NYC
APB/
NTES

SHEET INDEX

FIG.	CONTENTS	SHEET NO.	ISSUE NO. 9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	OLD SHEET NO.
	SHEET INDEX SUPPORTING INFORMATION	A1	9	10																	
1 2 3 4 5 6	TIE TRUNK CKT JACK CKT CONNECTING CABLE CKT JACK CKT BATTERY SUPPLY TIE TRUNK CKT	B1	9	10																	-011 -013
	CIRCUIT NOTES	D1	9	10																	-012
	TRANSMISSION TEST REQT TABLE OPTIONS USED TABLE WORKING LIMITS	D2	9	10																	-012
	CIRCUIT REQT TABLE	F1	9	9																	-012
51 52 53 54	FOR FIG. 1 OR 6 FOR FIG. 2 FOR FIG. 3 FOR FIG. 4	G1	9	9																	-012 -013

DWG ISS	CD ISS	DWG ISS	CD ISS	DWG ISS	CD ISS
1	1	2B	2B	3D	3D
4D	4D	5D	5D	6D	6D
7D	7D	8B	8B		

DWG ISSUE	CD ISSUE	DATE ISSUED	DRAWN	APPD
9D	8B APP 1D	6-3-63	CRA	LEV EVOL PD
10D	8B APP 2D	9-15-71	HBW –	RT GES AFR

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: 9D

SUPPORTING INFORMATION

CATEGORY	NO.
EQUIPMENT INFO	[illegible]577-01

10

SD-66524-01 1J05

PBX SYSTEMS

NO. 555 OR NO. 557A
AUTOMATIC TIE TRUNK CIRCUIT

2 WAY MANUAL SELECTED

(1)

(AUTO TT)

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 3S

AT&TCO STANDARD

A&M ONLY FOR 555

SD-66524-01-A1

6 SHEETS

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FIG. 1 (MFR. DISC.)
TIE TRUNK CIRCUIT

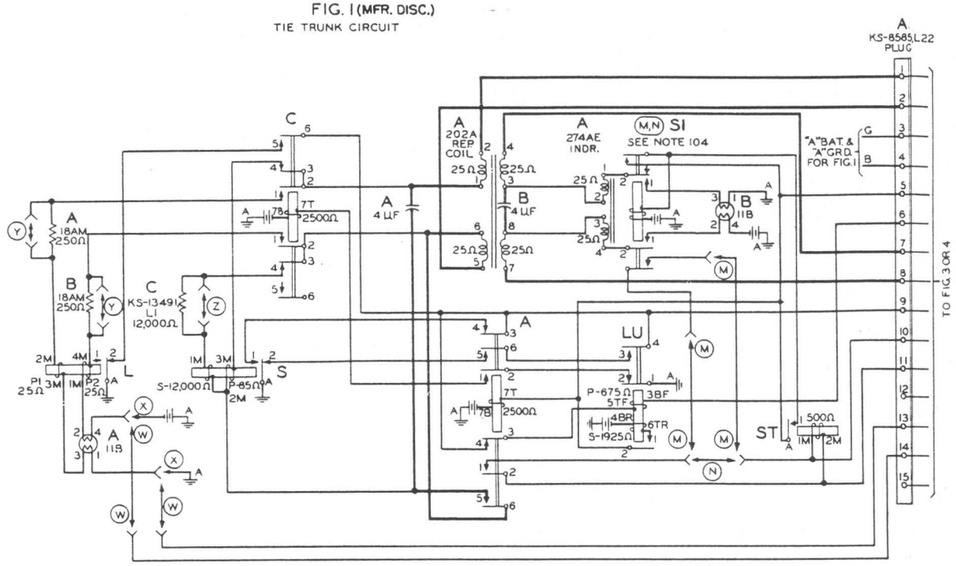


FIG. 6
TIE TRUNK CIRCUIT

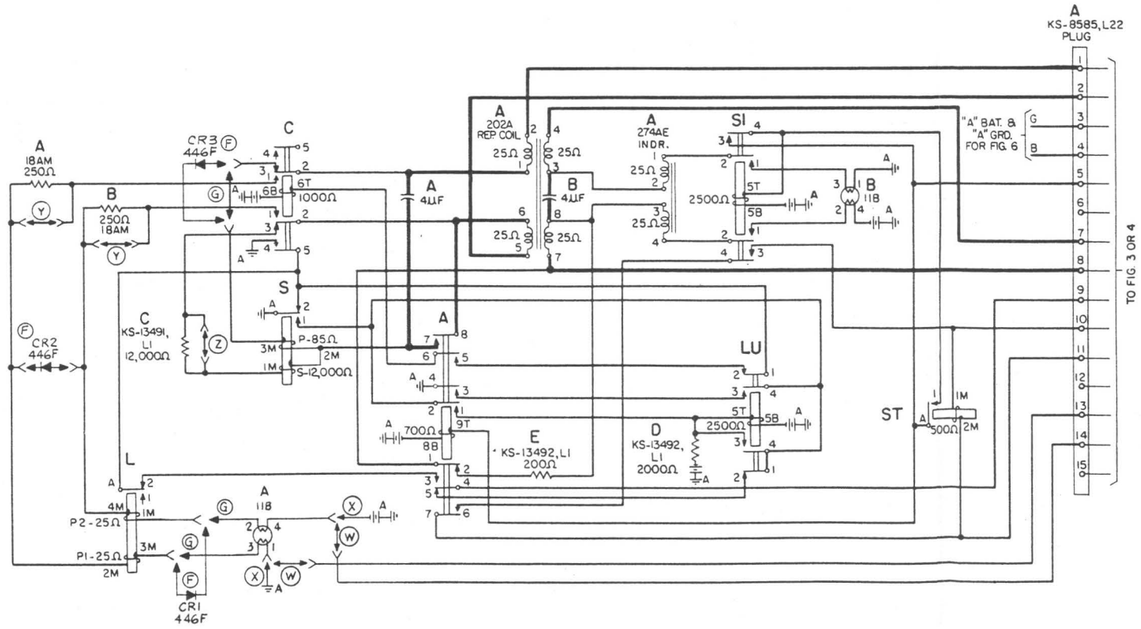


FIG. 2
JACK CKT.

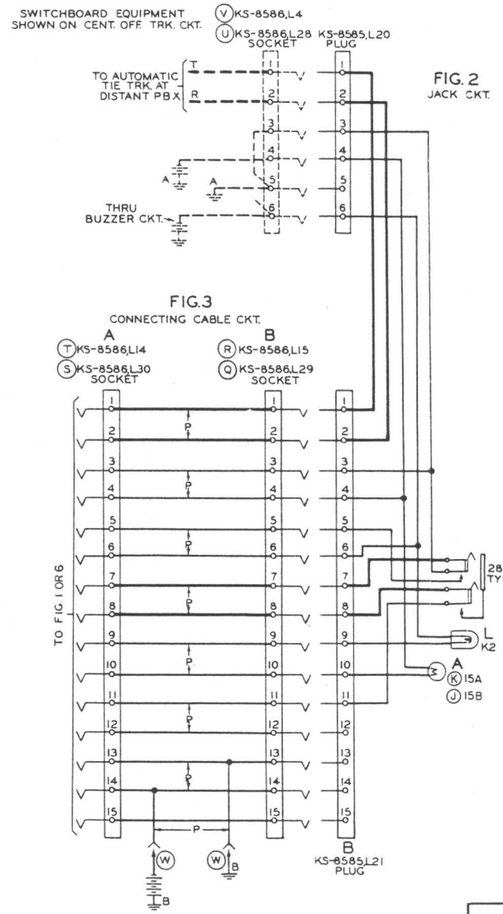


FIG. 3
CONNECTING CABLE CKT.

FIG. 5
BATTERY SUPPLY

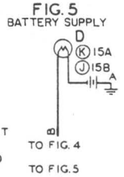
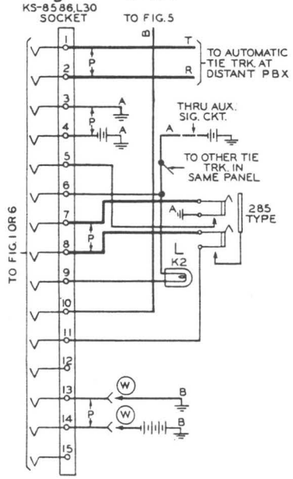


FIG. 4
JACK CIRCUIT



DRAWING ISSUE	
9D	CRA
	PD
10D	

10

NO. 555 OR NO. 557A
AUTOMATIC TIE TRUNK CIRCUIT

2

SD-66524-01-BI

BELL TELEPHONE LABORATORIES
INCORPORATED

DWG SIZE 6S

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DRAWING ISSUE	
9D	CRA PD
10D	

CIRCUIT NOTES:

101. (A) PROVIDE BAT. DESIGNATED "A" FROM BAT. SUPPLY CIRCUIT OF ASSOCIATED P B X
(B) PROVIDE LINE SIGNALING BAT. FROM BAT. SUPPLY CIRCUIT OF ASSOCIATED P B X ("X" OPTION) UNLESS THE MAX. EXTERNAL CIRCUIT LOOP EXCEEDS THE TIE TRUNK WORKING LIMIT WITH MIN. P B X VOLTAGE IN WHICH CASE PROVIDE BAT. DESIGNATED "B" FROM THE CENTRAL OFFICE OVER A SEPARATE BAT. FEEDER ("W" OPTION).

102.

FEATURE OR OPTION			PROVIDE		
			FIGS.	APP OR WIR.	QUANTITY
TIE TRUNK CIRCUIT			6		1 PER. CKT.
UNIT MOUNTED	JACK CIRCUIT		2		1 PER. CKT.
	CABLE CIRCUIT		3		1 PER. CKT.
STRIP MTD.	JACK CIRCUIT		4, 5		1 PER CKT.
WHEN TIE TRUNK CIRCUIT AT DISTANT PBX REQUIRED 12,000Ω HIGH BRIDGE AT THIS PBX				Z	1 PER CKT.
WHEN EXTERNAL CONDUCTOR LOOP EXCEEDS 500Ω				Y	1 PER CKT.
WHEN LINE SIGNALING BATTERY IS SUPPLIED OVER SEPERATE FEEDER				W	1 PER. CKT.
OTHERWISE				X	
USED WITH CARRIER		YES	6	F	1 PER CKT
		NO		G	

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.	
3D	V OR U	V		U		V	
3D	T OR S	T		S		T	
3D	R OR Q	R		Q		R	
5D	M OR N	N		M		N	
5D				FIGS. 4 & 5			
6D				FIG. 6		FIG. 1	
7D	J OR K	K		J		K	
10D				F, G			

104. THE DIFFERENCE BETWEEN THE (SI) RELAYS IS AS FOLLOWS:

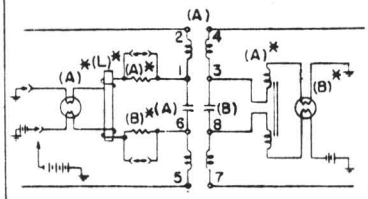
10

NO. 555 OR NO. 557A AUTOMATIC TIE TRUNK CIRCUIT	(1)	SD-66524-01-DI
BELL TELEPHONE LABORATORIES INCORPORATED	DWG SIZE 3S	PRINTED IN U.S.A.

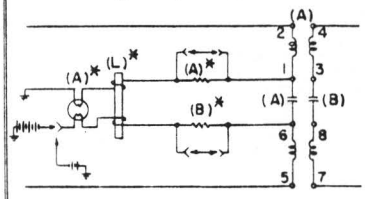
DRAWING ISSUE	
9D	CRA PD
10D	

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

TIE TRK. TO STA.



TIE TRK. TO CENT. OFF. TRK. OR TIE TRK. TO TIE TRK



MAX. ALLOWABLE CIRCUIT LOSS (db)	MAX. ALLOWABLE CIRCUIT LOSS (db)
1.5	1.5

ALLOWABLE INDIVIDUAL APPARATUS LOSSES (db)

APPARATUS	DESIG.	CODE	MAX. LOSS	MIN. LOSS	REMARKS
CAPACITOR	A,B	4 μF	19.6	17.5	
REP. COIL	A	202A	1.5	0.6	

* INDICATES APPARATUS FOR WHICH INDIVIDUAL LOSSES ARE NOT REQUIRED.

OPTIONS USED	
FIGS.	APP. OR WIRING
1	Z
2	Y
3	X
4	W
5	V
6	U
	T
	S
	R
	Q
	N
	M
	K
	J
	G
	F

WORKING LIMITS

	OUTGOING		INCOMING	
MAX. EXT. CKT. LOOP	MAX. 50V.	MAX. 25V.	MIN. VOLT. AT DISTANT P B X	
	MIN. 16V. 1200Ω	2060Ω	14V.	1785Ω
	MIN. 18V. 1400Ω	2340Ω	20V.	2600Ω
	MIN. 20V. 1570Ω		32V.	4200Ω
	MIN. 32V. 2500Ω		44V.	5500Ω
	MIN. 44V. 3600Ω			
	MIN. 45V. 3700Ω*			
MIN. INS. RES.	30,000Ω	30,000Ω	20,000Ω	

*WHEN BAT. "B" IS SUPPLIED FROM CENTRAL OFFICE OVER AN INDIVIDUAL FEEDER THIS VALUE INCLUDES RES. OF THE FEEDER.

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NO. 555 OR NO. 557A
AUTOMATIC TIE TRUNK CIRCUIT (1)

SD-66524-01-D2

BELL TELEPHONE LABORATORIES
INCORPORATED

DWG SIZE 3S

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SD-66524-01

CIRCUIT REQUIREMENTS

NO. 555 OR NO. 557A AUTOMATIC TIE TRUNK CIRCUIT (AUTO TT)

DRAWING ISSUE 9D CRA PD

APPARATUS DESIG	APPARATUS CODE	APPARATUS OPT.	APPARATUS FIG.		MECH REQT BSP FIG.	MECH REQT CONT PRES	MECH REQT ARM. TRVL	CIRCUIT PREPARATION BLOCK OR INSULATE	CIRCUIT PREPARATION TEST CLIP DATA CONN BAT.	CIRCUIT PREPARATION TEST CLIP DATA CONN GRD	TEST SET PREP	SEE TEST NOTE	DIRECT CURRENT FLOW REQT TEST WDG	DIRECT CURRENT FLOW REQT TEST FOR	DIRECT CURRENT FLOW REQT AFTER SOAK MA	DIRECT CURRENT FLOW REQT TEST MA	DIRECT CURRENT FLOW REQT READJ MA	REMARKS
RELAYS																		
A	UA94		1		181/181	H	35			T(A)	GRD			O		5.7	5.4	
										T(A)	GRD			NO		2.3	2.5	
A	U1149		6		109/148	H	47			T(A)	GRD			O		15.5	15	
C	UA94		1		181/181	H	35			T(C)	GRD			O		5.7	5.4	
										T(C)	GRD			NO		2.3	2.5	
C	U352		6		108/108	H	47			T(C)	GRD			O		13.4	12.7	
L	B1165		1,6		14		40		2M(L)	4M(L)	M	4	P1/P2	C	65	10.8	10.2	
									2M(L)	4M(L)	M	4	P1/P2	R	65	5.9	6.3	
							30		2M(L)	4M(L)	M	5	P1/P2	O	65	6.5	6.1	
									2M(L)	4M(L)	M	5	P1/P2	R	65	3.2	3.4	
LU	U733		1		110/101	H	35	(A)O		TF(LU)	GRD		P	O		17.5	16.5	
								(A)O		TF(LU)	GRD		P	H			12	
										TR(LU)	GRD	1	S	H		7.3		
LU	UA93		6		110/110	H	35			3B(LU)	GRD			O		5.2	4.9	WDG ALONE
										3B(LU)	GRD			O		12.6	12	2000Ω SHUNT
S	B1098		1		8		30	(C)O	4B(C)	4T(C)	B/G		P/S	O		0.8	0.7	
								(C)O	4B(C)	4T(C)	B/G		P/S	R		0.1	0.2	
								(C)O	5B(A)	4T(C)	B/G		P	O		6.2		
								(C)O	5B(A)	4T(C)	B/G		P	R		1.3		
S	B1098		6		8		30	(C)O	3B(C)	3T(C)	B/G		P/S	O		0.8	0.7	
								(C)O	3B(C)	3T(C)	B/G		P/S	R		0.1	0.2	
								(C)O	7T(A)	3T(C)	B/G		P	O		6.2		
								(C)O	7T(A)	3T(C)	B/G		P	R		1.3		
S1	U902	M	1		108/111	H	47	4T(S1)		T(S1)	GRD			O		15.5	14.4	
S1	UA71	N	1		111/101	SPL	SPL	3T(S1)		T(S1)	GRD	2,3		O		3.5	3.3	
								3T(S1)		T(S1)	GRD			NO		2.1	2.3	
S1	U543		6		111/111	H	29	4T(S1)		T(S1)	GRD			O		8	7.6	
ST	B31		1		6		30			2B(A)	GRD			O		2	1.8	
										2B(A)	GRD			R		0.5	0.6	
ST	B31		6		6		30			7B(A)	GRD			O		2	1.8	
										7B(A)	GRD			R		0.5	0.6	

TEST NOTES:

1. WHEN TESTING SEC WDG FOR HOLD, OPERATE RELAY ELECTRICALLY ON PRIMARY WDG.
2. ARM. TRVL 23.
3. CONTACT MAKE 6 READJ, 4 TEST.
4. MAX 50V SUPPLY.
5. MAX 25V SUPPLY.

PBX SYSTEMS

NO. 555 OR NO. 557A AUTOMATIC TIE TRUNK CIRCUIT (3)

SD-66524-01-FI

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 3S

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DRAWING ISSUE
90 CRA PD

FIG. 52
(FOR FIG 2)

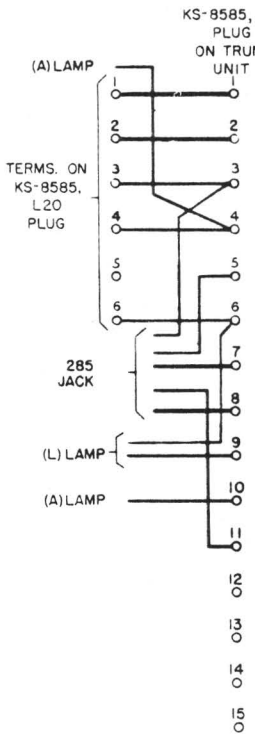


FIG. 53
(FOR FIG. 3)

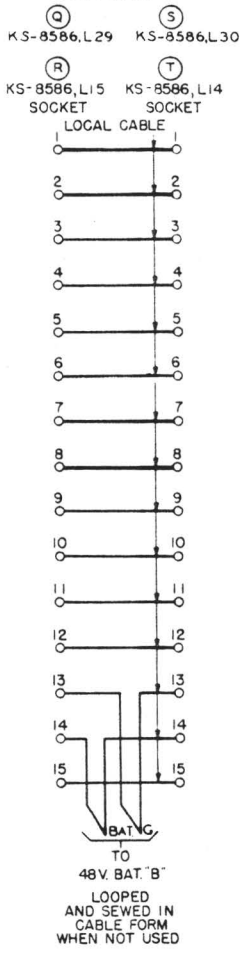


FIG. 51
(FOR FIG. 1 OR FIG. 6)

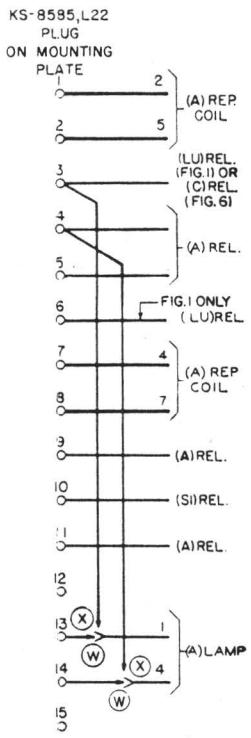
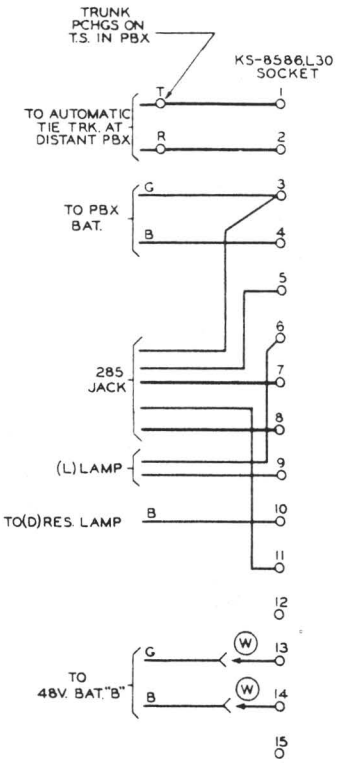


FIG. 54
(FOR FIG. 4)



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PBX SYSTEMS
NO. 555 OR NO. 557A
AUTOMATIC TIE TRUNK CIRCUIT

SD-66524-01-GI

BELL TELEPHONE LABORATORIES
INCORPORATED

DWG SIZE 3S

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