

APPARATUS INDEX

DESIG	LOCATION	
	FS	APP FIG. EQUIP.
RELAYS		
A1	2A1	3
A2	2B1	3
A3	2D1	3
A4	2D0	3
AL	2B3	3
AT	1B7	1
ATA	1B7	2
BCO	106	4
EXT	1A7	4
FA	1C2	4
HO	2C3	3
NS	1C6	2
R	1E3	4
RB	1D2	4
S	1E3	4
TR	1B4	4

DESIG	LOCATION	
	FS	APP FIG. EQUIP.
LAMPS		
FA	1B5	4
PA	1C5	4
TR	1D4	4
EXT	1D4	4

DESIG	LOCATION	
	FS	APP FIG. EQUIP.
RESISTORS		
A3	2D0	3
A4	2D0	3
C	1E6	4
FA	1D2	4
H	2B0	3
L	2B0	3
R	1H1	4
RI	1E3	4
RB	2G2	6
S	2C3	3

DESIG	LOCATION	
	FS	APP FIG. EQUIP.
VARIABLES		
S	1E2	4

CONNECTING BLOCKS		
48V-GRD	2G1	8
48V-HRB-GRD	2G2	9
T-R	2F1	7

FUSES		
[-48V]	1D1	4
[+48V]	1E3	4
[-96V]	1H2	4

KEYS		
AR	2B2,	3
	2C1	
ST0	3A8	5
ST1	3B8	5
ST2	3C8	5

LEAD INDEX

DESIG	FS LOC	CAD. LOC
556A PBX CORD, TEL, DIAL, BAT., BUZZER & RING. CKT		
TRL	IE7	

608A OR 608D SWBD AUX SIG, FA, BCO & MISC CKT		
A	IA9	
TRL	IE7	

2 WY TRUNK CKT TO CENTRAL OFFICE		
CNO-9	IF7	
NCO-9	IF6	
NCAO-9	IG6	
NSE	IB9	
NSO	IC9	

ALARM RCVG CKT AT CENTRAL OFFICE		
WCR	IHO	
WCT	IHO	

AUX RELAY CKT.		
+48V	IA3	
GRD	IA3	

CDLS POSITION CKT		
NS	IC7	
TRL	ID7	

CDLS POSITION CKT 1ST ATTENDANT CONSOLE		
B20	IG3	
B30	IG3	
B40	IG3	
B50	IG3	
B60	IG3	
B70	IG3	
B80	IG3	

CDLS POSITION CKT 2ND ATTENDANT CONSOLE		
B20	IG2	
B30	IG2	
B40	IG2	
B50	IG2	
B60	IG2	
B70	IG2	
B80	IG2	

CENTRAL OFFICE		
R	3H4	
T	3H4	

DESIG	FS LOC	CAD. LOC
CENTRAL OFFICE TRK CKT		
IT90	3E8	
IT91	3F8	
IT92	3F8	
ITC90	3E8	
ITC91	3E8	
ITC92	3F8	
R	3E6-3F6	
T	3E6-3F6	

DIAL PULSE REGISTER		
PL	1F5	
PLB	1F6	
RT	2D2	
RT1	2D3	

LINE, LINK & MARKER CKT		
AT	2A3	
CA	2G6	
JA	2E6	
KA	2C6	
LA	2B6	
LAI	2H3	
MT	2C3	
UA	2A6	
R	2F1	
R1	3A1-	
	3C1	
RA	2D6	
S	3D1-	
	3F1	
S1	3D1-	
	3F1	
T	2F1	
T1	3A1-	
	3C1	
TA	2C6	
TT	2B3	
UA	2E6	

MAKE BUSY & BUSY DISPLAY CKT.		
-96V	IH3	
GRD	IH3	

PBX CKT		
-48V	IA1	
GRD	IA2	

POWER SUPPLY CKT (JB6281A POWER PLANT)		
-48V "A"	1C0	
-48V "B"	1C0	
GRD	1C0	
PG	1C0	

OPTION INDEX

APP OR WRG	LOCATION
Z	IHI
Y	IG1, IHI
X	ID6
W	1E6
V	1E6
T	1E6
S	1D1, 1E1, 1F1, IG'
R	ID1
Q	1E1, 1F1, IG1
N	1B5
M	1D4, 1A5, 1A7,
K	1F6
J	IG6
H	IG6
G	ID2, IE3
F	ID2, IE3
B	IE5, IA8
A	IG1, IHI
ZA	APP FIG. 4, IE2
ZB	APP FIG. 4, IE2
ZC	IH2, ID1, APP FIG. 4
ZD	ID1, IE1, 1F1, IG1
ZE	2H3

DRAWING ISSUE
 1 RUB
 2 KRA
 3 PDB
 40 RWF
 JFF
 KJF
 WGN
 5D SAK
 GFH
 6D SAK
 GFH
 SAK
 7B -
 RHP
 8D FED
 PJS
 RHP
 9D EWE
 PJS
 RHP
 10D EWE
 PJS
 RHP
 11D WGN
 SAK
 RHP

ALARM, TRANSFER & TEST CIRCUIT (2) SD-66796-01-A2
 BELL TELEPHONE LABORATORIES INCORPORATED 6S PRINTED IN U.S.A.

FS I

ALARM AND TRANSFER RELAYS

DRAWING ISSUE	DATE	BY
1		
2D		
4D		
5D		
6D		
8D		
9D		
10D		

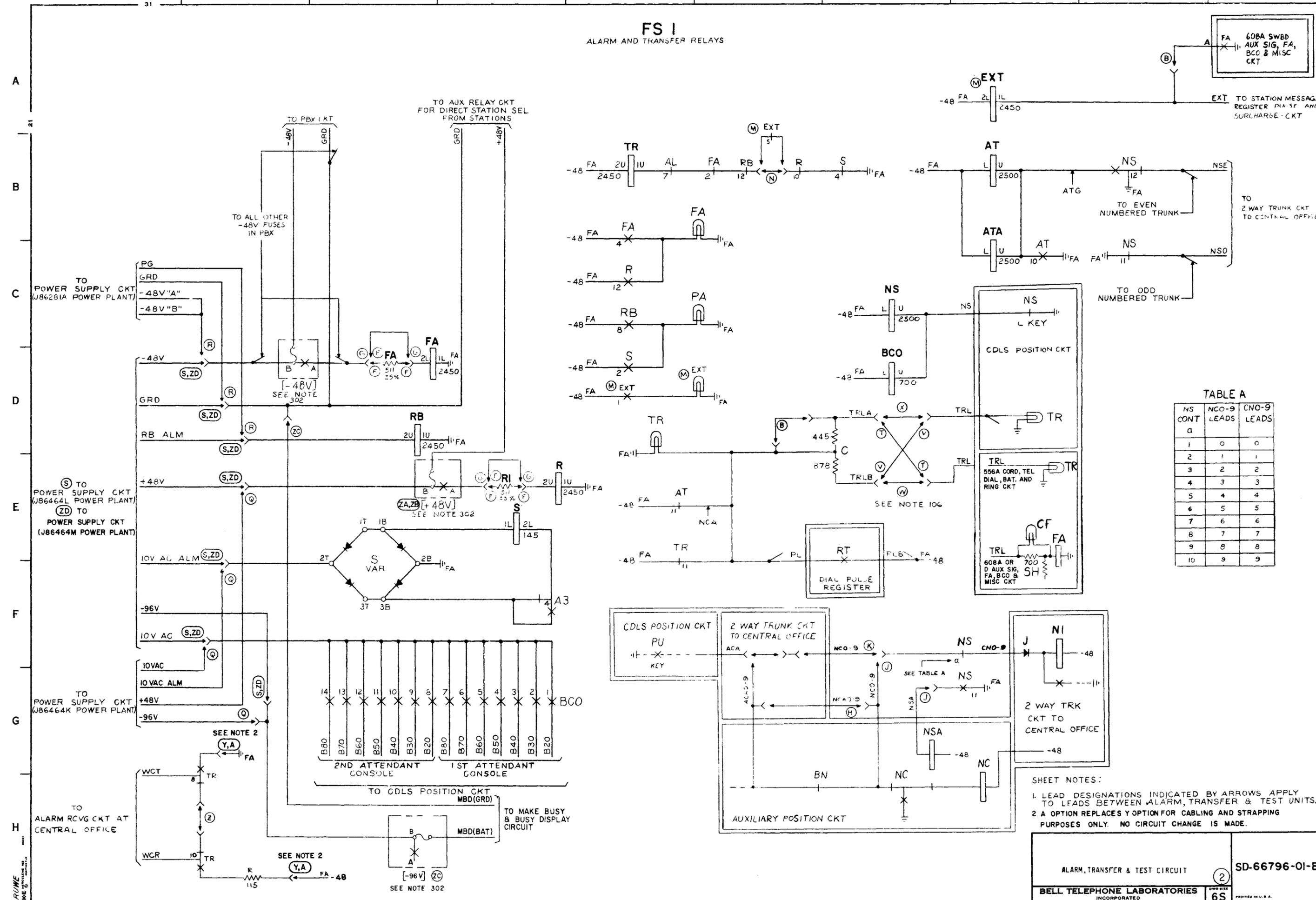


TABLE A

NS CONT	NCO-9 LEADS	CNO-9 LEADS
1	0	0
2	1	1
3	2	2
4	3	3
5	4	4
6	5	5
7	6	6
8	7	7
9	8	8
10	9	9

SHEET NOTES:

1. LEAD DESIGNATIONS INDICATED BY ARROWS APPLY TO LEADS BETWEEN ALARM, TRANSFER & TEST UNITS.
2. A OPTION REPLACES Y OPTION FOR CABLING AND STRAPPING PURPOSES ONLY. NO CIRCUIT CHANGE IS MADE.

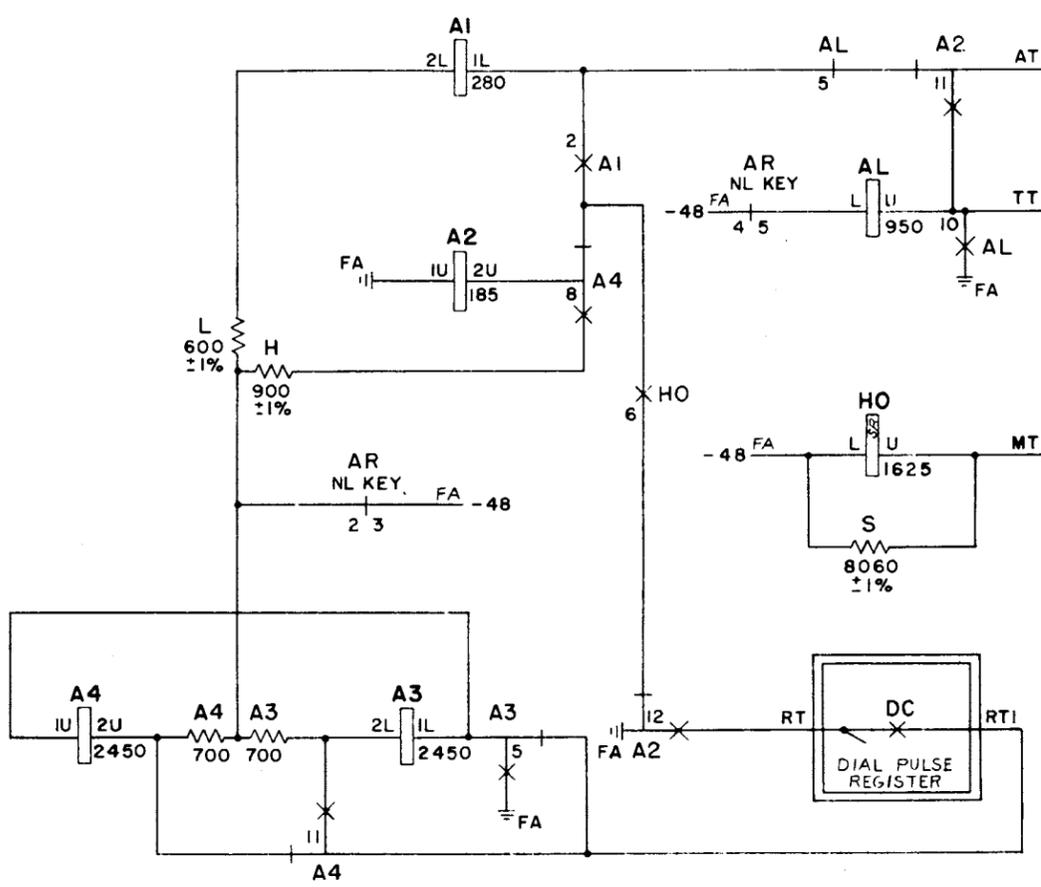
ALARM, TRANSFER & TEST CIRCUIT

BELL TELEPHONE LABORATORIES
INCORPORATED

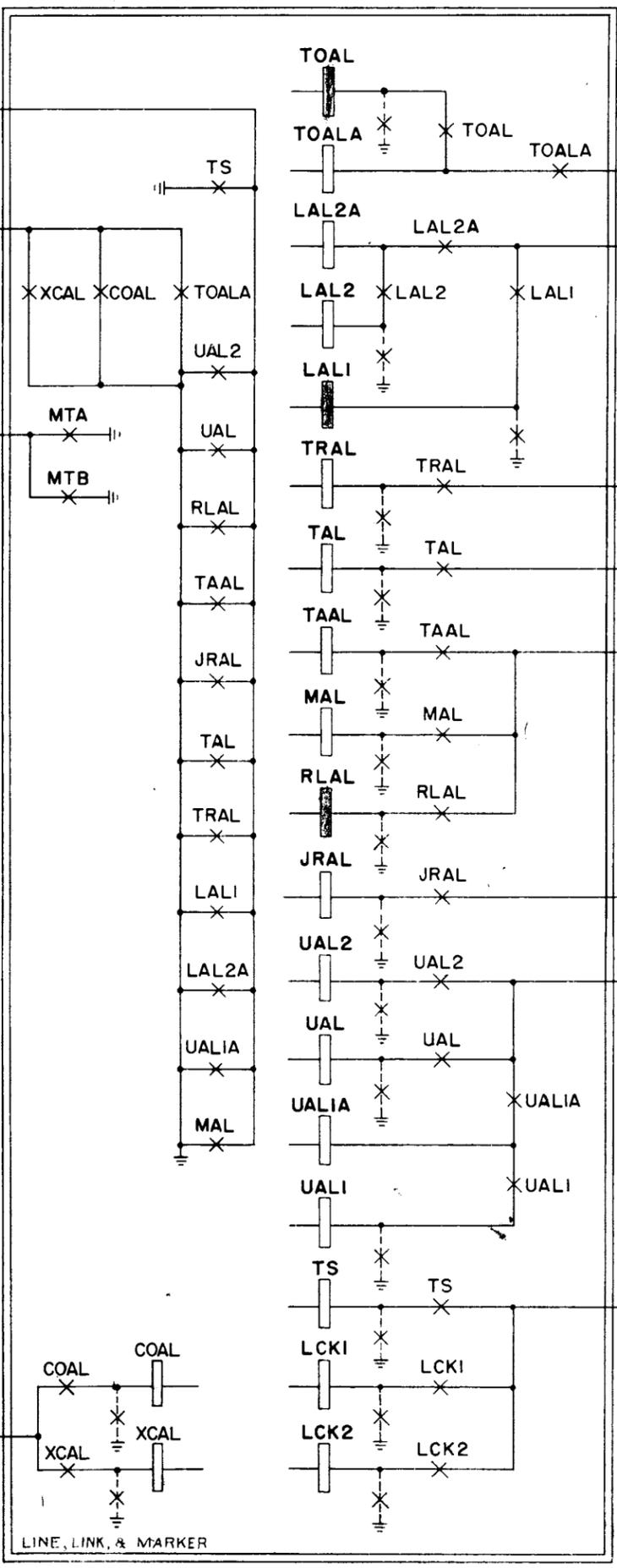
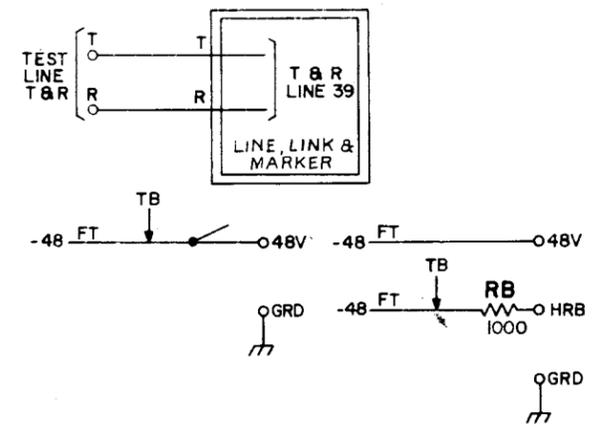
SD-66796-01-B1

SD-66796-01-B1

FS 2
MARKER ALARM



FS 3
TEST CKT



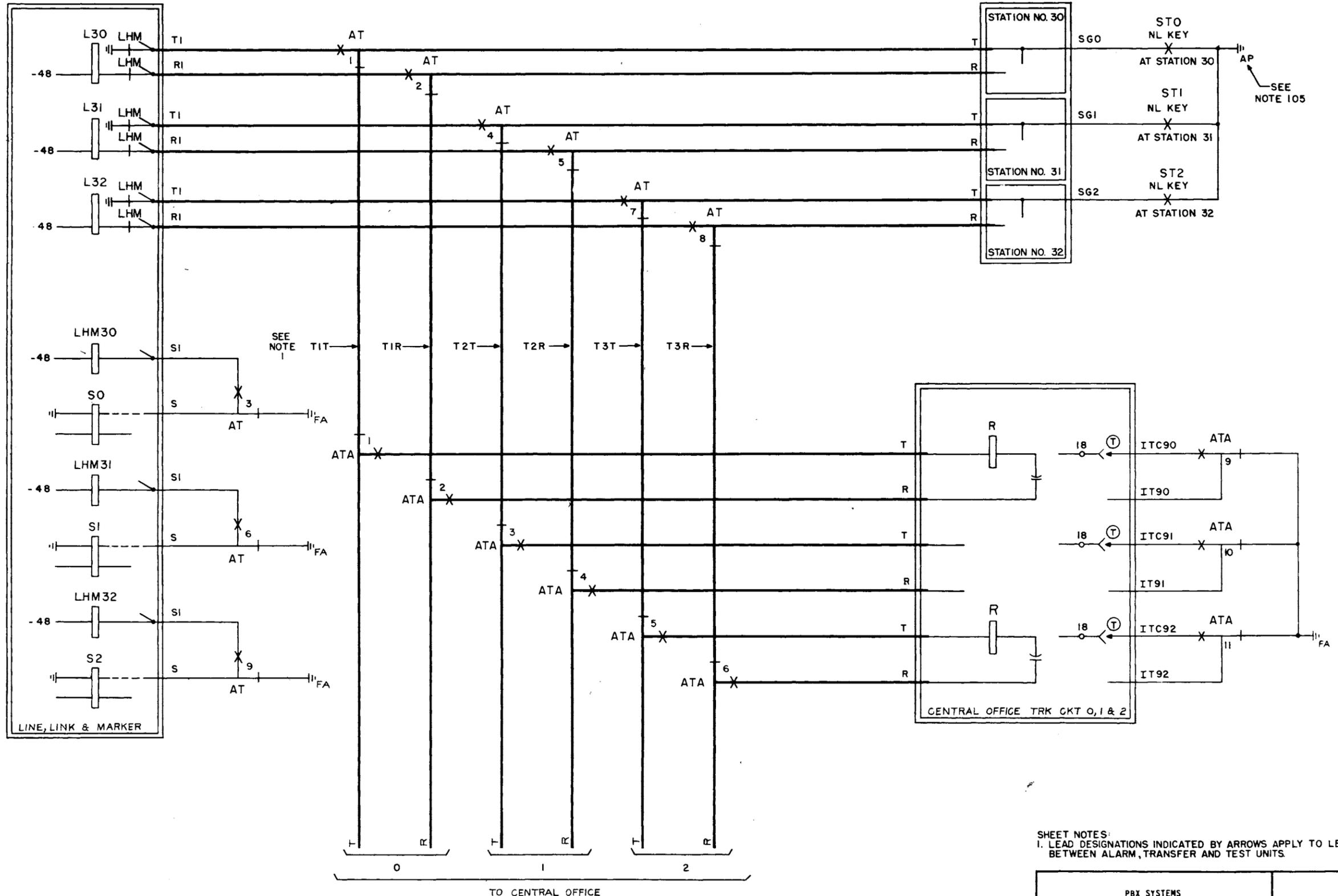
SHEET NOTES:
1. LEAD DESIGNATIONS INDICATED BY ARROWS APPLY TO LEADS BETWEEN ALARM, TRANSFER AND TEST UNITS.

DRAWING	ISSUE
40	1
110	1

ALARM, TRANSFER & TEST CIRCUIT
BELL TELEPHONE LABORATORIES
INCORPORATED
59-56726-CI-82

FS 4
TRANSFER CKT

DRAWING
ISSUE
1



SEE NOTE 105

SEE NOTE 1

SHEET NOTES:
1. LEAD DESIGNATIONS INDICATED BY ARROWS APPLY TO LEADS BETWEEN ALARM, TRANSFER AND TEST UNITS.

PBX SYSTEMS NO. 756A ALARM, TRANSFER & TEST CIRCUIT		SD-66796-01-B3
BELL TELEPHONE LABORATORIES INCORPORATED		6S

SD-66796-01-B3

APP FIG. 1

RELAY						
DESIG	AT					
CODE	AJ5					
OPTION	CONT	LOC	CONT	LOC	CONT	LOC
	ARR		ARR		ARR	
12	EBM					
11	EBM	1E4				
10	EBM	1C7				
9	EBM	3G2				
8	EBM	3C5				
7	EBM	3C4				
6	EBM	3E2				
5	EBM	3B4				
4	EBM	3B4				
3	EBM	3D2				
2	EBM	3B3				
1	EBM	3B3				
COIL		1B7				

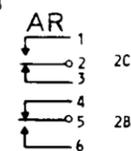
APP FIG. 2

RELAY							
DESIG	ATA				NS		
CODE	AJ5				AJ5		
OPTION	CONT	LOC	CONT	LOC	CONT	LOC	CONT
	ARR		ARR		ARR		ARR
12	EBM				EBM	1B8	
11	EBM	3F8			EBM	Q	
10	EBM	3E8			EBM	1F7	
9	EBM	3E8			EBM	1F7	
8	EBM				EBM	1F7	
7	EBM				EBM	1F7	
6	EBM	3G5			EBM	1F7	
5	EBM	3F5			EBM	1F7	
4	EBM	3F4			EBM	1F7	
3	EBM	3E4			EBM	1F7	
2	EBM	3E3			EBM	1F7	
1	EBM	3E3			EBM	1F7	
COIL		1B7				1C6	
						1C8	
						1G7	

APP FIG. 3

RELAY																	
DESIG	A1		A2		A3		A4		AL				HO			DESIG	
CODE	AK3		AK4		AF33								AG12			CODE	
OPTION	CONT	LOC	OPTION														
	ARR		ARR		ARR		ARR		ARR		ARR		ARR		ARR		
12																	12
11			BM	2D2					M		M	2H2					11
10			BM	2A3					EBM	2E1	M	2G6					10
9									EBM		M	2B3					9
8									EMB		M	2C6					8
7									EMB	2B2	M	2A6					7
6											B	1B4					6
5											B	2C6			M	2B2	5
4									EMB	2D1	B	2A2					4
3									EMB	1F3	M	2E6					3
2									EBM		M	2B6					2
1									EBM		M	2D6					1
COIL											M	2F6					COIL

KEY
547B



RESISTOR

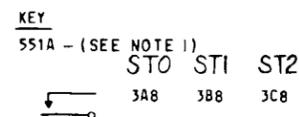
DESIG	LOC	CODE
[1] A3	2D0	19RL
[1] A4	2D0	19RL
[1] H	2B0	19TR
[1] L	2B0	19TR
S	2C3	107A, 8060

APP FIG. 4

RELAY																	
DESIG	FA		RB		R		S				EXT		TR			DESIG	
CODE	AK24		AK9		AK4											CODE	
OPTION	CONT	LOC	OPTION														
	ARR		ARR		ARR		ARR		ARR		ARR		ARR		ARR		
12																	12
11																	11
10																	10
9																	9
8																	8
7																	7
6																	6
5																	5
4																	4
3																	3
2																	2
1																	1
COIL																	COIL

RELAY			
DESIG	BCD		
CODE	AJ202		
OPTION	CONT	LOC	CONT
	ARR		ARR
24	M		
23	M		
22	M		
21	M		
20	M		
19	M		
18	M		
17	M		
16	M		
15	M		
14	M	1G3	
13	M	1G3	
12	M	1G3	
11	M	1G3	
10	M	1G3	
9	M	1G3	
8	M	1G3	
7	M	1G3	
6	M	1G3	
5	M	1G3	
4	M	1G3	
3	M	1G3	
2	M	1G3	
1	M	1G3	
COIL		1D6	

APP FIG. 5



APP FIG. 8

CONNECTING BLOCK

DESIG	LOC	CODE
48V-GRD	2G1	55C-73B

APP FIG. 6

RESISTOR

DESIG	LOC	CODE
RB	2G2	188H

APP FIG. 9

CONNECTING BLOCK

DESIG	LOC	CODE
48V-HRB-GRD	2G2	55E-73A

APP FIG. 7

CONNECTING BLOCK

DESIG	LOC	CODE
T-R	2F1	55B-73C

SHEET NOTE:
1. COLOR SUFFIX TO BE IN ACCORDANCE WITH CUSTOMERS ORDER.

SEE NOTE 302

FUSE	DESIG	LOC	CODE
[86] [-48V]		ID1	70A
[7A] [+48V]		1E3	70E
[7B] [-48V]		1E3	70P
[7C] [96V]		1H2	70E

LAMP

DESIG	LOC	CODE
FA	1B5	2Y
PA	1C5	2Y
TR	1D4	2Y
(M) EXT	1D5	2Y

RESISTOR

DESIG	LOC	CODE
C	1E6	19LP
(F) FA	ID2	KS-14603, L2A, 5II
R	1H1	59D
(F) RI	1E3	KS-14603, L2A, 5II

VARIATOR

DESIG	LOC	CODE
S	1E2	27J

DRAWING ISSUE	
1	RB
	RRA
	POB
	MMB
3D	W/H
	PD
	GA
4D	JFF
	KFJ
	H/H
7B	BCA
	PJS
	RHP
8D	FED
	P/S
	RHP
11D	WGN
	SAK
	RHP

11

ALARM, TRANSFER & TEST CIRCUIT		2	SD-66796-01-C1
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CIRCUIT NOTES:

101.

DESIG	FUSE AMP	POTENTIAL	ONE PER
FA	1-1/3	-48	PBX
FT	1-1/3	-48	PBX
FA		GRD	PBX
BATTERY SYMBOL		VOLTAGE RANGE	
-48		45-52V	

102.

FEATURE OR OPTION	PROVIDE		
	APP FIG.	APP OR WRG	QUANTITY
ALARM AND TRANSFER CKT	1, 2, 3, 4	F, M, ZC	ONE PER PBX
TEST CKT	6, 7, 9		ONE PER PBX
	8		ONE PER PBX
STATION DIAL TONE START	5		ONE PER EMERGENCY STATION LINE
TYPE OF ALM REQD	MARGINAL		Z
BAT. REV			A
CONNECTED TO TROUBLE ALARM LAMP AT	ONE CONSOLE		V
	TWO CONSOLES		X
	556A SWITCHBOARD		T
	ONE CONSOLE AND 556A SWITCHBOARD		T, V
	TWO CONSOLES AND 556A SWITCHBOARD		X, W
	608A OR 608D CORD SWBD		B, T
	ONE CONSOLE AND 608A OR 608D CORD SWBD		T, V, B
POWER PLANT TYPE PROVIDED	BATTERYLESS		S
	BATTERY RESERVE	WITH +48V DC & 10V AC APPLIQUE	Q, H, ZD
		WITHOUT +48V DC & 10V AC APPLIQUE	R
REMOTE TRUNK ANSWERING	REQUIRED		J
	NOT REQUIRED		H, J

103.

NETWORK VALUES		
NETWORK NO.	RESISTANCE IN OHMS	CAPACITANCE IN UF
1	470	0.11

CIRCUIT NOTES (CONT):

104.

CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT		
				STD	A&M	MD
4D	M OR N	N		M		N
	H, J OR K	K	102	H, J		K
	F OR G	G		F		G
5D	B	NONE	102, 201	B		
6D	Y OR A	Y	107, 102	A		Y
7B	ZA OR ZB	ZA	108	ZB		ZA
8D	ZC	NONE	102	ZC		
9D	R, Q OR ZD	R, Q	102	ZD	Q	R
IID	ZE	NONE		ZE		

105. "AP" GROUND WILL BE THE SAME AS THAT WHICH SUPPLIES THE CORDLESS POSITION CIRCUIT.
106. "T", "V", "W" AND "X" OPTIONS ARE APPLIED AT A CROSS CONNECTION BOX.
107. "A" OPTION REPLACES "Y" OPTION FOR CABLING AND STRAPPING PURPOSES ONLY. NO CIRCUIT CHANGE IS MADE.
108. THE +48 VOLT FUSE TYPE 70E OPTION ZA IS CHANGED TO TYPE 70P OPTION ZB IN CONJUNCTION WITH THE ADDITION OF A 13N RESISTANCE LAMP IN THE 756A PBX AUXILIARY RELAY CIRCUIT.

EQUIPMENT NOTES:

201. WHEN A 608A OR 608D SWITCHBOARD ISSUED AS AN ATTENDANT POSITION THE INSTALLER SHALL PROVIDE "B" OPTION STRAP AT RESISTOR C.

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. PBX FUSING INFORMATION:

-48V FUSE DESIG	ASSOC PBX CKT
A-H, J, K, L, L2-7, M, N, P-S, SO, S1, S23, S45, S67, S89, T, TO, T1, TR, UA, UB, X, Y	LINE, LINK & MARKER
RAO, I, RBO, I, RCO, I	DIAL PULSE REGISTER
JT0-5	JUNCTOR
C00-2, C05-7, FC1, FC2	TWO WAY TRUNK TO CENTRAL OFFICE
C03, C04, C08, C09	TWO WAY TRUNK TO CENTRAL OFFICE OR RINGDOWN TIE TRUNK
AT1, AT2, AT3	ATTENDANT TRUNK
BT	BUSY TONE TRUNK
AP1, AP2	CORDLESS POSITION
FA, FT	ALARM TRANSFER & TEST
SB-SG	NO. 556A PBX SWITCHBOARD
DSS	AUX REL CKT FOR DIRECT STATION SELECTION FROM STATIONS
T80-89	MISC CKT AND TRUNKS
+48V FUSE DESIG	ASSOC PBX CKT
DSS	AUX REL CKT FOR DIRECT STATION SELECTION FROM STATIONS
-96V FUSE DESIG	ASSOC PBX CKT.
MBD	MAKE BUSY & BUSY DISPLAY CIRCUIT

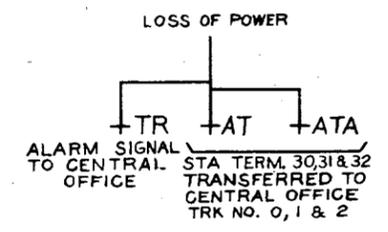
303 INFORMATION IN BRACKETS [] IS FOR REFERENCE ONLY.

SD-66796-01-D1

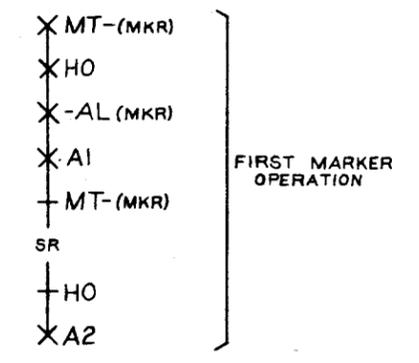
ALARM, TRANSFER & TEST CIRCUIT	2	SD-66796-01-D1
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DRAWING
ISSUE
1

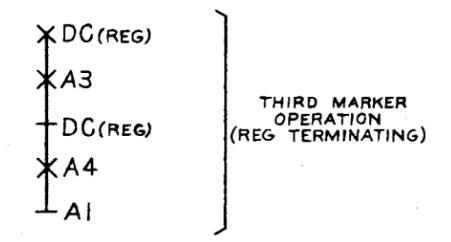
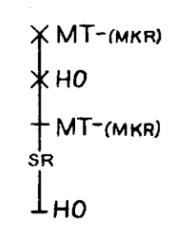
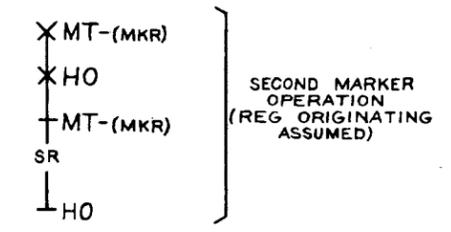
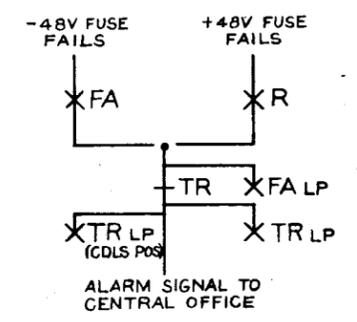
SC 1
SUPPLY POWER FAILURE



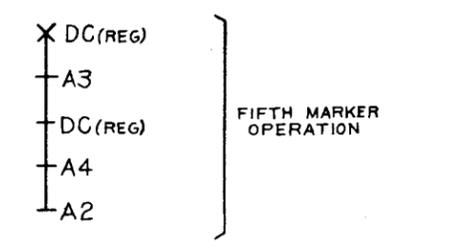
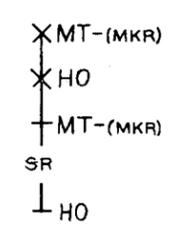
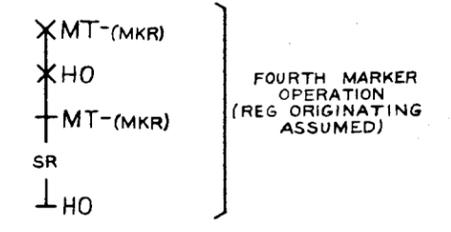
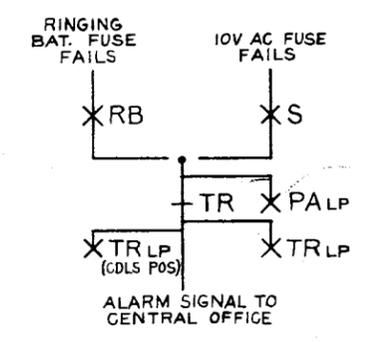
SC 4
ONE MARKER TROUBLE
PER ALARM CYCLE



SC 2
LOCAL DISTRIBUTION FUSE FAILURE



SC 3
POWER PLANT FUSE FAILURE



PBX SYSTEMS NO. 756A ALARM, TRANSFER & TEST CIRCUIT		SD-66796-01-E1
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SD-66796-01-E1

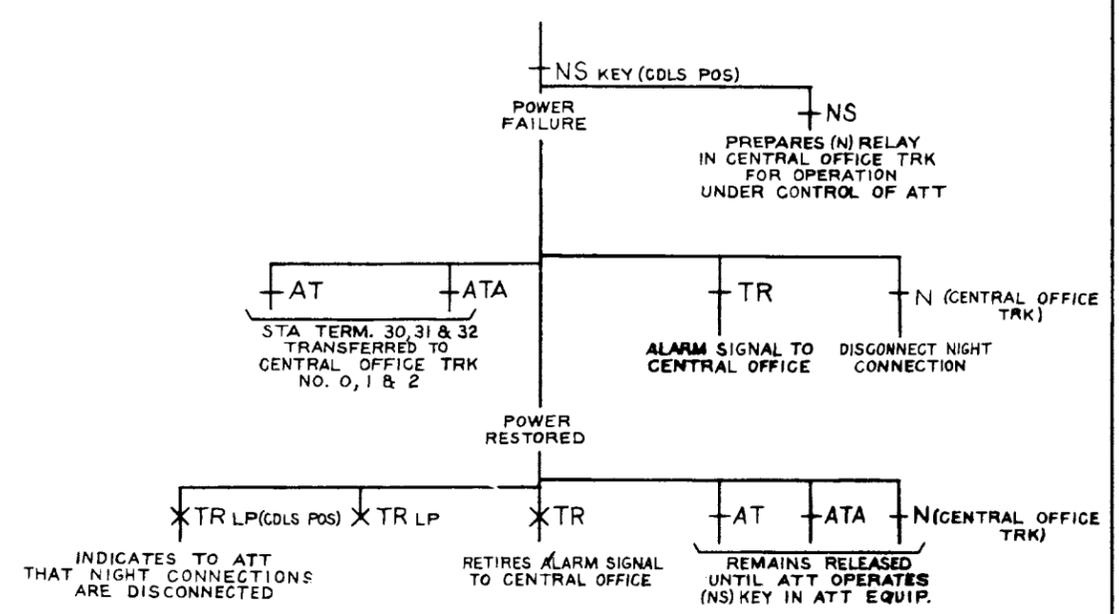
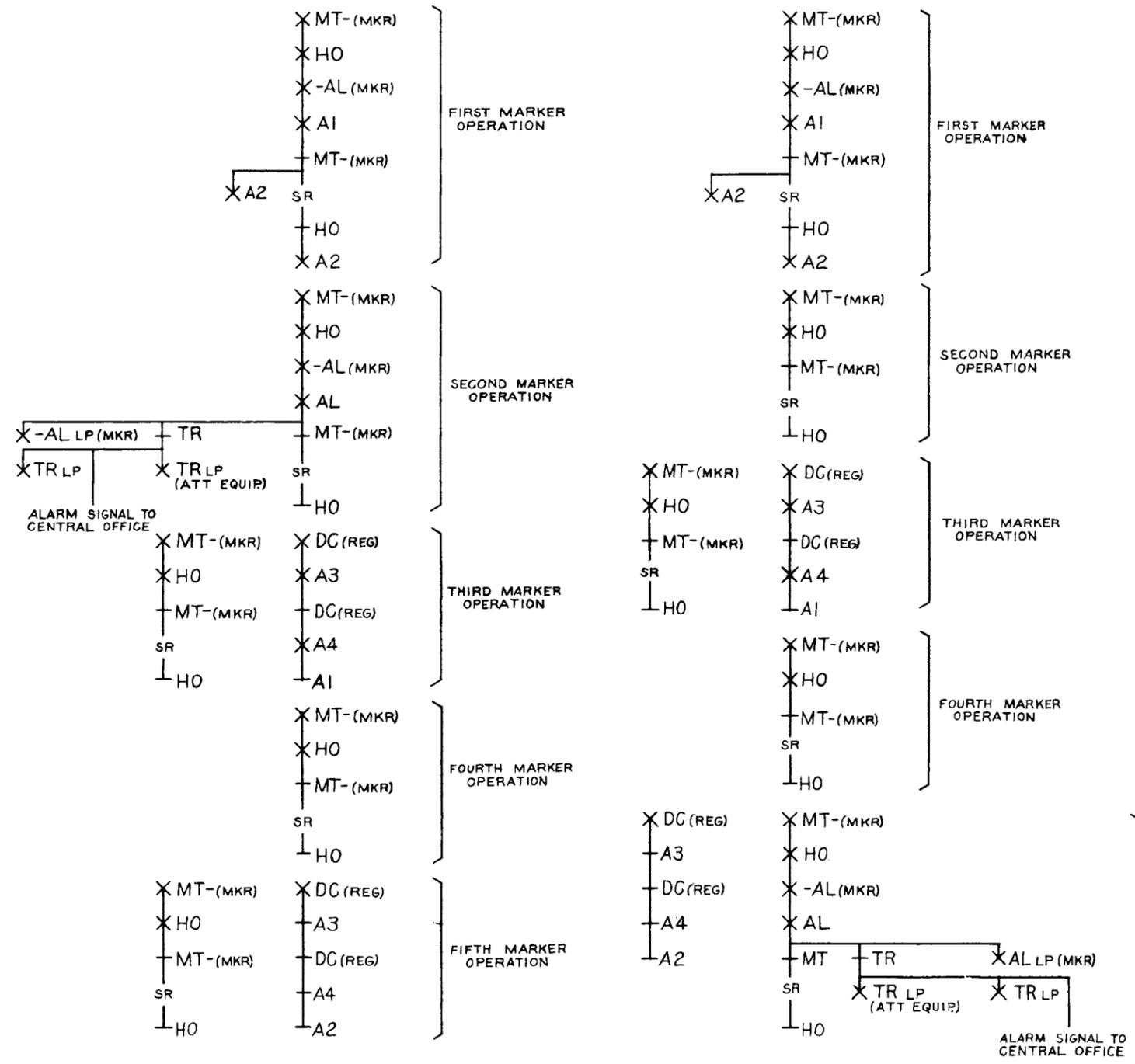
DRAWING ISSUE
1 RJD
2 KRA
3 POB
4D JFF
5 KJF
6

SC 5 TWO MARKER TROUBLES PER ALARM CYCLE

SC 6 NIGHT SERVICE CONNECTIONS POWER FAILURE AND RESTORATION

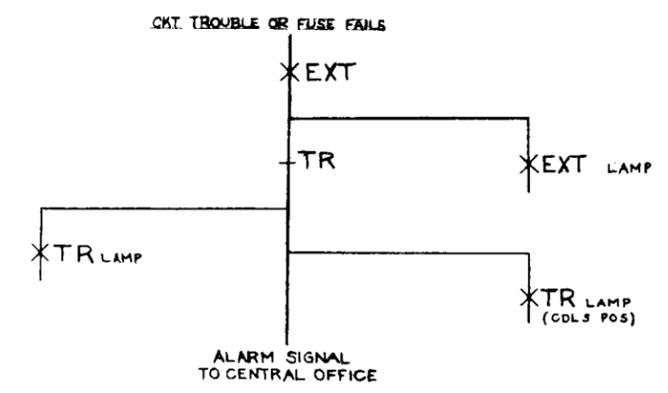
(CASE I - TWO SUCCESSIVE TROUBLES)

(CASE II - TWO SEPARATED TROUBLES)



SC 7

FUSE FAILURE OR TROUBLE
ALARM AT AN EXTERNALLY
MOUNTED UNIT



SD-66796-01-E2

4

PBX SYSTEMS NO. 756A ALARM, TRANSFER & TEST CIRCUIT		SD-66796-01-E2
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SD-66796-01		2 PAGES		CIRCUIT REQUIREMENTS																		DRAWING ISSUE	
NO. 756A ALARM, TRANSFER & TEST CKT																		1		R/R			
APPARATUS				MECH REQ			CIRCUIT PREPARATION				TEST SET			DIRECT CURRENT FLOW REQ			REMARKS		4D		R/R		
DESIG	CODE	OPT	FIG.	BSP FIG.	CONT PRESS.	ARM. TRVL.	BLOCK OR INSULATE	TEST CLIP DATA		TEST SET PREP	SEE TEST NOTE	TEST WDG	TEST FOR	AFTER SOAK MA.	TEST MA.	READJ MA.	REMARKS	4D		R/R			
							CONN BAT.	CONN GRD															
RELAYS																							
A1	1/2AK3		3	3			8B(A4)	1L(A1)	GRD			0		27.5	26		MOUNTED WITH (A2)						
A2	1/2AK3		3	3			8(A4)	2U(A2)	BAT.			0		33	31		MOUNTED WITH (A1)						
A3	1/2AK4		3	202			5M(A3) 11B(A4) (A4)NO	1L(A3)	GRD	1		0		11.9	11.3		WINDING ALONE CKT COMB. OF (A3) & (A4)						
A4	1/2AK4		3	202			5B(A3) (A3)NO	1U(A4)	GRD	2		0		11.9	11.3		WINDING ALONE CKT COMB. OF (A3) & (A4)						
AL	AF33		3	16			10M(AL)	U(AL)	GRD			0		13.4	12.8								
AT, ATA	AJ5		1	220			10M(AT) 11B(AT) 12M(NS)	U REL TST	GRD			0		13.2	12.6		WINDING ALONE CKT COMB. OF (AT) & (ATA)						
BCO	AJ202		4	500			U(BCO)	GRD				0		42.5	40.5		WINDING ALONE CKT COMB. OF (NS) & (BCO)						
EXT	1/2AK4	M	4	202			1L(EXT)	GRD				0		11.9	11.3		MOUNTED WITH (TR)						
FA	1/2AK24		4	12			2L(FA)	BAT.				0		7.8	7.4		MOUNTED WITH (RB)						
HD	AG12		3	383			U(HO) U(HO)	GRD GRD				0		6.8	6.4		WINDING ALONE CKT COMB. OF (HO) REL & (S) RES						
NS	AJ5		2	220			U(NS)	GRD	3			0		13.2	12.6		WINDING ALONE CKT COMB. OF (NS) & (BCO)						

TEST NOTES:
 1. MOUNTED WITH (A4).
 2. MOUNTED WITH (A3).
 3. OPERATE (NS) KEY IN ATTENDANT EQUIPMENT DURING TEST.

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CIRCUIT REQUIREMENTS																		DRAWING ISSUE				
NO. 756A ALARM, TRANSFER & TEST CKT																		1		R/R		
APPARATUS				MECH REQ			CIRCUIT PREPARATION				TEST SET			DIRECT CURRENT FLOW REQ			REMARKS		40		R/R	
DESIG	CODE	OPT	FIG.	BSP FIG.	CONT PRESS.	ARM. TRVL.	BLOCK OR INSULATE	TEST CLIP DATA		TEST SET PREP	SEE TEST NOTE	TEST WDG	TEST FOR	AFTER SOAK MA.	TEST MA.	READJ MA.	REMARKS	40		R/R		
							CONN BAT.	CONN GRD														
R	1/2 AK9		4	5				2U(R)				BAT.		0			7.8	7.3		MOUNTED WITH (S)		
RB	1/2 AK24		4	12				2U(RB)				BAT.		0			7.8	7.4		MOUNTED WITH (FA)		
S	1/2 AK9		4	5			4(A3)	2L(S)	1L(S)	B/G				0			25	24		MOUNTED WITH (R)		
TR	1/2 AK4		4	202			5(FA)	1U(TR)	GRD					0			11.9	11.3		MOUNTED WITH (EXT)		

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