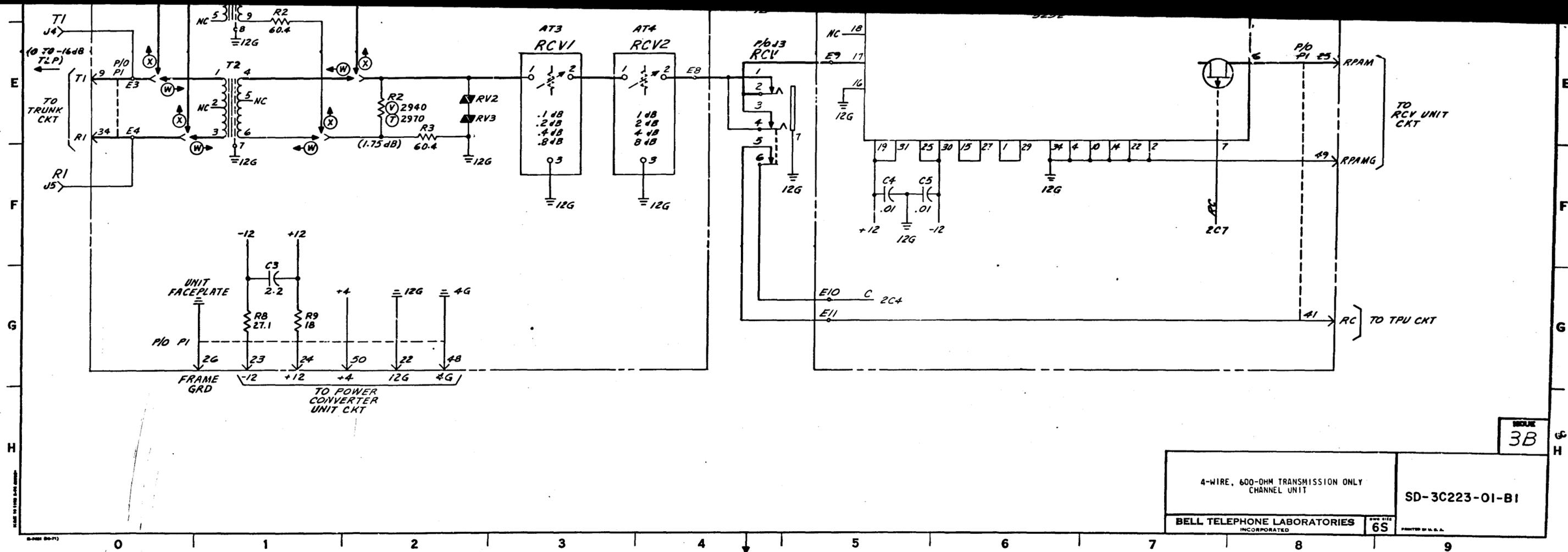


SD-3C223-01-B1



ISSUE
3B

4-WIRE, 600-OHM TRANSMISSION ONLY CHANNEL UNIT	
BELL TELEPHONE LABORATORIES INCORPORATED	6S
SD-3C223-01-B1	

APP FIG. 1

CONNECTOR

DESIG	LOC	CODE
T(J1)	1B0	KS-20667,L9
R(J2)	1C0	KS-20667,L13
(1) XMT(J3)	1B3	
RCV(J3)	1E4	601AM
J4	1E0	KS-20667,L9
J5	1F0	KS-20667,L13

JACK
SEE CONNECTOR

CIRCUIT PACK

DESIG	LOC	CODE
CP1	1A1,1A4,1D2, 1D5,2A4	ED-3C484(-)

ATTENUATOR

DESIG	LOC	CODE
AT1	1B2	50C
AT2	1B3	50C
AT3	1E3	50C
AT4	1E4	50C

CAPACITOR

DESIG	LOC	CODE
C1	1C4	KS-16048,L4,.01
C2	1C5	KS-16048,L4,.01
C3	1G5	KS-20736,L8,2.2 (6) 650D,2.2
C4	1F5	KS-16048,L4,.01
C5	1F5	KS-16048,L4,.01
C6	2B4	KS-16742,L27,4990PF
C7	2B6	KS-16958,L31,100PF
C8	2D2	KS-16742,L27,1000PF
(7) C9	1C7	570A,0.1
(8) C10	1B7	596G,2.15
(9) C11	1C8	KS-16958,L31,49.9

DIODE

DESIG	LOC	CODE
CR1	2B4	458C
(10) CR2	1C8	458C
(11) CR3	1C8	458C

INTEGRATED CIRCUIT

DESIG	LOC	CODE
IC1	1A5	525F
IC2	1D6	525E
IC3	2B2	129D

NETWORK

DESIG	LOC	CODE
(12) Z1	1B7	ED-3C414-30, G1

CIRCUIT PACK (CONT)

RESISTOR

DESIG	LOC	CODE
(13) R1	1E2	KS-20810,L1A,2940 (V) 2970 (1)
R2	1E1	KS-20810,L1A,60.4
R3	1F2	KS-20810,L1A,60.4
R4	2B5	KS-20810,L1A,498
R5	2C6	KS-20810,L1A,49.8K
R6	2C5	KS-20810,L1A,40.2K
R7	2C6	KS-20810,L1A,2.49K
R8	1G1	KS-20810,L1A,27.1
(14) R9	1G1	KS-20810,L1A,18
(15) R10	1B1	KS-20810,L1A,2970
(16) R11	1B1	KS-20810,L1A,60.4
(17) R12	1B7	KS-20810,L1A,50
(18) R13	1C7	KS-20810,L1A,499
(19) R14	1C7	KS-20810,L1A,40.2K
(20) R15	1C8	KS-20810,L1A,2K
(21) R16	1B8	KS-20810,L1A,2M
(22) R17	1C8	KS-20810,L1A,2.45K
(23) R18	1C8	KS-16645,L1,2M

TRANSFORMER

DESIG	LOC	CODE
T1	1A1	(24) 2578C
T2	1B1	(25) 2532AD
	1D1	(26) 2578C
	1E1	(27) 2532AD

TRANSISTOR

DESIG	LOC	CODE
(28) Q1	2B5	66J
(29) Q2	1C5	66J
(30) Q3	1B8	83A

VARISTOR

DESIG	LOC	CODE
RV1	1B2	106A
RV2	1E2	106A
RV3	1E2	106A
(31) RV4	1B7	106A

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CIRCUIT NOTES:

101.	DESIG	FUSE AMP	POTENTIAL	ONE PER
BATTERY SYMBOL			VOLTAGE RANGE	

CIRCUIT NOTES: (CONT)

104. TALK BATTERY AND GROUND MUST NOT BE CONNECTED TO TERMINALS 25 AND 26.

EQUIPMENT NOTES:

- 201. *P1* INDICATES PRINTED CONNECTOR FINGERS OF PWB PLUG END AND MATES WITH A 90AA 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 CLOSED.

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.

102.	FEATURE OR OPTION	PROVIDE		
		APP FIG	APP OR WRG	QUANTITY

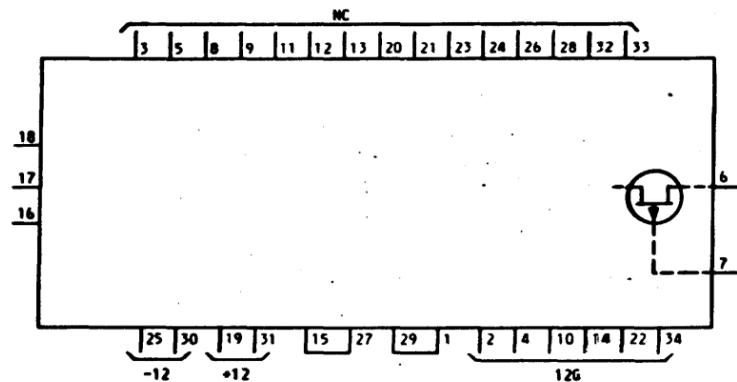
103. RECORD OF FIGURES, WIRING AND APPARATUS CHANGES						
CHANGED ON ISSUE	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT		
				STD	A&M	MD
3B	Z OR Y	Z		Y		Z
	X OR W	X		W		X
	V OR T	V		T		V

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4-WIRE, 600-OHM TRANSMISSION ONLY CHANNEL UNIT		SD-3C223-01-D1
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INFORMATION NOTES (CONT)
302. I.C. 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.

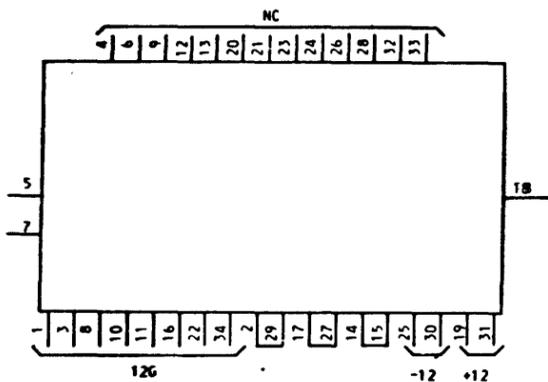
PIN 7 IS THE TIMING INPUT REQUIRED TO SAMPLE THE INDIVIDUAL CHANNEL.

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 4 KHZ.

(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 4 KHZ. THESE FREQUENCIES WOULD PRODUCE MODULATION PRODUCTS BELOW 4 KHZ IF THEY WERE NOT SUPPRESSED.

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2A

4-WIRE, 600-OHM TRANSMISSION ONLY
CHANNEL UNIT

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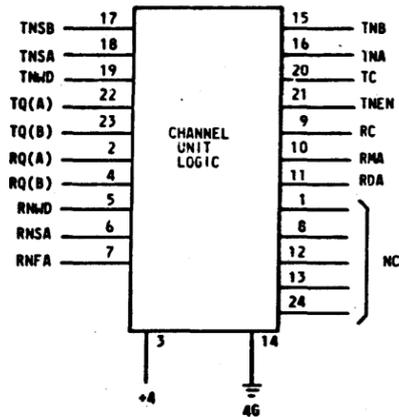
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INCORPORATED

6S

INFORMATION NOTES: (CONT)

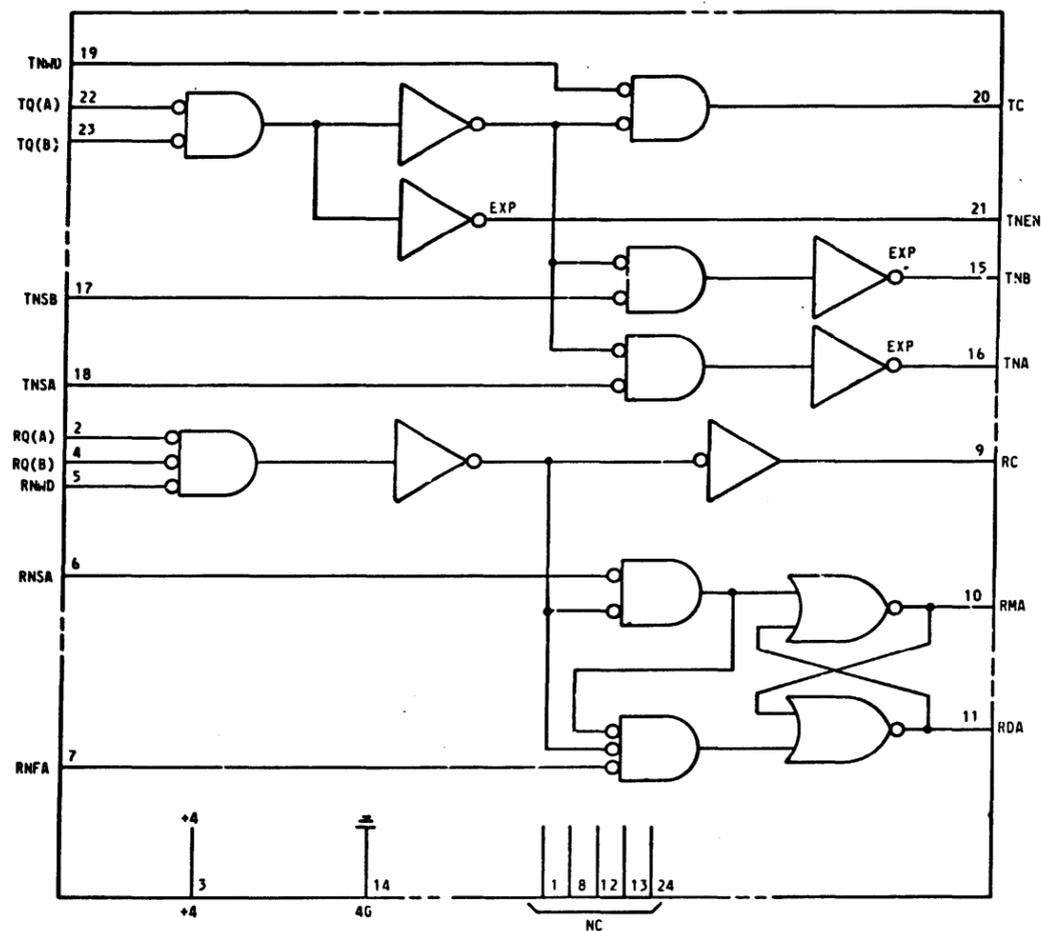
302. IC DEVICE CIRCUIT ELEMENTS (CONT)

(C) 129D CHANNEL UNIT LOGIC



INPUT/OUTPUT INFORMATION

CIRCUIT DESCRIPTION



4-WIRE, 600-OHM TRANSMISSION ONLY CHANNEL UNIT		SD-3C223-01-D3
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