

0 1 2 3 4 5 6 7 8 9

SHEET INDEX

CONTENTS	SHEET NO.	SHEET ISSUE NO.
SHEET INDEX SUPPORTING INFORMATION OPTION INDEX	A1	1
DESIGNATION MNEMONICS LEAD INDEX	A2	1
APPARATUS INDEX LEAD INDEX	A3	1
FS 1 2-6 FAN UNITS AND ALARM CIRCUIT	B1	1
FS 2 1-3 FAN UNITS AND ALARM CIRCUIT	B2	1
APP FIG. 1	C1	1
CIRCUIT NOTES	D1	1
INFORMATION NOTES	D2	1
	D3	1
	D4	1
CAD 1, 2, 3, 4, 5, 6, 7, 8	G1	1
CAD 9,10,11	G2	1
CAD 12	G3	1

OPTION INDEX

APP OR WRG	RATED ON ISSUE	REF NOTES	LOCATION

DWG ISS	CD ISS	DATE ISSD	DRN	APP
1	1	01-12-96		

A
B
C
D
E
F
G
H

A
B
C
D
E
F
G
H

SUPPORTING INFORMATION

SYSTEM USED ON	DESIGN CONTROL	CATEGORY	NO.
SESS	IH	EQUIPMENT DRAWING	J5D003FT-1 SD-8G000-01

SHEET INDEX NOTES

1. ONLY THE LATEST ISSUE, OR ISSUES IF CONCURRENT, ARE SHOWN IN THE INDEX.
2. FOR REISSUES, A CHANGED OR NEW SHEET IS ASSIGNED THE SAME ISSUE NUMBER AS SHEET 1.
3. THE ISSUE NUMBER OF SHEET 1 IS RECOGNIZED AS THE ISSUE NUMBER OF THE WHOLE DRAWING.

Copyright (C) 1996 AT&T
All Rights Reserved

BT13
SESS[®] SWITCHING EQUIPMENT
PLATFORM FAN UNIT
CIRCUIT

DWG SIZE G2	ISSUE 1
AT&T	SD-5D546-01
SHEET 13	A1

0 1 2 3 4 5 6 7 8 9

PRINTED IN U.S.A.

IH

DESIGNATION MNEMONICS INDEX

MNEMONIC	FS/SYM	DEFINITION
FLED(0-1)	1	CABINET LED
FLEDR	1	CABINET LED RETURN
RSTR	1	REMOTE RESET RETURN
RSTFAN	1	REMOTE RESET REPEAT RETURN
RSTFANS	1	REMOTE RESET REPEAT
SCANR	1	SCAN POINT OUTPUT RETURN
3BSCAN0	1	SCAN POINT OUTPUT
3BRST1	1	REMOTE RESET
-48(A-G)	1	NEGATIVE 48 VOLT SUPPLY
48RTN(A-G)	1	NEGATIVE 48 VOLT RETURN
-F(A-G)	1	FAN RETURN
TACH(A-G)	1	TACH SIGNAL
CTL(A-G)	1	CONTROL SIGNAL
TH(1-8)	1	THERMAL COUPLE +
RET	1	THERMO COUPLE RETURN
TCQ(0-2)	1	PROGRAM LEADS
FP(A-B)	1	FAN PRESENT
48RTNCNT	1	CONTROL POWER
-48CNT	1	CONTROL POWER RETURN

Copyright (C) 1996 AT&T All Rights Reserved		
PLATFORM FAN UNIT		
DWG SIZE G2	ISSUE 1	
AT&T	SD-5D546-01	SHEET A2

0 1 2 3 4 5 6 7 8 9

A
B
C
D
E
F
G
H

A
B
C
D
E
F
G
H

APARATUS INDEX

DESIG	LOCATION		
	FS	APP FIG.	EQPT
CIRCUIT PACK			
FTC	1E4	1	
	2E4	1	

CONNECTOR			
C0	1B5	1	
	2B5	1	
C1	1C7	1	
	2C7	1	
C2	1C6	1	
	2C6	1	
C3	1C5	1	
	2C5	1	
C4	1C4	1	
C5	1C3	1	
C6	1C2	1	

FAN			
A	1D7	1	
	2D7	1	
B	1D6	1	
	2D6	1	
C	1D5	1	
	2D5	1	
E	1D4	1	
F	1D3	1	
G	1D2	1	

THERMISTORS			
TH1	1G5	1	
	2G5	1	
TH2	1G6	1	
	2G6	1	
TH3	1G5	1	
	2G5	1	
TH4	1G6	1	
	2G6	1	
TH5	1G6	1	
TH6	1G6	1	
TH7	1G6	1	
TH8	1G6	1	

LEAD INDEX

DESIG	LOCATION	
	FS	CAD
CABINET LEADS		
FLED1	1E8	1C1
	2E8	1C1
FLED0	1E8	1B1
	2E8	1B1
FLEDR	1E8	1B1
	2E8	1B1

FAN LEADS			
-FA	1D6	1D7	
	2D6	1D7	
CTLA	1D7	1E7	
	2D7	1E7	
TACHA	1D7	1D7	
	2D7	1D7	
-FB	1D6	1E7	
	2D6	1E7	
CTLB	1D6	1E7	
	2D6	1E7	
TACHB	1D6	1D7	
	2D6	1D7	
-FC	1D5	1E7	
	2D5	1E7	
CTLC	1D5	1F7	
	2D5	1F7	
TACHC	1D5	1E7	
	2D5	1E7	
-FE	1D4	2B2	
CTLE	1D4	2C2	
TACHE	1D4	2B2	
-FF	1D3	2C2	
CTLF	1D3	2C2	
TACHF	1D3	2B2	

DESIG	LOCATION	
	FS	CAD
FAN LEADS CONT.		
-FG	1D2	2B2
CTLG	1D2	2C2
TACHG	1D2	2B2

TH1	1G5	1D3
	2G5	1D3
TH2	1G5	1E3
	2G5	1E3
TH3	1G5	1D3
	2G5	1D3
TH4	1G6	1E3
	2G6	1E3
TH5	1G6	1D3
TH6	1G6	1F3
TH7	1G6	1E3
TH8	1G6	1F3
RET	1G7	1F3

TCC0	1G6	1E3
	2G6	1E3
TCC1	1G6	1F3
	2G6	1F3
TCC2	1G6	1E3
	2G6	1E3

DESIG	LOCATION	
	FS	CAD
FUSE/FILTER PANEL		
-48CNT	1A8	3E2
	2A8	3E2
-48A	1A7	1E7
	2A7	1E7
-48B	1A6	3C2
	2A6	3C2
-48C	1A5	3B2
	2A5	3B2
-48E	1A4	2C2
-48F	1A3	3D5
-48G	1A2	3B5
48RTNCNT	1A8	3E2
	2A8	3E2
48RTNA	1A7	1F7
	2A7	1F7
48RTNB	1A6	3C2
	2A6	3C2
48RTNC	1A5	3B2
	2A5	3B2
48RTNE	1A4	2D2
48RTNF	1A3	3D5
48RTNG	1A2	3B5

DESIG	LOCATION	
	FS	CAD
SUCCEEDING FAN UNIT		
38SCAN0	1G3	1B7
	2G3	1B7
	1G4	
	2G4	
RSTFAN	1G4	1C7
	2G4	1C7
	1G4	
	2G4	
RSTFANS	1G4	1B7
	2G4	1B7
	1G5	
	2G5	
SCANR	1G3	1B7
	2G3	1B7
	1G4	
	2G4	

IOP 0 OR PRECEDING FAN UNIT		
38SCAN0	1G2	1B3
	2G2	1B3
38RST1	1G2	1C3
	2G2	1C3
RSTR	1G2	1B3
	2G2	1B3
SCANR	1G2	1B3
	2G2	1B3

IOP 1 OR NC		
38SCAN0	1G2	1C5
	2G2	1C5
38RST1	1G3	1B5
	2G3	1B5
RSTR	1G3	1C5
	2G3	1C5
SCANR	1G3	1B5
	2G3	1B5

Copyright (C) 1996 AT&T
All Rights Reserved

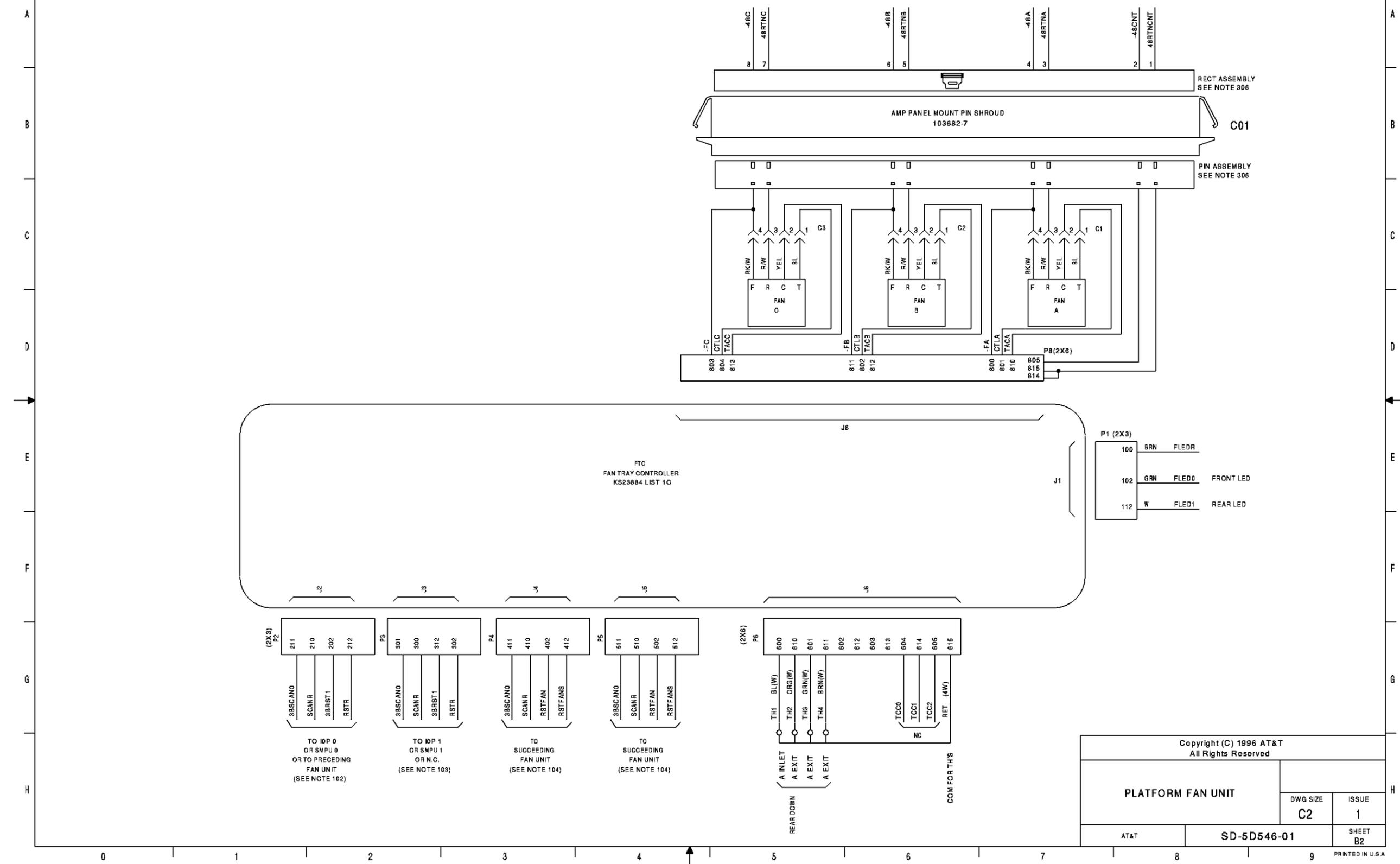
PLATFORM FAN UNIT

AT&T	SD-5D546-01	DWG SIZE G2	ISSUE 1
		SHEET A3	

PRINTED IN U.S.A.

0 1 2 3 4 5 6 7 8 9

FS 2



Copyright (C) 1996 AT&T
All Rights Reserved

PLATFORM FAN UNIT

DWG SIZE C2	ISSUE 1
AT&T	SD-5D546-01
SHEET B2	

PRINTED IN U.S.A.

APP FIG. 1

CIRCUIT PACK

DESIG	LOC	CODE
FTC	1F4	KS23884L1C CC#407463009
	2F4	MOUNTING BRACKET INCLUDED

CONNECTOR

DESIG	LOC	CODE
C0	1B5	AMP (SEE NOTE 305)
C01	2B5	AMP (SEE NOTE 306)
C1	1C7	AMP (SEE NOTE 304)
	2C7	AMP (SEE NOTE 304)
C2	1C8	AMP (SEE NOTE 304)
	2C8	AMP (SEE NOTE 304)
C3	1C5	AMP (SEE NOTE 304)
	1C5	AMP (SEE NOTE 304)
C4	1C4	AMP (SEE NOTE 304)
C5	1C3	AMP (SEE NOTE 304)
C6	1C2	AMP (SEE NOTE 304)

FAN

DESIG	LOC	CODE
A	1C5	MODEL
	2C5	
B	1C8	KS23912L2 CC#406611186
	2C8	
C	1C7	↓
	2C7	
E	1C2	↓
F	1C3	
G	1C4	

THERMISTORS

DESIG	LOC	CODE
TH1	1G5,2G5	RL 0503-2890-95-M S CC# 407003474 (KEYSTONE CARBON) (PHONE (814)781-1591)
2		
3		
4		
5		
6		
7		
TH8		

Copyright (C) 1996 AT&T All Rights Reserved		
PLATFORM FAN UNIT		
DWG SIZE C2	ISSUE 1	
AT&T	SD-5D546-01	SHEET C1

PRINTED IN U.S.A.

CIRCUIT NOTES:

DESIG	FUSE AMP	POTENTIAL	ONE PER
70 B	2	-48V	CIRCUIT (OLD FFU)
WP91768L108	3	-48V	CIRCUIT (NEW FFU)
<u>BATTERY SYMBOL</u>		<u>VOLTAGE RANGE</u>	
-48V		-42.75V TO -52.5	

107. THERMISTOR AND TEMPERATURE MEASUREMENTS:

A MAXIMUM OF 8 THERMISTORS MAY BE CONNECTED TO THE CONTROLLER; TH1 - TH8. THERMISTOR LOCATIONS ARE IDENTIFIED AS INLET OR EXIT, DEPENDING ON THEIR LOCATION UPSTREAM OR DOWNSTREAM OF THE CIRCUIT PACKS. INLET SIGNIFIES AMBIENT AIR TEMPERATURE TO THE CABINET. EXIT SIGNIFIES EXIT AIR TEMPERATURE FROM THE CIRCUIT PACK. THE FOLLOWING DENOTE THE GROUPINGS:

THERMISTOR GROUP	INLET THERMISTOR	EXIT THERMISTORS
A GROUP FANS (UP)	TH1	TH2,TH3,TH4
B GROUP FANS (UP)	TH5	TH6,TH7,TH8

102. MASTER UNIT: TO IOP 0 TO MCTU 0 IF USED IN THE SMC CABINET, OR LTP CABINET.
SLAVE UNIT: FROM (J4/5) PREVIOUS FAN UNIT.

103. MASTER UNIT: TO IOP 1 OR TO MCTU 1 IF USED IN THE SMC CABINET, OR LTP CABINET.
SLAVE UNIT: NO CONNECT.

104. MASTER UNIT: TO (J2) OF THE SUCCEEDING UNIT NO CONNECT OTHERWISE.
SLAVE UNIT: TO (J2) OF THE SUCCEEDING UNIT NO CONNECT OTHERWISE.

105. THE CONNECTIONS SPECIFIED IN NOTES 102-104 APPLY TO 8 FAN UNITS INTERCONNECTIONS ONLY. IN CASE 8 FAN UNITS (SD-5D081-01) ARE INTERMIXED WITH OTHER FAN UNITS, SEE THE SWITCHING MODULE APPLICATION SCHEMATIC (SD-5D012-02) FOR INTERCONNECTION INSTRUCTIONS.

106. THE CONTROL ALGORITHMS AND CONFIGURATION:

THE TEMPERATURE CONTROL CODE DEFINED BY TCC0, TCC1 AND TCC2 SIGNALS SHALL BE SO DESIGNED TO SELECT ANY OF THE FOLLOWING CONTROL OPTIONS.

TCC0	TCC1	CONFIGURATION
OPEN *	OPEN	FAN GROUP (A,B,C) USE THRM. GROUP A FAN GROUP (E,F,G) USE THRM. GROUP B
OPEN	CLOSE	FANS A THRU G USE THRM. GROUP A
CLOSE	OPEN	FANS A & C USE THRM. GROUP A FANS E & G USE THRM. GROUP B
CLOSE	CLOSE	FANS A,C,E&G USE TERM. GROUP A

TWO TEMPERATURE/FAN SPEED CONTROL ALGORITHMS SHALL BE PROVIDED BY THE CONTROLLER. SELECTION OF ONE OF THE ALGORITHMS MAY BE DONE THROUGH TCC2 AS SHOWN IN THE TABLE BELOW.

TCC2	CONTROL ALGORITHM
OPEN *	1500RPM < OPERATING RPM < 3400 FOR 0 C < MAX(Delta-T) < 10 WHERE: MAX(Delta-T)=MAX{(INLET TEMP-25); (EXIT TEMP-40)}
CLOSE	PID CONTROL RPM TO MEET: Delta-T = {28-0.2*INLET TEMP} WHERE: Delta-T = [MAX{EXIT TEMPS - } - INLET TEMP]

Copyright (C) 1996 AT&T All Rights Reserved		
PLATFORM FAN UNIT		DWG SIZE G2
AT&T	SD-5D546-01	ISSUE 1 SHEET D1

INFORMATION NOTES:

301. UNLESS OTHERWISE SPECIFIED:
RESISTANCE VALUES ARE IN OHMS.
CAPACITANCE VALUES ARE IN MICROFARADS,
VALUES PRECEDED BY THE SYMBOL + (PLUS)
OR - (MINUS) ARE IN VOLTS.

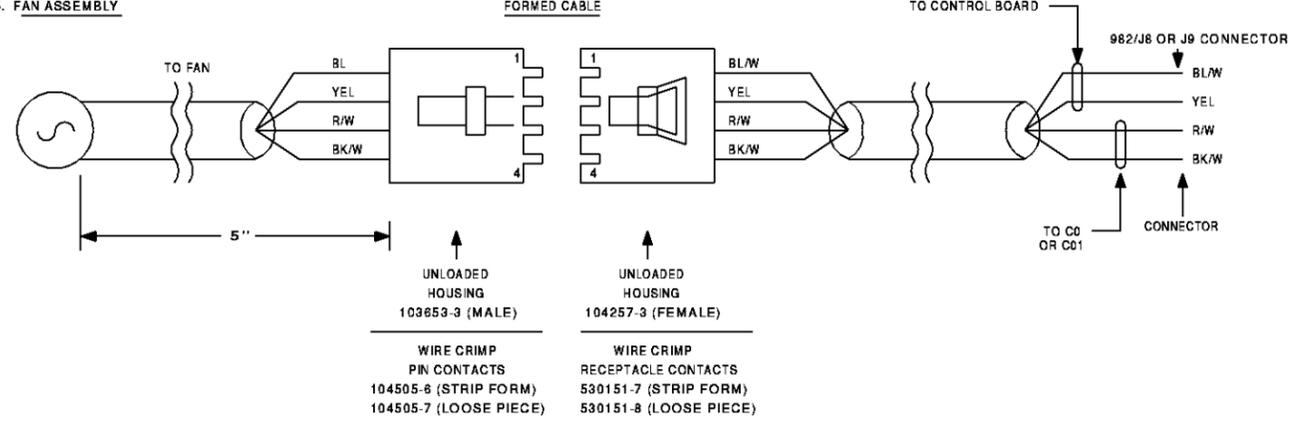
302. FEATURE OR OPTION	PROVIDE		
	APP FIG	APP OR WRG	QUANTITY
BASIC 8 FAN UNIT	1		

303. RECORD OF FIGURES, WIRING AND APPARATUS CHANGES						
CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT		
				STD	A&M	MD

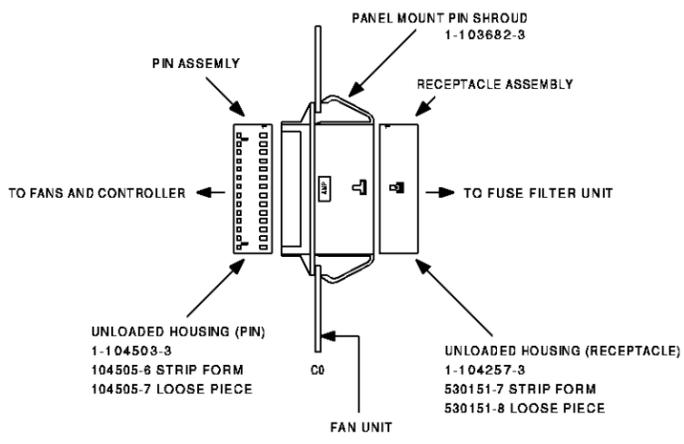
304. CURRENT DRAIN
8 FAN UNIT = 3.0 MAX
3 FAN UNIT = 1.5 MAX

INFORMATION NOTES(CONT):

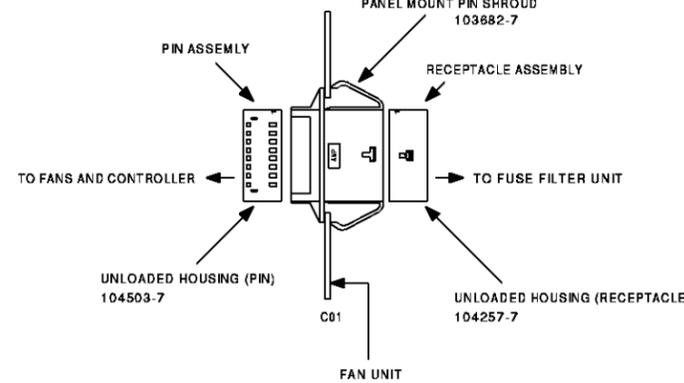
305. FAN ASSEMBLY



306. FROM FS1

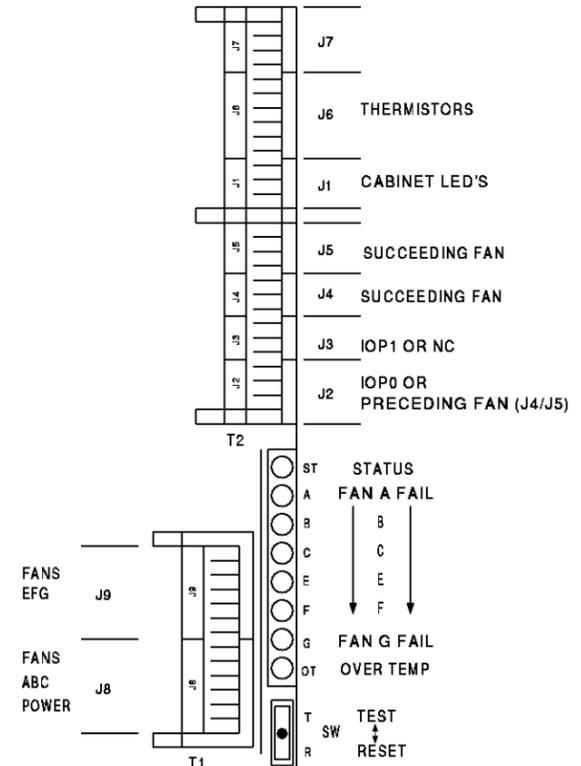


307. FROM FS2



308. FAN CASE MOUNTING BRACKET 847416674
METRIC SCREWS (M6) 901274498
ENGLISH (12-24) 901254490

309. CONTROLLER LAYOUT
KS23884,L1C
(STAMPED ON BACK)



Copyright (C) 1996 AT&T
All Rights Reserved

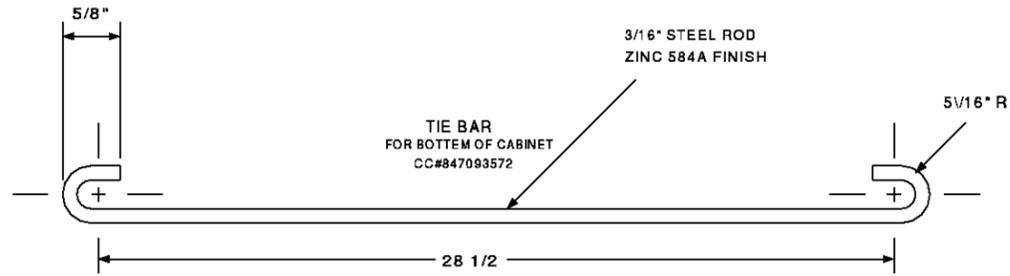
PLATFORM FAN UNIT

AT&T	SD-5D546-01	DWG SIZE G2	ISSUE 1
		SHEET D2	

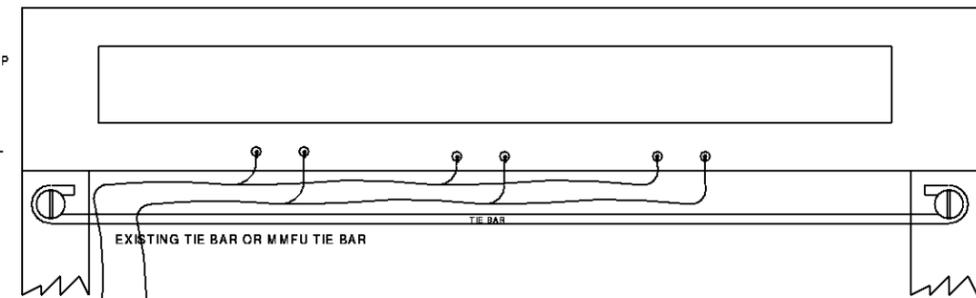
PRINTED IN U.S.A.

INFORMATION NOTES (CONT)

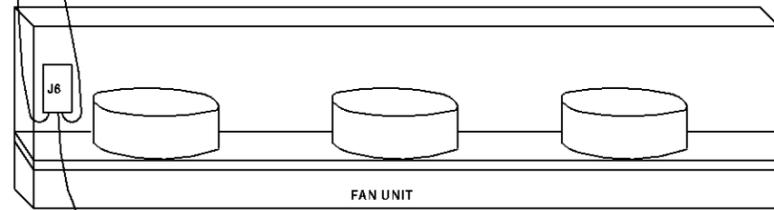
310. THERMISTOR INSTALLATION ON ED5D184 AND ED-5D5741 CABINETS FOR FS1



REAR TOP



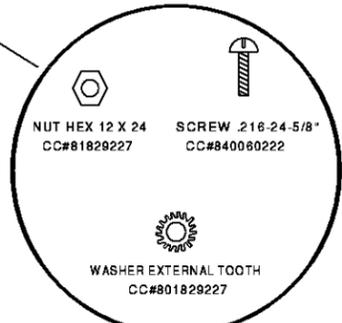
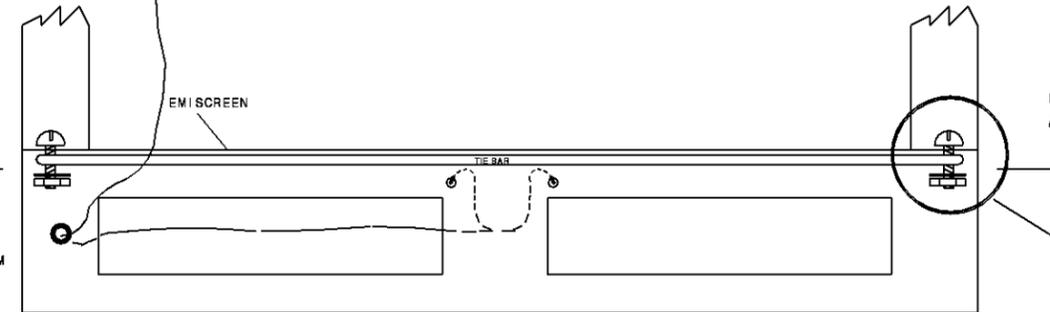
E



F

B

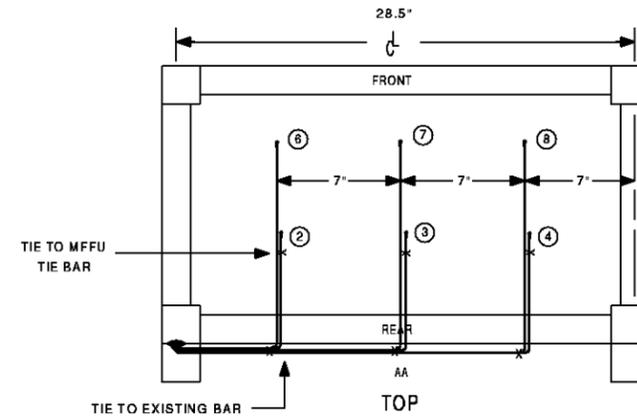
REAR BOTTOM



INFORMATION NOTES (CONT)

310. THERMISTOR INSTALLATION ON ED5D184 CABINETS (CONT)

EXIT:



INLET: LOCATE IN FAN BOX AT FIRST CABLE TIE
OF EACH AIR CHANNEL

Copyright (C) 1996 AT&T
All Rights Reserved

PLATFORM FAN UNIT

DWG SIZE	ISSUE
C2	1

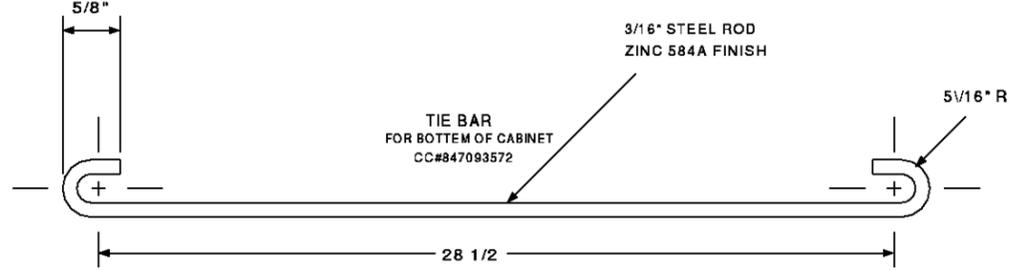
AT&T SD-5D546-01

SHEET
D3

PRINTED IN U.S.A.

INFORMATION NOTES (CONT)

311. THERMISTOR INSTALLATION ON ED5D184 AND ED-5D5741 CABINETS FOR FS2
SINGLE FAN UNIT MAY BE PLACED IN THE FRONT OR REAR OF CABINET REAR SHOWN



REAR TOP

A

D

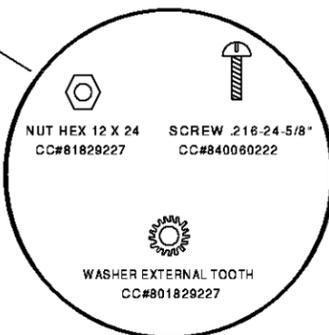
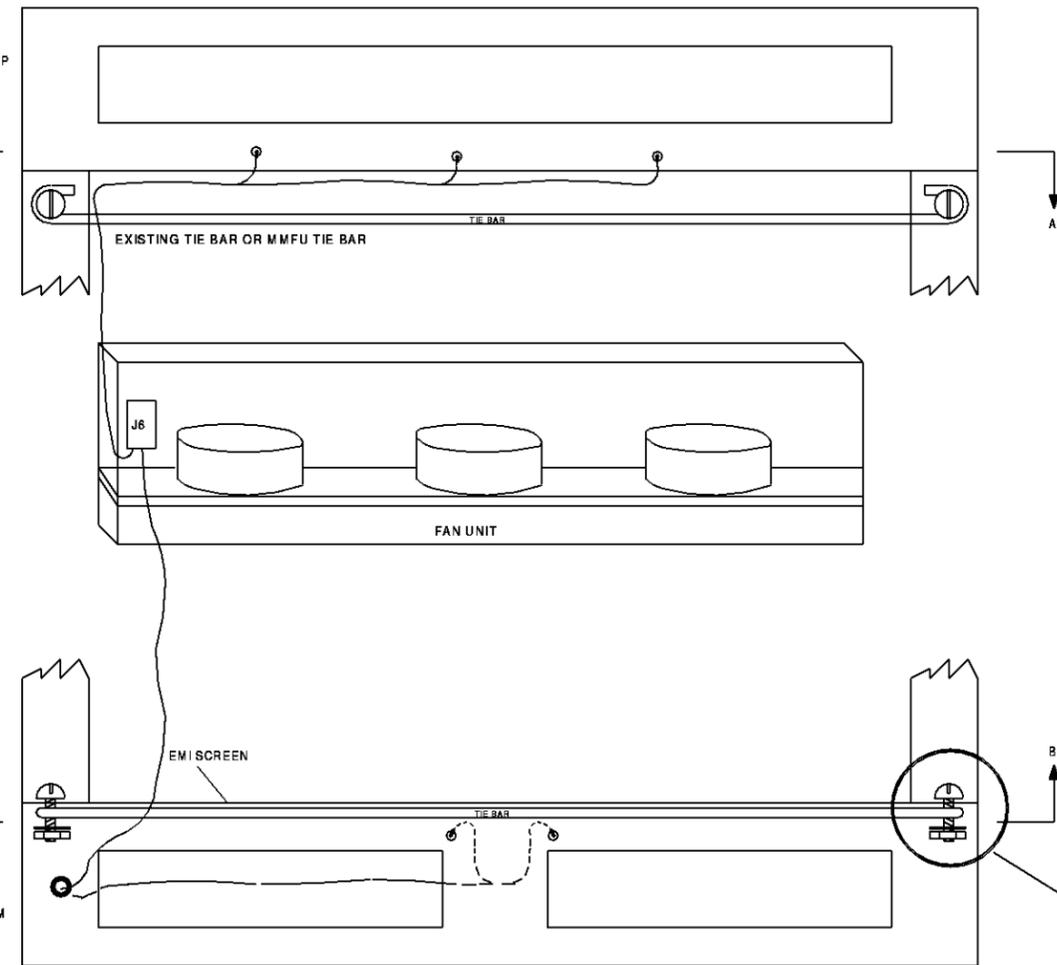
E

F

G

H

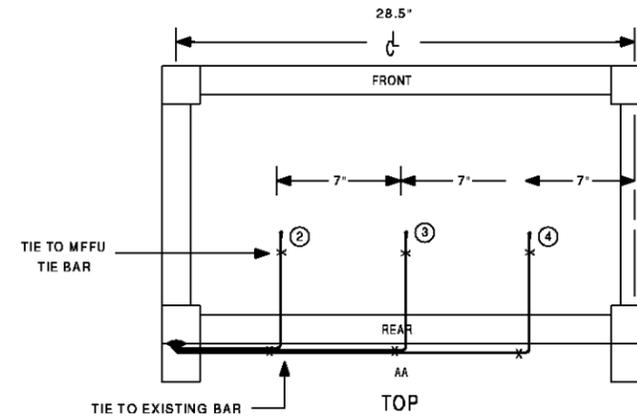
REAR BOTTOM



INFORMATION NOTES (CONT)

311. THERMISTOR INSTALLATION ON ED5D184 CABINETS (CONT)

EXIT:



INLET: LOCATE IN FAN BOX AT FIRST CABLE TIE
OF AIR CHANNEL

Copyright (C) 1996 AT&T
All Rights Reserved

PLATFORM FAN UNIT

DWG SIZE	ISSUE
C2	1

AT&T SD-5D546-01

SHEET
D4

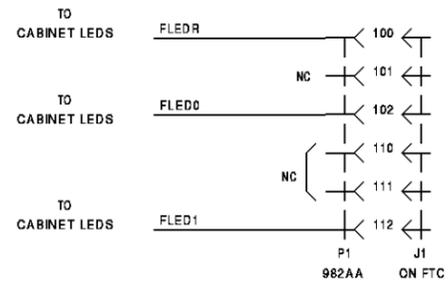
PRINTED IN U.S.A.

0 1 2 3 4 5 6 7 8 9

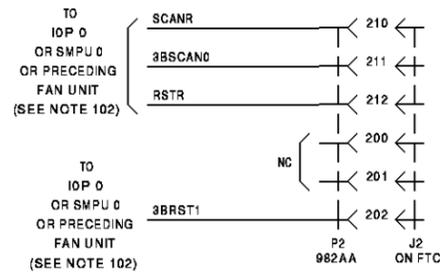
A
B
C
D
E
F
G
H

A
B
C
D
E
F
G
H

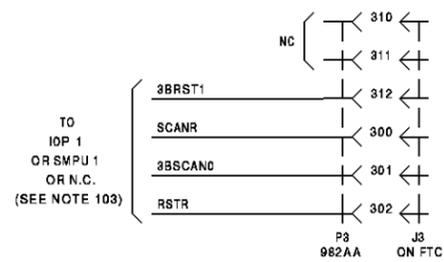
CAD 1



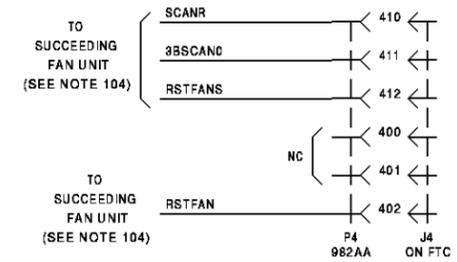
CAD 2



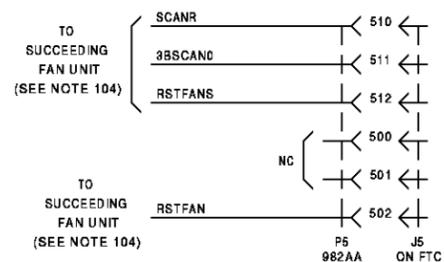
CAD 3



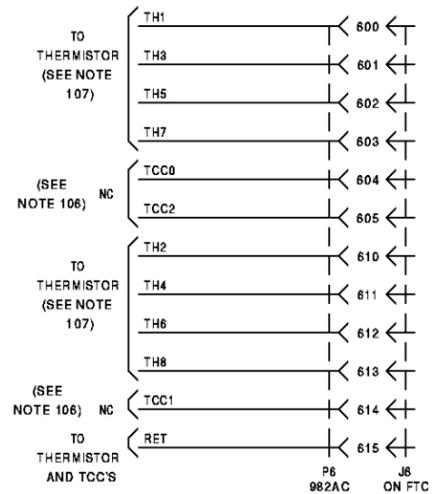
CAD 4



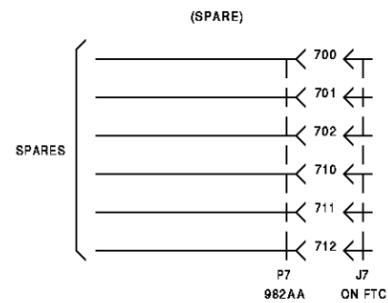
CAD 5



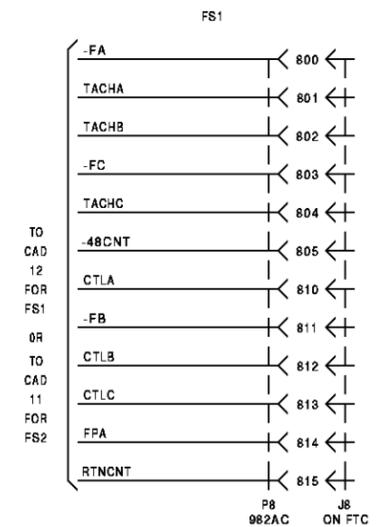
CAD 6



CAD 7



CAD 8



Copyright (C) 1996 AT&T
 All Rights Reserved

PLATFORM FAN UNIT

DWG SIZE G2	ISSUE 1
AT&T	SD-5D546-01
	SHEET G1

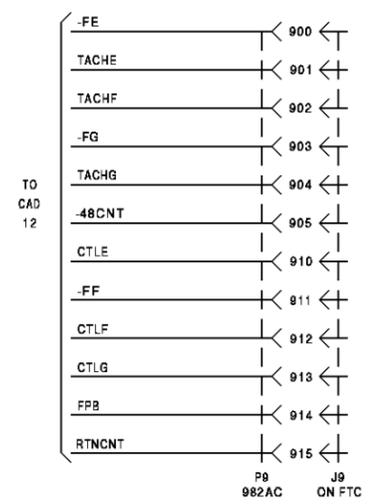
PRINTED IN U.S.A.

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

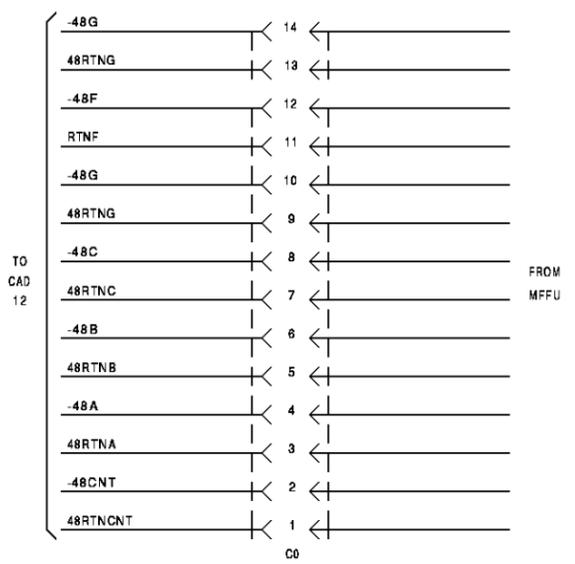
A
B
C
D
E
F
G
H

CAD 9



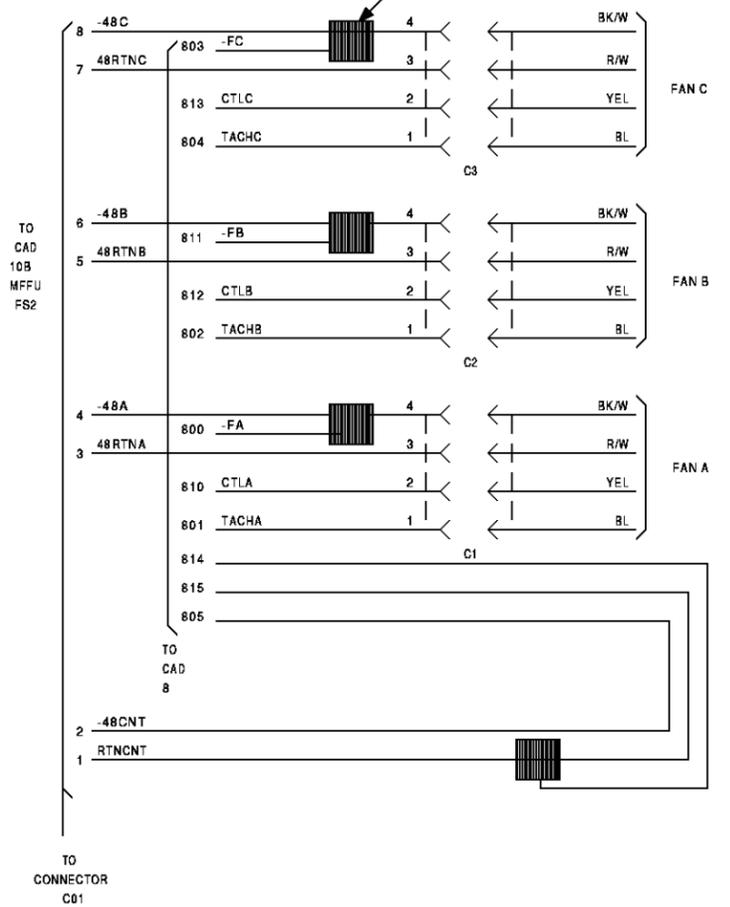
CAD 10A

FAN UNIT MMFU CONNECTION FS 1(C0)



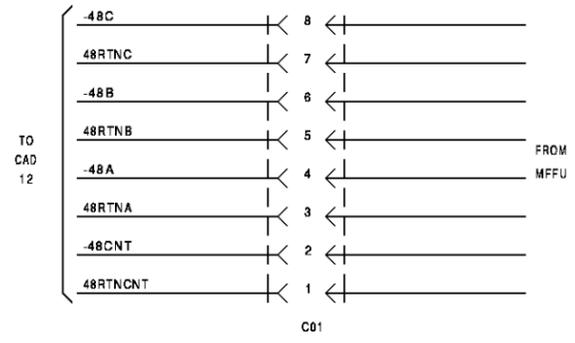
CAD 11

FAN UNIT MMFU CONNECTION FOR FS2
TAPS IN WIRE HARNESS
AMP# 553387-1



CAD 10B

FAN UNIT MMFU CONNECTION FS2(C01)



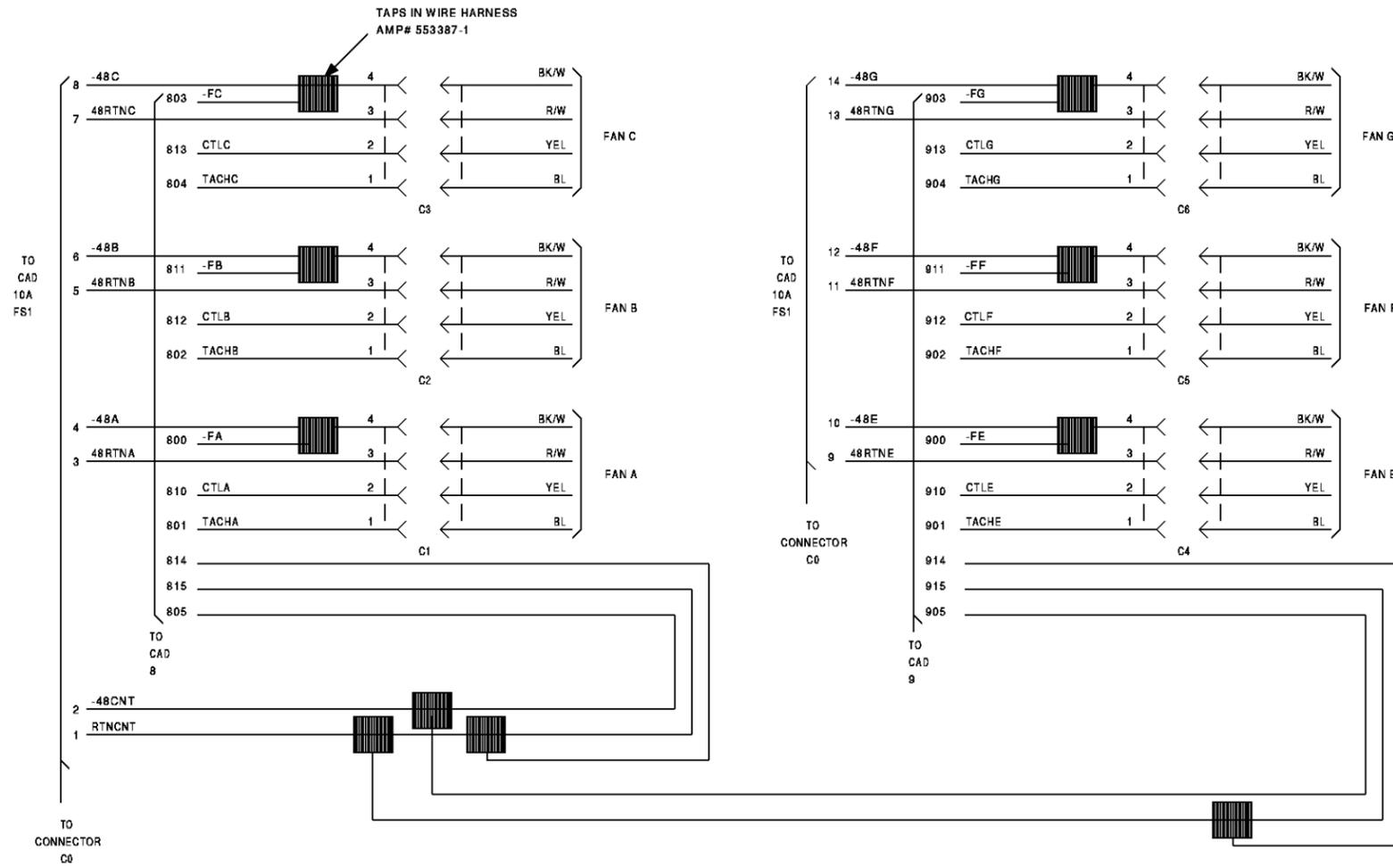
0 1 2 3 4 5 6 7 8 9

Copyright (C) 1996 AT&T All Rights Reserved		
PLATFORM FAN UNIT		DWG SIZE G2
		ISSUE 1
AT&T	SD-5D546-01	SHEET G2

PRINTED IN U.S.A.

CAD 12

MMFU/CONTROLLER/FAN CONNECTION FOR FS1



Copyright (C) 1996 AT&T All Rights Reserved		
PLATFORM FAN UNIT		DWG SIZE G2
AT&T	SD-5D546-01	ISSUE 1 SHEET G3

PRINTED IN U.S.A.