

SHEET INDEX (INITIATED ON ISSUE 2)

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SUPPORTING INFORMATION

CATEGORY	NO.
TELETYPEWRITER SCHEMATICS	
M33 TELETYPEWRITER	BSP SECTION 574-100-401
M35 60 TELETYPEWRITER	BSP SECTION 574-200-400
M35 60A TELETYPEWRITER	BSP SECTION 574-201-400
M35 60A TELETYPEWRITER	BSP SECTION 574-202-400
DATA SET SYSTEM DRAWINGS	
DATA SET 101C	SD-30007-01
DATA SET 105A	SD-30008-01

NO.	CD	DATE	DRW	APP
2A	2A	3-19-63	FJB	GAP
3B	2A	3-19-63	R.R.P.	S.M.K.
4B	2A	9-15-67	FJB	GAP
5B	2A	7-16-68	W.M.	H.W.
6B	2A	4-18-69	J.B.S.	A.P.S.
7B	2A	12-1-69	D.A.C.	J.S.
8B	2A	8-11-70	R.T.D.	M.S.S.

SHEET INDEX NOTES

- WHEN CHANGES ARE MADE IN THIS DRAWING, ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
- 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.
- THE ISSUE NUMBER ASSIGNED TO A CHANGED OR NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE SHEET INDEX.
- SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
- THE LAST ISSUE NUMBER OF THE SHEET INDEX IS RECOGNIZED AS THE LATEST ISSUE NUMBER OF THE DRAWING AS A WHOLE.

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SD-30009-01	1199	AT&T STANDARD
DATA SYSTEMS ATTENDANT CIRCUIT FOR M33 AND M35 TELETYPEWRITERS EQUIPPED WITH DATA SET 101C OR 105A		SD-30009-01-A 11 SHEETS
BELL TELEPHONE LABORATORIES INCORPORATED		65

DWG ISSUE	REVISED	DATE ISSUED	BY
1	1		

DRAWING ISSUE
2A
3B
4B
5B
6B
7B
8B

CIRCUIT NOTES:

101.

DESIG	FUSE AMP	POTENTIAL	ONE PER

BATTERY SYMBOL	VOLTAGE RANGE
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102.

FEATURE OR OPTION	PROVIDE	
	APP FIG.	QUANTITY
PULSE DIALING	WITHOUT RECEIVER	1,2,3, 5,8,12 T ONE PER CKT
	WITH RECEIVER	1,2,3, 4,5,8, 12 T,R ONE PER CKT
WITH 40A CARD DIALER	WITHOUT RECEIVER	1,2,3, 5,8,9, 12 V ONE PER CKT
	WITH RECEIVER	1,2,3, 4,5,8, 9, 12 V,R ONE PER CKT
WITH 41A CARD DIALER	WITHOUT RECEIVER	1,2,3, 5,8,11, 12 U ONE PER CKT
	WITH RECEIVER	1,2,3, 4,5,8, 11,12 U,R ONE PER CKT
STATION NOT EQUIPPED WITH DIAL TONE DETECTOR	WITHOUT CARD DIALER	WITHOUT RECEIVER 1,2,3, 5,6,10, 12 X ONE PER CKT
	WITH CARD DIALER	WITHOUT RECEIVER 1,2,3, 4,5,6, 10,12 X,R ONE PER CKT
STATION EQUIPPED WITH DIAL TONE DETECTOR	WITHOUT CARD DIALER	WITHOUT RECEIVER 1,2,3, 5,7,10, 12 X,M ONE PER CKT
	WITH CARD DIALER	WITHOUT RECEIVER 1,2,3, 4,5,7, 10,12 X,R,M ONE PER CKT
STATION EQUIPPED WITH DIAL TONE DETECTOR	WITHOUT CARD DIALER	WITHOUT RECEIVER 1,2,3, 5,6,10, 12 Y ONE PER CKT
	WITH CARD DIALER	WITHOUT RECEIVER 1,2,3, 4,5,6, 10,12 Y,R ONE PER CKT
GROUND START LINE	WITHOUT RECEIVER	1,2,3, 5,7,10, 12 Y,M ONE PER CKT
	WITH RECEIVER	1,2,3, 4,5,7, 10,12 Y,R,M ONE PER CKT
LOOP START LINE		J
RECEIVE ONLY STATION	WITHOUT RECEIVER	1,5,12 N ONE PER CKT
	WITH RECEIVER	1,4,5 12 R ONE PER CKT
FOR DATA PHONE SERVICE (SEE NOTE 309)	TELEPHONE WITHOUT DIAL	Q,W
	TELEPHONE WITH DIAL	Z
NOTES FOR DATA PHONE SERVICE		Z

NOTES:
 A. WHEN THE ATTENDANT CIRCUIT IS EQUIPPED FOR PULSE DIALING, THE ASSOCIATED DATA SET 105A MUST NOT BE FURNISHED WITH Z OPTION (THE DIAL TONE DETECTING OPTION).

CIRCUIT NOTES: (CONT)

103.

NETWORK VALUES		
NETWORK NO.	RESISTANCE IN OHMS	CAPACITANCE IN UF

104.

RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES						
CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT		
				STD	A&M	MD
36	A			A		
36	B	B			B	
38	C,D	D		C	D	
4B	W OR Z	Z	102	W,Z		
	W OR S	S		W,S		
5B	J OR K		102	J,K		
5B	F OR G	G		F	G	
6B	DIAL		310			
7B	E OR H	E		H	E	
	L		311	L		
8B	Q OR ZA	ZA	102	Q,ZA	S	

INFORMATION NOTES:

- 301. UNLESS OTHERWISE SPECIFIED: RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, VALUES PRECEDED BY THE SYMBOL + (PLUS) OR - (MINUS) ARE IN VOLTS.
- 302. KLC IS A SUBASSEMBLY CONSISTING OF THE (P) CONNECTOR, (P) KEY (ORIG, CLEAR, ANS, TEST, LOCAL, BUZ RLS) AND THE LAMP STRIP CONTAINING THE LAMPS ASSOCIATED WITH THE (P) KEY. WHEN MANUFACTURED BY TELETYPE CORPORATION THE THREE UNITS ARE WIRED INDIVIDUALLY.
- 303. THE MULTIFREQUENCY DIALING UNIT IS EITHER A MANUAL TOUCH TONE DIAL (TTD) OR AN ASSEMBLY OF A MANUAL DIAL AND THE AUTOMATIC CARD DIALING MECHANISM (MD).
- 304. FOR PULSING CARD DIALING 41A DIAL IS USED WHEN 60 CPS POWER IS AVAILABLE, AND 40A DIAL IS USED WHEN ONLY DC POWER IS PROVIDED.
- 305. WHEN MANUFACTURED BY TELETYPE CORPORATION, OTHER COMPONENTS THAN THOSE SPECIFIED ARE USED.
- 306. WHEN USED IN A RECEIVE ONLY STATION POSITIONS ORIG (A) AND LOCAL (E) ARE MADE INOPERATIVE BY BLOCKING CORRESPONDING BUTTONS IN THE (P) KEY.
- 307. (PA), (INCP), (BY), (SVC) & (NC) LAMPS ARE REQUIRED ONLY WHEN THE STATION IS EQUIPPED WITH THE STATION CONTROL UNIT (SUCH AS J20204).
- 308. WHEN MANUFACTURED BY TELETYPE CORPORATION, THE TERMINAL STRIP DESIGNATIONS AND TERMINAL ASSIGNMENTS ARE IDENTICAL TO THOSE IN M33 TTY. IN M35 TTY THE (TS1) HAS K DESIGNATION, (TS2) HAS F DESIGNATION AND (TS3) HAS H DESIGNATION; ALSO, THE TERMINALS ASSIGNMENT MAY BE DIFFERENT.
- 309. WHEN Q,W AND ZA OPTIONS ARE REQUIRED, TERMINAL D42 MUST BE STRAPPED TO TERMINAL D45 AND TERMINAL D35 MUST BE STRAPPED TO TERMINAL D48 ON DATA SET 101C.
- 310. DIAL CODES 35N1A AND 35N3A ADDED TO APP FIG. 6 SHEET 9, AND DIAL CODES 36J AND 36K ADDED TO APP FIG. 7 SHEET 9.
- 311. AT STATIONS EQUIPPED WITH PULSING CARD DIALERS AND HAVING LOOP CURRENTS IN EXCESS OF 60 MA, A 400-OHM RESISTOR (2 WATTS MIN.) SHOULD BE ADDED AT THE 42A CONNECTING BLOCKS IN SERIES WITH THE LINE.

OPTION INDEX

APP OR WRG	LOCATION	APP OR WRG	LOCATION
Z	2A0-2D0, 2F5, 2G0, 2G1, 3G9, APP FIG. 8	R	2G8, 3F7, 3F8
Y	2A3, 2B1, 2C3, 2E1, 2E4, 2E5, 2F3, 2F4, 2G3, 2G4	Q	2B0-2F0, 2A0, 2F5
X	2A3, 2B1, 2C3, 2E1, 2E4, 2E5, 2F3, 2F4, 2G3, 2G4	N	3F7, 3F8
W	2F0, 2F1, 2G0, 2G1, 3G9, APP FIG. 8	M	2B8
V	2B1, 2C3, 2D1, 2E1, 2E5, 2G3, 2G9	L	2E2
U	2B1, 2B2, 2C3, 2E1, 2E5, 2G3, 2G9	K	3C0
		J	3C0
		G	APP FIG. 5, 11
		F	APP FIG. 5, 11
T	2B1, 2C3, 2E1, 2E5, 2G3, 2G9	B	2G7
		A	2G1, 3C2
		ZA	2A0-2D0, 2E1, 2F5, 2F1, 2G0, 2G1

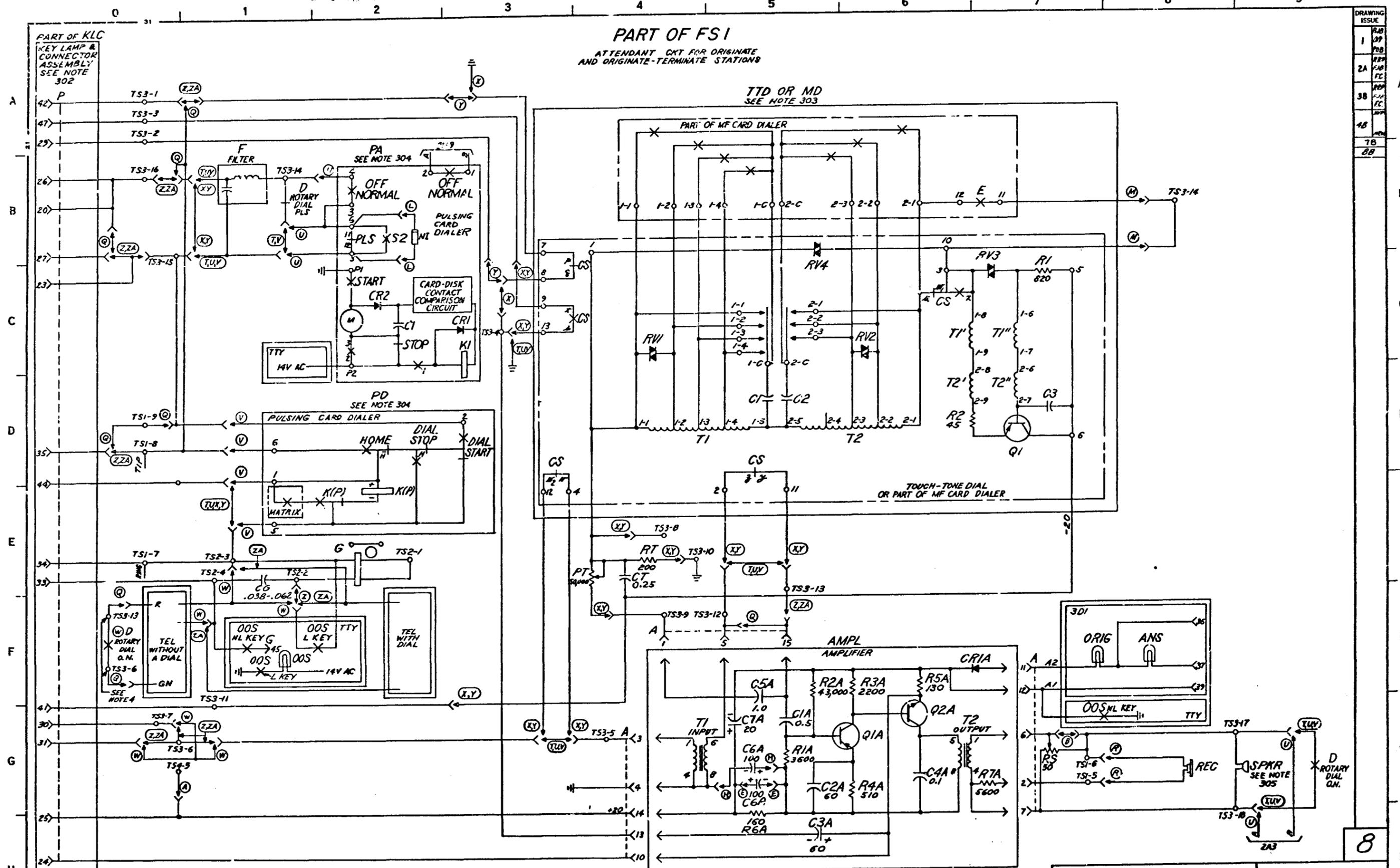
8

SD-3D009-01-1

RUNE

PART OF FS I
ATTENDANT CXT FOR ORIGINATE
AND ORIGINATE-TERMINATE STATIONS

TTD OR MD
SEE NOTE 303



DRAWING	
NO.	ISSUE
1	REV
2A	REV
3B	REV
4B	REV
7B	REV
8B	REV

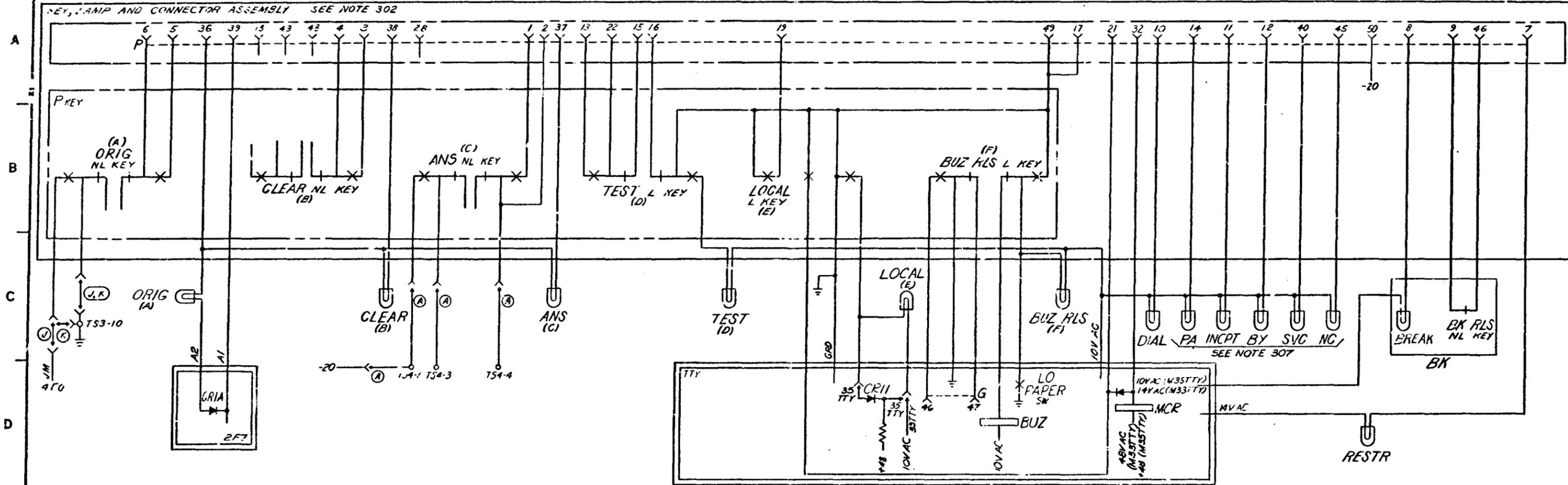
SHEET NOTES:

1. $\frac{1}{2}$ DENOTES CONNECTION TO GRD, PIN 49 (KLC) ASSEMBLY AND TO TS3-10.
2. TS1/2 OR 4 DENOTES TERM. ON TERM. STRIP 1, 2, 3 OR 4 RESP. (TS1: TP5144, TS2: TP5145, TS3: TP52717.)
3. TERMINAL 14 ON TS3 IS USED AS TIE POINT FOR MD, WHEN MF DIALING, OR FOR ROTARY DIAL D AND FILTER F, WHEN PULSE DIALING.
4. TERMINALS 6 AND 13 ON TS3 ARE USED AS TIE POINTS FOR D. ROTARY DIAL O.N. CONTACTS WITH OPTIONS Q AND W.

SD-3D009-01-2

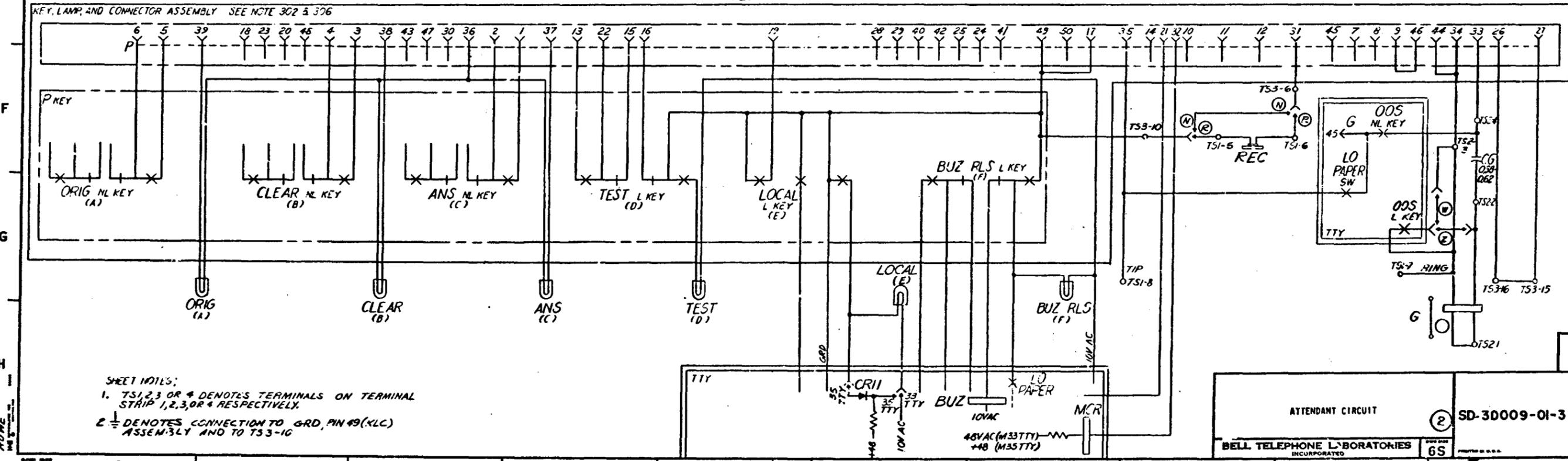
PART OF FS 1
ATTENDANT CKT FOR ORIGINATE
AND ORIGINATE-TERMINATE STATIONS

DRAWING	1
ISSUE	2A
REVISED	3B
BY	4C
DATE	5D
55	



FS 2
ATTENDANT CKT
FOR RECEIVE ONLY STATIONS

KLC



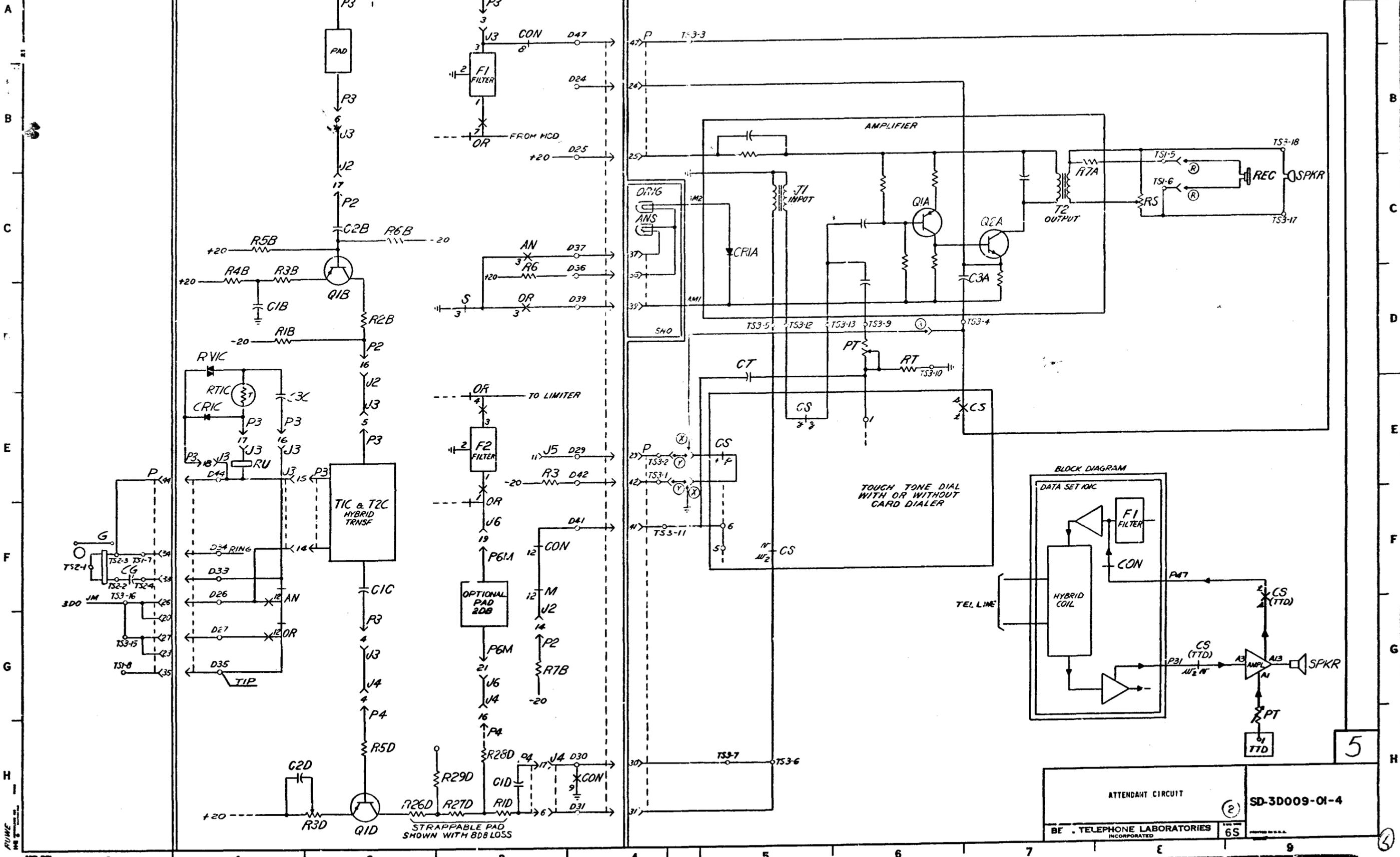
SHEET NOTES:
1. T51, 2, 3 OR 4 DENOTES TERMINALS ON TERMINAL STRIP 1, 2, 3, OR 4 RESPECTIVELY.
2. 1/2 DENOTES CONNECTION TO GRD. PIN 49 (KLC) ASSEMBLY AND TO T53-10

SD-30009-01-3

DRAWING	
1	REV
2A	REV
5B	REV

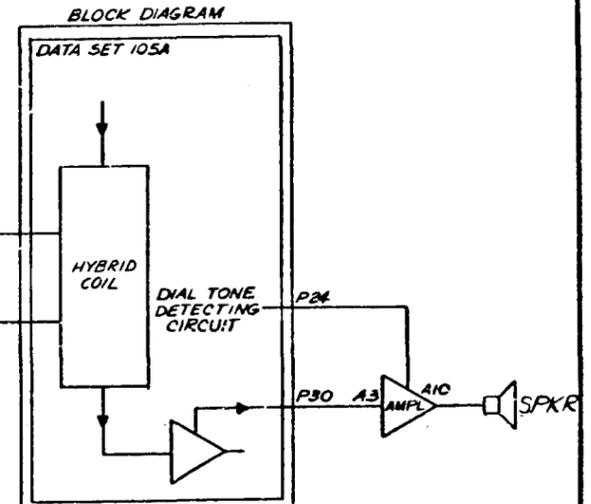
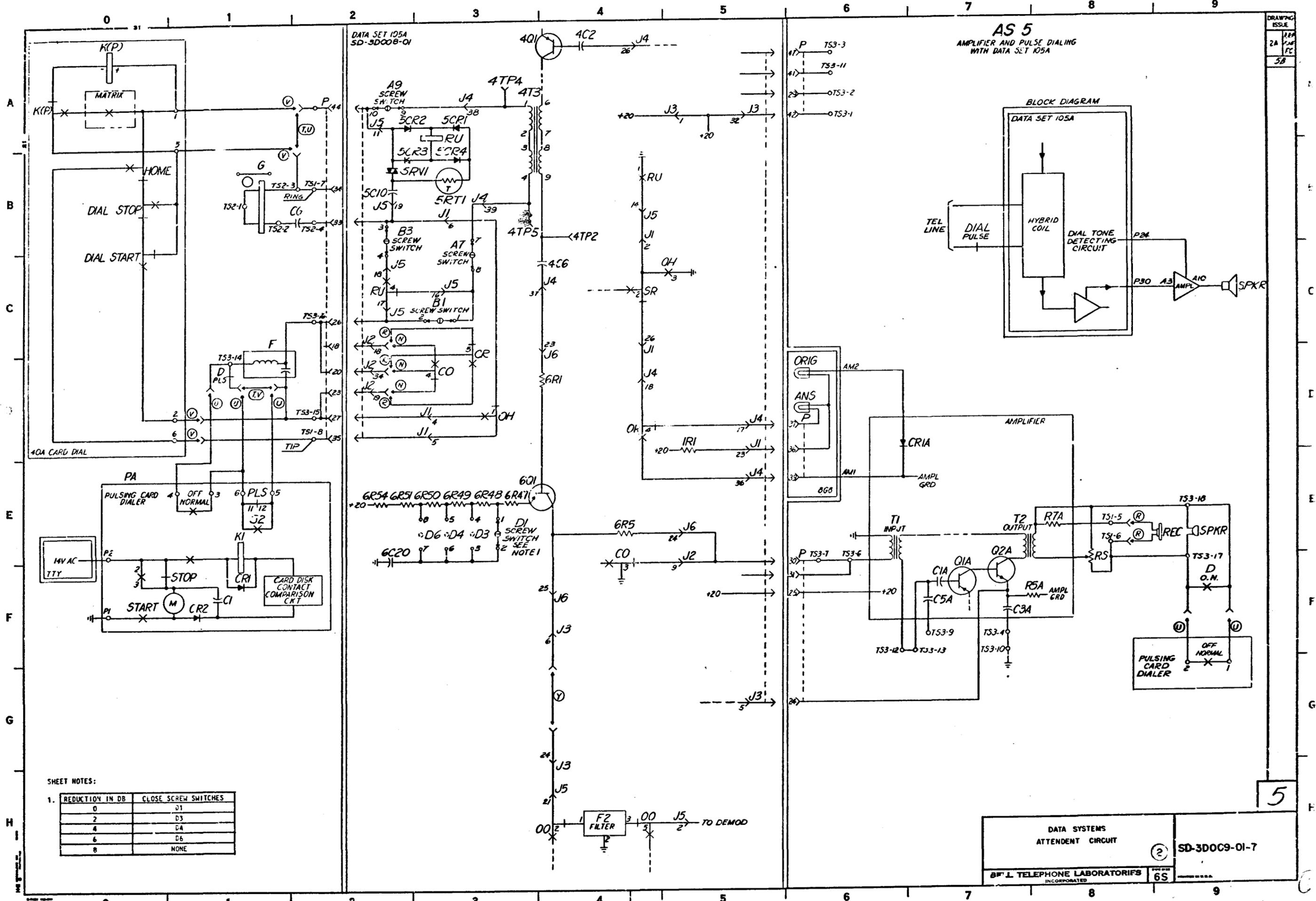
DATA SET 101C
SD-30007-01

AS 1 AMPLIFIER AND MF DIALING WITH DATA SET 101C



SD-30009-01-4

AS 5
AMPLIFIER AND PULSE DIALING
WITH DATA SET 105A



SHEET NOTES:

REDUCTION IN DB	CLOSE SCREW SWITCHES
0	D1
2	D3
4	D4
6	D6
8	NONE

SD-30009-01-7

APP FIG. 1

KEY, LAMP AND CONNECTOR ASSEMBLY

DESIG	LOC	CODE
KLC	2A0, 3A2, 3E4	

(P) KEY	LAMP STRIP	(P) CONN
509U	WE PART NO. 13E317	KS-16690, L1

SPRING COMB.	LAMP SOCKET DESIG	LOC	PIN ARR	LOC
ORIG (A)	ORIG (A)	3C0	1	3A3, 3E3
		3G0	2	3A2, 3E2
			3	3A1, 3E1
			4	3A1, 3E1
			5	3A0, 3E0
			6	3A0, 3E0
			7	3A9, 3E8
			8	3A8, 3E8
			9	3A9, 3E8
			10	3A7, 3E7
			11	3A7, 3E7
			12	3A7, 3E7
			13	3A3, 3E3
			14	3A7, 3E7
			15	3A3, 3E3
			16	3A3, 3E3
			17	3A6, 3E6
			18	3A1, 3E1
			19	3A4, 3E4
			20	2E0, 3E1
			21	3A6, 3E7
			22	3A3, 3E3
			23	2C0, 3E1
			24	2HC, 3E5
			25	2HC, 3E5
			26	2E0, 3E9
			27	2E0, 3E9
			28	3A2, 3E5
			29	2A0, 3E5
			30	2G0, 3E2
			31	2G0, 3E8
			32	3A0, 3E7
			33	2E0, 3E9
			34	2E0, 3E9
			35	2D0, 3E6
			36	3A0, 3E2
			37	3A3, 3E3
			38	3A2, 3E1
			39	3A1, 3E1
			40	3A8, 3E5
			41	2G0, 3E6
			42	2A0, 3E5
			43	3A1, 3E2
			44	2D0, 3E8
			45	3A8, 3E8
			46	3A9, 3E8
			47	2A0, 3E2
			48	3A1, 3E1
			49	3A6, 3E6
			50	3A8, 3E6

APP FIG. 2

BREAK LAMP AND BK RLS KEY ASSEMBLY

DESIG	LOC	CODE
BK	3D9	

PART	CODE
SOCKET AND SWITCH	TP-13260P
LENS (WHITE)	TP-182, 14
LAMP	GE OR DIAL CO. TYPE 330 (TP-143613)

LAMP	DESIG	LOC	CODE
BY	3C7		51A
DIAL	3C7		51A
INCPY	3C7		51A
NC	3C8		51A
PA	3C7		51A
SVC	3C8		51A

RESTRAINT LAMP ASSEMBLY

DESIG	LOC	CODE
RESTR	3D8	

PART	CODE
SOCKET	TP-18265R
LENS (YELLOW)	TP-182713
LAMP	GE OR DIAL CO. TYPE 330 (TP-143613)

APP FIG. 3

AMPLIFIER

DESIG	LOC	CODE
AMPL	2F6	TP-18275C

DESIG	CODE
CAPACITOR	
C1A	542A, 0.5
C2A	KS-16390, L5 6C
C3A	KS-16390, L5 6C
C4A	542L, 0.1
C5A	542C, 1
C6A	602B, 100 (E)
	KS-19658, L22 100 (C)
C7A	602C, 20, 35V
DIODE	
CR1A	KS-16986, L2 (C)
	400A (D)
RESISTOR	
R1A	KS-13490, L1, 3600
R2A	KS-13490, L1, 43, 000
R3A	KS-13490, L1, 2200
R4A	KS-13490, L1, 510
R5A	KS-13490, L1, 130
R6A	KS-13491, L1, 160
R7A	KS-13490, L1, 5600
TRANSFORMER	
T1	2564B
T2	2564AB
TRANSISTOR	
Q1A	12G
Q2A	16A

CONNECTOR

DESIG	A
CODE	CINCH 250-15-70-170
OPTION	
1	2F4
2	2G7
3	2G4
4	2G4
5	2F5
6	2G7
7	2H7
8	
9	
10	2H4
11	2F7
12	2F7
13	2H4
14	2H4
15	2F5

LOUDSPEAKER

DESIG	LOC	CODE
SPKR	2G9	KS-16107, L1 DR L2

POTENTIOMETER

DESIG	LOC	CODE
RS	2G7	TP-182683

APP FIG. 4

RECEIVER

DESIG	LOC	CODE
REC	258, 3F7	731A-61

APP FIG. 5

CAPACITOR

DESIG	LOC	CODE
CG	2E1, 3G9	548A

RINGER

DESIG	LOC	CODE
G	3H8, 2E2	(E) D1B (F) D1D

APP FIG. 6

TOUCH TONE DIAL

DESIG	LOC	CODE
TTD	2A5	25F1 OR 35N1A OR 35N3A SEE NOTE 2

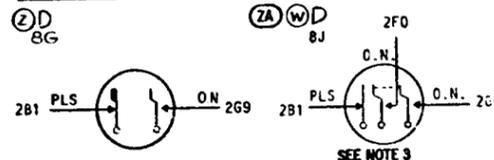
APP FIG. 7

WE CARD DIALER

DESIG	LOC	CODE
MD	2A5	26C OR 36J OR 36K SEE NOTE 2

APP FIG. 8

DIAL, ROTARY



APP FIG. 9

PULSING CARD DIALER

DESIG	LOC	CODE
PD	2D2	40A

APP FIG. 10

CAPACITOR

DESIG	LOC	CODE
CT	2E4	542C 0.25

APP FIG. 11

PULSING CARD DIALER

DESIG	LOC	CODE
PA	2E2	(E) 41A (F) 41B

NETWORK

DESIG	LOC	CODE
N1	2B2	185A

APP FIG. 12

LAMP

DESIG	LOC	CODE
ANS (C)	3C3, 3G3	51A
BUZ RLS (F)	3C6, 3G6	51A
CLEAR (B)	3C2, 3G2	51A
LOCAL (E)	3C5, 3G5	51A
ORIG (A)	3C0, 3G1	51A
TEST (D)	3C4, 3G4	51A

RESISTOR

DESIG	LOC	CODE
RT	2E4	KS-13490, L1, 200

SHEET NOTES:

- (TP-----) CODES IDENTIFY COMPONENTS USED WHEN THE UNIT IS MANUFACTURED BY TELETYPE CORPORATION.
- DIALS 25F1 AND 26C ARE 10 BUTTON ALL NUMBER DIALS. DIALS 35N1A AND 36J ARE 12 BUTTON ALL NUMBER DIALS. DIALS 35N3A AND 36K ARE 12 BUTTON NUMBER-LETTER DIALS.
- ONE PAIR OF O.N. LEADS ARE TO BE TAPED AND STORED WHEN THE 8J ROTARY DIAL IS TO BE USED WITH OPTION ZA.

ATTENDANT CIRCUIT

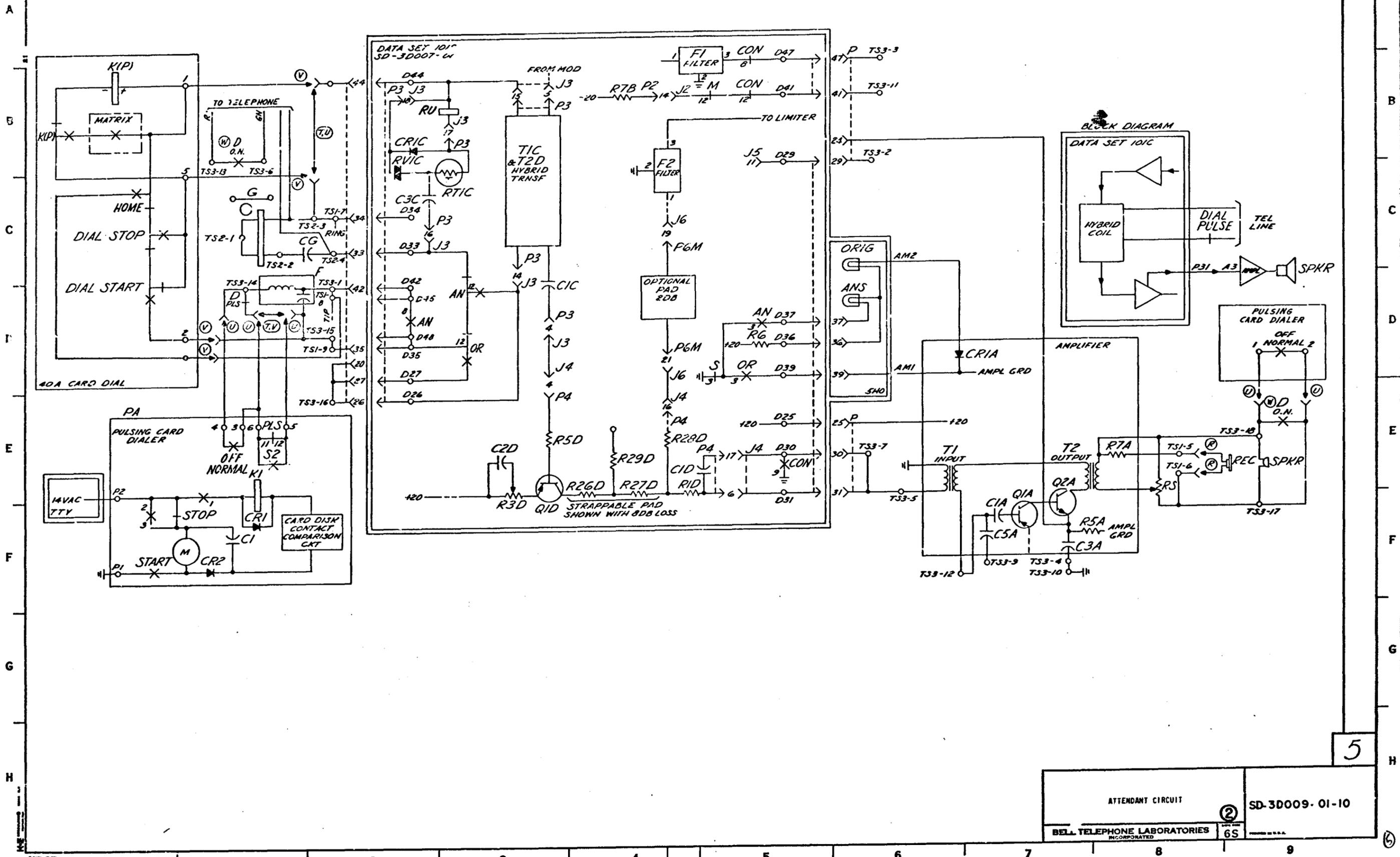
SD-3D009-01-9

BELL TELEPHONE LABORATORIES
INCORPORATED

6S

AS 7
 AMPLIFIER AND PULSE DIALING
 WITH DATA SET 101C
 FOR DATA PHONE SERVICE WITH
 TELEPHONE WITHOUT A DIAL

DRAWING
 ISSUE
 4B
 4E
 4F
 5B



SD-30009-01-10

5

ATTENDANT CIRCUIT
 SD-30009-01-10
 BELL TELEPHONE LABORATORIES
 INCORPORATED
 6S