

**CIRCUIT NOTES**  
 101. PROVIDE ONE 1/3 AMP. FUSE FROM 24 V. OR 48V. SIG. BAT. PER CKT.  
 102. RUN A PAIR OF LEADS FROM THE VARISTOR TO THE (O) IND. COIL THROUGH (TR) CAPACITOR OR SECONDARY POSITION CKT. AND ANOTHER PAIR FROM THE VARISTOR TO THE TEL. JACKS.

103.

FEATURE OR OPTION	PROVIDE	
	FIG. APP. OR WIR.	QUANTITY
TELEPHONE CIRCUIT	1	1 PER CENT
SECONDARY EQUIPMENT	REQUIRED	X
	NOT REQUIRED	Y
48V. BAT. AVAILABLE		M
24V. BAT. ONLY AVAILABLE		N

104. RECORD OF 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.
2-D	Z,W,V	Z	105	W,V	Z	
2-D	U OR T	U		T	U	
4-D	S OR R	S		R	S	
4-D	Q OR P	Q, T OR R		P	Q, T	
5-D	FIGS. A OR B	FIG. A		FIG. B	FIG. A	
7D	K OR J	K		K, J		
7D	H OR G	H		G	H	
8D	K OR J	K OR J		K	J	
8D	F OR E	F		E	F	

OPTIONS USED

FIGS.	A	Z	F
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			
51			
52			
53			
54			
55			
56			
57			
58			
59			
60			
61			
62			
63			
64			
65			
66			
67			
68			
69			
70			
71			
72			
73			
74			
75			
76			
77			
78			
79			
80			
81			
82			
83			
84			
85			
86			
87			
88			
89			
90			

105. THE DIFFERENCE BETWEEN THE (P) INDUCTOR IS AS FOLLOWS:

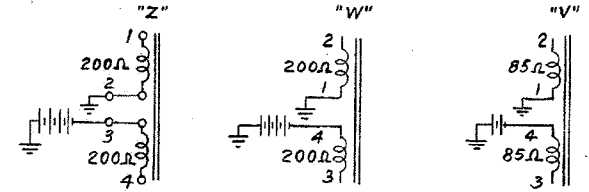


FIG. 1  
TELEPHONE CIRCUIT

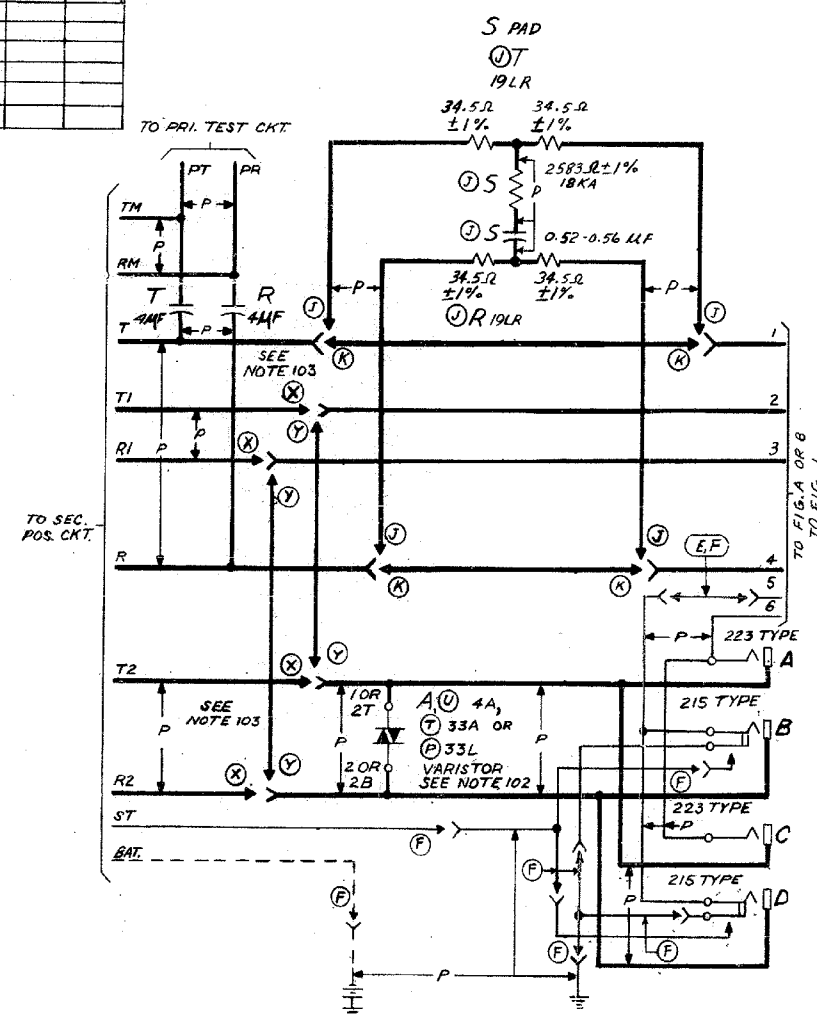


FIG. B

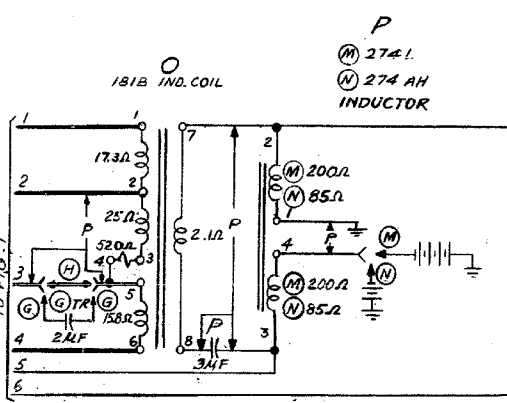
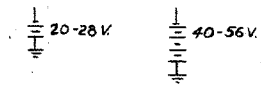
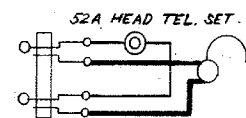
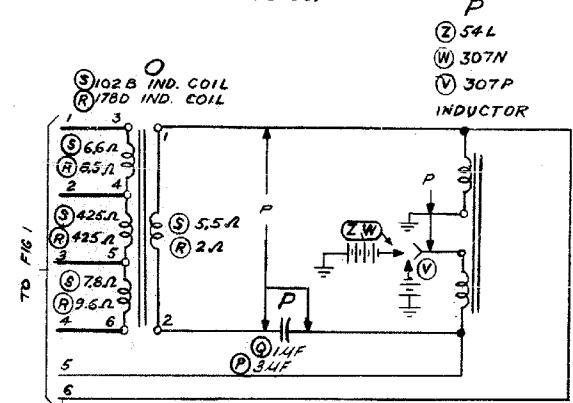


FIG. A  
MFR. DISC.



SD-29035-011

PRINTED IN U.S.A.

NOTICE  
NOT FOR USE OR DISCLOSURE  
OUTSIDE THE BELL SYSTEM  
EXCEPT UNDER WRITTEN AGREEMENT.

SD-55032-01	3H13	ISSUE 9D
TOLL SYSTEMS TOLL TESTBOARD NO. 18B TELEPHONE CIRCUIT		MFR DISC.
(TEL) SD-55032-011		2 SHEETS
BELL TELEPHONE LABORATORIES, INC		

J 63518 G-1  
EQ-61703-01  
EQUIPMENT INFO.

DWG. ISS.	CD ISS.	DWG. ISS.	CD ISS.	DWG. ISS.	CD ISS.
1	1	2D	1	3D	1
4D	1	APP 3D			
DWG. ISS.	CD ISS.	DATE ISSUED	APPROVED	LGK	T.J.P
5D	APP 4D	9-3-52	L.L. E.M.O.		
6D	APP 5D	5-28-53	L.S.H. D.B.W.		
7D	APP 6D	6-17-54	J.E.N. D.R.M.		
8D	APP 7D	8-15-61	H.M. F.M.B. A.A.B. J.T.S.		
REPRODUCED WITHOUT CHANGE 7-23-63					
9D	APP 8D	9-9-76	CDI JAC EGS		

FIG. 51 (MFR. DISC.)  
(FOR FIG. 1)

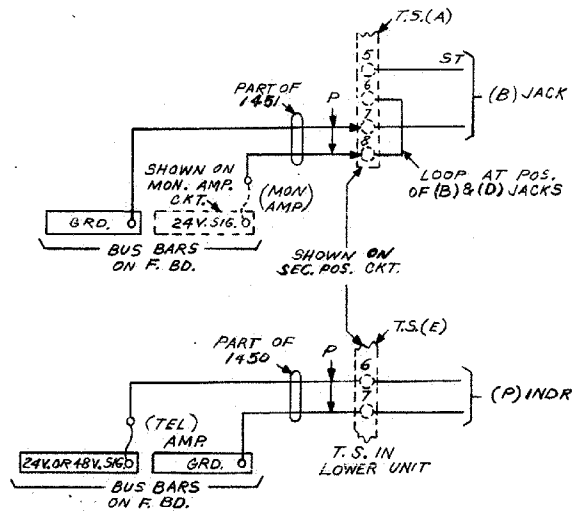
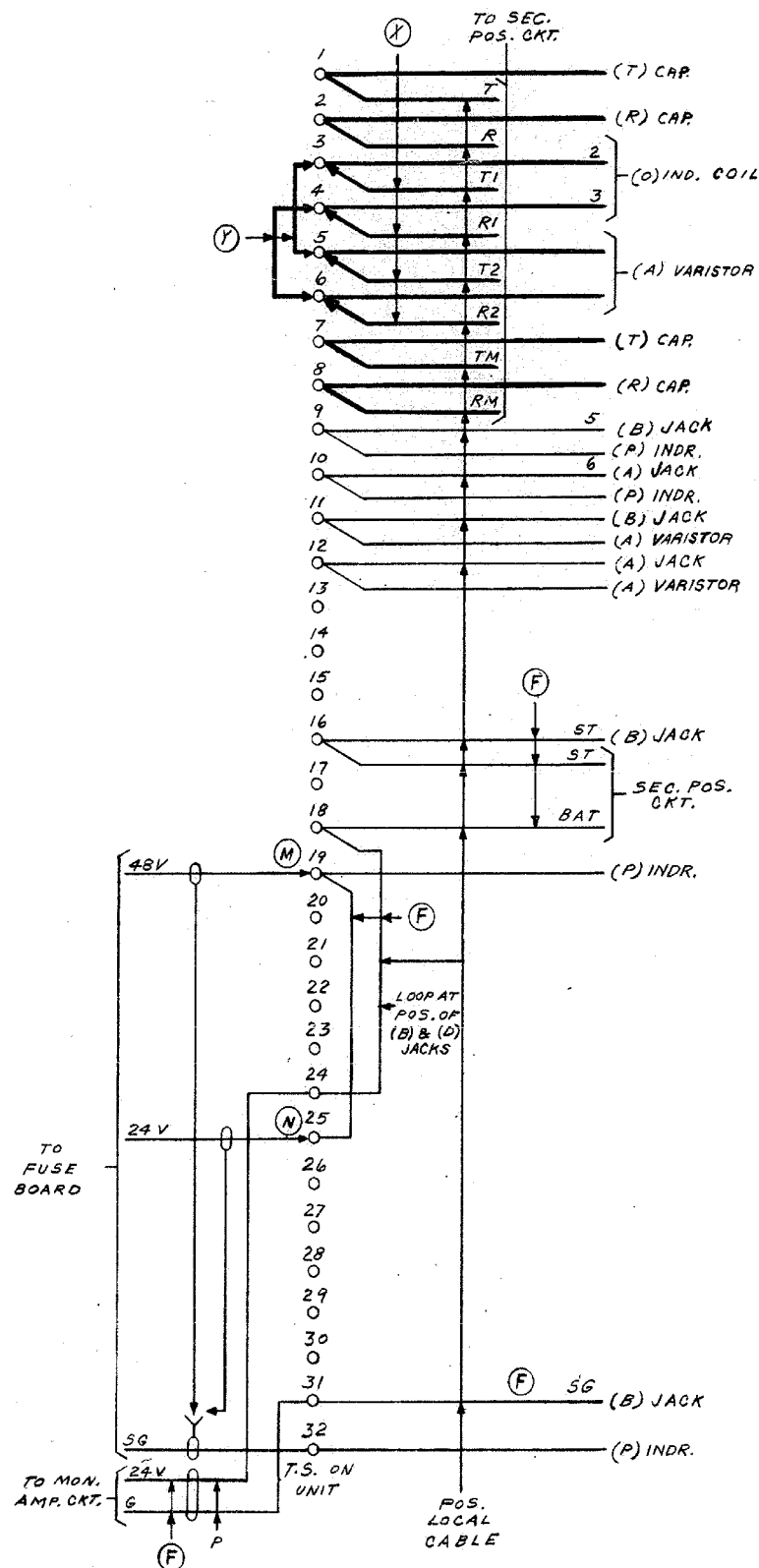


FIG. 52  
(FOR FIGS. 1 & B)



TRANSMISSION TEST REQUIREMENTS  
(1000 CYCLE LOSS BETWEEN 600 Ω LINES)

CAR	VAR.	IND. COIL	TRANS.		REC.		SEE NOTE
			WITH PAD	WITH OUT PAD	WITH PAD	WITH OUT PAD	
11LF	4A OR 33A	102 B	9.2	7.2	11.7	9.7	2
31LF	33L	178 B	9.4	7.4	8.6	6.6	3
31LF	33L	178 D	13.3	11.3	8.3	6.3	3

MAXIMUM ALLOWABLE CKT. LOSS (db)

TEMP. °F	TRANS.			RECEIVING		
	WITHOUT PAD	WITH PAD	WITH OUT PAD	WITHOUT PAD	WITH PAD	WITH OUT PAD
ANY	10.4	10.5	12.4	12.5	"H"	"G"
70°					6.0	6.1
80°					6.2	6.3
90°					6.4	6.4
100°					6.5	6.6
110°					6.7	6.8

INDIVIDUAL APPARATUS LOSSES (db)

APPARATUS	DESIG.	CODE	MAX. LOSS	MIN. LOSS	REMARKS
CAPACITOR	P	11LF	8.5	6.6	
CAPACITOR	P	31LF	17.2	15.1	
CAPACITOR	S	0.52-0.56	3.3	2.8	TESTED IN SHUNT
CAPACITOR	T, R	4.1LF	19.6	17.5	
CAPACITOR	TR	2.4LF	13.7	11.7	TESTED IN SHUNT
IND. COIL	O	102 B	7.3	5.8	
IND. COIL	O	178 B	11.5	8.8	
IND. COIL	O	178 D	11.1	9.3	SEE NOTE 1
VARISTOR	A	4A, 33A, M33L			

NOTES:  
1. FOR METHOD OF MAKING INDIVIDUAL APPARATUS LOSS TEST, SEE B5P IN "K" SERIES REQ. USING 12 db PAD  
ROOM TEMPERATURE  
INDIVIDUAL LOSS (4A OR 33A VAR.) 70° 80° 90° 100° 105°  
INDIVIDUAL LOSS (33L VAR.) 2.1 2.7 3.1 4.1 4.5  
INDIVIDUAL LOSS (33L VAR.) 0.4 0.5 0.6 0.7 0.8  
2. ROOM TEMPERATURE 85° FOR EACH INCREASE OR DECREASE OF 10° IN TEMPERATURE, ADD OR SUBTRACT 0.7 db RESPECTIVELY FOR RECEIVING LOSS.  
3. ROOM TEMPERATURE 85° FOR EACH INCREASE OR DECREASE OF 10° IN TEMPERATURE, ADD OR SUBTRACT 0.3 db RESPECTIVELY FOR RECEIVING LOSS.  
4. \* INDICATES APPARATUS FOR WHICH INDIVIDUAL LOSSES ARE NOT REQUIRED.

2D-22035-01S

TELEPHONE CIRCUIT

BELL TELEPHONE LABORATORIES, INC.

2 SHEETS,  
SHEET 2

ISSUE  
9D

SD-55032-012

PRINTED IN U.S.A.

DWG.  
ISS.  
6D  
7D  
8D  
REPR.  
DUCE  
WITH  
OUT  
CHANG.  
2368