

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.



MODEL Caravelle 40D

MANUFACTURER'S SPECIFICATIONS

RECEIVER SECTION

* Frequency Range	26.965 to 27.405 MHz
* Sensitivity	0.25uV for 10db S/N at 1 kHz at 30% Modulation
* Selectivity	BW 2.5 kHz min. at 6db dwn.
* Adj. Channel Rejection	Better than 60db
* Audio Distortion at 1 kHz	Less than 10% at 3W
* Squelch Sensitivity	0.2uV
* Squelch Stop Sensitivity	45 to 30,000uV (adjustable)
* Noise Limiter	Series gate

TRANSMITTER SECTION

* Frequency Range	26.965 to 27.405 MHz
* Power Output at 13.8 V DC	3.5 to 4 watts
* Modulation	100%
(4mV at microphone)	
* Emission	6A3
(Class D operation)	
* Hum and Noise	Better than 40db down
* Frequency Tolerance	better than $\pm 0.005\%$
* Antenna Impedance	50 ohms
* Switching	Enclosed Relay
* Modulation Distortion	Less than 10% at 95% modulation at 1 kHz

Courtesy of the Manufacturer

COURIER/FANON MODELS CARAVELLE 40D, CONQUEROR 40D /FANFARE 880DF

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

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7CE638

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.
 Connect low sides of test equipment to ground unless specified otherwise.
 Connect 50-ohm dummy load or antenna before keying transmitter.
 Connect microphone.

Suggested Alignment Tools: GC Electronics:
 L403,L404,L407,T7,T105 thru T110.....5009
 L1,T1 thru T6,T101 thru T104,T401.....9440
 C430,VC1,VC2,VC3.....5000

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to pin 05L.	Ch. 19	VC3	Adjust for 10.240MHz.
Input of RF VTVM to pin 05L.	Ch. 19	T7	Adjust for maximum RF voltage.
Input of DC meter to TP1.	Ch. 19	T1	Adjust for 2.70 volts.
Input of RF VTVM to 02L.	Ch. 19	T2	Adjust for maximum RF voltage.
Input of RF VTVM to TP2.	Ch. 19	L1	Adjust for maximum RF voltage.
Input of frequency counter to TP2.	Ch. 19	VC1	Adjust for 36.380MHz.
Input of frequency counter to pin 02L.	Ch. 1		Check for 37.660MHz. Check all channels (Channel frequency + 10.695MHz = frequency on counter.
Input of frequency counter to TP3.	Ch. 19	VC2	Adjust 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 TP4. 455kHz,1000Hz @ 30% modulation.	Ch. 19, RF Gain Maximum Squelch MINIMUM ANL Off	T110,T109, T108	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz,1000Hz @ 30% modulation.	Ch. 19, RF Gain Maximum Squelch MINIMUM ANL Off	T107,T106, T105,T104, T103,T102, T101	Adjust for maximum output. It may be necessary to readjust T108,T109,T110.

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. 27.185MHz, 1000Hz @ 30% modulation. Output 50,000uV.	Ch. 19, RF Gain Maximum Squelch MINIMUM ANL Off	R139	AGC Adjust Volume VR201 to obtain 0db. Decrease generator to 50uV. Adjust R139 so that audio signal does not drop more than 10db.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 10uV.	Ch. 19, RF Gain MINIMUM Squelch MINIMUM ANL Off	R164	RF GAIN RANGE Adjust R164 for 3 watts of audio.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 500uV.	Ch. 19, RF Gain Maximum ANL Off	R141	SQUELCH RANGE Set Squelch Control VR101 fully counterclockwise. Adjust R141 so that squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation. Output 100uV.	Ch. 19, RF Gain Maximum ANL Off Squelch MINIMUM	R126	S METER Adjust R126 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.

See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
	Ch. 19	T3, T4, T5, T6 T401, L407, C430, L404, L403	Adjust for maximum.
	Ch. 19	L403	Adjust for 4 watts maximum.

TRANSMITTER ADJUSTMENTS

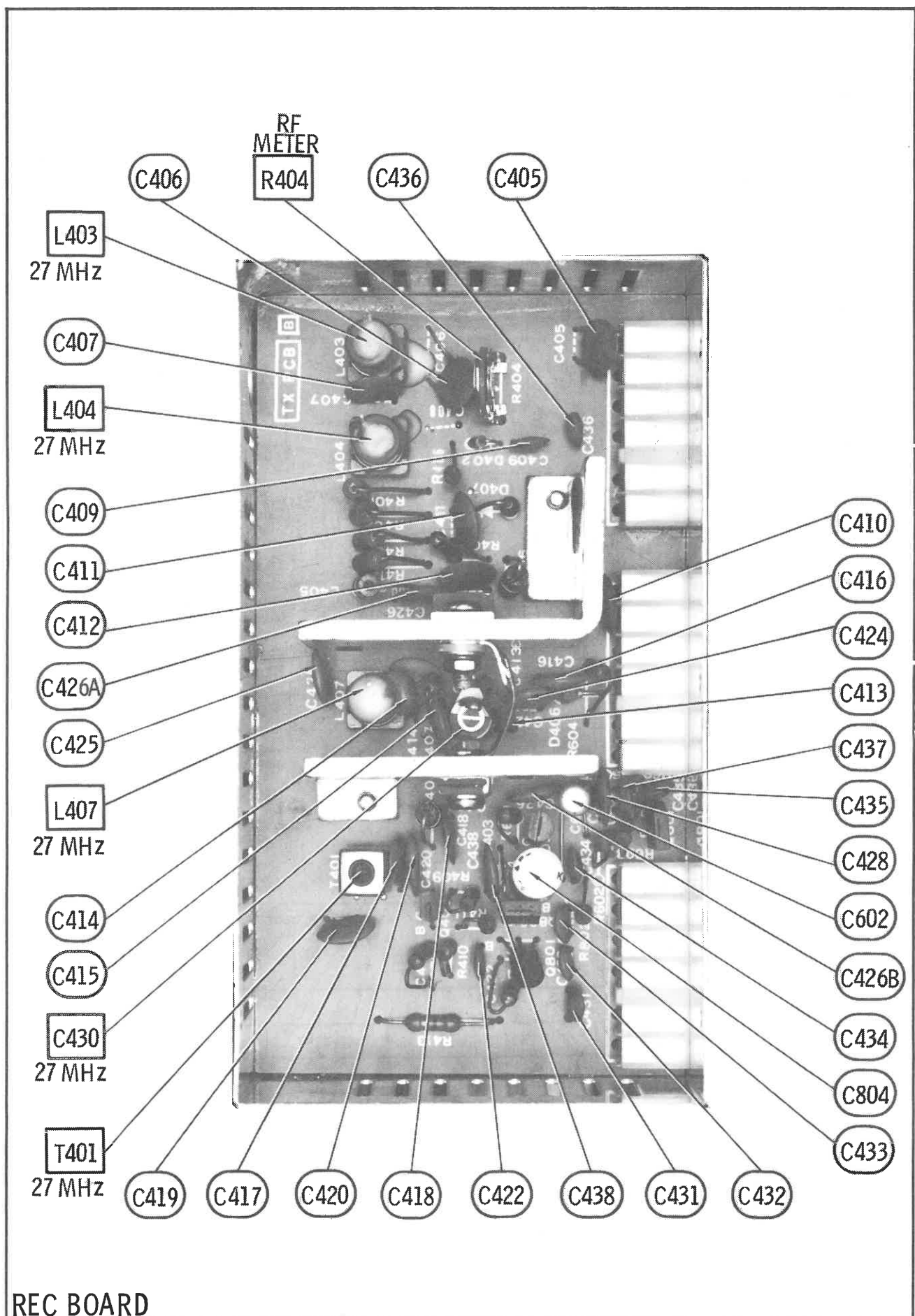
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.

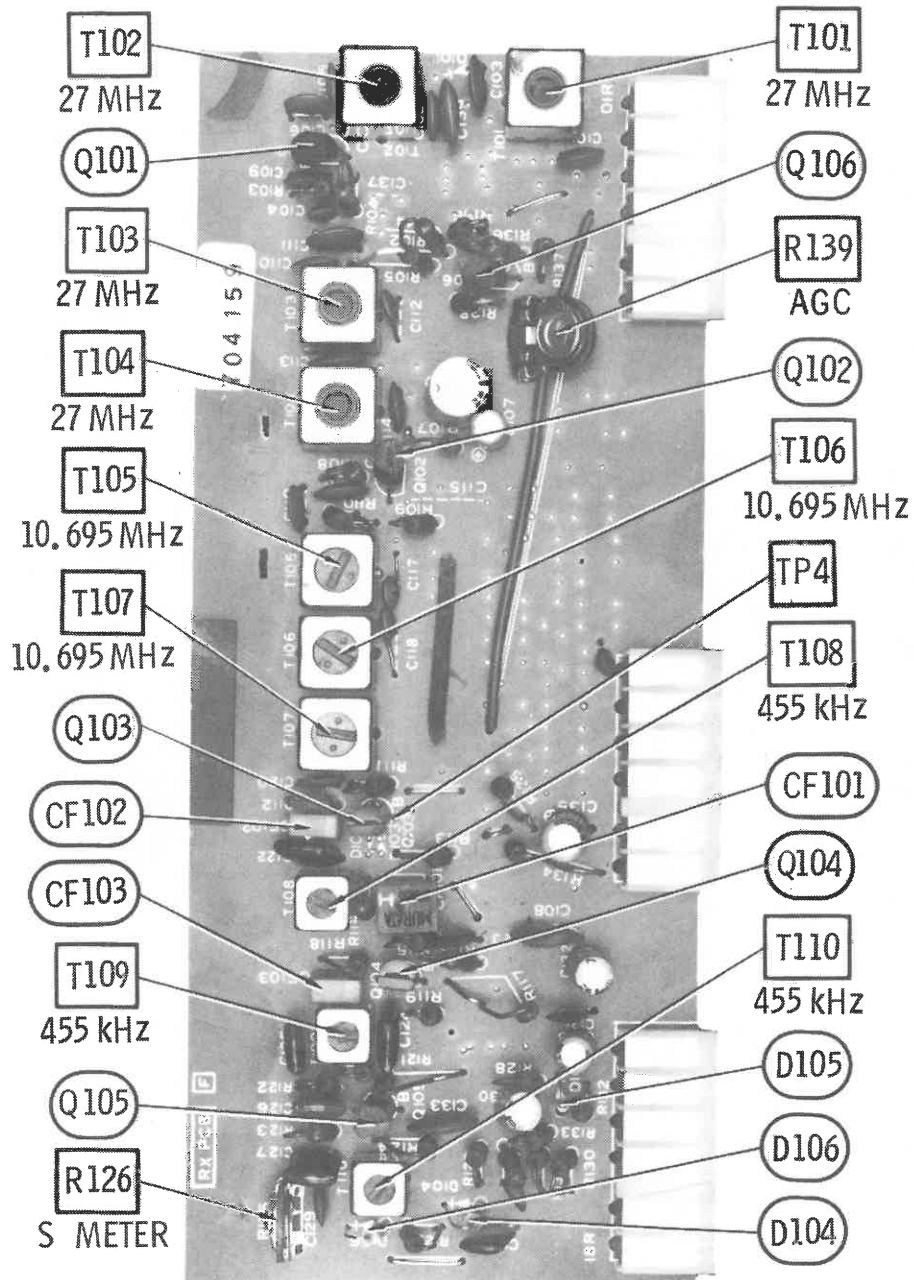
NOTE: Be sure to check transmit frequency and power on all active channels after adjustment of transmitter.

See page 4 for channel frequencies.

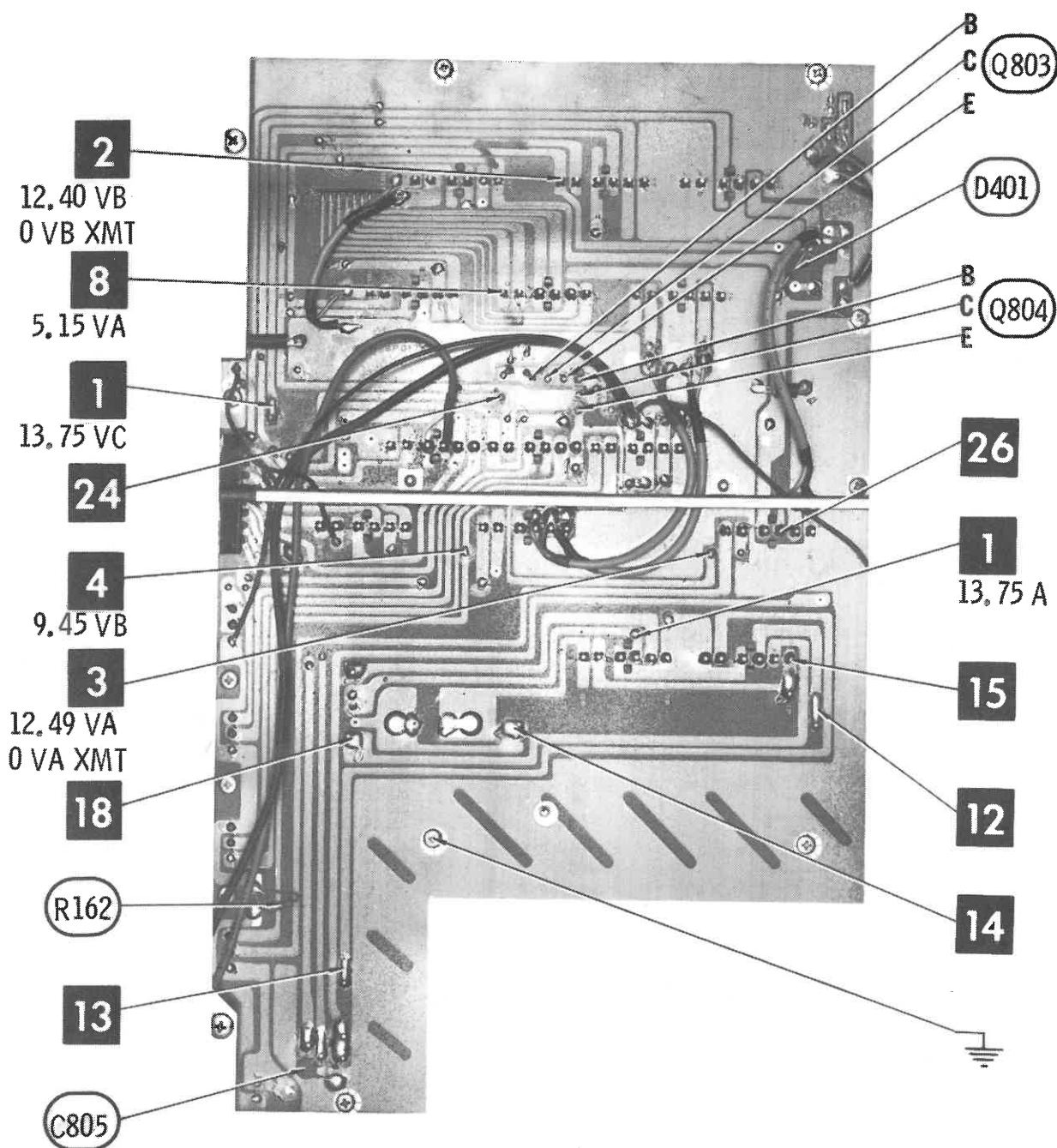
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of DC meter to pin 12P.	Ch. 19	R708	VOLTAGE REGULATOR Adjust R708 for 13.8V DC. Voltage should not vary when keying transmitter.
Modulation meter to antenna jack. Inject a 1000Hz, 100mV signal at MIC input.	Ch. 19	R504	AMC Adjust R504 for 100% modulation maximum.
Connect an RF wattmeter and 50-Ohm, 25 watt dummy load to antenna connector.	Ch. 19	R404	RF PANEL METER Adjust R404 so that RF panel meter agrees with RF wattmeter.

COURIER/FANON MODELS CARAVELLE 40D, CONQUEROR 40D / FANFARE 880DF

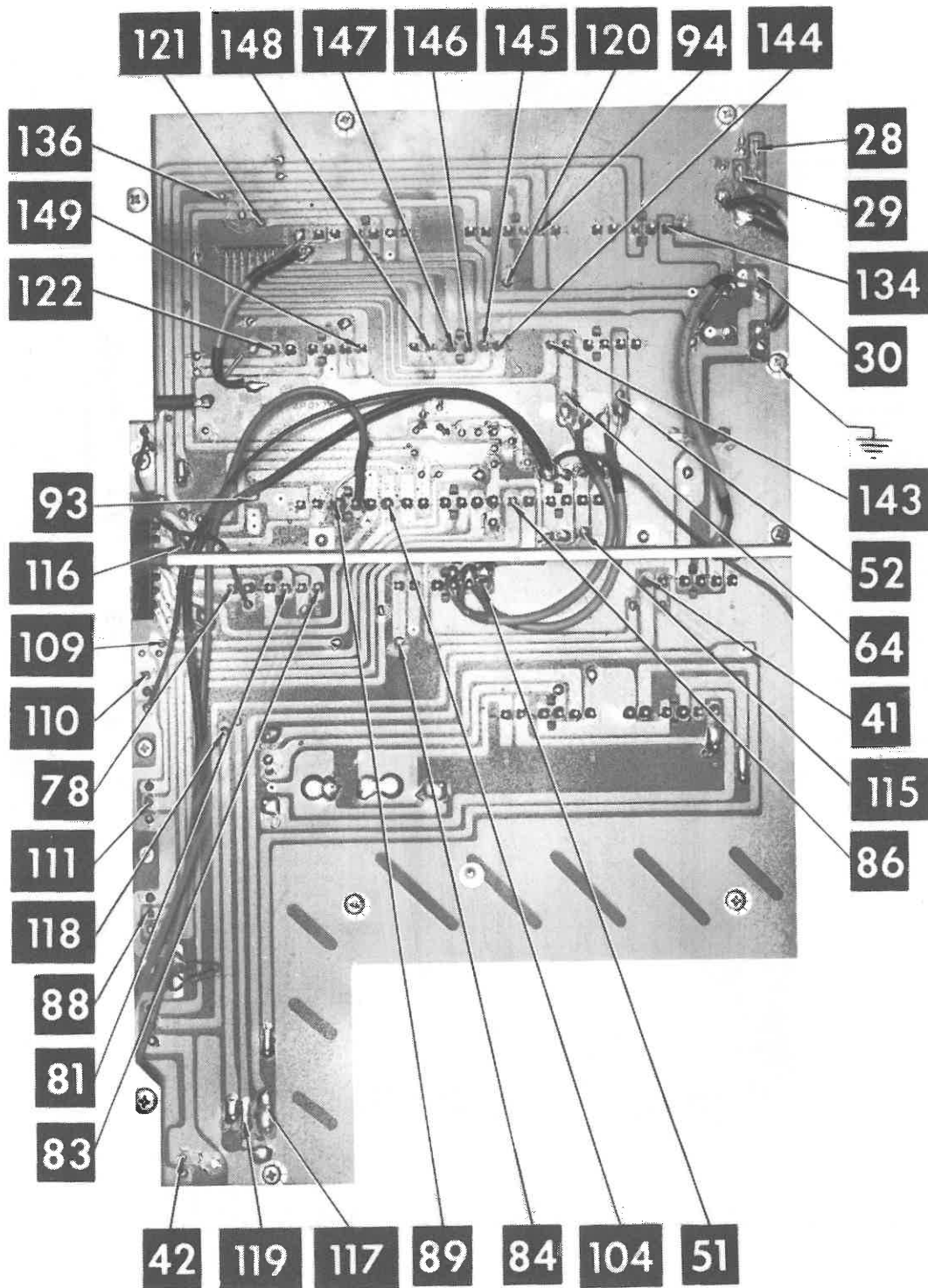




XMT BOARD

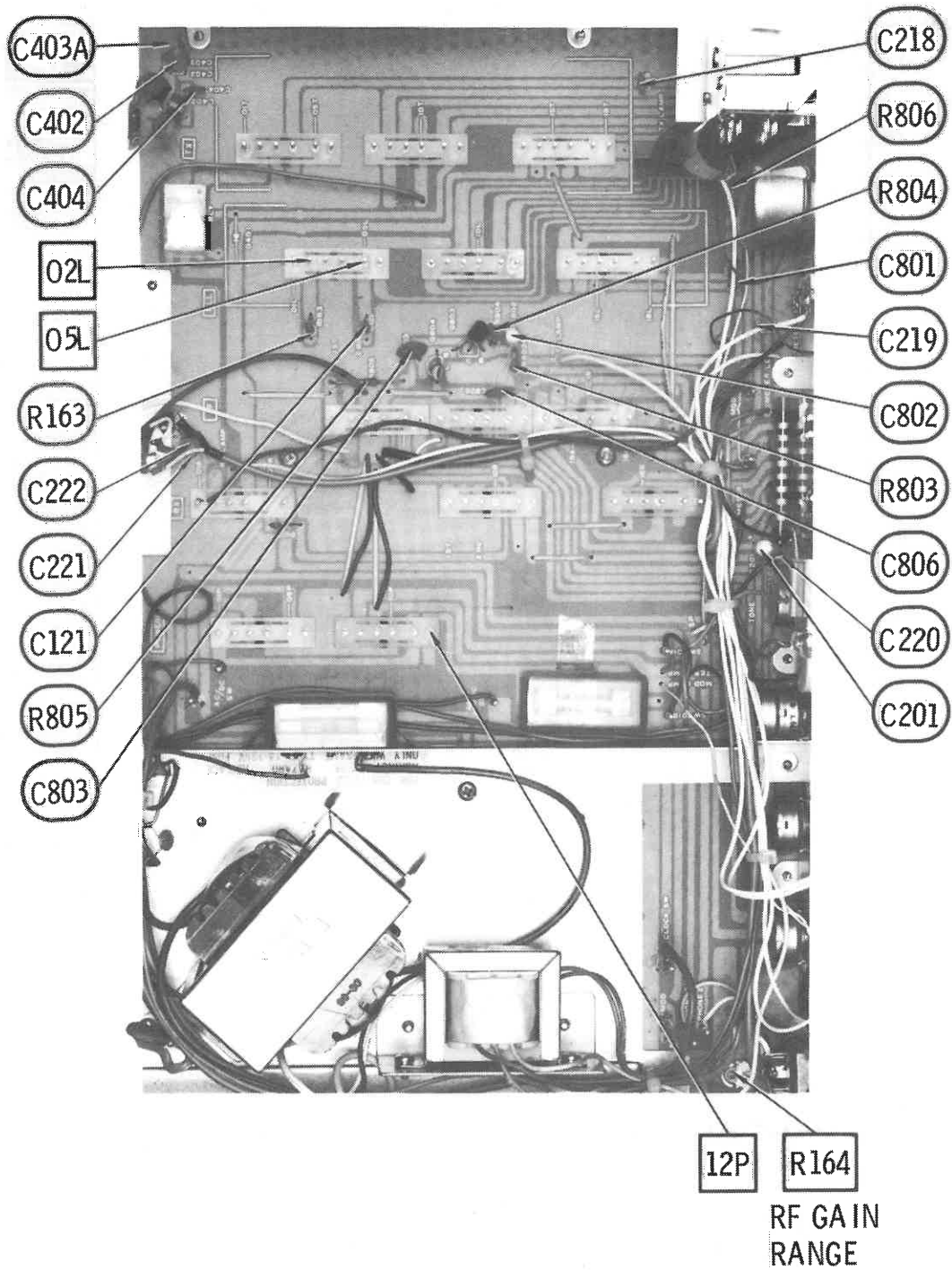


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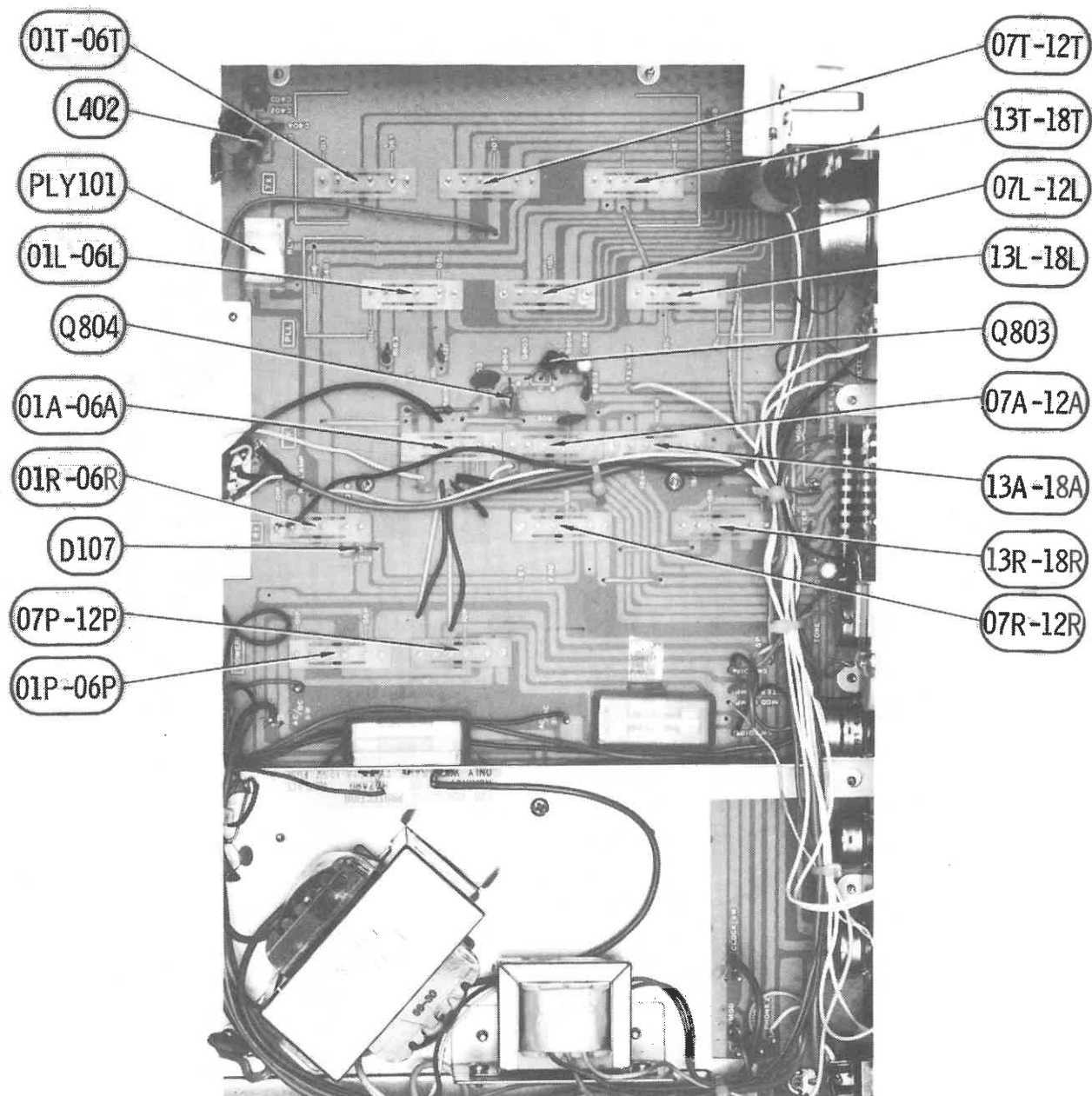


COURIER/FANON MODELS CARAVELLE 40D, CONQUEROR 40D/FANFARE 880DF

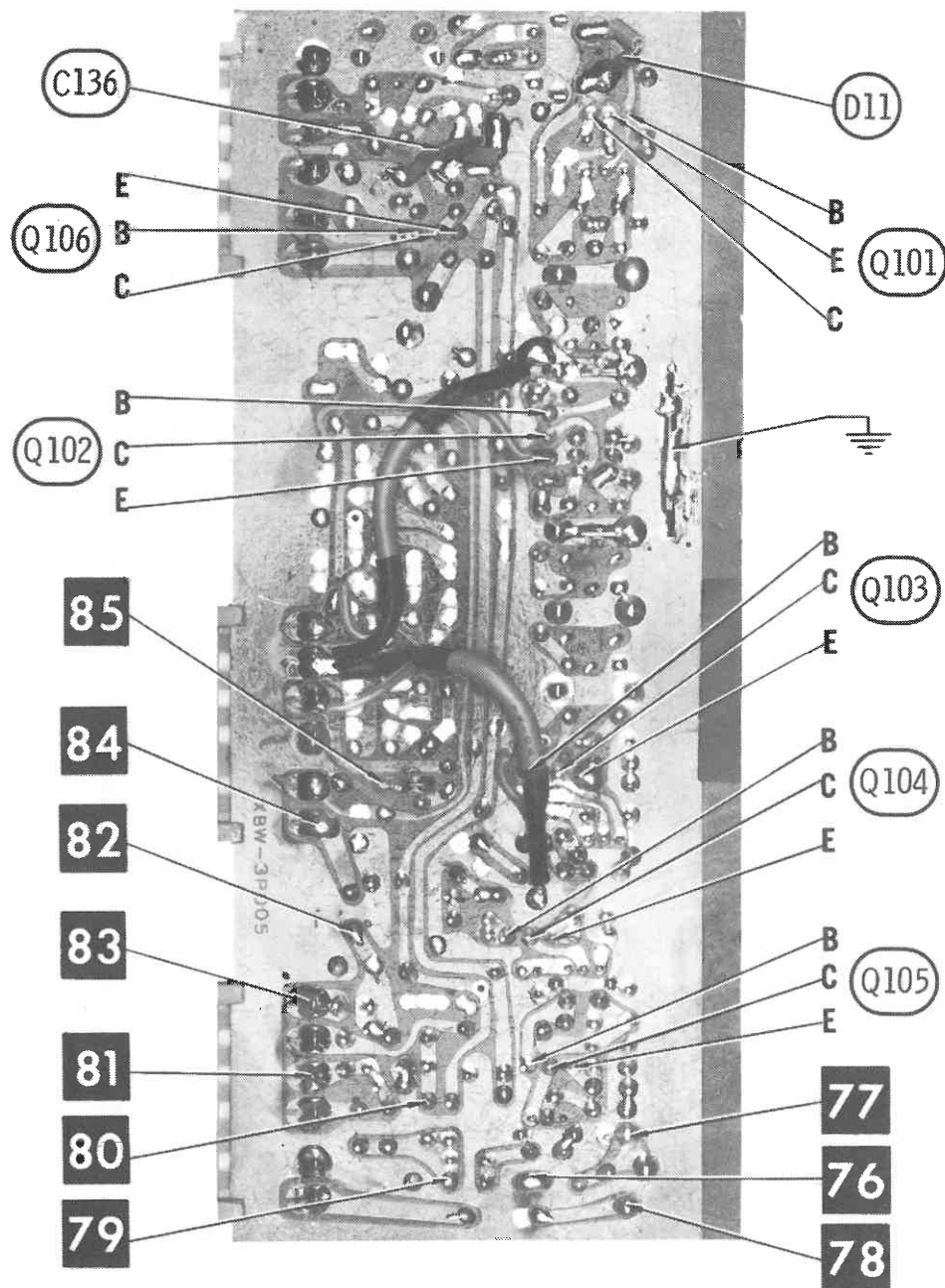
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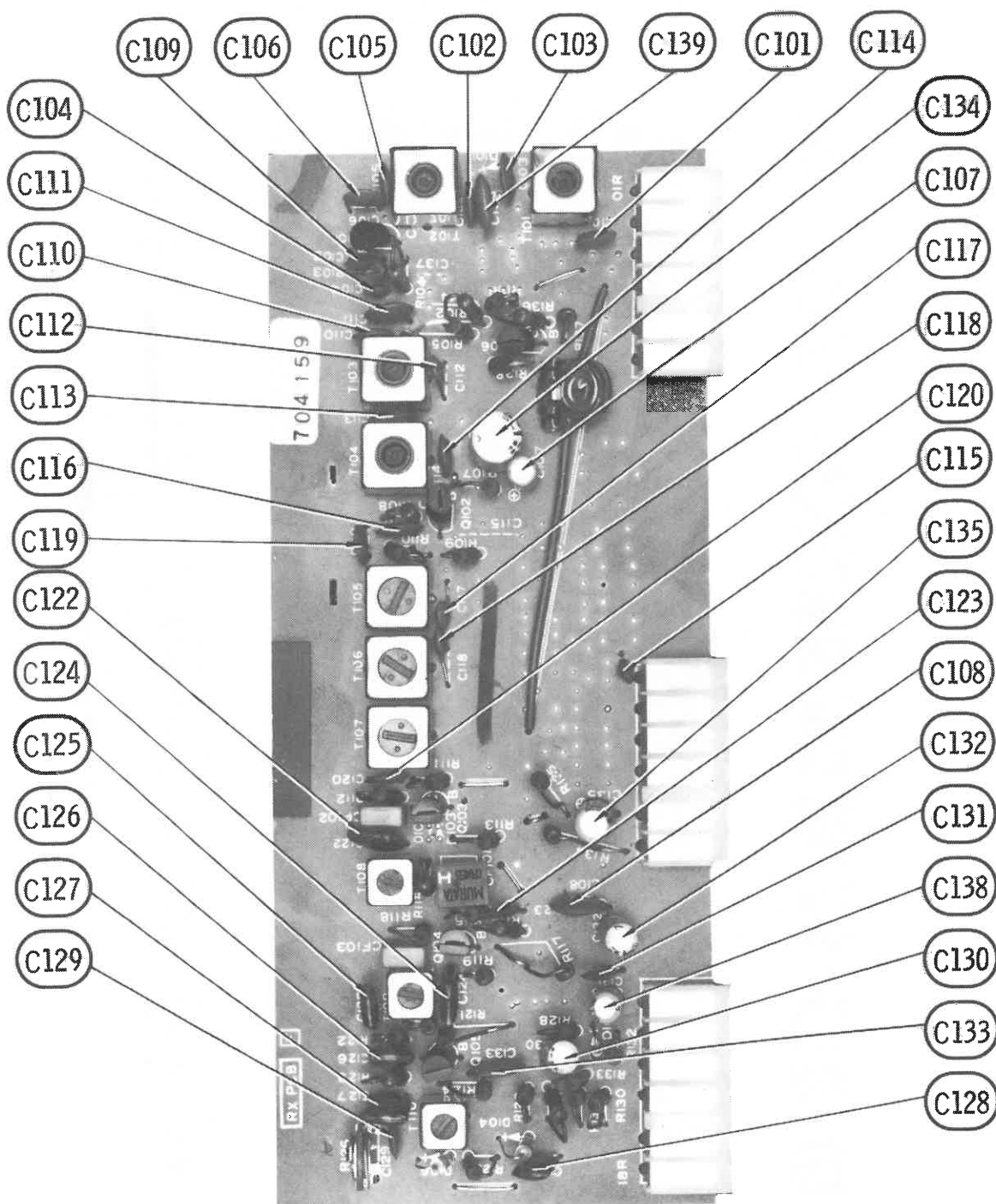
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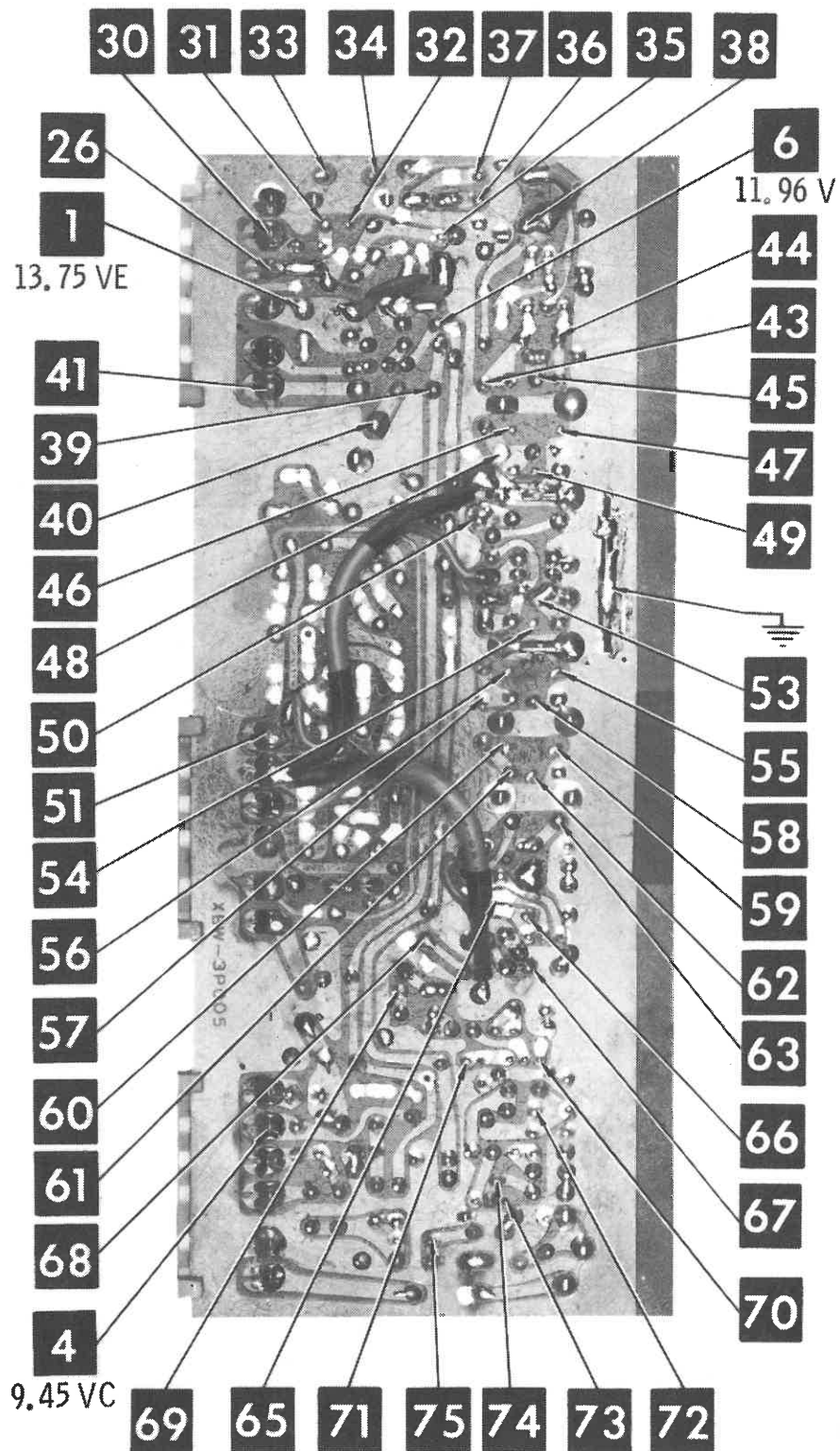
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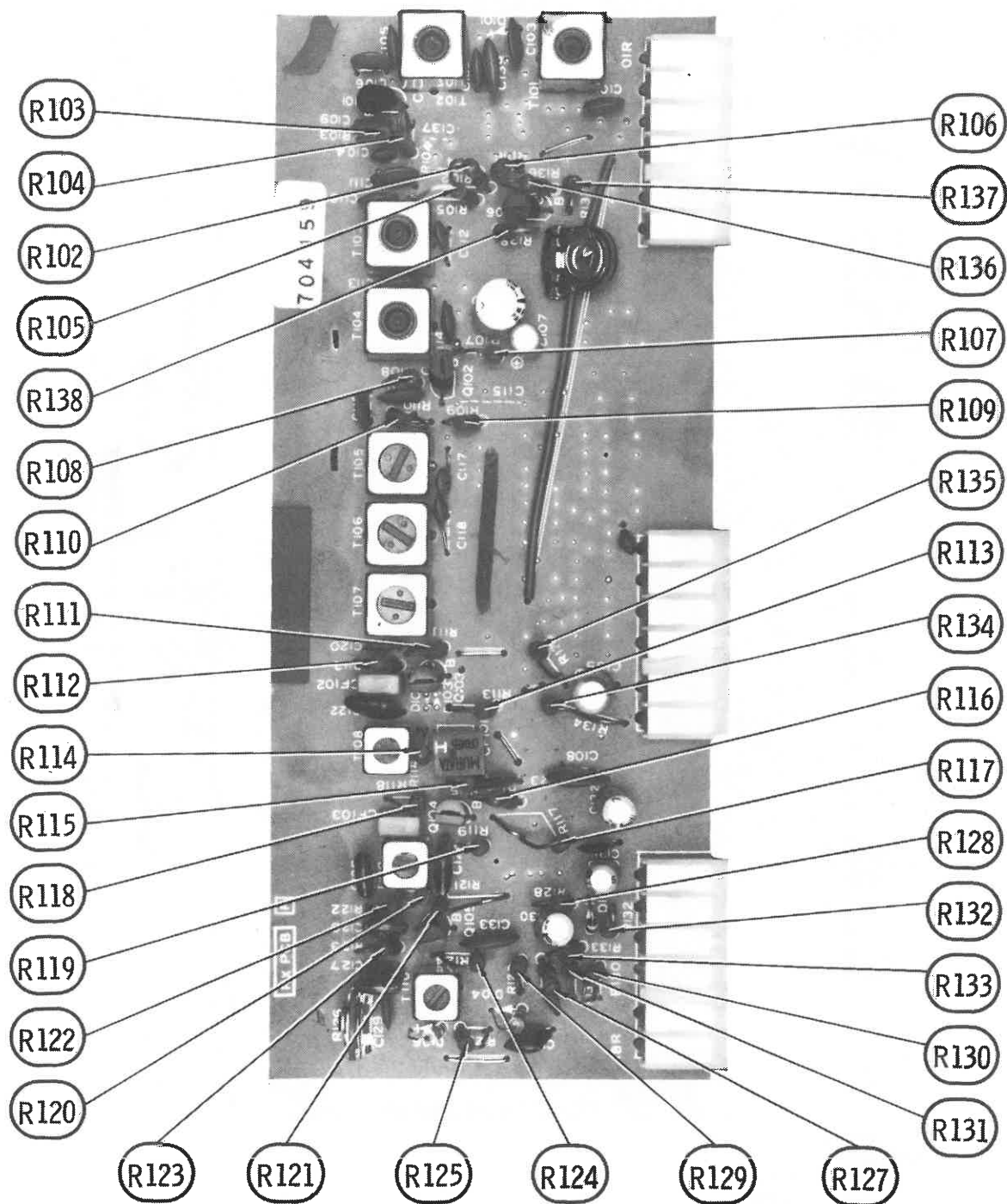
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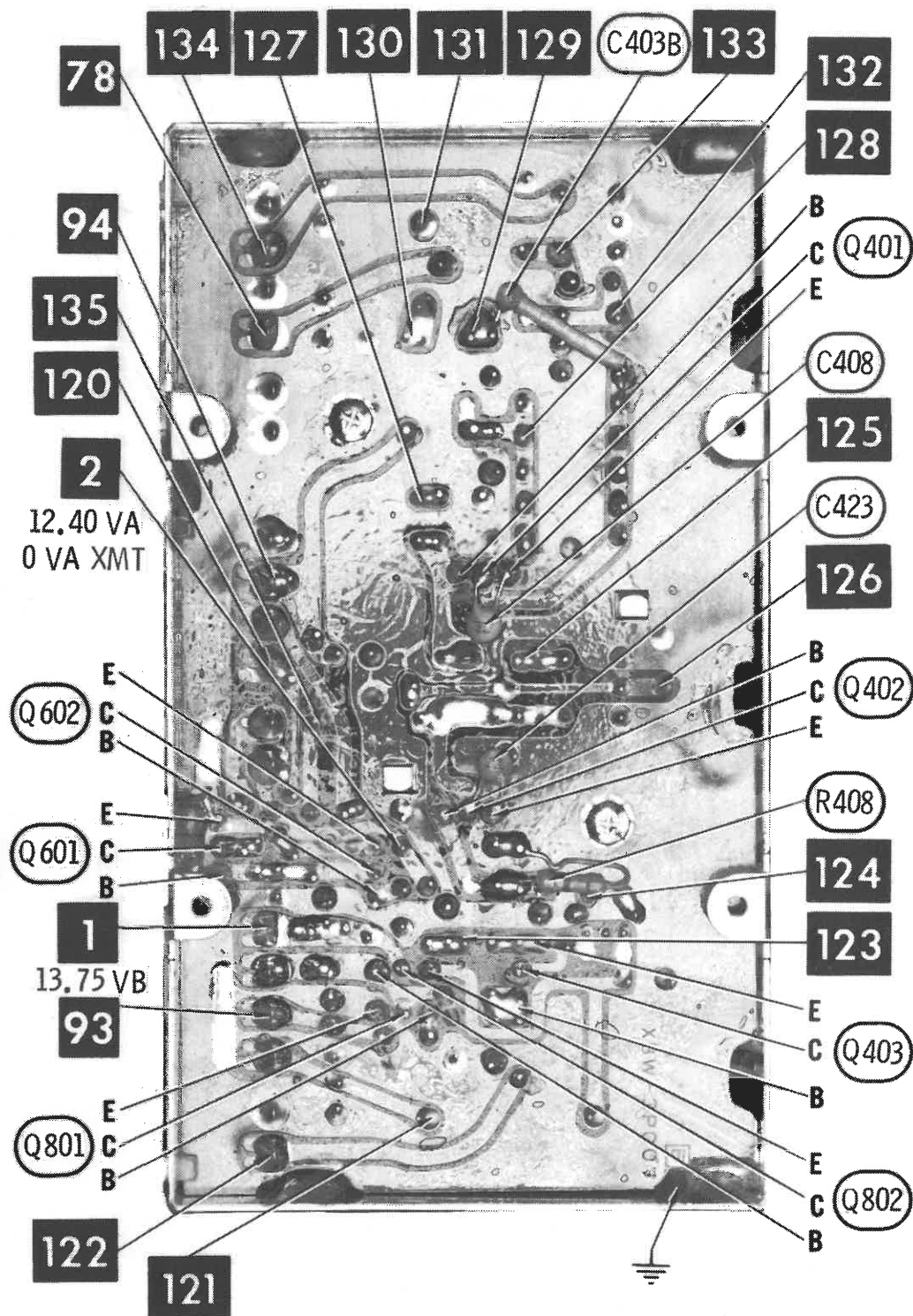
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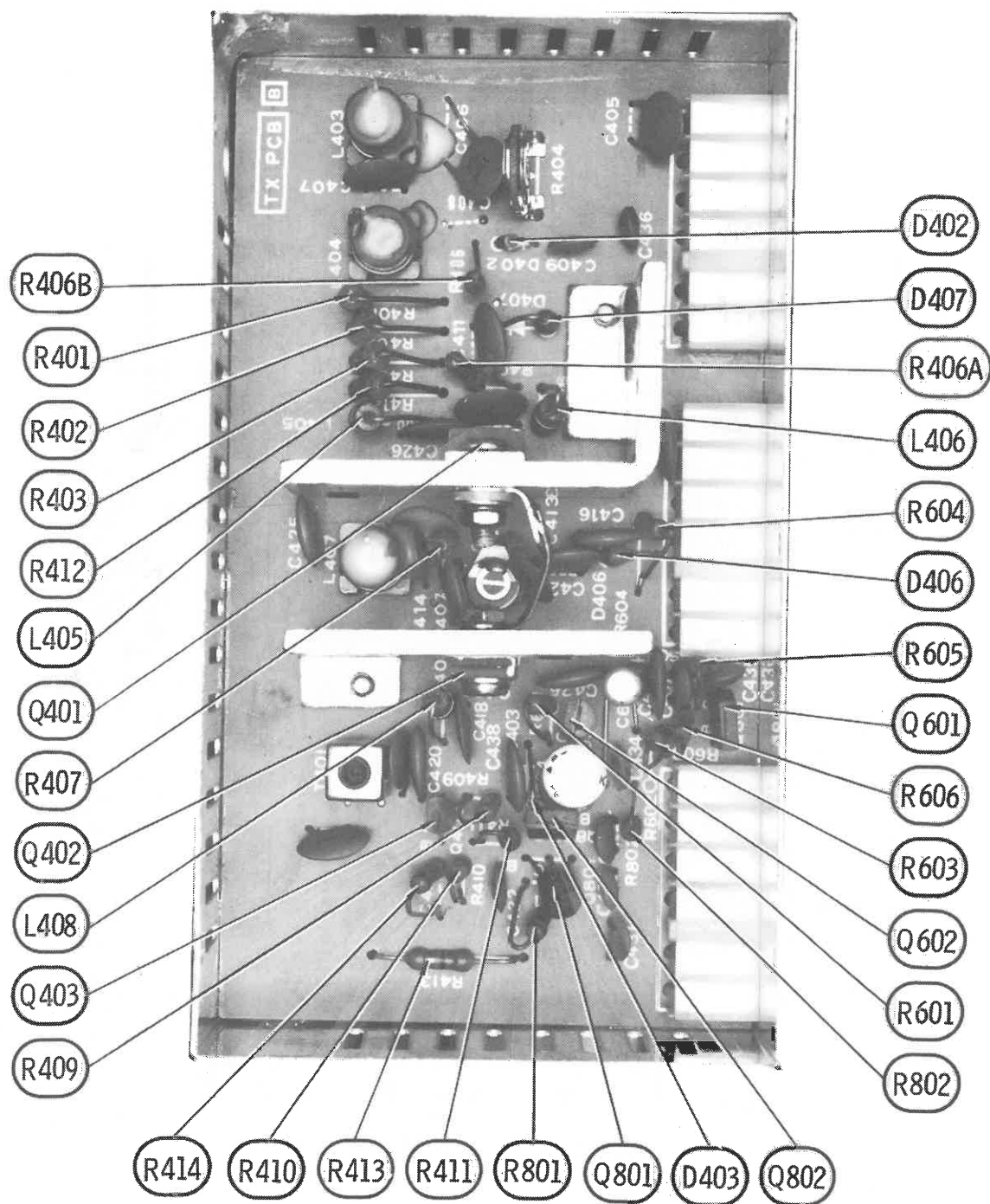
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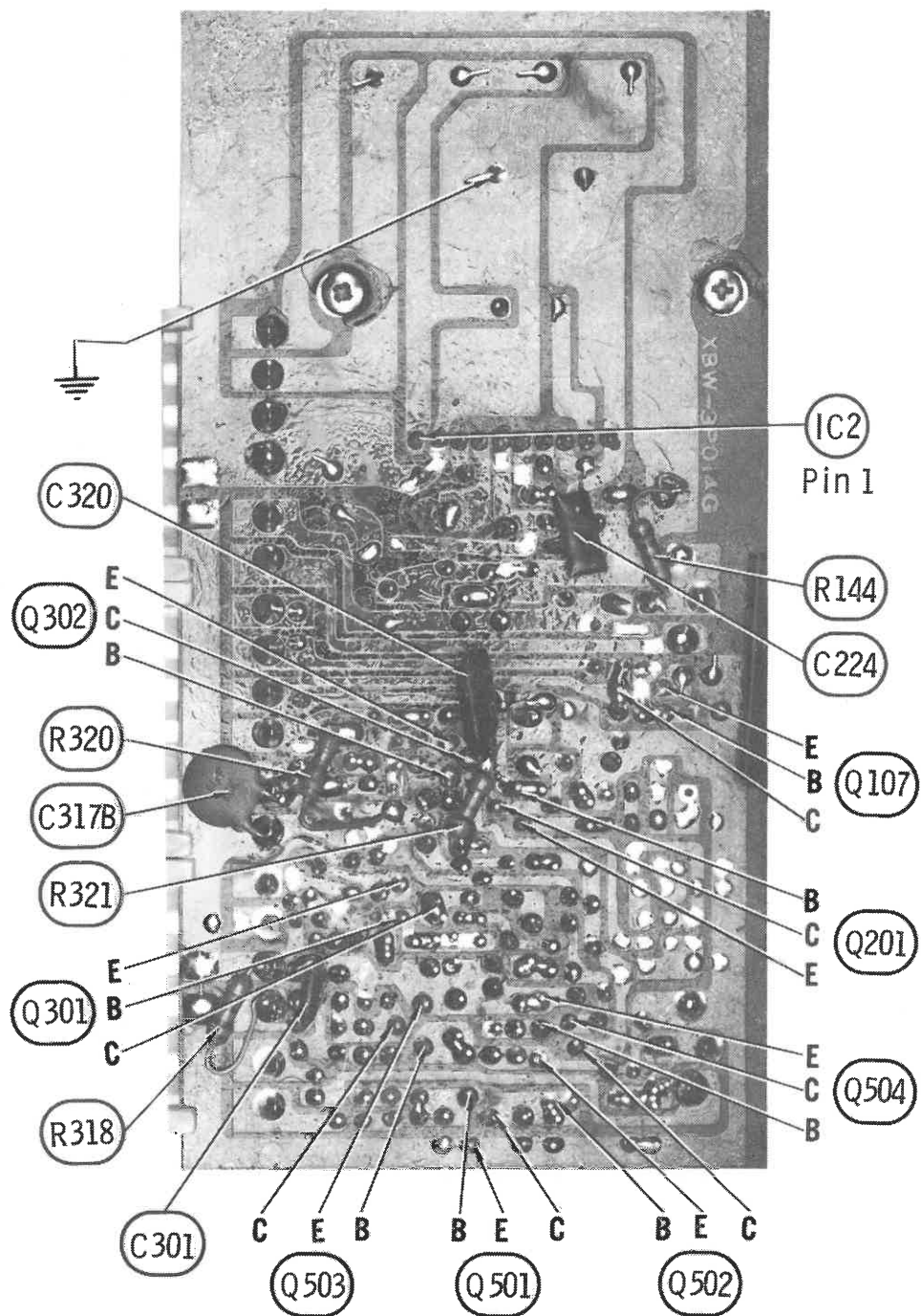
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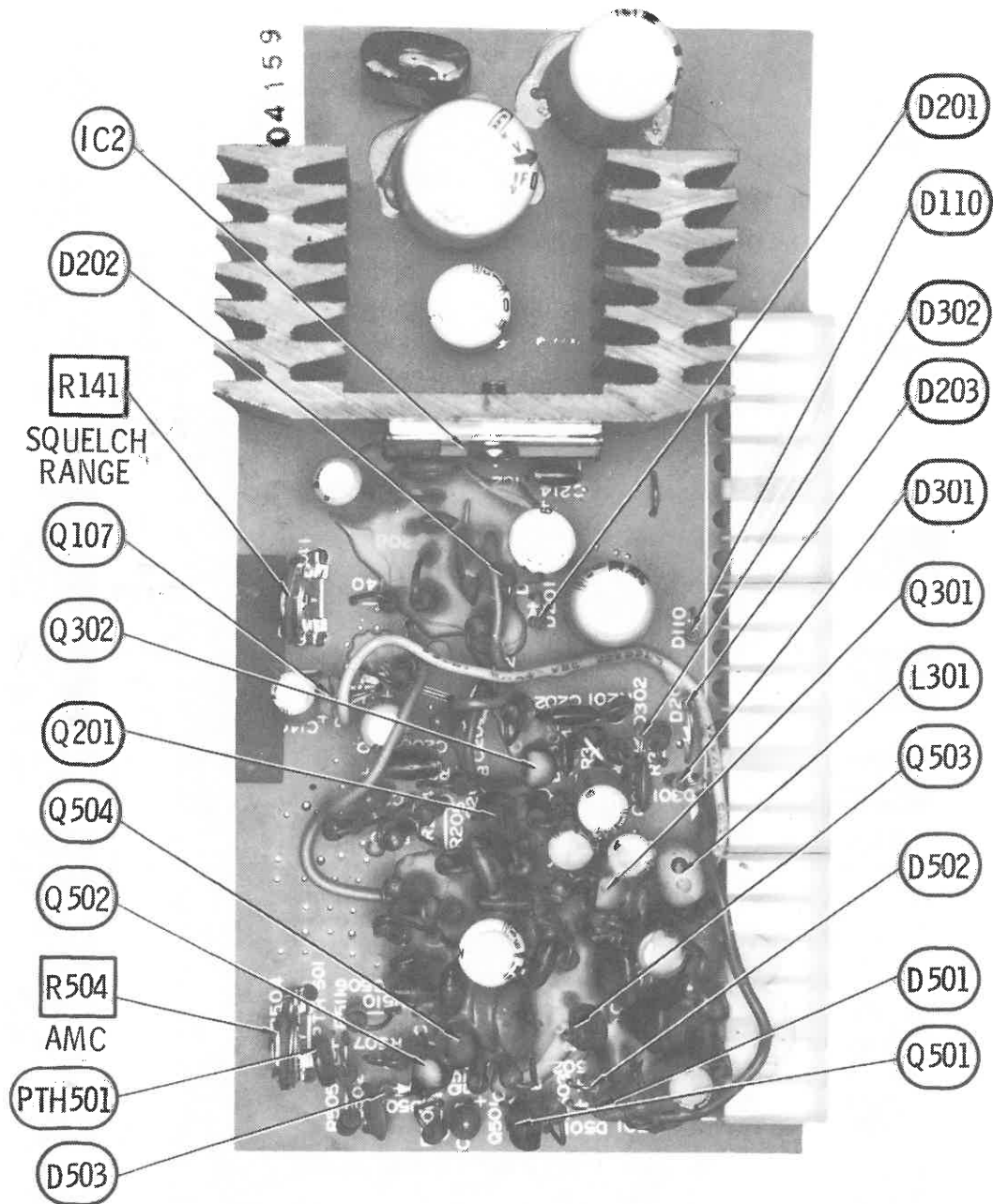
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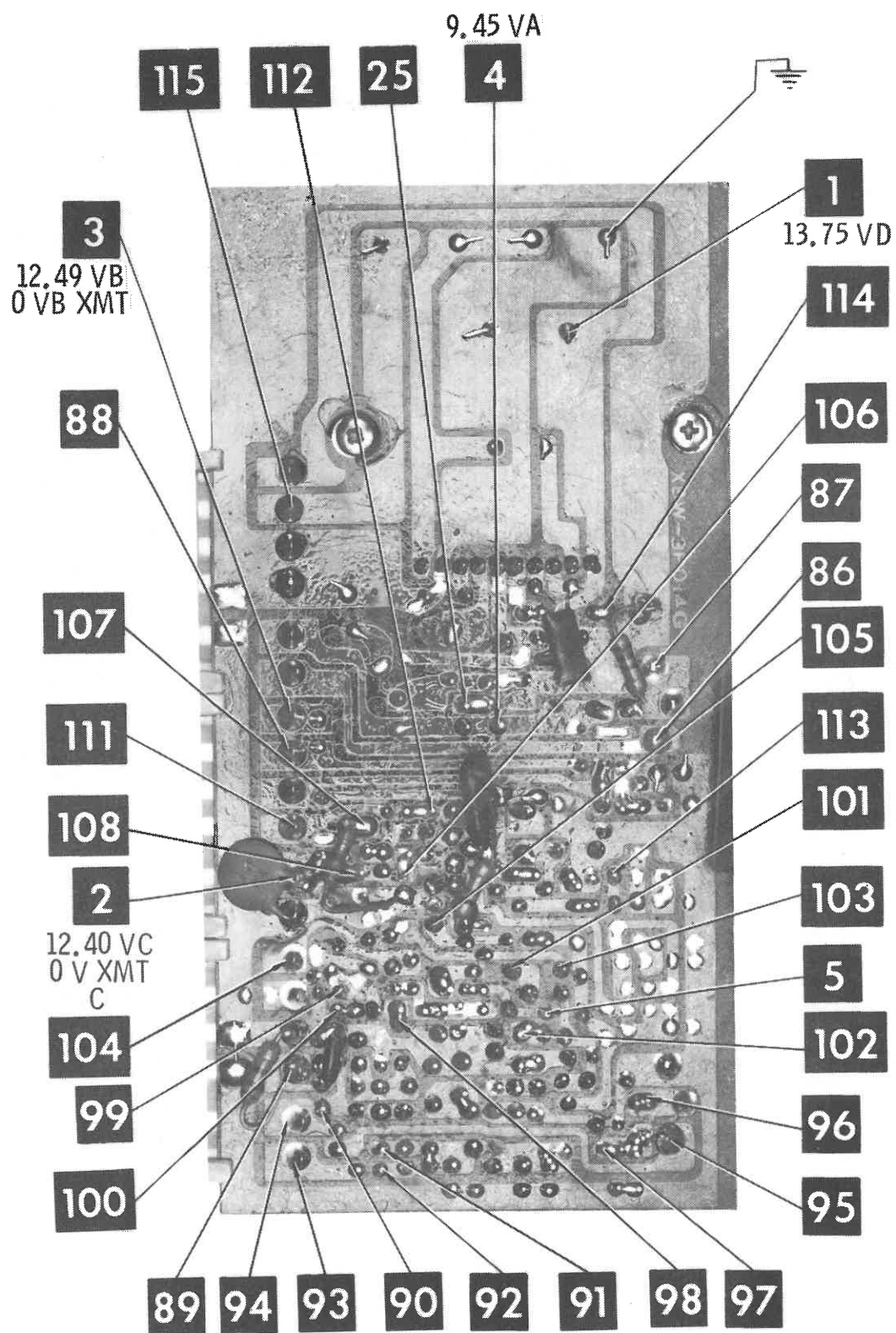
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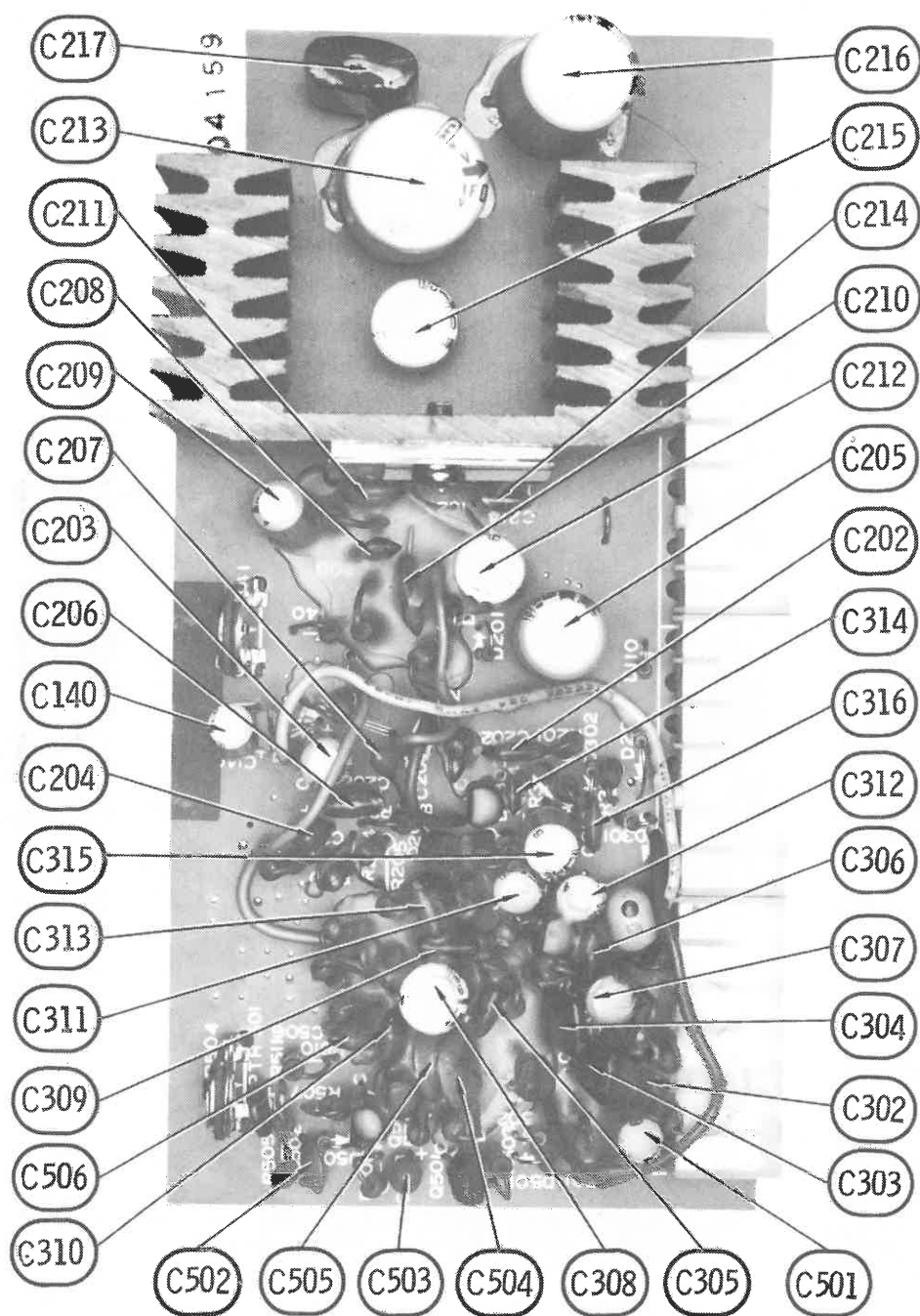
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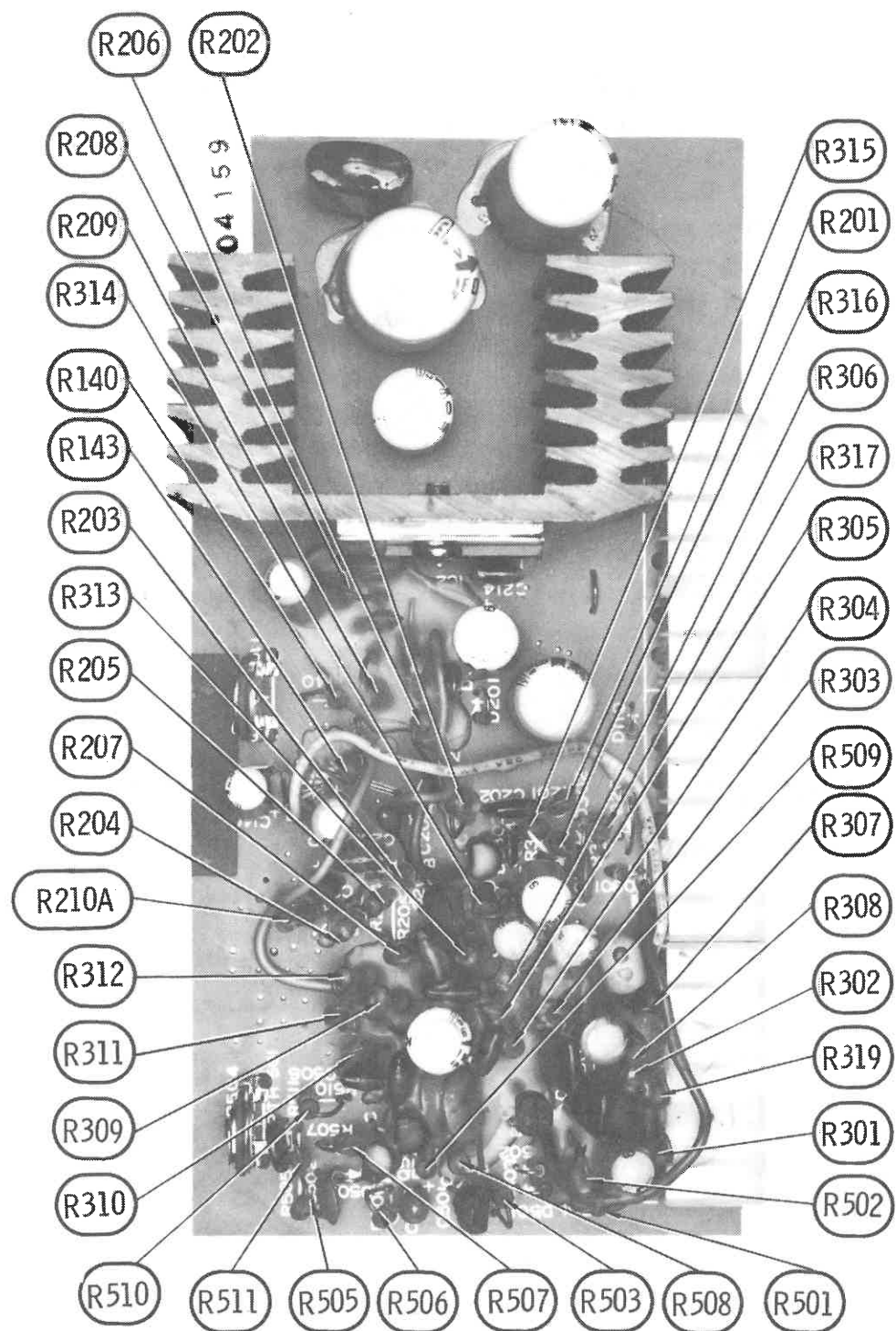
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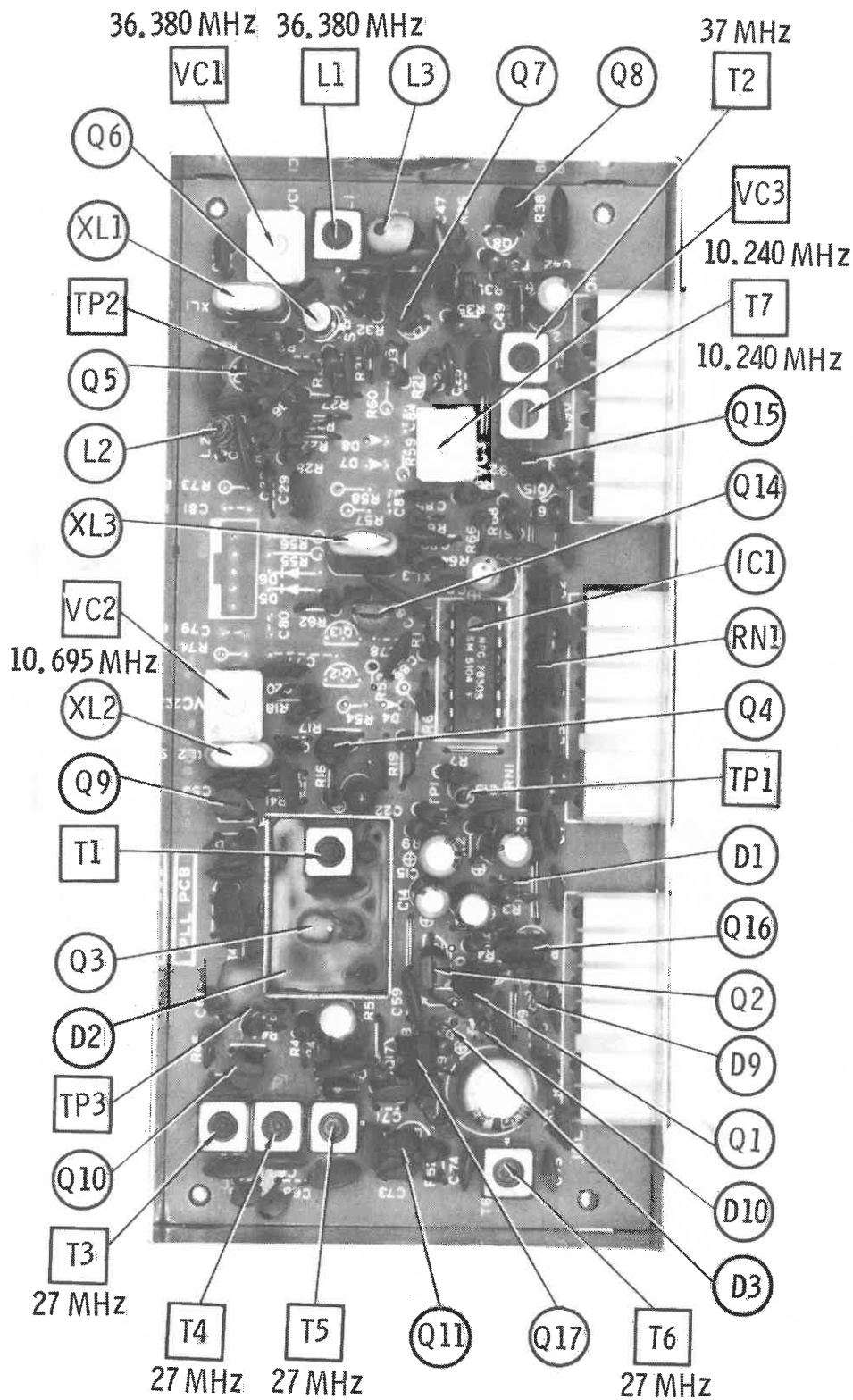
AUDIO BOARD



AUDIO BOARD

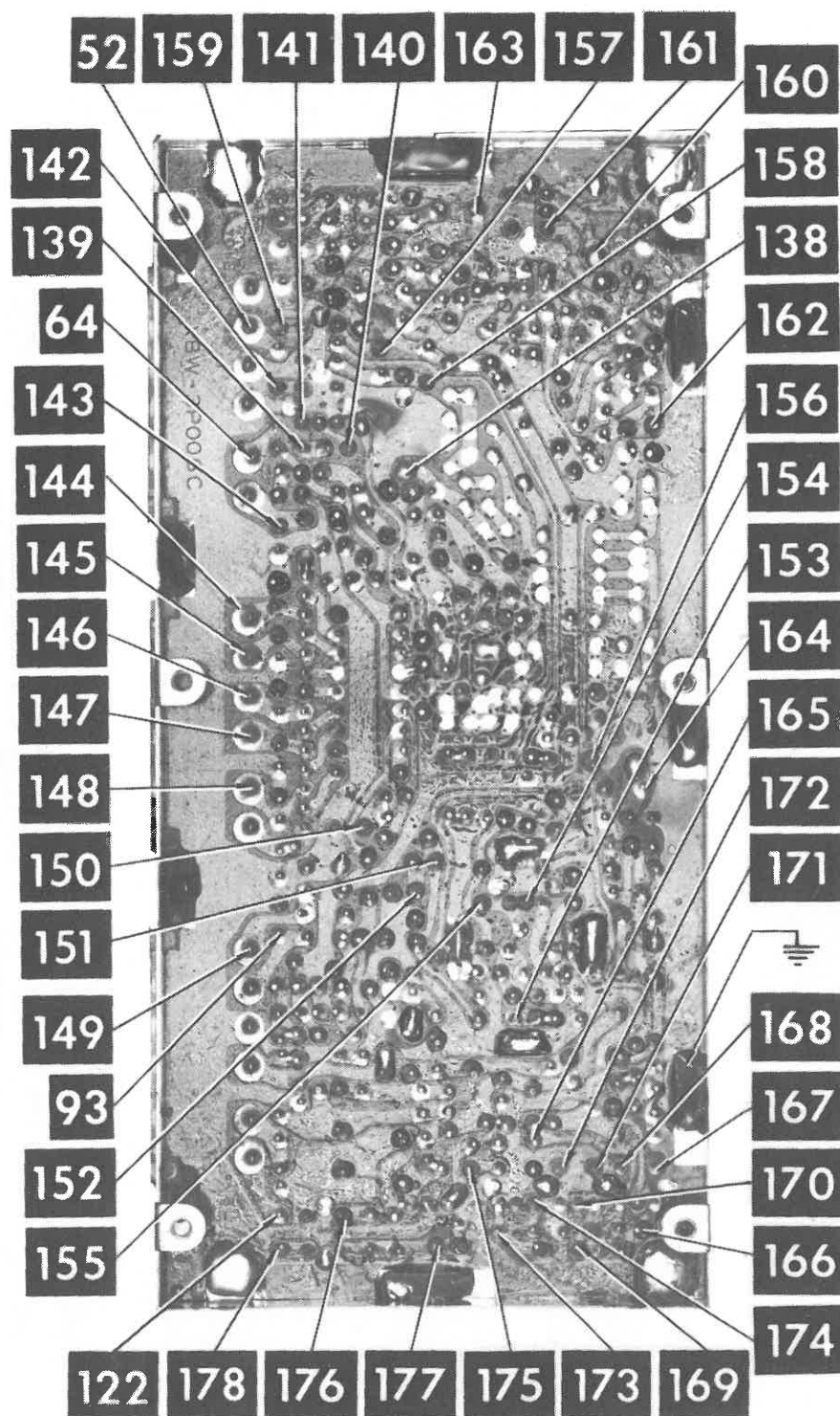


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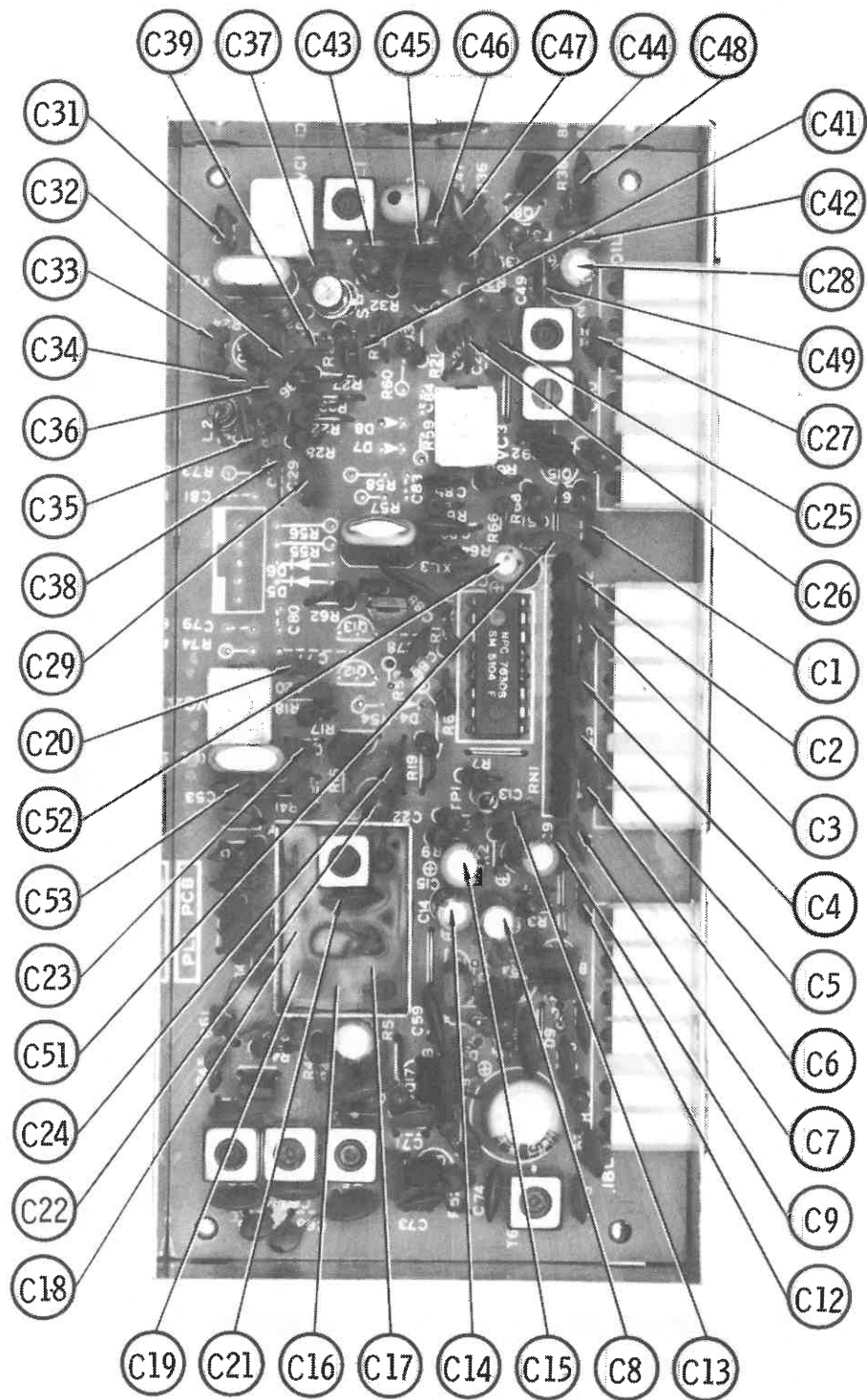


PLL BOARD

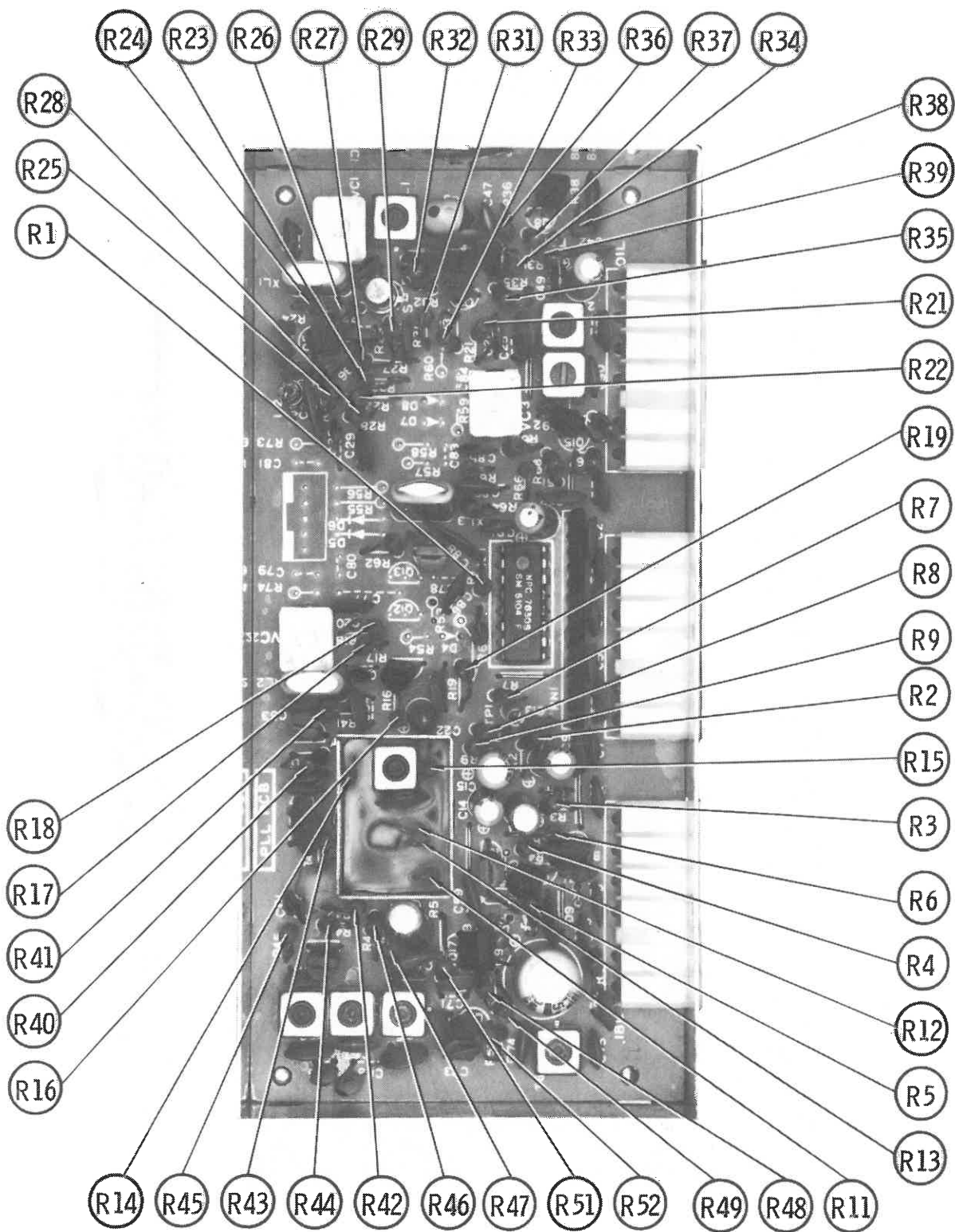




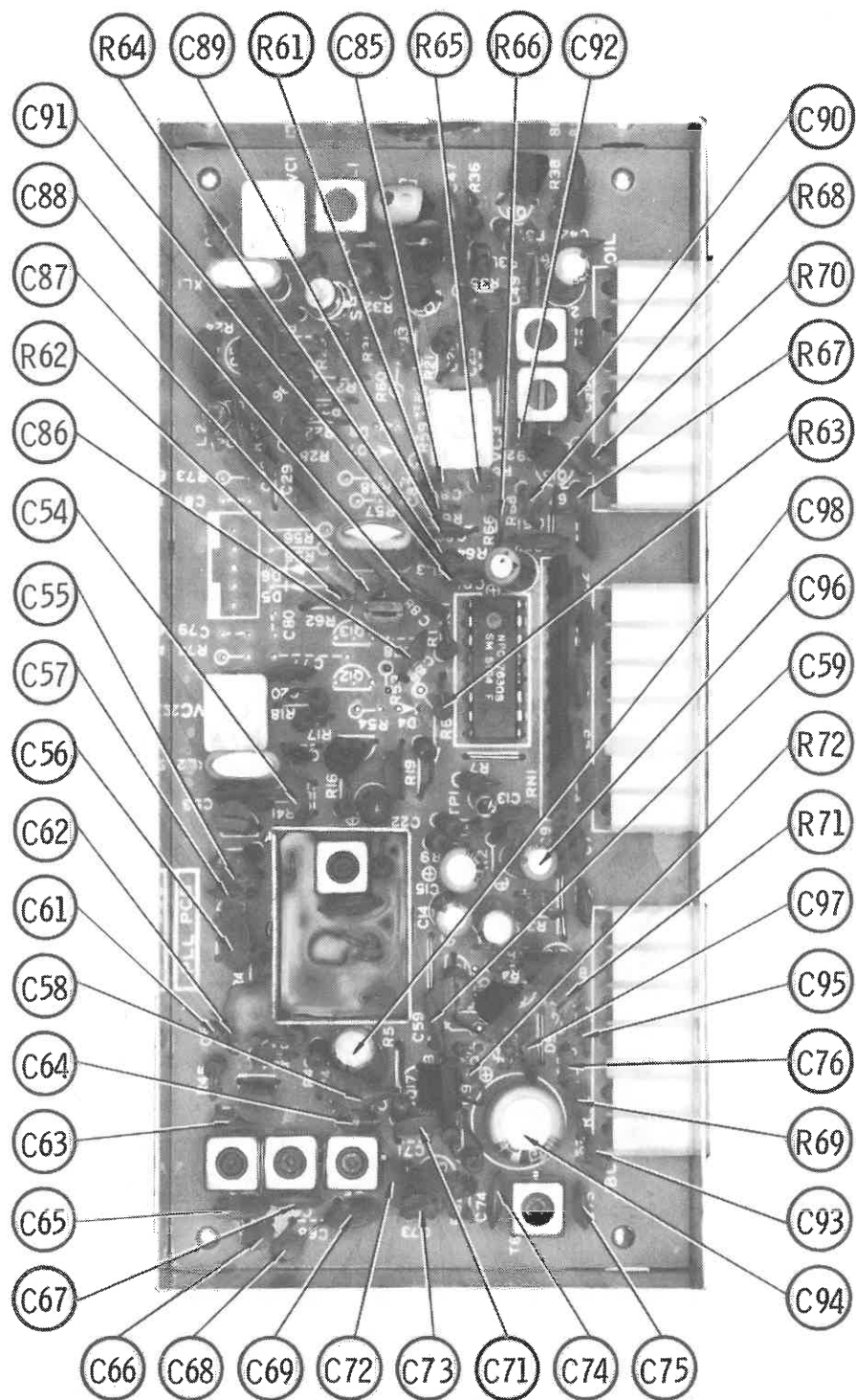
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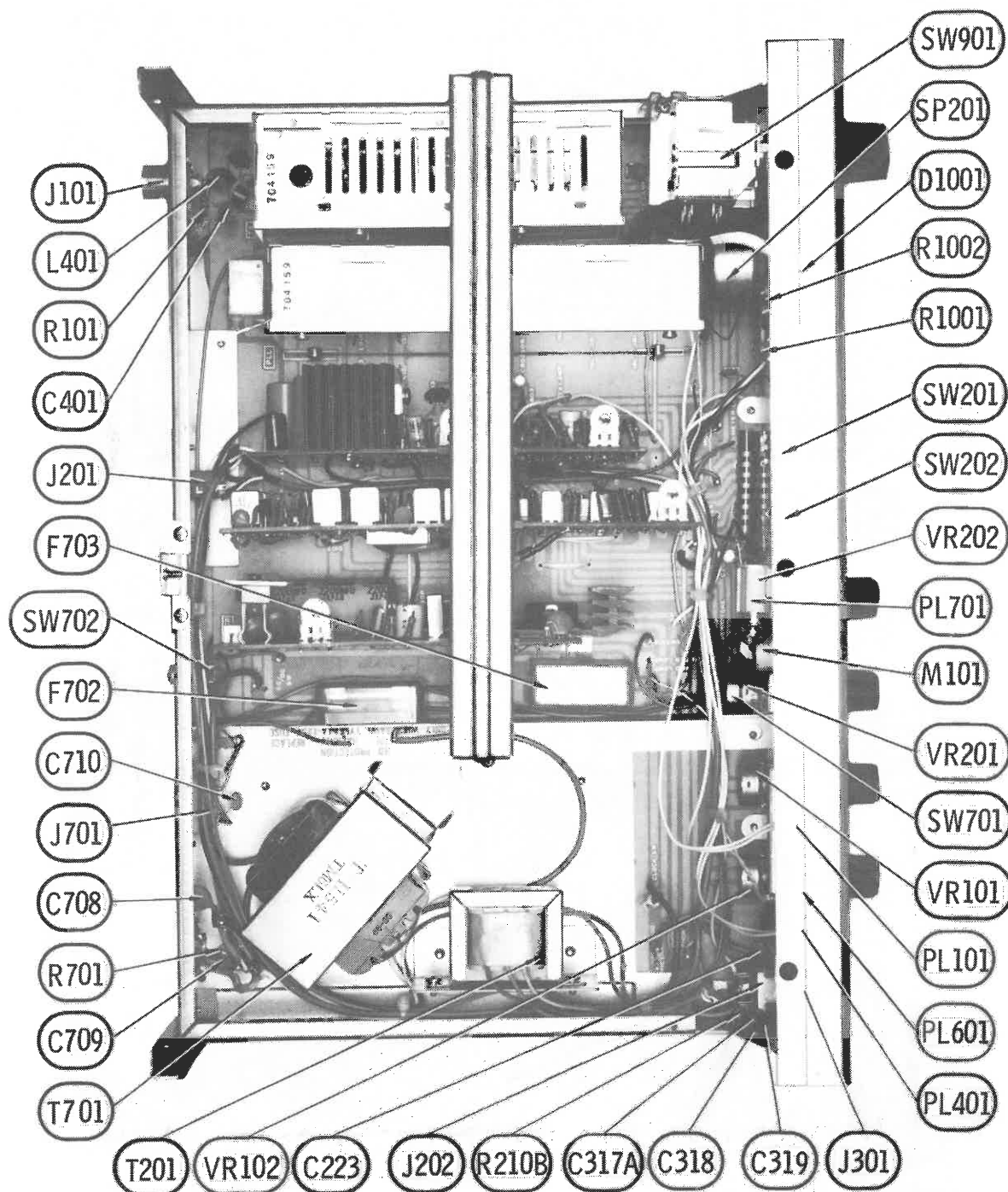
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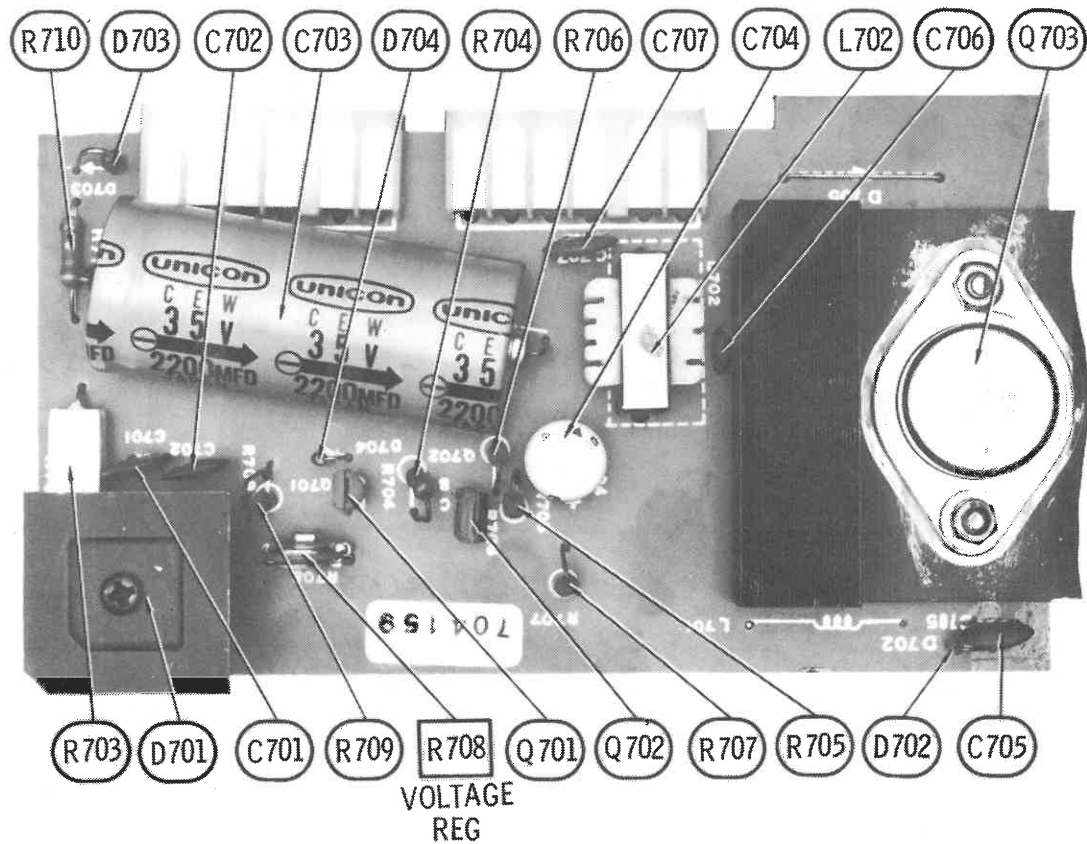
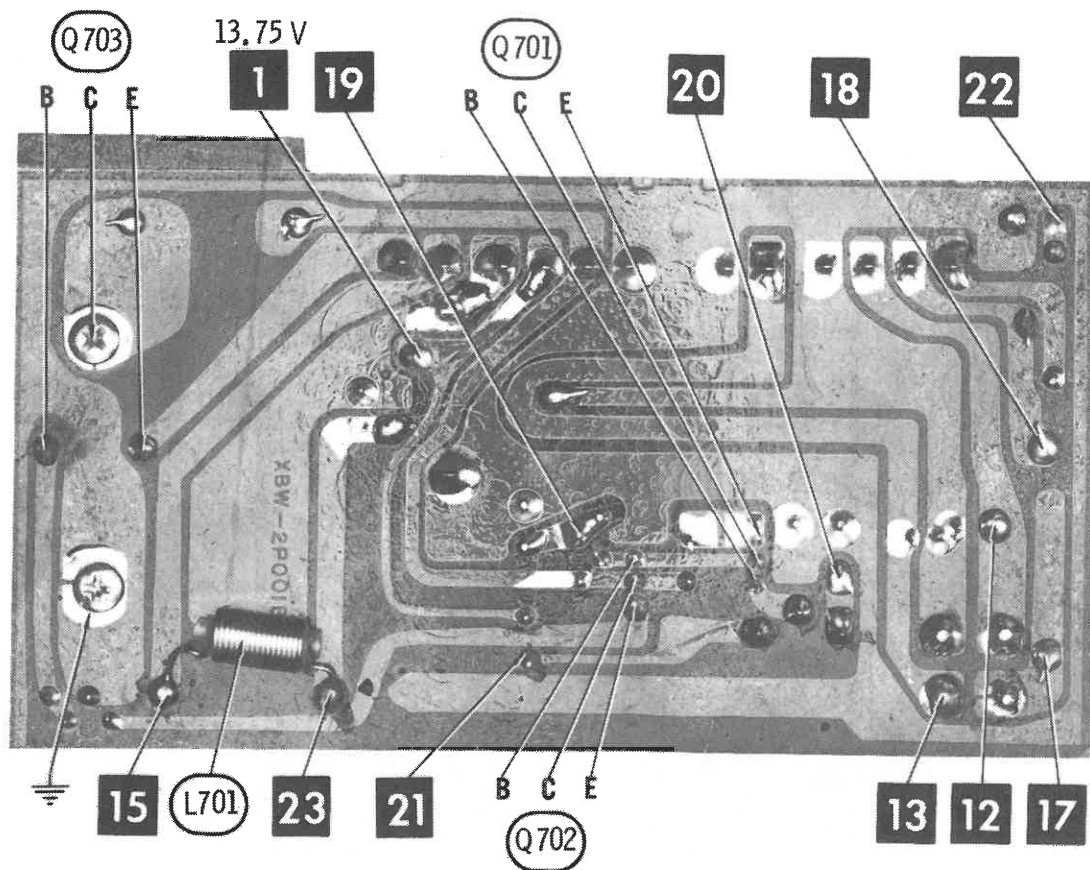
PLL BOARD



PLL BOARD



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POWER SUPPLY BOARD

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.
D1	1SS53	2079-39	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D2	1S2689		GE-90			HEPR2503			RT-262	ECG614
D3	1SS53		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D9	RD5.6EK	(1)	GEZD-5.6		ZB5.6B		RE 107		RT-236	ECG136A
	RD5.6E		GEZD-5.6		ZB5.6B		RE 107		RT-236	ECG136A
D10	RD8.2EK		GEZD-8.2		ZB8.2B		RE 112		RT-257	ECG5072A
	RD8.2E	(1)	GEZD-8.2		ZB8.2B		RE 112		RT-257	ECG5072A
D11		2010-01	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D101	1S1588		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D102	1SS53		GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D103	1SS53	2079-05	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D104	1K60A	2079-107	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D105	1SS53	2079-05	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D106	1K60A	2076-107	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
D107	1SS53	2079-05	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D110	1SS53	2079-05	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D201	1SS53	2079-05	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D202	RD9.1EK	2079-93	GEZD-9.1		ZB9.1B		RE 114		RT-240	ECG139A
	RD9.3(1)	2079-93	GEZD-9.1		ZB9.1B		RE 114		RT-240	ECG139A
D203	1SS53	2079-05	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D301	1SS53	2079-05	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D302			GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D401	F14B	2079-06	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D402	1SS53	2079-05	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D403	1SS53	2079-05	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D406	F14B	2079-06	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D407	F14B	2079-06	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D501			GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D502			GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D503			GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D701	W2VB10	2079-129								ECG5304
	S2VB (1)									
D702	1SS53	2079-05	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
D703	F14B	2079-06	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
D704	RD5.6EK	(1)	GEZD-5.6		ZB5.6B		RE 107		RT-236	ECG136A
	RD5.6E		GEZD-5.6		ZB5.6B		RE 107		RT-236	ECG136A
IC1	SM5104F		SM5104							
IC2	BA521	2079-92	GEIC-179	WEP949	PTC780		RE 359-IC		TVM-81	ECG1166
Q1	2SA733	2032-35	GE-48	TR-31	PTC103 *	HEPS0019 *	RE 26 *	SK3138	RT-303	ECG294
Q2	2SC945	1043-07	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q3	2SC839	1042-04	GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q4	2SC839	1042-04	GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q5	2SC839	1042-04	GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q6	3SK41	2079-40	WEP905	WEP905	PTC181	HEPF2004	RE 199	SK3050	RT-181	ECG222
Q7	2SC945	1043-07	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q8	2SC945	1043-07	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q9	2SC839	1042-04	GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q10	2SC839	1042-04	GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q11	2SC1906	2079-02	GE-86	TR-80 *	PTC132 *	HEPS0016 *	RE 10 *	SK3039 *	RT-113 *	ECG108 *
Q14	2SC839	1042-04	GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q15	2SC839	1042-04	GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q16	2SD471	2079-01	GE-268	TR-87 *	PTC144 *	HEPS3001 *	RE 196 *	SK3124	RT-114 *	ECG289
Q17	2SD471	2079-01	GE-268	TR-87 *	PTC144 *	HEPS3001 *	RE 196 *	SK3124	RT-114 *	ECG289
Q101	2SC1394	2079-106	GE-17 *	TR-24 *	PTC136 *	HEPS0025 *	RE 9 *	SK3018 *	RT-107 *	ECG107 *
Q102	2SC839	1042-04	GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q103	2SC839	1042-04	GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q104	2SC839	1042-04	GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q105	2SC839	1042-04	GE-61 *	(IR)2SC644	PTC132 *	HEPS0015 *	RE 13 *	SK3018 *	RT-308	ECG123A *
Q106	2SC815	296-77-9	GE-210 *	TR-21 *	PTC121 *	HEPS0015 *	RE 13 *	SK3038 *	RT-302	ECG123A *
Q107	2SC945	1043-07	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q201	2SC945	1043-07	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q301	2SC945	1043-07	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q302	2SC945	1043-07	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q401	2SC1909	2079-04	GE-215	WEP1306	PTC186		RE 203	SK3197	RT-146	ECG235
Q402	2SC1957	2079-03	GE-270	WEP913	PTC180	HEPS3044	RE 209			ECG295
Q403	2SC1906	2079-02	GE-86	TR-80 *	PTC132 *	HEPS0016 *	RE 10 *	SK3039 *	RT-113 *	ECG108 *
Q501	2SC945	1043-07	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q502	2SC945	1043-07	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q503	2SC815	296-77-9	GE-210 *	TR-21 *	PTC121 *	HEPS0015 *	RE 13 *	SK3038 *	RT-302	ECG123A *
Q504	2SC815	296-77-9	GE-66 *	TR-81	PTC112	HEPS5019 *	RE 34	SK3026	RT-145	ECG175
Q601	2SD471	2079-01	GE-268	TR-87 *	PTC144 *	HEPS3001 *	RE 196 *	SK3124	RT-114 *	ECG289
Q602	2SC945	1043-07	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q701	2SC945	1043-07	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q702	2SD471	2079-01	GE-268	TR-87 *	PTC144 *	HEPS3001 *	RE 196 *	SK3124	RT-114 *	ECG289
Q703	2SD201	2079-129(13)	GE-75	IRTR-61	PTC118	HEPS7004	RE 29	SK3027		ECG162
Q801	2SC815	296-77-9	GE-210 *	TR-21 *	PTC121 *	HEPS0015 *	RE 13 *	SK3038 *	RT-302	ECG123A *
Q802	2SD471	2079-01	GE-268	TR-87 *	PTC144 *	HEPS3001 *	RE 196 *	SK3124	RT-114 *	ECG289
Q803	2SC945	1043-07	GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199
Q804	2SC815	1043-07	GE-210 *	TR-21 *	PTC121 *	HEPS0015 *	RE 13 *	SK3038 *	RT-302	ECG123A *
	2SC845(1)		GE-212	(IR)2SC945	PTC121 *	HEPS0015 *	RE 192	SK3124	RT-107A	ECG199

* Lead configuration may vary from original.

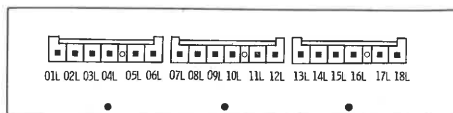
(1) Used in some versions.

(13) 50 WATTS @ 6 AMPS.

COURIER/FANON MODELS CARAVELLE 40D, CONQUEROR 40D/FANFARE 880DF

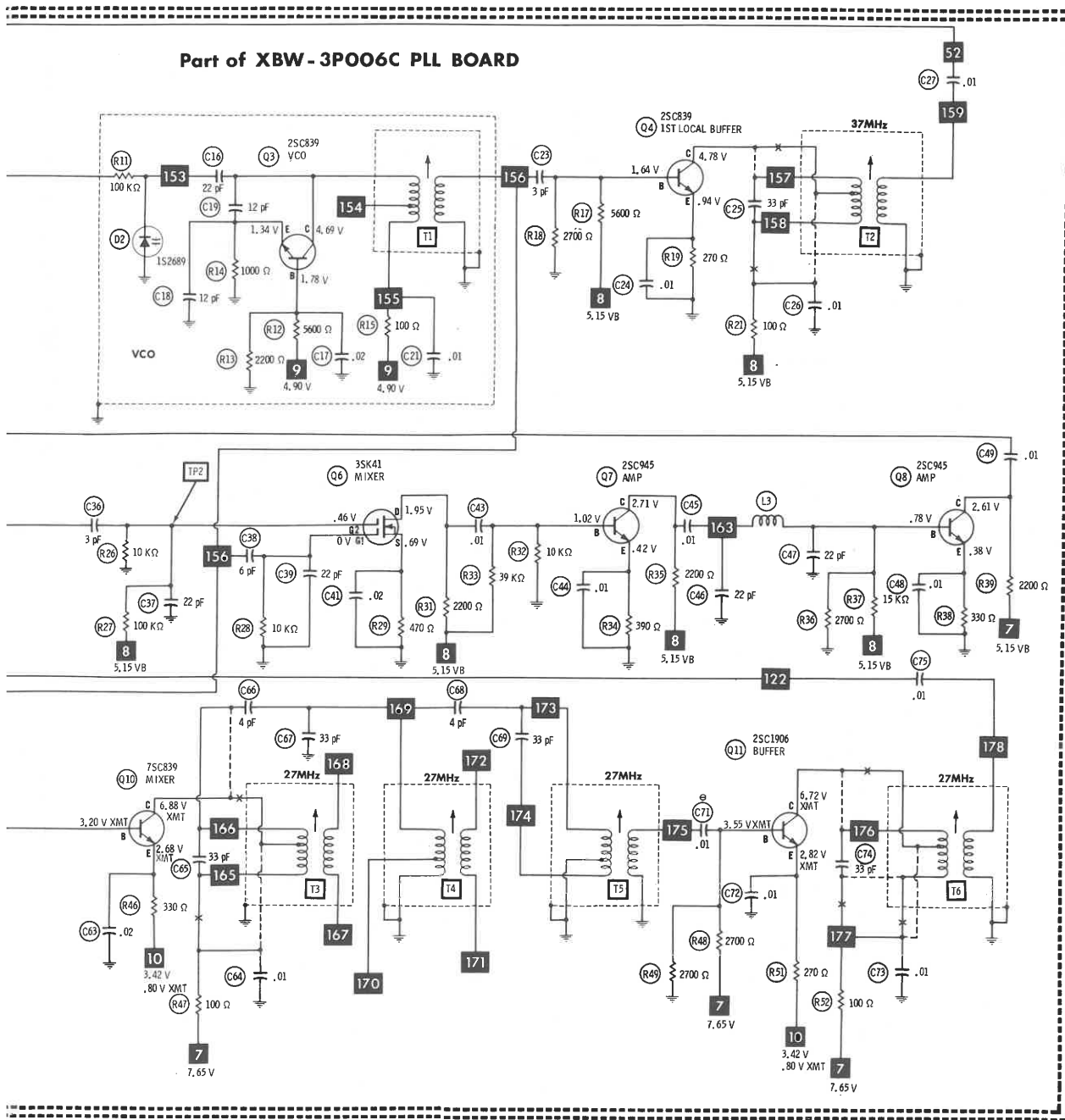


Terminal Guide



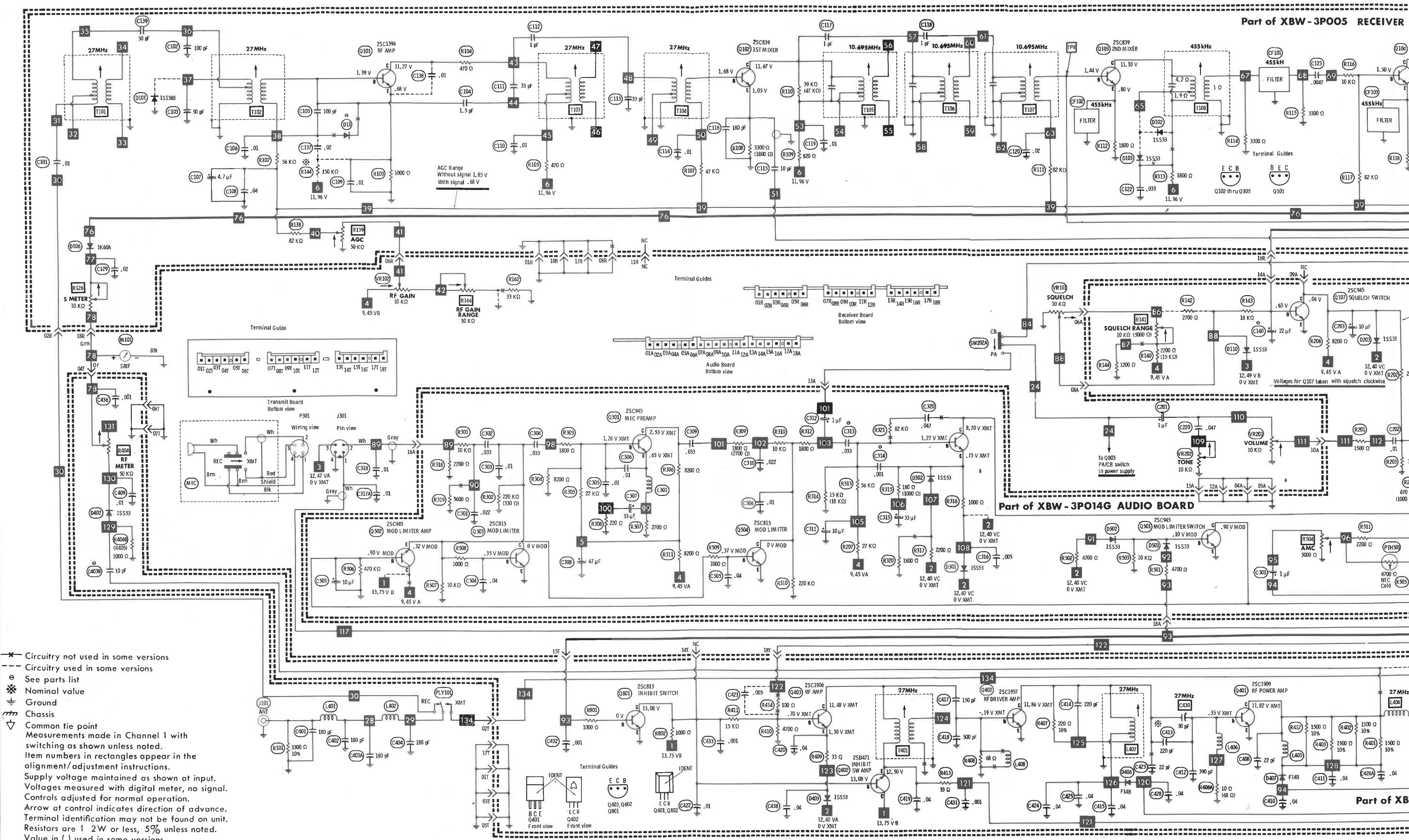
PLL
Bottom view

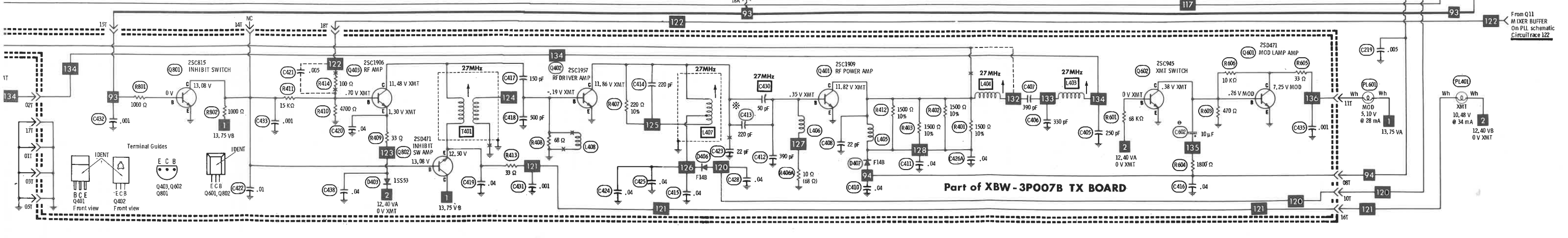
Part of XBW-3P006C PLL BOARD

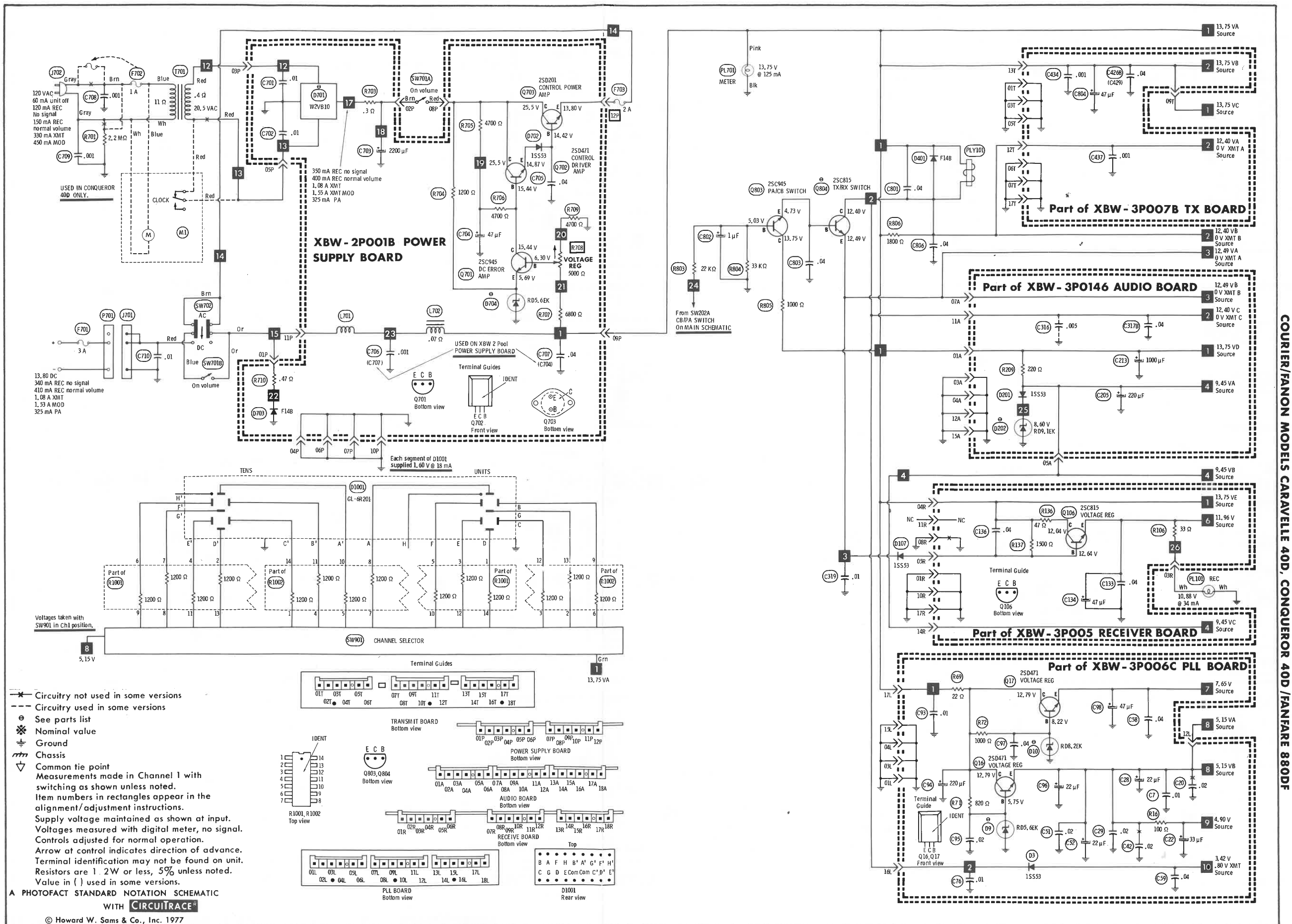


COURIER/FANON MODELS CARAVELLE 40D, CONQUEROR 40D /FANFARE 880DF









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	.01		UK50-103		MAG5011		
C2	.01		UK50-103		MAG5011		
C3	.01		UK50-103		MAG5011		
C4	.01		UK50-103		MAG5011		
C5	.01		UK50-103		MAG5011		
C6	.01		UK50-103		MAG5011		
C7	.01		UK50-103		MAG5011		
C9	.01		UK50-103		MAG5011		
C12	.01		UK50-103		MAG5011		
C13	.01		UK50-103		MAG5011		
C16	.22		DTZ-22	NPO22	CN0422		10TCC-Q22
C17	.02		UK50-223		MAG5012		
C18	.12				CN0412		10TCC-Q12
C19	.12				CN0412		10TCC-Q12
C20	.02	(1)	UK50-223		MAG5012		
C21	.01		UK50-103		MAG5011		
C23	3 NPO		DTZ-3R3	NPO3P3	CN0533		10TCC-V33
C24	.01		UK50-103		MAG5011		
C25	33 N220 5%	2079-79			*		10TCR-Q33
C26	.01		UK50-103		MAG5011		
C27	.01		UK50-103		MAG5011		
C29	.02		UK50-223		MAG5012		
C31	18 NPO 5%				CN0418		10TCC-Q18
C32	.01		UK50-103		MAG5011		
C33	68 5%		DTZ-3R3	NPO3P3	CN0533		10TCC-V33
C34	.02		UK50-223		MAG5012		
C35	91 NPO 5%		DTZ-100	NPO100	CN0310		10TCC-T10
C36	3 NPO						
C37	22 NPO 5%		DTZ-22	NPO22	CN0422		10TCC-Q22
C38	6 NPO		DTZ-6R8	NPO6P8	CN0568		10TCC-V68
C39	22 NPO 5%		DTZ-22	NPO22	CN0422		10TCC-Q22
C41	.02		UK50-223		MAG5012		
C42	.02	(1)	UK50-223		MAG5012		
C43	.01 50V			WMF1S1	EWF1A110	QFT2-91	1FT-S10
C44	.01 50V			WMF1S1	EWF1A110	QFT2-91	1FT-S10
C45	.01 50V			WMF1S1	EWF1A110	QFT2-91	1FT-S10
C46	22 N220 5%	2079-78			*		10TCR-Q22
C47	22 N220 5%	2079-78			*		10TCR-Q22
C48	.01 50V			WMF1S1	EWF1A110	QFT2-91	1FT-S10
C49	.01 50V			WMF1S1	EWF1A110	QFT2-91	1FT-S10
C51	.02		UK50-223		MAG5012		
C53	18 NPO 5%				CN0418		10TCC-Q18
C54	.02		UK50-223		MAG5012		
C55	680 10%	2079-84	DD-680	GP68	GP468		10TS-Q68
C56	100 N150 5%				*		10TCP-T10
C57	.02		UK50-223		MAG5012		
C58	.04				GP140		5GA-S40
C59	.04				GP140		5GA-S40
C61	3 NPO		DTZ-3R3	NPO3P3	CN0533		10TCC-V33
C62	12 NPO				CN0412		10TCC-Q12
C63	.02		UK50-223		MAG5012		
C64	.01			WMF1S1	EWF1A110	QFT2-91	1FT-S10
C65	33 N220 5%	2079-79			*		10TCR-Q33
C66	4 NPO		DTZ-4R7	NPO4P7	CN0547		10TCC-V47
C67	33 N220 5%	2079-79			*		10TCR-Q33
C68	4 NPO		DTZ-4R7	NPO4P7	CN0547		10TCC-V47
C69	33 N220 5%	2079-79			*		10TCR-Q33
C71	.01		UK50-103		MAG5011		
C72	.01		UK50-103		MAG5011		
C73	.01	(1)	UK50-103		MAG5011		
C74	33 N220 5%	2079-79			*		10TCR-Q33
	47 N220 5%	2079-80			*		10TCR-Q47
C75	.01		UK50-103		MAG5011		
C76	.01		UK50-103		MAG5011		
C85	18 NPO 5%				CN0418		10TCC-Q18
C86	.02		UK50-223		MAG5012		
C87	330		DD-331	GP330	GP333		10TS-T33
C88	150 N150 5%				*		10TCP-T15
C89	47 N220 5%	2079-80			*		10TCR-Q47
C90	.01		UK50-103		MAG5011		
C91	.01		UK50-103		MAG5011		
C92	33 N220 5%	2079-79			*		10TCR-Q33
C93	.01		UK50-103		MAG5011		
C95	.02		UK50-223		MAG5012		
C97	.04				GP140		5GA-S40
C101	.01		UK50-103		MAG5011		
C102	100		DTZ-100	NPO100	CN0310		10TCC-T10
C103	50 N220 5%	2079-125			*		10TCR-Q50
C104	1.5		DTZ-1R5	NPO1P5	CN0515		10TCC-V15
C105	100		DTZ-100	NPO100	CN0310		10TCC-T10
C106	.01		UK50-103		MAG5011		
C108	.04				GP140		5GA-S40
C109	.01		UK50-103		MAG5011		
C110	.01		UK50-103		MAG5011		
C111	33 N220 5%	2079-79			*		10TCR-Q33
C112	1				CN0510		10TCC-V10
C113	33 N220 5%	2079-79			*		10TCR-Q33
C114	.01		UK50-103		MAG5011		
C115	10		DTZ-10	NPO10	CN0410		10TCC-Q10
C116	180		DTZ-180				10TCC-T18
C117	1				CN0510		10TCC-V10
C118	1				CN0510		10TCC-V10
C119	.01		UK50-103		MAG5011		
C120	.02		UK50-223		MAG5012		
C121	22		DTZ-22	NPO22	CN0422		10TCC-Q22
C122	.033 50V				M192P3339R8	QFT2-149	1FT-S33
C123	.0047			WMF1047	EW1A247	QFT2-63	1FT-D47
C124	.033 50V				M192P3339R8	QFT2-149	1FT-S33
C125	.033 50V				M192P3339R8	QFT2-149	1FT-S33

COURIER/FANON MODELS CARAVELLE 40D, CONQUEROR 40D/FANFARE 880DF

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
C126	.033 50V		UK50-223	WMF1S1	M192P3339R8	QFT2-149	1FT-S33
C127	.033 50V				M192P3339R8	QFT2-149	1FT-S33
C128	.01 50V				EWFA1110	QFT2-91	1FT-S10
C129	.02				MAG5012		
C131	.0047				M192P4729R8	QFT2-63	1FT-D47
C133	.04				GP140		5GA-S40
C136	.04				GP140		5GA-S40
C139	50 NPO 10%				CN0450		10TCC-Q50
C202	.01 50V				EWFA1110	QFT2-91	1FT-S10
C206	.047 50V					QFT2-171	1FT-S47
C208	.0047 50V		DTZ-50	NPO50 WMF1S1	M192P4729R8	QFT2-63	1FT-D47
C210	.04				GP140		5GA-S40
C211	220						10TCC-T22
C214	.01 50V				EWFA1110	QFT2-91	1FT-S10
C217	.22				EWFO5022	QFT2-253	1FT-P22
C218	.005				TA250	QC2-123	TG-D50
C219	.005				TA250	QC2-123	TG-D50
C220	.047				EWFA1147	QFT2-171	1FT-S47
C221	.01				MAG5011		
C222	.01				MAG5011		
C223	.01		UK50-103	DPMS2S47	MAG5011		
C224	.001 50V					QFT2-1	1FT-D10
C301	.022 50V				M192P2239R8	QFT2-127	1FT-S22
C302	.033 50V				M192P3339R8	QFT2-149	1FT-S33
C303	.01 50V 10%				EWFA1110	QFT2-91	1FT-S10
C304	.033 50V				M192P3339R8	QFT2-149	1FT-S33
C305	.01 50V 10%				EWFA1110	QFT2-91	1FT-S10
C306	.01 50V 10%				EWFA1110	QFT2-91	1FT-S10
C309	.033 50V				M192P3339R8	QFT2-149	1FT-S33
C310	.022 50V				M192P2239R8	QFT2-127	1FT-S22
C313	.033 50V				M192P3339R8	QFT2-149	1FT-S33
C314	.001		DC-502	DPMS6D1		QFT2-1	1FT-D10
C316	.005	(1)			TA250	QC2-123	TG-D50
C317	.04				GP140		5GA-S40
C318	.01				MAG5011		
C319	.01				MAG5011		
C320	.047 50V	(1)			MAG5015		
C401	180						10TCC-T18
C402	180						10TCC-T18
C403A	180						10TCC-T18
C403B	10				NP010		10TCC-Q10
C404	180						10TCC-T18
C405	250		DTZ-180	NP010	CN0410		10TCC-T27
C406	330						10TS-T33
C407	390				GP330		10TS-T39
C408	22 5%	(1)			GP390		10TCC-Q22
C409	.01				NP022		
C410	.04						5GA-S40
C411	.04						5GA-S40
C412	390				GP390		10TS-T39
C413	220 10%						10TCC-T22
C414	220 10%						10TCC-T22
C415	.04		DTZ-150	GP500	GP140		5GA-S40
C416	.04				GP140		5GA-S40
C417	150				CN0315		10TCC-T15
C418	500 10%				GP350		10TS-T50
C419	.04				GP140		5GA-S40
C420	.04				GP140		5GA-S40
C421	.005	(1)			TA250	QC2-123	TG-D50
C422	.01				MAG5011		
C423	22 5%	(1)			CN0422		10TCC-Q22
C424	.04				GP140		5GA-S40
C425A	.04		DTZ-22	NP022	GP140		5GA-S40
C426A	.04				GP140		5GA-S40
C426B	.04				GP140		5GA-S40
C428	.04				GP140		5GA-S40
C430	Trimmer	2079-28					
C431	.001				GP210		10TS-D10
C432	.001				GP210		10TS-D10
C433	.001				GP210		10TS-D10
C434	.001				GP210		10TS-D10
C435	.001				GP210		10TS-D10
C436	.001				GP210		10TS-D10
C437	.001				GP210		10TS-D10
C438	.04				GP140		5GA-S40
C502	.01		DD-102	WMF1S1	GP210		10TS-D10
C504	.04				GP140		5GA-S40
C505	.04				GP140		5GA-S40
C506	.01 50V				EWFA1110	QF1-91	1PB-S10
C701	.01				GP210		10TS-D10
C702	.01				MAG5011		
C705	.04				GP140		5GA-S40
C706	.001				GP210		10TS-D10
C707	.04				GP140		5GA-S40
C708	.001 125V				UAC210		125L-D10
C709	.001 125V		C1-102	UK50-103	UAC210		125L-D10
C710	.01				MAG5011		
C801	.04				GP140		5GA-S40
C803	.04				GP140		5GA-S40
C805							
C806	.04				GP140		5GA-S40
VC1	30	2079-85					
VC2	30	2079-85					
VC3	30	2079-85					

(1) Used in some versions.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

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.	MALLORY PART No.	TRW PART No.
R126	S Meter	10K		T-10K	C-103	MTC14L1	X201R103B
R139	AGC	50K	2079-11	T-50K	C-503	MTC54L1	X201R503B
R141	Squelch Range	10K		T-10K	C-103	MTC14L1	X201R103B
	Squelch Range	5000	2079-114(6)	T-5000	C-502	MTC53L1	X201R502B
R164	RF Gain Range	30K	2079-139	T-50K (3)	C-503 (3)	MTC54L1 (3)	X201R503B (3)
R404	RF Meter	50K	2079-11	T-50K	C-503	MTC54L1	X201R503B
R504	AMC	5000	2079-114	T-5000	C-502	MTC53L1	X201R502B
R708	Voltage Reg	5000	2079-114	T-5000	C-502	MTC53L1	X201R502B
VR101	Squelch	10K					
VR102	RF Gain	10K					
VR201	Volume/Switch	10K					
VR202	Tone	10K					

(3) For horizontal mounting, bend the two outside terminals to fit PC board. Use jumper to connect center terminal to PC Board.

(6) Alternate part, may be used in some versions.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFGR. PART No.			WORKMAN PART No.	MFGR. PART No.
R1001	Resistor Network		(1)	PTH501	4700 NTC Co1d		
R1002	Resistor Network		(1)				

(1) Consists of seven 1200 Ohm Resistors.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	OSC (36.380MHz)	2079-46	L-R380SA		
L2	RF Choke	2079-47	L-R381SA		
L3	Pi Filter	2079-83	EL0610-271J		
L301	RF Choke	2079-83	EL0610-271J		
L401	Pi Filter	2079-137	L-R371SA		
L402	Pi Filter	2079-138	L-R372SA		
L403	Pi Filter (27MHz)	2079-08	L-R182SD		
L404	RF Power Amp (27MHz)	2079-09	L-R215SE		
L405	RF Choke	1016-72	CH-H057SB	4588	
L406	RF Choke	1016-72	CH-H057SB	4588	
L407	Driver Amp (27MHz)	2079-10	L-R370SA		
L408	RF Choke				
L701	RF Choke	1016-61	LA009		
T1	VCO	2079-43	T-T052SA		
T2	1st Local Buffer(37MHz)	2079-43	T-T052SA		
T3	Harmonic Suppressor (27MHz)	2079-45	T-T037SA		
T4	Harmonic Suppressor (27MHz)	2079-45	T-T037SA		
T5	XMT Mixer (27MHz)	2079-45	T-T037SA		
T6	XMT Buffer (27MHz)	2079-45	T-T037SA		
T7	2nd Local Buffer (10.240MHz)	2079-44	T-T053SA		
T101	Rec Antenna (27MHz)	1016-67	GT1305	CBS734-T	
T102	Rec Antenna (27MHz)	1016-66	GT1304	CBS733-T	
T103	Rec RF (27MHz)	1016-67	GT1305	CBS734-T	
T104	Rec RF (27MHz)	1016-67	GT1305	CBS734-T	
T105	Rec Mixer (10.695MHz)	2079-110	K112		
T106	Rec Mixer (10.695MHz)	2079-110	K112		
T107	Rec Mixer (10.695MHz)	2079-111	T-M058SA		
T108	IF (455kHz)	2079-112	T-M054SA		
T109	IF (455kHz)	2079-112	T-M054SA		
T110	IF (455kHz)	2079-113	T-M055SA		
T401	RF Amp (27MHz)	2079-07	T-T038SA		

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.	
L702	1.55A	.071	.312mH	2079-130 CH-A170 (1)			(1) Number on unit.

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T201	3.92	1 8 15.6 2 1.28	T-D041 (1)			(1) Number on unit.

COURIER/FANON MODELS CARAVELLE 40D, CONQUEROR 40D/FANFARE 880DF

PARTS LIST AND DESCRIPTION (CONTINUED)

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

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T701	120V AC @ 450mA AC	20.5V AC @ 1.5A DC	T-H541 (1)			(1) Number on unit.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP201	3" X 4" PM 8 Ohms	1016-14		

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
F701	3A Fast Acting	1016-149		AGC3	HDJ	312003	150145	FG3-2
F702	1A Fast Acting	1016-148		AGC1	4405	312001	357001	FG1-2
F703	2A Fast Acting	1016-150		AGC2	4405	312002	357001	FG2-2

MICROPHONE

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	2065-72(1) 1080-66 (2)	18-032	18-034	18-010	18-092	2	4	3	1	NC	4

(1) Used with Caravelle 40D and Conqueror 40D.

(2) Used with Fanfare 880DF.

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF101	Filter	2079-108	455kHz
CF102	Filter	2079-109	455kHz
CF103	Filter	2079-109	455kHz
D1001	LED	2079-143	Channel Indicator
J101	Jack	2079-150	Antenna
J201	Jack	2079-148	PA
J202	Jack	1016-18	Phone
J301	Jack	2079-149	Microphone
J701	Jack	2079-147	DC Power
J702	Jack		AC Power
M1	Clock	2079-182	Used in Model Conqueror 40D.
M101	Meter	1016-05	S/Rf
PL101	Lamp	2079-186	Rec Indicator (10.82V @ 34mA)
PL401	Lamp	2079-187	XMT Indicator (10.48V 2 34mA)
PL601	Lamp	2079-187	MOD Indicator (5.10V @ 28mA)
PL701	Lamp	1016-16	Meter Illumination (13.75V @ 125mA)
PLY101	Relay		XMT/Rec
SW201	Switch	2079-145	ANL
SW202	Switch	2079-145	CB/PA
SW701	Switch		Power (Part of Volume Control)
SW702	Switch	2079-146	AC/DC
SW901	Switch	2079-144	Channel Selector
XL1	Crystal	2061-49	36.38MHz
XL2	Crystal	2061-29	10.695MHz
XL3	Crystal	2049-05	10.240MHz

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

ITEM	PART No.	ITEM	PART No.
Panel, Main	2079-176	Knob, Channel	2079-167
Window, Lamp	1016-02	Knob, Control	1016-07
Window, On The Air	1016-03		

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')