

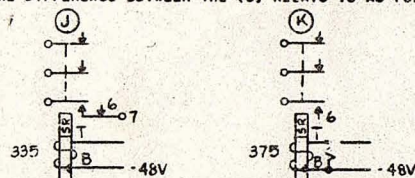
- 204A SELECTOR (RECORDING SWITCH)  
197AC SWITCH DOES NOT INCLUDE THE SLEEVE CUT OFF JACK  
197AU SWITCH INCLUDES THE SLEEVE CUT OFF JACK  
242C PLUG  
345 JACK  
(MFR DISC.) 2M197GJ SWITCH INCLUDES NORMAL POST SPRING ASSEMBLY AND THE SLEEVE CUT OFF JACK  
(MFR DISC.) 2N197GL SWITCH INCLUDES NORMAL POST SPRING ASSEMBLY AND THE SLEEVE CUT OFF JACK

#### CIRCUIT NOTES:

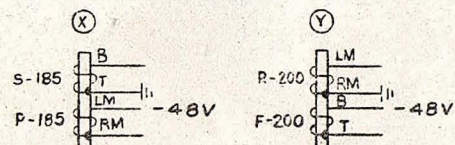
- (MFR DISC.) 101. PROVIDE ONE 3 AMP FUSE PER CIRCUIT.  
(MFR DISC.) 102. TO MAKE THIS CONNECTOR NON-REVERSING, REVERSE THE WIRES CONNECTED TO SPRINGS 7 AND 10 OF RELAY (D).  
(MFR DISC.) 103. CONNECTIONS TO JACKS 5 AND 24 ARE SHOWN FOR SUPERIMPOSED RINGING CURRENT. WHEN SUPERIMPOSED IS USED TRANSPOSE LEADS Z.  
104. SEE WORKING LIMITS FOR (F) REL REQUIRED.  
105. (A) WHERE A CONNECTOR SERVES MORE THAN ONE PBX THE NUMBERS OF THE (REC) BANK TERMINALS CORRESPOND TO THE NEXT TO LAST DIGIT OF THE LISTED PBX NUMBER WHEN TWO DIGITS ARE RECEIVED BY THE CONNECTOR, OR THE LAST DIGIT WHEN ONLY ONE DIGIT IS RECEIVED. THESE TERMINALS SHALL BE CONNECTED TO THE COMMUTATOR SEGMENT CORRESPONDING TO THE LEVEL WHICH IS TO BE FIRST CHOICE FOR TRUNK HUNTING FOR EACH PBX GROUP. EACH NEXT HIGHER NUMBERED TERMINAL SHALL BE ASSOCIATED WITH THE SECOND CHOICE LEVEL, ETC. THE ORDER OF HUNTING VARIES ON THE CONNECTORS ASSOCIATED WITH A PBX GROUP TO REDUCE AVERAGE HUNTING TIME. THE (RLS) BANK TERMINALS FOR THE LAST CHOICE LEVELS OF THE PBX GROUPS SHALL BE LEFT OPEN, EXCEPT THAT ONE SUCH TERMINAL MAY BE CONNECTED TO TERMINAL B FOR OVERFLOW PEG COUNT ON ONE PBX GROUP AT A TIME. ALL (RLS) BANK TERMINALS EXCEPT THOSE FOR LAST CHOICE LEVELS SHALL BE CONNECTED TO TERMINAL R.  
(B) WHERE A CONNECTOR SERVES ONLY ONE PBX, CONNECT TERMINALS 1 TO 10 OF THE (REC) BANK TO COMMUTATOR SEGMENTS IN THE ORDER IN WHICH IT IS DESIRED THAT THE CONNECTOR HUNT OVER THE CORRESPONDING LEVELS. IN ALL OTHER RESPECTS, NOTE 105 (A) APPLIES.

106.

- (MFR DISC.) 107. CONNECT LEAD Y TO SPRING 6 OF REL (Z) AND DISCONNECT LEAD X FROM SPRING 4 OF REL (Z) WHEN A CONNECTOR SERVES ONLY ONE PBX; OTHERWISE CONNECT LEAD X TO SPRING 4 AND DISCONNECT LEAD Y FROM SPRING 6. WITH THE ABOVE WIRING THE 221DE REL MUST BE PROVIDED FOR (C).  
108. PROVIDE ONE 1 1/3 AMP FUSE FROM TALK. BAT. PER CIRCUIT. PRIOR TO ISSUE 110, NOTE 101 WAS NOT RATED "MFR DISC" AND THIS NOTE WAS NOT SHOWN.  
109. THE DIFFERENCE BETWEEN THE (C) RELAYS IS AS FOLLOWS:



110. USE W OPTION WHEN JOINT CONTROL OF THE RELEASE OF THE CONNECTOR BY THE CALLING AND CALLED PARTIES IS REQUIRED. THIS OPTION CANNOT BE USED WITH AUTOMATIC DISCONNECT, SEE NOTE 114.  
111. WHERE THE (T) AND (R) CAPACITORS ARE PART OF A MULTI-UNIT CAPACITOR, THEY SHALL BE BALANCED WITHIN 0.11 MF.  
112. THE DIFFERENCE BETWEEN THE (D) RELAYS IS AS FOLLOWS:



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	PROV		
3B	M OR N	M		N		M			
7B	221DE REL	221DM	109	221DE		221DM			
8D	221HY REL	221DP		221HY	221DP				
11D	A OR B	A		B		A			
13D			110	W					
14D	248D REL	222AT		248D		222AT			
15B				221DP		221HY			
20D	Z	A OR B		Z		B			
20D	X OR Y	Y	112	X		Y			
21A	S	A OR B	111,114	S					
21A	V OR T	A OR B	111,114	S		V, T			
22D			114			R, Q			
23D			115	P		U			
23D			115	J		K			
23D			115	G		H			
23D			115	E		F			
23D			114, 115	ZA, ZB					
23D			114, 115	ZC, ZD					
23D			114, 115	T, VV					
23D						FIG. 2			
26D	ZH	M OR N		ZH		N			
26D	ZE, ZF	ZE	114	ZE, ZF					
26D			102, 301	ZG					
27D	ZH	M, N, OR ZH				ZH	ZH		
27D	ZI, ZJ, ZP, ZH OR ZQ	ZI AND ZE OR ZF	114	ZI			ZH, ZJ, ZP, ZQ		
28D				ZH					
28D			114	ZP, ZQ					
28D	ZK, ZL ZU	ZI OR ZJ	114	ZK, ZL ZU		ZI, ZJ			
28D	ZO, ZS, ZT	ZE OR ZF AND ZI OR ZH AND ZJ	114	ZH, ZO, ZS, ZT		ZF			
29D			117			ZB, ZE, ZS			

114.

FEATURE AND OPTION		PROVIDE		
		FIG.	APP OR WIR	QUANTITY
CAPACITORS CONNECTED T TO T AND R TO R	CAPACITORS ON SWITCH. NETWORK USED FOR CONTACT PROTECTION		Z, S	
	CAPACITORS ON SWITCH. SEPARATE CAPACITORS & RESISTORS USED FOR CONTACT PROTECTION (MFR DISC.)		B	
	CAPACITORS ON SHELF (MFR DISC.)		A	
CAPACITORS CONNECTED T TO R & R TO T TO IMPROVE EAL AGAINST INDUCTIVE DISTURBANCES WHEN Y OPT IS USED (MFR DISC.)	CAPACITORS ON SWITCH. NETWORKS USED FOR CONTACT PROTECTION		Z, T	
	CAPACITORS ON SWITCH. SEPARATE CAPACITORS AND RESISTORS USED FOR CONTACT PROTECTION		T, R	
	CAPACITORS ON SHELF		V, Q	
MACHINE RINGING	AC, DC OR SUP NEG		ZC	
REVERSE	SUP POS		ZD	
BAT. SUP	REQD		VV	
	NOT REQD		TT	
WHEN CONN IS REQD TO WAIT FOR THE UNITS DIGIT BEFORE STG LEV HTG	WHEN CONN SERVES ONE PBX GROUP		ZG	
	WHEN CONN SERVES MORE THAN ONE PBX GROUP		ZK, ZO, ZT	ZA
AUTO DISC. OF CONN WHEN CONN IS REQD TO WAIT FOR THE UNITS DIGIT BEFORE STARTING LEVEL HUNTING	ONE PBX GRP		ZG	
	MORE THAN ONE PBX GRP		ZP	ZA
	ONE PBX GRP		ZH, ZL, ZQ	ZG
	MORE THAN ONE PBX GRP		ZQ	ZA

115. OPTIONS U, P, K, J, H, G, F, E, ZA, ZB, ZC, ZD, TT AND VV WERE ASSIGNED ON ISS 23D.  
116. NORMAL POST SPRINGS OPERATE ON ALL LEVELS.

(MFR 117. DISC.)

FEATURE AND OPTION		PROVIDE		
		FIG.	APP OR WIR	QUANTITY
WHEN CONN IS NOT REQD TO WAIT FOR THE UNITS DIGIT	WHEN CONN SERVES ONE PBX GROUP		ZE	ZB
	WHEN CONN SERVES MORE THAN ONE PBX GROUP		ZK	ZA
AUTO. DISC. OF CONN WHEN CONN IS NOT REQD TO WAIT FOR THE UNITS DIGIT BEFORE STARTING LEVEL HUNTING	ONE PBX GRP		ZB	
	MORE THAN ONE PBX GRP		ZP	ZA
	ONE PBX GRP		ZL	ZB
	MORE THAN ONE PBX GRP		ZQ	ZA

DRAWING REFUR-BISHED WITHOUT CHANGE 3-17-66  
30D 8D APP 2D 8-9-66  
31D 8D APP 3D 11-29-66

SXS NO. 1  
SD-31359-01  
SXS NO. 350A  
SD-31364-01  
KEY SHEET INFO

ED-31088-02  
EQUIPMENT INFO

REPLACING BUT NOT INTERCHANGEABLE WITH ES-30360-01

SD-31088-01

STEP-BY-STEP SYSTEMS  
NO. 1 OR 350A  
CONNECTOR CIRCUIT  
LOCAL LEVEL HUNTING  
SELECTIVE AND SEMI-SELECTIVE RINGING

(LOC CONN LEV HT)

BELL TELEPHONE LABORATORIES  
INCORPORATED

65

AT&T CO  
STANDARD

A&M ONLY FOR 350A

SD-31088-01-1  
5 SHEETS

PRINTED IN U.S.A.

SD-31088-01-1