

DWG	EE OR CD	DATE	APPROV
ISSUE	ISSUED	ISSUE	BY
		6/24/74	RVB M.TG NCL

SHEET INDEX

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CIRCUIT SCHEMATIC COMPONENT LIST CIRCUIT DESCRIPTION	2	1
CMS 160A	3	1
	4	1
	5	1
CMS 145P	6	1

RECORD OF CHANGES

DWG ISS	PREV FURN	STD	MFR DIS*	SEE NOTE

NOTES:

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

IC CODE	BAT. TERM.	GRD TERM.
160A	1,30,	8,10,
	31,33,	12,14,
	34,35,	16,19
	38	
145P	32	1

- BATTERY AND GROUND TERMINALS FOR THIS CIRCUIT PACK ARE AS FOLLOWS:

FUNCTION	TERMINAL
+3V	000,119
GRD	200,319,260

- HORIZONTAL MOUNTING CENTERS AT 0.5 INCH.

SYMBOL

MAINTENANCE CHANNEL SWITCH SEQUENCER AND BIPOLAR INTERFACE (MSWS,BPI) ELEMENT A

TERM. MOD.	FUNCT	TERM.	LOC
CP11	I	217	2A4
CP21	I	208	2A5
CP31	I	308	2A3
ENASWO	I	313	2A3
IDLSWSQO	I	215	2A3
INCRD	I	315	2A3
LDMCHBO	I	216	2A3
MCHGBO	I	214	2A3
MCHIDLEO	I	215	2A4
MHRDN	I	107	2A4
MCHRDY	I	007	2A4
MCHSDO	I	317	2A4
SXWITO	I	314	2A3
MCHRDD	Ø	307	2G3
MCHRSTO	Ø	318	2G3
MCHSDN	Ø	008	2G4
MCHSDP	Ø	108	2G4
MCHSHFTO	Ø	309	2G5
MSGBO	Ø	218	2G3
SNDTØGO	Ø	209	2G4
SHSQ110	Ø	316	2G3
+3	P	000,119	2G1
GRD	G	200,319,260	2G2

SSP TRANSFORMERS AND INTERRUPT TRANSFORMERS (SSP.INTT) ELEMENT B

TERM. NO.	FUNCT	TERM.	LOC
FØRCEN	I	210	2A5
FØRCEP	I	310	2A5
INTAN	I	113	2A6
INTAP	I	013	2A6
INTØN	I	114	2A6
INTØP	I	014	2A6
INTCN	I	115	2A7
INTCP	I	015	2A6
INTDN	I	116	2A7
INTDP	I	016	2A7
INTEN	I	117	2A7
INTEP	I	017	2A7
INTFN	I	118	2A8
INTFP	I	018	2A7
INTGN	I	101	2A8
INTGP	I	001	2A8
INTHN	I	102	2A8
INTHP	I	002	2A8
INTJN	I	103	2A8
INTJP	I	003	2A8
INTKN	I	301	2A9
INTKP	I	201	2A9
MRFN	I	702	2A9
MRFØP	I	202	2A9
FØR.LØFO	Ø	211	2G5
FØR.LØNO	Ø	311	2G5
MRFØ	Ø	213	2G9
ST.ISAO	Ø	012	2G6
ST.ISØO	Ø	112	2G6
ST.ISCO	Ø	010	2G7
ST.ISDO	Ø	312	2G7
ST.ISEO	Ø	109	2G7
ST.ISFO	Ø	009	2G7
ST.ISGO	Ø	111	2G8
ST.ISHO	Ø	011	2G8
ST.ISJO	Ø	110	2G8
ST.ISKO	Ø	212	2G9

SUPPORTING INFORMATION

CATEGORY	NO.
CONNECTOR ON FRAME	947A OR 947C
SERIES FOR LATEST CLASS "A" CHANGE (ANY HIGHER SERIES IS ACCEPTABLE)	2

CURRENT DRAIN: 600 MA

SHEET INDEX NOTES

- WHEN CHANGES ARE MADE IN THIS DRAWING ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
- 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.
- THE ISSUE NUMBER ASSIGNED TO A CHANGED OR NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE FIRST SHEET.
- SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
- THE LAST ISSUE NUMBER OF THE FIRST SHEET INDEX IS RECOGNIZED AS THE LATEST ISSUE NUMBER OF THE DRAWING AS A WHOLE.

SYSTEM USED ON	DESIGN CONTROL
COMMON SYSTEMS	IH

ISSUE

1

1998

FC202 CIRCUIT PACK
MAINTENANCE CHANNEL
AND SSP INTERFACE
CIRCUIT

AT&T
STANDARD

2

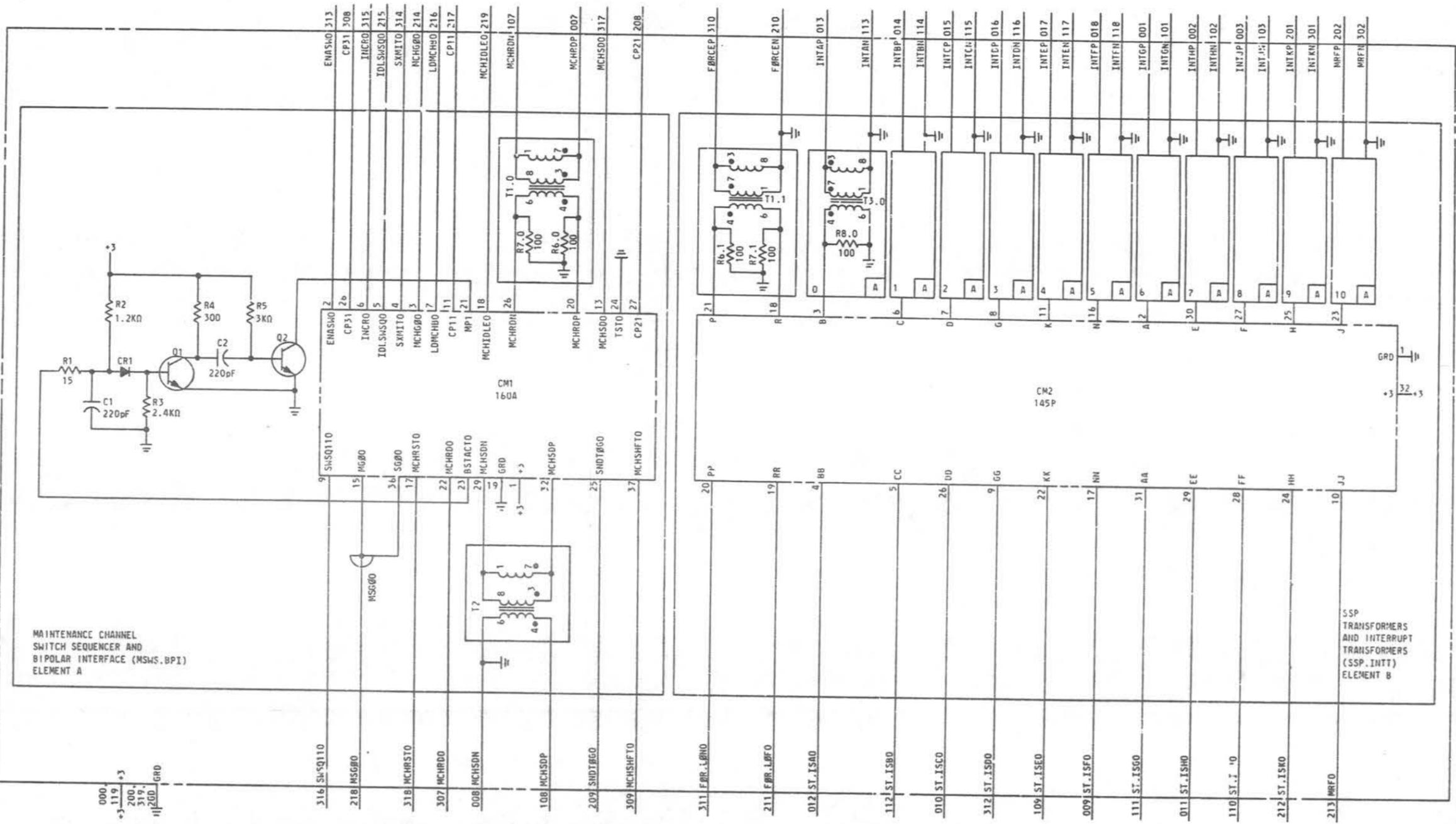
CPS-FC202
6 SHEETS

BELL TELEPHONE LABORATORIES
INCORPORATED

65

PART OF CPS FC202
MAINTENANCE CHANNEL AND SSP INTERFACE CIRCUIT

- COMPONENT LIST**
- CAPACITOR**
DESIG CODE
[2] C1, C2 KS-19774 L1, 220pF
- DIODE**
DESIG CODE
CR1 458C
- INTEGRATED CIRCUIT**
DESIG CODE
CM1 160A
CM2 145P
- RESISTOR**
DESIG CODE
R1 KS-16645 L2, 15
R2 .1.2KΩ
R3 .2.4KΩ
R4 .300
R5 .3KΩ
[2] R6.0, R6.1 .100
[2] R7.0, R7.1 .100
[11] R8.0-R8.10 KS-16645 L2, 100
- TRANSFORMER**
DESIG CODE
[2] T1.0, T1.1 2664G
T2 2664G
[11] T3.0-T3.10 2664G
- TRANSISTOR**
DESIG CODE
[2] Q1, Q2 665



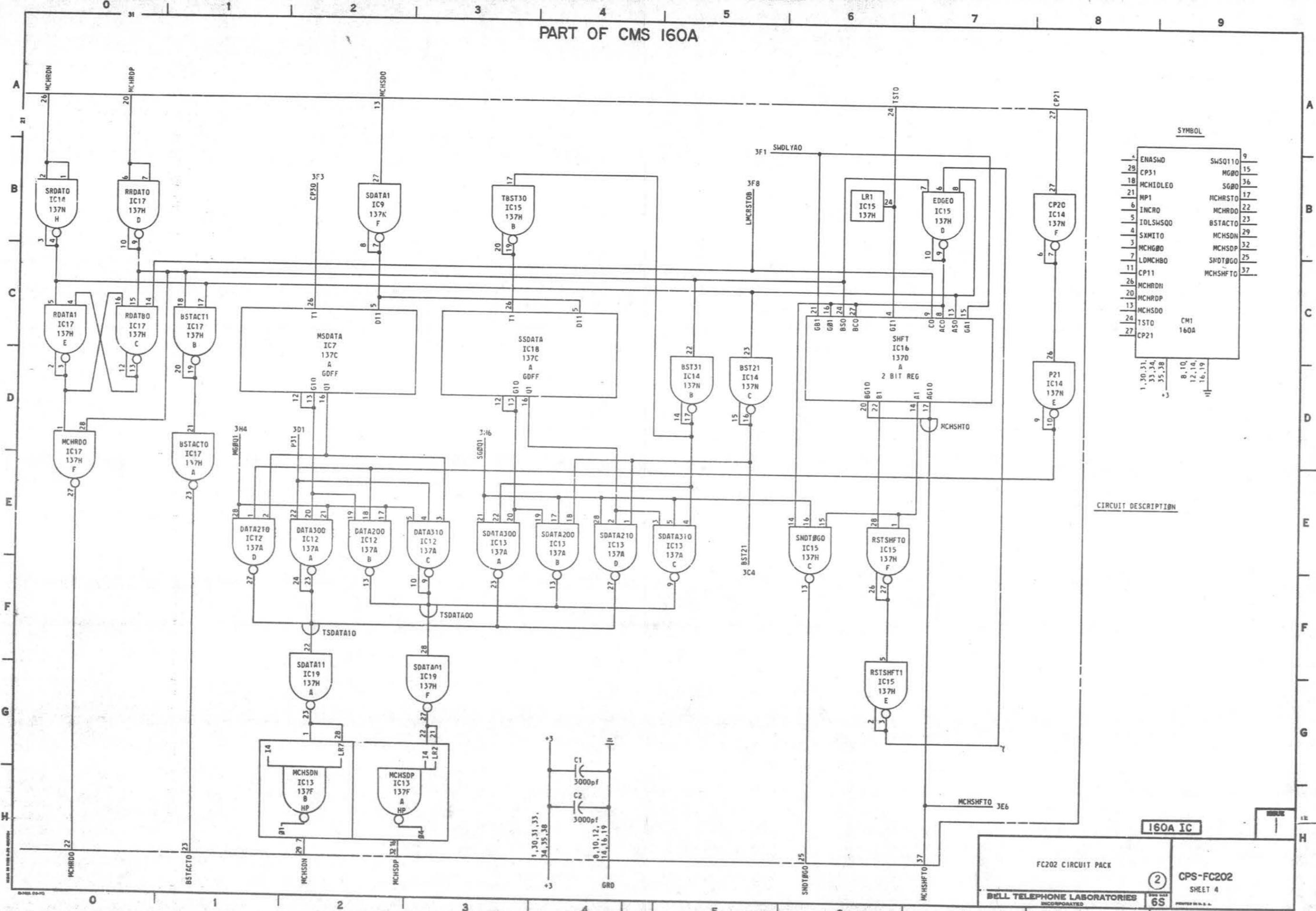
MAINTENANCE CHANNEL
SWITCH SEQUENCER AND
BIPOLAR INTERFACE (MSWS.BPI)
ELEMENT A

SSP TRANSFORMERS
AND INTERRUPT
TRANSFORMERS
(SSP.INTT)
ELEMENT B

CIRCUIT DESCRIPTION

CPS-FC202

PART OF CMS 160A



SYMBOL

ENASWD	SWSQ110	9
CP31	MG00	15
MCHIDLEO	SG00	36
MP1	MCHRSTO	17
INCRO	MCHRDD	22
IOLSHSQO	BSTACTO	23
SXMITO	MCHSDN	29
MCHGBO	MCHSDP	32
LDMCHBO	SMDT@GO	25
CP11	MCHSHTO	37
MCHRDH		
MCHRDP		
MCHSDO		
TSTO		
CP21		

CM1 160A

1, 30, 31, 33, 34, 35, 38
8, 10, 12, 14, 16, 19

CIRCUIT DESCRIPTION

CPS-FC202

FC202 CIRCUIT PACK

BELL TELEPHONE LABORATORIES INCORPORATED

160A IC

CPS-FC202 SHEET 4

6S

PART OF CMS 160A

COMPONENT LIST
INTEGRATED CIRCUIT

LOC CODE ELEM ID	IC1 137D		IC2 137J		IC3 137C		IC4 137C		IC5 137N		IC6 137D		IC7 137C		IC8 137C		IC9 137N		LOC CODE ELEM ID
	DESIG	SH LOC																	
A	RRDYG0	3D4	SXMIT1	3A4	SWSQ00	362	SWSQ01	361	RRDYG0	3D6	SMDLY	3E1	MSDATA	4C2	MGB	3G4	LMCHRST1	3D7	A
B			G0XPT1	3B4					G01	3E4							LMCRST0B	3E8	B
C			SW1	3B1					RSTSWSQ0	3C3							LMCRST0A	3E7	C
D			LDMCHB1	3B6					P11	3C6							MCHRST0	3E8	D
E									CP10	3B6							MRESETO	3C7	E
F			INCR1	3C2					SRDY1	3B5							SDATA1	4B2	F
G			IDLSWSQ1	3B3					SRDY0	3C5							MPO	3B7	G
H									SWSQ001	3C1							MRESE1	3B7	H

LOC CODE ELEM ID	IC19 137H		IC18 137C		LOC CODE ELEM ID
	DESIG	SH LOC	DESIG	SH LOC	
A	SDATA11	4G2			A
B					B
C					C
D					D
E					E
F					F
G					G
H					H

LOC CODE ELEM ID	IC10 137C		IC11 137A		IC12 137A		IC13 137F (NOTE 1)		IC14 137N		IC15 137H		IC16 137D		IC17 137H		LOC CODE ELEM ID
	DESIG	SH LOC	DESIG	SH LOC	DESIG	SH LOC	DESIG	SH LOC	DESIG	SH LOC	DESIG	SH LOC	DESIG	SH LOC	DESIG	SH LOC	
A	SGB	3G6	SDATA300	4E3	DATA300	4E2	MCHSDPD	4G3	CP30	3B1	TBST30	4B3	SHFT	4C7	BSTACT0	4D1	A
B			SDATA200	4E4	DATA200	4E2	MCHSDNO	4G2	BST31	4D5	SNDT0G0	4E6			BSTACT1	4C1	B
C			SDATA310	4E5	DATA310	4E3			BST21	4D5	EDGEO	4B7			RDATA0	4C0	C
D			SDATA210	4E4	DATA210	4E1			P31	3C1	RSTSHT1	4G6			RDATA1	4C0	D
E									P21	4D8	RSTSHT0	4E6			MCHRDO	4D0	E
F									CP20	4B8							F
G									SRDAT0	4B0							G

CAPACITORS

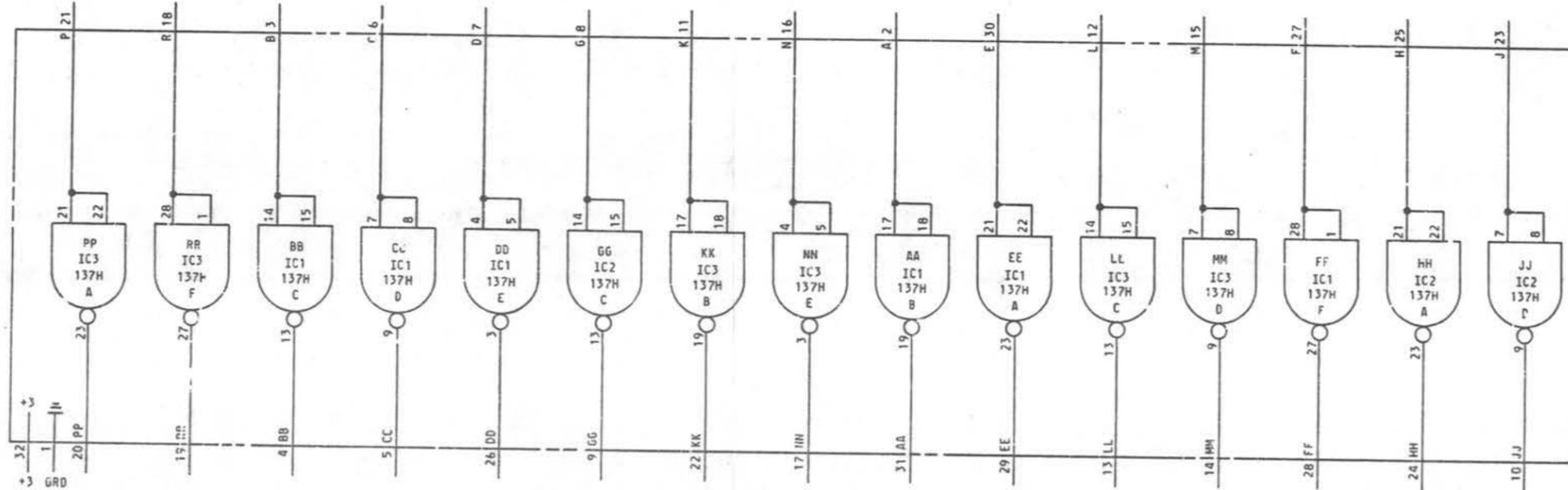
DESIG.	CODE
C1, C2	801A, 3000pF

NOTES:
1. CAPACITOR CHIP 801A, 3000pf, IS BONDED ON EACH SIDE OF 137F SIC.

160A IC		1
FC202 CIRCUIT PACK		2
BELL TELEPHONE LABORATORIES INCORPORATED		65
CPS-FC202 SHEET 5		PRINTED IN U.S.A.

CPS-FC202

CM2 145P



- NOTES:
- BATTERY AND GROUND TERMINALS FOR INTEGRATED CIRCUITS.

IC CODE	BAT. TERM.	GRD. TERM.
137H	25	11

COMPONENT LIST

INTEGRATED CIRCUIT

LOC CODE	IC1		IC2		IC3	
	DESIG	SH LOC	DESIG	SH LOC	DESIG	SH LOC
A	EE	6C6	HH	6CB	PP	6C1
B	AA	6C5			KK	6C4
C	BB	6C2	GG	6C4	LL	6C6
D	CC	6C3	JJ	6CB	MM	6C7
E	DD	6C3			NN	6C5
F	FF	6C7			RR	6C2

CIRCUIT DESCRIPTION

SUPPORTING INFORMATION

CATEGORY	NO.
INTEGRATED CIRCUIT	145P
SERIES FOR LATEST CLASS "A" CHANGE (ANY HIGHER SERIES IS ACCEPTABLE)	

145P IC

FC202 CIRCUIT PACK

BELL TELEPHONE LABORATORIES INCORPORATED

CPS-FC202 SHEET 6

6S

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