

SECTION B STANDARD POWER PLANTS

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STANDARD PLANTS

All but the older plants are standardized. Standard plants are identified with number - letter codes. Those with the same code are wired the same. The only difference is the size of batteries and counter EMF cells, number and size of charging units, and minor details, such as alarm arrangements. The overall operation is the same. A BSP section out-

lining the method of operation is issued for each coded power plant.

We are continually getting new power plants so it is difficult to keep a list up to date. On the following pages are plants we are using now. Voltage and amperage ranges and the general application of the plants are listed. Also, the circuit drawing numbers and BSP sections covering the plants are listed.

Plant Code	Spec. No.	General Use	Voltage Range	Busy Hour Amps	Method of Operation	BSP Section	Drawings
101A	J59010	Battery Supply Units for Non-Multiple PBX's of the 551 Type Small Cord or Cordless PBX's	15-20 17-21) 19-24) 21-26)	10-15 Amp-hr 10 Amp-hr	Cable Pair or Metallic-Type Rectifier Charge	167-410-201	SD 80697-01 Chg-Disch Manual SD 81118-01 Chg-Disch Auto.
101D	J53104	Battery Supply for 551D Multiple PBX	15-20	30 Amp-hr	Cable Pair or Metallic-type Rectifier Charge		SD 80698-01
101E	J86566	102A and 111A Equipment	20-25	15 and 30 Amp-hr	Cable Pair or Metallic-type Rectifier Charge		SD 80733-01
101F	J86567	Centralized Battery Supply for Non-multiple PBX's Individual 554 and 605 PBX's	18-26 32-46	15-200 Amp-hr	Cable Pair or Metallic-type Rectifier Charge	167-419-201	SD 80740-01 Central Off. Chg. SD 81227-01 Rect. Chg.
101G	J86731	101 Key Equipment 1A Key Telephone System	18-28V 14-28V) 16-20V -) 60 Cycles) 9-11V -) 60 Cycles) 75-110V -) 20 Cycles)	0-0.6 Amp 0-0.9 Amp 0-1.4 Amp 0-1.4 Amp .050 Amp	Metallic-type Rectifier for Batteryless Operation and Ringing Generator	167-416-201	SD 81135-01 Plant SD 81130-01 Rect
101J	J86471	6A Key Telephone System 550 Type PBX	18 or 24 18 10	4 Amps DC 1.6 Amps AC 5 Amps AC	Auto-Metallic Type Regulation	167-419-301 167-419-202	SD 81334-01
-	J58819	755 PBX	18-25	15 Amp-hr	Cable Pair or Metallic-type Rectifier Charge		SD 80588-01 Chg-Disch SD 80750-01 Ring
102C	J86502	Combined 20-Cycle Ringing & 8-volt Battery Supply for Magneto & Type "D" Carrier	8.2-9.2 Battery 75-90V Ringing	20-40 Amp-hr Battery 0.2 Amp Ringing	Automatic Operation		SD 80238-01 SD 80083-01

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Plant Code	Spec. No.	General Use	Voltage Range	Busy Hour Amps	Method of Operation	BSP Section	Drawings
103B	J86423	Message Register Step-by-Step	60-75	10,000 Busy-hour Calls	Regulated Tube Rectifier	167-606-301	See BSP Section
103B	J86423	Pos. & Neg. Tripping Supply & Pos. Message Register Supply	60-75 46-52	25,000 Busy-hour Calls 32,000 Busy-hour Calls	Regulated Tube Rectifier	167-606-301	See BSP Section
-	J86424	551 PBX	20-28	25 and 50 Amp-hr	Cable Pair or Metallic Rectifier Charge Type		
105A	J86579	740D PBX	40-56 or 44-50	3 or 10	Regulated Tube Rectifier Float		SD 80606-01 Rect SD 80616-01 " SD 80648-01 Chg-Disch
105D	J86446	48V Application up to 30 Amps such as 355 356 Dial Offices; 701, 711, 740, and 605 PBX's; No. 12 Swbds.	45-52	10,20, and 30	Regulated Tube Rectifier	167-210-301	SD 81134-01 Plant SD 81138-01 Rect
110A	J86572	701, 711, 606, & 702 PBX's; 350, 355, and 360 Dial Offices; No. 11 Manual, Small Repeater, and PBX Building Supply	45-50 22-26	10-240 10-120	Regulated Tube Rectifier	169-603-319 169-620-301 167-215-301 " " " 169-603-319 169-620-301	48 Volt SD 80714-01 or) Rect SD 81180-01) SD 80720-02 Disch SD 80722-02 Charge 24 Volt SD 80753-01 Disch SD 80755-01 Charge SD 80757-01 or) Rect SD 81181-01)
111A	J86470	701, 711, 606, & 702 PBX's; 350, 355, and 360 Dial Offices; No. 11 Manual, Small Repeater, and PBX Building Supply	22-26 44-52	0-600	Semiconductor regulated saturable Reactor Rectifier	167-620-301	48 Volt SD 81424-01 Chg-Disch 10-120 amp SD 81501-01 Chg-Disch 10-600 amp 24 Volt SD 81466-01 Chg-Disch 10-120 amp
220A	J86580 J86582	Large PBX's Large CDO's	45-50 22-26	10-200 0-15	Float with Diverter Pole Gen		SD 80601-01 Charge SD 80641-01 or) Disch SD 80664-01)
301C	J86573	Large Dial & Toll Offices	22-26 45-50 22-26	0-6000 0-6000	Float with Motor-Generator Sets or Rectifiers Float with Motor-Generator Sets or Rectifiers	167-620-301 Auto Start 167-620-306 Man. Start	See BSP Section
302A	J86434	Large Dial and Toll Offices	45-50	100-6000	Start Control and Automatic Voltage Regulation	167-621-101 "	See BSP Section
403A	J86577	Plate Supply for Central Office & C2 Radio Telephone	125-135 Pos. or Neg.	0.1-0.6	Regulated Tube Rectifier with or without Dry Cell Reserve	167-639-301	SD 80760-01
403B	J86592	Stabilized Plate Supply	125-135 Pos.	0-0.1	Regulated Tube Rectifier with Dry Battery Reserve	167-639-306	SD-80605-03 Rect SD 80816-01 Plant

Plant Code	Spec. No.	General Use	Voltage Range	Busy Hour Amps	Method of Operation	BSP Section	Drawings
403C	J86436	V3 Repeater Plate Supply	125-135 Pos.	0-180	Regulated Tube Rectifier with Dry Battery Reserve	167-640-311	SD 81081-01 SD 81082-01
405A	J86585	Plate and Telegraph Supply	125-135 Pos. or Neg.	0.1-1.5	Float with Regulated Tube Rectifier	167-642-301	SD 80642-01 Pos. SD 80642-02 Neg.
Part of 805C	J86428	No. 5 Crossbar Coin and Misc.	125-135 Pos. or Neg.	3 Amp-Pos. 0.6 Amp-Neg.	Float with Regulated Tube Rectifiers (Dry Cell Reserve on Neg.)		SD 80992-01 Pos. SD 80993-01 Neg.
410A	J86584	Plate and Telegraph Supply	125-135 Pos. or Neg.	1-25	Float with Regulated Tube Rectifiers	167-643-301	SD 80942-01 Disch SD 80943-01 Chg
410B	J86465	130/152 Positive and Negative	130-152	1-80	8 and 24 Amp Rectifiers	167-643-302	SD 81293-01 Chg-Disch 63 cell SD 81294-01 Chg-Disch 66 cell SD 81295-01 Chg-Disch 70 cell SD 81301-01 Chg Control
420A	J86578	Types "J" and "K" Carrier Equipment in Auxiliary Stations Having A-C	130-160 Pos.	1-30	Float with Regulated Tube Rectifier	167-645-301	SD 80914-01 Charge SD 80915-01 Disch
420B	J86586	Types "J" and "K" Carrier Equipment in Auxiliary Stations Having No A-C	130-160 Pos.	0-15	Engine-Generators	167-645-306	SD 80910-01 Charge SD 80915-01 Discharge
425 + 425A	J86435	Backbone TD-2 Radio Plate & Filament Supply	12 Neg. 136 Pos. 257 Pos.	60-800 1-20 1-20	Float with Regulated Metallic Rectifiers) Float with Regulated Tube Rectifiers) Float with Regulated Tube Rectifiers)	167-646-311 167-646-301 167-646-306	SD 81086-01 SD 81084-01 SD 81085-01
425B	J86452	Secondary Route TD-2 Radio Plate & Filament Supplies	136 Pos. 12 Neg. 136 Pos. 257 Neg.	0.5-5 Plt. 30 Sig. 22 0.65 0.35	Float with Regulated Tube Rectifiers) Metallic Rectifiers) Metallic Rectifiers) Metallic Rectifiers)	SD 81153-01 167-646-321 167-646-316	SD 81161-01 SD 81159-01
426A	J86442	N1 Carrier Supply	110-140 Neg. 120-140 Pos.	0.5-40 Amp Pos. or Neg.	Float with Regulated Tube Rectifier	167-648-301	SD 81137-01
501A	J86527	Busy Signal and Idle Trunk Indicating Lamps	5-11.5 A-C	11.7, 59, 174, 236	Continuous Operation		SD 80324-01 or SD 80777-01

Plant Code	Spec. No.	General Use	Voltage Range	Busy Hour Amps	Method of Operation	BSP Section	Drawings
504A	J86611	Continuous A-C Supply with Emergency Converters Operated on 24- or 48-volt Battery	115/230 A-C	50-1000VA	Automatic Transfer to Inverted Converters Operated from 24- or 48-volt Battery	167-670-301	SD 80844-01 SD 80845-01 SD 80856-01 SD 80869-01
504B	J86617	Continuous A-C Supply with Emergency Converters Operated on 48-volt Battery	115 A-C 115 A-C 115 A-C	500VA 1.5 KW or 5 KW	Automatic Transfer to Inverted Converter Operated from 48-volt Battery	167-670-306	SD 81026-01 SD 81097-01
505C	J86426	L1 Carrier Repeater Power Supply	500-2500 A-C	0.5	Operation Continuously from 2-motor Alternator Normally from A-C Motor on Line and During Emergencies from Battery Motor with Power Control Panel Regulating Coaxial Current	167-671-316 167-671-311 167-671-321	SD 80952-01 SD 80960-01 SD 81038-01 SD 81073-01
505D	J86448	L3 Carrier & TV Term. Eqpt. 230V A-C Supply	218-242	5-21KVA	Operation Continuously from 2-motor Alternator Sets	167-671-326	
505D	J86447	L3 Carrier Aux. Repeater Power Supply	0-4400	1.7 Amp	Power Control Regulating Coaxial Current	167-671-326	
506A	J86724	Low-voltage A-C Supply	20 $\pm$ 2	50VA to 1.5KVA	Transformer Units Operated Directly on Power Service Mains		SD 80846-01 or SD 80881-01 or SD 80929-01
507A	J86732	Low-voltage A-C Supply	17-24	50VA	Normal Operation from Transformer on Line and During Emergencies from Vibrator on Office Battery		SD 81133-01
610A	J86479	"N" and "O" Carrier	130V Pos. or Neg.	1.5	From 50V to 130V Converter		
610B	J86801	Coin Control	110-120V	.75	Solid State		
610C	J86803	Use instead of small plants or CEMF-CELLS	24V Pos. or Neg.	5.00	Transistorized		
702C	J86429	Toll	+125-135 -125-135	25-1000 5-1000	Motor-Generators or Rectifiers Operated Automatically	167-705-301 Auto 167-705-306 Manual	SD 81015-01 Disch
704B	J86583	Pos. & Neg. 34 & 48 Volts for Metallic Teleg. Supply & No. 1 Teleg. Service Board	34 or 48	2.5 and 8	Floated with Regulated Tube Rectifiers	167-706-306	SD 80776-01
704C	J86590	Pos. & Neg. 48 Volts for Large No. 1 Teleg. Service Boards	44-50	0-120 Pos. 8-120 Neg.	Floated with Regulated Tube Rectifiers	167-706-311	SD 80722-02 Chg SD 80774-01 Disch

Plant Code	Spec. No.	General Use	Voltage Range	Busy Hour Amps	Method of Operation	BSP Section	Drawings
801A	J86502	Combined 20-cycle Ringing Plant for Magneto & Type "D" Carrier	75-100	0.2	Continuously Operated Automatic Transfer to Reserve Supply		SD 80083-01
802A	J86524	135-cycle Ringing in Toll Systems	35	40 watts	Continuously Operated with Manual Transfer to Reserve		SD 80383-01
802B	J86523	1000-cycle Ringing in Toll Systems	6 Continuous 4.25 Interrupted	.015 .025	Continuously Operated with Manual Transfer to Reserve		SD 64527-01 SD 80284-01
803C	J86555	20-cycle Machine Ringing & Signaling Supply for Large Manual, Dial, & Toll Offices	84-88 Coin 115-120V	2.0, 4.0, or 6.0	Continuously Operated with Automatic Transfer to Reserve Supply	167-721-311	See BSP Section
804C	J86451	20-cycle Machine Ringing & Signaling Supply for No. 11 Manual and Dial & Toll Offices	84-88	1.0	Continuously Operated with Automatic Transfer to Reserve Supply	167-722-311	See BSP Section
805B	J86561	20-cycle Machine Ringing & Signaling Supply for No. 11 Swbd., 350A Dial, 701, 702,606 PBX, & Small SxS	84-88	0.6	Continuously Operated Automatic Transfer to Reserve Supply	Auburn	SD 80514-01 SD 80515-01 SD 80516-01 SD 80517-01 SD 80533-01 SD 80634-01 SD 81143-01
805C	J86428	20-cycle Machine Ringing, Signaling & 130-volt Supply for No. 5 Crossbar	84-88 +125-135 -125-135	0.5 3.0 0.6	Continuously Operated with Automatic Transfer to Reserve Supply	167-723-311 Ring & Sig. 167-723-316 130V Sup.	SD 80978-01 SD 80989-01 SD 80990-01 SD 80991-01 SD 80992-01 SD 80993-01
806A	J86544	20-cycle Ringing Supply for Toll or Manual Office with Option for Signaling Eqpt.	95-120	0.5	Continuously Operated with Automatic Transfer to Reserve Supply		SD 80446-02
806D	J86596	20-cycle Machine Ringing & Signaling Supply for 701A PBX, 350A, & 355A Dial Offices, & No. 11 Manual Offices	75-110 or 72-88 75-110	0.25 0.5	Continuous or Start-stop Operation with Key or Dial Transfer of Machines and Automatic Transfer to Reserve Supply	167-255-301	See BSP Section
806E	J86445	20-cycle Ringing Supply for 356A Dial Office	80-90	0.25	Start-stop Operation Subcycle with Single or Duplicate Motor-driven Interrupters, Automatic transfer to Inverter on Power Failure Automatic Transfer of Interrupters	167-724-321	SD 81131-01 SD 81132-01 SD 81139-01

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<u>Plant Code</u>	<u>Spec. No.</u>	<u>General Use</u>	<u>Voltage Range</u>	<u>Busy Hour Amps</u>	<u>Method of Operation</u>	<u>BSP Section</u>	<u>Drawings</u>
806F	J86456	Ringling Current Tones and Signals for SxS Offices	84-88 102-110	0.25		167-724-326	See BSP Section
		Use			Method of Opr.	BSP	
806G	J86472	701B, 711B, 740E PBX			AC-DC Machine Ringling Equip.	167-460-301	SD 81337-01 Ringling

In addition to the above plants which are in general use, there are a number of equip-

ments which are so small that no codes have been assigned.

<u>Spec. No.</u>	<u>General Use</u>	<u>BSP Section</u>	<u>Drawings</u>
<u>Small 24-volt Supplies</u>			
J86589	Small Miscellaneous 24-volt , D-C Applications (Tube Rect.)		SD 80612-01 SD 80791-01 SD 80804-01
J86403	24-volt Supply Obtained from Small 48-volt 100-type Plants		SD 80718-01 SD 80719-01
J86440	Small 24-volt Supply with Metallic Rect.	167-641-316 167-767-301	SD 81091-01
<u>Teletype Supplies</u>			
J86431	Power Plant for 81C1 Tele- typewriter Switching System	167-740-301 167-740-311	
J86453	Power Plant for 81D1 Tele- typewriter Switching System	167-741-301 167-741-311	
<u>Miscellaneous A-C Supplies</u>			
J86521	A-C Operated C1 Carrier Telephone Repeaters and C5 Carrier Telephone Terminals		SD 80589-01 SD 80724-01 SD 80962-01
<u>Small Ringing Equipments</u>			
J86726	0.5-amp; 20-cycle Ringing, Signaling, & Static Tone Supplies for Emg. Toll; Static Tone Supply with Reserve for Man. Ring. Swbds.: & Static Tone Supply Without Reserve for Order Turrets and Information Desks 120-volt Coin Supply; Howler Interrupter		
J86454	Pole Mounted Reserve Power Plant for "O" Carrier	167-768-301	
<u>Miscellaneous Specifications</u>			
J86433	6-volt, 15-amp Supply for Mobile Radio Land Receiver		SD 81027-01