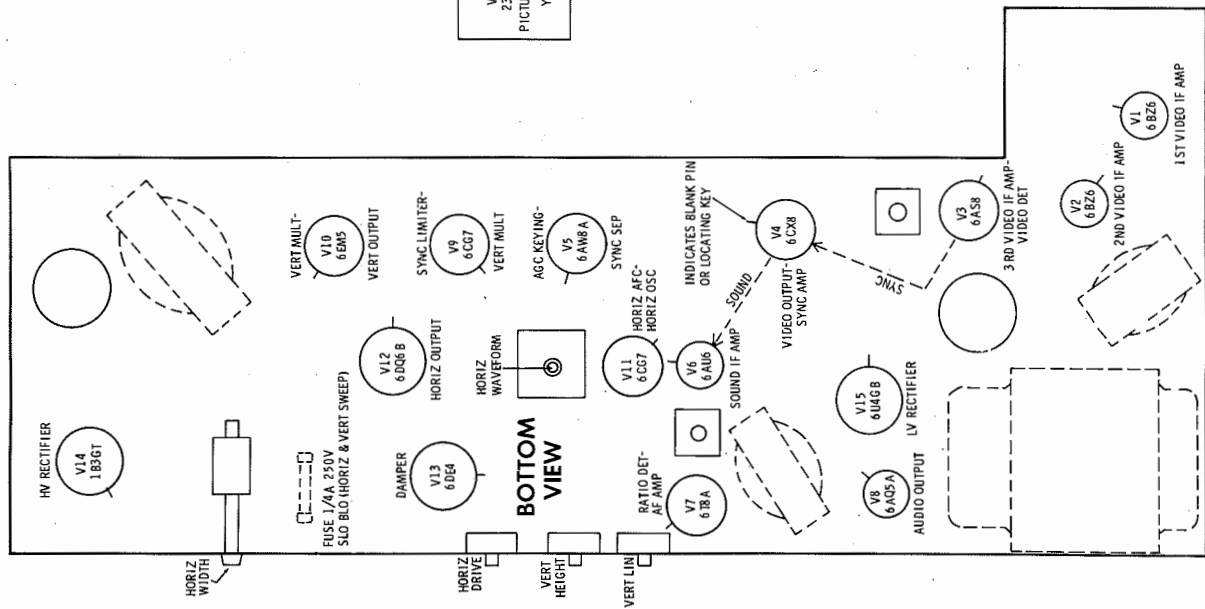


TUBE PLACEMENT CHART



V16
23GP4
PICTURE TUBE
YOKE

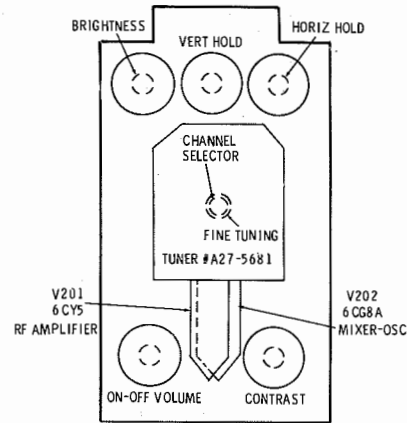
RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6BZ6	150K	68Ω	FIL	FIL	†3300Ω	†3300Ω	0Ω		
V2	6BZ6	150K	47Ω	FIL	FIL	†3300Ω	†3300Ω	0Ω		
V3	6AS8	†4300Ω	.1Ω	220Ω	FIL	FIL	4700Ω	220Ω	.1Ω	†4300Ω
V4	6CX8	0Ω	9500Ω	†9100Ω	FIL	FIL	•200Ω	4500Ω	†20K	†5000Ω
V5	6AW8A	0Ω	2.7meg	†20K	FIL	FIL	†2300Ω	†9100Ω	†45Ω	250K
V6	6AU6	2.8Ω	0Ω	FIL	FIL	†3300Ω	†3300Ω	100Ω		
V7	6T8A	520K	22K	520K	FIL	FIL	NC	0Ω	4.7meg	†430K
V8	6AQ5A	NC	390Ω	FIL	FIL	†1900Ω	†1500Ω	470K		
V9	6CG7	•†700K	•1.9meg	0Ω	FIL	FIL	†16K	†1meg	0Ω	NC
V10	6EM5	1885Ω	NC	•1.6meg	FIL	FIL	•1.6meg	0Ω	NC	†1365Ω
V11	6CG7	•†18K	900K	375K	FIL	FIL	•†35K	450K	0Ω	0Ω
V12	6DQ6B	TP	FIL	TP	†10K	470K	TP	FIL	0Ω	TOP CAP †11Ω
V13	6DE4	TP	NC	•†340K	NC	†45Ω	NC	FIL	FIL	
V14	1B3GT									TOP CAP †326Ω
V15	5U4GB	TP	†18K	NC	23Ω	NC	24Ω	NC	†18K	
V16	23GP4	FIL	5Ω	†400K	†150K	NC	NC	•200K	FIL	
V201	6CY5	320K	0Ω	FIL	FIL	†2300Ω	†12K	0Ω		
V202	6CG8A	15K	†17K	0Ω	FIL	FIL	†4500Ω	†12K	0Ω	240K
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9

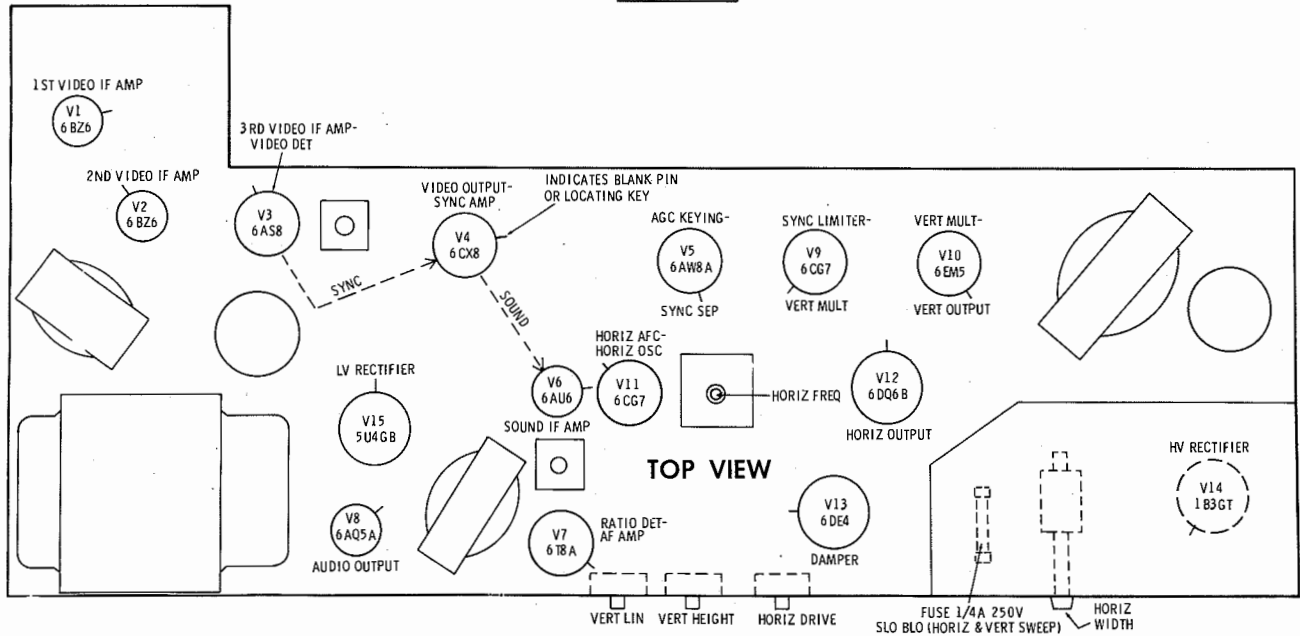
† THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
• THIS READING WILL VARY. CONTROL SET FOR NORMAL OPERATION.
† MEASURED FROM PIN 8 OF V15.
† MEASURED FROM PIN 3 OF V13.

NC NO CONNECTION
TP TIE POINT

TUBE PLACEMENT CHART



V16
23GP4
PICTURE TUBE
YOKE



ANDREA CHASSIS
VT-123, VT-123-1

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 V15	LOSS OF PICTURE OR SOUND No pic, no sound, has raster V1, V2, V3, V4 No pic, no sound, has snow V201, V202, V1 No pic, has sound, has raster V4, V16 Has pic, no sound V6, V7, V8 Overloaded picture V5
SWEEP FAILURE No raster, has sound Fuse (Sweep), V11, V12, V13, V14, V16 No vertical deflection V9, V10 Poor vert. linearity or foldover V9, V10 Poor horiz. linearity or foldover V11, V12, V13 Narrow picture V11, V12, V13, V15 Vert. off freq. V9, V10 Horiz. off freq. V11	SYNC FAILURE No vert. sync V4, V5, V9 No horiz. sync V4, V5, V9 No vert. or horiz. sync V4, V5, V9

ALIGNMENT INSTRUCTIONS

PRE-ALIGNMENT INSTRUCTIONS

Allow a 20 minute warm-up period for the receiver and test equipment.

Suggested Alignment Tools: A1 thru A9 GENERAL CEMENT #8282, 8806, 8806-L, 9295, 9440
WALSCO #2526, 2543, 2544, 2545
Mixer Plate Coil GENERAL CEMENT #9296, 9297
WALSCO #2546, 2547

VIDEO IF ALIGNMENT

Connect the negative lead of a 4.5 volt bias supply to point A. 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.

Disconnect IF Input coil from pin 1 (grid) of 1st Video IF Amp.

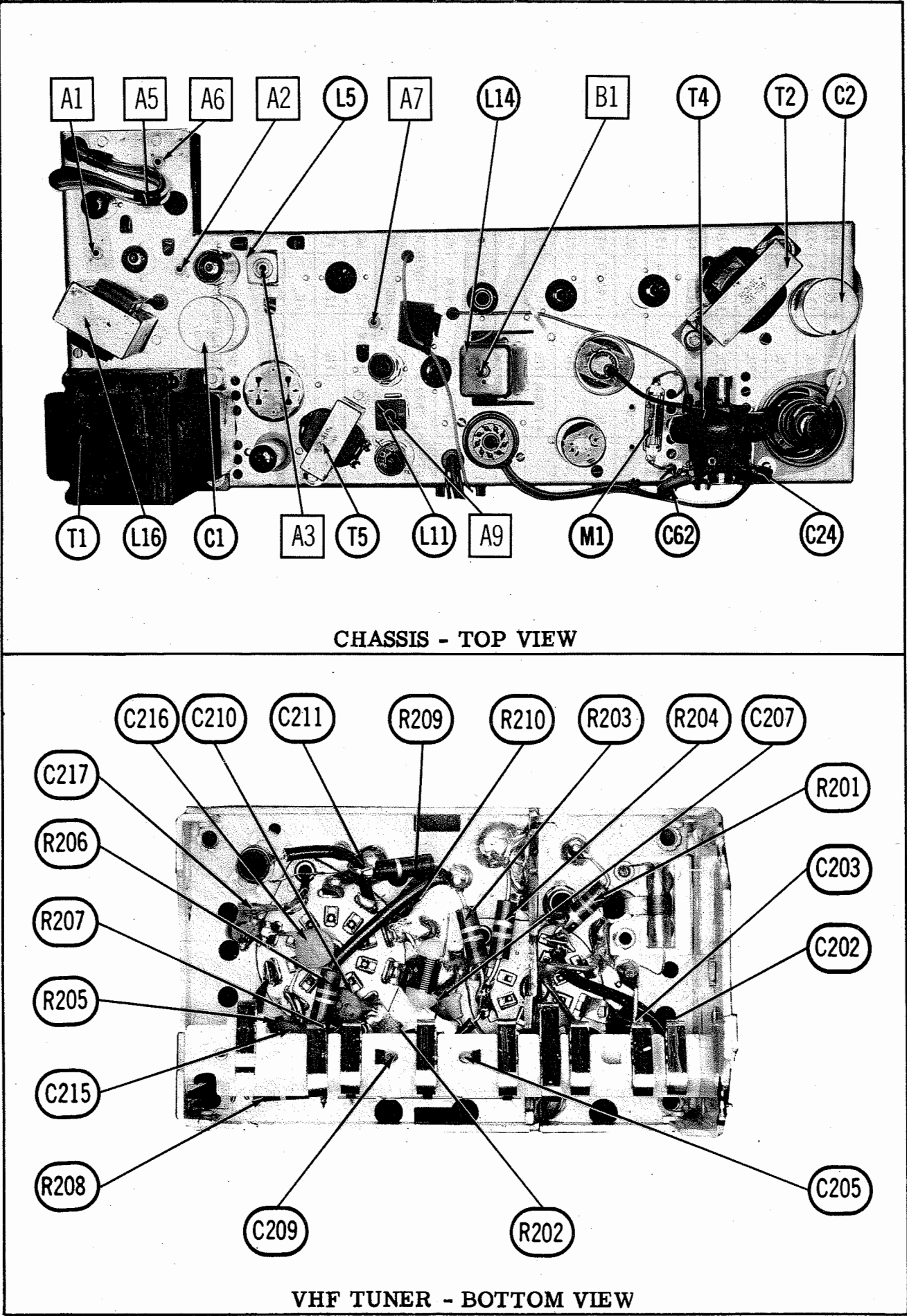
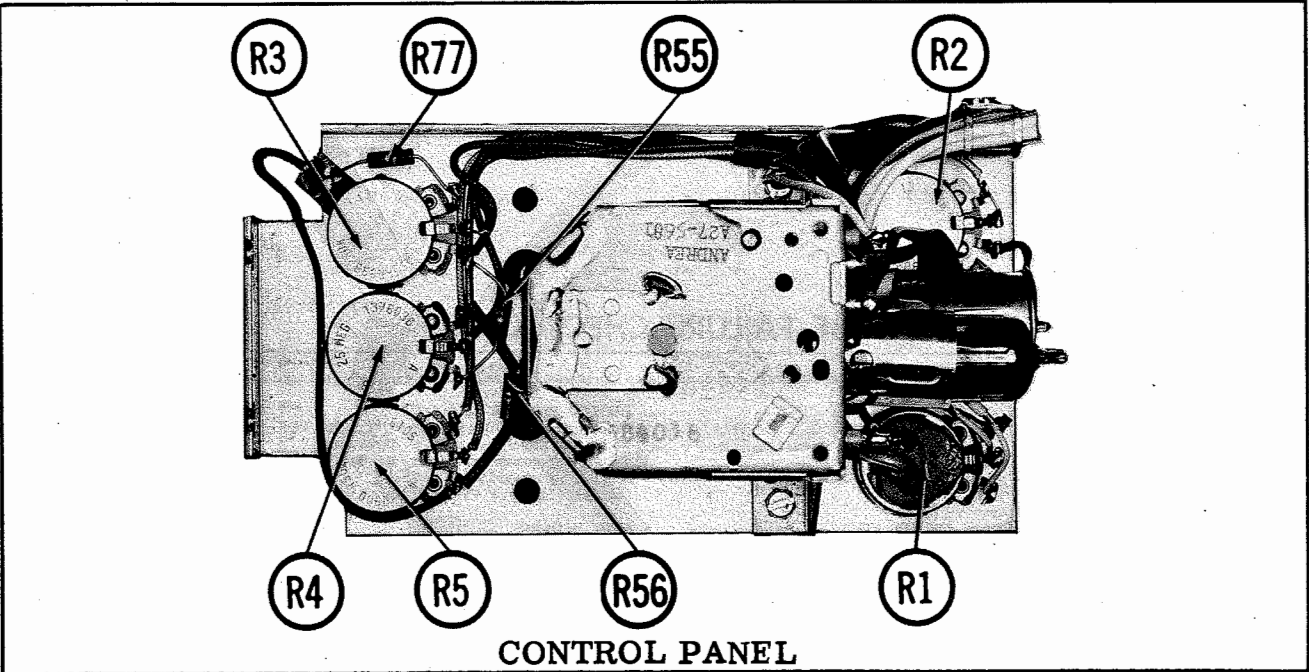
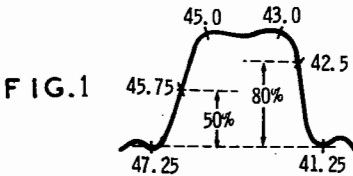
Attenuate Sweep Generator Output to maintain between 2 and 3 volts peak to peak on scope.

	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1.	High side thru .001mfd to pin 1 (grid) of 1st Video IF. Low side to chassis.	44.0MC (10MC Swp.)	41.25MC 42.5MC 43.0MC 45.0MC 45.75MC 47.25MC	Any non-interfering channel	Vert. Amp. thru 10K to point B. Low side to chassis. (Across Video Det. load).	A1, A2, A3	Adjust for maximum gain and symmetry of response similar to Fig. 1 with markers as shown. A1 controls position of 45.75MC marker, A2 controls bandwidth and low frequency skirt of curve, and A3 controls tilt. Reconnect IF Input coil to grid of 1st Video IF.
2.	Place a thin insulated metal strip between the Mixer-Osc. tube and tube shield. Connect the high side of sweep generator to the metal strip. Low side to chassis.	"	"	"	"	A4, A5, A6	Adjust A4 to place 41.25MC marker in trap notch. Adjust A5 to place 47.25MC marker in other trap notch. Adjust A6 and Mixer Plate coil for maximum flatness and position of 45.75MC marker as in Fig. 1. If necessary repeat steps 1 and 2.

SOUND IF ALIGNMENT

Connect two matched 100K (±1%) resistors in series from point C to chassis. The junction of these two resistors is alignment point D as shown on the schematic.

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
3.	High side thru .01mfd to point B. Low side to chassis.	4.5MC (Unmod.)	Any non-interfering channel	DC probe to point C. Common to chassis.	A7, A8	Adjust for maximum deflection.
4.	"	"	"	DC probe to point D. Common to point E.	A9	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.



VHF TUNER PARTS LIST AND DESCRIPTIONS

TUBES

GENERAL ELECTRIC			RAYTHEON			SYLVANIA		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V201	RF Amp.	6CY5	V202	Mixer - Osc.	6CG8A			

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

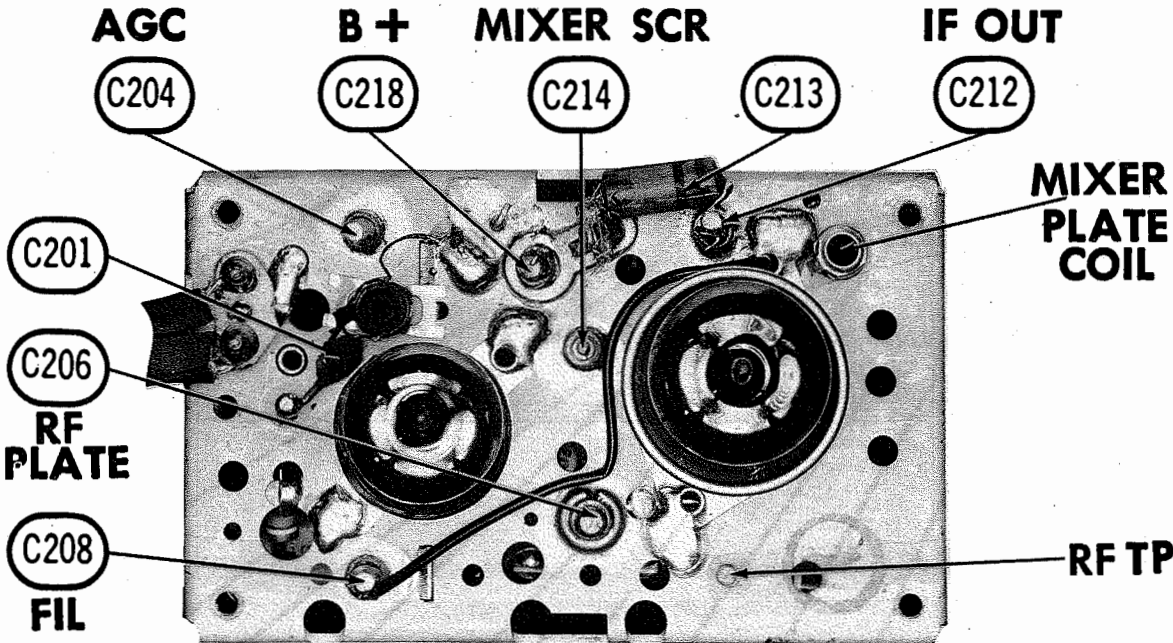
ITEM No.	RATING	REMARKS	REPLACEMENT DATA						
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.	
C201	10 NPO		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10	
C202	6.8 10%		NPO-SI 6.8	TCZ-6R8	C10V68C	CCTO-6R8	CNO-568	10TCC-V88	
C203	10 NPO		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10	
C204	1000		EF-001	MFT-1000		CCF-102	CT280A		
C205									
C206	100		EF-0001	MFT-100	BYA10DI	CCD-102	B-210	5HK-D10	
C207	1000		BPD-001	DD-102		CCF-102	CT280A		
C208	1000		EF-001	MFT-1000					
C209									
C210	10 NPO		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10	
C211	1000		BPD-001	DD-102	BYA10DI	CCD-102	B-210	5HK-D10	
C212	1.5								
C213	33 N750 5%		N750-SI 33	TCN-33	C10Q33U	CCTN-330	CN7-433	10TCU-Q33	
C214	1000		EF-001	MFT-1000		CCF-102	CT280A		
C215	10 NPO		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10	
C216	10 NPO		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10	
C217	1000		BPD-001	DD-102	BYA10DI	CCD-102	B-210	5HK-D10	
C218	1000		EF-001	MFT-1000		CCF-102	CT280A		

RESISTORS

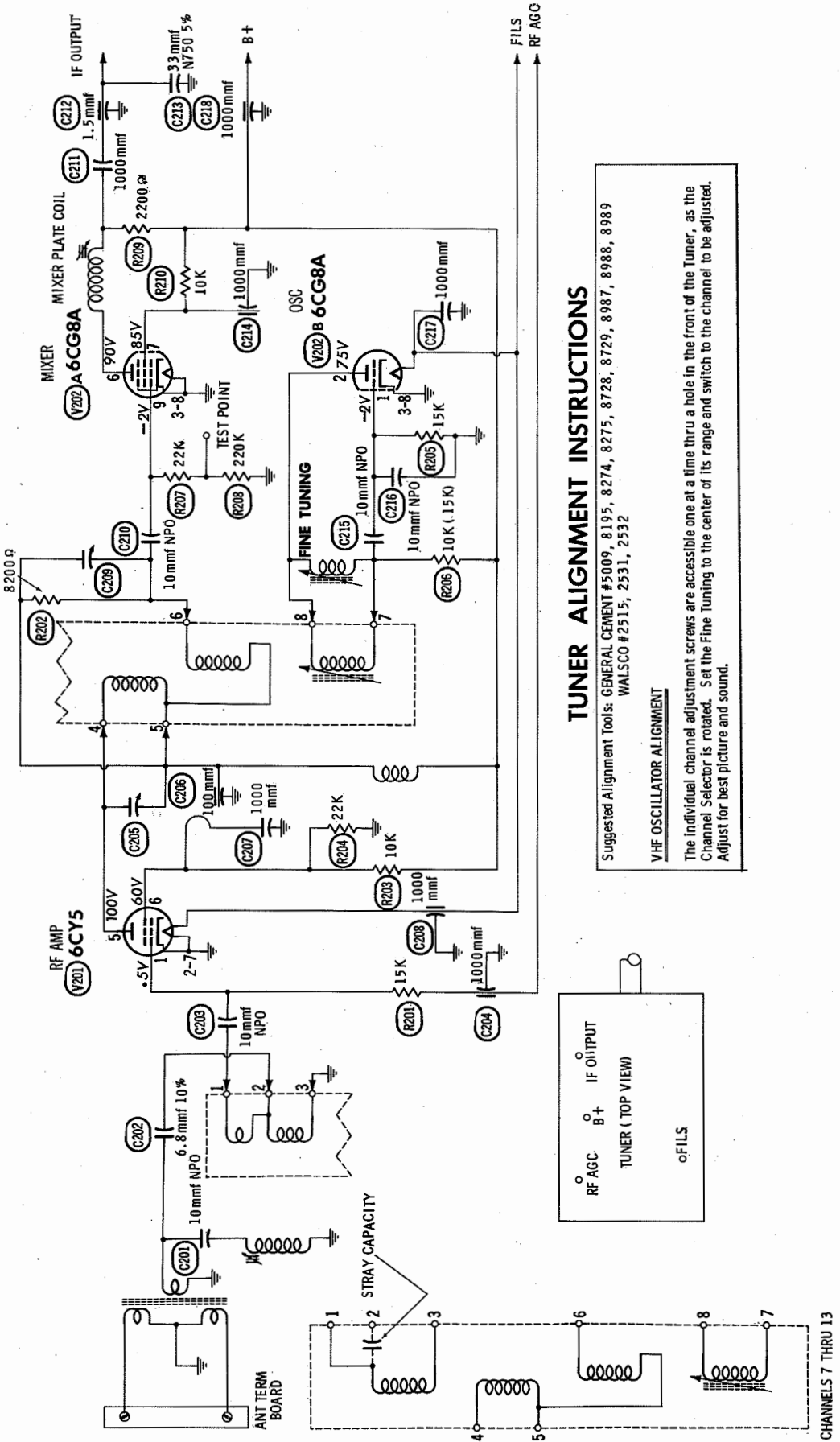
All wattages 1/2 watt, or less, unless otherwise listed.

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	15K				R206	10K			(15K) *
R202	8200Ω				R207	22K			
R203	10K				R208	220K			
R204	22K				R209	2200Ω			
R205	15K				R210	10K			

* Alternate Value



VHF TUNER — TOP VIEW



TUNER ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: GENERAL CEMENT #5009, 8195, 8274, 8275, 8276, 8279, 8987, 8988, 8989
WALSICO #2515, 2531, 2532

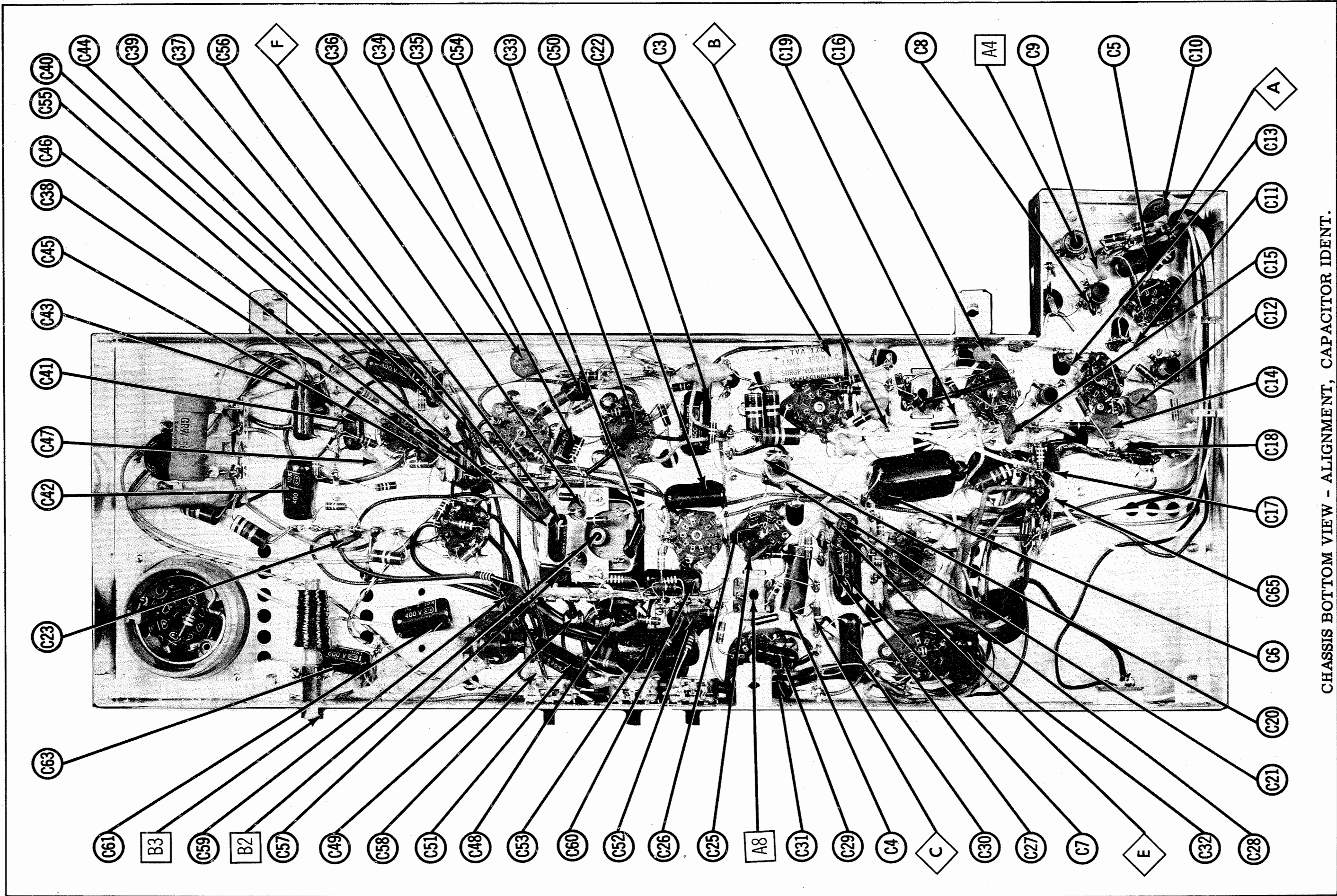
VHF OSCILLATOR ALIGNMENT

The individual channel adjustment screws are accessible one at a time thru a hole in the front of the Tuner, as the Channel Selector is rotated. Set the Fine Tuning to the center of its range and switch to the channel to be adjusted. Adjust for best picture and sound.

A PHOTOFACT STANDARD NOTATION SCHEMATIC
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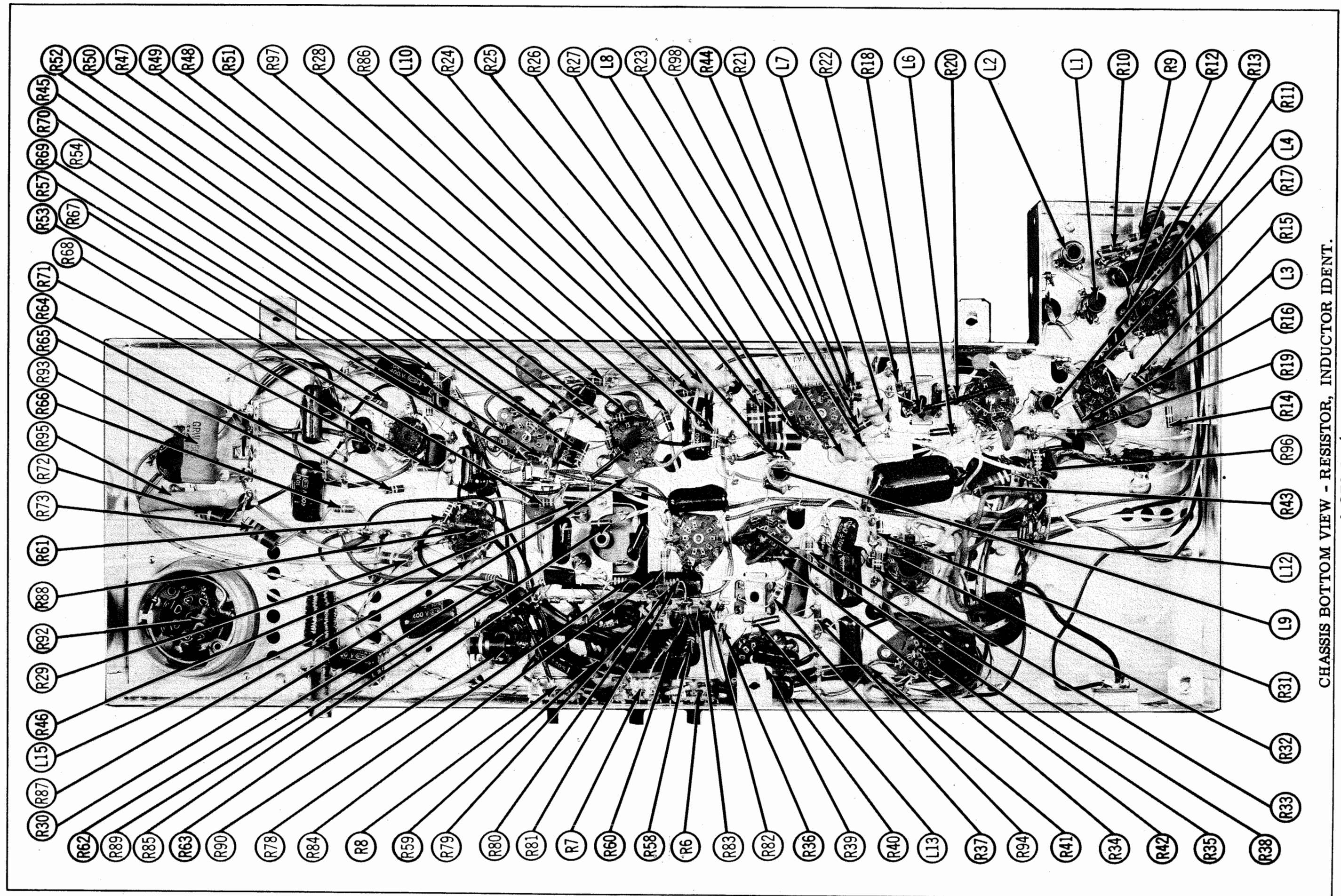
VHF TUNER A27-5681
ANDREA CHASSIS
VT-123, VT-123-1

FOLDER 1



CHASSIS BOTTOM VIEW - ALIGNMENT, CAPACITOR IDENT.

ANDREA CHASSIS
VT-123, VT-123-1



CHASSIS BOTTOM VIEW - RESISTOR, INDUCTOR IDENT.

ANDREA CHASSIS
VT-123, VT-123-1

FOLDER 1

PARTS LIST AND DESCRIPTIONS

CONTROLS (cont)

ITEM No.	RATING	REPLACEMENT DATA					INSTALLATION NOTES
		ANDREA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R2A	500K	A33-0902	B-415	A47-500-S	Q17-105	U52R	Contrast
B	50K	A33-0899	Not Req.	KSS-3	Q11-123	Not Req.	Horiz. Hold
R3A	50K	A33-0899	Not Req.	KSS-3	Q11-123	U35	Vert. Hold
B	1.25meg	A33-0898 ①	B-742	A47-1.5meg-S	Q11-138	U155	Brightness
R4A	50K	A33-0900	Not Req.	KSS-3	Q11-328	U415	Vert. Linearity
B	1.5meg	A33-0894 ②	TT-742	B47-1.5meg-S	B11-138	TA155L	Height
R7A	1meg	A33-0895	TT-69	B47-1meg-S	B11-137	TA16L	Horiz. Drive
B	10K	A33-0896	Not Req.	B47-10K-S	B11-116	TA14L	
R8A	50K		Not Req.	Not Req.	TM4	Not Req.	

① Some versions may use Part #A33-0912.
② Some versions may use Part #A33-0913.

* Factory Assembled Part #PPQ13-133 (SK7).

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	180K				R54	3.3meg			(1meg) *
R10	8.8meg				R55	560K			(270K) *
R11	3300Ω				R56	680K			
R12	1000Ω				R57	1.2meg			
R13	68Ω				R58	470K			
R14	1000Ω				R59	82K			
R15	6800Ω 5%				R60	220K			
R16	1000Ω				R61	470K			
R17	47Ω				R62	330K			
R18	1000Ω				R63	330K			
R19	1000Ω				R64	15K			
R20	220Ω				R65	10K			
R21	10K				R66	18K			
R22	4700Ω				R67	470K			
R23	12K				R68	22K			
R24	22K				R69	10K			
R25	10K 5% 2W				R70	18K			
R26	10K 5% 2W				R71	180Ω			
R27	18K 2W				R72	330Ω 2W			
R28	150K				R73	330Ω 2W			
R29	150K 1W				R74	220Ω			
R30	150K				R75	220Ω			
R31	47K				R76	3.0Ω (Cold)			
R32	100K				R77	100K			
R33	10K				R78	330K			
R34	1000Ω				R79	820K			
R35	100Ω				R80	1meg			
R36	1000Ω				R81	330K			
R37	33Ω				R82	3900Ω			
R38	18K				R83	82K			
R39	4.7meg				R84	150K			
R40	330K				R85	8200Ω			
R41	100K				R86	27K			
R42	470K				R87	100Ω			
R43	390Ω 1W				R88	470K			
R44	18K				R89	470Ω			
R45	470K				R90	10K 5% 2W			
R46	2.2meg				R91	4700Ω			
R47	22K				R92	1.2Ω			
R48	27K				R93	2300Ω 5% 15W	PW15-2300	15W-SQ-2300	
R49	1meg				R94	22K	PW7-1500	7W-SQ-1500	
R50	10K 1W				R95	1500Ω 5% 7W	PW7-1500	7W-SQ-1500	
R51	4700Ω				R96	330K			
R52	47K				R97	6800Ω			
R53	47K				R98	2200Ω			

* Value used in later production chassis.

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		ANDREA PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Workman TV PART No.	
L1A	1st Video IF	A51-0430	TV-156	6221	RTC-8552	T224	
L2	41.25MC Trap	A51-0381	TV-153	6225	RTC-8556	T218	
L3	2nd Video IF	A51-0378	TV-130	6219	RTC-8551	T217	
L4	3rd Video IF	A51-0378	TV-130	6219	RTC-8551	T217	
L5	4th Video IF	A51-0380	TV-126	6234	RTC-8563	T211	
L6	RF Choke (12.6uh)	A51-0420	BC-566	4622	RTC-8523	T861	
L7	Peaking (440uh)	A51-0423	TV-202	6136	RTC-8579	T322	
L8	Peaking (440uh)	A51-0423	TV-202	6136	RTC-8579	T322	
L9A	Peaking (280uh)	A51-0424	TV-198	6130	RTC-8578	T316	
B	Sound Takeoff	A51-0384	TV-161	1469	RTC-8602	T249	
L10	Peaking (270uh)	A51-0426	TV-198	6130	RTC-8578	T316	
L11	Ratio Detector	A51-0426	TV-115	6205	RTC-8620	T237	
L12	RF Choke (12.6uh)	A51-0420	BC-566	4622	RTC-8523	T861	
L13	Full Choke (2uh)	A51-0416	BC-563	4606	RTC-8517	T857	

COILS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		ANDREA PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Workman TV PART No.	
L14A	Horiz. Osc.	A51-0428	TV-162	6183	RTC-8612	HS-3	① Enlarge mounting hole.
L15	Horiz. Waveform Width	A51-0418	MWC-6	6322	WC-8A	WC-22①	

FILTER CHOKE

ITEM No.	RATINGS	REPLACEMENT DATA					NOTES
		ANDREA PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
L16	CURRENT (Measured) DC RES. INDUCTANCE (0 CURRENT 1000 Ω)	A52-3129	C-2996①	C-2343	26C93 ①	C-34X	① Drill new mounting hole(s).

TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA					NOTES
		ANDREA PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	117V ① 1.86A 540VCT ② 300A DC SEC. 3 SEC. 4 SEC. 5 12.6VCT ③ 5.4A	A52-3128 ①				R-88A	① Part #A52-3138 Used in 50-cycle version.

TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		ANDREA PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	Vert. Output Yoke (Horiz. 18MHZ) (110V) (Vert. 12MHZ) Yoke (Assembled) Rear Cover and Centering Device Horiz. Output	A52-3106 A52-3096 S-150 A52-3094 A52-3120		Y-27A	Y-52 ①	A-113X Y-90-1 ① ②	
T3							
T4						D-186 *	

① Add Lead to Yoke Terminal #5 and use original 4700Ω Resistor. Connect same as original.
② Remove 470Ω Resistor across Vertical Winding.
③ Use original Yoke Damping Network, rear cover and centering device, if necessary.

* HORIZONTAL OUTPUT TRANSFORMER CONNECTION DATA

Use Original Width Coil Unless Replacement Type Is Listed

ORIGINAL TERMINAL CONNECTIONS	Merit Replacement Connections	Stancor Replacement Connections	Thordarson Replacement Connections	Triad Replacement Connections
6				5
5				4
4				3
3				x
2				2
1				1
Connect Width Coil Across				1 & 2

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA					NOTES
		ANDREA PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T5	5800Ω	A52-3104	A-3019	A-8092	26849	S-5Z	

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		ANDREA PART No.	QUAM PART No.	
SPI	4" x 6" PM 4" x 6" PM	A53-4061 ① A53-4037 ②	46A07	① Used in Table Models (Chassis VT-123). ② Used in Lowboy Models (Chassis VT-123-1).

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA				BUSS PART No.
			ANDREA PART No.	FUSE	HOLDER	FUSE	
M1	SAG	1/4A 250V 5/8V	A53-5542	A23-5543		313.250 (SAG 1/4A 250V 5/8V)	MDL 1/4 4405

MISCELLANEOUS

ITEM No.	PART NAME	ANDREA PART No.	NOTES
M2	Tuner	A27-5681	VHF Complete STANDARD COIL REPLACEMENT #GG-4220A

CABINETS & CABINET PARTS

(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

NAME	PART NO.	DESCRIPTION
Mask Knob	A26-5711	Channel Selector
Knob	A26-5709	Fine Tuning
Knob	A26-5690	On-Off Volume, Contrast
Knob	A26-5691	Horizontal, Vertical, Brightness
Knob	A26-5710	

WIRING DATA

High Voltage Lead	Use BELDEN No. 8889
Shielded Hook-up Wire	Use BELDEN No. 8885 (Single Conductor) 8738 (Two Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in Ten Colors 8524 (Stranded) Available in Ten Colors
Power Cord (Interlock Type)	Use BELDEN No. 8874
300Ω Tuner Input Lead	Use BELDEN No. 8225
300Ω Antenna Lead-In	Use BELDEN No. 8230 or 8275
Antenna Rotor Cable	Use BELDEN No. 8484 (Flat) or 8484 (Round) - 4 Conductor 8485 (Round) - 5 Conductor 8486 (Round) - 8 Conductor

TUBES

GENERAL ELECTRIC			RAYTHEON			SYLVANIA		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	1st Video IF Amp.	6BZ6	V8	Audio Output	6AQ5A			
V2	2nd Video IF Amp.	6BZ6	V9	Sync Limiter - Vert. Mult.	6CG7			
V3	3rd Video IF Amp. - Video Detector	6AS8	V10	Vert. Mult. - Vert. Output	6EM5			
V4	Video Output - Sync Amp.	6CX8	V11	Horiz. AFC - Horiz. Osc.	6CG7			
V5	AGC Keying - Sync Sep.	6AW8A	V12	Horiz. Output	6DQ6B			
V6	Sound IF Amp.	6AU6	V13	Damper	6DE4			
V7	Ratio Detector - AF Amp.	6TA8	V14	HV Rectifier	1B3GT			
			V15	LV Rectifier	5U4GB			

PICTURE TUBE

ITEM No.	REPLACEMENT DATA				NOTES
	ANDREA PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	RAYTHEON PART No.	
V16	23GP4	23CP4/GP4 ①	23CP4 ①	23CP4 ②	① Aluminized ② Silver Screen "85"

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA						
		ANDREA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.
CLA	40 450	A35-1369	AFB3-43	C0340	XC3-15	FP376.8	TMT-3742	TVL-3785
B	40 450							
C	40 25							
C2A	20 450	A35-1370	AFB4-19-10	D0179.3	XC4-13	FP474.5	TMQ-4752	TVL-4832
B	20 450							
C	20 450							
D	20 450							
C3	4 450	A35-1354	PR81710	BR445	QTL-2.1	TC897	TD-4-450	TVA-1702
C4	2 100	A35-1367	PR81706	BR245	QTL-1	TT150X2	TD-2-450	TVA-1701

FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA						
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCOR PART No.	MALLORY PART No.	SPRAGUE PART No.	
C5	.047 400V		P488N-047	DD-503	CUB4847	4DP-3-473	GEM-4142	4TM-847	
C6	1.0 100V		P288N-1.0		CUB28W1	1DP-5-105	GEM-21	2TM-M1	
C7	.1 200V		P288N-1	DF-104	CUB2P1	2DP-3-104	GEM-201	2TM-P10	
C8	43 200V 5%		1469-000043	TCZ-43	22R5Q43	CM-19B-430J		MS-443	
C9	40 N750 5%			C10CN-39	C10Q39U	CCTN-390		10TCU-Q39	
C10	.001		BPD-001	DD-102	BYA10DI	CCD-102	CNT-439	B-210	
C11	.330 10%		DI-330	DD-331	LIOT33	CCD-331	B-210	5HK-D10	
C12	.001		BPD-001	DD-102	BYA10DI	CCD-102	B-210	5HK-D10	
C13	.330 10%		DI-330	DD-331	LIOT33	CCD-331	GP333	10TS-T33	
C14	.001		BPD-001	DD-102	BYA10DI	CCD-102	B-210	5HK-D10	
C15	.001		BPD-001	DD-102	BYA10DI	CCD-102	B-210	5HK-D10	
C16	.820 10%		DI-820	DD-821	5R5T82	CCD-821	GP382	10TS-T82	
C17	.001		BPD-001	DD-102	BYA10DI	CCD-102	B-210	5HK-D10	
C18	.001		BPD-001	DD-102	BYA10DI	CCD-102	B-210	5HK-D10	
C19	10 N750 5%		N750-DI 10	DTZ-10	C10QU	CCTN-100	CNT-410	10TCU-Q10	
C20	8 NPO 5%	#A34-1981			C10V9C			10TCV-Q56	
C21	15 N75 5%								
C22	1 400V 10%								
C23	.01	#A37-1616	V84C4PI-10%		PM4PI	4DP-3-104	GEM-1001	4TM-P10	
C24	300 2000V 10%		BPD-01	DD-103	BYA10SI	CCD-103	B-110	5HK-S10	
C25	.01								
C26	.01		BPD-01	DD-103	BYA10SI	CCD-103	B-110	5HK-S10	
C27	.001		BPD-001	DD-102	BYA10DI	CCD-102	B-210	5HK-D10	
C28	.0047 400V 10%		V84C4D47-10%		PM6D47	6DP-1-472	JL-247	6TM-D47	
C29	.01 800V		P688N-01	D6-103	CUB681	6DP-3-103	GEM-611	6TM-S10	
C30	.047 400V		P488N-047	DD-503	CUB4847	4DP-3-473	GEM-4147	4TM-847	
C31	.047 600V		P488N-047	DD-503	CUB6847	4DP-3-473	GEM-6147	6TM-847	
C32	.01		P1068N-01	DD-103	BYA10SI	CCD-103	B-110	5HK-S10	
C33	.01		BPD-01	DD-103	BYA10SI	CCD-103	B-110	5HK-S10	
C34	200 10%		1469-000025	TCZ-240	LIOT25	CM-19B-251K	MCB-240	MS-325	
C35	.01		BPD-01	DD-103	BYA10SI	CCD-103	B-110	5HK-S10	
C36	.01		BPD-01	DD-103	BYA10SI	CCD-103	B-110	5HK-S10	
C37	.01		BPD-01	DD-103	BYA10SI	CCD-103	B-110	5HK-S10	
C38	.0047 400V 10%		V84C4D47-10%		PM6D47	6DP-1-472	JL-247	6TM-D47	
C39	.0033 400V 10%		V84C4D33-10%		PM6D33	6DP-1-332	JL-233	6TM-D33	
C40	.047 400V 10%		V84C4S47-10%		PM4S47	4DP-3-473	GEM-1615	4TM-847	
C41	.015 400V 10%		V84C4S15-10%		PM4S15	4DP-1-153		4TM-S15	
C42	.1 400V 10%		V84C4PI-10%		PM4PI	4DP-3-104	GEM-1001	4TM-P10	
C43	.047 400V 10%		P488N-047	DD-503	CUB4847	4DP-3-473	GEM-4147	4TM-847	
C44	.0033 400V 10%		V84C4D33-10%		PM6D33	6DP-1-332	JL-233	6TM-D33	
C45	.015 400V 10%		V84C4S15-10%		PM4S15	4DP-1-153		4TM-S15	
C46	.022 400V 10%		V84C4S22-10%		PM4S22	4DP-1-223	GEM-1612	4TM-S22	
C47	.001 2000V		HYD-10-1000	DD30-102	HYB20DI	3CCD-102	HYB-210	30CA-102	
C48	.82 10%		1469-000082	TCZ-82	22R5Q82	CM-19B-820K	CNO-482	MS-482	
C49	.82 10%		1469-000082	TCZ-82	22R5Q82	CM-19B-820K	CNO-482	MS-482	
C50	.047 400V		P488N-047	DD-503	CUB4847	4DP-3-473	GEM-4147	4TM-847	
C51	.047 400V		P488N-047	DD-503	CUB4847	4DP-3-473	GEM-4147	4TM-847	
C52	.022 400V 10%		V84C4S22-10%		PM4S22	4DP-2-223	GEM-1612	4TM-S22	
C53	.47 200V		P288N-47		CUB2P47	2DP-5-474	GEM-2047	2TM-P47	
C54	.330 5%		1469-000033		5R5T33	CM-19B-331J		MS-333	
C55	.0013 N5200 10%	#A34-2001							
C56	.0082 600V 10%								
C57	.820 10%								
C58	.001		BPD-001	DD-102	DPMS8D82	6DP-2-822	GEM-16282	6PS-D82	
C59	.0047 400V		1469-000082		5R5T82	CM-19B-821K	MCB251	MS-382	
C60	.047 400V		P488N-047	DD-472	BYA10DI	CCD-102	B-210	5HK-D10	
C61	.1 400V 10%		CUB6D47		CUB6D47	4DP-1-172	GEM-6247	6TM-D47	
C62	125 5000V 5%	#A34-1986	P488N-047	DD-503	CUB4847	4DP-3-473	GEM-4147	4TM-847	
C63	.039 6000V 10%		V84C4PI-10%		PM4PI	4DP-3-104	GEM-1001	4TM-P10	
C64	.75 2000V 10%	#A34-1985	P684CM-039		DPMS6S39	6DP-3-393		6PS-S39	
C65	.001			BPD-001	DD-102	HYB20Q75			
					BYA10DI	CCD-102	B-210	5HK-D10	