

No. 120-A AMPLIFIER

COMMERCIAL PRODUCTS
APPARATUS REFERENCE SHEET

NO	1-54
AMPLIFIER	
120A	

1-4-40

GENERAL

A 2-STAGE, LOW-LEVEL AMPLIFIER INTENDED FOR USE AS A PRE-MIXING OR BOOSTER AMPLIFIER IN SOUND SYSTEMS OR SPEECH INPUT EQUIPMENTS. THE APPARATUS IS MOUNTED ON BOTH SIDES OF A FLANGED PANEL WHICH MAY BE FASTENED TO A RELAY RACK MOUNTING PLATE.

ELECTRICAL CHARACTERISTICS

GAIN..... APPROXIMATELY 40 DB.
OPERATES FROM..... 30, 250 OR 600 OHMS.
INTERNAL INPUT IMPEDANCE.. OPEN CIRCUIT.
OPERATES INTO..... 600 OHM LOAD.
INTERNAL OUTPUT IMPEDANCE. APPROX. 600 OHMS.
OUTPUT POWER..... APPROX. .038 WATT (+16 DB)*
WITH 1% TOTAL HARMONIC DISTORTION.
OUTPUT NOISE..... -82 DB UNWEIGHTED*
-87 DB WEIGHTED*
*(REF. = .001 WATT)
FREQUENCY CHARACTERISTIC.. SEE CURVE.
POWER SUPPLY..... FILAMENT - 6.3 V., 1 AMP.
PLATE - 275 V., 7 M.A.
(FILAMENT AND PLATE SUPPLY MAY BE OBTAINED FROM 18A RECTIFIER).

VACUUM TUBES (MUST BE ORDERED SEPARATELY)

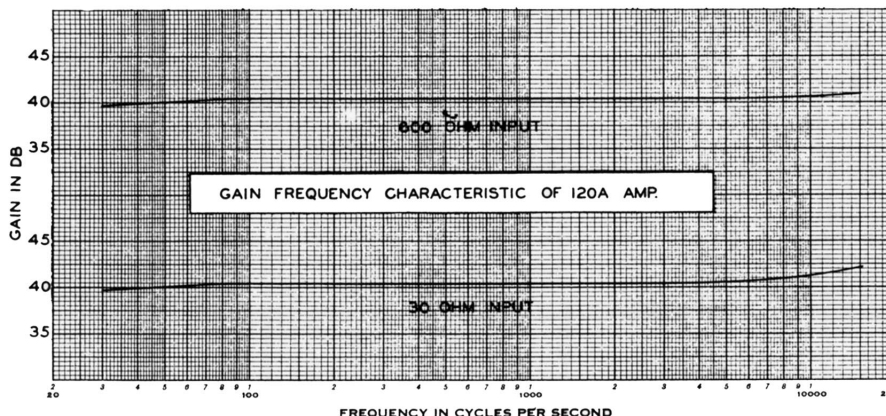
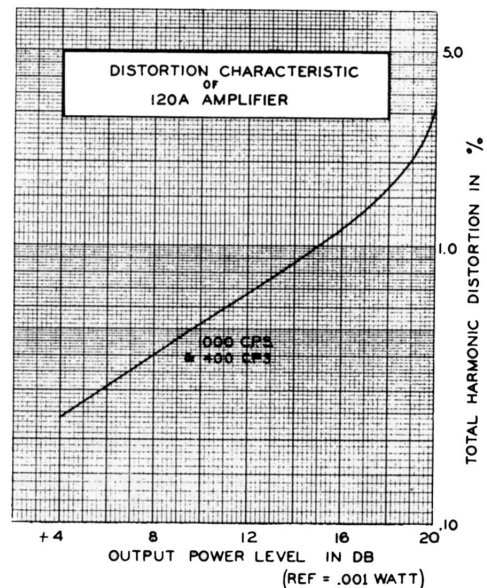
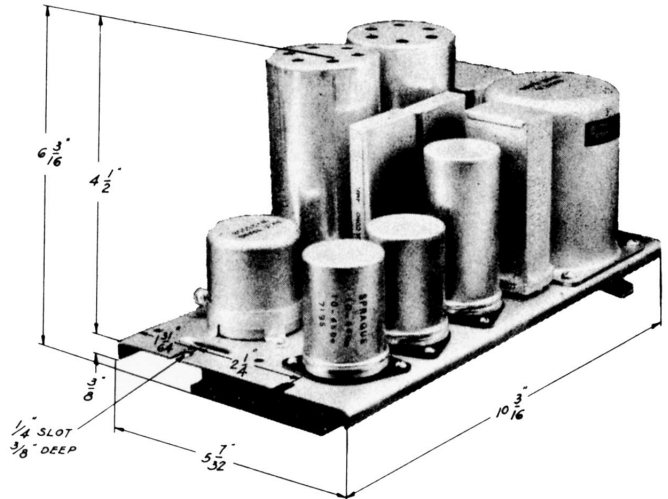
1 - W. E. 347A AND 1 - W. E. 348A VACUUM TUBES OR 2 - TYPE 6J7G VACUUM TUBES

EQUIPMENT CHARACTERISTICS

PANEL SIZE..... APPROX. 5-1/4" X 10-1/4". THE APPARATUS EXTENDS APPROX. 4-1/2" FROM THE FRONT AND 2" FROM THE REAR OF THE PANEL.
WEIGHT..... APPROX. 6-1/2 LBS.
MOUNTING..... DESIGNED FOR MOUNTING ON A 177A MOUNTING PLATE. FLEXIBLE RUBBER MOUNTINGS ARE FURNISHED. THREE 120A AMPLIFIERS MAY BE MOUNTED ON ONE PLATE, REQUIRING 10-15/32" OF RELAY RACK SPACE.
FINISH..... BRIGHT ALUMINUM LACQUER ON ZINC-PLATED STEEL.

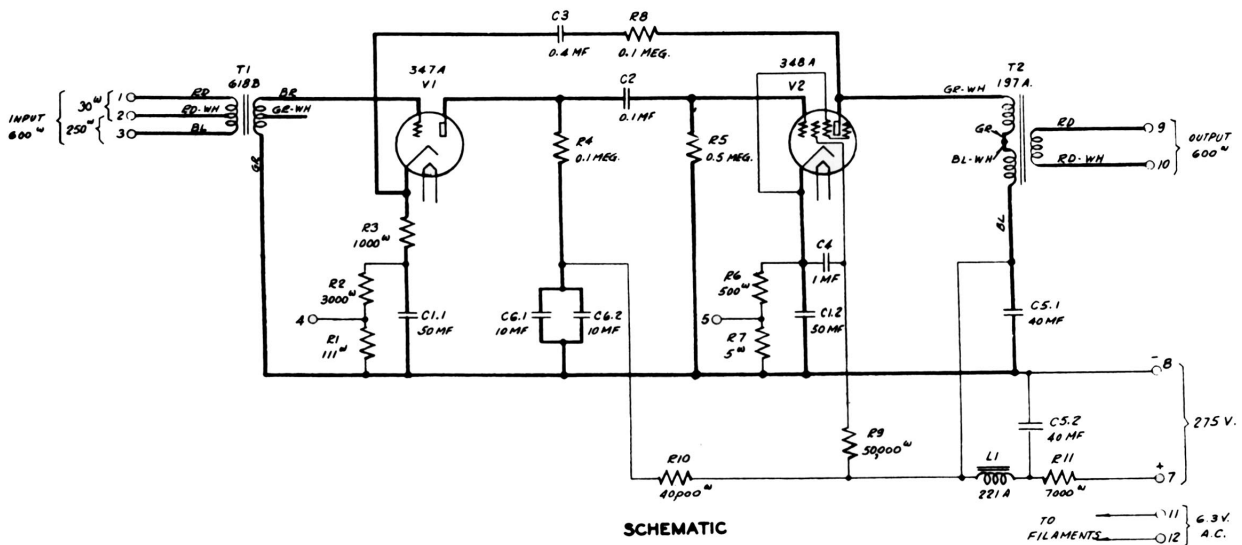
REFERENCES

ESO-675286.....ASSEMBLY AND STOCK LIST
ESO-675287.....SCHEMATIC DIAGRAM
ESO-675288.....WIRING DIAGRAM
ESA-675665.....TESTING INFORMATION

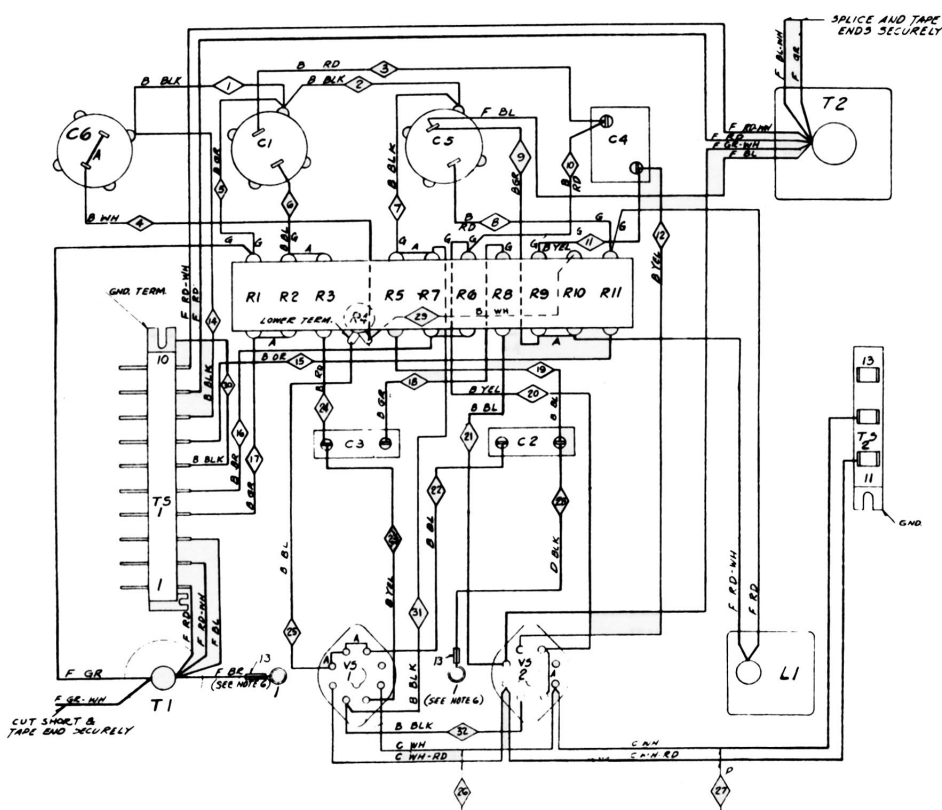


FOR WIRING DIAGRAM AND SCHEMATIC
SEE REAR OF THIS SHEET

No. 120-A AMPLIFIER



<u>Desig.</u>	<u>Apparatus</u>	<u>Desig.</u>	<u>Apparatus</u>
R ₁ to R ₁₁ excepting R ₃	IRC Type BT 1 Watt Resistors	C ₄	229C Condenser
R ₃	IRC Type WW3 100,000 Resistor	T ₁	618B Input Trans- former
C _{1.1} , C _{1.2}	Sprague 50-50 MF - 150V Electrolytic Cond.	T ₂	197A Output Trans- former
C _{5.1} , C _{5.2}	Sprague 40-40 MF - 450V Electrolytic Cond.	L ₁	221A Retard Coil
C _{6.1} , C _{6.2}	Sprague 10-10 MF - 450V Electrolytic Cond.	TS ₁	P-250833 Terminal Strip
C ₂	234C Condenser	TS ₂	Terminal Strip per E30-675407- 3 & 8
C ₃	230A Condenser	VS ₁ , VS ₂	Kby Mfg. Co. #39-1-E VT Socket
		V ₁	347A Vacuum Tube
		V ₂	348A Vacuum Tube
			1 - Type 80 Vacuum Tube



- NOTES-**
1. WIRES MARKED "A" ARE PER ITEM 3
 2. " B " " 4
 3. " C " " 14
 4. " F " FURNISHED WITH APPARATUS.
 5.  INDICATE FORMED WIRES.
NUMBERS TO BE REFERRED AND MAY BE USED TO INDICATE SHOD SAMPLES.
 6. SOLID CORE CLIPS MUST BE PLACED IN THE WIRE AS INDICATED BY THESE PASSING THROUGH THE TWISTED PAIR OF CABLE TUBING IN THE PANEL. THERE SHALL BE NO MORE THAN ONE WIRE FROM EACH TWISTED PAIR CONNECTION BETWEEN LEAD PANEL TO GRID CAP CONNECTION BETWEEN LEAD CAP AND LEAD SHALL BE PROTECTED BY ITEM 13.
 7. WIRES MARKED "D" INDICATE TWISTED PAIRS.
 8. WIRES MARKED "E" ARE PER ITEM 3.
 9. " G " TO BE LONG ENOUGH TO PERMIT TIPPING THE RESISTANCE STRIP 90°.

14	14	NH	#40 ANG SOLID
		NHWD	TWOINCH DIA PER
2	12	12	K3-7612
2	12	12	BLK
		OR	SEE RECORDING PAGE
		3R	
		GR	#20 ANG SOLID
		YEL	WIRE PER K3-7612
	4	NH	
		RED	
		BL	
		BLK	
24	9	#20 ANG T NURE	
2	1	CRID. CAP. "M OBTAINED .	
		FROM AMERICAN BURE	
		MIDREX CORP., NYC	
24	PIECE	ITEM	NAME
			100A 6127

WIRING DIAGRAM