

APPARATUS INDEX

DESIGN	LOCATION		
	FS	APP FIG.	EQPT
RELAYS			
B	2C4	1	
JA	1C4	1	
JB	1C7	1	
JY	3H2	1	
C	2D4	1	
CA	1C1	1	
CB	1C2	1	
CTD	3F2	1	
CTZ	1B6	1	
DBO	4A3	1	
DB9	4B3	1	
DB9A	4A5	1	
DCO	4A3	1	
DC9	4B3	1	
DC9A	4A6	1	
DLB	1E6	1	
DLBA	3F3	1	
DLC	1E1	1	
HM	3E5	1	
MBT	3F5	1	
MC	3D2	1	
MCA	3E2	1	
MCB	3D2	1	
P	2E3	1	
PA	4G5	1	
RLBY	4C5	1	
RLDT	4B6	1	
RLS	3A1	1	
RS	3G2	1	
RT	2D2	1	
SL	2G2	1	
STB	3B3	1	
STC	3F2	1	
TT	4H3	1	
TTA	4H3	1	
TTF	4F4	1	
TTR	4E4	1	
W	1A6	1	

CAPACITORS			
BT	2B3	1	
DB	1E6	1	
DC	1E2	1	
FB	2F2	1	
RB	2F4	1	
RC	2F4	1	
T3	2C5	1	
TC	2C4	1	

DESIGN	LOCATION		
	FS	APP FIG.	EQPT
CONNECTORS			
J1	1E7	1	
J2	1E2	1	
J3	1E2,7	1	

DIODES			
A	2E2	1	
B	2E2	1	
DLB	1E6	1	
DLC	1E1	1	
MC	3C3	1	
PR	1D7	1	
RR	4B7	1	

INDUCTORS			
B	2D5	1	
C	2E3	1	

NETWORKS			
B	2D5	1	
C	2D3	1	
DBO	4A3	1	
DB9	4B3	1	
DCO	4A3	1	
DC9	4C3	1	
HM	3E6	1	
PA	4F5	1	
STB	3B3	1	
TT	4G3	1	
TTA	4H3	1	
TTR	4E4	1	

DESIGN	LOCATION		
	FS	APP FIG.	EQPT
RELAY TIME DELAY CKTS			
B	1E7	1	
C	1E3	1	
D	1E3,7	1	

RESISTORS			
DB	1F6	1	
DC	1F2	1	
PD	2G3	1	
SH	2G1	1	
W	1A7	1	

THERMISTORS			
PA	4G6	1	
TR	4E4	1	

LEAD INDEX

DESIGN	FS LOC	
	FS	LOC
LINE, LINK AND MARKER CKT		
CCC		3D1
DB		4D7
DC		4E2
DE		4F2
DG		4G2
DO		4A2
D8		4H2
D9		4B2
FFE		3H1
FFO		3H1
RLSE		3D1
RLSO		3D1
RSE		3G1
RSD		3G1

POWER SUPPLY CKT	
FT	2B3
RG GRD	2B2
RI	2B2

STA DIAL TR CONTROLLER CKT	
ATB (SEE NOTE 2)	3D6
COO	4D7
GP (SEE NOTE 1)	3A6
GRD	3F6
HM	3E7
HMPA (SEE NOTE 1)	3B6
HMPB (SEE NOTE 2)	3D6
MCC	3D4
ONG	3G6
PA	4G7
PB	4G7
PR	1D9
R	2F1
RA	2F6
RB	2F6
RLDT	4B7
RLS	2C7

CONTINUED

DESIGN	FS LOC	
	FS	LOC
STA DIAL TR CONTROLLER CKT (CONT)		
S		2G1
ST		3G6
STB		3B4
T		2C1
TA		2B6
TB		2C6
TRF		1G7
TR1A		1G1
TRJ		1G7

MB AND BY DISPL CKT	
HM	3F4
MBT	3F5

OPTION INDEX

APP OR WRG	LOCATION
Z	2C5, 2D3, 2D4, 2D5, 3D2, 3D3, 3G5
Y	2C4, 2C5, 2D4, 2E4, 3D2, 3D3, 3G4, 3G5
X	1D2, 1E1, 1E2, 1E6, 1E7, 3A7, 3A8, 3B7
W	1D2, 1E1, 1E2, 1E6, 1E7, 3A7, 3B7, 3B8, 3B9, 3C7, 3E6

SHEET NOTES

1. FROM TRANSFER TRUNK "0".
2. FROM TRANSFER TRUNK "1".

DRAWING ISSUE
1 SAK
5AC SAK
60 BOM
PJS SAK
GPH
RHF

6

STATION DIAL TRANSFER TRUNK
CIRCUIT WITH ADD-ON
CONFERENCE (2)
BELL TELEPHONE LABORATORIES
INCORPORATED

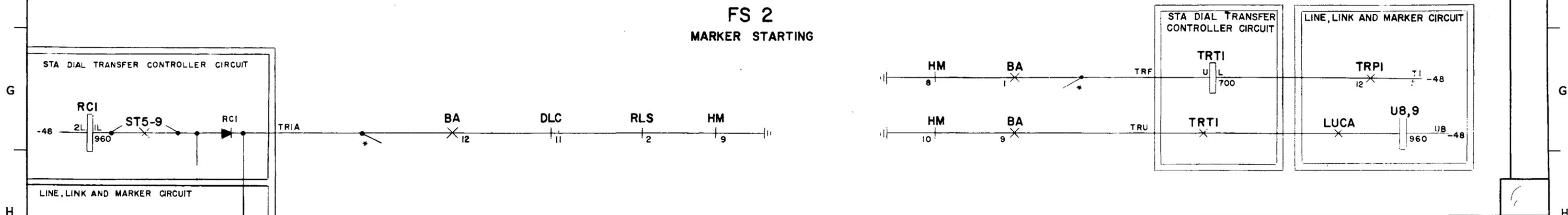
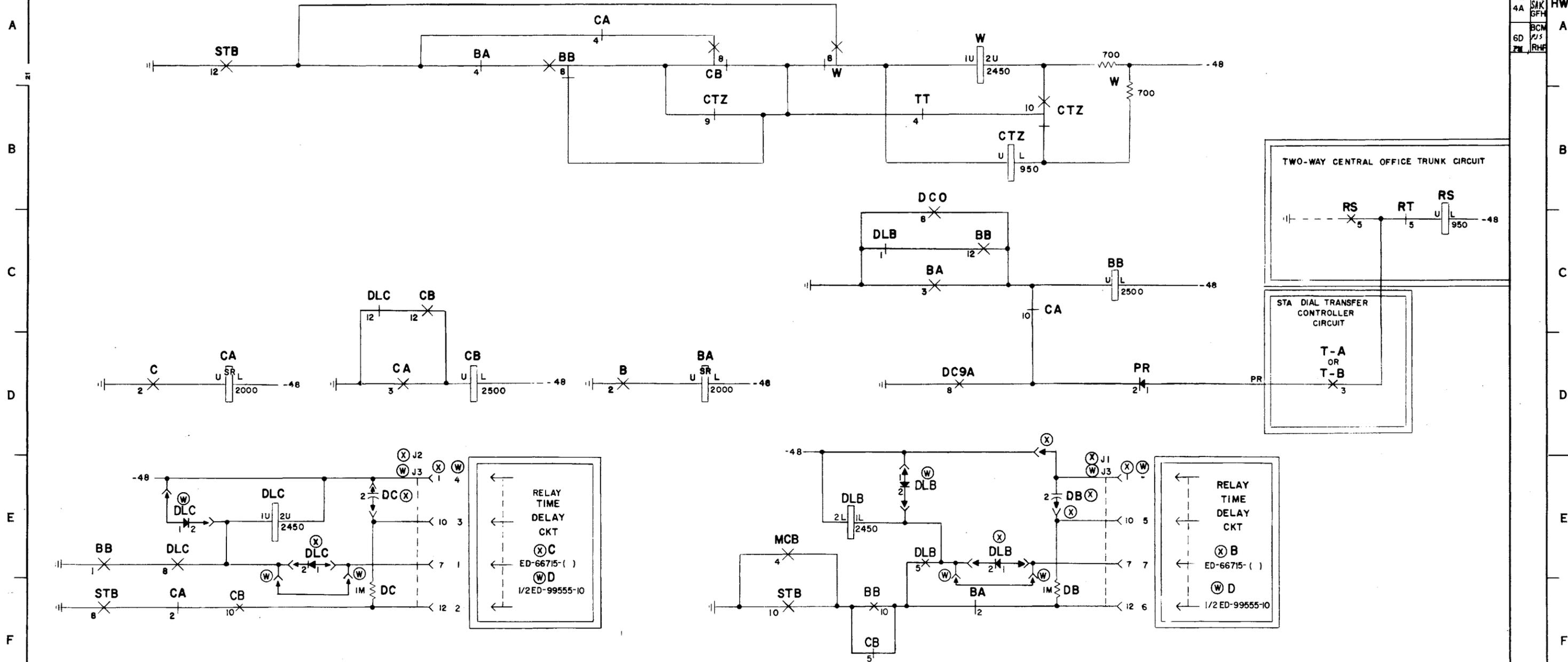
SD-66921-01-A2

DWG SIZE
6S

PRINTED IN U.S.A.

FS I
TIMING CIRCUITS

DRAWING	
1	RWF
4A	PJS
4A	SAK
4A	GFH
6D	PJS
6D	RHF



FS 2
MARKER STARTING

SHEET NOTES:
A. ALL MULTIPLE POINTS MARKED WITH * INDICATE THAT TWO TRANSFER TRUNKS ARE MULTIPLIED TOGETHER.

STATION DIAL TRANSFER TRUNK CIRCUIT		SD-66921-01-B1
BELL TELEPHONE LABORATORIES INCORPORATED	DWG SIZE 6S PRINTED IN U.S.A.	

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CIRCUIT NOTES:

101.

DESIG	FUSE AMP	POTENTIAL	ONE PER
TO	1-1/3	-49	TRFR TRUNK CKT NO. 0
T1	1-1/3	-49	TRFR TRUNK CKT NO. 1
T		GRD	TRFR TRUNK CKTS NO. 0,1

BATTERY SYMBOL	VOLTAGE RANGE
-49	45-52

102.

FEATURE OR OPTION	PROVIDE	
	APP FIG.	QUANTITY
STATION DIAL TRANSFER TRUNK CIRCUIT	1	2 PER PBX

103.

NETWORK VALUES		
NETWORK NO.	RESISTANCE IN OHMS	CAPACITANCE IN UF
1	470	0.11
2	120	0.3

104.

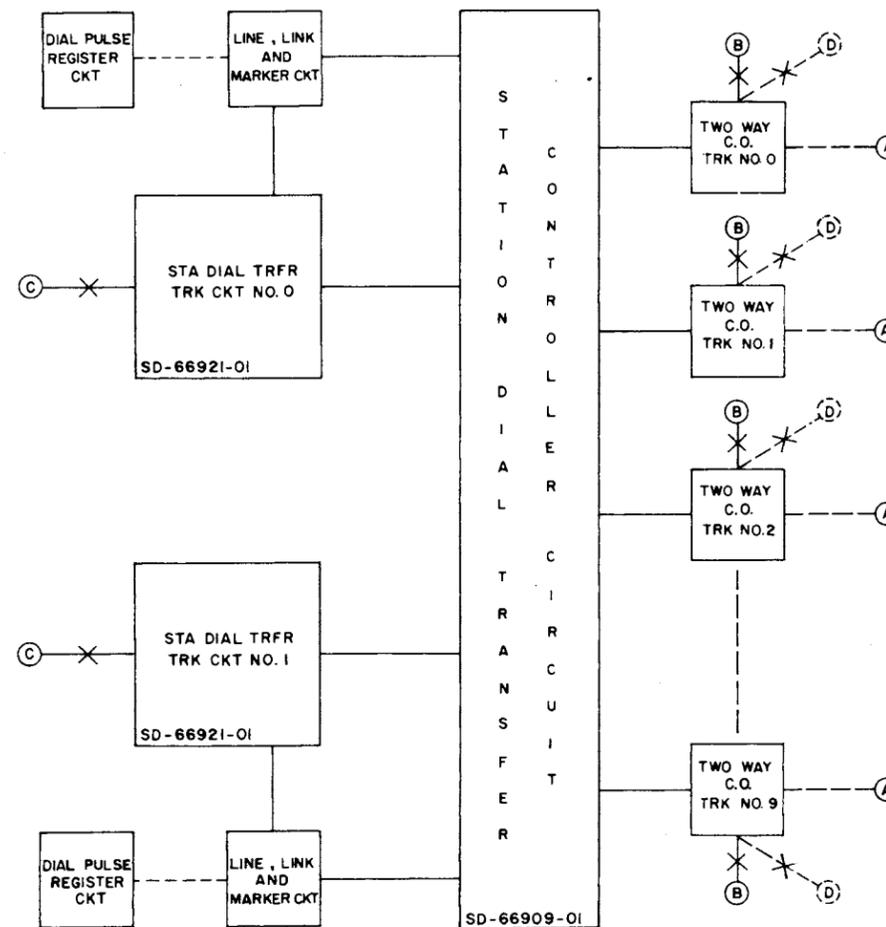
RECORD OF APP FIG. WIRING AND APPARATUS CHANGES						
CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT		
				STD	A & M	MD
5AC	Y OR Z	Z	105	Y		Z
6D	W OR X	X		W		X

105. TO ARRANGE CIRCUITS MANUFACTURED PRIOR TO ISSUE 5AC FOR TOUCH TONE CALLING, REMOVE OPTION Z AND ADD OPTION Y.

INFO NOTES:
301. BLOCK DIAGRAM OF STATION DIAL TRANSFER CIRCUITS

CHART A

(A): OUTSIDE PARTY (B), (C), (D): PBX STATIONS



302. UNLESS OTHERWISE SPECIFIED:
RESISTANCE VALUES ARE IN OHMS.
CAPACITANCE VALUES ARE IN MICROFARADS.
VALUES PRECEDED BY THE SYMBOL - (MINUS) ARE IN VOLTS.

303. PBX STATION CONNECTIONS MARKED X INDICATE CROSSBAR CONNECTIONS.

6

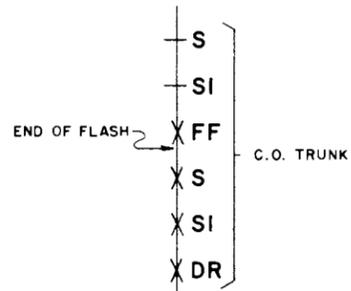
STATION DIAL TRANSFER TRUNK CIRCUIT	SD-66921-01-D1
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DRAWING	1
ISSUE	1
REV	4A
REV	6D

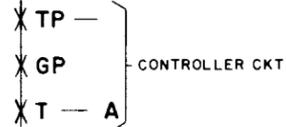
SC 1

FIRST TRANSFER OF PARTY A
STATION B AND PARTY A CONNECTED
(PREVIOUS ACTION SHOWN IN SC1-B
TWO WAY TRUNK CIRCUIT TO CENTRAL OFFICE)

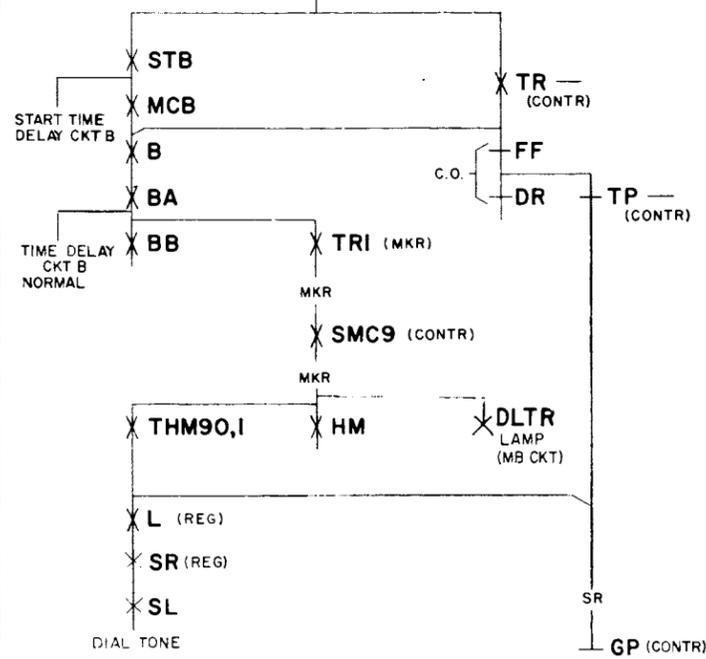
STATION B FLASHES



CONTROLLER ATTACHED

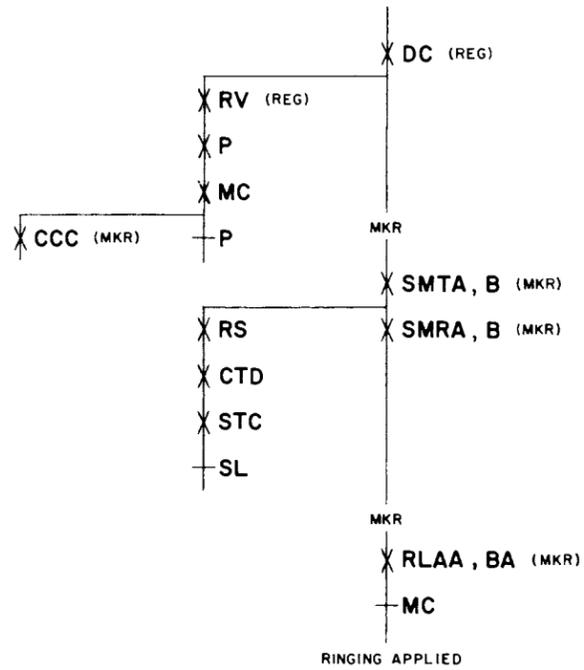


STA DIAL TRF TRK ATTACHED



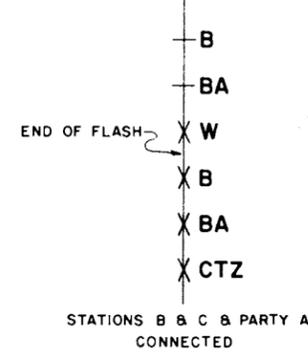
SC 2

STATION B TRANSFERS TO STATION C
PREVIOUS ACTION SHOWN IN SC1



SC 4

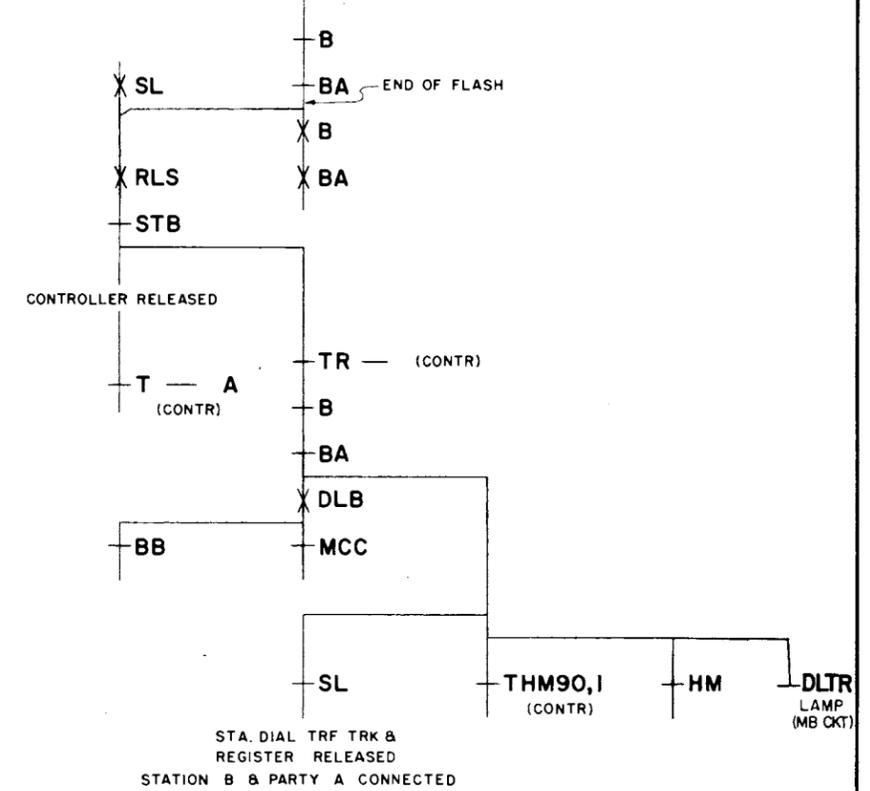
STATION B CALLS IN PARTY A
STATION B FLASHES



SC 6

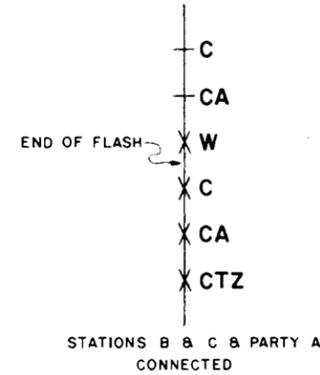
STATION B DISPOSES OF DIAL TONE
OR PARTIAL DIAL
PREVIOUS ACTION SHOWN IN SC1

STATION B FLASHES



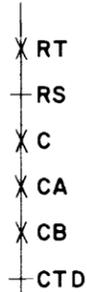
SC 5

STATION C CALLS IN PARTY A
STATION C FLASHES



SC 3

CALLED STATION C ANSWERS



STATIONS B & C CONNECTED

6

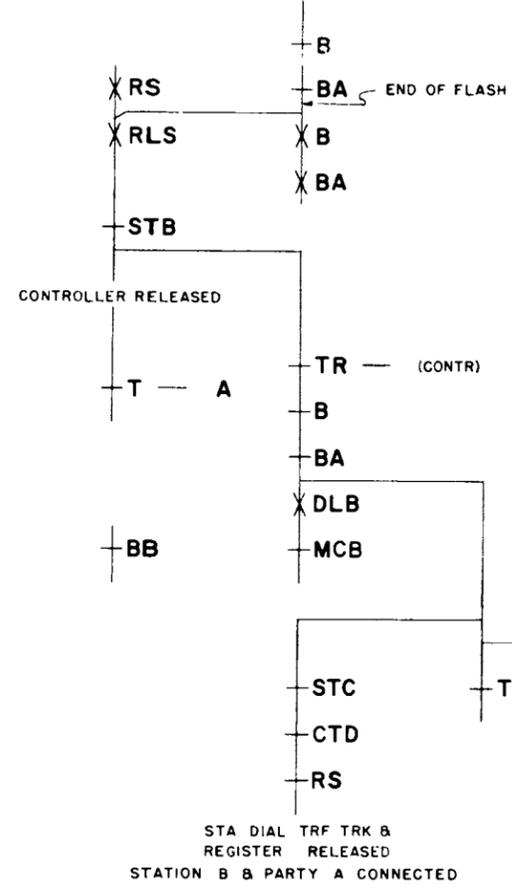
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SD-66921-01-E1

DRAWING ISSUE	
1	JFF HW
6D	BCM PJ 3 RHP

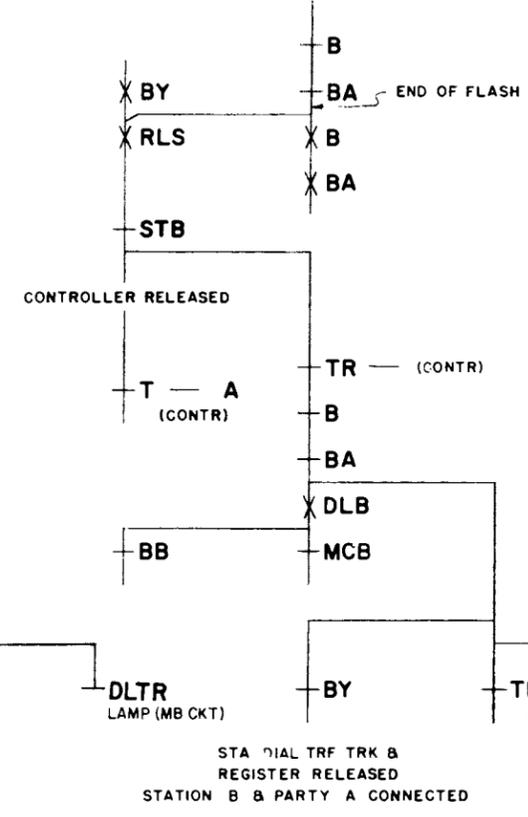
SC 7

STATION B DISPOSES OF DON'T ANSWER
PREVIOUS ACTION SHOWN IN SC 2
STATION B FLASHES



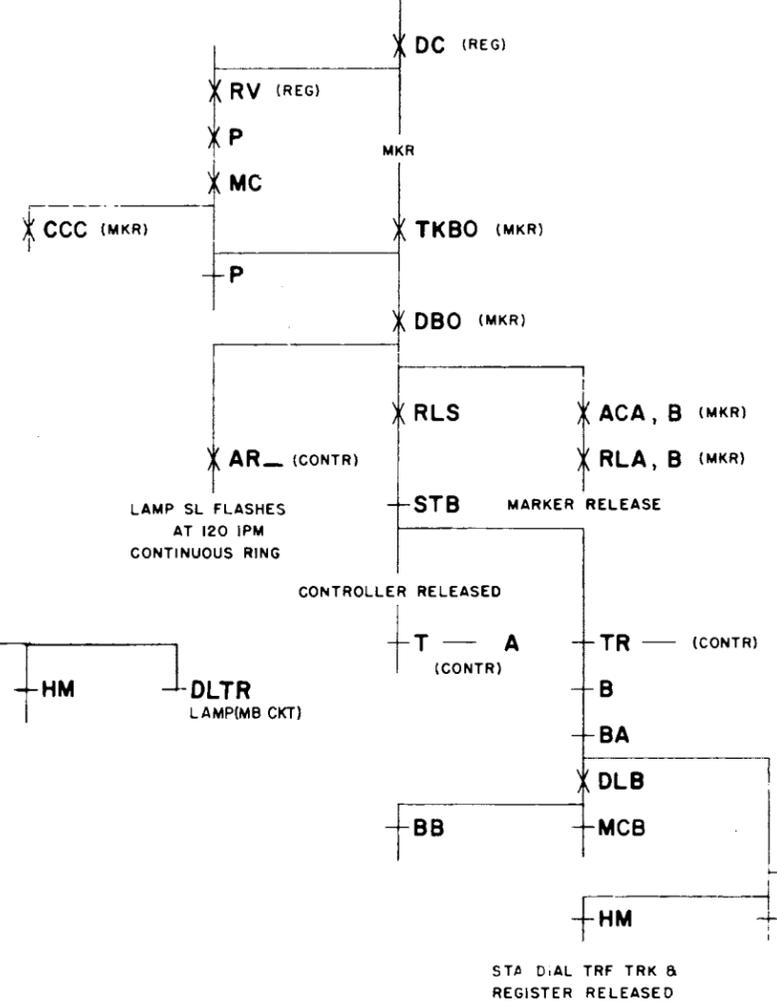
SC 8

STATION B DISPOSES OF BUSY LINE
STATION B FLASHES



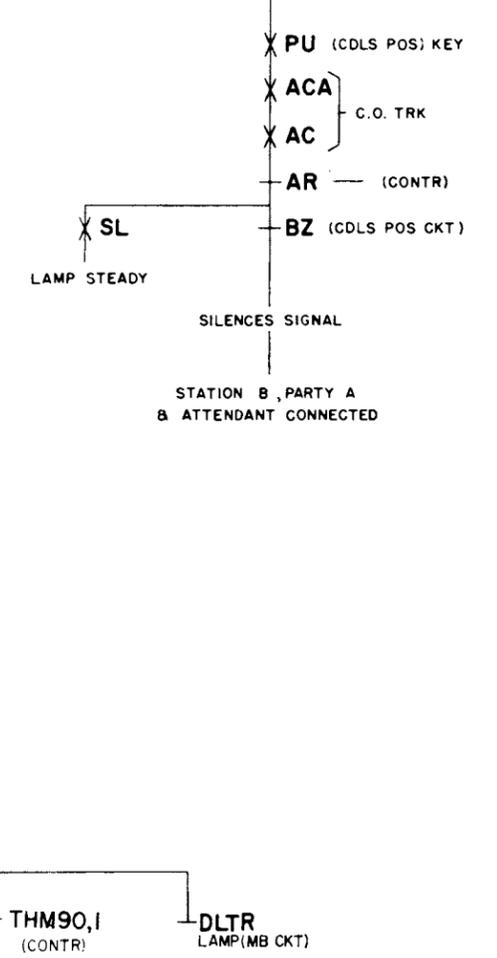
SC 9

STATION B DIALS 0 TO CALL THE ATTENDANT
PREVIOUS ACTION SHOWN IN SC 1



SC 10

ATTENDANT ANSWERS
PREVIOUS ACTION SHOWN IN SC 1

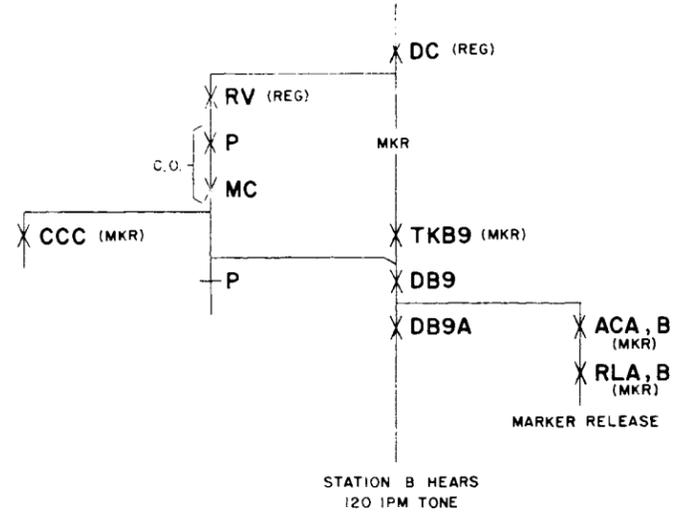


STATION DIAL TRANSFER TRUNK CIRCUIT		SD-66921-01-E2
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DRAWING ISSUE
1
TEF
RJS
6D
RHF

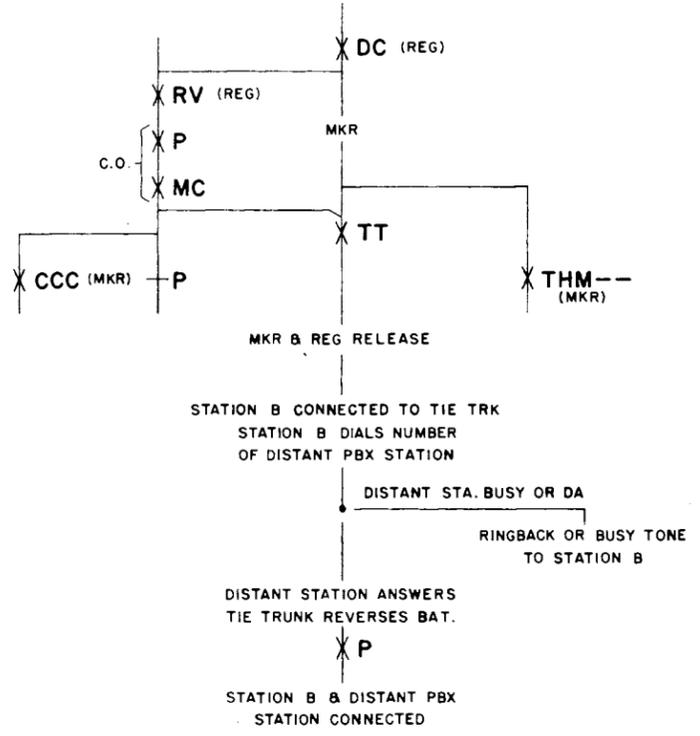
SC 11

STATION B DIALS 9
PREVIOUS ACTION SHOWN IN SC1



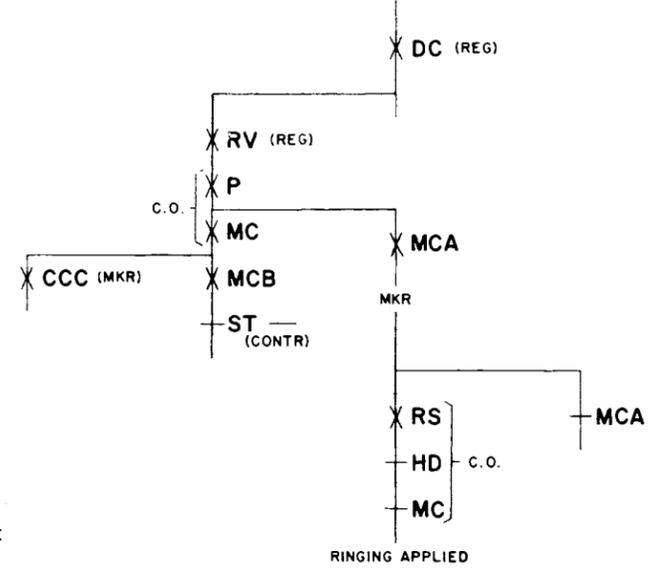
SC 13

STATION B DIALS A TIE TRUNK NUMBER
PREVIOUS ACTION SHOWN IN SC1



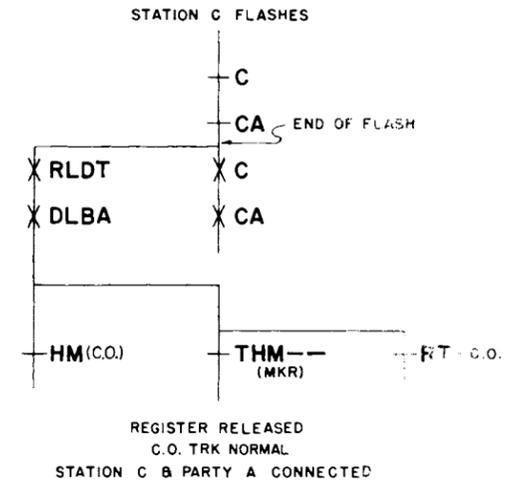
SC 15

STATION C TRANSFERS TO STA D
PREVIOUS ACTION SHOWN IN SC14



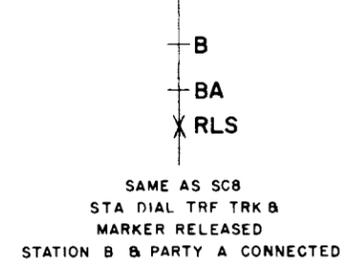
SC 17

STATION C DISPOSES OF DIAL TONE OR PARTIAL DIAL
PREVIOUS ACTION SHOWN IN SC14



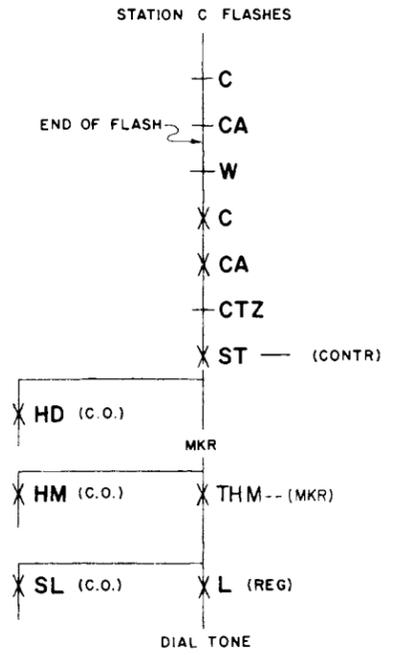
SC 12

STATION B DISPOSES 120 IPM TONE BY FLASHING
PREVIOUS ACTION SHOWN IN SC11



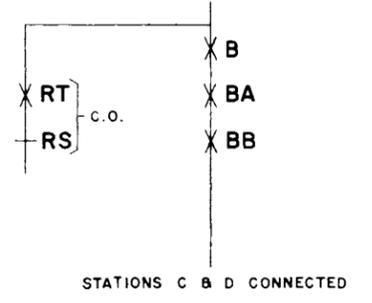
SC 14

SECOND TRANSFER OF PARTY A
STATION C & PARTY A CONNECTED
PREVIOUS ACTION SHOWN IN SC3



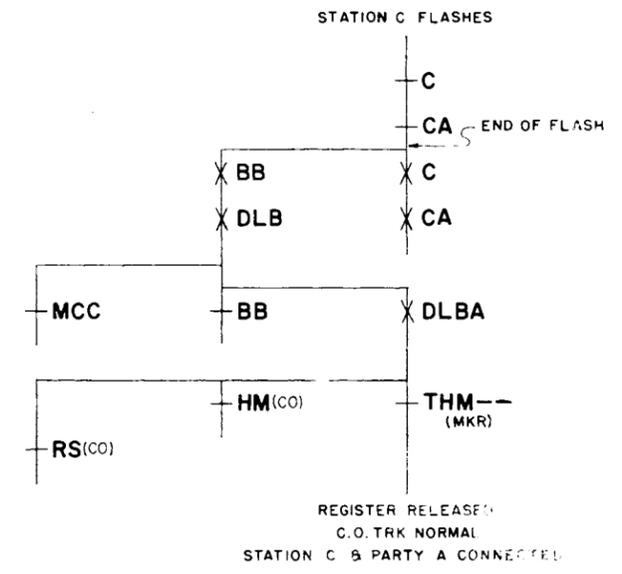
SC 16

CALLED STATION D ANSWERS
PREVIOUS ACTION SHOWN IN SC15



SC 18

STATION C DISPOSES OF DON'T ANSWER
PREVIOUS ACTION SHOWN IN SC15



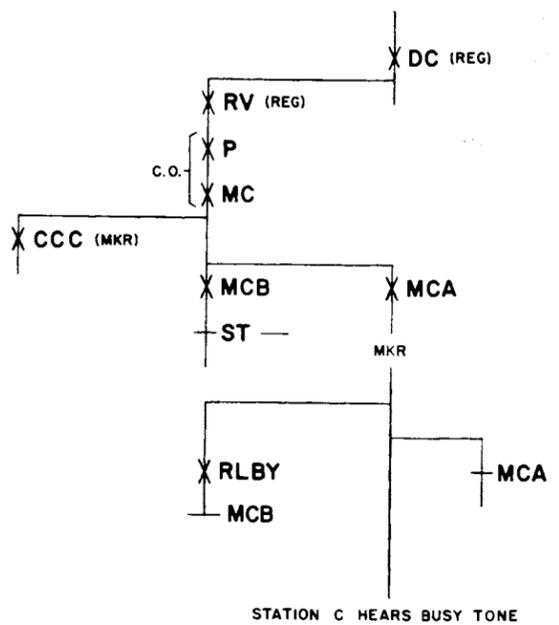
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STATION DIAL TRANSFER TRUNK CIRCUIT (2) SD-66921-01-E3
 BELL TELEPHONE LABORATORIES INCORPORATED 6S PRINTED IN U.S.A.

DRAWING	ISSUE
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40

SC 19

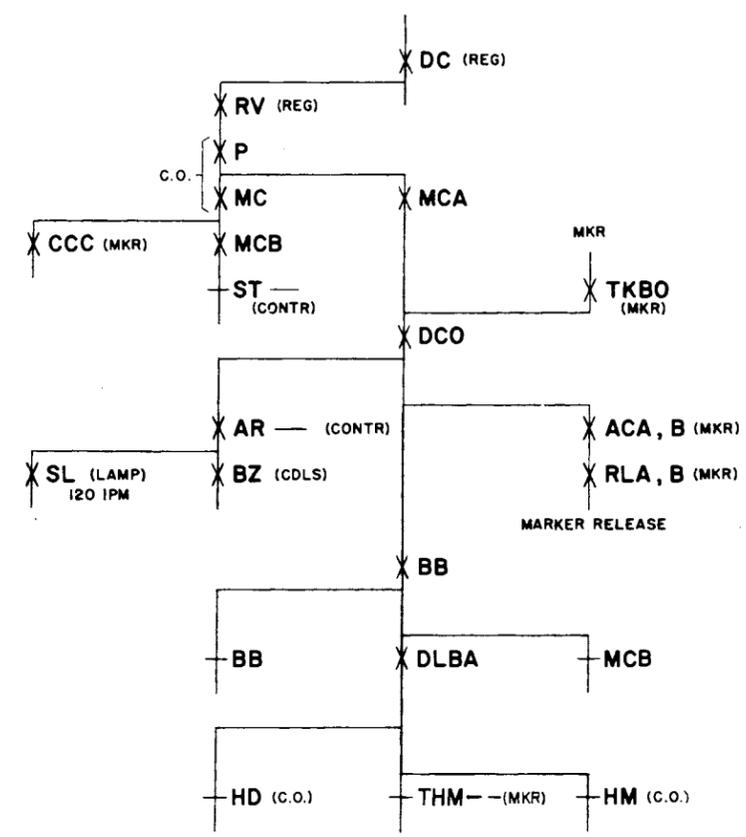
STATION C DIALS A BUSY STATION
PREVIOUS ACTION SHOWN IN SC14



STATION C HEARS BUSY TONE

SC 21

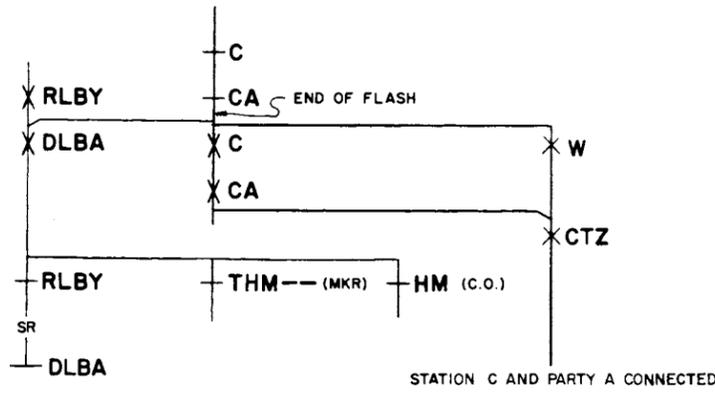
STATION C DIALS 0 TO CALL THE ATTENDANT
PREVIOUS ACTION SHOWN IN SC 14



REGISTER RELEASED
C.O. TRK NORMAL

SC 20

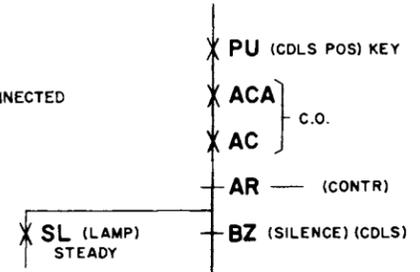
STATION C DISPOSES OF BUSY LINE
PREVIOUS ACTION SHOWN IN SC19
STATION C FLASHES



STATION C AND PARTY A CONNECTED

SC 22

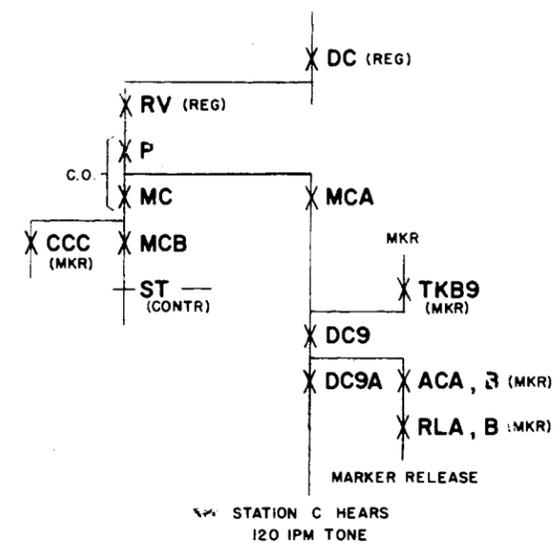
ATTENDANT ANSWERS
PREVIOUS ACTION SHOWN IN SC21



STATION C, PARTY A
& ATTENDANT CONNECTED

SC 23

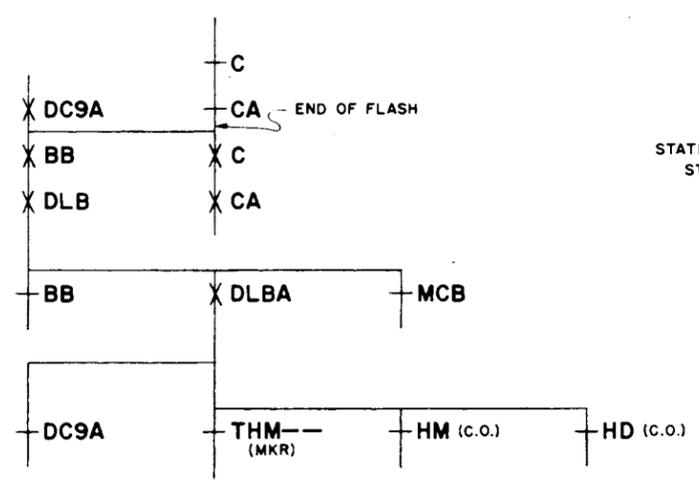
STATION C DIALS 9
PREVIOUS ACTION SHOWN IN SC 14



STATION C HEARS
120 IPM TONE

SC 24

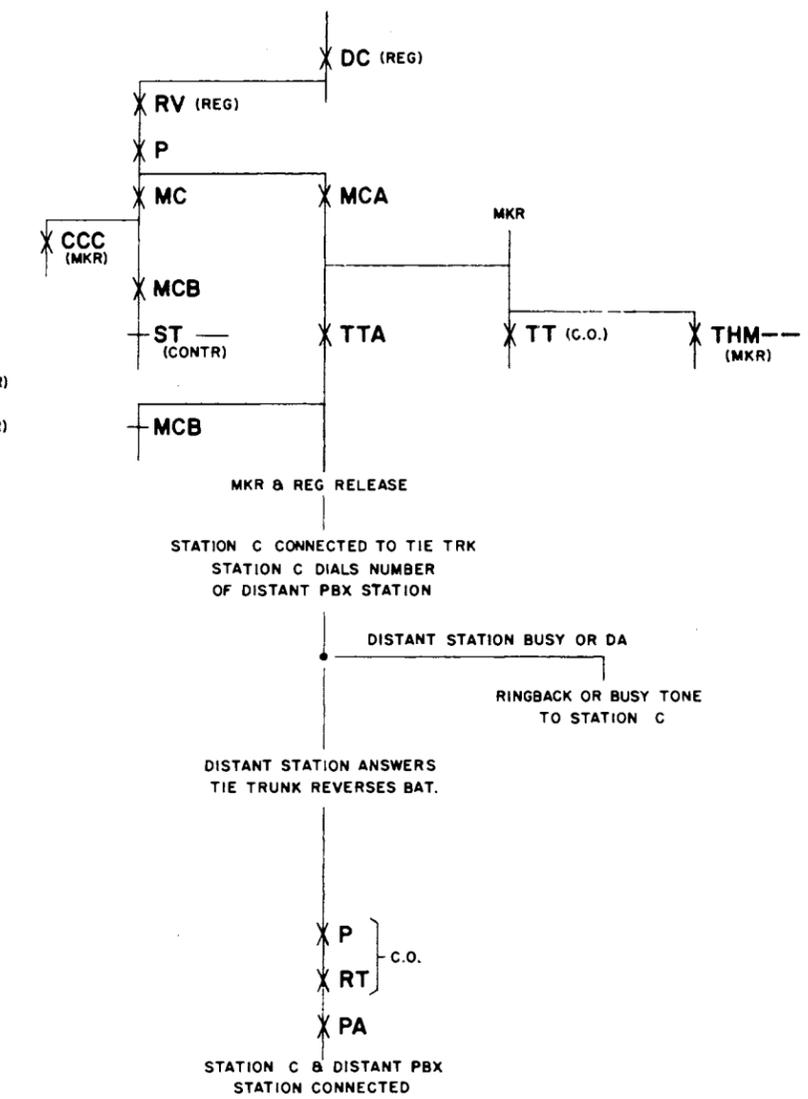
STATION C DISPOSES 120 IPM TONE
PREVIOUS ACTION SHOWN IN SC 23



STATION C & PARTY A CONNECTED

SC 25

STATION C DIALS A TIE TRUNK NUMBER
PREVIOUS ACTION SHOWN IN SC 14



STATION C CONNECTED TO TIE TRK
STATION C DIALS NUMBER
OF DISTANT PBX STATION

DISTANT STATION BUSY OR DA

RINGBACK OR BUSY TONE
TO STATION C

DISTANT STATION ANSWERS
TIE TRUNK REVERSES BAT.

STATION C & DISTANT PBX
STATION CONNECTED

STATION DIAL TRANSFER
TRUNK CIRCUIT

SD-66921-01-E4

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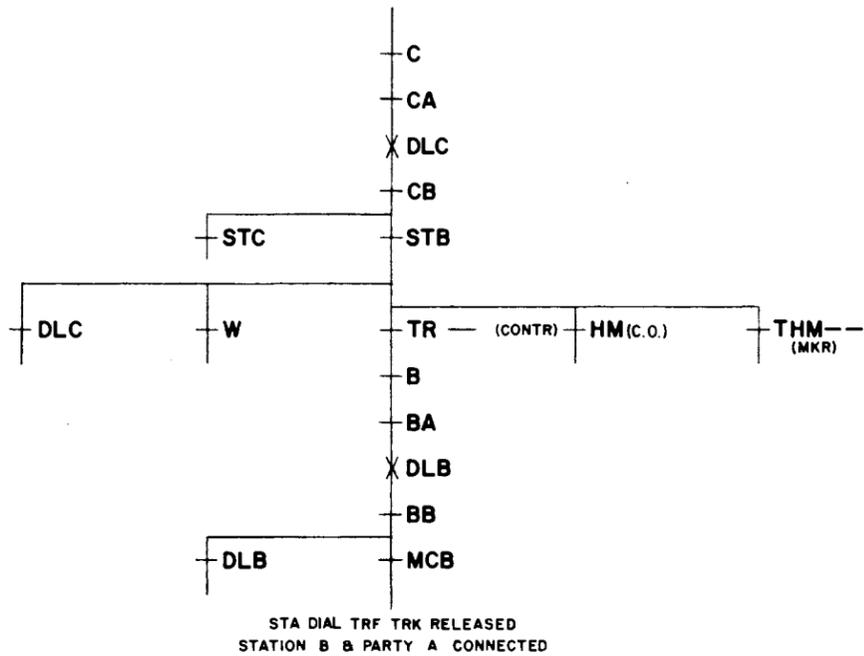
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6

DRAWING	ISSUE
1	1
6D	2
1	3
1	4
1	5
1	6
1	7
1	8
1	9
1	10
1	11
1	12
1	13
1	14
1	15
1	16
1	17
1	18
1	19
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1	21
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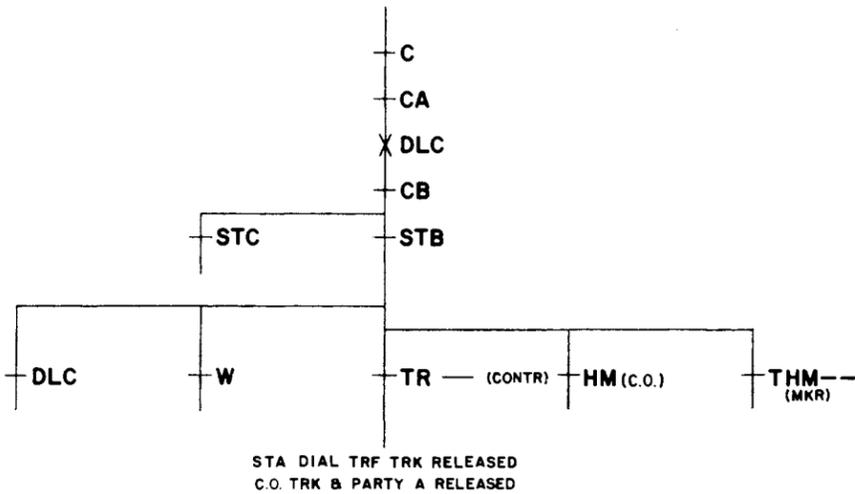
SC 26

STATION C HANGS-UP AFTER ANSWERING
PREVIOUS ACTION SHOWN IN SC 3



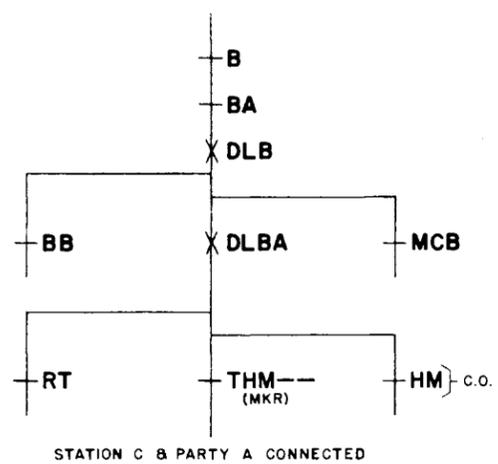
SC 28

AFTER DIALING 0 STATION C DISCONNECTS
BEFORE ATTENDANT ANSWERS
PREVIOUS ACTION SHOWN IN SC 21



SC 27

STATION B HANGS-UP AFTER STATION C
HAS ANSWERED
PREVIOUS ACTION SHOWN IN SC 3



STATION DIAL TRANSFER TRUNK CIRCUIT		SD-66921-01-E5
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SD-66921-01-E5

APPARATUS		MECH REQ		CIRCUIT PREPARATION				TEST SET PREP	SEE TEST NOTE	DIRECT CURRENT FLOW REQ				REMARKS		
DESIG	CODE	OPT	FIG	BSP FIG	CONT PRES	ARM TRVL	BLOCK OR INSULATE			TEST CLIP DATA	TEST WDG	TEST FOR	AFTER SOAK MA		TEST MA	READJ MA
RELAYS																
B	AJ52		I	303			(MCB) NO	IL (B) IL (B)	2U (B) 2U (B)	M M	I I	P/S P/S	O R	13.5 3.15	12.6 3.3	
BA			I	262B			2 (B)	U(BA) U(BA) U(BA)	GRD GRD GRD	I I I			O H R	20 20 20	10.7 2.0 0.9	10.2 1.9 1.1
BB	AF13		I	215			1 (DLB), 10 (CA)	U(BB) U(BB)	GRD GRD	I I			O R	20 4.0	13.1 4.2	12.4 4.2
RY	1/2 AK4		I	202			(MC) NO	IU(BY)	GRD	I			O	11.9	11.3	MOUNTED WITH (RLS)
C	AJ52		I	303			(STC) NO	IL (C) IL (C)	2U (C) 2U (C)	M M	I I	P/S P/S	O R	13.5 3.15	12.6 3.3	
CA	AG20		I	262B			2 (C)	U(CA) U(CA) U(CA)	GRD GRD GRD	I I I			O H R	20 20 20	10.7 2.0 0.9	10.2 1.9 1.1
CB	AF13		I	215			12 (DLC)	U(CB) U(CB)	GRD GRD	I I			O R	13.1 4.0	12.4 4.2	
CTD	1/2 AK4		I	202				IU(CTD)	GRD	I			O	11.9	11.3	MOUNTED WITH (TT)
CTZ	AF98		I	245			(STB) NO	L(CTZ) U(CTZ)	B/G	I			O	27.0	25.4	CONNECT TERMINALS L(CTZ),2U(W) TOGETHER
DBO	AF34		I	14			(MC) NO	U(DBO)	GRD	I			O	28.0	26.5	
DB9	AF16		I	204			(MC) NO	U(DB9)	GRD	I			O	30.5	29	
DB9A	1/2 AK30		I	202			4 (RLS)	IL(DB9A)	GRD	I			O	23.6	22	MOUNTED WITH (DC9A)
DCO	AF34		I	14			(MCA) NO	U(DCO)	GRD	I			O	28.0	26.5	
DC9	AF16		I	204			(MCA) NO	U(DC9)	GRD	I			O	30.5	29	
DC9A	1/2 AK30		I	202			4 (DLBA)	IU(DC9A)	GRD	I			O	23.6	22	MOUNTED WITH (DB9A)
DLB	1/2 AK24		I	12				IL(DLB)	GRD	I			O	7.8	7.4	MOUNTED WITH (DLC)
DLBA	AGA7		I	290B			12 (DLBA) 12 (DLBA) 12 (DLBA) 12 (DLBA)	IU(DLBA) IU(DLBA) IU(DLBA) IU(DLBA)	GRD GRD GRD GRD	I I I I			P P P S	100 100 100 60.5	48.5 6.3 3.9 57.5	46 5.9 4.6 57.5
DLC	1/2 AK24		I	12				IU(DLC)	GRD	I			O	7.8	7.4	MOUNTED WITH (DLB)
HM	1/2 AK4		I	202				IU(HM) IU(HM)	GRD GRD	3 4			O O	11.9 33.9	11.3 32.3	MOUNTED WITH (MCB)
MBT	1/2 AK4	W	I	202				IU(MBT)	GRD				O	11.9	11.3	MOUNTED WITH SPARE
MC	AF100		I	252			2 (TT)	U(MC)	GRD	I			O	41.6	39.5	
MCA	1/2 AK31		I	14			(C) NO	IU(MCA)	GRD	I			O	23.6	22.5	MOUNTED WITH (SL)
MCB	1/2 AK4		I	202			7 (TTA)	IL(MCB)	GRD	I			O	11.9	11.3	MOUNTED WITH (HM)
P	1/2 AK4		I	202			5, 6 (STC)	2U(P) IU(P)	B/G	I			O	11.9	11.3	MOUNTED WITH (PA)
PA	1/2 AK4		I	202			(TTA) NO	IL(PA)	GRD	I			O	11.9	11.3	MOUNTED WITH (P)
RLBY	1/2 AK11		I	206			6 (DLBA)	IL(RLBY)	GRD	I			O	17.5	16.5	MOUNTED WITH (RLDT)
RLDT	1/2 AK11		I	206			8(CA), 10(DLBA)	IU(RLDT)	GRD	I			O	17.5	16.5	MOUNTED WITH (RLBY)

TEST NOTES:

1. MAKE TRANSFER TRUNK BUSY BY BLOCKING RELAY HM OPERATED.
2. REMOVE RELAY TIME DELAY CIRCUITS FROM J1, J2 OR J3 CONNECTORS.
3. HM OPERATED ALONE. 11M90, I NOT CONNECTED.
4. HM RELAY AND 11M90, I OPERATE IN PARALLEL.

STATION DIAL TRANSFER
TRUNK CIRCUIT

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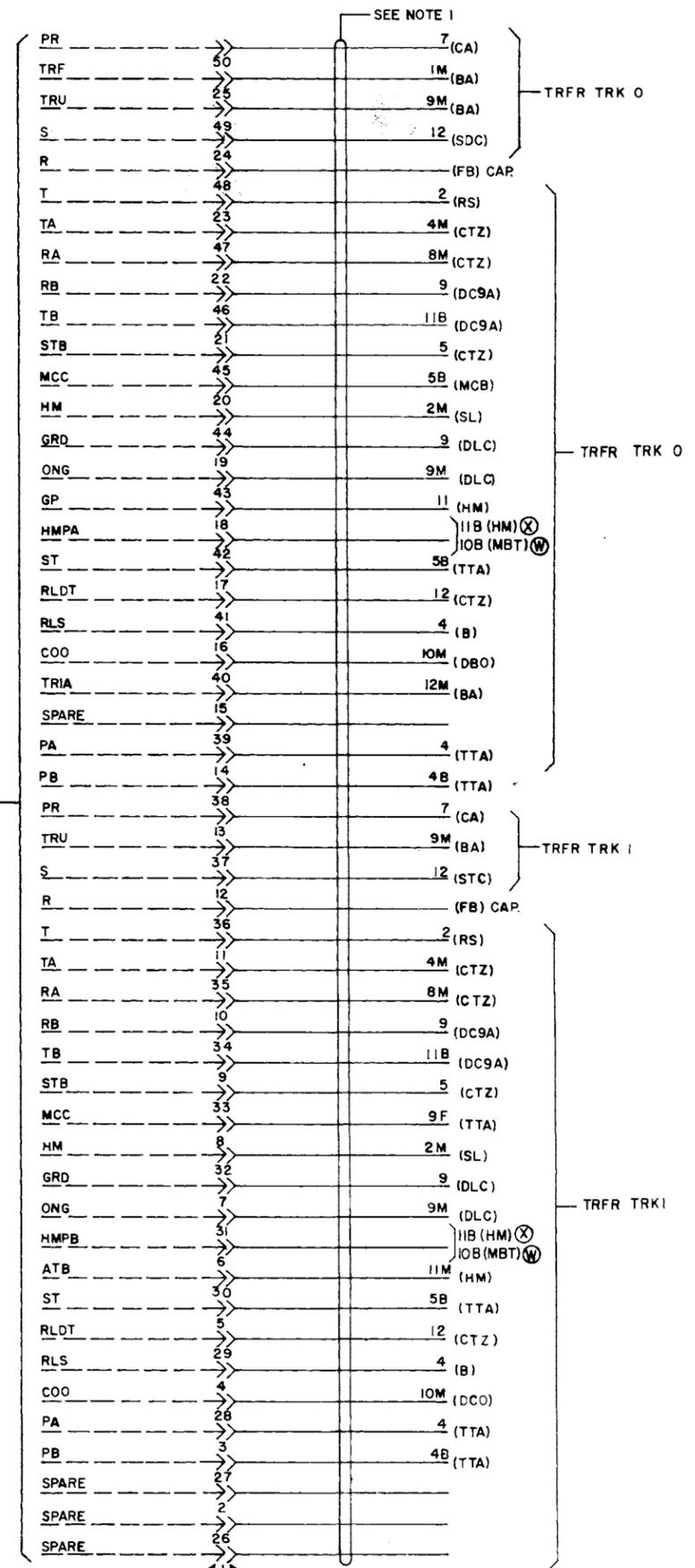
PAGE 1

CAD I

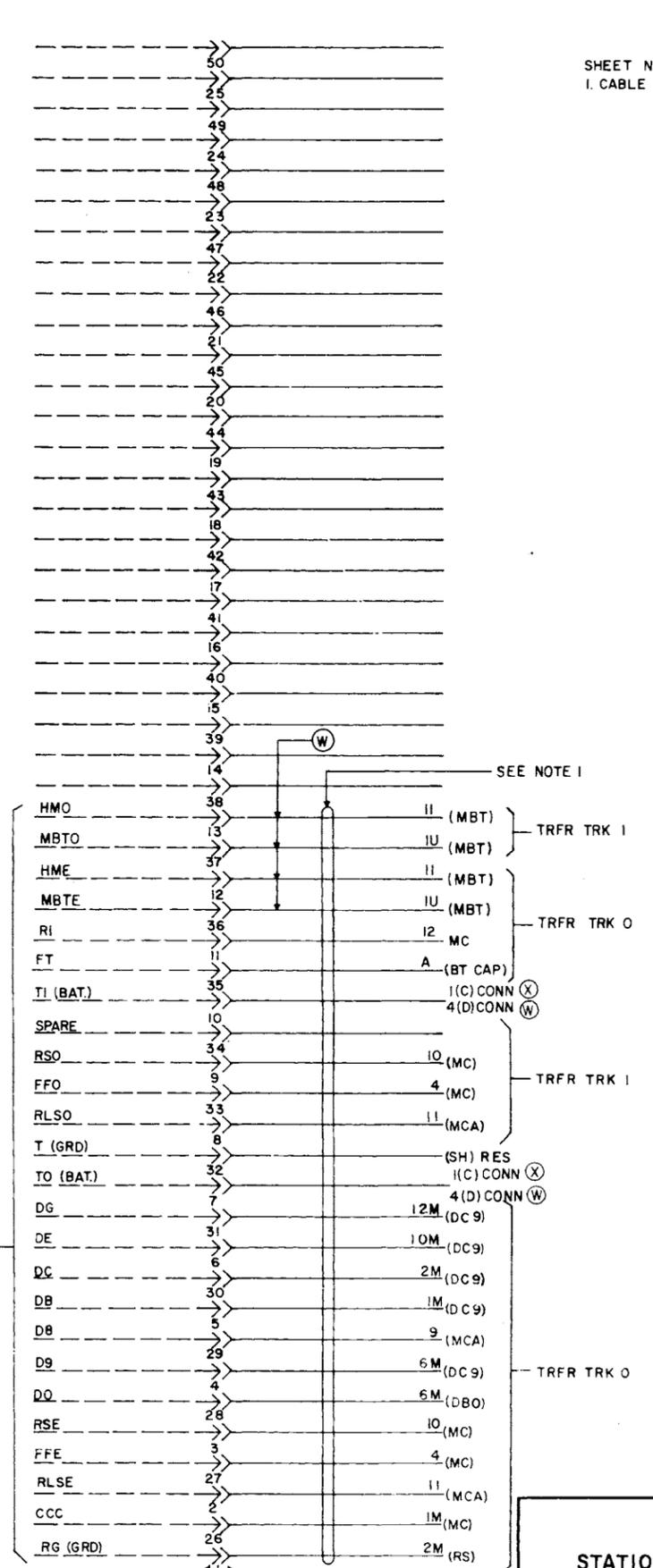
DRAWING	ISSUE
1	UFF KFL
2	DWY SAK
3	GFH
4	BCM
5	PJS
6	RHP

SHEET NOTES
I. CABLE AND PLUG ASSY (CC) PER H-912-

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