

### SHEET INDEX

FIG.	CONTENTS	SHEET NO.	ISSUE NO.																								OLD SHEET NO.		
			7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24									
	SHEET INDEX SUPPORTING INFORMATION	A1	7	8	9																								
1	SECRETARIAL LINE CKT WITH NON-LOCKING LINE LAMP ARRANGED FOR SECRECY FOR USE WHERE RINGING CURRENT IS AC-DC OR NEGATIVE SUPERIMPOSED	B1	7	8	9																							-011	
2	SECRETARIAL LINE CKT WITH NON-LOCKING LINE LAMP ARRANGED FOR SECRECY FOR USE WHERE RINGING CURRENTS AC ONLY OR POSITIVE SUPERIMPOSED																												
C, D	UNIVERSAL SECRETARIAL LINE CKT WITH NON-LOCKING LINE LAMP ARRANGED FOR SECRECY	B2	7	8	9																							-011	
3	RESISTANCE LAMP CKT																												
4	SECRETARIAL LINE CKT FOR USE WITH CONCENTRATOR-IDENTIFIER CKT																												
A	UNIVERSAL SECRETARIAL LINE CKT ARRANGED FOR LOCKED IN LINE SIGNAL WITHOUT SECRECY	B3	7	8	9																							-012	
6	APPLIQUE CKT TO PROVIDE LOCKED IN LINE SIGNAL WITH FIG. 2 OR 3 AND 8																												
7	APPLIQUE CKT TO PROVIDE SECRECY FEATURE WHEN FIG. 6 IS USED	B4	7	8	9																							-012	
8	LAMP TEST KEY																												
9																													
10																													
	CIRCUIT NOTES	D1	7	8	9																							-013	
	WORKING LIMITS OPTIONS USED TABLE	D2	7	8	9																							-013	
	CIRCUIT REQ'T TABLE	F1	7	7	7																							-014	
51	FOR FIG. 1, 2, 3, 5, OR 6	G1	7	7	7																							-015	
52	FOR FIG. 1, 2, 3, 5, OR 6																												
53	FOR FIG. 1, 2, 3, 4, OR 6																												
54	FOR FIG. 7																												-016
55	FOR FIG. 8																												

DWG ISS	CD ISS	DWG ISS	CD ISS	DWG ISS	CD ISS
1	1	20	20	3AR	20
4B	4B	5D	5D	6D	6D
DWG ISSUE	CD ISSUE	DATE ISSUED	DRAM	APPO	
7D	6D APP 1D	5-10-63	CRA	LEV	
8B	6D APP 2B	8-16-65	RBB	JAR	
9D	6D APP 3D	4-8-69	J.B.L.	J.R.	

#### 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.
6. "OLD SHEET NO." REFERS TO SHEET NO. PRIOR TO ISSUE: 7D

#### SUPPORTING INFORMATION

CATEGORY	NO.
EQUIPMENT INFO	J59023G-( ) ED-65855-01

REPLACING SD-65716-01		
SD-65727-01	<b>IJ05</b>	AT&TCO STANDARD
PBX SYSTEMS NO. 557A SECRETARIAL LINE AND LINE LAMP TEST CIRCUIT		
(SEC. LINE)		<b>SD-65727-01-A1</b> 9 SHEETS
<b>BELL TELEPHONE LABORATORIES</b> <small>INCORPORATED</small>	<b>35</b>	<small>PRINTED IN U.S.A.</small>

DRAWING ISSUE	
70	CRR
	PD
88	RBB
	J.P.D.
	PEG
90	JGL
	RBB
	H.J.

FIG. 1

SECRETARIAL LINE CKT. WITH NON-LOCKING LINE LAMP  
ARRANGED FOR SECURITY FOR USE WHERE RINGING  
CURRENT IS AC-DC OR NEGATIVE SUPERIMPOSED  
SEE CIRCUIT NOTES 104 & 107

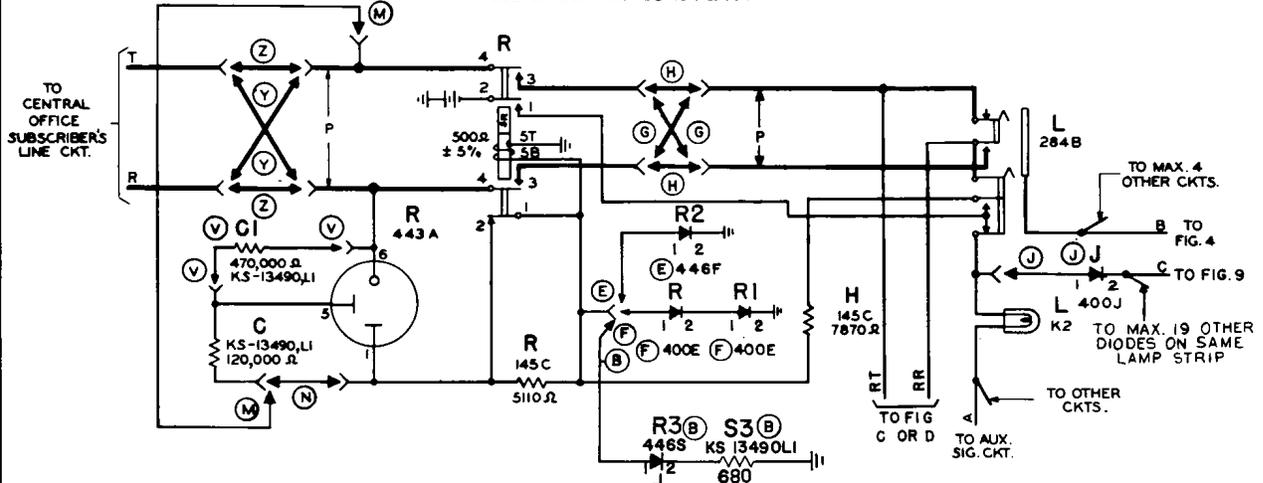


FIG. C (MFR. DISC.)  
TO FIG. 1, 2, 3, 6

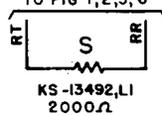


FIG. D  
TO FIG. 1, 2, 3, 6

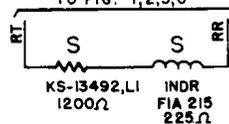
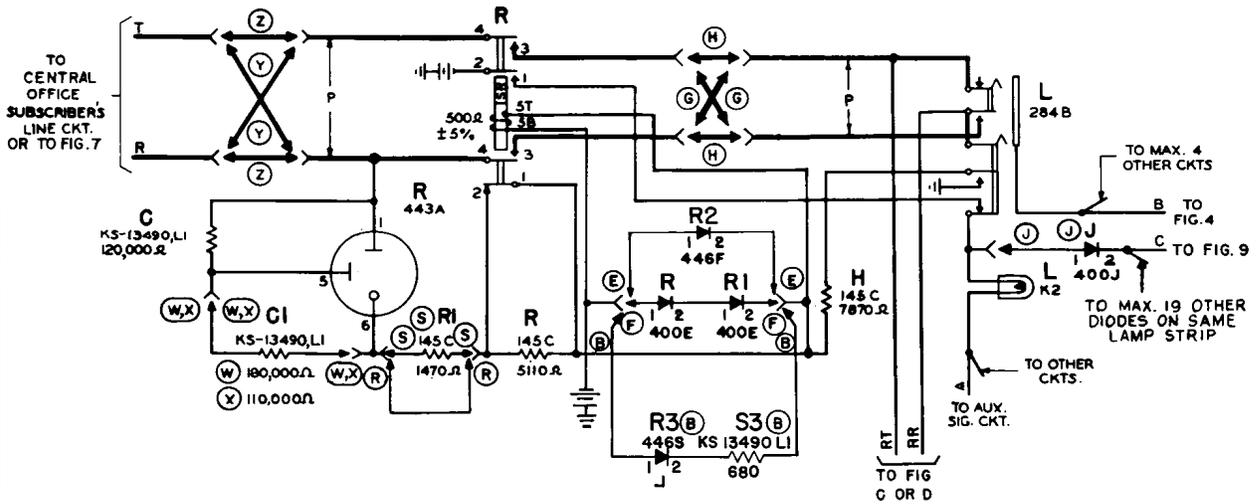


FIG. 2

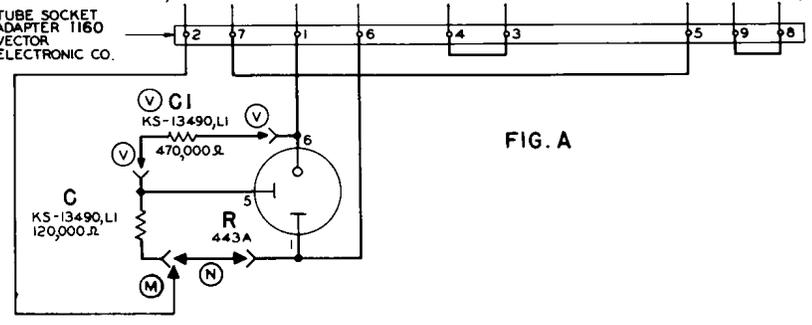
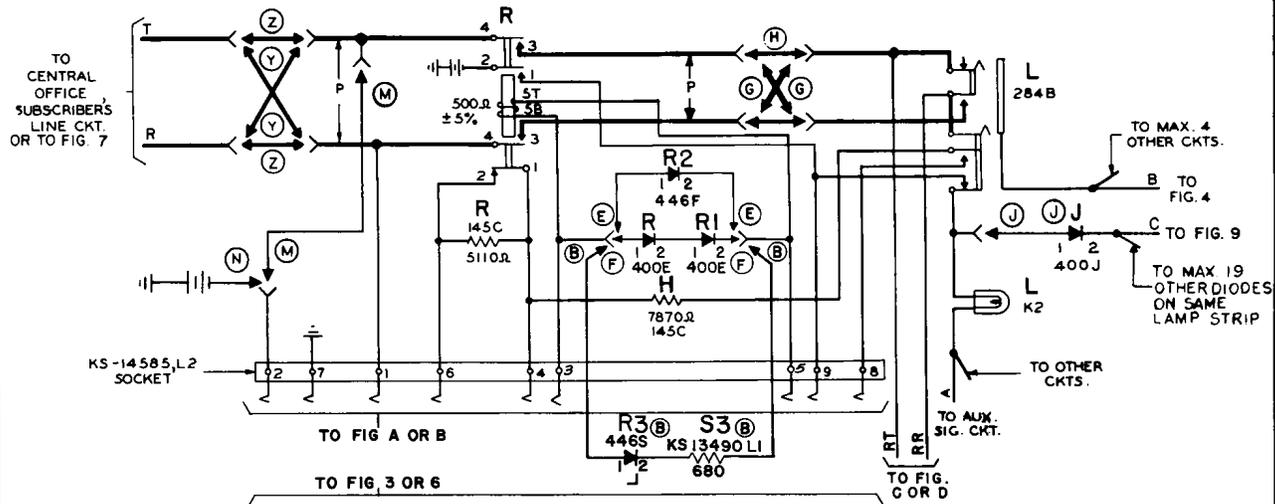
SECRETARIAL LINE CKT. WITH NON-LOCKING LINE LAMP  
ARRANGED FOR SECURITY FOR USE WHERE RINGING  
CURRENT IS AC ONLY OR POSITIVE SUPERIMPOSED



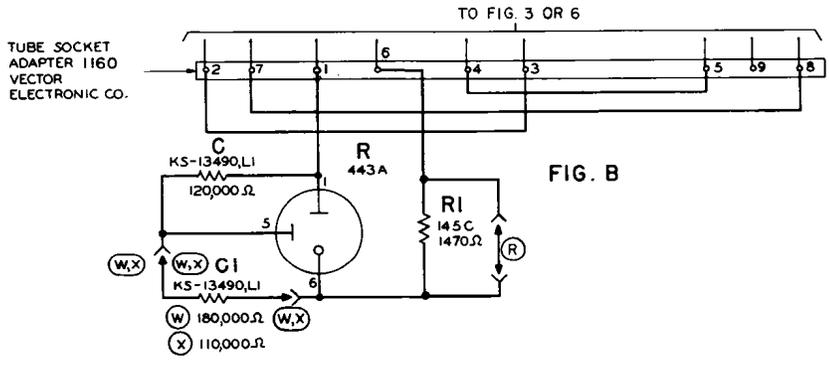
PBX SYSTEMS NO. 557A SECRETARIAL LINE AND LINE LAMP TEST CIRCUIT		SD-65727-01-B1
BELL TELEPHONE LABORATORIES INCORPORATED	ONE SHEET 3S	

DRAWING ISSUE	
7D	CRA
8B	R.BB J.PC P.FG
9D	J.A.L. R.BB W.W.

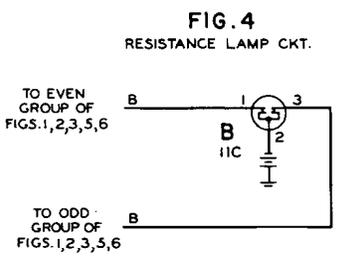
**FIG. 3**  
UNIVERSAL SECRETARIAL LINE CKT.  
WITH NON-LOCKING LINE LAMP  
ARRANGED FOR SECRECY  
SEE CIRCUIT NOTES 104, 105 & 107



**FIG. A**

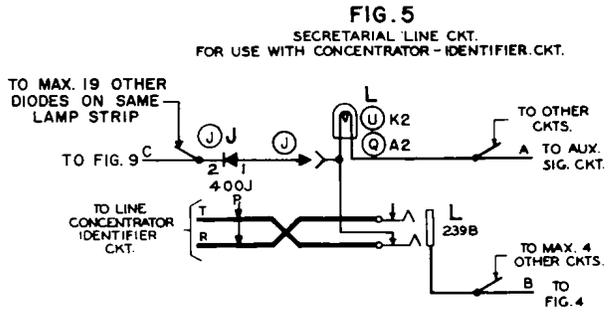


**FIG. B**



**FIG. 4**

RESISTANCE LAMP CKT.



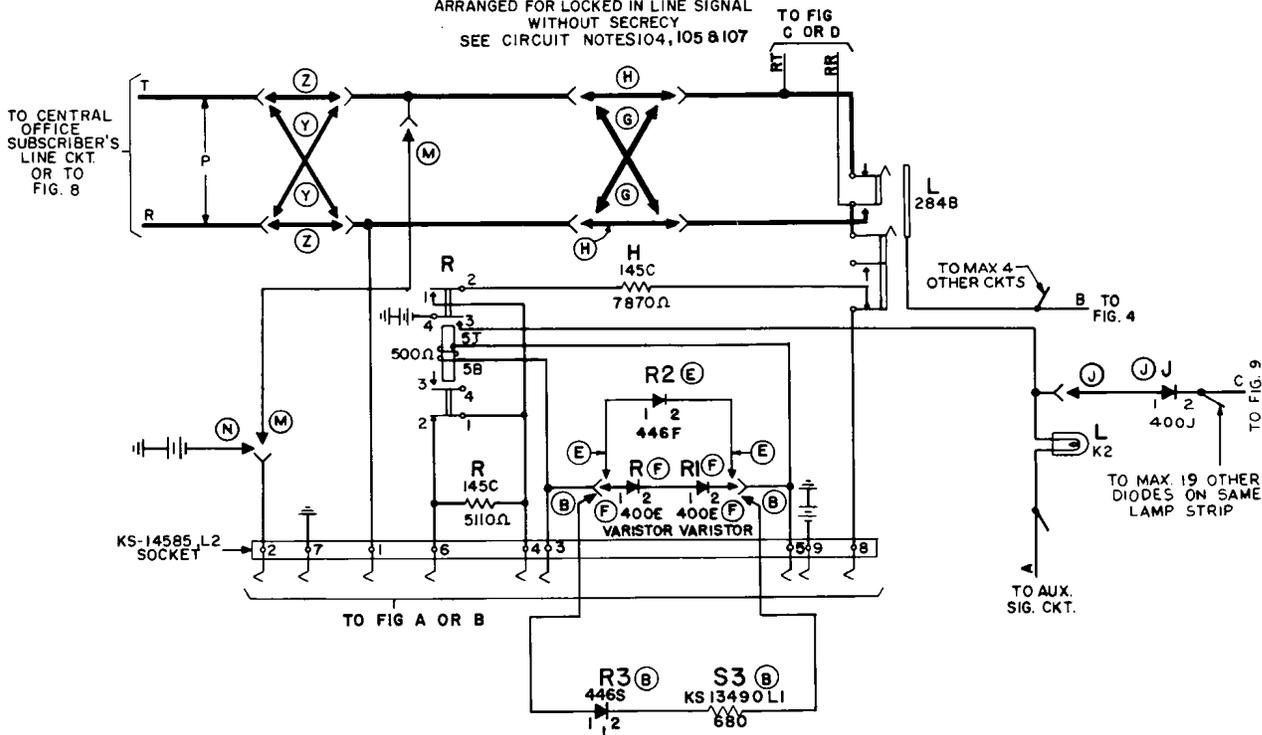
**FIG. 5**

SECRETARIAL LINE CKT.  
FOR USE WITH CONCENTRATOR - IDENTIFIER CKT.

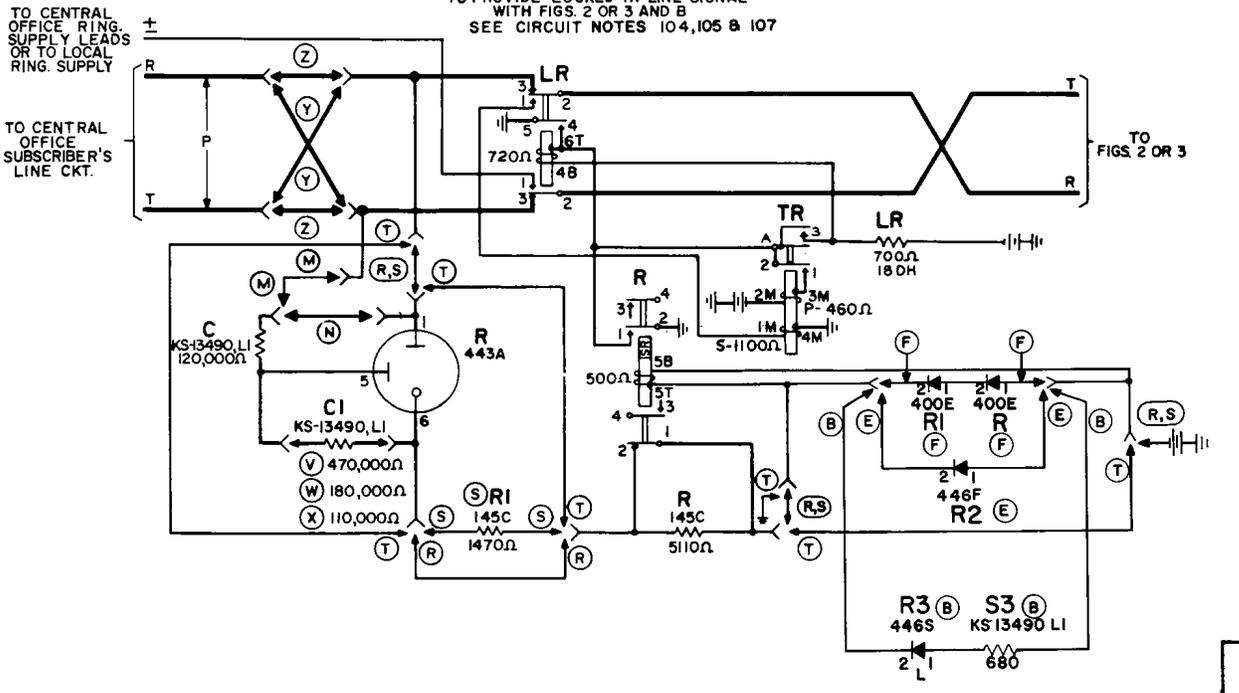
PBX SYSTEMS NO. 557A SECRETARIAL LINE AND LINE LAMP TEST CIRCUIT	<b>SD-65727-01-B2</b>
BELL TELEPHONE LABORATORIES <small>INCORPORATED</small>	<small>DWG. SIZE</small> <b>3S</b> <small>PRINTED IN U.S.A.</small>

DRAWING ISSUE	
TD	CRA
	PD
8B	FBP
	JPC
	PKG
9D	JGL
	RMB
	Hdd

**FIG. 6**  
 UNIVERSAL SECRETARIAL LINE CKT.  
 ARRANGED FOR LOCKED IN LINE SIGNAL  
 WITHOUT SECRECY  
 SEE CIRCUIT NOTES 104, 105 & 107



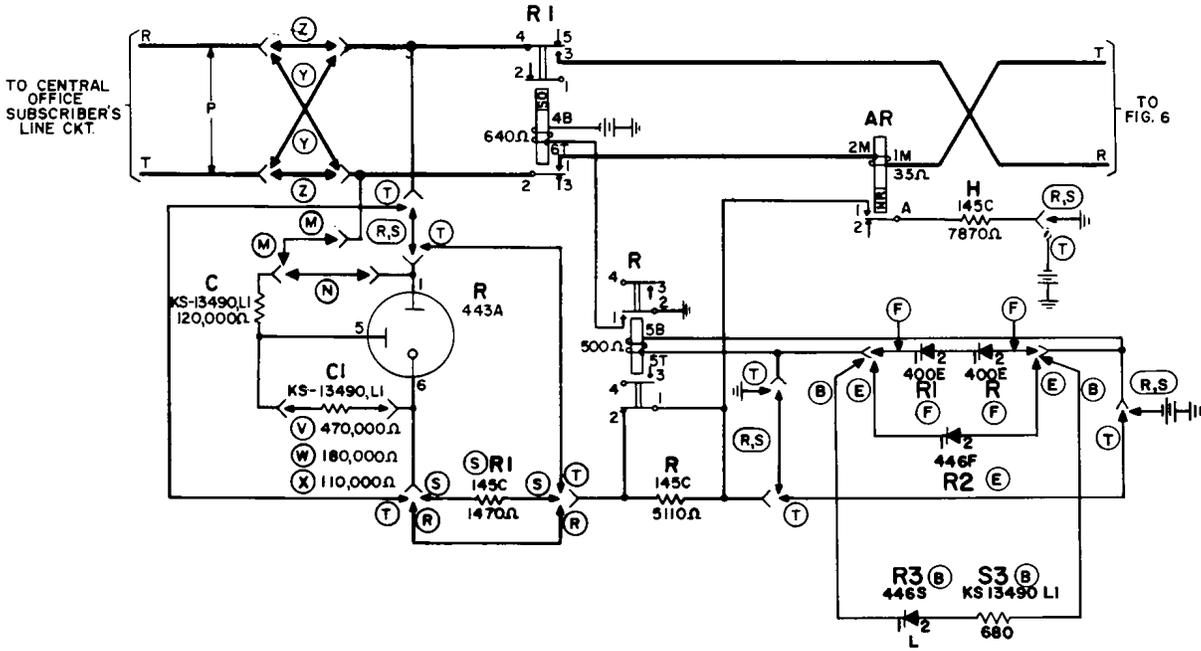
**FIG. 7**  
 APPLIQUE CKT.  
 TO PROVIDE LOCKED IN LINE SIGNAL  
 WITH FIGS. 2 OR 3 AND B  
 SEE CIRCUIT NOTES 104, 105 & 107



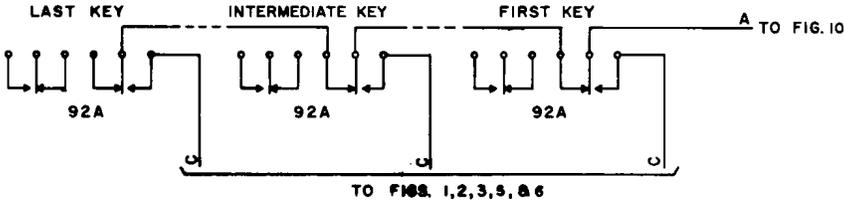
PBX SYSTEMS NO. 557A SECRETARIAL LINE AND LINE LAMP TEST CIRCUIT		<b>SD-65727-01-B3</b>
<b>BELL TELEPHONE LABORATORIES</b> <small>INCORPORATED</small>		

DRAWING ISSUE	
7D	CRA
	PD
8B	PBS
	J.P.C.
	REG
9D	JGL
	R.B.B.
	H.M.

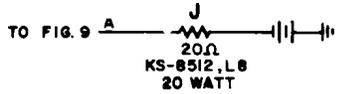
**FIG. 8**  
 APPLIQUE CKT.  
 TO PROVIDE SECRECY FEATURE  
 WHEN FIG. 6 IS USED  
 SEE CIRCUIT NOTES 104 & 107



**FIG. 9**  
 LAMP TEST KEY



**FIG. 10**



PBX SYSTEMS NO. 5574 SECRETARIAL LINE AND LINE LAMP TEST CIRCUIT		<b>SD-65727-01-B4</b>
<b>BELL TELEPHONE LABORATORIES</b> <small>INCORPORATED</small>		
<small>PAGE SIZE</small> <b>3S</b>		<small>PRINTED IN U.S.A.</small>

DRAWING ISSUE	
7D	CRA
8B	RBB JPC REG
9D	JGL RBB HLL

CIRCUIT NOTES:

101. OBTAIN BATTERY SUPPLY FROM ASSOCIATED POSITION. OBTAIN GROUND FROM LOCAL BUILDING GROUND.

102.

FEATURE OR OPTION		PROVIDE	
		FIG. OR WIR	QUANTITY
SECRETARIAL LINE CKT WITH NON-LOCKING LINE SIGNAL AND ARRANGED FOR SECRECY-USED WITH FOLLOWING TYPES OF RINGING	AC-DC OR NEGATIVE SUPERIMPOSED	1	1 PER CKT
	POSITIVE SUPERIMPOSED	2	1 PER CKT
	AC ONLY	2 R	1 PER CKT
SECRETARIAL LINE CKT WITH NON-LOCKING LINE SIGNAL AND ARRANGED FOR SECRECY-USED WITH THE FOLLOWING TYPES OF RINGING	AC-DC OR NEGATIVE SUPERIMPOSED	3,A	1 PER CKT
	POSITIVE SUPERIMPOSED	3,B	1 PER CKT
	AC ONLY	3,B R	1 PER CKT
SECRETARIAL LINE CKT WITH LOCKING LINE SIGNAL NOT ARRANGED FOR SECRECY-USED WITH THE FOLLOWING TYPES OF RINGING	AC-DC OR NEGATIVE SUPERIMPOSED	6,A	1 PER CKT
	POSITIVE SUPERIMPOSED	6,B	1 PER CKT
	AC ONLY	6,B R	1 PER CKT
APPLIQUE CKT REQUIRED TO CONNECT TO FIG. 2 WITH "R" & "Y" OPTIONS OR TO FIG. 3 & B WITH "R" & "Y" OPTIONS	AC-DC OR NEGATIVE SUPERIMPOSED	7 T	1 PER CKT
	POSITIVE SUPERIMPOSED	7 S	1 PER CKT
	AC ONLY	7 R	1 PER CKT
FOR LOCKING LINE SIGNAL-USED WITH THE FOLLOWING TYPES OF RINGING	AC-DC OR NEGATIVE SUPERIMPOSED	7 T	1 PER CKT
	POSITIVE SUPERIMPOSED	7 S	1 PER CKT
	AC ONLY	7 R	1 PER CKT
APPLIQUE CKT REQUIRED TO CONNECT FIG 6 & B WITH "R" AND "Z" OPTION FOR SECRECY-USED WITH THE FOLLOWING TYPES OF RINGING	AC-DC OR NEGATIVE SUPERIMPOSED	8 T	1 PER CKT
	POSITIVE SUPERIMPOSED	8 S	1 PER CKT
	AC ONLY	8 R	1 PER CKT
RESISTANCE LAMP CKT		4	1 PER 10 FIG. 1, 2, 3, 5 OR 6
RINGING RECEIVED ON	RING CONDUCTOR		Z
	TIP CONDUCTOR		Y
RINGING CURRENT IS	POSITIVE SUPERIMPOSED AND SILENT INTERVAL BATTERY IS 60-75 VOLTS		X
	NEGATIVE SUPERIMPOSED AND SILENT INTERVAL BATTERY IS 45-52 VOLTS		W
	NEGATIVE SUPERIMPOSED AND SILENT INTERVAL BATTERY IS 60-75 VOLTS		V
CONCENTRATOR IDENTIFIER LINE		5	1 PER CKT
LAMP TEST CIRCUIT	TEST KEY	9	1 KEY PER 20 LAMPS
	TEST LINE RESISTOR	10	1 PER INSTL
DIAL EXCLUSION	ROTARY		H
	TOUCH-TONE	Z WIRING SPECIFIED	G
		Y WIRING SPECIFIED	H

103.

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	M.D.
4B	Q OR U	U		Q		U
6D	M OR N	N		M OR N		
6D	J	NONE		J		
8B	FIG C OR D	FIG C		FIG D		FIG C
8B	G OR H	H		G OR H		
8B	E OR F	F		E		F
9D	B OR E	E		B		E

104. PROVIDE "M" OPTION WHEN SECRETARIAL LINE CIRCUIT IS CONNECTED FOR AC-DC, RING CURRENT OR NEGATIVE SUPERIMPOSED AND IS SUBJECT TO AUTOMATIC NUMBER IDENTIFICATION OR TO TWO PARTY FLAT RATE TESTS USING NEGATIVE COIN BATTERY.

105. USE "N" WIRING WITH FIG. B.

106. REFERENCE TO "Y" OR "Z" WIRING APPLIES ONLY WHEN FIGS. 1, 2, 3 OR 6 ARE USED ALONE. WHEN CONNECTING TO FIG. 7 WHICH HAS "Y" WIRING PROVIDE "G" IN FIG. 2 OR 3. WHEN CONNECTING TO FIG. 8 WHICH HAS "Y" WIRING PROVIDE "H" IN FIG. 6. (FOR TOUCH-TONE DIAL EXCLUSION, TIP POTENTIAL OF THE JACK SHALL ALWAYS BE NEGATIVE)

107. OPTION B PROVIDES DIAL PULSE TRANSIENT PROTECTION IN SXS OFFICES.

PBX SYSTEMS NO. 557A SECRETARIAL LINE AND LINE LAMP TEST CIRCUIT		<b>SD-65727-01-D1</b>
BELL TELEPHONE LABORATORIES <small>INCORPORATED</small>		
<small>OWG SIZE</small> 3S	<small>PRINTED IN U.S.A.</small>	

DRAWING ISSUE	
7D	CRA
	PD
8B	RBB JPE PEG
9D	JBL RBB WJL



WORKING LIMITS

NO. OF MAIN STATION RINGING BRIDGES	MAX. EARTH POTENTIAL				±5V	
	CONDUCTOR LOOP TO PBX FROM ALL CENTRAL OFFICES EXCEPT NO. 1 CROSSBAR					
	SUPERIMPOSED RINGING		AC-DC RINGING		AC-DC RINGING	
	84-88V AC, 37-40V DC	10,000Ω	84-88V AC, 45-52V DC	10,000Ω	95-103V AC, 16-19V DC	WITH 48V SILENT INTERVAL
	LEAK	50,000Ω	LEAK	50,000Ω	LEAK	50,000Ω
1	1350	1600	2000	2000	200	500
2	1150	1500	1800	2000		200
3	700	1200	1400	2000		
4	500	900	1200	1000		
	CONDUCTOR LOOP TO PBX FROM NO. 1 CROSSBAR CENTRAL OFFICE					
4	100	100	100	100		

FIGURES AND OPTIONS ON THIS DWG			
CKT FIG.	APP OR WIRING		
1	A	Z	
2	B	Y	J
3	C	X	H
4	D	W	G
5		V	F
6		U	E
7		T	B
8		S	
9		R	
10		O	
11		N	
12		M	

PBX SYSTEMS NO. 557A SECRETARIAL LINE AND LINE LAMP TEST CIRCUIT		<b>SD-65727-01-D2</b>
BELL TELEPHONE LABORATORIES <small>INCORPORATED</small>	<small>DWG SIZE</small> <b>3S</b> <small>PRINTED IN U.S.A.</small>	

CIRCUIT REQUIREMENTS

NO. 557A SECRETARIAL LINE CKT (SECR APLQ) (SECR LINE)

APPARATUS				MECH REQ			CIRCUIT PREPARATION			TEST SET PREP	SEE TEST NOTE	DIRECT CURRENT FLOW REQ				REMARKS	
DESIG	CODE	OPT.	FIG.	BSP FIG.	CONT PRES	ARM. TRVL	BLOCK OR INSULATE	TEST CLIP DATA				TEST WDG	TEST FOR	AFTER SOAK MA	TEST MA		READJ MA
								CONN BAT.	CONN GRD								
RELAYS																	
AR	B1177		8	16		SPL		1M(AR)	2M(AR)	B/G	3		O	150	8.6	7.7	ARM. TRVL 20
								1M(AR)	2M(AR)	B/G			NO	150	4.8	5.4	
								1M(AR)	2M(AR)	B/G			R	150	2.9	3.3	
LR	UA119		7	108/132	H	SPL	5T(LR)		T(LR)	GRD	4		O		8.4	8	ARM. TRVL 38
R	Y311		1	190/188	H	35		B(R)		BAT.	1		O	FS	17	16	
								B(R)		BAT.	1		NO	FS	9.4	9.9	
								B(R)		BAT.	1		H	FS	1.6	1.5	
								B(R)		BAT.	1		R	FS	0.9	1.1	
R	Y311		2	190/188	H	35			T(R)	GRD	1		O	FS	17	16	
									T(R)	GRD	1		NO	FS	9.4	9.9	
									T(R)	GRD	1		H	FS	1.6	1.5	
									T(R)	GRD	1		R	FS	0.9	1.1	
R	Y311		3	190/188	H	35					1,2		O	FS	17	16	
											1,2		NO	FS	9.4	9.9	
											1,2		H	FS	1.6	1.5	
											1,2		R	FS	0.9	1.1	
R	Y311		6	190/188	H	35	2T(R)				1,2		O	FS	17	16	
							2T(R)				1,2		NO	FS	9.4	9.9	
							2T(R)				1,2		H	FS	1.6	1.5	
							2T(R)				1,2		R	FS	0.9	1.1	
R	Y311		7	190/188	H	35	2T(R)				1,5		O	FS	17	16	
							2T(R)				1,5		NO	FS	9.4	9.9	
							2T(R)				1,5		H	FS	1.6	1.5	
							2T(R)				1,5		R	FS	0.9	1.1	
R	Y311		8	190/188	H	35					1,5		O	FS	17	16	
											1,5		NO	FS	9.4	9.9	
											1,5		H	FS	1.6	1.5	
											1,5		R	FS	0.9	1.1	
R1	U808		8	160/132	H	47			T(R1)	GRD			O		19.5	18.5	
TR	J55		7	5		23	1(TR),(LR)NO		3M(TR)	GRD			P	0		16.5	15.5
							1(TR),(LR)NO	1T(LR)		BAT.			S	0		10.9	
							1(TR),(LR)NO				6		S	0			

TEST NOTES:

- ADJACENT RELAYS SHALL NOT BE ENERGIZED. SEE BSP.
- WITH FIG. A, CONNECT BAT. TO B(R); USE TEST SET PREP "BAT"  
WITH FIG. B, CONNECT GRD. TO T(R); USE TEST SET PREP "GRD".
- TEST: CONTACT MAKE MIN. 3.  
CONTACT SEPARATION MIN 3
- CONTACTS MAKE 6 READJUST, 4 TEST. MIN. SPRING TENSION (2T & 2B) TO GRAMS READJUST, 8 GRAMS TEST.
- WITH T OPTION CONNECT BAT TO B (R); USE TEST SET PREP "BAT."  
WITH R OR S OPTION CONNECT GRD TO T(R); USE TEST SET PREP "GRD".
- TEST AND READJUST THE (TR) RELAY FOR OPERATION ON AC BY CONNECTING 6500Ω NON-INDUCTIVE RES. BETWEEN 1T (LR) AND 1B (LR). THE (TR) RELAY SHOULD OPERATE AND HOLD STEADILY WITH THE 6500Ω RESISTANCE SHORT CIRCUITED.

PBX SYSTEMS  
NO. 557A  
SECRETARIAL LINE AND LINE LAMP  
TEST CIRCUIT  
BELL TELEPHONE LABORATORIES  
INCORPORATED

SD-65727-01-F1

3S PRINTED IN U.S.A.

