

# PHOTOFACT<sup>®</sup> with

# CIRCUITRACE<sup>®</sup>

For Supplier Address See PHOTOFACT Index

## NOTE

Repair or adjustment of transmitter circuits must be under supervision of a person with first-or second-class radiotelephone license.

(Refer to FCC Rules and Regulations Part 95, Subpart C & D.)

The frequency of the transmitter should be checked periodically with a secondary frequency standard to insure proper and legal operation.

Best results will be obtained when adjusting the final RF output circuit if the antenna normally used is connected and the chassis is as nearly in the cabinet as possible.

Connect either 50-ohm dummy load or the normally used antenna system.



SILTRONIX MODELS APACHE, MOHAWK

MODEL Mohawk (AM-2)

MODELS Apache (AM-1), Mohawk (AM-2)

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

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## ALIGNMENT INSTRUCTIONS

CAUTION: Use isolation transformer or observe polarity when connecting test equipment. Maintain line voltage at 120V AC. Allow a 15-minute warm-up period.  
Adjustments made with 13.8-volt DC input.  
Connect low sides of test equipment to ground unless specified otherwise.  
Connect 50-ohm dummy load or antenna before keying transmitter.  
Suggested Alignment Tools: GC ELECTRONICS  
L1, L9, L10, L11, T3, T4, T5, T6 T14, T15 . 8728  
L2, L3, L6, T1, T2, T10, T12, T13, T16 .... 9440  
C98 ..... 5000

## SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Inputs of frequency counter and RF VTVM to Q2 base.	Ch. 13	L2	Adjust for 17.115MHz at maximum.
Input of frequency counter to Q2 base.	Ch. 17 Ch. 21 Ch. 1 Ch. 5 Ch. 9		Check for 17.165MHz. Check for 17.215MHz. Check for 16.965MHz. Check for 17.015MHz. Check for 17.065MHz.
Inputs of frequency counter and RF VTVM to L3.	Ch. 13	L3	Adjust for 9.545MHz at maximum.
Input of frequency counter to L3.	Ch. 14 Ch. 15 Ch. 16		Check for 9.555MHz. Check for 9.565MHz. Check for 9.585MHz.
Inputs of frequency counter and RF VTVM to Q19 G2.	Ch. 13, Xmit	T16	Adjust for 10.000MHz at maximum.
Input of frequency counter to Q19 G2.	Ch. 14, Xmit Ch. 15, Xmit Ch. 16, Xmit		Check for 10.010MHz. Check for 10.020MHz. Check for 10.040MHz.

## RECEIVER ALIGNMENT

Connect an AC VTVM or AF wattmeter across speaker voice coil.  
Adjust volume control to obtain a suitable indication.  
Set generator output low enough to prevent AGC limiting.

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to Q3 base. 455kHz, 1000Hz @ 30% modulation.	Ch. 13, RF Gain-Maximum	T6,T5,T4	Adjust for maximum output.
Output of signal generator thru .01uF to Q2 base. 10MHz, 1000Hz @ 30% modulation.	Ch. 13	T3b (Blue), T3a (Pink)	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.115MHz, 1000Hz @ 30% modulation.	Ch. 13	T2,T1,L1	Adjust for maximum output. Repeat above steps, if necessary.

## RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF wattmeter across speaker voice coil.  
Adjust volume control to obtain a suitable indication.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to antenna jack. 27.115MHz, 1000Hz @ 30% modulation. Output 50,000uV.	Ch 13	VR1	AGC Adjust volume VR4 for 0db. Decrease generator to 50uV. Adjust VR1 so that audio signal does not drop more than 10db.
Output of signal generator thru .01uF to antenna jack. 27.115MHz, 1000Hz @ 30% modulation. Output 1000uV.	Ch. 13	VR5	SQUELCH RANGE Set squelch control VR6 fully clockwise. Adjust VR5 so that squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.115MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 13	VR3	S METER Adjust VR3 for 9 on S scale of meter.

## TRANSMITTER ALIGNMENT

Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.  
NOTE: Be sure to check transmit frequency and power on all active channels after alignment of transmitter.

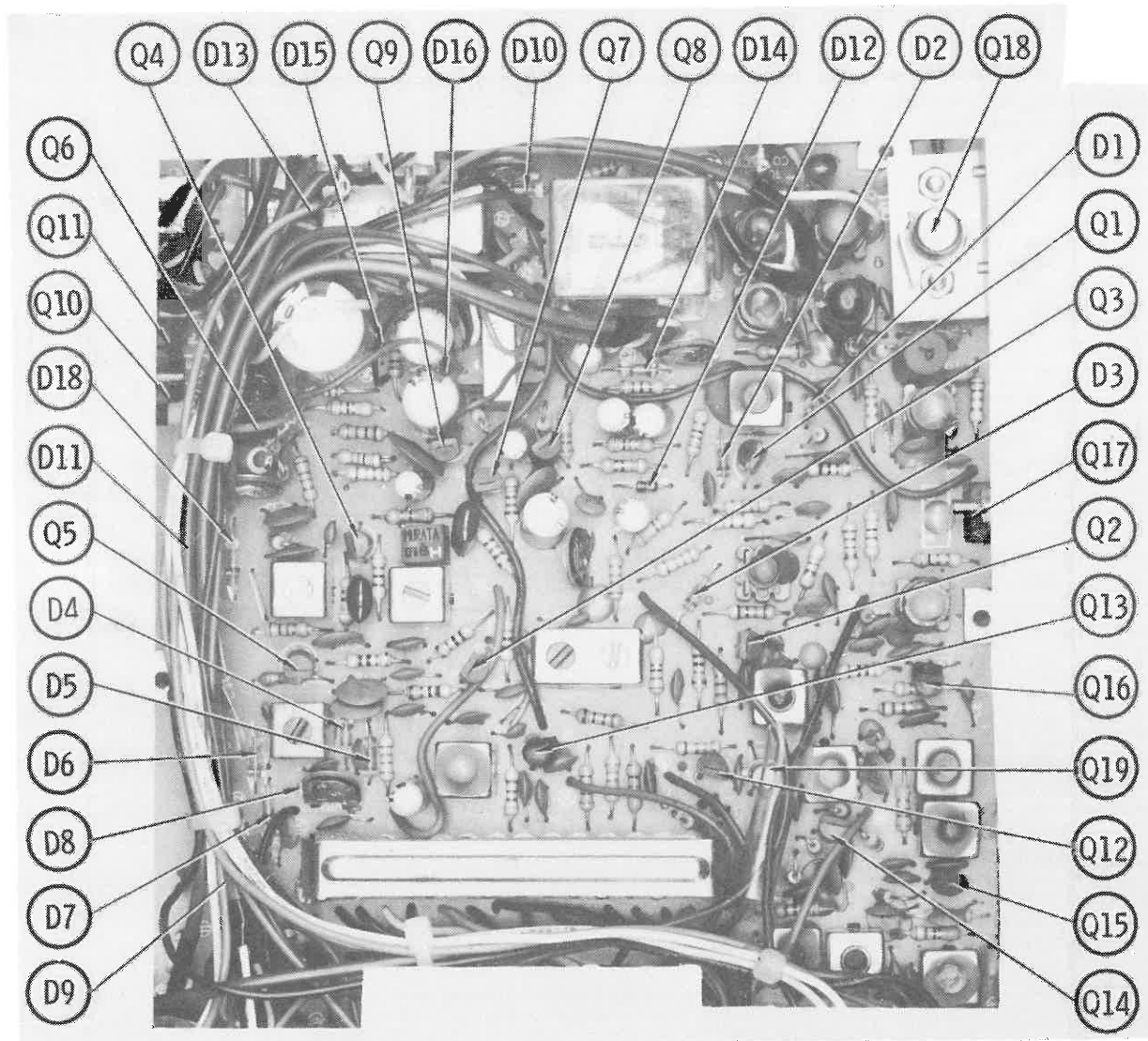
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of spectrum analyzer to antenna jack.	Ch. 13	T10,T12,T13, L6,T14,T15, L9,L10,L11	Adjust for maximum.
	Ch. 13	L11,L10	Adjust for 4 watts maximum.
	Ch. 13	C98	Adjust for MINIMUM at 54MHz.

## TRANSMITTER ADJUSTMENTS

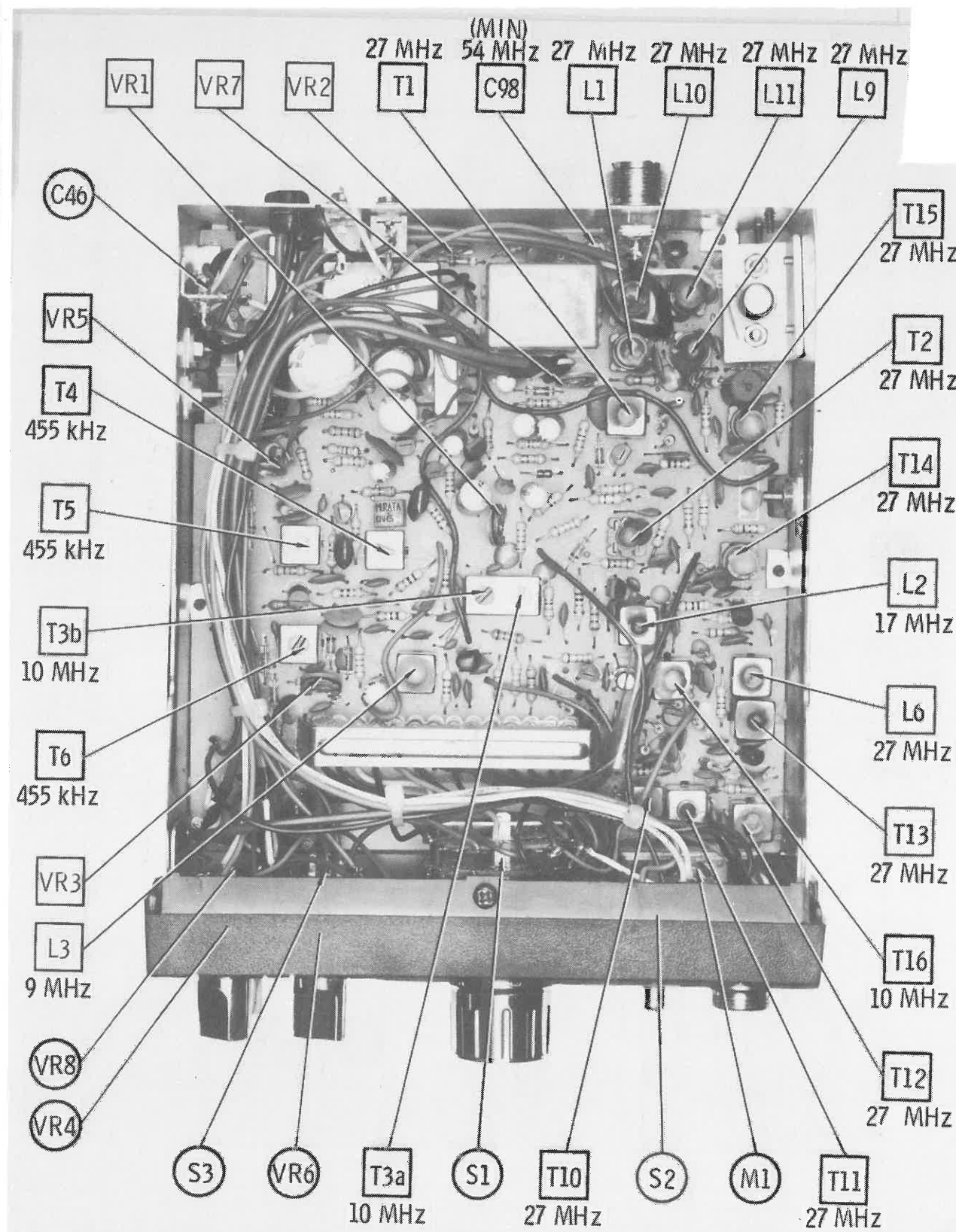
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.  
NOTE: Be sure to check transmit frequency and power on all active channels after adjustments of transmitter.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Modulation meter to antenna jack. Inject a 1000Hz signal at MIC input.	Ch. 13	VR7	AMC Disconnect D14 to disable AMC. Adjust signal for over-modulation. Restore AMC operation. Adjust VR7 for 100% modulation maximum.
	Ch. 13	VR2	RF PANEL METER Adjust VR2 so that RF panel meter agrees with RF wattmeter.

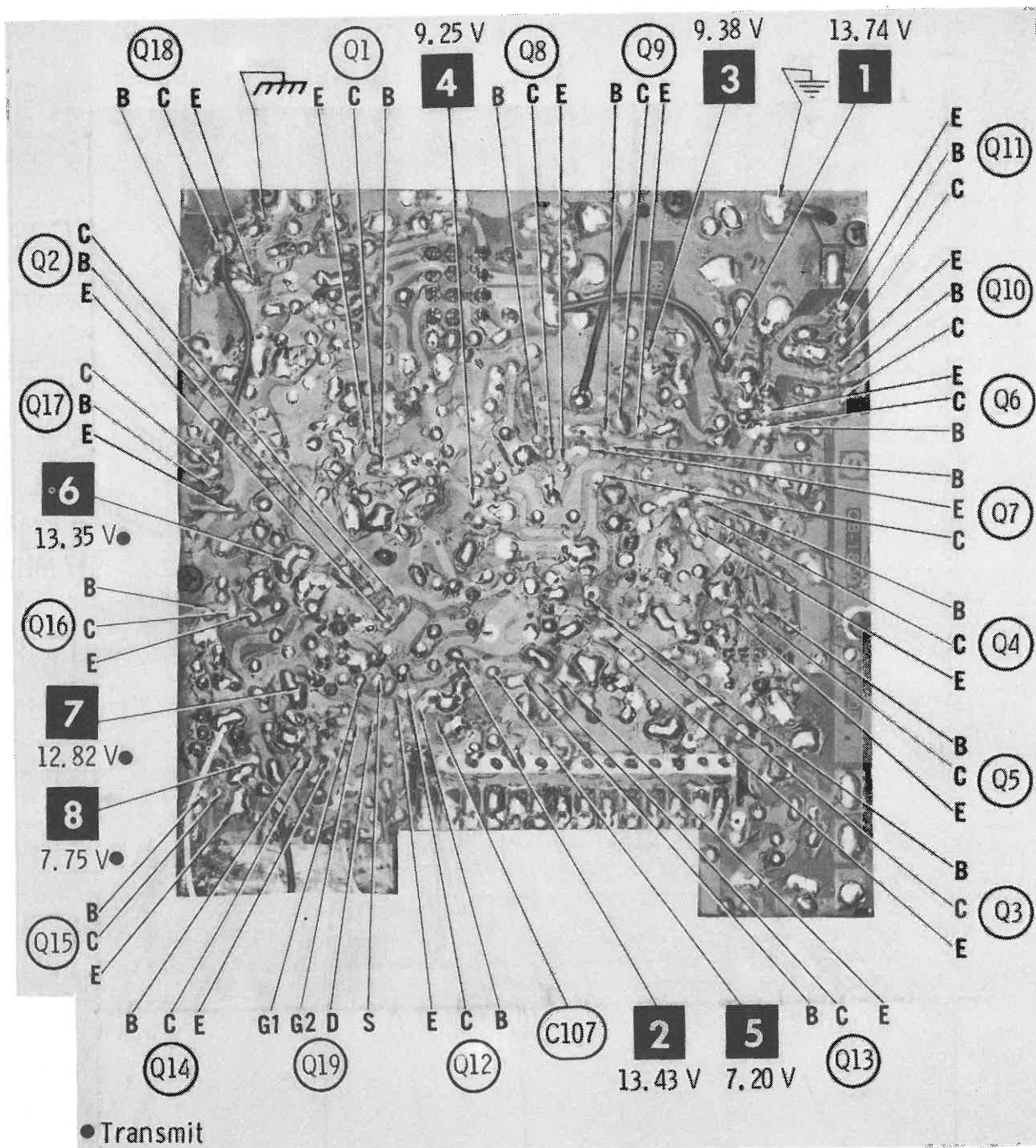
SILTRONIX MODELS APACHE, MOHAWK



MAIN BOARD

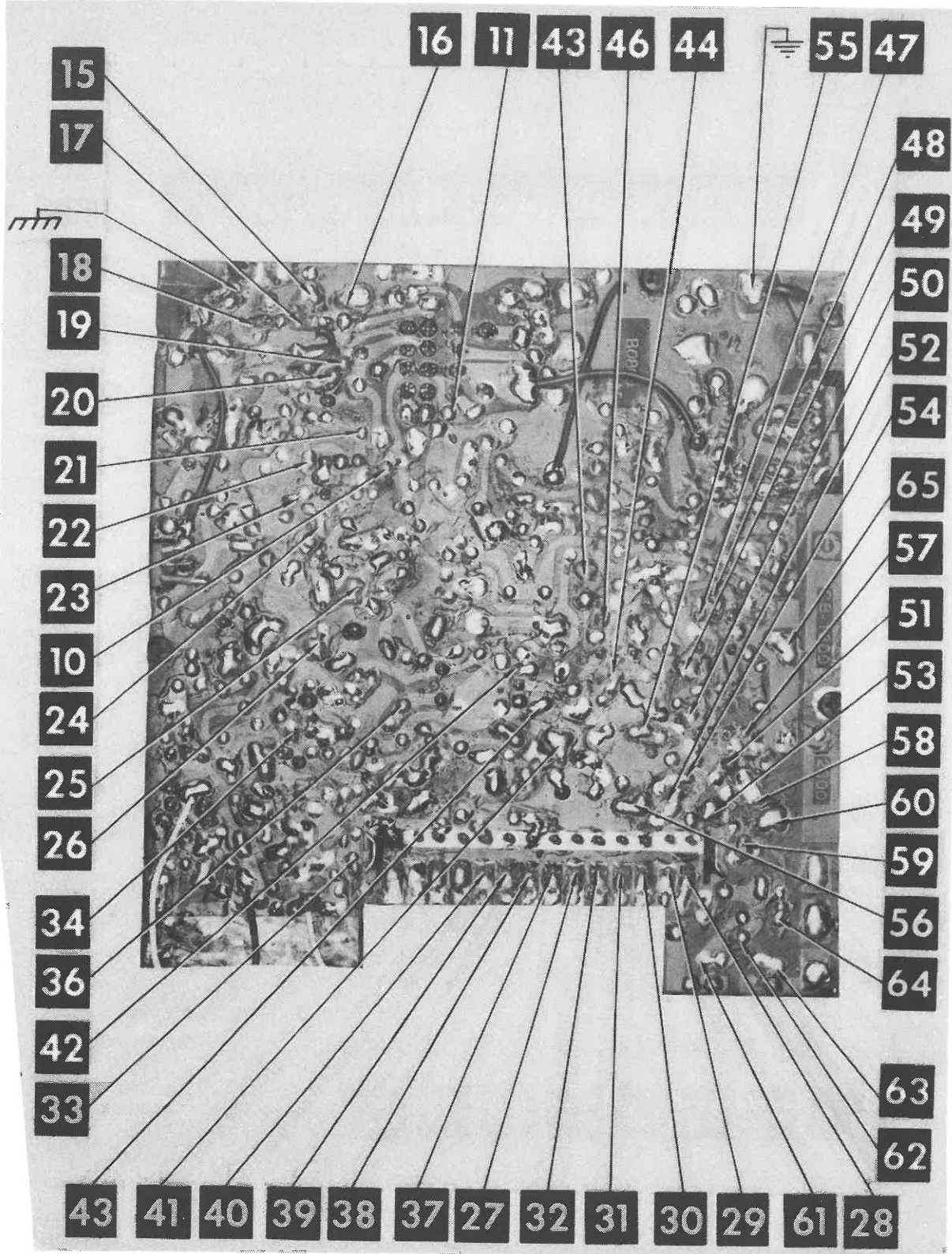


CHASSIS - BOTTOM



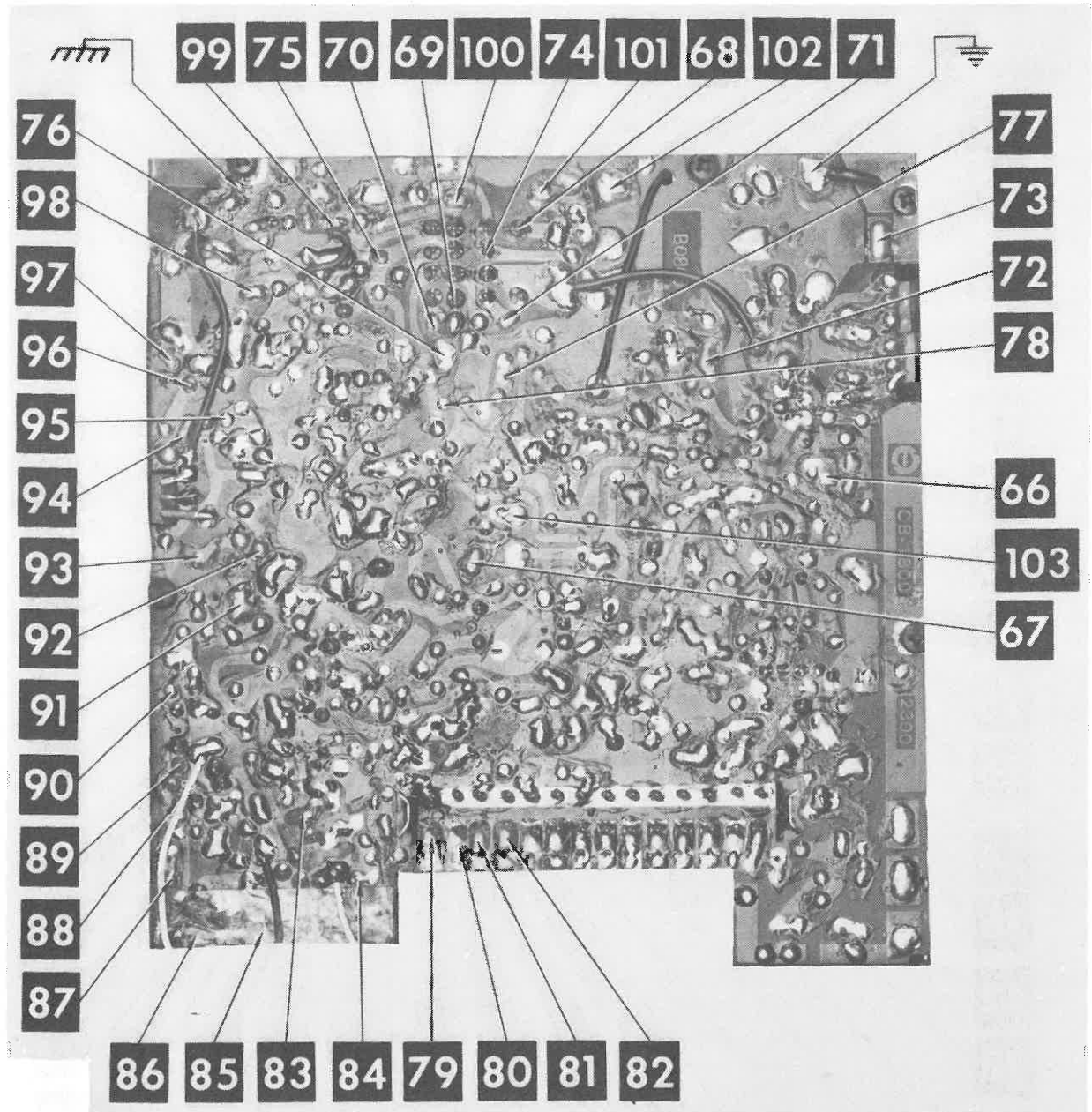
MAIN BOARD





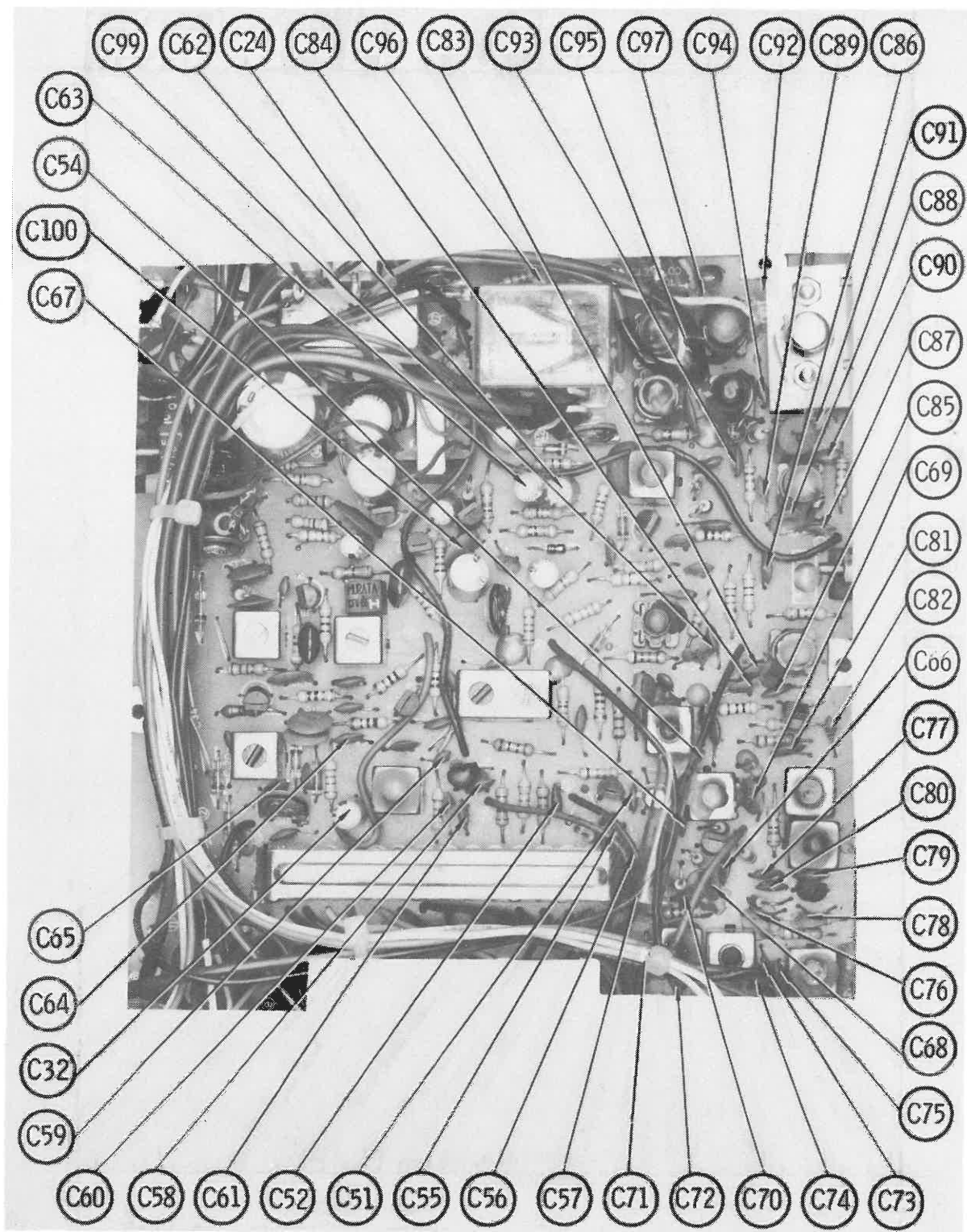
SILTRONIX MODELS APACHE, MOHAWK

MAIN BOARD

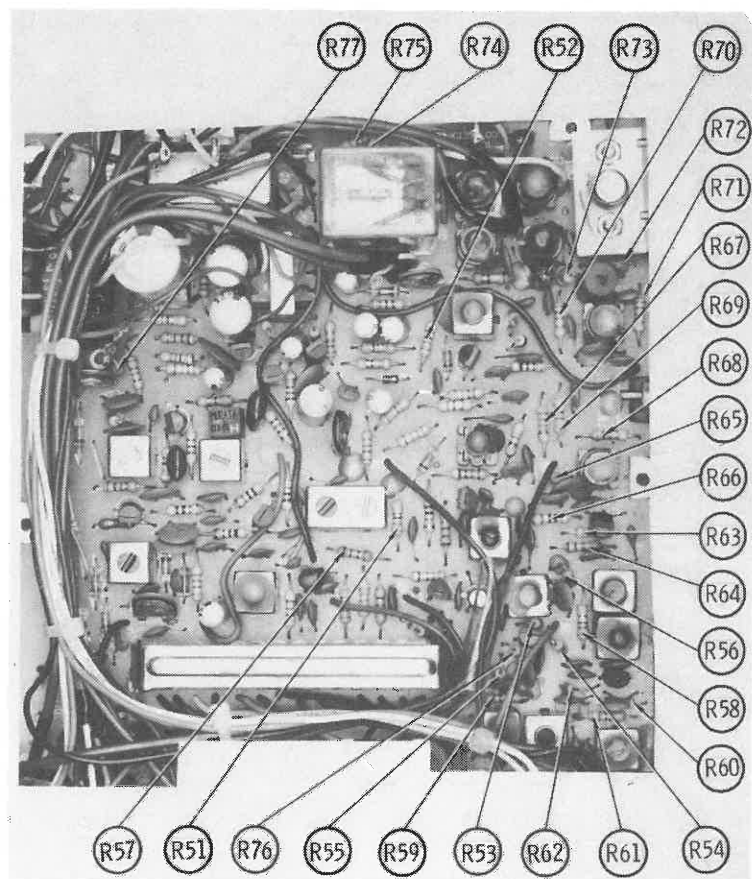
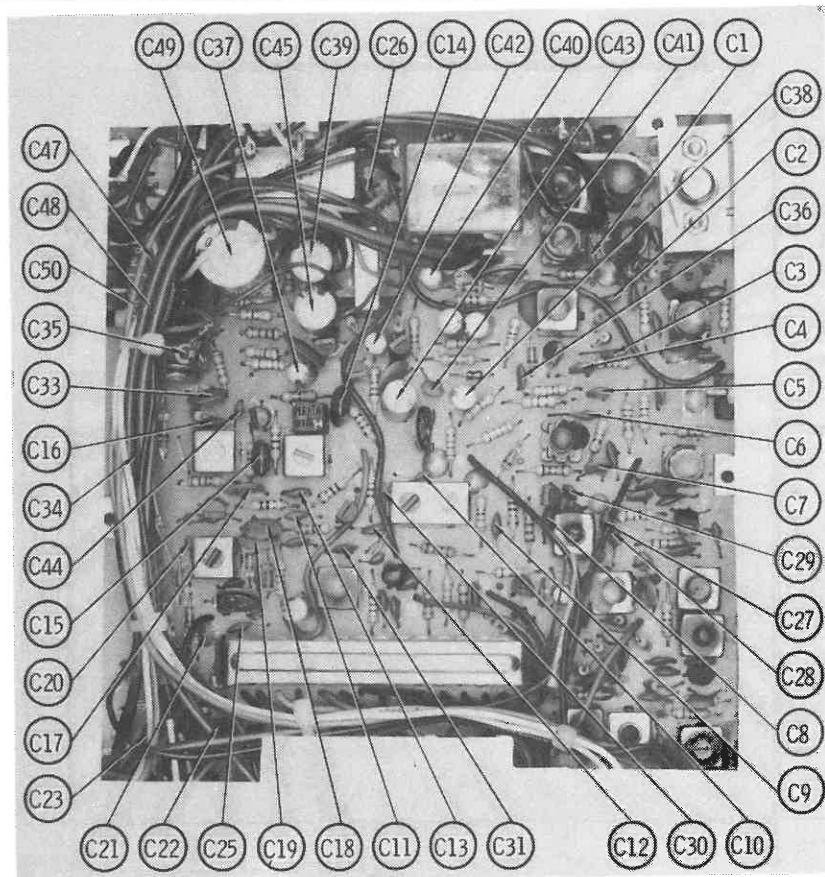


MAIN BOARD

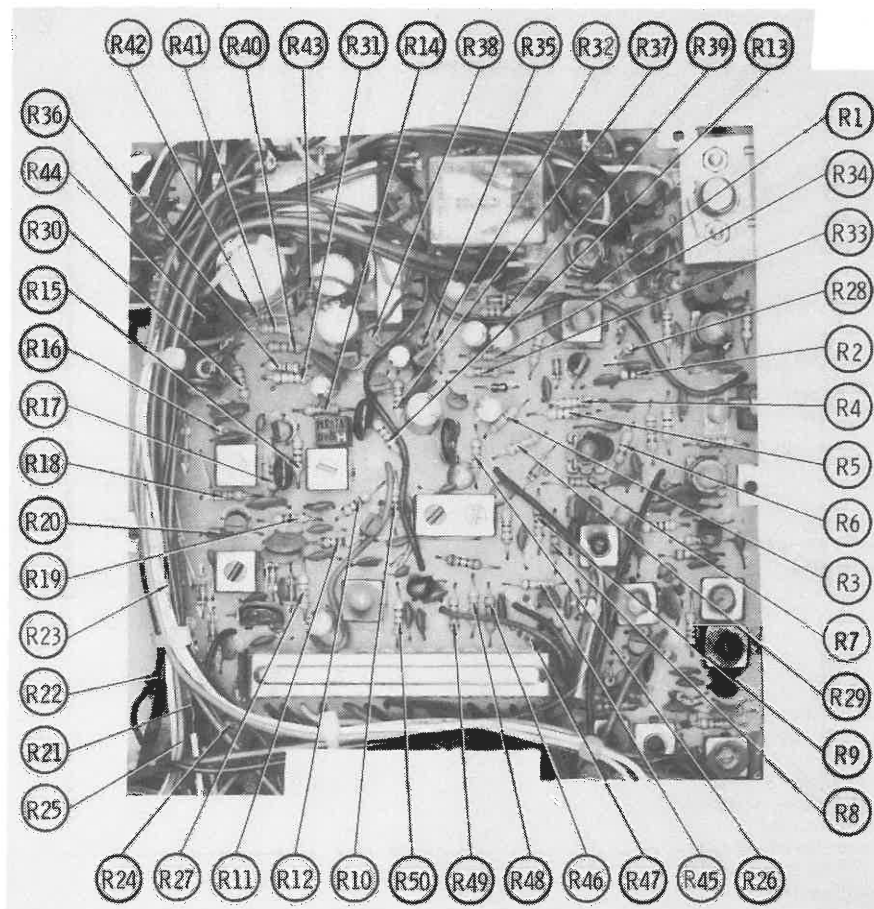
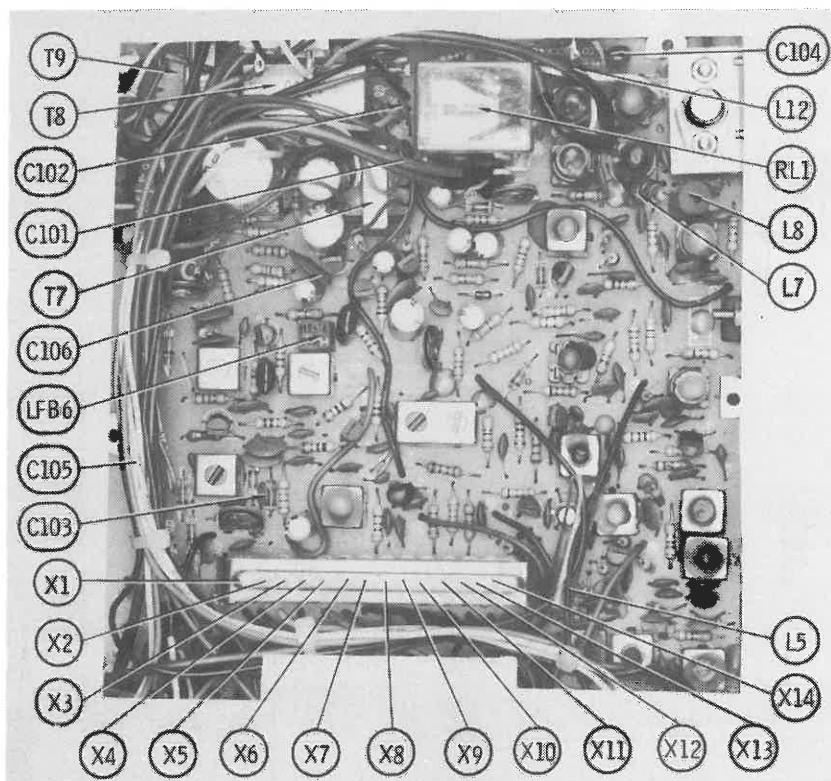




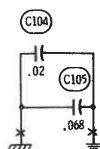
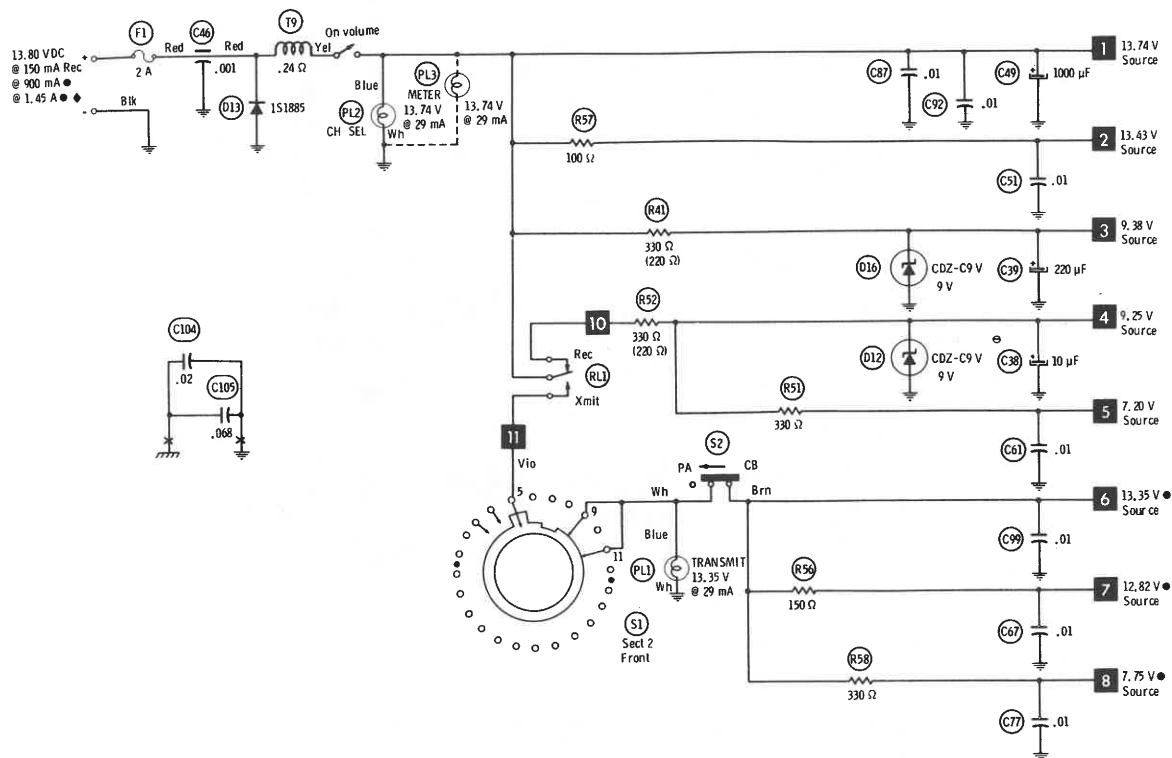
MAIN BOARD



MAIN BOARD



## MAIN BOARD



Terminal Guides



Q1 thru Q9  
Q12 thru Q16  
Bottom view



Q19  
Bottom view



Q10, Q11  
Front view



Q17  
Front view



Q18  
Bottom view

— Circuitry not used in some versions

--- Circuitry used in some versions

• See parts list

\* Nominal value

⊥ Ground

⏏ Chassis

▽ Common tie point

Measurements with switching as shown unless noted:

■ Squelch fully clockwise ◆ 100% modulation

● Transmit

Supply voltage maintained as shown at input.

Voltages measured with digital meter, no signal.

Controls adjusted for normal operation.

Arrow at control indicates direction of advance.

Terminal identification may not be found on unit.

Resistors are 1/2W or less, 5% unless noted.

Value in ( ) used in some versions.

A PHOTOFAC STANDARD NOTATION SCHEMATIC

WITH CIRCUITRACE

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Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement	Chan	Crystal Complement
1	X1, X7, X11	7	X2, X9, X13	13	X4, X7, X11	19	X5, X9, X13
2	X1, X8, X12	8	X2, X10, X14	14	X4, X8, X12	20	X5, X10, X14
3	X1, X9, X13	9	X3, X7, X11	15	X4, X9, X13	21	X6, X7, X11
4	X1, X10, X14	10	X3, X8, X12	16	X4, X10, X14	22	X6, X8, X12
5	X2, X7, X11	11	X3, X9, X13	17	X5, X7, X11		
6	X2, X8, X12	12	X3, X10, X14	18	X5, X8, X12	23	X6, X10, X14









PARTS LIST AND DESCRIPTION

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

WIRING DATA

General-use Hook-up Wire .....	Use BELDEN No. 8530 (Solid) Available in 13 Colors
Shielded Antenna Lead .....	Use BELDEN No. 8524 (Stranded) Available in 13 Colors
	8237 Low-loss (RG-8/U)
	8240 (Solid) Miniature (RG-58/U)
	8259 (Stranded) Miniature (RG-58A/U)
Coiled Microphone Cable .....	Use BELDEN No. 8497 3-Conductor (1 shielded for Press-to-Talk) Neoprene
Bonding Strap .....	Use BELDEN No. 8661 (3/8 inch)

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA							
			GENERAL ELECTRIC PART No.	IR WORKMAN PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
D1	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D2	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D3	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D4	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D5	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D6	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D7	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D8	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D9	1S1555		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D10	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D11	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D12	CDZ-C9V		GEZD-9.1	Z1209	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D13	1S1885		GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D14	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D15	MV-1		GEZD-9.1	Z1209	PTC301					
D16	CDZ-C9V		GEZD-9.1	Z1209	PTC301	HEPZ0412	RE 114	SK3060	RT-240	ECG139
D18	1N60		1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
Q1	2SC710C		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q2	2SC710C		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q3	2SC710C,B		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q4	2SC710C,B		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q5	2SC710C,B		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q6	2SC1312		GE-62	(IR)2SC372	PTC139 *	HEPS0015 *	RE 192	SK3122 *	RT-172 *	ECG199
	2SC870C,E (1)		GE-47	TR-21 *	PTC139	HEPS0030 *	RE 13 *	SK3124 *	RT-304 *	ECG123A *
	2SC1312		GE-62	(IR)2SC372	PTC139 *	HEPS0015 *	RE 192	SK3122 *	RT-172 *	ECG199
Q7	2SC870C,E (1)		GE-47	TR-21 *	PTC139	HEPS0030 *	RE 13 *	SK3124 *	RT-304 *	ECG123A *
	2SC1312		GE-62	(IR)2SC372	PTC139 *	HEPS0015 *	RE 192	SK3122 *	RT-172 *	ECG199
Q8	2SC870C,E (1)		GE-47	TR-21 *	PTC139	HEPS0030 *	RE 13 *	SK3124 *	RT-304 *	ECG123A *
	2SC1312		GE-62	(IR)2SC372	PTC139 *	HEPS0015 *	RE 192	SK3122 *	RT-172 *	ECG199
Q9	2SC620E		GE-20 *	(IR)2SC644	PTC125 *	HEPS0015 *	RE 13 *	SK3020 *	RT-107A *	ECG123A *
	2SC1312		GE-62	(IR)2SC372	PTC139 *	HEPS0015 *	RE 192	SK3122 *	RT-172 *	ECG199
Q10	2SC1014D		GE-273		PTC193	RE 213				
Q11	2SC1014D		GE-273		PTC193	RE 213				
Q12	2SC710C		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q13	2SC710C,B		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q14	2SC710C		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q15	2SC710C		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q16	2SC620E		GE-20 *	(IR)2SC644	PTC125 *	HEPS0015 *	RE 13 *	SK3020 *	RT-107A *	ECG123A *
	2SC710C		GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q17	2SC1018		GE-236		PTC192	RE 212				
	2SC776		GE-219	TR-65	PTC158	HEPS3001	RE 79A	SK3048	RT-306F	ECG195A
	2SC696		GE-46	TR-65	PTC158	HEPS3001 *	RE 79A	SK3048	RT-114	ECG195A
Q18	2SC1239		GE-46 *		PTC176 *	RE 198			RT-174 *	ECG237 *
	2SC778		GE-46		PTC176	RE 198 *			RT-174	ECG237
Q19	MFE121		GE-FET-4		PTC181 *	HEPF2004	RE 199	SK3050	RT-181	ECG222
	MFI121		GE-FET-4		PTC181	HEPF2004	RE 199	SK3050	RT-181	ECG222
	40673		GE-FET-4		PTC181 *	HEPF2004	RE 199	SK3065	RT-180	ECG222

\* Lead Configuration may vary from original. (13) Rating, 1.0 Watt @ 1.0 Amp.  
(1) Used in some versions. (14) Rating, 12 Watt @ 4.0 Amp. - Later Mohawk models use 2SC1974.  
(11) Rating, 7.0 Watt @ 1.5 Amp. (15) Rating, 2.5 Watt @ 2.0 Amp.  
(12) Rating, 4.0 Watt @ 1.0 Amp.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFRG. PART No.	CORNELL- DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C32	10 25V		PC10-25	VTT10A25	QV1-43	EV-1322
C35	1 50V		PC1-50	VTT1B63	QV1-11	EV-1615
C37	1 50V		PC1-50	VTT1B63	QV1-11	EV-1615
C38	10 25V		PC10-25	VTT10A25	QV1-43	EV-1322
C39	220 16V		PC250-25	VTT220G16	QV1-117	EV-1240
C40	1 50V		PC1-50	VTT1B63	QV1-11	EV-1615
C42	4.7 25V		PC5-50	VTT47A50	QV1-27	EV-1319
C43	47 16V		PC50-16	VTT47D16	QV1-73	EV-1226
C45	220 16V		WBR50-25	MTA50E15	QE1-351	TVA-1150
C49	1000 25V		WBR1000-25	VTT1000M25	QV1-185	EV-1360
C62	10 25V		PC10-25	VTT10A25	QV1-43	EV-1322
C63	10 25V		PC10-25	VTT10A25	QV1-43	EV-1322

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C1	600		DD-681	GP680	GP368		10TS-T68
C2	30		DTZ-33	NP033	CN0433		10TCC-Q33
C3	.01		UK16-103		MAG1611		HY-420
C4	.01		UK16-103		MAG1611		HY-420
C5	.01		UK16-103		MAG1611		HY-420
C6	22		DTZ-22	NP022	CN0422		10TCC-Q22
C7	.047		UK12-503		MAG1215		HY-350
C8	.01		UK16-103		MAG1611		HY-420
C9	.01		UK16-103		MAG1611		HY-420
C10	1.5		DTZ-1R5	NP01P5	CN0515		10TCC-V15
C11	.01		UK16-103		MAG1611		HY-420
C12	.01		UK16-103		MAG1611		HY-420
C13	.01		UK16-103		MAG1611		HY-420
C14	.05 10% 50V			DPMS2S5	EWFI1A150		2PS-S50
C15	.05 10% 50V			DPMS2S5	EWFI1A150		2PS-S50
C16	.047		UK12-503		MAG1215		HY-350
C17	.05		UK50-503		MAG5015		
C18	.05		UK50-503		MAG5015		
C19	.05		UK50-503		MAG5015		
C20	10		DTZ-10	NP010	CN0410		10TCC-Q10
C21	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C22	.1 10% 50V			WMF05P1	EWFO5010		431P1049R5
C23	.1 10% 50V			WMF05P1	EWFO5010		431P1049R5
C24	.01		UK16-103		MAG1611		HY-420
C25	.01		UK16-103		MAG1611		HY-420
C26	.01		UK16-103		MAG1611		HY-420
C27	22		DTZ-22	NP022	CN0422		10TCC-Q22
C28	100		DTZ-100	NP0100	CN0310		10TCC-T10
C29	20		DTZ-20	NP020	CN0420		10TCC-Q20
C30	1.5		DTZ-1R5	NP01P5	CN0515		10TCC-V15
C31	100		DTZ-100	NP0100	CN0310		10TCC-T10
C33	.05		UK50-503		MAG5015		
C34	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C36	.01		UK16-103		MAG1611		HY-420
C41	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C44	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C46							
C47	.02 10% 50V			DPMS2S2	PVC212		2PS-S20
C48	.02 10% 50V			DPMS2S2	PVC212		2PS-S20
C50	.01		UK16-103		MAG1611		HY-420
C51	.01		UK16-103		MAG1611		HY-420
C52	150		DTZ-150		CN0315		10TCC-T15
C53							
C54	5		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C55	20		DTZ-20	NP020	CN0420		10TCC-Q20
C56	20		DTZ-20	NP020	CN0420		10TCC-Q20
C57	30		DTZ-33	NP033	CN0433		10TCC-Q33
C58	80		DTZ-82	NP082	CN0482		10TCC-Q82
C59	1.5		DTZ-1R5	NP01P5	CN0515		10TCC-V15
C60	100		DTZ-100	NP0100	CN0310		10TCC-T10
C61	.01		UK16-103		MAG1611		HY-420
C64	.01		UK16-103		MAG1611		HY-420
C65	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C66	220		DTZ-220				10TCC-T22
C67	.01		UK16-103		MAG1611		HY-420
C68	220		DTZ-220				10TCC-T22
C69	220		DTZ-220				10TCC-T22
C70	.01		UK16-103		MAG1611		HY-420
C71	5		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C72	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C73	20		DTZ-20	NP020	CN0420		10TCC-Q20
C74	1				CN0510		10TCC-V10
C75	27				CN0427		10TCC-Q27
C76	.01		UK16-103		MAG1611		HY-420
C77	.01		UK16-103		MAG1611		HY-420
C78	.01		UK16-103		MAG1611		HY-420
C79	27				CN0427		10TCC-Q27
C80	.01		UK16-103		MAG1611		HY-420
C81	130		DTZ-150		CN0315		10TCC-T15
C82	30		DTZ-33	NP033	CN0433		10TCC-Q33
C83	.01		UK16-103		MAG1611		HY-420
C84	.01		UK16-103		MAG1611		HY-420
C85	80		DTZ-82	NP082	CN0482		10TCC-Q82
C86	.01		UK16-103		MAG1611		HY-420
C87	.01		UK16-103		MAG1611		HY-420
C88	100		DTZ-100	NP0100	CN0310		10TCC-T10
C89	.01		UK16-103		MAG1611		HY-420
C90	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C91	180		DTZ-180				10TCC-T18
C92	.01		UK16-103		MAG1611		HY-420
C93	.01		UK16-103		MAG1611		HY-420
C94	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C95	220		DTZ-220				10TCC-T22
C96	200		DTZ-220				10TCC-T22
C97	65		DTZ-68	NP068	CN0468		10TCC-Q68
C98							
C99	.01		UK16-103		MAG1611		HY-420
C100	.05		DC-503	MGP05	TA150	QC2-207	TG-S50
C101	.01		UK16-103		MAG1611		HY-420

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C1	600		DD-681	GP680	GP368		10TS-T68
C2	30		DTZ-33	NP033	CN0433		10TCC-Q33
C3	.01		UK16-103		MAG1611		HY-420
C4	.01		UK16-103		MAG1611		HY-420
C5	.01		UK16-103		MAG1611		HY-420
C6	22		DTZ-22	NP022	CN0422		10TCC-Q22
C7	.047		UK12-503		MAG1215		HY-350
C8	.01		UK16-103		MAG1611		HY-420
C9	.01		UK16-103		MAG1611		HY-420
C10	1.5		DTZ-1R5	NP01P5	CN0515		10TCC-V15
C11	.01		UK16-103		MAG1611		HY-420
C12	.01		UK16-103		MAG1611		HY-420
C13	.01		UK16-103		MAG1611		HY-420
C14	.05 10% 50V			DPMS2S5	EWFTA150		2PS-S50
C15	.05 10% 50V			DPMS2S5	EWFTA150		2PS-S50
C16	.047		UK12-503		MAG1215		HY-350
C17	.05		UK50-503		MAG5015		
C18	.05		UK50-503		MAG5015		
C19	.05		UK50-503		MAG5015		
C20	10		DTZ-10	NP010	CN0410	QC2-81	10TCC-Q10
C21	.001		DD-102G	GP1000	GP210		5GA-D10
C22	.1 10% 50V			WMF05P1	EWFO5010		431P1049R5
C23	.1 10% 50V			WMF05P1	EWFO5010		431P1049R5
C24	.01		UK16-103		MAG1611		HY-420
C25	.01		UK16-103		MAG1611		HY-420
C26	.01		UK16-103		MAG1611		HY-420
C27	22		DTZ-22	NP022	CN0422		10TCC-Q22
C28	100		DTZ-100	NP0100	CN0310		10TCC-T10
C29	20		DTZ-20	NP020	CN0420		10TCC-Q20
C30	1.5		DTZ-1R5	NP01P5	CN0515		10TCC-V15
C31	100		DTZ-100	NP0100	CN0310		10TCC-T10
C33	.05		UK50-503		MAG5015	QC2-81	5GA-D10
C34	.001		DD-102G	GP1000	GP210		HY-420
C36	.01		UK16-103		MAG1611	QC2-81	5GA-D10
C41	.001		DD-102G	GP1000	GP210		10TCC-V22
C44	2		DTZ-2R2	NP02P2	CN0522		
C46							
C47	.02 10% 50V			DPMS2S2	PVC212		2PS-S20
C48	.02 10% 50V			DPMS2S2	PVC212		2PS-S20
C50	.01		UK16-103		MAG1611		HY-420
C51	.01		UK16-103		MAG1611		HY-420
C52	150		DTZ-150		CN0315		10TCC-T15
C53							
C54	5		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C55	20		DTZ-20	NP020	CN0420		10TCC-Q20
C56	20		DTZ-20	NP020	CN0420		10TCC-Q20
C57	30		DTZ-33	NP033	CN0433		10TCC-Q33
C58	80		DTZ-82	NP082	CN0482		10TCC-Q82
C59	1.5		DTZ-1R5	NP01P5	CN0515		10TCC-V15
C60	100		DTZ-100	NP0100	CN0310		10TCC-T10
C61	.01		UK16-103		MAG1611	QC2-81	HY-420
C64	.01		UK16-103		MAG1611		HY-420
C65	.001		DD-102G	GP1000	GP210		5GA-D10
C66	220		DTZ-220				10TCC-T22
C67	.01		UK16-103		MAG1611		HY-420
C68	220		DTZ-220				10TCC-T22
C69	220		DTZ-220				10TCC-T22
C70	.01		UK16-103		MAG1611		HY-420
C71	5		DTZ-4R7	NP04P7	CN0547		10TCC-V47
C72	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C73	20		DTZ-20	NP020	CN0420	QC2-81	10TCC-Q20
C74	1				CN0510		10TCC-V10
C75	27				CN0427		10TCC-Q27
C76	.01		UK16-103		MAG1611		HY-420
C77	.01		UK16-103		MAG1611		HY-420
C78	.01		UK16-103		MAG1611		HY-420
C79	27				CN0427		10TCC-Q27
C80	.01		UK16-103		MAG1611		HY-420
C81	130		DTZ-150		CN0315		10TCC-T15
C82	30		DTZ-33	NP033	CN0433		10TCC-Q33
C83	.01		UK16-103		MAG1611		HY-420
C84	.01		UK16-103		MAG1611		HY-420
C85	80		DTZ-82	NP082	CN0482		10TCC-Q82
C86	.01		UK16-103		MAG1611		HY-420
C87	.01		UK16-103		MAG1611		HY-420
C88	100		DTZ-100	NP0100	CN0310		10TCC-T10
C89	.01		UK16-103		MAG1611	QC2-81	HY-420
C90	.001		DD-102G	GP1000	GP210		5GA-D10
C91	180		DTZ-180				10TCC-T18
C92	.01		UK16-103		MAG1611		HY-420
C93	.01		UK16-103		MAG1611		HY-420
C94	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C95	220		DTZ-220				10TCC-T22
C96	200		DTZ-220				10TCC-T22
C97	65		DTZ-68	NP068	CN0468		10TCC-Q68
C98							
C99	.01		UK16-103		MAG1611	QC2-207	HY-420
C100	.05		DC-503	MGP05	TA150		TG-S50
C101	.01		UK16-103		MAG1611		HY-420

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS (cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C102	.01		UK16-103		MAG1611	QC2-81	HY-420
C103	.001		DD-102G		GP210		5GA-D10
C104	.02 10% 50V			GP1000	DPMS2S2		2PS-S20
C105	.068 10% 50V			WMF1S68	PVC212	QF1-195	1PB-S68
C106	.1		UK12-104		MAG1201		HY-360

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

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
VR1	AGC	20K		T-20K (2)	C-253 (2)	MTC24L1 (2)	X201R253B (2)
VR2	RF Meter	10K		T-10K (2)	C-103 (2)	MTC14L1 (2)	X201R103B (2)
VR3	S Meter	5000		T-5000 (2)	C-502 (2)	MTC53L1 (2)	X201R502B (2)
VR4	Volume/Switch	5000					
VR5	Squelch Range	10K		T-10K (2)	C-103 (2)	MTC14L1 (2)	X201R103B (2)
VR6	Squelch	5000					
VR7	AMC	10K		T-10K (2)	C-103 (2)	MTC14L1 (2)	X201R103B (2)
VR8	RF Gain	1000	(18)				

(2) Cut off one of the end terminals and bend to fit PC board.

(18) Used in Mohawk (AM-2).

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFR. PART No.			WORKMAN PART No.	MFR. PART No.
R80	10 5W WW	5W-SQ-10					

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	Rec Antenna (27MHz)				
L2	Sync Osc (17MHz)		PR1		
L3	Ref Osc (9MHz)		PR1		
L5	RF Choke				
L6	Xmit Buffer (27MHz)				
L7	RF Choke				
L8	RF Choke				
L9	Final Tank (27MHz)				
L10	Pi Filter (27MHz)				
L11	Ant Tuning (27MHz)				
L12	TVI Trap				
T1	Rec Antenna (27MHz)		PR2		
T2	Rec RF (27MHz)				
T3a	Rec Mixer (10MHz)		PR3		
T3b	Rec Mixer (10MHz)		PR3		
T4	IF (455kHz)		PR4		
T5	IF (455kHz)		PR5		
T6	IF (455kHz)		PR6		
T10	Xmit Mixer (27MHz)				
T11	Harmonic Suppressor (27MHz)		T2		
T12	Harmonic Suppressor (27MHz)				
T13	Xmit Buffer (27MHz)		P4		
T14	Xmit Amp (27MHz)				
T15	Xmit Driver (27MHz)				
T16	Xmit Osc (10MHz)		T16		

## PARTS LIST AND DESCRIPTION (CONTINUED)

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

### FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T9	1.45A	.24	2.13mH	A2611 (1)	TR577		(1) Number on unit.

### TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T7	2.5	1		A2490 (1)	TR674		(1) Number on unit.

### TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T8	20	8	A2590 (1)	TR841		(1) Number on unit.

### SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	3" PM, 8 Ohms		30A05Z8R	

### FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA					
		PART No.		BUSS PART No.		LITTELFUSE PART No.	
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER
F1	2A, Quick Acting			AGC2	HDJ	312002	150145
							FG2-2

### CRYSTALS

ITEM No.	CRYSTAL FREQUENCY IN MHz	MFGR. PART No.	CTS KNIGHTS PART No.	CHANNEL	ITEM No.	CRYSTAL FREQUENCY IN MHz	MFGR. PART No.	CTS KNIGHTS PART No.	CHANNEL
X1	16.965		ADA32M16965	1,2,3,4	X8	9.555		ADC50M9555	2,6,10,14,18,22
X2	17.015		ADA32M17015	5,6,7,8	X9	9.565		ADC50M9565	3,7,11,15,19
X3	17.065		ADA32M17065	9,10,11,12	X10	9.585		ADC50M9585	4,8,12,16,20,23
X4	17.115		ADA32M17115	13,14,15,16	X11	10.000		ADB115M10000	1,5,9,13,17,21
X5	17.165		ADA32M17165	17,18,19,20	X12	10.010		ADB115M10010	2,6,1,14,18,22
X6	17.215		ADA32M17215	21,22,23	X13	10.020		ADB115M10020	3,7,11,15,19
X7	9.545		ADC50M9545	1,5,9,13,17,21	X14	10.040		ADB115M10040	4,8,12,16,20,23

### MICROPHONE

ITEM No.	REPLACEMENT DATA				CONNECTION DATA						
	MFGR. PART No.	GC PART No.	GC NOISE CANCEL	GC POWER	GC CONNECTOR	GC Red	GC Shield	GC Yellow	GC Blue	GC White	GC Black
MIC		18-032	18-034	18-010	18-092	1	4	2	NC	NC	3

### MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
LFB6	Ceramic Filter		455kHz
M1	Meter		S/Rf
RL1	Relay		Rec/Mix
S1	Switch		Channel Selector
S2	Switch		CB/PA
S3	Switch		ANL

SILTRONIX MODELS APACHE, MOHAWK

# INDEX

Listing all models/chassis covered in  
PHOTOFACT CB (Citizens Band) Series volumes

KEY	(EP)	Early Production	(LP)	Late Production	(Rev)	Revised	(SN)	Serial Number	(PCB)	Production Change Bulletin
AIRCATTLE	VOL.	BENDIX	VOL.	COURIER (E.C.I.)	VOL.	ELECTRONIC 2000	VOL.	GM (CONT.)	VOL.	
JE321 .....	15	CB-6/-12 .....	2	Cadet 23 .....	46	Contact CB-23CH .....	56	GM132		
23-02 .....	38			Caravelle .....	38			(Sim. to Pg.5) .....	69	
AIMOR		BROWNING		Caravelle II .....	73	ELECTROPHONIC		994856 .....	95	
CB-7000 .....	109	Brownie .....	80	CCT-2 W/CHB-3 .....	35	(See Ross/Electroponic)		995432 .....	93	
AIRLINE		Eaglette .....	20	CCT-3 .....	37	FANON		7898530 .....	112	
GAS-587 .....	4	Eaglette 2 .....	29	CCT-4 .....	36			7898540 .....	111	
ALARON		Golden Eagle Mark III .....	79	Centurion .....	52	CHB-3 .....	35	GONSET		
B-1025 .....	105	LTD .....	66	Centurion Plus		CHB-4 .....	37	G-11-3303/04/-05,		
B-1050 .....	106	Mark II Series B, .....		(Pg. 5) .....	52	Fanfare 100 .....	54	G-12 (3316), (3329) .	1	
B-1100 .....	108	SSB-115 .....	39	Chief 23 .....	35	Fanfare 120 .....	97	G-14 (3430), (3433) ..	3	
B-1150(HA-23C) .....	107	R-27, S-23 .....	10	Citation .....	34	Fanfare 700 .....	53	G-15 (3428), (3429) ..	4	
ALLIED		SST .....	37	Classic .....	25	Fanfare 880 .....	73	GRANADA		
A-2507 (17B6790X) ....	20	SST (LP)		Classic II .....	30	FCB-9 .....	4	CB-6 .....	107	
A-2530 (17B6825X) ....	19	(Ser. No. T-50000		Classic III .....	67	IC-3000 .....	24	CB-7 .....	113	
A-2533 (17B6440X) ....	22	& up) .....	81	Comet 23 .....	48	IC-5000 .....	25	FCB-27 .....	113	
A-2543 (17-9801S) ....	21	69R, 69T (Golden		Conqueror .....	38	L-1000 .....	18	HALLICRAFTERS		
A-2544 (17B9802S) ....	23	Eagle Mark II) .....	27	Conqueror II .....	73	L-2000 .....	17	BC-8 .....	10	
A-2545 (17B9803S) ....	18	CADRE		Courier Clipper 23 .....	26	SFT-400 .....	35	CB-1 .....	1	
A-2559 (21B5559U) ....	34	500/C .....	3	Courier TR-5 .....	16	SFT-500 .....	35	CB-3 .....	3	
A-2561 (21B5561) ....	35	510 .....	4	Courier TR-23S .....	13	SFT-600 .....	31	CB-3A .....	5	
A-2564 (17A6966U) ....	29	510A, 515 .....	6	Courier 1M, 23 .....	8	SFT-800A .....	34	CB-4 (Littlefone) ....	3	
A-2567 (17B6435X) ....	22	525 (500-1, 520).....	7	Courier 23 Plus .....	18	SFT-900		CB-5A .....	5	
A-2568 (17A6965U) ....	29	CAPITOL		Cruiser .....	79	(Guardman) .....	37	CB-5 Mark II, HA-14,		
A-2569 (17C6469U) ....	24	ND-309 .....	3	CWT-30 .....	29	T-600 .....	96	P-5-120 .....	6	
ALLSTATE		CHANNEL MASTER		CWT-40 .....	27	T-606 .....	41	CB-7 .....	7	
832.62270 .....	7	6423 .....	40	CWT-50 .....	30	T-700 .....	93	CB-8 .....	10	
893.62910/11/21/31/41.	6	6553 .....	9	Fleet Courier, 30-B .	9	T-707 .....	43	CB-9 .....	8	
AMERICAN ELECTRONICS		6554 .....	13	Gladiator .....	49	T-800 .....	101	CB-10 .....	9	
76-501 (Spirit) .....	95	CITI-FONE		Gladiator Plus		T-808 .....	38	CB-11 .....	11	
76-551 (Buccaneer) ...	96	CD-5/6/-5/12.....	1	(Pg. 21) .....	49	T-909 .....	40	CB-12 .....	12	
76-601 (Freedom) .....	95	CD-5A/6, CD-5A/12 .....	9	Ranger 23 .....	33	T-1000 .....	45	CB-14/-17 .....	13	
AMPHENOL		CD-6/6, CD-6/12 .....	3	Rebel - 23+ .....	54	FIELDMASTER		CB-19 .....	13	
C-75 .....	12	CD11/6, CD11/12 .....	12	Redball .....	72	MF-1001 .....	60	CB-20 .....	14	
80 .....	22	II (1103-01) .....	15	Spartan Plus		Micro Mini 3 .....	55	CB-21 .....	20	
600, 625 .....	11	SS .....	9	(Pg. 5) .....	56	Micro Mini 6 .....	58	CB-24 .....	22	
650 .....	13	99/6, 99/12 .....	12	Spartan SSB .....	56	Micro Mini 23 .....	56	PS-20 .....	20	
675 .....	14	CLARICON		Traveller (ML-100) ..	24	TR-18M .....	57	HALLMARK		
725 .....	15	14-523 .....	27	Traveller II .....	31	FULCOMM		512 .....	5	
750 .....	19	15-200 .....	16	CRAIG		2301/02 .....	90	1250B .....	10	
777 .....	18	15-410 .....	14	4101 .....	97	GEM MARINE		HAMMARLUND		
APELCO		15-500 .....	23	4102 .....	100	GB-11935 .....	91	CB-SIX (CB-6) .....	7	
AR-9 .....	1	15-600 .....	33	4103 .....	98	GR-11930 .....	93	HANDIC		
AR-10 .....	7	30200 (Intruder) ....	110	4104 .....	105	GTX-23 .....	90	21 .....	105	
ARKAY		30400 (Pirate) .....	79	4201 .....	99	GTX-2325 .....	82	23 .....	105	
SQ-9/-9W .....	2	30600 (Privateer) ....	85	DEMCO		GTX-3000 .....	114	43C .....	100	
ARVIN		COBRA		CH-300 .....	11	GENERAL ELECTRIC		65C .....	108	
20Y33-19 (1.45501) ...	27	CAM-88 .....	9	Chalet, DMT-110 .....	14	Y7050A .....	16	235 .....	109	
20Y55-19 (1.45601) ...	29	CAM-89 .....	58	Ravelle .....	11	GLOBE		305 .....	110	
AUDIOVOX		V .....	13	Ravelle 23 .....	15	CB-100 .....	1	2305 .....	111	
MCB-500 .....	97	19M(Sim.to Pg.5) ....	75	Satelite CB-1A .....	7	CB-100A .....	3	HEATHKIT (HEATH)		
MCB-1000 .....	99	20 .....	49	Satelite Deluxe .....	19	CB-200 .....	2	CB-1 .....	1	
AUTOMATIC		21 .....	51	Satelite M-10A, ..		Globe Master 65-220 ..	6	GRS-65A .....	14	
MCE-6510 .....	25	21X .....	108	R-101A, T-110A, ..		X-90 (Pocketphone) ...	1	GW-10A/D, GWW-10A/D	3	
MCR-6450 .....	17	23, PAC-V .....	16	VW-12-120 .....	7	VS-6, VS-7 .....	11	GW-11A/-11D, GWW-11A/		
PCR-6452 .....	22	24 .....	26	Travelier (Series B) .	8	GLOBE		-11D .....	4	
PCR-6452 .....	25	25 .....	33	DEWALD		CB-100 .....	1	GW-12A/-12D, GWW-12A/		
TRC-6448 .....	17	27 .....	23	TR-6/-12/910 .....	2	CB-100A .....	3	-12D .....	5	
TRE-6500 .....	25	28A .....	72	DUO COM		CB-200 .....	2	GW-14, GWA-14-1, GWW-14.	11	
TRR-6454/A .....	17	29 .....	56	100 .....	2	Globe Master 65-220 ..	6	GW-14A, GWW-14A/14AS	29	
BELTEK		85 .....	77	DYNASCAN		X-90 (Pocketphone) ...	1	GW-21, GWW-21 .....	4	
Enduro 5 (W5396) .....	80	98 .....	23	(See Cobra)		65-228		-22D .....	5	
Enduro 23(W5398) ....	105	130 .....	44	ECHO		(President VIII) ....	7	GW-22A/-22D, GWW-22A/		
		131 .....	45	49ER .....	110	9000 (18-9000) .....	110	-22D .....	2	
		132 (EP & LP) .....	54	99'er (Pg. 51) .....	49	GM		GW-30 .....	4	
		132A .....	73	EICO		CBD-10 .....	112	GW-31, GWW-31 .....	4	
		135 (EP & LP) .....	54	712 .....	13	CBD-12 .....	111	GW-32A, GWW-32A/D,		
		138/A .....	57	740 .....	4	GM23B .....	92	GW-42, GWW-42 .....	6	
		139 .....	59	760/61W/62/62W .....	2	GM123A .....	93	MW-34, MWW-34 .....	8	
		880 .....	47	770/W .....	3	GM130 .....	95	HITACHI		
CONCORD				771W, 772W .....	4	GM130A .....		CM-2375H .....	112	
TG-132B .....	12			777 .....	7	(Sim. to Pg.47) .....	90	HY-GAIN		
				779 .....	9			623 .....	71	
				779A .....	17			623A (Pg.5) .....	71	
				7923 (Nova 23) .....	18			670 (Hy-Range I) ....	63	