

SHEET INDEX

CONTENTS	ISSUE NO.	ISSUE NO.																																
		30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54								
SHEET INDEX SUPPORTING INFORMATION	A1	30	31	32																														
APPARATUS INDEX	A2	30	31	32																														
LEAD INDEX																																		
OPTION INDEX																																		
FS 1 TIP AND RING CONTROL	B1	30	31	31																														
FS 2 PULSE COUNTING	B2	30	30	30																														
PART OF FS 3 STEERING	B3	30	31	32																														
FS 4 CLASS OF SERVICE	B4	30	30	30																														
FS 5 ALARM CONTROL																																		
PART OF FS 3 STEERING	B5	30	30	30																														
FS 6 KEY PULSING CONNECTOR AND CONTROL CIRCUIT (MFR DISC)	B6	30	30	30																														
FS 7 ATTENDANT DIRECT STATION SELECTION CONNECTOR AND CONTROL CIRCUIT	B7	30	30	30																														
FS 8 SINGLE DIGIT DIALING TIMING AND CONTROL CIRCUIT (MFR DISC)																																		
FS 9 "TOUCH-TONE" CALLING TRANSLATION CIRCUIT	B8	30	30	30																														
FS 10 "TOUCH-TONE" CALLING RECEIVER - TYPE C1																																		
FS 11 SINGLE DIGIT CONTROL	B9	30	30	30																														
FS 12 SINGLE DIGIT TIMING																																		
APP FIG. 1,2,3,4	C1	30	30	32																														
APP FIG. 5,6,7,8,9,10,11,12,13	C2	30	30	32																														
CIRCUIT NOTES WORKING LIMITS	D1	30	31	32																														
INFORMATION NOTES	D2	30	30	30																														
SC 1 STATION TO STATION CALL																																		
SC 2 ABANDONED CALL (CALL ABANDONED BEFORE DIALING BUT AFTER REGISTER IS CONNECTED TO CALLING STATION)	E1	30	31	31																														
SC 3 ABANDONED CALL (CALL ABANDONED AFTER DIALING BUT BEFORE TIME OUT PER SC 24 AND BEFORE MARKER HAS COMPLETED PROCESSING THE CALL)																																		
SC 4 RESTRICTED STATION DIALS 9(MFR DISC)																																		
SC 5 RESTRICTED STATION TO CODE 8 TRUNK CALL (Y OPTION) (MFR DISC)	E2A	30	30	30																														
SC 6 TOLL DENIED STATION TO CENTRAL OFFICE TRUNK CALL (ONE DIGIT TRUNK CODE V OPTION) (MFR DISC)																																		
SC 7 TOLL DENIED STA TO C.O. OR RD TIE TRK CALL (TWO DIG. TRK CODE T OPTION) (ONE DIG. TRK CODE V OPTION)	F2B	30	31	31																														
SC 8 RESTRICTED STATION TO CODE 8 TRUNK CALL (X OPTION)																																		
SC 9 INCPY OF TENS DIG. 6,7,OR 8 CALLS (WOR Z OPTION)	E3	30	31	31																														
SC 10 PERMANENT SIGNAL TIME OUT																																		
SC 11 PARTIAL DIAL TIME OUT																																		
SC 12 CENTRAL OFFICE OR RINGDOWN TIE TRUNK TO STATION CALL	E4	27	31	31																														
SC 13 CENTRAL OFFICE OR RINGDOWN TIE TRUNK TO CODE 8 TRUNK CALL																																		
SC 14 DIAL REPEATING TIE TRK TO STA CALL																																		
SC 15 DIAL RPT TIE TRK TO CODE 8 TRK CALL																																		
SC 16 RESTRICTED DIAL RPT TIE TRK DIALS 9																																		
SC 17 TOLL DENIED DIAL RPT TIE TRK DIALS 9-CODE																																		
SC 18 TOLL ALLOWED STATION TO CENTRAL OFFICE OR RINGDOWN TIE TRUNK CALL	E5	27	31	31																														
SC 19 TOLL ALLOWED DIAL RPT TIE TRK TO CENTRAL OFFICE OR RD TIE TRK CALL																																		
SC 20 CALLED STA OR TRK BUSY AND BUSY TONE TRUNK ALSO BUSY																																		
SC 21 ATTENDANT TRUNK TO STATION CALL																																		

CONTENTS	ISSUE NO.	ISSUE NO.																																
		30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54								
SC 22 ATTENDANT TRUNK TO CODE 8 TRUNK CALL	E6	30	31	31																														
SC 23 STATION TO ATTENDANT TRUNK CALL																																		
SC 24 DIAL COMPLETION TIME OUT																																		
SC 25 INTERRUPTER OPERATION	E7	17	17	17																														
SC 26 SEQUENCE CHART FOR P1,P2,P3,P4, AND P5 RELAYS																																		
SC 27 DIRECT STATION SELECTION BY ATTENDANT	E8	30	31	31																														
SC 28 SINGLE DIGIT DIALING (MFR DISC)																																		
SC 29 TOUCH-TONE CLG INTO REG STA 21 CLG STA 57	E9	30	31	31																														
SC 30 RSTD STA OR DIAL RPT TIE TRK DENIED ACC TO CODE 8 OR 9 CALLS																																		
SC 31 SINGLE DIGIT DIALING	E10	30	31	31																														
CKT REPT TABLES, AC TO TDO	F1	30	30	30																														
CKT REPT TABLES, TLA TO END	F2	30	30	30																														
CAD 1	G1	30	30	30																														

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.

SUPPORTING INFORMATION

CATEGORY	NO.
NO. 756A PBX CABLING DIAGRAM	SD-65746-01
EQUIPMENT DWG	J-58829AC J-58829J- J-58829H- { }
SERVICE OPTIONS BSP	551-147-210
CIRCUIT TESTS BSP	551-168-501
OPERATION TESTS BSP	551-179-501

SD-65742-01	2J07	ISSUE <b>32D</b>
PBX SYSTEMS NO. 756A DIAL PULSE REGISTER CIRCUIT		A&M ONLY
BELL TELEPHONE LABORATORIES INCORPORATED		SD-65742-01-A1 29 SHEETS
(DP REG)		65

DWG	CD	DWG	CD	DWG	CD
ISS	ISS	ISS	ISS	ISS	ISS
5B	4B	6D	5D	7B	6B
8D	7D	9B	8B	10B	9B
11B	10B	12A	10B	13D	10B
14D	10B	15A	11A	16A	11A
17B	11A	18B	12B	19B	12B
20B	13B	21B	12B	22D	12B
23	12B	24B	13B	25D	13B
26D	13B	27D	13B	28A	13B
29B	13B	APP5B			
DWG	EE	OR	CD	DWG	CD
ISS	ISSUE	ISSUED	ISS	ISS	ISS
30D	14D	4-6-65	WR	SHA	RVL
31D	14D	2-8-69	DJH	SHA	RVL
32D	14D	2-26-74	GDI	WVS	RVL
	APPX	2D	CBH	AFR	AFR

APPARATUS INDEX

DESIG	LOCATION		
	FS	APP FIG	EOPT
<b>RELAYS</b>			
AC	7D7	2	6(G,H)
ACO	7D7	4	6(G)
AC1	7H7	4	6(H)
BY	1B3	1	6(C,F)
COT	4C0	2	6(B,E)
DC	3F5	3	6(A,D)
KPC	6D4	2	6(B,E)
KRA	1G0	2	6(B,E)
L	1F2	3	6(A,D)
ON	1F8	2	6(B,E)
OT	3E9	3	6(A,D)
OTA	3E8	1	6(C,F)
P1	2F6	1	6(C,F)
P2	2C6	1	6(C,F)
P2A	2E2	1	6(C,F)
P3	2D6	1	6(C,F)
P4	266	1	6(C,F)
P5	2H6	1	6(C,F)
POS1	6D2,7D3	4	6(G)
POS2	6H2,7G3	4	6(H)

CAPACITORS			
C	6C3	5	6(B,E)
LW	1D3	1	6(C,F)
PH	1F3	3	6(A,D)
SD0	9C7	11	6(H)
SD1	9C7	11	6(H)
T	8B3	5	6(A,D)
TN	1E4	1	6(C,F)

CONNECTORS			
A	8E9	8	EXT
J1	8F3	9	1(U,V)
J2	9B7	11	6(H)

DESIG	LOCATION		
	FS	APP FIG	EOPT
<b>DIODES</b>			
KP	3G0	3	6(B,E)
KRA	3F7	2	6(B,E)
L	1E2	3	6(B,E)
SD-	BAL9A2	7,10	6(B,E)
SDA	8B3	5	6(G,H)
ST-	9B1	13	6(B,E)
TM	3G6	3	6(B,E)
Z	8B2	5	6(A,D)

JACKS			
TST	1C3	1	6(C,F)

LAMPS			
RT	4E9	2	6(B,E)

POTENTIOMETERS			
R	8B2	5	6(C,F)

REPEATING COILS			
TN	1D3	1	6(C,F)

RESISTORS			
DT	1E4	8,9	6(C,F)
H	1C0	1	6(C,F)
L	1F2	3	6(A,D)
LU	1G3	1	6(C,F)
LW	1D3	1	6(C,F)
P1	2B4	1	6(C,F)
P2	2C3	1	6(C,F)
RB	8C2	5	6(A,D)
RC	8B3	5	6(A,D)
RE	8B2	5	6(A,D)
RF	8B2	5	6(A,D)
S	1D0	1	6(C,F)
SD0	9B6	11	6(H)
SD1	9D6	11	6(H)
T	1D1	1	6(C,F)
TN	1E3	1	6(C,F)

TRANSISTORS			
T	8B3	6	6(A,D)

TIMERS			
T	9B8	12	6(H)

DESIG	FS	LOCATION	
		APP FIG	EOPT
<b>LINE, LINK AND MARKER CIRCUIT</b>			
A	8F0, 9C0		
B	8E0, 9C0		
BAT.	1G6		
BY	1B3		
C	8D0, 9C0		
COT	4C2		
CPC	4E7		
CTA	4E2		
CTB	4E2		
D	8D0, 9C0		
DC1	4D8		
DC2	4D7		
DC3	4D8		
DC4	4D7		
E	8G0, 9D0		
F	8F0, 9D0		
G	8H0, 9D0		
H	8G0, 9D0		
J/A	4A7		
JTB	4B7		
KPC0	7D9		
KPC1	7D9		
ON	4D2		
ONS	4D2		
ONG	4D3		
PCG	4F7		
R	1C0		
RA	1B5		
RA1	1B5		
RB	1B5		
RB1	1C5		
RCTA	4B7		
RCTB	4C7		
RHM	1G5		
RRA	1B8		
RNB	1C8		
RRT	4B2		
RV	1A8		
S	1D0		
T	1D0		
T0	3C9		
T2-T9	3C9		
TLA	4C2		
TLD	4A2		
TLO	4E2		
TL1	4E2		
TPC	4E7		
TRO	4F0		
TRI	4F2		
TTO	4H1		
TT1	4H1		
U0-U9	3G4, 5E3		

ALARM TRANSFER AND TEST CIRCUIT	
PL	4G5
PLB	4H5
RT	4I5
RT1	4H5

LEAD INDEX

DESIG	FS	LOC
<b>C.O. TRK CIRCUIT</b>		
LD	8D1, 8F1, 8G1, 8H1	

CORDLESS POSITION CKT	
ARB	7E2
H1	7D2, 7H2
HA	7E2
HA1	3F9
HA2	3F9
KPO-KP9	6C1, 6G1
KRA0	6D1
KRA1	6H1
SG2	6D1, 6H1, 7D2
SG3	7H2, 6D1, 6H1, 7D2

DESIG	FS	LOC
<b>T2-T8</b>		
U0-U9	7B2, 7F2, 7C2, 7G2	

DIRECT STATION SELECTION CONNECTOR AND CONTROL CIRCUIT FOR STATIONS	
PR	3G9
RO	1F3
R1	1F3
RB	1F3
RC	1F3
RG	1F3
T0	3D0
T2-T9	3D0
U0-U9	5A3
UD1	3G9
UD2	3F9

POWER SUPPLY CIRCUIT	
BT	1E5
DT	1E5
MS	1B0
PU	1B0
TM	1B0

DESIG	FS	LOC
<b>SIGNALING CIRCUIT TONE GEN FOR PBX "TOUCH-TONE" CALLING</b>		
TT1	105	

"TOUCH-TONE" CALLING RECEIVING CKT TYPE A2 OR A3	
-48	
GRD	
HG(1-3)	
LG(1-4)	
R	8G3
STR	
T	

"TOUCH-TONE" CALLING RECEIVING CKT TYPE C1	
-48	
A	
B	
D(0-9)	
GRD	
P	8D8, 8E9
R	
STR	
T	

MAKE BUSY AND BUSY DISPLAY CIRCUIT	
MB	1H3
RHM	1H3

RELAY TIME DELAY CKT, T	
F01	9C7
F02	9B7
F03	9B7
F04	9C7
F05	9D7
F06	9D7
F07	9C7

DESIG	FS	LOC
<b>TMS REMOTE SCAN</b>		
TU(R-)	1F5	

OPTION INDEX

APP OR WRG	LOCATION	APP OR WRG	LOCATION
5	APP FIG. 5, 3A8, 3C7, 3D7	YV	APP FIG. 5, 8B2, 8B3
6	APP FIG. 6	YW	APP FIG. 5, 8B2, 8B3
7	APP FIG. 7	YX	APP FIG. 7, 8A1
9	APP FIG. 9	YY	APP FIG. 7, 8A1
10	3A9, 3C7, 3D6, 3D7, 3E8, 3F8, 3G0, 3G8, 5B6, 9A1, 9C1, 9D1	YZ	4G1, 4G2
11	9A7		
12	9B8	XA	1A5, 1A6
13	9B1	XB	1A5, 1A6, 4E1, 4G1, 4G2
		XC	4H1
		XD	4H1
		XE	1G3, 1G4
Z	3C9	XF	1G3, 1G4, 1H2
Y	3C7, 3C8	XG	1A2, 1G3, 8A7, 8B1, 8F3
X	3C7, 3C8	XH	1A2, 1G3, 3G6, 8A7, 8F3
W	3C7	XI	4D1
V	3E8	XJ	3H7, 4D1
U	3D8	XK	8B1, 8C1
T	4A1	XL	APP FIG. 2, 3, 1A2, 1H1, 1G3, 2B2, 2E2, 3C8, 3D8, 3E7, 3G6, 3H0, 4A0, 4A1, 4D3, 4E9, 4G4
R	2E5, 3F0, 3G0, 3G1, 3G5, 3H1	XM	APP FIG. 2, 3, 1A2, 1H1, 1G3, 2B2, 2E2, 3C8, 3D8, 3E7, 3G6, 3H0, 4A0, 4A1, 4D3, 4E9, 4G4
Q	APP FIG. 2, 3, 4, 3A0, 3G4, 7D8, 3F4, 5D4		
N	4B1		
M	4B0, 4B1		
K	APP FIG. 2		
J	APP FIG. 2, 4C1		
H	2B5		
G	2B5		
F	1A0		
E	1A0		
B	3F7	XN	1D3, 1E3
A	3F7	XO	APP FIG. 3, 1D2, 1E2
		XP	APP FIG. 2, 3, 4, 1G0, 2D5, 2E4, 2E5, 3A0, 3F4, 3F7, 3F8, 3F9, 3G4, 3G5, 3G6, 3G8, 3H0, 3H1, 3H5, 3H6, 5C0-5, 5D1-5, 7A3, 7A7, 7D8, 7E3, 7E7, 9B2
		XQ	3D7
7A	3H4, 3H5	XR	3E7
ZB	APP FIG. 2, 3, 4, 1G0, 3A0, 3F8, 3G4, 3G6, 3G8, 3H4, 3H5, 5D4, 7D8	XS	9C1, 9C2
		XU	9D1, 9D2
ZC	8C1	XV	APP FIG. 3, 8B1
ZD	1E3	XW	3E8
ZE	1E3, 3F0, 3F8, 3G9, 5A6	XW	APP FIG. 1, 1F8, 3E8, 3E9, 3G1
ZF	1F8, 1G4	XX	3F1
ZG	1F8, 1G4	XY	APP FIG. 1, 1D3
ZH	1B6, 1D6	XZ	1G4
ZI	3C7	WA	APP FIG. 3
ZJ	1D0, 1E0, 1F0		
ZK	3C7		
ZL	3G0		
ZM	3A0		
ZN	APP FIG. 1, 1D3		
ZO	1C0		
ZP	3G0		
ZQ	3E7		
ZR	3E8		
Z'	8G0		
ZT	7D2		
ZU	1D3		
ZV	1D3		
ZW	1E4		
ZX	APP FIG. 1		
ZY	APP FIG. 1, 8, 9		
ZZ	APP FIG. 5, 8C3		
YA	APP FIG. 5, 8C3		
YB	3F4		
YC	APP FIG. 3, 3F4		
YD	3F7		
YE	APP FIG. 2, 3F7		
YF	1E5		
YG	1E5		
YH	APP FIG. 1, 1E4		
YI	8F8		
YJ	8F0		
YK	APP FIG. 3, 8A-8B		
YL	APP FIG. 8, 8A-8B		
YM	8B2		
YN	APP FIG. 5, 8B2		
YO	1E1		
YP	APP FIG. 1, 1D1		
YQ	4H1		
YR	APP FIG. 3, 3F0, 3G0		
YS	APP FIG. 3, 3F0, 3G0		

DRAWING ISSUE  
 SUPER-SEDES  
 ISS 29B  
 1-29-69  
 CLK  
 LDJ  
 30D PJS  
 LDJ  
 31D

ISSUE  
 32D

DIAL PULSE REGISTER CIRCUIT

SD-65742-01-A2

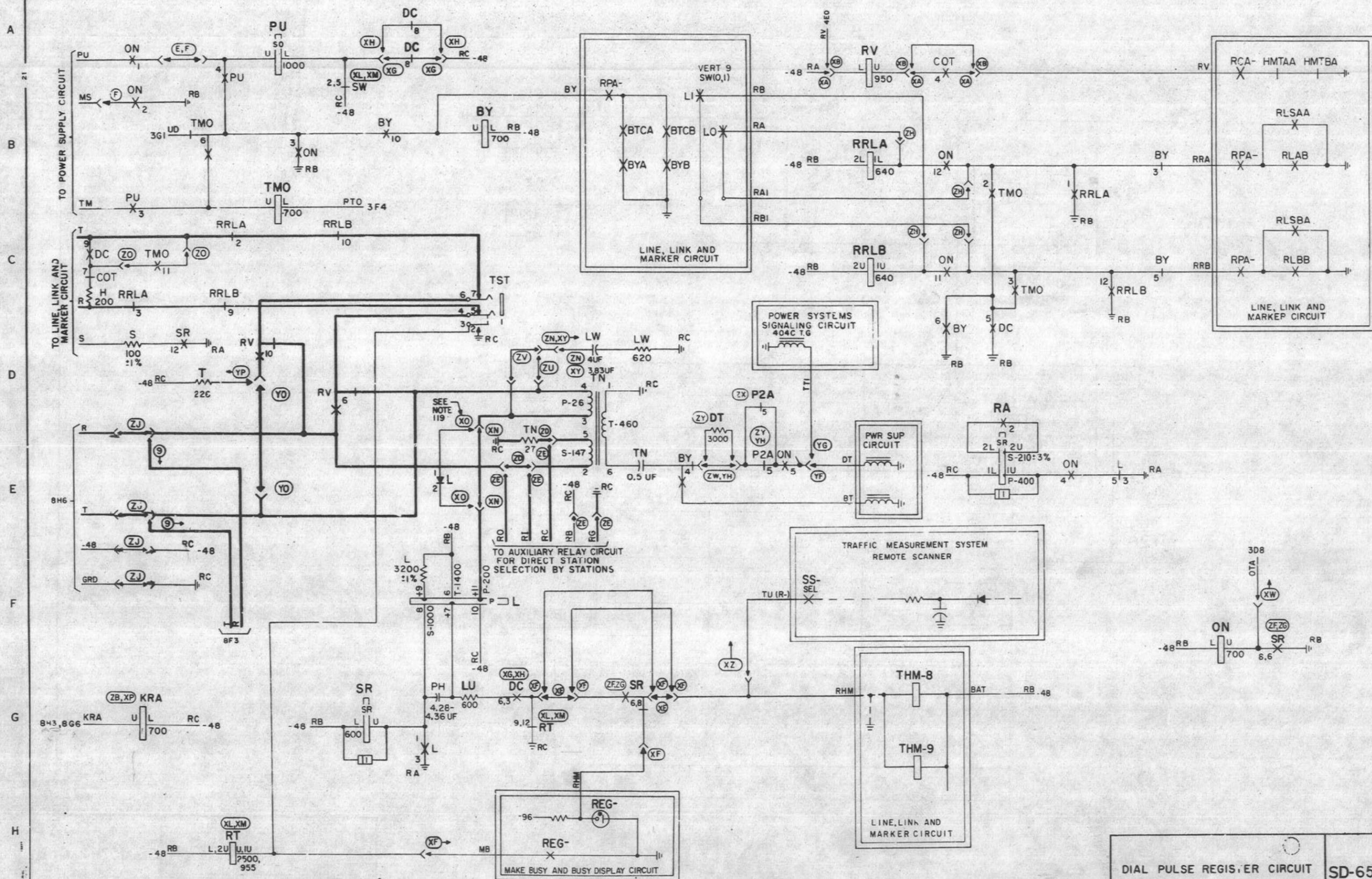
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6S

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SD-65742-01-A2

FS I  
TIP AND RING CONTROL



DRAWING	ISSUE
1	1
2B	2
3D	3
5B	4
8D	5
10B	6
11B	7
12AC	8
17B	9
18B	10
19B	11
21B	12
22D	13
24B	14
26D	15
27D	16
29B	17
30D	18
31D	19

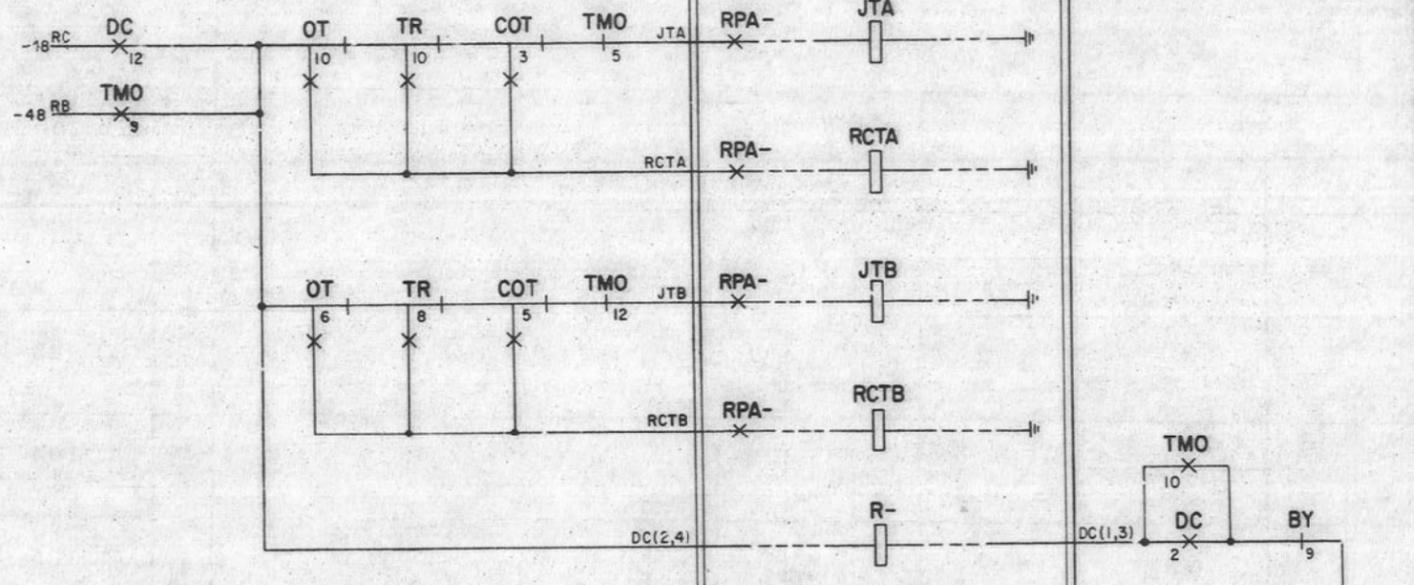
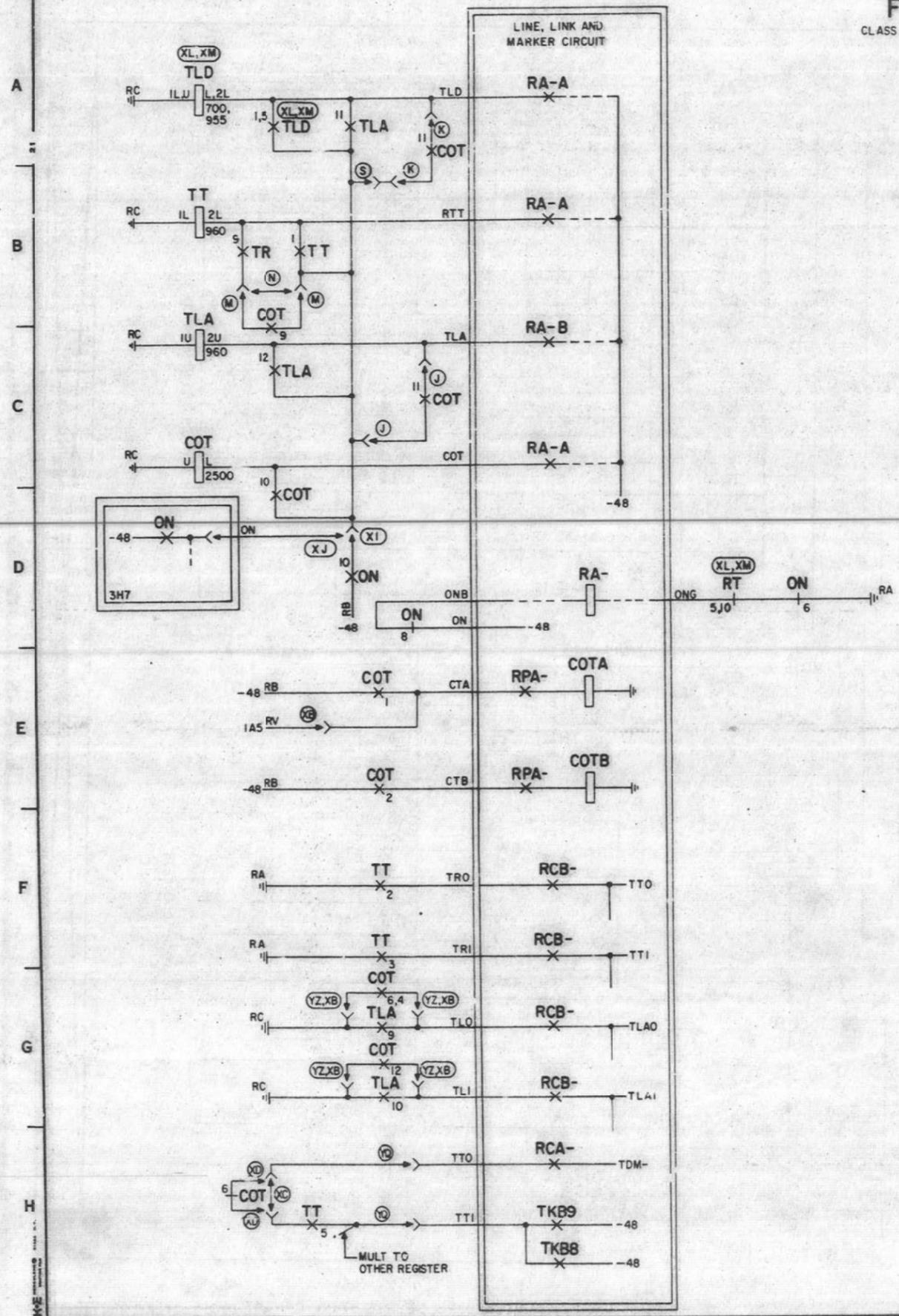
DIAL PULSE REGISTER CIRCUIT SD-65742-01-B1  
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SD-65742-01-B1

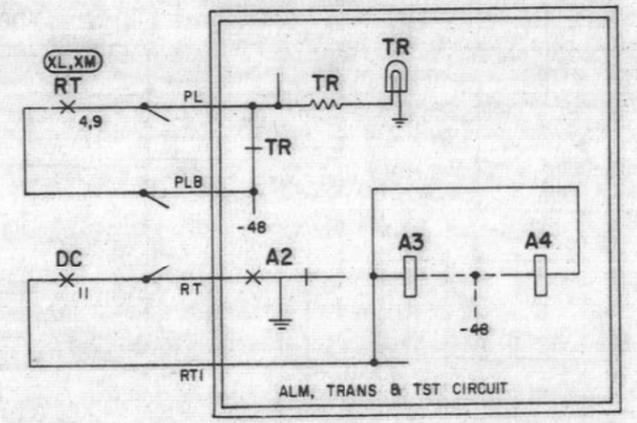




**FS 4**  
CLASS OF SERVICE



**FS 5**  
ALARM CONTROL



DRAWING	ISSUE	WS
1	JC	RAC
2B	PJS	POB
5B	FJS	POB
6D	LWF	POB
10B	HP	POB
24B	E.S.	POB
24B	CRA	NY
24B	SAK	HO
24B	GFH	HW
25D	SAK	HO
25D	GFH	HW
26D	FUS	B
28A	PHF	B
28A	TEF	B
28A	RHP	B
WORN DRAWING REPRODUCED WITHOUT CHANGE 9/28/67 J.J.R.		
ROZ	FUS	C
29B	LDJ	C
30D	CLK	C
30D	LDJ	C

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DIAL PULSE REGISTER CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

SD-65742-01-B4

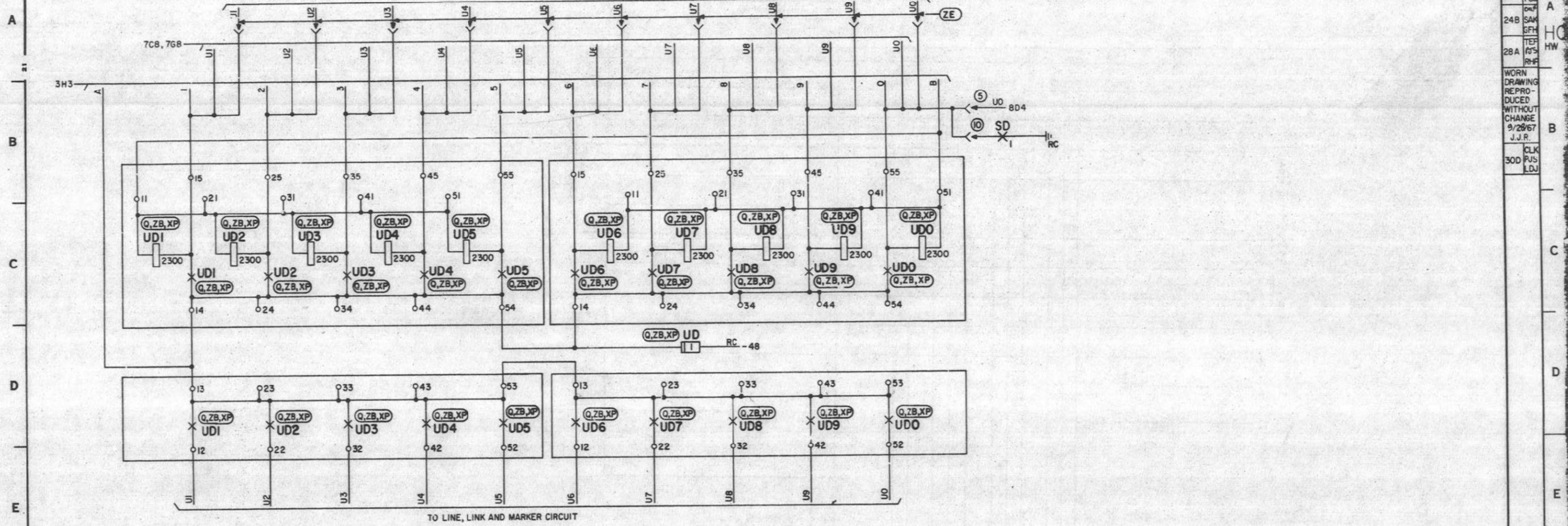
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SD-65742-01-B4

PART OF FS 3  
STEERING

TO AUXILIARY RELAY CIRCUIT FOR DIRECT STATION SELECTION BY STATIONS



TO LINE, LINK AND MARKER CIRCUIT

ISSUE	TEB
4B CM	POB
6D LMC	
HP	
ES NY	
10B CRA	A
POB	
24B SAK	HC
GFH	
28A TEF	HW
RHF	
WORN	
DRAWING	
REPRO-	
DUCED	
WITHOUT	
CHANGE	
9/28/67	
J.J.R.	
CLK	
30D PJS	
LJU	

SD-65742-01-B5

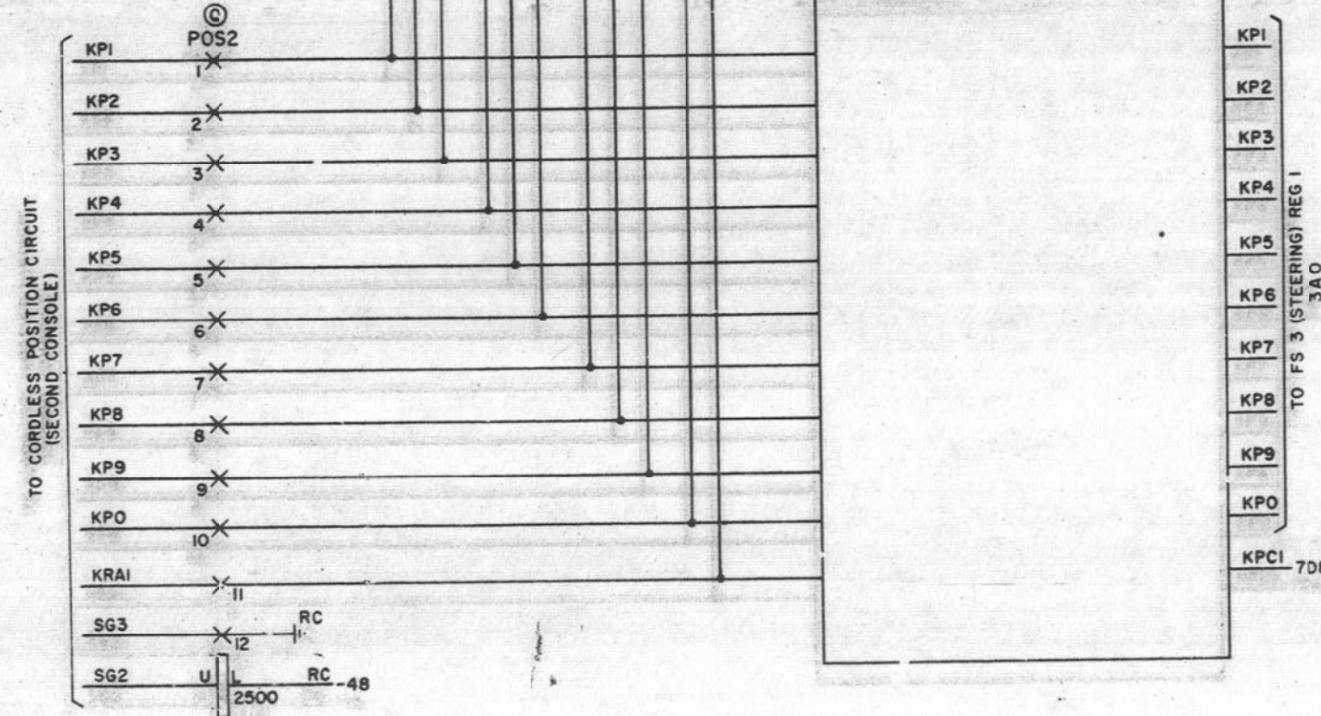
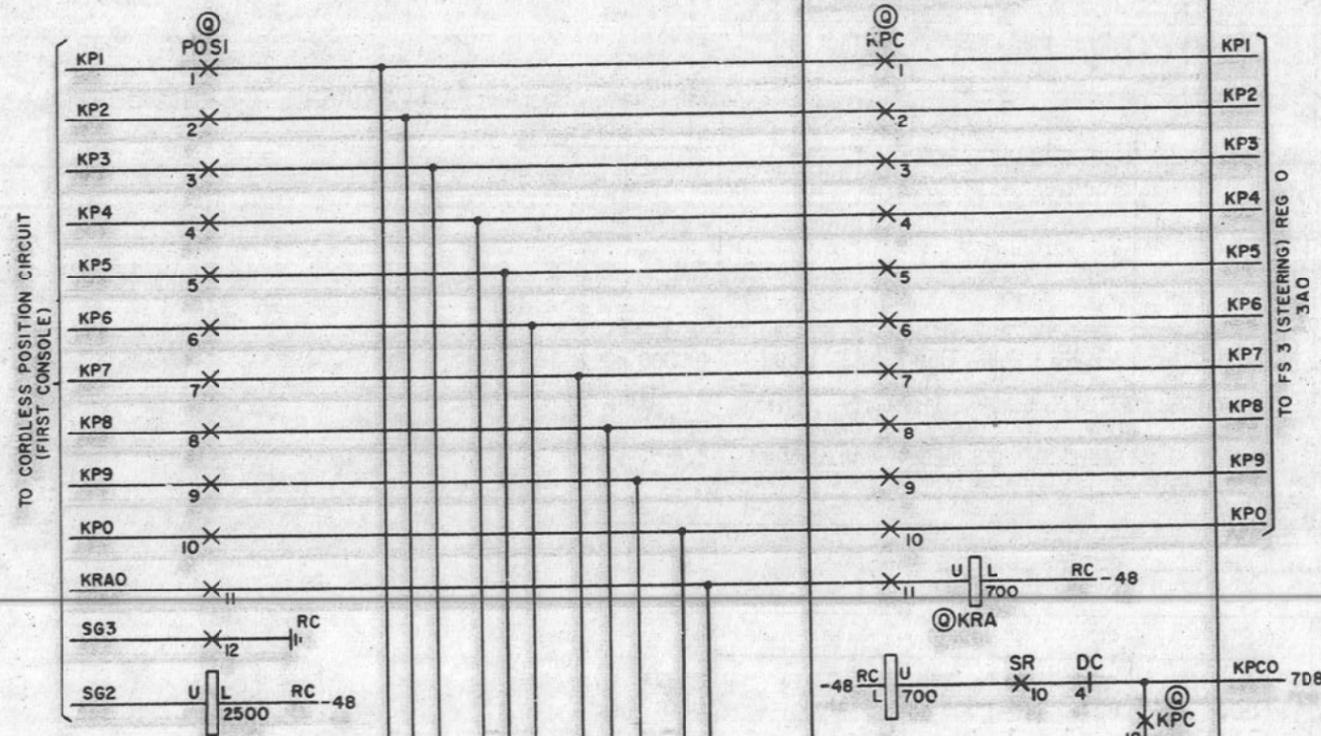
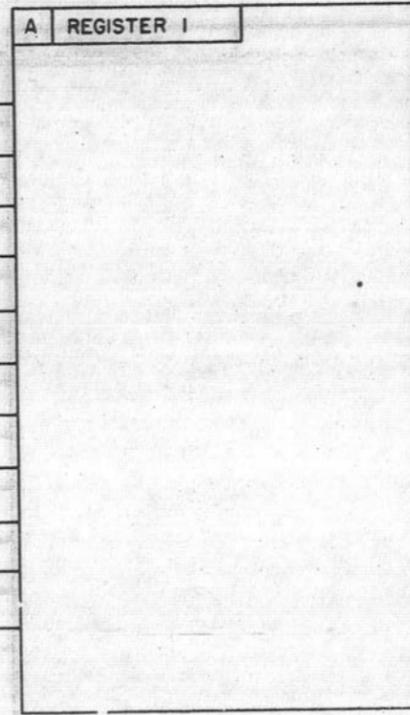
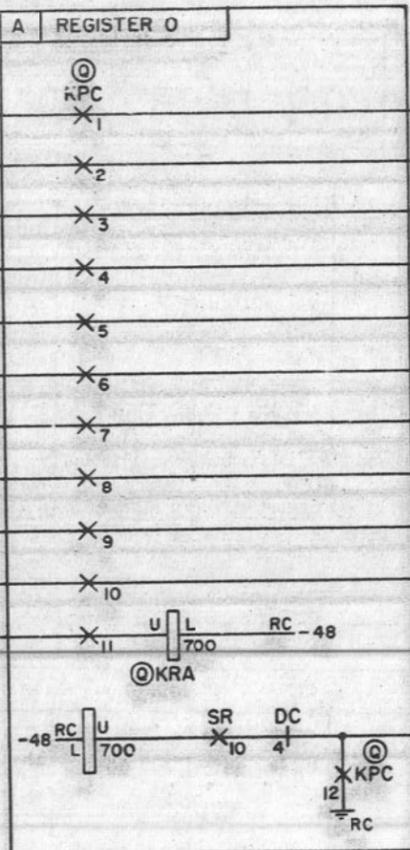
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DIAL PULSE REGISTER CIRCUIT ②	SD-65742-01-B5
BELL TELEPHONE LABORATORIES INCORPORATED	6S PRINTED IN U.S.A.

0 1 2 3 4 5 6 7 8 9

FS 6 (MFR DISC)  
KEY PULSING CONNECTOR  
AND CONTROL CIRCUIT

DRAWING  
ISSUE  
4B  
6D  
10B  
30D  
CLK  
RUS  
LDV



TO FS 3 (STEERING) REG 0  
3A0

TO FS 3 (STEERING) REG 1  
3A0

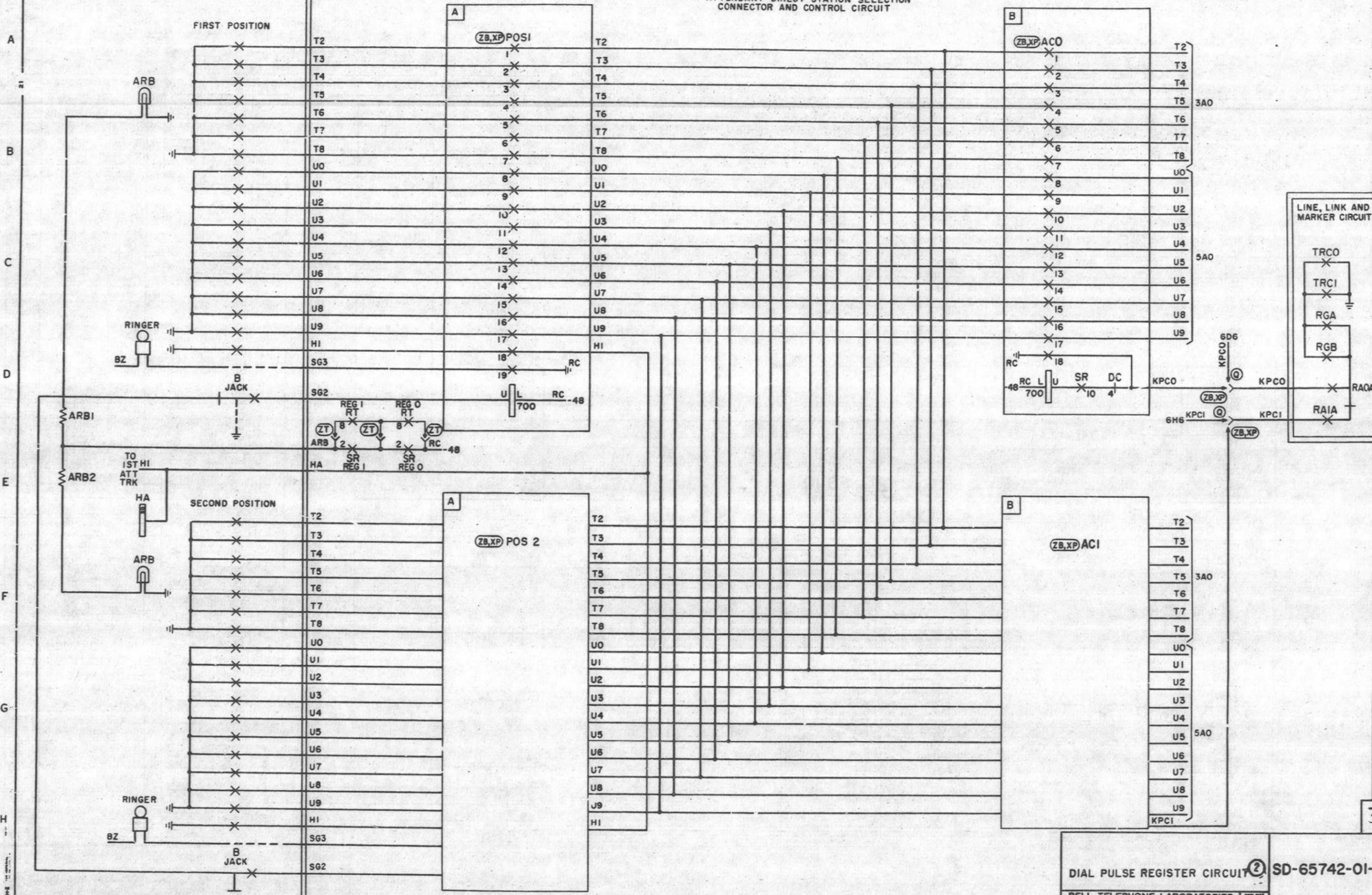
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30

CORDLESS POSITION CIRCUIT

FS 7  
ATTENDANT DIRECT STATION SELECTION  
CONNECTOR AND CONTROL CIRCUIT

DRAWING	E 5
ISSUE	10B
CRA	13D
POB	17B
PC	300
EG	
PD	
CLK	
PUS	
LDJ	

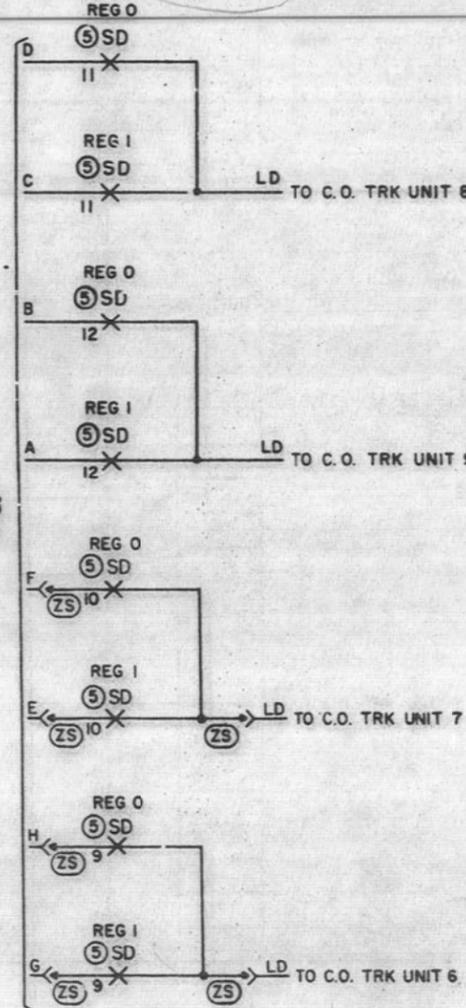
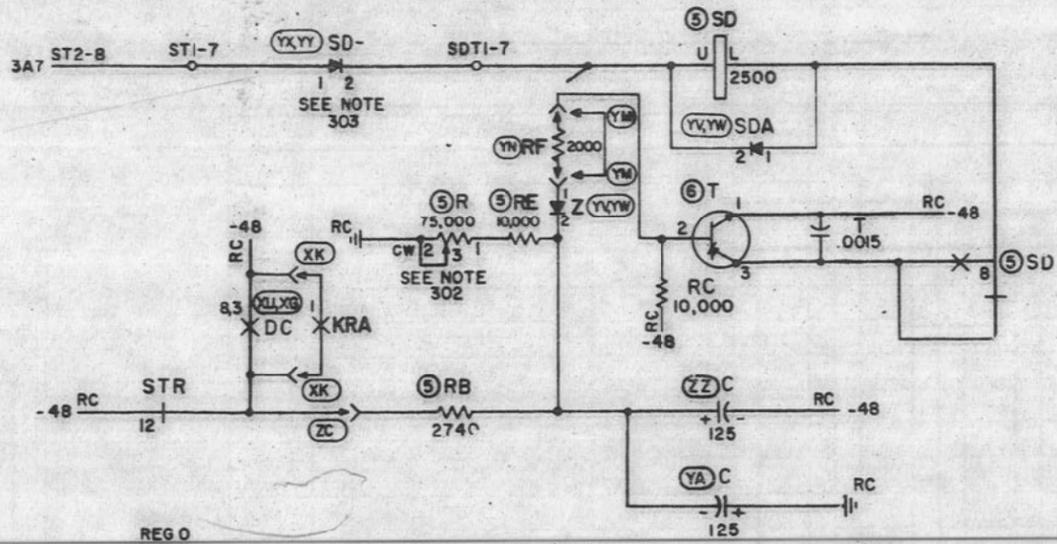


SD-65742-01-B7

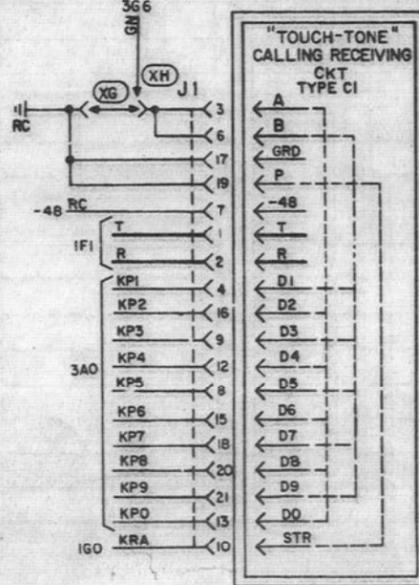
DIAL PULSE REGISTER CIRCUIT ② SD-65742-01-B7  
 BELL TELEPHONE LABORATORIES INCORPORATED 65

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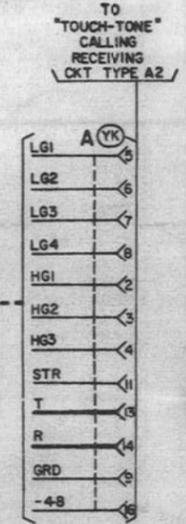
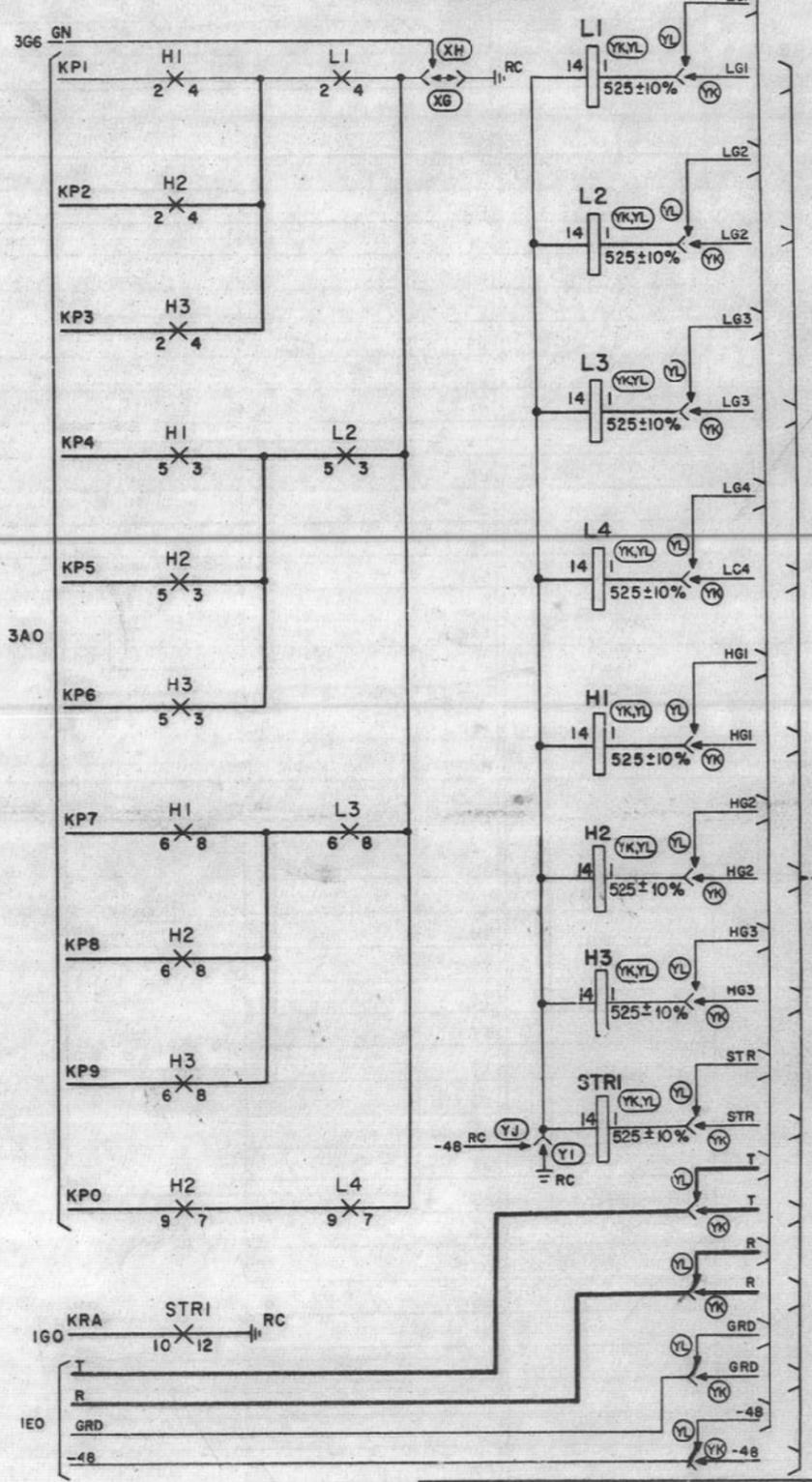
**FS 8 (MFR DISC.)**  
SINGLE DIGIT DIALING  
TIMING AND CONTROL CIRCUIT



**FS 10**  
TOUCH TONE CALLING RECEIVER  
TYPE C1



**FS 9**  
"TOUCH-TONE" CALLING  
TRANSLATION CIRCUIT



DRAWING ISSUE

108	E.S.
	C.R.
	P.O.B.
13D	P.M.C.
	J.S.
	P.D.
15A	L.J.L.
	R.T.
17B	P.D.
	R.T.
18B	K.B.
	P.D.
19B	J.J.G.
	P.D.
22D	G.A.P.
	K.F.J.
23A	G.A.P.
	K.F.J.
24B	P.F.
	R.Z.
29B	R.S.
	L.D.J.
30D	C.L.K.
	R.S.
	L.D.

30

SD-65742-01-B8

DRAWING ISSUE 30D HW

A

B

C

D

E

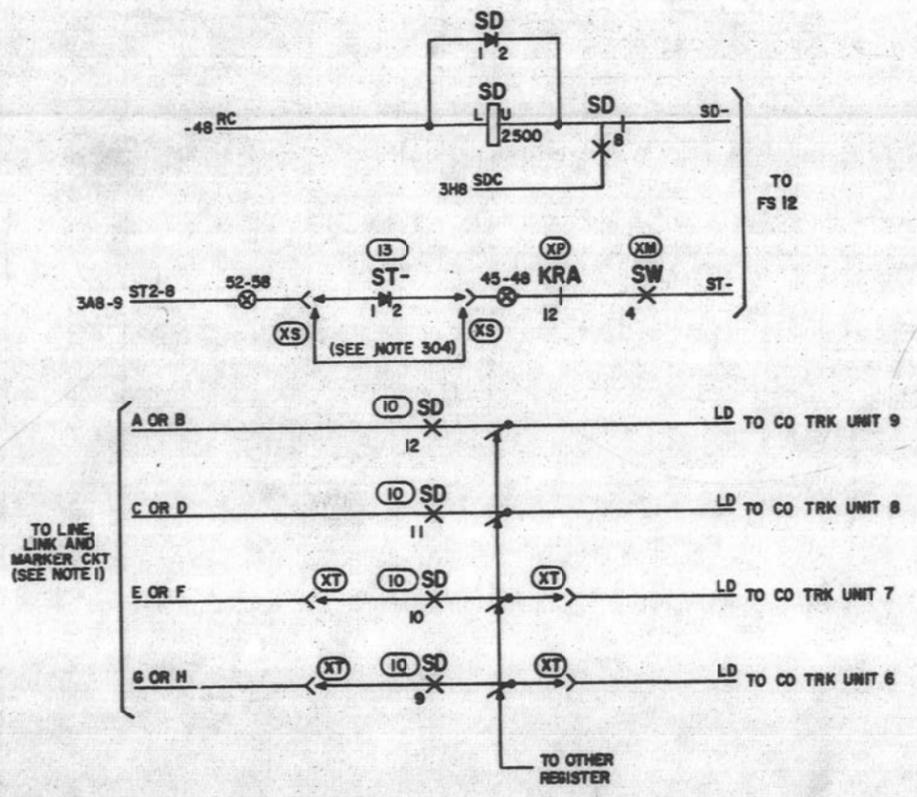
F

G

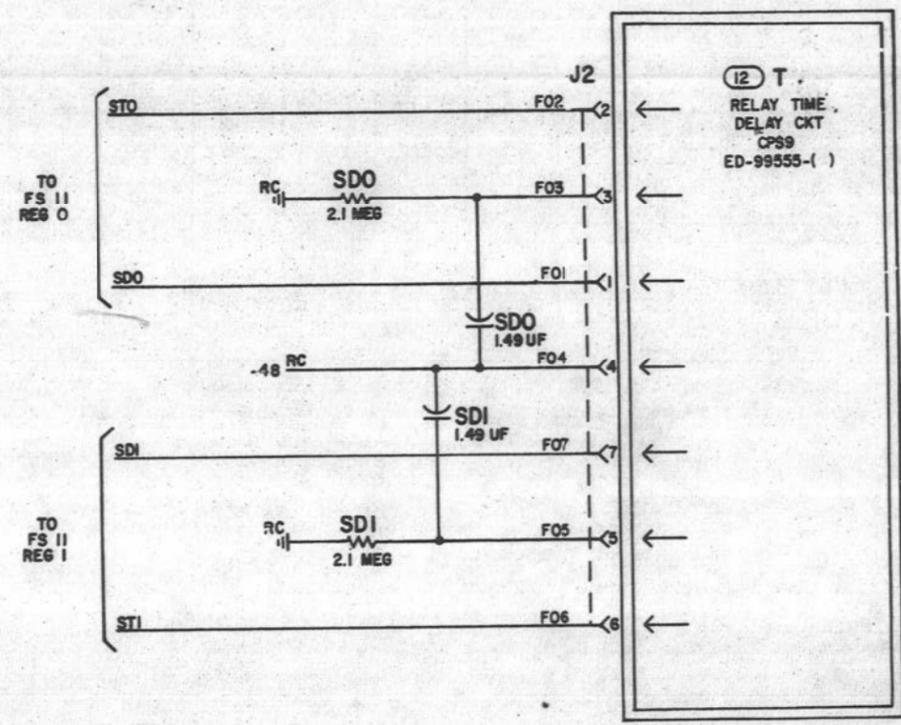
H

30

**10 FS 11**  
SINGLE DIGIT CONTROL



**11 FS 12**  
SINGLE DIGIT TIMING



NOTES:  
1. LEADS A,C,E, AND G ARE FOR REGISTER 1. LEADS B,D,F, AND H ARE FOR REGISTER 0.

SD-65742-01-B9

DIAL PULSE REGISTER CIRCUIT ②		SD-65742-01-B9
BELL TELEPHONE LABORATORIES INCORPORATED		6S PRINTED IN U.S.A.

APP FIG. 1

RELAY	BY	P1	P2	P2A	P2A	OTA	P3	P4	P5	RA	RV	DESIG	
CODE	AJ30	AF515	AF518	AF63	AK30	AF515	AF515	AF515	AF515	AG35	AF118	CODE	
OPTION	ZX												
OPTION	CONT	LOC	CONT	LOC	CONT	LOC	CONT	LOC	CONT	LOC	CONT	LOC	OPTION
12			BM	3G8	EMB	2C4					M	2D2	12
11			M	2C4	M	2D3							11
10	M	1B2	BM	2H3	EBM	3B1							10
9	B	4D9											9
8	EBM	3G5	BM	2F5	EBM	3C0	M	2B3					8
7	B	2F3	B	2F3	B								7
6	EMB	1D6	BM	3E1	EMB	2B5	EMB	2E2					6
5	B	1C7											5
4	EBM	1E4	BM	2D4	EBM	2H5	M	3H5					4
3	B	1B7	M	3A0	M								3
2			BM	3D1	EBM	3G6							2
1			M	2B3	M	2E5							1
COIL													

CAPACITOR

DESIG	LOC	CODE
ZN	1D3	542G,4
TN	1E4	441B
XY	1D3	705G,3.83

JACK

DESIG	LOC	CODE
TST	1C3	240C

NETWORK

DESIG	LOC	CODE
P1	2B6	186A
P2	2C6	186A
P3	2D6	186A
P4	2G6	186A
P5	2H6	186A
RA	1D6	185A

RESISTOR

DESIG	LOC	CODE
H	1C0	18G
LU	1G3	18AE
ZN,XY	1D4	KS-13490,LI,620
P1	2B4	KS-13490,LI 0.1 MEG
P2	2C3	KS-13490,LI 0.1 MEG

TRANSFORMER

DESIG	LOC	CODE
TN	1D3	142C REP COIL

RELAY

DESIG	LOC	CODE
S	1D0	18BW
T	1D1	18AG
TN	1E3	KS-13490, LI, 27

PART OF APP FIG. 2 (MFR DISC.)

RELAY	KRA	COT	KPC	KRA	ON	PU	RRLA	RRLB	RT	SR	TLD	RT	DESIG
CODE	AF20	AF64	AF132	AF16	AF132	AF85	AK5			AF63	AG15	AK7	CODE
OPTION	Q,ZB												
OPTION	CONT	LOC	CONT	LOC	CONT	LOC	CONT	LOC	CONT	LOC	CONT	LOC	OPTION
12	EMB	9B2	EMB	d	M	6D5	M		M	1B6			12
11	M	3F7	M	(2)	M	6D4	M		M	1C6			11
10	EBM	M	4D1	M	6C4	M	3F7	M	4D1	EBM			10
9			BM	4B1	M	6C4			M	(c)	PM		9
8	EBM	3H1	M	4E6	BM	6C4	EBM		BM	4D1			8
7			BM	1C0	M	6C4	B	3G5	M	3G4			7
6	EMB	3G5	EMB	C	BM	6B4	EBM	3H1	BM	(a)	EBM	3H0	6
5			BM	4B6	M	6B4			M	1E5			5
4	EBM	2E5	M	d	M	6B4	EBM	2E5	M	1E7	PM	1A1	4
3			BM	4A6	M	6B4			M	1B1	M	1C0	3
2	EBM	M	4E1	M	6B4	M			M	(b)			2
1	M		M	4E1	M	6A4	M	8C1	M	1A0			1
COIL													

LAMP

DESIG	LOC	CODE
RT	4E9	2Y

NETWORK

DESIG	LOC	CODE
SR	1G2	185A

DIODE

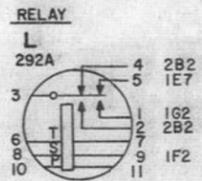
DESIG	LOC	CODE
KRA	3F7	446F

PART OF APP FIG. 2 (MFR DISC.)

RELAY	TLA	TT	TLD	TMO				
CODE	AK2	AF52	AJ12	AJ12				
OPTION	XL							
OPTION	CONT	LOC	CONT	LOC				
12	M	4C1		EBM	4B6			
11	M	4A1		EBM	1C0			
10	M	4G1		EBM	4C9			
9	M	4G1		EBM	4B4			
8	M		BM	3D8	EBM	3D6		
7								
6			BM	3C8	EBM	1B0		
5			M	4H1	EBM	4A6		
4			M	4E6	BM	EBM	3G8	
3			M	4F1	M	EBM	1C6	
2			M	4F1	M	EBM	1B6	
1			M	4B1	M	4A1	EBM	3C1
COIL								

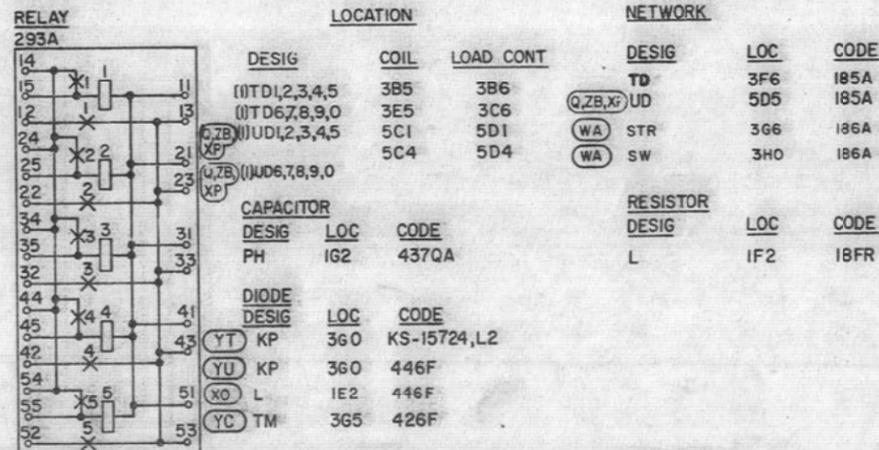
RELAY

DESIG	LOC	CODE
AC	AJ202	
ZB		
24		
23		
22		
21		
20		
19	3F9	
18	7D7	
17	7D7	
16	7D7	
15	7D7	
14	7C7	
13	7C7	
12	7C7	
11	7C7	
10	7C7	
9	7C7	
8	7B7	
7	7B7	
6	7B7	
5	7B7	
4	7A7	
3	7A7	
2	7A7	
1	7A7	
COIL	7D7	



APP FIG. 3 (MFR DISC.)

RELAY	DC	OT	STR	SW	TR	UD	SW	UD	DESIG
CODE	AF55	AF120	AJ12	AF114	AJ3	AF57	AK6	AK6	CODE
OPTION	XL								
OPTION	CONT	LOC	CONT	LOC	CONT	LOC	CONT	LOC	OPTION
12	M	4A4	EM	3G1	EBM	8C1			12
11	M	4G4			EBM	3G7			11
10	BM	3F0	EBM	4A5	EBM	3F1	M	3E7	10
9	M	1C0			EBM	3E4			9
8	BM	d	EMB	3E8	EBM	3E3	BM	2E2	8
7	B	3D7	B	2B5	EBM	3D3			7
6	BM	d	EMB	4B5	EBM	3D3	BM	2B2	6
5	M	1D6	B	3E9	EBM	3C3	M	3D7	5
4	BM	(a)	PM	3E8	EBM	3B2	M	3H0	4
3	M	c	B	3G6	EBM	3B2			3
2	M	4D9	EM	3G1	EBM	3B2	B	1A2	2
1	M	3F5			EBM	3A2			1
COIL									



APP FIG. 4

RELAY	POS1	POS2	ACO	ACI
CODE	AJ202	AJ202	AJ202	AJ202
OPTION	Q			
OPTION	CONT	LOC	CONT	LOC
12	EBM	6D2	EBM	6H2
11	EBM	6D2	EBM	6H2
10	EBM	6C2	EBM	6H2
9	EBM	6C2	EBM	6G2
8	EBM	6C2	EBM	6G2
7	EBM	6C2	EBM	6G2
6	EBM	6B2	EBM	6G2
5	EBM	6B2	EBM	6F2
4	EBM	6B2	EBM	6F2
3	EBM	6B2	EBM	6F2
2	EBM	6A2	EBM	6F2
1	EBM	6A2	EBM	6E2
COIL				

RELAY

DESIG	POS1	POS2	ACO	ACI
CODE	AJ202	AJ202	AJ202	AJ202
OPTION	ZB,XP			
OPTION	CONT	LOC	CONT	LOC
24				
23				
22				
21				
20				
19	7D3	7G3	3F8	3F8
18	7D3	7G3	7D7	7G7
17	7D3	7G3	7D7	7G7
16	7D3	7G3	7D7	7G7
15	7C3	7G3	7C7	7G7
14	7C3	7G3	7C7	7G7
13	7C3	7G3	7C7	7G7
12	7C3	7G3	7C7	7G7
11	7C3	7G3	7C7	7G7
10	7C3	7G3	7C7	7G7
9	7B3	7G3	7B7	7G7
8	7B3	7G3	7B7	7G7
7	7B3	7G3	7B7	7G7
6	7B3	7G3	7B7	7G7
5	7B3	7G3	7B7	7G7
4	7A3	7G3	7A7	7G7
3	7A3	7G3	7A7	7G7
2	7A3	7G3	7A7	7G7
1	7A3	7G3	7A7	7G7
COIL	7D3	7G3	7D7	7H7

DIAL PULSE REGISTER CIRCUIT

SD-65742-01-C1

BELL TELEPHONE LABORATORIES

65

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ISSUE 32D

SD-65742-01-C1

APP FIG. 5 (MFR DISC.)

DESIG	SD							
CODE	AJ83							
OPTION	CONT ARR	LOC						
12			EBM	b				
11			EBM	a				
10			EBM	c				
9			EBM	d				
8			EMB	8B4				
7			EBM					
6			EMB					
5			EMB					
4			EBM	3G0				
3			EBM	3D7				
2			EBM	RD3				
1			EBM	8D3				
COIL			EBM	8A3				

REG	LOC	CODE
REG 0	8D1	
a REG 1	8D1	
REG 0	8E1	
b REG 1	8E1	
REG 0	8F1	
c REG 1	8G1	
REG 0	8G1	
d REG 1	8H1	

**CAPACITOR**

DESIG	LOC	CODE
C	8C3	KS-13810,125 (ZZ) KS14105,125 (YA)
T	8B3	KS-16742, L1, .0015

**DIODES**

DESIG	LOC	CODE
SDA	8B3	420G (YV) 446F (YW)
Z	8B2	420K (YV) 446N (YW)

**POTENTIOMETER**

DESIG	LOC	CODE
R	8B2	KS-13790, L30, 75,000

**RESISTOR**

DESIG	LOC	CODE
RB	8C2	146C, 2740
RC	8B3	145C, 10,000
RE	8B2	145C, 10,000
(YN) RF	8B2	KS-13490, L1, 2000

APP FIG. 9

**CONNECTOR**

DESIG	LOC	CODE
J1	8F3	KS-14672, L2

**RESISTOR**

DESIG	LOC	CODE
(ZY) DT	1E4	KS-13490, L1, 3000

APP FIG. 6 (MFR DISC.)

**TRANSISTOR**

DESIG	LOC	CODE
T	8B3	27A

APP FIG. 10 (MFR DISC.)

**RELAY**

DESIG	SD
CODE	AJ83
OPTION	
12	EBM 9C1
11	EBM 9C1
10	EBM 9D1
9	EBM 9D1
8	EMB 9B2
7	EBM
6	EMB
5	EMB
4	EBM 3G0
3	EBM 3D7
2	EBM 3E8
1	EBM 5B6
COIL	9B2

**DIODE**

DESIG	LOC	CODE
SD-	9A2	458A

APP FIG. 12

**TIME DELAY UNIT**

DESIG	LOC	CODE
T	9B8	ED-99555-(1)

APP FIG. 7 (MFR DISC.)

**DIODE**

DESIG	LOC	CODE
(YX) SD-	8A1	KS-15724, L2
(YV) SD-	8A1	446F

APP FIG. 11

**CAPACITOR**

DESIG	LOC	CODE
SD0	9C7	535EA, 1.49UF
SD1	9C7	535EA, 1.49UF

**CONNECTOR**

DESIG	LOC	CODE
J2	9B7	910A

**RESISTOR**

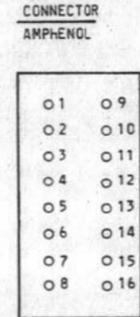
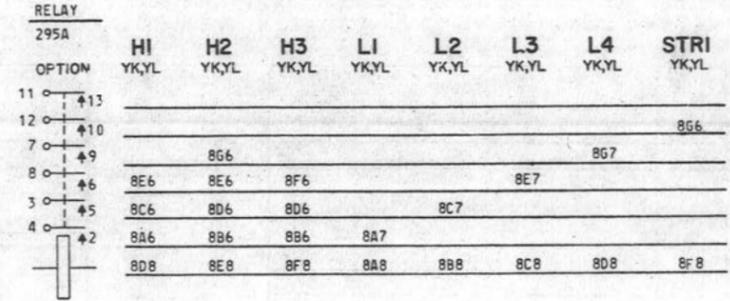
DESIG	LOC	CODE
SD0	9B6	221A, 2.1MEG ± 1%
SD1	9D6	221A, 2.1MEG ± 1%

APP FIG. 13

**DIODE**

DESIG	LOC	CODE
ST-	9B1	458A

APP FIG. 8



**RESISTOR**

DESIG	LOC	CODE
(ZY) DT	1E4	KS-13490, L1, 3000

DESIG	A
CODE	26-4501-16S
OPTION	YK
TERM.	LOC
1	
2	8E9
3	8E9
4	8E9
5	8E9
6	8E9
7	8E9
8	8E9
9	8F9
10	
11	8E9
12	
13	8F9
14	8F9
15	
16	8F9

SD-65742-01-C2

DRAWING ISSUE

10B	ES
	CRA
	POB
	LAD
54A	WY
	PD
7B	WY
	PD
	RT
	FB
	PE
	JW
8B	PD
	FB
	WY
2B	SK
	KJ
	WY
22D	SK
	KJ
22AC	SK
	KJ
24B	SK
	KJ
30D	SK
	KJ

ISSUE 32D

CIRCUIT NOTES:

DESIG	FUSE AMP	POTENTIAL	ONE PER	TERM. DESIG
RA	1 1/3	-48V SIG	APP FIG. 1	
RB	1 1/3	-48V SIG	APP FIGS. 1,2,3	
RC	1 1/3	-48V SIG	APP FIGS. 1,2,3,10&11	
RA		GROUND	APP FIG. 1,2,3	
RB		GROUND	APP FIG. 2,3	
RC		GROUND	APP FIG. 1,2,3, 4,8, & 11	
BATTERY SYMBOL		VOLTAGE RANGE		
-48V		45-52V		

102 (CONT)

FEATURE OR OPTION	PROVIDE		
	APP FIGS	APP OR WIR	QUANTITY
"TOUCH-TONE" CALLING TRANSLATION CIRCUIT FOR USE WITH RECEIVING CIRCUIT TYPE A3-7 CHANNEL	8	YJ, YL	1 PER REG
USED WITH "TOUCH-TONE" CALLING RECEIVING CIRCUIT TYPE C1	9		1 PER REG
PAD CONTROL FOR DIAL REPEATING TIE TRUNK		YQ	
PAD CONTROL OF DIAL REPEATING TIE TRUNKS		XC	
PAD REMOVED ON ALL DIAL-REPEATING TIE TRUNK CALLS (SEE NOTE 118)			
PAD REMOVED ONLY ON DIAL-REPEATING TIE TRUNK TO DIAL-REPEATING TIE TRUNK CALLS (SEE NOTE 118)		XD	

104 (CONT)

CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN.	SEE NOTE	USE IN CIRCUIT		
				STD	A & M	MD
12AC	ZO	NONE		ZO		
16AC	ZR OR ZO	ZQ	108	ZR		ZQ
	ZS	NONE	102	ZS		
17B	ZT	NONE		ZT		
	ZV	ZU		ZV		ZU
18B	ZW	ZX	109	ZW		ZX
	ZX OR ZY	ZZ		ZY		ZZ
19B	YA OR ZZ			YA		ZZ
	TRANS			27A		F54810
20B	YB OR YC	YB	110	YC		YB
	YD OR YE	YD	111	YE		YD
21B	YF OR YG	YF	102	YG		YF
22D	YH	ZW OR ZY	102	YH		ZW,ZY
22D	YI OR YJ	YI	102	YJ		YI
22D	YK OR YL	YK	102	YL		YK
23AC	YM OR YN	YM	113	YN		YM
24B	YO OR YP	YO		YP		YO
24B			114	YB		YC
24B	YT OR YU	YT	115	YU		YT
24B	YV OR YW	YV	116	YW		YV
24B	YX OR YY	YX	117	YY		YX
24B	YZ	NONE		YZ		
25D	YQ	NONE		YQ		
26D	XA OR XB	XA OR YZ		XB		YZ, XA
	XC OR XD	XC	102, 118	XC, XD		
27D	XE, XF	XE		XF		XE
29B	XG, XH	XG		XH		XG
	XI, XJ	XI		XJ		XI
	XK	NONE		XK		
	XL OR XM	XL		XM		XL
	XN, XO	XN	118	XN, XO		
	XP	ZB	121	XP		ZB
	XQ OR XR	XQ		XR		XQ
30D	XU, XS, XT, APP FIG. 10, 11, 12, & 13	XK, YA, YN, YW, YY, ZC, ZS, APP FIG. 5, 6, 7	102, 120	XS, XT, APP FIG. 10, 11, 12, 13		XU, XK, YA, YN, YW, YY, ZC, ZS, APP FIG. 5, 6, 7
	XV, XW, XX	XV, XX	102, 122	XW, XX		XV
	XY	ZN		XY		ZN
31D	XZ	NONE		XZ		
32D	WA	NONE		WA		

105. M OPTION IS REQUIRED WHEN THE PBX IS EQUIPPED WITH RINGDOWN TIE TRUNKS.

(MFR DISC) 106. ZC AND ZE OPTIONS SHOULD ONLY BE SPECIFIED WHERE ZB OPTION HAS BEEN PROVIDED.

107. THE FOLLOWING SHOWS THE RELAYS OPERATED FOR EACH DIGIT DIALED.

DIGIT	RELAYS OPERATED
1	L1, H1
2	L1, H2
3	L1, H3
4	L2, H1
5	L2, H2
6	L2, H3
7	L3, H1
8	L3, H2
9	L3, H3
0	L4, H2

108. ZR OPTION MUST BE SPECIFIED WHERE ZE OPTION OR ZB OPTION HAS BEEN PROVIDED

(MFR DISC) 109. ZW OPTION MUST BE SPECIFIED WHEN APP FIGURES 8 OR 9 ARE NOT PROVIDED (SEE NOTE 112).

(MFR DISC) 110. YC OPTION PREVENTS STATION LOCK UP WHEN BOTH REGISTERS ARE ON HOLD AND ONE TIMES OUT.

111. YE OPTION PREVENTS OPERATION OF STR RELAY WHEN "TOUCH TONE" STATION SELECTS AN UNEQUIPPED 6 AND 7 TENS GROUP.

(MFR DISC) 112. ZW OPTION IS SPECIFIED AT ALL TIMES WHEN YG OPTION IS PROVIDED.

113. YM OPTION MUST BE SPECIFIED WHERE YA OPTION HAS BEEN PROVIDED.

114. WHEN OPTION Q OR ZB IS PROVIDED, THE ATTENDANT TRUNK CIRCUIT MUST BE PER ISSUE 11B OR LATER UF SD-65753-01.

115. OPTION YT WAS A PART OF OPTION Q AND OPTION ZB PRIOR TO ISSUE 24B.

116. OPTION YV WAS A PART OF OPTION 5 PRIOR TO ISSUE 24B.

117. OPTION YX WAS A PART OF OPTION 7 PRIOR TO ISSUE 24B.

118. SEE MARKER CIRCUIT NOTE 123 REGARDING OPTIONS USED FOR VARIOUS PAD CONTROL ARRANGEMENTS.

119. THE INSTALLER SHALL ADD OPTION XO AND REMOVE OPTION XN WHEN THE DIAL PULSE REGISTER CKT IS USED WITH LINE CIRCUITS EQUIPPED WITH 24V4 REPEATERS.

120. OPTION XU WAS A PART OF OPTION XH PRIOR TO ISSUE 30D.

121. OPTION ZE SHOULD ONLY BE SPECIFIED WHERE OPTION XP HAS BEEN PROVIDED.

122. THE INSTALLER SHALL REMOVE OPTION XX WHEN OPTION V IS SPECIFIED.

WORKING LIMITS

MAX EXTERNAL LOOP RESISTANCE	2000
MIN INSULATION RESISTANCE	10,000

102.

FEATURE OR OPTION	PROVIDE		
	APP FIGS	APP OR WIR	QUANTITY
DIAL PULSE REGISTER CIRCUIT	1, 2, & 3		2 PER PBX
DIRECT STATION SELECTION CONNECTOR AND CONTROL CIRCUIT	4		1 PER PBX
TENS DIGIT 6 & 7 INTERCEPTED (40 LINE PBX)		Z	
CODE 8 INTERCEPTED (NOT EQUIPPED)		W	
TRUNK CODE 8 RESTRICTED STATION OR DIAL REPEATING TIE TRUNK DENIED ACCESS TO CODE 8 AND IS INTERCEPTED		Y	
CLASS OF SERVICE TRUNK CODE 8 PROVIDED ACCESS TO CODE 8		X	
TRUNK CODES 8 & 9 NOT RESTRICTED FOR CODES 8 & 9 (NOT INTERCEPTED)		J	
TRUNK CODES 8 & 9 RESTRICTED FOR CODES 8 & 9 (INTERCEPTED)			
CODE 9 ONE DIGIT (SEE NOTE 122)		V	
CODE 9 TWO DIGIT		T	
DIRECT STATION SELECTION FROM STATIONS		ZE	
		ZD	
SINGLE DIGIT CONTROL	10		1 PER REG
TIMING CONTROL	11		1 PER PBX
RELAY DELAY TIMER	12		1 PER PBX
SINGLE DIGIT DIALING (CODES 2 THRU 8)		XS	
MORE THAN ONE TENS GROUP ARRANGED FOR SGL DIG. DIALING	13		1 PER SGL DIG. CODE USED
ARRANGED FOR SGL DIG. DIALING (SEE NOTE 30-4)			
NOT USED OR USED FOR REACHING STA, TIE TRK OR MISC TRK		ZI, XX	
USED FOR REACHING LONG DISTANCE OPERATOR VIA CO TRUNKS 8 AND 9		ZK	
USED FOR REACHING LONG DISTANCE OPERATOR VIA CO TRUNKS 6 AND 7		ZK, XT	

103.

NETWORK VALUES		
NETWORK	RES IN OHMS	CAPACITANCE IN UF
1	470	0.13
2	120	0.35

104.

CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN.	SEE NOTE	USE IN CIRCUIT		
				STD	A&M	MD
4B	Q OR R	R		Q		R
5B	M OR N	N	105	M		N
6D	J OR K	K	102	J		K, S
7B	H OR G			G		H
3D	E OR F	F		E		F
8D	A OR B	B		A		B
10B	ZA, ZB OR ZM	Q OR R		ZB, ZM		Q, ZA
10B	ZE OR ZD	ZD	106, 121	ZD, ZE		
10B	ZF OR ZG	ZF		ZG		ZF
10B	ZH	NONE		ZH		
10B			102	APP FIG. 5, 6, 7&8		
10B	ZK OR ZI	ZI	102	ZK, ZI		
10B	ZC	NONE	102	ZC		
10B	ZJ	NONE		ZJ		
10B	ZP OR ZL	ZL		ZP		ZL
11B	ZN	NONE		ZN		

DRAWING ISSUE  
SUPERSEDES ISS 23A  
24B  
25D  
26D  
27D  
28A  
29B  
30D  
31D

ISSUE  
220

SD-65742-01-D1

CONTINUED

CONTINUED

INFORMATION NOTES:  
301. MANUFACTURING TEST REQUIREMENTS FOR PULSING CIRCUIT:

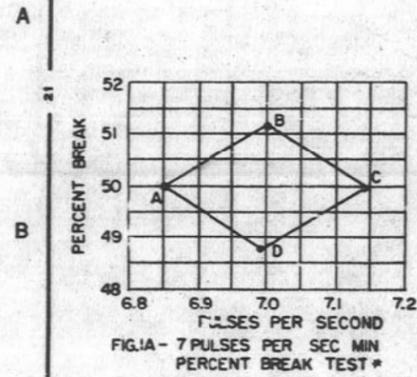


FIG. 1A - 7 PULSES PER SEC MIN PERCENT BREAK TEST\*

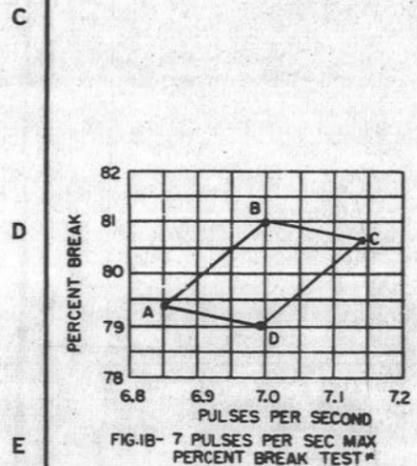


FIG. 1B - 7 PULSES PER SEC MAX PERCENT BREAK TEST\*

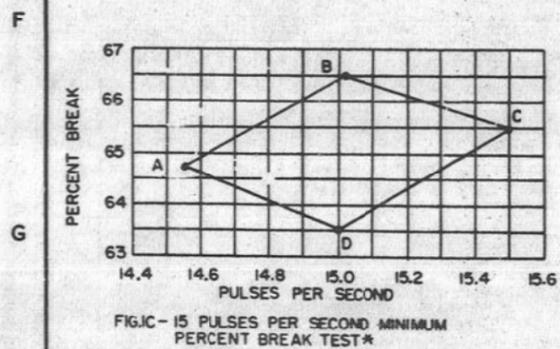


FIG. 1C - 15 PULSES PER SECOND MINIMUM PERCENT BREAK TEST\*

FIGS. 1A-1C - DIAL SPEED AND PERCENT BREAK LIMITS FOR PULSING TEST.

NOTES:

1. THE TEST CIRCUIT SHALL PROVIDE AN INTERDIGITAL INTERVAL OF  $183 \pm 3$  MILLISECONDS FOR THE PULSING CONDITIONS OF FIG. 1C FOR OTHER PULSING CONDITIONS THIS TIME MAY BE EXCEEDED.

\* THE POINT OF INTERSECTION OF THE HORIZONTAL AND VERTICAL LINES DETERMINED BY ANY PAIR OF SIMULTANEOUS VALUES OF PERCENT BREAK AND PULSES PER SECOND SHALL FALL WITHIN THE AREA ABCD.

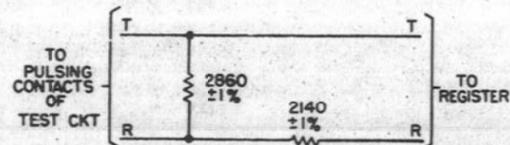


FIG. 2A - LOOP AND LEAK CONDITION FOR 7 PULSES PER SECOND MINIMUM AND MAXIMUM PERCENT BREAK TEST.

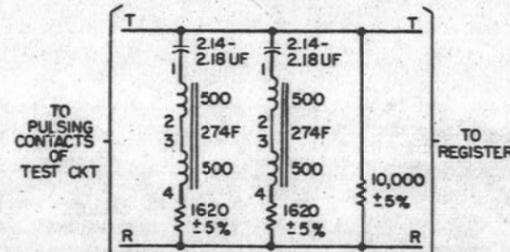


FIG. 2B - LOOP AND LEAK CONDITIONS FOR 15 PULSES PER SECOND MINIMUM PERCENT BREAK TEST.

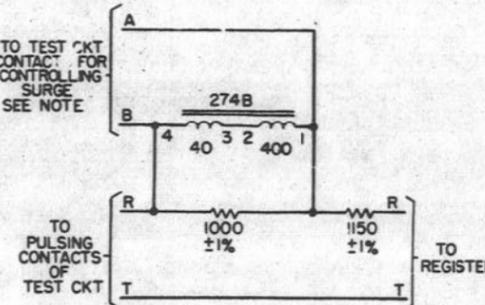


FIG. 2F - LOOP AND LEAK CONDITIONS FOR SURGE TEST.

NOTE:

THE TEST CIRCUIT CONTACTS FOR CONTROLLING THE SURGE CONDITION SHALL BE CLOSED DURING THE PULSING OF ANY DIGIT; SHALL OPEN FOR AT LEAST 50 MIL SEC. APPROX 50 MIL SEC AFTER THE PULSING CONTACTS CLOSE AT THE END OF EACH DIGIT, AND SHALL RECLOSE BEFORE THE PULSING CONTACTS REOPEN FOR THE FIRST PULSE OF THE SUCCEEDING DIGIT.

FIG. 2 - LINE CONDITIONS

(MFR DISC) 302. MANUFACTURING TEST REQUIREMENTS FOR SINGLE DIGIT TIMING CIRCUIT (ZC OPTION):  
UPON DIALING A SINGLE DIGIT (2-8) CORRESPONDING TO A TENS GROUP ARRANGED FOR SINGLE DIGIT OPERATION, THE SD(-) RELAY SHALL OPERATE  $3 \pm 1/2$  SECONDS AFTER THE STR RELAY OPERATES.

(MFR DISC) 303. CONNECT SD DIODE BETWEEN SDT TERMINAL AND ST(-) TERMINAL CORRESPONDING TO TENS GROUP TO BE ARRANGED FOR SINGLE DIGIT DIALING.

304. IF ONLY ONE SINGLE-DIGIT CODE IS REQUIRED, ADD STRAP (OPTION X3) BETWEEN TERMINALS 45-48 AND TERMINAL 5, CORRESPONDING TO TENS GROUP TO BE ARRANGED FOR SINGLE-DIGIT DIALING.  
IF MORE THAN ONE SINGLE-DIGIT CODE IS REQUIRED, CONNECT ST- DIODE (APP FIG. 13) BETWEEN TERMINALS 45-48 AND TERMINAL 5, CORRESPONDING TO TENS GROUP TO BE ARRANGED FOR SINGLE-DIGIT DIALING.

305. MANUFACTURING TEST REQUIREMENTS FOR SINGLE-DIGIT TIMING CONTROL:

UPON DIALING A SINGLE-DIGIT (2-8) CORRESPONDING TO A TENS GROUP ARRANGED FOR SINGLE-DIGIT OPERATION, THE SD RELAY SHALL OPERATE APPROXIMATELY  $3.015 \pm 0.077$  SECONDS AFTER THE SW RELAY OPERATES.

DRAWING ISSUE	
1	PER
98	MA
108	ES
	CR
	CR
198	R.T.
	KP
	P.D.
300	CLK
	PUS
	LD

SD-65742-01-D2

30

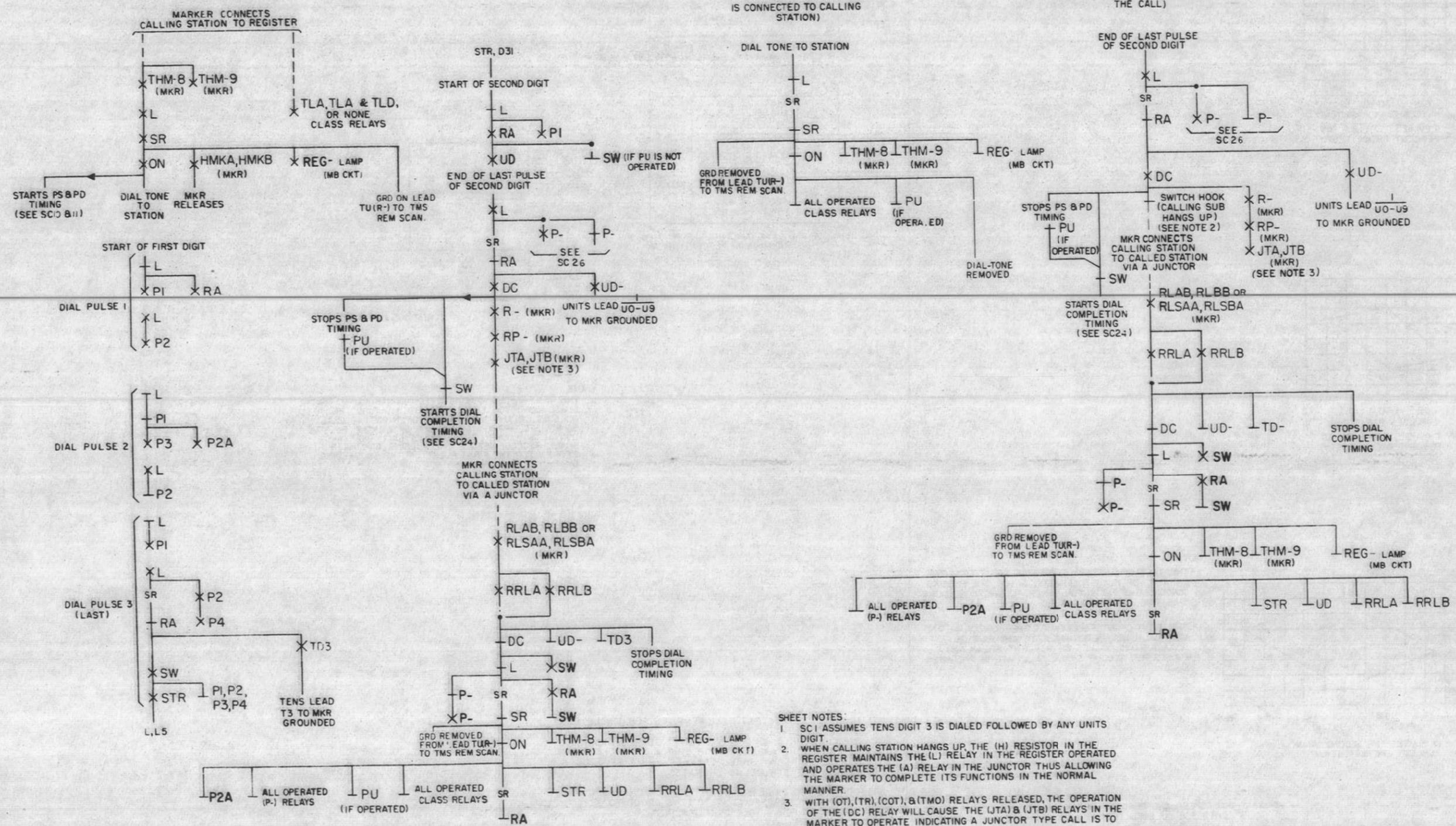
DIAL PULSE REGISTER CIRCUIT SD-65742-01-D2  
BELL TELEPHONE LABORATORIES INCORPORATED 65

DRAWING	ISSUE
58	1
188	2
270	3
300	4
310	5

### SC1 STATION TO STATION CALL (SEE NOTE 1)

### SC2 ABANDONED CALL (CALL ABANDONED BEFORE DIALING BUT AFTER REGISTER IS CONNECTED TO CALLING STATION)

### SC3 ABANDONED CALL (CALL ABANDONED AFTER DIALING BUT BEFORE TIME OUT PER SC 24 AND BEFORE MARKER HAS COMPLETED PROCESSING THE CALL)



- SHEET NOTES:
1. SC1 ASSUMES TENS DIGIT 3 IS DIALED FOLLOWED BY ANY UNITS DIGIT.
  2. WHEN CALLING STATION HANGS UP, THE (H) RESISTOR IN THE REGISTER MAINTAINS THE (L) RELAY IN THE REGISTER OPERATED AND OPERATES THE (A) RELAY IN THE JUNCTION THUS ALLOWING THE MARKER TO COMPLETE ITS FUNCTIONS IN THE NORMAL MANNER.
  3. WITH (OT), (TR), (COT), & (TMO) RELAYS RELEASED, THE OPERATION OF THE (DC) RELAY WILL CAUSE THE (JTA) & (JTB) RELAYS IN THE MARKER TO OPERATE INDICATING A JUNCTION TYPE CALL IS TO BE COMPLETED.

DIAL PULSE REGISTER CIRCUIT

SD-65742-01-E1

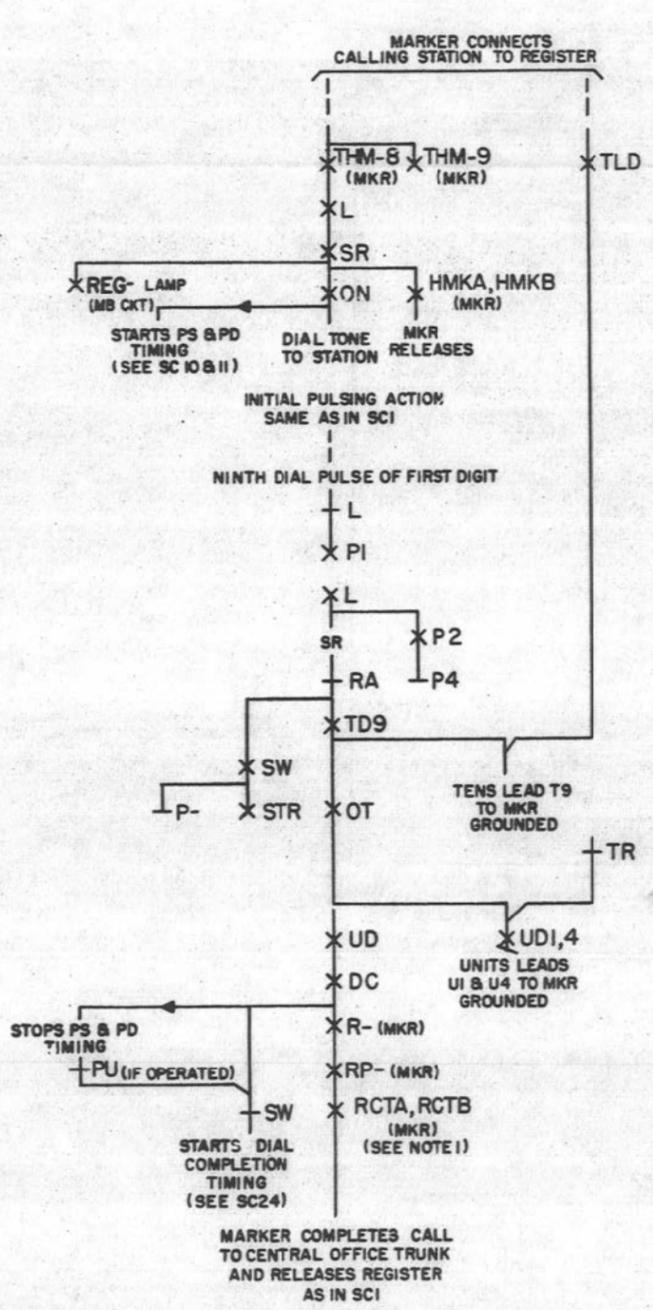
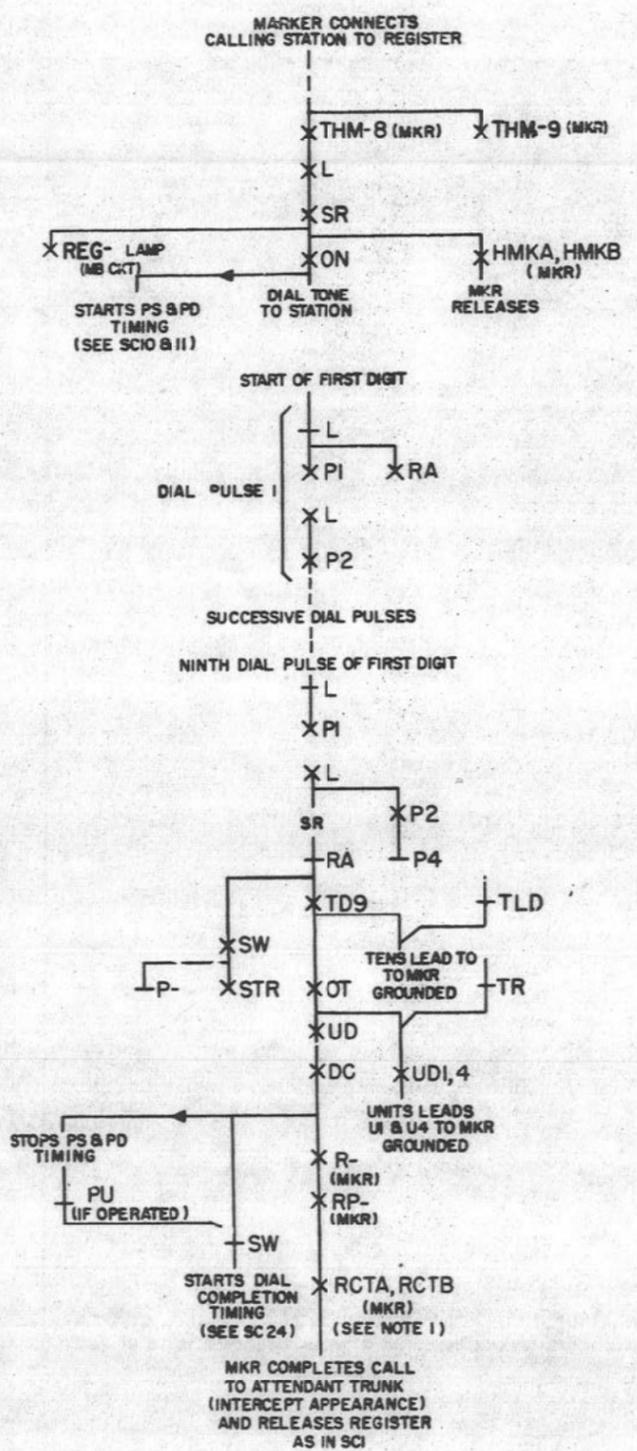
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INCORPORATED 65 PRINTED IN USA

SD-65742-01-E1

**SC 4 (MFR DISC, SEE SC 30)**  
RESTRICTED STATION DIALS 9

**SC 6 (MFR DISC, SEE SC 7)**  
TOLL DENIED STATION TO  
CENTRAL OFFICE TRK CALL  
(ONE DIGIT TRUNK CODE V OPTION)

DRAWING	ISSUE
17B	EG
18B	PD
27D	R.T.
30D	PMC
	RHS
	RHF
	WR
	PJS
	LDJ



**SC 5 (MFR DISC, SEE SC 30)**

RESTRICTED STATION TO CODE 8 TRUNK CALL  
(Y OPTION)  
ACTION SAME AS IN SC 4, EXCEPT EIGHTH  
INSTEAD OF NINTH DIAL PULSE IS REGISTERED  
AND TD8 INSTEAD OF TD9 OPERATES

NOTES:  
1. WITH (OT) RELAY OPERATED, THE OPERATION OF THE (DC) RELAY  
WILL CAUSE THE (RCTA) & (RCTB) RELAYS IN THE MARKER  
TO OPERATE INDICATING A TRUNK TYPE CALL IS TO BE  
COMPLETED.

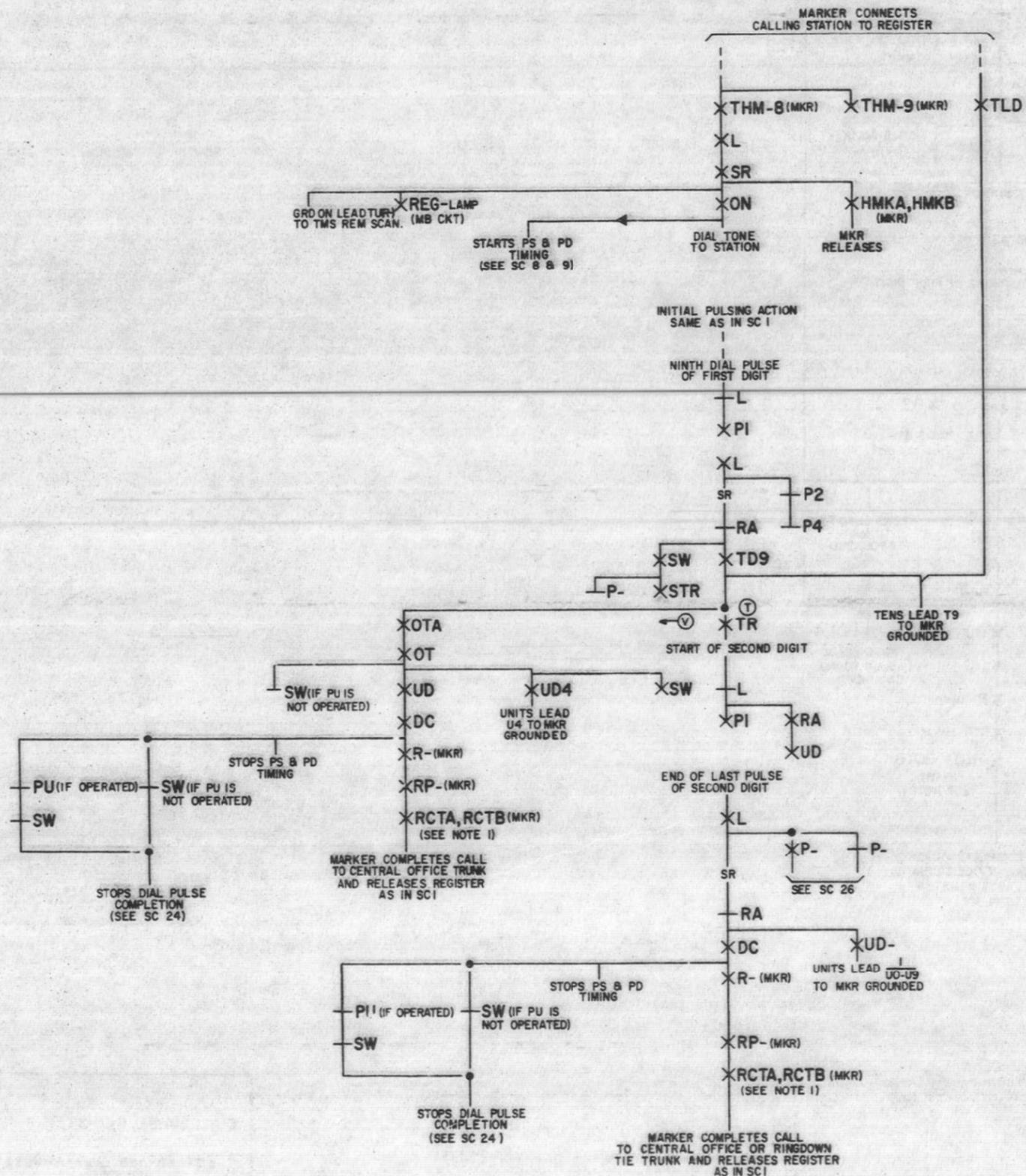
30

DIAL PULSE REGISTER CIRCUIT 30-65742-01-E2A  
BELL TELEPHONE LABORATORIES  
INCORPORATED

SD-65742-01-E2A

### SC 7

TOLL DENIED STATION TO CENTRAL OFFICE OR RINGDOWN TIE TRUNK CALL (TWO DIGIT TRUNK CODE T OPTION) (ONE DIGIT TRUNK CODE V OPTION)



NOTES:  
 1. WITH (OT) RELAY OPERATED, THE OPERATION OF THE (DC) RELAY WILL CAUSE THE (RCTA) & (RCTB) RELAYS IN THE MARKER TO OPERATE INDICATING A TRUNK TYPE CALL IS TO BE COMPLETED.

DRAWING ISSUE
SC 7 WAS SHOWN ON E2 ISS 27 D
WR 30D BUS LDJ
31D

HW  
 1  
 2  
 3  
 4  
 5  
 6  
 7  
 8  
 9  
 10  
 11  
 12  
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31

DIAL PULSE REGISTER CIRCUIT	②	SD-65742-01-E2B
BELL TELEPHONE LABORATORIES INCORPORATED	6S	PRINTED IN U.S.A.

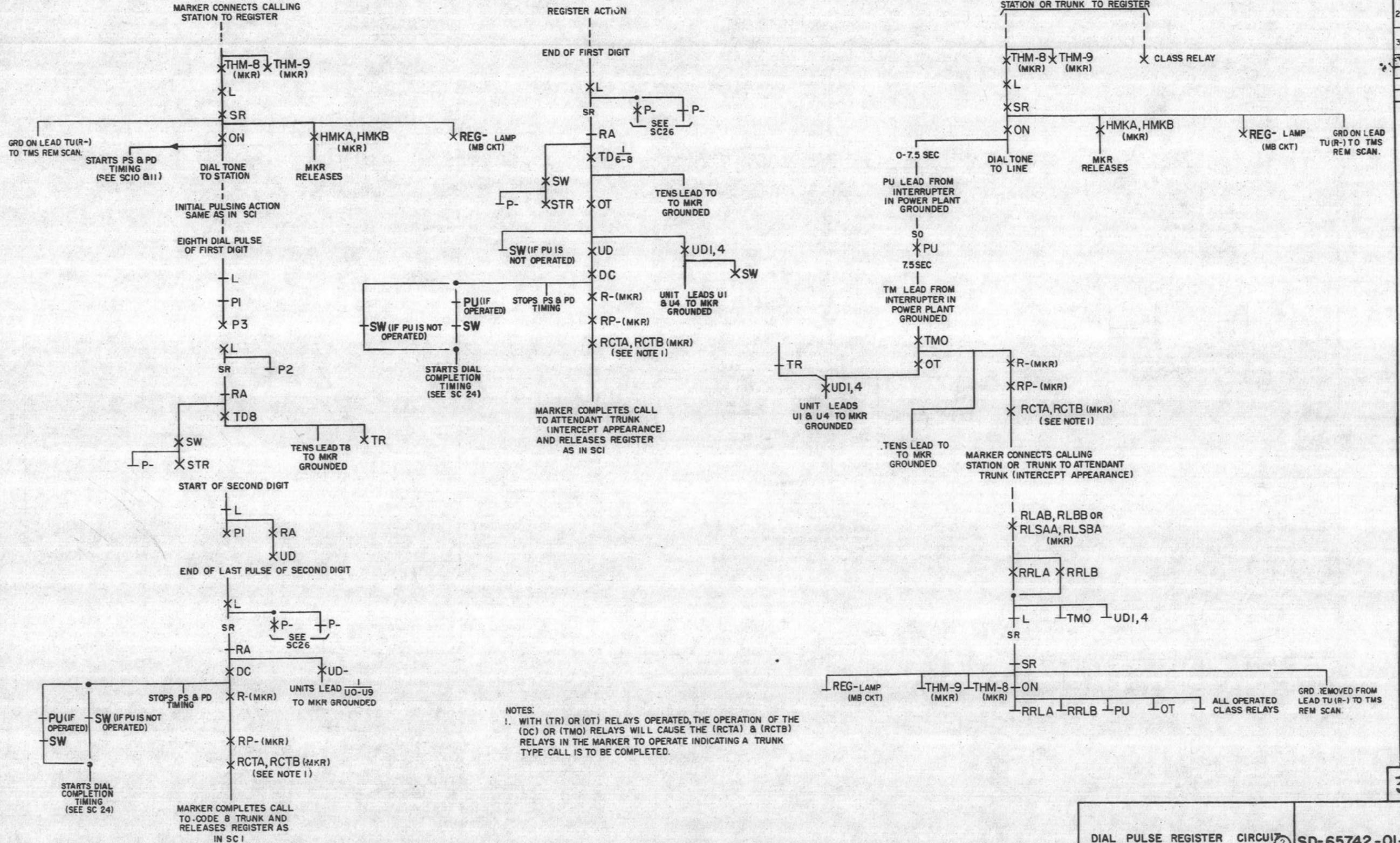
SD-65742-01-E2B

**SC8**  
RESTRICTED STATION TO CODE 8  
TRUNK CALL (X OPTION)

**SC9**  
INTERCEPT OF TENS DIGIT 6,7,OR 8 CALLS  
(W OR Z OPTION)

**SC10**  
PERMANENT SIGNAL TIME OUT

DRAWING	ISSUE
17B	EG
18B	RT
27D	PM
30D	WR
31D	PL



NOTES:  
1. WITH (TR) OR (OT) RELAYS OPERATED, THE OPERATION OF THE (DC) OR (TMO) RELAYS WILL CAUSE THE (RCTA) & (RCTB) RELAYS IN THE MARKER TO OPERATE INDICATING A TRUNK TYPE CALL IS TO BE COMPLETED.

SD-65742-01-E3

DIAL PULSE REGISTER CIRCUIT SD-65742-01-E3

BELL TELEPHONE LABORATORIES INCORPORATED 63 PRINTED IN USA

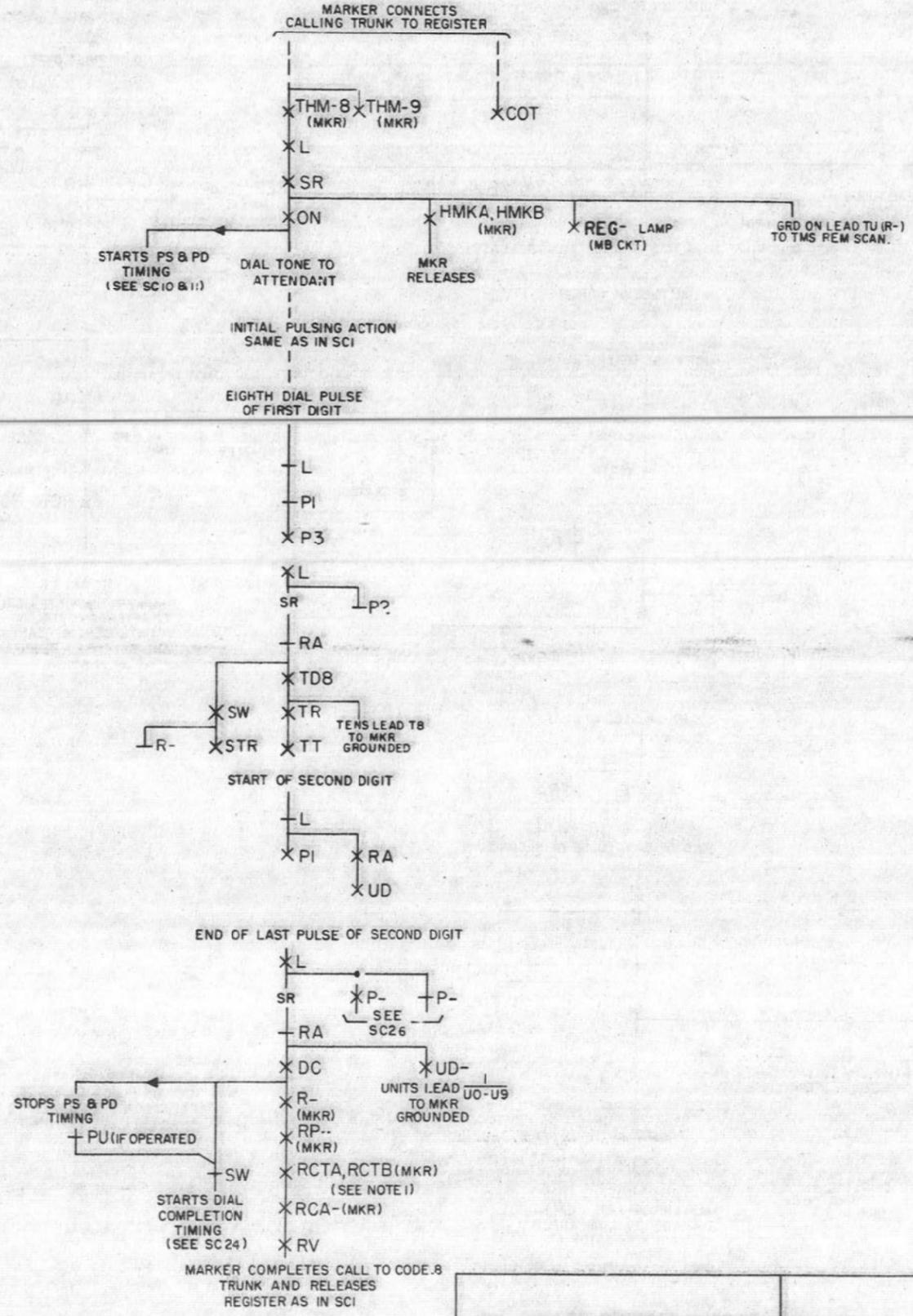
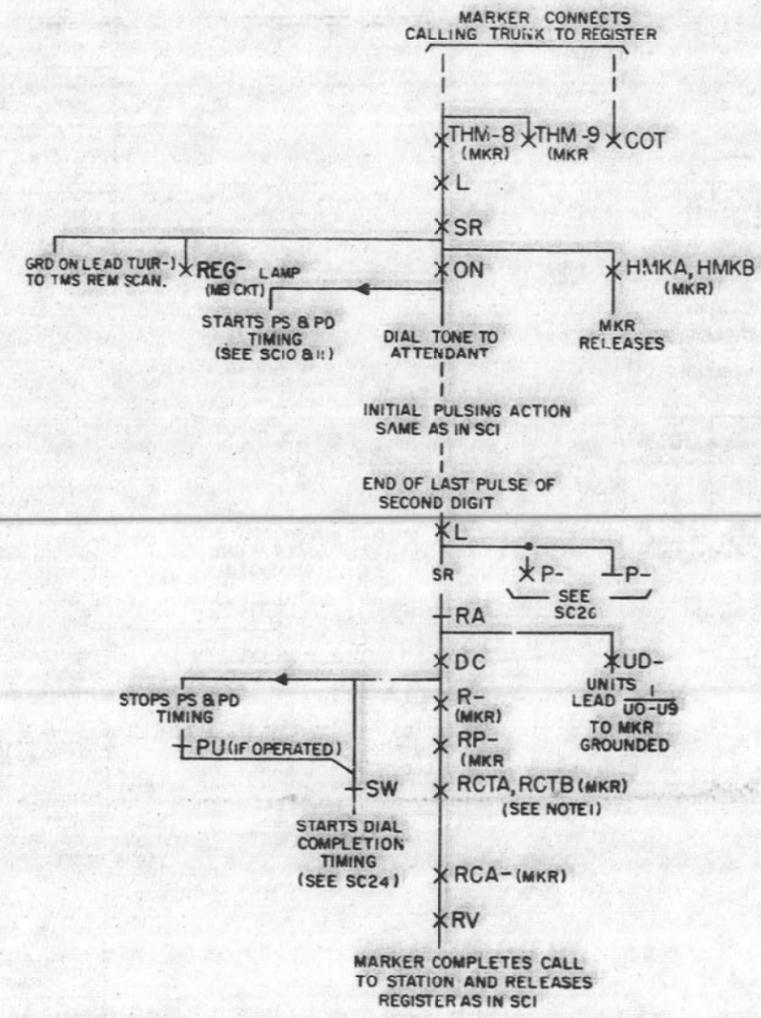
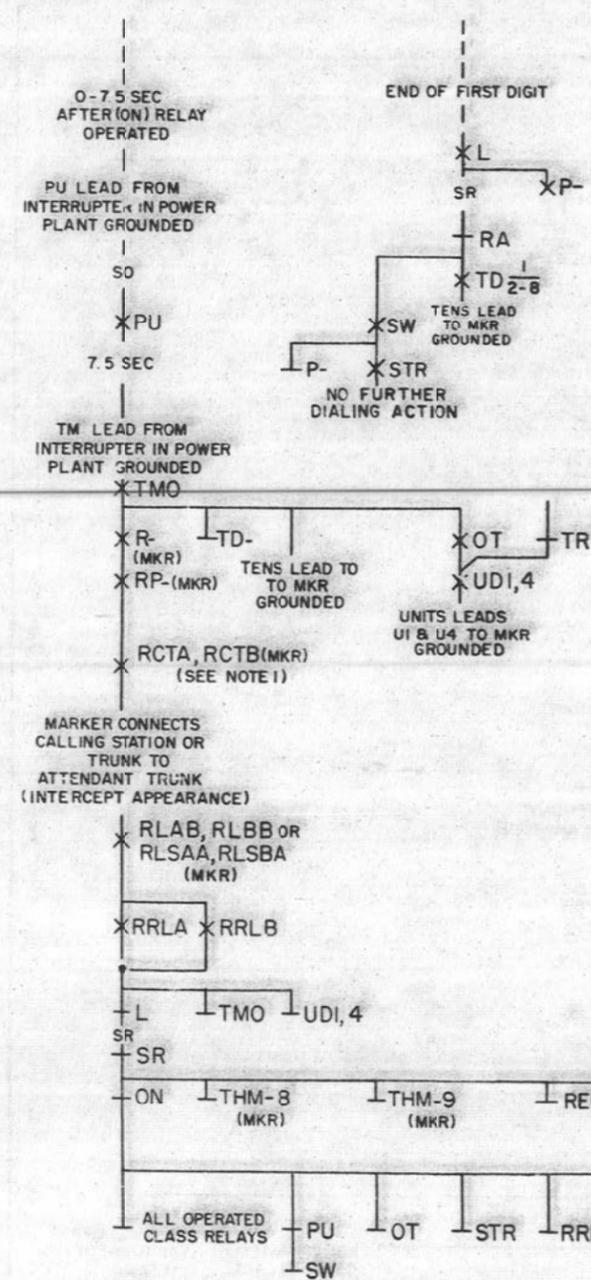
A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE

**SC11**  
PARTIAL DIAL TIME OUT

**SC12**  
CENTRAL OFFICE OR RINGDOWN  
TIE TRUNK TO STATION CALL

**SC13**  
CENTRAL OFFICE OR RINGDOWN  
TIE TRUNK TO CODE 8 TRUNK CALL

DRAWING	ISSUE
58	1
188	KB
270	PD
	PMO
	PJP
	310



SHEET NOTES:  
1. WITH (OT), (TR), OR (COT) RELAYS OPERATED, THE OPERATION OF THE (DC) OR (TMO) RELAYS WILL CAUSE THE (RCTA) & (RCTB) RELAYS IN THE MARKER TO OPERATE INDICATING A TRUNK TYPE CALL IS TO BE COMPLETED.

31

SD-65742-01-E4

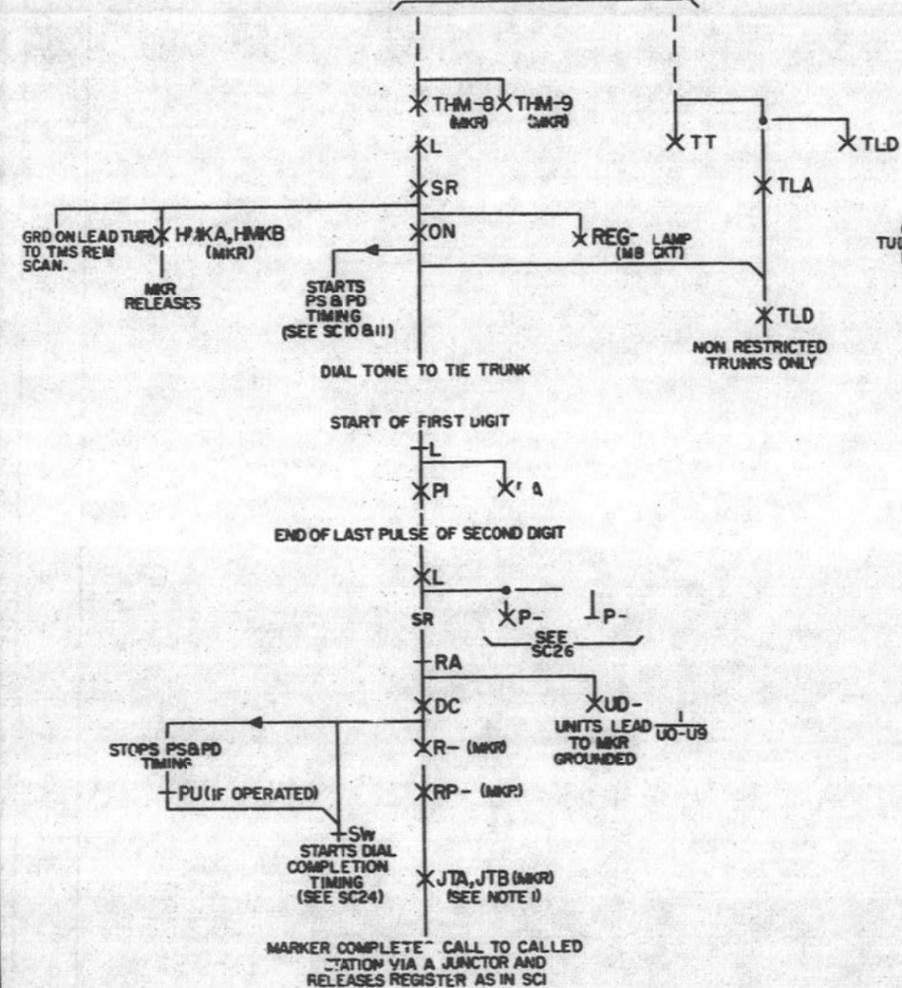
A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE

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### SC 14

DIAL REPEATING TIE TRUNK TO STATION CALL

MARKER CONNECTS CALLING TRUNK TO REGISTER

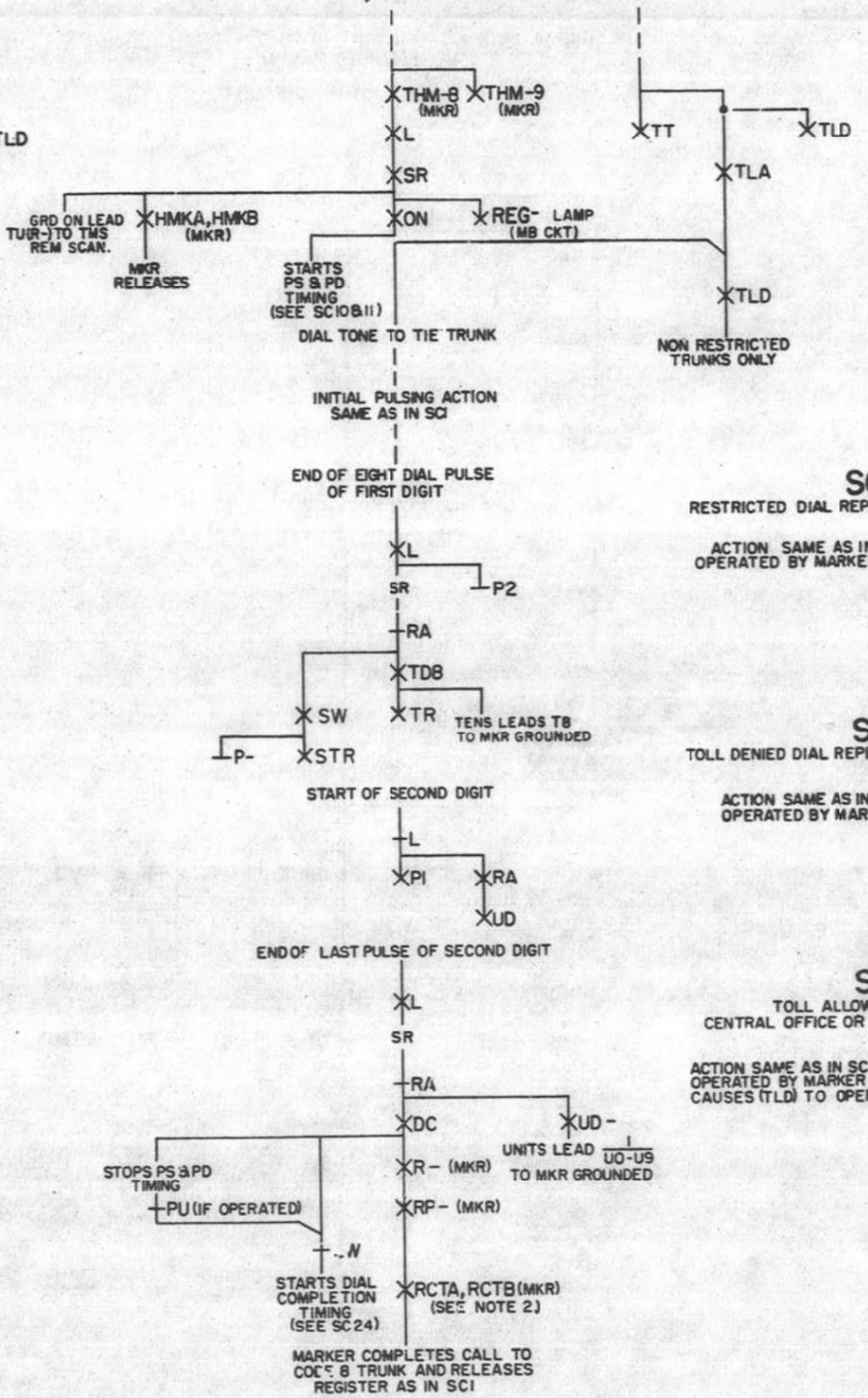


- SHEET NOTES:
1. WITH (DT), (TR), (COT), & (TMO) RELAYS RELEASED, THE OPERATION OF THE (DC) RELAY WILL CAUSE THE (JTA) & (JTB) RELAYS IN THE MARKER TO OPERATE INDICATING A JUNCTOR TYPE CALL IS TO BE COMPLETED.
  2. WITH THE (TR) RELAY OPERATED, THE OPERATION OF THE (DC) RELAY WILL CAUSE THE (RCA) & (RCA) RELAYS IN THE MARKER TO OPERATE INDICATING A TRUNK TYPE CALL IS TO BE COMPLETED.

### SC 15

DIAL REPEATING TIE TRUNK TO CODE 8 TRUNK CALL

MARKER CONNECTS CALLING TRUNK TO REGISTER



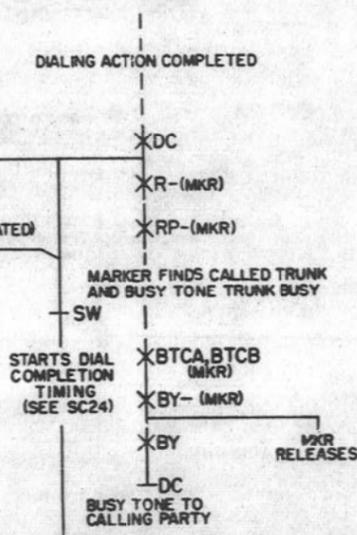
### SC 19

TOLL ALLOWED DIAL REPEATING TIE TRUNK TO CENTRAL OFFICE OR RINGDOWN TIE TRUNK CALL

ACTION SAME AS IN SC 18 WITH (TT) RELAY ALSO OPERATED BY MARKER AT REGISTER SEIZURE

### SC 20

CALLED STATION OR TRUNK BUSY AND BUSY TONE TRUNK ALSO BUSY



### SC 16

RESTRICTED DIAL REPEATING TIE TRUNK DIALS 9

ACTION SAME AS IN SC 4, WITH (TT) RELAY OPERATED BY MARKER AT REGISTER SEIZURE

### SC 17

TOLL DENIED DIAL REPEATING TIE TRUNK DIALS 9 CODE

ACTION SAME AS IN SC 6 & 7 WITH (TT) RELAY OPERATED BY MARKER AT REGISTER SEIZURE

### SC 18

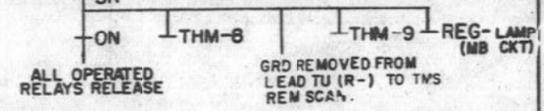
TOLL ALLOWED STATION TO CENTRAL OFFICE OR RINGDOWN TIE TRUNK CALL

ACTION SAME AS IN SC 6 & 7 EXCEPT THAT (TLA) RELAY OPERATED BY MARKER AT REGISTER SEIZURE WHICH CAUSES (TLD) TO OPERATE WHEN (ON) RELAY OPERATES

### SC 21

ATTENDANT TRUNK TO STATION CALL

ACTION SAME AS IN SC 1 FOR RESTRICTED STATION TO STATION CALL



SD-65742-01-E5

DRAWING	ISSUE
5B	E.Z.P.
18B	R.T.
	K.B.
	P.D.
24B	DAY
	OFF
	F.H.
	F.M.C.
	T.J.S.
	R.H.
	WR
30D	P.J.S.
	L.D.V.
34D	

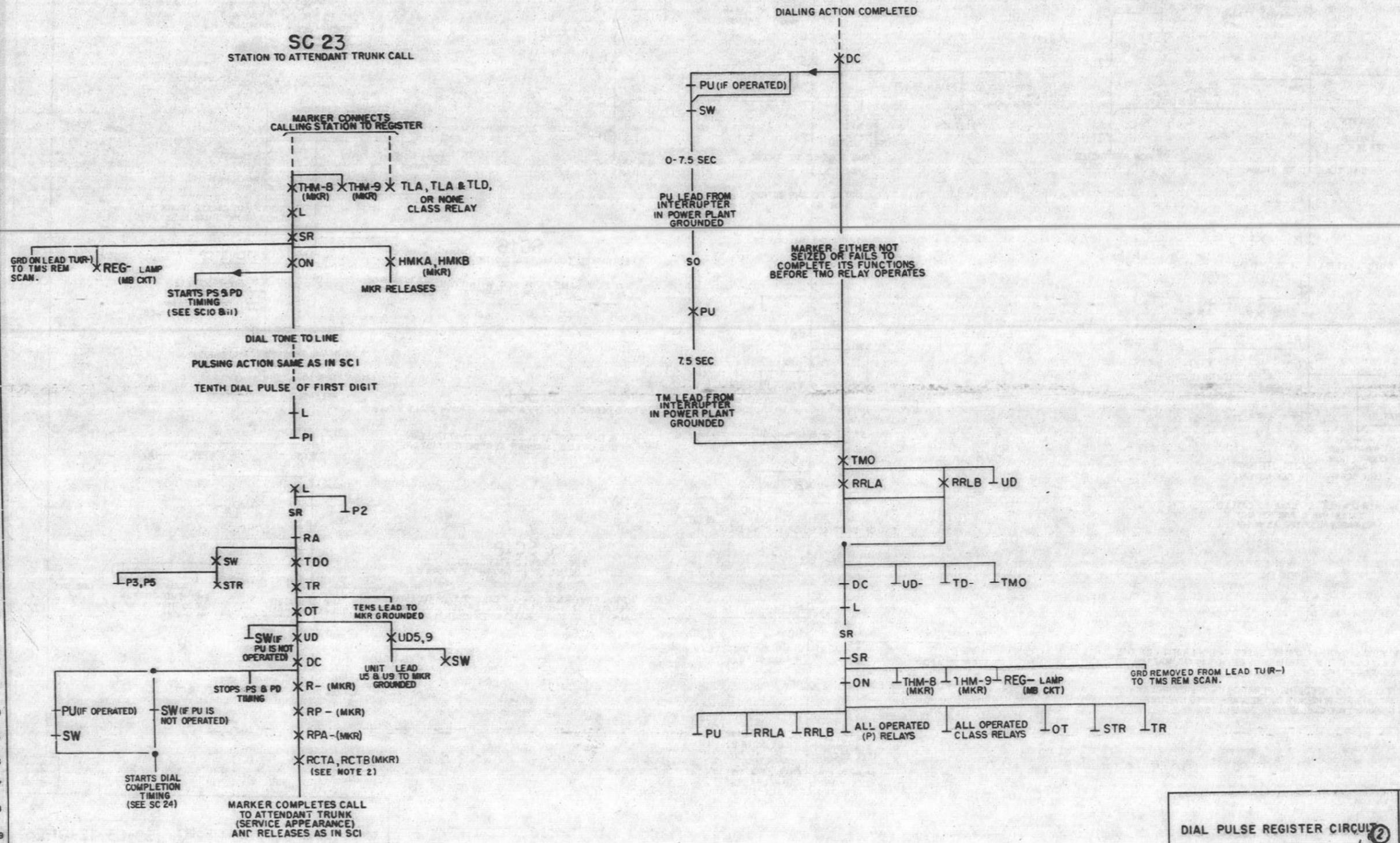
- NOTES:
- IF X OPTION IS PROVIDED, CALL IS COMPLETED TO CODE 8 TRUNK. IF Y OPTION IS PROVIDED, CALL IS COMPLETED TO ANOTHER ATTENDANT'S TRUNK.
  - WITH (OT) RELAY OPERATED, THE OPERATION OF THE (DC) RELAY WILL CAUSE THE (RCA) AND (RCA) RELAYS IN THE MARKER TO OPERATE INDICATING A TRUNK TYPE CALL IS TO BE COMPLETED.

**SC 22**  
ATTENDANT TRUNK TO CODE 8 TRUNK CALL

ACTION SAME AS IN SC 8 FOR RESTRICTED STATION TO CODE 8 TRUNK CALL (SEE NOTE 1)

**SC 24**  
DIAL COMPLETION TIME OUT

**SC 23**  
STATION TO ATTENDANT TRUNK CALL

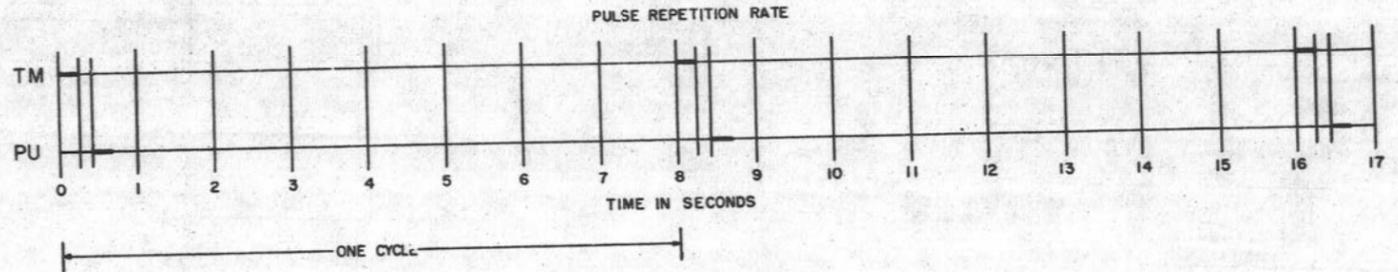
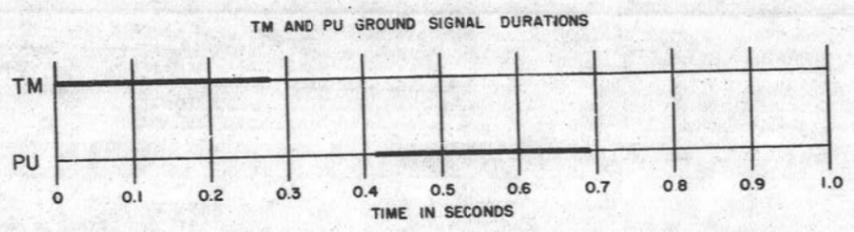


DIAL PULSE REGISTER CIRCUIT 2 SD-65742-01-E6  
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SD-65742-01-E6

A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE

SC 25  
INTERRUPTER OPERATION



ONE CYCLE

SC 26  
SEQUENCE CHART FOR P1, P2, P3, P4, & P5 RELAYS

		1	2	3	4	5	6	7	8	9	10	
MAKE												
BREAK												
P1		O	R	O	R	O	R	O	R	O	R	
P2			O	R	O	R	O	R	O	R	O	R
P3				O	R				O	R		
P4					O	R					O	R
P5								O	R			
RELAYS REMAINING OPERATED		P1 P2	P3	P1 P2 P3 P4	P3 P4	P1 P2 P4	P4 P5	P1 P2 P4 P5	P3 P4 P5	P1 P2 P3 P5	P3 P5	

DRAWING	1
ISSUE	1
1	J.C.
5B	F.S.
17B	E.G.
	P.D.

17

PBX SYSTEMS  
NO. 756A  
DIAL PULSE REGISTER CIRCUIT 2 SD-65742-01-E7  
BELL TELEPHONE LABORATORIES  
INCORPORATED 65

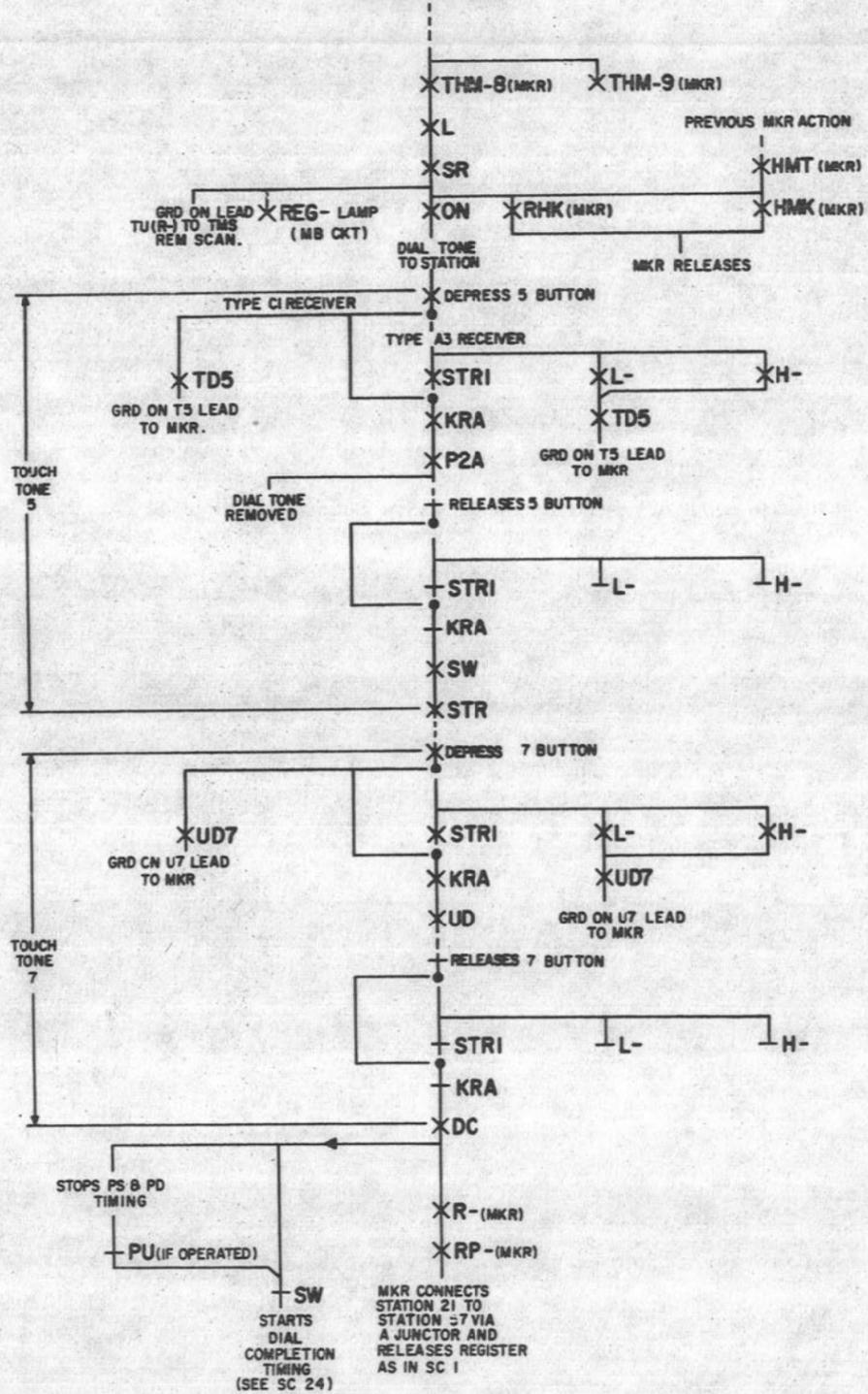
SD-65742-01-E7

A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE



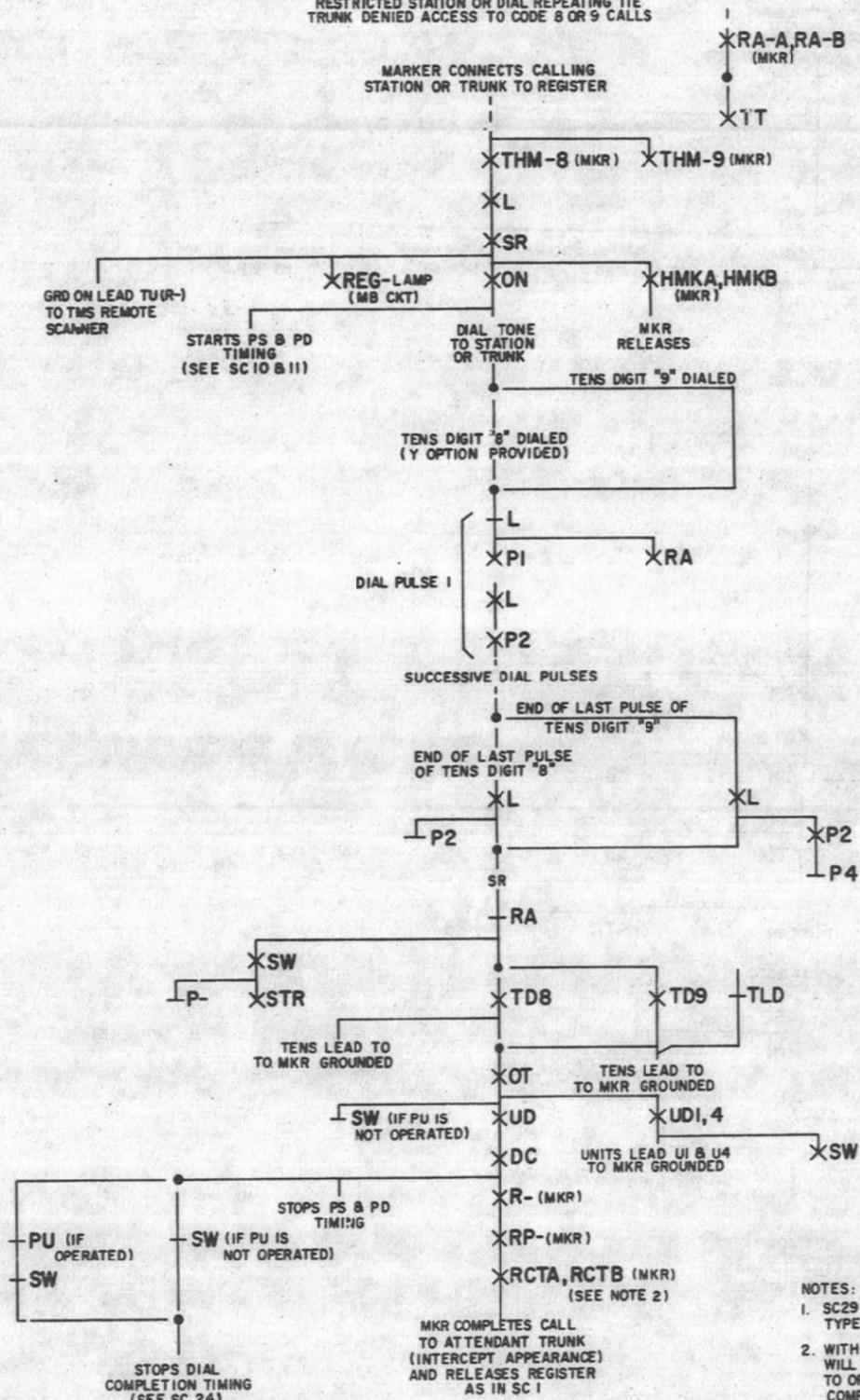
### SC 29

TOUCH TONE CALLING INTO REGISTER  
STATION 21 CALLING STATION 57  
(SEE NOTE 1)  
MKR CONNECTS CALLING  
STATION TO REGISTER



### SC 30

RESTRICTED STATION OR DIAL REPEATING TIE  
TRUNK DENIED ACCESS TO CODE 8 OR 9 CALLS



- NOTES:  
1. SC29 ASSUMES-TOUCH-TONE CALLING RECEIVING CIRCUIT IS TYPE C1.  
2. WITH (OT) RELAY OPERATED, THE OPERATION OF THE (DC) RELAY WILL CAUSE THE (RCTA) & (RCTB) RELAYS IN THE MARKER TO OPERATE INDICATING A TRUNK TYPE CALL IS TO BE COMPLETED.

DRAWING ISSUE
SC 29 WAS SHOWN ON SH 8 ISS 27 D 2-4-68 WR
300 PUS LDJ
31D

DIAL PULSE REGISTER CIRCUIT SD-65742-01-E9  
BELL TELEPHONE LABORATORIES INCORPORATED 65

SD-65742-01-E9





CIRCUIT REQUIREMENTS

APPARATUS				MECH REQT			CIRCUIT PREPARATION			DIRECT CURRENT FLOW REQT			REMARKS				
DECIG	CODE	OPT	FIG	BSF 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 READJ MA.	TEST READJ MA.
								CONN BAT.	CONN GRD								
TLA	1/2AK2		2	1			12(TLA)	2U(TLA)		BAT.			C	15.5	14.5		MOUNTED WITH (TT)
TLD	AF52	XL	2	19				L(TLD)		BAT.			0	29.5	28		MOUNTED WITH (RT)
TLD	1/2AK7	XM	2	203				2L(TLD)		BAT.			0	26.8	25.5		MOUNTED WITH (RT)
TMO	AJ12		2	220			1M(TMO)OT10	L(TMO)	U(TMO)	B/G			0	42.5	40.5		
TR	AJ3		3	226			2B,6B,12M (TR)		U(TR)	GRD	4		0	19	17		
TT	1/2AK2		2	1				2L(TT)		BAT.			0	15.5	14.5		MOUNTED WITH (TLA)
UD	AF57	XL	3	210					U(UD)	GRD			0	27	25.5		MOUNTED WITH (SW)
UD	1/2AK6	XM	3	2					U(UD)	GRD			0	29	27.5		MOUNTED WITH (SW)
UD1-S	293A	Q,2B	3				(ON)O, 6B(KRA)			GRD 1,2			0	9.5			
										GRD 1,3			0	15			
UD6-D	293A	Q,2B	3				(ON)O, 6B(KRA)			GRD 1,2			0	9.5			
										GRD 1,3			0	15			

DRAWING ISSUE	
1	JC F65 WS
4B	CM J65 TEB
5B	CAF L65 P0B
9B	YS H65 TEB
10B	EC CA6 P0B
30D	CLA PUS L65 H

TEST NOTES:

1. PROCEDURE FOR TESTING DRY REED RELAYS.  
 CONNECT TEST SET GRD TO TERMINAL OF RELAY UNDER TEST (15,25,35,45,55).  
 CONNECT DIRECT BATTERY TO TERMINAL L2 OF TEST SET PLACE L KEY IN NEUTRAL POSITION.  
 CONNECT SLEEVE OF TST T AND R JACK TO LOAD CONTACT (12,22,32,42,52).  
 ADJUST RED RHEOSTAT 4 AND THE THREE A SWITCHES FOR MINIMUM RESISTANCE.

STEP	ACTION	INDICATION	CLOSURE
A	ADJUST BLACK RHEOSTAT 1,2 AND 3 TO OBTAIN CURRENT FLOW DESIRED FOR TEST		
B	CONNECT THE TIP OF THE 4W JACK TO TERMINAL (54) OF THE RELAY GROUP UNDER TEST		

1. (CONT)			
STEP	ACTION	INDICATION	CHECK
C	CLOSE OPERATE KEY	LAMP LIGHTS	CLOSURE OF LOAD CONTACT
D	CLOSE 4 KEY AND OPEN OPERATE KEY	LAMP REMAINS LIGHTED	CLOSURE OF LOCKING CONTACT
E	CLOSE 4 KEY	LAMP EXTINGUISHED	OPEN OF LOAD CONTACT
F	CLOSE 4 KEY	LAMP REMAINS EXTINGUISHED	OPEN OF LOCKING CONTACT
2	BEFORE TURNOVER TEST REQUIREMENT.		
4	AFTER TURNOVER TEST REQUIREMENT. IF OPTION XR IS PROVIDED (ISS 30D), INSULATE I2 OF (TR) INSTEAD OF CONTACTS 2B AND 12M.		

**DIAL PULSE REGISTER CIRCUIT**

SD-65742-01-F2

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( 3 PAGES ) PAGE 3

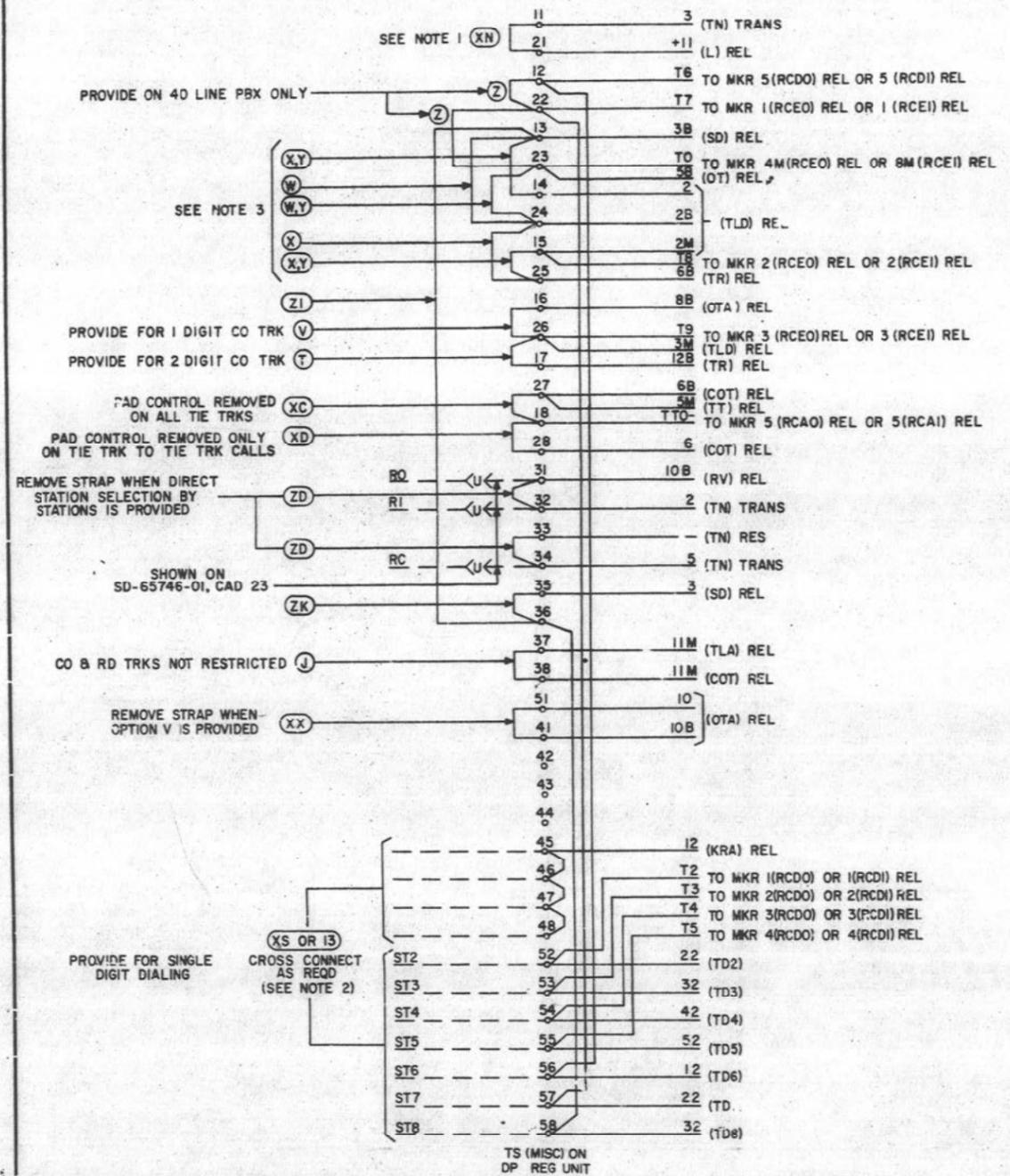
SD-65742-01-F2

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②	DIAL PULSE REGISTER CIRCUIT	SD-65742-01-F2
BELL TELEPHONE LABORATORIES INCORPORATED		65

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(FOR APP FIGS. 1, 2, 3 & 10)



- NOTES:
1. THE INSTALLER SHALL REMOVE OPTION XN AND PROVIDE OPTION X0 PER NOTE 119.
  2. PROVIDE XS STRAP OR APP FIG. 13 (ST-DIODE) FOR SINGLE DIGIT DIALING PER NOTE 304.
  3. WHEN NO MISCELLANEOUS TRUNKS ARE CONNECTED TO TERMINALS 80-89 OF TRUNK TS IN SLIDE 2 OR 3, PROVIDE "W" OPTION.  
 WHEN MISCELLANEOUS TRUNKS ARE CONNECTED TO TERMINALS 80-89 OF TRUNK TS IN SLIDE 2 OR 3 PROVIDE "X" OPTION WHEN LINES ARE PERMITTED ACCESS TO THESE MISCELLANEOUS TRUNKS OR, PROVIDE "Y" OPTION WHEN RESTRICTED LINES ARE DENIED ACCESS TO THESE MISCELLANEOUS TRUNKS.

SD-65742-01-G1

DIAL PULSE REGISTER CIRCUIT 2

SD-65742-01-G1

BELL TELEPHONE LABORATORIES INCORPORATED 65