



PARTS LIST

<u>Stock#</u>	<u>Sym.</u>	<u>Description</u>	<u>Am't.</u>	<u>Stock#</u>	<u>Description</u>	<u>Am't.</u>
22513	C1	cap., disc., .005mfd (5K or 5000mmf) $\pm 10\%$	1	40007	nut, hex, #4-40	6
22517	C2,3,4	cap., disc., .025mfd (25K or 2500mmf) $\pm 10\%$	3	41000	screw, #6-32 x 1/4	12
24003	C5	cap., elec., 2x 20/450V - 2x 10/350V	1	41001	screw, #10-24 x 3/8	2
20044	C6	cap., molded, .25mfd - 400V	1	41014	screw, #6-32 x 3/8	2
95000	CR1,2	rectifier, 1N48	2	41016	screw, #4-40 x 1/4	6
91003	F1	fuse, 5A, slo-blo	1	41035	screw, #6 P.K.	9
50001	J2,7,8,9,10	jack, pin, black	5	42000	washer, 3/8 lock	6
50000	J1,4,5,6	jack, pin, red	4	42001	washer, 3/8 flat	4
50002	J3	mic. connector male	1	42002	washer, #6 lock	14
50009	J11	receptacle, AC	1	42007	washer, #4 lock	6
10402	R1	res., 10M Ω (brown, black, blue, silver) 1/2W, $\pm 10\%$	1	42012	washer, star (for pin jacks)	9
10431	R2,8,20	res., 470K Ω (yellow, violet, yellow, silver) 1/2W, $\pm 10\%$	3	42019	washer, rubber	1
10410	R3	res., 100K Ω (brown, black, yellow, silver) 1/2W, $\pm 10\%$	1	43000	lug, #6 ground	1
10417	R4,7	res., 220K Ω (red, red, yellow, silver) 1/2W, $\pm 10\%$	2	43001	lug, 3/8 pot ground	1
18043	R5	pot., 500K Ω audio taper	1	46000	grommet, 3/8 rubber	1
10423	R6	res., 2.2K Ω (red, red, red, silver) 1/2W, $\pm 10\%$	1	46005	feet, rubber	4
10862	R9	res., 330 Ω (orange, orange, brown, silver) 1W, $\pm 10\%$	1	47001	spring	1
10407	R10,16, 17,19	res., 1M Ω (brown, black, green, silver) 1/2W, $\pm 10\%$	4	51000	connector, female	1
10436	R11	res., 47 Ω (yellow, violet, black, silver) 1/2W, $\pm 10\%$	1	51004	tip, pin	2
10409	R12	res., 560K Ω (green, blue, yellow, silver) 1/2W, $\pm 10\%$	1	51502	clip, crocodile	2
14501	R13	res., 1K Ω , 5W, $\pm 10\%$	1	53006	knob, round bar	4
10428	R14	res., 47K Ω (yellow, violet, orange, silver) 1/2W, $\pm 10\%$	1	54507	board, probe	1
10422	R15	res., 68K Ω (blue, grey, orange, silver) 1/2W, $\pm 10\%$	1	55301	grill, speaker	1
16004	R18	pot., 50K Ω , linear	1	55500	probe, red	1
60053	S1	switch, input selector	1	57000	line cord	1
60054	S2	switch, output selector	1	58004	wire, hook-up	length
55000	SP1	speaker	1	58300	spaghetti	length
32009	T1	transformer, output	1	58401	cable, mic.	length
30023	T2	transformer, power	1	58403	cable, grey	length
32003	T3	transformer, current	1	58501	wire, bare, #22	length
54034	TB1,2	terminal strip, 2 post with ground	2	58502	braid, flat	length
54013	TB3,4,5	terminal strip, 1 post left with ground	3	80056	panel	1
90034	V1	tube, 12AX7	1	81055	eye bracket	1
90047	V2	tube, 6AQ5	1	81122	chassis	1
90036	V3	tube, 6X4	1	87000	handle	1
90015	V4	tube, 16Z9	1	88021	cabinet	1
97025	XV1	socket, 9 pin min. bottom mount	1	89511	probe, nosepiece	1
97024	XV2,3	socket, 7 pin min. bottom mount	2	89512	probe, tip	1
97013	XV4	socket, octal, molded	1	89524	probe, shell	1
40000		nut, hex #6-32	14	66062	instruction manual (wired)	1
40001		nut, hex 3/8-32	4	66311	instruction manual (kit)	1

NOTE: When ordering replacement parts, please include all of the following information: 1) stock number and description given in parts list; 2) quantity; 3) model number of instrument; 4) serial number of instrument (on panel). This information will expedite the processing of your order and insure your receiving the correct replacement parts.

SERVICE

If trouble develops in your instrument which you can not remedy yourself, write to our service department listing all possible indications that might be helpful. If desired you may return the instrument to our factory where it will be placed in operating condition for \$5.00 plus the cost of parts replaced due to their being damaged in the course of construction. NOTE: Before returning this unit, be sure all parts are securely mounted. Attach a tag to the instrument, giving your home address and the trouble with

the unit. Pack very carefully in a rugged container, using sufficient packing material (cotton, shredded newspaper, or excelsior), to make the unit completely immovable within the container. The original shipping carton is satisfactory, providing the original inserts are used or sufficient packing material inserted to keep the instrument immovable. Ship by prepaid Railway Express, if possible, to Electronic Instrument Co., Inc., 33-00 Northern Blvd., Long Island City 1, New York. Return shipment will be made by express collect. Note that a carrier cannot be held liable for damages in transit if packing IN HIS OPINION, is insufficient.

VOLTAGE AND RESISTANCE CHART

TUBE	PIN ^o	VOLTS	OHMS (UNIT OFF)
ECC83/12AX7 V1	1	75 VDC	270K Ω
	2	0	0
	3	0.9 VDC	2.2K Ω
	4 & 5	6.3 VAC	0
	6	100 VDC	330K Ω
	7	-1 VDC (approx.)	10 Meg Ω
	8	0	0
	9	0	0
	6AQ5 V2	1	0
2		13 VDC	330 Ω
3		0	0
4		6.3 VAC	0
5		260 VDC	1.15K Ω
6		265 VDC	1K Ω
7		0	470K Ω
6X4 V3	1	270 VAC	250 Ω
	2	-	-
	3	0	0
	4	6.3 VAC	0
	5	-	-
	6	270 VAC	250 Ω
	7	310 VDC	100K Ω or greater
1629 V4	1	-	-
	2	6.3 VAC	0
	3	18 VDC	1 Meg Ω
	4	260 VDC	1K Ω
	5	-0.8 VDC	500K Ω
	6	-	-
	7	6.3 VAC	0
	8	0	0

Voltages given are operating voltages measured with no signal. Resistances are measured to ground with unit off. Cathode of rectifier (pin 7 of V3) shorted to ground during all resistance measurements except when measuring resistance from pin 7 of V3 to ground. CONTROL SETTINGS: GAIN at minimum, INPUT SEL. to RF, OUTPUT SEL. to TEST SPKR., WATTS to 0. Voltage measurements are made with a VTVM or 20,000 Ω /V VOM. Operating line voltage at which voltage measurements are made is 117 VAC, 60 cps. NOTE: ALL VOLTAGE & RESISTANCE VALUES MAY VARY NORMALLY BY $\pm 15\%$.