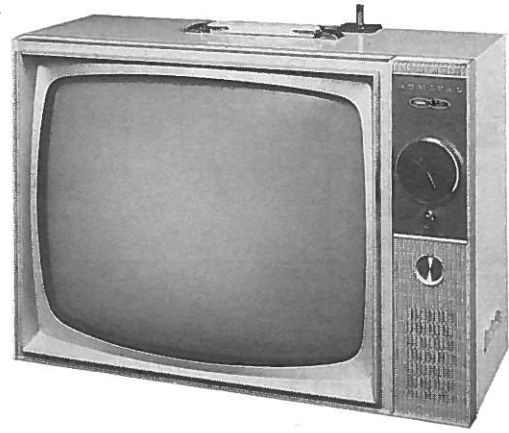


ADMIRAL CHASSIS 19A3B/C/D, 19B3B/C/D, 19C3B/C/D, 19G3B/C/D, 19H3B/C/D, 19K3U, 19M3U, 19R3U, 19T3U, 19U3B/C/D, 19UC3B/C/D, 19UH3B/C/D

PHOTOFACT® Folder

with CIRCUITRACE™

ADMIRAL CHASSIS 19A3B/C/D, 19B3B/C/D, 19C3B/C/D, 19G3B/C/D, 19H3B/C/D, 19K3U, 19M3U, 19R3U, 19T3U, 19UA3B/C/D, 19UB3B/C/D, 19UC3B/C/D, 19UG3B/C/D, 19UH3B/C/D



MODEL P9204D

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 Receiver Chassis 5D9 ,
Transmitter S325A . . . SET 681, FOLDER 1 -A

TRADE NAME	ADMIRAL	Models	Chassis	Remote Chassis	Transmitter
<div>Chassis Runs 10, 11, 12, 13</div>	AA9998B/C/D, P9200B/C/D, P9204B/C/D, T9408B/C/D . 19A3B/C/D				
	P9211B/C/D, P9219B/C/D 19B3B/C/D				
	P9221B/C/D, P9229B/C/D 19C3B/C/D				
	AA9913B/C/D, AA9998B/C/D,				
	P9010B/C/D, P9014B/C/D, P9015B/C/D 19G3B/C/D				
	P9020B/C/D, P9029B/C/D 19H3B/C/D				
	PS9010, PS9014, PS9015, SAA9913 19K3U 5D9 S325A				
	PS9020, PS9029 19M3U 5D9 S325A				
	PS9200, PS9204 19R3U 5D9 S325A				
	PS9211, PS9219 19T3U 5D9 S325A				
	AAU9998B/C/D, TU9408B/C/D,				
	UP9200B/C/D, UP9204B/C/D 19UA3B/C/D				
	UP9211B/C/D, UP9219B/C/D 19UB3B/C/D				
	UP9221B/C/D, UP9229B/C/D 19UC3B/C/D				
	AAU9913B/C/D, UP9010B/C/D,				
	UP9014B/C/D, UP9015B/C/D 19UG3B/C/D				
	UP9020B/C/D, UP9029B/C/D 19UH3B/C/D				
	MANUFACTURER Admiral Corp., National Service Div. 903 Morrissey Drive, P.O. Box 845 Bloomington, Illinois				
	TYPE SET Television Receiver with Remote Control used in some Models				
	TUBES VHF - Thirteen, UHF - Fourteen				
	POWER SUPPLY 110-120 Volts AC, 60 Cycles				
	TUNING RANGE Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)				
	RATING 155 Watts, 1.6 Amp. @ 117 Volts AC				

SERVICING IN THE FIELD

SAFETY GLASS

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

FUSE OR FUSE DEVICE

A 1" length of fuse wire is used for filament protection. (For location, see M1 in photo "Chassis - Bottom View".)

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

VHF OSCILLATOR ADJUSTMENT

Set fine tuning at the center of its range and adjust osc. slug (one for each channel) for best sound and picture.

AGC

The AGC may be varied by means of an AGC Control. (See "Tube Placement Chart" for location.)

HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

Coarse adjustment of the horizontal hold is accomplished by the proper setting of the Horizontal Range Control. (See "Tube Placement Chart" for location.)

FOCUS

The focus may be varied by connecting the lead from pin 4 of the picture tube to various voltage points. (For location, see "Chassis - Top View".)

CENTERING

Centering is accomplished by 2 magnetic rings located on yoke rear cover.

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

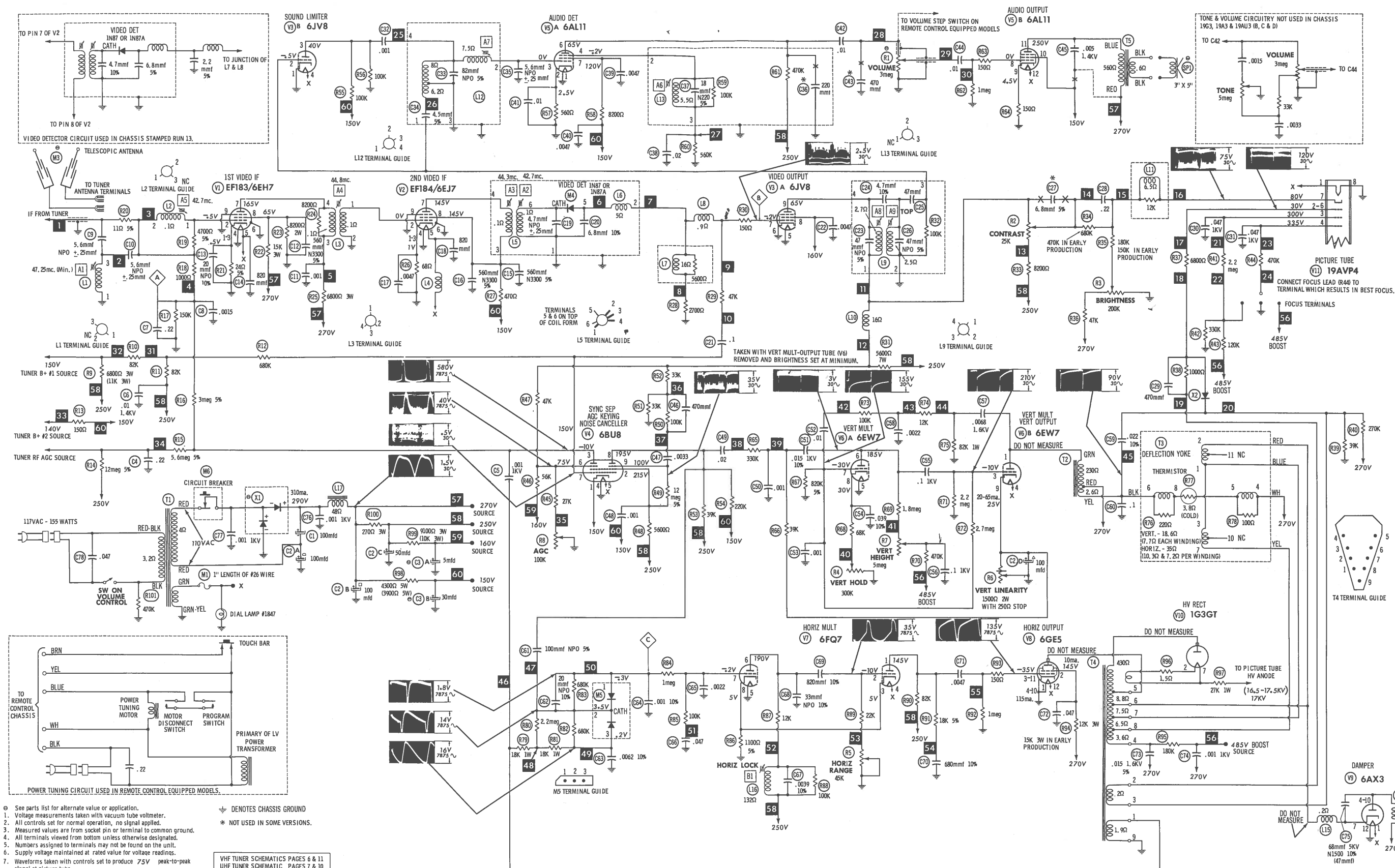
The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. MA446 10 9 8 7 6 5 4 3 2 1 0

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DATE 2-64 SET 681 FOLDER 1

ADMIRAL CHASSIS 19A3B/C/D, 19B3B/C/D, 19C3B/C/D, 19G3B/C/D, 19H3B/C/D, 19K3U, 19M3U, 19R3U, 19T3U, 19U3B/C/D, 19UB3B/C/D, 19UC3B/C/D, 19UG3B/C/D, 19UH3B/C/D





- See parts list for alternate value or application.
 1. Voltage measurements taken with vacuum tube voltmeter.
 2. All controls set for normal operation, no signal applied.
 3. Measured values are from socket pin or terminal to common ground.
 4. All terminals viewed from bottom unless otherwise designated.
 5. Numbers assigned to terminals may not be found on the unit.
 6. Supply voltage maintained at rated value for voltage readings.
 7. Waveforms taken with controls set to produce 75V peak-to-peak signal at picture tube.

⊕ DENOTES CHASSIS GROUND
 * NOT USED IN SOME VERSIONS.

VHF TUNER SCHEMATICS PAGES 6 & 11
 UHF TUNER SCHEMATICS PAGES 7 & 10

A PHOTOFACT STANDARD NOTATION SCHEMATIC
 with CIRCUITRACE
 © Howard W. Sams & Co., Inc., 1964

TUBE PLACEMENT CHART

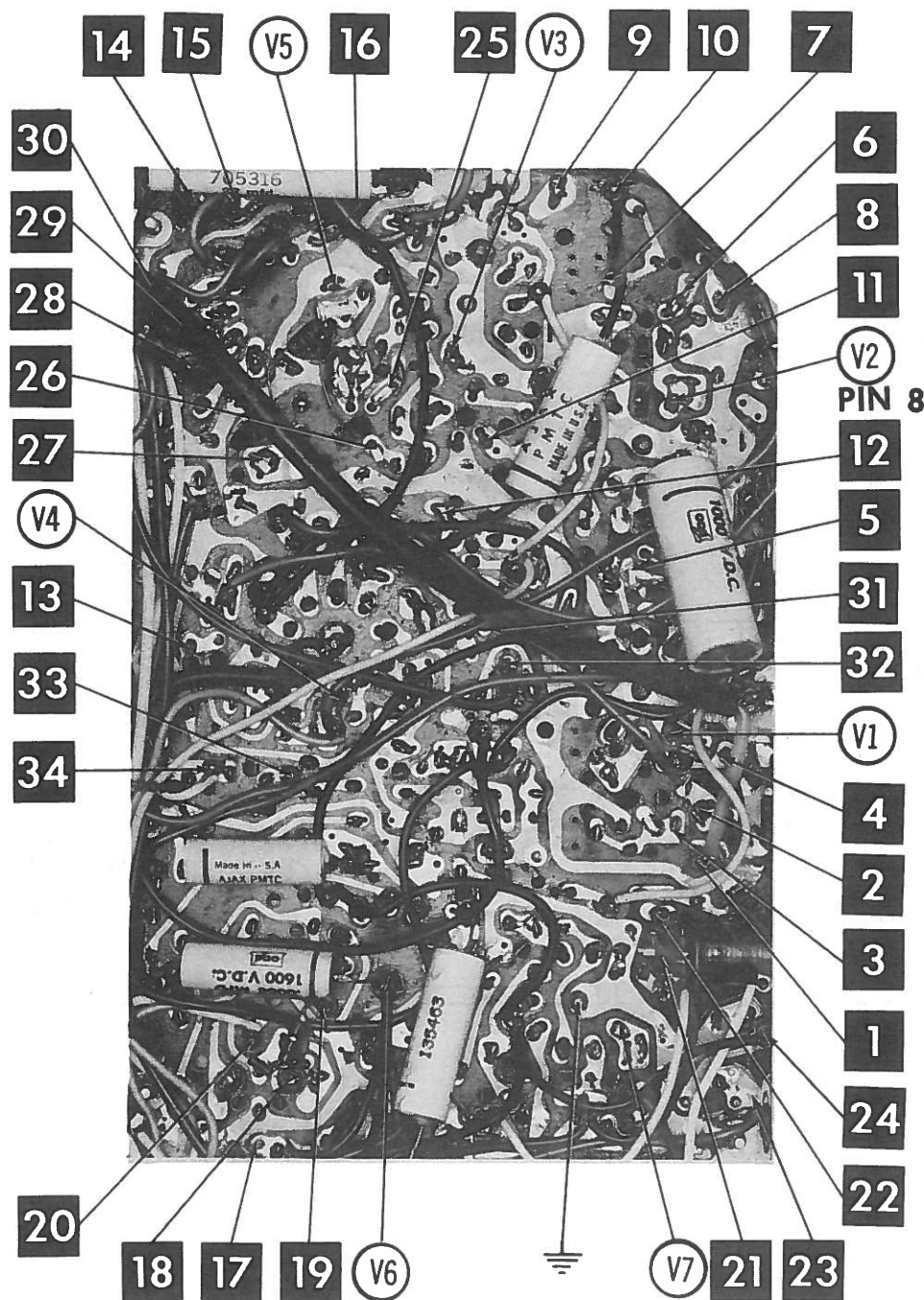
#	THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.	NC	NO CONNECTION
	READING DEPENDS ON POLARITY OF METER CONNECTIONS.	TP	TIE POINT
†	MEASURED FROM OUTPUT OF X1.	*	VHF TUNER 94E202-27
	‡ MEASURED FROM PIN 7 OF V9.		



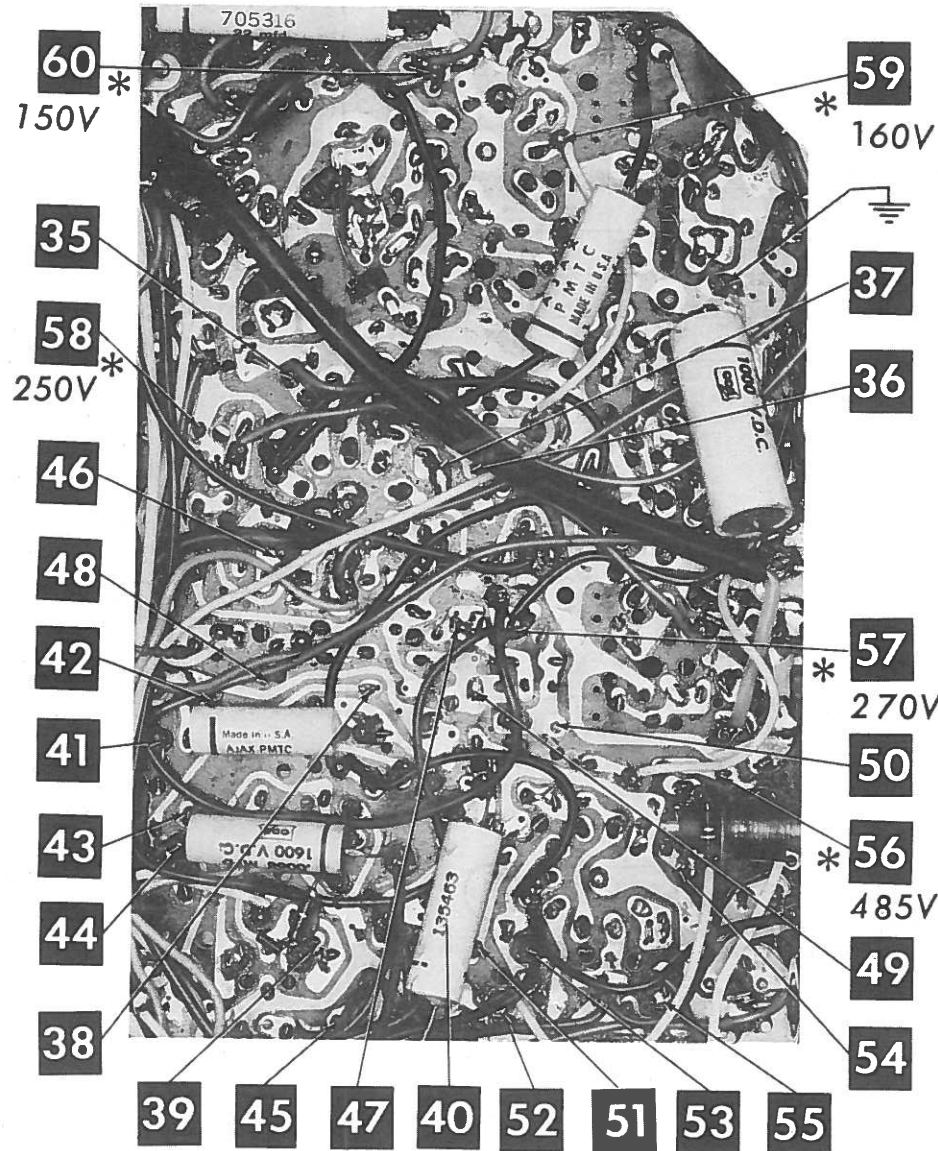
SYNC FAILURE
 No vert. sync V4
 No horiz. sync V4
 No vert. or horiz. sync V4

FOLDER 1

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



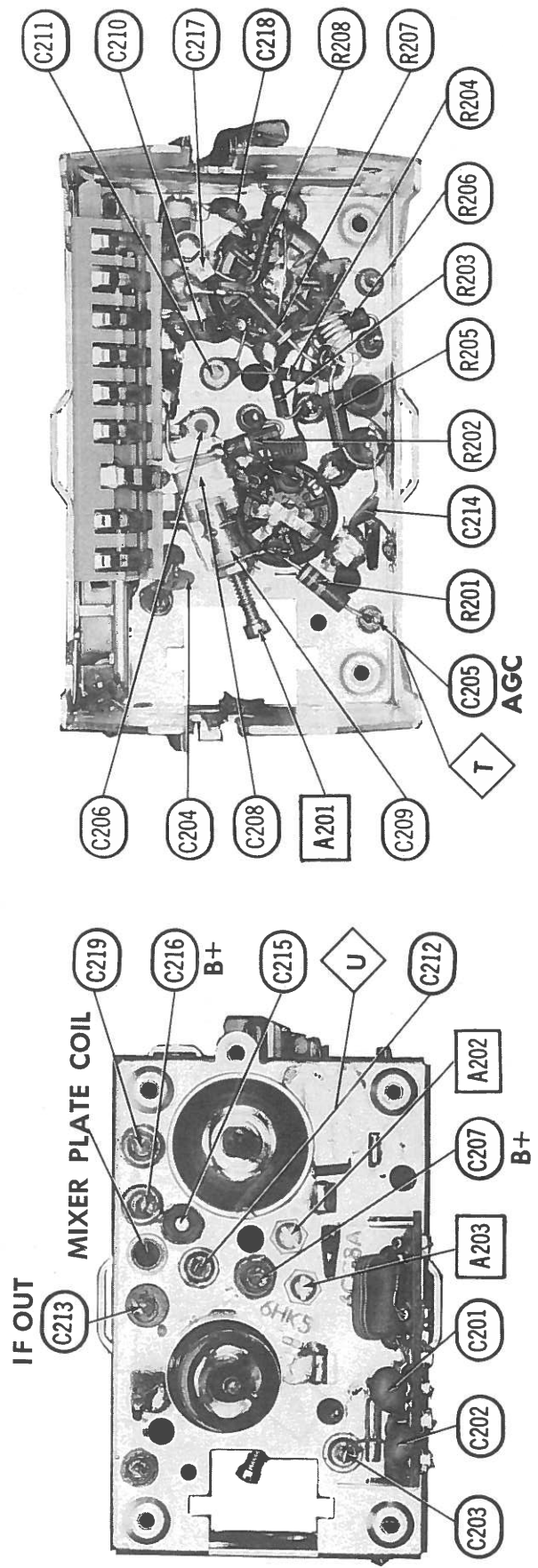
CircuitTrace Numbers 1 thru 34

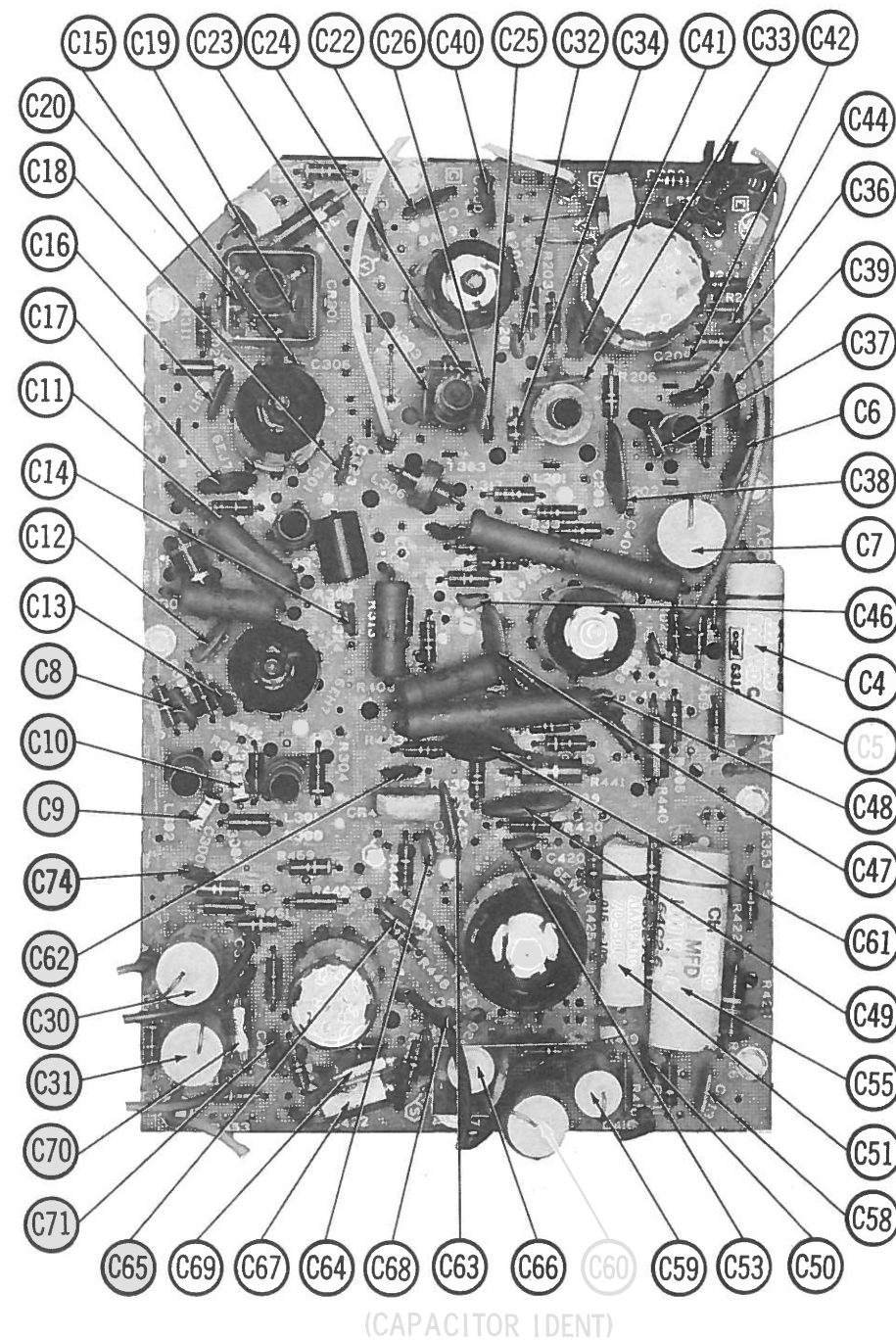
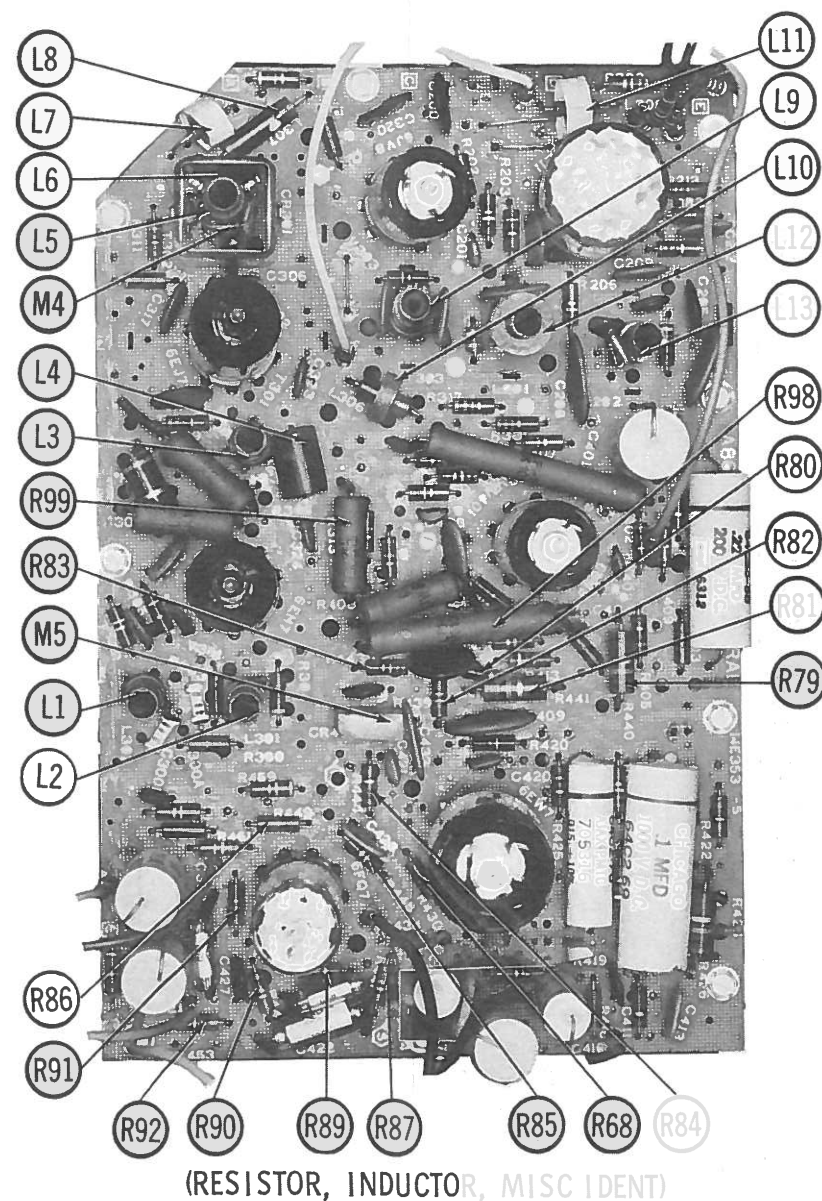
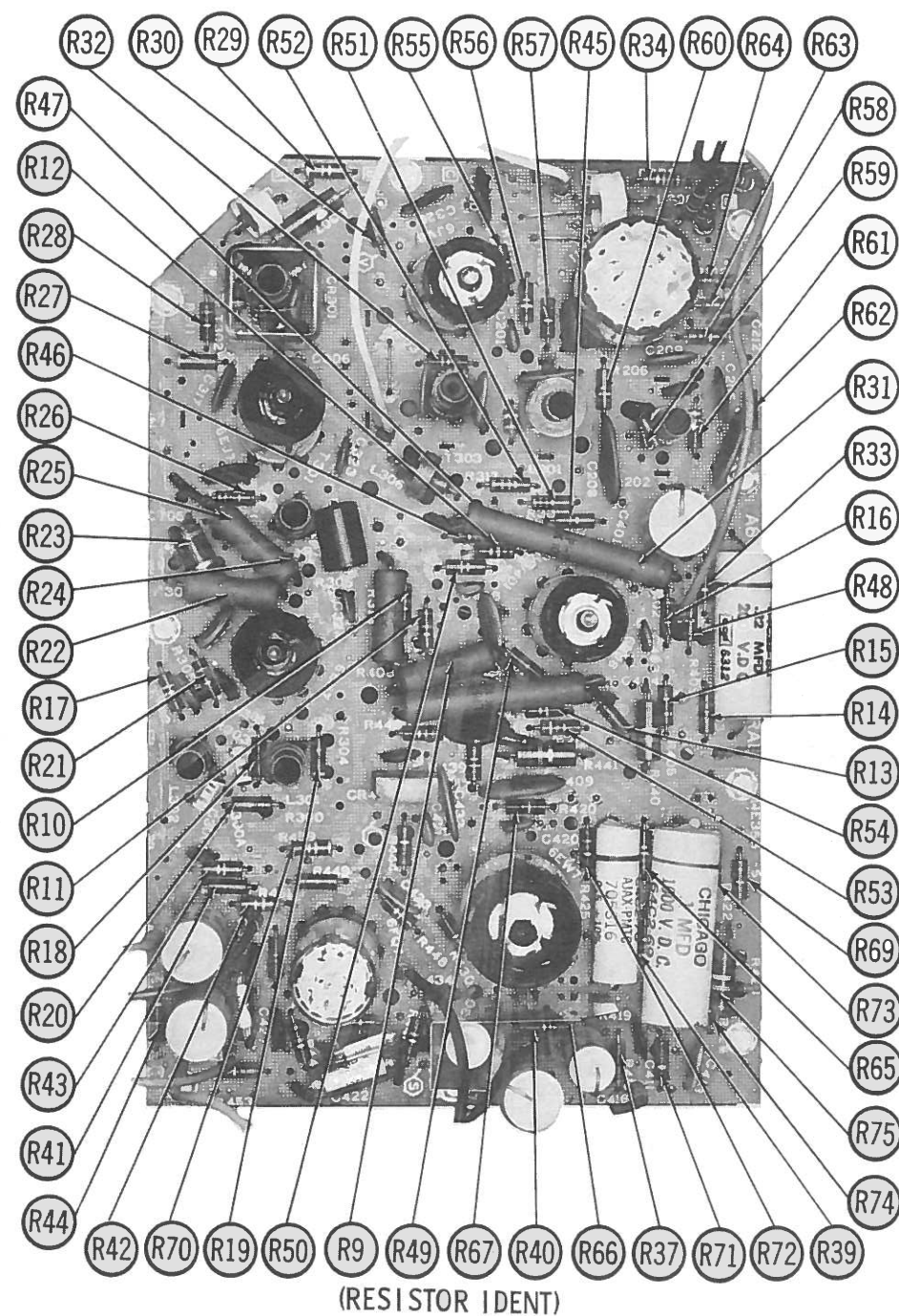


* SOURCE

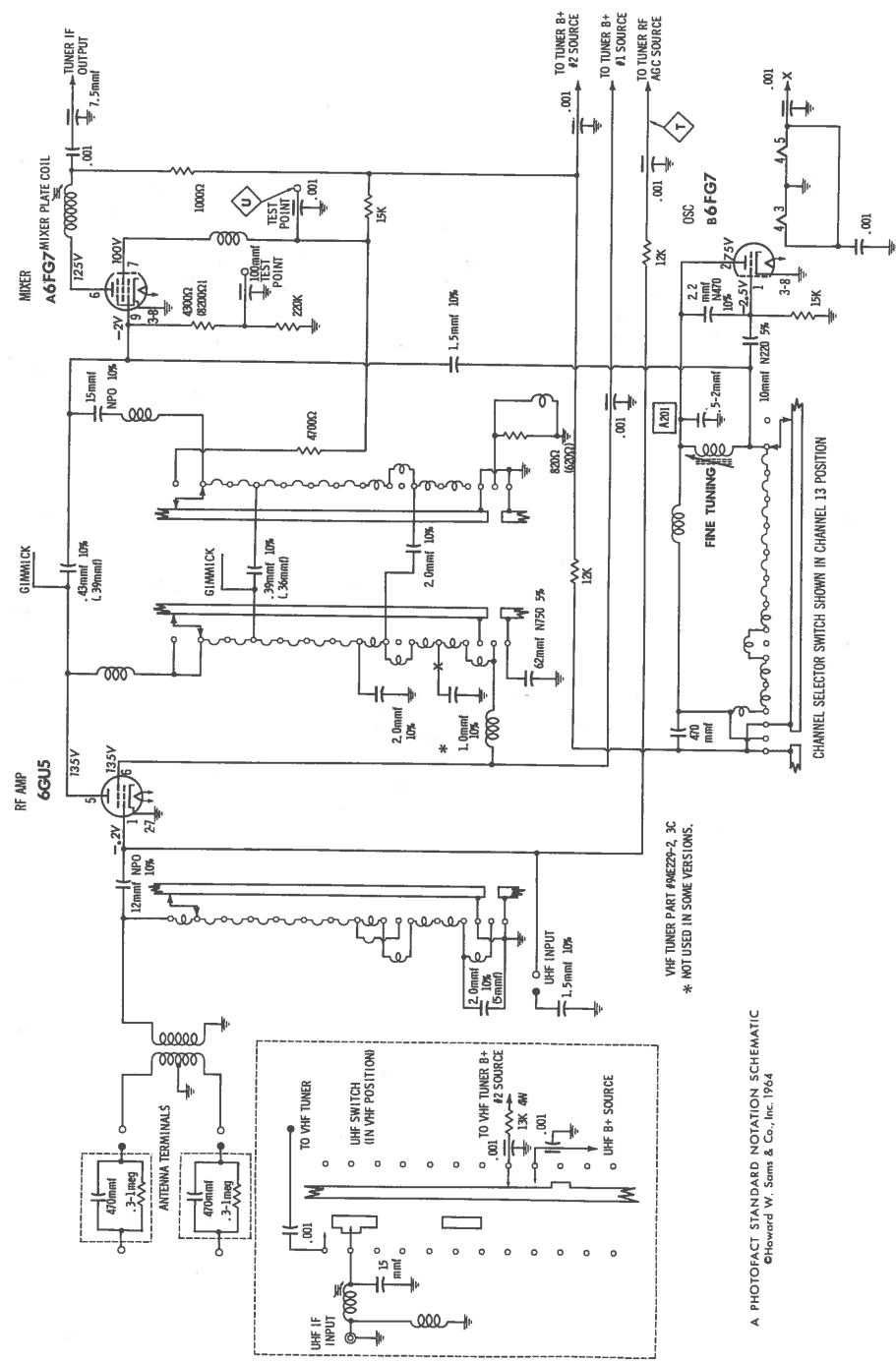
CircuitTrace Numbers 35 thru 60

PRINTED BOARD

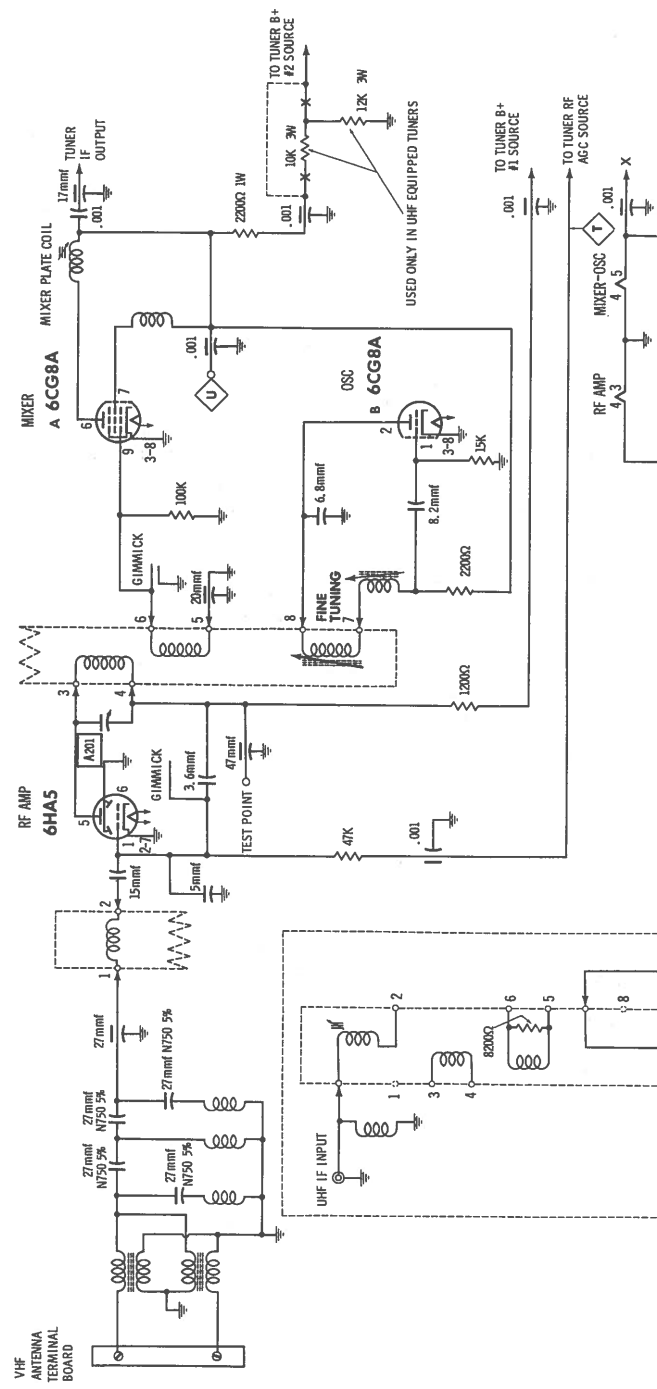




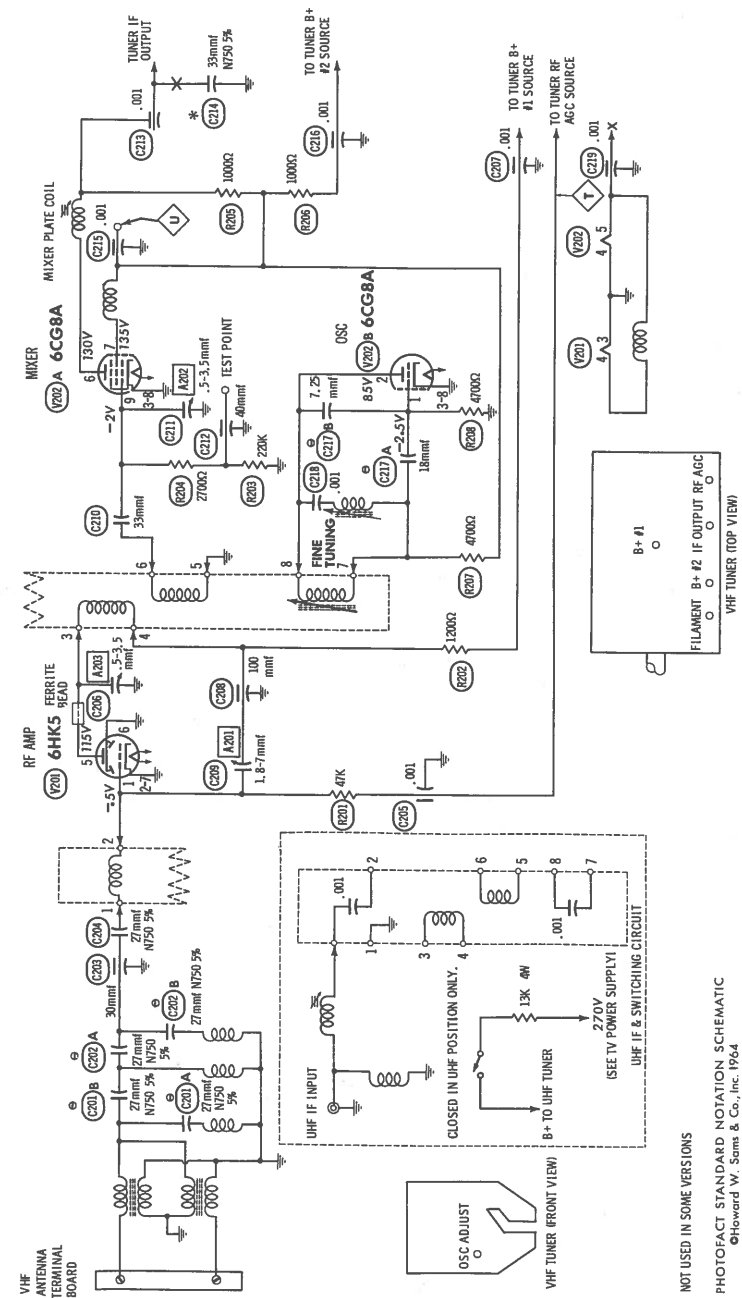
PRINTED BOARD — TOP VIEW



13 POSITION WAFER-TYPE VHF TUNER 94E229-2, -3C



13 POSITION TURRET-TYPE VHF TUNER 94E243-2



13 POSITION TURRET-TYPE VHF TUNER 94E202-27

ADMIRAL CHASSIS 19A3B/C/D, 19B3B/C/D, 19C3B/C/D, 19G3B/C/D, 19H3B/C/D, 19K3U, 19M3U, 19R3U, 19T3U, 19UA3B/C/D, 19UB3B/C/D, 19UC3B/C/D, 19UG3B/C/D, 19UH3B/C/D

PARTS LIST AND DESCRIPTION (CONTINUED)

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.

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			ADMIRAL PART No.		LITTELFUSE PART No.		RUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	1"	length of #26 wire						

MISCELLANEOUS

ITEM No.	PART NAME	ADMIRAL PART No.	NOTES
M2	VHF Tuner	94E202-27	STANDARD COIL REPLACEMENT Type GK4550
	VHF Tuner	94E243-2	
	VHF Tuner	94E229-3	Used in Chassis 19C3B, 19UC3B, 19A3B, 19UA3B, 19B3B, 19UB3B
	VHF Tuner	93E229-2	Used in Run 10 Chassis 19A3B, 19UA3B, 19B3B, 19UB3B
	UHF Tuner	94D204-7	
	Antenna	69C245-5	JFD REPLACEMENT TA399, All Models except P9200, UP9200
	Antenna	69C245-7	JFD REPLACEMENT TA399, Used in Models P9200, UP9200 only
M3	Diode (1N87 or 1N87A)	93B5-6	Video Detector
M4	Diode	84B17-4	Horizontal AFC
M5	Circuit Breaker	77B133-1	UHF Input
M6			
M7	Switch		

CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

ITEM	MODELS	PART No.	ITEM	MODELS	PART No.
Safety Glass		21D131-3	KNOBS		
Escutcheon	P9200, P9204	A9658	VHF Fine Tuning	P9200/04/11/19,	
"	UP9200, UP9204	A9599	(Short Shank, Run 10)	UP9200/04/11/19,	33C514-1
"	P9221, P9229	A9602	(Long Shank, Run 11	AA9913, AAU9913	
"	UP9221, UP9229	A9666	or higher)	and same as above	33C514-7
"	P9211, P9219	A9673	(Short Shank, Run 10)	T9408, TU9408	33C514-8
"	UP9211, UP9219	A9674	(Long Shank, Run 11	or higher)	33C514-8
"	T9408, AA9998	A9603	"	"	
"	TU9408, AAU9998	A9672	"	"	
"	PS9010	A9740	"	"	
"	PS9014	A9741	"	"	
"	PS9015	A9742	"	"	
"	PS9020	A9743	"	"	
"	PS9029	A9744	"	"	
"	PS9200, PS9204	A9746	UHF Channel Indicator	Luggage Cabinet	33D528-13
"	PS9211, PS9219	A9747	All Other Models		33D528-10
"	SAA9913	A9745	Luggage Cabinet		33D528-12
"			All Other Models		33D528-9
KNOBS			P9200/04/10/14/15,		
VHF Chan. Selector	P9200, UP9200,		UP9200/04/10/14/15,		
(Short Shank, Run 10)	P9204, UP9204,		T9408, TU9408		
"	P9211, UP9211,		P9020, UP9020		
"	P9219, UP9219	A9495	P9029, UP9029		
VHF Chan. Selector					
(Long Shank, Run 11					
or higher)	Same as above	A9669			
VHF Chan. Selector	T9408, TU9408	A9671	Brightness,	PS9200/04/11/19	33C415-7
(Short Shank, Run 10)			Vertical, Contrast	P9020, UP9020	
(Long Shank, Run 11			Tone	P9029, UP9029	33C424-1
and higher)			"	All Other Models	33C576-1
"	"	A9670	"		
"	P9010, UP9010,				
"	P9014, UP9014,				
"	P9015, UP9015	A9726			
"	P9020, UP9020,				
"	AA9913, AAU9913	A9727			
"	PS9010/14/15	A9728			
"	PS9020, PS9029	A9737			
"	PS9200/04/11/19	A9738			
"	SAA9913	A9739			
"		A9722			
Rear	P/UP9010, P/UP9020	A9729	Wrap-around		
"	P9014, UP9014	A9730	" Charcoal	P/PS/UP9200	34E221-2
"	P9015, UP9015	A9731	" Beige	P/PS/UP9204	34E221-3
"	P9029, UP9029	A9732	" Brown	P/PS/UP9211,	
"	AA9931, AAU9931	A9733	"	P/UP9221	34E221-4
"	PS9010	A9715	" White	P/PS/UP9219,	
"	PS9014/20/29	A9713	"	P/UP9229	34E221-5
"	PS9015	A9714	" Gray	T9408, TU9408,	
"	PS9200/04/11/19	A9557	"	AA9998, AAU9998	34E221-1
"	SAA9913	A9716	" Ebony	P9010/UP9010	34E225-1
"	All Other Models	A9557	" Beige	P9014/UP9014	34E225-3
"		A9762	" Green	P9015/UP9015	34E225-2
Ebony	P9014, UP9014	A9764	" Ebony	U9020/UP9020	34E225-4
Beige	P9015, UP9015	A9763	" White	P9029/UP9029	34E225-5
Green	P9020, UP9020	A9765	" Gold	AA9913, AAU9913	34E225-6
Ebony	P9029, UP9029	A9766			
White	AA9913, AAU9913	A9967			
Gold					

WIRING DATA

High Voltage Lead	Use BELDEN No. 8869 (17KV) or 8868 (25KV)
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 12 Colors
	8524 (Stranded) Available in 12 Colors
	8874 (Rubber) or 8895 (Plastic)
Power Cord (Interlock Type)	Use BELDEN No. 8225
300Ω Tuner Input Lead	Use BELDEN No. 8230 or 8275
300Ω Antenna Lead-in	Use BELDEN No. 8464 (Flat) or 8484 (Round) - 4 Conductor
Antenna Rotor Cable	Use BELDEN No. 8485 (Round) - 5 Conductor
	8488 (Round) - 8 Conductor

VHF TUNER PARTS LIST AND DESCRIPTION

TUBES

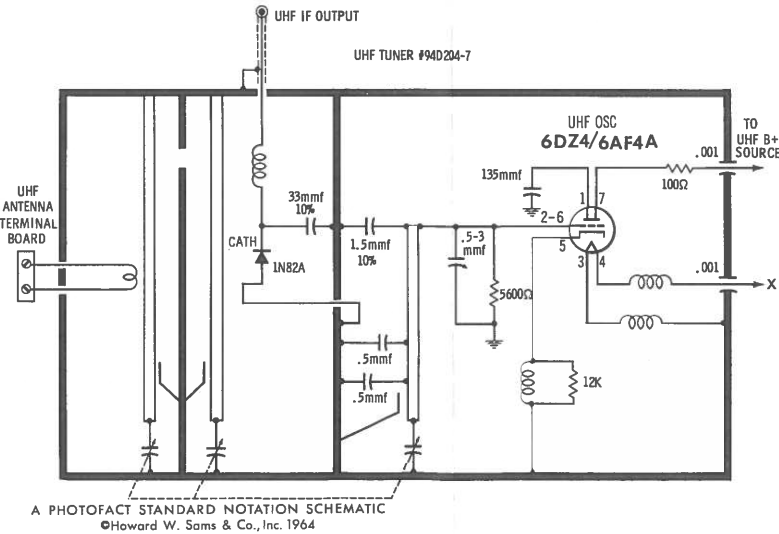
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V201	RF Amp.	6HK5	V202	Mixer - Osc.	6CG8A

FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MAILLORY PART No.	SPRAGUE PART No.
C201A	27 N750 5%	Note 2		TCN-27			CN7-427	10TCU-Q27
B	27 N750 5%	Note 2		TCN-27			CN7-427	10TCU-Q27
C202A	27 N750 5%	Note 2		TCN-27			CN7-427	10TCU-Q27
B	27 N750 5%	Note 2		TCN-27			CN-427	10TCU-Q27
C203	30						CT280A	
C204	27 N750 5%							
C205	.001		EF-001	MFT-1000		CCF-102		
C206	.5-3.5		EF-001	MFT-1000		CCF-102	CT280A	
C207	.001							
C208	100							
C209	1.8-7.0			829-7				
C210	33			TCZ-33	C10Q33C	CCTO-330	CNO-433	10TCC-Q33
C211	.5-3.5							
C212	40							
C213	.001		EF-001	MFT-1000	C10Q33U	CCF-102	CT280A	10TCU-Q33
C214	33 N750 5%	Note 1	EF-001	MFT-1000		CCF-102	CN7-433	
C215	.001		EF-001	MFT-1000		CCF-102	CT280A	
C216	.001		EF-001	MFT-1000		CCF-102	CT280A	
C217A	18	Note 2						
B	7.25	Note 2						
C218	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C219	.001		EF-001	MFT-1000		CCF-102	CT280A	

① Not used in some versions.

② Some versions may use individual capacitors.



UHF TUNER 94D204-7

ALIGNMENT INSTRUCTIONS

Use an isolation transformer and maintain voltage at 117 volts. Allow a 20-minute warm-up period for the receiver and test equipment. Suggested Alignment Tools: A1 thru A9 GENERAL CEMENT #9302, 8806L, 8869 ... WALSCO #2511, 2544, 2588 Mixer Plate Coil GENERAL CEMENT #9302, 9296, 9297 WALSCO #2511, 2546, 2547

VIDEO IF ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use only enough generator output to provide a usable indication. Note: Response may vary slightly from those shown. Connect a variable bias supply to the IF AGC line (point Ⓢ) and adjust to obtain a response curve which shows no indication of overload. Disable Oscillator section of Mixer-Osc. Set the Channel Selector to any non-interfering channel.

INDICATOR	GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	ADJUST	REMARKS
Connect DC probe of a VTVM thru a 47K resistor to point Ⓢ. Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.		47.25MC	A1	Adjust for MINIMUM. 44.0
Connect DC probe of a VTVM thru a 47K resistor to point Ⓢ. Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.		42.7MC 44.3MC 44.8MC 42.7MC 44.3MC	A2 A3 A4 A5 Mixer Plate Coil	Adjust for maximum. 45.6 50% 42.5 47.25 FIG. 1
Connect vertical input of a scope to point Ⓢ. Low side to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	44MC (10MC Sweep)	42.5MC 44.0MC 45.6MC 47.25MC		Check for maximum gain and symmetry of response with markers as shown in Figure 1. In order to obtain a proper response, it may be necessary to slightly retouch A2, A3, A4, A5, and Mixer Plate Coil.

4.5 MC TRAP ALIGNMENT

Tune in a strong TV signal and set the Contrast at maximum. Adjust the Fine Tuning until a beat pattern is visible on the screen. Adjust A9 for MINIMUM beat interference.

SOUND IF ALIGNMENT

Tune in a station and adjust A6 for maximum sound. Reduce signal strength at the antenna terminals until distortion appears. Continue to reduce signal while aligning for undistorted output by adjusting A6, A7, and A8.

VHF TUNER ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: GENERAL CEMENT #8290, 8868, 9087; WALSCO #2525, 2528, 2567

OSCILLATOR ALIGNMENT TUNERS 94E202-27, 94E243-2

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

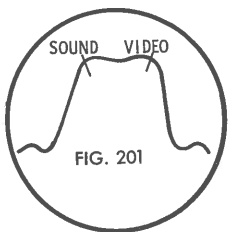
OSCILLATOR ALIGNMENT TUNERS 94E229-2, 94E229-3

Set the Fine Tuning to the center of its range. Adjust the overall oscillator for best picture and sound. Check all channels, and if necessary, make compromise adjustment of overall oscillator.

RF AND MIXER ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use 10MC sweep unless otherwise noted. Connect variable bias to RF AGC line at point Ⓢ. 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 terminals with 120Ω in each lead.	195MC	193.25MC 197.75MC	10	Across Video Det. load resistor.	A201	TUNER 94E202-27: Increase bias to -15 volts and adjust for MINIMUM amplitude of response.
2. "	213MC	211.25MC 215.75MC	13	Vert. Input to point Ⓢ, low side to ground.	A202 A203	Decrease bias. Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown.
3. "	207MC	205.25MC 209.75MC	12			Check response on all channels and make compromise adjustments of A202 and A203 if required.
1. "	213MC	211.25MC 215.75MC	13	Vert. Input to point Ⓢ, low side to ground.	A201	TUNER 94E243-2: Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown. If necessary expand or compress coils for optimum response on each respective channel.
Across antenna terminals with 120Ω in each lead.	213MC 207MC 201MC 195MC 189MC 183MC 177MC 85MC 79MC 69MC 63MC 57MC	211.25MC 205.25MC 199.25MC 193.25MC 187.25MC 181.25MC 175.25MC 83.25MC 77.25MC 71.25MC 65.25MC 59.25MC	13 12 11 10 9 8 7 6 5 4 3 2	Vert. Input to point Ⓢ, low side to ground.		TUNERS 94E229-2, 94E229-3: Expand or compress coils for response curve similar to Figure 201.



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.

TUBES

AMPEREX			GENERAL ELECTRIC			RCA			RAYTHEON			SYLVANIA		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	1st Video IF Amp.	EF183/6EH7	V6	Vert. Mult. - Vert. Output	6EW7									
V2	2nd Video IF Amp.	EF184/6EJ7	V7	Horiz. Mult.	6FQ7									
V3	Video Output - Sound Lim.	6JV8	V8	Horiz. Output	6GE5									
V4	AGC Keying - Sync Sep. - Noise Canceller	6BU8	V9	Damper	6AX3									
V5	Audio Det. - Audio Output	6AL11	V10	HV Rectifier	1G3GT									

PICTURE TUBE

ITEM No.	REPLACEMENT DATA				NOTES
	ADMIRAL PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V11	19AVP4	19AVP4/XP4 ①	19AVP4 ①	19AVP4 ②	① Aluminized ② Silver Screen "85"

POWER RECTIFIERS

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS		
			MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.
X1	.31A	93B12-2 ①	VB500	1N1784 or 1N2863 ②	40H or F-4 ②
X2		93B27-2	A100 or D100	1N2858 or 1N3754	10H or F-1

① Some chassis may use two single rectifiers, Part #93B12-1 in this application.

② Two required.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	ADMIRAL PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	100	200	87D15-271	AFH81-36-05	A0340 ①	XC1-12 ①	TMS-1810 ①	TVL-1750 ①	
C2A	100	200	87D15-370	AFH54-57-91		XC4-85		TVLS4609.1 *	
C2B	100	350							
C3	50	350							
C4	100	50							
C5A	5	350	67D4-62 ②	PR81660	BR30-350	QT2-4	TD-30-350	TC77	TVAS2635.5 *
C5B	30	350		PR81600	BR4-350		TD-4-450	TC80	

① Use insulation sleeve and mounting wafer.

② Some versions may use Part #67C4-62 in this application.

* 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.
C4	.22 200V		P288N-22		PM2P22	2DP-4-224	GEM-2022	2TM-P22
C5	.001 1KV		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C6	.01 1.4KV		DAC-27	DD16-103	HVE1681	16DP-3-103	UAC-110	BL-S10
C7	.22 200V		P288N-22		PM2P22	2DP-4-224	GEM-2022	2TM-P22
C8	.0015		BPD-0015	DD-152	LA10D15-C4	CCD-152	B-215	10TS-D15
C9	5.6 NPO ±.25mmf	#65D6-170						10TCC-V56
C10	5.6 NPO ±.25mmf	#65D6-170						10TCC-V56
C11	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C12	560 N330 5%	#65D110-159						
C13	20 NPO 10%		NPO-DI 20	DTZ-20	C10Q2C	CCTO-200	CNO-422	10TCC-Q20
C14	820		DI-820	DD-821	LA10T82-C4	CCD-821	B-382	10TS-T82
C15	560 N3300 5%	#65D110-159						
C16	560 N3300 5%	#65D110-159						
C17	.0047		BPD-0047	DD-472	BYA10D47	CCD-472	B-247	5HK-D47
C18	820		DI-820	DD-821	LA10T82-C4	CCD-821	B-382	10TS-T82
C19	4.7 NPO ±.25mmf							10TCC-V47
C20	6.8 10%							
C21	.1 200V		P288N-1	DF-104	PKM2P1	2DP-3-104	GEM-201	2TM-P10
C22	.0047		BPD-0047	DD-472	BYA10D47	CCD-472	B-247	5HK-D47
C23	47 NPO 5%			DTZ-47	C10Q47C	CCD-472	CNO-447	10TCC-Q47
C24	4.7 10%							
C25	47 NPO 5%		BPD-000047	DD-470	LA10Q47-S3	CCD-470	GP447	5GA-Q47
C26	47			DTZ-47	C10Q47C		CNO-447	10TCC-Q47
C27	6.8							
C28	.22 400V		P488N-22	DD-471	PM4P22	4DP-5-224	GEM-4022	4TM-P22
C29	470		BPD-00047	DD-503	BYA10T47	CCD-471	B-347	10TS-T47
C30	.047 1KV		P1088N-047	DD-503	PKM10S47	16DP-5-473	GEM-10147	10TM-S47
C31	.047 1KV		P1088N-047	DD-503	PKM10S47	16DP-5-473	GEM-10147	10TM-S47
C32	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C33	82 NPO 5%			DTZ-82			CNO-482	10TCC-Q82
C34	4.5 5%							
C35	5.6 NPO ±.25mmf	#65B40-57						
C36	220		Note 1	DI-220	LA10T22-S3	CCD-221	GP322	10TCC-V56
C37	18 N220 5%	#65D110-140						10TS-T22
C38	.02		BPD-02	DD-203	BYA6S2	CCD-203	B-120	5HK-S20
C39	.0047		BPD-0047	DD-472	BYA10D47	CCD-472	B-247	5HK-D47
C40	.0047		BPD-0047	DD-472	BYA10D47	CCD-472	B-247	5HK-D47

FIXED CAPACITORS (cont)

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.
C41	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C42	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C43	470		BPD-00047	DD-471	BYA10T47	CCD-471	B-347	10TS-T47
C44	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C45	.005 1.4KV		DAC-9	DD16-502	HVE16D5	3CCD-502	UAC-250	BL-D50
C46	470		BPD-00047	DD-471	BYA10T47	CCD-471	B-347	10TS-T47
C47	.0033		BPD-0033	DD-332	BYA10D33	CCD-332	B-233	5HK-D33
C48	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C49	.02		BPD-02	DD-203	BYA6S2	CCD-203	B-120	5HK-S20
C50	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C51	.015 1KV 10%				PKM10S15	16DP-4-153	GEM-161125	10TM-S15
C52	.01 600V		P688N-01	DD-103	PM681	8DP-2-103	GEM-611	6TM-S10
C53	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C54	.039 600V 10%		BE6S39		PM6839	8DP-3-393	PVC6139	6PS-S39
C55	.1 1KV		BE10P1		PKM10P1		GEM-1001	10TM-P10
C56	.1 1KV		BE10P1		PKM10P1		GEM-1001	10TM-P10
C57	.0068 1.6KV			DD16-702	PKM16D68	16DP-3-702	GEM-16268	MB-D68
C58	.0022		BPD-0022	DD-222	LA10D22-C4	CCD-222	B-222	10TS-D22
C59	.022 600V 10%		BE6S22		PM6822	8DP-2-223	PVC6122	6TM-S22
C60	.1 600V		P688N-1	DF-104	PM6P1	8DP-4-104	GEM-601	6TM-P10
C61	100 NPO 5%			DTZ-100	C10T1C	CNO-310	CNO-310	10TCC-T10
C62	20 NPO 10%			DTZ-20	C10Q2C	CCTO-200	CNO-422	10TCC-Q20
C63	.0062 10%	#65D110-256		CF-422				
C64	.001 10%		DI-1000	DD-102	JB6D1	CCD-102	GP210	10TS-D10
C65	.0022		BPD-0022	DD-222	LA10D22-C4	CCD-222	B-222	10TS-D22
C66	.047 200V		P288N-047	DD-503	PM2647	4DP-3-473	GEM-2147	4TM-S47
C67	.0039 10%			CPR-3900J	CD19F392J	DM-19-392K	MCJ462.5	MS-339
C68	33 NPO 10%			DTZ-33	C10Q33C	CCTO-330	CNO-433	10TCC-Q33
C69	820 10%			CPR-820J	CD19F821K	DM-19-821K	MCB252	MS-382
C70	680 10%			CPR-680J	CD19F681K	DM-19-681K	MCB148	MS-368
C71	.0047		BPD-0047	DD-472	BYA10D47	CCD-472	B-247	5HK-D47
C72	.047 400V		P488N-047	DD-503	PM4847	4DP-3-473	GEM-4147	4TM-S47
C73	.015 1.6KV 5%	#65C2-59						
C74	.001 1KV		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C75	68 5KV N1500 10%	(47) †						
C76	.001 1KV		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C77	.001 1KV		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C78	.047 600V		P688N-047	DD-503	PM6847	8DP-3-473	GEM-6147	6TM-S47

Note 1. Not used in some versions.

† Alternate Value

Admiral Part Number

CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			ADMIRAL PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume, Switch	3meg	75C44-19 ①	F2-3meg, SP212, KR-8		B13-140, SK8 or (BU2, CF28, SS11, K) *	
R2	Contrast	25K	75D20-163	F1-25K, SN010 ② AK-38 or (B-28)	B47-25K-S ②	B11-120, TM4 ② (BU11, CF11, SS8 ②) *	TA253L or (RU253L, SL37, SN1000 ②) or (UA253L, SN1000 ②) or (U45)
R3	Brightness	200K	75D20-161	F3-250K, SN010 ②, AK-38 or (B-52)		B-7-129, TM4 ②	
R4	Vert. Hold	300K	75D20-162	F1-250K, SN010 ②, AK-38 or (B-50)	A47-300K-S FS-3	B11-131, TM4 ② or (BU11, CF15, SS8 ②) *	PTA35L ② or (RU35L, SL37, SN1000 ②) or (UA35L, SN1000 ②) or (U45)
R5	Horiz. Range	45K	75D20-131	TT-31 or (F1-50K, SN010, AK-38)	B47-50K-S	B11-123, TM4 or (BU11, CF12, SS8) *	PTA54L or (RU54L, SL37, SN1000) or (UA54L, SN1000) or (U45)
R6	Vert. Linearity	1500Ω 250Ω Stop (2W)	75B81-3	WN-152 ③ or (WW-152 ③)	A43-1500 ③ FKS-1/2	WP8-1500 ③ or (BU1, WF4 ③, SS1, DC1) *	PFL-1.5K ③ or (VW1P5K ③) or (R1500L ③)
R7	Vert. Height	75D20-160	TT-87 or (F1-5meg, SN010, AK-38)		B47-5meg-S	PTA56L or (RU56L, SL37, SN1000) or (UA56L, SN1000) or (U45)	
R8	AGC	100K	75D20-118	TT-40 or (F3-100K, SN010, AK-38)	B47-100K-S	B17-128, TM4	PTA15L or (TA15L) or (UA15R, SN1000)

① Chassis 19G3, 19UG3 use Part #75C44-21.

Chassis 19B3, 19UB3 use Part #75C45-14.

Chassis 19C3, 19UC3, 19H3, 19UH3 use Part #75C45-13.

Chassis 19K3U uses Part #75C82-13.

Chassis 19R3U uses Part #75C87-12.

Chassis 19M3 uses Part #75C82-14.

Chassis 19T3 uses Part #75C87-15.

② File Flat.

③ Connect a 270Ω, 2 watt resistor in series with this terminal.

* "SNAPTROL"

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REMARKS			IRC PART No.	WORKMAN PART No.	REMARKS
R9	6800Ω 3W	PW3-6800	3G-6800		R94	12K 3W	PW5-4300	3G-12K	
R22	15K 3W	PW3-6800	3G-15K		R98	4300Ω 5W	3G-SQ-4300		
R25	6800Ω 3W	PW7-6800	3G-6800		R99	9100Ω 3W	3G-9100		
R31	5600Ω 7W		7W-SQ-6800		R100	270Ω 3W	PW3-270	3G-270	

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		ADMIRAL PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	
L1	47.25MC Trap	72C132-55				TA292	
L2	1st Video IF	72D132-63					
L3	2nd Video IF	72C132-57					
L4	File. Choke (16 turns)	73B37-2					
L5	3rd Video IF	72B207-6		7507-A			
L6	RF Choke (28uh)	73B31-3	TV-180	72F275AP	RTC-8593	TB246	
L7	Peaking (500uh)	73C5-42 ①	TV-203 *	6174 *	RTC-8592 *	T324 *	① Wound on 5.6K res.
L8	RF Choke (12uh)	73B31-4	BC-566	4622	RTC-8523	T895	* Shunt with 5.6K res.
L9	Sound Takeoff - 4.5MC Trap						
L10	Peaking (485uh)	72C185-2	TV-235	1471-A	RTC-9277	T277	
L11	Peaking (191uh)	73C5-47	TV-203	6138	RTC-8592	T975	
L12	Sound IF Interstage	73C5-40 ②	TV-197 †	6154 †	RTC-8586 †	T372	② Wound on 12K resistor.
L13	Quadrature	72B208-3		7116-A		TB248	† Shunt with 12K resistor.
L14	RF Choke (2.4uh)	72C132-61					
L15	RF Choke (2.4uh)	73B31-8	BC-563	4606	RTC-8517	T857	
		73B31-8	BC-563	4606	RTC-8517	T857	

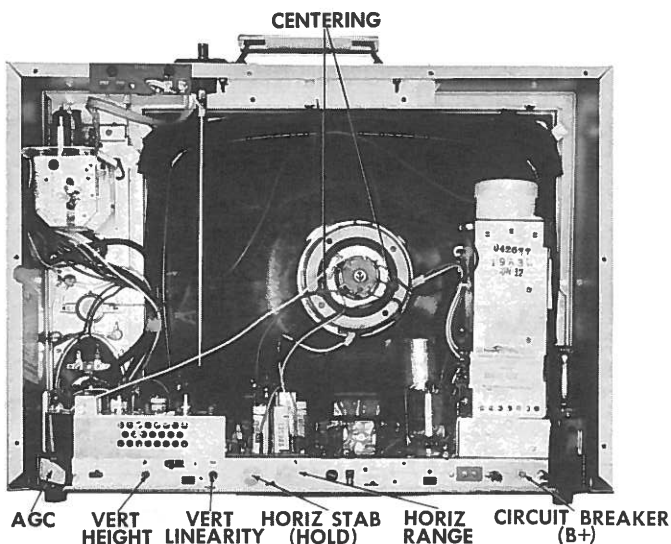
DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

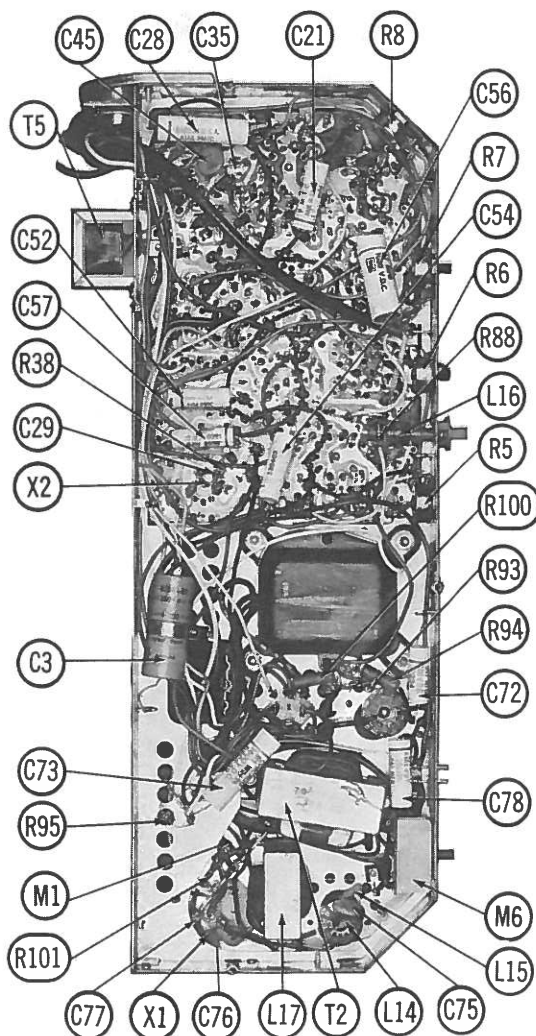
1. Remove all knobs and cabinet back held by 12 screws.
2. Place cabinet face down on a soft protective surface and remove 5 screws holding tuner and control assembly.
3. Unplug high voltage lead, picture tube socket, and speaker leads.
4. Remove yoke clamp and 4 screws in center bottom of cabinet. Remove chassis and tuner assembly.

PICTURE TUBE REMOVAL

1. Follow "Chassis Removal" instructions. Loosen retainer bolt.
2. Remove 4 corner bracket screws and remove picture tube.



CABINET-REAR VIEW



CHASSIS BOTTOM VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Tune in a TV station. Set all controls for normal operation. Connect a jumper from point \diamond to ground. Connect a .22mfd 400V capacitor across the Horizontal Stabilizer (Lock) Coil.

Adjust the Horizontal Range Control (R5) until the picture appears to float back and forth across the screen. Remove the .22mfd capacitor and adjust the Horizontal Lock Coil Slug (B1) until the picture again appears to float. Remove the jumper from point \diamond .

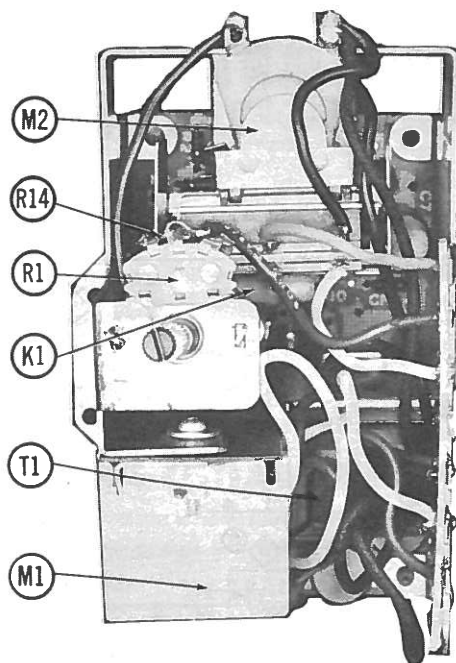
PHOTOFACT® Folder

with CIRCUITRACE™

ADMIRAL REMOTE CONTROL RECEIVER
CHASSIS 5D9 , TRANSMITTER S325A

IMPORTANT FILING NOTICE

This PHOTOFACT Folder covers equipment used with the TV chassis covered in PHOTOFACT SET 681 FOLDER 1. File this Folder with the TV Folder in the yellow filing jacket provided.



TRADE NAME	Admiral		
MANUFACTURER	Admiral Corp., National Service Div., 903 Morrissey Drive, P.O. Box 845, Bloomington, Illinois		
TYPE SET	Remote Control Receiver		
TRANSISTOR	Five		
POWER SUPPLY	110-120 Volts AC, 60 Cycles	RATING	1.8 Watts, 15MA @ 117 Volts AC






ALIGNMENT INSTRUCTIONS

PRE-ALIGNMENT INSTRUCTIONS

Remove Microphone from the Receiver. Suggested Alignment Tools: GENERAL CEMENT #9440

SON-R DISTANCE SELECTOR (REMOTE SENSITIVITY) ADJUSTMENT

Turn the set on and place in a position where it will normally be viewed. Turn the Distance Selector shaft one-fourth turn clockwise from full counterclockwise position. Operate push buttons on the Transmitter at the farthest location from which the TV set will normally be viewed. If the Son-R functions consistently, no further adjustment will be necessary. If not, turn the Distance Selector shaft a few more degrees clockwise and check again. Continue this process until Son-R functions properly.

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1.	High side of signal generator thru 100K resistor to point  , low side to ground.	41.805 KC		DC probe to point  , common to point  .	A1	Adjust for maximum.
2.	"	38.285 KC		DC probe to point  , common to point  .	A2	Adjust for maximum.

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

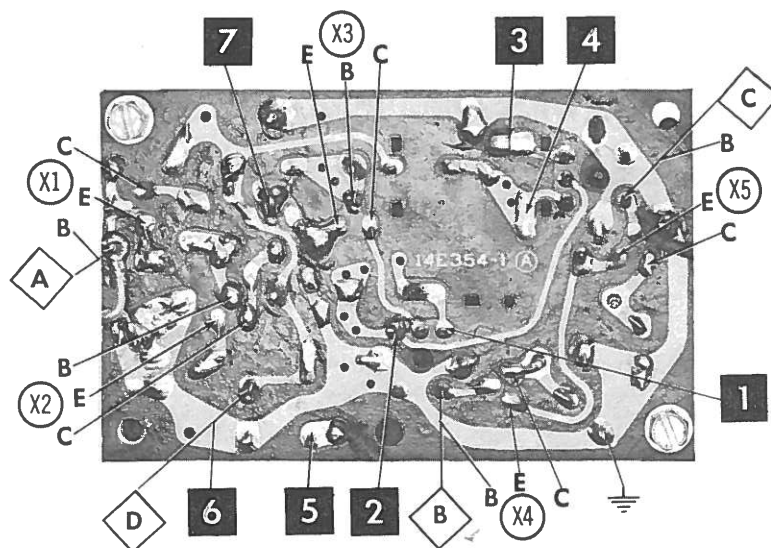
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DATE 2 -64

SET 681 FOLDER 1-A

ADMIRAL REMOTE CONTROL RECEIVER
CHASSIS 5D9 , TRANSMITTER S325A



B-BASE C-COLLECTOR E-EMITTER

PRINTED BOARD 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.

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X1	57D1-88	1st Amp.	DS-25	GE-1	2N218	
X2	57D1-88	2nd Amp.	DS-25	GE-1	2N218	
X3	57D1-89	3rd Amp.	DS-25	GE-1	2N218	
X4	57D1-70	41KC Relay Control	DS-26	GE-2	2N218	
X5	57D1-70	38KC Relay Control	DS-26	GE-2	2N218	

POWER RECTIFIERS

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS		
			MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.
X6	4MA	83B24-3	A50 or D50	1N2858	F-1 or 10H

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		ADMIRAL PART No.	REPLACEMENT DATA					
	CAP.	VOLT.		AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	100	15	87C47-1	BCD15100	ECPB417	MT1-19	MLV100-15	TT15X100	TE-1162
C2	100	15	87C47-1	BCD15100	ECPB417	MT1-19	MLV100-15	TT15X100	TE-1162
C3	100	15	87C47-1	BCD15100	ECPB417	MT1-19	MLV100-15	TT15X100	TE-1162

FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENDO PART No.	MALLORY PART No.	SPRAGUE PART No.
C4	.47 10V			UK10-474	HCC10474Z			HY330
C5	.05 10V		TTD-05	UK10-503	HCC10503Z			HY310
C6	.1 12V		TTD-1	UK20-104	HCC25104Z		TA-150	HY320
C7	.05 10V		TTD-05	UK10-503	HCC10503Z		TA-150	HY310
C8	.1 12V		TTD-1	UK20-104	HCC25104Z		TA-010	HY320
C9	390 5%			CPR-390J	CD15F391J	DM-15-391J		MS-339
C10	470 10%			CPR-470J	CD19E471K	DM-19-471K	MCB-244	MS-347
C11	.1 12V		TTD-1	UK20-104	HCC25104Z		TA-010	HY320

CONTINUED NEXT PAGE

PARTS LIST AND DESCRIPTION (CONTINUED)

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.

CONTROLS

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

ITEM No.	USE	RESIST-ANCE	REPLACEMENT DATA				
			PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Sonar Distance Selector	850Ω	75D20-159	TT-14 or (F1-10K, SN104, AK-38)	B47-10K-S	B11-116, TM4, or (BU11, CF8, SS8)*	TA14L or (RU14L, SL37, SN1000) or (UA14L, SN1000)

**"SNAPTROL"

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		ADMIRAL PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	
L1	41.8KC Output	89C2481				TB877	
L2	38.3KC Output	89C2481				TB877	

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	ADMIRAL PART No.	REPLACEMENT DATA
K1	Relay Shunt	22K, .005mfd		83D10-7

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	ADMIRAL PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VAC @ .015A	9.5VAC @ .004A DC		80D74-10(-T) (80C74-10)					

MISCELLANEOUS

ITEM No.	PART NAME	ADMIRAL PART No.	NOTES
M1	Relay	83C33-1	Function On/Off-Volume, Stepping Relay
M2	Relay	83C34-2	
M3	Microphone	78B182-2	

WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid 22AWG) 8524 (Stranded 22AWG) 8570 (Stranded 28AWG)	Available in 12 Colors
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TRANSMITTER

PART NAME	PART No.
Pushbutton	33B529-1
Lever Button, Left	15C2418-1
Lever Button, Right	15C2418-2
Lever Hammer, Left	15B2415-1
Lever Hammer, Right	15B2415-2
Grille	36B138-13

