

FIG. 14

PERMANENT SIG KEY ONE PER 355A OFFICE WHEN 1ST SELS. ARE ARRANGED FOR PERMANENT SIG. RELEASE AND SOME LINES ARE NOT EQUIPPED WITH (LO) RELAYS

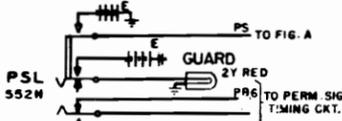


FIG. 16 (MFR. DISC.)

NO-SUCH-NUMBER TONE FOR LOCAL SELECTORS (ONE PER SHELF)

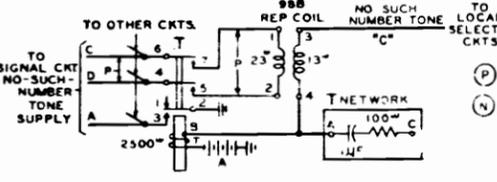


FIG. 13 (MFR. DISC.)

KEY CIRCUIT (ONE PER SHELF)

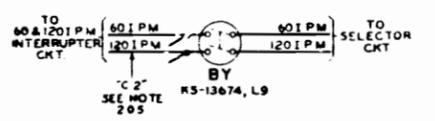


FIG. 3 (MFR. DISC.)

PERMANENT SIG KEY ONE PER 355A OFFICE WHEN 1ST SELS. ARE ARRANGED FOR PERMANENT SIG. RELEASE AND SOME LINES ARE NOT EQUIPPED WITH (LO) RELAYS

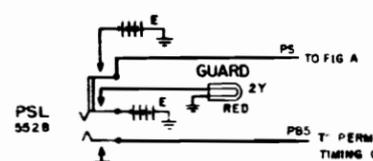


FIG. 21

PROVIDE WHEN A COMPLETE SHELF DOES NOT REQUIRE DIAL TONE



Table with 2 columns: FIGS, APP OR WIRING. Lists wiring options for figures 13 through 24.

45-52V

FIG. 1

SELECTOR SHELF PERMANENT ALARM (ONE PER SHELF)

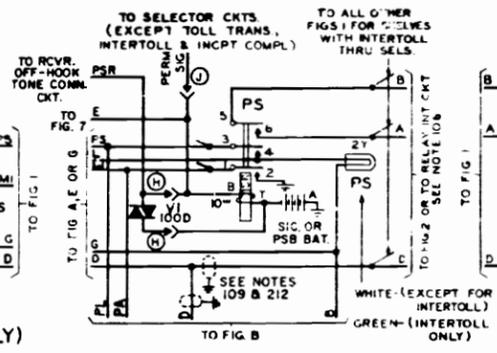


FIG. 2

DIAL TONE (ONE PER SHELF)

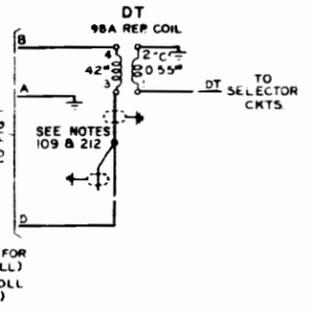


FIG. 6

FUSE ALARM (ONE PER ALARM BUS BAR)

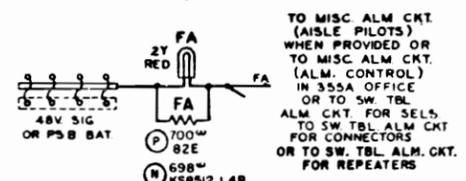


FIG. 23 (MFR. DISC.)

TRANSFER RELAY (FOR SHELVES ARRANGED FOR 10 SELS-ONE PER SHELF OR FOR SHELVES ARRANGED FOR 20 SELS-TWO PER SHELF)

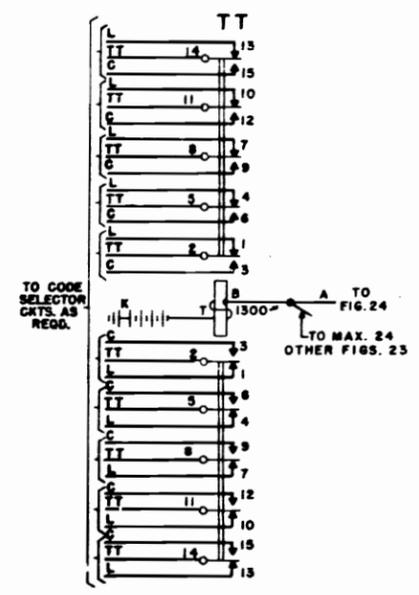


FIG. 22

FOR 120 IPM TONE PATHS BUSY INDICATION FOR BLOCKED CALLS ON DIGIT ABSORBING SELECTORS THAT BLOCK WITHOUT ROTARY HUNTING (ONE PER SHELF) SEE NOTE 102

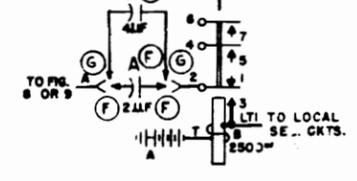


FIG. F

NO 355A OFFICE

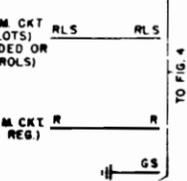


FIG. 4

SELECTOR RELEASE MAGNET ALARM FOR SHELVES ARRANGED FOR 3 OR 10 SELS-ONE PER 5 SELS FOR SHELVES ARRANGED FOR 20 SELS-ONE PER SHELF PLUS ONE FOR EACH ADDITIONAL TRAFFIC REGISTER ASSOCIATED WITH SHELF

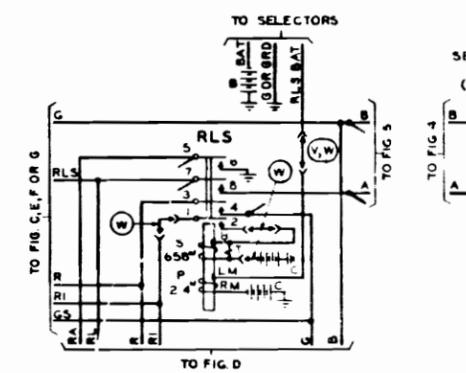


FIG. 5

SELECTOR RELEASE ALARM LAMP (ONE PER SHELF)

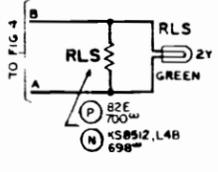


FIG. G

NO 355A OFFICE

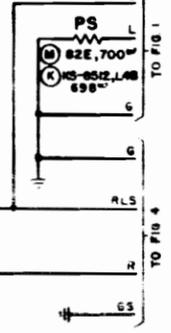


FIG. 20

GUARD LAMP (ONE PER SHELF)

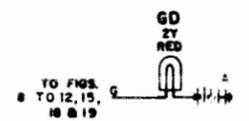


FIG. D

NO 1 OR 350A OR (FOR INTERTOLL) TOLL OR MANUAL OFFICE



FIG. 7

PERM. SIG. COMP. RES. FOR INTERTOLL, TOLL TRANS. & INCP. COMPL. SELECTORS (ONE PER SHELF)

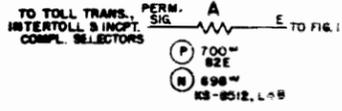


FIG. 24 (MFR. DISC.)

TRANSFER KEY SEE NOTE 211

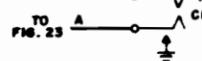
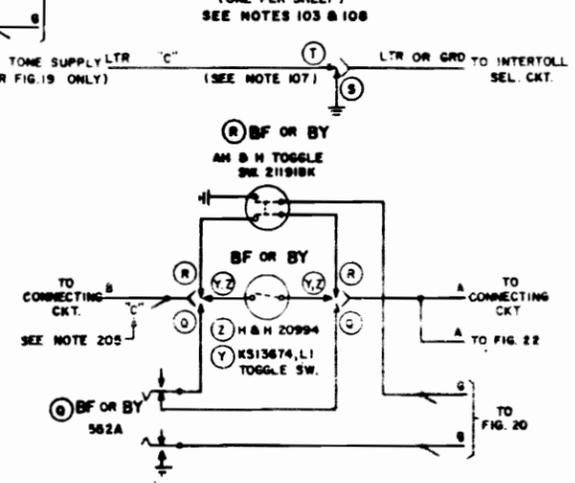


FIG. 10, 11, 17 & 18 (MFR. DISC.)

KEY CIRCUIT (ONE PER SHELF) SEE NOTES 103 & 108



SXS NO. 1 SD-31359-01 SXS 350A SD-31366-01 SXS 355A SD-31780-01 KEYSHEET INFO

J32310R-() J32310R-() J32302AY-() J32302AY-() J32310R-() CD-31276-10 EB-36664-36 EB-36664-01 EB-36807-01 EB-36776-01 EB-36762-01 EB-36761-01 EQUIPMENT INFO

REPLACING SD-31971-01, REPLACING SD-31515-01, FIG. 1, 2, 4, 5, 7, 8 & 12 AND GD-31583-01 FIG. 1, 2, 4, 5, 7, 8 & 12 EXCEPT FOR REVERTING CALL AND COIN CONTROL SEL. TEST DISTRIBUTORS AND SEL. REPEATERS. REPLACING SD-64601-01, FIG. 1, 2, 3 & 6

SD-32043-01 STEP BY STEP SYSTEMS 1099 NO. 1 OR 350A SWITCH TROUBLE ALARM CIRCUIT SELECTOR SHELF CIRCUITS NO. 355A MISCELLANEOUS ALARM CIRCUIT SELECTOR SHELF CIRCUITS

AT&CO STANDARD 35M ONLY FOR 350A

SD-32043-01-1 4 SHEETS

BELL TELEPHONE LABORATORIES INCORPORATED

6S

SD-32043-01-1

CIRCUIT NOTES:

DESIG	AMP	POTENTIAL FUSED	ONE PER	FOR
A	1-1/3	48V. SIG. OR PSB BAT.	SHELF #	20 CAPACITY SHELVES
B	5	48V. SIG.	5 SELS. #	
C & D	5	48V. SIG.	SHELF	
K	1-1/3	48V. SIG.	SHELF	10 CAPACITY SHELVES
A	1-1/3	48V. SIG. OR PSB BAT.	SHELF	
B, C, & D	5	48V. SIG.	1ST 5 SELS	
B & C	5	48V. SIG.	2ND 5 SELS	3 CAPACITY RR MTD. TOLL TRANS SEL. SHELF
K	1-1/3	48V. SIG.	SHELF	
A	1-1/3	48V. SIG.	SHELF	
B, C, & D	5	48V. SIG.	OFFICE	NO. 355A ONLY
E	1-1/3	48V. SIG.	OFFICE	TOLL TRANS. SELS.
F	0.180	48V. SIG.	SHELF	TOLL TRANS. SELS.
G	1/2HV	105V. ±	SHELF	TOLL TRANS. SELS. IN NO. 355A
G	1/2HV	105V. ±	SHELF IN SERIES WITH PER UNIV. FR. DTA TYPE SEL BAY OR REL. RK BAY WHEN FUSE IN RING SUP IS LARGER THAN 1-1/3 AMP OR 1 AMP FN	TOLL TRANS SELS. IN NO. 1 OR 350A
H	1-1/3	105V. ±		
J	1/2	LT1-120 IPM-BR2 (PATHS BUSY)	LINE-UP #	IT. SEL OR IT. THRU SEL. IN NO. 1 OR 350A OFFICES

* MOUNTED ON MISC FUSE BD
** PRIOR TO ISS. 140, THIS WAS 3 AMP. FUSE

FEATURE OR OPTION	PROVIDE
IN NO. 1, 350A, TOLL OR MANUAL OFFICE	FIGS. B & D
PERM. SIG ALARM	FIG. 1
DIAL TONE REQ	FIG. 2
FIRST SEL ARRANGED FOR PERM SIG RELEASE AND SOME LINE CIRCUITS ARE NOT EQUIPPED WITH (LO) RELAYS	FIG. 14
RELEASE MAGNET ALARM	FIGS. 4 & 5
FUSE ALARM	FIG. 6
INTERTOLL, TOLL TRANS, OR INCPT COMPL SEL	FIG. 7
TOLL TRANS SEL RINGING SUPPLY	FIG. 12
INTERTOLL SELS	FIG. G
IN NO. 355A OFFICE	ALL SELECTORS EXCEPT INTERTOLL
	FIGS. A & F
IN NO. 1, 350A OR 355A OFF.	WHEN AUTO PROCESSING OF FIRST SELECTOR PERMANENT SIGNAL IS
	HOT REQ'D J OPTION
	REQ'D H OPTION
	FIG. 1

CIRCUIT NOTES: (CONT)

102. (CONT)	FEATURE OR OPTION	PROVIDE
IN NO. 1 AND 350A OFFICES ONLY	WHERE PREVENTION OF TALK OVER BUSY TONE ON SELECTORS THAT BLOCK WITHOUT ROTARY HUNTING IS REQUIRED	F OPTION
	REQUIRED	G OPTION
IN NO. 355A OFFICES		F OPTION
PATHS BUSY INDICATION FOR BLOCKED CALLS ON DIGIT ABSORBING SELECTORS	COMMON CONTROL OFFICES WITH CONTROLLED OUTPULSING	NONE
	ALL OTHER OFFICES	120 IPM TONE
		FIG. 22
BUSY TONE	SEE NOTE 108	FIGS. 8, 9, 15 & 19
GUARD LAMP		FIG. 20
DIAL TONE NOT REQ FOR A COMPLETE SELECTOR SHELF		FIG. 21

103. THE CONNECTING CKTS AND LEAD DESIGNATIONS FOR FIGS. 8 TO 11, 15, 17, 18 & 19

OFFICE	FIG.	LEAD DESIGNATIONS	CONNECTING CKTS	KEY DESIG
NO. 1 OR 350A	8	LOW TONE 1 (BUSY)	LOC OR INC SEL	MISC TONE & TONE ALM CKT
	10	60 IPM	60E OR 60 IPM	30, 60 & 120 IPM INTERRUPTER CIRCUIT
	11	120 IPM	120E, 120F OR 120 IPM	
	18	120 IPM	120A OR 120 IPM	30, 60 & 120 IPM INT CKT
	19	LT1 120 IPM	LT1 120 IPM BR2	TONE SUPPLY (J FUSE)
NO. 355A	8	LOW TONE 1 (BUSY)	LT1 60 IPM TB	PWR RING CKT
	9	60 IPM	LT1 120 IPM TB	
	10	60 IPM	60 IPM	INTERTOLL TOLL OR INCPT COMPL SEL
	11	120 IPM	120 IPM (WITH TONE)	INTERRUPTER RELAY CKT
	15	120 IPM	120 IPM (WITHOUT TONE)	OPR INC OR INTERMEDIATE SEL WHEN ARRANGED TO RETURN BUSY FLASH
TOLL ASSOC WITH CROSS-BAR	11	120 IPM	B	SEL
				INTERRUPTER FRAME CKT IN CROSS BAR OFFICE

* FIG. 15 IS USED WITH LOCAL INCOMING AND INTERMEDIATE SELS. ARRANGED FOR BOTH BUSY TONE AND BUSY FLASH (SEE NOTE 206).

CIRCUIT NOTES: (CONT)

104.	RECORD OF FIGURES, WIRING AND APPARATUS CHANGES						
CHANGED OR ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT			
				STD	ASM	MD	SPL
6-D				FIG. E			
6-D							FIG. 13
6-D	Y OR Z	Z		Y		Z	
10-D				FIG. 14			FIG. 3
10-D				FIG. 15			
11-D				FIG. 16			
13-D			103	FIG. 17			
14-D	X	NONE	106	X			
14-D	V OR W	W		V	W	W	
					1 & 350A	355A	
150							FIG. 17
150							X
160	S OR T	NONE	107	S, T			
160				FIG. 18			
160				FIG. 19			
170	R OR Y	Y		R	Y		
170				FIG. 20			
170				FIG. 21			
180	Q OR R	R		Q	R		
190	P OR H	P		H	P		
190	FIG. F OR G	FIG. A & C OR E		FIG. F, G	FIG. C, E		
190				FIG. 22	FIG. 16		
190							Y
190							P
200				FIG. 16			
210				FIG. 23, 24			
210	H OR K	K		K	H		
220							FIG. 10, 11, 13, & 18
240	H OR J	J		H, J			
250							FIG. 23, 24
270	F, G	F		F, G			FIG. 16

105. PRIOR TO ISS. 140 CONNECTION WAS TO 30, 60 & 120 IPM INT, TRANS & DISTG CKT.

106. FOR INTERTOLL THRU SELS., PROVIDE X OPTION FIG. E & CONNECT FIG. 1 TO REL INT CKT.

107. USE OPTION S WHEN LTR LEAD IS NOT PROVIDED.

CIRCUIT NOTES: (CONT)

108. THE CONNECTING CIRCUITS AND LEAD DESIGNATIONS FOR FIGURES 8, 9 AND 19 FOR PATHS BUSY TONE ONLY TO CUSTOMERS AND OPERATORS ARE INDICATED BELOW. PATHS BUSY FLASH ONLY, PER FIG. 15 AS INDICATED, IS REQUIRED ON INTERTOLL SELECTORS WHEN USED FOR CAMA.

OFFICE	FIG.	LEAD DESIG	CONNECTING CIRCUITS	KEY DESIG	ITEM
NO. 1 OR 350A	8	LOW TONE 1 (BUSY)	LOCAL OR INCOMING SEL	MISC TONE AND TONE ALM CKT	BY 1
	9	LT1 120 IPM	TOLL OR INCPT COMPL SEL	30, 60 AND 120 IPM INTERRUPTER CKT	BY 2
	19	LT1 120 IPM	INTERTOLL SEL OR INTERTOLL THRU SEL	TONE SUPPLY (J FUSE)	BY 3
	15	120 IPM	120A	INTERTOLL SEL FOR CAMA	30, 60 OR 120 IPM INTERRUPTER CKT
NO. 355A	8	LOW TONE 1 (BUSY)	LOCAL AND INCOMING SEL	POWER RING. CKT	BY 5
	9	LT1 120 IPM	TOLL OR INCPT COMPL SEL	INTERRUPTER RELAY CKT	BY 6
	19	LT1 120 IPM	INTERTOLL SEL OR INTERTOLL THRU SEL	POWER RING. CKT	BY 7
	15	120 IPM	120A	INTERTOLL SEL FOR CAMA	INTERRUPTER RELAY CKT

109. SHIELDING OF THE TONE LEADS IS REQUIRED WHEN TT2 TONE IS PROVIDED IN AN OFFICE.

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CIRCUIT NOTES: (CONT FROM SHEET 1)

108. THE CONNECTING CIRCUITS AND LEAD DESIGNATIONS FOR FIGURES 8, 9 AND 19 FOR PATHS BUSY TONE ONLY TO CUSTOMERS AND OPERATORS ARE INDICATED BELOW. PATHS BUSY FLASH ONLY, PER FIG. 15 AS INDICATED, IS REQUIRED ON INTERTOLL SELECTORS WHEN USED FOR CAMA.

OFFICE	FIG.	LEAD DESIG		CONNECTING CIRCUITS		KEY DESIG	ITEM
		LEAD A	LEAD B	LEAD A	LEAD B		
NO. 1 OR 350A	8	LOW TONE 1 (BUSY)	LOW TONE 1 (BUSY)	LOCAL OR INCOMING SEL	MISC TONE AND TONE ALM CKT	BY	1
	9	LT1 120 IPM	LT1 120 IPM BR2	TOLL OR INCPY COMPL SEL	30, 60 AND 120 IPM INTERRUPTER CKT	BY	2
	19	LT1 120 IPM	LT1 120 IPM BR2	INTERTOLL SEL OR INTERTOLL THRU SEL	TONE SUPPLY (*J ² FUSE)	BY	3
	15	120 IPM	120A	INTERTOLL SEL FOR CAMA	30, 60 OR 120 IPM INTERRUPTER CKT	BY	4
NO. 355A	9	LOW TONE 1 (BUSY)	LT1 120 IPM TB	LOCAL AND INCOMING SEL	POWER RING CKT	BY	5
	9	LT1 120 IPM	LT1 120 IPM TB	TOLL OR INCPY COMPL SEL	INTERRUPTER RELAY CKT	BY	6
	19	LT1 120 IPM	LT1 120 IPM TB	INTERTOLL SEL OR INTERTOLL THRU SEL	POWER RING CKT	BY	7
	15	120 IPM	120A	INTERTOLL SEL FOR CAMA	INTERRUPTER RELAY CKT	BY	8

109. SHIELDING OF THE TONE LEADS IS REQUIRED WHEN TT2 TONE IS PROVIDED IN AN OFFICE.

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SD-32043-01-3

STEP BY STEP SYSTEMS		2	SD-32043-01-3
NO. 1 OR 350A SWITCH TROUBLE ALARM CIRCUIT			
NO. 355A MISCELLANEOUS ALARM CIRCUIT			
BELL TELEPHONE LABORATORIES INCORPORATED		65	

