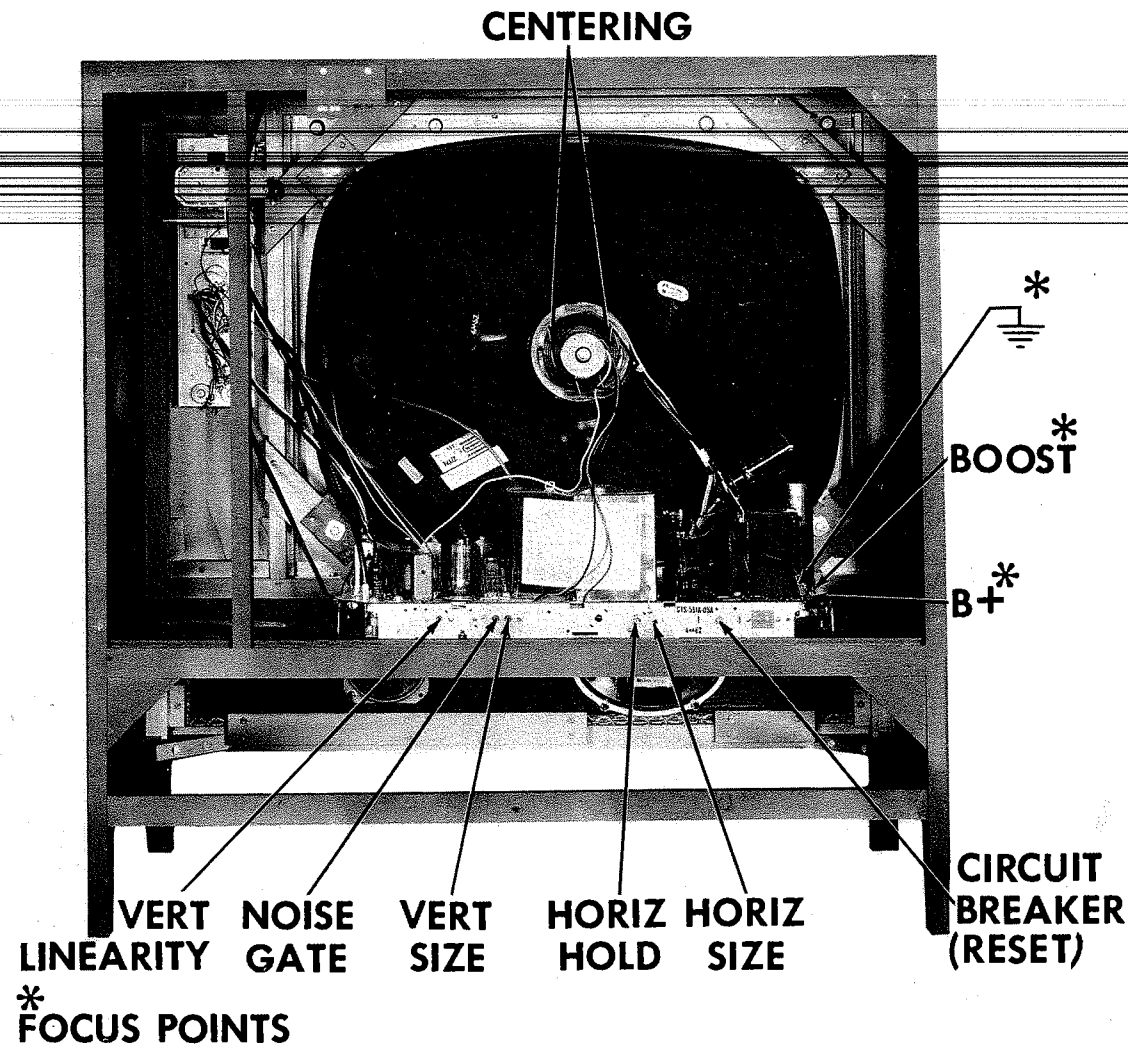


SET 612 FOLDER 2

MOTOROLA CHASSIS
TS-581, TS-581Y SERIES

PHOTOFACT® Folder

MOTOROLA CHASSIS
TS-581, TS-581Y SERIES



CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

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

Set the Brightness and Contrast for a normal picture.

Turn the Horiz. Hold (Osc. Coil Slug) clockwise until the picture loses sync. It may be necessary to switch off channel and back again for picture to lose sync.
- Turn the Horizontal Hold slowly counterclockwise until the picture just falls into sync.

Adjust Horizontal Size for a picture slightly wider than necessary to fill picture mask horizontally.

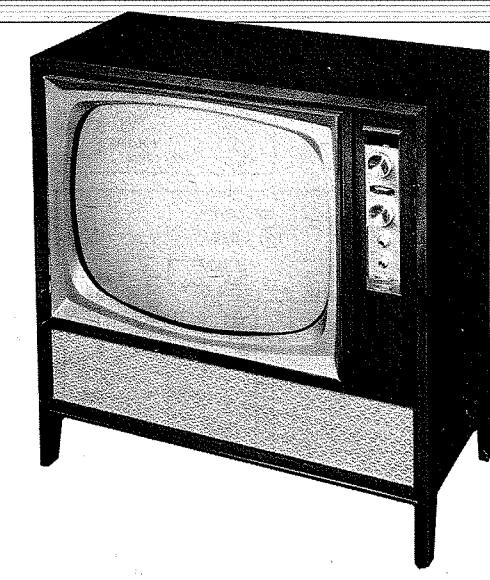
DISASSEMBLY INSTRUCTIONS

- CHASSIS REMOVAL**

 1. Remove rear cover (12 screws). Remove knobs from front.
 2. Remove 4 screws holding VHF Tuner and Control bracket.
 3. Remove 4 bolts at bottom of cabinet holding chassis.
4. Disconnect yoke, picture tube socket, high voltage lead, and speaker leads.
 5. Remove chassis.

PICTURE TUBE REMOVAL

It is necessary to remove chassis for picture tube replacement.



MODEL 27K10M

IMPORTANT FILING NOTICE

Some models covered by this PHOTOFACT Folder employ chassis in addition to the TV chassis. PHOTOFACT Folders covering these additional chassis are packaged immediately behind this Folder and should be filed with this Folder in the yellow filing jacket provided. For specific coverage see index below.

INDEX

Remote Control TRR-1,
TRT-1, TRT-2 SET 612, FOLDER 2-A

TRADE NAME Motorola
MANUFACTURER Motorola Inc., 4545 W. Augusta Blvd., Chicago 51, Illinois
TYPE SET Television Receiver (Models A19T24AW/CH/E/G, A19T25AW/GR/WG with Remote Control)
TUBES TV: VHF - Seventeen, UHF - Eighteen
POWER SUPPLY 110 - 120 Volts AC, 60 Cycle RATING TV Ch: 200 Watts, 1.9 Amp. @117 Volts AC
TUNING RANGE Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)

Models	TV Chassis	VHF Tuner	UHF Tuner
*A19T24AW/CH/E/G, A19T25AW/GR/WG...	ADTS-581.....	RTT-308 or RTT-323	
23T15BR.....	CETS-581.....	WTT-300 or WTT-319	
19T20E/G, 19T21BE/BEL/J/JL.....	CDTS-581.....	WTT-300† or WTT-319†	
19T22AW/GR/WG.....	DTS-581.....	TT-305 or TT-320	
23T16B/CW/M/W.....	DETS-581.....	WTT-305 or WTT-320	
27K10M/W, 27K11M/W.....	GTS-581.....	PTT-307 or PTT-322	
19T20EL/GL.....	KDTS-581.....	STT-311 or STT-327	
23T15BRL.....	KETS-581.....	STT-311 or STT-327	
Y19T20E/G, Y19T21BE/J.....	CDTS-581Y.....	WTT-305Y or WTT-320Y.....	ZTT-601
Y23T15BR.....	CETS-581Y.....	WTT-305Y or WTT-320Y.....	LTT-601
Y19T22AW/GR/WG.....	DTS-581Y.....	TT-305Y or TT-320Y.....	ZTT-601
Y23T16B/CW/M/W.....	DETS-581Y.....	WTT-305Y or WTT-320Y.....	LTT-601
Y27K10M/W, Y27K11M/W.....	GTS-581Y.....	PTT-307Y or PTT-322Y.....	KTT-601

* With Remote Control
† Models 19T21JL/BEL Use STT-311 or STT-327

Chassis Codes A-00, A-01, A-02, A-05

SERVICING IN THE FIELD - PAGE 3

HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana



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 LA757

part listed. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. ©1963 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana.

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MOTOROLA CHASSIS
TS-581, TS-581Y SERIES

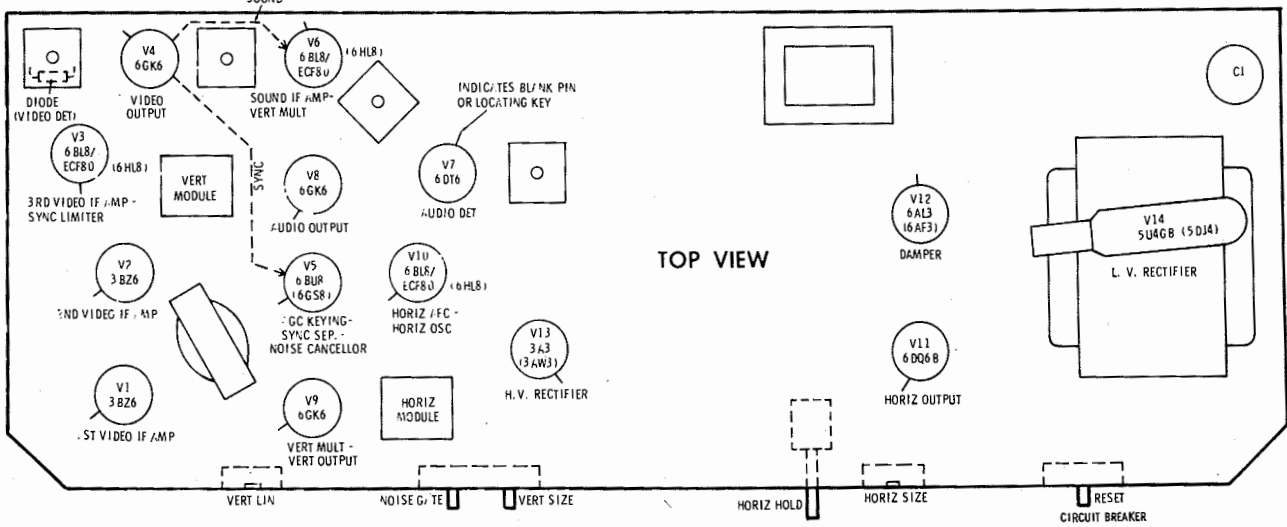
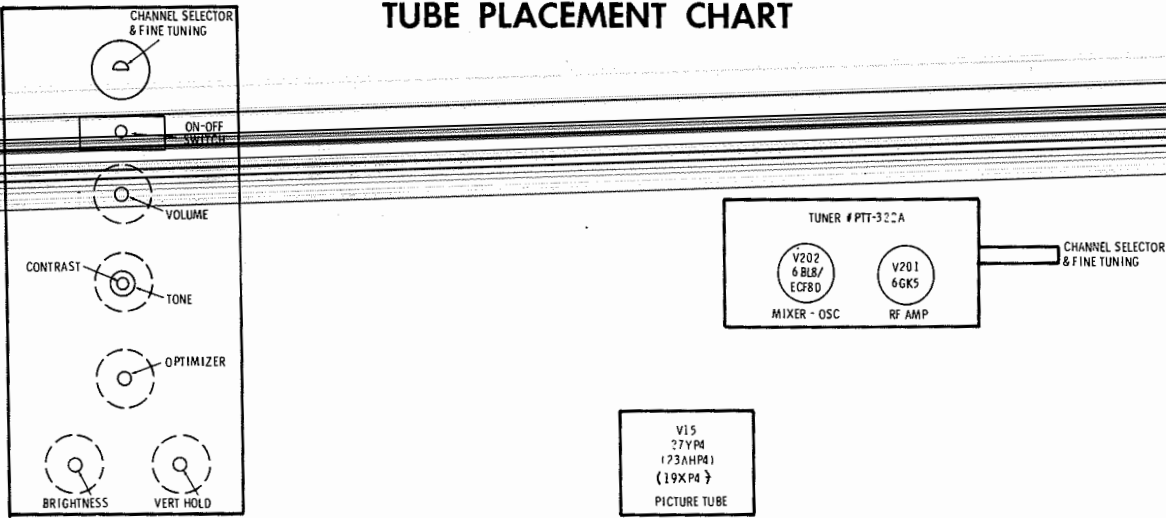
SET 612 FOLDER 2

RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	3BZ6	700K	68Ω	FIL	FIL	1000Ω	1000Ω	0Ω		
V2	3BZ6	100K	120K	FIL	FIL	1100Ω	1100Ω	100K		
V3	6BL8 ECF80	117K	.1Ω	16300Ω	FIL	FIL	16300Ω	150Ω	0Ω	56K
V4	6GK6	4Ω	1500Ω	0Ω	FIL	FIL	NC	15600Ω	16000Ω	0Ω
V5	6BU8	13000Ω	182Ω	2.5meg	FIL	FIL	139K	1meg	13meg	13.8meg
V6	6BL8 ECF80	14.7meg	820K	1156K	FIL	FIL	1156K	0Ω	0Ω	900K
V7	6DT6	3.5Ω	560Ω	FIL	FIL	12meg	16000Ω	560K		
V8	6GK6	270Ω	500K	0Ω	FIL	FIL	NC	1610Ω	15700Ω	0Ω
V9	6GK6	300Ω	1meg	0Ω	FIL	FIL	NC	1700Ω	1230Ω	0Ω
V10	6BL8 ECF80	1250K	600K	15700Ω	FIL	FIL	147K	2700Ω	0Ω	390K
V11	6DQ6B	TP	FIL	TP	17000Ω	1meg	TP	FIL	0Ω	TOP CAP 10.6Ω
V12	6AL3	NC	NC	NC	FIL	FIL	NC	NC	NC	183Ω
V13	3A3	PINS 1 THRU 8 HAVE INFINITE RESISTANCE								TOP CAP 550Ω
V14	5U4GB	TP	1900K	TP	20Ω	TP	20Ω	TP	1900K	
V15	27YP4	FIL	68K	NC	NC	NC	0Ω	Pin 10 1820K	Pin 11 250K	Pin 12 FIL
V201	6GK5	0Ω	3.5meg	FIL	FIL	110K	0Ω	0Ω		
V202	6BL8 ECF80	118K	150K	160K	FIL	FIL	16800Ω	0Ω	1200Ω	11K

THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
† MEASURED FROM PIN 2 OF V14.
‡ MEASURED FROM TOP CAP OF V12.
NC NO CONNECTION
TP TIE POINT
■ MEASURED FROM PIN 2 OF V2.
* VHF TUNER PTT-322.

TUBE PLACEMENT CHART



TUBE FAILURE CHECK CHART

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 M3, V14

SWEEP FAILURE
No raster, has sound V10, V11, V12, V13, V15
No vertical deflection V8, V9
Poor vert. linearity or foldover V8, V9
Poor horiz. linearity or foldover V10, V11, V12
Narrow picture V10, V11, V12, V14
Vert. off freq. V8, V9
Horiz. off freq. V10

LOSS OF PICTURE OR SOUND
No pic, no sound, has raster V1, V2, V3, Video Det. X1, V4
No pic, no sound, has snow V201, V202, V1
No pic, has sound, has raster V4, V15
Has pic, no sound V8, V7, V8
Overloaded picture V5

SYNC FAILURE
No vert. sync V3, V5
No horiz. sync V3, V5
No vert. or horiz. sync V3, V5

SERVICING IN THE FIELD

SAFETY GLASS REMOVAL

For picture tube and safety glass cleaning, it is necessary to remove the chassis. (See "Disassembly Instructions".)

FUSE OR FUSE DEVICE

A Circuit Breaker is used for low voltage power supply protection, and may be reset by depressing the reset button. (For location, see "Tube Placement Chart".)

TUNER OSCILLATOR ADJUSTMENT

Remove channel selector knob. Turn and remove insert behind knob to gain access to osc. slugs (1 for each channel).

AGC

No provision is made to vary the AGC on this receiver.

OPTIMIZER (VIDEO BANDPASS) CONTROL ADJUSTMENT

Adjust Brightness, Contrast, and Fine Tuning for best picture and sound. Starting with Optimizer at mechanical mid-range, adjust control for best picture (low resistance setting for strong areas, high resistance setting for weak signal areas).

FOCUS

The focus may be varied by connecting the lead from pin 6 (27" models), pin 4 (19" and 23" models) of the picture tube to various voltage points. (See photo "Cabinet-Rear View" for location.)

SYNC STABILITY

Sync stability may be varied by means of a Noise Gate control. (For location, see "Tube Placement Chart".)

HORIZONTAL OSCILLATOR FIELD ADJUSTMENTS

The Horizontal Oscillator Coil Slug is used for the horizontal hold.

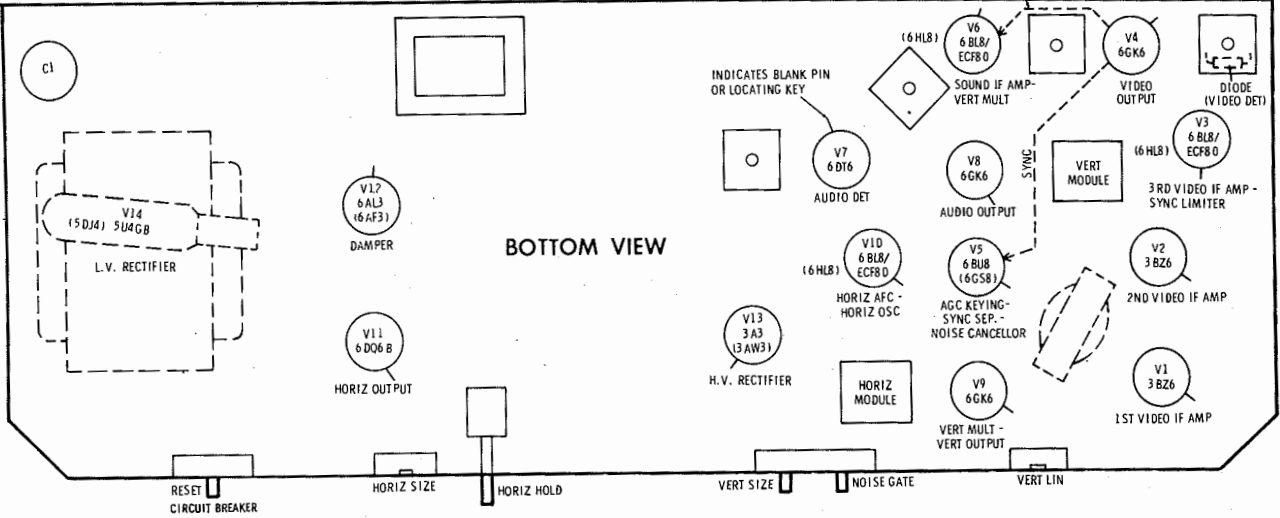
WIDTH

The width may be varied by a Horizontal Size Control. (See "Tube Placement Chart" for location.)

CENTERING

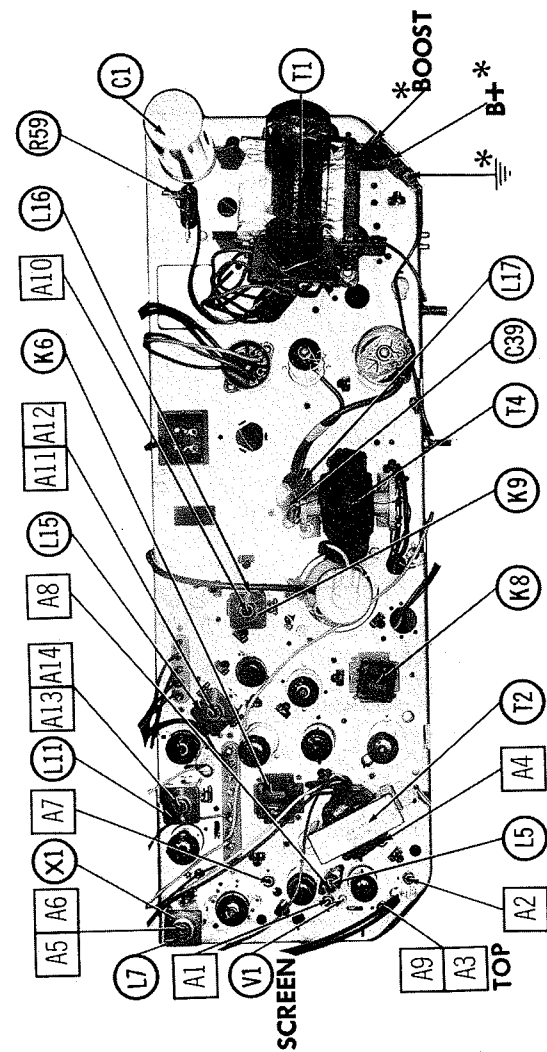
Centering is accomplished by 2 magnetic rings, located behind the yoke, on the neck of the picture tube.

TUBE PLACEMENT CHART



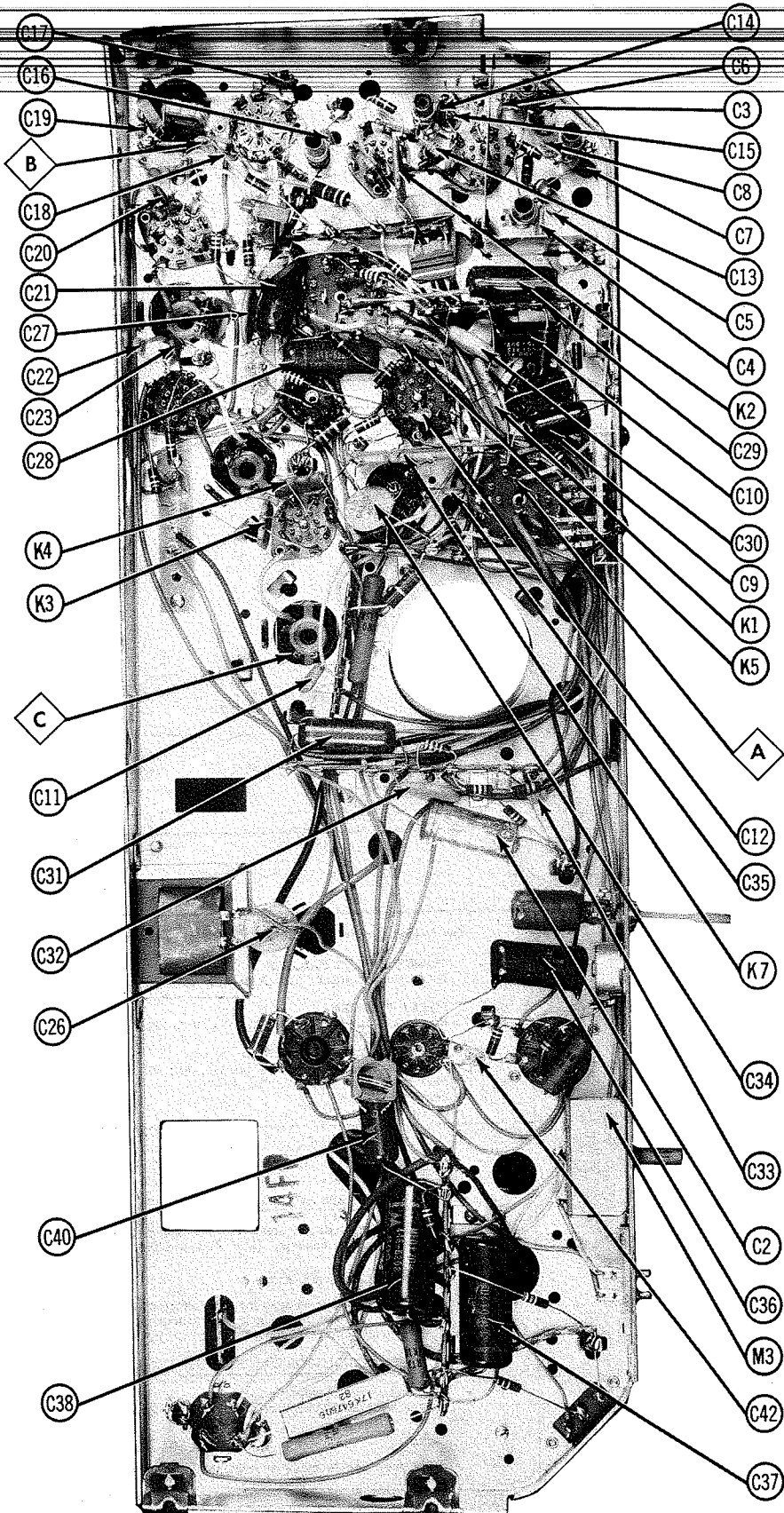
MOTOROLA CHASSIS
TS-581, TS-581Y SERIES

FOLDER 2

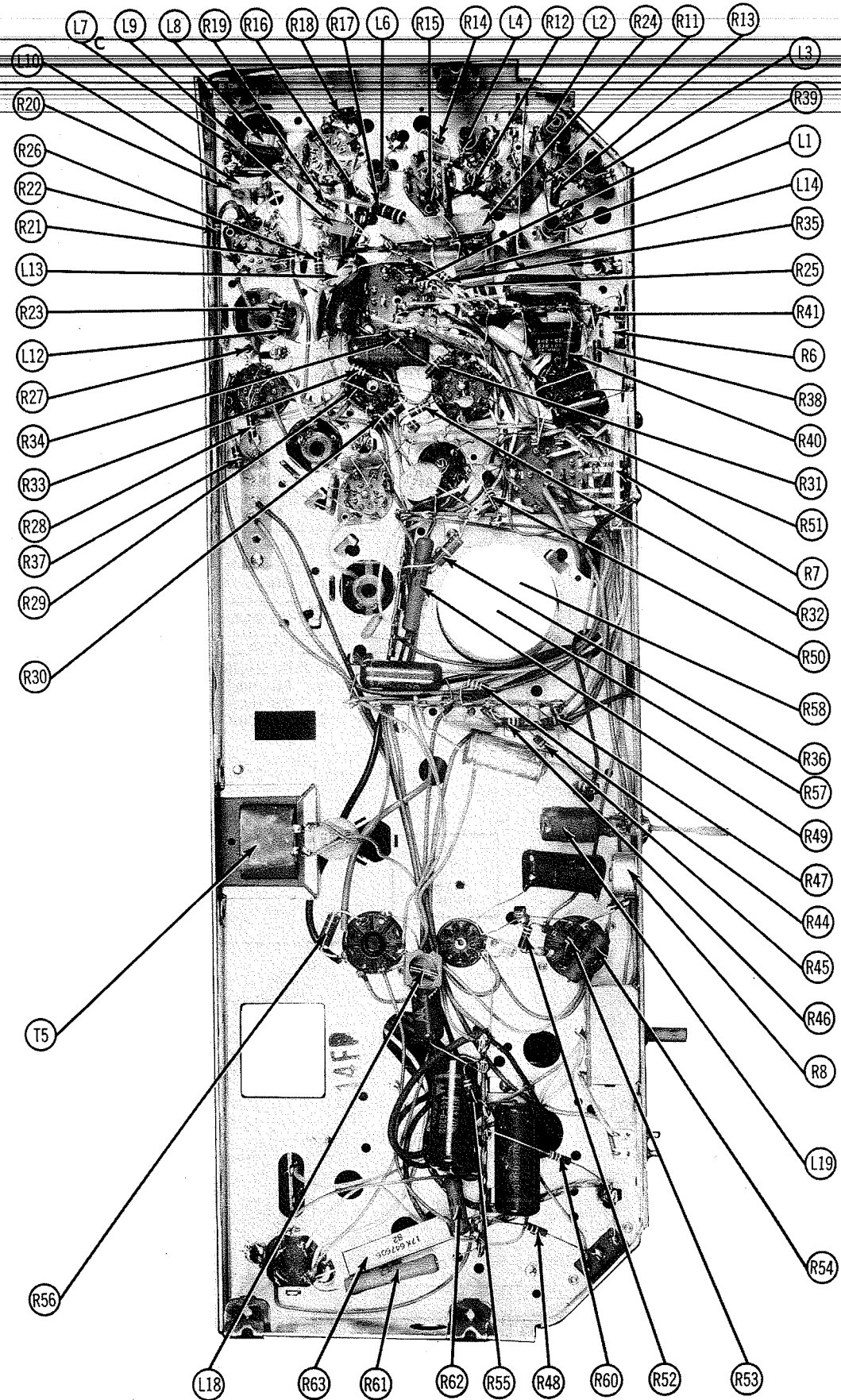


CHASSIS - TOP VIEW

* FOCUS POINTS



CHASSIS BOTTOM VIEW



MOTOROLA CHASSIS
TS-581, TS-581Y SERIES

FOLDER 2

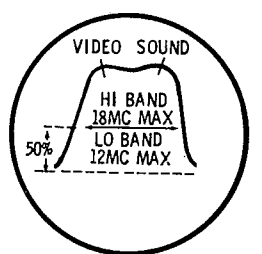
ALIGNMENT INSTRUCTIONS VHF TUNER RTT-308, RTT-323

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.

VHF RF AND MIXER ALIGNMENT

Connect the negative lead of a 4.5 volt bias supply to point \diamond . 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.
Coils not containing adjustable cores are adjusted by expanding or compressing coil turns.

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 \diamond . 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	 FIG. 201	A204	Adjust for maximum amplitude of response similar to Fig. 201. Adjust by expanding or compressing coil turns.
		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	
		171MC	169.25MC 173.75MC	6		A211	
		165MC	163.25MC 167.75MC	5		A212	
		159MC	157.25MC 161.75MC	4		A213	
		153MC	151.25MC 155.75MC	3		A214	
		147MC	145.25MC 149.75MC	2		A215	
		141MC	139.25MC 143.75MC	1			
		135MC	133.25MC 137.75MC				
		129MC	127.25MC 131.75MC				

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 (point \diamond).	A216	Adjust to place sound marker in trap notch as in Fig. 202. Video marker should fall at 50%.
		207MC	205.25MC 209.75MC	12		A217	
		201MC	199.25MC 203.75MC	11		A218	
		195MC	193.25MC 197.75MC	10		A219	
		189MC	187.25MC 191.75MC	9		A220	
		183MC	181.25MC 185.75MC	8		A221	
		177MC	175.25MC 179.75MC	7		A222	
		171MC	169.25MC 173.75MC	6		A223	
		165MC	163.25MC 167.75MC	5		A224	
		159MC	157.25MC 161.75MC	4		A225	
		153MC	151.25MC 155.75MC	3		A226	
		147MC	145.25MC 149.75MC	2		A227	
		141MC	139.25MC 143.75MC	1			
		135MC	133.25MC 137.75MC				
		129MC	127.25MC 131.75MC				

TUNER INPUT FILTER ALIGNMENT

Perform this step only if coils have been tampered with.
Connect a variable bias supply to the IF AGC line. Set bias to a point where the signal observed on scope is not pickup which has bypassed the input filter.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
Two 120 Ω Carbon Resistors	Across VHF antenna terminals with 120 Ω in each lead.	45MC (10MC Swp.)	45MC	Any non-interfering channel.	Vert. Amp. thru 47K to Video Detector load. Low side to chassis.	A228, A229	Adjust A228 for MINIMUM response at marker. (Adjust A229 only if obvious tampering is evident.) Increase bias, then readjust A228 only for MINIMUM response. Repeat until the MINIMUM possible output is obtained.

ALIGNMENT INSTRUCTIONS

PREALIGNMENT 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: A1 thru A14 GENERAL CEMENT #8282, 8606, 8606L, 9295, 9440
WALSCO #2526, 2543, 2544, 2545
Mixer Plate Coil GENERAL CEMENT #9296, 9297
WALSCO #2546, 2547

VIDEO IF ALIGNMENT

Use only enough generator output to provide a usable indication.
Disable oscillator grid by removing a pin of a test tube.
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.
Connect variable bias to point \diamond . Adjust bias to obtain response curve which shows no indication of overloading.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1. High side to ungrounded tube shield over Mixer-Osc. Low side to chassis.		47.25MC	Any non-interfering channel	Connect high side of VTVM thru a 47K Resistor to Point \diamond . Common to ground.	A1, A2	Detune A1 and adjust A2 for MINIMUM. Adjust A1 for MINIMUM. (It may be necessary to disable AGC.)
2. "		41.25MC	"	"	A3	Adjust for MINIMUM deflection.
3. "		39.75MC	"	"	A4	Adjust for MINIMUM deflection.
4. High side to Pin 2 (grid) of V3. Low side to ground.	44MC (10MC Sweep)	41.25MC 45.75MC	"	CONNECT SCOPE Connect Vert. Input of Scope to Point \diamond . Low side to ground.	A5, A6	Adjust for maximum amplitude and MINIMUM tilt with markers as shown in Fig. 1.
5. High side to ungrounded tube shield over Mixer-Osc. Low side to chassis.	"	39.75MC 41.25MC 42.25MC 43.25MC 45.0MC 45.75MC 47.25MC	"	"	A7, A8, A9 and Mixer Plate Coil	Adjust for maximum amplitude and MINIMUM tilt with markers as shown in Fig. 2.

SOUND IF ALIGNMENT

Tune in a strong TV signal and adjust all controls for normal picture and sound. Connect the DC Probe of a VTVM to Point \diamond . Common to ground. Adjust A10 for maximum deflection choosing the one of two peaks that produces the highest voltage.
Disconnect antenna to produce a hiss in the sound. Adjust A11, A12, and A13 for maximum sound with MINIMUM distortion.

4.5MC TRAP ALIGNMENT

Tune in a strong TV signal and turn the Contrast Control fully clockwise. Adjust the Fine Tuning to bring in the 4.5MC beat interference into the picture. Adjust A14 for MINIMUM beat interference.

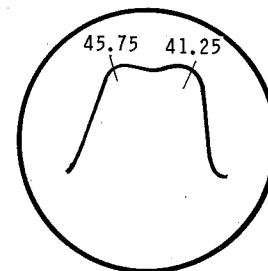


FIG. 1

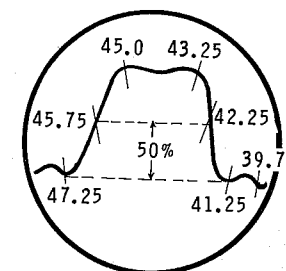
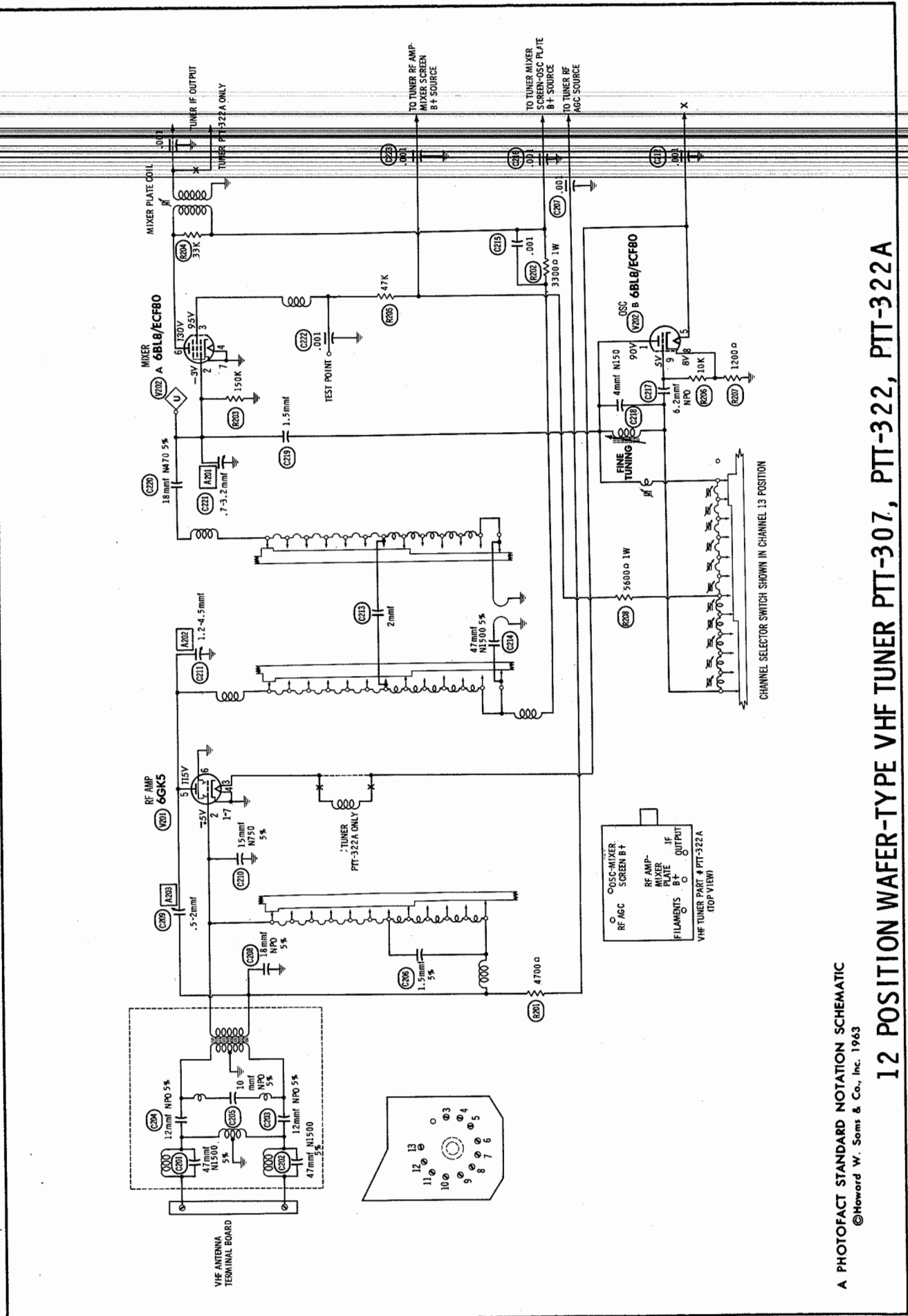


FIG. 2

MOTOROLA CHASSIS
TS-581, TS-581Y SERIES

FOLDER 2



VHF TUNER ALIGNMENT INSTRUCTIONS

PREALIGNMENT INSTRUCTIONS FOR VHF TUNERS WTT-300; WTT-319, A, B; STT-311; STT-327

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.

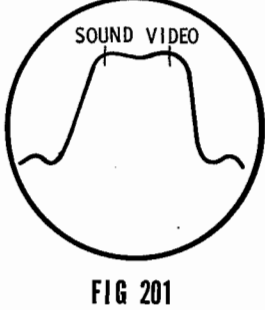
VHF OSCILLATOR ADJUSTMENT

Set Fine Tuning to center of its range. Starting with highest channel in area, adjust the appropriate oscillator screw for best picture and sound.

VHF RF MIXER ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.
Use only enough sweep generator output to provide a usable pattern on scope.
Use 10MC sweep unless otherwise noted.
Connect variable bias to IF AGC line. Adjust bias to obtain response curve which shows no indication of overloading.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. Across antenna terminal with 120Ω resistor in each lead.	213MC	211. 25MC 215. 75MC	13	Vert. Amp. thru Demodulator Probe to Point ①. Low side to chassis.	A201, A202	Spread or compress coils for maximum gain and symmetry of response similar to Fig. 201 with markers as shown. If necessary, make compromise adjustment for best picture and sound in all channels.
2. "	"	"	"	"	A203	Adjust for MINIMUM response on scope.
	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			



PREALIGNMENT INSTRUCTIONS FOR TUNERS WTT-305; TT-305; WTT-305Y; PTT-307, Y; WTT-320, Y; PTT-322, A; PTT-322Y; TT-320

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.

VHF OSCILLATOR ADJUSTMENT

Set Fine Tuning to center of its range. Starting with highest channel in area, adjust the appropriate oscillator screw for best picture and sound.

VHF RF MIXER ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.
Use only enough sweep generator output to provide a usable pattern on scope.
Use 10MC sweep unless otherwise noted.
Connect variable bias to IF AGC line. Adjust bias to obtain response curve which shows no indication of overloading.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. Across antenna terminal with 120Ω resistor in each lead.	195MC	193. 25MC 197. 75MC	10	Vert. Amp. thru Demodulator Probe to Point ①. Low side to chassis.	A201, A202	Adjust A201 and A202 for response similar to Fig. 201 with markers on shoulder of curve.
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 A203 with channel switch set to that channel. Check all other channels to see that they have not been seriously affected.
	207MC	205. 25MC 209. 75MC	12			
	201MC	199. 25MC 203. 75MC	11			
	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			



MOTOROLA CHASSIS
TS-581, TS-581Y SERIES

FOLDER 2

PARTS LIST AND DESCRIPTION

VHF TUNER PTT-322A

TUBES

AMPEREX		GENERAL ELECTRIC		RCA		RAYTHEON		SYLVANIA	
ITEM No.	USE	TYPE		ITEM No.	USE	TYPE		TYPE	
V201	RF Amp.	6GK5		V202	Mixer Osc.	6BL8/ECF80			

FIXED CAPACITORS

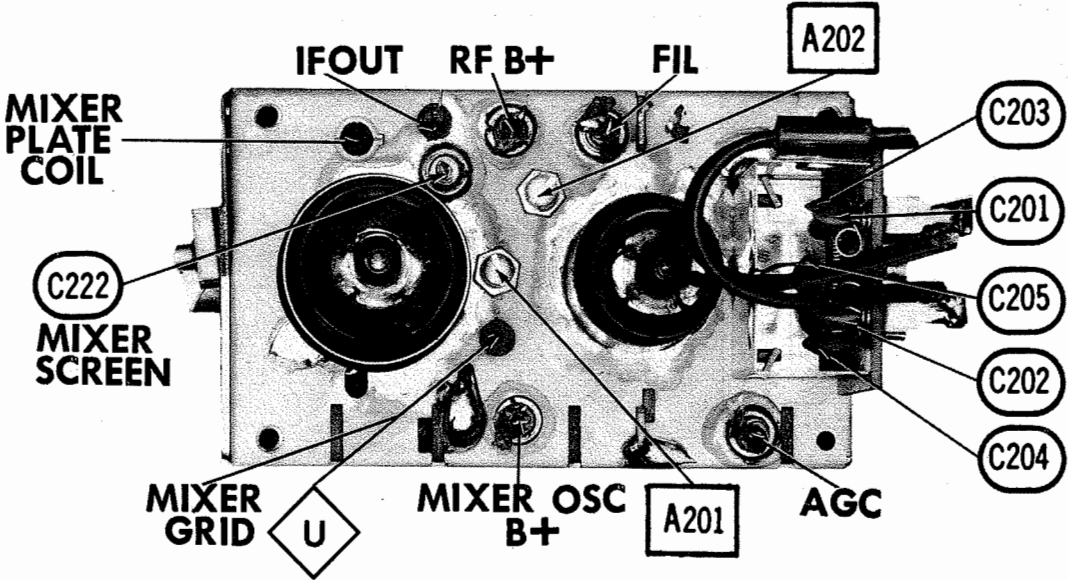
ITEM No.	RATING	REMARKS	REPLACEMENT DATA						
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMenco PART No.	MALLORY PART No.	SPRAGUE PART No.	
C201	47 N1500 5%			TCL-47		*	CNO-412	10TCC-Q12	
C202	47 N1500 5%			TCL-47		*	CNO-412	10TCC-Q12	
C203	12 NPO 5%			TCZ-12	C10Q12C		CNO-410	10TCC-Q10	
C204	12 NPO 5%			TCZ-12	C10Q12C		CNO-515	10TCC-V15	
C205	10 NPO 5%			TCZ-10	C10Q10C		CT280A	10TCC-Q18	
C206	1.5 5%			TCZ-1.5	C10Q15C		CT-565	10TCU-Q15	
C207	.001			MFT-1000		CCF-102	CNO-418	10TCC-V22	
C208	18 NPO 5%			TCZ-18	C10Q18C		CT-552	5HK-D10	
C209	.5-2			829-3		CV-1	CT280A	10TCC-V68	
C210	15 N750 5%			DTN-15	C10Q15U		CNO-568	10TCP-V50	
C211	1.2-4.5			829-6		CV-3	CNO-522	10TCC-V15	
C212	.001			MFT-1000		CCF-102			
C213	2			TCZ-2R2	C10V2C	CCTO-2R2			
C214	47 N1500 5%			TCL-47		*			
C215	.001			DD-102	BYA10D1	CCD-102	B-210		
C216	.001			MFT-1000		CCF-102	CT280A		
C217	6.2 NPO			DTZ-6.8	C10V68C	CCTO-6R8	CNO-515		
C218	4 N150					*			
C219	1.5			TCZ-1R5	C10V15C				
C220	18 N470 5%			829-4		CV-2	CT-551		
C221	.7-3.2			MFT-1000		CCF-102	CT280A		
C222	.001			MFT-1000		CCF-102	CT280A		
C223	.001								

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

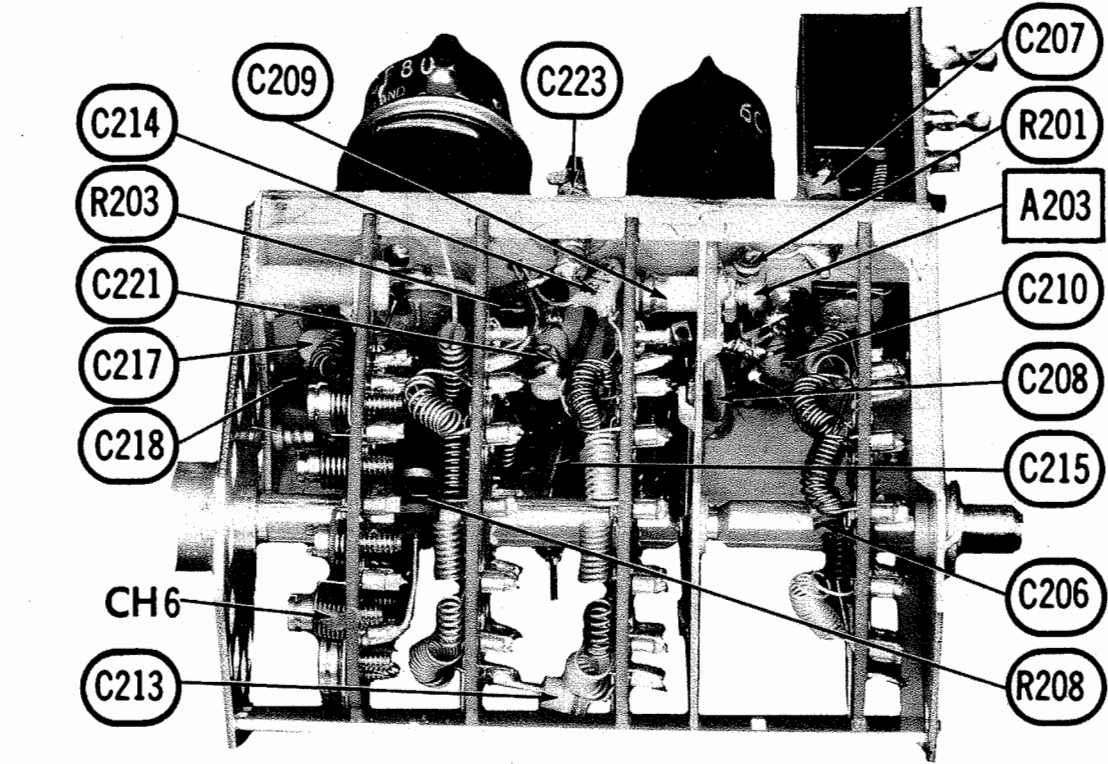
RESISTORS

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

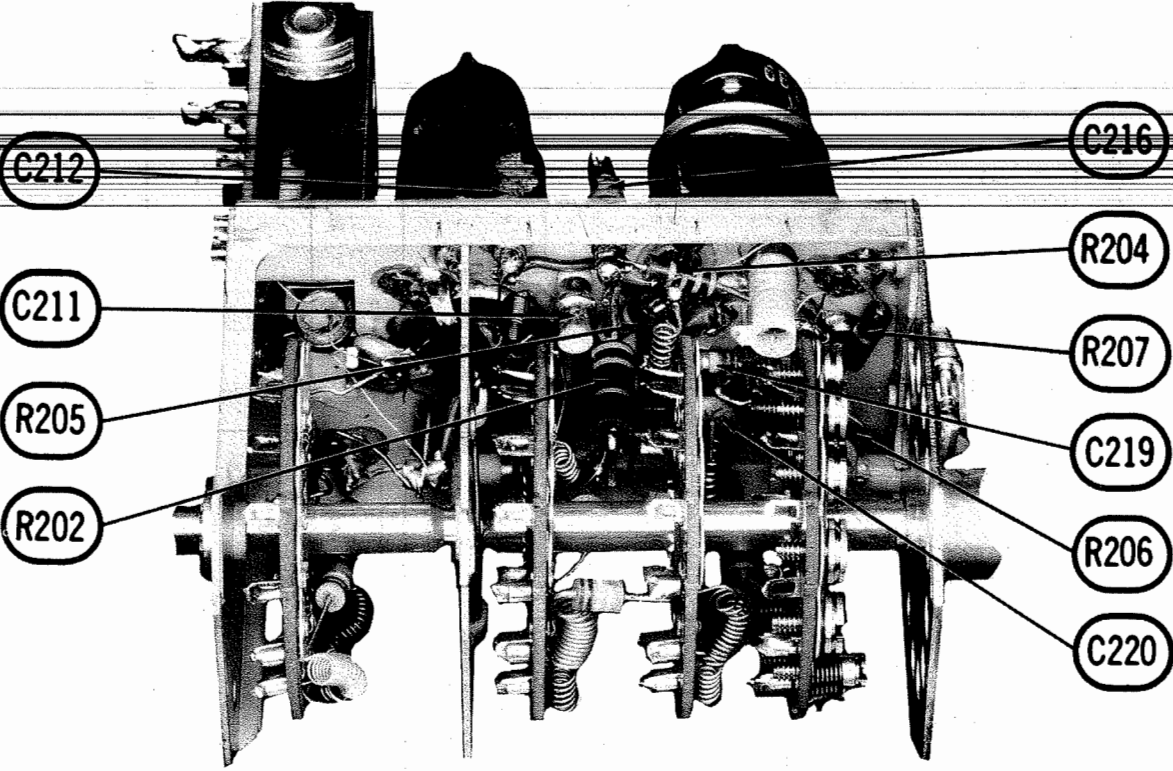
ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REMARKS			IRC PART No.	WORKMAN PART No.	REMARKS
R201	4700Ω				R205	47K			
R202	3300Ω 1W				R206	10K			
R203	150K				R207	1200Ω			
R204	33K				R208	5600Ω 1W			



VHF TUNER PTT-322A—TOP VIEW



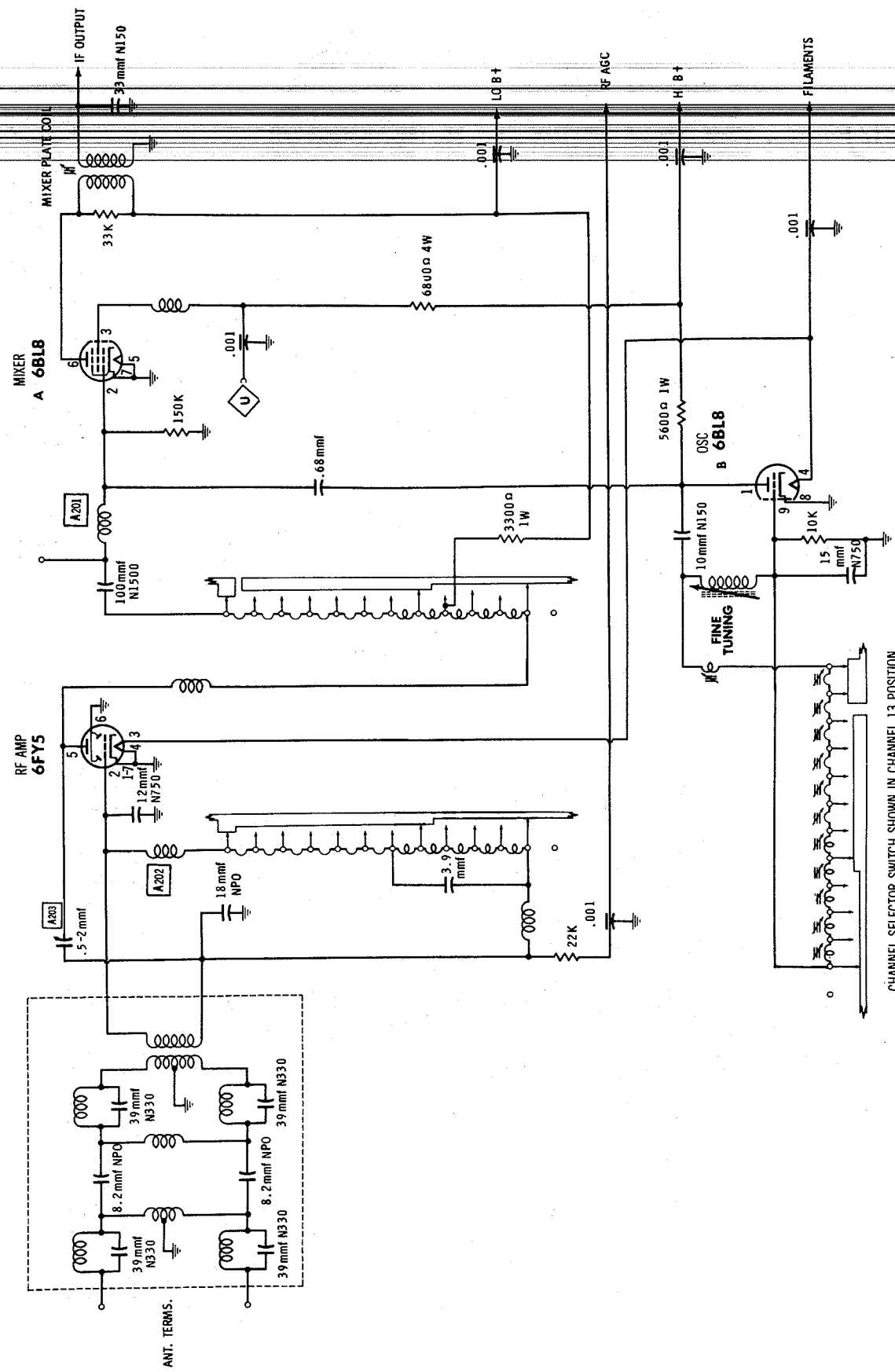
VHF TUNER PTT-322A — RIGHT SIDE



VHF TUNER PTT-322A — LEFT SIDE

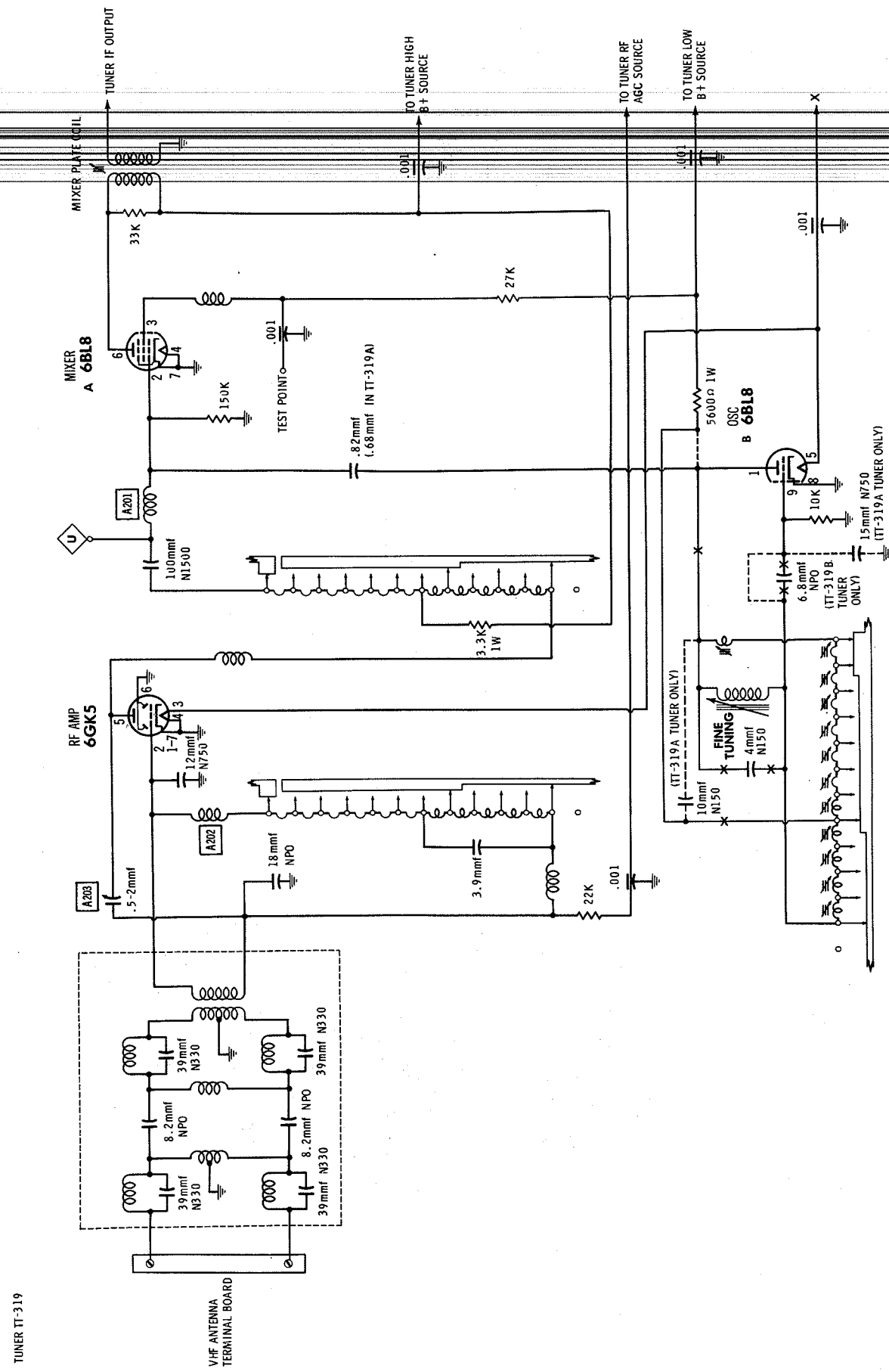
MOTOROLA CHASSIS
TS-581, TS-581Y SERIES

FOLDER 2



A PHOTOFACT STANDARD NOTATION SCHEMATIC
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12 POSITION WAFER-TYPE VHF TUNER WTT-300



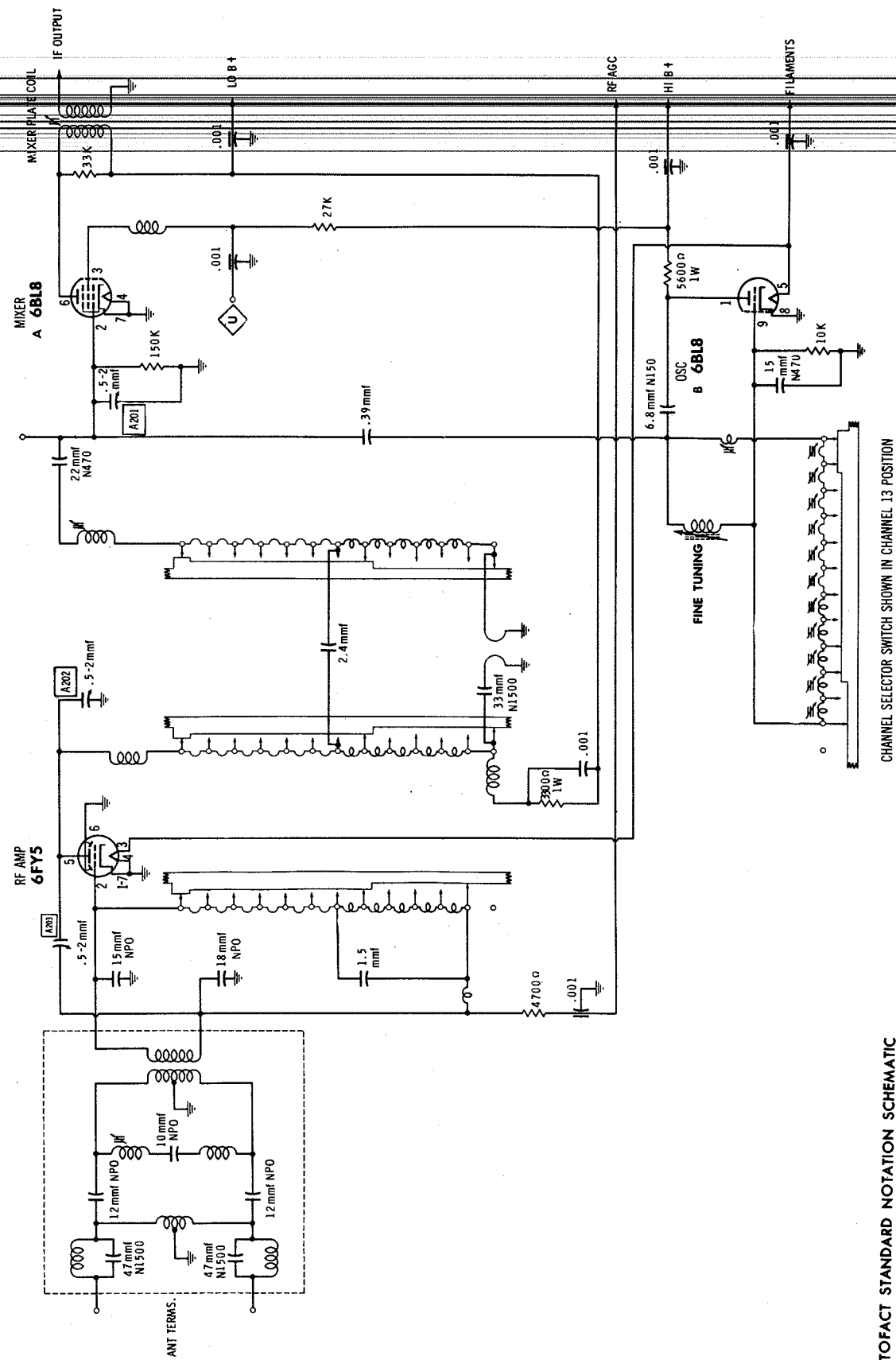
CHANNEL SELECTOR SWITCH SHOWN IN CHANNEL 13 POSITION

A PHOTOFACT STANDARD NOTATION SCHEMATIC
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12 POSITION WAFER-TYPE VHF TUNER WTT-319, A, B

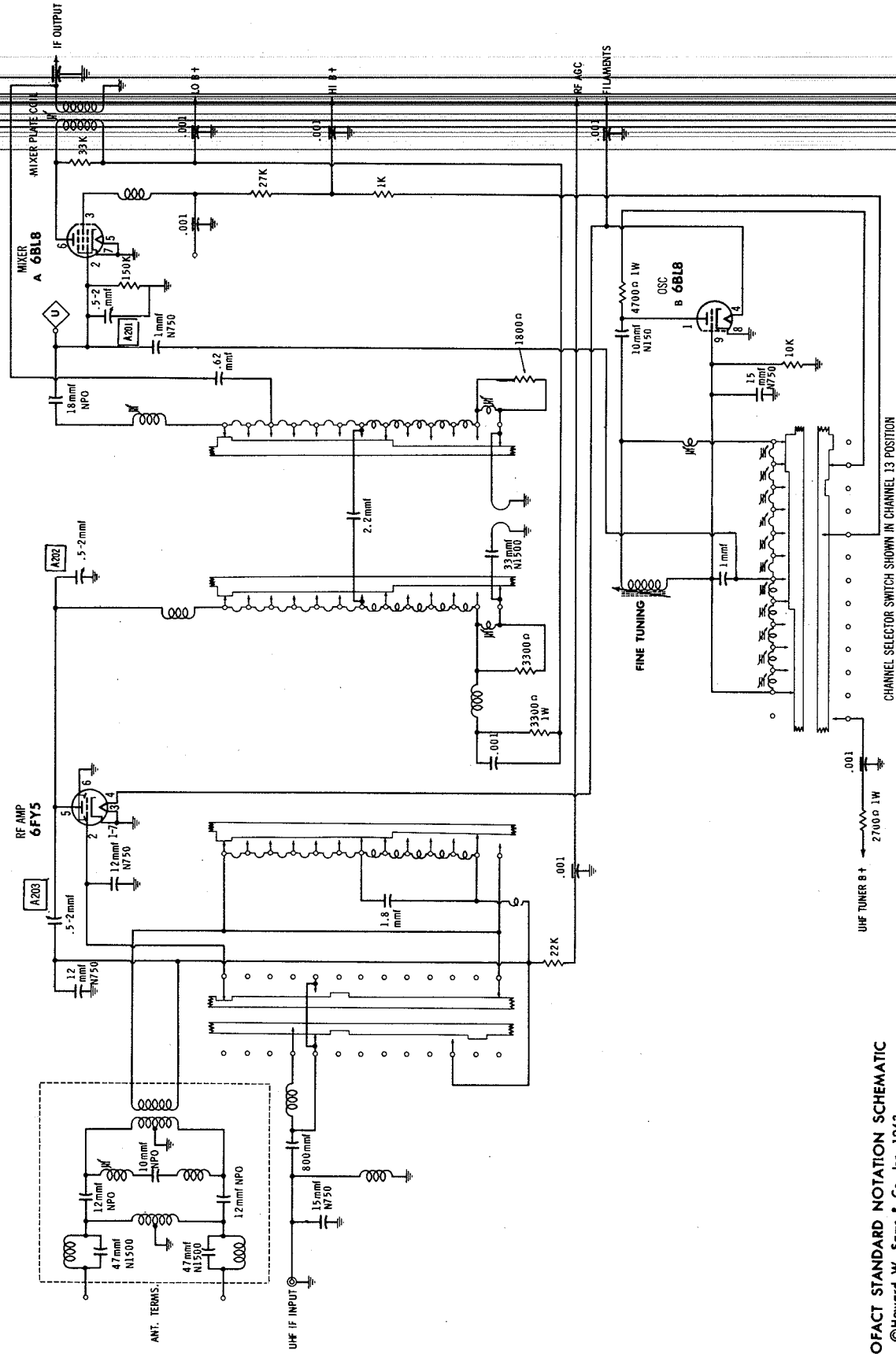
**MOTOROLA CHASSIS
TS-581, TS-581Y SERIES**

FOLDER 2



A PHOTOFACT STANDARD NOTATION SCHEMATIC
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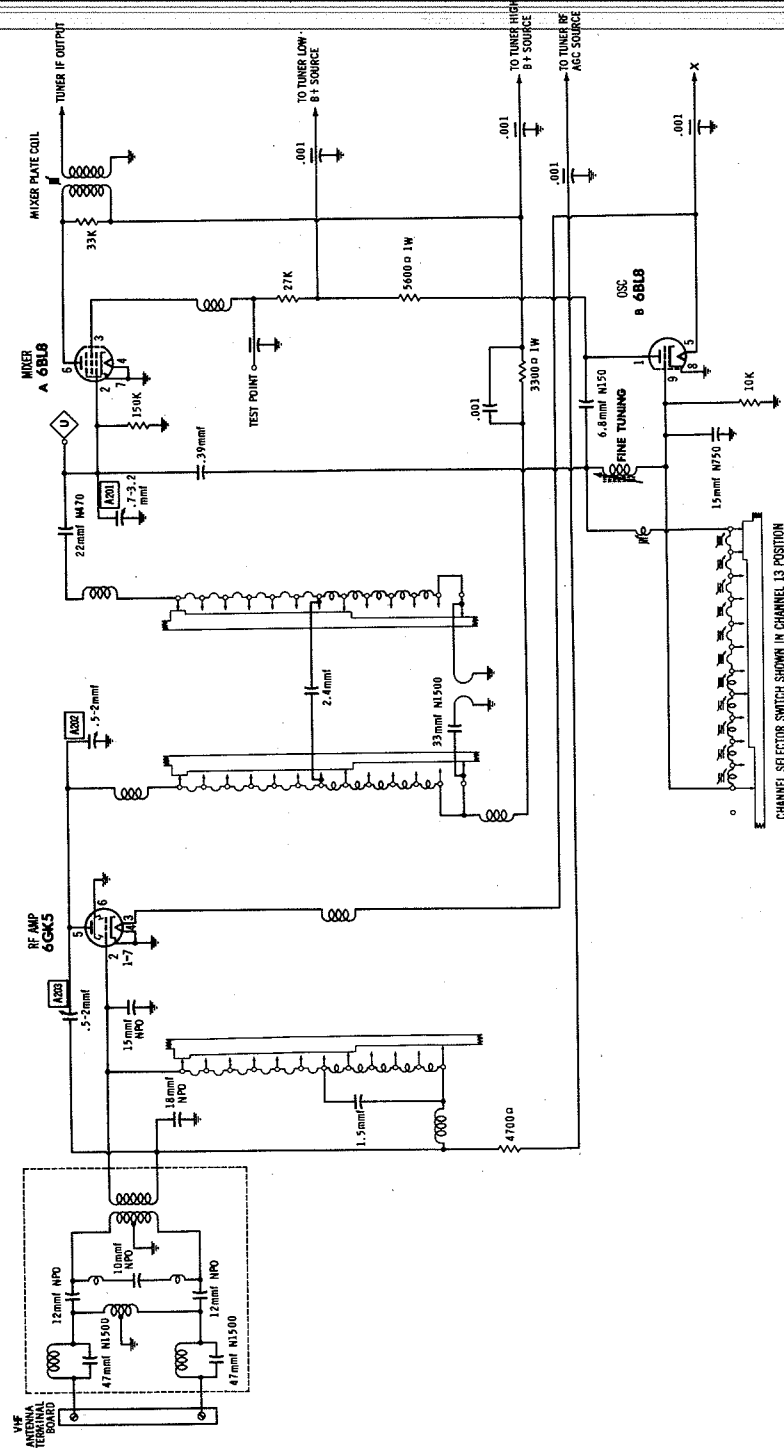
12 POSITION WAFER-TYPE VHF TUNER TT-305, WTT-305



A PHOTOFACT STANDARD NOTATION SCHEMATIC
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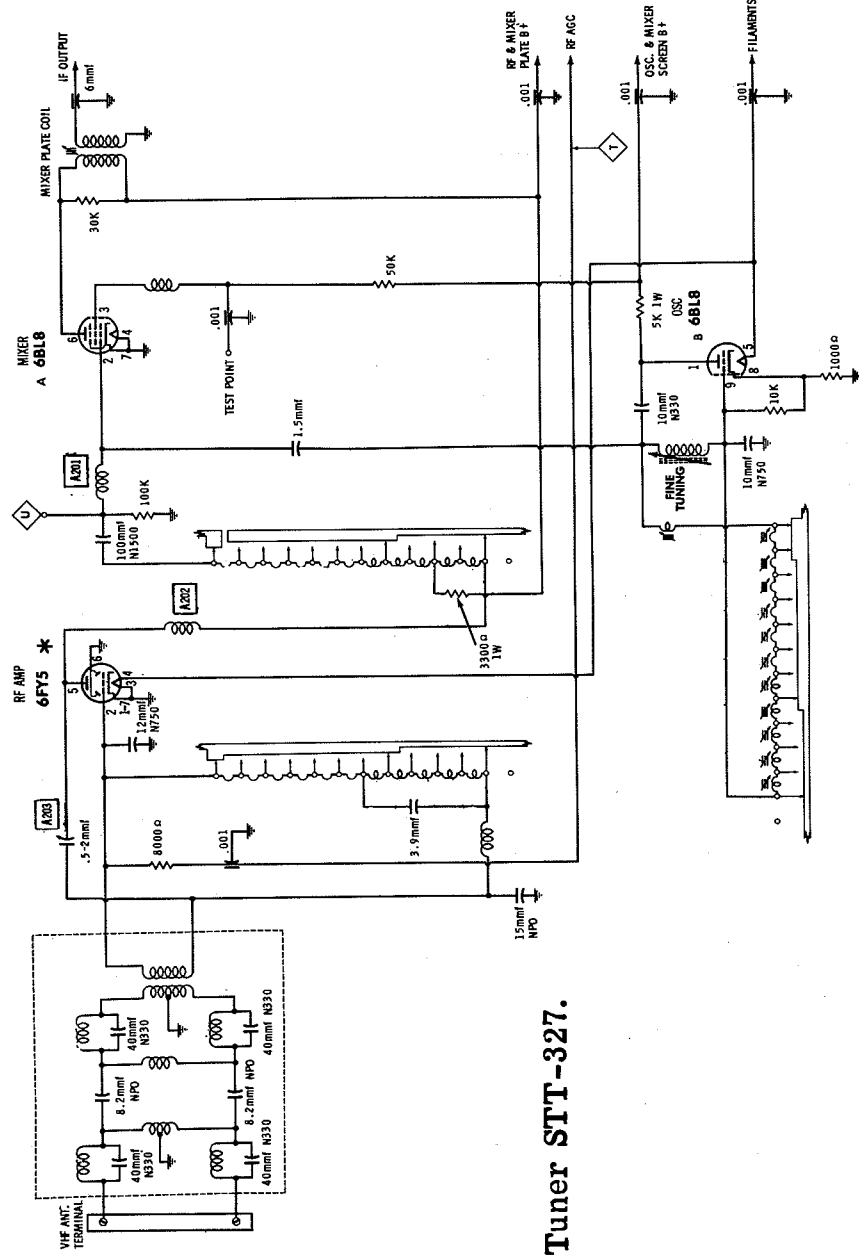
I3 POSITION WAFER-TYPE VHF TUNER WTT-305Y

**MOTOROLA CHASSIS
TS-581, TS-581Y SERIES**



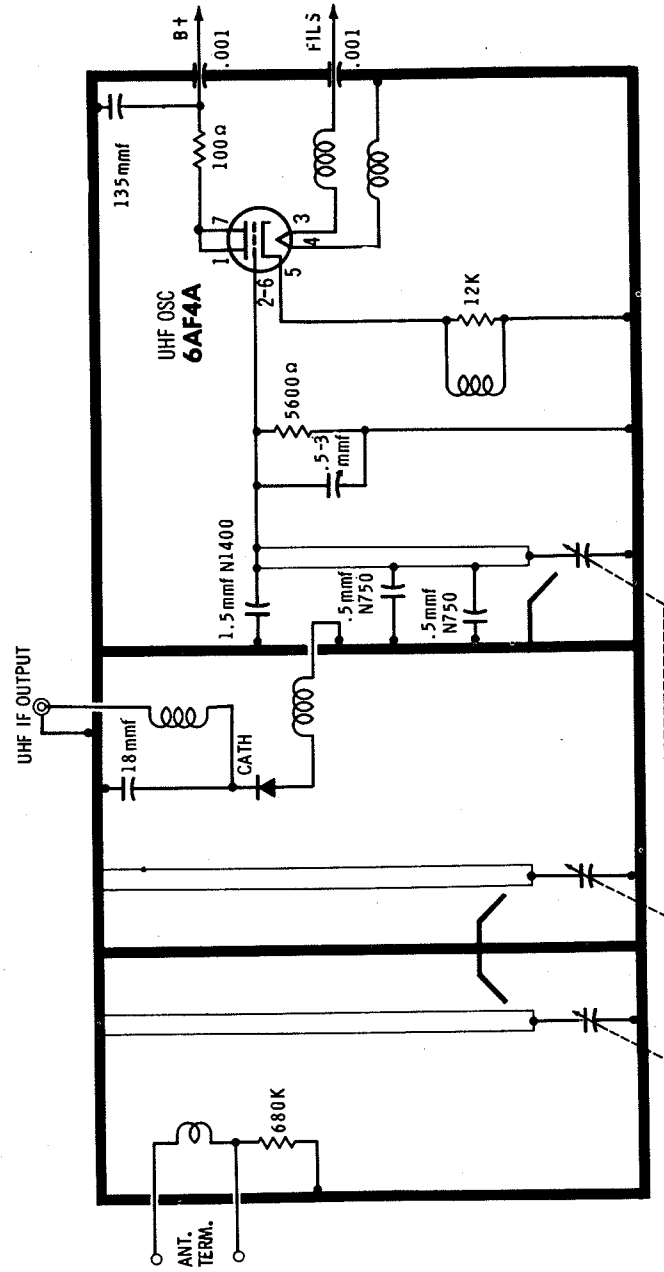
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12 POSITION WAFER-TYPE VHF TUNER TT-320, WTT-320



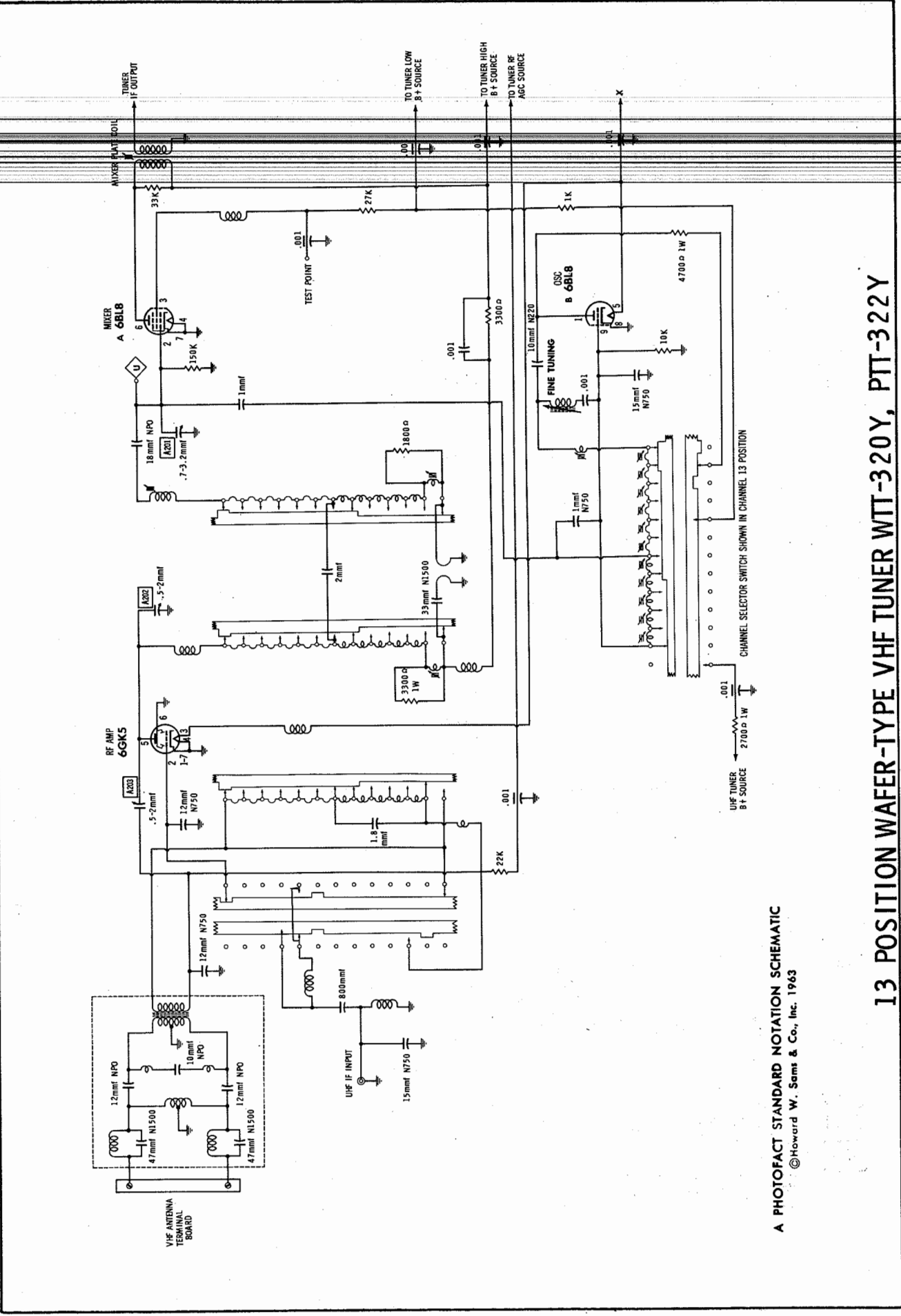
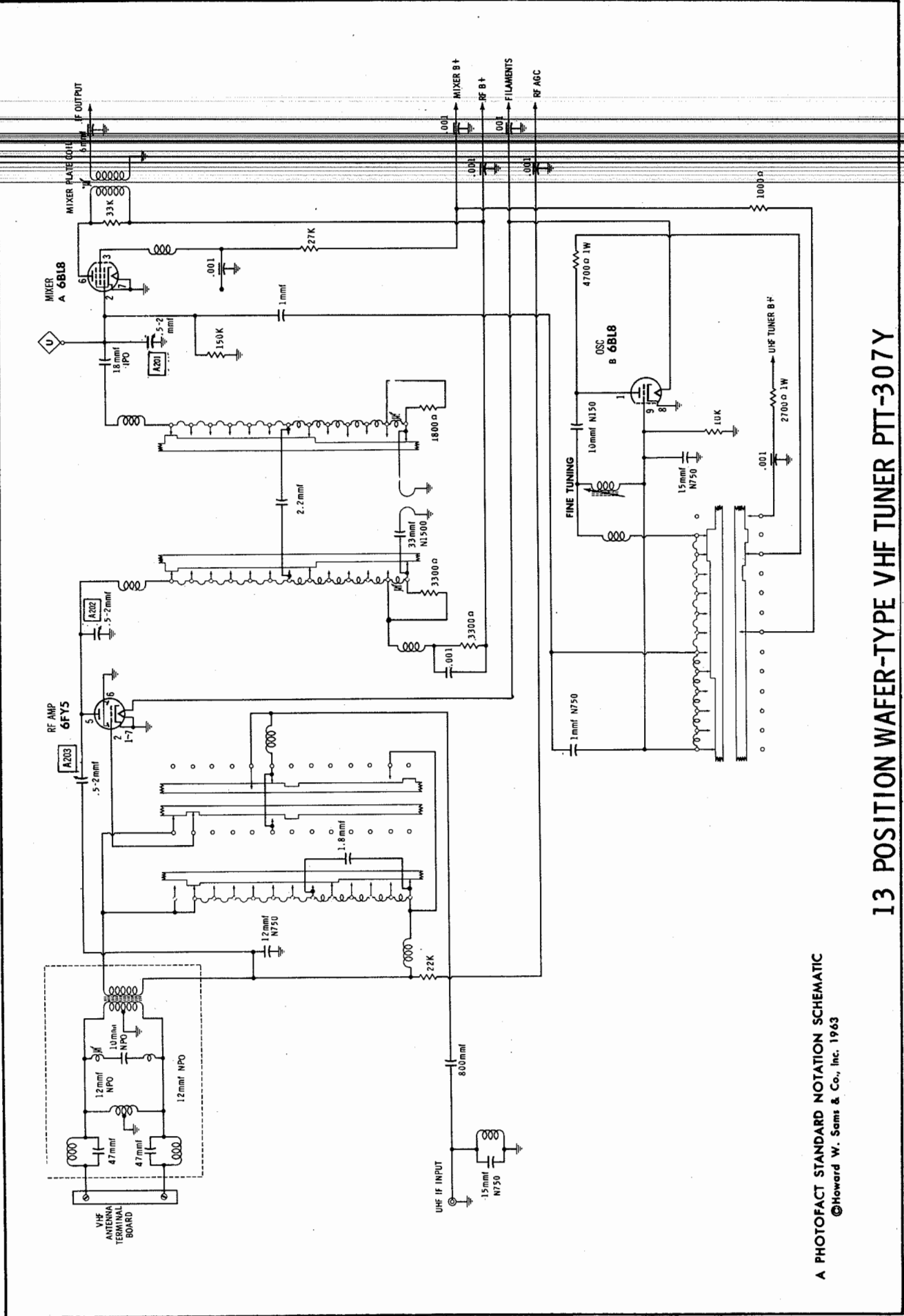
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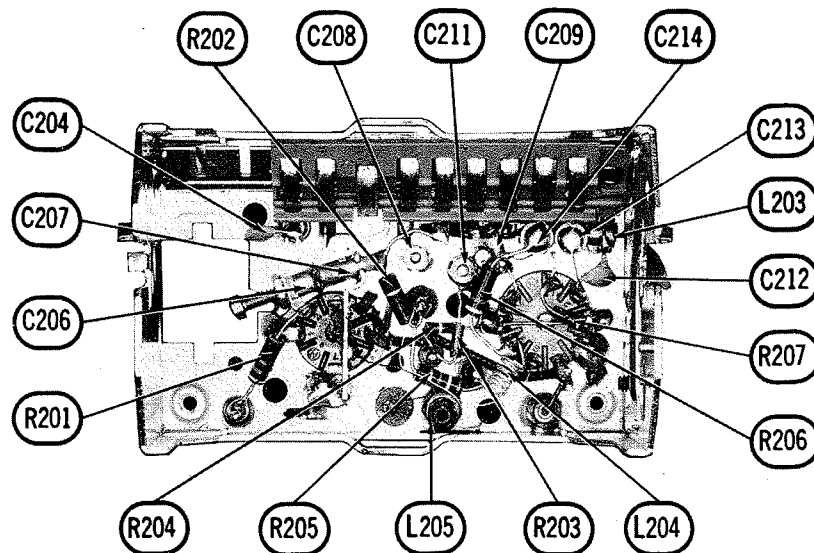
12 POSITION WAFER-TYPE VHF TUNER STT-311, STT-327



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UHF TUNER LT-601, RTT-601
TS-581, TS-581Y SERIES
MOTOROLA CHASSIS





VHF TUNER RTT-308

ITEM No.	USE	MOTOROLA PART No.	NOTES
L202H	Ant., RF, Mixer, Osc.	1D66142A09	Channel 9
J	"	1D66142A10	Channel 10
K	"	1D66142A11	Channel 11
L	"	1D66142A12	Channel 12
M	"	1D66142A13	Channel 13
L203	Fine Tuning	24P65119A39	
L204	RF Choke	24P65119A21	
L205	Mixer Plate	24P65119A23	

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CABINETS & CABINET PARTS

DESCRIPTION	PART NO.	MODEL NO.	19120 & Y19120 Series	19121 & Y19121 Series	19122 & Y19122 Series	A19124 Series	A19125 Series	23115 & Y23115 Series	23116 & Y23116 Series	27K10 & Y27K10 Series	27K11 & Y27K11 Series
Safety Glass	61066250A01		X	X	X	X	X				
Safety Glass	61065855A01							X	X		
Bezel, VHF Models	13E66430A01		X								
Bezel, VHF-UHF Models	13E66430A07		X								
Bezel, VHF Models	13E66430A09			X							
Bezel, VHF-UHF Models	13E66430A14			X							
Bezel, VHF Models	13E66430A03				X						
Bezel, VHF-UHF Models	13E66430A08			X							
Bezel	13E66430A01				X						
Bezel	13E66430A05					X					
Bezel, VHF Models	13E66407A01						X	X	X		
Bezel, VHF-UHF Models	13E66407A03							X	X		
Bezel	13E66557A01									X	X
Knob, VHF Chan. Selector	36D66450A01		X								
Knob, Fine Tuning	36D66449A01		X								
Knob, UHF Chan. Selector	36D66437A01		X								
Knob, On-Off-Volume	36D66444A01		X								
Knob, Brightness, Contrast & Vert. Hold	36D66448A01		X								
Knob, Optimizer	36D65565A01		X	X							
Knob, VHF Chan. Selector	36D66450A03			X				X	X		
Knob, Fine Tuning	36D66449A03			X				X	X		
Knob, UHF Chan. Selector	36D66437A02			X							
Knob, On-Off-Volume	36D66444A02			X							
Knob, Brightness, Contrast & Vert. Hold	36D66448A02			X							
Knob, VHF Chan. Selector	36D66478A01				X						
Knob, Fine Tuning	36C65871A01				X						

CABINET PART NO.	CABINET MODEL NO.
1F666328A48	19720 L, EL, Y19720E
1F666328A47	19720 G, Y19720G
1F666328A36	19721 B, BEL, Y19721BE
1F666328A35	19721 J, JL, Y19721J
1F666328A37	19722 AW, Y19722AW
1F666328A39	19722 B, Y19722BR
1F666328A38	19722 W, Y19722WG
1F666328A51	19724 AW, Y19724AW
1F666328A40	19724 CH, Y19724CH
1F666328A49	19724 E, Y19724E
1F666328A50	19724 G, Y19724G
1F666328A42	19725 AW, Y19725AW
1F666328A46	19725 GR, Y19725GR
1F666328A44	19725 WG, Y19725WG
1F666472A01	27 K10 M, Y27K10M
1F666472A02	27 K10 W, Y27K10W
1F666475A01	27 K11 M, Y27K11M
1F666475A02	27 K11 W, Y27K11W

PARTS LIST AND DESCRIPTION

Replacement parts shown may be superseded by the availability of newly introduced replacements. Have your local distributor check Sams COUNTER FACTS for the most up-to-date replacement.

WIRING DATA

High Voltage Lead	Use Belden No. 8868 (17KV) or 8868 (25KV)
Shielded Hook-up Wire	Use Belden No. 8865 (Single Conductor) 8738 (Two Conductor)
General-use Unshielded Hook-up Wire	Use Belden No. 3530 (Solid) Available in 12 Colors 8524 (Stranded) Available in 12 Colors
Power Cord (Interlock Type)	Use Belden No. 8874 (Rubber) or 8895 (Plastic)
300Ω Tuner Input Lead	Use Belden No. 8225
300Ω Antenna Lead-in	Use Belden No. 8230 or 8275
Antenna Rotor Cable	Use Belden No. 8464 (Flat) or 8484 (Round) - 4 Conductor 8485 (Round) - 5 Conductor 8488 (Round) - 8 Conductor

TUBES

◆ AMPEREX ◆		◆ GENERAL ELECTRIC ◆		◆ RCA ◆		◆ RAYTHEON ◆		◆ SYLVANIA ◆	
ITEM No.	USE	TYPE		ITEM No.	USE	TYPE			
V1	1st Video IF Amp.	3BZ6		V7	Audio Det.	6DT6			
V2	2nd Video IF Amp.	3BZ6		V8	Audio Output	6GK6			
V3	3rd Video IF Amp. - Sync. Limiter	6BL8/ECF80(6HL8)*		V9	Vert. Mult. - Vert. Output	6GK6			
V4	Video Output	6GK6		V10	Horiz. AFC - Horiz. Osc.	6BL8/ECF80(6HL8)*			
V5	AGC Keying - Sync. Sep. - Noise Cancel	6BU8 (6GS8)*		V11	Horiz. Output	6DQ6B			
V6	Sound IF Amp. - Vert. Mult.	6BL8/ECF80(6HL8)*		V12	Damper	6AL3 (6AF3)*			
				V13	LV Rectifier	3A3 (3AW3)*			
				V14	RV Rectifier	5U4GB (5D4)*			

* Alternate

PICTURE TUBE

ITEM No.	REPLACEMENT DATA					NOTES
	MOTOROLA PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
V15	27YP4 23AHP4 19XP4	23AHP4 ① 19AVP4/XP4①	23AHP4 ① 19XP4 ①		23AHP4 ② 19XP4 ②	① Aluminized ② Silver Screen '85

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	CURRENT RATING (Measured)	ORIGINAL Part or Type No.	RECTIFIERS		DIODES	NOTES
			RCA PART No.	SARKES TARZIAN PART No.		
X1		48C65837A01				

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	MOTOROLA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.
C1A	100	400	23C65807A04	AFH4-94-88	C0370 BR100-450	XC4-42	FP378 TC805	TMT-3799 TD-100-450	TVLS-4683.8
B	80	400							
C	10	400							
D	30	400							
C2	220	20	23C65808A06	PRSI280	BR250-25	QTL-28	TC500 25	TD-250-25	TVA-1208

* 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.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C3	470	#21R131238 #21R125698 #21R125698	DI-470	DD-471	L10T47	CCD-471	GP347	10TS-T47
C4	68 10% N150					*		10TCP-Q68
C5	10 +.5mmf N150					*		10TCP-Q10
C6	10 -.5mmf N150					*		10TCP-Q10
C7	.001							10TS-D10
C8	18 5% NPO							10TCQ-Q18
C9	.25 50V							2PS-P25
C10	.25 50V							2PS-P25
C11	470 2000V	#21K735623 ① #21R120539 ①	HVD-30-470	DD30-471	HVB20T47	3CCD-471	2HV-347	30GA-T47
C12	2.2 NPO +.25mmf		NPO-DI 2, 2	TCZ-R22	C10V22C	CTO-2R2	CNO-522	10TCQ-V22
C13	.75 10%					*		10TCP-Q22
C14	22 10% N150							
C15	.001							
C16	470 10%							
C17	.001 10%							
C18	800 10%							
C19	5.6 10%							
C20	.001 10%							
C21	.05 400V							
C22	5.6 10% N750							
C23	.001 10%							
C24	.0015							
C25	.0015							
C26	.0027 2000V							
C27	.02							
C28	.022 600V	(.) †	BPD-02	DD-203	BYB6S2	CCD-203	GP120	10TS-S20
C29	.3 50V		P68N-022	DD-203	CUBS622	6DP-2-223	GEM-6122	6TM-S22
C30	.033		P28N-33		CUBP2P5	IDP-4-334	GEM-2033	2PS-P33
C31	.05 400V		BPD-.03	DD-303	BYB6S3	6DP-3-333	GEM-6133	6PS-S33
C32	.01 2000V		P48N-05	DD-503	CUB4S5	4DP-3-503	GP150	5GAB-S47
							2HV-110	30GA-S10

SET 612 FOLDER 2

**MOTOROLA CHASSIS
TS-581, TS-581Y SERIES**

FOLDER 2

Replacement parts shown may be superseded by the availability of newly introduced replacements.
Have your local distributor check Sams COUNTER FACTS for the most up-to-date replacement.

			REPLACEMENT DATA					
ITEM	RATING	REMARKS	AEROVOX PART No.	CENTRALAB PART No.	CORNING PART No.	ELMENDO PART No.	MALLORY PART No.	SPRAGUE PART No.
C33	56 N750	①	TCN-56	CIQ56U	CCTN-560	CNT-456	10TCU-Q56	
C34	.005 1000V		DI-5000	DD-502	LIQD5	CCD-502	GP250	10TS-D50
C37	470 10K		DI-470	DD-471	LIQ47	CCD-471	GP347	10TS-T47
C38	.1 400V		P488N-1	DF-104	CUB4P1	6DP-3-104	GEM-401	4PS-P10
C39	.1 600V		P688N-1	DF-104	CUB6P1	6DP-3-104	GEM-601	6PS-P10
C38	.1 600V		P688N-1	DF-104	CUB6P1	6DP-3-104	GEM-601	6PS-P10
C39	240 5% N1500	#21R131987						
C40	.05 10K 400V	(.03) †	P488N-05	DD-503	CUB455	4DP-2-503	GP150	5GAB-S47
C41	100 N750 10K 3000V	(68) †						
C42	470		DI-470	DD-471	LIQ47	CCD-471	GP347	10TS-T47

CONTROLS

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA					
			MOTOROLA PART No.	CENTRALAS PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R1	Volume	2meg	18D6508A16 ⑤	B-76, or (F2-2meg, SU204)	A47-2meg-Z, FS-3	Q13-139, or (BU2, CF27, SSI, DC1)*	U55, or (UA26A, SL3500)	
	Optimizer	7000Ω	18D6508A24 ①	FI-7500, FFS102, R2-2meg, RFS11, KR-1	RTV-756	↑ QJ-1474	■ UE4363-S	
	Volume, Power	2meg	18D6508A23 ②	FI-7500, FFS108, R2-2meg, RFS202, KR-1	RTV-757		■ UE4364-S	
	Optimizer	7000Ω	18D6508A24 ③	B-76, KR-1, or (F2-2meg, SU204, KR-1)	A47-2meg-Z, FS-3, SWE-12	Q13-139, 76-1, or (BU2, CF27, SSI, GC)*	U55, US-26, or (UA26A, SL3500, US41)	
	Volume, Power	2meg	18D6508A29 ④	F2-1meg, FFS101, RPS-68		↑ QJ-1475	■ UE4362-S	
	Optimizer	1meg	18D6508A10 ⑤	F2-1meg, FFS100, RI-500, RFS112	RTV-758	↑ QJ-1476	▲ UE4361	
	Volume, Power	350Ω	18D65216A27 ⑥	TT-70 §	B47-1meg-Z	B13-137, TM4, or (BU1, CF26, S56)*	PTA12541, or (RU16L, SL-37, SNI000)	
	Contrast	350Ω	18D65216A30 ⑦	TT-4 §		B11-103, TM4, or (BU1, CF4, S56)*		
	Contrast	350Ω	18D65216A29 ⑧			B11-103, TM4, or (BU1, CF4, S56)*		
	Contrast	350Ω	18D6508A21 ⑨	FI-300, FFS101, RI-7500, RFS112	RTV-759	↑ ↑ QJ1477	■ UE4284	
R3	Optimizer	7000Ω	18D6508A23 ⑤	B-13, or (FI-7500, SU204)	A47-7500-S, FS3	Q17-116, or (BU2, CF35, SSI, DC1)*	RU73A, SL-38, SL3500	
	Optimizer	7000Ω	18D65216A26 ③	TT-4 §		B17-116, TM4, or (BU1, CF35, S56)*	U19, or (UA14R, SNI000)	
			18D65216A17 ⑤	B-40, or (FI-100K, SU204)	A47-100K-S, KSS-3	B11-128, TM5	TA15L, or (U41)	
R4	Brightness	100K	18D65216A10 ⑦	B-40, or (FI-100K, SNI01)	B47-100K-S	B11-128, TM4, or (BU1, CF13, S56)*	TA15L, or (RU15L SL-37, SNI000)	
	Brightness	100K	18D65216A28 ③					
	Brightness	100K	18D65216A21 ⑤	B-59, or (FI-500K, SU204)	A47-500K-S, KSS-3	Q11-133, or (BU1, CF16, SSI, DC1)*	TA55L, or (U50)	
R5	Vertical Hold	500K	18D65216A31 ⑦					
	Vertical Hold	500K	18D65216A25 ③					
	Vertical Hold	500Ω	17D65820A08 ⑧		39-500	112-500	FL-500	
R6	Vertical Linearity	500Ω (2WW)	17D65820A04 ⑩					
	Vertical Linearity	500Ω 120Q Stop (2WW)			39-500-100	112-500-100	FL-500 ■	
R7A	Noise Gate	3.4meg	18D66401A02					
B	Vertical Size	3.4meg	▲ ▲					
R8	Horizontal Size	10K (2WW)	17D65820A07					

RESISTORS

		REPLACEMENT DATA					REPLACEMENT DATA		
ITEM	RATING	IRC	WORKMAN	REMARKS	ITEM	RATING	IRC	WORKMAN	REMARKS
No.		PART No.	PART No.		No.		PART No.	PART No.	
R9	6800Ω 4W		4G-6800	* (5600Ω)	R37	680K			* (560K)
R10	12K 3W		3G-12000	*(15K) (10K)	R38	1000Ω			
R11	22K				R39	47K			
R12	1000Ω				R40	150Ω 1W			
R13	68Ω				R41	100Ω			
R14	6800Ω			* (12K)	R42	560Ω			
R15	1000Ω				R43	560Ω			
R16	6800Ω				R44	33K			
R17	3300Ω 1W				R45	68K			
R18	150Ω				R46	270K			* (220K)
R19	1500Ω				R47	12K			①
R20	8200Ω				R48	33K			
R21	47K				R49	15K 4W		4G-15000	
R22	330Ω				R50	270K			
R23	3300Ω				R51	15K			
R24	5600Ω 10W	PW10-5600	10W-SQ5600	#17K744407	R52	470Ω			
R25	2700Ω				R53	330Ω			
R26	220K				R54	5600Ω 4W		4G-5600	②
R27	820K				R55	820K			
R28	150K				R56	6800Ω 1W			
R29	100Ω				R57	3. 9Ω	BW $\frac{1}{2}$ 3.9		#17K754501
R30	270Ω 1W				R58	22K 1W			
R31	220K				R59	115Ω (Cold)			#6C65884A
R32	180K				R60	470K			
R33	33K				R61	3000Ω 4W		4G-3000	
R34	2. 2mΩ				R62	2700Ω 3W		3G-2700	
R35	22K				R63	82Ω 10W	PW10-82	10W-SQ82	
R36	8200Ω 1W								

ITEM No.	USE	DESCRIPTION	MOTOROLA PART No.	REPLACEMENT DATA
K1	AGC Network	680K, 2meg, 2.2meg, 12meg	51D65239A04	Centralab PC-427
K2	IF Network	18K, 180K, 220K, .001mfd, .001mfd	51D65239A10	Centralab PC-429
K3	4.5MC Bypass Network	220K, 560K, .0047mfd, .001mfd	51D65239A06	Centralab PC-428
K4	Audio Det. Network	1000K, 1meg, 470mmf, .01mfd	51D65239A12	Centralab PC-431
K5	Sync. Coupling Network	56K, 56K, 470K, 560K, 3.3meg, 27mmf, 220mmf, .002mfd	51B747693	Centralab PC-358
K6	Vert. Sweep Module	2200K, 4700K, 10K, 22K, 68K, 1meg, .0033mfd, .0033mfd, .01mfd, .01mfd, .015mfd, .05mfd, .05mfd	51D66334A05 (23" & 27" Ch.)	
	Vert. Sweep Module		51D66334A04 (19" Chassis)	
K7	AFC Network	47K, 100K, 220K, 390K, 1meg, 150mmf, .0039mfd, .001mfd, .005mfd	51D65239A13	Centralab PC-432
K8	Horiz. Sweep Module	2700K, 12K, 47K, 1meg, .001mfd, .0033mfd, .005mfd, .007mfd, .5mfd	51D63226A03	
K9	Quad Coil Network (Part of L16)	270K, 560K, 18mmfd	51D65239A11	

ITEM NO.	USE	REPLACEMENT DATA					NOTES
		MOTOROLA PART No.	Merit PART No.	Miller PART No.	Sonorac PART No.	Workman PART No.	
L1	39. 75MC Trap	24K754048	TV-152	6225 *	RTC-8556 *	TL210	① Not used in 19" Chassis
L2A	1st Video IF	24KD5666A07	TV-134	6221 *	RTC-8552 *	T225 *	
L3A	41. 25MC Trap						
	RF Choke	24D5666A06				TL221	② Includes Complete Ass'y.
L3B	47. 25MC Trap		TV-153 ▲	6225 *	RTC-8556 *	T218 *	
L4	47. 25MC Trap	24K747585 ①	TV-153 *	6225 *	RTC-8556 *	TL205	③ Includes 8200Ω Res.
L5	2nd Video IF	24K747587	TV-130	6224	RTC-8555	T217A	
L6	3rd Video IF	24K751248	TV-130	6224	RTC-8555	T217A	④ Includes 3300Ω Res.
L7A	4th Video IF	1V66244A26 ②					
	B RF Choke (8.8uH)	24C85828A09	BC-566	4611	RTC-8521	T960	⑤ Includes 2700Ω Res.
	C RF Choke (8.8uH)	24C85828A15	SW-631	4609	RTC-8519	T977	
L8	B RF Choke (8.8uH)	24C85828A09	BC-566	4611	RTC-8521	T960	† Disregard Tap.
L9	Peaking (200uH)	24C85828A12	BC-673	6154	RTC-8586	T345	
L10	Peaking (100uH)	24K754220 ③	BC-679	6112 ▲	RTC-8574	T341	* Disregard Secondary.
L11A	4. 5MC Trap	1V65206A83 ②					
	B Sound Takeoff						
L12	Peaking (200uH)	24C85828A15 ④	BC-673 *	6154 *	RTC-8586 *	T345 *	▲ For Trap only. Drill Mig. Hole.
L13	Peaking (240uH)	24C85828A14	BC-673	6181	RTC-8596	T346	
L14	Peaking (800uH)	24C85828A11	BC-681 *	6157 *	RTC-8589 *	T359 *	■ Shunt with 8200Ω Res.
L15	Sound IF	1V66241A48 ②					
L16	Quadrature	1V66244A27 ②					■ Shunt with 3300Ω Res.
L17	RF Choke (6.6uH)	24C85828A17	BC-565	4610	RTC-8520	T859	
L18	RF Choke (6.6uH)	24C85828A17	BC-565	4610	RTC-8520	T859	§ Shunt with 2700Ω Res.

ITEM No.	USE	REPLACEMENT DATA							NOTES
		MOTOROLA PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	Workman PART No.	
L19	Horiz. Osc.	24D65853A02	TV-165	6333 ①	RTC-8629	HS-7		Till	① Disregard tap

RATING				REPLACEMENT DATA					NOTES
ITEM No.	PRI.	SEC. 1	SEC. 2	MOTOROLA PART No.	MERIT PART No.	STANCOR PART No.	THORADARSON PART No.	TRIAD PART No.	
TL	117VAC @ 1.9A	540VCT @ 310A	5VAC @ 2.8A	25D65663A02	P-2855 ①	P-8355	26R51 ①	R-75BA①	
	SEC. 3 6.3VAC @ 8.2A	SEC. 4	SEC. 5						

ITEM No.	USE	REPLACEMENT DATA					NOTES
		MOTOROLA PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	Vert. Output	25D65840A04-N	A-2854 ①	VO-108	26S22	A-133X	① Drill New Mig. Hole ② Use Original Rear Cover & Centering Device ③ Used in 23" & 27" Models ④ Used in 19" Models ⑤ Used in Original Damping Cap. (C41) if necessary.
T3	Alt. Vert. Output Yoke (Horiz. 19, 5MH)	25D65940A04	MDF-99 ⑤, M51-70-90	DY-37A ②	Y-25 ② ⑤	Y-41-3 and YC-112	
	90° (Vert. 38, 5MH)	24D6662IA01-0 ③					
	Alt. Yoke	24D6662IA01 ③					
	Yoke (110°)	24D65616A10 ④					
	Centering Device	59C721I45 ⑤					
T4	Centering Device & Rear Cover	59K754292 ④	M51-70-90			YC-112	
	Centering Device & Rear Cover						
	Yoke Plug	28K753330					
	Retainer Clamp	42A736175 ③					
	Retainer Clamp	42A742819 ④					
T4	Horiz. Output	24D66258A08-H					
	Alt. Horiz. Output	24D66258A04					
	Pr1 & Sec. Windings	24D65958A06					

ORIGINAL →	HV TRANSFORMER				VERTICAL OUTPUT				YOKE				YOKE PLUG											
REPLACEMENT ↓	Original Connections				Original Connections				Original Connections				1 2 3 4 5 6 7											
					Blue	Green	Red			1	2	3	4	5	6	7	8	TO YOKE TERMINALS						
MERIT					Green	Red	Yel.			7	3	2	4	5	6	1	8		6		2	¹ / ₃	7	
STANCOR					Blue	Yel.	Red			1	2	3	4	5	6	7	8		6		3	² / ₇	1	
THORDARSON					Blue	Red	Green			7	3	2	4	5	6	1	8		6		2	¹ / ₃	7	
TRIAD					Blue	Red	Yel.			1	2	3	4	5	6	7	8		6		3	² / ₇	1	

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	MOTOROLA PART No.	Merit PART No.	Stoncor PART No.	Thordarson PART No.	Triad PART No.	
T5	10.5K Ω	6-8 Ω	25D65984A06* 25D65984A10†	①A-2900	A-3823 ①	24S06 ①	S-53X ①	① Drill new mounting hole(s) * 23 & 27" Chassis † 19" Chassis

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	MOTOROLA PART No.	QUAM PART No.	
SPI	5 1/2 x 7 1/2"	PM	8Q	50D66233A03	57A1Z8	27K10, 27K11 Series 19T20, 19T21, 19T22, A19T24, A19T25 Series 23T15, 23T16 Series
SP2	4"	PM	30Q	50D66232A02	4A07Z30	
	4"	PM	8Q	50K751421		
	4"	PM	8Q	50D66232A01		

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
M1	VHF Tuner	PTT-322A (PTT-322)	See Front Page for Tuner & Chassis Breakdown
M2	Switch Antenna	40D66084A01 1C66120A01	On-Off JFD REPLACEMENT #TA-415. Models: 19T20E/EL/G/GL, 19T21BE/BEL/J/JL/AW/GR/WG, 19T22AW/GR/WG, A19T25AW/GR/WG
M3	Circuit Breaker	80C66390A01	

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
	Switch	40C65836A01	Leaf (Remote on & Off)
	Switch	1B66235A02	Lamp, Switch
	Switch	1C65754A02	Wafer (Audio Level & Mute)
	Switch	1D66287A01	Miro (2 Used) (Skip Stop Channel & Safety)
	Switch	40C66293A01	Leaf (Index)
	Switch	40C65513A03	Slide (Remote Manual)
	Switch	40C65521A02	Momentary (Insta-matic Channel Selector)
	Relay	80C65738A03	Stepping Relay includes Remote On-Off Switch & Wafer Switch
	Motor & Gear Box Assembly	ID65989A10	

FOLDER 2