

PHOTOFACT[®] with CIRCUITRACE[®]

For Supplier Address See PHOTOFACT Index

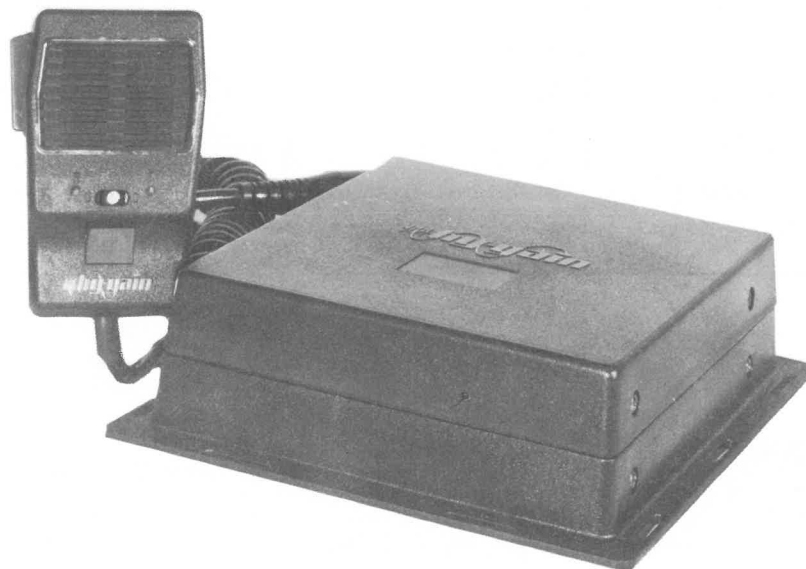
NOTE

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.



HY-GAIN MODEL 2679

MODEL 2679 (Hy-Gain 9)

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

L112, T106 thru T1095009

L106, L109, L1109304

L103, L104, T101 thru T1059440

C1195000

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP1.	Ch. 1		Check for 10.240MHz.
Input of frequency counter to TP2.	Ch. 1		Disconnect C103 from Q102 Base. Check for 11.8066MHz. Reconnect C103.
Input of frequency counter to TP3.	Ch. 1	C119	Check for 37.660MHz.
Input of DC meter to TP7.	Ch. 1		Check for 5.0V to 5.5V.
Input of DC meter to TP8.	Ch. 1	T101	Adjust for 1.5V $\pm$.1V.
Input of RF VTVM to TP5.	Ch. 1	T111	Adjust for maximum.
Input of frequency counter to TP4.	Ch. 1, Xmit		Check for 10.695MHz.

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	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP6. 455kHz, 1000Hz @ 30% modulation.	Ch. 13	T109, T108, T107	Adjust for maximum output.
Output of signal generator thru .01uF to TP5. 10.695MHz, 1000Hz @ 30% modulation.	Ch. 13	T106, L112	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.115MHz, 1000Hz @ 30% modulation.	Ch. 13	T105, T104	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 100uV.	Ch. 13	RV101	SQUELCH RANGE Turn squelch control R417 to midposition. Adjust RV101 so that squelch just breaks.

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.

See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
	Ch. 13	L103, L104, T102, T103, L106, L109, L110	Adjust for maximum.
	Ch. 13	L110, L109	Adjust for 4 watts maximum.

HY-GAIN MODEL 2679

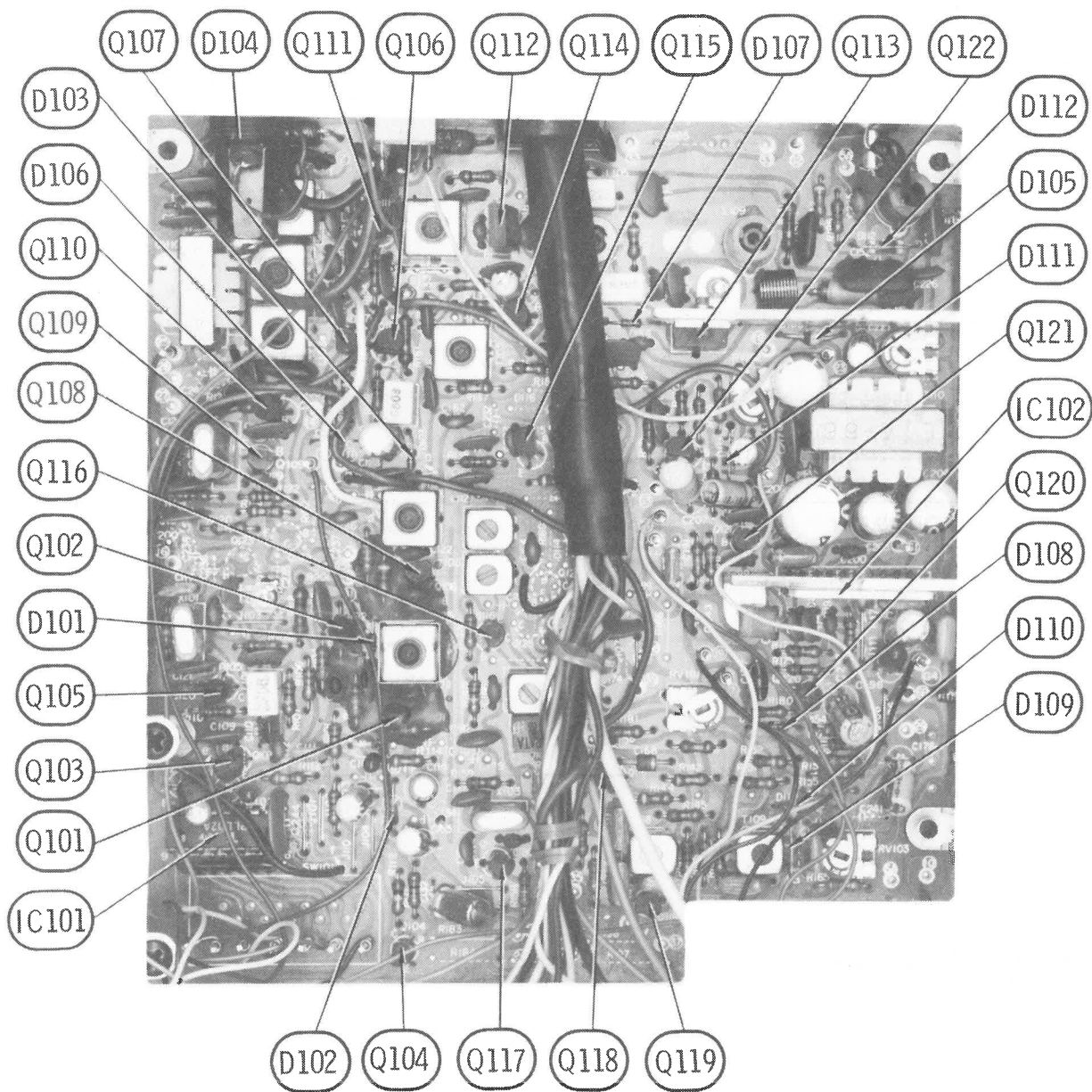
TRANSMITTER ADJUSTMENTS

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.

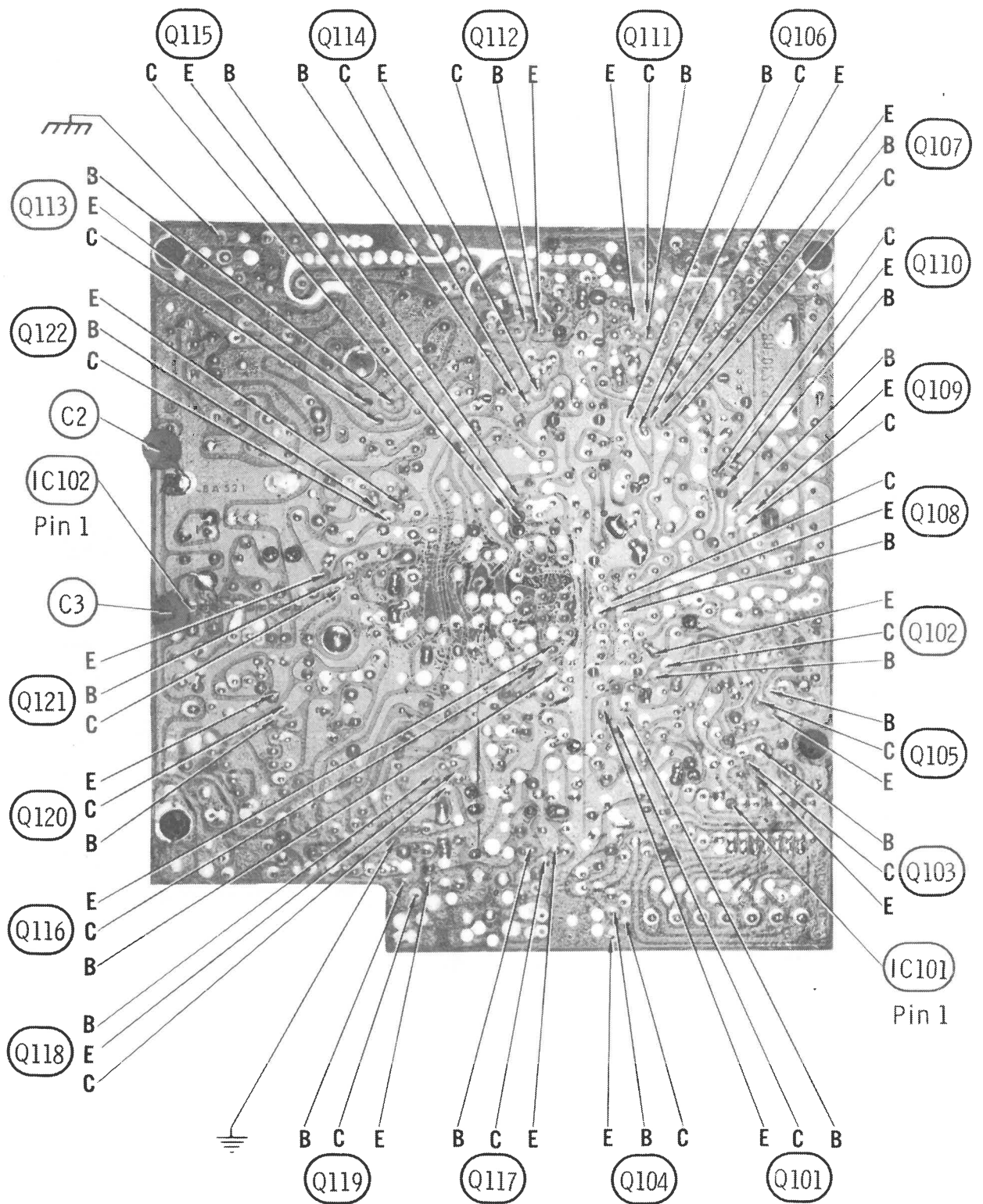
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Modulation meter to antenna jack. Inject a 1000Hz signal at Mic input.	Ch. 13	RV102	AMC Disconnect C209 to disable AMC. Adjust signal for overmodulation. Restore AMC operation. Adjust RV102 for 100% modulation maximum.



MAIN BOARD



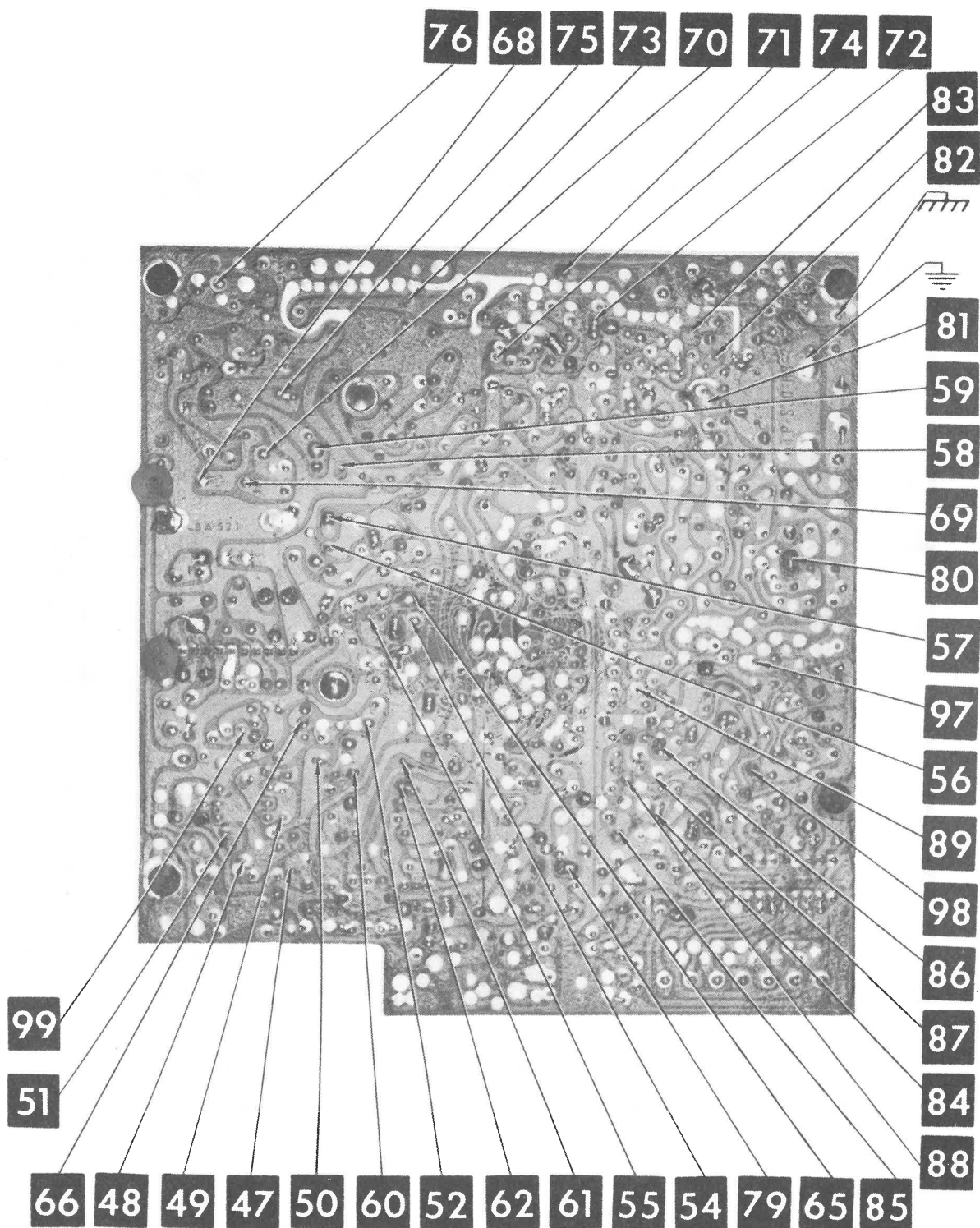


MAIN BOARD



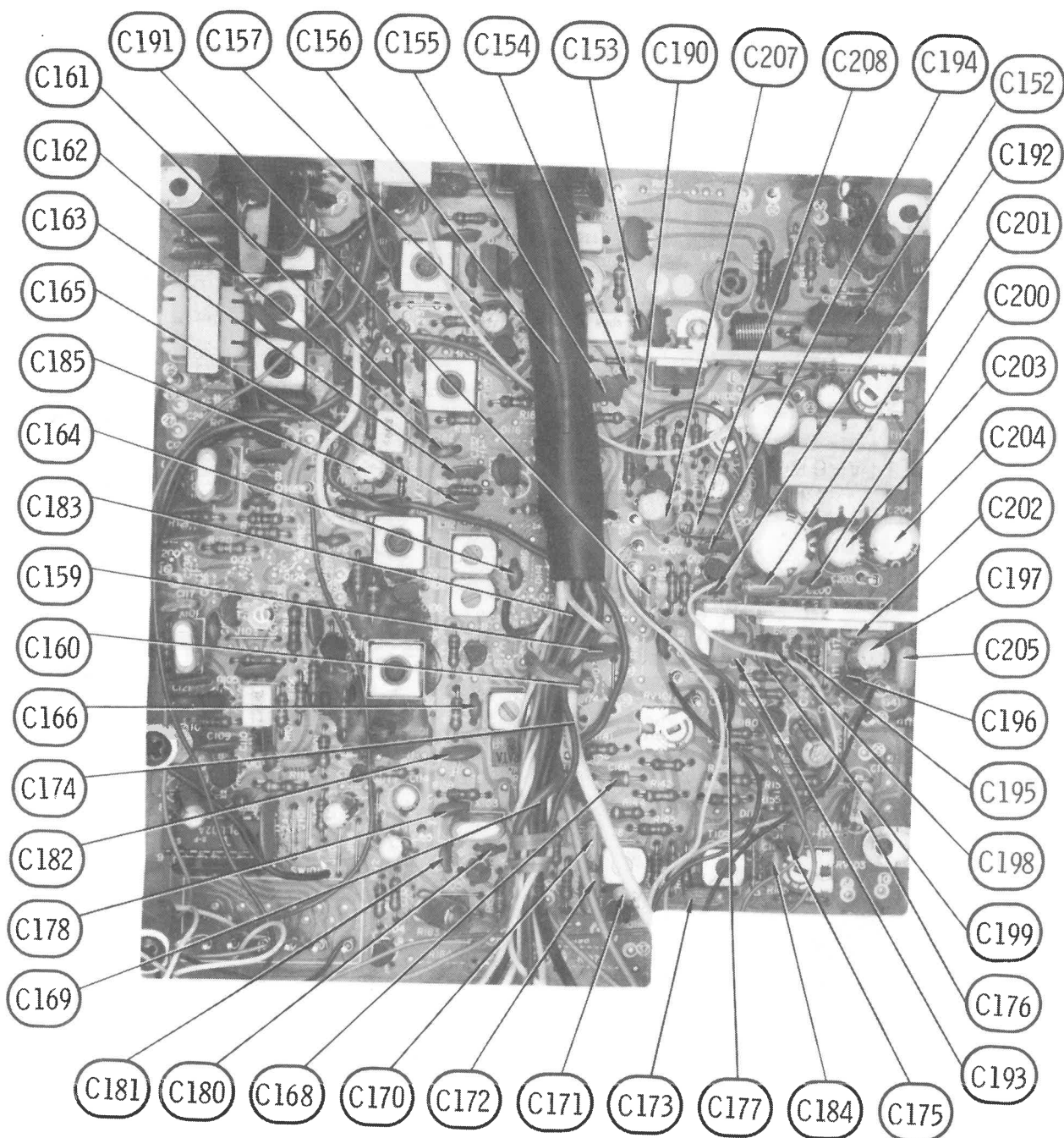
HY-GAIN MODEL 2679

MAIN BOARD

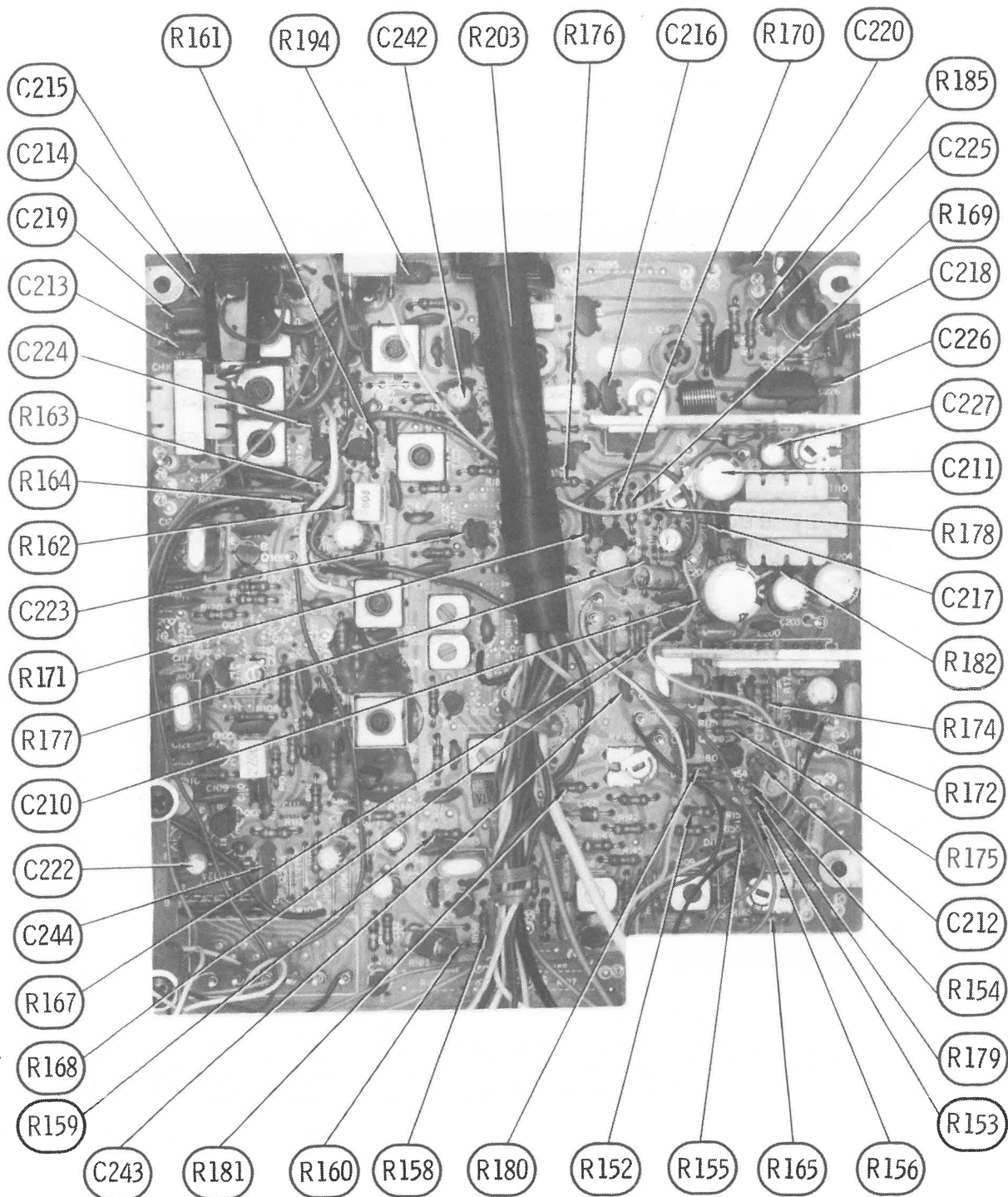


MAIN BOARD

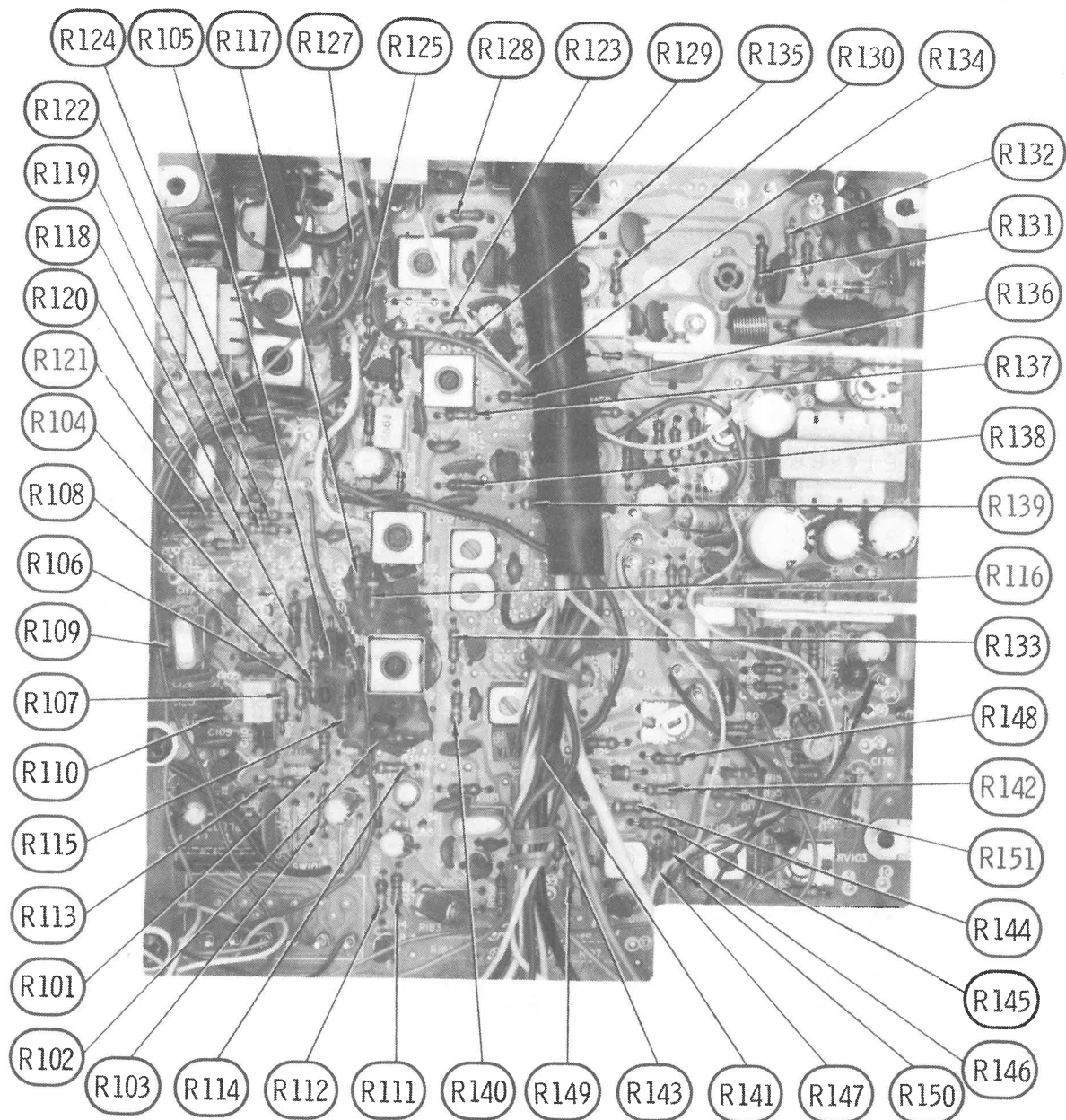




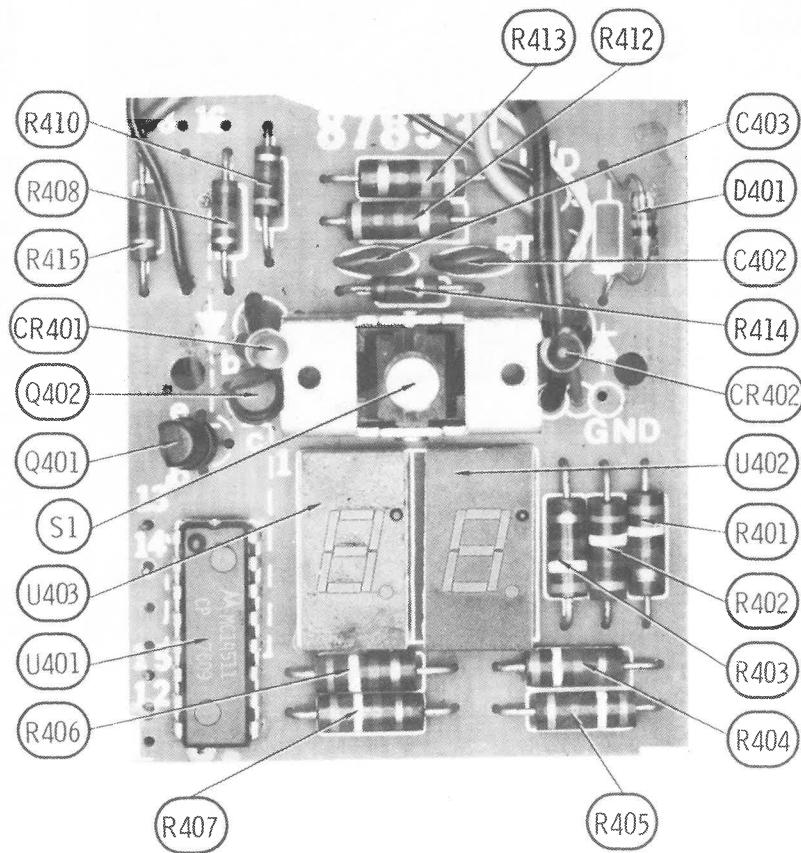
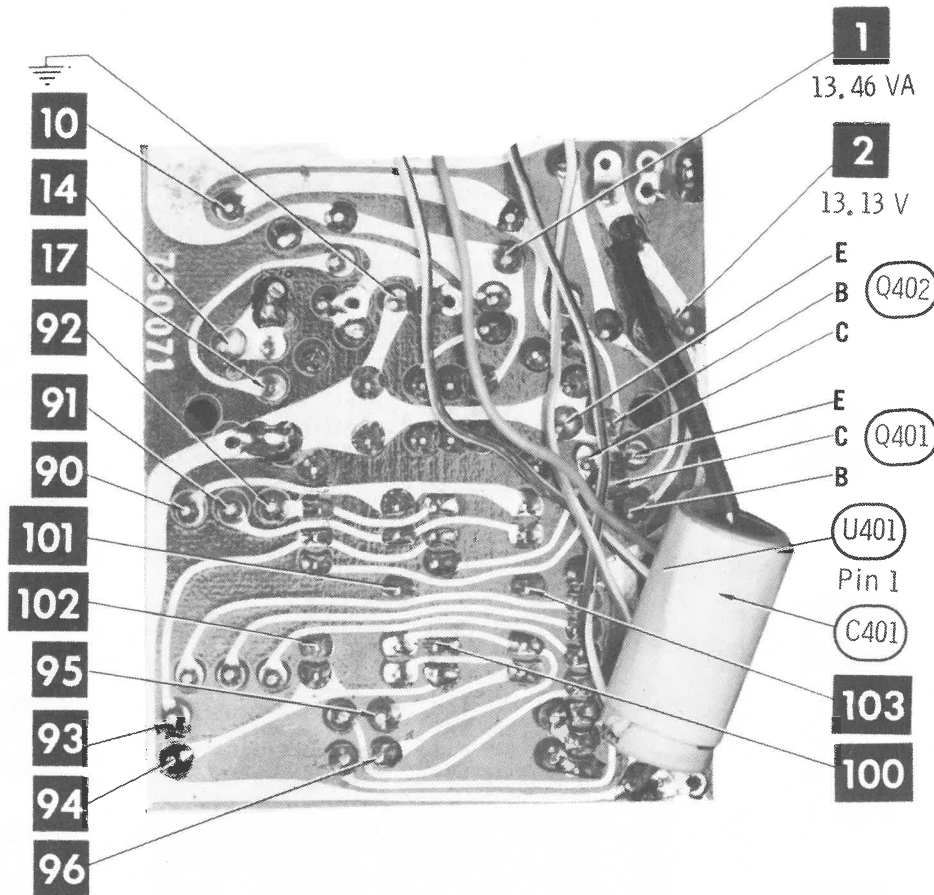
MAIN BOARD



MAIN BOARD

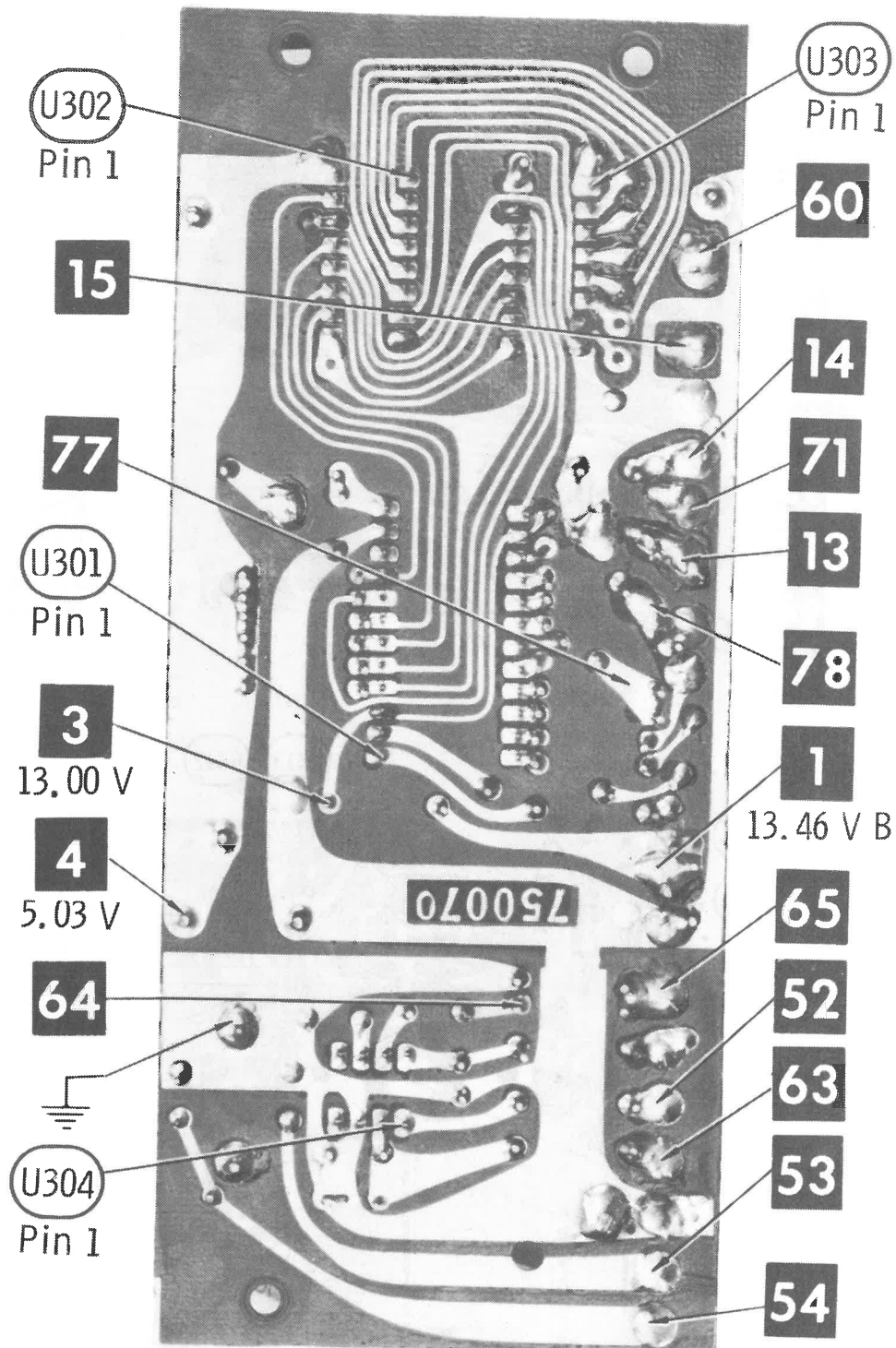


MAIN BOARD

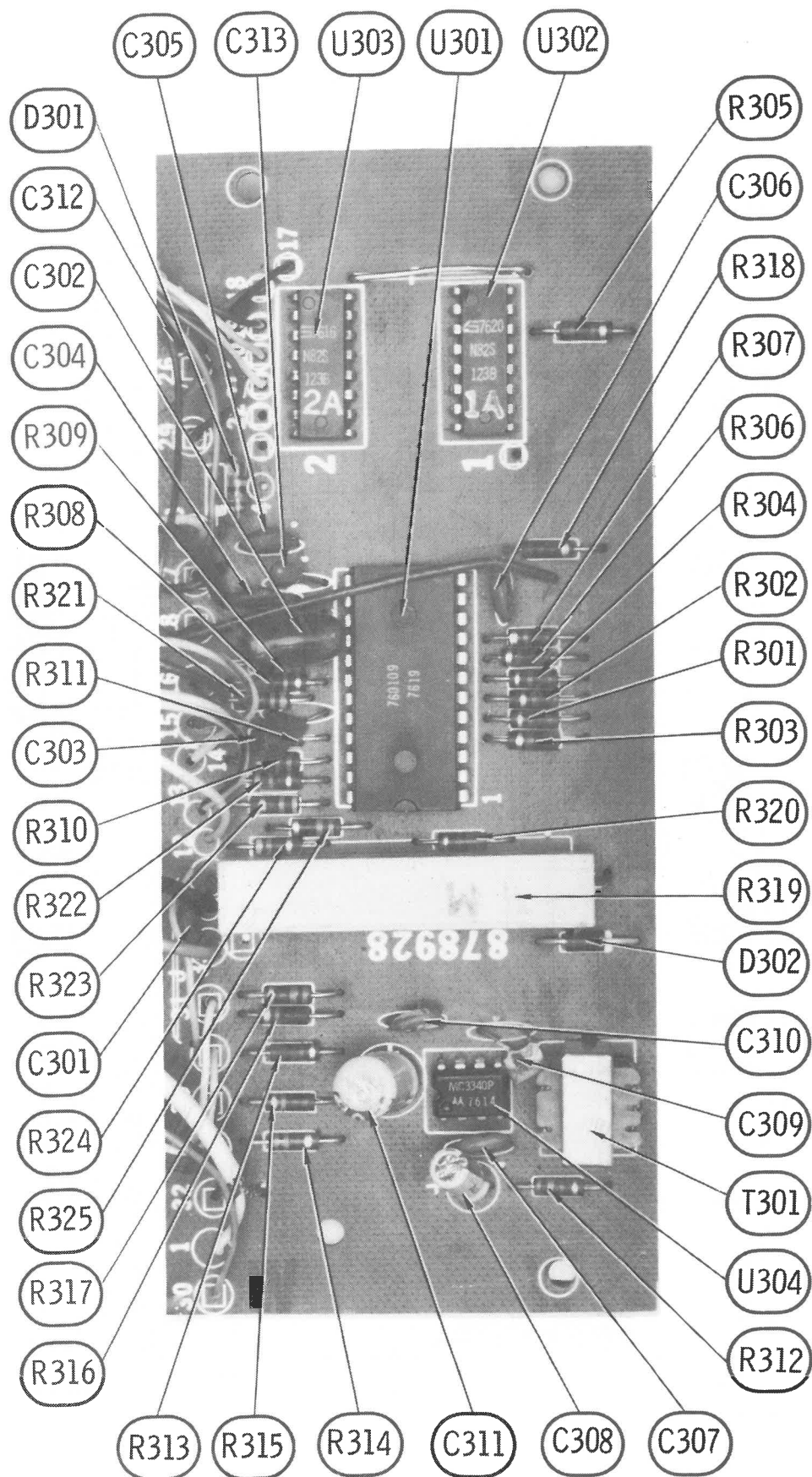


MIC. BOARD

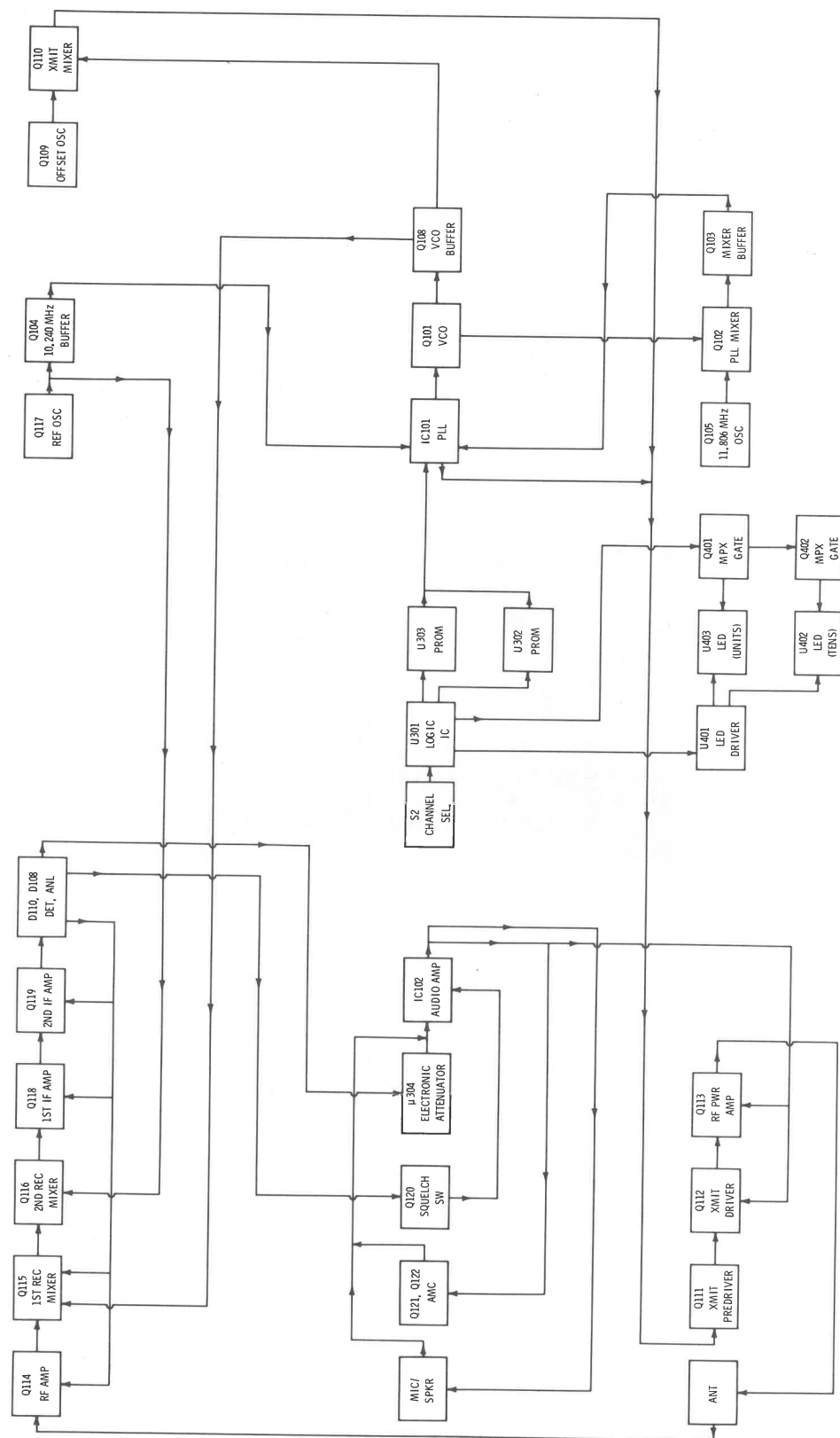
HY-GAIN MODEL 2679



CH. SELECTOR BOARD



CH. SELECTOR BOARD



BLOCK DIAGRAM

PARTS LIST AND DESCRIPTION

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

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.
D101	ITT410	QD-CTT410XQ	GE-90	D201		HEPR2503	RE 195	SK3126	RT-262	ECG610
	BB142		GE-90	D201		HEPR2503	RE 195	SK3126	RT-262	ECG610
D102	MZ205	QD-ZMZ205KE					RE 105			ECG135A
D103	KD9.1E	QD-ZRD9EXAA	GEZD-9.1		ZB9.1B		RE 114		RT-240	ECG139A
D104	1S1885	QD-SS1885XT	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D105	V06C	QD-SV06CXXB	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D106	1S1555	QD-SS1555XT	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D107	1S1555	QD-SS1555XT	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D108	1S1555	QD-SS1555XT	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D109			GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D110	1N60	QD-G1N60XXT	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D111	1N60	QD-G1N60XXT	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D112			GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D301	1N270	765722	1N34AS	1N34A	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109
D302	1N5338B	760309								
D401	1N270	765722	1N34AS	1N34A	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109
IC101	PLL02A	QQ-OPLL02A0								ECG1167
IC102	BA521	QQ-MBA521AX								ECG1166
Q101	2SC710D	QT-C0710XBE	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q102	2SC710D	QT-C0710XBE	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q103	2SC829D	QT-C0829XDN	GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
Q104	2SC710D	QT-C0710XBE	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q105	2SC710D	QT-C0810XBE	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q106	2SC1318R	QT-C1318XAN	GE-210 *	TR-21 *	PTC178	HEPS0015 *	RE 17 *	SK3122	RT-302	ECG128 *
	2SC1318Q	QT-C1318XAN (1)	GE-210 *	TR-21 *	PTC178	HEPS0015 *	RE 17 *	SK3122	RT-302	ECG128 *
Q107	2SA719R	QT-A0719XAN	GE-269	TR-28 *	PTC103 *	HEPS0019 *	RE 26 *	SK3114	RT-305	ECG290
	2SA719Q	QT-A0719XAN (1)	GE-269	TR-28 *	PTC103 *	HEPS0019 *	RE 26 *	SK3114	RT-305	ECG290
Q108	2SC1359B	QT-C1359XAN	GE-212	(IR)2SC380A	PTC121 *	HEPS0014 *	RE 192	SK3038 *	RT-308	ECG199
Q109	2SC710B	QT-C0710XBE	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q110	2SC710D	QT-C0710XBE	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q111	2SC1687	QT-C1687XAN	GE-20 *	TR-24 *	PTC121 *	HEPS0015 *	RE 13 *	SK3018 *	RT-107A *	ECG123A *
Q112	2SC1760	QT-C1760XAS	GE-276						RT-310	ECG306
	2SC1760-3	QT-C1760XAS (1)	GE-276						RT-310	ECG306
Q113	2SC1306	QT-C1306YZA	GE-215	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
Q114	2SC1047B	QT-1047SAN	GE-60 *	(IR)2SC829B	PTC132 *	HEPS0016 *	RE 28 *	SK3018 *	RT-107	ECG161 *
Q115	2SC1359B	QT-C1359XAN	GE-212	(IR)2SC380A	PTC121 *	HEPS0014 *	RE 192	SK3038 *	RT-308	ECG199
Q116	2SC829C	QT-C0829XBN	GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
Q117	2SC710D	QT-C0710XBE	GE-211 *	(IR)2SC710	PTC115	HEPS0016 *	RE 13 *	SK3018 *	RT-308 *	ECG123A *
Q118	2SC829C	QT-C0829XBN	GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
Q119	2SC829C	QT-C0829XBN	GE-20 *	(IR)2SC829B	PTC121 *	HEPS0015 *	RE 9 *	SK3122	RT-308	ECG229 *
Q120	2SC372Y	QT-C0372XAY	GE-61 *	(IR)2SC372	PTC121 *	HEPS0015 *	RE 13 *	SK3122	RT-308	ECG123A *
Q121	2SC828Q	QT-C0828XDN	GE-61 *	(IR)2SC828A	PTC121 *	HEPS0015 *	RE 192	SK3122	RT-302	ECG199
	2SC828P	QT-C0828XAN (1)	GE-61 *	(IR)2SC828A	PTC121 *	HEPS0015 *	RE 192	SK3122	RT-302	ECG199
Q122	2SC828P	QT-C0828XAN	GE-61 *	(IR)2SC828A	PTC121 *	HEPS0015 *	RE 192	SK3122	RT-302	ECG199
Q401	2N3414	760251	GE-20	TR-24	PTC123	HEPS0034	RE 13	SK3124	RT-102	ECG123A
Q402	2N3414	760251	GE-20	TR-24	PTC123	HEPS0034	RE 13	SK3124	RT-102	ECG123A
U301	760109	760109								
U302	760104	760104								
U303	760077	760077								
U304	MC3340P	760105								
U401	MC14511	760106								

* Lead configuration may vary from original.

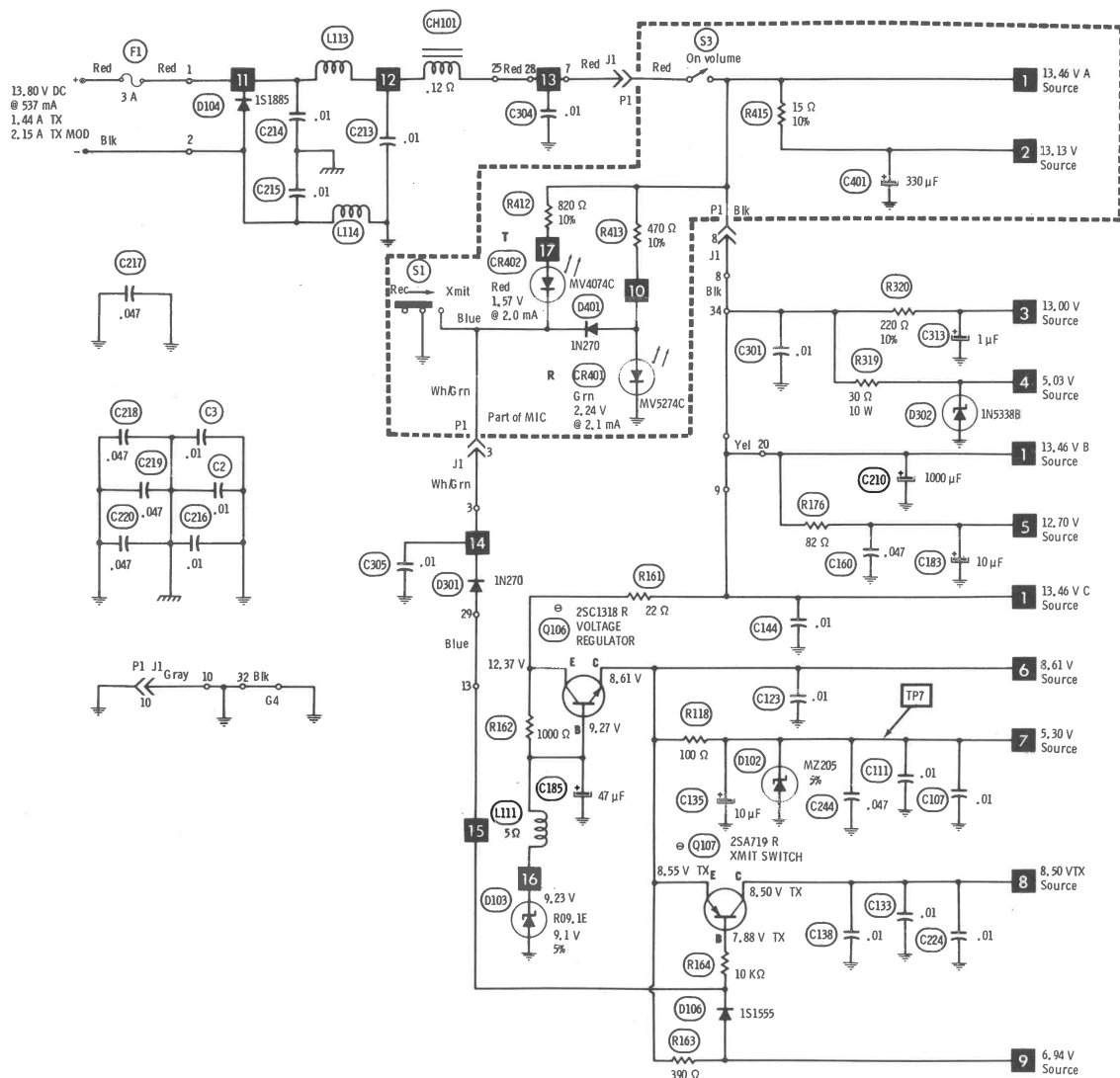
(1) Used in some versions.

HY-GAIN MODEL 2679

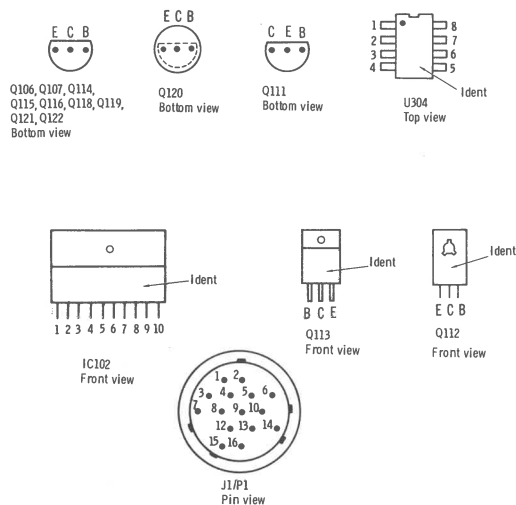
ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C104	10 16V	CE-ED100ALN	PC10-25	VTT10B25	QV1-41	EV-1222
C105	.1 50V	(1)		TDC104M050EL	QDT1-2	SD50-R109
C113	.22 50V	CE-ECR22ZMN		TDC224M050EL	QDT1-10	SD50-R229
C114	10 16V	CE-ED100ZMN	PC10-25	VTT10B25	QV1-41	EV-1222
C115	.1 50V	CE-EGR105MN(1)		TDC104M050EL	QDT1-2	SD50-R109
C135	10 16V	CE-ED100ALN	PC10-25	VTT10B25	QV1-41	EV-1222
C174	3.3 25V	CE-EE3R3ALN	PC5-50	VTT3R3A50	QV1-23	EV-1318
C176	1 50V	CE-EG010ALN	PC1-50	VTT1A50	QV1-11	EV-1615
C183	10 16V	CE-ED100ALN	PC10-25	VTT10B25	QV1-41	EV-1222
C185	47 10V	CE-EC470ALN	PC50-16	VTT47D16	QV1-73	EV-1226
C196	5.6 25V	CS-SE5R6MDH				
C197	33 6.3V	CE-EB330ALN	PC30-25	VTT33B10	QV1-61	EV-1125
C203	47 16V	CE-ED470ALN	PC50-16	VTT47D16	QV1-73	EV-1226
C204	220 16V	CE-AD221ZLS	PC250-25	VTT220H16	QV1-117	EV-1240
C207	33 6.3V	CE-EB330ALN	PC30-25	VTT33B10	QV1-61	EV-1125
C208	10 16V	CE-ED100ALN	PC10-25	VTT10B25	QV1-41	EV-1222
C209	1 50V	CE-EG010ALN	PC1-50	VTT1A50	QV1-11	EV-1615
C210	1000 16V	CE-ED100ZMN	WBRI000-16	TT15X1000B	QV1-591	TVA-1163
C211	47 25V	CE-AE470ZLS	PC50-25	VTT47E25	QV1-75	EV-1326
C212	33 6.3V	CE-EB330ALN	PC30-25	VTT33B10	QV1-61	EV-1125
C220	4.7 25V	CE-EE4R7SMN	PC5-50	VTT4R7B50	QV1-27	EV-1319
C227	1 50V	CE-EG010ALN	PC1-50	VTT1A50	QV1-11	EV-1615
C24J2	1 50V	CE-EG010ALN	PC1-50	VTT1A50	QV1-11	EV-1615
C308	.1 16V	720144		TDC104M050EL	QDT1-2	SD50-R109
C311	47 16V	722347	PC50-16	VTT47D16	QV1-73	EV-1226
C313	1 25V	722226	PC1-50	VTT1A50	QV1-9	EV-1315
C401	330 16V	722358	WBR300-35	VTT330H16	QV1-133	EV-1245

(1) Used in some versions.



Terminal Guides



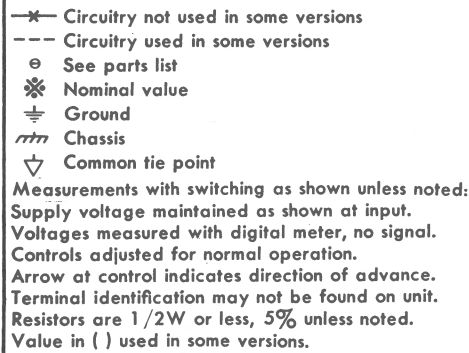
- ✖ Circuitry not used in some versions
- Circuitry used in some versions
- ⊙ See parts list
- ✱ Nominal value
- ⊥ Ground
- ⏏ Chassis
- ▽ Common tie point

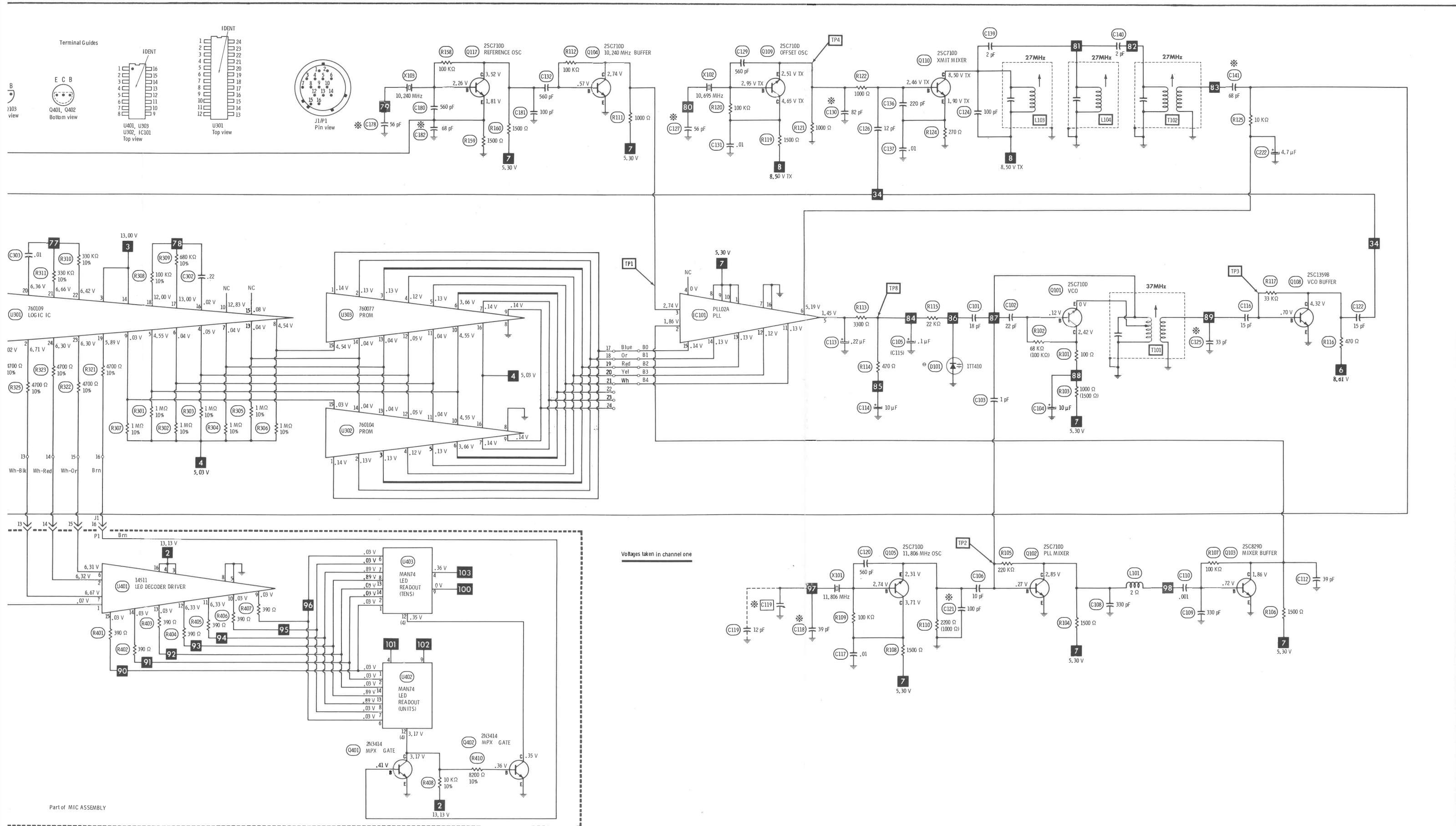
Measurements with switching as shown unless noted:
 Supply voltage maintained as shown at input.
 Voltages measured with digital meter, no signal.
 Controls adjusted for normal operation.
 Arrow at control indicates direction of advance.
 Terminal identification may not be found on unit.
 Resistors are 1/2W or less, 5% unless noted.
 Value in () used in some versions.

A PHOTOFAC STANDARD NOTATION SCHEMATIC

WITH **CIRCUITRACE**

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PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS

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	220 5%	(1)	UK16-103 UK16-103	CD15FD221J03	SX322	QW1-35	MWA-221	
C2	.01				MAG1611		HY-420	
C3	.01				MAG1611		HY-420	
C101	18 NPO		DTZ-22	NP022	CN0418		10TCC-Q18	
C102	22				CN0422		10TCC-Q22	
C103	1 NPO				CN0510		10TCC-V10	
C106	10		DTZ-10 UK16-103	NP010	CN0410		10TCC-Q10	
C107	.01				MAG1611		HY-420	
C108	330 10%				GP330		10TS-T33	
C109	330 10%		DD-331 DD-331	GP330 GP330 DPMS6D1 WMF1S1	GP333	QF1-1 QF1-91	10TS-T33	
C110	.001 10% 50V				EW1A210		1PB-D10	
C111	.01 10% 50V				EW1A110		1PB-S10	
C112	39		DTZ-15	NP015 WMF1S1	CN0439	QF1-91	10TCC-Q39	
C116	15				CN0415		10TCC-Q15	
C117	.01 10% 50V				EW1A110		1PB-S10	
C118	39 N150						10TCP-Q39	
C119								
C120	12	CC-CB120KPM CC-CB560KPM CC-CB820KPM	DD-561	NP0100 NP015	GP356	QW1-27	10TS-T56	
C121	560		DTZ-100		CN0310		10TCC-T10	
C122	15		DTZ-15		CN0415		10TCC-Q15	
C123	.01		UK16-103	CD15FD101J03 NP033	MAG1611		HY-420	
C124	100 10%		DTZ-33		SX310		MMA-101	
C125	33				CN0433		10TCC-Q33	
C126	12 N150		DD-561	CD19FD561J03			10TCP-Q12	
C127	56 N150				GP356		10TCP-Q56	
C129	560						10TS-T56	
C130	82 N150		UK16-103	NP02P2	MAG1611		10TCP-Q82	
C131	.01				SX356		HY-420	
C132	560 10%				MAG1611		MWC-561	
C133	.01	CC-CB101KPM	UK16-103	NP02P2	MAG1611		HY-420	
C136	220 10%		DTZ-220				10TCC-T22	
C137	.01		UK16-103		MAG1611		HY-420	
C138	.01		UK16-103	NP02P2	MAG1611		HY-420	
C139	2		DTZ-2R2		CN0522		10TCC-V22	
C140			DTZ-2R2			QW1-27 QW1-37	10TCC-V22	
C141	68 10%		DD-680	NP02P2 GP68	CN0522		10TS-Q68	
C142	.01		UK16-103		GP468		HY-420	
C143	100 N150 10%		UK16-103	GP470	MAG1611		10TCP-T10	
C144	.01		UK16-103		MAG1611		HY-420	
C145	.01		DD-471		GP347		HY-420	
C146	470		UK16-103	CD15FD101J03 CD15FD271J03 NP082	MAG1611	QW1-27 QW1-37	10TS-T47	
C147	.01		DTZ-120		MAG1611		HY-420	
C148	120 10%		DD-221		CN0312		10TCC-T12	
C149	220 10%		UK16-103	DPMS2S47	GP322	QF1-171	10TS-T22	
C150	.01		DTZ-82		MAG1611		HY-420	
C151	100 10%				SX310		MMA-101	
C152	270 10%	CC-CB330KPM			SX327	QW1-27 QW1-37	MWB-271	
C153	82 10%	UK12-503	NP082	CN0482	10TCC-Q82			
C154	27	UK16-103		CN0427	10TCC-Q27			
C155	.047	UK16-103	DPMS2S47	MAG1215	QF1-171	HY-350		
C156	.01	UK16-103		MAG1611		HY-420		
C157	.01	UK16-103		MAG1611		HY-420		
C159	.047	UK12-503	NP02P2	MAG1215	QF1-171	HY-350		
C160	.047 10% 50V	UK16-103		EW1A147		1PB-S47		
C161	.01	UK16-103		MAG1611		HY-420		
C162	33 N150	NP02P2		10TCP-Q33				
C163	.01		MAG1611	QF1-171	HY-420			
C164	2		DTZ-2R2		CN0522	10TCC-V22		
C165	.01	CC-CB560KPM	UK16-103	NP010	MAG1611	QF1-171	HY-420	
C166	10		DTZ-10		CN0410		10TCC-Q10	
C168	2.2		DTZ-2R2		CN0522		10TCC-V22	
C169	.047 10% 50V		DD-561	DPMS2S47	EW1A147	QF1-171	1PB-S47	
C170	.047 10% 50V				EW1A147		1PB-S47	
C171	.047 10% 50V				EW1A147		1PB-S47	
C172	.047 10% 50V		UK16-103	DPMS2S47	EW1A147	QF1-171	1PB-S47	
C173	.047 10% 50V				EW1A147		1PB-S47	
C175	.0047 10% 50V				EW1A147		1PB-S47	
C177	.033 10% 50V		DD-561	NP0100	M192P4729R8	QF1-195	192P4729R8	
C178	56 N150				M192P3339R8		192P3339R8	
C180	560						10TCP-Q56	
C181	100	CC-CB680KPM	DTZ-100	NP0100	GP356	QF1-91	10TS-T56	
C182	68 N150		UK16-103		CN0310		10TCC-T10	
C184	.022 10% 50V						10TCR-Q68	
C190	.01		DTZ-150	WMF1S1	M192P2239R8		192P2239R8	
C191	.022 10%				MAG1611		HY-420	
C192	150 10%				M192P2239R8	QF1-91	192P2239R8	
C193	.01 10% 50V	CC-CB560KPM	UK16-103	GP390	CN0315		10TCC-T15	
C194	.01				EW1A110		1PB-S10	
C195	390				MAG1611		HY-420	
C198	68 10%		DD-391	NP068	GP339	QF1-195	10TS-T39	
C199	68 10%		DTZ-68		CN0468		10TCC-Q68	
C200	390		DTZ-68		CN0468	QF1-195	10TCC-Q68	
C201	.068 10% 50V		DD-331	GP330 WMF1S68	GP333		10TS-T33	
C202	.022 10% 50V		UK16-103		EW1A168		1PB-S68	
C205	.068 10% 50V				M192P2239R8	QF1-195	192P2239R8	
C213	.01		WMF1S68	EW1A168	1PB-S68			
C214	.01			UK16-103	MAG1611		HY-420	
C215	.01			UK16-103	MAG1611		HY-420	
C216	.01		UK16-103	MAG1611	MAG1611		HY-420	
C217	.047		UK12-503		MAG1611		HY-350	

HY-GAIN MODEL 2679

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
C218	.047		UK12-503		MAG1215		HY-350
C219	.047		UK12-503		MAG1215		HY-350
C220	.047		UK12-503		MAG1215		HY-350
C223	39				CN0439		10TCC-Q39
C224	.01		UK16-103		MAG1611		HY-420
C225	3		DTZ-3R3	NP03P3	CN0533		10TCC-V33
C226	.0047		DD-472	GP4700	GP247		5GA-D47
C243	100 10%		DTZ-100	NP0100	CN0310		10TCC-T10
C244	.047		UK12-503		MAG1215		HY-350
C301	.01 25V		UK25-103		MAG2511		HY-520
C302	.22 100V			DPMS2P22	EWFA022	QF1-253	1PB-P22
C303	.01 10% 100V			WMF1S1	EWFA110	QF1-91	1PB-S10
C304	.01 25V		UK25-103		MAG2511		HY-520
C305	.01 25V		UK25-103		MAG2511		HY-520
C306	.01 25V		UK25-103		MAG2511		HY-520
C307	.01 25V		UK25-103		MAG2511		HY-520
C309	.0022		DD-222		GP222	QC2-97	5GA-D22
C310	.1 12V		UK25-104		MAG2501		HY-750
C312	.01 25V		UK25-103		MAG2511		HY-520
C402	.01 25V		UK25-103		MAG2511		HY-520
C403	.01 25V		UK25-103		MAG2511		HY-520

(1) Used in some versions.

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.
R416	Volume/Switch	20K	722340				
R417	Squelch	10K	722339				
RV101	Squelch Range	10K	RP-GNB10301				
RV102	AMC	2000	RP-GNB20201				
RV103	S Meter	20K					
RV104	RF Meter	20K					

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.
R319	30 10W	10W-SQ30	722348				

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L101	RF Choke	LF-220KD01N			
L103	Xmit Mixer (27MHz)	TR-10CD004S			
L104	Xmit Mixer (27MHz)	TR-10CD005S			
L105	RF Choke	LF-2R2KD01N			
L106	Xmit Driver (27MHz)	TR-A5CZ001M			
L107	RF Choke	LF-680KD01N			
L108	RF Choke	LD-ADX3825M			
L109	Antenna Match (27MHz)	TR-A5CZ002M			
L110	Antenna Load (27MHz)	TR-A5CZ003M			
L111	RF Choke	LF-680KD01N			
L112	Rec Mixer (10.7MHz)	TR-07MB008N			
L113	Line Choke	LD-ADB4024B			
L114	Line Choke	LD-ADB4024B			
L116	RF Choke	LA-1KE1011A			
T101	VCO (37MHz)	TR-10DA002T			
T102	Xmit Mixer (27MHz)	TR-10CB001S			
T103	Xmit Predriver (27MHz)	TR-10CP005S			
T104	Rec Antenna (27MHz)	TR-10MP003T			
T105	Rec RF (27MHz)	TR-10CA005S			
T106	Rec Mixer (10.7MHz)	TR-07MB008N			
T107	IF (455kHz)	TR-07LA004N			
T108	IF (455kHz)	TR-07LA005N			
T109	IF (455kHz)	TR-07LA023N			
T111	Rec RF (37MHz)	TR-10MB003T			

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.	
CH101	2.15A	.116	.48mH	LF-119H001Y ELA-16 (1)	TR523		(1) Number on unit

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T110	2	1 8 2 .5	TR-G25B001W ETA-66 (1)			(1) Number on unit

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TRANSFORMER

ITEM No.	TURNS RATIO			REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T301	.15	1		730036 80TL001 (1)			(1) Number on unit

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
S	2 1/4" PM 8 ohms	730035	22A05Z16	

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA					
		PART No.		BUSS PART No.		LITTELFUSE PART No.	
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER
F1	3A 250V Quick-Acting	710029	710027	AGC3		312003	FG3-2

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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											

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
X101	11.806MHz	XA-S1B4001N	CC140M11806	11.806MHz Osc	X103	10.240MHz	XA-S1B3001N	CA95M10240	Reference Osc
X102	10.695MHz	XA-S1B3002N	CC140M10695	Offset Osc.					

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF101	Filter	FB-R455A08M	455kHz
CR401	LED	760310	Rec.(Green)
CR402	LED	760079	Xmit(Red)
S1	Switch	700326	Rec/Xmit
S2	Switch	700325	UP/Down
U402	LED	760107	Digital Readout
U403	LED	760107	Digital Readout
	Printed Circuit Board	PT-BN036A0X	Main (Less Components)
	Printed Circuit Board	AP-TBM036JT	Main (W/Components)
	Printed Circuit Board	750070	Channel Select (Less Components)
	Printed Circuit Board	878928	Channel Select (W/Components)
	Printed Circuit Board	750071	Microphone (Less Components)
	Printed Circuit Board	878931	Microphone (W/Components)
	Plug	650080	Microphone
	Jack	650065	Antenna
	Jack	650076	Speaker

CABINETS & CABINET PARTS (When ordering specify model, chassis & color)

ITEM	PART No.	ITEM	PART No.
Cabinet, Top	460092	Case, Microphone (Rear)	460153
Cabinet, Bottom	460093	Knob, Volume/Squelch	460098
Case, Microphone (Front)	460156	Button, Push-To-Talk	460153

WIRING DATA

General-use Hook-up Wire (available in 5 colors)	BELDEN No. 8523	Coiled Microphone Cable	
Shielded Hook-up Wire (spiral wrapped)	BELDEN No. 8421	3-conductor (1 shielded)	23AWG BELDEN No. 9471 (5')
(braided)	BELDEN No. 8401		BELDEN No. 8497 (6')
Speaker Cable (available in 4 colors)	BELDEN No. 8782		BELDEN No. 9472 (7-1/2')
Bonding Strap	BELDEN No. 8672		28AWG BELDEN No. 9466 (6')
AC Power Cord	(6') BELDEN No. 17106		31AWG BELDEN No. 9468 (10')
	(9') BELDEN No. 17109	4-conductor (unshielded)	23AWG BELDEN No. 8415 (6')
		5-conductor (1 shielded)	28AWG BELDEN No. 9467 (6')
			BELDEN No. 9465 (7-1/2')