

[illegible][illegible]

OPTION INDEX			
APP OR WRG	LOCATION	APP OR WRG	LOCATION
Z	1G6	G	2G4
Y	1G6	F	1B4, 1D1, 2G1, 2G6
X	2A9		1A4, 1E0
W	2A9		
V	1B0, 1C0		
S	2G4		
R	1D0	A	1F1
P	2G4		
N	1A2		
O	1B4, 1C4, 1D4, 1F4, 2G4, 2H3, 2G1		
H	2G4, 2H6		

SUPPORTING INFORMATION		SHEET INDEX NOTES
CATEGORY	NO.	
		1. WHEN CHANGES ARE MADE IN THIS DRAWING ONLY THOSE SHEETS AFFECTED WILL BE REISSUED. 2. THIS SHEET INDEX WILL BE REISSUED AND BROUGHT UP TO DATE EACH TIME ANY SHEET OF THE DRAWING IS REISSUED, OR A NEW SHEET IS ADDED. 3. THE ISSUE NUMBER ASSIGNED TO A CHANGED OR NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE SHEET INDEX. 4. SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER. 5. THE LAST ISSUE NUMBER OF THE SHEET INDEX IS RECOGNIZED AS THE LATEST ISSUE NUMBER OF THE DRAWING AS A WHOLE.

NOTICE - NOT FOR USE OR DISCLOSURE OUTSIDE THE BELL SYSTEM EXCEPT UNDER WRITTEN AGREEMENT.

INOI

COMMON SYSTEMS
ANNOUNCEMENT CIRCUIT
EMPLOYING KS-16765 LIST 12 ANNOUNCEMENT SET

AT&TCO
STANDARD

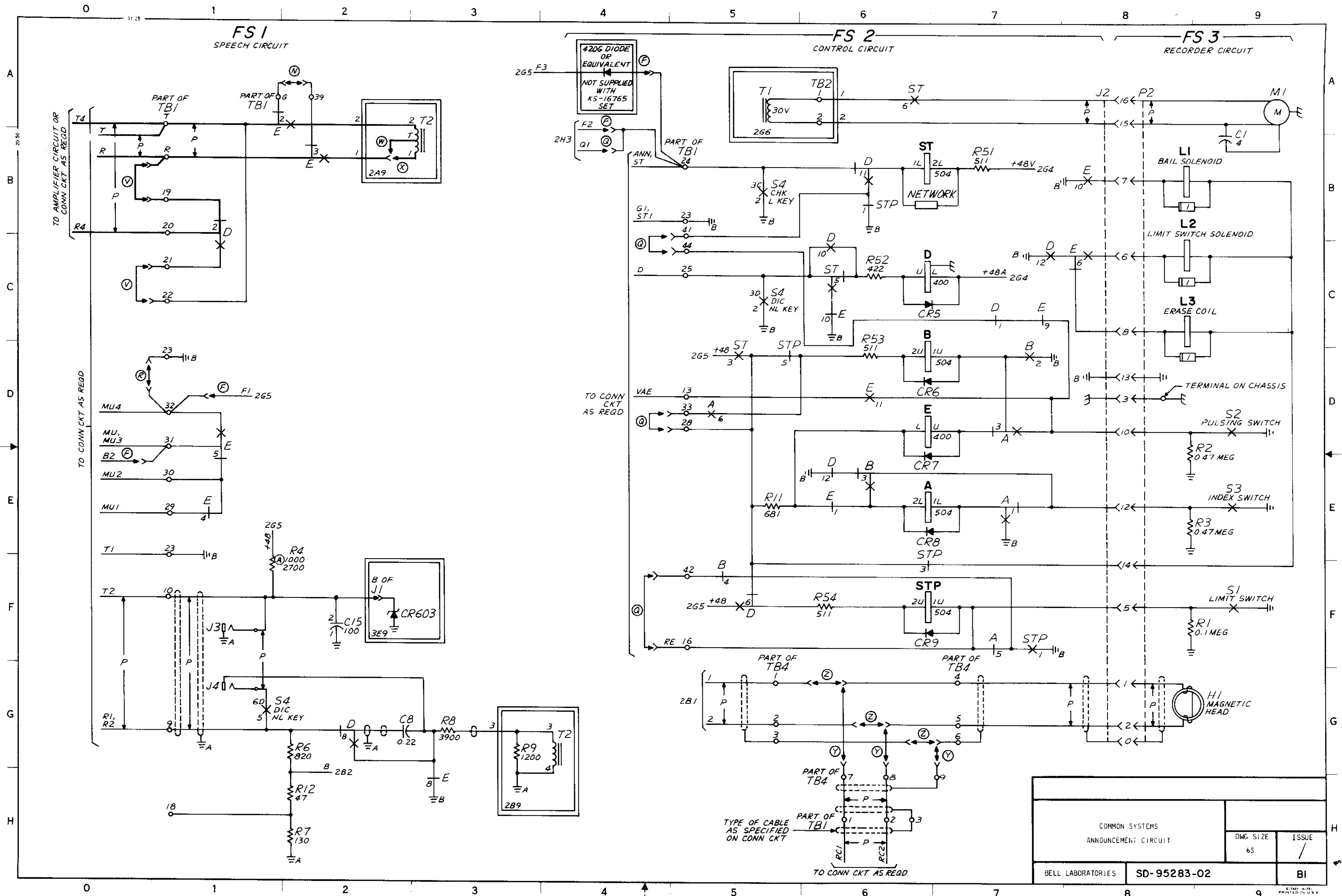
DWG SIZE
65

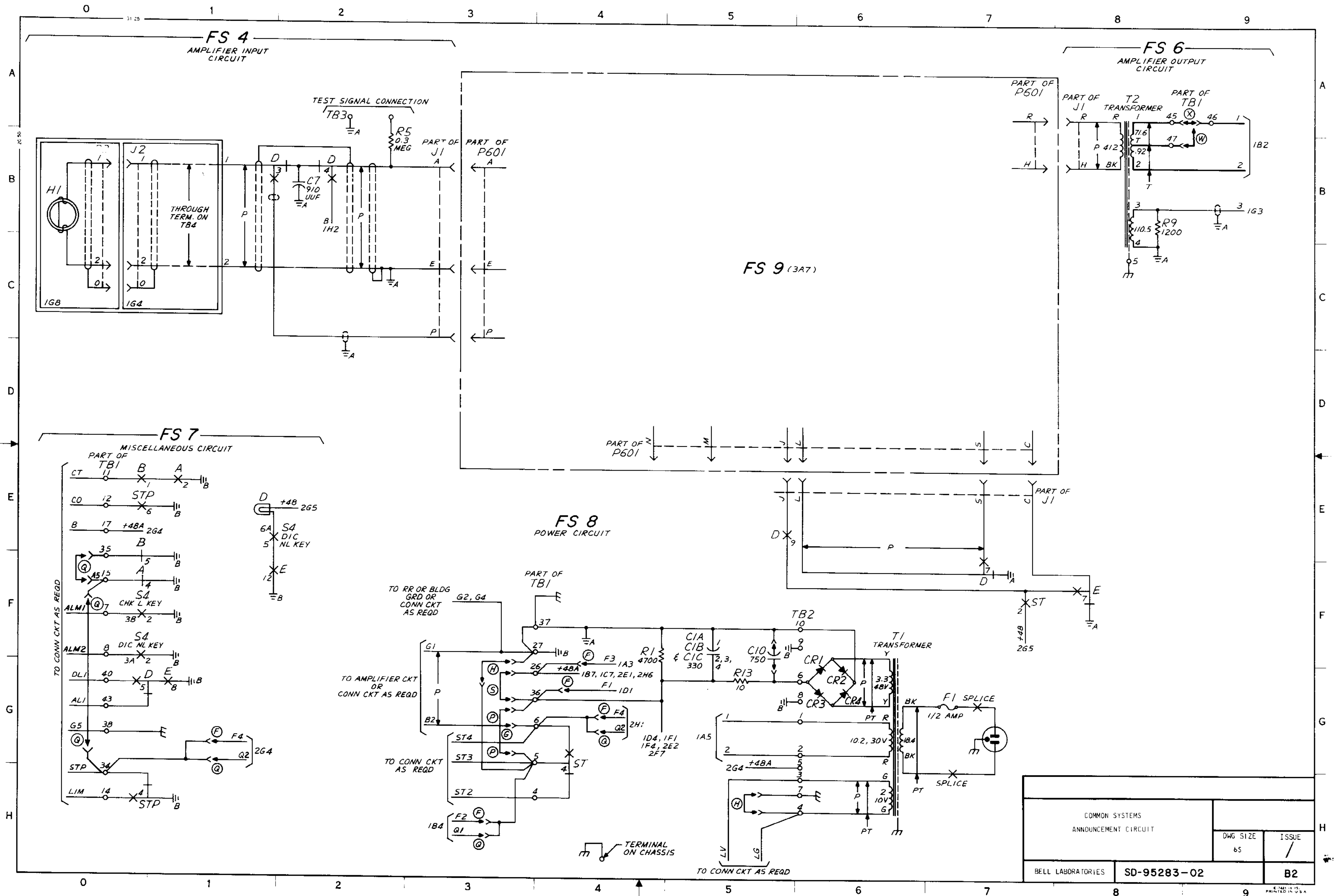
ISSUE
/

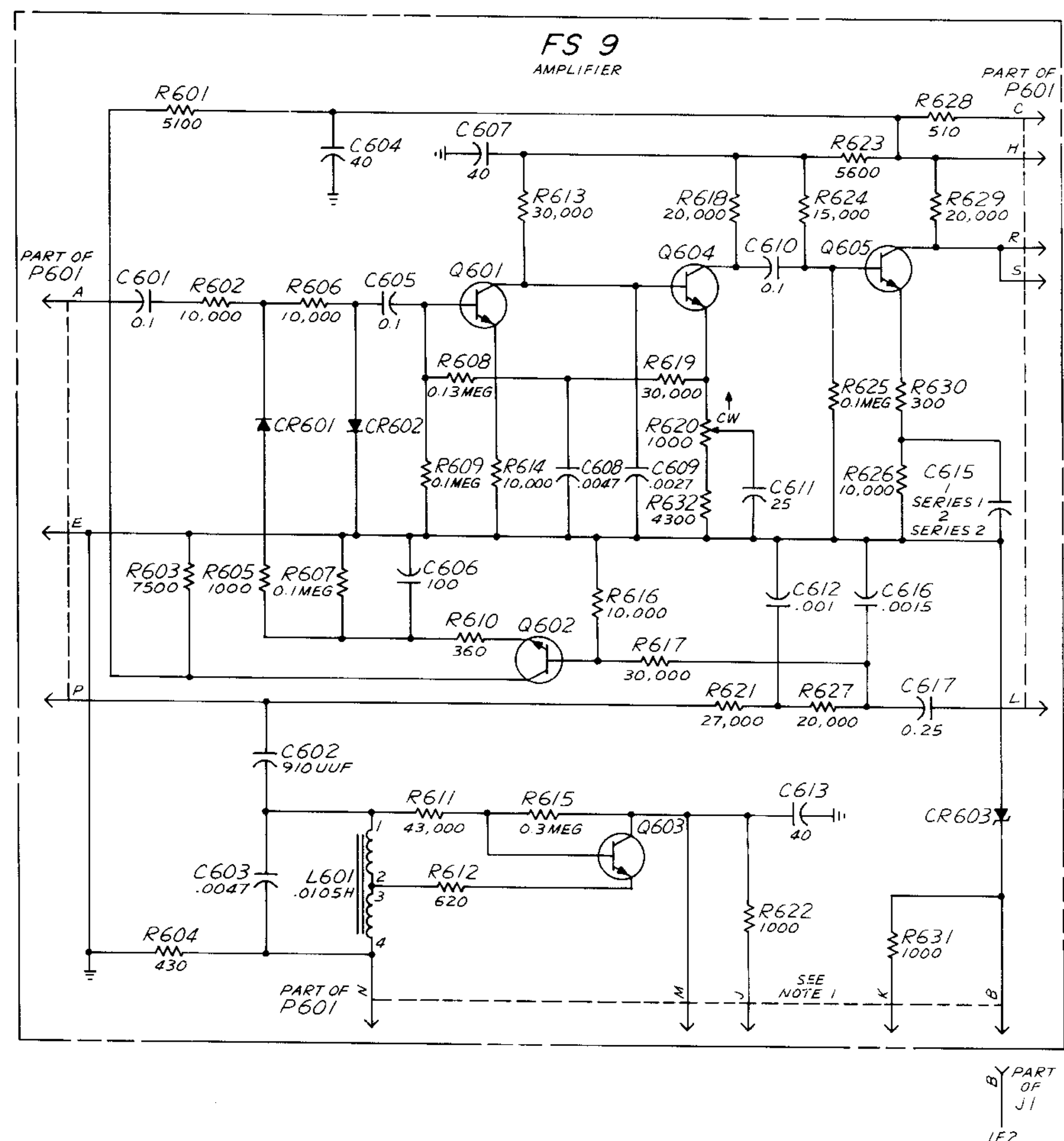
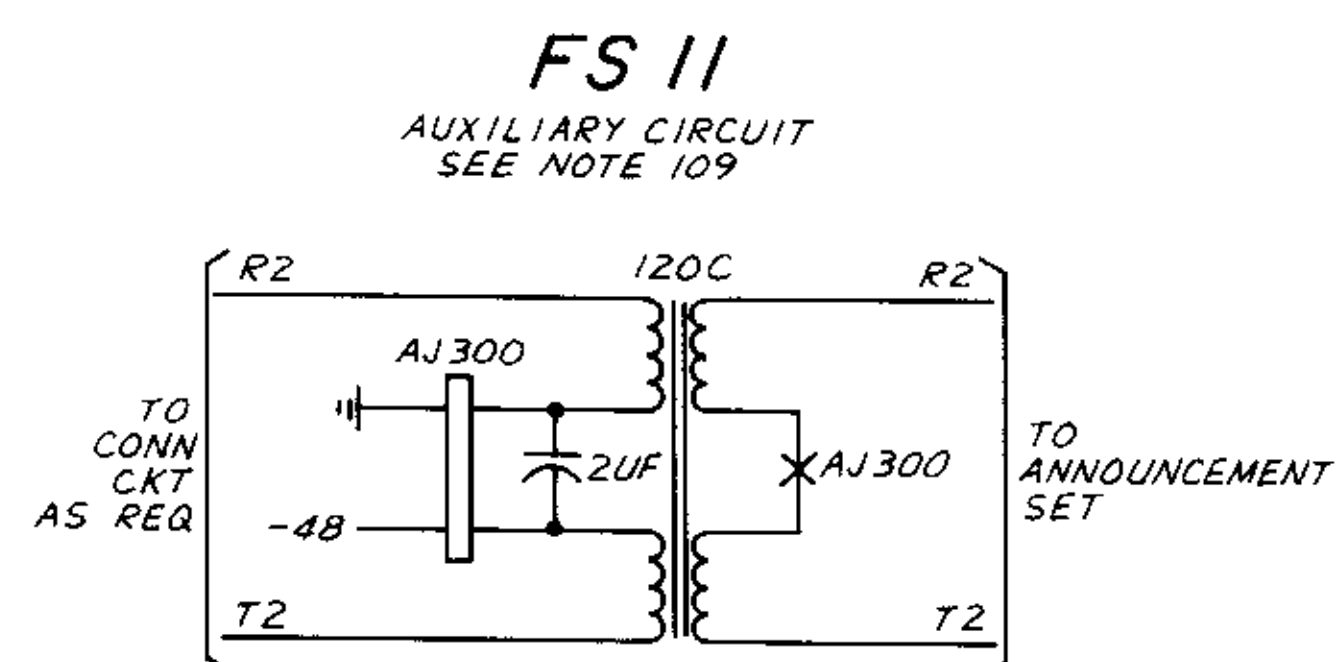
BELL LABORATORIES

SD - 952 83 - 02

AI
SHEETS







NOTES:

1. X TERMINAL NOT USED IN LIST 12 ANNOUNCEMENT SET:
USED IN LIST 11 ONLY. (SEE 3F9).

COMMON SYSTEMS ANNOUNCEMENT CIRCUIT			
		DWG SIZE 6S	ISSUE /
BELL LABORATORIES	SD-95283-02		B3

APP FIG. 1

RELAY		A		B		D		E		ST		STP		DESIG	
DESIG	CODE	BF 19	BF 19	BF 19	BF 19	BJ 24	BJ 24	BJ 24	BJ 24	BF 19	BF 19	BF 19	BF 19	CODE	OPTION
12	CONT	ARR	LOC	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	LOC	12
11	CONT	ARR	LOC	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	LOC	11
9	CONT	ARR	LOC	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	LOC	9
8	CONT	ARR	LOC	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	LOC	8
7	CONT	ARR	LOC	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	LOC	7
6	CONT	ARR	LOC	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	LOC	6
5	CONT	ARR	LOC	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	LOC	5
4	CONT	ARR	LOC	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	LOC	4
3	CONT	ARR	LOC	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	LOC	3
2	CONT	ARR	LOC	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	LOC	2
1	CONT	ARR	LOC	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	LOC	1
COIL	CONT	ARR	LOC	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	CONT	ARR	LOC	COIL

CORD & PLUG

POWER

DESIG

LOC

CODE

PG1

2G8

B-650422-1

OR EQUIV

FUSE

DESIG

LOC

CODE

F1

2G7

BUSSMAN, AGC

1/2 AMP

JACK

DESIG

LOC

CODE

J3

1F1

223A

J4

1G1

223A

LAMP

DESIG

LOC

CODE

D

2E1

2Y

NETWORK

DESIG

LOC

CODE

ST

2B6

1B5A

RECTIFIER

DESIG

LOC

CODE

CR1

2F6

1N4003

CR2

2F6

1N4003

CR3

2F6

1N4003

CR4

2F6

1N4003

CR5

1C6

458A

CR6

1D6

458A

CR7

1D6

458A

CR8

1E6

458A

CR9

1F6

458A

RESISTOR

DESIG

LOC

CODE

R1

2F5

4700Ω ±10%, GB, ALLEN-BRADLEY

R4

1F1

2700Ω ±10%, HB

R5

2A2

0.3 MEG ±5%, EB

R6

1G1

820 ±5%, GB

R7

1H1

130Ω ±5%, EB

R8

1G3

3900Ω ±5%, EB

R9

2B9

1200Ω ±5%, EB

R11

1E5

681Ω, WARD LEONARD, AXI OHM-SX

R12

1H1

47Ω ±5%, EB, ALLEN-BRADLEY

R13

2F6

10Ω ±5%, KS-14603, L3A

R51

1B7

511Ω ±5%, KS-20289 L6C, 511

R52

1C6

422Ω ±5%, KS-20289 L6C, 422

R53

1D6

511Ω ±5%, KS-20289 L6C, 511

R54

1F6

511Ω ±5%, KS-20289 L6C, 511

TERMINAL BOARD

DESIG		TB1		TB2		TB3		TB4	
CODE		840851786		840851786		THERMIONIC CORP 160-2041-02-01-00		840851786	
		NO.	LOC	NO.	LOC	NO.	LOC	NO.	LOC
		6	1A1	17	2E0	34	2H0	1	1G5
		R	1B0	18	1H0	35	2F1	2	1G5
		T	1A0	19	1B0	36	2G4	3	1G5
		1	1H6	20	1B0	37	2F4	4	1G7
		2	1H6	21	1C0	38	2G0	5	1G7
		3	1H6	22	1C0	39	1A1	6	1G7
		4	2H4	23	1B4	40	2G0	7	1H6
		5	2G4	24	100	41	2C4	8	1H6
		6	2G4	25	1F0	42	1F4	9	1H6
		7	2F0	26	1B4	43	2G0	10	1H6
		8	2G0	27	1C4	44	1C4		
		9	1G0	28	2G4	45	2A9		
		10	1F0	29	2F4	46	2A9		
		11	2E0	30	2D4	47	2A9		
		12	2E0	31	1D0				
		13	1D4	32	1D0				
		14	2H0	33	1D4				
		15	2E0						
		16	1F4						

CAPACITOR

DESIG

LOC

CODE

C1A

2F

C1B

2F

C1C

2F

C7

2B2

C8

1G2

C10

2F6

C15

1F2

CODE

SPRAGUE, D-27842

SANGAMO, CM200911J

SPRAGUE, 96P22401S2

SPRAGUE, 39D7570075JL0

SPRAGUE, 40D1076012704

KEY UNIT

S4

2EY

(B)

5

4

3

2

1

2FG

2E1

(A)

CHECK

DICTATE

1

2

3

4

5

6

(C)

7

6

5

4

3

2

1

105

1G1

(D)

TRANSFORMER

DESIG

LOC

CODE

T1

2F7

2A8

L-517091 (POWER)

529B (OUTPUT)

CONNECTOR

KS-16345 L2

+

O

O

O

O

O

O

O

O

O

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0 1 2 3 4 5 6 7 8 9

APP FIG. 2

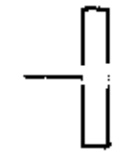
(FS 3)

KS-16765, L3 RECORDER

SOLENOID
B-190918

L1

L2



1B8

1C8

CAPACITOR

DESIG

LOC

CODE

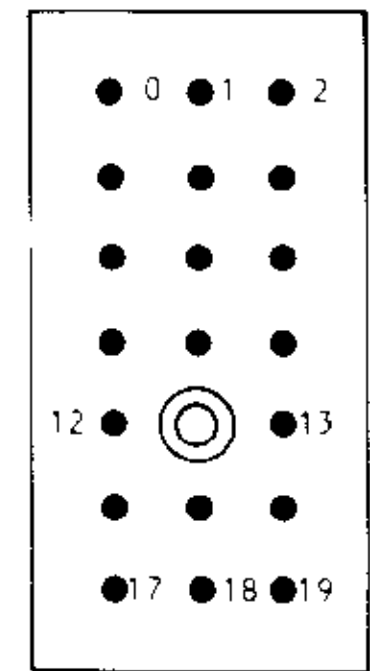
C1

1A9

F54Y605JT-10 GUDEMAN

CONNECTOR

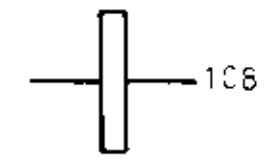
CINCH, 14586



ERASE COIL

L3

B 190922



HEAD

DESIG

LOC

CODE

H1

1G8

B-191264

MOTOR

DESIG

LOC

CODE

M1

1A9

L-517092
PART OF
B-650412
DRIVE ASSEMBLY

NETWORK

DESIG

LOC

CODE

L1

1B8

L2

1C8

L3

1D8

185A

DESIG	P2
CONN	PLUG
OPTION	
	NO. LOC
	19
	18
	17
	16 1A8
	15 1A8
	14 1F8
	13 1D8
	12 1E8
	11
	10 1D8
	9
	8 1C8
	7 1B8
	6 1C8
	5 1F8
	4
	3 1D8
	2 1C8
	1 1G8
	0 1G8

RESISTOR

DESIG

LOC

CODE

R1

1F8

R2

1D8

R3

1E8

0.1 MEG
0.47 MEG
0.47 MEG

SWITCH

B-191179

B 190969-1

B-19069-2

SI

1F9

S2

1D9

S3

1E9

NOTES:

- UNLESS OTHERWISE SPECIFIED "B" & "L" NUMBERS REFERRED TO ARE WECO DRAWING NUMBERS: ORDER AS FOLLOWS: "B" (OR "L") (DWG NO.) PART OF KS-16765 L12.

COMMON SYSTEMS ANNOUNCEMENT CIRCUIT		DWG SIZE 65	ISSUE /
BELL LABORATORIES		SD-95283-02	
		C2	

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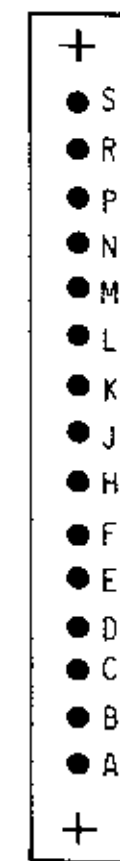
APP FIG. 4
(FS 9)

KS-16765.L6 AMPLIFIER (PRINTED WIRING BOARD ASSEMBLY)

CAPACITOR

DESIG	LOC	CODE
C602	3B5	356C104K GUDEMAN
C603	3D6	CM200911J } ELECTRO MOTIVE
C604	3E6	350822J } OR EQUIV
	3A6	KS-16390.L8
C605	3B6	356C104K GUDEMAN
C606	3C6	40D107F003 SPRAGUE } GUDEMAN
C607	3A7	KS-16390.L8 } OR EQUIV
C608	3C7	356C472J GUDEMAN OR EQUIV
C609	3C8	356C272J GUDEMAN OR
C610	3B8	356C104K EQUIV
C611	3C8	40D256F012 SPRAGUE OR EQUIV
C612	3C8	CM20D102J ELECTRO MOTIVE
C613	3E8	KS-16390.L8
C615	3C9	40D205F050 } SPRAGUE OR EQUIV
		SERIES 1
		40D205F050
		SERIES 2
C616	3C9	356C152J GUDEMAN OR EQUIV
C617	3D9	542C

CONNECTOR
KS-16345 L1



DESIG	P601
CONN	PLUG
OPTION	
	TERM.
	LOC
	S
	3B9
	R
	3B9
	P
	3D5
	N
	3F6
	M
	3F8
	L
	3D9
	K
	3F9
	J
	3F8
	H
	3A9
	F
	E
	3C5
	D
	C
	3A9
	B
	3F9
	A
	3B5

DIODE

DESIG	LOC	CODE
CR601	3C6	
CR602	3C6	IN1692 } GEN ELEC
CR603	3E9	446C } OR EQUIV

RESISTOR

DESIG	LOC	CODE
R601	3A5	51000
R602	3B6	10,0000
R603	3C5	75000
R604	3E5	4300
R605	3C6	10000
R606	3B6	10,0000
R607	3C6	0.1 MEG
R608	3B7	0.13 MEG
R609	3C7	0.1 MEG
R610	3D7	3600
R611	3E7	43,0000
R612	3E7	6200
R613	3A7	30,0000
R614	3C5	10000
R615	3E7	0.3 MEG
R616	3C7	10,0000

ALLEN
BRADLEY,
EB, +5%
OR EQUIV

INDUCTOR

DESIG	LOC	CODE
L601	3E6	15898

RESISTOR (CONT)

DESIG	LOC	CODE
R617	3D8	30,0000
R618	3A8	20,0000
R619	3B8	30,0000
R621	3D8	27,000
R622	3E8	10000
R623	3A8	56000
R624	3A8	15,0000
R625	3B8	0.1 MEG
R626	3C9	10,0000
R627	3D8	20,0000
R628	3A9	5100
R629	3A9	20,0000
R630	3B9	3000
R631	3E9	10000
R632	3C8	43000

ALLEN
BRADLEY,
EB, +5%
OR EQUIV

POTENTIOMETER

DESIG	LOC	CODE
R620	3C8	R74NAXSB1020, TYPE J } ALLEN BRADLEY OR EQUIV

TRANSISTORS

DESIG	LOC	CODE
Q601	3B7	2N3415 GEN ELEC
Q602	3D7	2N697 FAIRCHILD
Q603	3E7	2N699 GEN ELEC
Q604	3B8	2N3415 GEN ELEC
Q605	3B8	2N697 FAIRCHILD

APP FIG. 5
(FS 10)

CORD

DESIG	LOC	CODE
CC1	3E1	KS-16765.L8

COMMON SYSTEMS ANNOUNCEMENT CIRCUIT		DWG SIZE 65	ISSUE /
BELL LABORATORIES		SD-95283-02	
		C3	

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	0	1	2	3	4	5	6	7	8	9	
	CIRCUIT NOTES:										
A	101.										
	DESIG	FUSE AMP	POTENTIAL	ONE PER							
B	BATTERY SYMBOL										VOLTAGE RANGE
C	102.										
	FEATURE OR OPTION		PROVIDE								
			APP FIG.	APP OR WRG	QUANTITY						
	KS-16765, ANNOUNCEMENT SET		1,2,4		1 PER SET						
	KS-16765,L3 RECORDER		2		AS REQD						
	KS-16765,L6 AMPLIFIER		4		AS REQD						
	KS-16765,L8 CORD		5		SEE NOTE 106						
D	RECORD-REPRODUCE AMPLIFIER		INTERNAL	XZ							
			EXTERNAL	Y	REMOVE Z						
	NOMINAL OUTPUT		600Ω	XX							
			20Ω	W	REMOVE X						
	MUTING OF OUTPUT DURING RECORDING			V							
	INTERNAL 48V DC SUPPLY			S	SEE NOTE 110						
	LEAD MU (MU3) GROUNDED			R							
E	LEADS T AND R MUTED			N							
	USE WITH KS-16754 AMPLIFIER			N,V W,Z							
	48V POWER SUPPLY TO CONNECTING CKT			P							
	AUTOMATIC CALL DISTRIBUTING SYSTEM NO. 2A AND 2B			H, A	SEE NOTE 108						
F	RECEIVER OFF HOOK TONE CONNECTING CIRCUIT FOR S X S			F	REMOVE R REMOVE P REMOVE G REMOVE Q SEE NOTE 107						
	STD WIRING WHEN OPTION F IS NOT USED			G							
	MINIMUM DELAY "START TIME" FOR SINGLE CYCLE ANNOUNCEMENT			Q	REMOVE F						
G											
H											
	* SEE NOTE 105										
	CIRCUIT NOTES:(CONT)										
	103.										
	NETWORK VALUES										
	NETWORK NO.		RESISTANCE IN OHMS		CAPACITANCE IN UF						
	1		470		0.11						
	104.										
	RECORD OF APP 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				
	105. OPTIONS Z AND X ARE FURNISHED WITH SETS AS MANUFACTURED AND SHOULD BE LEFT IN PLACE UNLESS OTHERWISE SPECIFIED.										
	106. KS-16765,L8 CORD ORDERED AS REQUIRED.										
	107. OPTION F PROVIDES +48V DC POWER TO CONNECTING CIRCUIT ON LEAD B2 AT PUNCHING 31, T81, WHEN THE BAIL SOLENOID OPERATES.										
	108. OPTION A PROVIDES SUFFICIENT CURRENT CAPABILITY ON T2 AND R2 LEADS FOR REMOTE RECORDING FROM SUPERVISORS CONSOLE IN 2A AND 2B ACD'S. OPTION H APPLICABLE TO ACD NO. 2B.										
	109. IN SOME LOCAL SITUATIONS WHERE THE ANNOUNCEMENT SET IS LOCATED SEVERAL HUNDRED FEET FROM THE RECORDING INSTRUMENT, IT MAY BE DESIRABLE TO INSTALL AN ISOLATION TRANSFORMER IN THE TIP AND RING LEADS TO REDUCE NOISE PICKUP DURING THE RECORDING PROCESS. THIS WILL REDUCE THE NOISE LEVEL IN THE REPRODUCED MESSAGE. SUCH ACTION SHOULD BE TAKEN ONLY IN THOSE CASES WHERE IT IS FOUND TO BE WARRANTED. A 120C REPEATING COIL OR EQUIVALENT TRANSFORMER IS RECOMMENDED FOR THIS PURPOSE. IT SHOULD BE LOCATED AS CLOSE TO THE ANNOUNCEMENT SET AS POSSIBLE. THE OUTPUT TERMINALS OF THE TRANSFORMER SHOULD BE CONNECTED TO TERMINALS 12 (10) AND R2 (9). PROVISION FOR DC TALK POWER TO THE TRANSMITTER IN THE RECORDING INSTRUMENT MUST BE MADE LOCALLY.										
	110. WHEN KS-16765,L12 IS USED WITH H400-197 EQUIPMENT ASSEMBLY, S OPTION MUST BE APPLIED.										
	INFORMATION NOTES:										
	301. UNLESS OTHERWISE SPECIFIED: RESISTANCE VALUES ARE IN OHMS. CAPACITANCE VALUES ARE IN MICROFARADS. VALUES PRECEDED BY THE SYMBOL + (PLUS) OR - (MINUS) ARE IN VOLTS.										
	COMMON SYSTEMS ANNOUNCEMENT CIRCUIT										
	DWG SIZE 6S										ISSUE /
	BELL LABORATORIES										SD-95283-02
											DI
	E-2481 (6-78) PRINTED IN U.S.A.										

