

SHEET INDEX

CONTENTS	SHEET NO.	ISSUE NO.																								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
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CONTENTS	SHEET NO.	ISSUE NO.																								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CPS UD1 POWER SUPPLY	J1	1																								
	J2	1																								
	J3	1																								
CPS UD2 ENCODER DRIVER	J4	1																								
	J5	1																								
	J6	1																								
	J7	1																								
CPS UD3 TIMING AND CONTROL	J8	1																								
	J9	1																								
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	J11A	1																								
CPS UD4 3-24 SECOND VLM MESSAGE MODULE	J11B	1																								
	J12	1																								
	J13	1																								
	J14	1																								
	J15	1																								
CPS UD5 FML MESSAGE MODULE	J16	1																								
	J17	1																								
	J18	1																								
	J19	1																								
CPS UD6 3-12 SECOND VLM MESSAGE MODULE	J20	1																								
	J21	1																								
	J22	1																								
	J23	1																								
	J24	1																								

SUPPORTING INFORMATION

SHEET INDEX NOTES

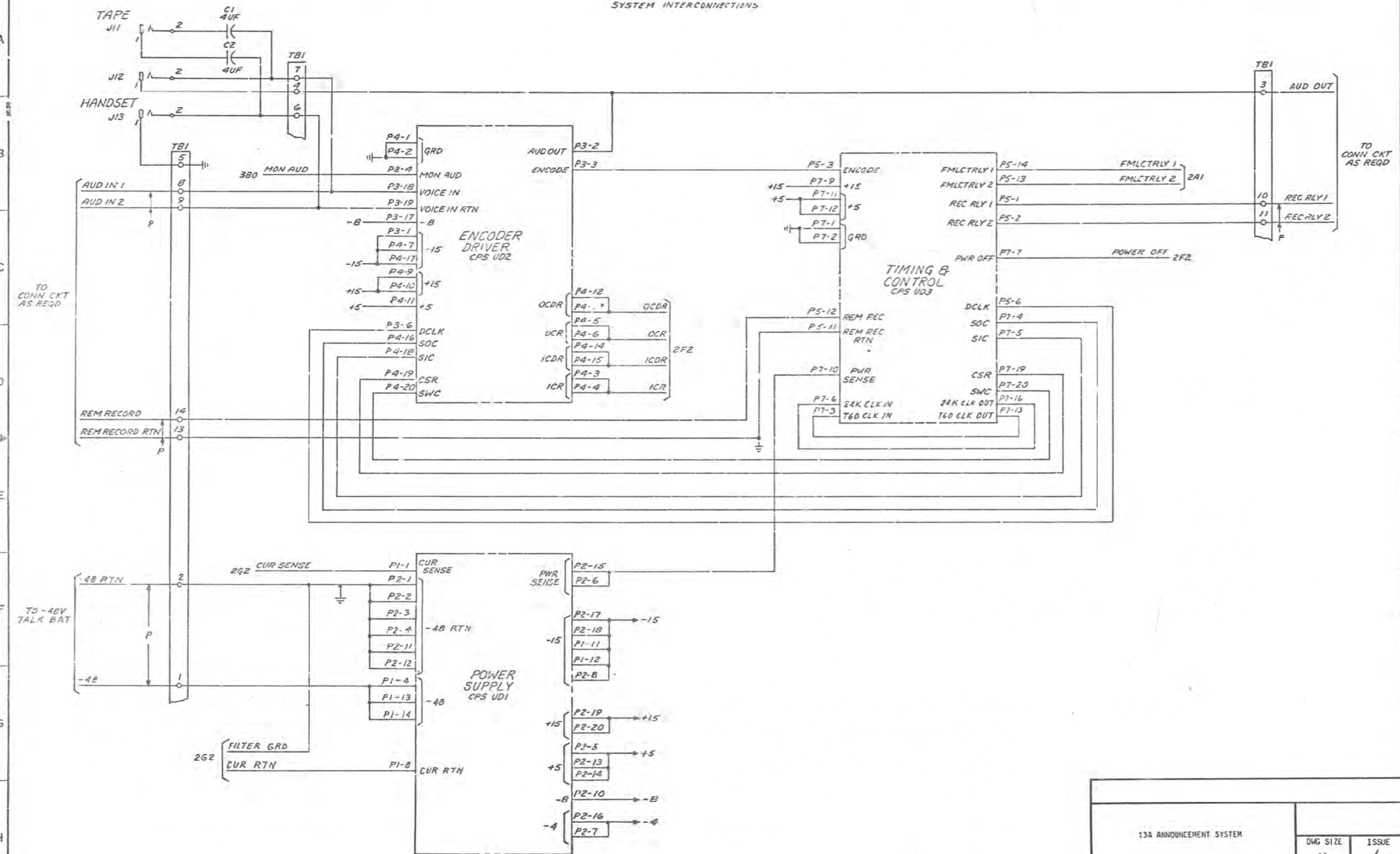
CATEGORY	NO.	
EQUIPMENT DRAWING	J1C121A-1	1. WHEN CHANGES ARE MADE IN THIS DRAWING ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
EQUIPMENT DESIGN REQ.	J1C121 BSP 801-603-163	2. THIS SHEET INDEX WILL BE REISSUED AND BROUGHT UP TO DATE EACH TIME ANY SHEET OF THE DRAWING IS REISSUED, OR A NEW SHEET IS ADDED.
13A ANNOUNCEMENT SYSTEM - DESCRIPTION	BSP 201-519-101	3. THE ISSUE NUMBER ASSIGNED TO A CHANGED OR NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE SHEET INDEX.
13A ANNOUNCEMENT SYSTEM OPERATING PROCEDURES	BSP 201-519-301	4. SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
13A ANNOUNCEMENT SYSTEM NETWORK DESIGN ENG. INFO.	BSP 201-060-210	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.

COMMON SYSTEMS 13A ANNOUNCEMENT SYSTEM CIRCUIT FOR RECORDING AND REPRODUCING DIAL FACILITIES MANAGEMENT ANNOUNCEMENTS		AT&T STANDARD
DWG SIZE 6S	ISSUE /	
BELL LABORATORIES	SD-97753-01	-A1 45 SHEET

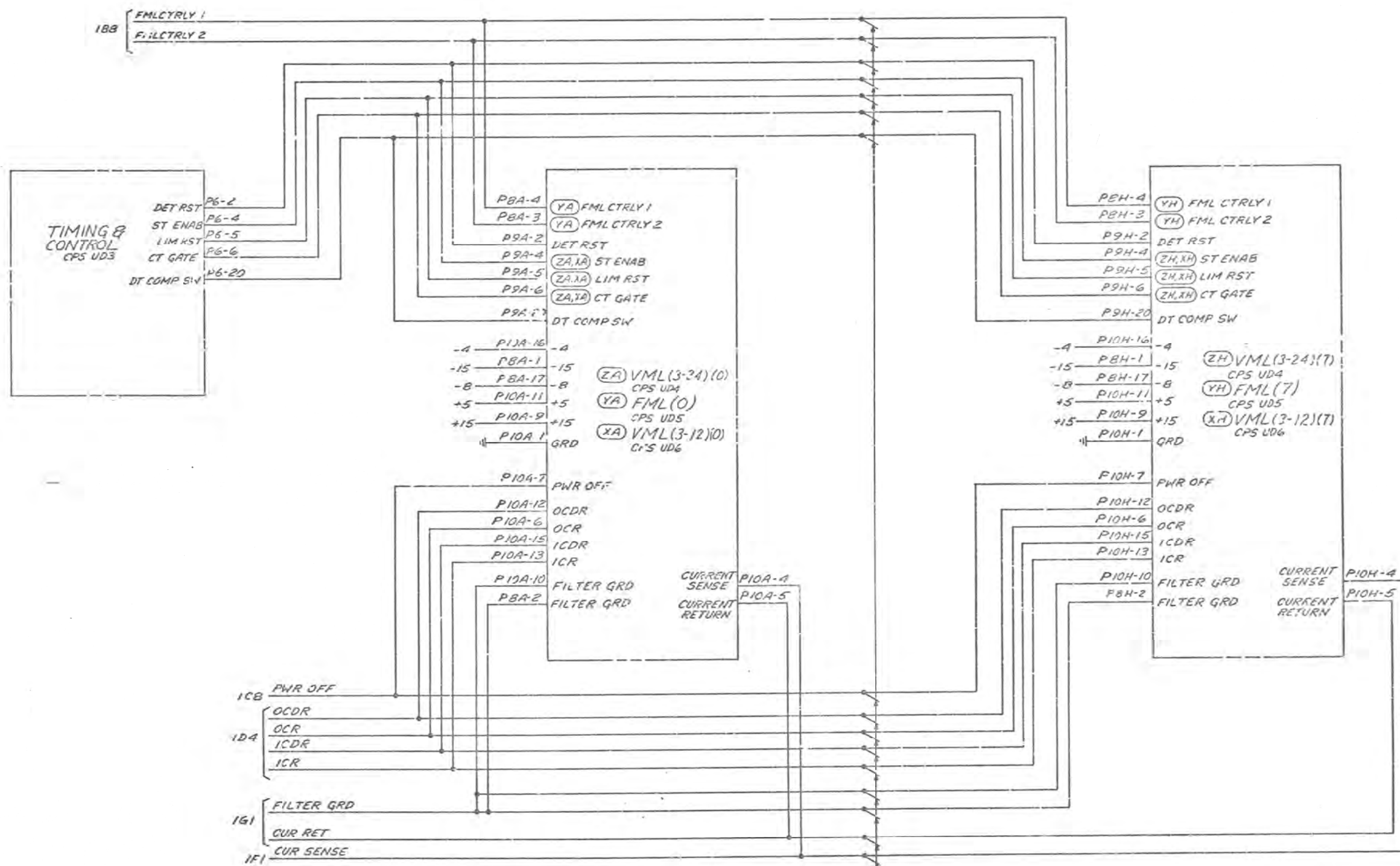
APPARATUS INDEX																	
EQPT LOC			APP FIG.		DESIG												
			NO.	SH NO.	LOCATION												
					FS	APP FIG.	EQPT										
CIRCUIT PACKS																	
ENCODER DRIVER			1	C1													
FML(0) THRU (7)			1	C1													
POWER SUPPLY			1	C1													
TIMING & CONTROL			1	C1													
VML(3-12)(0) THRU (7)			1	C1													
VML(3-24)(0) THRU (7)			1	C1													
CAPACITORS																	
C1			121	1													
C2			121	1													
JACKS																	
HANDSET			130	1													
HANDSET			180	1													
TAPE			140	1													
LEAD INDEX																	
DESIG			LOCATION														
			FS	APP FIG.													
ANNOUNCEMENT TRK EXT OR CONNECTING CKT AS REQD.																	
CH ACCESS (0)			400	1F0													
CH ACCESS (1)			400	1F0													
CH ACCESS (2)			405	103													
CH ACCESS (3)			405	103													
CH ACCESS (4)			500	103													
CH ACCESS (5)			500	103													
CH ACCESS (6)			509	107													
CH ACCESS (7)			509	107													
CT1 (0)			404	1F0													
CT1 (1)			404	1F0													
CT1 (2)			409	103													
CT1 (3)			409	103													
CT1 (4)			504	103													
CT1 (5)			504	107													
CT1 (6)			509	107													
CT1 (7)			509	107													
CT2 (0)			404	1F0													
CT2 (1)			404	1F0													
CT2 (2)			409	103													
CT2 (3)			409	103													
CT2 (4)			504	103													
CT2 (5)			504	107													
CT2 (6)			509	107													
CT2 (7)			509	107													
GRD (0)			400	1F0													
GRD (1)			400	1F0													
GRD (2)			405	103													
GRD (3)			405	103													
GRD (4)			500	107													
GRD (5)			500	107													
GRD (6)			505	107													
GRD (7)			505	107													
LIM (0)			404	1F0													
LIM (1)			404	1F0													
LIM (2)			409	103													
LIM (3)			409	103													
LIM (4)			504	103													
LIM (5)			504	107													
LIM (6)			509	107													
LIM (7)			509	107													
MU2 (0)			404	1F0													
MU2 (1)			404	1F0													
MU2 (2)			409	103													
MU2 (3)			409	103													
MU2 (4)			504	103													
MU2 (5)			504	107													
MU2 (6)			509	107													
MU2 (7)			509	107													
MU3 (0)			404	1F0													
MU3 (1)			404	1F0													
MU3 (2)			409	103													
MU3 (3)			409	103													
MU3 (4)			504	103													
MU3 (5)			504	107													
MU3 (6)			509	107													
MU3 (7)			509	107													
MU4 (0)			404	1F0													
MU4 (1)			404	1F0													
MU4 (2)			409	103													
MU4 (3)			409	103													
MU4 (4)			504	103													
MU4 (5)			504	107													
MU4 (6)			509	107													
MU4 (7)			509	107													
START (0)			400	1F0													
START (1)			400	1F0													
START (2)			405	103													
START (3)			405	103													
OPTION INDEX																	
APP OR WRG	RATED ON ISSUE	REF NOTES	LOCATION														
ZA			SH B2, SH B3, SH B4, SH B5														
ZB			SH B2, SH B3, SH B4, SH B5														
ZC			SH B2, SH B3, SH B4, SH B5														
ZD			SH B2, SH B3, SH B4, SH B5														
ZE			SH B2, SH B3, SH B4, SH B5														
ZF			SH B2, SH B3, SH B4, SH B5														
ZG			SH B2, SH B3, SH B4, SH B5														
ZH			SH B2, SH B3, SH B4, SH B5														
YA			SH B2, SH B3, SH B4, SH B5														
YB			SH B2, SH B3, SH B4, SH B5														
YC			SH B2, SH B3, SH B4, SH B5														
YD			SH B2, SH B3, SH B4, SH B5														
YE			SH B2, SH B3, SH B4, SH B5														
YF			SH B2, SH B3, SH B4, SH B5														
YG			SH B2, SH B3, SH B4, SH B5														
YH			SH B2, SH B3, SH B4, SH B5														
XA			SH B2, SH B3, SH B4, SH B5														
XB			SH B2, SH B3, SH B4, SH B5														
XC			SH B2, SH B3, SH B4, SH B5														
XD			SH B2, SH B3, SH B4, SH B5														
XE			SH B2, SH B3, SH B4, SH B5														
XF			SH B2, SH B3, SH B4, SH B5														
XG			SH B2, SH B3, SH B4, SH B5														
XH			SH B2, SH B3, SH B4, SH B5														
13A ANNOUNCEMENT SYSTEM																	
							DWG SIZE	ISSUE									
							6S	/									
BELL LABORATORIES							SD-97753-01		-A2								

PART OF FS1 SYSTEM INTERCONNECTIONS



13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
		65	/
BELL LABORATORIES	SD-97753-01	B1	

PART OF FS I SYSTEM INTERCONNECTIONS



MULT TO
(ZB) VML (3-24) (1) - (ZQ) VML (3-24) (6)
CPS UDA OR
(YB) FML (1) - (YQ) FML (6)
CPS UDS OR
(XB) VML (3-12) (1) - (XQ) VML (3-12) (6)
CPS UDG

13A ANNOUNCEMENT SYSTEM

BELL LABORATORIES

SD-97753-01

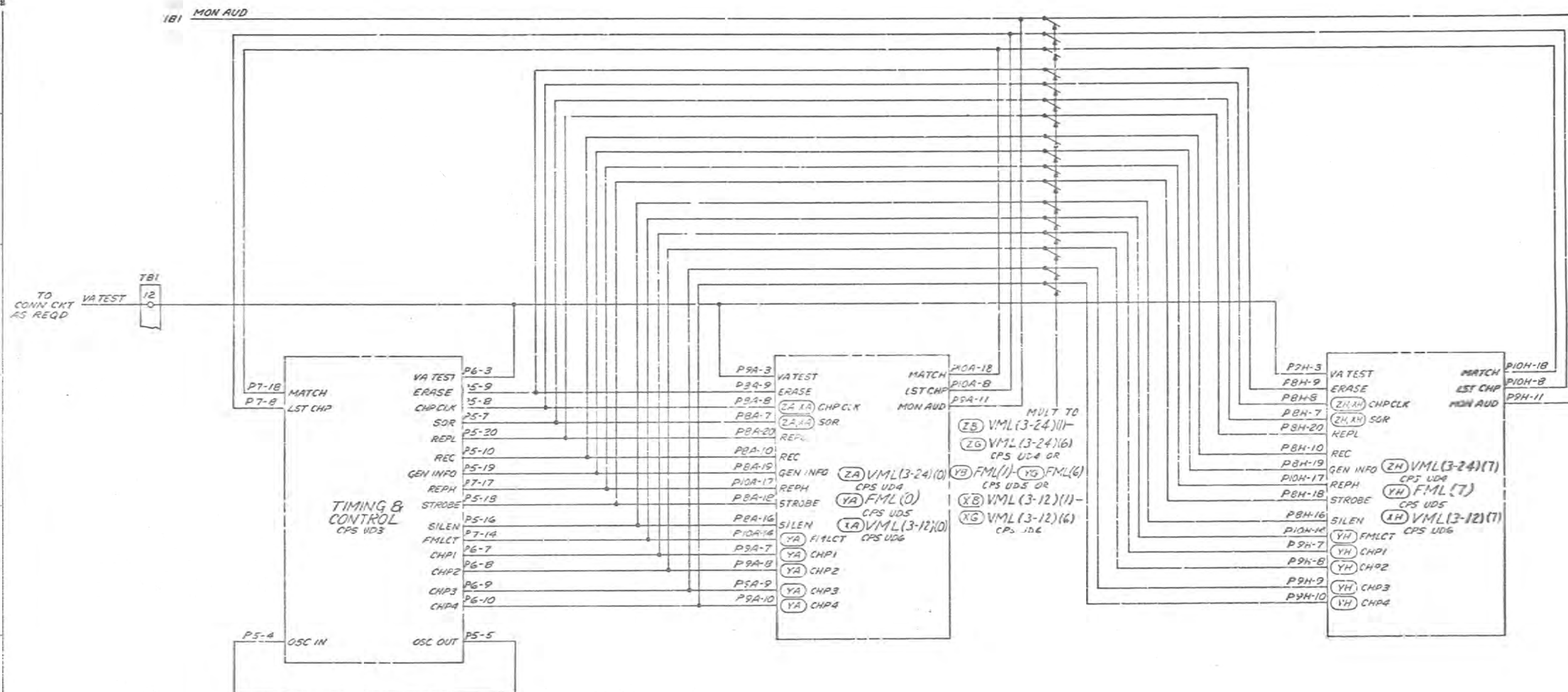
DWG SIZE
65

ISSUE
/

B2

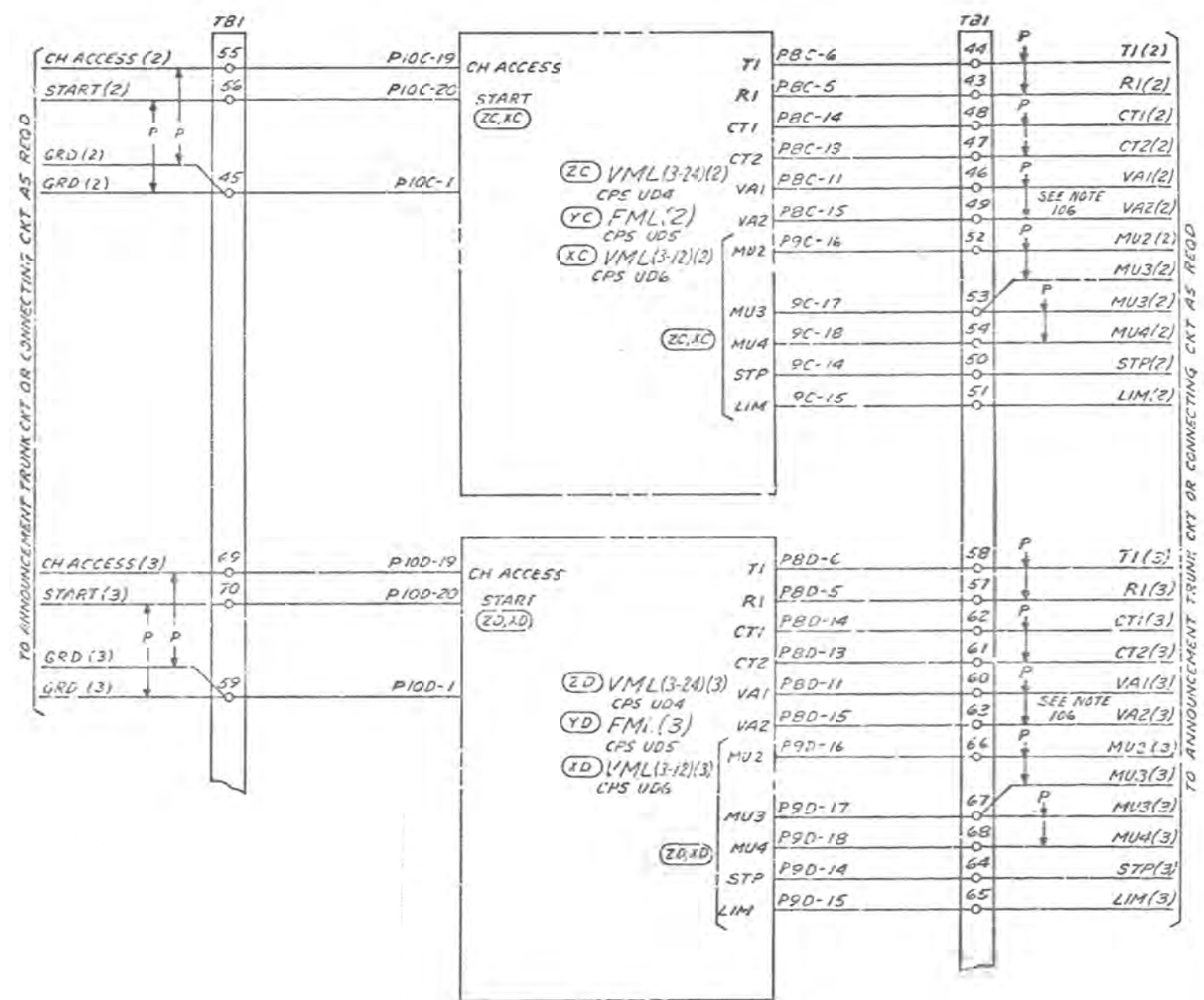
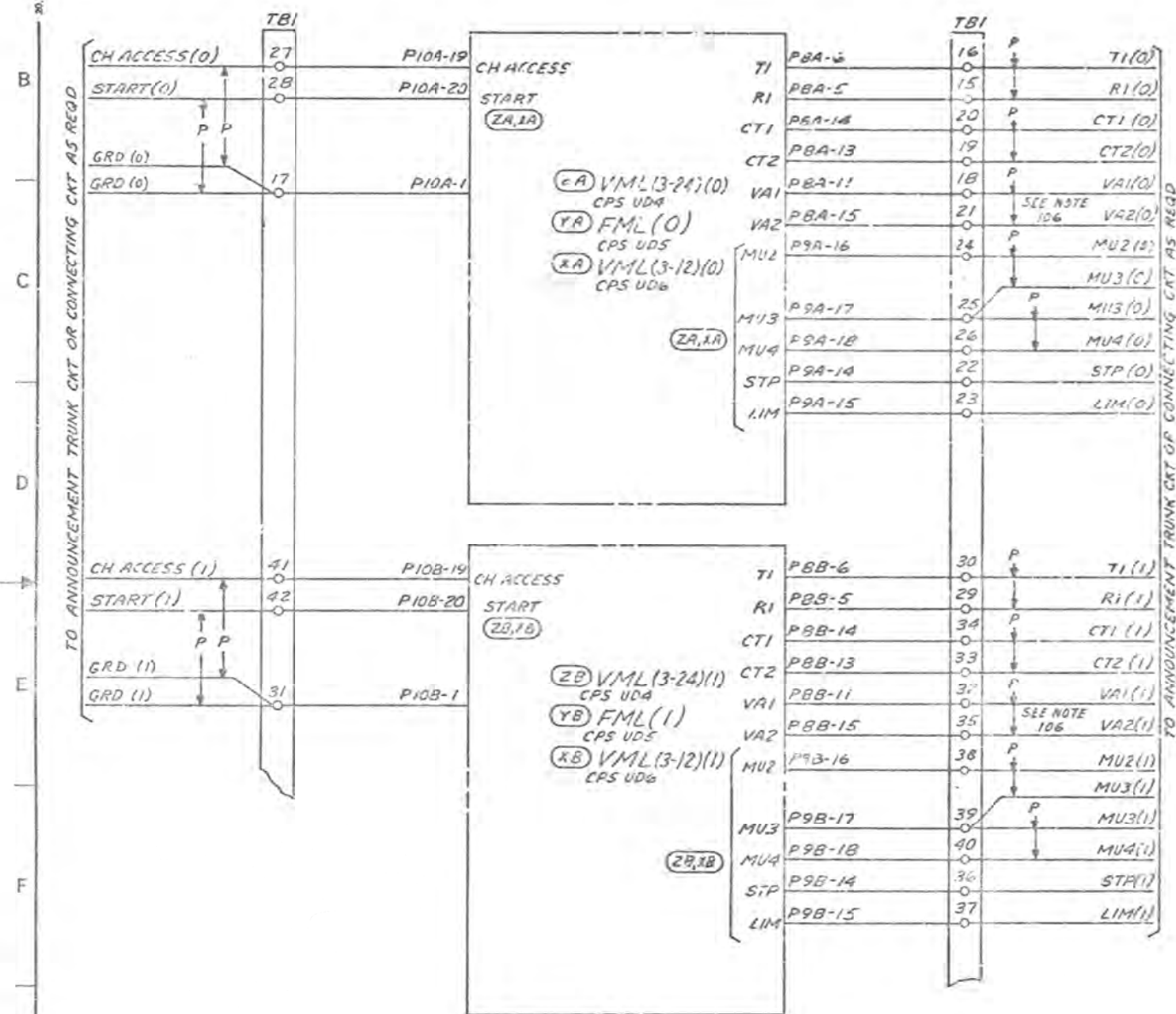
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PART OF FS I SYSTEM INTERCONNECTIONS



13A ANNOUNCEMENT SYSTEM		DWG SIZE 65	ISSUE /
BELL LABORATORIES	SD-97753-01	B3	

PART OF FS 1
SYSTEM INTERCONNECTIONS



13A ANNOUNCEMENT SYSTEM

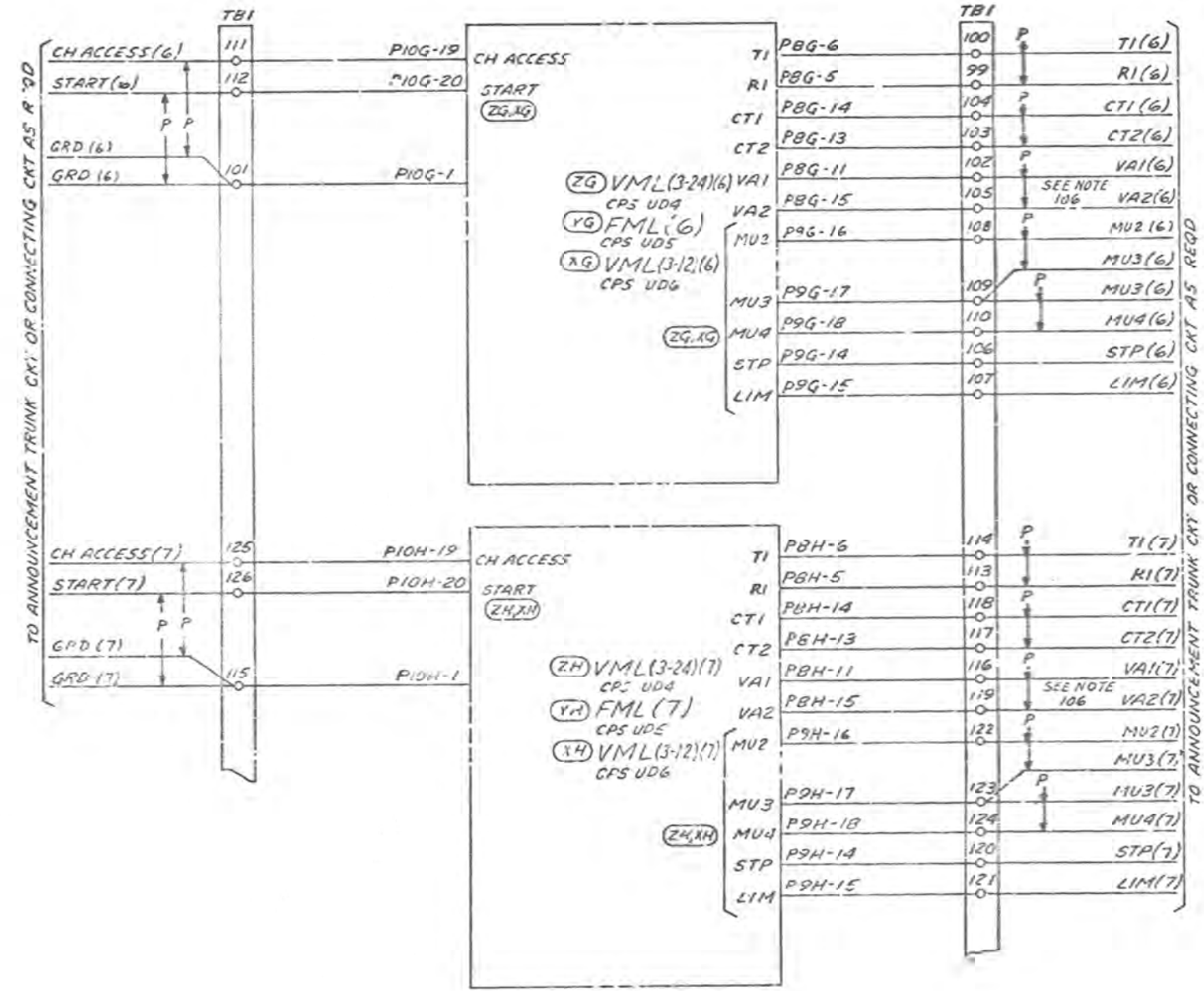
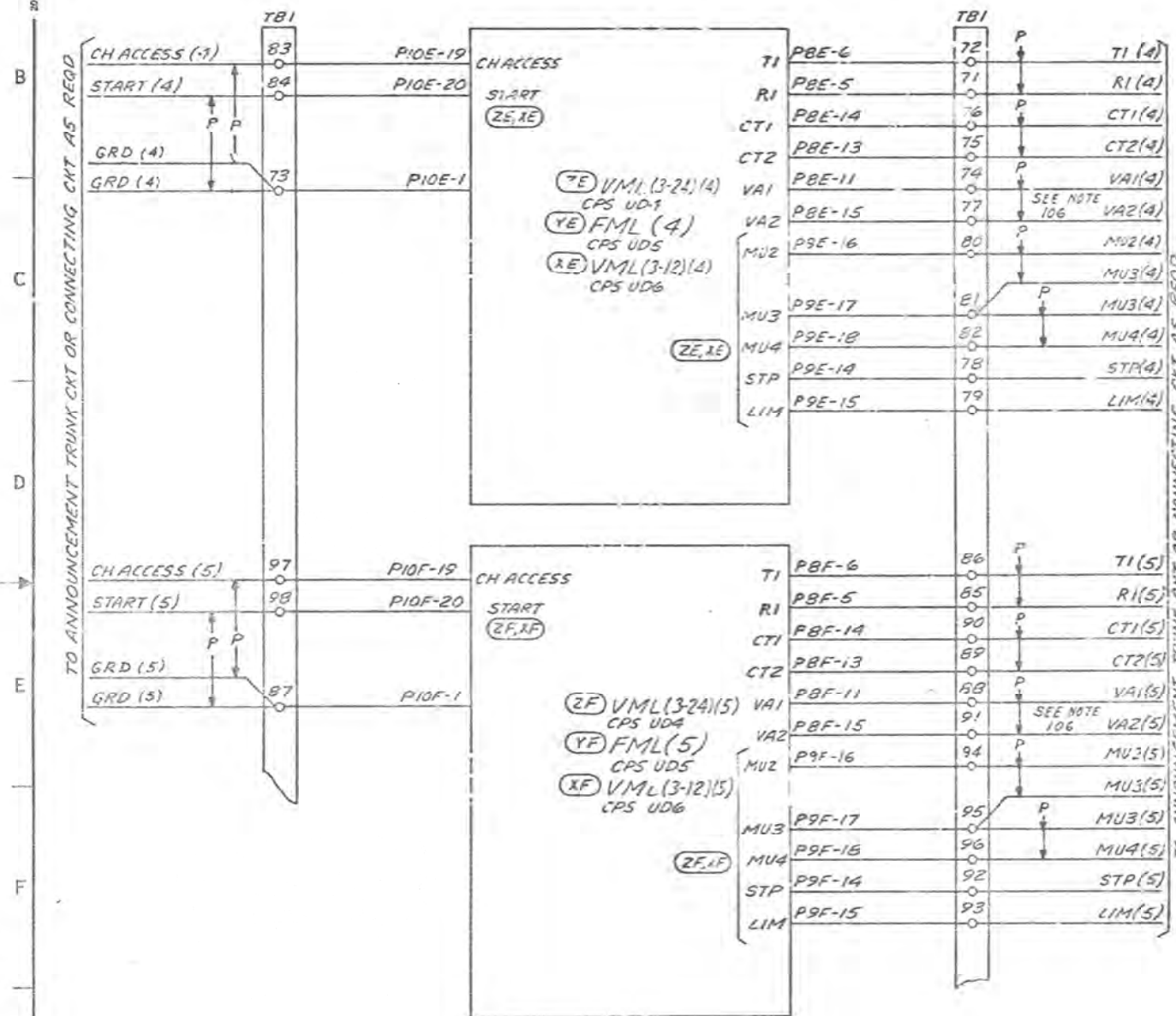
DWG SIZE
65

BELL LABORATORIES

SD-97753-01

B4

PART OF FS I SYSTEM INTERCONNECTIONS



13A ANNOUNCEMENT SYSTEM		DWG SIZE 65	ISSUE /
BELL LABORATORIES	SD-97753-01	B5	

APP FIG. 1

CIRCUIT PACK

EOPT LOC	POS 1	POS 2	POS 3	POS 4	POS 4	POS 4	POS 5	POS 5	POS 5	POS 6	POS 6	POS 6	POS 7	POS 7	POS 7	POS 8	POS 8	POS 8
DESIG	POWER SUPPLY	ENCODER DRIVER	TIMING & CONTROL	VML(3-24)(0)	FML (0)	VML(3-12)(0)	VML(3-24)(1)	FML (1)	VML(3-12)(1)	VML(3-24)(2)	FML (2)	VML(3-12)(2)	VML(3-24)(3)	FML (3)	VML(3-12)(3)	VML(3-24)(4)	FML (4)	VML(3-12)(4)
CODE	UD1	UD2	UD3	UD4	UD5	UD6	UD4	UD5	UD6	UD4	UD5	UD6	UD4	UD5	UD6	UD4	UD5	UD6
OPTION				ZA	YA	XA	ZE	YB	XB	ZC	YC	XC	ZD	YD	XD	ZE	YE	XE
ELEM IDENT																		
TERM. FS LOC	1F2	1B2	1B7	2C4	2C4	2C4	2G6	2G6	2G6	2G6	2G6	2G6	2G6	2G6	2G6	2G6	2G6	2G6
TERM. FS LOC	1G4	1D2	2D2	3E5	3E5	3E5	3E5	3E5	3E5	3E5	3E5	3E5	3E5	3E5	3E5	3E5	3E5	3E5
TERM. FS LOC			3E2	4C2	4C2	4C2	4E2	4E2	4E2	4C7	4C7	4C7	4E7	4E7	4E7	5C2	5C2	5C2

EOPT LOC	POS 9	POS 9	POS 9	POS 10	POS 10	POS 10	POS 11	POS 11	POS 11			
DESIG	VML(3-24)(5)	FML (5)	VML(3-12)(5)	VML(3-24)(6)	FML (6)	VML(3-12)(6)	VML(3-24)(7)	FML (7)	VML(3-12)(7)			
CODE	UD4	UD5	UD6	UD4	UD5	UD6	UD4	UD5	UD6			
OPTION	ZF	YF	YF	ZG	YG	XG	ZH	YH	XH			
ELEM IDENT												
TERM. FS LOC	2G6	2G6	2G6	2G6	2G6	2G6	2G6	2G6	2G6			
TERM. FS LOC	3E5	3E5	3E5	3E5	3E5	3E5	3E5	3E5	3E5			
TERM. FS LOC	5E2	5E2	5E2	5C7	5C7	5C7	5E7	5E7	5E7			

CAPACITOR

DESIG	LOC	CODE
C1	1A1	542G, 1NF
C2	1A1	542G, 1NF

JACK

41 SWITCHCRAFT

TAPE

J11
1 2 1A0

JACK

223AM

HANDSET

J12	J13
1 2 1A0	1 2 1B0

TERMINAL STRIP

DESIG	LOC
TD1	1A2, 1A9, 1B1, 3D0, 4B0, 4B3, 4B5, 4B9, 5B0, 5B3, 5B5, 5B9

CODE

C/D
E0-97882-30

13A ANNOUNCEMENT SYSTEM

DWG SIZE

6S

ISSUE

/

BELL LABORATORIES

SD-97753-01

-CI

E-7421 (6-75)
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CIRCUIT NOTES:

DESIG	FUSE AMP	POTENTIAL	ONE PER
F1	3	-48V TALK	SEE NOTES 104 & 105
BATTERY SYMBOL		VOLTAGE RANGE	
-48V TALK BAT.		-42.5 TO -52.5	

FEATURE OR OPTION	APP FIG.	APP OR WRD	QUANTITY
UD1 POWER SUPPLY MODULE	1		1 PER CKT
UD2 ENCODER-DRIVER MODULE	1		1 PER CKT
UD3 TIMING & CONTROL MODULE	1		1 PER CKT
UD4 VML (3-24) MESSAGE MODULE IN CHAN 0 POSITION	1	Z4	1 PER POSITION
UD5 FML MESSAGE MODULE IN CHAN 0 POSITION	1	Y4	1 PER POSITION
UD6 VML (3-12) MESSAGE MODULE IN CHAN 0 POSITION	1	X4	1 PER POSITION
UD4 VML (3-24) MESSAGE MODULE IN CHAN 1 POSITION	1	Z5	1 PER POSITION
UD5 FML MESSAGE MODULE IN CHAN 1 POSITION	1	Y5	1 PER POSITION
UD6 VML (3-12) MESSAGE MODULE IN CHAN 1 POSITION	1	X5	1 PER POSITION
UD4 VML (3-24) MESSAGE MODULE IN CHAN 2 POSITION	1	ZC	1 PER POSITION
UD5 FML MESSAGE MODULE IN CHAN 2 POSITION	1	YC	1 PER POSITION
UD6 VML (3-12) MESSAGE MODULE IN CHAN 2 POSITION	1	XC	1 PER POSITION
UD4 VML (3-24) MESSAGE MODULE IN CHAN 3 POSITION	1	ZD	1 PER POSITION
UD5 FML MESSAGE MODULE IN CHAN 3 POSITION	1	YD	1 PER POSITION
UD6 VML (3-12) MESSAGE MODULE IN CHAN 3 POSITION	1	XD	1 PER POSITION
UD4 VML (3-24) MESSAGE MODULE IN CHAN 4 POSITION	1	ZE	1 PER POSITION
UD5 FML MESSAGE MODULE IN CHAN 4 POSITION	1	YE	1 PER POSITION
UD6 VML (3-12) MESSAGE MODULE IN CHAN 4 POSITION	1	XE	1 PER POSITION
UD4 VML (3-24) MESSAGE MODULE IN CHAN 5 POSITION	1	ZF	1 PER POSITION
UD5 FML MESSAGE MODULE IN CHAN 5 POSITION	1	YF	1 PER POSITION
UD6 VML (3-12) MESSAGE MODULE IN CHAN 5 POSITION	1	XF	1 PER POSITION
UD4 VML (3-24) MESSAGE MODULE IN CHAN 6 POSITION	1	ZG	1 PER POSITION
UD5 FML MESSAGE MODULE IN CHAN 6 POSITION	1	YG	1 PER POSITION
UD6 VML (3-12) MESSAGE MODULE IN CHAN 6 POSITION	1	XG	1 PER POSITION

CIRCUIT NOTES: (CONT)

FEATURE OR OPTION	APP FIG.	APP OR WRD	QUANTITY
UD4 VML (3-24) MESSAGE MODULE IN CHAN 7 POSITION	1	ZH	1 PER POSITION
UD5 FML MESSAGE MODULE IN CHAN 7 POSITION	1	YH	1 PER POSITION
UD6 VML (3-12) MESSAGE MODULE IN CHAN 7 POSITION	1	XH	1 PER POSITION

103.	RECORD OF FIGURES, WIRING AND APPARATUS CHANGES					
CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS PLAN	SEE NOTE	USE IN CIRCUIT		
				STD	A&M	MD

104. FUSE IS PART OF CIRCUIT PACK UD1.

CIRCUIT NOTES: (CONT)

105. -48V MUST BE PROVIDED BY TALK BATTERY SUPPLIED THROUGH A SEPARATE DEDICATED FILTER LOCATED AT THE BASE OF THE FRAME CONTAINING THE 13A ANNOUNCEMENT SYSTEM. BATTERY LEAD AND GROUND RETURN SHALL BE A TWISTED PAIR RUN TO THE INPUT OF THE FILTER. POWER CABLE FROM THE FILTER OUTPUT TO THE 13A ANNOUNCEMENT SYSTEM SHALL ALSO BE TWISTED PAIR AND SHALL NOT BE BUNDLED IN WITH OR RUN ADJACENT TO OTHER CABLES ON THE FRAME.
106. A VOICE ALARM FROM A UD4, UD5, OR UD6 MESSAGE MODULE REPRESENTS LOSS OF ANNOUNCEMENT FROM THE CHANNEL EQUIPPED WITH THE MESSAGE MODULE THAT IS IN THE VOICE ALARM CONDITION. LOSS OF FUSE F1 INITIATES THE VOICE ALARM ON ALL CHANNELS EQUIPPED, AND REPRESENTS LOSS OF ANNOUNCEMENT FROM ALL CHANNELS EQUIPPED. THE VOICE ALARM LEADS, V41 (0-7) AND V42 (0-7), SHOULD BE CONNECTED TO THE M3, M4, LEADS OF THE OFFICE ALARM CIRCUIT OR TO EQUIVALENT LEADS, DEPENDING UPON THE TYPE OF OFFICE, TO DETECT A VOICE ALARM CONDITION.
107. IN GENERAL, ALL CONNECTIONS FROM INTERCONNECTING CIRCUITS TO THE 13A ANNOUNCEMENT SYSTEM SHALL BE TWISTED PAIR.
108. THE LOOP RESISTANCE OF THE TWISTED PAIRS WHICH CONNECT THE AUDIO AMPLIFIER OUTPUT TERMINALS T1(0-7) AND R1(0-7) TO THE TRUNK CIRCUITS SHOULD BE AS LOW AS POSSIBLE. THE FOLLOWING TABLES SHOW THE EFFECT OF VARIOUS LOOP RESISTANCES ON THE CHANGE OF ANNOUNCEMENT LEVEL WITH AN INCREASING NUMBER OF TRUNK CIRCUITS. FOR EXAMPLE, TAKE 100 TRUNK CIRCUITS, PROVIDING FOR 600 OHM DISTRIBUTION, CONNECTED TO AN OUTPUT BY MEANS OF A TWISTED PAIR HAVING A LOOP RESISTANCE OF 4 OHMS. IF ALL 100 TRUNK CIRCUITS ARE IN USE, THE ANNOUNCEMENT LEVEL WILL BE 3.0 DB LOWER THAN THE LEVEL WHEN ONE TRUNK CIRCUIT IS IN USE.

LOSS, IN DB, 900 OHM DISTRIBUTION

NUMBER OF TRUNKS	1	50	100	200	300	400	500
LOOP RESISTANCE							
0.50	0	0.4	0.7	1.3	1.9	2.5	3.0
10	0	0.5	0.9	1.7	2.5	3.2	3.8
20	0	0.7	1.3	2.5	3.5	4.4	5.3
30	0	0.9	1.7	3.2	4.4	5.5	6.5
40	0	1.1	2.1	3.8	5.3	6.5	7.6
50	0	1.3	2.5	4.4	6.0	7.4	8.5

LOSS, IN DB, FOR 600 OHM DISTRIBUTION

NUMBER OF TRUNKS	1	50	100	200	300	400	500
LOOP RESISTANCE							
0.50	0	0.5	1.0	1.9	2.8	3.5	4.2
10	0	0.7	1.3	2.5	3.5	4.4	5.3
20	0	1.0	1.9	3	4.9	6.0	7.0
30	0	1.3	2.5	4.4	6.0	7.4	8.5
40	0	1.6	3.0	5.3	7.0	8.5	9.8
50	0	1.9	3.5	6.0	8.0	9.5	10.9

EQUIPMENT NOTES:

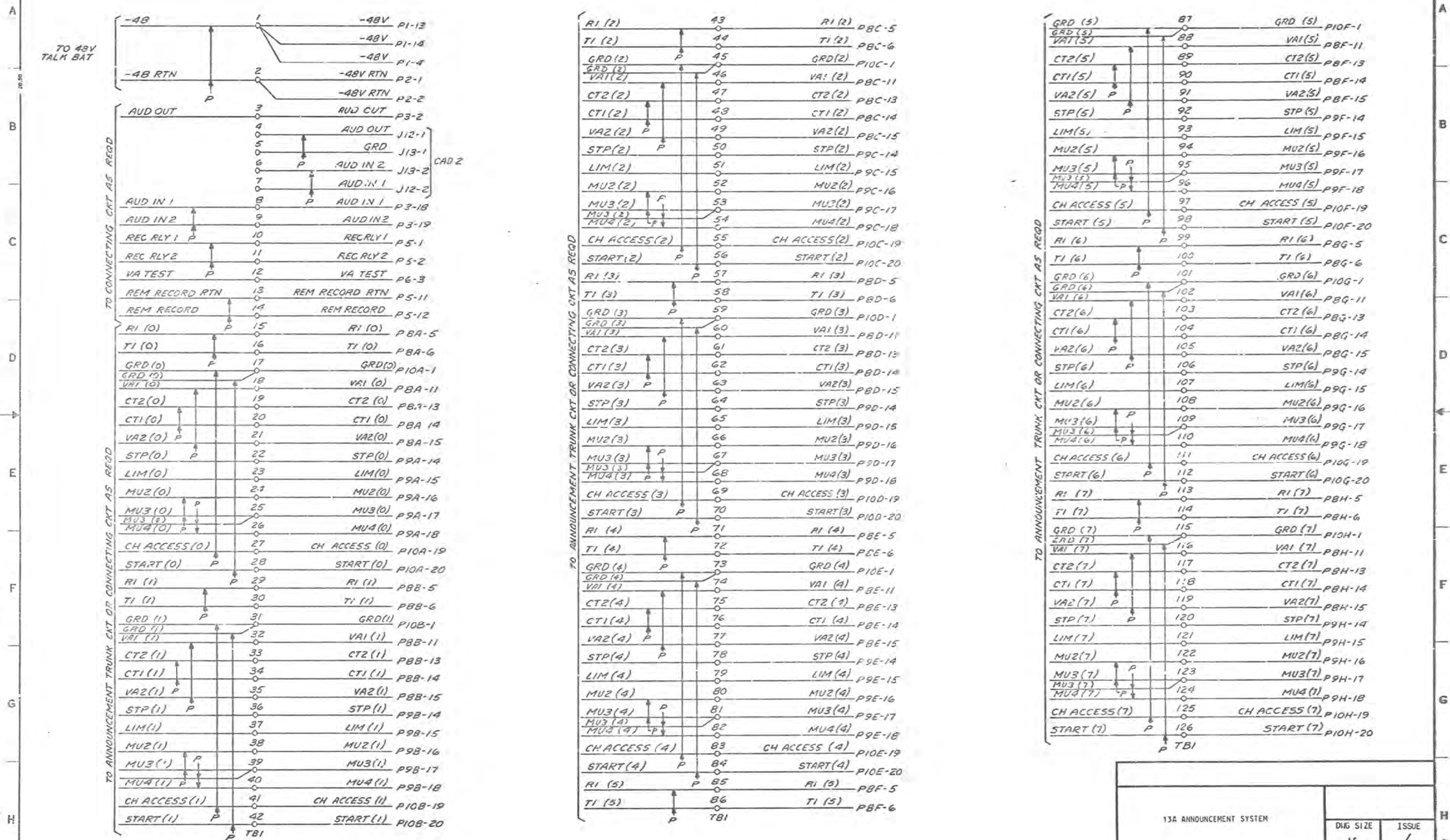
201. WIRE BETWEEN BACKPLANE AND TAPE AND HEADSET JACKS SHALL BE KS-19195 LT PAIR, 1W.
202. TO CAUSE MINIMUM INTERFERENCE TO THE AUDIO SIGNALS THE 13A ANNOUNCEMENT SYSTEM SHOULD NOT BE LOCATED IN THE SAME FRAME OR ADJACENT TO EQUIPMENT WHICH PRODUCES EXTRAORDINARY ELECTRICAL ACTIVITY (SUCH AS RINGING AND TONE EQUIPMENT, SELECTOR SWITCHES, CROSSBAR SWITCHES, OR INTERRUPTER CIRCUITS).
203. ALL CONNECTIONS TO THE 13A ANNOUNCEMENT SYSTEM EXCEPT POWER AND GROUND ARE MADE TO THE .045 SQUARE WIRE WRAP TERMINALS ON THE BACKPLANE.

INFORMATION NOTES:

301.

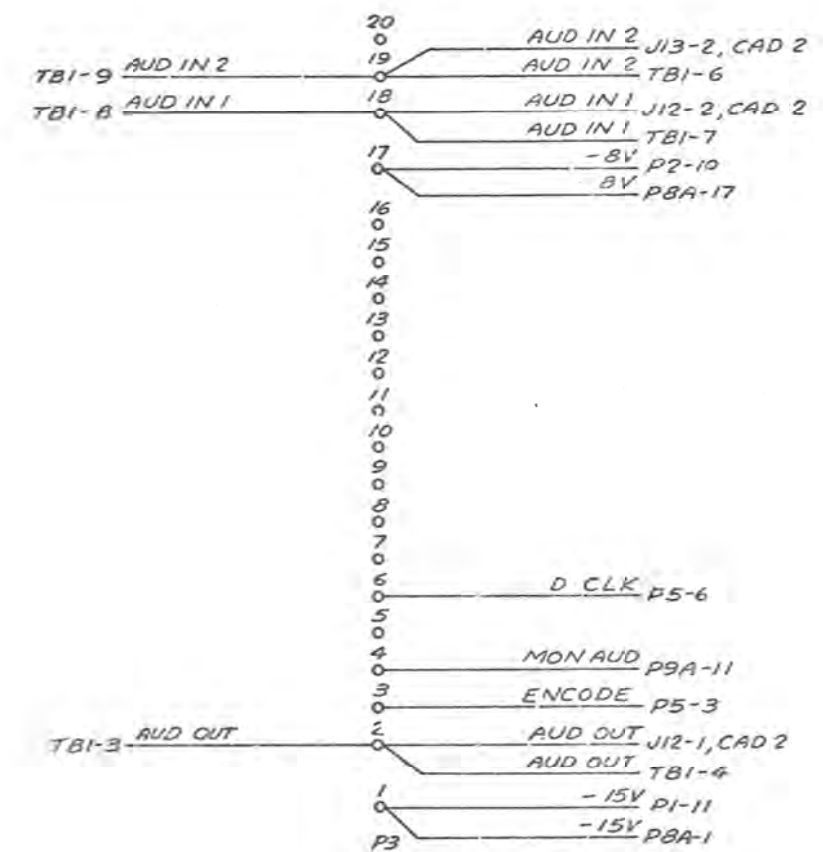
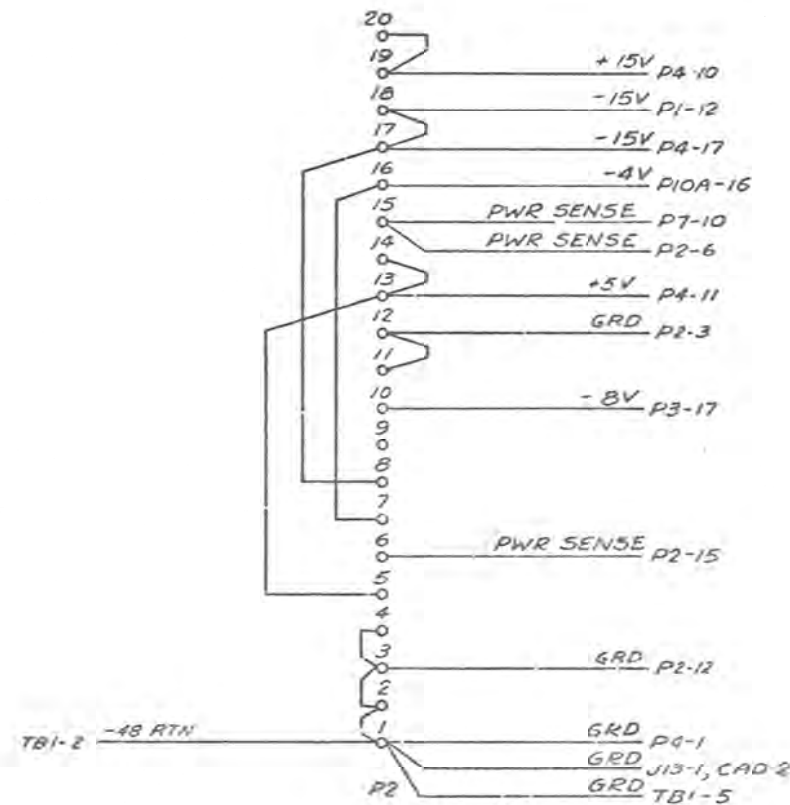
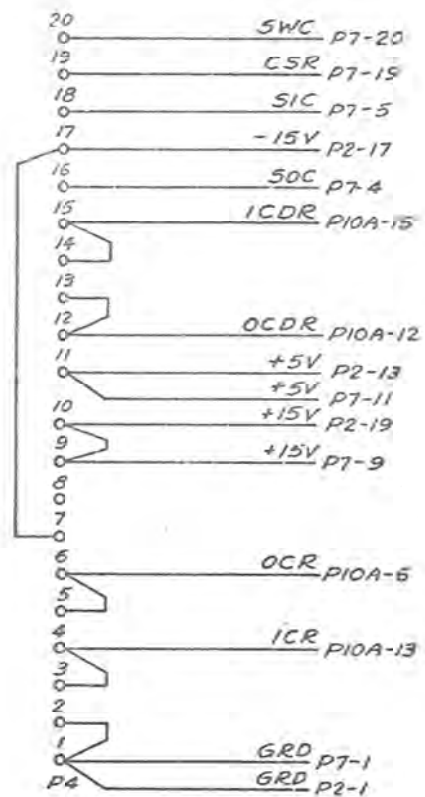
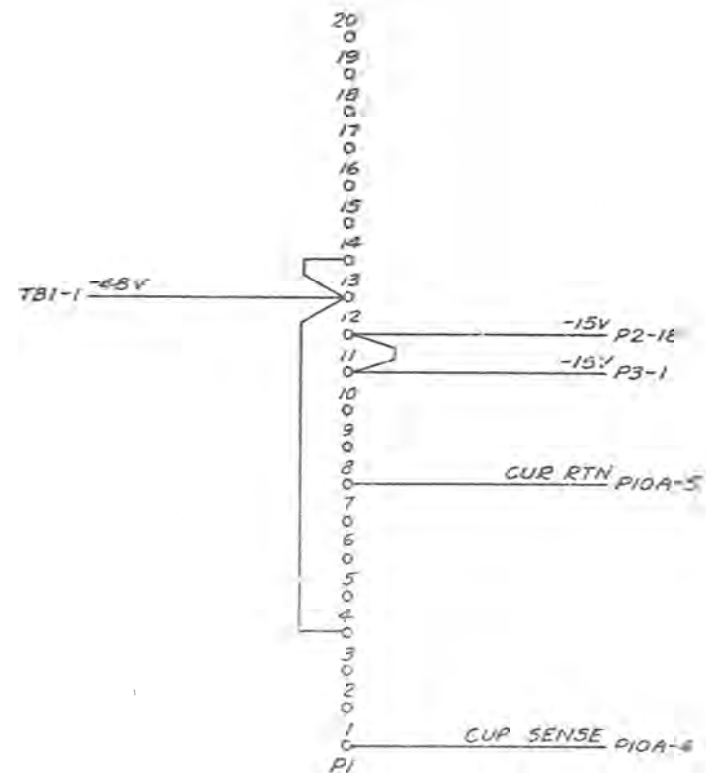
13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
		65	/
BELL LABORATORIES	SD-97753-01	-DI	

PART OF CADI BACKPLANE WIRING



13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
		65	/
BELL LABORATORIES	SD-97753-01		G1

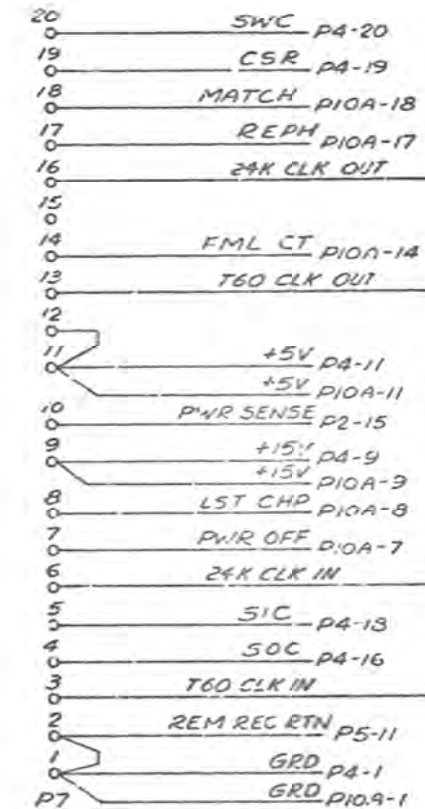
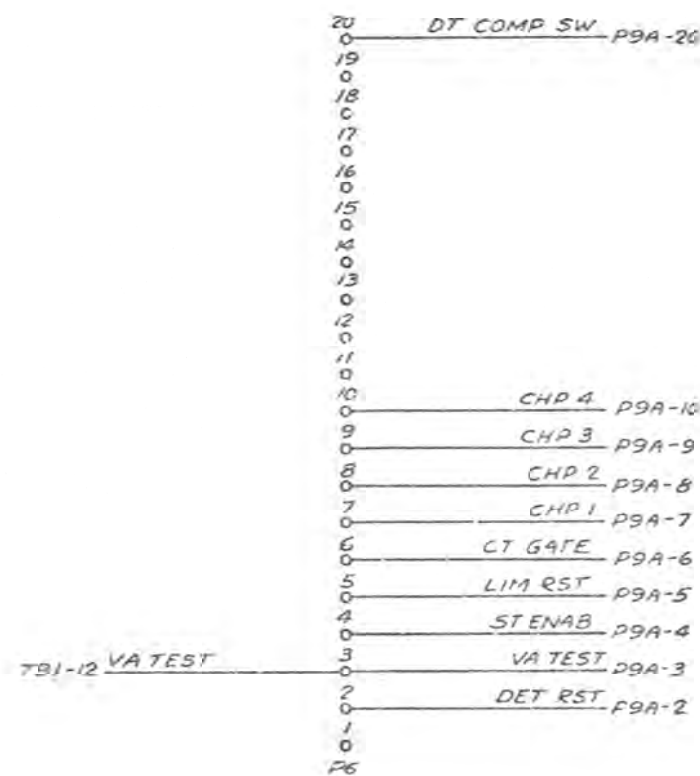
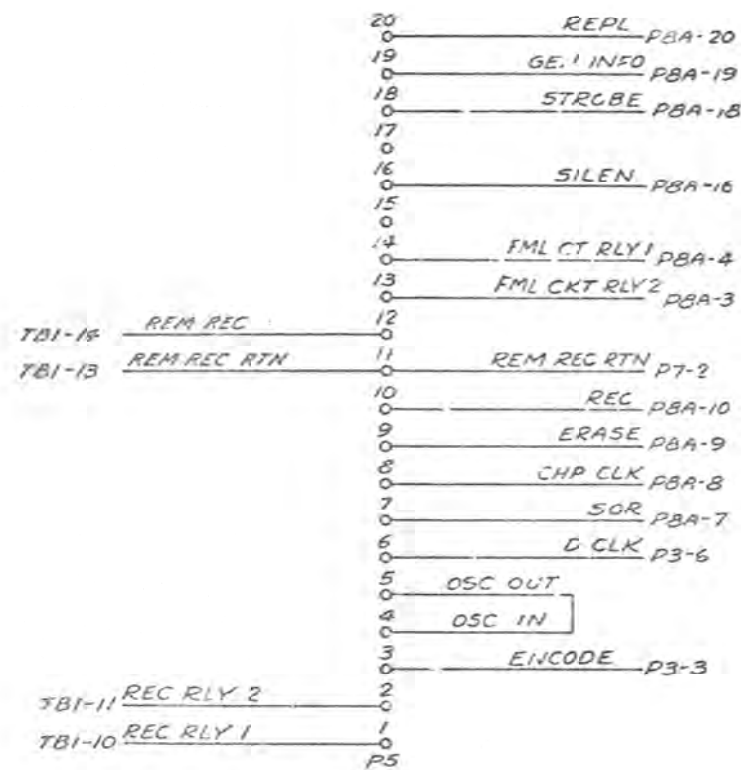
PART OF CAD 1 BACKPLANE WIRING



NOTE: NO INSTALLER WIRING ON SHEETS
G2 THRU 511.

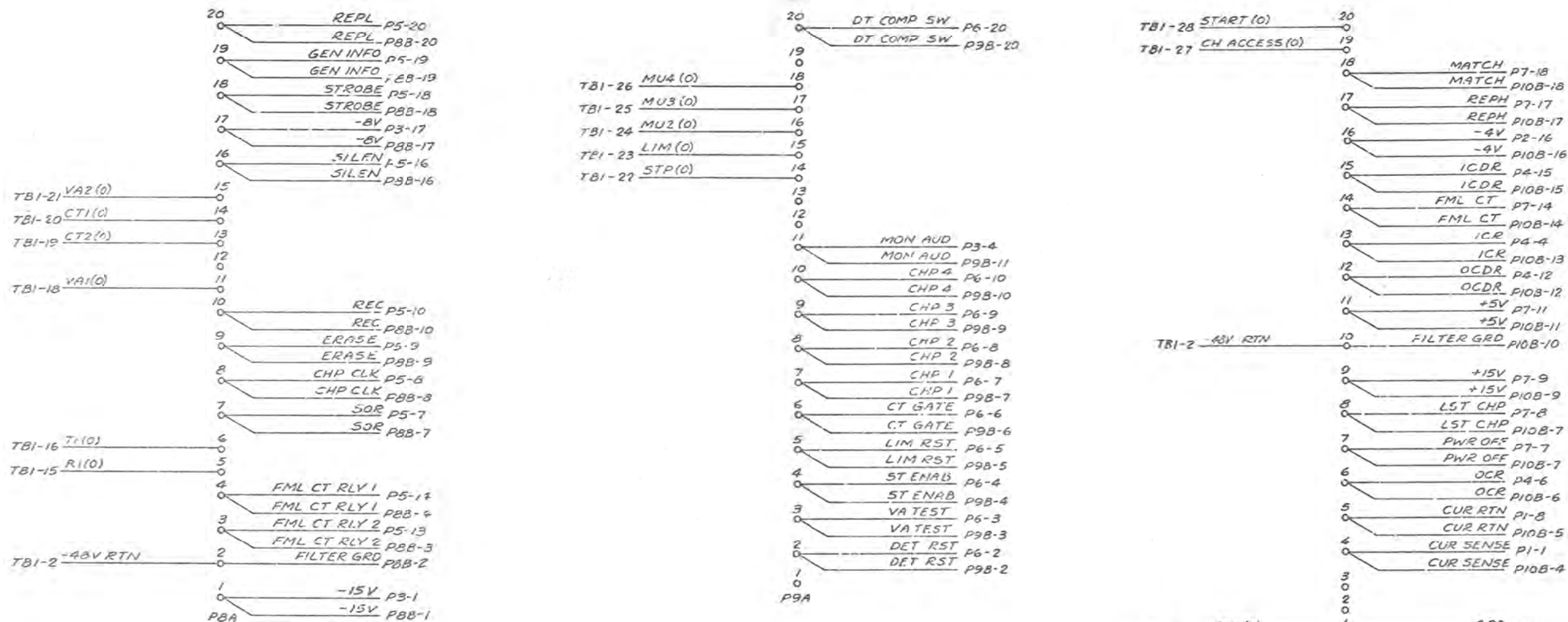
13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
		62	/
BELL LABORATORIES	SD-97753-01	G2	

PART OF CAD 1 BACKPLANE WIRING



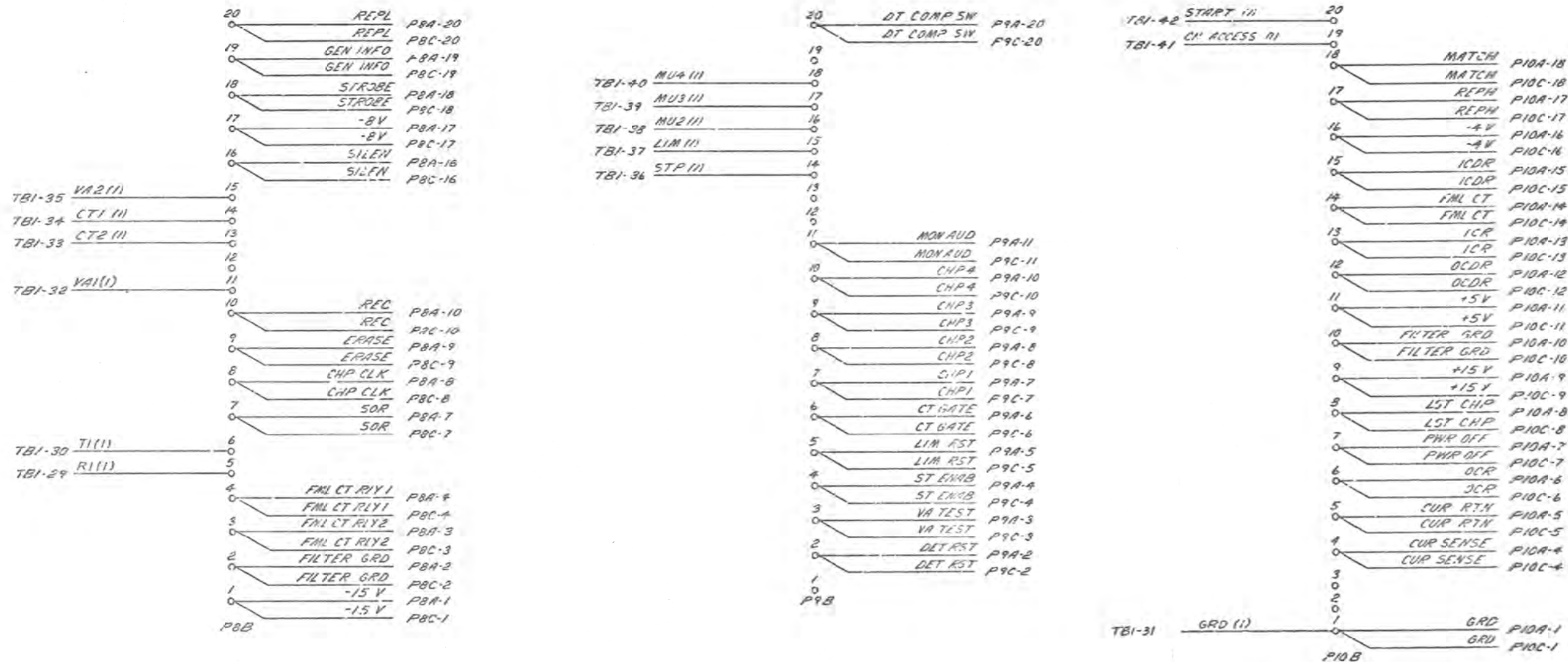
13A ANNOUNCEMENT SYSTEM		DWG SIZE 65	ISSUE /
BELL LABORATORIES	SD-97753-01	G3	

PART OF CAD I BACKPLANE WIRING



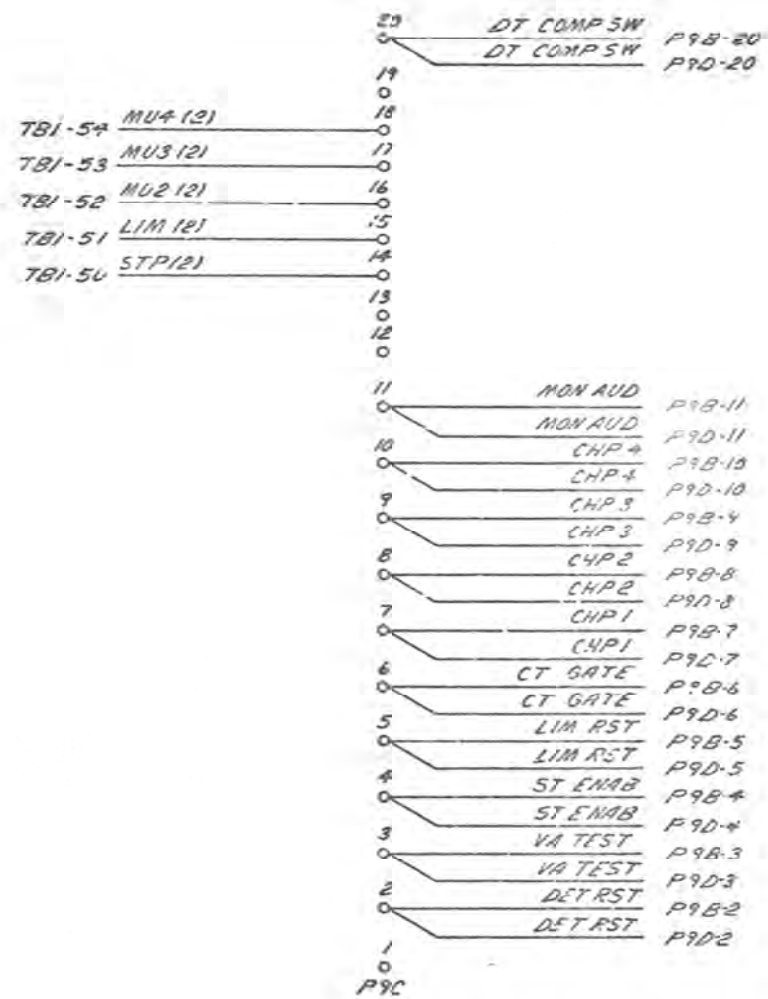
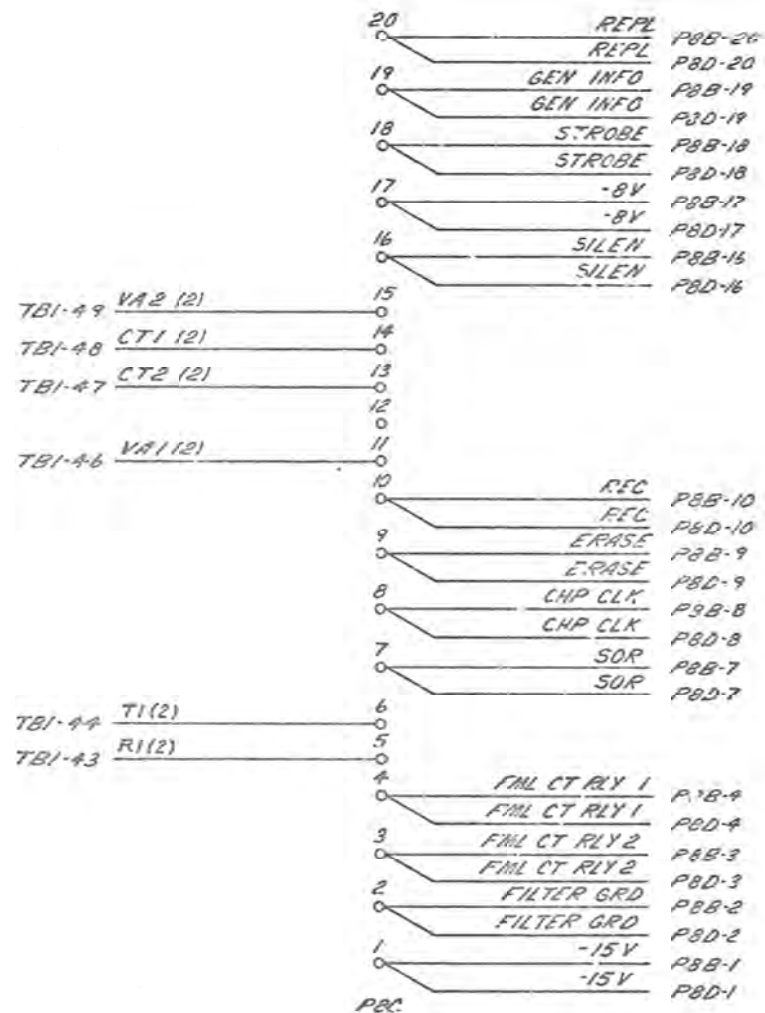
13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
		65	/
BELL LABORATORIES	SD-97753-01	64	

PART OF CAD 1 BACKPLANE WIRING



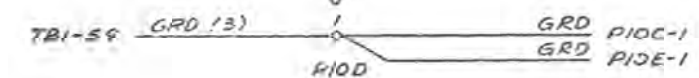
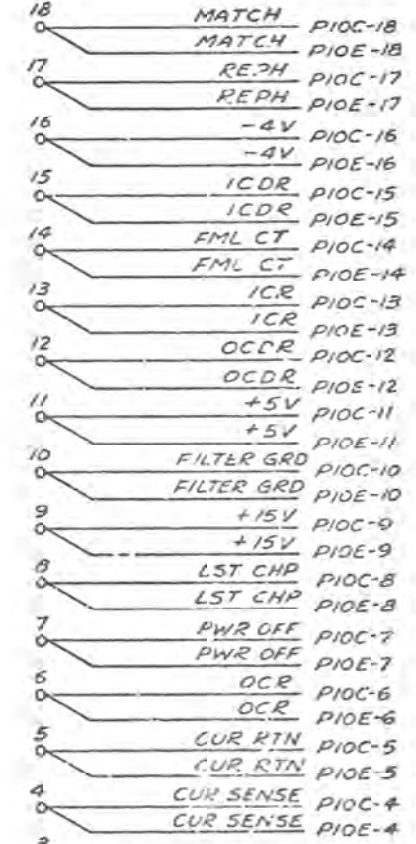
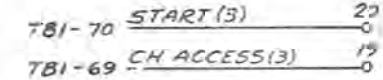
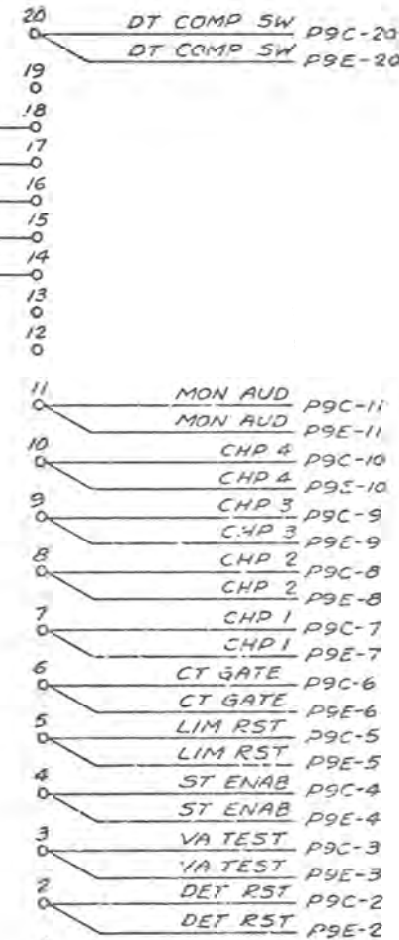
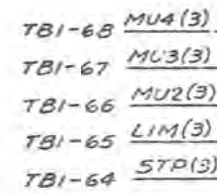
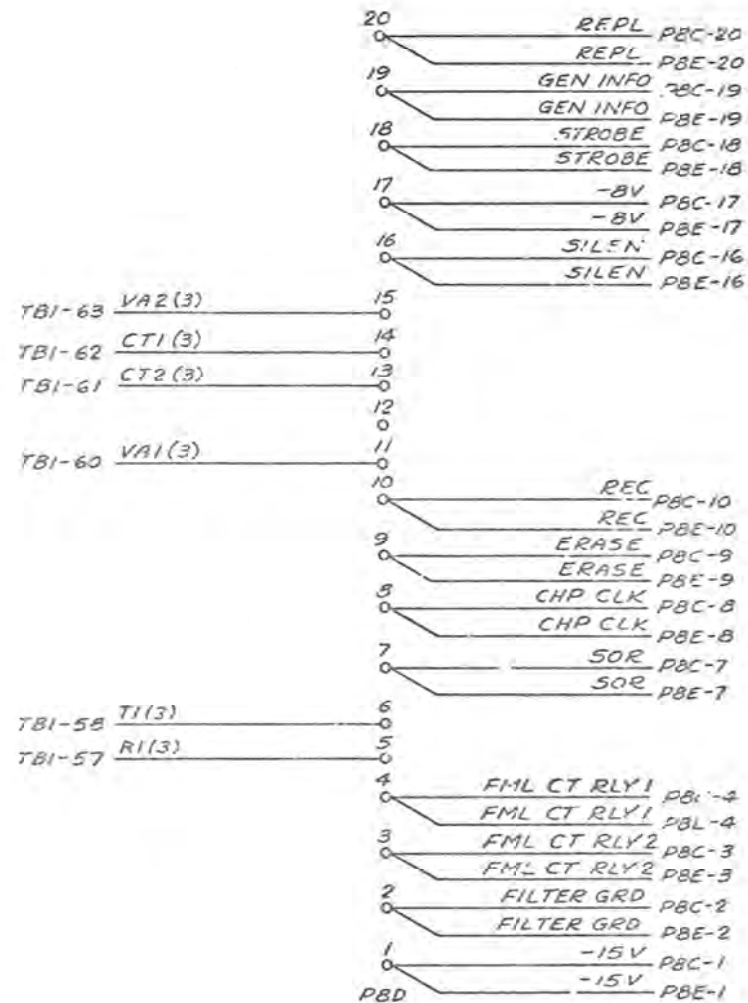
13A ANNOUNCEMENT SYSTEM		DWG SIZE 65	ISSUE /
BELL LABORATORIES	SD-97753-01	G5	

PART OF CAD 1 BACKPLANE WIRING



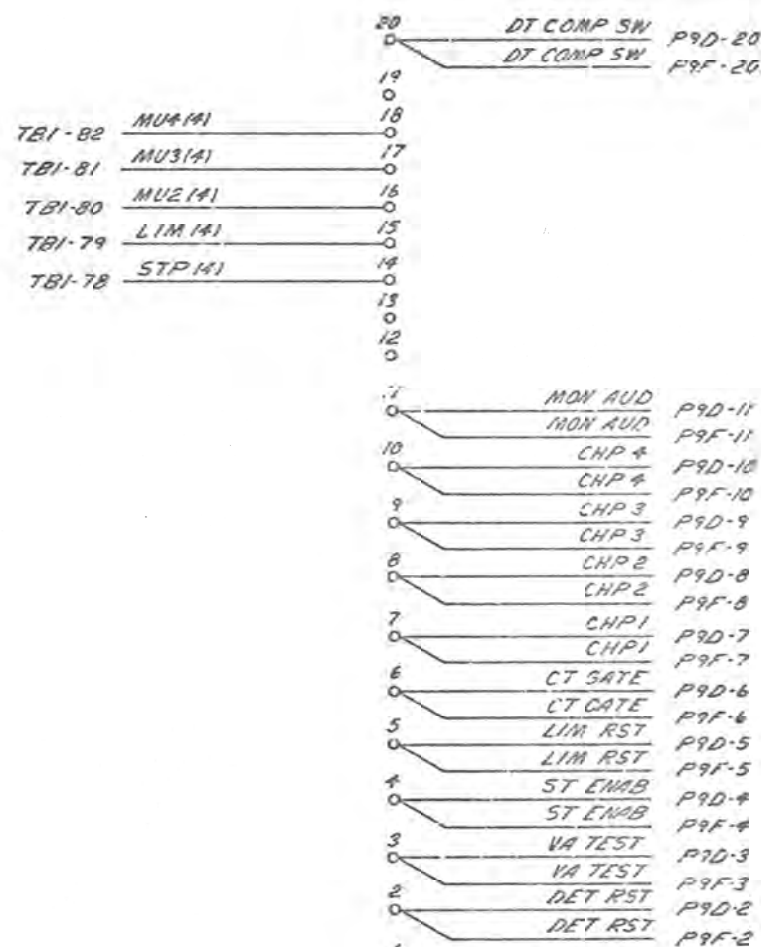
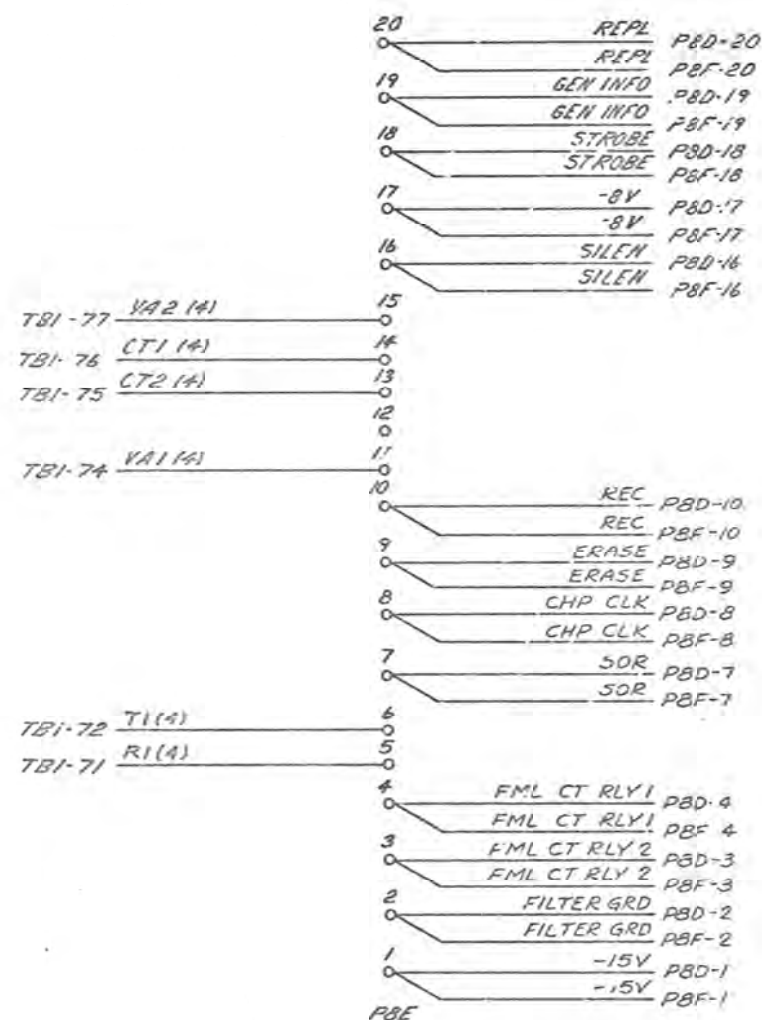
13A ANNOUNCEMENT SYSTEM		DWG SIZE 65	ISSUE /
BELL LABORATORIES	SD-97753-01	G6	

PART OF CAD 1 BACKPLANE WIRING



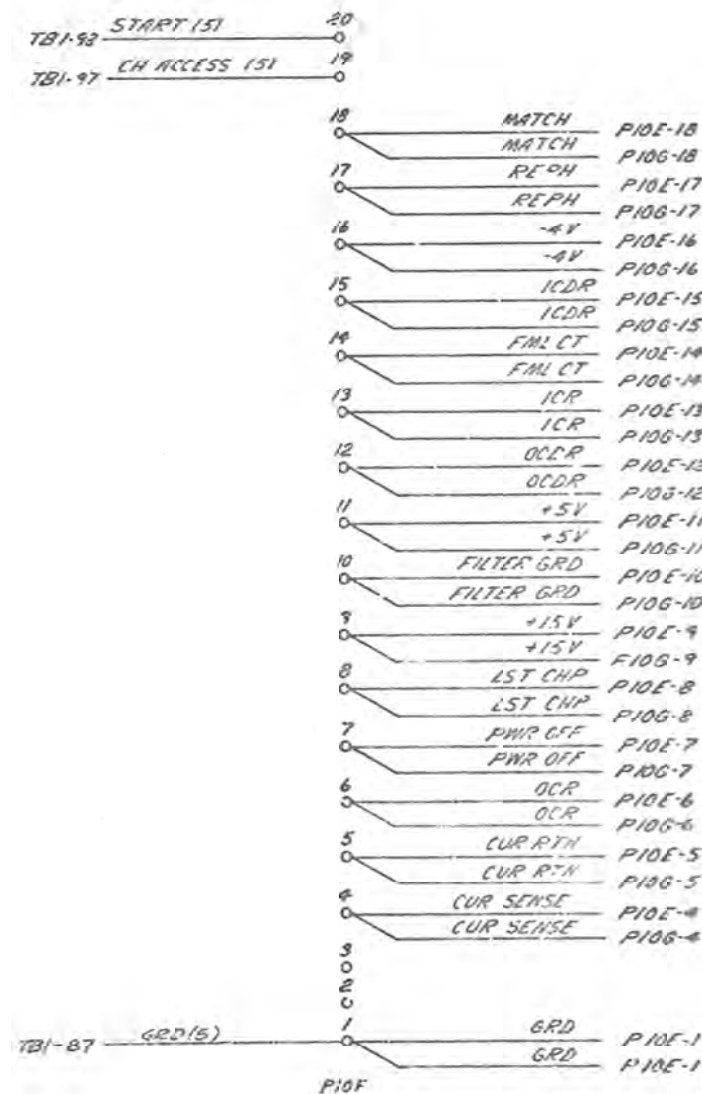
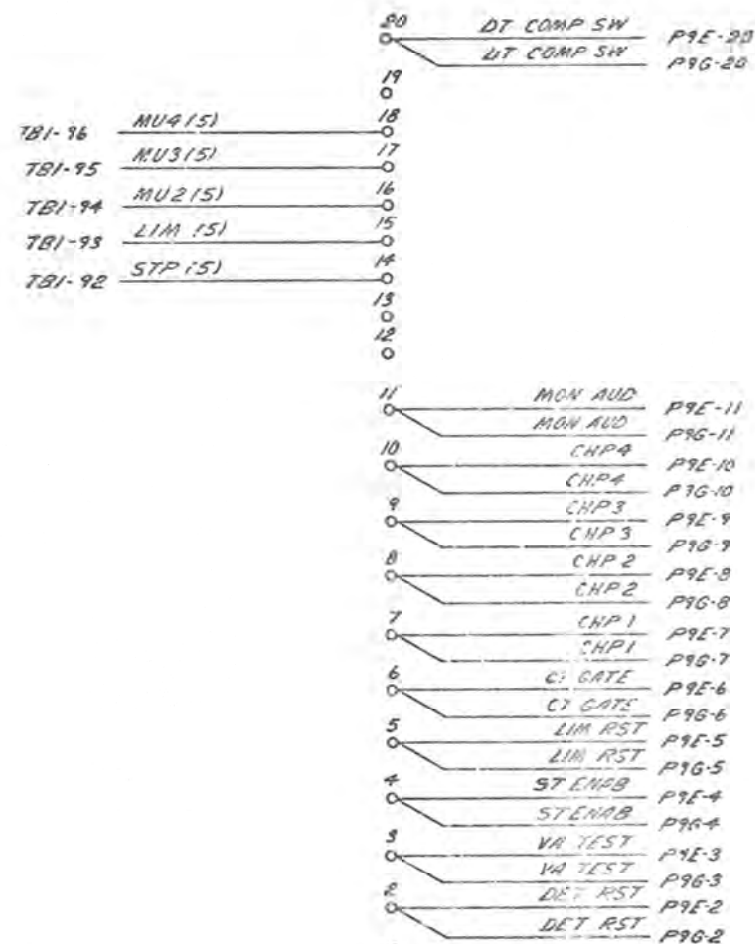
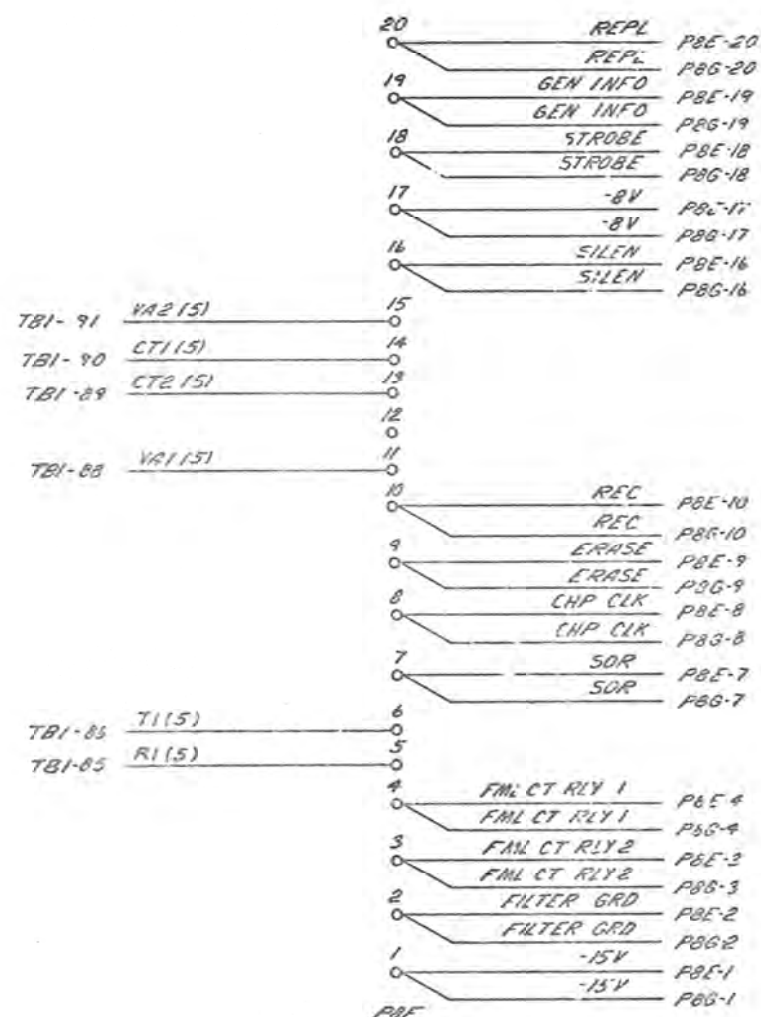
13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
		65	/
BELL LABORATORIES	SD-97753-01	G7	

PART OF CAD I BACKPLANE WIRING



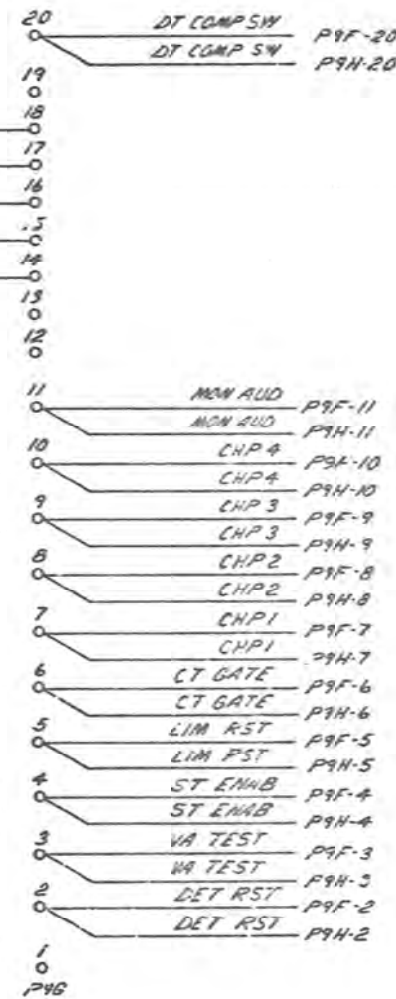
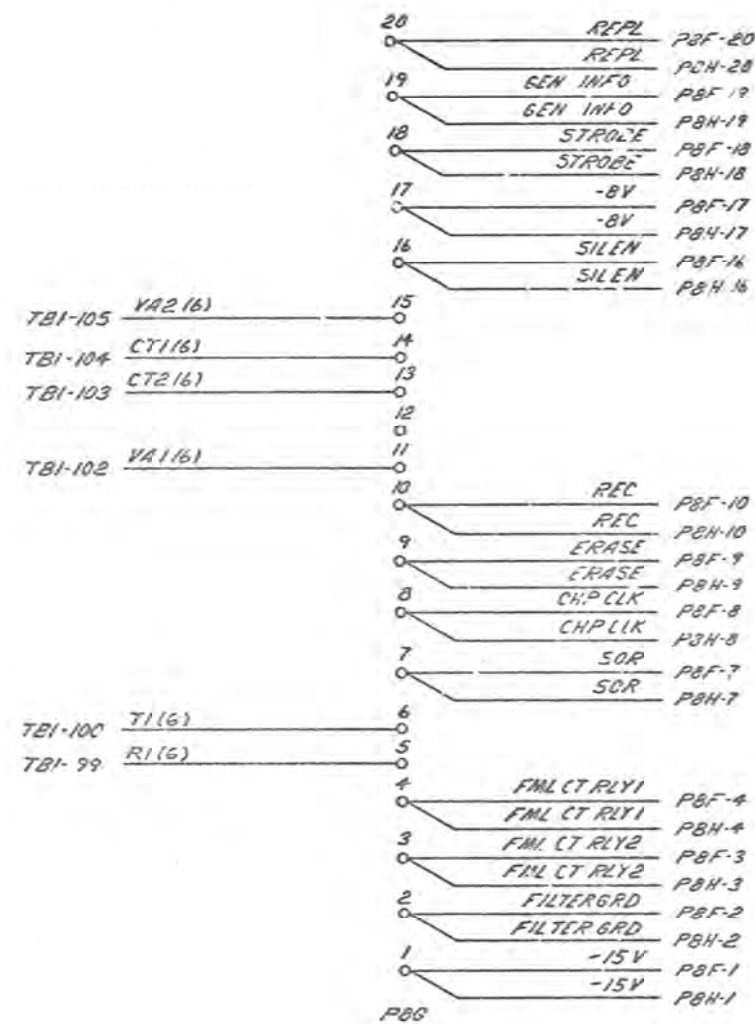
13A ANNOUNCEMENT SYSTEM		DWG SIZE 65	ISSUE /
BELL LABORATORIES	SD-97753-01	G8	

PART OF CAD I BACKPLANE WIRING



13A ANNOUNCEMENT SYSTEM		DWG SIZE 65	ISSUE /
BELL LABORATORIES		SD-97753-01	G9

PART OF CAD I BACKPLANE WIRING



13A ANNOUNCEMENT SYSTEM

DWG SIZE
6S

ISSUE
/

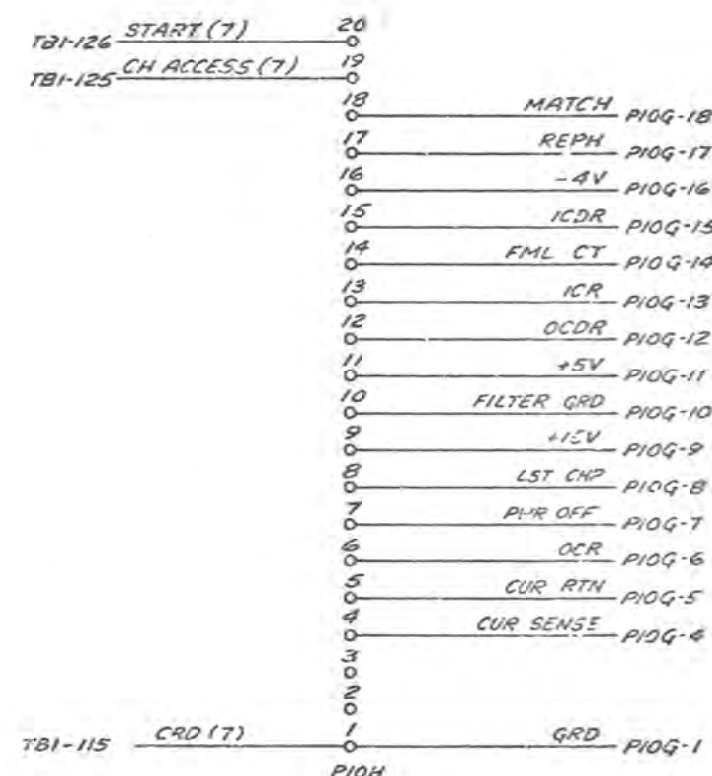
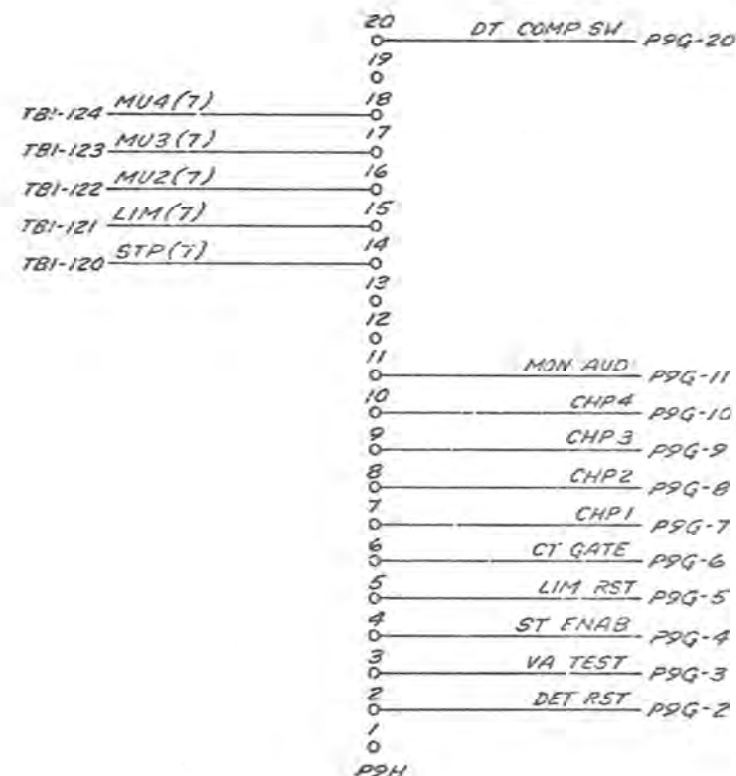
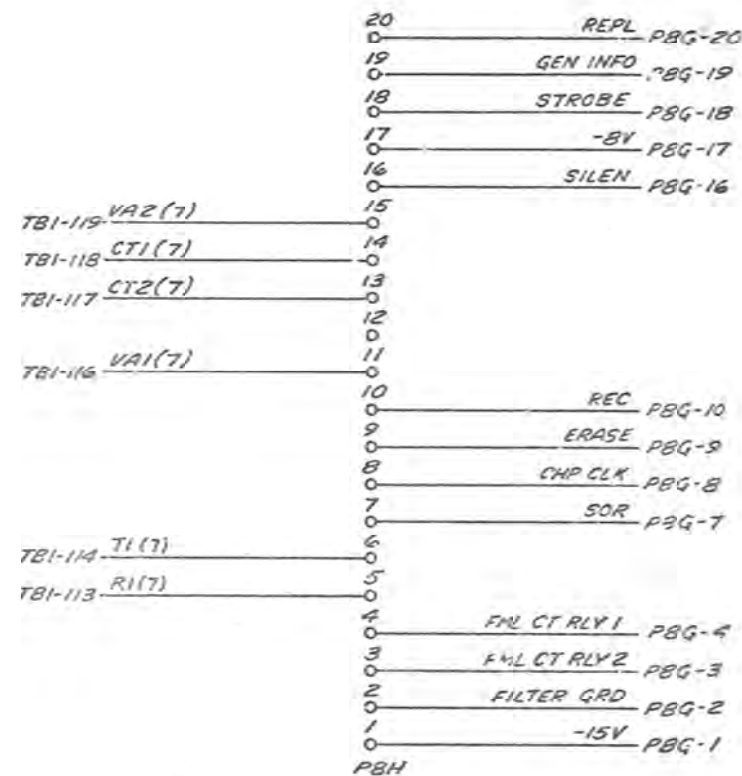
BELL LABORATORIES

SD-97753-01

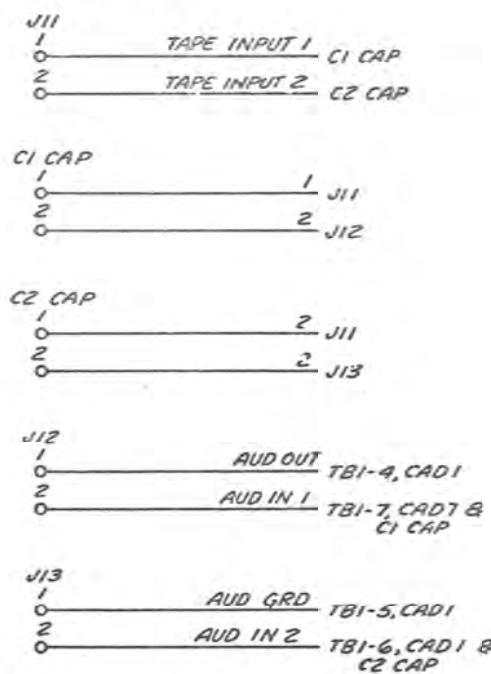
G10

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PART OF CAD 1 BACKPLANE WIRING

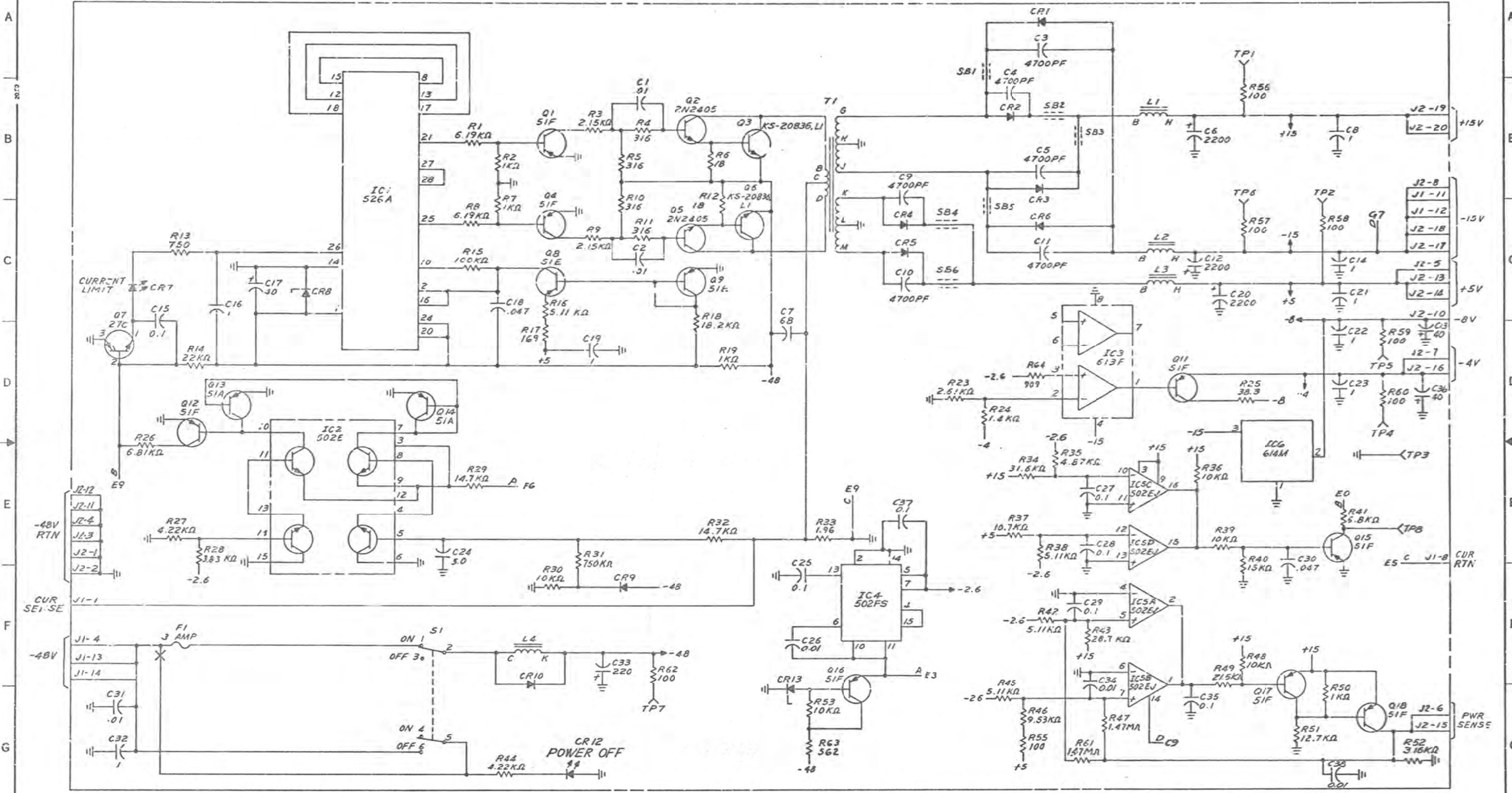


CAD 2



13A ANNOUNCEMENT SYSTEM		DWG SIZE 6S	ISSUE /
BELL LABORATORIES	SD-97753-01		G11

P/O CPS UDI POWER SUPPLY



13A ANNOUNCEMENT SYSTEM			
		DWG SIZE 6S	ISSUE /
BELL LABORATORIES	SD-97753-01		-J1

P/O CPS UDI

POWER SUPPLY

COMPONENT LIST

CAPACITOR

DESIG	LOC	CODE
C1	1A4	KS-19774, L7, .01
C2	1C4	KS-19774, L7, .01
C3	1A6	KS-19774, L7, 4700PF
C4	1A6	KS-19774, L7, 4700PF
C5	1B6	KS-19774, L7, 4700PF
C6	1B6	6730-228 M020 J55C SPRAGUE, 2200
C7	1C5	6720-686 M060 J55C SPRAGUE, 68
C8	1B9	596G, 1
C9	1B6	KS-19774, L7, 4700PF
C10	1C6	KS-19774, L7, 4700PF
C11	1C6	KS-19774, L7, 4700PF
C12	1C8	6730-228 M020 J55C SPRAGUE, 2200
C13	1D9	602A, 40
C14	1C9	596G, 1
C15	1C0	KS-19774, L13, 0.1
C16	1C1	KS-20736, L6, 1
C17	1C1	602A, 40
C18	1C3	KS-19774, L11, .047
C19	1D3	KS-20736, L6, 1
C20	1C8	6730-228 M060 J55C SPRAGUE, 2200
C21	1C9	596G, 1
C22	1D9	596G, 1
C23	1D9	596G, 1
C24	1E2	601A, 5
C25	1F5	KS-20736, L4, 0.1
C26	1F5	KS-19774, L7, 0.01
C27	1E7	KS-20736, L4, 0.1
C28	1E7	KS-20736, L4, 0.1
C29	1F7	KS-20736, L4, 0.1
C30	1E8	KS-19774, L11, .047
C31	1G0	542S, .01
C32	1G0	596G, 1
C33	1F4	6730-227 M060 J55C SPRAGUE, 220
C34	1F7	KS-20736, L4, 0.01
C35	1G8	KS-20736, L4, 0.1
C36	1D9	602A, 40
C37	1E5	KS-20736, L4, 0.1
C38	1H9	KS-20736, L4, 0.01

CONNECTOR

DESIG	LOC	CODE
J1		961B-20
J2		961B-20

DIODE

DESIG	LOC	CODE
CR1	1A6	4B5AE
CR2	1B6	
CR3	1B6	
CR4	1B5	
CR5	1C5	531G
CR6	1B6	
CR7	1C0	
CR8	1C1	
CR9	1F4	4S98B
CR10	1F3	533B
CR12	1G3	531G
CR13	1G5	4S98B

FERRITE BEAD

DESIG	LOC	CODE
SB1	1A6	57-1559 STACKPOLE CARBON CO
SB2	1B7	
SB3	1B7	
SB4	1C6	
SB5	1C6	
SB6	1C6	

FUSE

DESIG	LOC	CODE
F1	1F0	70C

INDUCTION COIL

DESIG	LOC	CODE
L1	1B7	1301B
L2	1C7	
L3	1C7	
L4	1F3	

INTEGRATED CIRCUIT

DESIG	LOC	CODE
IC1	1B2	5260
IC2	1E2	502E
IC3	1C6	613F
IC4	1F5	502FS
IC5	1E7, 1F7	502E1
IC6	1D8	6141T

RESISTOR

DESIG	LOC	CODE
R1	1B3	KS-20810, L1A, 6.19KΩ
R2	1B3	KS-20810, L1A, 1KΩ
R3	1B3	KS-20810, L1A, 2.15KΩ
R4	1B4	KS-20616, L1A, 316
R5	1B4	KS-20616, L1A, 316
R6	1B4	KS-20810, L1A, 18
R7	1B3	KS-20810, L1A, 1KΩ
R8	1B3	KS-20810, L1A, 6.15KΩ
R9	1C3	KS-20810, L1A, 2.15KΩ
R10	1B4	KS-20616, L1A, 316
R11	1C4	KS-20616, L1A, 316
R12	1B4	KS-20810, L1A, 18
R13	1C0	KS-20810, L1A, 750
R14	1D0	KS-20616, L1A, 22KΩ
R15	1C2	KS-20810, L1A, 10KΩ
R16	1C3	KS-20616, L1A, 5.11KΩ
R17	1C3	KS-20616, L1A, 169
R18	1C4	KS-20616, L1, 18.2KΩ
R19	1D4	KS-20289, L6C, 1KΩ
R23	1D6	KS-20616, L1A, 2.41KΩ
R24	1D6	KS-20616, L1A, 1.44Ω
R25	1D8	KS-20616, L1A, 38.3
R26	1D0	KS-20616, L1A, 1.81KΩ
R27	1E0	KS-20616, L1A, 4.22KΩ
R28	1E1	KS-20616, L1A, 3.85KΩ
R29	1E3	KS-20616, L1A, 14.7KΩ
R30	1F3	KS-20810, L1A, 10KΩ
R31	1F3	KS-20810, L1A, 750KΩ
R32	1E4	KS-20810, L1A, 14.7KΩ
R33	1E5	1.96 31.6KΩ 4.8KΩ 10KΩ
R34	1E6	
R35	1E7	
R36	1E8	
R37	1E6	KS-20616, L1A, 10.7KΩ
R38	1E6	5.11KΩ
R39	1E8	10KΩ
R40	1E8	15KΩ

RESISTOR (CONT)

DESIG	LOC	CODE
R41	1E4	6.81KΩ
R42	1F7	KS-20616, L1A, 5.11KΩ
R43	1F7	26.7KΩ
R44	1G3	KS-20289, L6C, 4.22KΩ
R45	1G6	KS-20616, L1A, 5.11KΩ
R46	1G6	KS-20616, L1A, 9.53KΩ
R47	1G7	KS-20810, L1A, 1.47MΩ
R48	1G8	10KΩ
R49	1F9	21.5KΩ
R50	1F9	1KΩ
R51	1F8	12.7KΩ
R52	1G9	3.15KΩ
R53	1G5	KS-20616, L1A, 10KΩ
R55	1G6	100
R56	1H8	100
R57	1C8	100
R58	1C8	100
R59	1D9	100
R60	1D9	100
R61	1G7	KS-20810, L1A, 1.47MΩ
R62	1F4	100
R63	1G5	562
R64	1D6	909

SWITCH

DESIG	LOC	CODE
S1	1F2	7201MD94Q DPDT C & K COMPONENTS INC

TRANSFORMER

DESIG	LOC	CODE
T1	1B5	3003T

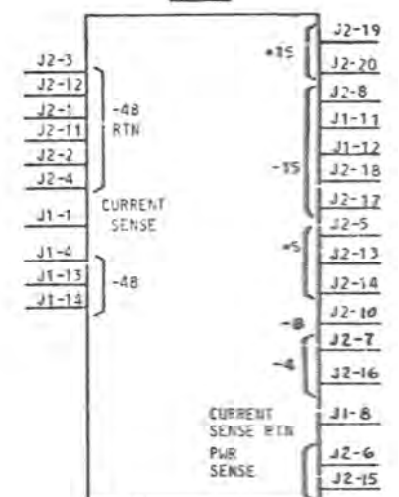
TRANSISTOR

DESIG	LOC	CODE
Q1	1B3	51F
Q2	1B4	2N2405
Q3	1B4	KS-20836, L1
Q4	1B3	51F
Q5	1C4	2N2405
Q6	1C4	KS-20836, L1
Q7	1C0	27C
Q8	1C3	51E
Q9	1C4	51E
Q11	1D7	51F
Q12	1D0	51F
Q13	1D1	51A
Q14	1D2	51A
Q15	1E9	51F
Q16	1F5	51F
Q17	1F8	51F
Q18	1F9	51F

MANUFACTURING REFERENCE

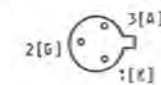
CATEGORY	NO.
CONNECTOR UN FRAME	

SYMBOL



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.
- GROUND RETURN.
- TERMINAL NO. ARRANGEMENT OF 27C TRANSISTOR IS



13A ANNOUNCEMENT SYSTEM

DWG SIZE
6SISSUE
/

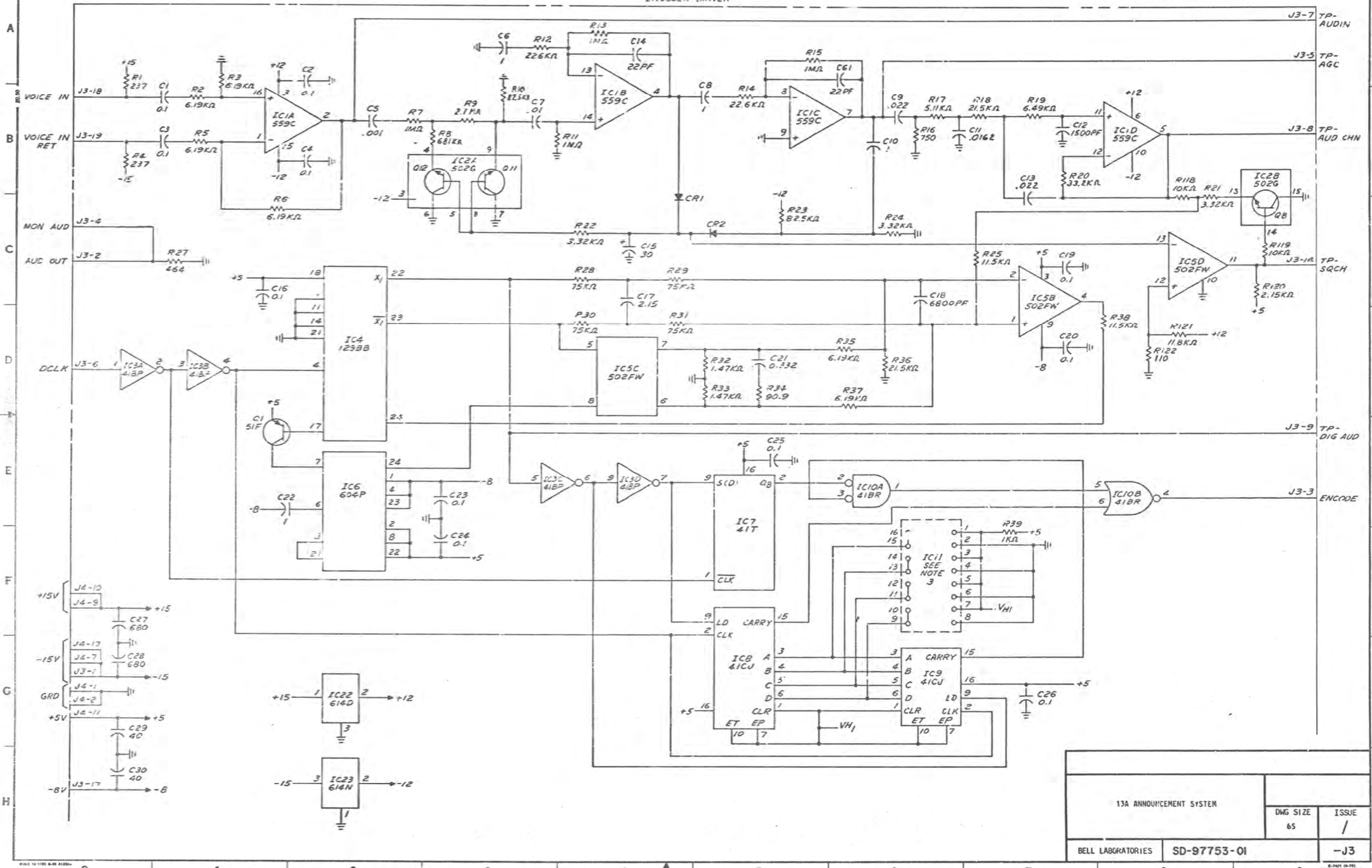
BELL LABORATORIES

SD-97753-01

-J2

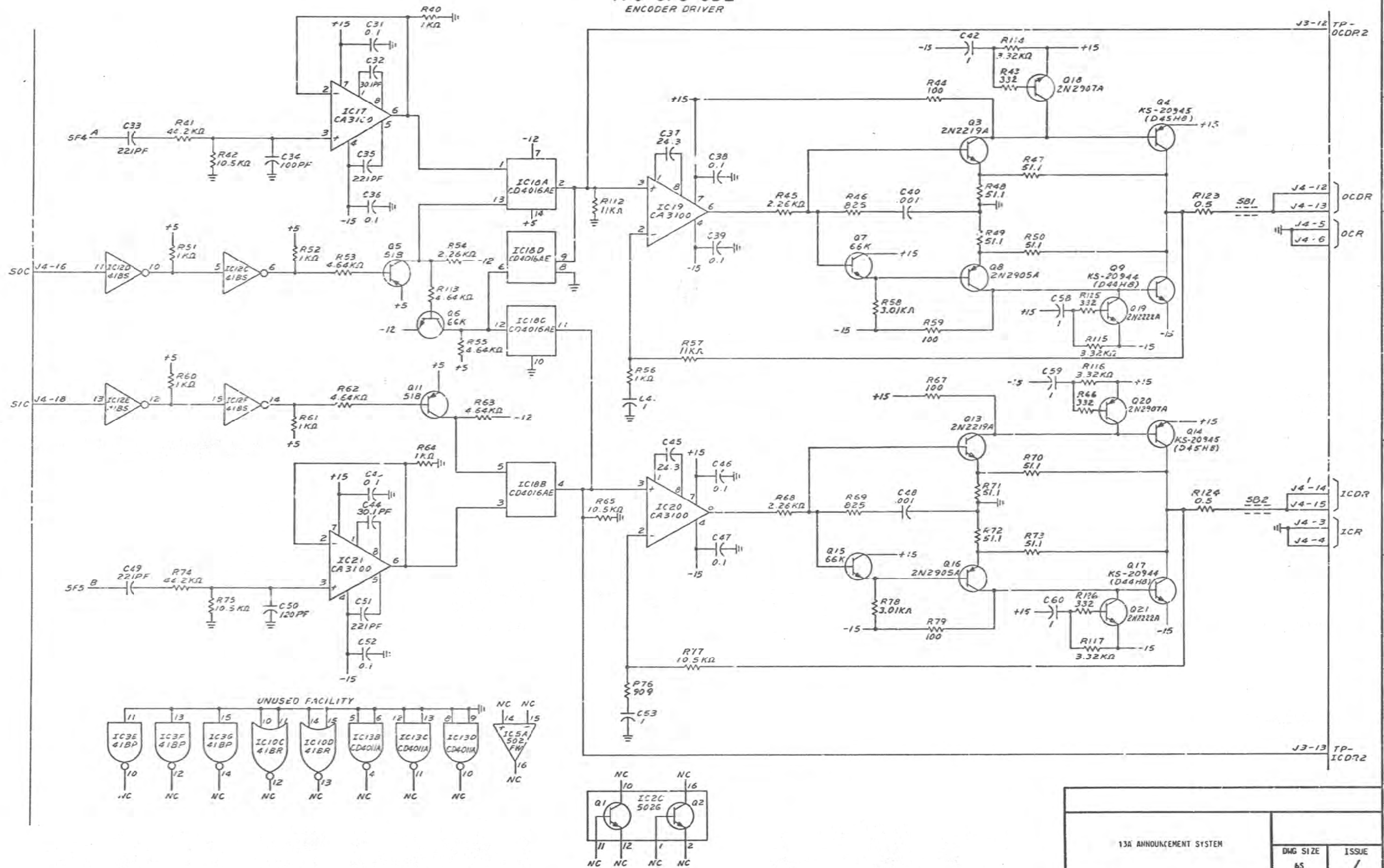
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P/O CPS UD2 ENCODER DRIVER



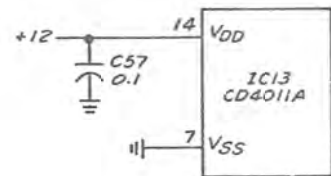
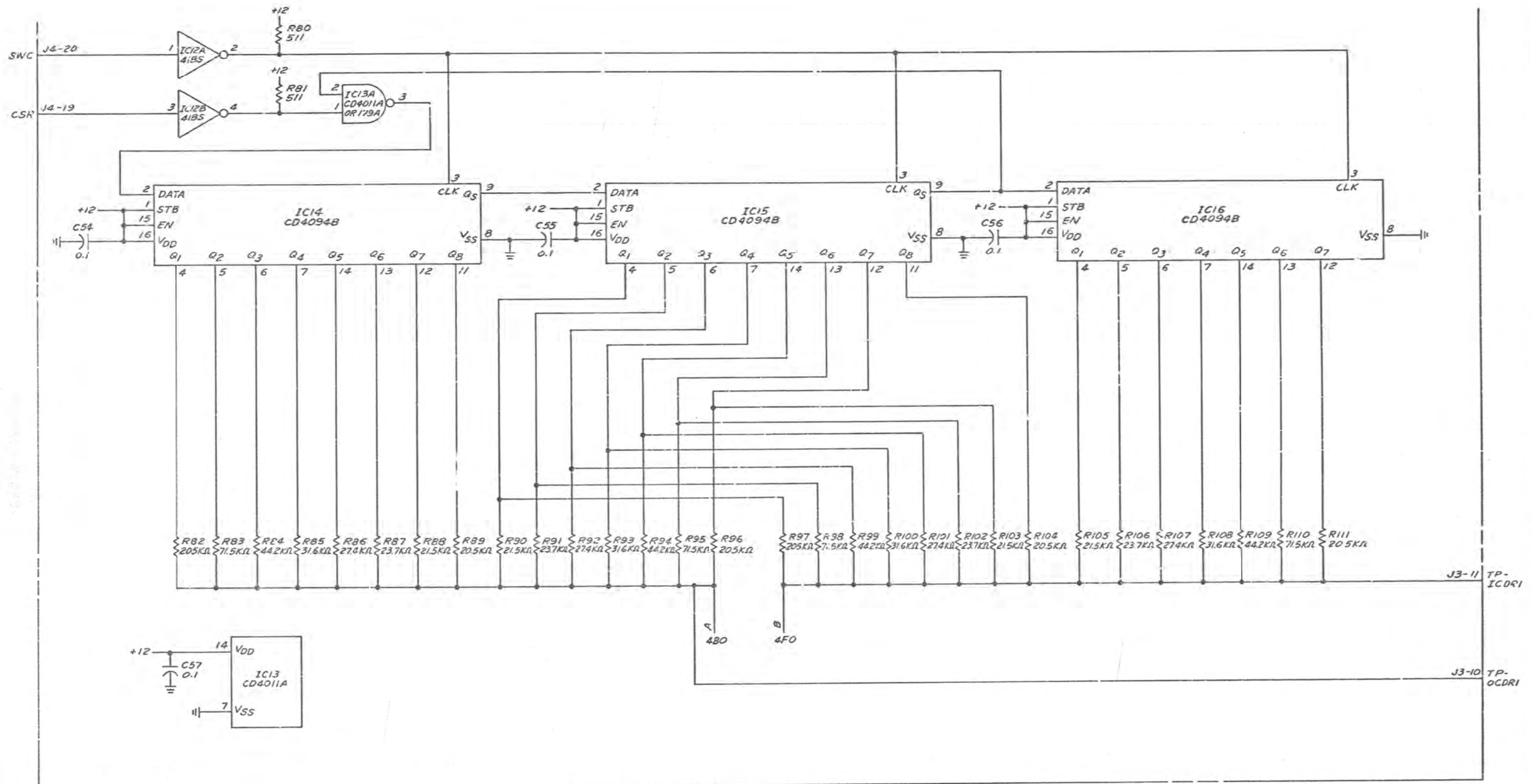
13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
		65	/
BELL LABORATORIES	SD-97753-01		-J3

P/O CPS UD2 ENCODER DRIVER



13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
BELL LABORATORIES		6S	/
SD-97753-01		-J4	

P/O CPS UD2
ENCODER DRIVER



13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
		65	/
BELL LABORATORIES	SD-97753-01	-J5	

245116

P/O CPS UD2

ENCODER DRIVER

COMPONENT LIST

CAPACITOR

DESIG	LOC	CODE
C1	3A0	KS-20977, L4, 0.1
C2	3A2	KS-20736, L4, 0.1
C3	3B0	KS-20977, L4, 0.1
C4	3B2	KS-20736, L4, 0.1
C5	3B2	KS-20977, L4, .001
C6	3A3	5960, 1
C7	3A3	KS-20977, L4, 0.01
C8	3A5	5960, 1
C9	3A6	KS-20977, L4, .022
C10	3A6	5960, 1
C11	3A7	KS-20977, L4, .016F
C12	3A7	KS-20977, L4, 1500PF
C13	3A7	KS-20977, L4, .022
C14	3A4	KS-19774, L4, 22PF
C15	3A4	601H, 30
C16	3C1	KS-20736, L4, 0.1
C17	3C4	535FW, 2, 15
C18	3C7	KS-20977, L4, 1800PF
C19	3C7	KS-20736, L4, 0.1
C20	3C7	KS-20736, L4, 0.1
C21	3D5	577D, 0.332
C22	3D5	5960, 1
C23	3D3	KS-20736, L4, 0.1
C24	3D3	KS-20736, L4, 0.1
C25	3E5	KS-20736, L4, 0.1
C26	3D7	KS-20736, L4, 0.1
C27	3D0	672C487H020 E75C
C28	3D0	5960, 1
C29	3D0	602A, 40
C30	3D2	602A, 40
C31	3D2	KS-20736, L4, 0.1
C32	4A2	KS-16958, L32, 30.1PF
C33	4D0	KS-16742, L34, 221PF
C34	4D2	KS-16958, L34, 100PF
C35	4D2	KS-16742, L34, 221PF
C36	4C2	KS-20736, L4, 0.1
C37	4B4	KS-16958, L31, 24.1
C38	4B5	KS-20736, L4, 0.1
C39	4B5	KS-20736, L4, 0.1
C40	4C6	KS-20977, L4, .001
C41	4D4	5960, 1
C42	4B7	600A, 1
C43	4E2	KS-20736, L4, 0.1
C44	4E2	KS-16958, L32, 30.1PF
C45	4C4	KS-16958, L31, 24.1
C46	4C5	KS-20736, L4, 0.1
C47	4C5	KS-20736, L4, 0.1
C48	4C6	KS-20977, L4, .001
C49	4F0	KS-16742, L34, 221PF
C50	4F2	KS-16958, L34, 120PF
C51	4F2	KS-16742, L34, 221PF
C52	4F2	KS-20736, L4, 0.1
C53	4F3	5960, 1
C54	5C0	KS-20736, L4, 0.1
C55	5C3	KS-20736, L4, 0.1
C56	5C6	KS-20736, L4, 0.1
C57	5F1	KS-20736, L4, 0.1
C58	4C7	600A, 1
C59	4B7	600A, 1
C60	4F7	600A, 1
C61	3A6	KS-19774, L4, 22PF

CONNECTOR

DESIG	LOC	CODE
J3		9638-20
J4		9638-20

FUSE

DESIG	LOC	CODE
F1	3A4	458A
F2	3C5	458A

FERRITE BEAD

DESIG	LOC	CODE
SB1	4B9	2673000101
SB2	4E9	2673000101

FAIR-RITE
PRODUCTS

INTEGRATED CIRCUIT

DESIG	LOC	CODE
IC1	3A4, 3B1	559C
IC2	3B3, 3B8	502G
IC3	3B3, 3B9	41BP
IC4	3D0, 3D1	1298B
IC5	3F3, 3E4	502FW
IC6	4A4	604P
IC7	3C2	411
IC8	3C7, 3C4	41CJ
IC9	4G3	41CJ
IC10	3E2	41BR
IC11	3F6	DIP SOCKET SEE NOTE 3
IC12	4C0, 4C1	41BS
IC13	4C0, 4C1	5A1, 5B1
IC14	5B1, 4G2	179A OR
IC15	4E3, 5F1	CD4011A RCA
IC16	5B1	CD4094B RCA
IC17	5B1	CD4094B RCA
IC18	5B7	CD4094B RCA
IC19	4B2	CA3100 RCA
IC20	4B3, 4B3	CA3100 RCA
IC21	4E3, 4H2	CA3100 RCA
IC22	4C4	CA3100 RCA
IC23	4E4	CA3100 RCA
IC24	4F2	CA3100 RCA
IC25	3H2	6140
IC26		ET3M

RESISTOR

DESIG	LOC	CODE
R1	3A0	KS-2081C, L1A, 237
R2	3A1	KS-20616, L1A, 6.19K
R3	3A1	KS-20616, L1A, 6.19K
R4	3B0	KS-20810, L1A, 237
R5	3B1	6.19K
R6	3B1	6.19K
R7	3B2	1M
R8	3B3	KS-20616, L1A, 6.61K
R9	3B3	2.7M
R10	3B3	82.5K
R11	3B3	1M
R12	3A3	22.6K
R13	3A4	1M
R14	3A5	22.6K
R15	3A5	1M
R16	3B6	750
R17	3B6	5.11K
R18	3B7	21.5K
R19	3B7	6.49K
R20	3B7	33.2K
R21	3B9	3.32K
R22	3C4	3.32K
R23	3C5	82.5K
R24	3C6	3.32K
R25	3C7	11.5K
R27	3C1	464
R28	3C4	75K
R29	3D4	75K
R30	3D4	75K
R31	3C4	75K
R32	3D5	1.47K
R33	3D5	1.47K
R34	3D5	90.9
R35	3D6	6.19K
R36	3D6	21.5K

RESISTOR (CONT)

DESIG	LOC	CODE
R37	3D6	6.19K
R38	3D8	11.5K
R39	3E2	1K
R40	4A3	1K
R41	4B1	44.2K
R42	4B1	10.5K
R43	4A7	332
R44	4A7	100
R45	4B5	2.26K
R46	4B6	825
R47	4B7	KS-20810, L1A, 51.1
R48	4B7	KS-20810, L1A, 51.1
R49	4C7	KS-20810, L1A, 51.1
R50	4C7	KS-20810, L1A, 51.1
R51	4C1	1K
R52	4C2	1K
R53	4C2	4.64K
R54	4C3	2.26K
R55	4D3	4.64K
R56	4D4	1K
R57	4D5	11K
R58	4C6	3.01K
R59	4C6	100
R60	4D1	1K
R61	4D2	1K
R62	4D2	4.64K
R63	4D3	4.64K
R64	4E3	1K
R65	4E4	10.5K
R66	4C6	332
R67	4D6	100
R68	4C5	2.26K
R69	4C6	825
R70	4C7	KS-20810, L1A, 51.1
R71	4C7	KS-20810, L1A, 51.1
R72	4F7	KS-20810, L1A, 51.1
R73	4F7	KS-20810, L1A, 51.1
R74	4F1	44.2K
R75	4F1	10.5K
R76	4G4	909
R77	4G5	10.5K
R78	4F6	3.01K
R79	4F6	100
R80	5A1	511
R81	5B1	511
R82	5E1	205K
R83	5E1	71.5K
R84	5E1	44.2K
R85	5E1	31.6K
R86	5E2	27.4K
R87	5E2	23.7K
R88	5E2	21.5K
R89	5E3	20.5K
R90	5E3	21.5K
R91	5E3	23.7K
R92	5E3	27.4K
R93	5E4	31.6K
R94	5E4	44.2K
R95	5E4	71.5K
R96	5E4	205K
R97	5E5	205K
R98	5E5	71.5K
R99	5E5	44.2K
R100	5E5	31.6K
R101	5E6	27.4K
R102	5E6	23.7K
R103	5E6	21.5K
R104	5E6	20.5K
R105	5E7	21.5K
R106	5E7	23.7K
R107	5E7	27.4K
R108	5E7	31.6K
R109	5E8	44.2K
R110	5E8	71.5K
R111	5E8	205K
R112	4B4	11K
R113	4C3	4.64K
R114	4A7	3.32K
R115	4D7	3.32K
R116	4D7	3.32K

RESISTOR (CONT)

DESIG	LOC	CODE
R117	4F7	3.32K
R118	3B8	10K
R119	3C9	10K
R120	3C9	2.75K
R121	3B8	11.8K
R122	3D8	110
R123	4C9	KS-20810, L1A, 0.5
R124	4E9	KS-20810, L1A, 0.5
R125	4C7	KS-20616, L1A, 332
R126	4F7	KS-20616, L1A, 332

TRANSISTOR

DESIG	LOC	CODE
Q1	3E1	51F
Q3	4B7	2N2219A MOTOROLA
Q4	4B8	KS-20945, (D45HB G.E.CO)
Q5	4C3	51H
Q6	4C2	66K
Q7	4C6	66K
Q8	4C7	2N2905A MOTOROLA
Q9	4C8	KS-20944, (D44HB G.E.CO)
Q11	4D3	51H
Q13	4E7	2N2219A MOTOROLA
Q14	4E8	KS-20945, (D45HB G.E.CO)
Q15	4F6	66K
Q16	4F7	2N2905A MOTOROLA
Q17	4F8	KS-20944, (D44HB G.E.CO)
Q18	4B7	2N2907A
Q19	4D8	2N2222A
Q20	4D8	2N2907A
Q21	4F8	2N2222A

MANUFACTURING REFERENCE

CATEGORY	NO.

SYMBOL

J3-18	VOICE IN	TP-AUDIN	J3-7
J3-19	VOICE IN RET	TP-AGC	J3-5
J3-4	MON AUD	TP-AUD CHN	J3-8
J3-2	AUD OUT	TP-SQCH	J3-14
J3-6	DCLK	TP-D16 AUD	J3-9
J4-10		ENCODE	J3-3
J4-9	+15		
J4-17			
J4-7	-15	TP-DCDR2	J3-12
J3-1		OCDR	J4-12
J4-1			J4-13
J4-2	GRD		J4-5
J4-11	+5	OCR	J4-6
J3-17	-8	ICDR	J4-14
			J4-15
J4-16	SOC	ICR	J4-3
J4-18	SIC	TP-ICDR2	J3-13
J4-20	SWC	TP-ICDR1	J3-11
J4-19	CSR	TP-CCDR1	J3-10

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.
- $\frac{1}{\square}$ GROUND RETURN.
- IC11 IS A DIP LOCATION FOR PREAMBLE LENGTH.
PROVIDE THE FOLLOWING STRAPS.

PINS

2-15
4-13
6-11
8-9

13A ANNOUNCEMENT SYSTEM

DWG SIZE

6S

ISSUE

/

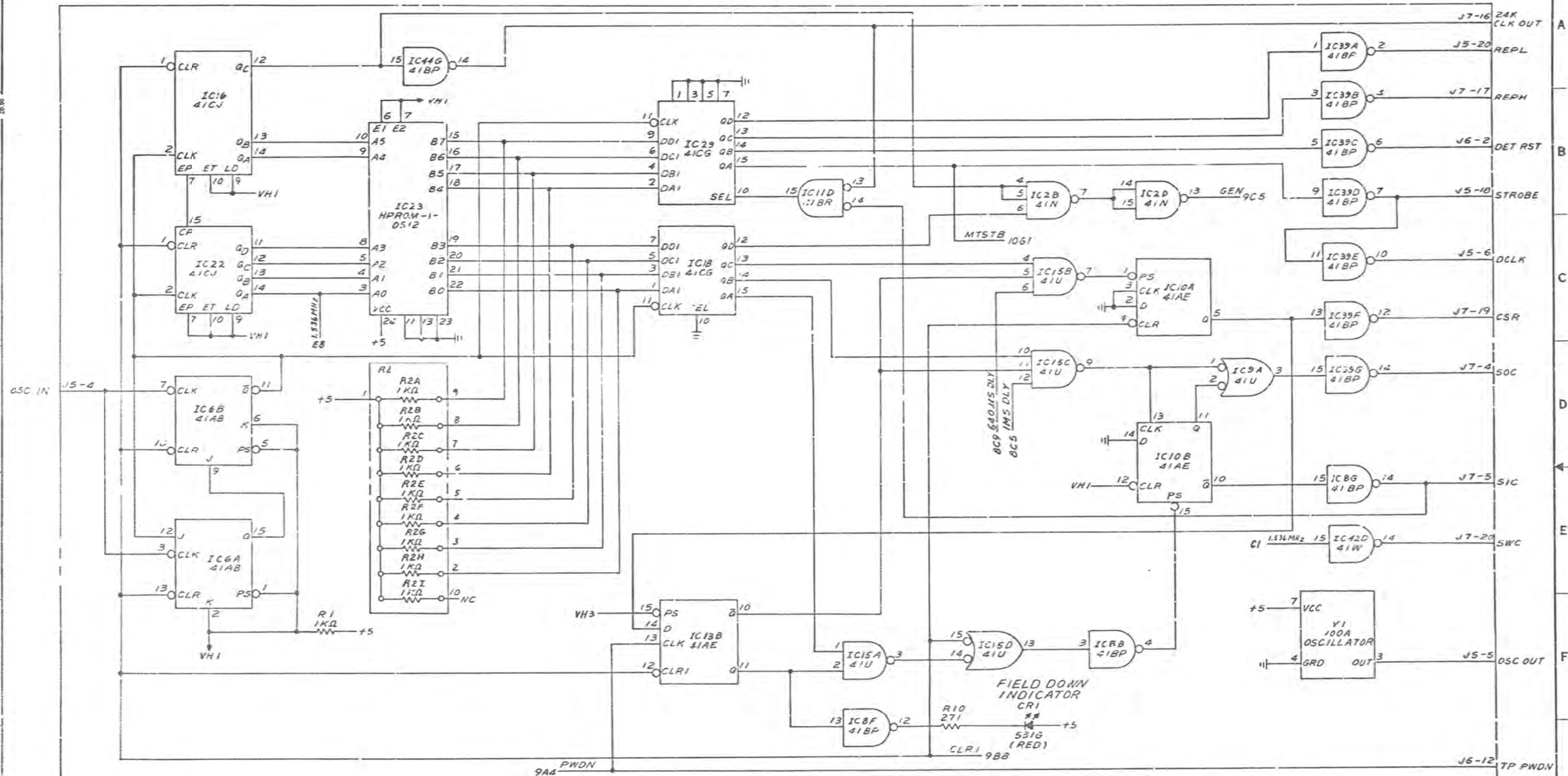
BELL LABORATORIES

SD-97753-01

-J6

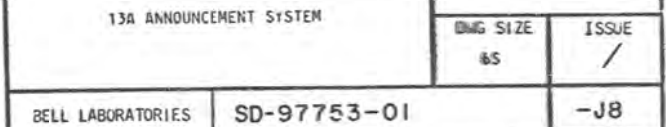
PRINTED IN U.S.A.

P/O CPS UD3 TIMING AND CONTROL

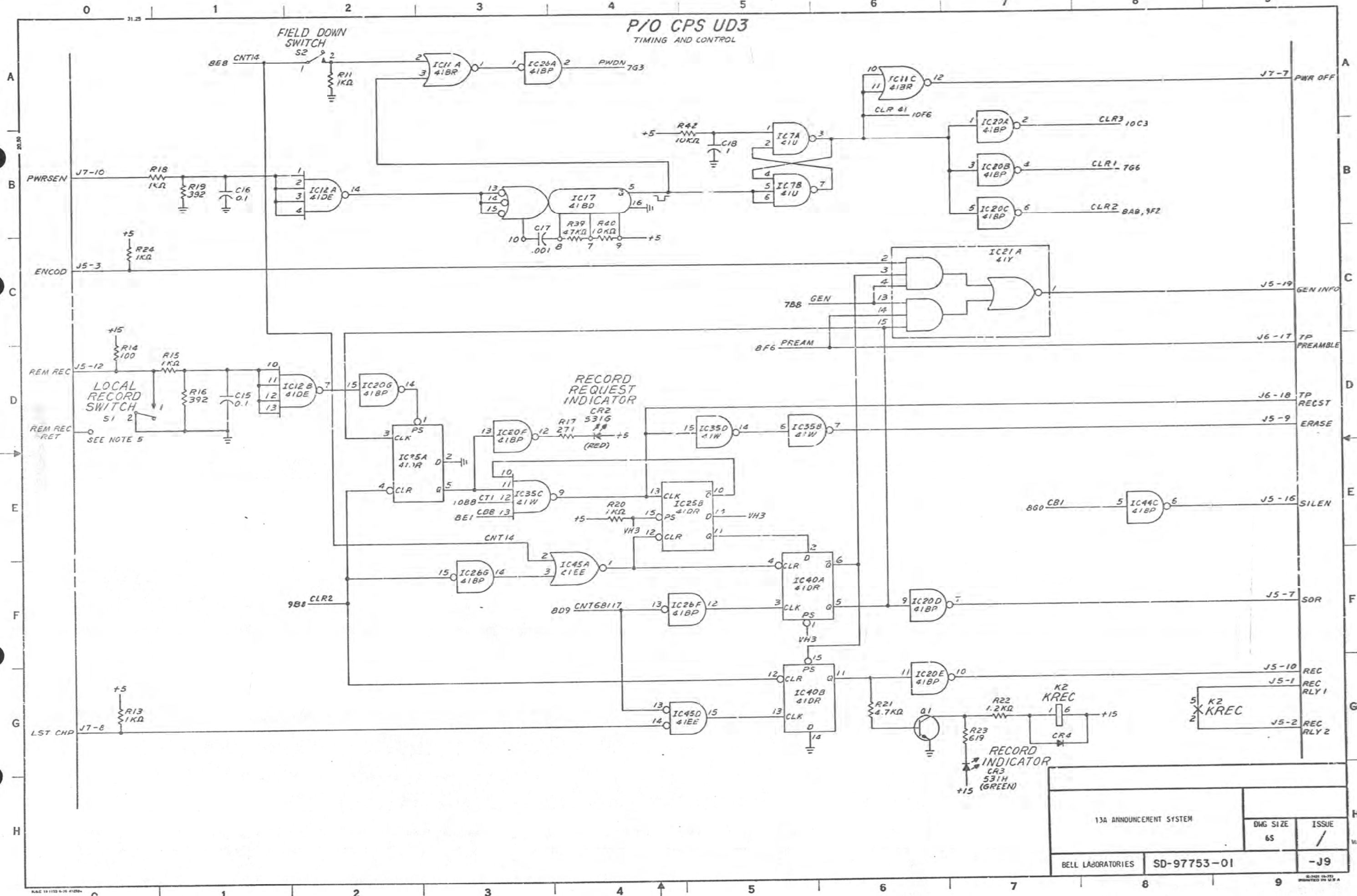


13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
		65	/
BELL LABORATORIES	SD-97753-01		-J7

TIMING AND CONTROL



P/O CPS UD3 TIMING AND CONTROL



13A ANNOUNCEMENT SYSTEM

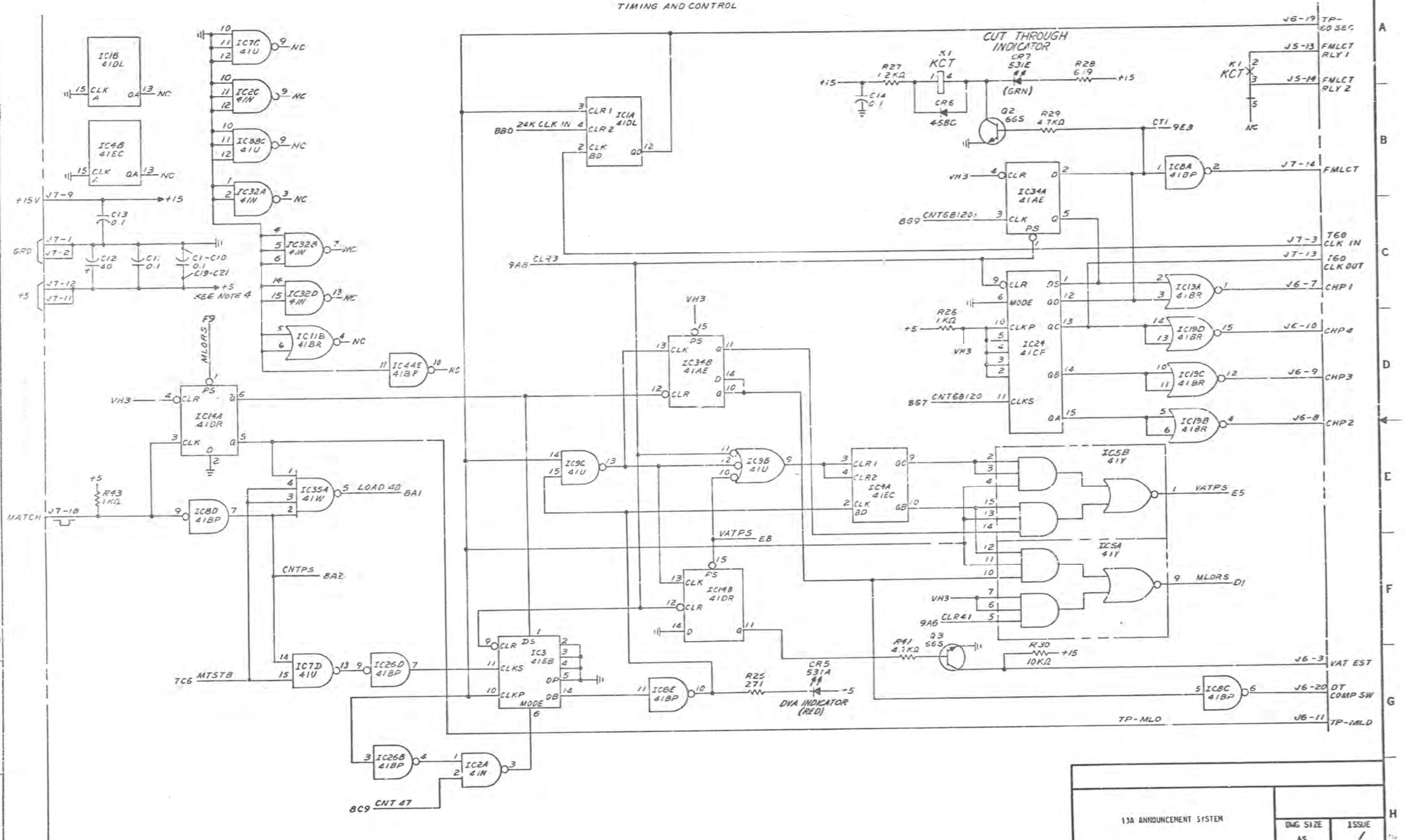
DWG SIZE
65

ISSUE
/

BELL LABORATORIES SD-97753-01

-J9

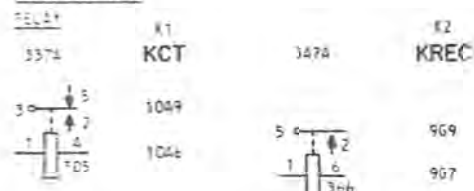
P/O CPS UD3 TIMING AND CONTROL



13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
		6S	/
BELL LABORATORIES		SD- 97753-01	-J10

P/O CPS UD3 TIMING AND CONTROL

COMPONENT LIST



DESIG	LOC	CODE
IC1	10C1	KS-20736, L4, 0.1
IC2	10C2	KS-20736, L4, 0.1
IC3	10C3	4025, 40
IC4	10C4	KS-20736, L4, 0.1
IC5	10C5	KS-20736, L4, 0.1
IC6	10C6	KS-20736, L4, 0.1
IC7	10C7	KS-19774, L7, .001
IC8	10C8	KS-20736, L6, 1
IC9	10C9	KS-20736, L4, 0.1

DESIG	LOC	CODE
J5	9633-20	9633-20
J6	9633-20	9633-20
J7	9633-20	9633-20

DESIG	LOC	CODE
CR1	7F6	531G
CR2	904	531G
CR3	907	531H
CR4	907	458C
CR5	1065	531A
CR6	1066	458C
CR7	1047	531E

DESIG	LOC	CODE
IC1	1040, 1064	41DL
IC2	796, 787	41N
IC3	1081, 1043	41E8
IC4	1063	41EC
IC5	1066, 1080	41Y
IC6	1067, 1068	41A8
IC7	701, 701	41U
IC8	985, 1041, 1061	41U
IC9	708, 7F5, 7F7, 1088, 1061, 1064, 1068	41BP
IC10	708, 8F5, 1064, 1065	41U
IC11	707, 707	41AE
IC12	765, 943, 946, 1082	41BR
IC13	982, 901	41DE
IC14	7F4, 805	41AE
IC15	1001, 10F5	41DR
IC16	706, 706, 7F5, 7F6	41U
IC17	741	41CJ

INTEGRATED CIRCUIT (CONT)

DESIG	LOC	CODE
IC17	984	41BD
IC18	704	41CG
IC19	10C3, 1008	41BR
IC20	947, 947, 903, 902, 966, 966	41BP
IC21	807, 4C7	41Y
IC22	707	41CJ
IC23	782	HPR0M-1-0517-58
IC24	1007	41CF
IC25	9E2, 9E4	41DP
IC26	8E2, 8F5, 943, 943, 9F4, 1002	41BP
IC27	8F7, 807	41OR
IC29	784	41CG
IC30	8F1	41CO
IC31	884	41CJ
IC32	1081	41N
IC33	805, 1001	41N
IC34	1087, 1004	41BE
IC35	905, 9E3, 10E2	41W
IC36	886	41CJ
IC37	802, 8E2, 8F6, 8F8	41U
IC38	842, 883, 8E8, 1081	41U
IC39	748, 788, 708, 708	41BP
IC40	9F5, 9F5	41DR
IC41	887	41CJ
IC42	7E8, 8E1, 8E2, 8E4	41W
IC43	885	41CJ
IC44	782, 881, 808, 9E8	41BP
IC45	8F4, 8F5, 9F4, 904	41EE
IC46	889	41CJ
IC47	8F7, 8E7	41DR
IC48	807, 8E3	41DR

DESIG	LOC	CODE
Y1	7F8	100A, 9.216 MHZ

DESIG	LOC	CODE
R1	7F1	KS-20616, L1A, 1KΩ
R2	7D2	431DR-101-102 BOURNS

DESIG	LOC	CODE
R10	7F4	271
R11	942	1KΩ
R12	806	1KΩ
R13	900	1KΩ
R14	900	100
R15	900	1KΩ
R16	901	392
R17	904	271

RESISTOR (CONT)

DESIG	LOC	CODE
R18	980	1KΩ
R19	981	392
R20	9E4	1KΩ
R21	906	4.7KΩ
R22	907	1.2KΩ
R23	907	619
R24	900	1KΩ
R25	1005	271
R26	1006	1KΩ
R27	10A6	1.2KΩ
R28	10A7	619
R29	1087	4.7KΩ
R30	1067	10KΩ
R39	984	47KΩ
R40	984	10KΩ
R41	10C6	4.7KΩ
R42	9A5	10KΩ
R43	10E0	1KΩ

SWITCH

DESIG	LOC	CODE
S1	900	C & K 81251, 7089(3)(SMALL RED CAP)
S2	942	C & K 81251, 7089(2)(SMALL BLACK CAP)

TRANSISTOR

DESIG	LOC	CODE
Q1	906	665
Q2	1087	665
Q3	1066	665

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.
- GROUND RETURN.
- PREAMBLE LENGTH IS ADJUSTED WITH AN INSULATED STRAP BETWEEN E11 AND E7.
- +5V AND GROUND IS DISTRIBUTED WITH 7 ROGERS BUS STRIPS.
- THE INPUT SIGNAL REM REC RET IS CONNECTED TO SYSTEM GROUND VIA THE BACKPLANE WIRING.
- UNLESS OTHERWISE NOTED ALL IC'S HAVE PIN 8 CONNECTED TO GROUND AND PIN 16 CONNECTED TO +5V.
- FOR IC17 PIN 16 IS GRD, PIN 9 IS +5V.

MANUFACTURING REFERENCE

CATEGORY	NO.

SYMBOL

J5-4	OSC IN	24K CLK OUT	J7-16
J5-20	REPL	J5-20	
J5-17	REPH	J5-17	
J6-2	DET RST	J6-2	
J5-18	STROBE	J5-18	
J5-6	DECLK	J5-6	
J5-19	CS+	J5-19	
J7-4	SOC	J7-4	
J7-5	SIC	J7-5	
J7-20	SWC	J7-20	
J5-5	OSC OUT	J5-5	
J6-12	TP PWDN	J6-12	
J6-16	TP-LOAD 48	J6-16	
J6-13	TP-CNT68120	J6-13	
J6-14	TP-CNT68117	J6-14	
J6-4	STENAB	J6-4	
J6-15	TP-CNT14	J6-15	
J6-5	LIM RST	J6-5	
J6-6	LT GATE	J6-6	
J5-8	EMPELK	J5-8	
J7-7	PWR OFF	J7-7	
J5-19	GEN INFO	J5-19	
J6-17	TP PREAMBLE	J6-17	
J6-18	TP RECST	J6-18	
J5-9	ERASE	J5-9	
J5-16	SILEN	J5-16	
J5-7	SQR	J5-7	
J5-10	REC	J5-10	
J5-2	REC RLY1	J5-2	
J5-1	REC RLY2	J5-1	
J6-19	TP-60SEC	J6-19	
J5-15	FMCT RLY1	J5-15	
J5-14	FMCT RLY2	J5-14	
J7-14	FMCT	J7-14	
J7-13	T60 CLK OUT	J7-13	
J6-7	CHP1	J6-7	
J6-10	CHP4	J6-10	
J6-9	CHP3	J6-9	
J6-8	CHP2	J6-8	
J6-3	VAT EST	J6-3	
J6-20	DT COMP SW	J6-20	
J6-11	TP-MLO	J6-11	

33A ANNOUNCEMENT SYSTEM

DWG SIZE
6S

ISSUE
/

BELL LABORATORIES SD-97753-01

-J11A

PRINTED IN U.S.A.

TABLE A
(ROM PROGRAM FOR IC23 ON UD3)

P/O CPS UD3
TIMING AND CONTROL

ADDRESS						ADR CNT	PROGRAM							
A ₅	A ₄	A ₃	A ₂	A ₁	A ₀		B ₇	B ₆	B ₅	B ₄	B ₃	B ₂	B ₁	B ₀
0	0	0	0	0	0	0								
0	0	0	0	0	1	1	1	1						
0	0	0	0	0	1	1								
0	0	0	0	1	0	0								
0	0	0	0	1	0	1								
0	0	0	0	1	1	0								
0	0	0	0	1	1	1					1			
0	0	0	1	0	0	0								
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1	1	1	1	0	1	0								
1	1	1	1	0	1	1								
1	1	1	1	1	0	0								
1	1	1	1	1	0	1								
1	1	1	1	1	1	0								
1	1	1	1	1	1	1								

NOTES:

1. THIS PROGRAM REFERS TO A HARRIS HPRON-0512 OR APPROVED EQUIVALENT. IN TABLE A "1" INDICATES A BLOWN MEMORY LINK. AN EMPTY BOX INDICATES A MEMORY LINK INTACT.

13A ANNOUNCEMENT SYSTEM

DWG SIZE
65

ISSUE
/

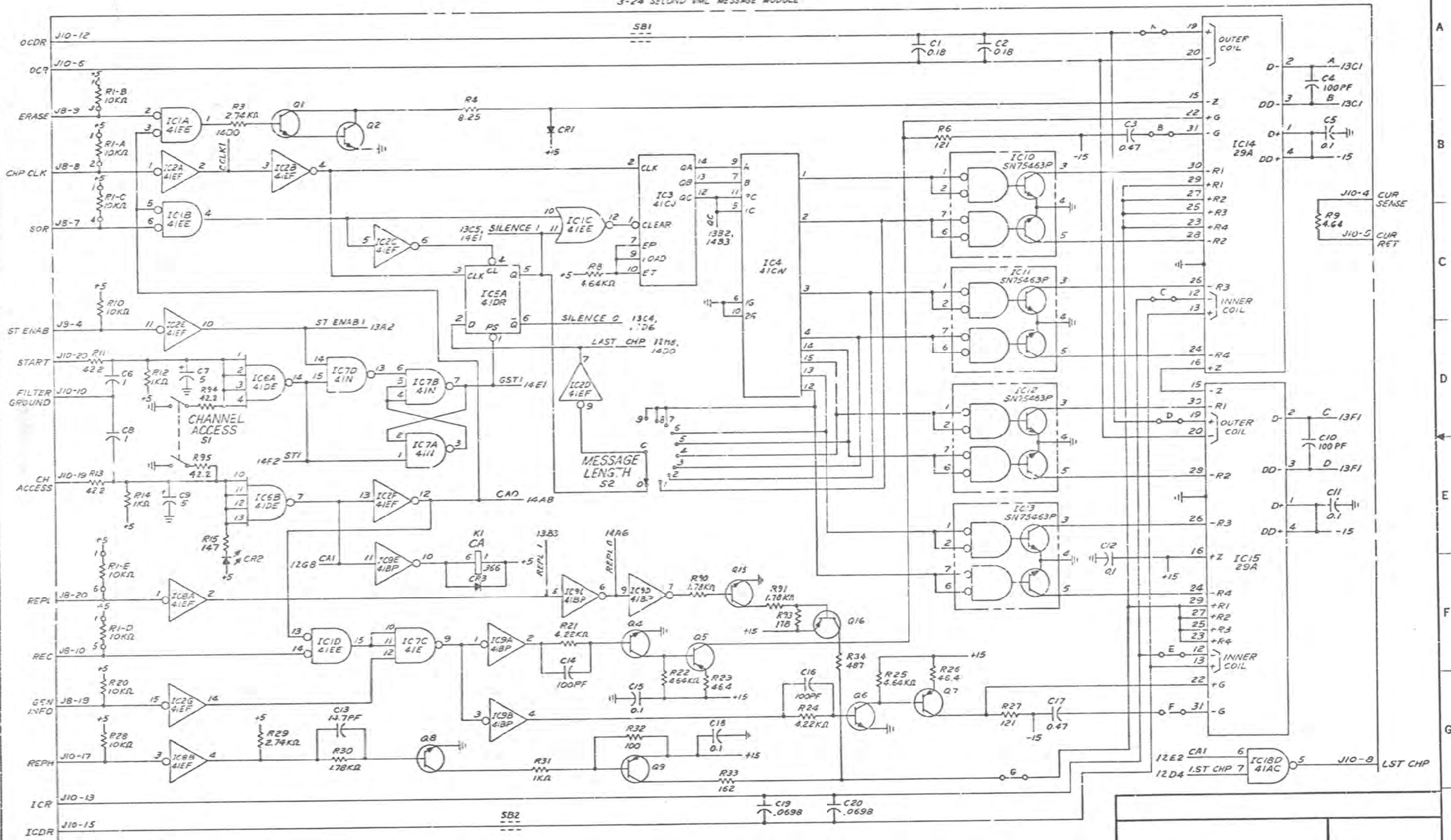
BELL LABORATORIES

SD-97753-01

J11B

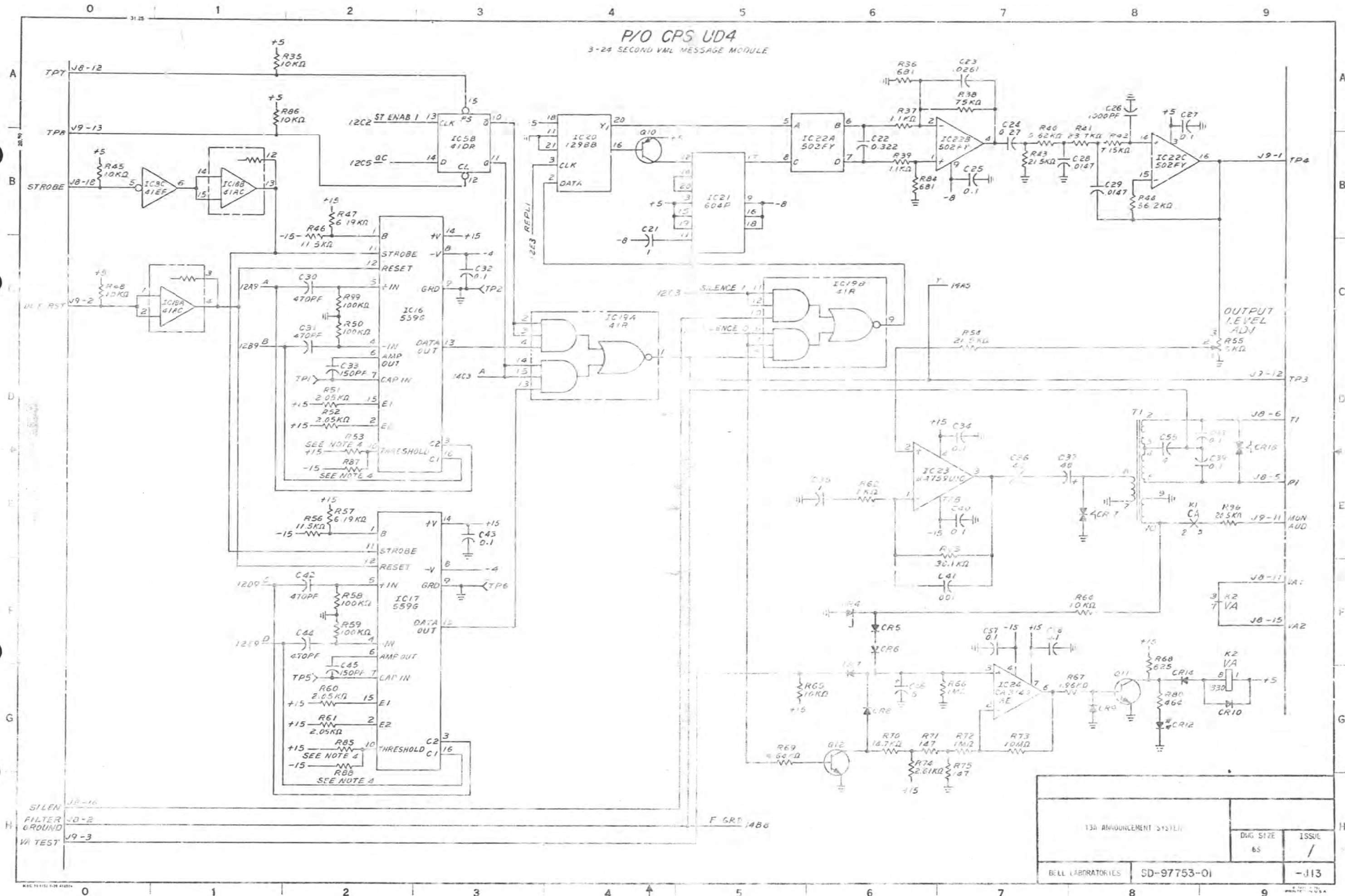
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P/O CPS UD4 3-24 SECOND VML MESSAGE MODULE

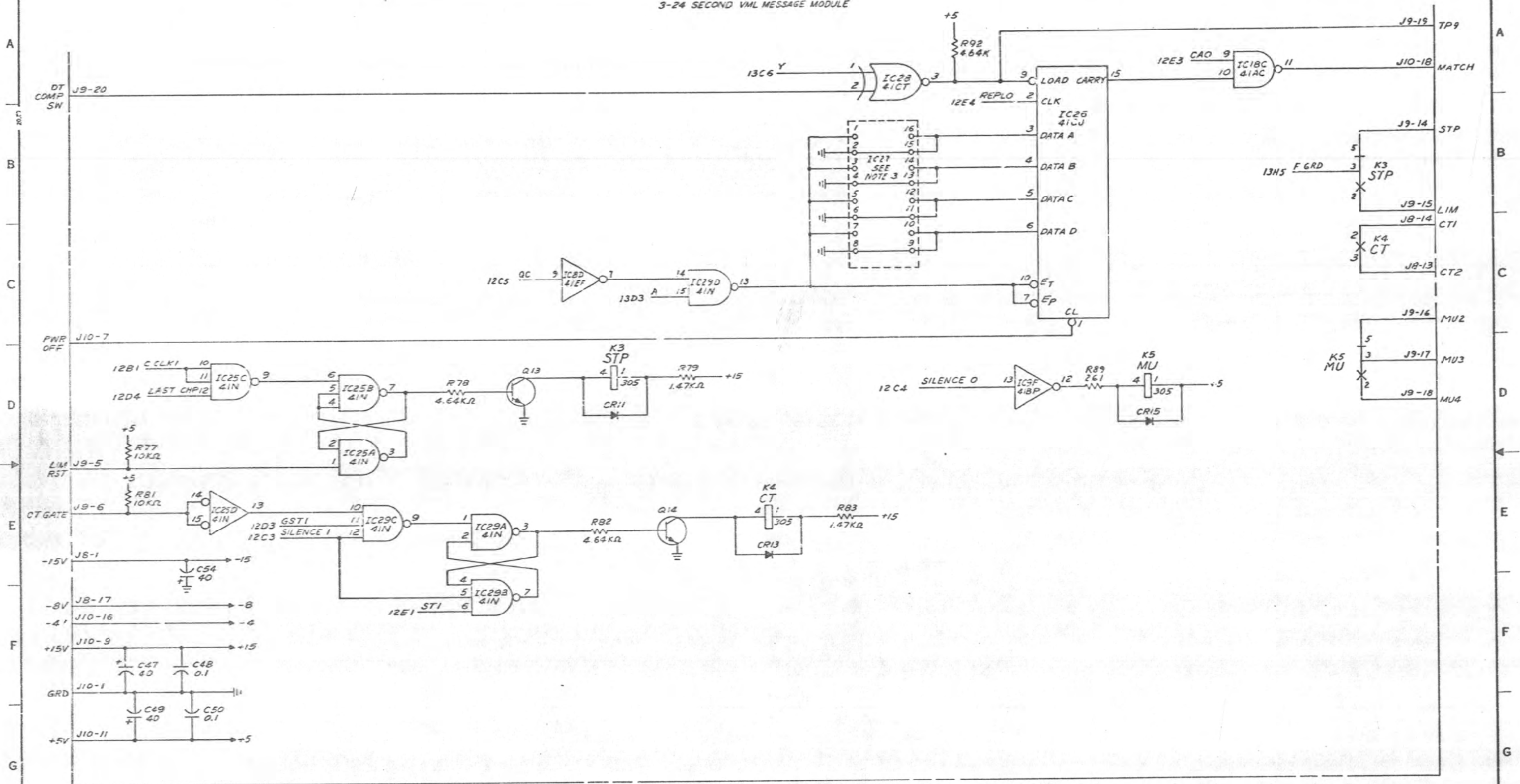


13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
		65	/
BELL LABORATORIES		SD-97753-01	
		-J12	

P/O CPS UD4 3-24 SECOND VML MESSAGE MODULE



P/O CPS UD4
3-24 SECOND VML MESSAGE MODULE



13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
		6S	/
BELL LABORATORIES	SD-97753-01	-J14	

P/O CPS UD4

3-24 SECOND VML MESSAGE MODULE

COMPONENT LIST

RELAY

DESIG	LOC	CODE
337A	CT	
14C9	14B9	14D9
14E5	14D4	14D7

CAPACITOR

DESIG	LOC	CODE
347A	CA	
13E9	13E3	

CONNECTOR

DESIG	LOC	CODE
C1	12A6	535HE, 0.1B
C2	12A6	535HE, 0.1B
C3	12B8	KS-20736, L4, 0.1
C4	12A9	KS-19774, L7, 100PF
C5	12B9	KS-20736, L4, 0.1
C6	12D0	596C, 1
C7	12D1	601A, 5
C8	12D0	596C, 1
C9	12E1	601A, 5
C10	12E9	KS-19774, L7, 100PF
C11	12E9	KS-20736, L4, 0.1
C12	12F7	KS-20736, L4, 0.1

DESIG	LOC	CODE
C13	12G2	KS-16958, L34, 14.7PF
C14	12F3	KS-16958, L32, 100PF
C15	12G4	KS-20736, L4, 0.1
C16	12F5	KS-16958, L32, 100PF
C17	12G7	KS-20736, L5, 0.47
C18	12G5	KS-20736, L4, 0.1
C19	12H5	535HG, 0.0698
C20	12H5	535HG, 0.0698

DESIG	LOC	CODE
C21	13B4	596C, 1
C22	13A6	596C, 0.332
C23	13A7	596C, 0.261
C24	13A7	KS-19774, L13, 0.27
C25	13B7	KS-20736, L4, 0.1
C26	13A8	719A, 1000PF
C27	13A9	KS-20736, L4, 0.1
C28	13B8	719A, 0.147

DESIG	LOC	CODE
C29	13B8	719A, 0.147
C30	13C2	KS-19774, L7, 470PF
C31	13C2	KS-19774, L7, 470PF
C32	13C3	KS-20736, L4, 0.1
C33	13D2	KS-19774, L7, 150PF
C34	13D7	KS-20736, L4, 0.1
C35	13D6	KS-19774, L9, 1
C36	13E7	602A, 40

DESIG	LOC	CODE
C37	13E8	602A, 40
C38	13D9	542AD, 0.1
C39	13E9	542AD, 0.1
C40	13E7	KS-20736, L4, 0.1
C41	13F7	KS-19774, L7, 0.01
C42	13F2	KS-19774, L7, 470PF
C43	13E3	KS-20736, L4, 0.1
C44	13F2	KS-19774, L7, 470PF

DESIG	LOC	CODE
C45	13G2	KS-19774, L7, 150PF
C46	13F6	601A, 5
C47	14F0	602A, 40
C48	14F1	KS-20736, L4, 0.1
C49	14G0	602A, 40
C50	14G1	KS-20736, L4, 0.1
C51	SEE NOTE 5	KS-20736, L4, 0.1
C52	14E1	602A, 40
C53	13D8	542G, 4
C54	13F7	KS-20736, L4, 0.1
C55	13F7	KS-20736, L4, 0.1
C56	13F7	KS-20736, L4, 0.1
C57	13F7	KS-20736, L4, 0.1
C58	13F7	KS-20736, L4, 0.1

CODE

DESIG	LOC	CODE
J8		963B-20
J9		
J10		

DIPCE

DESIG	LOC	CODE
CR1	12B3	458C
CR2	12F3	531H
CR3	12F4	458C
CR4	13F6	4591
CR5	13F6	458C
CR6	13F6	458C
CR7	13F6	458C
CR8	13G6	458C
CR9	13D8	458C
CR10	13D9	458C
CR11	14D4	458C
CR12	13D8	531G
CR13	14E5	454C
CR14	13F6	458C
CR15	14C7	458C
CR17	13E8	521C
CR18	13D9	521A

FERRITE B AD

DESIG	LOC	CODE
SB1	12A4	267 3000101
SB2	12H3	267 3000301

INTEGRATED CIRCUIT

DESIG	LOC	CODE
IC1	12B1, 12C1, 12C4, 12F2	41EE
IC2	12B1, 12B2, 12E1, 12C2, 12D4, 12E2, 12D1	41EF
IC3	12B4	41CJ
IC4	12C5	41CH
IC5	12C3, 13A3	41DR
IC6	12D1, 12E1	41DE
IC7	12D2, 12E2, 12F2	41H
IC8	12F1, 12G1, 13B0	41EF
IC9	12F3, 12F4, 12G3	41BP
IC10	12B6	SN75463P TEXAS INST CO
IC11	12C6	SN75463P TEXAS INST CO
IC12	12D6	SN75463P TEXAS INST CO
IC13	12E6	SN75463P TEXAS INST CO
IC14	12B8	293 (BUBBLE MEMORY)
IC15	12E8	293 (BUBBLE MEMORY)
IC16	13C2	559G
IC17	13F2	559G
IC18	12G8, 13B1, 13C1, 14A8	41AC
IC19	13C4, 13C6	41R
IC20	13A4	1298B
IC21	13B5	604P
IC22	13A6, 13A7, 13B8	502FT
IC23	13E6	UA759UIC, FAIRCHILD
IC24	13G7	CA3140 AE, RCA
IC25	14D1, 14D2, 14E1, 14E2	41N

INTEGRATED CIRCUIT (CONT)

DESIG	LOC	CODE
IC26	14B7	41CJ
IC27	14B5	SEE NOTE 3
IC28	14B6	41CT
IC29	14E2, 14E3, 14F3	41R

POTENTIOMETER

DESIG	LOC	CODE
R55	13C7	KS-19069, L4, 5KΩ

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.
- GROUND RETURN.
- IC27 DOES NOT EXIST. WIRES ARE CONNECTED TO TERMINALS AT POSITION IC27 WOULD OCCUPY.
- VALUE SELECTED DURING MFG MAY RANGE FROM 46.4KΩ TO 316KΩ OR MAY BE OMITTED.

IC DESIG	+5 BAT TERM	GRD TERM	DECOUPLING CAPACITOR
IC1	16	7, 8	CS1
IC2	16	8	
IC3	16	8	CS6
IC4	16	8	
IC5	16	8	
IC6	16	8	
IC7	16	8	CS2
IC8	16	8	
IC9	16	8	
IC10	8	4	
IC11	8	4	
IC12	8	4	
IC13	8	4	
IC18	16	8	
IC19	16	8	
IC25	16	8	CS3
IC26	16	8	
IC28	16	7, 8	
IC29	16	8	

MANUFACTURING REFERENCE

CATEGORY	NO.

SYMBOL

J10-12	OCOR	J10-4	CUR SENSE
J10-6	OCR	J10-5	CUR RET
J8-9	ERASE	J10-8	LST CMP
J8-8	CHP CLK		
J8-7	SOR		
J9-4	ST ENAB		
J10-20	START		
J10-10	FILTER GRD		
J10-19	CH ACCESS		
J8-20	REPL		
J8-10	REC		
J8-19	GEN INFO		
J10-17	REPH		
J10-13	ICR	TP4 J9-1	
J10-15	ICOR	TP3 J9-12	
J8-12	TP7	T1 J8-6	
J9-13	TP8	R1 J8-5	
J8-18	STRDGE	MON AUD J9-11	
J9-2	DET RST	VA1 J8-11	
J8-16	SILEN	VA2 J8-15	
J8-2	FILTER GRD		
J9-1	V2 TEST	TP9 J9-19	
J9-20	D1 CMP SW	TP10 J10-18	
J10-7	PWR OFF	MATCH J9-14	
J9-5	LIM RST	STP J9-14	
J9-6	C1 GATE	LIM J9-15	
J8-1	-15	CT1 J8-14	
J8-17	-8	CT2 J8-13	
J10-16	-4	MJ2 J9-16	
J10-9	+15	MJ3 J9-17	
J10-1	GRD	MJ4 J9-18	
J10-11	+5		

13A ANNOUNCEMENT SYSTEM

BELL LABORATORIES

SD-97753-01

DWG SIZE

65

ISSUE

/

-J15

PRINTED IN U.S.A.

RESISTOR

CODE	
4306P-101-103 BOURNS	
KS-20810, L1A, 2.74KΩ	
KS-20810, L1A, 8.25	
KS-20616, L1A	121
	4.64KΩ
KS-20810, L1A	4.64 16KΩ 42.2 181
	42.2 181 127
KS-20616, L1A	
	10KΩ
	4.22KΩ 4.64KΩ
KS-20810, L1A, 46.4	
KS-20616, L1A, 4.22KΩ	
KS-20616, L1A, 4.64KΩ	
KS-20810, L1A, 46.4	46.4 121 10KΩ
KS-20616, L1A	2.74KΩ 1.78KΩ 1YΩ 100
KS-20810, L1A	112 427 10KΩ 681
	1.1KΩ 75KΩ 1.1KΩ 5.62KΩ
	23.7KΩ 7.75KΩ 21.5KΩ 56.2KΩ
	10KΩ 11.5KΩ 6.19KΩ 10KΩ
KS-20616, L1A	100KΩ 100KΩ 2.05KΩ 2.05KΩ
	NOTE 4 21.5KΩ 11.5KΩ 6.19KΩ
	100KΩ 100KΩ 2.05KΩ 2.05KΩ
	1KΩ 30.1KΩ 1KΩ 10KΩ
	1MΩ 1.96KΩ
KS-20810, L1A, 825	825 4.64KΩ
KS-20616, L1A	14.7KΩ 127 1MΩ 10KΩ
KS-16645, L1A	
KS-20616, L1A	2.61KΩ 147 10KΩ
	4.64KΩ 1.47KΩ 464 10KΩ

DESIGN

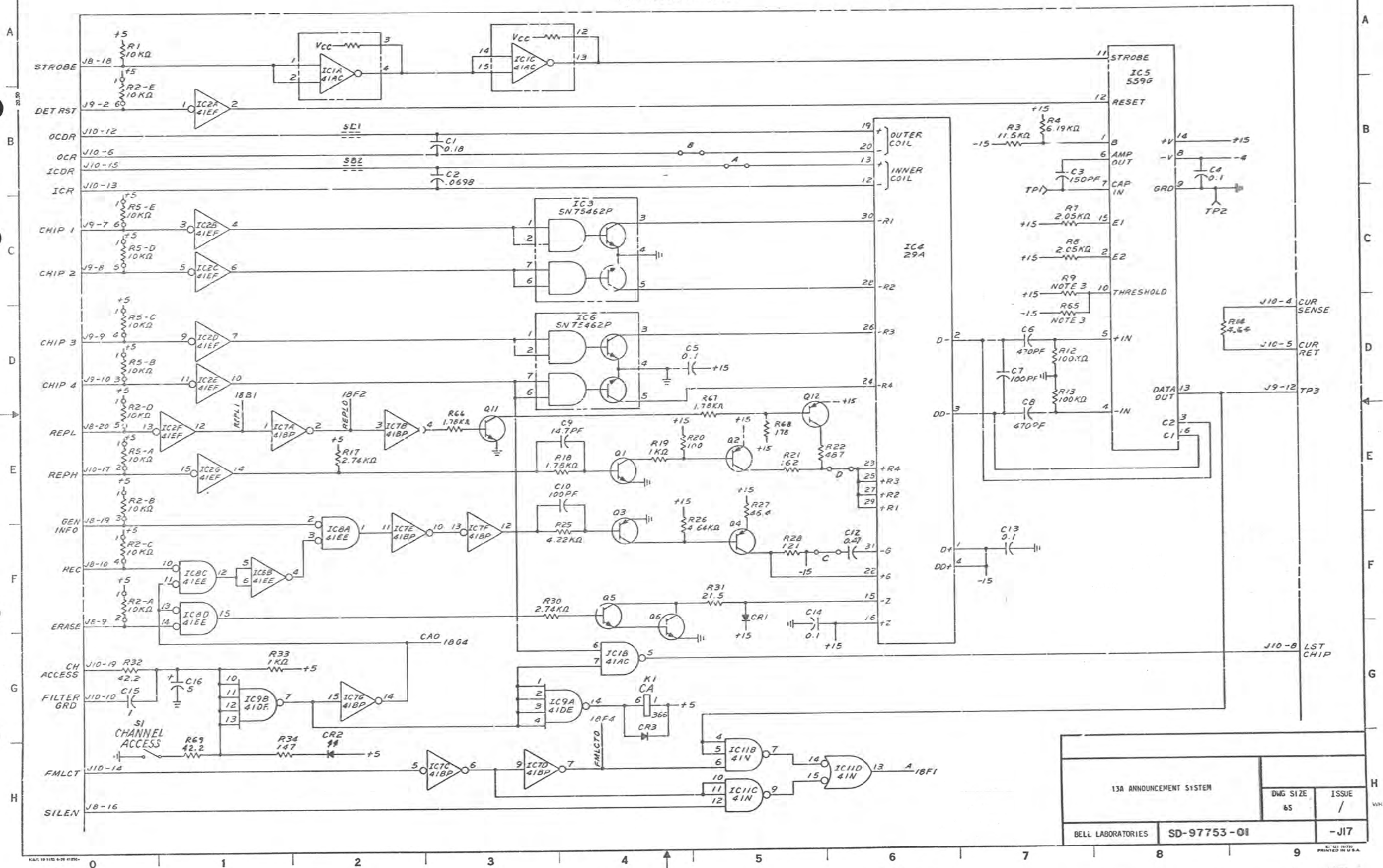
SUMMARY

TEST POINT

TRANSFORMER

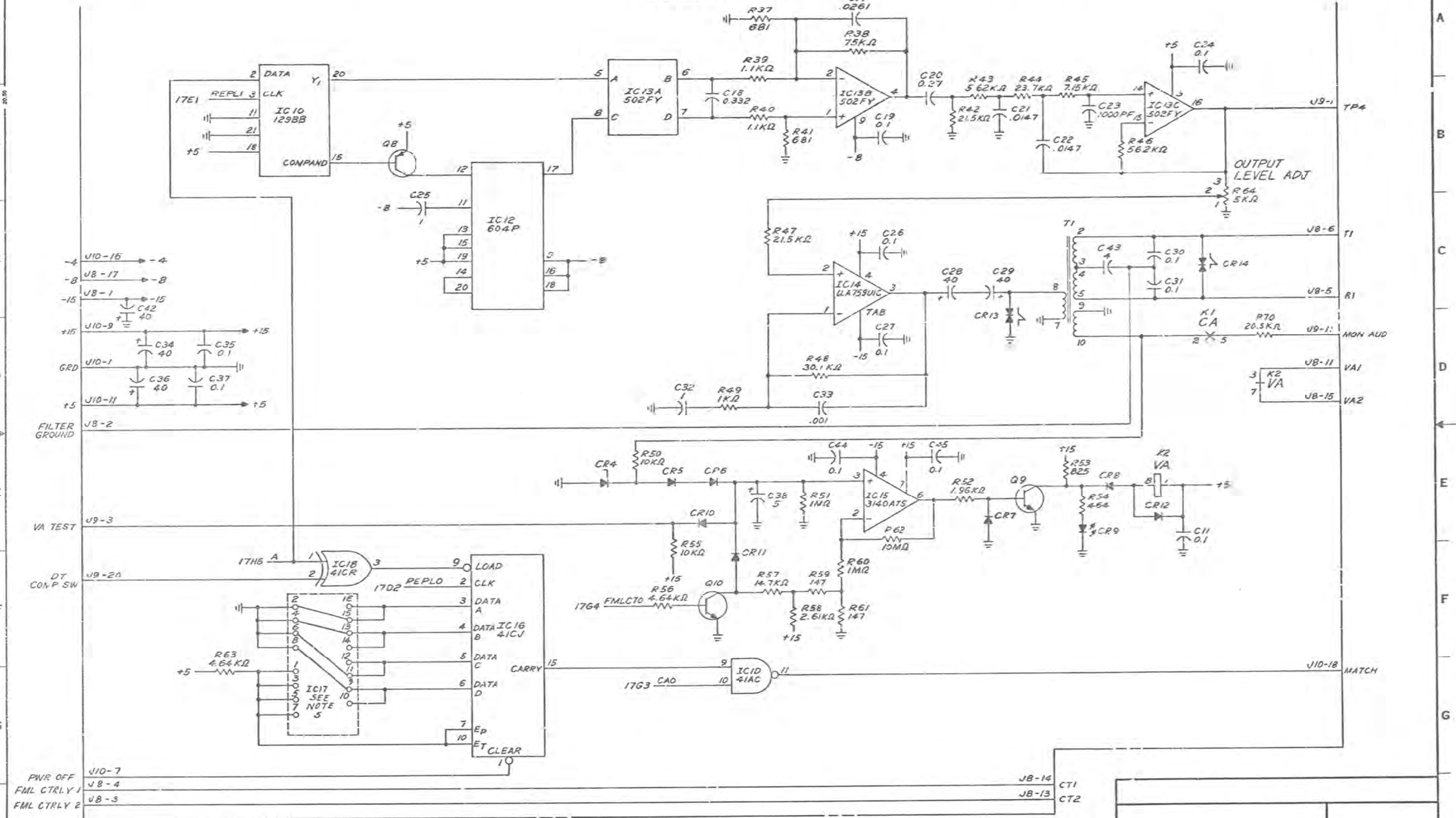
-J16

P/O CPS UD5 FML MESSAGE MODULE



13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
BELL LABORATORIES		65	/
SD-97753-01		-J17	

P/O CPS UD5 FML MESSAGE MODULE



13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
		65	/
BELL LABORATORIES		SD-97753-01	-J18

P/O CPS UD5

FML MESSAGE MODULE

COMPONENT LIST

RELAT

K1
347A CA

18ER

17G4

17G4

17G4

17G4

17G4

17G4

17G4

17G4

17G4

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17G4

17G4

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17G4

K2
VA

18ER

17G4

17G4

17G4

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17G4

INTEGRATED CIRCUIT

DESIG LOC CODE

IC1 17A2, 17A3 41AC

IC2 17B1, 17C1, 17D1, 17E1 41EF

IC3 17C4 SN75442P, TEXAS INST CO

IC4 17C4 SN75442P, TEXAS INST CO

IC5 17A8 5590

IC6 17A8 5590

IC7 17E1, 17F2, 17G2, 17H3 41BP

IC8 17F1, 17F2 41EE

IC9 17G1, 17G4 41DE

IC10 18B1 1298B

IC11 17H5, 17H6 41A

IC12 18B1 604P

IC13 18A4, 18A5, 18B8 502FF

IC14 18C5 JN7591C, FAIRCHILD

IC15 18E6 C83140AE, RCA

IC16 18F3 41LJ

IC17 18F2 SEE NOTE 5

IC18 18F2 41CR

IC19 18F2 41CR

IC20 18F2 41CR

IC21 18F2 41CR

IC22 18F2 41CR

IC23 18F2 41CR

IC24 18F2 41CR

IC25 18F2 41CR

IC26 18F2 41CR

IC27 18F2 41CR

IC28 18F2 41CR

IC29 18F2 41CR

IC30 18F2 41CR

IC31 18F2 41CR

IC32 18F2 41CR

IC33 18F2 41CR

IC34 18F2 41CR

IC35 18F2 41CR

IC36 18F2 41CR

IC37 18F2 41CR

IC38 18F2 41CR

IC39 18F2 41CR

IC40 18F2 41CR

IC41 18F2 41CR

IC42 18F2 41CR

RESISTOR (CONT)

DESIG LOC CODE

R45 18B7 7.15K

R46 18B7 56.2K

R47 18C5 21.5K

R48 18D5 30.1K

R49 18D5 1K

R50 18D5 10K

R51 18D5 10K

R52 18D5 1.96K

R53 18D5 82

R54 18D5 82

R55 18D5 82

R56 18D5 82

R57 18D5 82

R58 18D5 82

R59 18D5 82

R60 18D5 82

R61 18D5 82

R62 18D5 82

R63 18D5 82

R64 18D5 82

R65 18D5 82

R66 18D5 82

R67 18D5 82

R68 18D5 82

R69 18D5 82

R70 18D5 82

R71 18D5 82

R72 18D5 82

R73 18D5 82

R74 18D5 82

R75 18D5 82

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R156 18D5 82

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R162 18D5 82

R163 18D5 82

R164 18D5 82

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R166 18D5 82

R167 18D5 82

R168 18D5 82

R169 18D5 82

R170 18D5 82

R171 18D5 82

R172 18D5 82

R173 18D5 82

R174 18D5 82

R175 18D5 82

R176 18D5 82

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R189 18D5 82

R190 18D5 82

R191 18D5 82

R192 18D5 82

R193 18D5 82

R194 18D5 82

R195 18D5 82

R196 18D5 82

R197 18D5 82

R198 18D5 82

R199 18D5 82

R200 18D5 82

R201 18D5 82

R202 18D5 82

R203 18D5 82

R204 18D5 82

R205 18D5 82

R206 18D5 82

R207 18D5 82

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R211 18D5 82

R212 18D5 82

R213 18D5 82

R214 18D5 82

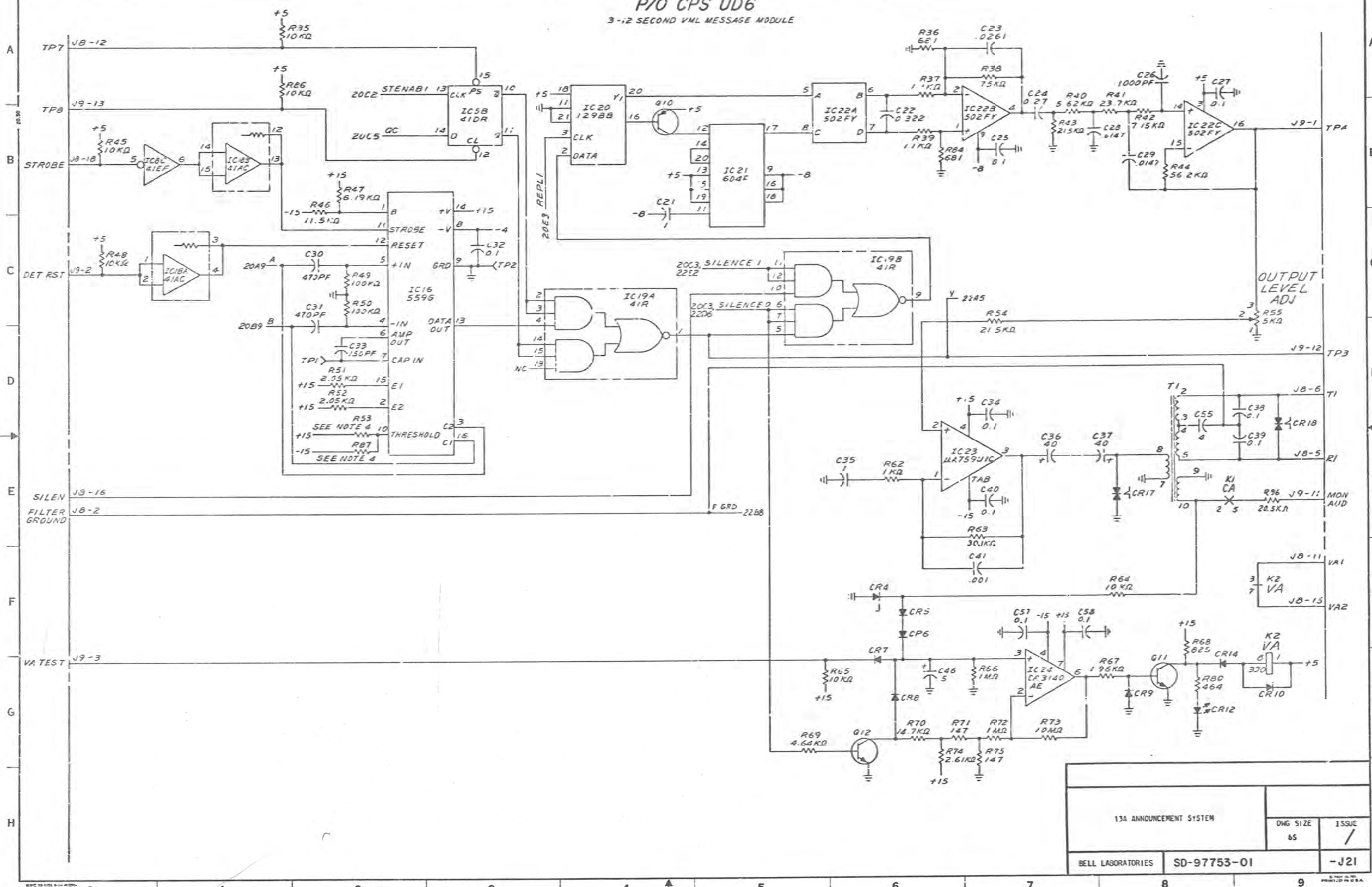
R215 18D5 82

R216

3-12 SECOND MAIL MESSAGE MODULE

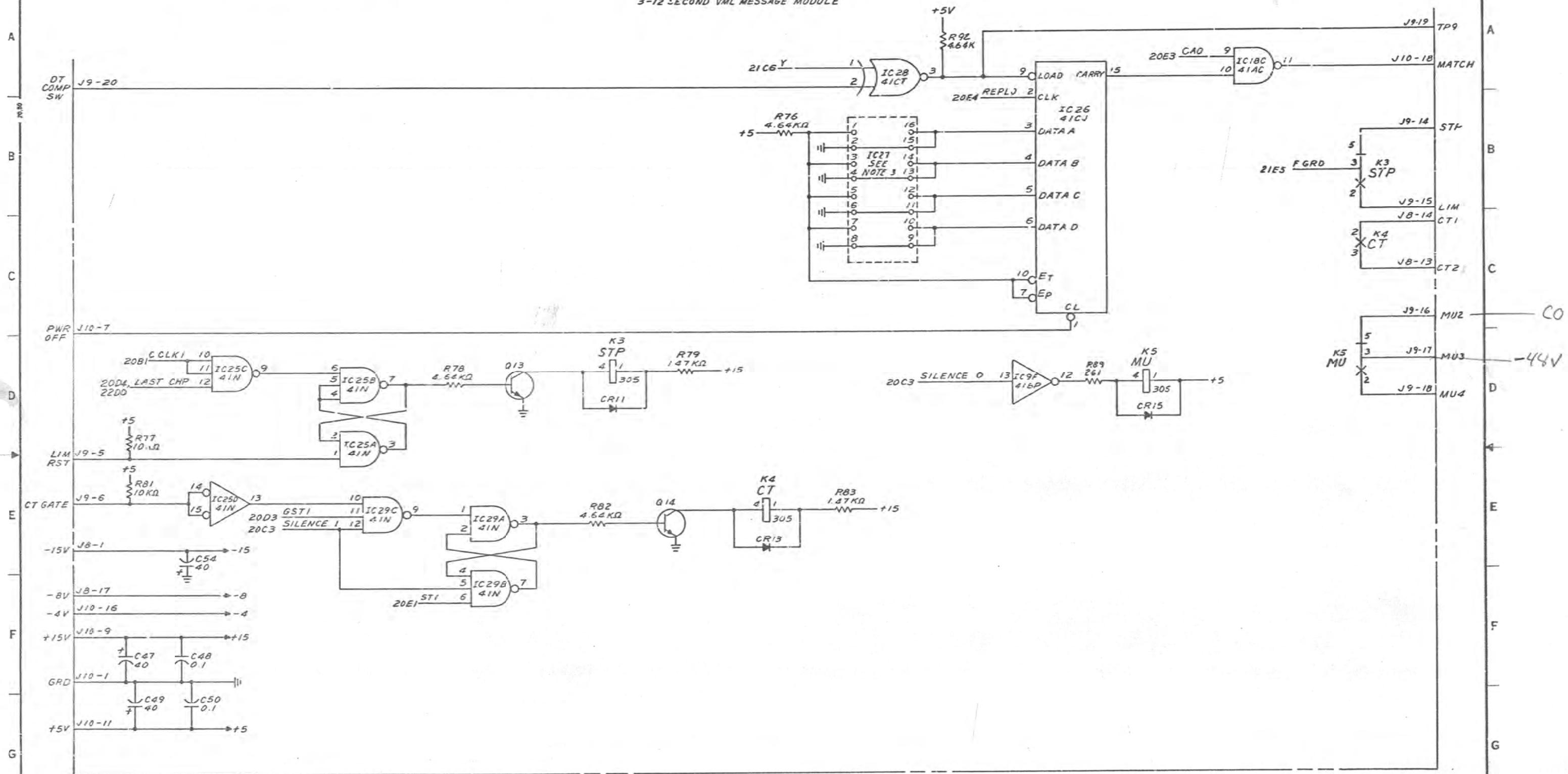


P/O CPS UD6 3-12 SECOND VML MESSAGE MODULE



13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
BELL LABORATORIES		85	/
SD-97753-01		-J21	

P/O CPS UD6
3-12 SECOND VML MESSAGE MODULE



13A ANNOUNCEMENT SYSTEM		DWG SIZE	ISSUE
		6S	/
BELL LABORATORIES	SD-97753-01	-J22	

PRINTED IN U.S.A.

P/O CPSUD6

3-12 SECOND VML MESSAGE MODULE

COMPONENT LIST

RELAY

DESIG	LOC	CODE
337A	K4	CT
22C9	K5	STP
22D9	K5	MU
22E5		22D4
22D7		

K1 CA

347A	21E9
20E3	

K2 VA

348B	21F9
21F9	

CAPACITOR

DESIG	LOC	CODE
C1	20A6	535ME, 0.18
C3	20B8	KS-20736, L5, 0.47
C4	20A9	KS-19774, L7, 100PF
C5	20B9	KS-20736, L4, 0.1
C6	20D0	594C, 1
C7	20D1	601A, 5
C8	20D8	594C, 1
C9	20E1	601A, 5
C12	20F7	KS-20736, L4, 0.1
C13	20G2	KS-16958, L34, 14.7PF
C14	20F3	KS-16958, L32, 100PF
C15	20A4	KS-20736, L4, 0.1

C18	20G5	KS-20736, L4, 0.1
C19	20H5	535ME, .0698
C21	21B4	594C, 1
C22	21A6	594C, 0.332
C23	21A7	594C, .0261
C24	21A7	KS-19774, L13, 0.27

C25	21B7	KS-20736, L4, 0.1
C26	21A8	719A, 1000PF
C27	21A9	KS-20736, L4, 0.1
C28	21B8	719A, .0147

C29	21B9	719A, .0147
C30	21C2	KS-19774, L7, .470PF
C31	21C2	KS-19774, L7, .470PF
C32	21C3	KS-20736, L4, 0.1

C33	21D2	KS-19774, L7, 150PF
C34	21D7	KS-20736, L4, 0.1
C35	21A6	KS-19774, L9, 1
C36	21E7	602A, 40

C37	21E9	602A, 40
C38	21D9	542A, 0.1
C39	21E9	542A, 0.1
C40	21E7	KS-20736, L4, 0.1

C41	21F7	KS-19774, L7, .001
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C46	21F6	601A, 5
C47	22F0	602A, 40
C48	22F1	KS-20736, L4, 0.1

C49	22G0	602A, 40
C50	22G1	KS-20736, L4, 0.1

C51	SEE NOTE 5	KS-20736, L4, 0.1
C52	5	
C53		

C54	22F1	602A, 40
C55	21D8	542A, 0.1

C56	SEE NOTE 5	KS-20736, L4, 0.1
C57	21F7	KS-20736, L4, 0.1

C58	21F8	KS-20736, L4, 0.1
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CONNECTOR

DESIG	LOC	CODE
J8		9638-20
J9		
J10		

DIODE

DESIG	LOC	CODE
CR1	20B3	458C
CR2	20F3	531H
CR3	20F4	458C
CR4	21F6	459J
CR5	21F6	458C
CR6	21F6	458C
CR7	21F6	458C
CR8	21F6	458C
CR9	21G8	458C
CR10	21G9	458C
CR11	22D4	458C
CR12	21G8	531G
CR13	22E5	458C
CR14	21F8	458C
CR15	22C7	458C
CR17	21E8	521C
CR18	21D8	521A

FERRITE BEAD

DESIG	LOC	CODE
SB1	20A3	267 3000101
SB2	20H3	267 3000301

INTEGRATED CIRCUIT

DESIG	LOC	CODE
IC1	20B1, 20C1, 20C4, 20F2	41EE
IC2	20B1, 20B2, 20C1, 20C2, 20D4, 20E2, 20B1	41EF
IC3	20B4	41CJ
IC4	20C5	41CH
IC5	20C3, 21B3	41DR
IC6	20D1, 20E1	41DE
IC7	20D2, 20E2, 20F2	41N
IC8	20F1, 20G1, 21B0	41EF
IC9	20F3, 20F4, 20G3	41BP
IC10	20B6	SN75463P TEXAS INST CO
IC11	20E6	SN75463P TEXAS INST CO
IC14	20B8	29A (BUDDLE MEMORY)
IC16	21C2	559G
IC18	20E8, 21B1, 21C1, 22A8	41AC
IC19	21C4, 20C5	41R
IC20	21A4	1298B
IC21	21B5	604P
IC22	21A6, 21A7, 21B8	502FY
IC23	21E6	UA759UIC, FAIRCHILD
IC24	21G7	CA3140 AE, RCA
IC25	22D1, 22D2, 22E1, 22E2	41N

INTEGRATED CIRCUIT (CONT)

DESIG	LOC	CODE
IC26	22A7	41CJ
IC27	22B5	SEE NOTE 3
IC28	22A6	41C1
IC29	22E2, 22E3, 22F3	41N

POTENTIOMETER

DESIG	LOC	CODE
R55	21C9	KS-19069, L4, 540

MANUFACTURING REFERENCE

CATEGORY	NO.

SYMBOL

J10-12	OCOR		
J10-6	QCP	CUR SENSE	J10-4
J8-9	ERASE	CUR RET	J10-5
J8-8	CHP CLK	LST CHP	J10-8
J8-7	SDR		
J9-4	ST ENAB		
J10-20	START		
J10-10	FILTER GRD		
J10-19	CH ACCESS		
J8-20	REPL		
J8-10	REC		
J8-19	GEN INFO		
J10-17	REPH		
J10-13	ICR	TP4	J9-1
J10-15	ICOR	TP3	J9-12
J8-12	TP7	T1	J8-6
J9-13	TP8	R1	J8-5
J8-18	STROBE	MUN AUD	J9-11
J9-2	DET RST	VA1	J8-11
J8-16	SILEN	VA2	J8-15
J8-2	FILTER GRD		
J9-3	VA TEST		
J9-20	DT COMP SW	TP9	J9-19
J10-7	FWR OFF	MATCH	J10-18
J9-5	LIM RST	STP	J9-14
J9-6	CT GATE	LIM	J9-15
J8-1	-15	CT1	J8-14
J8-17	-8	CT2	J8-13
J10-16	-4		
J10-9	+15	MU2	J9-16
J10-1	CRD	MU3	J9-17
J10-11	+5	MU4	J9-18

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.
- GROUND RETURN.
- IC27 DOES NOT EXIST. WIRES ARE CONNECTED TO TERMINALS AT POSITION IC27 WOULD OCCUPY.
- VALUE SELECTED DURING MFG MAY RANGE FROM 46.4KΩ TO 316KΩ OR MAY BE OMITTED.

IC DESIG	+5 BAT TERM	GRD TERM	DECOUPLING CAPACITOR
IC1	16	7.8	LS1
IC2	16	8	
IC3	16	8	CS6
IC4	16	8	
IC5	16	8	
IC6	16	8	
IC7	16	8	CS2
IC8	16	8	
IC9	16	8	
IC10	8	4	
IC11	8	4	
IC18	16	8	
IC19	16	8	
IC25	16	8	CS4
IC26	16	8	
IC28	16	7.8	
IC29	16	8	

13A ANNOUNCEMENT SYSTEM

DWG SIZE
65

ISSUE
/

BELL LABORATORIES

SD-97753-01

-J23

P/O CPSUD6
3-12 SECOND VML MESSAGE MODULE

COMPONENT LIST (CONT)

RESISTOR

DESIG	LOC	CODE
R1	20B0, 20F0	4306R-101-103 BOURNS
R3	20B1	KS-20B10, L1A, 2.74KΩ
R4	20B3	KS-20B10, L1A, 21.5
R6	20B6	KS-20B16, L1A, 121
R8	20C4	KS-20B16, L1A, 4.64KΩ
R9	20C9	KS-20B10, L1A, 4.64
R10	20C0	KS-20B10, L1A, 4.64
R11	20C0	KS-20B10, L1A, 4.64
R12	20C0	KS-20B10, L1A, 4.64
R13	20E0	KS-20B16, L1A, 42.2
R14	20E0	KS-20B16, L1A, 147
R15	20E1	KS-20B16, L1A, 147
R20	20F0	KS-20B16, L1A, 10KΩ
R21	20F3	KS-20B10, L1A, 4.22KΩ
R22	20G4	KS-20B10, L1A, 4.64KΩ
R23	20G5	KS-20B10, L1A, 46.4
R26	20G0	KS-20B16, L1A, 10KΩ
R29	20G1	KS-20B16, L1A, 2.74KΩ
R30	20G2	KS-20B16, L1A, 1.74KΩ
R31	20G3	KS-20B16, L1A, 1KΩ
R32	20G4	KS-20B16, L1A, 100
R33	20G5	KS-20B10, L1A, 162
R34	20G5	KS-20B10, L1A, 487
R35	21A2	KS-20B10, L1A, 10KΩ
R36	21A6	KS-20B10, L1A, 681
R37	21A6	KS-20B10, L1A, 1.1KΩ
R38	21A7	KS-20B10, L1A, 75KΩ
R39	21B6	KS-20B10, L1A, 1.1KΩ
R40	21A7	KS-20B10, L1A, 5.6KΩ
R41	21A8	KS-20B10, L1A, 23.7KΩ
R42	21A8	KS-20B10, L1A, 7.15KΩ
R43	21B7	KS-20B10, L1A, 21.5KΩ
R44	21B8	KS-20B10, L1A, 56.2KΩ
R45	21B0	KS-20B16, L1A, 10KΩ
R46	21B2	KS-20B16, L1A, 11.5KΩ
R47	21B3	KS-20B16, L1A, 6.19KΩ
R48	21C0	KS-20B16, L1A, 10KΩ
R49	21C2	KS-20B16, L1A, 100KΩ
R50	21C2	KS-20B16, L1A, 100KΩ
R51	21D2	KS-20B16, L1A, 2.05KΩ
R52	21D2	KS-20B16, L1A, 2.05KΩ
R53	21D2	KS-20B16, L1A, NOTE 4
R54	21C7	KS-20B16, L1A, 21.5KΩ
R62	21E6	KS-20B16, L1A, 1KΩ
R63	21E7	KS-20B16, L1A, 30.1KΩ
R64	21F8	KS-20B16, L1A, 10KΩ
R65	21G6	KS-20B16, L1A, 10KΩ
R66	21G7	KS-20B10, L1A, 1KΩ
R67	21G8	KS-20B10, L1A, 1.96KΩ
R68	21F9	KS-20B10, L1A, 825
R69	21G5	KS-20B10, L1A, 4.64KΩ
R70	21G6	KS-20B16, L1A, 14.7KΩ
R71	21G7	KS-20B16, L1A, 147
R72	21G7	KS-20B16, L1A, 147
R73	21G7	KS-20B16, L1A, 10KΩ
R74	21G6	KS-20B16, L1A, 2.61KΩ
R75	21G7	KS-20B16, L1A, 147
R76	22G5	KS-20B16, L1A, 4.64KΩ
R77	22D0	KS-20B16, L1A, 10KΩ
R78	22D2	KS-20B10, L1A, 4.64KΩ
R79	22D4	KS-20B10, L1A, 1.47KΩ
R80	22C8	KS-20B16, L1A, 464
R81	22E0	KS-20B16, L1A, 10KΩ

RESISTOR (CONT)

DESIG	LOC	CODE
R82	22E3	KS-20B16, L1A, 4.64KΩ
R83	22E5	KS-20B10, L1A, 1.47KΩ
R84	21B6	KS-20B16, L1A, 681
R86	21A1	KS-20B16, L1A, 10KΩ
R87	21D2	NOTE 4
R89	22D7	KS-20B16, L1A, 261
R90	20F5	KS-20B16, L1A, 1.75KΩ
R91	20F5	KS-20B16, L1A, 1.75KΩ
R92	22B6	KS-20B16, L1A, 4.64KΩ
R93	20F5	KS-20B16, L1A, 178
R94	20D1	KS-20B16, L1A, 42.2
R95	20D1	KS-20B16, L1A, 42.2
R96	21E9	KS-20B16, L1A, 20.5

SWITCH

DESIG	LOC	CODE
S1	20D1	KS-19963 L9
S2	20E4	210725 EEC0

TEST POINT

DESIG	LOC	CODE
TP1	21D2	P-42P506
TP2	21C3	P-42P506

TRANSFORMER

DESIG	LOC	CODE
T1	21C0	25780

TRANSISTOR

DESIG	LOC	CODE
Q1	20B1	2N2222A
Q2	20B2	2N2222A
Q4	20F4	2N2222A
Q5	20F4	2N2907A
Q8	20G2	665
Q9	20G4	51F
Q10	21B4	51F
Q11	20G8	665
Q12	20G6	665
Q13	22D3	665
Q14	22E4	665
Q15	20F5	665
Q16	20F5	51F

10-23-01
P
Q2

13A ANNOUNCEMENT SYSTEM		DWG SIZE 65	ISSUE /
BELL LABORATORIES	SD-97753-01	-J24	