

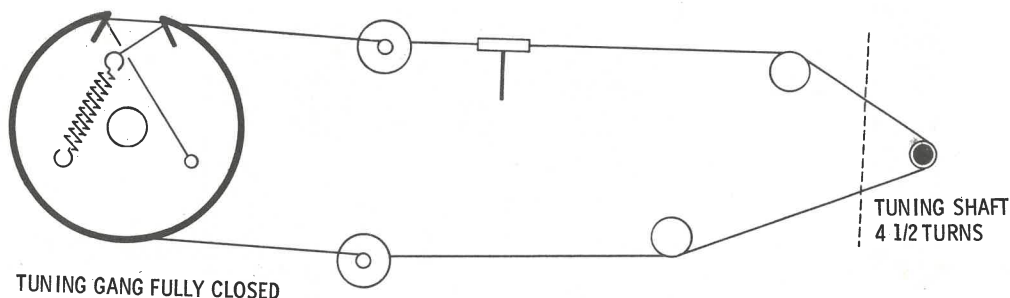
For Supplier Address See PHOTOFACT Index
FOR SERVICE INFORMATION ON RECORD CHANGER — SEE SIMILAR CHANGER — PHOTOFACT SET 896, FOLDER 7

RCA CHASSIS
RC-1227F/J

RCA Models VLP68W, VLT11W/16W/20W/22L/29L/30W/32L/33S/34F/80SK/83WK/84LK/88LK/90FK

ALSO VMT 10W, 13L, 14S, 15W, 16W, 17L, 18W, 19S, 27L, 25S

DIAL CORD STRINGING



REMEMBER TO ASK— “What else needs fixing?”

HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206



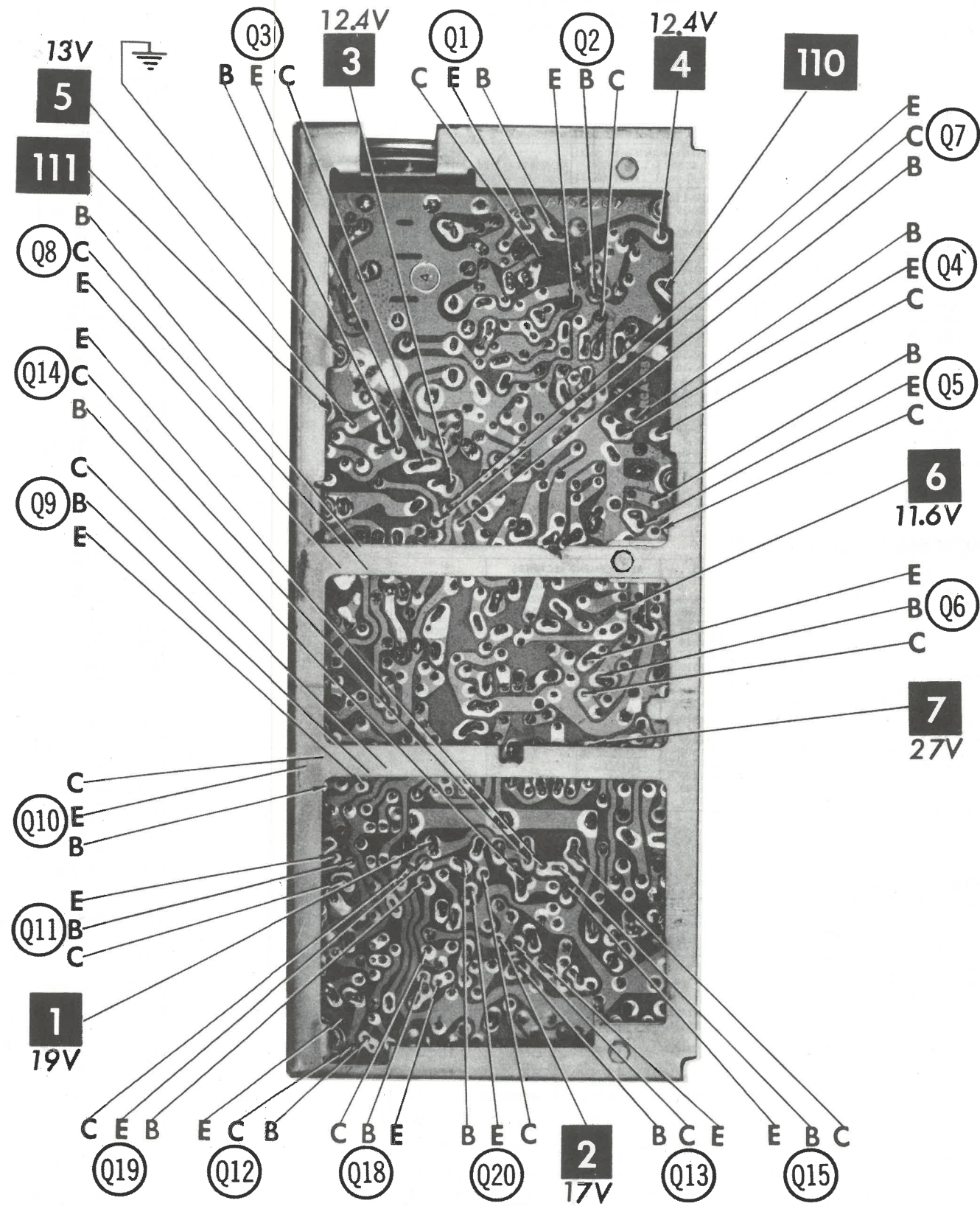
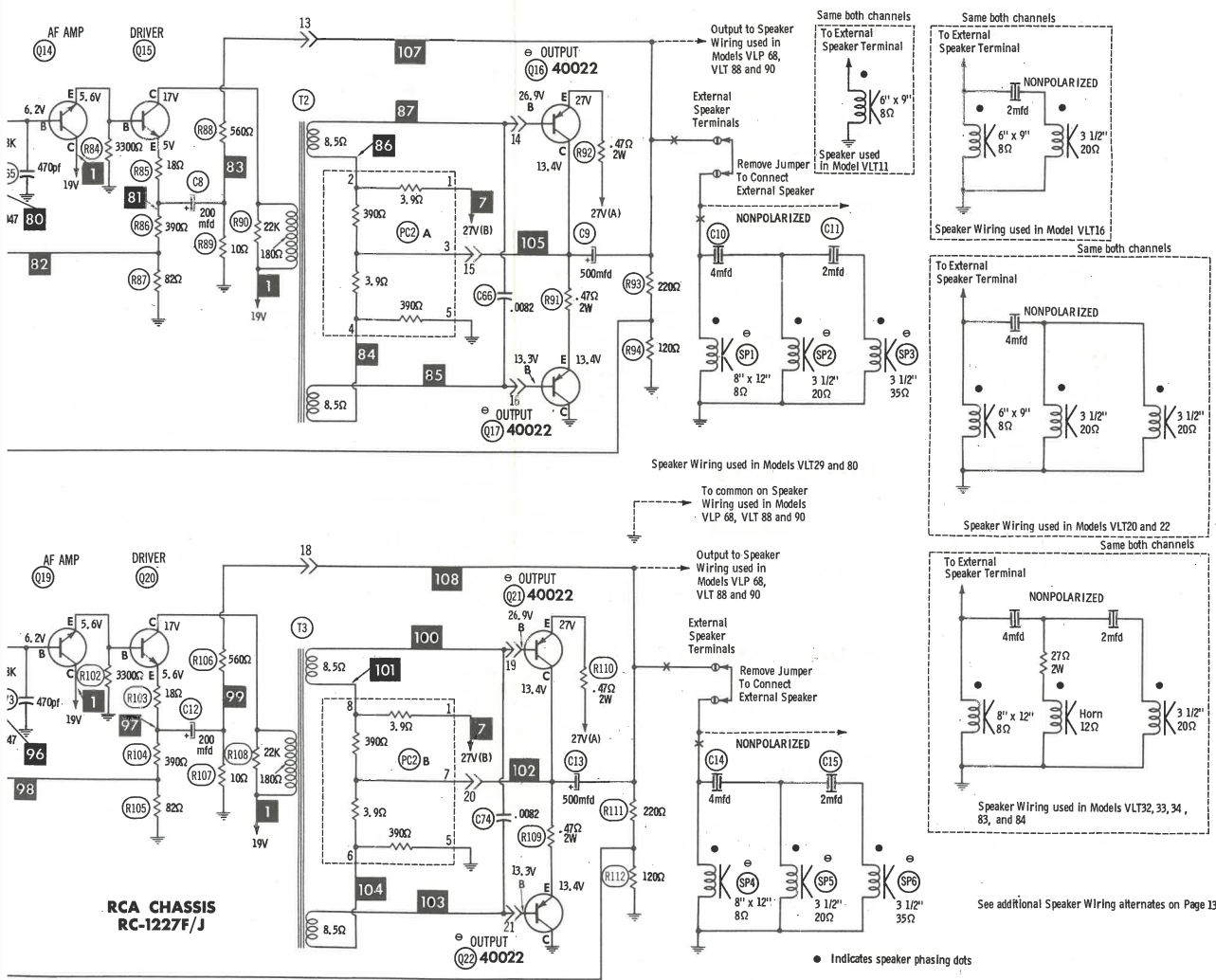
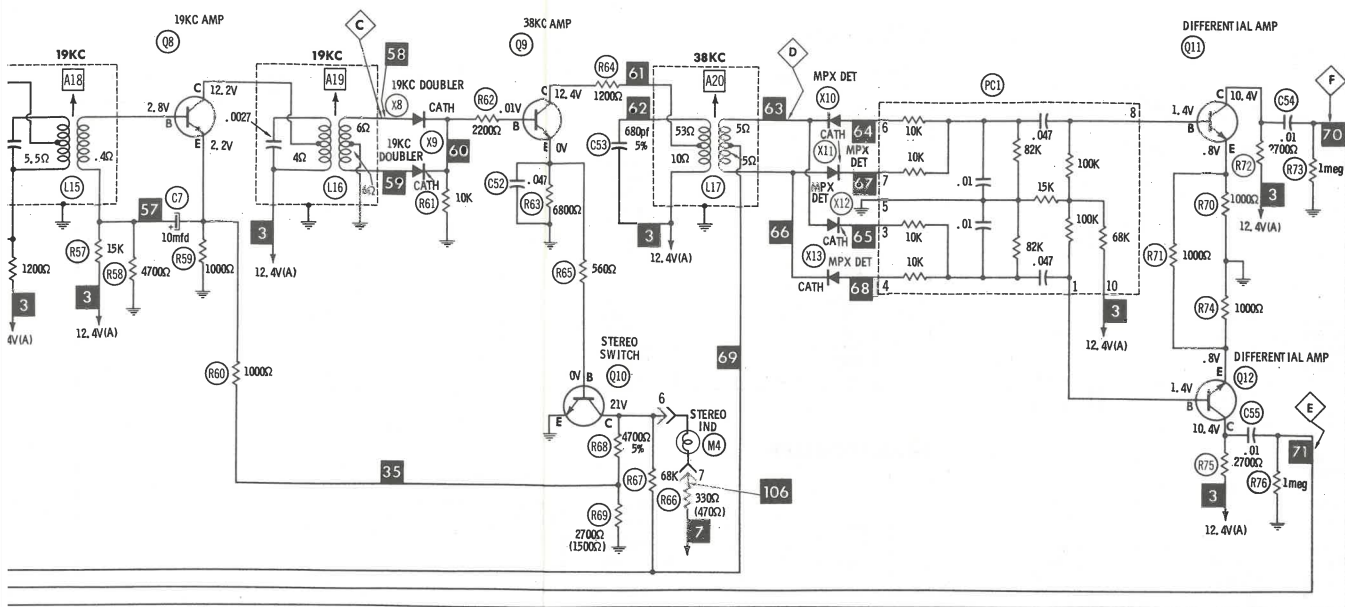
The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. SN973

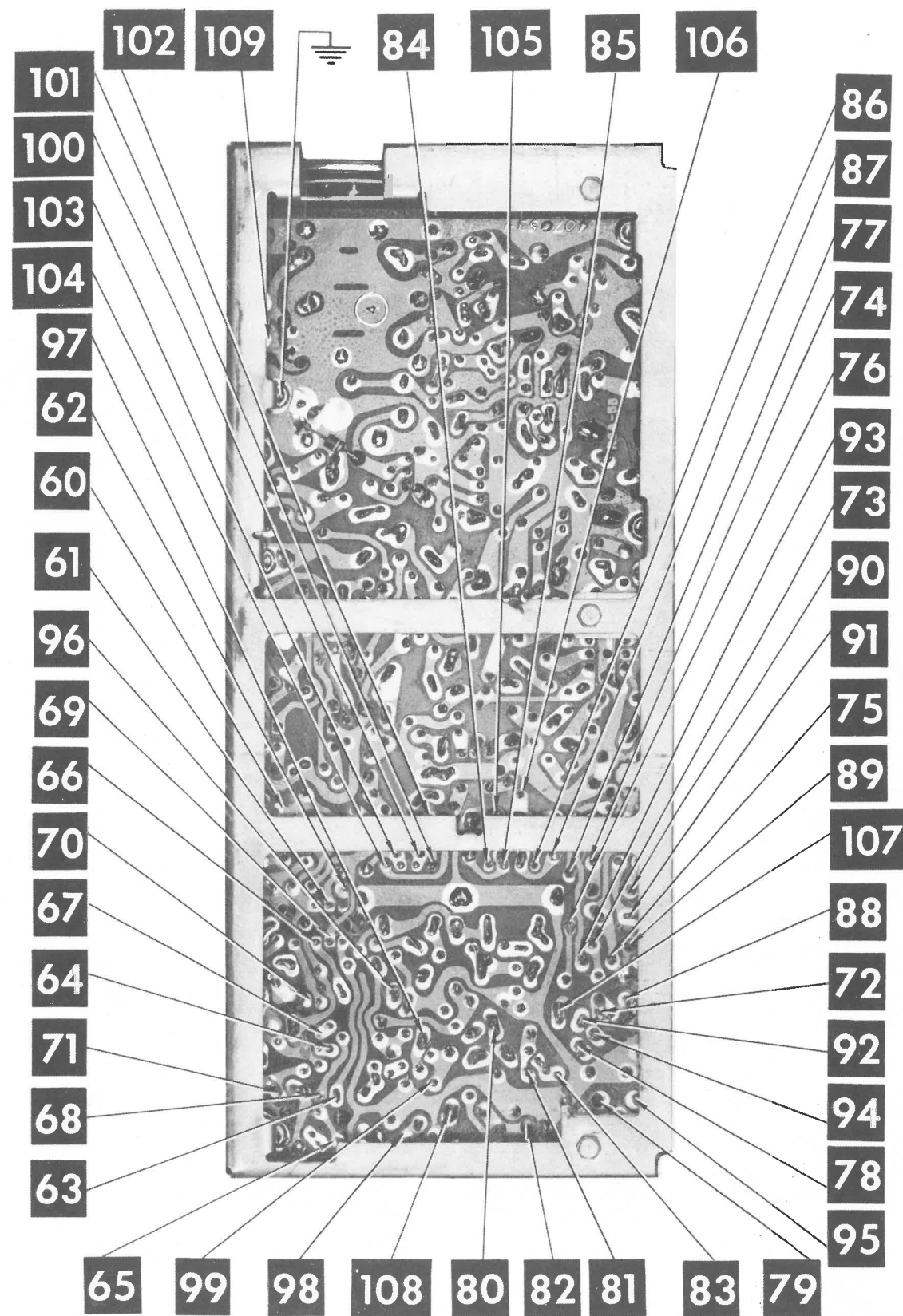
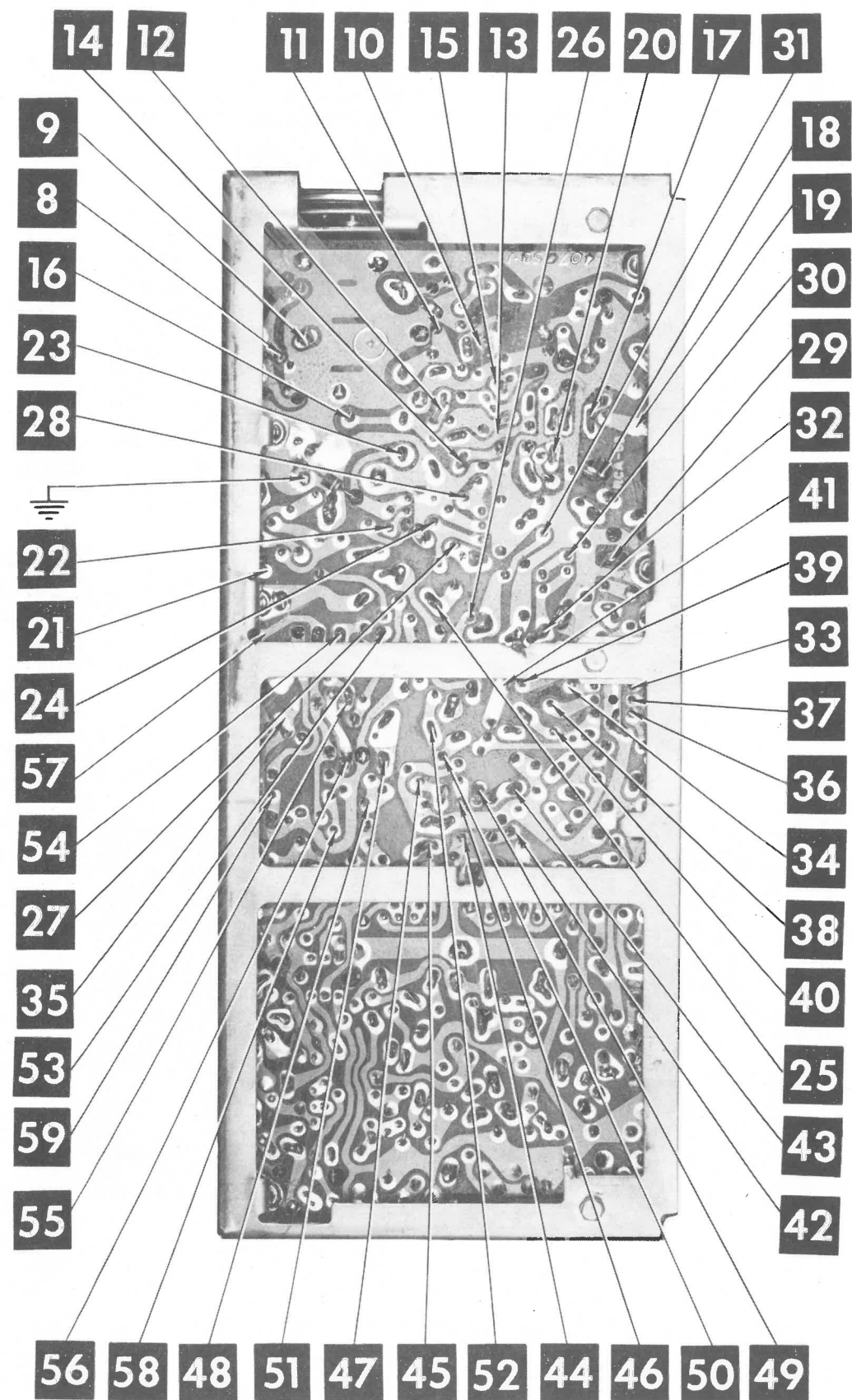
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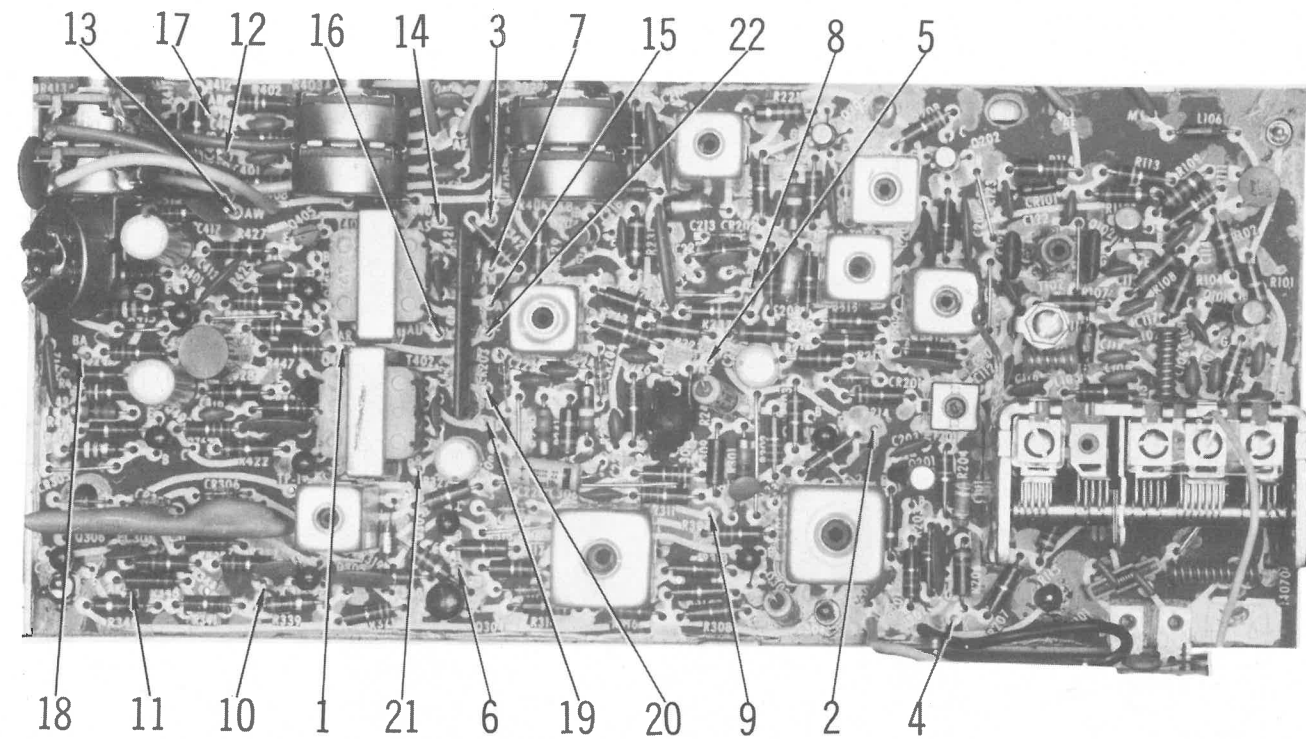
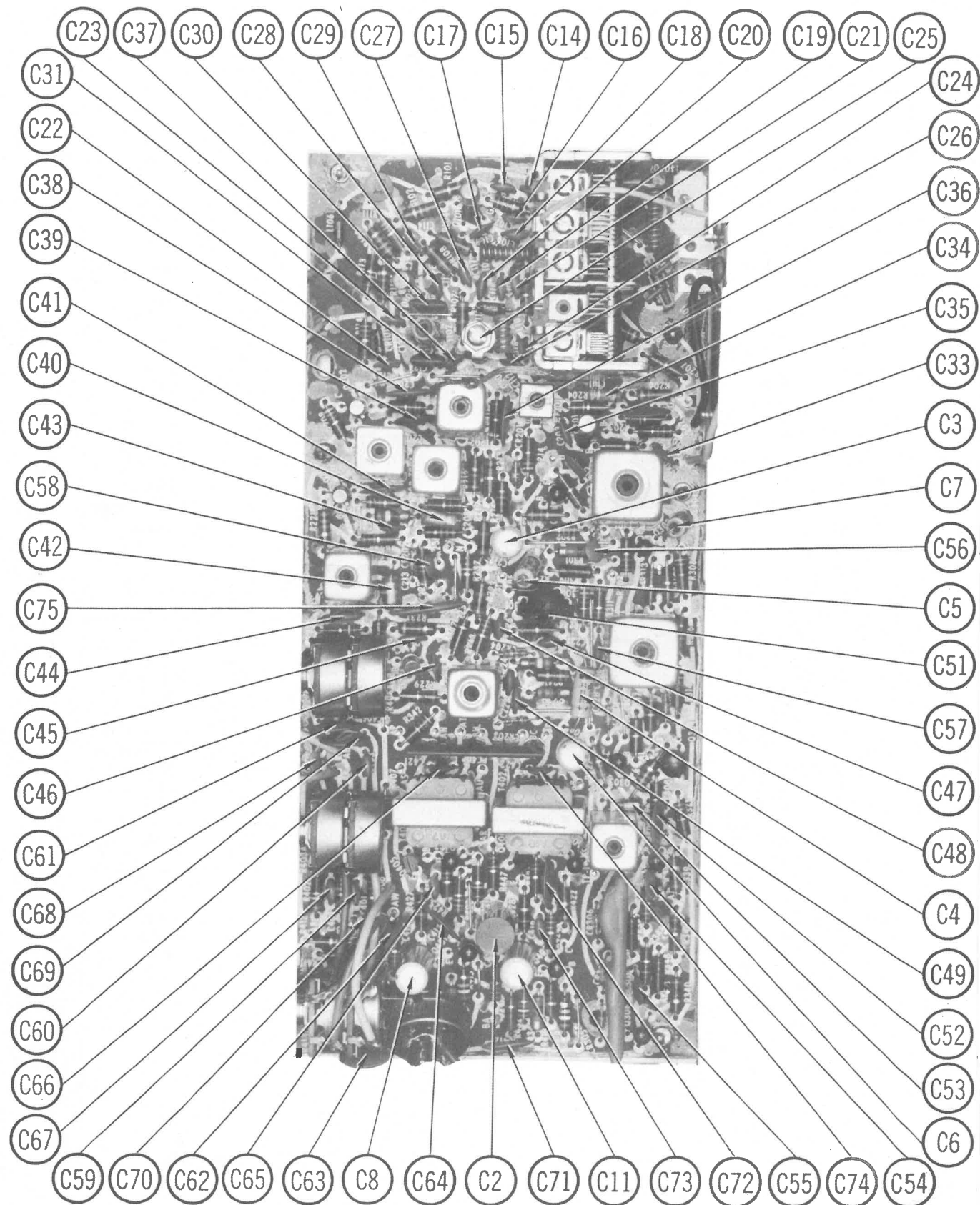
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SET 1001 FOLDER 3

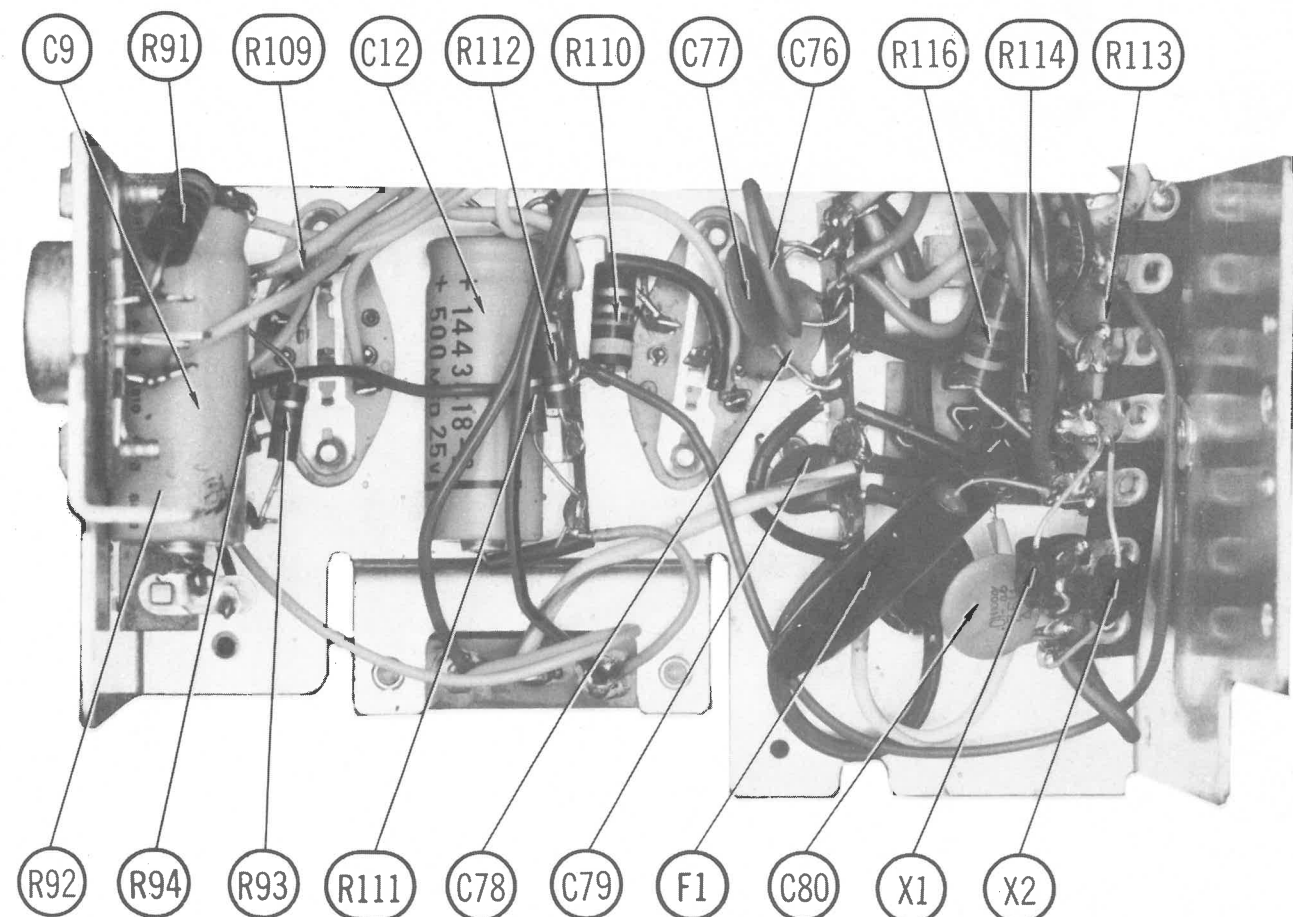
RCA CHASSIS
RC-1227F/J

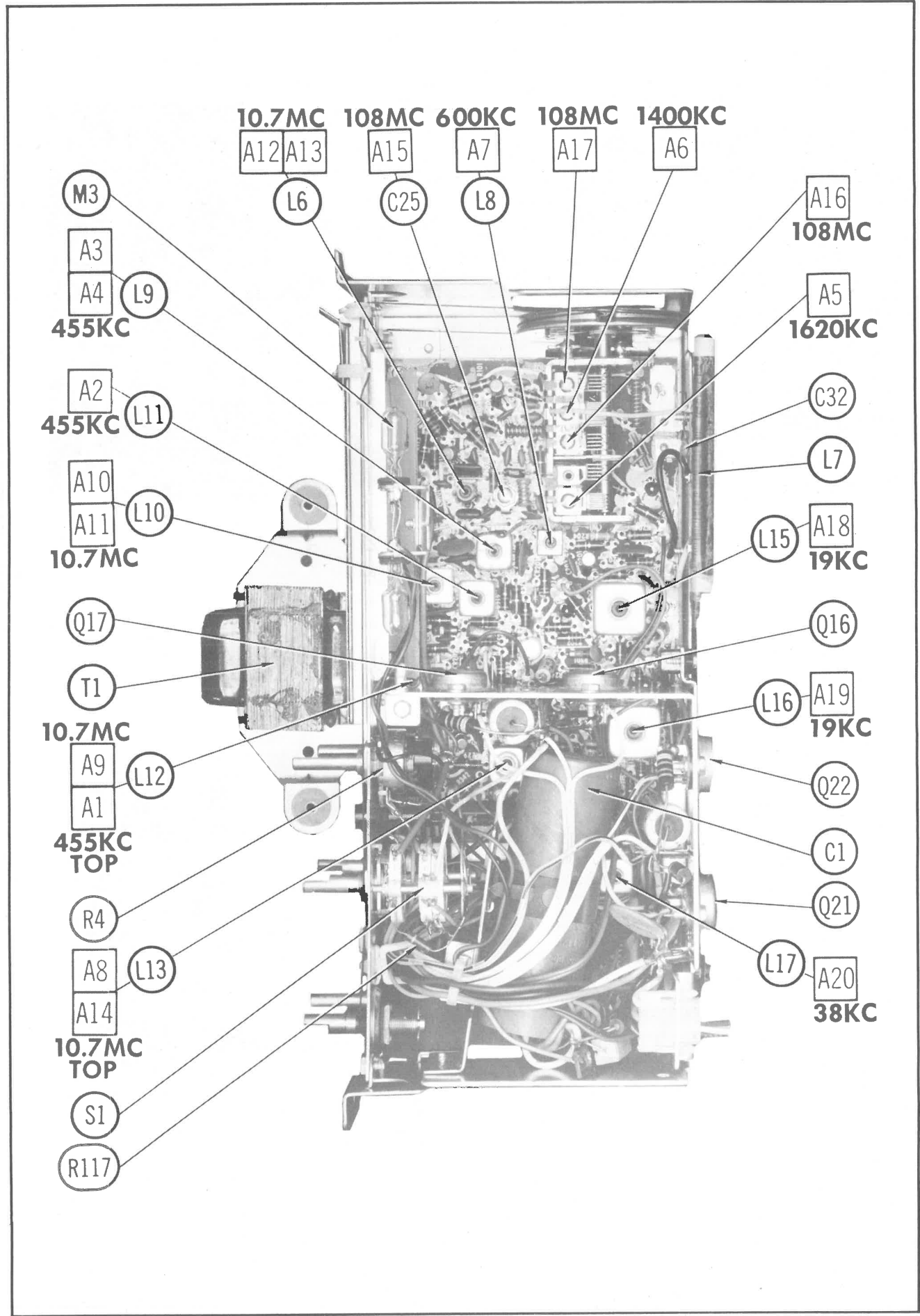






CONNECTOR TERMINAL GUIDE





ALIGNMENT INSTRUCTIONS

Maintain line voltage at 117 volts. Use only enough generator output to obtain a suitable indication. Allow a 15 minute warmup for receiver and equipment.
CAUTION: Use isolation transformer, if available. If not, observe polarity when connecting test equipment.
Suggested Alignment Tools:
A1 thru A4, A8 thru A14, A20..... GENERAL CEMENT #9296, 9297, 9300..... WALSCO #2510, 2546, 2547
A5, A6, A15, A16, A17..... GENERAL CEMENT #8868, 8987, 9089..... WALSCO #2531-X, 2541, 2587
A7, A18, A19..... GENERAL CEMENT #9440..... WALSCO #2501

AM ALIGNMENT - SELECTOR IN AM POSITION

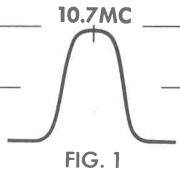
Fashion loop of several turns of wire and connect generator across loop. Set volume control at maximum.

GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
1. 455KC (400v Mod.)	Tuning gang fully open.	Output meter across voice coil.	A1, A2, A3, A4	Adjust for maximum. Repeat until no further improvement can be made.
2. 1620KC	"	"	A5	Adjust for maximum.
3. 1400KC	Tune to signal.	"	A6	"
4. 600KC	"	"	A7	Rock tuning gang and adjust for maximum. Repeat steps 2 thru 4 until no further improvement can be made.

FM IF ALIGNMENT USING AM SIGNAL GENERATOR - SELECTOR IN FM POSITION

High side of generator thru .001 to RF gang, low side to ground.

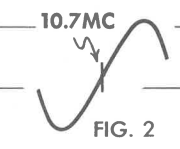
GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
5. 10.7MC (Unmod.)	Point of non-interference.	DC probe of VTVM to point \diamond , common to ground.	A8, A9, A10, A11, A12, A13	Adjust for maximum.
6. "	"	DC probe to point \diamond , common to ground.	A14	Adjust for zero reading. A positive or negative reading will be obtained on either side of the correct setting.



FM IF ALIGNMENT USING FM SIGNAL GENERATOR - SELECTOR IN FM POSITION

High side of generator thru .001mfd to RF gang, low side to ground. Use only enough marker signal for indication. Use 60v frequency modulated signal with 450KC sweep. Use 60v sawtooth voltage in scope for horizontal deflection.

GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
5. 10.7MC (450KC Swp.)	Point of non-interference	Vert. amp. of scope to point \diamond , low side to ground.	A8, A9, A10, A11, A12, A13	Disconnect stabilizing capacitor C4. Adjust for maximum gain and symmetry of response similar to Fig. 1 with marker as shown. Reconnect C4.
6. "	"	Vert. amp. to point \diamond , low side to ground.	A14	Adjust A14 (secondary) to place marker at center of "S" curve similar to Fig. 2. Adjust A8 (primary) for maximum amplitude and straightness of line.



FM RF ALIGNMENT - SELECTOR IN FM POSITION

Connect generator across antenna terminals with 120Ω carbon resistors in series with each lead.

GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
7. 108MC	Set at high end.	DC probe of VTVM to point \diamond , common to ground.	A15, A16, A17	Adjust for maximum.

FM STEREO MULTIPLEX ALIGNMENT USING FM STEREO SIGNAL GENERATOR (± .0001% ACCURACY)

High side of generator thru 47K to point \diamond , low side to ground.

GENERATOR FREQUENCY	INDICATOR	ADJUST	REMARKS
8. 19KC	Vert. amp. thru 47K to point \diamond , low side to ground.	A18, A19	Adjust for maximum.
9. "	Vert. amp. thru 47K to point \diamond , low side to ground.	A20	Adjust for maximum 38KC response.
10. Modulated Left Channel	Vert. amp. to point \diamond , low side to ground.	A18, A19, A20	Adjust for MINIMUM. This step should require only slight adjustment.
11. Modulated Right Channel	Vert. amp. to point \diamond , low side to ground.		Check for MINIMUM. If necessary make compromise adjustments of A18, A19 & A20.

WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors
Power Cord	8524 (Stranded) Available in 12 Colors
Low-Loss Shielded Lead (Interconnecting)	Use BELDEN No. 17106 (Plastic) or 17126 (Rubber) - 6 Ft.
Phono Pick-up Arm Cable	17109 (Plastic) or 17129 (Rubber) - 9 Ft.
	Use BELDEN No. 8401 or 8421
	Use BELDEN No. 8430 (Two Conductor-Unshielded)
	8429 (Two Conductor-Shielded)
	8419 (Three Conductor-Shielded)

TRANSISTORS

ITEM No.	TYPE No.	FUNCTION	REPLACEMENT DATA						
			MFGR. PART No.	DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MOTOROLA	RCA	SYLVANIA PART No.
Q1	2N1526	FM RF Amp.	119557	DS-81	GE-17	TR-22	HEP50	SK-3018	ECG 108
Q2		FM Converter	119556	DS-81	GE-17	TR-22	HEP50	SK-3018	ECG 108
Q3		AM Converter		DS-25	GE-1	TR-11	HEP251	SK-3008	ECG 100
Q4		1st AM/FM IF	119554	DS-74	GE-20	TR-21	HEP54	SK-3018	ECG 108
Q5		2nd AM/FM IF	119555	DS-74	GE-20	TR-21	HEP54	SK-3018	ECG 108
Q6		3rd FM IF	119555	DS-74	GE-20	TR-21	HEP54	SK-3018	ECG 108
Q7		MPX Input Amp.	122664	DS-66	GE-10	TR-21	HEP54	SK-3020	ECG 123
Q8		19KC Amp.	122664	DS-66	GE-10	TR-21	HEP54	SK-3020	ECG 123
Q9		38KC Amp.	115225	DS-66	GE-10	TR-21	HEP54	SK-3020	ECG 123
Q10		Stereo Ind. Control	120074	DS-66	GE-10	TR-21	HEP54	SK-3020	ECG 123
Q11	40022	Differential Amp.	115225	DS-66	GE-10	TR-21	HEP54	SK-3020	ECG 123
Q12		Differential Amp.	115225	DS-66	GE-10	TR-21	HEP54	SK-3020	ECG 123
Q13		AF Amp.	115225	DS-66	GE-10	TR-21	HEP54	SK-3020	ECG 123
Q14		AF Amp.	115225	DS-66	GE-10	TR-21	HEP54	SK-3020	ECG 123
Q15		Driver	120073	DS-66	GE-10	TR-21	HEP54	SK-3020	ECG 123
Q16		Output	115268 ①	DS-520	GE-3	TR-01	HEP232	SK-3009	ECG 121
Q17		Output	115268 ①	DS-520	GE-3	TR-01	HEP232	SK-3009	ECG 121
Q18		AF Amp.	115225	DS-66	GE-10	TR-21	HEP54	SK-3020	ECG 123
Q19		AF Amp.	115225	DS-66	GE-10	TR-21	HEP54	SK-3020	ECG 123
Q20		Driver	120073	DS-66	GE-10	TR-21	HEP54	SK-3020	ECG 123
Q21	40022	Output	115268 ①	DS-520	GE-3	TR-01	HEP232	SK-3009	ECG 121
Q22		Output	115268 ①	DS-520	GE-3	TR-01	HEP232	SK-3009	ECG 121

① When replacing, apply silicone grease to both sides of insulator. Tighten mounting screws securely.

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MFGR. PART OR TYPE No.	REPLACEMENT RECTIFIERS & DIODES			REPLACEMENT RECTIFIERS		NOTES
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	SYLVANIA PART No.	RCA PART No.	SARKES TARZIAN PART No.	
X1	117145	GE-504A	8D4 or 18DJ6A ①	ECG 116 or ECG 117	SK-3030 or SK-3031	40C or S-5981-N ①	① A single-unit replacement for both rectifiers. ② Variable Capacitor Diode. ③ Matched Pair.
X2	117145	GE-504A	8D4 or 18DJ6A ①	ECG 116 or ECG 117	SK-3030 or SK-3031	40C or S-5981-N ①	
Q3	115099 ②						
X4	112524	1N60	1N60	ECG 109			
X5	112524	1N60	1N60	ECG 109			
X6	115101 ③						
X7	(1N542) ③		1N542 ③	ECG 110 ③			
X8	112524	1N60	1N60	ECG 109			
X9	112524	1N60	1N60	ECG 109			
X10	112524	1N60	1N60	ECG 109			
X11	112524	1N60	1N60	ECG 109			
X12	112524	1N60	1N60	ECG 109			
X13	112524	1N60	1N60	ECG 109			

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA						
		RCA PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C1A	1500 35V	124005						
B	1000 35V	(1471495-1)						
C	1000 25V							
D	1000 15V							
C2	100 25V	118831	CRE623A	EA30-100	NLW100-25	MT1-20	MTV100CP25	TL-1211
C3	10 10V	116159	BCD10010	EP15-10	NLW10-15	MT1-5	MTV10CB50	TL-1128
C4	10 10V	(1443265-6)						
C5	10 10V	115597	CRE407A	EA15-10	NLW10-15	MT1-5	MTA10D35	TL-1128
C6	10 10V	(990130-22)						
C7	10 10V	115597	CRE407A	EA15-10	NLW10-15	MT1-5	MTA10D35	TL-1128
C8	200 6V	(990130-22)						
C9	500 25V	116159	BCD10010	EP15-10	NLW10-15	MT1-5	MTV10CB50	TL-1128
C10	4 25VNP	(1443265-6)						
C11	2 25VNP	115597	CRE407A	EA15-10	NLW10-15	MT1-5	MTA10D35	TL-1128
C12	200 6V	(990130-22)						
C13	500 25V	118880	BCD6200		NLW100-12	MT1-23	MTV200CK10	TL-1104
C14	4 25VNP	(1441016-11A17)						
C15	2 25VNP	111835	PRS1290	EA30-500	BR500-25	QT1-31	TC2505B	TL-1217
		(1441934-002)						
		(943319-19)	NP-PRS7405		BRNP4-50	NPQT-1	TCN504	TVAN-1202.2
		(1471040-6)	NP-PRS7300		BRNP-2-50	NPQT-1	TCN502	TVAN-1202
		118880	BCD6200		NLW100-12	MT1-23	MTV200CK10	TL-1104
		(1441016-11A17)						
		111835	PRS1290	EA30-500	BR500-25	QT1-31	TC2505B	TL-1217
		(1441934-002)						
		(943319-19)	NP-PRS7405		BRNP4-50	NPQT-1	TCN504	TVAN-1202.2
		(1471040-6)	NP-PRS7300		BRNP2-50	NPQT-1	TCN502	TVAN-1202

PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

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.
C14	4 NPO	#104177 #115092	NPO-DI 5.0	DTZ-4R7	CZ601CH5R0D	CCTO-050	CNO547	10TCC-V39
C15	5 NPO		GDV X5F102K	DD-102	JBS601Y102K	CCD-102	GP210	10TCC-V50
C16	.001		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	10TS-D10
C17	.01 25V		NPO-DI 5.0	DTZ-4R7	CZ601CH5R0D	CCTO-050	CNO547	10TCC-V50
C18	9 NPO ±.5							
C19	5 NPO							
C20	39 N750 5%							
C21	270 10%							
C22	.01 25V							
C23	6 NPO 5%							
C24	7 NPO ±.5							
C25	1-6							
C26	.01 25V		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C27	.01 25V	#110710	TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C28	10 N750 5%		N750-DI 10	DTN-10	CZ601UJ100J	CCTN-100	CN7410	10TCU-Q10
C29	.01 25V		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C30	220 5%		NPO-DI 5.0	DD-221	JTB2601YP221K	CCD-221	GP322	10TS-T22
C31	150 5%							
C32	5 NPO							
C33	.01							
C34	3.3 N3300 ±.25							
C35	.01 25V		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C36	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C37	.0082 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C38	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C39	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C40	.015 100V 10%	#118879	TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C41	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C42	.0047 5%		GDV X5F472K	DD-472	JBT601YP472K	CCD-472	GP247	10TS-D47
C43	.0022 25V		GDV X5F222K	DM-202	JBX601YP202K	CCD-202	GP220	5GAB-D22
C44	.0047		GDV X5F472K	DD-472	JBT601YP472K	CCD-472	GP247	10TS-D47
C45	.01 25V		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C46	.01 25V		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C47	330 25V 10%		GDV X5F331K	DD-331	JBZ601YP331K	CCD-331	GP331	10TS-T33
C48	330 25V 10%		GDV X5F331K	DD-331	JBZ601YP331K	CCD-331	GP331	10TS-T33
C49	330 25V 10%		GDV X5F331K	DD-331	JBZ601YP331K	CCD-331	GP331	10TS-T33
C50	330 25V 10%		GDV X5F331K	DD-331	JBZ601YP331K	CCD-331	GP331	10TS-T33
C51	680	#118879	TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C52	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C53	680		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C54	.01 25V		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C55	.01 25V		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C56	.0082 25V		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C57	.01 25V		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C58	.0082 25V		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C59	470 10%		GDV X5F471K	DD-471	JBZ601YP471K	CCD-471	GP347	10TS-T47
C60	.0033 25V		GDV X5R332K	DM-302	BY8601ZU302P	CCD-302	GP230	10TS-D30
C61	.047 25V	#118879	TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C62	.022 25V		TTP-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C63	.047		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C64	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C65	470		GDV X5F471K	DD-471	JBZ601YP471K	CCD-471	GP347	10TS-T47
C66	.0082 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C67	470 10%		GDV X5F471K	DD-471	JBZ601YP471K	CCD-471	GP347	10TS-T47
C68	.0033 25V		GDV X5R332K	DM-302	BY8601ZU302P	CCD-302	GP230	10TS-D30
C69	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C70	.022 25V		TTP-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C71	.047	#118879	TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C72	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C73	470		GDV X5F471K	DD-471	JBZ601YP471K	CCD-471	GP347	10TS-T47
C74	.0082 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C75	.0082		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C76	.01		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C77	.01		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C78	.01		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C79	470 1.4KV		TTP-01	CI-103	ACT142ZU103P	CCD-103	TA110	TG-S10
C80	.01		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C81	.01 25V	#118879	TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C82	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C83	.01 25V		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C84	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C85	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C86	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C87	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C88	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C89	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50
C90	.047 25V		TTP-05	CK-503	HOY101ZV503Z	CCD-503	TA150	TG-S50

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

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESISTANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
RIA	Loudness/Right	250K	118895 (1473301-1)				
B	Loudness/Left Switch	165K Tap 200K Tap 250K Tap 165K Tap 200K Tap 250K	125200 (1473300-4)	F2-250K, R2-250K, SF102, CPL-2	NP-250K-Z, NR-250K-Z, UP-B-400, DC-2	B13-130, B13-130, SK1, QCM or (BUI, CF23, CR18, SS14, SS7A, DC1)*	FA254A (P254A, 3014)③, RU254A, CS3500
R2A	Treble/Right	250K	125199 (1473300-3)	F2-250K, R2-250K, SF102, CPL-2	NP-250K-Z, NR-250K-Z, UP-B-400, DC-2	B13-130, B13-130, SK1, QCM or (BUI, CF23, CR18, SS14, SS7A, DC1)*	FA254A (P254A, 3014)③, RU254A, CS3500
B	Treble/Left	250K					
R3A	Bass/Right	250K					
B	Bass/Left	250K					
R4	Balance/AFC Switch	500K	125201 (1472208-12)	F7-500K ① SP U304, RR-8	C47S-500K-S ① FS-3 or (NP-500K-S ①) UPP-B-400, PPAP, NWG-18)	B11-133 ①, SK7 or (BUI, CP16 ①, SS10, K)*	PP55L ① or (RUP55L154 ①) SL35, SL250 or (P55L ①, 3014, FPP-1, SL250)

* "SNAPTROL"
① Ground the Arm (center) Terminal. ② Do not use Tap.
③ Panel and Bushing components listed in parenthesis may be substituted for the panel unit.

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L1	FM Antenna	115649			
L2	FM Antenna	115096			
L3	FM RF	115097			
L4	10.7MC Trap (1uh)	105513			
L5	FM Oscillator	118883			
L6	1st FM IF	118900			
L7	Loopstick	118877			
L8	AM Oscillator	118903			
L9	1st AM IF	118904			
L10	2nd FM IF	118901			
L11	2nd AM IF	118902			
L12	3rd AM-FM IF	118905			
L13	Ratio Det.	118906			
L14	72KC Trap	118944			
L15	19KC	117512			
L16	19KC	118907			
L17	38KC	118908			
L18	RF Choke (10uh)	115639	19-2017	4622	T861

TRANSFORMER (Power)

ITEM No.	RATING	REPLACEMENT DATA					NOTES
		MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VAC @ .09A AC	44VAC CT @ .6A ADC	6.3VAC @ .6A AC	118967 (1461174-9)			

TRANSFORMER (Driver)

ITEM No.	TURNS RATIO	REPLACEMENT DATA					NOTES
		MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	8	1	1	118909 (974812-8)			
T3	8	1	1	118909 (974812-8)			

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA			NOTES
		MFGR. PART No.	JENSEN PART No.	QUAM PART No.	
SP1	8" x 12" PM	130748			① Models #VLT88LK & VLT90FK ② Models #VLP68W, VLT16W VLT20W & VLT22L ③ Models #VLT30, VLT32, 33, 34, 83, 84, 88, 90
SP2	3 1/2" PM	111987			
SP3	3 1/2" PM	115890			
SP4	8" x 12" PM	120748			
SP5	3 1/2" PM	111987			
SP6	3 1/2" PM	115890			
	15" x 9" PM	111988 ①			
	6" x 9" PM	125570 ②			
	Horn	125747 ③			

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER	DEVICE
F1	3AG Pigtail 3A	120082		GJV3		318003,		

PHONO CARTRIDGE & NEEDLES

ITEM No.	REPLACEMENT DATA								NOTES
	MFGR. PART No.		ASTATIC PART No.		ELECTRO-VOICE PART No.		SONOTONE PART No.		
	CARTRIDGE	NEEDLE	CARTRIDGE	NEEDLE	CARTRIDGE	NEEDLE	CARTRIDGE	NEEDLE	
M1	115277		353d	N83d †					
M2	115276 ①		353	N83 †					
		115911 *		N568d †			2012DS*		
		115329 ① *		N568 *			2912 *		

PHOTOFACT® Folder



RCA VICTOR MODELS
RP-221, RP-222, RP-223, RP-224 SERIES

8
RCA VICTOR MODELS
RP-221, RP-222, RP-223, RP-224 SERIES



STABILIZER
ARM

TONE ARM

SPEED
SELECTOR

SIZE
SELECTOR

FUNCTION
SELECTOR

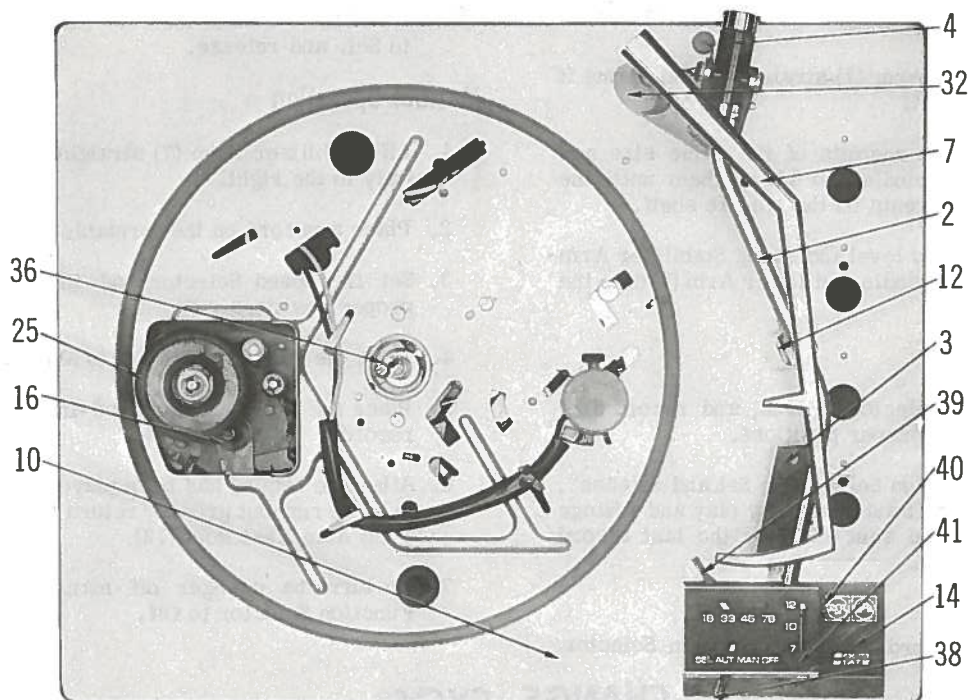
TRADE NAME: RCA Victor Models RP-221-39, RP-221-39A, RP-222-12BD, RP-222-12BK, RP-222-29H, RP-222-42, RP-222-42K, RP-222-49, RP-223-12, RP-223-12K, RP-223-29, RP-224-12, RP-224-12B, RP-224-12BS, RP-224-12K, RP-224-12S

SUPPLIER: For Current Address, See Annual Index

TYPE SET: 4-Speed Automatic Record Changer

POWER SUPPLY: 110 — 120 Volts AC, 60 Cycles

RCA VICTOR MODELS
RP-221, RP-222, RP-223, RP-224 SERIES



HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

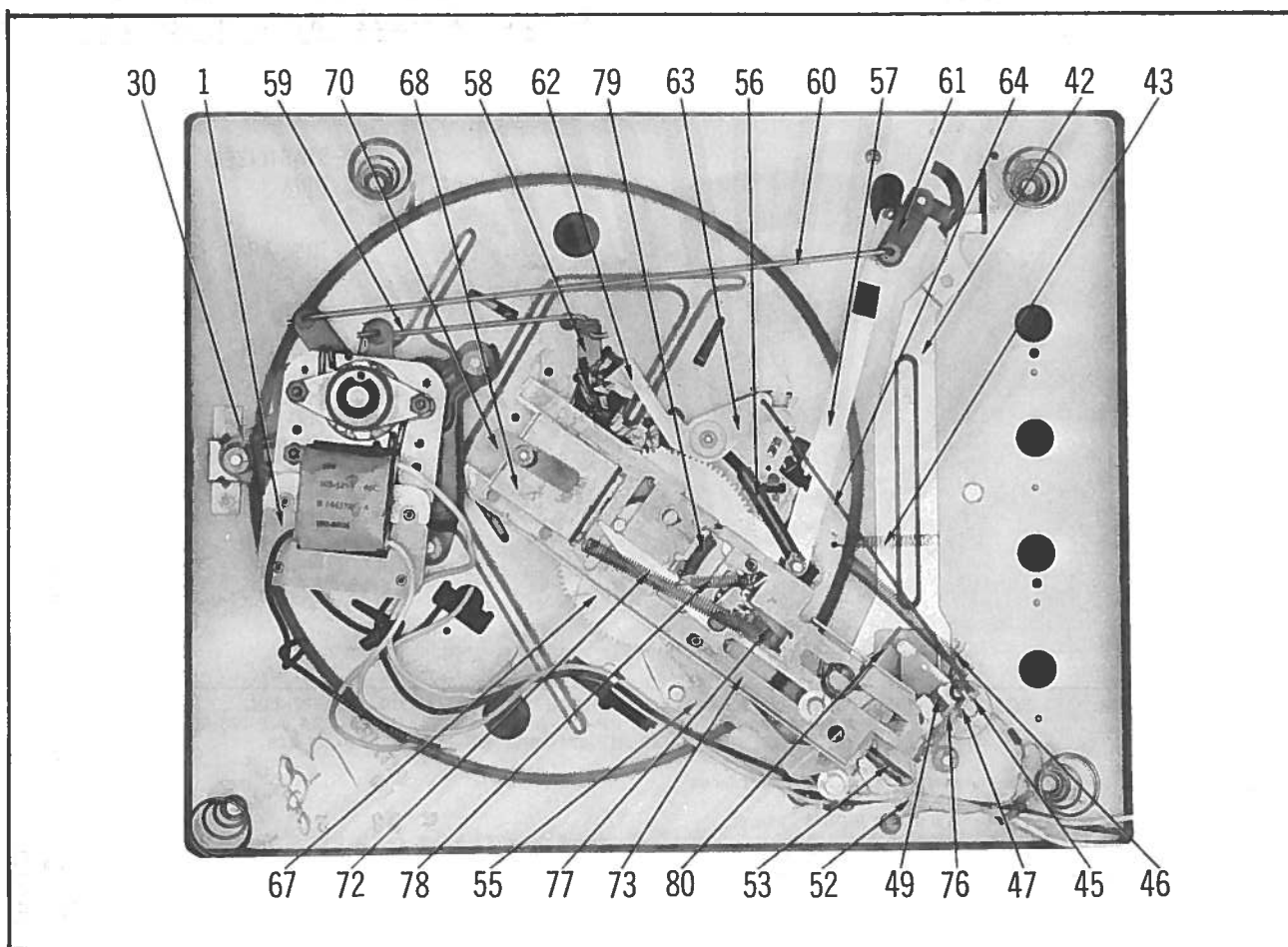
The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. C909

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DATE 7 -67

SET 896 FOLDER 7





OPERATING INSTRUCTIONS

Loading

1. Lift Stabilizer Arm (7) straight up and swing it fully to the right.
2. Place up to six records of the same size and speed on the spindle and lower them until the bottom record rests on the spindle shelf.
3. Hold the records level and swing Stabilizer Arm (7) toward the spindle and lower Arm (7) onto the record stack.

Starting

1. Set the Speed Selector, stylus, and record Size Selector to the proper positions.
2. Move the Function Selector to Sel. and release. The changer will automatically play and change each record and shut off after the last record has been played.

Rejecting

To reject a record, turn the Function Selector

to Sel. and release.

Manual Operation

1. Lift Stabilizer Arm (7) straight up and swing it fully to the right.
2. Place a record on the turntable.
3. Set the Speed Selector and the stylus to the proper positions.
4. Move the Function Selector to Man. and release.
5. Place the stylus in the lead-in groove of the record.
6. After the record has been played and the stylus is in the run-out groove, return the Tone Arm to Tone Arm Rest Post (12).
7. To turn the changer off manually, move the Function Selector to Off.

CHANGE CYCLE

Lift Stabilizer Arm (7) and move it to the right. Observe the change cycle by manually rotating the turntable.

Moving the Function Selector to Aut. moves Control Lever (57) not only to apply power to the unit and to pivot the trip pawl on Gear Assembly (67), but

also to allow Neutral Link (59) to move Neutral Link Detent (58). Idler Arm Spring (20, 28) not only moves Neutral Link (59) but also pulls Drive Idler (17, 25) against the motor shaft and the inside rim of Turntable (9).

The projection on the hub of Turntable (9) strikes

the trippawl on Gear Assembly (67), turning Gear Assembly (67) enough to engage the gear teeth on the hub of Turntable (9).

A pin projects from rotating Gear Assembly (67) thru a slot in Cycling Slide Assembly (73), moving Slide (73). A ramp on Cycling Slide Assembly (73) lifts Tone Arm Lift Rod (51), lifting the Tone Arm and compressing Tone Arm Lift Rod Spring (50) which presses Tone Arm Pivot Shaft Assembly (49) against Landing Lever (45). A tab under Gear Assembly (67) slides Push-off Lever (68) which pivots the lever in Spindle (36), dropping a record to Turntable Mat (8). A tab on Cycling Slide Assembly (73) pivots Landing

Lever Latch (52), allowing Landing Lever Spring (46) to turn Landing Lever (45) guided by Index Lever (55) which follows Cycling Gear Cam (66) fastened to Gear Assembly (67).

Friction between Landing Lever (45) and Tone Arm Pivot Shaft Assembly (49) causes Shaft Assembly (49) to turn with Lever (45), swinging the Tone Arm over the record to the point where a pin on Lever (45) contacts a step on Record Size Lever (42).

As Gear Assembly (67) completes a full rotation, Cycling Slide Assembly (73) returns to its original position, lowering both Tone Arm Lift Rod (51) and Tone Arm Pivot Shaft Assembly (49). The trip pawl on Gear Assembly (67) is reset by a projection above Assembly (67).

ADJUSTMENTS

Setdown

An eccentric screw is accessible through a hole in Motorboard (10) near Stabilizer Arm Housing (32) when the Tone Arm is automatically setting down at the 7-inch record position. Rotate the turntable by hand with the Size Selector at "7" to make the adjustment.

Height

Adjust the screw through Cycling Slide Height Spring (75) for a clearance of .07 inch between Tone Arm Pivot Shaft Assembly (49) and Landing Lever (45) with the changer in the off position.

Adjust the screw, in the underside of Tone Arm (2) where Tone Arm Lift Rod (51) strikes, to lift the

The Tone Arm, following the grooves in the record, pivots Tone Arm Pivot Shaft Assembly (49), pushing Trip Link (64) which turns Clutch Lever (63), swinging Trip Lever (62) which pivots the trip pawl on Gear Assembly (67), starting the change cycle. As Cycling Slide Assembly (73) moves, it pushes Tone Arm Pivot Shaft Assembly (49), moving the Tone Arm over Rest Post (12).

When the last record drops, Stabilizer Arm (7) drops onto Cycling Slide Assembly (73) and then drops below the level of Assembly (73) as Assembly (73) returns to its starting point.

After the last record has been played, the change cycle begins, but as Cycling Slide Assembly (73) moves, the shaft of Stabilizer Arm (7) forces the lever on the side of Slide (73) to swing to one side, causing the tab on the lever to miss Landing Lever Latch (52). The same lever on Cycling Slide Assembly (73) allows Shutoff Latch Spring (78) to pivot the latch on Assembly (73) toward Control Lever Stud (37). As Cycling Slide Assembly (73) returns to its starting position, the latch on Assembly (73) contacts Control Lever Stud (37), moving Control Lever (57). Lever (57) moves the Function Selector to Off, turns off the power, and pivots Neutral Link Detent (58), pulling Neutral Link (59). A lever on Motor Mounting Plate (22, 30), actuated by Neutral Link (59), lifts Drive Idler (17, 25) clear of the motor shaft and the inside rim of Turntable (9).

stylus one inch above Turntable Mat (8).

Speed Adjustment

(Models RP-224-12BS, RP-224-12S)

1. Set the Speed Selector to the desired speed.
2. Place a record on the turntable.
3. Move the Function Selector to Man. and place the stylus on the record.
4. Press the knob on the left front corner of the changer and while viewing the dots through the window next to the knob, turn the depressed knob until the selected dots appear motionless. Release the knob.

CLEANING

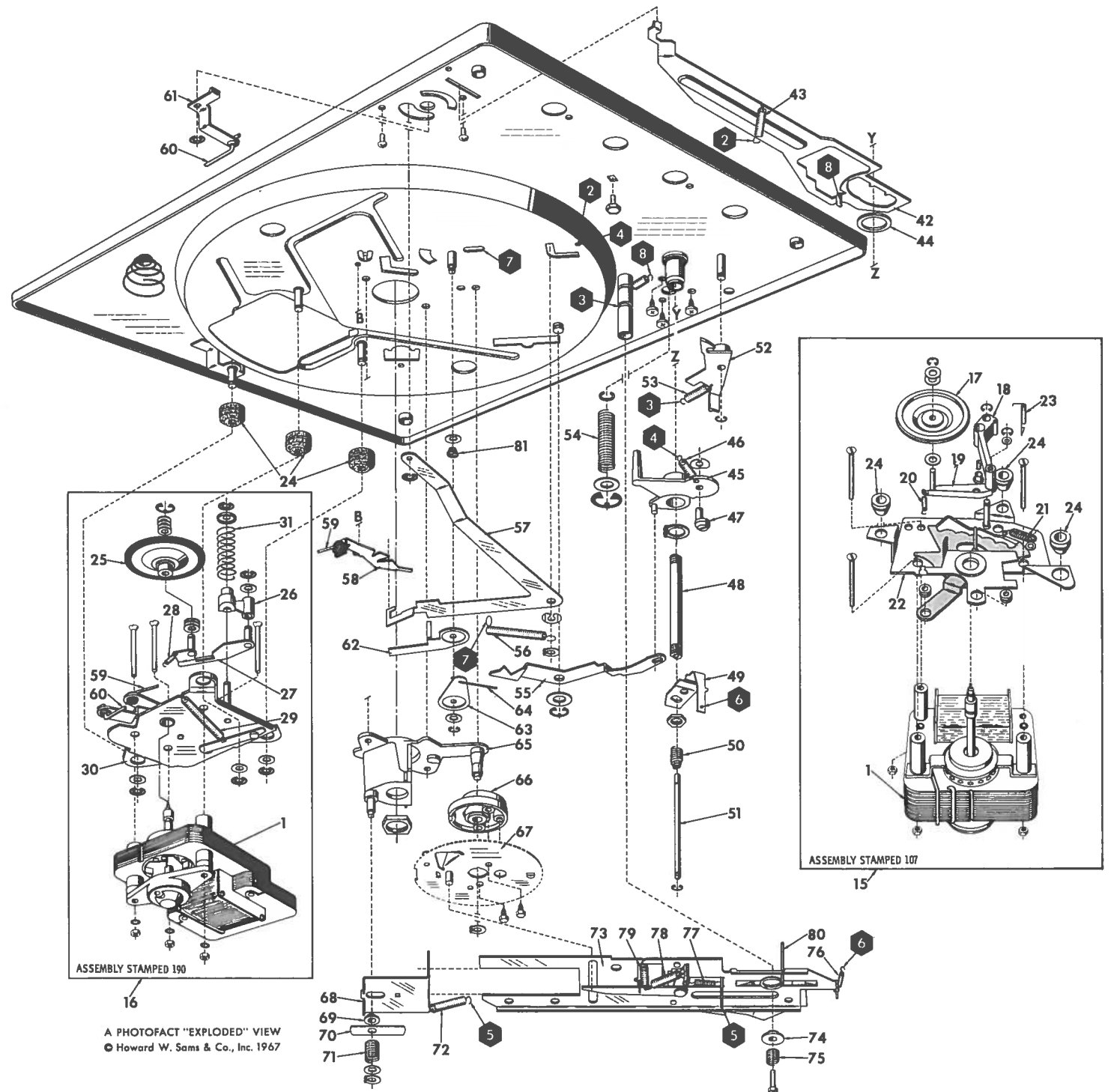
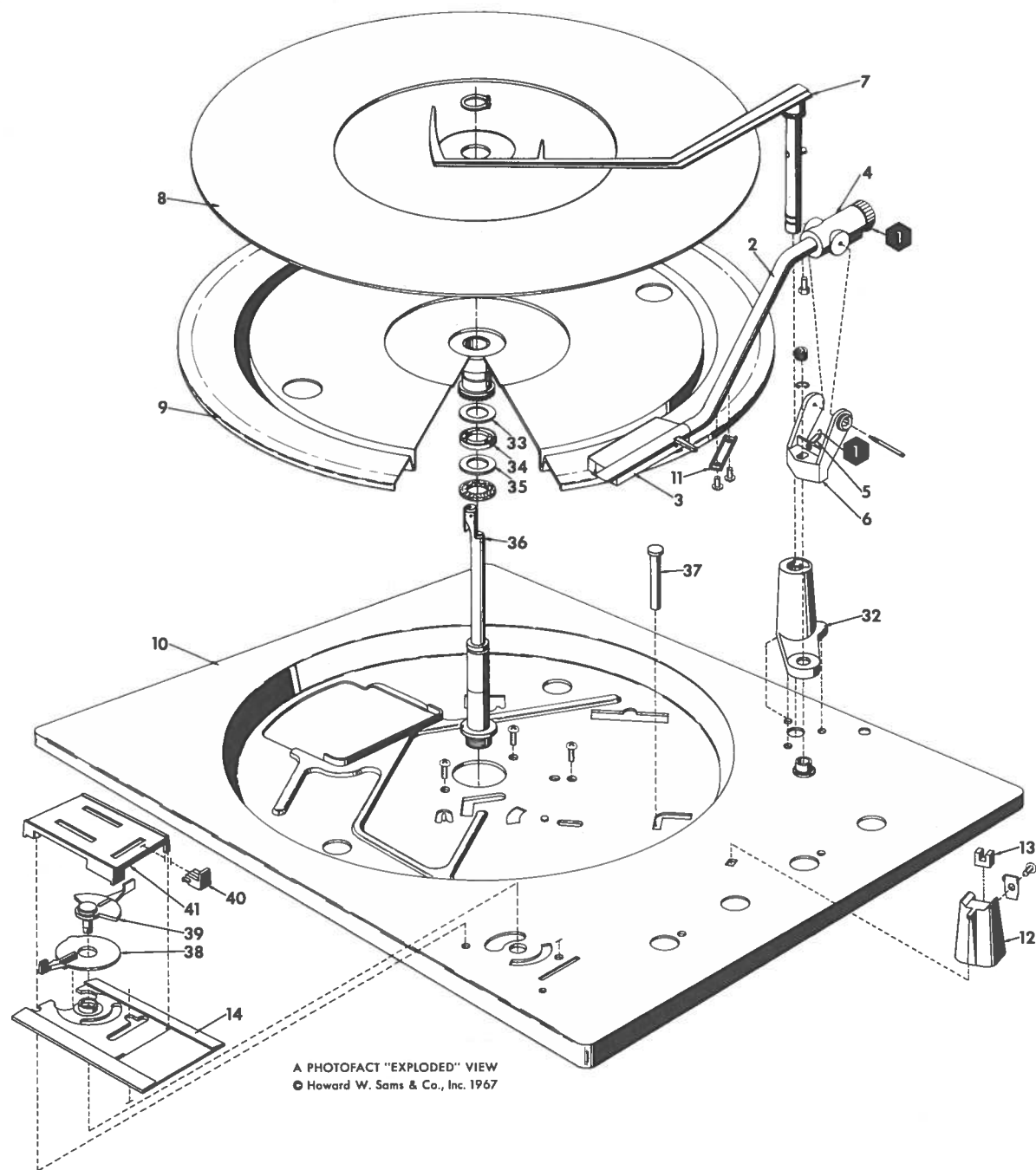
Dust and foreign matter should be removed from the changer regularly. Also, remove the turntable and clean the motor shaft, Drive Idler (17, 25), and the

inside rim of the turntable with a clean cloth dampened with isopropyl alcohol.

LUBRICATING

When lubrication becomes necessary, apply a household oil to Tone Arm Lift Rod (51), the shaft of Stabilizer Arm (7), bearings of Motor (1), and shaft of Drive Idler (25, 17). Apply a light grease to the

sliding surfaces of Cycling Slide (73), Control Lever (57), Neutral Link Detent (58), Index Lever (55), and Thrust Bearing (34).



TROUBLE CHART

SYMPTOM	REMARKS
Turntable does not rotate when the Function Selector is moved from Off.	<ol style="list-style-type: none"> 1. Drive Idlers (17, 25), motor shaft, and inside rim of Turntable (9) dirty or worn. 2. Idler Arm Springs (20, 28) loose, weak or missing. 3. Switch defective. 4. Control Lever (57) switch tab bent. 5. Motor (1) defective. 6. Neutral Link Detent (58) binding.
Changer fails to cycle.	<ol style="list-style-type: none"> 1. Turntable (9) damaged. Gear teeth on the hub broken. 2. Gear Assembly (67) damaged. Trip pawl bent. 3. Control Lever (57) bent. 4. Tone Arm Lift Rod (51) bent.
Changer fails to cycle at end of a record.	<ol style="list-style-type: none"> 1. Function Selector set at Man. 2. Trip Lever (62) bent. 3. Clutch Spring (81) weak or missing. 4. Trip Link (64) bent or loose.
Erratic Setdown.	<ol style="list-style-type: none"> 1. Landing Lever Stud (47) loose. 2. Pickup leads tight or binding. 3. Tone Arm Pivot Shaft Assembly (49) dirty. 4. Cycling Slide Assembly (73) height misadjusted. 5. Actuator Spring (80) loose or bent.
Erratic Tripping	<ol style="list-style-type: none"> 1. Contact points between Clutch Lever (63) and Trip Lever (62) worn or dirty. 2. Clutch Spring (81) weak, damaged or missing. 3. Trip Lever (62) bent.
Tone Arm will not track.	<ol style="list-style-type: none"> 1. Stylus defective or wrong stylus selected. 2. Trip Link (64) binding on Tone Arm Pivot Shaft Assembly (49). 3. Pickup leads tight or binding.
Noise or Rumble	<ol style="list-style-type: none"> 1. Drive Idlers (17, 25), motor shaft, and inside rim of Turntable (9) dirty or worn. 2. Thrust Bearing (34) worn or needs lubrication. 3. Motor bearings worn or need lubrication. 4. Motor shaft bent. 5. Turntable Support (65) loose or off center. 6. Motor Mounting Grommets (24) defective or missing.
Records will not drop.	<ol style="list-style-type: none"> 1. Stabilizer Arm (7) bent. 2. Push-off Lever (68) and actuator tab on Gear Assembly (67) worn or broken. 3. Lever in Spindle (36) bent or binding. 4. Push-off Lever Spring (72) loose or missing.
Fails to shut off	<ol style="list-style-type: none"> 1. Cycling Slide Assembly (73) height misadjusted. 2. Shutoff Latch Spring (78) loose, weak, or missing. 3. Shutoff latch on Cycling Slide Assembly (73) binding. 4. Switch actuating tab on Control Lever (57) bent. 5. Switch defective.
Tone Arm stays over the rest post.	<ol style="list-style-type: none"> 1. Cycling Slide Assembly (73) height misadjusted. 2. Tone Arm Lift Rod Spring (50) weak or missing. 3. Landing Lever Spring (46) loose, weak, or missing. 4. Index Lever (55), Landing Lever (45), and/or Tone Arm Lift Rod Guide binding.
Turntable stalls or slows down during change cycle.	<ol style="list-style-type: none"> 1. Drive Idlers (17, 25) motor shaft, and inside rim of Turntable (9) dirty or worn. 2. Idler Arm Springs (20, 28) weak. 3. Idler Arms (19, 27) binding. 4. Gear Assembly (67) bent or binding. 5. Thrust Bearing (34) binding.

MECHANICAL PARTS LIST

Ref. No.	Part No.	DESCRIPTION	MODEL	RP-221-39	RP-221-39A	RP-222-128D	RP-222-128X	RP-222-29H	RP-222-42	RP-222-42K	RP-222-49	RP-223-12	RP-223-12K	RP-223-29	RP-224-12	RP-224-12B	RP-224-12BS	RP-224-12K	RP-224-12S
1	111058	Motor										X	X	X	X	X		X	
	115925	Motor															X		X
	118123	Motor				X	X	X											
	120268	Motor (Ass'y. stamped 107 only)		X															
	118122	Motor (Ass'y. stamped 107 only)			X				X	X	X								
	118122	Motor (Ass'y. stamped 190 only)			X				X	X	X								
	120268	Motor (Ass'y. stamped 190 only)		X															
2	118170	Tone Arm							X	X	X								
	118171	Tone Arm						X				X	X	X					
	118202	Tone Arm													X			X	X
	118203	Tone Arm				X	X									X	X		
	118246	Tone Arm		X	X														
3	118184	Cartridge Shell				X	X								X	X	X	X	X
4	118183	Tone Arm Base				X	X								X	X	X	X	X
5	115339	Counterbalance Spring						X				X	X	X					
	118194	Counterbalance Spring		X	X														
	118195	Counterbalance Spring							X	X	X								
	118196	Counterbalance Spring				X	X								X	X	X	X	X
6	115556	Tone Arm Swivel Bracket				X	X	X	X	X	X				X	X	X	X	X
	118172	Tone Arm Swivel Bracket		X	X							X	X	X					
7	118124	Stabilizer Arm		X	X			X	X	X	X	X	X	X					
	120280	Stabilizer Arm				X	X								X	X	X	X	X
8	110928	Turntable Mat																X	
	118137	Turntable Mat		X	X			X			X			X					
	118138	Turntable Mat							X			X							
	118139	Turntable Mat					X			X			X						
	120309	Turntable Mat				X									X	X	X		X
9	115331	Turntable Assembly		X	X			X			X			X					
	115697	Turntable Assembly				X	X								X	X		X	
	115918	Turntable Assembly							X	X		X	X						
	118057	Turntable Assembly															X		X
10	118116	Motorboard		X	X							X	X	X	X	X		X	
	118117	Motorboard															X		X
	118118	Motorboard				X	X	X											
	118119	Motorboard							X	X	X								
11	118188	Tone Arm Clip Plate				X	X									X	X		
	118179	Tone Arm Clip Plate		X	X				X	X	X			X					
12	118135	Tone Arm Rest Post		X	X			X	X	X	X	X	X	X					
	118136	Tone Arm Rest Post													X			X	X
	120308	Tone Arm Rest Post				X	X									X	X		
13	115910	Tone Arm Rest Post Magnet				X	X									X	X		
14	118129	Lower Knob Housing Plate		X	X							X	X	X	X	X	X	X	X
	118130	Lower Knob Housing Plate				X	X	X	X	X	X								

RCA VICTOR MODELS
RP-221, RP-222, RP-223, RP-224 SERIES

FOLDER 7

MECHANICAL PARTS LIST (Continued)

The following parts may be used in any of the models listed.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
15	107	Motor Assembly (Incl. Ref. Nos. 1 and 17 thru 23)	51	118145	Tone Arm Lift Rod
16	190	Motor Assembly (Incl. Ref. Nos. 1 and 25 thru 31)	52	118134	Landing Lever Latch
17	110040	Drive Idler (Part of Ref. 15)	53	118159	Tone Arm Latch Spring
18	108611	Idler Link Assembly (Part of Ref. 15)	54	118160	Stabilizer Arm Spring
19		Idler Arm (Part of Ref. 15)	55	118153	Index Lever
20	108613	Idler Arm Spring (Part of Ref. 15)	56	115232	Reject Spring
21	108614	Detent Spring (Part of Ref. 15)	57	110933	Control Lever
22		Motor Mounting Plate (Part of Ref. 15)	58	111495	Neutral Link Detent
23	108610	Idler Link Spring (Part of Ref. 15)	59	111494	Neutral Link
24	118162	Motor Mounting Grommets	60	111176	Speed Change Link
*25	*108602	*Drive Idler (Part of Ref. 16)	61	118147	Speed Change Lever
26	108601	Idler Link (Part of Ref. 16)	62	110949	Trip Lever
27	108603	Idler Arm (Part of Ref. 16)	63	110950	Clutch Lever
28	78374	Idler Arm Spring (Part of Ref. 16)	64	110945	Trip Link
29	108606	Detent Spring (Part of Ref. 16)	65	118133	Turntable Support
30		Motor Mounting Plate (Part of Ref. 16)	66	118154	Cycling Gear Cam
31		Idler Link Spring (Part of Ref. 16)	67	111172	Gear Assembly
32	118164	Stabilizer Arm Housing	68	118143	Push-off Lever
33	118141	Thrust Washer	69	111717	Eyelet
34	78660	Thrust Bearing	70	110951	Push-off Ass'y. Base Spring
35	110931	Grease Retainer Washer	71	110959	Push-off Ass'y. Spring
36	118120	Spindle	72	110962A	Push-off Lever Spring
37	118142	Control Lever Stud	73	118121	Cycling Slide Assembly
38	118126	Function Knob	74	111482	Eyelet
39	118125	Speed Knob	75	110957	Cycling Slide Height Spring
40	118127	Size Knob	76	115151	Tone Arm Cycling Pivot Spring
41	118128	Upper Knob Housing Plate	77		Shutoff Pivot Spring
42	118146	Record Size Lever	78		Shutoff Latch Spring
43	120275	Record Size Lever Spring	79		Helper Lever Spring
44	118158	Washer	80		Actuator Spring
45	118144	Landing Lever	81	110956	Clutch Spring
46	110962A	Landing Lever Spring			The following Items are not illustrated
47		Landing Lever Stud		118169	Tone Arm Lift Rod Cushion For Models RP-222-12BK, RP-222-12BD, RP-224-12B, RP-224-12BS
48		Tone Arm Lift Rod Guide		115933	Speed Adj. Knob
49	118148	Tone Arm Pivot Shaft Ass'y.		115931	Strobe Window
50	110958	Tone Arm Lift Rod Spring		115932	Strobe Mirror
				118193	Strobe Mirror Shield
				118131	Strobe Dress Plate For Models RP-224-12S, RP-224-12BS

* "WALSCO PART #1447-03