SHEET INDEX - SD DWG & T DWG SHEET ISSUES ARE IN AGREEMENT AS FOLLOWS

SCHEMATIC					ISSUE																						
SD-83104-01					1 PREL							4		5MOD													
WIRING DIAGRAM					ISSUE																						
AUTO CHG				SH NO.																							
1KY1	AH			A1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15								
				A2	-	-	3	4	5	5	7	8	9	9	11	12	13	13	13								
				B1	1	2	3	4	5	5	7	8	9	9	9	9	13	14	15								
				B2	1	2	2	4	4	4	4	8	8	8	8	8	13	13	13								
				B3	1	2	3	4	4	4	4	4	4	10	10	10	10	10	10								
				B4	1	2	3	4	4	4	4	4	4	10	10	10	10	10	10								
				B5	1	2	3	4	4	4	4	4	4	4	4	4	4	4	4								
				B6	1	2	3	4	5	6	7	7	9	10	10	10	13	13	13								
				B7	-	-	3	4	4	4	7	7	9	10	10	10	10	10	10								
				B8	-	-	3	4	4	4	4	8	8	8	8	8	8	8	8								
				B9	-	-	3	4	5	5	5	8	9	9	9	9	13	13	15								
				B10	-	-	-	4	5	5	5	5	9	9	9	9	13	13	13								
				B11	-	-	-	-	-	-	-	8	8	8	8	8	8	8	8								
				B12	-	-	-	-	-	-	-	8	8	8	8	8	8	8	8								
				B13	-	-	-	-	-	-	-	8	8	8	8	8	8	8	8								
				B14	-	-	-	-	-	-	-	8	8	8	11	11	11	11	11								
				B15	-	-	-	-	-	-	-	-	9	9	9	9	13	13	13								
				B16	-	-	-	-	-	-	-	-	9	9	9	9	13	13	13								
				D1	1	2	2	4	4	4	4	4	9	9	11	11	11	11	11								
				D2	1	2	3	4	4	4	7	7	9	9	11	11	11	11	11								
				D3	1	2	2	4	4	4	4	4	9	9	9	12	12	12	12								
				D4	-	-	3	4	4	4	7	7	9	9	11	11	11	11	11								
				D5	-	-	3	4	4	4	7	7	9	9	11	11	11	11	11								
				D6	-	-	-	4	4	4	4	8	8	8	98	98	98	8	8								
				D7	-	-	-	-	-	-	-	8	8	8	11	11	13	13	13								

(CONTINUATION)

ON SH A2 SD-FIG COL REF TO "FS9" READ "FS8". IN FIG H6, H7 & H8 (SH D3) "FURN ON KS-22010 ETC. READ "FURN ON KS-22010, L79 TO L84 CKT BRKRS ONLY".

3-2-89 CLASS "M"

EJC | | | 12

SHA1: ADD OPTIONS C, D TO TABLE B. NOTES 60, 61.
SHA2: ADD OPTIONS C, D TO TABLE C.
SHB1: ADD OPTIONS X, Y TO FIG. 2, AND CONN (J12).
SHB2: ADD PATCHCORD COMCODES TO FIG. 3, 4, 5, 6.
SHB6: ADD OPTIONS C, D TO FIG. 22.
SHB9: ADD WIRE COLORS TO FIG. 30.
SHB10: ADD PATCHCORD COMCODES TO FIG. 31, 32, 33, 34, 35. ADD REF TO NOTE 61 IN FIG 36
SHD7: ADD FIG. H26.
PDI ED83182.DJ1 CL "M"

PLK | | 3-5-91 | 13

SHA1: CORRECT SHEET INDEX FOR SHEET D6
SHB1: REMOVE X, Y OPTIONS FOR BAT SG AND BAT SEG IN FIG 2
PDI 92ESDJ9528 CL "M"

MCS | | 10-11-92 | 14

(CONTINUED)

SH B1: ADD NOTE TO FIG 2.
SH B9: ADD NOTE TO FIG 30.
PDI 93ESDJ0062 CL "M"

CMC | | 1-21-93 | 15

61. FIG. 2 NOT TO BE USED WITH FIG. 21 OR FIG. 36.

76. MODIFICATION OF SD-83104-01 CONSISTS OF SHOWING FIGURE FS3 BEING CONTROLLED BY SD-82603-01.

TABLE B - RECORD OF FIGURES COMPONENTS AND WIRING CHANGE

CHANGED ON ISSUE	SPECIFY IF OFFICE RECORDS	DO NOT SPECIFY IF OFFICE RECORDS	THIS OPTION WAS FURNISHED	SEE NOTE	AVAIL RATING	A & M RATING	DA RATING	
13		D	C	60				

T-83104-30

SHEET A1

51- SEE SHEET INDEX FOR DRAWING FROM WHICH THIS DRAWING IS MADE.

52- CONNECTING DRAWINGS:
CONTROL CKT T-83104-31

C

53- EQUIPMENT ARRANGEMENT:
J85500B-1
ED-83101-30, ED-83106-30

54- SPECIFY FIGURES & OPTIONS AS FOLLOWS:

SHOP INSTALLED									INSTALLER	
RECTIFIER			BAY	CONTROLLER					FIGS & WRG BETWEEN RECTIFIER IN SUPPLEMENTARY BAY & FIG H4 CONTROLLER IN INITIAL BAY AS SPEC	
				FIG 2		FIG 30				
VOLTS	FIG	OPT							FIG	OPT
-48	7	-	INITIAL	8		24			H13, HC	
			SUPL	9		25			H2, HC	
			INITIAL		10				H13, HC	
			SUPL		11				H2, HC	
+24	12	Y	INITIAL	13		28			H14, HA	Y
			SUPL	14		29			H3, HA	Y
-24		X	INITIAL	15		26			H14, HA	X
			SUPL	16		27			H3, HB	X
+24		Y	INITIAL		17	27			H14, HA	Y
			SUPL		18				H3, HA	Y
-24		X	INITIAL		19				H14, HA	X
			SUPL		20				H3, HB	X

55- MINIMUM WIRE GAUGE FOR RECTIFIER DC OUTPUT LEADS SHALL BE:
8GA FOR 25 AMP RECTIFIER
6GA FOR 50AMP RECTIFIER
2GA FOR 100AMP RECTIFIER
1/0GA FOR 125AMP RECTIFIER
SUPPLEMENTARY BAY RECTIFIER DC LEADS SHALL BE CALCULATED PER NOTE 114 OF SD-83104-01, SEE J85500B-1 FOR REQUIRED TERM LUGS FOR TERMINATION AT THE INITIAL BAY BUS BARS.

56- WHEN FIG H10 IS SPECIFIED, THIS INVERTER HAS DC AS WELL AC OUTPUT. THE INPUT AND OUTPUT LEADS SHOULD UTILIZE KS-5482 OR EQUIVALENT WIRE. THE FOLLOWING TABLE DELINEATES THE MINIMUM RECOMMENDED BREAKER SIZE AND LEAD THAT SHOULD BE USED:

OPTION	(HCS) 1 KVA INVERTER		(HCT) 3 KVA INVERTER		(HCU) 5 KVA INVERTER	
LEAD	LEAD SIZE	BREAKER (AMP)	LEAD SIZE	BREAKER (AMP)	LEAD SIZE	BREAKER (AMP)
DC LOAD INPUT	8 AWG	40	2 AWG	100	00	175
DC GROUND INPUT	8 AWG	-	2 AWG	-	00	-
AC LOAD INPUT	14 AWG	*10	10 AWG	*30	6 AWG	*50
AC GROUND INPUT	14 AWG	-	10 AWG	-	6 AWG	-
AC LOAD OUTPUT	14 AWG	**10	10 AWG	**30	6 AWG	50
AC GROUND OUTPUT	14 AWG	-	10 AWG	-	6 AWG	-

* TO BE PROVIDED BY THE CUSTOMER
** TO BE PROVIDED BY THE THREE PORT INVERTER VENDOR

57- ENGINEER TO FURNISH FR GRD IN ACCORDANCE WITH THE FOLLOWING:-

WIRE GA.	TERMINAL (T & B CO.)	HARDWARE
14	B71	FURNISHED WITH RECTIFIER
12	C71	
8	D71	

58- FOR SELECTION OF B & G LEAD TERMS SEE NOTE 60 ON J85500B-1.

59- THE LINE ENGINEER SHALL INSTRUCT INSTALLER, WHEN USING KS-5482-01 WIRE OR KS-20785 ARMORED CABLE FOR AC INPUT WIRING TO THE RECTIFIERS, TO MARK THE POWER CONDUCTORS AS REQUIRED PER ARTICLE 310-12 OF THE NATIONAL ELECTRICAL CODE. AC SERVICE CAN BE FUSES OR CIRCUIT BREAKERS, AS REQD BY SPECIFIC RECTIFIERS.

60. IF A 2APA06500297 SWITCH IS BEING ORDERED AS A REPLACEMENT FOR A 399622-L SWITCH, ORDER A 845199587 PLATE.

MANUFACTURING NOTES CONVENTIONS

SHOP	INSTL	
		⊂⊃ CABLE
		— — — DIVISION OF GENERAL WIRING VIEWS
		— TERM LUG
		⊗ SCREW
		- - - - CONNECTION FURNISHED AS PART OF APPARATUS
		1- ALL WIRING TO BE D3, SURFACE WIRING KS-22247, L-4, 20GA STRANDED COLORED GREEN UNLESS OTHERWISE SPECIFIED.
		2- LEADS SHOWN TERMINATED IN COMPONENTS WITHOUT TERMINALS ARE FURNISHED WITH COMPONENTS.
		3- B1- TERMINAL NEAREST MTG PLT OR PANEL.
		4- P- PARALLEL PAIR
X		5- SPECIAL CARE SHOULD BE TAKEN TO INSURE THAT THE "REG GRD", "REG BAT", "DISCH BAT" AND "DISCH GRD" LEADS ARE ADEQUATELY SECURED AND PROTECTED IN ACCORDANCE WITH THE REQUIREMENTS COVERED IN AT&T PRACTICE SECTIONS 800-614-152 AND 800-612-197.
X		6- WHEN FIG 22 IS SPECIFIED TAPE AND STORE ALL FC - LEADS IN FIGS 4 & 6 AT POSITIONS WHERE KS-22010, L-79 TO L-84 CKT BREAKERS ARE NOT PROVIDED.
		7- NO WIRES ON THIS DRAWING ARE TO BE RUN BY THE INSTALLER EXCEPT WIRING ON SHEETS WITH PREFIX D.
X		8- IN FIGS 24 TO 29, CUT DEAD ALL UNUSED WIRES IN CABLE.
X		9- DC-OMIT CONNECTION AN CONSIDER AS A CONTINUOUS LEAD WHEN ASSOCIATED COMPONENT IS NOT FURNISHED.

2-25-85 NDD-85503KY2

JTC | | 1

DWG CHG'D TO CONFORM WITH MICRO-FILM STANDARDS. THRU OUT DWG CHG'S MADE TO AGREE WITH MANUFACTURED PRODUCT.
6-11-85 CLASS "AD"

| | 2

FIGS 24 TO 30 & FIGS H9 TO H14 & ASSOC INFO ADDED.
THE FOLLOWING H-285-224 CABLE LISTS & ASSOC OPTIONS ADDED:

FIG 8	FIG 10	FIG 13	FIG 15
L-103 L-104 L-105 L-130	L-106 L-107 L-108 L-131	L-112 L-113 L-114 L-133	L-121 L-122 L-123 L-136
FIG 17	FIG 19		
L-115 L-116 L-117 L-134	L-124 L-125 L-126 L-137		

NDD85500NJ6
6-11-85 CLASS B

| | 3

THRU OUT DWG IN TITLE BOX, "400 AMP MAX" READ "200 AMP MAX" FIGS 31 TO 36 & H15 TO H18 ADDED & NOTES 9 & 56 ADDED IN FIG 21 (R6) RES & ASSOC WRG ADDED. IN NOTE 53, ED-83106-30 ADDED. 8-7-85 CLASS B
NDD85500NJ7, NDD83106NJ1

JTC | | 4

ON SH A2 IN FEATURE & OPT TABLE REF TO "H" OPT FOR FIG 21 & 36 RMV'D. IN FIG 2 & 30 AT (TB2) TERM BLK LEADS DES "REG BAT" & "DISCH BAT" ROUTED TO FIG 21 OR 36 RMV'D.
2-14-86 CLASS "AD"

EJC | JTC | | 5

ON SH B6 IN FIG 22 AT (S1) SW TERM 1b "R" LEAD TO "C" TERM OF (S2) SW WAS SHOWN AS "BL-W" CONNECTED TO TERM 18 OF (S2) SW.
2-14-86 CLASS "A"

EJC | HJP | | 6

ON SH A1 NOTES 57 & 58 ADDED. ON SH A2 TABLE C, REF TO "H" OPT FOR FIG 21 & 36 RMV'D. ON SH B1 FIG 1 "D71 T&B" RMV'D & REPLACED BY "TERMS AS SPECIFIED PER LIST". ON SH B6 FIG 22 AT (CBA) TERM, "BL" LEAD TO BRKT "TO OTHER FIGS 22" ADDED & "CBA" WAS NOT SO DES "RUN ON 1ST FIG 22 ONLY." ON SH B7 & D5 FIG 7, 12, H11, H12 & H13 CONVENTION FOR 100 AMP RECT TERM ARRANGEMENT CHG'D. ON SH D2, D4 & D5 IN FIGS H2, H3, H10, H11, H12, H13 & H14 LEAD ON FR GRD TERM WAS DES "L3" & TERM LUG WAS NOT SO DES "SEE NOTE 57." REF TO "25 AMP" IN FIG SUB TITLE ADDED. ON SH D5 FIG H13 & H14 "208A" CKT MOD WAS DES "205A" & CONVENTION FOR 100AMP RECT TERM ARRANGEMENT CHG'D. INCL PT ISSUE 6.1
5-16-86 CLASS "AD"

EJC | G.T.C. | | 7

(CONTINUED)

(CONTINUATION)

FIGS 37 TO 44 AND FIGS H19 TO H23 & ASSOC WRG ADDED.
NDD85500NJ13
NDD83107NJ1
8-11-86 CLASS "B"

EJC | JTC | | 8

ON SH A1 NOTE 52 "CONTROL CKT T-83104-31" ADDED. ON SH B15 & B16 FIG 46 & 47 ADDED RESP. IN FIG 21 LVD1 LEAD TO BRKT DES "TO FIG 1 ETC" WAS SHOWN AS "X" WRG & GRD LEAD WAS SHOWN AS "Y" WRG. IN FIGS HA, HB, HC, HD & HE AT BRKT DES "TO FIG H1" REF TO "OR H19" ADDED. IN FIG H1 SUB TITLE REF TO "ED-83101-31 ETC ADDED & AT BRKT DES "FROM FIG H2, H3" REF TO "H10, H11, H13 OR H14" ADDED. IN FIG H2 & H3 AT BRKT DES "TO FIG H1" REF TO "OR H19" ADDED. IN FIG H6, H7 & H8 SUB TITLE REF TO "ED-83101-30" ADDED. IN TABLE H REF TO "SPEC TERM LUGS FOR FIG 7 & 8 READ "FIG 6 & 7. IN COL "BUS BAR TERM" REF TO "C71, D71 (T&B) & E71 (T&B)" READ "C70, KS-15977, L32 & KS-15977, L42" RESP.

(CONTINUED)

(CONTINUATION)

IN FIG H10, H11, H13 & H14 BRKT DES "TO FIG H1 OR H19" READ "TO FIG H1".
NDD85500NJ-16
12-13-86 CLASS "B"

EJC | | | 9

IN FIGS 8, 9, 13, 14, 15, 16 & 23 "EQ" LEAD ADDED. HCS, HCT, HCY, HCU, HCV, HCZ, HCW, HCX & HDA OPT ADDED. REF TO H285-226 ADDED. NOTE 76 ADDED. IN FIGS 7 & 12 REF TO 125A RECT ADDED. FIG H24 ADDED.
NDD85500NJ-19
10-27-87 CLASS "M"

| | | 10

ON SH A1 NOTE 59 & REF TO SAME IN FIGS 45, H2, H3, H5, H9, H10, H11, H12, H13, H14 & H24 ADDED, ALSO COLORS REMOVED ON AC CONDUCTORS. IN NOTE 55 REF TO NOTE "114" READ "115" AND REF TO "MINIMUM WIRE ETC." ADDED. FIG H24 WAS SHOWN ON SH D2. TABLE H, J, K & L WAS ADDED TO FIG H12, H13, H14 & H24 RESP. FIGS HA, HB & HC CHG'D TO ADD BUS BARS.
5-3-88 CLASS "M"

EJC | | | 11

(CONTINUED)

AT&T TECHNOLOGIES, INC - PROPRIETY
USE PURSUANT TO COMPANY INSTRUCTIONS

POWER SYSTEMS
LINEAGE 2000 (TM) CHARGE & DISCHARGE CKT
24 OR 48 VOLTS
400 AMPERES MAXIMUM

25 SHEETS
DIST CODE 8M99

DWG SIZE 6S
ISSUE 15

AT&T TECHNOLOGIES, INC. | NJ | T-83104-30 | SHEET A1

K & E DG 121110987654

GN-97-2130 (8-84)
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70						
65						
60		-		HCR TO HCA		ENGR SK
		-				
		-		HBZ TO HBA		ENGR SK
		-				
		-				
55						
		-	H14			ENGR SK
		-	H13			
50		-	H12			
		-	H11			
		-	H10			
		-	H9			
	7,8		H8			
45	7,8		H7			
	7,8		H6			
	1,2		H5			
	2		H4			
	1 & 2	Z	H3			
40	1 & 2	W, X	H2			
	5, FS5		H1			
	5	R	HE			
		-	HD			ENGR SK
	FS9	W, X	HC			
35		ZX	HB			
		ZY	HA			
			29 TO 24			ENGR SK
30		-		HAX TO HA		ENGR SK
	FS10		30			
	3		23			
25	3,7	C,D	22			
	6	W, R,P	21			
	5	R				
		Y	Y			+ 24V PWR
		X	X			- 24V PWR
20		X,Z	20	SUPL BAY	CONV	
		X,Z	19	INITIAL BAY	-24V	
		Y,Z	18	SUPL BAY	CONV	
		Y,Z	17	INITIAL BAY	+24V	
	1	X,Z	16	SUPL BAY	MCS	
15	1	X,Z	15	INITIAL BAY	-24V	
	2	Y,Z	14	SUPL BAY	MCS	
	2	Y,Z	13	INITIAL BAY	+24V	
	1&2	Z	12	24 VOLT		
	1	W,X	11	SUPL BAY	CONV	
10	1	W,X	10	INITIAL BAY		
	2	W,X	9	SUPL BAY	MCS	
	2	W,X	8	INITIAL BAY		
	1&2	W,X	7	-48 VOLT		
	7,8		6			
5	7,8		5			
	7,8		4			
	7,8		3			
	2		2			
1	5,FS5		1			

LINE	FIG	OPT	FIG	WRG	APP	REMARKS
	SD-83104-01		T-83104-30			

	17		H26			BAT RES FRED.
			H19 TO H24			ENGR SK
	16		37 TO 44			
85						
	11				YCU	
					HCT	
					HCS	
80	11	L	H18			
	12	Q	H17			
	12	Q	H16			
	11	T	H15			
	6	W, N,R	36			
75	12	Q	35			
			34			
	10	T	33			
			32			
71			31			

LINE	FIG	OPT	FIG	WRG	APP	REMARKS
	SD-83104-01		T-83104-30			

SCHEMATIC FIGURES AND OPTIONS AGREE WITH SIMILARLY DESIGNATED WIRING DIAGRAM FIGURES AND OPTIONS EXCEPT AS SHOWN ABOVE. WE ASSIGNED FIGURES AND OPTIONS ARE PREFIXED WITH LETTER H AND HAVE NO SCHEMATIC EQUIV UNLESS SHOWN ABOVE ITEMS IN ( ) PARENTHESIS ARE FOR INFORMATION ONLY AND ARE NOT TO BE RECORDED ON JOB WIRING LIST DRAWINGS.

TABLE C - SD T DWG CROSS REFERENCE TABLE

CA	CB	CC	CD	CE	CF		CA	CB	CC	CD	CE	CF

47		B16
46		B15
43,44,45		B14
41,42		B13
39,40		B12
37,38		B11
28	HCJ	B8
	HBS, HBT	
	HAX, HBR	
	HAV, HAW	
	HAT, HAU	
26	HCM	B8
	HCB, HCC	
	HAS, HCA	
	HAQ, HAR	
	HAN, HAP	
24	HCF	B8
	HBH, HBJ	
	HAM, HBG	
	HAK, HAL	
	HAH, HAJ	
H20,H21,H22,H23 H25		D7
H19		D6
H18	HCS, HCT, HCU	
H15, H16, H17		
H14	X, Y	D5
H12, H13		
H11, H24	X, Y	D4
H9, H10		D4
H8		D3
H5, H6, H7		D3
H2, H3, H4		D2
HC, HD, HE		D1
H1, HA, HB		D1
1	HCN TO HCR	B1
31 TO 35		B10
30	X,Y	B9
25,27,29		B8
7,12		B7
21	X, Y, W, Z	B6
22,23		B6
19	HCL	B5
	HBY, HBZ	B5
	HAG, HBX	B5
	HAE, HAF	B5
	HAC, HAD	B5
18,20		B5
17	HBQ, HCN	B5
	HBN, HBP	B5
	HAA, HAB	B5
	HX, HY, HZ	B5
15	HCK	B4
	HBV, HBW	B4
	HV, HJ, HBU	B4
	HR, HS, HT	B4
14,16		B4
13	HCG	B4
	HBL, HBM	B4
	HP, HJ, HBK	B4
	HL, HM, HN	B4
10	HCE, HBE	B3
	HBD, HBF,	B3
	HJ, HK,	B3
	HF, HG, HH	B3
9,11		B3
8	HBD	B3
	HBB, HBC	B3
	HD, HE, HBA	B3
	HA, HB, HC	B3
3,4,5,6		B2
2		B1

FIG	OPT	SHEET
TABLE D-SHEET LOC OF FIGURES & OPTIONS		

T-83104-30

SHEET A2

POWER SYSTEMS
LINEAGE 2000(TM) CHG & DISCHG CKT
24 OR 48 VOLTS
400 AMPERES MAXIMUM

DWG SIZE: 65 | ISSUE: 13

AT&T TECHNOLOGIES, INC. | NJ | T-83104-30 | SHEET A2

GN-97-2135 (4-84)
PRINTED IN U.S.A.

FIG 1
INPUT PWR BUS

(DISCH GRD) 845198381 BUS BAR

HCN A-200-50
HCR A-100-50
HCQ A-50-50 OR
HCP A-400-50 SHUNT (EMPRO)

REG GRD
BAT SH
BAT SHG
DISCH GRD
REG BAT
DISCH BAT

FROM FIG 31
FROM FIG 30
FROM FIG 2
FROM FIG 23
FROM FIG 3
FROM FIG 5

C71 (T&B)
B71M(T&B)
CO GRD
DISCH GRD
SUPPLEMENTARY BAY TERMINATIONS
C77 (T&B)
B86M(T&B)

(CHG GRD) 845198365 BUS BAR
CO BAT RETURN
PR-1
PR-2
A71M (T&B)
B71M (T&B)
TERMS AS SPECIFIED PER LIST
SUPPLEMENTARY BAY TERMINATIONS WHEN REQUIRED
1ST 2ND 3RD 4TH 5TH

PART OF 845371541 BUS BAR ONLY WHEN FIG 36 IS SPEC
FASTEN TO REAR OF BUS BAR
SUPPLEMENTARY BAY TERM
RUN ONLY WHEN 200 AMP PLANT IS SPEC (LIST C)

(CHG BAT) 845198373 BUS BAR
REG
CF
DIS 1,2
DISCH BAT
DIS 3,4
R5A
FROM FIG 33
STAMPING WITH THE 200 AMP PLANT ONLY

FROM FIG 21 OR FIG 36
LVD2
LVD1
P-1
A71M (T&B)
C71 (T&B)
BAT A
BAT
PART OF 845198431 BUS BAR, ONLY WHEN FIG 21 IS SPEC STAMPING WITH 400AMP PLANT ONLY
DS2
DS3
INST WRG, CO BAT WHEN FIG 21 OR 36 IS NOT SPEC
DISCH BAT
DIS 6
DIS 4
DIS 5
DIS 3
FROM FIG 34 OR FIG 35

FROM FIG 33 R5A (R)
FROM FIG 30 DISCH BAT (BR)
FROM FIG 2 DISCH BAT (BR)
RUN ONLY WHEN 400 AMP PLANT IS SPEC (LIST CX) OR NO LOW VOLTAGE DISC. CKT IS PROVIDED
TERMS AS SPEC'D PER LIST
SUPPLEMENTARY BAY TERMINATIONS
1ST 2ND 3RD 4TH 5TH
FROM FIGS 7 OR 12

FIG 2
MCS OR CONVENTIONAL CONTROLLER FOR 24 OR 48 VOLT POWER PLANTS (SEE NOTE G1)

(TB1) TERM BLK
21 1
19 20
40
FAN
FROM FIG 23 OR T-83104-31 FIG 1
(S)
W
FAJ
TO FIG 4, 33, 37, 39 OR 41
20 GA & 1 PER FIG 4

TO FIG 1, 46 OR 47
REG BAT
REG GRD
DISCH GRD
DISCH BAT
BAT SH
BAT SHG
12 GA
R O G BR
(TB2) TERM BLK
1 2 3 4 5 6 7 8
(J12) 13 23
PART OF J85501A-1,-2,-3 CONTROLLER
TO FIG H26 J85501A-1,-2 CONTROLLERS ONLY

CONTROLLER BACKPLANE PWB
(P-)
MATING PLUG & CONN
(J-) CONN
SHOWN IN FIGS 8,9,10,11,13, 14,15,16,17,18,19 OR 20 AS SPECIFIED

NOTE: BAT SH AND BAT SHG (TB2 PIN 7 & 8) WERE WIRED PER X OPTION FOR -48V PLANT FOR ISSUE 13 OF SHT B1.

T-83104-30
SHEET B1

SEE PROPRIETARY NOTICE ON SHEET A1

POWER SYSTEMS LINEAGE 2000(TM) CHG & DISCHG CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM	DWG SIZE D5	ISSUE 15
AT&T TECHNOLOGIES, INC. NJ	T-83104-30	SHEET B1

K & E DG 121110987654321

GN-97-2135 (5-7-84)

FIG 3

ALM POWER
LEFT SIDE
ED-83101-30 GRP 3 OR GRP 4

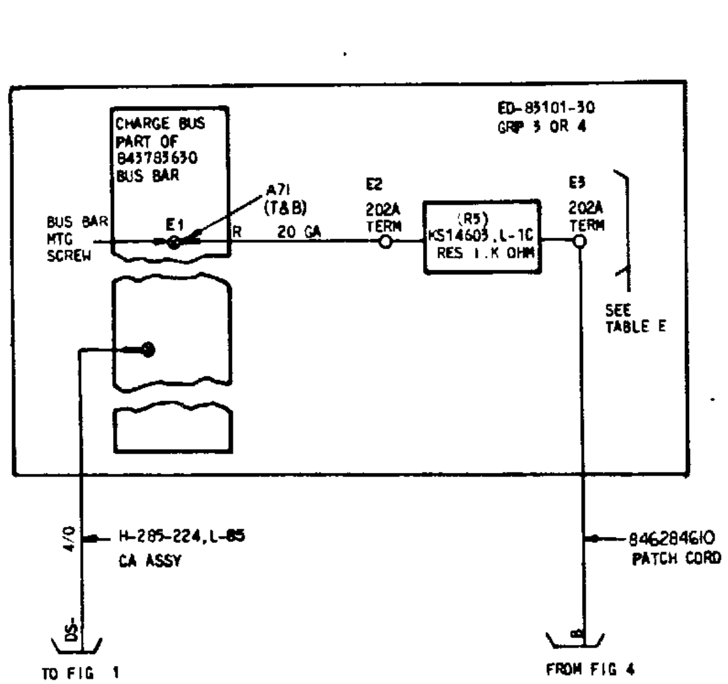


FIG 5

ALM POWER
RIGHT SIDE
ED-83101-30 GRP 5 OR GRP 6

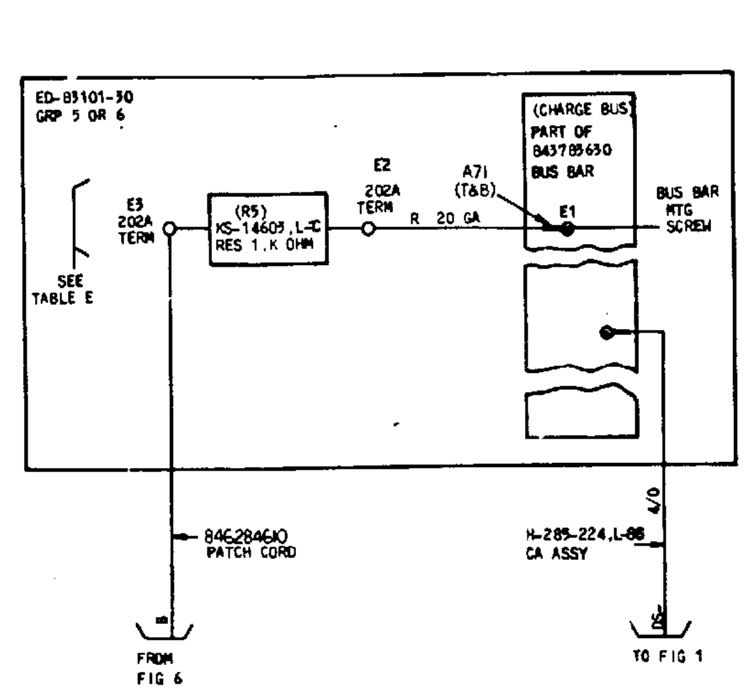


FIG 4

CKT BREAKERS
LEFT SIDE
ED-83101-30 GRP 3 OR 4

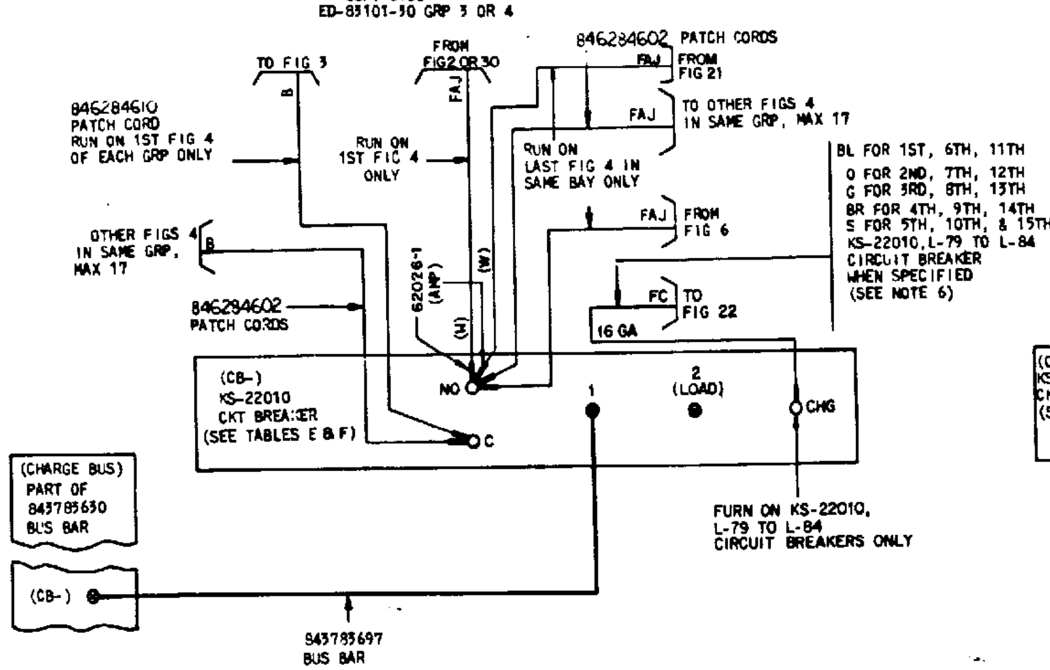


FIG 6

CKT BREAKERS
RIGHT SIDE
ED-83101-30 GRP 5 OR 6

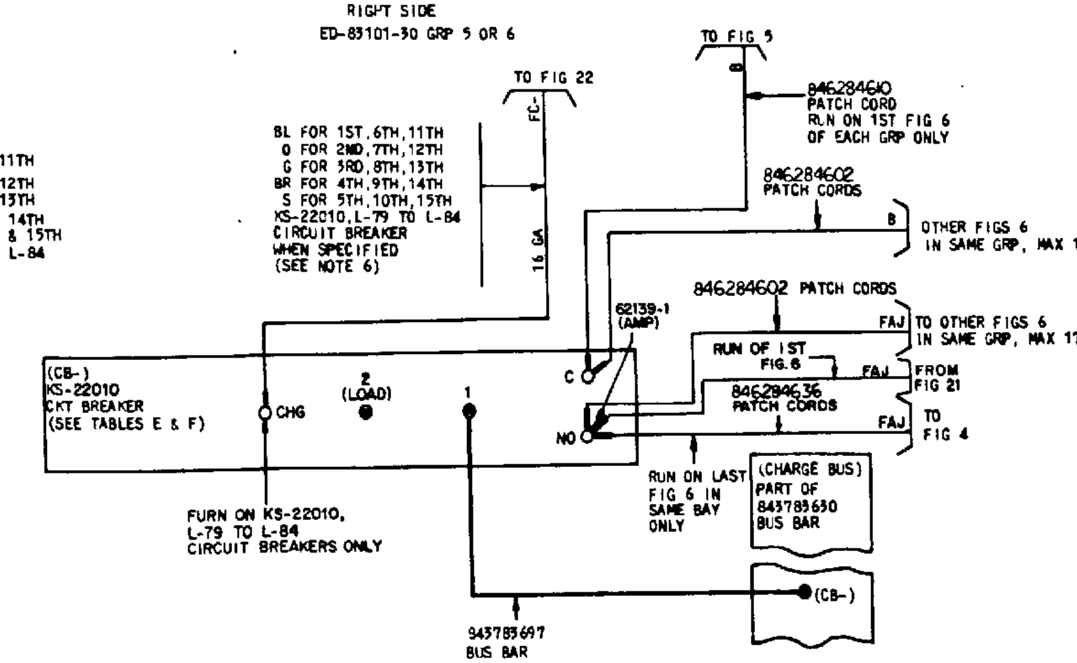


TABLE E

BAY VIEWED FROM FRONT		ASSOC C TS		
BAY	SIDE	WITH FIG 22	WITHOUT FIG 22	FIG
INITIAL	LEFT	1ST TO 15TH	1ST TO 18TH	3
	RIGHT	1ST TO 15TH	1ST TO 18TH	5
SUPPLEMENTARY	LEFT	1ST TO 15TH	1ST TO 18TH	3
	RIGHT	1ST TO 15TH	1ST TO 18TH	5

TABLE F

CIRCUIT BREAKERS (CB1) TO (CB18)

RATING IN AMPS	WITH CHARGING TERM TO CODE	WITH CHARGING TERM TO LIST	NO CHARGING TERM CODE	NO CHARGING TERM LIST
5	KS-22010	79	KS-22010	87
10		80		88
15		81		89
20		82		90
25		83		91
30		84		92
35		93		
40		94		
45		95		
50		96		
60		97		
70		98		
80		99		
90		86		
100		85		

POWER SYSTEMS
LINEAGE 2000(TM) CHG DISCHG CKT
24 OR 48 VOLTS
400 AMPERES MAXIMUM

AT&T TECHNOLOGIES, INC.	NJ	T-83104-30	SHEET B2
DWG SIZE 65	ISSUE 13		

CN-S7-2135 (5-7-84) PRINTED IN U.S.A.

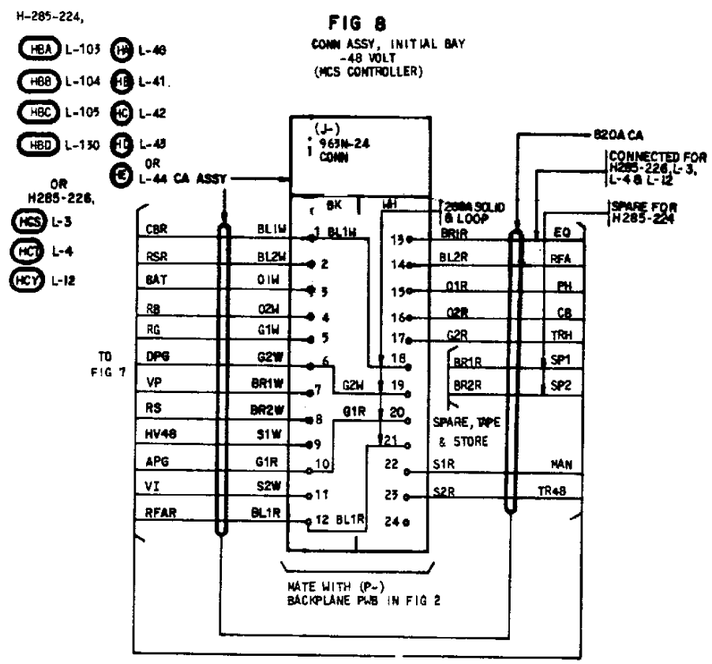


FIG 8

CONN ASSY, INITIAL BAY
-48 VOLT
(HCS CONTROLLER)

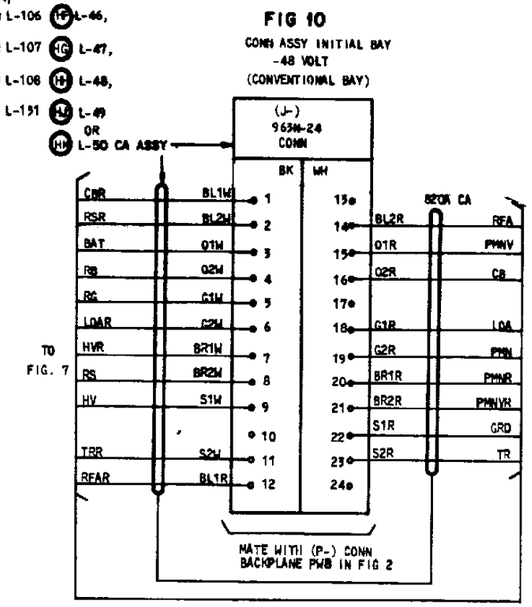
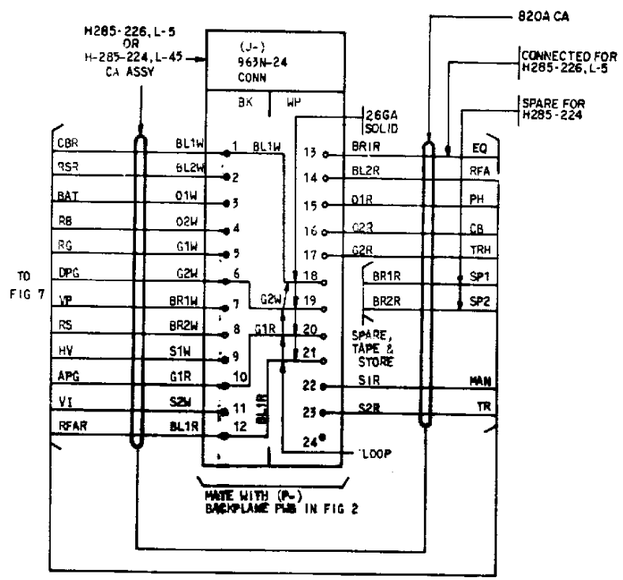


FIG 10

CONN ASSY INITIAL BAY
-48 VOLT
(CONVENTIONAL BAY)

FIG 9

CONN ASSY, SUPPL BAY
-48 VOLT
(HCS CONTROLLER)



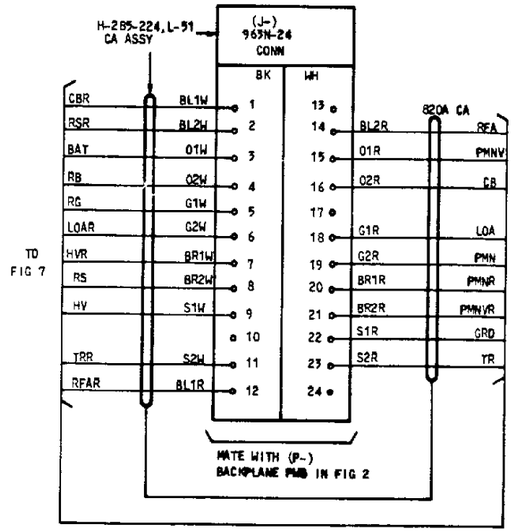
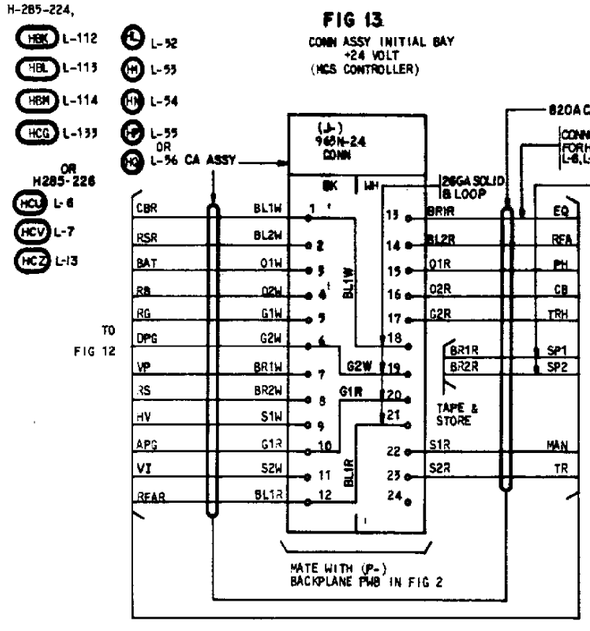
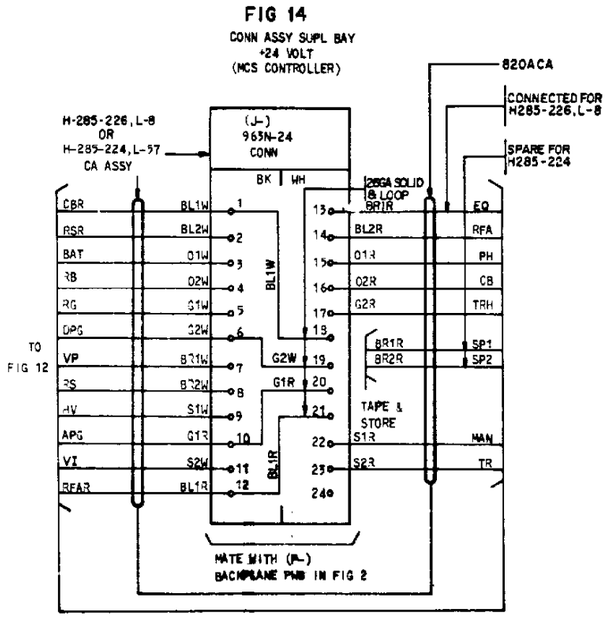


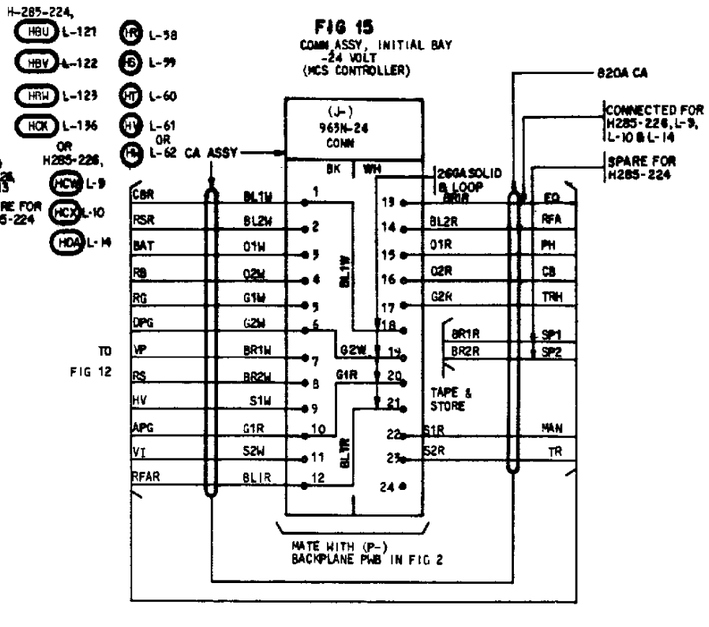
FIG 11

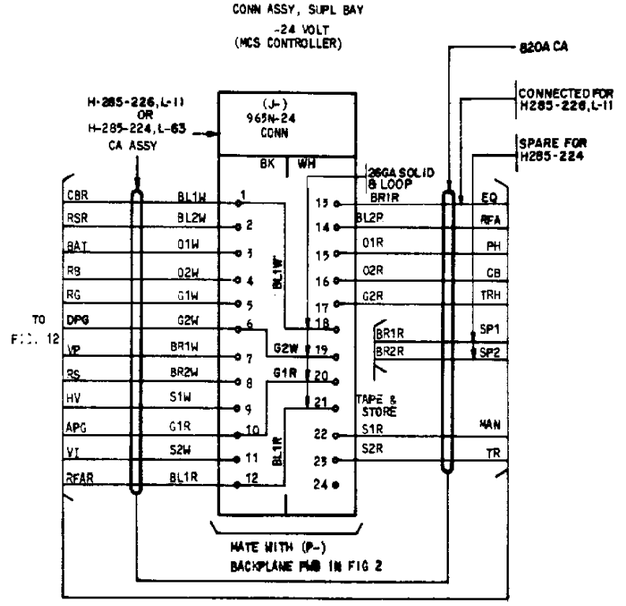
CONN ASSY, SUPPL BAY
-48 VOLT
(CONVENTIONAL CONTROLLER)

POWER SYSTEMS LINEAGE 2000(TM) CHG & DISCHG CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM			
		DWG SIZE 6S	ISSUE 10
AT&T TECHNOLOGIES, INC.	MJ	T-83104-30	SHEET RB









SEE PROPRIETARY NOTICE ON SHEET A1

POWER SYSTEMS LINEAGE 2000(TM) CHG & DISCHG CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM		DWG SIZE 65	ISSUE 10
AT&T TECHNOLOGIES, INC.	NJ	T-83104-30	SHEET 64

FIG 17

CONN ASSY INITIAL BAY
+24 VOLT
(CONVENTIONAL CONTROLLER)

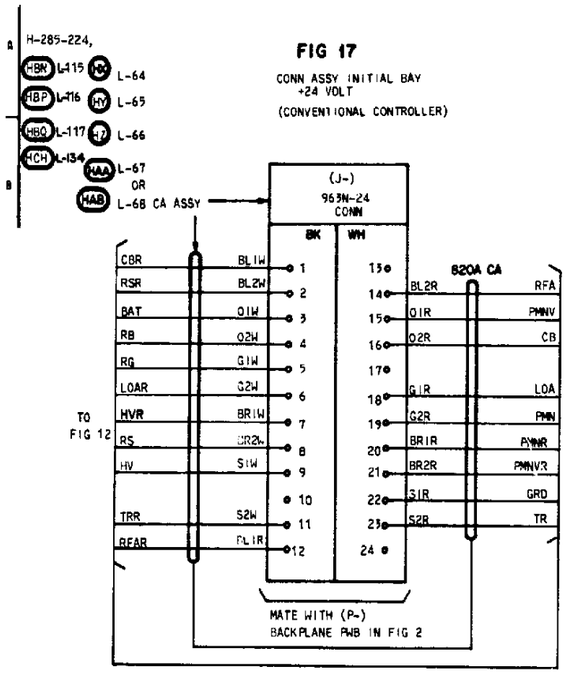


FIG 18

CONN ASSY, SUPL BAY
+24 VOLT
(CONVENTIONAL CONTROLLER)

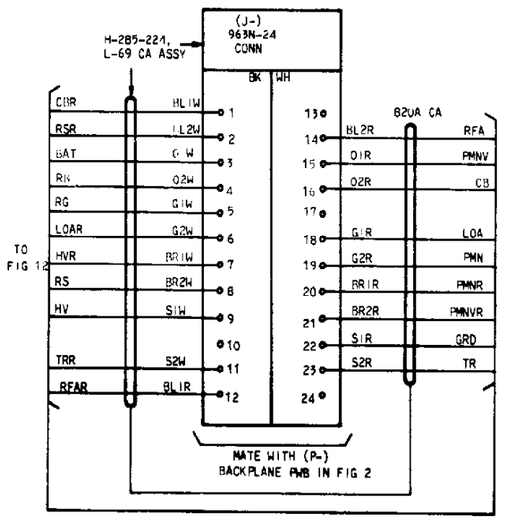


FIG 19

CONN ASSY, INITIAL BAY
-24 VOLT
(CONVENTIONAL CONTROLLER)

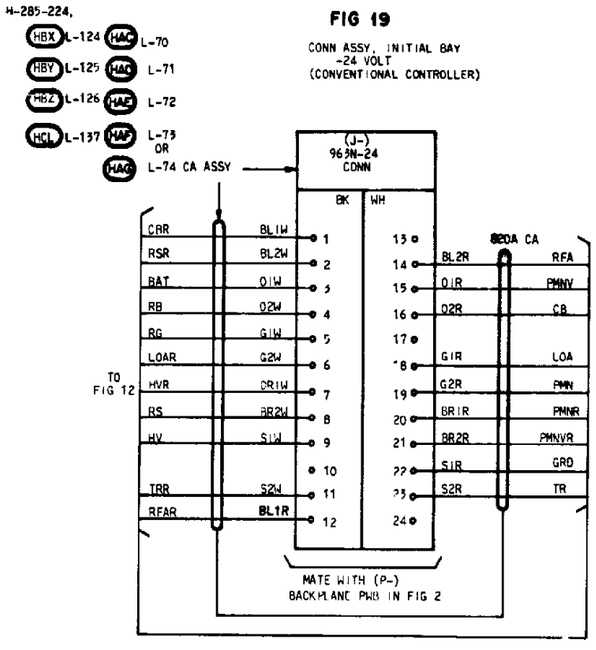
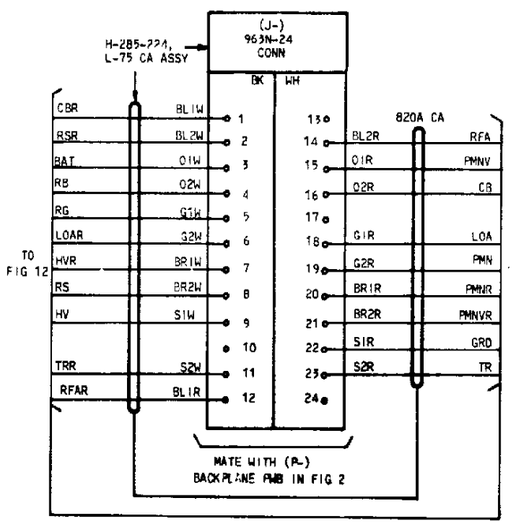


FIG 20

CONN ASSY SUPL BAY
-24 VOLT
(CONVENTIONAL CONTROLLER)



POWER SYSTEMS LINEAGE 2000(TM) CHG & DISCH CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM		DWG SIZE 65	ISSUE 4
AT&T TECHNOLOGIES, INC.	NJ	T-83104-30	SHEET 85

FIG 21
50 TO 200 AMP
LOW VOLTAGE
DIS CONN
(SEE NOTE 61)

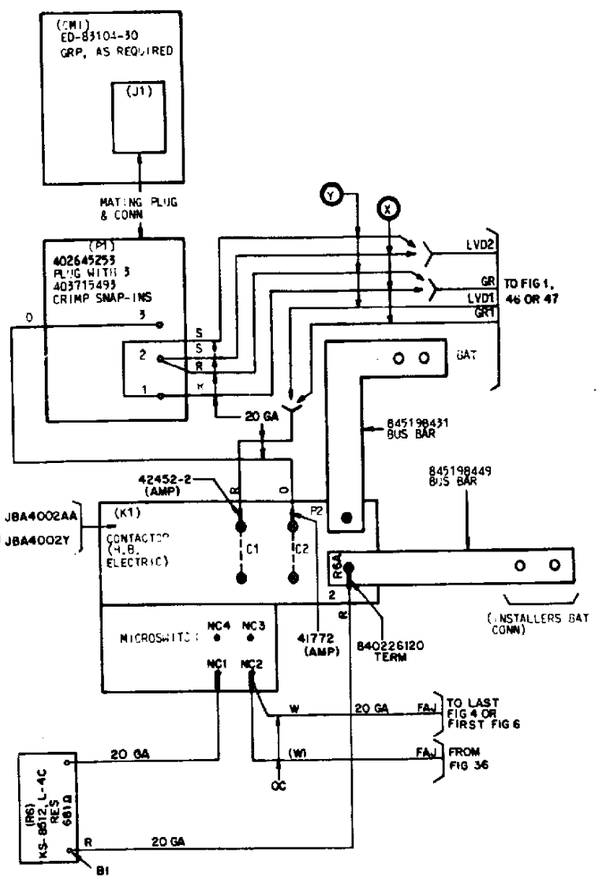


FIG 22
SPECIFIC CKT CHARGED
ED-83131-30 GRP 1 OR 5

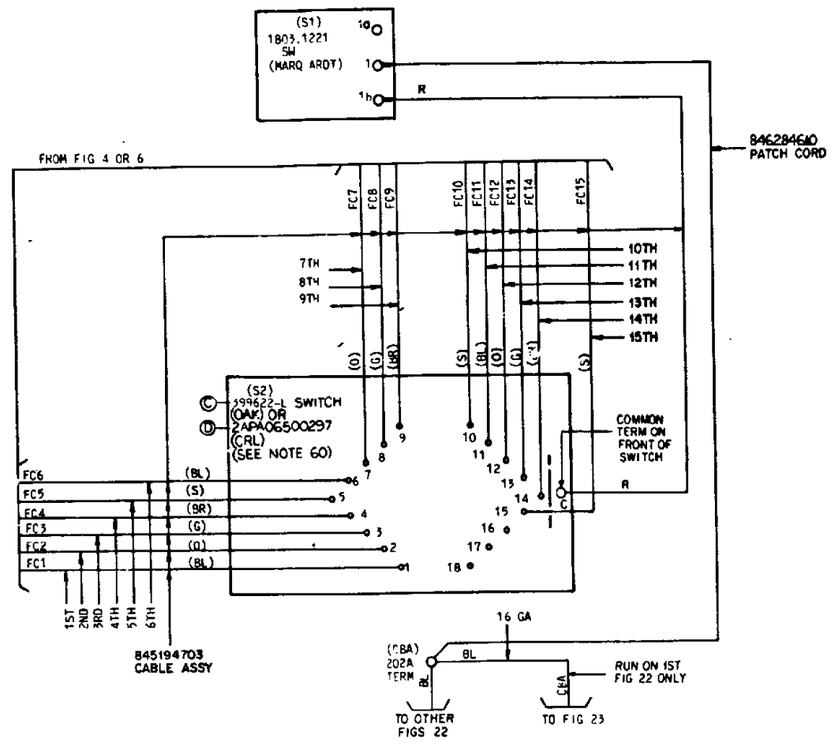
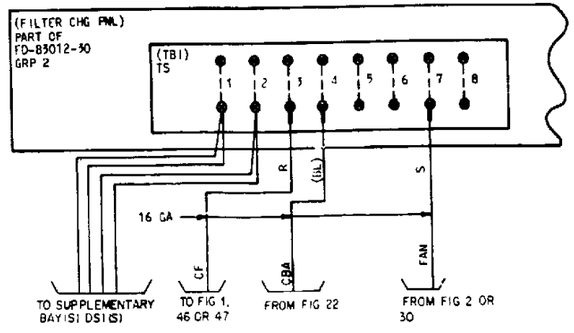


FIG 23
FILTER CHARGER PNL
(SD-82603-011



SEE PROPRIETARY NOTICE ON SHEET A1

POWER SYSTEMS LINEAGE 2000 (1M CHG) 24 OR 48 VOLTS 400 AMPERES MAXIMUM		DWG SIZE 65	ISSUE 13
AT&T TECHNOLOGIES, INC.	NJ	T-83104-30	SHEET B6

T-83104-30
SHEET B6

K & E DG 12111098765432 1

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FIG 7

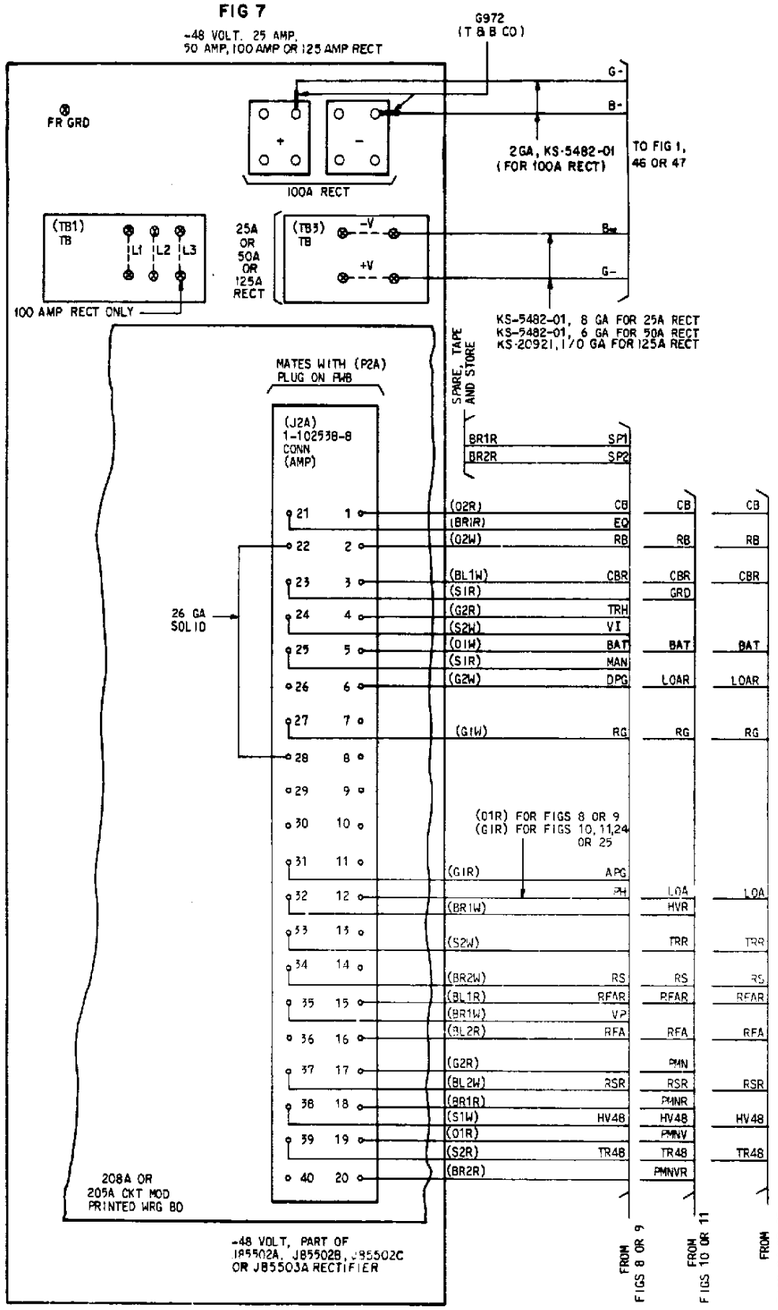
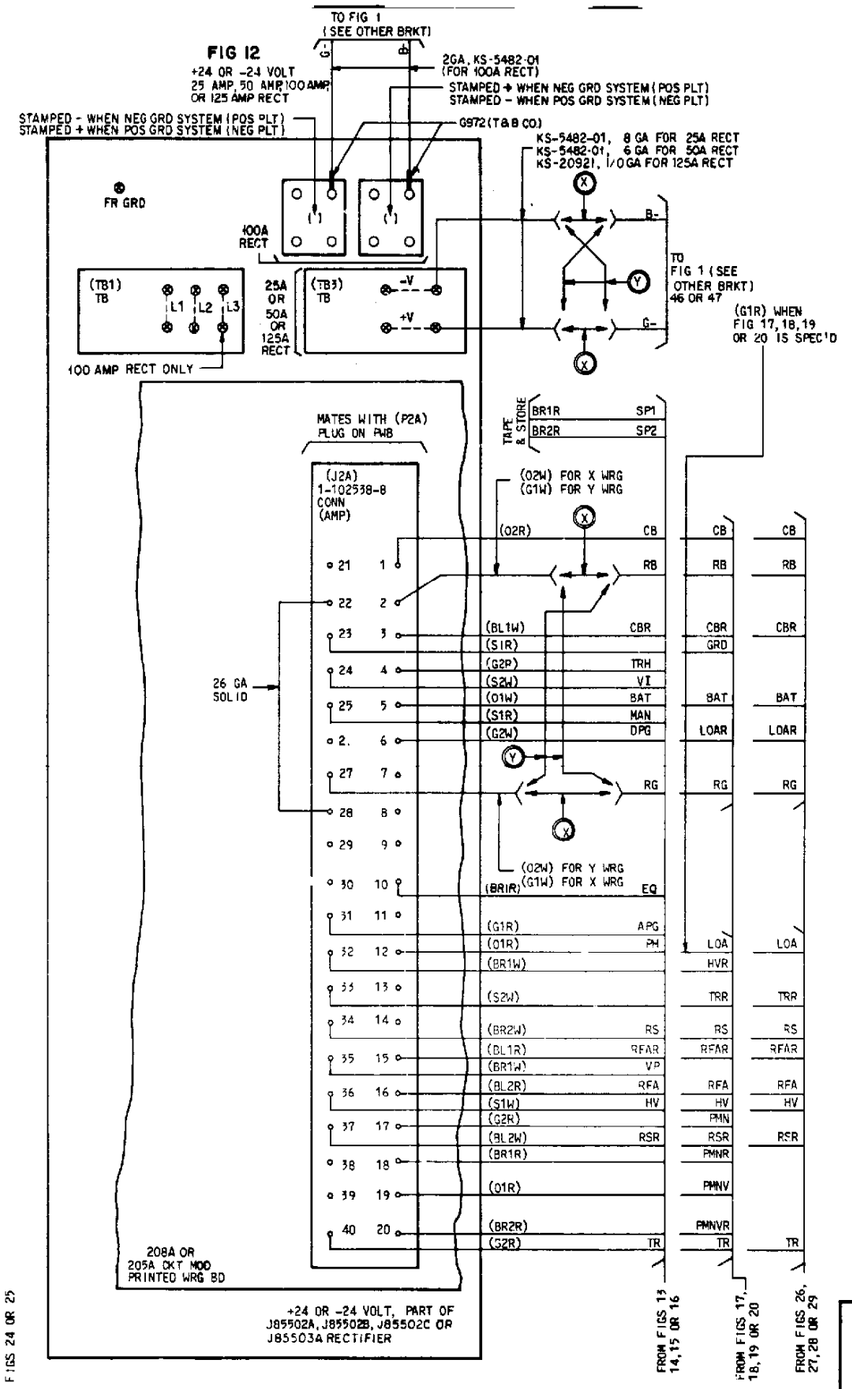


FIG 12



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POWER SYSTEMS LINEAGE 2000(TM) CHG & DISCHG CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM	DWG SIZE 6S	ISSUE 10
AT&T TECHNOLOGIES, INC. NJ T-83104-30		SHEET B7

FIG 24

CONN ASSY, INITIAL BAY -48V
(SMALL CONTROLLER)

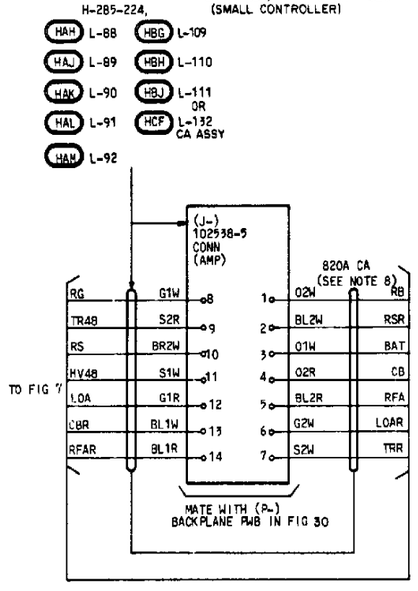


FIG 25

CONN ASSY, SUPPL BAY
-48 VOLT
(SMALL CONTROLLER)

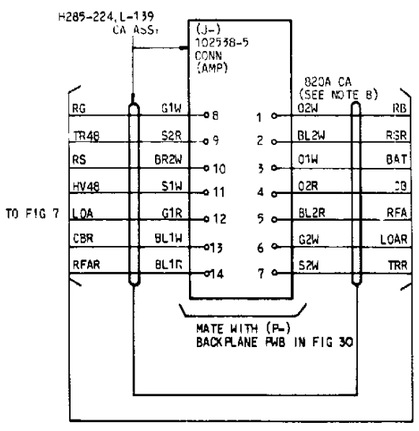


FIG 26

-24V, INITIAL BAY
(SMALL CONTROLLER)

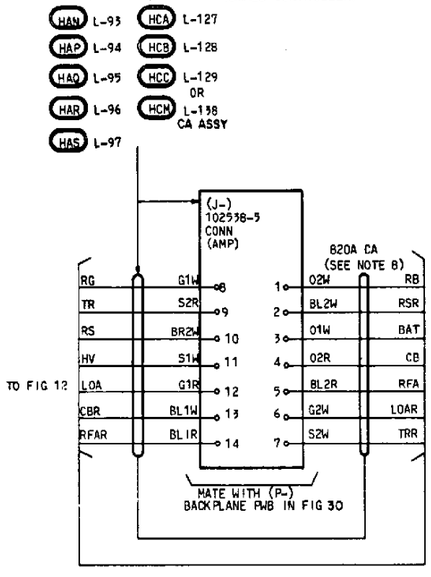


FIG 27

CONN ASSY, SUPPL BAY
-24 VOLT
(SMALL CONTROLLER)

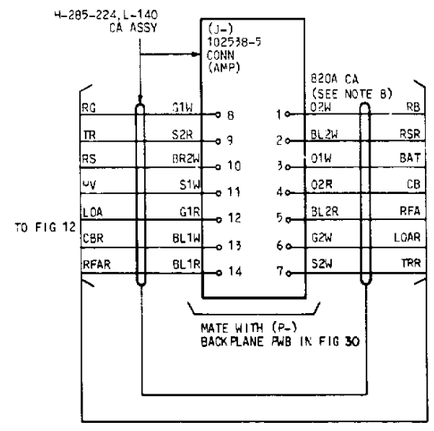


FIG 28

+24V, INITIAL BAY
(SMALL CONTROLLER)

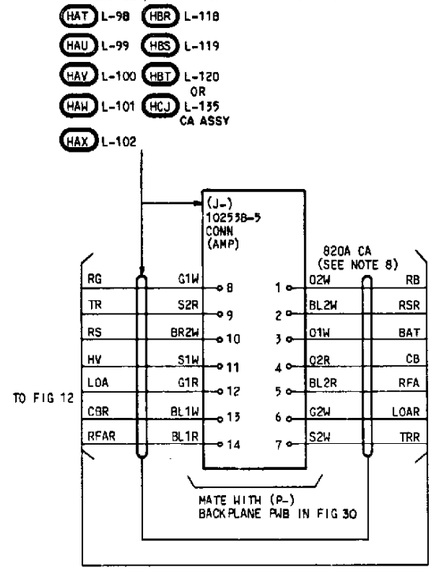
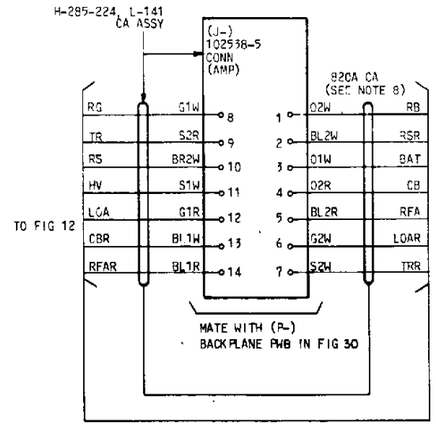


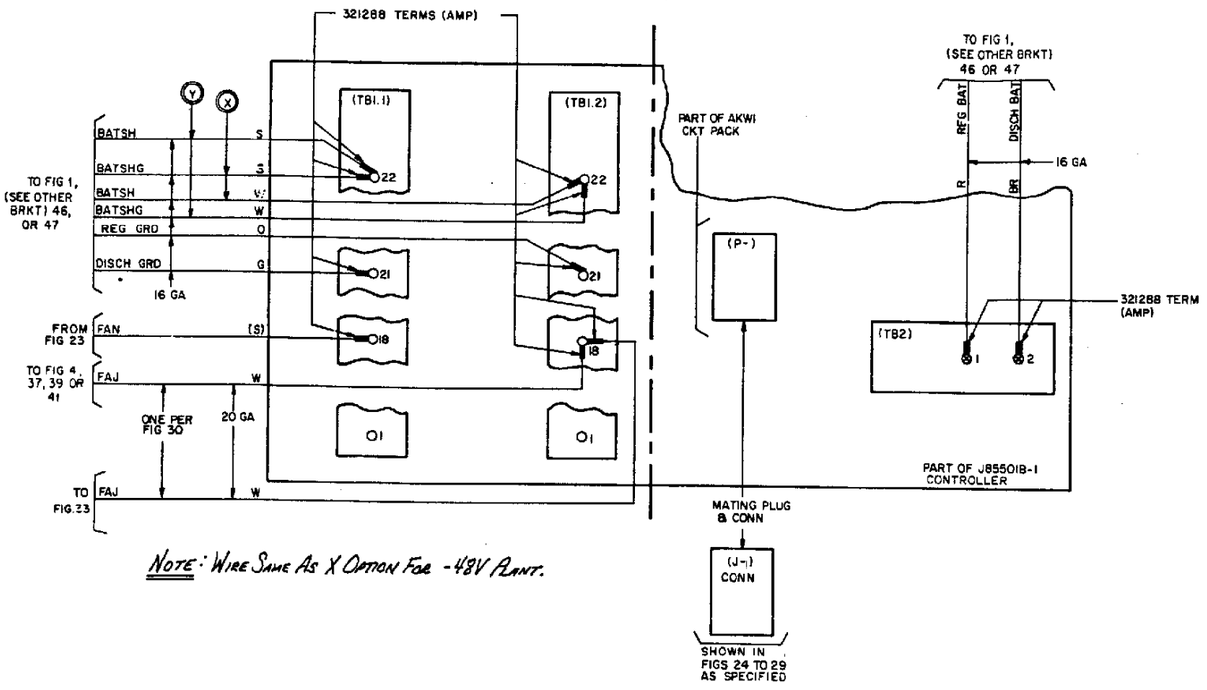
FIG 29

CONN ASSY, SUPPL BAY
+24V VOLT
(SMALL CONTROLLER)



POWER SYSTEMS LINEAGE 2000(TM) CHG & DISCH CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM		
	DWG SIZE 6S	ISSUE 8
AT&T TECHNOLOGIES, INC. NJ T-83104-30		SHEET 88

FIG 30
SMALL CONVENTIONAL CONTROLLER
FOR 24 OR 48 VOLT
POWER PLANTS
(See Note This Sheet)



Note: Wire Same As X Option For -48V Plant.

T-83104-30
SHEET 89

POWER SYSTEMS
LINEAGE 2000 (TM) CHG & DISCH CKT
24 OR 48 VOLTS
400 AMPERES MAXIMUM

DWG SIZE 65 | ISSUE 15

AT&T TECHNOLOGIES, INC. | NJ | T-83104-30 | SHEET 89

FIG 31
CKT BREAKER PNL
FOR MAX 17, 30 AMP CKT BRKRS
ED-83106-30 GRP 1

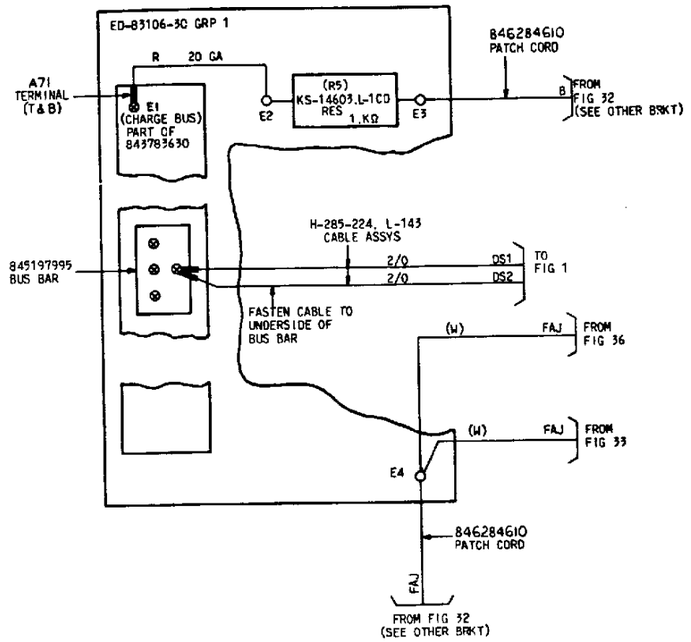


FIG 32
CKT BREAKERS, LEFT SIDE
ED-83106-30 GRP A

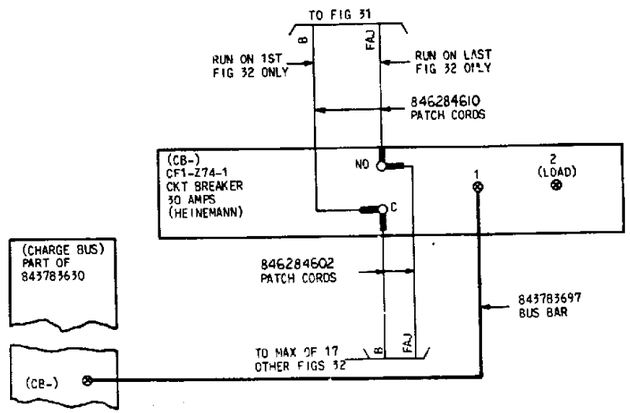


FIG 33
CKT BRKR PNL
FOR 40, 100 & 175 AMP CKT BRKRS
ED-83106-30 GRP 2

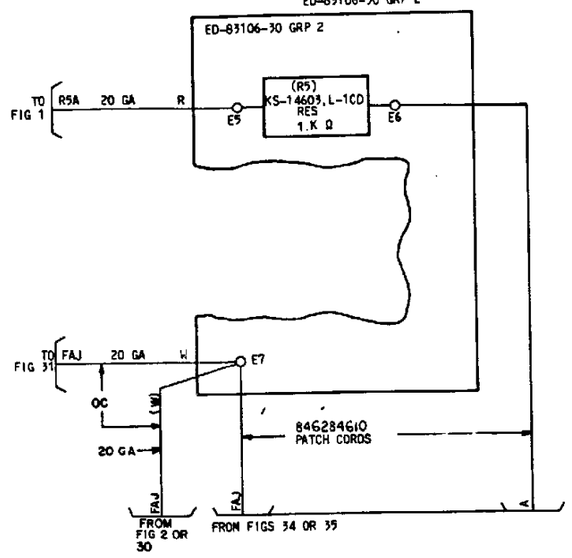


FIG 34
CKT BREAKERS RIGHT SIDE
ED-83106-30 GRP C OR D

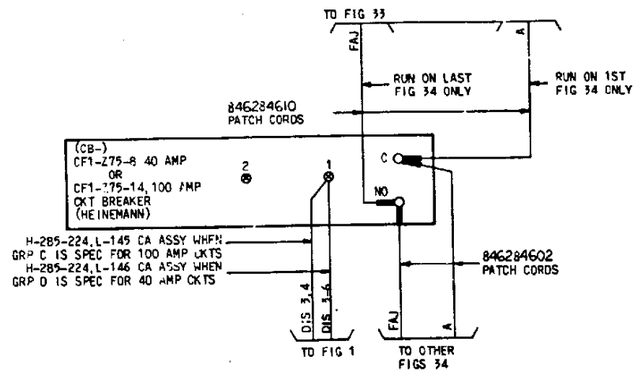


FIG 35
CKT BRKR, RIGHT SIDE
ED-83106-30 GRP B

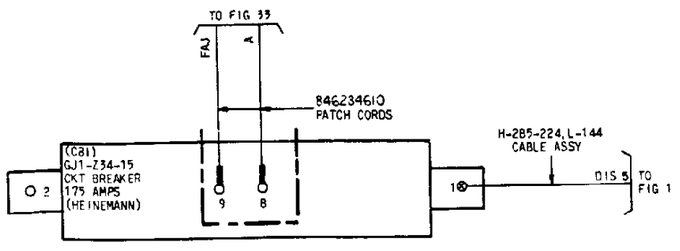
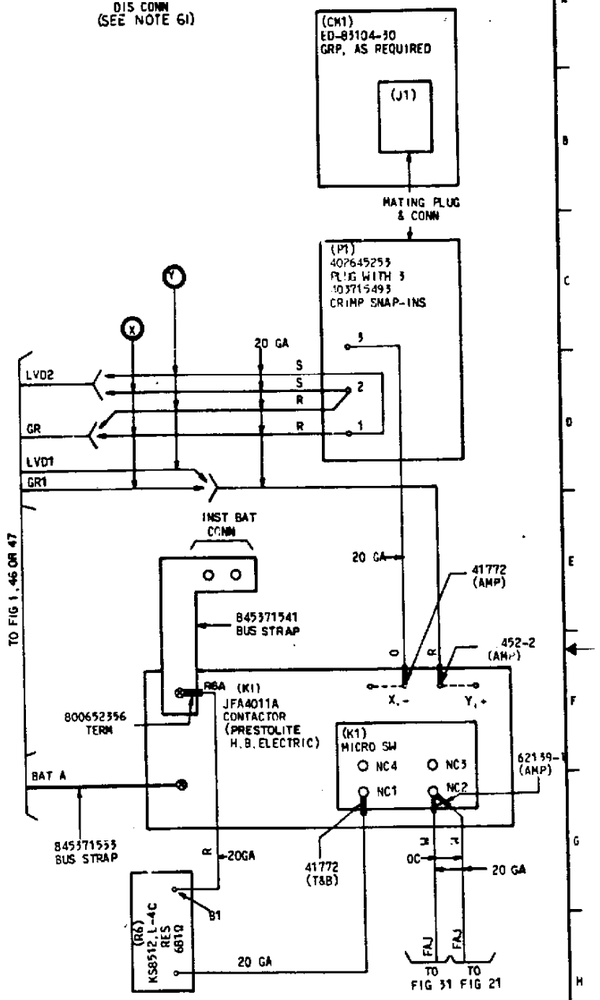


FIG 36
400 AMP
LOW VOLTAGE
DIS CONN
(SEE NOTE 61)



T-83104-30

SHEET B10

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POWER SYSTEMS LINEAGE 2000(TM) CHG & DISCHG CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM	DWG SIZE 6S	ISSUE 13
AT&T TECHNOLOGIES, INC. NJ T-83104-30		SHEET B10

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FIG 37

ED83107-30 (GRP 1)

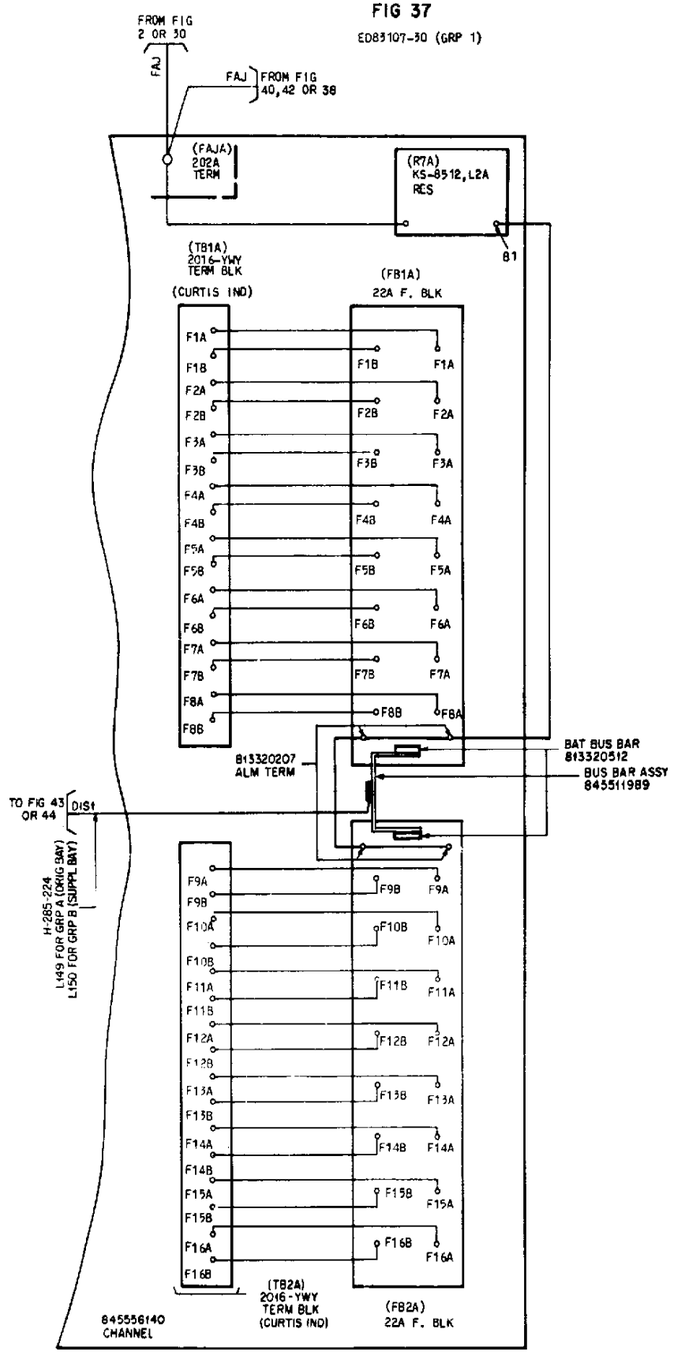
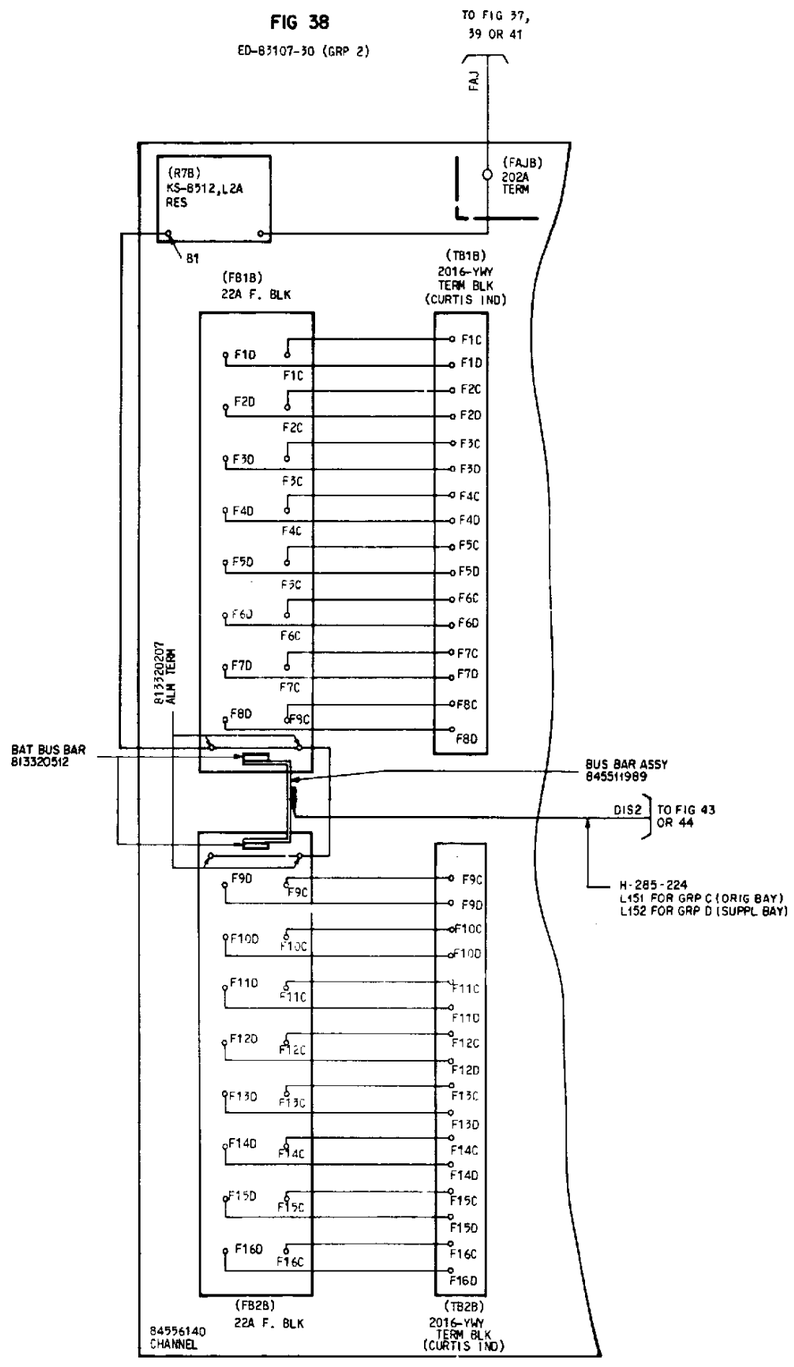
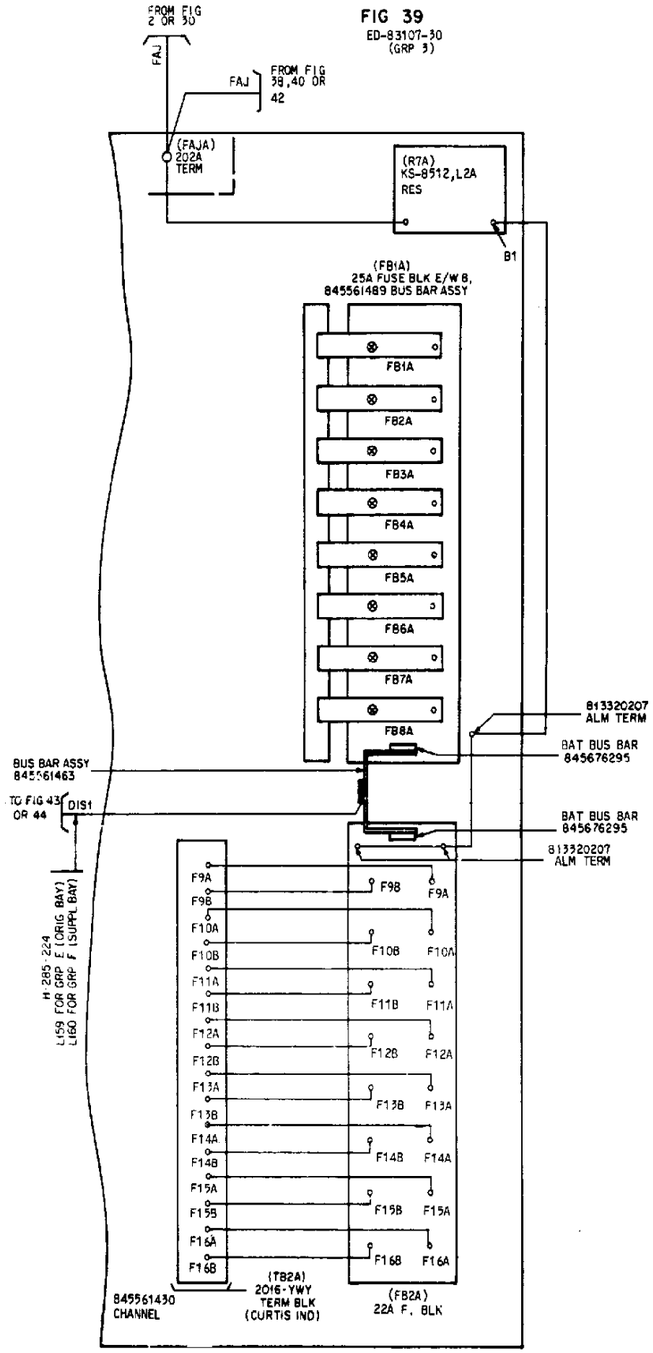


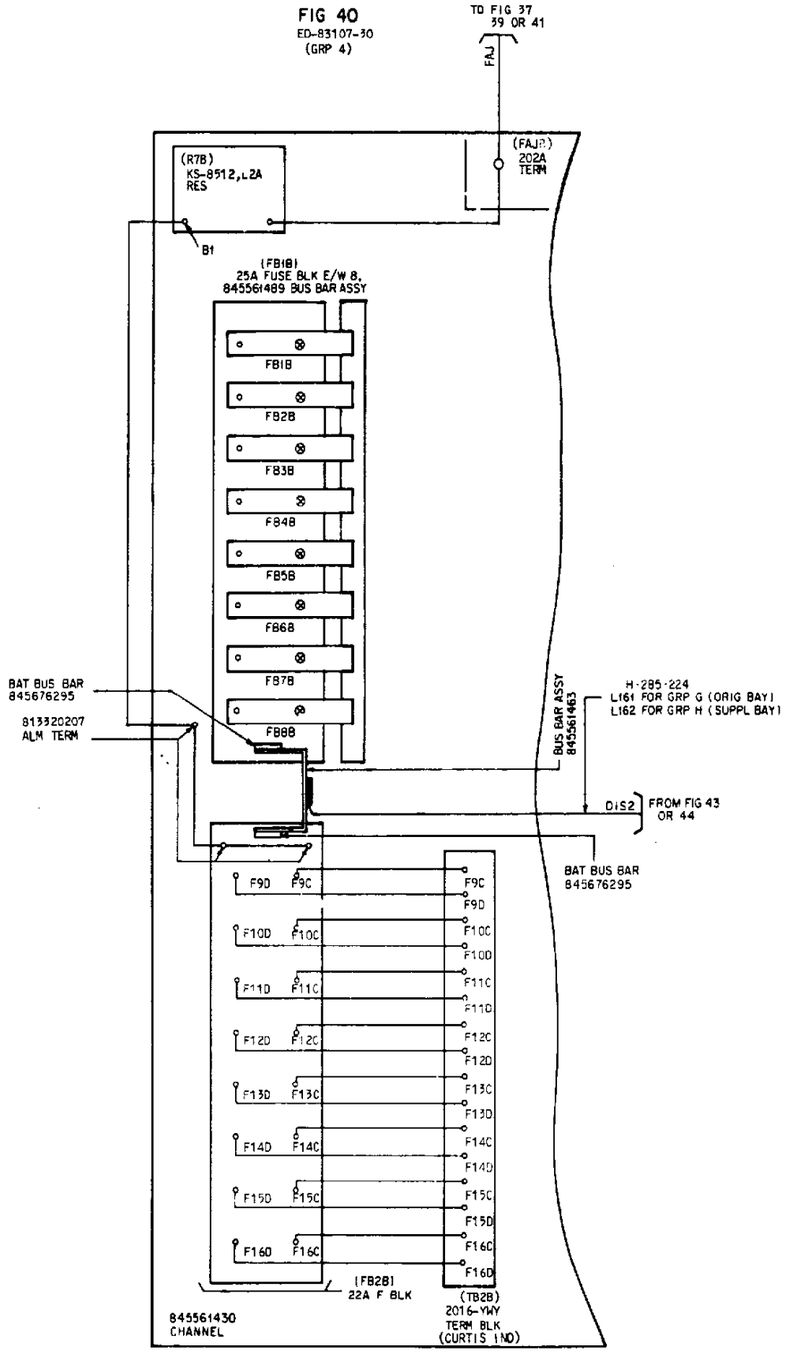
FIG 38

ED-83107-30 (GRP 2)



POWER SYSTEMS LINEAGE 2000 (TM CHG) & DISCHG CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM	DWG SIZE 6S	ISSUE 8
AT&T TECHNOLOGIES, INC.	T-83104-30	SHEET B11





AT&T TECHNOLOGIES, INC-PROPRIETARY
USE PURSUANT TO COMPANY INSTRUCTIONS

POWER SYSTEMS LINEAGE 2000 (TM CHG) & DISCHG CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM	DWG SIZE 65	ISSUE 8
AT&T TECHNOLOGIES, INC.	T-83104-30	SHEET B12

FIG 41

ED-83107-30
(GRP 5)

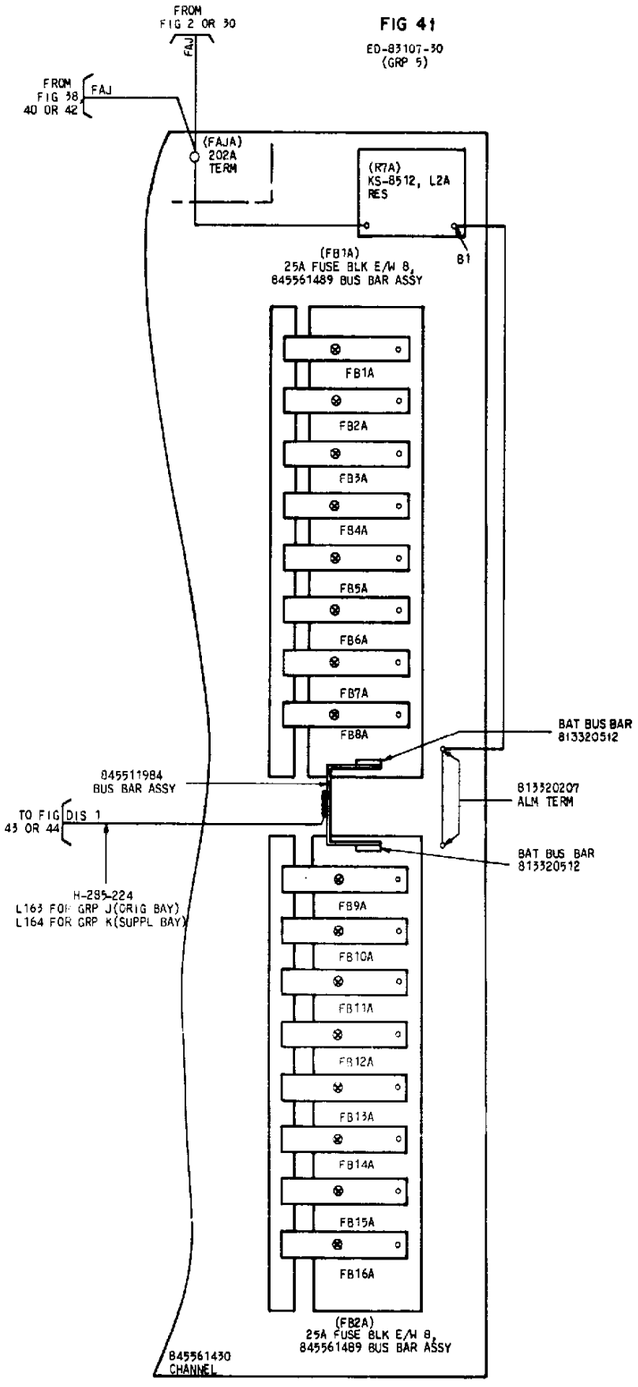
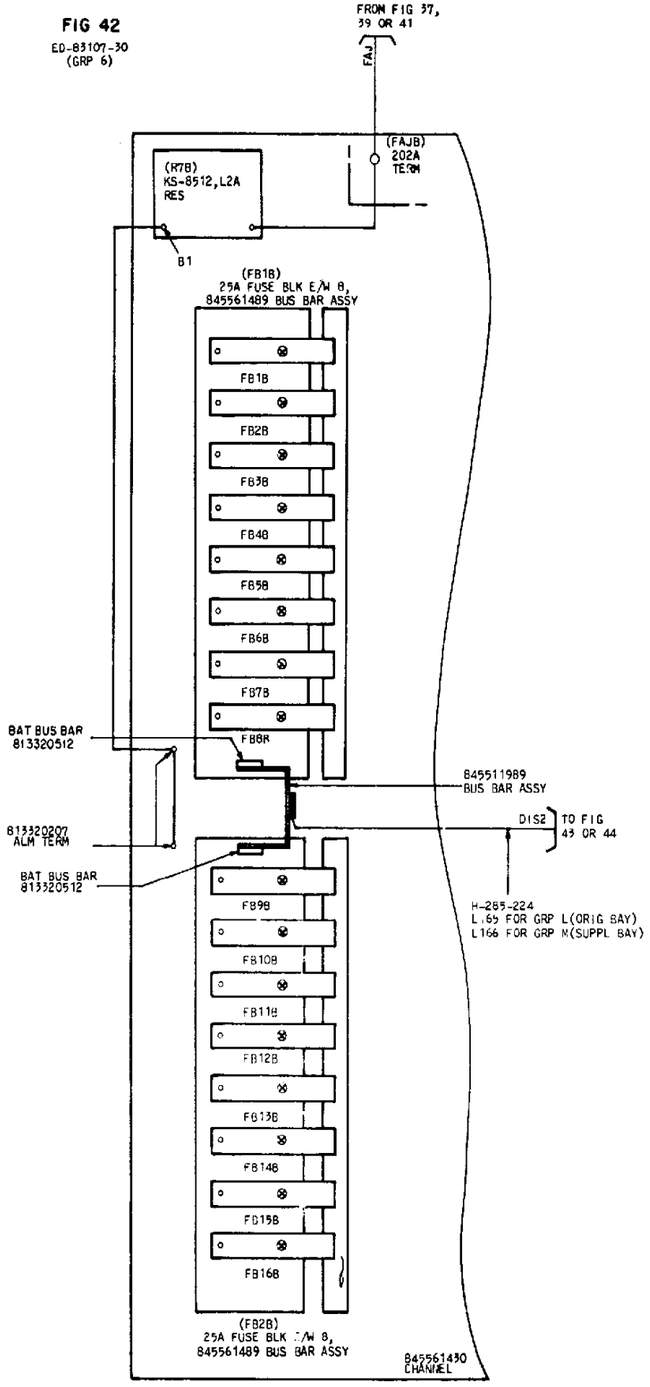


FIG 42

ED-83107-30
(GRP 6)



POWER SYSTEMS LINEAGE 2000 (TM CHG) & DISCHG CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM		
	DWG SIZE 6S	ISSUE 8
AT&T TECHNOLOGIES, INC.	T-83104-30	SHEET B13

FIG 43
INPUT POWER BUS

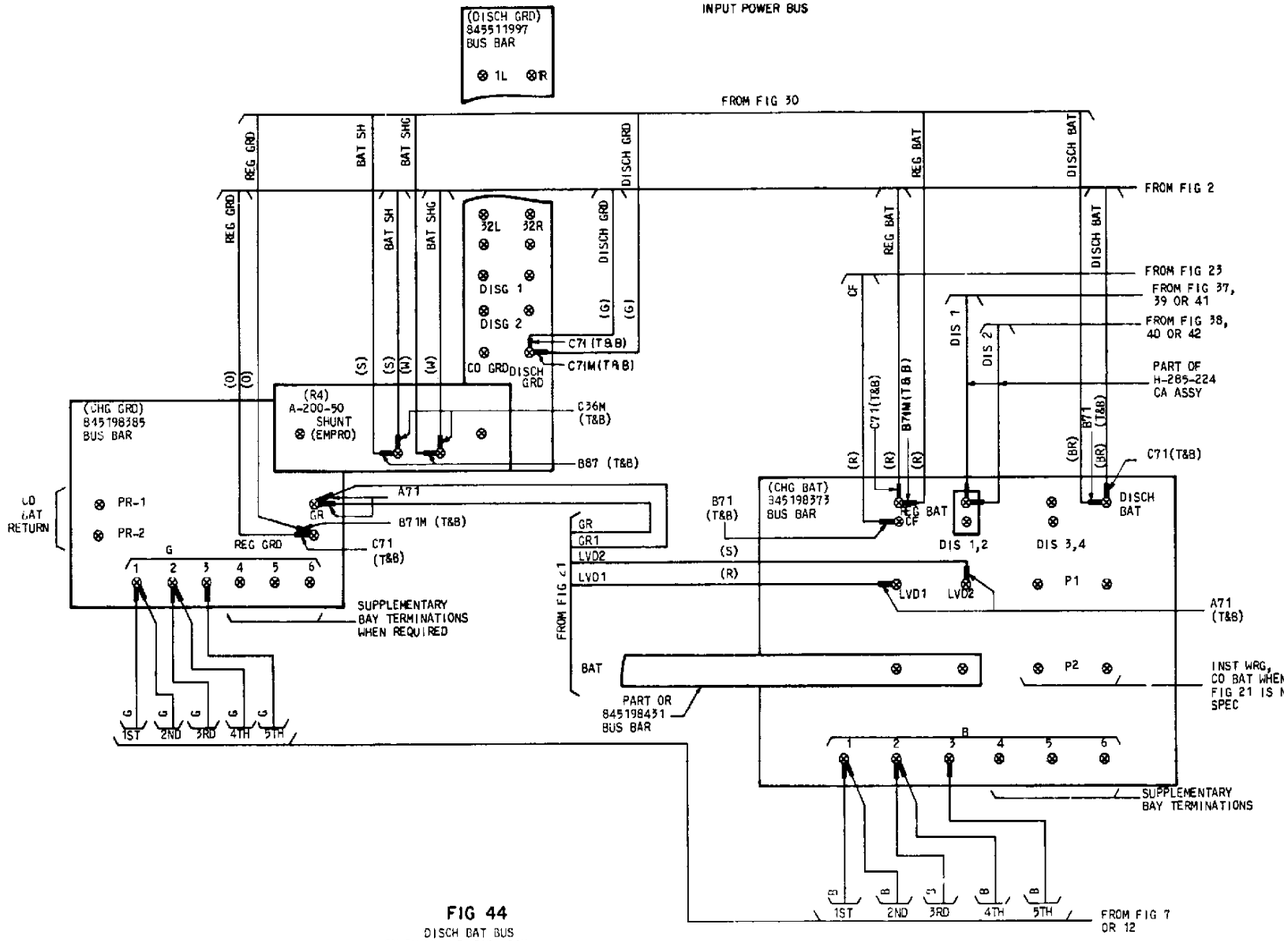


FIG 44
DISCH BAT BUS
ON SUPPLEMENTARY BAY

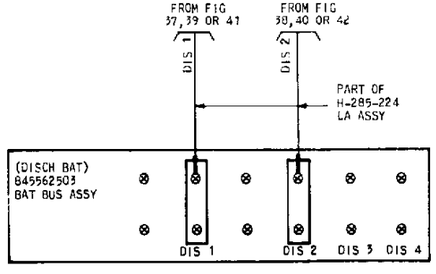
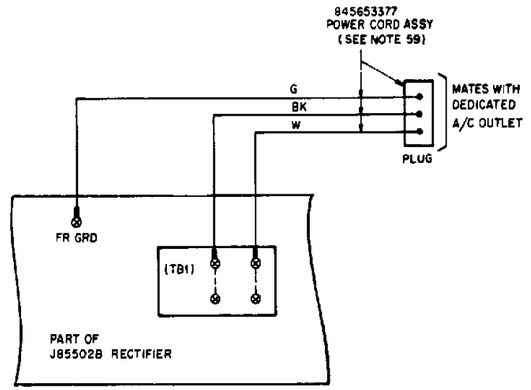
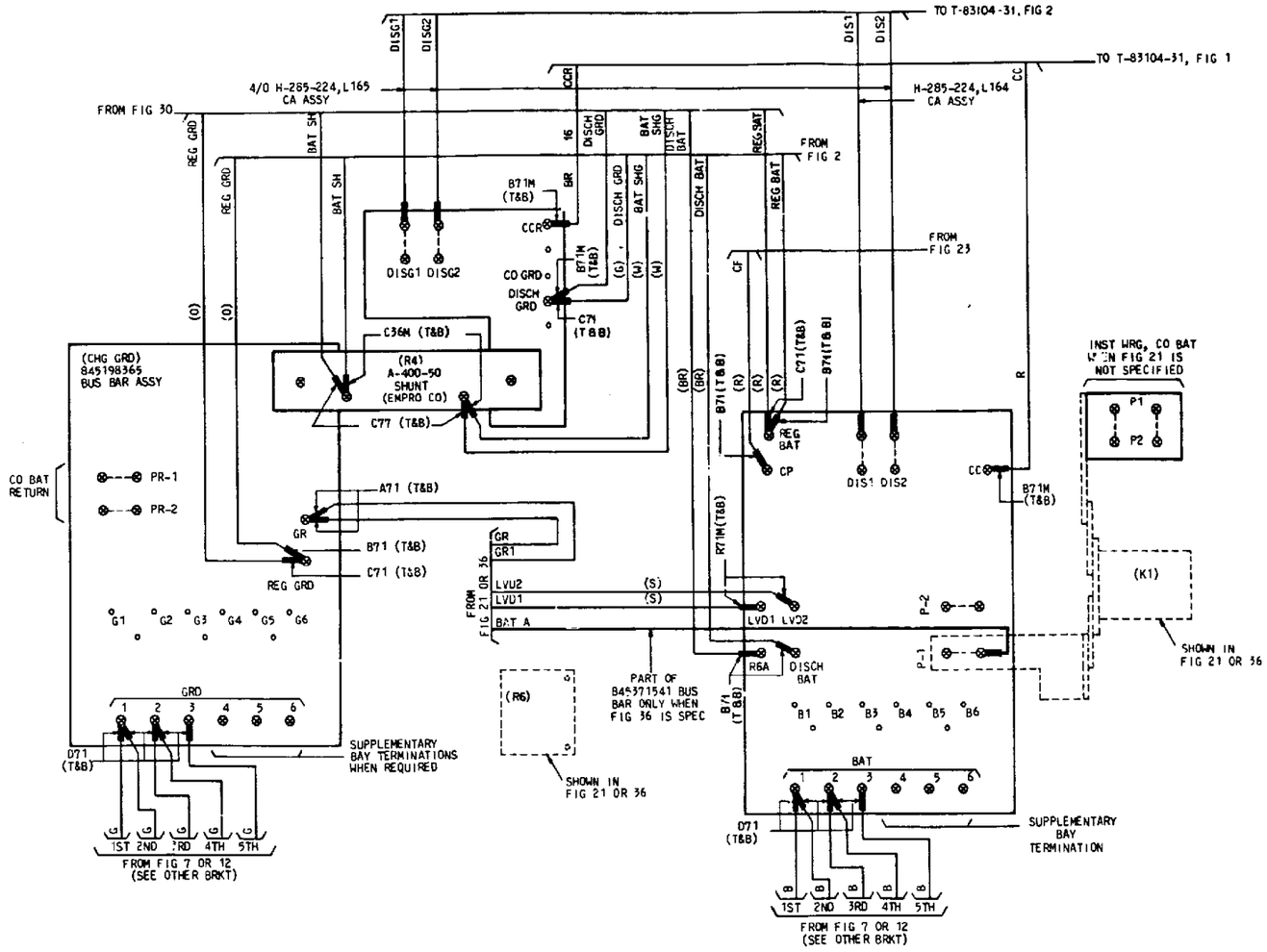


FIG 45
WIRING OF A/C TO 50 AMP
RECTIFIERS WHEN USING
H-569-367 SLC96/SLC SERIES 5 BAY



POWER SYSTEMS LINEAGE 2000(TM CHG) & DISCH CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM		
	DWG SIZE 65	ISSUE 11
AT&T TECHNOLOGIES, INC.	T-83104-30	SHEET B14

FIG 46
INPUT POWER BUS



T-83104-30

SHEET 815

POWER SYSTEMS
LINEAGE 2000 (TM) CHG & DISCH CKT
24 OR 48 VOLTS
400 AMPERES MAXIMUM

DWG SIZE	ISSUE
6S	13

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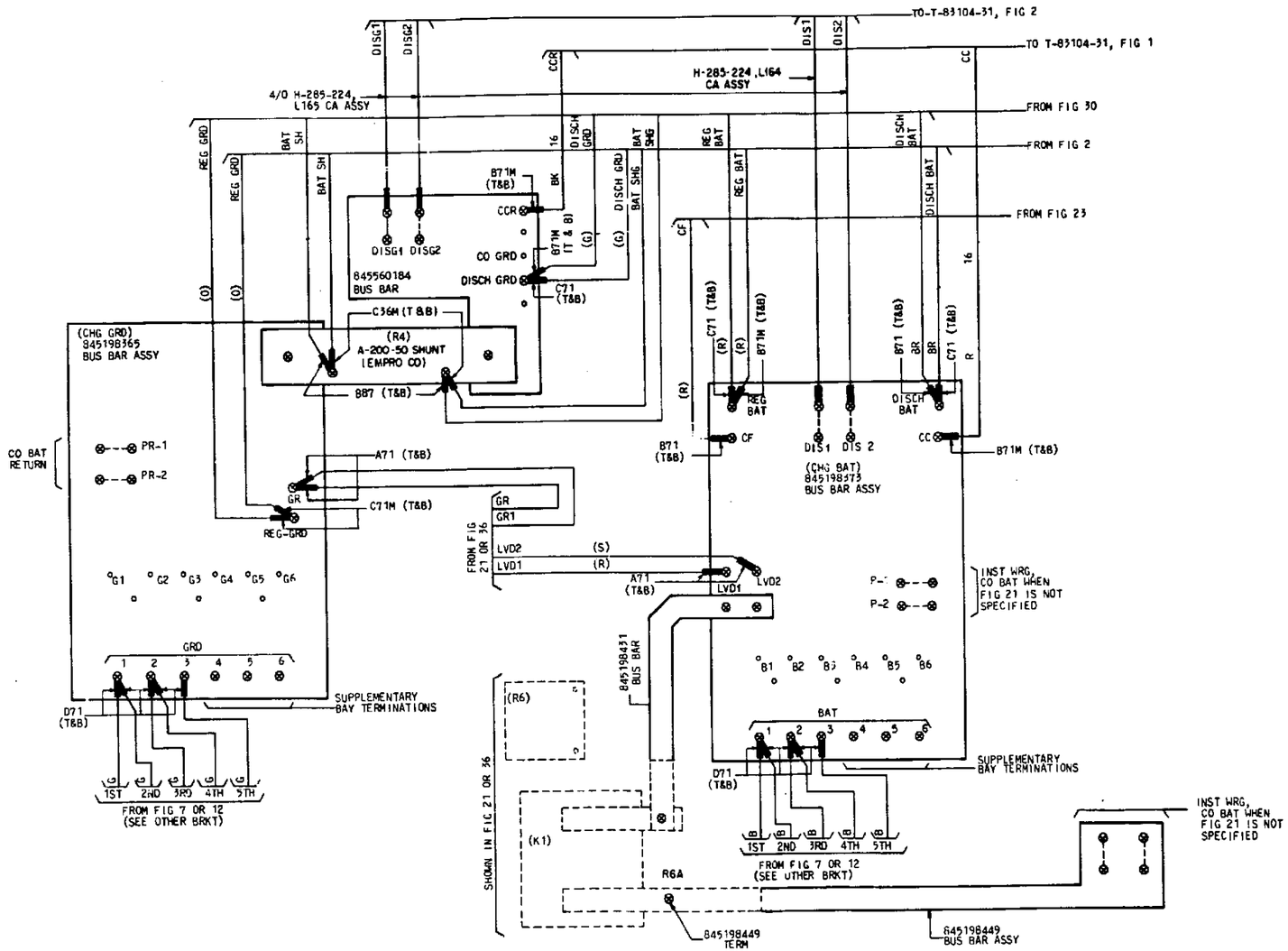
FIG 47
INPUT POWER BUS



POWER SYSTEMS
LINEAGE 2000 (TM) CHG & DISCHG CKT
24 OR 48 VOLTS
100 AMPERES MAXIMUM

DWG SIZE	ISSUE
6S	13

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FIG H1

INSTRUCTIONS FOR INITIAL BAY (WHEN ED-83101-30 IS USED)

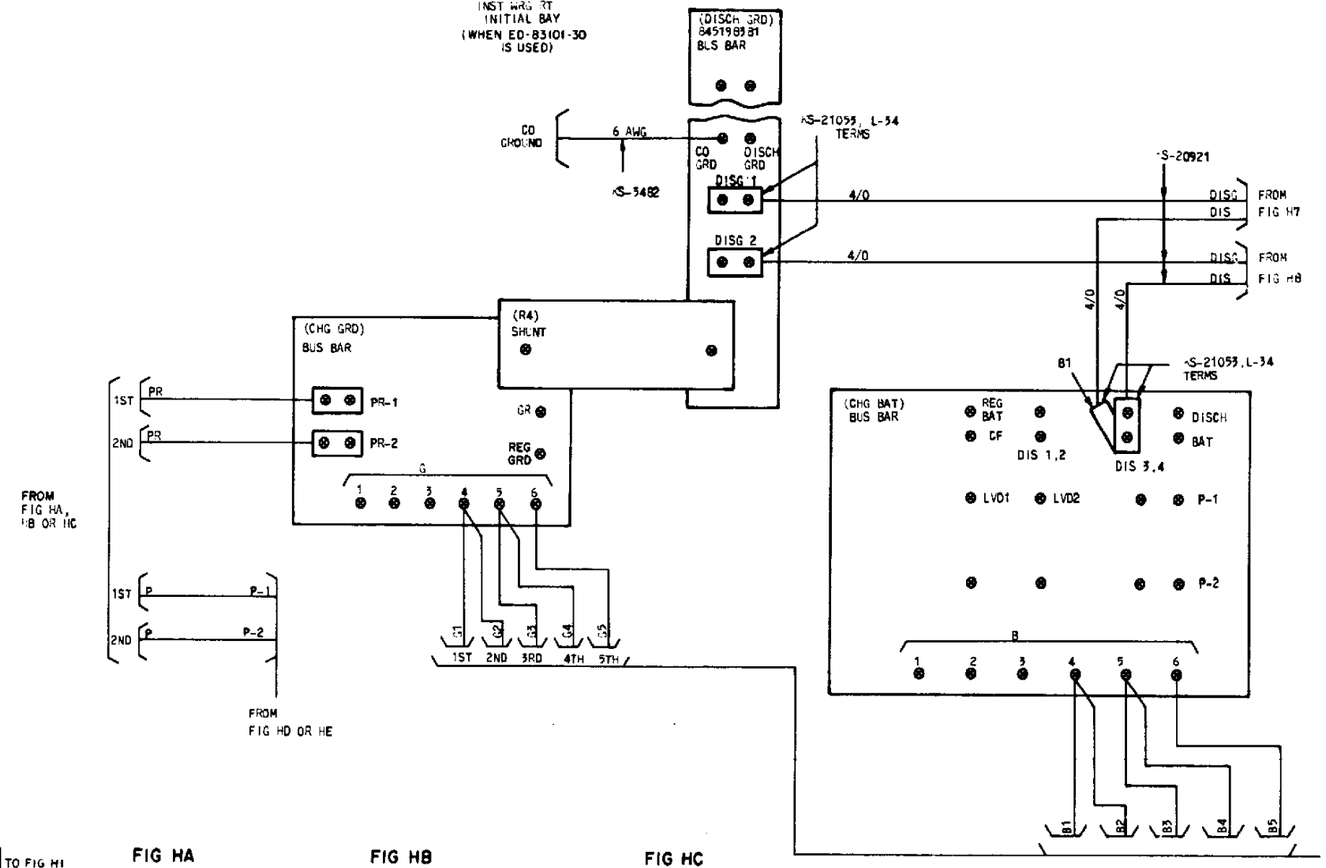


FIG HD

NO LOW VOLTAGE CUT-OFF

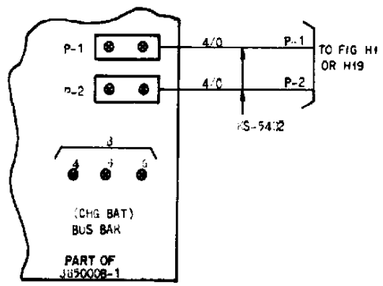


FIG HE

LOW VOLTAGE CUT-OFF

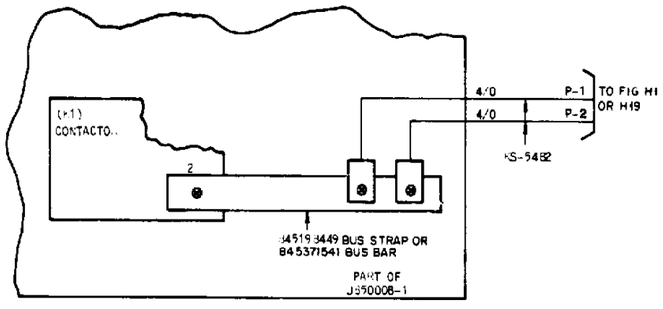


FIG HA

POSITIVE 24V BATTERY

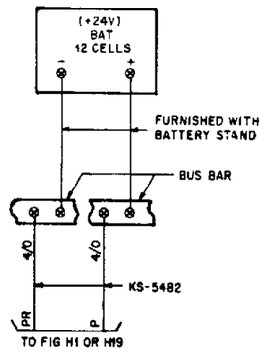


FIG HB

NEGATIVE 24V BATTERY

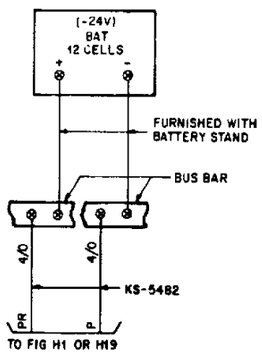
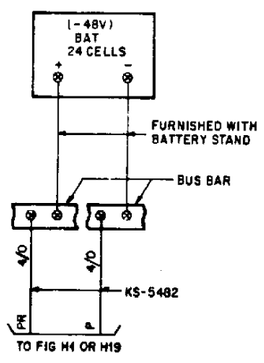


FIG HC

NEGATIVE 48V BATTERY



SEE PROPRIETARY NOTICE ON SHEET A1

POWER SYSTEMS LINEAGE 2000(TM) CHG & DISCHG CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM		DWG SIZE 6S	ISSUE 11
AT&T TECHNOLOGIES, INC.	NJ	T-83104-30	SHEET D1

FIG H2

48V RECT
SUPLEMENTARY BAY
RECT WRG
25AMP

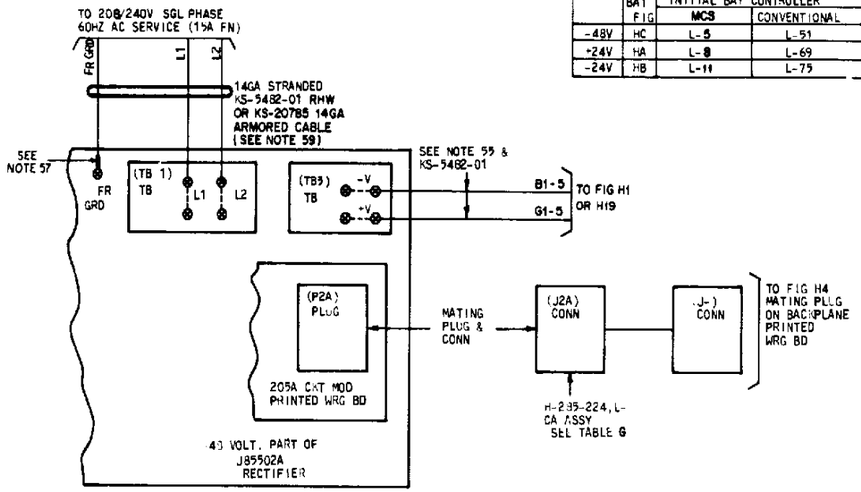


TABLE G

BATTERY & ASSOC CA ASSY				
VOLTAGE	BAT FIG	H-285-226	H-285-224	
		INITIAL BAY CONTROLLER		
		MCS	CONVENTIONAL	SMALL
-48V	HC	L-5	L-51	L-139
+24V	HA	L-9	L-69	L-141
-24V	HB	L-11	L-75	L-140

FIG H4

INITIAL BAY CONTROLLER

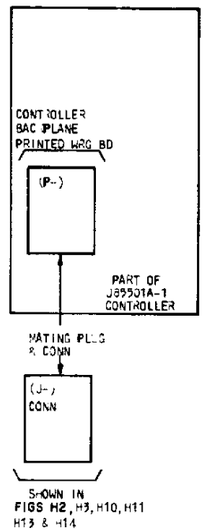


FIG H3

+ OR - 24 VOLT
SUPPLEMENTARY BAY
RECT WRG 25AMP

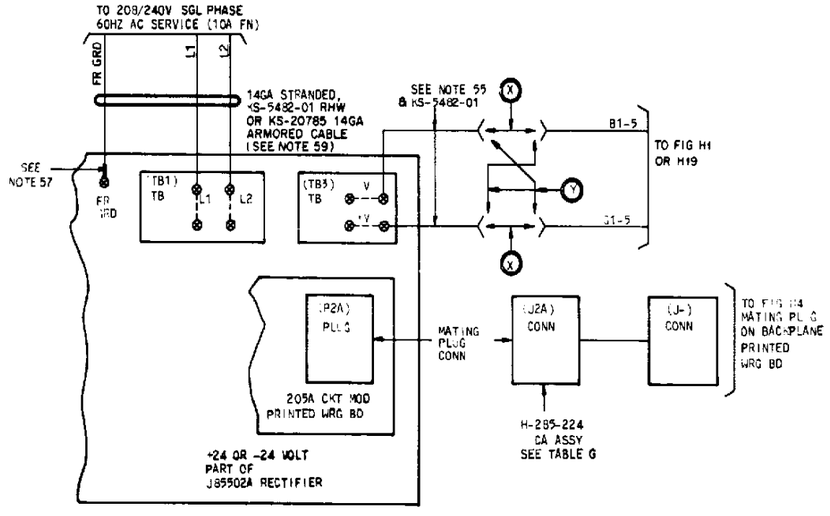
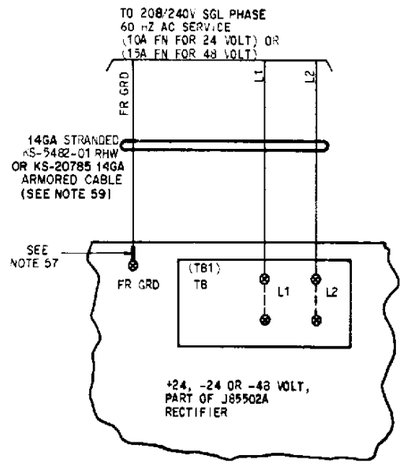


FIG H5

INITIAL BAY, +24V, -24 OR -48 VOLT
25 AMP RECTIFIER AC WIRING



SEE PROPRIETARY NOTICE ON SHEET A1

POWER SYSTEMS LINEAGE 2000(TM) CHG & DISCH CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM		DWG SIZE 65	ISSUE 11
AT&T TECHNOLOGIES, INC.	NJ	T-83104-30	SHEET D2

FIG H6

ALM WRG BETWEEN
INITIAL & SUPPLEMENTARY BAYS
(ED-83101-30)

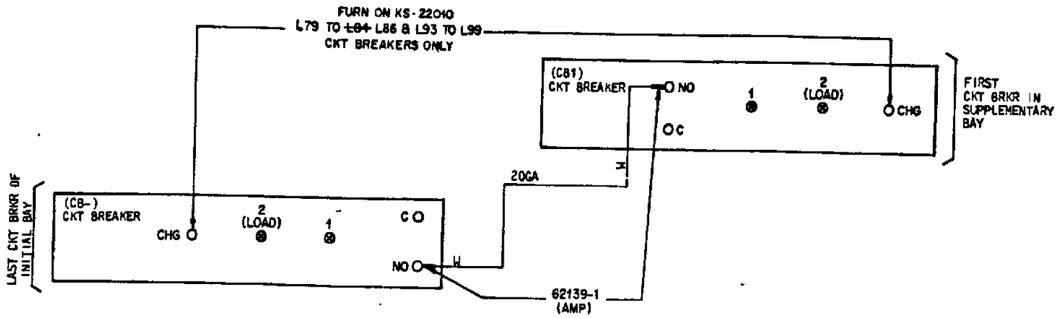


TABLE H

SPECIFY TERMINAL LUGS FOR FIGS H7 & H8 AS FOLLOWS

GAUGE OF WIRE	CKT BREAKER LOAD TERMINATION, MTG HARDWARE FURNISHED	DISCH GRD BUS BAR, 845198581	
		BUS BAR TERMINATION	HARDWARE
12	KS-19977, L-14	C71 (T&B CO)	
10	KS-19977, L-24		
8	54104 (T&B CO)	D71 (T&B)	
6	54134 (T&B CO)	E71 (T&B)	
4	54138 (T&B CO)	F71 (T&B CO.)	
2	54107 (T&B CO)	G971 (T&B CO.)	

FIG H7

INST WRG
PLANT DISCHARGE
LEFT SIDE
(ED-83101-30)

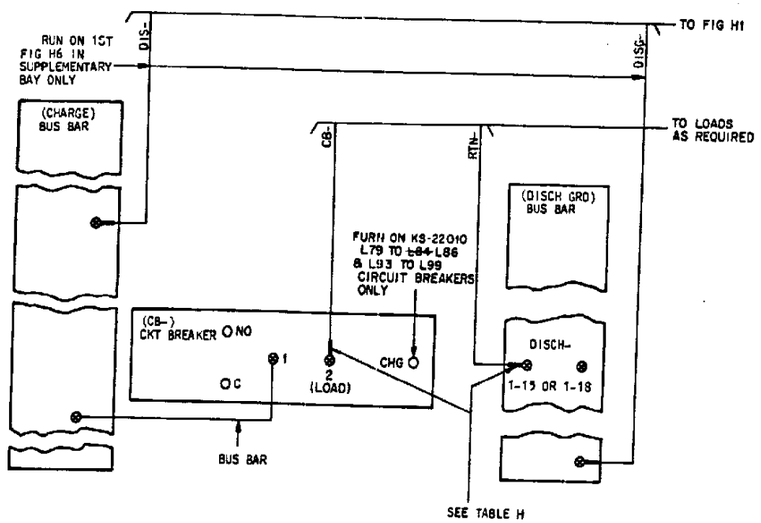
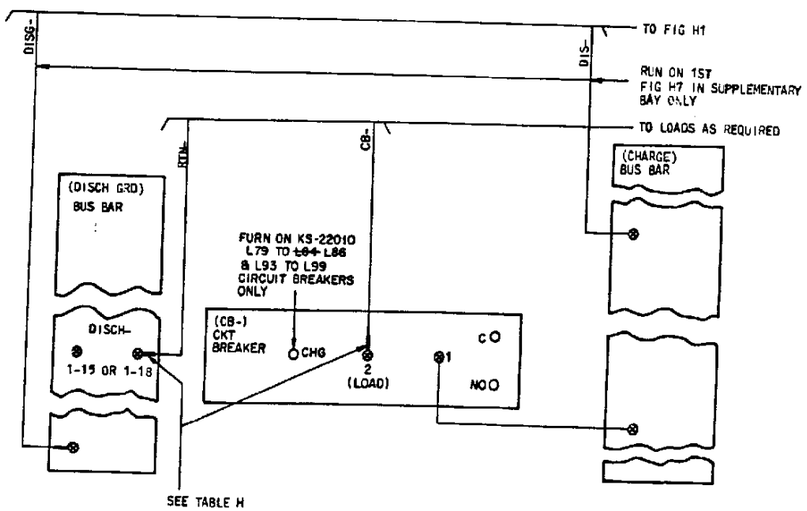


FIG H8

INST WRG
PLANT DISCHARGE
RIGHT SIDE
(ED-83101-30)



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SHEET D3

SEE PROPRIETARY NOTICE ON SHEET A1

POWER SYSTEMS LINEAGE 2000(TM) CHG & DISCHG CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM	DWG SIZE 6S	ISSUE 12
AT&T TECHNOLOGIES, INC. NJ	T-83104-30	SHEET D3

FIG H10

-48V RECT
SUPLEMENTARY BAY
RECT WRG 50 AMP

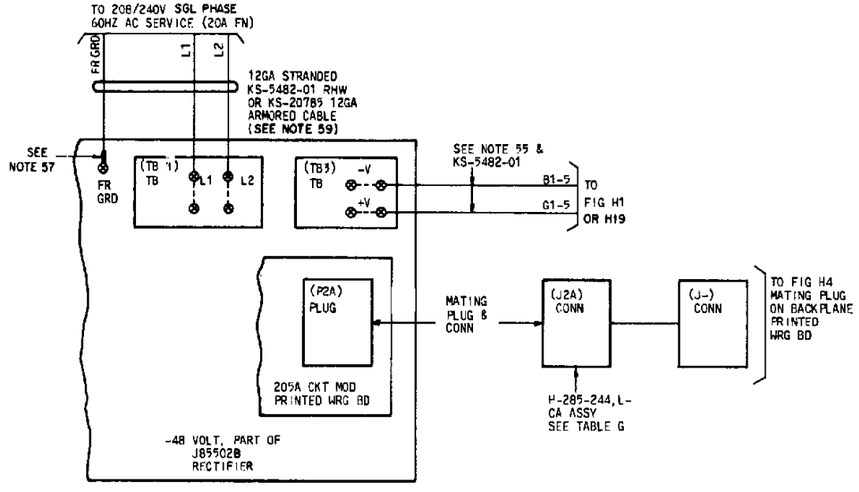


FIG H11

+ OR - 24 VOLT
SUPPLEMENTARY BAY
RECT WRG 50 AMP

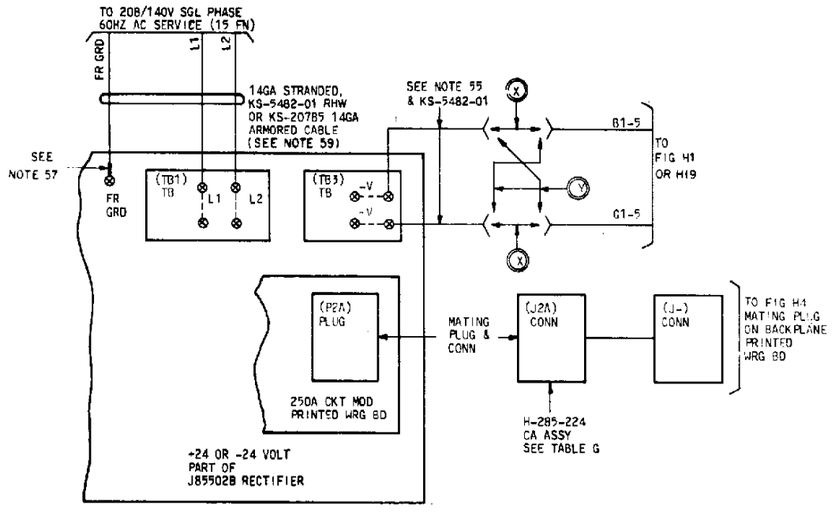
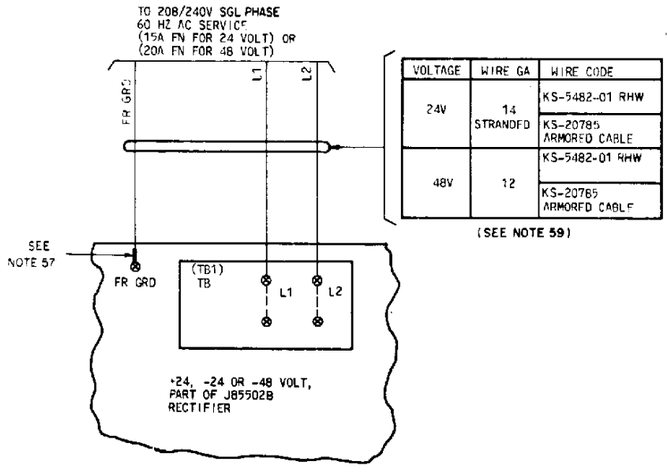


FIG H9

INITIAL BAY, +24V, -24 OR -48 VOLT
50 AMP RECTIFIER AC WIRING



VOLTAGE	WIRE GA	WIRE CODE
24V	14 STRANDED	KS-5482-01 RHW
		KS-20785 ARMORED CABLE
48V	12	KS-5482-01 RHW
		KS-20785 ARMORED CABLE

(SEE NOTE 59)

POWER SYSTEMS LINEAGE 2000(TM) CHG & DISCH CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM	DWG SIZE 6S	ISSUE 11
AT&T TECHNOLOGIES, INC. NJ T-83104-30		SHEET D4

FIG H13

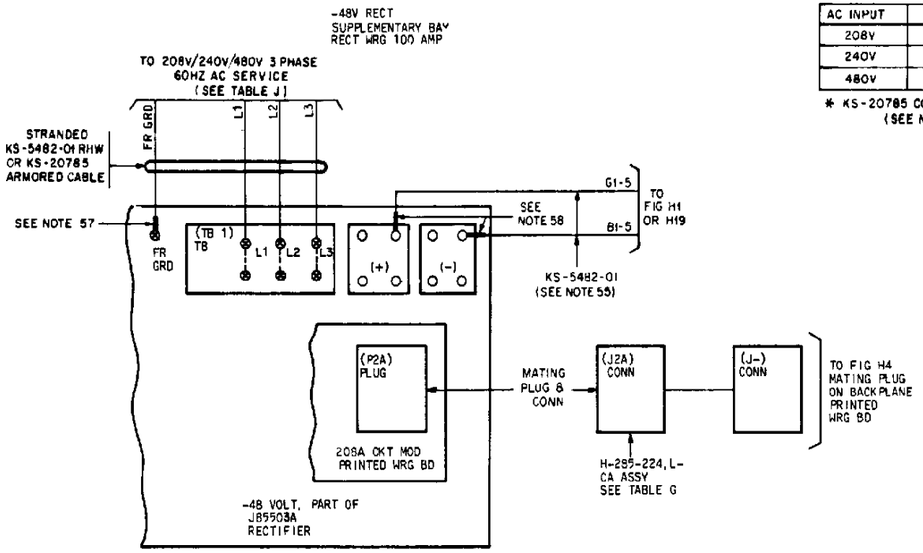


TABLE J

AC INPUT	FUSE	KS-5482-01 RHW	KS-20785 *
208V	25FN	4-#10	3-#10
240V	25FN	4-#10	3-#10
480V	15FN	4-#14	3-#14

* KS-20785 COMES E/W BARE GRD CONDUCTOR
(SEE NOTE 59)

FIG H14

+ OR - 24 VOLT
SUPPLEMENTARY BAY
RECT WRG 100 AMP

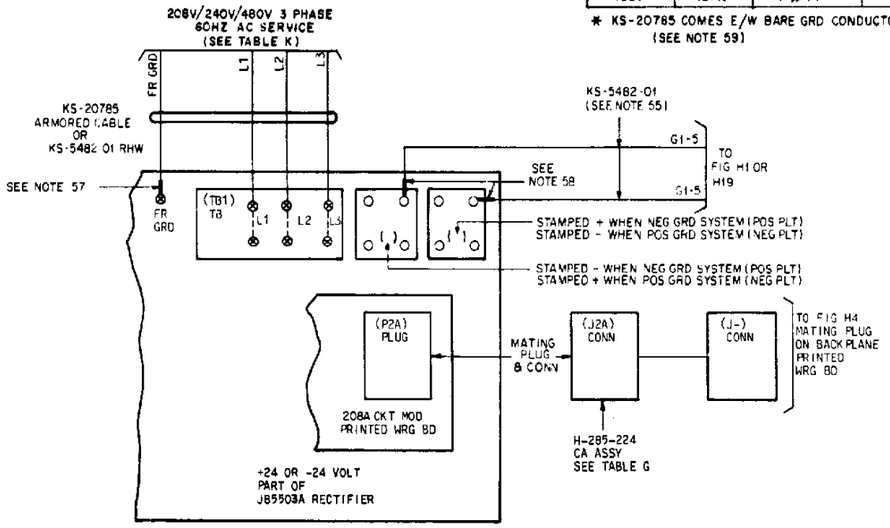


TABLE K

AC INPUT	FUSE	KS-5482-01 RHW	KS-20785 *
208V	15FN	4-#14	3-#14
240V	15FN	4-#14	3-#14
480V	15FN	4-#14	3-#14

* KS-20785 COMES E/W BARE GRD CONDUCTOR
(SEE NOTE 59)

FIG H12

INITIAL BAY, +24V, -24 OR -48 VOLT
100 AMP RECTIFIER AC WIRING

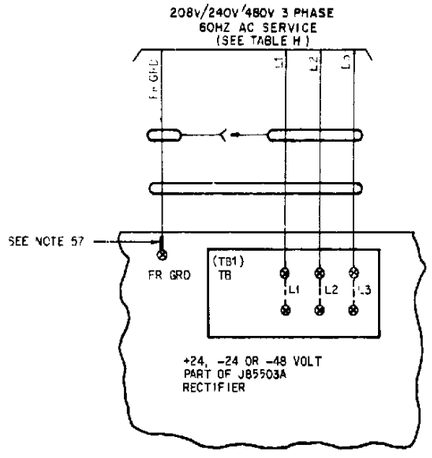


TABLE H

VOLT	AC INPUT	FUSE	KS-5482-01 RHW	KS-20785 *
24	208V	15FN	4-#14	3-#14
	240V	15FN	4-#14	3-#14
	480V	15FN	4-#14	3-#14
48	208V	25FN	4-#10	3-#10
	240V	25FN	4-#10	3-#10
	480V	15FN	4-#14	3-#14

* KS-20785 COMES E/W BARE GRD CONDUCTOR
(SEE NOTE 59)

POWER SYSTEMS LINEAGE 2000(TM) CHG & DISCH CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM	DWG SIZE 6S	ISSUE 11
AT&T TECHNOLOGIES, INC., NJ T-83104-30		SHEET D5

FIG H15

30 AMP CKT
(ED-83106-30)

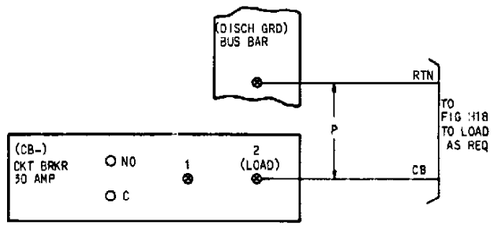


FIG H16

40 OR 100 AMP CKT
(ED-83106-30)

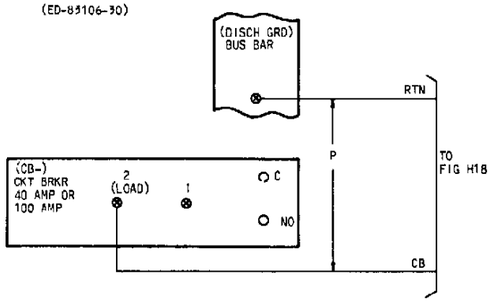


FIG H17

175 AMP CKT
(ED-83106-30)

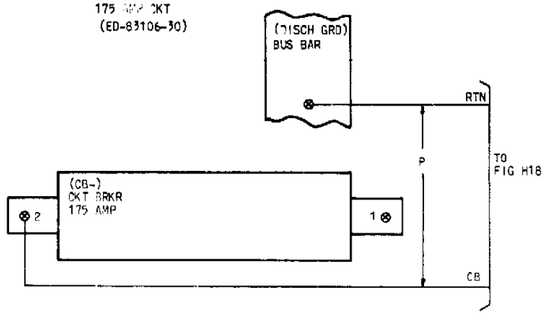


FIG H18

INVERTER

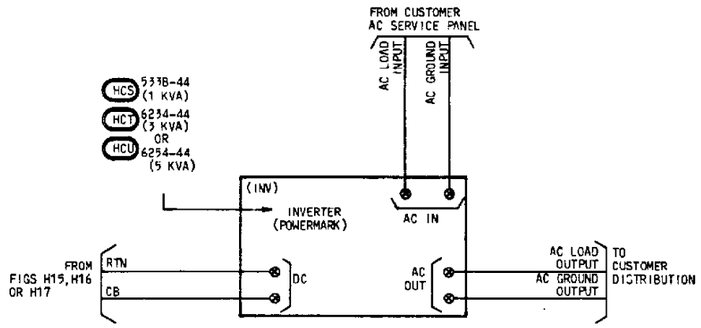
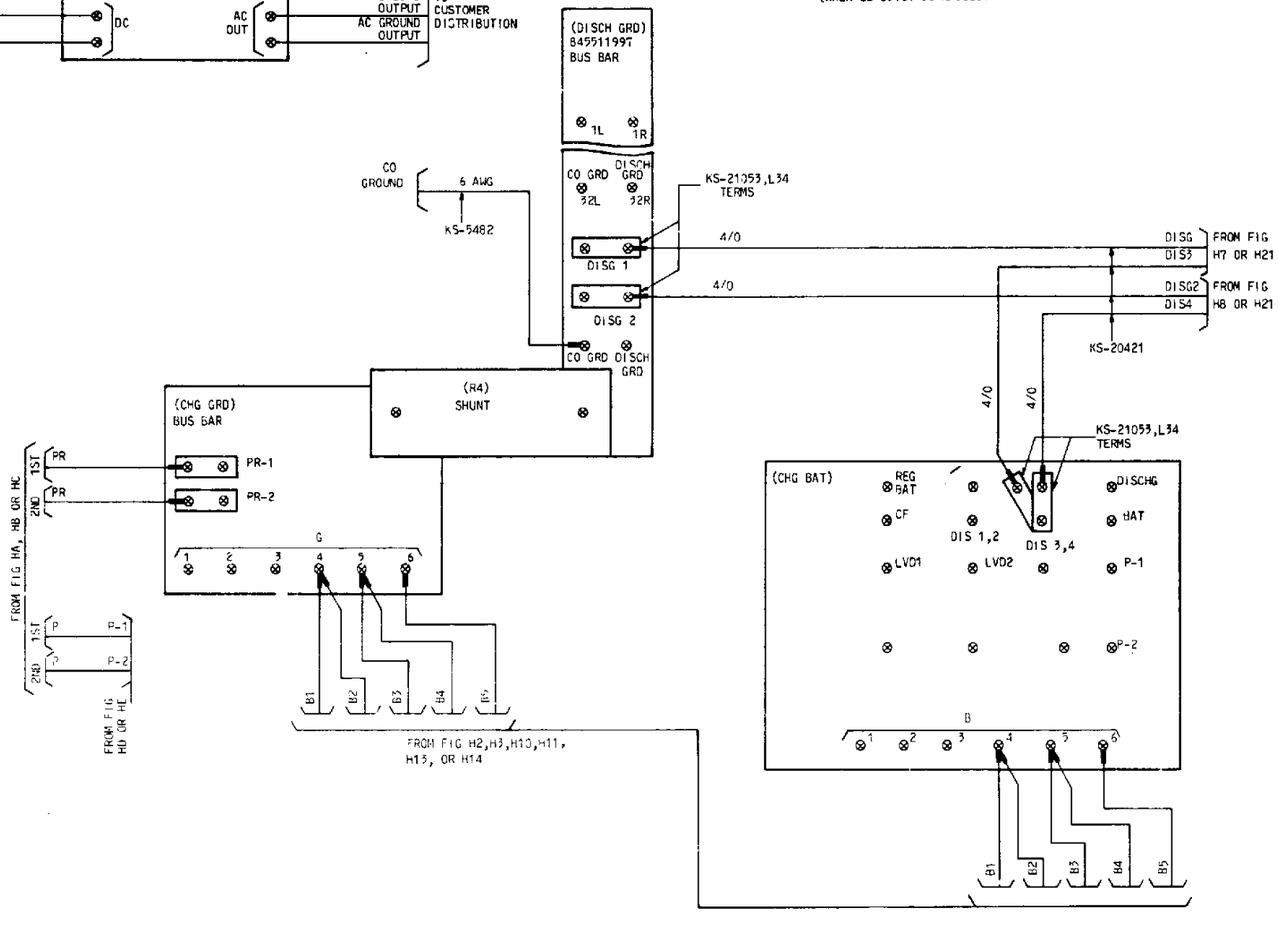


FIG H19

INST WRG RT
INITIAL BAY
(WHEN ED-83107-30 IS USED)



POWER SYSTEMS LINEAGE 2000(TM) CHG & DISCHG CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM	DWG SIZE 65	ISSUE 8
AT&T TECHNOLOGIES, INC. NJ T-83104-30		SHEET D6

FIG H20
ALARM WIRING BETWEEN
INITIAL & SUPPLEMENTARY BAYS
(ED-83107-30)

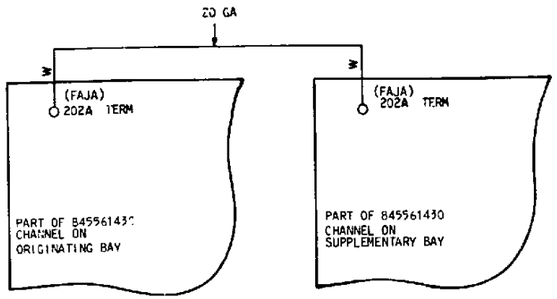


FIG H21
BAT & GRD CONNECTIONS
TO SUPPLEMENTARY BAT
WHEN ED-83107-30 IS USED

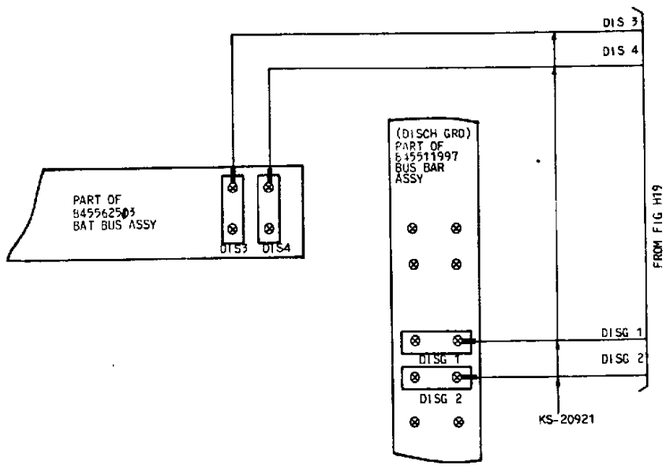


FIG H22
PLANT DISCHARGE
LEFT SIDE WHEN
ED-83107-30 IS USED

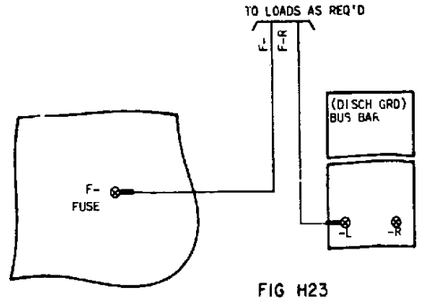


FIG H23
PLANT DISCHARGE
RIGHT SIDE WHEN
ED-83107-30 IS USED

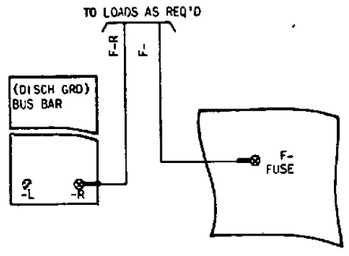


FIG H24
INITIAL OR SUPPLEMENTARY BAY,
+24V, -24V OR -48V 125AMP
RECTIFIER AC WIRING

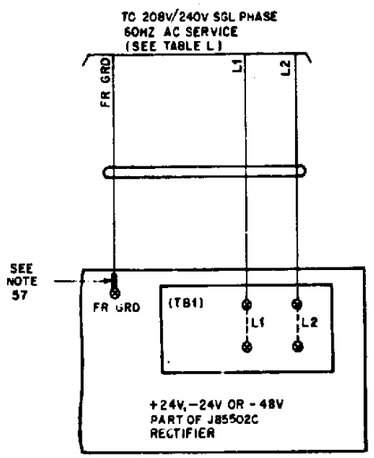
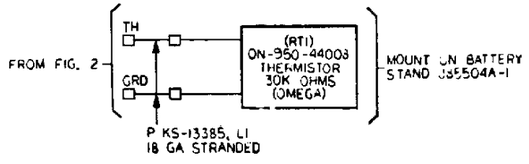


TABLE L

VOLT	AC INPUT	FUSE	KS-5482-01 RHW	KS-20785 *
24	208	30FN	3-#10	2-#10
	240	25FN	3-#10	2-#10
48	208	60FN	2-#8, 1-#10	2-#8
	240	50FN	2-#8, 1-#10	2-#8

* KS-20785 COMES E/W BARE GRD CONDUCTOR
(SEE NOTE 59)

FIG. H26
845957406 THERMISTOP
MOUNTING ASSY



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POWER SYSTEMS LINEAGE 2000 (TM) CHG & DISCHG CKT 24 OR 48 VOLTS 400 AMPERES MAXIMUM		
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