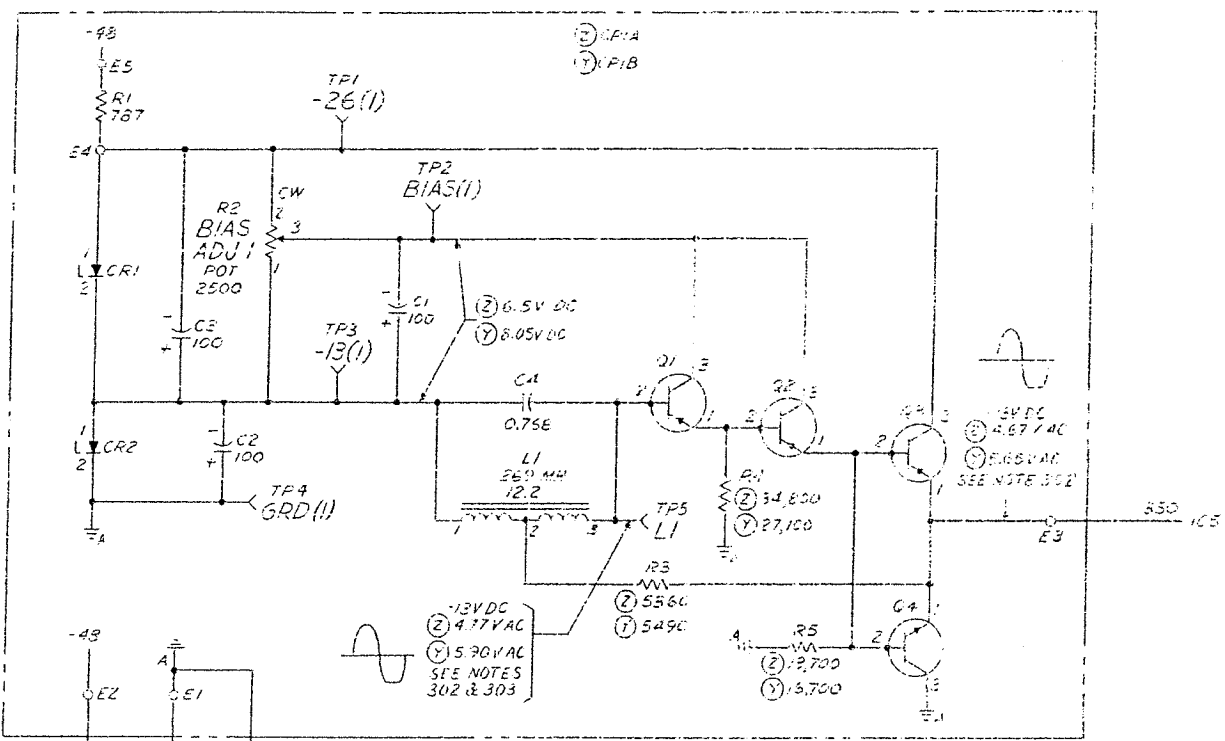


0 1 2 3 4 5 6 7 8 9

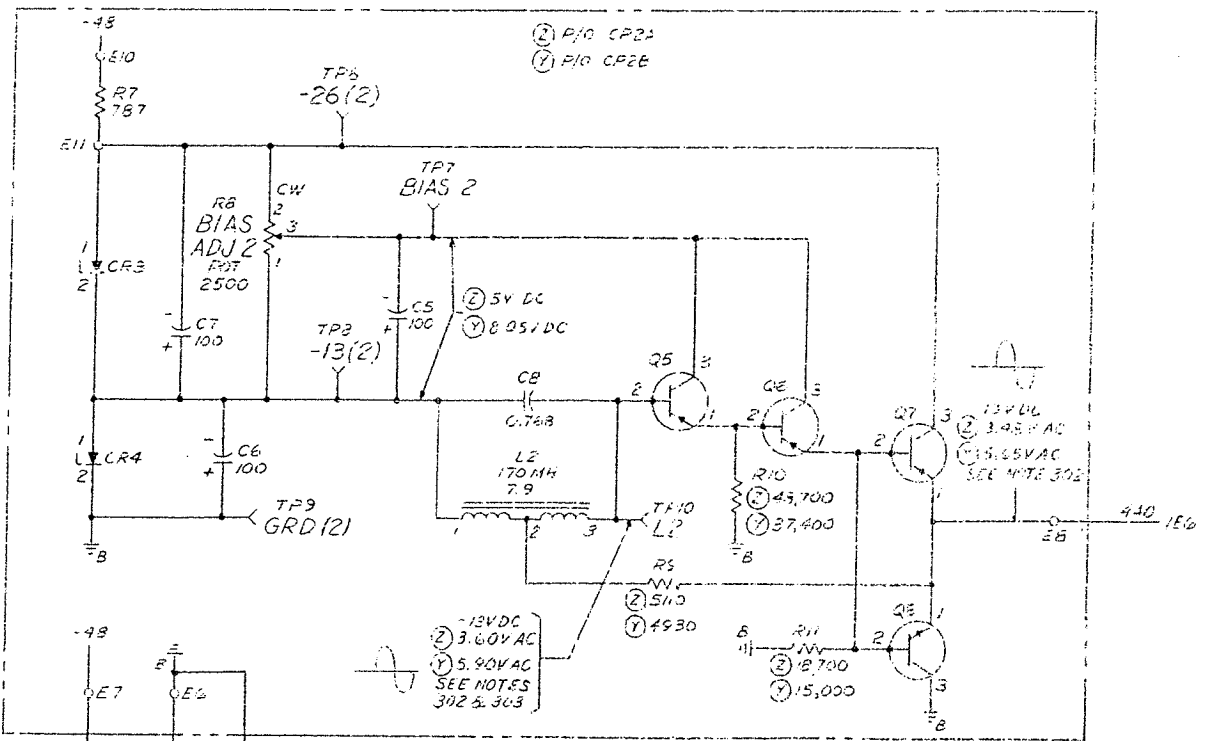
FS 1

350 CPS FREQUENCY GENERATOR



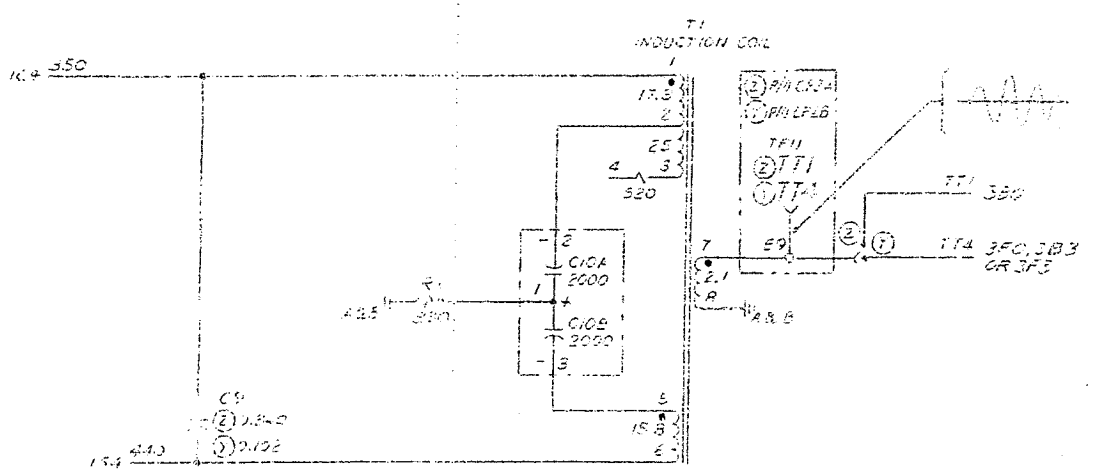
FS 2

440 CPS FREQUENCY GENERATOR



FS 3

SUMMING CIRCUIT



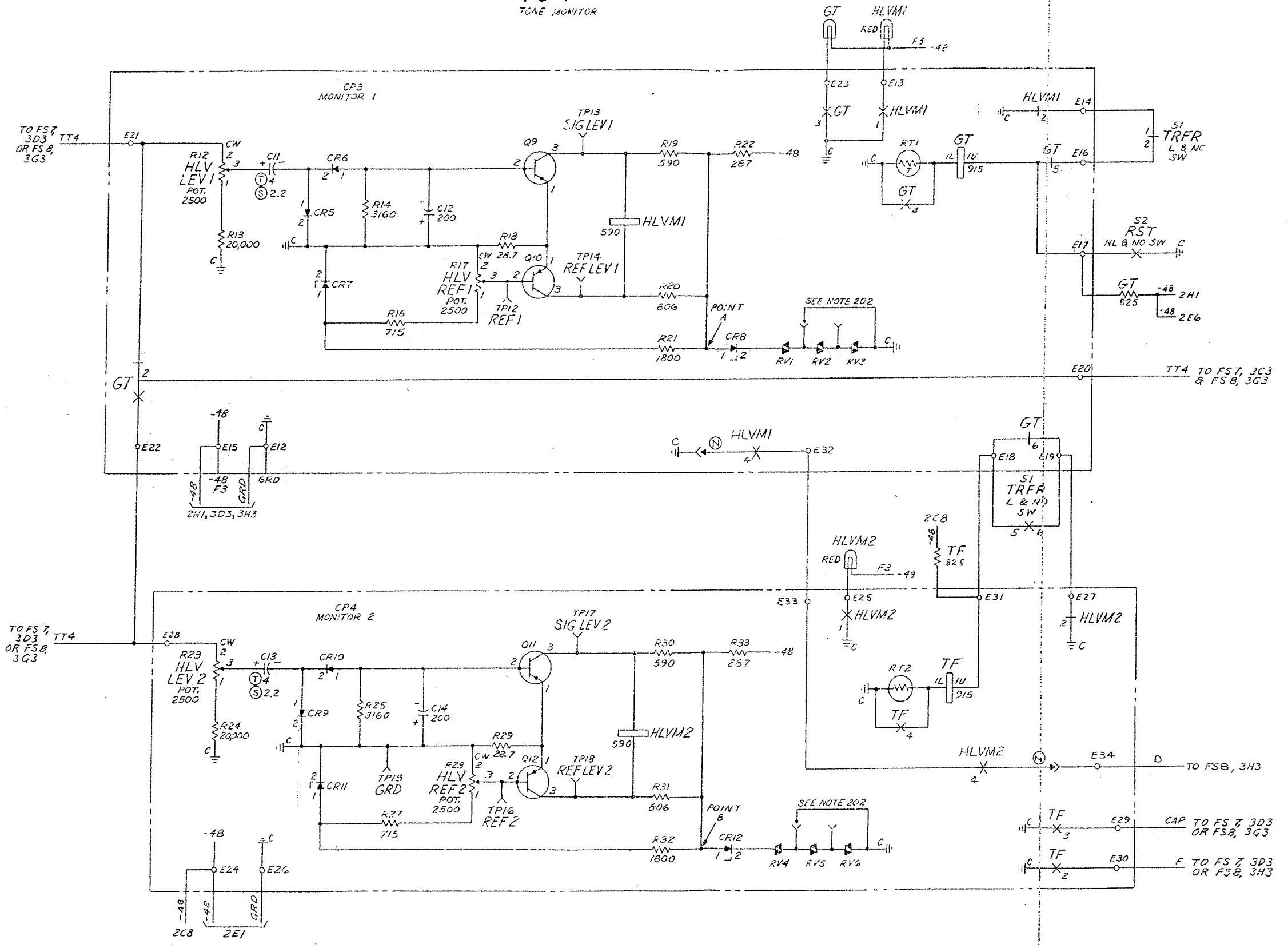
DRAWING	ISSUE
1	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1

SD-81719-01-B1

0 1 2 3 4 5 6 7 8 9

FS 4 TONE MONITOR

DRAWING ISSUE	
1	WH
2A	WH
3A	WH
4A	WH
7A	WH
8B	WH

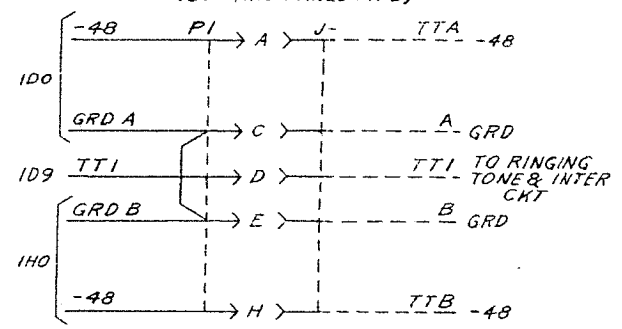


SD-81719-01-B2

0 1 2 3 4 5 6 7 8 9

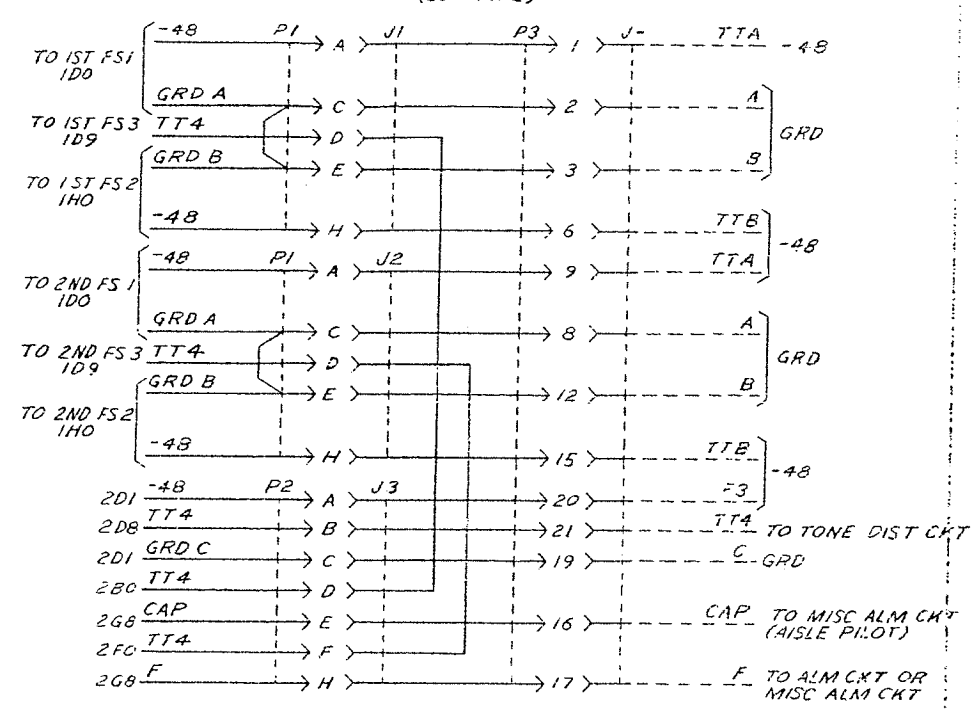
② FS 5

FOR 404A & 404C
(BOX AND PANEL TYPE)



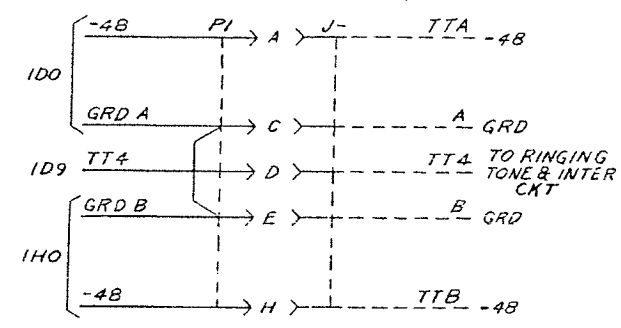
① FS 7

FOR 405A (MFR DISC) AND 405C
(BOX TYPE)



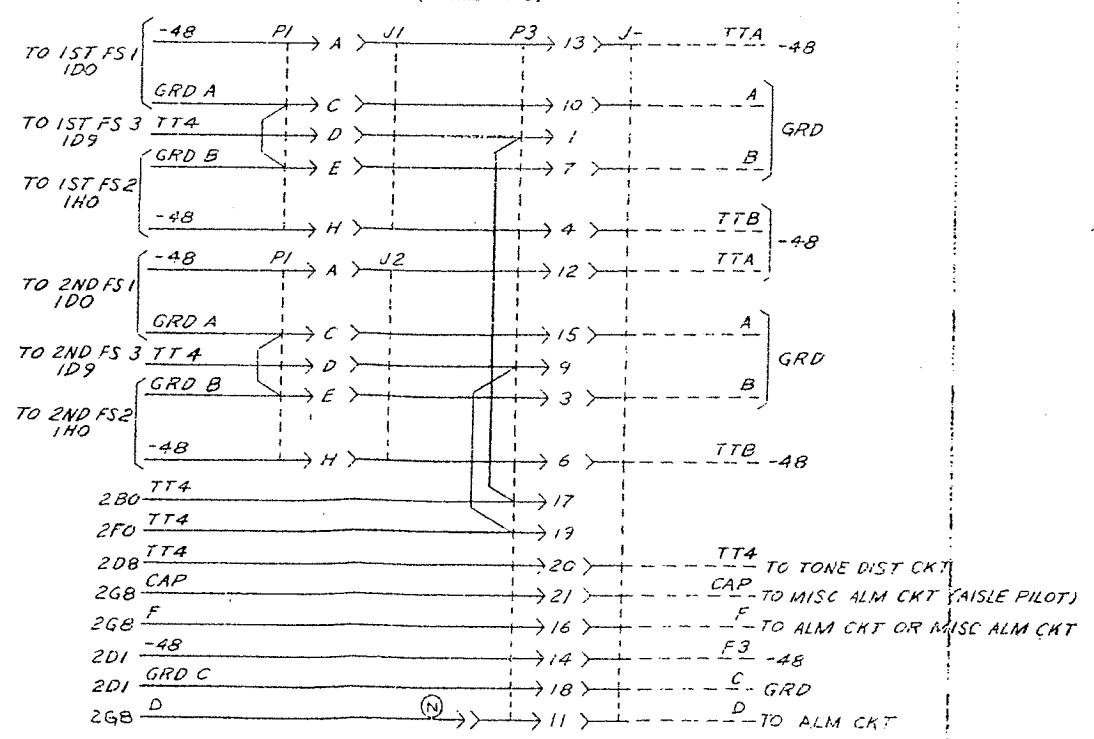
① FS 6

FOR 404B & 404D
(BOX AND PANEL TYPE)



① FS 8

FOR 405B (MFR DISC) AND 405D
(PANEL TYPE)



DRAWING	FILE
ISSUE	2AR
	WH
	FC
	BB

A
B
C
D
E
F
G
H

SD-81719-01-B3

POWER SYSTEMS SIGNALING CIRCUIT	②	SD-81719-01-B3
BELL TELEPHONE LABORATORIES INCORPORATED	65	

0 1 2 3 4 5 6 7 8 9

APP FIG. 1

CIRCUIT PACK				
DESIG	(CP1A)		(CP1B)	
CODE	A-156290		A-156291	
OPTION	Z		Y	
TERM	DESIG	FS LOC	DESIG	FS LOC
E5		1A0		1A0
E4		1A0		1A0
E3	350	1C4	350	1C4
E2	-4BTTA	1D0	-4BTTA	1D0
E1	GRD	1D0	GRD	1D0

APP FIG. 2

CIRCUIT PACK				
DESIG	(CP2A)		(CP2B)	
CODE	A-156292		A-156293	
OPTION	Z		Y	
TERM	DESIG	FS LOC	DESIG	FS LOC
E11		1E0		1E0
E10		1E0		1E0
E9		1D3		1D3
E8	440	1G4	440	1G4
E7	-4BTTB	1H0	-4BTTB	1H0
E6	GRD	1H0	GRD	1H0

CAPACITOR

DESIG	LOC	CODE
C9	1E6	② 535AD
		① 535DY
[1] C10A,B	1C7	KS-19039
		2000,2000

APP FIG. 3

PLUG (CONNECTOR)

DESIG	P1	P1
CODE	KS-14527,L1	KS-14527,L1
OPTION	Z	Y
TERM	LOC	LOC
A	3A1	3A4,3E1,3E4
B		
C	3A1	3A4,3E1,3E4
D	3A1	3A4,3E1,3E4
E	3A1	3A4,3E1,3E4
F		
H	3A1	3A4,3E1,3E4

RESISTOR

DESIG	LOC	CODE
R6	1D7	KS-13491,L1,330

TRANSFORMER, INDUCTION COIL

DESIG	LOC	CODE
T1	1C8	181C

APP FIG. 4

CIRCUIT PACK

DESIG	(CP3)	
CODE	A-156290	
OPTION	Y	
TERM	DESIG	FS LOC
E23	2A5	2E6
E22		2D0
E21		2B0
E20		2E7
E19		2D7
E18		2D6
E17		2B7
E16		2B7
E15	-4BF3	2D1
E14		2A7
E13		2A6
E12	GRD	2D1

CIRCUIT PACK

DESIG	(CP4)	
CODE	A-156291	
OPTION	Y	
TERM	DESIG	FS LOC
E31		2E6
E30		2G7
E29		2G7
E28		2F1
E27		2E7
E26	GRD	2G1
E25		2E5
E24	-4BF3	2G1

LAMP

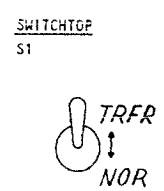
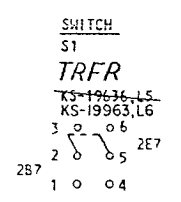
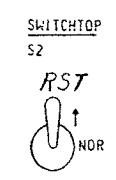
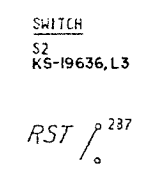
DESIG	LOC	CODE
GT	2A5	2Y
HLVM1	2A6	2Y (RED)
HLVM2	2E5	2Y (RED)

PLUG (CONNECTOR)

DESIG	P2
CODE	KS-14527,L1
OPTION	Y
TERM	LOC
A	3C4
B	3C4
C	3C4
D	3C4
E	3C4
F	3C4
H	3C4

RESISTOR

DESIG	LOC	CODE
GT	2C7	KS-8512,L4A,825
TF	2E6	KS-8512,L4A,825



APP FIG. 5

CONNECTOR (SOCKET)

DESIG	J1	J2	J3
CODE	KS-14528,L1	KS-14528,L1	KS-14528,L1
OPTION	Y	Y	Y
TERM	LOC	LOC	LOC
A	3A4	3B4	3C4
B			3C4
C	3A4	3B4	3C4
D	3A4	3B4	3C4
E	3A4	3B4	3C4
F			3C4
H	3A4	3B4	3C4

PLUG (CONNECTOR)

DESIG	P3
CODE	KS-14671,L1
OPTION	Y
TERM	LOC
1	3A5
2	3A5
3	3A5
4	
5	
6	3A5
7	
8	3A5
9	3A5
10	
11	
12	3A5
13	
14	
15	3A5
16	3A5
17	3A5
18	
19	3A5
20	3A5
21	3A5

DRAWING ISSUE
2AR
4A
7A

ISSUE
100

SD-81719-01-C1

SIGNALING CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

SD-81719-01-C1

65

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0 1 2 3 4 5 6 7 8 9

APP FIG. 6

CIRCUIT PACK

DESIG (CP3)		
CODE A-156290		
OPTION		
TERM	DESIG	FS LOC
E23		2A5
E22		2D0
E21		2B0
E20		2E7
E19		2D7
E18		2D6
E17		2B7
E16		2B7
E15	-48F3	2D1
E14		2A7
E13		2A6
E12	GRD	2D1

CIRCUIT PACK

DESIG (CP4)		
CODE A-156291		
OPTION		
TERM	DESIG	FS LOC
E31		2E6
E30		2G7
E29		2G7
E28		2F1
E27		2E7
E26	GRD	2G1
E25		2E5
E24	-48F3	2G1

LAMP

DESIG	LOC	CODE
GT	2A5	2Y
H.VM1	2A6	2Y (RED)
H.VM2	2E5	2Y (RED)

PLUG (CONNECTOR)

DESIG	P3
CODE	KS-14671-L1
OPTION	Y
TERM	LOC
1	3E5
2	
3	3E5
4	3E5
5	
6	3E5
7	3E5
8	
9	3E5
10	3E5
11	3E5
12	3E5
13	3E5
14	3E5
15	3E5
16	3E5
17	3E5
18	3E5
19	3E5
20	3E5
21	3E5

RESISTOR

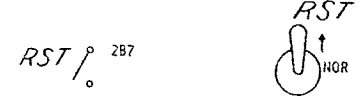
DESIG	LOC	CODE
GT	2C7	KS-8512, L4A, B25
TF	2E6	KS-8512, L4A, B25

SWITCH

S2	KS-19636, L3
----	--------------

SWITCHTOP

S2	
----	--



SWITCH

S1	KS-19636, L5
----	--------------

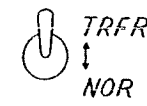
TRFR

3 2 1 6 5 4

2B7

SWITCHTOP

S1	
----	--



APP FIG. 7

CONNECTOR (SOCKET)

DESIG	J1	J2
CODE	KS-14528, L1	KS-14528, L1
OPTION	Y	Y
TERM	LOC	LOC
A	3E4	3F4
B		
C	3E4	3F4
D	3E4	3F4
E	3E4	3F4
F		
H	3E4	3F4

DRAWING ISSUE

2AR
4A
7A
8B

ISSUE

9D

SIGNALING CIRCUIT

BELL TELEPHONE LABORATORIES INCORPORATED

SD-81719-01-C2

65

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SD-81719-01-C2

CIRCUIT NOTES:

DESIG	FUSE AMP	POTENTIAL	ONE PER
TTA	1-1/3	-48	CKT
TTB	1-1/3	-48	CKT
F3	1-1/3	-48	APP FIG. 4
A		GRD	CKT
B		GRD	CKT
C		GRD	APP FIG. 4
BATTERY SYMBOL		VOLTAGE RANGE	
-48		② 45-52.6 ① 44-52	

CIRCUIT NOTES: (CONT)

FEATURE OR OPTION	APP FIG	APP OR WRG	QUANTITY	QUANTITY-FACTORY FURNISHED OPTIONS (SEE NOTE 204)				
				404A	404B	404C	404D	
DUPLICATE GEN WITH MON AND AUTO TR CKT SXS	1,2,3	Y	TWO PER CKT	✓	✓			
	4		ONE PER CKT	✓		✓		
	5		ONE PER CKT	✓				
	6		ONE PER CKT	✓			✓	
	7		ONE PER CKT	✓			✓	

EQUIPMENT NOTES:

- ALL WIRES SHALL BE BH WIRE, 22 GAUGE, UNLESS OTHERWISE SPECIFIED.
- STRAP OUT VARISTORS PER THE MANUFACTURING TESTING REQUIREMENTS SECTION OF CD-81719-01.
- EACH 48V BATTERY LEAD SHALL HAVE ITS OWN GROUND LEAD PAIRED WITH IT.
- APPARATUS ARRANGEMENTS:

404A	404C	
404B BOX	404D	PANEL
405A TYPE	405B	TYPE
10A	10B	
- APPARATUS ARRANGEMENTS:

404A	404C	
404B BOX	404D	PANEL
405C TYPE	405D	TYPE
10C	10D	

INFORMATION NOTES:

- UNLESS OTHERWISE SPECIFIED: RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, VALUES PRECEDED BY THE SYMBOL +(PLUS) OR -(MINUS) ARE IN VOLTS.
- THESE VOLTAGE VALUES ARE FURNISHED FOR USE IN TROUBLE SHOOTING THE CIRCUIT, AND SHOULD ONLY BE MEASURED WITH AN OSCILLOSCOPE.
- WHEN MEASURING THESE VOLTAGE VALUES A SCOPE PROBE WITH A 10 MEGOHM INPUT IMPEDANCE MUST BE USED.

DRAWING ISSUE

1	AW
2	AW
3	AW
4	AW
5	AW
6	AW
7	AW
8	AW
9	AW
10	AW
11	AW
12	AW
13	AW
14	AW
15	AW
16	AW
17	AW
18	AW
19	AW
20	AW
21	AW
22	AW
23	AW
24	AW
25	AW
26	AW
27	AW
28	AW
29	AW
30	AW
31	AW
32	AW
33	AW
34	AW
35	AW
36	AW
37	AW
38	AW
39	AW
40	AW
41	AW
42	AW
43	AW
44	AW
45	AW
46	AW
47	AW
48	AW
49	AW
50	AW
51	AW
52	AW
53	AW
54	AW
55	AW
56	AW
57	AW
58	AW
59	AW
60	AW
61	AW
62	AW
63	AW
64	AW
65	AW
66	AW
67	AW
68	AW
69	AW
70	AW
71	AW
72	AW
73	AW
74	AW
75	AW
76	AW
77	AW
78	AW
79	AW
80	AW
81	AW
82	AW
83	AW
84	AW
85	AW
86	AW
87	AW
88	AW
89	AW
90	AW
91	AW
92	AW
93	AW
94	AW
95	AW
96	AW
97	AW
98	AW
99	AW
100	AW

102.

FEATURE OR OPTION	APP FIG	APP OR WRG	QUANTITY	QUANTITY-FACTORY FURNISHED OPTIONS (SEE NOTE 205)							
				404A	404B	404C	404D	405C	405D	10C	10D
CSBR SINGLE GEN	1,2,3	Z	ONE PER CKT	✓	✓						
SINGLE GEN	1,2,3	Y	ONE PER CKT	✓	✓						
DUPLICATE GEN WITH MON AND AUTO TR CKT	1,2,3	Y	TWO PER CKT			✓	✓				
SXS	4	S,N,Q	ONE PER CKT			✓	✓				
	5		ONE PER CKT			✓					
	6	S,N,Q	ONE PER CKT			✓	✓				
	7		ONE PER CKT			✓					

103.

CHANGED OR ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT		
				MD	A & M	STD
8B	S OR T	T		S		T
8S	Q OR R	R		Q		R
8B	N	NONE		N		
9D	RESISTORS			KS-14603, L2A, 787		KS-20289, L5A, 737
				KS-14603, L2A, 787		KS-20289, L5A, 737
				KS-16313, L6A, 34,800		KS-20410, L1A, 34,800
				KS-16313, L6A, 18,700		KS-20410, L1A, 18,700
				KS-16313, L6A, 27,100		KS-20410, L1A, 27,100
				KS-16313, L6A, 16,700		KS-20410, L1A, 16,700
				KS-16313, L6A, 48,700		KS-20410, L1A, 48,700
				KS-16313, L6A, 37,400		KS-20410, L1A, 37,400
				KS-16313, L6A, 15,000		KS-20410, L1A, 15,000
				106A, 5360		KS-20410, L1A, 5360
				106A, 5490		KS-20410, L1A, 5490
				106A, 5110		KS-20410, L1A, 5110
				106A, 4930		KS-20410, L1A, 4930
		10D	THERMISTORS			KS-19107, L5, 2.2
				ID		BE
	SWITCHES			KS-19636, L5		KS-19963, L6

ISSUE 10D

POWER SYSTEMS SIGNALLING CIRCUIT		SD-81719-01-D1
BELL TELEPHONE LABORATORIES INCORPORATED		
6S		PRINTED IN U.S.A.

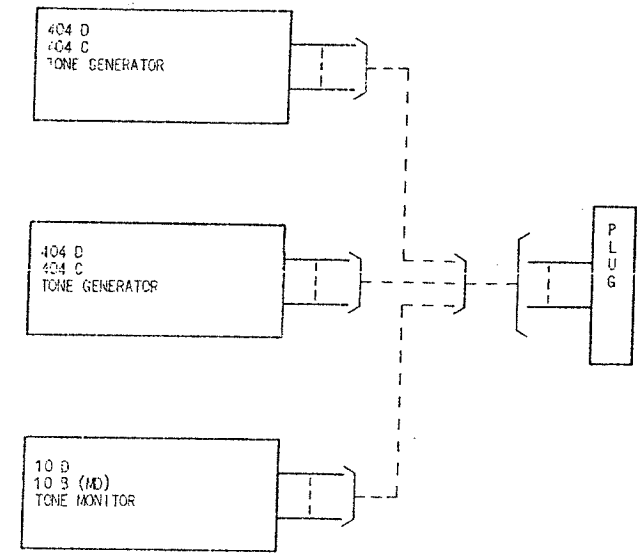
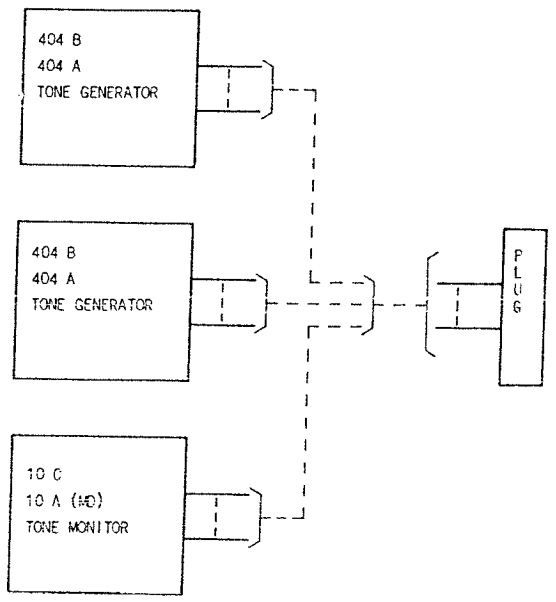
31

DRAWING
ISSUE

BLOCK DIAGRAM OF 405 TYPE TONE GENERATORS
SEE NOTES 102 AND 205

BD 1
BOX TYPE TONE GENERATORS
405 C
405A (MFR DISC)

BD 2
PANEL TYPE TONE GENERATORS
405 D
405B (MFR DISC)



SD-81719-01-H1

ISSUE
100

POWER SYSTEMS
SIGNALING CIRCUIT

BELL TELEPHONE LABORATORIES
INCORPORATED

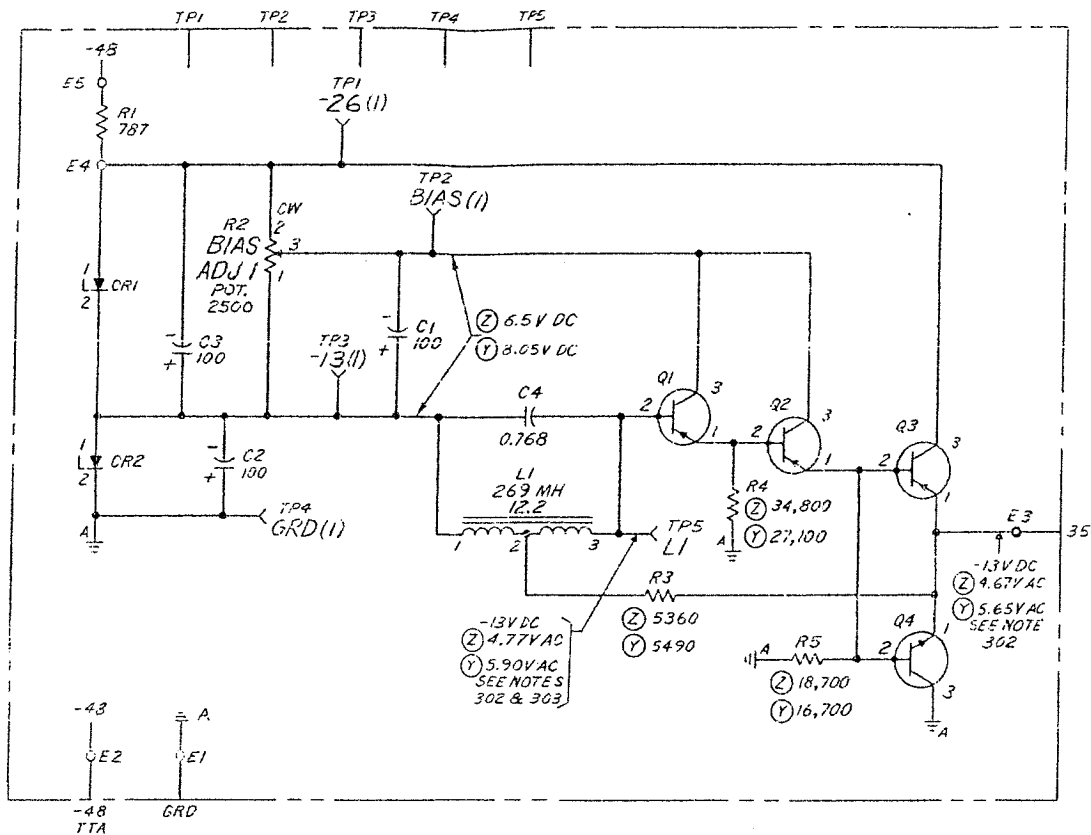
SD-81719-01-H1

6S

② CPS 1A
 ① CPS 1B
 350 CPS FREQUENCY GENERATOR

MANUFACTURING REFERENCES	
CATEGORY	NO.
CIRCUIT PACK	
CP1A	A-156280
CP1B	A-156281

SYMBOL
CP SHOWN IN DETAIL IN FS



COMPONENT LIST

CAPACITOR

DESIG	CODE
C1	KS-16390, L6, 100
C2	
C3	
C4	

DIODE

DESIG	CODE
CR1	(X) MOTOROLA IN3023B
CR2	(W) KS-19923, L16

INDUCTOR

DESIG	CODE
L1	1558D

JACK

DESIG	CODE
TP1	KS-19427, L9
TP2	
TP3	
TP4	KS-19427, L10
TP5	KS-19427, L9

POTENTIOMETER

DESIG	CODE
R2	(V) KS-14786, L14, 2500
	(U) KS-14786, L15, 2500

RESISTOR

DESIG	CODE
R1	KS-14603, L2A KS-20289, L5A, 787
R3	(Z) 706A KS-20810, L1A, 5360
	(Y) 706A KS-20810, L1A, 5490
R4	(Z) KS-16313, L4A KS-20810, L1A, 34,800
	(Y) KS-16313, L4A KS-20810, L1A, 27,100
R5	(Z) KS-16313, L4A KS-20810, L1A, 18,700
	(Y) KS-16313, L4A KS-20810, L1A, 16,700

TRANSISTOR

DESIG	CODE
Q1	12G
Q2	12G
Q3	31C
Q4	30C

INPUT/OUTPUT INFORMATION
SHOWN IN CD-81719-01

CIRCUIT DESCRIPTION
SHOWN IN CD-81719-01

NOTES:

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

- $\frac{1}{A}$ GROUND RETURN.

- OPERATIONAL REQUIREMENTS INFORMATION
IS PART OF CD-81719-01.

RECORD OF CHANGES				
DWG	PREV	STD	MFR	SEE
ISS	FURN	DISC	DISC	NOTE
5B	X	W	X	
6B	V	U	V	

ISSUE
9D

SIGNALING CIRCUIT	② SD-81719-01-J1
BELL TELEPHONE LABORATORIES INCORPORATED	65

SD-81719-01-J1

© CPS 2A
 © CPS 2B
 4.40 CPS FREQUENCY GENERATOR

COMPONENT LIST

CAPACITOR

DESIG	CODE
C5	KS-16390, L6, 100
C6	
C7	
C8	
	5770

DIODE

DESIG	CODE
CR3	(X) MOTOROLA 1N3023B
CR4	(W) KS-19923, L16

INDUCTOR

DESIG	CODE
L2	1558E

JACK

DESIG	CODE
TP6	KS-19427, L9
TP7	
TP8	KS-19427, L10
TP9	
TP10	KS-19427, L9
TP11	

POTENTIOMETER

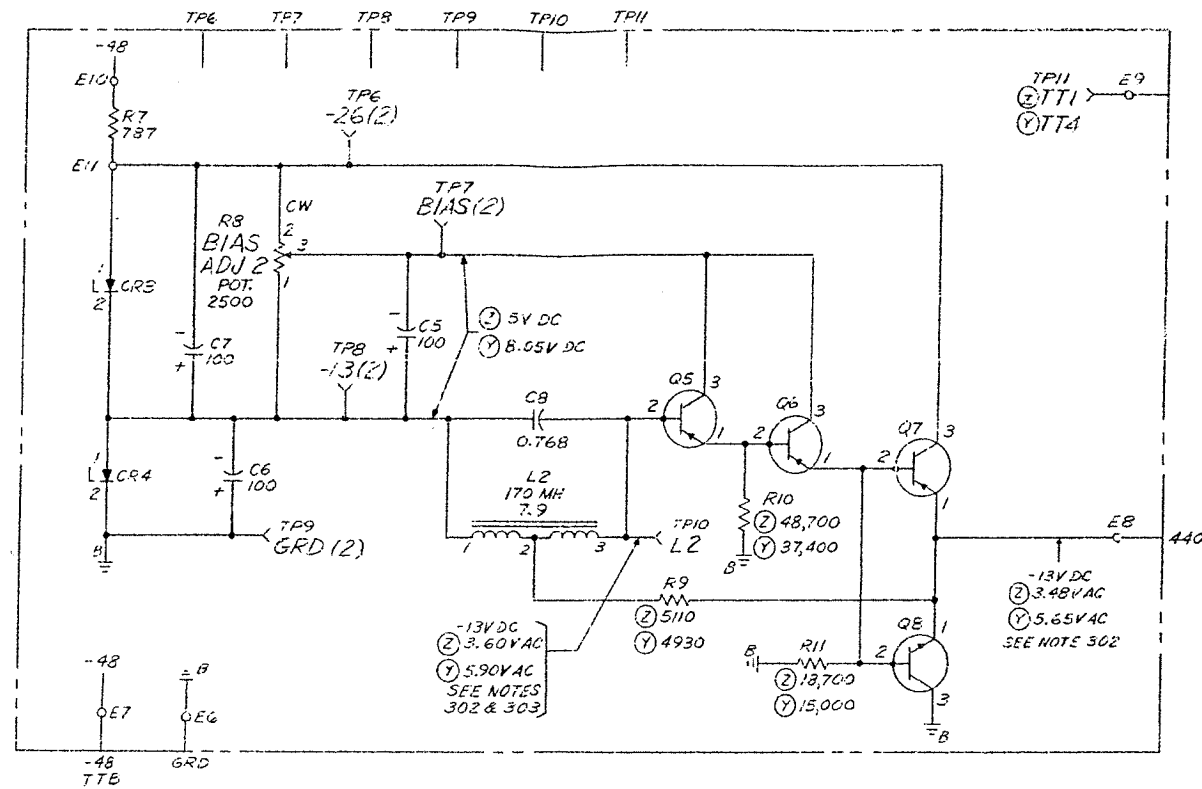
DESIG	CODE
RB	(V) KS-14786, L14, 2500
	(U) KS-14786, L15, 2500

RESISTOR

DESIG	CODE
R7	KS-14603, L2A KS-20289, L5A, 787
R9	(Z) T66A KS-20810, L1A, 5110
	(Y) T66A KS-20810, L1A, 4930
R10	(Z) KS-16313, L6A KS-20810, L1A, 48,700
	(Y) KS-16313, L6A KS-20810, L1A, 37,400
R11	(Z) KS-16313, L4A KS-20810, L1A, 18,700
	(Y) KS-16313, L4A KS-20810, L1A, 15,000

TRANSISTOR

DESIG	CODE
Q5	12G
Q6	12G
Q7	31C
Q8	30C



INPUT/OUTPUT INFORMATION
 SHOWN IN CD-81719-01

CIRCUIT DESCRIPTION
 SHOWN IN CD-81719-01

MANUFACTURING REFERENCES

CATEGORY	NO.
CIRCUIT PACK	
CP2A	A-156282
CP2B	A-156283

SYMBOL
 CP SHOWN IN DETAIL IN FS

NOTES:

- UNLESS OTHERWISE SPECIFIED:
 RESISTANCE VALUES ARE IN OHMS,
 CAPACITANCE VALUES ARE IN MICROFARADS,
 VALUES PRECEDED BY THE SYMBOL +(PLUS) OR -(MINUS) ARE IN VOLTS.
- $\frac{1}{\beta}$ GROUND RETURN
- OPERATIONAL REQUIREMENTS INFORMATION
 IS PART OF CD-81719-01.

RECORD OF CHANGES

DWG	PREV	STD	MFR	SEE
ISS	FURN	DISC	NOTE	
SB	X	W	X	
6B	V	U	V	

ISSUE

9D

SIGNALING CIRCUIT

(2)

SD-81719-01-J2

BELL TELEPHONE LABORATORIES
 INCORPORATED

6S

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CPS 3
MONITOR 1

COMPONENT LIST

RELAY			
DESIG	GT	HLVMI	
CODE	(R) MB3	(R) MA3	
	(Q) MB3A	(Q) MA3A	
OPTION			
	CONT	LOC	CONT
	ARR	ARR	LOC
6	B	3E4	
5	EBM	3E7	
4	M	3E6	M 3D7
3	M	3A6	B 3E7
2	EBM	3C2	B 3E7
1	EMB	M	3A6
COIL	3E6		3B6

RELAYS NOT ADJUSTABLE, REPLACE WHEN THERE IS MALFUNCTION.

CAPACITOR

DESIG	CODE
C11	(1) 601A, 4
C12	(5) KS-19427, L5, KS-20736, L8, 2.2 KS-16390, L7

DIODE

DESIG	CODE
CR5	458B
CR6	458B
CR7	446B
CR8	1N3798B (MOTOROLA 1.5M2425)

JACK

DESIG	CODE
TP12	KS-19427, L9
TP13	
TP14	

POTENTIOMETER

DESIG	CODE
R12	(V) KS-14786, L14, 2500
R17	(U) KS-14786, L15, 2500

RESISTOR

DESIG	CODE
R13	+45A- KS-20810, L14, 20,000*
R14	+45A- KS-20810, L1A, 3160*
R16	KS-14603, L3C, 715
R18	KS-14603, L3C, 28.7
R19	KS-14603, L1C, 590
R20	KS-14603, L3C, 806
R21	KS-13490, L1, 1800
R22	KS-14603, L2A, 287

THERMISTOR

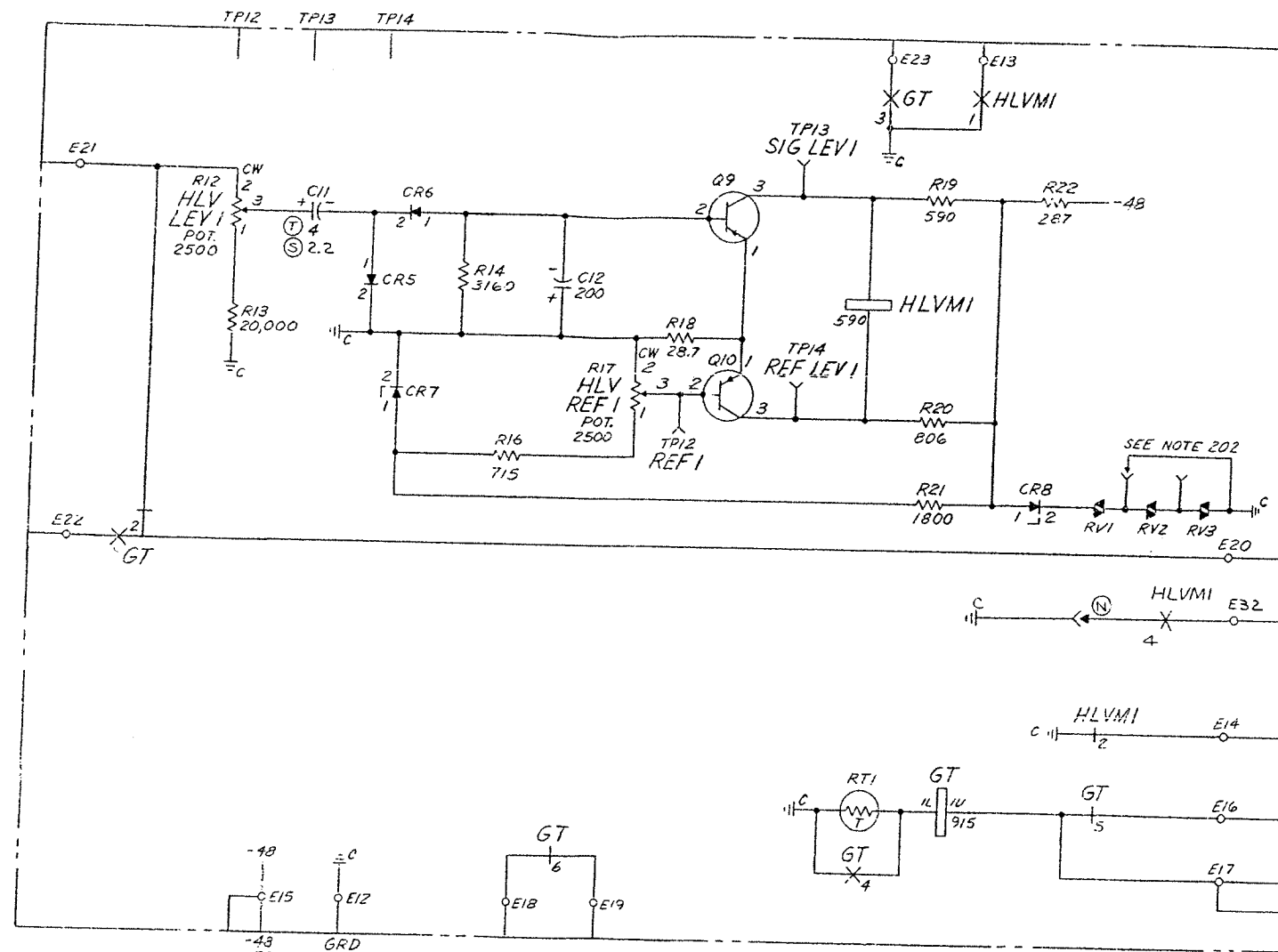
DESIG	CODE
RT1	78, 8E

TRANSISTOR

DESIG	CODE
Q9	31C
Q10	

VARISTOR

DESIG	CODE
RV1	100D
RV2	
RV3	



INPUT/OUTPUT INFORMATION
SHOWN IN CD-81719-01

CIRCUIT DESCRIPTION
SHOWN IN CD-81719-01

NOTES (CONT):
5. * PRIOR TO ISSUE 11D, 145A CODE WAS SHOWN.

- NOTES:
- UNLESS OTHERWISE SPECIFIED: RESISTANCE VALUES ARE IN OHMS, CAPACITANCE VALUES ARE IN MICROFARADS, VALUES PRECEDED BY THE SYMBOL + (PLUS) OR - (MINUS) ARE IN VOLTS.
 - \perp GROUND RETURN
 - OPERATIONAL REQUIREMENTS INFORMATION IS PART OF CD-81719-01.

RECORD OF CHANGES				
DWG ISS	PREV FURN	STD	MFR DISC	SEE NOTE
6B	V	U	V	
BB	R	Q	R	
BB	T	S	T	
BB	NONE	N		

MANUFACTURING REFERENCES	
CATEGORY	NO.
CIRCUIT PACK CP3	A-156290 (MFR DISC) P-95M481

SYMBOL
CP SHOWN IN DETAIL IN FS

DRAWING ISSUE

1	FC	WH
2AR	FC	WH
3AR	FC	WH
4A	FC	WH
6B	FC	WH
7A	FC	WH
8B	FC	WH

ISSUE
11D

SIGNALING CIRCUIT

SD-81719-01-J3

BELL TELEPHONE LABORATORIES
INCORPORATED



6S

COMPONENT LIST

RELAY

DESIG	HLVM2	TF		
CODE	(R) MA3 (Q) MA3A	(R) MB3 (Q) MB3A		
OPTION	CONT ARR	LOC	CONT ARR	LOC
6			B	
5			EBM	
4	M		M	4D4
3	B		M	4B7
2	B	4B7	EBM	4B7
1	M	4B7	EMB	
COLL	4B6			4C4

RELAYS NOT ADJUSTABLE, REPLACE WHEN THERE IS MALFUNCTION

CAPACITOR

DESIG	CODE
C13	(1) 601A, 4 (2) KS-19407, L5 KS-20736, L8, 2.2
C14	KS-16390, L7

DIODE

DESIG	CODE
CR9	458B
CR10	458B
CR11	446B
CR12	IN3798B (MOTOROLA 1.5N24Z5)

JACK

DESIG	CODE
TP15	KS-19427, L10
TP16	KS-19427, L9
TP17	
TP18	

POTENTIOMETER

DESIG	CODE
R23	(V) KS-14786, L14, 2500
R28	(U) KS-14786, L15, 2500

RESISTOR

DESIG	CODE
R24	145A, KS-20810, L1A, 20,000
R25	145A, KS-20810, L1A, 3160*
R27	KS-14603, L3C, 715
R29	KS-14603, L3C, 28.7
R30	KS-14603, L1C, 590
R31	KS-14603, L3C, 806
R32	KS-13490, L1, 1800
R33	KS-14603, L2A, 287

THERMISTOR

DESIG	CODE
RT2	7Q, 8E

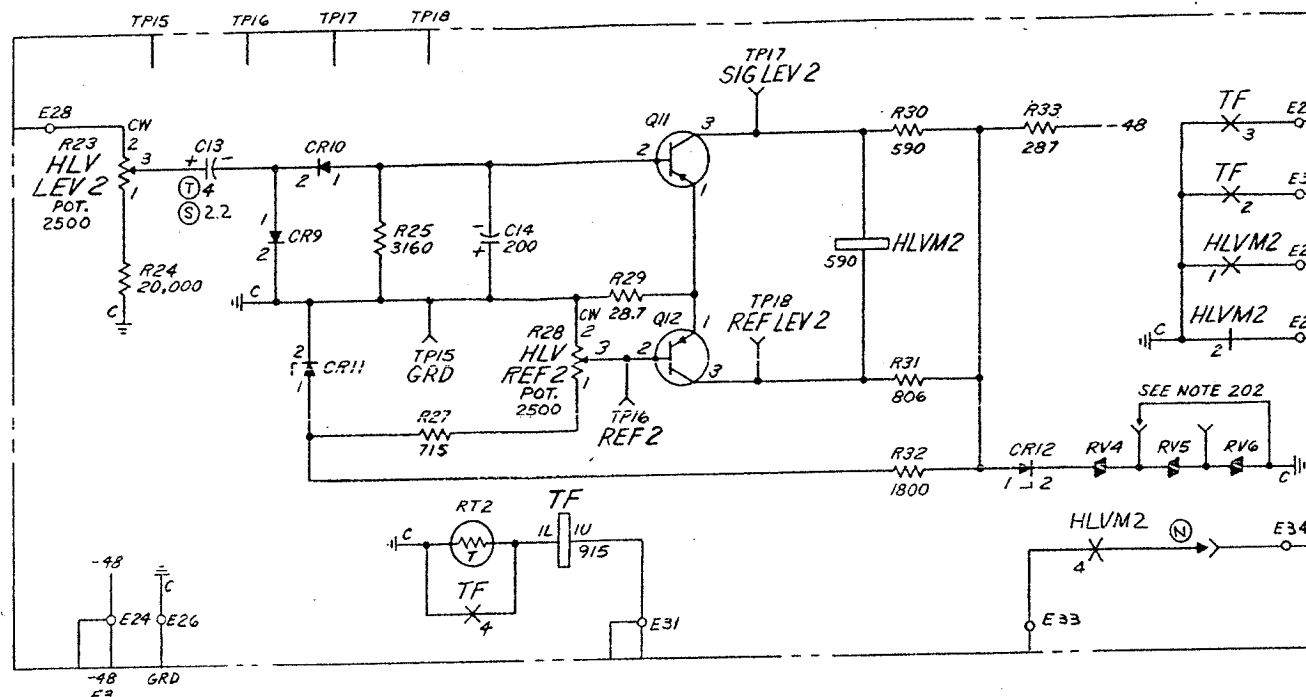
TRANSISTOR

DESIG	CODE
Q11	31C
Q12	

VARIATOR

DESIG	CODE
RV4	1000
RV5	
RV6	

CPS 4
MONITOR 2



INPUT/OUTPUT INFORMATION
SHOWN IN CD-81719-01

CIRCUIT DESCRIPTION
SHOWN IN CD-81719-01

NOTES:

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

2. $\frac{1}{c}$ GROUND RETURN

3. OPERATIONAL REQUIREMENTS INFORMATION
IS PART OF CD-81719-01.

4.

RECORD OF CHANGES					
DWG ISS	PREV FURN	STD	MFR DISC	SEE NOTE	
6B	V	U	V		
8B	R	Q	R		
8B	T	S	T		
8B	NONE	N			

5. * PRIOR TO ISSUE 110, 145A CODE WAS SHOWN.

MANUFACTURING REFERENCES

CATEGORY	NO.
CIRCUIT PACK CP4	A-156291 (MFR DISC.) P-95M482

SYMBOL
CP SHOWN IN DETAIL IN FS

DRAWING ISSUE	REV	DATE	BY	CHK
1	1			
2A	1			
3A	1			
4A	1			
6B	1			
7A	1			
8B	1			

ISSUE
110

SIGNALING CIRCUIT

BELL TELEPHONE LABORATORIES
INCORPORATED

SD-81719-01-J4

65

SD-81719-01-J4