SD-66921-01

SHEET INDEX

ISSUE NO.

CONTENTS	SHEET NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	SHEET NO.
SHEET INDEX SUPPORTING INFORMATION	A1	1	2	3	4	5	6	7	8	9	10	11	12																																							A1
APPARATUS INDEX LEAD INDEX OPTION INDEX	A2	1	1	1	1	5	6	7	8	9	10	11	11																																							A2
FS 1 TIMING CIRCUITS FS 2 MARKER STARTING	B1	1	1	1	4	4	6	6	6	9	9	9	12																																							B1
FS 3 TIP, RING & SLEEVE CONTROL	B2	1	1	3	3	5	5	5	5	9	9	9	9																																							B2
FS 4 CALLING CONTROL FS 5 TRUNK PREFERENCE	B3	1	1	1	4	5	6	7	8	8	10	10	10																																							B3
FS 6 CLASS OF SERVICE	B4	1	1	1	1	1	1	1	1	1	1	1	1																																							B4
FS 7 LAMP CUTOFF	B5									9	9	11	11																																							
APP FIG. 1	C1	1	1	1	4	5	6	7	8	9	9	9	9																																							C1
CIRCUIT NOTES INFORMATION NOTES	D1	1	1	1	1	5	6	7	8	9	10	10	10																																							D1
SC 1 FIRST TRANSFER OF PARTY A STATION B AND PARTY A CONNECTED SC 2 STATION B TRANSFERS TO STATION C SC 3 CALLED STATION C ANSWERS SC 4 STATION B CALLS IN PARTY A SC 5 STATION C CALLS IN PARTY A SC 6 STATION B DISPOSES OF DIAL TONE OR PARTIAL DIAL	E1	1	1	1	4	4	6	7	7	7	7	7	7																																							E1
SC 7 STATION B DISPOSES OF DON'T ANSWER SC 8 STATION B DISPOSES OF BUSY LINE SC 9 STATION B DIALS 0 TO CALL THE ATTENDANT SC 10 ATTENDANT ANSWERS	E2	1	1	1	1	1	6	7	7	9	9	9	9																																							E2
SC 11 STATION B DIALS 9 SC 12 STATION B DISPOSES 120 IPM TONE BY FLASHING SC 13 STATION B DIALS A TIE TRUNK NUMBER SC 14 SECOND TRANSFER OF PARTY A STATION C & PARTY A CONNECTED SC 15 STATION C TRANSFERS TO STATION D SC 16 CALLED STATION D ANSWERS SC 17 STATION C DISPOSES OF DIAL TONE OR PARTIAL DIAL SC 18 STATION C DISPOSES OF DON'T ANSWER	E3	1	1	1	1	1	6	6	6	6	6	6	6																																							E3
SC 19 STATION C DIALS A BUSY STATION SC 20 STATION C DISPOSES OF BUSY LINE SC 21 STATION C DIALS 0 TO CALL THE ATTENDANT SC 22 ATTENDANT ANSWERS SC 23 STATION C DIALS 9 SC 24 STATION C DISPOSES 120 IPM TONE SC 25 STATION C DIALS A TIE TRUNK NUMBER	E4	1	1	1	1	5	6	6	6	9	9	9	9																																							E4
SC 26 STATION C HANGS-UP AFTER ANSWERING SC 27 STATION B HANGS-UP AFTER STATION C HAS ANSWERED SC 28 AFTER DIALING 0 STATION C DISCONNECTS BEFORE ATTENDANT ANSWERS	E5	1	1	1	1	1	6	6	6	6	6	6	6																																							E5
CIRCUIT REQUIREMENTS TABLE	F1	1	1	1	1	1	6	6	6	9	9	9	9																																							F1
CAD 1	G1	1	2	2	2	2	6	7	7	9	9	11	11																																							G1

SUPPORTING INFORMATION

CATEGORY	NO.
EQUIPMENT DWGS	J59329AG
EQUIPMENT DESIGN REQ	J59329
OPERATION TEST BSP	551-175-501

SHEET INDEX NOTES

1. WHEN CHANGES ARE MADE IN THIS DRAWING, ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
2. THIS SHEET INDEX WILL BE REISSUED AND BROUGHT UP TO DATE EACH TIME ANY SHEET OF THE DRAWING IS REISSUED, OR A NEW SHEET IS ADDED.
3. THE ISSUE NUMBER ASSIGNED TO A CHANGED OR NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE SHEET INDEX.
4. SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
5. THE LAST ISSUE NUMBER OF THE SHEET INDEX IS RECOGNIZED AS THE LATEST ISSUE NUMBER OF THE DRAWING AS A WHOLE.

DWG ISSUE	CD ISSUE	DATE ISSUED	DRAWN	APPD	
1	1	3-20-64	SAK JFF EC	GAM RAV KFJ	HW
2A	1 APP 1D	3-24-65	DWY SAK JFF	— RAV GFH	
3A	1 APP 2A	10-28-65	DWY RKU WES	— RAV GFH	
4A	1 APP 3A	2-14-66	PJS SAK	WES RAV GFH	HW
5AC	1 APP4AC	2-14-66	PJS SAK	WES RAV GFH	
6D	1 APP5D	4-10-61	BCM PJS UT	JJM LAH RHP	
7D	1 APP 6D	8-14-69	EC PJS JPL	SHA RVL SEB	
8D	1 APP 7D	3-29-72	AHS	WVS RGP AFR	DR
9D	2D	8-8-72	HBW —	WVS RGP AFR	DR
10B	2D APP 1B	3-22-73	WEF	WVS RVL AFR	DR
11D	2D APPX 2D	3-1-74	RSW HBW	WVS RVL AFR	DR
12D	2D APPX 3D	5-20-74	JF HBW	WVS FLS AFR	DR

ISSUE 12D

SD-66921-01 2J07

PBX SYSTEMS

NO. 756A

STATION DIAL TRANSFER TRUNK CIRCUIT

WITH ADD-ON CONFERENCE (2)

(TR. TRK)

BELL TELEPHONE LABORATORIES INCORPORATED

6S

A&M ONLY

SD-66921-01-A1

16 SHEETS

SD-66921-01-A1

APPARATUS INDEX

DESIGG	LOCATION FS	APP FIG.	EQPT
RELAYS			
B	2C4	1	
BA	1D4	1	
BS	1C7	1	
BW	3N2	1	
C	2D4	1	
CA	1D1	1	
CB	1D2	1	
CTD	3F2	1	
CTZ	1B6	1	
DBO	4A3	1	
DB9	4B3	1	
DB9A	4A5	1	
DCC	4A3	1	
DC9	4B3	1	
DC9A	4A6	1	
DLB	1E6	1	
DLBA	3F3	1	
DLC	1E1	1	
HM	3E5	1	
LCO	5A1	1	
MBT	3E4	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	

DESIG	LOCATION FS	APP FIG.	EQPT
CONNECTORS			
J1	1E7	1	
J2	1E2	1	
J3	1E2,7	1	
DIODES			
A	2E2	1	
B	2E2	1	
C	2D3	1	
DLB	1E6	1	
DLC	1E1	1	
MC	3C3	1	
PR	1D7	1	
RR	4B7	1	
RS	3G2	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	

DESIG	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

DESIG	FS LOC
LINE, LINK AND MARKER CKT	
CCC	3D1
DB	4D2
DC	4E2
DE	4F2
DG	4G2
DO	4A2
D8	4H2
D9	4B2
FFE	3H1
FFO	3H1
RLSE	3D1
RLSO	3D1
RSE	3G1
RSO	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	1D8
R	2r1
RA	2F6
RB	2F6
RLDT	4B7
RLS	2C7
CONTINUED	

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

MB AND BY DISPL CKT	
HM-	3E5
MBT-	3E4

TMS 1A REMOTE SCANNER	
TU(TT-)	3F5

ATTENDANT TRUNK	
FF2	5C2
FFB	5C0

DIAL TRANSFER TRUNK CIRCUIT	
FF	5B0, 5B2

OPTION INDEX

APP OR WRG	LOCATION
Z	2C5,2D3,2D4,2D5,3D2, 3D3,3G5
Y	2C4,2C5,2D4,2E4,3D2, 3D3,3G4,3G5
X	ID2,IE),IE2,IE6,IE7,3A7, 3A8,3B7
W	I02,IE),IE2,IE6,IE7,3A7 3B7,3B8,3B9,3C7,3E6,3E4
V	3F5
T	3G2, 3G3
S	2E2,2E3
R	2E2,2E3,2F2,2F3, APP FIG. 1
N	1F5,5A1,APP FIG.1, CAD 1
M	3B4
K	3B4, 3C4

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

SHEET NOTES

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

DRAWING ISSUE 1

ISSUE 11D DR

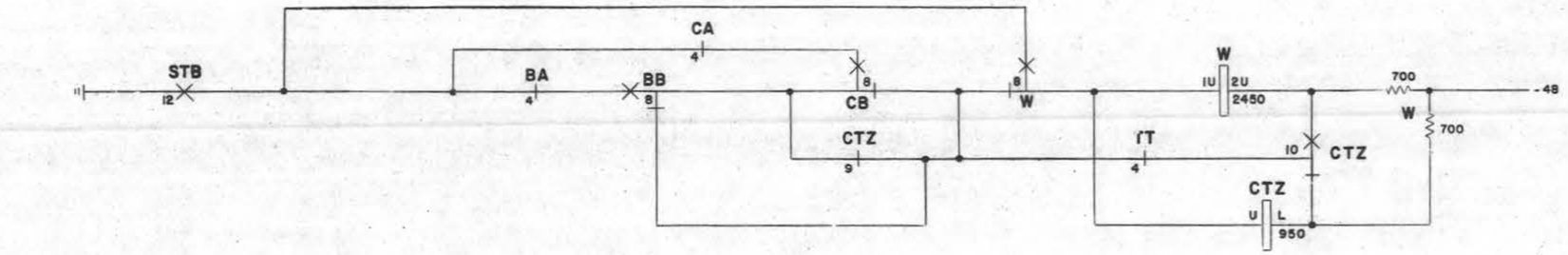
STATION DIAL TRANSFER TRUNK CIRCUIT

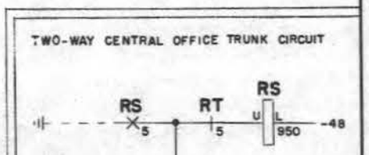
SD-66921-01-A2

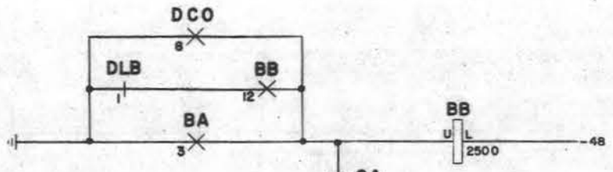
BELL TELEPHONE LABORATORIES INCORPORATED 6S

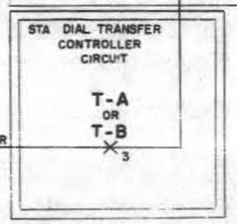
SD-66921-01-A2

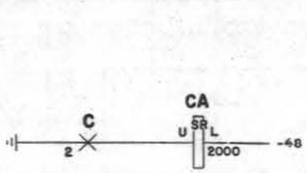
FS 1
TIMING CIRCUITS

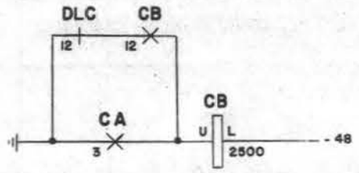


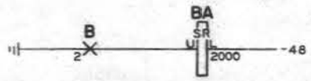


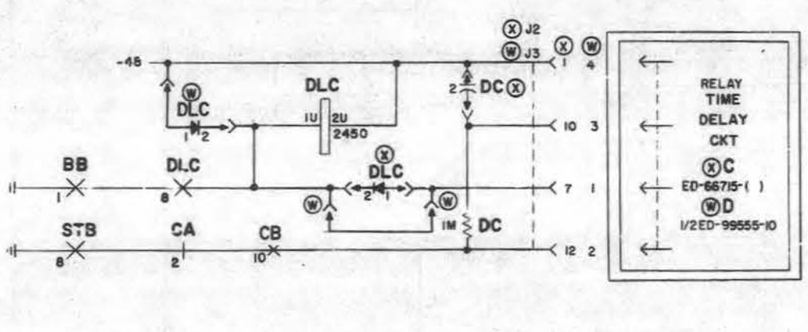


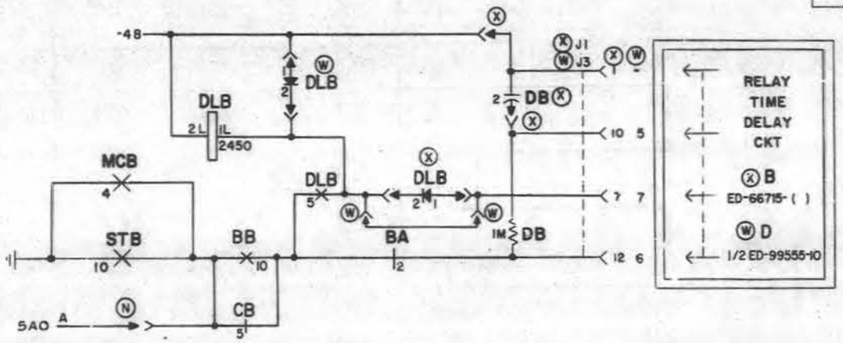




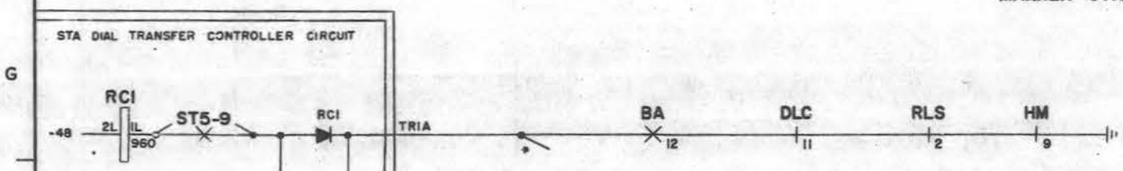


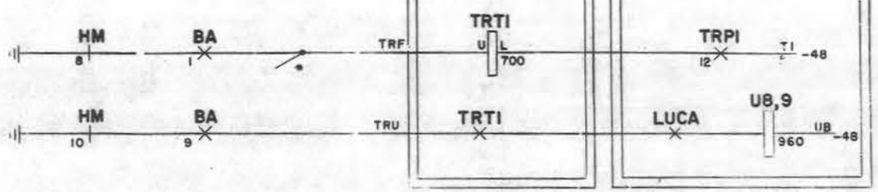






FS 2
MARKER STARTING





SHEET NOTES:

A. ALL MULTIPLE POINTS MARKED WITH * INDICATE THAT TWO TRANSFER TRUNKS ARE MULTIPLED TOGETHER.

DRAWING ISSUE

1	NEW DRAWING	dbr
1A	PUSH SIGNAL GIFT	HW
6D	DCM PUSH RWF	A

ISSUE 12D

STATION DIAL TRANSFER TRUNK CIRCUIT

SD-66921-01-BI

BELL TELEPHONE LABORATORIES INCORPORATED

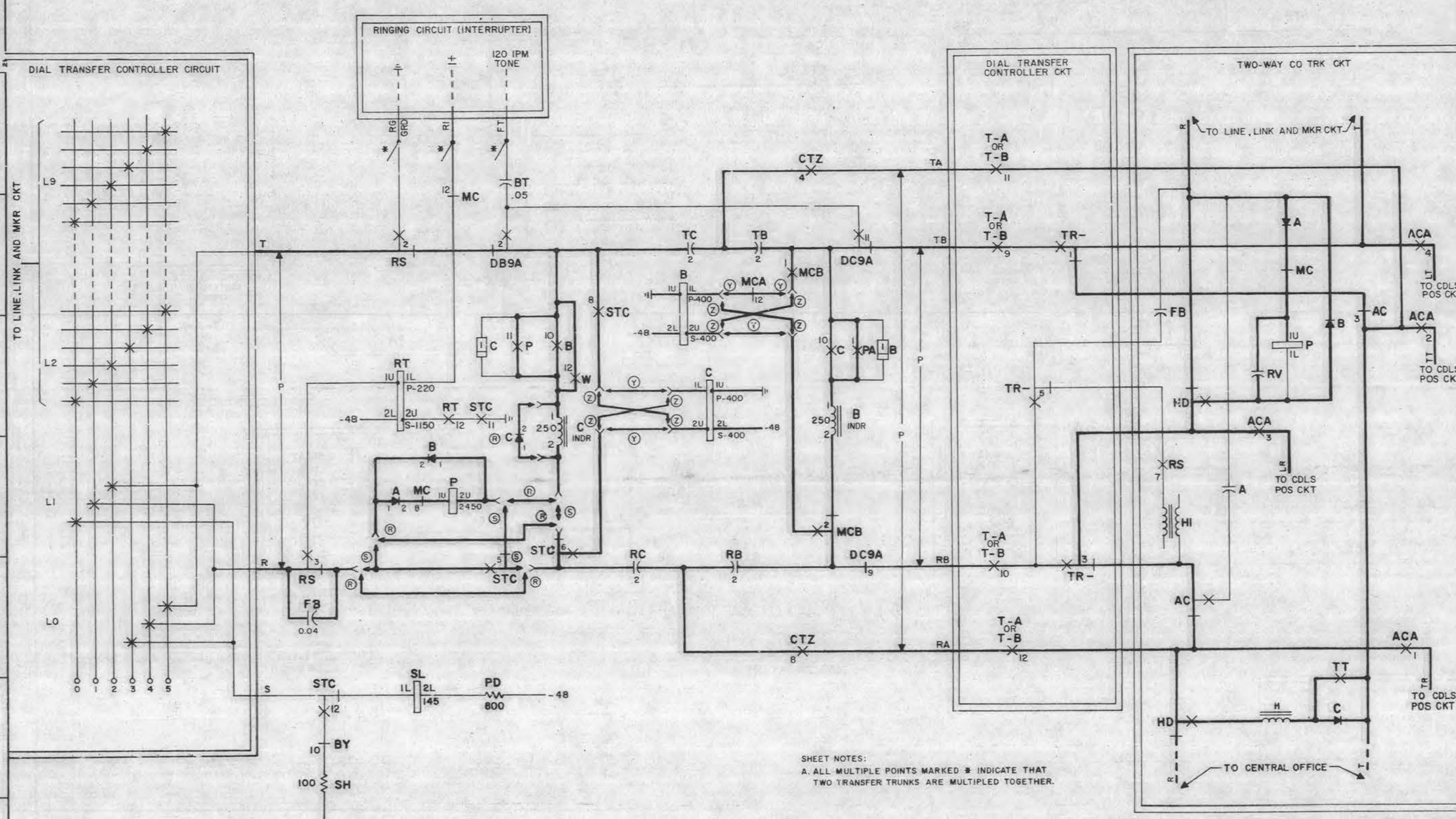
SHEET SIZE 6S

PRINTED IN U.S.A.

SD-66921-01-BI

FS 3

TIP, RING & SLEEVE CONTROL



SHEET NOTES:

A. ALL MULTIPLE POINTS MARKED * INDICATE THAT TWO TRANSFER TRUNKS ARE MULTIPLED TOGETHER.

STATION DIAL TRANSFER TRUNK CIRCUIT

SD-66921-01-B2

BELL TELEPHONE LABORATORIES INCORPORATED

ISSUE 9D

SD-66921-01-B2

FS 4
CALLING CONTROL

FS 5
TRUNK PREFERENCE

STA DIAL TRANSFER CONTROLLER CKT

TRFR TRK NO. 0

TRFR TRK NO. 1

GP TO CONT CKT OR TC TO TRK NO. 0

HMPA OR HMPB TO CONT CKT

TC TO TRK NO. 1 OR ATB TO CONT CKT

LINE, LINK AND MARKER CIRCUIT

TWO WAY C.O. TRK CKT

MAKE BUSY AND BUSY DISPLAY CKT

TRAFFIC MEASUREMENT SYSTEMS REMOTE SCANNER

TWO-WAY CO TRK CKT

SHEET NOTES:

A. ALL MULTIPLE POINTS MARKED ✱ INDICATE THAT TWO TRANSFER TRUNKS ARE MULTIPLED TOGETHER.

B. E LEADS ARE ASSOCIATED WITH TRANSFER TRUNK 0. O LEADS ARE ASSOCIATED WITH TRANSFER TRUNK 1.

DRAWING ISSUE

ISSUE 10B

STATION DIAL TRANSFER TRUNK CIRCUIT (2) SD-66921-01-83

BELL TELEPHONE LABORATORIES INCORPORATED

SD-66921-01-83

LINE, LINK AND MARKER CIRCUIT

FS6
CLASS OF SERVICE

STA DIAL TRANSFER CONTROLLER CIRCUIT

TWO-WAY C.O. TRK CKT

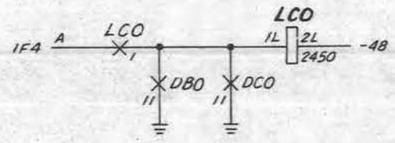
DRAWING ISSUE 1

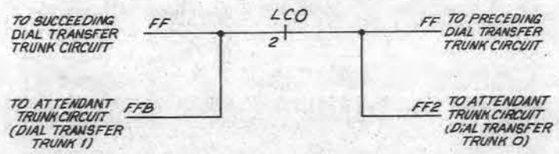
SHEET NOTES:
A. ALL MULTIPLE POINTS MARKED # INDICATE THAT TWO TRANSFER TRUNKS ARE MULTIPLED TOGETHER.
B. E LEADS ARE ASSOCIATED WITH TRANSFER TRUNK 0. O LEADS ARE ASSOCIATED WITH TRANSFER TRUNK 1.

PBX SYSTEMS
STATION DIAL TRANSFER TRUNK CIRCUIT (2)
SD-66921-01-84

BELL TELEPHONE LABORATORIES INCORPORATED 6S

Ⓝ FS 7
LAMP CUTOFF
SEE NOTES 106 & 305





SD-66921-01-B5

ISSUE 11D

DR

STATION DIAL TRANSFER TRUNK CIRCUIT	SD-66921-01-B5
BELL TELEPHONE LABORATORIES INCORPORATED	DWG SIZE 6S

APP FIG. I

RELAY

DESIG	B		BA		BB		C		CA		CB		CTD		TT		CTZ		DB0		DB9				DESIG
CODE	AJ52		AG20		AF13		AJ52		AG20		AF13		AK4				AF98		AF34		AF16				CODE
OPTION																									OPTION
	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	
12			M	1G2	EM	1E6			M	4D6	EM	1D2	M	3F1					M		M	4G2			12
11			M	3F6					M	3G6			EBM						M	5B1					11
10	M	2D3	EBM		M	1F5	M	2D5	EBM	1D6	M	1F1	EBM				EBM	1B6	M	4D6	M	4F2			10
9			M	1G6					M				EMB				B	1B4							9
8	EMB		EMB		EBM	1A3	EMB		EMB	4B6	EBM	1A4	EMB	3F2			EBM	2F5	M	3H2	EBM				8
7					B	4E6					B						B	3G5	B		B				7
6	EMB		EMB	3B1	EMB		EMB		EMB	3F4	EMB	3F1					EMB		M	4A2	EBM	4B2			6
5					B	3G6					B	1F5			EMB	4A3	B	3B3							5
4	EBM	4C7	EBM	1A2	M	3D3	EBM	3E2	EBM	1A3	M	3B3			EMB	1B5	EBM	2B5	M	4F2	EBM	4A4			4
3			M	1C5					M	1D2					EBM	3C3	B	4H3	M	4E2					3
2	M	1D3	EBM	1F6	M	3B2	M	1D0	EBM	1F0	M	3E3			EBM	3D2	M		M	4D2	M	4E2			2
1			R	1G6	M	1E0			M		M	3G5			M	4E5			M	4C2	M	4C2			1
COIL		2C4		1D4		1C7		2D4		1D1		1D2		3F2		4H3		1B6		4A3		4B3			COIL

RELAY

DESIG	DB9A		DC9A		DCO		DC9		DLB		DLC		DLBA		HM		MCB		MC		P		PA		DESIG
CODE	AK30				AF34		AF16		AK24				AG47		AK4				AF100		AK4				CODE
OPTION																									OPTION
	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	
12			M	4A6	M	4H2	M	4G2			BM	1C2	EMB	3E3	M	3E6			EMB	2B2	M	3D1			12
11			EBM	2C5	M	5B1					BM	1G3			EBM	3A9			M		EBM	2D3			11
10			EBM	3G5	M	4D6	M	4F2					EB	4B6	EBM	1G5			EBM	3J1	EBM	3J1			10
9			EMB	2F3							M	3F4			EMB	1G4			M	4J1	EMB				9
8			EMB	1D6	M	1C5	EBM				M	1E0	EB	3F6	EMB	1G5			EBM	2E2	EMB	4E5			8
7					B		B																		7
6					M	4A2	EBM	4B2					EMB	4B6					EMB	3D1					6
5	EMB								M	1E6							EMB	3C3					EMB	4G5	5
4	EMB	3C2			M	4F2	EBM	4B6	M	3F4			EBM	4A6			EMB	1E4	EBM	3H2			EMB		4
3	EBM				M	4E2											EBM	3G6	M	4A3			EBM		3
2	EBM	3C3			M	4D2	M	4E2	BM	a							EBM	2E5	EBM	4H2			EBM	4J6	2
1	M	4A6			M	4C2	M	4D2	BM	1C5							M	2C5	M	3C2			M	2D5	1
COIL		4A5		4A6		4A3		4B3		1E6		1E1		3F3		3E5		3D2		3C2		2E2		4G5	COIL

a 3C2, 3E3

CAPACITORS

DESIG	LOC	CODE
BT	2B3	441M
(1) DB	1E6	437E
(X) DC	1E2	
FB	2F2	441U
(1) RB	2F4	437E
TB	2C5	
(1) RC	2F4	437E
TC	2C4	

CONNECTORS

DESIG	J1	J2	J3
CODE	KS-19198-L1 CONNECTORS		910A CONN
OPTION	X	X	W
12	1F7	1F2	
11			
10	1E7	1E2	
9			
8			
7	1E7	1E2	1E7
6			1F7
5			1E7
4			1E2
3			1E2
2			1F2
1	1E7	1E2	1E2

DIODES

DESIG	LOC	CODE
A	2E2	446F
B	2E2	
(R) C	2E3	
DLB	1E6	(X) 446A (W) 446A
DLC	1E1	
MC	3C3	
PR	1D7	
RR	4B7	
(T) RS	3G2	

INDUCTORS

DESIG	LOC	CODE
B	2D5	274J
C	2E3	274J

RELAY

DESIG	RLDT		RLBY		RLS		BY		RT		SL		MCA		STB		STC		TTA		TTF		TTR		DESIG
CODE	AK11				AK4				AJ58		AK31				AF83		AF64		AF9		AK35				CODE
OPTION																									OPTION
	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	
12	M	3G3					M	3C1	EM	2D2			BM	2D4	M	1A1	EMB	2G2	EM				M	3B1	12
11							EBM		B				BM	3D1	M	3D3	M	2D3					EBM		11
10							EBM	2G2	M				BM	4A3	M	1F4	M	3D4	M	4H3			EBM		10
9	EMB	4A6					EMB		BM				BM	4H2	M		BM		B	3E2			EMB		9
8	B	4H4					EMB	3H2					BM	4B3	M	1F0	M	2C3	EBM				EMB	4E4	8
7									B	3G2					M		BM		B	3D3					7
6															M	3F6	EMB	2E3	EMB						6
5			B	3D3	EMB	3B2			B						M	3H2	BM	2F3	B	3G6	EMB	4E5			5
4			EMB	3G4	EMB	4A4			M	3F2					M	3F1	M	3E6	EBM	4G6	EMB				4
3					EBM	3C3			BM		B				M	3G4	BM	3D3			EBM				3
2					EBM	1G4			M		M	3E4			M	4H4	M	3F2	M	4B6	EBM				2
1			M	4C6	M				M		M	3C2			M	3C3	M	4H4			M				1
COIL		4B6		4C5		3A1		3H2		2D2		2G2		3E2		3B3		3F2		4H3		4F4		4E4	COIL

RELAY

DESIG	W		RS		MBT		LCO																		DESIG
CODE	AK4				AK4																				CODE
OPTION					W		N																		OPTION
	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	
12	M	2D3			M																				12
11	EBM	3G4			EBM	3D6																			11
10	EBM	3B1			EBM	3B8																			10
9	EMB	4E5			EMB																				9
8	EMB	1A5			EMB																				8
7																									7
6																									6
5			EMB	3G2			EMB																		5
4			EMB	3C1			EMB																		4
3			EBM	2F1			EBM																		3
2			EBM	2C2			EBM	5B1																	2
1			M	3F2			M	5B1																	1
COIL		1A6		3G2		3E4		5B1																	COIL

NETWORKS

DESIG	LOC	CODE
B	2D5	185A
C	2D3	185A
DBD	4A7	185A
DB9	4B3	185A
DCO	4A3	185A
DC9	4C3	185A
HM	3E6	185A
PA	4F5	185A
STd	3B3	185A
TT	4G3	185A
TTA	4H3	185A
TTR	4E4	185A

RELAY TIME DELAY CKTS

[2] (X) SD-66793-01 [ED-66715-( )]
(W) SD-99361-01 [ED-99555-10]

RESISTORS

DESIG	LOC	CODE
DB	1F6	145A, 1 MEG
DC	1F2	145A, 1 MEG
PD	2G3	186F
SH	2G1	188W
W	1A7	191RL

THERMISTORS

DESIG	LOC	CODE
PA	4G6	1F
TR	4E4	1F

DRAWING ISSUE

1	KAA LKF KKJ
4A	PJS SAK GFH
5AC	PJS SAK GFH
6D	BCM PJS RHP
7D	EG PJS LDJ

ISSUE 9D

STATION DIAL TRANSFER TRUNK CIRCUIT

SD-66921-01-CI

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-66921-01-CI

CIRCUIT NOTES:

101.

DESIG	FUSE AMP	POTENTIAL	ONE PER
TO	1-1/3	-48	TRFR TRUNK CKT NO. 0
T1	1-1/3	-48	TRFR TRUNK CKT NO. 1
T		GRD	TRFR TRUNK CKTS NO. 0,1
BATTERY SYMBOL -48		VOLTAGE RANGE 45-52	

102.

FEATURE OR OPTION	PROVIDE		
	APP FIG.	APP OR WRG	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	
7D	V	NONE		V			
8D	T	NONE		T			
9D	N	NONE	106	N			
	R OR S	S		R		S	
10B	M OR K	M		K		M	

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

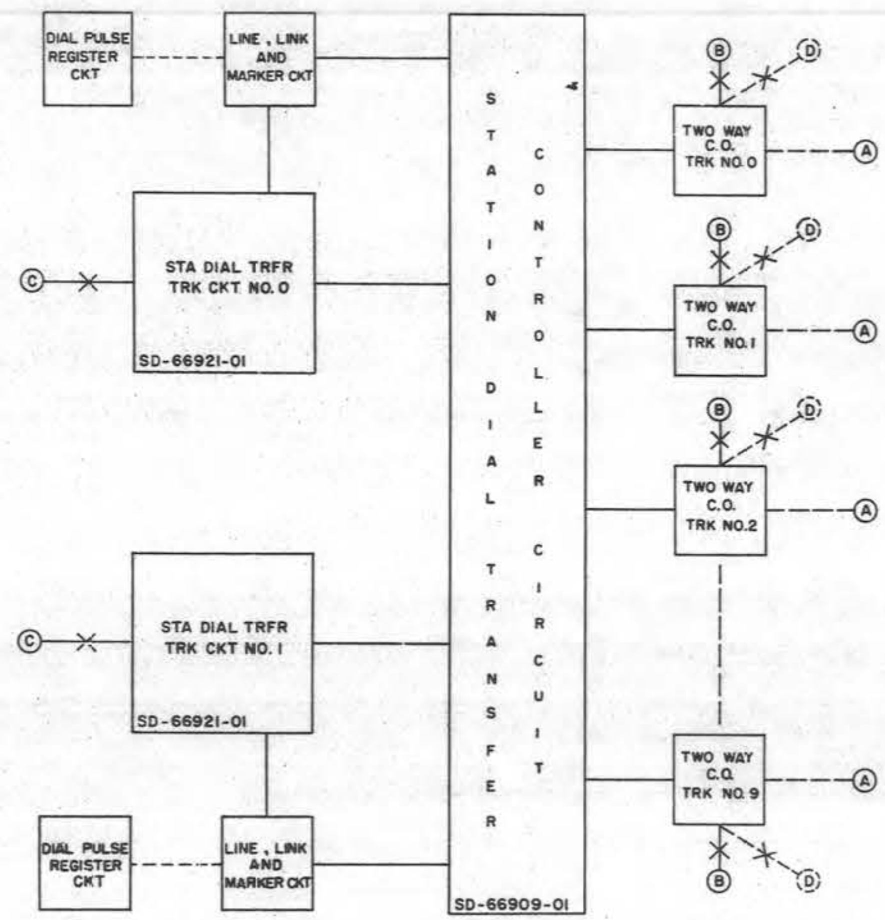
106. THIS CHANGE MAY BE ADDED ON TRANSFER TRUNKS ISSUE 6D OR LATER.

INFO NOTES:

301. BLOCK DIAGRAM OF STATION DIAL TRANSFER CIRCUITS

CHART A

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



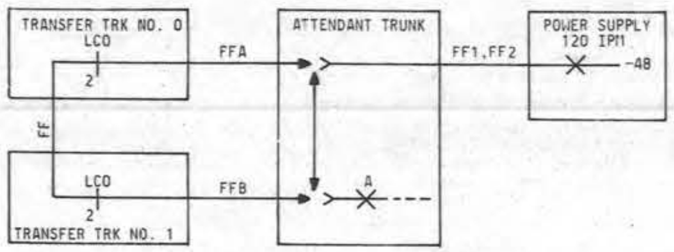
302. UNLESS OTHERWISE SPECIFIED:
RESISTANCE VALUES ARE IN OHMS.
CAPACITANCE VALUES ARE IN MICROFARADS.
VALUES PRECEDED BY THE SYMBOL – (MINUS) ARE IN VOLTS.

303. PBX STATION CONNECTIONS MARKED X INDICATE CROSSBAR CONNECTIONS.

304. SEE SD-66920-01 PER ISSUE 16D FOR CONNECTION TO THE TRAFFIC MEASUREMENT SYSTEM REMOTE SCANNER.

INFORMATION NOTES (CONT):

305. BLOCK DIAGRAM OF LAMP CUTOFF CIRCUIT FOR ATTENDANT TRUNK



DRAWING ISSUE	
1	
5AC	
6D	
7D	

ISSUE 10B

STATION DIAL TRANSFER TRUNK CIRCUIT

SD-66921-01-D1

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-66921-01-D1

SC 1

FIRST TRANSFER OF PARTY A
STATION B AND PARTY A CONNECTED
(PREVIOUS ACTION SHOWN IN SC1-6
TWO WAY TRUNK CIRCUIT TO CENTRAL OFFICE)

STATION B FLASHES

- S
- SI
- FF (END OF FLASH)
- S
- SI
- DR

C.O. TRUNK

CONTROLLER ATTACHED

- TP
- GP
- T — A

CONTROLLER CKT

STA DIAL TRF TRK ATTACHED

- STB
- MCB (START TIME DELAY CKT B)
- B
- BA
- BB (TIME DELAY CKT B NORMAL)
- TRI (MKR)

MKR

- SMC9 (CONTR)

MKR

- THM90,1 (GRD ON LEAD TU(TT-) TO TMS REM SCAN)
- HM
- DLTR LAMP (MB CKT)
- L (REG)
- SR (REG)
- SL (DIAL TONE)

TR — (CONTR)

C.O.

- FF
- DR

TP — (CONTR)

SR

- GP (CONTR)

SC 2

STATION B TRANSFERS TO STATION C
PREVIOUS ACTION SHOWN IN SC1

- DC (REG)
- RV (REG)
- P
- MC
- CCC (MKR)
- P

MKR

- SMTA, B (MKR)
- SMRA, B (MKR)
- RS
- CTD
- STC
- SL

MKR

- RLAA, BA (MKR)
- MC

RINGING APPLIED TO STATION C

SC 3

CALLED STATION C ANSWERS

- RT
- RS
- C
- CA
- CB
- CTD

STATIONS B & C CONNECTED

SC 4

STATION B CALLS IN PARTY A

STATION B FLASHES

- B
- BA
- W (END OF FLASH)
- B
- BA
- CTZ

STATIONS B & C & PARTY A CONNECTED

SC 5

STATION C CALLS IN PARTY A

STATION C FLASHES

- C
- CA
- W (END OF FLASH)
- C
- CA
- CTZ

STATIONS B & C & PARTY A CONNECTED

SC 6

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

STATION B FLASHES

- B
- BA (END OF FLASH)
- SL
- B
- BA
- RLS
- STB

CONTROLLER RELEASED

- T — A (CONTR)

TR — (CONTR)

- B
- BA
- DLB
- BB
- MCC

GRD REMOVED FROM LEAD TU(TT-) TO TMS REMOTE SCANNER

- SL
- THM90,1 (CONTR)
- HM
- DLTR LAMP (MB CKT)

STA DIAL TRF TRK & REGISTER RELEASED
STATION B & PARTY A CONNECTED

7

STATION DIAL TRANSFER TRUNK CIRCUIT (2)

SD-66921-01-EI

BELL TELEPHONE LABORATORIES INCORPORATED

SD-66921-01-EI

SC 7

STATION B DISPOSES OF DON'T ANSWER
PREVIOUS ACTION SHOWN IN SC2

STATION B FLASHES

B
RS — BA — END OF FLASH
RLS — B
BA
STB
CONTROLLER RELEASED
T-A
TR-(CONTR)
B
BA
DLB
BB — MCB
GRD REMOVED FROM LEAD TU(TT-) TO TMS REMOTE SCANNER
STC
CTD
RS
STA DIAL TRF TRK & REGISTER RELEASED STATION B & PARTY A CONNECTED
THM90,1 (CONTR)
HM
DLTR LAMP (MB CKT)

SC 8

STATION B DISPOSES OF BUSY LINE

STATION B FLASHES

B
BY — BA — END OF FLASH
RLS — B
BA
STB
CONTROLLER RELEASED
T-A (CONTR)
TR-(CONTR)
B
BA
DLB
BB — MCB
BY
STA DIAL TRF TRK & REGISTER RELEASED STATION B & PARTY A CONNECTED
THM90,1 (CONTR)
HM
GRD REMOVED FROM LEAD TU(TT-) TO TMS REMOTE SCANNER
DLTR LAMP (MB CKT)

SC 9

STATION B DIALS 0 TO CALL THE ATTENDANT
PREVIOUS ACTION SHOWN IN SC1

DC (REG)
RV (REG)
P
MC
MKR
CCC (MKR)
TKBO (MKR)
P
DBO
LCO
AR — (CONTR)
CO TRK LAMP SL FLASHES AT 120 IPM CONTINUOUS RINGING
RLS
ACA, B (MKR)
RLA, B (MKR)
STB
MARKER RELEASE
CONTROLLER RELEASED
T-A (CONTR)
TR-(CONTR)
B
BA
DLB
BB — MCB
GRD REMOVED FROM LEAD TU(TT-) TO TMS REMOTE SCANNER
HM
STA DIAL TRF TRK & REGISTER RELEASED
THM90,1 (CONTR)
DLTR LAMP (MB CKT)

SC 10

ATTENDANT ANSWERS
PREVIOUS ACTION SHOWN IN SC9

PU (CDLS POS) KEY
ACA
AC — C.O. TRK
AR — (CONTR)
SL LAMP STEADY
BZ (CDLS POS CKT)
SILENCES SIGNAL
STATION B, PARTY A & ATTENDANT CONNECTED

DRAWING ISSUE
1 PFG UFF KFJ
6D BC FJ RH
7D EC PJS LDV

ISSUE 9D

SD-66921-01-E2

STATION DIAL TRANSFER TRUNK CIRCUIT (2)

SD-66921-01-E2

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65

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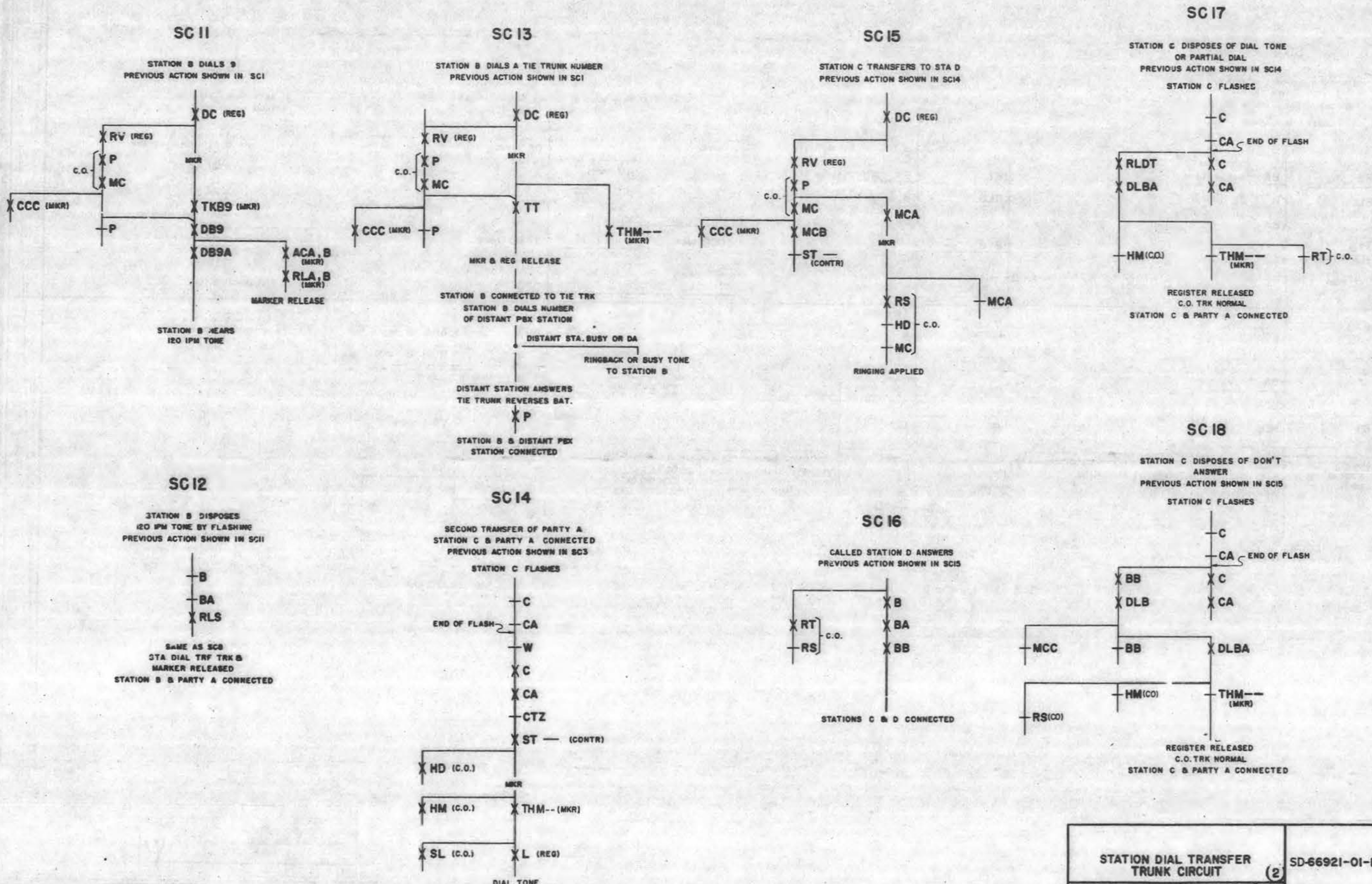

SC 11
STATION B DIALS 9
PREVIOUS ACTION SHOWN IN SC1
DC (REG)
RV (REG)
P
MC
C.O.
MKR
CCC (MKR)
TKB9 (MKR)
P
DB9
DB9A
ACA, B (MKR)
RLA, B (MKR)
MARKER RELEASE
STATION B HEARS 120 IPM TONE
SC 12
STATION B DISPOSES 120 IPM TONE BY FLASHING
PREVIOUS ACTION SHOWN IN SC11
B
BA
RLS
SAME AS SC8
STA DIAL TRF TRK &
MARKER RELEASED
STATION B & PARTY A CONNECTED
SC 13
STATION B DIALS A TIE TRUNK NUMBER
PREVIOUS ACTION SHOWN IN SC1
DC (REG)
RV (REG)
MKR
P
MC
C.O.
TT
CCC (MKR)
P
THM-- (MKR)
MKR & REG RELEASE
STATION B CONNECTED TO TIE TRK
STATION B DIALS NUMBER
OF DISTANT PBX STATION
DISTANT STA. BUSY OR DA
RINGBACK OR BUSY TONE TO STATION B
DISTANT STATION ANSWERS
TIE TRUNK REVERSES BAT.
P
STATION B & DISTANT PBX STATION CONNECTED
SC 14
SECOND TRANSFER OF PARTY A
STATION C & PARTY A CONNECTED
PREVIOUS ACTION SHOWN IN SC3
STATION C FLASHES
C
END OF FLASH
CA
W
C
CA
CTZ
ST — (CONTR)
HD (C.O.)
MKR
HM (C.O.)
THM-- (MKR)
SL (C.O.)
L (REG)
DIAL TONE
SC 15
STATION C TRANSFERS TO STA D
PREVIOUS ACTION SHOWN IN SC14
DC (REG)
RV (REG)
P
MC
C.O.
CCC (MKR)
MCB
ST — (CONTR)
MCA
MKR
RS
HD
MC
C.O.
MCA
RINGING APPLIED
SC 16
CALLED STATION D ANSWERS
PREVIOUS ACTION SHOWN IN SC15
B
RT
RS
C.O.
BA
BB
STATIONS C & D CONNECTED
SC 17
STATION C DISPOSES OF DIAL TONE
OR PARTIAL DIAL
PREVIOUS ACTION SHOWN IN SC14
STATION C FLASHES
C
CA
END OF FLASH
RLDT
DLBA
C
CA
HM (C.O.)
THM-- (MKR)
RT
C.O.
REGISTER RELEASED
C.O. TRK NORMAL
STATION C & PARTY A CONNECTED
SC 18
STATION C DISPOSES OF DON'T ANSWER
PREVIOUS ACTION SHOWN IN SC15
STATION C FLASHES
C
CA
END OF FLASH
BB
DLB
C
CA
MCC
BB
DLBA
HM (CO)
THM-- (MKR)
RS (CO)
REGISTER RELEASED
C.O. TRK NORMAL
STATION C & PARTY A CONNECTED

6

STATION DIAL TRANSFER TRUNK CIRCUIT

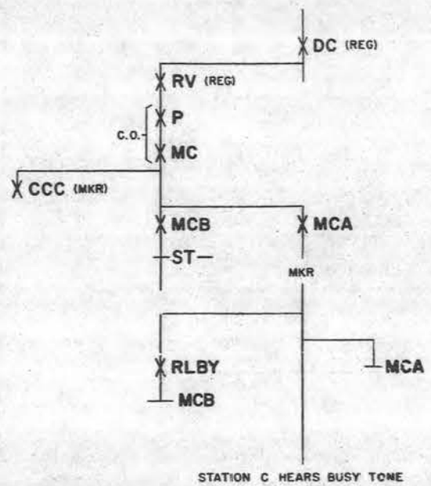
BELL TELEPHONE LABORATORIES INCORPORATED

(2) 6S

SD-66921-01-E3

SC 19

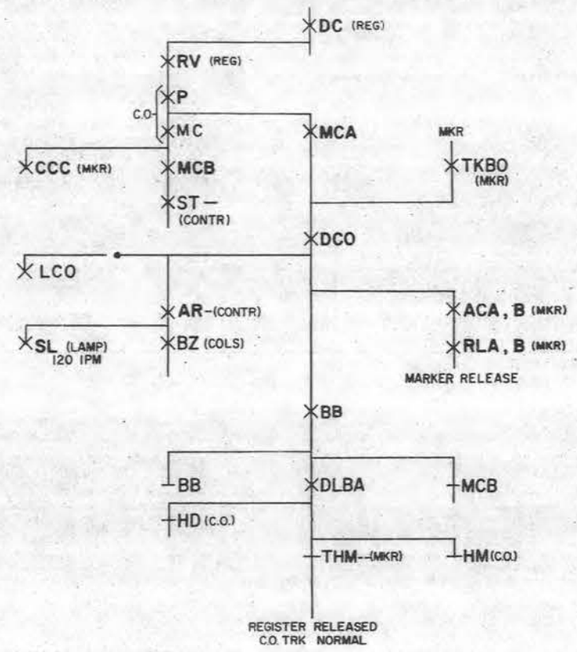
STATION C DIALS A BUSY STATION
PREVIOUS ACTION SHOWN IN SC14



STATION C HEARS BUSY TONE

SC 21

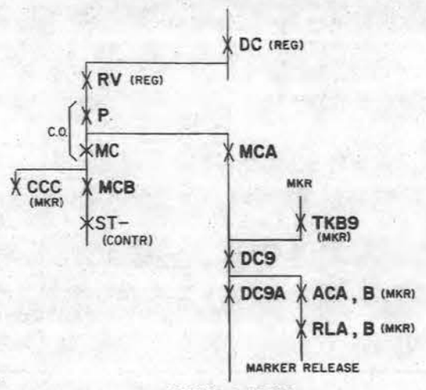
STATION C DIALS C TO CALL THE ATTENDANT
PREVIOUS ACTION SHOWN IN SC 14



REGISTER RELEASED
C.O. TRK NORMAL

SC 23

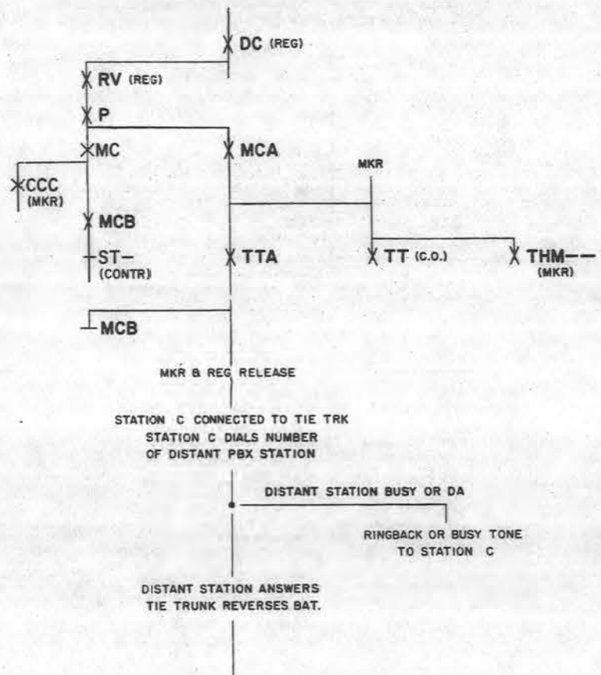
STATION C DIALS 9
PREVIOUS ACTION SHOWN IN SC 14



STATION C HEARS
120 IPM TONE

SC 25

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



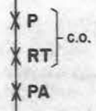
MKR & REG RELEASE

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

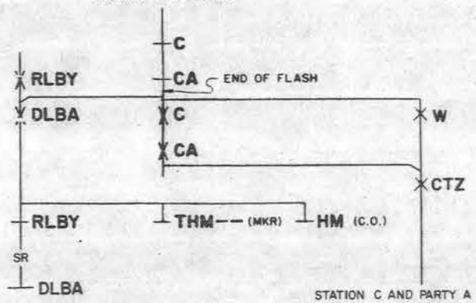
DISTANT STATION ANSWERS
TIE TRUNK REVERSES BAT.



STATION C & DISTANT PBX
STATION CONNECTED

SC 20

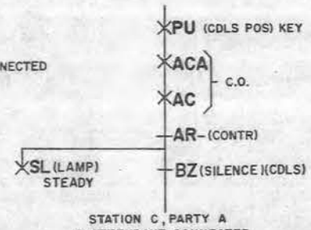
STATION C DISPOSES OF BUSY LINE
PREVIOUS ACTION SHOWN IN SC19
STATION C FLASHES



STATION C AND PARTY A CONNECTED

SC 22

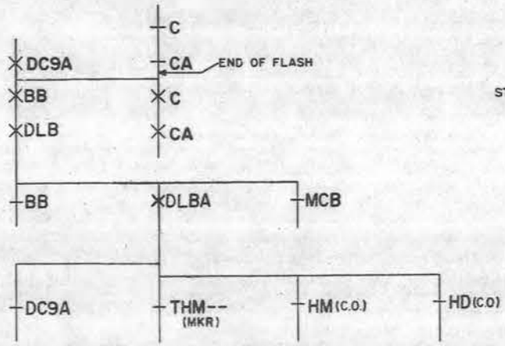
ATTENDANT ANSWERS
PREVIOUS ACTION SHOWN IN SC21



STATION C, PARTY A
& ATTENDANT CONNECTED

SC 24

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



STATION C & PARTY A CONNECTED

DRAWING ISSUE 1 PFD LFF RCJ
5AC PJS SAH GFH
6D TEJ FJJ RHF

ISSUE 9D

STATION DIAL TRANSFER TRUNK CIRCUIT

SD-66921-01-E4

BELL TELEPHONE LABORATORIES INCORPORATED

SIZE 6S

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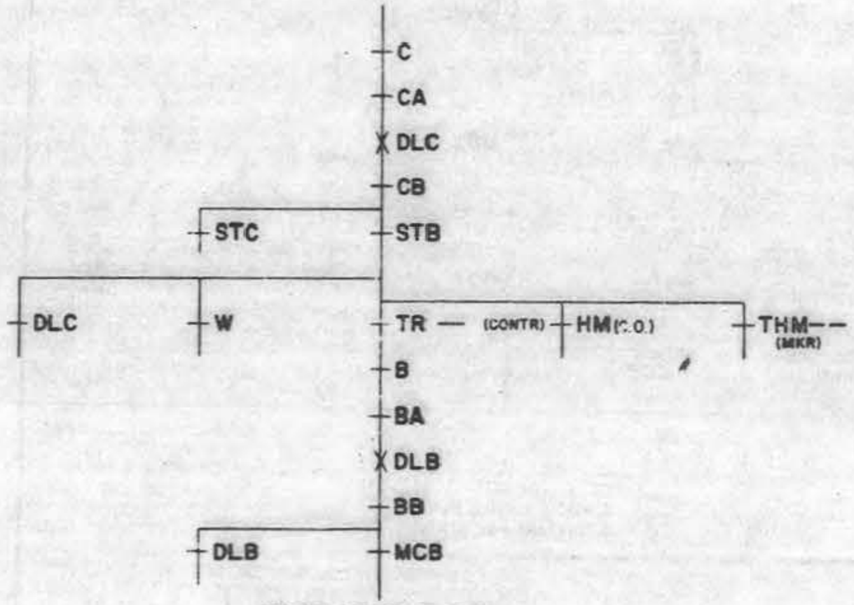
SD-66921-01-E4

SC 26

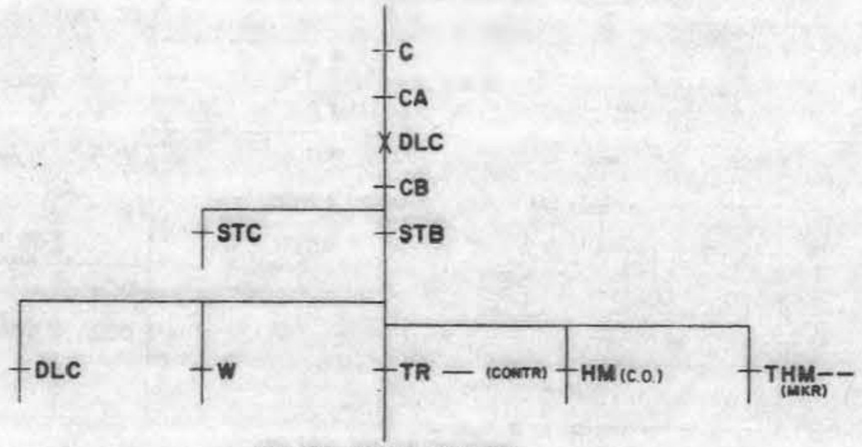
STATION C HANGS-UP AFTER ANSWERING
PREVIOUS ACTION SHOWN IN SC 3



STA DIAL TRF TRK RELEASED
STATION B & PARTY A CONNECTED

SC 28

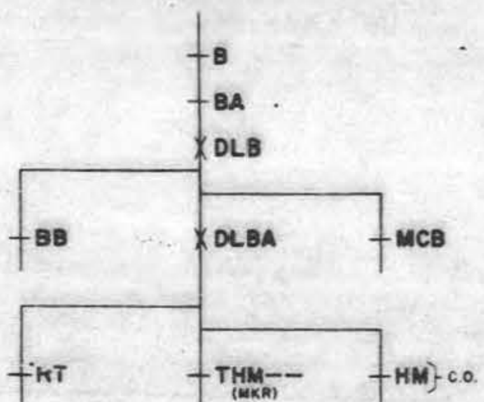
AFTER DIALING O STATION C DISCONNECTS
BEFORE ATTENDANT ANSWERS
PREVIOUS ACTION SHOWN IN SC 21



STA DIAL TRF TRK RELEASED
C.O. TRK & PARTY A RELEASED

SC 27

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



STATION C & PARTY A CONNECTED

STATION DIAL TRANSFER
TRUNK CIRCUIT

SD-66921-01-E5

BELL TELEPHONE LABORATORIES
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6S

6

SD-66921-01 2 PAGES

CIRCUIT REQUIREMENTS

STATION DIAL TRANSFER TRUNK CIRCUIT

APPARATUS				MECH REQT			CIRCUIT PREPARATION					DIRECT CURRENT FLOW REQT					REMARKS
DESIG	CODE	OPT.	FIG.	BSP FIG.	CONT PRES	ARM. TRVL	BLOCK OR INSULATE	TEST CLIP DATA CONN BAT.	TEST CLIP DATA CONN GRD	TEST SET PREP	SEE TEST NOTE	TEST WDG	TEST FOR	AFTER SOAK MA	TEST MA	READJ MA	
RELAYS																	
B	AJ52		1	303			(MCB) NO	1L (B)	2U (B)	M	1	P/S	O		13.5	12.6	
								1L (B)	2U (B)	M	1	P/S	R		3.15	3.3	
BA	AG20		1	262B			2 (B)		U(BA)	GRD	1		O	20	10.7	10.2	
									U(BA)	GRD	1		H	20	2.0	1.9	
									U(BA)	GRD	1		R	20	0.9	1.1	
BB	AF13		1	215			1 (DLB), 10 (CA)		U(BB)	GRD	1		O	20	13.1	12.4	
									U(BB)	GRD	1		R		4.0	4.2	
BY	1/2 AK4		1	202			(MC) NO		1U(BY)	GRD	1		O		11.9	11.3	MOUNTED WITH (RLS)
C	AJ52		1	303			(STC) NO	1L (C)	2U (C)	M	1	P/S	O		13.5	12.6	
								1L (C)	2U (C)	M	1	P/S	R		3.15	3.3	
CA	AG20		1	262B			2 (C)		U(CA)	GRD	1		O	20	10.7	10.2	
									U(CA)	GRD	1		H	20	2.0	1.9	
									U(CA)	GRD	1		R	20	0.9	1.1	
CB	AF13		1	215			12 (DLC)		U(CB)	GRD	1		O		13.1	12.4	
									U(CB)	GRD	1		R		4.0	4.2	
CTD	1/2 AK4		1	202					1U(CTD)	GRD	1		O		11.9	11.3	MOUNTED WITH (TT)
CTZ	AF98		1	245			(STB) NO	L(CTZ)	U(CTZ)	B/G	1		O		27.0	25.4	CONNECT TERMINALS L(CTZ),2U(W) TOGETHER
DBO	AF34		1	14			(MC) NO		U(DBO)	GRD	1		O		28.0	26.5	
DB9	AF16		1	204			(MC) NO		U(DB9)	GRD	1		O		30.5	29	
DB9A	1/2AK30		1	202			4 (RLS)		1L (DB9A)	GRD	1		O		23.6	22	MOUNTED WITH (DC9A)
DCO	AF34		1	14			(MCA) NO		U(DCO)	GRD	1		O		28.0	26.5	
DC9	AF16		1	204			(MCA) NO		U(DC9)	GRD	1		O		30.5	29	
DC9A	1/2AK30		1	202			4 (DLBA)		1U (DC9A)	GRD	1		O		23.6	22	MOUNTED WITH (DB9A)
DLB	1/2AK24		1	12					1L(DLB)	GRD	1		O		7.8	7.4	MOUNTED WITH (DLC)
DLBA	AGA7		1	290B			12 (DLBA)		1U (DLBA)	GRD	1	P	O	100	48.5	46	
							12 (DLBA)		1U (DLBA)	GRD	1	P	H	100	6.3	5.9	
							12 (DLBA)		1U (DLBA)	GRD	1	P	R	100	3.9	4.6	
							12 (DLBA)	2U(DLBA)	2U (DLBA)	B/G	1	S	O		60.5	57.5	
DLC	1/2AK24		1	12					1U(DLC)	GRD	1		O		7.8	7.4	MOUNTED WITH (DLB)
HM	1/2 AK4		1	202					1U (HM)	GRD	3		O		11.9	11.3	MOUNTED WITH (MCB)
									1U (HM)	GRD	4		O		33.9	32.3	
LCO	1/2 AK4	N	1	202					1L (LCO)	GRD			O		11.9	11.3	MOUNTED WITH (MBT)
MBT	1/2 AK4	W	1	202					1U(MBT)	GRD			O		11.9	11.3	MOUNTED WITH (LCO)
MC	AF100		1	252			2 (TT)		U(MC)	GRD	1		O		41.6	39.5	
MCA	1/2AK31		1	14			(C) NO		1U (MCA)	GRD	1		O		23.6	22.5	MOUNTED WITH (SL)
MCB	1/2 AK4		1	202			7 (TTA)		1L (MCB)	GRD	1		O		11.9	11.3	MOUNTED WITH (HM)
P	1/2 AK4		1	202			5, 6(STC)	2U(P)	1U(P)	B/G	1		O		11.9	11.3	MOUNTED WITH (PA)
PA	1/2 AK4		1	202			(TTA) NO		1L (PA)	GRD	1		O		11.9	11.3	MOUNTED WITH (P)
RLBY	1/2 AK11		1	206			6 (DLBA)		1L (RLBY)	GRD	1		O		17.5	16.5	MOUNTED WITH (RLDT)
RLDT	1/2 AK11		1	206			8(CA), 10(DLBA)		1U (RLDT)	GRD	1		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. THM90,1 NOT CONNECTED.
4. HM RELAY AND THM90,1 OPERATE IN PARALLEL.

DRAWING ISSUE 1 — 6D

STATION DIAL TRANSFER TRUNK CIRCUIT — SD-66921-01-F1

BELL TELEPHONE LABORATORIES INCORPORATED

CIRCUIT REQUIREMENTS

APPARATUS				MECH REQT			CIRCUIT PREPARATION					DIRECT CURRENT FLOW REQT					REMARKS
DESIG	CODE	OPT.	FIG.	BSP FIG.	CONT PRES	ARM. TRVL	BLOCK OR INSULATE	TEST CLIP DATA CONN BAT.	TEST CLIP DATA CONN GRD	TEST SET PREP	SEE TEST NOTE	TEST WDG	TEST FOR	AFTER SOAK MA	TEST MA	READJ MA	
RLS	1/2 AK4		1	202					1L (RLS)	GRD	1		O		11.9	11.3	MOUNTED WITH (BY)
RS	1/2 AK4		1	202			7 (RT)		1L (RS)	GRD	1		O		11.9	11.3	MOUNTED WITH (W)
RT	AJ58		1	308			12 (MC)	1L(RT)	1U(RT)	B/G	1	P	O		28	26.5	
								1L(RT)	1U(RT)	B/G	1	P	O		29.5	28	
								1L(RT)	1U(RT)	B/G	1	P	NO		20	21.5	
							11 (STC)		2U(RT)	GRD	1	S	O		19	18	
SL	1/2 AK31		1	14			12 (STC)	2L(SL)	1L (SL)	B/G	1		O		30.5	29	MOUNTED WITH (MCA)
STB	AF83		1	8			5(CTZ)		U(STB)	GRD	1		O		8.5	7.8	
STC	AF64		1	219			8 (CTD)		U (STC)	GRD	1		O		11.2	10.6	
TT	1/2 AK4		1	202			(MC) NO		1L(TT)	GRD	1		O		11.9	11.3	MOUNTED WITH (CTD)
TTA	AF9		1	213			(MCA) NO		U (TTA)	GRD	1		O		8.6	8.2	
TTF	1/2 AK35		1	202			8 (TTR)		1L (TTF)	GRD	1		O	48	31.5	30	MOUNTED WITH (TTR)
									1L (TTF)	GRD	1		H	48	4.5	4.2	
TTR	1/2 AK35		1	202			8 (TTR)		1U (TTR)	GRD	1		O		12.5	11.8	MOUNTED WITH (TTF)
W	1/2 AK4		1	202			(CTZ) NO	2U (W)	1U (W)	GRD	1		O		11.9	11.3	MOUNTED WITH (RS)
DIODES																	
A	446F		1								2,3,4,5						
B	446F		1								2,3,4,5						
DLB	446F		1								2,3,4,5						
DLB	458A		1														
DLC	446F		1								2,3,4,5						
DLC	458A		1														
MC	446F		1								2,3,4,5						
PR	446F		1								2,3,4,5						
RR	446F		1								2,3,4,5						

TEST NOTES:

1. MAKE TRANSFER TRUNK BUSY BY BLOCKING RELAY HM OPERATED.
2. EM CONTACTS NEED ONLY TO MAKE.
3. MAKE ALL VOLTAGE MEASUREMENTS WITH VOLTMETER WITH SENSITIVITIES OF 20,000 OHM/VOLT DC OR HIGHER. THE KS-14510 VOLTMETER IS SATISFACTORY. START ALL MEASUREMENTS WITH RANGE SWITCH ON THE 50V SCALE OR HIGHER, TO PREVENT DAMAGING METER IF VARISTOR IS SHORTED.
4. FORWARD RESISTANCE TEST:
   (a) CONNECT THE POSITIVE TERMINAL OF A NONGROUNDED 45-50 VOLT BATTERY TO ONE END OF AN 800 OHM RESISTOR. CONNECT THE OTHER END OF THE RESISTOR TO TERMINAL 1 OF THE DIODE.
   (b) CONNECT THE NEGATIVE END OF THE BATTERY TO TERMINAL 2 OF THE DIODE.
   (c) VOLTAGE MEASURED ACROSS THE DIODE SHALL NOT EXCEED 3 VOLTS.
5. REVERSE RESISTANCE TEST:
   (a) CONNECT THE POSITIVE TERMINAL OF A NONGROUNDED 45-50 VOLT BATTERY TO ONE END OF A 0.1 MEG RESISTOR. CONNECT THE OTHER END OF THE RESISTOR TO TERMINAL 2 OF THE DIODE.
   (b) CONNECT THE NEGATIVE END OF THE BATTERY TO TERMINAL 1 OF THE DIODE.
   (c) VOLTAGE MEASURED ACROSS THE 0.1 MEG RESISTOR SHALL NOT EXCEED 5 VOLTS.

DRAWING ISSUE 1 — 6D

ISSUE 9D

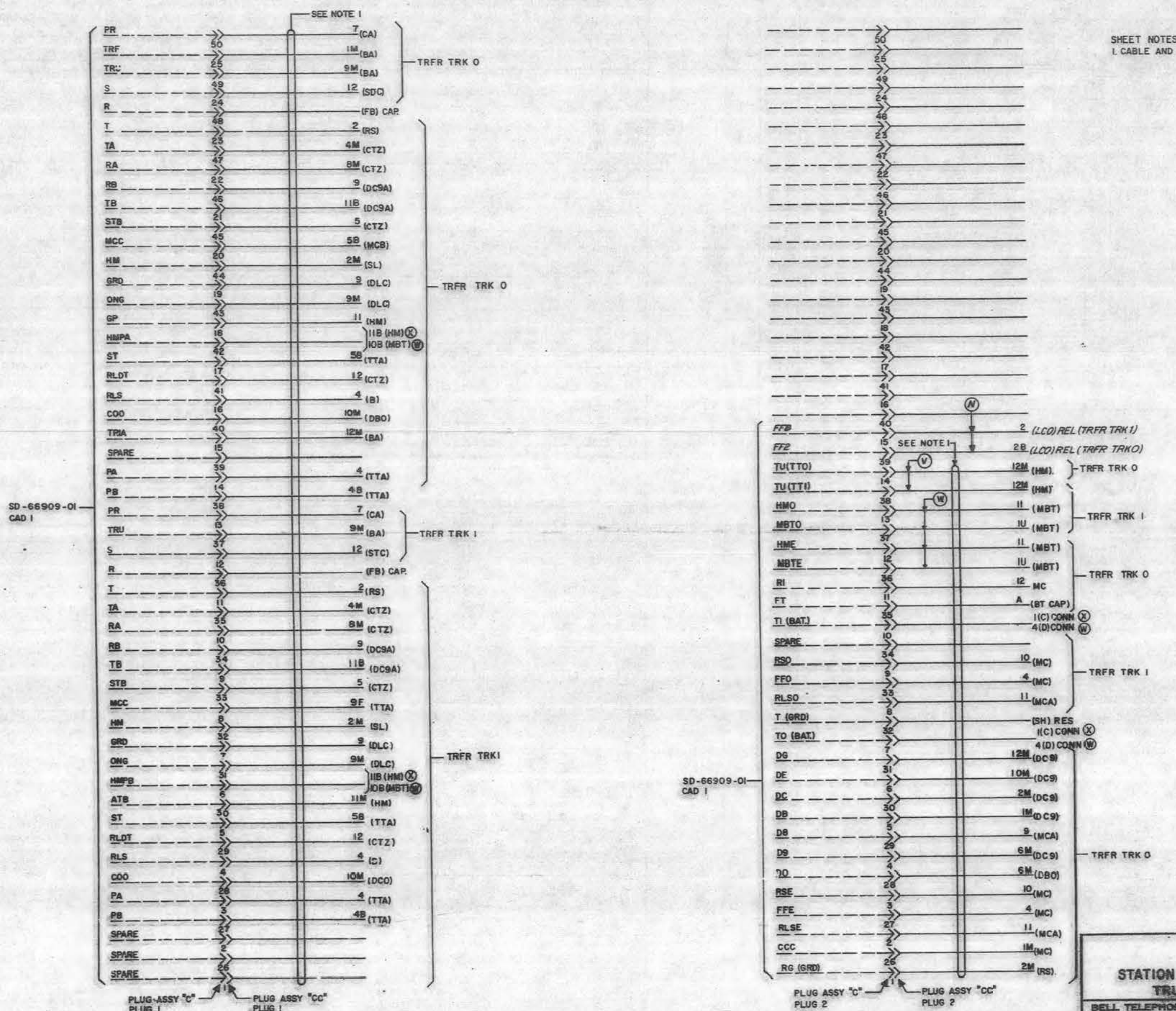
STATION DIAL TRANSFER TRUNK CIRCUIT ② SD-66921-01-F1

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-66921-01-F1

CAD I

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



ISSUE 11D

STATION DIAL TRANSFER TRUNK CIRCUIT

SD-66921-01-G1

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-66921-01-G1