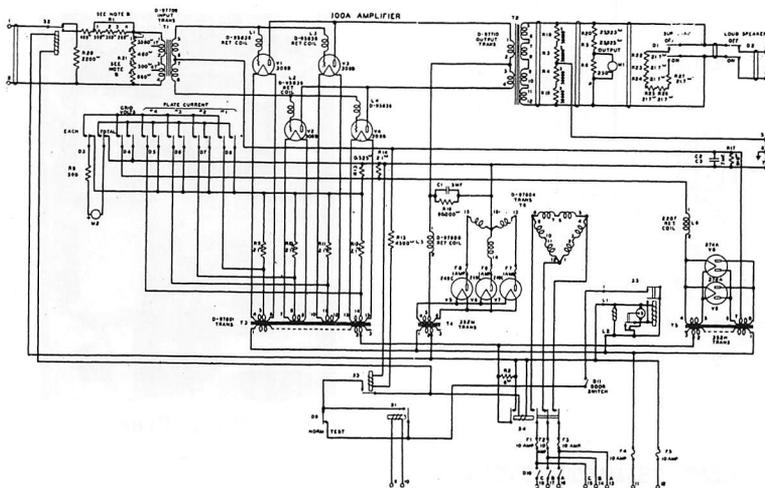
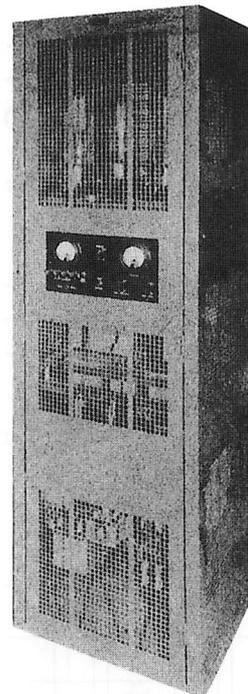


NO 1-8
AMPLIFIER
100A, B
3-1-37

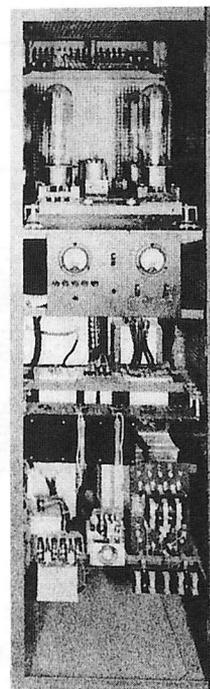
ELECTRICAL CHARACTERISTICS

		100A	100B
GAIN AND INPUT CIRCUIT		Because of the fact that the tubes draw grid current at high power output, both gain and internal input impedance vary with power output.	
		The gain is such that 155 volts across the primary of the input transformer gives 1000 watts output.	
		The input coil operates from 100-500 ohms. The Internal Input Impedance varies as follows:	
		1000 Watts Output - - 6,500 Ohms	
		500 " " - - 30,000 "	
		Below 500 " " - - 30,000 "	
OPERATES INTO		8, 32, 72 or 130 Ohms	
INTERNAL OUTPUT IMPEDANCE		1/1.2 of Corresponding Load Impedance.	
OUTPUT POWER		500 Watts at 2% Harmonic Distortion. 1000 Watts at 10% Harmonic Distortion.	
OUTPUT NOISE		-10 to -20 db depending upon tubes.	
POWER SUPPLY	FILAMENTS AND CONTROL CIRCUIT	115 Volts 60" Single Phase 5.3 Amps. 600 Watts	115 Volts 50-60" Single Phase 5.3 Amps 600 Watts
	PLATE VOLTAGE	115 or 230 Volts 60" Three Phase	115 Volts 50-60" Single Phase
	PLATE LOAD 1000 WATTS OUTPUT	2240 Volt Amperes 1925 Watts	
	PLATE LOAD 500 WATTS OUTPUT	1600 Volt Amperes 1400 Watts	
	PLATE LOAD 250 WATTS OUTPUT	1210 Volt Amperes 1050 Watts	
	PLATE LOAD 100 WATTS OUTPUT	950 Volt Amperes 800 Watts	
GAIN CONTROL		Fixed Pads 3 Steps, 3 db each	Fixed Pads 1 step, 3 db



EQUIPMENT CHARACTERISTICS

100A and 100B	
WEIGHT	600 lbs.
SIZE	72" x 22" x 25"
MOUNTING	Self Contained in Relay Rack Type Cabinet



NO	1-8A
AMPLIFIER MODIFICATION	
100A	
3-22-38	

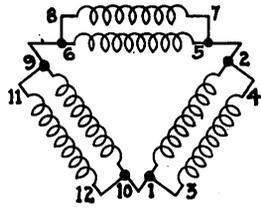
**CONDITIONS FOR USE OF 100A AMPLIFIER
ON VARIOUS POWER SUPPLY VOLTAGES**

THE 100A AMPLIFIER, COVERED ON APPARATUS REFERENCE SHEET NO. 1-8, IS NORMALLY WIRED FOR USE ON 230 VOLTS, 60", 3Ø SUPPLY FOR THE PLATES AND 115 VOLTS, 60", 1Ø SUPPLY FOR THE FILAMENT AND CONTROL CIRCUITS. INFORMATION IS GIVEN IN THE COLUMN TO THE RIGHT FOR THE OPERATION OF THE AMPLIFIER ON THESE OR OTHER POWER SUPPLIES AS FOLLOWS:

- 115 VOLTS, 60", 3Ø AND 115 VOLTS, 60", 1Ø
- 115 VOLTS, 60", 1Ø
- 115 VOLTS, 50", 1Ø

NOTE:

SINCE THE LINE CURRENT IN THE PLATE POWER SUPPLY INCREASES WITH INCREASED POWER OUTPUT FROM THE AMPLIFIER AN EXCESSIVE AMOUNT OF HARMONICS WILL BE INTRODUCED INTO THE AMPLIFIER OUTPUT UNLESS THE VOLTAGE REGULATION OF THE POWER SUPPLY IS SUCH THAT A CHANGE FROM HALF LOAD TO FULL LOAD IN THE PLATE SUPPLY CIRCUIT PRODUCES A CHANGE IN VOLTAGE AT THE AMPLIFIER TERMINALS OF NOT MORE THAN 2.5%.

POWER SUPPLY AVAILABLE	MODIFICATION TO AMPLIFIER	CONNECT POWER TO TERMINALS
(A) 230V, 60", 3Ø AND (B) 115V, 60", 1Ø	USE 100A AMPLIFIER AS IS.	(A) 16, 17, 18 AND (B) 11, 12
(C) 115V, 60", 3Ø AND (D) 115V, 60", 1Ø	STRAP PRIMARY OF D-97604 TRANSF. T6 LIKE THIS: 	(C) 16, 17, 18 AND (D) 11, 12
115V, 60", 1Ø	SUBSTITUTE (*) D-99279 TRANSF. IN PLACE OF D-97604 TRANSF. AS T6. REMOVE FUSES F2, F3, F4. CHANGE F1 TO 20 AMPS. REMOVE V5 FROM SOCKET. CHANGE WIRING PER SCHEMATIC ON REAR.	16, 17 STRAP TERMINALS AS SHOWN ON SCHEMATIC ON REAR. GROUND SIDE OF POWER SUPPLY SHOULD CONNECT TO TERMINAL 16.
115V, 50", 1Ø	SAME AS FOR 115V, 60", 1Ø EXCEPT ALSO SUBSTITUTE A D-99280 TRANSF. IN PLACE OF 352H TRANSF. AS T5.	

*THE FOLLOWING PARTS ARE REQUIRED FOR THIS SUBSTITUTION. QUANTITIES ARE FOR ONE AMPLIFIER. ALL PARTS TO HAVE A ZINC PLATE 3A FINISH.

- 2 REQUIRED - MOUNTING PLATES AS DETAILED ON THIS SHEET
- 4 REQUIRED - HEX. HEAD IRON BOLTS 3/8"-16 x 1-1/4" LONG
- 4 REQUIRED - STANDARD IRON WASHERS FOR THE ABOVE 3/8" BOLTS
- 4 REQUIRED - STANDARD STEEL LOCK WASHERS FOR THE ABOVE 3/8" BOLTS
- 4 REQUIRED - STANDARD IRON HEX. NUTS FOR THE ABOVE 3/8"-16 VOLTS
- 4 REQUIRED - 1/2"-13 x 1-1/4" LONG F.H.I.M. SCREWS
- 4 REQUIRED - STANDARD STEEL LOCK WASHERS FOR THE ABOVE 1/2" SCREWS
- 4 REQUIRED - STANDARD IRON HEX. NUTS FOR THE ABOVE 1/2"-13 SCREWS

