



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 1-625

ROYCE MODEL 1-625

MANUFACTURER'S SPECIFICATIONS

Receiver

- | | |
|--|-----------------------------------|
| 1. Frequency Range (MHz) | : 26.965 — 27.405 |
| 2. Sensitivity | : 0.5 μ V 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 4 Watt 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 (Threshold) | : Less than 0.5 μ V |
| 9. Spurious Rejection | : More than 45dB |

Transmitter

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

Courtesy of the Manufacturer

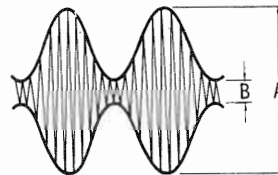
HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

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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:
 L403, L404, T401, T402..... 9091, 8728A, 8728
 T101, T102..... 9440
 T201..... 5009, 8728A, 8728



$$\text{Modulation Ratio} = \frac{A - B}{A + B} \times 100 (\%)$$

FIGURE 1

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP1 (PLL Pin 2).	Ch. 1 Delta Tune Midrange		Check for 10,240MHz.
Input of frequency counter to TP2 (PLL Pin 19).	Ch. 1 Delta Tune Midrange		Check for 37,660MHz. Check all channels. (See Truth Chart for correct frequencies.)
Input of frequency counter to TP3 (PLL Pin 23).	Ch. 1, XMT		Check for 26,965MHz. Check all channels. (See Truth Chart for correct frequencies.)

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. RF Gain Maximum, Delta Tune Switch Midrange, Squelch MINIMUM.

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

TRANSMITTER ALIGNMENT

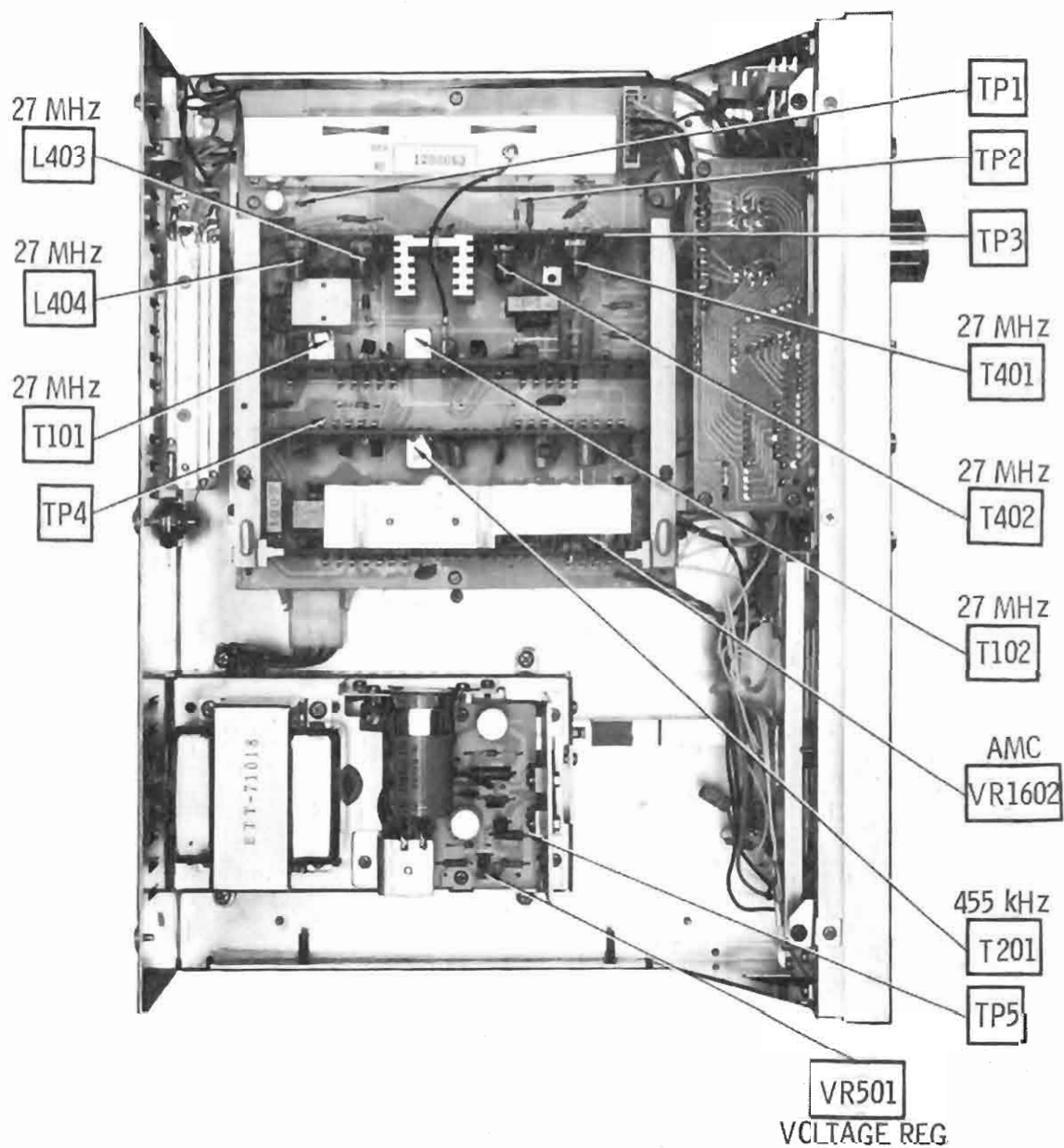
Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector. NOTE: Be sure to check transmit frequency and power on all active channels after alignment of transmitter. See page 4 for channel frequencies.

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

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.

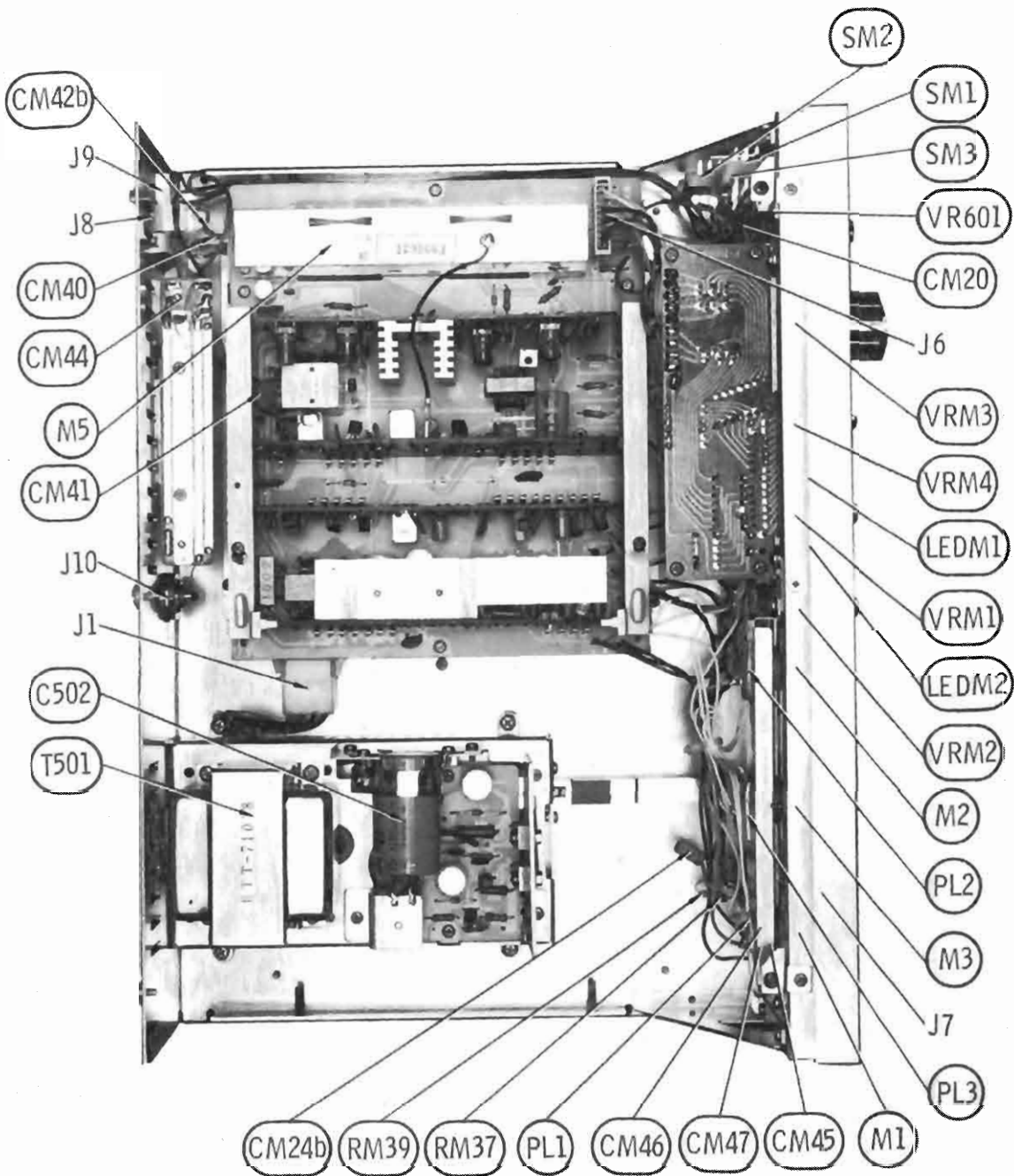
TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of DC Meter to TP5 (Q501, Emitter).	Ch. 19	VR501	VOLT REG Adjust for 13.80 volts.
Input of oscilloscope or modulation meter to antenna jack. Inject a 1000Hz, 30mV signal at MIC input.	Ch. 19	VR1602	AMC Adjust for 90% modulation. See Figure 1.
Connect a 100 ohm 5 watt non-inductive resistor to antenna jack.	Ch. 19	VR602	CAL ADJUST Adjust CALIBRATION control (VR601) for 2 on SWR meter. Adjust VR602 for CAL on calibration meter.



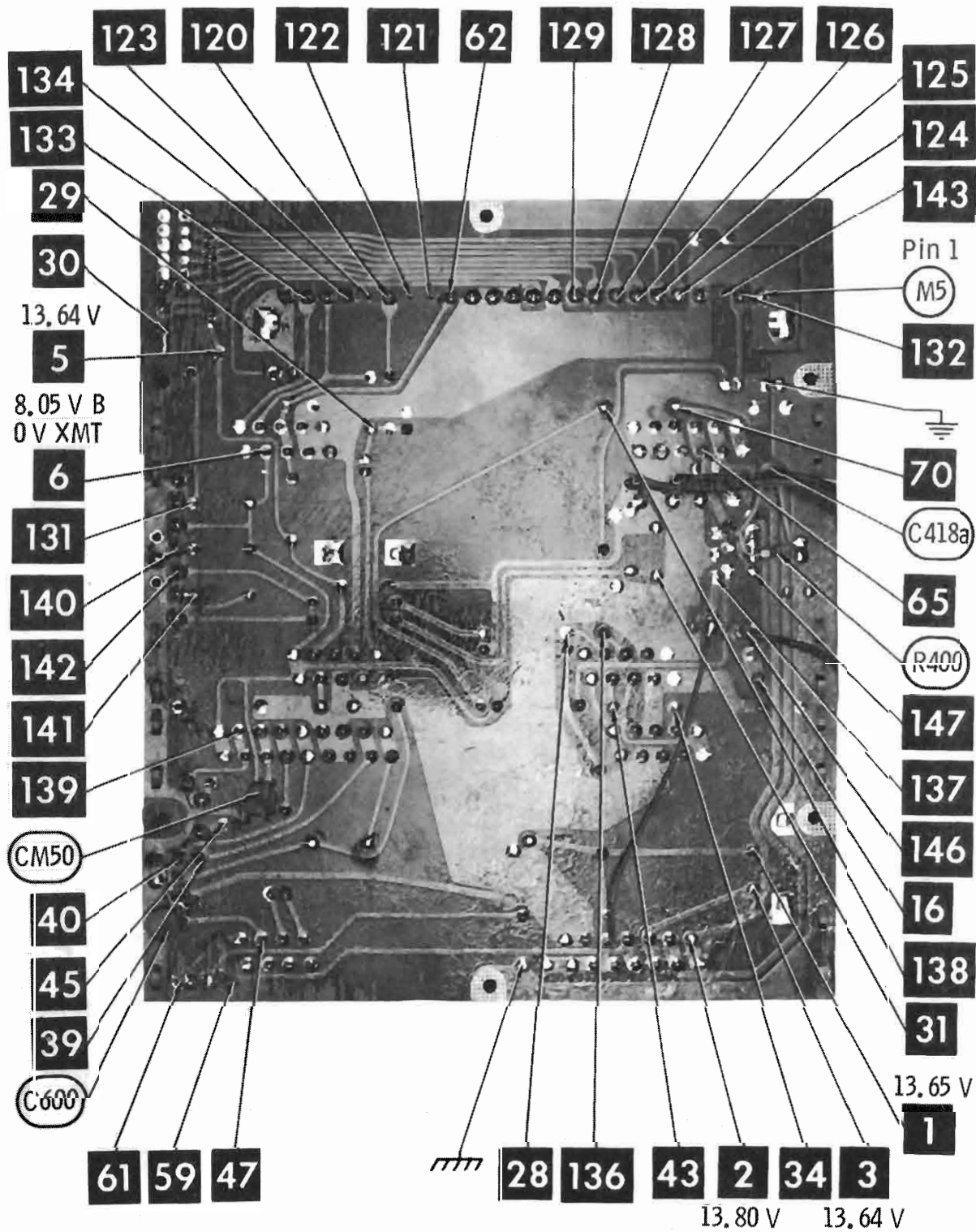
CHASSIS - TOP

TRUTH CHART

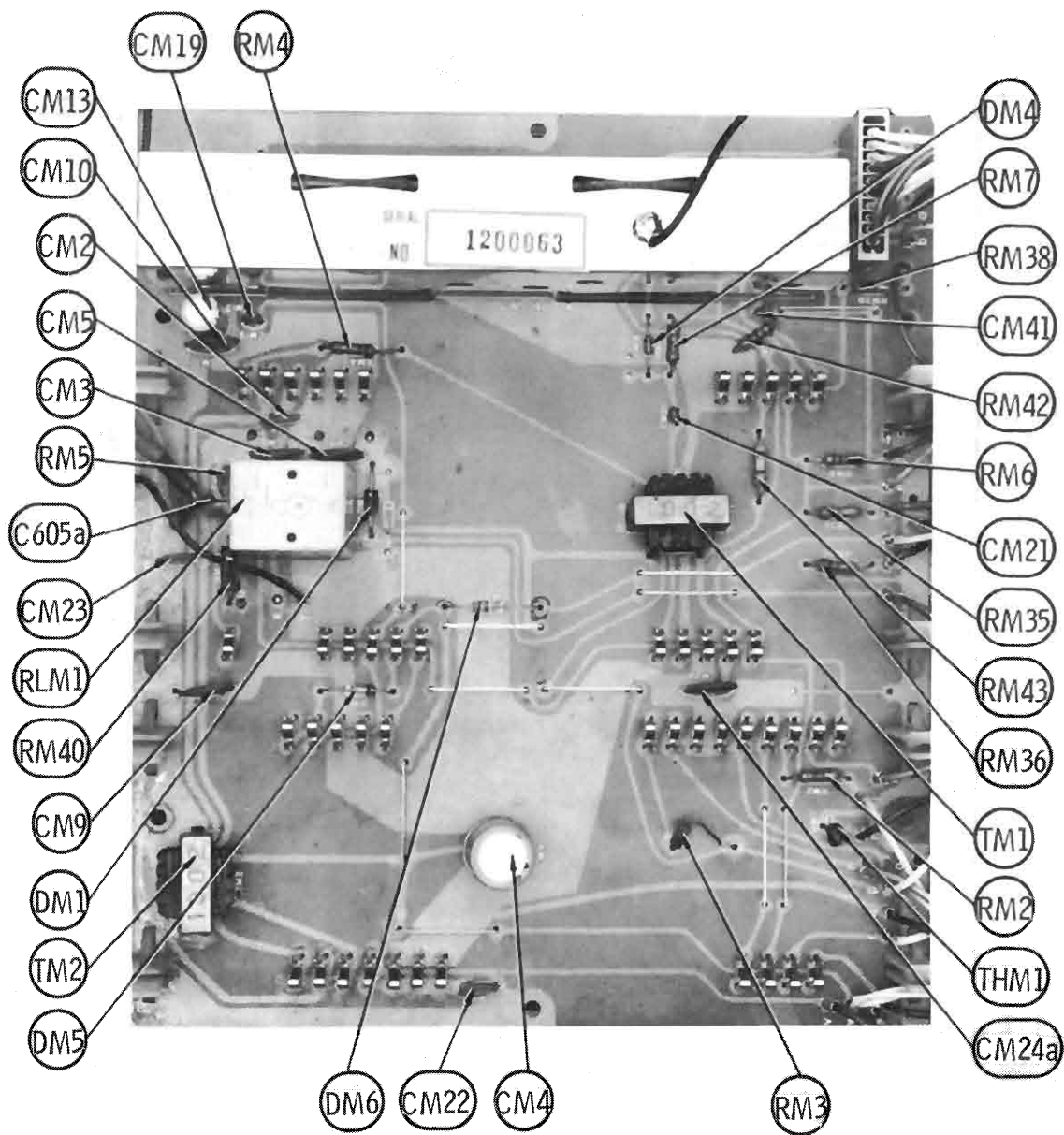
C H A N N E L	1 = 5.93 Volts 0 = 0 Volts								REC VCO OUTPUT IN MHz AT TP2	XMT VCO OUTPUT IN MHz AT TP3	
	PLL										
	PINS										
	6	5	7	8	10	9					
1	0	0	0	0	0	0			37.660	26.965	
2	0	0	0	0	0	1			37.670	26.975	
3	0	0	0	0	1	0			37.680	26.985	
4	0	0	0	1	0	0			37.700	27.005	
5	0	0	0	1	0	1			37.710	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	
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	



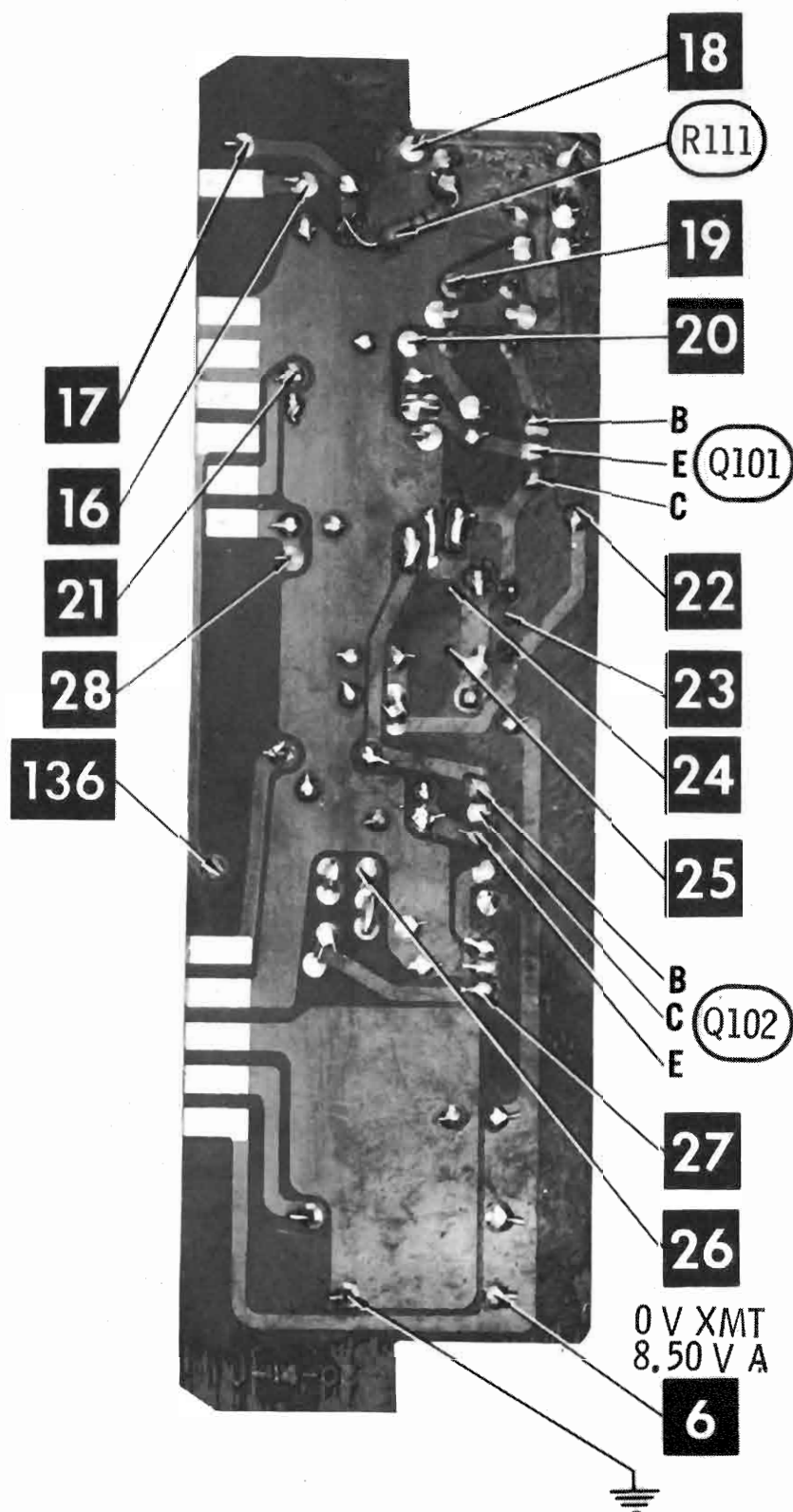
CHASSIS - TOP



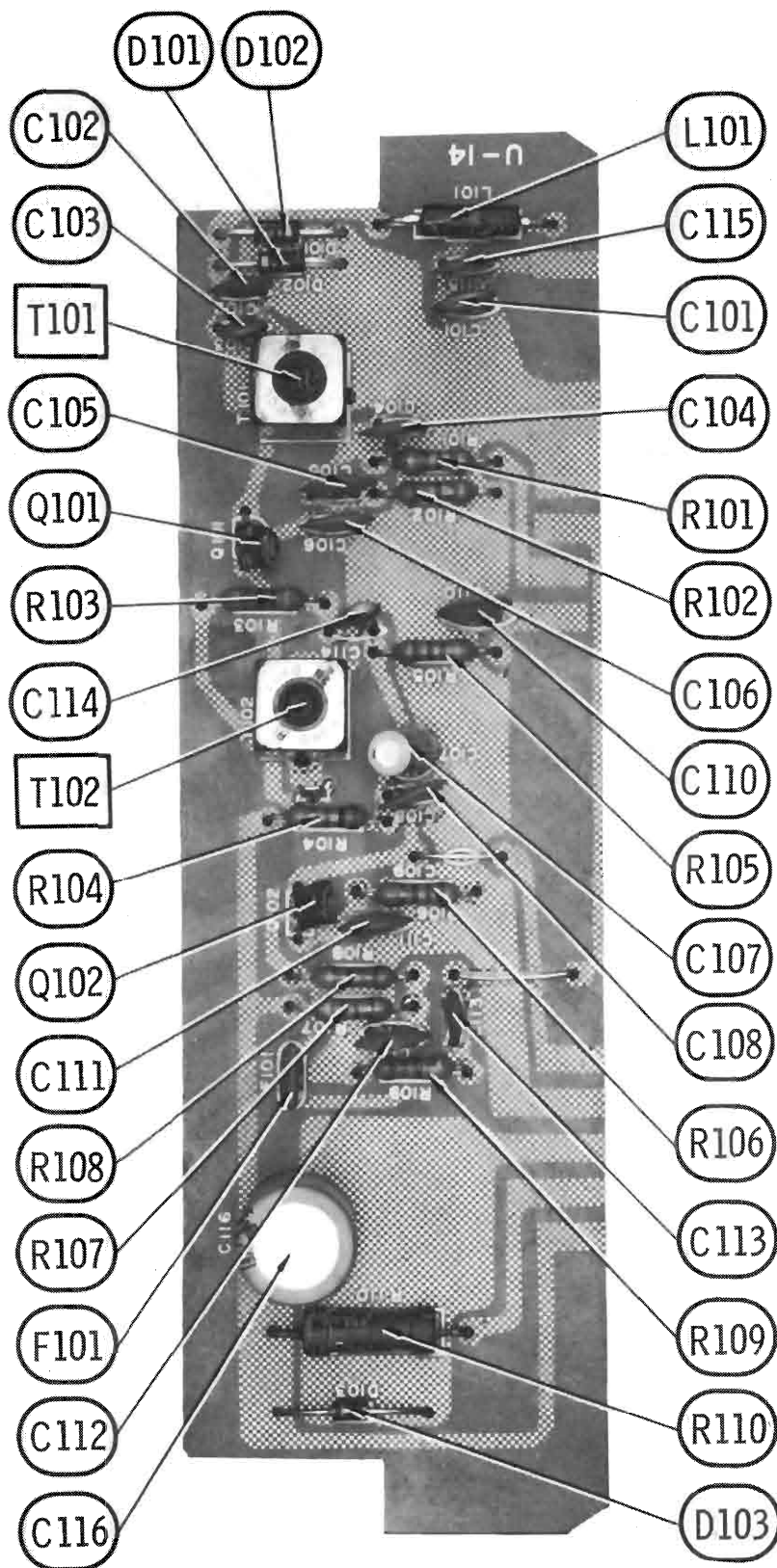
MOTHER BOARD



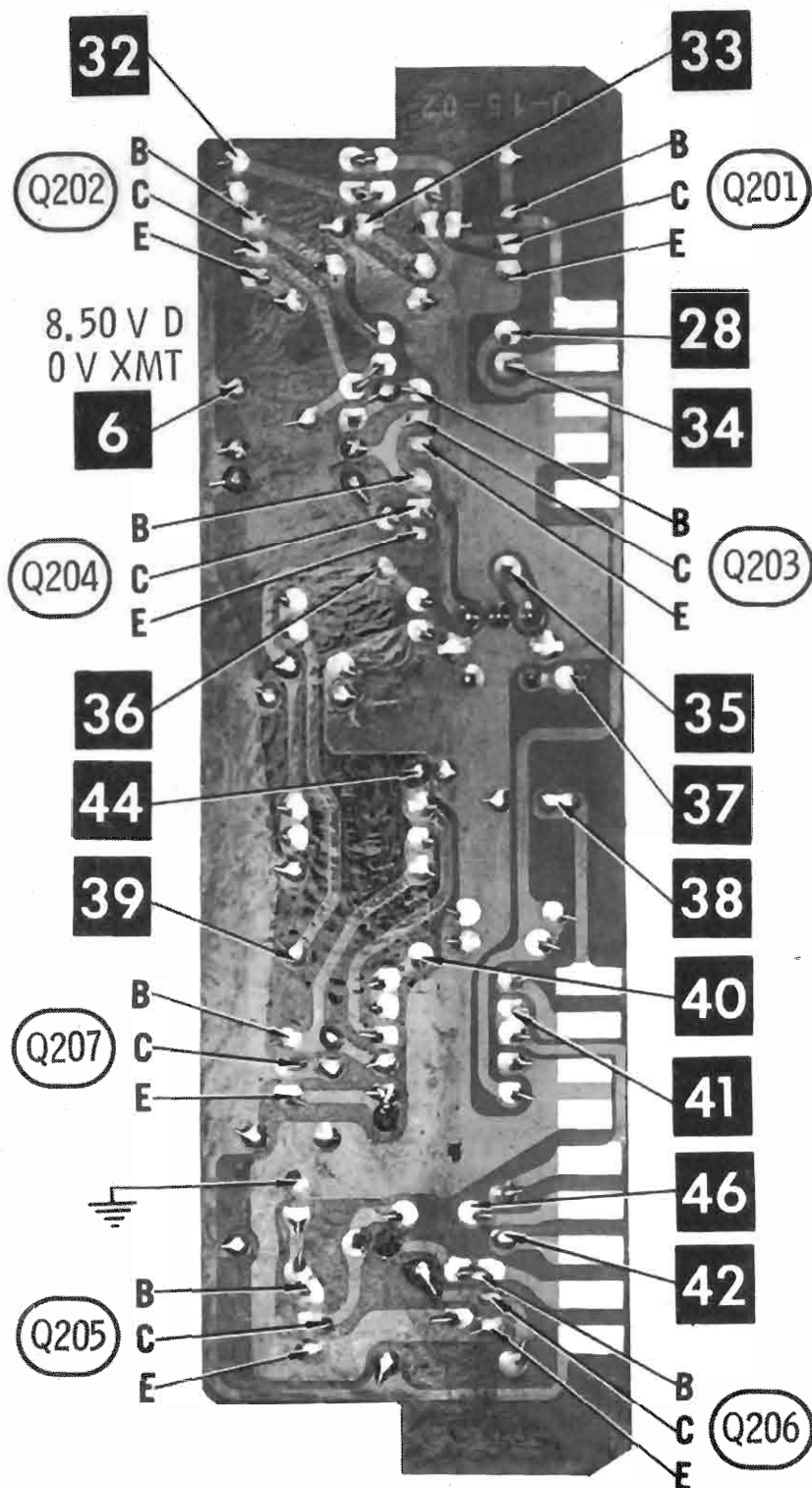
MOTHER BOARD



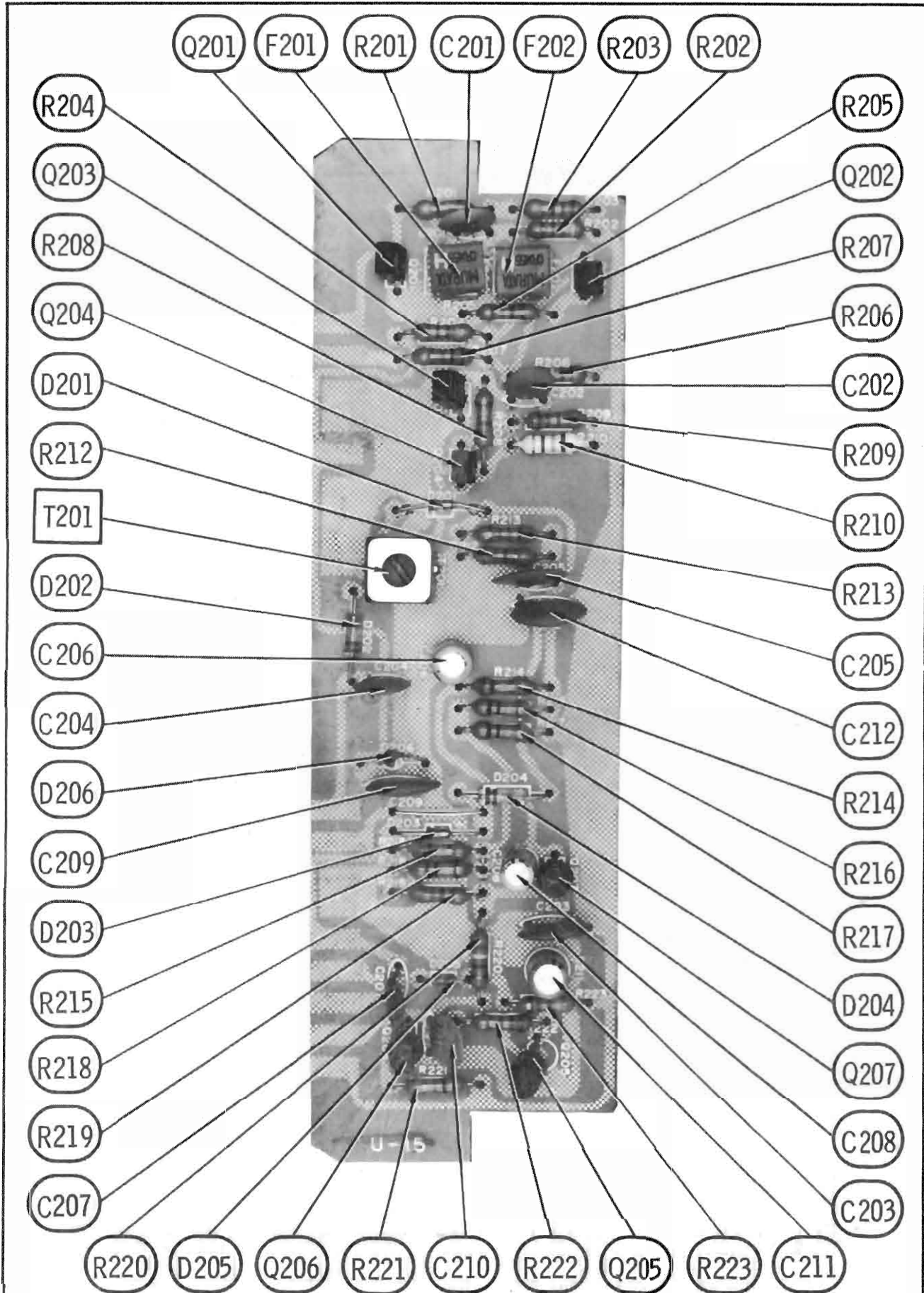
1ST REC. BOARD (U-14)



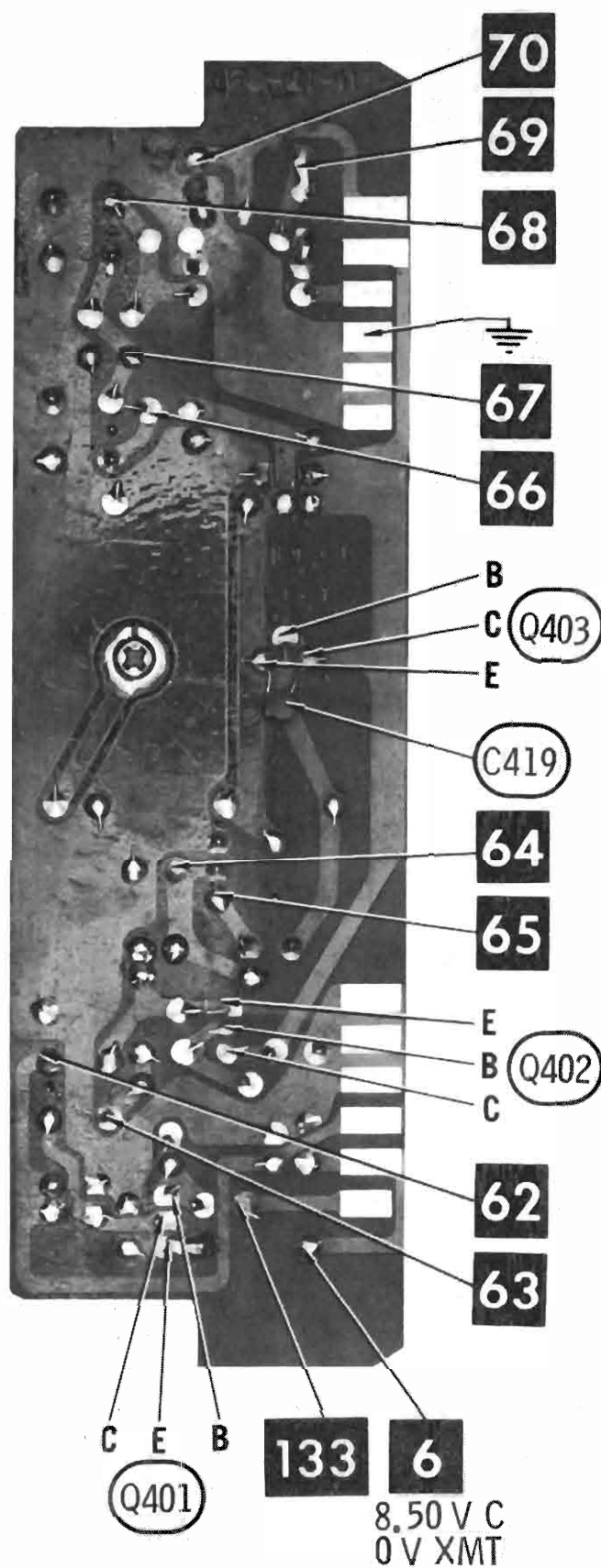
1ST REC. BOARD (U-14)



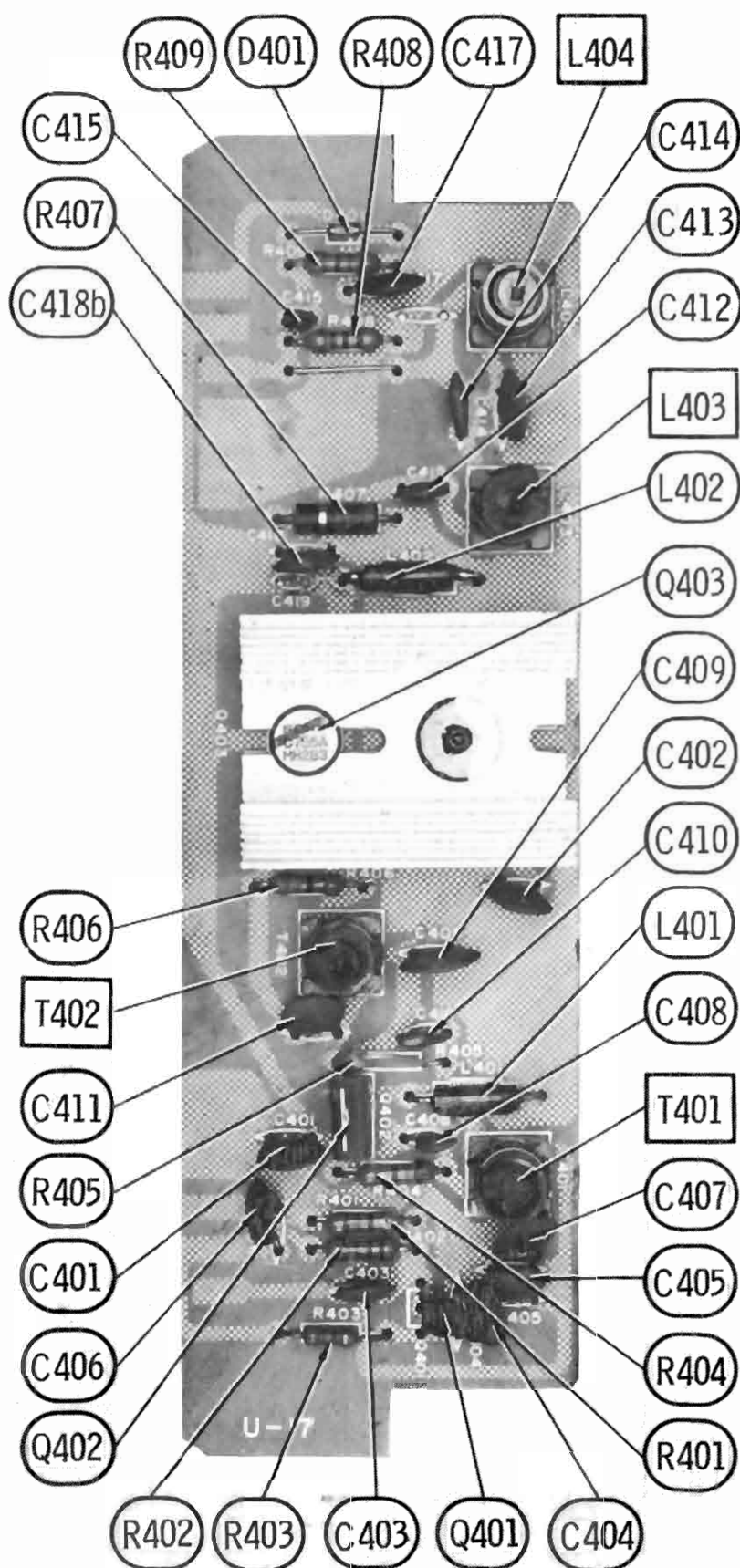
2ND REC. BOARD (U-15)



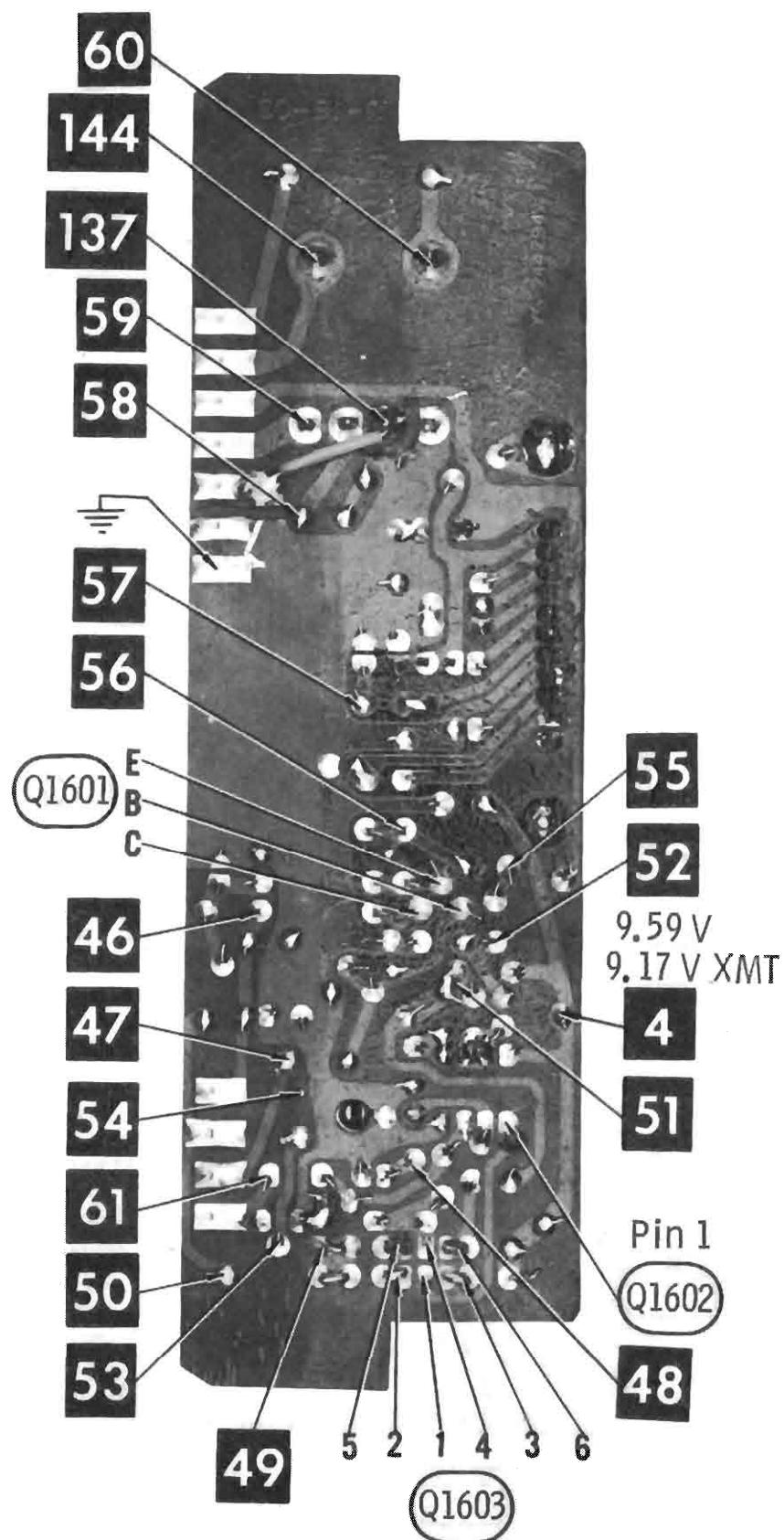
2ND REC. BOARD (U-15)



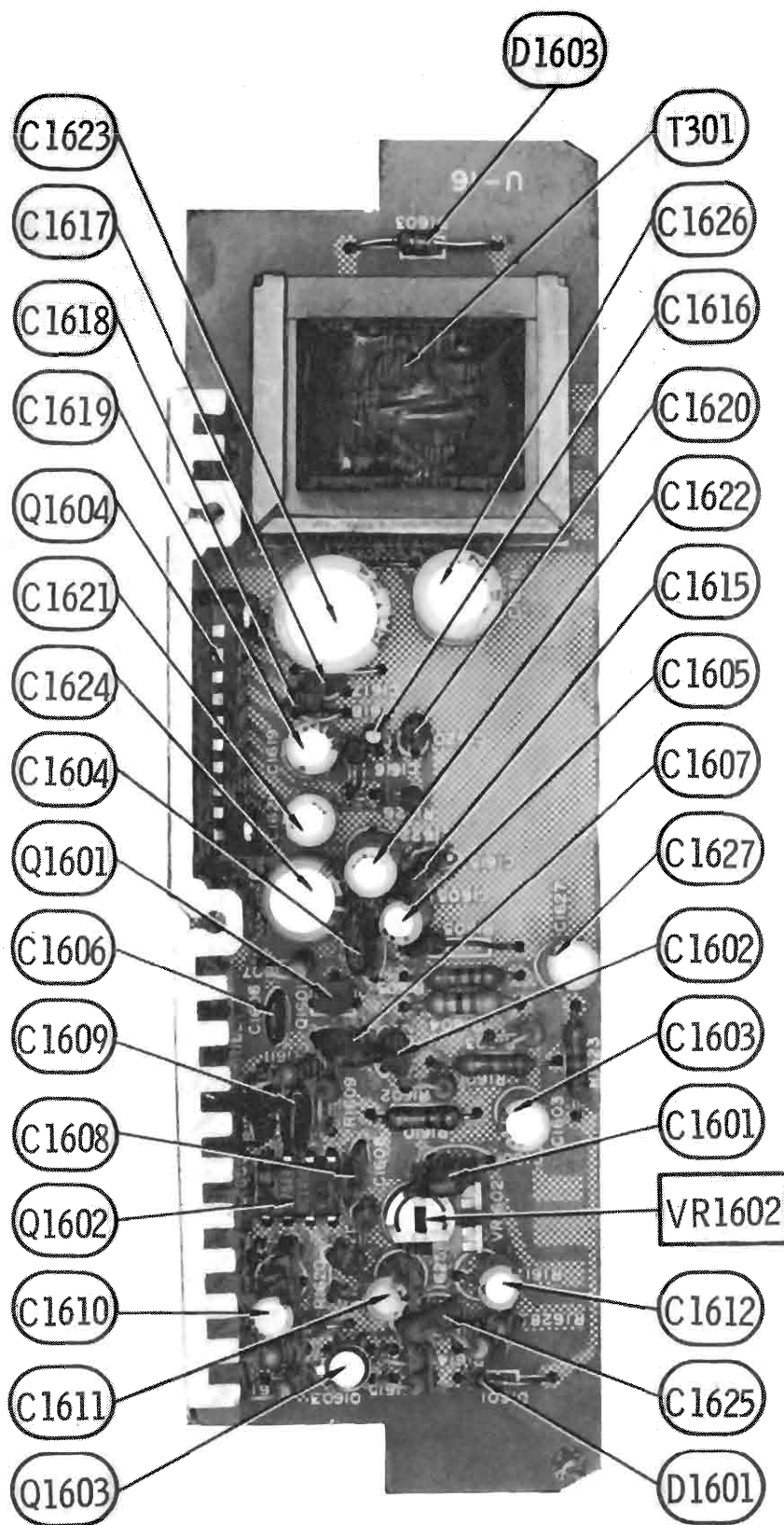
XMT BOARD (U-17)



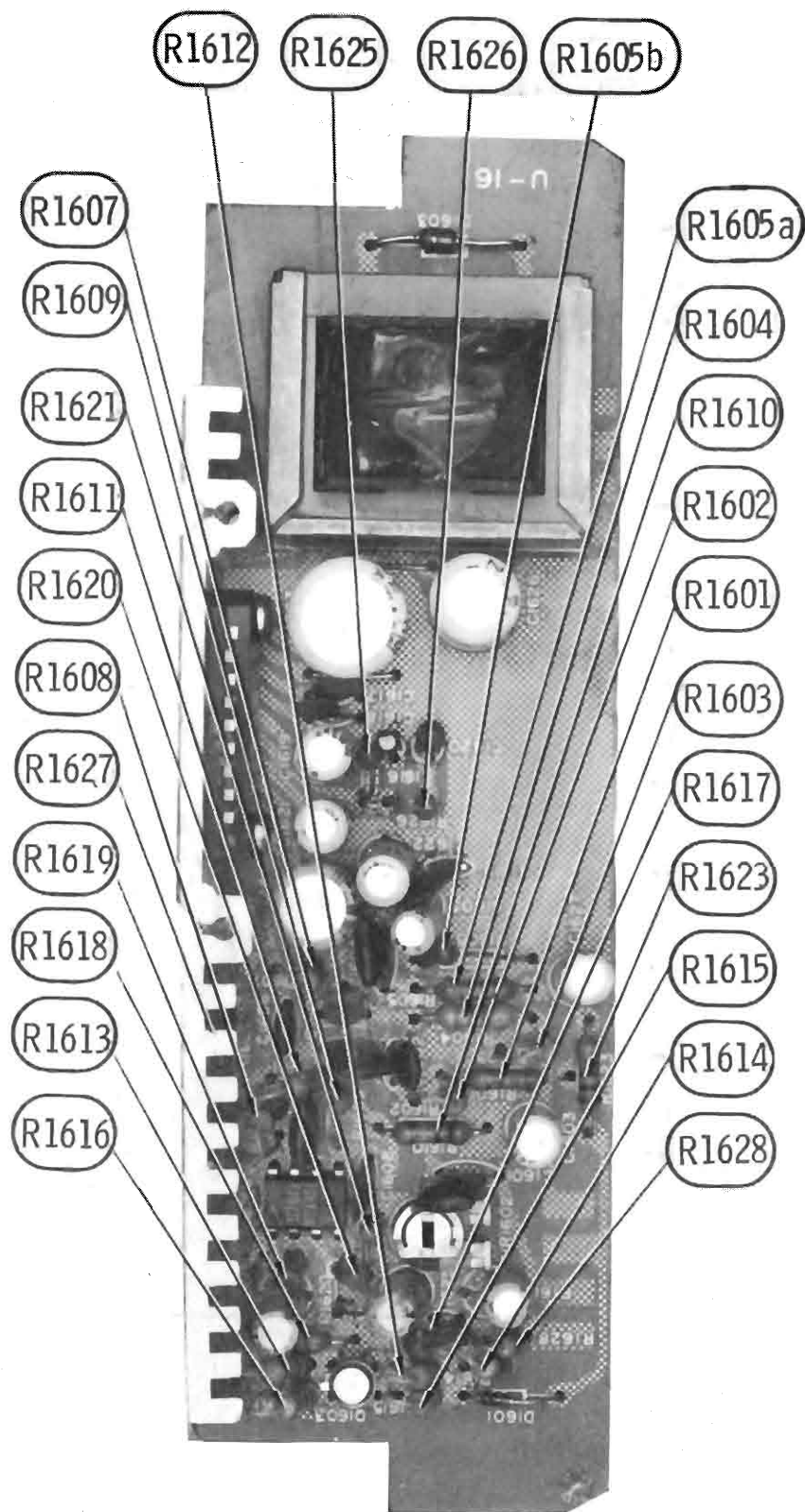
XMT BOARD (U-17)



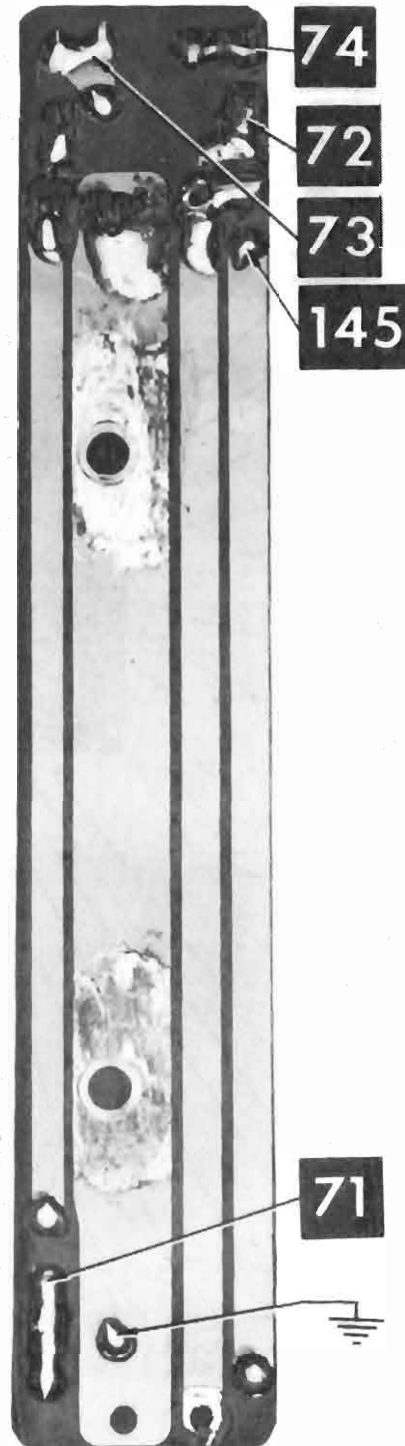
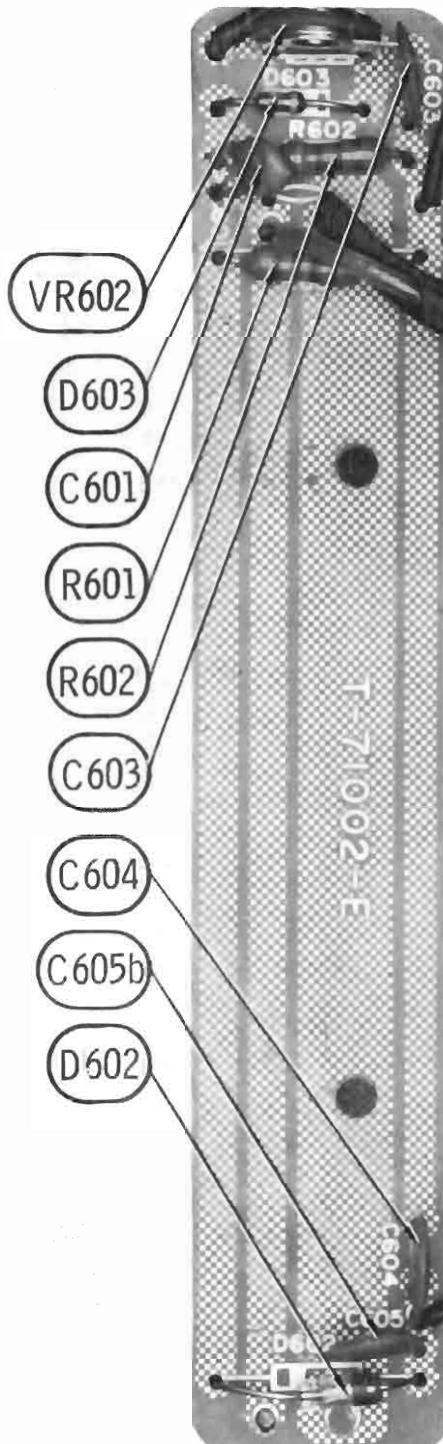
AUDIO - MOD. BOARD (U-16)



AUDIO - MOD. BOARD (U-16)

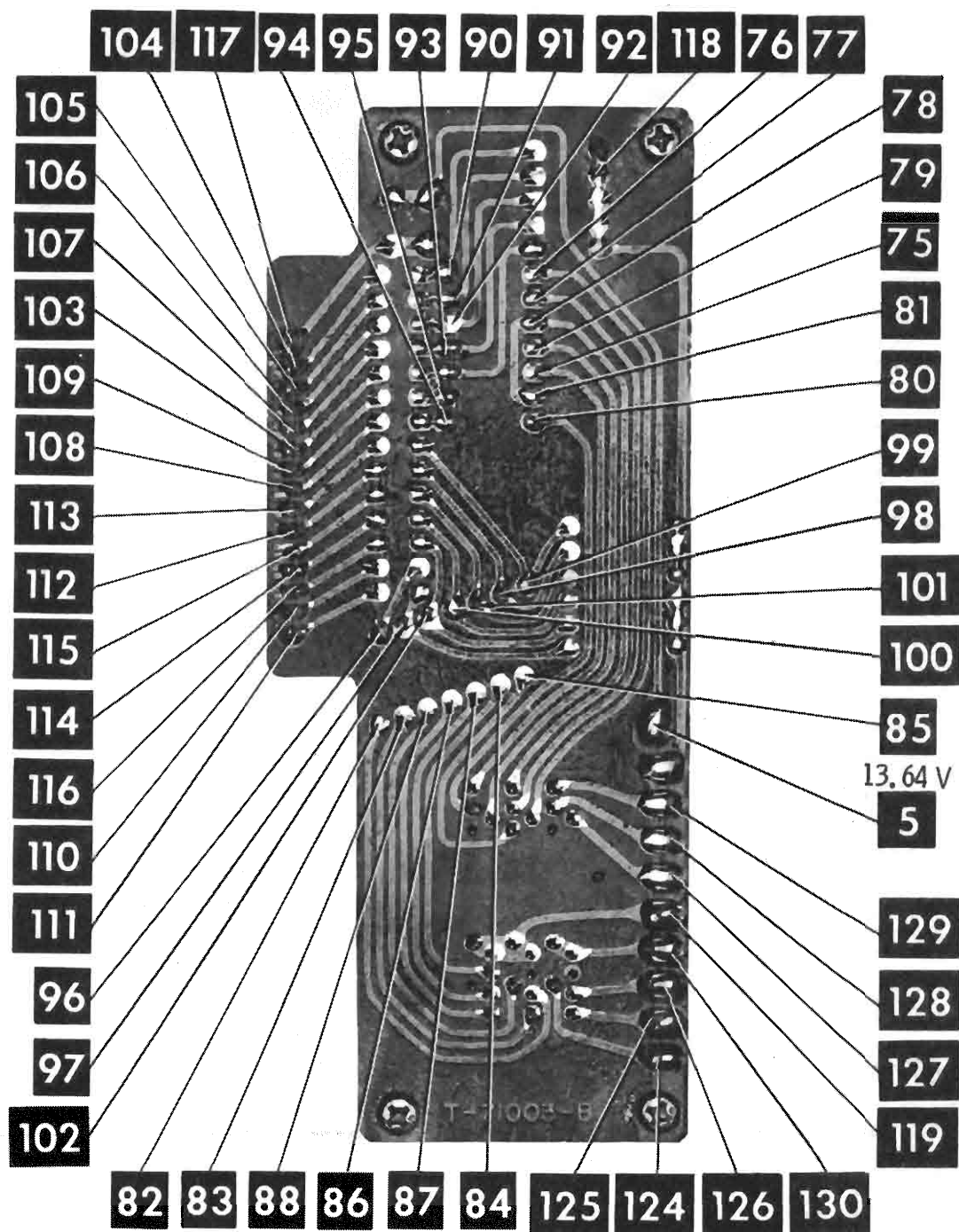


AUDIO - MOD. BOARD (U-16)

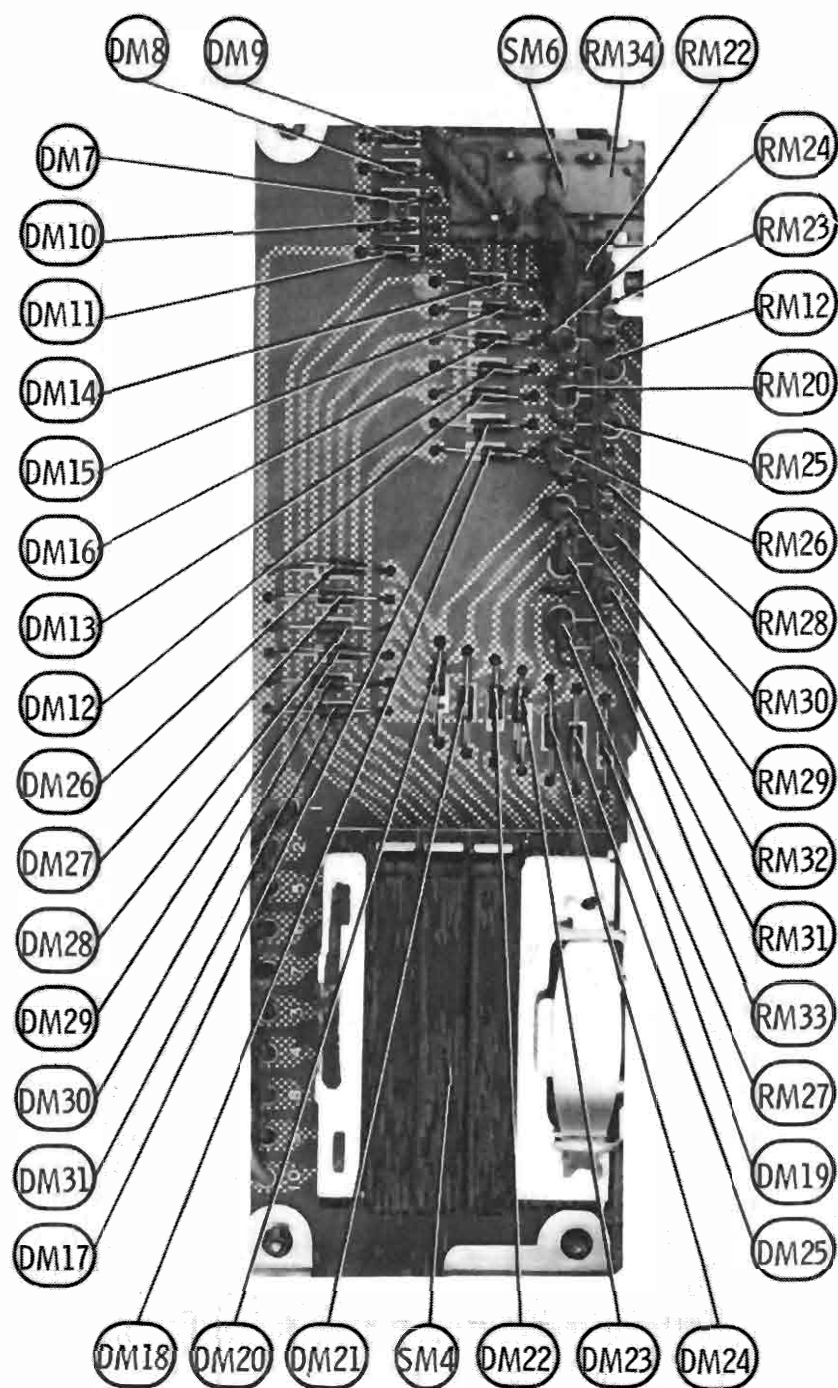


ROYCE MODEL 1-625

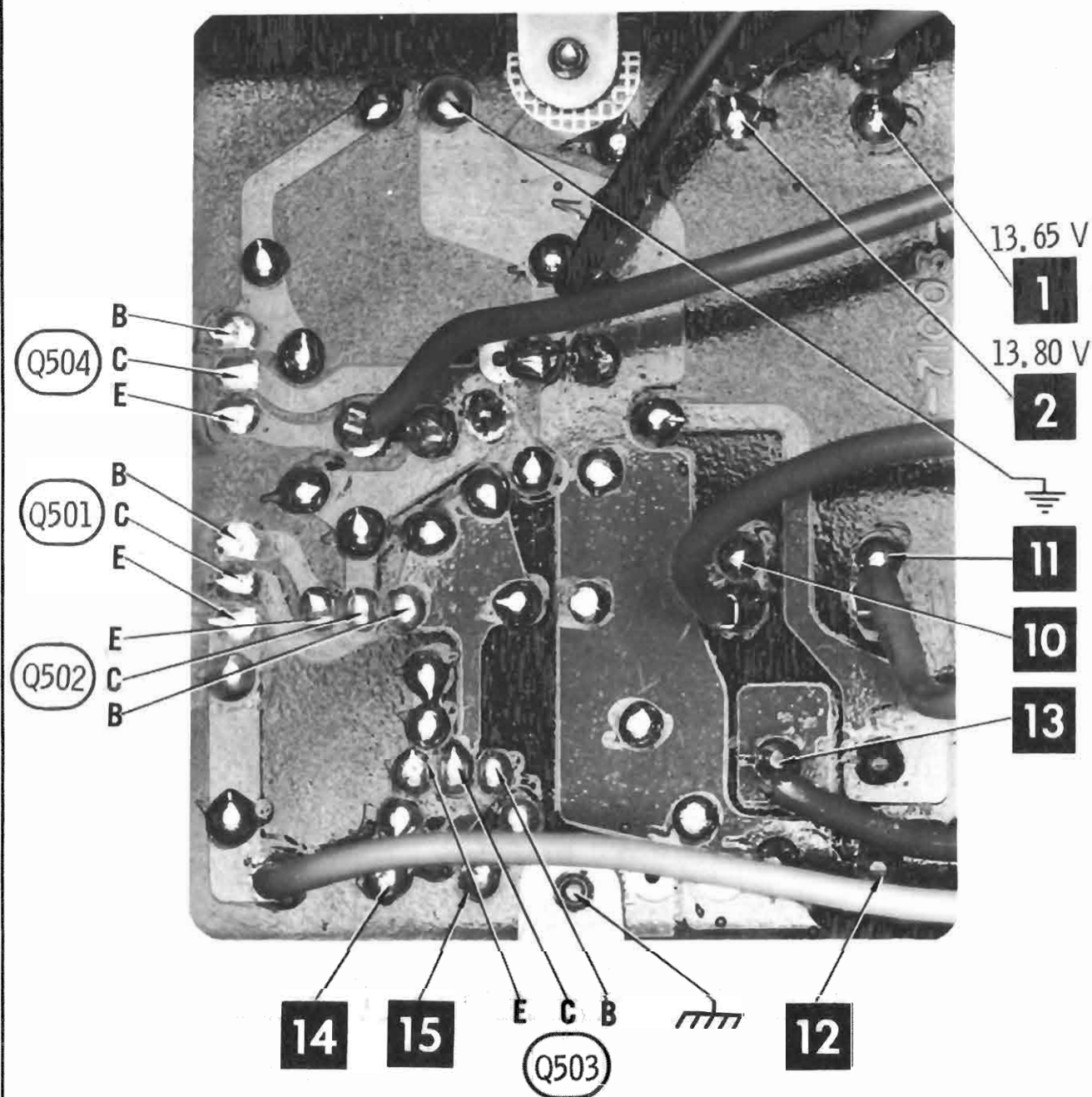
ANT. BOARD



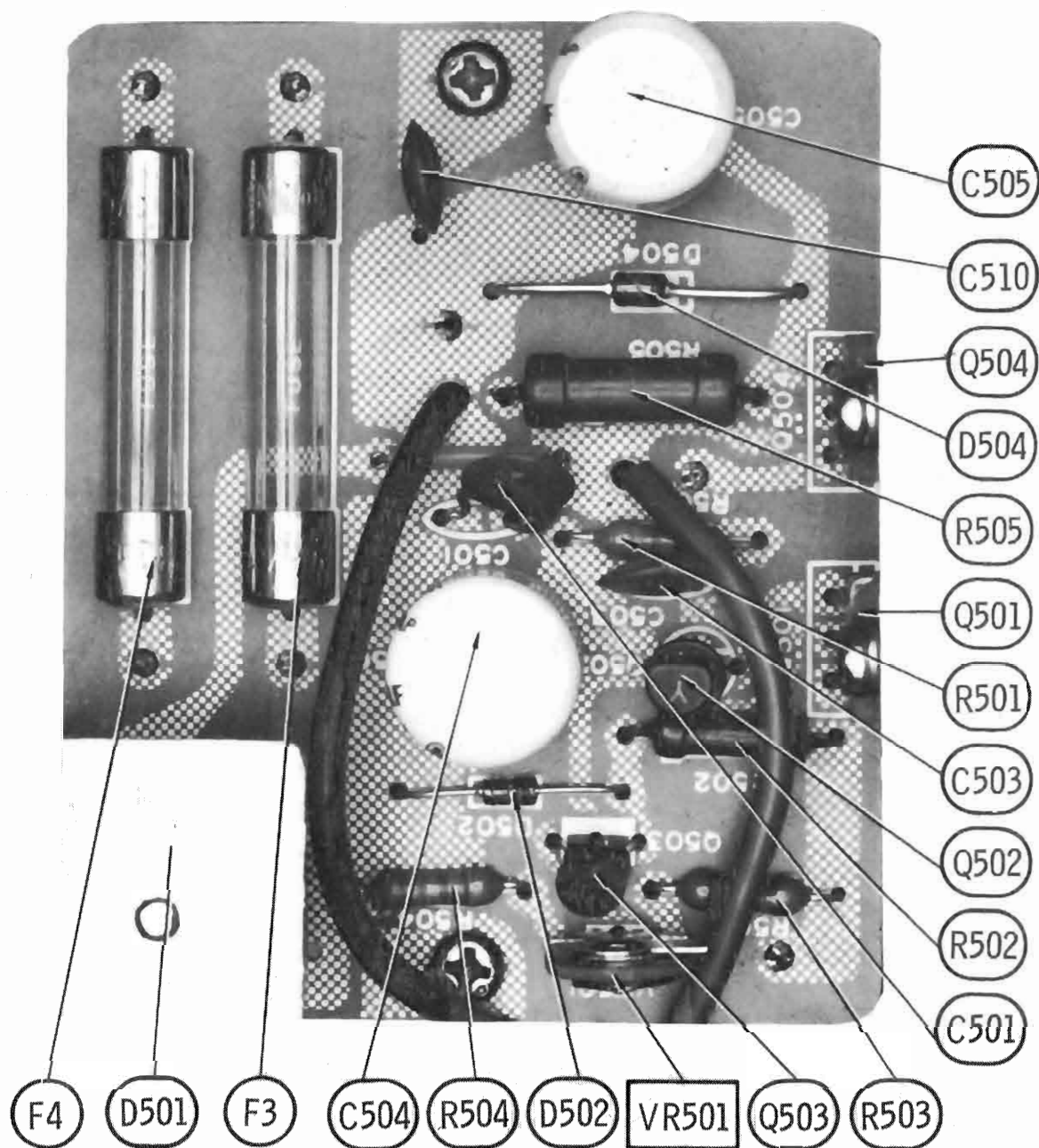
CH. SELECTOR & READOUT BOARD



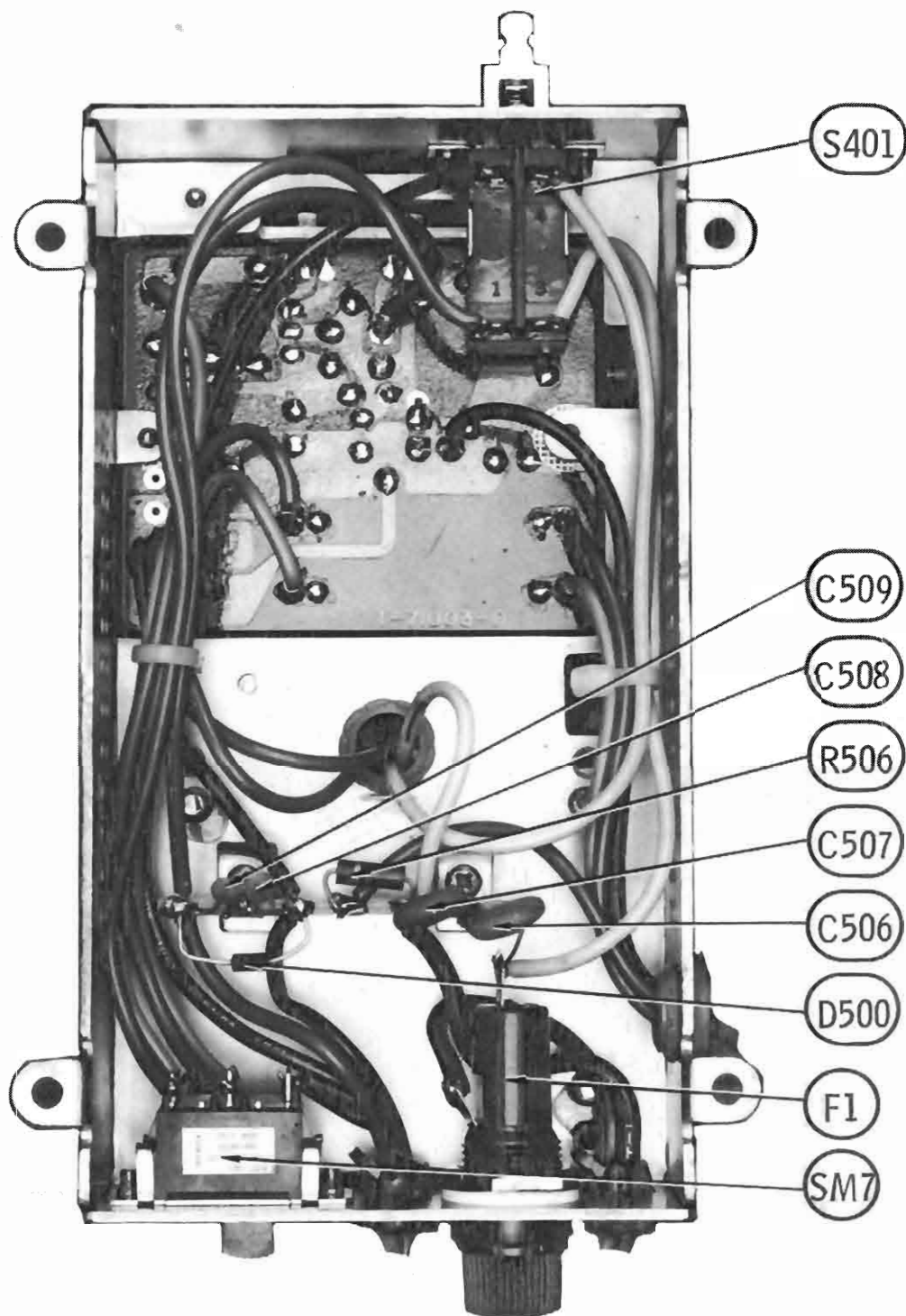
CH. SELECTOR & READOUT BOARD



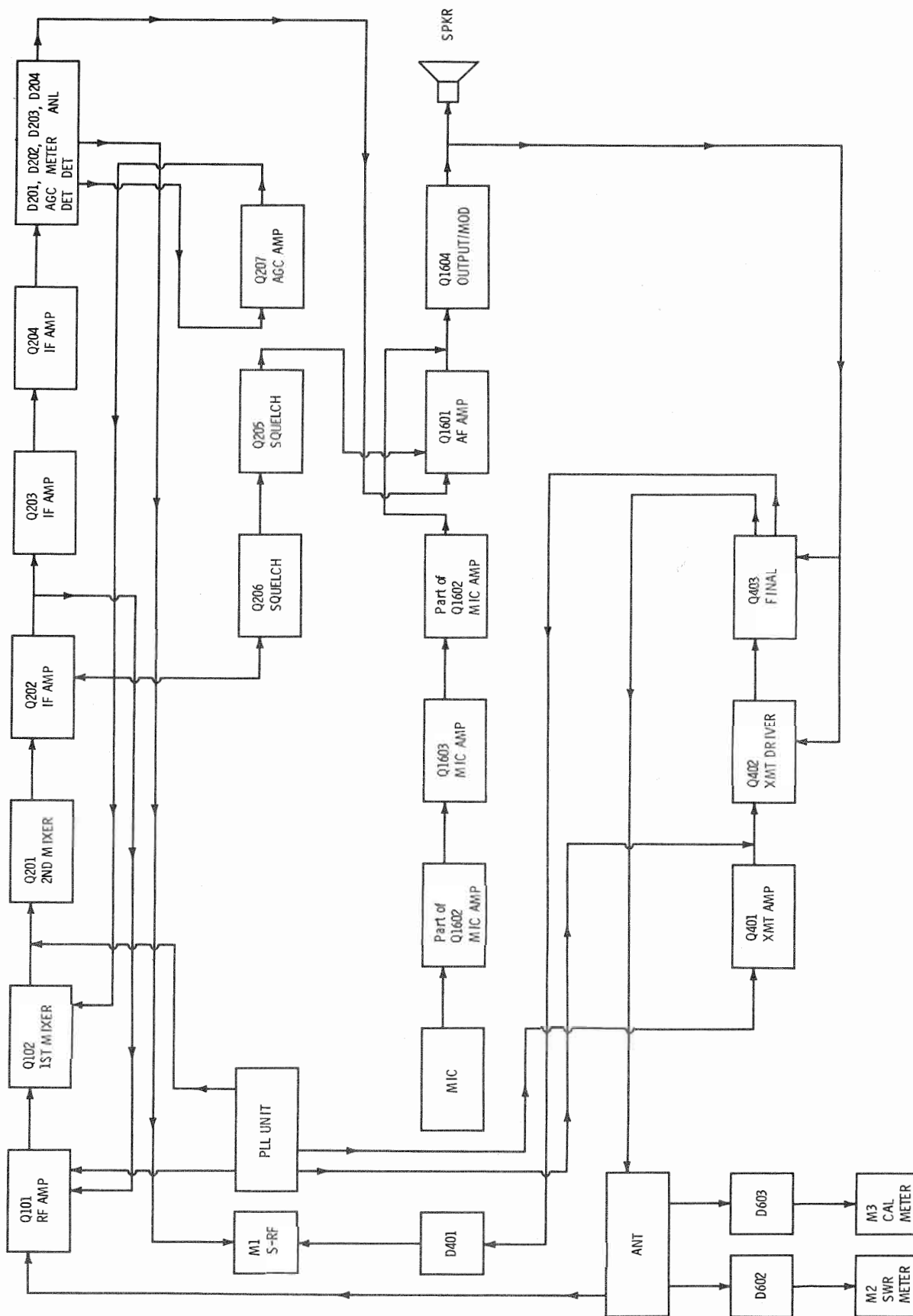
POWER SUPPLY CHASSIS



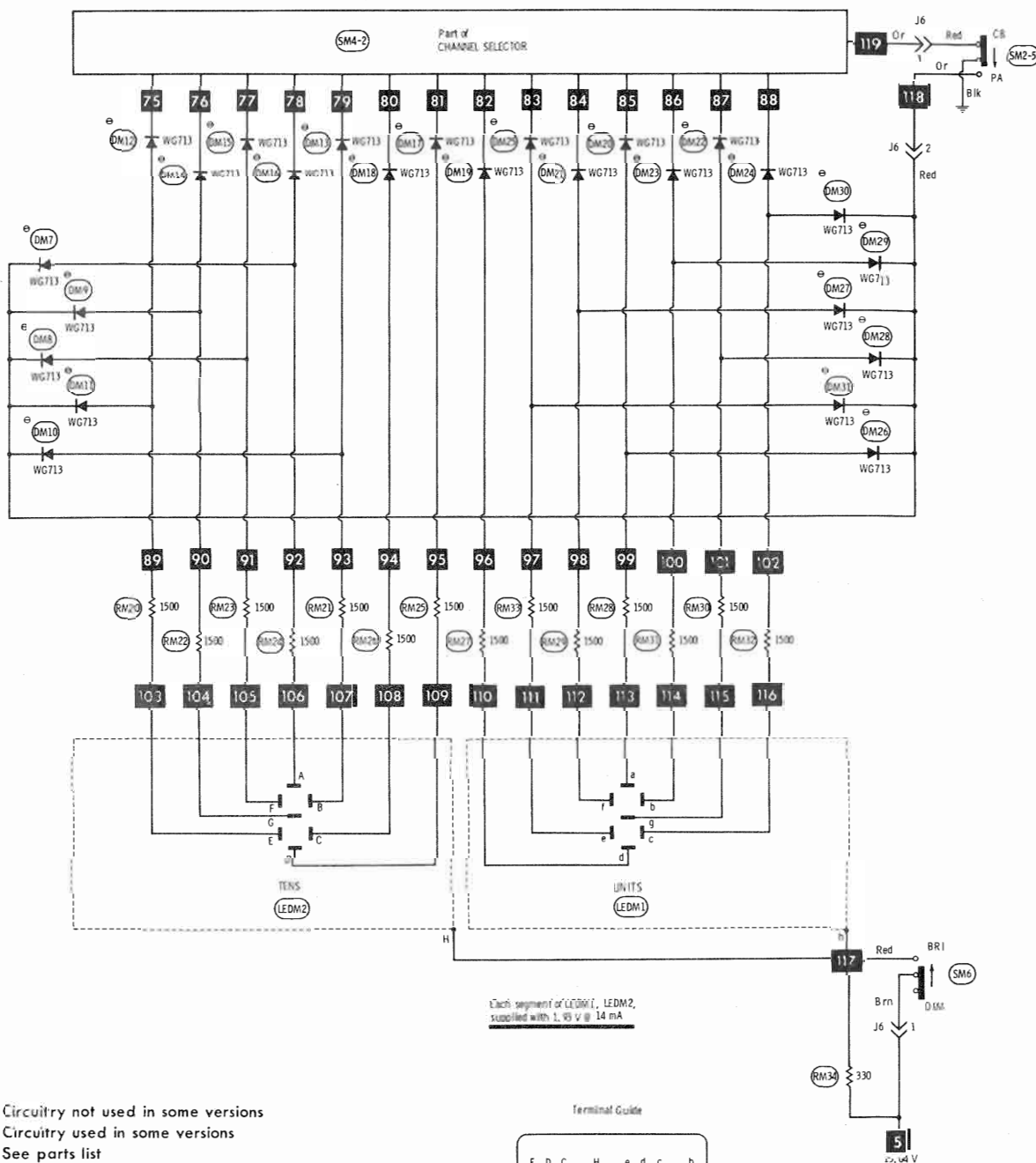
POWER SUPPLY BOARD



POWER SUPPLY CHASSIS



BLOCK DIAGRAM



A PHOTOFAC STANDARD NOTATION SCHEMATIC

WITH **CIRCUITACE**

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PARTS LIST AND DESCRIPTION

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

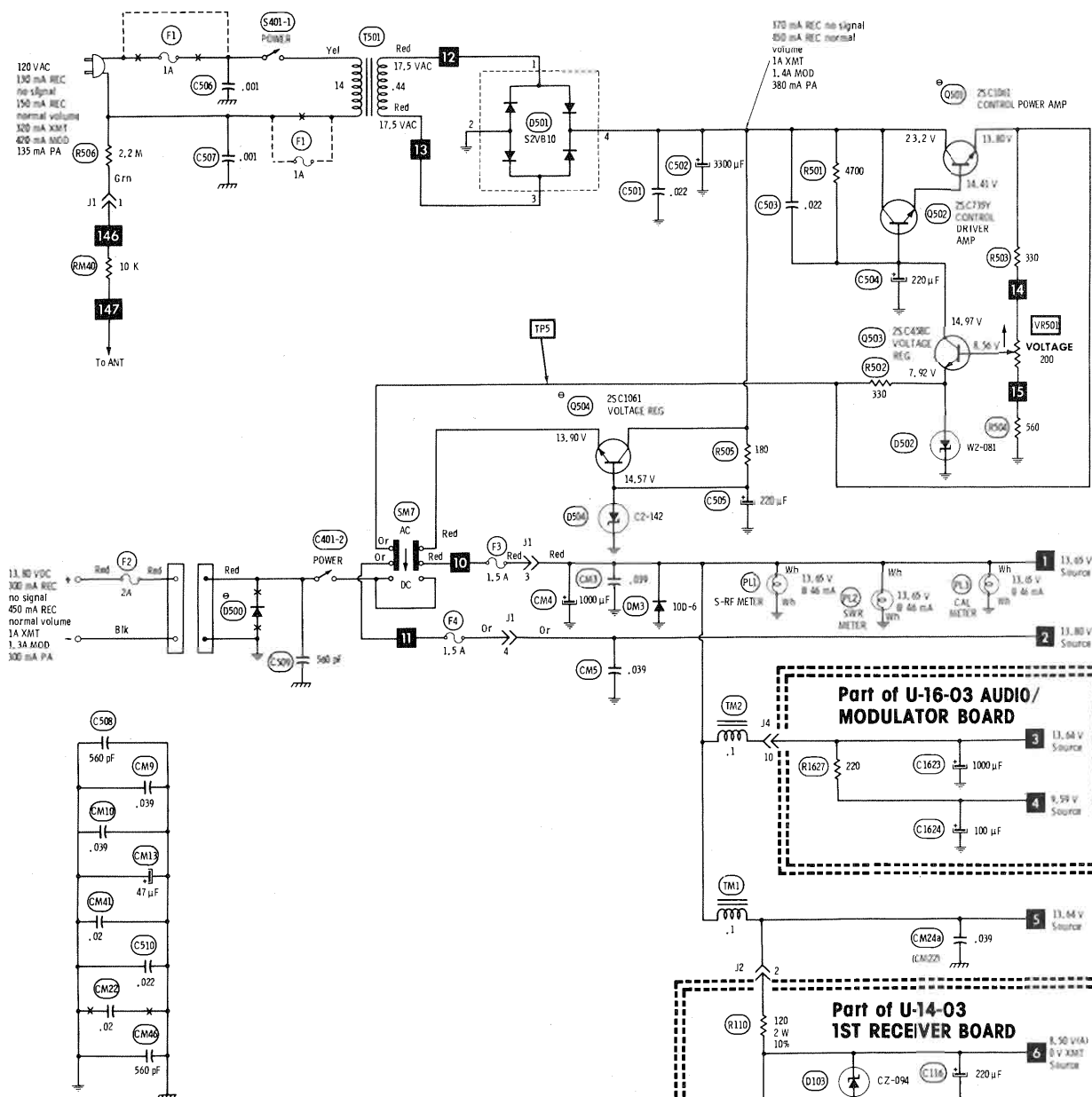
WIRING DATA

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	BELDEN No. 17106	4-conductor (unshielded) 23AWG	BELDEN No. 8415 (6')
	(9') BELDEN No. 17109	5-conductor (1 shielded) 28AWG	BELDEN No. 9467 (6')
			BELDEN No. 9465 (7-1/2')

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFG. 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	10D-1		GE-504A	PTC201	HEPRO052	RE 49	SK3030	RT-213	ECG116	1N4004	WEP156	212-76
D102	10D-1		GE-504A	PTC201	HEPRO052	RE 49	SK3030	RT-213	ECG116	1N4004	WEP156	212-76
D103	CZ-094		GEZD-9.1	ZB9.18		RE 114		RT-240	ECG139A	1N4739A	WEP1105	103-272
D201	1S2076		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
D202	1S188AM		1N34AS	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430
D203	1S2075K		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
D204	1N60		1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430
D205	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
D206	HV-46			PTC302					ECG606			
D401	1S2076		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
D500			GE-510	PTC205	HEPRO170	RE 51	SK3081	RT-201	ECG125		WEP170	
D501	S2VB10								ECG5312			
D502	WZ-081		GEZD-8.2	ZB8.28		RE 112		RT-257	ECG5072A	1N4738A	WEP1108	
	EQB01-08		GEZD-8.2	ZB8.28		RE 112		RT-257	ECG5072A	1N4738A	WEP1108	
	EUZ-82		GEZD-8.2	ZB8.28		RE 112		RT-257	ECG5072A	1N4738A	WEP1108	
	CZ-142					RE 120			ECG144A		WEP1159	ZEN-507
D504	1S188AM		1N34AS	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430
D602	1S188		1N34AS	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430
D603	1S2076		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
D1601	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
D1603	10D-1		GE-504A	PTC201	HEPRO052	RE 49	SK3030	RT-213	ECG116	1N4004	WEP156	212-76
DM1	10D-1		GE-504A	PTC201	HEPRO052	RE 49	SK3030	RT-213	ECG116	1N4004	WEP156	212-76
DM3	10D-6		GE-504A	PTC202	HEPRO054	RE 49	SK3313	RT-215	ECG116	1N4007	WEP158	212-76
DM4	1S2075K		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
DM5	1S188AM		1N34AS	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430
DM6	1S188AM		1N34AS	PTC207	HEPR9134A	RE 47	SK3087	RT-200	ECG109	1N34A	WEP134	ZEN-430
DM7	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM8	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM9	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
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DM10	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM11	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
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DM12	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM13	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM14	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM15	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM16	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM17	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM18	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM19	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM20	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM21	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM22	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM23	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM24	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM25	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM26	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM27	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM28	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM29	WG713		GE-300	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPRO602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	

ROYCE MODEL 1-625

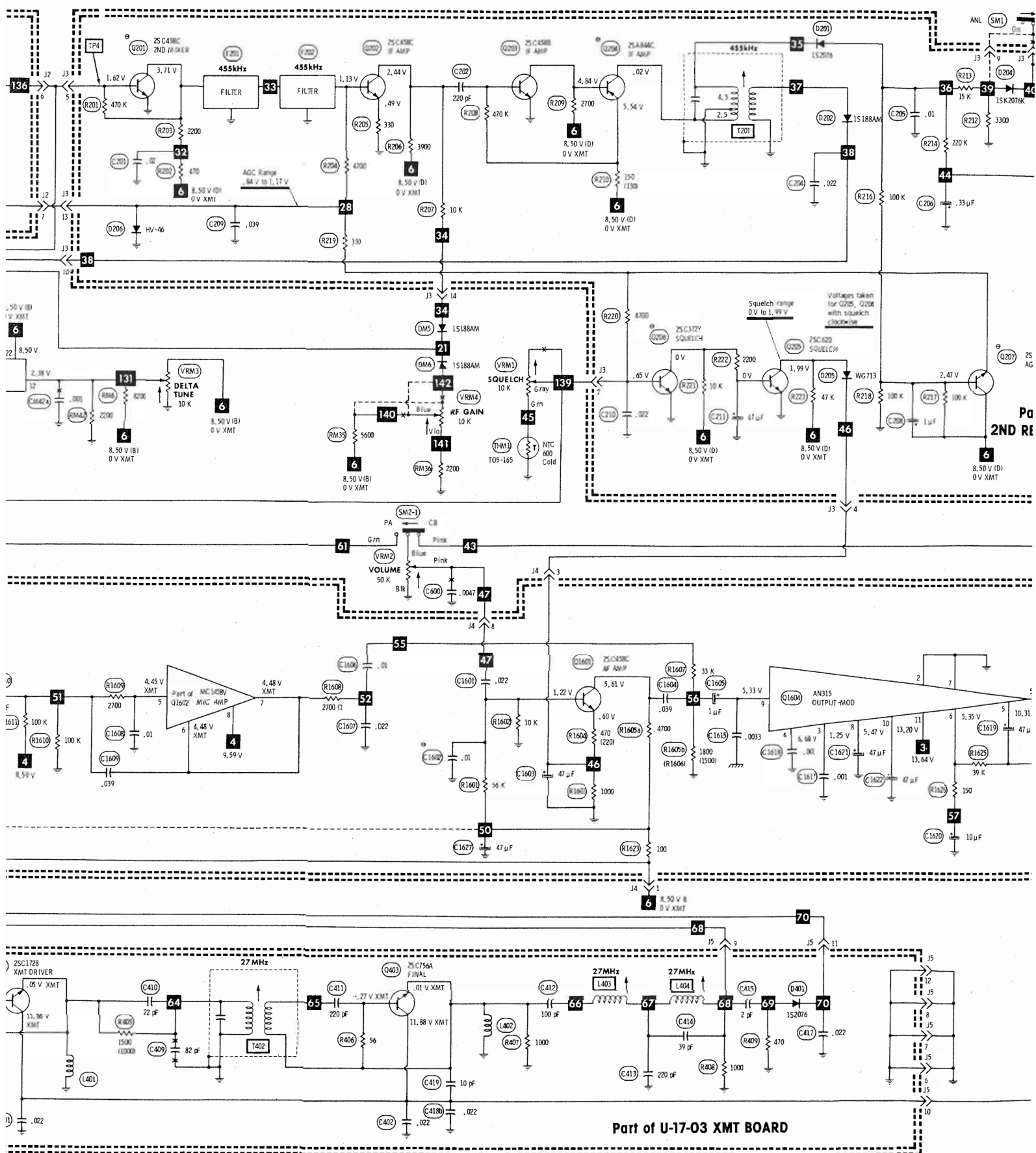


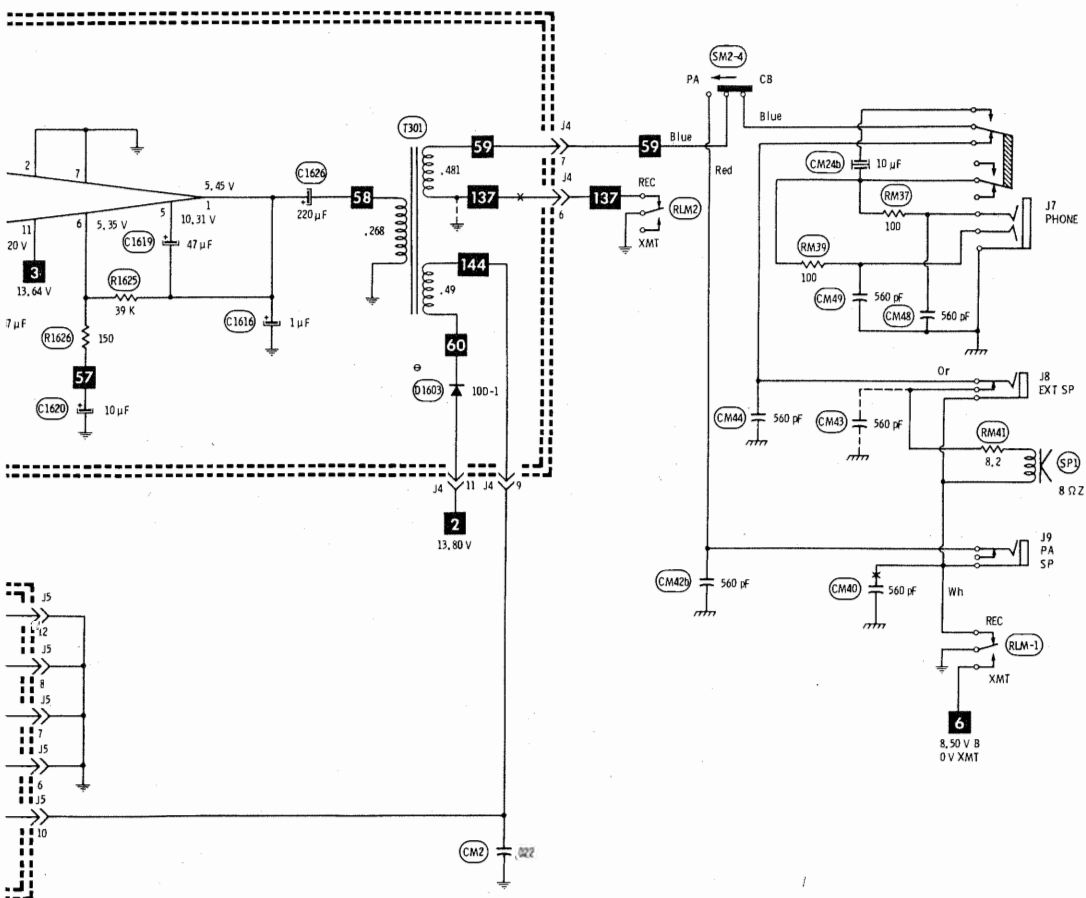
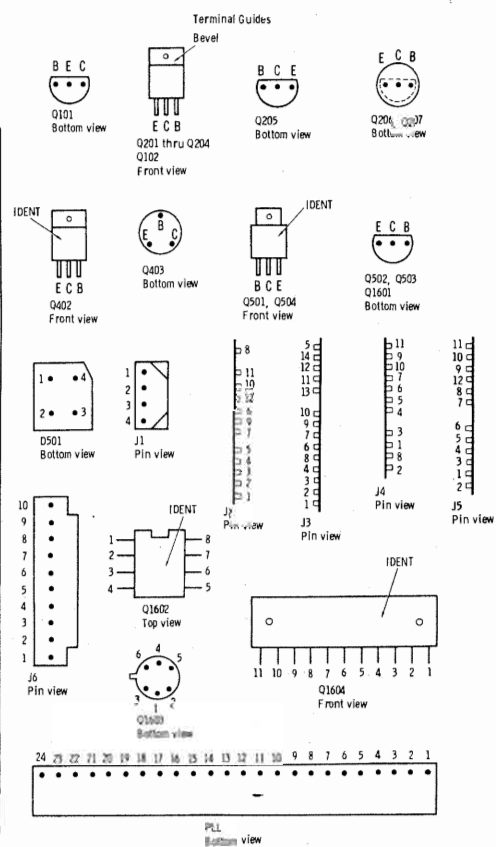
- ✖ Circuitry not used in some versions
 - Circuitry used in some versions
 - ⊙ See parts list
 - ✱ Nominal value
 - ⊥ Ground
 - ⏏ Chassis
 - ▽ Common tie point
- Measurements made in Channel 1 with switching as shown unless noted.
 Item numbers in rectangles appear in the alignment/adjustment instructions.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

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PARTS LIST AND DESCRIPTION (CONTINUED)

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

PARTS

(When order

CAPAC

SEMICONDUCTORS (Select replacement transistor for best results) (cont)

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.
DM30	WG713		GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
DM31	WG713		GE-300	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177		WEP1062	
	1N4148		GE-514	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG519	1N4148	WEP925	
Q101	2SC1856		GE-61*	PTC136*	HEPS0010	RE 15*	SK3018*	RT-107*	ECG108*		WEP56*	ZEN-104*
Q102	2SC4608		GE-61*	PTC136*	HEPS0014*	RE 9	SK3122*	RT-134	ECG233	2SC460	WEP460	121-722
	2SC460		GE-211*	PTC132	HEPS0016*	RE 13*	SK3444*	RT-308*	ECG123A*	2SC460	WEP460	121-722
	2SC710		GE-210*	PTC121*	HEPS0009*	RE 13*	SK3124	RT-187	ECG123A*	2SC710	WEP710	ZEN-114
Q201	2SC458C		GE-210*	PTC121*	HEPS0009*	RE 13*	SK3124	RT-187	ECG123A*	2SC458	WEP458	ZEN-114
Q202	2SC458C		GE-210*	PTC121*	HEPS0009*	RE 13*	SK3124	RT-187	ECG123A*	2SC458	WEP458	ZEN-114
Q203	2SC458B		GE-244*	PTC103*	HEPS0019*	RE 18*	SK3114	RT-126A*	ECG129*	2SC458	WEP458	ZEN-114
Q204	2SA844C		GE-244*	PTC103*	HEPS0019*	RE 18*	SK3114	RT-126A*	ECG129*		WEP458	ZEN-114
	2SA844		GE-269	PTC103*	HEPS0012*	RE 197*	SK3114	RT-106	ECG290	2SA842	WEP911	121-986
	2SA852		GE-20*	PTC125*	HEPS0015*	RE 13*	SK3020*	RT-107A*	ECG123A*	2SC620	WEP736*	ZEN-127
Q205	2SC620		GE-20*	PTC125*	HEPS0015*	RE 13*	SK3020*	RT-107A*	ECG123A*	2SC620	WEP736*	ZEN-127
	2SC620B		GE-61*	PTC121*	HEPS0015*	RE 13*	SK3444	RT-308	ECG123A*	2SC372	WEP372	ZEN-114
Q206	2SC372Y		GE-210*	PTC121*	HEPS0009*	RE 13*	SK3124	RT-187	ECG123A*	2SC458	WEP458	ZEN-114
	2SC458C		GE-61*	PTC121*	HEPS0015*	RE 13*	SK3444	RT-308	ECG123A*	2SC372	WEP372	ZEN-114
Q207	2SC372Y		GE-210*	PTC121*	HEPS0009*	RE 13*	SK3124	RT-187	ECG123A*	2SC458	WEP458	ZEN-114
	2SC458C		GE-20*	PTC136*	HEPS0015*	RE 9*	SK3124*	RT-107A*	ECG107*	2SC380*	WEP535*	
Q401	2SC1908E		GE-20*	PTC136*	HEPS0015*	RE 9*	SK3124*	RT-107A*	ECG107*	2SC380*	WEP535*	
	2SC1908		GE-275			RE 204	SK3252	RT-310	ECG302		WEP918	
Q402	2SC1728		GE-46	PTC158		RE 206		RT-306F	ECG282		WEP909	
Q403	2SC756A											
	(12)		GE-66	PTC154	HEPS3061	RE 21	SK3054	RT-197	ECG152	2SC1061	WEP745	921-1009
Q501	2SC1061		GE-66	PTC167	HEPS5027	RE 21	SK3054	RT-197	ECG152		WEP745	
	2SC1419		GE-210*	PTC123*	HEPS0014*	RE 13*	SK3122	RT-308*	ECG289	2SC735	WEP735A	ZEN-127
Q502	2SC735Y		GE-62	PTC136	HEPS0015	RE 13	SK3122	RT-105	ECG123A		WEP736	ZEN-119
	2SD227		GE-210*	PTC121*	HEPS0009*	RE 13*	SK3124	RT-187	ECG123A*	2SC458	WEP458	ZEN-114
Q503	2SC458C		GE-61*	PTC121*	HEPS0015*	RE 13*	SK3444	RT-308	ECG123A*	2SC372	WEP372	ZEN-114
	2SC372Y		GE-66	PTC154	HEPS3061	RE 21	SK3054	RT-197	ECG152	2SC1061	WEP745	921-1009
Q504	2SC1061		GE-66	PTC167	HEPS5027	RE 21	SK3054	RT-197	ECG152		WEP745	
	2SC1419		GE-210*	PTC121*	HEPS0009*	RE 13*	SK3124	RT-187	ECG123A*	2SC458	WEP458	ZEN-114
Q1601	2SC458C		GE-210*	PTC121*	HEPS0009*	RE 13*	SK3124	RT-187	ECG123A*	2SC372	WEP372	ZEN-114
	2SC458		GE-61*	PTC121*	HEPS0015*	RE 13*	SK3444	RT-308	ECG123A*			
	2SC372Y											
Q1602	MC1458V											
Q1603A	MPS32310											
Q1603B	MPS32310											
Q1604	AN315								ECG1240			

* Lead Configuration may vary from original.

(12) 10 watt @ 4.0 amp.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA			
			CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C107	10 16V		PC10-25	VTT10825	QV1-41	EV-1222
C116	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240
C206	.33 50V			TC5034W50EL	QDT1-14	SD50-R339
C208	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C211	47 10V		PC50-16	VTT47D16	QV1-73	EV-1226
C502	3300 35V		WBR3000-35*	TC50300*		TVA-1229
C504	220 25V		PC250-25	VTT220K25	QV1-119	EV-1340
C505	220 25V		PC250-25	VTT220K25	QV1-119	EV-1340
C1603	47 10V		PC50-16	VTT47D16	QV1-73	EV-1226
C1605	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C1610	10 16V		PC10-25	VTT10825	QV1-41	EV-1222
C1611	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C1612	1 50V		PC1-50	VTT1A50	QV1-11	EV-1615
C1616	1 35V			TDC105M035EL		SD35-19
C1619	47 10V		PC50-16	VTT47D16	QV1-73	EV-1226
C1620	10 10V			TDC106M025FL	QDT1-64	SD25-109
C1621	47 10V		PC50-16	VTT47D16	QV1-73	EV-1226
C1622	47 10V		PC50-16	VTT47D16	QV1-73	EV-1226
C1623	1000 16V		PC1000-16	VTT1000L16	QV1-183	EV-1260
C1624	100 16V		PC100-16	VTT100F16	QV1-55	EV-1230
C1626	220 16V		PC250-25	VTT220H16	QV1-117	EV-1240
C1627	47 10V		PC50-16	VTT47D16	QV1-73	EV-1226
CM4	1000 16V		PC1000-16	VTT1000L16	QV1-183	EV-1260
CM13	47 16V		PC50-16	VTT47D16	QV1-73	EV-1226
CM24b	10 16V NP		WNP10-50	TCNS010A	QEN1-187	TVAN-1304.1

* axial replacement for radial device.

PARTS LIST AND DESCRIPTION (CONTINUED)

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

CAPACITORS

ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA				PART No.
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE Q-LINE	
C101	82 N220 5%				*		10TCR-Q82
C102	220 N750 10%		DTN-220	N220	CN7322		10TCU-T22
C103	22 N220 10%				*		10TCR-Q22
C104	.02		UK50-223		MAG5012		
C105	.02		UK50-223		MAG5012		
C106	.02		UK50-223		MAG5012		
C108	.02		UK50-223		MAG5012		
C109	22		DTZ-22	NP022	CN0422		10TCC-Q22
C110	.022		UK25-223				HY-725
C111	.022		UK25-223				HY-725
C112	.02		UK50-223		MAG5012		
C113	.001		DD-102		GP210		10TS-D10
C114	15 N220				*		10TCR-Q15
	5 N220				*		10TCR-Y50
C115	.02		UK50-223		MAG5012		
C201	.02		UK50-223		MAG5012		
C202	220 N750 10%		DTN-220	N220	CN7322		10TCU-T22
C203	.039				GP140		5GA-S40
C204	.02		UK50-223		MAG5012		
C205	.01 10%		UK50-103		MAG5011		
C207	.01 50V			WMF1S1	EWFA1110	QFT2-91	1FT-S10
C209	.039				GP140		5GA-S40
C210	.022		UK25-223				HY-725
C212	.039				GP140		5GA-S40
C401	.022		UK25-223				HY-725
C402	.022		UK25-223				HY-725
C403	68 N220 10%				*		10TCR-Q68
C404	.022		UK25-223		*		HY-725
C405	39 N220 10%				*		10TCR-Q39
C406	.022		UK25-223				HY-725
C407	.022		UK25-223				HY-725
C408	.001		DD-102		GP210		10TS-D10
C409	82 N220 10%				*		10TCR-Q82
C410	22 N220				*		10TCR-Q22
C411	220 N750 10%		DTN-220	N220	CN7322		10TCU-T22
C412	100 N750 10%		DTN-100	N100	CN7310		10TCU-T10
C413	220 N750 5%		DTN-220	N220	CN7322		10TCU-T22
C414	39 N220 10%				*		10TCR-Q39
C415	2 NP0		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C417	.022		UK25-223				HY-725
C418A	82 N750 10%				CN7482		10TCU-Q82
C418B	.022		UK25-223				HY-725
C501	.022		UK25-223				HY-725
C503	.022		UK25-223				HY-725
C506	.001		DD-102		GP210		10TS-D10
C507	.001		DD-102		GP210		10TS-D10
C508	560		DD-561		GP356		10TS-T56
C509	560		DD-561		GP356		10TS-T56
C510	.022		UK25-223				HY-725
C600	.0047		DD-472	GP4700	GP247		5GA-D47
C601	2		DTZ-2R2	NP02P2	CN0522		10TCC-V22
C603	.02		UK50-223		MAG5012		
C604	.02		UK50-223		MAG5012		
C605A	22 N220				*		10TCR-Q22
C605B	.02		UK50-223		MAG5012		
C1601	.022 50V 10%				M192P2239R8	QFT2-127	1FT-S22
C1602	.01 50V			WMF1S1	EWFA1110	QFT2-91	1FT-S10
C1604	.039 50V 10%				M192P3939R8	QFT2-159	1FT-S39
C1606	.01 50V			WMF1S1	EWFA1110	QFT2-91	1FT-S10
C1607	.022 50V				M192P2239R8	QFT2-127	1FT-S22
C1608	.01 50V					QFT2-91	1FT-S10
C1609	.039 50V 5%			WMF1S1	EWFA1110	QFT2-159	1FT-S39
C1615	.0033 50V				M192P3329R8	QFT2-43	1FT-D33
C1617	.001 10%		DD-102		GP210		10TS-D10
C1618	.001		DD-102		GP210		10TS-D10
C1625	.001		DD-102		GP210		10TS-D10
CM2	.02		UK50-223		MAG5012		
CM3	.039				GP140		5GA-S40
CM5	.039				GP140		5GA-S40
CM9	.039				GP140		5GA-S40
CM10	.039				GP140		5GA-S40
CM19	8 N220				*		10TCR-V32
CM20	.01 50V			WMF1S1	EWFA1110	QFT2-91	1FT-S10
CM21	10 N220				*		10TCR-Q10
CM22	.02		UK50-223		MAG5012		
CM24A	.039				GP140		5GA-S40
CM40	560		DD-561		GP356		10TS-T56
CM41	.001		DD-102		GP210		10TS-D10
CM42A	.001		DD-102		GP210		10TS-D10
CM42B	560		DD-561		GP356		10TS-T56
CM44	560		DD-561		GP356		10TS-T56
CM45	47 N220 10%				*		10TCR-Q47
CM46	560		DD-561		GP356		10TS-T56
CM47	560		DD-561		GP356		10TS-T56
CM48	560		DD-561		GP356		10TS-T56
CM50	.0047		DD-472	GP4700	GP247		5GA-D47

ROYCE MODEL 1-625

* 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	RESISTANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
VR501	Voltage	200	01-503	T-200 (2)		MTC22L1 (2)	X201R251B (2)
VR601-1	CAL	5000	09-082 (18)				
VR601-2	CAL	5000					
VR602	CAL ADJ	10K	01-515				X260R103B (2)
VR1602	AMC	5000					U260R502B
VRM1	Squeitch	10K	09-066				
VRM2	Volume	50K	09-019				
VRM3	Delta Tune	10K	09-066				
VRM4	RF Gain	10K	09-066				

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

(18) Includes VR601-1 and VR601-2.

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.
THM1	600 Cold NTC						

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L101	RF Choke	02-069	AMPL-05		
L401	RF Choke	02-070	AMPL-06		
L402	RF Choke	02-071	AMPL-07		
L403	Final Tuning (27MHz)	02-068	AMPL-04		
L404	Antenna Tuning (27MHz)	02-066	AMPL-02		
T101	Rec RF (27MHz)	02-016	ETC15085	CBS774	
T102	Rec Mixer (27MHz)	02-012	ETC15061	CB S700-TC	
T201	IF (455kHz)	02-017	ETC1509C	CB S506-4TC	
T401	VMT Driver (27MHz)	02-065	AMPL-01		
T402	Final (27MHz)	02-067	AMPL-03		

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.	
TM1	1.4A	.1	1.45mH	02-127			(1) Number on unit.
TM2	1.4A	.1	1.45mH	1002(1)			

PARTS LIST AND DESCRIPTION (CONTINUED)

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

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T301	3.92	1 2 8 20.48	02-139			

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T501	120V AC	17.5V DC @ 234mA	02-138			

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3 1/2" PM 8 Ohms	06-006	3A05ZR	

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
F1	1A Quick Acting			AGC1	HKP	:312001	342038	F61-2
F2	2A Quick Acting			AGC2	HDJ	:312002	150145	F62-2
F3	1.5A Quick Acting			GJY1 1/2		:31801.5		
F4	1.5A Quick Acting			GJF1 1/2		:31801.5		

ROYCE MODEL 1-625

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		18-032	18-034	18-010	18-092	1	2	3	NC	NC	2

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
F101	Filter	01-902	10.7MHz (SFE 10.7mA-5)
F201	Filter	01-901	455MHz (CFU-455H)
F202	Filter	01-901	455MHz (CFU-455H)
J4	Jack	10-001	MIC
J8	Jack	10-003A	External Speaker
J9	Jack	10-003A	PA Speaker
J10	Jack	10-002	Antenna
LEDM1	LED		Channel Readout (Units) 1.93V @ 14mA
LEDM2	LED		Channel Readout (Tens) 1.93V @ 14mA
LEDP1	LED		XMT Indicator 1.93V @ 9.5mA
M1	Meter	05-010	S/Rf
M2	Meter	05-012	SWR
M3	Meter	05-011	Cal
M5	PLL	12-009	PLL Unit
PL1	Lamp	07-001	S/Rf Meter 13.65V @ 46mA
PL2	Lamp	07-001	SWR Meter 13.65V @ 46mA
PL3	Lamp	07-001	Cal Meter 13.65V @ 46mA
RLM1	Relay		Rec./MT
S401	Switch	09-151	Power
SM1	Switch	09-127	ANL
SM2	Switch	09-127	PA/CB
SM3	Switch	09-127	Tone (Lo-Hi)
SM4	Switch	09-118	Channel Selector
SM6	Switch		Dial Light (Dim-Bright)
SM7	Switch	09-154	AC/DC
	Cord	08-106	AC
	Cord	08-104	DC
	Printed Circuit Board	12-017	Audio-Modulator (Complete)
	Printed Circuit Board	12-015	First Receiver
	Printed Circuit Board	12-016	Second Receiver
	Printed Circuit Board	12-018	Transmitter

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

ITEM	PART No.	ITEM	PART No.
Button ANL/Tone/PA	19-635	Knob Control	19-605
Button Bright/Dim	19-645	Panel Front	19-127A
Button On/Off	19-634	Panel Side	19-212
Case Top	19-127B	Plate Wood Grain	19-313C
Chassis Main	19-129A	Plate Plastic	19-313B
Knob Channel	19-622		