SHEET INDEX

CONTENTS	SHEET NO.	ISSUE NO. 1	2	3	4	SHEET NO.
SHEET INDEX SUPPORTING INFORMATION	A1	1	2	3	4	A1
FS 1 VF TRANSMIT & RECEIVE	B1	1	1	3	4	B1
FS 2 VF TRANSMIT & RECEIVE & CHANNEL UNIT LOGIC	B2	1	2	2	4	B2
FS 3 RINGING DETECTOR	B3	1	1	3	4	B3
FS 4 RINGING MODE SELECT LOGIC	B4	1	1	3	4	B4
APP FIG. 1	C1	1	2	3	4	C1
CIRCUIT NOTES	D1	1	1	3	4	D1
EQUIPMENT NOTES	D2	1	1	1	4	D2
	D3	1	1	3	3	D3
INFORMATION NOTES	D4	1	1	3	3	D4

SUPPORTING INFORMATION

CATEGORY	NO.
EQUIPMENT DRAWING	J98718SSL ED-3C493-() ED-7C085-() ED-7C086-()
EQUIPMENT DESIGN REQUIREMENTS	J98718 (801-505-153)

HIGHEST RES. & VARISTOR USED ON THE DRAWING		
R94	S5	RV5
NOT USED		
R33 THRU R37	S1, S2	RV2, RV3

SHEET INDEX NOTES

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.

DWG ISSUE	CD ISSUE	DATE ISSUED	
1	1	9-17-75	BA JL JEW
2A	1 APP 1A	1-28-76	DLS JL JEW
3A	1 APP 2A	8-3-76	ACC
4A	1 APP 3A	12-6-76	ACC

ISSUE 4

IN22

COMMON SYSTEMS
SIGNALING
TYPE D3, 24-CHANNEL
PULSE CODE MODULATION BANK
2-WIRE, 900-OHM RINGDOWN
CHANNEL UNIT
CIRCUIT

AT&T CO
STANDARD

SD-3C226-01-A1

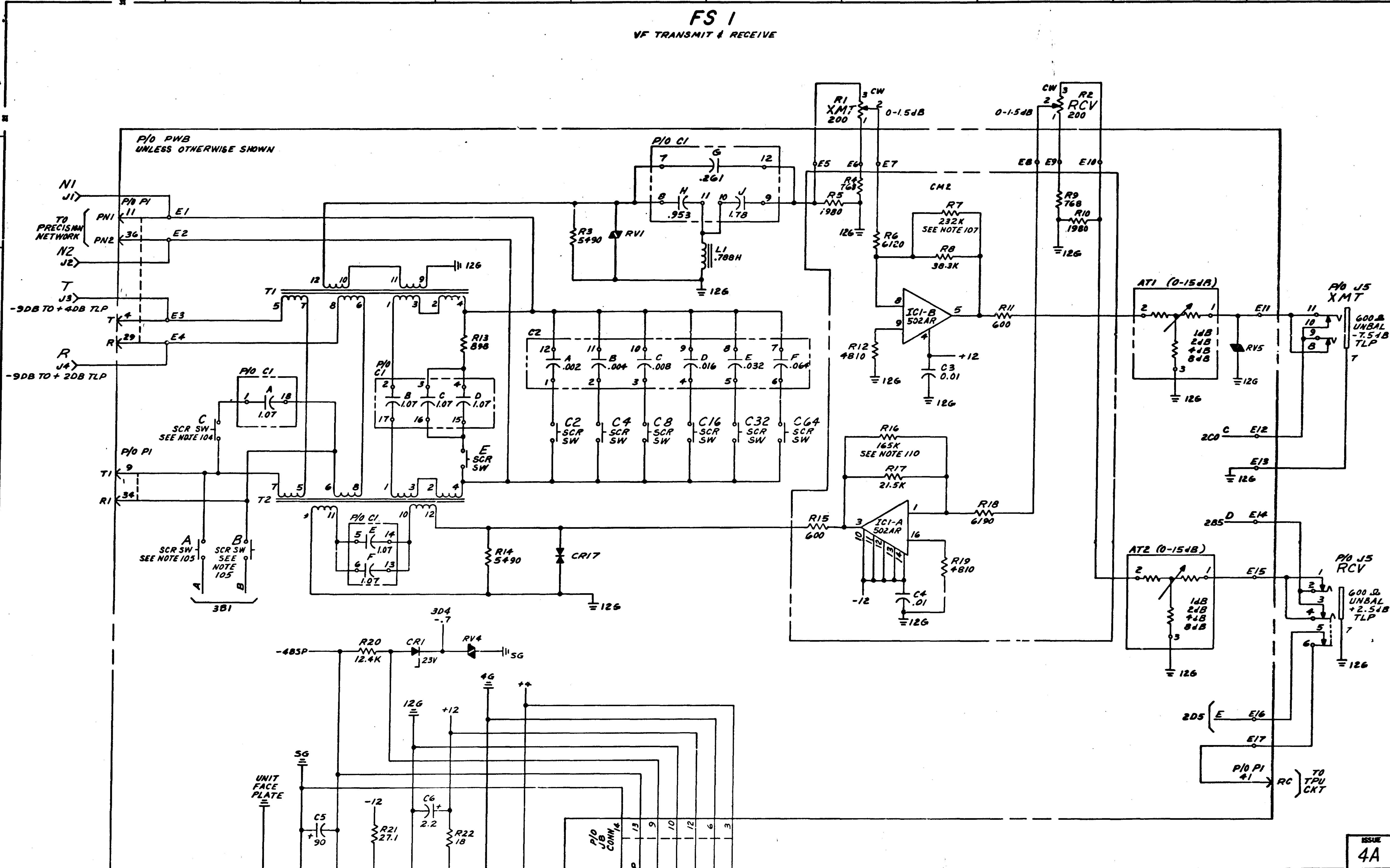
10 SHEETS

BELL TELEPHONE LABORATORIES INCORPORATED

6S

FS 1

VF TRANSMIT & RECEIVE


P/O PWB UNLESS OTHERWISE SHOWN
N1 J1
P/O P1
TO PRECISION NETWORK
PN1 11 E1
PN2 36 E2
N2 J2
T J3
-9DB TO +4DB TLP
T 4 E3
R 29 E4
R J4
-9DB TO + 2DB TLP
T1
T2
R13 898
P/O C1
A 1.07
B 1.07
C 1.07
D 1.07
E 1.07
F 1.07
C SCR SW SEE NOTE 104
E SCR SW
A SCR SW SEE NOTE 105
B SCR SW SEE NOTE 105
3B1
T1 9
R1 34
C2
A .002
B .004
C .008
D .016
E .032
F .064
C2 SCR SW
C4 SCR SW
C8 SCR SW
C16 SCR SW
C32 SCR SW
C64 SCR SW
R14 5490
CR17
R3 5490
RV1
G .261
H .953
J 1.78
L1 .788H
R1 XMT 200
CW
0-1.5dB
E5 E6 E7
R4 768
R5 1980
R6 6120
CM2
R7 232K SEE NOTE 107
R8 38.3K
IC1-B 502AR
R11 600
R12 4810
C3 0.01
+12
R2 RCV 200
E8 E9 E10
R9 768
R10 1980
R16 165K SEE NOTE 110
R17 21.5K
R15 600
IC1-A 502AR
R18 6190
R19 4810
C4 .01
-12
AT1 (0-15dB)
1dB 2dB 4dB 8dB
E11
RV5
P/O J5 XMT
600 Ω UNBAL -7.5dB TLP
2C0 C E12
E13
2B5 D E14
AT2 (0-15dB)
E15
P/O J5 RCV
600 Ω UNBAL +2.5dB TLP
2D5 E E16
E17
P/O P1 41
RC TO TPU CKT
-48SP
R20 12.4K
CR1 23V
3D4 -.7
RV4
SG
4G
+4
12G
+12
UNIT FACE PLATE
C5 90
R21 27.1
C6 2.2
R22 18
P/O J8 CONN
GRD TO FRAME GRD
SG -48SP TO TPU CKT
-12 12G +12 4G +4 TO POWER CONVERTER UNIT CKT
SG -48SP -23 12G +12 4H6
4G +4 4H4

ISSUE 4A

2-WIRE, 900-OHM RINGDOWN CHANNEL UNIT

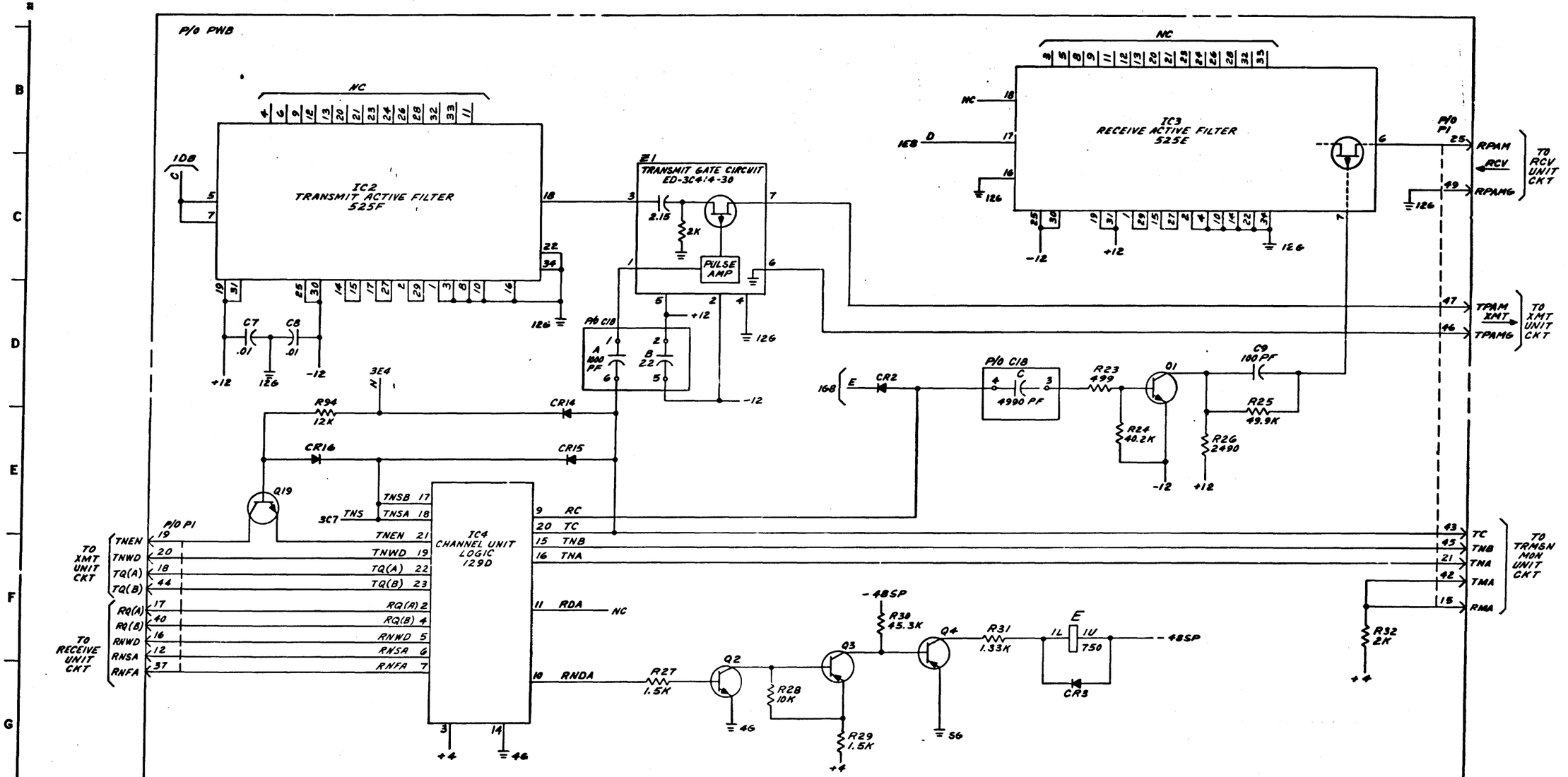
SD-3C226-01-B1

BELL TELEPHONE LABORATORIES INCORPORATED

6S

FS 2

VF TRANSMIT AND RECEIVE
4 CHANNEL UNIT LOGIC



ISSUE 4A

2-WIRE, 900-OHM RINGDOWN
CHANNEL UNIT

SD-3C226-01-B2

BELL TELEPHONE LABORATORIES
INCORPORATED

6S

FS 3
RINGING DETECTOR

P/O PWB

IF1

P/O P1

20HZ 1

20HZ GRD 2

R38 75K

R39 75K

-48SP

R40 38.3K

R41 511

Q6

B

3 2

56

R48 16K

CR4

Q5

C11 5

R51 1K

R49 4.64K

C10 3.3

CR5

R50 51K

R52 12.1K

CR6

C12 5

CR7

Q7

.12V

R42 30.1K

R43 1.33K

R53 10K

-7 IF3

CR8

.12V

C13 20

+4

R44 5.23K

R45 2K

Q8

46

R46 4.32K

R47 2K

Q9

TNS 2E1

S1(M) J6

M 27 E18

R

R54 931

B

4 1

F

R 56 4 4F0

CR9

R55 261

-48SP

CR10

S 6CR SW (SEE NOTE 109)

E 3 E19

S2 (E) J7

+4

R57 2K

R59 4.32K

Q10

2D2 N

R56 12K

Q11

4G

R58 12K

46

P10 J8 CONN 11

7

CA 4H6

DA 4H4

ISSUE 4A

2-WIRE, 900-OHM RINGDOWN CHANNEL UNIT

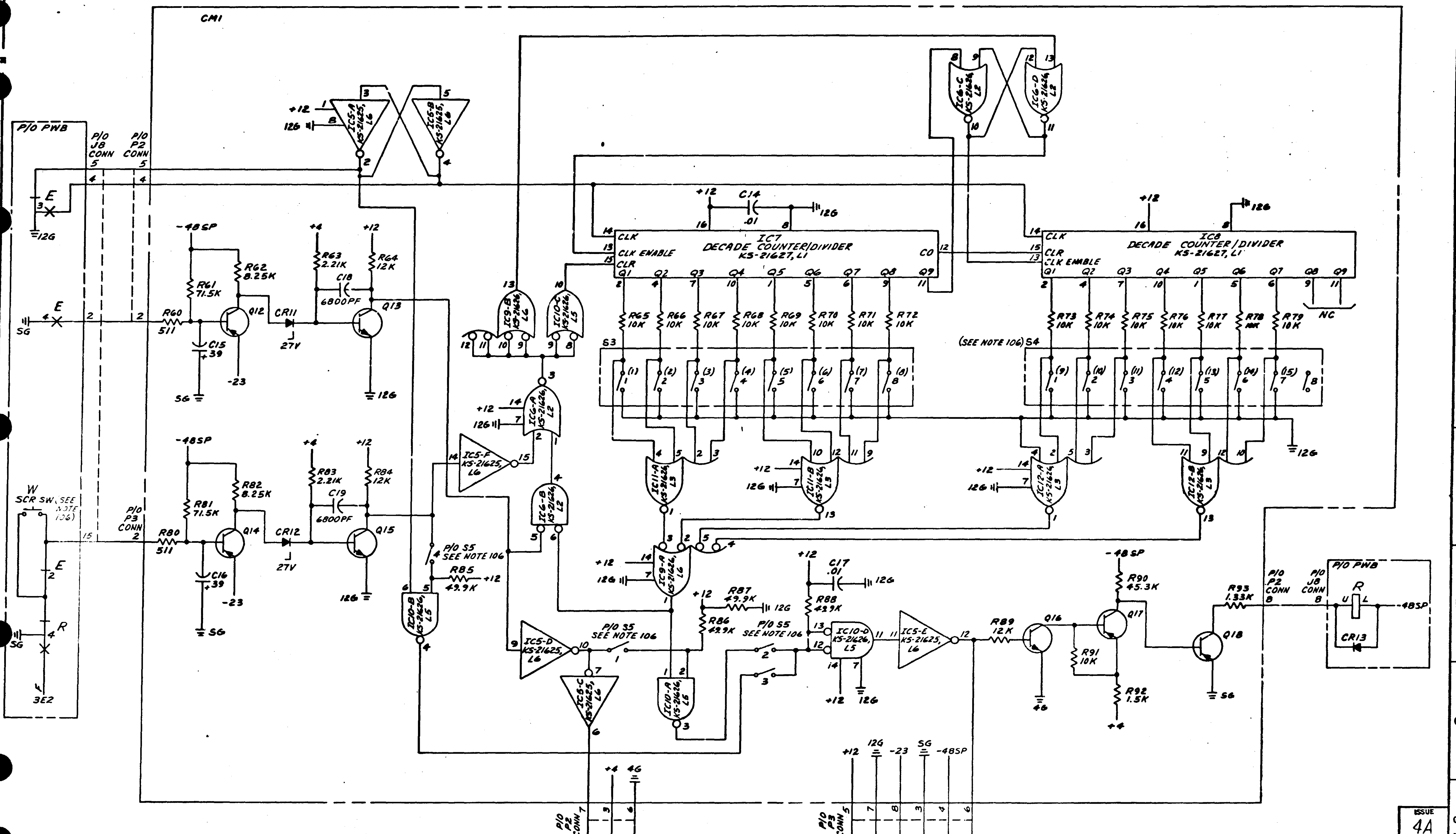
SD-3C226-01-83

BELL TELEPHONE LABORATORIES

DWG SIZE 6S

FS 4

RINGING MODE SELECT LOGIC


CM1
P/O PWB
P/O J8 CONN
P/O P2 CONN
P/O P3 CONN
IC5-A KS-21625, L6
IC5-B KS-21625, L6
IC6-C KS-21626, L2
IC6-D KS-21626, L2
IC7 DECADE COUNTER/DIVIDER KS-21627, L1
IC8 DECADE COUNTER/DIVIDER KS-21627, L1
C14 .01
C17 .01
R65 10K
R66 10K
R67 10K
R68 10K
R69 10K
R70 10K
R71 10K
R72 10K
R73 10K
R74 10K
R75 10K
R76 10K
R77 10K
R78 10K
R79 10K
S3
(SEE NOTE 106) S4
NC
-48SP
R61 71.5K
R62 8.25K
R63 2.21K
R64 12K
C18 6800PF
Q12
Q13
CR11 27V
R60 511
C15 .39
R81 71.5K
R82 8.25K
R83 2.21K
R84 12K
C19 6800PF
Q14
Q15
CR12 27V
R80 511
C16 .39
W SCR SW. (SEE NOTE 106)
3E2
P/O S5 SEE NOTE 106
R85 49.9K
R86 49.9K
R87 49.9K
R88 49.9K
R89 12K
R90 45.3K
R91 10K
R92 1.5K
R93 1.33K
Q16
Q17
Q18
CR13
IC5-D KS-21625, L6
IC5-E KS-21625, L6
IC5-F KS-21625, L6
IC6-A KS-21626, L2
IC6-B KS-21626, L2
IC9-A KS-21626, L6
IC9-B KS-21626, L6
IC10-A KS-21626, L5
IC10-B KS-21626, L5
IC10-C KS-21626, L5
IC10-D KS-21626, L5
IC11-A KS-21626, L3
IC11-B KS-21626, L3
IC12-A KS-21626, L3
IC12-B KS-21626, L3
DA 3G5
+4 4G 1H5
+12 12G -23 SG -48SP 1H4
CA 3G4

ISSUE 4A

2-WIRE, 900-OHM RINGDOWN CHANNEL UNIT

SD-3C226-01-B4

BELL TELEPHONE LABORATORIES INCORPORATED

6S

BELL SYSTEM PROPRIETARY INFORMATION
NOT FOR PUBLICATION OR
OUTSIDE DISTRIBUTION

APP FIG 1

CONNECTOR

DESIG	LOC	CODE
N1(J1)	1B0	KS-20667,L15
N2(J2)	1C0	KS-20667,L14
T (J3)	1E0	KS-20667,L9
R (J4)	1F0	KS-20667,L13
[1] XMT	1C9	601A (JACK)
[1] RCV	1E9	601A (JACK)
S1(J6)	3E0	KS-20667,L14
S2(J7)	3F0	KS-20667,L15

JACK

SEE CONNECTOR

POTENTIOMETER

DESIG	LOC	CODE
R1	1A5	KS-21423,L5
R2	1A7	KS-21423,L5

PRINTED WIRING BOARD

DESIG	LOC	CODE
PWB	1B1,2B1 3B1,4B0 4F9	ED-3C493-( )

E/W

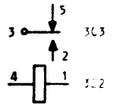
RELAY

DESIG	R		E	
CODE	MA4A		MA4A	
	CONT ARR	LOC	CONT ARR	LOC
4	EMB	4F0	EMB	4D0
3	EBM	3E1	EBM	4C0
2	EBM	3D2	EBM	4F0
1	EBM	3C3	EBM	
COIL		4F9		2F6

RELAY

B

337A



ATTENUATOR

DESIG	LOC	CODE
AT1	1C8	50E
AT2	1E8	50E

CAPACITOR

DESIG	LOC	CODE
[1] C1,A	1D1	734B CAP-PAK
[1] C1,B,C,D	1D2	
[1] C1,E,F	1E2	
[1] C1,G,H,J	1B4	
C2,A-F	1C3	726A CAP PAK
C5	1G1	KS-19524,L14,90
C6	1G3	650D,2.2
[2] C7,8	2D1	KS-19774,L2,..01
C9	2D7	KS-16958,L1,100PF
C10	3D2	606D
C11	3D3	606B
C12	3D4	606F
C13	3D5	606D
[1] C18,A,B	2D3	734C,CAP-PAK
[1] C18C	2D6	

CONNECTOR

DESIG	LOC	CODE
J8	1H4,3G4 4B0,4F9	KS-21290,L5

PRINTED WIRING BOARD (CONT)

DIODE

DESIG	LOC	CODE
CR1	1F2	459AF
CR2	2D5	458A
CR3	2C6	458A
CR4	3D2	456B
CR5	3D2	458A
CR6	3D3	458A
CR7	3D4	459J
CR8	3D5	459J
CR9	3E1	458A
CR10	3E2	458A
CR13	4F9	458A
CR14	2D3	KS-16986,L2M1
CR15	2E3	KS-16986,L2M1
CR16	2E1	KS-16986,L2M1
CR17	1E3	521B

INDUCTOR

DESIG	LOC	CODE
L1	1C5	1622BJ,.788H

INTEGRATED CIRCUIT

DESIG	LOC	CODE
1C2	2B2	525F
1C3	2B7	525E
1C4	2D2	1290

NETWORK

DESIG	LOC	CODE
Z1	2C3	ED-3C414-30

RESISTOR

DESIG	LOC	CODE
R3	1B4	KS-20810,L1A,549Ω
R13	1C3	KS-20810,L1A,898
R14	1E3	KS-20616,L1A,5490
R20	1F2	KS-20810,L1A,12.4K
R21	1G3	KS-20810,L1A,27.1
R22	1G3	KS-20810,L1A,18
R23	2D4	KS-20616,L1A,499
R24	2E6	KS-20616,L1A,40.2K
R25	2E7	KS-20616,L1A,49.9K
R26	2E7	KS-20810,L1A,2490
R27	2C4	KS-20616,L1A,1.5K
R28	2C4	KS-20616,L1A,10K
R29	2C5	KS-20616,L1A,1.5K
R30	2F5	KS-20616,L1A,45.3K
R31	2F6	KS-20289,L3D,1.33K
R32	2F8	KS-20810,L1A,2K
R38	3C1	KS-20810,L1A,75K
R39	3C1	KS-20810,L1A,75K
R40	3C3	KS-20616,L1A,38.3K
R41	3C4	KS-20616,L1A,511
R42	3C4	KS-20616,L1A,30.1K
R43	3D5	KS-20810,L1A,1.33K
R44	3C5	KS-20810,L1A,5.23K
R45	3C5	KS-20616,L1A,2K
R46	3D6	KS-20616,L1A,4.32K
R47	3C6	KS-20616,L1A,2K
R48	3D2	KS-20810,L1A,16K
R49	3D1	KS-20616,L1A,4.64K
R50	3D2	KS-13491,L1,5.1K
R51	3D3	KS-13491,L1,1K
R52	3E3	KS-20810,L1A,12.1K
R53	3D4	KS-20616,L1A,10K
R54	3E1	KS-20269,L3D,931
R55	3E1	KS-14603,L2CD,261
R56	3F4	KS-20810,L1A,12K
R57	3F4	KS-20616,L1A,2K
R58	3E5	KS-20616,L1A,12K
R59	3F5	KS-20616,L1A,4.32K
R94	2D1	KS-20616,L1A,12K

SCREW SWITCH

SEE SELECTOR BLOCK

SELECTOR BLOCK

DESIG	LOC	CODE
A	1E1	840844039
B	1E1	840844039
C	1D1	840844039
[1] C2	1D4	841587793
[1] C4	1D4	
[1] C8	1D4	
[1] C16	1D5	
[1] C32	1D5	
[1] C64	1D5	
E	1D3	840844039
S	3F2	840844039
W	4E0	840844039

PRINTED WIRING BOARD (CONT)

TRANSFORMER

DESIG	LOC	CODE
T1	1C1	2663E
T2	1E1	2663E

TRANSISTOR

DESIG	LOC	CODE
Q1	2D7	66J
Q2	2G4	666
Q3	2F5	51A
Q4	2F5	51B
Q5	3D2	51B
Q6	3C3	51B
Q7	3D4	51B
Q8	3D5	66J
Q9	3D6	66J
Q10	3E6	66J
Q11	3F4	66J
Q19	2E1	66J

VARISTOR

DESIG	LOC	CODE
RV1	1B4	106A
RV4	1F3	100G
RV5	1C8	100A

CIRCUIT MODULE

DESIG	LOC	CODE
CM1	4A1	ED-7C085-( )

E/W

CAPACITOR

DESIG	LOC	CODE
C14	4C5	KS-19774,L2,..01
C15	4D1	608B
C16	4F1	608B
C17	4F5	KS-19774,L2,..01
C18	4C2	KS-19774,L1,6800PF
C19	4E2	KS-19774,L1,6800PF

DIODE

DESIG	LOC	CODE
CR11	4D1	459AH
CR12	4F1	459AH

INTEGRATED CIRCUIT

DESIG	LOC	CODE
[1] IC5,A-B	4B2	KS-21625,L6
[1] IC5,C-D	4G3	
[1] IC5,E	4F6	
[1] IC5,F	4E3	
[1] IC6,A	4D3	KS-21626,L2
[1] IC6,B	4E3	
[1] IC6,C	4B6	
[1] IC6,D	4B7	
IC7	4C5	KS-21627,L1
IC8	4C5	KS-21627,L1
[1] IC9,A	4F4	KS-21626,L6
[1] IC9,B	4D3	
[1] IC10,A	4G4	KS-21626,L5
[1] IC10,B	4F2	
[1] IC10,C	4C3	
[1] IC10,D	4F5	
[1] IC11,A	4E4	KS-21626,L3
[1] IC11,B	4E5	
[1] IC12,A	4E7	KS-21626,L3
[1] IC12,B	4E8	

RESISTOR

DESIG	LOC	CODE
R60	4D1	KS-20810,L1A,511
R61	4C1	KS-20810,L1A,71.5K
R62	4C1	KS-20810,L1A,8.25K
R63	4C2	KS-20810,L1A,2.21K

CONNECTOR

DESIG	LOC	CODE
P2	4B0,4H4, 4F8	65433-009(BERG ELECTRONICS)
P3	4E0,4H5	65433-009(BERG ELECTRONICS)

PRINTED WIRING BOARD (CONT)

CIRCUIT MODULE (CONT)

RESISTOR (CONT)

DESIG	LOC	CODE
R64	4C2	KS-20810,L1A,12K
[3] R65-67	4D4	KS-20810,L1A,10K
[4] R68-71	4D5	KS-20810,L1A,10K
R72	4D6	KS-20810,L1A,10K
[3] R73-75	4D7	KS-20810,L1A,10K
[4] R76-79	4D8	KS-20810,L1A,10K
R80	4E1	KS-20810,L1A,511
R81	4E1	KS-20810,L1A,71.5K
R82	4E1	KS-20810,L1A,8.25K
R83	4E2	KS-20810,L1A,2.21K
R84	4E2	KS-20810,L1A,12K
R85	4F3	KS-20810,L1A,49.9K
R86	4F4	KS-20810,L1A,49.9K
R87	4F5	KS-20810,L1A,49.9K
R88	4F5	KS-20810,L1A,49.9K
R89	4F6	KS-20810,L1A,[illegible]
R90	4F7	KS-20810,L1A,45.3K
R91	4F7	KS-20810,L1A,10K
R92	4G7	KS-20810,L1A,1.5K
R93	4F8	KS-20289,L3D,1.33K

SWITCH

DESIG	LOC	CODE
S3	4D4	KS-21193,L5
S4	4D7	KS-21193,L5
[1] S5-1	4F4	KS-21193,L1
[1] S5-2	4G5	
[1] S5-3	4G5	
[1] S5-4	4F2	

TRANSISTOR

DESIG	LOC	CODE
Q12	4D1	51C
Q13	4D2	66J
Q14	4E1	51C
Q15	4E2	66J
Q16	4F7	66J
Q17	4F7	51B
Q18	4F8	51B

CIRCUIT MODULE

DESIG	LOC	CODE
CM2	1B6	ED-7C086-( )

E/W

CAPACITOR

DESIG	LOC	CODE
C3	1D6	KS-19774,L2,..01
C4	1F6	KS-19774,L2,..01

INTEGRATED CIRCUIT

DESIG	LOC	CODE
[1] IC1-A	1E6	502AR
[1] IC1-B	1C6	

RESISTORS

DESIG	LOC	CODE
R4	1B6	KS-20616,L1A,768
R5	1B5	KS-20616,L1A,1980
R6	1B6	KS-20616,L1A,6120
R7	1C6	KS-20616,L1A, 232K
R8	1C6	KS-20616,L1A, 38.3K
R9	1B7	KS-20616,L1A,768
R10	1B7	KS-20616,L1A,1980
R11	1C7	KS-20616,L1A,600
R12	1C6	KS-20616,L1A,4810
R15	1E5	KS-20616,L1A,600
R16	1D6	KS-20616,L1A, 165K
R17	1E6	KS-20616,L1A, 21.5K
R18	1E7	KS-20616,L1A,6190
R19	1E6	KS-20616,L1A,4810

ISSUE 4A

2-W RE,900-OHM RINGDOWN CHANNEL UNIT

SD-3C226-01-C1

BELL TELEPHONE LABORATORIES INCORPORATED

DWG SIZE 6S

PRINTED IN U.S.A.

CIRCUIT NOTES:

101.

DESIG	FUSE AMP	POTENTIAL	ONE PER
BATTERY SYMBOL			VOLTAGE RANGE

102.

FEATURE OR OPTION	PROVIDE		
	APP FIG	APP OR ARG	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 EQUIP	
				STD	A&M

CIRCUIT NOTES: (CONT)

104. FOR NORMAL OPERATION OF THE UNIT, SCREW SWITCH "C" MUST BE CLOSED.

105. WHEN 20 Hz RINGING IS TO BE RECEIVED INTO AND TRANSMITTED OUT OF THE UNIT, SCREW SWITCHES "A" AND "B" MUST BE CLOSED.

106. DESIGNATIONS IN PARENTHESES SHOWN AT SWITCHES S3 AND S4 REPRESENT STATION NUMBERS. ANY OF FOUR RINGING MODES FOR ASSIGNED STATIONS MAY BE SELECTED BY OPENING AND CLOSING OF CERTAIN SWITCHES. THE FOLLOWING TABLE PRESENTS SWITCH POSITIONS FOR THE RINGING MODES.

RINGING MODE	SWITCHES						
	S5-1	S5-2	S5-3	S5-4	W	S3 STATION 1-8	S4 STATION 1-7
CODE SELECT	1	1	0	X	1	*	*
NO CODE	0	1	0	X	1	S3-1 = 0 S3, 2-8 = 1	1
REPEAT INPUT TIMING (NO LIMIT)	X	0	1	0	1	1	1
REPEAT INPUT TIMING (TWO SECONDS)	X	0	1	1	G	1	1
NOTE: 0 = OFF 1 = CLOSED X = OFF OR CLOSED (DON'T CARE)							
* SET PARTICULAR STATION NUMBER SWITCH (S3, 1-8 AND S4, 1-7) TO "OFF" POSITION FOR ASSIGNED STATION CODES IN THE CODE SELECT MODE.							

107. THIS RESISTOR IS TO BE SELECTED AT MANUFACTURE TO MEET GAIN REQUIREMENTS. IF THE RESISTOR VALUE SHOWN ON SHEET B1 IS INADEQUATE, A VALUE MAY BE SELECTED FROM AMONG THE FOLLOWING KS-20810,L1A RESISTORS:
200K, 246K, 252K, 267K, 277K

108. THIS UNIT MUST NOT BE USED IN THE CHANNEL 24 POSITION DUE TO INTERFERENCE WITH THE TRANSMISSION MONITOR UNIT'S TESTING OF THE D3 BANK.

109. FOR NON-LOOPED DC SIGNALING SCREW SWITCH "S" MUST BE CLOSED.

110. THIS RESISTOR IS TO BE SELECTED AT MANUFACTURE TO MEET GAIN REQUIREMENTS. IF THE RESISTOR VALUE SHOWN ON SHEET B1 IS INADEQUATE, A VALUE MAY BE SELECTED FROM AMONG THE FOLLOWING KS-20810,L1A RESISTORS:
123K, 133K, 149K, 172K, 192K

EQUIPMENT NOTES:

201. "P1" INDICATES PRINTED CONNECTOR FINGERS OF PWB PLUG END AND MATES WITH A 940A CONNECTOR.

202. DESIGNATIONS SHOWN IN BOLD CHARACTERS IN B SECTION ARE MARKED ON UNIT.

203. TO CLOSE A SCREW SWITCH, THE SCREW SHALL BE TIGHTENED SUFFICIENTLY TO INSURE CONTACT BETWEEN TERMINALS AND UNDERSIDE OF SCREW HEAD. CAUTION IN TIGHTENING SCREW IS RECOMMENDED TO AVOID SHEARING OF SCREW. TO OPEN A SCREW SWITCH, THE SCREW SHALL BE LOOSENED APPROXIMATELY TWO COMPLETE TURNS. UNIT IS NORMALLY FURNISHED WITH SCREWS OPEN AND ATTENUATORS SET TO MAXIMUM.

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.

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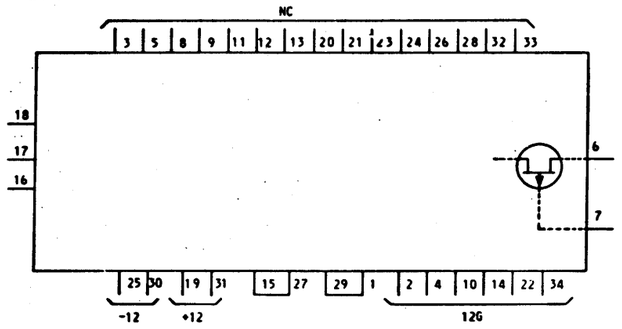
INFORMATION NOTES: (CONT)

302. IC DEVICE CIRCUIT ELEMENTS

(A) **525E** RECEIVE ACTIVE FILTER



INPUT/OUTPUT INFORMATION

PIN 6 IS THE PRIMARY CHANNEL INPUT FOR THE RECEIVE PULSE AMPLITUDE MODULATED SIGNAL.

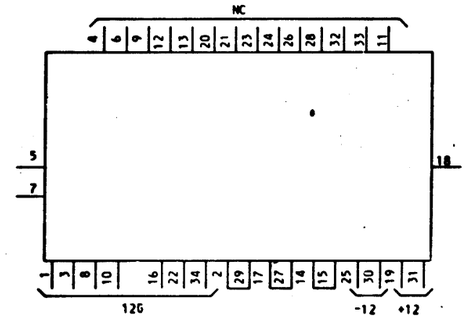
PIN 7 IS THE TIMING INPUT REQUIRED TO SAMPLE THE INDIVIDUAL CHANNEL.

PIN 17 IS THE PRIMARY CHANNEL OUTPUT FOR THE RECONSTRUCTED VOICE FREQUENCY SIGNAL.

CIRCUIT DESCRIPTION

THE RECEIVING ACTIVE FILTER RECONSTRUCTS THE TRANSMITTED WAVEFORM FROM THE RECEIVED SAMPLES. IT EFFECTIVELY HAS A LOW-PASS CHARACTERISTIC WHICH SUPPRESSES FREQUENCY COMPONENTS IN THE INPUT ABOVE 4kHz.

(B) **525F** TRANSMIT ACTIVE FILTER



INPUT/OUTPUT INFORMATION

PIN 5 IS THE PRIMARY VOICE FREQUENCY SIGNAL INPUT.

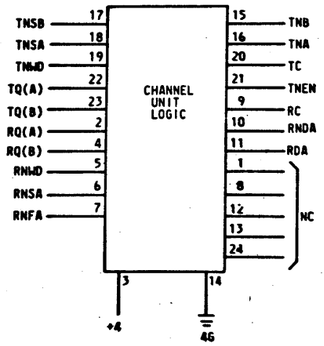
PIN 18 IS THE FILTERED VOICE FREQUENCY OUTPUT.

CIRCUIT DESCRIPTION

THE TRANSMIT ACTIVE FILTER IS A LOW-PASS FILTER WHICH EFFECTIVELY SUPPRESSES FREQUENCIES ABOVE 4kHz. THESE FREQUENCIES WOULD PRODUCE MODULATION PRODUCTS BELOW 4kHz IF THEY WERE NOT SUPPRESSED.

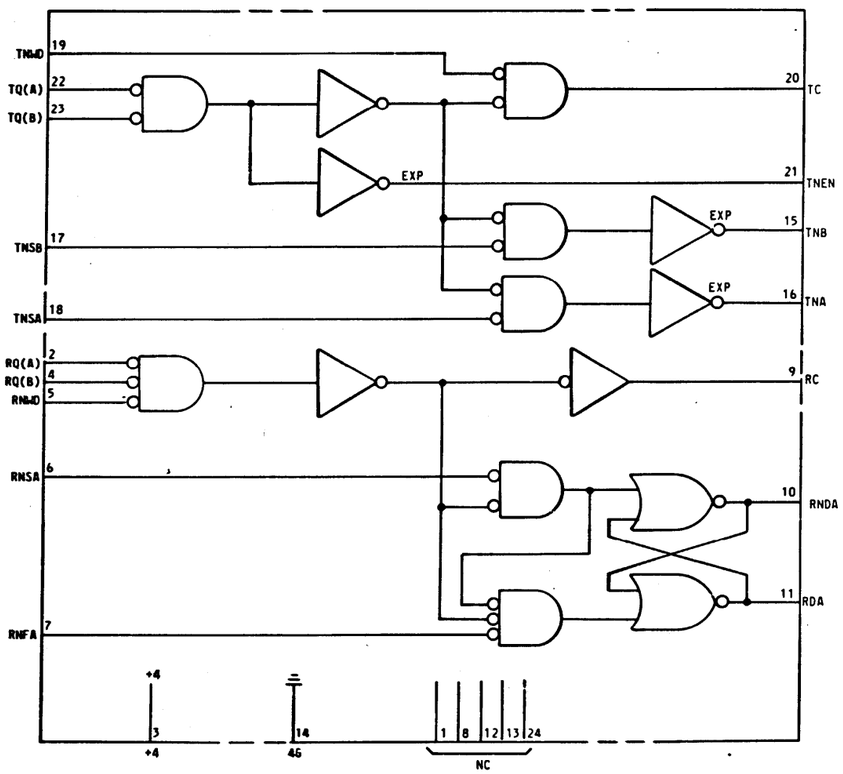
INFORMATION NOTES (CONT)
302. I.C. DEVICE CIRCUIT ELEMENTS (CONT)

(C) **129D** CHANNEL UNIT LOGIC

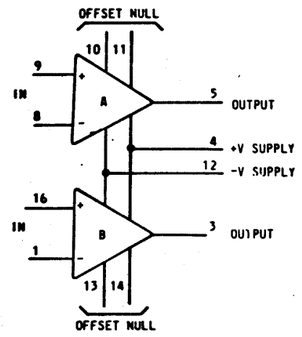


INPUT-OUTPUT INFORMATION

CIRCUIT DESCRIPTION



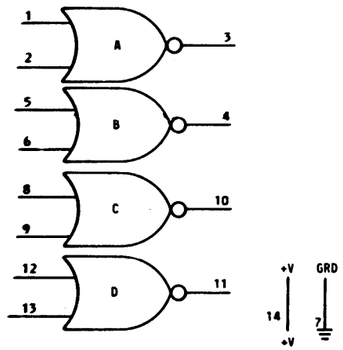
(D) **502AR** DUAL VOICE FREQUENCY AMPLIFIER



INPUT/OUTPUT INFORMATION

CIRCUIT DESCRIPTION

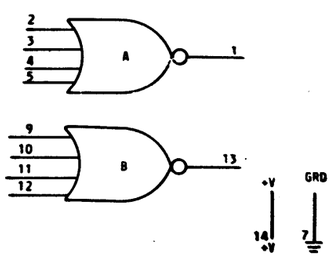
(E) **KS-21626,L2** QUAD 2 INPUT NOR GATE



INPUT-OUTPUT INFORMATION

CIRCUIT DESCRIPTION

(F) **KS-21626,L3** DUAL 4 INPUT NOR GATE



INPUT-OUTPUT INFORMATION

CIRCUIT DESCRIPTION

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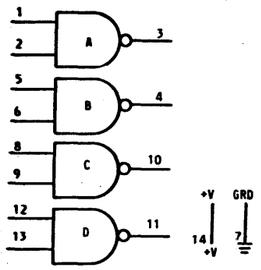
INFORMATION NOTES (CONT)
302. I.C. DEVICE CIRCUIT ELEMENTS (CONT)

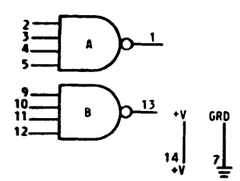
(G) **KS-21626,L5** QUAD 2 INPUT NAND GATE



INPUT/OUTPUT INFORMATION

CIRCUIT DESCRIPTION

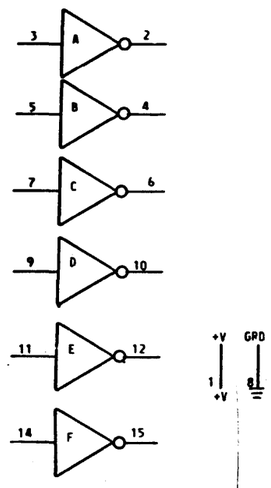
(H) **KS-21626,L6** DUAL 4 INPUT NAND GATE



INPUT/OUTPUT INFORMATION

CIRCUIT DESCRIPTION

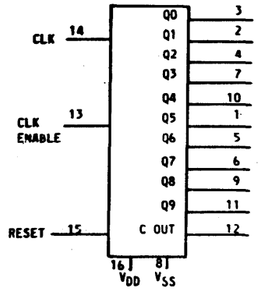
(J) **KS-21625,L6** HEX INVERTER/BUFFER



INPUT/OUTPUT INFORMATION

CIRCUIT DESCRIPTION

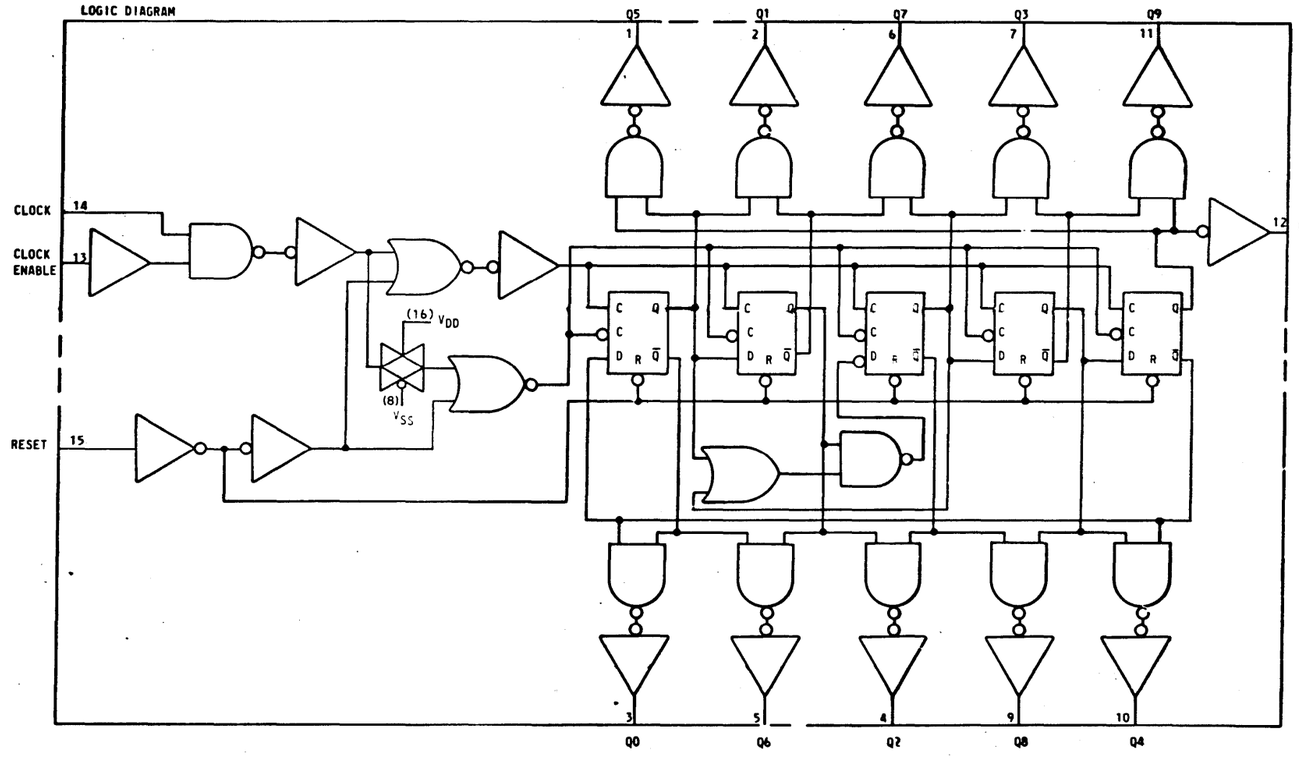
(K) **KS-21627,L1** DECADE COUNTER/DIVIDER



INPUT/OUTPUT INFORMATION

CIRCUIT DESCRIPTION

LOGIC DIAGRAM



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