CPS-JK8

SHEET INDEX

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SYMBOL

BUS TERMINATOR A
ELEMENT IDENT
A

TERM. MOD	FUNCT	TERM.	LOC
ACKIO	I	115	2A4
BA16CRO	I	213	2A8
BACRO	I	300	2A7
BCLK	I	314	2A9
BØFLO	I	313	2A7
BSHPO	I	019	2A6
BSPARE	I	118	2A6
CLK	I	103	2A6
FILLO	I	316	2A9
GPO	I	202	2A5
IBØØ1	I	110	2A1
IBØ11	I	109	2A1
IBØ21	I	009	2AØ
IBØ31	I	010	2AØ
IBØ41	I	011	2AØ
IBØ51	I	111	2AØ
INHBRO	I	201	2A8
INITO	I	116	2A4
RCO	I	216	2A2
RDO	I	007	2A2
SDINO	I	218	2A7
SDØTO	I	018	2A7
SDO	I	016	2A3
SSTO	I	217	2A3
STUFFO	I	301	2A8
CLKRO	Ø	003	2H3
ERO	Ø	117	2H0
GØBI	Ø	004	2H8
GPRO	Ø	101	2H6
INTPO	Ø	302	2H1
RDYO	Ø	317	2H1
SYNCO	Ø	303	2H3
WAITO	Ø	104	2H7
+5	P	000,119	2H3
GRD	G	200,319	2H6

RECORD OF CHANGES

DWG ISS	PREV FURN	STD	MFR DISC	SEE NOTE

SYSTEM USED ON	DESIGN CONTROL
COMMON SYSTEMS	IH

CURRENT DRAIN: 505mA

NOTES:

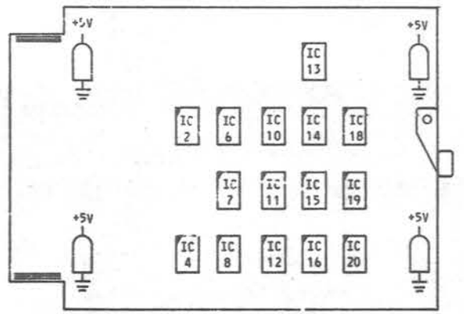
1. ⏚ GROUND RETURN
2. UNLESS OTHERWISE SPECIFIED:
   RESISTANCE VALUES ARE IN OHMS
   CAPACITANCE VALUES ARE IN MICROFARADS
   VALUES PRECEDED BY THE SYMBOL +(PLUS) OR -(MINUS) ARE IN VOLTS
3. BATTERY AND GROUND TERMINALS FOR INTEGRATED CIRCUITS

IC CODE	BAT. TERM.	GRD TERM.
41AA	16	8
41AE	16	7,8
41BP	16	8
41BR	16	7,8
41CA	16	8
41U	16	8
41W	16	8

4. BATTERY AND GROUND TERMINALS FOR THIS CIRCUIT PACK ARE AS FOLLOWS.

FUNCTION	TERMINAL
+5	000,119
GRD	200,319

5. HORIZONTAL MOUNTING CENTERS AT 0.50 INCH.
6. INTEGRATED CIRCUIT LOCATION GUIDE: (COMPONENT SIDE SHOWN)



UNMARKED COMPONENTS ARE FILTER CAPACITORS

SUPPORTING INFORMATION

CATEGORY	NO.
CIRCUIT PACK CODE	JK8
CONNECTOR ON FRAME	947C OR 947A
SERIES FOR LATEST CLASS A CHANGE. (ANY HIGHER SERIES IS ACCEPTABLE).	
ACCEPTABLE SERIES	1

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 FIRST SHEET.
4. SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
5. THE LAST ISSUE NUMBER OF THE FIRST SHEET INDEX IS RECOGNIZED AS THE LATEST ISSUE NUMBER OF THE DRAWING AS A WHOLE.

DWG ISSUE	EE OR CD ISSUED	DATE ISSUE	DRAWN	APPD
1	---	10-8-74	LRE	RWF MTS RFG
2D1	—	12-9-75	P/S LRE	CE LEG RFG

ISSUE 2D1

IN98

JK8 CIRCUIT PACK

BUS TERMINATOR A CIRCUIT

(2)

AT&TCO STANDARD

CPS-JK8
3 SHEETS

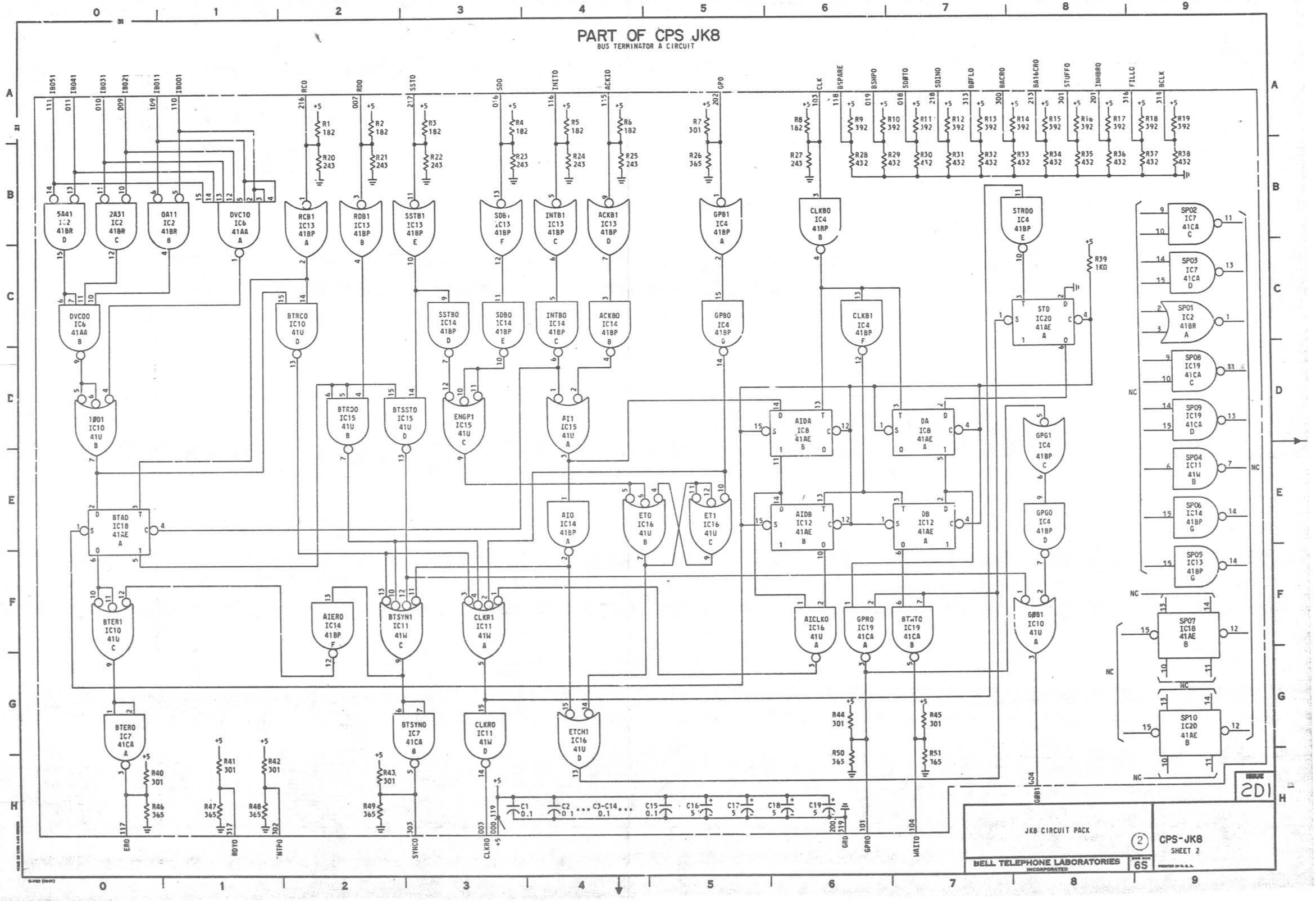
BELL TELEPHONE LABORATORIES INCORPORATED

6S

CPS-JK8

PART OF CPS JK8

BUS TERMINATOR A CIRCUIT



CPS-JK8

PART OF CPS JK8

BUS TERMINATOR A CIRCUIT

COMPONENT LIST

INTEGRATED CIRCUIT

LOC CODE ELEM ID	IC2 418R DESIG	SH LOC	IC4 418P DESIG	SH LOC	IC6 41AA DESIG	SH LOC	IC7 41CA DESIG	SH LOC	IC8 41AE DESIG	SH LOC	IC10 41U DESIG	SH LOC	IC11 41W DESIG	SH LOC	IC12 41AE DESIG	SH LOC	IC13 418P DESIG	SH LOC	IC14 418P DESIG	SH LOC	IC15 41U DESIG	SH LOC
A	SP01	2C9	GPB1	2B5	DVC10	2B1	BTER0	2G0	DA	2D7	GØB1	2F9	CLKR1	2F3	DB	2E7	RCB1	2B2	AIO	2E4	AI1	2D4
B	0A11	2B1	CLKB0	2B6	DVC00	2C0	BTSYN0	2G3	AIDA	2D6	1ØØ1	2D0	SP04	2E9	AIDB	2E6	RDB1	2B2	ACKB0	2C4	BTRD0	2D2
C	2A31	2B0	GPG1	2D9			SP02	2B9			BTER1	2F0	BTSYN1	2F2			INTB1	2B4	INTB0	2C4	ENGP1	2D3
D	5A41	2B0	GPG0	2E9			SP03	2C9			BTRC0	2C2	CLKR0	2G3			ACKB1	2B4	SSTB0	2C3	BTSST0	2D3
E			STRD0	2B8													SSTB1	2B3	SDB0	2C3		
F			CLKB1	2C6													SDB1	2B3	AIER0	2F2		
G			GPB0	2C5													SP05	2F9	SP06	2E9		

LOC CODE ELEM ID	IC16 41U DESIG	SH LOC	IC18 41AE DESIG	SH LOC	IC19 41CA DESIG	SH LOC	IC20 41AE DESIG	SH LOC
A	AICLK0	2F6	BTAD	2E0	GPR0	2F6	STD	2C8
B	ET0	2E4	SP07	2F9	BTWT0	2F7	SP10	2G9
C	ET1	2E5			SP08	2D9		
D	ETCH1	2G4			SP09	2D9		
E								
F								
G								

CAPACITOR

DESIG	CODE
[15]C1-C15	KS-19774 L5,0.1
[4] C16-C19	601A,5

RESISTOR

DESIG	CODE
[6] R1-R6	KS-20616 L1A,182
R7	301
R8	182
[11]R9-R19	392
[6] R20-R25	243
R26	365
R27	243
[11]R28-R38	432
R39	1KΩ
[6] R40-R45	301
[6] R46-R51	365

CIRCUIT DESCRIPTIØN

THIS CIRCUIT PACK IS PART ØF THE BUS TERMINATØR DEVICE. HANDSHAKING AND CØNTRØL LØGIC FØR THE PARALLEL HØLDING REGISTER ØN JK9 IS PRØVIDED. FAR-END TERMINATING RESISTØRS FØR THE PARALLEL BUS CØMMAND LEADS AND THE SERIAL BUS LEADS ARE ALSØ PRØVIDED.

THE BUS TERMINATØR ADDRESS FF (BTAD) BECØMES SET AT THE LEADING EDGE ØF RCO AND IF IBOO1 THRØUGH IBO51 ARE ALL ØNE'S ØR ALL ZERØ'S. RCB1 AND 1ØO1 ASSERT SYNCO AND CLKRO. SYNCO AND CLKRO REMAIN LØW UNTIL RCO PETURNS TØ A HIGH LEVEL. AT THE TRAILING EDGE ØF RCO, THE STATE ØF THE INFØRMATIØN LEADS IS CLØCKED INTØ THE REGISTER ØN JK9.

A LØW LEVEL ØN RDO AND FF BTAD BEING SET ASSERTS SYNCO AND CLKRO. SYNCO REMAINS LØW UNTIL RDO RETURNS TØ A HIGH LEVEL. AT THE TRAILING EDGE ØF RDO, THE STATE ØF THE INFØRMATIØN LEADS IS CLØCKED INTØ THE REGISTER ØN JK9.

A LØW LEVEL ØN SSTO AND FF BTAD BEING SET ASSERTS SYNCO AND GØB1. GØB1 GATES THE ØUTPUTS ØF THE REGISTER ØN JK9 ØNTØ THE INFØRMATIØN LEADS.

CØMMAND INPUTS INITO ØR ACKIO ASSERT SYNCO. WAITO IS ASSERTED BY ETCH1. FFS AIDA, AND GATE AICKLO GENERATE A CLØCK PULSE ØN CLKRO. THE TRAILING EDGE ØF THIS PULSE CLOCKS THE STATE ØF THE INFØRMATIØN LEADS INTØ THE REGISTER ØN JK9. THE TRAILING EDGE ØF CLKR1 TØGGLES FF STD ENABLING THE TIMING CHAIN, FFS DA AND DB TØ ASSERT GPRO AND GØB1. WHEN FF DB BECØMES SET WAITO IS NEGATED. GPRO, GØB1, AND SYNCO REMAIN TRUE UNTIL INITO ØR ACKIO RETURN TØ A HIGH LEVEL.

A PULSE ØN THE GPO LEAD, WHILE SSTO ØR SDO IS LØW, ENABLES THE TIMING CHAIN STD, DA, AMD DB. THE LEADING EDGE ØF GPO ASSERTS WAITO. AT THE TRAILING EDGE ØF GPO, THE PARALLEL REGISTER ØN JK9 IS CLØCKED VIA CLKRO AND FF STD IS TØGGLED. THE NEXT TRANSITIØN ØF THE CLØCK TØGGLES FF DA. THE ØNE ØUT-PUT ØF FF DA ASSERTS GPRO AND ENABLES THE ØUTPUTS ØF THE REGISTER ØN JK9 VIA GOB1. THE NEXT TRANSITIØN ØF THE INVERTED CLØCK (CLKB1) TØGGLES FF DB AND WAITO IS NEGATED. GØB1 AND GPRO REMAIN TRUE UNTIL SSTO ØR SDO RETURN TØ A HIGH LEVEL.

ISSUE 2D1

JK8 CIRCUIT PACK (2) CPS-JK8 SHEET 3

BELL TELEPHONE LABORATORIES INCORPORATED 6S

CPS-JK8