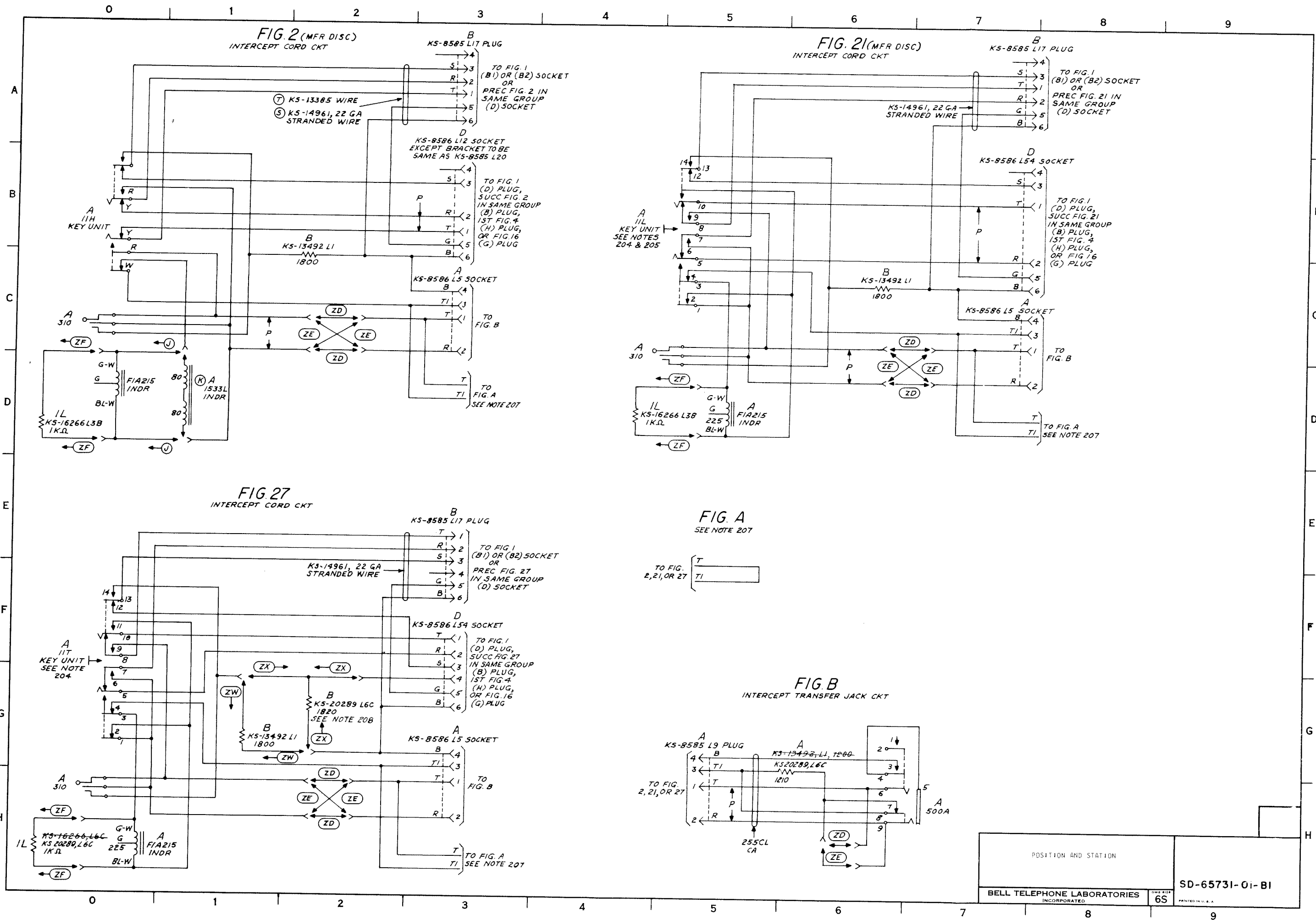
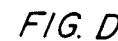
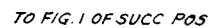




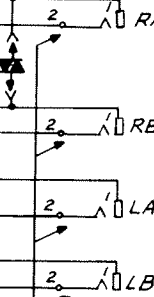
TELEPHONE DIAL SPLITTING AND GROUPING CKTS
SEE NOTES 206 AND 301



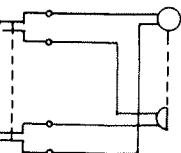
POSITION GROUP CONNECTOR CKT



TELEPHONE SET



F2A HAND SET



52-OR 53-TYPE HEAD SET

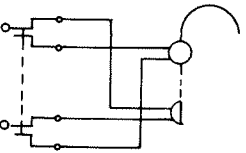
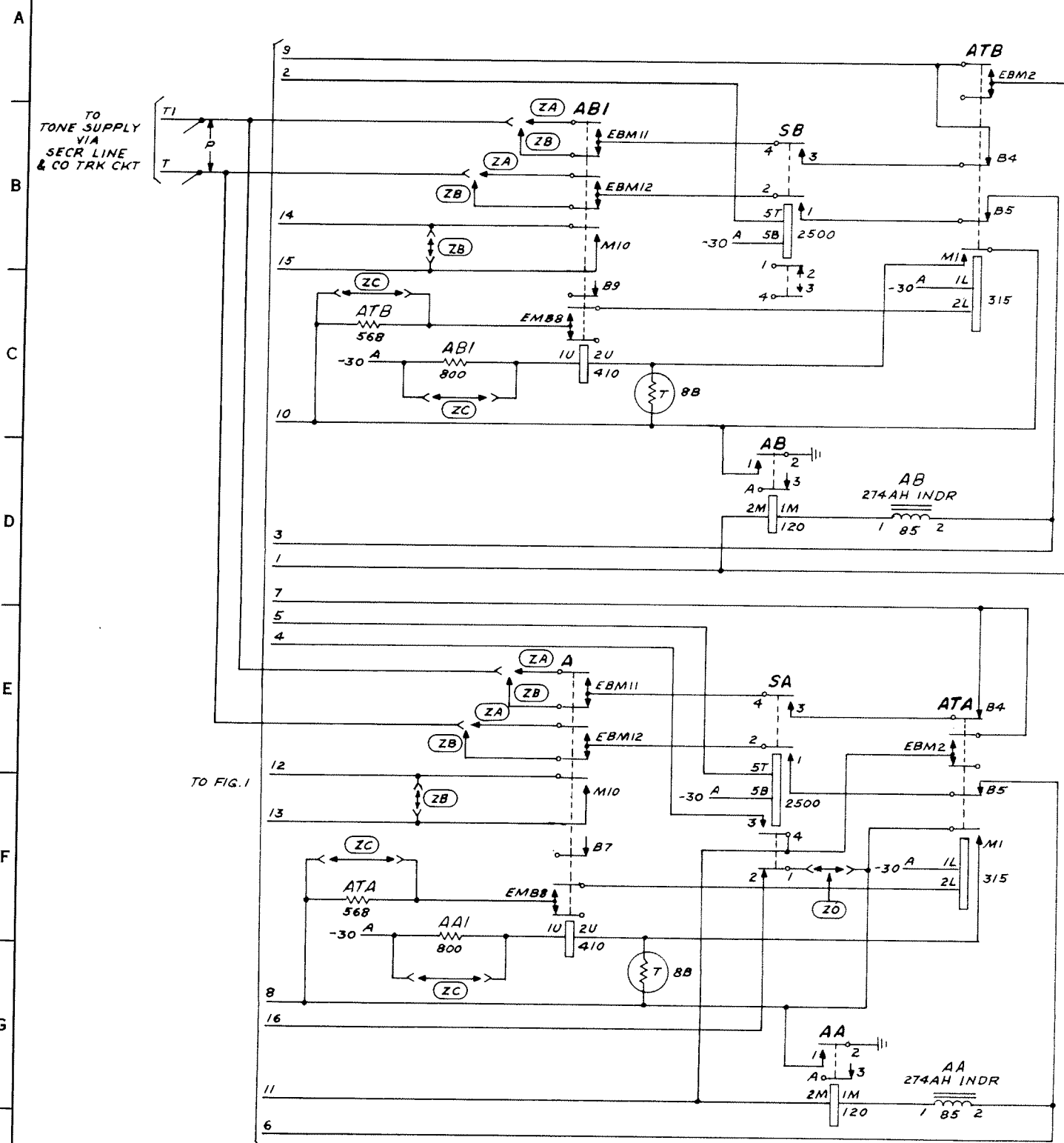
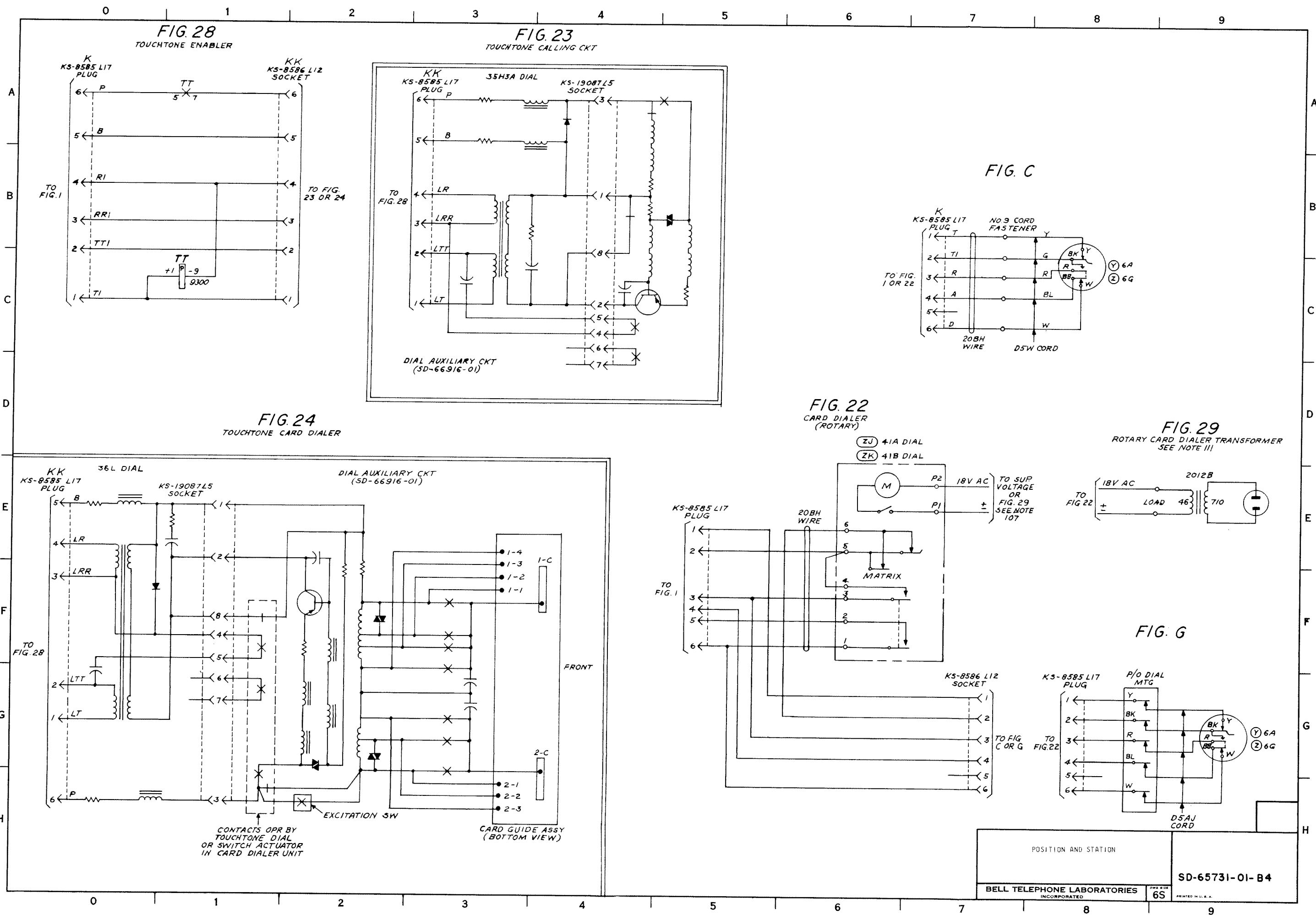


FIG 26
TONE CKT





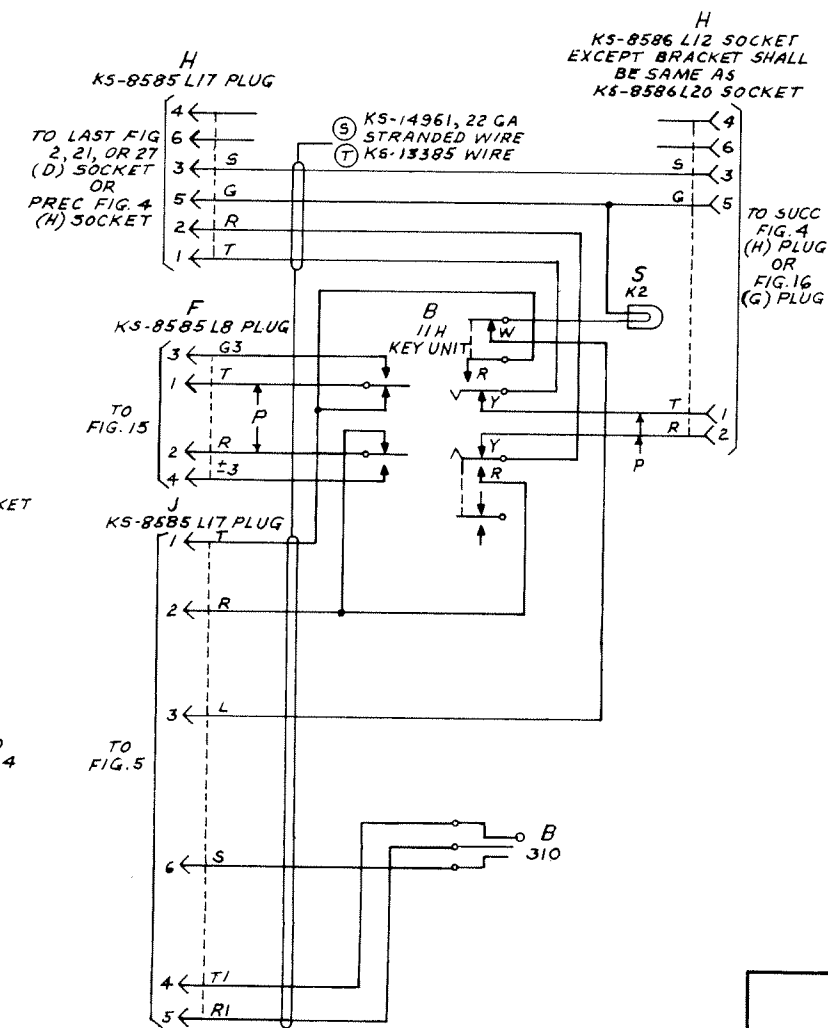
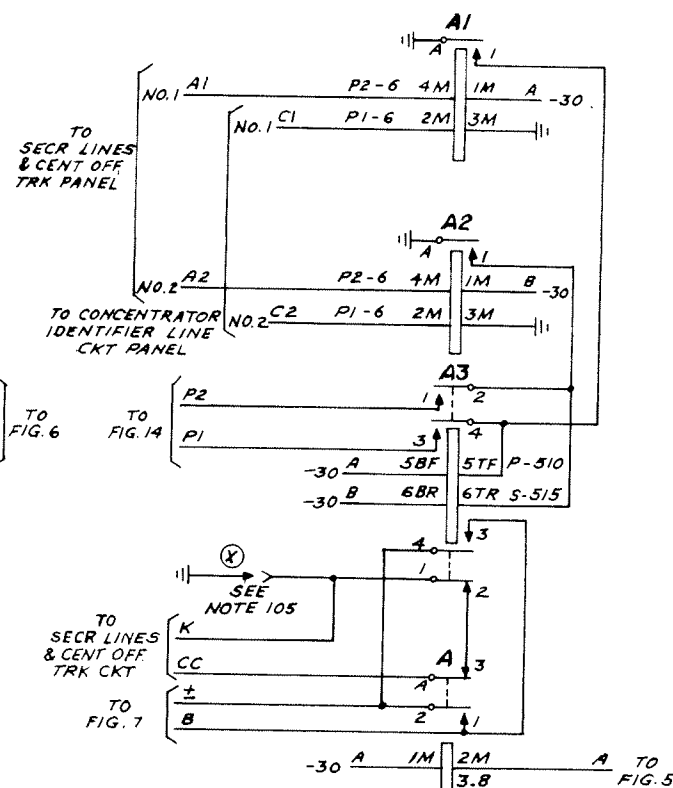
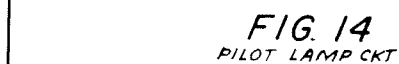
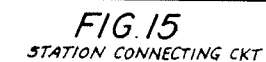


FIG. 8
BATTERY DISTRIBUTING AND
FUSE ALARM CKT

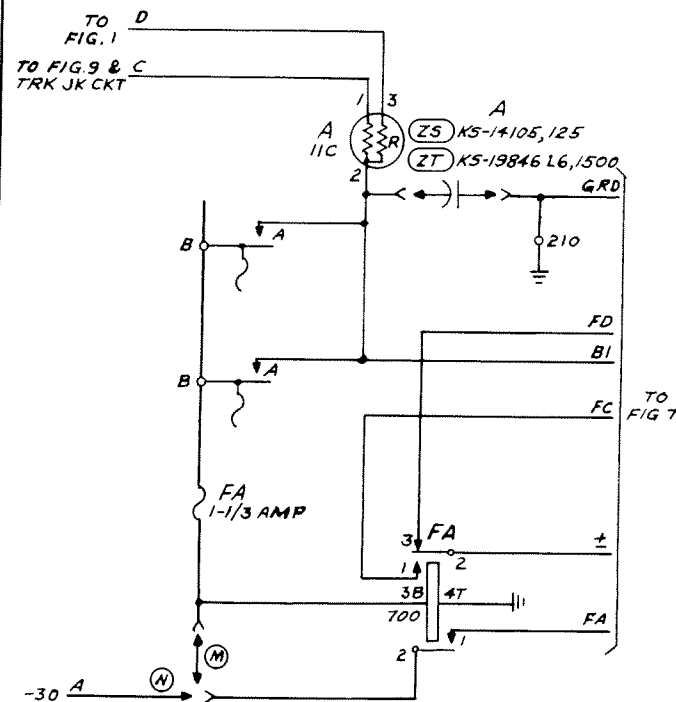


FIG. 7
POSITION KEY CKT

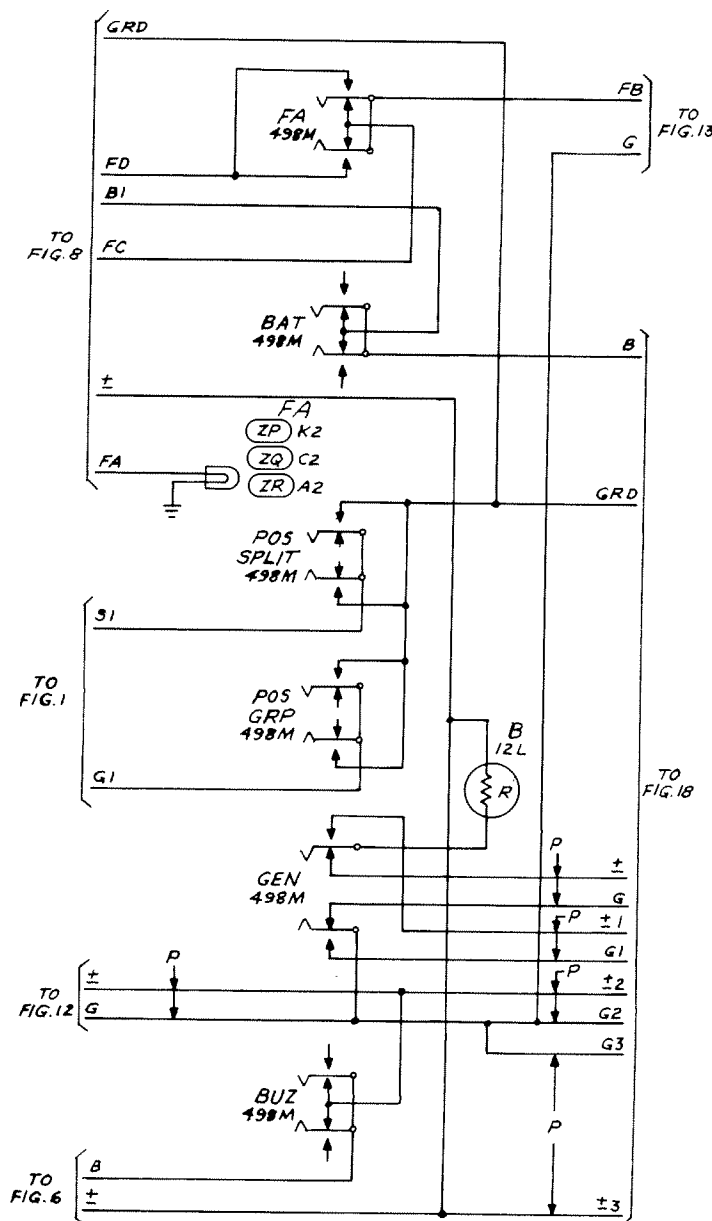


FIG. 13
FUSE ALARM BELL

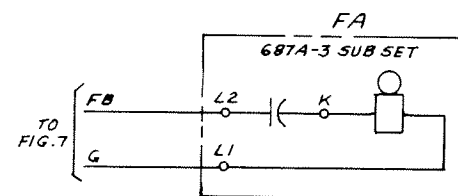
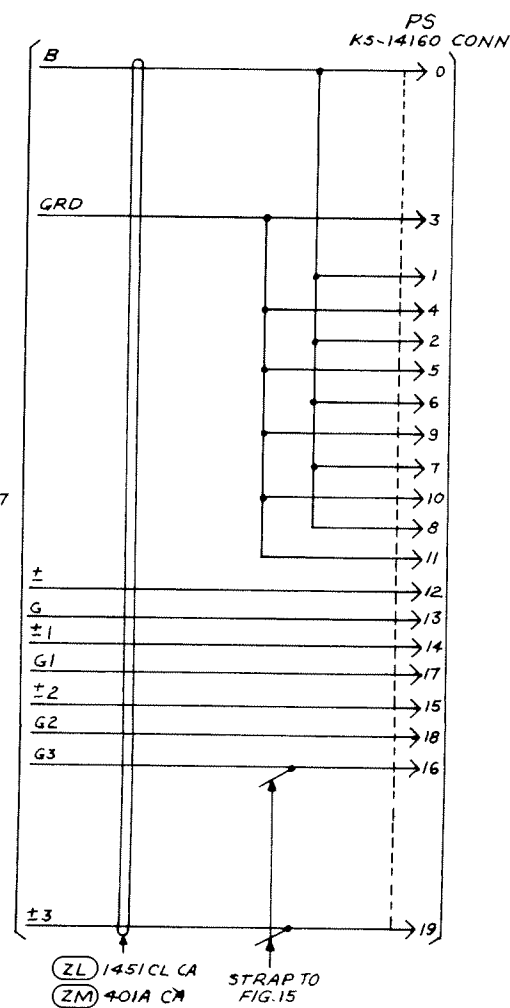


FIG. 18
POWER SUPPLY CONNECTING CKT



PART OF FIG. 17
LINE CONNECTING CABLE
FOR TRUNKS AND MISCELLANEOUS

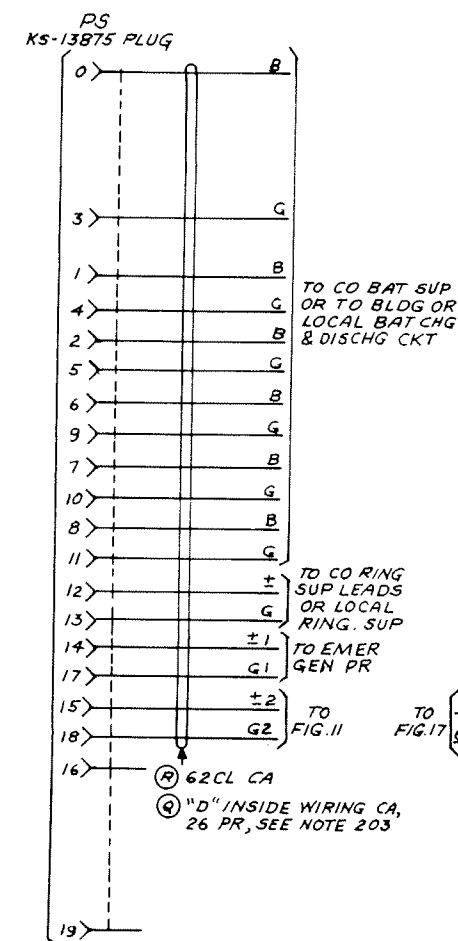


FIG. 11
AUXILIARY RINGER CKT

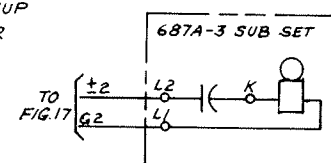


FIG. 12
BUZZER CKT



POSITION AND STATION

BELL TELEPHONE LABORATORIES
INCORPORATED

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PART OF FIG. 17
LINE CONNECTION CABLE FOR TRUNKS
AND MISCELLANEOUS

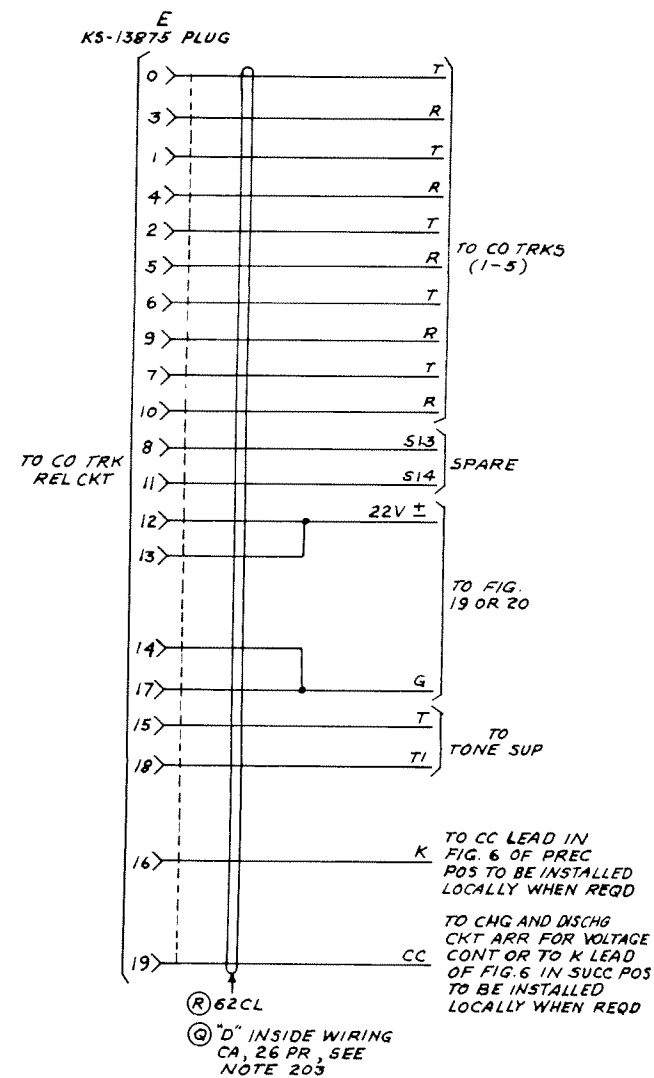


FIG. 19
SWITCHBOARD CLOCK
SEE NOTES 109 AND 110

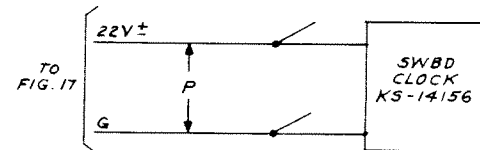
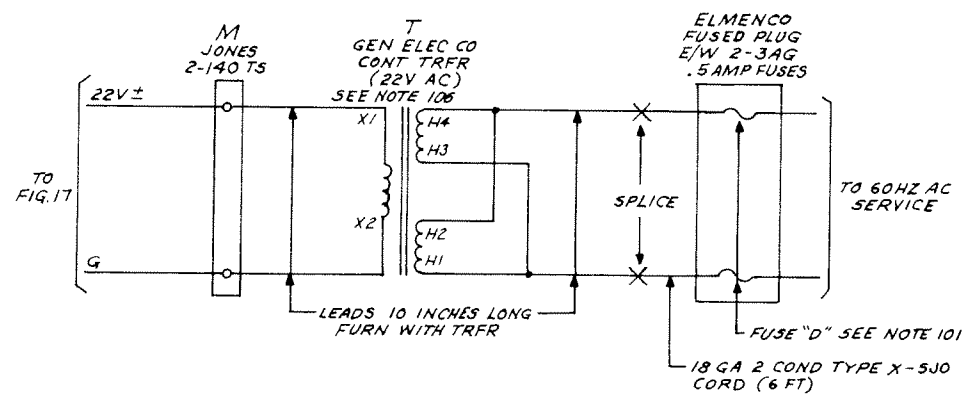


FIG. 20
50VA TRANSFORMER CKT



POSITION AND STATION

BELL TELEPHONE LABORATORIES
INCORPORATED

65

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CIRCUIT NOTES:

101.

DESIG	FUSE AMP	POTENTIAL	ONE PER
A	1-1/3	30	POSITION
B	1-1/3	30	POSITION
FA	1-1/3	30	POSITION
D	.5FN	105-125V AC	50VA TRANSFORMER
BATTERY SYMBOL			
-30			
VOLTAGE RANGE			
20-30 (WITH ZR)			
36-52 (WITH ZQ)			
SEE NOTE 113			

FEATURE OR OPTION		PROVIDE	
		FIG. OR WRG	QUANTITY
TEL. DIAL, SPLITTING & GROUPING CKTS		1, 26	1 PER POS
TEL SET JACK CKT		3	
HEAD TEL SET		E	AS REQD
HAND TEL SET		F	
SWITCHBOARD IN MANUAL AREA		D	
WITHOUT CARD DIALER	ROTARY DIAL	10 PPS	C, B, Y
	TOUCHTONE DIAL	20 PPS	C, B, Z
WITH CARD DIALER	ROTARY DIAL	10 PPS	22, B, E, Y
	TOUCHTONE DIAL	20 PPS	29, B, E, Z
TONE SIGNAL	STEADY UNTIL CUT THRU	26	ZA
	ZIP AT CUT THRU	26	ZB
VOLTAGE AT SWITCHBOARD	20-36		ZC
	36-52		NONE
POSITION GROUPING CONNECTOR		16	
LINE CONNECTING CABLE		17	1 PER POS
POWER SUPPLY CONNECTING CKT		18	
INTERCEPT CORD	WITH TRANSFER JACK SEE NOTE 108	27, B	AS REQD MAX 8
	WITH TRANSFER JACK	27, A	
STATION	CONNECTING CKT	15	1 PER POS
	CORD & KEY	4	AS REQD
	RELAY	5	MAX 3
STATION TO STATION	CONFERENCE CKT	9	
	JACK CKT	10	1 PER POS
AUXILIARY SIGNAL CKT		6	
	1ST POSITION SEE NOTE 105	X	
POSITION KEY UNITS		7	1 PER POS
PILOT	LAMP	14	
	BZZZER	12	
	AUXILIARY RINGER	11	MAX 2
BAT. DISTRIBUTING & FUSE ALARM		8	1 PER POS
FUSE ALARM BELL		13	
SWITCHBOARD CLOCK		19	AS REQD
	SUPPLY TRANSFORMER	20	1 PER 5 FIG. 19
LAMPS (FIG. 4, 7, 14) WHEN VOLTAGE IS	20-30 (USE A2)		ZR
	30-52 (USE C2)		ZQ

CIRCUIT NOTES: (CONT)

102. (CONT)

FEATURE OR OPTION	PROVIDE	
	FIG. OR WRG	QUANTITY

103.

RECORD OF FIGURES, WIRING, AND APPARATUS CHANGES						
CHANGED ON ISSUE	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT		
				STD	A&M	MD
4B	V OR W	W		V		W
5D	S OR T	T		S		T
	Q OR R	R		Q		R
6D	M OR N	N		M		N
8D	J OR K	K		J		K
9B	H	NONE		H		
10D	F OR G	G		F		G
11AC	FIG. 21	FIG. 21		FIG. 2		FIG. 2
12B	FIG. 22	NONE		FIG. 22		
	E	NONE		E		
14D	A OR B			A OR B		
15AC	FIG. 25 OR 26	FIG. 25		FIG. 26		FIG. 25
	ZA OR ZB	NONE		ZA OR ZB		
	ZC	NONE	114	ZC		
	ZF	NONE		ZF		
16B	ZD OR ZE	ZD	108, 112	ZD OR ZE		
	ZG OR ZH	ZG		ZH		ZG
19D	ZJ OR ZK	ZJ		ZK	ZJ	
20B	ZL OR ZM	ZL		ZM		ZL
	FIG. 27	FIG. 21		FIG. 27		FIG. 21
21A	FIG. 28	NONE	102	FIG. 28		
	ZN OR ZO	ZN		ZO		ZN
22B			108			ZO
	ZP, ZQ, ZR	ZP	102	ZQ ZR		ZP
	ZS OR ZT	ZS	110	ZT		ZS
	ZU OR ZV	ZU		ZV		ZU
						ZJ
	FIG. 29		102 111	FIG. 29		
	ZW OR ZX	ZW		ZX		ZW

CIRCUIT NOTES: (CONT)

104.

NETWORK VALUES			
NETWORK		RESISTANCE IN OHMS	CAPACITY IN UF
NO.	CODE		
1	185A	470	.11
2	186A	120	.35

105. OPTION X SHALL BE REMOVED IN ALL EXCEPT THE FIRST POSITION OF LINE-UP WHEN PBX IS CONNECTED TO CHARGE AND DISCHARGE CIRCUIT ARRANGED FOR VOLTAGE CONTROL. SERIES WIRING OF CC AND X LEADS SHALL BE CONNECTED LOCALLY AT EXTERNAL TERMINATION.

106. PRIOR TO ISSUE 22B CLOCK SUPPLY TRANSFORMER WAS GENERAL ELECTRIC CATALOGUE NO. 9T51Y1266. NEW CATALOGUE NO. IS 9T51Y2141. MAXIMUM LOAD PER TRANSFORMER IS FIVE KS-14156 CLOCKS. MAXIMUM CONDUCTOR LOOP TO FIRST CLOCK IS 3.72 OHMS.

107. SUPPLY VOLTAGE MAY BE OBTAINED FROM ONE 2075A TRANSFORMER (MD) PER ROTARY CARD DIALER. THE CARD DIALER HAS A POWER DRAIN OF 3 WATTS. THE VOLTAGE AT TERMINALS P1 AND P2 SHALL BE WITHIN 13-18 VOLTS.

108. WHEN TOUCHTONE CALLING IS PROVIDED FOR SWITCHBOARDS PRIOR TO ISSUE 22B HAVING TRANSFER JACKS, REMOVE ZO OPTION AND ADD ZE OPTION.

109. DO NOT PROVIDE POLARITY GUARDS WITH TOUCHTONE TELEPHONE SETS.

110. PRIOR TO ISSUE 22B, ZS OPTION WAS PART OF F OPTION.

111. DIALER TRANSFORMER, FIG. 29, PLUGS INTO CONVENIENCE OUTLET. MOUNT AND WIRE ON A JOB BASIS.

112. PRIOR TO ISSUE 21A, ZO AND ZE OPTIONS WERE SHOWN ONLY IN FIG. B AS A TIP/RING TRANSPOSITION. OPTIONS ZO AND ZE ARE REVISED ON ISSUE 21A TO AGREE WITH T-65731-32.

113. WHERE PBX IS LOCALLY POWERED IT IS EXPECTED THAT THE VOLTAGE RANGE WILL BE 20-30V, USE ZR OPTION. WHERE PBX IS POWERED OVER CABLE PAIRS FROM 48V CENTRAL OFFICE BATTERY CABLE RESISTANCE SHALL BE ENGINEERED TO PROVIDE MIN 30V AT PBX, USE ZO OPTION LAMPS.

EQUIPMENT NOTES:

201. JACKS FOR FIG. 10 ARE SPARE IN STRIP PROVIDED FOR FIG. B OR ON STRIP PROVIDED FOR TRUNKS.

202. ALL LOCAL CABLE WIRES FOR BATTERY, GROUND, AND GENERATOR SHALL BE 20BH WIRE.

203. LINE CABLE SHALL BE CONNECTED TO INDIVIDUAL PLUGS USING COLOR CODE SEQUENCE IN AGREEMENT WITH FIG. 4 OF INSTALLATIONS AND MAINTENANCE SPECIFICATION BSP B523.613.

204. SPRINGS 3,5; 6,7; 8,9; 10,11, MAKE BEFORE 1,2; 3,4; 5,7; 8, 10 BREAK.

205. THE CHANGE FROM FIG. 2 TO FIG. 21 ON ISSUE 11AC APPLIES ONLY TO NEW MANUFACTURE AND EQUIPMENT STILL IN STOCK AT WECO. WECO WILL NOT MAKE THIS CHANGE ON EQUIPMENT NOW IN THE FIELD.

206. WIRING BETWEEN TERMINALS 2 AND 4 OF INDUCTION COILS (AA) AND (AB) AND SOCKET (M) SHALL BE PAIRED.

207. FIG. A IS A BARE WIRE STRIP AT TERMINALS 1 AND 3 OF SOCKET (A).

208. PLACE RESISTOR 8 (ZX OPTION) ON SOCKET D AND POSITION TO AVOID CONTACT WITH WIRES.

POSITION AND STATION

BELL TELEPHONE LABORATORIES
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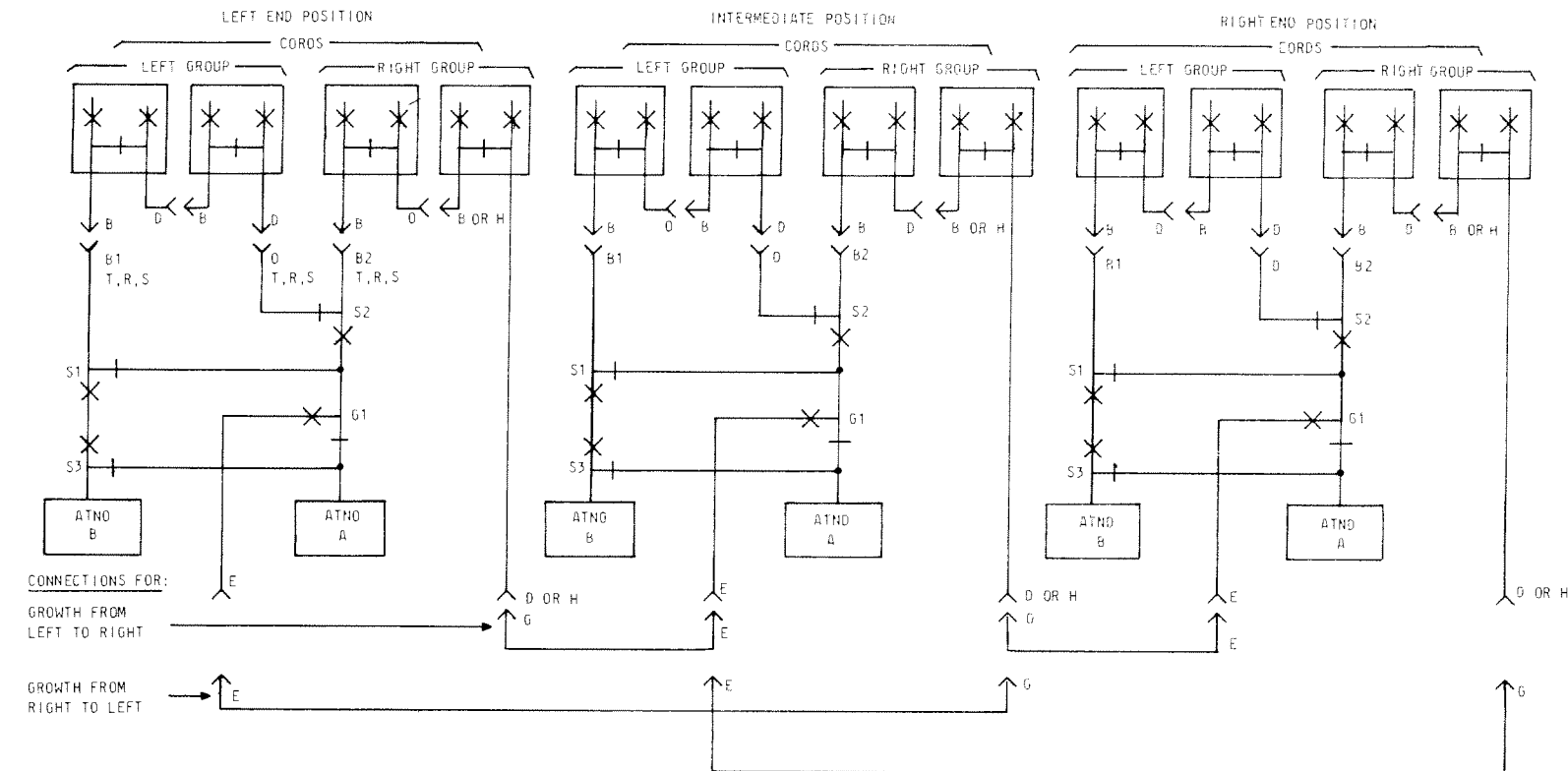
SD-65731-01-D1

INFORMATION NOTES:

301. UNLESS OTHERWISE SPECIFIED:
RESISTANCE VALUES ARE IN OHMS
CAPACITANCE VALUES ARE IN MICROFARADS
INDUCTION COIL, INDUCTOR, TRANSFORMER VALUES ARE IN OHMS.
VALUES PRECEDED BY THE SYMBOL + (PLUS) OR - (MINUS)
ARE IN VOLTS.

302. INTERCEPT CORD CIRCUIT, FIG. 2, IS DIVIDED INTO TWO GROUPS FOR POSITION SPLITTING PURPOSES. A GROUP MAY CONSIST OF ANY NUMBER OF CORD CIRCUITS FROM ONE TO SEVEN. CONNECT PLUG (B) OF FIRST FIG. 2 IN FIRST GROUP TO SOCKET (B1) OF FIG. 1. CONNECT PLUG (B) OF FIRST FIG. 2 IN SECOND GROUP TO SOCKET (B2) OF FIG. 1.

303. SPLITTING AND GROUPING ARRANGEMENT:



CONNECTIONS FOR:

GROWTH FROM
LEFT TO RIGHT

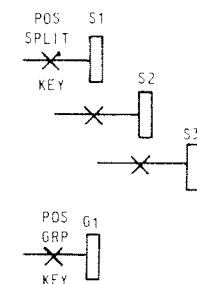
GROWTH FROM
RIGHT TO LEFT

SPLIT:

ATTENDANT "A" USES RIGHT CORD GROUP (2-WAY TRAFFIC)
ATTENDANT "B" USES LEFT CORD GROUP (ANSWER ONLY)

GROUPING:

ATTENDANT "A" AT LOW NUMBERED POSITION.
OPERATE GROUP KEY IN HIGHER NUMBERED POSITIONS.
ATTENDANT IS CHAIN CONNECTED TO EVERY CORD IN HOME AND GROUPED POSITIONS.



TRANSMISSION TEST REQUIREMENTS (1000 CYCLE LOSS BETWEEN 600Ω LINES)				
(AA) OR (AB)	(AA) OR (AB)	(AR) OR (BR)	(AR)* OR (BR)*	MAX ALLOWABLE CIRCUIT LOSS (db)
IND COIL	IND COIL	IND COIL	IND COIL	TEMP °F
70°	80°	90°	100°	110°
10.7	6.3	6.5	6.7	6.8
7.0				
ALLOWABLE INDIVIDUAL APPARATUS LOSSES (db)				
APPARATUS	DESIG	CODE	MAX LOSS	MIN LOSS
CAPACITOR	AA OR AB	2 UF	13.7	11.7
CAPACITOR	AA OR AB	3 UF	17.2	15.1
IND COIL	AA OR AB	181B	11.1	9.3
INDR	AA OR AB	274AH	0.2	
RELAY	AA OR AB	B617	0.6	
VARISTOR	A OR B	33L		

NOTES:

1. FOR METHOD OF MAKING INDIVIDUAL APPARATUS LOSS TEST, SEE B5P ON TRANSMISSION TEST OF VARISTORS.

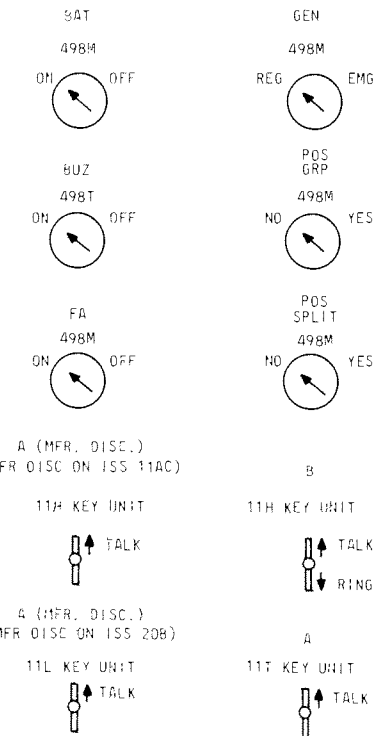
REQUIREMENTS USING 12 db PAD.

TEMPERATURE AT VAR.

INDIVIDUAL LOSS 33L VAR.

LOSSES FOR TEMPERATURES OTHER THAN THOSE LISTED ABOVE MAY BE DETERMINED BY INTERPOLATION.

2. * INDICATES APPARATUS FOR WHICH INDIVIDUAL LOSS IS NOT REQUIRED.



WORKING LIMITS STATION SIGNALING AND SUPERVISION

MAX COND LOOP RES	20V	24V
MIN INSULATION RES	1300Ω	1700Ω
	20,000Ω	20,000Ω

POSITION AND STATION

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