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SD-31592-02 5 PAGES CIRCUIT REQUIREMENTS (1)

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

APPARATUS	MECH. REQ.	CIRCUIT PREPARATION	DIRECT CURRENT FLOW REG.			REMARKS
			TEST SET	TEST SET	TEST SET	
REFLAYS						
A R2092	58/53 H 55	RT(A) GRD	O	18	17	
B E569	5/7 H 20	RB(B) AT(B) NG8-4	O	40	38	
BT R2099 YA	3 H 20	4B(NN) GRD 1/2 P O	NO	19	20	
		4B(NN) GRD 2 P NO	O	37	35	
		2B(NN) 1B(NN) M 1/2 S O	O	29.5	31.5	
BT R2099 YD	3 H 20	1T(BT) GRD 1/2 T O	O	8.8		
		3T(BT) GRD S O	O	52		
		1T(BT) GRD T O	O	8.3		
		3T(BT) GRD P O	O	32		
		2T(BT) GRD 6 P O	O	37	35	
		2T(BT) GRD P/T O	O	25	23.8	
C E626 ZB	9/7 H 35	4B(KI) 4T(C)	O	34.5	21	
C R200 ZC	29/7 H 25	4B(KI) RT(C) GRD	O	18	17	
D 182Y	H	4T(Y) 1B(R) GRD 3 O	O	41	39	
		4T(Y) 1B(R) GRD NO	O	28.5	30	
SD E569 E1446	8/7 H 20	4T(NN) RT(D) GRD	O	40	23	

TEST NOTES:
 1. ARM. NEED NOT TOUCH CORE.
 2. INSERT DUMMY PLUG IN JACK (T)
 3. AFTER (R) RELAY IS ADJUSTED TO MEET PULSE REP REG A-4, APPLY A ZERO LOOP AT 6 PPS TO (R) RELAY & OBSERVE (D) RELAY. IF (D) TENDS TO OPERATE DURING PULSING OF (R), STIFFEN (M) WITHIN TEST REG. PRIOR TO ISS 208. THIS TEST WAS NOT SHOWN.
 4. INSULATE 2T(B) WHEN "P" OPTION IS USED.
 5. CONN. BAT. TEST CLIP TO 3B(C) FOR FIG. A OR E OR TO 18(F) FOR FIG. B OR F.
 6. STRAP YH(BT) TO LB(BT)

APPARATUS	MECH. REQ.	CIRCUIT PREPARATION	DIRECT CURRENT FLOW REG.			REMARKS
			TEST SET	TEST SET	TEST SET	
P2 2066G ZP F						
		TT(JK-T) TT(JK-R) B/G 5 P/S O	-150	3.5		
		TT(JK-T) TT(JK-R) B/G 5 P/S O	-150	2.5		
		TT(JK-T) TT(JK-R) B/G 5 P/S O	-150	26.5	25	
		TT(JK-T) TT(JK-R) B/G 5 P/S O	150	1.9	2.1	
R H2B	1/1 H SPL	3RT (M) GRD 2 O	O	19	18	FOR USE WHEN PULSE REP REG A-4 IS USED.
		3RT (M) GRD NO	O	13.8	14	FOR USE WHEN PULSE REP REG A-4 IS USED.
		TT(JK-T) TT(JK-R) M 2/8 O	O	20		FOR USE WHEN PULSE REP REG A-4 IS USED.
		TT(JK-T) TT(JK-R) M 8 NO	O	1.5		FOR USE WHEN PULSE REP REG A-4 IS USED.
		TT(JK-T) TT(JK-R) M 7/8				
RY N2	I	1B(T) NO	O	48(NM) GRD	RT(D) O	FS 17 16
		1B(T) NO	O	48(NM) GRD	RT(D) NO	FS 13.6 14.4
S E1074	I	24/25 L 30	RT(D) O	RT(S) GRD 6/NO	O	41 35
		(HH) NO	RT(S) GRD 6	NO	20.5	22
T U851	S	319/316 H 44	BF(T) TR(T) M 10/20 P/S O	FS	9.3	8.8
			BF(T) TR(T) M 3 P/S O	O	25	23.5
			BF(T) TR(T) M 10/20 P/S NO	O	16.5	17.5
			TR(T) GRD 1/2 O	O	54	
T U851	F	319/316 H 44	BF(T) TR(T) M 10/20 P/S O	FS	9.3	8.8
			BF(T) TR(T) M 3 P/S O	O	25	23.5
			BF(T) TR(T) M 10/20 P/S NO	O	16.5	17.5
			TR(T) GRD 1/2 O	O	54	

TEST NOTES:
 1. THESE ADJUSTMENTS READ ONLY WHEN "H" OPTION IS USED.
 2. ARM. NEED NOT TOUCH CORE. ARM. TOWER IS 1 1/2".
 3. CONNECT DIRECT GRD TO 4B(T)
 4. THESE ADJUSTMENTS READ ONLY WHEN "ZP" OPTION IS USED.
 5. SHORT CIRCUIT SPRINGS 5T-10(T)
 6. INSERT DUMMY PLUG IN (T) JACK
 7. AFTER (R) RELAY IS ADJ. TO MEET PULSE REP REG A-4, APPLY A ZERO LOOP AT 6 PPS TO (R) RELAY & OBS. (D) RELAY. IF (D) TENDS TO OPERATE DURING PULSING OF (R), STIFFEN (M) WITHIN TEST REG. PRIOR TO ISS 208. THIS TEST WAS NOT SHOWN.
 8. APPLY PULSE REP REG. "A4" LIMITS 54-85% BREAK. CONN. TEST SET TO (T) JACK FOR IN. & (TT) JACK FOR OUT. MOMENTARILY OPERATE (TT) WHEN IT CANNOT BE OPER. ELECT. ACCORDANCE WITH THE SSP.
 9. 5T-6T & 3B-4B MAY MAKE.
 10. TO MAKE 5T-6T & 3B-4B ONLY.
 11. WITH A 15ML GAUGE SET. ARM. & CORE & REL. ENERGIZED SPRINGS 1B-2B & 5B-6B SHALL MAKE & SPRINGS 4T-5T SHALL NOT BREAK.
 12. PRIOR TO ISS 208 THE TEST OFF. VALUE FOR (D) REL. WAS 44.5 MA. WITHIN TEST REG. PRIOR TO ISS 208 THIS TEST WAS NOT SHOWN.
 13. THE READ. OPN. VALUE WAS 42 MA & NOTE II WAS NOT SHOWN.

APPARATUS	MECH. REQ.	CIRCUIT PREPARATION	DIRECT CURRENT FLOW REG.			REMARKS
			TEST SET	TEST SET	TEST SET	
H 1495 D	A	1B(O) 1B(B) BAT	O	74	7	
		(HH) NO 1B(B) BAT	O	4.7	5	
H Y7B B	115/164 H 29	2B(H) BAT 1 O	FS	17	16	
		2B(H) BAT 1 M	FS	1.3	1.4	
		2B(H) BAT 1 R	FS	0.7	0.9	
HH R104	26/24 H 30	1B(O) RB(NH) BAT	O	24	21	
HH U914	146/191 H 44	1B(O) 2B(H) BAT	O	11.5	11	
I 8500 896	30	4B(C) 6B(A) B/G O	O	38	36	WITH "P" OPTION.
		4B(C) 6B(A) B/G R	O	14	15	
		4B(C) 6B(A) B/G O	100	50	47.5	WITH "P" OPTION.
		4B(C) 6B(A) B/G R	100	20.5	22	
J R1324	29/24 L 25	RT(U) GRD	O	31	29	
K E689	3/9 H 20	RT(N) GRD	O	54	33	
K1 R1673	8/10 H 30	1B(K) RT(X) GRD 2 O	O	31.5	24	
L 81180	3 40	3B(S) 1B(S) M P/S O	20	3.3	3.1	CONN. DIRECT BAT. TO 3B(NN)
		3B(S) 1B(S) M P/S R	20	1.9	2	
		1B(S) GRD P	O	120	84	
		1B(S) GRD P	R	120	43	
LL U114	136/106 H 47	1B(LL) GRD	O	9.7	9.2	

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

APPARATUS	MECH. REQ.	CIRCUIT PREPARATION	DIRECT CURRENT FLOW REG.			REMARKS	
			TEST SET	TEST SET	TEST SET		
TI U327	F	142/108 53 1T(T) T(T) GRD	O	22.5	21		
TI U564	B	142/132 H 53 1T(T) T(T) GRD	O	16.7	15.3		
Y E1357	I	24/24 H 30 2B(Y) RT(Y) GRD	O	20	19		
			RT(Y) GRD	NO	6.5	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. FORWARD RESISTANCE TEST:
 (A) CONNECT ONE END OF A 5K OHM (1 WATT) RESISTOR TO -48V TERMINAL OF A GROUND BATTERY. CONNECT THE OTHER END OF THE RESISTOR TO 2T(BT)
 (B) THE VOLTAGE MEASURED BETWEEN 1T(BT) AND GROUND SHALL NOT BE MORE THAN 1.0 VOLT.
 4. REVERSE VOLTAGE TEST:
 (A) CONNECT ONE END OF A 0.1 MEGOHM (1/4 WATT) RESISTOR TO 3B(C) (110V DC) FOR FIG. A OR 5 TO 1B(T) FOR FIG. B OR F. CONNECT THE OTHER END OF THE RESISTOR TO 2T(BT).
 (B) 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.

APPARATUS	MECH. REQ.	CIRCUIT PREPARATION	DIRECT CURRENT FLOW REG.			REMARKS
			TEST SET	TEST SET	TEST SET	
N 149CG D	A	4T(NN) GRD	O	147	14	THE ARM. TRVL. SHALL NOT BE MORE THAN 11"
N 149AR	(N) NO	4T(NN) GRD	H	3.2	3	
		4T(NN) GRD	R	0.9	1	
N Y243	135/115 H 44	Y(N) GRD 1 O	FS	24.5	23	
		Y(N) GRD 1 M	FS	2.5	2.3	
		Y(N) GRD 1 R	FS	1.2	1.2	
NN E640	24/12 L 33	(N) NO RT(NN) GRD	O	47	44	
P 239CU U	B	RT(JK-T) TT(JK-R) B/G O	-105	21	20	
		RT(JK-T) TT(JK-R) B/G NO	-105	1.7		
		RT(JK-T) TT(JK-R) B/G O	-105	20.5	19.5	
		RT(JK-T) TT(JK-R) B/G NO	-105	2.5	10	
P1 204N G	3	RT(JK-T) TT(JK-R) B/G O	-105	21	20	
		RT(JK-T) TT(JK-R) B/G NO	-105	24	8	
P1 280U N	B	RT(JK-T) TT(JK-R) B/G 3 O	-105	2.3		
		RT(JK-T) TT(JK-R) B/G 3 NO	-105	1.7		
		RT(JK-T) TT(JK-R) B/G 3 O	-105	21	20	
		RT(JK-T) TT(JK-R) B/G 3 NO	-105	24	8	
P2 2066G M	B	TT(JK-T) TT(JK-R) B/G 2 P/S O	-150	3.5		
		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 BSR
 2. SHORT CIRCUIT SPRINGS 5T-10(T)
 3. DO NOT USE CONTACT CLOSURE TEST SET.

ISSUE 38A

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 MFR	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
DELAYED CHARGING	REQUIRED	NO. 1 OR 350A NO. 355A	B H	
	NOT REQUIRED		A	
10 CENT INITIAL CHARGE			E	
NO DELAY			A	
DELAYED CHARGING	REQUIRED	NO. 1 OR 350A 355A, 360A, 35-E97	B H	
	NOT REQUIRED		A	
CUT OFF KEY FOR "A" "L" & "P" LEADS	TIMED RLS. CKT. PROVIDED & MORE THAN 10 TRKS. IN BAY		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 COMB TRUNKS		2	ZH	1 PER CKT
WHEN CLASS OF SERVICE TONE INDICATION FROM COIN TRK IS REQ FOR ANI	OFFICES WHERE COIN LINES ARE INDICATED BY DIRECT GRD 3000A GRD	2	ZH ZI	1 PER CKT
	35E97 OFFICES (SEE NOTE 301)		ZH,ZI YH YI ZH ZI ZH ZI	
WHEN THIS CKT IS ASSOCIATED WITH A SUBSCRIBER'S ROTARY LINE SWITCH EQUIPPED WITH DIAL LONG LINE CKT. (SEE NOTE 108)		4	ZW, ZY T, ZX	1 PER CKT
AUX COIN TRK PRECEDING THIS CIRCUIT (SEE NOTE 111)			ZNY ZNX	
WHEN ANY OF THE LINES IN THE ASSOCIATED LINE FINDER UNIT ARE EQUIPPED WITH LONG LINE CKT. (SEE NOTE 111)			ZW, ZY T, ZX	
LCOT (LOCAL COIN OVERTIME) CHARGING (SEE NOTES 103 & 115)		6	YD	1 PER FIG. 1
BT RELAY	REQUIRED FOR LCOT		YD	
	TSPS ±110V		YL	
	COIN BAT ±130V OR ±120V		YM	
	NOT REQUIRED FOR LCOT		ZZ	

103.

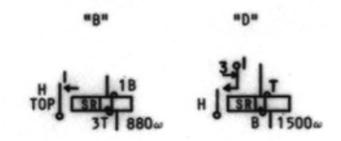
RECORD OF FIGURES, WIRING AND APPARATUS CHANGES						
CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT		
				STD	A&M	MD
8D	V OR W	W		V		W
9D	U,Q,P OR N	U & Q		P,N		U,Q
10D	FIG.A OR B	FIG.A	102	FIG. A,B		
10D			104	K		M
10D			102	H,J		
10D	R OR G	R		G		R
12B	F	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			E888		E626
				B36		B500
				149AR		149CG
				E1446		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	ZH OR ZN	ZH	102	ZH,ZN		
21D			102	FIG.4		
22D	ZO OR ZP	ZO		ZP		ZO
25D	ZQ OR ZR	ZR	102	ZQ,ZR		
27D						FIG.E,F ZD,ZE, 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	102,115	YH		YF
35B	YG & YJ	ZQ OR NONE	102,115	YJ		YG
	YK	NONE	117,118	YK		
38A	YL OR YM	YE		YL,YM		

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

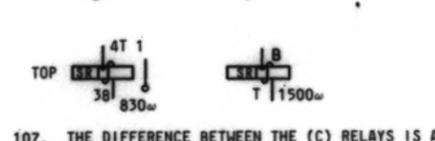


105. WHERE EXISTING CKTS. WITH "R" OR "G" OPTION ARE MODIFIED FOR 10 CENT INITIAL CHARGE COIN SERVICE "R" OR "G" OPTION MUST BE REPLACED BY "F" OPTION.

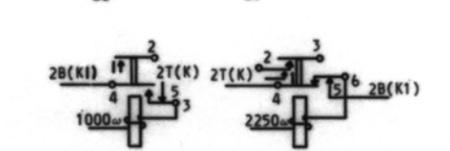
106. THE DIFFERENCE IN THE "H" OR "N" RELAYS IS AS FOLLOWS:



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. 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	
SEE RANGE CHART	
MAX. EXT. CKT. LOOP	20,000w
MAX. 1NS. RES.	
EARTH POTENTIAL LIMITS:	
NEGATIVE LIMITS:	REL(P) MAX. 10V
POSITIVE LIMITS:	
MIN. CONDUCT. LOOP	MAX. POS. E.P.
0w	9.5V
105w	10.0V
220w	10.5V
320w	11.0V
420w	11.5V
530w	12.0V