SHEET INDEX

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OPTIONS USED

FIGS.	APP. OR ISSUE
	X 2 B 12 L
	Y 2 C 13 M
	Z 2 D 14 N
	U 2 E 15 P
	V 2 F 16 Q
	W 2 G 17 R
	R 2 H 18 S
	S 2 J 19 T
	T 2 K 20 U
	O 2 L 21 V
A	P 2 M 22 W
B	N 2 N 23 X
C	M 2 P 24 Y
D	L 2 Q 25 Z
E	K 2 R 26
F	J 2 S 27
G	H 2 T 28
	O 3 U
	S 3 V
	A 3 W
	ZA 3 Y

TRANSMISSION TEST REQUIREMENTS (TIME LOSS BETWEEN 100 OHM TERMINATIONS)

MAX. ALLOWABLE CKT. LOSS (db)	
A TO C	1.9
A TO B	0.9

MAX. ALLOWABLE CKT. LOSS (db)	
A TO C	0.2
A TO B	0.5

ALLOWABLE INDIVIDUAL APPARATUS LOSSES (db)

APPARATUS	DESIG.	CODE	MAX. LOSS	MIN. LOSS	REMARKS
CAPACITOR	A OR B	2 M.F.	14.3	11.5	
RELAY	P	231AU	0.2		1W OPTION
RELAY	P	230U	0.2		2W OPTION
RELAY	P1	204M	0.2		3W OPTION
RELAY	P1	230U	0.7		4W OPTION
RELAY	P2	204M OR 230U	0.2		
RELAY	R	-28	0.2		
INDR	C	84C OR 87AC	0.1		
INDR	T	85A	0.8		

* INDICATES APPARATUS FOR WHICH INDIVIDUAL LOSSES ARE NOT REQUIRED.

FIG. A
TEST JACK

FIG. C
(MFR. DISC.)

FIG. B
RELAYS FOR DELAY INTERVAL

DWG. ISS.	CD ISSUE	DWG. ISS.	CD ISSUE	DWG. ISS.	CD ISSUE
1	1	20	1 APP 10	38	1 APP 20
48	1 APP 30	50	1 APP 40	68	1 APP 50
78AR	2AR	80	2AR APP 10	90	2AR APP 20
100	30	110	30 APP 10	128	48
130	48 APP 10	148	48 APP 20	150	50
160	60	170	50 APP 10	188	78
190	80	200	80 APP 10	210	90
220	90 APP 10	230	90 APP 20	248	90 APP 50
250	90 APP 40	260	90 APP 50	270	90 APP 60
280	90 APP 70	290	90 APP 80	300	100
310	100 APP 10	328	100 APP 28	338	118
344	118 APP 1A	358	118 APP 28		

DWG. ISS.	CD ISSUE	DATE ISSUED	DWN	APPD
36A	11B APP 5A	7/11/70	RFM USD PVS	BRS DAJ 2105
370	11B APP 4D	5/14/71	DD USD PVS	RWH DAJ WEJ
38A	11B APP 5A	4/15/72	TSR OEM PVS	RWH DAJ WEJ

FIG. G
LOCAL COIN OVERTIME

FIG. 1
COIN TRUNK CKT.

FIG. E (MFR DISC.)
TEST JACK
OVERTIME CHARGING
TO TIMING CIRCUIT FOR COIN TRUNKS

FIG. 3
CUT OFF KEY FOR "A", "E" & "F" LEADS

FIG. F (MFR DISC.)
RELAYS FOR DELAY INTERVAL OVERTIMING CHARGING

FIG. 4
TRANSFER RELAY FOR A OR D, E & F LEADS

FIG. D

FIG. 2
CLASS OF SERVICE TONE INDICATION

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

REPLACING 30-31032-01 AND 30-31781-01
SUPPLANTS 30-31032-01 AND 30-31781-01

ISSUE 38A

3 0029

STEP BY STEP SYSTEMS
NO1, 350A, 353A, 350A OR 3SE97
COIN TRUNK CIRCUIT
FOR USE PRECEDING A FIRST SELECTOR
WITH PROVISION FOR COIN LINES
SERVICED PREPAYMENT COIN LINES
ARRANGED FOR DELAYED CHARGING

4 (PREPAY C TRK)

MFR DISC

30-31692-02-1

4 SHEETS

R3

BELL TELEPHONE LABORATORIES, INC

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

30-31692-02-1

SD-31592-02 5 PAGES

CIRCUIT REQUIREMENTS

COIN TRUNK FOR USE PRECEDING A FIRST SELECTOR (PREPAY & TRK)

APPARATUS DESIG.	CODE	OPTION	CKT. FNL.		MECH. REQ. BSP FNL.	CONT. PRESS.	ARM. TRVL.	CIRCUIT PREPARATION BLOCK OR INSULATE	TEST CLIP DATA CONN. BAT.	TEST CLIP DATA CONN. GRD.	TEST SET PREP.	SEE TEST NOTE NO.	DIRECT CURRENT FLOW REQ. TEST WDG.	TEST FOR	AFTER SOAK MA	TEST MA	READ. MA	REMARKS
RELAYS																		
A	R2092		1		58/53	H	35			RT(A)	GRD			O		18	17	
B	E589		1		8/7	H	20		RB(B)	RT(B)	NGB	4		C		40	38	
	E1446													NO		19	20	
BT	R2099	YA	1		3	H	20			4B(NN)	GRD	1/2	P	O		37	35	
										4B(NN)	GRD	2	P	NO		29.5	31.5	
								2B(NN)		1S(NN)	M	1/2/5	S	O		8.8		
								2B(K)		1T(BT)	GRD	1/2	T	O		52		
BT	R2099	YD	1		3	H	20			3YT(BT)	GRD		S	O		8.3		
										Y8I(BT)	GRD		T	O		52		
										2LT(BT)	GRD	6	P	O		37	35	
C	E626	ZB	1		9/7	H	35	4B(KI)		2LT(BT)	GRD		P/T	O		25	23.8	
	E888							4T(C)		RT(C)	GRD			O		34.5	21	
C	R200	ZC	1		29/7	H	25	4B(KI)		RT(C)	GRD			O		18	17	
								5T(C)										
D	162Y		1		H			4T(Y)		1B(R)	GRD	3		O		41	39	
								4T(Y)		1B(R)	GRD			NO		28.5	30	
DD	E589		1		8/7	H	20	6T(NN)		RT(DD)	GRD			O		40	23	
	E1446																	

TEST NOTES
1. ARM. NEED NOT TOUCH CORE.
2. INSERT DUMMY PLUG IN JACK (T).
3. AFTER (R) RELAY IS ADJUSTED TO MEET PLUSE REP REQ A-4, APPLY A ZERO LOOP AT 6 PPS TO (R) RELAY & OBSERVE (D) RELAY. IF (D) TENDS TO OPR DURING PULSING OF (R), STIFFEN (D) WITHIN TEST REQ. PRIOR TO ISS 20B, THIS TEST WAS NOT SHOWN.
4. INSULATE 2T(B) WHEN "F" OPTION IS USED.
5. CONN. BAT. TEST CLIP TO 3B(C) FOR FIG. A OR E OR TO 1B(T1) FOR FIG. B OR F.
6. STRAP Y8I(BT) TO LBI(BT)

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APPARATUS DESIG.	CODE	OPTION	CKT. FNL.		MECH. REQ. BSP FNL.	CONT. PRESS.	ARM. TRVL.	CIRCUIT PREPARATION BLOCK OR INSULATE	TEST CLIP DATA CONN. BAT.	TEST CLIP DATA CONN. GRD.	TEST SET PREP.	SEE TEST NOTE NO.	DIRECT CURRENT FLOW REQ. TEST WDG.	TEST FOR	AFTER SOAK MA	TEST MA	READ. MA	REMARKS
P2	206GG	ZF	F		B					(TT)JK:T	B/G	5		P/S	O	-150		3.5	
	280H	ZG								(TT)JK:T	B/G	5		P/S	NO	-150		2.5	
										(TT)JK:T	B/G	5		P/S	O	-150	26.5	25	
										(TT)JK:T	B/G	5		P/S	R	1.50	1.9	2.1	
R	H28		1		1/1	H	SPL			2RT(R)	GRD	2		O		19	18		FOR USE WHEN PULSE REP REQ ARE NOT SPEC
										2RT(R)	GRD			NO		15.2	16		
									(T)JK:T	(T)JK:R	M	2/8		O		20			FOR USE WHEN PULSE REP REQ ARE APPLIED
									(T)JK:T	(T)JK:R	M	8		NO		1.5			
												7/8							
RT	N2		1					(BT) NO		4B NN	GRD			P/T	O	FS	17	16	
								(BT) NO		4B NN	GRD			P/T	NO	FS	13.6	14.4	
S	E1074		1		24/23	L	30	(RT) O, (HH) NO		RT)S	GRD	6/11/12			O		41	39	INSULATE 2T(BT)
										(RT)S	GRD	6			NO		20.5	22	
T	U851		B		315/316	H	44	(T) O	BF(T)	TR(T)	M	1/3/12		P/S	O	FS	9.3	8.8	
									BF(T)	TR(T)	M	3		P/S	O		25	23.5	
									BF(T)	TR(T)	M	1/3/9		P/S	NO		16.5	17.5	
										TR(T)	GRD	1/10		S	D		54		
T	U851		F		315/316	H	44	(T) O	BF(T)	TR(T)	M	3/4/10		P/S	O	FS	9.3	8.8	
									BF(T)	TR(T)	M	3		P/S	O		25	23.5	
									BF(T)	TR(T)	M	3/4/9		P/S	NO		16.5	17.5	
										TR(T)	GRD	4/10		S	O		54		

TEST NOTES:
1. THESE ADJUSTMENTS REQD ONLY WHEN H OPTION IS USED.
2. ARM. NEED NOT TOUCH CORE. ARM. TRAVEL 15 ± 2.5
3. CONNECT DIRECT GRD TO 4B(T)
4. THESE ADJUSTMENTS REQD ONLY WHEN "ZD" OPTION IS USED.
5. SHORT CIRCUIT SPRINGS 5T-6T(J)
6. INSERT DUMMY PLUG IN (T) JK.
7. AFTER (R) RELAY IS ADJ TO MEET PULSE REP REQ A-4, APPLY A ZERO LOOP AT 6 PPS TO (R) RELAY & OBS (D) RELAY. IF (D) TENDS TO OPR DURING PULSING OF (R) STIFFEN (D) WITHIN TST REQ. PRIOR TO ISS 20B THIS TST WAS NOT SHOWN.
8. APPLY PULSE REP REQ, "A4" LIMITS 54-88% BREAK. CONN TEST SET TO (T) JACK FOR IN. & (TT)JK FOR OUT. MOMENTARILY OPR (RT)MAN. WHEN IT CANNOT BE OPR ELEC IN ACCORDANCE WITH THE BSP.
9. 5T-6T & 3B-4B MAY MAKE.
10. TO MAKE 5T-6T & 3B-4B ONLY.
11. WITH A 15 MIL GAUGE BET. ARM. & CORE, & REL ENERGIZED, SPRINGS 1B-2B & 5B-6B SHALL MAKE & SPRINGS 4T-6T SHALL NOT BREAK.
12. PRIOR TO ISS 20B THE TEST OPR VALUE FOR (S) REL WAS 44.5 MA & THE READ OPR VALUE WAS 42 MA & NOTE 11 WAS NOT SHOWN.

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APPARATUS DESIG.	CODE	OPTION	CKT. FNL.		MECH. REQ. BSP FNL.	CONT. PRESS.	ARM. TRVL.	CIRCUIT PREPARATION BLOCK OR INSULATE	TEST CLIP DATA CONN. BAT.	TEST CLIP DATA CONN. GRD.	TEST SET PREP.	SEE TEST NOTE NO.	DIRECT CURRENT FLOW REQ. TEST WDG.	TEST FOR	AFTER SOAK MA	TEST MA	READ. MA	REMARKS
H	149S	D	1		A			(B) O, (HH) NO	1B(B)		BAT			O		7.4	7	
									1B(B)		BAT			NO		4.7	5	
H	Y78	B	1		115/164	H	29	(B) O (HH) NO	B(H)		BAT	1		O	FS	17	16	
									B(H)		BAT	1		H	FS	1.5	1.4	
									B(H)		BAT	1		R	FS	0.7	0.9	
HH	R109		C		26/24	H	30	(B) O	RB(HH)		BAT			O		24	21	
HH	U914		D		146/151	H	44	(B) O	B(HH)		BAT			O		11.6	11	
I	B500		1		1		30	(B) O, 4B(C), (HH) NO	4B(C)	6B(A)	B/G			O		38	36	WITH "S" OPTION
	B36								4B(C)	6B(A)	B/G			R		14	15	
									4B(C)	6B(A)	B/G			O	100	50	47.5	WITH "T" OPTION.
									4B(C)	6B(A)	B/G			R	100	20.5	22	
J	R1324		1		29/24	L	25	(C) O, (TJ)		RT(J)	GRD			O		31	29	
K	E689		1		3/3	H	20			RT(K)	GRD			O		34	33	
K1	R1673		1		6/10	H	20	1B(K1)		RT(K1)	GRD	2		O		31.5	29	
L	B1180		1		3		40	(A) O (N) NO	3B(S)	1B(S)	M		P/S	O	50	3.3	3.1	CONN. DIRECT BAT. TO 3B(NN)
									3B(S)	1B(S)	M		P/S	R	50	1.9	2	
										1B(S)	GRD		P	O	120	8.4		
										1B(S)	GRD		P	R	120	4.3		
LL	U114		4		136/106	H	47	1B(LL)		T(LL)	GRD		O			9.7	9.2	

TEST NOTES:
1. ADJACENTS RELAYS SHALL NOT BE ENERGIZED. SEE BSP
2. INSERT DUMMY PLUG IN JACK (T)

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APPARATUS DESIG.	CODE	OPTION	CKT. FNL.		MECH. REQ. BSP FNL.	CONT. PRESS.	ARM. TRVL.	CIRCUIT PREPARATION BLOCK OR INSULATE	TEST CLIP DATA CONN. BAT.	TEST CLIP DATA CONN. GRD.	TEST SET PREP.	SEE TEST NOTE NO.	DIRECT CURRENT FLOW REQ. TEST WDG.	TEST FOR	AFTER SOAK MA	TEST MA	READ. MA	REMARKS
T1	U327		F		142/108		53	1T(T1)		T(T1)	GRD			O		22.5	21	
T1	U564		B		142/132	H	53	1T(T1)		T(T1)	GRD			O		16.5	13.5	
Y	E1357		1		24/14	H	35	5T(Y), 2B(Y)		RT(Y)	GRD			O		20	19	
										RT(Y)	GRD			NO		8.5	9	
DIODE B												1-2, 3,4						

TEST NOTES:
1. MAKE TRUNK BUSY AT (T) & (TT) JACKS
2. MAKE ALL VOLTAGE MEASUREMENTS WITH A 20K OHM/VOLT DC OR HIGHER, SENSITIVITY METER. THE KS-14510 METER IS SATISFACTORY.
3. FOREWARD RESISTANCE TEST:
   (a) CONNECT ONE END OF A 5K OHM (1 WATT) RESISTOR TO -48V TERMINAL OF A GROUNDED BATTERY. CONNECT THE OTHER END OF THE RESISTOR TO 2T(BT)
   (b) THE VOLTAGE MEASURED BETWEEN 2T(BT) AND GROUND SHALL NOT BE MORE THAN 1.0 VOLT.
4. REVERSE VOLTAGE TEST
   (1.) CONNECT ONE END OF A 0.1 MEGOHM (1/4 WATT) RESISTOR TO 3B(C), (+110V DC) FOR FIG. A OR E. TO 1B(T1) FOR FIG. B OR F. CONNECT THE OTHER END OF THE RESISTOR TO 2T(BT).
   (1) THE VOLTAGE ACROSS THE 0.1 MEGOHM RESISTOR SHALL NOT BE MORE THAN 0.1 VOLT. TWO SCALE DIVISIONS ON 3V SCALE OF KS-14510 METER.

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APPARATUS DESIG.	CODE	OPTION	CKT. FNL.		MECH. REQ. BSP FNL.	CONT. PRESS.	ARM. TRVL.	CIRCUIT PREPARATION BLOCK OR INSULATE	TEST CLIP DATA CONN. BAT.	TEST CLIP DATA CONN. GRD.	TEST SET PREP.	SEE TEST NOTE NO.	DIRECT CURRENT FLOW REQ. TEST WDG.	TEST FOR	AFTER SOAK MA	TEST MA	READ. MA	REMARKS
N	149CG	D	1		A			(NN) O		4T(NN)	GRD			O		14.7	14	THE ARM. TRVL. SHALL NOT BE MORE THAN 25
	149AR									4T(NN)	GRD			H		5.2	3	
										4T(NN)	GRD			R		0.9	1	
N	Y263		1		235/115	H	44	(NN) O		T(N)	GRD	1		O	FS	26.5	25	
										T(N)	GRD	1		H	FS	2.5	2.3	
										T(N)	GRD	1		R	FS	1.2	1.5	
NN	E6140		1		24/12	L	35	(N) NO		RT(NN)	GRD			O		47	44	
P	239GU	U	1		B			(R) O, (DD) NO	(TT)JK:T	(TT)JK:R	B/G			O	-105		2.3	
	280C	P						(C), (J) NO	(TT)JK:T	(TT)JK:R	B/G			NO	-105		1.7	
								(R) O, (DD) NO	(TT)JK:T	(TT)JK:R	B/G			O	-105	20.5	19.5	
								(C), (J) NO	(TT)JK:T	(TT)JK:R	B/G			NO	105	9.5	10	
P1	20LN	R	1		3			(R) O (DD) NO	(TT)JK:T	(TT)JK:R	B/G			O	-105	21	20	
								(C) NO (J) O	(TT)JK:T	(TT)JK:R	P/G			NO	105	7.6	8	
P1	280C	N	1		B			(R) O (DD) NO	(TT)JK:T	(TT)JK:R	B/G	3		O	-105		2.3	
								(C) NO (J) O	(TT)JK:T	(TT)JK:R	B/G	3		NO	-105		1.7	
								(R) O (DD) NO	(TT)JK:T	(TT)JK:R	B/G	3		O	-105	21	20	
								(C) NO (J) O	(TT)JK:T	(TT)JK:R	B/G	3		NO	105	7.6	8	
P2	206GG	M	B		B				(TT)JK:T	(TT)JK:R	B/G	2	P/S	O	-150		3.5	
	280H	K							(TT)JK:T	(TT)JK:R	B/G	2	P/S	NO	-150		2.5	
									(TT)JK:T	(TT)JK:R	B/G	2	P/S	O	-150	26.5	25	
									(TT)JK:T	(TT)JK:R	B/G	2	P/S	R	150	1.9	2.1	

TEST NOTES:
1. ADJACENT RELAYS SHALL NOT BE ENERGIZED SEE BSP
2. SHORT CIRCUIT SPRINGS 5T-6T(J)
3. DO NOT USE CONTACT CLOSURE TEST SET.

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ISSUE 38A

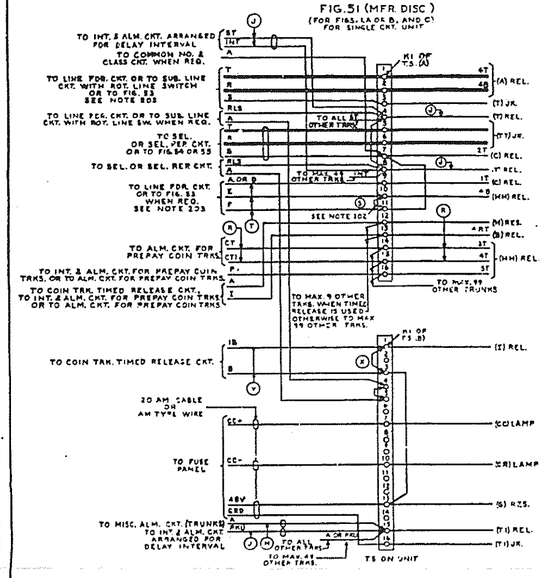
COIN TRUNK CIRCUIT

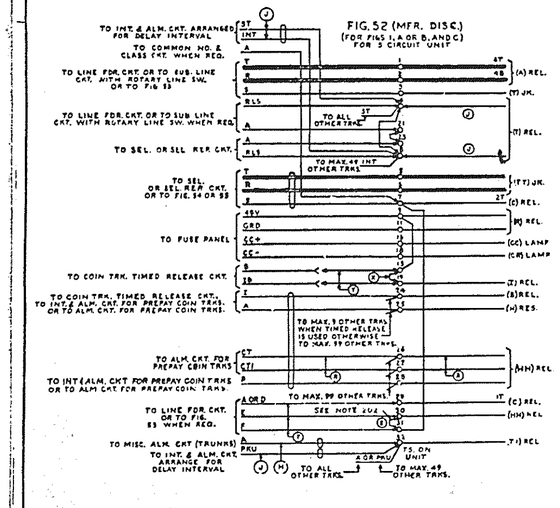
BELL TELEPHONE LABORATORIES, INC.

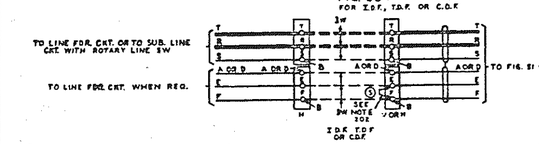
SD-31592-02-2 R

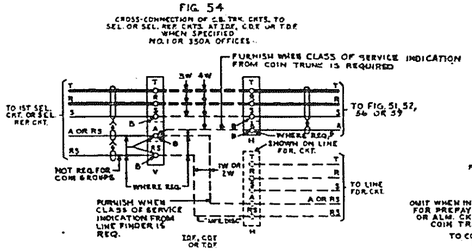
ISS. 15D 16D 17D 18B 19D 20B 21D 22D 23D 24B 25B 26D 27D 28D 29D 30D

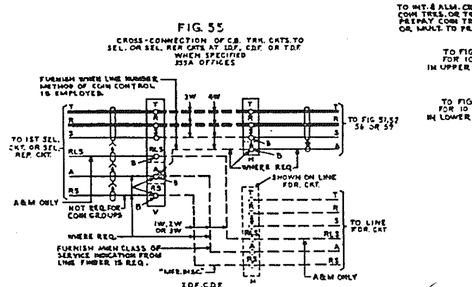
REFURBISHED WITHOUT CHANGE 2-21-66

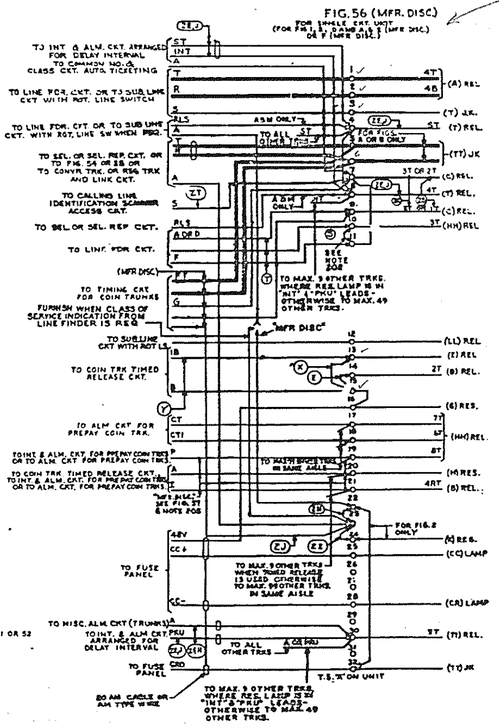


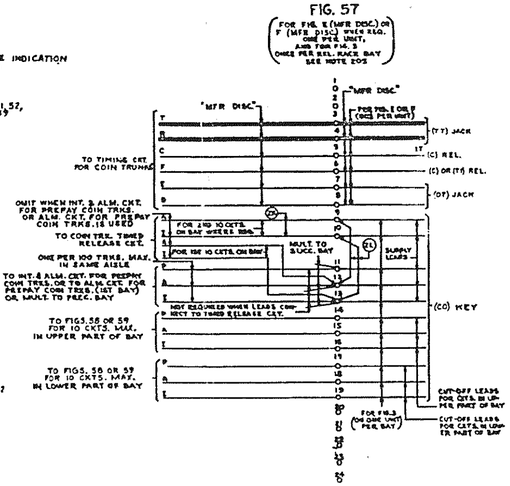


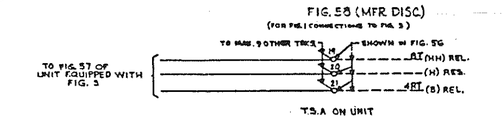


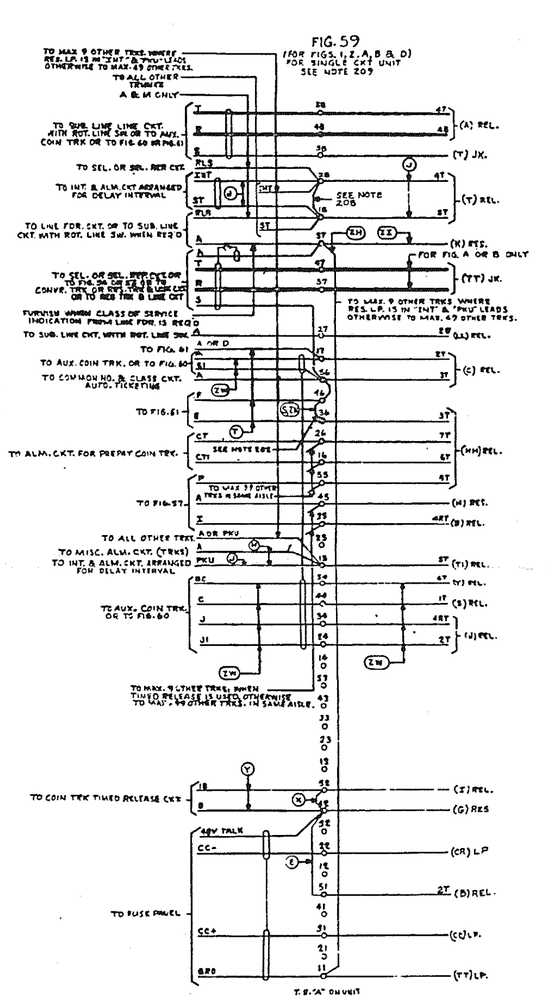


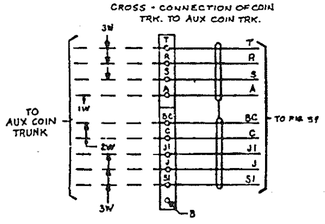


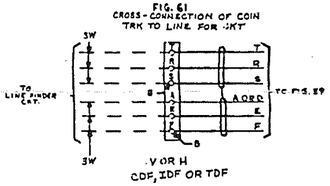












EQUIPMENT NOTES:
201. RELAYS 2396U, 2066B AND 2081B SHALL BE MOUNTED ON NOT LESS THAN 2-1/2" CENTERS HORIZONTALLY OR VERTICALLY WITH RESPECT TO THEMSELVES AS WELL AS WITH RESPECT TO ALL OTHER INDUCTIVE APPARATUS, EXCEPT THAT THE 2066D AND 2396U RELAYS MAY BE MOUNTED ADJACENT TO EACH OTHER OR TO 280 TYPE RELAYS WITHOUT RESTRICTION.

202. WHERE "E" AND "T" LEADS ARE CABLED TO THE DISTRIBUTING FRAME IN ALL CASES THE STRAP "E,T" OPTION MAY BE FURNISHED AT THE DISTRIBUTING FRAME INSTEAD OF AT THE UNIT TERM. STRIP.

203. ON ISSUE 8-B FIG. 53 IS RATED "MFR. DISC." SINCE THIS CROSS-CONNECTION UNIT IS COVERED ON THE CONNECTING CKTS., AND FIGS. 54 & 55 ARE ADDED.

204. ON ISSUE 18B FIGS. 51 AND 52 ARE RATED "MFR. DISC." AND FIG. 56 IS ADDED.

205. ON ISSUE 18D, "P" AND "E" LEAD WIRING TO ALM. & TIMED RELEASE CKTS IN FIG. 56 IS RATED "MFR. DISC." REPLACED BY THIS WIRING IN FIG. 57 & ADDED FIG. 58 FOR FIG. 3. THE EQUIPMENT FOR FIG. 3 SHALL BE MOUNTED ON ONE UNIT IN EACH BAY AS CONVENIENT A MAINTENANCE LEVEL AS THE EQUIPMENT WILL PERMIT.

206. PRIOR TO ISSUE 21D LEAD FROM LL RELAY TO PUNCHING IS WAS NOT SHOWN.

207. ON ISSUE 27B LEADS TO THE TIMING CKT FOR COIN TRUNKS REFLECTED IN CROSS CONN FIGS. 56 & 57 RATED MFR. DISC. AS ASSOCIATED WITH FIG. E & F.

208. STRAP TERMINAL 18 TO TERMINAL 20 WHEN COIN BOX TRUNKS ARE CABLED DIRECT TO LINE FINDERS AND FIRST SELECTORS (CB&A OFFICES).

209. ON ISSUE 30 FIG 56 & 38 REC RATED MFR. DISC. AND FIG. 59, 60, 61 AND NOTE 208 ARE ADDED.

INFORMATION NOTES:
301. IN 350E&T OFFICES EITHER ANI TYPE C, OPTIONS ZQ, YJ OR CLASS OF SERVICE TONE, OPTIONS ZN, ZR, YH MAY BE PROVIDED, BUT NOT BOTH AT THE SAME TIME.

ISSUE 38A

COIN TRUNK CIRCUIT

SD-31592-02-3

BELL TELEPHONE LABORATORIES, INC.

101. CIRCUIT NOTES:

DESIG	AMP	POTENTIAL FUSED	ONE PER
	1 1/3	48V TALK	CKT SEE NOTE 108
	1/2	CC+	CKT
	1/2	CC-	CKT

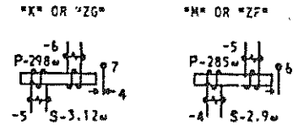
102.

FEATURE OR OPTION			FIGS	PROVIDE APP OR WIR	QUANTITY
WHEN DIAL TONE IS REQ. BEFORE COIN DEPOSIT AND NO AUX COIN TRK IS PROVIDED				Z	
WHEN COIN BOX TRK. RELEASE CKT. IS FURN.				Y,ZA	
WHEN COIN BOX TRK. RELEASE CKT. IS NOT FURN.				X,A	
WHEN NO LONG LINE CKTS. ARE PROVIDED IN THE ASSOCIATED LINE FINDER UNIT OR ROTARY LINE SWITCH				S	
PREPAY COIN TRK.			1		1 PER CKT
DELAY'D CHARGING	REQUIRED	NO. 1 OR 350A	B	J	
		NO. 355A		H	
	NOT REQUIRED		A		
10 CENT INITIAL CHARGE				E	
NO DELAY			A		
DELAYED CHARGING		NO. 1 OR 350A 355A, 360A, 35-E97	B	J H	
CUT OFF KEY FOR "A" "L" & "P" LEADS	TIMED RLS. CKT. PROVIDED & MORE THAN 10 TRKS. IN BAY		3	ZK	1 PER 20 CKT. MAX IN SAME BAY
	TIMED RLS. CKT. NOT PROVIDED OR LESS THAN 10 TRKS. IN BAY			ZL	
FOR USE WITH COIN LINES TO BE RESTRICTED FROM CAMA TRUNKS			2	ZH	1 PER CKT
WHEN CLASS OF SERVICE TONE INDICATION FROM COIN TRK IS REQ FOR	OFFICES WHERE COIN LINES ARE INDICATED BY	DIRECT GRD	2	ZH	1 PER CKT
		3000Ω GRD		ZI	
	35E97 OFFICES (SEE NOTE 301)	REQD		ZH,ZH YH	
		NOT REQD		ZH, ZH	
ANI	TYPE B REQD			ZH,ZH YH	
	TYPE C REQD (SEE NOTE 301)			ZH, YJ	
	NOT REQD			ZH, ZH	
WHEN THIS CKT IS ASSOCIATED WITH A SUBSCRIBERS ROTARY LINE SWITCH EQUIPPED WITH DIAL LONG LINE CKT. SEE NOTE III	AND AN AUX COIN TRK IS PROVIDED		4	ZW, ZY	1 PER CKT
	AND AN AUX COIN TRK IS NOT PROVIDED			T, ZX	
AUX COIN TRK PRECEDING THIS CIRCUIT SEE NOTE III	PROVIDED			ZW,ZY	
	NOT PROVIDED			ZH,ZX	
WHEN ANY OF THE LINES IN THE ASSOCIATED LINE FINDERS UNIT ARE EQUIPPED WITH LONG LINE CKT. SEE NOTE III	AND AN AUX COIN TRK IS PROVIDED			ZW, ZY	
	AND AN AUX COIN TRK IS NOT PROVIDED			T, ZX	
LCOT (LOCAL COIN OVERTIME) CHARGING, SEE NOTES 103 & 115	REQUIRED		G	YD	1 PER FIG 1
	NOT REQUIRED			YE	
BT RELAY	REQUIRED FOR LCOT		1	YD	
	TSPS	± 110 V		YL	
	COIN BAT	± 130 V OR ± 120V		YM	
	NOT REQUIRED FOR LCOT			ZZ	

103.

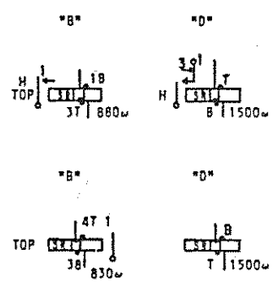
RECORD OF FIGURES, WIRING AND APPARATUS CHANGES						
CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT		
				STD	A&M	MD
8D	V OR W	W		V		W
9D	U,Q,P OR N	U & Q		P,N		U,Q
10D	FIG. A OR B	FIG. A	102	FIG. A, B		
10D			104	X		M
10D			102	H,J		
10D	R OR G	R		G	R	
12B	F	R OR G	105	F		G,R
13D	FIG. C OR D	FIG. C		FIG. D		FIG. C
13D	E	NONE	102	E		
13D	B OR D	D	106	B		D
13D	A OR ZA	A	102	A, ZA		
15D	ZC	ZB	107	ZC		ZB
15D	RELAYS			E88B		E626
				B36		B500
				149AR		149CG
				E144b		E589
15D	FIG. E OR F	FIG. A OR B	102	E, F		
15D			104	ZG		ZF
16D			102	FIG. 2		
16D			102	FIG. 3		
16D	ZH OR ZI	NONE		ZH, ZI		
19D	ZM OR ZN	ZM	102	ZM, ZN		
21D			102	FIG. 4		
22D	ZO OR ZP	ZO		ZP		ZO
25D	ZQ OR ZR	ZR	102	ZQ, ZR		
27D						FIG. E, F
27D						ZQ, E, ZG
30D	ZV OR ZW	ZV	110	ZV, ZW		
31D	ZX OR ZY	ZX	111	ZX, ZY		
32B	ZZ OR YC	YC	112	ZZ		YC
	YA OR YB	YA	113	YB		YA
33B	YD OR YE	YE	102	YD, YE		YB
	YF & YH	ZN OR NONE	102 & 116	YH		YF
	YG & YJ	ZQ OR NONE	102 & 116	YJ		YG
35B	YK	NONE	117, 118	YK		
38A	YL OR YM	YE		YL, YM		

104. THE DIFFERENCE BETWEEN THE (P2) RELAYS IS AS FOLLOWS:

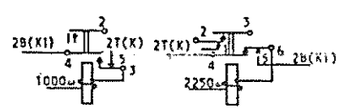


105. WHERE EXISTING CKTS. WITH "R" OR "G" OPTION ARE MODIFIED FOR 10 CENT INITIAL CHARGE COIN SERVICE "R" OR "G" OPTION MUST BE REPLACED BY "F" OPTION.

106. THE DIFFERENCE IN THE "H" OR "N" RELAYS IS AS FOLLOWS:



107. THE DIFFERENCE BETWEEN THE (C) RELAYS IS AS FOLLOWS:



108. FUSE FIG. 3 WITH FIG. 1 OF UNIT ON WHICH FIG. 3 IS LOCATED. WHEN FIG. 3 IS ON SEPARATE EQPT UNIT (FOR MOD. OF EXISTING EQPT.) FUSE FIG. 3 WITH COIN TRUNK NEXT BELOW OR IF NONE IS BELOW, WITH THAT NEXT ABOVE.

109. WHERE "ZT" OPTION IS RETAINED, THE (B) DIODE DOES NOT AFFECT NORMAL CIRCUIT OPERATION. IF THE (B) DIODE BECOMES DEFECTIVE "ZT" OPTION SHOULD BE REPLACED BY "ZU" OPTION.

110. WHEN AN AUXILIARY TRUNK IS PROVIDED FOR COIN SERVICE IMPROVEMENTS OMIT "ZV" AND ADD "ZW" OPTION.

111. REMOVE OPTION ZX AND ADD OPTION ZY FOR USE WHEN 911 EMERGENCY SERVICE AND DIAL TONE FIRST ARRANGEMENTS ARE USED TOGETHER. PRIOR TO ISSUE 31D, OPTIONS ZX AND ZY WERE NOT SHOWN.

112. OPTION ZZ IS PROVIDED FOR FIELD MODIFICATION PURPOSES WHEN OPTION YA & YC WERE ORIGINALLY PROVIDED. OPTION ZZ DISABLES THE FUNCTION OF THE BT RELAY WHICH BLOCKS OPERATION OF THE COIN TRUNK IN CASE OF AN IRREGULAR CONDITION ON THE LINE. THIS OPTION ELIMINATES THE POSSIBILITY OF A FALSE GROUND LOCK-UP. SEE NOTE 113 & 114.

113. MFR DISC. PRIOR TO ISSUE 32B, OPTIONS YA & YC WERE ALWAYS REQD. OPTION YB IS PROVIDED TO REMOVE THE BT RELAY ON FUTURE ORDERS OF THIS CIRCUIT. THE BT RELAY BLOCKS OPERATION OF THE COIN TRUNK IN CASE OF AN IRREGULAR CONDITION ON THE LINE. OPTION YB ELIMINATES THE POSSIBILITY OF A LOCK-UP FROM A FALSE GROUND. SEE NOTE 112.

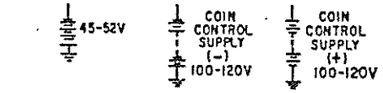
114. PRIOR TO ISSUE 32B, OPTION YC WAS ALWAYS REQUIRED. OPTION ZZ IS PROVIDED FOR FIELD MODIFICATION PURPOSES. (SEE NOTE 112). THIS MODIFICATION CAN BE APPLIED BY REMOVING THE LEAD FROM TERMINAL 2 OF THE BT RELAY AND CONNECTING THIS LEAD TO TERMINAL 3 OF THE BT RELAY.

115. PRIOR TO ISSUE 33B, THE BT RELAY COULD BE USED PER OPTIONS YA OR YC AS A GROUND FRAUD TEST. THIS FUNCTION WAS ELIMINATED BY OPTION ZZ (FIELD MODIFICATION) OR BY OPTION YB (NEW MANUFACTURE). AS OF THIS ISSUE OPTION YB IS RERATED MFR DISC. THE BT COIL IS ALWAYS SPECIFIED, EITHER BY OPTION YA OR YD.

116. PRIOR TO ISSUE 33B, YF OPTION WAS PART OF ZN OPTION AND YG OPTION WAS PART OF ZQ OPTION.

117. WHEN OPTION YK IS APPLIED, OPTION ZZ OR THE REMOVAL OF THE BT RELAY FUNCTION MUST BE APPLIED. SEE NOTE 112.

118. WHEN THE TRUNK IS USED WITH THE SUBSCRIBER LOOP MULTIPLEXER OR SUBSCRIBER CARRIER SYSTEMS, OPTION YK MUST BE APPLIED.



WORKING LIMITS

PULSING SUPV. AND COIN CONTROL

MAX. EXT. CKT. LOOP — SEE RANGE CHART

MAX. INS. RES. — 20,000Ω

EARTH POTENTIAL LIMITS:

NEGATIVE LIMITS: REL(P) MAX. 10V

	MIN. CONDUC. LOOP	MAX. POS. E.P.
	0Ω	9.5V
POSITIVE LIMITS:	105Ω	10.0V
	220Ω	10.5V
	320Ω	11.0V
	420Ω	11.5V
	530Ω	12.0V

DRAWING ISSUE: 29D, 30D

ISSUE 38A

COIN TRUNK CIRCUIT (2) SD-31592-02-4

BELL TELEPHONE LABORATORIES INCORPORATED 6S

SD-31592-02-4