

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 1-678

ROYCE MODEL 1-678

MANUFACTURER'S SPECIFICATIONS

RECEIVER

- | | |
|--|-----------------------------------|
| 1. Frequency Range (MHz) | : 26.965~27.405. |
| 2. Sensitivity | : 0.5 Microvolts for 10db S+N/N. |
| 3. Selectivity | : 5KHz minimum at 6db down. |
| 4. Adj. Channel Rejection | : More than 60db. |
| 5. Audio Power output at 8 ohm | : More than 4W at 10% distortion. |
| 6. Audio fidelity
(1KHz=0db, 6db down) | : 400Hz~2,000Hz. |
| 7. A.G.C. figure of merit
(input 94db for 10db range) | : More than 80db. |
| 8. Squelch sensitivity
(Thres-hold) | : 0.3~500 Microvolts. |
| 9. Spurious Rejection | : 55db or more. |

TRANSMITTER

- | | |
|--------------------------|-------------------|
| 1. Frequency Range (MHz) | : 26.965~27.405. |
| 2. RF Output Power | : 4W average. |
| 3. Modulation Capability | : 100%. |
| 4. Spurious Suppression | : More than 60db. |
| 5. Frequency Tolerance | : $\pm 0.005\%$. |

Courtesy of the Manufacturer

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

© 1978 Howard W. Sams & Co., Inc. Printed in U. S. of America 8CE746

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. Connect microphone.

Suggested Alignment Tools: GC Electronics:
T201, L403, L404, T401, T402.....5009
T101, T102.....9440

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP1 (PLL, Pin 2).	Ch. 19, Tune Midrange		Check for 10.240MHz.
Input of frequency counter to TP2 (PLL, Pin 19).	Ch. 1		Check for 37.660MHz. Check all channels (Channel frequency + 10.695MHz = frequency on counter).
Input of frequency counter to TP3 (PLL, Pin 23).	Ch. 1		Check for 26.965MHz. Check all channels (Should indicate channel frequency).

RECEIVER ALIGNMENT

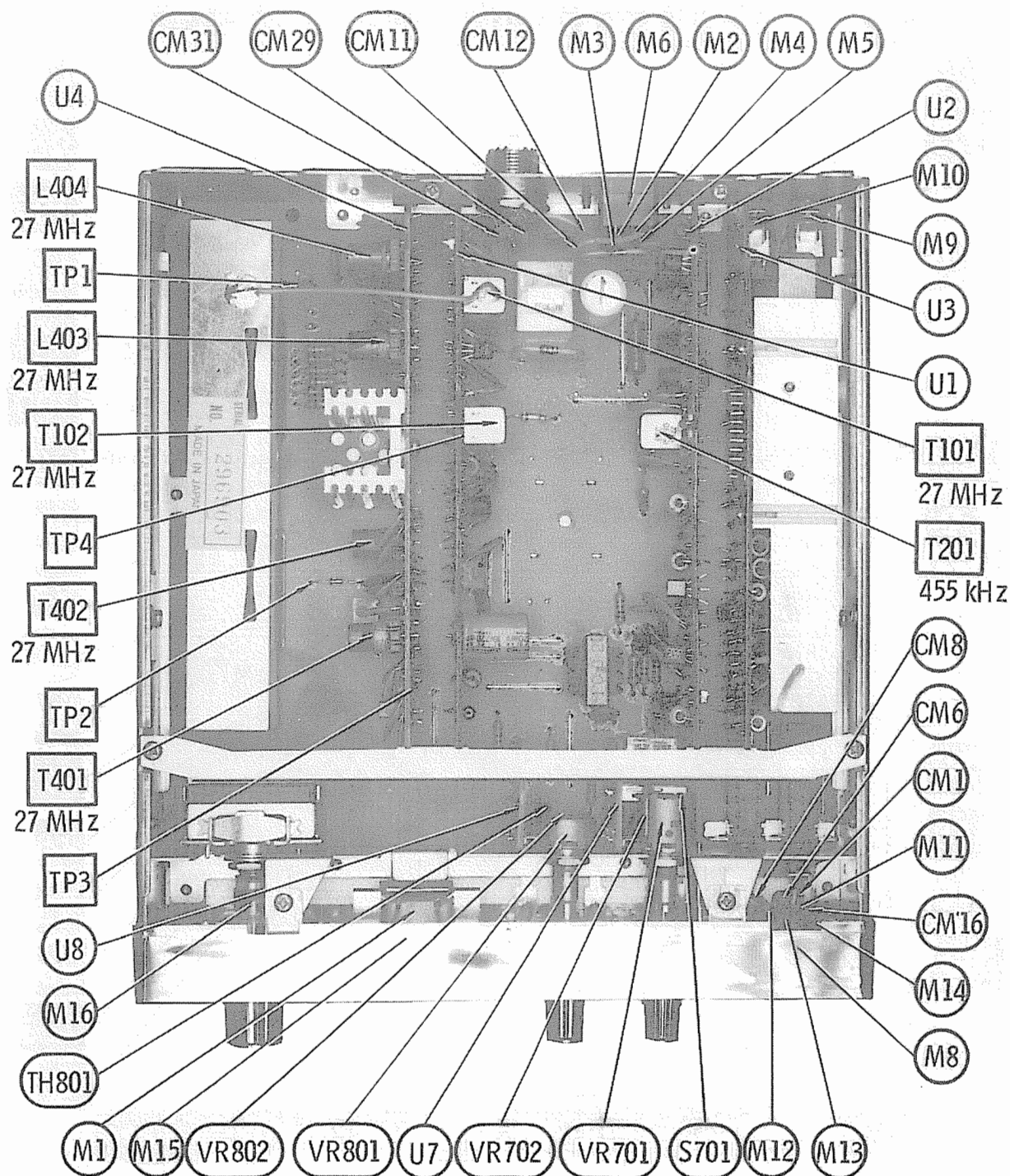
Connect an AC VTVM or AF wattmeter across speaker voice coil. Adjust volume control to obtain a suitable indication. Set generator output low enough to prevent AGC limiting.

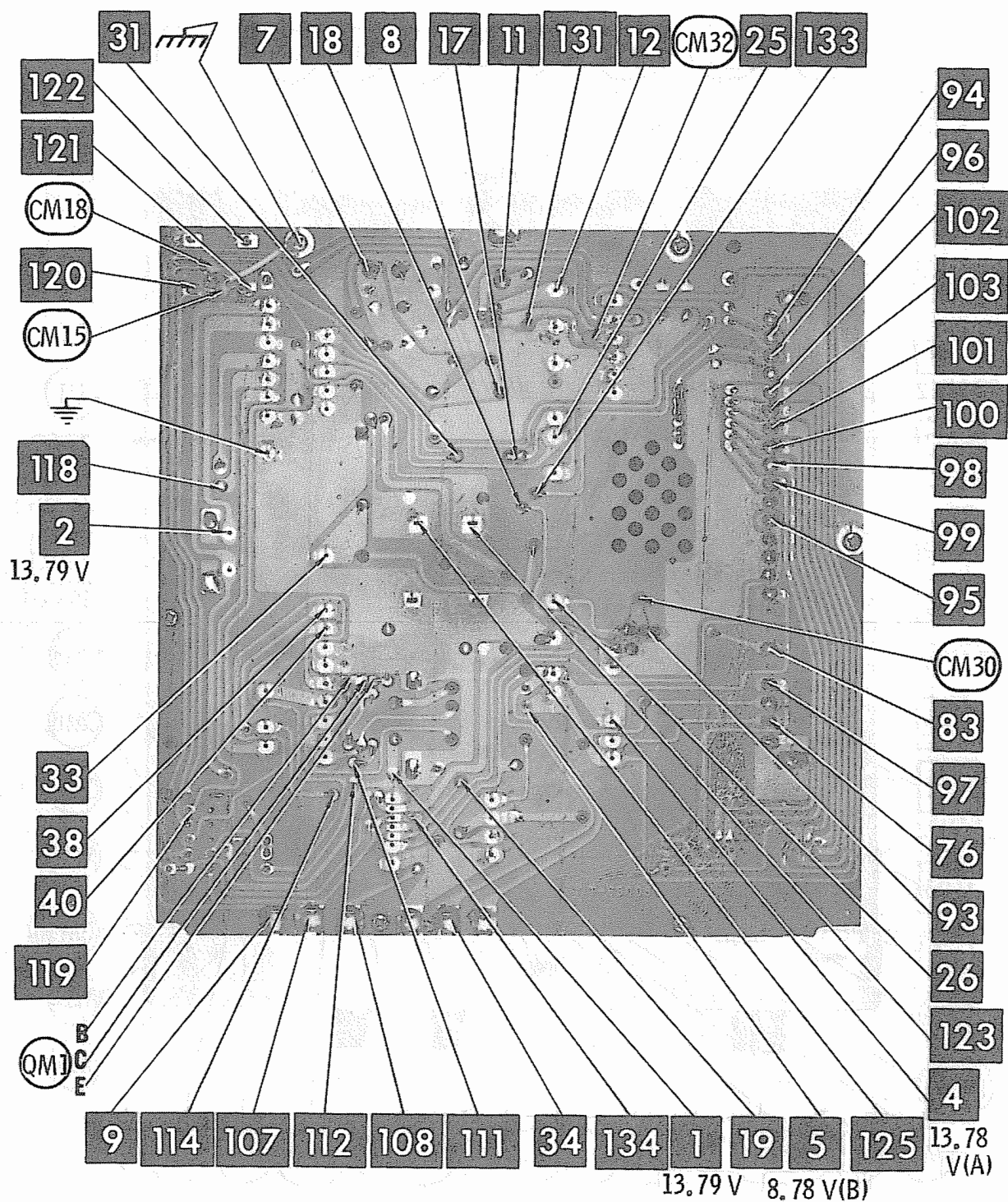
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP4 (Q201, Base). 455kHz, 1000Hz @ 30% modulation.	Ch. 19, Tune Midrange RF Gain Maximum Squelch MINIMUM ANL Off	T201	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz, 1000Hz @ 30% modulation.	Ch. 19, Tune Midrange RF Gain Maximum Squelch MINIMUM ANL Off	T102, T101	Adjust for maximum output. If necessary readjust T201.

TRANSMITTER ALIGNMENT

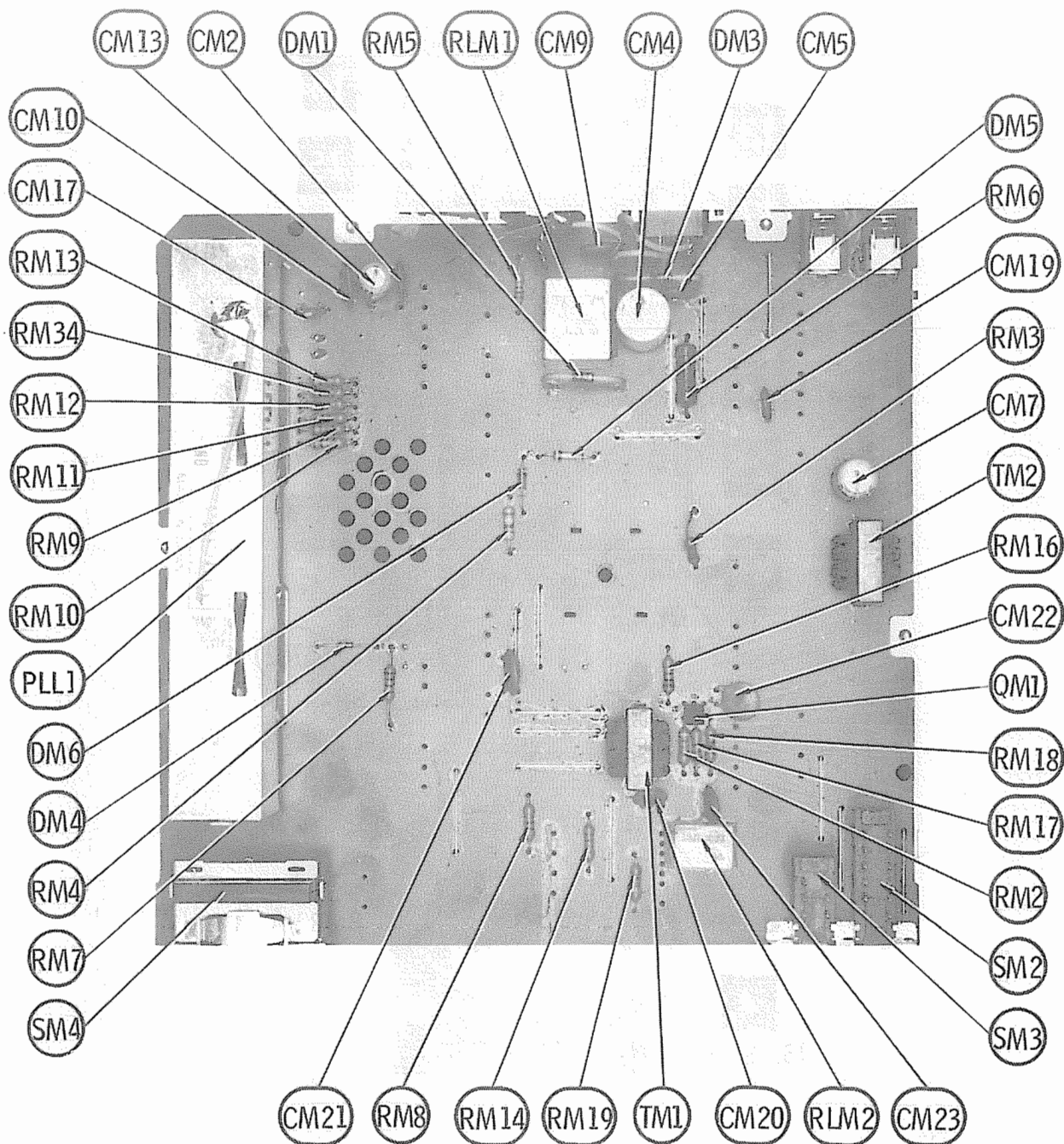
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector. NOTE: Be sure to check transmit frequency and power on all active channels after alignment of transmitter. See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
	Ch. 19	T401, T402, L403, L404	Adjust for maximum.
	Ch. 19	T402	Adjust for 4 watts maximum.

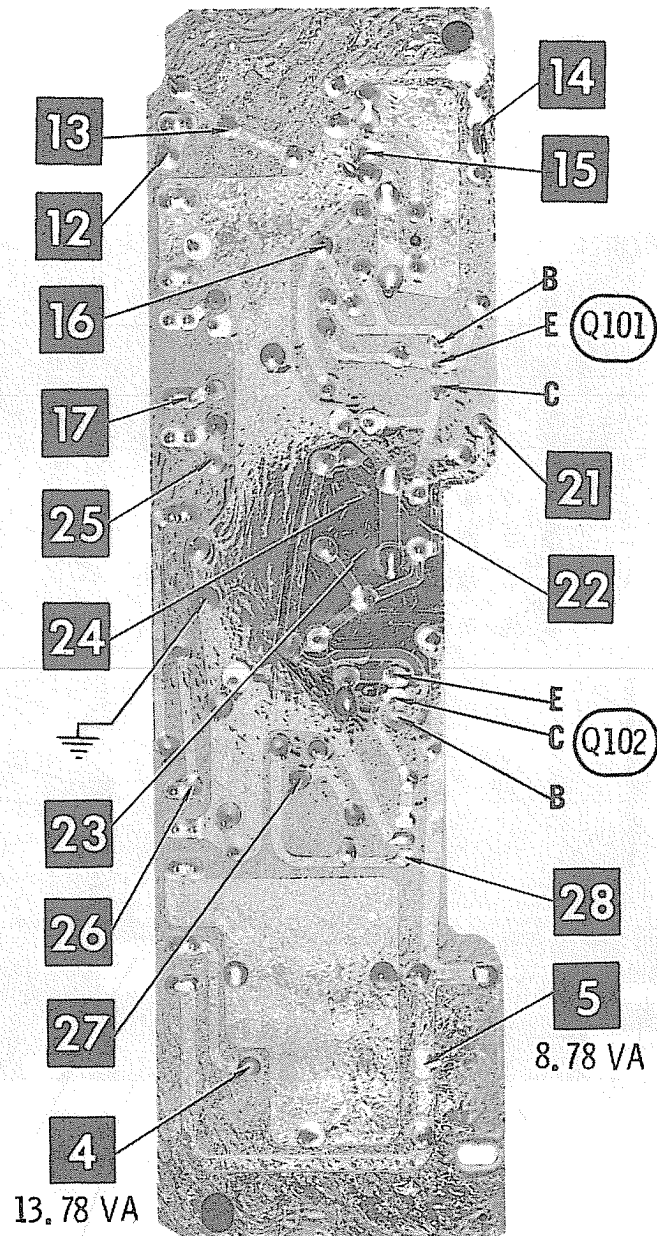




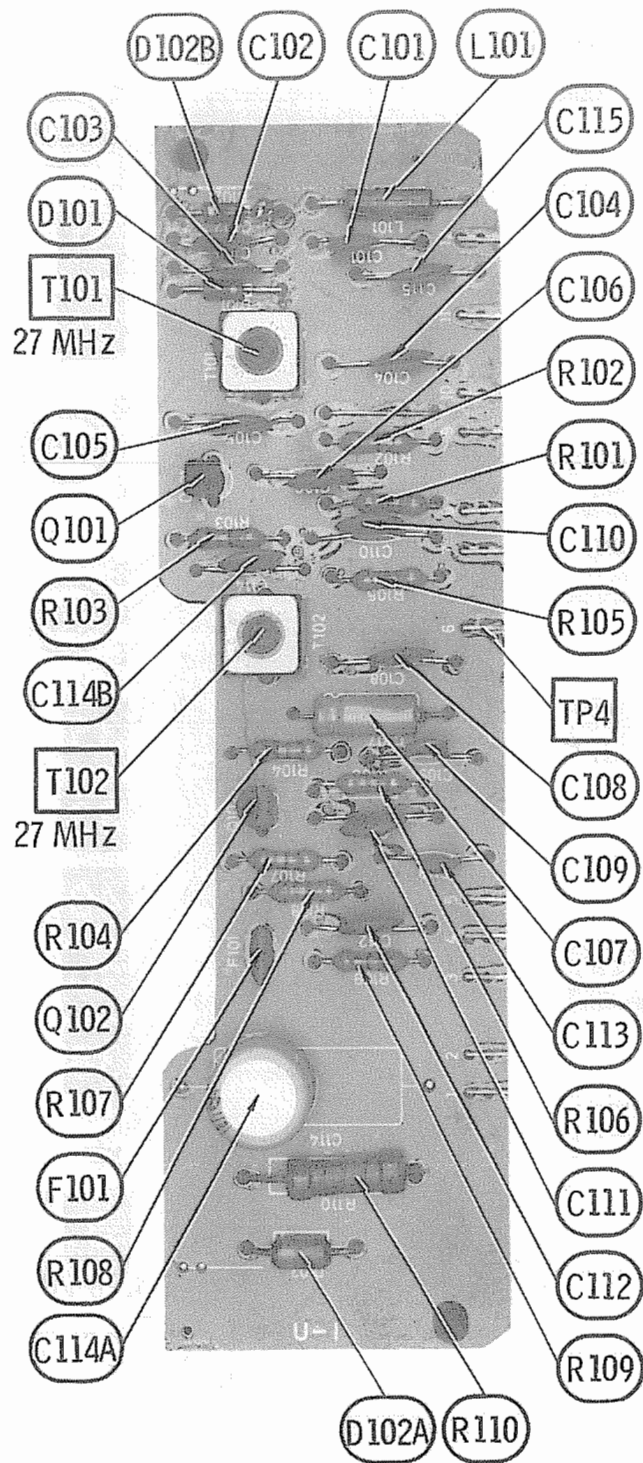
MOTHER BOARD



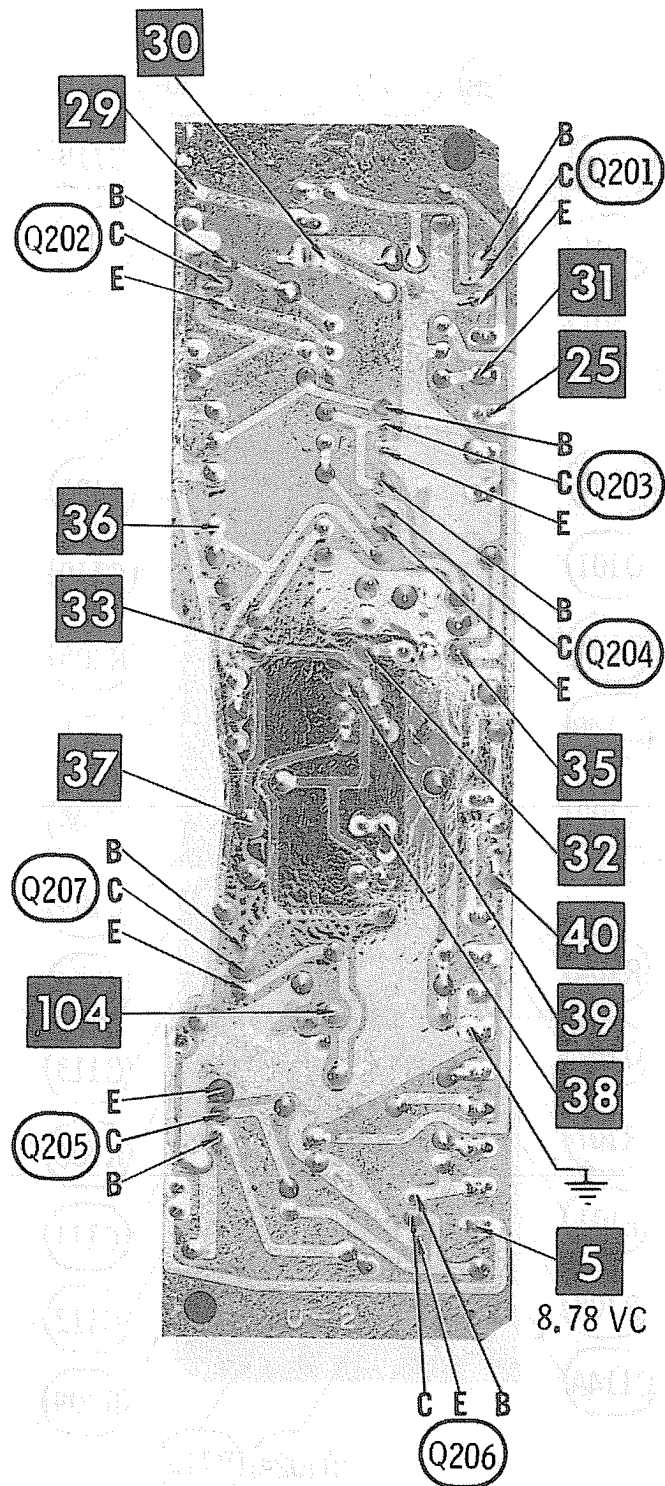
MOTHER BOARD



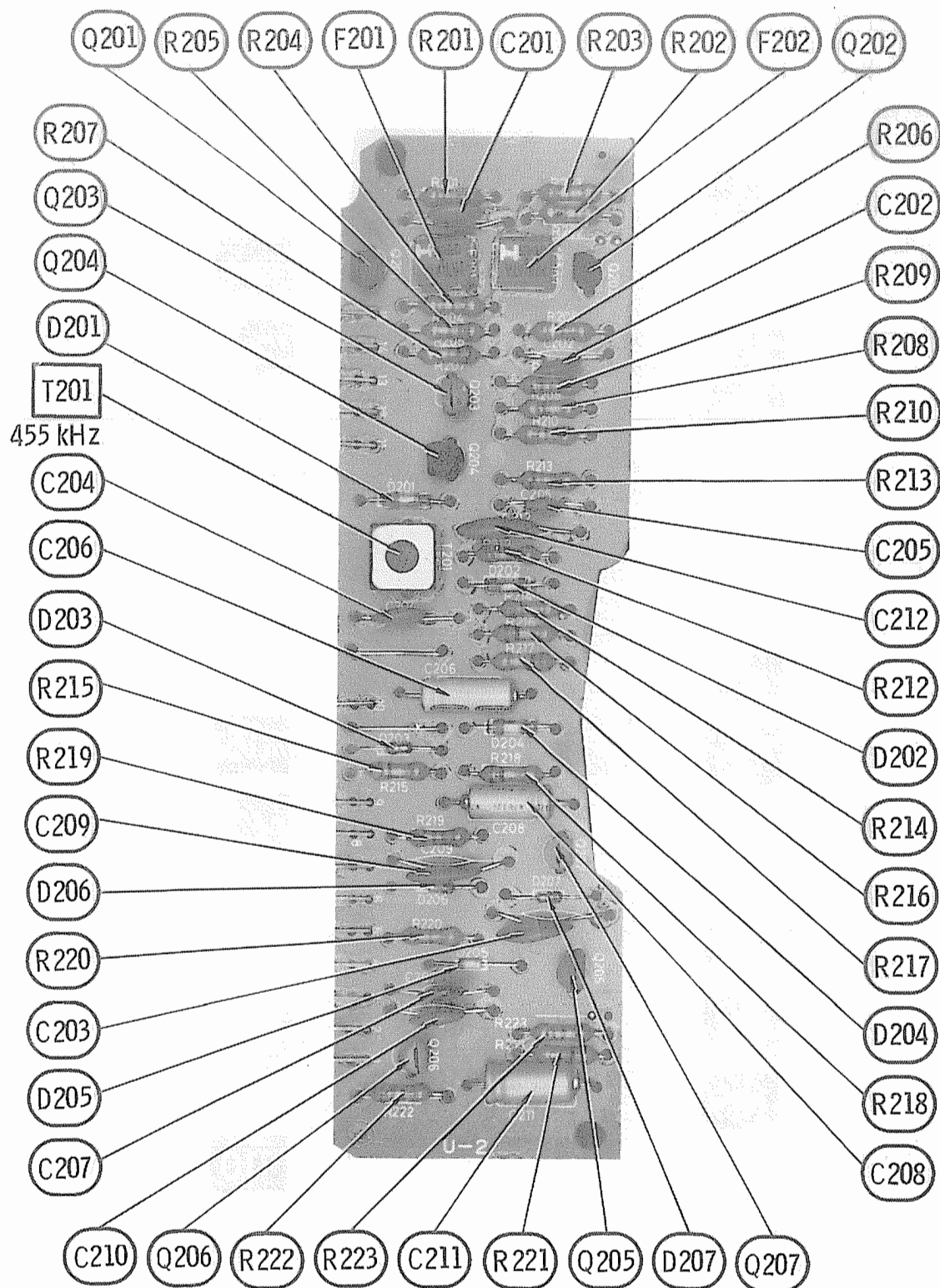
U-1 BOARD



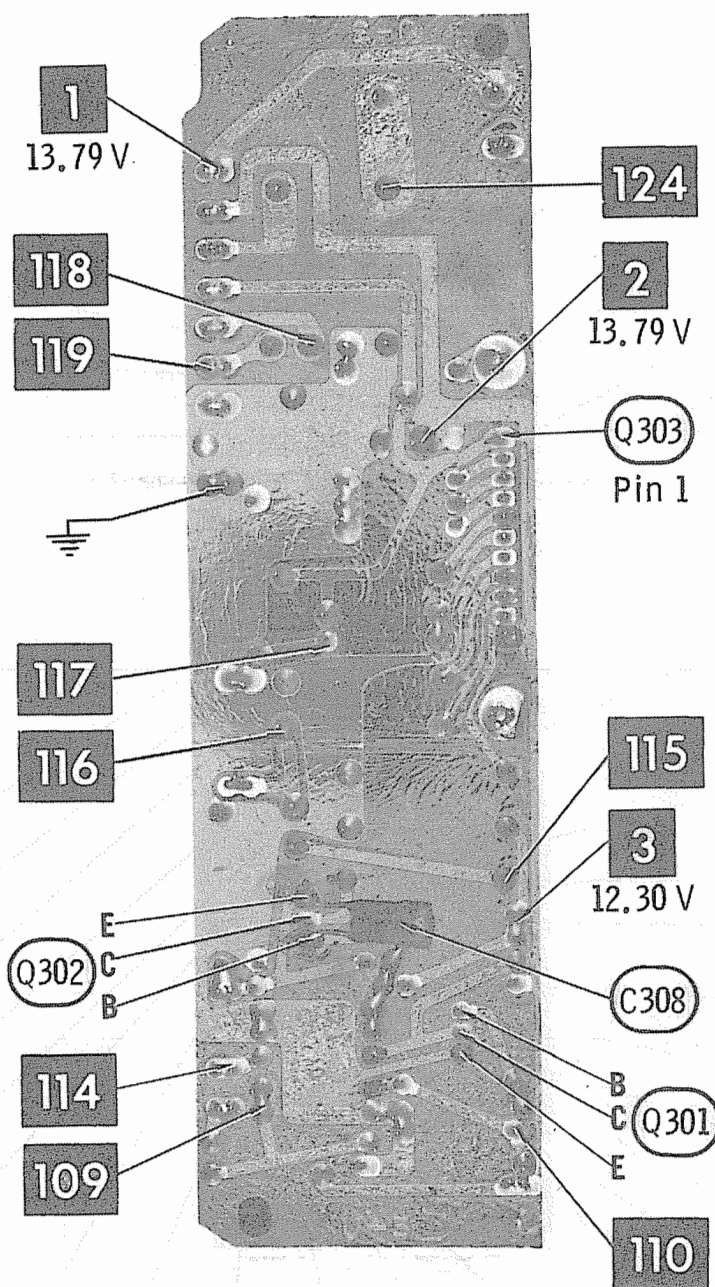
U-1 BOARD



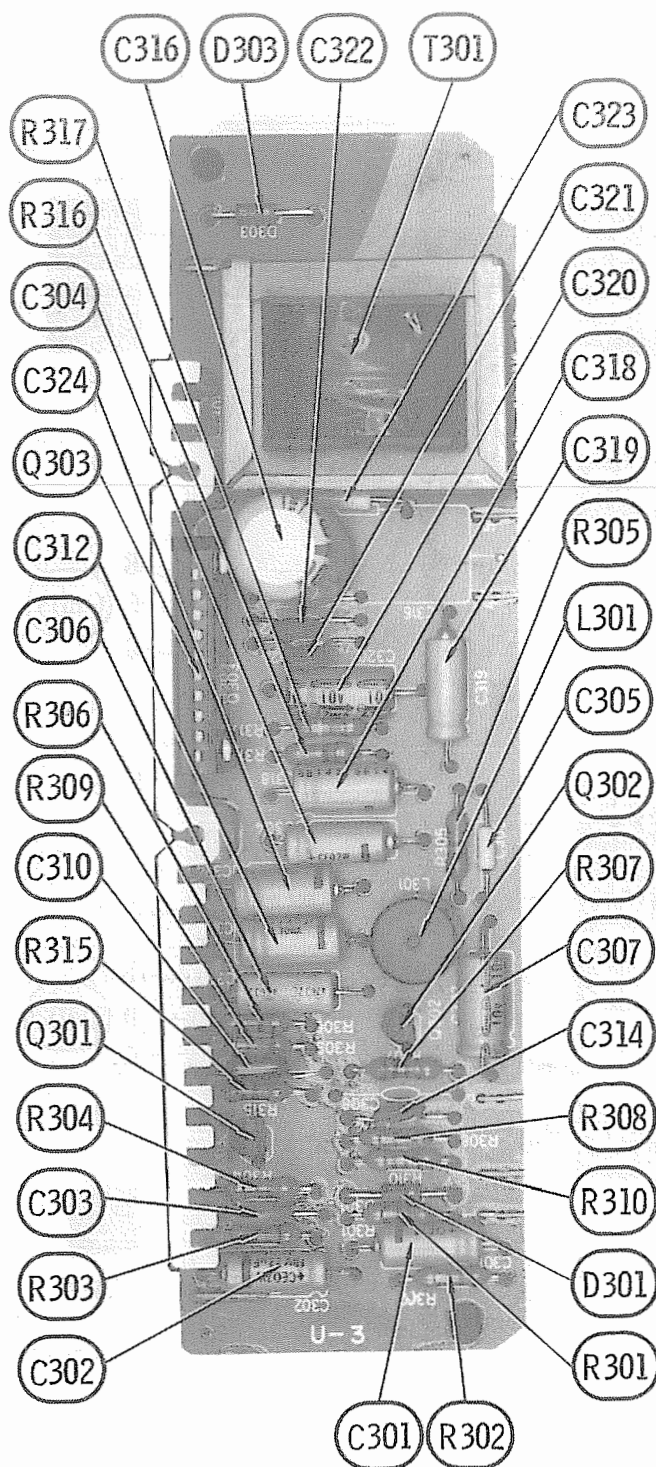
U-2 BOARD



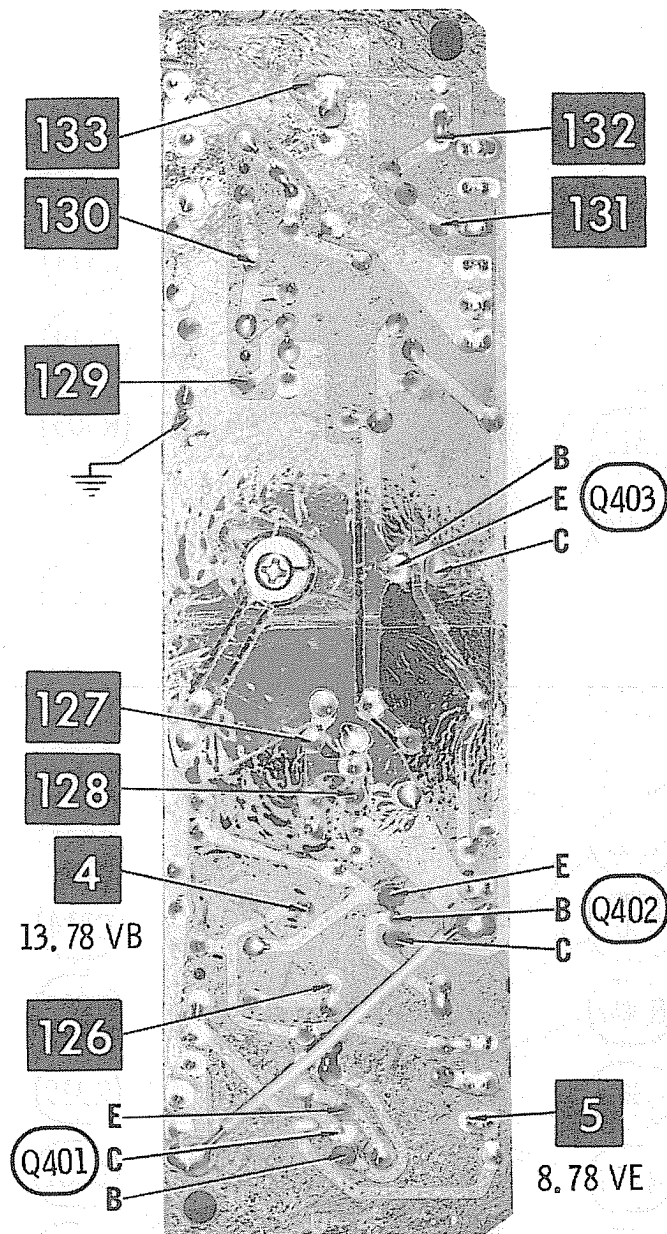
U-2 BOARD



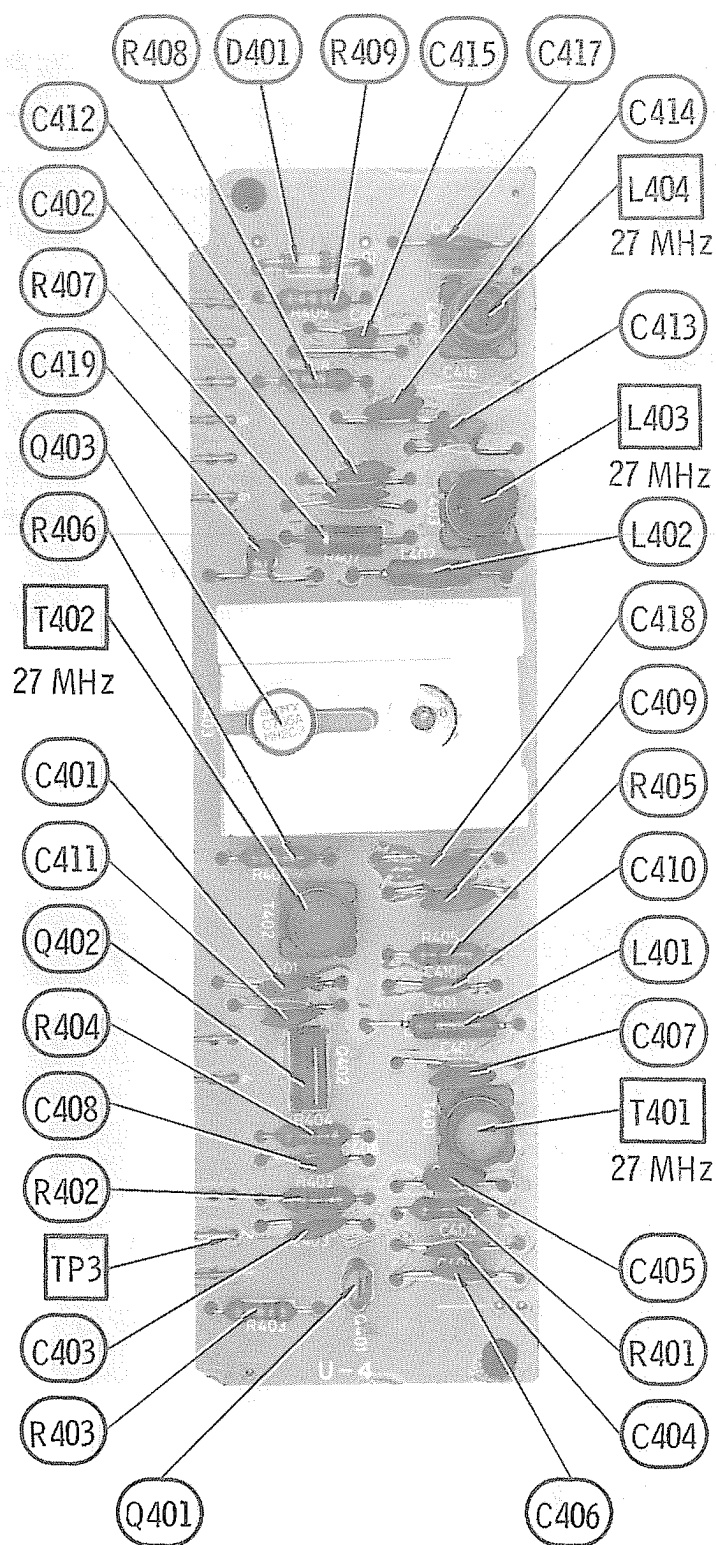
U-3 BOARD



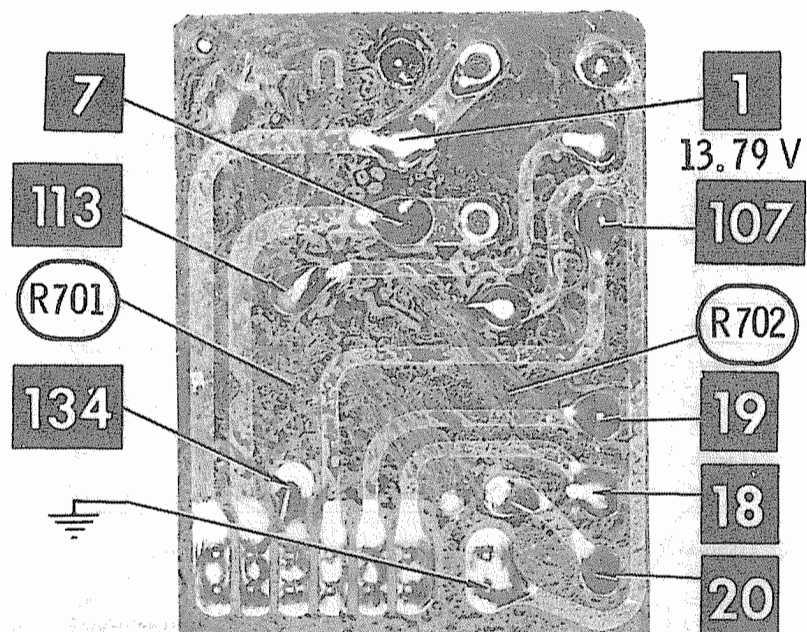
U-3 BOARD



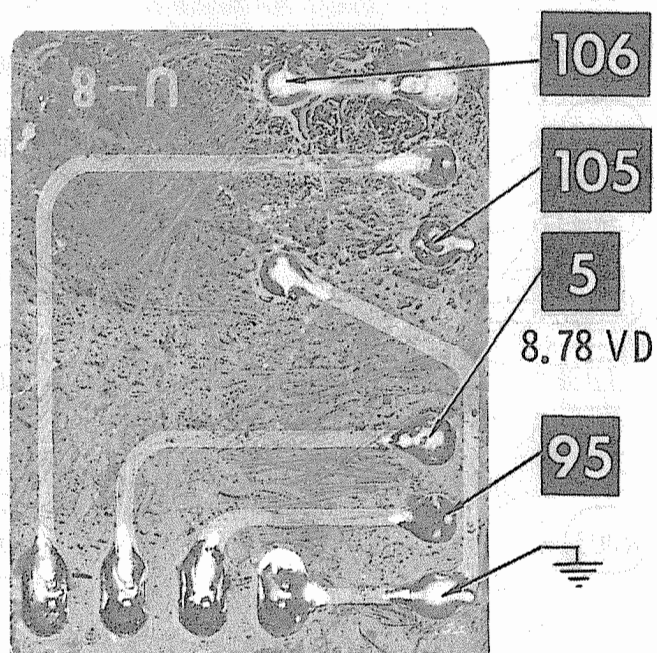
U-4 BOARD



U-4 BOARD



U-7 BOARD



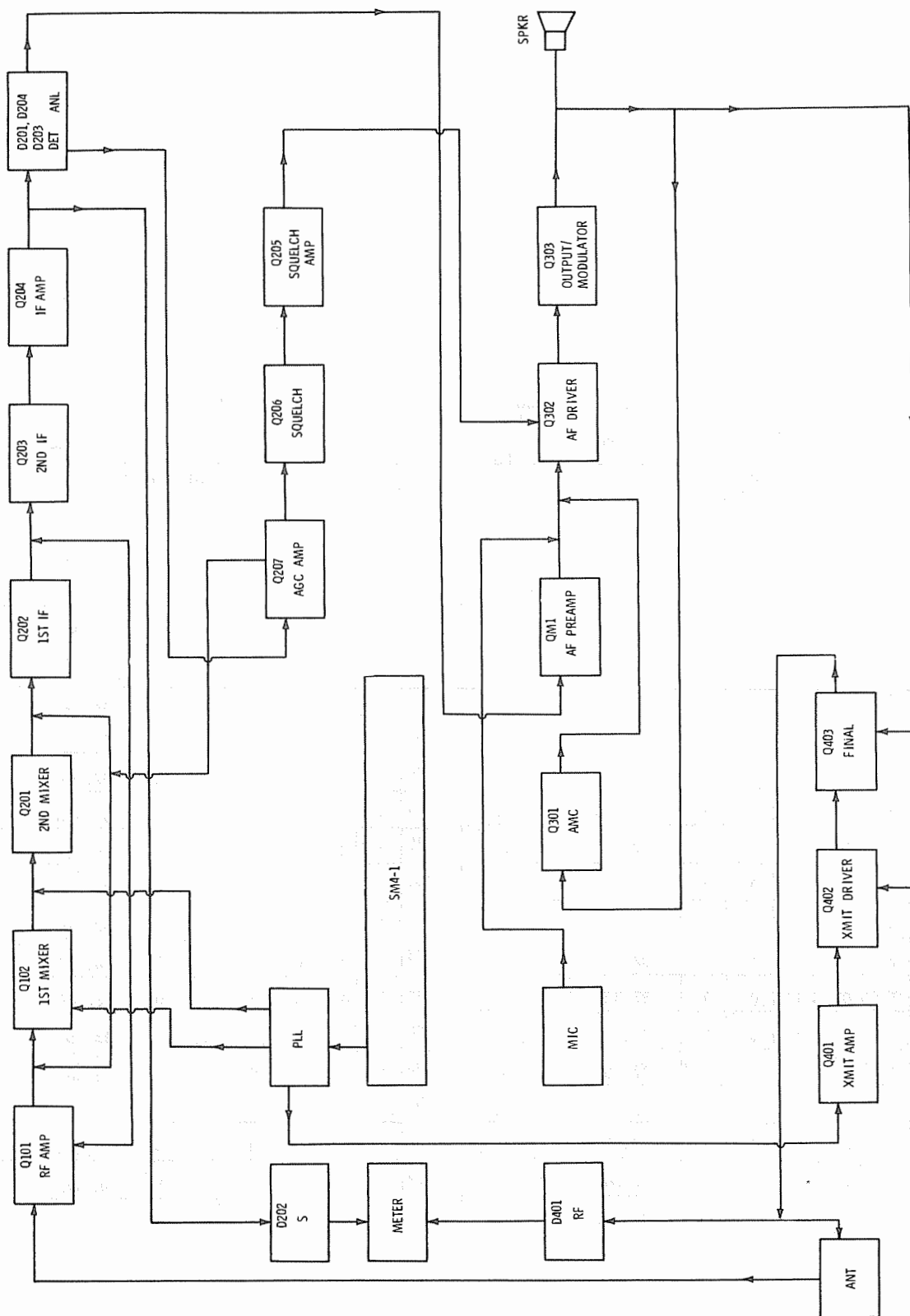
U-8 BOARD

TRUTH CHART

1 = <u>5.54</u> Volts 0 = <u>0</u> Volts								
C H A N N E L	PLL-1						REC VCO OUTPUT IN MHz AT TP2	XMT VCO OUTPUT IN MHz AT TP3
	PINS							
	6	5	7	8	10	9		
1	0	0	0	0	0	0	37.660	26.965
2	0	0	0	0	0	1	37.670	26.975
3	0	0	0	0	1	0	37.680	26.985
4	0	0	0	1	0	0	37.700	27.005
5	0	0	0	1	0	1	37.710	27.015
6	0	0	0	1	1	0	37.720	27.025
7	0	0	0	1	1	1	37.730	27.035
8	0	0	1	0	0	1	37.750	27.055
9	0	0	1	0	1	0	37.760	27.065
10	0	0	1	0	1	1	37.770	27.075
11	0	0	1	1	0	0	37.780	27.085
12	0	0	1	1	1	0	37.800	27.105
13	0	0	1	1	1	1	37.810	27.115
14	0	1	0	0	0	0	37.820	27.125
15	0	1	0	0	0	1	37.830	27.135
16	0	1	0	0	1	1	37.850	27.155
17	0	1	0	1	0	0	37.860	27.165
18	0	1	0	1	0	1	37.870	27.175
19	0	1	0	1	1	0	37.880	27.185
20	0	1	1	0	0	0	37.900	27.205

1 = <u>5.54</u> Volts 0 = <u>0</u> Volts								
C H A N N E L	PLL-1						REC VCO OUTPUT IN MHz AT TP2	XMT VCO OUTPUT IN MHz AT TP3
	PINS							
	6	5	7	8	10	9		
21	0	1	1	0	0	1	37.910	27.215
22	0	1	1	0	1	0	37.920	27.225
23	0	1	1	1	0	1	37.950	27.255
24	0	1	1	0	1	1	37.930	27.235
25	0	1	1	1	0	0	37.940	27.245
26	0	1	1	1	1	0	37.960	27.265
27	0	1	1	1	1	1	37.970	27.275
28	1	0	0	0	0	0	37.980	27.285
29	1	0	0	0	0	1	37.990	27.295
30	1	0	0	0	1	0	38.000	27.305
31	1	0	0	0	1	1	38.010	27.315
32	1	0	0	1	0	0	38.020	27.325
33	1	0	0	1	0	1	38.030	27.335
34	1	0	0	1	1	0	38.040	27.345
35	1	0	0	1	1	1	38.050	27.355
36	1	0	1	0	0	0	38.060	27.365
37	1	0	1	0	0	1	38.070	27.375
38	1	0	1	0	1	0	38.080	27.385
39	1	0	1	0	1	1	38.090	27.395
40	1	0	1	1	0	0	38.100	27.405

ROYCE MODEL 1-678



BLOCK DIAGRAM

PARTS LIST AND DESCRIPTION (CONTINUED)

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

MICROPHONE

ITEM No.	REPLACEMENT DATA				CONNECTION DATA						
	MFR. 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					18-092						

ROYCE MODEL 1-678

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
F101	Ceramic Filter		10.7MHz
F201	Ceramic Filter		455kHz
F202	Ceramic Filter		455kHz
M1	Meter		S/RF
RLM1	Relay		Xmit/Rec
RLM2	Relay		Xmit/Rec
S701	Switch		Power (Part of Volume Control)
SM2	Switch		CB/PA
SM3	Switch		ANL
SM4	Switch		Channel Selector

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')

PARTS LIST AND DESCRIPTION

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

SEMICONDUCTORS (Select replacement transistor for best results)

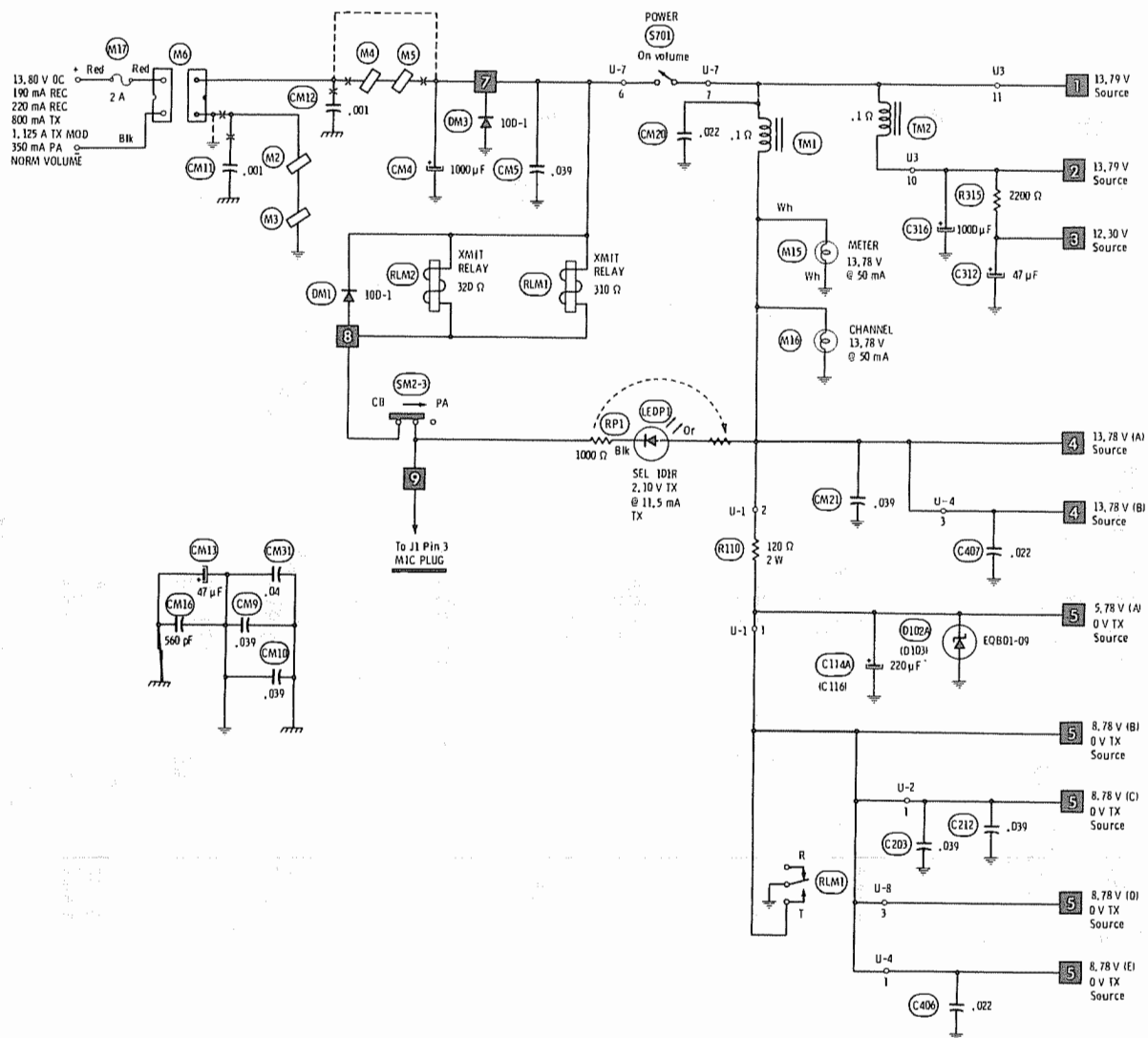
ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA									
			GENERAL ELECTRIC PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
D101	100-1		GE-504A	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116	1N4004	WEP156	212-61
D102A	E0001-09		GE20-9.1	ZB9.1B		RE 114		RT-240	ECG139A	1N4739A	WEP109	103-372
D102B	100-1		GE-504A	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116	1N4004	WEP156	212-61
D201	1N60		1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
D202	1N60		1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
D203	1S2075K		GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177	1N4148	WEP1062	
D204	1N60		1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
D205	W6713		GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177	1N4148	WEP1062	
D206	HV-23			PTC301		RE 250			ECG601			ZEN-401
D207	HV-23			PTC301		RE 250			ECG601			ZEN-401
D301	100-1		GE-504A	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116	1N4004	WEP156	212-61
D303	100-1		GE-504A	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116	1N4004	WEP156	212-61
D401	1N60		1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
OM1	100-1		GE-504A	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116	1N4004	WEP156	212-61
OM3	100-1		GE-504A	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116	1N4004	WEP156	212-61
DM4	1S2075K		GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177	1N4148	WEP1062	
DM5	1S108		1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
QM6	1S108		1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
Q101	2SC1856		GE-86*	PTC121	HEPS0010	RE 10*	SK3018*	RT-107*	ECG108*		WEP56*	ZEN-104*
Q102	2SC710		GE-211*	PTC132	HEPS0016*	RE 13*	SK3018*	RT-308*	ECG123A*	2SC710	WEP710	ZEN-114
	2SC710C		GE-211*	PTC132	HEPS0016*	RE 13*	SK3018*	RT-308*	ECG123A*	2SC710	WEP710	ZEN-114
Q201	2SC711		GE-62*	PTC121	HEPS0024*	RE 192*	SK3124*	RT-302*	ECG199*	2SC711	WEP66*	ZEN-116
	2SC711E		GE-62*	PTC121	HEPS0024*	RE 192*	SK3124*	RT-302*	ECG199*	2SC711	WEP66*	ZEN-116
Q202	2SC710		GE-211*	PTC132	HEPS0016*	RE 13*	SK3018*	RT-308*	ECG123A*	2SC710	WEP710	ZEN-114
	2SC711E		GE-62*	PTC121	HEPS0024*	RE 192*	SK3124*	RT-302*	ECG199*	2SC711	WEP66*	ZEN-116
Q203	2SC710		GE-211*	PTC132	HEPS0016*	RE 13*	SK3018*	RT-308*	ECG123A*	2SC710	WEP710	ZEN-114
	2SC711D		GE-62*	PTC121	HEPS0024*	RE 192*	SK3124*	RT-302*	ECG199*	2SC711	WEP66*	ZEN-116
Q204	2SA695		GE-67*	PTC103*	HEPS5013*	RE 18*	SK3025*	RT-126A*	ECG294*	2SA733*	WEP916*	
	2SA695D		GE-67*	PTC103*	HEPS5013*	RE 18*	SK3025*	RT-126A*	ECG294*	2SA733*	WEP916*	
Q205	2SC620		GE-20*	PTC125*	HEPS0015*	RE 13*	SK3020*	RT-107A*	ECG123A*	2SC620	WEP736*	ZEN-127
	2SC620D		GE-20*	PTC125*	HEPS0015*	RE 13*	SK3020*	RT-107A*	ECG123A*	2SC620	WEP736*	ZEN-127
Q206	2SC945		GE-212	PTC121*	HEPS0015*	RE 192	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945Q		GE-212	PTC121*	HEPS0015*	RE 192	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
Q207	2SC945		GE-212	PTC121*	HEPS0015*	RE 192	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
	2SC945Q		GE-212	PTC121*	HEPS0015*	RE 192	SK3124	RT-107A	ECG199	2SC945	WEP1945	121-29000
Q301	2S0561B		GE-244*	PTC177	HEPS3011	RE 18*	SK3025*	RT115*	ECG129*		WEP250*	921-383*
Q302	2SC710E		GE-211*	PTC132	HEPS0016*	RE 13*	SK3018*	RT-308*	ECG123A*	2SC710	WEP710	ZEN-114
	2SC711E		GE-62*	PTC121	HEPS0024*	RE 192*	SK3124*	RT-302*	ECG199*	2SC711	WEP66*	ZEN-116
Q303	AN315											
Q401	2SC190B		GE-20*	PTC136*	HEPS0015*	RE 9*	SK3124*	RT-107A*	ECG107*	2SC380*	WEP535*	
Q402	2SC172B		GE-275			RE 204		RT-310	ECG302		WEP918	
Q403	2SC756A		GE-46	PTC158		RE 206		RT-306F	ECG282		WEP909	
QM1	2SC458B		GE-210*	PTC121*	HEPS0009*	RE 13*	SK3124	RT-187	ECG123A*	2SC458	WEP458	ZEN-114
	2SC458C		GE-210*	PTC121*	HEPS0009*	RE 13*	SK3124	RT-187	ECG123A*	2SC458	WEP458	ZEN-114

ROYCE MODEL 1-678

* Lead Configuration may vary from original.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA				
		MFR. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C107	10 16V		WBR10-25	TT15X10	QE1-177	TVA-1145
C114A	220 16V		WBR250-16	TT15X260A	QE1-495	TVA-1161
C206	.33 50V			TOC334M050EL	QOT1-14	SD50-R339
C208	1 50V		WBR1-50	TT50X1	QE1-11	TVA-1300
C211	47 10V		WBR50-25	TT10X50A	QE1-351	TVA-1150
C301	1 50V		WBR1-50	TT50X1	QE1-11	TVA-1300
C302	22 10V		WBR25-25	TT10X25	QE1-291	TVA-1148
C304	1 50V		WBR1-50	TT50X1	QE1-11	TVA-1300
C305	.22 25V			TDC224M050EL	QOT1-10	SD50-R229
C306	1 50V		WBR1-50	TT50X1	QE1-11	TVA-1300
C307	47 10V		WBR50-25	TT10X50A	QE1-351	TVA-1150
C312	47 10V		WBR50-25	TT10X50A	QE1-351	TVA-1150
C316	1000 16V		WBR1000-16	TT15X1000B	QE1-591	TVA-1163
C318	47 10V		WBR50-25	TT10X50A	QE1-351	TVA-1150
C319	10 16V		WBR10-25	TT15X10	QE1-177	TVA-1145
C320	47 10V		WBR50-25	TT10X50A	QE1-351	TVA-1150
C323	1 25V		WBR1-50	TT25X1	QE1-11	TVA-1300
C324	47 10V		WBR50-25	TT10X50A	QE1-351	TVA-1150
CM4	1000 16V		PC1000-16	VTT1000L16	QV1-183	EV-1260
CM7	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240
CM8	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240
CM13	47 16V		PC50-16	VTT47D16	QV1-73	EV-1226



Terminal Guides



Q101
Bottom view



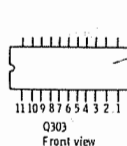
Q102, Q201
Q202, Q203
Q204, Q205
Q401
Bottom view



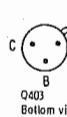
Q207, Q206
Q301
Bottom view



Q402
Front view



Q303
Front view



Q403
Bottom view

- Circuitry not used in some versions
 - - - Circuitry used in some versions
 - ⊕ See parts list
 - ⊗ Nominal value
 - ⊥ Ground
 - ⏏ Chassis
 - ▽ Common tie point
- Measurements made in Channel 1 with switching as shown unless noted.
Item numbers in rectangles appear in the alignment/adjustment instructions.
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**

© Howard W. Sams & Co., Inc. 1978

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	RESIST-ANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
VR701	Volume/Switch	50K					
VR702	RF Gain	10K					
VR801	Squelch	10K					
VR802	Tune	10K					
	Mic Volume	50K					

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.
TH801	550 Cold NTC		(TD5-165)				

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L101	RF Choke				
L301	RF Choke				
L401	RF Choke				
L402	RF Choke				
L403	Final (27MHz)				
L404	Pi Filter (27MHz)				
T101	Rec Antenna (27MHz)				
T102	Rec RF (27MHz)				
T201	IF (455kHz)				
T401	Xmit Amp (27MHz)				
T402	Xmit Driver (27MHz)				

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 (O CURRENT 1000~)	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
TM1	1.5A	.100	.145mH	1002 (1)	TR509		(1) Number on unit.
TM2	1.5A	.100	.145mH	1002 (1)	TR509		

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T301	3,92	1 8 2 20,48	62017 (1)	TR827		(1) Number on unit.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3" PM 8 Ohms		30A05Z8R (1)	(1) Requires original mounting unit.

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	
M17	2 Amp			AGC2	HDJ	312002	150145	FG2-2	

PARTS LIST AND DESCRIPTION (CONTINUED)
(When ordering parts, state Model, Part Number, and Description.)

CAPACITORS

ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C101	82 N750				CN7482		10TCU-Q62
C102	220 N750				CN7322		10TCU-T22
C103	22 N220		DTN-220	N220	*		10TCR-Q22
C104	.022		DC-253	MGP025	TA125		TG-S25
C105	.022		DC-253	MGP025	TA125		TG-S25
C106	.022		DC-253	MGP025	TA125		TG-S25
C108	.022		DC-253	MGP025	TA125		TG-S25
C109	22 N220				*		10TCR-Q22
C110	.022		DC-253	MGP025	TA125		TG-S25
C111	.022		DC-253	MGP025	TA125		TG-S25
C112	.022		DC-253	MGP025	TA125		TG-S25
C113	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C114B	33		DTZ-33	NP033	CN0433		10TCC-Q33
C115	.022		DC-253	MGP025	TA125		TG-S25
C201	.022		DC-253	MGP025	TA125		TG-S25
C202	220 N750		DTN-220	N220	CN7322		10TCU-T22
C203	.039		UK50-333		MAG50133		
C204	.022		DC-253	MGP025	TA125	QC2-81	TG-S25
C205	.001		DD-102G	GP1000	GP210	QF1-91	5GA-D10
C207	.01			WMF1S1	EWFA1110		1PB-S10
C209	.039		UK50-333		MAG50133		
C210	.022		DC-253	MGP025	TA125		TG-S25
C212	.039		UK50-333		MAG50133		
C303	.022		DC-253	MGP025	TA125		TG-S25
C308	.01			WMF1S1	EWFA1110	QF1-91	1PB-S10
C310	.039			DPMS6S39	PVC6139		6PS-S39
C314	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C321	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C322	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
C401	.022		DC-253	MGP025	TA125		TG-S25
C402	.022		DC-253	MGP025	TA125		TG-S25
C403	68 N220				*		10TCR-Q68
C404	.022		DC-253	MGP025	TA125		TG-S25
C405	39 N220				*		10TCR-Q39
C406	.022		DC-253	MGP025	TA125		TG-S25
C407	.022		DC-253	MGP025	TA125		TG-S25
C408	.001		DD-102G	GP1000	GP210	QC2-81	TG-S25
C409	82 N220				*		5GA-D10
C410	22 N220				*		10TCR-Q82
C411	220 N750		DTN-220	N220	CN7322		10TCR-Q22
C412	100 N470				*		10TCU-T22
C413	220 N750		DTN-220	N220	CN7322		10TCT-T100
C414	39 N220				*		10TCU-T22
C415	2 NPO				CN0522		10TCR-Q39
C416	120 N750		DTZ-2R2	NP02P2			10TCC-V22
C417	.022		DTN-120				10TCU-T12
C418	.022		DC-253	MGP025	TA125		TG-S25
C419	10 NPO		DC-253	MGP025	TA125		TG-S25
CM1	560		DTZ-10	NP010	CN0410		10TCC-Q10
CM2	.022		DD-561		GP356		10TS-T56
CM5	.039		DC-253	MGP025	TA125		TG-S25
CM6	560		UK50-333		MAG50133		10TS-T56
CM8	560		DD-561		GP356		10TS-T56
CM9	.039		UK50-333		MAG50133		10TS-T56
CM10	.039		UK50-333		MAG50133		10TS-T56
CM11	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
CM12	.001		DD-102G	GP1000	GP210	QC2-81	5GA-D10
CM15	560		DD-561		GP356		10TS-T56
CM16	560		DD-561		GP356		10TS-T56
CM17	8 N220				*		10TCR-V82
CM18	560		DD-561		GP356		10TS-T56
CM19	.022		DC-253	MGP025	TA125		TG-S25
CM20	.022		DC-253	MGP025	TA125		TG-S25
CM21	.039		UK50-333		MAG50133		
CM22	470		DD-471	GP470	GP347	QC2-141	10TS-T47
CM23	.01		DC-103	MGP01	TA110		TG-S10
CM29	120 N750		DTN-120				10TCU-T12
CM30	39				CN0439		10TCC-Q39
CM31	.04		UK50-333		MAG50133		
CM32	10		DTZ-10	NP010	CN0410		10TCC-Q10

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

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	RESIST-ANCE	REPLACEMENT DATA			
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.
VR701	Volume/Switch	50K				
VR702	RF Gain	10K				
VR801	Squelch	10K				
VR802	Tune	10K				
	Mic Volume	50K				

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA
		WORKMAN PART No.	MFGR. PART No.			
TH801	550 Cold NTC		(T05-165)			

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA		
		PART No.	OTHER IDENTIFICATION	MILLER PART No.
L101	RF Choke			
L301	RF Choke			
L401	RF Choke			
L402	RF Choke			
L403	Final (27MHz)			
L404	Pi Filter (27MHz)			
T101	Rec Antenna (27MHz)			
T102	Rec RF (27MHz)			
T201	IF (455kHz)			
T401	Xmit Amp (27MHz)			
T402	Xmit Driver (27MHz)			

