1K-100	1FM-31	IF Coupling
C27	.1	600		P688-1		PTE6P1	TM-1		AGC Filter
C28	5000			BPD-5	D6-502	DD5D5	811-005	29C1	2nd V. IF Decoup.
C29	5000			BPD-5	D6-502	DD5D5	811-005	29C1	2nd V. IF Fil. Bypass
C30	100	500		1468-0001	D6-101	SW5T1	GP1K-100	1FM-31	IF Coupling
C31	5000			BPD-5	D6-502	DD5D5	811-005	29C1	3rd V. IF Cath. Byp.
C32	5000			BPD-5	D6-502	DD5D5	811-005	29C1	3rd V. IF Fil. Bypass
C33	5000			BPD-5	D6-502	DD5D5	811-005	29C1	3rd V. IF Decoupling
C34	100	500		1468-0001	D6-101	SW5T1	GP1K-100	1FM-31	IF Coupling
C35	120			GP120M	D6-121	SW5T1	GP2K-120	1FM-31	IF Coupling
C36	.01	600		P688-01	D6-103	PTE6S1	811-01	TM-11	AGC Decoupling
C37	5			GP5M	D2-5.7	SW5V5	GP1K-5	MS-55	V. Diode Filter
C38	5000			BPD-5	D6-502	DD5D5	811-005	29C1	V. Det.-AGC Fil. Byp.
C39	.1	600		P688-1		PTE6P1		TM-1	Bias Filter
C40	680			GP680M	D6-681	SW5T7	GP2K-680	1FM-37	V. Amp. Cath. Bypass
C41	470			GP470M	D6-471	SW5T5	GP2K-470	1FM-35	V. Amp. Cath. Bypass
C42	47	300		1469-00005	D2-47	5R5Q5	NPOM-50	MS-45	Fixed Trimmer
C43	47	300		1469-00005	D2-47	5R5Q5	NPOM-50	MS-45	Fixed Trimmer
C44	.1	600		P688-1		PTE6P1		TM-1	Video Coupling
C45	.1	600		P688-1		PTE6P1		TM-1	Pic. Tube Cath. Byp.
C46	39	500		1468-00004	D6-390	SW5Q4	GP1K-39	1FM-34	1st. IF Grid Filter
C47	.02	600		P688-02		PTE6S2		TM-12	1st. IF Cath. Bypass
C48	5000			BPD-5	D6-502	DD5D5	811-005	29C1	1st. IF Screen Byp.
C49	.02	600		P688-02		PTE6S2		TM-12	1st. IF Decoupling
C50	1000			GP1000M	D6-102	1W5D1	GP2L-001	1FM-21	Diode Load Cap.
C 51	3			CN3DNPO			NPOK-3		Balancing
C 52	2000			GP2000M		SW5V4		1FM-24	De-emphasis
C 53	.05	600		P688-05		PTE6S5		TM-15	Audio Coupling
C 54	.005	600		P688-005	D6-502	PTE6D5	811-005	TM-25	Audio Coupling
C55	.02	600		P688-02		PTE6S2		TM-12	Audio Coupling
C56	.05	600		P688-05		PTE6S5		TM-15	Bias Filter
C57	.01	600		P688-01	D6-103	PTE6S1	811-01	TM-11	Output Plate Bypass
C58	2000			GP2000M	D6-202	PTE6D2	GP2M-002	TM-22	Integrator Net.
C59	5000			GP5000M	D6-502	PTE6D5	811-005	TM-25	Integrator Net.
C60	5000			GP5000M	D6-502	PTE6D5	811-005	TM-25	Integrator Net.
C61	4700			GP4700M	D6-472	SW5D5	GP2M-0047	1FM-25	Vert. Osc. Grid Cap.
C62	.1	600		P688-1		PTE 6P1		TM-1	Vert. Discharge
C63	.25	600		684-25		GT6P25		TC-2	Vert. Sweep Coupling
C64	1000			GP1000M	D6-102	1W5D1	GP2L-001	1FM-21	Hor. Sync. Coupling

CAPACITORS (CONT.)

ITEM No.	RATING: CAP.	RATING: VOLT	REPLACEMENT DATA: MECK PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
C65	1000			GP1000M	D6-102	1W5D1	GP2L-001	1FM-21	Hor. Sync. Coupling
C66	.005	600		P688-005	D6-502	PTE6D5	811-005	TM-25	AFC Filter
C67	.05	600		P688-05		PTE6S5		TM-15	AFC Filter
C68	.05	600		P688-05		PTE6S5		TM-15	Hor. Feedback
C69	.01	600		P688-01	D6-103	PTE6S1	811-01	TM-11	Voltage Divider
C70	3900	500							Fixed Trimmer
C71	330	500		1468-0003	D6-331	5W5T3	GP2K-330	1FM-335	Hor. MV Feedback †
C72	430	500		1469-0004		5R5T4		MS-34	Hor. Discharge
C73	270	500		1468-00025	D6-271	5W5T25	GP2K-270	1FM-325	Hor. Sweep Coupling
C74	13	1500							Hor. Feedback
C75	.05	600		P688-05		PTE6S5		TM-15	Hor. Output Screen Byp.
C76	.25	600		684-25		GT6P25		TC-2	Hor. Output Cath. Byp.
C77	.1	600		P688-1		PTE6P1		TM-1	Damper Filter *
C78	.035	600		P688-035					Damper Filter
C79	.25	600		684-25		GT6P25		TC-2	Hor. Sweep Coupling
C80	500	15000			TV2-500				HV Filter
C81	.01	600		P688-01	D6-103	PTE6S1	811-01	TM-11	Line Filter
C82	.01	600		P688-01	D6-103	PTE6S1	811-01	TM-11	Line Filter
C83	.05	600		P688-05		PTE6S5		TM-15	Fixed Trimmer *
C84	.01	600		P688-01	D6-103	PTE6S1	811-01	TM-11	Sync. Coupling *
C85	22	500		1468-00025	D6-250	SW5Q25	GP1K-22	MS-425	Sync. Clipper Plate Byp. *

* Not used in all models.
† Some models use 370MMF in this application.

CONTROLS

ITEM No.	RATING: RESISTANCE	RATING: WATTS	REPLACEMENT DATA: MECK PART No.	IRC PART No.	CLAROSTAT PART No.	CENTRALAB PART No.	INSTALLATION NOTES
R1A	250KΩ	½	VC-12119A	Q13-130	M-64-Z	B-51-S	Volume control
B	Switch		Not Req.	76-1	SW-A	Not Req.	Attach to R1A per instructions
R2A	750Ω	½	VC-12118			SBBT-564	Contrast control-panel-tapped at 500Ω
B	100KΩ						Brightness control-rear
R3A	2 Meg.	½	VC-12117	Bll-139 *		SBB-559	Vert. hold control-panel
B	50KΩ			Bll-123 *			Horiz. hold control-rear
C	Shaft End			E-202 *			Attach per instr. in "Concentrikit".
R4A	2.5 Meg.	½	VC-12121	Q11-239	AM-84-S	AN-83	Height control
B	Shaft		Not Req.	RQ	KSS-3 #	AK-1	Attach to R4A per instructions
R5A	5000Ω	½	VC-12120	Q11-114	AM-19-S	AN-10	Vert. linearity control
B	Shaft		Not Req.	RQ	KSS-3 #	AK-1	Attach to R5A per instructions
R6	1500Ω	4	VC-12122		10-1500 #	SVS-928	Focus control-Wire Wound

* Additional parts to be used with "Concentrikit".
\# File slot in shaft to duplicate original.

RESISTORS

ITEM No.	RATING: RESISTANCE	RATING: WATTS	REPLACEMENT DATA: MECK PART No.	IRC PART No.	IDENTIFICATION CODES ALL RESISTORS ARE ± 20% UNLESS OTHERWISE STATED.
R7	1000Ω 10%			BTS-1000	RF Grid
R8	4700Ω 10%				RF Screen
R9	270KΩ			BTS-270K	Conv. Coil Shunt
R10	15KΩ				Conv. Plate
R11	22KΩ				Osc. Grid
R12	4700Ω 10%				Osc. Plate
R13	100Ω				Decoupling
R14	100Ω				Decoupling-See Note 1
R15	8200Ω				1st Video IF Grid
R16	82Ω				1st Video IF Cathode
R17	100Ω				1st Video IF Decoupling
R18	330Ω				AGC Network
R19	22KΩ				2nd Video IF Grid
R20	82Ω				2nd Video IF Cathode
R21	100Ω				2nd Video IF Decoupling
R22	1 Meg.			BTS-1 Meg.	AGC Network
R23	8200Ω				3rd Video IF Coil Shunt
R24	82Ω				3rd Video IF Cathode
R25	100Ω				3rd Video IF Decoupling
R26	680KΩ			BTS-680K	AGC Rect. Diode Load
R27	39KΩ	1		BTA-39K	Voltage Divider
R28	1000Ω			BTS-1000	Bias Network
R29	8200Ω			BTS-8200	Video Det. Diode Load
R30	120Ω				Parasitic Supp.
R31	27KΩ	4			Video Amp. Plate-See Note 2
R32	22KΩ	3			Video Amp. Screen-See Note 3
R33	22KΩ	1		BTA-22K	Voltage Divider
R34	5600Ω	1		BTA-5600	Voltage Divider
R35	2200Ω			BTS-2200	Picture Tube Grid
R36	270KΩ			BTS-270K	DC Rest. Load
R37	47KΩ			BTS-47K	DC Rest. Load-See Note 1
R38	820KΩ			BTS-820K	Voltage Divider-See Note 4
R39	1 Meg.			BTS-1 Meg.	Sync. Sep. Grid-See Note 1
R40	3900Ω			BTS-3900	Sync. Sep. Cathode
R41	3900Ω			BTS-3900	Sync. Sep. Plate-See Note 5
R42	4700Ω			BTS-4700	Sync. Sep. Plate-See Note 1
R43	3900Ω			BTS-3900	Sync. Sep. Plate
R44	100KΩ			BTS-100K	Acc. Anode Decoupling
R45	220KΩ			BTS-220K	Voltage Divider
R46	10KΩ			BTS-10K	Voltage Divider
R47	47KΩ				Sound IF Grid-See Note 6
R48	1000Ω				Sound IF Cathode
R49	39KΩ				Sound IF Screen
R50	1000Ω			BTS-1000	Sound IF Decoupling
R51	12KΩ			BTS-12K	Voltage Divider
R52	6800Ω			BTS-6800	Ratio Det. Diode Load
R53	6800Ω			BTS-6800	Ratio Det. Diode Load
R54	15KΩ			BTS-15K	De-emphasis
R55	470KΩ			BTS-470K	AF Amp. Grid
R56	330KΩ			BTS-330K	AF Amp. Plate
R57	100KΩ			BTS-100K	Output Grid
R58	330KΩ 5%			BTS-330K-5%	Voltage Divider

RESISTORS (CONT.)

ITEM No.	RATING: RESISTANCE	RATING: WATTS	REPLACEMENT DATA: MECK PART No.	IRC PART No.	IDENTIFICATION CODES
R59	180KΩ 5%			BTS-180K-5%	Voltage Divider
R60	4700Ω			BTS-4700	Voltage Divider
R61	470KΩ 10%			BTS-470KΩ	Voltage Divider
R62	390Ω			BTA-390	Filter
R63	22KΩ			BTS-22K	Integrator Network
R64	8200Ω			BTS-8200	Integrator Network
R65	8200Ω			BTS-8200	Integrator Network
R66	1 Meg.			BTS-1 Meg.	Vert. Osc. Grid-See Note 7
R67	1 Meg.			BTS-1 Meg.	Vert. Osc. Plate
R68	6.8 Meg.			BTS-6.8 Meg.	Voltage Divider
R69	100KΩ			BTS-100K	Voltage Divider
R70	560Ω			BTS-560	Vert. Amp. Cathode
R71	2.2 Meg.			BTS-2.2 Meg.	Vert. Amp. Grid
R72	6800Ω			BTS-6800	Vert. Amp. Decoupling-See Note 8
R73	3300Ω			BTS-3300	Vert. Peaking
R74	100KΩ			BTS-100K	Horiz. Phase Det. Load
R75	100KΩ			BTS-100K	Horiz. Phase Det. Load
R76	4.7 Meg.			BTS-4.7 Meg.	Horiz. Phase Det. Load
R77	27KΩ			BTS-27K	Feedback Network
R78	4700Ω			BTS-4700	Feedback Network
R79	470KΩ			BTS-470K	Horiz. AFC Filter Network
R80	1500Ω			BTS-1500	Horiz. Osc. Cathode
R81	5600Ω			BTS-5600	Horiz. Osc. Plate
R82	100KΩ			BTS-100K	Horiz. Osc. Grid
R83	220KΩ 10%			BTS-220K	Horiz. Osc. Plate-See Note 9
R84	22KΩ	1		BTA-22K	Filter
R85	56KΩ			BTS-56K	Decoupling
R86	68Ω				Parasitic Supp.
R87	1 Meg.			BTS-1 Meg.	Horiz. Output Grid
R88	82Ω	1		BW-1-82	Horiz. Output Cathode
R89	8200Ω	2		BT-2-8200	Horiz. Output Screen-See Note 11
R90	6000Ω 10%	20		DG-6000	Damper Filter-Wire Wound
R91	3.3Ω	½			HV Rect. Filament
R92	1 Meg.	1			HV Filter
R93	15Ω	2		BW-½-15	Bias Network
R94	270Ω	2		BW-2-270	Focus Coil Shunt-See Note 10
R95	22KΩ	2		BW-2-22K	Voltage Dropping-See Note 1

Note 1. Not used in all models.
Note 2. Some models use two 56KΩ, 2 watt resistors in parallel to obtain required resistance and wattage.
Note 3. Some models use a 43KΩ, 2 watt and a 56KΩ 2 watt resistors in parallel to obtain required resistance and wattage.
Note 4. Some models use 1 Meg. resistor in this application.
Note 5. Some models use 22KΩ resistor in this application.
Note 6. Some models use 470KΩ resistor in this application.
Note 7. Some models use 680KΩ resistor in this application.
Note 8. Models using 16" picture tube use 270Ω resistor in this application.
Note 9. Some models use 270KΩ resistor in this application.
Note 10. Some models use 330Ω resistor in this application.
Note 11. Models using 16" picture tube use 6800Ω resistor in this application.

TRANSFORMER (POWER)

ITEM No.	RATING: PRI.	RATING: SEC. 1	RATING: SEC. 2	RATING: SEC. 3	REPLACEMENT DATA: MECK PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.
T1	117VAC @ 1.7A	720VCT .200ADC	5VAC @ 3A	6.3VAC @ 6A SEC. 1 6.3VAC @ 2.7A	TP-10003			

TRANSFORMER (SWEEP CIRCUITS)

ITEM No.	RATING: DC RESISTANCE PRI.	RATING: DC RESISTANCE SEC.	REPLACEMENT DATA: MECK PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	NOTES
T2A	200Ω	1000Ω	TOA-10030 ⑤	A-8311 ④	A-3000 ④	TF30-1 ⑤	Vert. Block Osc. Trans.
B	230Ω	800Ω	TO-10022 ⑤	A-8321	A-4000	TF30-1 ④	Vert. Block Osc. Trans.
T3A	385Ω	13.6Ω Tap @ .5Ω	TO-10020 ⑥	A-8328	HVO-3	TF8-3	Hor. Output Trans.
	125Ω	SEC. 2 .5Ω					
B	295Ω	11Ω Tap @ .5Ω	TO-10028 ⑦				Hor. Output Trans.
	102Ω	SEC. 2 .1Ω					
T4A	760Ω	8Ω	TO-10021-D ⑩	A-8113	A-3036	TSO-5 ④	Vert. Output Trans.
B	560Ω	7Ω	TO-10021 ⑩	A-8116	A-3035 ③ MD-3	TSO-4 ③	Vert. Output Trans.
T5A	14Ω		TO-10026	DY-1			Horiz. Deflection Coil
B	62Ω						Vert. Deflection Coil
T6	255Ω		TO-10025	FC-10	MF-1		Focus Coil

④ Drill one new mounting hole.
⑤ Either T2A or T2B may be used in this application.
⑥ Used in 10" and 12" models.
⑦ Used in 16" models.
③ Drill new mounting holes.
⑩ Either T4A or T4B may be used.