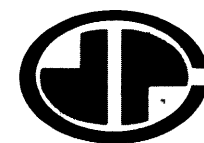


MACROBUS
CHANNEL ADAPTER
(P/N C81080300)

DRAWING PACKAGE
C21518014-X1



california data processors

INTRODUCTION

This volume contains engineering drawings for the Cal Data MACROBUS Channel Adapter, part number C81080300.

Table 1 lists the engineering drawings contained in this document. Material parts lists are included as part of each assembly drawing.

Components are identified, where applicable, by both the suggested manufacturer's part number and the Cal Data part number. In general, commercially available parts conform to specifications published by the manufacturer; however, Cal Data component specifications dictate the performance of all component parts used.

Schematics use industry standard designations where applicable (e.g., 7401, 2N5769). These designations are for convenience only and do not necessarily imply that these specific parts are used. The parts lists contain the accurate identification of individual parts.

Table 1. Drawings in this Document

NUMBER	TITLE
C21518030 C81080300 C21080300 C85300021 to C85300026 C21118002	Theory of Operation, MACROBUS Channel Adapter Board Assembly, MACROBUS Channel Adapter Board Schematic, MACROBUS Channel Adapter Assembly, MACROBUS Cable Schematic, MACROBUS Cable

MACROBUS
CHANNEL ADAPTER
(P/N C81080300)

DRAWING PACKAGE
C21518014-X1

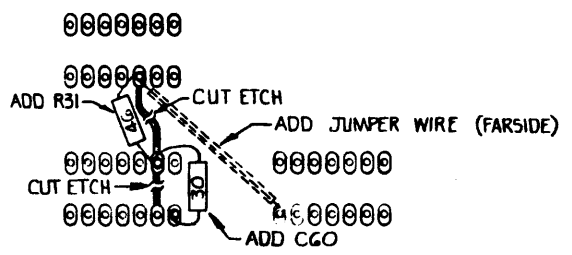
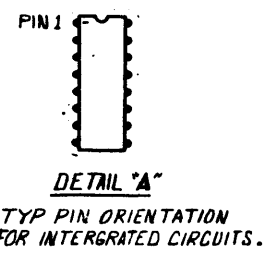
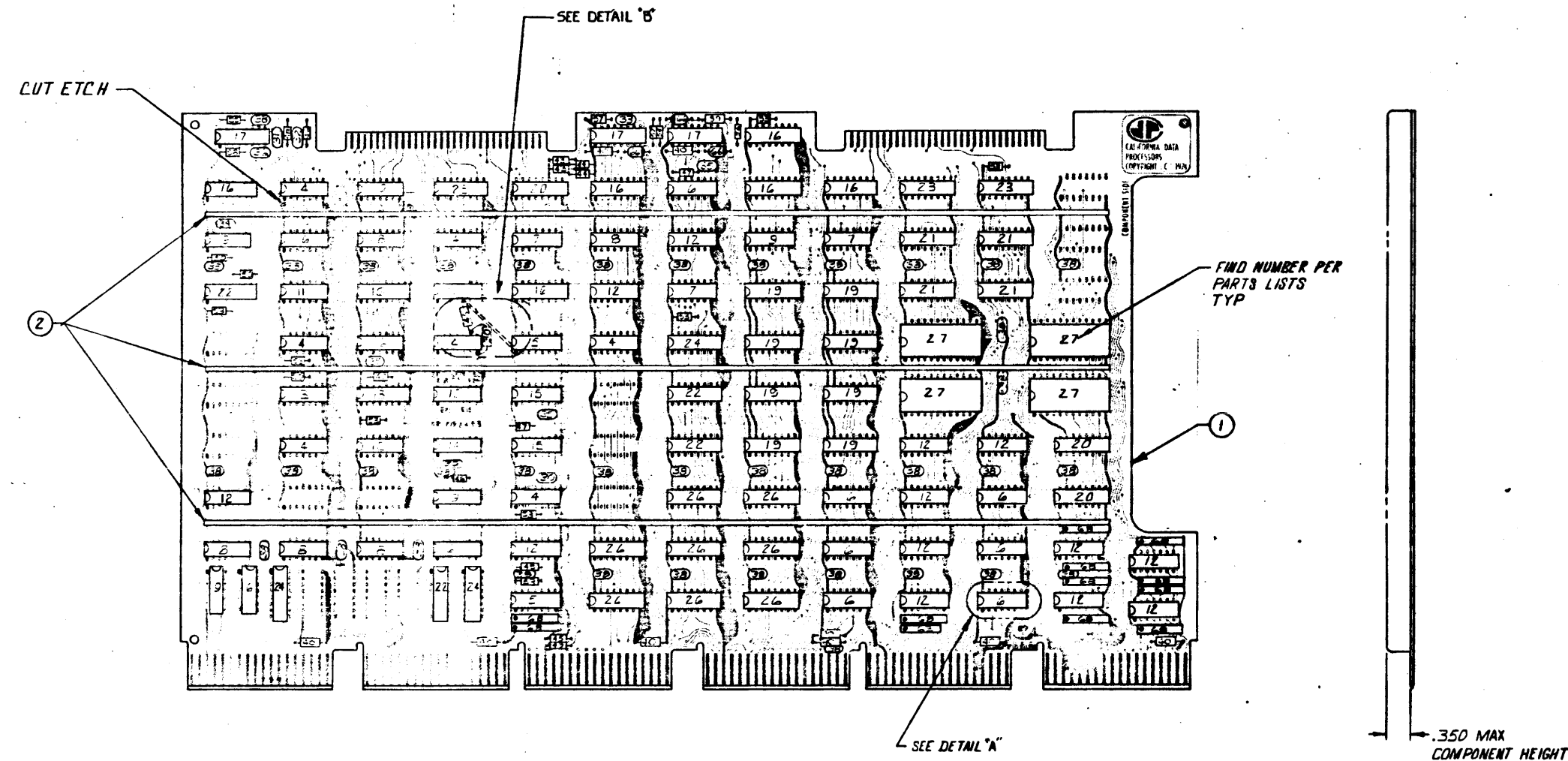
DOCUMENT C21518014
Revision X1
October 1974

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RELEASE STATUS				REVISIONS			
RELEASE LEVEL	APPROVED	DATE	REV.	ECO.	DESCRIPTION	ORIG.	DATE
EXPERIMENTAL			01	0	REL PER DRN D300117	CK	5/16/74
ENGINEERING	<i>W. J. ...</i>	5-22-74	02	DS00115-01	SEE E20	RM	8-20-74
PRODUCTION			02	DS00144-01	SEE E20	RM	8-30-74



- 4. SERIAL NUMBER TO BE PREFIXED WITH A DIVISION CODE WHICH AGREE WITH PLACE OF MANUFACTURE: DS EQUAL, SANTA ANA - DE EQUAL, EDINA.
- 3. FOR BOARD SCHEMATIC, SEE 210B0300.
- 2. MARK ASSEMBLY LATEST REV. LETTER TO WHICH IT WAS BUILT. ASSY SERIAL NO. AND EIA FOUR DIGIT DATE CODE. LETTERING TO BE 1/2 HIGH BLACK EPOXY PAINT, VERTICAL GOTHIC AND LOCATED APPROX. AS SHOWN.
- 1. MAKE PLR DATA 100 SPEC 21003010.

NOTES: UNLESS OTHERWISE SPECIFIED

ITEM	PART NO.	QTY.	DESCRIPTION
			TITLE
BOARD ASSY, MACROBUS CHAN ADAPTER			DOCUMENT NUMBER
C81080300			REV.
02			DO NOT SCALE PRINT SCALE NONE
SHEET 104			UNLESS OTHERWISE SPECIFIED FRACTIONS DECIMALS ANGLES

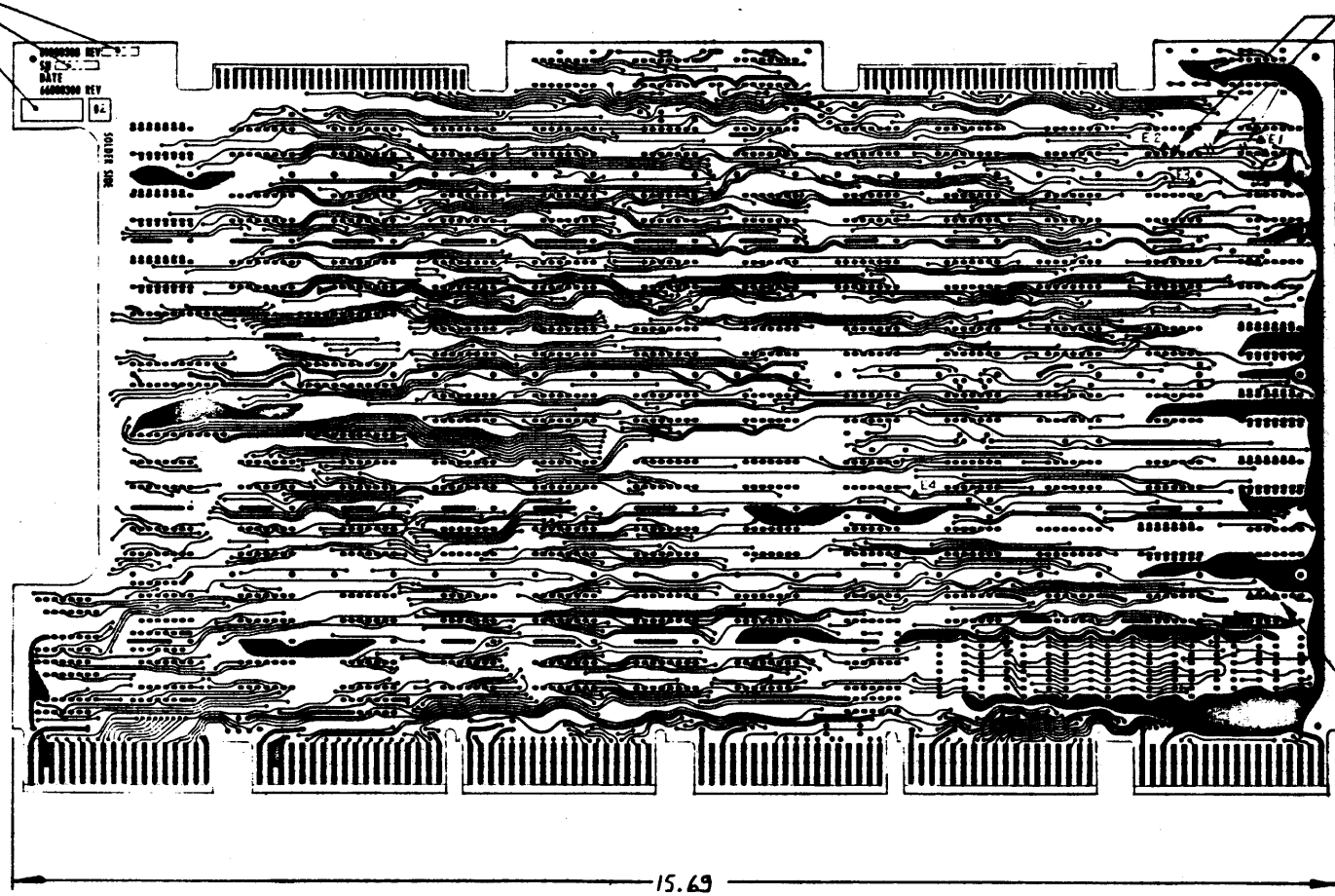
Board Assembly CPU - I/O

8 7 6 5 4 3 2 1

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REV.	NO.	DESCRIPTION	DATE	APPR.
SEE SHEET 1				

2
4



CUT ETCH

8.94
REF

SEE JUMPER CHART

15.69
REF

SOLDER SIDE SHOWN

JUMPER CHART		
FROM	TO	SIGNAL
E1	U9-9	---
E2	U4-10	NDSYN-L
E3	U2-5	MSYN-H
E3	U5-10	MSYN-H
U9-8	U4-11	NSSYN-L
U9-11	E4	BUSER-L

Board Assembly 001-110


	TITLE BOARD ASSY, MACROBUS CHAN. ADAPTER			
	OPERATOR APPROVAL	SIZE D	DOCUMENT NUMBER 08103034	REV. 02
DO NOT SCALE PRINT SCALE 1/1		SHEET 2 OF 4	UNLESS OTHERWISE SPECIFIED FRACTIONS DECIMALS ANGLES	

8 7 6 5 4 3 2 1 Type 2

LIST OF MATERIALS

ITEM NO.	QTY.	REFERENCE DESIGNATION	PART NUMBER	DESCRIPTION	NOTES	VENDOR	VENDOR PART NUMBER
1	1		C66080300	PRINTED WIRING BD. - I/O			
2	3		C67680025	BUS BAR			
3							
4	7	U12, 15, 17, U34, 36, 49, U56	C51324000	I.C. QUAD 2-NAND		TEXAS INST.	SN74S00N-00
5	2	U46, 51	C51322004	HEX INV.			SN7404N-00
6	11	U11, 13, 26, U40, 63, 88, U89, 90, 104, U105, 106	C51322004	HEX INV.			SN74S04N-00
7	3	U44, 65, 83	C51322008	QUAD 2-AND			SN7408N-00
8	5	U9, 19, 24, U30, 54	C51324010	TRIPLE 3-NAND			SN74S10N-00
9	5	U3, 10, 23, U39, 74	C51324011	TRIPLE 3-AND			SN74S11N-00
10	1	U37	C51322020	DUAL 4-NAND			SN7420N-00
11	2	U14, 35	C51324020	DUAL 4-NAND			SN74S20N-00
12	14	U8, 28, 50, U55, 64, 96, U97, 98, 99, U103, 114, U115, 116, U117	C51322038	QUAD 2-BUF.			SN7438N-00
13	1	U16	C51323040	DUAL 4-NAND			SN74H40N-00
14	1	U38	C51323051	DUAL 4-AND/NOR			SN74H51N-00
15	2	U47, 48	C51322074	DUAL D F/F			SN7474N-00
16	7	U2, 25, 45, U53, 72, 73, U82	C51324112	DUAL J-K F/F			SN74S112N-00
17	3	U1, 52, 62	C51322123	RETRIG. MONO MULTVBRTR.			SN74123N-00
18	1	U27	C51322153	DUAL DATA SEL.			SN74153N-00
19	8	U75, 76, 77, U78, 84, 85, U86, 87	C51324153	DUAL DATA SEL.			SN74S153N-00
20	3	U43, 112, 113	C51322157	QUAD DATA SEL.			SN74157N-00
21	4	U92, 93, 101, U102	C51322174	HEX D F/F			SN74174N-00
22	4	U4, 41, 67, U68	C51324174	HEX D F/F			SN74S174N-00
23	3	U33, 91, 100	C51322175	QUAD D F/F			SN74175N-00
24	3	U20, 42, 66	C51324175	QUAD D F/F			SN74S175N-00
25							
26	8	U60, 61, 69, U70, 71, 79, U80, 81	C51324257	QUAD 2 TO 1 DATA SEL MUX.		TEXAS INST.	SN74S257N-00
27	4	U94, 95, 110, U111	C51352308	I.C. DUAL 4-LATCH		FAIRCHILD	F9308DC
28							
29							

ORIGINATOR	W. E. BACH	10 MAY 1974
APPROVAL	<i>[Signature]</i>	16 MAY 1974
	<i>[Signature]</i>	5-21-74
	<i>[Signature]</i>	5-23-74
	<i>[Signature]</i>	5-23-74
	<i>[Signature]</i>	5-23-74


california data processors

TITLE		BOARD ASSY., MACROBUS CHAN. ADAPTER
SIZE	DOCUMENT NUMBER	REV.
B	C81080300	02
DS	SHEET 3 OF 4	PAGE

LIST OF MATERIALS

ITEM NO.	QTY. REOD.	REFERENCE DESIGNATION	PART NUMBER	DESCRIPTION	NOTES	VENDOR	VENDOR PART NUMBER
30	2	C58, 60	C52213356	CAPACITOR, 150pf, 5%		CDE	CD15FD151-J03
31	1	C52	C52213366	200pf, 5%			CD15FD201-J03
32	1	C56	C52213370	220pf, 5%			CD15FD221-J03
33	2	C49, C53	C52213375	270pf, 5%			CD15FD271-J03
34	1	C54	C52213380	330pf, 5%			CD15FD331-J03
35	3	C46, 51, 57	C52213385	470pf, 5%		CDE	CD15FD471-J03
36	1	C59	C52213450	CAPACITOR, 1000pf, 5%		ELMENCO	DM15-102J
37							
38	39	C8 THRU C45 C55	C52252500	CAPACITOR, .01uf, 100 V		ERIE	805-024-Z5U-.01 μ FD-20%-100V
39	1	C48	C52326000	CAPACITOR, 3.3uf, 10 V		COMP. INC.	CCT-010-335
40	9	C1 THRU C7 C47, 50	C52326001	CAPACITOR, 4.7uf, 20 V		COMP. INC.	CCD-020-475
41							
42							
43	2	R6, 10	C54400263	RESISTOR, 120 Ω 1/4 W, 5%			RC07GF121J
44	2	R5, 9	C54400265	150 Ω			RC07GF151J
45	2	R16, 24	C54400267	180 Ω			RC07GF181J
46	3	R13, 19, 31	C54400268	200 Ω			RC07GF201J
47	3	R1, 11, 21	C54400269	220 Ω			RC07GF221J
48	1	R12	C54400273	330 Ω			RC07GF331J
49	1	R22	C54400275	390 Ω			RC07GF391J
50	3	R14, 15, 27	C54400277	470 Ω			RC07GF471J
51							
52							
53	8	R7, 17, 20, R23, 26, 28, R29, 30	C54400285	1K			RC07GF102J
54	1	R3	C54400477	6.8K			RC07GF682J
55	1	R18	C54400479	8.2K			RC07GF822J
56	1	R2	C54400481	10K			RC07GF103J
57	2	R4, 8	C54400483	12K			RC07GF123J
58	1	R25	C54400491	RESISTOR, 27K, 1/4 W, 5%			RC07GF273J
59							
60							
61							
62							
63	1	RM1	C54811020	NETWORK, RESISTOR (180 Ω /390 Ω)		CTS	54811020
64							
65							
66	3	CR1, 2, 3	C51631010	DIODE HS SW		FAIRCHILD	FDH600
67							
68	11	Z1 THRU Z11	C58111000	HYBRID, LOGIC BUS RECEIVER		PROD. WORLD	58111000
69							
70	AR		C37002750	WIRE SOLID 24 AWG GRN		AMER. ENKA	T502 (1/24)

ORIGINATOR W. E. BASH	10 MAY 1974	TITLE	
APPROVAL <i>[Signature]</i>	16 MAY 1974	BOARD ASSY., MACROBUS CHAN. ADAPTER	
<i>[Signature]</i>	5-21-74	SIZE	DOCUMENT NUMBER
<i>[Signature]</i>	5-23-74	B	C81080300
<i>[Signature]</i>	5-23-74	DS	REV. 02
		SHEET 4	OF 4
		PAGE	

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REVISIONS			
ZONE/LTR	DESCRIPTION	DATE	APPROVED
SEE SHT 1			

SHEET NUMBERS

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
01	01	01	01	01	01	01	01	01	01	01	01													

PAGE NO	A	J2	B	PAGE NO
1	LOADC-L	1		
5	BREQ-H	2	MINTP-L	1
5	BGRNT-L	3	BYTDA-L	
5	BGEN-H	4		
6	MMINH-L	5	MARLD-H	
6	DAINH-L	6	CCEN-H	
11	SPF07-L	7	SPRIA-L	
4	SPF05-L	8	SPRIA-L	
4	SPF06-L	9	SPRIB-L	
4	SPENC-H	10	MLTPY-L	
4	INMBF-L	11	ENSPF-H	4
4	EMLAT-H	12	CRO08-H	1
3	PFAIL-L	13		
4	AUCIN-L	14		
4	WRITE-L	15	FILE6-H	1
4	IRERD-H	16	XABIS-L	
4	INTR-H	17	XA007-L	
4	MMCO-L	18	RSTRA-L	
4	MMCI-L	19	YELLW-L	
1	CRO07-H	20	BYTMD-L	
1	SLINT-H	21	MS006-H	1
9	DRWEN-L	22	RRWEN-L	8
1	EIA001-H	23	EIA000-H	1
1	EIA003-H	24	EIA002-H	
1	EIA005-H	25	EIA004-H	
1	EIA007-H	26	EIA006-H	1
1	EIA009-H	27	EIA008-H	
4	EIA011-H	28	EIA010-H	4
1	EIA013-H	29	EIA012-H	
1	EIA015-H	30	EIA014-H	1

PAGE NO	A	J1	B	PAGE NO
1	SKIPP-L	1	EMA00-H	1
10	ARWEN-L	2	EMA01-H	
7	SLWEN-L	3	EMA02-H	
7	SSYER-H	4	EMA03-H	
7	OSYER-H	5	EMA04-H	
7	LDSPF-H	6	EMA05-H	
7	FINTP-L	7	EMA06-H	
1	SPENC-H	8	EMA07-H	1
1	HALTP-L	9		
		10		
	CARRY-H	11		
		12		
7	ADERR-H	13		
12	PS003-L	14		
		15	XDO07-L	1
		16	XDB15-L	
		17	XBB15-L	
1	CCWEN-H	18	XBOOT-L	
1	STATIC-L	19	LITRL-L	
5	MSYN-H	20	PLUS1-L	
1	SPF04-L	21	PSWEN-L	
	BBINH-L	22	IRWEN-L	
	BB001-H	23	BB000-H	
	BB003-H	24	BB002-H	
	BB005-H	25	BB004-H	
	BB007-H	26	BB006-H	
	BB009-H	27	BB008-H	
	BB011-H	28	BB010-H	
	BB013-H	29	BB012-H	
1	BB015-H	30	BB014-H	1

PAGE NO	1	F	2	PAGE NO
11	CMO28-H	A	+5V	2
1	CMO29-H	B	-15V	1
1	CMO31-H	C	GND	2
1	CMO30-H	D	CMO32-H	
1	CMO33-H	E	CMO34-H	
1	CMO35-H	F	DADO2-H	11
1	CMO37-H	H	CMO36-H	
1	CMO39-H	J	CMO38-H	
11	IRPTE-L	K	CMO40-H	
1	CMO41-H	L	CMO42-H	
1	CMO43-H	M	CPEN-L	
1	CMO45-H	N	CMO44-H	
1	CMO47-H	P	CMO46-H	
11	DADO3-H	R	ACMSL-L	
		S	AUXEM-L	
2	GND	T	IRINH-L	4
		U	IWAIT-L	4
4	SYSCK-L	V	GND	2

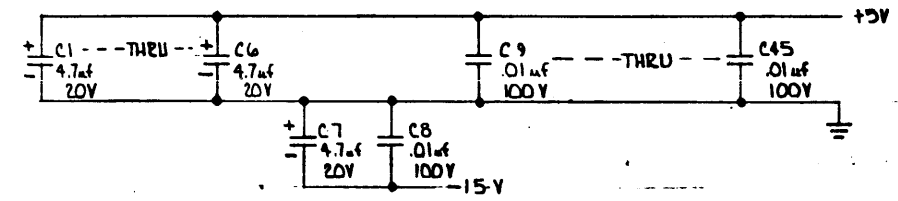
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11	CMO00-H	A	+5V	2
11	CMO01-H	B	-15V	
11	CMO02-H	C	GND	2
11	CMO03-H	D	CMO04-H	11
11	CMO05-H	E	CMO06-H	11
11	CMO07-H	F	EMINH-L	
11	CMO09-H	H	CMO08-H	11
11	CMO11-H	J	CMO10-H	11
11	DADO0-H	K	CMO12-H	11
11	CMO13-H	L	CMO14-H	11
11	CMO15-H	M	DADO1-H	11
	CMO17-H	N	CMO16-H	
	CMO19-H	P	CMO18-H	
	SRO-L	R	CMO20-H	
	CMO21-H	S	CMO22-H	
2	GND	T	CMO24-H	11
11	CMO23-H	U	CMO26-H	11
11	CMO25-H	V	CMO27-H	11

PAGE NO	1	D	2	PAGE NO
3	PFINT-H	A	+5V	2
1	HLINT-H	B	-15V	1
1	DS16-H	C	GND	2
1	DS17-H	D	LTCL-L	1
1	VIRTAD-H	E	PBBSY-L	6
1	CC000-L	F	HALTP-L	
1	CC001-L	H	MSR15-L	1
1	CC002-L	J	RESET-L	3
1	CC003-L	K	BG7-IN	6
1	CC004-L	L	BG7-OUT	6
1	CC005-L	M	BG6-IN	6
1	CC006-L	N	BG6-OUT	6
1	CC007-L	P	BG5-IN	1
1	CC008-L	R	BG5-OUT	1
1	CC009-L	S	BG4-IN	1
2	GND	T	BG4-OUT	1
1	CC010-L	U	NPG-IN	6
1	CC011-L	V	NPG-OUT	6

PAGE NO	1	C	2	PAGE NO
7	MBO00-L	A	+5V	2
7	MBO01-L	B	-15V	2
7	MBO02-L	C	GND	2
7	MBO03-L	D	MBO04-L	7
7	MBO05-L	E	MBO06-L	7
7	MBO07-L	F	MBO08-L	7
7	MBO09-L	H	MBO10-L	7
7	MBO11-L	J	MBO12-L	7
7	MBO13-L	K	MBO14-L	7
7	MBO15-L	L	AB000-H	12
12	AB001-H	M	AB002-H	12
12	AB003-H	N	AB004-H	12
12	AB005-H	P	AB006-H	12
12	AB007-H	R	AB008-H	12
12	AB009-H	S	AB010-H	12
12	GND	T	AB011-H	12
12	AB013-H	U	AB012-H	12
12	AB015-H	V	AB014-H	12

PAGE NO	1	B	2	PAGE NO
1	BUS BG6-H	A	+5V	2
1	BUS BG5-H	B	GND	2
1	BUS BR5-L	C	GND	2
2	GND	D	BUS BR4-L	
2	GND	E	BUS BG4-H	1
3	BUS ACLO-L	F	BUS DCLO-L	3
10	BUS AO1-L	H	BUS A00-L	10
10	BUS AO3-L	J	BUS A02-L	10
10	BUS AO5-L	K	BUS A04-L	10
10	BUS AO7-L	L	BUS A06-L	10
10	BUS AO9-L	M	BUS A08-L	10
10	BUS A11-L	N	BUS A10-L	10
10	BUS A13-L	P	BUS A12-L	10
10	BUS A15-L	R	BUS A14-L	10
10	BUS A17-L	S	BUS A16-L	10
2	GND	T	BUS CI-L	4
5	BUS SSYN-L	U	BUS CO-L	4
5	BUS MSYN-L	V	GND	2

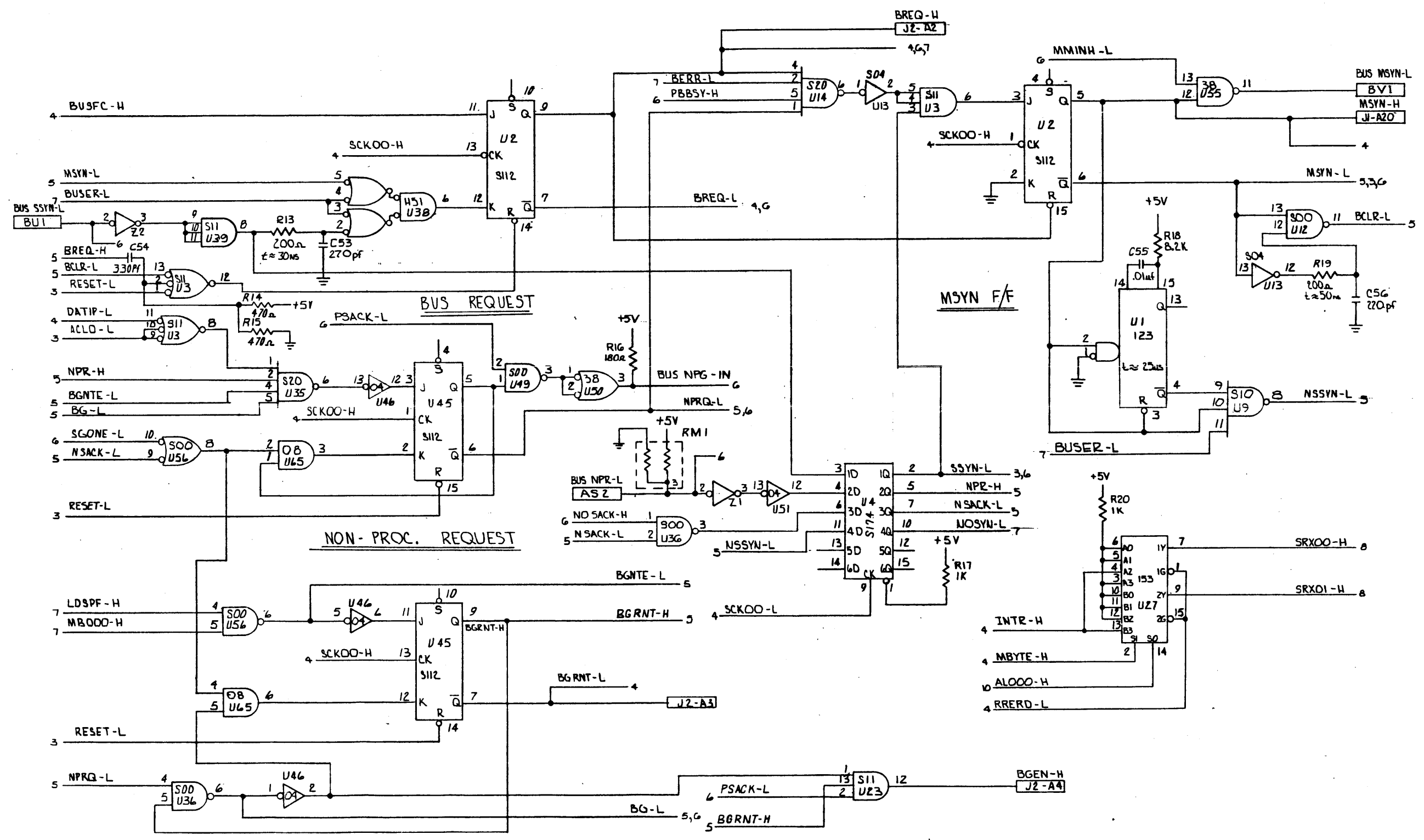
PAGE NO	1	A	2	PAGE NO
3	BUS INIT-L	A	+5V	2
4	BUS INTR-L	B	GND	2
8	BUS DOO-L	C	GND	2
8	BUS DO2-L	D	BUS DO1-L	8
8	BUS DO4-L	E	BUS DO3-L	8
8	BUS DO6-L	F	BUS DO5-L	8
8	BUS DO8-L	H	BUS DO7-L	8
8	BUS D10-L	J	BUS D09-L	8
8	BUS D12-L	K	BUS D11-L	8
8	BUS D14-L	L	BUS D13-L	8
1	BUS PA-L	M	BUS D15-L	8
2	GND	N	BUS PB-L	1
2	GND	P	BUS BBSY-L	6
2	GND	R	BUS SACK-L	6
2	GND	S	BUS NPR-L	5
2	GND	T	BUS BR7-L	6
	BUS NPG-H	U	BUS BR6-L	6
	BUS BG7-H	V	GND	2



SIZE	CODE IDENT NO.	DWG NO.
D		C 21080300
SCALE: NONE	REV 02	SHEET 2 OF 1

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REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
		SEE SH 1		



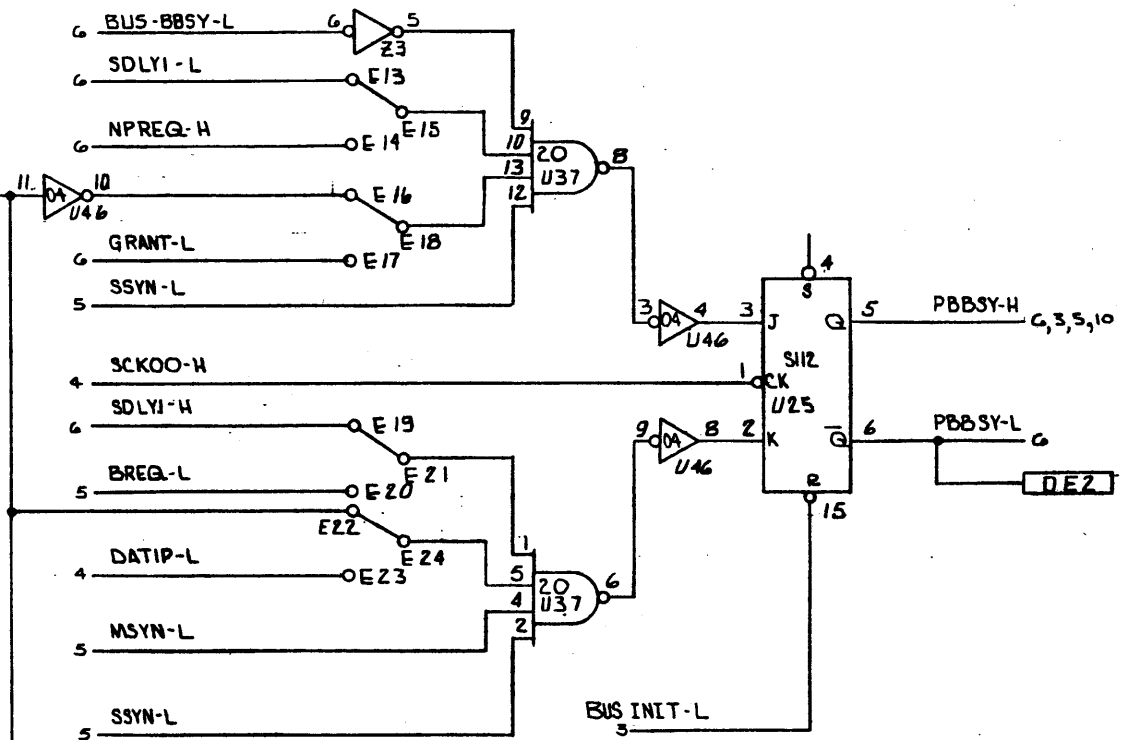
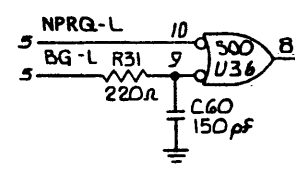
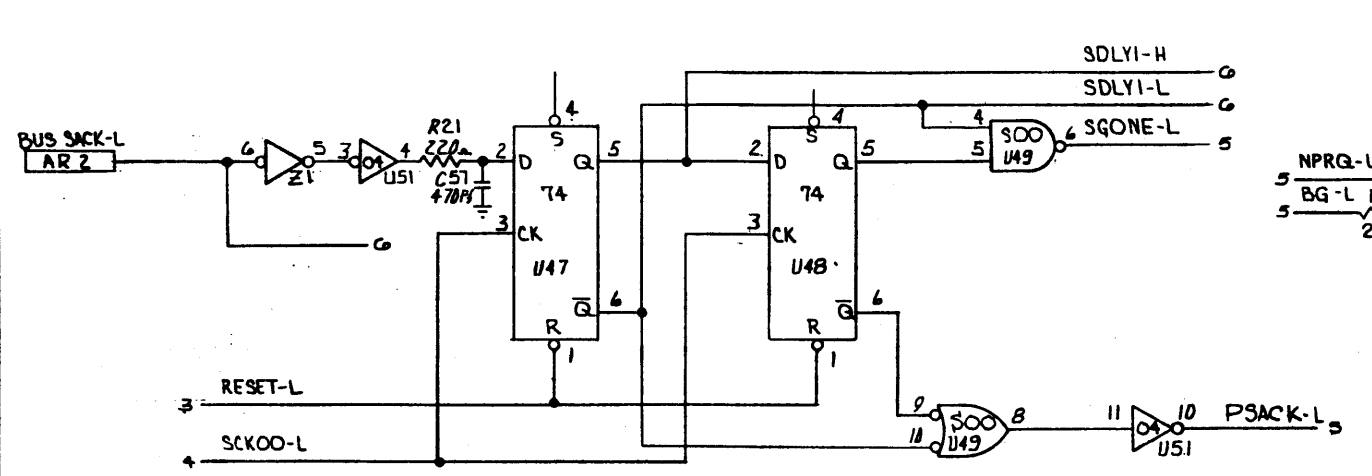
D
C
B
A

C21080300 J02

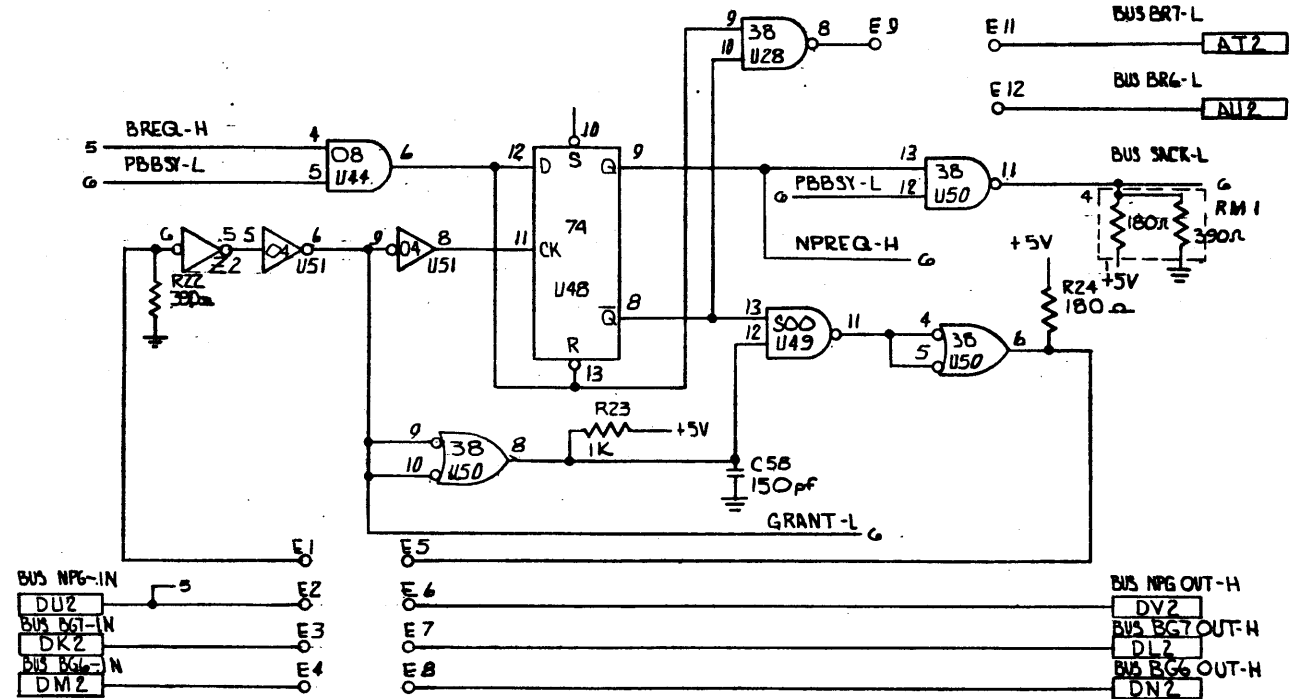
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REVISIONS			
ZONE/LTR	DESCRIPTION	DATE	APPROVED
	SEE SHT 1		

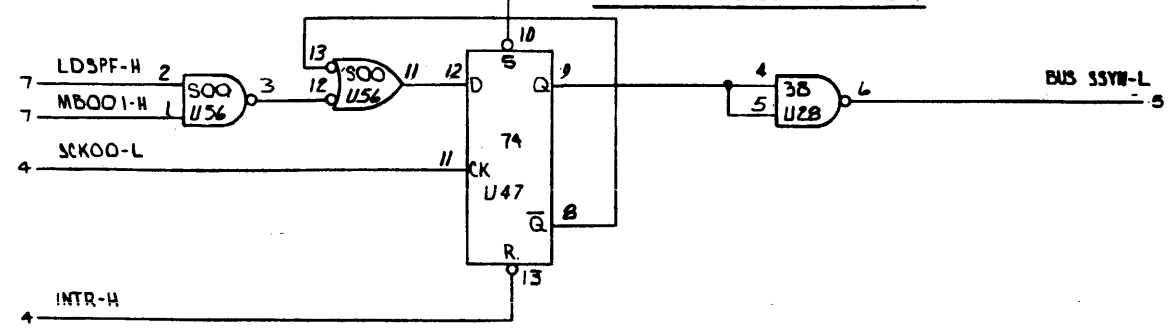


PROC. BUS BUSY F/F

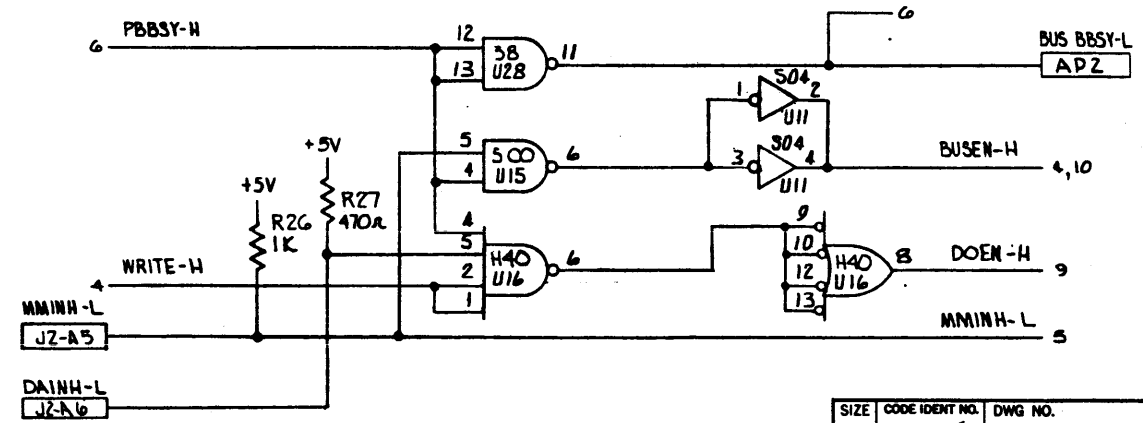
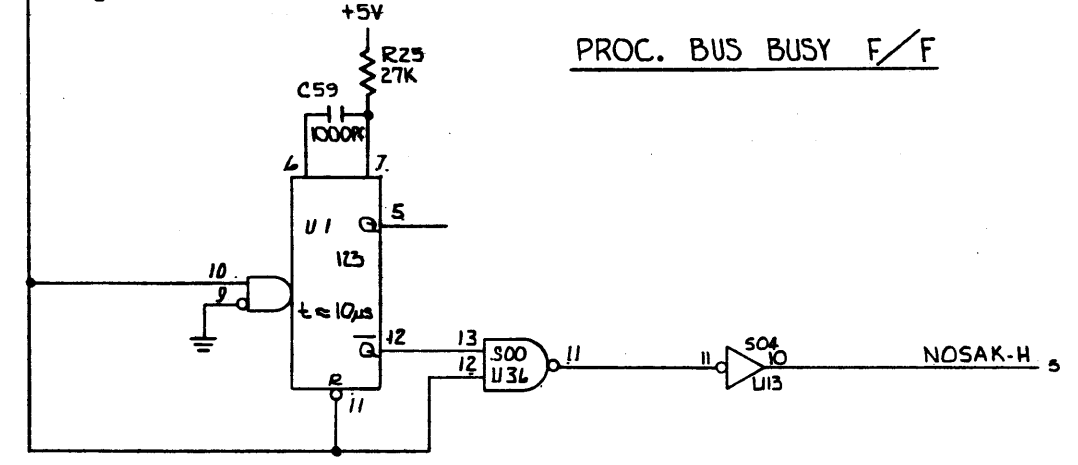


- BUS NPG-IN DU2
- BUS DGT-IN DK2
- BUS BRG-IN DM2
- BUS NPG OUT-H DV2
- BUS DGT OUT-H DL2
- BUS BRG OUT-H DN2

DUAL-PROC. OPTION



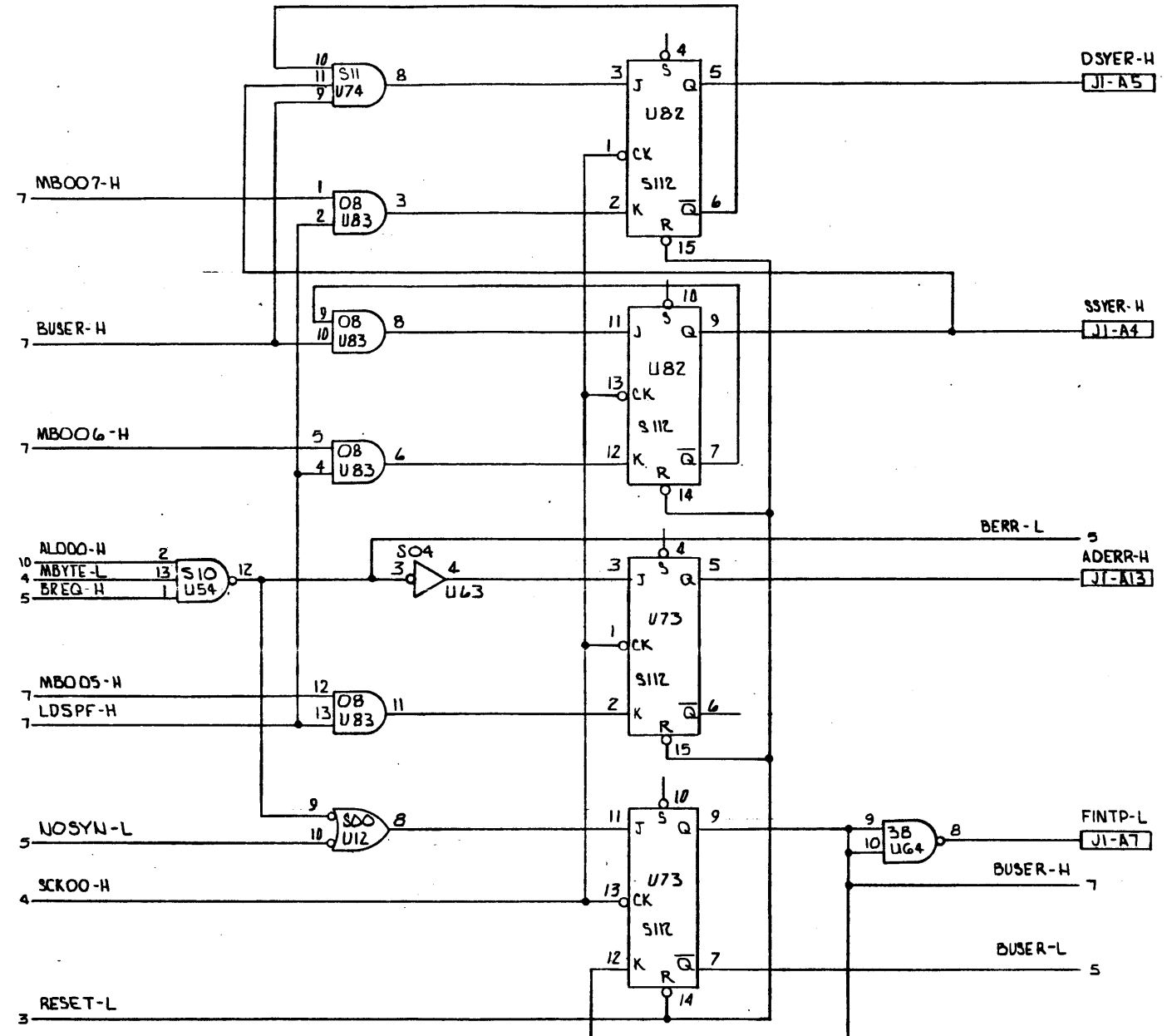
BUS INTERRUPT ACKNOWLEDGE



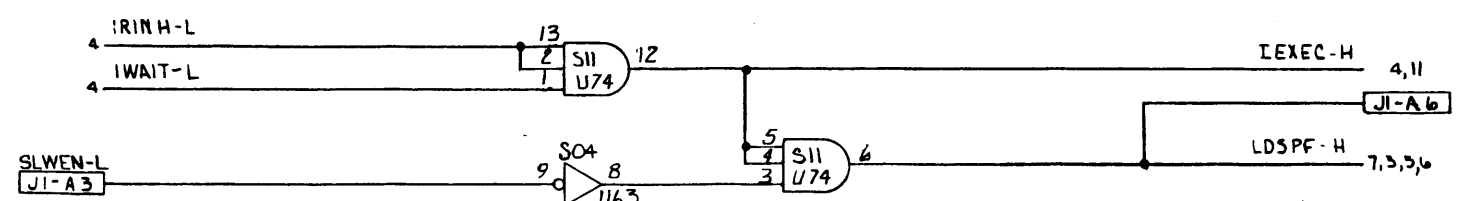
SIZE	CODE IDENT NO.	DWG NO.
D		C21080300
SCALE: NONE	REV 02	SHEET 6 OF 12

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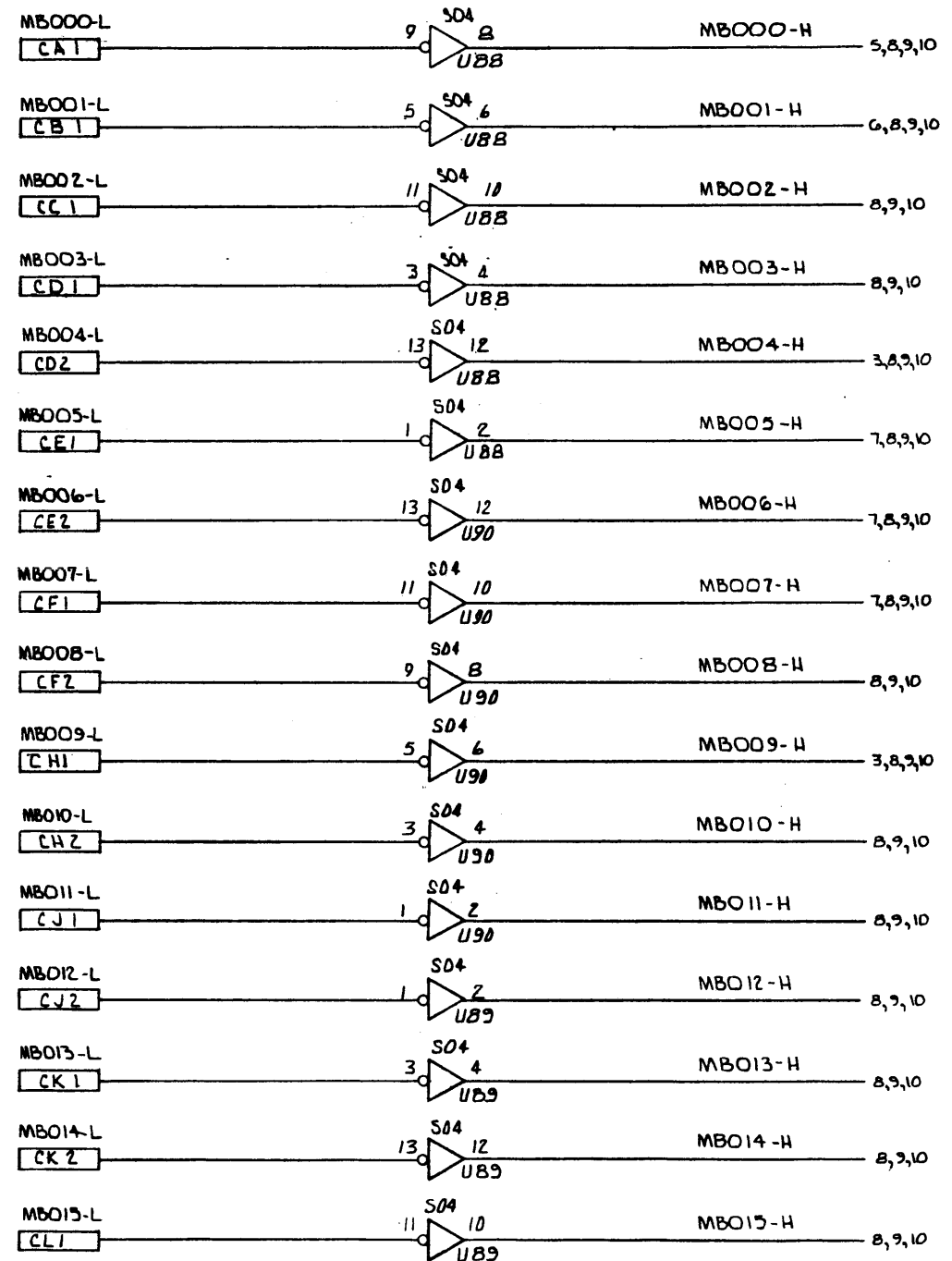
REVISIONS			
ZONE/LTR	DESCRIPTION	DATE	APPROVED
	SEE SHT 1		



BUS ERROR FLAGS



LOAD SPECIAL FUNCTION



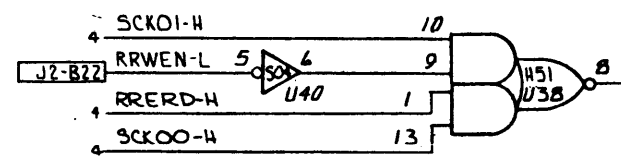
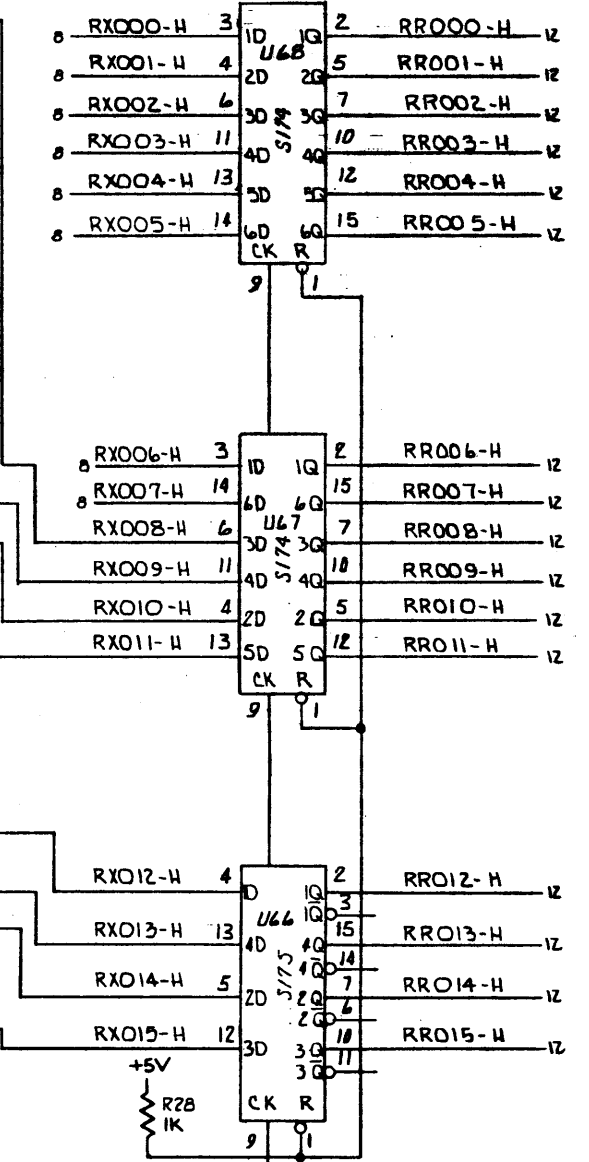
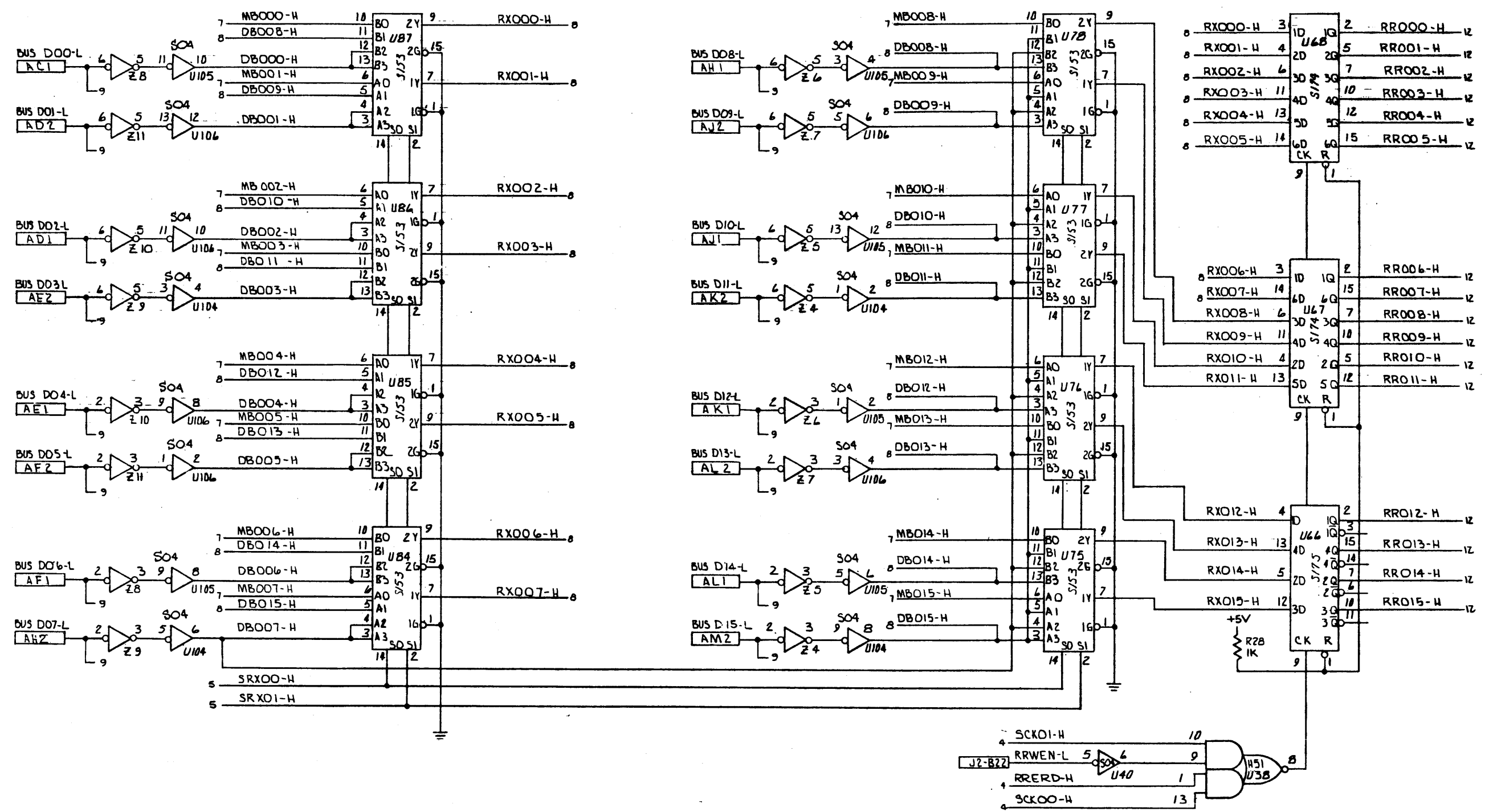
MB-BUS BUFFER

SIZE	CODE IDENT NO.	DWG NO.
D		C21080300
SCALE: NONE	REV 02	SHEET 7 OF 12

D
C
B
A
21080300 02

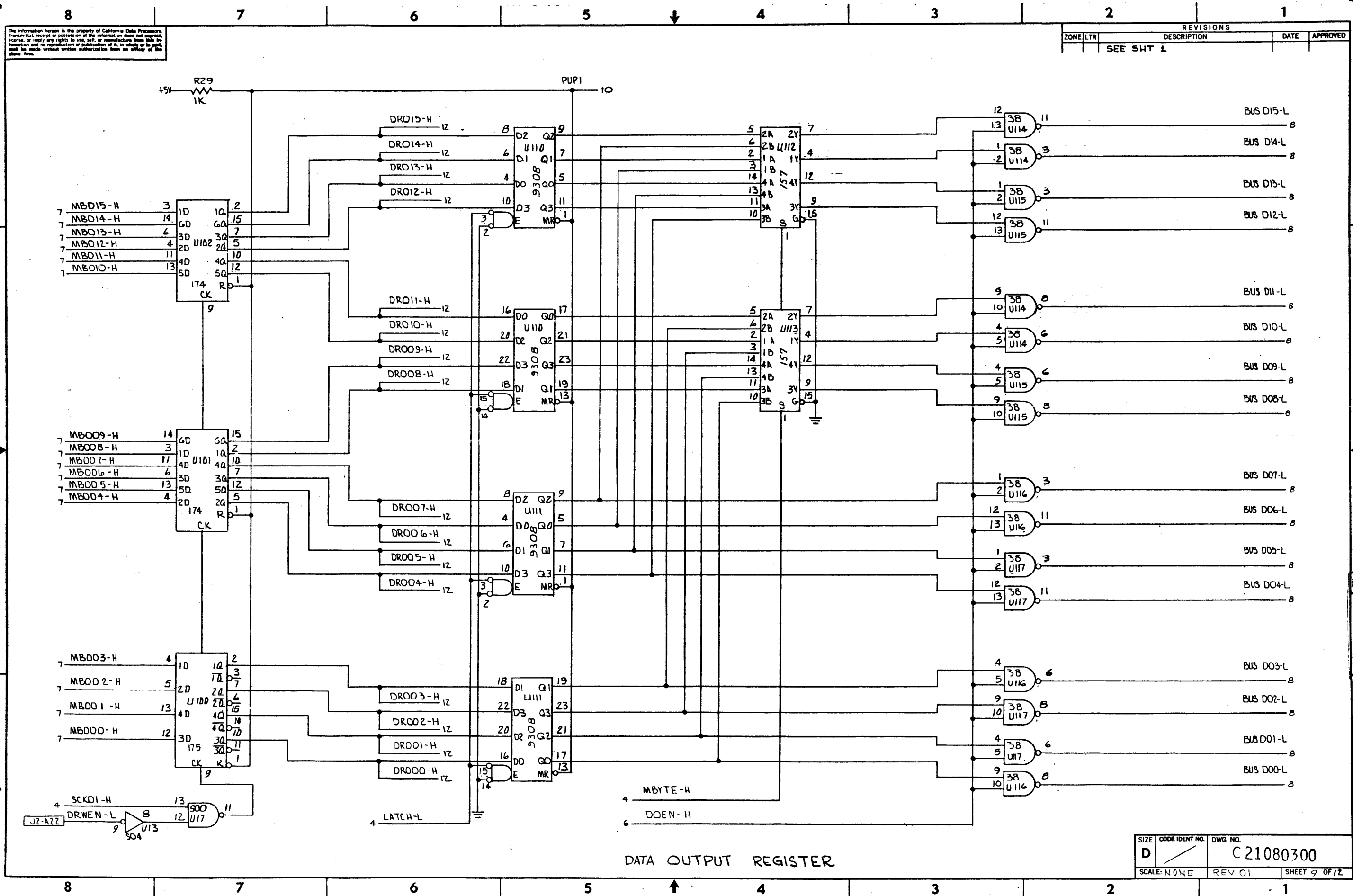
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REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
		SEE SMT 1		



SIZE	CODE IDENT NO.	DWG NO.
D		C21080300
SCALE: NONE	REV 01	SHEET 8 OF 12

D
C
B
A
C21080300 01



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REVISIONS			
ZONE/LTR	DESCRIPTION	DATE	APPROVED
	SEE SHT 1		

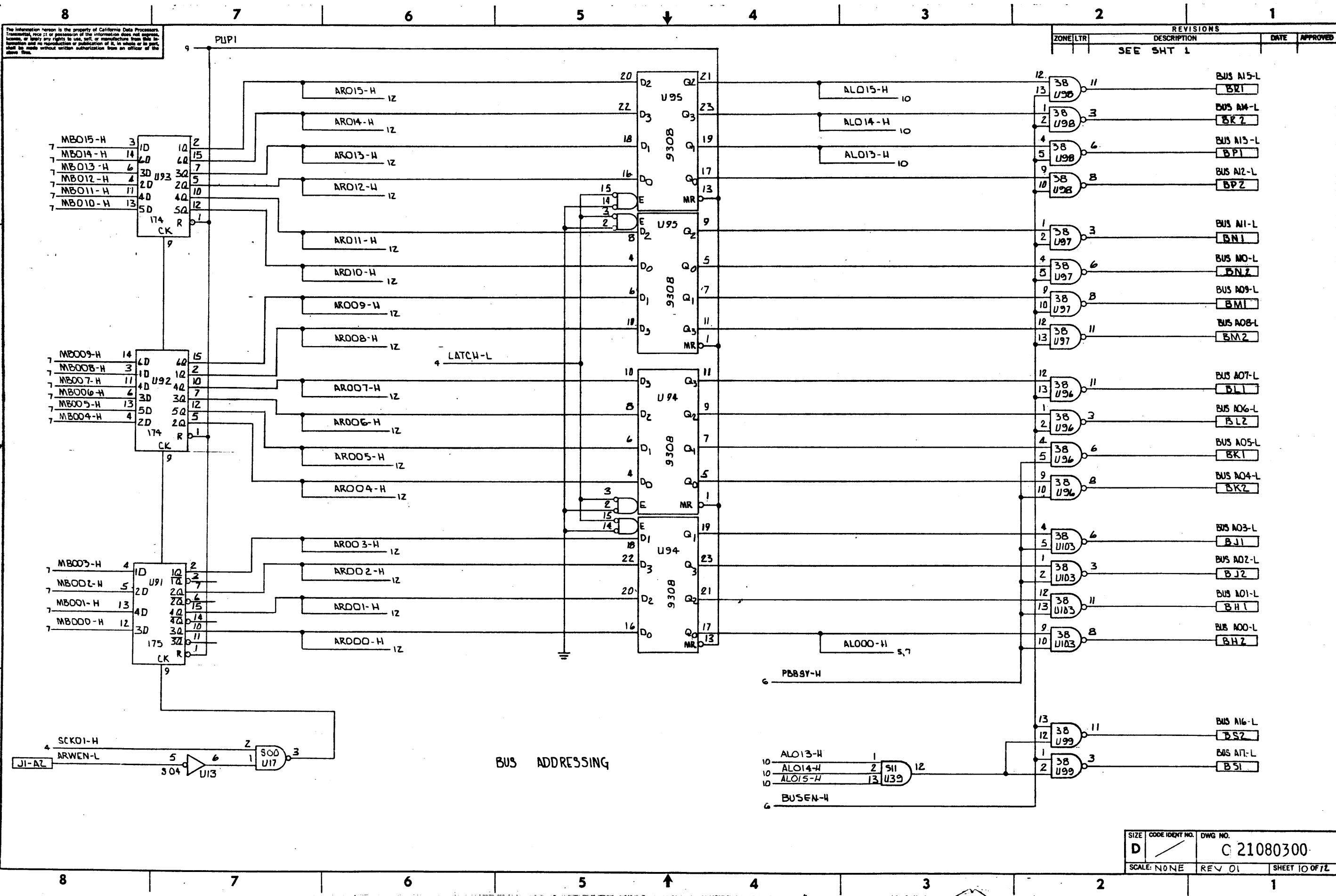
DATA OUTPUT REGISTER

SIZE	CODE IDENT NO.	DWG NO.
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SCALE: NONE	REV 01	SHEET 9 OF 12

C21080300 01

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REVISIONS			
ZONE	LTR	DESCRIPTION	DATE
		SEE SHT 1	



BUS ADDRESSING

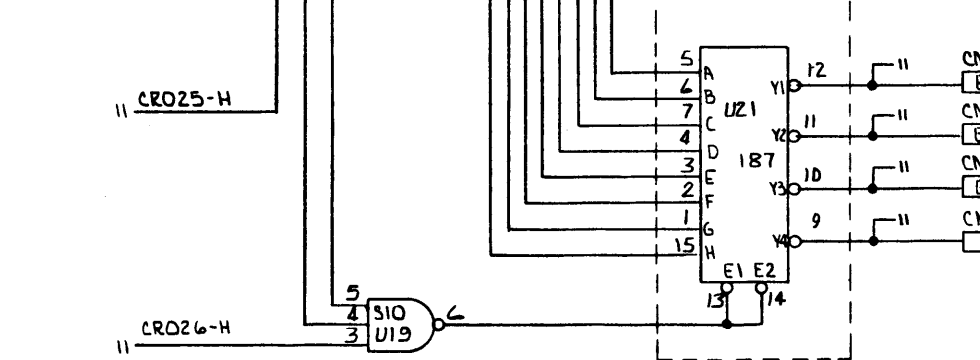
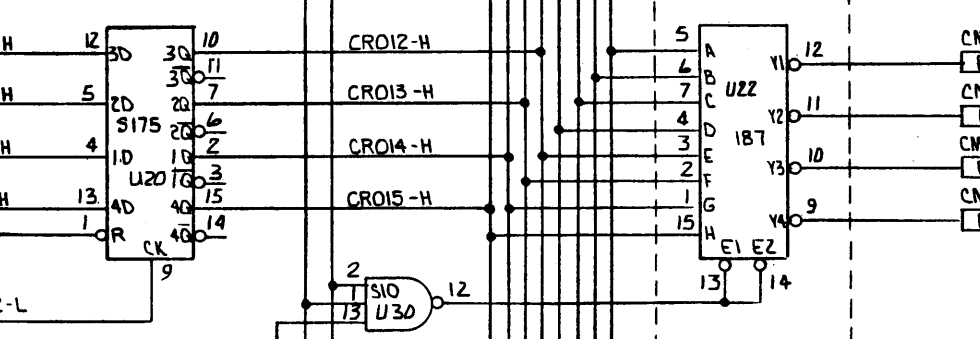
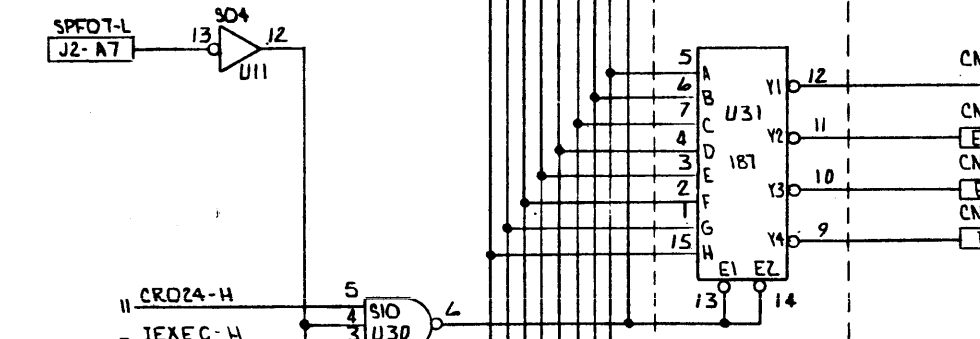
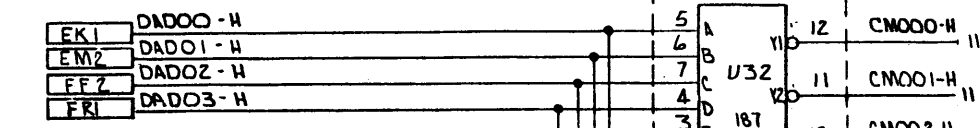
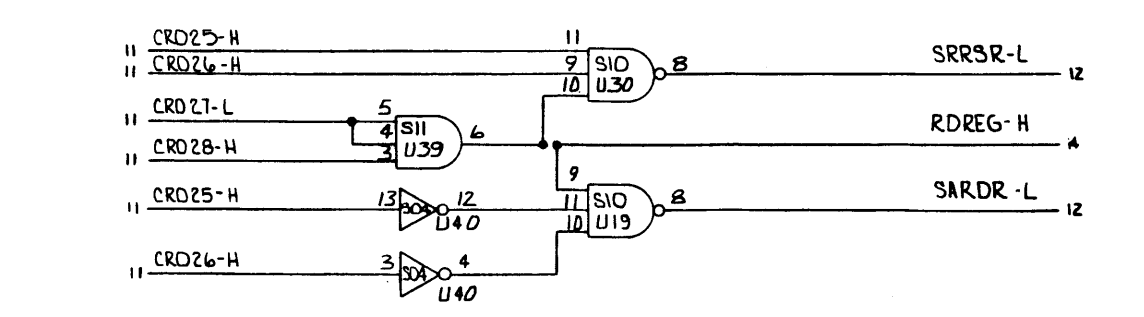
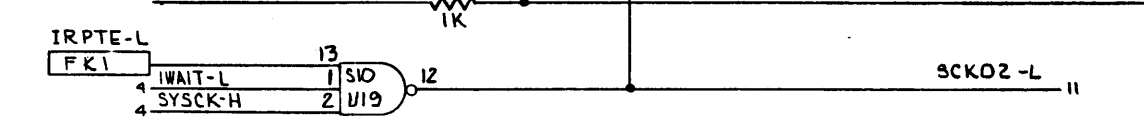
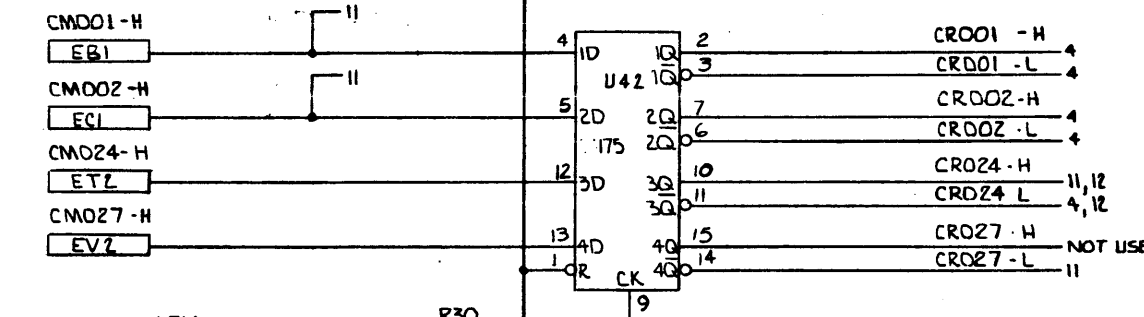
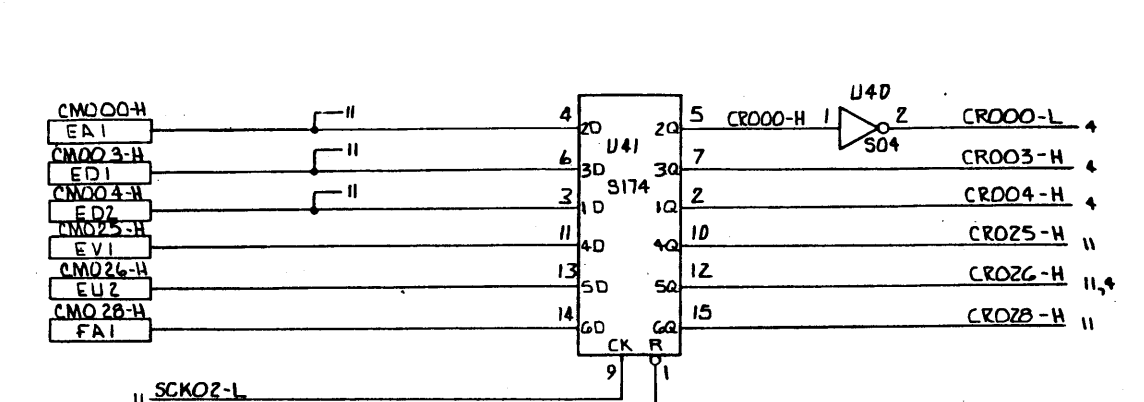
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D		C 21080300
SCALE: NONE	REV 01	SHEET 10 OF 12

21080300 01

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REVISIONS			
ZONE/LTR	DESCRIPTION	DATE	APPROVED
	SEE SMT 1		

OPTIONAL: USED FOR SPECIAL EMULATION ONLY.

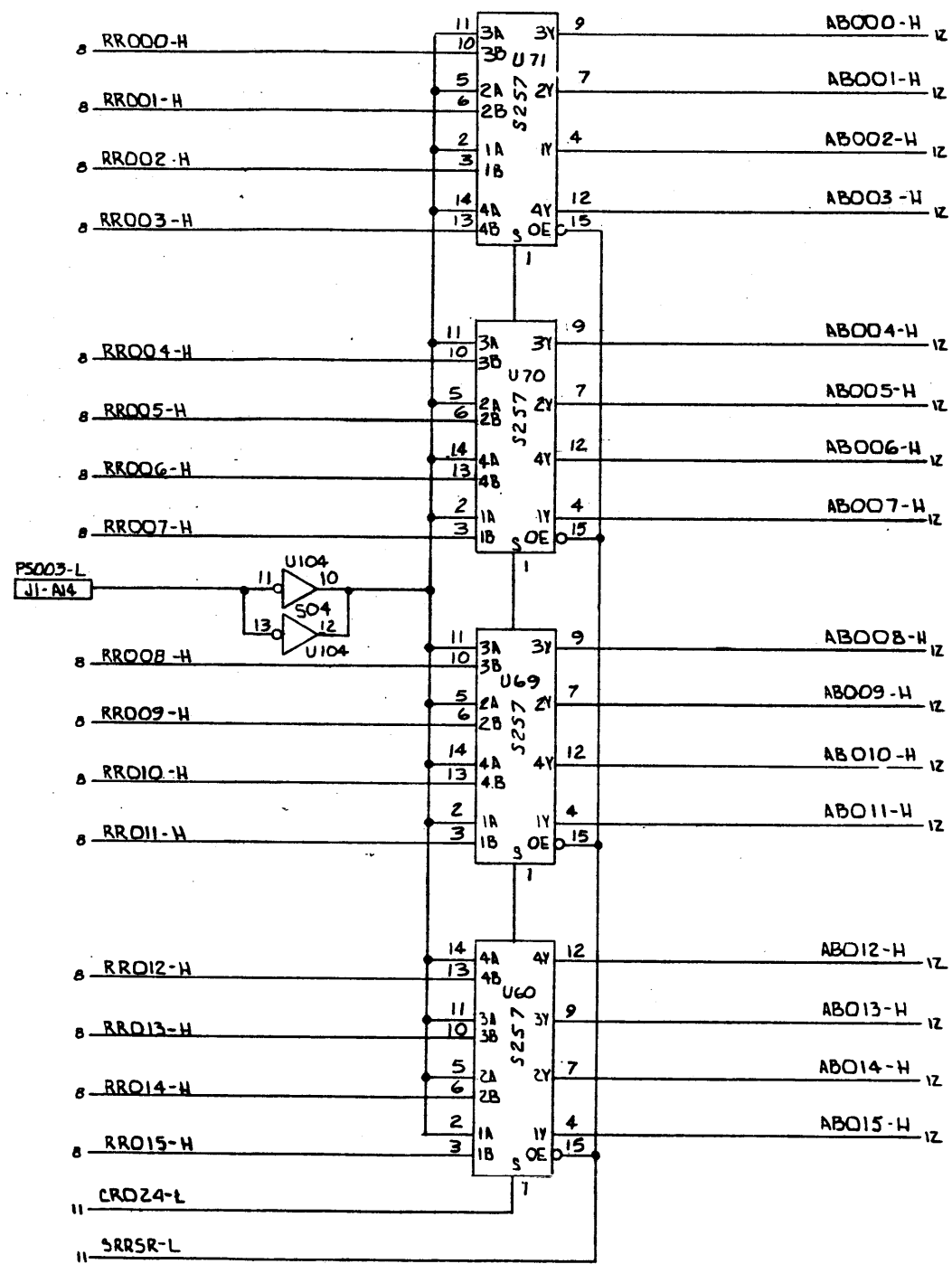


DECODE TABLES

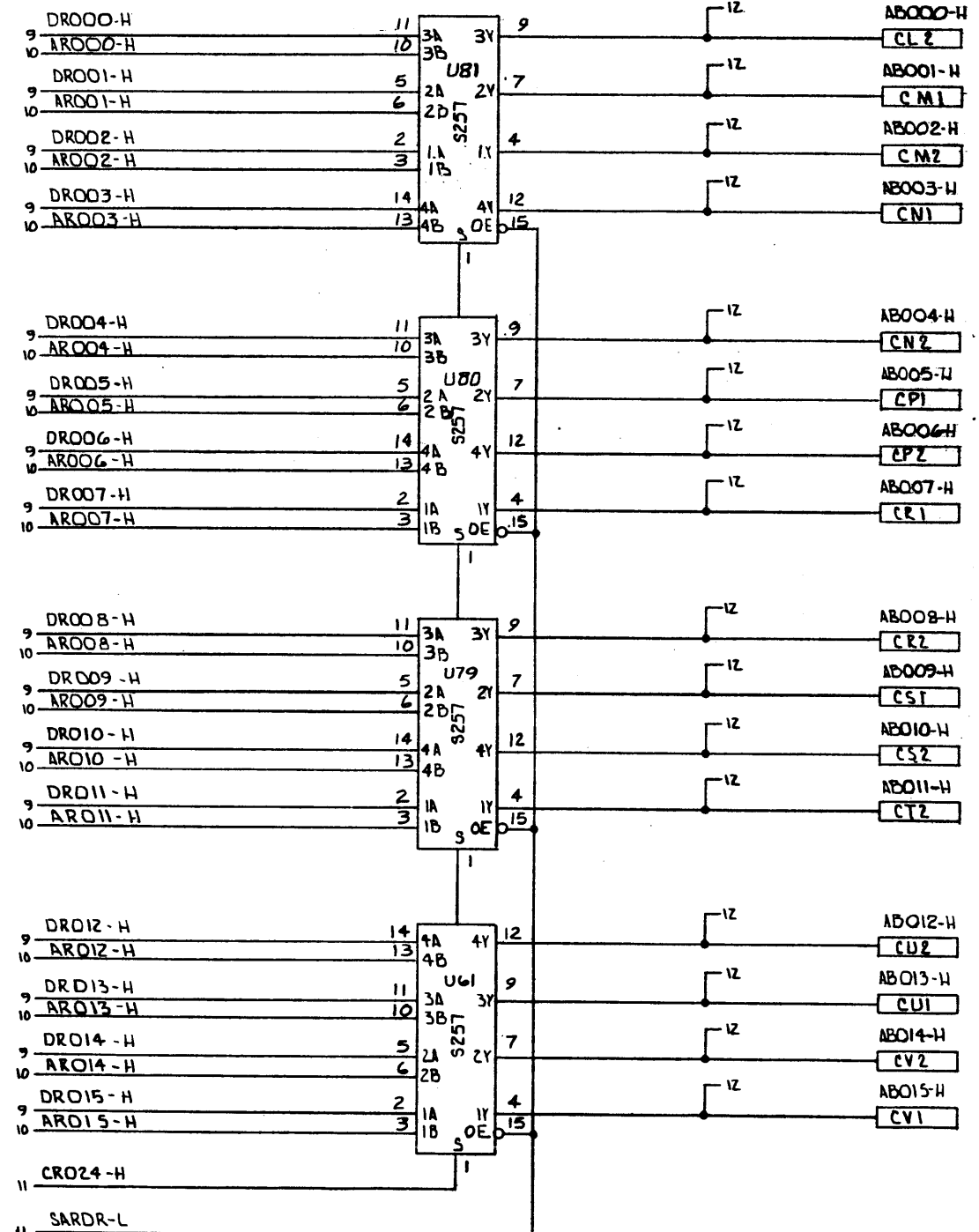
SIZE	CODE IDENT NO.	DWG NO.
D		C21080300
SCALE: NONE	REV 01	SHEET 11 OF 12

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
		SEE SHT 1		

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MACRO SIGN EXT. & RR REGISTERS



DR & AR REGISTERS

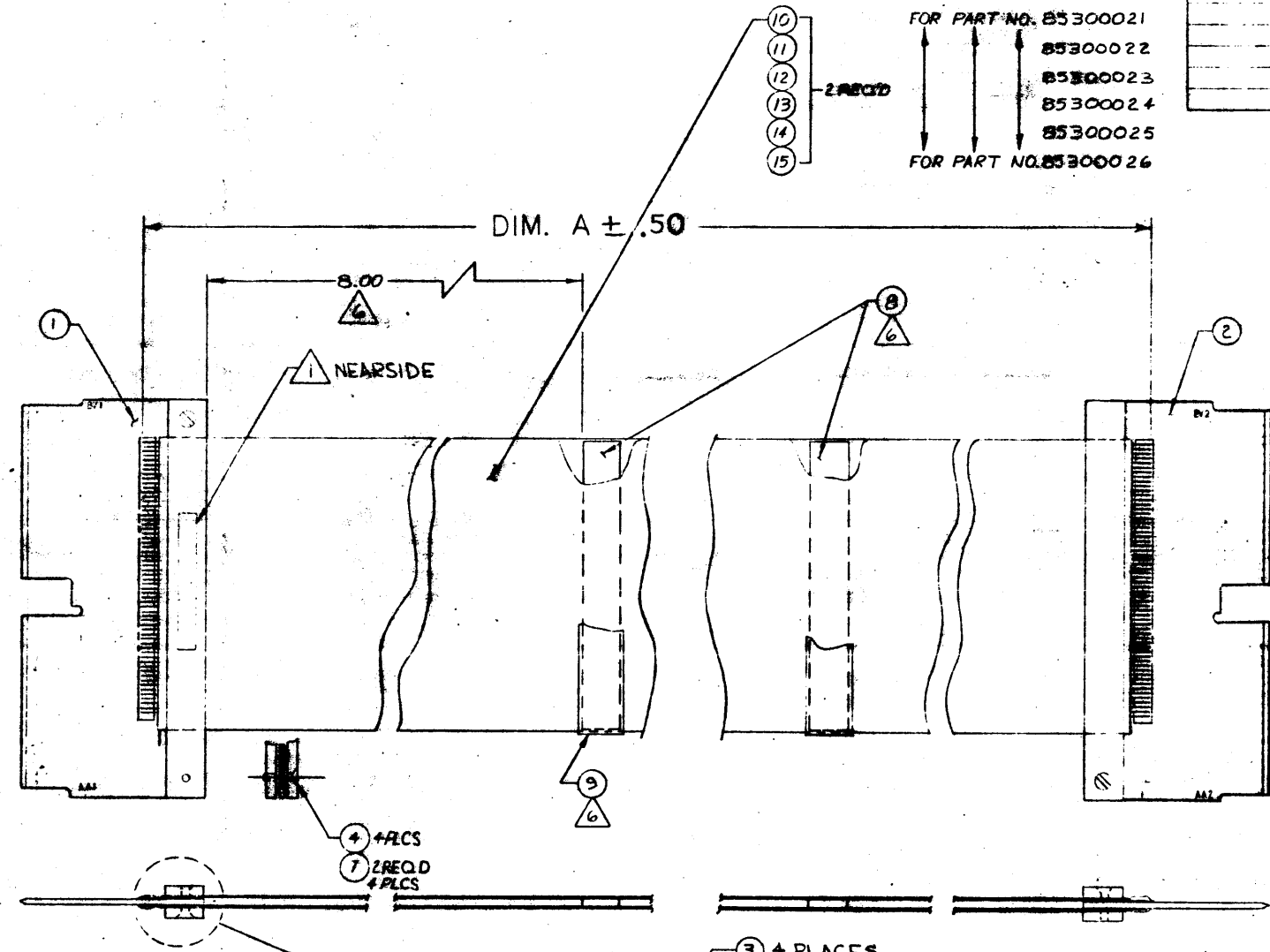
SIZE	CODE IDENT NO.	DWG NO.
D		C 21080300
SCALE	REV 01	SHEET 12 OF 12

21080300 01

TABULATION CHART	
PART NUMBER	DIMENSION A
85300021	2 FOOT
85300022	5
85300023	8.5
85300024	10
85300025	15
85300026	25 FOOT

RELEASE LEVEL	DESIGN SERVICE DATE	REV	DESCRIPTION	DATE
EXPERIMENTAL		01	ILL PER DRN DS000066	4-28-74
ENGINEERING		02	REVISED PER ECO. DS00106-01	2-14-74
PRODUCTION				

ATTACHED E.O. RECORD		
E.O. NUMBER	DATE	



- ④ INSTALL ITEM 8 AS SHOWN ON 8 INCH SPACING AND SECURE BY WRAPPING WITH ITEM 9.
- 5 FOR SCHEMATIC SEE Z111800Z
- ④ PARTIAL PART NO SHOWN, FOR COMPLETE PART NO PREFIX WITH 8530 XXXX.
- ③ LAP SOLDER FLATCABLE ONTO ITEMS 1&2 AND COVER SOLDER JOINTS WITH ITEM 6.
- ② BOND ITEM 5 ONTO ITEMS 1&2 PRIOR TO INSTALLING FLAT CABLE ITEM 5 MUST NOT PROTRUDE BEYOND EDGES OF FLAT CABLE.
- ① MARK ASSEMBLY PART NO AND LATEST REVISION LETTER .12 MAX HIGH, USING BLACK EPOXY PAINT, VERTICAL GOTHIC LETTERING AND LOCATED APPROX AS SHOWN.

NOTES. UNLESS OTHERWISE SPECIFIED

- ⑩ FOR PART NO. 85300021
- ⑪ 85300022
- ⑫ 85300023
- ⑬ 85300024
- ⑭ 85300025
- ⑮ FOR PART NO. 85300026


SEE DETACHED PARTS LIST SHEET 2

PART ASSY NO. & QTY PER ASSY		NOMENCLATURE OR DESCRIPTION MATERIAL		SPEC SOURCE		CODE		FIND	
02102	02102	02102	02102						
PART ASSY REV LTR		PARTS LIST		CONTRACT NO.		DWG TITLE		DWG IDENT NO.	
0026 FINAL		DO NOT SCALE DRAWING		DRAWN <i>W. Brewton</i> 10/31/73		C 85300021 -		C 85300026	
0025		SCREEN THIMBLES PER HANDBOOK		CHECKED <i>W. Brewton</i> 10/31/73		2019 south streeby street, santa ana, california 92705 (714) 558-8211			
0024		COUNTERBORE AND SPOTFACE FILLET RADIUS TO .005 MAXIMUM		ENGR. <i>W. Brewton</i> 4-25-74		CABLE ASSEMBLY, MACROBUS EXTENSION			
0023		REMOVE ALL SHARP AND BREAK SHARP EDGES EQUIVALENT TO .005		PROJ. ENGR. <i>W. Brewton</i> 4/25/74		SIZE			
0022		ROUGHNESS OF MACHINED SURFACES IS PER USAS 84E		TECH. DR. <i>W. Brewton</i> 4/25/74		DATE IDENT NO.			
0021		STANDARD HOLE TOLERANCE PER AND ISO		PART. DR. <i>W. Brewton</i> 4/25/74		C 85300021 -			
		TO LEARNER OR SEE 2.2.2		PRIN. DR. <i>W. Brewton</i> 4/25/74		C 85300026			
		INT. HOLE TOL. PER 2.2.2		APP. DR. <i>W. Brewton</i> 4/25/74		REV		02	
		DIMENSIONS ARE IN INCHES AND APPLY AFTER HEAT TREAT AND FINISH		Q.A. <i>W. Brewton</i> 4/25/74		DATE		1 2	

LIST OF MATERIALS

ITEM NO.	CITY. RECD.	REFEREN. E DESIGNATION	PART NUMBER	DESCRIPTION	NOTES	VENDOR	VENDOR PART NUMBER
1	1		66080140	PRINTED WIRING BOARD, MACROBUS NO. 1			
2	1		66080150	PRINTED WIRING BOARD, MACROBUS NO. 2			
3	4		67680005	BRACKET, STRAIN RELIEF			
4	4		61338514	SCREW, 4 X 40 X 5/16 LONG FLAT HEAD 82°			
5	A/R		32161130	TAPE, DOUBLE SIDED, 1 IN, WIDE PRESSURE SENSITIVE		3 M	4032
6	A/R		32631000	CEMENT, POLYSTYRENE		G C ELECTRONICS	Q-DOPE
7	8		61221008	WASHER, FLAT, #4			
8	A/R		32141054	TAPE, FOAM POLY 1/4 X 1		3 M	4004-X1"
9	A/R		32151130	TAPE, SINGLE SIDED, PRESS SEN.		3 M	853 X 1"
10	2		37821004	CABLE, 2 FT. LG.	SEE NOTE BELOW	BURNDY	TYPE 1680
11	2		37821008	5 FT. LG.			
12	2		37821012	8.5 FT. LG.			
13	2		37821016	10 FT. LG.			
14	2		37821020	15 FT. LG.			
15	2		37821024	CABLE, 25 FT. LG.	SEE NOTE BELOW	BURNDY	TYPE 1680
				<p>NOTE:</p> <p>ITEMS 1 THRU 6 ARE USED ON ALL ASSEMBLIES.</p> <p>ITEMS 10 THRU 15 MUST BE SELECTED DEPENDING ON WHICH CABLE ASSEMBLY IS BEING BUILT.</p> <p>SEE TABULATION CHART</p>			

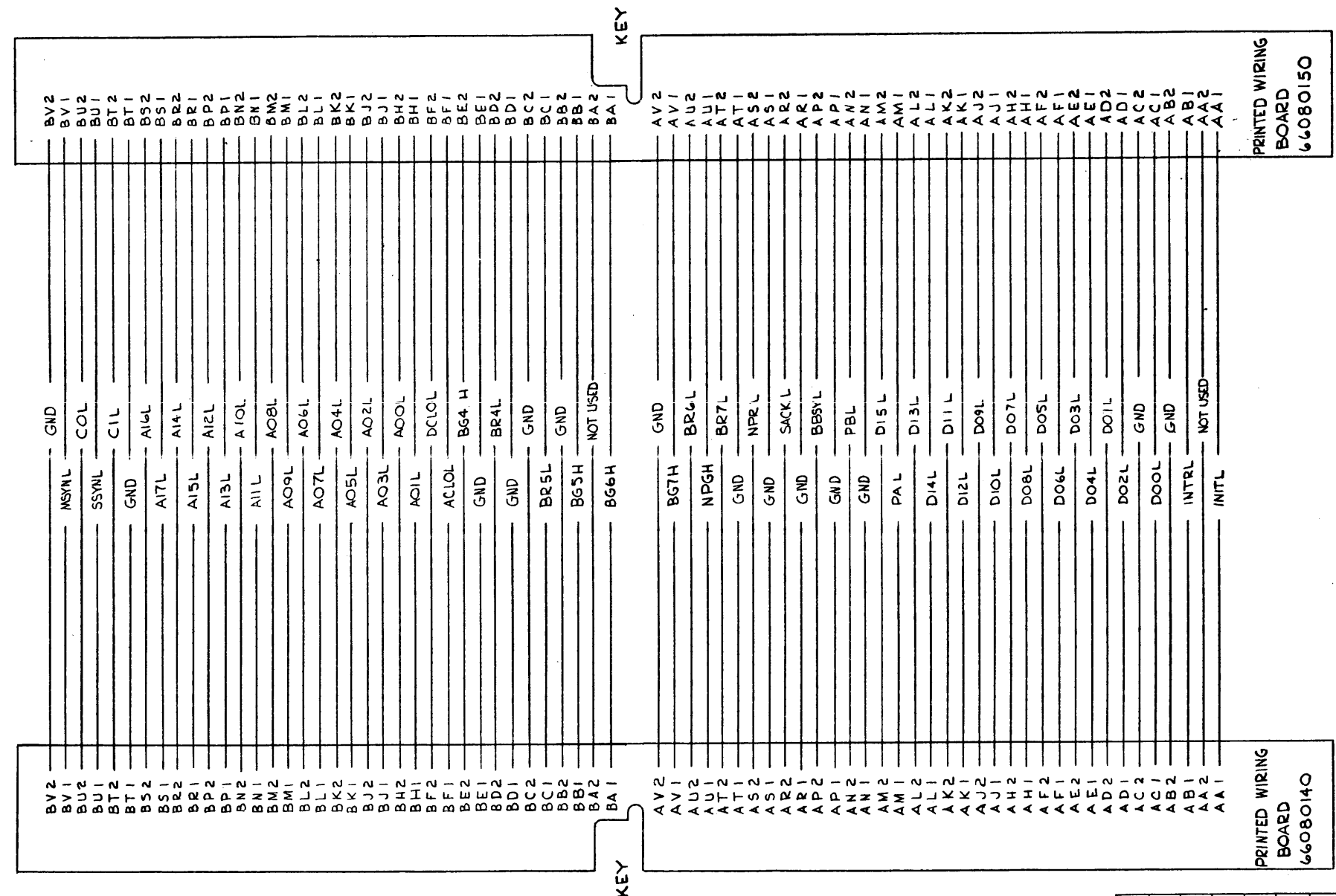
ORIGINATOR	C. K. King	1-24-74
APPROVAL	M. W. Johnston	4-25-74
REVISED	R. J. King	4-25-74
	K. J. G. King	4-25-74
	J. W. King	4/25/74
	R. W. King	4-25-74

 california data processors		TITLE
		CABLE ASSEMBLY, MACROBUS EXTENSION
SIZE	DOCUMENT NUMBER	REV.
B	C8530021 -C8530026	02
DS	SHEET 2 OF 2	PAGE

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RELEASE STATUS			REVISIONS			
RELEASE LEVEL	DES SERVICES	DATE	ZONE LTR	DESCRIPTION	DATE	APPROVED
EXPERIMENTAL			01	SEE DRN DS 00066	4-25-74	km ^c /llb
ENGINEERING	<input checked="" type="checkbox"/>	4-25-74				
PRODUCTION						

ATTACHED E. O. RECORD	
E. O. NUMBER	DATE



PRINTED WIRING BOARD 66080150

PRINTED WIRING BOARD 66080140

FOR CABLE ASSY SEE DWGS 85300021-85300026
 NOTES: UNLESS OTHERWISE SPECIFIED

NOTE	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION / MATERIAL	SPEC/SOURCE	CODE IDENT NO.	FIND NO.
PARTS LIST					
PART/ASSY NO. & QTY PER ASSY		CONTRACT NO.			
PART/ASSY REV LTR		DRAWN <i>P. Maenden</i> 12-12-73			
DO NOT SCALE DRAWING		CHECKED <i>M. Edwards</i> 4-25-74			
SCREW THREADS PER HANDBOOK H-38		ENGR. <i>M. Edwards</i> 4-25-74			
COUNTERBORE AND SPOTFACE FILLET RADI TO BE .030 MAXIMUM		TECH. DIR. <i>M. Edwards</i> 4-25-74			
REMOVE ALL BURRS AND BREAK SHARP EDGES EQUIVALENT TO .030		PROD. MGT. <i>M. Edwards</i> 4-25-74			
ROUGHNESS OF MACHINED SURFACES PER USAS B46.1		PRODUCTION			
STANDARD HOLE TOLERANCE PER AND 1080		Q.A. <i>M. Edwards</i> 4-25-74			
TOLERANCES ON XX ± .02 .03 ± .010 ANGLES ± 30°		SCALE: NONE			
INTERPRET DIMENSIONS AND TOLERANCES PER USAS Y14.5		REV 01			
DIMENSIONS ARE IN INCHES AND APPLY AFTER HEAT TREAT AND FINISH UNLESS OTHERWISE SPECIFIED		SHEET 1 OF 1			

california data processors
 2019 south ritchey street - santa ana, california 92705 - (714) 558-8211

DWG TITLE
SCHEMATIC, MACROBUS CABLE

SIZE CODE IDENT NO. DWG NO.
D C21118002

Schematic, Macrobus Cable

2118002 01