STATION SYSTEMS — POWER SUPPLY

IDENTIFICATION

1.00 INTRODUCTION

This section covers identification of the 101A, E, G, H, and J power plants, J86205 rectifiers, and 393B and KS-5714 transformers.

2.00 101A POWER PLANT

2.01 The 101A power plant supplies 15 to 26 volts dc with 10 ampere-hour capacity, or 15 to 19 volts dc with 15 ampere-hour capacity. It consists of a J59010, List 1 metal cabinet and a KS-5538 battery.

2.02 The cabinet is the same size as the 4-plate apparatus cabinet. It contains a charge control circuit and fuses (see Fig. 1).

2.03 The cabinet will house any one of the batteries listed in Table A.

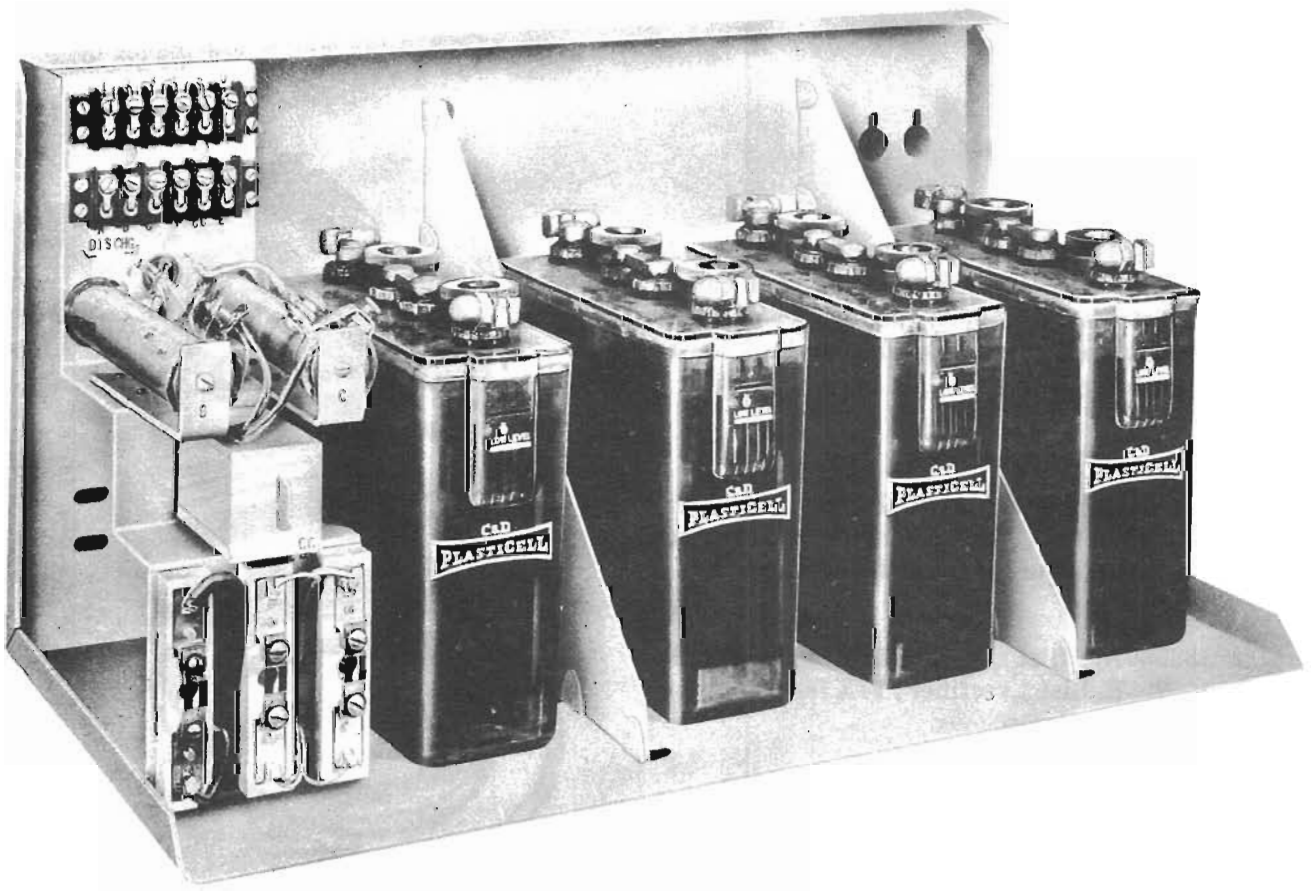

Fig. 1 — 101A Power Plant, Cover Removed

TABLE A

KS-5538 BATTERY

	List	No. of Cells	Amp-hr	Voltage Range
KS-5538 Battery	3	8	10	15-19
	5	8	15	15-19
	16	9	10	17-21
	17	10	10	19-24
	18	11	10	21-26

2.04 This power plant may be charged over cable pairs from the central office or with a local charger of the J86205 type.

3.00 101E POWER PLANT

3.01 The 101E power plant supplies 21 to 26 volts dc with 15 or 30 ampere-hour capacity. It consists of a J86566A, List 1 olive-green or List 9 gray-green metal cabinet and a set of KS-5538 batteries.

3.02 The cabinet contains a charge control circuit and fuses, and will house the rectifier and either one of the batteries listed below:

- **J86566A, List 6 rectifier** includes the J86205F, List 1 rectifier; 71K inductor; and 5A ballast lamp.

- **J86566A, List 7 battery** includes the 11-cell, 15 ampere-hour, 21- to 26-volt KS-5538, List 12 battery; hydrometer syringe and holder; and vent plug thermometer.

- **J86566A, List 8 battery** includes the 11-cell, 30 ampere-hour, 21- to 26-volt KS-5538, List 13 battery; hydrometer syringe and holder; and vent plug thermometer.

3.03 This power plant may be charged over cable pairs from the central office or with a local charger.

4.00 101G POWER PLANTS

4.01 The 101G power plants are used primarily to supply power for 1A, 1A1, and 6A key telephone systems.

4.02 The 101G power plants J86731A, List 5 and List 6 (see Fig. 2), J86731B, List 1 (see Fig. 4), and J86731C, List 2 are mounted in beige-gray metal cabinets with removable covers. These cabinets are approximately 9 inches high, 8-1/4 inches wide, and 5-1/4 inches deep.

Fig. 2—J86731A, List 6, Cover Removed

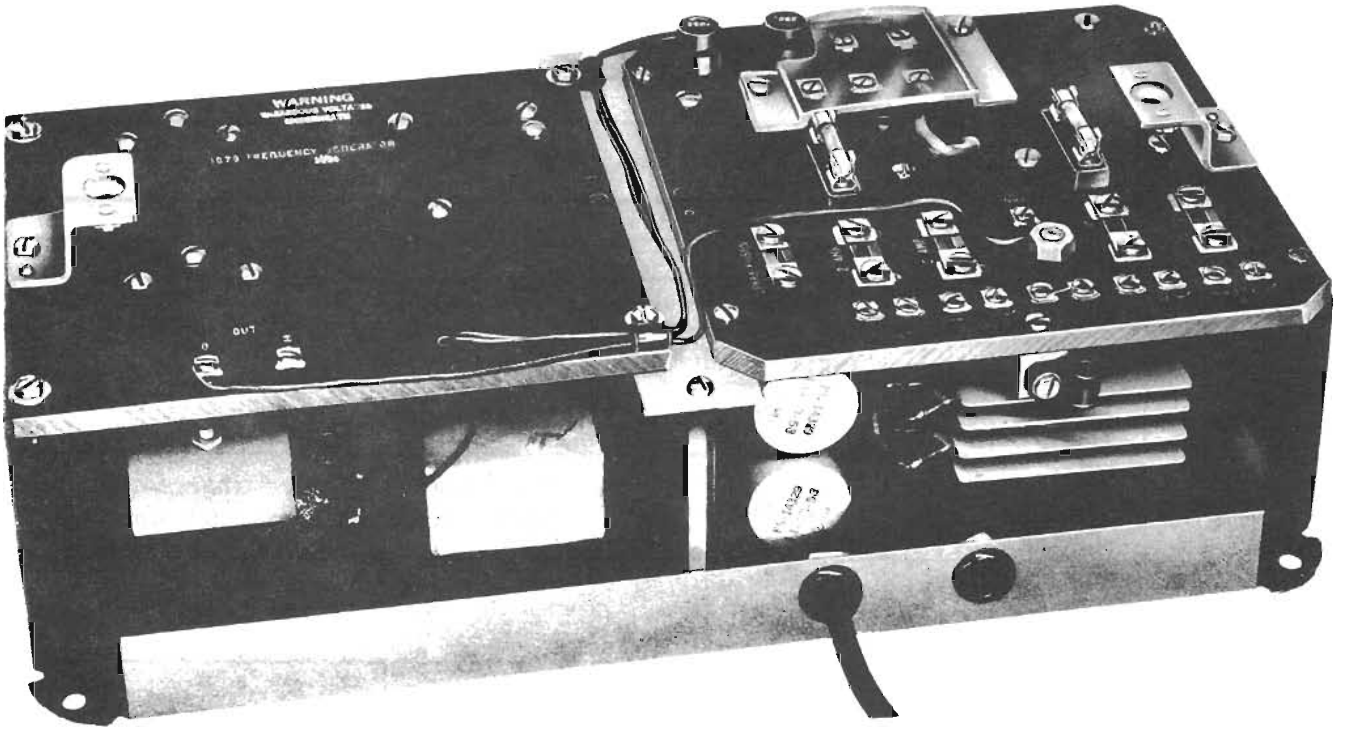

Fig. 3 — J86731A, List 4, Cover Removed

4.03 The cabinet for the J86731A, List 4 power plant (see Fig. 3) is the same as those mentioned in 4.02, except that it is 16-13/16 inches wide.

4.04 These power plants are furnished with a backboard for wall mounting.

4.05 The J86731A, List 7 metal stand (see Fig. 5) consists of two metal legs, and is used to floor-mount a J86731A, List 4 power plant. Where appearance is important, the exposed portion of the metal legs may be covered with the ED-95023-01, Group 5 cover.

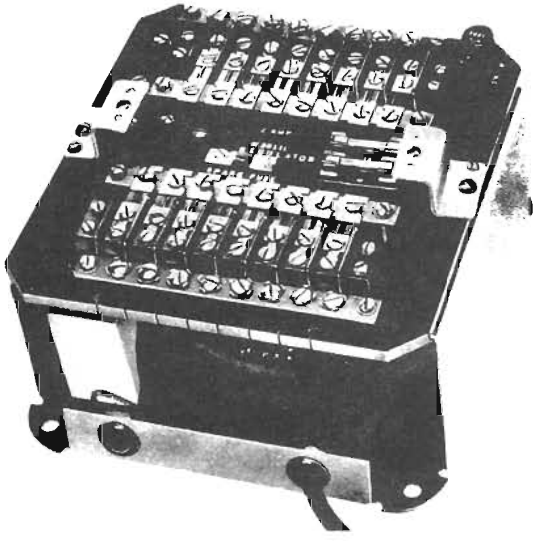

Fig. 4 — J86731B, List 1, Cover Removed

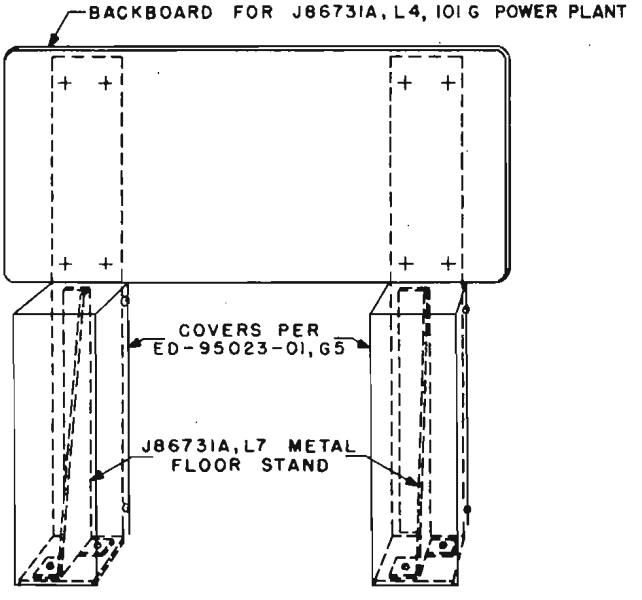

Fig. 5 — Floor Stand for J86731A, List 4 Power Plant

TABLE B

OUTPUTS OF THE 101G POWER PLANTS

101G Power Plant	Supplies	Voltage Range	Amp	Load
J86731A, List 6	20V Talk (dc)	14-18	0.9	
	20V SIG (dc)	18-28	0.6	
	10V AC (60 cycle)	9-11	1.4	36 51A lamps
				— or —
		8.75-11	2.8	72 51A lamps
				— or —
	18V AC (60 cycle)	16-20	1.4	36 A3 lamps.
J86731A, List 5	± G (20-cycle ringing)	75-110	0.5	Eight high-impedance ringers or two high-impedance ringers *with capacitors.*
J86731A, List 4	The combined features of the lists 5 and 6			
J86731B, List 1	10V AC (60 cycle)	10-11	17	425 51A lamps
J86731C, List 1 or 2	± G (20-cycle ringing)	75-105 64-90	0.5	Eight high-impedance ringers or six high-impedance ringers *with capacitors.*

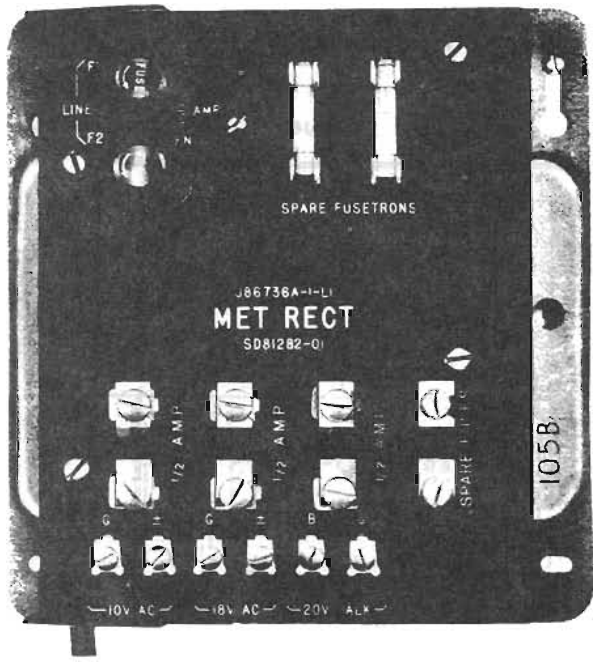

Fig. 6 — 101H Power Plant, Cover Removed

4.06 The J86731C, List 1 power plant *is not* in a cabinet but is arranged to mount in apparatus cabinets or on a relay rack. It occupies a space 7 inches high 9-1/8 inches wide, and extends 4-1/2 inches in front of the mounting bars.

4.07 Table B lists the outputs of the 101G power plants.

5.00 101H POWER PLANT

5.01 The 101H power plant J86736A, List 1 is designed to furnish the ac and dc voltages required by small key systems. This plant is similar to the 101G power plant J86731A, List 6 but it has less capacity.

5.02 This power plant is mounted in a 105B apparatus box (see Fig. 6).

5.03 Table C lists the output of the 101H power plant.

6.00 101J POWER PLANT

6.01 This power plant is designed primarily for use with 6A key telephone and 550-type PBX systems.

6.02 The 101J power plant consists of two units, a J86471A, List 1 ac unit (see Fig. 7) and a J86471A, List 1 dc unit (see Fig. 8).

6.03 The ac unit supplies 10-volt 5-amp ac and 18-volt 1.6-amp ac.

6.04 The dc unit is connected to the ac unit by a cord and supplies 18- or 24-volt 4-amp filtered dc.

6.05 The ac and dc units are the same size, and when mounted side-by-side occupy a 7-inch high space on a relay rack or apparatus cabinet.

6.06 The ac and dc units plus the J86731C, List 1 101G power plant may all be mounted on a 16A apparatus mounting and enclosed with a 117A cover.

6.07 When the J86731C, List 1 101G power plant is not required, the ac and dc units may be mounted in the J86471A, List 2 cabinet (see Fig. 9) for wall mounting.

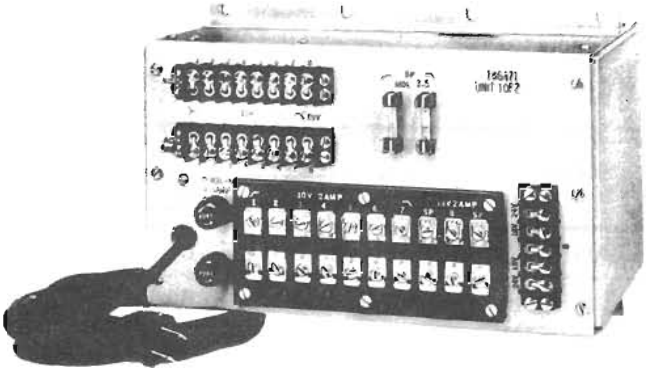

Fig. 7 — J86471A, List 1 AC Unit

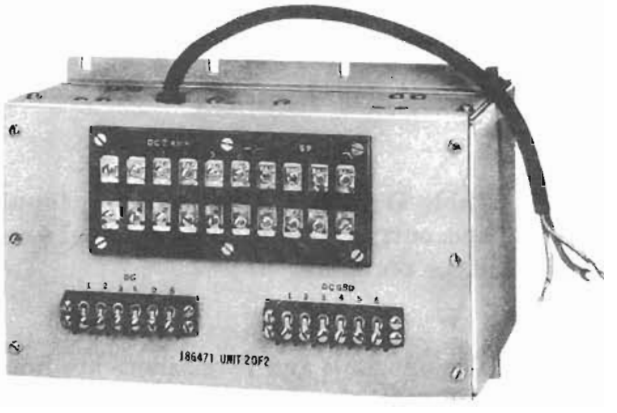

Fig. 8 — J86471A, List 1 DC Unit

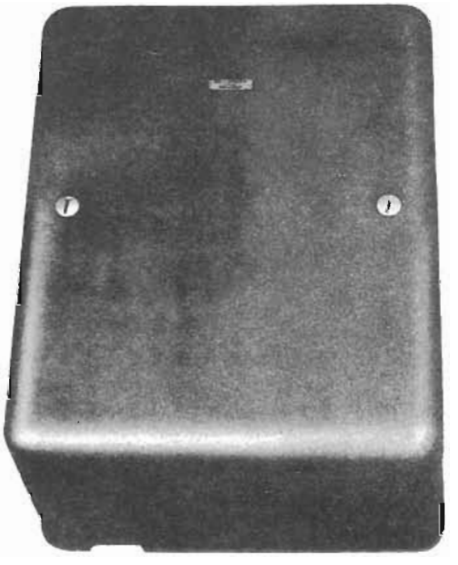

Fig. 9 — J86471A, List 2 Cabinet

TABLE C

OUTPUT OF THE 101H POWER PLANT

101H Power Plant	Supplies	Voltage Range	Amp	Load
J86736A, List 1	20V TALK (dc)	14-26	0.15	
	10V AC* (60 cycle)	8.75-11	0.09	Two 51A lamps
	18V AC* (60 cycle)	16-21	0.09	Two A3 lamps

* A **total** of 0.09 amp may be taken from the 10- and 18-volt winding. In addition, this supply will operate a 7A buzzer intermittently.

TABLE D

J86205-TYPE RECTIFIERS

Unit	Input		Output		Principal Use
	volts	cycles	volts	amp	
J86205B, List 3	105-125	50-60	17-22 dc	0.5	To charge batteries of 101A power plant.
J86205B, List 4	190-250	50-60	17-22 dc	0.5	
J86205F, List 1	105-125	50-60	24 dc	1.2	To charge batteries of 101E power plant.
J86205F, List 2	190-250	50-60	24 dc	1.2	
J86205H, List 1	105-125	60	3 dc	0.1	To furnish filtered dc for an intercommunicating line and ac for operating bells and buzzers.
			24 ac	0.25	

7.00 J86205-TYPE RECTIFIERS

7.01 Table D gives the list number, input voltage, output voltage, and principal use of the J86205-type rectifiers.

7.02 The J86205B and F rectifiers are housed in the case shown in Fig. 10. This case is approximately 8-1/2 inches long, 6-1/2 inches high, 6-1/2 inches deep, and is designed for wall or shelf mounting.

7.03 The J86205H rectifier is housed in a case similar to the 634A subscriber set (see Fig. 11).

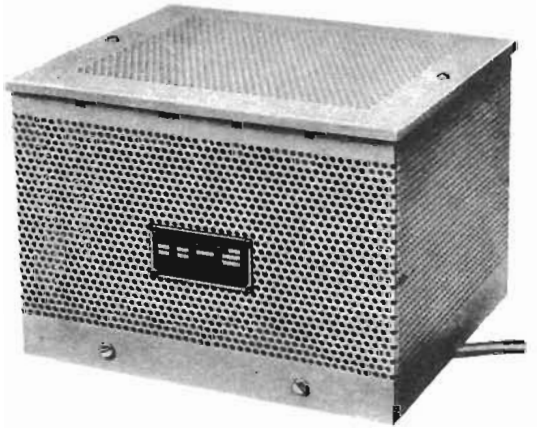

Fig. 10 — J86205B or F Rectifier

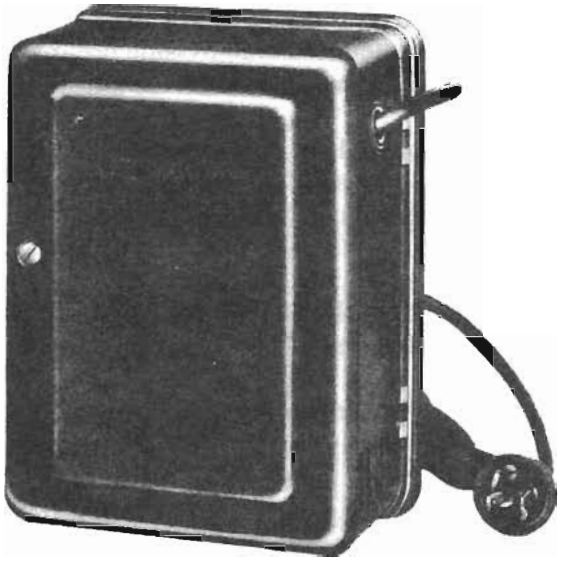

Fig. 11 — J86205H Recti

8.00 393B TRANSFORMER

8.01 This transformer is used primarily as a power supply for 10-volt lamps in 1A and 1A1 key telephone systems. It is furnished in a beige-gray metal box with a removable cover. The box is approximately 8-3/4 inches long, 4-1/4 inches high, and 4 inches deep.

8.02 The 393B transformer is equipped with two 2-amp fuses in parallel and furnishes 9 to 11 volts 2.8 amp ac. It will handle the load of 72 51A lamps or equivalent.

9.00 KS-5714 TRANSFORMER

9.01 The KS-5714 transformer is used primarily to operate bells, buzzers, and lamps on station system when the circuits are arranged to supply this load separately. It is furnished in a beige-gray metal box with a removable cover. The box is approximately 8-3/4 inches long, 4-3/8 inches high, and 4 inches deep, and is arranged for wall mounting.

9.02 This transformer is self-protecting and has no fuses.

9.03 The KS-5714, List 2 transformer supplies 15 volts 2.2 amp ac. The KS-5714, List 3 transformer supplies 15 volts 1.1 amp ac.