

SHEET INDEX		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
SUPPORTING INFORMATION		AI		1	2	3																						
OPTION INDEX																												
FS 1 APLQ TO ALLOW A KEY TEL AND/OR LSV TO SEIZE A LOCAL TESTING TALK TRUNK																												
FS 2 APPLIQUE TO ADAPT THE NO. 16 LTD TELEPHONE CIRCUIT FOR USE WITH A KEY TELEPHONE LINE		BI		1	2	2																						
FS 3 TALKING BATTERY FOR KEY TELEPHONES																												
FS 4 120 IPM FLASHING CKT		FI			2	2																						
APP FIG. 1, 2, 3, 4		CI		1	2	3																						
CIRCUIT NOTES EQUIPMENT NOTES INFORMATION NOTES WORKING LIMITS TRANSMISSION TEST REQTS TABLE		DI		1	2	3																						
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CAD 1		GI		1	2	2																						
CAD 2		G2		1	2	2																						
CAD 3, 4, 5, 6		G3		1	2	2																						
CAD 7		G4			2	2																						
CAD 8, 9, 10		G5			2	2																						
BD 1 TYPICAL INTERCONNECTIONS FOR KEY TELEPHONE TO LOCAL TESTING TRUNK																												
BD 2 TYPICAL INTERCONNECTIONS FOR LOCAL TEST DESK TO KTS		HI		1	1	1																						
CPS 1		J1		1	2	2																						

APP OR WRG	LOCATION
1	APP FIG. 1
2	APP FIG. 2
3	APP FIG. 3
4	APP FIG. 4
Z	APP FIG. 1, 1B3, 1C2, 1D2, 1D3
Y	APP FIG. 1, 1B3, 1C2, 1D2, 1D3
X	APP FIG. 1, 1B3, 1C2, 1D3

2B	2B	9-21-73	WYSEB	TFOLTY	SAK LCB	WYSEB
3B	2B	2-1-73	WYSEB	WYSEB	WYSEB	WYSEB

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.

SUPPORTING INFORMATION

CATEGORY	NO.
EQUIPMENT DRAWINGS	ED-97563 J93016DF J93016DG

NOTICE

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

SD-97565-01

COMMON SYSTEMS
TALK TRUNK AND LINE CIRCUIT
APPLIQUE
NO. 16 LTD, LSV AND KEY
TELEPHONE SYSTEMS

(TLX TRK & L)

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INIO

AT&T
STANDARD

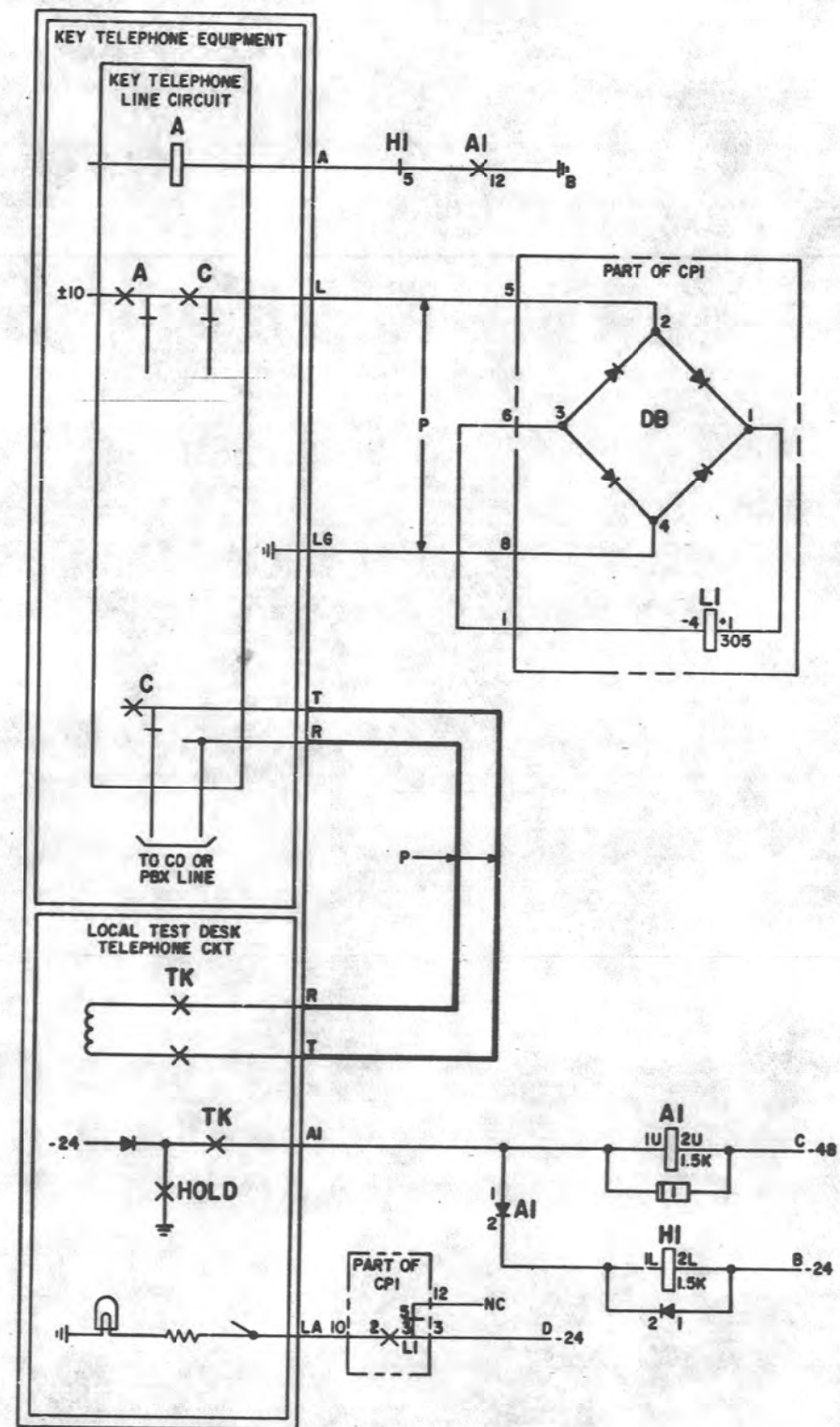
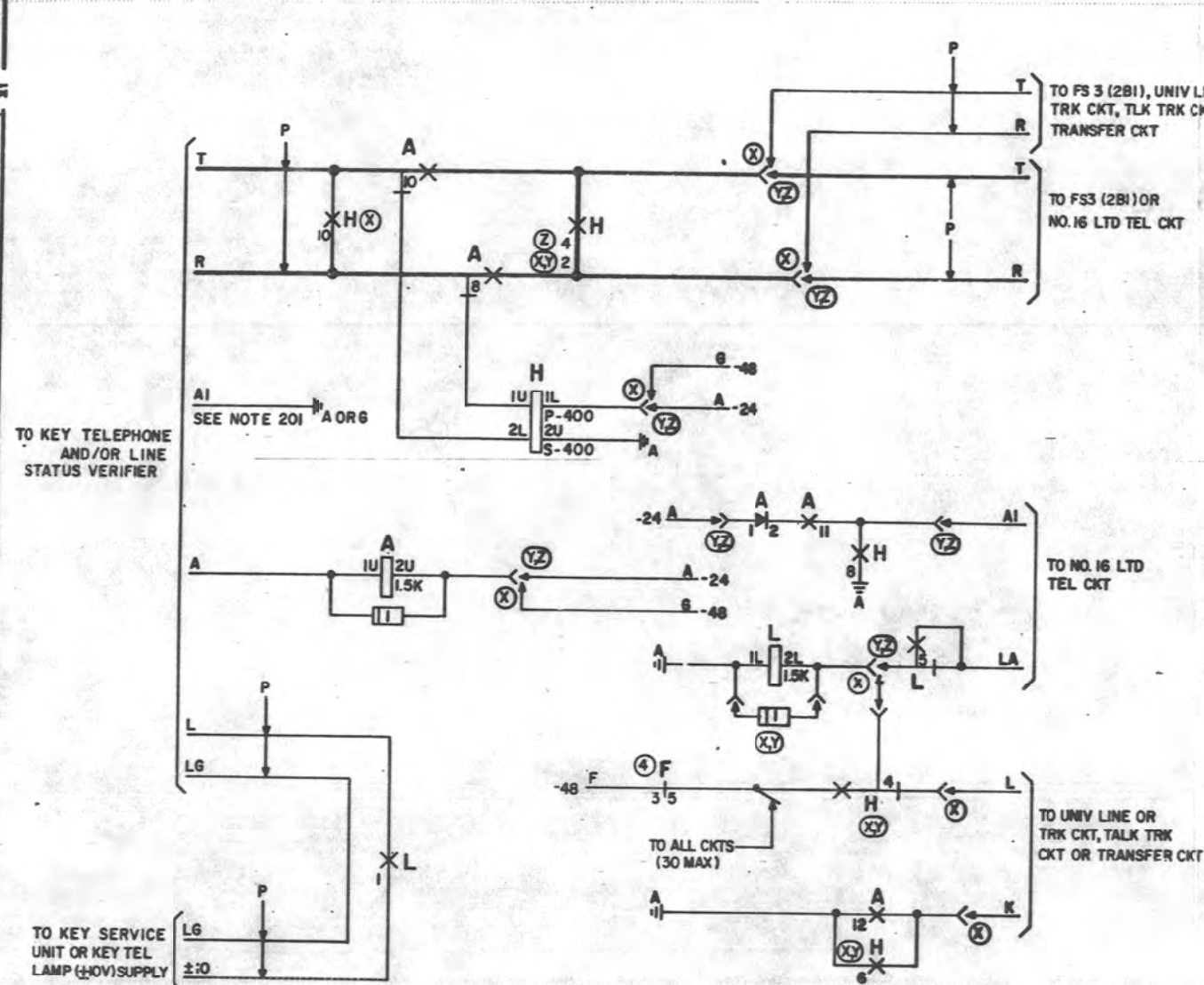
SD-97565-01-A1
13 SHEETS

ISSUE
38

HW
NY

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5-7000 (7-65)



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TALK TRUNK AND LINE CIRCUIT
APPLIQUE

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2

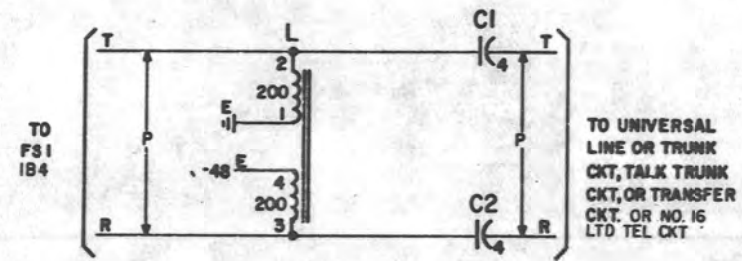
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6S

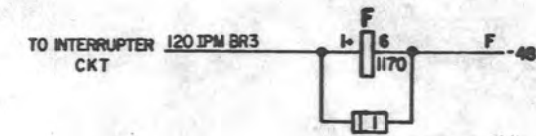
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ISSUE
2B

③ FS 3
TALKING BATTERY
FOR KEY TELEPHONES



④ FS 4
120 IPM FLASHING CKT



SD-97565-01-B2

A	1-1/3	-24V SIG	10 APP FIG. 1 (Y&Z OPT)
B	1-1/3	-24V SIG	12 APP FIG. 2
C	1-1/3	-48V SIG	12 APP FIG. 2
D	1-1/3	-24V SIG	APP FIG. 2
E	1-1/3	-48V FIL	5 APP FIG. 3
F	2	-48V SIG	APP FIG. 4
G	1-1/3	-48V SIG	10 APP FIG. 1 (X OPTION)
A		GRD	10 APP FIG. 1
B		GRD	12 APP FIG. 2
E		GRD	5 APP FIG. 3
G		GRD	10 APP FIG. 1 (X OPTION)
BATTERY SYMBOL		VOLTAGE RANGE	
-24		22-26	
-48		45-52	

NETWORK NO.	RESISTANCE IN OHMS	CAPACITANCE IN UF
1	470	0.11

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
2B	Z,Y,X OR FIGS.3,4	Z		Z,Y, FIGS.3,4		Z
3B	DIODE			533F		446F

TRANSMISSION TEST REQUIREMENTS (1kHz LOSS BETWEEN 600 OHM TERMINATORS)					
			MAX ALLOWABLE CIRCUIT LOSS (dB)		
			A TO B 0.8 dB		
ALLOWABLE INDIVIDUAL APPARATUS LOSSES (dB)					
APPARATUS	DESIG	CODE	MAX LOSS	MIN LOSS	REMARKS
CAPACITOR	CLC2	437A	20.5	18.7	SHUNT COMM
NOTE: L * INDICATES APPARATUS FOR WHICH INDIVIDUAL LOSSES ARE NOT REQUIRED					

102. FEATURE OR OPTION		PROVIDE	
		APP FIG.	APP OR WRG QUANTITY
APPLIQUE FOR USING THE LOCAL TEST DESK WITH A KEY TELEPHONE LINE CKT		2	1 PER TRK
APLQ FOR USING KEY TEL OR LINE STATUS VERIFIER WITH LOCAL TESTING TALK TRKS WITH T,R,K,L SUPERVISION.	WHERE TRK IS TO APPEAR ON A NO. 16 LOCAL TST DESK	1	Y 1 PER TRK
	APPEARANCE ON NO. 16 LTD IS NOT REQD	1	X 1 PER TRK
		4	1 PER 30 TRKS MAX
TALKING BATTERY FOR KEY TEL WHEN NOT PROVIDED BY THE TRUNK		3	1 PER TRK

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.

WORKING LIMITS:
THE MAXIMUM EXTERNAL RESISTANCE OF LEAD LA IN FS 2 IS SHOWN BELOW:

NUMBER OF POSITIONS	MAXIMUM RESISTANCE IN OHMS
1-2	25.0
3-4	12.5
5-6	8.3
7-8	6.2
9-10	5.0
11-12	4.2
13-14	3.6
15-16	3.1
17-18	2.8
19-20	2.5

THE MAXIMUM EXTERNAL LOOP RESISTANCE OF ALL OTHER LEADS SHALL NOT EXCEED 50 OHMS.

TALK TRUNK AND LINE CIRCUIT APPLIQUE		ISSUE 3B
BELL TELEPHONE LABORATORIES INCORPORATED		
SD-97565-01-D1		DATE DESG 6S

SD-97565-01-D1

CIRCUIT REQUIREMENTS

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	
A	I/2 AK42		1	223					IU(A)	GRD		0		10.5	10		MOUNTED WITH (L)
AI	I/2 AK42		2	223					IU(AI)	-24V		0		10.5	10		MOUNTED WITH (HI)
H	AJ138	Z	1	56				2L(H)	IU(H)	M		P/S	0		12.6	12	
	AJ52	Y,X	1	303				2L(H)	IU(H)	M		P/S	0		13.2	12.6	
										M		P/S	R		3.5	3.3	
HI	I/2 AK42		2	223					IL(H)	GRD		0		10.5	10		MOUNTED WITH(AI)
L	I/2 AK42		1	223				5(L)	2L(L)	BAT		0		10.5	10		MOUNTED WITH (A)

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ISSUE
2BTALK TRUNK AND LINE CIRCUIT
APPLIQUE

②

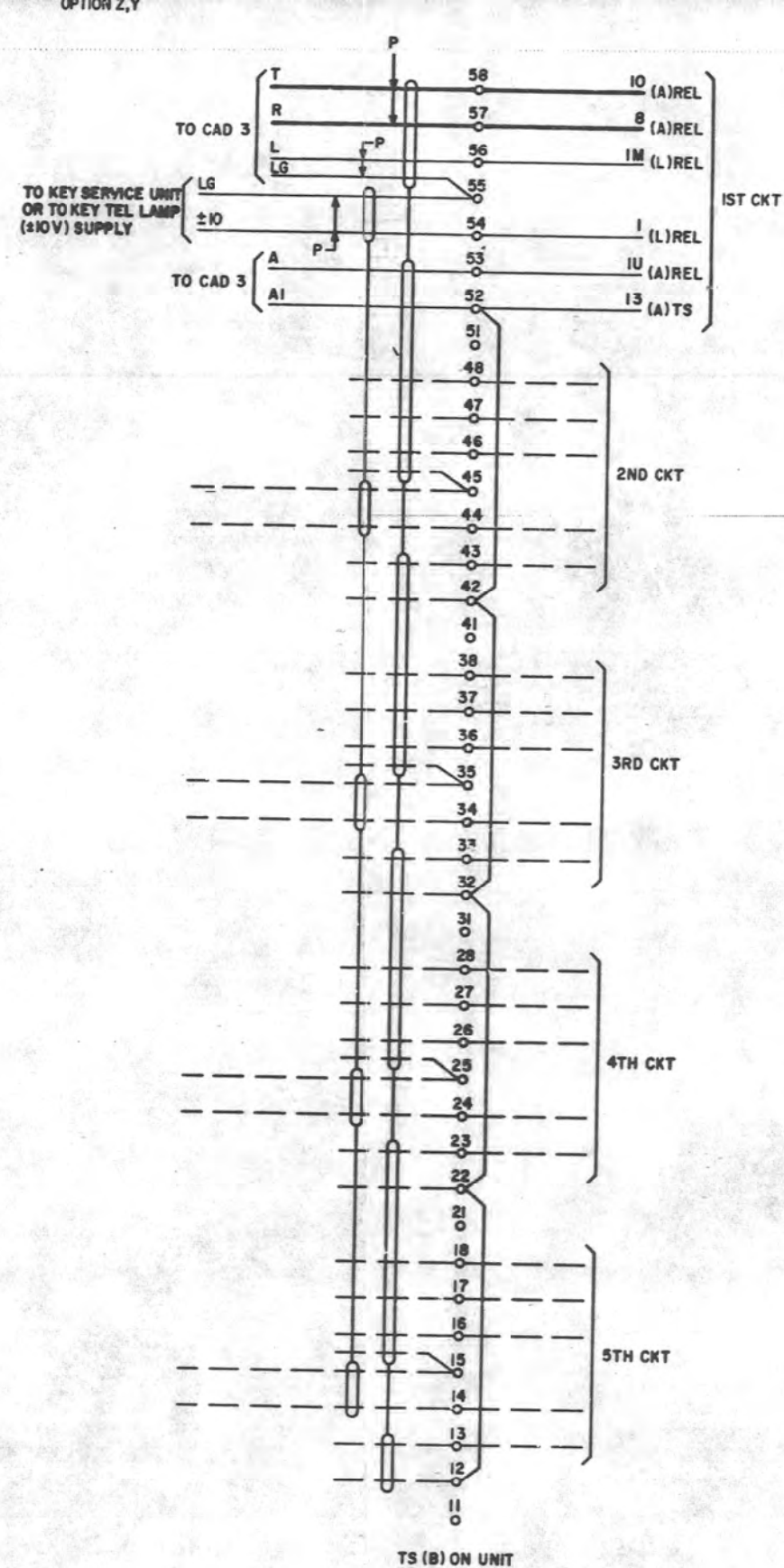
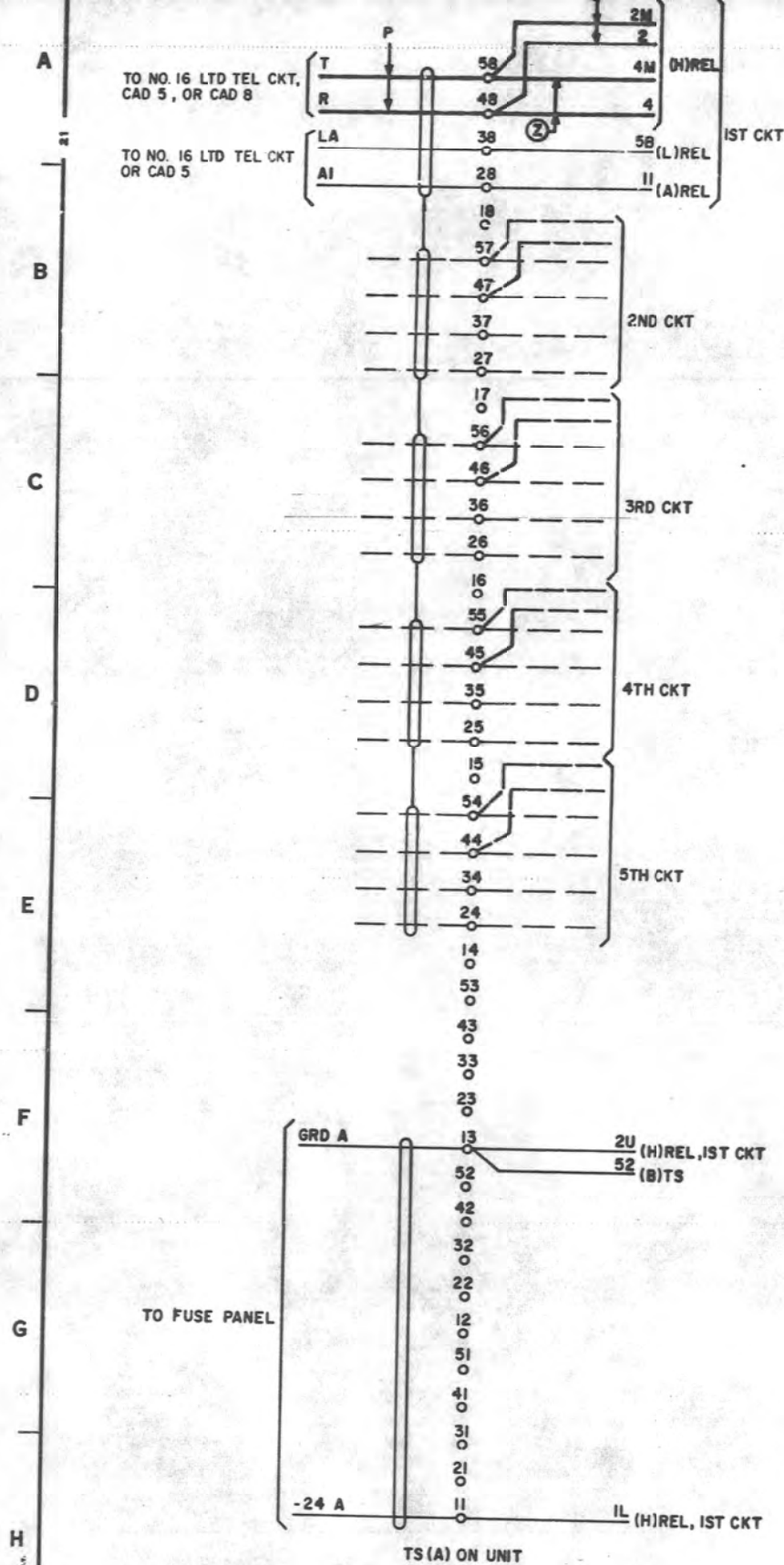
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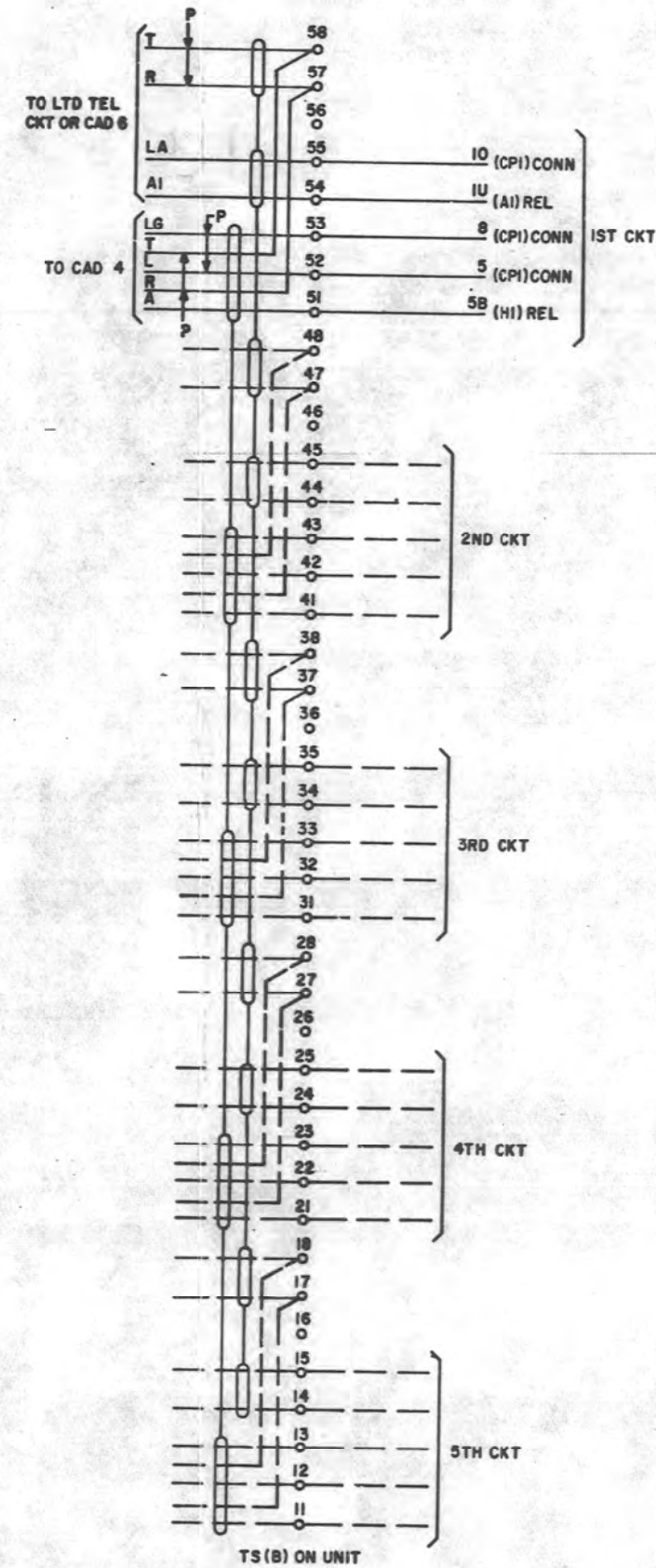
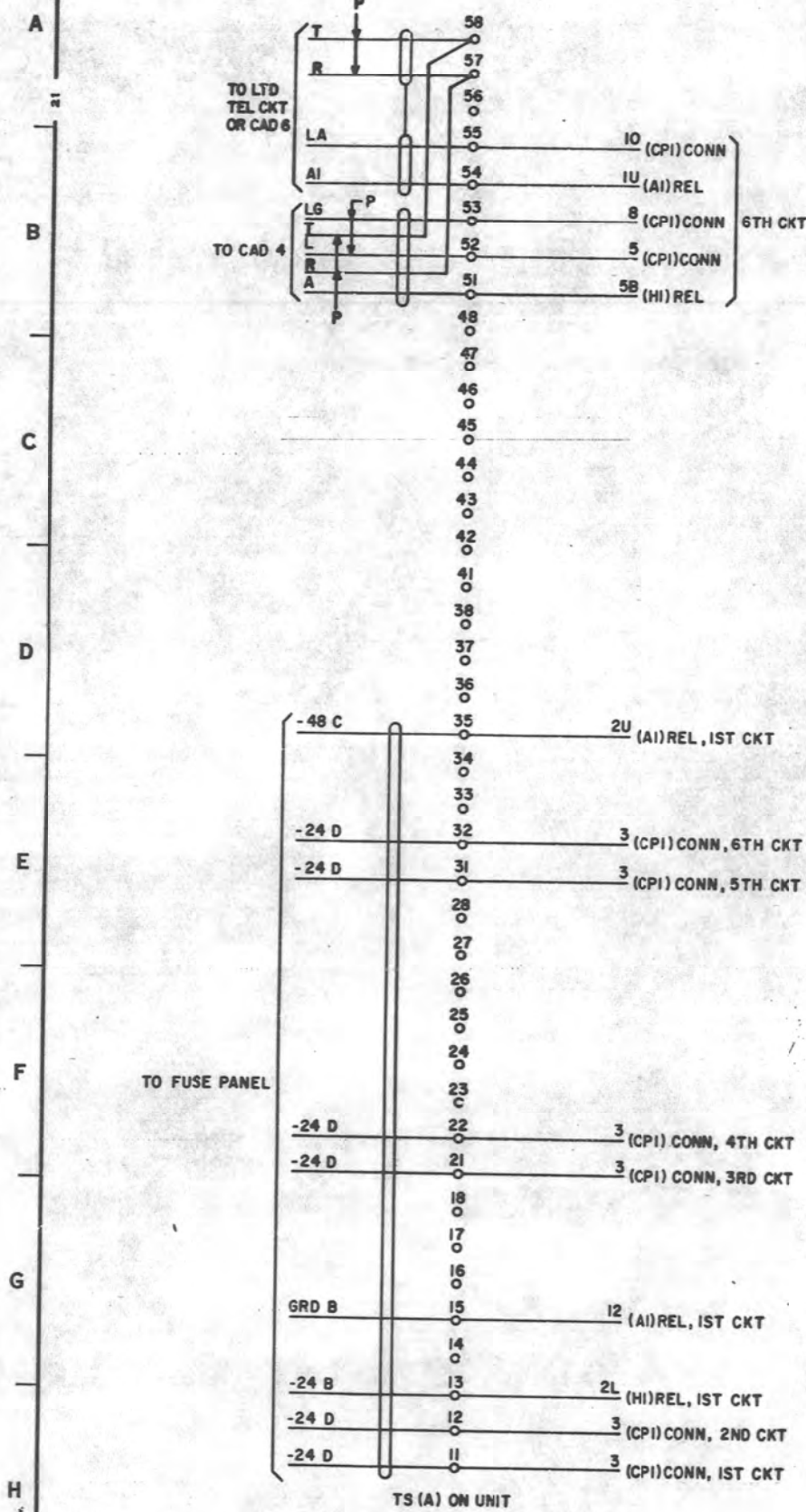
TALK TRUNK AND LINE CIRCUIT
APPLIQUEBELL TELEPHONE LABORATORIES
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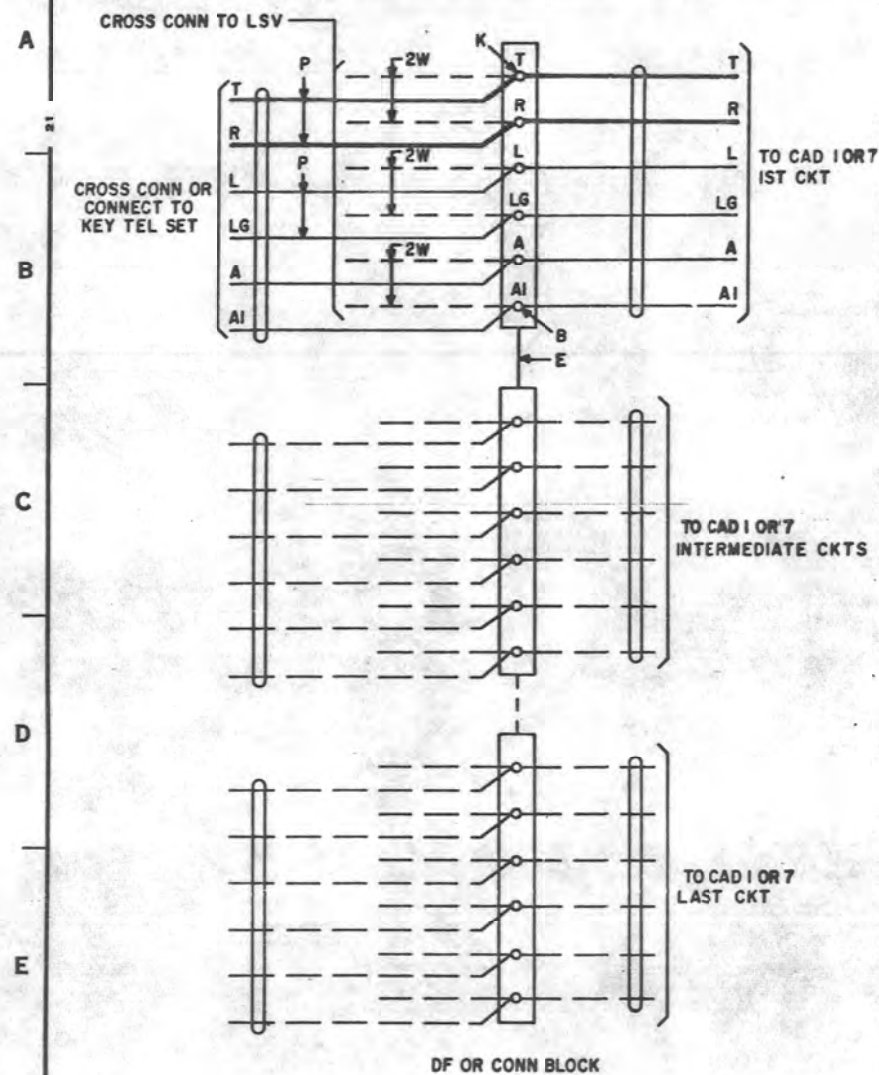
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ISSUE
2B

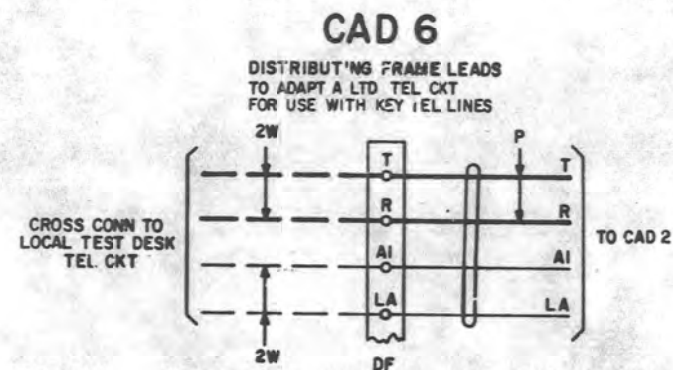
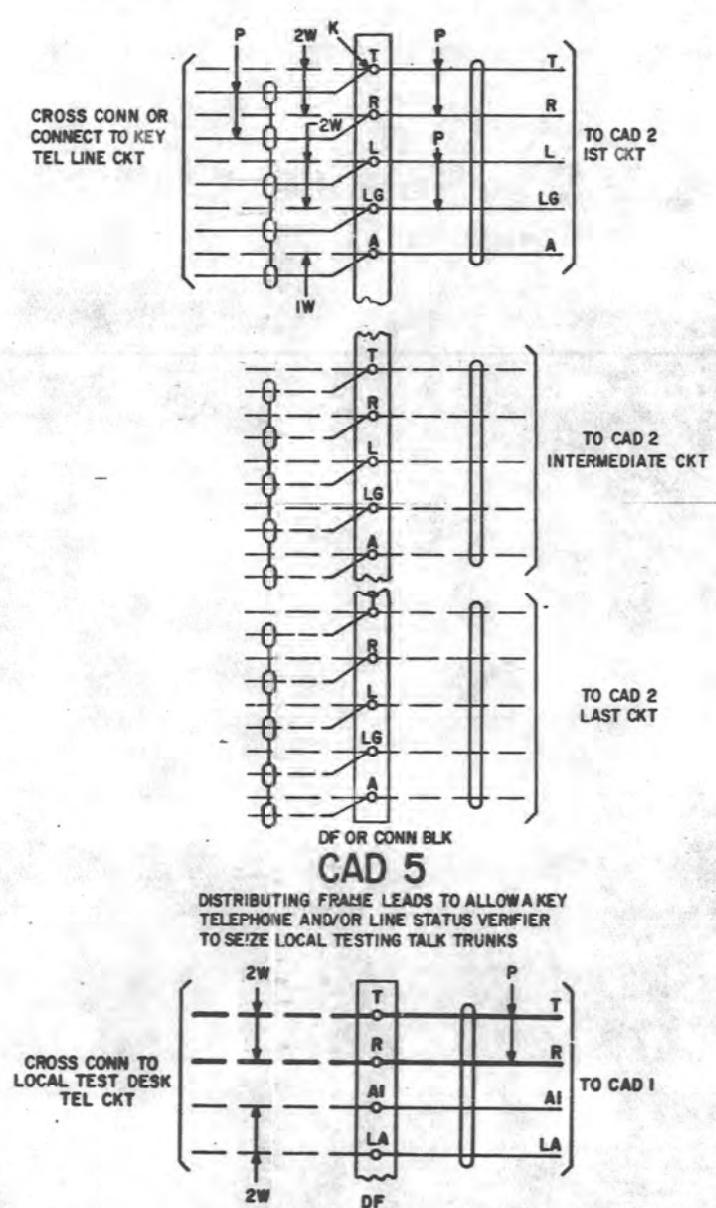


SD-97565-01-62

DISTRIBUTING FRAME LEADS TO LINE STATUS
VERIFIER AND/OR KEY TELEPHONE SET



DISTRIBUTING FRAME LEADS TO
KEY TELEPHONE UNIT



SD-97565-01-G3

SD-97565-01-G4

A

B

C

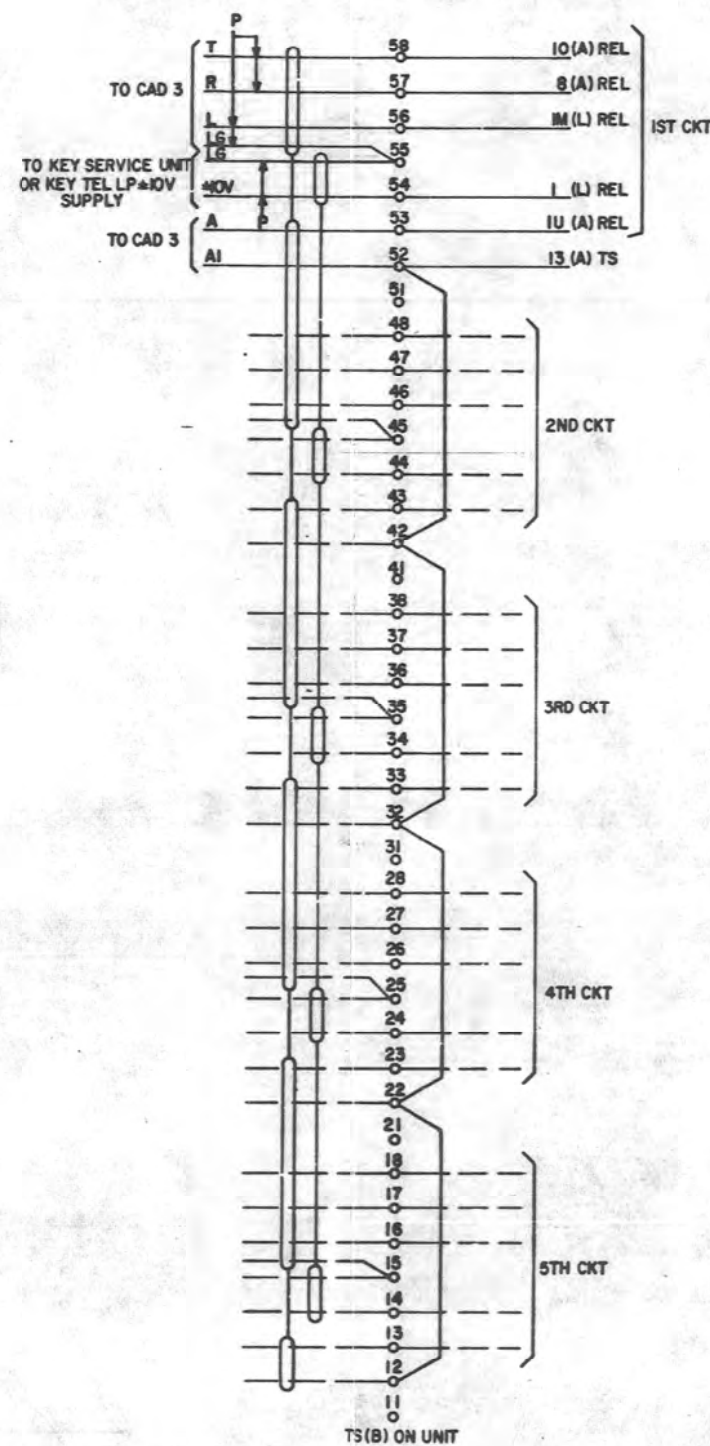
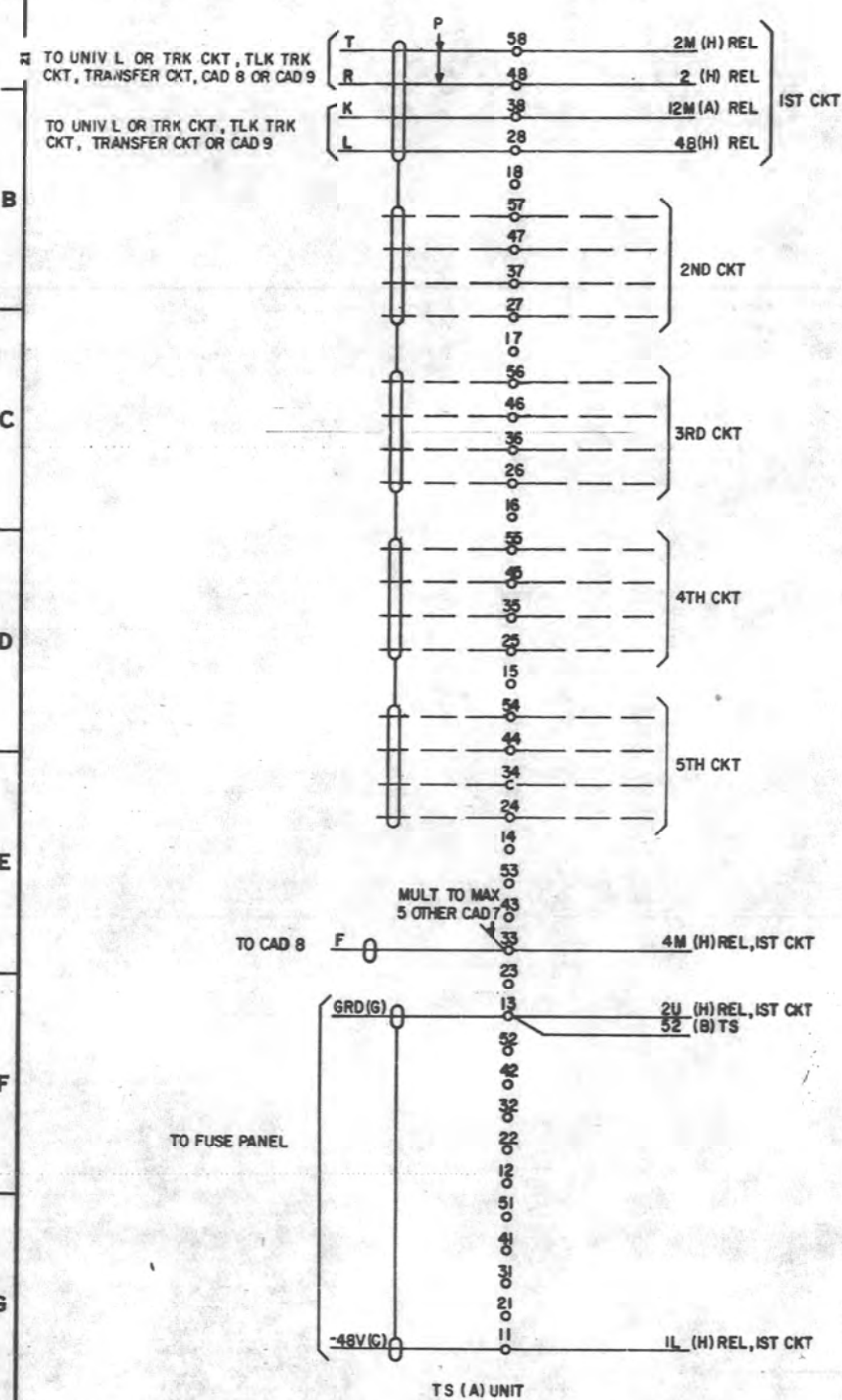
D

E

F

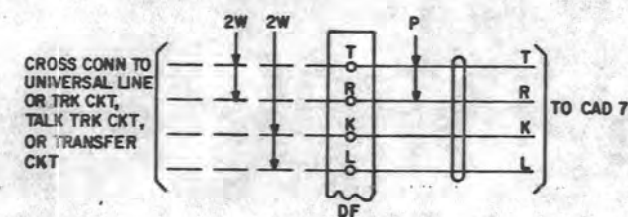
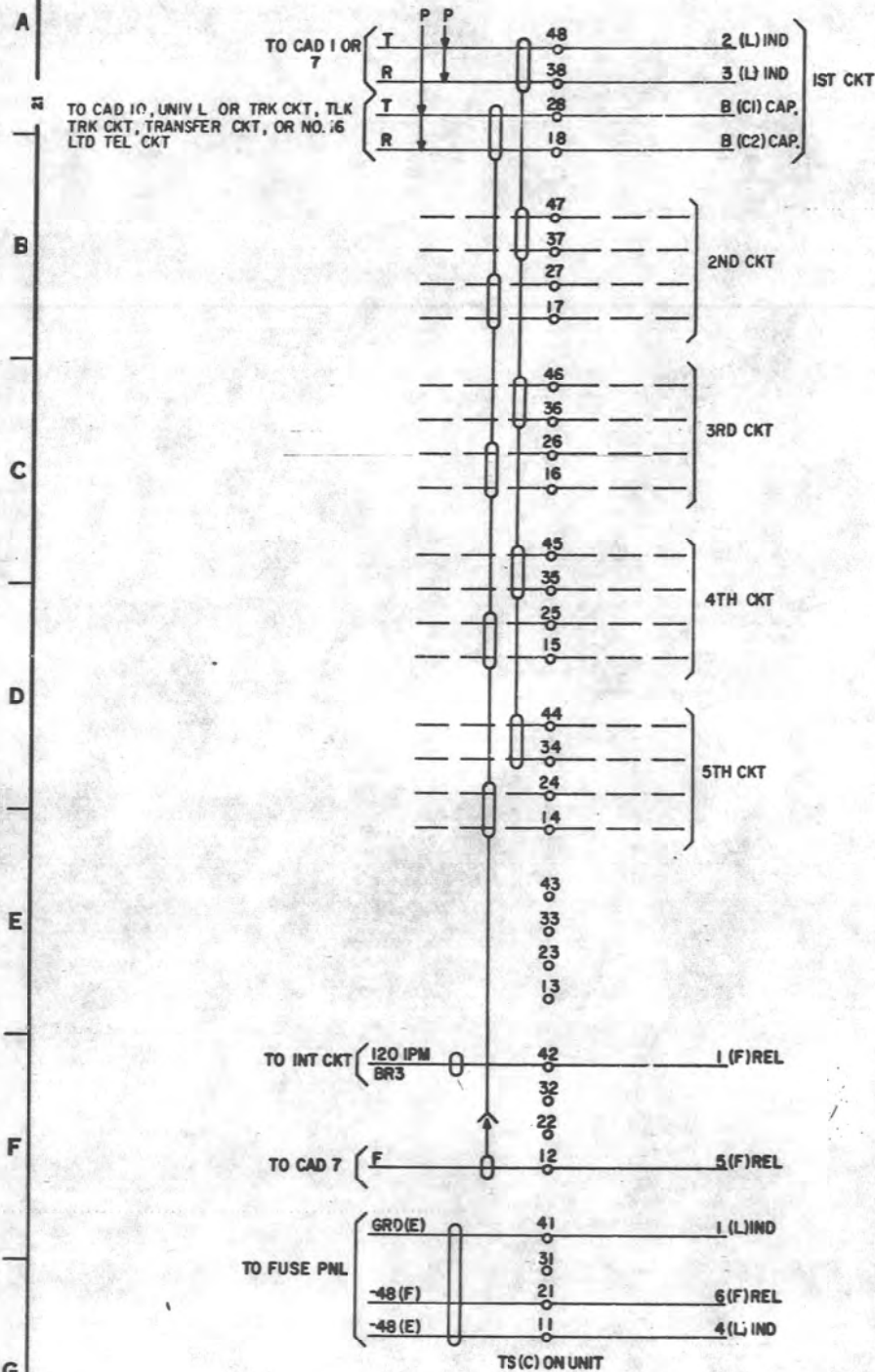
G

H

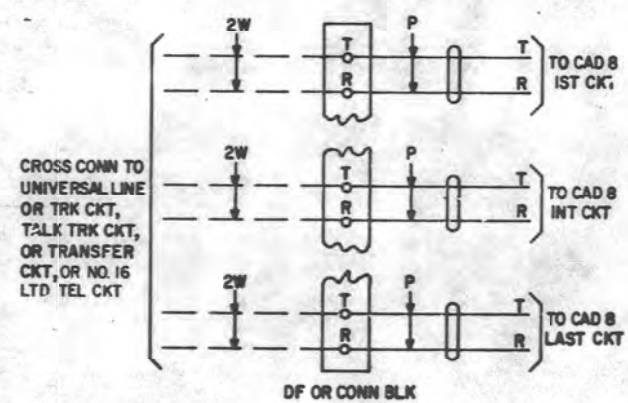


0 1 2 3 4 5 6 7 8 9

5-7000 (10-71)



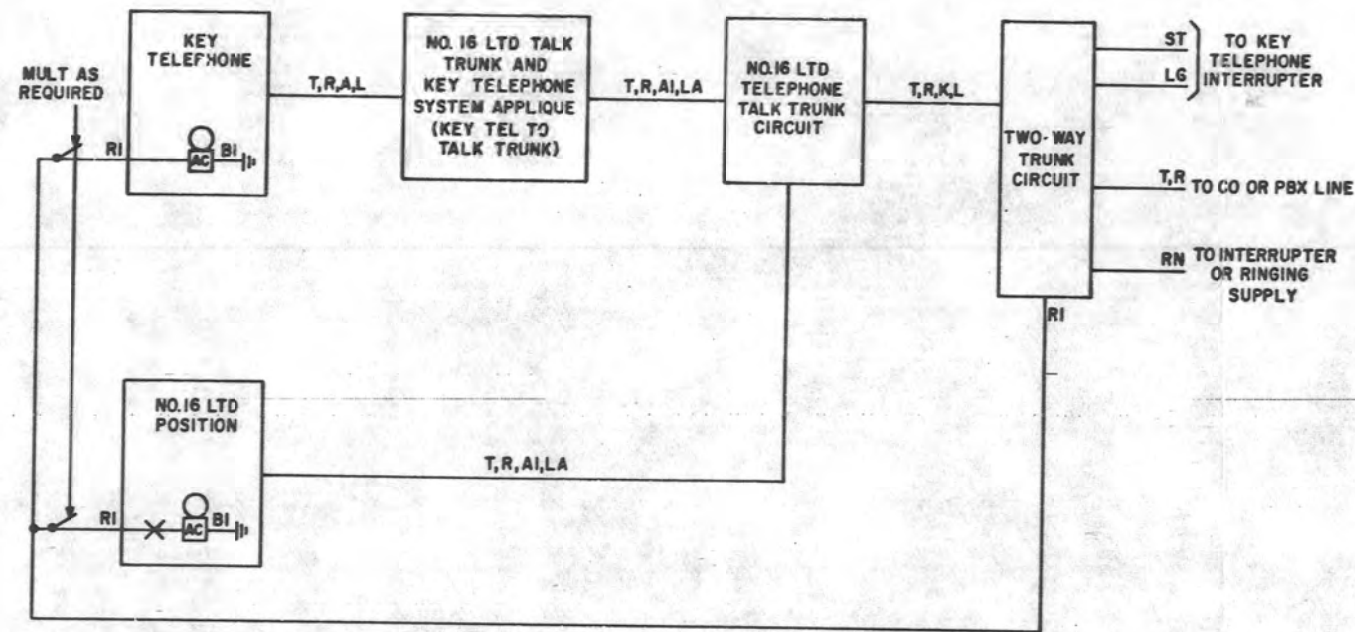
CAD 10
DIST FR LEADS TO UNIVERSAL
LINE OR TRK CKT, TALK TRK
CKT OR TRANSFER CKT



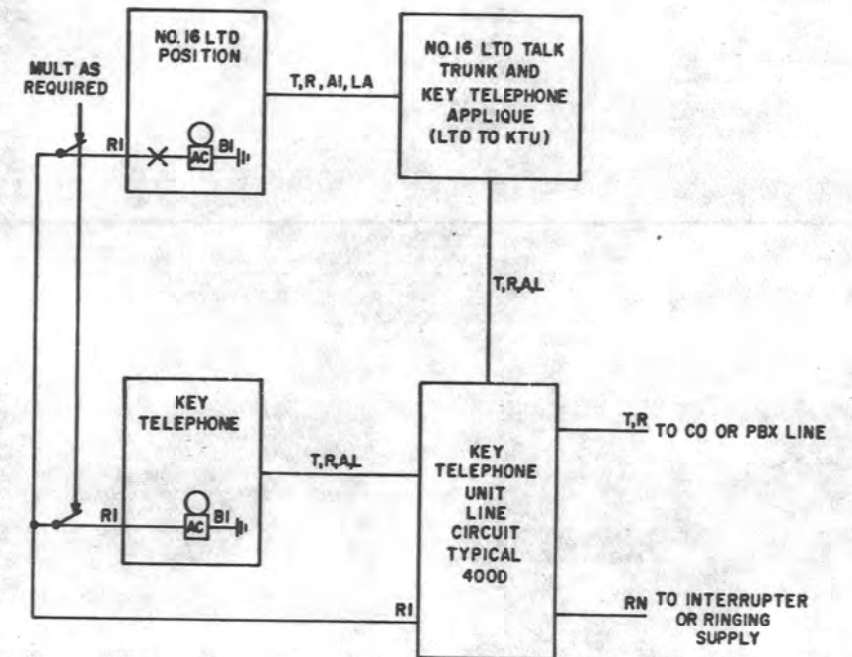
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2B

TYPICAL INTERCONNECTIONS
FOR KEY TELEPHONE
TO LOCAL TESTING TRUNK



TYPICAL INTERCONNECTIONS
FOR LOCAL TEST DESK TO KTS



TALK TRUNK AND LINE CIRCUIT
APPLIQUE

2

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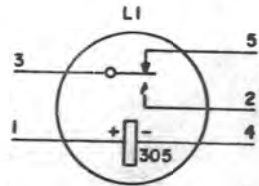
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CPS I

COMPONENT LIST

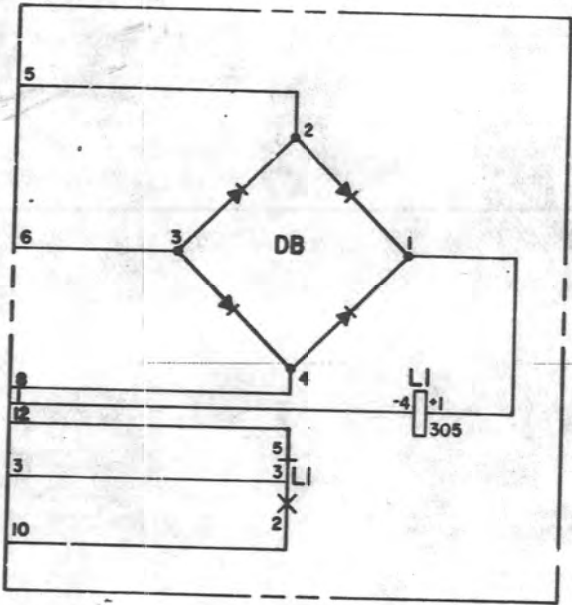
*RELAY
337A



*RELAY NOT ADJUSTABLE, REPLACE
WHEN THERE IS A MALFUNCTION

DIODE
DESIG
DB

CODE
460M



MANUFACTURING REFERENCES	
CATEGORY	NO.
CIRCUIT PACK CODE	ED-97563()-61

SYMBOL
SHOWN IN FS

INPUT/OUTPUT INFORMATION

CONNECT BATTERY (-48V) TO TERMINAL 5 AND GROUND TO
TERMINAL 8. (LI) RELAY WILL OPERATE AT 7.5 MA. REVERS-
ING THE BATTERY AND GROUND LEADS WILL ALSO OPERATE
(LI) RELAY AT 7.5 MA.

CIRCUIT DESCRIPTION

WHEN 10V 60 CYCLES AC IS APPLIED TO TERMINAL 5, (LI)
RELAY OPERATES ON FULL WAVE RECTIFIED CURRENT SUP-
PLIED BY (DB) DIODE BRIDGE. THE CONTACT CLOSING THE
PATH BETWEEN TERMINALS 3 AND 10. THIS CONTACT
CLOSURE LIGHTS THE TALK TRUNK LAMP AT THE LOCAL
TEST DESK. (FOR COMPLETE CD TEXT SEE CD-97565-01)

TALK TRUNK AND LINE CIRCUIT APPLIQUE		ISSUE 2B
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SD-97565-01-J1