

NSP
IMAGE
GENERATION
SYSTEM

PROPRIETARY WIRE LIST AND LOGIC DRAWING SET
P/N 901181-117A

EVANS AND SUTHERLAND COMPUTER CORPORATION
580 ARABIAN DRIVE
SALT LAKE CITY, UTAH 84108

SAFETY SUMMARY

The following general safety precautions are not related to any specific procedures and therefore do not appear elsewhere in this publication. These are recommended precautions that personnel must understand and apply during many phases of operation and maintenance.

KEEP AWAY FROM LIVE CIRCUITS

Operating personnel must at all times observe all safety regulations. Do not replace components or make adjustments inside the equipment with high voltage supplies turned on. Under certain conditions, dangerous potentials may exist when the power control is in the off position, due to charges retained by capacitors. To avoid casualties, always remove power and discharge and ground a circuit before touching it.

DO NOT SERVICE OR ADJUST ALONE

Under no circumstances should any person reach into the enclosure for the purpose of servicing or adjusting the equipment except in the presence of someone who is capable of rendering aid.

RESUSCITATION

Personnel working with or near high voltages should be familiar with methods of resuscitation.

WARNING

High voltages capable of causing death are used in this equipment. Use extreme caution when servicing power supplies or their load components.

NSP PROPRIETARY WIRE LIST AND LOGIC DRAWING SET

COPYRIGHT EVANS & SUTHERLAND COMPUTER CORPORATION 1979

All information contained herein together with all drawings, diagrams and specifications herein or attendant hereto are, and remain, the property of Evans & Sutherland Computer Corporation. Many of the intellectual and technical concepts described herein are proprietary to Evans & Sutherland and may be covered by U.S. and Foreign Patents or Patents Pending or are protected as trade secrets. Any dissemination of this information or reproduction of this material for commercial or other purposes other than the express purpose for which it has been made available are strictly forbidden unless prior written permission is obtained from Evans & Sutherland Computer Corporation.

CONTENTS

	<u>Page</u>
Illustrations	i-3
List of Effective Pages	i-4

SECTION 1 INTRODUCTION

1.1 Contents	1-1
1.2 Backpanel Wire List Description	1-1
1.2.1 Backpanel Numbering System	1-2
1.2.2 How to Use the Backpanel Wire Lists	1-4
1.3 Printed Circuit Logic Drawings Description	1-6
1.4 How to Trace Signals Through the Backpanel	1-6

WIRE LIST
LOGIC DRAWINGS

*Independently numbered; see list of effective pages.

ILLUSTRATIONS

<u>Figure</u>	<u>Page</u>
1-1 NSP Backpanel Card and Pin Numbering System	1-3

LIST OF EFFECTIVE PAGES

On a changed text page, the portion affected by the latest change is indicated by a vertical line in the outer margin of the page. Changes to logic drawings are indicated by shaded areas. Change number 0 indicates an original page. For the wire list and logic drawings, the change level will appear in the change number column. Manual revisions do not carry change markings.

<u>PAGE NUMBER/ DRAWING NUMBER</u>	<u>CHANGE NUMBER/ REVISION LEVEL</u>	<u>NUMBER OF DWG SHEETS</u>
i-1 - i-4	0	-
1-1 - 1-5	0	-
200100-800	B1	115 (wire list)
200105-600	NC	6
200106-600	A2	8
200107-600	A3	6
200108-600	A4	8
200110-600	NC	5
200111-600	NC	6
200112-600	A2	5
200113-600	A1	4
200114-600	NC	5
200120-600	NC	6
200121-600	NC	6
200122-600	A1	5
200123-600	A1	6
200155-600	A2	7
200156-600	A1	7
200157-600	A2	7
200158-600	A4	5
200159-600	A3	4
200160-600	A1	6
200161-600	NC	6
200162-600	A1	7
200163-600	A1	6
200164-600	NC	5
200165-600	NC	7
200170-600	NC	8
200171-600	A3	7
200172-600	NC	7

Revision A updates the revision level of and incorporates the new format for the wire list; it also incorporates revisions for drawings 200106, 108, 155, 157, 159, and 162.

1-1

000-10000
000-10001
000-10002
000-10003
000-10004
000-10005

SECTION 1

000-10006
000-10007

INTRODUCTION

000-10008
000-10009
000-10010
000-10011
000-10012
000-10013
000-10014
000-10015
000-10016
000-10017
000-10018
000-10019
000-10020
000-10021
000-10022
000-10023
000-10024
000-10025
000-10026
000-10027
000-10028
000-10029
000-10030
000-10031
000-10032
000-10033
000-10034
000-10035
000-10036
000-10037
000-10038
000-10039
000-10040
000-10041
000-10042
000-10043
000-10044
000-10045
000-10046
000-10047
000-10048
000-10049
000-10050
000-10051
000-10052
000-10053
000-10054
000-10055
000-10056
000-10057
000-10058
000-10059
000-10060
000-10061
000-10062
000-10063
000-10064
000-10065
000-10066
000-10067
000-10068
000-10069
000-10070
000-10071
000-10072
000-10073
000-10074
000-10075
000-10076
000-10077
000-10078
000-10079
000-10080
000-10081
000-10082
000-10083
000-10084
000-10085
000-10086
000-10087
000-10088
000-10089
000-10090
000-10091
000-10092
000-10093
000-10094
000-10095
000-10096
000-10097
000-10098
000-10099
000-10100

1.1 CONTENTS

This book contains the wire list (also called a string list) and printed circuit logic drawings for the NSP backpanels. This information is to be used only for troubleshooting and maintaining the NSP system.

1.2 BACKPANEL WIRE LIST DESCRIPTION

The wire list is a computer listing that describes the pin-to-pin wiring found on the backpanel. The list is used in conjunction with the logic drawings to trace signals from card to card throughout the unit. A section explaining how to use the wire list is provided below.

000-10000
000-10001
000-10002
000-10003
000-10004
000-10005

1.2.1 BACKPANEL NUMBERING SYSTEM

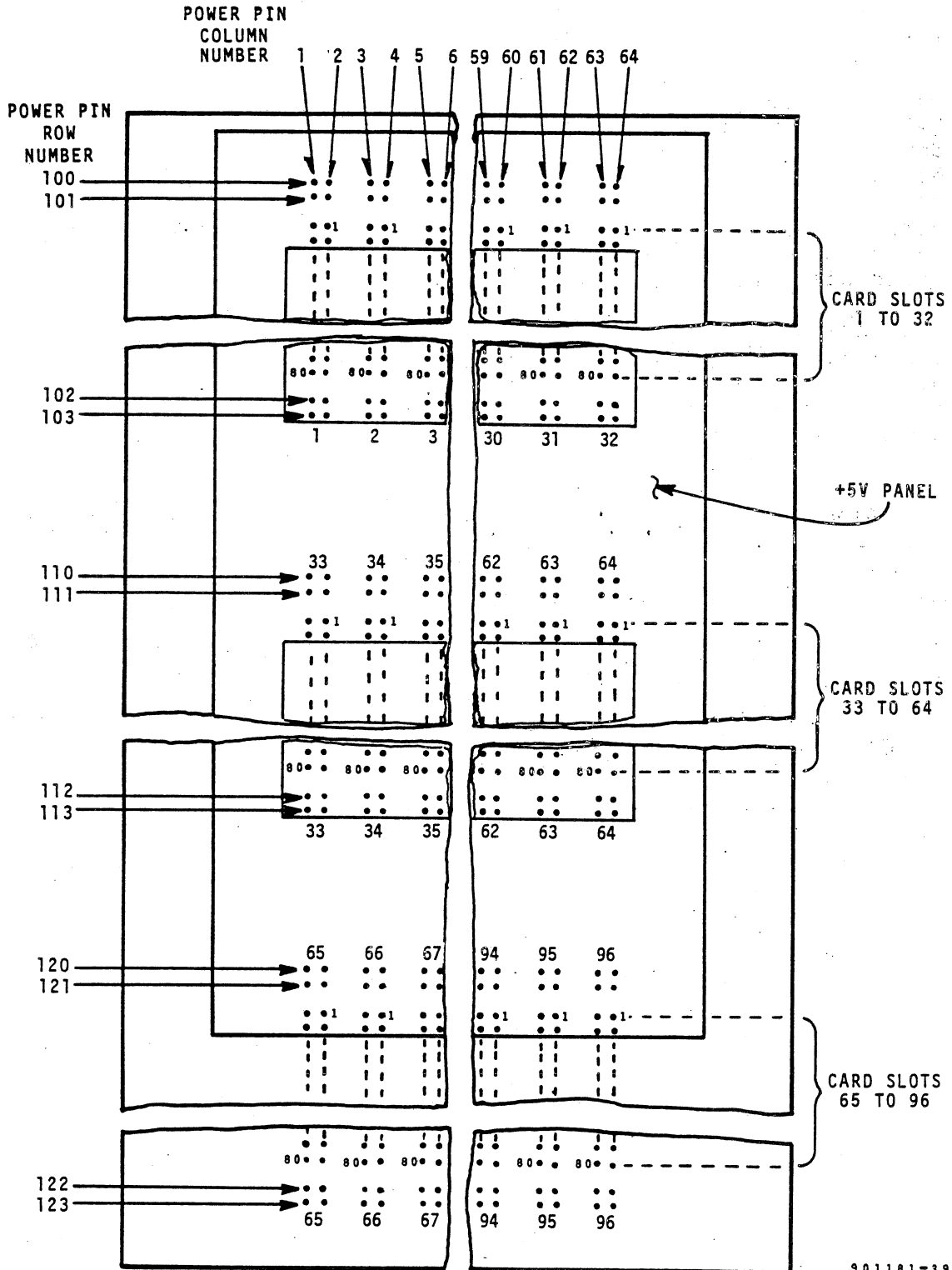
The backpanel (see figure 1-1) is a signal interconnection and power distribution device for the printed circuit cards. Connections consist of either a single wire connecting two pins or an electrically continuous string of such wires connecting a group of pins. Each wire or string is given an alphanumeric name corresponding to the signal it carries. The backpanel string names will not necessarily correspond to the names on the card logic diagrams.

The backpanel numbering system is shown in figure 1-1. The panel contains 96 card slots (numbered 1 to 96) arranged in three rows of 32 cards each. Each printed circuit card connector on the card side of the backpanel appears as 80 pins arranged in two columns of 40 on the wire-wrap side of the backpanel. The card connector pins are numbered 1 to 80 on each slot.

+5V power is supplied to all cards via the +5V distribution plate. Pins are electrically connected to the +5V plate by small metal inserts that surround the pin and are press-fit into the hole in the +5V plate through which the pin extends.

Four other voltages are available to each card via the eight power pins located four at the top and four at the bottom of each card slot. As shown in figure 1-1, the power pins are grouped in rows labeled 100 to 123; pins within the power rows are labeled 1 to 64. All pins in one row are electrically common; rows are electrically common as follows:

SUPPLY		CARD		CARD		CARD		VOLTAGE
<u>STUD</u>		<u>ROW 1</u>		<u>ROW 2</u>		<u>ROW 3</u>		
V1	=	100	=	110	=	120	=	+15V DC
V3	=	101	=	111	=	121	=	GND
V2	=	102	=	112	=	122	=	+15V DC
V4	=	103	=	113	=	123	=	+12V DC



901181-395

FIGURE 1-1
NSP BACKPANEL CARD AND PIN NUMBERING SYSTEM

NSP WIRE LIST/LOGIC DWGS 901181-117A
INTRODUCTION

1.2.2 HOW TO USE THE BACKPANEL WIRE LIST

Backpanel wire-wrap connections are represented by a computer-generated string list rather than schematics. In order to make signal tracing possible, the string list is divided into two parts: a slot-to-card list and a pin-to-string list. The function and use of each are described below.

1.2.2.1 Slot-To-Card List

The slot-to-card list (on page 1 of the string list) tells what card each backpanel slot is wired to receive. A typical entry is as follows:

68 200170-100

This line entry says that slot 68 is wired for card 200170-100. Depending on the system configuration, certain wired slots may not contain cards.

1.2.2.2 Pin-To-String List

The pin-to-string list is a pin-by-pin numerical listing of all pins on the backpanel. It begins on page 2 and constitutes the rest of the list. The first column (SLOTPIN) is the backpanel card-slot/pin number, the second column (CARD SIGNAL NAME) is the name of the pin's signal on the card's logic diagram, the third column (STRING NAME) is the name of the wire string that connects this pin to the others in the string, and the last column (STRING PINS) lists all the pins in the string in the same slot/pin format as the first column.

A # symbol next to the pin number identifies that pin as a signal source or driving pin. The # symbol may also appear on pins that are not considered as drivers, such as card power supply pins, capacitors, and resistors. No # indicates driven pins. Twisted-pair wires are listed as a two-line entry in each column. The first line in the column is the slot/pin number for the white (signal) wire of the twisted pair. The second line of the entry is the black (return) wire; this entry is enclosed in brackets. The black, or return, wires of two nonrelated twisted-pair strings may occasionally be tied together. This fact will not be indicated in the wire lists.

1.3 PRINTED CIRCUIT LOGIC DRAWINGS DESCRIPTION

All printed circuit cards in the NSP system have been assigned E&S part numbers. Logic drawings (schematics) describing these cards are supplied in this book. The first six digits of the part number for each card and the number for the logic drawing describing the card are identical. The suffix of the card part number is -100; the suffix of the corresponding logic drawing number is -600. The drawings are arranged in numerical order in this book. Sheet 1 of the logic drawing set for each card contains a list of parts for that card.

1.4 HOW TO TRACE SIGNALS THROUGH THE BACKPANEL

Tracing signals from card to card through the backpanel requires the use of the following three documents:

- 1) card logic diagrams
- 2) slot-to-card list
- 3) pin-to-string wire list

The steps for tracing a signal are as follows:

- 1) Find the card pin number of the signal from the card logic schematic.
- 2) Find the backpanel slot number of the card by looking at the backpanel or by checking the slot-to-card list.
- 3) Look up the slot and pin number in the pin-to-string wire list.
- 4) Find all slots and pins that the string connects to by looking at the STRING PINS column of the wire list.
- 5) Find the part numbers of the cards that the string connects to by looking at the backpanel or by looking up the slot numbers found in step 4 in the slot-to-card list.
- 6) Trace the signal inside the card by looking at the card logic schematic.

00112

00113

00114

00115

00116

00117

00118

00119

00120

00121

00122

00123

00124

00125

00126

00127

00128

00129

00130

00131

00132

00133

00134

00135

00136

00137

00138

00139

00140

00141

00142

00143

00144

00145

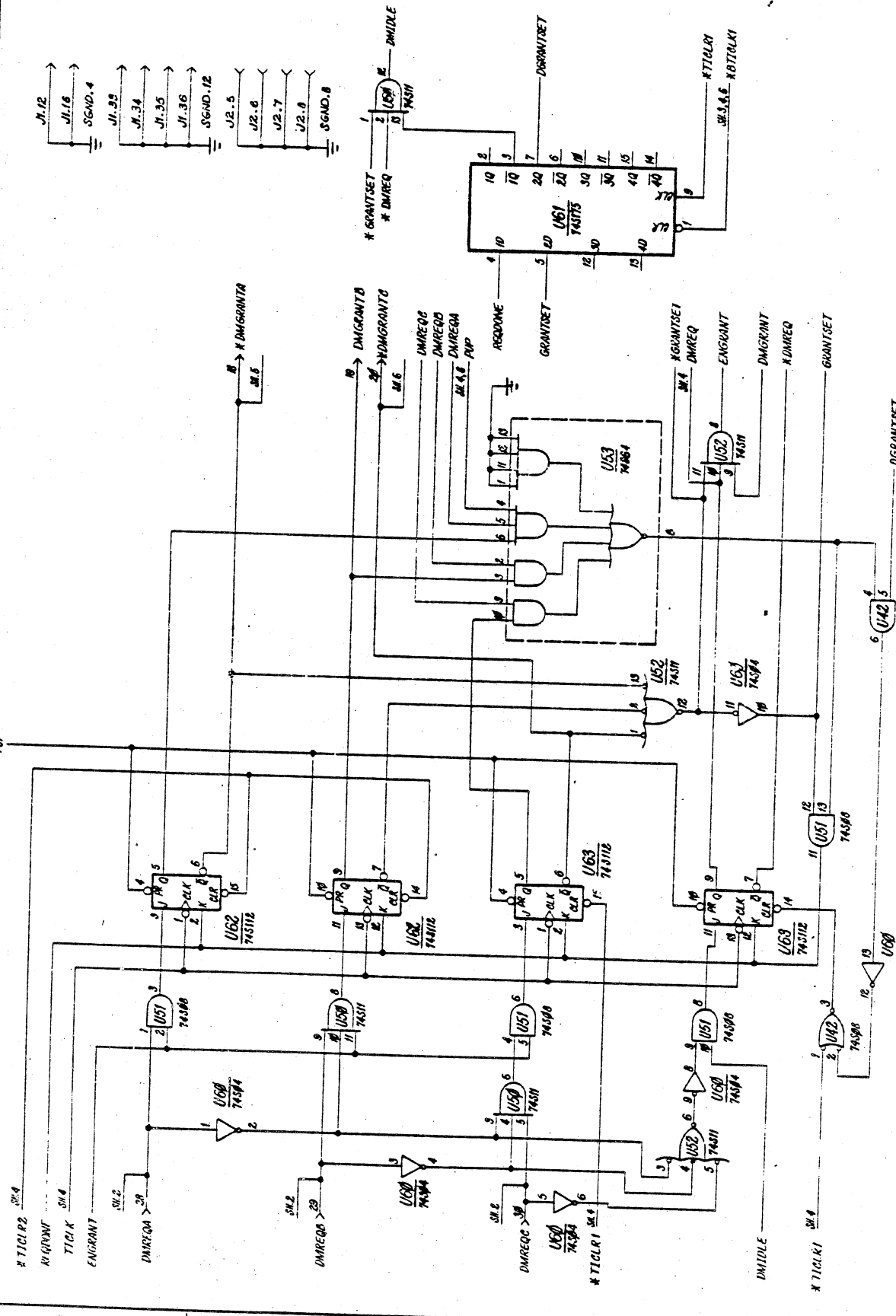
00146

00147



MULTI-PORT ACCESS CONTROLLER

REVISIONS
ZONE LTR DESCRIPTION DATE APPROVED

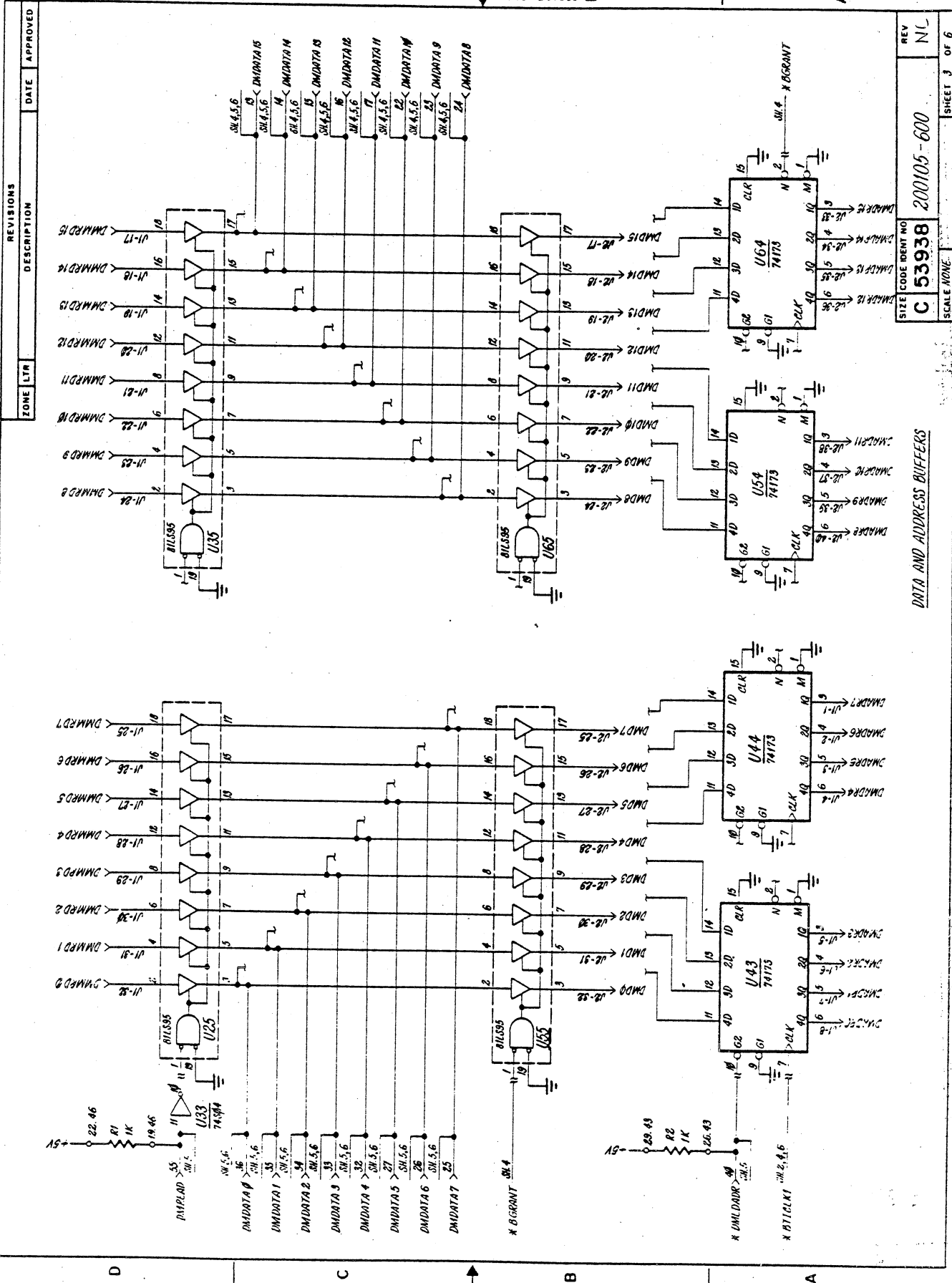


SIZE CODE IDENT NO	REV
C 53938	NC
SCALE NONE	SHEET 2 OF 6
200105-600	

200105-600

1 2 3 4 5 6 7

D C B A



ZONE	LTR	DESCRIPTION	DATE	APPROVED

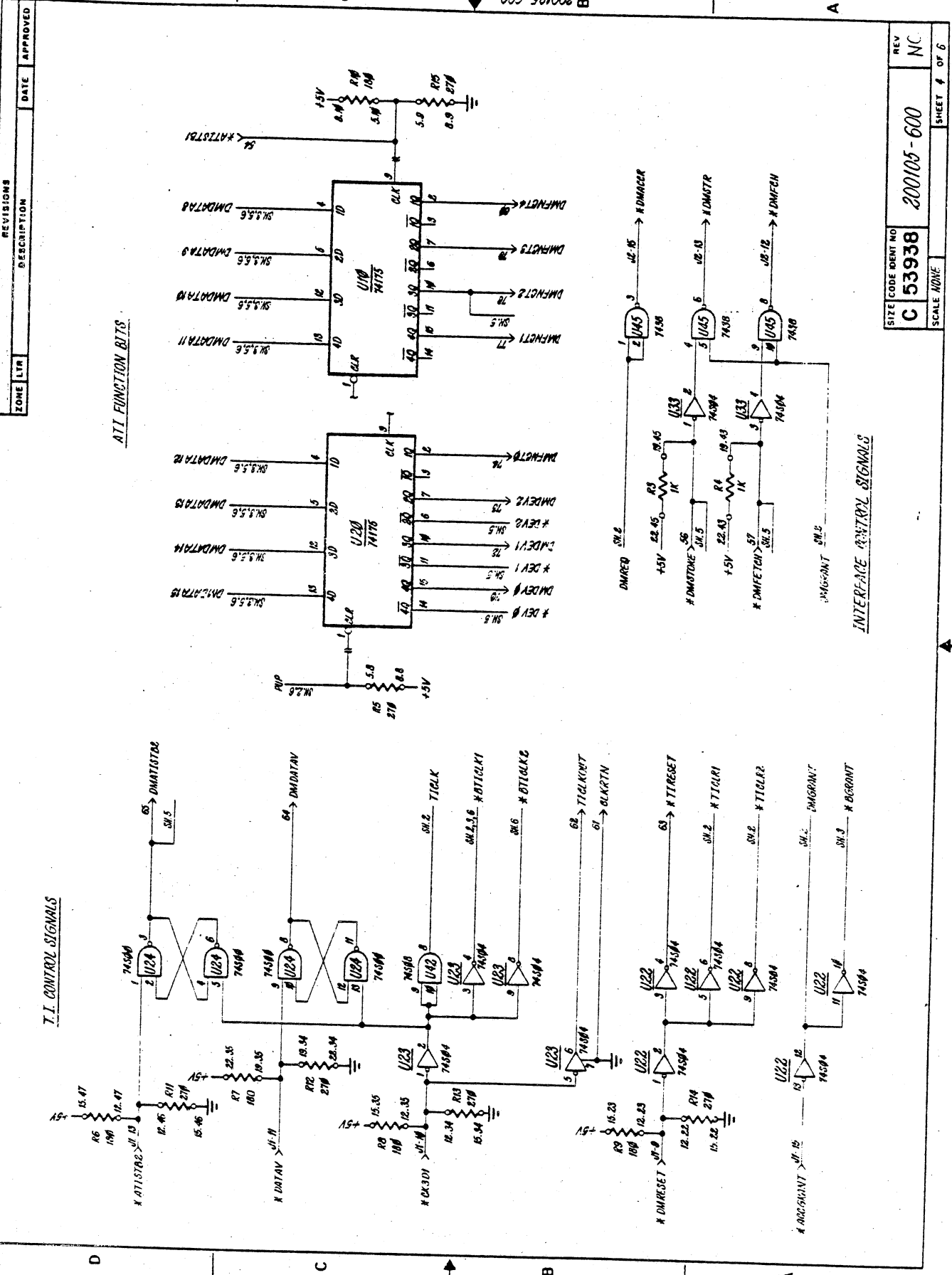
1 2 3 4

REV NL
 SIZE CODE IDENT NO C 53938
 SCALE NONE
 SHEET 3 OF 6

DATA AND ADDRESS BUFFERS

200105-600

200105-600



ATI FUNCTION BITS

T.I. CONTROL SIGNALS

INTERFACE CONTROL SIGNALS

ZONE LTR	REVISIONS	DESCRIPTION	DATE	APPROVED
----------	-----------	-------------	------	----------

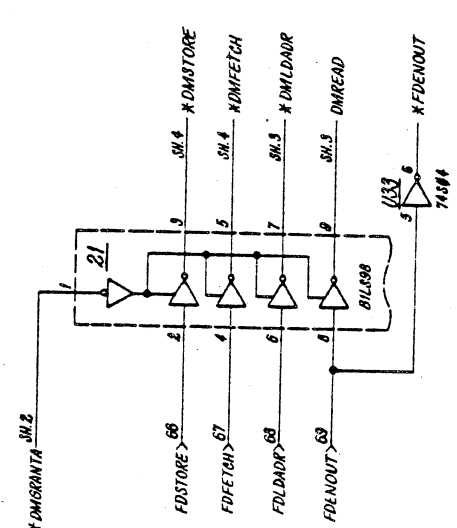
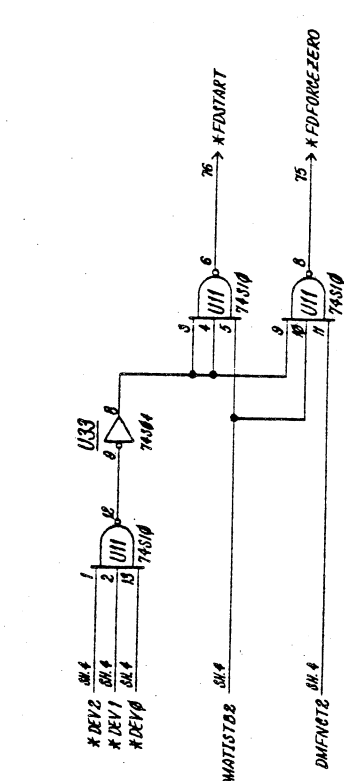
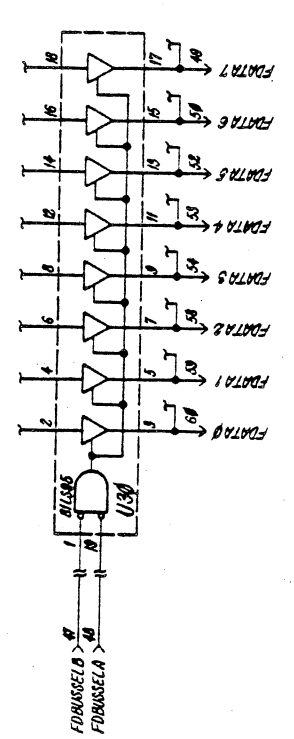
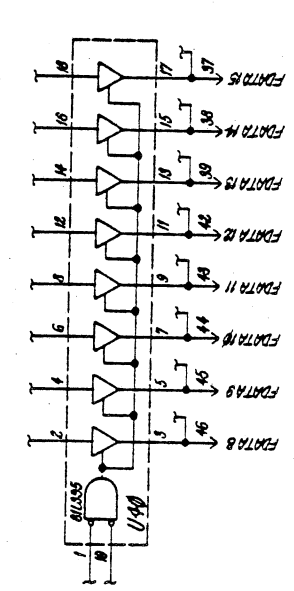
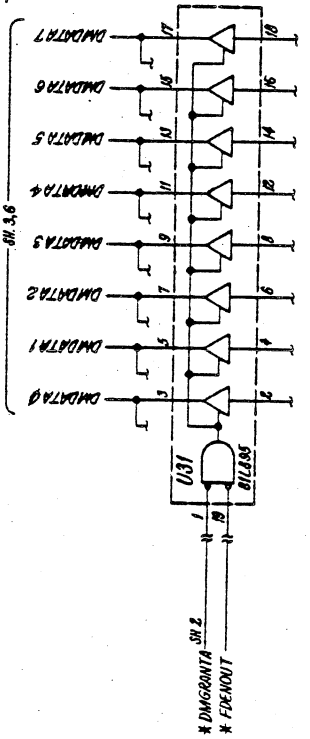
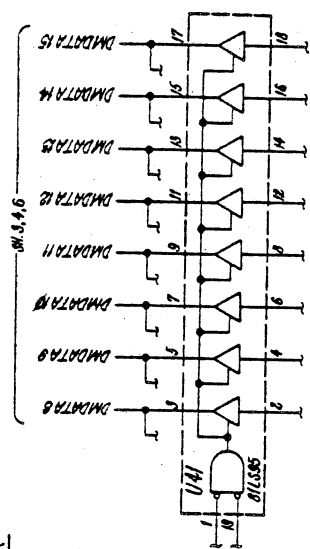
SIZE CODE IDENT NO	REV
C 53938	NC
SCALE NONE	SHEET # OF 6

200105-600 B

200105-600

ZONE LTR	DESCRIPTION	DATE	APPROVED

TI BUS BUFFER

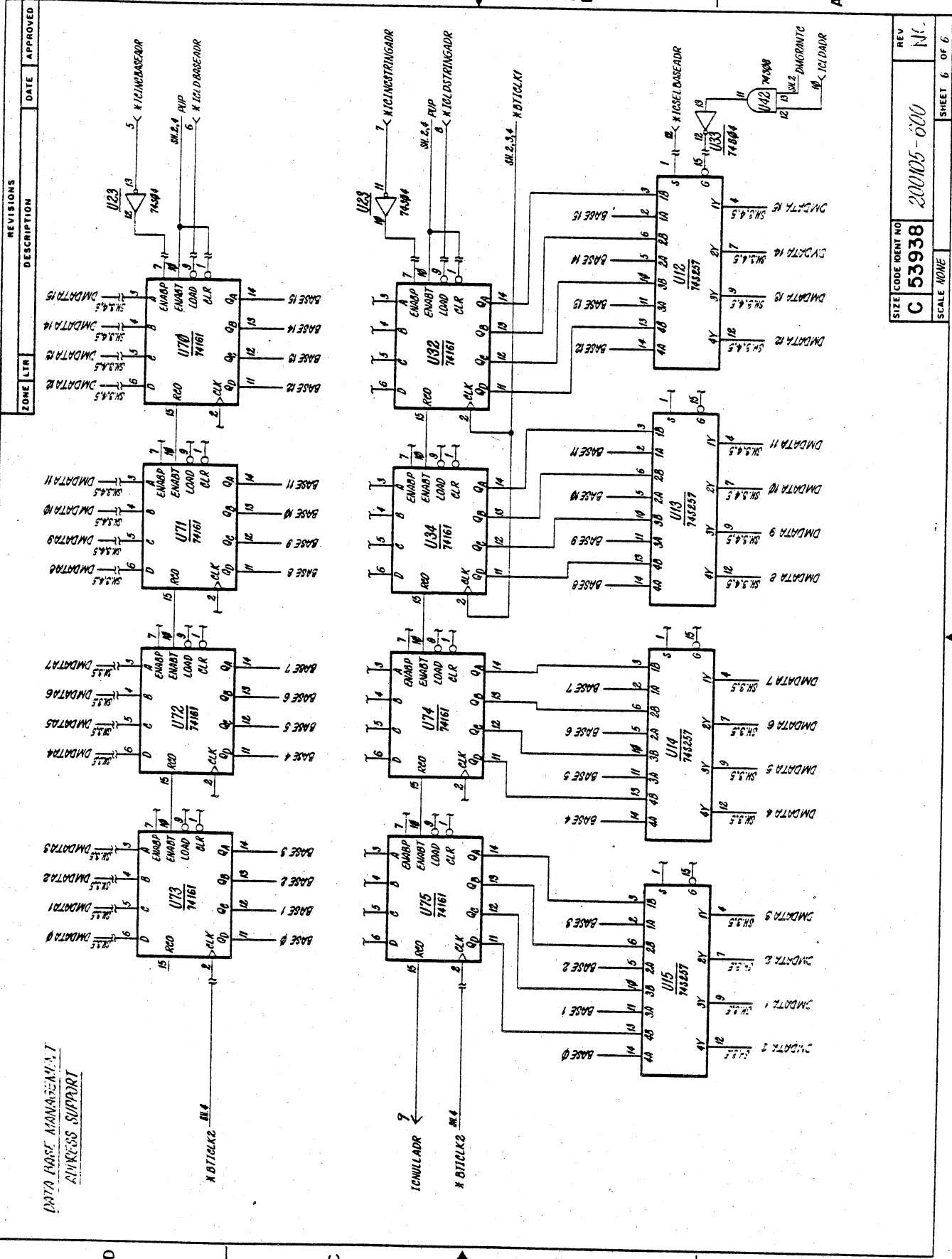


DISK INTERFACE SUPPORT

FLOPPY CONTROL BITS

SIZE CODE IDENT NO	REV
C 53938	NC
SCALE NONE	SHEET 5 OF 6

DATA BASE MANAGEMENT
ADDRESS SUPPORT



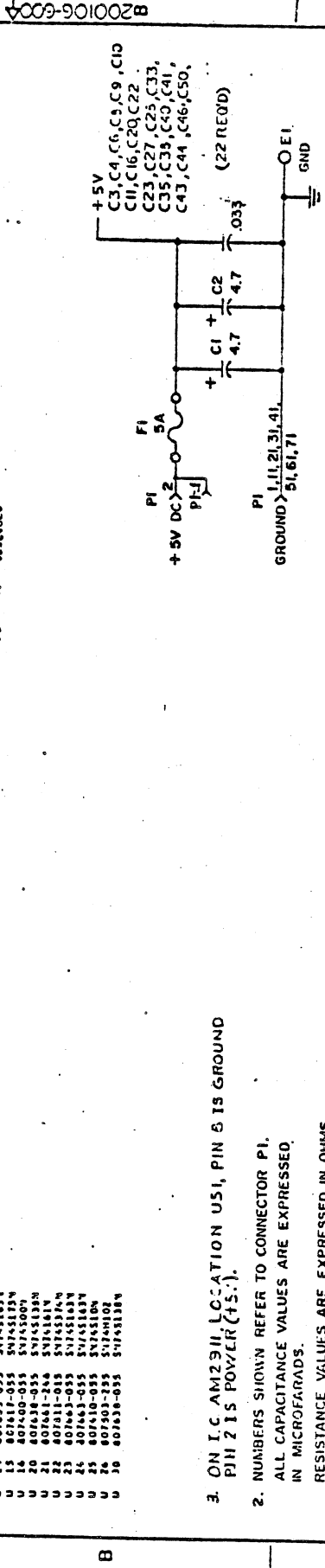
ZONE	LTR	DESCRIPTION	DATE	APPROVED

SIZE CODE IDENT NO	C 53938
SCALE	NONE
REV	N/C
SHEET	6 OF 6

200105-600

REF DESIG	Q'S	PART NO	VENDOR PART NUMBER	DESIG	Q'S	PART NO	VENDOR PART NUMBER
1	1	807641-035	SVF4533AN	U 31	807641-015	SVF4533AN	
2	1	807641-035	SVF4533AN	U 32	807641-015	SVF4533AN	
3	1	807641-035	SVF4533AN	U 33	807641-015	SVF4533AN	
4	1	807641-035	SVF4533AN	U 34	807641-015	SVF4533AN	
5	1	807641-035	SVF4533AN	U 35	807641-015	SVF4533AN	
6	1	807641-035	SVF4533AN	U 36	807641-015	SVF4533AN	
7	1	807641-035	SVF4533AN	U 37	807641-015	SVF4533AN	
8	1	807641-035	SVF4533AN	U 38	807641-015	SVF4533AN	
9	1	807641-035	SVF4533AN	U 39	807641-015	SVF4533AN	
10	1	807641-035	SVF4533AN	U 40	807641-015	SVF4533AN	
11	1	807641-035	SVF4533AN	U 41	807641-015	SVF4533AN	
12	1	807641-035	SVF4533AN	U 42	807641-015	SVF4533AN	
13	1	807641-035	SVF4533AN	U 43	807641-015	SVF4533AN	
14	1	807641-035	SVF4533AN	U 44	807641-015	SVF4533AN	
15	1	807641-035	SVF4533AN	U 45	807641-015	SVF4533AN	
16	1	807641-035	SVF4533AN	U 46	807641-015	SVF4533AN	
17	1	807641-035	SVF4533AN	U 47	807641-015	SVF4533AN	
18	1	807641-035	SVF4533AN	U 48	807641-015	SVF4533AN	
19	1	807641-035	SVF4533AN	U 49	807641-015	SVF4533AN	
20	1	807641-035	SVF4533AN	U 50	807641-015	SVF4533AN	
21	1	807641-035	SVF4533AN	U 51	807641-015	SVF4533AN	
22	1	807641-035	SVF4533AN	U 52	807641-015	SVF4533AN	
23	1	807641-035	SVF4533AN	U 53	807641-015	SVF4533AN	
24	1	807641-035	SVF4533AN	U 54	807641-015	SVF4533AN	
25	1	807641-035	SVF4533AN	U 55	807641-015	SVF4533AN	
26	1	807641-035	SVF4533AN	U 56	807641-015	SVF4533AN	
27	1	807641-035	SVF4533AN	U 57	807641-015	SVF4533AN	
28	1	807641-035	SVF4533AN	U 58	807641-015	SVF4533AN	
29	1	807641-035	SVF4533AN	U 59	807641-015	SVF4533AN	
30	1	807641-035	SVF4533AN	U 60	807641-015	SVF4533AN	
31	1	807641-035	SVF4533AN	U 61	807641-015	SVF4533AN	
32	1	807641-035	SVF4533AN	U 62	807641-015	SVF4533AN	
33	1	807641-035	SVF4533AN	U 63	807641-015	SVF4533AN	
34	1	807641-035	SVF4533AN	U 64	807641-015	SVF4533AN	
35	1	807641-035	SVF4533AN	U 65	807641-015	SVF4533AN	
36	1	807641-035	SVF4533AN	U 66	807641-015	SVF4533AN	
37	1	807641-035	SVF4533AN	U 67	807641-015	SVF4533AN	
38	1	807641-035	SVF4533AN	U 68	807641-015	SVF4533AN	
39	1	807641-035	SVF4533AN	U 69	807641-015	SVF4533AN	
40	1	807641-035	SVF4533AN	U 70	807641-015	SVF4533AN	
41	1	807641-035	SVF4533AN	U 71	807641-015	SVF4533AN	
42	1	807641-035	SVF4533AN	U 72	807641-015	SVF4533AN	
43	1	807641-035	SVF4533AN	U 73	807641-015	SVF4533AN	
44	1	807641-035	SVF4533AN	U 74	807641-015	SVF4533AN	
45	1	807641-035	SVF4533AN	U 75	807641-015	SVF4533AN	
46	1	807641-035	SVF4533AN	U 76	807641-015	SVF4533AN	
47	1	807641-035	SVF4533AN	U 77	807641-015	SVF4533AN	
48	1	807641-035	SVF4533AN	U 78	807641-015	SVF4533AN	
49	1	807641-035	SVF4533AN	U 79	807641-015	SVF4533AN	
50	1	807641-035	SVF4533AN	U 80	807641-015	SVF4533AN	
51	1	807641-035	SVF4533AN	U 81	807641-015	SVF4533AN	
52	1	807641-035	SVF4533AN	U 82	807641-015	SVF4533AN	
53	1	807641-035	SVF4533AN	U 83	807641-015	SVF4533AN	
54	1	807641-035	SVF4533AN	U 84	807641-015	SVF4533AN	
55	1	807641-035	SVF4533AN	U 85	807641-015	SVF4533AN	
56	1	807641-035	SVF4533AN	U 86	807641-015	SVF4533AN	
57	1	807641-035	SVF4533AN	U 87	807641-015	SVF4533AN	
58	1	807641-035	SVF4533AN	U 88	807641-015	SVF4533AN	
59	1	807641-035	SVF4533AN	U 89	807641-015	SVF4533AN	
60	1	807641-035	SVF4533AN	U 90	807641-015	SVF4533AN	
61	1	807641-035	SVF4533AN	U 91	807641-015	SVF4533AN	
62	1	807641-035	SVF4533AN	U 92	807641-015	SVF4533AN	
63	1	807641-035	SVF4533AN	U 93	807641-015	SVF4533AN	
64	1	807641-035	SVF4533AN	U 94	807641-015	SVF4533AN	
65	1	807641-035	SVF4533AN	U 95	807641-015	SVF4533AN	
66	1	807641-035	SVF4533AN	U 96	807641-015	SVF4533AN	
67	1	807641-035	SVF4533AN	U 97	807641-015	SVF4533AN	
68	1	807641-035	SVF4533AN	U 98	807641-015	SVF4533AN	
69	1	807641-035	SVF4533AN	U 99	807641-015	SVF4533AN	
70	1	807641-035	SVF4533AN	U 100	807641-015	SVF4533AN	

ZONE	LTN	DESCRIPTION	DATE	APPROVED
1	AI	ADDED C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98, C99, C100	10/14/77	W. J. ...



CONTRACT NO.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON	APPROVED
URAVIL 65-005-001-01	FRAMES ± .005 HOLE ± .005 ANGLES ±	[Signature]
CHECKED BY: [Signature]	MATERIAL: [Blank]	DATE: 10/14/77
DESIGNED BY: [Signature]	FINISH: [Blank]	SCALE: NONE
ENGINEER: [Signature]	APPLICATION: [Blank]	SHEET 1 OF 2
APPROVED: [Signature]		
SIZE: C 53938	REV: AC	
INPUT CONTROL CABLE W/W		
SEE SEPARATE PARTS LIST		
EVANS & SUTHERLAND COMPUTER CORPORATION SALT LAKE CITY, UTAH 84112		

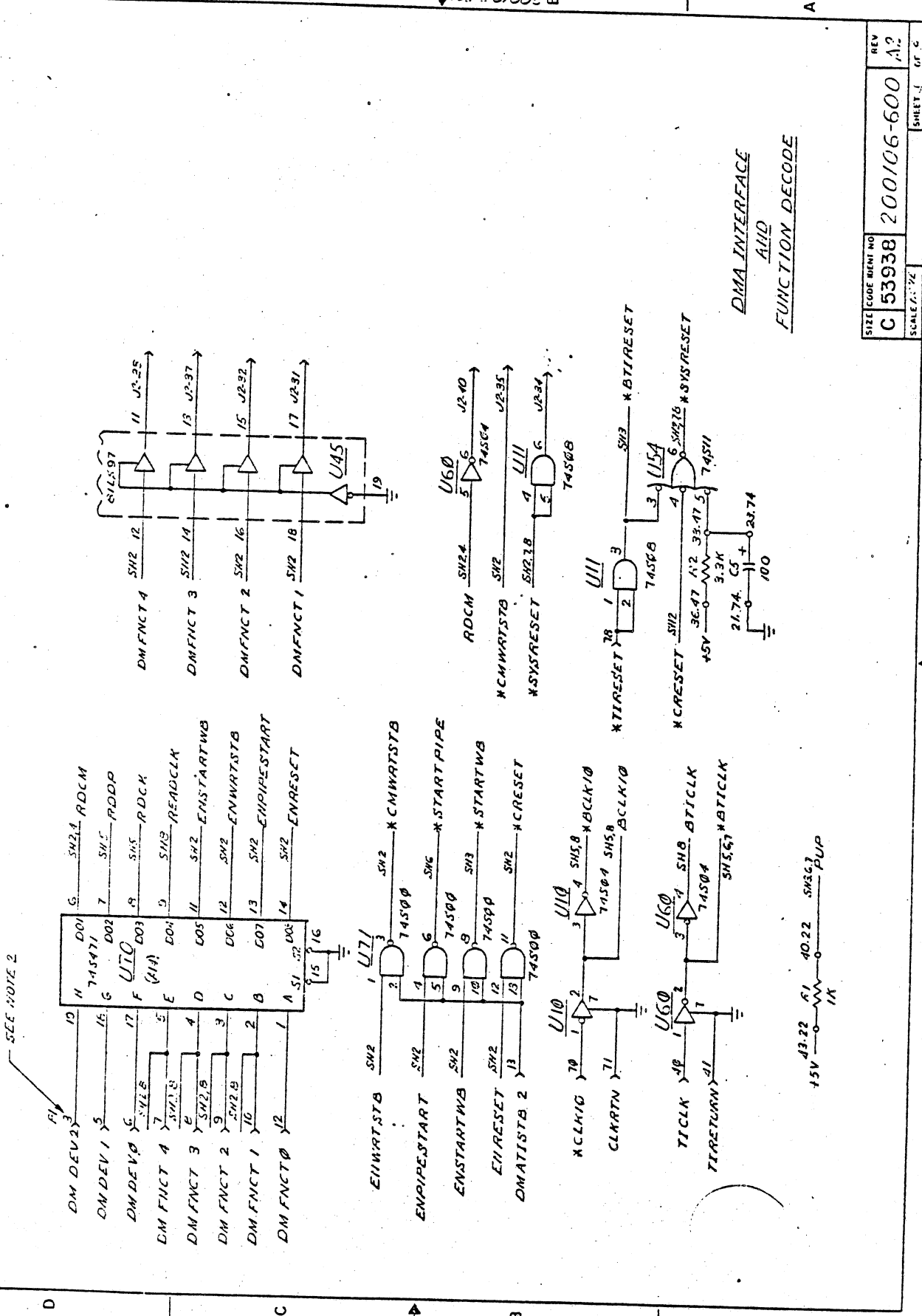
3. ON I.C. AM2311 LOCATION U51, PIN 6 IS GROUND
PIN 2 IS POWER (+5V).

2. NUMBERS SHOWN REFER TO CONNECTOR P1.
ALL CAPACITANCE VALUES ARE EXPRESSED IN MICROFARADS.
RESISTANCE VALUES ARE EXPRESSED IN OHMS.
K DENOTES 1000.
RESISTORS ARE 1/4 WATT, ±5% TOLERANCE.
ON ALL 20 PIN I.C.'S, PIN 10 IS GROUND AND PIN 20 IS POWER (+5V).
ON ALL 16 PIN I.C.'S, PIN 8 IS GROUND AND PIN 16 IS POWER (+5V).
ON ALL 14 PIN I.C.'S, PIN 7 IS GROUND AND PIN 14 IS POWER (+5V).

1. UNLESS OTHERWISE SPECIFIED:

NOTES:

ZONE	LTR	REVISIONS	DATE	APPROVED

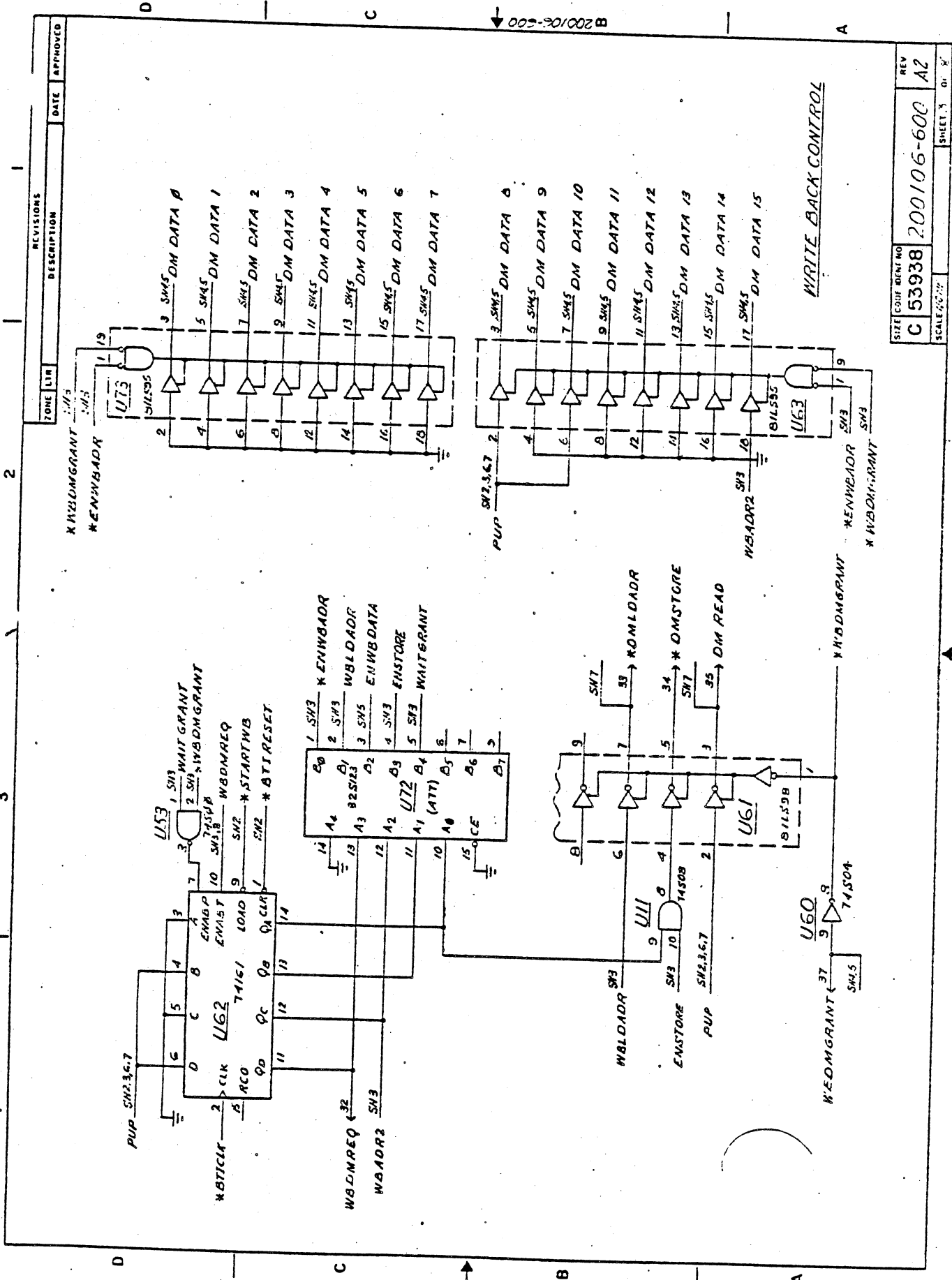


SEE NOTE 2

DM DEV 3	10	DO1	6	SW2A	RDCM
DM DEV 1	5	DO2	7	SW2	RDDP
DM DEV 0	5	DO3	9	SW2	RDCK
DM FNCT 4	7	DO4	9	SW2	READCLK
DM FNCT 3	8	DO5	11	SW2	ENSTARTWB
DM FNCT 2	9	DO6	12	SW2	ENHRTSTB
DM FNCT 1	10	DO7	13	SW2	ENPIPESTART
DM FNCT 0	12	DO8	14	SW2	ENHRESET

DMA INTERFACE
AND
FUNCTION DECODE

SIZE	CODE	MENT	NO	REV
C	53938	200106-600	A2	
SCALE	1:24	SHEET	J	OF
			6	



ZONE	LINE	REVISIONS	DESCRIPTION	DATE	APPROVED

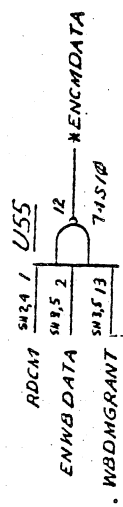
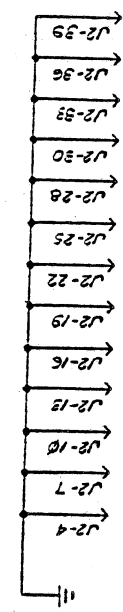
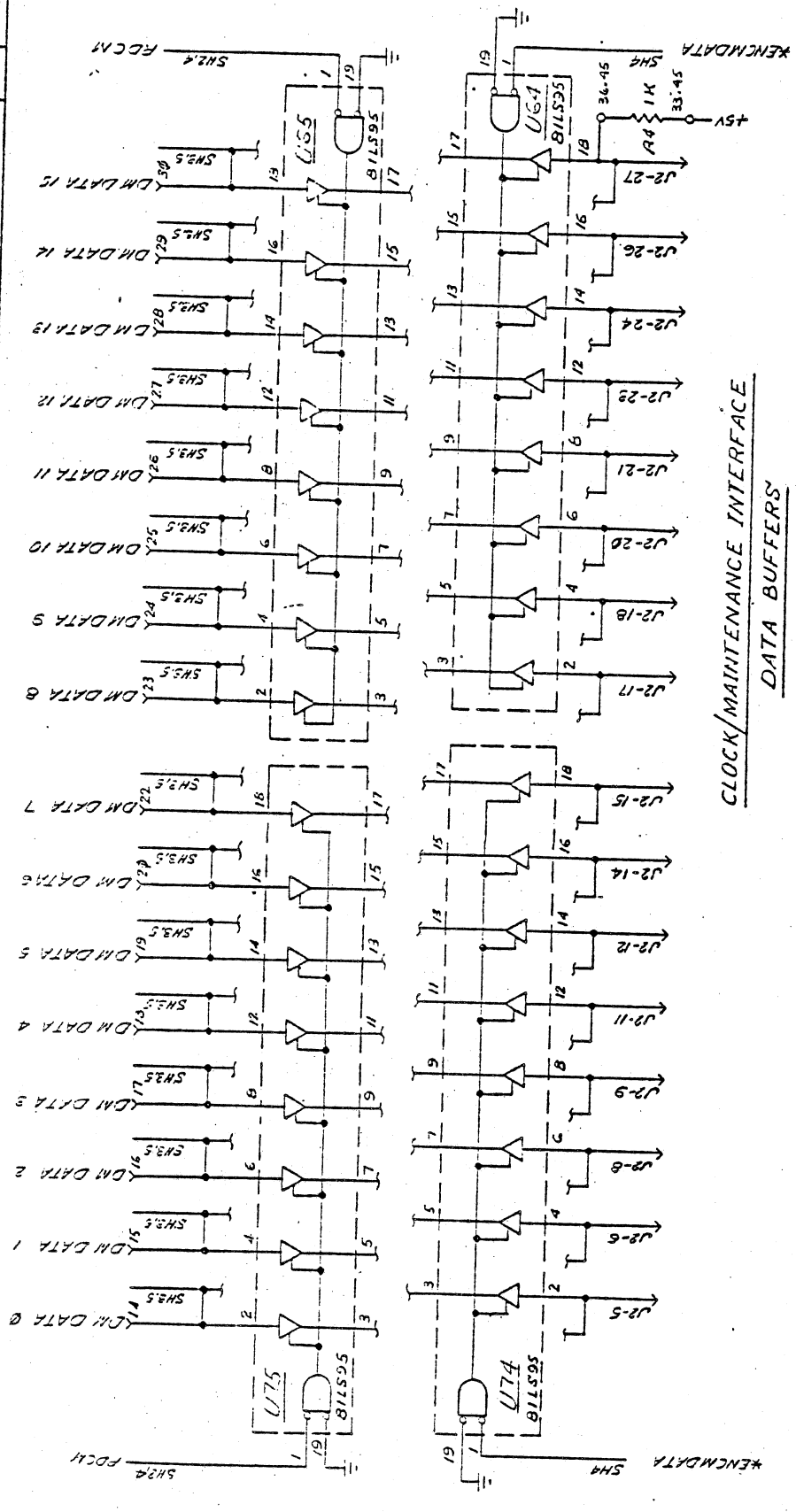
SIZE: 53938
 REV: A2
 SCALE: 1:1
 SHEET: 3 OF 3

200106-600

WRITE BACK CONTROL

ZONE	LTR	DESCRIPTION	DATE	APPROVED

SIZE	CODE	QNTY	NO	REV
C	53938	200106-600	12	
SCALE				1/16" = 1"
SHEET				1 OF 6



CLOCK/MAINTENANCE INTERFACE
DATA BUFFERS

200106-600

4 3 2 1

D

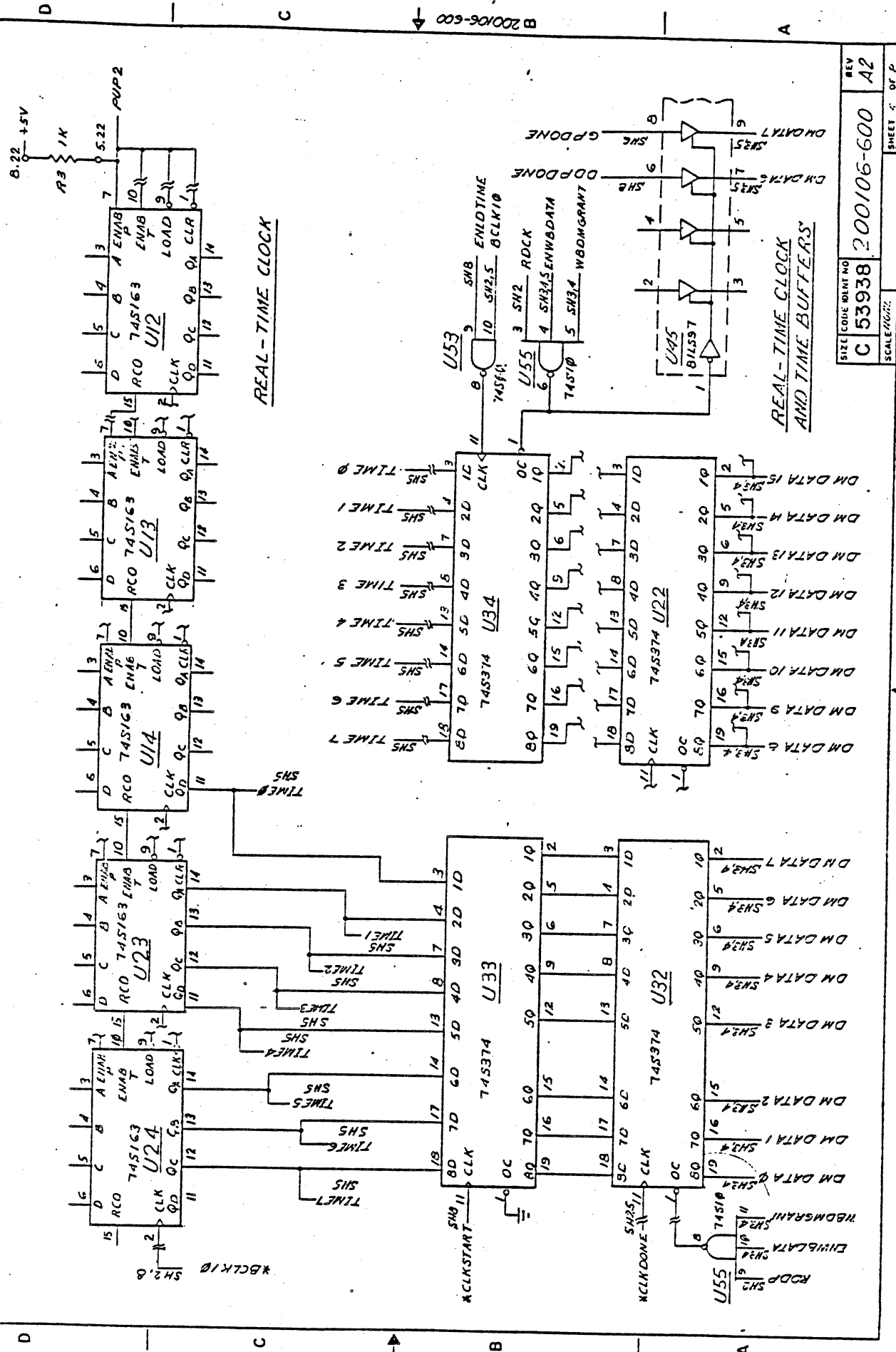
C

B

A

A

ZONE LTR	REVISIONS	DESCRIPTION	DATE	APPROVED
1				
2				
3				
4				



ZONE LTR	REVISIONS	DESCRIPTION	DATE	APPROVED
1				
2				
3				
4				

SCALE: 1/16" = 1"

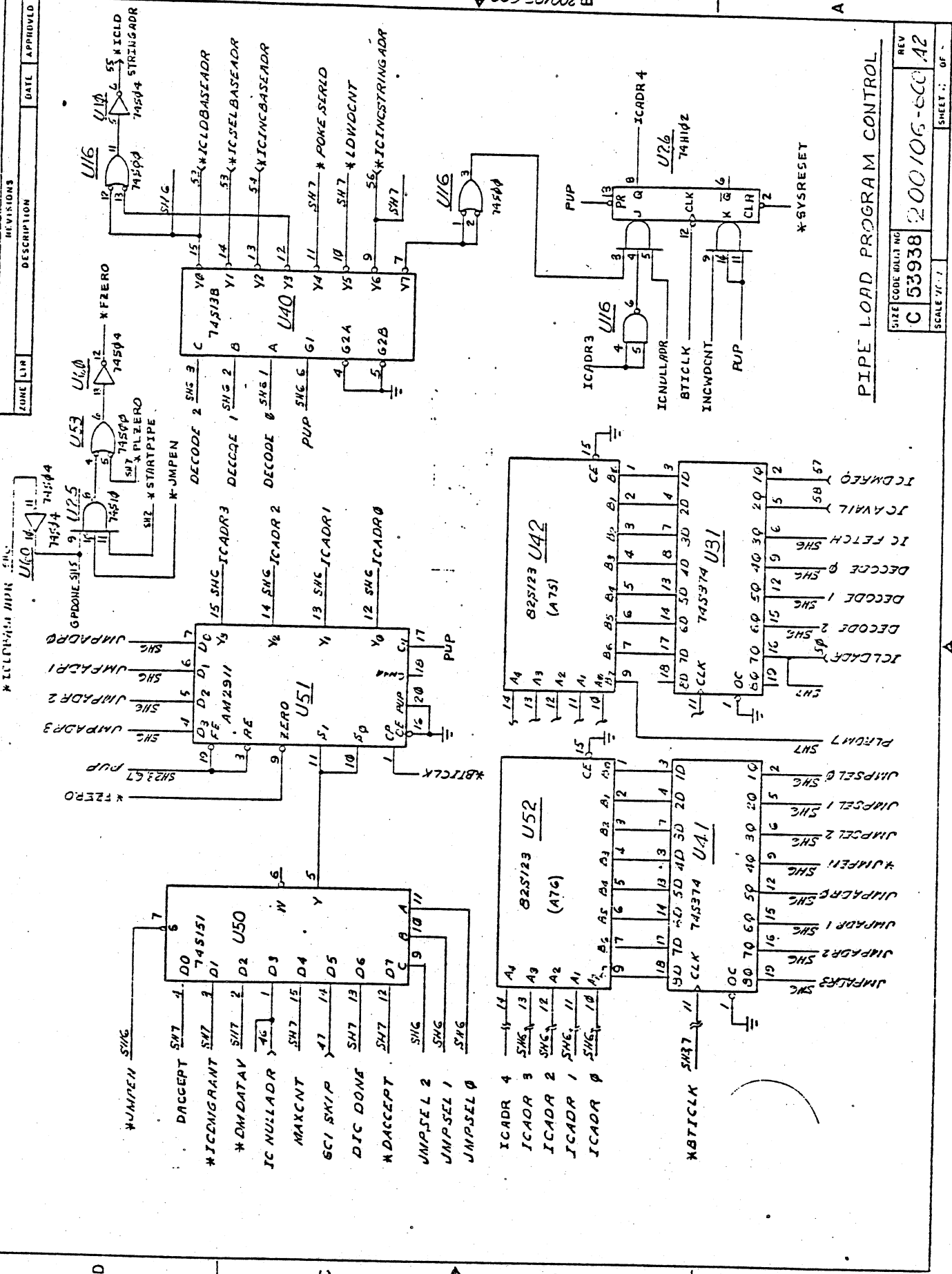
SHEET 4 OF 4

REV A2

200106-600

SIZE CODE 01NT NO C 53938

B 200106-600



REVISIONS	DESCRIPTION	DATE	APPROVAL

ZONE	LINE	DATE	APPROVAL

PIPE LOAD PROGRAM CONTROL

SIZE CODE MULTI NG
 C 53938 200106-600 A2

SCALE 1/1

SHEET 1 OF 1

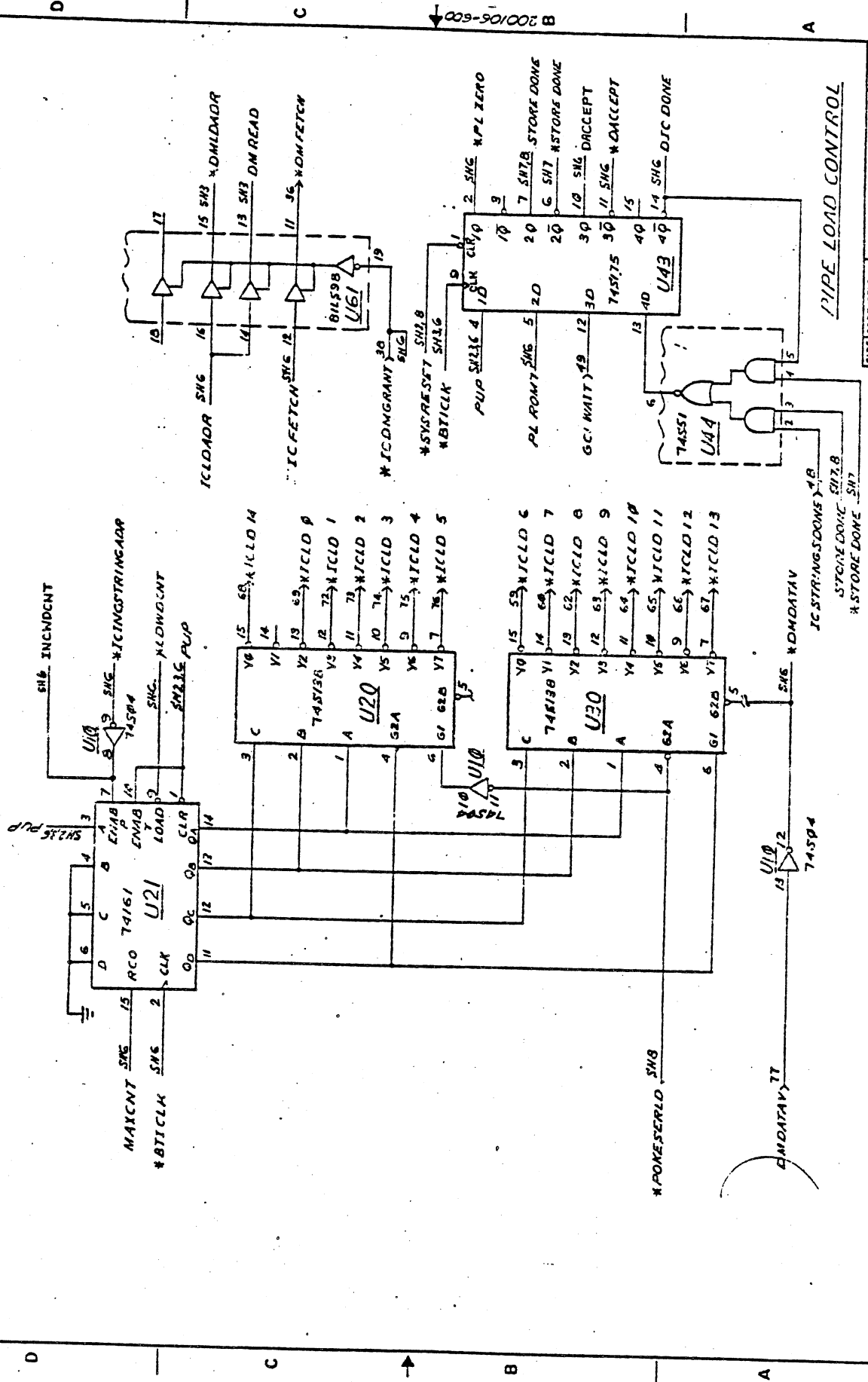
200106-600 B

4 3 2 1

D C B A

ZONE	LIB	REVISIONS	DATE	APPROVED
		DESCRIPTION		

4 3 2 1



PIPE LOAD CONTROL

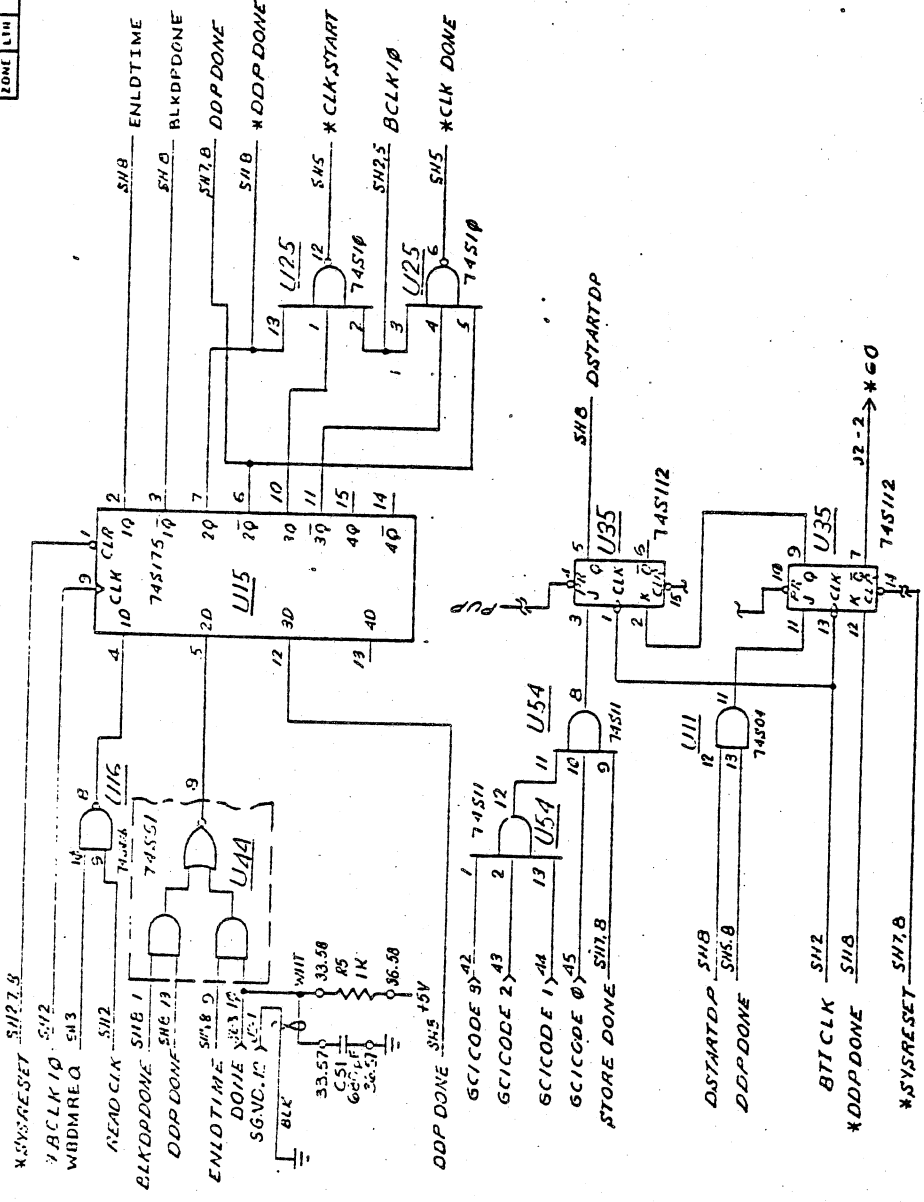
SIZE	CODE	IDENT	NO	REV
C	53938	200106-600	A2	
SCALE			SHEET 7 OF 8	

ZONE	LNH	REVISIONS	DESCRIPTION	DATE	APPROVED

200106-600

DP FRAME TIMING CONTROL

SIZE	LONG	WIDE	NO	REV
C	53938	200106-600	A2	
SCALE: 5/16				SHEET 8 OF 8



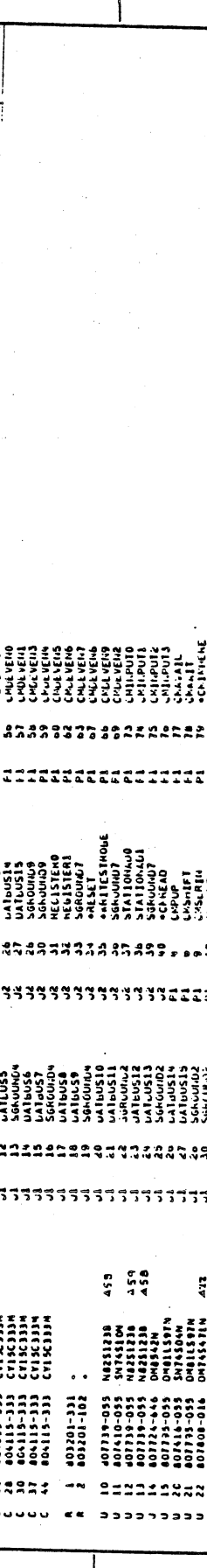
DP FRAME TIMING
CONTROL

200106-600

SIZE	LONG	WIDE	NO	REV
C	53938	200106-600	A2	
SCALE: 5/16				SHEET 8 OF 8

ZONE	LTR	DESCRIPTION	DATE	APPROVED
-	A1	ADDED SW2, CHANGED UZZ TAPERS TO 7AS471 & EXTENSIVE WIRE CHANGES.	9-15-77	<i>[Signature]</i>
	A	REVERSE WIRE NAMES CMA1VADDB & CMA1VADDI	3/17/78	<i>[Signature]</i>

REF	DESIG	PART NO	VENDOR PART NUMBER	PIN #	WIRE NAME	PIN #	WIRE NAME	PIN #	WIRE NAME	REVISIONS
U	11	804330-055	PERZ120	J2	UATBUS7	P1	UATBUS7	P1	UATBUS7	
U	12	804330-055	PERZ120	J2	UATBUS8	P1	UATBUS8	P1	UATBUS8	
U	13	804330-055	PERZ120	J2	UATBUS9	P1	UATBUS9	P1	UATBUS9	
U	14	804330-055	PERZ120	J2	UATBUS10	P1	UATBUS10	P1	UATBUS10	
U	15	804330-055	PERZ120	J2	UATBUS11	P1	UATBUS11	P1	UATBUS11	
U	16	804330-055	PERZ120	J2	UATBUS12	P1	UATBUS12	P1	UATBUS12	
U	17	804330-055	PERZ120	J2	UATBUS13	P1	UATBUS13	P1	UATBUS13	
U	18	804330-055	PERZ120	J2	UATBUS14	P1	UATBUS14	P1	UATBUS14	
U	19	804330-055	PERZ120	J2	UATBUS15	P1	UATBUS15	P1	UATBUS15	
U	20	804330-055	PERZ120	J2	UATBUS16	P1	UATBUS16	P1	UATBUS16	
U	21	804330-055	PERZ120	J2	UATBUS17	P1	UATBUS17	P1	UATBUS17	
U	22	804330-055	PERZ120	J2	UATBUS18	P1	UATBUS18	P1	UATBUS18	
U	23	804330-055	PERZ120	J2	UATBUS19	P1	UATBUS19	P1	UATBUS19	
U	24	804330-055	PERZ120	J2	UATBUS20	P1	UATBUS20	P1	UATBUS20	
U	25	804330-055	PERZ120	J2	UATBUS21	P1	UATBUS21	P1	UATBUS21	
U	26	804330-055	PERZ120	J2	UATBUS22	P1	UATBUS22	P1	UATBUS22	
U	27	804330-055	PERZ120	J2	UATBUS23	P1	UATBUS23	P1	UATBUS23	
U	28	804330-055	PERZ120	J2	UATBUS24	P1	UATBUS24	P1	UATBUS24	
U	29	804330-055	PERZ120	J2	UATBUS25	P1	UATBUS25	P1	UATBUS25	
U	30	804330-055	PERZ120	J2	UATBUS26	P1	UATBUS26	P1	UATBUS26	
U	31	804330-055	PERZ120	J2	UATBUS27	P1	UATBUS27	P1	UATBUS27	
U	32	804330-055	PERZ120	J2	UATBUS28	P1	UATBUS28	P1	UATBUS28	
U	33	804330-055	PERZ120	J2	UATBUS29	P1	UATBUS29	P1	UATBUS29	
U	34	804330-055	PERZ120	J2	UATBUS30	P1	UATBUS30	P1	UATBUS30	
U	35	804330-055	PERZ120	J2	UATBUS31	P1	UATBUS31	P1	UATBUS31	
U	36	804330-055	PERZ120	J2	UATBUS32	P1	UATBUS32	P1	UATBUS32	
U	37	804330-055	PERZ120	J2	UATBUS33	P1	UATBUS33	P1	UATBUS33	
U	38	804330-055	PERZ120	J2	UATBUS34	P1	UATBUS34	P1	UATBUS34	
U	39	804330-055	PERZ120	J2	UATBUS35	P1	UATBUS35	P1	UATBUS35	
U	40	804330-055	PERZ120	J2	UATBUS36	P1	UATBUS36	P1	UATBUS36	
U	41	804330-055	PERZ120	J2	UATBUS37	P1	UATBUS37	P1	UATBUS37	
U	42	804330-055	PERZ120	J2	UATBUS38	P1	UATBUS38	P1	UATBUS38	
U	43	804330-055	PERZ120	J2	UATBUS39	P1	UATBUS39	P1	UATBUS39	
U	44	804330-055	PERZ120	J2	UATBUS40	P1	UATBUS40	P1	UATBUS40	
U	45	804330-055	PERZ120	J2	UATBUS41	P1	UATBUS41	P1	UATBUS41	
U	46	804330-055	PERZ120	J2	UATBUS42	P1	UATBUS42	P1	UATBUS42	
U	47	804330-055	PERZ120	J2	UATBUS43	P1	UATBUS43	P1	UATBUS43	
U	48	804330-055	PERZ120	J2	UATBUS44	P1	UATBUS44	P1	UATBUS44	
U	49	804330-055	PERZ120	J2	UATBUS45	P1	UATBUS45	P1	UATBUS45	
U	50	804330-055	PERZ120	J2	UATBUS46	P1	UATBUS46	P1	UATBUS46	
U	51	804330-055	PERZ120	J2	UATBUS47	P1	UATBUS47	P1	UATBUS47	
U	52	804330-055	PERZ120	J2	UATBUS48	P1	UATBUS48	P1	UATBUS48	
U	53	804330-055	PERZ120	J2	UATBUS49	P1	UATBUS49	P1	UATBUS49	
U	54	804330-055	PERZ120	J2	UATBUS50	P1	UATBUS50	P1	UATBUS50	
U	55	804330-055	PERZ120	J2	UATBUS51	P1	UATBUS51	P1	UATBUS51	
U	56	804330-055	PERZ120	J2	UATBUS52	P1	UATBUS52	P1	UATBUS52	
U	57	804330-055	PERZ120	J2	UATBUS53	P1	UATBUS53	P1	UATBUS53	
U	58	804330-055	PERZ120	J2	UATBUS54	P1	UATBUS54	P1	UATBUS54	
U	59	804330-055	PERZ120	J2	UATBUS55	P1	UATBUS55	P1	UATBUS55	
U	60	804330-055	PERZ120	J2	UATBUS56	P1	UATBUS56	P1	UATBUS56	
U	61	804330-055	PERZ120	J2	UATBUS57	P1	UATBUS57	P1	UATBUS57	
U	62	804330-055	PERZ120	J2	UATBUS58	P1	UATBUS58	P1	UATBUS58	
U	63	804330-055	PERZ120	J2	UATBUS59	P1	UATBUS59	P1	UATBUS59	
U	64	804330-055	PERZ120	J2	UATBUS60	P1	UATBUS60	P1	UATBUS60	



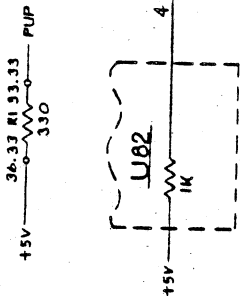
NOTICE - All information contained herein together with all drawings, diagrams and specifications herein or attendant here-to are, and remain, the property of Evans & Sutherland Computer Corporation. Many of the intellectual and technical concepts described herein are proprietary to Evans & Sutherland and may be covered by U.S. and Foreign Patents or Patents Pending or are protected as trade secrets. Any dissemination of this information or reproduction of this material for commercial or other purposes other than the express purpose for which it has been made available is strictly forbidden unless prior written permission is obtained from Evans & Sutherland Computer Corporation.

CONTRACT NO.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	SCALE
EVANS & SUTHERLAND COMPUTER CORPORATION SALT LAKE CITY, UTAH 84118	TOLERANCES ON: .XX ± .XXX ± ANGLES ± MATERIAL FINISH	SEE SEPARATE PARTS LIST
200130-100 NOVOVIEW	NEXT ASSY USED ON APPLICATION	DRAWN R MELLUS 6-30-77 CHECKED R MELLUS 6-15-77 MEEN ELEC PROJ. ENG. T. M. Long 1-15-77 APPROVED <i>[Signature]</i> 9/15/77
C 53938	CLOCK / MAINTENANCE, CABLE (w/w)	REV A3
C 53938	200107-600	SHEET 1 OF 10

- U73 PIN 7 IS GND
- PIN 1 IS POWER (+5V).
- NUMBERS SHOWN REFER TO CONNECTOR P1.
- ALL CAPACITANCE VALUES ARE EXPRESSED IN MICROFARADS.
- RESISTANCE VALUES ARE EXPRESSED IN OHMS.
- K DENOTES 1000.
- RESISTORS ARE 1/4 WATT, ± 5% TOLERANCE.
- ON ALL 20 PIN I.C.'S, PIN 10 IS GROUND AND PIN 20 IS POWER (+5V).
- ON ALL 16 PIN I.C.'S, PIN 8 IS GROUND AND PIN 16 IS POWER (+5V).
- ON ALL 14 PIN I.C.'S, PIN 7 IS GROUND AND PIN 14 IS POWER (+5V).

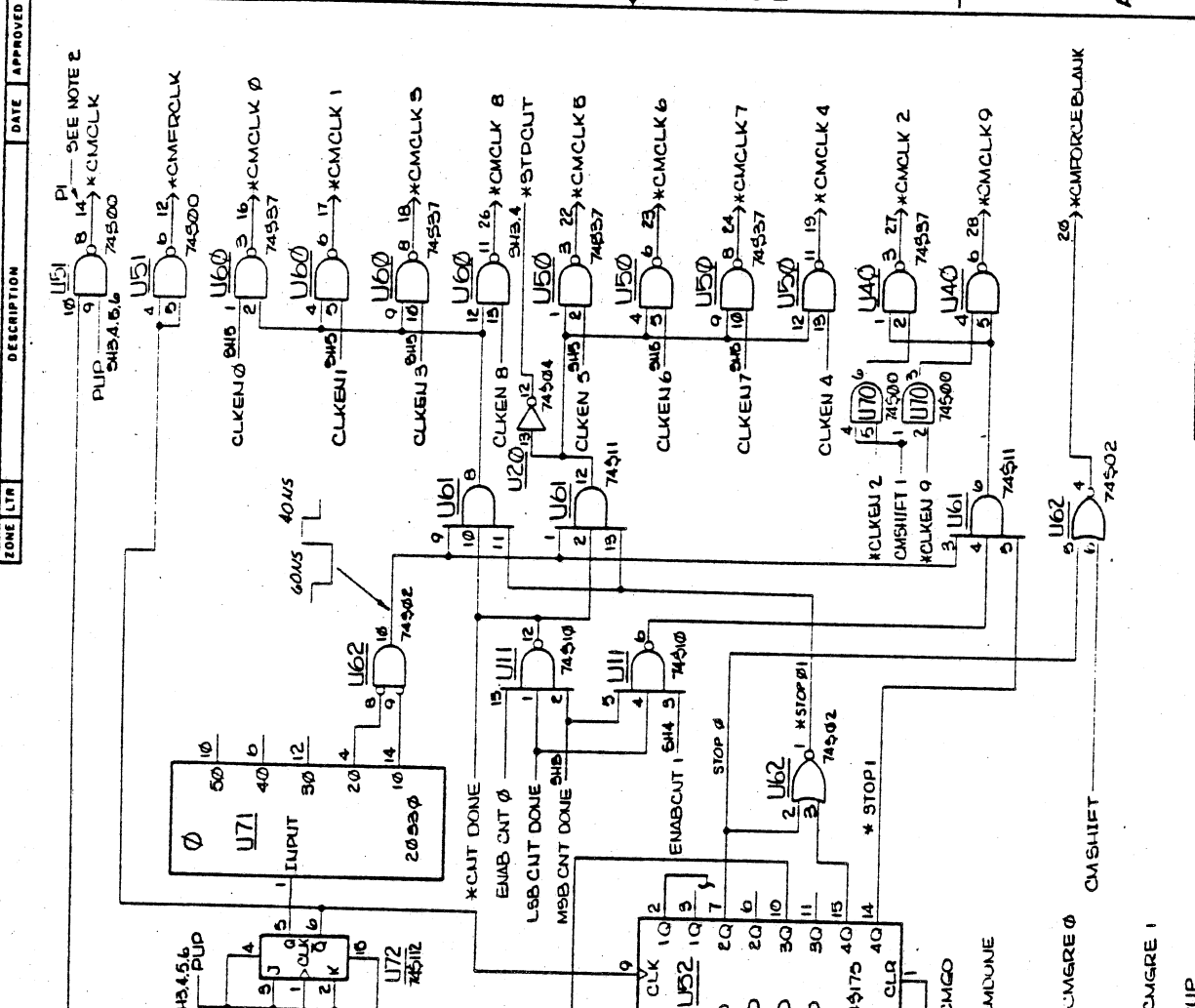
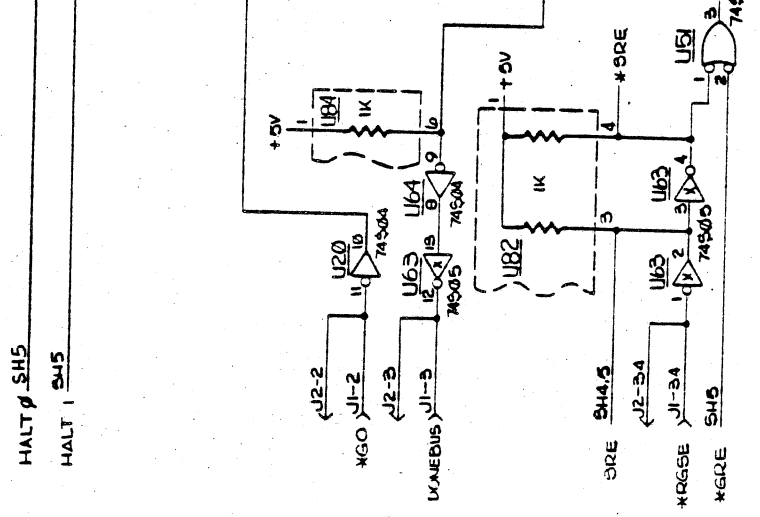
NOTES:

20MHz CLOCK DIVIDER & PHASE



SEE NOTE 3

CLOCK SYNCHRONIZER

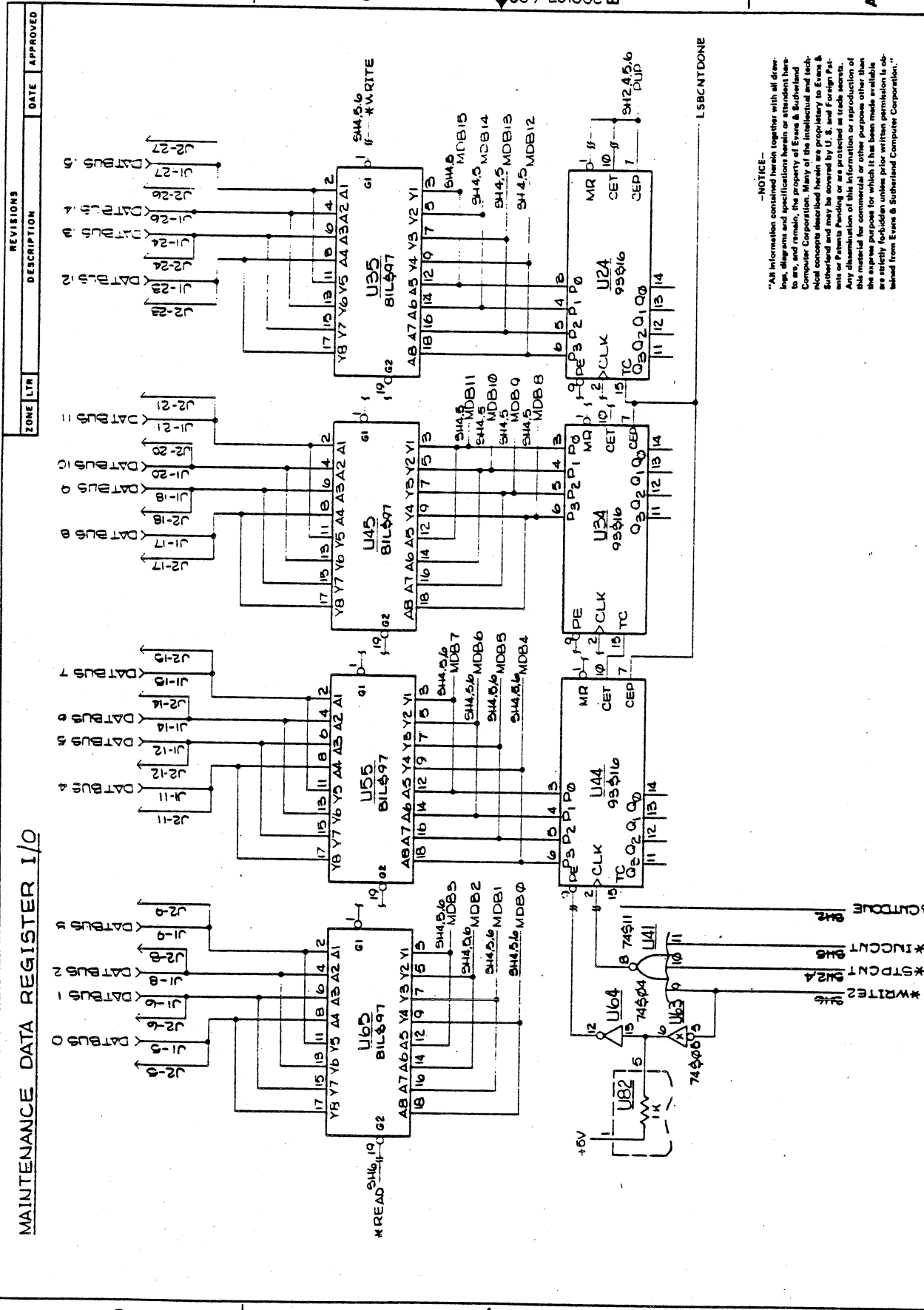


ZONE LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

SIZE CODE	REV
C 53938	200107-600
SCALE	SHEET 2 OF 6

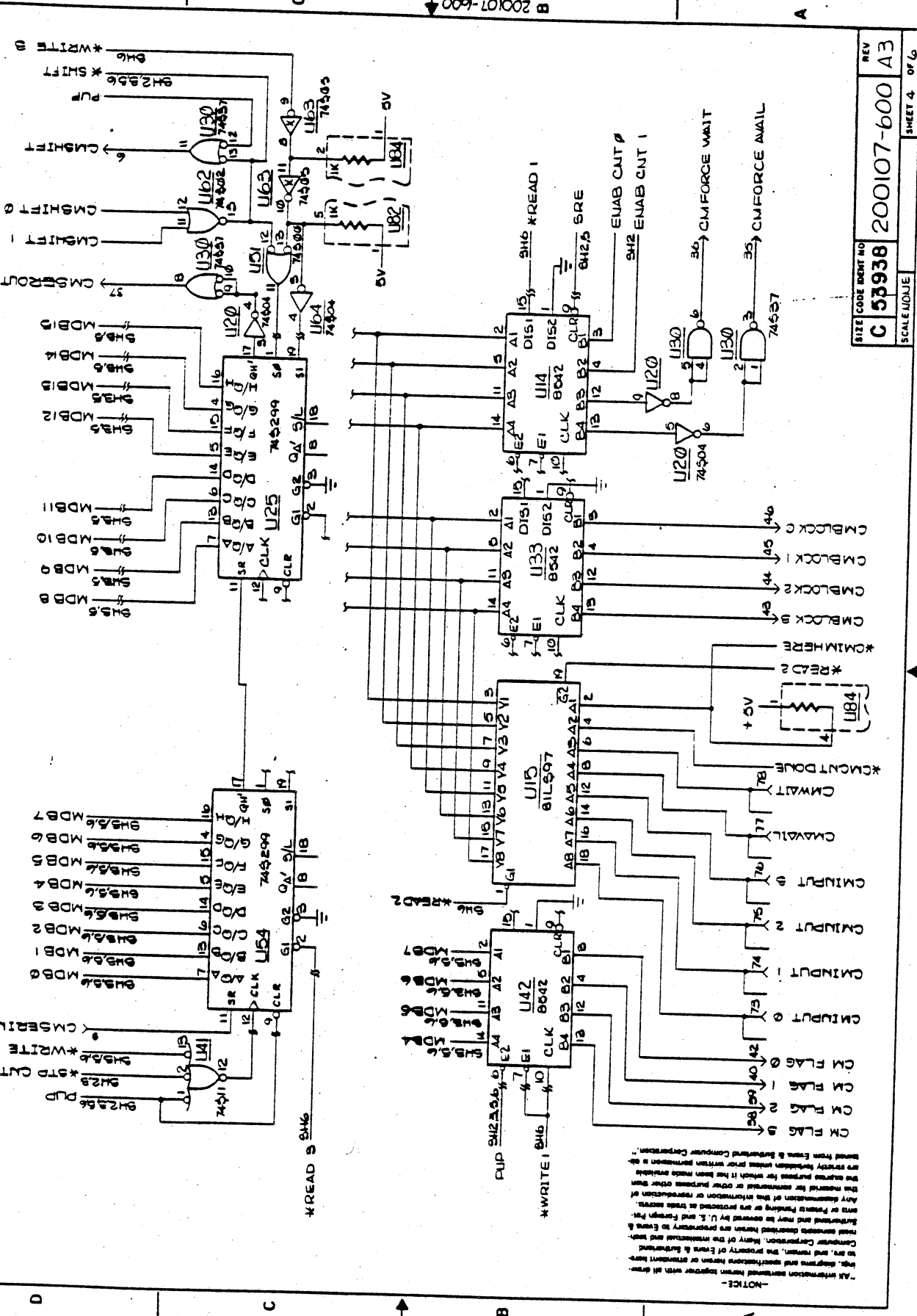
MAINTENANCE DATA REGISTER I/O

ZONE	LTR	DESCRIPTION	DATE	APPROVED
1				
2				
3				
4				



NOTICE—
 All information contained herein together with all drawings, alterations, specifications or attachments hereto, are the property of Evans & Sutherland Computer Corporation. Many of the intellectual and technical concepts described herein are proprietary to Evans & Sutherland Computer Corporation and may be covered by U.S. and Foreign Patents or Patents Pending or are protected as trade secrets. Any dissemination of this information or reproduction of this material for commercial or other purposes other than the express purpose for which it has been made available is strictly forbidden unless prior written permission is obtained from Evans & Sutherland Computer Corporation.

ZONE LTR		REVISIONS		DATE	APPROVED



SIZE	CODE	REV	SHEET 4 OF 6
C	53938	A3	
SCALE		200107-600	

NOTICE - All information contained herein together with all drawings, diagrams and specifications herein or hereafter published, printed or otherwise, is the property of the International Business Machines Corporation, and remains, the property of International Business Machines Corporation. Any or part of the information or reproduction of the information or other purposes other than the normal business purposes for which it has been made available is prohibited, and any further dissemination of the information or reproduction of the information or other purposes other than the normal business purposes is prohibited without the prior written permission of International Business Machines Corporation.

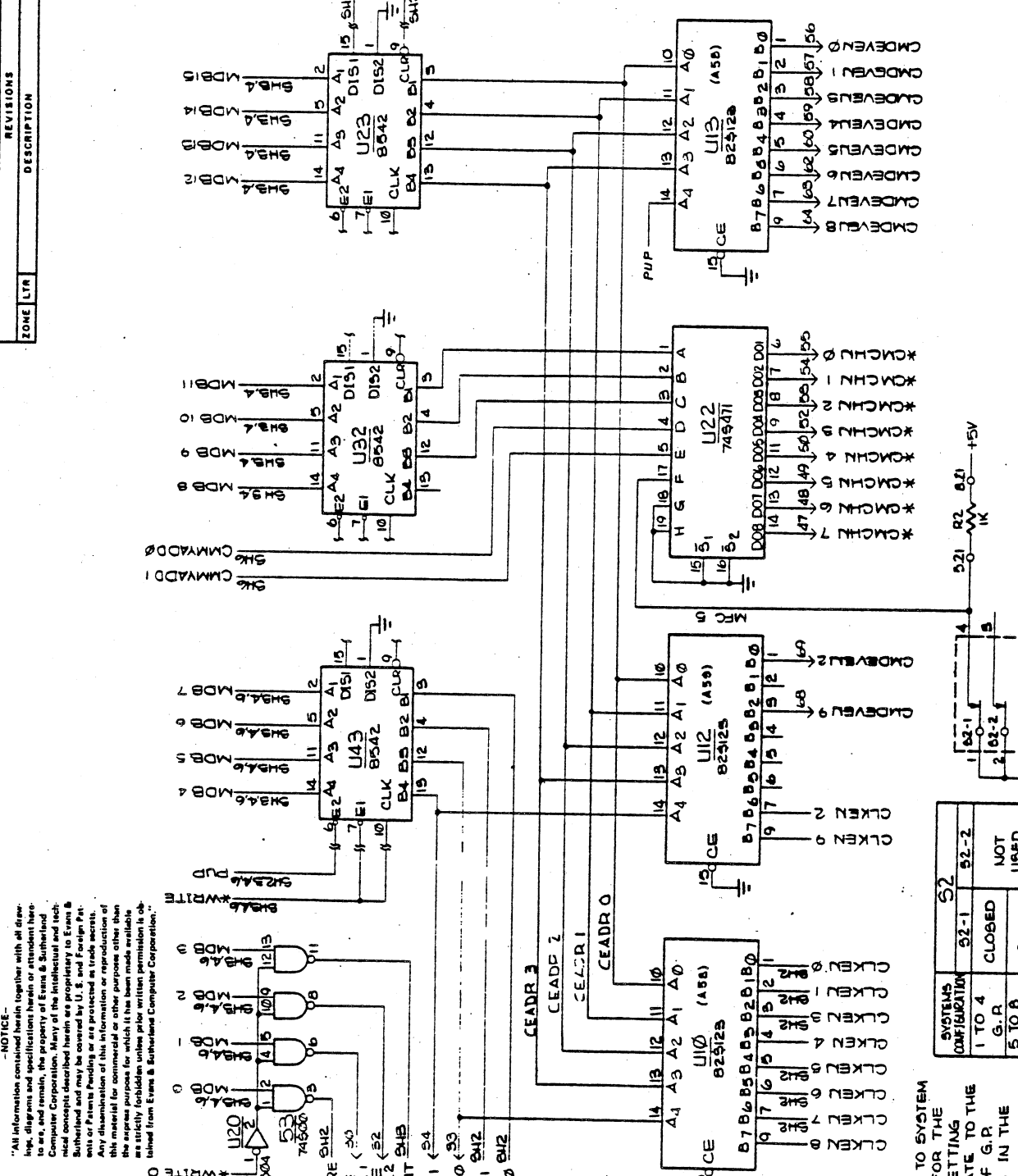
200107-600

ZONE	LTR	DESCRIPTION	DATE	APPROVED

REVISIONS	DESCRIPTION	DATE	APPROVED

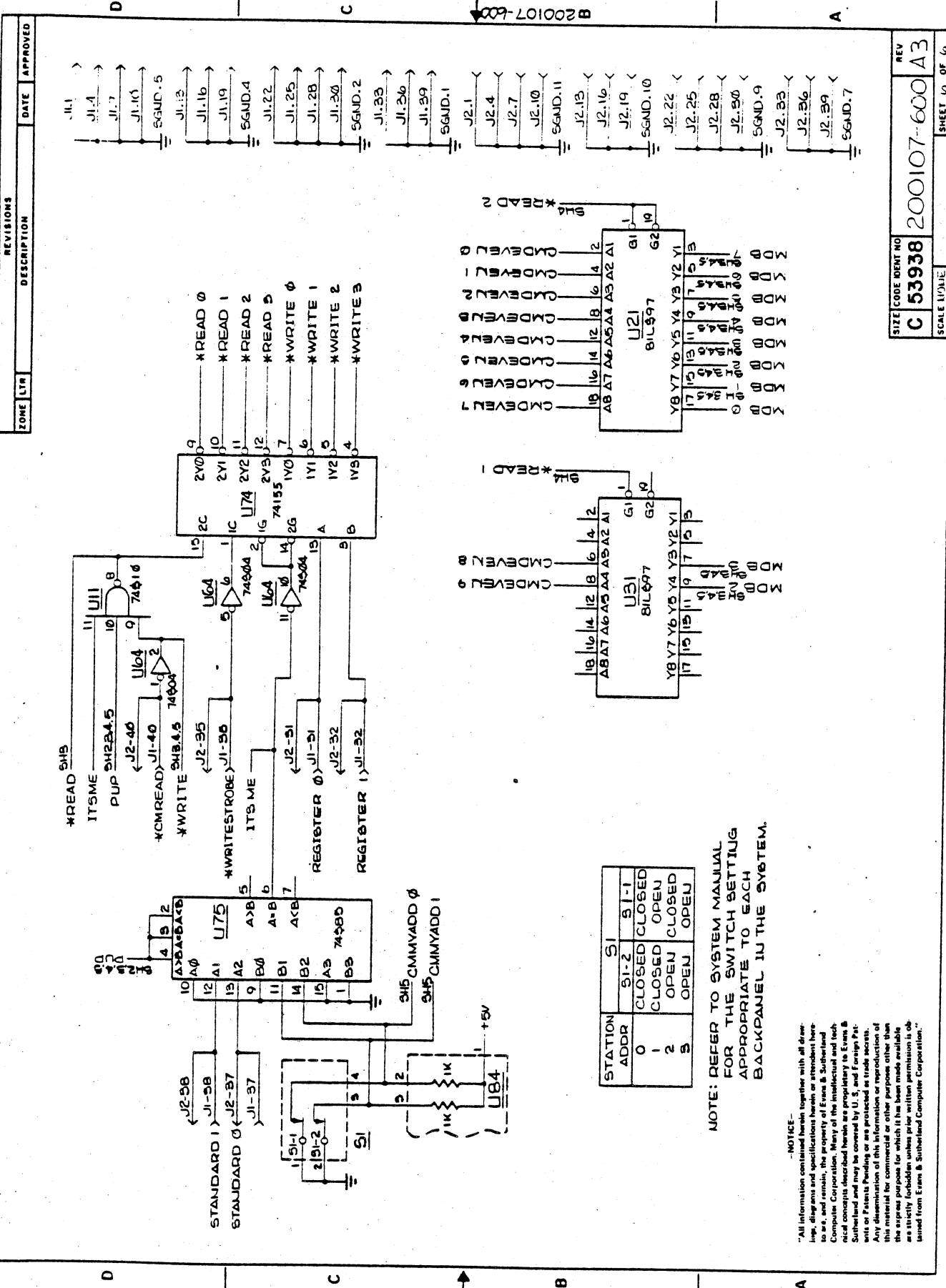
SIZE	CODE	DENT NO	REV
C	53938	200107-600	A3

SCALE 1/16" = 1"



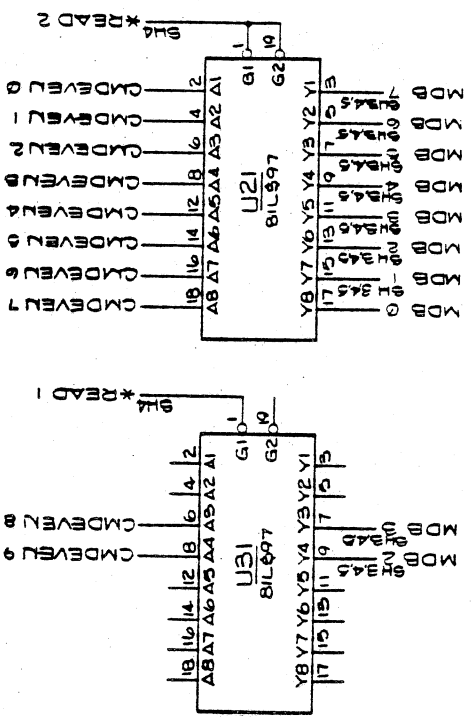
NOTE: REFER TO SYSTEM MANUAL FOR THE SWITCH SETTINGS APPROPRIATE TO THE NUMBER OF G.P. CHANNELS IN THE SYSTEM.

SYSTEMS CONFIGURATION	S2	S2-1	S2-2
1 TO 4	CLOSED	OPEN	NOT USED
5 TO 8	OPEN	NOT USED	NOT USED
G.P.	OPEN	NOT USED	NOT USED



*READ SHS
 ITSME
 PUP
 *CMREAD
 *WRITE
 *WRITESTROBE
 ITSME
 REGISTER 0
 REGISTER 1

*READ 0
 *READ 1
 *READ 2
 *READ 3
 *WRITE 0
 *WRITE 1
 *WRITE 2
 *WRITE 3



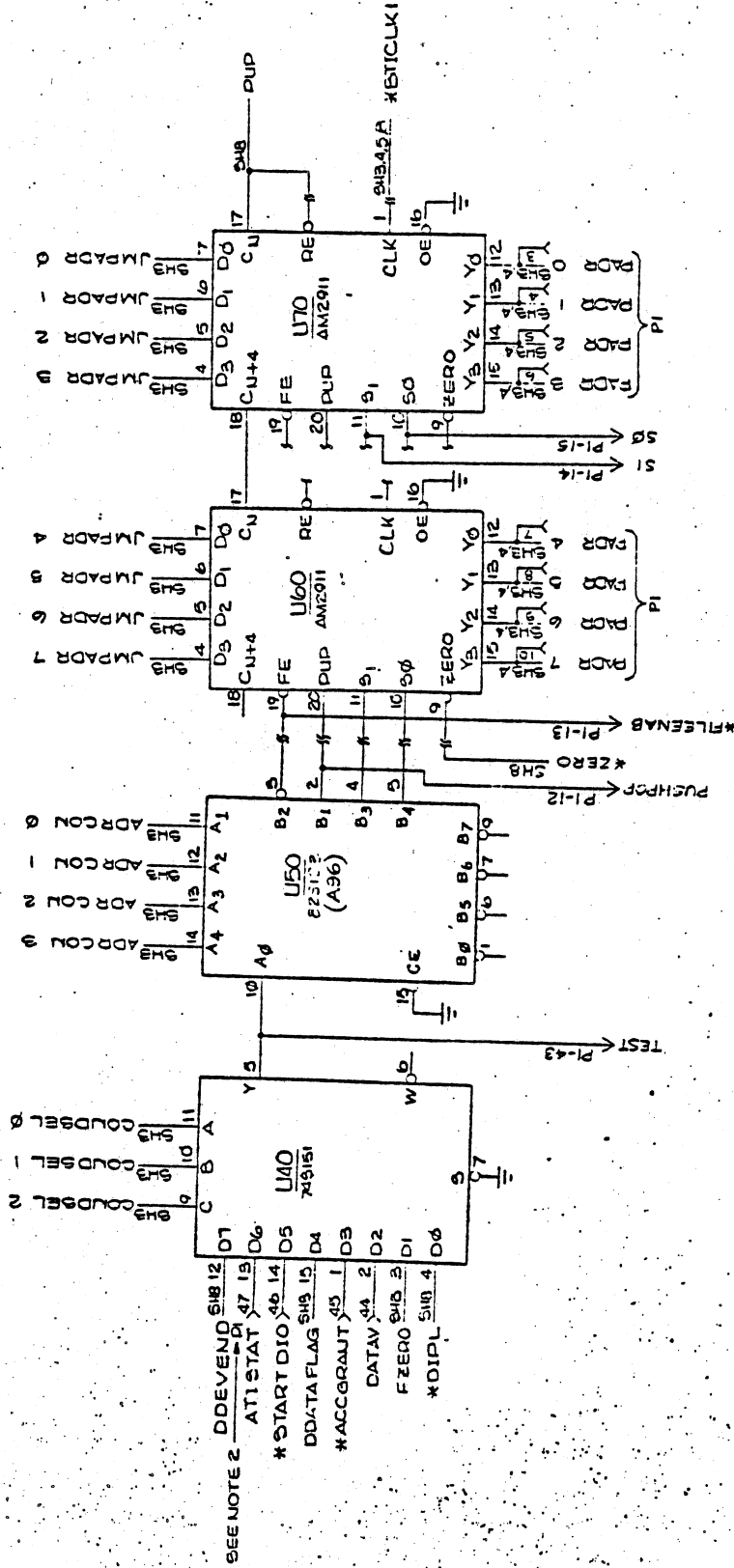
SIZE CODE IDENT NO
C 53938
 SCALE 1/4"=1"

REV
200107-600 A3
 SHEET 6 OF 6

ZONE	LTR	DESCRIPTION	DATE	APPROVED

NOTICE
 All information contained herein together with all drawings, diagrams and specifications herein or attached hereto to be, and remain, the property of Erem & Sutthland Computer Corporation. Many of the intellectual and technical concepts described herein are proprietary to Erem & Sutthland and may be covered by U. S. and Foreign Patents or Patents Pending or are protected as trade secrets. Any dissemination of this information or reproduction of the material for commercial or other purposes, other than the normal course of business, without the written permission of Erem & Sutthland Computer Corporation, is strictly forbidden.

PROGRAM ADDRESS CONTROL



SEE NOTE 2 DDEVEND 518 12
 AT1 STAT 47 15
 #START DIO 46 14
 DDATA FLAG 518 15
 #ACCGRAUT 45 1
 DATAV 44 2
 FZERO 518 3
 #DIPL 518 4

ZONE	REV	DESCRIPTION	APPROVED

SIZE CODE BENT NO
C 53938
 SCALE 1:1
 SHEET 2 OF 2

REV
200108-600
 A

B 200108-600

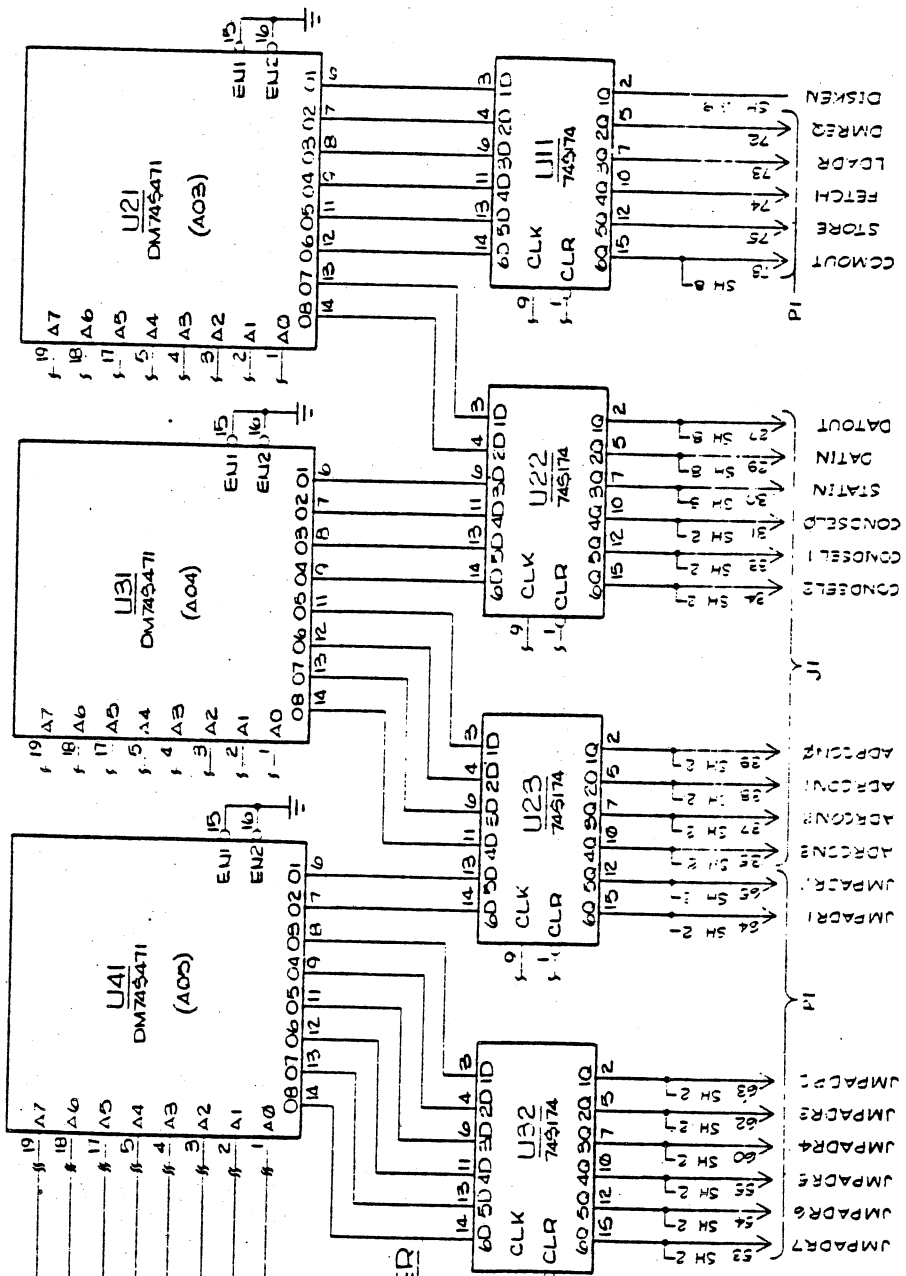
ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

PROM

- PADR 7 SH2.4
- PADR 6 SH2.4
- PADR 5 SH2.4
- PADR 4 SH2.4
- PADR 3 SH2.4
- PADR 2 SH2.4
- PADR 1 SH2.4
- PADR 0 SH2.4

DOIT REGISTER

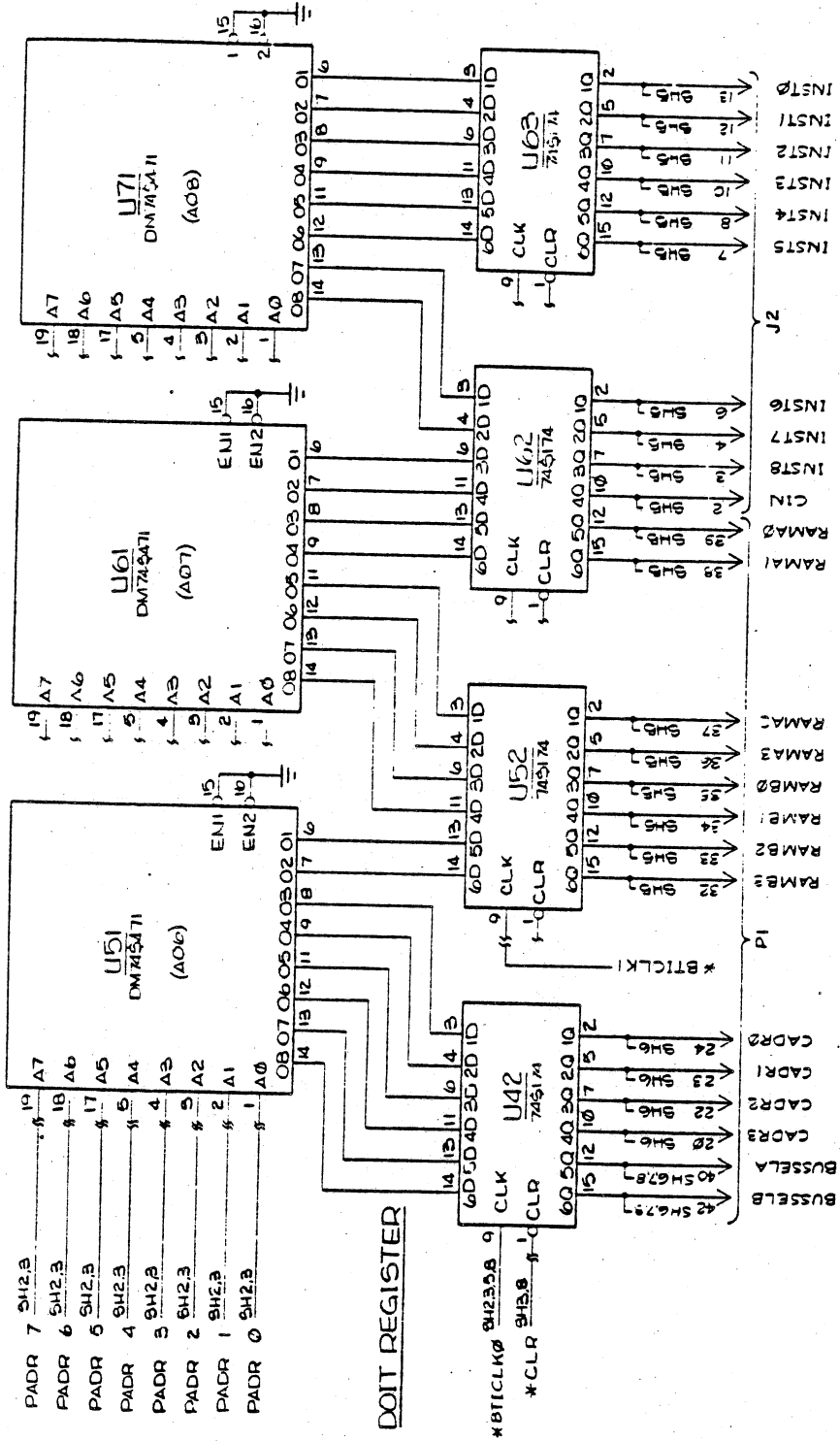
- *BITCLK# SH2A8.9
- *CLR SH2A8.10



200108-600

PROM

- PADR 7 5H2.3
- PADR 6 5H2.3
- PADR 5 5H2.3
- PADR 4 5H2.3
- PADR 3 5H2.3
- PADR 2 5H2.3
- PADR 1 5H2.3
- PADR 0 5H2.3



DOIT REGISTER

- *BTICKL0 5H2.3.8
- *CLR 5H2.3

REV	DATE	APPROVED

REV	DESCRIPTION

REV	DATE	APPROVED

REV	DESCRIPTION

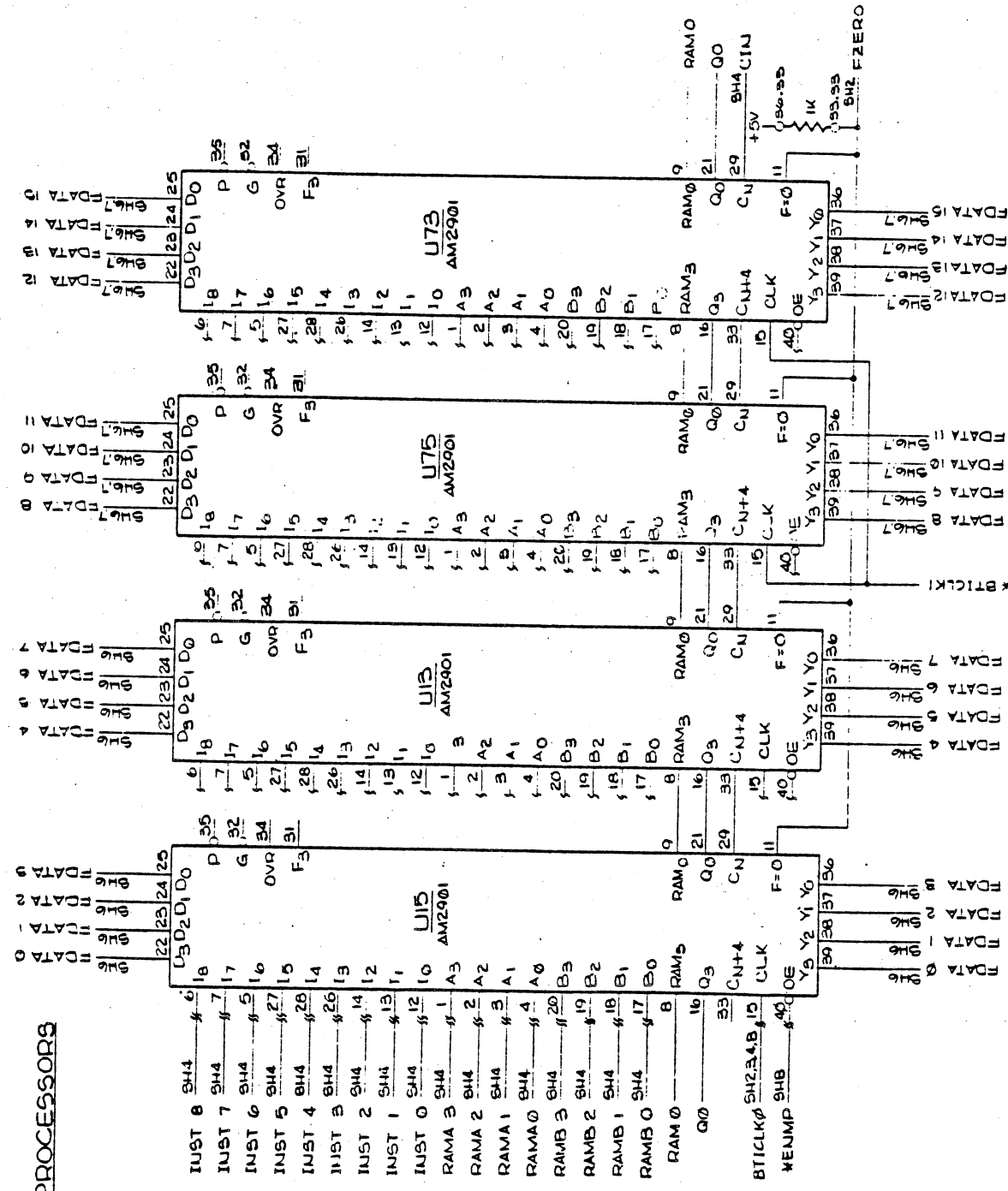
REV	DATE	APPROVED

REV	DESCRIPTION

REV	DATE	APPROVED

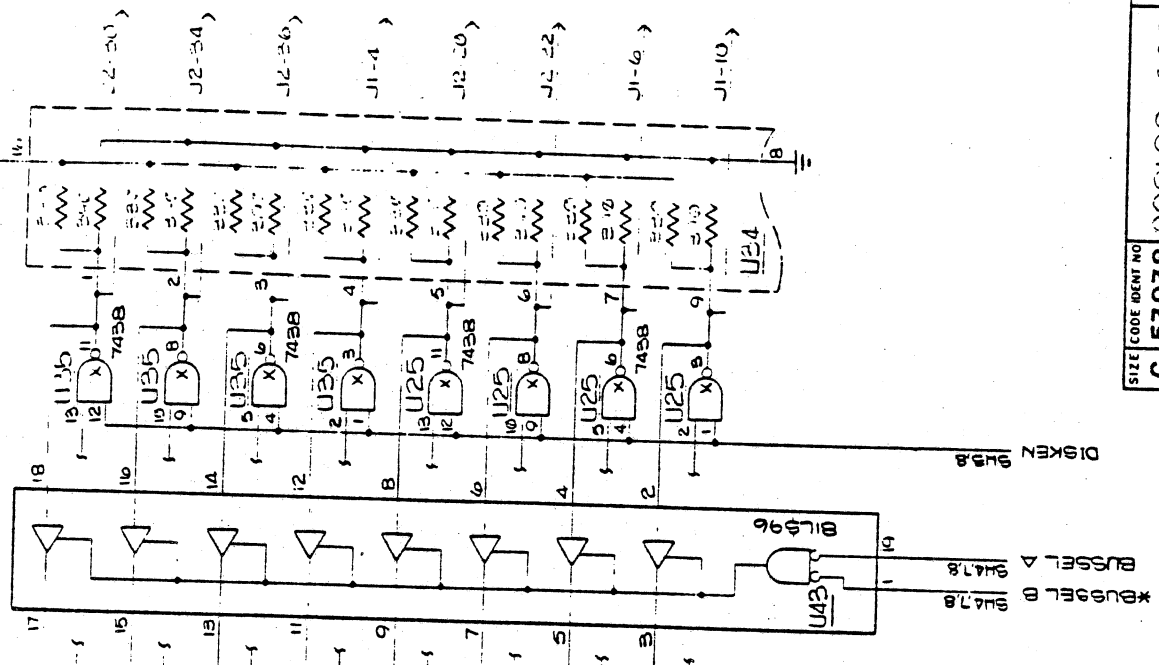
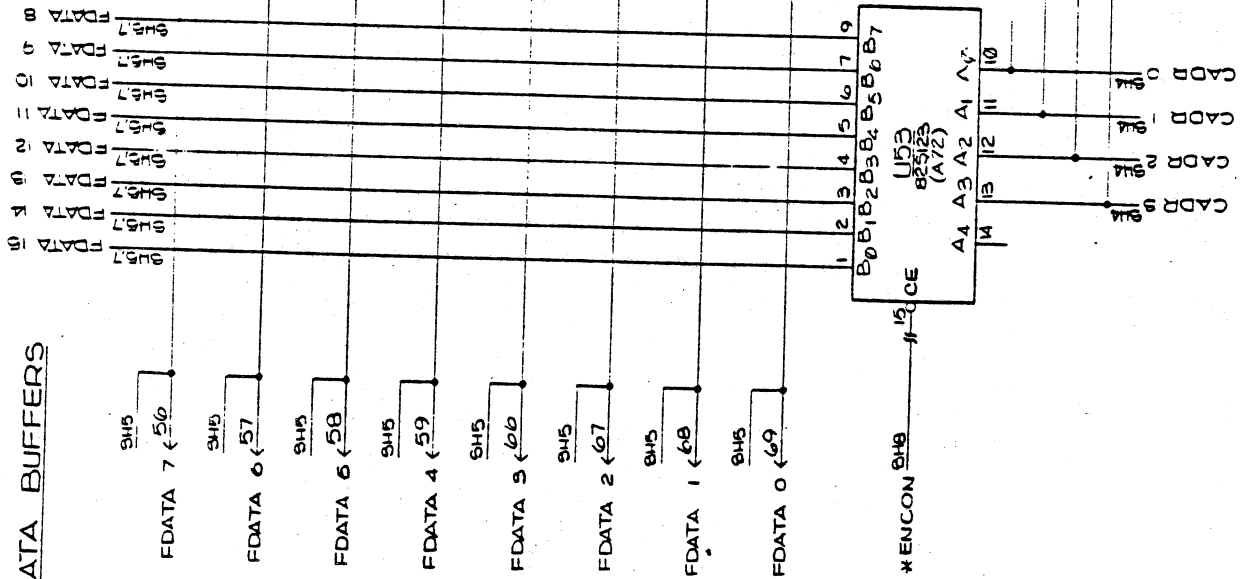
REV	DESCRIPTION

MICRO PROCESSORS



200108-600

DATA BUFFERS



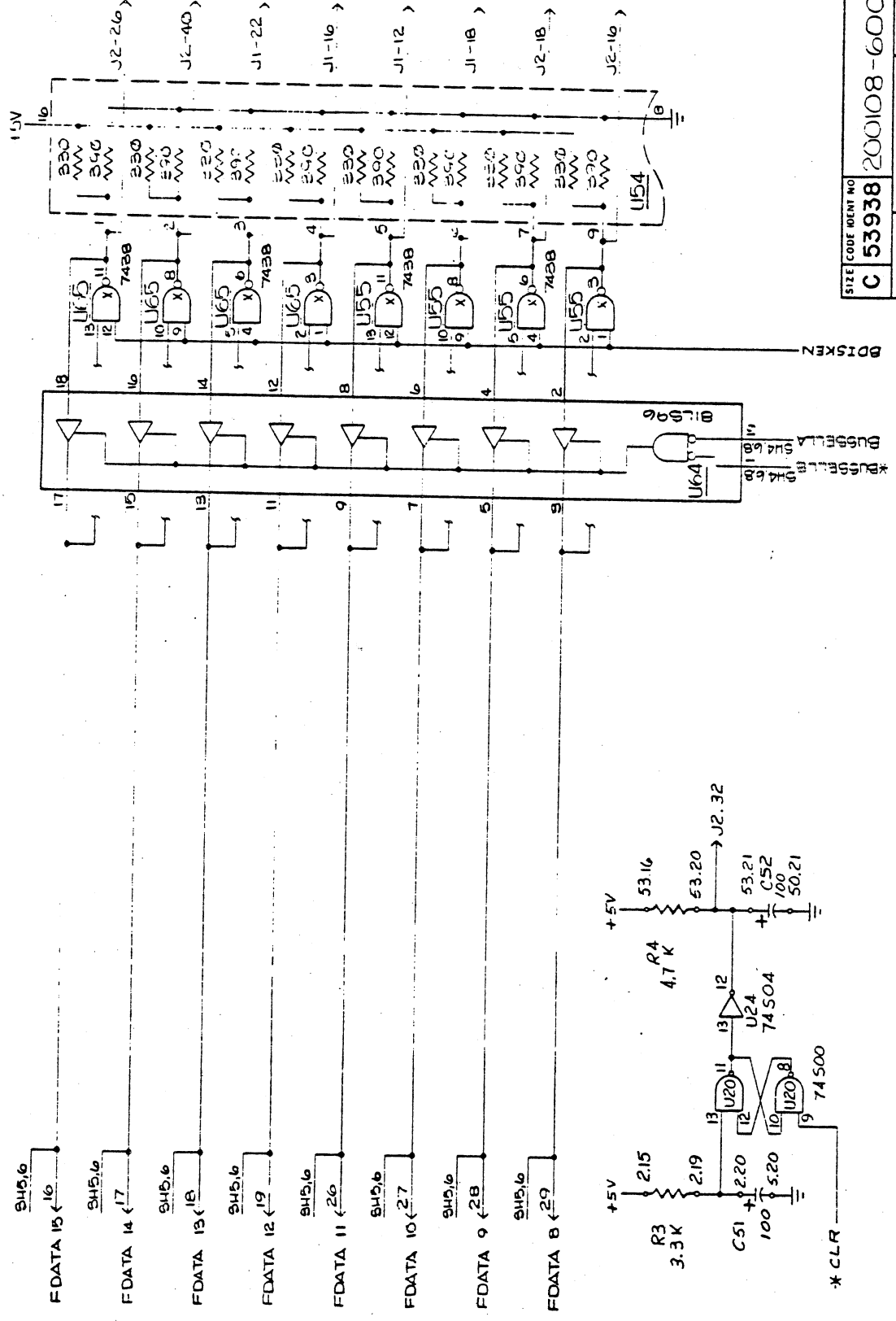
ZONE LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

SIZE CODE IDENT NO	REV
C 53938	A4
SCALE/DRAWING	SHEET 6 OF 8
200108-600	

B 200108-600

DATA BUFFERS

REVISIONS		DATE	APPROVED
ZONE	LTR	DESCRIPTION	

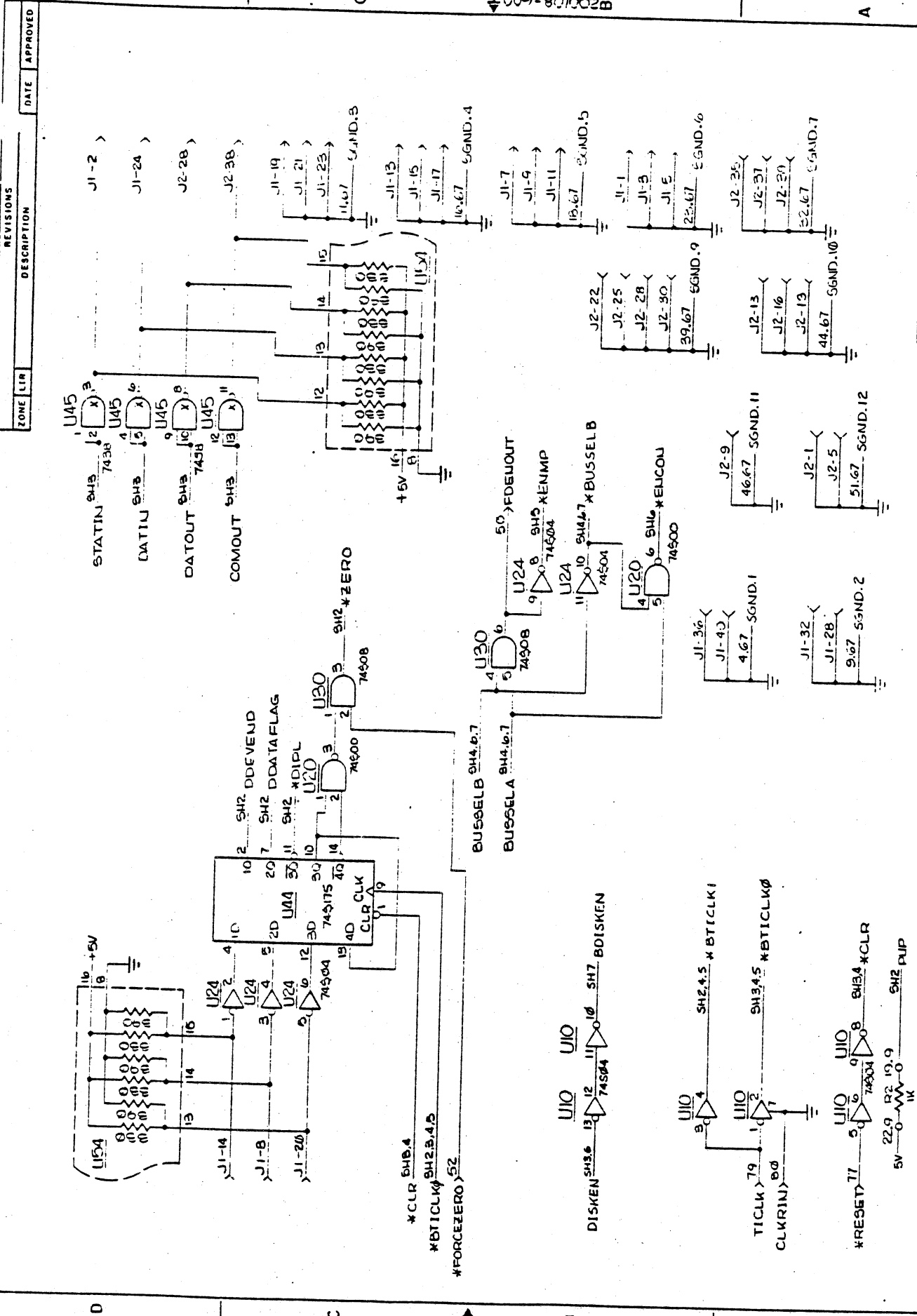


SIZE CODE IDENT NO	REV
C 53938	A4
SCALE/NOJE	SHEET 7 OF 8

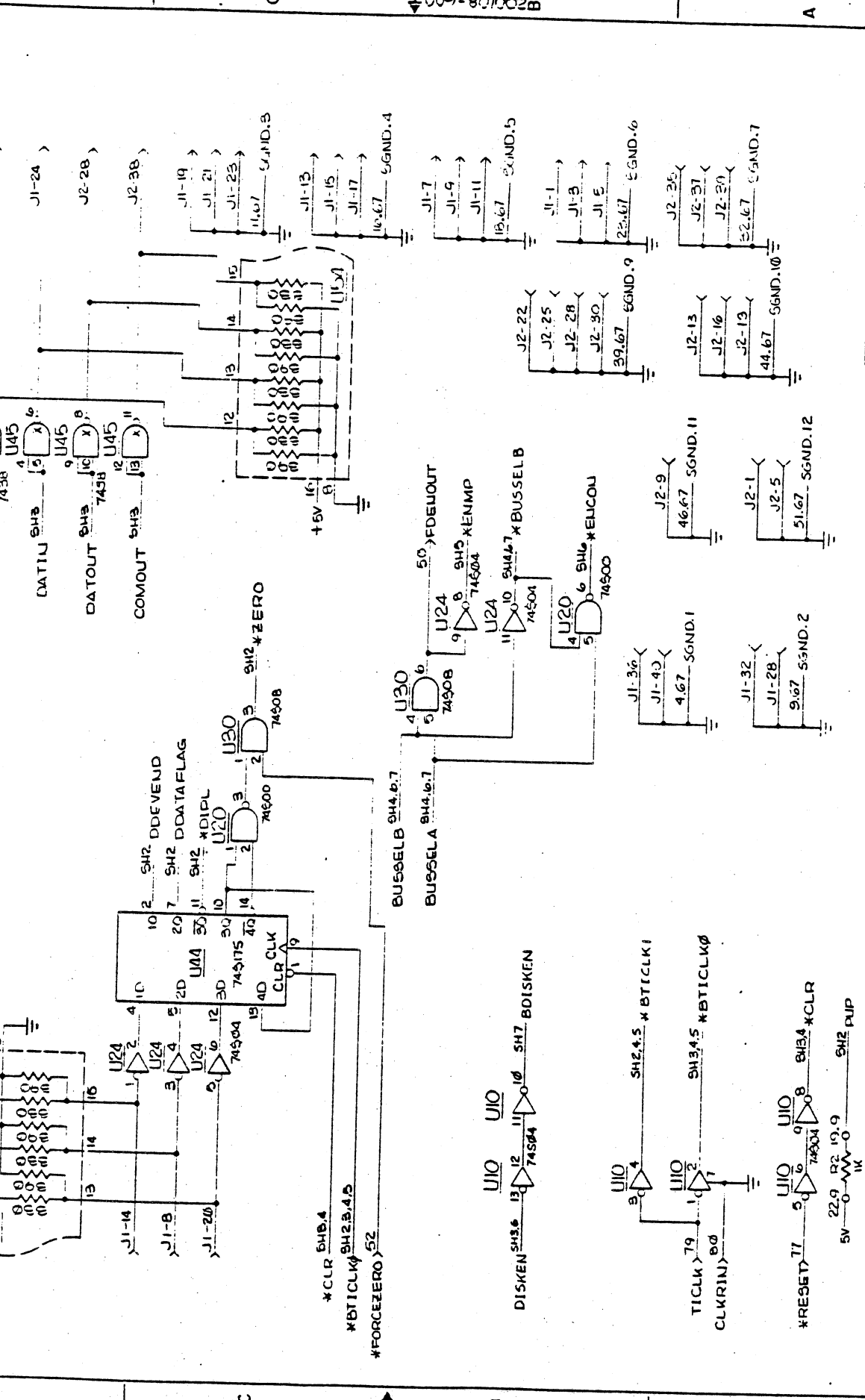
2 3 4

D C B A

D C B A



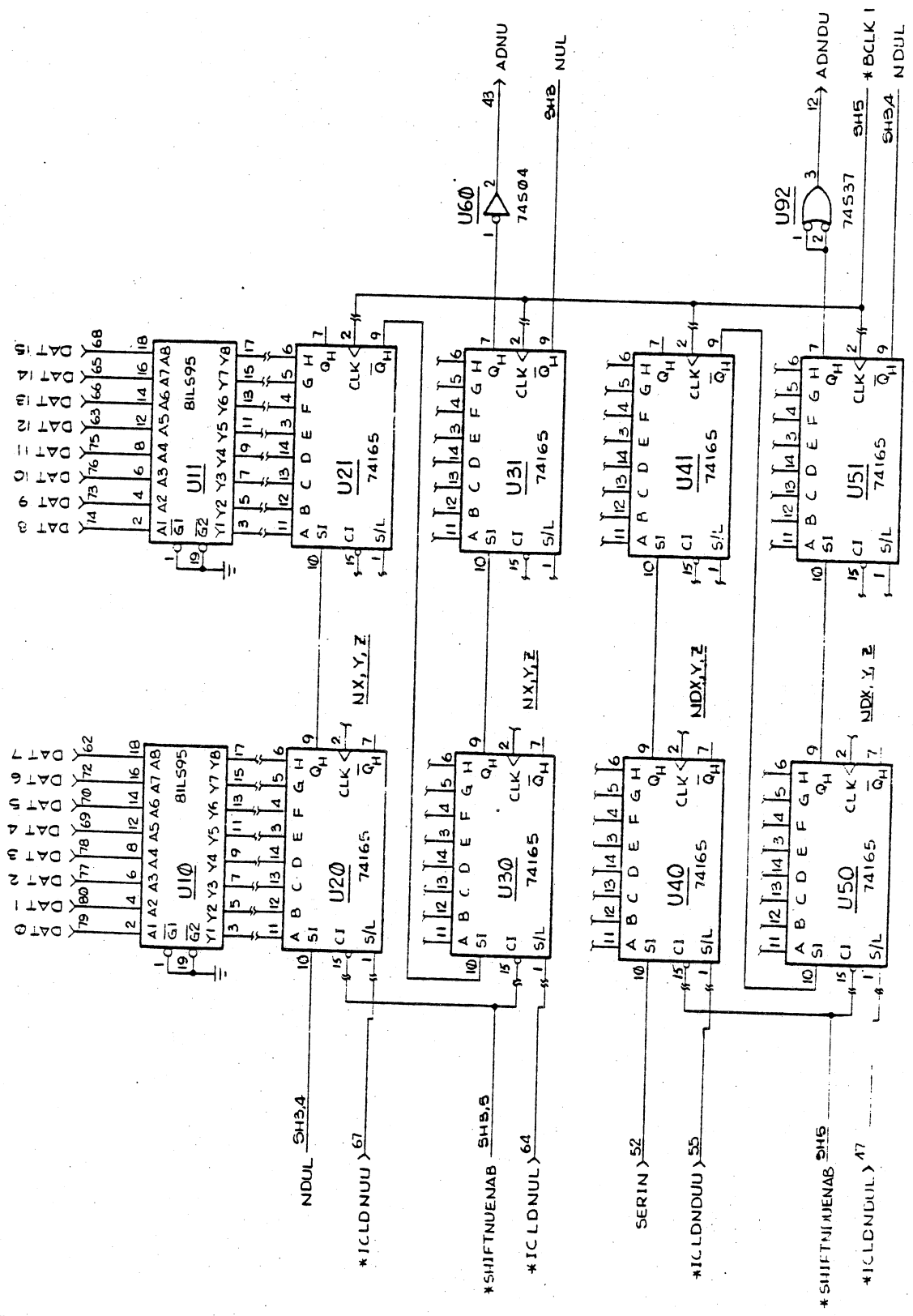
ZONE	LIR	REVISIONS	DESCRIPTION	DATE	APPROVED



SIZE	CODE IDENT NO	REV
C 53938	200108-600	A4
SCALE	INDIC	SHEET B OF 5

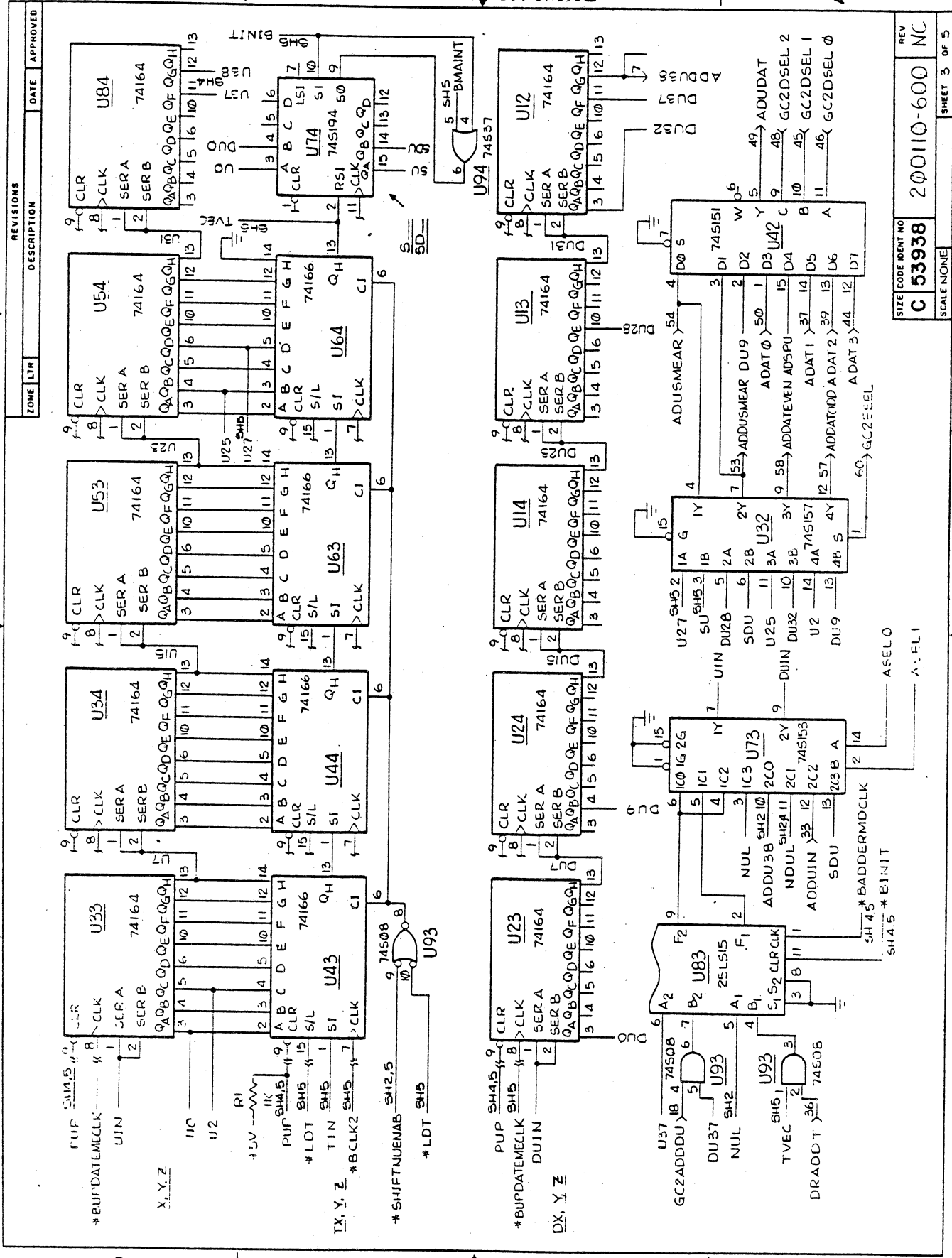
ZONE	LTN	REVISIONS	DATE	APPROVED

SIZE	CODE	REV	NO	REV
C	53938	200110-600	NC	NC
SCALE NONE			SHEET 2 OF 5	



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 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

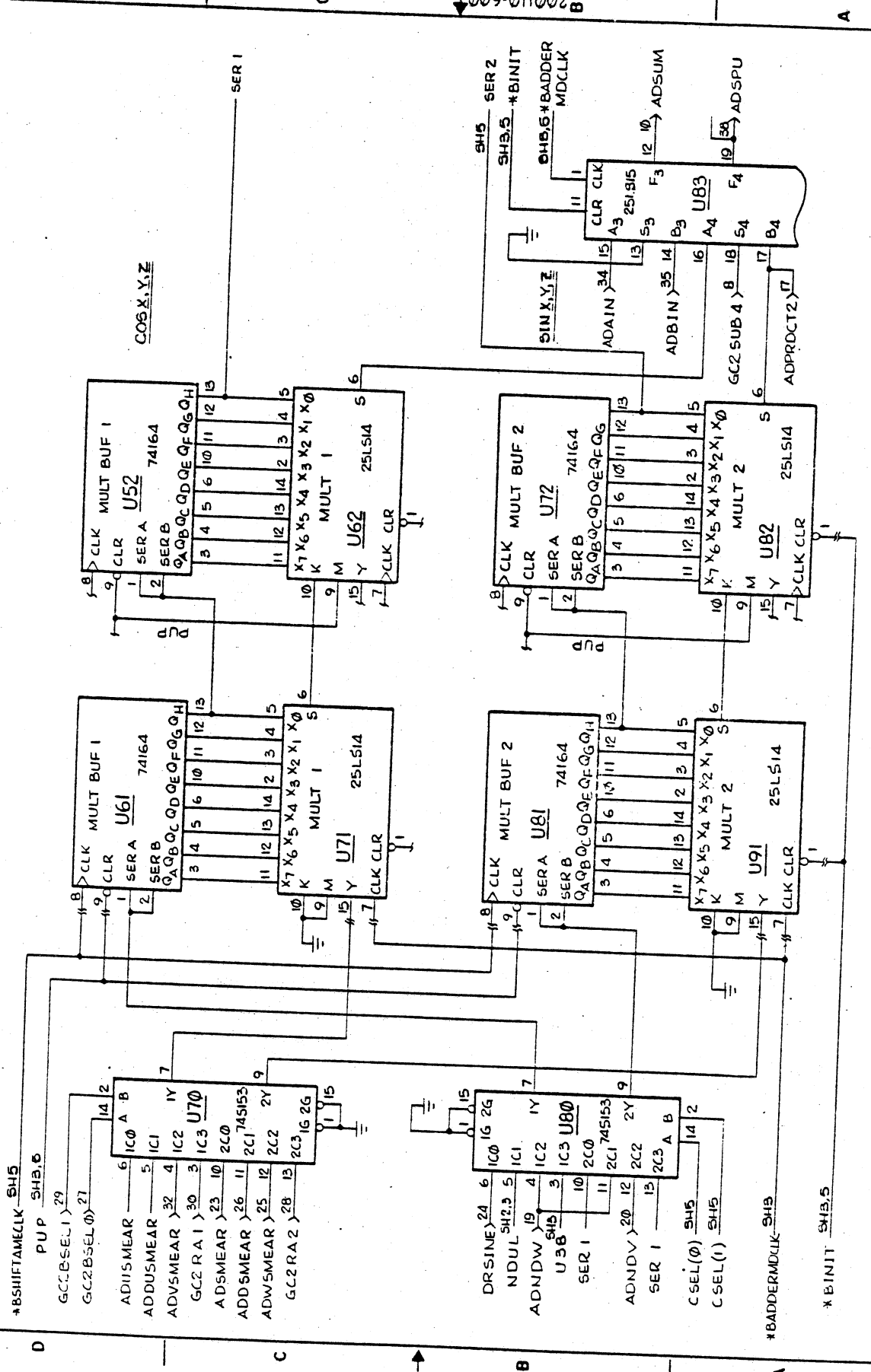
A B C D



ZONE	LTR	DESCRIPTION	DATE	APPROVED

SIZE	CODE	REV	REV
C	53938	200110-600	NC
SCALE	NONE	SHEET	3 OF 5

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

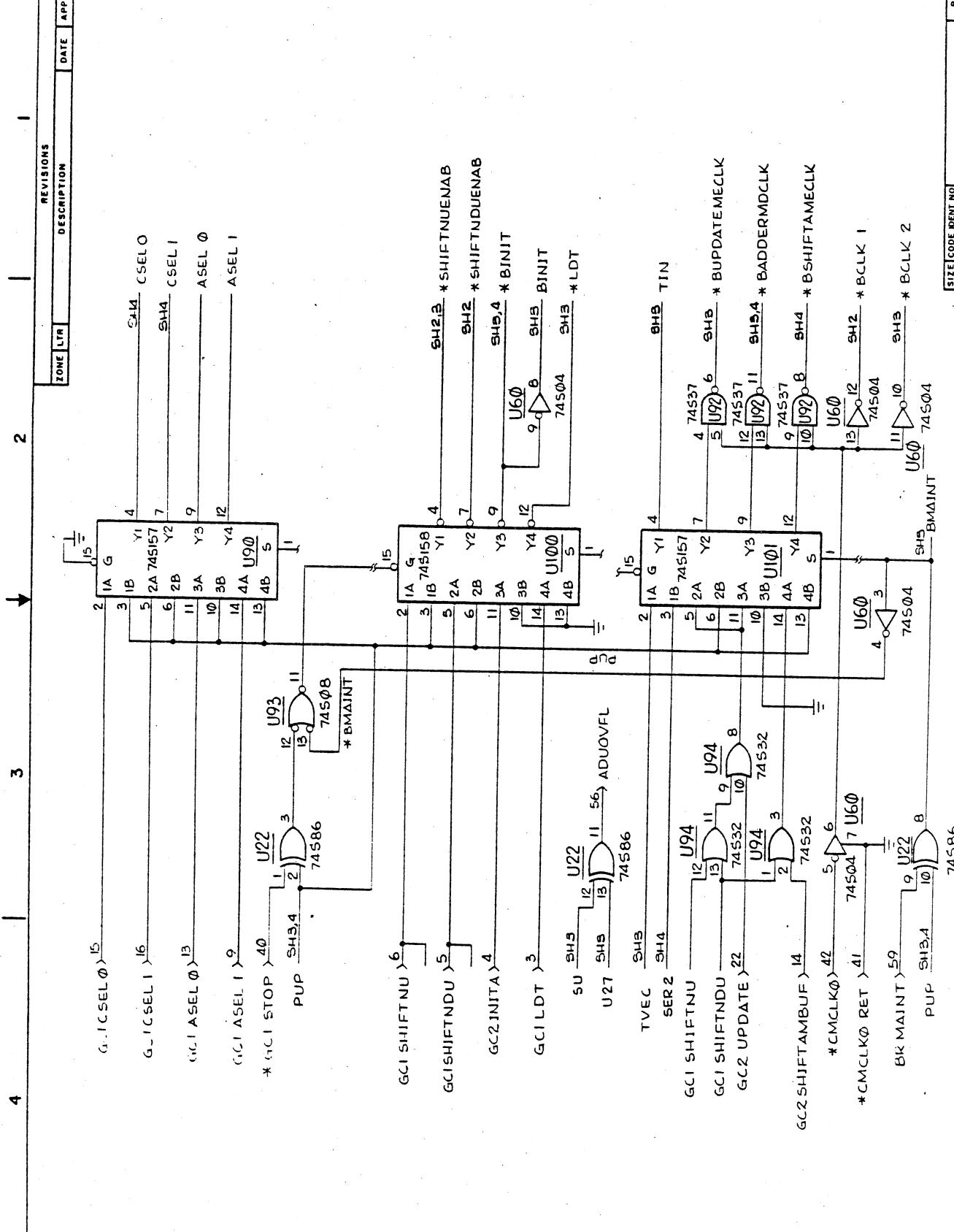


SIZE CODE	DENT NO	REV
C	53938	200110-600
SCALE	NONE	SHEET 4 OF 5

AUG X,Y,Z

200110-600

ZONE	LTR	DESCRIPTION	DATE	APPROVED



4 3 2 1

D C B A

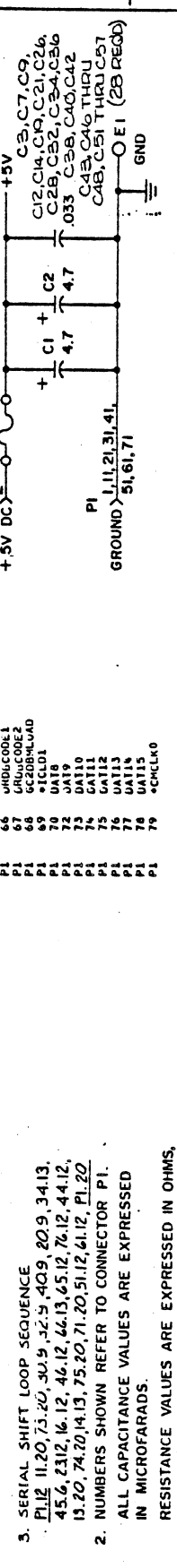
SIZE CODE IDENT NO	REV
C 53938	200110-600 NC
SCALE NONE	SHEET 5 OF 5

200110-600



ZONE	LTR	DESCRIPTION	DATE	APPROVED

REF	DESIG	PART NO	VENDOR PART NUMBER	E'S	REF	DESIG	PART NO	VENDOR PART NUMBER	E'S	REF	DESIG	PART NO	VENDOR PART NUMBER	E'S	PIN #	TERMINAL	
C	1	804102-475	CS13MF475K	U	40	807492-444	SM74162N	PI 3	DATA	U	41	807492-444	SM74162N	PI 4	DATA		
C	2	804102-475	CS13MF475K	U	41	807730-444	SM74162N	PI 5	DATA	U	42	807400-055	SM74551N	PI 6	DATA		
C	3	804115-333	CV15C333M	U	43	807431-055	SM74551N	PI 7	DATA	U	44	807431-055	SM74551N	PI 8	DATA		
C	7	804115-333	CV15C333M	U	45	807431-055	SM74551N	PI 9	DATA	U	46	807431-055	SM74551N	PI 10	DATA		
C	12	804115-333	CV15C333M	U	50	807431-055	SM74551N	PI 11	DATA	U	51	807431-055	SM74551N	PI 12	DATA		
C	19	804115-333	CV15C333M	U	52	807431-055	SM74551N	PI 13	DATA	U	53	807431-055	SM74551N	PI 14	DATA		
C	21	804115-333	CV15C333M	U	54	807431-055	SM74551N	PI 15	DATA	U	55	807431-055	SM74551N	PI 16	DATA		
C	32	804115-333	CV15C333M	U	56	807431-055	SM74551N	PI 17	DATA	U	57	807431-055	SM74551N	PI 18	DATA		
C	34	804115-333	CV15C333M	U	60	807431-055	SM74551N	PI 19	DATA	U	61	807431-055	SM74551N	PI 20	DATA		
C	38	804115-333	CV15C333M	U	62	807431-055	SM74551N	PI 21	DATA	U	63	807431-055	SM74551N	PI 22	DATA		
C	42	804115-333	CV15C333M	U	64	807431-055	SM74551N	PI 23	DATA	U	65	807431-055	SM74551N	PI 24	DATA		
C	44	804115-333	CV15C333M	U	66	807431-055	SM74551N	PI 25	DATA	U	67	807431-055	SM74551N	PI 26	DATA		
C	47	804115-333	CV15C333M	U	68	807431-055	SM74551N	PI 27	DATA	U	69	807431-055	SM74551N	PI 28	DATA		
C	51	804115-333	CV15C333M	U	70	807431-055	SM74551N	PI 29	DATA	U	71	807431-055	SM74551N	PI 30	DATA		
C	53	804115-333	CV15C333M	U	73	807431-055	SM74551N	PI 31	DATA	U	74	807431-055	SM74551N	PI 32	DATA		
C	54	804115-333	CV15C333M	U	75	807431-055	SM74551N	PI 33	DATA	U	76	807431-055	SM74551N	PI 34	DATA		
C	57	804115-333	CV15C333M	U	76	807431-055	SM74551N	PI 35	DATA	U	77	807431-055	SM74551N	PI 36	DATA		
R	1	803201-102		R	1	803201-102		PI 37	DATA	R	2	803201-102		R	2	803201-102	
R	3	803201-102		R	3	803201-102		PI 38	DATA	R	4	803201-102		R	4	803201-102	
U	10	807405-055	SM74502N	U	10	807405-055	SM74502N	PI 39	DATA	U	11	807405-055	SM74502N	PI 40	DATA		
U	11	807405-055	SM74502N	U	11	807405-055	SM74502N	PI 41	DATA	U	12	807405-055	SM74502N	PI 42	DATA		
U	13	807405-055	SM74502N	U	13	807405-055	SM74502N	PI 43	DATA	U	14	807405-055	SM74502N	PI 44	DATA		
U	14	807405-055	SM74502N	U	14	807405-055	SM74502N	PI 45	DATA	U	15	807405-055	SM74502N	PI 46	DATA		
U	15	807405-055	SM74502N	U	15	807405-055	SM74502N	PI 47	DATA	U	16	807405-055	SM74502N	PI 48	DATA		
U	16	807405-055	SM74502N	U	16	807405-055	SM74502N	PI 49	DATA	U	17	807405-055	SM74502N	PI 50	DATA		
U	20	807405-055	SM74502N	U	20	807405-055	SM74502N	PI 51	DATA	U	21	807405-055	SM74502N	PI 52	DATA		
U	21	807405-055	SM74502N	U	21	807405-055	SM74502N	PI 53	DATA	U	22	807405-055	SM74502N	PI 54	DATA		
U	23	807405-055	SM74502N	U	23	807405-055	SM74502N	PI 55	DATA	U	24	807405-055	SM74502N	PI 56	DATA		
U	25	807405-055	SM74502N	U	25	807405-055	SM74502N	PI 57	DATA	U	26	807405-055	SM74502N	PI 58	DATA		
U	26	807405-055	SM74502N	U	26	807405-055	SM74502N	PI 59	DATA	U	27	807405-055	SM74502N	PI 60	DATA		
U	30	807405-055	SM74502N	U	30	807405-055	SM74502N	PI 61	DATA	U	31	807405-055	SM74502N	PI 62	DATA		
U	31	807405-055	SM74502N	U	31	807405-055	SM74502N	PI 63	DATA	U	32	807405-055	SM74502N	PI 64	DATA		
U	33	807405-055	SM74502N	U	33	807405-055	SM74502N	PI 65	DATA	U	34	807405-055	SM74502N	PI 66	DATA		
U	35	807405-055	SM74502N	U	35	807405-055	SM74502N	PI 67	DATA	U	36	807405-055	SM74502N	PI 68	DATA		
U	36	807405-055	SM74502N	U	36	807405-055	SM74502N	PI 69	DATA	U	37	807405-055	SM74502N	PI 70	DATA		



CONTRACT NO	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON	MATERIAL
EVANS & SUTHERLAND COMPUTER CORPORATION SALT LAKE CITY, UTAH 84112	±.0015	200130-100 MOVONVIEW
DRAWN P MELLUS 4-1-77	±.005	USED ON
CHECKED BY 6-9-77	±.010	NEXT ASSY
MECH	±.020	APPLICATION
ELECTRICAL	±.030	
PROJ ENG BY 1-1-77	±.040	
APPROVED	±.050	

SEE SEPARATE PARTS LIST	SIZE CODE IDENT NO	REV
EVANS & SUTHERLAND COMPUTER CORPORATION SALT LAKE CITY, UTAH 84112	C 53938	200111-600
DIRECTIONALITY (w/w)	SCALE NONE	NC
		SHEET 1 OF 6

3. SERIAL SHIFT LOOP SEQUENCE
 PL12 11.20, 73.20, 30.19, 32.19, 40.19, 20.9, 34.13,
 45.6, 43.12, 16.12, 46.12, 44.12, 44.12, 44.12,
 13.20, 74.20, 14.13, 75.20, 71.20, 51.12, 61.12, PL20.

2. ALL CAPACITANCE VALUES ARE EXPRESSED IN MICROFARADS.

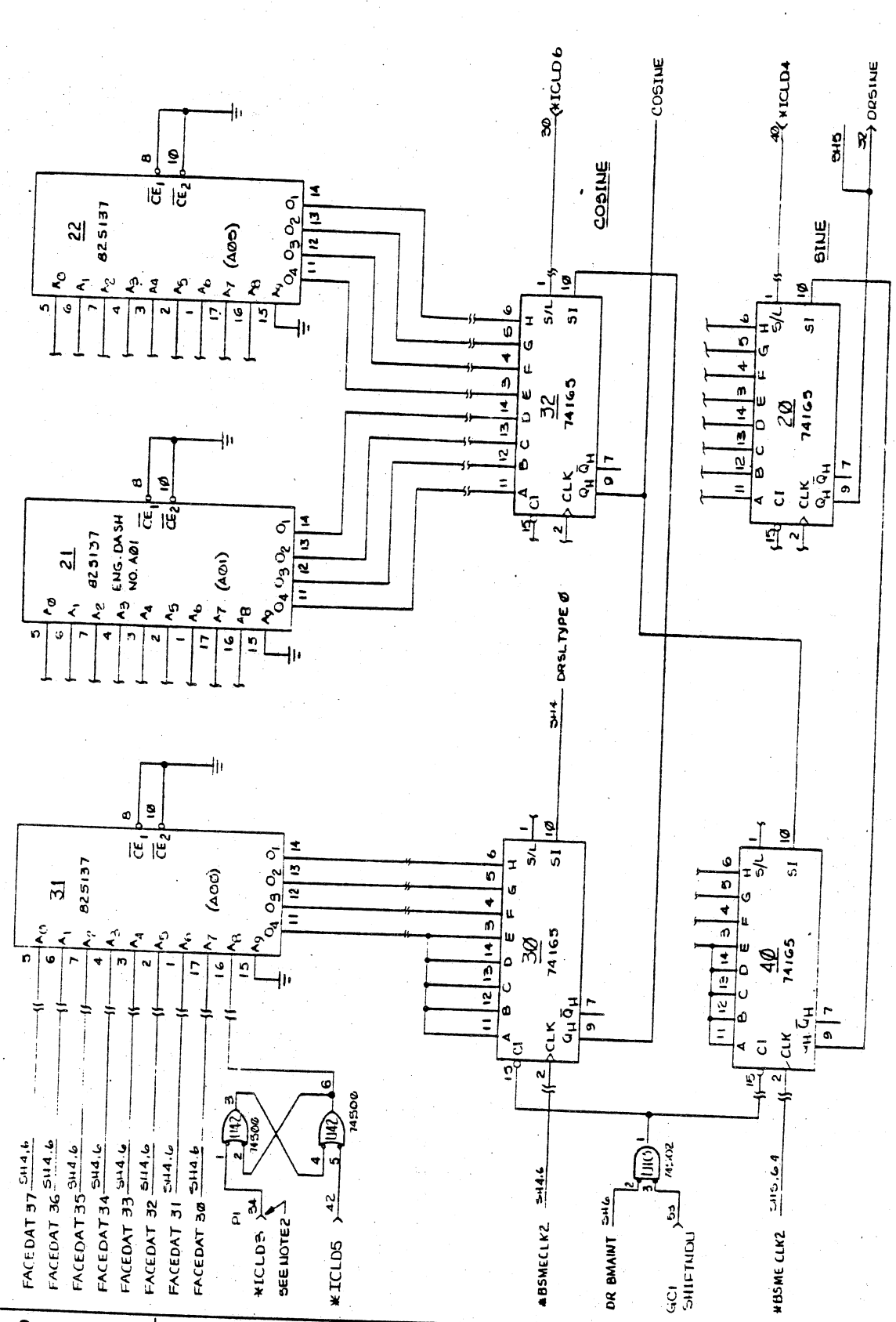
1. ALL RESISTANCE VALUES ARE EXPRESSED IN OHMS.

RESISTANCE VALUES ARE EXPRESSED IN OHMS.
 K DENOTES 1000.

R DENOTES 1/4 WATT, ± 5% TOLERANCE.
 ON ALL 20 PIN I.C.'S, PIN 10 IS GROUND AND
 PIN 20 IS POWER (+5V).
 ON ALL 16 PIN I.C.'S, PIN 8 IS GROUND AND
 PIN 16 IS POWER (+5V).
 ON ALL 14 PIN I.C.'S, PIN 7 IS GROUND AND
 PIN 14 IS POWER (+5V).

NOTES:
 UNLESS OTHERWISE SPECIFIED;

ZONE	CTR	DESCRIPTION	DATE	APPROVED



SIZE	CODE	REV	REV
C	53938	200111-600	NC
SCALE	NONE	SHEET	2 OF 6

FACE DAT 37 SH4.6
 FACEDAT 36 SH4.6
 FACEDAT 35 SH4.6
 FACEDAT 34 SH4.6
 FACEDAT 33 SH4.6
 FACEDAT 32 SH4.6
 FACEDAT 31 SH4.6
 FACEDAT 30 SH4.6

*ICLD5
 SEE NOTE 2

*BSMECLK2
 DR BMANT

*ICLD5
 74500

*BSMECLK2
 74102

*BSMECLK2
 SH4.6.4

SIN
 COSINE
 COSINE
 SIN
 ORSINE

30 *ICLD6
 40 *ICLD4
 32
 20
 20
 9 7

SH4 DRSLTYPE 0

74165
 74165
 74165

74500
 74102

SH4.6.4

SIN
 COSINE
 COSINE
 SIN
 ORSINE

30 *ICLD6
 40 *ICLD4
 32
 20
 20
 9 7

SH4 DRSLTYPE 0

74165
 74165
 74165

74500
 74102

SH4.6.4

SIN
 COSINE
 COSINE
 SIN
 ORSINE

30 *ICLD6
 40 *ICLD4
 32
 20
 20
 9 7

SH4 DRSLTYPE 0

74165
 74165
 74165

74500
 74102

SH4.6.4

SIN
 COSINE
 COSINE
 SIN
 ORSINE

30 *ICLD6
 40 *ICLD4
 32
 20
 20
 9 7

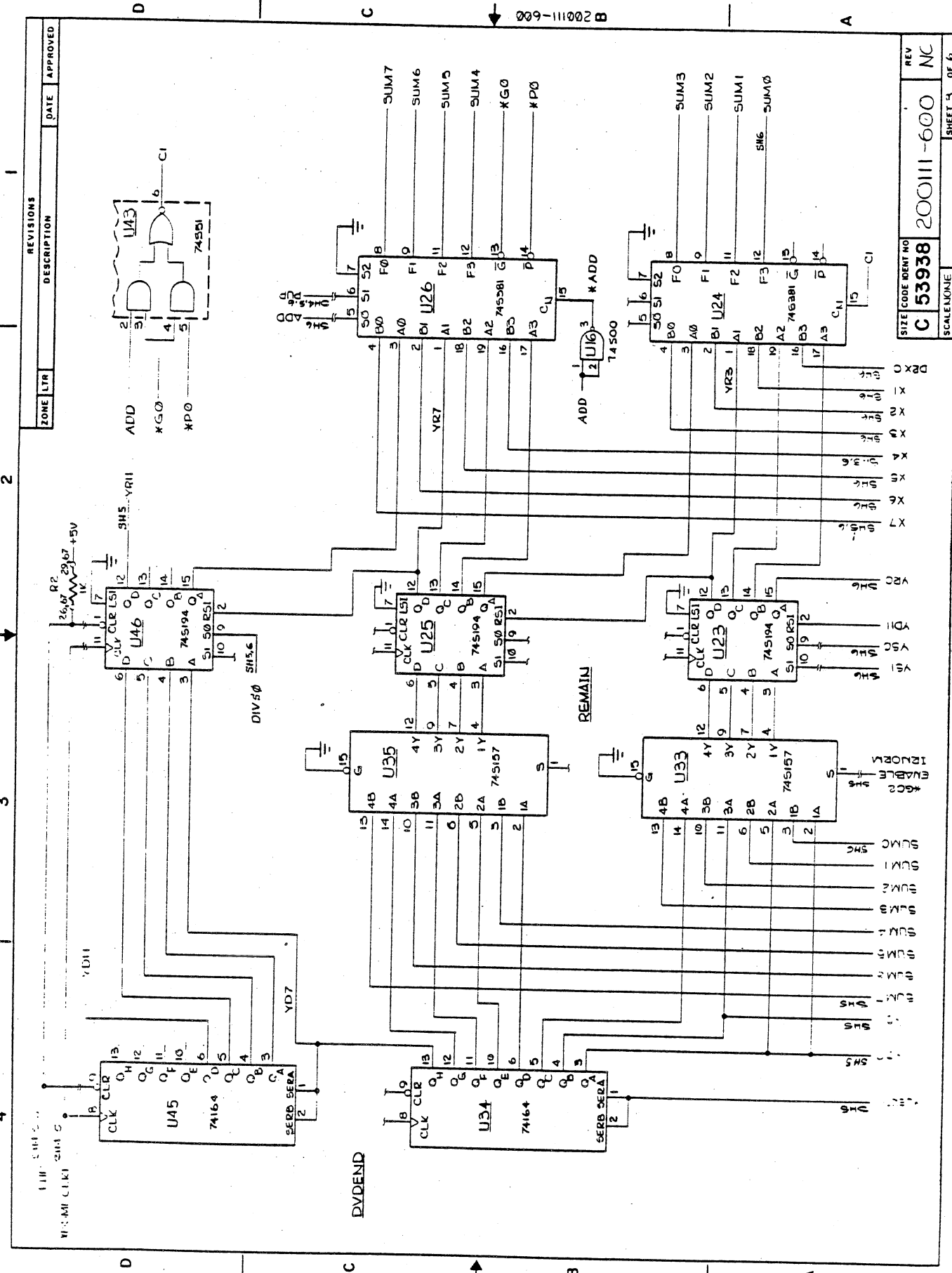
SH4 DRSLTYPE 0

74165
 74165
 74165

74500
 74102

SH4.6.4

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

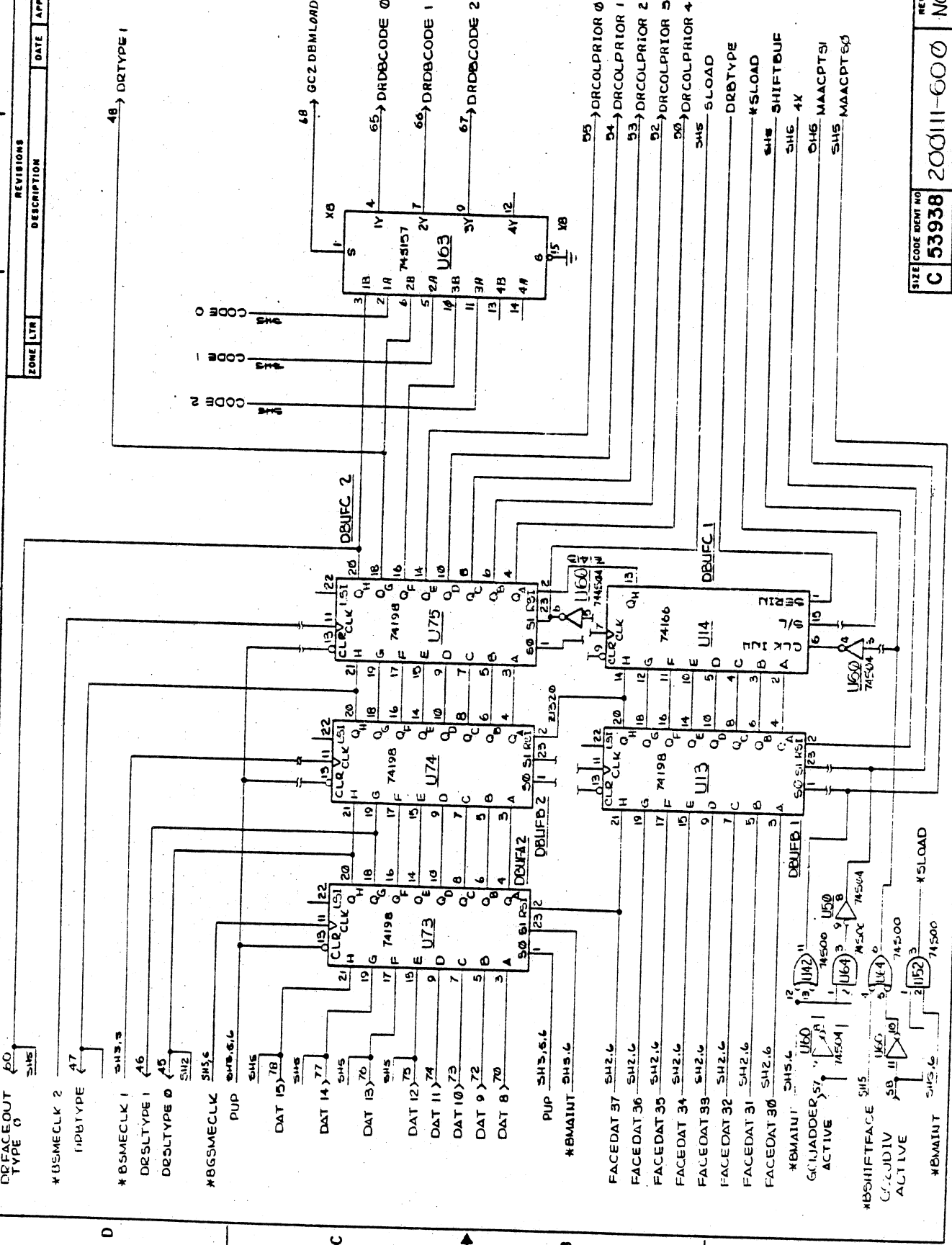


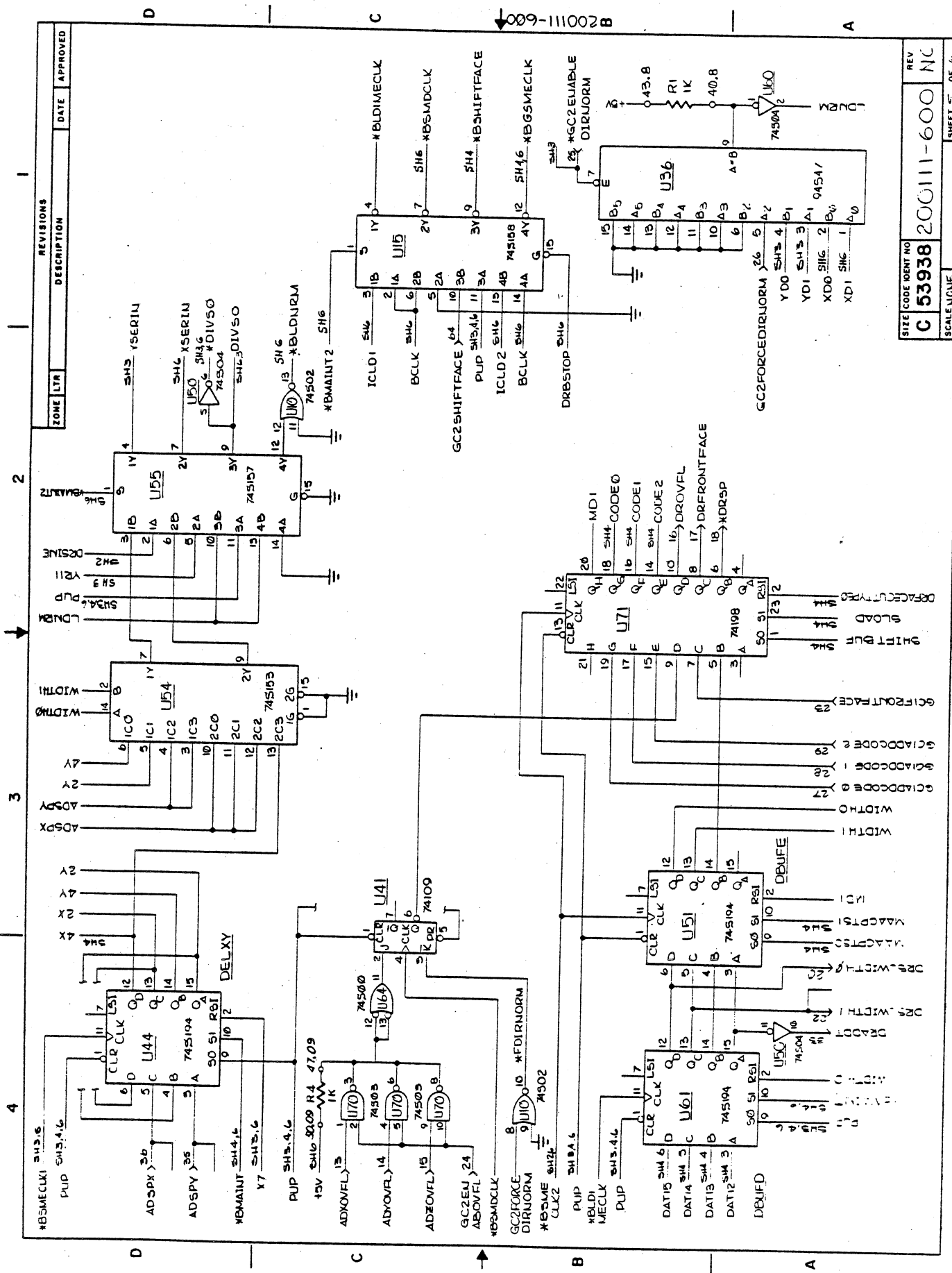
SIZE	CODE	IDENT NO	REV
C	53938	200111-600	NC
SCALE	NONE	SHEET 5	OF 6

200-6-11009

ZONE LTR	DESCRIPTION	DATE	APPROVED

SIZE	CODE IDENT NO	REV
C	53938	200111-600
SCALE	NAME	SHEET 4 OF 6





ZONE	LTR	DESCRIPTION	DATE	APPROVED

20011-600

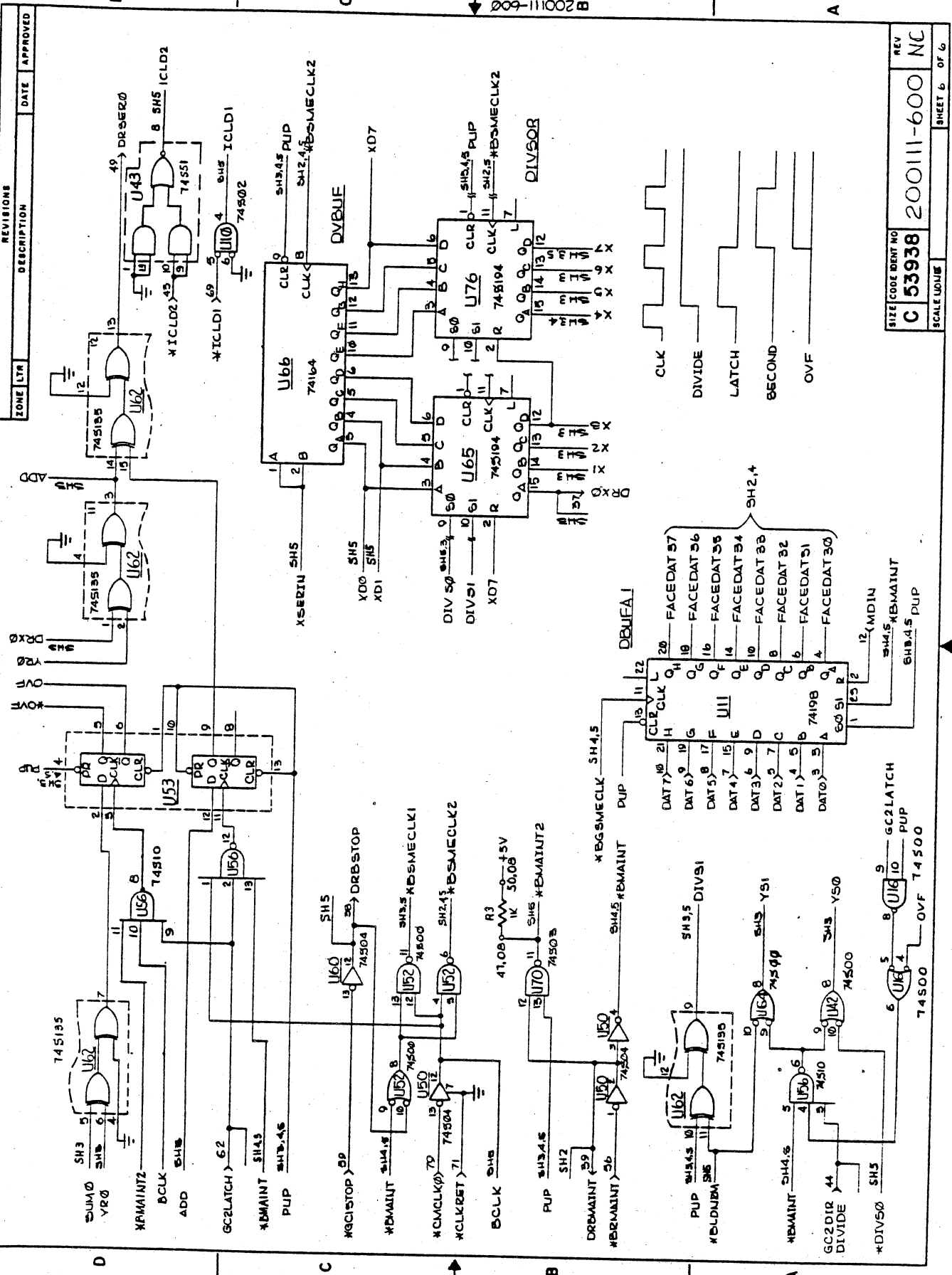
REV NC

SCALE 1:1

SHEET 5 OF 6

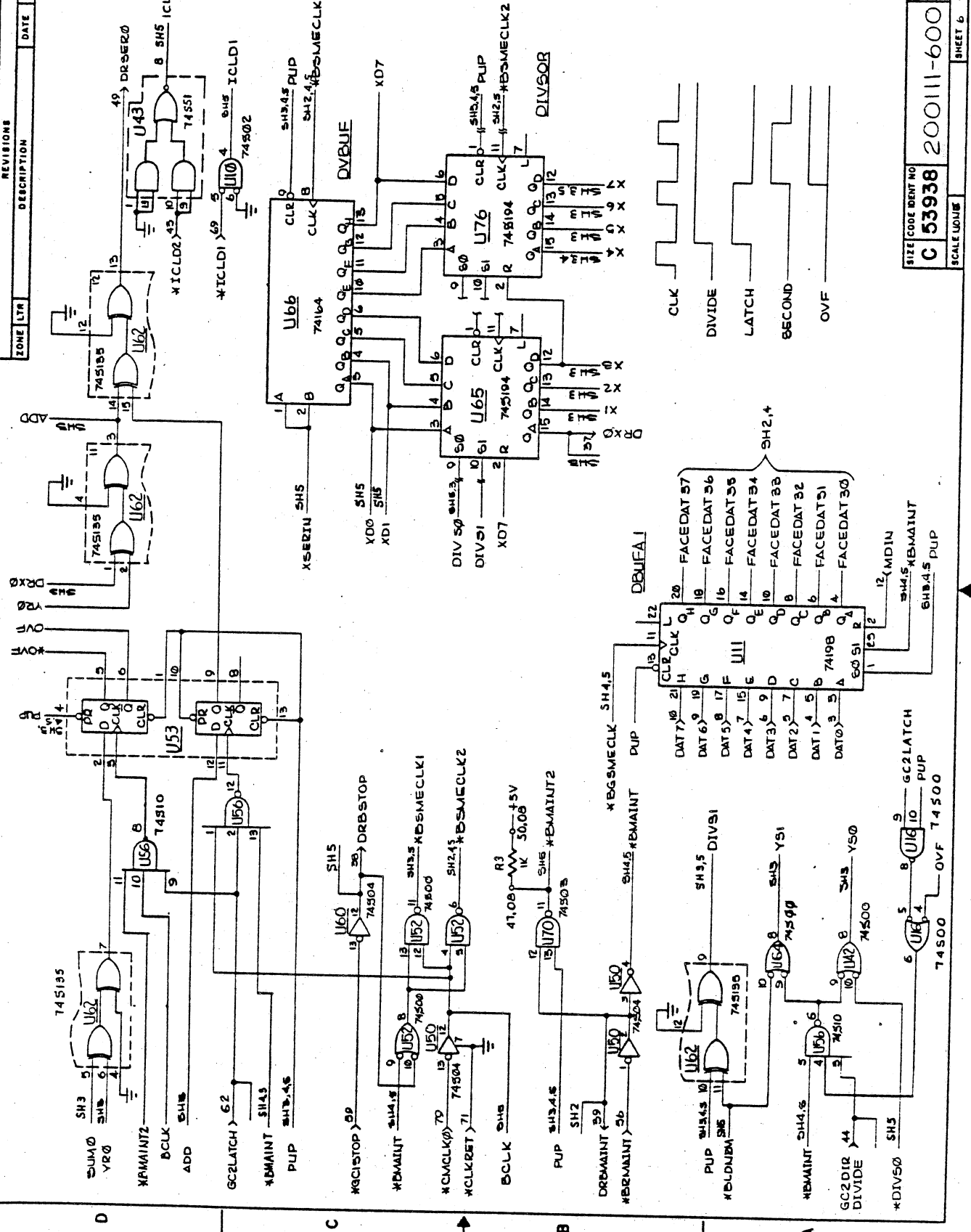
SIZE CODE IDENT NO C 53938

20011-600



ZONE LTR	DESCRIPTION	DATE	APPROVED

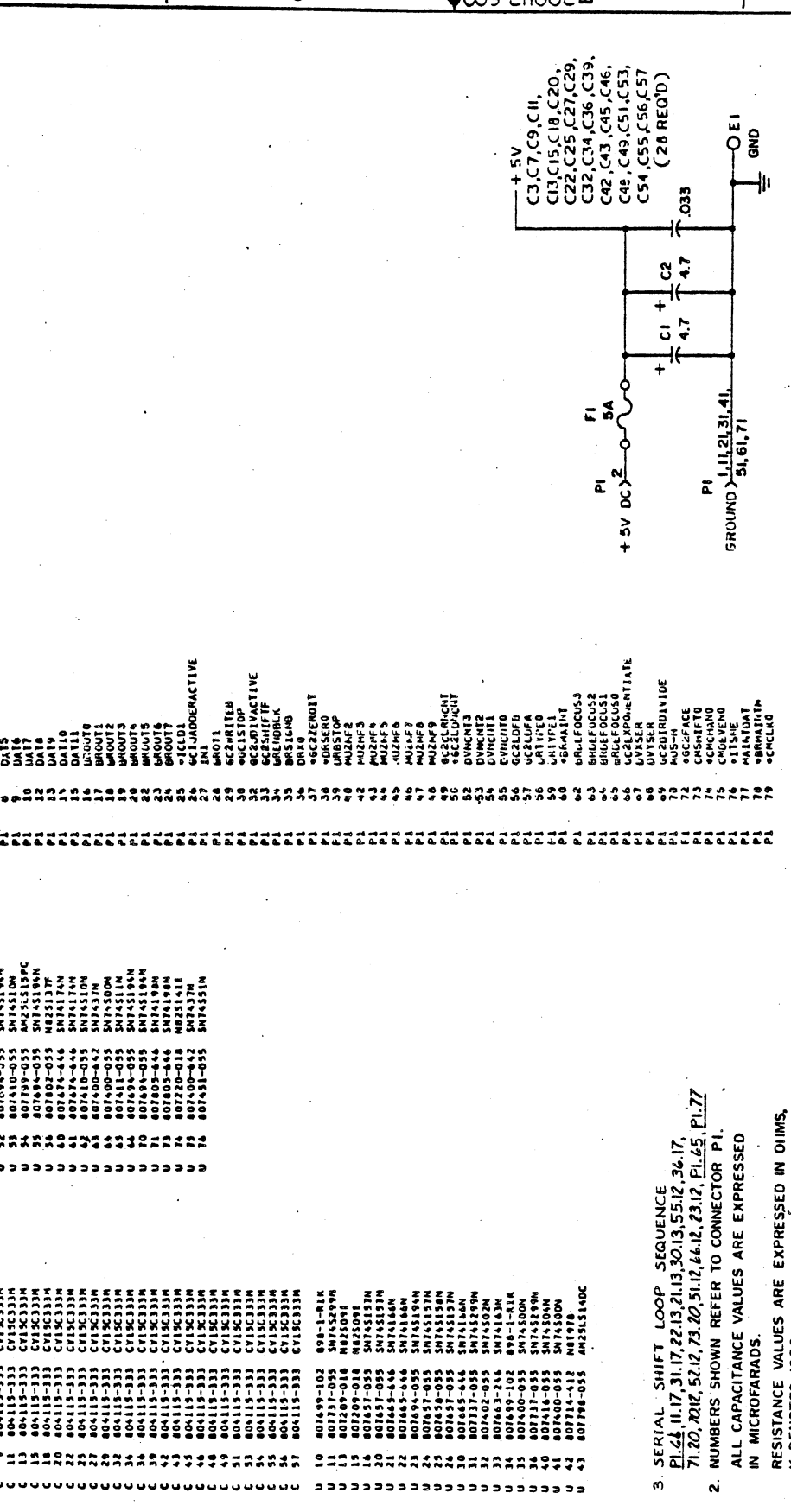
SIZE CODE BENT NO	REV
C 53938	NC
SCALE LINES	SHEET 6 OF 6



U62	745195
U63	745195
U64	745195
U65	74198
U66	74198
U76	74194
U77	74199

ZONE	LTR	DESCRIPTION	DATE	APPROVED
A1		LOGIC NAME CHANGE 25.03 WMS	8-30-77	
A2		REV UPDATE W/NO DWG CHNG DB	11-11-78	

REF	DESIG	E-S	PART NO	VENDOR PART NUMBER	REF	DESIG	E-S	PART NO	VENDOR PART NUMBER
C	1	804102-475	C5130F475K		U	44	807798-055	ANZSL510DC	
C	2	804102-475	C5130F475K		U	44	807798-055	ANZSL510DC	
C	3	804115-333	CV15C333M		U	44	807402-055	MR25137F	
C	7	804115-333	CV15C333M		U	50	807402-055	MR25137F	
C	9	804115-333	CV15C333M		U	51	807402-055	MR25137F	
C	11	804115-333	CV15C333M		U	52	807402-055	MR25137F	
C	13	804115-333	CV15C333M		U	53	807402-055	MR25137F	
C	15	804115-333	CV15C333M		U	54	807402-055	MR25137F	
C	17	804115-333	CV15C333M		U	55	807402-055	MR25137F	
C	19	804115-333	CV15C333M		U	56	807402-055	MR25137F	
C	21	804115-333	CV15C333M		U	57	807402-055	MR25137F	
C	23	804115-333	CV15C333M		U	58	807402-055	MR25137F	
C	25	804115-333	CV15C333M		U	59	807402-055	MR25137F	
C	27	804115-333	CV15C333M		U	60	807402-055	MR25137F	
C	29	804115-333	CV15C333M		U	61	807402-055	MR25137F	
C	31	804115-333	CV15C333M		U	62	807402-055	MR25137F	
C	33	804115-333	CV15C333M		U	63	807402-055	MR25137F	
C	35	804115-333	CV15C333M		U	64	807402-055	MR25137F	
C	37	804115-333	CV15C333M		U	65	807402-055	MR25137F	
C	39	804115-333	CV15C333M		U	66	807402-055	MR25137F	
C	41	804115-333	CV15C333M		U	67	807402-055	MR25137F	
C	43	804115-333	CV15C333M		U	68	807402-055	MR25137F	
C	45	804115-333	CV15C333M		U	69	807402-055	MR25137F	
C	47	804115-333	CV15C333M		U	70	807402-055	MR25137F	
C	49	804115-333	CV15C333M		U	71	807402-055	MR25137F	
C	51	804115-333	CV15C333M		U	72	807402-055	MR25137F	
C	53	804115-333	CV15C333M		U	73	807402-055	MR25137F	
C	55	804115-333	CV15C333M		U	74	807402-055	MR25137F	
C	57	804115-333	CV15C333M		U	75	807402-055	MR25137F	
U	10	807499-102	898-1-RLK		U	44	807798-055	ANZSL510DC	
U	11	807797-055	SM745299H		U	44	807798-055	ANZSL510DC	
U	13	807409-018	MR25091		U	44	807798-055	ANZSL510DC	
U	15	807497-055	MR25091		U	44	807798-055	ANZSL510DC	
U	17	807497-055	MR25091		U	44	807798-055	ANZSL510DC	
U	19	807497-055	MR25091		U	44	807798-055	ANZSL510DC	
U	21	807497-055	MR25091		U	44	807798-055	ANZSL510DC	
U	23	807497-055	MR25091		U	44	807798-055	ANZSL510DC	
U	25	807497-055	MR25091		U	44	807798-055	ANZSL510DC	
U	27	807497-055	MR25091		U	44	807798-055	ANZSL510DC	
U	29	807497-055	MR25091		U	44	807798-055	ANZSL510DC	
U	31	807497-055	MR25091		U	44	807798-055	ANZSL510DC	
U	33	807497-055	MR25091		U	44	807798-055	ANZSL510DC	
U	35	807497-055	MR25091		U	44	807798-055	ANZSL510DC	
U	37	807497-055	MR25091		U	44	807798-055	ANZSL510DC	
U	39	807497-055	MR25091		U	44	807798-055	ANZSL510DC	
U	41	807497-055	MR25091		U	44	807798-055	ANZSL510DC	
U	43	807497-055	MR25091		U	44	807798-055	ANZSL510DC	



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON	
.XX ±	
.XXX ±	
ANGLES ±	
MATERIAL	
FINISH	
NOVO SP	
USED ON	
APPLICATION	

CONTRACT NO.
 DRAWN BY: [Signature]
 CHECKED BY: [Signature] 9 JUN 77
 MECH
 ELEC
 PROJ ENG: [Signature]
 APPROVED

SEE SEPARATE PARTS LIST	EVANS & BUTTERLAND COMPUTER CORPORATION BALT LAKE CITY, UTAH 84112
BRIGHTNESS CONTROL W/W	
SIZE CODE IDENT NO	REV
C 53938	200112-600
SCALE NONE	SHEET 1 OF 5

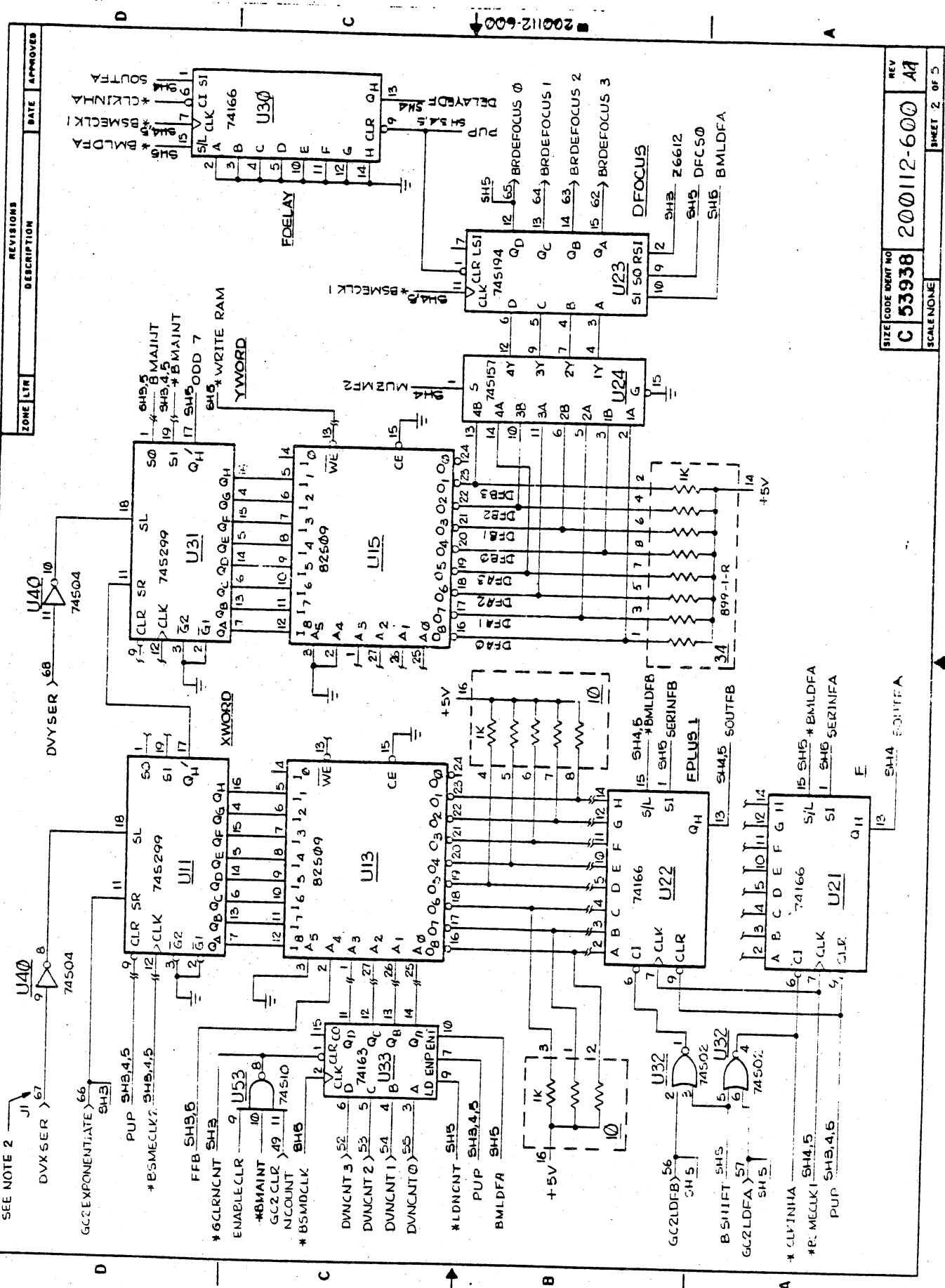
- SERIAL SHIFT LOOP SEQUENCE
 PL.24, 11.17, 31.17, 22.13, 21.19, 30.13, 55.12, 36.17, 71.20, 70.12, 52.12, 73.20, 51.12, 66.12, 23.12, PL.65, PL.77
- NUMBERS SHOWN REFER TO CONNECTOR PI.
 ALL CAPACITANCE VALUES ARE EXPRESSED IN MICROFARADS.
 RESISTANCE VALUES ARE EXPRESSED IN OHMS.
 K DENOTES 1000.
 RESISTORS ARE 1/4 WATT, ± 5% TOLERANCE.
 ON ALL 20 PIN I.C.'S, PIN 10 IS GROUND AND PIN 20 IS POWER (+5V).
 ON ALL 16 PIN I.C.'S, PIN 8 IS GROUND AND PIN 16 IS POWER (+5V).
 ON ALL 14 PIN I.C.'S, PIN 7 IS GROUND AND PIN 14 IS POWER (+5V).
 UNLESS OTHERWISE SPECIFIED;

NOTES:

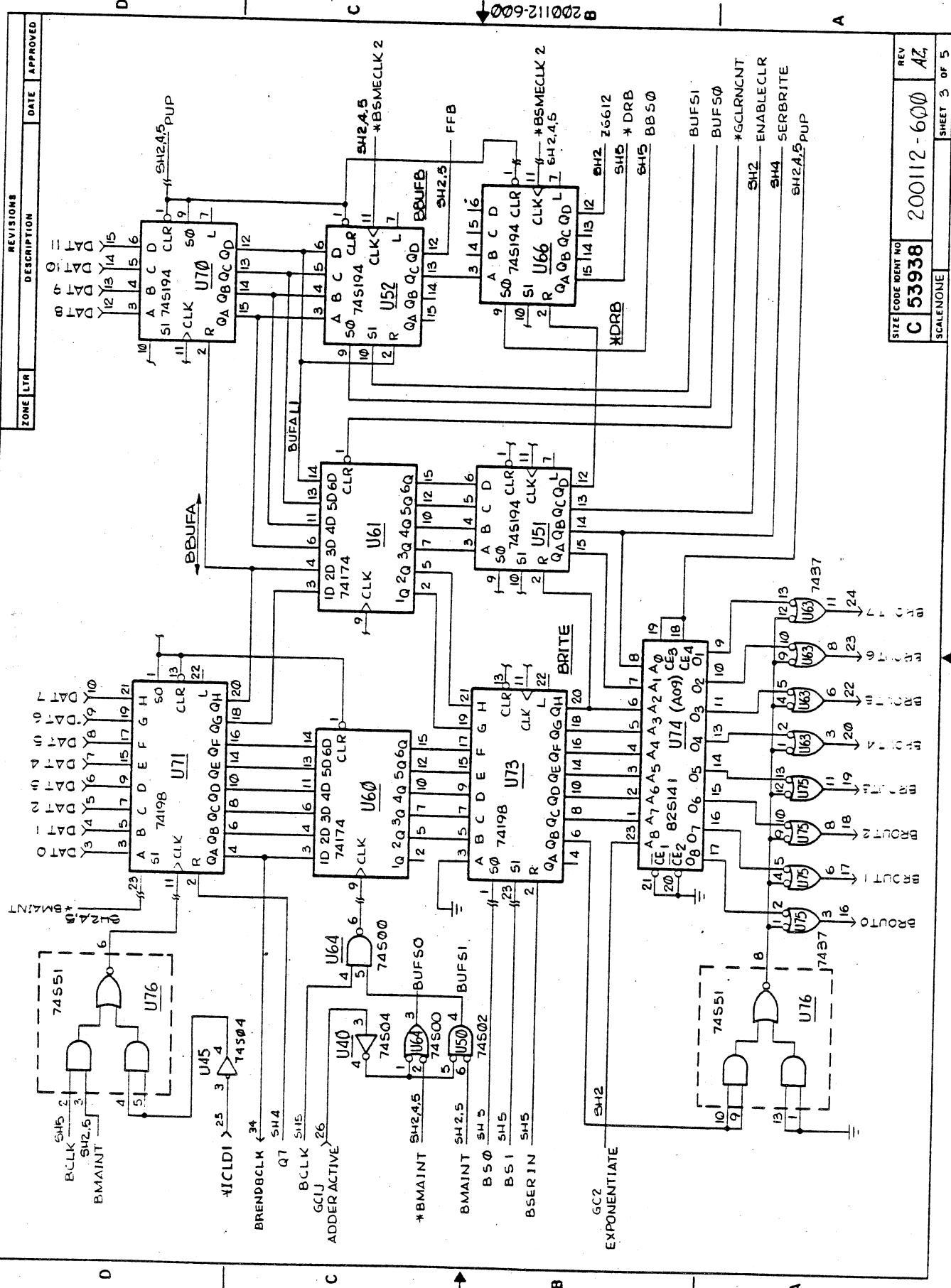
ZONE	LTR	DESCRIPTION	DATE	APPROVED

REVISIONS	DESCRIPTION	DATE	APPROVED

SIZE	CODE	IDENT	NO	REV
C	53938	200112-600		A1
SCALE				NONE
				SHEET 2 OF 5



ZONE	TR	DESCRIPTION	DATE	APPROVED



ZONE	TR	DESCRIPTION	DATE	APPROVED

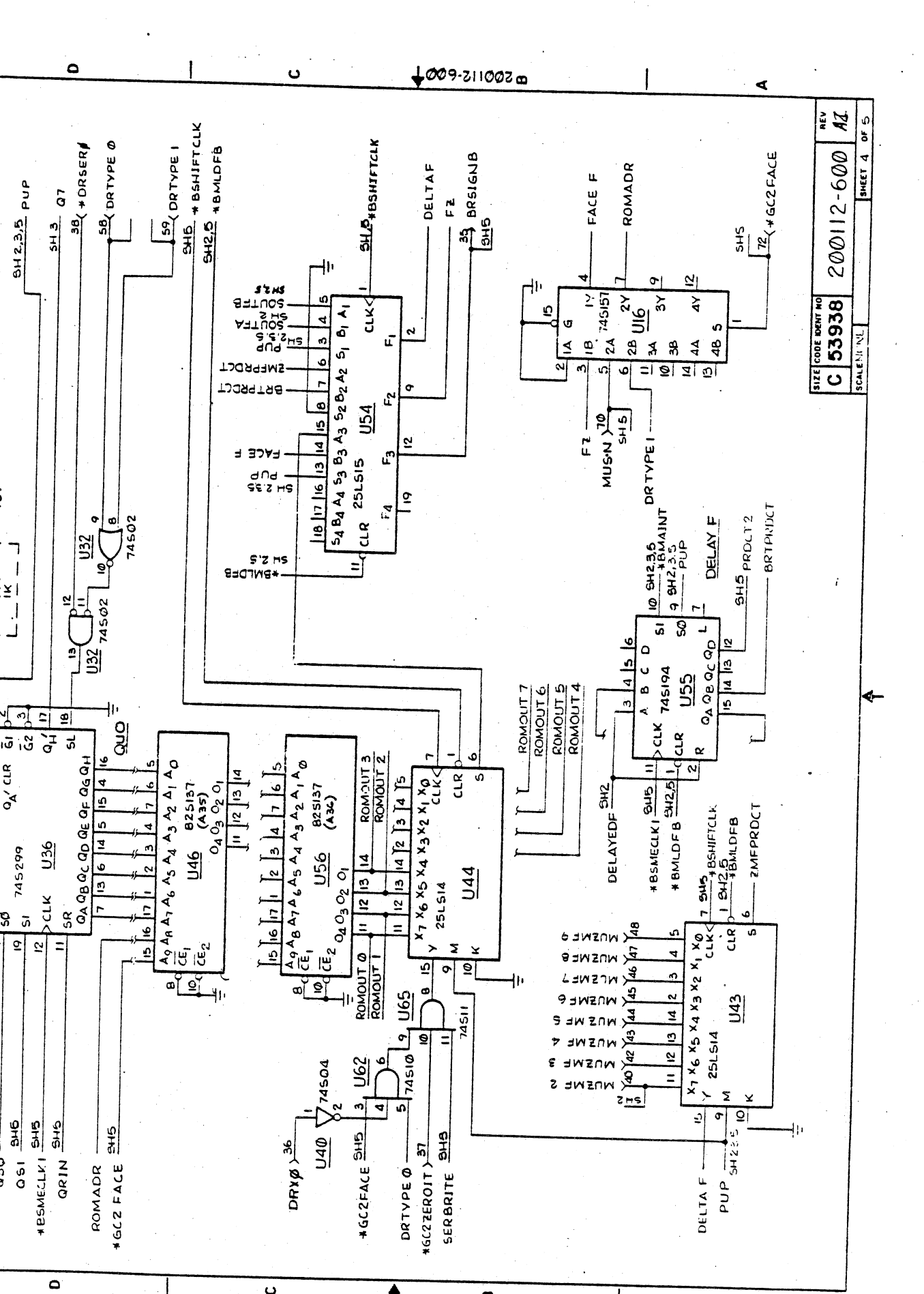
SIZE CODE IDENT NO
C 53938
 SCALE NONE

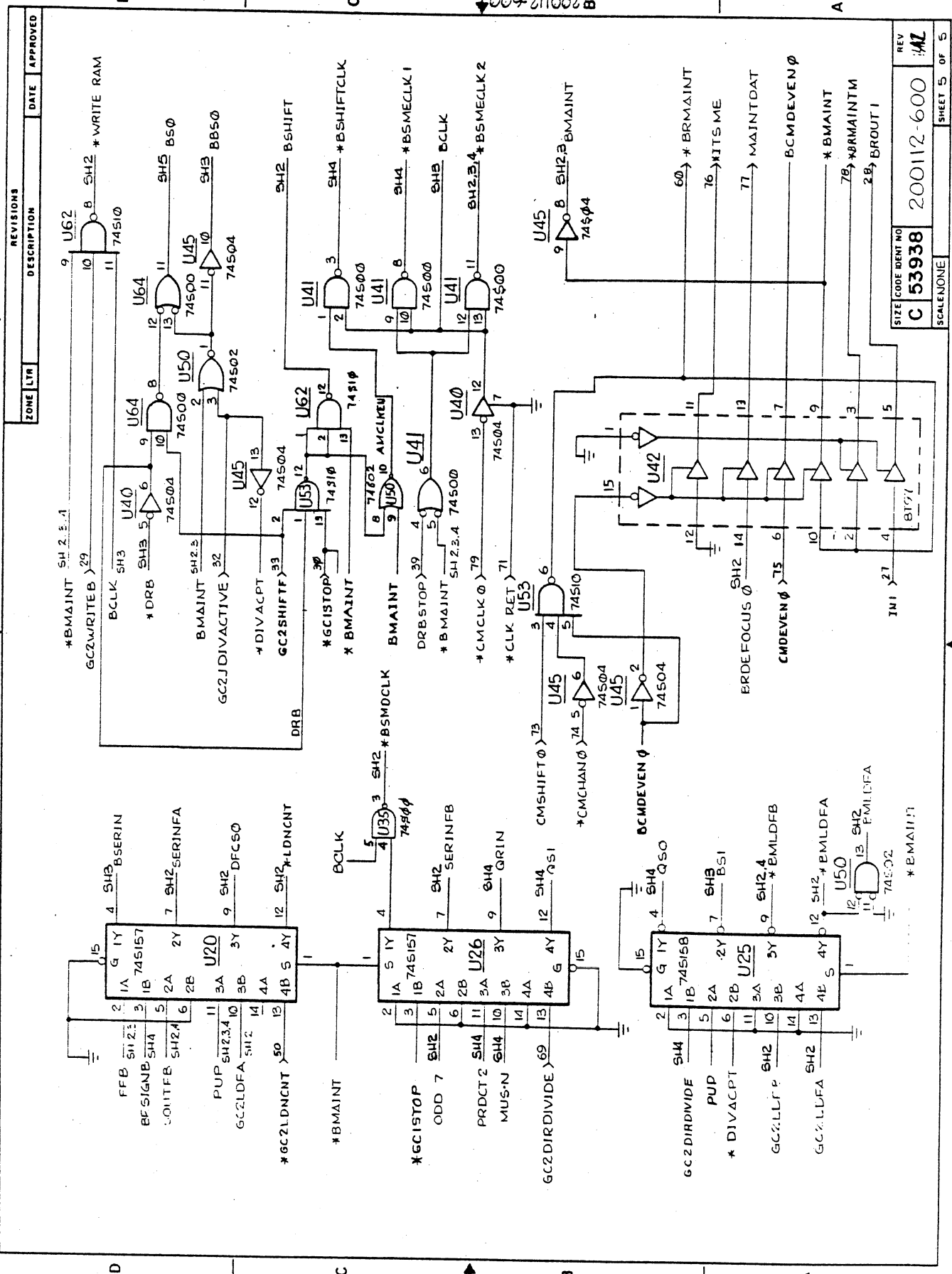
REV
AZ

200112-600
 SHEET 3 OF 5

200112-600

REV	DESCRIPTION	DATE	APPROVED
1			
2			
3			
4			





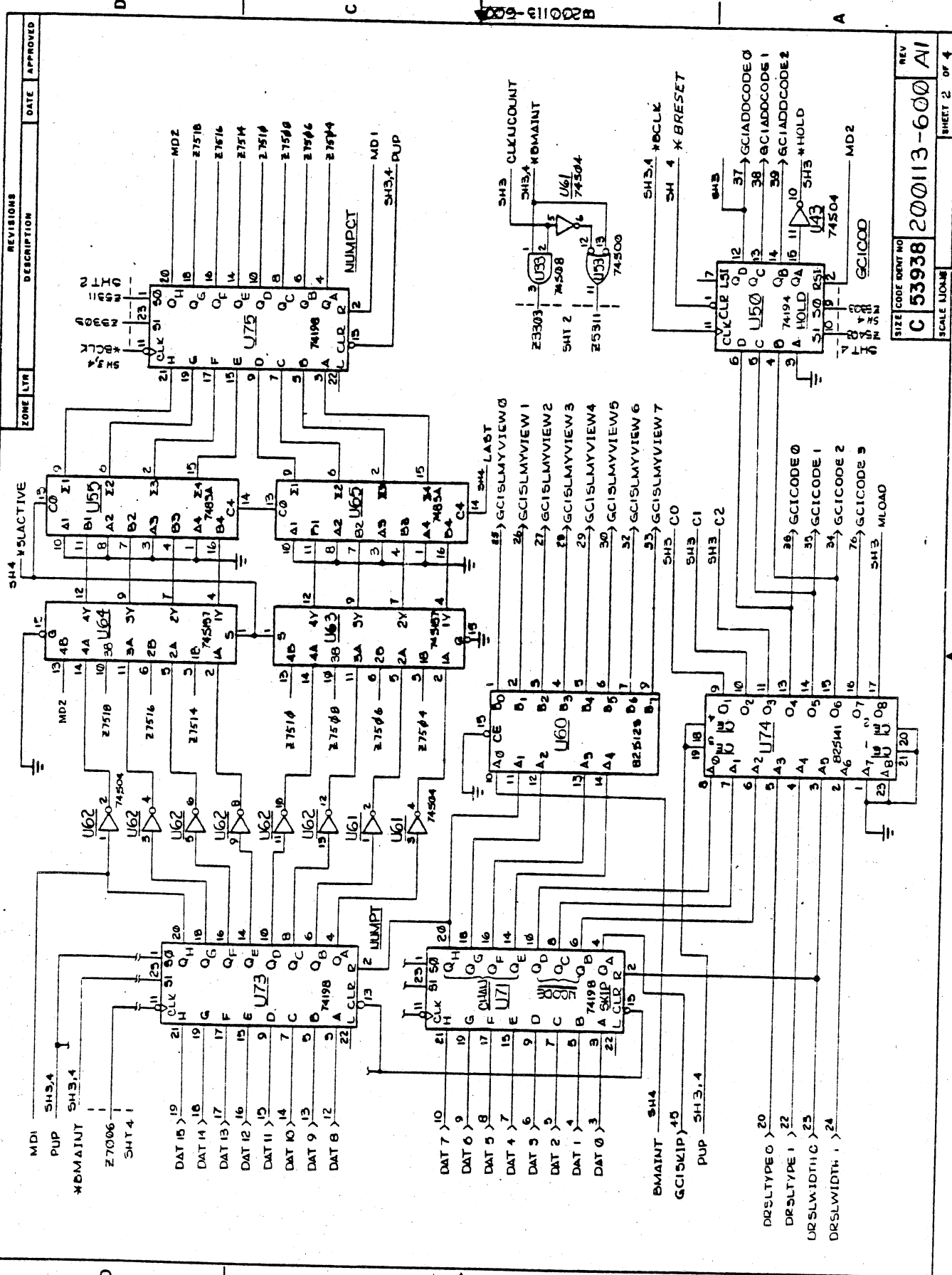
ZONE	LTR	DESCRIPTION	DATE	APPROVED

REV	42
SIZE CODE IDENT NO	C 53938
SCALE NONE	200112-600
SHEET 5	OF 5



ZONE	LTR	DESCRIPTION	DATE	APPROVED
A1		ADD MOUNT WRITE ON S.O.C. NW	2-28	ES

REF	DESIG	E-S	PART NO	VENDOR PART NUMBER	REF	DESIG	E-S	PART NO	VENDOR PART NUMBER	PIH #	IRLNAME	
C	1	804102-475	CS136475K		J	50	807694-055	SN745194N		P1	3	DA10
C	2	804102-475	CS136475K		J	51	807420-055	SN74520M		P1	4	DA11
C	3	804115-333	CV15C333M		J	52	807497-255	SN74510M		P1	5	DA12
C	4	804115-333	CV15C333M		J	53	807400-055	SN74500M		P1	6	DA13
C	5	804115-333	CV15C333M		J	54	807400-055	SN74500M		P1	7	DA14
C	6	804115-333	CV15C333M		J	55	807400-055	SN74500M		P1	8	DA15
C	7	804115-333	CV15C333M		J	60	807379-055	SN74522M		P1	9	DA16
C	8	804115-333	CV15C333M		J	61	807416-055	SN74504M		P1	10	DA17
C	9	804115-333	CV15C333M		J	62	807416-055	SN74504M		P1	11	DA18
C	10	804115-333	CV15C333M		J	63	807637-055	SN745157M		P1	12	DA19
C	11	804115-333	CV15C333M		J	64	807637-055	SN745157M		P1	13	DA20
C	12	804115-333	CV15C333M		J	70	807637-055	SN745157M		P1	14	DA21
C	13	804115-333	CV15C333M		J	71	807637-055	SN745157M		P1	15	DA22
C	14	804115-333	CV15C333M		J	72	807637-055	SN745157M		P1	16	DA23
C	15	804115-333	CV15C333M		J	73	807605-644	SN74519M		P1	17	DA24
C	16	804115-333	CV15C333M		J	74	807605-644	SN74519M		P1	18	DA25
C	17	804115-333	CV15C333M		J	75	807605-644	SN74519M		P1	19	DA26
C	18	804115-333	CV15C333M		J	76	807605-644	SN74519M		P1	20	DA27
C	19	804115-333	CV15C333M		J	77	807605-644	SN74519M		P1	21	DA28
C	20	804115-333	CV15C333M		J	78	807605-644	SN74519M		P1	22	DA29
C	21	804115-333	CV15C333M		J	79	807605-644	SN74519M		P1	23	DA30
C	22	804115-333	CV15C333M		J	80	807605-644	SN74519M		P1	24	DA31
C	23	804115-333	CV15C333M		J	81	807605-644	SN74519M		P1	25	DA32
C	24	804115-333	CV15C333M		J	82	807605-644	SN74519M		P1	26	DA33
C	25	804115-333	CV15C333M		J	83	807605-644	SN74519M		P1	27	DA34
C	26	804115-333	CV15C333M		J	84	807605-644	SN74519M		P1	28	DA35
C	27	804115-333	CV15C333M		J	85	807605-644	SN74519M		P1	29	DA36
C	28	804115-333	CV15C333M		J	86	807605-644	SN74519M		P1	30	DA37
C	29	804115-333	CV15C333M		J	87	807605-644	SN74519M		P1	31	DA38
C	30	804115-333	CV15C333M		J	88	807605-644	SN74519M		P1	32	DA39
C	31	804115-333	CV15C333M		J	89	807605-644	SN74519M		P1	33	DA40
C	32	804115-333	CV15C333M		J	90	807605-644	SN74519M		P1	34	DA41
C	33	804115-333	CV15C333M		J	91	807605-644	SN74519M		P1	35	DA42
C	34	804115-333	CV15C333M		J	92	807605-644	SN74519M		P1	36	DA43
C	35	804115-333	CV15C333M		J	93	807605-644	SN74519M		P1	37	DA44
C	36	804115-333	CV15C333M		J	94	807605-644	SN74519M		P1	38	DA45
C	37	804115-333	CV15C333M		J	95	807605-644	SN74519M		P1	39	DA46
C	38	804115-333	CV15C333M		J	96	807605-644	SN74519M		P1	40	DA47
C	39	804115-333	CV15C333M		J	97	807605-644	SN74519M		P1	41	DA48
C	40	804115-333	CV15C333M		J	98	807605-644	SN74519M		P1	42	DA49
C	41	804115-333	CV15C333M		J	99	807605-644	SN74519M		P1	43	DA50
C	42	804115-333	CV15C333M		J	100	807605-644	SN74519M		P1	44	DA51
C	43	804115-333	CV15C333M		J	101	807605-644	SN74519M		P1	45	DA52
C	44	804115-333	CV15C333M		J	102	807605-644	SN74519M		P1	46	DA53
C	45	804115-333	CV15C333M		J	103	807605-644	SN74519M		P1	47	DA54
C	46	804115-333	CV15C333M		J	104	807605-644	SN74519M		P1	48	DA55
C	47	804115-333	CV15C333M		J	105	807605-644	SN74519M		P1	49	DA56
C	48	804115-333	CV15C333M		J	106	807605-644	SN74519M		P1	50	DA57
C	49	804115-333	CV15C333M		J	107	807605-644	SN74519M		P1	51	DA58
C	50	804115-333	CV15C333M		J	108	807605-644	SN74519M		P1	52	DA59
C	51	804115-333	CV15C333M		J	109	807605-644	SN74519M		P1	53	DA60
C	52	804115-333	CV15C333M		J	110	807605-644	SN74519M		P1	54	DA61
C	53	804115-333	CV15C333M		J	111	807605-644	SN74519M		P1	55	DA62
C	54	804115-333	CV15C333M		J	112	807605-644	SN74519M		P1	56	DA63
C	55	804115-333	CV15C333M		J	113	807605-644	SN74519M		P1	57	DA64
C	56	804115-333	CV15C333M		J	114	807605-644	SN74519M		P1	58	DA65
C	57	804115-333	CV15C333M		J	115	807605-644	SN74519M		P1	59	DA66
C	58	804115-333	CV15C333M		J	116	807605-644	SN74519M		P1	60	DA67
C	59	804115-333	CV15C333M		J	117	807605-644	SN74519M		P1	61	DA68
C	60	804115-333	CV15C333M		J	118	807605-644	SN74519M		P1	62	DA69
C	61	804115-333	CV15C333M		J	119	807605-644	SN74519M		P1	63	DA70
C	62	804115-333	CV15C333M		J	120	807605-644	SN74519M		P1	64	DA71
C	63	804115-333	CV15C333M		J	121	807605-644	SN74519M		P1	65	DA72
C	64	804115-333	CV15C333M		J	122	807605-644	SN74519M		P1	66	DA73
C	65	804115-333	CV15C333M		J	123	807605-644	SN74519M		P1	67	DA74
C	66	804115-333	CV15C333M		J	124	807605-644	SN74519M		P1	68	DA75
C	67	804115-333	CV15C333M		J	125	807605-644	SN74519M		P1	69	DA76
C	68	804115-333	CV15C333M		J	126	807605-644	SN74519M		P1	70	DA77
C	69	804115-333	CV15C333M		J	127	807605-644	SN74519M		P1	71	DA78
C	70	804115-333	CV15C333M		J	128	807605-644	SN74519M		P1	72	DA79
C	71	804115-333	CV15C333M		J	129	807605-644	SN74519M		P1	73	DA80
C	72	804115-333	CV15C333M		J	130	807605-644	SN74519M		P1	74	DA81
C	73	804115-333	CV15C333M		J	131	807605-644	SN74519M		P1	75	DA82
C	74	804115-333	CV15C333M		J	132	807605-644	SN74519M		P1	76	DA83
C	75	804115-333	CV15C333M		J	133	807605-644	SN74519M		P1	77	DA84
C	76	804115-333	CV15C333M		J	134	807605-644	SN74519M		P1	78	DA85
C	77	804115-333	CV15C333M		J	135	807605-644	SN74519M		P1	79	DA86
C	78	804115-333	CV15C333M		J	136	807605-644	SN74519M		P1	80	DA87
C	79	804115-333	CV15C333M		J	137	807605-644	SN74519M		P1	81	DA88
C	80	804115-333	CV15C333M		J	138	807605-644	SN74519M		P1	82	DA89
C	81	804115-333	CV15C333M		J	139	807605-644	SN74519M		P1	83	DA90
C	82	804115-333	CV15C333M		J	140	807605-644	SN74519M		P1	84	DA91
C	83	804115-333	CV15C333M		J	141	807605-644	SN74519M		P1	85	DA92
C	84	804115-333	CV15C333M		J	142	807605-644	SN74519M		P1	86	DA93
C	85	804115-333	CV15C333M		J	143	807605-644	SN74519M		P1	87	DA94
C	86	804115-333	CV15C333M		J	144	807605-644	SN74519M		P1	88	DA95
C	87	804115-333	CV15C333M		J	145	807605-644	SN74519M		P1	89	DA96
C	88	804115-333	CV15C333M		J	146	807605-644	SN74519M		P1	90	DA97
C	89	804115-333	CV15C333M		J	147	807605-644	SN74519M		P1	91	DA98
C	90	804115-333	CV15C333M		J	148	807605-644	SN74519M		P1	92	DA99
C	91	804115-333	CV15C333M		J	149	807605-644	SN74519M		P1	93	DA100
C	92	804115-333	CV15C333M		J	150	807605-644	SN74519M		P1	94	DA101
C	93	804115-333	CV15C333M		J	151	807605-644	SN74519M		P1	95	DA102
C	94	804115-333	CV15C333M		J	152	807605-644	SN74519M		P1	96	DA103
C	95	804115-333	CV15C333M		J	153	807605-644	SN74519M		P1	97	DA104
C	96	804115-333	CV15C333M		J	154	807605-644	SN74519M		P1	98	DA105
C	97	804115-333	CV15C333M		J	155	807605-644	SN74519M		P1	99	DA106
C	98	804115-333	CV15C333M		J	156	807605-644	SN74519M		P1	100	DA107
C	99	804115-333	CV15C333M		J	157	807605-644	SN74519M		P1	101	DA108
C	100	804115-333	CV15C333M		J	158	807605-644	SN74519M		P1	102	DA109
C	101	804115-333	CV15C333M		J	159	807605-644	SN74519M		P1	103	DA110
C	102	804115-333	CV15C333M		J	160	807605-644	SN74519M		P1	104	DA111
C	103	804115-333	CV15C333M		J	161	807605-644	SN74519M		P1	105	DA112
C	104	804115-333	CV15C333M		J	162	807605-644	SN74519M		P1	106	DA113
C	105	804115-333	CV15C333M		J	163	807605-644	SN74519M		P1	107	DA114
C	106	804115-333	CV15C333M		J	164	807605-644	SN74519M		P1	108	DA115
C	107	80										



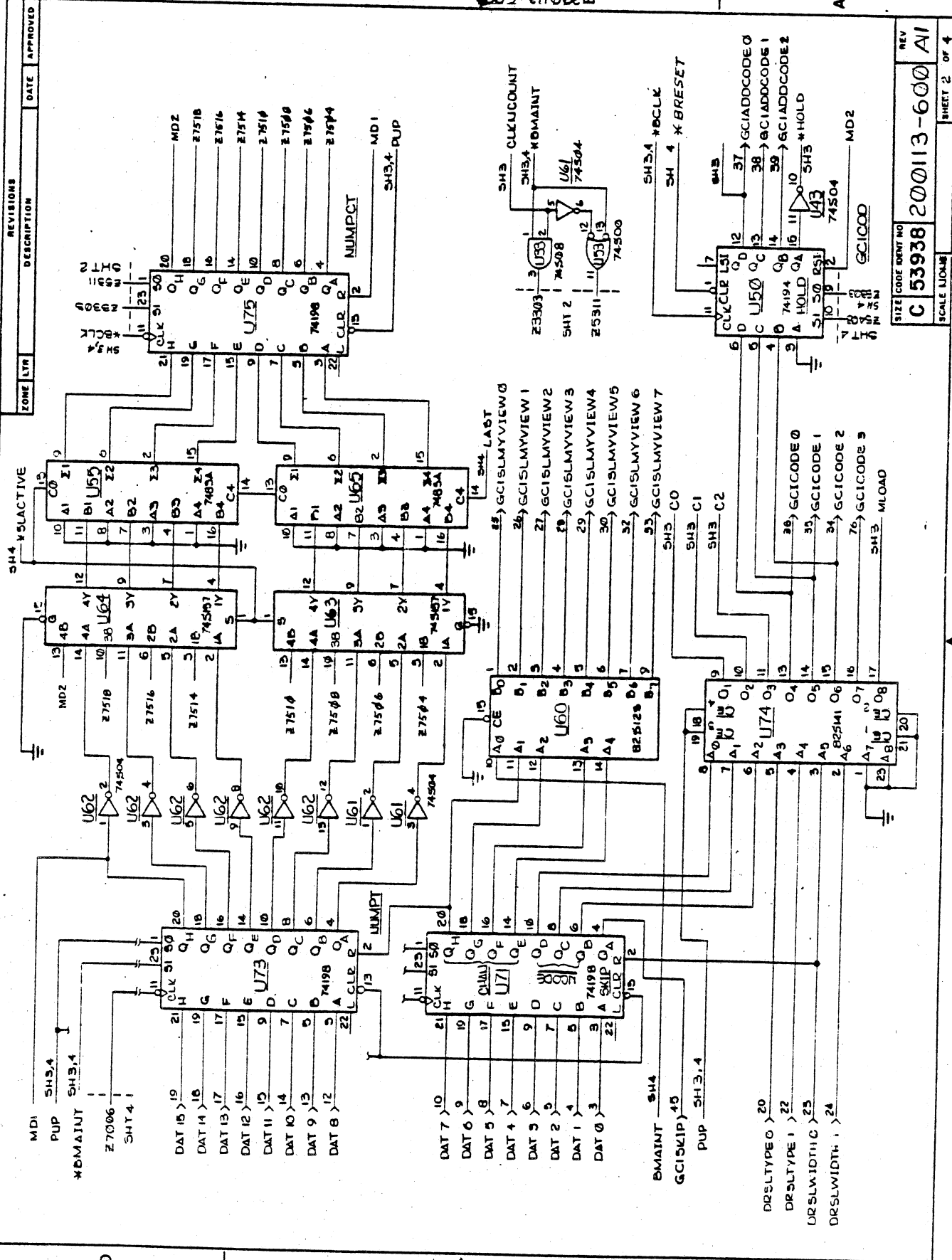
ZONE	LTR	DESCRIPTION	DATE	APPROVED

SIZE	CODE	DRAWING NO	REV
C	53938	200113-600	A1
SCALE		SHEET 2 OF 4	

1
2
3
4

D
C
B
A

REVISIONS



ZONE	LTR	DESCRIPTION	DATE	APPROVED

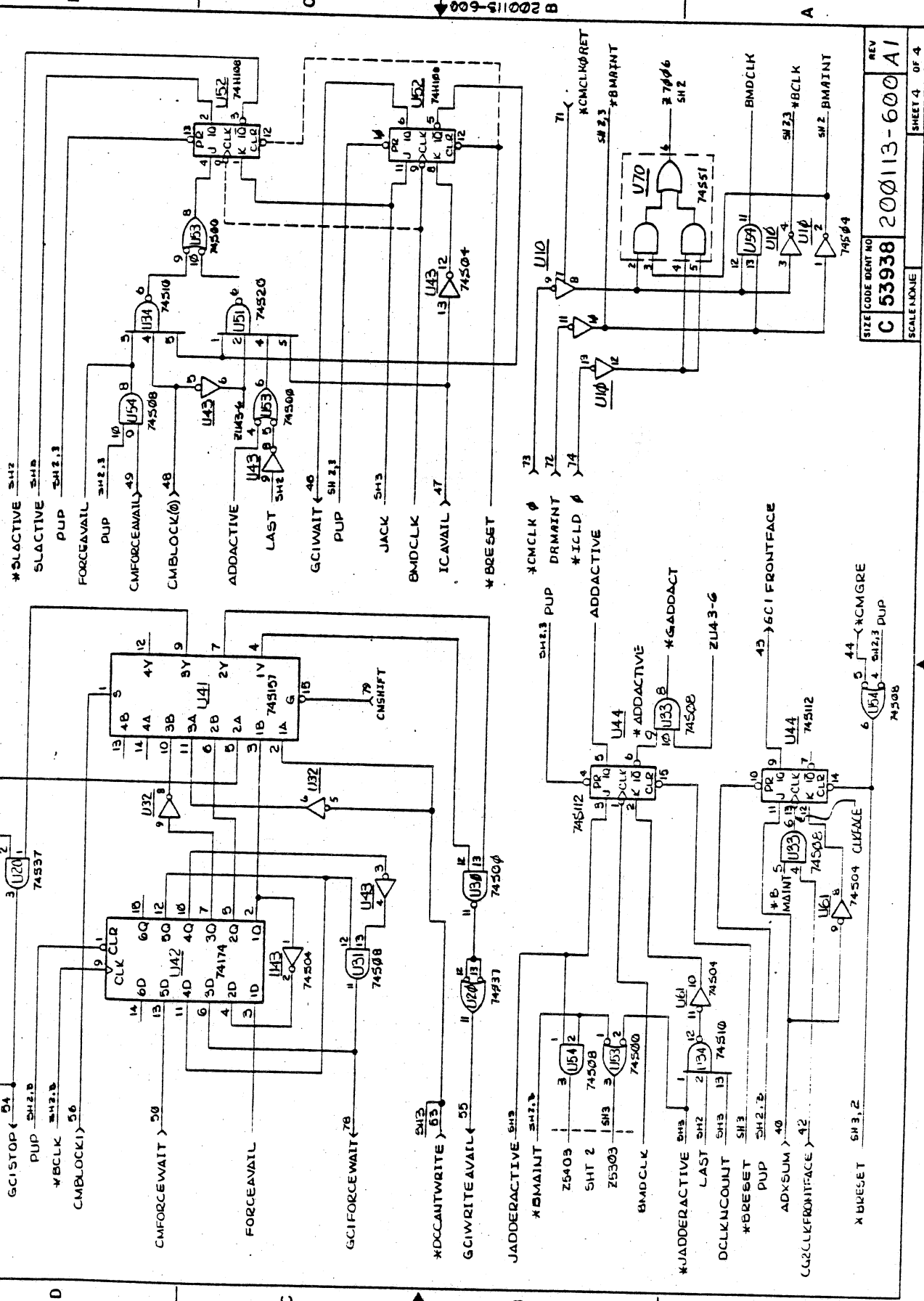
SIZE	CODE	DRAWING NO	REV
C	53938	200113-600	A1
SCALE		SHEET 2 OF 4	

1
2
3
4

D
C
B
A

REVISIONS

REVISIONS		ZONE	DATE	APPROVED



SIZE	CODE	IDENT NO	REV
C	53938	200113-600	A1
SCALE NONE			SHEET 4 OF 4

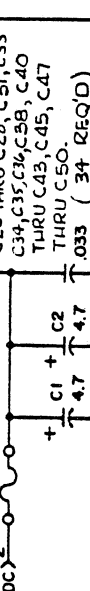
B 200113-600

ZONE	DATE	DESCRIPTION	APPROVED

REVISIONS

NOTICE:
 All information contained herein together with all drawings, diagrams and specifications herein or attendant here to, and remain, the property of Evans & Sutherland Computer Corporation. Many of the intellectual and technical concepts described herein are proprietary to Evans & Sutherland and may be covered by U.S. and Foreign Patents or Patent Pending or are protected as trade secrets. Any dissemination of this information or reproduction of the same for purposes other than those for which it was prepared is strictly forbidden unless express written permission is obtained from Evans & Sutherland Computer Corporation.

REF	DESIG	PART NO	VENDOR PART NUMBER	WIRENAME	PIN #
C 1	804102-475	C5138FA7AK	9131ADPC	GC2IHTA	3
C 2	804102-475	C5138FA7AK	SN745194N	*GC2LDB	PI 1
C 3	804115-333	CV15C333M	M25137F	*GC2ZENOJ	PI 2
C 4	804115-333	CV15C333M	SN74537M	*GC2ZENOJ	PI 3
C 5	804115-333	CV15C333M	SN745194N	*GC2ZENOJ	PI 4
C 6	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 5
C 7	804115-333	CV15C333M	SN745194N	*GC2LATCH	PI 6
C 8	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 7
C 9	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 8
C 10	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 9
C 11	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 10
C 12	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 11
C 13	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 12
C 14	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 13
C 15	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 14
C 16	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 15
C 17	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 16
C 18	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 17
C 19	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 18
C 20	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 19
C 21	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 20
C 22	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 21
C 23	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 22
C 24	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 23
C 25	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 24
C 26	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 25
C 27	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 26
C 28	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 27
C 29	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 28
C 30	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 29
C 31	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 30
C 32	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 31
C 33	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 32
C 34	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 33
C 35	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 34
C 36	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 35
C 37	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 36
C 38	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 37
C 39	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 38
C 40	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 39
C 41	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 40
C 42	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 41
C 43	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 42
C 44	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 43
C 45	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 44
C 46	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 45
C 47	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 46
C 48	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 47
C 49	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 48
C 50	804115-333	CV15C333M	M25137F	*GC2LATCH	PI 49
R 1	803201-102				
U 10	807416-055	SN74504W			
U 11	807400-090	SN74537M			
U 12	807400-090	SN74537M			
U 13	807400-090	SN745194N			



CONTRACT NO.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
EVANS & SUTHERLAND COMPUTER CORPORATION BALT LAKE CITY, UTAH 84118	TOLERANCES ON .XXX ± ANGLES ±
GP CONTROL I	MATERIAL
(w/w)	FINISH
SIZE CODE IDENT NO C 53938	APPLY
SCALE NONE	
REV NC	
200114-600	
SHEET 1 OF 5	

3. SERIAL SHIFT LOOP SEQUENCE
 P1.59, 24.12, 34.12, 44.12, 21.12, 30.12, 15.12, 40.12, 50.12, 31.12, 41.12, 51.12, 13.12, 55.12, 65.12, 54.12, 64.12, 56.12, 60.12, 70.12, 61.12, 62.12, 63.12, 56.12, 61.12

2. NUMBERS SHOWN REFER TO CONNECTOR P1.
 ALL CAPACITANCE VALUES ARE EXPRESSED IN MICROFARADS.
 RESISTANCE VALUES ARE EXPRESSED IN OHMS,
 K DENOTES 1000.
 RESISTORS ARE 1/4 WATT, ± 5% TOLERANCE.
 ON ALL 20 PIN I.C.'S, PIN 10 IS GROUND AND
 PIN 20 IS POWER (+5V).
 ON ALL 16 PIN I.C.'S, PIN 8 IS GROUND AND
 PIN 16 IS POWER (+5V).
 ON ALL 14 PIN I.C.'S, PIN 7 IS GROUND AND
 PIN 14 IS POWER (+5V).
 1. UNLESS OTHERWISE SPECIFIED:

ZONE	DATE	DESCRIPTION	APPROVED

NOTES:

ZONE	DATE	DESCRIPTION	APPROVED

SEE SEPARATE PARTS LIST
 EVANS & SUTHERLAND
 COMPUTER CORPORATION
 BALT LAKE CITY, UTAH 84118

GP CONTROL I
 (w/w)

SIZE CODE IDENT NO
 C 53938

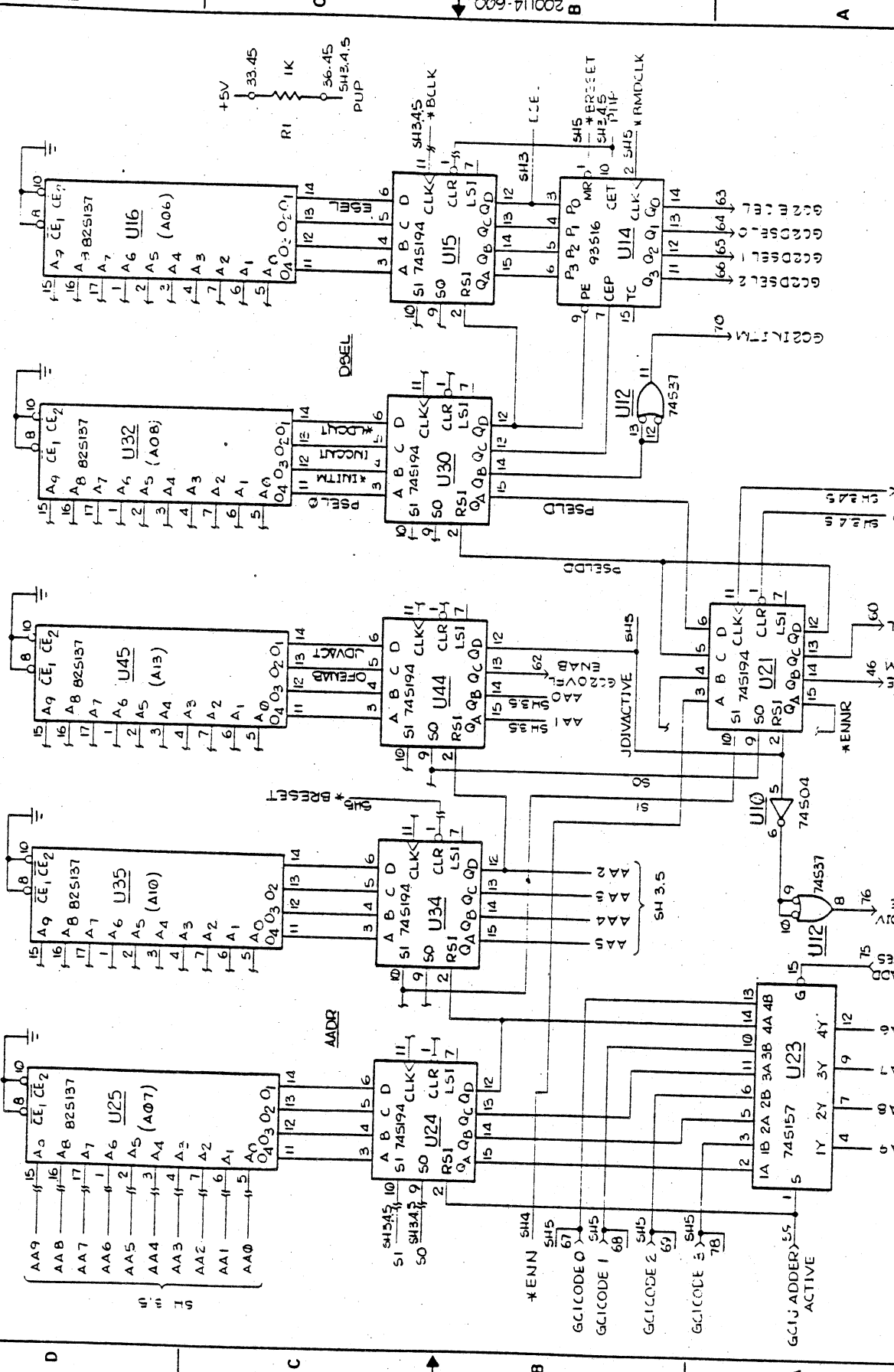
SCALE NONE

REV
 NC

200114-600

SHEET 1 OF 5

ZONE	LTN	DESCRIPTION	DATE	APPROVED

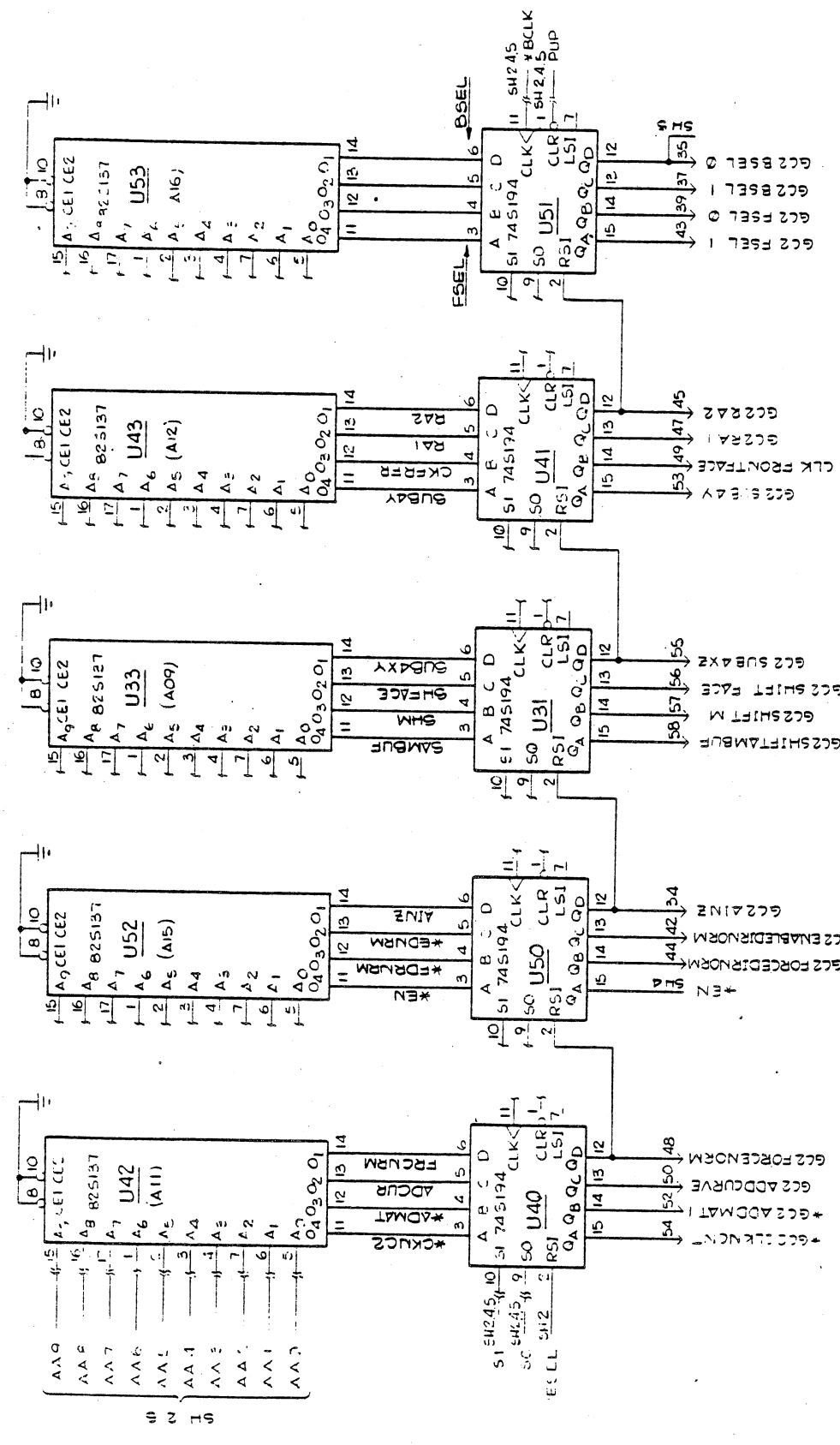


SIZE CODE	DENT NO	REV
C	53938	200114-600
SCALE	NONE	SHEET 2 OF 5

200114-600

REVISIONS		DATE	APPROVED
ZONE	LTR		

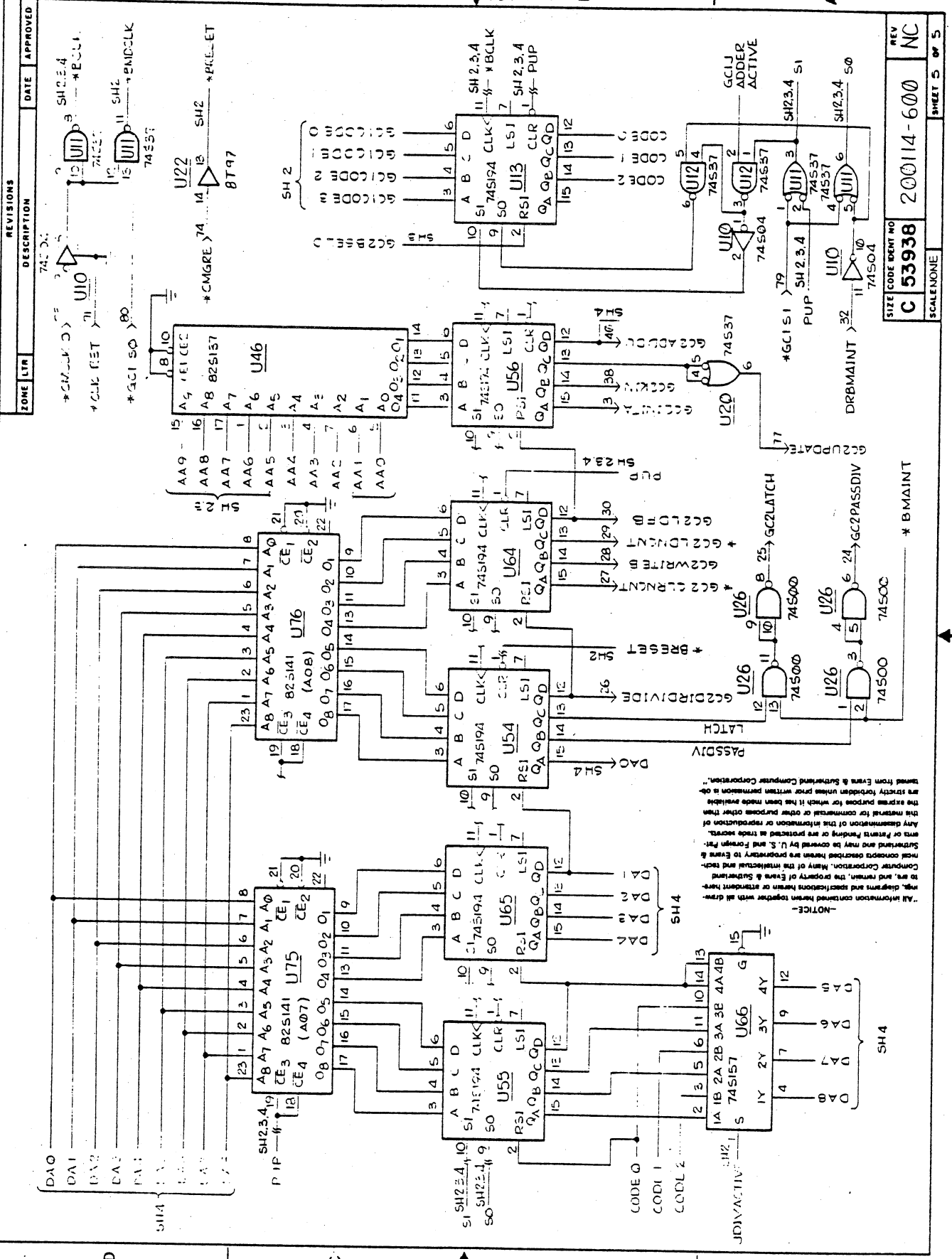
1 2 3 4



NOTICE - All information contained herein together with all drawings, diagrams and specifications herein or attendant here to, and remain, the property of Evans & Sutherland Computer Corporation. Many of the Intellectual and technical concepts described herein are proprietary to Evans & Sutherland and may be covered by U. S. and Foreign Patents or Patents Pending and are protected as trade secrets. Any dissemination of this information or reproduction of this material for commercial or other purposes without the express purpose for which it has been made available is strictly forbidden unless prior written permission is obtained from Evans & Sutherland Computer Corporation.

SIZE CODE	IDENT NO	REV
C	53938	200114-600
SCALE	NONE	SHEET 3 OF 5

B 200114-600



ZONE	DATE	DESCRIPTION	DATE	APPROVED
1				
2				
3				
4				

ZONE	DATE	DESCRIPTION	DATE	APPROVED
1				
2				
3				
4				

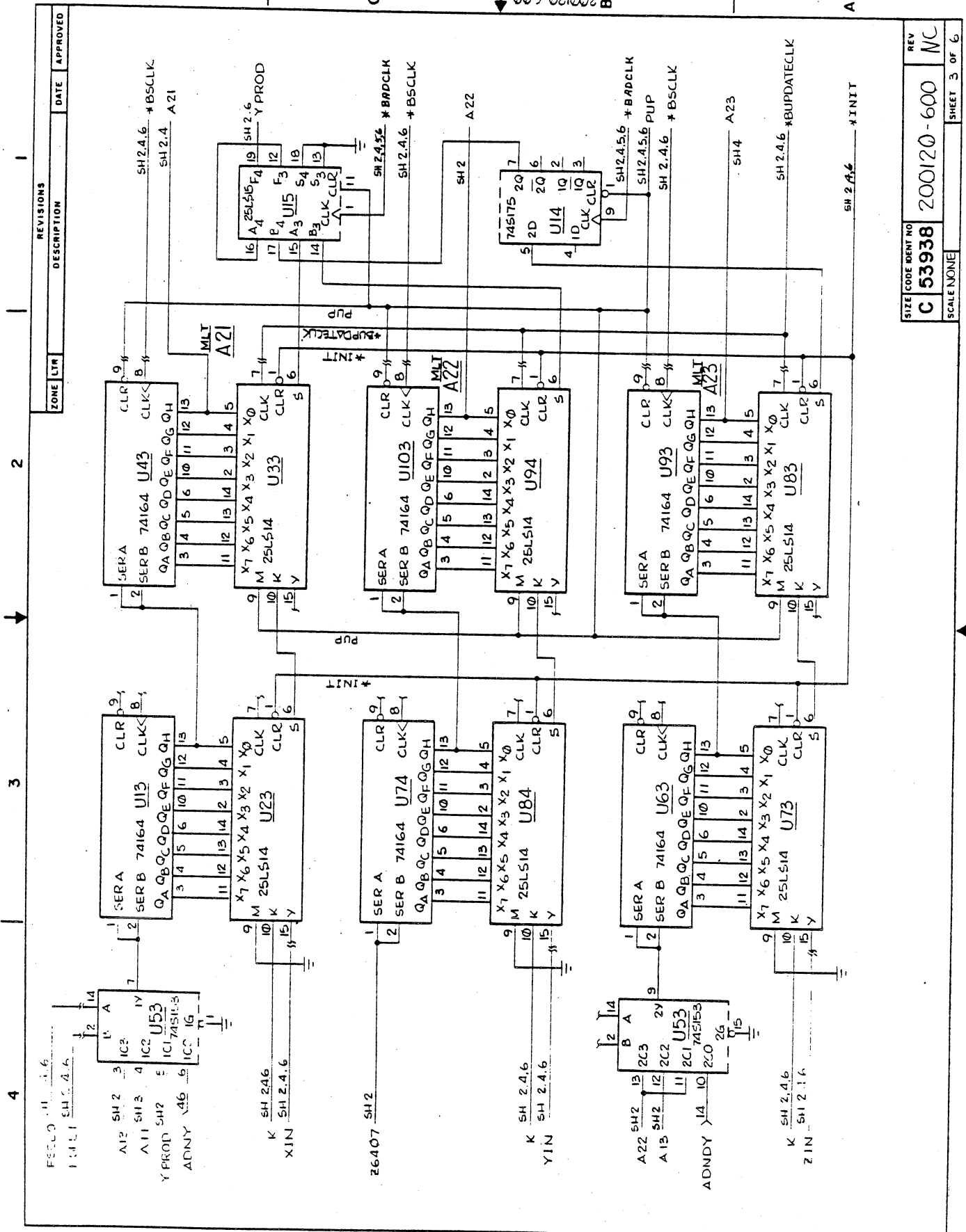
ZONE	DATE	DESCRIPTION	DATE	APPROVED
1				
2				
3				
4				

200114-600

REV NC
 SIZE CODE IDENT NO C 53938
 SCALE NONE 200114-600
 SHEET 5 OF 5

-NOTICE-
 All information contained herein together with all drawings, diagrams and specifications herein or attendant hereon, and remain, the property of Evans & Sutherland Computer Corporation. Herein are proprietary to Evans & Sutherland and may be covered by U.S. and Foreign Patents and/or other intellectual property rights. Any dissemination of this information or reproduction of this material for commercial or other purposes other than the express purpose for which it has been provided is strictly prohibited unless prior written permission is obtained from Evans & Sutherland Computer Corporation.



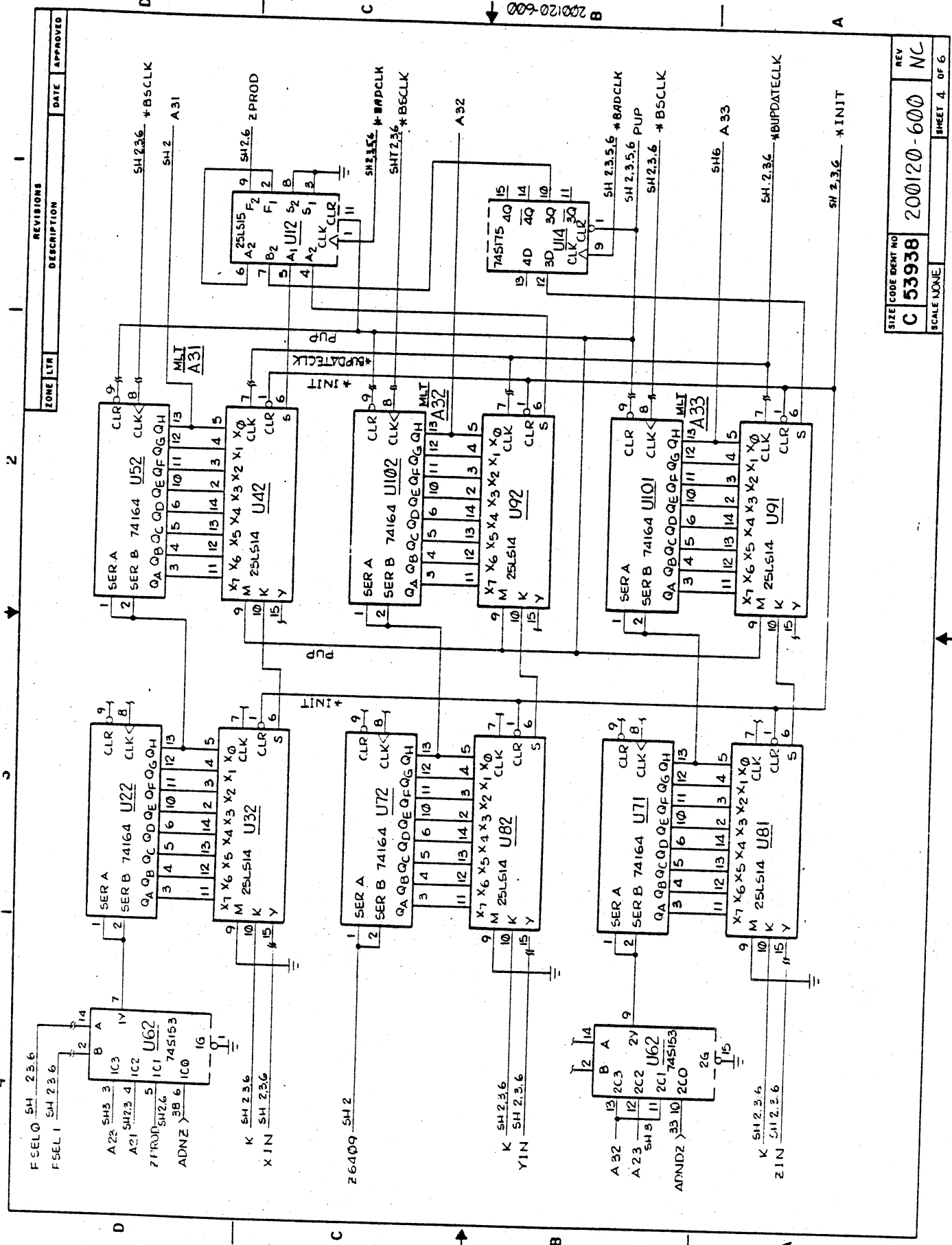


ZONE	LT#	DESCRIPTION	DATE	APPROVED

SIZE CODE	REV
C 53938	NC
SCALE	SHEET
NONE	3 OF 6

REV	200120-600
SCALE	3 OF 6

B 200120-600



ZONE	LINE	DESCRIPTION	DATE	APPROVED

SIZE	CODE	DESIGN NO	REV
C	53938	200120-600	NC
SCALE	NONE		SHEET 4 OF 6

200120-600

SH 2.3.6

SH 2.3.5

SH 2.3.4

SH 2.3.3

SH 2.3.2

SH 2.3.1

SH 2.3.0

SH 2.3.6

SH 2.3.5

SH 2.3.4

SH 2.3.3

SH 2.3.2

SH 2.3.1

SH 2.3.0

SH 2.3.6

SH 2.3.5

SH 2.3.4

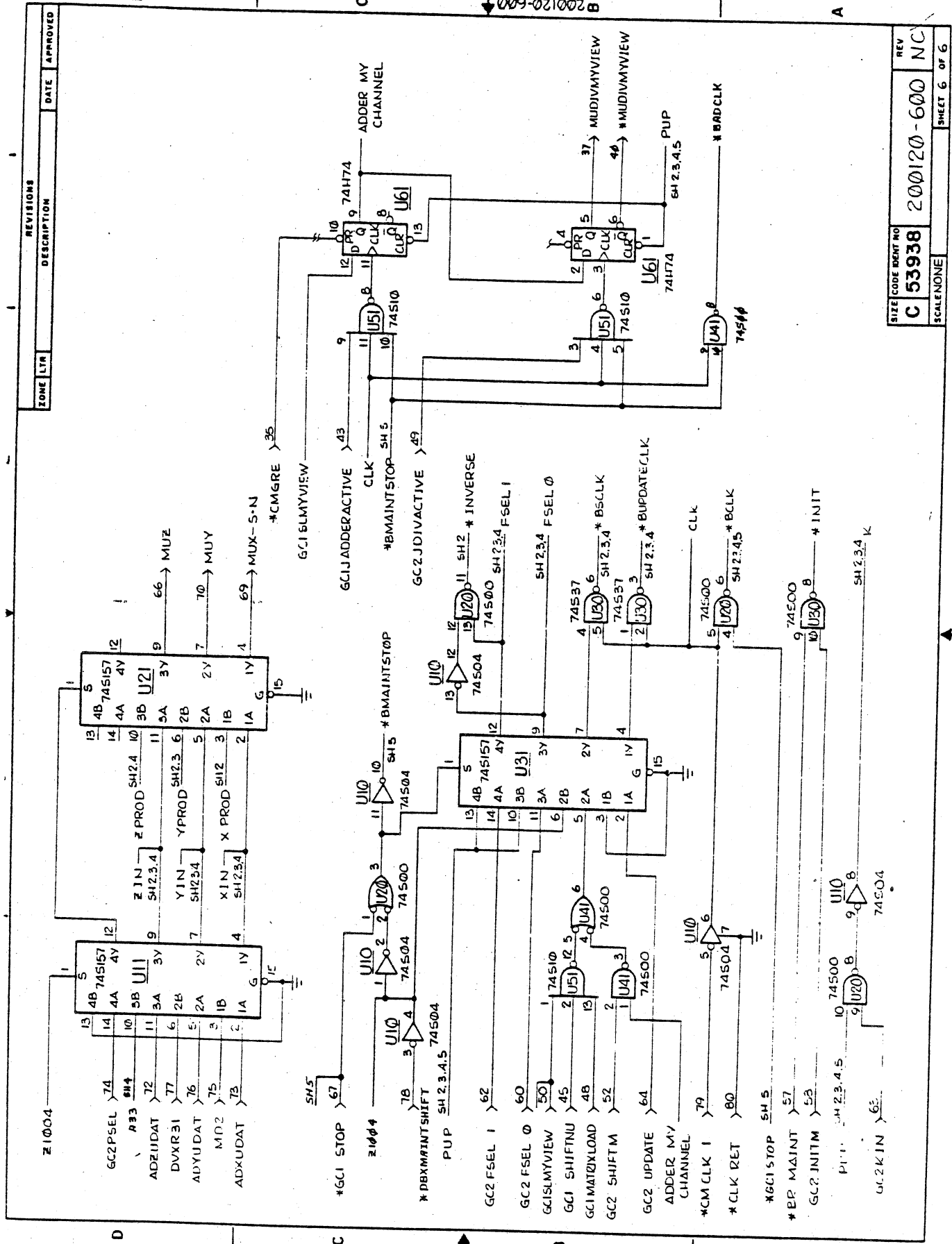
SH 2.3.3

SH 2.3.2

SH 2.3.1

SH 2.3.0

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED



SIZE CODE IDENT NO
C 53938

REV
200120-600

SCALE NONE

SHEET 6 OF 6

D

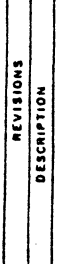
C

B

A

REF	DESIG	E+S	PART NO	VENDOR PART N/PEER	REF	DESIG	E+S	PART NO	VENDOR PART NUMBER	PIN #	W/RENAME
C	1	004102-475	CS13F6ATEK		U	75	807784-055	SN745381N	PI 5	YCIN	
C	2	004115-333	CV45E333M		U	24	807694-055	SN745194N	PI 9	MU212	
C	30	004115-333	CV45E333M		U	24	807694-055	SN745194N	PI 9	MU212	
C	30	004115-333	CV45E333M		U	42	807694-055	SN745194N	PI 10	CC2/DIVIDESEL	
A	1	807201-471			U	83	807657-055	SN745157N	PI 13	MU211	
A	2	807201-471			U	84	807784-055	SN745381N	PI 15	MU215	
A	2	807201-471			U	85	807694-055	SN745194N	PI 17	UBGLVIDE	
U	10	807490-055	SN74509M		U	19	UVZ51		PI 19	UVZ51	
U	11	807694-055	SN745194N		U	20	UVZ50		PI 20	UVZ50	
U	12	807694-055	SN745194N		U	22	UVX40		PI 22	UVX40	
U	13	807657-055	SN745157N		U	24	UVZ50		PI 24	UVZ50	
U	14	807657-055	SN745157N		U	25	UBBPASS-DIV		PI 25	UBBPASS-DIV	
U	15	807784-055	SN745381N		U	26	GC2SHIFTRIC		PI 26	GC2SHIFTRIC	
U	20	807694-055	SN745194N		U	27	DVFSER		PI 27	DVFSER	
U	21	807410-055	SN74510M		U	28	UVY40		PI 28	UVY40	
U	22	807694-055	SN745194N		U	29	*UBXMAINT-SHIFT		PI 29	*UBXMAINT-SHIFT	
U	23	807413-646	SN745164N		U	31	GC2TRM		PI 31	GC2TRM	
U	24	807657-055	SN745157N		U	31	GC2TRM		PI 31	GC2TRM	
U	25	807784-055	SN745381N		U	33	*GC1STOP		PI 33	*GC1STOP	
U	30	807694-055	SN745194N		U	33	*GC1STOP		PI 33	*GC1STOP	
U	31	807416-055	SN745166N		U	37	MU210		PI 37	MU210	
U	32	807694-055	SN745194N		U	39	MU211		PI 39	MU211	
U	33	807413-646	SN745164N		U	43	DVNCM2		PI 43	DVNCM2	
U	34	807657-055	SN745157N		U	43	DVNCM2		PI 43	DVNCM2	
U	35	807784-055	SN745381N		U	49	GC2SHIFTRIC		PI 49	GC2SHIFTRIC	
U	36	807694-055	SN745194N		U	47	GC2TRM		PI 47	GC2TRM	
U	41	807400-055	SN74510M		U	43	DVNCM2		PI 43	DVNCM2	
U	42	807494-055	SN745194N		U	49	DVNCM2		PI 49	DVNCM2	
U	43	807657-055	SN745157N		U	50	DVNCM1		PI 50	DVNCM1	
U	44	807657-055	SN745157N		U	50	DVNCM1		PI 50	DVNCM1	
U	45	807784-055	SN745381N		U	53	DVNCM1		PI 53	DVNCM1	
U	46	807694-055	SN745194N		U	53	DVNCM1		PI 53	DVNCM1	
U	47	807694-055	SN745194N		U	54	GC2ZENBLEMORN		PI 54	GC2ZENBLEMORN	
U	51	807661-742	SN745174N		U	55	GC2ZLATCHK		PI 55	GC2ZLATCHK	
U	52	807694-055	SN745194N		U	50	DVNCM1		PI 50	DVNCM1	
U	53	807682-055	SN745182N		U	57	MU210		PI 57	MU210	
U	54	807657-055	SN745157N		U	58	MU210		PI 58	MU210	
U	55	807784-055	SN745381N		U	58	MU210		PI 58	MU210	
U	56	807694-055	SN745194N		U	62	GC2LATCHK		PI 62	GC2LATCHK	
U	57	807694-055	SN745194N		U	65	*DVIMZO		PI 65	*DVIMZO	
U	61	807694-055	SN745194N		U	65	*DVIMZO		PI 65	*DVIMZO	
U	62	807694-055	SN745194N		U	65	*DVIMZO		PI 65	*DVIMZO	
U	63	807413-646	SN745164N		U	65	*DVIMZO		PI 65	*DVIMZO	
U	64	807657-055	SN745157N		U	65	*DVIMZO		PI 65	*DVIMZO	
U	65	807784-055	SN745381N		U	66	GC2FORCENORM		PI 66	GC2FORCENORM	
U	66	807694-055	SN745194N		U	67	MU210		PI 67	MU210	
U	67	807694-055	SN745194N		U	67	MU210		PI 67	MU210	
U	68	807694-055	SN745194N		U	69	MU210		PI 69	MU210	
U	69	807694-055	SN745194N		U	70	MU210		PI 70	MU210	
U	71	807694-055	SN745194N		U	73	DVYR27		PI 73	DVYR27	
U	72	807694-055	SN745194N		U	75	MU210		PI 75	MU210	
U	73	807694-055	SN745194N		U	76	MU210		PI 76	MU210	
U	74	807657-055	SN745157N		U	77	GC2LATCHK		PI 77	GC2LATCHK	
U	75	807657-055	SN745157N		U	78	DVXSER		PI 78	DVXSER	
U	76	807657-055	SN745157N		U	79	GC2EDBL		PI 79	GC2EDBL	

ZONE	LTR	DESCRIPTION	DATE	APPROVED



3. SERIAL SHIFT LOOP SEQUENCE
 P168, 25, 13, 63, 13, 72, 12, 82, 12, 16, 12, 96, 12, 56, 12, 76, 12, 67, 12, 52, 12, 42, 12, 32, 12, P156
 → P159, 33, 15, 75, 15, 26, 12, 46, 12, 66, 12, 86, 12, 22, 12, 12, 12, 11, 12, P173.

2. NUMBERS SHOWN REFER TO COLLECTOR PI.
 ALL CAPACITANCE VALUES ARE EXPRESSED IN MICROFARADS.
 RESISTANCE VALUES ARE EXPRESSED IN OHMS.
 K DENOTES 1000.
 RESISTORS ARE 1/4 WATT, ± 5% TOLERANCE.
 ON ALL 20 PIN I.C.'S, PIN 10 IS GROUND AND PIN 20 IS POWER (+5V).
 ON ALL 16 PIN I.C.'S, PIN 8 IS GROUND AND PIN 16 IS POWER (+5V).
 ON ALL 14 PIN I.C.'S, PIN 7 IS GROUND AND PIN 14 IS POWER (+5V).
 UNLESS OTHERWISE SPECIFIED;

NOTES:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		CONTRACT NO.	
TOLERANCES ON	.XX ±	DRAWN	R MELLUE 4.2.77
ANGLES ±	.XXX ±	CHECKED	BY [Signature] 5.1.77
		MECH	
		ELEC	
		PROJ. ENG.	
		APPROVED	

SIZE	CODE IDENT NO	REV
C 53938	200121-600	NC

SCALE NONE		SHEET 1 OF 6	
SEE SEPARATE PARTS LIST			
EVANS & SUTHERLAND COMPUTER CORPORATION SALT LAKE CITY, UTAH 84112			
DIVIDER PC			

200121-600

2

3

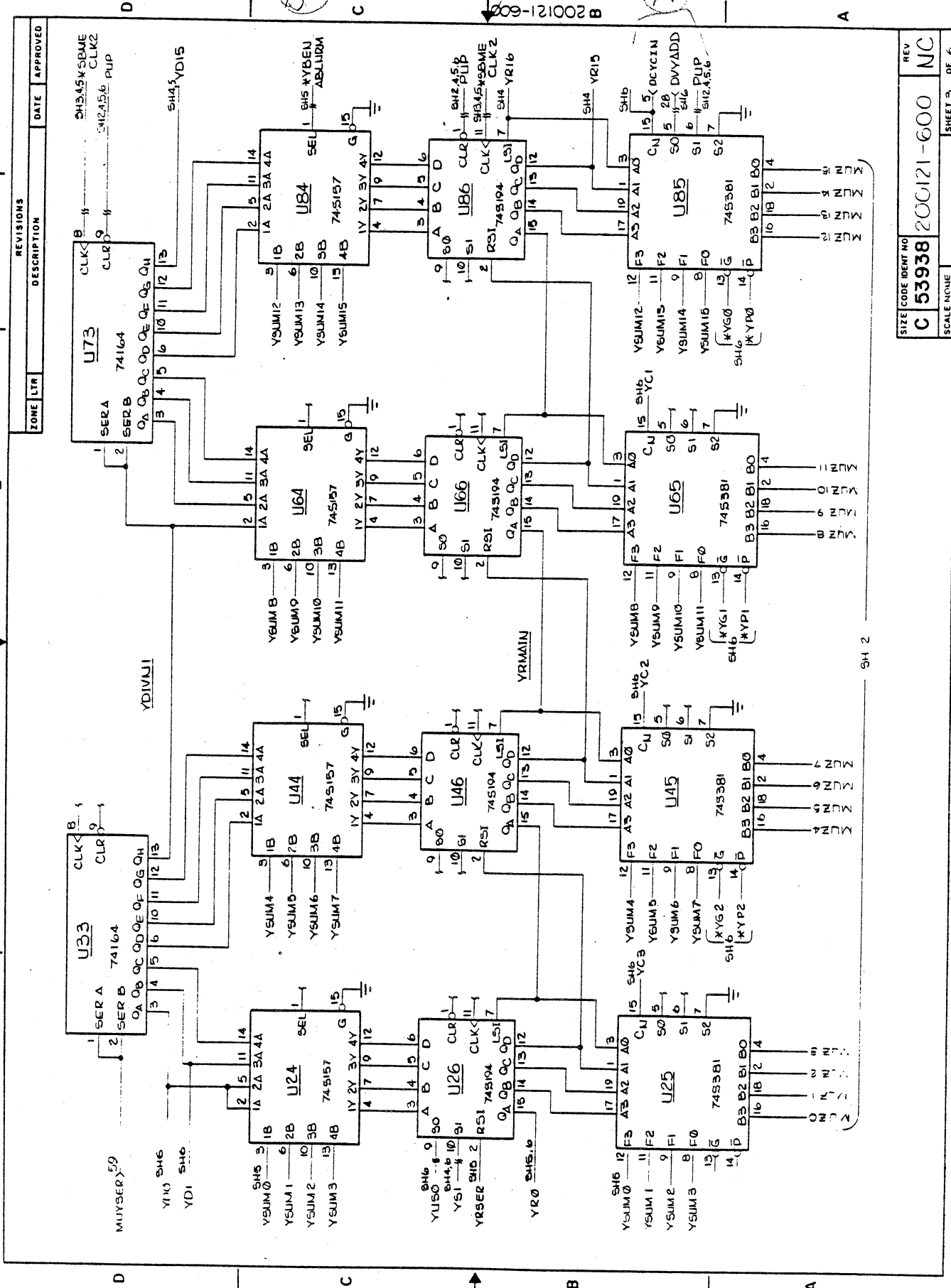
4

1

2

3

4



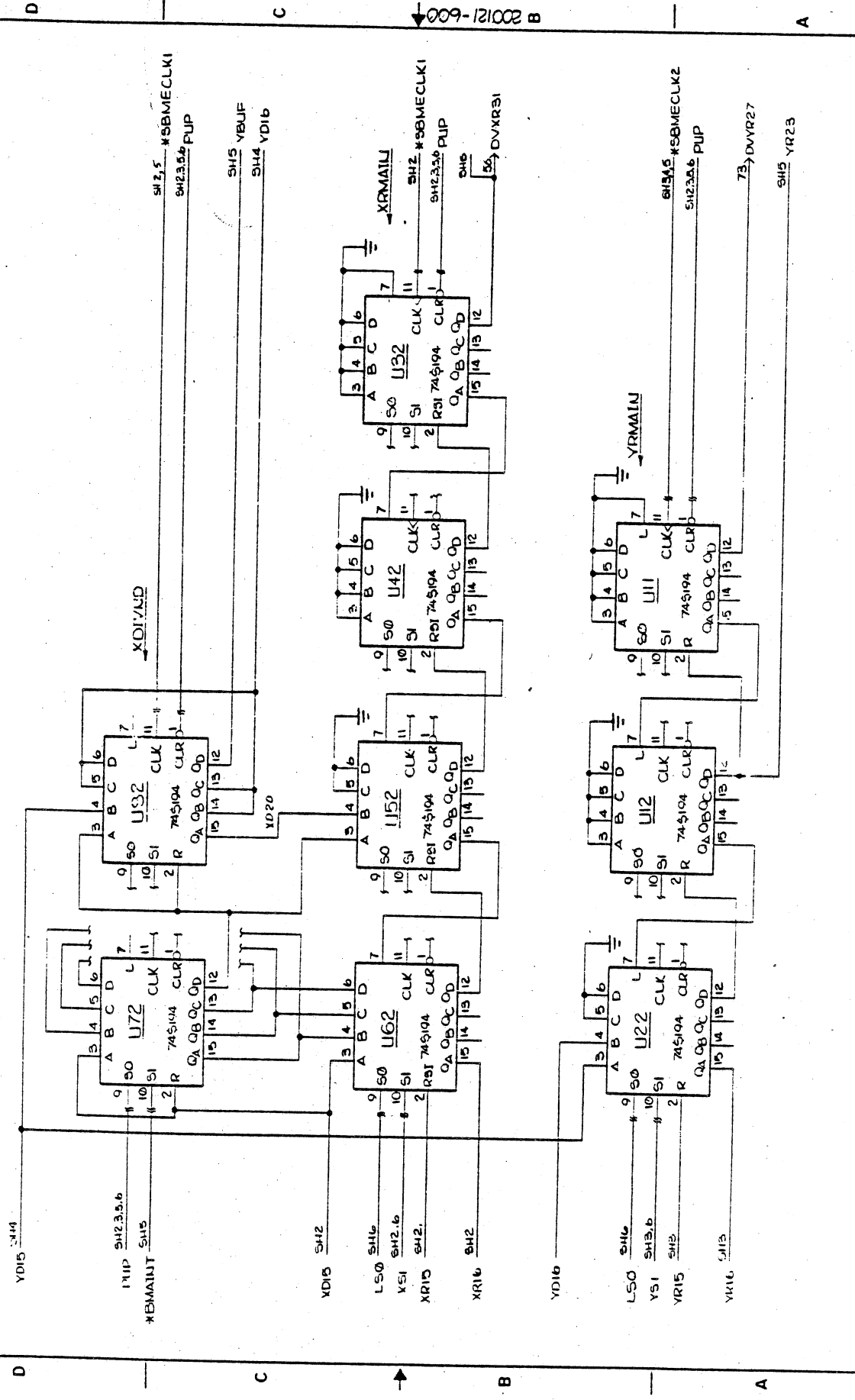
ZONE	LTR	DESCRIPTION	DATE	APPROVED
1				
2				
3				
4				

SIZE	CODE IDENT NO	REV
C	53938	200121-600
SCALE	NONE	SHEET 3 OF 6

SH 2

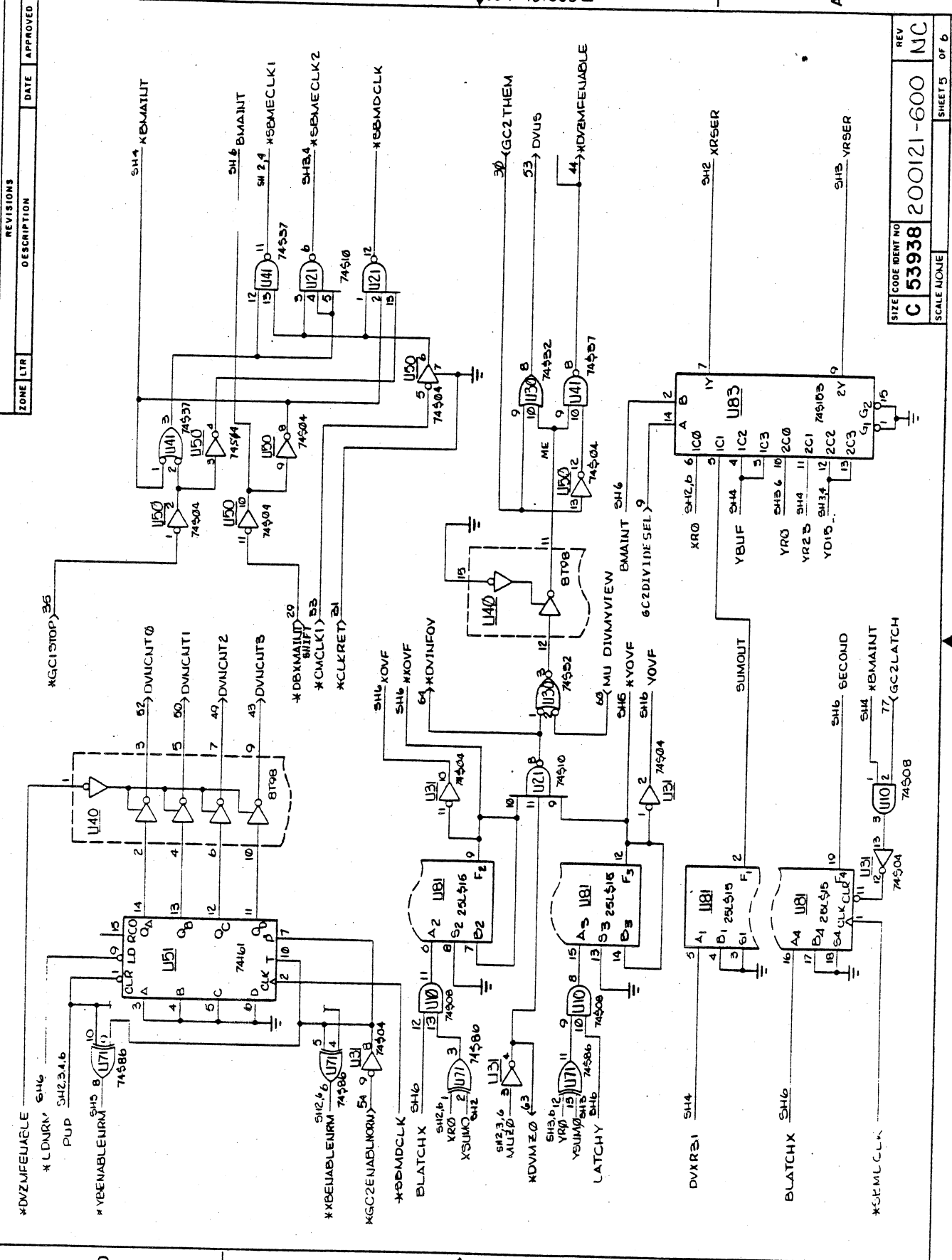
200121-600

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED



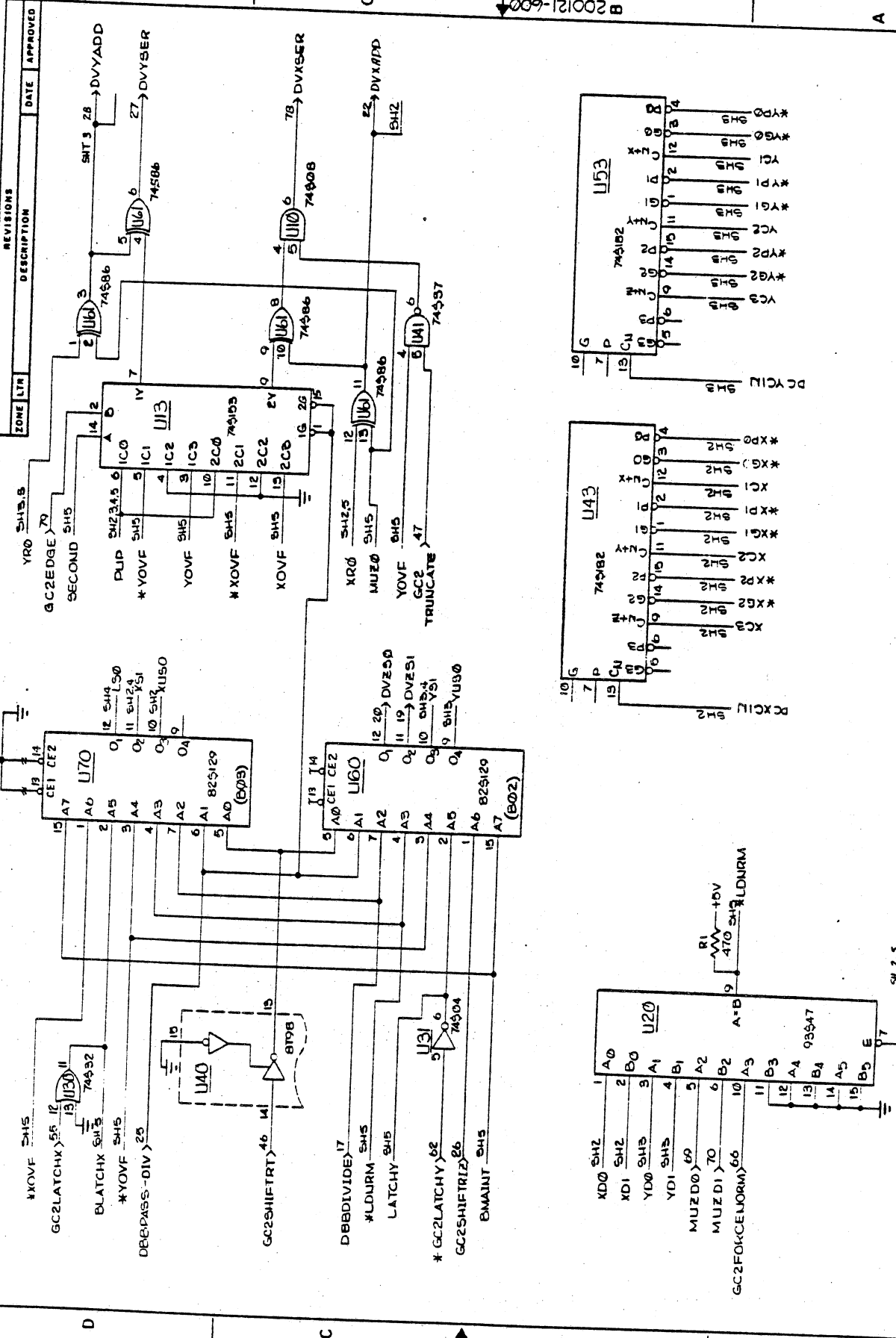
SIZE	CODE IDENT NO	REV
C	53938	200121-600
SCALE	1:1	SHEET 4 OF 6

REV	200121-600	NC
SCALE	1:1	SHEET 4 OF 6



ZONE	LTR	DESCRIPTION	DATE	APPROVED

200121-600 B

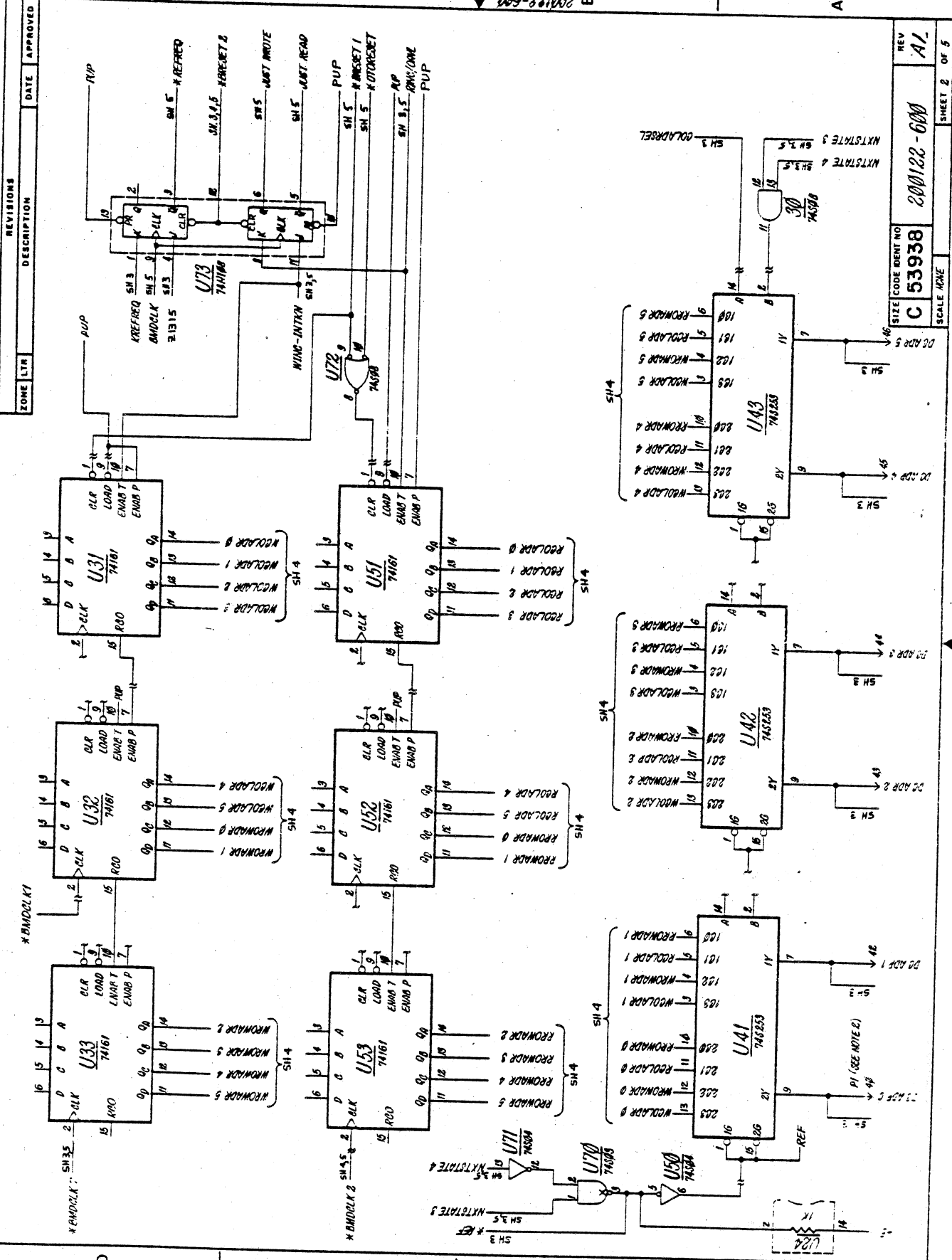


ZONE	LTN	DESCRIPTION	DATE	APPROVED

SIZE CODE	DENT NO	REV
C	53938	200121-600
SCALE	NONE	NC

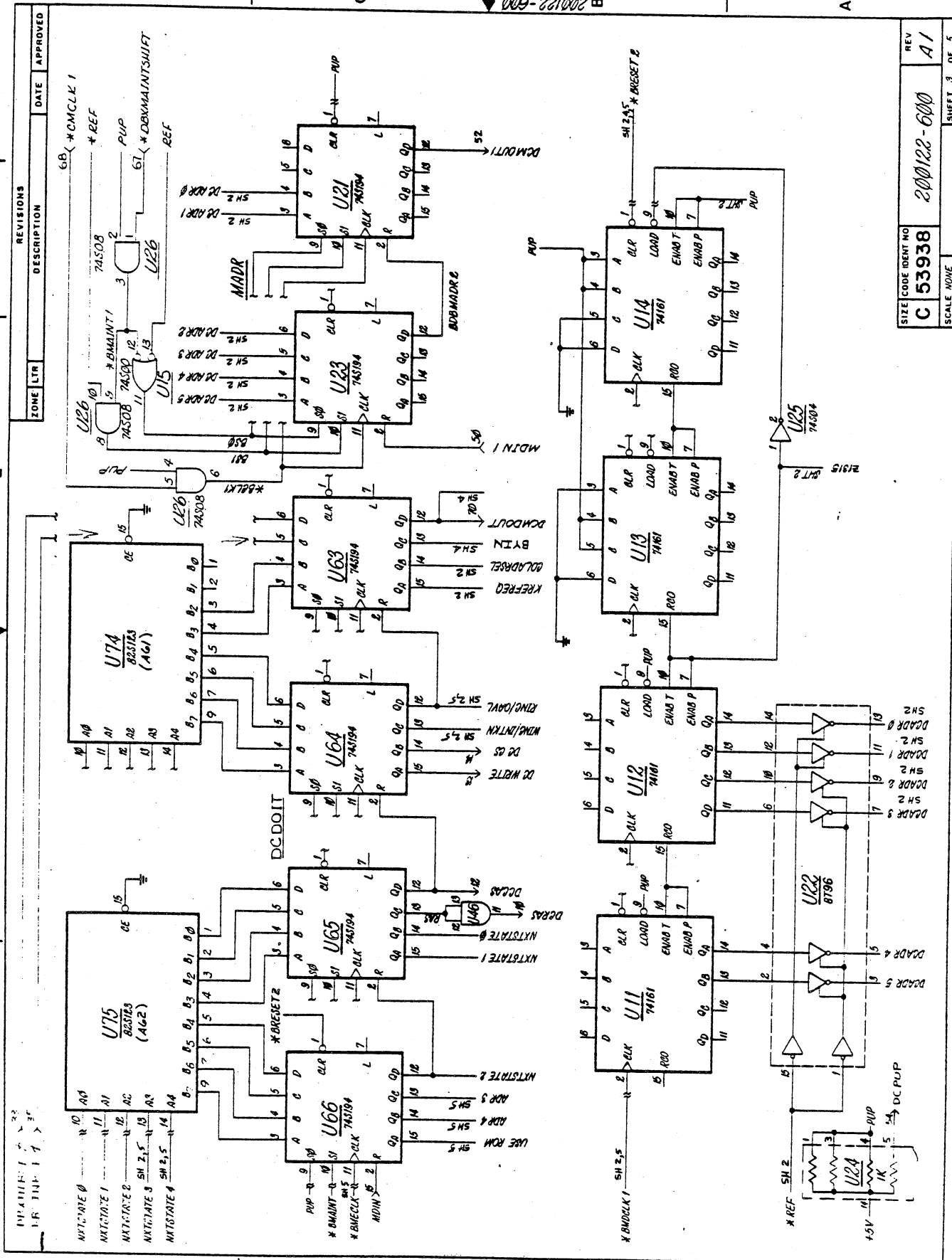
SHEET 6 OF 6

YR0	SH5	SHS
GC2EDGE	X70	
SECOND	SH5	
PUP	SH2,3,4,5	6
*YOVE	SH5	
YOVE	SH5	
*XOVF	SH5	
XOVF	SH5	
XR0	SH2,5	
MUZ0	SH5	
YOVE	SH5	
GC2 TRUNCATE	SH5	
GC2LATCH	SH5	
BLATCH	SH5	
*YOVE	SH5	
DECPASS-DIV	SH5	
GC2SHIFT	SH5	
DBDIVIDE	SH5	
#LDURM	SH5	
LATCHY	SH5	
*GC2LATCHY	SH5	
GC2SHIFT	SH5	
BMANT	SH5	
X00	SH2	
X01	SH2	
Y00	SH3	
Y01	SH3	
MUZ00	SH6	
MUZ01	SH6	
GC2 FOKCE(LORM)	SH6	
SH2,1,5		*YBENABLURM

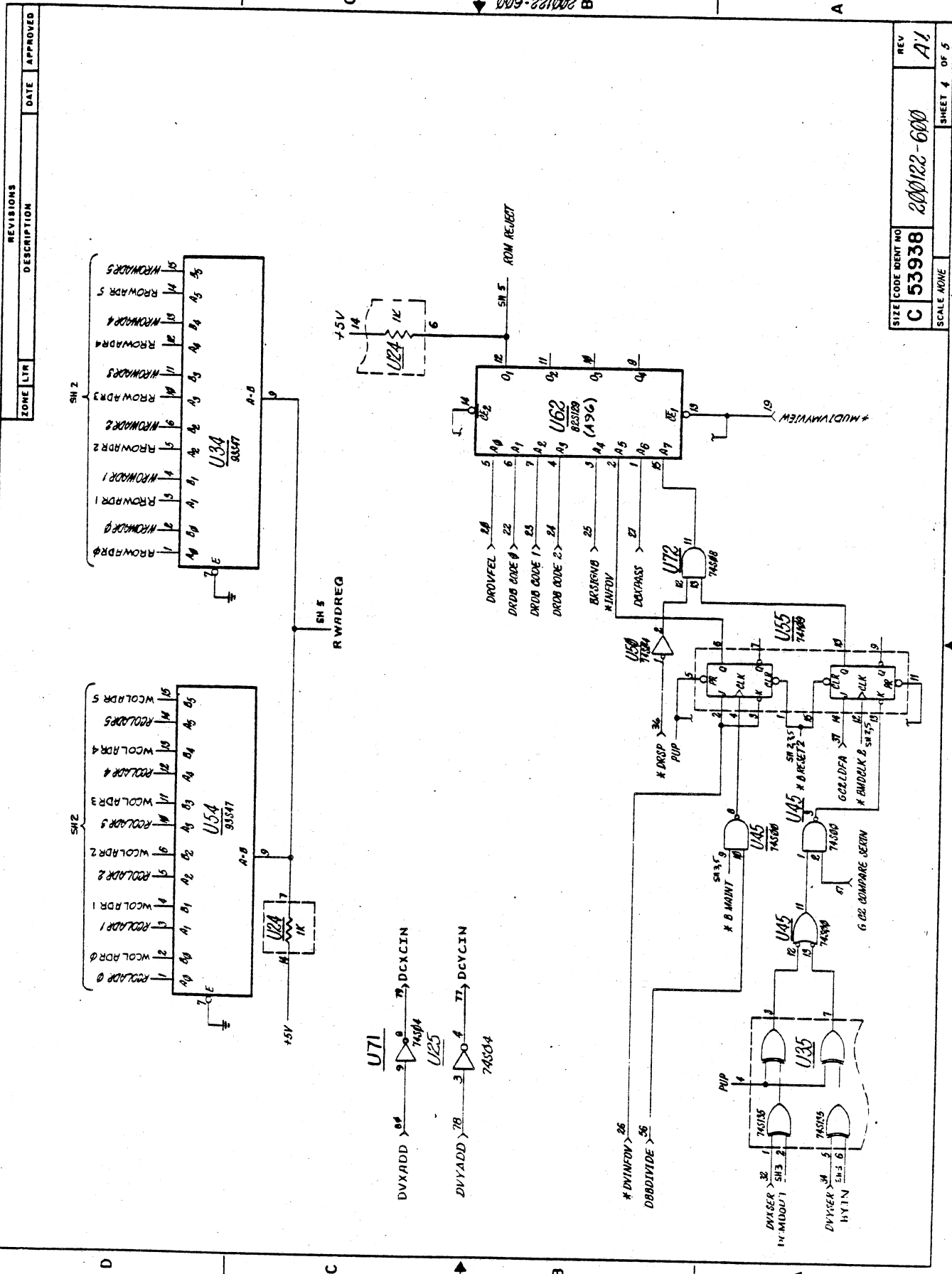


ZONE LTR	DESCRIPTION	DATE	APPROVED

SIZE CODE IDENT NO	REV
C 53938	A1
SCALE	SHEET 2 OF 5
200122-000	



ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED



ZONE	LTR	DESCRIPTION	DATE	APPROVED

SIZE CODE	MENT NO	REV
C	53938	AI
SCALE	NONE	SHEET 4 OF 5

B 200122-600

D

C

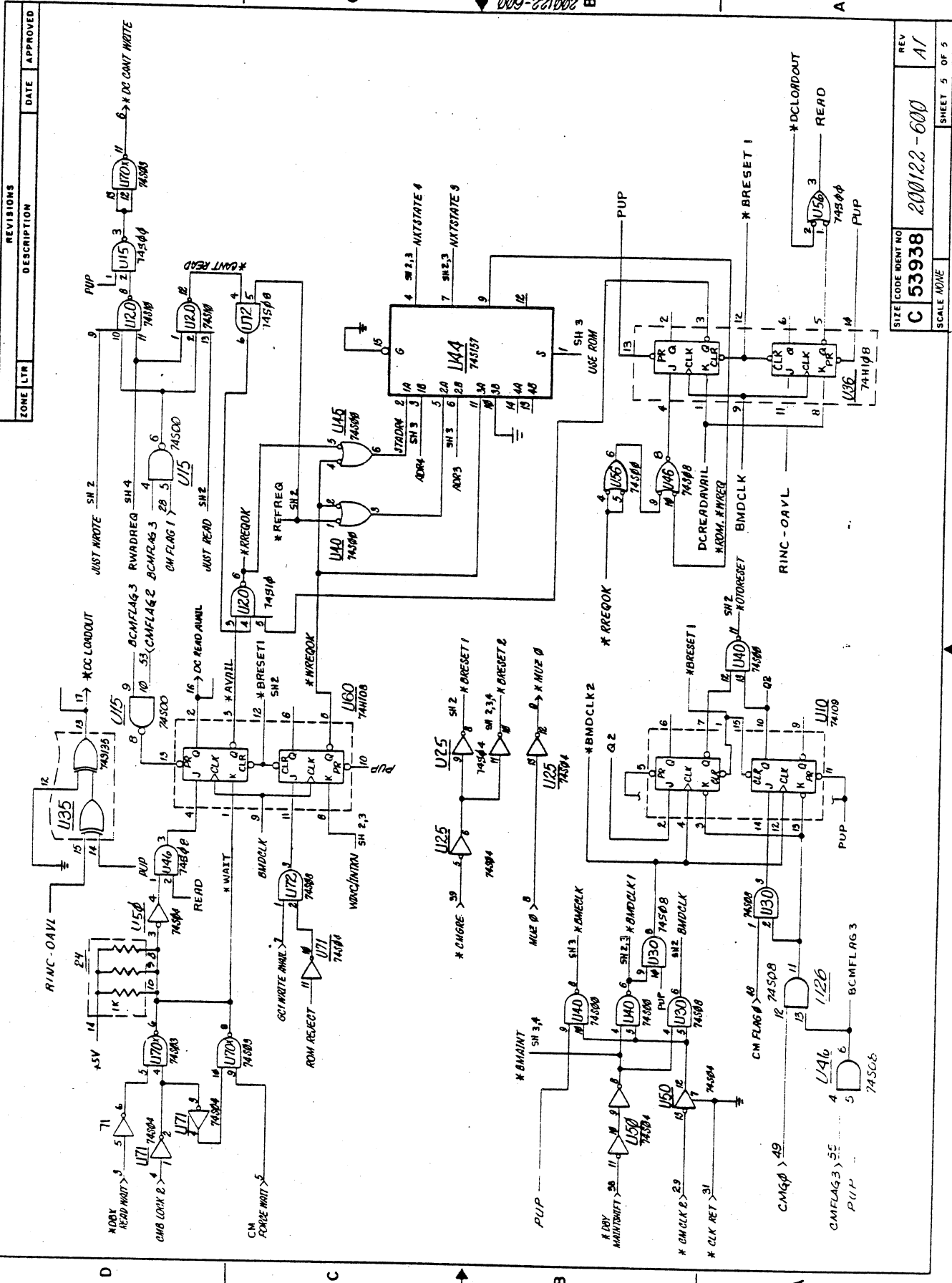
A

D

C

B

A



ZONE	LTN	REVISIONS	DESCRIPTION	DATE	APPROVED

SIZE	CODE IDENT NO	REV
C	53938	A1
SCALE	NAME	SHEET 5 OF 5
	200122-600	

200122-600 B

A

B

C

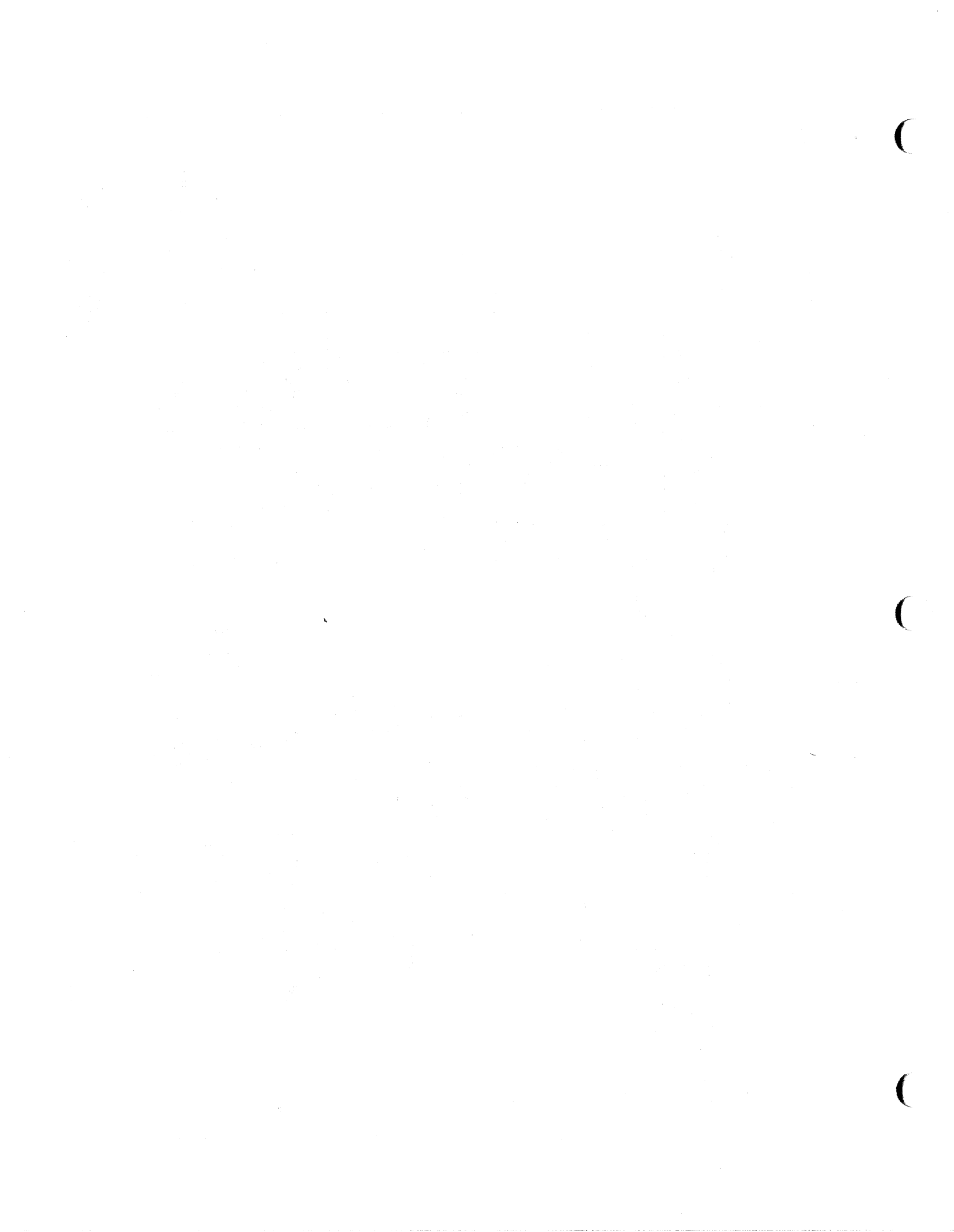
D

1

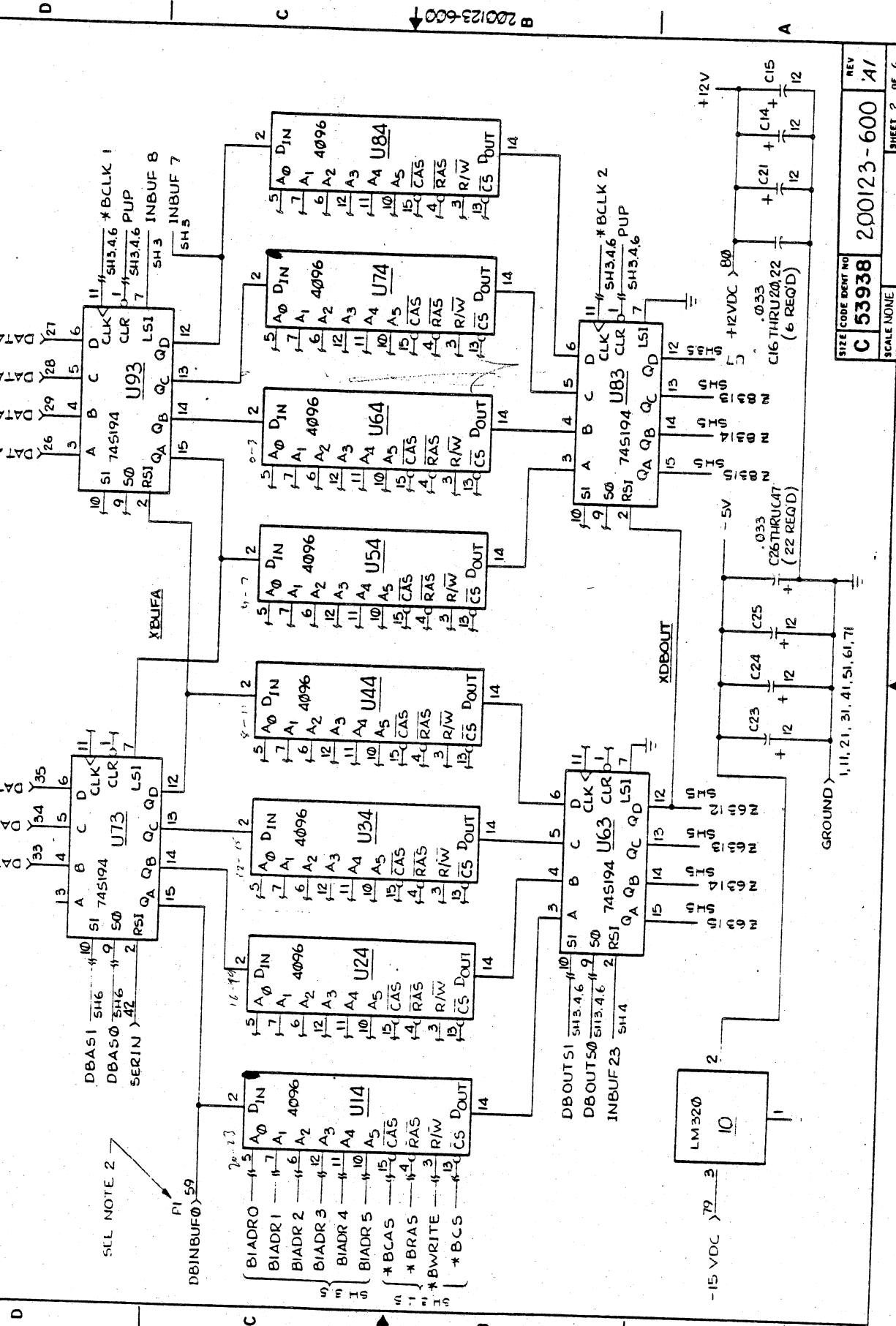
2

3

4



ZONE	LYR	REVISIONS	DESCRIPTION	DATE	APPROVED



SEE NOTE 2

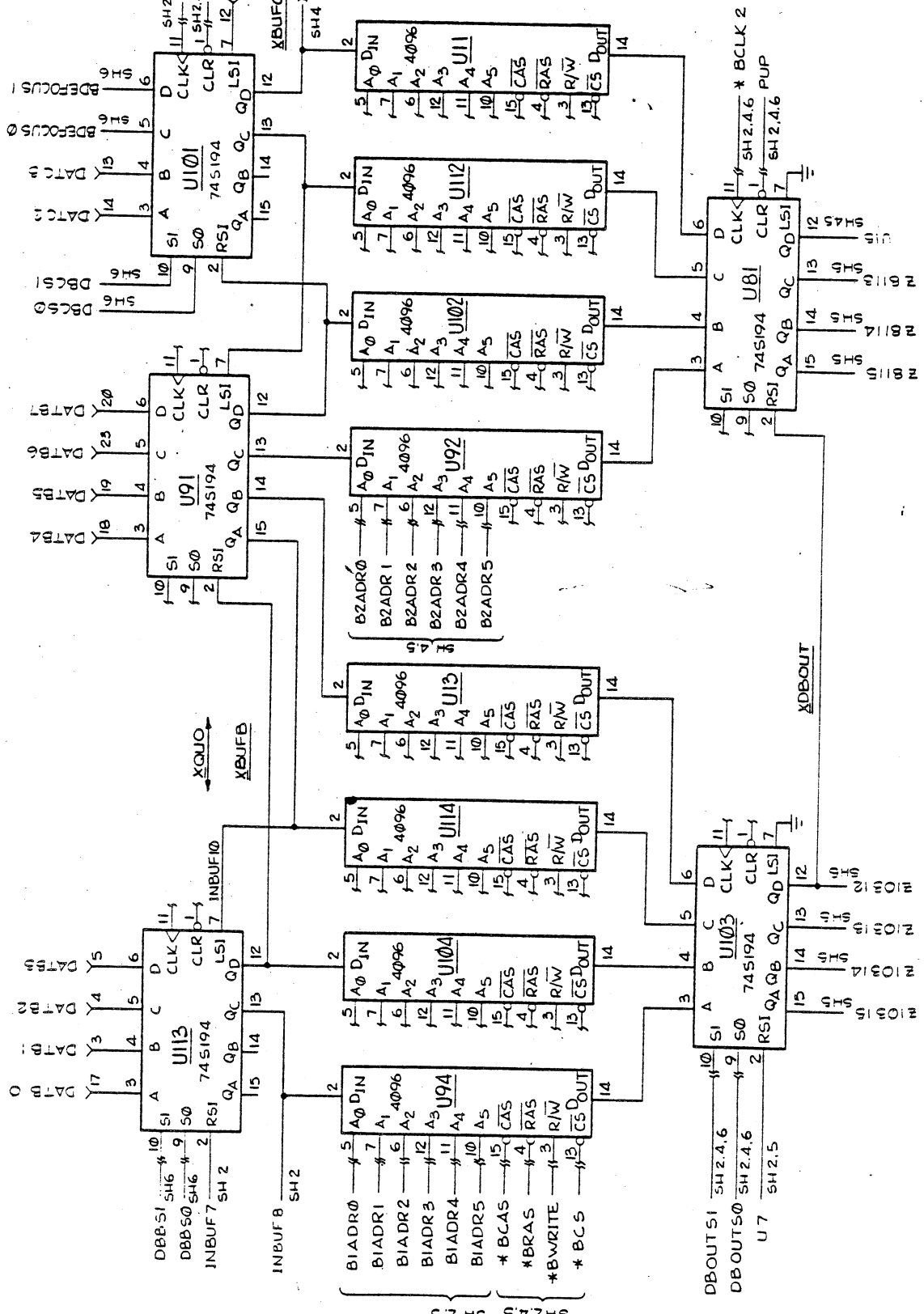
SIZE CODE	IDENT NO	REV
C	53938	A1
SCALE	NONE	SHEET 2 OF 6

200123-600

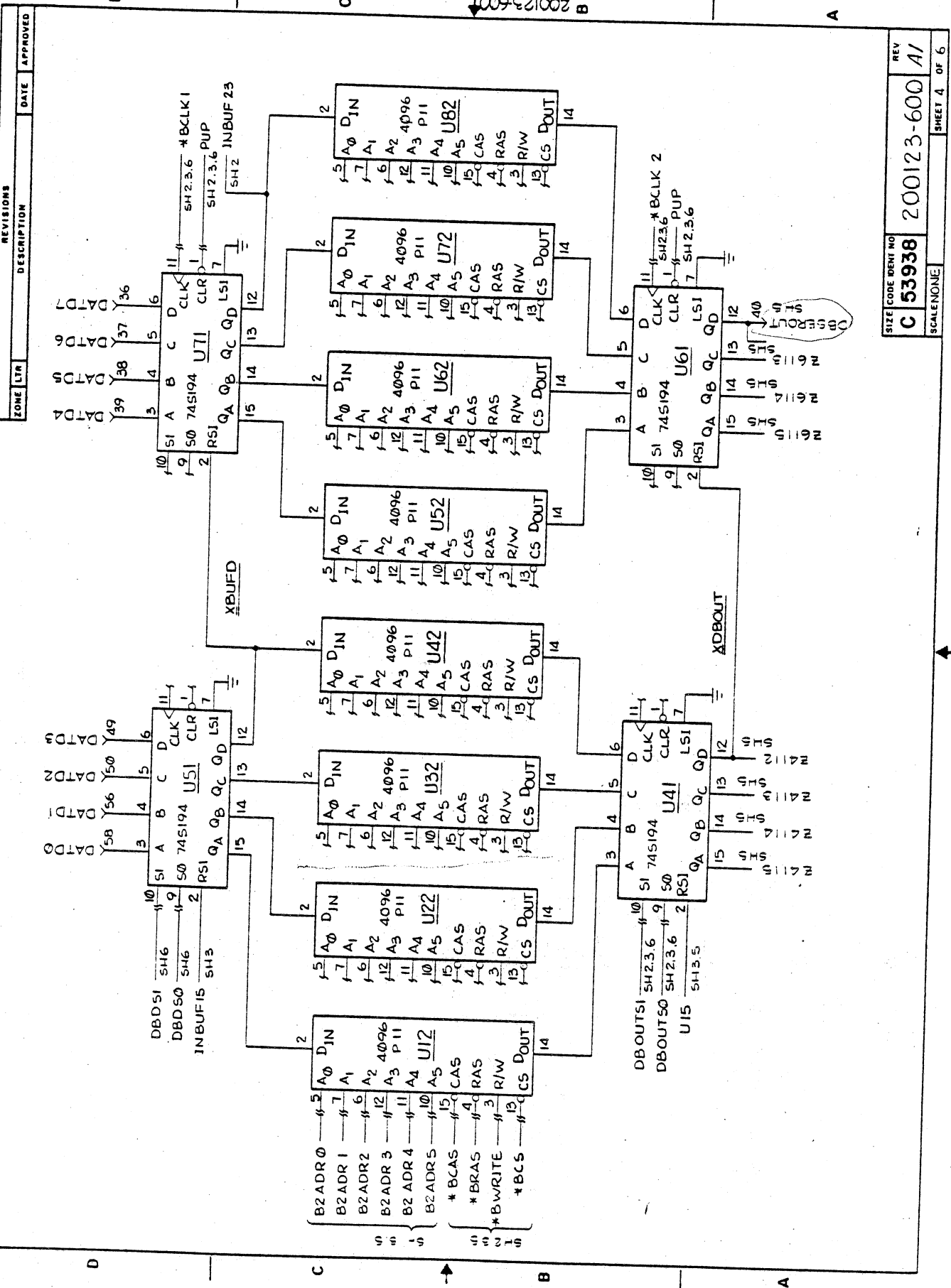
B 200123-600

ZONE LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

4 3 2 1



SIZE CODE IDENT NO	200123-600	REV	A1
SCALE	NONE	SHEET	3 OF 6

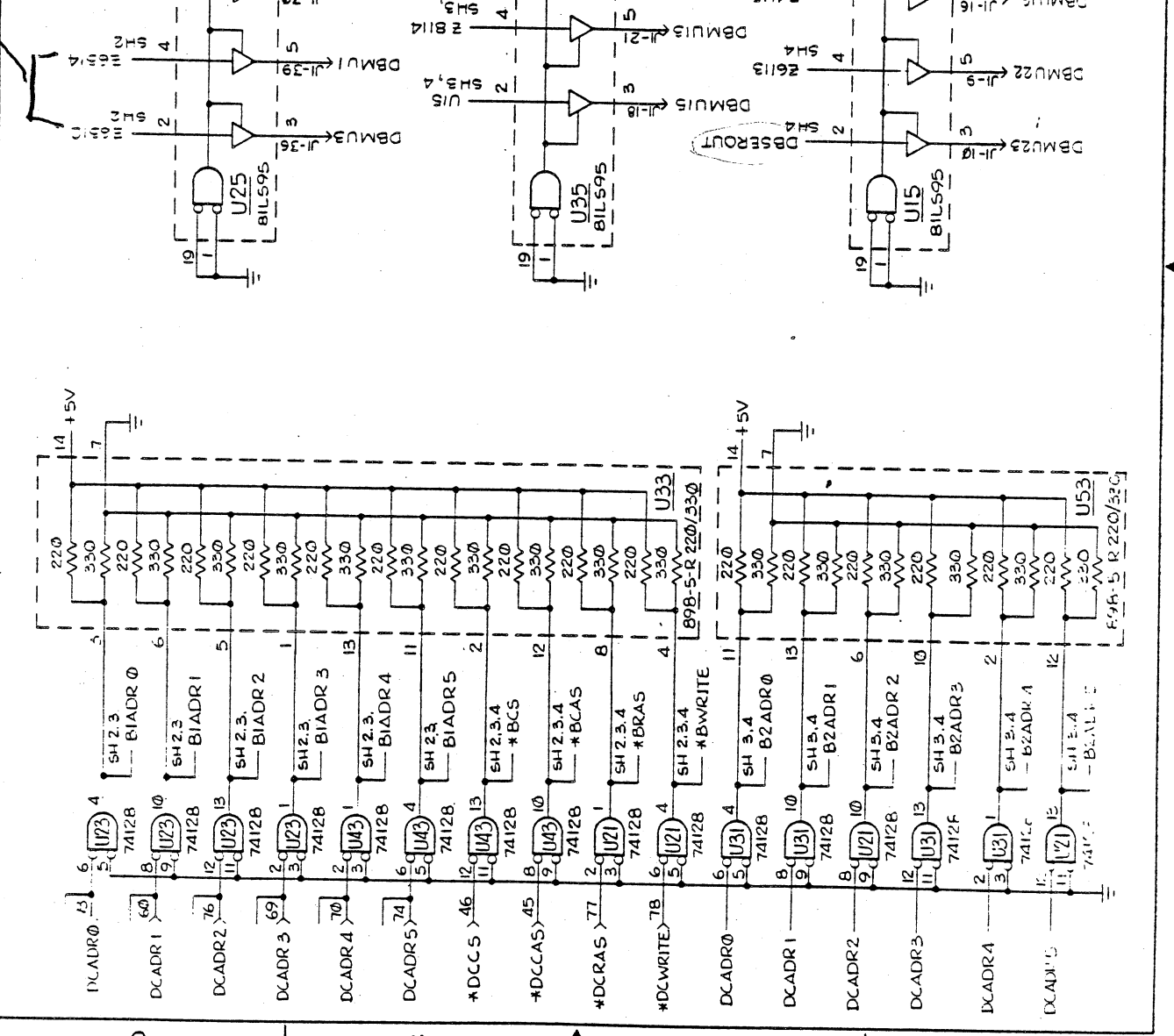


ZONE	LTN	REVISIONS	DESCRIPTION	DATE	APPROVED
1	2				

SIZE CODE	IDENT NO	REV
C	53938	200123-600
SCALE	NONE	A1

SHEET	4	OF	6
-------	---	----	---

ZONE	ITER	DESCRIPTION	DATE	APPROVED
2				
3				
4				



REVISIONS	DESCRIPTION	DATE	APPROVED
1			
2			
3			
4			

SIZE CODE IDENT NO
C 53938
 SCALE NONE

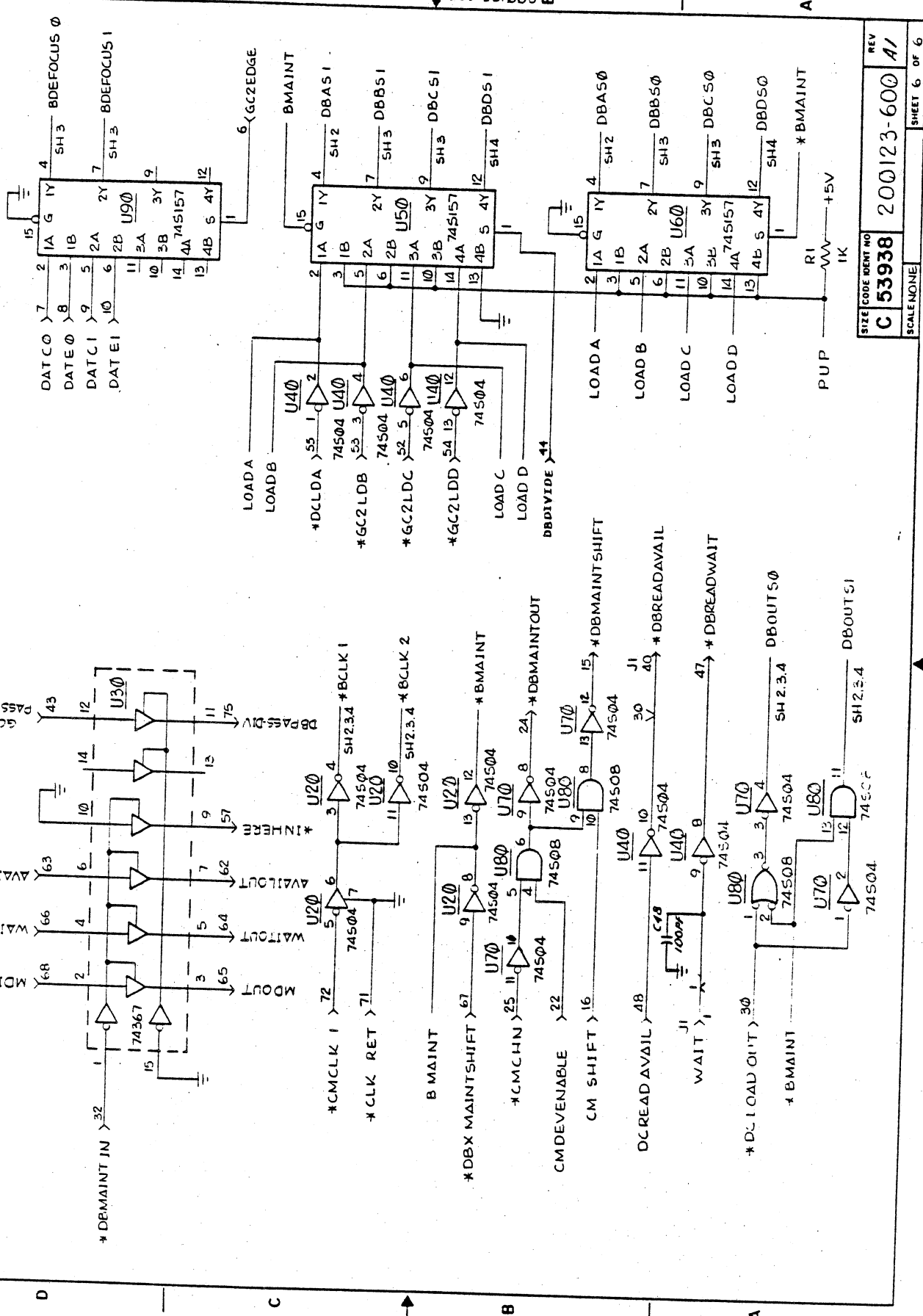
REV
200123-600
 SHEET 5 OF 6

REV
AI

B 200123-600

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

200123-600

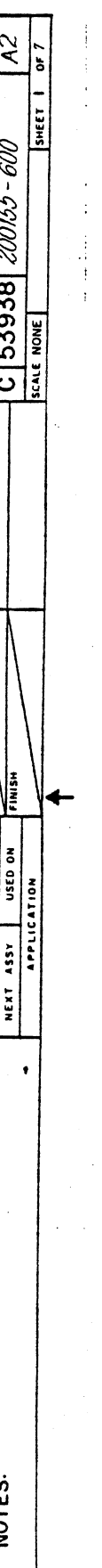


SIZE CODE IDENT NO	200123-600	REV	A/
C 53938		SHEET 6	OF 6
SCALE NONE			

REF DESIG	Q'S	PART NO	VENDOR	PART NUMBER	WIRENAME	PIN #	PIN #	WIRENAME	WIRENAME	ZONE	LTR	DESCRIPTION	DATE	APPROVED
C 1		804128-475	130R47500350		*ACTIPACCPCT	J2	1	GROUND		A1	ADDED C45 ON SHEET 7	1-3-78		
C 2		804128-475	130R47500350		GROUND	J2	2	GROUND		A2	REMOVED CAPACITOR C45	10-27-78		
C 3		804115-333	C45C333M	000350	GROUND	J2	3	GROUND						
C 4		804115-333	C45C333M	000350	GROUND	J2	4	GROUND						
C 5		804115-333	C45C333M	000350	GROUND	J2	5	GROUND						
C 6		804115-333	C45C333M	000350	GROUND	J2	6	GROUND						
C 7		804115-333	C45C333M	000350	GROUND	J2	7	GROUND						
C 8		804115-333	C45C333M	000350	GROUND	J2	8	GROUND						
C 9		804115-333	C45C333M	000350	GROUND	J2	9	GROUND						
C 10		804115-333	C45C333M	000350	GROUND	J2	10	GROUND						
C 11		804115-333	C45C333M	000350	GROUND	J2	11	GROUND						
C 12		804115-333	C45C333M	000350	GROUND	J2	12	GROUND						
C 13		804115-333	C45C333M	000350	GROUND	J2	13	GROUND						
C 14		804115-333	C45C333M	000350	GROUND	J2	14	GROUND						
C 15		804115-333	C45C333M	000350	GROUND	J2	15	GROUND						
C 16		804115-333	C45C333M	000350	GROUND	J2	16	GROUND						
C 17		804115-333	C45C333M	000350	GROUND	J2	17	GROUND						
C 18		804115-333	C45C333M	000350	GROUND	J2	18	GROUND						
C 19		804115-333	C45C333M	000350	GROUND	J2	19	GROUND						
C 20		804115-333	C45C333M	000350	GROUND	J2	20	GROUND						
C 21		804115-333	C45C333M	000350	GROUND	J2	21	GROUND						
C 22		804115-333	C45C333M	000350	GROUND	J2	22	GROUND						
C 23		804115-333	C45C333M	000350	GROUND	J2	23	GROUND						
C 24		804115-333	C45C333M	000350	GROUND	J2	24	GROUND						
C 25		804115-333	C45C333M	000350	GROUND	J2	25	GROUND						
C 26		804115-333	C45C333M	000350	GROUND	J2	26	GROUND						
C 27		804115-333	C45C333M	000350	GROUND	J2	27	GROUND						
C 28		804115-333	C45C333M	000350	GROUND	J2	28	GROUND						
C 29		804115-333	C45C333M	000350	GROUND	J2	29	GROUND						
C 30		804115-333	C45C333M	000350	GROUND	J2	30	GROUND						
C 31		804115-333	C45C333M	000350	GROUND	J2	31	GROUND						
C 32		804115-333	C45C333M	000350	GROUND	J2	32	GROUND						
C 33		804115-333	C45C333M	000350	GROUND	J2	33	GROUND						
C 34		804115-333	C45C333M	000350	GROUND	J2	34	GROUND						
C 35		804115-333	C45C333M	000350	GROUND	J2	35	GROUND						
C 36		804115-333	C45C333M	000350	GROUND	J2	36	GROUND						
C 37		804115-333	C45C333M	000350	GROUND	J2	37	GROUND						
C 38		804115-333	C45C333M	000350	GROUND	J2	38	GROUND						
C 39		804115-333	C45C333M	000350	GROUND	J2	39	GROUND						
C 40		804115-333	C45C333M	000350	GROUND	J2	40	GROUND						

ZONE	LTR	DESCRIPTION	DATE	APPROVED
A1		ADDED C45 ON SHEET 7	1-3-78	
A2		REMOVED CAPACITOR C45	10-27-78	

PIN #	WIRENAME	PIN #	WIRENAME
P1 1	QUADDIN	P1 37	DOB1
P1 2	MAINTSERIN	P1 38	F03
P1 3	UPSERIN	P1 39	F04
P1 4	DOB7	P1 40	F05
P1 5	*ACINPACCPCT	P1 41	F06
P1 6	*DUAVAIL	P1 42	F07
P1 7	UDKCARD	P1 43	F08
P1 8	UDN4	P1 44	F09
P1 9	DDTSEL	P1 45	DDA7
P1 10	*ACINPACCPCT	P1 46	DDM40
P1 11	UDKCARD	P1 47	DDTSEL
P1 12	UDN4	P1 48	DDM40
P1 13	DDTSEL	P1 49	DDTSEL
P1 14	DDM40	P1 50	DDM40
P1 15	DDA7	P1 51	DDA7
P1 16	DDM40	P1 52	DDM40
P1 17	DDTSEL	P1 53	DDTSEL
P1 18	DDA7	P1 54	DDA7
P1 19	DDM40	P1 55	DDM40
P1 20	DDTSEL	P1 56	DDTSEL
P1 21	DDM40	P1 57	DDM40
P1 22	DDA7	P1 58	DDA7
P1 23	DDM40	P1 59	DDM40
P1 24	DDTSEL	P1 60	DDTSEL
P1 25	DDA7	P1 61	DDA7
P1 26	DDM40	P1 62	DDM40
P1 27	DDTSEL	P1 63	DDTSEL
P1 28	DDA7	P1 64	DDA7
P1 29	DDM40	P1 65	DDM40
P1 30	DDTSEL	P1 66	DDTSEL
P1 31	DDA7	P1 67	DDA7
P1 32	DDM40	P1 68	DDM40
P1 33	DDTSEL	P1 69	DDTSEL
P1 34	DDA7	P1 70	DDA7
P1 35	DDM40	P1 71	DDM40
P1 36	DDTSEL	P1 72	DDTSEL
P1 37	DDA7	P1 73	DDA7
P1 38	DDM40	P1 74	DDM40
P1 39	DDTSEL	P1 75	DDTSEL
P1 40	DDA7	P1 76	DDA7
P1 41	DDM40	P1 77	DDM40
P1 42	DDTSEL	P1 78	DDTSEL
P1 43	DDA7	P1 79	DDA7
P1 44	DDM40	P1 80	DDM40
P1 45	DDTSEL	P1 81	DDTSEL
P1 46	DDA7	P1 82	DDA7
P1 47	DDM40	P1 83	DDM40
P1 48	DDTSEL	P1 84	DDTSEL
P1 49	DDA7	P1 85	DDA7
P1 50	DDM40	P1 86	DDM40
P1 51	DDTSEL	P1 87	DDTSEL
P1 52	DDA7	P1 88	DDA7
P1 53	DDM40	P1 89	DDM40
P1 54	DDTSEL	P1 90	DDTSEL
P1 55	DDA7	P1 91	DDA7
P1 56	DDM40	P1 92	DDM40
P1 57	DDTSEL	P1 93	DDTSEL
P1 58	DDA7	P1 94	DDA7
P1 59	DDM40	P1 95	DDM40
P1 60	DDTSEL	P1 96	DDTSEL
P1 61	DDA7	P1 97	DDA7
P1 62	DDM40	P1 98	DDM40
P1 63	DDTSEL	P1 99	DDTSEL
P1 64	DDA7	P1 100	DDA7



3. SERIAL SHIFT LOOP SEQUENCE
 PLS, 31.12, 12.14, 51.12, 81.12, 91.12, 93.13, 73.13,
 83.15, 54.12, 61.12, 74.12, 84.12, 94.12, 95.11,
 105.11, 55.11, 65.11, 75.11, 85.11, 95.11, P1.54.

2. NUMBERS SHOWN REFER TO CONNECTOR P1.
 ALL CAPACITANCE VALUES ARE EXPRESSED
 IN MICROFARADS.
 RESISTANCE VALUES ARE EXPRESSED IN OHMS,
 K DENOTES 1000.
 RESISTORS ARE 1/4 WATT, ± 5% TOLERANCE.
 ON ALL 20 PIN I.C.'S, PIN 10 IS GROUND AND
 PIN 20 IS POWER (+5V).
 ON ALL 16 PIN I.C.'S, PIN 8 IS GROUND AND
 PIN 16 IS POWER (+5V).
 ON ALL 14 PIN I.C.'S, PIN 7 IS GROUND AND
 PIN 14 IS POWER (+5V).
 UNLESS OTHERWISE SPECIFIED;

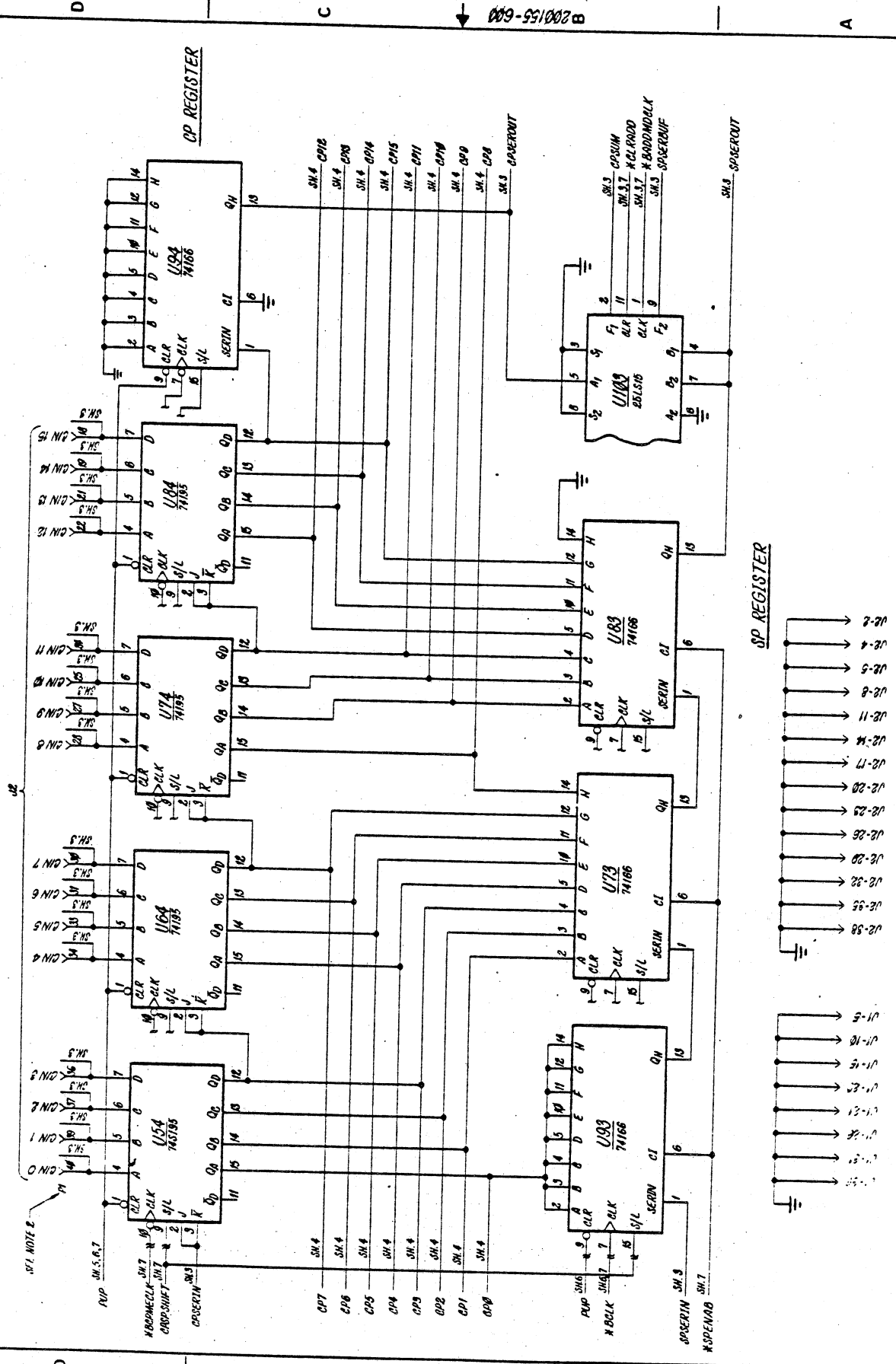
NOTES:

SEE SEPARATE PARTS LIST
EVANS & SUTHERLAND COMPUTER CORPORATION SALT LAKE CITY, UTAH 84118
CONTRACT NO. 6-677
DRAWN BY VOLLEY 31 AUG 77
CHECKED BY [Signature]
MECH [Signature]
ELEC [Signature]
PROJ. ENG. [Signature]
APPROVED [Signature]
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON .XX ± XXX ± ANGLES ±
MATERIAL FINISH
200130-120
NEXT ASSY
USED ON
APPLICATION
SIZE CODE IDENT NO C 53938
SCALE NONE
SHEET 1 OF 7
REV A2

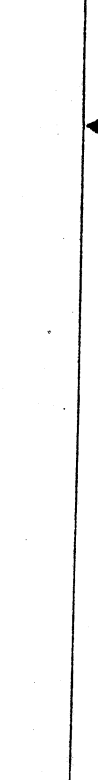
DISPLAY DATA,
(P.C)

200155-600 B

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

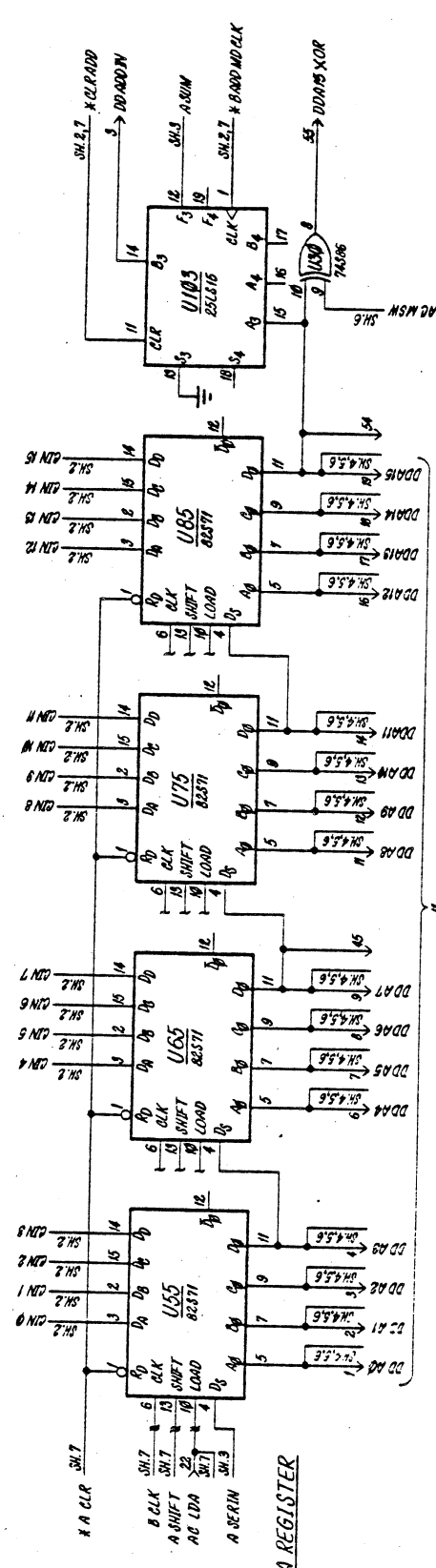
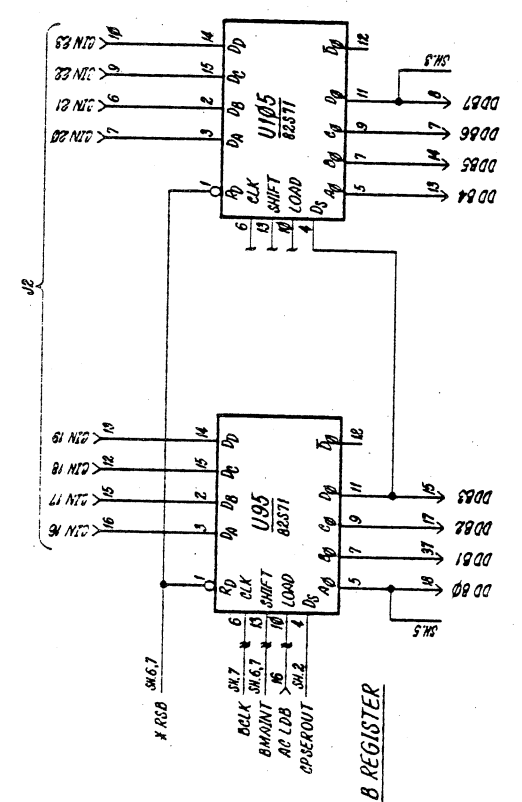
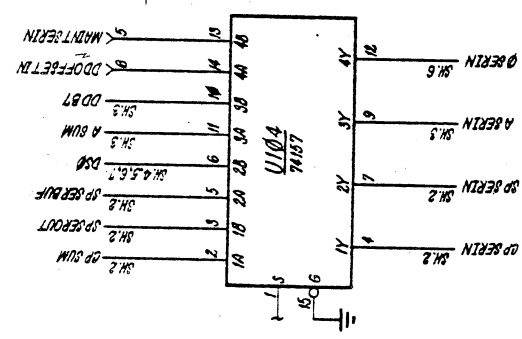


SIZE CODE	REV NO	REV
C 53938	200155-600	A2
SCALE	NONE	SHEET 2 OF 7



200155-600

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED



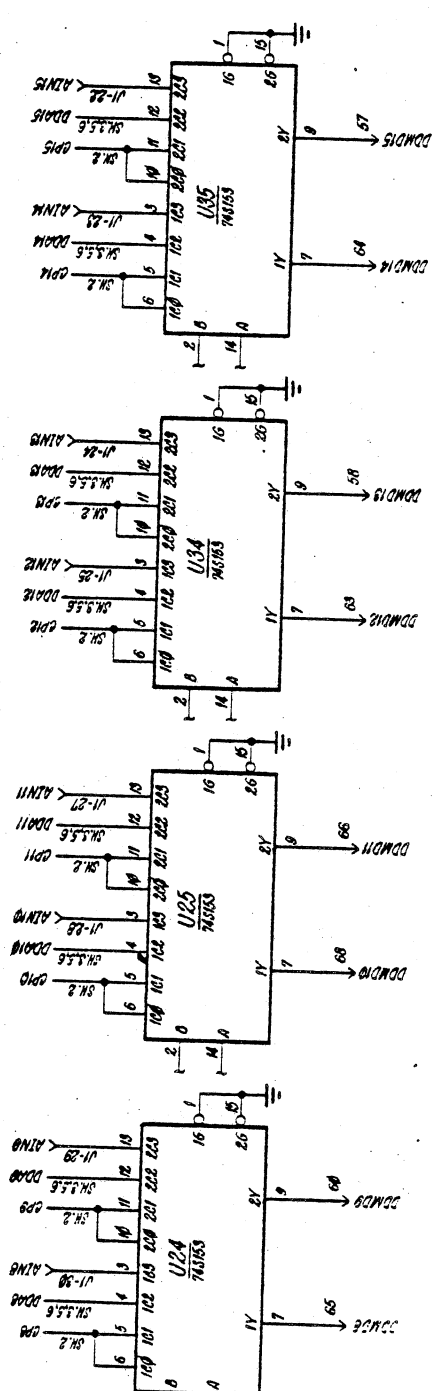
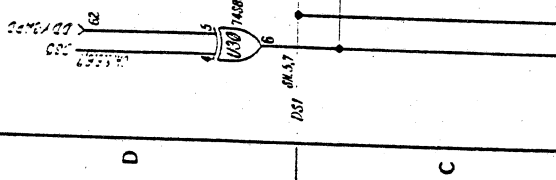
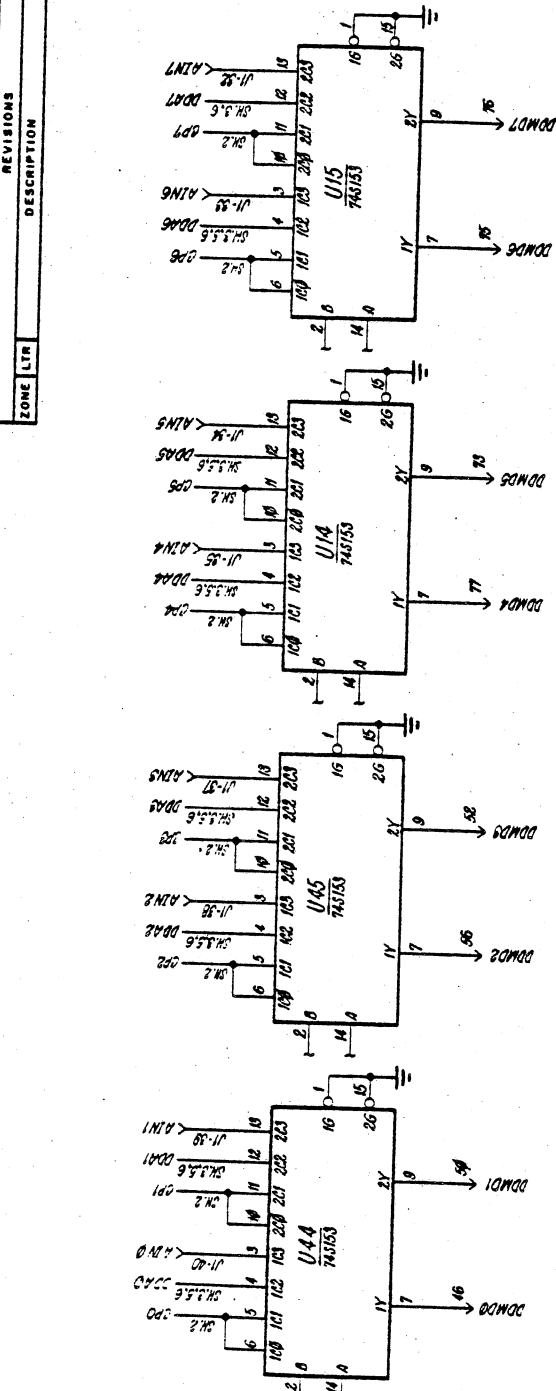
SIZE CODE	REV
53938	A2
SCALE	SHEET 3 OF 7
NO	200155-600

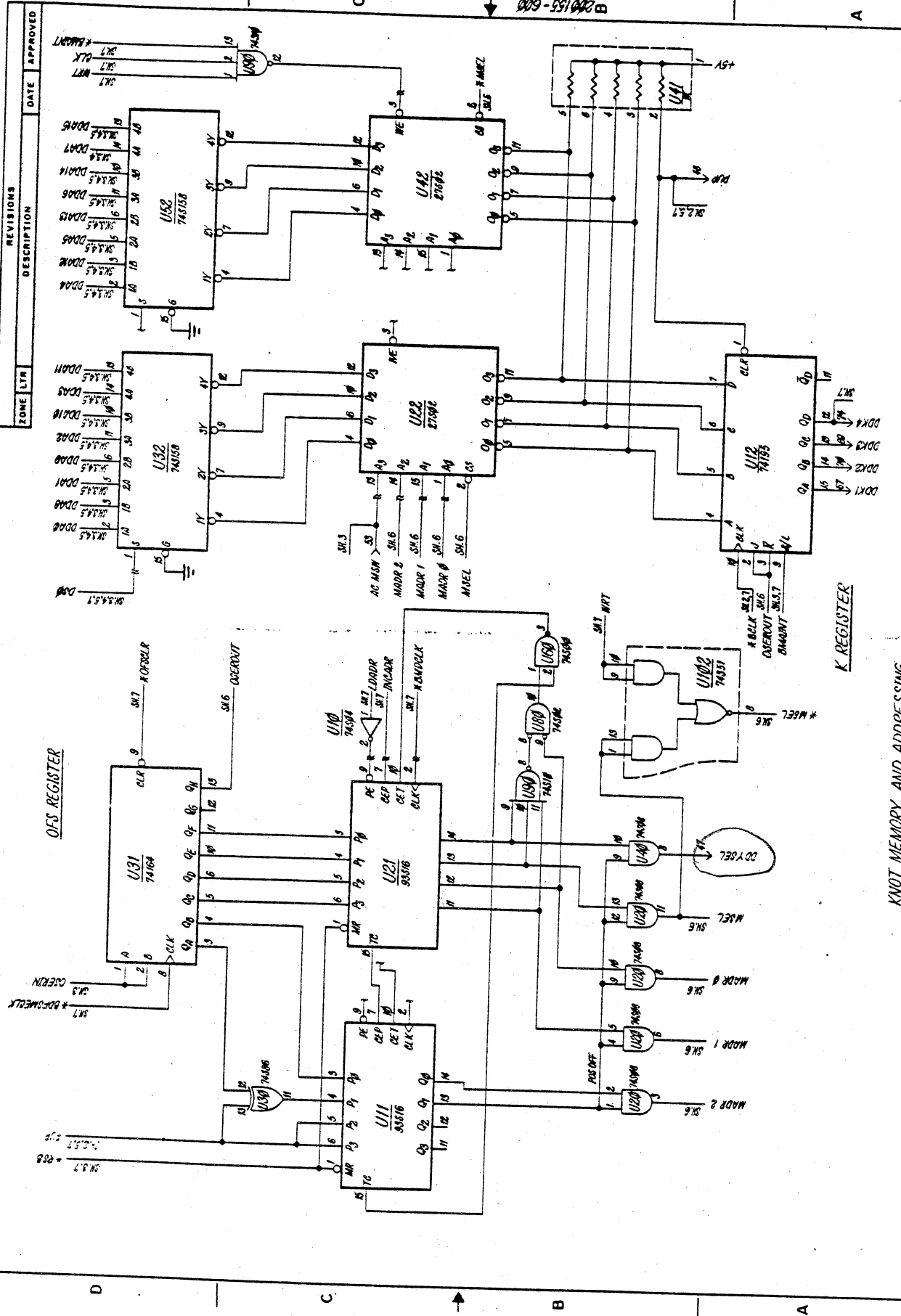
200155-600

SIZE CODE BRYT NO	REV	SHEET 4 OF 7
C 53938	A2	
200155-600		
SCALE 1/100		

GENERAL DATA
MULTIPLEXER

ZONE LTR	DESCRIPTION	DATE	APPROVED





REVISIONS
 ZONE LTR DESCRIPTION DATE APPROVED

SIZE CODE DENT NO
C 53938
 SCALE NONE

REV
A2

200155-600
 SHEET 6 OF 7

200155-600

200155-600

200155-600

200155-600

200155-600

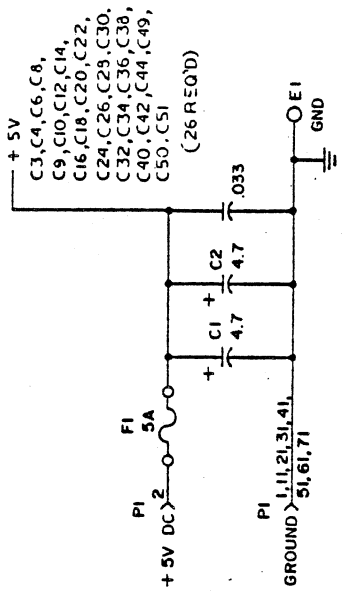


ZONE	LTR	DESCRIPTION	DATE	APPROVED
A1		ANALOG CAPACITANCE	11/7/77	[Signature]

-NOTICE-
 All information contained herein together with all drawings, specifications, drawings or other documents hereon, are the property of Evans & Sutherland Computer Corporation. None of the information or technical concepts described herein are proprietary to Evans & Sutherland and may be covered by U.S. and Foreign Patents or Patents Pending or are protected as trade secrets. Any dissemination of the information or reproduction of this material for commercial or other purposes other than the express purpose for which it has been made available is strictly forbidden unless prior written permission is obtained from Evans & Sutherland Computer Corporation.

REF DESIG	PART NO	VENDOR PART NUMBER	REF DESIG	PART NO	VENDOR PART NUMBER	PI#	SERIAL#
C 1	804102-415	CS13BF415K	U 32	807418-015	NR25110	PI 3	CHMAN
C 2	804102-415	CS13BF415K	U 33	807418-055	SN74504N	PI 4	LD1B2
C 3	804115-333	CV15C333M	U 34	807495-055	SN7451195N	PI 5	DD1B3
C 4	804115-333	CV15C333M	U 35	807809-016	DM755471M	PI 6	DD1B4
C 5	804115-333	CV15C333M	U 36	807717-015	NR25110	PI 7	MAINTSERIN
C 6	804115-333	CV15C333M	U 40	807408-055	SN74504N	PI 8	DRAMPGH
C 7	804115-333	CV15C333M	U 41	807408-055	SN74504N	PI 9	OPCOIEBUS
C 8	804115-333	CV15C333M	U 42	807410-055	SN7451195N	PI 10	LDK1E0T
C 9	804115-333	CV15C333M	U 43	807402-055	SN74504N	PI 11	PLCCR3
C 10	804115-333	CV15C333M	U 44	807495-055	SN7451195N	PI 12	PLCCR3
C 11	804115-333	CV15C333M	U 45	807408-016	DM755471M	PI 13	PLCCR3
C 12	804115-333	CV15C333M	U 46	807418-016	DM755471M	PI 14	PLCCR3
C 13	804115-333	CV15C333M	U 47	807400-590	SN745333M	PI 15	PLCCR3
C 14	804115-333	CV15C333M	U 48	807408-055	SN74504N	PI 16	PLCCR3
C 15	804115-333	CV15C333M	U 49	807408-055	SN74504N	PI 17	PLCCR3
C 16	804115-333	CV15C333M	U 50	807408-055	SN74504N	PI 18	PLCCR3
C 17	804115-333	CV15C333M	U 51	807408-055	SN74504N	PI 19	PLCCR3
C 18	804115-333	CV15C333M	U 52	807408-055	SN74504N	PI 20	PLCCR3
C 19	804115-333	CV15C333M	U 53	807408-055	SN74504N	PI 21	PLCCR3
C 20	804115-333	CV15C333M	U 54	807408-055	SN74504N	PI 22	PLCCR3
C 21	804115-333	CV15C333M	U 55	807408-055	SN74504N	PI 23	PLCCR3
C 22	804115-333	CV15C333M	U 56	807408-055	SN74504N	PI 24	PLCCR3
C 23	804115-333	CV15C333M	U 57	807408-055	SN74504N	PI 25	PLCCR3
C 24	804115-333	CV15C333M	U 58	807408-055	SN74504N	PI 26	PLCCR3
C 25	804115-333	CV15C333M	U 59	807408-055	SN74504N	PI 27	PLCCR3
C 26	804115-333	CV15C333M	U 60	807408-055	SN74504N	PI 28	PLCCR3
C 27	804115-333	CV15C333M	U 61	807408-055	SN74504N	PI 29	PLCCR3
C 28	804115-333	CV15C333M	U 62	807408-055	SN74504N	PI 30	PLCCR3
C 29	804115-333	CV15C333M	U 63	807408-055	SN74504N	PI 31	PLCCR3
C 30	804115-333	CV15C333M	U 64	807408-055	SN74504N	PI 32	PLCCR3
C 31	804115-333	CV15C333M	U 65	807408-055	SN74504N	PI 33	PLCCR3
C 32	804115-333	CV15C333M	U 66	807408-055	SN74504N	PI 34	PLCCR3
C 33	804115-333	CV15C333M	U 67	807408-055	SN74504N	PI 35	PLCCR3
C 34	804115-333	CV15C333M	U 68	807408-055	SN74504N	PI 36	PLCCR3
C 35	804115-333	CV15C333M	U 69	807408-055	SN74504N	PI 37	PLCCR3
C 36	804115-333	CV15C333M	U 70	807408-055	SN74504N	PI 38	PLCCR3
C 37	804115-333	CV15C333M	U 71	807408-055	SN74504N	PI 39	PLCCR3
C 38	804115-333	CV15C333M	U 72	807408-055	SN74504N	PI 40	PLCCR3
C 39	804115-333	CV15C333M	U 73	807408-055	SN74504N	PI 41	PLCCR3
C 40	804115-333	CV15C333M	U 74	807408-055	SN74504N	PI 42	PLCCR3
C 41	804115-333	CV15C333M	U 75	807408-055	SN74504N	PI 43	PLCCR3
C 42	804115-333	CV15C333M	U 76	807408-055	SN74504N	PI 44	PLCCR3
C 43	804115-333	CV15C333M	U 77	807408-055	SN74504N	PI 45	PLCCR3
C 44	804115-333	CV15C333M	U 78	807408-055	SN74504N	PI 46	PLCCR3
C 45	804115-333	CV15C333M	U 79	807408-055	SN74504N	PI 47	PLCCR3
C 46	804115-333	CV15C333M	U 80	807408-055	SN74504N	PI 48	PLCCR3
C 47	804115-333	CV15C333M	U 81	807408-055	SN74504N	PI 49	PLCCR3
C 48	804115-333	CV15C333M	U 82	807408-055	SN74504N	PI 50	PLCCR3
C 49	804115-333	CV15C333M	U 83	807408-055	SN74504N	PI 51	PLCCR3
C 50	804115-333	CV15C333M	U 84	807408-055	SN74504N	PI 52	PLCCR3
C 51	804115-333	CV15C333M	U 85	807408-055	SN74504N	PI 53	PLCCR3
C 52	804105-101	DD-101	U 86	807408-055	SN74504N	PI 54	PLCCR3
A 1	803201-681		U 87	807408-055	SN74504N	PI 55	PLCCR3
A 2	803201-102		U 88	807408-055	SN74504N	PI 56	PLCCR3
A 3	803201-102		U 89	807408-055	SN74504N	PI 57	PLCCR3
A 4	803201-102		U 90	807408-055	SN74504N	PI 58	PLCCR3
A 5	803201-102		U 91	807408-055	SN74504N	PI 59	PLCCR3
A 6	803201-102		U 92	807408-055	SN74504N	PI 60	PLCCR3
A 7	803201-102		U 93	807408-055	SN74504N	PI 61	PLCCR3
A 8	803201-102		U 94	807408-055	SN74504N	PI 62	PLCCR3
A 9	803201-102		U 95	807408-055	SN74504N	PI 63	PLCCR3
A 10	803201-102		U 96	807408-055	SN74504N	PI 64	PLCCR3
A 11	807400-055	SN74500N	U 97	807408-055	SN74504N	PI 65	PLCCR3
A 12	807412-055	SN745112M	U 98	807408-055	SN74504N	PI 66	PLCCR3
A 13	807438-055	SN745138M	U 99	807408-055	SN74504N	PI 67	PLCCR3
A 14	807408-055	SN74508M	U 100	807408-055	SN74504N	PI 68	PLCCR3
A 15	807495-055	SN745495M	U 101	807408-055	SN74504N	PI 69	PLCCR3
A 16	807408-055	SN74508M	U 102	807408-055	SN74504N	PI 70	PLCCR3
A 17	807408-055	SN74508M	U 103	807408-055	SN74504N	PI 71	PLCCR3
A 18	807408-055	SN74508M	U 104	807408-055	SN74504N	PI 72	PLCCR3
A 19	807408-055	SN74508M	U 105	807408-055	SN74504N	PI 73	PLCCR3
A 20	807408-055	SN74508M	U 106	807408-055	SN74504N	PI 74	PLCCR3
A 21	807408-055	SN74508M	U 107	807408-055	SN74504N	PI 75	PLCCR3
A 22	807408-055	SN74508M	U 108	807408-055	SN74504N	PI 76	PLCCR3
A 23	807408-055	SN74508M	U 109	807408-055	SN74504N	PI 77	PLCCR3
A 24	807408-055	SN74508M	U 110	807408-055	SN74504N	PI 78	PLCCR3
A 25	807408-055	SN74508M	U 111	807408-055	SN74504N	PI 79	PLCCR3
A 26	807408-055	SN74508M	U 112	807408-055	SN74504N	PI 80	PLCCR3
A 27	807408-055	SN74508M	U 113	807408-055	SN74504N	PI 81	PLCCR3
A 28	807408-055	SN74508M	U 114	807408-055	SN74504N	PI 82	PLCCR3
A 29	807408-055	SN74508M	U 115	807408-055	SN74504N	PI 83	PLCCR3
A 30	807408-055	SN74508M	U 116	807408-055	SN74504N	PI 84	PLCCR3
A 31	807408-055	SN74508M	U 117	807408-055	SN74504N	PI 85	PLCCR3

- ON I.C. 74H10C LOCATION U51, PIN 1A = GND, PIN 5 = PWR (+5V).
- SERIAL SHIFT LOOP SEQUENCE
 P17, 7A, 12, 6A, 12, 5A, 12, 4A, 12, 3A, 12, 2A, 12, 1A, 12,
 16, 11, 22, 11, 32, 11, P1.55.
- NUMBERS SHOWN REFER TO CONNECTOR P1.
 ALL CAPACITANCE VALUES ARE EXPRESSED IN MICROFARADS.
 RESISTANCE VALUES ARE EXPRESSED IN OHMS,
 K DENOTES 1000.
 RESISTORS ARE 1/4 WATT, ± 5% TOLERANCE.
 ON ALL 20 PIN I.C.'S, PIN 10 IS GROUND AND
 PIN 20 IS POWER (+5V).
 ON ALL 16 PIN I.C.'S, PIN 8 IS GROUND AND
 PIN 16 IS POWER (+5V).
 ON ALL 14 PIN I.C.'S, PIN 7 IS GROUND AND
 PIN 14 IS POWER (+5V).
 UNLESS OTHERWISE SPECIFIED;

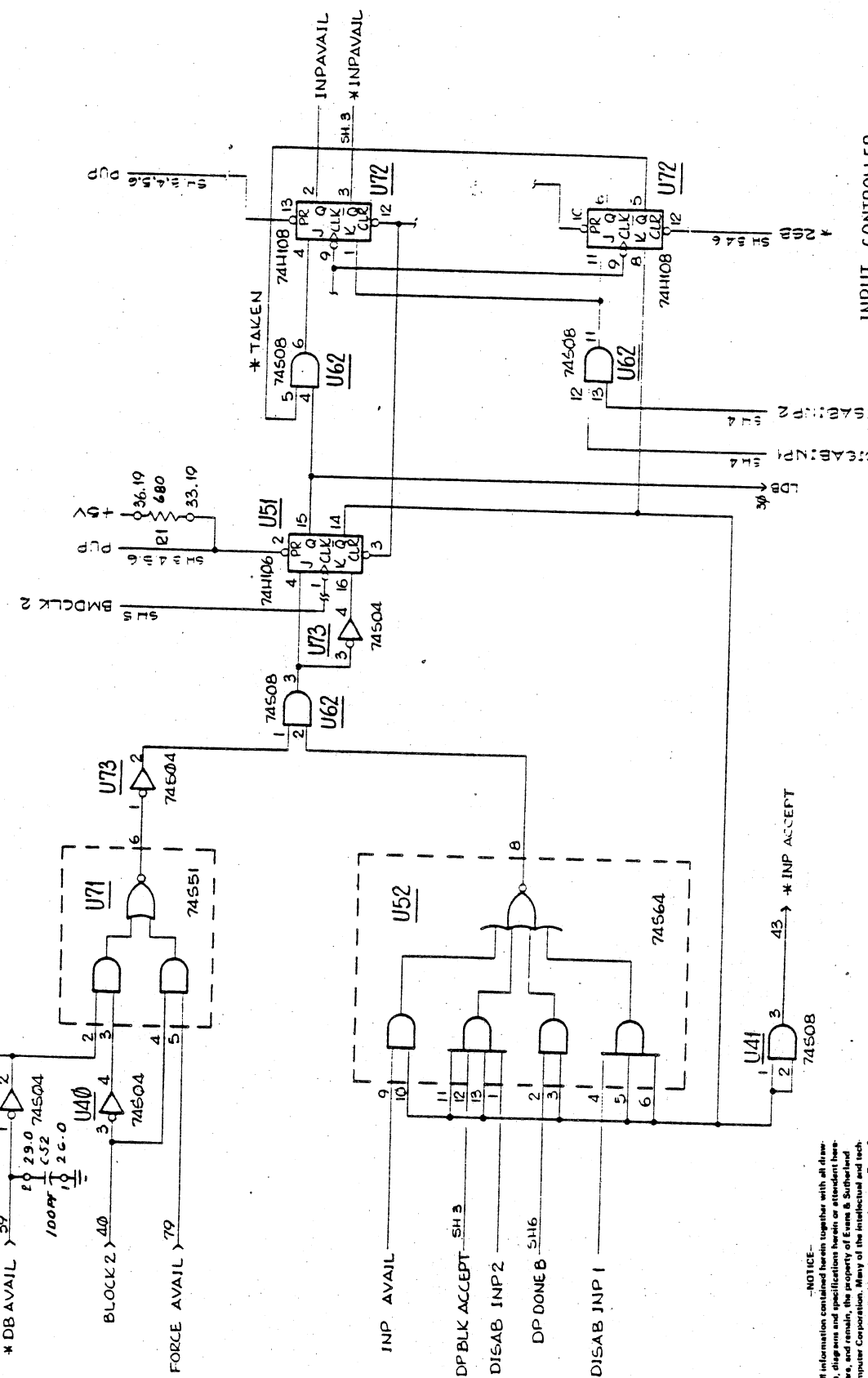


SEE SEPARATE PARTS LIST EVANS & SUTHERLAND COMPUTER CORPORATION SALT LAKE CITY, UTAH 84112		CONTRACT NO. DRAWN: 2-15-77 CHECKED: 3-30-AUG-77 MECH: XXXX ELEC: XXXX PROJ. ENG: XXXX APPROVED: XXXX
ANALOG CONTROL		SIZE CODE IDENT NO
W/W		C 53938
SCALE NONE		200156-600
REV		A1
SHEET 1 OF 7		

NOTES:

200156-600

ZONE	LT#	DESCRIPTION	DATE	APPROVED

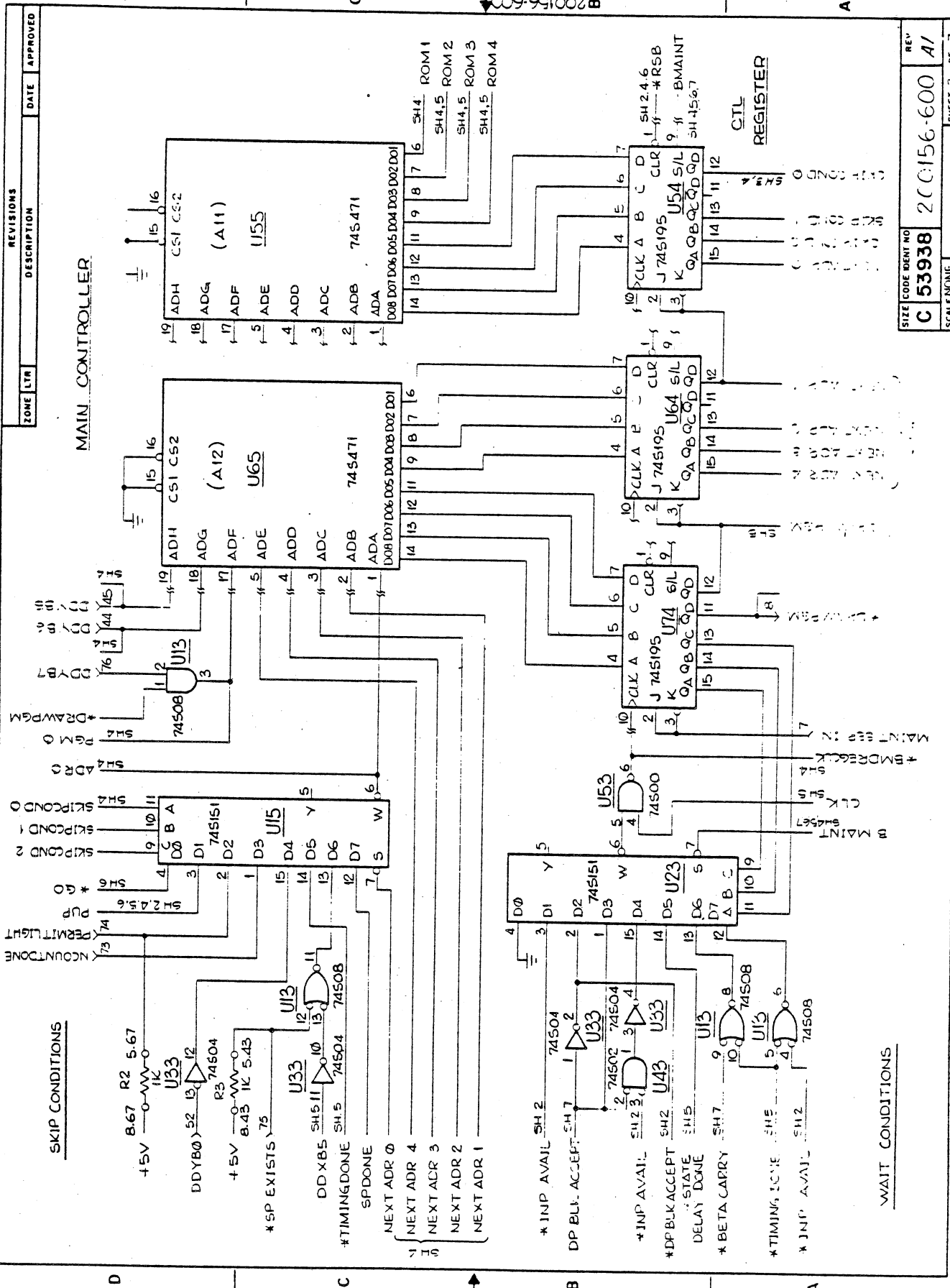


NOTICE
 All information contained herein together with all drawings, diagrams and specifications are the property of Evans & Sutherland Computer Corporation. Many of the intellectual and technical concepts described herein are proprietary to Evans & Sutherland and may be covered by U. S. and Foreign Patents or Patents Pending or are protected as trade secrets. Any dissemination of this information or reproduction of this material for commercial or other purposes other than the express purpose for which it has been made available is strictly forbidden unless prior written permission is obtained from Evans & Sutherland Computer Corporation.

SIZE CODE	IDENT NO	200156-600	REV	A/
C	53938			
SCALE	NONE		SHEET	2 OF 7

INPUT CONTROLLER

200156-600



ZONE	LTR	DESCRIPTION	DATE	APPROVED

MAIN CONTROLLER

SKIP CONDITIONS

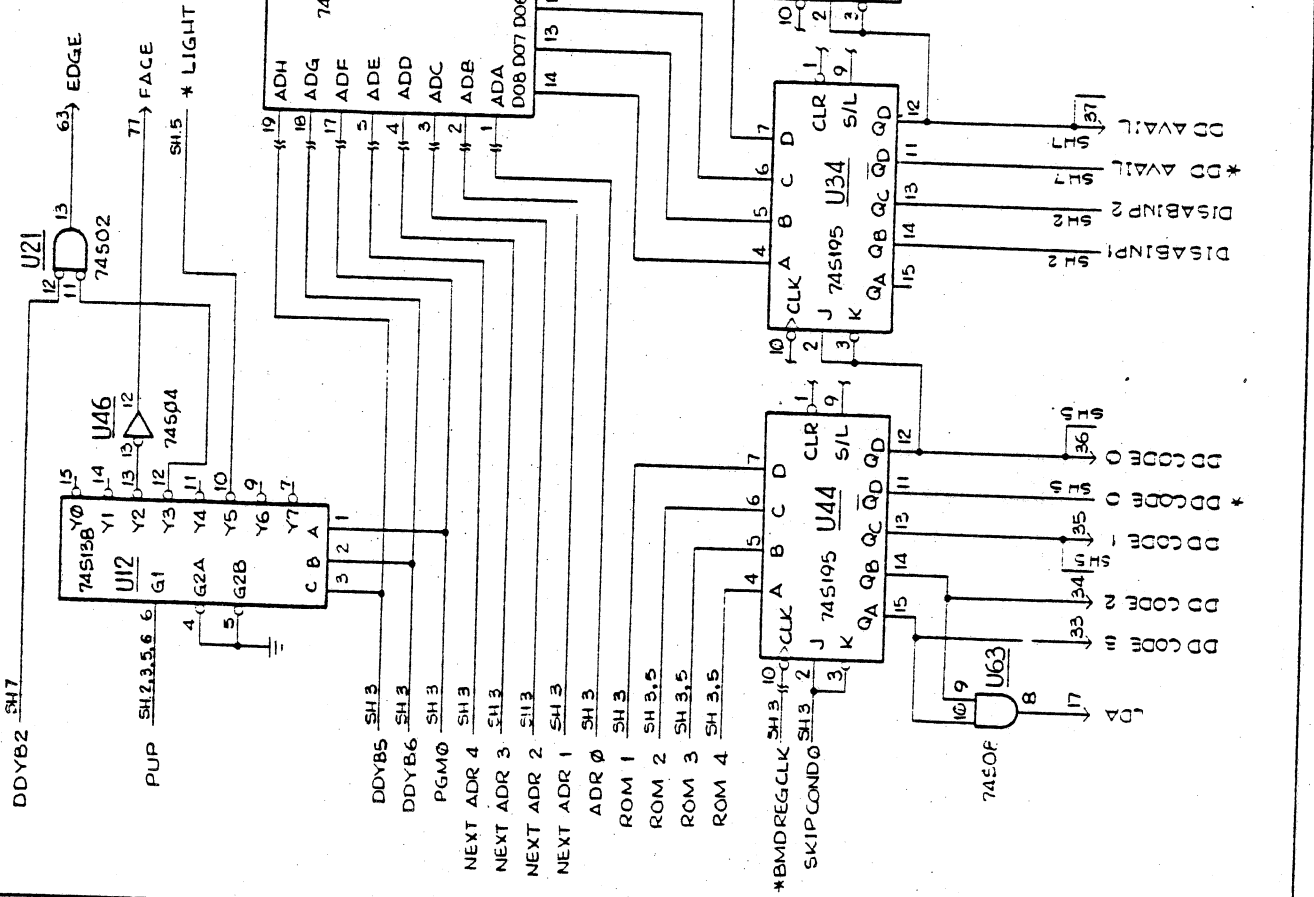
WAIT CONDITIONS

SIZE CODE IDENT NO	C 53938	REV	A1
SCALE/INCH	200156-600	SHEET 3	OF 7

200156-600

ZONE	LN	REVISIONS	DESCRIPTION	DATE	APPROVED

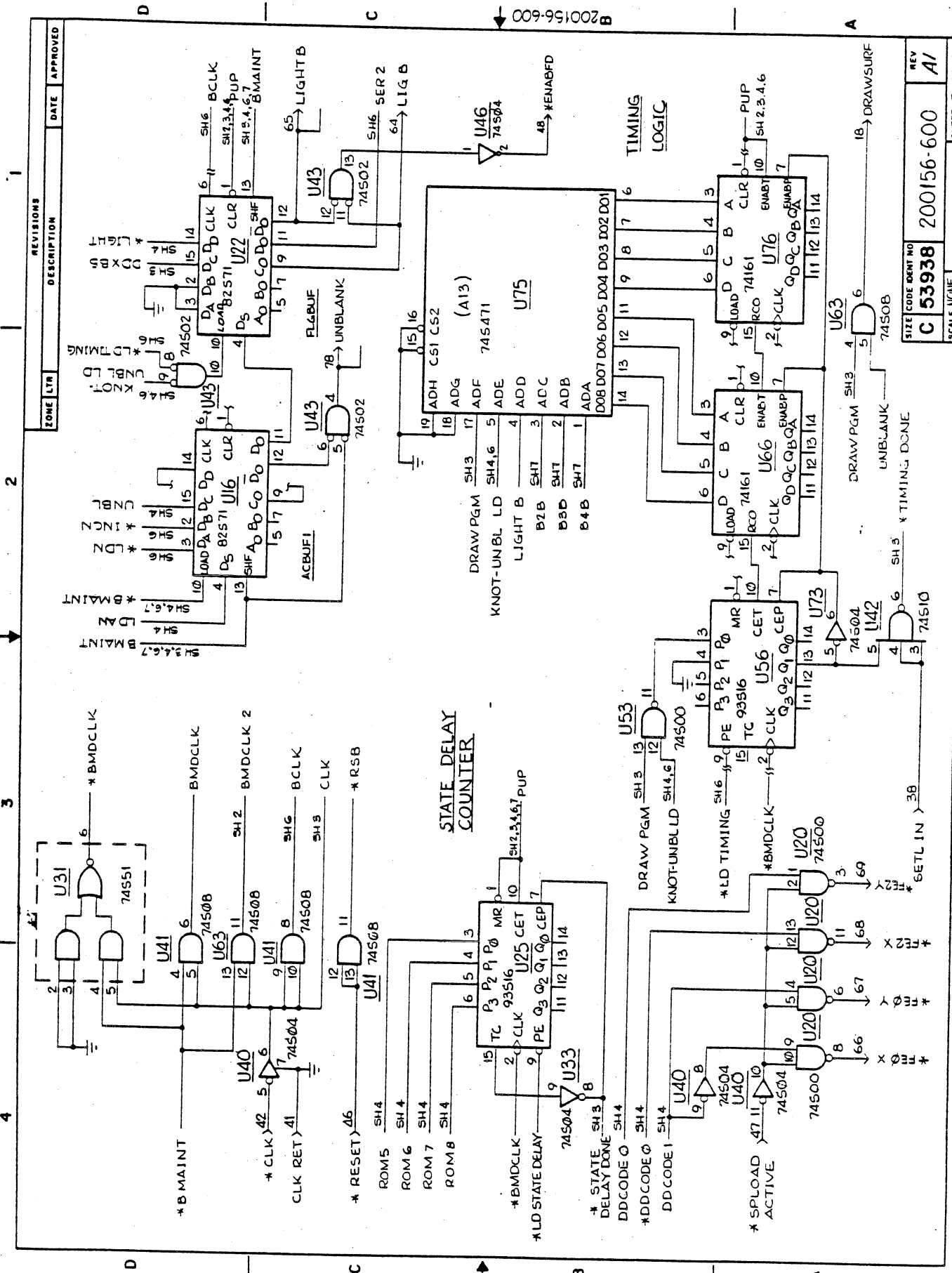
MAIN CONTROLLER



SIZE	CODE	REV NO	SCALE	NAME
C	53938	200156600		

REV	A/
SHEET	4 OF 7

ZONE	LTR	DESCRIPTION	DATE	APPROVED



200156-600

REV 5 OF 7

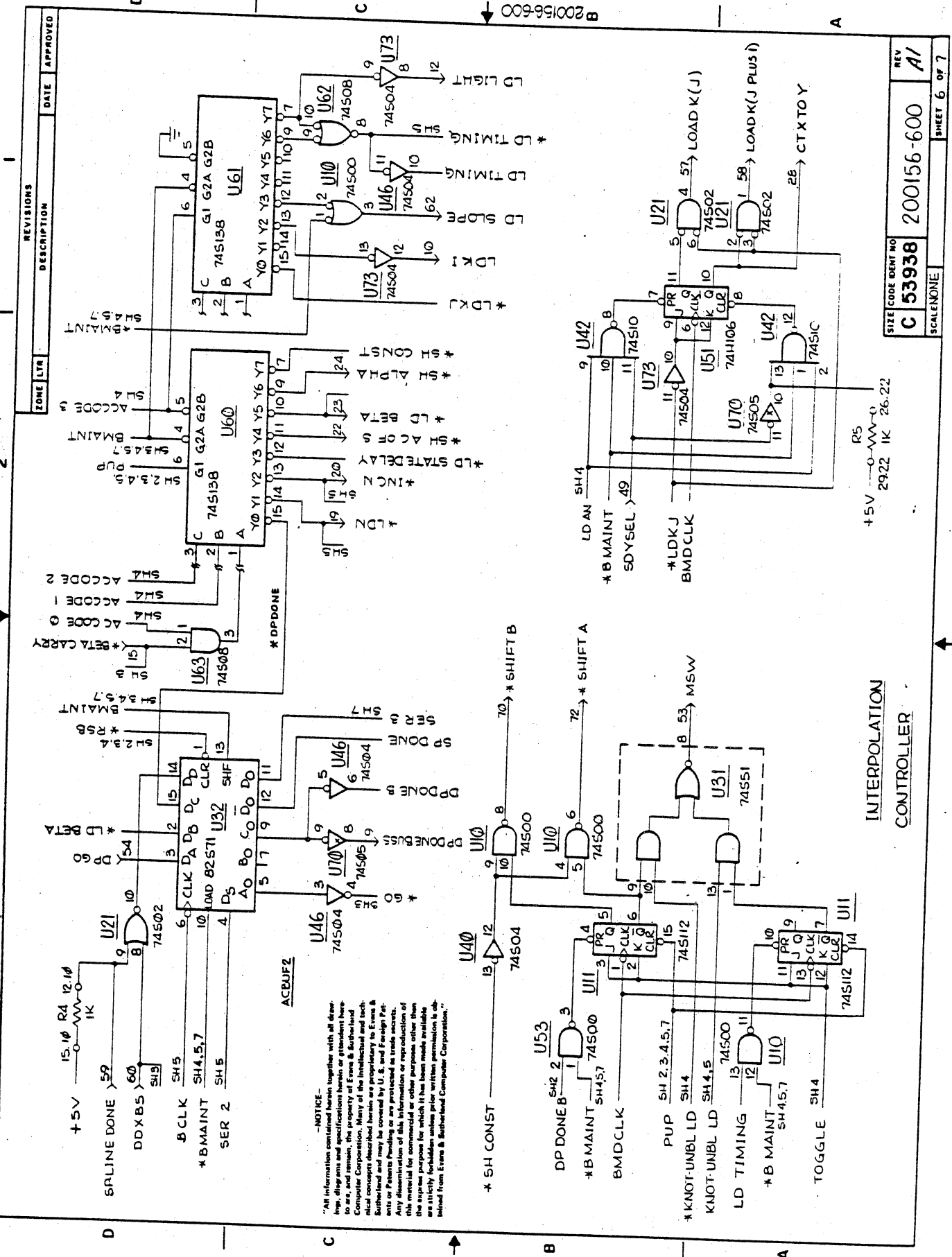
SCALE NONE

SIZE CODE IDENT NO C 53938

200156-600

REV A1

NOTICE - All information contained herein together with all drawings, diagrams, specifications herein or attached here to are, and remain, the property of Evers & Sutherland Computer Corporation. Wherever the intellectual and technical concepts described herein are used in any patent, trade secret or other rights of Evers & Sutherland and may be covered by U.S. and Foreign Patents or Patents Pending or any protection or reproduction of this material for commercial or other purposes other than the express purpose for which it has been made available are strictly forbidden unless prior written permission is obtained from Evers & Sutherland Computer Corporation.



ZONE LTR	DESCRIPTION	DATE	APPROVED

SIZE CODE BURT NO	REV
C 53938	200156-600
SCALE NONE	A1
SHEET 6	OF 7

INTERPOLATION CONTROLLER

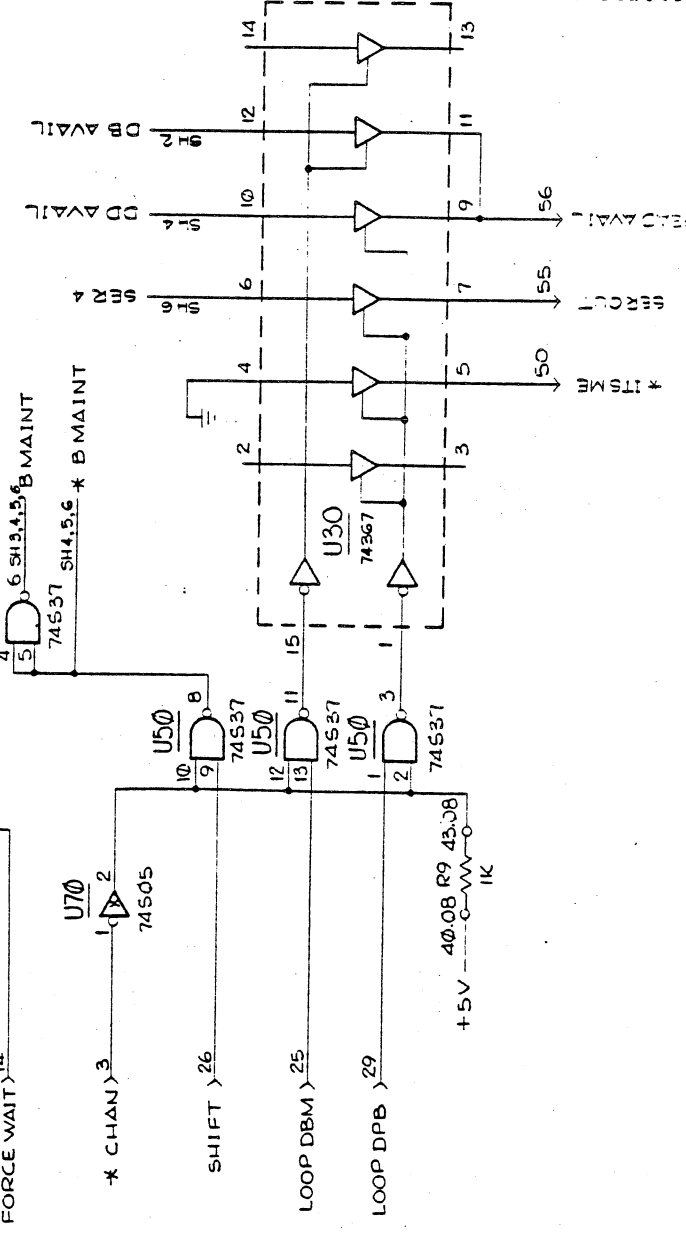
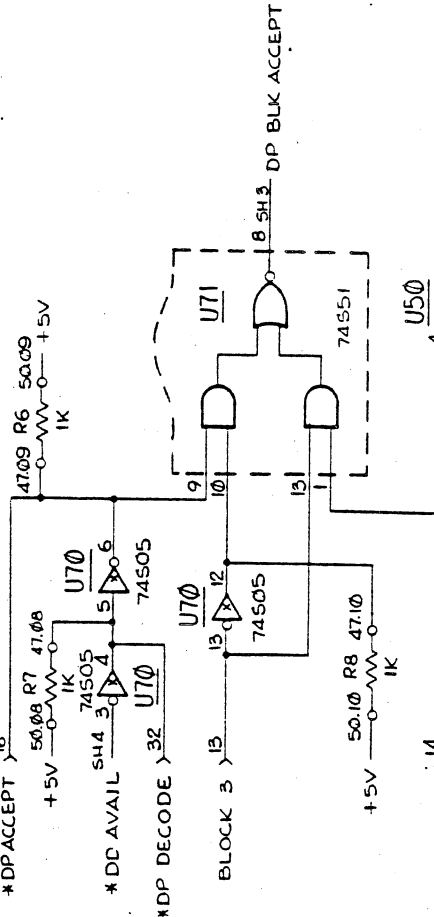
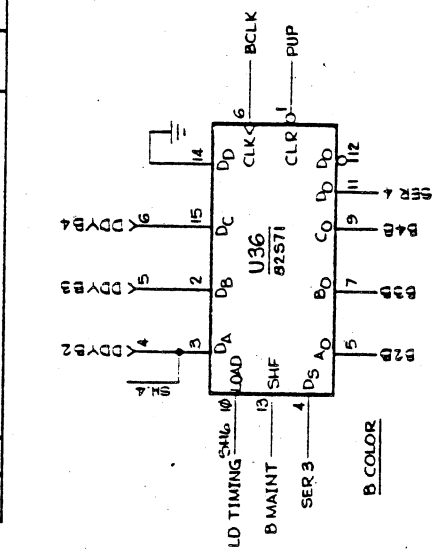
200156-600

26.22

2922 1K

26.22

REVISIONS		DATE	APPROVED
ZONE	LTR	DESCRIPTION	

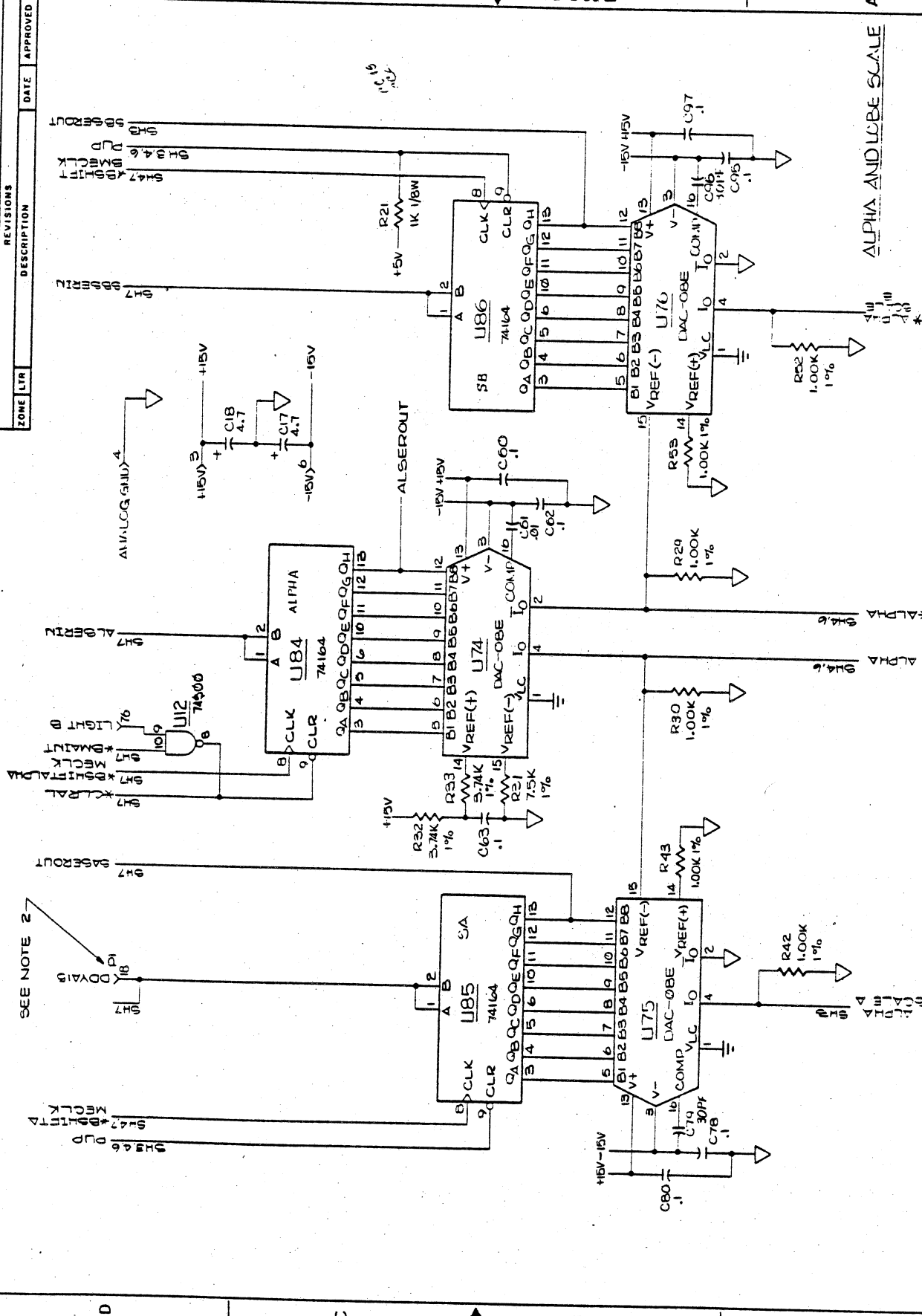


NOTICE—
All information contained herein, together with all drawings, diagrams and specifications herein, are the property of Evans & Sutherland Computer Corporation. Many of the Intellectual and technical concepts described herein are proprietary to Evans & Sutherland and may be covered by U.S. and Foreign Patents or Patents Pending or are protected as trade secrets. Any dissemination of this information or reproduction of this material for commercial or other purposes other than the express purpose for which it has been made available are strictly prohibited unless prior written permission is obtained from Evans & Sutherland Computer Corporation.

SIZE	CODE	IDENT NO	REV
C	53938	200156-600	A/
SCALE		NONE	SHEET 7 OF 7

200156-600





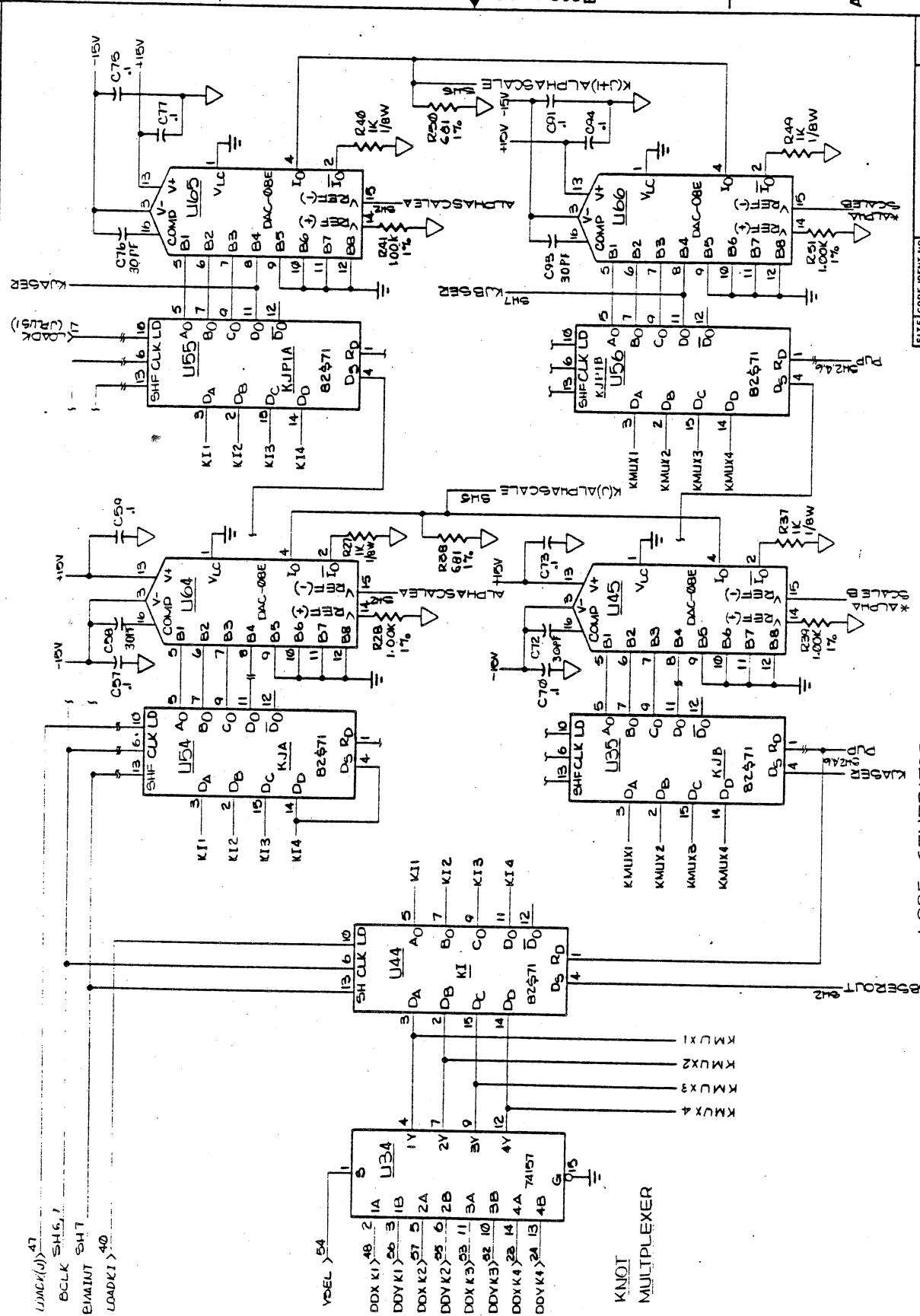
ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

SIZE	CODE IDENT NO	REV
C	53938	200157-600
SCALE	NXJLIE	SHEET 2 OF 7

ALPHA AND LOBE SCALE

4 3 2 1

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

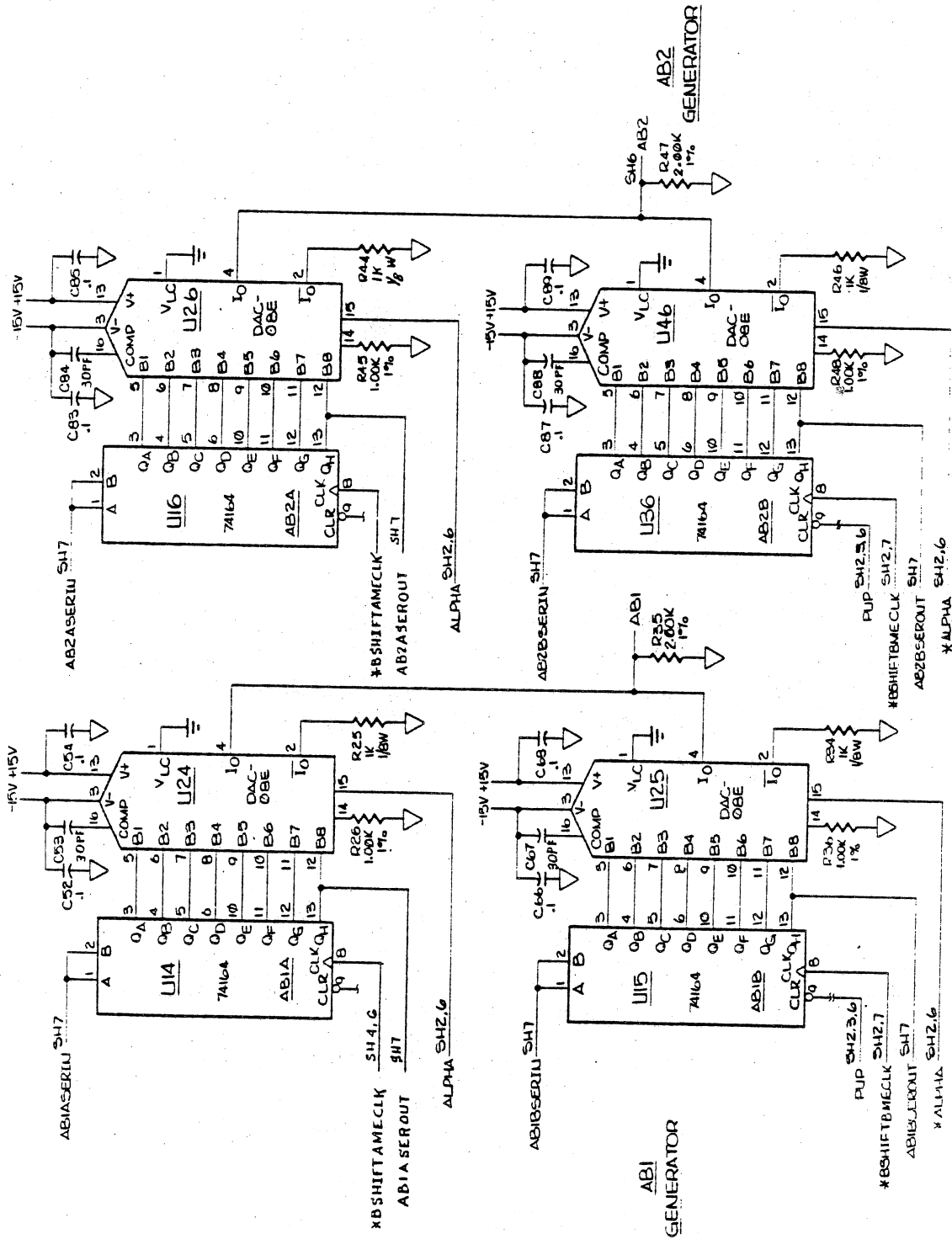


SIZE	CODE	IDENT NO	REV
C	53938	200157-600	A
SCALE			SHEET 3 OF 7

LOBE GENERATOR
SEGMENT ALPHA - INTERPOLATION

200157-600

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED



SIZE	CODE IDENT NO	REV
C	53938	A2
SCALE	100% 1:1	SHEET 4 OF 7

B 200157-600

A

C

D

4

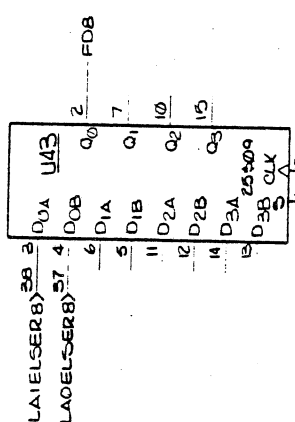
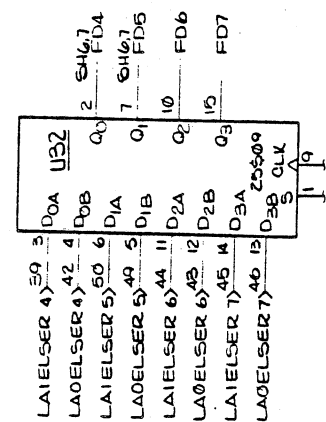
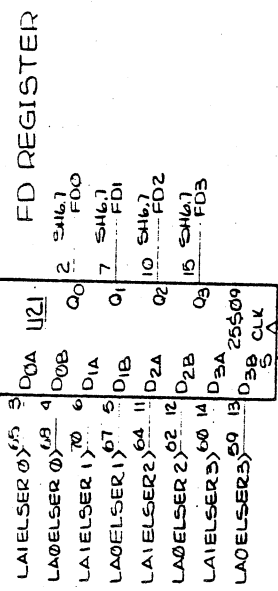
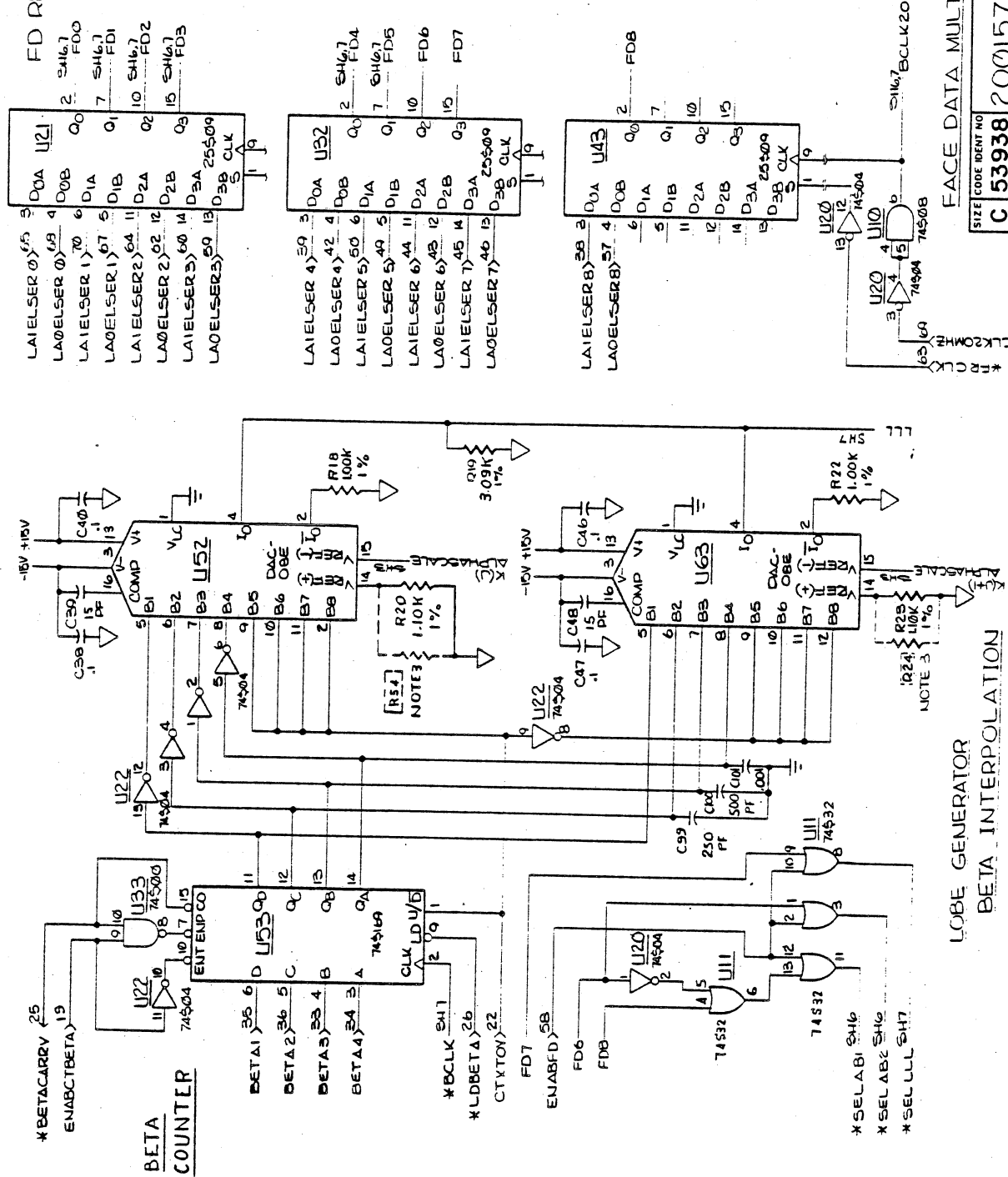
3

2

1

4 3 2 1

ZONE	LT#	DESCRIPTION	DATE	APPROVED

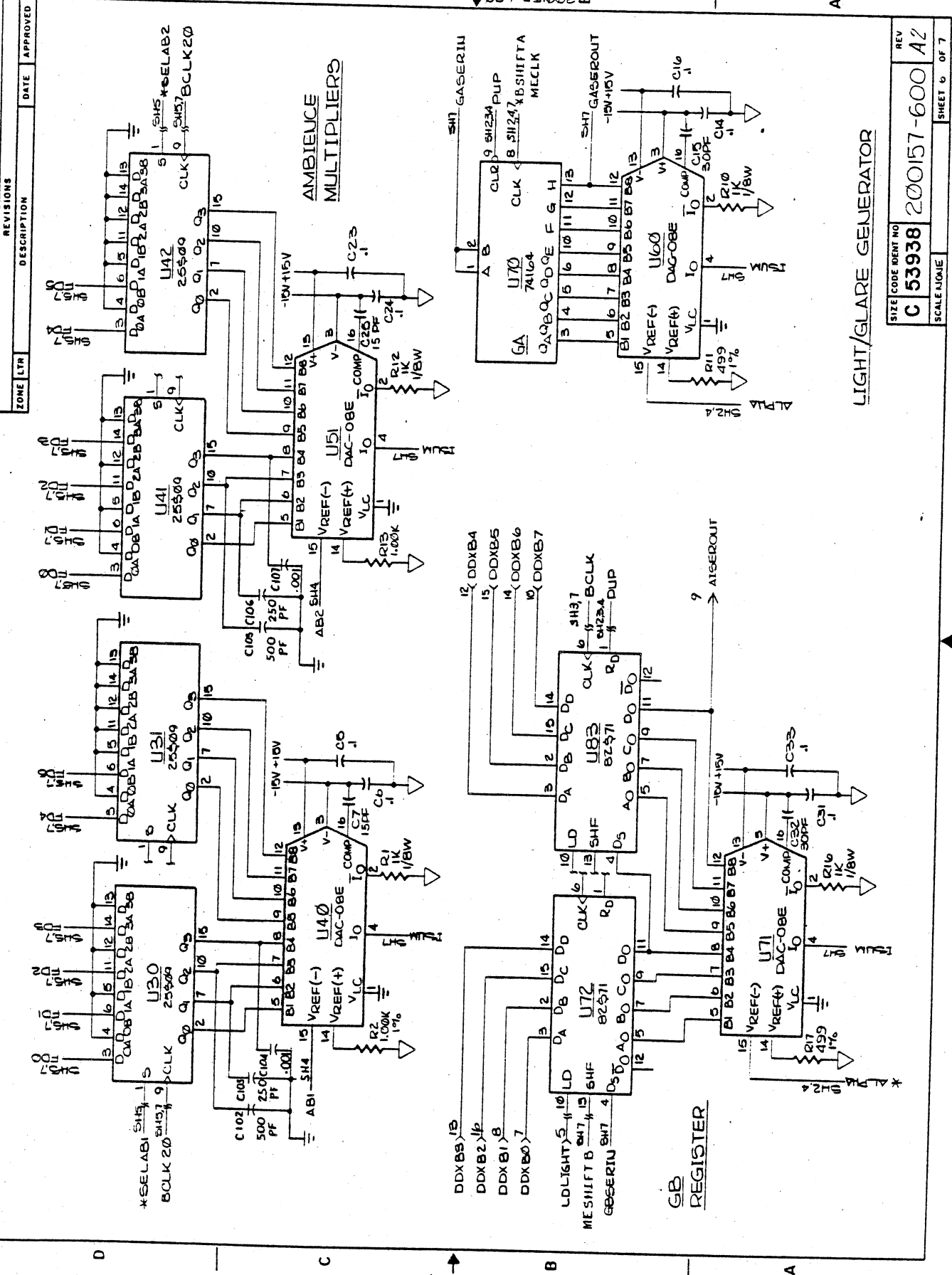


LOBE GENERATOR
BETA INTERPOLATION

FACE DATA MULTIPLEXING

SIZE	CODE IDENT NO	REV
C 53938	200157-600	A2
SCALE/NO	SHEET 5 OF 7	

200157-600



ZONE	LTR	DESCRIPTION	DATE	APPROVED

*SELAB1 SH5 1
 BCLK 20
 U30 25509
 U31 25509
 U41 25500
 U42 25500
 SH5 1
 SH5 9
 SH5 15
 BCLK 20

DDXB5 15
 DDXB2 16
 DDXB1 18
 DDXB0 17
 LD LIGHT 5
 SH5 15
 ME SHIFT B 15
 SH5 4
 GSERIU 4

U71 74164
 U72 82571
 U83 82571
 SH1 GASERIU
 SH1 GASERIU
 SH1 GASERIU
 SH1 GASERIU

U51 25500
 U52 25500
 U53 25509
 U54 25509
 DAC-OBE
 DAC-OBE
 DAC-OBE
 DAC-OBE

U10 74164
 U11 74164
 U12 74164
 U13 74164
 U14 74164
 U15 74164
 U16 74164
 U17 74164
 U18 74164
 U19 74164
 U20 74164
 U21 74164
 U22 74164
 U23 74164
 U24 74164
 U25 74164
 U26 74164
 U27 74164
 U28 74164
 U29 74164
 U30 74164
 U31 74164
 U32 74164
 U33 74164
 U34 74164
 U35 74164
 U36 74164
 U37 74164
 U38 74164
 U39 74164
 U40 74164
 U41 74164
 U42 74164
 U43 74164
 U44 74164
 U45 74164
 U46 74164
 U47 74164
 U48 74164
 U49 74164
 U50 74164
 U51 74164
 U52 74164
 U53 74164
 U54 74164
 U55 74164
 U56 74164
 U57 74164
 U58 74164
 U59 74164
 U60 74164
 U61 74164
 U62 74164
 U63 74164
 U64 74164
 U65 74164
 U66 74164
 U67 74164
 U68 74164
 U69 74164
 U70 74164
 U71 74164
 U72 74164
 U73 74164
 U74 74164
 U75 74164
 U76 74164
 U77 74164
 U78 74164
 U79 74164
 U80 74164
 U81 74164
 U82 74164
 U83 74164
 U84 74164
 U85 74164
 U86 74164
 U87 74164
 U88 74164
 U89 74164
 U90 74164
 U91 74164
 U92 74164
 U93 74164
 U94 74164
 U95 74164
 U96 74164
 U97 74164
 U98 74164
 U99 74164
 U100 74164

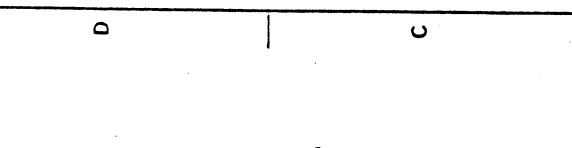
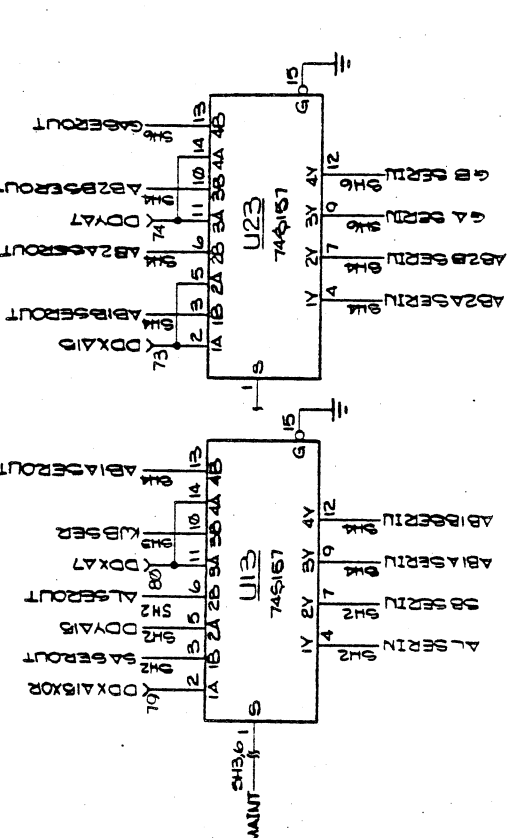
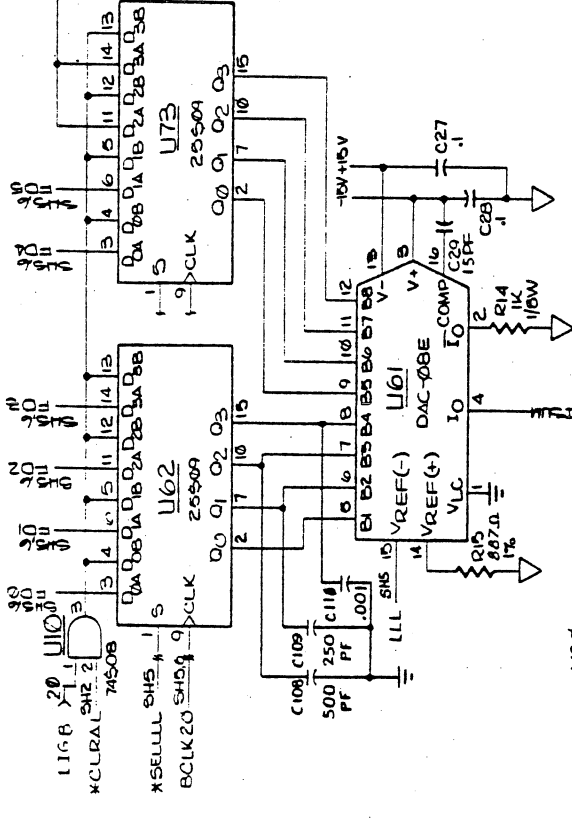
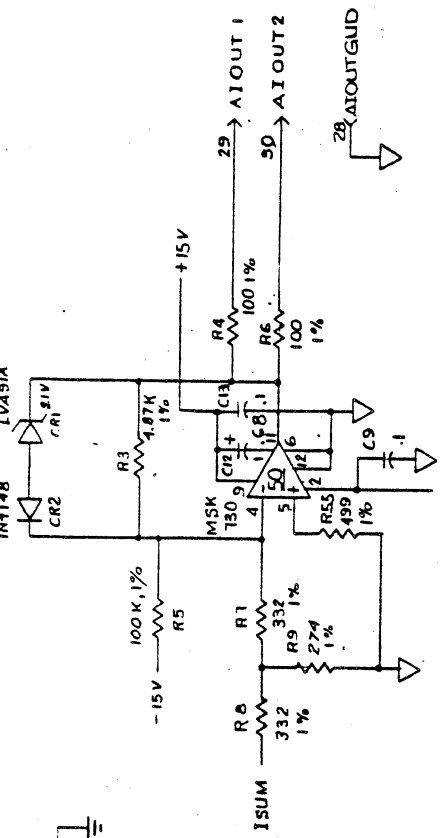
SIZE CODE WENT NO
 C 53938
 SCALE NONE
 SHEET 6 OF 7

LIGHT/GLARE GENERATOR

REV
 200157-600 A2

SHEET 6 OF 7

ZONE	LTR	DESCRIPTION	DATE	APPROVED
INT	148	LVASIA		

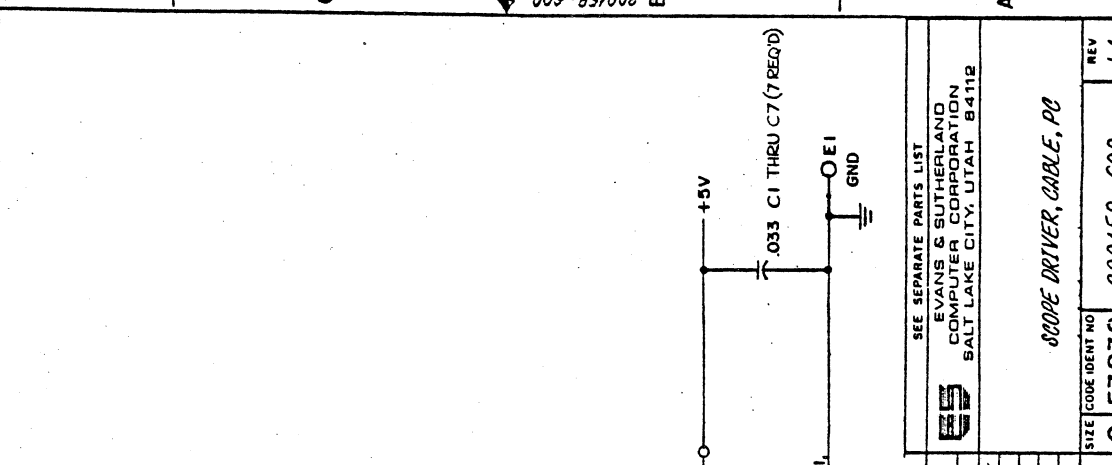


SIZE	CODE	REV	REV
C	53938	200157-600	A2
SCALE		SHEET 7 OF 7	



ZONE	LTR	DESCRIPTION	DATE	APPROVED
A2		ADDED Q4 AND R60 PER ECO A2	9-25-77	JRB 9/13/77
A3		ENGR DASH NO. U31 WAS A7B	21 OCT 77	JRB 9/13/77
A4		CHNG ENGR DASH NO. LOC U62 TO 100 PF	11-29-77	Per Signer

REF DESIG	E+S PART NO	VENDOR PART NUMBER	REF DESIG	E+S PART NO	VENDOR PART NUMBER
U 26	803413-249	AN600	U 26	803413-249	AN600
U 27	803413-259	AN600	U 27	803413-259	AN600
U 28	803413-269	AN600	U 28	803413-269	AN600
U 29	803413-270	AN600	U 29	803413-270	AN600
U 30	803413-280	AN600	U 30	803413-280	AN600
U 31	803413-290	AN600	U 31	803413-290	AN600
U 32	803413-300	AN600	U 32	803413-300	AN600
U 33	803413-310	AN600	U 33	803413-310	AN600
U 34	803413-320	AN600	U 34	803413-320	AN600
U 35	803413-330	AN600	U 35	803413-330	AN600
U 36	803413-340	AN600	U 36	803413-340	AN600
U 37	803413-350	AN600	U 37	803413-350	AN600
U 38	803413-360	AN600	U 38	803413-360	AN600
U 39	803413-370	AN600	U 39	803413-370	AN600
U 40	803413-380	AN600	U 40	803413-380	AN600
U 41	803413-390	AN600	U 41	803413-390	AN600
U 42	803413-400	AN600	U 42	803413-400	AN600
U 43	803413-410	AN600	U 43	803413-410	AN600
U 44	803413-420	AN600	U 44	803413-420	AN600
U 45	803413-430	AN600	U 45	803413-430	AN600
U 46	803413-440	AN600	U 46	803413-440	AN600
U 47	803413-450	AN600	U 47	803413-450	AN600
U 48	803413-460	AN600	U 48	803413-460	AN600
U 49	803413-470	AN600	U 49	803413-470	AN600
U 50	803413-480	AN600	U 50	803413-480	AN600
U 51	803413-490	AN600	U 51	803413-490	AN600
U 52	803413-500	AN600	U 52	803413-500	AN600
U 53	803413-510	AN600	U 53	803413-510	AN600
U 54	803413-520	AN600	U 54	803413-520	AN600
U 55	803413-530	AN600	U 55	803413-530	AN600
U 56	803413-540	AN600	U 56	803413-540	AN600
U 57	803413-550	AN600	U 57	803413-550	AN600
U 58	803413-560	AN600	U 58	803413-560	AN600
U 59	803413-570	AN600	U 59	803413-570	AN600
U 60	803413-580	AN600	U 60	803413-580	AN600
U 61	803413-590	AN600	U 61	803413-590	AN600
U 62	803413-600	AN600	U 62	803413-600	AN600
U 63	803413-610	AN600	U 63	803413-610	AN600
U 64	803413-620	AN600	U 64	803413-620	AN600
U 65	803413-630	AN600	U 65	803413-630	AN600
U 66	803413-640	AN600	U 66	803413-640	AN600
U 67	803413-650	AN600	U 67	803413-650	AN600
U 68	803413-660	AN600	U 68	803413-660	AN600
U 69	803413-670	AN600	U 69	803413-670	AN600
U 70	803413-680	AN600	U 70	803413-680	AN600
U 71	803413-690	AN600	U 71	803413-690	AN600
U 72	803413-700	AN600	U 72	803413-700	AN600
U 73	803413-710	AN600	U 73	803413-710	AN600
U 74	803413-720	AN600	U 74	803413-720	AN600
U 75	803413-730	AN600	U 75	803413-730	AN600
U 76	803413-740	AN600	U 76	803413-740	AN600
U 77	803413-750	AN600	U 77	803413-750	AN600
U 78	803413-760	AN600	U 78	803413-760	AN600
U 79	803413-770	AN600	U 79	803413-770	AN600
U 80	803413-780	AN600	U 80	803413-780	AN600
U 81	803413-790	AN600	U 81	803413-790	AN600
U 82	803413-800	AN600	U 82	803413-800	AN600
U 83	803413-810	AN600	U 83	803413-810	AN600
U 84	803413-820	AN600	U 84	803413-820	AN600
U 85	803413-830	AN600	U 85	803413-830	AN600
U 86	803413-840	AN600	U 86	803413-840	AN600
U 87	803413-850	AN600	U 87	803413-850	AN600
U 88	803413-860	AN600	U 88	803413-860	AN600
U 89	803413-870	AN600	U 89	803413-870	AN600
U 90	803413-880	AN600	U 90	803413-880	AN600
U 91	803413-890	AN600	U 91	803413-890	AN600
U 92	803413-900	AN600	U 92	803413-900	AN600
U 93	803413-910	AN600	U 93	803413-910	AN600
U 94	803413-920	AN600	U 94	803413-920	AN600
U 95	803413-930	AN600	U 95	803413-930	AN600



CONTRACT NO	7-8-77
DRAWN BY	J. HOLLEY
CHECKED BY	J. HOLLEY
MECH	
ELEC	
PROJ ENG	J. V. [Signature]
APPROVED	

SEE SEPARATE PARTS LIST
 EVANS & SUTHERLAND
 COMPUTE CORPORATION
 SALT LAKE CITY, UTAH 84112

SCOPE DRIVER, CABLE, PC

SIZE	C 53938
CODE IDENT NO	200158-600
REV	A4

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON	.XX ±
ANGLES	±
MATERIAL	AN600/EN
FINISH	
APPLICATION	200158-100
NEXT ASSY USED ON	

- SERIAL SHIFT LOOP SEQUENCE PL33, 6013, 51, 11, 11, 11, 21, 11, 92, 12, 91, 13, P1, 5
- NUMBERS SHOWN REFER TO CONNECTOR P1. ALL CAPACITANCE VALUES ARE EXPRESSED IN MICROFARADS. RESISTANCE VALUES ARE EXPRESSED IN OHMS, K DENOTES 1000. RESISTORS ARE 1/4 WATT, ± 5% TOLERANCE. ON ALL 20 PIN I.C.'S, PIN 10 IS GROUND AND PIN 20 IS POWER (+5V). ON ALL 16 PIN I.C.'S, PIN 8 IS GROUND AND PIN 16 IS POWER (+5V). ON ALL 14 PIN I.C.'S, PIN 7 IS GROUND AND PIN 14 IS POWER (+5V). UNLESS OTHERWISE SPECIFIED!

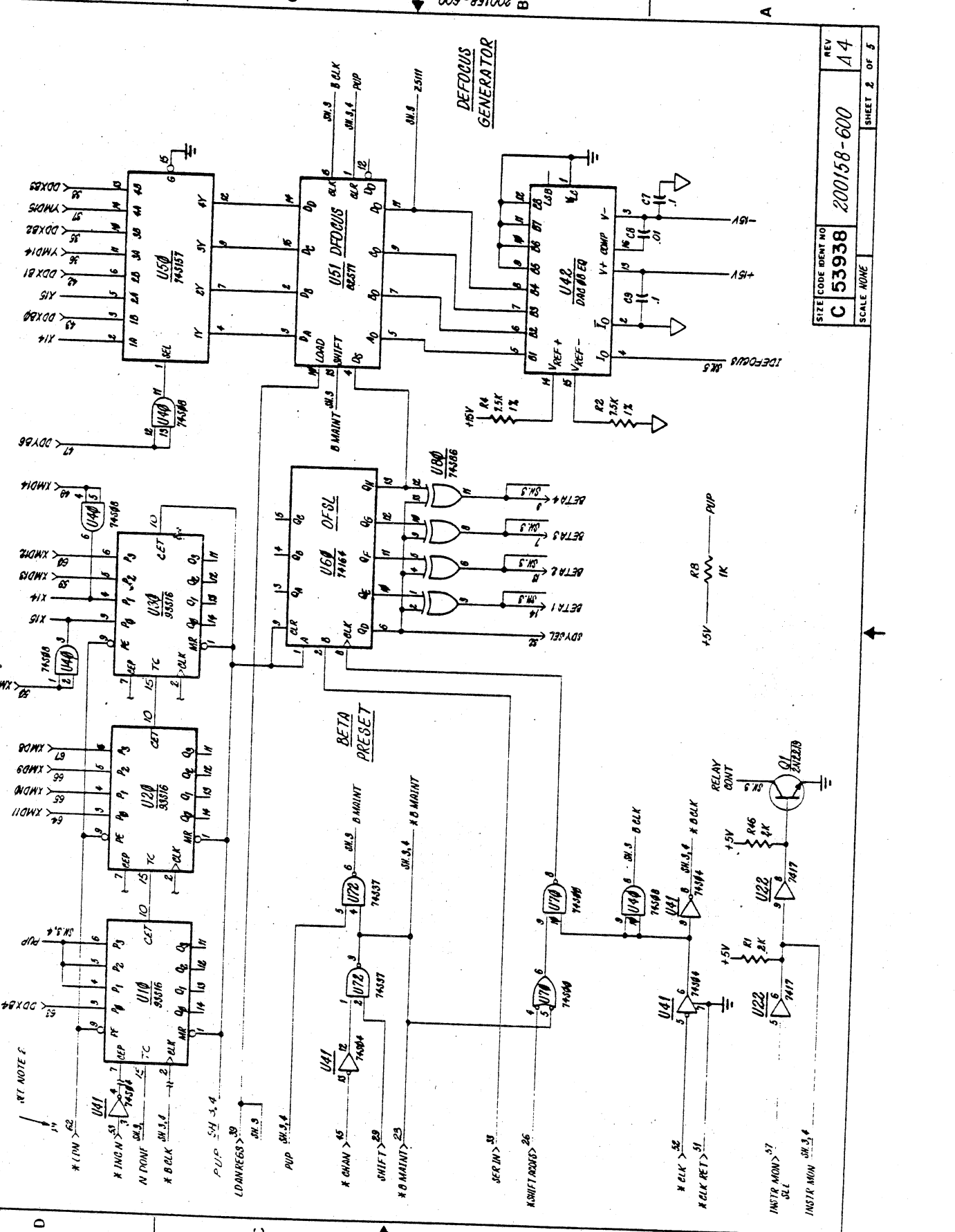
NOTES:

ZONE	LTR	DESCRIPTION	DATE	APPROVED

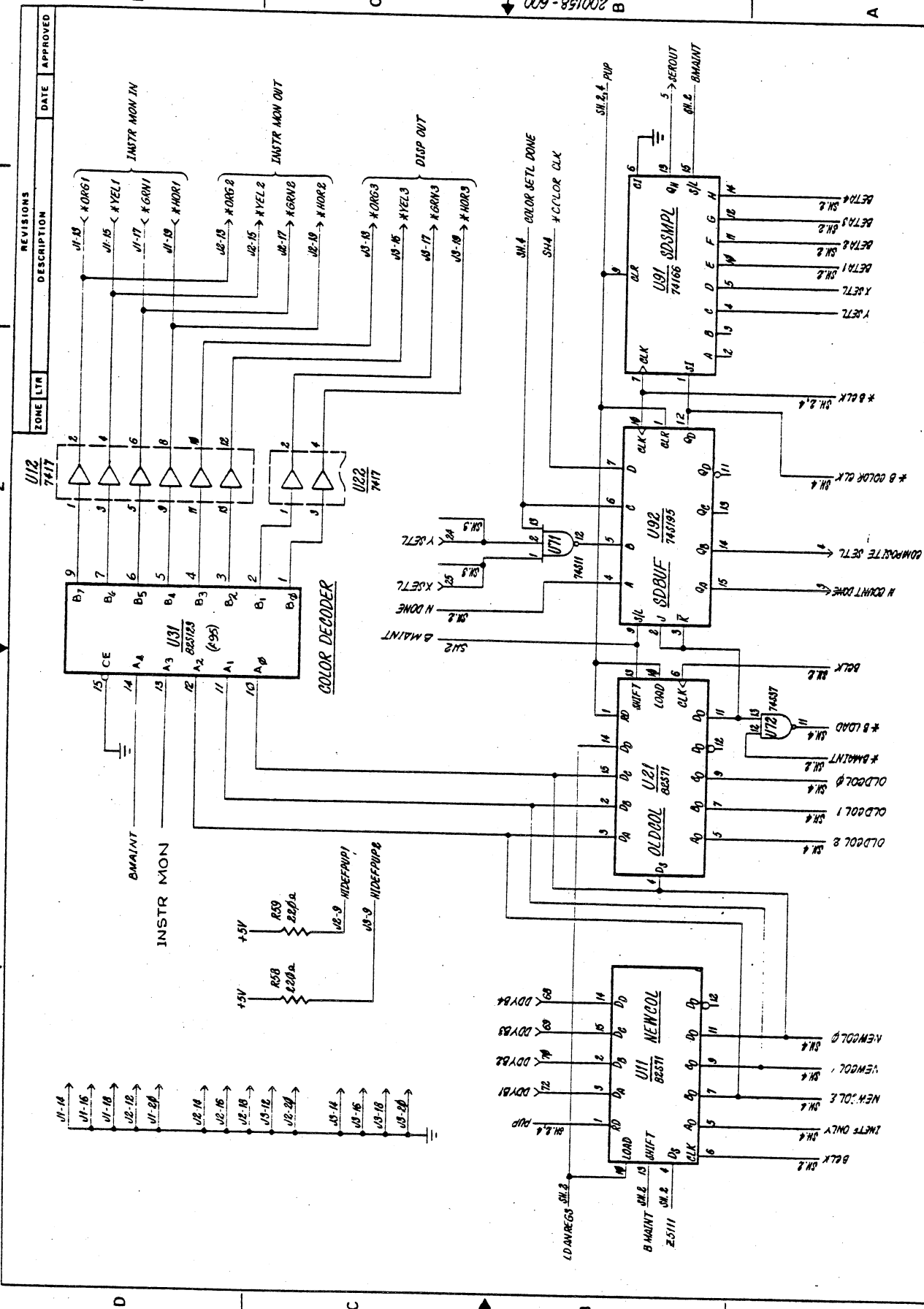
LINE (N) COUNTER

REVISIONS

200158-600



SIZE CODE IDENT NO	200158-600	REV	44
C 53938	SCALE NONE	SHEET 2	OF 5



ZONE	LTR	DESCRIPTION	DATE	APPROVED

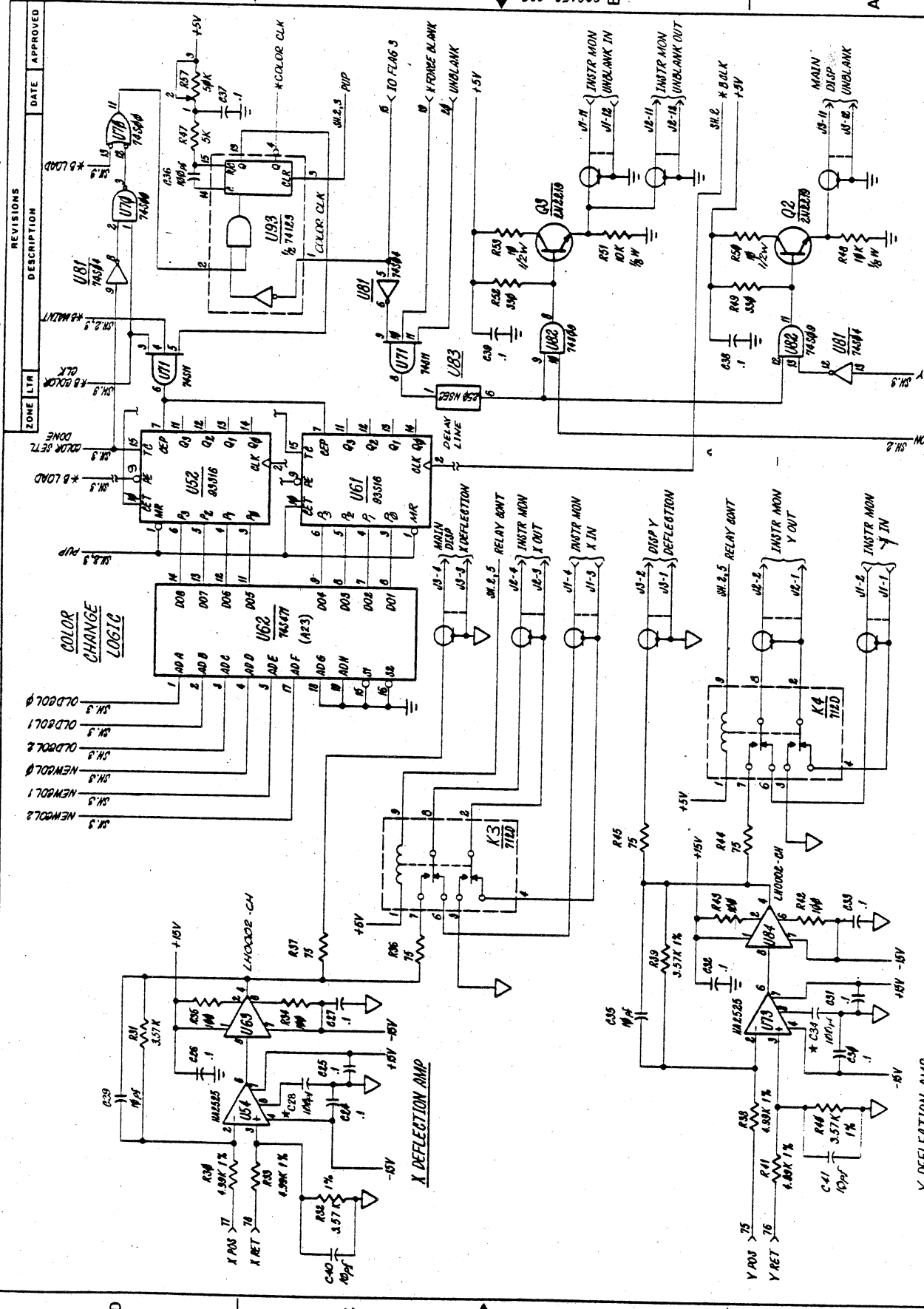
REV	DESCRIPTION	DATE	APPROVED

SIZE CODE BENT NO
C 53938
 SCALE NONE
 SHEET 3 OF 5

200158-600
 REV A-7

200158-600

REV	A4
SIZE CODE IDENT NO	C 53938
SCALE	NONE
200158-600	
SHEET 4 OF 5	



* TO BE ADDED BY ENG. C28, C34 (AS REQ)

Y DEFLECTION AMP

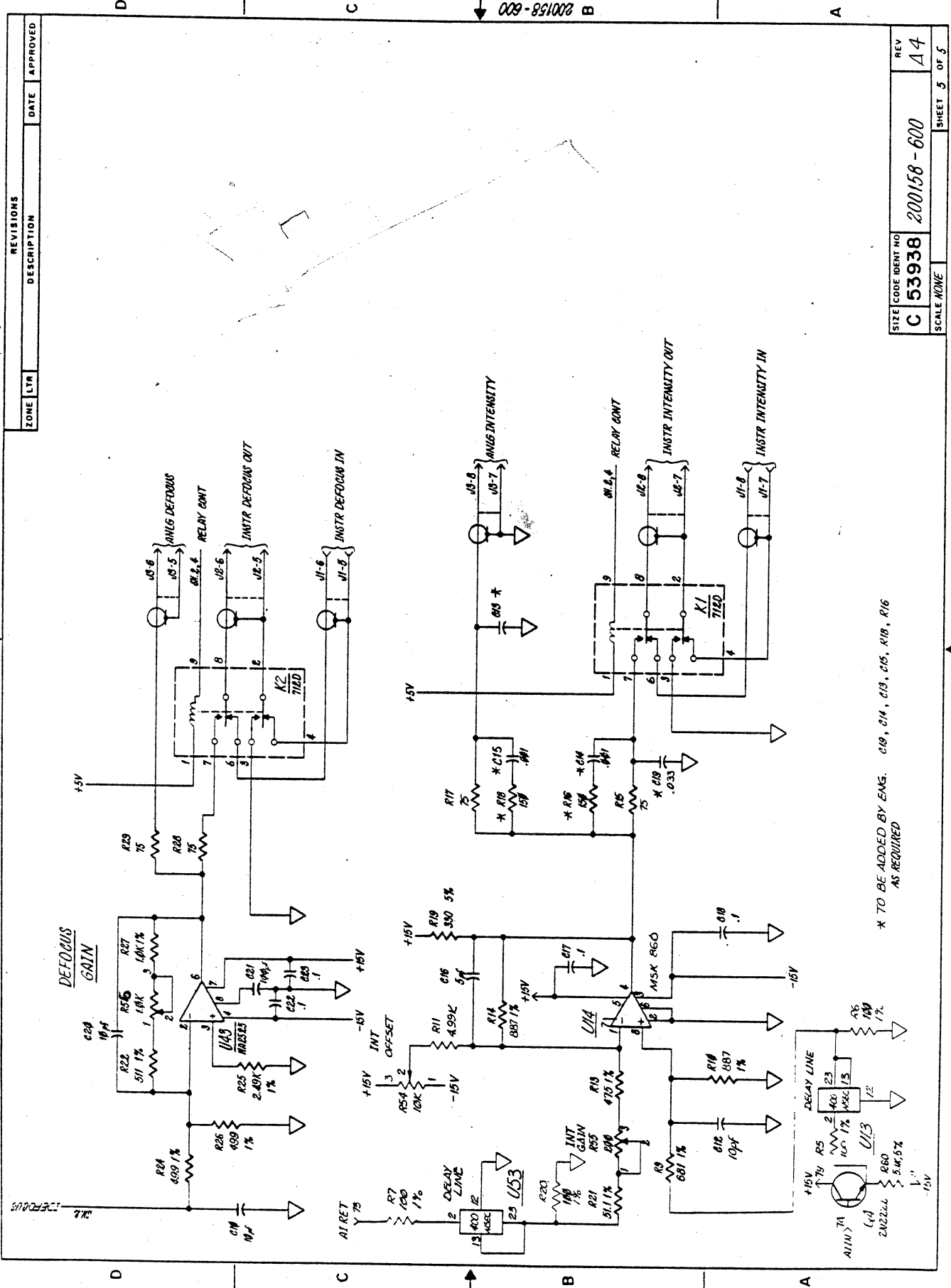
X DEFLECTION AMP

COLOR CHANGE LOGIC

REVISIONS	DESCRIPTION	DATE	APPROVED
ZONE LTR			
SH.3	K8 EXCISE		
SH.2	K8 MOUNT		
SH.1	U81		

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

1 2 3 4



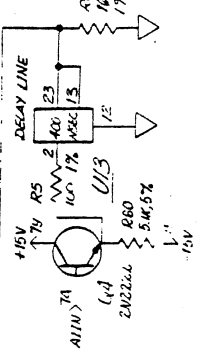
SIZE CODE IDENT NO	C 53938	200158 - 600	REV	A4
SCALE	NONE		SHEET	5 OF 5

200158-600 B

A

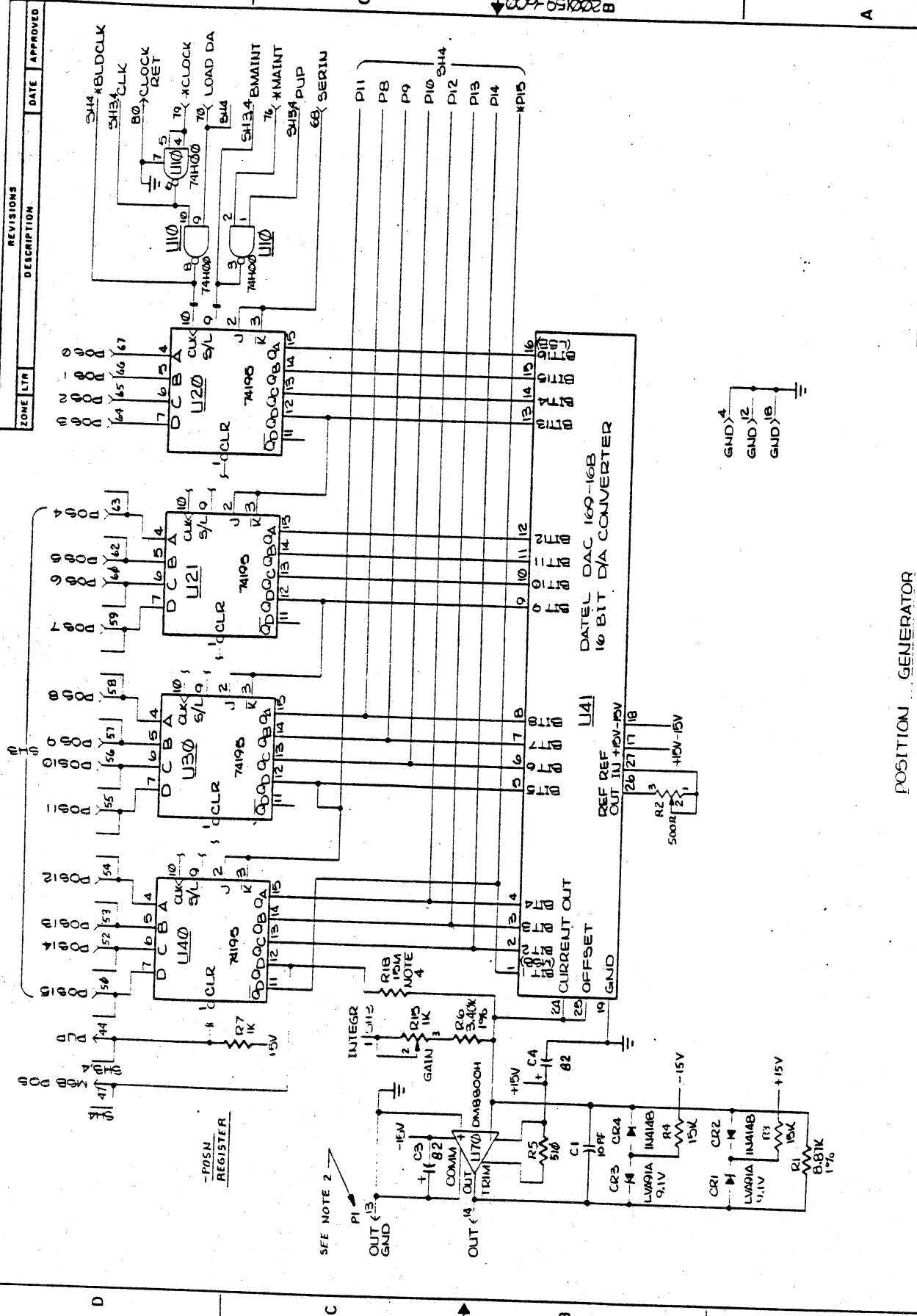
C

D



* TO BE ADDED BY ENG. C10, C14, C13, C15, R10, R16 AS REQUIRED





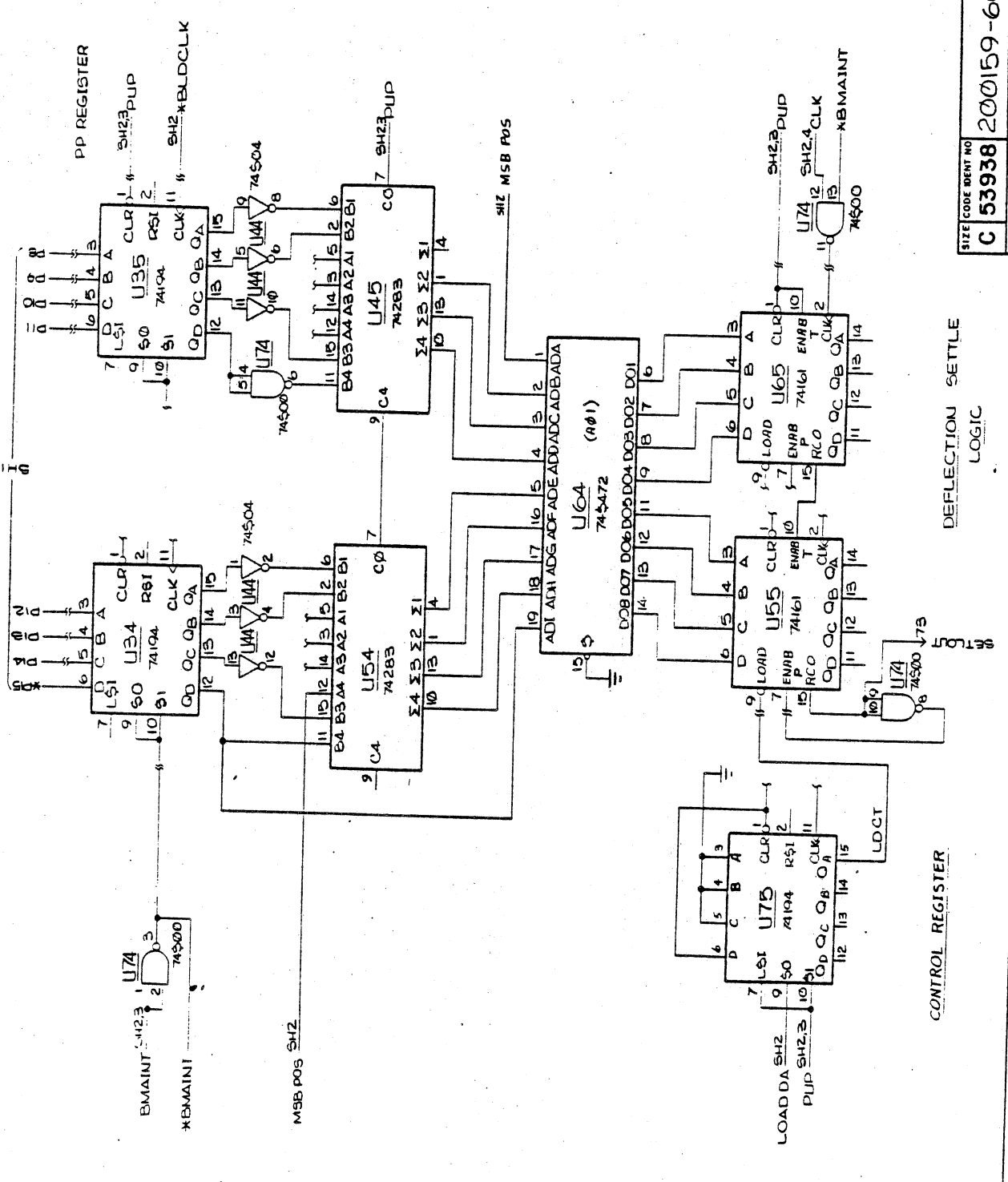
ZONE	LTR	DESCRIPTION	DATE	APPROVED
0	0			
1	0			
2	0			
3	0			
4	0			
5	0			
6	0			
7	0			
8	0			
9	0			
10	0			
11	0			
12	0			
13	0			
14	0			
15	0			
16	0			
17	0			
18	0			
19	0			
20	0			
21	0			
22	0			
23	0			
24	0			
25	0			
26	0			
27	0			
28	0			
29	0			
30	0			
31	0			
32	0			
33	0			
34	0			
35	0			
36	0			
37	0			
38	0			
39	0			
40	0			
41	0			
42	0			
43	0			
44	0			
45	0			
46	0			
47	0			
48	0			
49	0			
50	0			
51	0			
52	0			
53	0			
54	0			
55	0			
56	0			
57	0			
58	0			
59	0			
60	0			
61	0			
62	0			
63	0			
64	0			
65	0			
66	0			
67	0			
68	0			
69	0			
70	0			
71	0			
72	0			
73	0			
74	0			
75	0			
76	0			
77	0			
78	0			
79	0			
80	0			
81	0			
82	0			
83	0			
84	0			
85	0			
86	0			
87	0			
88	0			
89	0			
90	0			
91	0			
92	0			
93	0			
94	0			
95	0			
96	0			
97	0			
98	0			
99	0			
100	0			

SIZE	CODE	IDENT NO	REV
C	53938	200159-600	A3
SCALE	1:1		
SHEET	2	OF 4	

POSITION GENERATOR

200159-600 B

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED



SIZE CODE	REV
C 53938	200159-600
SCALE	SHEET 4 OF 4

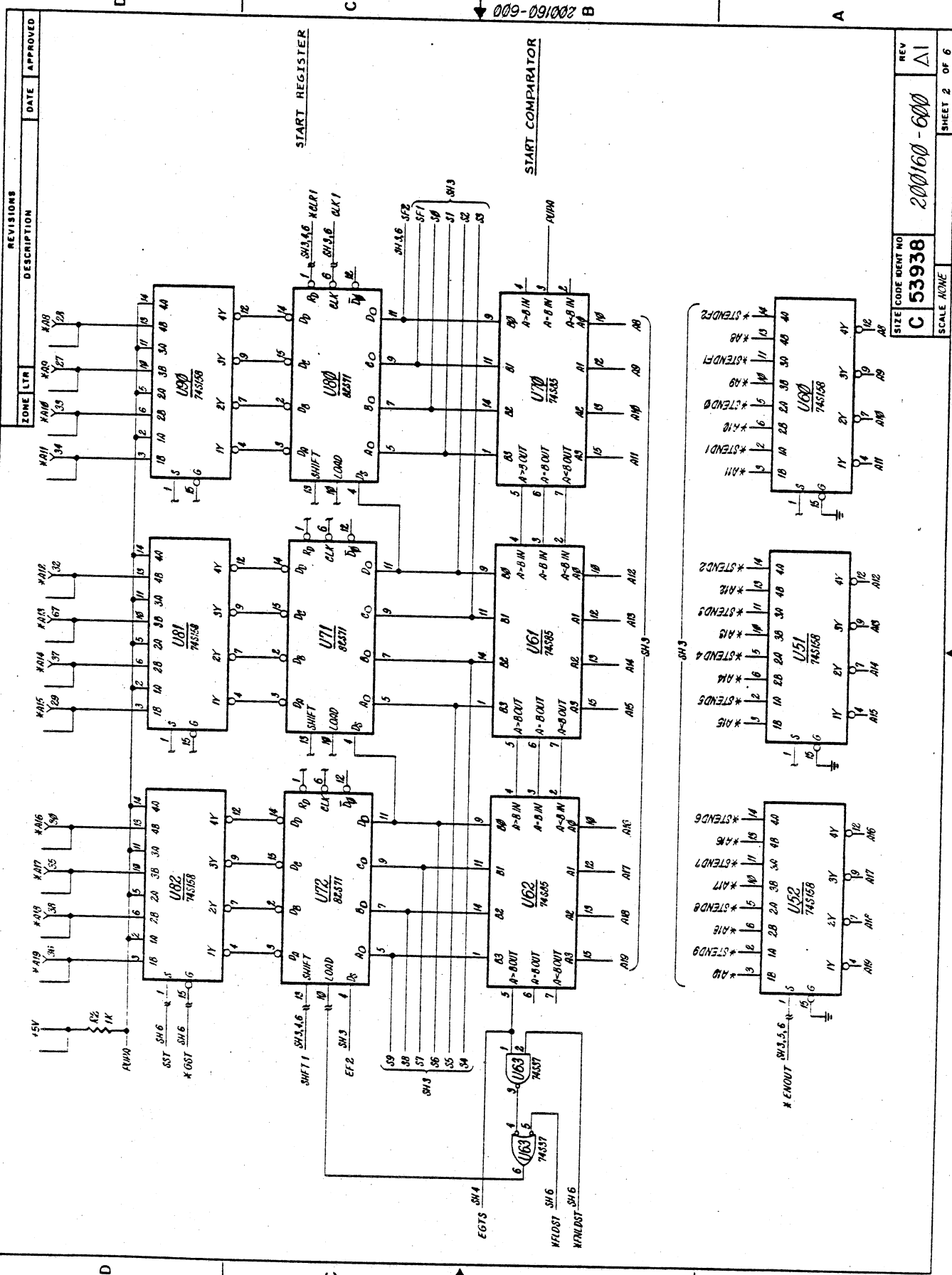
DEFLECTION SETTLE LOGIC

CONTROL REGISTER

209-69102 B

D
C
A

D
C
A



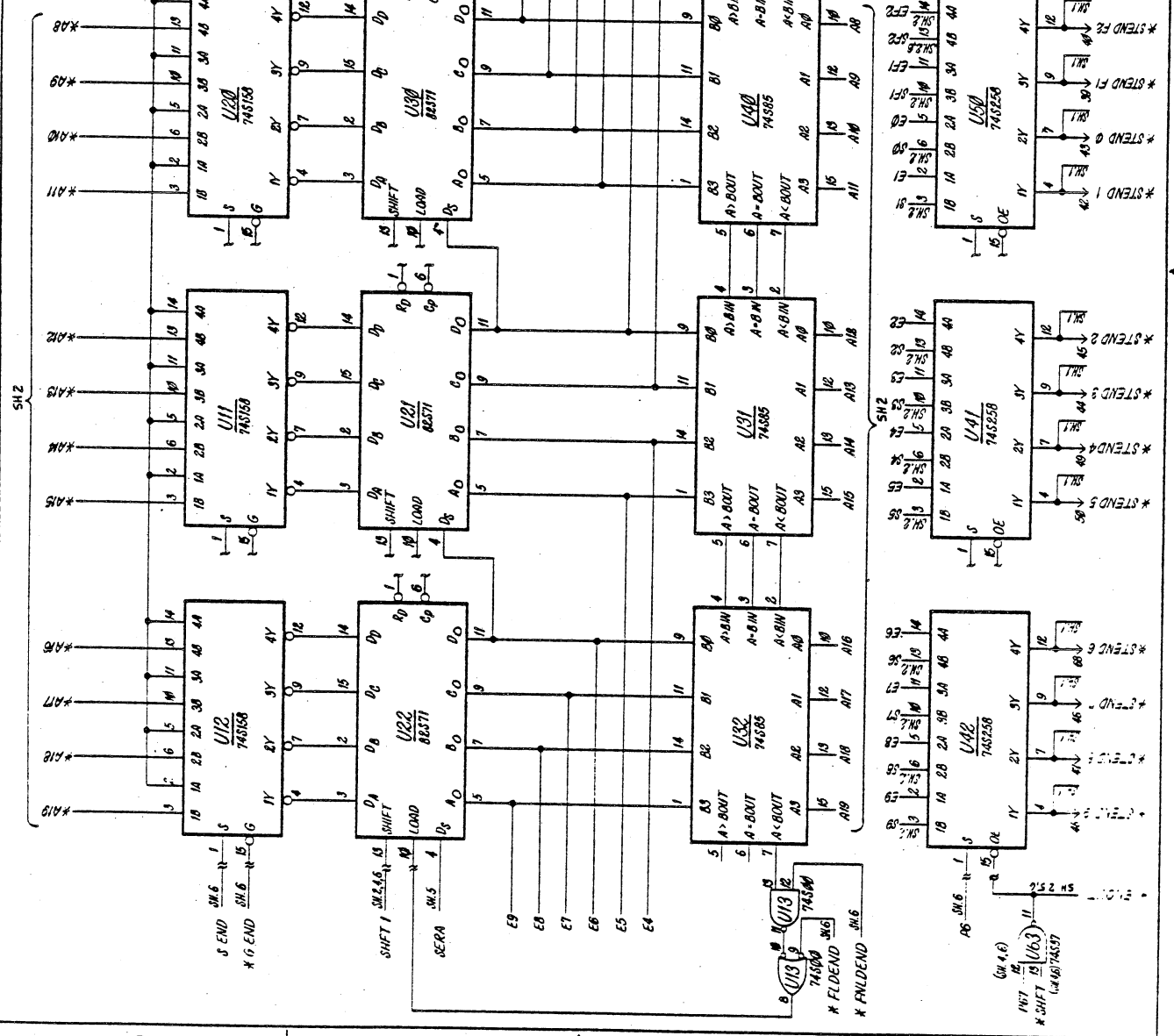
ZONE	LYR	DESCRIPTION	DATE	APPROVED

SIZE	CODE BENT NO	REV
C	53938	Δ1
SCALE	NONE	SHEET 2 OF 6

200160-600

009-091002 B

ZONE LTR	DESCRIPTION	DATE	APPROVED



ZONE LTR	DESCRIPTION	DATE	APPROVED

REVISIONS

DESCRIPTION

DATE

APPROVED

END REGISTER

END COMPARATOR

START/END MUX

SIZE CODE IDENT NO

C 53938 200160-600

REV A1

SCALE NONE

SHEET 3 OF 6

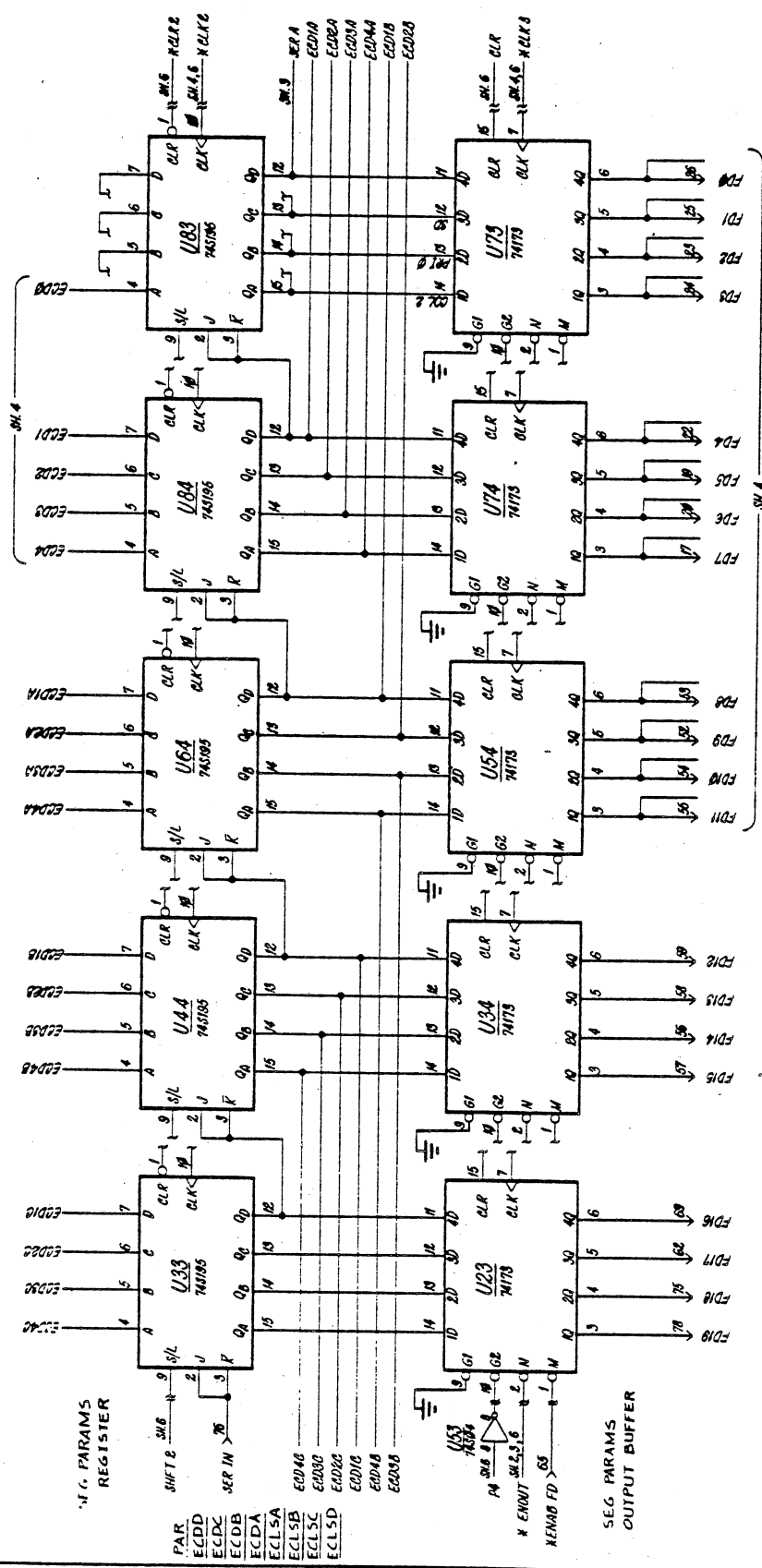
019-034002 B

ZONE LTR	DESCRIPTION	DATE	APPROVED

2

3

4

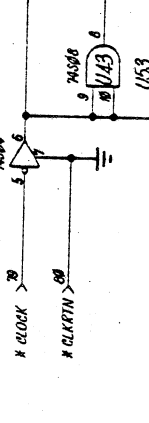
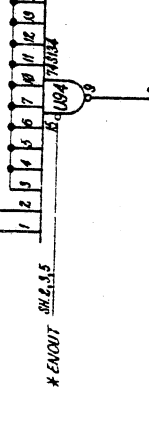
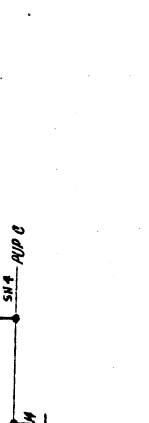
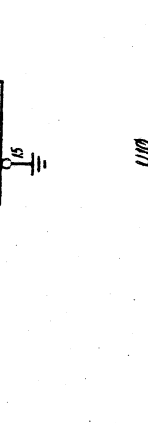
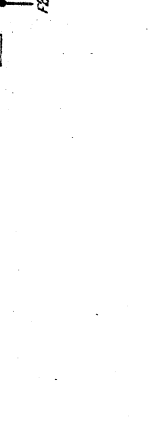
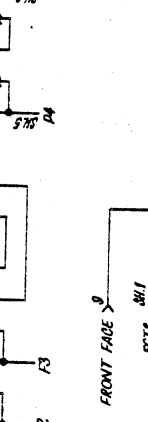
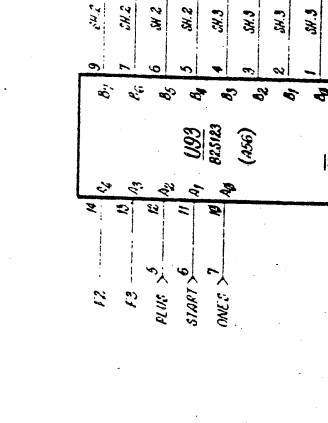
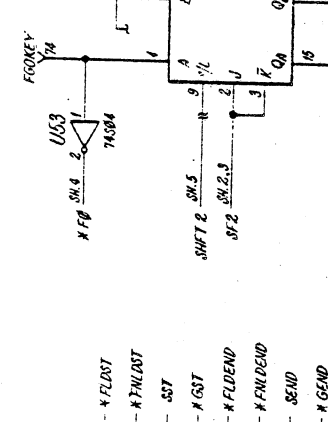
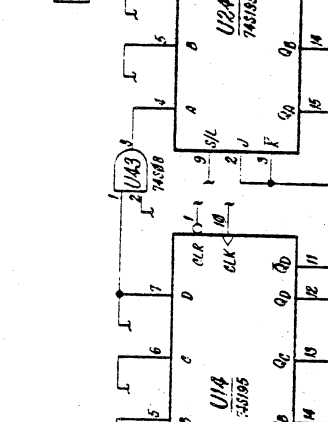
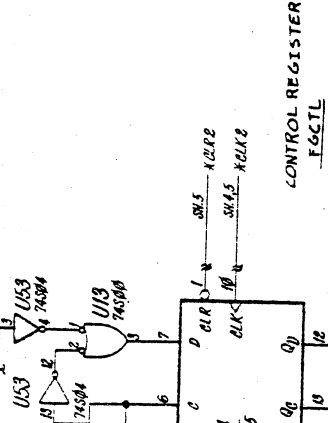
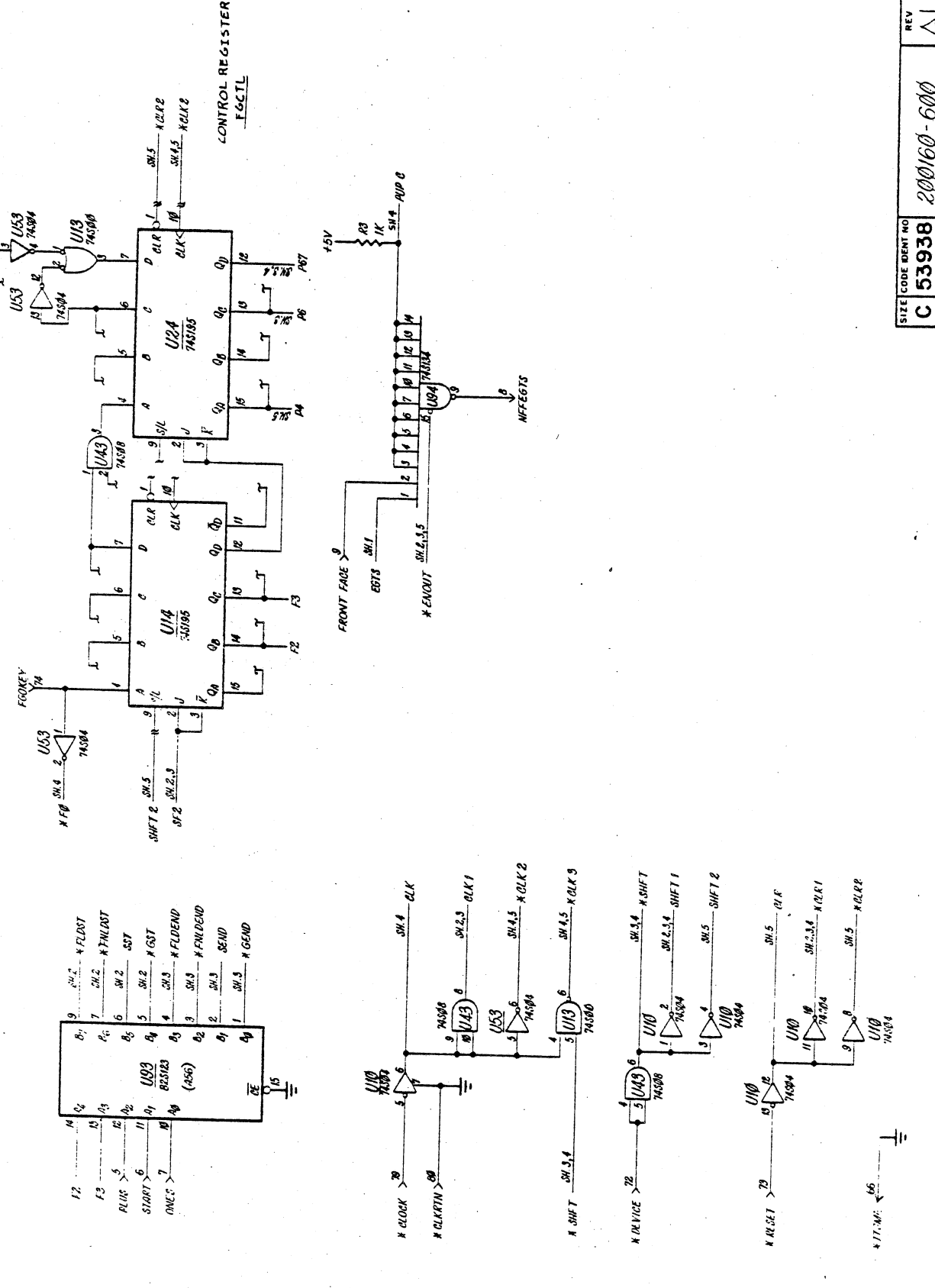


SIZE CODE BENT NO	REV
C 53938	Δ1
SCALE NONE	SHEET 5 OF 6

200160-600

200160-600

ZONE	LT/R	REVISIONS	DESCRIPTION	DATE	APPROVED

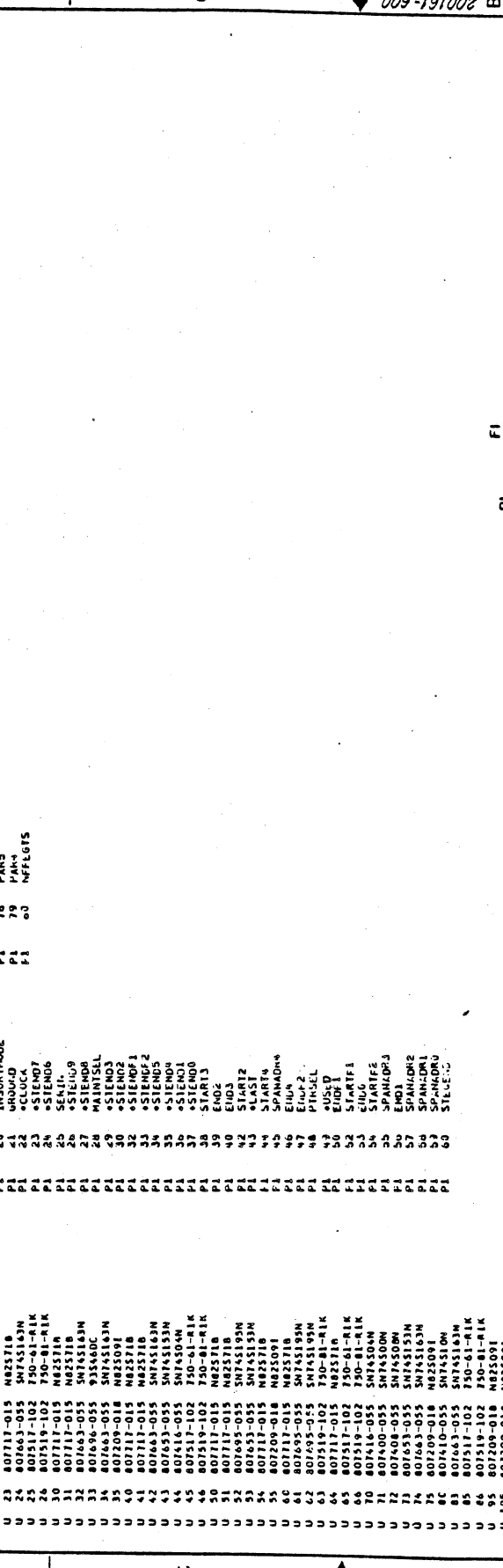


SIZE CODE IDENT NO	C 53938	REV	Δ1
SCALE	NONE	SHEET	6 OF 6

ZONE	LT/R	REVISIONS	DESCRIPTION	DATE	APPROVED

ZONE	LTR	DESCRIPTION	DATE	APPROVED

REF	DESIG	Q'S	PART NO	VENDOR PART NUMBER	PIN #	WIRENAME	PIN #	WIRENAME
C 1	804102-475	CS1306475K			PI 3	WR1P	PI 1	CLRGPAJK
C 2	804102-475	CS1306475K			PI 4	LDUKTADH	PI 2	START1
C 3	804112-333	W15C333K			PI 5	PR1Z	PI 3	START0
C 4	804112-333	W15C333K			PI 6	CHUPADH	PI 4	CHNTSB
C 5	804112-333	W15C333K			PI 7	CHUPADH	PI 5	PAR11
C 6	804112-333	W15C333K			PI 8	CHUPADH	PI 6	PAR10
C 7	804112-333	W15C333K			PI 9	CHUPADH	PI 7	PAR9
C 8	804112-333	W15C333K			PI 10	CHUPADH	PI 8	PAR8
C 9	804112-333	W15C333K			PI 11	CHUPADH	PI 9	PAR7
C 10	804112-333	W15C333K			PI 12	CHUPADH	PI 10	PAR6
C 11	804112-333	W15C333K			PI 13	CHUPADH	PI 11	PAR5
C 12	804112-333	W15C333K			PI 14	CHUPADH	PI 12	PAR4
C 13	804112-333	W15C333K			PI 15	CHUPADH	PI 13	PAR3
C 14	804112-333	W15C333K			PI 16	CHUPADH	PI 14	PAR2
C 15	804112-333	W15C333K			PI 17	CHUPADH	PI 15	PAR1
C 16	804112-333	W15C333K			PI 18	CHUPADH	PI 16	PAR0
C 17	804112-333	W15C333K			PI 19	CHUPADH	PI 17	PAR9
C 18	804112-333	W15C333K			PI 20	CHUPADH	PI 18	PAR8
C 19	804112-333	W15C333K			PI 21	CHUPADH	PI 19	PAR7
C 20	804112-333	W15C333K			PI 22	CHUPADH	PI 20	PAR6
C 21	804112-333	W15C333K			PI 23	CHUPADH	PI 21	PAR5
C 22	804112-333	W15C333K			PI 24	CHUPADH	PI 22	PAR4
C 23	804112-333	W15C333K			PI 25	CHUPADH	PI 23	PAR3
C 24	804112-333	W15C333K			PI 26	CHUPADH	PI 24	PAR2
C 25	804112-333	W15C333K			PI 27	CHUPADH	PI 25	PAR1
C 26	804112-333	W15C333K			PI 28	CHUPADH	PI 26	PAR0
C 27	804112-333	W15C333K			PI 29	CHUPADH	PI 27	PAR9
C 28	804112-333	W15C333K			PI 30	CHUPADH	PI 28	PAR8
C 29	804112-333	W15C333K			PI 31	CHUPADH	PI 29	PAR7
C 30	804112-333	W15C333K			PI 32	CHUPADH	PI 30	PAR6
C 31	804112-333	W15C333K			PI 33	CHUPADH	PI 31	PAR5
C 32	804112-333	W15C333K			PI 34	CHUPADH	PI 32	PAR4
C 33	804112-333	W15C333K			PI 35	CHUPADH	PI 33	PAR3
C 34	804112-333	W15C333K			PI 36	CHUPADH	PI 34	PAR2
C 35	804112-333	W15C333K			PI 37	CHUPADH	PI 35	PAR1
C 36	804112-333	W15C333K			PI 38	CHUPADH	PI 36	PAR0
C 37	804112-333	W15C333K			PI 39	CHUPADH	PI 37	PAR9
C 38	804112-333	W15C333K			PI 40	CHUPADH	PI 38	PAR8
C 39	804112-333	W15C333K			PI 41	CHUPADH	PI 39	PAR7
C 40	804112-333	W15C333K			PI 42	CHUPADH	PI 40	PAR6
C 41	804112-333	W15C333K			PI 43	CHUPADH	PI 41	PAR5
C 42	804112-333	W15C333K			PI 44	CHUPADH	PI 42	PAR4
C 43	804112-333	W15C333K			PI 45	CHUPADH	PI 43	PAR3
C 44	804112-333	W15C333K			PI 46	CHUPADH	PI 44	PAR2
C 45	804112-333	W15C333K			PI 47	CHUPADH	PI 45	PAR1
C 46	804112-333	W15C333K			PI 48	CHUPADH	PI 46	PAR0
C 47	804112-333	W15C333K			PI 49	CHUPADH	PI 47	PAR9
C 48	804112-333	W15C333K			PI 50	CHUPADH	PI 48	PAR8
C 49	804112-333	W15C333K			PI 51	CHUPADH	PI 49	PAR7
C 50	804112-333	W15C333K			PI 52	CHUPADH	PI 50	PAR6
C 51	804112-333	W15C333K			PI 53	CHUPADH	PI 51	PAR5
C 52	804112-333	W15C333K			PI 54	CHUPADH	PI 52	PAR4
C 53	804112-333	W15C333K			PI 55	CHUPADH	PI 53	PAR3
C 54	804112-333	W15C333K			PI 56	CHUPADH	PI 54	PAR2
C 55	804112-333	W15C333K			PI 57	CHUPADH	PI 55	PAR1
C 56	804112-333	W15C333K			PI 58	CHUPADH	PI 56	PAR0
C 57	804112-333	W15C333K			PI 59	CHUPADH	PI 57	PAR9
C 58	804112-333	W15C333K			PI 60	CHUPADH	PI 58	PAR8
C 59	804112-333	W15C333K			PI 61	CHUPADH	PI 59	PAR7
C 60	804112-333	W15C333K			PI 62	CHUPADH	PI 60	PAR6



CONTRACT NO.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	TOLERANCES ON	MATERIAL	FINISH	APPLICATION
EVANS & SUTHERLAND COMPUTER CORPORATION SALT LAKE CITY, UTAH 84112	.XX ±	.XXX ±	NOV/VIEW	USED ON	
MECH	ANGLES ±	✓			
ELEC					
APPROVED					
SCALE NONE					
SIZE CODE IDENT NO					
C 53938					
REV					
NC					
SHEET 1					
OF 6					

SEE SEPARATE PARTS LIST
 EVANS & SUTHERLAND
 COMPUTER CORPORATION
 SALT LAKE CITY, UTAH 84112

PRIORITY SORTER,
 (P.C.)

3. SERIAL SHIFT LOOP SEQUENCE
 PL.25, 61.12, 62.12, 52.12, 60.11, 50.11, 51.11,
 20.12, 10.12, 11.12, 64.11, 64.11, 41.11, 31.11,
 23.11, 40.11, 30.11, PL.47.

2. NUMBERS SHOWN REFER TO CONNECTOR PI.
 ALL CAPACITANCE VALUES ARE EXPRESSED
 IN MICROFARADS.
 RESISTANCE VALUES ARE EXPRESSED IN OHMS,
 K DENOTES 1000.
 RESISTORS ARE 1/4 WATT, ±5% TOLERANCE.
 ON ALL 20 PIN I.C.'S, PIN 10 IS GROUND AND
 PIN 20 IS POWER (+5V).
 ON ALL 16 PIN I.C.'S, PIN 8 IS GROUND AND
 PIN 16 IS POWER (+5V).
 ON ALL 14 PIN I.C.'S, PIN 7 IS GROUND AND
 PIN 14 IS POWER (+5V).
 UNLESS OTHERWISE SPECIFIED;

NOTES:

SIZE CODE IDENT NO	REV
C 53938	NC
SCALE NONE	SHEET 2 OF 6

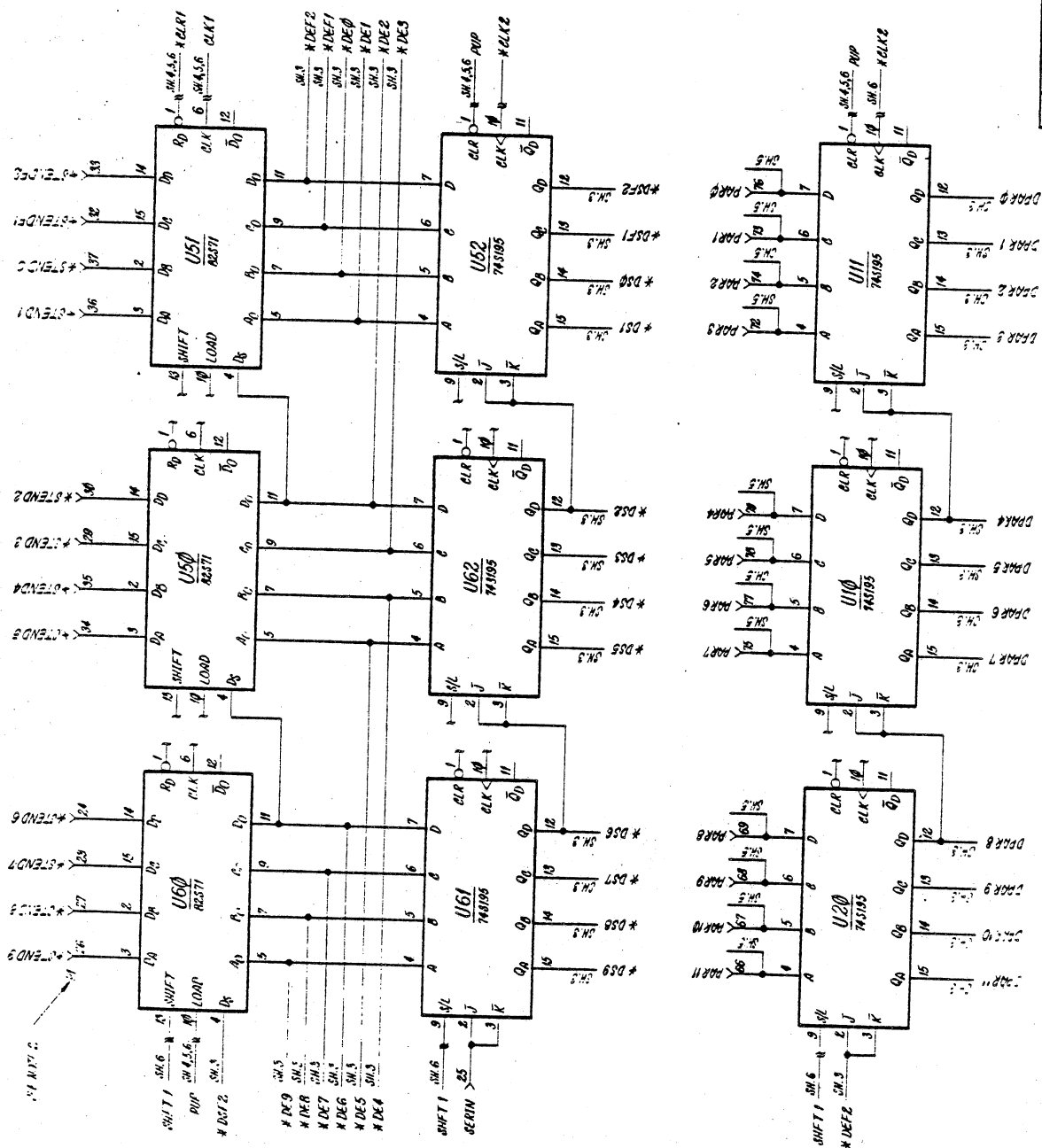
ZONE	DATE	APPROVED

REVISIONS	DESCRIPTION

END REGISTER
* P END

START REGISTER
* P STIN

SEGMENT PARAMETERS
BUFFER
* P PAR



1 2 3 4

D

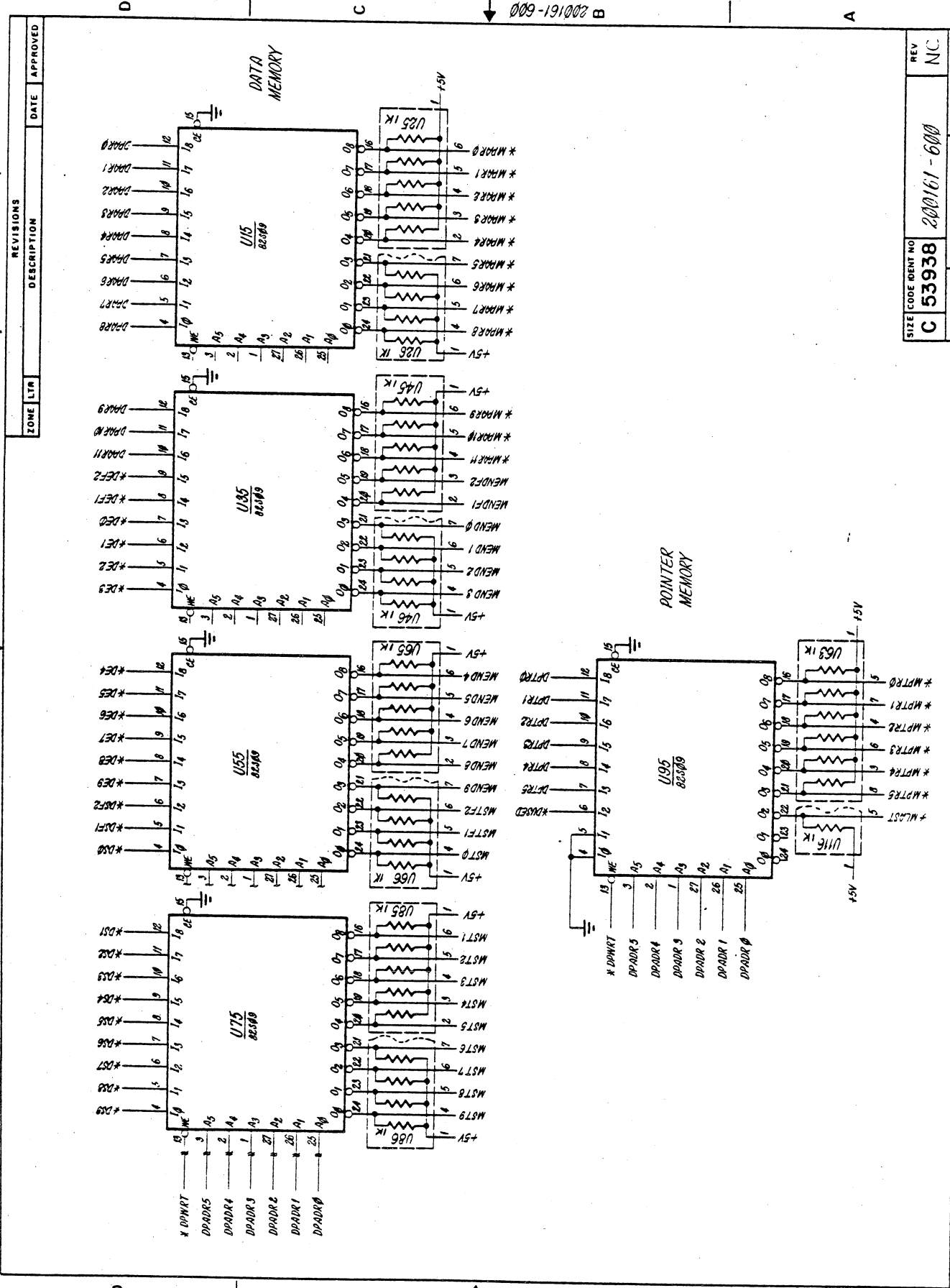
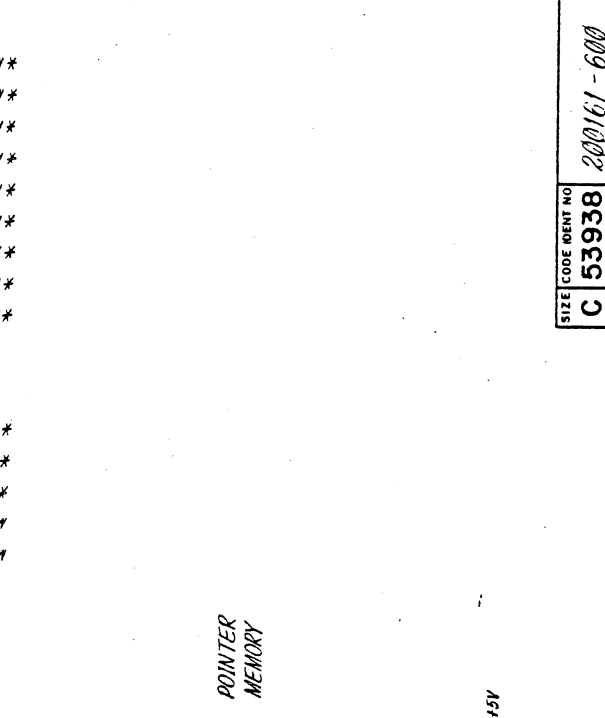
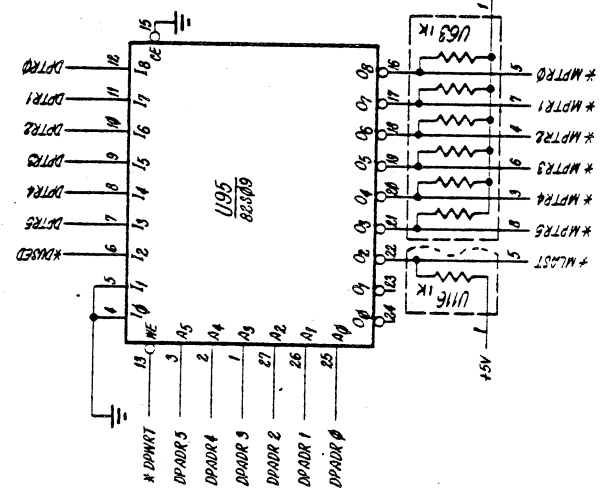
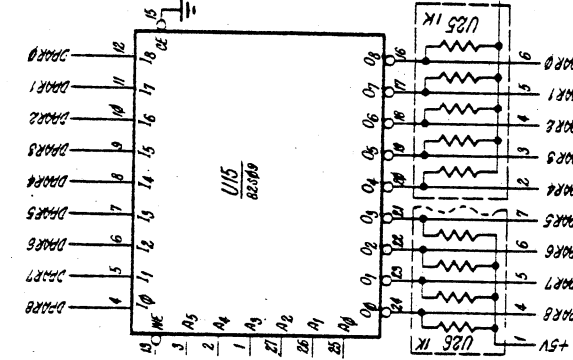
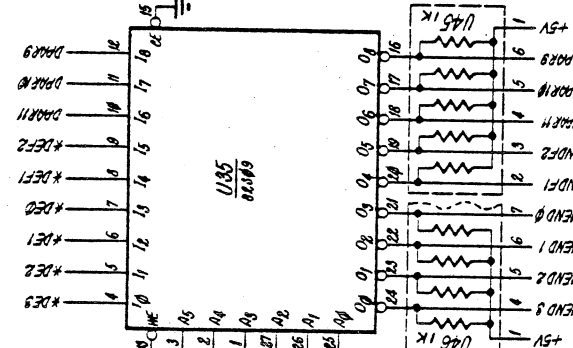
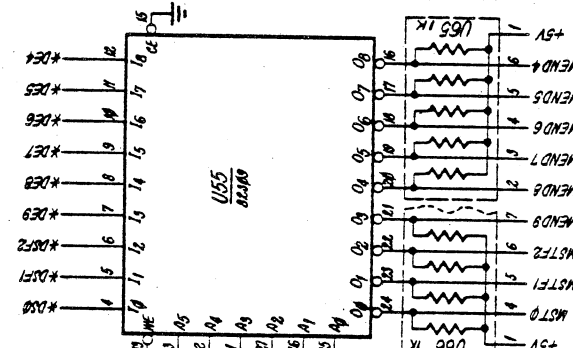
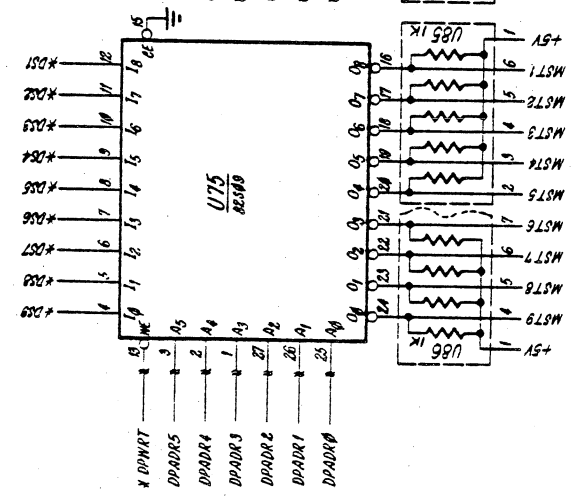
C

B

A

ZONE	LT#	DESCRIPTION	DATE	APPROVED

4 3 2 1



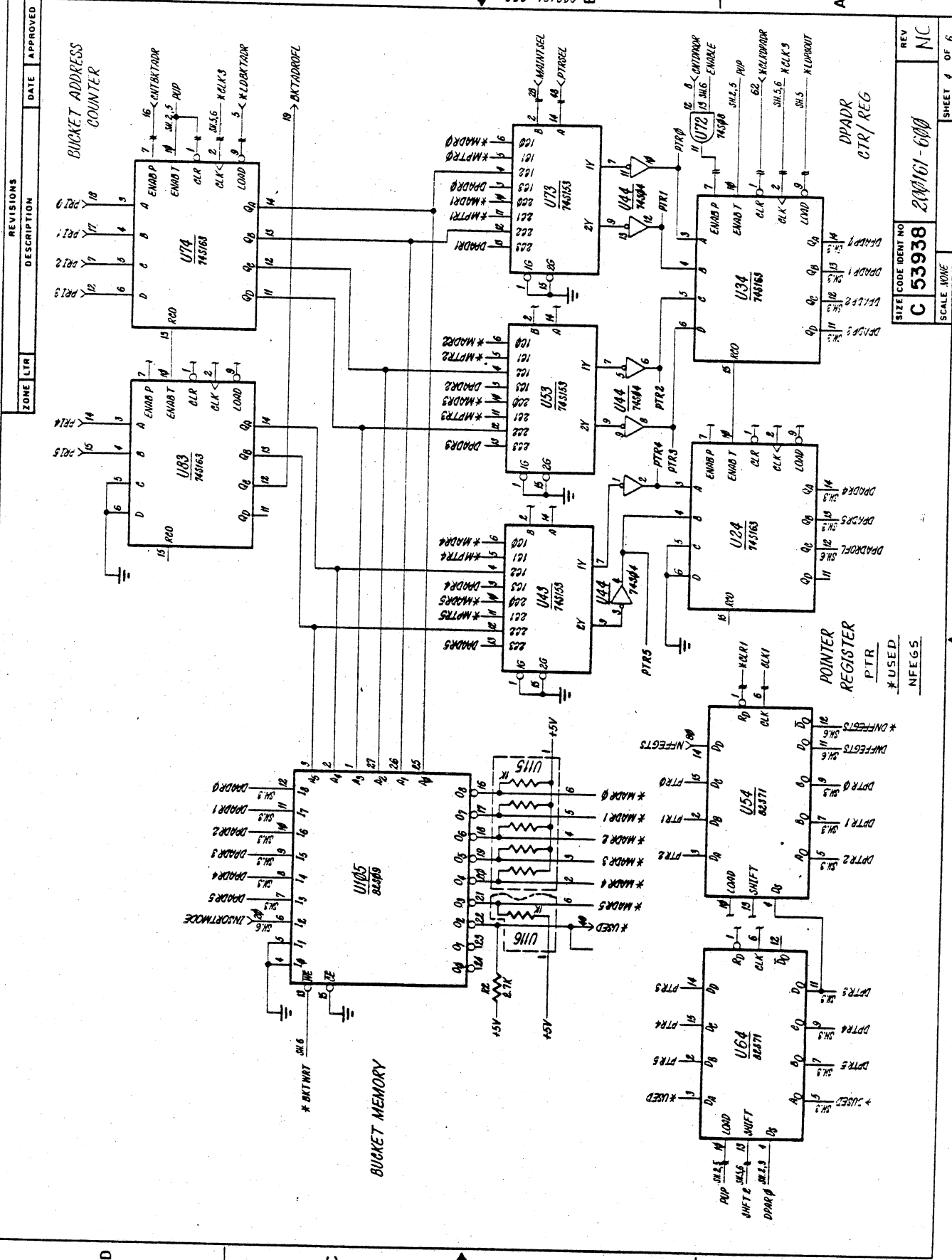
SIZE	CODE IDENT NO	REV	NC
C	53938	200161-600	
SCALE 1/16"			SHEET 3 OF 6

200161-600 B

D

C

A



REVISIONS | DESCRIPTION | DATE | APPROVED

ZONE CLR | DATE | APPROVED

BUCKET ADDRESS COUNTER

BUCKET MEMORY

POINTER REGISTER

DPADR CTR/REG

SIZE CODE IDENT NO C 53938

REV NC

SCALE 10X

SHEET 4 OF 6

200161-600

200161-600

200161-600

200161-600

200161-600

200161-600

200161-600

200161-600

200161-600

200161-600

200161-600

200161-600

200161-600

200161-600

200161-600

200161-600

200161-600

200161-600

200161-600

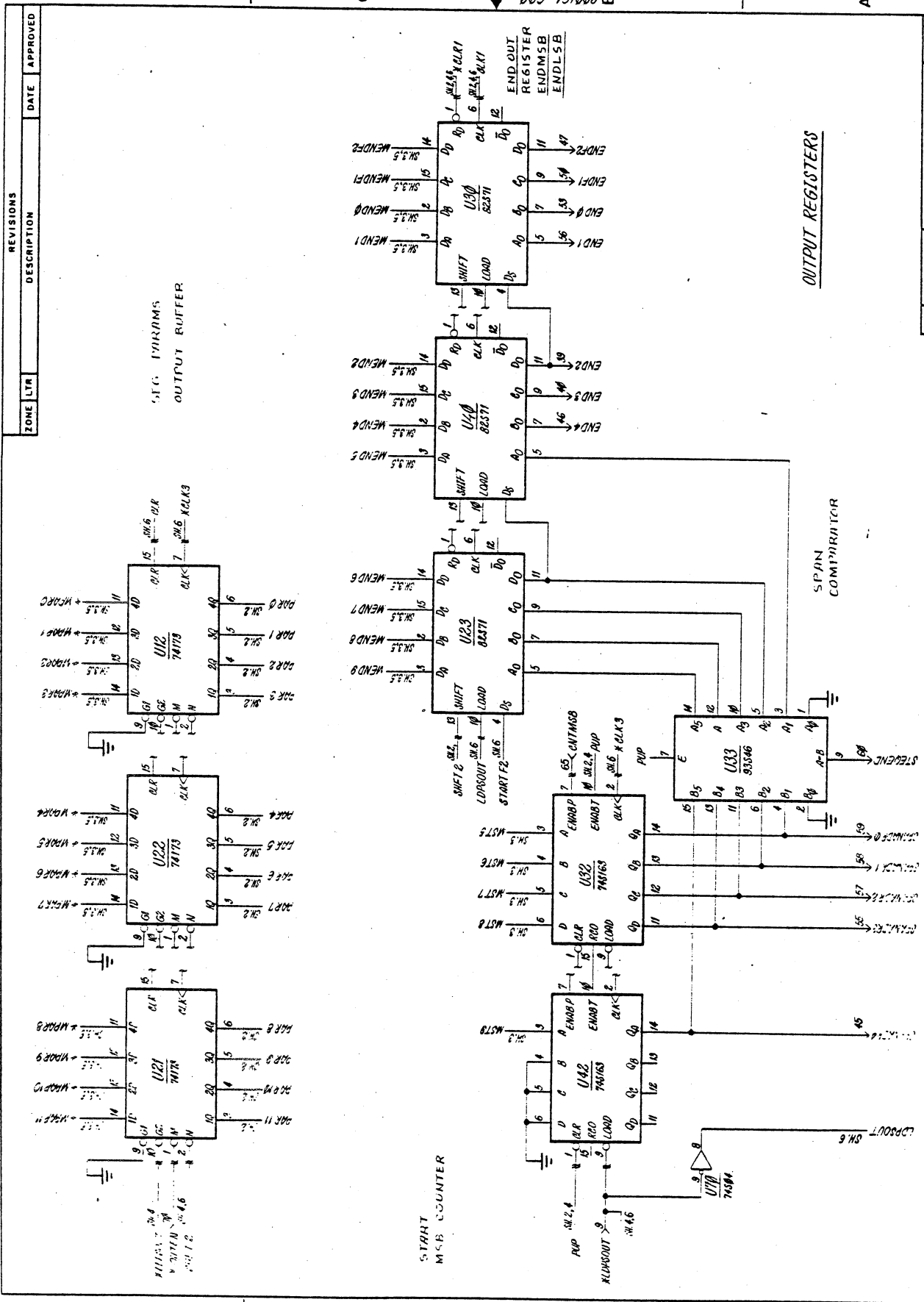
200161-600

200161-600

200161-600

200161-600

200161-600



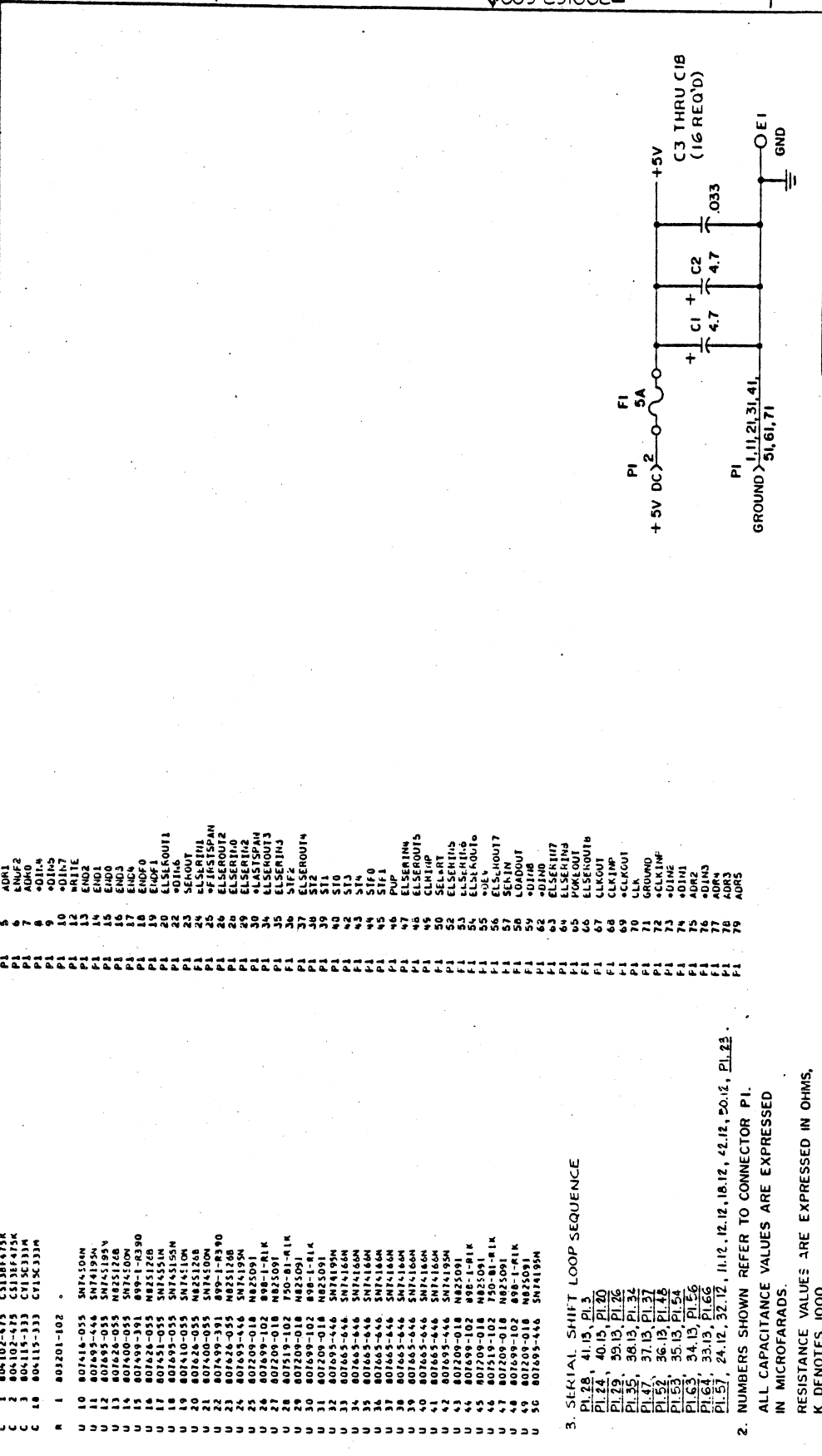
200161-600 B

SIZE	CODE IDENT NO	REV
C	53938	NC
SCALE 1/16		SHEET 5 OF 6

ZONE	DATE	DESCRIPTION	APPROVED
AI	4-27-77	LOC. VIA ENGR DASH AND WAS A23	ASL

REF DESIG	E-S	PART NO	VENDOR PART NUMBER
C 1		804102-475	CS13BF475K
C 2		804102-475	CS13BF475K
C 3		804115-333	CH15C333M
C 4		804115-333	CH15C333M
R 1		803201-102	
U 10		807418-035	SM74180N
U 11		807495-444	SM74195M
U 12		807495-035	SM74195M
U 13		807495-035	SM74195M
U 14		807400-025	SM74100M
U 15		807499-391	899-1-8390
U 16		807424-055	M8251268
U 17		807451-035	SM74515M
U 18		807495-035	SM74195M
U 19		807410-035	SM74100M
U 20		807400-025	SM74100M
U 21		807499-391	899-1-8390
U 22		807424-055	M8251268
U 23		807495-444	SM74195M
U 24		807495-444	SM74195M
U 25		807209-018	M825091
U 26		807209-018	M825091
U 27		807209-018	M825091
U 28		807159-102	750-81-41K
U 29		807209-018	M825091
U 30		807499-102	899-1-814
U 31		807209-018	M825091
U 32		807495-444	SM74195M
U 33		807495-444	SM74195M
U 34		807495-444	SM74195M
U 35		807495-444	SM74195M
U 36		807495-444	SM74195M
U 37		807465-444	SM74166M
U 38		807465-444	SM74166M
U 39		807465-444	SM74166M
U 40		807465-444	SM74166M
U 41		807495-444	SM74195M
U 42		807495-444	SM74195M
U 43		807209-018	M825091
U 44		807499-102	899-1-81K
U 45		807209-018	M825091
U 46		807159-102	750-81-41K
U 47		807499-102	M825091
U 48		807209-018	M825091
U 49		807495-444	SM74195M
U 50		807495-444	SM74195M

PIN #	NAME
P1 3	ELSEROUT0
P1 5	ADRI
P1 6	ENUF2
P1 7	ADRI
P1 8	ADRI
P1 9	ADRI
P1 10	ADRI
P1 11	ADRI
P1 12	ADRI
P1 13	ADRI
P1 14	ADRI
P1 15	ADRI
P1 16	ADRI
P1 17	ADRI
P1 18	ADRI
P1 19	ADRI
P1 20	ADRI
P1 21	ADRI
P1 22	ADRI
P1 23	ADRI
P1 24	ADRI
P1 25	ADRI
P1 26	ADRI
P1 27	ADRI
P1 28	ADRI
P1 29	ADRI
P1 30	ADRI
P1 31	ADRI
P1 32	ADRI
P1 33	ADRI
P1 34	ADRI
P1 35	ADRI
P1 36	ADRI
P1 37	ADRI
P1 38	ADRI
P1 39	ADRI
P1 40	ADRI
P1 41	ADRI
P1 42	ADRI
P1 43	ADRI
P1 44	ADRI
P1 45	ADRI
P1 46	ADRI
P1 47	ADRI
P1 48	ADRI
P1 49	ADRI
P1 50	ADRI
P1 51	ADRI
P1 52	ADRI
P1 53	ADRI
P1 54	ADRI
P1 55	ADRI
P1 56	ADRI
P1 57	ADRI
P1 58	ADRI
P1 59	ADRI
P1 60	ADRI
P1 61	ADRI
P1 62	ADRI
P1 63	ADRI
P1 64	ADRI
P1 65	ADRI
P1 66	ADRI
P1 67	ADRI
P1 68	ADRI
P1 69	ADRI
P1 70	ADRI
P1 71	ADRI
P1 72	ADRI
P1 73	ADRI
P1 74	ADRI
P1 75	ADRI
P1 76	ADRI
P1 77	ADRI
P1 78	ADRI
P1 79	ADRI



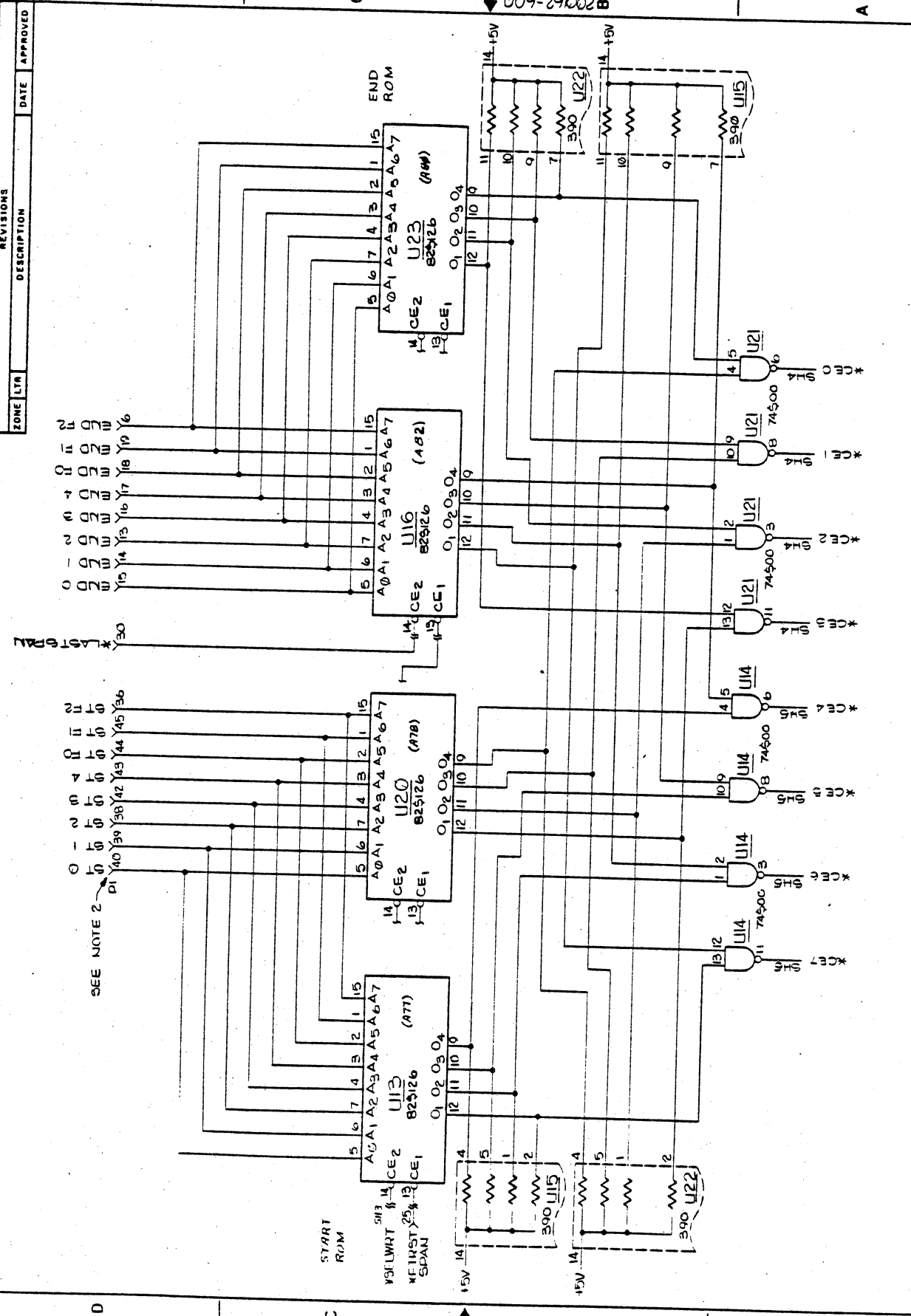
CONTRACT NO.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	MATERIAL
DRAWN P. MELLUS 4-21-77	.XXX ±	NOVO SP
CHECKED P. MELLUS 4-21-77	ANGLES ±	USED ON
MECH		APPLICATION
ELECT		
PROJ. ENG.		
APPROVED		

SEE SEPARATE PARTS LIST	EVANS & SUTHERLAND COMPUTER CORPORATION SALT LAKE CITY, UTAH 84112
LINE ASSEMBLER	P.C.
SIZE IDENT NO	C 53938 200162-600
SCALE	NONE
REV	AI
SHEET	1 OF 7

RESISTANCE VALUES ARE EXPRESSED IN OHMS, K DENOTES 1000.
RESISTORS ARE 1/4 WATT, ± 5% TOLERANCE.
ON ALL 20 PIN I.C.'S. PIN 10 IS GROUND AND PIN 20 IS POWER (+5V).
ON ALL 16 PIN I.C.'S. PIN 8 IS GROUND AND PIN 16 IS POWER (-5V).
ON ALL 14 PIN I.C.'S. PIN 7 IS GROUND AND PIN 14 IS POWER (+5V).
UNLESS OTHERWISE SPECIFIED:

2. NUMBERS SHOWN REFER TO CONNECTOR P1.
ALL CAPACITANCE VALUES ARE EXPRESSED IN MICROFARADS.

3. SERIAL SHIFT LOOP SEQUENCE
P1.28, 41.15, P1.3
P1.24, 40.15, P1.20
P1.29, 59.13, P1.26
P1.35, 38.13, P1.34
P1.47, 37.13, P1.37
P1.48, 36.13, P1.46
P1.53, 35.13, P1.54
P1.63, 34.13, P1.56
P1.64, 33.13, P1.66
P1.57, 24.12, 32.12, 11.12, 12.12, 18.12, 42.12, 20.12, P1.23.



009-291002 B

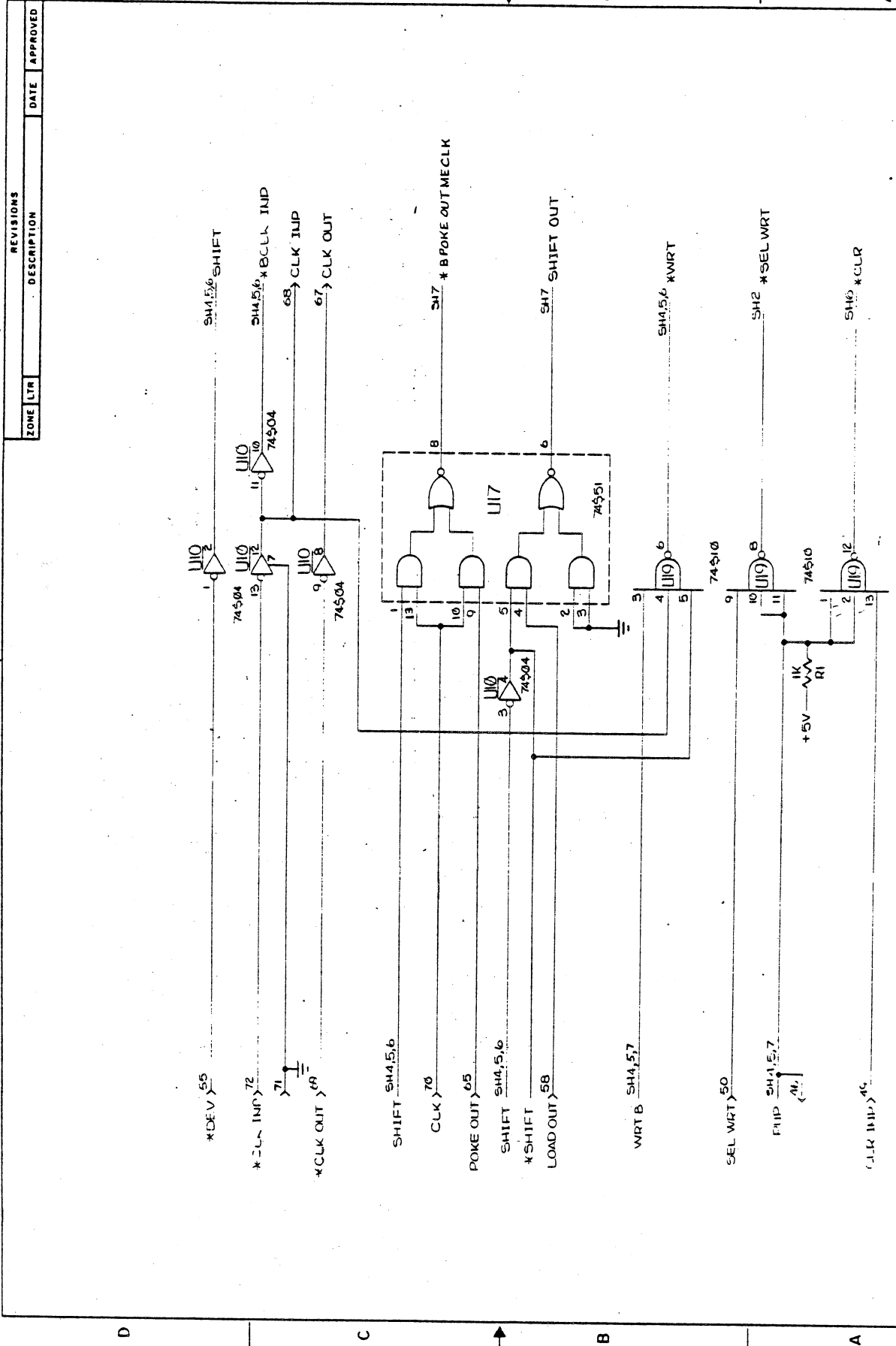
SIZE CODE IDENT NO	REV
C 53938	200162-600 A1
SCALE	SHEET 2 OF 7

REVISIONS

ZONE	DATE	DESCRIPTION	APPROVED

4 3 2 1

REVISIONS	
ZONE LTR	DESCRIPTION

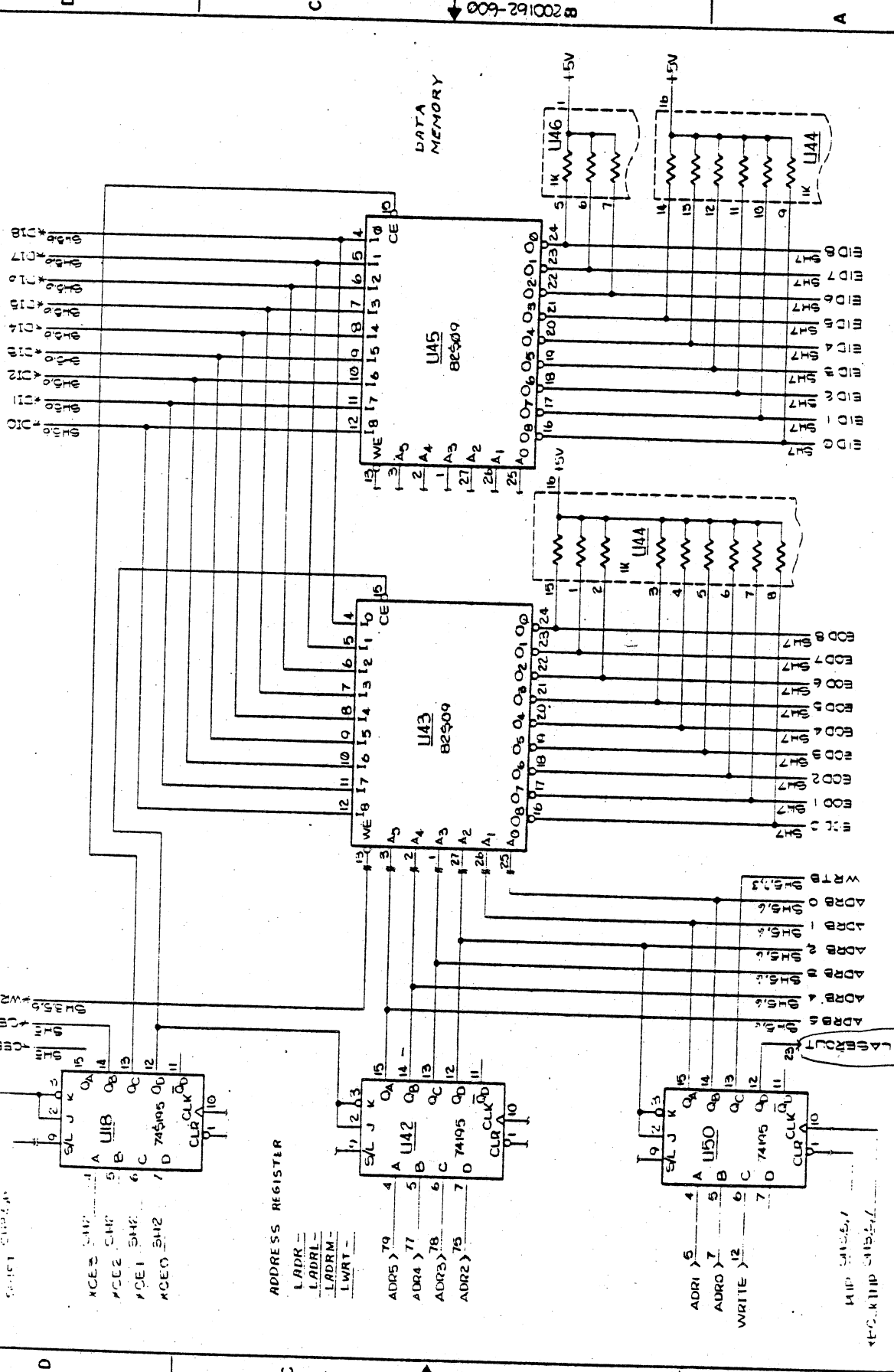


200162-600

D C B A

ZONE	DATE	APPROVED

REVISIONS	DESCRIPTION



SIZE CODE	REV
C 53938	200162-600 A1
SCALE	SHEET 4 OF 7

200162-600 B

A

C

D

D

C

B

A

U141
74195

U142
74195

U143
82509

U144
74195

U145
82509

U146
82509

U144
74195

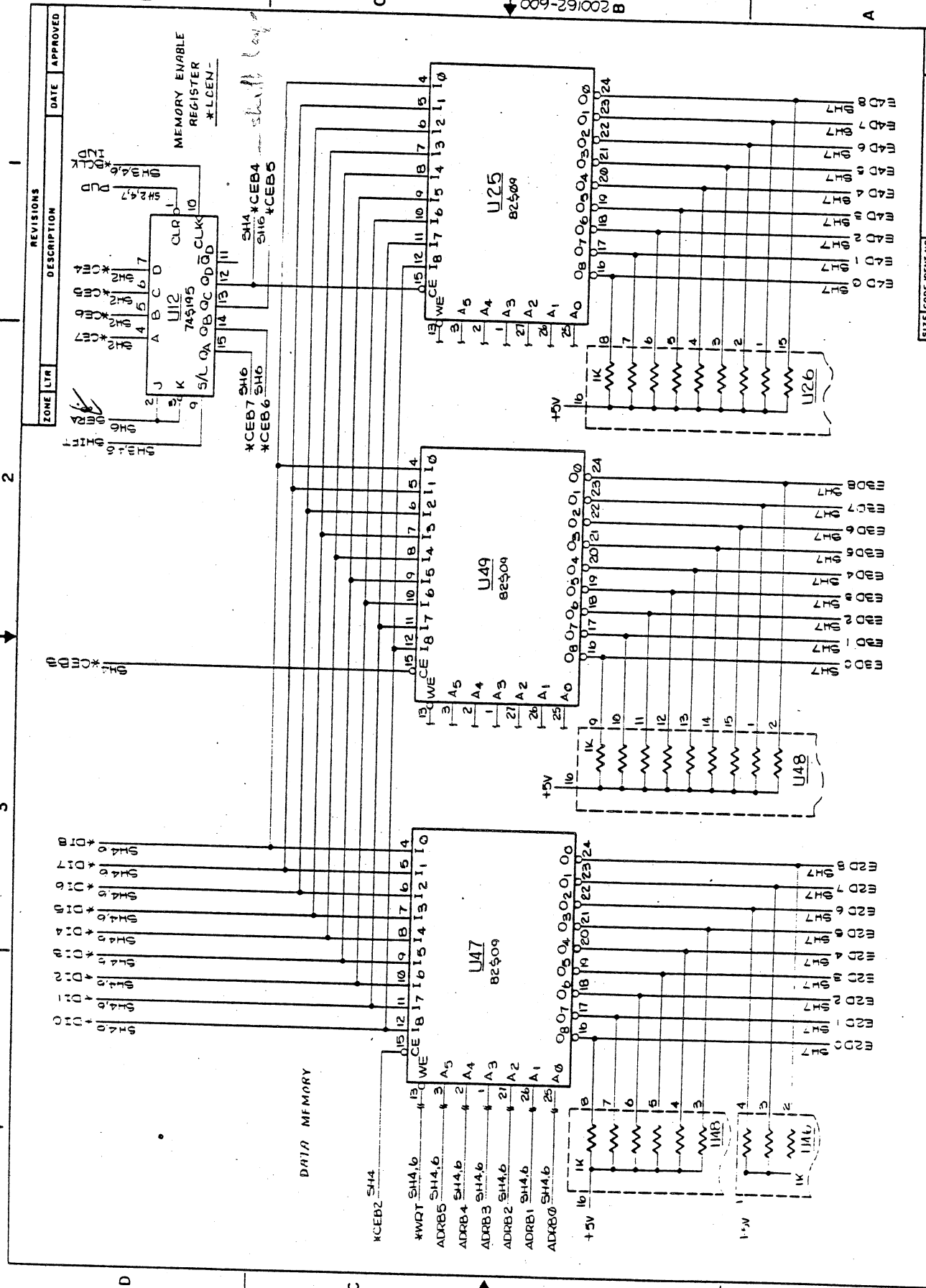
ADDRESS REGISTER
LADR -
LADR1 -
LADR2 -
LADR3 -

ADRI -
ADRO -
WRITE -

U141
74195

U141
74195

DATA MEMORY



ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

1
2
3
4

009-291002 B

D

C

A

D

C

B

A

DATA MEMORY

MEMORY ENABLE REGISTER *LCEN-

*CEB2 SH4

*WDT SH4,6

ADRB5 SH4,6

ADRB4 SH4,6

ADRB3 SH4,6

ADRB2 SH4,6

ADRB1 SH4,6

ADRB0 SH4,6

+5V

+5V

U12
745195

U49
82509

U47
82509

U25
82509

U26

U48

U47

U49

U25

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

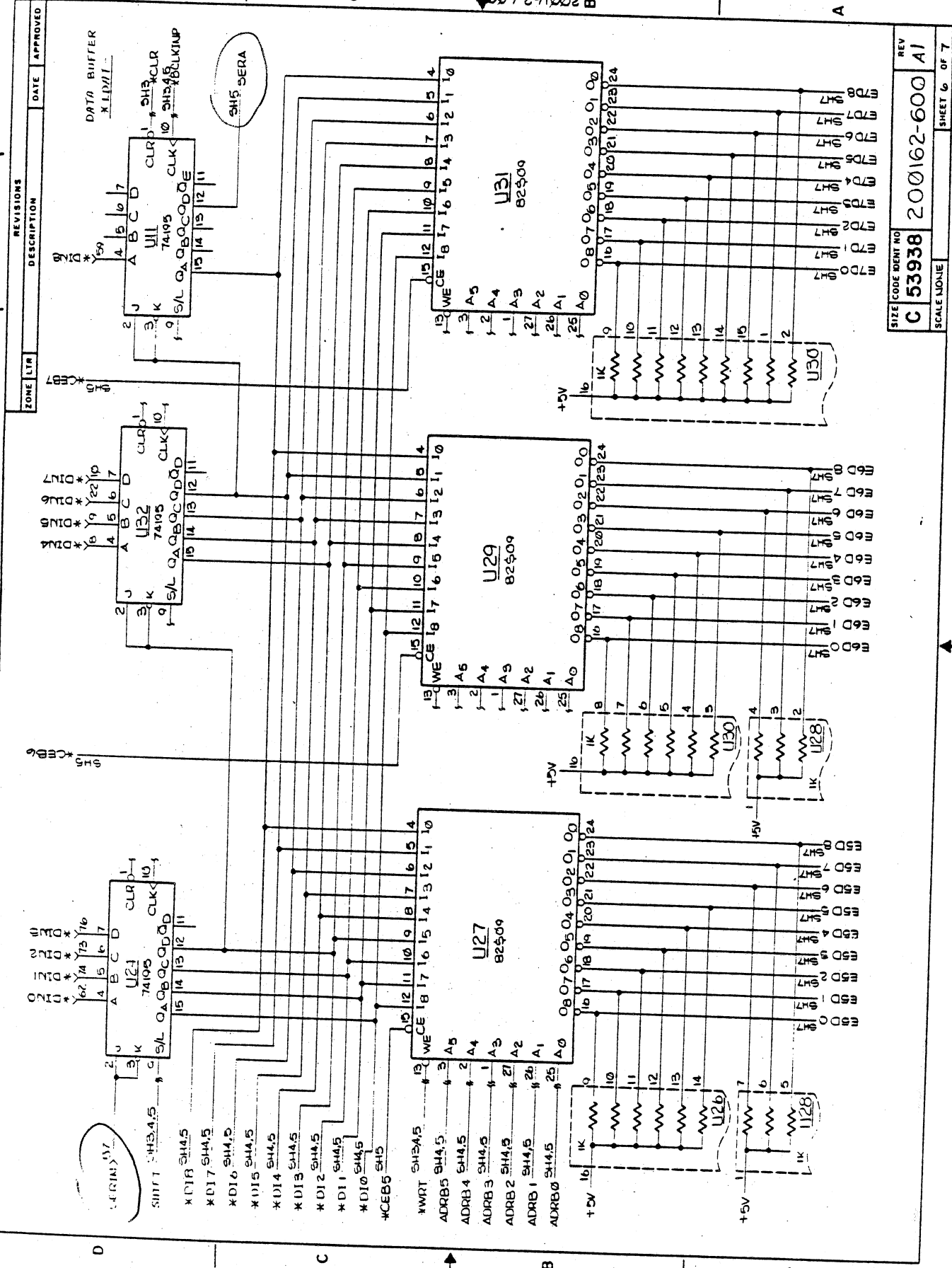
SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16

SH4 SH6 SH16



ZONE	LT/R	DESCRIPTION	DATE	APPROVED

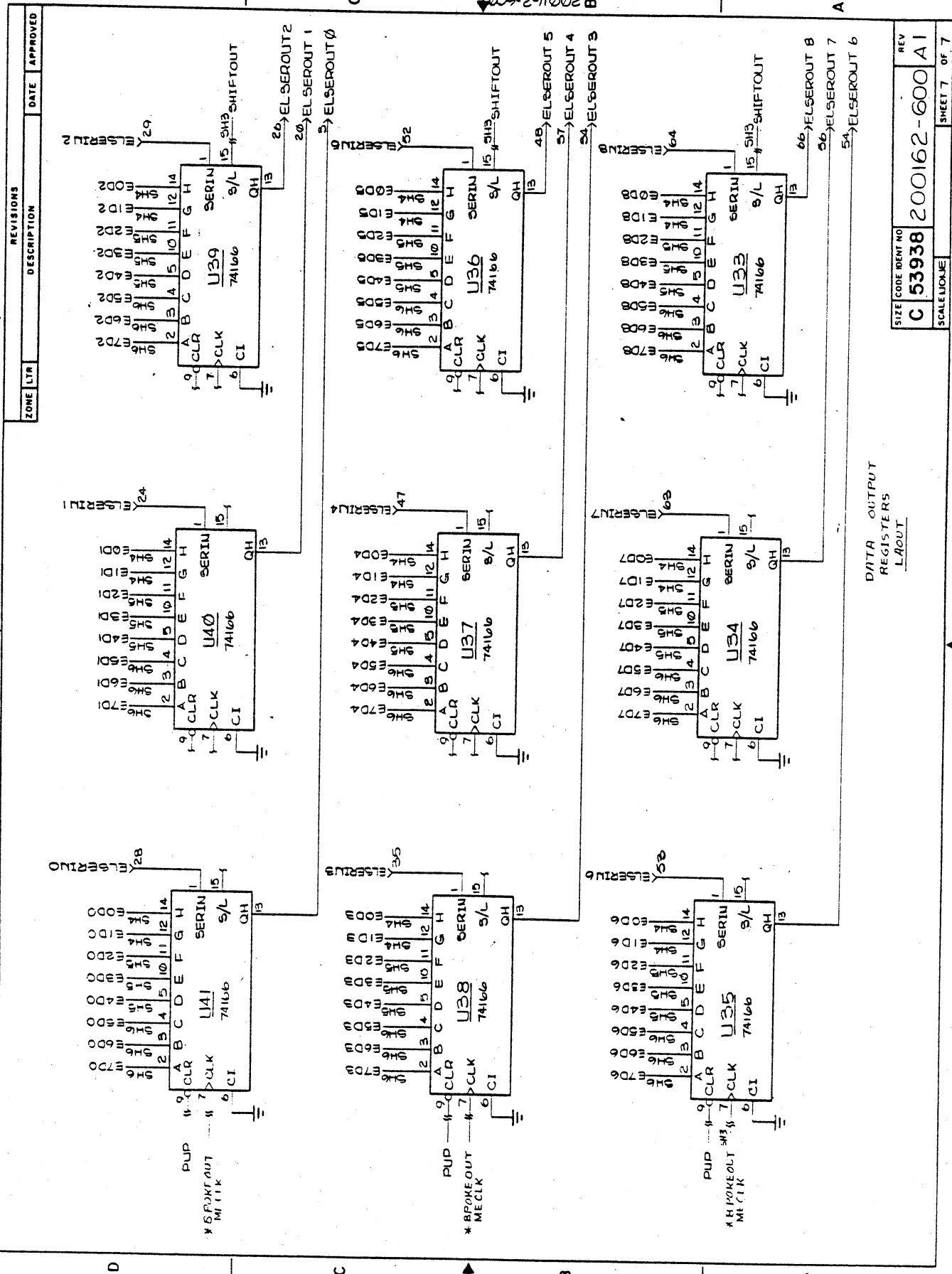
SIZE CODE IDENT NO
C 53938
 SCALE NONE

REV
A1

SHEET 6 OF 7

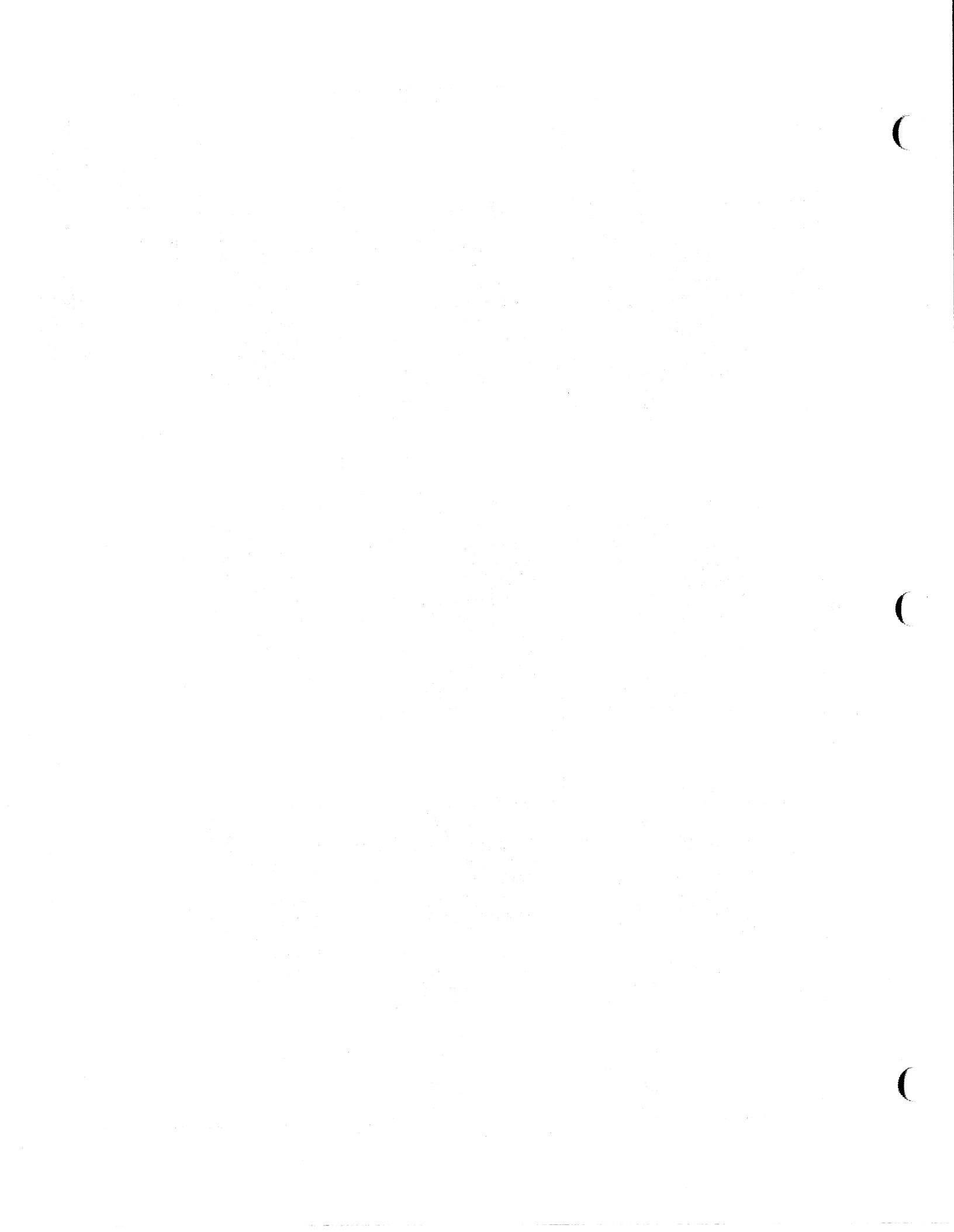
200162-600 B

1 2 3 4



REVISIONS			
ZONE	DESCRIPTION	DATE	APPROVED

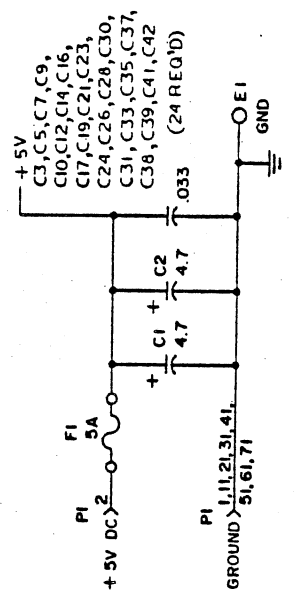
DATA OUTPUT
REGISTERS
LAYOUT



ZONE	LTN	DESCRIPTION	DATE	APPROVED
-	A1	REV UPDATE W/DWG CHANGE	9-14-77	[Signature]

2 3 4

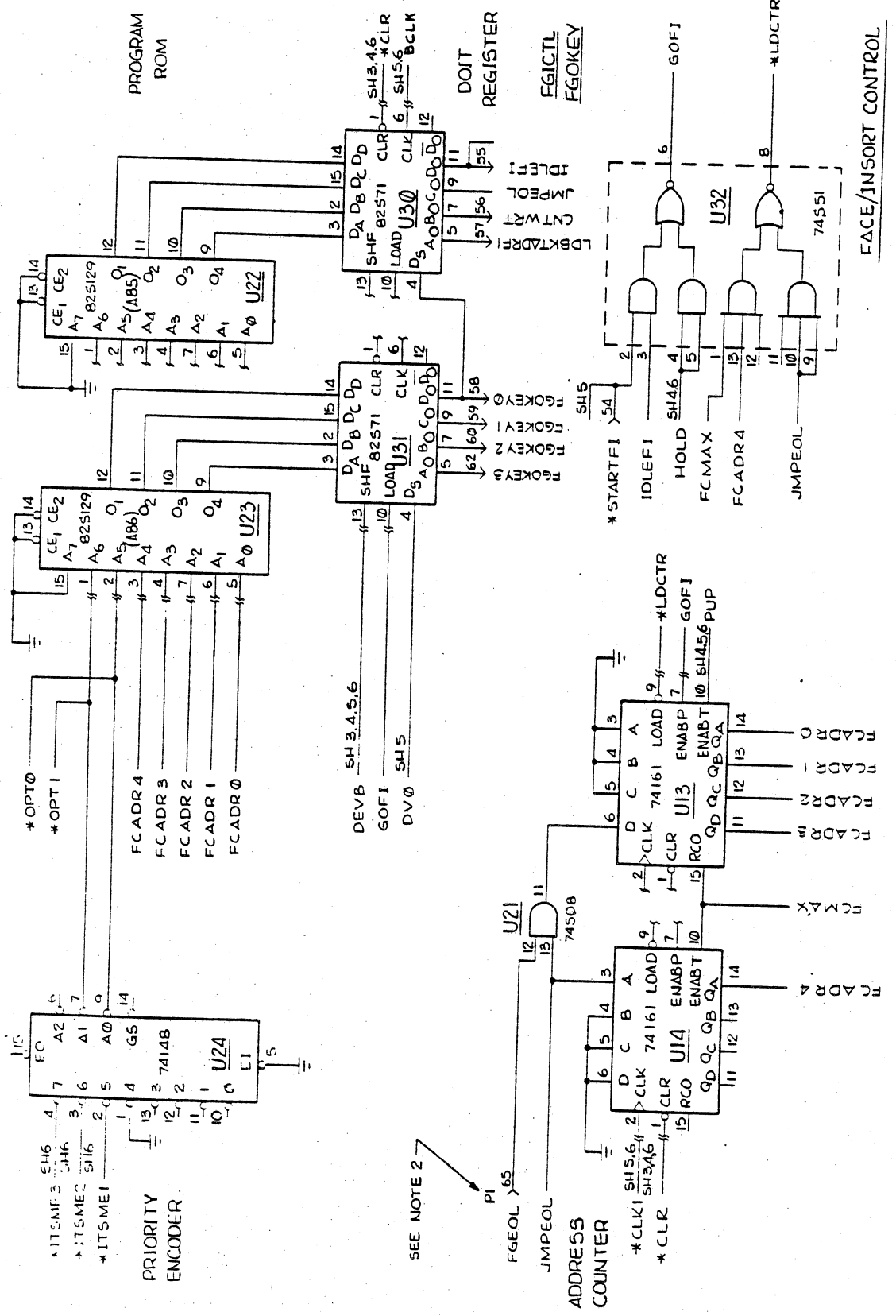
REF DESIG	E-S	PART NO	VENDOR PART NUMBER	REF DESIG	E-S	PART NO	VENDOR PART NUMBER	PIN #	SERIAL #
C 1	U	80102-475	C513E475K	U 34	807495-055	5N745195N		PI 3	08RTAU0
C 2	U	80102-475	C513E475K	U 35	807410-055	5N745195N		PI 5	08RTALO
C 3	U	80115-333	CV15C333M	U 41	807416-055	5N745195N		PI 6	08RTAUI
C 4	U	80115-333	CV15C333M	U 42	807439-055	5N745195N		PI 7	08RTALI
C 5	U	80115-333	CV15C333M	U 43	807717-015	8B2571B		PI 8	08RTAU2
C 6	U	80115-333	CV15C333M	U 44	807416-055	93516PC		PI 9	08RTALS
C 7	U	80115-333	CV15C333M	U 45	807408-055	5N74500M		PI 10	08RTAL3
C 8	U	80115-333	CV15C333M	U 46	807400-055	5N74500M		PI 11	08RTAL4
C 9	U	80115-333	CV15C333M	U 47	807400-055	5N74500M		PI 12	08RTAL5
C 10	U	80115-333	CV15C333M	U 48	807400-055	5N74500M		PI 13	08RTAL6
C 11	U	80115-333	CV15C333M	U 49	807400-055	5N74500M		PI 14	08RTAL7
C 12	U	80115-333	CV15C333M	U 50	807400-055	5N74500M		PI 15	08RTAL8
C 13	U	80115-333	CV15C333M	U 51	807400-055	5N74500M		PI 16	08RTAL9
C 14	U	80115-333	CV15C333M	U 52	807400-055	5N74500M		PI 17	08RTAL0
C 15	U	80115-333	CV15C333M	U 53	807400-055	5N74500M		PI 18	08RTAL1
C 16	U	80115-333	CV15C333M	U 54	807400-055	5N74500M		PI 19	08RTAL2
C 17	U	80115-333	CV15C333M	U 55	807400-055	5N74500M		PI 20	08RTAL3
C 18	U	80115-333	CV15C333M	U 56	807400-055	5N74500M		PI 21	08RTAL4
C 19	U	80115-333	CV15C333M	U 57	807400-055	5N74500M		PI 22	08RTAL5
C 20	U	80115-333	CV15C333M	U 58	807400-055	5N74500M		PI 23	08RTAL6
C 21	U	80115-333	CV15C333M	U 59	807400-055	5N74500M		PI 24	08RTAL7
C 22	U	80115-333	CV15C333M	U 60	807400-055	5N74500M		PI 25	08RTAL8
C 23	U	80115-333	CV15C333M	U 61	807400-055	5N74500M		PI 26	08RTAL9
C 24	U	80115-333	CV15C333M	U 62	807400-055	5N74500M		PI 27	08RTAL0
C 25	U	80115-333	CV15C333M	U 63	807400-055	5N74500M		PI 28	08RTAL1
C 26	U	80115-333	CV15C333M	U 64	807400-055	5N74500M		PI 29	08RTAL2
C 27	U	80115-333	CV15C333M	U 65	807400-055	5N74500M		PI 30	08RTAL3
C 28	U	80115-333	CV15C333M	U 66	807400-055	5N74500M		PI 31	08RTAL4
C 29	U	80115-333	CV15C333M	U 67	807400-055	5N74500M		PI 32	08RTAL5
C 30	U	80115-333	CV15C333M	U 68	807400-055	5N74500M		PI 33	08RTAL6
C 31	U	80115-333	CV15C333M	U 69	807400-055	5N74500M		PI 34	08RTAL7
C 32	U	80115-333	CV15C333M	U 70	807400-055	5N74500M		PI 35	08RTAL8
C 33	U	80115-333	CV15C333M	U 71	807400-055	5N74500M		PI 36	08RTAL9
C 34	U	80115-333	CV15C333M	U 72	807400-055	5N74500M		PI 37	08RTAL0
C 35	U	80115-333	CV15C333M	U 73	807400-055	5N74500M		PI 38	08RTAL1
C 36	U	80115-333	CV15C333M	U 74	807400-055	5N74500M		PI 39	08RTAL2
C 37	U	80115-333	CV15C333M	U 75	807400-055	5N74500M		PI 40	08RTAL3
C 38	U	80115-333	CV15C333M	U 76	807400-055	5N74500M		PI 41	08RTAL4
C 39	U	80115-333	CV15C333M	U 77	807400-055	5N74500M		PI 42	08RTAL5
C 40	U	80115-333	CV15C333M	U 78	807400-055	5N74500M		PI 43	08RTAL6
C 41	U	80115-333	CV15C333M	U 79	807400-055	5N74500M		PI 44	08RTAL7
C 42	U	80115-333	CV15C333M	U 80	807400-055	5N74500M		PI 45	08RTAL8
C 43	U	80115-333	CV15C333M	U 81	807400-055	5N74500M		PI 46	08RTAL9
C 44	U	80115-333	CV15C333M	U 82	807400-055	5N74500M		PI 47	08RTAL0
C 45	U	80115-333	CV15C333M	U 83	807400-055	5N74500M		PI 48	08RTAL1
C 46	U	80115-333	CV15C333M	U 84	807400-055	5N74500M		PI 49	08RTAL2
C 47	U	80115-333	CV15C333M	U 85	807400-055	5N74500M		PI 50	08RTAL3
C 48	U	80115-333	CV15C333M	U 86	807400-055	5N74500M		PI 51	08RTAL4
C 49	U	80115-333	CV15C333M	U 87	807400-055	5N74500M		PI 52	08RTAL5
C 50	U	80115-333	CV15C333M	U 88	807400-055	5N74500M		PI 53	08RTAL6
C 51	U	80115-333	CV15C333M	U 89	807400-055	5N74500M		PI 54	08RTAL7
C 52	U	80115-333	CV15C333M	U 90	807400-055	5N74500M		PI 55	08RTAL8
C 53	U	80115-333	CV15C333M	U 91	807400-055	5N74500M		PI 56	08RTAL9
C 54	U	80115-333	CV15C333M	U 92	807400-055	5N74500M		PI 57	08RTAL0
C 55	U	80115-333	CV15C333M	U 93	807400-055	5N74500M		PI 58	08RTAL1
C 56	U	80115-333	CV15C333M	U 94	807400-055	5N74500M		PI 59	08RTAL2
C 57	U	80115-333	CV15C333M	U 95	807400-055	5N74500M		PI 60	08RTAL3
C 58	U	80115-333	CV15C333M	U 96	807400-055	5N74500M		PI 61	08RTAL4
C 59	U	80115-333	CV15C333M	U 97	807400-055	5N74500M		PI 62	08RTAL5
C 60	U	80115-333	CV15C333M	U 98	807400-055	5N74500M		PI 63	08RTAL6
C 61	U	80115-333	CV15C333M	U 99	807400-055	5N74500M		PI 64	08RTAL7
C 62	U	80115-333	CV15C333M	U 100	807400-055	5N74500M		PI 65	08RTAL8



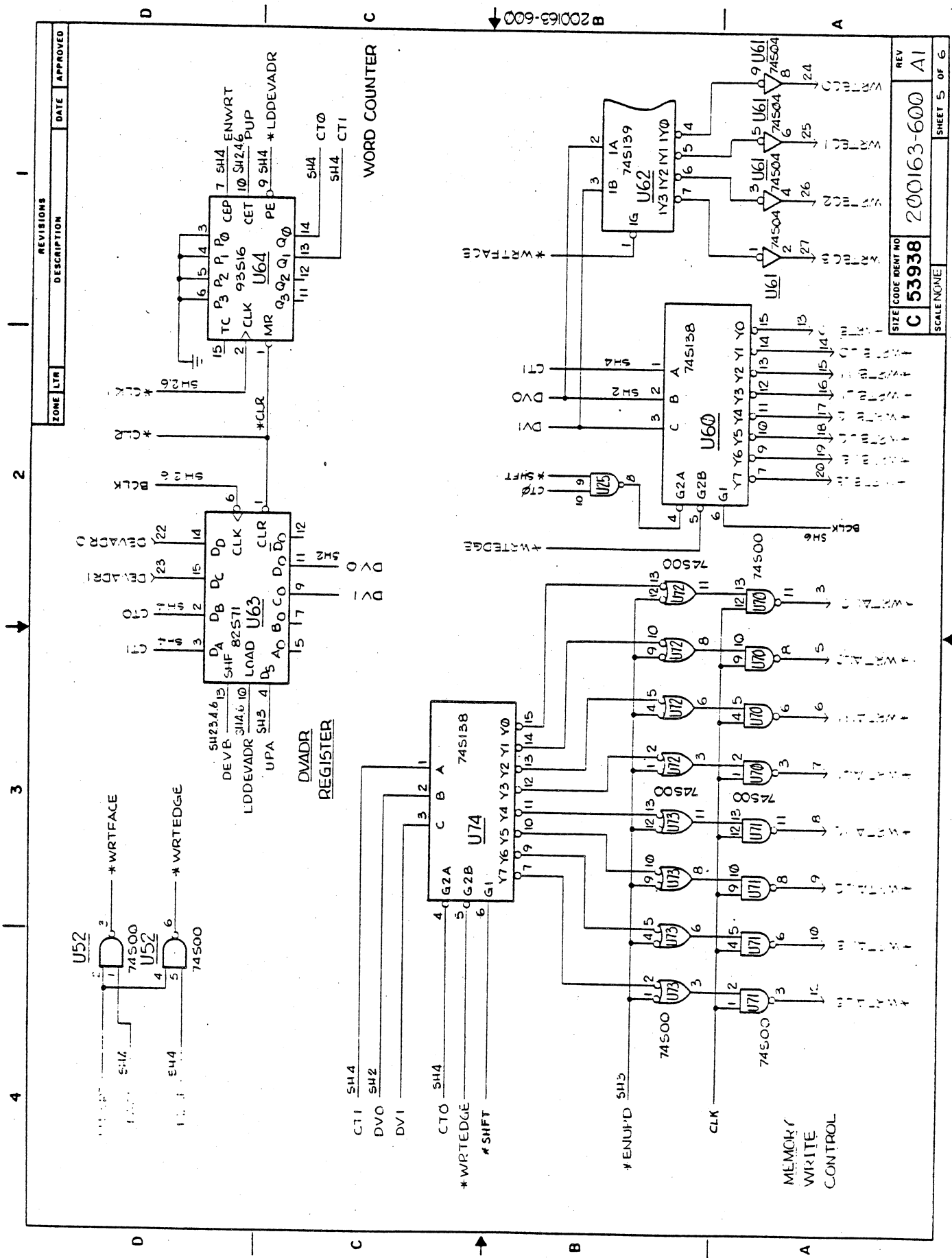
- SERIAL SHIFT LOOP SEQUENCE
 PL 70, 12, 11, 45, 12, 54, 2, 23, 11, 31, 11, 30, 11, 31, 55
 PL 72, 11, 76
- NUMBERS SHOWN REFER TO CONNECTOR P1.
 ALL CAPACITANCE VALUES ARE EXPRESSED
 IN MICROFARADS.
 RESISTANCE VALUES ARE EXPRESSED IN OHMS.
 K DENOTES 1000.
 RESISTORS ARE 1/4 WATT, ± 5% TOLERANCE.
 ON ALL 20 PIN I.C.'S, PIN 10 IS GROUND AND
 PIN 20 IS POWER (+5V).
 ON ALL 16 PIN I.C.'S, PIN 8 IS GROUND AND
 PIN 16 IS POWER (+5V).
 ON ALL 14 PIN I.C.'S, PIN 7 IS GROUND AND
 PIN 14 IS POWER (+5V).
 UNLESS OTHERWISE SPECIFIED;

CONTRACT NO.		DRAWN		CHECKED		MECH		ELEC		APPROVED	
SEE SEPARATE PARTS LIST		EVANS & SUTHERLAND		COMPUTER CORPORATION		SALT LAKE CITY, UTAH 84112		E/F CONTROL		W/W	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		.XX ±		.XXX ±		ANGLES ±		MATERIAL		FINISH	
200130-123		N/D		SP							
NEXT ASSY		USED ON		APPLICATION							
SIZE		CODE IDENT NO		REV		SHEET 1		OF 5			
C 53938		200163-600		A1							

NOTES:



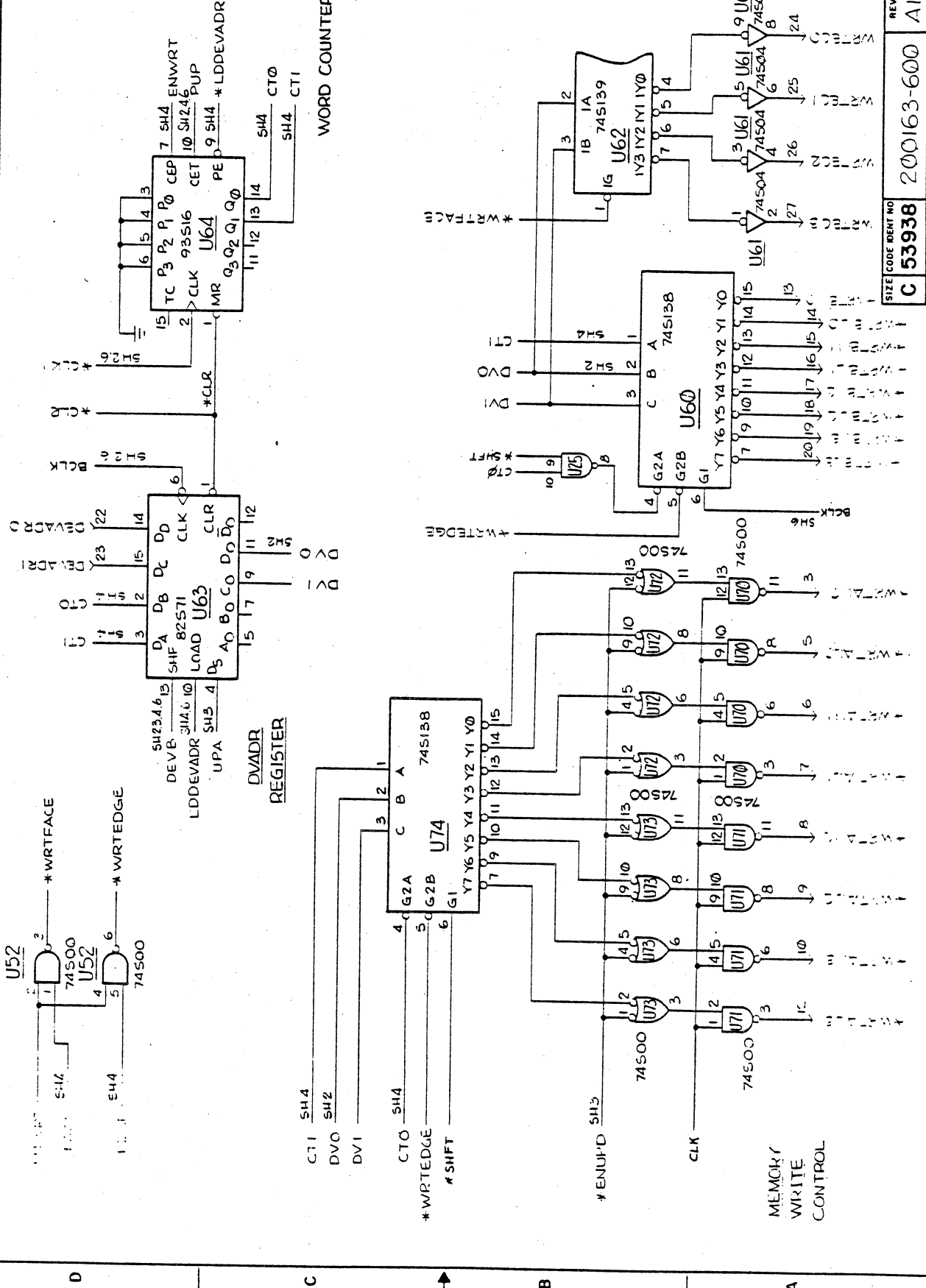
SEE NOTE 2



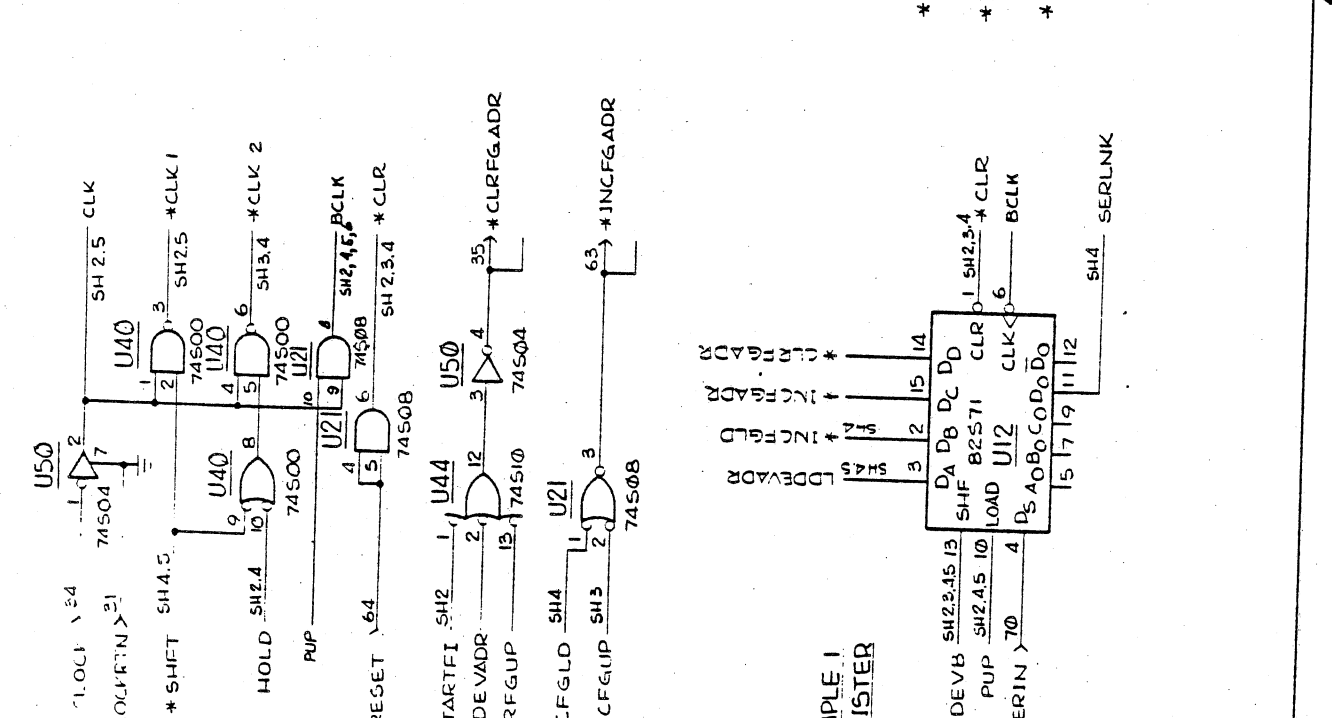
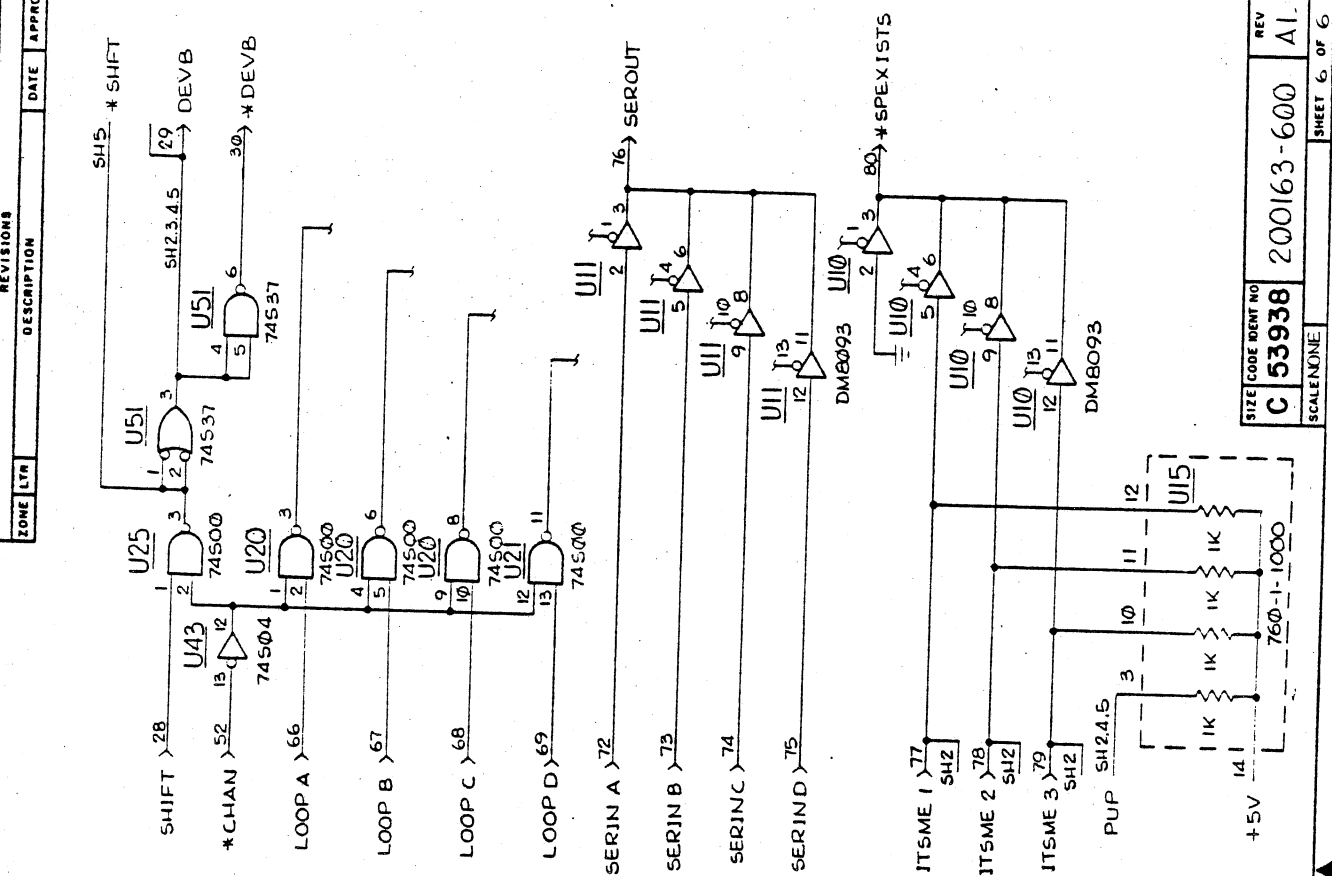
1
2
3
4

ZONE	LTN	REVISIONS	DESCRIPTION	DATE	APPROVED

CTI SH4
DVO SH2
DVI
CTO SH4
*WRTEGE SH4
*SHFT
*ENUP'D SH2
CLK
MEMORY WRITE CONTROL



REV AI
SCALE NONE
SHEET 5 OF 6
200163-600
C 53938



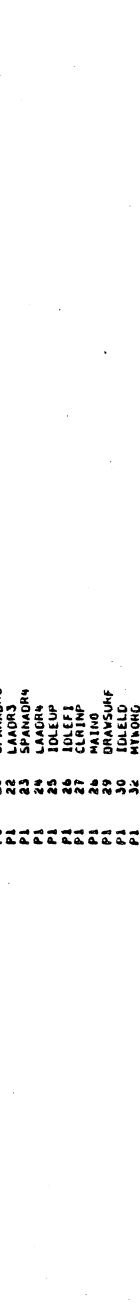
SIZE	CODE	IDENT NO	REV
C	53938	200163-600	A1

SCALE NONE SHEET 6 OF 6

REF	DESIG	PART NO	VENDOR PART NUMBER	REF	DESIG	PART NO	VENDOR PART NUMBER	REV	DESCRIPTION	DATE	APPROVED
10	C	807416-055	SN74504H	C	30	804115-333	CV15C333M				
11	C	807400-055	SN74500M	C	31	804115-333	CV15C333M				
12	C	807412-444	SN74504M	C	33	804115-333	CV15C333M				
13	C	807412-444	SN74504M	C	35	804115-333	CV15C333M				
14	C	807495-055	SN745155M	C	41	804115-333	CV15C333M				
15	C	807400-055	SN74500M	C	42	804115-333	CV15C333M				
16	C	807400-055	SN74500M	A	1	803201-102					
17	C	807410-055	SN74510M	A	2	803201-102					
18	C	807420-055	SN74520M								
19	C	807410-055	SN74510M								
20	C	807410-055	SN74510M								
21	C	807410-055	SN74510M								
22	C	807410-055	SN74510M								
23	C	807410-055	SN74510M								
24	C	807410-055	SN74510M								
25	C	807410-055	SN74510M								
26	C	807410-055	SN74510M								
27	C	807410-055	SN74510M								
28	C	807410-055	SN74510M								
29	C	807410-055	SN74510M								
30	C	807410-055	SN74510M								
31	C	807410-055	SN74510M								
32	C	807410-055	SN74510M								
33	C	807416-055	SN74504H								
34	C	807464-055	SN74504H								
35	C	807402-055	SN74502M								
36	C	807495-055	SN745155M								
37	C	807400-055	SN74500M								
38	C	807400-055	SN74500M								
39	C	807452-444	SN7452M								
40	C	807457-055	SN745157M								
41	C	807466-055	SN74586M								
42	C	807416-055	SN74504H								
43	C	807416-055	SN74504H								
44	C	807451-055	SN74504H								
45	C	807451-055	SN74504H								
46	C	807451-055	SN74504H								
47	C	807451-055	SN74504H								
48	C	807451-055	SN74504H								
49	C	807451-055	SN74504H								
50	C	807451-055	SN74504H								
51	C	807451-055	SN74504H								
52	C	807451-055	SN74504H								
53	C	807451-055	SN74504H								
54	C	807451-055	SN74504H								
55	C	807451-055	SN74504H								
56	C	807451-055	SN74504H								
57	C	807451-055	SN74504H								
58	C	807451-055	SN74504H								
59	C	807451-055	SN74504H								
60	C	807451-055	SN74504H								
61	C	807451-055	SN74504H								
62	C	807451-055	SN74504H								
63	C	807451-055	SN74504H								
64	C	807451-055	SN74504H								
65	C	807451-055	SN74504H								
66	C	807451-055	SN74504H								
67	C	807451-055	SN74504H								
68	C	807451-055	SN74504H								
69	C	807451-055	SN74504H								
70	C	807451-055	SN74504H								
71	C	807451-055	SN74504H								
72	C	807451-055	SN74504H								
73	C	807451-055	SN74504H								
74	C	807451-055	SN74504H								
75	C	804102-475	CV15C333M								
76	C	804102-475	CV15C333M								
77	C	804115-333	CV15C333M								
78	C	804115-333	CV15C333M								
79	C	804115-333	CV15C333M								
80	C	804115-333	CV15C333M								
81	C	804115-333	CV15C333M								
82	C	804115-333	CV15C333M								
83	C	804115-333	CV15C333M								
84	C	804115-333	CV15C333M								
85	C	804115-333	CV15C333M								
86	C	804115-333	CV15C333M								
87	C	804115-333	CV15C333M								
88	C	804115-333	CV15C333M								
89	C	804115-333	CV15C333M								
90	C	804115-333	CV15C333M								
91	C	804115-333	CV15C333M								
92	C	804115-333	CV15C333M								
93	C	804115-333	CV15C333M								
94	C	804115-333	CV15C333M								
95	C	804115-333	CV15C333M								
96	C	804115-333	CV15C333M								
97	C	804115-333	CV15C333M								
98	C	804115-333	CV15C333M								
99	C	804115-333	CV15C333M								
100	C	804115-333	CV15C333M								

REV	DESCRIPTION	DATE	APPROVED
1			
2			
3			
4			

PIN #	SIGNAL NAME
1	ELAURO
2	ELAURO
3	ELAURO
4	ELAURO
5	ELAURO
6	ELAURO
7	ELAURO
8	ELAURO
9	ELAURO
10	ELAURO
11	ELAURO
12	ELAURO
13	ELAURO
14	ELAURO
15	ELAURO
16	ELAURO
17	ELAURO
18	ELAURO
19	ELAURO
20	ELAURO
21	ELAURO
22	ELAURO
23	ELAURO
24	ELAURO
25	ELAURO
26	ELAURO
27	ELAURO
28	ELAURO
29	ELAURO
30	ELAURO
31	ELAURO
32	ELAURO
33	ELAURO
34	ELAURO
35	ELAURO
36	ELAURO
37	ELAURO
38	ELAURO
39	ELAURO
40	ELAURO
41	ELAURO
42	ELAURO
43	ELAURO
44	ELAURO
45	ELAURO
46	ELAURO
47	ELAURO
48	ELAURO
49	ELAURO
50	ELAURO
51	ELAURO
52	ELAURO
53	ELAURO
54	ELAURO
55	ELAURO
56	ELAURO
57	ELAURO
58	ELAURO
59	ELAURO
60	ELAURO
61	ELAURO
62	ELAURO
63	ELAURO
64	ELAURO
65	ELAURO
66	ELAURO
67	ELAURO
68	ELAURO
69	ELAURO
70	ELAURO
71	ELAURO
72	ELAURO
73	ELAURO
74	ELAURO
75	ELAURO
76	ELAURO
77	ELAURO
78	ELAURO
79	ELAURO
80	ELAURO



RESISTORS ARE 1/4 WATT, ±5% TOLERANCE.
ON ALL 20 PIN I.C.'S, PIN 10 IS GROUND AND PIN 20 IS POWER (+5V).
ON ALL 16 PIN I.C.'S, PIN 8 IS GROUND AND PIN 16 IS POWER (+5V).
ON ALL 14 PIN I.C.'S, PIN 7 IS GROUND AND PIN 14 IS POWER (+5V).
UNLESS OTHERWISE SPECIFIED;

3. SERIAL SHIFT LOOP SEQUENCE
PL76, 12, 11, 41, 12, 31, 12, 14, 12, 64, 11, 21, 28.

2. NUMBERS SHOWN REFER TO CONNECTOR P.I.
ALL CAPACITANCE VALUES ARE EXPRESSED IN MICROFARADS.

RESISTANCE VALUES ARE EXPRESSED IN OHMS.
K DENOTES 1000.

NOTES:

SEE SEPARATE PARTS LIST
EVANIS & SUTHERLAND
COMPUTER CORPORATION
SALT LAKE CITY, UTAH 84118

CONTRACT NO.
DRAWN BY: WJL
CHECKED BY: WJL
MECH: WJL
ELEC: WJL
PROJ ENG: WJL
APPROVED: WJL

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ON
.XX ±
.XXX ±
ANGLES ±

MATERIAL
FINISH

200130-100 NOVONICH
NEXT ASSY USED ON APPLICATION

SIZE CODE IDENT NO
C 53938
SCALE NONE

REV NC
200164-600
SHEET 1 OF 5

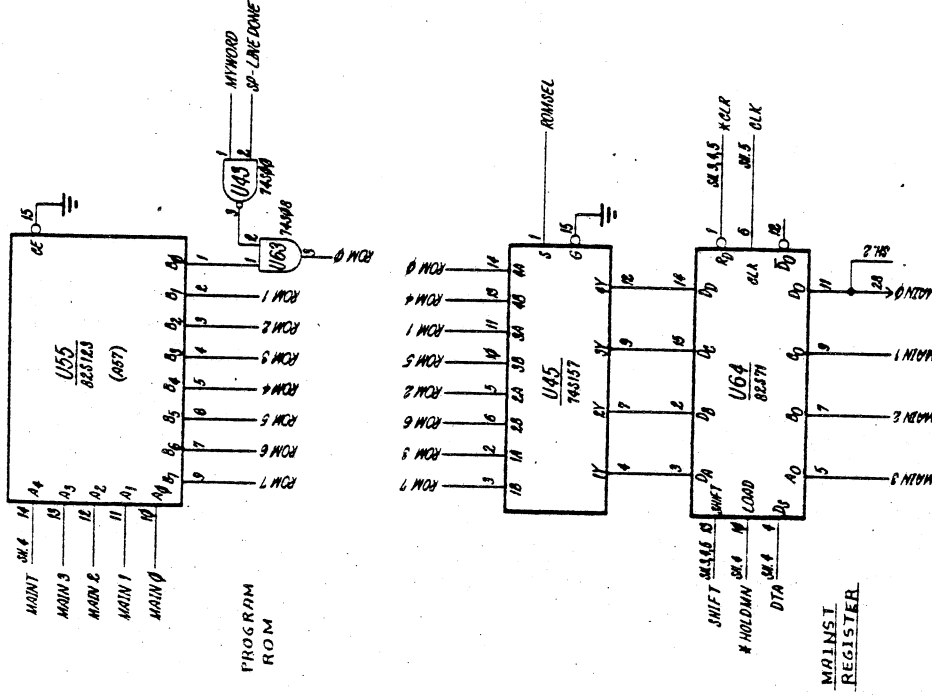
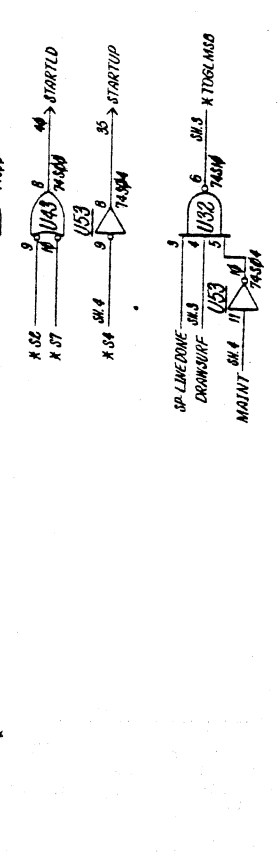
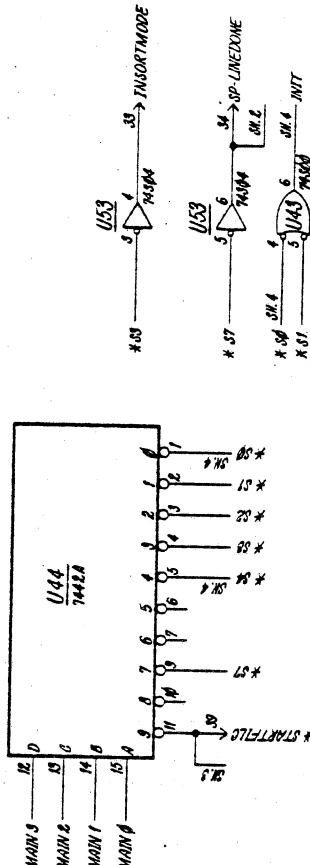
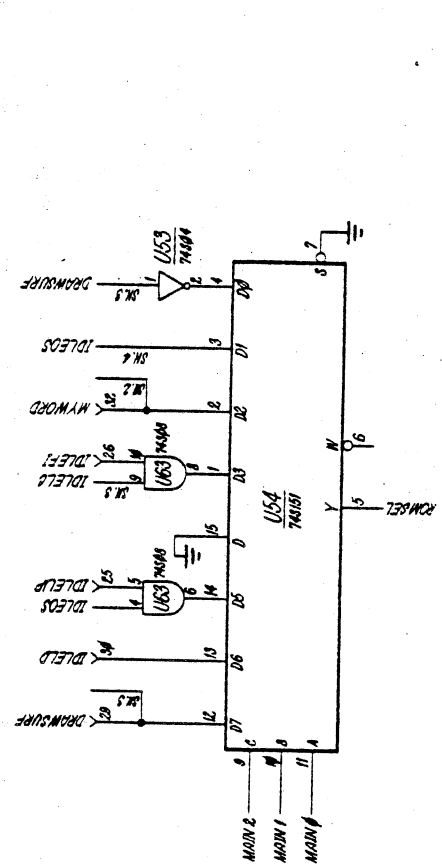
S/L CONTROL, W/W

200164-600

DATE

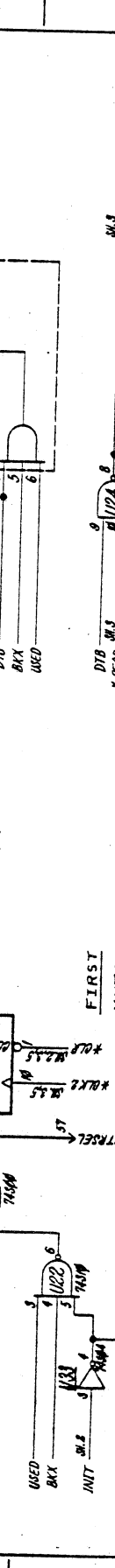
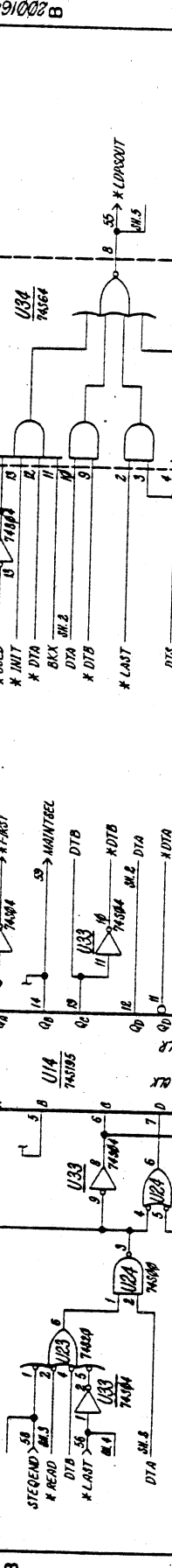
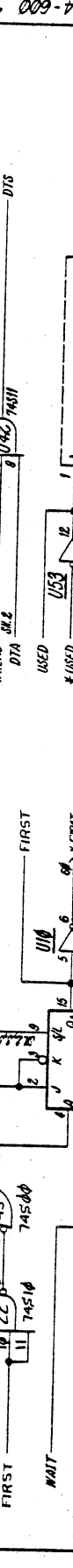
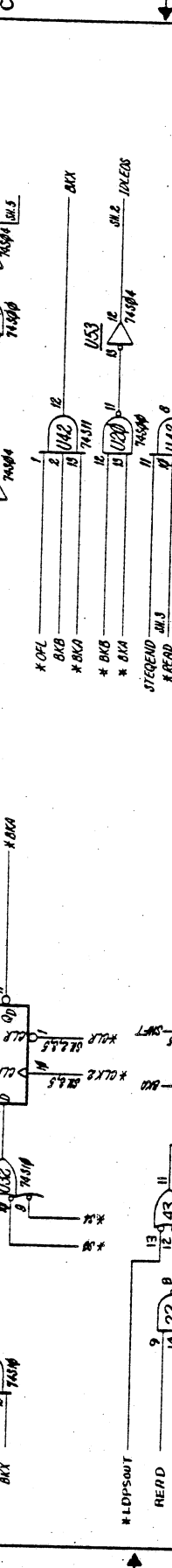
APPROVED

ZONE LTR	DESCRIPTION	DATE	APPROVED



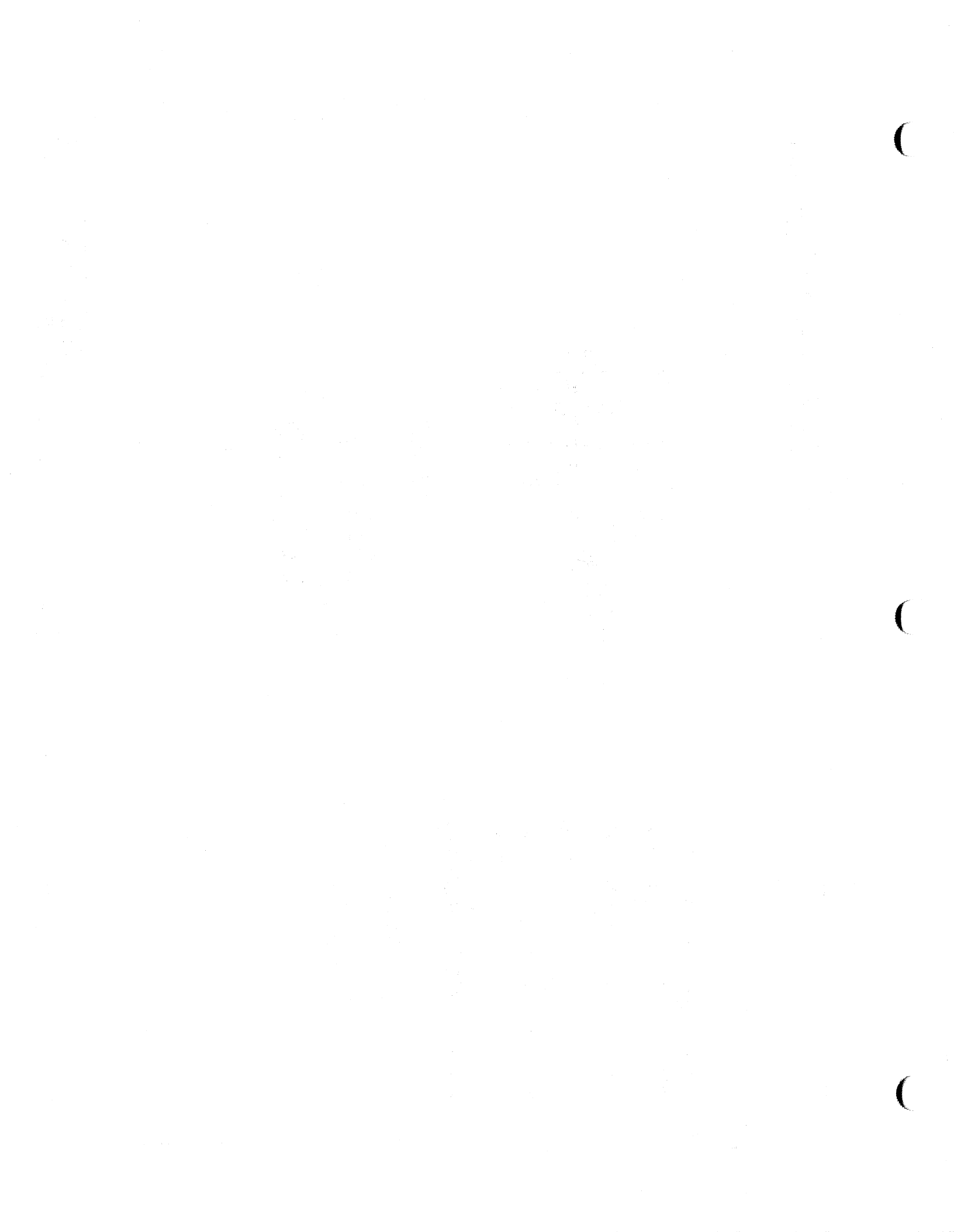
MAIN CONTROL

SIZE CODE IDENT NO	REV
C 53938	NC
SCALE NONE	SHEET 2 OF 5



SIZE CODE RENT NO	REV
C 53938	NC
SCALE NONE	SHEET 4 OF 5

OUTSORT BUCKET/DATA CONTROL



REF DESIG	PART NO	VENDOR PART NUMBER	WIRENAME	PIN #	REVISIONS	DATE	APPROVED
C 1	804102-475	C5138F475K	*MAU	PI 3			
C 2	804102-475	C5138F475K	*HB20	PI 5			
C 3	804115-333	CY15C333M	*CEAU	PI 6			
C 4	804115-333	CY15C333M	*ADR1	PI 7			
C 5	804115-333	CY15C333M	*HB21	PI 9			
C 6	804115-333	CY15C333M	*ADRO	PI 10			
C 7	804115-333	CY15C333M	*HB19	PI 12			
C 8	804115-333	CY15C333M	*A16	PI 13			
C 9	804115-333	CY15C333M	*A16	PI 14			
C 10	804115-333	CY15C333M	*AUSIN	PI 15			
C 11	804115-333	CY15C333M	*A17	PI 17			
C 12	804115-333	CY15C333M	*AD17	PI 18			
C 13	804115-333	CY15C333M	*START	PI 19			
C 14	804115-333	CY15C333M	*UNES	PI 20			
C 15	804115-333	CY15C333M	*D13	PI 22			
C 16	804115-333	CY15C333M	*D13	PI 23			
U 10	807416-055	SN741604N	*HB16	PI 25			
U 11	807483-666	SN7483A	*HB17	PI 26			
U 12	807458-055	SN745158N	*HB17	PI 27			
U 13	807209-018	N825091	*D11	PI 28			
U 14	807209-018	N825091	*D11	PI 29			
U 15	807458-055	SN745158N	*D12	PI 30			
U 16	807458-055	SN745158N	*D12	PI 31			
U 17	807458-055	SN745158N	*D12	PI 32			
U 18	807458-055	SN745158N	*D12	PI 33			
U 19	807458-055	SN745158N	*D12	PI 34			
U 20	807458-055	SN745158N	*D12	PI 35			
U 21	807458-055	SN745158N	*D12	PI 36			
U 22	807458-055	SN745158N	*D12	PI 37			
U 23	807458-055	SN745158N	*D12	PI 38			
U 24	807458-055	SN745158N	*D12	PI 39			
U 25	807458-055	SN745158N	*D12	PI 40			
U 26	807458-055	SN745158N	*D12	PI 41			
U 27	807458-055	SN745158N	*D12	PI 42			
U 28	807458-055	SN745158N	*D12	PI 43			
U 29	807458-055	SN745158N	*D12	PI 44			
U 30	807458-055	SN745158N	*D12	PI 45			
U 31	807458-055	SN745158N	*D12	PI 46			
U 32	807458-055	SN745158N	*D12	PI 47			
U 33	807458-055	SN745158N	*D12	PI 48			
U 34	807458-055	SN745158N	*D12	PI 49			
U 35	807458-055	SN745158N	*D12	PI 50			
U 36	807458-055	SN745158N	*D12	PI 51			
U 37	807458-055	SN745158N	*D12	PI 52			
U 38	807458-055	SN745158N	*D12	PI 53			
U 39	807458-055	SN745158N	*D12	PI 54			
U 40	807458-055	SN745158N	*D12	PI 55			
U 41	807458-055	SN745158N	*D12	PI 56			
U 42	807458-055	SN745158N	*D12	PI 57			
U 43	807458-055	SN745158N	*D12	PI 58			
U 44	807458-055	SN745158N	*D12	PI 59			
U 45	807458-055	SN745158N	*D12	PI 60			
U 46	807458-055	SN745158N	*D12	PI 61			
U 47	807458-055	SN745158N	*D12	PI 62			
U 48	807458-055	SN745158N	*D12	PI 63			
U 49	807458-055	SN745158N	*D12	PI 64			
U 50	807458-055	SN745158N	*D12	PI 65			
U 51	807458-055	SN745158N	*D12	PI 66			
U 52	807458-055	SN745158N	*D12	PI 67			
U 53	807458-055	SN745158N	*D12	PI 68			
U 54	807458-055	SN745158N	*D12	PI 69			
U 55	807458-055	SN745158N	*D12	PI 70			
U 56	807458-055	SN745158N	*D12	PI 71			
U 57	807458-055	SN745158N	*D12	PI 72			
U 58	807458-055	SN745158N	*D12	PI 73			
U 59	807458-055	SN745158N	*D12	PI 74			
U 60	807458-055	SN745158N	*D12	PI 75			
U 61	807458-055	SN745158N	*D12	PI 76			
U 62	807458-055	SN745158N	*D12	PI 77			
U 63	807458-055	SN745158N	*D12	PI 78			
U 64	807458-055	SN745158N	*D12	PI 79			



CONTRACT NO.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	SEE SEPARATE PARTS LIST
DRAWN P.H. WOLLEY	XX ±	EVANS & SUTHERLAND COMPUTER CORPORATION
CHECKED P. BERRY	XXX ±	SALT LAKE CITY, UTAH 84112
MECH	ANGLES ±	
ELEC	✓	EDGE GENERATOR P.C.
PROJ. ENGINEER	MATERIAL	
APPROVED	FINISH	
	200165-100 NOVOLVEN	
	NEXT ASSY USED CN	
	APPLICATION	

SIZE	CODE	IDENT NO	REV
C	53938	200165-600	NC
SCALE NONE			SHEET 1 OF 7

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
 TOLERANCES ON
 XXX ±
 ANGLES ±
 ✓

SEE SEPARATE PARTS LIST
 EVANS & SUTHERLAND
 COMPUTER CORPORATION
 SALT LAKE CITY, UTAH 84112

EDGE GENERATOR P.C.

SIZE CODE IDENT NO
 C 53938 200165-600
 SCALE NONE
 SHEET 1 OF 7

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
 TOLERANCES ON
 XX ±
 XXX ±
 ANGLES ±
 ✓

SEE SEPARATE PARTS LIST
 EVANS & SUTHERLAND
 COMPUTER CORPORATION
 SALT LAKE CITY, UTAH 84112

EDGE GENERATOR P.C.

SIZE CODE IDENT NO
 C 53938 200165-600
 SCALE NONE
 SHEET 1 OF 7

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
 TOLERANCES ON
 XX ±
 XXX ±
 ANGLES ±
 ✓

SEE SEPARATE PARTS LIST
 EVANS & SUTHERLAND
 COMPUTER CORPORATION
 SALT LAKE CITY, UTAH 84112

EDGE GENERATOR P.C.

SIZE CODE IDENT NO
 C 53938 200165-600
 SCALE NONE
 SHEET 1 OF 7

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
 TOLERANCES ON
 XX ±
 XXX ±
 ANGLES ±
 ✓

SEE SEPARATE PARTS LIST
 EVANS & SUTHERLAND
 COMPUTER CORPORATION
 SALT LAKE CITY, UTAH 84112

EDGE GENERATOR P.C.

SIZE CODE IDENT NO
 C 53938 200165-600
 SCALE NONE
 SHEET 1 OF 7

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
 TOLERANCES ON
 XX ±
 XXX ±
 ANGLES ±
 ✓

SEE SEPARATE PARTS LIST
 EVANS & SUTHERLAND
 COMPUTER CORPORATION
 SALT LAKE CITY, UTAH 84112

EDGE GENERATOR P.C.

SIZE CODE IDENT NO
 C 53938 200165-600
 SCALE NONE
 SHEET 1 OF 7

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
 TOLERANCES ON
 XX ±
 XXX ±
 ANGLES ±
 ✓

SEE SEPARATE PARTS LIST
 EVANS & SUTHERLAND
 COMPUTER CORPORATION
 SALT LAKE CITY, UTAH 84112

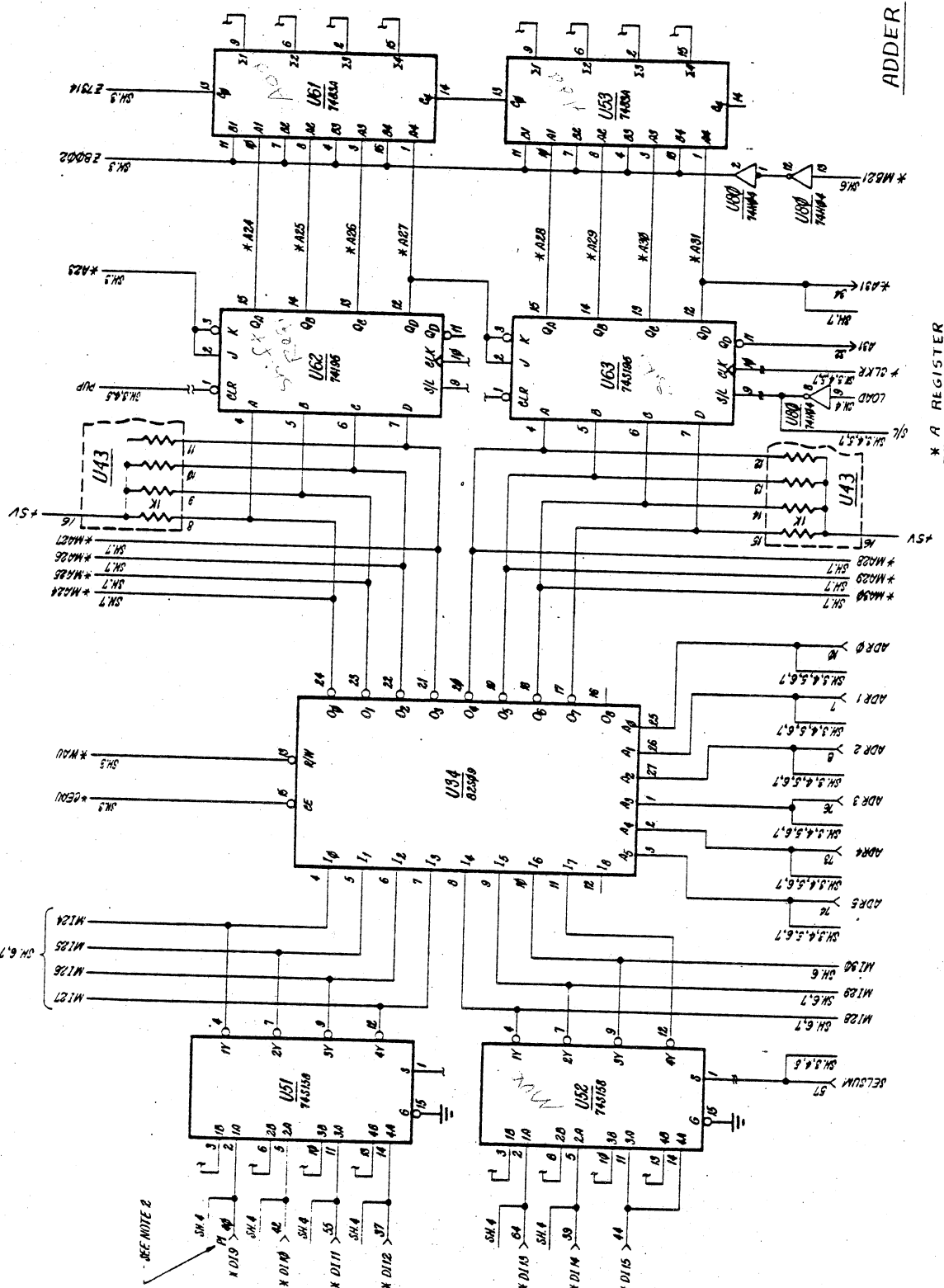
EDGE GENERATOR P.C.

SIZE CODE IDENT NO
 C 53938 200165-600
 SCALE NONE
 SHEET 1 OF 7

- ON IC 7483 LOCATION, U11,U30,U40,U42,U53,U61, U73, U81 PIN 12 IS GROUND, PIN 5 IS POWER (+5V).
- NUMBERS SHOWN REFER TO CONNECTOR PI. ALL CAPACITANCE VALUES ARE EXPRESSED IN MICROFARADS.
- RESISTANCE VALUES ARE EXPRESSED IN OHMS, K DENOTES 1000. RESISTORS ARE 1/4 WATT, ± 5% TOLERANCE. ON ALL 20 PIN I.C.'S, PIN 10 IS GROUND AND PIN 20 IS POWER (+5V). ON ALL 16 PIN I.C.'S, PIN 8 IS GROUND AND PIN 16 IS POWER (+5V). ON ALL 14 PIN I.C.'S, PIN 7 IS GROUND AND PIN 14 IS POWER (+5V).

NOTES:

ZONE	LTR	DESCRIPTION	DATE	APPROVED



SIZE CODE IDENT NO	C 53938	REV	NC
SCALE	NONE	SHEET	2 OF 7

200165-600

SEE NOTE 2

1 2 3 4

D

C

B

A

D

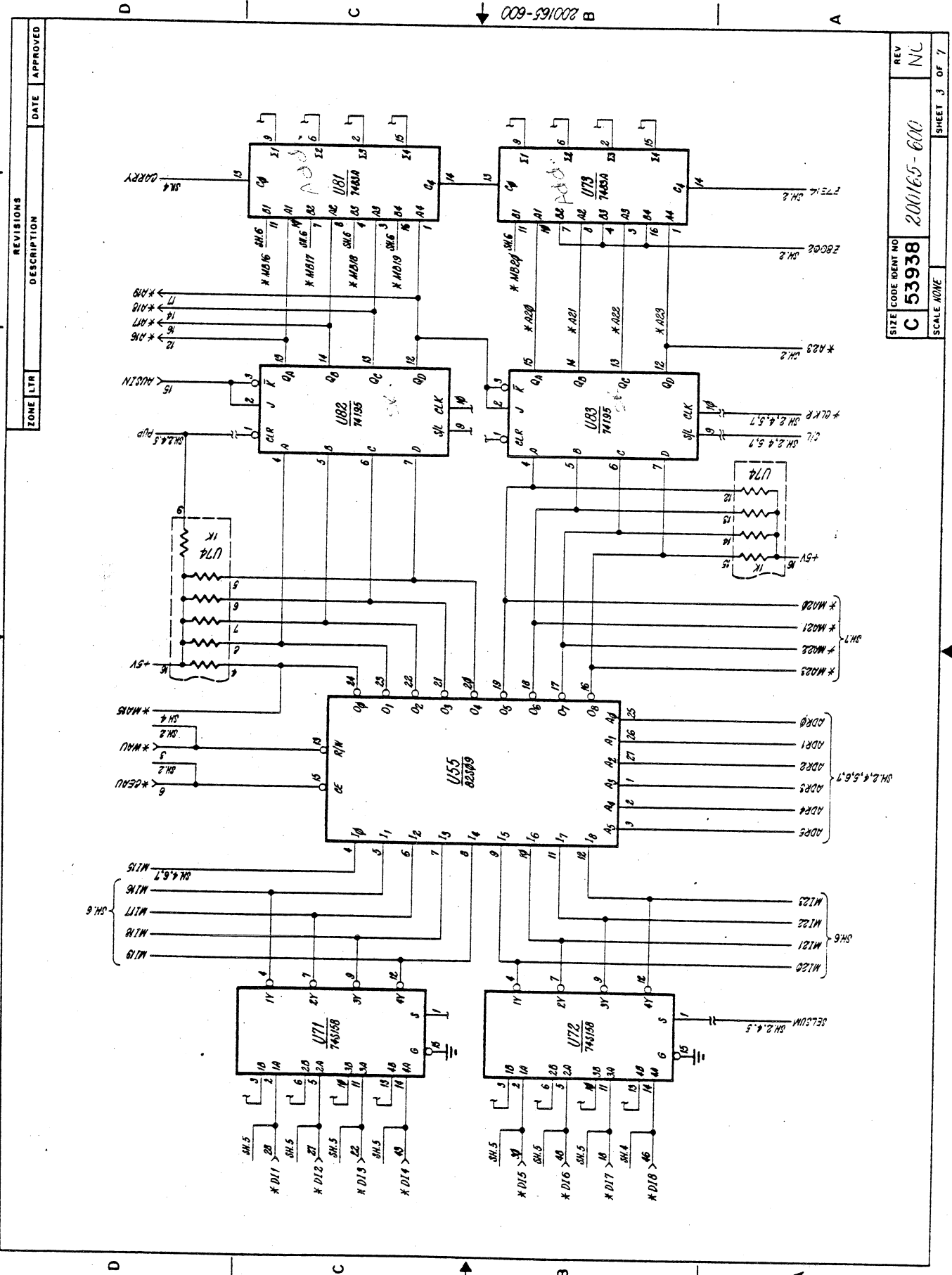
C

B

A

ZONE	LTR	DESCRIPTION	DATE	APPROVED

1 2 3 4



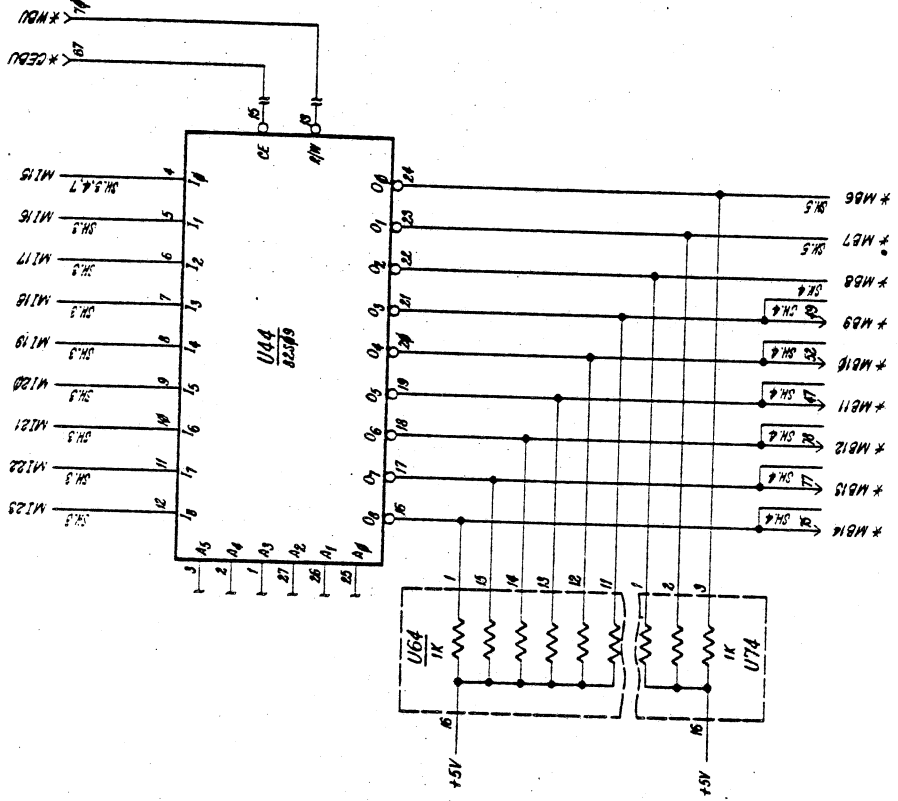
200165-600

SIZE CODE IDENT NO	REV
C 53938	NC
SCALE NONE	SHEET 3 OF 7

200165-600

ZONE	LTR	DESCRIPTION	DATE	APPROVED

SIZE CODE IDENT NO	REV
C 53938	NC
SCALE	SHEET 6 OF 7
200165-600	





ZONE	LT/R	DESCRIPTION	DATE	APPROVED

2 3 4

REF DESIG	PART NO	VENDOR PART NUMBER	REF DESIG	PART NO	VENDOR PART NUMBER
C 1	804102-415	CS13BF415K	U 21	807205-055	AN25505
C 2	804102-415	CS13BF415K	U 22	807205-055	AN25505
C 3	804115-333	CV15C333M	U 23	807205-055	AN25505
C 4	804115-333	CV15C333M	U 24	807205-055	AN25505
C 5	804115-333	CV15C333M	U 25	807205-055	AN25505
C 6	804115-333	CV15C333M	U 26	807205-055	AN25505
C 7	804115-333	CV15C333M	U 27	807205-055	AN25505
C 8	804115-333	CV15C333M	U 28	807205-055	AN25505
C 9	804115-333	CV15C333M	U 29	807205-055	AN25505
C 10	804115-333	CV15C333M	U 30	807205-055	AN25505
C 11	804115-333	CV15C333M	U 31	807205-055	AN25505
C 12	804115-333	CV15C333M	U 32	807205-055	AN25505
C 13	804115-333	CV15C333M	U 33	807205-055	AN25505
C 14	804115-333	CV15C333M	U 34	807205-055	AN25505
C 15	804115-333	CV15C333M	U 35	807205-055	AN25505
C 16	804115-333	CV15C333M	U 36	807205-055	AN25505
C 17	804115-333	CV15C333M	U 37	807205-055	AN25505
C 18	804115-333	CV15C333M	U 38	807205-055	AN25505
C 19	804115-333	CV15C333M	U 39	807205-055	AN25505
C 20	804115-333	CV15C333M	U 40	807205-055	AN25505
C 21	804115-333	CV15C333M	U 41	807205-055	AN25505
C 22	804115-333	CV15C333M	U 42	807205-055	AN25505
C 23	804115-333	CV15C333M	U 43	807205-055	AN25505
C 24	804115-333	CV15C333M	U 44	807205-055	AN25505
C 25	804115-333	CV15C333M	U 45	807205-055	AN25505
C 26	804115-333	CV15C333M	U 46	807205-055	AN25505
C 27	804115-333	CV15C333M	U 47	807205-055	AN25505
C 28	804115-333	CV15C333M	U 48	807205-055	AN25505
C 29	804115-333	CV15C333M	U 49	807205-055	AN25505
C 30	804115-333	CV15C333M	U 50	807205-055	AN25505
C 31	804115-333	CV15C333M	U 51	807205-055	AN25505
C 32	804115-333	CV15C333M	U 52	807205-055	AN25505
C 33	804115-333	CV15C333M	U 53	807205-055	AN25505
C 34	804115-333	CV15C333M	U 54	807205-055	AN25505
C 35	804115-333	CV15C333M	U 55	807205-055	AN25505
C 36	804115-333	CV15C333M	U 56	807205-055	AN25505
C 37	804115-333	CV15C333M	U 57	807205-055	AN25505
C 38	804115-333	CV15C333M	U 58	807205-055	AN25505
C 39	804115-333	CV15C333M	U 59	807205-055	AN25505
C 40	804115-333	CV15C333M	U 60	807205-055	AN25505
C 41	804115-333	CV15C333M	U 61	807205-055	AN25505
C 42	804115-333	CV15C333M	U 62	807205-055	AN25505
C 43	804115-333	CV15C333M	U 63	807205-055	AN25505
C 44	804115-333	CV15C333M	U 64	807205-055	AN25505
C 45	804115-333	CV15C333M	U 65	807205-055	AN25505
C 46	804115-333	CV15C333M	U 66	807205-055	AN25505
C 47	804115-333	CV15C333M	U 67	807205-055	AN25505
C 48	804115-333	CV15C333M	U 68	807205-055	AN25505
C 49	804115-333	CV15C333M	U 69	807205-055	AN25505
C 50	804115-333	CV15C333M	U 70	807205-055	AN25505
C 51	804115-333	CV15C333M	U 71	807205-055	AN25505
C 52	804115-333	CV15C333M	U 72	807205-055	AN25505
C 53	804115-333	CV15C333M	U 73	807205-055	AN25505
C 54	804115-333	CV15C333M	U 74	807205-055	AN25505
C 55	804115-333	CV15C333M	U 75	807205-055	AN25505
C 56	804115-333	CV15C333M	U 76	807205-055	AN25505
C 57	804115-333	CV15C333M	U 77	807205-055	AN25505
C 58	804115-333	CV15C333M	U 78	807205-055	AN25505
C 59	804115-333	CV15C333M	U 79	807205-055	AN25505
C 60	804115-333	CV15C333M	U 80	807205-055	AN25505

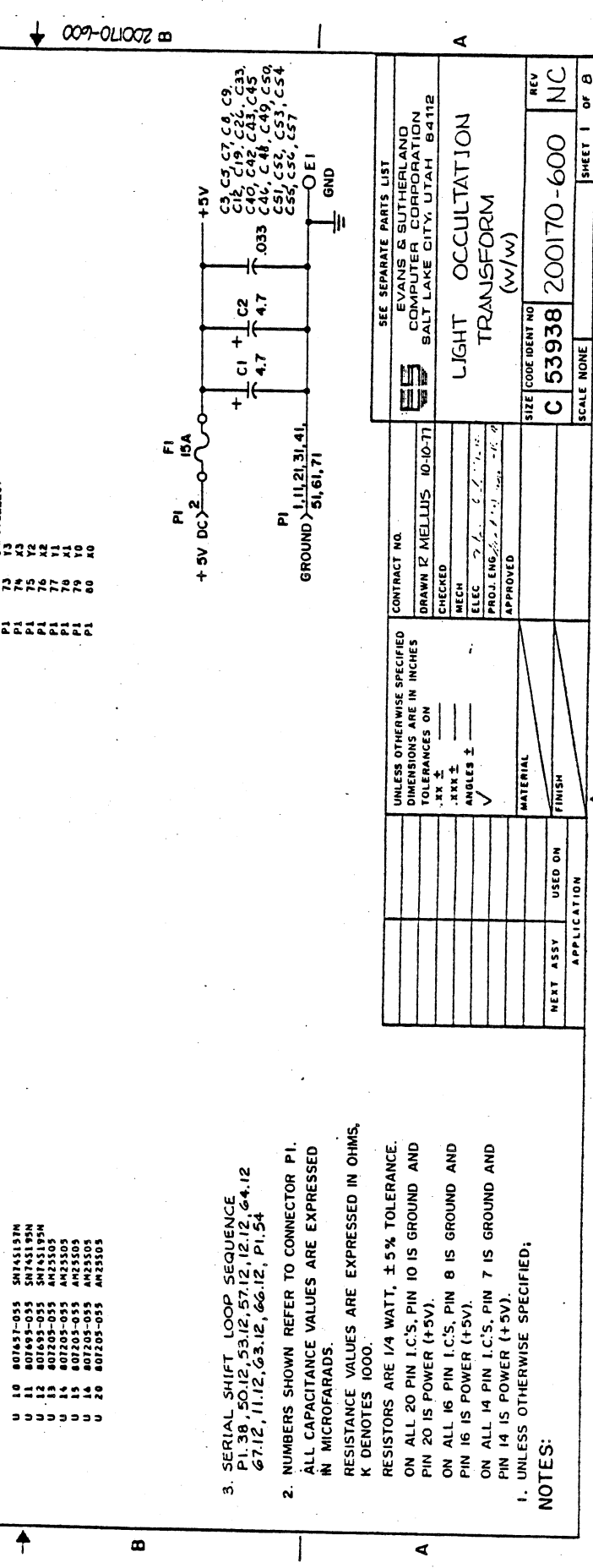
PIN #	SYMBOL	DESCRIPTION
1	+	CLOCK
2	+	SHIFTLIN
3	+	LOAD/PROU
4	+	LOAD/PROU
5	+	LOAD/PROU
6	+	LOAD/PROU
7	+	LOAD/PROU
8	+	LOAD/PROU
9	+	LOAD/PROU
10	+	LOAD/PROU
11	+	LOAD/PROU
12	+	LOAD/PROU
13	+	LOAD/PROU
14	+	LOAD/PROU
15	+	LOAD/PROU
16	+	LOAD/PROU
17	+	LOAD/PROU
18	+	LOAD/PROU
19	+	LOAD/PROU
20	+	LOAD/PROU
21	+	LOAD/PROU
22	+	LOAD/PROU
23	+	LOAD/PROU
24	+	LOAD/PROU
25	+	LOAD/PROU
26	+	LOAD/PROU
27	+	LOAD/PROU
28	+	LOAD/PROU
29	+	LOAD/PROU
30	+	LOAD/PROU
31	+	LOAD/PROU
32	+	LOAD/PROU
33	+	LOAD/PROU
34	+	LOAD/PROU
35	+	LOAD/PROU
36	+	LOAD/PROU
37	+	LOAD/PROU
38	+	LOAD/PROU
39	+	LOAD/PROU
40	+	LOAD/PROU
41	+	LOAD/PROU
42	+	LOAD/PROU

PIN #	SYMBOL	DESCRIPTION
1	+	CLOCK
2	+	SHIFTLIN
3	+	LOAD/PROU
4	+	LOAD/PROU
5	+	LOAD/PROU
6	+	LOAD/PROU
7	+	LOAD/PROU
8	+	LOAD/PROU
9	+	LOAD/PROU
10	+	LOAD/PROU
11	+	LOAD/PROU
12	+	LOAD/PROU
13	+	LOAD/PROU
14	+	LOAD/PROU
15	+	LOAD/PROU
16	+	LOAD/PROU
17	+	LOAD/PROU
18	+	LOAD/PROU
19	+	LOAD/PROU
20	+	LOAD/PROU
21	+	LOAD/PROU
22	+	LOAD/PROU
23	+	LOAD/PROU
24	+	LOAD/PROU
25	+	LOAD/PROU
26	+	LOAD/PROU
27	+	LOAD/PROU
28	+	LOAD/PROU
29	+	LOAD/PROU
30	+	LOAD/PROU
31	+	LOAD/PROU
32	+	LOAD/PROU
33	+	LOAD/PROU
34	+	LOAD/PROU
35	+	LOAD/PROU
36	+	LOAD/PROU
37	+	LOAD/PROU
38	+	LOAD/PROU
39	+	LOAD/PROU
40	+	LOAD/PROU
41	+	LOAD/PROU
42	+	LOAD/PROU

PIN #	SYMBOL	DESCRIPTION
1	+	CLOCK
2	+	SHIFTLIN
3	+	LOAD/PROU
4	+	LOAD/PROU
5	+	LOAD/PROU
6	+	LOAD/PROU
7	+	LOAD/PROU
8	+	LOAD/PROU
9	+	LOAD/PROU
10	+	LOAD/PROU
11	+	LOAD/PROU
12	+	LOAD/PROU
13	+	LOAD/PROU
14	+	LOAD/PROU
15	+	LOAD/PROU
16	+	LOAD/PROU
17	+	LOAD/PROU
18	+	LOAD/PROU
19	+	LOAD/PROU
20	+	LOAD/PROU
21	+	LOAD/PROU
22	+	LOAD/PROU
23	+	LOAD/PROU
24	+	LOAD/PROU
25	+	LOAD/PROU
26	+	LOAD/PROU
27	+	LOAD/PROU
28	+	LOAD/PROU
29	+	LOAD/PROU
30	+	LOAD/PROU
31	+	LOAD/PROU
32	+	LOAD/PROU
33	+	LOAD/PROU
34	+	LOAD/PROU
35	+	LOAD/PROU
36	+	LOAD/PROU
37	+	LOAD/PROU
38	+	LOAD/PROU
39	+	LOAD/PROU
40	+	LOAD/PROU
41	+	LOAD/PROU
42	+	LOAD/PROU

PIN #	SYMBOL	DESCRIPTION
1	+	CLOCK
2	+	SHIFTLIN
3	+	LOAD/PROU
4	+	LOAD/PROU
5	+	LOAD/PROU
6	+	LOAD/PROU
7	+	LOAD/PROU
8	+	LOAD/PROU
9	+	LOAD/PROU
10	+	LOAD/PROU
11	+	LOAD/PROU
12	+	LOAD/PROU
13	+	LOAD/PROU
14	+	LOAD/PROU
15	+	LOAD/PROU
16	+	LOAD/PROU
17	+	LOAD/PROU
18	+	LOAD/PROU
19	+	LOAD/PROU
20	+	LOAD/PROU
21	+	LOAD/PROU
22	+	LOAD/PROU
23	+	LOAD/PROU
24	+	LOAD/PROU
25	+	LOAD/PROU
26	+	LOAD/PROU
27	+	LOAD/PROU
28	+	LOAD/PROU
29	+	LOAD/PROU
30	+	LOAD/PROU
31	+	LOAD/PROU
32	+	LOAD/PROU
33	+	LOAD/PROU
34	+	LOAD/PROU
35	+	LOAD/PROU
36	+	LOAD/PROU
37	+	LOAD/PROU
38	+	LOAD/PROU
39	+	LOAD/PROU
40	+	LOAD/PROU
41	+	LOAD/PROU
42	+	LOAD/PROU

PIN #	SYMBOL	DESCRIPTION
1	+	CLOCK
2	+	SHIFTLIN
3	+	LOAD/PROU
4	+	LOAD/PROU
5	+	LOAD/PROU
6	+	LOAD/PROU
7	+	LOAD/PROU
8	+	LOAD/PROU
9	+	LOAD/PROU
10	+	LOAD/PROU
11	+	LOAD/PROU
12	+	LOAD/PROU
13	+	LOAD/PROU
14	+	LOAD/PROU
15	+	LOAD/PROU
16	+	LOAD/PROU
17	+	LOAD/PROU
18	+	LOAD/PROU
19	+	LOAD/PROU
20	+	LOAD/PROU
21	+	LOAD/PROU
22	+	LOAD/PROU
23	+	LOAD/PROU
24	+	LOAD/PROU
25	+	LOAD/PROU
26	+	LOAD/PROU
27	+	LOAD/PROU
28	+	LOAD/PROU
29	+	LOAD/PROU
30	+	LOAD/PROU
31	+	LOAD/PROU
32	+	LOAD/PROU
33	+	LOAD/PROU
34	+	LOAD/PROU
35	+	LOAD/PROU
36	+	LOAD/PROU
37	+	LOAD/PROU
38	+	LOAD/PROU
39	+	LOAD/PROU
40	+	LOAD/PROU
41	+	LOAD/PROU
42	+	LOAD/PROU



SEE SEPARATE PARTS LIST
 EVANS & SUTHERLAND
 COMPUTER CORPORATION
 SALT LAKE CITY, UTAH 84112

LIGHT OCCULTATION
 TRANSFORM
 (w/w)

CONTRACT NO.
 DRAWN R. MELJUS 10-10-77

CHECKED
 MECH
 ELEC
 PROJ. ENG. 11-1-77

APPROVED

UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN INCHES
 .XXX ±
 ANGLES ±

MATERIAL
 FINISH

NEXT ASSY
 USED ON
 APPLICATION

SIZE CODE IDENT NO
 C 53938 200170-600

SCALE NONE

REV NC

SHEET 1 OF 8

3. SERIAL SHIFT LOOP SEQUENCE
 P1 38, 50, 12, 53, 12, 57, 12, 12, 12, 64, 12
 67, 12, 11, 12, 63, 12, 66, 12, P1 54

2. NUMBERS SHOWN REFER TO CONNECTOR P1.
 ALL CAPACITANCE VALUES ARE EXPRESSED
 IN MICROFARADS.
 RESISTANCE VALUES ARE EXPRESSED IN OHMS,
 K DENOTES 1000.
 RESISTORS ARE 1/4 WATT, ±5% TOLERANCE.
 ON ALL 20 PIN I.C.'S, PIN 10 IS GROUND AND
 PIN 20 IS POWER (+5V).
 ON ALL 16 PIN I.C.'S, PIN 8 IS GROUND AND
 PIN 16 IS POWER (+5V).
 ON ALL 14 PIN I.C.'S, PIN 7 IS GROUND AND
 PIN 14 IS POWER (+5V).

1. UNLESS OTHERWISE SPECIFIED;

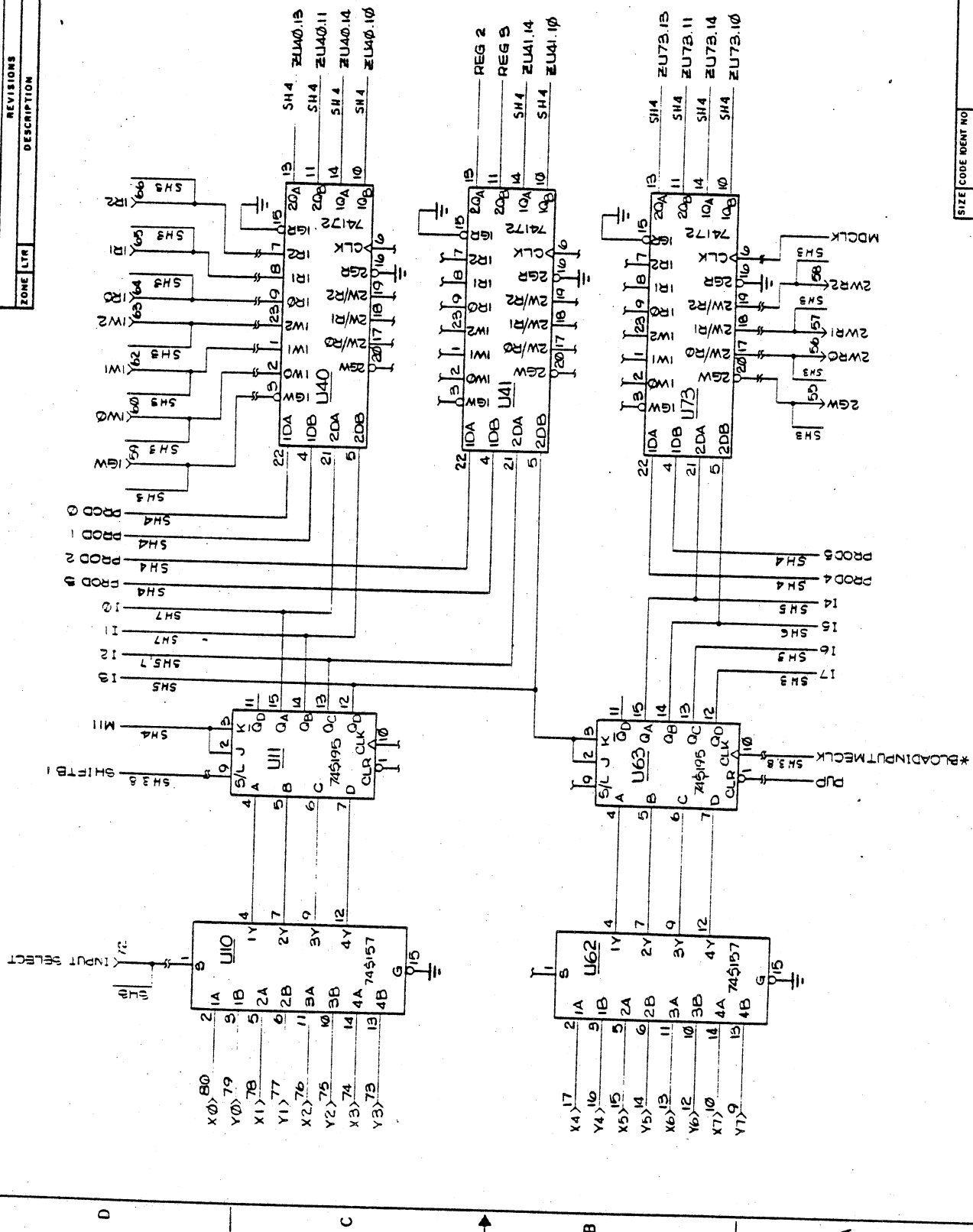
NOTES:

220170-600

200170-600 B

SIZE CODE IDENT NO	REV
C 53938	200170-600 NC
SCALE	SHEET 2 OF 8

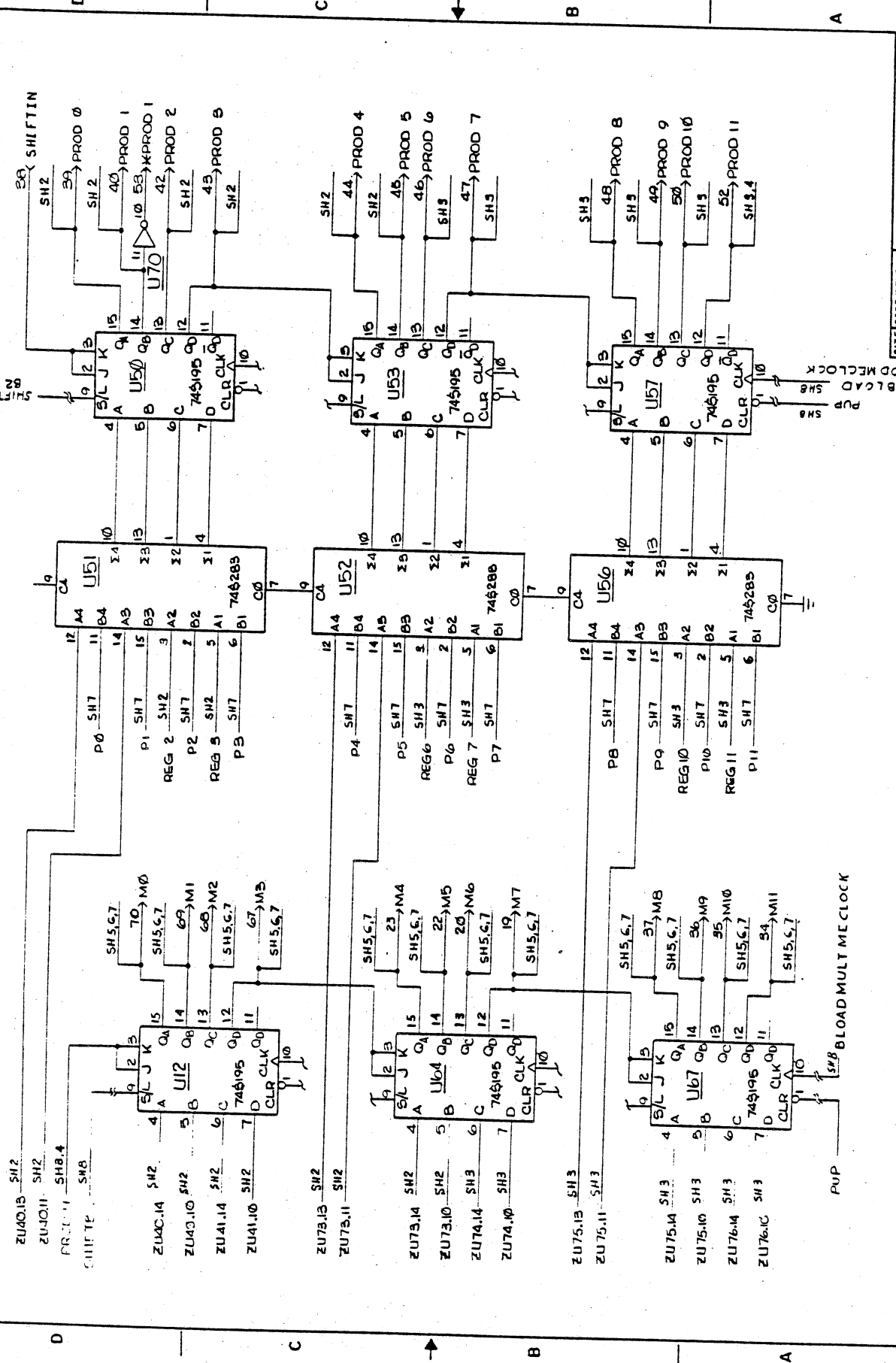
ZONE	LTN	DESCRIPTION	DATE	APPROVED
2				



4 3 2 1

D C B A

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED



SIZE CODE	IDENT NO	REV
C	53938	200170-600
SCALE	1:1	NC
SHEET 4		OF 8

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

2

3

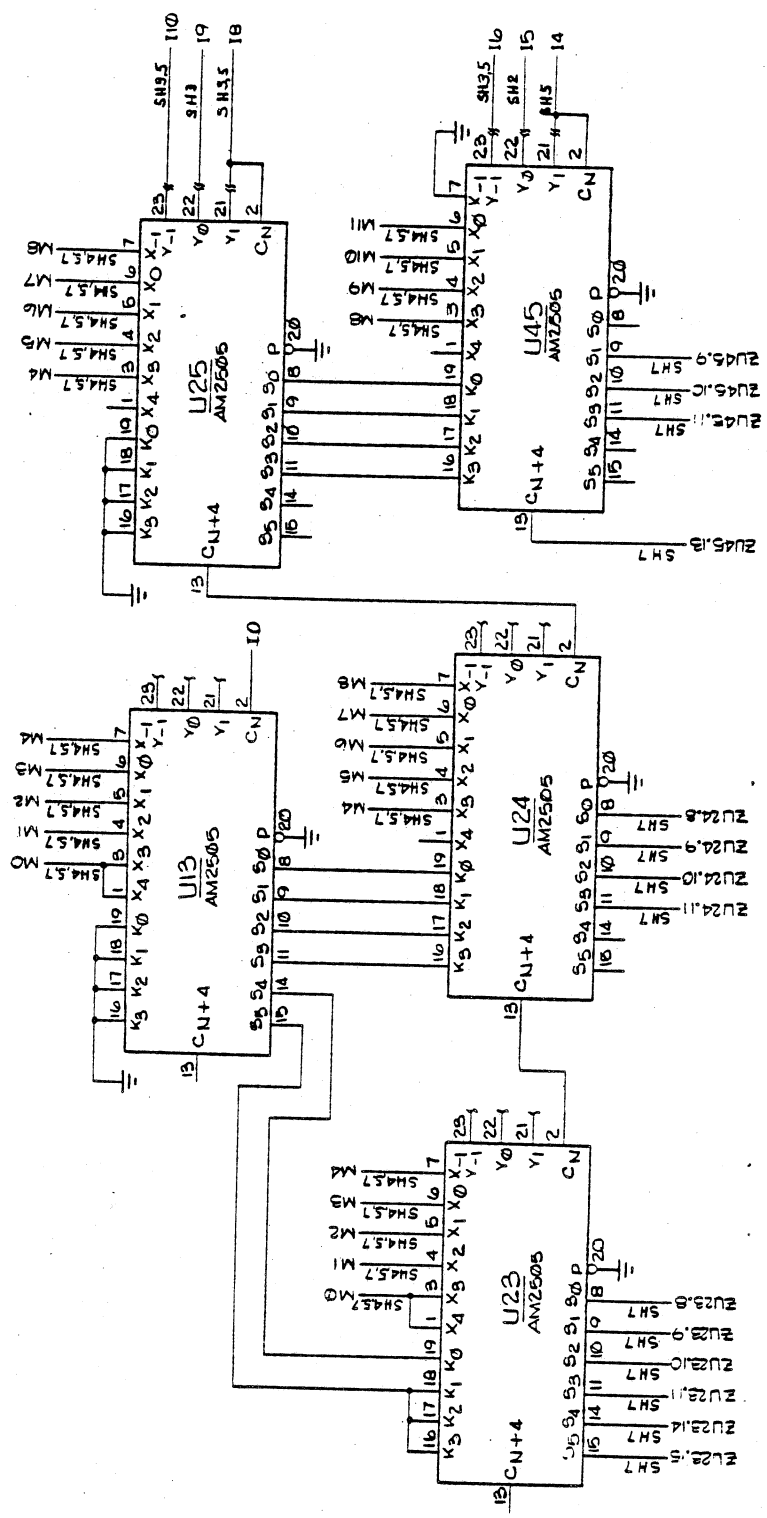
4

D

C

B

A

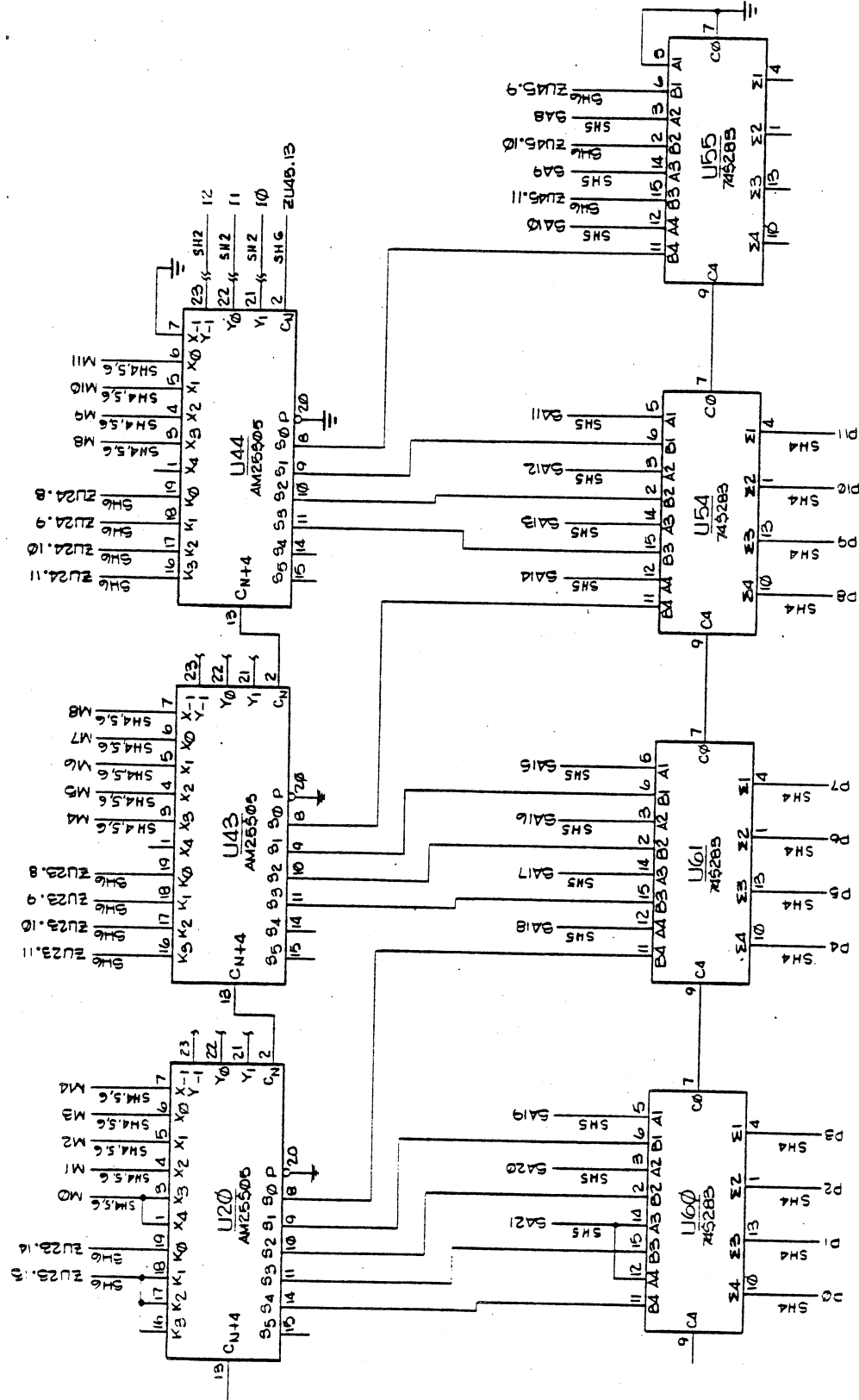


B 200170-600

SIZE CODE	IDENT NO	REV
C	53938	200170-600
SCALE	NONE	SHEET 6 OF 8

REVISIONS		DATE	APPROVED
ZONE	LTR	DESCRIPTION	

4 3 2 1

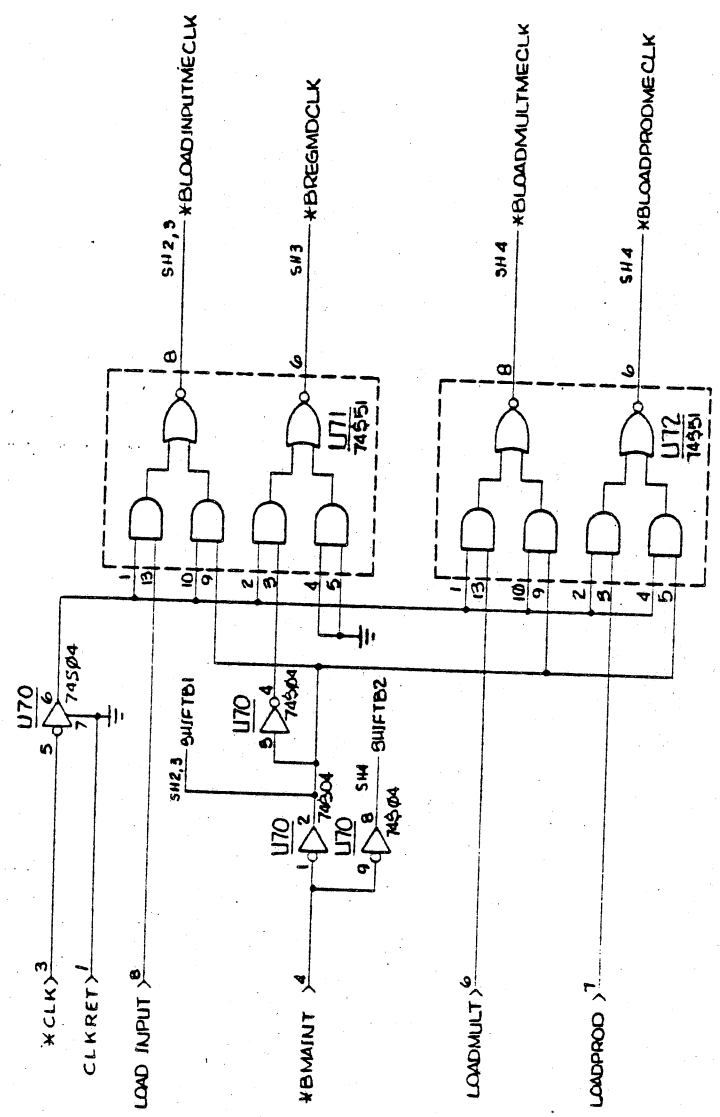


200170-600

SIZE CODE IDENT NO	REV
C 53938	NC
SCALE NONE	SHEET 7 OF 8

200170-600

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

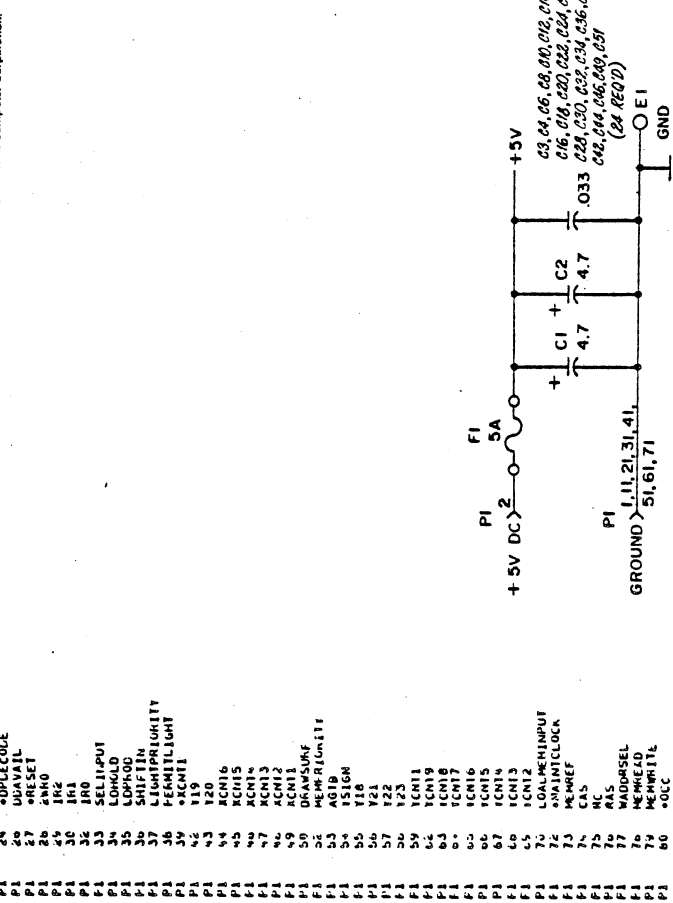


B 200170-600

SIZE CODE IDENT NO	REV
C 53938	NC
SCALE	SHEET B OF 8
200170-600	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
A1		CHANGED LINE 12,13, 12, 0	1-4-77	R-17/14/1
A2		CHANGED SYNC. MEM. TIMING ON	1/24/78	12 C. L.P.
A3		DELETED DIS & UNIB. CHANGES, SH 5, 13, 14, 18	12/14/78	R-17/14/1

NOTICE -
 All information contained herein together with all drawings, diagrams and specifications herein or attached here to, are, and remain, the property of Evans & Sutherland Computer Corporation. Many of the intellectual and technical concepts described herein are proprietary to Evans & Sutherland and may be covered by U. S. and Foreign Patents or Patents Pending or are protected as trade secrets. No part of this information or reproduction of this material for any other purpose, other than the express purpose for which it has been furnished, is to be made without the express permission in writing from Evans & Sutherland Computer Corporation.



2

3

4

REF DESIG	PART NO	VENDOR PART NUMBER	QTY	REF DESIG	PART NO	VENDOR PART NUMBER	QTY	REF DESIG	PART NO	VENDOR PART NUMBER	QTY	REF DESIG	PART NO	VENDOR PART NUMBER	QTY
C 1	004102-475	C5130F475K	1	U 43	007663-055	SM745163M	1	U 43	007663-055	SM745163M	1	U 43	007663-055	SM745163M	1
C 2	004102-475	C5130F475K	1	U 44	007663-055	SM745163M	1	U 44	007663-055	SM745163M	1	U 44	007663-055	SM745163M	1
C 3	004115-333	C15C333M	1	U 45	007663-055	SM745163M	1	U 45	007663-055	SM745163M	1	U 45	007663-055	SM745163M	1
C 4	004115-333	C15C333M	1	U 50	007403-055	SM74503M	1	U 50	007403-055	SM74503M	1	U 50	007403-055	SM74503M	1
C 5	004115-333	C15C333M	1	U 51	007403-055	SM74503M	1	U 51	007403-055	SM74503M	1	U 51	007403-055	SM74503M	1
C 6	004115-333	C15C333M	1	U 52	007403-055	SM74503M	1	U 52	007403-055	SM74503M	1	U 52	007403-055	SM74503M	1
C 10	004115-333	C15C333M	1	U 53	007403-055	SM74503M	1	U 53	007403-055	SM74503M	1	U 53	007403-055	SM74503M	1
C 14	004115-333	C15C333M	1	U 54	007403-055	SM74503M	1	U 54	007403-055	SM74503M	1	U 54	007403-055	SM74503M	1
C 16	004115-333	C15C333M	1	U 55	007403-055	SM74503M	1	U 55	007403-055	SM74503M	1	U 55	007403-055	SM74503M	1
C 20	004115-333	C15C333M	1	U 56	007403-055	SM74503M	1	U 56	007403-055	SM74503M	1	U 56	007403-055	SM74503M	1
C 22	004115-333	C15C333M	1	U 57	007403-055	SM74503M	1	U 57	007403-055	SM74503M	1	U 57	007403-055	SM74503M	1
C 24	004115-333	C15C333M	1	U 58	007403-055	SM74503M	1	U 58	007403-055	SM74503M	1	U 58	007403-055	SM74503M	1
C 28	004115-333	C15C333M	1	U 59	007403-055	SM74503M	1	U 59	007403-055	SM74503M	1	U 59	007403-055	SM74503M	1
C 30	004115-333	C15C333M	1	U 60	007403-055	SM74503M	1	U 60	007403-055	SM74503M	1	U 60	007403-055	SM74503M	1
C 32	004115-333	C15C333M	1	U 61	007403-055	SM74503M	1	U 61	007403-055	SM74503M	1	U 61	007403-055	SM74503M	1
C 34	004115-333	C15C333M	1	U 62	007403-055	SM74503M	1	U 62	007403-055	SM74503M	1	U 62	007403-055	SM74503M	1
C 38	004115-333	C15C333M	1	U 63	007403-055	SM74503M	1	U 63	007403-055	SM74503M	1	U 63	007403-055	SM74503M	1
C 42	004115-333	C15C333M	1	U 64	007403-055	SM74503M	1	U 64	007403-055	SM74503M	1	U 64	007403-055	SM74503M	1
C 44	004115-333	C15C333M	1	U 65	007403-055	SM74503M	1	U 65	007403-055	SM74503M	1	U 65	007403-055	SM74503M	1
C 46	004115-333	C15C333M	1	U 66	007403-055	SM74503M	1	U 66	007403-055	SM74503M	1	U 66	007403-055	SM74503M	1
C 48	004115-333	C15C333M	1	U 67	007403-055	SM74503M	1	U 67	007403-055	SM74503M	1	U 67	007403-055	SM74503M	1
C 50	004115-333	C15C333M	1	U 68	007403-055	SM74503M	1	U 68	007403-055	SM74503M	1	U 68	007403-055	SM74503M	1
C 52	004103-101	00-101	1	U 69	007403-055	SM74503M	1	U 69	007403-055	SM74503M	1	U 69	007403-055	SM74503M	1
R 1	003201-471		1	U 70	007403-055	SM74503M	1	U 70	007403-055	SM74503M	1	U 70	007403-055	SM74503M	1
R 2	003201-271		1	U 71	007403-055	SM74503M	1	U 71	007403-055	SM74503M	1	U 71	007403-055	SM74503M	1
R 3	003201-271		1	U 72	007403-055	SM74503M	1	U 72	007403-055	SM74503M	1	U 72	007403-055	SM74503M	1
R 4	003201-153		1	U 73	007403-055	SM74503M	1	U 73	007403-055	SM74503M	1	U 73	007403-055	SM74503M	1
U 10	007406-647	9401	1	U 74	007403-055	SM74503M	1	U 74	007403-055	SM74503M	1	U 74	007403-055	SM74503M	1
U 11	007330-646	SM74109M	1	U 75	007403-055	SM74503M	1	U 75	007403-055	SM74503M	1	U 75	007403-055	SM74503M	1
U 12	007330-646	SM74109M	1	U 76	007403-055	SM74503M	1	U 76	007403-055	SM74503M	1	U 76	007403-055	SM74503M	1
U 13	007413-446	SM74164M	1	U 77	007403-055	SM74503M	1	U 77	007403-055	SM74503M	1	U 77	007403-055	SM74503M	1
U 14	007413-446	SM74164M	1	U 78	007403-055	SM74503M	1	U 78	007403-055	SM74503M	1	U 78	007403-055	SM74503M	1
U 15	007400-055	SM74503M	1	U 79	007403-055	SM74503M	1	U 79	007403-055	SM74503M	1	U 79	007403-055	SM74503M	1
U 20	007416-055	SM74503M	1	U 80	007403-055	SM74503M	1	U 80	007403-055	SM74503M	1	U 80	007403-055	SM74503M	1
U 21	007416-055	SM74503M	1	U 81	007403-055	SM74503M	1	U 81	007403-055	SM74503M	1	U 81	007403-055	SM74503M	1
U 22	007330-646	SM74109M	1	U 82	007403-055	SM74503M	1	U 82	007403-055	SM74503M	1	U 82	007403-055	SM74503M	1
U 23	007330-646	SM74109M	1	U 83	007403-055	SM74503M	1	U 83	007403-055	SM74503M	1	U 83	007403-055	SM74503M	1
U 24	007408-055	SM74503M	1	U 84	007403-055	SM74503M	1	U 84	007403-055	SM74503M	1	U 84	007403-055	SM74503M	1
U 25	007408-055	SM74503M	1	U 85	007403-055	SM74503M	1	U 85	007403-055	SM74503M	1	U 85	007403-055	SM74503M	1
U 26	007416-055	SM74503M	1	U 86	007403-055	SM74503M	1	U 86	007403-055	SM74503M	1	U 86	007403-055	SM74503M	1
U 30	007420-055	SM74503M	1	U 87	007403-055	SM74503M	1	U 87	007403-055	SM74503M	1	U 87	007403-055	SM74503M	1
U 31	007420-055	SM74503M	1	U 88	007403-055	SM74503M	1	U 88	007403-055	SM74503M	1	U 88	007403-055	SM74503M	1
U 32	007403-055	SM74503M	1	U 89	007403-055	SM74503M	1	U 89	007403-055	SM74503M	1	U 89	007403-055	SM74503M	1
U 33	007403-055	SM74503M	1	U 90	007403-055	SM74503M	1	U 90	007403-055	SM74503M	1	U 90	007403-055	SM74503M	1
U 34	007403-055	SM74503M	1	U 91	007403-055	SM74503M	1	U 91	007403-055	SM74503M	1	U 91	007403-055	SM74503M	1
U 35	007403-055	SM74503M	1	U 92	007403-055	SM74503M	1	U 92	007403-055	SM74503M	1	U 92	007403-055	SM74503M	1
U 36	007403-055	SM74503M	1	U 93	007403-055	SM74503M	1	U 93	007403-055	SM74503M	1	U 93	007403-055	SM74503M	1
U 42	007416-055	SM74503M	1	U 94	007403-055	SM74503M	1	U 94	007403-055	SM74503M	1	U 94	007403-055	SM74503M	1

3. SERIAL SHIFT LOOP SEQUENCE
 PI.36, 55.12, 65.12, 54.12, 64.12, 53.12
 63.12, 52.12, 62.12, 71.5, P1.7

2. NUMBERS SHOWN REFER TO CONNECTOR P1.
 ALL CAPACITANCE VALUES ARE EXPRESSED
 IN MICROFARADS.
 RESISTANCE VALUES ARE EXPRESSED IN OHMS,
 K DENOTES 1000.
 RESISTORS ARE 1/4 WATT, ± 5% TOLERANCE.
 ON ALL 20 PIN I.C.'S, PIN 10 IS GROUND AND
 PIN 20 IS POWER (+5V).
 ON ALL 16 PIN I.C.'S, PIN B IS GROUND AND
 PIN 16 IS POWER (+5V).
 ON ALL 14 PIN I.C.'S, PIN 7 IS GROUND AND
 PIN 14 IS POWER (+5V).
 UNLESS OTHERWISE SPECIFIED;

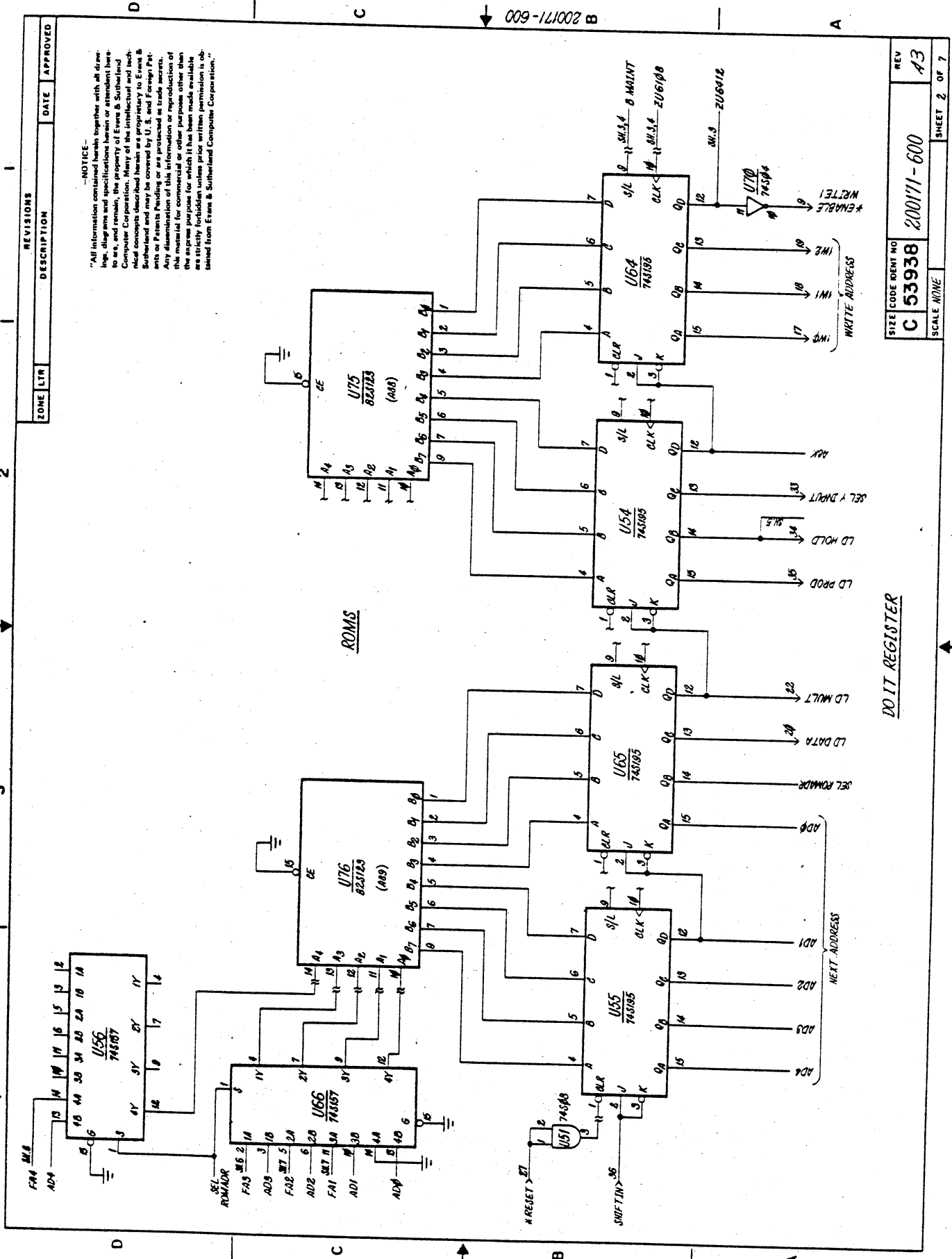
NOTES:

SEE SEPARATE PARTS LIST	
EVANS & SUTHERLAND COMPUTER CORPORATION	SALT LAKE CITY, UTAH 84112
LIGHT OCCULTATION CONTROL	
M/W	
SIZE CODE IDENT NO	C 53938
SCALE	NONE
REV	A3

CONTRACT NO.	CHECKED ART. COM. GUR. 9-6-77
DRAWN BY P. HOLLEY	9-6-77
MECH	ELEC
PROJ. ENG.	APPROVED
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON .XX ± .XXX ± ANGLES ±	
MATERIAL	FINISH
200130-100	NOVODIEN
MEET ASSY	USED ON
APPLICATION	

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

NOTICE—
 All information contained herein together with all drawings, diagrams and specifications herein or attached hereto are the property of Ervco & Sutherland Computer Corporation. Memory of the structure and technical concepts described herein are reserved to Ervco & Sutherland and may be covered by U.S. and Foreign Patents or Patents Pending or are protected as trade secrets. Any dissemination of this information or reproduction of the material for commercial or other purposes other than the express purpose for which it has been made available are strictly forbidden unless prior written permission is obtained from Ervco & Sutherland Computer Corporation.



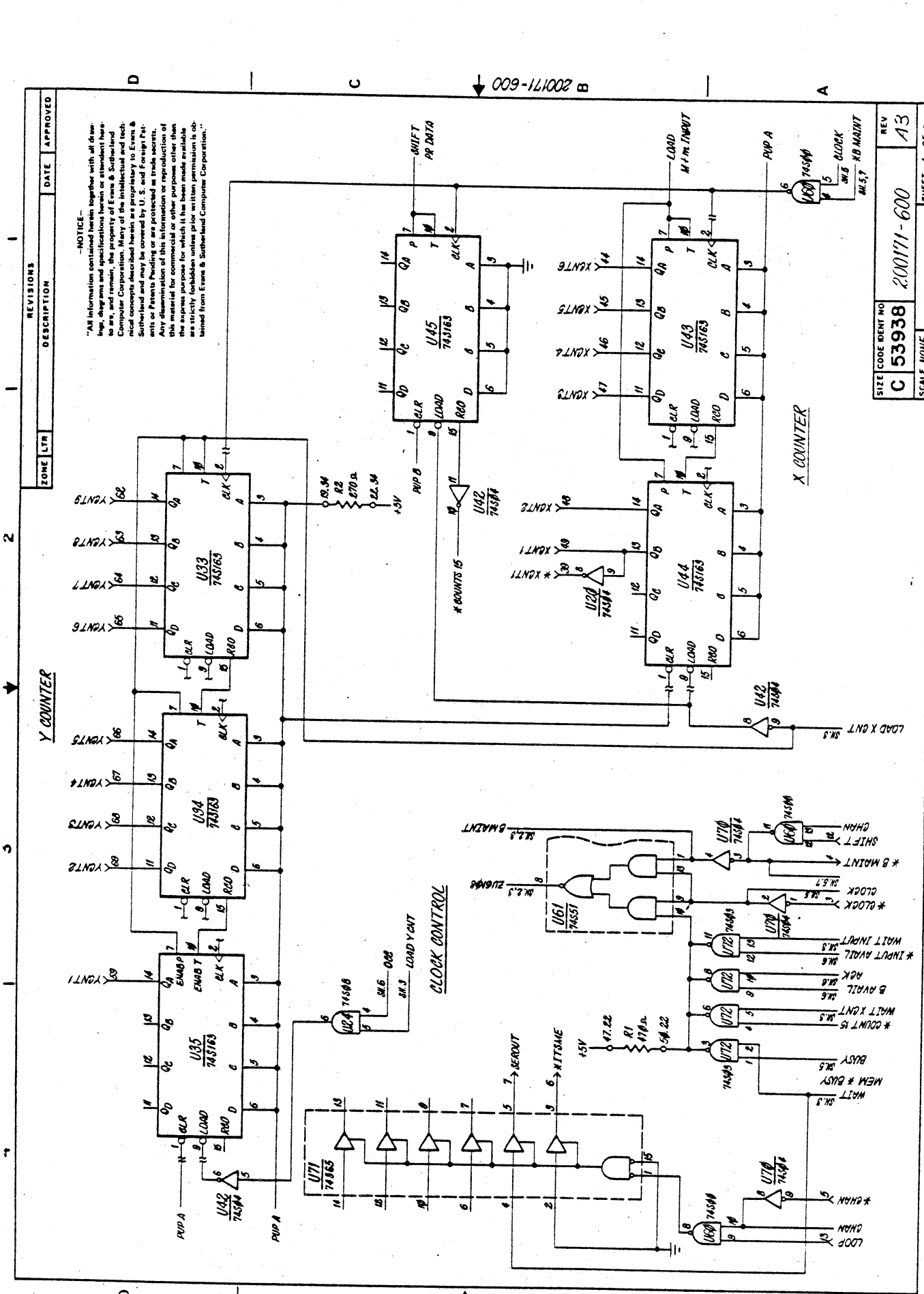
SIZE CODE BENT NO	REV
C 53938	A3
SCALE NONE	SHEET 2 OF 7

DO IT REGISTER

200171-600

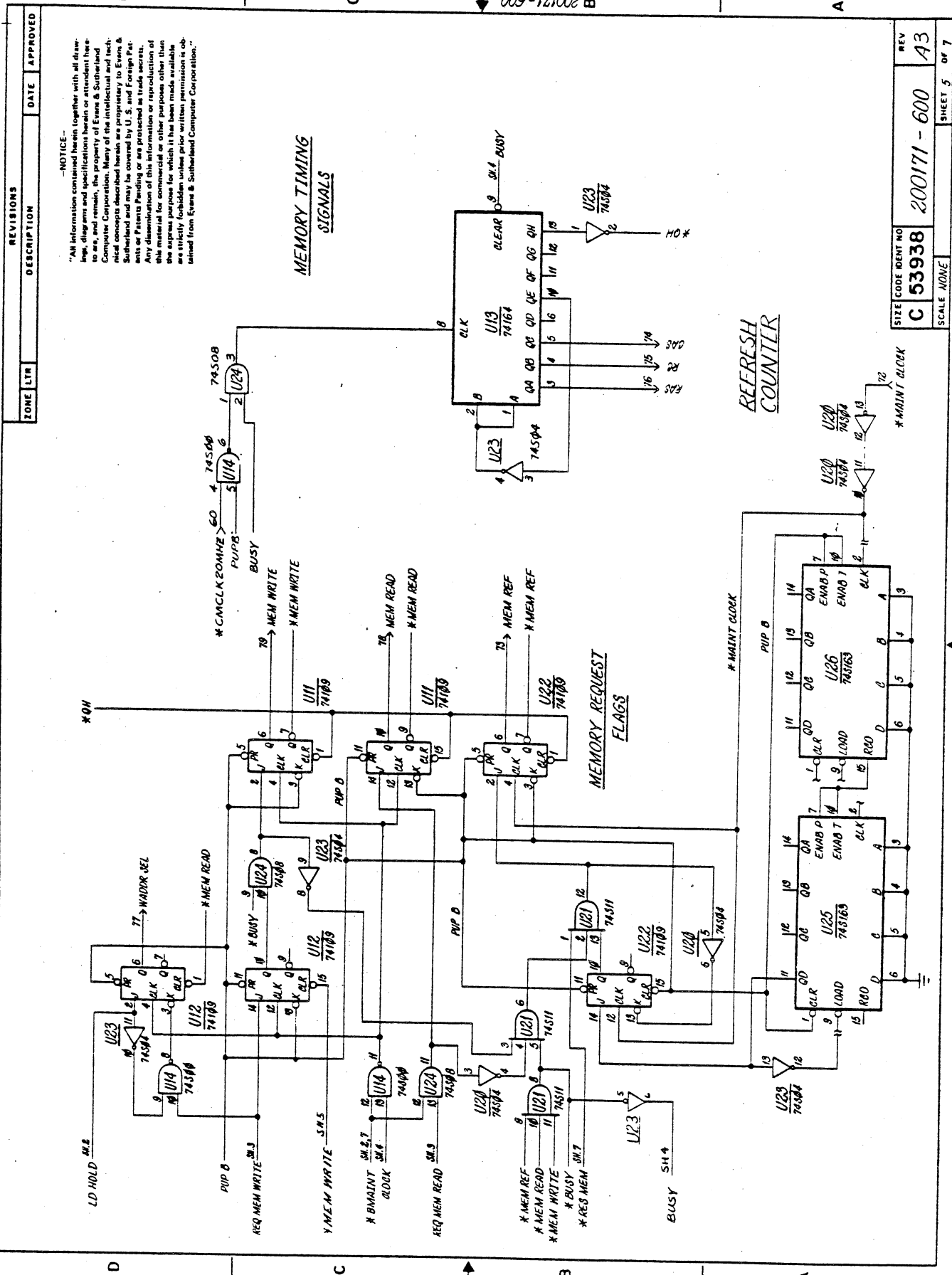
ZONE	LTR	DESCRIPTION	DATE	APPROVED

NOTICE
 "All information contained herein together with all drawings, diagrams and specifications herein or attached hereto are, and remain, the property of Eves & Sutherland Computer Corporation. Many of the intellectual and technical concepts described herein are proprietary to Eves & Sutherland Computer Corporation. Any reproduction, copying, or dissemination of this information without the express permission of Eves & Sutherland Computer Corporation is strictly forbidden unless prior written permission is obtained from Eves & Sutherland Computer Corporation."



SIZE CODE BENT NO	200171-600	REV	A3
C 53938		SHEET	4 OF 7
SCALE	NONE		

200171-600



NOTICE--
 "All information contained herein together with all drawings, diagrams and specifications herein or attendant here to, are, and remain, the property of Evans & Sutherland Computer Corporation. Many of the intellectual and technical concepts described herein are proprietary to Evans & Sutherland and may be covered by U.S. and Foreign Patents or Patents Pending. No information or material of this material for commercial or other purposes other than the express purpose for which it has been made available is strictly forbidden unless prior written permission is obtained from Evans & Sutherland Computer Corporation."

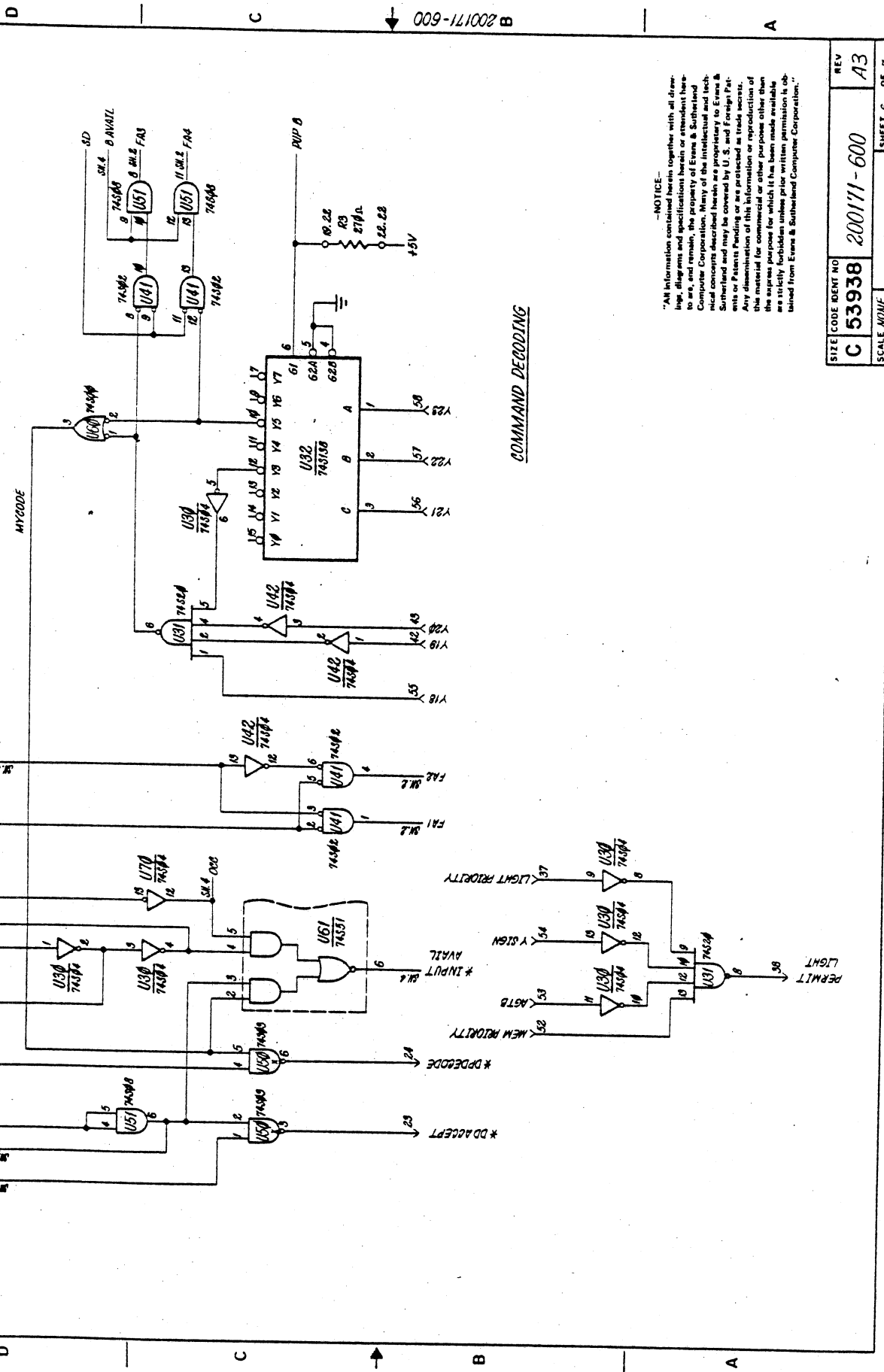
ZONE	LTR	DESCRIPTION	DATE	APPROVED

1
 2
 3
 4

200171-600 B

200171-600

ZONE	LT#	DESCRIPTION	DATE	APPROVED

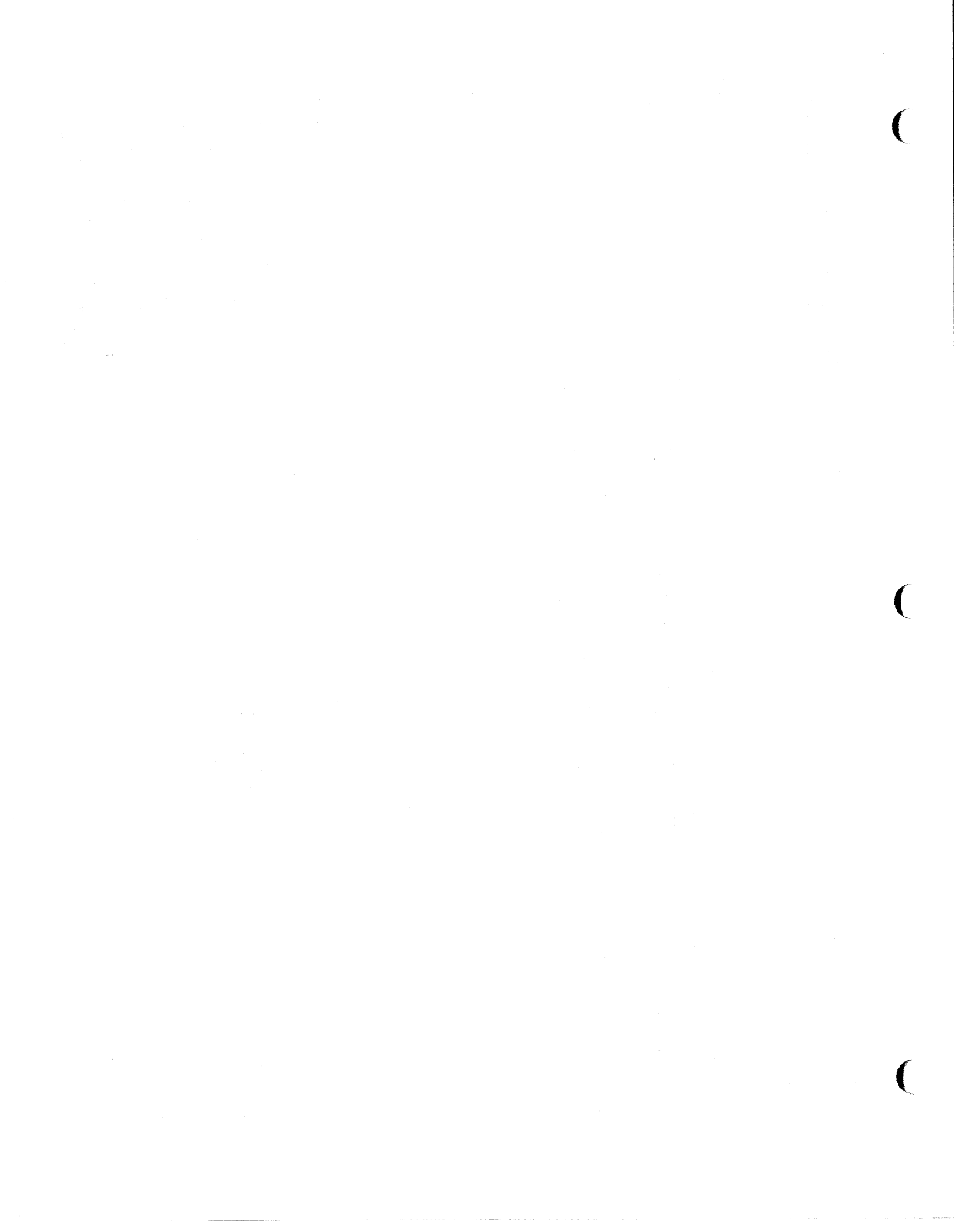


COMMAND DECODING

-NOTICE-
 All information contained herein together with all drawings, diagrams and specifications herein or attached hereto, are, and remain, the property of Evans & Sutherland Computer Corporation. Many of the intellectual and technical concepts described herein are proprietary to Evans & Sutherland and may be covered by U.S. and Foreign Patents or Patents Pending or are protected as trade secrets. Any dissemination of this information or reproduction of this material for commercial or other purposes other than the express purpose for which it has been made available is strictly forbidden unless prior written permission is obtained from Evans & Sutherland Computer Corporation.

SIZE CODE IDENT NO	REV
C 53938	A3
SCALE NONE	SHEET 6 OF 7

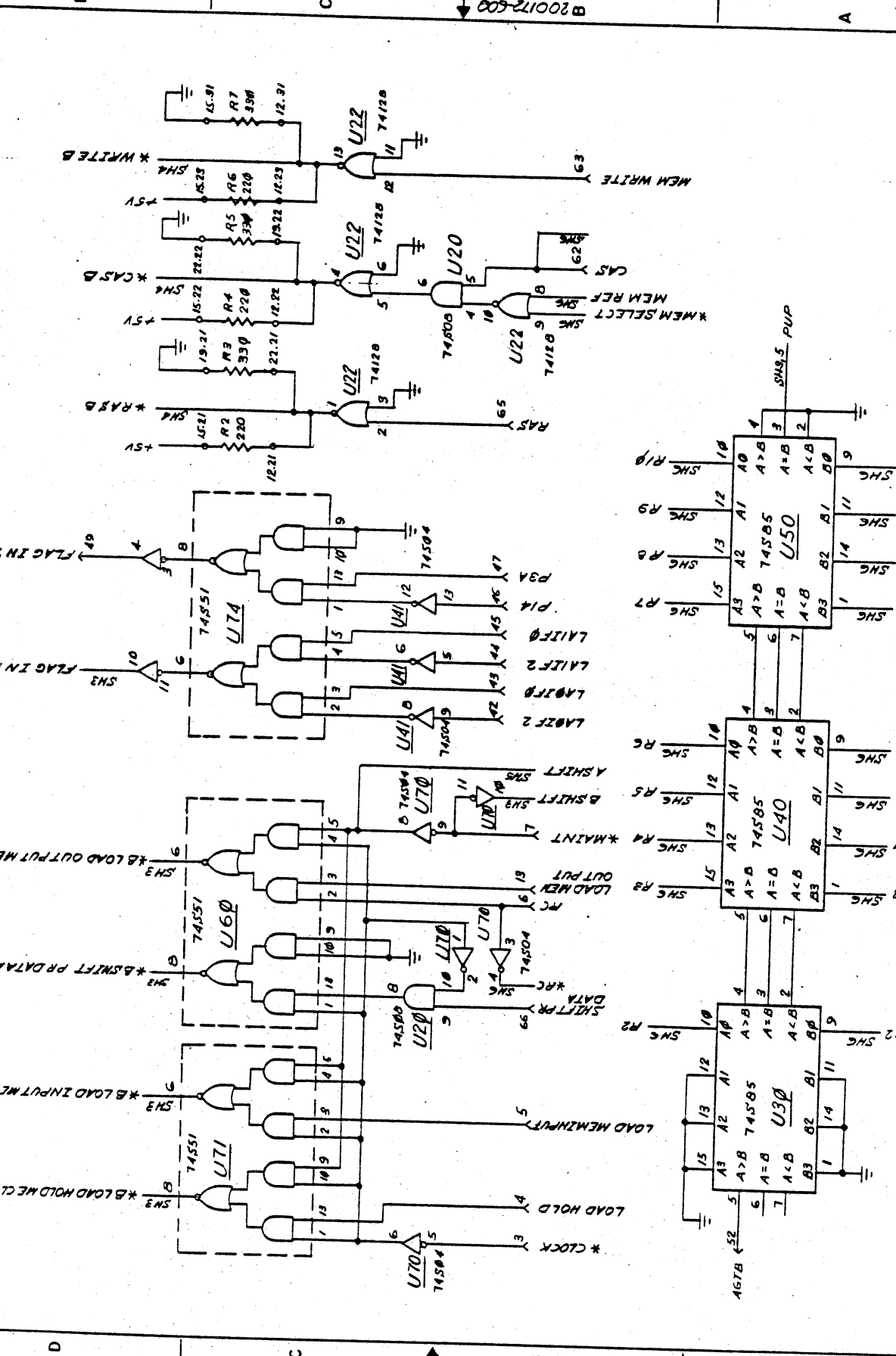
009-111000 B



REF	DESIG	PART NO	VEHICLE PART NUMBER	DESIG	PART NO	VEHICLE PART NUMBER	REF	DESIG	PART NO	VEHICLE PART NUMBER	VEHICLE PART NUMBER	DESCRIPTION	DATE	APPROVED
5	80A321-808	LN320H-5.0	CV20C104H	C 73	80A115-104	CV20C104H	U 21	807401-035	80A11517H	80A11517H	80A11517H	REVISIONS		
9	80A321-808	LN320H-5.0	CV20C104H	C 74	80A115-104	CV20C104H	U 22	807401-035	80A11517H	80A11517H	80A11517H	DESCRIPTION		
11	80A321-808	LN320H-5.0	CV20C104H	C 75	80A115-104	CV20C104H	U 23	807401-035	80A11517H	80A11517H	80A11517H			
C 1	80A102-875	CS1138F415K		C 76	80A115-104	CV20C104H	U 24	807423-849	MK4118P3	MK4118P3				
C 2	80A102-875	CS1138F415K		C 77	80A115-104	CV20C104H	U 25	807423-849	MK4118P3	MK4118P3				
C 3	80A115-333	CV15C333M		C 78	80A115-104	CV20C104H	U 26	807423-849	MK4118P3	MK4118P3				
C 4	80A115-333	CV15C333M		U 27	807423-849	MK4118P3	U 27	807423-849	MK4118P3	MK4118P3				
C 5	80A115-333	CV15C333M		U 28	807423-849	MK4118P3	U 28	807423-849	MK4118P3	MK4118P3				
C 6	80A115-333	CV15C333M		U 29	807423-849	MK4118P3	U 29	807423-849	MK4118P3	MK4118P3				
C 7	80A115-333	CV15C333M		U 30	807423-849	MK4118P3	U 30	807423-849	MK4118P3	MK4118P3				
C 8	80A115-333	CV15C333M		U 31	807423-849	MK4118P3	U 31	807423-849	MK4118P3	MK4118P3				
C 9	80A115-333	CV15C333M		U 32	807423-849	MK4118P3	U 32	807423-849	MK4118P3	MK4118P3				
C 10	80A115-333	CV15C333M		U 33	807423-849	MK4118P3	U 33	807423-849	MK4118P3	MK4118P3				
C 11	80A115-333	CV15C333M		U 34	807423-849	MK4118P3	U 34	807423-849	MK4118P3	MK4118P3				
C 12	80A115-333	CV15C333M		U 35	807423-849	MK4118P3	U 35	807423-849	MK4118P3	MK4118P3				
C 13	80A115-333	CV15C333M		U 36	807423-849	MK4118P3	U 36	807423-849	MK4118P3	MK4118P3				
C 14	80A115-333	CV15C333M		U 37	807423-849	MK4118P3	U 37	807423-849	MK4118P3	MK4118P3				
C 15	80A115-333	CV15C333M		U 38	807423-849	MK4118P3	U 38	807423-849	MK4118P3	MK4118P3				
C 16	80A115-333	CV15C333M		U 39	807423-849	MK4118P3	U 39	807423-849	MK4118P3	MK4118P3				
C 17	80A115-333	CV15C333M		U 40	807423-849	MK4118P3	U 40	807423-849	MK4118P3	MK4118P3				
C 18	80A115-333	CV15C333M		U 41	807423-849	MK4118P3	U 41	807423-849	MK4118P3	MK4118P3				
C 19	80A115-333	CV15C333M		U 42	807423-849	MK4118P3	U 42	807423-849	MK4118P3	MK4118P3				
C 20	80A115-333	CV15C333M		U 43	807423-849	MK4118P3	U 43	807423-849	MK4118P3	MK4118P3				
C 21	80A115-333	CV15C333M		U 44	807423-849	MK4118P3	U 44	807423-849	MK4118P3	MK4118P3				
C 22	80A115-333	CV15C333M		U 45	807423-849	MK4118P3	U 45	807423-849	MK4118P3	MK4118P3				
C 23	80A115-333	CV15C333M		U 46	807423-849	MK4118P3	U 46	807423-849	MK4118P3	MK4118P3				
C 24	80A115-333	CV15C333M		U 47	807423-849	MK4118P3	U 47	807423-849	MK4118P3	MK4118P3				
C 25	80A115-333	CV15C333M		U 48	807423-849	MK4118P3	U 48	807423-849	MK4118P3	MK4118P3				
C 26	80A115-333	CV15C333M		U 49	807423-849	MK4118P3	U 49	807423-849	MK4118P3	MK4118P3				
C 27	80A115-333	CV15C333M		U 50	807423-849	MK4118P3	U 50	807423-849	MK4118P3	MK4118P3				
C 28	80A115-333	CV15C333M		U 51	807423-849	MK4118P3	U 51	807423-849	MK4118P3	MK4118P3				
C 29	80A115-333	CV15C333M		U 52	807423-849	MK4118P3	U 52	807423-849	MK4118P3	MK4118P3				
C 30	80A115-333	CV15C333M		U 53	807423-849	MK4118P3	U 53	807423-849	MK4118P3	MK4118P3				
C 31	80A115-333	CV15C333M		U 54	807423-849	MK4118P3	U 54	807423-849	MK4118P3	MK4118P3				
C 32	80A115-333	CV15C333M		U 55	807423-849	MK4118P3	U 55	807423-849	MK4118P3	MK4118P3				
C 33	80A115-333	CV15C333M		U 56	807423-849	MK4118P3	U 56	807423-849	MK4118P3	MK4118P3				
C 34	80A115-333	CV15C333M		U 57	807423-849	MK4118P3	U 57	807423-849	MK4118P3	MK4118P3				
C 35	80A115-333	CV15C333M		U 58	807423-849	MK4118P3	U 58	807423-849	MK4118P3	MK4118P3				
C 36	80A115-333	CV15C333M		U 59	807423-849	MK4118P3	U 59	807423-849	MK4118P3	MK4118P3				
C 37	80A115-333	CV15C333M		U 60	807423-849	MK4118P3	U 60	807423-849	MK4118P3	MK4118P3				
C 38	80A115-333	CV15C333M		U 61	807423-849	MK4118P3	U 61	807423-849	MK4118P3	MK4118P3				
C 39	80A115-333	CV15C333M		U 62	807423-849	MK4118P3	U 62	807423-849	MK4118P3	MK4118P3				
C 40	80A115-333	CV15C333M		U 63	807423-849	MK4118P3	U 63	807423-849	MK4118P3	MK4118P3				
C 41	80A115-333	CV15C333M		U 64	807423-849	MK4118P3	U 64	807423-849	MK4118P3	MK4118P3				
C 42	80A115-333	CV15C333M		U 65	807423-849	MK4118P3	U 65	807423-849	MK4118P3	MK4118P3				
C 43	80A115-333	CV15C333M		U 66	807423-849	MK4118P3	U 66	807423-849	MK4118P3	MK4118P3				
C 44	80A115-333	CV15C333M		U 67	807423-849	MK4118P3	U 67	807423-849	MK4118P3	MK4118P3				
C 45	80A115-333	CV15C333M		U 68	807423-849	MK4118P3	U 68	807423-849	MK4118P3	MK4118P3				
C 46	80A115-333	CV15C333M		U 69	807423-849	MK4118P3	U 69	807423-849	MK4118P3	MK4118P3				
C 47	80A115-333	CV15C333M		U 70	807423-849	MK4118P3	U 70	807423-849	MK4118P3	MK4118P3				
C 48	80A115-333	CV15C333M		U 71	807423-849	MK4118P3	U 71	807423-849	MK4118P3	MK4118P3				
C 49	80A115-333	CV15C333M		U 72	807423-849	MK4118P3	U 72	807423-849	MK4118P3	MK4118P3				
C 50	80A115-333	CV15C333M		U 73	807423-849	MK4118P3	U 73	807423-849	MK4118P3	MK4118P3				
C 51	80A115-333	CV15C333M		U 74	807423-849	MK4118P3	U 74	807423-849	MK4118P3	MK4118P3				
C 52	80A115-333	CV15C333M		U 75	807423-849	MK4118P3	U 75	807423-849	MK4118P3	MK4118P3				
C 53	80A115-333	CV15C333M		U 76	807423-849	MK4118P3	U 76	807423-849	MK4118P3	MK4118P3				
C 54	80A115-333	CV15C333M		U 77	807423-849	MK4118P3	U 77	807423-849	MK4118P3	MK4118P3				
C 55	80A115-333	CV15C333M		U 78	807423-849	MK4118P3	U 78	807423-849	MK4118P3	MK4118P3				
C 56	80A115-333	CV15C333M		U 79	807423-849	MK4118P3	U 79	807423-849	MK4118P3	MK4118P3				
C 57	80A115-333	CV15C333M		U 80	807423-849	MK4118P3	U 80	807423-849	MK4118P3	MK4118P3				

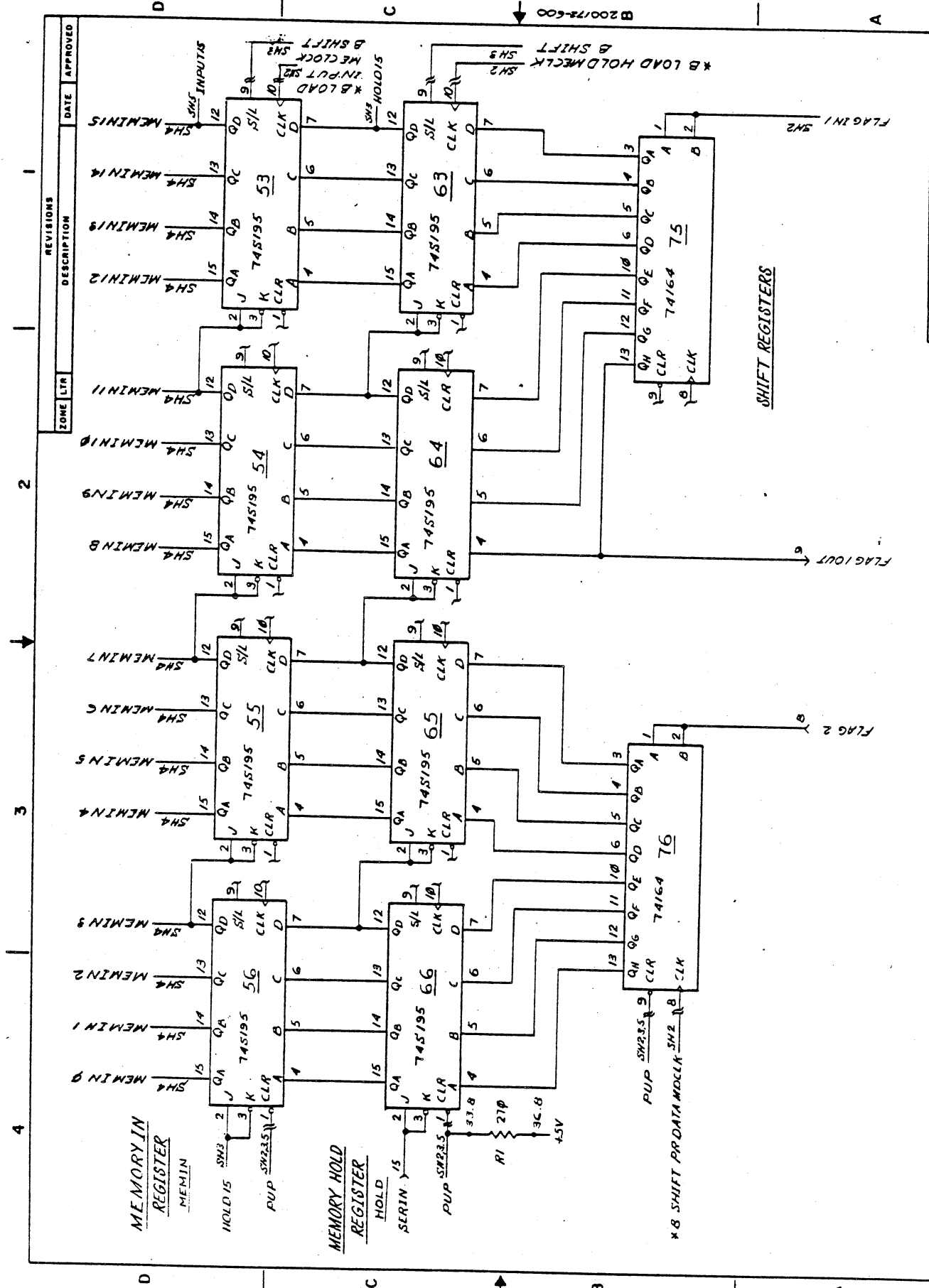
REF	DESIG	PART NO	VEHICLE PART NUMBER	DESIG	PART NO	VEHICLE PART NUMBER	VEHICLE PART NUMBER	DESCRIPTION	DATE	APPROVED
5	80A321-808	LN320H-5.0	CV20C104H	C 73	80A115-104	CV20C104H	80A11517H	*CLOCK		
9	80A321-808	LN320H-5.0	CV20C104H	C 74	80A115-104	CV20C104H	80A11517H	LOAD/HOLD		
11	80A321-808	LN320H-5.0	CV20C104H	C 75	80A115-104	CV20C104H	80A11517H	LOAD/REIN/PUT		
C 1	80A102-875	CS1138F415K		C 76	80A115-104	CV20C104H	80A118P3	MAINT		
C 2	80A102-875	CS1138F415K		C 77	80A115-104	CV20C104H	80A118P3	FLAG2		
C 3	80A115-333	CV15C333M		C 78	80A115-104	CV20C104H	80A118P3	FLAG/OUT		
C 4	80A115-333	CV15C333M		U 27	807423-849	MK4118P3	80A118P3	AAD7		
C 5	80A115-333	CV15C333M		U 28	807423-849	MK4118P3	80A118P3	OUT15		
C 6	80A115-333	CV15C333M		U 29	807423-849	MK4118P3	80A118P3	LOAD/MEMORY/OUTPUT		
C 7	80A115-333	CV15C333M		U 30	807423-849	MK4118P3	80A118P3	MEM/RITE		
C 8	80A115-333	CV15C333M		U 31	807423-849	MK4118P3	80A118P3	MEM/REF		
C 9	80A115-333	CV15C333M		U 32	807423-849	MK4118P3	80A118P3	ALS		
C 10	80A115-333	CV15C333M		U 33	807423-849	MK4118P3	80A118P3	SHIF/TP/DATA		
C 11	80A115-333	CV15C333M		U 34	807423-849	MK4118P3	80A118P3	MEM/RITE		
C 12	80A115-333	CV15C333M		U 35	807423-849	MK4118P3	80A118P3	MEM/REF		
C 13	80A115-333	CV15C333M		U 36	807423-849	MK4118P3	80A118P3	ALS		
C 14	80A115-333	CV15C333M		U 37	807423-849	MK4118P3	80A118P3	SHIF/TP/DATA		
C 15	80A115-333	CV15C333M		U 38	807423-849	MK4118P3	80A118P3	MEM/RITE		
C 16	80A									

ZONE	LTR	REVISIONS	DESCRIPTION	DATE	APPROVED



SIZE CODE	REV
C 53938	NC
SCALE	SHEET 2 OF 7

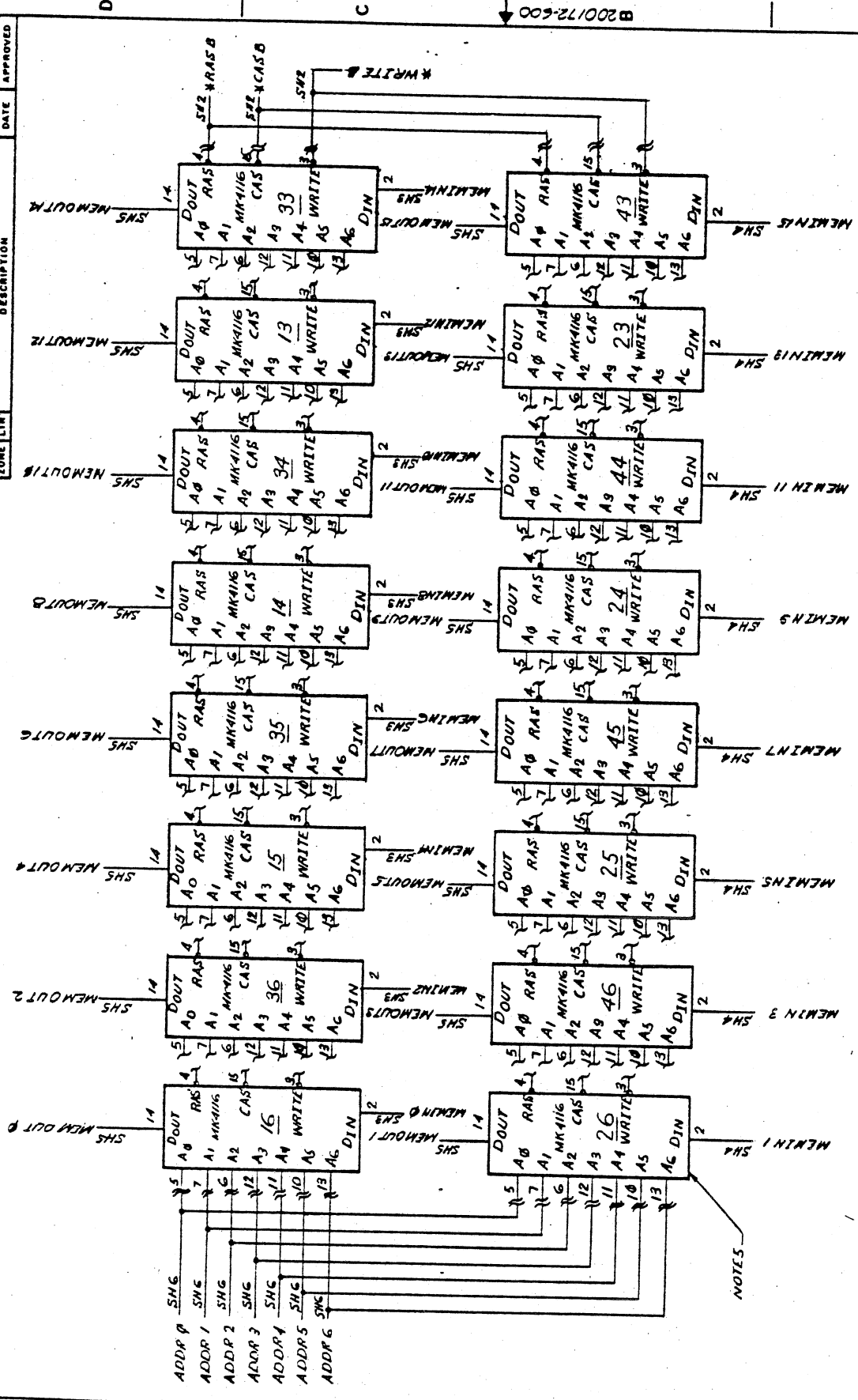
B 200172-600



ZONE	LTR	DESCRIPTION	DATE	APPROVED
1				
2				
3				
4				

B 200172-600

MEMORY

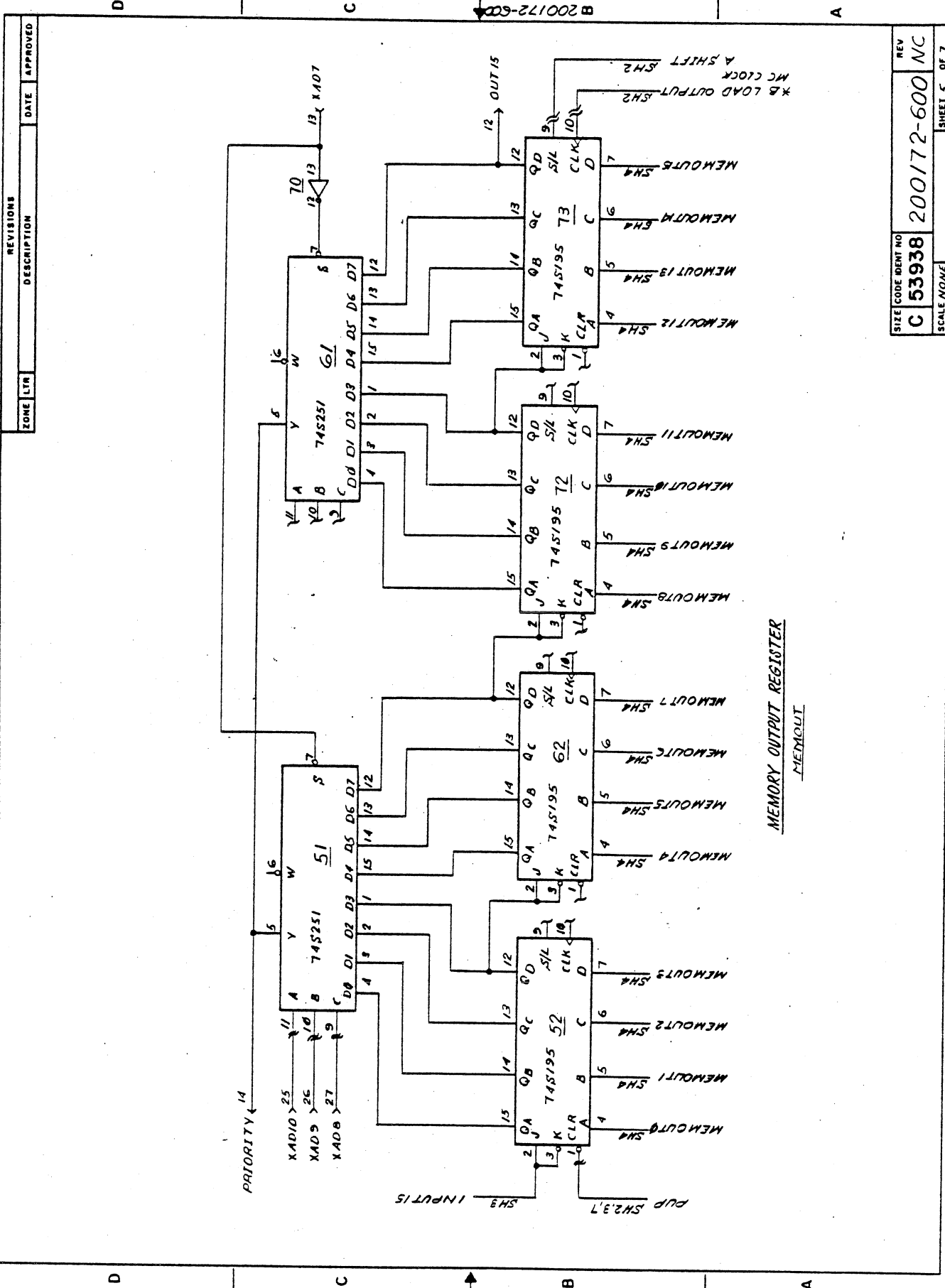


NOTES

ZONE LTR	REVISIONS	DESCRIPTION	DATE	APPROVED

REVISIONS		
ZONE	DATE	APPROVED
LTR		

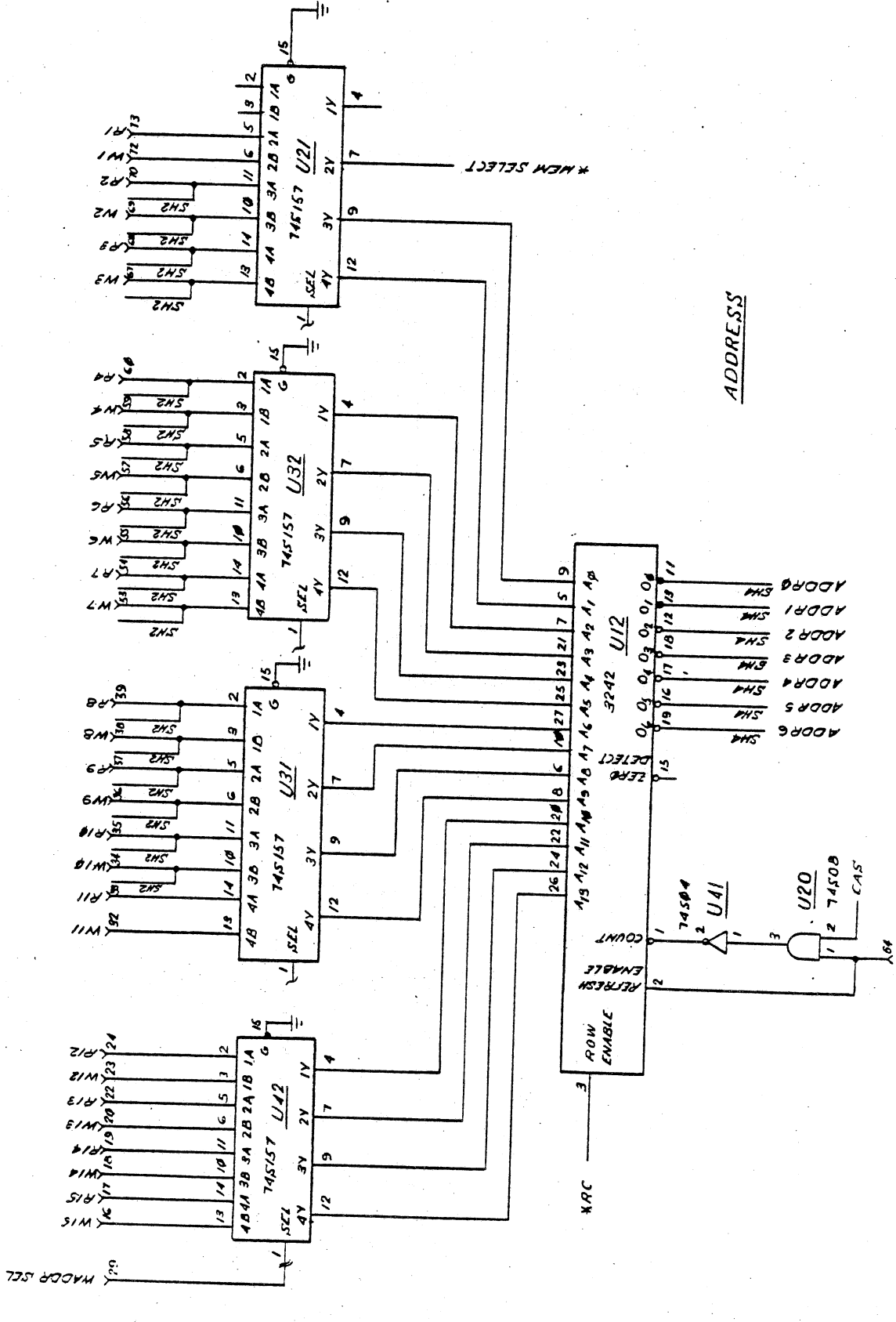
4 3 2 1



MEMORY OUTPUT REGISTER
MEMOUT

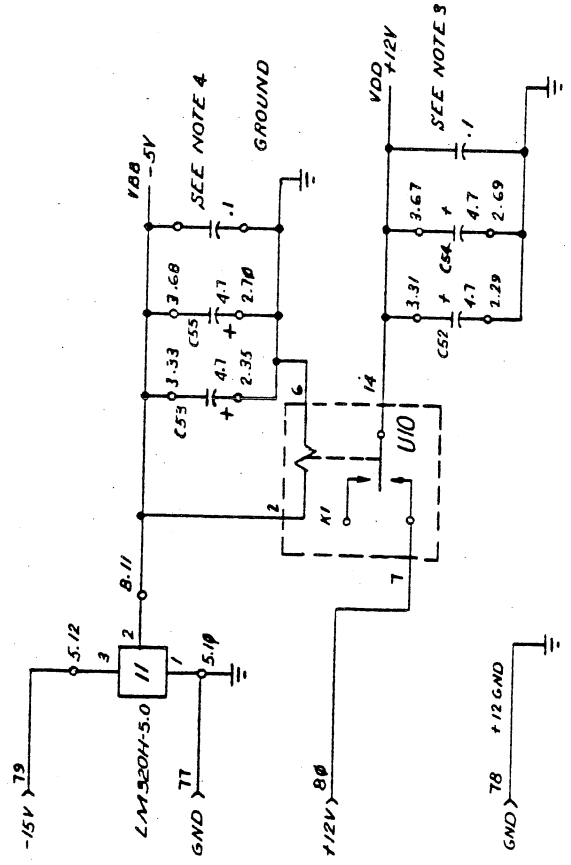
SIZE	CODE IDENT NO	REV
C	53938	200172-600
SCALE	NOV	NC
		SHEET 5 OF 7

B 200172-600



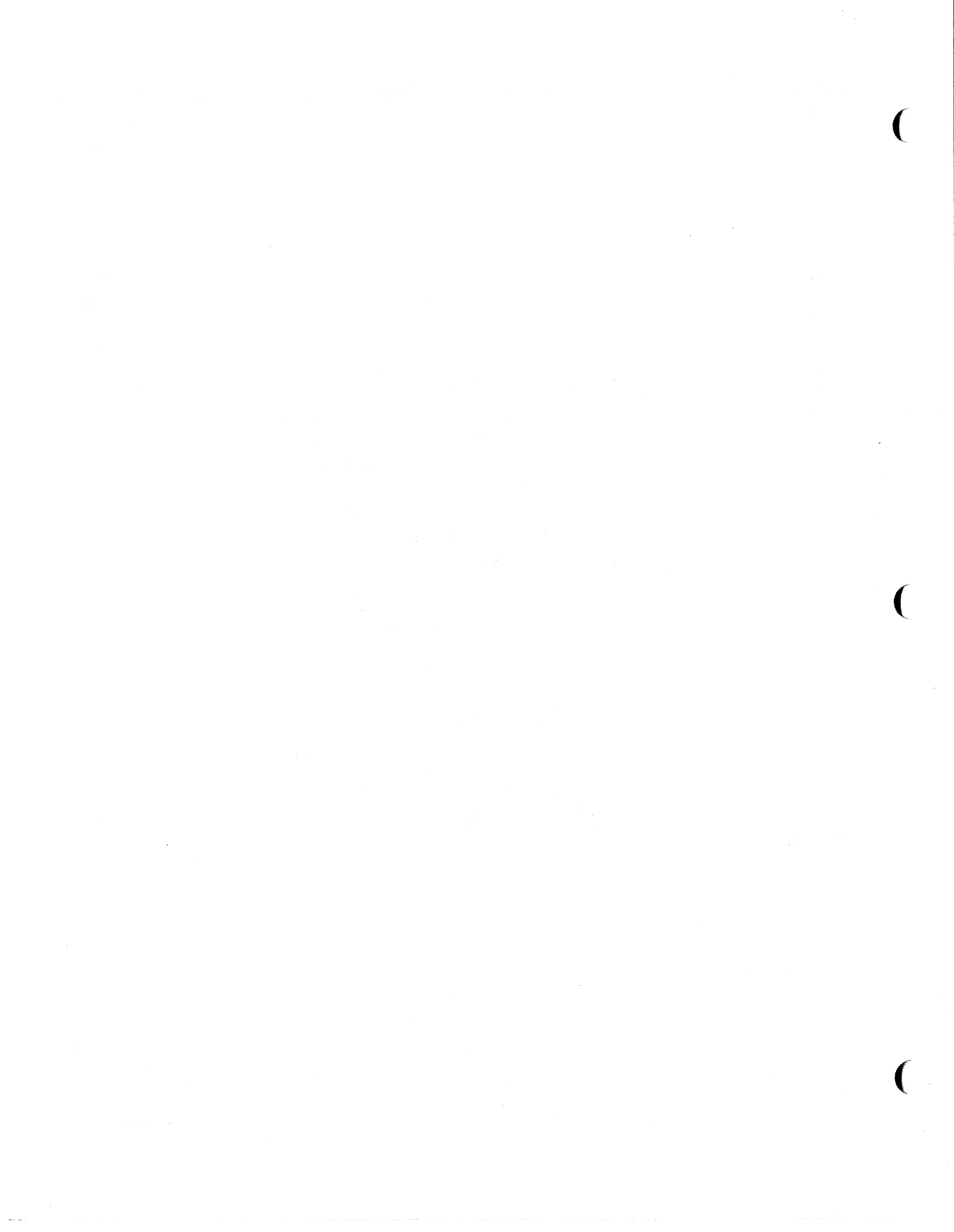
4 3 2 1

REVISIONS		DATE	APPROVED
ZONE	LTR		
DESCRIPTION			



SIZE	CODE	BENT NO	REV
C	53938	200172-600	NC
SCALE: NONE			SHEET 7 OF 7

B 200172-600



BACKPANEL SLOTS ARE WIRED TO ACCEPT THE FOLLOWING CARDS:

SLOT	CARD	SLOT	CARD	SLOT	CARD
1	200108-100	33	NONE	65	NONE
2	200105-100	34	NONE	66	NONE
3	200106-100	35	200172-100	67	200172-100
4	200110-100	36	200170-100	68	200170-100
5	200110-100	37	200171-100	69	200171-100
6	200110-100	38	200165-100	70	200165-100
7	200111-100	39	200165-100	71	200165-100
8	200112-100	40	200165-100	72	200165-100
9	200113-100	41	200165-100	73	200165-100
10	200114-100	42	200160-100	74	200160-100
11	NONE	43	200160-100	75	200160-100
12	200107-100	44	200160-100	76	200160-100
13	200120-100	45	200160-100	77	200160-100
14	200121-100	46	200161-100	78	200161-100
15	200122-100	47	200163-100	79	200163-100
16	200120-100	48	200164-100	80	200164-100
17	200121-100	49	200155-100	81	200155-100
18	200122-100	50	200155-100	82	200155-100
19	200120-100	51	200156-100	83	200156-100
20	200121-100	52	200162-100	84	200162-100
21	200122-100	53	200162-100	85	200162-100
22	200121-100	54	200162-100	86	200162-100
23	200121-100	55	200162-100	87	200162-100
24	200122-100	56	200157-100	88	200157-100
25	200123-100	57	NONE	89	NONE
26	200123-100	58	200159-100	90	200159-100
27	200123-100	59	NONE	91	NONE
28	200123-100	60	200159-100	92	200159-100
29	200123-100	61	NONE	93	NONE
30	200123-100	62	200158-100	94	200158-100
31	200123-100	63	NONE	95	NONE
32	200123-100	64	200158-100	96	200158-100

2
2
2
2

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
1 16	FDATA15	FDATA15	2 37# 1 16#
1 17	FDATA14	FDATA14	2 38# 1 17#
1 18	FDATA13	FDATA13	2 39# 1 18#
1 19	FDATA12	FDATA12	2 42# 1 19#
1 26	FDATA11	FDATA11	2 43# 1 26#
1 27	FDATA10	FDATA10	2 44# 1 27#
1 28	FDATA9	FDATA9	2 45# 1 28#
1 29	FDATA8	FDATA8	2 46# 1 29#
1 40	BUSSELA	FDBUSSELA	2 48# 1 40#
1 42	BUSSELB	FDBUSSELB	2 47# 1 42#
1 44	DATAV	DHDATAV	3 77# 2 64# 1 44
1 45	*ACCGRANT	*DMGRANTA	2 18# 1 45
1 46	*STARTDIO	*FDBSTART	2 76# 1 46
1 47	ATISTAT	DMFNCT1	2 77# 1 47
1 50	FDENOUT	FDENOUT	2 69# 1 50#
1 52	*FORCEZERO	*FDFORCEZERO	2 75# 1 52
1 56	FDATA7	FDATA7	2 49# 1 56#
1 57	FDATA6	FDATA6	2 50# 1 57#
1 58	FDATA5	FDATA5	2 52# 1 58#
1 59	FDATA4	FDATA4	2 53# 1 59#
1 66	FDATA3	FDATA3	2 54# 1 66#
1 67	FDATA2	FDATA2	2 58# 1 67#
1 68	FDATA1	FDATA1	2 59# 1 68#
1 69	FDATA0	FDATA0	2 60# 1 69#
1 72	DHREQ	FDDHREQ	2 28# 1 72#
1 73	LDADR	FDLADR	2 68# 1 73#
1 74	FETCH	FDFETCH	2 67# 1 74#
1 75	STORE	FDFSTORE	2 66# 1 75#
1 77	*RESET	*TIRESET	2 63# 3 78# 1 77
1 79	TICKL	TICKL	1 79# 2 62# 3 40
1 80	GND-10	TICKL	1 80JC 2 71JC 3 41J
2 5	*ICINCBASEADR	*ICINCBASEADR	3 54# 2 5
2 6	*ICLDBASEADR	*ICLDBASEADR	3 52# 2 6
2 7	*ICINCSTRINGADR	*ICINCSTRINGADR	3 56# 2 7
2 8	*ICLDSTRINGADR	*ICLDSTRINGADR	3 55# 2 8
2 9	ICNULLADR	ICNULLADR	3 46# 2 9#
2 10	ICLDADR	ICLDADR	3 50# 2 10
2 12	*ICSELBASEADR	*ICSELBASEADR	3 53# 2 12
2 13	DHDATA15	DAT15	7 78# 6 68
2 14	DHDATA14	DAT14	7 77# 6 65
2 15	DHDATA13	DAT13	7 76# 6 66
2 16	DHDATA12	DAT12	7 75# 6 63
2 17	DHDATA11	DAT11	7 74# 6 75
2 18	*DMGRANTA	*DMGRANTA	2 18# 1 45
2 19	DMGRANTB	DMGRANTB	3 37# 2 19#
2 20	DMGRANTC	DMGRANTC	3 38# 2 20#
2 22	DHDATA10	DAT10	7 73# 6 76
2 25			5 76# 4 76# 2 22# 3 25# 8 14# 9 14#
3 30			5 68# 4 68# 2 13# 9 19#
3 29			5 65# 4 65# 2 14# 9 18#
3 28			5 66# 4 66# 2 15# 9 17#
3 27			5 63# 4 63# 2 16# 9 16#
2 17#			5 75# 4 75# 2 17# 3 26# 8 15# 9 15#

Twisted Pair Return of 1 79

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	5 73	4 73	2 23#	3 24	8 13	9 13
2 23	DMDATA9	DAT9	7 72	6 73					
2 24	DMDATAB	DAT8	7 70	6 74					
2 25	DMDATA7	DAT7	6 62	5 62					
2 26	DMDATA6	DAT6	6 72	5 72					
2 27	DMDATA5	DAT5	6 70	5 70					
2 28	DHREQA	FDDHREQ	2 28	1 72#					
2 29	DHREQB	ICWBDMREQ	3 32#	2 29					
2 30	DHREQC	ICDHREQ	3 57#	2 30					
2 32	DMDATA4	DAT4	6 69	5 69					
2 33	DMDATA3	DAT3	6 78	5 78					
2 34	DMDATA2	DAT2	6 77	5 77					
2 35	DMDATA1	DAT1	6 80	5 80					
2 36	DMDATA0	DAT0	6 79	5 79					
2 37	FDATA15	FDATA15	2 37#	1 16#					
2 38	FDATA14	FDATA14	2 38#	1 17#					
2 39	FDATA13	FDATA13	2 39#	1 18#					
2 40	*DMLDADR	*DMLDADR	3 33#	2 40#					
2 42	FDATA12	FDATA12	2 42#	1 19#					
2 43	FDATA11	FDATA11	2 43#	1 26#					
2 44	FDATA10	FDATA10	2 44#	1 27#					
2 45	FDATA9	FDATA9	2 45#	1 28#					
2 46	FDATA8	FDATA8	2 46#	1 29#					
2 47	FDBUSSELB	FDBUSSELB	2 47	1 42#					
2 48	FDBUSSELA	FDBUSSELA	2 48	1 40#					
2 49	FDATA7	FDATA7	2 49#	1 56#					
2 50	FDATA6	FDATA6	2 50#	1 57#					
2 52	FDATA5	FDATA5	2 52#	1 58#					
2 53	FDATA4	FDATA4	2 53#	1 59#					
2 54	FDATA3	FDATA3	2 54#	1 66#					
2 55	DMREAD	DMREAD	3 35#	2 55#					
2 56	*DMSTORE	*DMSTORE	3 34#	2 56#					
2 57	*DMFETCH	*DMFETCH	3 36#	2 57#					
2 58	FDATA2	FDATA2	2 58#	1 67#					
2 59	FDATA1	FDATA1	2 59#	1 68#					
2 60	FDATA0	FDATA0	2 60#	1 69#					
2 62	TICKKOUT	TICKK	1 79	2 62#					
2 63	*TIRESET	*TIRESET	1 80JL	2 71JL					
2 64	DMDATAV	DMDATAV	2 63#	3 78					
2 65	DMA11STB2	DMA11STB2	3 77	2 64#					
2 66	FDSTORE	FDSTORE	3 13	2 65#					
2 67	FDFETCH	FDFETCH	2 66	1 75#					
2 68	FDLDAR	FDLDADR	2 67	1 74#					
2 69	FDENOUT	FDENOUT	2 68	1 73#					
2 70	DMDEVO	DMDEVO	2 69	1 50#					
2 71	GROUND	TICKK	3 6	2 70#					
2 72	DMDEV1	DMDEV1	3 5	2 72#					
2 73	DMDEV2	DMDEV2	3 3	2 73#					

TWISTED PAIR RETURN OF 2 62

SLOTPIN CARD SIGNAL NAME	STRING NAME	STRING PINS
2 74	DMFNCT0	3 12 2 74#
2 75	*FDFORCEZERO	2 75# 1 52
2 76	*FDSSTART	2 76# 1 46
2 77	DMFNCT1	2 77# 1 47
2 78	DMFNCT2	3 9 2 78#
2 79	DMFNCT3	3 8 2 79#
2 80	DMFNCT4	3 7 2 80#
3 3	DMDEV2	3 3 2 73#
3 5	DMDEV1	3 5 2 72#
3 6	DMDEVO	3 6 2 70#
3 7	DMFNCT4	3 7 2 80#
3 8	DMFNCT3	3 8 2 79#
3 9	DMFNCT2	3 9 2 78#
3 10	DMFNCT1	2 77# 1 47
3 12	DMFNCT0	3 12 2 74#
3 13	DMAT18TB2	3 13 2 65#
3 14	DMDATA0	4 79 5 79
3 15	DMDATA1	4 80 5 80
3 16	DMDATA2	4 77 5 77
3 17	DMDATA3	4 78 5 78
3 18	DMDATA4	4 79 5 79
3 19	DMDATA5	4 70 5 70
3 20	DMDATA6	4 72 5 72
3 22	DMDATA7	4 62 5 62
3 23	DMDATA8	6 74 6 74
3 24	DMDATA9	7 70 7 70
3 25	DMDATA10	7 72 7 72
3 26	DMDATA11	7 73 7 73
3 27	DMDATA12	7 74 7 74
3 28	DMDATA13	7 75 7 75
3 29	DMDATA14	7 76 7 76
3 30	DMDATA15	7 77 7 77
3 32	WDDMREQ	7 78 7 78
3 33	*DMLDADR	3 32# 2 29
3 34	*DMSTORE	3 33# 2 40#
3 35	DMREAD	3 34# 2 56#
3 36	*DMFETCH	3 35# 2 55#
3 37	WDDMGRANT	3 36# 2 57#
3 38	ICDMGRANT	3 37 2 19#
3 40	TICKL	3 38 2 20#
3 41	GROUND	1 79 2 62# 3 40
3 42	GC1CODE3	1 80JL 2 71JL 3 41J
3 43	GC1CODE2	10 78 9 76# 3 42
3 44	GC1CODE1	10 69 9 34# 3 43
3 45	GC1CODE0	10 68 9 35# 3 44
3 46	ICNULLADR	10 67 9 36# 3 45
3 47	GC1SKIP	3 46 2 9#
		9 45# 3 47

EW TWISTED PAIR RETURN OF 3 40

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
3 48	ICSTRINGSDONE	BRENBLK	3 48 8 34#
3 49	GC1WAIT	GC1WAIT	9 46# 3 49
3 50	ICLDADR	ICLDADR	3 50# 2 10
3 52	*ICLDBASEADR	*ICLDBASEADR	3 52# 2 6
3 53	*ICSELBASEADR	*ICSELBASEADR	3 53# 2 12
3 54	*ICINCBASEADR	*ICINCBASEADR	3 54# 2 5
3 55	*ICLDSTRINGADR	*ICLDSTRINGADR	3 55# 2 8
3 56	*ICINCSTRINGADR	*ICINCSTRINGADR	3 56# 2 7
3 57	ICDMREQ	ICDMREQ	3 57# 2 30
3 58	ICAVAIL	ICAVAIL	9 47 3 58#
3 59	*ICLD6	*ICLD6	7 30 4 47 3 59#
3 60	*ICLD7	*ICLD7	5 67 3 60#
3 62	*ICLD8	*ICLD8	5 64 3 62#
3 63	*ICLD9	*ICLD9	5 55 3 63#
3 64	*ICLD10	*ICLD10	5 47 3 64#
3 65	*ICLD11	*ICLD11	6 67 3 65#
3 66	*ICLD12	*ICLD12	6 64 3 66#
3 67	*ICLD13	*ICLD13	6 55 3 67#
3 68	*ICLD14	*ICLD14	6 47 3 68#
3 69	*ICLD0	*ICLD0	9 74 3 69#
3 70	*CLK10	*CMCLK0	3 70 5 42 7 79 9 73 12 16# 10 73 8 79 6 42 4 42
3 71	GROUND	*CMCLK0	3 71# 5 41# 7 71# 9 71# 10 21# 10 71# 8 71# 6 41# 4 41#
3 72	*ICLD1	*ICLD1	8 25 7 69 3 72#
3 73	*ICLD2	*ICLD2	7 43 3 73#
3 74	*ICLD3	*ICLD3	7 34 4 67 3 74#
3 75	*ICLD4	*ICLD4	7 40 4 64 3 75#
3 76	*ICLD5	*ICLD5	7 42 4 55 3 76#
3 77	DHDATAV	DHDATAV	3 77 2 64# 1 44
3 78	*TIRESET	*TIRESET	2 63# 3 78 1 77
4 3	GC1LDT	GC1LDT	9 63# 6 3 5 3 4 3
4 4	GC2INITA	GC2INITA	10 3# 6 4 5 4 4 4
4 5	GC1SHIFTNDU	GC1SHIFTNDU	9 62# 7 63 6 5 5 5 4 5
4 6	GC1SHIFTNU	GC1SHIFTNU	22 45 19 45 16 45 13 45 9 60# 6 6 5 6 4 6
4 7	ADDU38	ADDU38	5 52 4 7#
4 8	GC2SUBA	GC2SUB4XZ	10 55# 6 8 4 8
4 9	GC1ASEL1	GC1ASEL1	9 65# 6 9 5 9 4 9
4 10	ADSUM	ADSUM	5 34 4 10#
4 12	ADNDU	ADXNDU	22 55 19 55 16 55 13 55 6 20 5 19 4 12#
4 13	GC1ASEL0	GC1ASEL0	9 69# 6 13 5 13 4 13
4 14	GC2SHIFTAMBUF	GC2SHIFTAMBUF	10 58# 6 14 5 14 4 14
4 15	GC1CSEL0	GC1CSEL0	9 67# 6 15 5 15 4 15
4 16	GC1CSEL1	GC1CSEL1	9 66# 6 16 5 16 4 16
4 17	ADFRDCT2	ADXFRDCT2	4 35 4 17#
4 18	GC2ADDDU	GC2ADDDU	10 40# 6 18 5 18 4 18
4 19	ADNDW	ADZNDU	22 33 19 33 16 33 13 33 6 12# 4 19
4 20	ADNDV	ADYNDU	22 14 19 14 16 14 13 14 6 19 5 12# 4 20
4 22	GC2UPDATE	GC2UPDATE	22 64 19 64 16 64 13 64 10 77# 6 22 5 22 4 22

SLOT	PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	16 46	13 46	5 43*	7 10	8 10	9 10
5 43	ADNU		ADYNU	22 46	19 46	16 46				
5 44	ADAT3		ADZDATODD	6 57*	5 44	4 50				
5 45	GC2DSEL1		GC2DSEL1	10 65*	6 45	5 45	4 45			
5 46	GC2DSEL0		GC2DSEL0	10 64*	6 46	5 46	4 46			
5 47	*ICLNDUL		*ICLD10	5 47	3 64*					
5 48	GC2DSEL2		GC2DSEL2	10 66*	6 48	5 48	4 48			
5 49	ADUDAT		ADYUDAT	22 76	19 76	16 76	13 76			
5 50	ADATO		DRFACEOUT-TYPE0	8 58	7 60*	5 50				
5 52	SERIN		ADXDU38	5 52	4 7*					
5 53	ADDUSHEAR		ADYDUSHEAR	5 53*	4 26					
5 54	ADUSHEAR		ADYUSHEAR	5 54*	4 32	4 23	6 25			
5 55	*ICLNDUU		*ICLD9	5 55	3 63*					
5 56	ADUOVFL		ADYOVFL	7 14	5 56*					
5 57	ADDATODD		ADYDATODD	5 57*	5 39					
5 58	ADDATEVEN		ADYDATEVEN	5 58*	4 39					
5 59	*BRMAINT		*BRMAINT	8 60*	7 56					
5 60	GC2ESEL		GC2ESEL	10 63*	6 60	6 59	5 59			
5 62	DAT7		DAT7	6 62	5 62	5 60	4 60			
5 63	DAT12		DAT12	7 75	6 63	4 62	2 25*	7 10	8 10	9 10
5 64	*ICLNDUL		*ICLD8	5 64	3 62*	5 63	4 63	2 16*	9 16	
5 65	DAT14		DAT14	7 77	6 65	5 65	4 65			
5 66	DAT13		DAT13	7 76	6 66	5 66	4 66			
5 67	*ICLNDUU		*ICLD7	5 67	3 60*					
5 68	DAT15		DAT15	7 78	6 68	5 68	4 68			
5 69	DAT4		DAT4	6 69	5 69	4 69	2 32*	2 13*	9 19	
5 70	DAT5		DAT5	6 70	5 70	4 70	2 32*	7 7	8 7	9 7
5 72	DAT6		DAT6	6 72	5 72	4 72	2 27*	7 8	8 8	9 8
5 73	DAT9		DAT9	7 72	6 73	4 72	2 26*	7 9	8 9	9 9
5 74	DAT8		DAT8	7 70	6 74	5 74	4 74	3 24	8 13	9 13
5 75	DAT11		DAT11	7 74	6 75	5 75	4 75	3 23	8 12	9 12
5 76	DAT10		DAT10	7 73	6 76	5 76	4 76	3 26	8 15	9 15
5 77	DAT2		DAT2	6 77	5 77	4 77	2 22*	3 25	8 14	9 14
5 78	DAT3		DAT3	6 78	5 78	4 78	2 34*	3 16	8 5	9 5
5 79	DAT0		DAT0	6 79	5 79	4 79	2 33*	3 17	8 6	9 6
5 80	DAT1		DAT1	6 80	5 80	4 80	2 36*	3 14	8 3	9 3
6 3	GC1LDT		GC1LDT	9 63*	6 3	4 80	2 35*	3 15	8 4	9 4
6 4	GC2INITA		GC2INITA	10 3*	6 4	5 3	4 3			
6 5	GC1SHIFNDU		GC1SHIFNDU	9 62*	7 63	4 4	4 4			
6 6	GC1SHIFTFU		GC1SHIFTFU	22 45	19 45	6 5	5 5			
6 7	ADDU38		ADZDU38	6 33	7 12	16 45	13 45	4 5		
6 8	GC2SUBA4		GC2SUBAXZ	10 55*	6 8	6 7*		9 60*	6 6	5 6
6 9	GC1ASEL1		GC1ASEL1	9 65*	6 9	4 8				
6 10	ADSUM		ADZSUM	6 10*	5 35	5 9	4 9			
6 12	ADNDU		ADZNDU	22 33	19 33	16 33	13 33	6 12*	5 20	4 19
6 13	GC1ASEL0		GC1ASEL0	9 69*	6 13	5 13	4 13			
6 14	GC2SHIFTFANBU		GC2SHIFTFANBU	10 58*	6 14	5 14	4 14			
6 15	GC1CSEL0		GC1CSEL0	9 67*	6 15	5 15	4 15			
6 16	GC1CSEL1		GC1CSEL1	9 66*	6 16	5 16	4 16			

SLOT	PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	ECO B1	Date
6	76	DATA10	DATA10	7 73	6 76	5 76
6	77	DATA2	DATA2	6 77	5 77	4 77
6	78	DATA3	DATA3	6 78	5 78	4 78
6	79	DATA0	DATA0	6 79	5 79	4 79
6	80	DATA1	DATA1	6 80	5 80	4 80
7	3	DATA0	DATA0	6 79	5 79	4 79
7	4	DATA1	DATA1	6 80	5 80	4 80
7	5	DATA2	DATA2	6 77	5 77	4 77
7	6	DATA3	DATA3	6 78	5 78	4 78
7	7	DATA4	DATA4	6 69	5 69	4 69
7	8	DATA5	DATA5	6 70	5 70	4 70
7	9	DATA6	DATA6	6 72	5 72	4 72
7	10	DATA7	DATA7	6 62	5 62	4 62
7	11	MDIN		6 33	7 12	6 74
7	12	ADZDU38		7 13	4 56	
7	13	ADZOVFL	ADZOVFL	7 14	5 56	
7	14	ADYOVFL	ADYOVFL	7 15	6 56	
7	15	ADZOVFL	ADZOVFL	24 20	21 20	18 20
7	16	DROVFL		24 36	21 36	18 36
7	18	*DRSP		9 23	7 20	7 16
7	20	DRSLWIDTH0	DRSLWIDTH0	9 24	7 22	7 18
7	22	DRSLWIDTH1	DRSLWIDTH1	10 62	7 24	
7	24	GC2ENABOVFL	GC2OVFLENAB	10 42	7 25	
7	25	*GC2ENABLEDIRNORM	*GC2ENABLEDIRNORM	10 44	7 26	
7	26	GC2FORCEDIRNORM	GC2FORCEDIRNORM	9 37	7 27	
7	27	GC1ADDCODE0	GC1ADDCODE0	9 38	7 28	
7	28	GC1ADDCODE1	GC1ADDCODE1	9 39	7 29	
7	29	GC1ADDCODE2	GC1ADDCODE2	7 30	4 47	3 59
7	30	*ICLD6		7 32	6 24	5 24
7	32	DRSINE		7 33	6 36	5 36
7	33	DRADDI		7 34	4 67	3 74
7	34	*ICLD3		5 38	5 33	7 35
7	35	ADSPY	ADYSPU	8 36	7 37	
7	36	ADSPX	ADXSPUB	8 39	7 38	
7	37	DRX0		9 72	7 39	10 32
7	38	DRBSTOP	DRBSTOP	7 40	4 64	3 75
7	39	DRBHAINT	DRBHAINT	7 42	4 55	3 76
7	40	*ICLD4		7 43	3 73	
7	42	*ICLD5		8 69	7 44	10 26
7	43	*ICLD2		9 20	7 45	
7	44	GC2DIRDIVIDE	GC2DIRDIVIDE	9 22	7 46	
7	45	DRSLTYPE0	DRSLTYPE0	8 59	7 48	
7	46	DRSLTYPE1	DRSLTYPE1	8 38	7 49	
7	48	DRTYPE1	DRTYPE1	32 58	30 58	28 58
7	49	*DRSERO		32 56	30 56	28 56
7	50	DRCOLPRIOR4	DRCOLPRIOR4	32 50	30 50	28 50
7	52	DRCOLPRIOR3	DRCOLPRIOR3	32 49	30 49	28 49
7	53	DRCOLPRIOR2	DRCOLPRIOR2			
7	54	DRCOLPRIOR1	DRCOLPRIOR1			

SLOTPIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	ECO B1	Date	Page
7 55	DRCOLPRIORO	DRCOLPRIORO	32 39 30 39	28 39	26 39	7 55*
7 56	*BRMAINT	*BRMAINT	8 60*	6 59	5 59	4 59
7 57	GC1JADDERACTIVE	GC1JADDERACTIVE	8 26 7 57	9 70*	10 59	13 43
7 58	GC2JDIVACTIVE	GC2JDIVACTIVE	8 32 7 58	10 76*	13 49	16 49
7 59	*GC1STOP	*GC1STOP	23 35 20 35	17 35	14 35	13 67
			6 40 5 40	4 40		
7 60	DRFACEOUT-TYPE0	DRFACEOUT-TYPE0	8 58 7 60*	5 50		
7 62	GC2LATCH	GC2LATCH	10 25*	7 62	14 77	17 77
7 63	GC1SHIFINDU	GC1SHIFINDU	9 62*	7 63	6 5	4 5
7 64	GC2SHIFTFACE	GC2SHIFTFACE	7 64 10 56*			
7 65	DRDBC0DE0	DRDBC0DE0	32 36 30 36	28 36	26 36	24 22
7 66	DRDBC0DE1	DRDBC0DE1	32 37 30 37	28 37	26 37	24 23
7 67	DRDBC0DE2	DRDBC0DE2	32 38 30 38	28 38	26 38	24 24
7 68	GC2DBMLOAD	GC2DBMLOAD	10 72*	7 68		
7 69	*ICLD1	*ICLD1	8 25 7 69	3 72*		
7 70	DAT8	DAT8	7 70 6 74	5 74	4 74	2 24*
7 71	GROUND	GROUND				
7 72	DAT9	DAT9	7 72 6 73	5 73	4 73	2 23*
7 73	DAT10	DAT10	7 73 6 76	5 76	4 76	2 22*
7 74	DAT11	DAT11	7 74 6 75	5 75	4 75	2 17*
7 75	DAT12	DAT12	7 75 6 63	5 63	4 63	3 27
7 76	DAT13	DAT13	7 76 6 66	5 66	4 66	3 28
7 77	DAT14	DAT14	7 77 6 65	5 65	4 65	3 29
7 78	DAT15	DAT15	7 78 6 68	5 68	4 68	3 30
7 79	*CMCLKO	*CMCLKO	3 70 5 42	7 79	9 73	12 16*
			3 71JC 5 41JC	7 71JC	9 71JC	10 21JC
			3 72JC 5 42JC	7 72JC	9 72JC	10 22JC
			3 73JC 5 43JC	7 73JC	9 73JC	10 23JC
			3 74JC 5 44JC	7 74JC	9 74JC	10 24JC
			3 75JC 5 45JC	7 75JC	9 75JC	10 25JC
			3 76JC 5 46JC	7 76JC	9 76JC	10 26JC
			3 77JC 5 47JC	7 77JC	9 77JC	10 27JC
			3 78JC 5 48JC	7 78JC	9 78JC	10 28JC
			3 79JC 5 49JC	7 79JC	9 79JC	10 29JC
			3 80JC 5 50JC	7 80JC	9 80JC	10 30JC
			3 81JC 5 51JC	7 81JC	9 81JC	10 31JC
			3 82JC 5 52JC	7 82JC	9 82JC	10 32JC
			3 83JC 5 53JC	7 83JC	9 83JC	10 33JC
			3 84JC 5 54JC	7 84JC	9 84JC	10 34JC
			3 85JC 5 55JC	7 85JC	9 85JC	10 35JC
			3 86JC 5 56JC	7 86JC	9 86JC	10 36JC
			3 87JC 5 57JC	7 87JC	9 87JC	10 37JC
			3 88JC 5 58JC	7 88JC	9 88JC	10 38JC
			3 89JC 5 59JC	7 89JC	9 89JC	10 39JC
			3 90JC 5 60JC	7 90JC	9 90JC	10 40JC
			3 91JC 5 61JC	7 91JC	9 91JC	10 41JC
			3 92JC 5 62JC	7 92JC	9 92JC	10 42JC
			3 93JC 5 63JC	7 93JC	9 93JC	10 43JC
			3 94JC 5 64JC	7 94JC	9 94JC	10 44JC
			3 95JC 5 65JC	7 95JC	9 95JC	10 45JC
			3 96JC 5 66JC	7 96JC	9 96JC	10 46JC
			3 97JC 5 67JC	7 97JC	9 97JC	10 47JC
			3 98JC 5 68JC	7 98JC	9 98JC	10 48JC
			3 99JC 5 69JC	7 99JC	9 99JC	10 49JC
			3 100JC 5 70JC	7 100JC	9 100JC	10 50JC
8 3	DAT0	DAT0	3 14 7 3	8 3	8 3	9 3
8 4	DAT1	DAT1	3 15 7 4	8 4	8 4	9 4
8 5	DAT2	DAT2	3 16 7 5	8 5	8 5	9 5
8 6	DAT3	DAT3	3 17 7 6	8 6	8 6	9 6
8 7	DAT4	DAT4	3 18 7 7	8 7	8 7	9 7
8 8	DAT5	DAT5	3 19 7 8	8 8	8 8	9 8
8 9	DAT6	DAT6	3 20 7 9	8 9	8 9	9 9
8 10	DAT7	DAT7	3 21 8 0	8 10	8 10	9 10
8 12	DAT8	DAT8	3 22 7 10	8 12	8 12	9 12
8 13	DAT9	DAT9	3 23 7 11	8 13	8 13	9 13
8 14	DAT10	DAT10	3 24 7 12	8 14	8 14	9 14
8 15	DAT11	DAT11	3 25 7 13	8 15	8 15	9 15
8 16	BROUT0	BROUT0	3 26 7 14	8 16	8 16	9 16
8 17	BROUT1	BROUT1	3 27 7 15	8 17	8 17	9 17
8 18	BROUT2	BROUT2	3 28 7 16	8 18	8 18	9 18
8 19	BROUT3	BROUT3	3 29 7 17	8 19	8 19	9 19
8 20	BROUT4	BROUT4	3 30 7 18	8 20	8 20	9 20
8 22	BROUT5	BROUT5	3 31 7 19	8 22	8 22	9 22
8 23	BROUT6	BROUT6	3 32 7 20	8 23	8 23	9 23
8 24	BROUT7	BROUT7	3 33 7 21	8 24	8 24	9 24
8 25	*ICLD1	*ICLD1	3 34 7 22	8 25	8 25	9 25
8 26	GC1JADDERACTIVE	GC1JADDERACTIVE	3 35 7 23	8 26	8 26	9 26
			3 36 7 24	8 27	8 27	9 27
			3 37 7 25	8 28	8 28	9 28
			3 38 7 26	8 29	8 29	9 29
			3 39 7 27	8 30	8 30	9 30
			3 40 7 28	8 31	8 31	9 31
			3 41 7 29	8 32	8 32	9 32
			3 42 7 30	8 33	8 33	9 33
			3 43 7 31	8 34	8 34	9 34
			3 44 7 32	8 35	8 35	9 35
			3 45 7 33	8 36	8 36	9 36
			3 46 7 34	8 37	8 37	9 37
			3 47 7 35	8 38	8 38	9 38
			3 48 7 36	8 39	8 39	9 39
			3 49 7 37	8 40	8 40	9 40
			3 50 7 38	8 41	8 41	9 41
			3 51 7 39	8 42	8 42	9 42
			3 52 7 40	8 43	8 43	9 43
			3 53 7 41	8 44	8 44	9 44
			3 54 7 42	8 45	8 45	9 45
			3 55 7 43	8 46	8 46	9 46
			3 56 7 44	8 47	8 47	9 47
			3 57 7 45	8 48	8 48	9 48
			3 58 7 46	8 49	8 49	9 49
			3 59 7 47	8 50	8 50	9 50
			3 60 7 48	8 51	8 51	9 51
			3 61 7 49	8 52	8 52	9 52
			3 62 7 50	8 53	8 53	9 53
			3 63 7 51	8 54	8 54	9 54
			3 64 7 52	8 55	8 55	9 55
			3 65 7 53	8 56	8 56	9 56
			3 66 7 54	8 57	8 57	9 57
			3 67 7 55	8 58	8 58	9 58
			3 68 7 56	8 59	8 59	9 59
			3 69 7 57	8 60	8 60	9 60
			3 70 7 58	8 61	8 61	9 61
			3 71 7 59	8 62	8 62	9 62
			3 72 7 60	8 63	8 63	9 63
			3 73 7 61	8 64	8 64	9 64
			3 74 7 62	8 65	8 65	9 65
			3 75 7 63	8 66	8 66	9 66
			3 76 7 64	8 67	8 67	9 67
			3 77 7 65	8 68	8 68	9 68
			3 78 7 66	8 69	8 69	9 69
			3 79 7 67	8 70	8 70	9 70
			3 80 7 68	8 71	8 71	9 71
			3 81 7 69	8 72	8 72	9 72
			3 82 7 70	8 73	8 73	9 73
			3 83 7 71	8 74	8 74	9 74
			3 84 7 72	8 75	8 75	9 75
			3 85 7 73	8 76	8 76	9 76
			3 86 7 74	8 77	8 77	9 77
			3 87 7 75	8 78	8 78	9 78
			3 88 7 76	8 79	8 79	9 79
			3 89 7 77	8 80	8 80	9 80
			3 90 7 78	8 81	8 81	9 81
			3 91 7 79	8 82	8 82	9 82
			3 92 7 80	8 83	8 83	9 83
			3 93 7 81	8 84	8 84	9 84
			3 94 7 82	8 85	8 85	9 85
			3 95 7 83	8 86	8 86	9 86
			3 96 7 84	8 87	8 87	9 87
			3 97 7 85	8 88	8 88	9 88
			3 98 7 86	8 89	8 89	9 89
			3 99 7 87	8 90	8 90	9 90
			3 100 7 88	8 91	8 91	9 91

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	8 27	8 28	8 29	8 30	13 35	14 35	16 67	19 67	22 67	7 59	9 54	8 30
8 27	INI	ADXSU	4 38	4 33											
8 28	OUT1	ADXPUB	8 28	7 36											
8 29	GC2WRITER	GC2WRITER	10 28	8 29											
8 30	*GC1STOP	*GC1STOP	23 35	20 35	17 35	14 35	13 67	16 67	19 67	22 67	7 59	9 54	8 30		
			6 40	5 40	4 40										
8 32	GC2JDIVACTIVE	GC2JDIVACTIVE	8 32	7 58	10 76	13 49	16 49	19 49	22 49						
8 33	GC2SHIFT	GC2SHIFT	10 36	8 33											
8 34	BREDBLK	BREDBLK	3 48	8 34											
8 35	BRSIGNB	BRSIGNB	24 25	21 25	18 25	15 25	8 35								
8 36	DRX0	DRX0	8 36	7 37											
8 37	*GC2ZEROIT	*GC2ZEROIT	10 5	8 37											
8 38	*DRSER0	*DRSER0	8 38	7 49											
8 39	DRBSTOP	DRBSTOP	8 39	7 38											
8 40	MUZH2	MUZH2	22 22	19 22	16 22	13 22	8 40								
8 42	MUZH3	MUZH3	22 24	19 24	16 24	13 24	8 42								
8 43	MUZH4	MUZH4	22 23	19 23	16 23	13 23	8 43								
8 44	MUZH5	MUZH5	22 26	19 26	16 26	13 26	8 44								
8 45	MUZH6	MUZH6	22 34	19 34	16 34	13 34	8 45								
8 46	MUZH7	MUZH7	22 32	19 32	16 32	13 32	8 46								
8 47	MUZH8	MUZH8	22 29	19 29	16 29	13 29	8 47								
8 48	MUZH9	MUZH9	22 30	19 30	16 30	13 30	8 48								
8 49	*GC2CLRNCNT	*GC2CLRNCNT	10 27	8 49											
8 50	*GC2LDNCNT	*GC2LDNCNT	10 29	8 50											
8 52	DVNCNT3	DVNCNT3	23 43	20 43	17 43	14 43	8 52								
8 53	DVNCNT2	DVNCNT2	23 49	20 49	17 49	14 49	8 53								
8 54	DVNCNT1	DVNCNT1	23 50	20 50	17 50	14 50	8 54								
8 55	DVNCNT0	DVNCNT0	23 52	20 52	17 52	14 52	8 55								
8 56	GC2LDFB	GC2LDFB	10 30	8 56											
8 57	GC2LDFA	GC2LDFA	10 18	8 57											
8 58	DRTYPE0	DRTYPE0	8 58	7 60	5 50										
8 59	DRTYPE1	DRTYPE1	8 59	7 48											
8 60	*BRMAINT	*BRMAINT	8 60	7 56	6 59	5 59	4 59								
8 62	BRDEFocus3	BRDEFocus3	31 8	29 8	27 8	25 8	8 62								
8 63	BRDEFocus2	BRDEFocus2	31 10	29 10	27 10	25 10	8 63								
8 64	BRDEFocus1	BRDEFocus1	32 7	30 7	28 7	26 7	8 64								
8 65	BRDEFocus0	BRDEFocus0	32 9	30 9	28 9	26 9	8 65								
8 66	GC2EXPONENTIATE	GC2EXPONENTIATE	10 16	8 66											
8 67	DVXSER	DVXSER	25 12	15 32	14 78	8 67									
8 68	DVYSER	DVYSER	26 12	15 34	14 27	8 68									
8 69	GC2DIRDIVIDE	GC2DIRDIVIDE	8 69	7 44	10 26										
8 70	MUS.N	MUS.N	14 68	13 69	8 70										
8 71	GROUND	GROUND	TWISTED PAIR RETURN OF												
8 72	*GC2FACE	*GC2FACE	31 6	29 6	27 6	25 6	10 6	8 72							
8 73	CMSHIFT0	CMSHIFT0	31 16	29 16	27 16	25 16	12 6	8 73							
			94 29	83 26	79 28	69 12									
8 74	*CMCHANO	*CMCHANO	25 25	26 25	62 45	47 52	51 3	12 55	8 74	37 5					
8 75	CMDEVENO	CMDEVENO	12 56	8 75											
8 76	*IMHERE	*IMHERE	32 57	31 57	30 57	29 57	28 57	26 57	25 57	37 6	8 76	12 79			

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
8 77	MAINTDAT	MDOUT	51 50# 47 80# 83 50# 79 80# 69 6#
8 78	*BRMAINTH	*BRMAINTH	83 55# 79 76# 69 7# 47 76# 51 55# 29 65# 28 65# 27 65# 26 65# 25 65# 24 65# 23 65# 22 65# 21 65# 20 65# 19 65# 18 65# 17 65# 16 65# 15 65# 14 65# 13 65# 12 65# 11 65# 10 65# 9 65# 8 65# 7 65# 6 65# 5 65# 4 65# 3 65# 2 65# 1 65#
8 79	*CHCLKO	*CHCLKO	22 57 19 57 16 57 13 57 10 73 8 78#
9 3	DATO	DATO	3 70 5 42 7 79 9 73 12 16# 10 73 8 79 6 42 4 42
9 4	DAT1	DAT1	3 71JL 5 41JL 7 71JL 9 71JL 10 21JL 10 71JL 6 41JL 4 41J
9 5	DAT2	DAT2	6 79 4 79 2 36# 3 14 7 3 8 3 9 3
9 6	DAT3	DAT3	6 80 5 80 4 80 2 35# 3 15 7 4 8 4 9 4
9 7	DAT4	DAT4	6 78 5 78 4 78 2 34# 3 16 7 5 8 5 9 5
9 8	DAT5	DAT5	6 69 5 69 4 69 2 33# 3 17 7 6 8 6 9 6
9 9	DAT6	DAT6	6 70 5 70 4 70 2 32# 3 18 7 7 8 7 9 7
9 10	DAT7	DAT7	6 72 5 72 4 72 2 26# 3 19 7 8 8 8 9 8
9 12	DAT8	DAT8	6 62 5 62 4 62 2 25# 3 22 7 10 8 10 9 10
9 13	DAT9	DAT9	7 70 6 74 4 74 4 74 2 24# 3 23 8 12 9 12
9 14	DAT10	DAT10	7 72 6 73 4 73 4 73 2 23# 3 24 8 13 9 13
9 15	DAT11	DAT11	7 73 6 76 4 76 4 76 2 22# 3 25 8 14 9 14
9 16	DAT12	DAT12	7 75 6 63 4 63 4 63 2 17# 3 26 8 15 9 15
9 17	DAT13	DAT13	7 76 6 66 4 66 4 66 3 27 2 16# 9 16
9 18	DAT14	DAT14	7 77 6 65 4 65 4 65 3 28 2 15# 9 17
9 19	DAT15	DAT15	7 78 6 68 4 68 4 68 3 29 2 14# 9 18
9 20	DRSLTYPE0	DRSLTYPE0	9 20 7 45# 5 68 4 68 3 30
9 22	DRSLTYPE1	DRSLTYPE1	9 22 7 46# 5 68 4 68 3 30
9 23	DRSLWIDTH0	DRSLWIDTH0	9 23 7 20# 5 68 4 68 3 30
9 24	DRSLWIDTH1	DRSLWIDTH1	9 24 7 22# 5 68 4 68 3 30
9 25	GC1SLMYVIEW0	GC1SLMYVIEW0	13 50 9 25# 5 68 4 68 3 30
9 26	GC1SLMYVIEW1	GC1SLMYVIEW1	16 50 9 26# 5 68 4 68 3 30
9 27	GC1SLMYVIEW2	GC1SLMYVIEW2	19 50 9 27# 5 68 4 68 3 30
9 28	GC1SLMYVIEW3	GC1SLMYVIEW3	22 50 9 28# 5 68 4 68 3 30
9 34	GC1CODE2	GC1CODE2	10 69 9 34# 3 43
9 35	GC1CODE1	GC1CODE1	10 68 9 35# 3 44
9 36	GC1CODE0	GC1CODE0	10 67 9 36# 3 45
9 37	GC1ADDCODE0	GC1ADDCODE0	9 37# 7 27
9 38	GC1ADDCODE1	GC1ADDCODE1	9 38# 7 28
9 39	GC1ADDCODE2	GC1ADDCODE2	9 39# 7 29
9 40	ADXSUM	ADFRONTFACE	9 40 5 10#
9 42	GC2CLKFRONTFACE	GC2CLKFRONTFACE	10 49# 9 42
9 43	GC1FRONTFACE	GC1FRONTFACE	32 20 30 20 28 20 26 20 9 43#
9 44	*CMGRE	*CMGRE	24 39 22 35 21 39 19 35 16 35 15 39 13 35 12 13# 9 44 10 74
9 45	GC1SKIP	GC1SKIP	37 27 69 27 9 45# 3 47
9 46	GC1WAIT	GC1WAIT	9 46# 3 49
9 47	ICAVAIL	ICAVAIL	9 47 3 58#
9 48	CMBLOCK0	CMBLOCK0	12 46# 9 48
9 49	CMFORCEAVAIL	CMFORCEAVAIL	12 35# 9 49
9 50	CMFORCEWAIT	CMFORCEWAIT	83 14 51 14 9 50 12 36# 15 5 18 5 21 5 24 5
9 52	GC2AVAIL	GC2AVAIL	10 17# 9 52

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
9 53	*DCCANTWRITE	*DCCANTWRITE	25 66 24 6# 21 6# 18 6# 15 6# 9 53
9 54	*GC1STOP	*GC1STOP	23 35 20 35 17 35 14 35 13 67 16 67 7 59 9 54# 8 30
9 55	GC1WRITEAVAIL	GC1WRITEAVAIL	25 63 24 7 21 7 18 7 15 7 9 55#
9 56	CMBLOCK1	CMBLOCK1	6 40 5 40 4 40
9 57	*GC1S0	*GC1S0	12 45# 9 56
9 58	*GC1S1	*GC1S1	10 80 9 57#
9 59	*GC1ADDDSTATES	*GC1ADDDSTATES	10 79 9 58#
9 60	GC1SHIFTRN	GC1SHIFTRN	10 75 9 59#
9 62	GC1SHIFTRNDU	GC1SHIFTRNDU	22 45 19 45 16 45 13 45 9 60# 6 6 5 6 4 6
9 63	GC1LDT	GC1LDT	9 62# 7 63 6 3 5 3 4 3
9 64	GC2ADDCURVE	*GC2ADDCURVE	9 63# 6 3 5 3 4 3
9 65	GC1ASEL1	GC1ABEL1	10 50# 9 64
9 66	GC1CSEL1	GC1CSEL1	9 65# 6 9 5 9 4 9
9 67	GC1CSEL0	GC1CSEL0	9 66# 6 16 5 16 4 16
9 68	*GC2ADDMAT1	*GC2ADDMAT1	9 67# 6 15 5 15 4 15
9 69	GC1ASEL0	GC1ASEL0	10 52# 9 68
9 70	GC1JADDERACTIVE	GC1JADDERACTIVE	9 69# 6 13 5 13 4 13
9 71	GROUND	*CHCLKO	8 26 7 57 9 70# 10 59 13 43 16 43 19 43 22 43
9 72	DRMAINT	DRMAINT	9 72 7 39# 10 32
9 73	*CMCLKO	*CMCLKO	3 70 5 42 7 79 9 73 12 16# 10 73 8 79 6 42 4 42
9 74	*ICLDO	*ICLDO	3 71# 5 41# 7 71# 9 71# 10 21# 10 71# 6 41# 4 41#
9 75	*GC2CLKNCNT	*GC2CLKNCNT	9 74 3 69#
9 76	GC1CODE3	GC1CODE3	10 54# 9 75
9 77	GC1MATRIXLOAD	GC1MATRIXLOAD	10 78 9 76# 3 42
9 79	CHSHIFT	CHSHIFT	22 48 19 48 16 48 15 48 12 6# 8 73 9 79 37 12 47 28 51 26 62 29
10 3	GC2INITA	GC2INITA	31 16 29 16 27 16 25 16 12 6# 8 73 9 79 37 12 47 28 51 26 62 29
10 4	*GC2LDR	*GC2LDR	94 29 83 26 79 28 69 12
10 5	*GC2ZEROIT	*GC2ZEROIT	10 3# 6 4 5 4 4 4
10 6	*GC2FFACE	*GC2FFACE	32 53 31 53 30 53 29 53 28 53 27 53 26 53 25 53 10 4#
10 7	GC2EDGE	GC2EDGE	31 6 29 6 27 6 25 6 10 6# 8 72
10 8	GC2LATCHX	GC2LATCHX	32 6 30 6 28 6 26 6 23 79 20 79 17 79 14 79 10 7#
10 9	*GC2LATCHY	*GC2LATCHY	24 37 23 55 20 55 21 37 18 37 17 55 14 55 15 37 10 8#
10 10	GC2DIVIDE	GC2DIVIDE	23 62 20 62 17 62 14 62 10 9#
10 12	GC2SHIFTRT	GC2SHIFTRT	32 43 30 43 28 43 26 43 10 10#
10 13	GC2SHIFTRTZ	GC2SHIFTRTZ	23 46 20 46 17 46 14 46 10 12#
10 14	GC2TRUNCATE	GC2TRUNCATE	23 26 20 26 17 26 14 26 10 13#
10 15	GC2DIVIDESEL	GC2DIVIDESEL	23 47 20 47 17 47 14 47 10 14#
10 16	GC2EXPONENTIATE	GC2EXPONENTIATE	23 9 20 9 17 9 10 15#
10 17	GC2AVAIL	GC2AVAIL	10 16# 8 66
10 18	GC2LDFX	GC2LDFX	10 17# 9 52
10 19	*GC2LDCX	*GC2LDCX	10 18# 8 57
10 20	*GC2LDCY	*GC2LDCY	31 52 29 52 27 52 25 52 10 19#
10 21	GROUND	*CHCLKO	32 52 30 52 28 52 26 52 10 20#
10 22	*GC2LDD	*GC2LDD	32 54 31 54 30 54 29 54 28 54 27 54 26 54 25 54 10 22#
10 23	GC2COMPARESERIN	GC2COMPARESERIN	24 47 21 47 18 47 15 47 10 23#

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	27 43	25 43	10 24*	20 77	23 77
10 24	GC2PASSDIV	GC2PASSDIV	31 43	29 43	27 43	10 24*	20 77	23 77
10 25	GC2LATCH	GC2LATCH	10 25*	7 62	14 77	10 24*	20 77	23 77
10 26	GC2DIRDIVIDE	GC2DIRDIVIDE	8 69	7 44	10 26*			
10 27	*GC2CLRNCNT	GC2CLRNCNT	10 27*	8 49				
10 28	GC2WRITER	GC2WRITER	10 28*	8 29				
10 29	*GC2LDNCNT	GC2LDNCNT	10 29*	8 50				
10 30	GC2LDFB	GC2LDFB	10 30*	8 56				
10 32	DRBMAINT	DRBMAINT	9 72	7 39*	10 32			
10 33	GC2THEN	GC2THEN	14 30	10 33*				
10 34	GC2AINZ	GC2AINZ	10 34*	4 34				
10 35	GC2BSELO	GC2BSELO	10 35*	6 27				
10 36	GC2SHIFTF	GC2SHIFTF	10 36*	8 33	5 27	4 27		
10 37	GC2BSEL1	GC2BSEL1	10 37*	6 29				
10 38	GC2KIN	GC2KIN	22 63	19 63	5 29	4 29		
10 39	GC2FSELO	GC2FSELO	22 60	19 60	16 63	13 63	10 38*	
10 40	*GC2ENABLEDIRNORM	GC2ADDDU	10 40*	6 18	16 60	13 60	10 39*	
10 42	GC2ENABLEDIRNORM	*GC2ENABLEDIRNORM	10 42*	7 25	5 18	4 18		
10 43	GC2FSEL1	GC2FSEL1	22 62	19 62	16 62	13 62	10 43*	
10 44	GC2FORCEDIRNORM	GC2FORCEDIRNORM	10 44*	7 26				
10 45	GC2RA2	GC2RA2	10 45*	6 28	5 28	4 28		
10 46	*GC2ENABLENORM	*GC2ENABLENORM	23 54	20 54	17 54	14 54	10 46*	
10 47	GC2RA1	GC2RA1	10 47*	6 30	5 30	4 30		
10 48	GC2FORCENORM	GC2CLKFRONTFACE	23 66	20 66	17 66	14 66	10 48*	
10 49	GC2CLKFRONTFACE	GC2CLKFRONTFACE	10 49*	9 42				
10 50	GC2ADDCURVE	*GC2ADDCURVE	10 50*	9 64				
10 52	*GC2ADDMAT1	*GC2ADDMAT1	10 52*	9 68				
10 53	GC2SUB4Y	GC2SUB4Y	10 53*	9 8				
10 54	*GC2CLKNCNT	*GC2CLKNCNT	10 54*	9 75				
10 55	GC2SUB4XZ	GC2SUB4XZ	10 55*	6 8	4 8			
10 56	GC2SHIFTFACE	GC2SHIFTFACE	7 64	10 56*				
10 57	GC2SHIFTH	GC2SHIFTH	22 52	19 52	16 52	13 52	10 57*	
10 58	GC2SHIFTHABUF	GC2SHIFTHABUF	10 58*	6 14	5 14	4 14		
10 59	GC1JADDERACTIVE	GC1JADDERACTIVE	8 26	7 57	9 70*	10 59	13 43	22 43
10 60	GC2PSEL	GC2PSEL	22 74	19 74	16 74	13 74	10 60*	
10 62	GC2OVFLENAB	GC2OVFLENAB	10 62*	7 24				
10 63	GC2ESEL	GC2ESEL	10 63*	6 60	5 60	4 60		
10 64	GC2DSELO	GC2DSELO	10 64*	6 46	5 46	4 46		
10 65	GC2DSEL1	GC2DSEL1	10 65*	6 45	5 45	4 45		
10 66	GC2DSEL2	GC2DSEL2	10 66*	6 48	5 48	4 48		
10 67	GC1CODE0	GC1CODE0	10 67	9 36*	3 45			
10 68	GC1CODE1	GC1CODE1	10 68	9 35*	3 44			
10 69	GC1CODE2	GC1CODE2	10 69	9 34*	3 43			
10 70	GC2INITH	GC2INITH	22 58	19 58	16 58	13 58	10 70*	
10 71	GROUND	GROUND						
10 72	GC2DBMLLOAD	*CMCLKO	GC2DBMLLOAD					
10 73	*CMCLKO	*CMCLKO	GC2DBMLLOAD					
10 74	*CMGRE	*CMGRE						

TWISTED PAIR RETURN OF 10 73
 3 70* 7 68
 3 70* 5 42 7 79 9 73 12 16* 10 73 8 79 6 42 4 42
 3 71* 5 41* 7 71* 9 71* 10 71* 8 71* 6 41* 4 41*
 24 39 22 35 21 39 19 35 16 35 15 39 13 35 12 13* 9 44 10 74

SLOT	PIN	SIGNAL NAME	STRING NAME	STRING PINS
10 75	*GC1ADDSTATES	*GC1ADDSTATES		37 27 69 27
10 76	GC2JDIVACTIVE	GC2JDIVACTIVE		10 75 9 59*
10 77	GC2UPDATE	GC2UPDATE		8 32 7 58
10 78	GC1CODE3	GC1CODE3		22 64 19 64 16 64 13 64 10 77* 4 22
10 79	*GC1S1	*GC1S1		10 78 9 76*
10 80	*GC1S0	*GC1S0		10 79 9 58*
11 21	GROUND	*GC1S0		10 80 9 57*
11 31	GROUND	*CMCLK5		TWISTED PAIR RETURN OF 12 22
12 4	CMUP	*CMCLK9		TWISTED PAIR RETURN OF 12 28
12 6	CMSHIFT	CMUP		70 38 71 38 72 38 73 38 41 38 40 38 39 38 38 38 12 4*
12 9	CMSERIN	CMSHIFT		31 16 29 16 27 16 25 16 12 6* 8 73 9 79 37 12 47 28 51 26 62 29
12 10	CMDONE	MDOUT		83 55* 79 76* 69 7* 47 76* 51 55* 25 65* 26 65* 27 65* 28 65* 29 65* 30 65*
12 11	GROUND	DPDONEBUSS		31 65* 32 65* 12 9 8 77* 37 7*
12 12	*CMFRCLK	*CMFRCLK		83 9* 51 9* 12 10
12 13	*CMGRE0	*CMFRCLK		TWISTED PAIR RETURN OF 12 12
12 14	*CMCLK20MHZ	*CMFRCLK		88 63 56 63 12 12*
12 15	*CMGRE1	*CMGRE0		[88 61JC 56 61JC 12 11J
12 16	*CMCLK0	*CMCLK20MHZ		24 39 22 35 21 39 19 35 18 39 16 35 15 39 13 35 12 13* 9 44 10 74
12 17	*CMCLK1	*CMCLK20MHZ		37 27 69 27
12 18	*CMCLK3	*CMCLK20MHZ		88 69 56 69 37 60 69 60 12 14*
12 19	*CMCLK4	*CMCLK20MHZ		[87 71JC 58 71JC 37 61JC 69 61JC 12 11J
12 20	*CMFORCEBLANK	*CMCLK0		74 73 75 73 76 73 77 73 79 64 80 80 81 78 82 78 83 46 78 10 42 73
12 21	GROUND	*CMCLK1		43 73 44 73 45 73 47 64 48 80 49 78 50 78 51 46 46 10 12 15*
12 22	*CMCLK5	*CMCLK1		3 70 5 42 7 79 9 73 12 16* 10 73 8 79 6 42 4 42
12 23	*CMCLK6	*CMCLK3		[3 71JC 5 41JC 7 71JC 9 71JC 10 21JC 10 71JC 8 71JC 6 41JC 4 41J
12 24	*CMCLK7	*CMCLK3		32 72 31 72 30 72 29 72 28 72 27 72 26 72 25 72 24 68 22 79 21 68
12 25	CMG0	*CMCLK3		19 79 18 68 16 79 15 68 13 79 12 17* 14 33 17 33 20 33 23 33
12 26	*CMCLK8	*CMCLK4		12 18* 49 72 50 72 51 42 56 72 58 79 60 79 62 52 64 52 94 52
12 27	*CMCLK2	*CMCLK4		[12 11JC 49 71JC 50 71JC 51 41JC 56 71JC 58 80JC 60 80JC 62 51JC 64 51JC 96 51J
		*CMCLK4		92 79 90 79 88 72 83 42 82 72 81 72
		*CMCLK4		[92 80JC 90 80JC 88 71JC 83 41JC 82 71JC 81 71J
		CMCLK4		12 19 38 79 42 79 46 22 47 34 48 72 52 72 53 72 54 72 55 72 87 72
		*CMFORCEBLANK		[12 21JC 38 80JC 42 80JC 46 21JC 47 31JC 48 71JC 48 71JC 52 71JC 53 71JC 54 71JC 55 71JC 87 71J
		*CMCLK6		86 72 85 72 84 72 80 72 79 34 78 22 74 79 70 79 74 3
		*CMCLK7		[86 71JC 85 71JC 84 71JC 80 71JC 79 31JC 78 21JC 74 80JC 70 80JC 74 1J
		CMCLK7		96 19 94 19 62 19 64 19 12 20
		*CMCLK8		TWISTED PAIR RETURN OF 12 23
		CMCLK8		12 22 43 79 39 79 71 79 75 79 75 3
		*CMCLK8		[11 21JC 43 80JC 39 80JC 71 80JC 75 80JC 75 1J
		CMCLK8		12 23 40 79 44 79 72 79 76 79 76 3
		*CMCLK8		[12 23JC 40 80JC 44 80JC 72 80JC 76 80JC 76 1J
		CMCLK8		12 24 41 79 45 79 73 79 77 79 77 3
		*CMCLK8		[12 24JC 41 80JC 45 80JC 73 80JC 77 80JC 77 1J
		CMCLK8		12 25 15 49 18 49 21 49 24 49 51 54 83 54
		*CMCLK8		[12 25JC 15 49 18 49 21 49 24 49 51 54 83 54
		CMCLK8		69 3 68 3 67 3 35 3 36 3 37 3 12 26
		*CMCLK8		[69 1JC 68 1JC 67 1JC 35 1JC 36 1JC 37 1JC 12 31J
		CMCLK8		24 29 18 29 12 27 15 29 21 29

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
12 28	*CMCLK9		[24 31JC 18 31JC 13 31JC 15 31JC 21 31J
12 31	GROUND		69 72 37 72 12 28#
12 34	CMSHIFT1		[69 71JC 37 71JC 11 31J
12 35	CMFORCEAVAIL	TWISTED PAIR RETURN OF	12 26
12 36	CMFORCEWAIT		32 16 30 16 28 16 26 16
12 37	CMSEROUT		12 35# 9 49 51 79 83 79
12 38	CMFLAG3		83 14 51 14 9 50 12 36#
12 39	CMFLAG2		24 15 21 15 18 15 15 15 12 37#
12 40	CMFLAG1		35 15 39 45 40 45 41 45 47 70 81 5
12 42	CMFLAG0		94 15 96 15 64 15 62 15 24 55 73 45
12 43	CMBLOCK3		24 53 21 53 18 53 15 53 12 39#
12 44	CMBLOCK2		12 40# 15 28 18 28 21 28 24 28
12 45	CMBLOCK1		83 13 51 13 12 43# 21 48 24 48
12 46	CMBLOCK0		24 4 21 4 18 4 15 4 12 44#
12 52	*CMCHN3		12 45# 9 56 15 4 12 44# 51 40 83 40
12 53	*CMCHN2		12 46# 9 48 12 52#
12 54	*CMCHN1		32 25 31 25 12 53#
12 55	*CMCHN0		30 25 29 25 12 54#
12 56	CMDEVEN0		28 25 27 25 12 54# 69 5 79 52 83 3 94 45
12 57	CMDEVEN1		25 25 26 25 62 45 47 52 51 3 12 55# 8 74 37 5
12 58	CMDEVEN3		12 56# 8 75 31 22 29 22 27 22 25 22 12 57#
12 59	CMDEVEN4		83 29 51 29 12 58#
12 60	CMDEVEN5		79 66 47 66 12 59#
12 62	CMDEVEN6		79 67 47 67 12 60#
12 63	CMDEVEN7		79 68 47 68 12 62#
12 67	CMDEVEN8		79 69 47 69 12 63#
12 69	CMDEVEN2		12 67# 37 13 69 13 69 13
12 77	CMAVAIL		32 22 30 22 28 22 26 22 12 69#
12 78	CMWAIT		32 62# 31 62# 30 62# 29 62# 28 62#
12 79	*CHIMHERE		32 64# 31 64# 30 64# 29 64# 28 64#
13 3	MUZ15		32 57# 31 57# 30 57# 29 57# 28 57#
13 5	MUZ14		51 50# 47 80# 83 50# 79 80# 69 6#
13 7	MUZ13		25 42 14 15 13 3# 26 22 12 69#
13 8	MUZ12		14 13 13 5# 29 62# 28 62# 27 62# 26 62#
13 9	DVZ50		14 7 13 7# 14 7 13 7# 29 64# 28 64# 27 64# 26 64#
13 10	MUDBLSB		14 6 13 8# 14 20# 13 9 14 20# 13 9
13 12	DVZ51		14 20# 13 9 13 75 13 10# 29 57# 28 57# 27 57# 26 57#
13 13	MUZ2		14 19# 13 12 14 19# 13 12 79 80# 69 6#
13 14	ADNDY		14 76 13 13# 14 76 13 13#
13 15	MUZ11		22 14 19 14 16 14 13 14 6 19 5 12# 4 20
13 16	MUZ8		14 39 13 15# 14 39 13 15#
13 17	MUZ9		14 24 13 16# 14 24 13 16#
13 18	MUZ10		14 23 13 17# 14 23 13 17#
13 20	MUZ7		14 37 13 18# 14 37 13 18#
			14 58 13 20# 14 58 13 20#

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	ECO B1	Date	Page		
13 22	MUZMF2	MUZMF2	22 22#	19 22#	16 22#	13 22#	8 40	
13 23	MUZMF4	MUZMF4	22 23#	19 23#	16 23#	13 23#	8 43	
13 24	MUZMF3	MUZMF3	22 24#	19 24#	16 24#	13 24#	8 42	
13 25	MUZ5	MUZ5	14 48	13 25#				
13 26	MUZMF5	MUZMF5	22 26#	19 26#	16 26#	13 26#	8 44	
13 27	*DVZMFENABLE	O*DVZMFENABLE	14 44#	13 27				
13 28	MUZ4	MUZ4	14 45	13 28#				
13 29	MUZMF8	MUZMF8	22 29#	19 29#	16 29#	13 29#	8 47	
13 30	MUZMF9	MUZMF9	22 30#	19 30#	16 30#	13 30#	8 48	
13 31	GROUND	*CHCLK2	TWISTED PAIR RETURN OF 12 27					
13 32	MUZMF7	MUZMF7	22 32#	19 32#	16 32#	13 32#	8 46	
13 33	ADNDZ	ADZNDU	22 33	19 33	16 33	13 33	6 12#	
13 34	MUZMF6	MUZMF6	22 34#	19 34#	16 34#	13 34#	8 45	
13 35	*CMGRE	*CMGRE	24 39	22 35	21 39	19 35	18 39	
			37 27	69 27				
13 36	MUZ6	OMUZ6	14 57	13 36#				
13 38	ADNZ	ADZNU	22 38	19 38	16 38	13 38	6 43#	
13 39	MUZ3	OMUZ3	14 75	13 39#				
13 40	*HUVHYVIEW	*HUVHYVIEW	14 60	13 40#	15 19			
13 42	MUZ1	OMUZ1	14 67	13 42#				
13 43	GC1JADDERACTIVE	GC1JADDERACTIVE	8 26	7 57	9 70#	10 59	13 43	
13 44	MUZ0	OMUZ0	14 65	13 44#				
13 45	GC1SHIFTNU	GC1SHIFTNU	22 45	19 45	16 45	13 45	9 60#	
13 46	ADNY	ADYNU	22 46	19 46	16 46	13 46	5 43#	
13 47	DVYR27	OVYR27	14 73#	13 47				
13 48	GC1MATRIXLOAD	GC1MATRIXLOAD	22 48	19 48	16 48	13 48	9 77#	
13 49	GC2JDIVACTIVE	GC2JDIVACTIVE	8 32	7 58	10 76#	13 49	16 49	
13 50	GC1SLHYVIEW	GC1SLHYVIEW	13 50	9 25#				
13 52	GC2SHIFTM	GC2SHIFTM	22 52	19 52	16 52	13 52	10 57#	
13 53	MUZDO	OMUZDO	14 69	13 53#				
13 54	MUDIVIZORIN	OMUZ	13 66#	13 54				
13 55	ADNDX	ADXNDU	22 55	19 55	16 55	13 55	6 20	
13 56	MUZD1	OMUZD1	14 70	13 56#				
13 57	*BRMAINT	*BRMAINTH	22 57	19 57	16 57	13 57	8 78#	
13 58	GC2INITH	GC2INITH	22 58	19 58	16 58	13 58	10 70#	
13 59	DBXPASS	ODXPASS	25 75#	15 27	14 25	13 59		
13 60	GC2FSELO	GC2FSELO	22 60	19 60	16 60	13 60	10 39#	
13 62	GC2FSEL1	GC2FSEL1	22 62	19 62	16 62	13 62	10 43#	
13 63	GC2KIN	GC2KIN	22 63	19 63	16 63	13 63	10 38#	
13 64	GC2UPDATE	GC2UPDATE	22 64	19 64	16 64	13 64	10 77#	
13 65	MD1	ODCHDOUT1	13 65	15 52#				
13 66	MUZ	OMUZ	13 66#	13 54				
13 67	*GC1STOP	*GC1STOP	23 35	20 35	17 35	14 35	13 67	
			6 40	5 40				
13 68	ADNX	ADZNU	22 68	19 68	16 68	13 68	4 43#	
13 69	MUXS.N	OMUXS.N	14 68	13 69#	8 70			
13 70	MUY	OMUY	14 59	13 70#				
13 72	ADZUDAT	ADZUDAT	22 72	19 72	16 72	13 72	6 49#	

SLOT/IN CARD	SIGNAL NAME	STRING NAME	STRING PINS	16 73	13 73	4 49*	26 72	25 72	24 68	22 79	21 68
13 73	ADXUDAT	ADXUDAT	22 73	19 73	16 73	13 73	4 49*				
13 74	GC2FSEL	GC2FSEL	22 74	19 74	16 74	13 74	10 60*				
13 75	MD2	OMUDBLSB	13 75	13 10*							
13 76	ADYUDAT	ADYUDAT	22 76	19 76	16 76	13 76	5 49*				
13 77	DVXR31	ODVXR31	14 56*	13 77							
13 78	*DBXMAINTSHIFT	*DBXMAINTSHIFT	26 67	25 67	25 15*	14 29	15 67	13 78			
13 79	*CMCLK1	*CMCLK1	32 72	31 72	30 72	29 72	28 72	27 72	26 72	25 72	24 68
14 5	DCYCIN	ODCYCIN	19 79	18 68	16 79	15 68	13 79	12 17*	14 33	17 33	20 33
14 6	HUZ12	OHUZ12	15 77*	14 5							
14 7	HUZ13	OHUZ13	14 6	13 8*							
14 9	GC2DIVIDESEL	GC2DIVIDESEL	23 9	20 9	17 9	14 9	10 15*				
14 10	DCXCIN	ODXCIN	15 79*	14 10							
14 13	HUZ14	OHUZ14	14 13	13 5*							
14 15	HUZ15	OHUZ15	25 42	14 15	13 3*						
14 17	DBBDIVIDE	ODBYDIV	26 75*	26 44	25 44	15 56	14 17				
14 19	DVZS1	ODVZS1	14 19*	13 12							
14 20	DVZS0	ODVZS0	14 20*	13 9							
14 22	DVXADD	ODVXADD	15 80	14 22*							
14 23	HUZ9	OHUZ9	14 23	13 17*							
14 24	HUZ8	OHUZ8	14 24	13 16*							
14 25	DBFPASS-DIV	ODBPASS	25 75*	15 27	14 25	13 59					
14 26	GC2SHIFTRTZ	GC2SHIFTRTZ	23 26	20 26	17 26	14 26	10 13*				
14 27	DVYSER	ODVYSER	26 12	15 34	14 27*	8 68					
14 28	DVYADD	ODVYADD	15 78	14 28*							
14 29	*DBXMAINTSHIFT	*DBXMAINTSHIFT	26 67	25 67	25 15*	14 29	15 67	13 78			
14 30	GC2THEM	GC2THEM	14 30	10 33*							
14 33	*CMCLK1	*CMCLK1	32 72	31 72	30 72	29 72	28 72	27 72	26 72	25 72	24 68
14 35	*GC1STOP	*GC1STOP	19 79	18 68	16 79	15 68	13 79	12 17*	14 33	20 33	23 33
14 37	HUZ10	OHUZ10	23 35	20 35	17 35	14 35	13 67	16 67	19 67	22 67	7 59
14 39	HUZ11	OHUZ11	6 40	5 40	4 40						9 54*
14 43	DVNCNT3	DVNCNT3	14 37	13 18*							8 30
14 44	*DVZMFENABLE	*DVZMFENABLE	14 39	13 15*							
14 45	HUZ4	OHUZ4	23 43*	20 43*	17 43*	14 43*	8 52				
14 46	GC2SHIFTRT	GC2SHIFTRT	14 45	13 28*							
14 47	GC2TRUNCATE	GC2TRUNCATE	23 46	20 46	17 46	14 46	10 12*				
14 48	HUZ5	OHUZ5	23 47	20 47	17 47	14 47	10 14*				
14 49	DVNCNT2	DVNCNT2	14 48	13 25*							
14 50	DVNCNT1	DVNCNT1	23 49*	20 49*	17 49*	14 49*	8 53				
14 52	DVNCNT0	DVNCNT0	23 50*	20 50*	17 50*	14 50*	8 54				
14 53	DVUS	ODVUS	23 52*	20 52*	17 52*	14 52*	8 55				
14 54	*GC2ENABLENORM	*GC2ENABLENORM	17 30	14 53*							
14 55	GC2LATCHX	GC2LATCHX	23 54	20 54	17 54	14 54	10 46*				
14 56	DVXR31	ODVXR31	24 37	23 55	20 55	21 37	18 37	17 55	14 55	15 37	10 8*
14 57	HUZ6	OHUZ6	14 56*	13 77							
14 58	HUZ7	OHUZ7	14 57	13 36*							

SLOT	PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	16 29	16 30	16 31	16 32	16 33	16 34	16 35	15 39	12 13	9 44	10 74
16 29	MUZMF8	MUZMF8		22 29#	19 29#	16 29#	13 29#	8 47							
16 30	MUZMF9	MUZMF9		22 30#	19 30#	16 30#	13 30#	8 48							
16 32	MUZMF7	MUZMF7		22 32#	19 32#	16 32#	13 32#	8 46							
16 33	ADNDZ	ADNDZ		22 33	19 33	16 33	13 33	6 12#	5 20	4 19					
16 34	MUZMF6	MUZMF6		22 34#	19 34#	16 34#	13 34#	8 45							
16 35	*CMBRE	*CHORE		24 39	22 35	21 39	19 35	18 39	16 35	15 39	13 35	12 13#	9 44	10 74	
16 36	MUZ6	IMUZ6		37 27	69 27										
16 38	ADNZ	ADZNU		17 57	16 36#										
16 39	MUZ3	IMUZ3		22 38	19 38	16 38	13 38	6 43#							
16 40	*MUDIVHYVIEW	*MUDIVHYVIEW		17 75	16 39#										
16 42	MUZ1	IMUZ1		17 60	16 40#	18 19									
16 43	GC1JADDERACTIVE	GC1JADDERACTIVE		17 67	16 42#										
16 44	MUZ0	IMUZ0		8 26	7 57	9 70#	10 59	13 43	16 43	19 43	22 43				
16 45	GC1SHIFTH	GC1SHIFTH		17 65	16 44#										
16 46	ADNY	ADYNU		22 45	19 45	16 45	13 45	9 60#	6 6	5 6	4 6				
16 47	DVYR27	DVYR27		22 46	19 46	16 46	13 46	5 43#							
16 48	GC1MATRIXLOAD	GC1MATRIXLOAD		17 73#	16 47										
16 49	GC2JDIVACTIVE	GC2JDIVACTIVE		22 48	19 48	16 48	13 48	9 77#							
16 50	GC1SLMYVIEW	GC1SLMYVIEW		8 32	7 58	10 76#	13 49	16 49	19 49	22 49					
16 52	GC2SHIFTH	GC2SHIFTH		16 50	9 26#										
16 53	MUZDO	IMUZDO		22 52	19 52	16 52	13 52	10 57#							
16 54	MUDIVIZDRIN	IMUZ		16 53#	17 69										
16 55	ADNDX	ADXNDU		16 54	16 66#										
16 56	MUZD1	IMUZD1		22 55	19 55	16 55	13 55	6 20	5 19	4 12#					
16 57	*BRMAINT	*BRMAINT		17 70	16 56#										
16 58	GC2INITH	GC2INITH		22 57	19 57	16 57	13 57	8 78#							
16 59	DBXPASS	1DBXPASS		22 58	19 58	16 58	13 58	10 70#							
16 60	GC2FSELO	GC2FSELO		27 75#	18 27	17 25	16 59								
16 62	GC2FSEL1	GC2FSEL1		22 60	19 60	16 60	13 60	10 39#							
16 63	GC2KIN	GC2KIN		22 62	19 62	16 62	13 62	10 43#							
16 64	GC2UPDATE	GC2UPDATE		22 63	19 63	16 63	13 63	10 38#							
16 65	MD1	1DCMDOUT1		22 64	19 64	16 64	13 64	10 77#	6 22	5 22	4 22				
16 66	HUZ	IMUZ		16 65	18 52#										
16 67	*GC1STOP	*GC1STOP		23 35	20 35	17 35	14 35	13 67	16 67	19 67	22 67	7 59	9 54#	8 30	
16 68	ADNX	ADXNU		6 40	5 40	4 40									
16 69	MUXS.N	IMUXS.N		17 68	16 68	16 68	13 68	4 43#							
16 70	MUY	IMUY		17 59	16 69#										
16 72	ADZUDAT	ADZUDAT		22 72	19 72	16 72	13 72	6 49#							
16 73	ADXDAT	ADXDAT		22 73	19 73	16 73	13 73	4 49#							
16 74	GC2FSEL	GC2FSEL		22 74	19 74	16 74	13 74	10 60#							
16 75	MD2	1MUDBLSB		16 75	16 10#										
16 76	ADYUDAT	ADYUDAT		22 76	19 76	16 76	13 76	5 49#							
16 77	DVXR31	1DVXR31		17 56#	16 77										
16 78	*DBXMAINTSHIFT	*DBXMAINTSHIFT		28 67	27 67	27 15#	17 29	18 67	16 78						
16 79	*CMCLK1	*CMCLK1		32 72	31 72	30 72	29 72	28 72	27 72	26 72	25 72	24 68	22 79	21 68	
				19 79	18 68	16 79	15 68	13 79	12 17#	14 33	17 33	20 33	23 33		

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	ECO B1	Date	Page
17 5	DCYCIN	1DCYCIN	18 77# 17 5			
17 6	MUZ12	1MUZ12	17 6 16 8#			
17 7	MUZ13	1MUZ13	17 7 16 7#			
17 9	GC2DIVIDESEL	GC2DIVIDESEL	23 9 20 9	17 9 14 9 10 15#		
17 10	DCXCIN	1DCXCIN	18 79# 17 10			
17 13	MUZ14	1MUZ14	17 13 16 5#			
17 15	MUZ15	1MUZ15	27 42 17 15	16 3#		
17 17	DRBDIVIDE	1DBYDIV	28 75# 28 44	27 44	18 56	17 17
17 19	DVZS1	1DVZS1	17 19# 16 12			
17 20	DVZS0	1DVZS0	17 20# 16 9			
17 22	DVXADD	1DVXADD	18 80 17 22#			
17 23	MUZ9	1MUZ9	17 23 16 17#			
17 24	MUZ8	1MUZ8	17 24 16 16#			
17 25	DBBPASS-DIV	1DBXPASS	27 75# 18 27	17 25 16 59		
17 26	GC2SHIFTRTZ	GC2SHIFTRTZ	23 26 20 26	17 26 14 26	10 13#	
17 27	DVYSER	1DVYSER	28 12 18 34	17 27#		
17 28	DVYADD	1DVYADD	18 78 17 28#			
17 29	*DBXMAINTSHIFT	1*DBXMAINTSHIFT	28 67 27 67	27 15# 17 29	18 67	16 78
17 30	GC2THEM	ODVUS	17 30 14 53#			
17 33	*CMCLK1	*CMCLK1	32 72 31 72	30 72 29 72 27 72	26 72	25 72
17 35	*GC1STOP	*GC1STOP	19 79 18 68	16 79 15 68 13 79	12 17#	24 68
17 37	MUZ10	1MUZ10	23 35 20 35	17 35 14 35	17 33	20 33
17 39	MUZ11	1MUZ11	6 40 5 40	4 40	22 67	19 67
17 43	DVNCNT3	DVNCNT3	17 37 16 18#			
17 44	*DVZMFENABLE	1*DVZMFENABLE	17 39 16 15#	17 43# 14 43#	8 52	
17 45	MUZ4	1MUZ4	23 43# 20 43#			
17 46	GC2SHIFTRT	GC2SHIFTRT	17 45 16 28#			
17 47	GC2TRUNCATE	GC2TRUNCATE	23 46 20 46	17 46 14 46	10 12#	
17 48	MUZ5	1MUZ5	23 47 20 47	17 47 14 47	10 14#	
17 49	DVNCNT2	DVNCNT2	17 48 16 25#			
17 50	DVNCNT1	DVNCNT1	23 49# 20 49#	17 49# 14 49#	8 53	
17 52	DVNCNT0	DVNCNT0	23 50# 20 50#	17 50# 14 50#	8 54	
17 53	DVUS	1DVUS	23 52# 20 52#	17 52# 14 52#	8 55	
17 54	*GC2ENABLENORM	*GC2ENABLENORM	20 30 17 53#			
17 55	GC2LATCHX	GC2LATCHX	23 54 20 54	17 54 14 54	10 46#	
17 56	DVXR31	1DVXR31	24 37 23 55	20 55 21 37	18 37	17 55
17 57	MUZ6	1MUZ6	17 56# 16 77			
17 58	MUZ7	1MUZ7	17 57 16 36#			
17 59	MUYSER	1MUY	17 58 16 20#			
17 60	*HUDIVHYVIEW	1*HUDIVHYVIEW	17 59 16 70#			
17 62	*GC2LATCHY	*GC2LATCHY	17 60 16 40#	18 19		
17 63	*DVMZO	1*DVMZO	23 62 20 62	17 62 14 62	10 9#	
17 64	*DVINFOV	1*DVINFOV	28 8 28 10	17 63#		
17 65	MUZ0	1MUZ0	18 26 17 64#			
17 66	GC2FORCENORM	GC2FORCENORM	17 65 16 44#			
17 67	MUZ1	1MUZ1	23 66 20 66	17 66 14 66	10 48#	
17 67	MUZ1	1MUZ1	17 67 16 42#			

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
17 68	MUXSER	1MXXS.N	17 68 16 69*
17 69	MUZDO	1MUZDO	16 53*
17 70	MUZD1	1MUZD1	17 70 16 56*
17 73	DVYR27	1DVYR27	17 73* 16 47
17 75	MUZ3	1MUZ3	17 75 16 39*
17 76	MUZ2	1MUZ2	17 76 16 13*
17 77	GC2LATCH	GC2LATCH	17 77 20 77 23 77
17 78	DVXSER	1DVXSER	14 77 17 77 20 77 23 77
17 79	GC2EDGE	GC2EDGE	17 78*
18 3	*DBXREADWAIT	1*DBXREADWAIT	26 6 23 79 20 79 17 79 14 79 10 7*
18 4	CMBLOCK2	CMBLOCK2	28 6 28 6 28 6 28 6
18 5	CMFORCEWAIT	CMFORCEWAIT	18 3
18 6	*DCCANTWRITE	*DCCANTWRITE	15 4 12 44* 51 40 83 40
18 7	GC1WRITEAVAIL	GC1WRITEAVAIL	12 36* 15 5 18 5 21 5 24 5
18 10	DCRAS	DCRAS	21 6* 18 6* 15 6* 9 53
18 12	DCCAS	DCCAS	21 7 18 7 15 7 9 55*
18 13	DCWRITE	DCWRITE	18 10*
18 14	DCCS	DCCS	18 12*
18 15	NDIN	CHSEROUT	18 13*
18 16	DCREADAVAIL	DCREADAVAIL	18 14*
18 17	*DCLOADOUT	*DCLOADOUT	15 15 12 37* 15 50 18 50 21 50 24 50 49 5 4 52
18 19	*HUIVYVIEW	*HUIVYVIEW	41 45 47 70 81 5 79 70 73 45 72 45 71 45 67 15
18 20	DRVFL	DRVFL	18 17*
18 22	DRDBCODE0	DRDBCODE0	15 20 7 16*
18 23	DRDBCODE1	DRDBCODE1	15 20 18 20 21 20 18 20
18 24	DRDBCODE2	DRDBCODE2	24 22 26 36 26 36 26 36
18 25	BRSIGNB	BRSIGNB	24 22 21 22 18 22 15 22 7 65*
18 26	*DVINFOV	*DVINFOV	26 37 24 23 21 23 18 23 15 23 7 66*
18 27	DEXPASS	DEXPASS	24 24 21 24 18 24 15 24 7 67*
18 28	CHFLAG1	CHFLAG1	18 25 15 25 8 35*
18 29	*CMCLK2	*CMCLK2	17 25 16 59 17 25 16 59
18 31	GROUND	*CMCLK2	18 27 17 25 16 59
18 32	DVXSER	1DVXSER	18 28 18 28 21 28 24 28 96 57
18 33	DBXINBUFO	1DBXINBUFO	18 29 12 27* 15 29 21 29
18 34	DVYSER	1DVYSER	24 29 18 29 12 27* 15 29 21 29
18 35	DBYINBUFO	1DBYINBUFO	24 31J 18 31J 13 31J 15 31J 21 31J
18 36	*DRSP	*DRSP	[TWISTED PAIR RETURN OF 18 29
18 37	GC2LDFA	GC2LATCHX	27 12 18 32 17 78*
18 38	*DBYMAINTSHIFT	1*DBYMAINTSHIFT	27 59* 18 33 17 27*
18 39	*CHGRE	*CHGRE	28 12 18 34 17 27*
18 40	DCADRO	1DCADRO	28 59* 18 35
18 42	DCADR1	1DCADR1	24 36 18 36 15 36 7 18*
18 43	DCADR2	1DCADR2	24 37 23 55 20 55 21 37 18 37 17 55 14 55 15 37 10 8*
18 44	DCADR3	1DCADR3	24 39 22 35 21 39 19 35 18 39 16 35 15 39 12 13* 9 44 10 74
18 45	DCADR4	1DCADR4	37 27 69 27 28 73 27 73 18 40*
			28 60 27 60 18 42*
			28 76 27 76 18 43*
			28 69 27 69 18 44*
			28 70 27 70 18 45*

SLOT	PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
18 46	DCADR5		1DCADR5	28 74 27 74
18 47	GC2COMPARESERIN		GC2COMPARESERIN	24 47 21 47 18 47
18 48	CHFLAGO		CHFLAGO	12 42# 15 48 18 48
18 49	CHGO		CHGO	12 25# 15 49 18 49
18 50	MDINI		CMSEROUT	24 15 21 15 18 15
				35 15 39 45 40 45
18 52	DCMDOUT1		1DCMDOUT1	16 65 18 52#
18 53	CHFLAG2		CHFLAG2	24 53 21 53 18 53
18 54	DCFUP		IPUP	28 55 27 55 18 54#
18 55	CHFLAG3		CHFLAG3	94 15 96 15 62 15
18 56	DBBDIVIDE		1DBYDIV	28 75# 28 44 27 44
18 67	*DBXHAINTSHIFT		1*DBXHAINTSHIFT	28 67 27 67 27 15#
18 68	*CMCLK1		*CMCLK1	32 72 31 72 30 72
				19 79 18 68 16 79
18 70	DCMDOUT		1DCMDOUT	28 68 18 70#
18 77	DCYCIN		1DCYCIN	18 77# 17 5
18 78	DVYADD		1DVYADD	18 78 17 28#
18 79	DCXCIN		1DCXCIN	18 79# 17 10
18 80	DVXADD		1DVXADD	18 80 17 22#
19 3	MUZ15		2MUZ15	29 42 20 15 19 3#
19 5	MUZ14		2MUZ14	20 13 19 5#
19 7	MUZ13		2MUZ13	20 7 19 7#
19 8	MUZ12		2MUZ12	20 6 19 8#
19 9	DVZ50		2DVZ50	20 20# 19 9
19 10	MUDBLSR		2MUDBLSR	19 75 19 10#
19 12	DVZ51		2DVZ51	20 19# 19 12
19 13	MUZ2		2MUZ2	20 76 19 13#
19 14	ADNDY		ADYNDU	22 14 19 14
19 15	MUZ11		2MUZ11	20 39 19 15#
19 16	MUZ8		2MUZ8	20 24 19 16#
19 17	MUZ9		2MUZ9	20 23 19 17#
19 18	MUZ10		2MUZ10	20 37 19 18#
19 20	MUZ7		2MUZ7	20 58 19 20#
19 22	MUZMF2		MUZMF2	22 22# 19 22#
19 23	MUZMF4		MUZMF4	22 23# 19 23#
19 24	MUZMF3		MUZMF3	22 24# 19 24#
19 25	MUZ5		2MUZ5	20 48 19 25#
19 26	MUZMF5		MUZMF5	22 26# 19 26#
19 27	*DVZMFENABLE		*DVZMFENABLE	20 44# 19 27
19 28	MUZ4		2MUZ4	20 45 19 28#
19 29	MUZMF8		MUZMF8	22 29# 19 29#
19 30	MUZMF9		MUZMF9	22 30# 19 30#
19 32	MUZMF7		MUZMF7	22 32# 19 32#
19 33	ADNDZ		ADZNDU	22 33 19 33
19 34	MUZMF6		MUZMF6	22 34# 19 34#
19 35	*CMGRE		*CMGRE0	24 39 22 35 21 39
				37 27 69 27
19 36	MUZ6		2MUZ6	20 57 19 36#

10 23# 62 57 64 57 21 50 24 50 49 5 4 52

24 48 51 54 83 54 73 45 72 45 71 45 67 15

15 47 21 48 24 49 21 50 24 50 49 5 4 52

15 15 18 15 15 15 73 45 72 45 71 45 67 15

41 45 40 45 47 70 81 5 79 70 73 45 72 45

15 53 12 39# 21 55 18 55 15 55 12 38#

62 15 24 55 17 17 26 72 25 72 24 68 22 79 21 68

18 56 17 17 18 67 27 72 27 72 14 33 20 33 23 33

17 29 16 78 28 72 12 17# 14 33 20 33 23 33

15 68 13 79 13 79 12 17# 14 33 20 33 23 33

13 14 6 19 5 12# 4 20

16 14 13 14 13 14 6 19 5 12# 4 20

16 22# 13 22# 8 40 16 22# 13 22# 8 40

16 23# 13 23# 8 43 16 23# 13 23# 8 43

16 24# 13 24# 8 42 16 24# 13 24# 8 42

16 26# 13 26# 8 44 16 26# 13 26# 8 44

13 29# 13 29# 8 47 16 29# 13 29# 8 47

13 30# 13 30# 8 48 16 30# 13 30# 8 48

13 32# 13 32# 8 46 16 32# 13 32# 8 46

13 33 13 33 6 12# 16 33 13 33 6 12#

13 34# 13 34# 8 45 16 34# 13 34# 8 45

19 35 19 35 18 39 21 39 19 35 18 39 15 39 16 35 12 13# 9 44 10 74

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	ECO B1	Date	Page
22 47	DVYR27	3DVYR27	23 73# 22 47			
22 48	GC1MATRIXLOAD	GC1MATRIXLOAD	22 48 19 48	16 48 13 48		9 77#
22 49	GC2JDIVACTIVE	GC2JDIVACTIVE	8 32 7 58	10 76# 13 49	19 49	22 49
22 50	GC1SLHYVIEW	GC1SLHYVIEW3	22 50 9 28#			
22 52	GC2SHIFTH	GC2SHIFTH	22 52 19 52	16 52 13 52		10 57#
22 53	HUZDO	3MUZDO	23 69 22 53#			
22 54	MUDIVIZORIN	3MUZ	22 66# 22 54			
22 55	ADNDX	ADXNDU	22 55 19 55	16 55 13 55	5 19	4 12#
22 56	HUZDI	3MUZDI	23 70 22 56#			
22 57	*BRMAINT	*BRMAINTM	22 57 19 57	16 57 13 57		8 78#
22 58	GC2INITM	GC2INITM	22 58 19 58	16 58 13 58		10 70#
22 59	DBXPASS	3DBXPASS	24 27 23 25	22 59 31 75#		
22 60	GC2FSELO	GC2FSELO	22 60 19 60	16 60 13 60		10 39#
22 62	GC2FSEL1	GC2FSEL1	22 62 19 62	16 62 13 62		10 43#
22 63	GC2KIN	GC2KIN	22 63 19 63	16 63 13 63		10 38#
22 64	GC2UPDATE	GC2UPDATE	22 64 19 64	16 64 13 64	6 22	5 22 4 22
22 65	MD1	3DCMDOUT1	22 65 24 52#			
22 66	HUZ	3MUZ	22 66# 22 54			
22 67	*GC1STOP	*GC1STOP	23 35 20 35	17 35 14 35	16 67	19 67 22 67 7 59 9 54# 8 30
22 68	ADNX	ADXNDU	6 40 5 40	4 40		
22 69	MUXS.N	3MUXS.N	22 68 19 68	16 68 13 68		4 43#
22 70	MUY	3MUY	23 59 22 70#			
22 72	ADZUDAT	ADZUDAT	22 72 19 72	16 72 13 72		6 49#
22 73	ADXUDAT	ADXUDAT	22 73 19 73	16 73 13 73		4 49#
22 74	GC2FSEL	GC2FSEL	22 74 19 74	16 74 13 74		10 60#
22 75	MD2	3MUDBL8B	22 75 22 10#			
22 76	ADYUDAT	ADYUDAT	22 76 19 76	16 76 13 76		5 49#
22 77	DVXR31	3DVXR31	23 56# 22 77			
22 78	*DBXMAINTSHIFT	*DBXMAINTSHIFT	32 67 31 67	31 15# 23 29	22 78	
22 79	*CMCLK1	*CMCLK1	32 72 31 72	30 72 29 72	27 72	24 68 22 79 21 68
23 5	DCYCIN	3DCYCIN	19 79 18 68	16 79 15 68	13 79	25 72 24 68 22 79 23 33
23 6	HUZ12	3MUZ12	24 77# 23 5			20 33 23 33
23 7	HUZ13	3MUZ13	23 6 22 8#			
23 9	GC2DIVIDESEL	GC2DIVIDESEL	23 7 22 7#			
23 10	GCXCIN	3GCXCIN	23 9 20 9	17 9 14 9		10 15#
23 13	HUZ14	3MUZ14	24 79# 23 10			
23 15	HUZ15	3MUZ15	23 13 22 5#			
23 17	DBBDIVIDE	3DBYDIV	31 42 23 15	22 3#		
23 19	DVZS1	3DVZS1	32 75# 32 44	31 44 24 56		23 17
23 20	DVZS0	3DVZS0	23 19# 22 12			
23 22	DVXADD	3DVXADD	23 20# 22 9			
23 23	MUZ9	3MUZ9	24 80 23 22#			
23 24	HUZ8	3MUZ8	23 23 22 17#			
23 25	DBXPASS-DIV	3DBXPASS	23 24 22 16#			
23 26	GC2SHIFTRIZ	GC2SHIFTRIZ	24 27 23 25	22 59 31 75#		
23 27	DVYSER	3DVYSER	23 26 20 26	17 26 14 26		10 13#
			32 12 24 34	23 27#		

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	24 78	23 28#	24 78	23 29	24 67	22 78	24 68	22 79	21 68
23 28	DVYADD	3DVYADD	24 78	23 28#								
23 29	*DBXMAINTSHIFT	3*DBXMAINTSHIFT	32 67	31 67								
23 30	GC2THEM	2DVUS	23 30	20 53#								
23 33	*CMCLK1	*CMCLK1	32 72	31 72	30 72	29 72	28 72	27 72	26 72	25 72	24 68	21 68
23 35	*GC1STOP	*GC1STOP	19 79	18 68	16 79	15 68	13 79	12 17#	14 33	17 33	20 33	23 33
23 35	*GC1STOP	*GC1STOP	23 35	20 35	17 35	14 35	13 67	16 67	19 67	22 67	7 59	8 30
23 37	MUZ10	3MUZ10	6 40	5 40	4 40							
23 39	MUZ11	3MUZ11	23 37	22 18#								
23 43	DVNCNT3	DVNCNT3	23 39	22 15#								
23 44	*DVZMFENABLE	3*DVZMFENABLE	23 43#	20 43#	17 43#	14 43#	8 52					
23 45	MUZ4	3MUZ4	23 44#	22 27								
23 46	GC2SHIFTR	GC2SHIFTR	23 45	22 28#								
23 47	GC2TRUNCATE	GC2TRUNCATE	23 46	20 46	17 46	14 46	10 12#					
23 48	MUZ5	3MUZ5	23 47	20 47	17 47	14 47	10 14#					
23 49	DVNCNT2	DVNCNT2	23 48	22 25#								
23 50	DVNCNT1	DVNCNT1	23 49#	20 49#	17 49#	14 49#	8 53					
23 52	DVNCNT0	DVNCNT0	23 50#	20 50#	17 50#	14 50#	8 54					
23 54	*GC2ENABLENORM	*GC2ENABLENORM	23 52#	20 52#	17 52#	14 52#	8 55					
23 55	GC2LATCHX	GC2LATCHX	23 54	20 54	17 54	14 54	10 46#					
23 56	DVXR31	3DVXR31	24 37	23 55	20 55	21 37	18 37	17 55	14 55	15 37	10 8#	
23 57	MUZ6	3MUZ6	23 56#	22 77								
23 58	MUZ7	3MUZ7	23 57	22 36#								
23 59	MUYSER	3MUY	23 58	22 20#								
23 60	*MUDIUMYVIEW	*MUDIUMYVIEW	23 59	22 70#								
23 62	*GC2LATCHY	*GC2LATCHY	23 60	22 40#	24 19	14 62	10 9#					
23 63	*DVHZO	3*DVHZO	23 62	20 62	23 62#							
23 64	*DVINFOV	3*DVINFOV	32 8	32 10	23 63#							
23 65	MUZ0	3MUZ0	24 26	23 64#								
23 66	GC2FORCENORM	GC2FORCENORM	23 65	22 44#								
23 67	MUZ1	3MUZ1	23 66	20 66	17 66	14 66	10 48#					
23 68	MUXSER	3MUXS.N	23 67	22 42#								
23 69	MUZ0	3MUZ0	23 68	22 69#								
23 70	MUZD1	3MUZD1	23 69	22 53#								
23 73	DVYR27	3DVYR27	23 70	22 56#								
23 75	MUZ3	3MUZ3	23 73#	22 47								
23 76	MUZ2	3MUZ2	23 75	22 39#								
23 77	GC2LATCH	GC2LATCH	23 76	22 13#								
23 78	DVXSER	3DVXSER	10 25#	7 62	14 77	17 77	20 77	23 77	17 79	14 79	10 7#	
23 79	GC2EDGE	GC2EDGE	31 12	24 32	23 78#							
24 3	*DBXREADWAIT	3*DBXREADWAIT	32 6	30 6	28 6	26 6	23 79	20 79	17 79	14 79	10 7#	
24 4	CMBLOCK2	CMBLOCK2	32 66	31 47#	24 3							
24 5	CMFORCEWAIT	CMFORCEWAIT	24 4	21 4	18 4	15 4	12 44#	51 40	83 40	21 5	24 5	
24 6	*DCCANTWRITE	*DCCANTWRITE	83 14	51 14	9 50	12 36#	15 5	18 5	21 5	24 5		
24 7	GC1WRITEAVAIL	GC1WRITEAVAIL	25 66	24 6#	21 6#	18 6#	15 6#	9 53				
24 10	DCRAS	3DCRAS	25 63	24 7	21 7	18 7	15 7					
24 12	DCCAS	3DCCAS	32 77	31 77	24 10#							
24 13	DCWRITE	3DCWRITE	32 45	31 45	24 13#							

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	27 7	25 7	25 37	27 37	29 37	31 37	8 23#
27 37	DAID6	BROUT6	31 7	29 7	25 7	25 37	27 37	29 37	31 37	8 23#
27 38	DAID5	BROUT5	31 38	29 38	25 38	25 20	27 20	29 20	31 20	8 22#
27 39	DAID4	BROUT4	31 23	31 39	29 39	29 23	27 23	25 23	25 39	8 20#
27 40	DBSEROUT	1DBXSEROUT	28 42	27 40#						
27 42	SERIN	1MUZ15	27 42	17 15						
27 43	GC2PASSDIVIDE	GC2PASSDIV	31 43	29 43	25 43	10 24#				
27 44	DBDIVIDE	1DBYDIV	28 75#	28 44	18 56	17 17				
27 45	DCCAS	1DCCAS	28 45	27 45						
27 46	DCCS	1DCCS	28 46	27 46						
27 47	DBREADWAIT	1DBXREADWAIT	28 66	27 47#						
27 48	DCREADAVAIL	1DCREADAVAIL	28 63	27 48						
27 49	DAID3	BROUT3	31 49	29 49	25 49	25 19	27 19	29 19	31 19	8 19#
27 50	DAID2	BROUT2	31 50	29 50	25 50	25 18	27 18	29 18	31 18	8 18#
27 52	*GC2LDC	*GC2LDCX	31 52	29 52	25 52	10 19#				
27 53	*GC2LDB	*GC2LDB	32 53	31 53	29 53	28 53	27 53	26 53	25 53	10 4#
27 54	*GC2LDD	*GC2LDD	32 54	31 54	29 54	28 54	27 54	26 54	25 54	10 22#
27 55	*DCLDA	1PUP	28 55	27 55						
27 56	DAID1	BROUT1	31 56	29 56	25 56	25 5	27 5	29 5	31 5	8 17#
27 57	*INHERE	*IMHERE	32 57#	31 57#	29 57#	28 57#	27 57#	26 57#	25 57#	37 6#
27 58	DAID0	BROUT0	51 50#	47 80#	79 80#	69 6#				
27 59	DBINBUFO	1DBXINBUFO	31 58	29 58	25 58	25 4	27 4	29 4	31 4	8 16#
27 60	DCADR1	1DCADR1	27 59#	18 33						
27 62	AVAILOUT	AVAILOUT	28 60	27 60						
27 64	WAITOUT	WAITOUT	32 62#	31 62#	29 62#	28 62#	27 62#	26 62#	25 62#	12 77
27 65	MDOUT	MDOUT	32 64#	31 64#	29 64#	28 64#	27 64#	26 64#	25 64#	12 78
27 66	WAITIN	GROUND	83 55#	79 78#	47 78#	51 55#	25 65#	26 65#	27 65#	28 65#
27 67	*DBXMAINTSHIFT	*DBXMAINTSHIFT	31 65#	32 65#	12 9	8 77#	37 7#			
27 68	MDIN	1DBYSEROUT	31 66	29 66	26 66	26 48	30 48	32 48		
27 69	DCADR3	1DCADR3	28 67	27 67	17 29	18 67	16 78			
27 70	DCADR4	1DCADR4	28 40#	27 68						
27 72	*CMCLK1	*CMCLK1	28 69	27 69						
27 73	DCADRO	1DCADRO	28 70	27 70						
27 74	DCADRS	1DCADRS	32 72	31 72	29 72	28 72	27 72	26 72	25 72	24 68
27 75	DBPASS-DIV	1DBXPASS	19 79	18 68	15 68	13 79	12 17#	14 33	17 33	20 33
27 76	DCADR2	1DCADR2	28 73	27 73						
27 77	DCRAS	1DCRAS	28 74	27 74						
27 78	DCWRITE	1DCWRITE	27 75#	18 27	16 59					
27 79	-15VDC	1DCWRITE	28 76	27 76						
27 80	+12VDC	-15V13	28 77	27 77						
28 6	GC2EDGE	+12V3	27 79	102 53#						
28 7	DATC0	GC2EDGE	27 80	103 54#						
28 8	DATC1	BRDEF0CUS1	32 6	30 6	26 6	23 79	20 79	17 79	14 79	10 7#
28 9	DATC1	1*DVHZ0	32 7	30 7	26 7	8 64#				
28 10	DATC1	BRDEF0CUS0	28 8	28 10						
28 12	DVSR	1*DVHZ0	32 9	30 9	26 9	8 65#				
		1DVYSER	28 8	28 10						
			28 12	18 34						

SLOTPIN CARD SIGNAL NAME	STRING NAME	STRING PINS	ECO B1	Date	Page
28 15	*DBMAINTSHIFT	28 15# 18 38			
28 16	CMSHIFT1	32 16 30 16			
28 20	GC1FRONTFACE	32 20 30 20			
28 22	CMDEVEN2	32 22 30 22	28 16 26 16	12 34#	
28 24	*DBMAINTOUT	28 32 28 24#	28 20 26 20	9 43#	
28 25	*CMCHN1	28 25 27 25	28 22 26 22	12 69#	
28 30	*DCLOADOUT	28 30 27 30	12 54# 69 5	79 52	83 3 94 45
28 32	*DBMAINTIN	28 32 28 24#	18 17#		
28 36	DATD7	32 36 30 36	28 36 26 36	24 22	18 22 15 22 7 65#
28 37	DATD6	32 37 30 37	28 37 26 37	24 23	18 23 15 23 7 66#
28 38	DATD5	32 38 30 38	28 38 26 38	24 24	18 24 15 24 7 67#
28 39	DATD4	32 39 30 39	28 39 26 39	7 55#	
28 40	DBSEROUT	28 40# 27 68			
28 42	SERIN	28 42 27 40#			
28 43	GC2PASSDIVIDE	32 43 30 43	28 43 26 43	10 10#	
28 44	DBDIVIDE	28 75# 28 44	27 44 18 56	17 17	
28 45	DCCAS	28 45 27 45			
28 46	DCCS	28 46 27 46	18 12#		
28 48	DREADAVAIL	31 66 29 66	18 14#		
28 49	DATD3	32 49 30 49	27 66 26 48	30 48	32 48
28 50	DATD2	32 50 30 50	28 49 26 49	7 54#	
28 52	*GC2LDC	32 52 30 52	28 50 26 50	7 53#	
28 53	*GC2LDB	32 53 31 53	28 52 26 52	10 20#	
28 54	*GC2LDD	32 54 31 54	30 53 29 53	27 53	26 53 25 53 10 4#
28 55	*DCLDA	28 55 27 55	30 54 29 54	27 54	26 54 25 54 10 22#
28 56	DATD1	32 56 30 56	18 54#		
28 57	*IMHERE	32 57# 31 57#	28 56 26 56	7 52#	
28 58	DATD0	51 50# 47 80#	30 57# 29 57#	28 57#	25 57# 37 6# 8 76# 12 79
28 59	DBINBUFO	32 58 30 58	83 50# 79 80#	69 6#	
28 60	DCADRI	28 59# 18 35	28 58 26 58	7 50#	
28 62	AVAILOUT	28 60 27 60	18 42#		
28 63	AVAILIN	32 62# 31 62#	30 62#	28 62#	27 62# 25 62# 12 77 51 56# 83 56#
28 64	WAITOUT	28 63 27 63	18 16#		
28 65	HDOUT	32 64# 31 64#	30 64# 29 64#	28 64#	27 64# 26 64# 12 78
28 66	WAITIN	83 55# 79 76# 69 7#	47 76# 51 55#	25 65#	26 65# 28 65# 29 65# 30 65#
28 67	*DBXHAINTSHIFT	31 65# 32 65#	12 9 8 77#	37 7#	
28 68	HDIN	28 66 27 67	18 3		
28 69	DCADR3	28 67 27 67	27 15#	17 29	18 67 16 78
28 70	DCADR4	28 68 18 70#			
28 72	*CHCLK1	28 69 27 69	18 44#		
28 73	DCADR0	28 70 27 70	18 45#		
28 74	DCADR5	32 72 31 72	30 72	29 72	28 72 26 72 25 72 24 68 22 79 21 68
28 75	DBPASS-DIV	19 79 18 68	16 79	15 68	13 79 12 17# 14 33 17 33 20 33 23 33
28 76	DCADR2	28 73 27 73	18 40#		
28 77	DCRAS	28 74 27 74	18 46#		
		28 75# 28 44	27 44		
		28 76 27 76	18 43#		
		28 77 27 77	18 10#		

STRING NAME	SIGNAL NAME	STRING NAME	STRING PINS	ECO B1	Date	Page
30 55 *DCLDA	2PUP	30 55	29 55	21 54#		
30 56 DATD1	DRCOLPRIOR3	30 56	30 56	28 56		
30 57 *IMHERE	*IMHERE	32 57#	31 57#	29 57#	27 57#	26 57# 25 57# 37 6# 8 76# 12 77
30 58 DATD0	DRCOLPRIOR4	32 58	47 80#	79 80#	69 6#	
30 59 DBINRUFO	2DBYINBUFO	30 59#	21 35	26 58	7 50#	
30 60 DCADR1	2DCADR1	30 60	29 60	21 42#		
30 62 AVAILOUT	AVAILOUT	32 62#	31 62#	30 62#	27 62#	26 62# 25 62# 12 77 51 56# 83 56#
30 63 AVAILIN	2DCREADAVAIL	30 63	29 48	21 14#		
30 64 WAITOUT	WAITOUT	32 64#	31 64#	30 64#	27 64#	26 64# 25 64# 12 78
30 65 MDOUT	MDOUT	83 55#	79 76#	69 7#	47 76#	25 65# 27 65# 28 65# 29 65# 30 65#
30 66 WAITIN	2*DBXREADWAIT	31 65#	32 65#	12 9	8 77#	37 7#
30 67 *DBXMAINTSHIFT	2*DBXMAINTSHIFT	30 66	29 47#	21 3		
30 68 MDIN	2DCMDOUT	30 67	29 67	29 15#	20 29	21 67 19 78
30 69 DCADR3	2DCADR3	30 68	21 70#			
30 70 DCADR4	2DCADR4	30 69	29 69	21 44#		
30 72 *CMCLK1	*CMCLK1	30 70	29 70	21 45#		
30 73 DCADRO	2DCADRO	32 72	31 72	30 72	29 72	28 72 27 72 26 72 25 72 24 68 22 79 21 68
30 74 DCADRS	2DCADRS	19 79	18 68	16 79	15 68	13 79 12 17# 14 33 17 33 20 33 23 33
30 75 DBPASS-DIV	2DBYDIV	30 73	29 73	21 40#		
30 76 DCADR2	2DCADR2	30 74	29 74	21 46#		
30 77 DCRAS	2DCRAS	30 75#	30 44	29 44	21 56	20 17
30 78 EWRITE	2DCWRITE	30 76	29 76	21 43#		
30 79 -15VDC	-15V16	30 77	29 77	21 10#		
30 80 +12VDC	+12V6	30 78	29 78	21 13#		
31 4 DATB2	BROUT0	30 79	102 60#			
31 5 DATB3	BROUT1	30 80	103 60#			
31 6 GC2EDGE	*GC2FACE	31 58	29 58	27 58	25 58	27 4 27 4 29 4 31 4 8 16#
31 7 DATC0	BROUT6	31 56	29 56	27 56	25 56	27 5 27 5 29 5 31 5 8 17#
31 8 DATE0	BRDEFOCUS3	31 6	29 6	27 6	25 6	10 6# 8 72
31 9 DATC1	BRDEFOCUS2	31 7	29 7	27 7	25 7	25 37 27 37 29 37 31 37 8 23#
31 10 DATE1	BRDEFOCUS2	31 8	29 8	27 8	25 8	8 62#
31 12 DVSER	3DVXSER	31 9	29 9	27 9	25 9	25 36 27 36 29 36 31 36 8 24#
31 15 *DBMAINTSHIFT	3*DBXMAINTSHIFT	31 10	29 10	27 10	25 10	8 63#
31 16 CMSHIFT	CMSHIFT	31 12	24 32	23 78#		
31 18 DATB4	BROUT2	32 67	31 67	31 15#	23 29	24 67 22 78
31 19 DATB5	BROUT3	31 16	29 16	27 16	25 16	12 6# 8 73 9 79 37 12 47 28 51 26 62 29
31 20 DATB7	BROUT5	94 29	83 26	79 28	69 12	
31 22 CMDEVENABLE	CMDEVEN1	31 50	29 50	27 50	25 50	25 18 27 18 31 18 8 18#
31 23 DATB6	BROUT4	31 49	29 49	27 49	25 49	25 19 27 19 31 19 8 19#
31 24 *DBMAINTOUT	3*DBXMAINTOUT	31 38	29 38	27 38	25 38	25 20 27 20 31 20 8 22#
31 25 *CMCHN	*CMCHN3	31 22	29 22	27 22	25 22	12 57#
31 30 *DCLOADOUT	3*DCLOADOUT	31 23	31 39	27 39	25 39	29 23 27 23 25 23 25 39 8 20#
31 32 *DBMAINTIN	3*DBXMAINTIN	31 32	31 24#	12 52#		
31 36 DATD7	BROUT7	32 25	31 25	31 30	24 17#	
		31 32	31 24#	27 9	25 9	25 36 27 36 29 36 31 36 8 24#

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	ECO B1	Date	Page
31 37	DATD6	BROUT6	31 7	29 7	27 7	25 7
31 38	DATD5	BROUT5	31 38	29 38	27 38	25 38
31 39	DATD4	BROUT4	31 23	31 39	27 39	25 39
31 40	DBSEROUT	3DBXSEROUT	32 42	31 40*	27 43	25 43
31 42	SERIN	3HUZ15	31 42	23 15	22 3*	20 24*
31 43	GC2PASSDIVIDE	GC2PASSDIV	31 43	29 43	27 43	25 43
31 44	DBDIVIDE	3DBYDIV	32 75*	32 44	31 44	24 56
31 45	DCCAS	3DCCAS	32 45	31 45	24 12*	23 17
31 46	DCCS	3DCCS	32 46	31 46	24 14*	
31 47	*DBREADWAIT	3*DBXREADWAIT	32 66	31 47*	24 3	
31 48	DCREADAVAIL	3DCREADAVAIL	32 63	31 48	24 16*	
31 49	DATD3	BROUT3	31 49	29 49	27 49	25 49
31 50	DATD2	BROUT2	31 50	29 50	27 50	25 50
31 52	*GC2LDC	*GC2LDCX	31 52	29 52	27 52	25 52
31 53	*GC2LDB	*GC2LDB	32 53	31 53	30 53	25 53
31 54	*GC2LDD	*GC2LDD	32 54	31 54	30 54	25 54
31 55	*DCLDA	3PUP	32 55	31 55	24 54*	25 54
31 56	DATD1	BROUT1	31 56	29 56	27 56	25 56
31 57	*IMHERE	*IMHERE	32 57*	31 57*	30 57*	25 57*
31 58	DATD0	BROUT0	51 50*	47 80*	83 50*	79 80*
31 59	DBINBUFO	3DBXINBUFO	31 58	29 58	27 58	25 58
31 60	DCADR1	3DCADR1	31 59*	24 33	24 42*	23 4
31 62	AVAILOUT	AVAILOUT	32 60	31 60	24 42*	29 62*
31 64	WAITOUT	WAITOUT	32 64*	31 64*	30 62*	26 62*
31 65	HDOUT	HDOUT	83 55*	79 76*	69 7*	26 64*
31 66	WAITIN	GROUND	31 65*	32 65*	12 9	25 65*
31 67	*DBXMAINTSHIFT	3*DBXMAINTSHIFT	31 66	29 66	27 66	26 65*
31 68	MDIN	3DBXSEROUT	32 67	31 67	31 15*	26 65*
31 69	DCADR3	3DCADR3	32 40*	31 68	24 44*	27 62*
31 70	DCADR4	3DCADR4	32 70	31 70	24 45*	25 62*
31 72	*CHCLK1	*CHCLK1	32 72	31 72	30 72	25 64*
31 73	DCADRO	3DCADRO	19 79	18 68	16 79	26 64*
31 74	DCADRS	3DCADR5	32 73	31 73	24 40*	26 65*
31 75	DBPASS-DIV	3DBXPASS	32 74	31 74	24 46*	27 65*
31 76	DCADR2	3DCADR2	24 27	23 25	22 59	28 62*
31 77	DCRAS	3DCRAS	32 76	31 76	24 43*	26 64*
31 78	DCWRITE	3DCWRITE	32 77	31 77	24 10*	26 64*
31 79	-15VDC	-15V17	32 78	31 78	24 13*	26 65*
31 80	+12VDC	+12V7	31 79	102 61*		27 65*
32 6	GC2EDGE	GC2EDGE	31 80	103 62*		27 65*
32 7	DATC0	BRDEFOCUS1	32 6	30 6	28 6	28 6
32 8	DATC0	3*DVHZ0	32 7	30 7	28 7	26 6
32 9	DATC1	BRDEFOCUS0	32 8	32 10	23 63*	26 7
32 10	DATC1	3*DVHZ0	32 9	30 9	28 9	26 9
32 10	DATC1	3*DVHZ0	32 8	32 10	23 63*	8 65*
32 12	DVUSER	3DVUSER	32 12	24 34	23 27*	
31 19*			27 19	29 19	27 19	25 19
31 18			27 18	29 18	27 18	25 18
10 4*			27 53	26 53	25 53	10 4*
10 22*			27 54	26 54	25 54	10 22*
8 17*			27 5	29 5	27 5	25 5
8 76*			27 57*	26 57*	25 57*	8 76*
8 16*			27 4	29 4	27 4	25 4
51 56*			28 62*	26 62*	25 62*	51 56*
83 56*			28 64*	26 64*	25 64*	83 56*
29 65*			51 55*	26 65*	27 65*	29 65*
37 7*			37 7*			
28 48			28 48	32 48	30 48	28 48
23 29			23 29	24 67	22 78	23 29
29 72			29 72	28 72	27 72	26 72
15 68			15 68	13 79	12 17*	14 33
25 72			25 72	26 72	25 72	24 68
17 79			17 79	14 79	17 79	14 79
20 79			20 79	17 79	14 79	10 7*
23 79			23 79	8 64*		
8 65*			8 65*			

SLOT/FIN CARD	SIGNAL NAME	STRING NAME	STRING PINS
35 58	R5	OOTPR0D4	36 44# 35 58
35 59	W4	OOCCYNT3	37 68# 35 59
35 60	R4	OOTPR0D3	36 43# 35 60
35 62	CAS	OOCCAS	37 74# 35 62
35 63	MEMWRITE	OOCCMEMWRITE	37 79# 35 63
35 64	MEMREF	OOCCMEMREF	37 73# 35 64
35 65	KAS	OOCCRAS	37 76# 35 65
35 66	SHIFTFRDATA	OOCCSHIFTFRDATA	37 14# 35 66
35 67	W3	OOTPR0D2	37 69# 35 67
35 68	R3	OOCCYNT2	36 42# 35 68
35 69	W2	OOCCYNT1	37 59# 35 69
35 70	R2	OOTPR0D1	36 40# 35 70
35 72	W1	OOCCYNT1	37 49# 35 72
35 73	R1	OOTMULT1	36 69# 35 73
35 79	-15V	-15V35	35 79# 112 10#
35 80	+12V	+12V35	35 80# 113 11#
36 1	GROUND	*CNCLK8	TWISTED PAIR RETURN OF 36 3
36 3	*CLOCK	*CNCLK8	69 3 68 3 67 3 35 3 36 3 37 3 12 26#
36 4	*BMAINT	OOCC*BMAINT	69 3 68 3 67 3 35 3 36 3 37 3 12 26#
36 6	LOADMULT	OOCL0ADMULT	37 4# 36 4 35 7
36 7	LOADPROD	OOCL0ADPROD	37 22# 36 6
36 8	LOADINPUT	OOCL0ADINPUTDATA	37 35# 36 7
36 9	Y7	OOCCYMD7	37 20# 36 8
36 10	X7	OOCCXMD7	60 58 50 76# 41 46
36 12	Y6	OOCCYMD6	58 58 49 76# 39 46 38 46
36 13	X6	OOCCXMD6	60 57 50 75# 41 40 40 40
36 14	Y5	OOCCYMD5	58 57 49 75# 39 40 38 40
36 15	X5	OOCCXMD5	60 56 50 73# 41 42 40 42
36 16	Y4	OOCCYMD4	58 56 49 73# 39 42 38 42
36 17	X4	OOCCXMD4	60 55 50 77# 41 55 40 55
36 19	M7	OOTMULT7	58 55 49 77# 39 55 38 55
36 20	M6	OOTMULT6	36 19# 35 10
36 22	M5	OOTMULT5	36 20# 35 17
36 23	M4	OOTMULT4	36 22# 35 19
36 24	Y11	OOCCYMD11	36 23# 35 22
36 25	X11	OOCCXMD11	60 63 50 66# 41 43 40 43
36 26	Y10	OOCCYMD10	62 64 58 63 49 66# 39 43
36 27	X10	OOCCXMD10	60 62 50 68# 41 30 40 30
36 28	Y9	OOCCYMD9	62 65 58 62 49 68# 39 30
36 29	X9	OOCCXMD9	60 60 50 60# 41 48 40 48
36 30	Y8	OOCCYMD8	62 66 58 60 49 60# 39 48
36 32	X8	OOCCXMD8	60 59 50 65# 41 18 40 18
36 34	M11	OOTMULT11	62 67 58 59 49 65# 39 18
36 35	M10	OOTMULT10	36 34# 35 25
36 36	M9	OOTMULT9	36 35# 35 26
36 37	M8	OOTMULT8	36 36# 35 27
36 38	SHIFTIN	OOCCMEMOUT15	36 37# 35 27
			36 38 35 12#

SLOT/PIN	CARD	SIGNAL NAME	STRING NAME	STRING PINS
36 39	PROD0		00TPROD0	37 54 36 39*
36 40	PROD1		00TPROD1	36 40* 35 70
36 42	PROD2		00TPROD2	36 42* 35 68
36 43	PROD3		00TPROD3	36 43* 35 60
36 44	PROD4		00TPROD4	36 44* 35 58
36 45	PROD5		00TPROD5	36 45* 35 56
36 46	PROD6		00TPROD6	36 46* 35 54
36 47	PROD7		00TPROD7	36 47* 35 39
36 48	PROD8		00TPROD8	36 48* 35 37
36 49	PROD9		00TPROD9	36 49* 35 35
36 50	PROD10		00TPROD10	36 50*
36 52	PROD11		00TPROD11	36 52*
36 54	I11		00TDATAI11	37 36 36 54*
36 55	26W		00C26W	37 8* 36 55
36 56	2WR0		00C2WR0	37 28* 36 56
36 57	2WR1		00C2WR1	37 15* 36 57
36 58	2WR2		00C2WR2	37 16* 36 58
36 59	16W		00C16W	37 9* 36 59
36 60	1W0		00C1W0	37 17* 36 60
36 62	1W1		00C1W1	37 18* 36 62
36 63	1W2		00C1W2	37 19* 36 63
36 64	1R0		00C1R0	37 32* 36 64
36 65	1R1		00C1R1	37 30* 36 65
36 66	1R2		00C1R2	37 29* 36 66
36 67	H3		00THULT3	36 67* 35 24
36 68	H2		00THULT2	36 68* 35 33
36 69	H1		00THULT1	36 69* 35 73
36 70	H0		00THULT0	36 70*
36 72	INPUTSELECT		00CBELYINPUT	37 33* 36 72
36 73	Y3		00DYND3	60 54 50 52* 41 37 40 37 36 73
36 74	X3		00DXHD3	58 54 49 52* 39 37 38 37 36 74
36 75	Y2		00DYND2	60 53 50 56* 41 64 40 64 36 75
36 76	X2		00DXHD2	58 53 49 56* 39 64 38 64 36 76
36 77	Y1		00DYND1	60 52 50 50* 41 39 40 39 36 77
36 78	X1		00DXHD1	58 52 49 50* 39 39 38 39 36 78
36 79	Y0		00DYND0	60 50 50 46* 41 44 40 44 36 79
36 80	X0		00DXHD0	58 50 49 46* 39 44 38 44 36 80
37 1	GROUND		*CMCLK8	
37 3	*CLOCK		*CMCLK8	
37 4	*BMAINT		00C*BMAINT	
37 5	*CHAN		*CMCHNO	
37 6	*ITSH		*IMHERE	
37 7	SEROUT		MDDUT	
37 8	*ENABLEWRITE2		00C26W	
37 9	*ENABLEWRITE1		00C16W	

TWISTED PAIR RETURN OF 37 3
 L 69 3 68 3 67 3 35 3 36 3 37 3 12 26*
 69 3 68 3 67 3 35 3 36 3 37 3 12 26*
 37 4* 36 4 35 7
 25 25 26 25 62 45 47 52 51 3 12 55* 8 74 37 5
 32 57* 31 57* 30 57* 29 57* 28 57* 27 57* 26 57* 25 57* 24 57*
 51 50* 47 80* 83 50* 79 80* 69 6*
 83 55* 79 76* 69 7* 47 76* 51 55* 25 65* 27 65* 28 65* 29 65* 30 65*
 31 65* 32 65* 12 9 8 77* 37 7*
 37 8* 36 55
 37 9* 36 59

STRING CARD SIGNAL NAME	STRING NAME	STRING PINS	27 16	25 16	12 6#	8 73	9 79	37 12	47 28	51 26	62 29
37 12	SHIFT	CNSHIFT	31 16	29 16							
37 13	LOOPP	CHDEVENB	94 29	83 26							
37 14	SHIFTPRDATA	00C2WR1	12 67#	37 13							
37 15	2WR1	00C2WR2	37 14#	35 66							
37 16	2WR2	00C1W0	37 15#	36 57							
37 17	IW0	00C1W1	37 16#	36 58							
37 18	IW1	00C1W2	37 17#	36 60							
37 19	IW2	00CLOADIN	37 18#	36 62							
37 20	LDDATA	00CLOADMULT	37 19#	36 63							
37 21	LDMULT	*0DPACCAPT	37 20#	36 8							
37 22	*DDACCAPT	*0DPACCODE	37 22#	36 6							
37 23	*DFDECODE	*0DDAVAIL	51 16#	47 53#							
37 24	*DFDECODE	*0DAREO	51 32#	47 44#							
37 25	DDAVAIL		51 37#	47 46							
37 26	*RESET		24 39	22 35	19 35	18 39	16 35	15 39	13 35	12 13#	9 44
37 27			37 27	69 27							10 74
37 28	2WRO	00C1R2	37 28#	36 56							
37 29	IR2	00C1R1	37 29#	36 66							
37 30	IR1	00CSELIN	37 30#	36 65							
37 31	IRO	00CLOADHOLD	37 32#	36 64							
37 32	SELINP	00CLOADHOLD	37 33#	36 72							
37 33	LDHOLD	00CLOADHOLD	37 34#	35 4							
37 34	LDHOLD	00CLOADHOLD	37 35#	36 7							
37 35	LDFROD	00CLOADHOLD	37 36	36 54#							
37 36	SHIFIN	00CLOADHOLD	50 18#	51 52							
37 37	LIGHTPRIORITY	00CLOADHOLD	51 74	37 38#							
37 38	PERMITLIGHT	00CLOADHOLD	64 69	62 69							
37 39	PERMITLIGHT	00CLOADHOLD	64 68	62 68							
37 40	Y19	00CLOADHOLD	37 44#	35 16							
37 41	Y20	00CLOADHOLD	37 45#	35 18							
37 42	XCNT6	00CLOADHOLD	37 46#	35 20							
37 43	XCNT5	00CLOADHOLD	37 47#	35 23							
37 44	XCNT4	00CLOADHOLD	37 48#	35 32							
37 45	XCNT3	00CLOADHOLD	37 49#	35 72							
37 46	XCNT2	00CLOADHOLD	60 74	58 74							
37 47	XCNT1	00CLOADHOLD	37 52	35 14#							
37 48	XCNT1	00CLOADHOLD	37 53	35 52#							
37 49	XCNT1	00CLOADHOLD	37 54	36 39#							
37 50	DRAMSURF	00CLOADHOLD	64 70	62 70							
37 51	DRAMSURF	00CLOADHOLD	51 45	50 14#							
37 52	MEMPRIORITY	00CLOADHOLD	64 47	62 47							
37 53	AGTB	00CLOADHOLD	37 58	51 76							
37 54	YSIGN	00CLOADHOLD	37 59#	35 69							
37 55	Y18	00CLOADHOLD	88 69	56 69							
37 56	Y21	00CLOADHOLD	87 71JL	58 71JL							
37 57	Y22	00CLOADHOLD	37 61JL	69 61JL							
37 58	Y23	00CLOADHOLD	37 62#	35 34							
37 59	YCNT1	00CLOADHOLD	37 63#	35 36							
37 60	*CLK20MHZ		TWISTED PAIR RETURN OF 37 60								
37 61	GROUND										
37 62	YCNT9										
37 63	YCNT8										

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
37 64	YCNT7	00CYCNT7	37 64# 35 38
37 65	YCNT6	00CYCNT6	37 65# 35 53
37 66	YCNT5	00CYCNT5	37 66# 35 55
37 67	YCNT4	00CYCNT4	37 67# 35 57
37 68	YCNT3	00CYCNT3	37 68# 35 59
37 69	YCNT2	00CYCNT2	37 69# 35 67
37 70	LOADMEHINPUT	00CLOADMEHINPUT	37 70# 35 5
37 71	GROUND	*CMCLK9	TWISTED PAIR RETURN OF 37 72
37 72	*MAINTCLOCK	*CMCLK9	69 72 37 72 12 28#
			[69 71JL 37 71JL 11 31J
37 73	MEMREF	00CMEHREF	37 73# 35 64
37 74	CAS	00CCAS	37 74# 35 62
37 75	RC	00CRC	37 75# 35 6
37 76	RAS	00CRAS	37 76# 35 65
37 77	WADDRSEL	00CWADDRSEL	37 77# 35 29
37 78	MEMREAD	00CMEHREAD	37 78# 35 13
37 79	MEMWRITE	00CMEHWRITE	37 79# 35 63
37 80	*OCC	00DXB7	56 10 49 8# 37 80
38 2	VCC	+5V38	38 4 38 2#
38 3	*WAU	+5V38	47 3# 38 3
38 4	VCC	+5V38	38 4 38 2#
38 6	*CEAU	0EG0GND	38 6 38 41# 38 58 38 67 38 69
38 7	ADR1	0FG0EADR1	42 10# 38 7
38 8	ADR2	0FG0EADR2	42 63# 38 8
38 10	ADRO	0FG0EADRO	42 12# 38 10
38 12	*A16	*0EG0A16	42 30 38 12#
38 14	*A18	*0EG0A18	42 38 38 14#
38 15	AUSIN	*0EG0A15	38 63# 42 29 38 15
38 16	*A17	*0EG0A17	42 35 38 16#
38 17	*A19	*0EG0A19	42 36 38 17#
38 18	*DI7	0DDXND8	62 67 58 59 49 65# 39 18 38 18 36 32
38 19	START	0EG0START	42 6 38 19#
38 20	ONES	0EG0ONES	42 7 38 20#
38 22	*DI3	0DDXHD12	62 60 58 64 49 63# 39 22 38 22
38 23	*START	*0EG0START	42 76 38 23#
38 27	*DI2	0DDXHD13	62 59 58 65 49 58# 39 27 38 27
38 28	*DI1	0DDXHD14	64 49 62 49 58 66 49 64# 39 28 38 28
38 29	LOAD	0EFL0ADA	47 33# 41 29 40 29 39 29 38 29
38 30	*DI5	0DDXHD10.	62 65 58 62 49 68# 39 30 38 30
38 33	*SENSE	*0FG0SENSE	42 14# 38 33
38 34	*A31	0EG0A31	42 5 38 34#
38 35	SHIFT	0EFDEVB	47 29# 45 65 44 65 43 65 40 35 41 35 39 35 38 35
38 36	SENSE	0FG0SENSE	47 72 42 13# 38 36
38 37	*DI12	0DDXMD3	58 54 49 52# 39 37 38 37 36 74
38 38	CYIN	CMFUP	70 38 71 38 72 38 73 38 41 38 41 38
38 39	*DI14	0DDXMD1	58 52 49 50# 39 39 38 39 36 78
38 40	*DI9	0DDXMD6	58 57 49 75# 39 40 38 40 36 13
38 41	GROUND	0EG0GND	38 6 38 41# 38 58 38 67 38 69

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
38 42	*DI10	ODDXMD5	58 56 49 73# 39 42 38 42 36 15
38 43	*DI4	ODDXMD11	62 64 58 63 49 66# 39 43 38 43 36 25
38 44	*DI15	ODDXMD0	58 50 49 46# 39 44 38 44 36 80
38 45	ALSN	OPSENDP2	46 47# 38 45
38 46	*DI8	ODDXMD7	58 58 49 76# 39 46 38 46 36 10
38 48	*DI6	ODDXMD9	62 66 58 60 49 60# 39 48 38 48 36 29
38 50	*A8	*OEG0A8	42 28 38 50#
38 53	*A9	*OEG0A9	42 27 38 53#
38 54	*A11	*OEG0A11	42 34 38 54#
38 55	*DI11	ODDXMD4	58 55 49 77# 39 55 38 55 36 17
38 56	*A10	*OEG0A10	42 33 38 56#
38 57	SELSUM	OEFSELSUM	47 32# 41 57 40 57 39 57 38 57
38 58	*CEAL	OEB0GND	38 6 38 41# 38 58 38 67 38 69
38 60	*A12	*OEG0A12	42 32 38 60#
38 62	*DI0	ODDXMD15	64 50 62 50 58 67 49 57# 39 62 38 62
38 63	*A15	*OEG0A15	38 63# 42 29 38 15
38 64	*DI13	ODDXMD2	58 53 49 56# 39 64 38 64 36 76
38 65	*A13	*OEG0A13	42 67 38 65#
38 66	*A14	*OEG0A14	42 37 38 66#
38 67	*CEBU	OEG0GND	38 6 38 41# 38 58 38 67 38 69
38 68	*MAL	*OEFWRTALO	47 5# 38 68
38 69	*CEBL	OEG0GND	38 6 38 41# 38 58 38 67 38 69
38 70	*WBU	*OEFWRTBUO	47 13# 38 70
38 72	*WBL	*OEFWRTBLO	47 14# 38 72
38 73	ADR4	OFG0EADR4	42 16# 38 73
38 74	ADR5	OFG0EADR5	42 15# 38 74
38 76	ADR3	OFG0EADR3	42 18# 38 76
38 79	*CLK	*CMCLK4	12 19# 38 79 42 79 46 22 47 34 48 72 52 72 53 72 54 72 55 72 58 72 87 72
38 80	GROUND	*CMCLK4	[12 21JC 38 80JC 42 80JC 46 21JC 47 31JC 48 71JC 52 71JC 53 71JC 54 71JC 55 71JC 58 71JC 87 71J
39 2	VCC	+SV39	86 72 85 72 84 72 80 72 80 72 79 34 78 22 74 79 70 79 74 3
39 3	*WAV	*OEFWRTAU1	[86 71JC 85 71JC 84 71JC 80 71JC 79 31JC 78 21JC 74 80JC 70 80JC 74 1J
39 4	VCC	+SV39	39 4 39 2# TWISTED PAIR RETURN OF 38 79
39 6	*CEAU	OEG1GND	39 4 39 2#
39 7	ADR1	OFG1EADR1	47 6# 39 3
39 8	ADR2	OFG1EADR2	39 4 39 2#
39 10	ADRO	OFG1EADRO	39 6 39 41# 39 58 39 67 39 69
39 12	*A16	*OEG1A16	43 10# 39 7
39 14	*A18	*OEG1A18	43 63# 39 8
39 15	AUSIN	*OEG1A15	43 12# 39 10
39 16	*A17	*OEG1A17	43 30 39 12#
39 17	*A19	*OEG1A19	43 38 39 14#
39 18	*DI7	ODDXMD8	39 63# 43 29 39 15
39 19	START	OEG1START	43 35 39 16#
39 20	ONES	OEG1ONES	43 36 39 17#
39 22	*DI3	ODDXMD12	62 67 58 59 49 65# 39 18 38 18 36 32

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
39 23	*START	*OEG1START	43 76 39 23#
39 27	*DI2	ODDXMD13	62 59 58 65
39 28	*DI1	ODDXMD14	64 49 62 49
39 29	LOAD	OEFL0ADA	47 33# 41 29
39 30	*DI5	ODDXMD10	62 65 58 62
39 33	*SENSE	*OFG1SENSE	43 14# 39 33
39 34	*A31	OEG1A31	43 5 39 34#
39 35	SHIFT	OEFDEV8	47 29# 45 65
39 36	SENSE	OFG1SENSE	47 73 43 13#
39 37	*DI12	ODDXMD3	58 54 49 52#
39 38	CYIN	CHPUP	70 38 71 38
39 39	*DI14	ODDXND1	58 52 49 50#
39 40	*DI9	ODDXND6	58 57 49 75#
39 41	GROUND	OEG1GND	39 6 39 41#
39 42	*DI10	ODDXND5	58 56 49 73#
39 43	*DI4	ODDXND11	62 64 58 63
39 44	*DI15	ODDXND0	58 50 49 46#
39 45	AL5IN	CHSEROUT	24 15 21 15
39 46	*DI8	ODDXND7	35 15 39 45
39 48	*DI6	ODDXND9	58 58 49 76#
39 50	*A8	*OEG1A8	62 66 58 60
39 53	*A9	*OEG1A9	43 28 39 50#
39 54	*A11	*OEG1A11	43 27 39 53#
39 55	*DI11	ODDXND4	43 34 39 54#
39 56	*A10	*OEG1A10	58 55 49 77#
39 57	SELSUM	OEFSELSUM	43 33 39 56#
39 58	*CEAL	OEG1GND	47 32# 41 57
39 60	*A12	*OEG1A12	39 6 39 41#
39 62	*DI0	ODDXND15	43 32 39 60#
39 63	*A15	*OEG1A15	64 50 62 50
39 64	*DI13	ODDXND2	39 63# 43 29
39 65	*A13	*OEG1A13	58 53 49 56#
39 66	*A14	*OEG1A14	43 67 39 65#
39 67	*CEBU	OEG1GND	43 37 39 66#
39 68	*WAL	*OEFWRTAL1	39 6 39 41#
39 69	*CEBL	OEG1GND	47 7# 39 68
39 70	*WBU	*OEFWRTBU1	39 6 39 41#
39 72	*WBL	*OEFWRTBL1	47 15# 39 70
39 73	ADR4	OFG1EADR4	47 16# 39 72
39 74	ADR5	OFG1EADR5	43 16# 39 73
39 76	ADR3	OFG1EADR3	43 15# 39 74
39 79	*CLK	*CMCLK5	43 18# 39 76
39 80	GROUND	*CMCLK5	12 22# 43 79
40 2	VCC	15V40	39 79 71 79
40 3	*WAU	*OEFWRTAU2	39 80JL 39 80JL
40 4	VCC	15V40	71 80JL 75 80JL

L 11 21JL 43 80JL 71 80JL 75 80JL 75 11
 TWISTED PAIR RETURN OF 39 79

4 52
 49 5
 71 45
 67 15

41 35 40 35 39 35 38 35
 40 38 39 38 38 38 12 4#

38 28
 36 27
 41 35 42 65
 40 38 40 38 38 38 12 4#

49 58# 39 27 38 27
 58 66 49 64# 39 28
 40 29 39 29 38 29
 49 68# 39 30 38 30

44 65 43 65 42 65
 39 36 38 37 36 74
 72 38 41 38 41 38
 39 39 38 39 36 78

39 44 39 40 38 40 36 13
 39 69 39 69
 38 42 38 42 36 15
 39 44 38 44 36 80

15 50 21 50 24 50 49 5
 81 5 79 70 73 45 72 45 71 45
 36 25 15 50 81 5 36 25

36 17 38 57 39 69
 39 55 38 55 49 57# 39 62 38 62
 40 57 39 57 39 67 39 69
 58 67 49 57# 39 62 38 62

38 64 36 76 39 67 39 69
 39 58 39 67 39 69
 39 58 39 67 39 69
 39 58 39 67 39 69

SLOT	PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
40 6	*CEAU	0EG2BND	40 6	40 41#
40 7	ADRI	0FG2EADR1	44 10#	40 7
40 8	ADR2	0FG2EADR2	44 63#	40 8
40 10	ADR0	0FG2EADR0	44 12#	40 10
40 12	*A16	*0EG2A16	44 30	40 12#
40 14	*A18	*0EG2A18	44 38	40 14#
40 15	AUSIN	*0EG2A15	40 63#	44 29
40 16	*A17	*0EG2A17	44 35	40 16#
40 17	*A19	*0EG2A19	44 36	40 17#
40 18	*DI7	ODDYHDB	60 59	50 65#
40 19	START	0EG2START	44 6	40 19#
40 20	ONES	0EG2ONES	44 7	40 20#
40 22	*DI3	ODDYHD12	60 64	50 63#
40 23	*START	*0EG2START	44 76	40 23#
40 27	*DI2	ODDYHD13	60 65	50 58#
40 28	*DI1	ODDYHD14	64 36	62 36
40 29	LOAD	0EFLDADA	47 33#	41 29
40 30	*DI5	ODDYND10	60 62	50 68#
40 33	*SENSE	*0FG2SENSE	44 14#	40 33
40 34	*A31	*0EG2A31	44 5	40 34#
40 35	SHIFT	0EFDEVB	47 29#	45 65
40 36	SENSE	0FG2SENSE	47 74	44 13#
40 37	*DI12	ODDYND3	60 54	50 52#
40 38	CYIN	CHPUP	70 38	71 38
40 39	*DI14	ODDYND1	60 52	50 50#
40 40	*DI9	ODDYND6	60 57	50 75#
40 41	GROUND	0EG2GND	40 6	40 41#
40 42	*DI10	ODDYND5	60 56	50 73#
40 43	*DI4	ODDYND11	60 63	50 66#
40 44	*DI15	ODDYND0	60 50	50 46#
40 45	AL5IN	CHSEROUT	24 15	21 15
40 46	*DI8	ODDYND7	35 15	39 45
40 48	*DI6	ODDYND9	60 58	50 76#
40 50	*A8	*0EG2A8	60 60	50 60#
40 53	*A9	*0EG2A9	44 28	40 50#
40 54	*A11	*0EG2A11	44 27	40 53#
40 55	*DI11	ODDYND4	44 34	40 54#
40 56	*A10	*0EG2A10	60 55	50 77#
40 57	SELSUM	0EFSSELSUM	44 33	40 56#
40 58	*CEAL	0EG2GND	47 32#	41 57
40 60	*A12	*0EG2A12	40 6	40 41#
40 62	*DI0	ODDYND15	44 32	40 60#
40 63	*A15	*0EG2A15	64 37	62 37
40 64	*DI13	ODDYND2	40 63#	44 29
40 65	*A13	*0EG2A13	60 53	50 56#
40 66	*A14	*0EG2A14	44 67	40 65#
40 67	*CEBU	0EG2GND	44 37	40 66#
40 6			40 6	40 41#
40 67			40 67	40 69
40 58			40 58	40 67
40 57			40 57	39 57
40 55			40 55	40 55
40 50			40 50	40 67
40 45			40 45	41 45
40 44			40 44	40 46
40 43			40 43	40 43
40 42			40 42	40 42
40 41			40 41	40 41
40 39			40 39	40 39
40 38			40 38	40 38
40 37			40 37	40 37
40 36			40 36	40 36
40 35			40 35	40 35
40 34			40 34	40 34
40 33			40 33	40 33
40 32			40 32	40 32
40 31			40 31	40 31
40 30			40 30	40 30
40 29			40 29	40 29
40 28			40 28	40 28
40 27			40 27	40 27
40 26			40 26	40 26
40 25			40 25	40 25
40 24			40 24	40 24
40 23			40 23	40 23
40 22			40 22	40 22
40 21			40 21	40 21
40 20			40 20	40 20
40 19			40 19	40 19
40 18			40 18	40 18
40 17			40 17	40 17
40 16			40 16	40 16
40 15			40 15	40 15
40 14			40 14	40 14
40 13			40 13	40 13
40 12			40 12	40 12
40 11			40 11	40 11
40 10			40 10	40 10
40 9			40 9	40 9
40 8			40 8	40 8
40 7			40 7	40 7
40 6			40 6	40 6
40 5			40 5	40 5
40 4			40 4	40 4
40 3			40 3	40 3
40 2			40 2	40 2
40 1			40 1	40 1

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
41 53	*A9	*OEG3A9	45 27 41 53*
41 54	*A11	*OEG3A11	45 34 41 54*
41 55	*DI11	ODDYMD4	60 55 50 77*
41 56	*A10	*OEG3A10	45 33 41 56*
41 57	SELSUM	OEFSELSUM	47 32* 41 57
41 58	*CEAL	OEG3GND	41 6 41 41* 41 69
41 60	*A12	*OEG3A12	45 32 41 60*
41 62	*DI0	ODDYMD15	64 37 62 37 60 67 50 57* 41 62 40 62
41 63	*A15	*OEG3A15	41 63* 45 29
41 64	*DI13	ODDYMD2	60 53 50 56* 41 64
41 65	*A13	*OEG3A13	45 67 41 65*
41 66	*A14	*OEG3A14	45 37 41 66*
41 67	*CEBU	OEG3GND	41 6 41 41* 41 58 41 67 41 69
41 68	*WAL	*OEFWRTAL3	47 12* 41 68
41 69	*CEBL	OEG3GND	41 6 41 41* 41 58 41 67 41 69
41 70	*WBU	*OEFWRTBU3	47 19* 41 70
41 72	*WBL	*OEFWRTBL3	47 20* 41 72
41 73	ADR4	OFG3EADR4	45 16* 41 73
41 74	ADR5	OFG3EADR5	45 15* 41 74
41 76	ADR3	OFG3EADR3	45 18* 41 76
41 79	*CLK	*CHCLK7	12 24* 41 79 45 79 73 79 77 79 77 3
41 80	GROUND	*CHCLK7	12 31* 41 80* 45 80* 73 80* 77 80* 77 13
42 2	VCC	+SV42	42 4 42 2*
42 4	VCC	+SV42	42 4 42 2*
42 5	PLUS	OEG0A31	42 5 38 34*
42 6	START	OEG0START	42 6 38 19*
42 7	ONES	OEG0ONES	42 7 38 20*
42 8	NFFEGTS	OFGNFFEGTS	46 80 45 8*
42 9	FRONTFACE	OFGD13	45 9 44 9 43 9 42 9 42 58* 43 58* 45 58*
42 10	EAI	OFG0EADR1	42 10* 38 7
42 12	EAO	OFG0EADRO	42 12* 38 10
42 13	SENSE	OFG0SENSE	47 72 42 13*
42 14	*SENSE	*OFG0SENSE	42 14* 38 33
42 15	EAS	OFG0EADR5	42 15* 38 74
42 16	EA4	OFG0EADR4	42 16* 38 73
42 17	FD7	OFGD7	42 17* 43 17*
42 18	EA3	OFG0EADR3	42 18* 38 76
42 19	FD5	OFGD5	55 22 54 22
42 20	FD6	OFGD6	42 20* 43 20*
42 22	FD4	OFGD4	55 10 54 10 53 10 50 30* 49 40* 47 65
42 23	FD2	OFGD2	42 23* 43 23*
42 24	FD3	OFGD3	55 59 54 59 53 59 52 59 50 28* 49 28* 45 24* 46 73*
42 25	FD1	OFGD1	50 20* 49 20*
42 26	FD0	OFGD0	42 26* 43 26* 44 26* 45 26* 46 72*
42 27	*A9	*OEG0A9	42 27 38 53*
42 28	*A8	*OEG0A8	42 28 38 50*
42 29	*A15	*OEG0A15	38 63* 42 29 38 15

SLOT/PIN CARD SIGNAL NAME	STRING NAME	STRING PINS
42 30	*A16	42 30 38 12*
42 32	*A12	42 32 38 60*
42 33	*A10	42 33 38 56*
42 34	*A11	42 34 38 54*
42 35	*A17	42 35 38 16*
42 36	*A19	42 36 38 17*
42 37	*A14	42 37 38 66*
42 38	*A18	42 38 38 14*
42 39	*STENDF1	44 39* 43 39* 42 39*
42 40	*STENDF2	44 40* 43 40* 42 40*
42 42	*STEND1	44 42* 43 42* 42 42*
42 43	*STEND0	44 43* 43 43* 42 43*
42 44	*STEND3	44 44* 43 44* 42 44*
42 45	*STEND2	44 45* 43 45* 42 45*
42 46	*STEND7	44 46* 43 46* 42 46*
42 47	*STEND8	44 47* 43 47* 42 47*
42 48	*STEND9	44 48* 43 48* 42 48*
42 49	*STENDA	44 49* 43 49* 42 49*
42 50	*STEND5	44 50* 43 50* 42 50*
42 52	*FD9	49 42* 50 42* 46 7
42 53	*FDB	49 38* 50 38* 46 17
42 54	*FD10	49 43* 50 43* 46 12
42 55	*FD11	49 44* 50 44* 46 14
42 56	*FD14	45 56* 44 56* 43 56*
42 57	*FD15	45 57* 44 57* 42 57*
42 58	*FD13	44 58* 43 58* 45 58*
42 59	*FD12	44 59* 43 59* 42 59*
42 60	*INCADR	45 62* 52 62* 46 68*
42 62	*FD17	44 60 43 60 42 60
42 63	*EA2	53 9 52 9 46 77* 45 62* 43 62* 42 62*
42 64	*WRTEC	44 65 43 65 42 65
42 65	*ENABFD	41 35 40 35 39 35 38 35
42 66	*GND-CC	
42 67	*A13	
42 68	*STEND6	
42 69	*FD16	
42 70	*CNTOVFL	
42 72	*DEVICE	
42 73	*RESET	
42 74	*FOOKEY	
42 75	*FD18	
42 76	*SERIN	
42 77	*CLRADR	
42 78	*FD19	
42 79	*CLOCK	

86 72 85 72 84 72 80 72 79 34 78 22 74 79 70 79 55 72 87 72 55 71JL 87 71J 3

SLOT	CARD	SIGNAL NAME	STRING NAME	STRING PINS	43	54	43	54	45	54	48	64	49	43	50	43	46	12	55	55	
43	54	FD10		42 54# 43 54#	44	54#	45	54#	48	64#	49	43#	50	43#	46	12					
43	55	FD11		42 55# 43 55#	44	55#	45	55#	48	63#	49	44#	50	44#	46	14					
43	56	FD14		55 62 54 62	53	62	52	62	46	66#	45	56#	44	56#	42	56#					
43	57	FD15		55 73 54 73	53	73	52	73	46	68#	45	57#	44	57#	42	57#					
43	58	FD13		45 9 44 9	43	9	42	9	42	58#	43	58#	44	58#	45	58#					
43	59	FD12		55 74 54 74	53	74	52	74	46	67#	45	59#	44	59#	42	59#					
43	60	*INCADR	*OEFINCFQADR	47 63# 45 60	44	60	43	60	42	60											
43	61	FD17		55 9 54 9	53	9	52	9	46	77#	45	62#	44	62#	42	62#					
43	63	EA2	*OFGIEADR2	43 63# 39 8																	
43	64	WRTEC	*OEFWRTEC1	47 25# 43 64																	
43	65	*ENABFD	*OEFDEVB	47 29# 45 65	44	65	43	65	42	65	41	35	40	35	39	35	38	35			
43	66	GND-CC	*OFGIITSHE	47 77 43 66#																	
43	67	*A13	*OEGIA13	43 67 39 65#																	
43	68	*STEND6	*OFGSTEND6	46 24 45 68#	44	68#	43	68#	42	68#											
43	69	FD16		46 78# 45 69#	44	69#	43	69#	42	69#											
43	72	*DEVICE	*OEFDEVB	46 13 47 30#	42	72	43	72	44	72	45	72	48	79	52	55	53	55	54	55	
43	73	*RESET	*CMGRE1	74 73 75 73	76	73	77	73	79	64	80	80	81	78	82	78	83	46	78	10	
43	74	*FOOKEY		43 73 44 73	45	73	47	64	48	80	49	78	50	78	51	46	46	10	12	15#	
43	74	FD0EY1	*OEFFOKEY1	47 59# 43 74																	
43	75	FD18		55 8 54 8	53	8	52	8	46	75#	45	75#	44	75#	43	75#	42	75#			
43	76	SERIN	*OEGISTART	43 76 39 23#																	
43	77	*CLRADR	*OEFCLRFQADR	47 35# 45 77	44	77	43	77	42	77											
43	78	FD19		55 76 54 76	53	76	52	76	46	69#	45	78#	44	78#	43	78#	42	78#			
43	79	*CLOCK	*CMCLK5	12 22# 43 79	39	79	71	79	75	79	75	3									
43	80	GND-CC	*CMCLK5	C 11 21JL 43 80JL 39 80JL 71 80JL 75 80JL 75 1J																	
44	2	VCC	*TWISTED PAIR RETURN OF 43 79	44 4 44 2#																	
44	4	VCC	*1SV44	44 4 44 2#																	
44	5	PLUS	*OEG2A31	44 4 44 2#																	
44	6	START	*OEG2START	44 5 40 34#																	
44	7	ONES	*OEG2ONES	44 6 40 19#																	
44	8	NFFEGTS	*OEG2ONES	44 7 40 20#																	
44	9	FRONTFACE	*OFGNFFEGTS	46 80 45 8#	44	8#	43	8#	42	8#											
44	10	EAI	*OFGD13	45 9 44 9	43	9	42	9	42	58#	43	58#	44	58#	45	58#					
44	12	EA0	*OFG2EADR1	44 10# 40 7																	
44	13	SENSE	*OFG2EADR0	44 12# 40 10																	
44	14	*SENSE	*OFG2SENSE	47 74 44 13#	40	36															
44	15	EA5	*OFG2SENSE	44 14# 40 33																	
44	16	EA4	*OFG2EADR5	44 15# 40 74																	
44	17	FD7	*OFG2EADR4	44 16# 40 73																	
44	18	EA3	*OFGD7	42 17# 43 17#	44	17#	45	17#	46	15	49	39#	49	39#	48	62#					
44	19	FD5	*OFG2EADR3	44 18# 40 76																	
44	20	FD6	*OFGD5	55 22 54 22	53	22	52	22	50	34#	49	34#	45	19#	44	19#	43	19#	42	19#	
44	22	FD4	*OFGD6	42 20# 43 20#	44	20#	45	20#	45	20#	49	40#	49	40#	47	65					
44	23	FD2	*OFGD4	55 10 54 10	53	10	52	10	50	30#	49	30#	45	22#	44	22#	43	22#	42	22#	
44	24	FD3	*OFGD2	42 23# 43 23#	44	23#	45	23#	46	18	49	33#	50	33#	48	67#					
44	25	FD1	*OFGD3	55 59 54 59	53	59	52	59	50	28#	49	28#	45	24#	44	24#	43	24#	42	24#	
44	26	FD0	*OFGD1	50 20# 49 20#	45	25#	44	25#	43	25#	42	25#	46	72#							
44	26	FD0	*OFGD0	42 26# 43 26#	44	26#	45	26#	45	26#	49	32#	50	32#	46	79#					

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
44 27	*A9	*OEG2A9	44 27 40 53#
44 28	*A8	*OEG2A8	44 28 40 50#
44 29	*A15	*OEG2A15	40 63# 44 29 40 15
44 30	*A16	*OEG2A16	44 30 40 12#
44 32	*A12	*OEG2A12	44 32 40 60#
44 33	*A10	*OEG2A10	44 33 40 56#
44 34	*A11	*OEG2A11	44 34 40 54#
44 35	*A17	*OEG2A17	44 35 40 16#
44 36	*A19	*OEG2A19	44 36 40 17#
44 37	*A14	*OEG2A14	44 37 40 66#
44 38	*A18	*OEG2A18	44 38 40 14#
44 39	*STENDF1	*OFGSTENDF1	44 39# 43 39# 42 39#
44 40	*STENDF2	*OFGSTENDF2	44 40# 43 40# 42 40#
44 42	*STEND1	*OFGSTEND1	44 42# 43 42# 42 42#
44 43	*STEND0	*OFGSTEND0	44 43# 43 43# 42 43#
44 44	*STEND3	*OFGSTEND3	44 44# 43 44# 42 44#
44 45	*STEND2	*OFGSTEND2	44 45# 43 45# 42 45#
44 46	*STEND7	*OFGSTEND7	44 46# 43 46# 42 46#
44 47	*STEND8	*OFGSTEND8	44 47# 43 47# 42 47#
44 48	*STEND9	*OFGSTEND9	44 48# 43 48# 42 48#
44 49	*STENDA	*OFGSTENDA	44 49# 43 49# 42 49#
44 50	*STENDS	*OFGSTENDS	44 50# 43 50# 42 50#
44 52	FD9	OFD9	49 42# 50 42# 46 7
44 53	FD8	OFD8	42 52# 43 52# 48 65#
44 54	FD10	OFD10	42 53# 43 53# 48 66#
44 55	FD11	OFD11	42 54# 43 54# 48 64#
44 56	FD14	OFD14	42 55# 43 55# 48 63#
44 57	FD15	OFD15	42 56# 43 56# 46 14
44 58	FD13	OFD13	55 62 54 62 52 62 46 66# 45 56# 43 56# 42 56#
44 59	FD12	OFD12	55 73 54 73 53 73 52 73 46 68# 45 57# 43 57# 42 57#
44 60	*INCADR	*OEFINCFGADR	45 9 44 9 43 9 42 9 42 58# 43 58# 45 58# 42 59#
44 62	FD17	OFD17	55 74 54 74 53 74 52 74 46 67# 45 59# 43 59# 42 59#
44 63	EA2	OFB2EADR2	47 63# 45 60 44 60 43 60 42 60
44 64	WRTEC	OFB2EADR2	55 9 54 9 53 9 46 77# 45 62# 43 62# 42 62#
44 65	*ENABFD	OFB2EADR2	44 63# 40 8
44 66	GND-CC	OFB2EADR2	47 29# 45 65
44 67	*A13	*OFG2ITSME	47 78 44 66#
44 68	*STENDA	*OEG2A13	44 67 40 65#
44 69	FD16	*OFGSTEND6	46 24 45 68#
44 72	*DEVICE	OFD16	46 78# 45 69#
44 73	*RESET	*OEFDEVB	46 13 47 30#
44 74	FGOKEY	*CHBRE1	74 73 75 73 79 64
44 75	FD18	OEFFGOKEY2	43 73 44 73 45 73 47 64 48 80 49 78 50 78 51 46 46 10 12 15#
44 76	SERIN	OFD18	55 8 54 8 53 8 52 8 46 75# 45 75# 44 75# 43 75# 42 75#
44 77	*CLRADR	*OEG2START	44 76 40 23#
44 78	FD19	*OEFCLRFGBDR	47 35# 45 77
44 79	*CLOCK	OFD19	55 76 54 76 53 76 52 76 46 69# 45 78# 44 78# 43 78# 42 78#
		*CHCLK6	12 23# 40 79 44 79 72 79 76 79 76 3

SLOT PIN CARD SIGNAL NAME STRING NAME STRING PINS

44 80	GND-CC	*CHCLK6	L 12 21JL 40 80JL 44 80JL 72 80JL 76 80JL 76 1J
45 2	VCC	+5V45	TWISTED PAIR RETURN OF 44 79
45 4	VCC	+5V45	
45 5	PLUS	*0EG3A31	
45 6	START	*0EG3START	
45 7	ONES	*0EG3ONES	
45 8	NFFEGTS	*0FGNFFEGTS	
45 9	FRONTFACE	*0FD13	
45 10	EAI	*0FG3EADR1	
45 12	EAO	*0FG3EADRO	
45 13	SENSE	*0FG3SENSE	
45 14	*SENSE	*0FG3SENSE	
45 15	EAS	*0FG3EADR5	
45 16	EA4	*0FG3EADR4	
45 17	FD7	*0FD7	
45 18	EA3	*0FG3EADR3	
45 19	FD5	*0FD5	
45 20	FD6	*0FD6	
45 22	FD4	*0FD4	
45 23	FD2	*0FD2	
45 24	FD3	*0FD3	
45 25	FD1	*0FD1	
45 26	FDO	*0FD0	
45 27	*A9	*0EG3A9	
45 28	*A8	*0EG3A8	
45 29	*A15	*0EG3A15	
45 30	*A16	*0EG3A16	
45 32	*A12	*0EG3A12	
45 33	*A10	*0EG3A10	
45 34	*A11	*0EG3A11	
45 35	*A17	*0EG3A17	
45 36	*A19	*0EG3A19	
45 37	*A14	*0EG3A14	
45 38	*A18	*0EG3A18	
45 39	*STENDF1	*0FGSTENDF1	
45 40	*STENDF2	*0FGSTENDF2	
45 42	*STEND1	*0FGSTEND1	
45 43	*STEND0	*0FGSTEND0	
45 44	*STEND3	*0FGSTEND3	
45 45	*STEND2	*0FGSTEND2	
45 46	*STEND7	*0FGSTEND7	
45 47	*STEND8	*0FGSTEND8	
45 48	*STEND9	*0FGSTEND9	
45 49	*STEND4	*0FGSTEND4	
45 50	*STEND5	*0FGSTEND5	
45 52	FD9	*0FD9	
45 53	FDB	*0FD8	

45 4	45 2*	42 9	42 58*	43 58*	44 58*	45 58*
45 4	45 2*	43 9	42 9	42 58*	44 58*	45 58*
41 34*	45 5	44 8*	43 8*	42 8*		
45 6	41 19*	44 8*	43 8*	42 8*		
45 7	41 20*	44 8*	43 8*	42 8*		
46 80	45 8*	44 8*	43 8*	42 8*		
45 9	44 9	43 9	42 9	42 58*	43 58*	44 58*
45 10*	41 7	43 9	42 9	42 58*	43 58*	44 58*
45 12*	41 10	47 75				
45 13*	41 36					
45 14*	41 33					
45 15*	41 74					
45 16*	41 73					
42 17*	43 17*	44 17*	45 17*	46 15	50 39*	49 39*
45 18*	41 76					
55 22	54 22	53 22	52 22	50 34*	49 34*	45 19*
42 20*	43 20*	44 20*	45 20*	50 40*	49 40*	47 65
55 10	54 10	53 10	52 10	50 30*	49 30*	45 22*
42 23*	43 23*	44 23*	45 23*	46 18	49 33*	50 33*
55 59	54 59	53 59	52 59	50 28*	49 28*	45 24*
50 20*	49 20*	45 25*	44 25*	43 25*	42 25*	46 72*
42 26*	43 26*	44 26*	45 26*	49 32*	50 32*	46 79*
45 27	41 53*					
45 28	41 50*					
41 63*	45 29	41 15				
45 30	41 12*					
45 32	41 60*					
45 33	41 56*					
45 34	41 54*					
45 35	41 16*					
45 36	41 17*					
45 37	41 66*					
45 38	41 14*					
46 32	45 39*	44 39*	43 39*	42 39*		
46 33	45 40*	44 40*	43 40*	42 40*		
46 36	45 42*	44 42*	43 42*	42 42*		
46 37	45 43*	44 43*	43 43*	42 43*		
46 29	45 44*	44 44*	43 44*	42 44*		
46 30	45 45*	44 45*	43 45*	42 45*		
46 23	45 46*	44 46*	43 46*	42 46*		
46 27	45 47*	44 47*	43 47*	42 47*		
46 26	45 48*	44 48*	43 48*	42 48*		
46 35	45 49*	44 49*	43 49*	42 49*		
46 34	45 50*	44 50*	43 50*	42 50*		
42 52*	43 52*	44 52*	45 52*	48 65*	49 42*	50 42*
42 53*	43 53*	44 53*	45 53*	48 66*	49 38*	50 38*

SLOTPIN	CARD SIGNAL NAME	STRING NAME	STRING PINS											
46 23	*STEND7	*OFGSTEND7	86 72	85 72	84 72	80 72	79 34	78 22	74 79	70 79	74 3			
46 24	*STEND6	*OFGSTEND6	86 71JL	85 71JL	84 71JL	80 71JL	79 31JL	78 21JL	74 80JL	70 80JL	74 1J			
46 25	SERIN	OLAOSEROUT	46 23	45 46*	44 46*	43 46*	42 46*							
46 26	*STEND9	*OFGSTEND9	46 24	45 68*	44 68*	43 68*	42 68*							
46 27	*STEND8	*OFGSTEND8	46 26	45 48*	44 48*	43 48*	42 48*							
46 28	MAINTSEL	*OSLMAINISEL	46 27	45 47*	44 47*	43 47*	42 47*							
46 29	*STEND3	*OFGSTEND3	48 59*	46 28										
46 30	*STEND2	*OFGSTEND2	46 29	45 44*	44 44*	43 44*	42 44*							
46 32	*STENDF1	*OFGSTENDF1	46 30	45 45*	44 45*	43 45*	42 45*							
46 33	*STENDF2	*OFGSTENDF2	46 32	45 39*	44 39*	43 39*	42 39*							
46 34	*STEND5	*OFGSTEND5	46 33	45 40*	44 40*	43 40*	42 40*							
46 35	*STEND4	*OFGSTEND4	46 34	45 50*	44 50*	43 50*	42 50*							
46 36	*STEND1	*OFGSTEND1	46 35	45 49*	44 49*	43 49*	42 49*							
46 37	*STEND0	*OFGSTEND0	46 36	45 42*	44 42*	43 42*	42 42*							
46 38	START3	*OFSSTART3	46 37	45 43*	44 43*	43 43*	42 43*							
46 39	END3	OPSENDF2	55 42	54 42	53 42	52 42	46 38*							
46 40	END2	OPSEND3	55 13	54 13	53 13	52 13	46 39*							
46 42	START2	*OFSSTART2	55 16	54 16	53 16	52 16	46 40*							
46 43	*LAST	*OPSLAST	55 38	54 38	53 38	52 38	46 42*							
46 44	START4	*OFSSTART4	48 56	46 43*										
46 45	SPANADR4	*OFSSPANADR4	55 43	54 43	53 43	52 43	46 44*							
46 46	END4	OPSEND4	48 23	46 45*										
46 47	ENDF2	OPSEDF2	55 17	54 17	53 17	52 17	46 46*							
46 48	PTRSEL	*OSLPTRSEL	46 47*	38 45										
46 49	*USED	*OFSUSED	48 57*	46 48										
46 53	END0	OPSENDO	55 15	54 15	53 15	52 15	46 53*							
46 55	SPANADR3	*OFSSPANADR3	48 20	46 55*										
46 56	END1	OPSEND1	55 14	54 14	53 14	52 14	46 56*							
46 57	SPANADR2	*OFSSPANADR2	48 18	46 57*										
46 58	SPANADR1	*OFSSPANADR1	48 16	46 58*										
46 59	SPANADRO	*OFSSPANADRO	48 14	46 59*										
46 60	STEGEND	*OFSSTEGEND	48 58	46 60*										
46 62	*CLRDPADR	*OSLSTARTFI	48 39*	47 54	46 62									
46 63	START1	OPSSSTART1	55 39	54 39	53 39	52 39	46 63*							
46 64	START0	OPSSSTART0	55 40	54 40	53 40	52 40	46 64*							
46 65	CNTHSB	*OSLINCMSB	55 30	54 30	53 30	52 30	48 44*	46 65						
46 66	PAR11	OFD14	55 62	54 62	53 62	52 62	46 66*	45 56*	43 56*	42 56*				
46 67	PAR10	OFD12	55 74	54 74	53 74	52 74	46 67*	45 59*	44 59*	43 59*	42 59*			
46 68	PAR9	OFD15	55 73	54 73	53 73	52 73	46 68*	45 57*	44 57*	43 57*	42 57*			
46 69	PAR8	OFD19	55 76	54 76	53 76	52 76	46 69*	45 78*	44 78*	43 78*	42 78*			
46 70	*ROUTEN	*OSLENPDATA	48 53*	46 70										
46 72	PAR3	OFD1	50 20*	49 20*	45 25*	44 25*	43 25*	42 25*	46 72*					
46 73	PAR1	OFD4	55 10	54 10	53 10	52 10	50 30*	49 30*	45 22*	44 22*	43 22*	42 22*	46 73*	
46 74	PAR2	OFD5	55 22	54 22	53 22	52 22	50 34*	49 34*	45 19*	44 19*	43 19*	42 19*	46 74*	
46 75	PAR7	OFD18	55 8	54 8	53 8	52 8	46 75*	45 75*	44 75*	43 75*	42 75*	41 75*	46 75*	
46 76	PAR0	OFD3	55 59	54 59	53 59	52 59	50 28*	49 28*	45 24*	44 24*	43 24*	42 24*	46 76*	

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
46 77	PAR6	OFD17	55 9 54 9 53 9 52 9 46 77# 45 62# 44 62# 43 62# 42 62#
46 78	PAR5	OFD16	46 78# 45 69# 44 69# 43 69# 42 69#
46 79	PAR4	OFD0	42 26# 43 26# 44 26# 45 26# 49 32# 46 79#
46 80	NFFEBTS	OFNFFEGTS	46 80 45 8# 44 8# 43 8# 42 8#
47 3	*WRTAU0	*OEFWRTAU0	47 3# 38 3
47 5	*WRTALO	*OEFWRTALO	47 5# 38 68
47 6	*WRTAU1	*OEFWRTAU1	47 6# 39 3
47 7	*WRTAL1	*OEFWRTAL1	47 7# 39 68
47 8	*WRTAU2	*OEFWRTAU2	47 8# 40 3
47 9	*WRTAL2	*OEFWRTAL2	47 9# 40 68
47 10	*WRTAU3	*OEFWRTAU3	47 10# 41 3
47 12	*WRTAL3	*OEFWRTAL3	47 12# 41 68
47 13	*WRTBU0	*OEFWRTBU0	47 13# 38 70
47 14	*WRTBL0	*OEFWRTBL0	47 14# 38 72
47 15	*WRTBU1	*OEFWRTBU1	47 15# 39 70
47 16	*WRTBL1	*OEFWRTBL1	47 16# 39 72
47 17	*WRTBU2	*OEFWRTBU2	47 17# 40 70
47 18	*WRTBL2	*OEFWRTBL2	47 18# 40 72
47 19	*WRTBU3	*OEFWRTBU3	47 19# 41 70
47 20	*WRTBL3	*OEFWRTBL3	47 20# 41 72
47 22	DEVADR0	ODDYB4	51 6 50 13# 47 22 37 43
47 23	DEVADR1	ODDYB3	51 5 50 15# 47 23 37 42
47 24	WRTEC0	OEFWRTEC0	64 69 62 69 42 64
47 25	WRTEC1	OEFWRTEC1	47 24# 42 64
47 26	WRTEC2	OEFWRTEC2	47 25# 43 64
47 27	WRTEC3	OEFWRTEC3	47 26# 44 64
47 28	SHIFT	OEFWRTEC3	47 27# 45 64
47 29	DEVB	CHSHIFT	31 16 29 16 27 16 25 16 12 6# 8 73 9 79 37 12 47 28 51 26 62 29
47 30	*DEVB	OEFDEVB	94 29 83 26 79 28 69 12
47 31	GND-CC	*OEFDEVB	44 65 43 65 42 65 41 35 40 35 39 35 38 35
47 32	SELSUM	*CMCLK4	46 13 47 30# 42 72 44 72 45 72 48 79 52 55 53 55 54 55 55 55
47 33	LOADA	OEFSELSUM	TWISTED PAIR RETURN OF 47 34
47 34	*CLOCK	OEFLOADA	47 32# 41 57 40 57 39 57 38 57
47 35	*CLRFGADR	*CMCLK4	47 33# 41 29 40 29 39 29 38 29
47 36	STARTUP	OEFCLRFGADR	12 19# 38 79 42 79 46 22 47 34
47 37	FGADROFL	OSLSTARTUP	[12 21JC 38 80JC 42 80JC 46 21JC 47 31JC 48 71JC 52 71JC 53 71JC 54 71JC 55 71JC 87 72
47 38	IDLEUP	OFGOCNTOVFL	86 72 85 72 84 72 80 72 80 72 79 34 78 22 74 79 70 79 74 3
47 39	DDINIT	OEFIDLEUP	[86 71JC 85 71JC 84 71JC 80 71JC 79 31JC 78 21JC 74 80JC 70 80JC 74 1J
47 40	IDLELD	ODDYB1	47 35# 45 77 44 77 43 77 42 77
47 42	HOLD	OEFIDLELD	48 35# 47 36
47 43	*LDB	OEFHOLD	47 37 42 70#
47 44	*DPDECODE	*OEFHOLD	48 25 47 38#
47 45	NYWORD	OEFNYWORD	64 72 62 72 50 37# 47 39
47 46	DDAVAIL	OACDDAVAIL	48 30 47 40#
			48 78 47 42#
			51 47 49 23
			51 32# 47 44# 37 24#
			48 32 47 45#
			51 37# 47 46

SLOT/FIN CARD	SIGNAL NAME	STRING NAME	STRING PINS
47 47	FACE	OACFACE	51 77# 47 47
47 48	EDGE	OACEDBE	51 63# 47 48
47 49	DDEOL	ODDYBO	50 18# 51 52
47 50	STARTLD	OBLSTARTLD	48 40# 47 50
47 52	XCHAN	*XCHNO	25 25 26 25
47 53	*ACCEPTDD	*ODPACCEPT	51 16# 47 53#
47 54	*STARTFI	*OSLSTARTFI	48 39# 47 54
47 55	IDLEFI	OEFLDLEFI	48 26 47 55#
47 56	INTWRT	OEFCNTWRT	47 56# 48 48
47 57	LDBKTADRFI	OEFLDBKTADRFI	48 46 47 57#
47 58	FGOKEY0	OEFFGOKEY0	47 58# 42 74
47 59	FGOKEY1	OEFFGOKEY1	47 59# 43 74
47 60	FGOKEY2	OEFFGOKEY2	47 60# 44 74
47 62	FGOKEY3	OEFFGOKEY3	47 62# 45 74
47 63	*INCFGADR	*OEFINCFGADR	47 63# 45 60
47 64	*RESET	*CMGRE1	74 73 75 73
47 65	FGEOU	OFD6	43 73 44 73
47 66	LOOPA	CHDEVEN4	42 20# 43 20#
47 67	LOOPB	CHDEVEN5	79 66 47 66
47 68	LOOPC	CHDEVEN6	79 67 47 67
47 69	LOOPD	CHDEVEN7	79 68 47 68
47 70	SERIN	CHSEROUT	79 69 47 69
47 72	SERINA	OFGOSENSE	24 15 21 15
47 73	SERINB	OF01SENSE	35 15 39 45
47 74	SERINC	OF2SENSE	47 72 42 13#
47 75	SERIND	OF3SENSE	47 73 43 13#
47 76	SEROUT	HDOUT	47 74 44 13#
47 77	*ITSME1	*OF01ITSME	45 13# 41 36
47 78	*ITSME2	*OF02ITSME	83 55# 79 76#
47 79	*ITSME3	*OF03ITSME	31 65# 32 65#
47 80	*SPEXISTS	*IMHERE	47 77 43 66#
48 14	SPANADRO	OPSSPANADRO	47 78 44 66#
48 15	LAADRO	OSLLAADRO	47 79 45 66#
48 16	SPANADR1	OPSSPANADR1	32 57# 31 57#
48 17	LAADR1	OSLLAADR1	51 50# 47 80#
48 18	SPANADR2	OPSSPANADR2	48 14 46 59#
48 19	LAADR2	OSLLAADR2	55 7 54 7
48 20	SPANADR3	OPSSPANADR3	48 16 46 58#
48 21	LAADR3	OSLLAADR3	55 5 54 5
48 22	SPANADR4	OPSSPANADR4	48 18 46 57#
48 23	LAADR4	OSLLAADR4	55 75 54 75
48 24	IDLEUP	OEFLDLEUP	48 20 46 55#
48 25	IDLEFI	OEFLDLEFI	55 78 54 78
48 26	CLRINP	OSLCLRINP	48 23 46 45#
48 27			55 77 54 77
			48 25 47 38#
			48 26 47 55#
			55 49 54 49
			47 49 37 37
			62 45 47 52
			51 3 12 55#
			8 74 37 5
			46 8 46 3
			44 60 43 60
			76 73 79 64
			45 73 47 64
			44 20# 45 20#
			12 59#
			12 60#
			12 62#
			12 63#
			18 15 18 15
			38 36
			39 36
			40 36
			47 75
			69 7#
			12 9
			47 76# 51 55#
			8 77# 37 7#
			29 57# 28 57#
			79 80# 69 6#
			53 7 52 7
			48 15#
			52 5 48 17#
			52 75 48 19#
			52 78 48 22#
			52 77 48 24#
			48 76
			53 49 52 49
			27 57# 26 57#
			25 57# 37 6#
			8 76# 12 79
			28 65# 27 65#
			29 65# 30 65#
			18 50 21 50
			73 45 72 45
			81 5 79 70
			18 50 24 50
			49 5 4 52
			80 80 81 78
			82 78 83 46
			49 78 50 78
			51 46 46 10
			49 40# 47 65
			42 60 81 78
			82 78 83 46
			78 10 42 73

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
48 28	MAIN0	OSLSERLINK	52 28 48 28#
48 29	DRAWSURF	OACDRAWSURF	60 74 58 74
48 30	IDLELD	0EFIDLELD	48 30 47 40#
48 32	MYWORD	0EFMYWORD	48 32 47 45#
48 33	INSORTMODE	OSLINSORTMODE	48 33# 46 20
48 34	SP-LINEDONE	OSLSP-LINEDONE	51 59 48 34#
48 35	STARTUP	OSLSTARTUP	48 35# 47 36
48 36	LAADR5	OSLLAADR5	55 79 54 79
48 37	SELWRT	OSLSELWRT	55 50 54 50
48 38	LAWRITE	OSLLAWRITE	55 12 54 12
48 39	*STARTFILC	*OSLSTARTIFI	48 39# 47 54
48 40	STARTLD	OSLSTARTLD	48 40# 47 50
48 41	GROUND	OSLOND	48 75 48 73
48 42	LRB	OSLPOKELAOUT	55 65 54 65
48 43	LRA	OSLLOADLAOUT	55 58 54 58
48 44	INCHSB	OSLINCHSB	55 30 54 30
48 46	LDIN	0EFLDBKTADRFI	48 46 47 57#
48 47	*USED	*OPUSED	48 47 46 49#
48 48	WRTIN	0EFCNTWRT	47 56# 48 48
48 49	XLDRKTDADR	OSLXDRKTDADR	48 49# 46 5
48 50	WRTBKT	OSLWRTBKT	48 50# 46 6
48 52	INCBKTDADR	OSLINCBKTDADR	48 52# 46 16
48 53	*ENPFSDATA	*OSLENPFSDATA	48 53# 46 70
48 54	BKTADROFL	OPSBKTDADROFL	48 54 46 19#
48 55	*LDPSOUT	*OSLLDPSOUT	48 55# 46 9
48 56	*LAST	*OPSLAST	48 56 46 43#
48 57	PTRSEL	OSLPTRSEL	48 57# 46 48
48 58	STEQEND	OPSTEQEND	48 58 46 60#
48 59	MAINTSEL	OSLMAINTSEL	48 59# 46 28
48 60	*FIRST	*OSLFIRST	55 25 54 25
48 62	MINPRI5	OFD7	42 17# 43 17#
48 63	MINPRI4	OFD11	42 55# 43 55#
48 64	MINPRI3	OFD10	42 54# 43 54#
48 65	MINPRI2	OFD9	42 52# 43 52#
48 66	MINPRI1	OFD8	42 53# 43 53#
48 67	MINPRI0	OFD2	42 23# 43 23#
48 68	PRI5	OSLOND	48 75 48 73
48 69	PRI4	OSLOND	48 75 48 73
48 70	PRI3	OSLOND	48 75 48 73
48 71	GROUND	*CHCLK4	48 75 48 73
48 72	*CLOCK	*CHCLK4	48 75 48 73
		TWISTED PAIR RETURN OF	48 72
		12 19# 38 79	42 79 46 22
		12 21JL 38 80JL	42 80JL 46 21JL
		86 72	85 72 84 72
		86 71JL 85 71JL	84 71JL 80 71JL
		48 75 48 73	48 74 48 69
		48 75 48 73	48 74 48 69
		48 75 48 73	48 74 48 69
		48 75 48 73	48 74 48 69
		48 26 47 55#	48 76
48 73	PRI2	OSLOND	48 75 48 73
48 74	PRI1	OSLOND	48 75 48 73
48 75	PRI0	OSLOND	48 75 48 73
48 76	SERIN	0EFIDLEFI	48 26 47 55#

53 79 52 79 48 36#
53 50 52 50 48 37#
53 12 52 12 48 38#
46 62

48 74 48 69 48 70 48 41#
53 65 52 65 48 42#
53 58 52 58 48 43#
53 30 52 30 48 44#
46 65

46 8 46 3
53 25 52 25 48 60#
44 17# 45 17# 46 15
44 55# 45 55# 46 33#
44 54# 45 54# 48 64#
44 52# 45 52# 48 65#
44 53# 45 53# 48 66#
44 23# 45 23# 46 18
48 74 48 69 48 70 48 68
48 74 48 69 48 70 48 68
48 74 48 69 48 70 48 68

47 34 48 72 52 72 53 72 54 72 55 72 57 72
47 31JL 48 71JL 52 71JL 53 71JL 54 71JL 55 71JL 57 71JL
79 34 78 22 74 79 70 79 74 3
79 31JL 78 21JL 74 80JL 70 80JL 74 11

48 70 48 68 48 41#
48 70 48 68 48 41#
48 70 48 68 48 41#
48 70 48 68 48 41#

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
48 78	HOLD	0EFHOLD	48 78 47 42*
48 79	*DEVICE	*0EFDEVB	42 72 43 72 44 72 45 72 48 79 52 55 53 55 54 55 55 55
48 80	*RESET	*CHGRE1	76 73 77 73 79 64 80 80 81 78 82 78 83 46 78 10 42 73
49 2	VCC	+SV49	43 73 44 73 45 73 47 64 49 78 50 78 51 46 46 10 12 15*
49 3	DDADDIN	0DDYA15	49 4 49 2*
49 4	VCC	+SV49	50 54# 49 3 56 18
49 5	MAINTSERIN	CHSEROUT	49 4 49 2*
49 6	OFFSERIN	0DDXA15	24 15 21 15 18 15 15 15 12 37# 15 50 21 50 24 50 49 5 4 52
49 7	DBB6	0DDXB6	35 15 39 45 40 45 41 45 47 70 81 5 79 70 73 45 72 45 71 45 67 15
49 8	DBB7	0DDXB7	50 6 49 6 49 54# 56 73 62 33
49 9	*ACINPACCEP	*0ACINPACCEP	56 14 49 7*
49 10	*DBAVAIL	*0DDXDBAVAIL	56 10 49 8# 37 80
49 12	DDXCARD	0DDXPUP	51 39 49 9
49 13	DBB4	0DDXB4	49 48# 49 12
49 14	DBB5	0DDXB5	62 63 56 12 49 13#
49 15	DBB3	0DDXB3	56 15 56 13 49 15#
49 16	ACLD8	0ACLD8	64 38 62 38 56 13 49 15#
49 17	DBB2	0DDXB2	49 16 49 16
49 18	DBB0	0DDXB0	64 35 62 35 56 16 49 17#
49 19	CTL0	0ACDDCODE0	64 43 62 43 56 7 49 18#
49 20	FD10	0FD1	51 36# 50 19 49 19
49 22	ACLDA	0ACLDA	50 20# 49 20# 45 25# 42 25# 46 72*
49 23	*FE1	*0EFLDB	51 17# 50 22 49 22
49 24	CTL4	*0ACDRAMPGM	51 47# 49 23 47 43#
49 25	CTL2	0ACDDCODE2	60 75 58 75 51 8#
49 26	CTL1	0ACDDCODE1	51 34# 50 25 49 25
49 27	*BMAINT	*0SDBMAINT	51 35# 50 26 49 26
49 28	FDB	0FD3	62 23# 60 76 58 76
49 29	*FE2	*0ACFE2X	53 59 54 59 53 59
49 30	FD7	0FD4	51 68# 49 29
49 32	FD11	0FD0	55 10 54 10 53 10
49 33	FD9	0FD2	42 26# 43 26# 44 26#
49 34	FD6	0FD5	42 23# 43 23# 44 23#
49 35	*FE0	*0ACFE0X	55 22 54 22 53 22
49 36	CTL3	0ACDDCODE3	51 66# 49 35
49 37	DBB1	0DDXB1	51 33# 50 36 49 36
49 38	FD3	0FD8	64 42 62 42 56 8 49 37#
49 39	FD4	0FD7	42 53# 43 53# 44 53#
49 40	FD5	0FD6	42 17# 43 17# 44 17#
49 41	GROUND	0DDXBND	42 20# 43 20# 44 20#
49 42	FD2	0FD9	49 41# 49 62
49 43	FD1	0FD10	44 52# 43 52# 44 52#
49 44	FD0	0FD11	44 54# 43 54# 44 54#
49 45	DDA7	0DDXA7	42 55# 43 55# 44 55#
49 46	DDMD0	0DDXMD0	56 80 49 45#
49 48	PUP	0DDXPUP	58 50 49 46# 39 44 38 44 36 80 49 48# 49 12

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
49 50	DDMD1	ODDXMD1	58 52 49 50# 39 39 38 39 36 78
49 52	DDMD3	ODDXMD3	58 54 49 52# 39 37 38 37 36 74
49 53	ACMSW	OACMSW	51 53# 50 53 49 53
49 54	DDA15	ODDXA15	50 6 49 6 49 54# 56 73 62 33
49 55	DDA15XOR	ODDXA15XOR	56 79 49 55#
49 56	DDMD2	ODDXMD2	58 53 49 56# 39 64 38 64 36 76
49 57	DDMD15	ODDXMD15	64 50 62 50 58 67 49 57# 39 62 38 62
49 58	DDMD13	ODDXMD13	62 59 58 65 49 58# 39 27 38 27
49 60	DDMD9	ODDXMD9	62 66 58 60 49 60# 39 48 38 48
49 62	DDYCARD	ODDXGND	49 41# 49 62
49 63	DDMD12	ODDXMD12	62 60 58 64 49 63# 39 22 38 22
49 64	DDMD14	ODDXMD14	64 49 62 49 58 66 49 64# 39 28 38 28
49 65	DDMD8	ODDXMD8	62 67 58 59 49 65# 39 18 38 18
49 66	DDMD11	ODDXMD11	62 64 58 63 49 66# 39 43 38 43
49 67	DDK1	ODDXK1	56 48 49 67#
49 68	DDMD10	ODDXMD10	62 65 58 62 49 68# 39 30 38 30
49 69	DDK3	ODDXK3	56 53 49 69#
49 70	DDK2	ODDXK2	56 57 49 70#
49 71	GND-CC	*CHCLK3	
49 72	*CLK	*CHCLK3	
TWISTED PAIR RETURN OF 49 72			
49 73	DDMD5	ODDXMD5	12 18# 49 72 50 72 51 42 56 72 58 79 60 79 62 52 64 52 96 52 94 52
49 74	DDK4	ODDXK4	12 11# 49 71# 50 71# 58 71# 56 71# 58 80# 60 80# 62 51# 64 51# 96 51# 94 51#
49 75	DDMD6	ODDXMD6	92 79 90 79 88 72 83 42 82 72 81 72
49 76	DDMD7	ODDXMD7	1 58 56 49 73# 39 42 38 42 36 15
49 77	DDMD4	ODDXMD4	56 23 49 74#
49 78	*RESET	*CMBRE1	58 57 49 75# 39 40 38 40 36 13
			58 58 49 76# 39 46 38 46 36 10
			58 55 49 77# 39 55 38 55 36 17
			74 73 75 73 76 73 77 73 79 64 80 80 81 78 82 78 83 46 78 10 42 73
			43 73 44 73 45 73 47 64 48 80 49 78 50 78 51 46 46 10 12 15#
50 2	VCC	+5V50	50 4 50 2#
50 3	DDADDIN	ODDYGND	50 41# 50 12 50 3
50 4	VCC	+5V50	50 4 50 2#
50 5	MAINTSERIN	OSDOSEROUT	62 5# 50 5
50 6	OFSSERIN	ODDXA15	50 6 49 6 49 54# 56 73 62 33
50 7	DDB6	ODDYB6	64 47 62 47 51 44 50 7# 37 57
50 8	DDB7	ODDYB7	37 58 51 76 50 8#
50 12	DDXCARD	ODDYGND	50 41# 50 12 50 3
50 13	DDB4	ODDYB4	64 68 62 68 51 6 50 13# 47 22 37 43
50 14	DDB5	ODDYB5	51 45 50 14# 37 56
50 15	DDB3	ODDYB3	64 69 62 69 51 5 50 15# 47 23 37 42
50 16	ACLDB	OACLDB	51 30# 50 16 49 16
50 17	DDB2	ODDYB2	64 70 62 70 50 17# 51 4 37 55
50 18	DDB0	ODDYB0	50 18# 51 52 47 49 37 37
50 19	CTLO	OACRDCODEO	51 36# 50 19 49 19
50 20	FD10	OFD1	50 20# 49 20# 45 25# 42 25# 46 72#
50 22	ACLDA	OACLDA	51 17# 50 22 49 22
50 23	*FE1	ODDYFUP	50 62 50 48# 50 23

SLOT/FIN CARD SIGNAL NAME	STRING NAME	STRING PINS
50 24	CTL4	*OACDRAMP0H
50 25	CTL2	OACDDCODE2
50 26	CTL1	OACDDCODE1
50 27	*BMAINT	*OSDORNAINT
50 28	FD8	OFD3
50 29	*FE2	*OACFE2Y
50 30	FD7	OFD4
50 32	FD11	OFD0
50 33	FD9	OFD2
50 34	FD6	OFD5
50 35	*FEO	*OACFE0Y
50 36	CTL3	OACDDCODE3
50 37	DDB1	ODDYB1
50 38	FD3	OFD8
50 39	FD4	OFD7
50 40	FD5	OFD6
50 41	GROUND	ODDYGND
50 42	FD2	OFD9
50 43	FD1	OFD10
50 44	FD0	OFD11
50 45	DDA7	ODDYA7
50 46	DDMD0	ODDYMDO
50 47	DDYSEL	ODDYSEL
50 48	PUP	ODDYPUP
50 50	DDMD1	ODDYMND1
50 52	DDMD3	ODDYMND3
50 53	ACMSW	OACMSW
50 54	DDA15	ODDYA15
50 56	DDMD2	ODDYMND2
50 57	DDMD15	ODDYMND15
50 58	DDMD13	ODDYMND13
50 60	DDMD9	ODDYMND9
50 62	DDYCARD	ODDYCARD
50 63	DDMD12	ODDYMND12
50 64	DDMD14	ODDYMND14
50 65	DDMD8	ODDYMND8
50 66	DDMD11	ODDYMND11
50 67	DDK1	ODDYK1
50 68	DDMD10	ODDYMND10
50 69	DDK3	ODDYK3
50 70	DDK2	ODDYK2
50 71	GND-CC	*CHCLK3
50 72	*CLK	*CHCLK3
50 73	DDMD5	ODDYMND5
50 74	DDK4	ODDYK4

TWISTED PAIR RETURN OF 50 72
 L 12 18# 49 72 51 42 56 72 58 79 60 79 62 52 64 52 96 52 94 52
 L 12 11JL 49 71JL 50 71JL 51 41JL 56 71JL 58 80JL 60 80JL 62 51JL 64 51JL 96 51JL 94 51JL
 L 92 79 90 79 88 72 83 42 82 72 81 72
 L 92 80JL 90 80JL 88 71JL 83 41JL 82 71JL 81 71JL
 60 56 50 73# 41 42 40 42 36 14
 56 24 50 74#

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	51 44	50 7*	37 57	51 44	50 7*	37 57	80 80	81 78	82 78	83 46	78 10	42 73
51 44	DDYB6	ODDYB6	64 47	62 47	51 44	37 57	51 44	50 7*	37 57	80 80	81 78	82 78	83 46	78 10	42 73
51 45	DDYB5	ODDYB5	51 45	50 14*	37 56		37 56								
51 46	*RESET	*CHGRE1	74 73	75 73	76 73	79 64	76 73	77 73	79 64	80 80	81 78	82 78	83 46	78 10	42 73
51 47	*SPLLOADACTIVE	*OEFLDB	43 73	44 73	45 73	48 80	45 73	47 64	48 80	49 78	50 78	51 46	46 10	12 15*	
51 48	*ENABFD	*OACENABFD	51 47	49 23	47 43*		47 43*								
51 49	SDYSEL	OSDOYSEL	56 58	51 48*											
51 50	*ITSME	*IMHERE	62 32*	51 49											
51 52	DDYB0	ODDYB0	32 57*	31 57*	30 57*	28 57*	30 57*	29 57*	28 57*	27 57*	26 57*	25 57*	37 6*	8 76*	12 79
51 53	MSW	OACHSM	51 50*	47 80*	83 50*	79 80*	83 50*	79 80*	69 6*						
51 54	DPGO	CHGO	50 18*	51 52	49 53		49 53								
51 55	SEROUT	HDOUT	51 53*	50 53	18 49	21 49	18 49	21 49	24 49	51 54	83 54				
			12 25*	15 49	69 7*	47 76*	69 7*	47 76*	51 55*	25 65*	26 65*	27 65*	28 65*	29 65*	30 65*
			31 65*	32 65*	12 9	8 77*	12 9	8 77*	37 7*						
51 56	READAVAIL	AVAILOUT	32 62*	31 62*	30 62*	29 62*	30 62*	29 62*	28 62*	27 62*	26 62*	25 62*	12 77	51 56*	83 56*
51 57	LOADK(J)	OACLOADK(J)	56 47	51 57*											
51 58	LOADK(JPLUS1)	OACLOADK(JPLUS1)	56 17	51 58*											
51 59	SP-LINEDONE	OSLSP-LINEDONE	51 59	48 34*											
51 60	DDXB5	ODDXB5	51 60	49 14*	56 15		56 15								
51 62	LDSLOPE	OACLDSLOPE	60 69	58 69											
51 63	EDGE	OACEDGE	51 63*	47 48											
51 64	LIGB	OACLIGB	56 20	51 64*											
51 65	LIGHTB	OACLIGHTB	56 76	51 65*											
51 66	*FE0X	*OACFE0X	51 66*	49 35											
51 67	*FE0Y	*OACFE0Y	51 67*	50 35											
51 68	*FE2X	*OACFE2X	51 68*	49 29											
51 69	*FE2Y	*OACFE2Y	51 69*	50 29											
51 70	*SHIFTB	*OACSHIFTB	56 75	51 70*											
51 72	*SHIFTA	*OACSHIFTA	56 77	51 72*											
51 73	NCOUNTDONE	OSDONCOUNTDONE	62 3*	51 73											
51 74	PERMITLIGHT	OOCPERMITLIGHT	51 74	37 38*											
51 75	*SPEXISTS	*OFGOITSME	51 75	42 66*											
51 76	DDYB7	ODDYB7	37 58	51 76	50 8*										
51 77	FACE	OACFACE	51 77*	47 47											
51 78	UNBLANK	OACUNBLANK	64 20	62 20	51 78*		51 78*								
51 79	FORCEAVAIL	CHFORCEAVAIL	12 35*	9 49	51 79	83 79	51 79	83 79							
52 2	VCC	+SV52	52 4	52 2*											
52 3	ELSEROUTO	OLA3ELSERO	52 4	52 2*											
52 4	VCC	+SV52	52 4	52 2*											
52 5	ADR1	OSLLAADR1	55 5	54 5	53 5	52 5	53 5	52 5	48 17*						
52 6	ENDF2	OLA3GND	52 6	52 36	52 41*										
52 7	ADRO	OSLLAADR0	55 7	54 7	53 7	52 7	53 7	52 7	48 15*						
52 8	*DIN4	OFD18	55 8	54 8	53 8	52 8	53 8	52 8	46 75*						
52 9	*DIN5	OFD17	55 9	54 9	53 9	52 9	53 9	52 9	46 77*						
52 10	*DIN7	OFD4	55 10	54 10	53 10	52 10	53 10	52 10	45 75*	44 75*	43 75*	42 75*			
52 12	WRITE	OSLLAWRITE	55 12	54 12	53 12	52 12	53 12	52 12	45 62*	44 62*	43 62*	42 62*			
52 13	END2	OPSEND2	55 13	54 13	53 13	52 13	53 13	52 13	49 30*	45 22*	44 22*	43 22*	42 22*	46 73*	
52 14	END1	OPSEND1	55 14	54 14	53 14	52 14	53 14	52 14	46 39*	46 38*	46 38*	46 38*	46 38*	46 38*	

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	ECO B1	Date	Page
52 15	ENDO	OPSEND0	55 15 54 15	53 15	52 15	46 53*
52 16	END3	OPSEND3	55 16 54 16	53 16	52 16	46 40*
52 17	END4	OPSEND4	55 17 54 17	53 17	52 17	46 46*
52 18	END0	OLA3PUP	52 45 52 46*	52 44	52 19	52 18
52 19	ENDF1	OLA3PUP	52 45 52 46*	52 44	52 19	52 18
52 20	ELSEROUT1	OLA3ELSER1	54 24 52 20*	53 22	52 22	50 34*
52 22	*DING	OFD5	55 22 54 22	53 22	52 22	49 34*
52 23	SEROUT	OLA3SEROUT	54 57 52 23*	55 3*	45 19*	44 19*
52 24	ELSERIN1	OLA3ELSER0	56 68 52 24	53 25	43 19*	42 19*
52 25	*FIRSTSPAN	*OSLFIRST	55 25 54 25	52 25	48 60*	46 74*
52 26	ELSEROUT2	OLA3ELSER2	54 29 52 26*	53 30		
52 28	ELSERIN0	OSLSERLINK	52 28 48 28*	52 29		
52 29	ELSERIN2	OLA3ELSER1	56 67 55 20*	53 30	48 44*	46 65
52 30	*LASTSPAN	OSLINCHSB	55 30 54 30	52 35		
52 34	ELSEROUT3	OLA3ELSER3	54 35 52 34*	52 41*		
52 35	ELSERIN3	OLA3ELSER2	56 62 55 26*	53 38	52 38	46 42*
52 36	STF2	OLA3GND	52 6 52 36	53 39	52 39	46 63*
52 37	ELSEROUT4	OLA3ELSER4	54 47 52 37*	53 40	52 40	46 64*
52 38	ST2	OPSSSTART2	55 38 54 38	52 42	52 42	46 38*
52 39	ST1	OPSSSTART1	55 39 54 39	52 43	52 43	46 44*
52 40	ST0	OPSSSTART0	55 40 54 40	52 44	52 19	52 18
52 41	GROUND	OLA3GND	52 6 52 36	52 44	52 19	52 18
52 42	ST3	OPSSSTART3	55 42 54 42	52 47	52 19	52 18
52 43	ST4	OPSSSTART4	55 43 54 43	52 49	52 49	48 27*
52 44	STF0	OLA3PUP	52 45 52 46*	53 50	52 50	48 37*
52 45	STF1	OLA3PUP	52 45 52 46*	52 52		
52 46	PUP	OLA3PUP	52 45 52 46*	52 53		
52 47	ELSERIN4	OLA3ELSER3	56 59 55 34*	42 72	43 72	44 72
52 48	ELSEROUT5	OLA3ELSER5	54 52 52 48*	43 72	45 72	48 79
52 49	CLRINP	OSLCLRINP	55 49 54 49	52 55	53 55	54 55
52 50	SELWRT	OSLSELWRT	55 50 54 50	52 57	52 57	35 43
52 52	ELSERIN5	OLA3ELSER4	56 42 55 37*	53 58	52 58	48 43*
52 53	ELSERIN6	OLA3ELSER5	56 49 55 48*	53 59	52 59	50 28*
52 54	ELSEROUT6	OLA3ELSER6	54 53 52 54*	52 62	52 62	46 66*
52 55	*DEV	*OEFDEVB	46 13 47 30*	52 63	35 42	45 24*
52 56	ELSEROUT7	OLA3ELSER7	54 63 52 56*	52 64	43 24*	42 24*
52 57	SERIN	OLA3ELSER8	56 37 55 66*	52 65	43 24*	42 56*
52 58	LOADOUT	OSLLOADLAOUT	55 58 54 58	52 66	44 24*	43 24*
52 59	*DING	OFD3	55 59 54 59	52 68	45 24*	44 24*
52 62	*DINO	OFD14	55 62 54 62	52 68	45 56*	44 56*
52 63	ELSERIN7	OLA3ELSER6	56 46 55 56*	52 64	46 66*	45 56*
52 64	ELSERIN8	OLA3ELSER7	55 65 54 65	52 65	48 42*	
52 65	POKEOUT	OSLPOKELAOUT	54 64 52 66*	52 66		
52 66	ELSEROUT8	OLA3ELSER8	54 64 52 66*	52 68		
52 68	CLKINP	OLA3CLKINP	52 70 52 68*	52 70		
52 70	CLK	OLA3CLKINP	52 70 52 68*	52 70		
52 71	GND-CC	*CMCLK4	12 19*	42 79	46 22	47 34
52 72	*CLKINP	*CMCLK4	38 79	42 79	52 72	53 72
		TWISTED PAIR RETURN OF		52 72	54 72	55 72
				46 22	48 72	87 72

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	ECO B1
53 46	PUP	OLA2PUP	53 46#	53 19
53 47	ELSERIN4	OLA1ELSER4	56 39	54 37#
53 48	ELSEROUT5	OLA2ELSER5	55 52	53 48#
53 49	CLRINP	OSLCLRINP	53 49	54 49
53 50	SELWRT	OSLSELWRT	53 49	52 49
53 52	ELSERIN5	OLA1ELSER5	53 50	52 50
53 53	ELSERIN6	OLA1ELSER6	54 48#	53 52
53 54	ELSEROUT6	OLA2ELSER6	56 50	53 53
53 55	*DEV	*OEFDEVB	55 53	53 54#
53 56	ELSEROUT7	OLA2ELSER7	46 13	47 30#
53 57	SERIN	OLA1SEROUT	55 63	53 56#
53 58	LOADOUT	OSLLOADLAUT	54 23#	53 57
53 59	*DIN8	OFD3	55 58	54 58
53 62	*DINO	OFD14	55 59	54 59
53 63	ELSERIN7	OLA1ELSER7	55 62	54 62
53 64	ELSERIN8	OLA1ELSER8	56 45	54 56#
53 65	POKEOUT	OSLPOKELAUT	56 38	54 66#
53 66	ELSEROUT8	OLA2ELSER8	55 65	54 65
53 68	CLKINP	OLA2CLKINP	55 64	53 66#
53 70	CLK	OLA2CLKINP	53 70	53 68#
53 71	GND-CC	*CHCLK4	53 70	53 68#
53 72	*CLKINP	*CHCLK4	53 70	53 68#
			TWISTED PAIR RETURN OF 53 72	
			12 19#	38 79
			42 79	46 22
			47 34	48 72
			48 72	52 72
			53 72	53 72
			54 72	54 72
			55 72	55 72
			57 72	57 72
			58 72	58 72
			59 72	59 72
			60 72	60 72
			61 72	61 72
			62 72	62 72
			63 72	63 72
			64 72	64 72
			65 72	65 72
			66 72	66 72
			67 72	67 72
			68 72	68 72
			69 72	69 72
			70 72	70 72
			71 72	71 72
			72 72	72 72
			73 72	73 72
			74 72	74 72
			75 72	75 72
			76 72	76 72
			77 72	77 72
			78 72	78 72
			79 72	79 72
			80 72	80 72
			81 72	81 72
			82 72	82 72
			83 72	83 72
			84 72	84 72
			85 72	85 72
			86 72	86 72
			87 72	87 72
			88 72	88 72
			89 72	89 72
			90 72	90 72
			91 72	91 72
			92 72	92 72
			93 72	93 72
			94 72	94 72
			95 72	95 72
			96 72	96 72
			97 72	97 72
			98 72	98 72
			99 72	99 72
			100 72	100 72
53 73	*DIN2	OFD15	55 73	54 73
53 74	*DIN1	OFD12	55 74	54 74
53 75	ADR2	OSLLAADR2	55 75	54 75
53 76	*DIN3	OFD19	55 76	54 76
53 77	ADR4	OSLLAADR4	55 77	54 77
53 78	ADR3	OSLLAADR3	55 78	54 78
53 79	ADR5	OSLLAADR5	55 79	54 79
54 2	VCC	+SV54	54 4	54 2#
54 3	ELSEROUTO	OLA1ELSERO	56 65	53 28
54 4	VCC	+SV54	54 4	54 2#
54 5	ADR1	OSLLAADR1	55 5	54 5
54 6	ENDF2	OLAIGND	54 6	54 19
54 7	ADRO	OSLLAADRO	55 7	54 7
54 8	*DINA	OFD18	55 8	54 8
54 9	*DINS	OFD17	55 9	54 9
54 10	*DIN7	OFDA	55 10	54 10
54 12	WRITE	OSLLAWRITE	55 12	54 12
54 13	END2	OPSEND2	55 13	54 13
54 14	END1	OPSEND1	55 14	54 14
54 15	END0	OPSEND0	55 15	54 15
54 16	END3	OPSEND3	55 16	54 16
54 17	END4	OPSEND4	55 17	54 17
54 18	ENDFO	OLAIPUP	54 46#	54 44
			54 44	54 18
			54 45	54 19
			54 46	54 20
			54 47	54 21
			54 48	54 22
			54 49	54 23
			54 50	54 24
			54 51	54 25
			54 52	54 26
			54 53	54 27
			54 54	54 28
			54 55	54 29
			54 56	54 30
			54 57	54 31
			54 58	54 32
			54 59	54 33
			54 60	54 34
			54 61	54 35
			54 62	54 36
			54 63	54 37
			54 64	54 38
			54 65	54 39
			54 66	54 40
			54 67	54 41
			54 68	54 42
			54 69	54 43
			54 70	54 44
			54 71	54 45
			54 72	54 46
			54 73	54 47
			54 74	54 48
			54 75	54 49
			54 76	54 50
			54 77	54 51
			54 78	54 52
			54 79	54 53
			54 80	54 54
			54 81	54 55
			54 82	54 56
			54 83	54 57
			54 84	54 58
			54 85	54 59
			54 86	54 60
			54 87	54 61
			54 88	54 62
			54 89	54 63
			54 90	54 64
			54 91	54 65
			54 92	54 66
			54 93	54 67
			54 94	54 68
			54 95	54 69
			54 96	54 70
			54 97	54 71
			54 98	54 72
			54 99	54 73
			54 100	54 74

SLOT/PIN CARD SIGNAL NAME	STRING NAME	STRING PINS
54 19	ENDF1	54 6 54 19 54 41# 54 45
54 20	OLA1ELSER1	56 70 53 24 54 20#
54 22	*DIN6	55 22 54 22 52 22
54 23	SEROUT	54 23# 53 57
54 24	ELSERIN1	54 24 52 20#
54 25	*FIRSTSPAN	55 25 54 25 52 25
54 26	ELSEROUT2	56 64 53 29 54 26#
54 28	ELSERINO	54 28 52 3#
54 29	ELSERIN2	54 29 52 26#
54 30	*LASTSPAN	55 30 54 30 52 30
54 34	ELSEROUT3	56 60 54 34# 53 35
54 35	ELSERIN3	54 35 52 34#
54 36	STF2	53 6 53 18 54 36
54 37	ELSEROUT4	56 39 54 37# 53 47
54 38	ST2	55 38 54 38 52 38
54 39	ST1	55 39 54 39 52 39
54 40	ST0	55 40 54 40 52 40
54 41	GROUND	54 6 54 19 54 41# 54 45
54 42	ST3	55 42 54 42 52 42
54 43	ST4	55 43 54 43 52 43
54 44	STF0	54 46# 54 44 54 18
54 45	STF1	54 6 54 19 54 41# 54 45
54 46	PUP	54 46# 54 44 54 18
54 47	ELSERIN4	54 47 52 37#
54 48	ELSEROUT5	56 50 54 48# 53 52
54 49	CLRINP	55 49 54 49 52 49
54 50	SELWRT	55 50 54 50 52 50
54 52	ELSERIN5	54 52 52 48#
54 53	ELSERIN6	54 53 52 54#
54 54	ELSEROUT6	56 44 54 54# 53 53
54 55	*DEV	46 13 47 30# 42 72 43 72
54 56	ELSEROUT7	56 45 54 56# 53 63
54 57	SERIN	54 57 52 23#
54 58	LOADOUT	55 58 54 58 52 58
54 59	*DIN8	55 59 54 59 52 59
54 62	*DINO	55 62 54 62 52 62
54 63	ELSERIN7	54 63 52 56#
54 64	ELSERIN8	54 64 52 66#
54 65	POKEOUT	55 65 54 65 52 65
54 66	ELSEROUT8	56 38 54 66# 53 64
54 68	CLKINP	54 70 54 68#
54 70	CLK	54 70 54 68#
54 71	GND-CC	54 70 54 68#
54 72	*CLKINP	TWISTED PAIR RETURN OF 54 72
		12 19# 38 79 42 79 46 22 47 34 48 72 52 72 53 72 54 72 55 72 87 72
		L 12 21JL 38 80JL 42 80JL 46 21JL 47 31JL 48 71JL 52 71JL 53 71JL 54 71JL 55 71JL 87 71J
		86 72 85 72 84 72 80 72 79 34 78 22 74 79 70 79 74 3
		L 86 71JL 85 71JL 84 71JL 80 71JL 79 31JL 78 21JL 74 80JL 70 80JL 74 1J
54 73	*DIN2	55 73 54 73 53 73 52 73 46 68# 45 57# 44 57# 43 57# 42 57#

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
54 74	*DIN1	OFD12	55 74 54 74
54 75	ADR2	OSLLAADR2	53 74 52 74 46 67# 45 59# 44 59# 43 59# 42 59#
54 76	*DIN3	OFD19	55 75 54 75 48 19#
54 77	ADR4	OSLLAADR4	55 76 54 76 46 69# 45 78# 44 78# 43 78# 42 78#
54 78	ADR3	OSLLAADR3	55 77 54 77 48 24#
54 79	ADR5	OSLLAADR5	55 78 54 78 48 22#
55 2	VCC	+VS55	55 79 54 79 48 36#
55 3	ELSEROUT0	OLA0ELSER0	55 4 55 2#
55 4	VCC	+VS55	56 68 52 24 55 3#
55 5	ADR1	OSLLAADR1	55 4 55 2#
55 6	ENDF2	OLA0GND	55 5 54 5 53 5 52 5 55 36
55 7	ADRO	OSLLAADRO	55 6 55 18 55 19 55 41# 55 44 55 45
55 8	*DIN4	OFD18	55 7 54 7 53 7 52 7 48 15#
55 9	*DIN5	OFD17	55 8 54 8 53 8 52 8 46 75# 45 75# 44 75# 43 75# 42 75#
55 10	*DIN7	OFDA	55 9 54 9 53 9 52 9 46 77# 45 62# 44 62# 43 62# 42 62#
55 12	WRITE	OSLLAWRITE	55 10 54 10 53 10 52 10 50 30# 49 30# 45 22# 44 22# 43 22# 42 22# 46 73#
55 13	END2	OPSEND2	55 12 54 12 53 12 52 12 48 38#
55 14	END1	OPSEND1	55 13 54 13 53 13 52 13 46 39#
55 15	END0	OPSEND0	55 14 54 14 53 14 52 14 46 56#
55 16	END3	OPSEND3	55 15 54 15 53 15 52 15 46 53#
55 17	ENDA	OPSEND4	55 16 54 16 53 16 52 16 46 40#
55 18	ENDF0	OLA0GND	55 17 54 17 53 17 52 17 46 46#
55 19	ENDF1	OLA0GND	55 6 55 18 55 19 55 36 55 41# 55 44 55 45
55 20	ELSEROUT1	OLA0ELSER1	55 6 55 18 55 19 55 36 55 41# 55 44 55 45
55 22	*DIN6	OFD5	56 67 55 20# 52 29
55 23	SEROUT	OLA0SEROUT	55 22 54 22 53 22 52 22 50 34# 49 34# 45 19# 44 19# 43 19# 42 19# 46 74#
55 24	ELSERIN1	OLA2ELSER1	55 23# 46 25
55 25	*FIRSTSPAN	*OSLFIRST	55 24 53 20# 53 25 52 25 48 60#
55 26	ELSEROUT2	OLA0ELSER2	55 25 54 25 52 25 52 25 52 25 52 25
55 28	ELSERIN0	OLA2ELSER0	56 62 55 26# 52 35
55 29	ELSERIN2	OLA2ELSER2	55 28 53 3#
55 30	*LASTSPAN	OSLINCHSR	55 29 53 26#
55 34	ELSEROUT3	OLA0ELSER3	55 30 54 30 53 30 52 30 48 44# 46 65
55 35	ELSERIN3	OLA2ELSER3	56 59 55 34# 52 47
55 36	STF2	OLA0ELSER3	55 35 53 34#
55 37	ELSEROUT4	OLA0GND	55 6 55 18 55 19 55 36 55 41# 55 44 55 45
55 38	ST12	OLA0ELSER4	56 42 55 37# 52 52
55 39	ST1	OPSSSTART2	55 38 54 38 53 38 52 38 46 42#
55 40	ST0	OPSSSTART1	55 39 54 39 53 39 52 39 46 63#
55 41	GROUND	OPSSSTART0	55 40 54 40 53 40 52 40 46 64#
55 42	ST3	OLA0GND	55 6 55 18 55 19 55 36 55 41# 55 44 55 45
55 43	ST4	OPSSSTART3	55 42 54 42 53 42 52 42 46 38#
55 44	STF0	OPSSSTART4	55 43 54 43 53 43 52 43 46 44#
55 45	STF1	OLA0GND	55 6 55 18 55 19 55 36 55 41# 55 44 55 45
55 47	ELSERIN4	OLA0GND	55 6 55 18 55 19 55 36 55 41# 55 44 55 45
55 48	ELSEROUT5	OLA2ELSER4	55 47 53 37#
55 49	CLRINP	OLA0ELSER5	56 49 55 48# 52 53
55 50	SELWRT	OSLCLRINP	55 49 54 49 53 49 52 49 48 27#
		OSLSELWRT	55 50 54 50 53 50 52 50 48 37#

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
55 52	ELSERIN5	OLA2ELSER5	55 52 53 48*
55 53	ELSERIN6	OLA2ELSER6	55 53 53 54*
55 54	ELSEROUT6	OLA0ELSER6	56 43 55 54*
55 55	*DEV	*OEFDEVB	46 13 47 30* 35 42
55 56	ELSEROUT7	OLA0ELSER7	46 13 47 30* 42 72 43 72
55 57	SERIN	OLA2SEROUT	56 46 55 56* 52 64
55 58	LOADOUT	OSLLADLADOUT	55 58 54 58 53 58
55 59	*DIN8	OFD3	55 59 54 59 52 58
55 62	*DINO	OFD14	55 62 54 62 52 59
55 63	ELSERIN7	OLA2ELSER7	55 63 53 56* 52 62
55 64	ELSERIN8	OLA2ELSER8	55 64 53 66*
55 65	POKEOUT	OSLPOKELADOUT	55 65 54 65 53 65
55 66	ELSEROUT8	OLA0ELSER8	56 37 55 66* 52 57
55 68	CLKINP	OLA0CLKINP	55 70 55 68*
55 70	CLK	OLA0CLKINP	55 70 55 68*
55 71	GND-CC	*CMCLK4	55 70 55 68*
55 72	*CLKINP	*CMCLK4	55 70 55 68*
			TWISTED PAIR RETURN OF 55 72
			12 19* 38 79 42 79 46 22
			[12 21JC 38 80JC 42 80JC 46 21JC 47 31JC 48 71JC 52 71JC 53 71JC 54 71JC 55 71JC 55 72 87 72
			86 72 85 72 84 72 80 72 79 34 78 22 74 79 70 79 74 3
			[86 71JC 85 71JC 84 71JC 80 71JC 79 31JC 78 21JC 74 80JC 70 80JC 74 1J
55 73	*DIN2	OFD15	55 73 54 73 53 73 52 73 46 68* 45 57* 44 57* 43 57* 42 57*
55 74	*DIN1	OFD12	55 74 54 74 53 74 52 74 46 67* 45 59* 44 59* 43 59* 42 59*
55 75	ADR2	OSLLAADR2	55 75 54 75 53 75 52 75 48 19*
55 76	*DIN3	OFD19	55 76 54 76 53 76 52 76 46 69* 45 78* 44 78* 43 78* 42 78*
55 77	ADR4	OSLLAADR4	55 77 54 77 53 77 52 77 48 24*
55 78	ADR3	OSLLAADR3	55 78 54 78 53 78 52 78 48 22*
55 79	ADR5	OSLLAADR5	55 79 54 79 53 79 52 79 48 36*
56 3	+15V	+15V1	56 3* 110 48*
56 4	ANALOGBND	AGND1	56 4* 111 47*
56 5	LDLIGHT	OACLDLIGHT	56 5 51 12*
56 6	-15V	-15V1	56 6* 102 47*
56 7	DDXB0	ODDXB0	64 43 62 43 56 7 49 18*
56 8	DDXB1	ODDXB1	64 42 62 42 56 8 49 37*
56 9	SEROUT	OASEROUT	58 68 56 9*
56 10	DDXB7	ODDXB7	56 10 49 8* 37 80
56 12	DDXB4	ODDXB4	62 63 56 12 49 13*
56 13	DDXB3	ODDXB3	64 38 62 38 56 13 49 15*
56 14	DDXB6	ODDXB6	56 14 49 7*
56 15	DDXB5	ODDXB5	51 60 49 14* 56 15
56 16	DDXB2	ODDXB2	64 35 62 35 56 16 49 17*
56 17	LOADK(JPLUS1)	OACLOADK(JPLUS1)	56 17 51 58*
56 18	DDYA15	ODDYA15	50 54* 49 3 56 18
56 19	ENABCTBETA	OACDRAWSURF	60 74 58 74 56 19 51 18* 48 29 37 50
56 20	LIGB	OACLIGB	56 20 51 64*
56 22	CTXT0Y	OACCTXT0Y	56 22 51 28*
56 23	DDXK4	ODDXK4	56 23 49 74*
56 24	DDYK4	ODDYK4	56 24 50 74*
56 25	*BETACARRY	*OAIETACARRY	56 25* 51 15

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
56 26	*LDBETA	*OACLDDBETA	56 26 51 23#
56 28	AIOUTGND	OAIOUT2	TWISTED PAIR RETURN OF 56 30
56 29	AIOUT1	OAIOUT1	62 74 56 29#
			[62 73JL 56 28J
56 30	AIOUT2	OAIOUT2	64 74 56 30#
			[64 73JL 56 28J
56 33	BETA3	OSDOBETA3	62 7# 56 33
56 34	BETA4	OSDOBETA4	62 9# 56 34
56 35	BETA1	OSDOBETA1	62 14# 56 35
56 36	BETA2	OSDOBETA2	62 13# 56 36
56 37	LAOELSER8	OLAELSER8	56 37 55 66# 52 57 35 43
56 38	LAOELSER8	OLAELSER8	56 38 54 66# 53 64 35 45
56 39	LAOELSER4	OLAELSER4	56 39 54 37# 53 47
56 40	LOADKI	OACLDKI	56 40 51 10#
56 42	LAOELSER4	OLAELSER4	56 42 55 37# 52 52
56 43	LAOELSER6	OLAELSER6	56 43 55 54# 52 63 35 42
56 44	LAOELSER6	OLAELSER6	56 44 54 54# 53 53 35 44
56 45	LAOELSER7	OLAELSER7	56 45 54 56# 53 63
56 46	LAOELSER7	OLAELSER7	56 46 55 56# 52 64
56 47	LOADK(J)	OACLOADK(J)	56 47 51 57#
56 48	DDXK1	ODDXK1	56 48 49 67#
56 49	LAOELSER5	OLAELSER5	56 49 55 48# 52 53
56 50	LAOELSER5	OLAELSER5	56 50 54 48# 53 52
56 52	DDYK3	ODDYK3	56 52 50 69#
56 53	DDXK3	ODDXK3	56 53 49 69#
56 54	YSEL	ODDYSEL	56 54 50 47#
56 55	DDYK2	ODDYK2	56 55 50 70#
56 56	DDYK1	ODDYK1	56 56 50 67#
56 57	DDXK2	ODDXK2	56 57 49 70#
56 58	*ENABFD	*OACENABFD	56 58 51 48#
56 59	LAOELSER3	OLAELSER3	56 59 55 34# 52 47
56 60	LAOELSER3	OLAELSER3	56 60 54 34# 53 35
56 61	GROUND	*CHFRCLK	TWISTED PAIR RETURN OF 56 63
56 62	LAOELSER2	OLAELSER2	56 62 55 26# 52 35
56 63	*FRCLK	*CHFRCLK	88 63 56 63 12 12#
			[88 61JL 56 61JL 12 11J
56 64	LAOELSER2	OLAELSER2	56 64 53 29 54 26#
56 65	LAOELSER0	OLAELSER0	56 65 53 28 54 3#
56 66	*BHAIN	*OSDOBHAIN	62 23# 60 76 58 76
56 67	LAOELSER1	OLAELSER1	56 67 55 20# 52 29
56 68	LAOELSER0	OLAELSER0	56 68 52 24 55 3#
56 69	*CLK20MHZ	*CMCLK20MHZ	88 69 56 69 37 60 69 60 12 14#
			[87 71JL 58 71JL 37 61JL 69 61JL 12 11J
56 70	LAOELSER1	OLAELSER1	56 70 53 24 54 20#
56 71	GROUND	*CHCLK3	TWISTED PAIR RETURN OF 56 72
56 72	*CLK	*CHCLK3	12 18# 49 72 50 72 51 42 56 72 58 79 60 79 62 52 64 52 96 52 94 52
			[12 11JL 49 71JL 50 71JL 51 41JL 56 71JL 58 80JL 60 80JL 62 51JL 64 51JL 96 51JL 94 51J
			92 79 90 79 88 72 83 42 82 72 81 72

SLOTPIN CARD SIGNAL NAME	STRING NAME	STRING PINS
56 73	DDXA15	[92 80JIC 90 80JIC 88 71JIC 83 41JIC 82 71JIC 81 71J
56 74	DDYA7	50 6 49 6
56 75	*OACSHIFTB	56 74 50 45*
56 76	*OACLIGHTB	56 75 51 70*
56 77	*OACSHIFTA	56 76 51 65*
56 78	*OACSHALPHA	56 77 51 72*
56 79	DDXA15XOR	56 78 51 24*
56 80	DDXA7	56 79 49 55*
58 3	+15V	56 80 49 45*
58 4	ANALOGGND	58 3 110 52*
58 6	-15V	58 4* 111 51*
58 14	OUT	58 6 102 51*
58 18	OUTGND	64 77 62 77 58 14*
58 42	MSBRAMP	[64 78JIC 62 78JIC 58 18J
58 45	SLOPESERIN	TWISTED PAIR RETURN OF 58 14
58 47	MSBPOS	60 68 58 42*
58 50	POS15	58 47* 58 45
58 52	POS14	58 50 49 46* 39 44
58 53	POS13	58 52 49 50* 38 39
58 54	POS12	58 53 49 56* 39 64
58 55	POS11	58 54 49 52* 39 37
58 56	POS10	58 55 49 77* 39 55
58 57	POS9	58 56 49 73* 39 42
58 58	POS8	58 57 49 75* 39 40
58 59	POS7	58 58 49 76* 39 46
58 60	POS6	62 67 58 59 49 65* 39 18
58 62	POS5	62 66 58 60 49 60* 39 48
58 63	POS4	62 65 58 62 49 68* 39 30
58 64	POS3	62 64 58 63 49 66* 39 43
58 65	POS2	62 60 58 64 49 63* 39 22
58 66	POS1	62 59 58 65 49 58* 39 27
58 67	POS0	64 49 62 49 58 66 49 64* 39 28
58 68	SERIN	64 50 62 50 58 67 49 57* 39 62
58 69	LOADSLOPE	58 68 56 9*
58 70	LOADDA	60 69 58 69 51 62*
58 71	SETLOUT	64 39 62 39 60 70 58 70 51 27*
58 73	DRAWLINE	TWISTED PAIR RETURN OF 56 69
58 74	*RASTER	62 25 58 73*
58 75	*MAINT	60 74 58 74 56 19 51 18*
58 76	*CLK	60 75 58 75 51 8*
58 79	*CLKRET	62 23* 60 76 58 76 56 66 50 27
60 3	+15V4	12 18* 49 72 50 72 51 42 56 72 58 79
58 80	*CLKRET	[12 11JIC 49 71JIC 50 71JIC 51 41JIC 56 71JIC 58 80JIC
60 3	+15V	92 79 90 79 88 72 83 42 82 72 81 72
		[92 80JIC 90 80JIC 88 71JIC 83 41JIC 82 71JIC 81 71J
		TWISTED PAIR RETURN OF 58 79
		60 3 110 56*
		60 79 62 52 64 52 96 52 94 52
		60 80JIC 62 51JIC 64 51JIC 96 51JIC 94 51J

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
60 4	ANALOGGND	ABND4	60 4# 111 55#
60 6	-15V	-15V4	60 6 102 55#
60 14	OUT	ODAYOUT	64 75 62 75 60 14#
60 18	OUTGND	ODAYOUT	[64 76JL 62 76JL 60 18J
60 42	MSBRAMP	ODAYMSBRAMP	TWISTED PAIR RETURN OF 60 14
60 45	SLOPESERIN	ODAYMSBPOS	60 42# 51 7
60 47	MSBPOS	ODAYMSBPOS	60 47# 60 45
60 50	POS15	ODDYND0	60 50 50 46# 41 44
60 52	POS14	ODDYND1	60 52 50 50# 41 39
60 53	POS13	ODDYND2	60 53 50 56# 41 64
60 54	POS12	ODDYND3	60 54 50 52# 41 37
60 55	POS11	ODDYMD4	60 55 50 77# 41 55
60 56	POS10	ODDYMD5	60 56 50 73# 41 42
60 57	POS9	ODDYMD6	60 57 50 75# 41 40
60 58	POS8	ODDYMD7	60 58 50 76# 41 46
60 59	POS7	ODDYMD8	60 59 50 65# 41 18
60 60	POS6	ODDYMD9	60 60 50 60# 41 48
60 62	POS5	ODDYMD10	60 62 50 68# 41 30
60 63	POS4	ODDYMD11	60 63 50 66# 41 43
60 64	POS3	ODDYMD12	60 64 50 63# 41 22
60 65	POS2	ODDYMD13	60 65 50 58# 41 27
60 66	POS1	ODDYMD14	64 36 62 36 60 66
60 67	POS0	ODDYMD15	64 37 62 37 60 67
60 68	SERIN	ODAXMSBRAMP	60 68 58 42#
60 69	LOADSLOPE	OACLDLSLOPE	60 69 58 69
60 70	LOADDA	OACLDANREGS	64 39 62 39 60 70
60 73	SETLUT	ODAYSETLUT	62 24 60 73#
60 74	DRAWLINE	OACDRAWSURF	60 74 58 74
60 75	*RASTER	*OACDRAWPGM	60 75 58 75
60 76	*MAINT	*OSDOBMAINT	62 23# 60 76 58 76
60 79	*CLK	*CHCLK3	12 18# 49 72 50 72
			[12 11JL 49 71JL 50 71JL 51 41JL 56 71JL 58 80JL 60 80JL 62 51JL 64 52 94 52
			92 79 90 79 88 72 83 42 82 72 81 72
			[92 80JL 90 80JL 88 71JL 83 41JL 82 71JL 81 71J
60 80	*CLKRET	*CHCLK3	TWISTED PAIR RETURN OF 60 79
62 3	NCOUNTDONE	OSDONCOUNTDONE	62 3# 51 73
62 4	COMPOSITESETL	OSDOPPOSITESETL	62 4# 51 38
62 5	SEROUT	OSDOSEROUT	62 5# 50 5
62 7	BETA3	OSDOBETA3	62 7# 56 33
62 9	BETA4	OSDOBETA4	62 9# 56 34
62 13	BETA2	OSDOBETA2	62 13# 56 36
62 14	BETA1	OSDOBETA1	62 14# 56 35
62 15	IOFLAG3	CHFLAG3	94 15 96 15 64 15
62 19	*FORCEBLANK	*CHFORSCEBLANK	64 19 94 19 62 19
62 20	UNBLANK	OACUNBLANK	64 20 62 20 51 78#
62 23	*BMAINT	*OSDOBMAINT	62 23# 60 76 58 76
62 24	YSETL	ODAYSETLUT	62 24 60 73#

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
62 25	XSETL	0DAXSETLOUT	62 25 58 73#
62 26	*SHIFTACOFS	*0ACSHACOFS	62 26 51 22#
62 29	SHIFT	CMSHIFT	31 16 29 16 94 29 83 26
62 32	SDYSEL	OSDOYSEL	62 32# 51 49
62 33	SERIN	ODDXA15	50 6 49 6
62 35	DDXB2	ODDXB2	64 35 62 35
62 36	YMD14	ODDYMD14	64 36 62 36
62 37	YMD15	ODDYMD15	64 37 62 37
62 38	DDXB3	ODDXB3	64 38 62 38
62 39	LDANREBS	0ACL DANREBS	64 39 62 39
62 42	DDXB1	ODDXB1	64 42 62 42
62 43	DDXB0	ODDXB0	64 43 62 43
62 45	*CHAN	*CMCHNO	25 25 26 25
62 47	DDYB6	ODDYB6	64 47 62 47
62 49	XMD14	ODDXMD14	64 49 62 49
62 50	XMD15	ODDXMD15	64 50 62 50
62 51	*CLKRET	*CMCLK3	62 51 62 51
62 52	*CLK	*CMCLK3	62 52 62 52
62 53	*INCN	*0ACINCN	12 18# 49 72
62 57	INSTRMONSEL	CMFLA60	12 42# 15 48
62 58	ANALOGGND	AGND2	62 58# 121 60#
62 59	XMD13	ODDXMD13	62 59 58 65
62 60	XMD12	ODDXMD12	62 60 58 64
62 62	*LDN	*0ACL DN	62 62 51 19#
62 63	DDXB4	ODDXB4	62 63 56 12
62 64	XMD11	ODDXMD11	62 64 58 63
62 65	XMD10	ODDXMD10	62 65 58 62
62 66	XMD9	ODDXMD9	62 66 58 60
62 67	XMD8	ODDXMD8	62 67 58 59
62 68	DDYB4	ODDYB4	64 68 62 68
62 69	DDYB3	ODDYB3	64 69 62 69
62 70	DDYB2	ODDYB2	64 70 62 70
62 72	DDYB1	ODDYB1	64 72 62 72
62 73	AIIN	0AIOUT1	62 74 62 74
62 74	AIIGN	0AIOUT1	62 74 62 74
62 75	YPOS	ODAYOUT	62 74 56 29#
62 76	YRET	ODAYOUT	64 75 62 75
62 77	XPOS	ODAXOUT	64 76JL 62 76JL 60 18J
62 78	XRET	ODAXOUT	64 77 62 77
62 79	-15V	-15V2	64 78JL 62 78JL 58 18J
62 80	+15V	+15V2	62 79# 112 59#

27 16 25 16 12 6# 8 73 9 79 37 12 47 28 51 26 62 29

49 54# 56 73 62 33

56 16 49 17#

50 64# 41 28 40 28

50 57# 41 62 40 62

51 27#

51 3 12 55# 8 74 37 5

51 44 50 7#

58 66 49 64# 39 28 38 28

58 67 49 57# 39 62 38 62

51 42 56 72 58 79 60 79 62 52 64 52 96 52 94 52

51 41JL 56 71JL 58 80JL 60 80JL 62 51JL 64 51JL 96 51JL 94 51J

83 42 82 72 81 72

83 41JL 83 41JL 82 71JL 81 71J

18 48 21 48 24 48 62 57 64 57

49 58# 39 27 38 27

49 63# 39 22 38 22

49 13#

49 66# 39 43 38 43 36 25

49 68# 39 30 38 30 36 27

49 60# 39 48 38 48 36 29

49 65# 39 18 38 18 36 32

51 6 50 13# 47 22 37 43

51 5 50 15# 47 23 37 42

50 17# 51 4 37 55

50 37# 47 39

62 74 56 29#

62 73JL 56 28J

60 14#

62 76JL 62 76JL 60 18J

62 75

62 77 62 77 58 14#

62 78JL 62 78JL 58 18J

62 79# 112 59#

62 80# 120 60#

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
64 15	IOFLAG3	CHFLAG3	94 15 96 15
64 19	*FORCEBLANK	*CHFORCEBLANK	96 19 94 19
64 20	UNBLANK	OACUNBLANK	64 20 62 20
64 29	SHIFT	OSDIGND	64 29 64 41*
64 35	DDXB2	ODDXB2	64 35 62 35
64 36	YMD14	ODDYMD14	64 36 62 36
64 37	YMD15	ODDYMD15	64 37 62 37
64 38	DDXB3	ODDXB3	64 38 62 38
64 39	LDANREGS	OACLDANREGS	64 39 62 39
64 41	GROUND	OSDIGND	64 29 64 41*
64 42	DDXB1	ODDXB1	64 42 62 42
64 43	DDXB0	ODDXB0	64 43 62 43
64 45	*CHAN	OSDIGND	64 29 64 41*
64 47	DDYB6	ODDYB6	64 47 62 47
64 49	XMD14	ODDXMD14	64 49 62 49
64 50	XMD15	ODDXMD15	64 50 62 50
64 51	*CLKRET	*CHCLK3	64 51 62 51
64 52	*CLK	*CHCLK3	64 52 62 52
64 57	INSTRMONSEL	CHFLAG0	12 18* 49 72 50 72
64 58	ANALOGGND	ABNDS	51 42 56 72 58 79
64 68	DDYB4	ODDYB4	51 41JIC 56 71JIC 58 80JIC
64 69	DDYB3	ODDYB3	81 72 83 42 82 72 81 72
64 70	DDYB2	ODDYB2	81 72 83 42 82 72 81 72
64 72	DDYB1	ODDYB1	81 72 83 42 82 72 81 72
64 73	AIN	OAIOUT2	81 72 83 42 82 72 81 72
64 74	AIGND	OAIOUT2	81 72 83 42 82 72 81 72
64 75	YPOS	ODAYOUT	81 72 83 42 82 72 81 72
64 76	YRET	ODAYOUT	81 72 83 42 82 72 81 72
64 77	XPOS	ODAXOUT	81 72 83 42 82 72 81 72
64 78	XRET	ODAXOUT	81 72 83 42 82 72 81 72
64 79	-15V5	+15V5	81 72 83 42 82 72 81 72
64 80	+15V	+15V5	81 72 83 42 82 72 81 72
67 1	GROUND	*CHCLK8	81 72 83 42 82 72 81 72
67 3	*CLOCK	*CHCLK8	81 72 83 42 82 72 81 72
67 4	LOADHOLD	10CLOADHOLD	81 72 83 42 82 72 81 72
67 5	LOADMEMINP	10CLOADMEMINP	81 72 83 42 82 72 81 72
67 6	RC	10CRC	81 72 83 42 82 72 81 72
67 7	*MAINT	10C*MAINT	81 72 83 42 82 72 81 72
67 8	FLAGIN2	10MFLAGIN2	81 72 83 42 82 72 81 72
67 9	FLAGIOUT	10MFLAGIOUT	81 72 83 42 82 72 81 72
67 10	XAD7	10THULT7	81 72 83 42 82 72 81 72

SLOTPIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
67 12	OUT15	10NMEMOUT15	68 38 67 12*
67 13	LOADMEMORYOUTPUT	10CHEMAREAD	69 78* 67 13
67 14	PRIORITY	10NHEMPRIORITY	69 52 67 14*
67 15	SERIN	CHSEROUT	24 15 21 15 18 15 15 15 12 37* 15 50 18 50 21 50 24 50 49 5 4 52
67 16	W15	10CXCNT6	35 15 39 45 40 45 41 45 81 5 79 70 73 45 72 45 71 45 67 15
67 17	R15	10THULT6	69 44* 67 16
67 18	W14	10CXCNT5	68 20* 67 17
67 19	R14	10CXCNT5	69 45* 67 18
67 20	W13	10THULT5	68 22* 67 19
67 22	R13	10CXCNT4	69 46* 67 20
67 23	W12	10THULT4	68 23* 67 22
67 24	R12	10CXCNT3	69 47* 67 23
67 25	XAD10	10THULT3	68 67* 67 24
67 26	XAD9	10THULT10	68 35* 67 25
67 27	XADB	10THULT9	68 36* 67 26
67 29	WADDRSEL	10THULT8	68 37* 67 27
67 32	W11	10CWADDRSEL	69 77* 67 29
67 33	R11	10CXCNT2	69 48* 67 32
67 34	W10	10THULT2	68 68* 67 33
67 35	R10	10CXCNT9	69 62* 67 34
67 36	W9	10TPROD9	68 49* 67 35
67 37	R9	10CXCNT8	69 63* 67 36
67 38	W8	10TPROD8	68 48* 67 37
67 39	R8	10CXCNT7	69 64* 67 38
67 42	LAOIF2	10TPROD7	68 47* 67 39
67 43	LAOIF0	1LA0ELSER6	88 43 87 54* 84 63 67 42
67 44	LA1IF2	1LA0ELSER8	88 37 87 66* 84 57 67 43
67 45	LA1IF0	1LA1ELSER6	88 44 86 54* 85 53 67 44
67 52	AO1B	1LA1ELSER8	88 38 86 66* 85 64 67 45
67 53	W7	10HAGTB	69 53 67 52*
67 54	R7	10CXCNT6	69 65* 67 53
67 55	W6	10TPROD6	68 46* 67 54
67 56	R6	10CXCNT5	69 66* 67 55
67 57	W5	10TPROD5	68 45* 67 56
67 58	R5	10CXCNT4	69 67* 67 57
67 59	W4	10TPROD4	68 44* 67 58
67 60	R4	10CXCNT3	69 68* 67 59
67 62	CAS	10TPROD3	68 43* 67 60
67 63	MEMWRITE	10CCAS	69 74* 67 62
67 64	MEMREF	10CHEMWRITE	69 79* 67 63
67 65	RAS	10CHEMREF	69 73* 67 64
67 66	SHIFTFRDATA	10CRAS	69 76* 67 65
67 67	W3	10CSHIFTFRDATA	69 14* 67 66
67 68	R3	10CXCNT2	69 69* 67 67
67 69	W2	10TPROD2	68 42* 67 68
67 70	R2	10CXCNT1	69 59* 67 69
67 72	W1	10TPROD1	68 40* 67 70
		10CXCNT1	69 49* 67 72

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
67 73	R1	10TMULT1	68 69# 67 73
67 79	-15V	-15V67	67 79# 122 10#
67 80	+12V	+12V67	67 80# 123 11#
68 1	GROUND	*CMCLKB	TWISTED PAIR RETURN OF 68 3
68 3	*CLOCK	*CMCLKB	69 3 68 3 67 3 35 3 36 3 37 3 12 24#
68 4	*BMAINT	10C*BMAINT	[69 1JC 68 1JC 67 1JC 35 1JC 36 1JC 37 1JC 12 31J
68 6	LOADMULT	10CLOADMULT	69 4# 68 4 67 7
68 7	LOADPROD	10CLOADPROD	69 22# 68 6
68 8	LOADINPUT	10CLOADINPUT	69 35# 68 7
68 9	Y7	10CLOADINPUTDATA	69 20# 68 8
68 10	X7	1DDYMD7	92 58 82 76# 73 46 68 9
68 12	Y6	1DDXMD7	90 58 81 76# 71 46 70 46 68 10
68 13	X6	1DDYMD6	92 57 82 75# 73 40 68 12
68 14	Y5	1DDXMD6	90 57 81 75# 71 40 70 40 68 13
68 15	X5	1DDYMD5	92 56 82 73# 73 42 68 14
68 16	Y4	1DDXMD5	90 56 81 73# 71 42 70 42 68 15
68 17	X4	1DDYMD4	92 55 82 72# 73 55 72 55 68 16
68 19	H7	1DDXMD4	90 55 81 72# 71 55 70 55 68 17
68 20	H6	10TMULT7	68 19# 67 10
68 22	H5	10TMULT6	68 20# 67 17
68 23	H4	10TMULT5	68 22# 67 19
68 24	Y11	10TMULT4	68 23# 67 22
68 25	X11	1DDYHD11	92 63 82 66# 73 43 68 24
68 26	Y10	1DDXHD11	94 64 90 63 81 66# 71 43 70 43 68 25
68 27	X10	1DDYHD10	92 62 82 68# 73 30 72 30 68 26
68 28	Y9	1DDXHD10	94 65 90 62 81 68# 71 30 70 30 68 27
68 29	X9	1DDYHD9	92 60 82 60# 73 48 72 48 68 28
68 30	Y8	1DDXHD9	94 66 90 60 81 60# 71 48 70 48 68 29
68 32	X8	1DDYHD8	92 59 82 65# 73 18 72 18 68 30
68 35	H10	1DDXHD8	94 67 90 59 81 65# 71 18 70 18 68 32
68 36	H9	10TMULT10	68 35# 67 25
68 37	H8	10TMULT9	68 36# 67 26
68 38	SHIFIN	10TMULT8	68 37# 67 27
68 39	PROD0	10HMEMOUT15	68 38 67 12#
68 40	PROD1	10TFPROD0	69 54 68 39#
68 42	PROD2	10TFPROD1	68 40# 67 70
68 43	PROD3	10TFPROD2	68 42# 67 68
68 44	PROD4	10TFPROD3	68 43# 67 60
68 45	PROD5	10TFPROD4	68 44# 67 58
68 46	PROD6	10TFPROD5	68 45# 67 56
68 47	PROD7	10TFPROD6	68 46# 67 54
68 48	PROD8	10TFPROD7	68 47# 67 39
68 49	PROD9	10TFPROD8	68 48# 67 37
68 54	I11	10TFPROD9	68 49# 67 35
68 55	26W	10TDATAIN11	69 36 68 54#
68 56	2WR0	10C26W	69 8# 68 55
68 57	2WR1	10C2WR0	69 28# 68 56
		10C2WR1	69 15# 68 57

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
68 58	2WR2	10C2WR2	69 16# 68 58
68 59	1GW	10C1GW	69 9# 68 59
68 60	1W0	10C1W0	69 17# 68 60
68 62	1W1	10C1W1	69 18# 68 62
68 63	1W2	10C1W2	69 19# 68 63
68 64	1R0	10C1R0	69 32# 68 64
68 65	1R1	10C1R1	69 30# 68 65
68 66	1R2	10C1R2	69 29# 68 66
68 67	H3	10TMULT3	68 67# 67 24
68 68	H2	10TMULT2	68 68# 67 33
68 69	M1	10TMULT1	68 69# 67 73
68 72	INPUTSELECT	10CSELYINPUT	69 33# 68 72
68 73	Y3	1DDYND3	92 54 82 52# 73 37 68 73
68 74	X3	1DDXND3	90 54 81 52# 71 37 68 74
68 75	Y2	1DDYND2	92 53 82 56# 73 64 68 75
68 76	X2	1DDXND2	90 53 81 56# 71 64 68 76
68 77	Y1	1DDYND1	92 52 82 50# 73 39 68 77
68 78	X1	1DDXND1	90 52 81 50# 71 39 68 78
68 79	Y0	1DDYND0	92 50 82 46# 73 44 68 79
68 80	X0	1DDXND0	90 50 81 46# 71 44 68 80
69 1	GROUND	*CMCLK8	
69 3	*CLOCK	*CHCLK8	
69 4	*BMAINT	10C*BMAINT	
69 5	*CHAN	*CMCHN1	
69 6	*ITSME	*INHERE	
69 7	SEROUT	MDDUT	
69 8	*ENABLEWRITE2	10C2GW	
69 9	*ENABLEWRITE1	10C1GW	
69 12	SHIFT	CNSHIFT	
69 13	LOOPF	CMDEVENB	
69 14	SHIFTPRDATA	10CSHIFTPRDATA	
69 15	2WR1	10C2WR1	
69 16	2WR2	10C2WR2	
69 17	1W0	10C1W0	
69 18	1W1	10C1W1	
69 19	1W2	10C1W2	
69 20	LDDATA	10CLOADINPDATA	
69 22	LDMULT	10CLOADMULT	
69 23	*DDACCAPT	*1DFACCEPT	
69 24	*DPDECODE	*1DPDECODE	
69 26	DDAVAIL	1ACDDAVAIL	
69 27	*RESET	*CMGREO	
69 28	2WR0	10C2WR0	

TWISIED PAIR RETURN OF 69 3
 L 69 11L 68 11L 67 11L 35 11L 36 11L 37 11L 12 26#
 69 4# 68 4 67 7
 28 25 27 25 12 54# 69 5 79 52 83 3 94 45
 32 57# 31 57# 30 57# 29 57# 28 57# 25 57# 37 6# 8 76# 12 79
 51 50# 47 80# 83 50# 79 80# 69 6#
 83 55# 79 76# 69 7# 47 76# 51 55# 25 65# 27 65# 28 65# 29 65# 30 65#
 31 65# 32 65# 12 9 8 77# 37 7#
 69 8# 68 55
 69 9# 68 59
 31 16 29 16 27 16 25 16 12 6# 8 73 9 79 37 12 47 28 51 26 62 29
 94 29 83 26 79 28 69 12
 12 67# 37 13 69 13
 69 14# 67 66
 69 15# 68 57
 69 16# 68 58
 69 17# 68 60
 69 18# 68 62
 69 19# 68 63
 69 20# 68 8
 69 22# 68 6
 83 16# 79 53# 69 23#
 83 32# 79 44# 69 24#
 83 37# 79 46 69 26
 24 39 22 35 21 39 19 35 18 39 16 35 15 39 13 35 12 13# 9 44 10 74
 37 27 69 27 69 28# 68 56

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
69 29	IR2	10C1R2	69 29# 68 66
69 30	IR1	10C1R1	69 30# 68 65
69 32	IR0	10C1R0	69 32# 68 64
69 33	SELINPUT	10CSELYINPUT	69 33# 68 72
69 34	LDHOLD	10CLOADHOLD	69 34# 67 4
69 35	LDPROD	10CLOADPROD	69 35# 68 7
69 36	SHIFIN	10TDATAIN11	69 36 68 54#
69 37	LIGHTPRIORITY	1DDYB0	82 18# 83 52
69 38	PERMITLIGHT	10CPERMITLIGHT	83 74 69 38#
69 42	Y19	1DDYB3	96 69 94 69
69 43	Y20	1DDYB4	96 68 94 68
69 44	XCNT6	10CXCNT6	69 44# 67 16
69 45	XCNT5	10CXCNT5	69 45# 67 18
69 46	XCNT4	10CXCNT4	69 46# 67 20
69 47	XCNT3	10CXCNT3	69 47# 67 23
69 48	XCNT2	10CXCNT2	69 48# 67 32
69 49	XCNT1	10CXCNT1	69 49# 67 72
69 50	DRAWSURF	1ACDRAWSURF	92 74 90 74
69 52	HEMPRIORITY	10HHEMPRIORITY	69 52 67 14#
69 53	AGTB	10HAGTB	69 53 67 52#
69 54	YSIGN	10TPRODO	69 54 68 39#
69 55	Y18	1DDYB2	96 70 94 70
69 56	Y21	1DDYB5	83 45 82 14#
69 57	Y22	1DDYB6	96 47 94 47
69 58	Y23	1DDYB7	69 58 83 76
69 59	YCNT1	10CYCNT1	69 59# 67 69
69 60	*CLK20MHZ	*CMCLK20MHZ	88 69 83 18# 80 29 69 50
69 61	GROUND	*CMCLK20MHZ	87 71JL 58 71JL 37 61JL 69 61JL 12 11J
69 62	YCNT9	10CYCNT9	69 62# 67 34
69 63	YCNT8	10CYCNT8	69 63# 67 36
69 64	YCNT7	10CYCNT7	69 64# 67 38
69 65	YCNT6	10CYCNT6	69 65# 67 53
69 66	YCNT5	10CYCNT5	69 66# 67 55
69 67	YCNT4	10CYCNT4	69 67# 67 57
69 68	YCNT3	10CYCNT3	69 68# 67 59
69 69	YCNT2	10CYCNT2	69 69# 67 67
69 70	LOADMEMINPUT	10CLOADMEMINPUT	69 70# 67 5
69 71	GROUND	*CMCLK9	88 69 56 69 37 60 69 60 12 14#
69 72	*MAINTCLOCK	*CMCLK9	87 71JL 58 71JL 37 61JL 69 61JL 12 11J
69 73	MEMREF	10CMEMREF	69 73# 67 64
69 74	CAS	10CCAS	69 74# 67 62
69 75	RC	10CRC	69 75# 67 6
69 76	RAS	10CRAS	69 76# 67 65
69 77	ADDRSEL	10CADDRSEL	69 77# 67 29
69 78	MEMREAD	10CMEMREAD	69 78# 67 13
69 79	MEMWRITE	10CMEMWRITE	69 79# 67 63

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
70 65	*A13	*IEG0A13	74 67 70 65#
70 66	*A14	*IEG0A14	74 37 70 66#
70 67	*CEBU	IEG0BND	70 6 70 41# 70 58 70 67 70 69
70 68	*WAL	*IEFWRTALO	79 5# 70 68
70 69	*CEBL	IEG0GND	70 6 70 41# 70 58 70 67 70 69
70 70	*WBU	*IEFWRTBUO	79 13# 70 70
70 72	*WBL	*IEFWRTBLO	79 14# 70 72
70 73	ADR4	IFG0EADR4	74 16# 70 73
70 74	ADR5	IFG0EADR5	74 15# 70 74
70 76	ADR3	IFG0EADR3	74 18# 70 76
70 79	*CLK	*CHCLK4	12 19# 38 79 42 79 46 22 47 34 48 72 52 72 53 72 54 72 55 72 87 72
			[12 21JL 38 80JL 42 80JL 46 21JL 47 31JL 48 71JL 52 71JL 53 71JL 54 71JL 55 71JL 87 71J
			[86 72 85 72 84 72 80 72 79 34 78 22 74 79 70 79 74 3
			[86 71JL 85 71JL 84 71JL 80 71JL 79 31JL 78 21JL 74 80JL 70 80JL 74 1J
			TWISTED PAIR RETURN OF 70 79
70 80	GROUND	*CHCLK4	71 4 71 2#
71 2	VCC	+SV71	79 6# 71 3
71 3	*WAW	*IEFWRTAU1	71 4 71 2#
71 4	VCC	+SV71	71 4 71 2#
71 6	*CEAU	IEG1GND	71 6 71 41# 71 58 71 67 71 69
71 7	ADR1	IFG1EADR1	75 10# 71 7
71 8	ADR2	IFG1EADR2	75 63# 71 8
71 10	ADRO	IFG1EADRO	75 12# 71 10
71 12	*A16	*IEG1A16	75 30 71 12#
71 14	*A18	*IEG1A18	75 38 71 14#
71 15	AUSIN	*IEG1A15	71 63# 75 29 71 15
71 16	*A17	*IEG1A17	75 35 71 16#
71 17	*A19	*IEG1A19	75 36 71 17#
71 18	*DI7	IDDXMD8	94 67 90 59 81 65# 71 18 70 18 68 32
71 19	START	IEG1START	75 6 71 19#
71 20	ONES	IEG1ONES	75 7 71 20#
71 22	*DI3	IDDXMD12	94 60 90 64 81 63# 71 22 70 22
71 23	*START	*IEG1START	75 76 71 23#
71 27	*DI2	IDDXMD13	94 59 90 65 81 58# 71 27 70 27
71 28	*DI1	IDDXMD14	96 49 94 49 90 66 81 64# 71 28 70 28
71 29	LOAD	IEFLOADA	79 33# 73 29 71 29 70 29
71 30	*DI5	IDDXMD10	94 65 90 62 81 68# 71 30 70 30 68 27
71 33	*SENSE	*IFG1SENSE	75 14# 71 33
71 34	*A31	IEG1A31	75 5 71 34#
71 35	SHIFT	IEFDEVB	79 29# 77 65 76 65 75 65 74 65 73 35 72 35 71 35 70 35
71 36	SENSE	IFG1SENSE	79 73 75 13# 71 36
71 37	*DI12	IDDXMD3	90 54 81 52# 71 37 70 37 68 74
71 38	CYIN	CMPPUP	70 38 71 38 72 38 73 38 41 38 40 38 39 38 38 12 4#
71 39	*DI14	IDDXMD1	90 52 81 50# 71 39 70 39 68 78
71 40	*DI9	IDDXMD6	90 57 81 75# 71 40 70 40 68 13
71 41	GROUND	IEG1GND	71 6 71 41# 71 58 71 67 71 69
71 42	*DI10	IDDXMD5	90 56 81 73# 71 42 70 42 68 15
71 43	*DI4	IDDXMD11	94 64 90 63 81 66# 71 43 70 43 68 25
71 44	*DI15	IDDXMD0	90 50 81 46# 71 44 70 44 68 80

SLOT/PIN	CARD	SIGNAL NAME	STRING NAME	STRING PINS	ECO B1
71 45	AL SIN	CM SEROUT		24 15 21 15	18 15 15 15
71 46	*DI8	1DDXMD7		35 15 39 45	40 45 41 45
71 48	*DI6	1DDXMD9		90 58 81 76*	71 46 70 46
71 50	*A8	*1EGIA8		94 66 90 60	81 60* 71 48
71 53	*A9	*1EGIA9		75 27 71 53*	
71 54	*A11	*1EGIA11		75 34 71 54*	
71 55	*DI11	1DDXMD4		90 55 81 77*	71 55 70 55
71 56	*A10	*1EGIA10		75 33 71 56*	
71 57	SELSUM	1EFSLSUM		79 32* 73 57	72 57 71 57
71 58	*CEAL	1EIGND		71 6 71 41*	71 58 71 67
71 60	*A12	*1EGIA12		75 32 71 60*	
71 62	*DI0	1DDXMD5		96 50 94 50	90 67 81 57*
71 63	*A15	*1EGIA15		71 63* 75 29	71 15
71 64	*DI13	1DDXMD2		90 53 81 56*	71 64 70 64
71 65	*A13	*1EGIA13		75 67 71 65*	
71 66	*A14	*1EGIA14		75 37 71 66*	
71 67	*CEBU	1EIGND		71 6 71 41*	71 58 71 67
71 68	*WAL	*1EFWRTAL1		79 7* 71 68	
71 69	*CEBL	1EIGND		71 6 71 41*	71 58 71 67
71 70	*WBU	*1EFWRTBU1		79 15* 71 70	
71 72	*WBL	*1EFWRTBL1		79 16* 71 72	
71 73	ADR4	1FGIADR4		75 16* 71 73	
71 74	ADRS	1FGIADRS		75 15* 71 74	
71 76	ADR3	1FGIADR3		75 18* 71 76	
71 79	*CLK	*CHCLK5		12 22* 43 79	39 79 71 79
71 80	GROUND	*CMCLK5		11 21JC 43 80JC 39 80JC 71 80JC 75 80JC 75 13	75 3 75 13
72 2	VCC	+SV72		TWISTED PAIR RETURN OF 71 79	
72 3	*WAU	*1EFWRTAU2		72 4 72 2*	
72 4	VCC	+SV72		79 8* 72 3	
72 6	*CEAU	1EQ2GND		72 4 72 2*	
72 7	ADR1	1FG2EADR1		72 6 72 41*	72 58 72 67
72 8	ADR2	1FG2EADR2		76 10* 72 7	
72 10	ADRO	1FG2EADRO		76 63* 72 8	
72 12	*A16	*1EG2A16		76 12* 72 10	
72 14	*A18	*1EG2A18		76 30 72 12*	
72 15	AUSIN	*1EG2A15		76 38 72 14*	
72 16	*A17	*1EG2A17		72 63* 76 29	72 15
72 17	*A19	*1EG2A19		76 35 72 16*	
72 18	*DI7	1DDYMD8		76 36 72 17*	
72 19	START	1EQ2START		92 59 82 65*	73 18 72 18 68 30
72 20	ONES	1EG2ONES		76 6 72 19*	
72 22	*DI3	1DDYMD12		76 7 72 20*	
72 23	*START	*1EG2START		92 64 82 63*	73 22 72 22
72 27	*DI2	1DDYMD13		76 76 72 23*	
72 28	*DI1	1DDYMD14		92 65 82 58*	73 27 72 27
72 29	LOAD	1EFL0ADA		96 36 94 36	92 66 82 64*
				79 33* 73 29	72 29 71 29 72 28 70 29

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	ECO B1	Date	Page
73 12	*A16	*1EG3A16	77 30 73 12*			
73 14	*A18	*1EG3A18	77 38 73 14*			
73 15	AUSIN	*1EG3A15	73 63* 77 29	73 15		
73 16	*A17	*1EG3A17	77 35 73 16*			
73 17	*A19	*1EG3A19	77 36 73 17*			
73 18	*DI7	1DDYHD8	92 59 82 65*	73 18	72 18	68 30
73 19	START	1EG3START	77 6 73 19*			
73 20	ONES	1EG3ONES	77 7 73 20*			
73 22	*DI3	1DDYHD12	92 64 82 63*	73 22	72 22	
73 23	*START	1EG3START	77 76 73 23*			
73 27	*DI2	1DDYHD13	92 65 82 58*	73 27	72 27	
73 28	*DI1	1DDYHD14	96 36 94 36	92 66	82 64*	73 28
73 29	LOAD	1EFLDADA	79 33* 73 29	72 29	71 29	70 29
73 30	*DI5	1DDYHD10	92 62 82 68*	73 30	72 30	68 26
73 33	*SENSE	*1FG3SENSE	77 14* 73 33			
73 34	*A31	1EG3A31	73 34* 77 5			
73 35	SHIFT	1EFDEVB	79 29* 77 65	76 65	75 65	74 65
73 36	SENSE	1FG3SENSE	77 13* 73 36	79 75		
73 37	*DI12	1DDYHD3	92 54 82 52*	73 37	72 37	68 73
73 38	CYIN	CHPUP	70 38 71 38	72 38	73 38	41 38
73 39	*DI14	1DDYHD1	92 52 82 50*	73 39	72 39	68 77
73 40	*DI9	1DDYHD6	92 57 82 75*	73 40	72 40	68 12
73 41	GROUND	1EG3GND	73 6 73 41*	73 58	73 67	73 69
73 42	*DI10	1DDYHD5	92 56 82 73*	73 42	72 42	68 14
73 43	*DI4	1DDYHD11	92 63 82 66*	73 43	72 43	68 24
73 44	*DI15	1DDYHD0	92 50 82 46*	73 44	72 44	68 79
73 45	ALSN	CHSEROUT	24 15 21 15	18 15	15 15	12 37*
			35 15 39 45	40 45	41 45	47 70
			92 58 82 76*	73 46	72 46	68 9
			92 60 82 60*	73 48	72 48	68 28
			77 27 73 53*			
			77 34 73 54*			
			92 55 82 77*	73 55	72 55	68 16
			77 33 73 56*			
			79 32* 73 57	72 57	71 57	70 57
			73 6 73 41*	73 58	73 67	73 69
			77 32 73 60*			
			96 37 94 37	92 67	82 57*	73 62
			73 63* 77 29	73 15		
			92 53 82 56*	73 64	72 64	68 75
			77 67 73 65*			
			77 37 73 66*			
			73 6 73 41*	73 58	73 67	73 69
			79 12* 73 68			
			73 6 73 41*			
			79 19* 73 70			
			79 20* 73 72			

SLOT	PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
73	73	ADR4	1F03EADR4	77 16# 73 73
73	74	ADR5	1F03EADR5	77 15# 73 74
73	76	ADR3	1F03EADR3	77 18# 73 76
73	79	*CLK	*CMCLK7	12 24# 41 79 45 79 73 79 77 79 77 3
73	80	GROUND	*CMCLK7	L 12 31JL 41 80JL 45 80JL 73 80JL 77 80JL 77 1J
74	1	GND	*CMCLK4	TWISTED PAIR RETURN OF 73 79
74	2	VCC	+5V74	TWISTED PAIR RETURN OF 74 3
74	3		*CMCLK4	74 4 74 2#
74	4	VCC	+5V74	12 19# 38 79 42 79 46 22 47 34 48 72 52 72 53 72 54 72 55 72 87 72
74	5	PLUS	1E00A31	L 12 21JL 38 80JL 42 80JL 46 21JL 47 31JL 48 71JL 52 71JL 53 71JL 54 71JL 55 71JL 87 71J
74	6	START	1E00START	86 72 85 72 84 72 80 72 79 34 78 22 74 79 70 79 74 3
74	7	ONES	1E00ONES	L 86 71JL 85 71JL 84 71JL 80 71JL 79 31JL 78 21JL 74 80JL 74 1J
74	8	FFEGTS	1F0NFFEGTS	74 4 74 2#
74	9	FRONTFACE	1FD13	74 4 74 2#
74	10	EAI	1F00EADR1	74 10# 70 7
74	12	EAO	1F00EADR0	74 12# 70 10
74	13	SENSE	1F00SENSE	79 72 74 13# 70 36
74	14	*SENSE	*1F00SENSE	74 14# 70 33
74	15	EAS	1F00EADR5	74 15# 70 74
74	16	EAA	1F00EADR4	74 16# 70 73
74	17	FD7	1FD7	74 17# 75 17# 76 17# 77 17# 78 15 82 39# 81 39# 80 62#
74	18	EAS3	1F00EADR3	74 18# 70 76
74	19	FD5	1FD5	87 22 86 22
74	20	FD6	1FD6	85 22 84 22 82 34# 81 34# 77 19# 76 19# 75 19# 74 19# 78 74#
74	22	FD4	1FD4	74 20# 75 20# 76 20# 77 20# 81 40# 81 40# 79 65
74	23	FD2	1FD2	87 10 86 10 84 10 82 30# 81 30# 77 22# 76 22# 75 22# 74 22# 78 73#
74	24	FD3	1FD3	74 23# 75 23# 76 23# 77 23# 78 18 81 33# 82 33# 80 67#
74	25	FD1	1FD1	87 59 86 59 85 59 82 28# 81 28# 77 24# 76 24# 75 24# 74 24# 78 76#
74	26	FD0	1FD0	82 20# 81 20# 77 25# 76 25# 75 25# 74 25# 78 72#
74	27	*A9	*1E00A9	74 26# 75 26# 76 26# 77 26# 81 32# 82 32# 78 79#
74	28	*A8	*1E00A8	74 27 70 53#
74	29	*A15	*1E00A15	74 28 70 50#
74	30	*A16	*1E00A16	70 63# 74 29 70 15
74	32	*A12	*1E00A12	74 30 70 12#
74	33	*A10	*1E00A10	74 32 70 60#
74	34	*A11	*1E00A11	74 33 70 56#
74	35	*A17	*1E00A17	74 34 70 54#
74	36	*A19	*1E00A19	74 35 70 16#
74	37	*A14	*1E00A14	74 36 70 17#
74	38	*A18	*1E00A18	74 37 70 66#
74	39	*STENDF1	*1F0STENDF1	74 38 70 14#
74	40	*STENDF2	*1F0STENDF2	78 32 77 39# 76 39# 75 39# 74 39#
74	42	*STEND1	*1F0STEND1	78 33 77 40# 76 40# 75 40# 74 40#
74	43	*STEND0	*1F0STEND0	78 36 77 42# 76 42# 75 42# 74 42#
74	43			78 37 77 43# 76 43# 75 43# 74 43#

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
75 10	EAI	1FG1EADR1	75 10# 71 7
75 12	EAO	1FG1EADRO	75 12# 71 10
75 13	SENSE	1FG1SENSE	79 73 75 13# 71 36
75 14	*SENSE	*1FG1SENSE	75 14# 71 33
75 15	EA5	1FG1EADR5	75 15# 71 74
75 16	EA4	1FG1EADR4	75 16# 71 73
75 17	FD7	1FD7	74 17# 75 17# 77 17# 78 15 82 39# 81 39# 80 62#
75 18	EA3	1FG1EADR3	75 18# 71 76
75 19	FD5	1FD5	87 22 86 22 85 22 84 22 82 34# 81 34# 77 19# 76 19# 75 19# 74 19# 78 74#
75 20	FD6	1FD6	74 20# 75 20# 76 20# 77 20# 82 40# 81 40# 79 65
75 22	FD4	1FD4	87 10 86 10 85 10 84 10 82 30# 81 30# 77 22# 76 22# 75 22# 74 22# 78 73#
75 23	FD2	1FD2	74 23# 75 23# 76 23# 77 23# 78 18 81 33# 82 33# 80 67#
75 24	FD3	1FD3	87 59 86 59 85 59 84 59 82 28# 81 28# 77 24# 76 24# 75 24# 74 24# 78 76#
75 25	FD1	1FD1	82 20# 81 20# 77 25# 76 25# 74 25# 78 72#
75 26	FD0	1FD0	74 26# 75 26# 76 26# 77 26# 81 32# 82 32# 78 79#
75 27	*A9	*1EG1A9	75 27 71 53#
75 28	*A8	*1EG1A8	75 28 71 50#
75 29	*A15	*1EG1A15	71 63# 75 29 71 15
75 30	*A16	*1EG1A16	75 30 71 12#
75 32	*A12	*1EG1A12	75 32 71 60#
75 33	*A10	*1EG1A10	75 33 71 56#
75 34	*A11	*1EG1A11	75 34 71 54#
75 35	*A17	*1EG1A17	75 35 71 16#
75 36	*A19	*1EG1A19	75 36 71 17#
75 37	*A14	*1EG1A14	75 37 71 66#
75 38	*A18	*1EG1A18	75 38 71 14#
75 39	*STENDF1	*1FGSTENDF1	78 32 77 39# 74 39#
75 40	*STENDF2	*1FGSTENDF2	78 33 77 40# 76 40# 75 40# 74 40#
75 42	*STEND1	*1FGSTEND1	78 36 77 42# 76 42# 75 42# 74 42#
75 43	*STEND0	*1FGSTEND0	78 37 77 43# 76 43# 75 43# 74 43#
75 44	*STEND3	*1FGSTEND3	78 29 77 44# 76 44# 75 44# 74 44#
75 45	*STEND2	*1FGSTEND2	78 30 77 45# 76 45# 75 45# 74 45#
75 46	*STEND7	*1FGSTEND7	78 23 77 46# 76 46# 75 46# 74 46#
75 47	*STEND8	*1FGSTEND8	78 27 77 47# 76 47# 75 47# 74 47#
75 48	*STEND9	*1FGSTEND9	78 26 77 48# 76 48# 75 48# 74 48#
75 49	*STENDA	*1FGSTENDA	78 35 77 49# 76 49# 75 49# 74 49#
75 50	*STENDS	*1FGSTENDS	78 34 77 50# 76 50# 75 50# 74 50#
75 52	FD9	1FD9	74 52# 75 52# 77 52# 80 65# 81 42# 82 42# 78 7
75 53	FD8	1FD8	74 53# 75 53# 77 53# 80 66# 81 38# 82 38# 78 17
75 54	FD10	1FD10	74 54# 75 54# 77 54# 80 64# 81 43# 82 43# 78 12
75 55	FD11	1FD11	74 55# 75 55# 77 55# 80 63# 81 44# 82 44# 78 14
75 56	FD14	1FD14	87 62 86 62 85 62 84 62 78 66# 77 56# 75 56# 74 56#
75 57	FD15	1FD15	87 73 86 73 85 73 84 73 78 68# 77 57# 75 57# 74 57#
75 58	FD13	1FD13	77 9 76 9 75 9 74 9 74 58# 75 58# 77 58#
75 59	FD12	1FD12	87 74 86 74 85 74 84 74 78 67# 77 59# 75 59# 74 59#
75 60	*INCADR	*1DEFINCFGADR	77 60 77 60 76 60 75 60 74 60
75 62	FD17	1FD17	87 9 86 9 85 9 84 9 78 77# 77 62# 75 62# 74 62#
75 63	EA2	1FG1EADR2	75 63# 71 8

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
75 64	WRTEC1	1EFWRTEC1	79 25# 75 64
75 65	XENABFD	1EFDEVB	79 29# 77 65
75 66	GND-CC	*1FG1ITSME	79 77 75 66#
75 67	*A13	*1EG1A13	75 67 71 65#
75 68	*STEND6	*1FGSTEND6	78 24 77 68#
75 69	FD16	1FD16	78 78# 77 69#
75 72	*DEVICE	*1EFDEVB	78 13 79 30#
75 73	*RESET	*CMGRE1	74 73 75 73 79 64
75 74	FOOKEY	1EFFOOKEY1	43 73 44 73 45 73 47 64
75 75	FD18	1FD18	79 59# 75 74
75 76	SERIN	*1EG1START	87 8 86 8
75 77	*CLRADR	*1EFCLRFOADR	75 76 71 23#
75 78	FD19	1FD19	79 35# 77 77
75 79	*CLOCK	*CMCLK5	87 76 86 76
75 80	GND-CC	*CMCLK5	12 22# 43 79 39 79 71 79
76 1	GND	*CMCLK6	L 11 21JL 43 80JL 39 80JL 71 80JL 75 80JL 75 1J
76 2	VCC	*SV76	TWISTED PAIR RETURN OF 75 79
76 3		*CMCLK6	TWISTED PAIR RETURN OF 76 3
76 4	VCC	*SV76	76 4 76 2#
76 5	PLUS	1EG2A31	12 23# 40 79 44 79 72 79 76 79 76 3
76 6	START	1EG2START	L 12 21JL 40 80JL 44 80JL 72 80JL 76 80JL 76 1J
76 7	ONES	1EG2ONES	76 4 76 2#
76 8	NFFEOTS	1FONFFEOTS	76 5 72 34#
76 9	FRONTFACE	1FD13	76 6 72 19#
76 10	EAI	1FQ2EADR1	76 7 72 20#
76 12	EAO	1FQ2EADR0	78 80 77 8#
76 13	SENSE	1FQ2SENSE	76 8# 75 8# 74 8#
76 14	*SENSE	*1FG2SENSE	75 9 74 9 74 58# 75 58# 76 58# 77 58#
76 15	EAS	1FQ2EADR5	72 36
76 16	EAA	1FQ2EADR4	
76 17	FD7	1FD7	
76 18	EAS	1FQ2EADR3	
76 19	FD5	1FD5	
76 20	FD6	1FD6	
76 22	FD4	1FD4	
76 23	FD2	1FD2	
76 24	FD3	1FD3	
76 25	FD1	1FD1	
76 26	FD0	1FD0	
76 27	*A9	*1EG2A9	
76 28	*A8	*1EG2A8	
76 29	*A15	*1EG2A15	
76 30	*A16	*1EG2A16	
76 32	*A12	*1EG2A12	
76 33	*A10	*1EG2A10	

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
76 34	*A11	*1E02A11	76 34 72 54*
76 35	*A17	*1E02A17	76 35 72 16*
76 36	*A19	*1E02A19	76 36 72 17*
76 37	*A14	*1E02A14	76 37 72 66*
76 38	*A18	*1E02A18	76 38 72 14*
76 39	*STENDF1	*1FGSTENDF1	76 39* 75 39* 74 39*
76 40	*STENDF2	*1FGSTENDF2	76 40* 75 40* 74 40*
76 42	*STEND1	*1FGSTEND1	76 42* 75 42* 74 42*
76 43	*STEND0	*1FGSTEND0	76 43* 75 43* 74 43*
76 44	*STEND3	*1FGSTEND3	76 44* 75 44* 74 44*
76 45	*STEND2	*1FGSTEND2	76 45* 75 45* 74 45*
76 46	*STEND7	*1FGSTEND7	76 46* 75 46* 74 46*
76 47	*STEND8	*1FGSTEND8	76 47* 75 47* 74 47*
76 48	*STEND9	*1FGSTEND9	76 48* 75 48* 74 48*
76 49	*STENDA	*1FGSTENDA	76 49* 75 49* 74 49*
76 50	*STENDS	*1FGSTENDS	76 50* 75 50* 74 50*
76 52	FD9	IFD9	76 52* 75 52* 80 65*
76 53	FD8	IFD8	76 53* 75 53* 80 66*
76 54	FD10	IFD10	76 54* 75 54* 80 64*
76 55	FD11	IFD11	76 55* 75 55* 80 63*
76 56	FD14	IFD14	76 56* 75 56* 74 56*
76 57	FD15	IFD15	76 57* 75 57* 74 57*
76 58	FD13	IFD13	76 58* 75 58* 74 58*
76 59	FD12	IFD12	76 59* 75 59* 74 59*
76 60	*INCAADR	*1EFINCAADR	76 60* 75 60* 74 60*
76 61	FD17	IFD17	76 61* 85 9 78 77*
76 62	EA2	IFG2EAADR2	76 62* 75 62* 74 62*
76 63	WRTEC	1EFWRTEC2	76 63* 72 8
76 64	*ENABFD	1EFDEVB	76 64
76 65	GND-CC	1EF0218ME	76 65 75 65 74 65 73 35 72 35 71 35 70 35
76 66	GND-CC	1EF0218ME	76 66*
76 67	*A13	*1E02A13	76 67 72 65*
76 68	*STEND6	*1FGSTEND6	76 68* 75 68* 74 68*
76 69	FD16	IFD16	76 69* 75 69* 74 69*
76 72	*DEVICE	*1EFDEVB	76 72 75 72 74 72 76 72 80 79 84 55 85 55 86 55 87 55
76 73	*RESET	*CHORE1	76 73 75 73 74 73 79 30* 74 72 76 72 80 79 84 55 85 55 86 55 87 55
76 74	F00KEY	1EFF00KEY2	76 74 43 73 44 73 45 73 47 64 48 80 49 78 50 78 51 46 46 10 12 15*
76 75	FD18	IFD18	76 75 84 8 85 8 78 75* 77 75* 75 75* 74 75*
76 76	SERIN	*1E02START	76 76 72 23*
76 77	*CLRADR	*1EFCLRFGADR	76 77 75 77 74 77
76 78	FD19	IFD19	76 78 86 76 85 76 84 76 78 69* 77 78* 74 78*
76 79	*CLOCK	*CHCLK6	12 23* 40 79 44 79 72 79 76 79 76 3
76 80	GND-CC	*CHCLK6	12 21JL 40 80JL 44 80JL 72 80JL 76 80JL 76 1J
77 1	GND	*CMCLK7	TWISTED PAIR RETURN OF 76 79
77 2	VCC	+5V77	TWISTED PAIR RETURN OF 77 3
77 3		*CMCLK7	77 4 77 2*
			12 24* 41 79 45 79 73 79 77 79 77 3
			12 31JL 41 80JL 45 80JL 73 80JL 77 80JL 77 1J

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
78 80	NFFEGTS	1F0NFFEGTS	78 80 77 8#
79 3	*WRTAU0	*1EFWRTAU0	79 3# 70 3
79 5	*WRTALO	*1EFWRTALO	79 5# 70 68
79 6	*WRTAU1	*1EFWRTAU1	79 6# 71 3
79 7	*WRTAL1	*1EFWRTAL1	79 7# 71 68
79 8	*WRTAU2	*1EFWRTAU2	79 8# 72 3
79 9	*WRTAL2	*1EFWRTAL2	79 9# 72 68
79 10	*WRTAU3	*1EFWRTAU3	79 10# 73 3
79 12	*WRTAL3	*1EFWRTAL3	79 12# 73 68
79 13	*WRTBU0	*1EFWRTBU0	79 13# 70 70
79 14	*WRTBL0	*1EFWRTBL0	79 14# 70 72
79 15	*WRTBU1	*1EFWRTBU1	79 15# 71 70
79 16	*WRTBL1	*1EFWRTBL1	79 16# 71 72
79 17	*WRTBU2	*1EFWRTBU2	79 17# 72 70
79 18	*WRTBL2	*1EFWRTBL2	79 18# 72 72
79 19	*WRTBU3	*1EFWRTBU3	79 19# 73 70
79 20	*WRTBL3	*1EFWRTBL3	79 20# 73 72
79 22	DEVADRO	1DDYB4	96 68 94 68
79 23	DEVADRI	1DDYB3	96 69 94 69
79 24	WRTECO	1EFWRTECO	79 24# 74 64
79 25	WRTEC1	1EFWRTEC1	79 25# 75 64
79 26	WRTEC2	1EFWRTEC2	79 26# 76 64
79 27	WRTEC3	1EFWRTEC3	79 27# 77 64
79 28	SHIFT	CHMSHIFT	31 16 29 16
79 29	DEVB	1EFDEVB	27 16 25 16
79 30	*DEVB	*1EFDEVB	79 29# 83 26
79 31	GND-CC	*CMCLK4	79 29# 77 65
79 32	SELSUM	1EFSELSUM	78 13 79 30#
79 33	LOADA	1EFLOADA	79 32# 73 57
79 34	*CLOCK	*CMCLK4	79 33# 73 29
79 35	*CLRFQADR	*1EFCLRFQADR	79 32# 73 57
79 36	STARTUP	1SLSTARTUP	79 33# 73 29
79 37	FQADROFL	1FQOCNTOVFL	79 37 74 70#
79 38	IDLEUP	1EFIDLEUP	80 25 79 38#
79 39	DDINIT	1DDYB1	96 72 94 72
79 40	IDLELD	1EFIDLELD	80 30 79 40#
79 42	HOLD	1EFHOLD	80 78 79 42#
79 43	*LDB	*1EFLDB	83 47 81 23
79 44	*DPDECODE	*1DPDECODE	83 32# 79 44#
79 45	MYWORD	1EFMYWORD	80 32 79 45#
79 46	DDAVAIL	1ACDDAVAIL	83 37# 79 46
79 47	FACE	1ACFACE	83 77# 79 47
79 48	EDGE	1ACEDGE	83 63# 79 48
79 49	DDEOL	1DDYB0	82 18# 83 52
79 49	DDEOL	79 49	69 37
79 29	DEVB	1EFDEVB	27 16 25 16
79 30	*DEVB	*1EFDEVB	79 29# 83 26
79 31	GND-CC	*CMCLK4	79 29# 77 65
79 32	SELSUM	1EFSELSUM	78 13 79 30#
79 33	LOADA	1EFLOADA	79 32# 73 57
79 34	*CLOCK	*CMCLK4	79 33# 73 29
79 35	*CLRFQADR	*1EFCLRFQADR	79 32# 73 57
79 36	STARTUP	1SLSTARTUP	79 33# 73 29
79 37	FQADROFL	1FQOCNTOVFL	79 37 74 70#
79 38	IDLEUP	1EFIDLEUP	80 25 79 38#
79 39	DDINIT	1DDYB1	96 72 94 72
79 40	IDLELD	1EFIDLELD	80 30 79 40#
79 42	HOLD	1EFHOLD	80 78 79 42#
79 43	*LDB	*1EFLDB	83 47 81 23
79 44	*DPDECODE	*1DPDECODE	83 32# 79 44#
79 45	MYWORD	1EFMYWORD	80 32 79 45#
79 46	DDAVAIL	1ACDDAVAIL	83 37# 79 46
79 47	FACE	1ACFACE	83 77# 79 47
79 48	EDGE	1ACEDGE	83 63# 79 48
79 49	DDEOL	1DDYB0	82 18# 83 52
79 49	DDEOL	79 49	69 37
79 29	DEVB	1EFDEVB	27 16 25 16
79 30	*DEVB	*1EFDEVB	79 29# 83 26
79 31	GND-CC	*CMCLK4	79 29# 77 65
79 32	SELSUM	1EFSELSUM	78 13 79 30#
79 33	LOADA	1EFLOADA	79 32# 73 57
79 34	*CLOCK	*CMCLK4	79 33# 73 29
79 35	*CLRFQADR	*1EFCLRFQADR	79 32# 73 57
79 36	STARTUP	1SLSTARTUP	79 33# 73 29
79 37	FQADROFL	1FQOCNTOVFL	79 37 74 70#
79 38	IDLEUP	1EFIDLEUP	80 25 79 38#
79 39	DDINIT	1DDYB1	96 72 94 72
79 40	IDLELD	1EFIDLELD	80 30 79 40#
79 42	HOLD	1EFHOLD	80 78 79 42#
79 43	*LDB	*1EFLDB	83 47 81 23
79 44	*DPDECODE	*1DPDECODE	83 32# 79 44#
79 45	MYWORD	1EFMYWORD	80 32 79 45#
79 46	DDAVAIL	1ACDDAVAIL	83 37# 79 46
79 47	FACE	1ACFACE	83 77# 79 47
79 48	EDGE	1ACEDGE	83 63# 79 48
79 49	DDEOL	1DDYB0	82 18# 83 52
79 49	DDEOL	79 49	69 37

87 72
55 72 87 72
55 71JL 87 71J
74 3
74 3
74 11
74 11

51 26 62 29
86 55 87 55
85 55 86 55
84 55 85 55
70 35 71 35
72 35 73 35
80 79 81 79
52 72 53 72
54 72 55 72
54 71JL 55 71JL
74 79 75 79
74 79 75 79
74 79 75 79
74 79 75 79

87 72
55 72 87 72
55 71JL 87 71J
74 3
74 3
74 11
74 11

51 26 62 29
86 55 87 55
85 55 86 55
84 55 85 55
70 35 71 35
72 35 73 35
80 79 81 79
52 72 53 72
54 72 55 72
54 71JL 55 71JL
74 79 75 79
74 79 75 79
74 79 75 79
74 79 75 79

87 72
55 72 87 72
55 71JL 87 71J
74 3
74 3
74 11
74 11

51 26 62 29
86 55 87 55
85 55 86 55
84 55 85 55
70 35 71 35
72 35 73 35
80 79 81 79
52 72 53 72
54 72 55 72
54 71JL 55 71JL
74 79 75 79
74 79 75 79
74 79 75 79
74 79 75 79

87 72
55 72 87 72
55 71JL 87 71J
74 3
74 3
74 11
74 11

51 26 62 29
86 55 87 55
85 55 86 55
84 55 85 55
70 35 71 35
72 35 73 35
80 79 81 79
52 72 53 72
54 72 55 72
54 71JL 55 71JL
74 79 75 79
74 79 75 79
74 79 75 79
74 79 75 79

87 72
55 72 87 72
55 71JL 87 71J
74 3
74 3
74 11
74 11

SLOT/PIN CARD SIGNAL NAME STRING NAME STRING PINS

80 32	MYWORD	1EFHYWORD	80 32	79 45#	
80 33	INSORTMODE	1LSLINSORTMODE	80 33#	78 20	
80 34	SP-LINEDONE	1LSLSP-LINEDONE	83 59	80 34#	
80 35	STARTUP	1LSLSTARTUP	80 35#	79 36	
80 36	LAADR5	1SLLAADR5	87 79	86 79	85 79
80 37	SELRW1	1SLSELRW1	87 50	86 50	85 50
80 38	LAWRITE	1SLLAWRITE	87 12	86 12	85 12
80 39	*STARTFILC	*1SLSTARTFILC	80 39#	79 54	78 62
80 40	STARTLD	1SLSTARTLD	80 40#	79 50	
80 41	GROUND	1SLGND	80 75	80 73	80 74
80 42	LRB	1SLPOKELAOUT	87 65	86 65	85 65
80 43	LRA	1SLLOADLAOUT	87 58	86 58	85 58
80 44	INCHSB	1SLINCHSB	87 30	86 30	85 30
80 46	LDIN	1EFLDBKTADRFI	80 46	79 57#	80 44#
80 47	XUSED	*1XUSED	80 47	78 49#	
80 48	WR1N	1EFCNTWR1	79 56#	80 48	78 8
80 49	*LDBKTADR	*1SLLDBKTADR	80 49#	78 5	78 3
80 50	WR1BKT	1SLWR1BKT	80 50#	78 6	
80 52	INCBKTADR	1SLINCBKTADR	80 52#	78 16	
80 53	XENPDATA	*1XENPDATA	80 53#	78 70	
80 54	EKTADROFL	1PSBKTADROFL	80 54	78 19#	
80 55	XLDPSOUT	*1XLDPSOUT	80 55#	78 9	
80 56	*LAST	*1XLAST	80 56	78 43#	
80 57	PTRSEL	1SLPTRSEL	80 57#	78 48	
80 58	STEGEND	1PSSTEGEND	80 58	78 60#	
80 59	MAINTSEL	1SLMAINTSEL	80 59#	78 28	
80 60	*FIRST	*1XFIRST	87 25	86 25	85 25
80 62	MINPRI5	1FD7	74 17#	75 17#	76 17#
80 63	MINPRI4	1FD11	74 55#	75 55#	77 55#
80 64	MINPRI3	1FD10	74 54#	75 54#	77 54#
80 65	MINPRI2	1FD9	74 52#	75 52#	77 52#
80 66	MINPRI1	1FD8	74 53#	75 53#	77 53#
80 67	MINPRIO	1FD2	74 23#	75 23#	77 23#
80 68	PR15	1SLGND	80 75	80 73	80 74
80 69	PR14	1SLGND	80 75	80 73	80 74
80 70	PR13	1SLGND	80 75	80 73	80 74
80 71	GROUND	*CMCLK4	80 75	80 73	80 74
80 72	*CLOCK	*CMCLK4	TWISTED PAIR RETURN OF 80 72		
			12 19#	38 79	42 79
			12 21JL	38 80JL	42 80JL
			86 72	85 72	84 72
			86 71JL	85 71JL	84 71JL
			80 75	80 73	80 74
			80 75	80 73	80 74
			80 75	80 73	80 74
			80 26	79 55#	80 76
			80 78	79 42#	
			78 13	79 30#	74 72
			74 73	75 73	76 73
					75 72
					77 73
					76 72
					77 72
					80 79
					81 78
					80 80
					81 78
					82 78
					83 46
					85 55
					86 55
					87 55
					88 55
					89 55
					90 55
					91 55
					92 55
					93 55
					94 55
					95 55
					96 55
					97 55
					98 55
					99 55
					100 55
					101 55
					102 55
					103 55
					104 55
					105 55
					106 55
					107 55
					108 55
					109 55
					110 55
					111 55
					112 55
					113 55
					114 55
					115 55
					116 55
					117 55
					118 55
					119 55
					120 55
					121 55
					122 55
					123 55
					124 55
					125 55
					126 55
					127 55
					128 55
					129 55
					130 55
					131 55
					132 55
					133 55
					134 55
					135 55
					136 55
					137 55
					138 55
					139 55
					140 55
					141 55
					142 55
					143 55
					144 55
					145 55
					146 55
					147 55
					148 55
					149 55
					150 55
					151 55
					152 55
					153 55
					154 55
					155 55
					156 55
					157 55
					158 55
					159 55
					160 55
					161 55
					162 55
					163 55
					164 55
					165 55
					166 55
					167 55
					168 55
					169 55
					170 55
					171 55
					172 55
					173 55
					174 55
					175 55
					176 55
					177 55
					178 55
					179 55
					180 55
					181 55
					182 55
					183 55
					184 55
					185 55
					186 55
					187 55
					188 55
					189 55
					190 55
					191 55
					192 55
					193 55
					194 55
					195 55
					196 55
					197 55
					198 55
					199 55
					200 55

SLOT/PIN	CARD	SIGNAL NAME	STRING NAME	STRING PINS	43	73	44	73	45	73	47	64	48	80	49	78	50	78	51	46	46	10	12	15*
81 2	VCC		+5V81	43 73	44 73	45 73	47 64	48 80	49 78	50 78	51 46	46 10	12 15*											
81 3	DDADDIN		1DDYA15	81 80	81 4	81 2*																		
81 4	VCC		+5V81	82 54*	81 3	88 18																		
81 5	MAINTSERIN		CHSEROUT	81 80	81 4	81 2*																		
				24 15	21 15	18 15	15 15	12 37*	15 50	18 50	21 50	24 50	49 5											
				35 15	39 45	40 45	41 45	47 70	81 5	79 70	73 45	72 45	71 45											
				82 6	81 6	81 54*	88 73	94 33																
81 6	OFSSERIN		1DDXA15	88 14	81 7*	69 80																		
81 7	DDB6		1DDXB6	88 10	81 8*																			
81 8	DDB7		1DDXB7	88 10	81 8*																			
81 9	*ACINPACCEPT		*1ACINPACCEPT	83 43*	81 9																			
81 10	*DBAVAIL		*1DDXDBAVAIL	83 39	81 10*																			
81 12	DDXCARD		1DDXPUP	81 48*	81 12																			
81 13	DDB4		1DDXB4	94 63	88 12	81 13*																		
81 14	DDB5		1DDXB5	83 60	81 14*	88 15																		
81 15	DDB3		1DDXB3	96 38	94 38	88 13																		
81 16	ACLD8		1ACLD8	83 30*	82 16	81 16	81 15*																	
81 17	DDB2		1DDXB2	96 35	94 35	88 16	81 17*																	
81 18	DDB0		1DDXB0	96 43	94 43	88 7	81 18*																	
81 19	CTL0		1ACDDCODE0	83 36*	82 19	81 19																		
81 20	FD10		1FD1	82 20*	81 20*	77 25*	76 25*	75 25*	74 25*	78 72*														
81 22	ACLD4		1ACLD4	83 17*	82 22	81 22																		
81 23	*FE1		*1EFLD8	83 47	81 23	79 43*																		
81 24	CTL4		*1ACDRAMP0M	92 75	90 75	83 8*	82 24	81 24																
81 25	CTL2		1ACDDCODE2	83 34*	82 25	81 25																		
81 26	CTL1		1ACDDCODE1	83 35*	82 26	81 26																		
81 27	*BMAINT		*1SDDOBMAINT	94 23*	92 76	90 76	88 66	82 27	81 27															
81 28	FDB		1FD3	87 59	86 59	85 59	84 59	82 28*	81 28*	77 24*	76 24*	75 24*	74 24*											
81 29	*FE2		*1ACFE2X	83 68*	81 29																			
81 30	FD7		1FD4	87 10	86 10	85 10	84 10	82 30*	81 30*	77 22*	76 22*	75 22*	74 22*											
81 32	FD11		1FD0	74 26*	75 26*	76 26*	77 26*	81 32*	82 32*	78 79*														
81 33	FD9		1FD2	74 23*	75 23*	76 23*	77 23*	78 18	81 33*	82 33*	80 67*													
81 34	FD6		1FD5	87 22	86 22	85 22	84 22	82 34*	81 34*	77 19*	76 19*	75 19*	74 19*											
81 35	*FE0		*1ACFE0X	83 66*	81 35																			
81 36	CTL3		1ACDDCODE3	83 33*	82 36	81 36																		
81 37	DDB1		1DDXB1	96 42	94 42	88 8	81 37*																	
81 38	FD3		1FD8	74 53*	75 53*	76 53*	77 53*	80 66*	81 38*	82 38*	82 38*	82 38*	82 38*											
81 39	FDA		1FD7	74 17*	75 17*	76 17*	77 17*	78 15	82 39*	81 39*	80 62*													
81 40	FDS		1FD6	74 20*	75 20*	76 20*	77 20*	82 40*	81 40*	79 65														
81 41	GROUND		1DDXGND	81 41*	81 62																			
81 42	FD2		1FD9	74 52*	75 52*	76 52*	77 52*	80 65*	81 42*	82 42*	82 42*	82 42*	82 42*											
81 43	FD1		1FD10	74 54*	75 54*	76 54*	77 54*	80 64*	81 43*	82 43*	82 43*	82 43*	82 43*											
81 44	FDO		1FD11	74 55*	75 55*	76 55*	77 55*	80 63*	81 44*	82 44*	82 44*	82 44*	82 44*											
81 45	DDA7		1DDXA7	88 80	81 45*																			
81 46	DDMDO		1DDXMD0	90 50	81 46*	71 44	70 44	68 80																
81 48	PUP		1DDXPUP	81 48*	81 12																			
81 50	DDHD1		1DDXHD1	90 52	81 50*	71 39	70 39	68 78																
81 52	DDHD3		1DDXHD3	90 54	81 52*	71 37	70 37	68 74																
81 53	ACMSM		1ACMSM	83 53*	82 53	81 53																		

SLOT/PIN CARD SIGNAL NAME	STRING NAME	STRING PINS
82 26	CTL1	83 35# 82 26
82 27	*BMAINT	94 23# 92 76
82 28	FD8	87 59 86 59
82 29	*FE2	83 69# 82 29
82 30	FD7	87 10 86 10
82 32	FD11	74 26# 75 26#
82 33	FD9	74 23# 75 23#
82 34	FD6	87 22 86 22
82 35	*FE0	83 67# 82 35
82 36	CTL3	83 33# 82 36
82 37	DOB1	96 72 94 72
82 38	FD3	74 53# 75 53#
82 39	FD4	74 17# 75 17#
82 40	FD5	74 20# 75 20#
82 41	GROUND	82 41# 82 12
82 42	FD2	74 52# 75 52#
82 43	FD1	74 54# 75 54#
82 44	FD0	74 55# 75 55#
82 45	DDA7	88 74 82 45#
82 46	DDMD0	92 50 82 46#
82 47	DDYSEL	88 54 82 47#
82 48	PUP	82 62 82 48#
82 50	DDMD1	92 52 82 50#
82 52	DDMD3	92 54 82 52#
82 53	ACNSW	83 53# 82 53
82 54	DDA15	82 54# 81 3
82 56	DDMD2	92 53 82 56#
82 57	DDMD15	94 37 92 67
82 58	DDMD13	92 65 82 58#
82 60	DDMD9	92 60 82 60#
82 62	DDYCARD	82 62 82 48#
82 63	DDMD12	92 64 82 63#
82 64	DDMD14	96 36 94 36
82 65	DDMD8	92 59 82 65#
82 66	DDMD11	92 63 82 66#
82 67	DDK1	88 56 82 67#
82 68	DDMD10	92 62 82 68#
82 69	DDK3	88 52 82 69#
82 70	DDK2	88 55 82 70#
82 71	GND-CC	
82 72	*CLK	
TWISTED PAIR RETURN OF 82 72		
82 73	DDMD5	12 18# 49 72 50 72
82 74	DDK4	12 11JC 49 71JC 51 41JC
82 75	DDMD6	92 79 90 79 88 72 83 42
82 76	DDMD7	92 80JC 90 80JC 88 71JC
		92 56 82 73# 73 42 72 42 68 14
		88 24 82 74#
		92 57 82 75# 73 40 72 40 68 12
		92 58 82 76# 73 46 72 46 68 9
		81 26 81 27
		88 66 82 27 81 28#
		84 59 77 24# 76 24# 75 24# 74 24# 78 76#
		84 10 81 30# 77 22# 76 22# 74 22# 78 73#
		77 26# 81 32# 78 79# 82 32# 81 33# 80 67#
		77 23# 78 18 81 33# 82 33# 77 19# 76 19# 75 19# 78 74#
		84 22 82 34# 81 34#
		81 36 81 37#
		82 37# 79 39 80 66# 81 38# 82 38# 78 17
		76 53# 77 53# 82 39# 81 39# 80 62#
		77 17# 77 20# 81 40# 79 65
		77 52# 80 65# 81 42# 82 42# 78 7
		76 54# 80 64# 81 43# 82 43# 78 12
		77 55# 80 63# 81 44# 82 44# 78 14
		72 44 68 79
		72 39 68 77
		72 37 68 73
		72 64 68 75
		82 57# 73 62 72 62
		72 48 68 28
		72 22 73 28
		82 64# 73 28 72 28
		72 18 68 30
		72 43 68 24
		72 30 68 26
		51 42 56 72 58 79
		60 79 62 52 64 52 96 52 94 52
		56 71JC 58 80JC 60 80JC 62 51JC 64 51JC 96 51JC 94 51J
		81 41JC 82 72 81 72
		83 42 82 72 81 71J
		88 71JC 83 41JC 82 71JC 81 71J
		72 42 68 14
		72 40 72 40 68 12
		72 46 72 46 68 9

SLOT	PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	81 78	82 78	83 46	78 10	42 73
82	77	DDMD4	1DDYMD4	92 55 82 77#	73 55	72 55	68 16		
82	78	*RESET	*CHGRE1	74 73 75 73 79 64	77 73	77 73	79 64	80 80	81 78
				43 73 44 73 44 73	45 73	47 64	48 80	49 78	50 78
83	3	*CHAN	*CHCHN1	28 25 27 25 12 54#	69 5	79 52	83 3	94 45	
83	4	DDYB2	1DDYB2	96 70 94 70	82 17#	83 4	69 55		
83	5	DDYB3	1DDYB3	96 69 94 69	83 5	82 15#	79 23	69 42	
83	6	DDYB4	1DDYB4	96 68 94 68	83 6	82 13#	79 22	69 43	
83	7	MAINTSERIN	1DAYSDRAMP	92 42# 83 7					
83	8	*DRAMPGM	*1ACDRAMPGM	92 75 90 75	83 8#	82 24	81 24		
83	9	DPDNEBUSS	DPDNEBUSS	83 9# 51 9#	12 10				
83	10	LDKI	1ACLDKI	88 40 83 10#					
83	12	LDLIGHT	1ACLDLIGHT	88 5 83 12#					
83	13	BLOCK3	CHBLOCK3	83 13 51 13	12 43#				
83	14	FORCEWAIT	CHFORCEWAIT	83 14 51 14	9 50	12 36#	15 5	18 5	21 5
83	15	*BETACARRY	*1AIBETACARRY	88 25# 83 15					
83	16	*BPACCEPT	*1DPACCEPT	83 16# 79 53#	69 23#				
83	17	LDA	1ACLDA	83 17# 82 22	81 22				
83	18	DRAMSURF	1ACDRAMSURF	92 74 90 74	88 19	83 18#	80 29	69 50	
83	19	*LDN	*1ACLDN	94 62 83 19#					
83	20	*INCIN	*1ACINCIN	94 53 83 20#					
83	21	GROUND	GNDB3	83 25 83 21#					
83	22	*SHACOF8	*1ACSHACOF8	94 26 83 22#					
83	23	*LDBETA	*1ACLDBETA	88 26 83 23#					
83	24	*SHALPHA	*1ACSHALPHA	88 78 83 24#					
83	25	LOOPDBH	GNDB3	83 25 83 21#					
83	26	SHIFT	CHSHIFT	31 16 29 16	27 16	25 16	12 6#	8 73	9 79
				94 29 83 26	79 28	69 12	47 28	51 26	62 29
				96 39 94 39	92 70	90 70			
83	27	LDANREGS	1ACLDANREGS	88 22 83 28#					
83	28	CTXTOY	1ACCTXTOY	83 29 51 29	12 58#				
83	29	LOOPDPB	CHDEVEN3	83 30# 82 16	81 16				
83	30	LDR	1ACLDR	83 32# 79 44#	69 24#				
83	32	*DPDECODE	*1DPDECODE	83 33# 82 36	81 36				
83	33	DDCODE3	1ACDDCODE3	83 34# 82 25	81 25				
83	34	DDCODE2	1ACDDCODE2	83 35# 82 26	81 26				
83	35	DDCODE1	1ACDDCODE1	83 36# 82 19	81 19				
83	36	DDCODE0	1ACDDCODE0	83 37# 79 46	69 26				
83	37	DDAVAIL	1ACDDAVAIL	94 4# 83 38					
83	38	SETLIN	1SDCOMPOSITESETL	83 39 81 10#					
83	39	*DBEAVAIL	*1DDXDBAVAIL	24 4 21 4	18 4	15 4	12 44#	51 40	83 40
83	40	BLOCK2	CHBLOCK2	12 18# 49 72	50 72	51 42	56 72	58 79	60 79
83	41	GND-CC	*CHCLK3	12 111# 49 71#	50 71#	51 41#	56 71#	58 80#	60 80#
83	42	*CLK	*CHCLK3	92 79 90 79	88 72	83 42	82 72	81 72	62 52
				92 80# 90 80#	88 71#	83 41#	82 71#	81 71#	64 51#
				83 43# 81 9					96 52
83	43	*INPACCEPT	*1ACINPACCEPT	96 47 94 47	83 44	82 7#	69 57		94 52
83	44	DDYB6	1DDYB6	83 45 82 14#	69 56				96 51#
83	45	DDYB5	1DDYB5						94 51#

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
84 17	EMDA	IPSEDA	87 17 86 17 65 17 84 17 78 46#
84 18	ENDFO	ILA3PUP	84 45 84 46# 84 44 84 19 84 18
84 19	ENDF1	ILA3PUP	84 45 84 46# 84 44 84 19 84 18
84 20	ELSEROUT1	ILA3ELSER1	86 22 84 20# 85 22 82 34# 77 19# 75 19# 74 19# 78 74#
84 22	*DIN6	IFD5	87 24 86 22 85 22 82 34# 77 19# 75 19# 74 19# 78 74#
84 23	SEROUT	ILA3SEROUT	86 57 84 23# 87 3# 85 25 80 60#
84 24	ELSERIN1	ILA0ELSER0	88 68 84 24 87 3# 85 25 80 60#
84 25	*FIRSTSPAN	*18LFIRST	87 25 86 25 85 25 80 60#
84 26	ELSEROUT2	ILA3ELSER2	86 29 84 26# 87 20# 84 29 80 44# 78 65
84 28	ELSERINO	1LSERLINK	84 28 80 28# 84 30 84 30 80 44# 78 65
84 29	ELSERIN2	ILA0ELSER1	88 67 87 20# 85 30 80 44# 78 65
84 30	*LASTSPAN	1SLINCHSR	87 30 86 30 85 30 80 44# 78 65
84 34	ELSEROUT3	ILA3ELSER3	86 35 84 34# 84 35 80 44# 78 65
84 35	ELSERIN3	ILA0ELSER2	88 62 87 26# 84 35 80 44# 78 65
84 36	STF2	ILA3GND	84 6 84 36 84 41#
84 37	ELSEROUT4	ILA3ELSER4	86 47 84 37# 85 38 84 38 78 42#
84 38	ST2	IP8START2	87 38 86 38 85 39 84 39 78 63#
84 39	ST1	IP8START1	87 39 86 39 85 40 84 40 78 64#
84 40	ST0	IP8START0	87 40 86 40 85 40 84 40 78 64#
84 41	GROUND	ILA3GND	84 6 84 36 84 41#
84 42	ST3	IP8START3	87 42 86 42 85 42 84 42 78 38#
84 43	ST4	IP8START4	87 43 86 43 85 43 84 43 78 44#
84 44	STFO	ILA3PUP	84 45 84 46# 84 44 84 19 84 18
84 45	STF1	ILA3PUP	84 45 84 46# 84 44 84 19 84 18
84 46	PUP	ILA3PUP	84 45 84 46# 84 44 84 19 84 18
84 47	ELSERIN4	ILA0ELSER3	88 59 87 34# 84 47
84 48	ELSEROUT5	ILA3ELSER5	86 52 84 48# 85 49 84 49 80 27#
84 49	CLRINP	1SLCLRINP	87 49 86 49 85 49 84 49 80 27#
84 50	SELMRT	1SLSELMRT	87 50 86 50 85 50 84 50 80 37#
84 52	ELSERIN5	ILA0ELSER4	88 42 87 37# 84 52
84 53	ELSERIN6	ILA0ELSER5	88 49 87 48# 84 53
84 54	ELSEROUT6	ILA3ELSER6	86 53 84 54# 74 72 77 72 80 79 84 55 85 55 86 55 87 55
84 55	*DEV	*1EFDEVB	76 13 79 30# 74 72 77 72 80 79 84 55 85 55 86 55 87 55
84 56	ELSEROUT7	ILA3ELSER7	86 63 84 56# 84 57 67 43
84 57	SERIN	ILA3ELSER8	88 37 87 66# 85 58 84 58 80 43#
84 58	LOADOUT	18LLOADLAUT	87 58 86 58 85 59 82 28# 74 24# 75 24# 78 76#
84 59	*DINO	IFD3	87 59 86 59 85 59 84 59 74 24# 75 24# 78 76#
84 62	*DINO	IFD14	87 62 86 62 85 62 84 62 75 56# 74 56#
84 63	ELSERIN7	ILA0ELSER6	88 43 87 54# 84 63 67 42
84 64	ELSERIN8	ILA0ELSER7	88 46 87 56# 84 64
84 65	POKEOUT	1SLPOKELAUT	87 65 86 65 85 65 80 42#
84 66	ELSEROUT8	ILA3ELSER8	86 64 84 66#
84 68	CLKINP	ILA3CLKINP	84 70 84 68#
84 70	CLK	ILA3CLKINP	84 70 84 68#
84 71	GND-CC	*CMCLK4	TWISTED PAIR RETURN OF 84 72
84 72	*CLKINP	*CMCLK4	12 19# 38 79 42 79 46 22# 47 34 48 72 52 72 53 72 54 72 55 72 87 72
			[12 21JC 38 80JC 42 80JC 46 21JC 47 31JC 48 71JC 52 71JC 53 71JC 54 71JC 55 71JC 87 71J
			86 72 85 72 84 72 80 72 79 34 78 22 74 79 70 79 74 3

SLOT	CARD	SIGNAL NAME	STRING NAME	STRING PINS
84	73	*DIN2	1FD15	84 71JL 85 71JL 86 71JL 87 71JL 88 71JL 89 71JL 90 71JL 91 71JL 92 71JL 93 71JL 94 71JL 95 71JL 96 71JL 97 71JL 98 71JL 99 71JL 00 71JL
84	74	*DIN1	1FD12	84 71JL 85 71JL 86 71JL 87 71JL 88 71JL 89 71JL 90 71JL 91 71JL 92 71JL 93 71JL 94 71JL 95 71JL 96 71JL 97 71JL 98 71JL 99 71JL 00 71JL
84	75	ADR2	18LLAADR2	84 71JL 85 71JL 86 71JL 87 71JL 88 71JL 89 71JL 90 71JL 91 71JL 92 71JL 93 71JL 94 71JL 95 71JL 96 71JL 97 71JL 98 71JL 99 71JL 00 71JL
84	76	*DIN3	1FD19	84 71JL 85 71JL 86 71JL 87 71JL 88 71JL 89 71JL 90 71JL 91 71JL 92 71JL 93 71JL 94 71JL 95 71JL 96 71JL 97 71JL 98 71JL 99 71JL 00 71JL
84	77	ADRA	18LLAADRA	84 71JL 85 71JL 86 71JL 87 71JL 88 71JL 89 71JL 90 71JL 91 71JL 92 71JL 93 71JL 94 71JL 95 71JL 96 71JL 97 71JL 98 71JL 99 71JL 00 71JL
84	78	ADRB	18LLAADRB	84 71JL 85 71JL 86 71JL 87 71JL 88 71JL 89 71JL 90 71JL 91 71JL 92 71JL 93 71JL 94 71JL 95 71JL 96 71JL 97 71JL 98 71JL 99 71JL 00 71JL
84	79	ADRS	18LLAADRS	84 71JL 85 71JL 86 71JL 87 71JL 88 71JL 89 71JL 90 71JL 91 71JL 92 71JL 93 71JL 94 71JL 95 71JL 96 71JL 97 71JL 98 71JL 99 71JL 00 71JL
85	2	VCC	+5V85	85 4 85 2#
85	3	ELSEROUT0	1LA2ELSER0	85 4 85 2#
85	4	VCC	+5V85	85 4 85 2#
85	5	ADR1	18LLAADR1	85 5 84 5
85	6	ENDF2	1LA2GND	85 36 85 36
85	7	ADRO	18LLAADRO	85 7 84 7
85	8	*DINA	1FD18	85 8 84 8
85	9	*DIN5	1FD17	85 9 84 9
85	10	*DIN7	1FD4	85 10 84 10
85	12	WRITE	18LLAWRITE	85 12 84 12
85	13	END2	1PSEND2	85 13 84 13
85	14	END1	1PSEND1	85 14 84 14
85	15	END0	1PSEND0	85 15 84 15
85	16	END3	1PSEND3	85 16 84 16
85	17	ENDA	1PSEND4	85 17 84 17
85	18	ENDFO	1LA2GND	85 18 84 18
85	19	ENDF1	1LA2PUP	85 19 84 19
85	20	ELSEROUT1	1LA2ELSER1	85 19 84 19
85	22	*DIN6	1FD5	85 22 84 22
85	23	SEROUT	1LA2SEROUT	85 23#
85	24	ELSERIN1	1LA1ELSER1	85 24 86 20#
85	25	*FIRSTSPAN	*1SLFIRST	85 25 84 25
85	26	ELSEROUT2	1LA2ELSER2	85 26#
85	28	ELSERIN0	1LA1ELSER0	86 3#
85	29	ELSERIN2	1LA1ELSER2	86 26#
85	30	*LASTSPAN	1SLINCHSB	85 30 84 30
85	34	ELSEROUT3	1LA2ELSER3	85 34#
85	35	ELSERIN3	1LA1ELSER3	85 35
85	36	STF2	1LA2GND	85 36 84 36
85	37	ELSEROUT4	1LA2ELSER4	85 37#
85	38	ST2	1PSSTART2	85 38 84 38
85	39	ST1	1PSSTART1	85 39 84 39
85	40	ST0	1PSSTART0	85 40 84 40
85	41	GROUND	1LA2GND	85 41 84 41
85	42	ST3	1PSSTART3	85 42 84 42
85	43	ST4	1PSSTART4	85 43 84 43
85	44	STF0	1LA2GND	85 44 84 44
85	45	STF1	1LA2PUP	85 45 84 45
85	46	PUP	1LA2PUP	85 46# 85 45
85	47	ELSERIN4	1LA1ELSER4	88 39 86 37# 85 47

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS			
85 48	ELSEROUT5	1LA2ELSER5	87 52 85 48#			
85 49	CLKINP	18LCLKINP	87 49 86 49			
85 50	SELWRT	18SELWRT	87 50 86 50			
85 52	ELSERIN5	1LA1ELSER5	88 50 86 48#			
85 53	ELSERIN6	1LA1ELSER6	88 44 86 54#			
85 54	ELSEROUT6	1LA2ELSER6	87 53 85 54#			
85 55	*DEV	*1EFDEV8	78 13 79 30#			
85 56	ELSEROUT7	1LA2ELSER7	87 63 85 56#			
85 57	SERIN	1LA1SEROUT	86 23# 85 57			
85 58	LOADOUT	18LLOADLAOUT	87 58 86 58			
85 59	*DIN8	1FD3	87 59 86 59			
85 62	*DINO	1FD14	87 62 86 62			
85 63	ELSERIN7	1LA1ELSER7	88 45 86 56#			
85 64	ELSERIN8	1LA1ELSER8	88 38 86 66#			
85 65	POKEOUT	18LPOKELAOUT	87 65 86 65			
85 66	ELSEROUT8	1LA2ELSER8	87 64 85 66#			
85 68	CLKINP	1LA2CLKINP	85 70 85 68#			
85 70	CLK	1LA2CLKINP	85 70 85 68#			
85 71	OND-CC	*CMCLK4				
85 72	*CLKINP	*CMCLK4				
TWISTED PAIR RETURN OF 85 72						
85 73	*DIN2	1FD15	12 19# 38 79 42 79 46 22 47 34 48 72 52 72 53 72 54 72 55 72 57 72 58 72 59 72 60 72 61 72 62 72 63 72 64 72 65 72 66 72 67 72 68 72 69 72 70 72 71 72 72 73 72 74 72 75 72 76 72 77 72 78 72 79 72 80 72 81 72 82 72 83 72 84 72 85 72 86 72 87 72 88 72 89 72 90 72 91 72 92 72 93 72 94 72 95 72 96 72 97 72 98 72 99 72 100 72 101 72 102 72 103 72 104 72 105 72 106 72 107 72 108 72 109 72 110 72 111 72 112 72 113 72 114 72 115 72 116 72 117 72 118 72 119 72 120 72 121 72 122 72 123 72 124 72 125 72 126 72 127 72 128 72 129 72 130 72 131 72 132 72 133 72 134 72 135 72 136 72 137 72 138 72 139 72 140 72 141 72 142 72 143 72 144 72 145 72 146 72 147 72 148 72 149 72 150 72 151 72 152 72 153 72 154 72 155 72 156 72 157 72 158 72 159 72 160 72 161 72 162 72 163 72 164 72 165 72 166 72 167 72 168 72 169 72 170 72 171 72 172 72 173 72 174 72 175 72 176 72 177 72 178 72 179 72 180 72 181 72 182 72 183 72 184 72 185 72 186 72 187 72 188 72 189 72 190 72 191 72 192 72 193 72 194 72 195 72 196 72 197 72 198 72 199 72 200 72 201 72 202 72 203 72 204 72 205 72 206 72 207 72 208 72 209 72 210 72 211 72 212 72 213 72 214 72 215 72 216 72 217 72 218 72 219 72 220 72 221 72 222 72 223 72 224 72 225 72 226 72 227 72 228 72 229 72 230 72 231 72 232 72 233 72 234 72 235 72 236 72 237 72 238 72 239 72 240 72 241 72 242 72 243 72 244 72 245 72 246 72 247 72 248 72 249 72 250 72 251 72 252 72 253 72 254 72 255 72 256 72 257 72 258 72 259 72 260 72 261 72 262 72 263 72 264 72 265 72 266 72 267 72 268 72 269 72 270 72 271 72 272 72 273 72 274 72 275 72 276 72 277 72 278 72 279 72 280 72 281 72 282 72 283 72 284 72 285 72 286 72 287 72 288 72 289 72 290 72 291 72 292 72 293 72 294 72 295 72 296 72 297 72 298 72 299 72 300 72 301 72 302 72 303 72 304 72 305 72 306 72 307 72 308 72 309 72 310 72 311 72 312 72 313 72 314 72 315 72 316 72 317 72 318 72 319 72 320 72 321 72 322 72 323 72 324 72 325 72 326 72 327 72 328 72 329 72 330 72 331 72 332 72 333 72 334 72 335 72 336 72 337 72 338 72 339 72 340 72 341 72 342 72 343 72 344 72 345 72 346 72 347 72 348 72 349 72 350 72 351 72 352 72 353 72 354 72 355 72 356 72 357 72 358 72 359 72 360 72 361 72 362 72 363 72 364 72 365 72 366 72 367 72 368 72 369 72 370 72 371 72 372 72 373 72 374 72 375 72 376 72 377 72 378 72 379 72 380 72 381 72 382 72 383 72 384 72 385 72 386 72 387 72 388 72 389 72 390 72 391 72 392 72 393 72 394 72 395 72 396 72 397 72 398 72 399 72 400 72 401 72 402 72 403 72 404 72 405 72 406 72 407 72 408 72 409 72 410 72 411 72 412 72 413 72 414 72 415 72 416 72 417 72 418 72 419 72 420 72 421 72 422 72 423 72 424 72 425 72 426 72 427 72 428 72 429 72 430 72 431 72 432 72 433 72 434 72 435 72 436 72 437 72 438 72 439 72 440 72 441 72 442 72 443 72 444 72 445 72 446 72 447 72 448 72 449 72 450 72 451 72 452 72 453 72 454 72 455 72 456 72 457 72 458 72 459 72 460 72 461 72 462 72 463 72 464 72 465 72 466 72 467 72 468 72 469 72 470 72 471 72 472 72 473 72 474 72 475 72 476 72 477 72 478 72 479 72 480 72 481 72 482 72 483 72 484 72 485 72 486 72 487 72 488 72 489 72 490 72 491 72 492 72 493 72 494 72 495 72 496 72 497 72 498 72 499 72 500 72 501 72 502 72 503 72 504 72 505 72 506 72 507 72 508 72 509 72 510 72 511 72 512 72 513 72 514 72 515 72 516 72 517 72 518 72 519 72 520 72 521 72 522 72 523 72 524 72 525 72 526 72 527 72 528 72 529 72 530 72 531 72 532 72 533 72 534 72 535 72 536 72 537 72 538 72 539 72 540 72 541 72 542 72 543 72 544 72 545 72 546 72 547 72 548 72 549 72 550 72 551 72 552 72 553 72 554 72 555 72 556 72 557 72 558 72 559 72 560 72 561 72 562 72 563 72 564 72 565 72 566 72 567 72 568 72 569 72 570 72 571 72 572 72 573 72 574 72 575 72 576 72 577 72 578 72 579 72 580 72 581 72 582 72 583 72 584 72 585 72 586 72 587 72 588 72 589 72 590 72 591 72 592 72 593 72 594 72 595 72 596 72 597 72 598 72 599 72 600 72 601 72 602 72 603 72 604 72 605 72 606 72 607 72 608 72 609 72 610 72 611 72 612 72 613 72 614 72 615 72 616 72 617 72 618 72 619 72 620 72 621 72 622 72 623 72 624 72 625 72 626 72 627 72 628 72 629 72 630 72 631 72 632 72 633 72 634 72 635 72 636 72 637 72 638 72 639 72 640 72 641 72 642 72 643 72 644 72 645 72 646 72 647 72 648 72 649 72 650 72 651 72 652 72 653 72 654 72 655 72 656 72 657 72 658 72 659 72 660 72 661 72 662 72 663 72 664 72 665 72 666 72 667 72 668 72 669 72 670 72 671 72 672 72 673 72 674 72 675 72 676 72 677 72 678 72 679 72 680 72 681 72 682 72 683 72 684 72 685 72 686 72 687 72 688 72 689 72 690 72 691 72 692 72 693 72 694 72 695 72 696 72 697 72 698 72 699 72 700 72 701 72 702 72 703 72 704 72 705 72 706 72 707 72 708 72 709 72 710 72 711 72 712 72 713 72 714 72 715 72 716 72 717 72 718 72 719 72 720 72 721 72 722 72 723 72 724 72 725 72 726 72 727 72 728 72 729 72 730 72 731 72 732 72 733 72 734 72 735 72 736 72 737 72 738 72 739 72 740 72 741 72 742 72 743 72 744 72 745 72 746 72 747 72 748 72 749 72 750 72 751 72 752 72 753 72 754 72 755 72 756 72 757 72 758 72 759 72 760 72 761 72 762 72 763 72 764 72 765 72 766 72 767 72 768 72 769 72 770 72 771 72 772 72 773 72 774 72 775 72 776 72 777 72 778 72 779 72 780 72 781 72 782 72 783 72 784 72 785 72 786 72 787 72 788 72 789 72 790 72 791 72 792 72 793 72 794 72 795 72 796 72 797 72 798 72 799 72 800 72 801 72 802 72 803 72 804 72 805 72 806 72 807 72 808 72 809 72 810 72 811 72 812 72 813 72 814 72 815 72 816 72 817 72 818 72 819 72 820 72 821 72 822 72 823 72 824 72 825 72 826 72 827 72 828 72 829 72 830 72 831 72 832 72 833 72 834 72 835 72 836 72 837 72 838 72 839 72 840 72 841 72 842 72 843 72 844 72 845 72 846 72 847 72 848 72 849 72 850 72 851 72 852 72 853 72 854 72 855 72 856 72 857 72 858 72 859 72 860 72 861 72 862 72 863 72 864 72 865 72 866 72 867 72 868 72 869 72 870 72 871 72 872 72 873 72 874 72 875 72 876 72 877 72 878 72 879 72 880 72 881 72 882 72 883 72 884 72 885 72 886 72 887 72 888 72 889 72 890 72 891 72 892 72 893 72 894 72 895 72 896 72 897 72 898 72 899 72 900 72 901 72 902 72 903 72 904 72 905 72 906 72 907 72 908 72 909 72 910 72 911 72 912 72 913 72 914 72 915 72 916 72 917 72 918 72 919 72 920 72 921 72 922 72 923 72 924 72 925 72 926 72 927 72 928 72 929 72 930 72 931 72 932 72 933 72 934 72 935 72 936 72 937 72 938 72 939 72 940 72 941 72 942 72 943 72 944 72 945 72 946 72 947 72 948 72 949 72 950 72 951 72 952 72 953 72 954 72 955 72 956 72 957 72 958 72 959 72 960 72 961 72 962 72 963 72 964 72 965 72 966 72 967 72 968 72 969 72 970 72 971 72 972 72 973 72 974 72 975 72 976 72 977 72 978 72 979 72 980 72 981 72 982 72 983 72 984 72 985 72 986 72 987 72 988 72 989 72 990 72 991 72 992 72 993 72 994 72 995 72 996 72 997 72 998 72 999 72 1000 72	87 52 85 48#	84 49 80 27#	85 49 80 27#
85 74	*DIN1	1FD12	87 74 86 74			
85 75	ADR2	18LAAADR2	87 75 86 75			
85 76	*DIN3	1FD19	87 76 86 76			
85 77	ADR4	18LAAADR4	87 77 86 77			
85 78	ADR3	18LAAADR3	87 78 86 78			
85 79	ADR5	18LAAADR5	87 79 86 79			
86 2	VCC	+5V86	86 4 86 2#			
86 3	ELSEROUT0	1LA1ELSER0	88 65 85 28			
86 4	VCC	+5V86	86 4 86 2#			
86 5	ADR1	18LAAADR1	87 5 86 5			
86 6	ENDF2	1LA1END	86 6 86 19			
86 7	ADRO	18LAAADRO	87 7 86 7			
86 8	*DIN4	1FD18	87 8 86 8			
86 9	*DIN5	1FD17	87 9 86 9			
86 10	*DIN7	1FDA	87 10 86 10			
86 12	WRITE	18LAAWRITE	87 12 86 12			
86 13	END2	1PSEND2	87 13 86 13			
86 14	END1	1PSEND1	87 14 86 14			
86 15	END0	1PSEND0	87 15 86 15			
86 16	END3	1PSEND3	87 16 86 16			
86 17	ENDA	1PSEND4	87 17 86 17			
86 18	ENDFO	1LA1PUP	86 46# 86 44			
86 19	ENDF1	1LA1END	86 6 86 19			
86 20	ELSEROUT1	1LA1ELSER1	88 70 85 24			

STRING LIST FOR FIELD USE SPI BACKPANEL

P/N 200100-800 ECO PI

Date 04/23/79

Page 109

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	ECO PI	DATE	PAGE
87 54	ELSEROUT6	1LAOELSER6	88 43 87 54#	84 63	67 42	
87 55	*DEV	*1EFDEVB	78 13 79 30#	74 72	75 72	
87 56	ELSEROUT7	1LAOELSER7	88 46 87 56#	84 64		
87 57	SERIN	1LA2SEROUT	87 57 85 23#			
87 58	LOADOUT	1SLLLOADLAOUT	87 58 86 58	85 58	84 58	
87 59	*DINB	1FDJ	87 59 86 59	85 59	84 59	
87 62	*DINO	1FD14	87 62 86 62	85 62	84 62	
87 63	ELSERIN7	1LAZELSER7	87 63 85 56#			
87 64	ELSERIN8	1LAZELSER8	87 64 85 66#			
87 65	POKEOUT	1SLPOKELAOUT	87 65 86 65	85 65	84 65	
87 66	ELSEROUT8	1LAOELSER8	88 37 87 66#	84 57	67 43	
87 68	CLKINP	1LAOCLKINP	87 70 87 68#			
87 70	CLK	1LAOCLKINP	87 70 87 68#			
87 71	BND-CC	*CMCLK20MHZ				
87 72	*CLKINP	*CMCLK4				
TWISTED PAIR RETURN OF 88 69						
87 73	*DIN2	1FD15	88 3# 120 48#			
87 74	*DIN1	1FD12	12 19# 38 79	42 79	46 22	
87 75	ADR2	1SLLAADR2	12 21JL 38 80JL	42 80JL	46 21JL	
87 76	*DIN3	1FD19	86 72 85 72	84 72	80 72	
87 77	ADR4	1SLLAADR4	86 72 85 72	84 72	80 72	
87 78	ADR3	1SLLAADR3	86 72 85 72	84 72	80 72	
87 79	ADR5	1SLLAADR5	86 72 85 72	84 72	80 72	
88 3	+15V	+15V6	87 73 86 73	85 73	84 73	
88 4	ANALOGND	AGND6	87 74 86 74	85 74	84 74	
88 5	LDLIGHT	1ACLDLIGHT	87 75 86 75	85 75	84 75	
88 6	-15V	-15V6	87 76 86 76	85 76	84 76	
88 7	DDX80	1DDXB0	87 77 86 77	85 77	84 77	
88 8	DDXB1	1DDXB1	87 78 86 78	85 78	84 78	
88 9	SEROUT	1AISEROUT	87 79 86 79	85 79	84 79	
88 10	DDXB7	1DDXB7	88 3# 120 48#			
88 12	DDXB4	1DDXB4	88 4# 121 47#			
88 13	DDXB3	1DDXB3	88 5 83 12#			
88 14	DDXB6	1DDXB6	88 6# 112 47#			
88 15	DDXB5	1DDXB5	96 43 94 43	88 7	81 18#	
88 16	DDXB2	1DDXB2	96 42 94 42	88 8	81 37#	
88 17	LOADK(JPLUS1)	1ACLOADK(JPLUS1)	90 68 88 9#			
88 18	DDYA15	1DDYA15	90 68 88 9#			
88 19	ENABCTBETA	1ACENABCTBETA	88 10 81 8#	69 80		
88 20	LIGB	1ACLIGB	88 10 81 8#	69 80		
88 22	CTXTOY	1ACCTXTOY	94 63 88 12	81 13#		
88 23	DDXK4	1DDXK4	96 38 94 38	88 13	81 15#	
88 24	DDYK4	1DDYK4	83 60 81 14#	88 15		
88 25	*BETACARRY	*1AIBETACARRY	96 35 94 35	88 16	81 17#	
88 26	*LDBETA	*1ACLDBETA	88 17 83 58#			
88 28	AIOUTGND	1AIOUT2	82 54# 81 3	88 18		
			92 74 90 74	88 19	83 18#	69 50
			88 20 83 64#			
			88 22 83 28#			
			88 23 81 74#			
			88 24 82 74#			
			88 25 83 15			
			88 26 83 23#			
TWISTED PAIR RETURN OF 88 30						

SLOTFIN CARD SIGNAL NAME	STRING NAME	STRING PINS
88 29	AIOUT1	94 74 88 29#
88 30	AIOUT2	[94 73JC 88 28J 96 74 88 30#
88 33	BETA3	[96 73JC 88 28J 94 7# 88 33
88 34	BETA4	94 9# 88 34
88 35	BETA1	94 14# 88 35
88 36	BETA2	94 13# 88 36
88 37	LAELSER8	88 37 87 66# 84 57 67 43
88 38	LAELSER8	88 38 86 66# 85 64 67 45
88 39	LAELSER4	88 39 86 37# 85 47
88 40	LOADK1	88 40 83 10#
88 42	LAELSER4	88 42 87 37# 84 52
88 43	LAELSER6	88 43 87 54# 84 63
88 44	LAELSER6	88 44 86 54# 85 53 67 44
88 45	LAELSER7	88 45 86 56# 85 63
88 46	LAELSER7	88 46 87 56# 84 64
88 47	LOADK(J)	88 47 83 57#
88 48	DDXK1	88 48 81 67#
88 49	LAELSER5	88 49 87 48# 84 53
88 50	LAELSER5	88 50 86 48# 85 52
88 52	DDYK3	88 52 82 69#
88 53	DDXK3	88 53 81 69#
88 54	YSEL	88 54 82 47#
88 55	DDYK2	88 55 82 70#
88 56	DDYK1	88 56 82 67#
88 57	DDXK2	88 57 81 70#
88 58	*ENABFD	88 58 83 48#
88 59	LAELSER3	88 59 87 34# 84 47
88 60	LAELSER3	88 60 86 34# 85 35
88 61	GROUND	TWISTED PAIR RETURN OF 88 63
88 62	LAELSER2	88 62 87 26# 84 35
88 63	*FRCLK	88 63 56 63 12 12#
88 64	LAELSER2	[88 61JC 56 61JC 12 11J
88 65	LAELSER0	88 64 85 29 86 26#
88 66	*BMINT	88 65 85 28 86 3#
88 67	LAELSER1	94 23# 92 76 90 76 88 66 82 27 81 27
88 68	LAELSER0	88 67 87 20# 84 29
88 69	*CLK20MHZ	88 68 84 24 87 3#
88 70	LAELSER1	88 69 56 69 37 60 69 60 12 14#
88 71	GROUND	[87 71JC 58 71JC 37 61JC 69 61JC 12 11J
88 72	*CLK	88 70 85 24 86 20#
88 73	DDXA15	TWISTED PAIR RETURN OF 88 72
		12 18# 49 72 50 72 51 42 56 72 58 79 60 79 62 52 64 52 96 52 94 52
		[12 11JC 49 71JC 50 71JC 51 41JC 56 71JC 58 80JC 60 80JC 62 51JC 64 51JC 96 51JC 94 51J
		92 79 90 79 88 72 83 42 82 72 81 72
		[92 80JC 90 80JC 88 71JC 83 41JC 82 71JC 81 71J
		82 6 81 6 81 54# 88 73 94 33

SLOT/PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS
88 74	DDYA7		88 74 82 45#
88 75	*SHIFTB		88 75 83 70#
88 76	LIGHTB		88 76 83 65#
88 77	*SHIFTA		88 77 83 72#
88 78	*SHIFTALPHA		88 78 83 24#
88 79	DDXA1SXOR		88 79 81 55#
88 80	DDXA7		88 80 81 45#
90 3	+15V		90 3 120 52#
90 4	ANALOGEND		90 4# 121 51#
90 6	-15V		90 6 112 51#
90 14	OUT		90 14# 94 77 90 14#
90 18	OUTEND		[96 78JIC 94 78JIC 90 18J
90 42	MSBRAMP		TWISTED PAIR RETURN OF 90 14
90 45	SLOPESERIN		92 68 90 42#
90 47	MSBPOS		90 47# 90 45
90 50	POS15		90 47# 90 45
90 52	POS14		90 50 81 46# 71 44
90 53	POS13		90 52 81 50# 71 39
90 54	POS12		90 53 81 56# 71 64
90 55	POS11		90 54 81 52# 71 37
90 56	POS10		90 55 81 77# 71 55
90 57	POS9		90 56 81 73# 71 42
90 58	POS8		90 57 81 75# 71 40
90 59	POS7		90 58 81 76# 71 46
90 60	POS6		90 59 81 59 81 65# 71 18
90 62	POS5		94 66 90 60 81 60# 71 48
90 63	POS4		94 65 90 62 81 68# 71 30
90 64	POS3		94 64 90 63 81 66# 71 43
90 65	POS2		94 60 90 64 81 63# 71 22
90 66	POS1		94 59 90 65 81 58# 71 27
90 67	POS0		96 49 94 49 90 66 81 64# 71 28
90 69	SERIN		96 50 94 50 90 67 81 57# 71 62
90 69	LOADSLOPE		90 68 88 9#
90 70	LOADDA		92 69 90 69 83 62#
90 73	SETLOUT		96 39 94 39 92 70
90 74	BRAWLINE		94 25 90 73#
90 75	BRABTER		92 74 90 74 88 19 83 18# 80 29 69 50
90 76	*HAINI		92 75 90 75 83 8# 82 24 81 24
90 79	*CLK		94 23# 92 76 90 76 88 66 82 27 81 27
			12 18# 49 72 50 72 51 42 56 72 58 79 60 79 62 52 64 52 96 52 94 52
			[92 79 90 79 88 72 83 42 82 72 81 72 58 80JIC 60 80JIC 62 51JIC 64 51JIC 96 51JIC 94 51J
90 80	*CLKRET		[92 80JIC 90 80JIC 88 71JIC 83 41JIC 82 71JIC 81 71J
92 3	+15V		TWISTED PAIR RETURN OF 90 79
92 4	ANALOGEND		92 3 120 56#
92 6	-15V		92 4# 121 55#
92 14	OUT		92 6 112 55#
			96 75 94 75 92 14#

SLOT IN CARD SIGNAL NAME STRING NAME STRING PINS

92 18	OUTOND	1DAYOUT	92 76JL 94 76JL 92 18J
92 42	MSBRAMP	1DAYMSBRAMP	TWISTED PAIR RETURN OF 92 14
92 45	SLOPESERIN	1DAYMSRPOS	92 42# 83 7
92 47	MSBPOS	1DAYMSBPOS	92 47# 92 45
92 50	POS15	1DDYHD0	92 50 82 46# 73 44 72 44 68 79
92 52	POS14	1DDYHD1	92 52 82 50# 73 39 72 39 68 77
92 53	POS13	1DDYHD2	92 53 82 56# 73 64 72 64 68 75
92 54	POS12	1DDYHD3	92 54 82 52# 73 37 72 37 68 73
92 55	POS11	1DDYHD4	92 55 82 77# 73 55 72 55 68 14
92 56	POS10	1DDYHD5	92 56 82 73# 73 42 72 42 68 14
92 57	POS9	1DDYHD6	92 57 82 75# 73 40 72 40 68 12
92 58	POS8	1DDYHD7	92 58 82 76# 73 46 72 46 68 9
92 59	POS7	1DDYHD8	92 59 82 65# 73 18 72 18 68 30
92 60	POS6	1DDYHD9	92 60 82 60# 73 48 72 48 68 28
92 62	POS5	1DDYHD10	92 62 82 68# 73 30 72 30 68 26
92 63	POS4	1DDYHD11	92 63 82 66# 73 43 72 43 68 24
92 64	POS3	1DDYHD12	92 64 82 63# 73 22 72 22
92 65	POS2	1DDYHD13	92 65 82 58# 73 27 72 27
92 66	POS1	1DDYHD14	96 36 94 36 92 66 82 64# 73 28
92 67	POS0	1DDYHD15	96 37 94 37 92 67 82 57# 73 62
92 68	SERIN	1DAXMSBRAMP	92 68 90 42#
92 69	LOADSLOPE	1ACLDSLOPE	92 69 90 69 83 62#
92 70	LOADDA	1ACLDANREBS	96 39 94 39 92 70 90 70 83 27#
92 73	SETLOUT	1DAYSETLOUT	94 24 92 73#
92 74	DRAWLINE	1ACDRAWSURF	92 74 90 74 88 19 83 18# 80 29 69 50
92 75	*RASTER	*1ACDRAWPGB	92 75 90 75 83 8# 82 24 81 24
92 76	*HAINT	*1SDOBHAINT	94 23# 92 76 90 76 88 66 82 27 81 27
92 79	*CLK	*KCHCLKS	12 18# 49 72 50 72 51 42 56 72 58 79 60 79 62 52 64 52 96 52 94 52
92 80	*CLKRET	*KCHCLKS	12 18# 49 72 50 71# 50 71# 51 41# 56 71# 58 80# 60 80# 62 51# 64 51# 96 51# 94 51#
94 3	*COUNTDONE	*KCHCLKS	92 79 90 79 88 72 83 42 82 72 81 72
94 4	*COMPOSITESETL	*KCHCLKS	92 80# 90 80# 88 71# 83 41# 82 71# 81 71#
94 5	*SEROUT	*KCHCLKS	TWISTED PAIR RETURN OF 92 79
94 7	*BETA3	*KCHCLKS	94 3# 83 73
94 9	*BETA4	*KCHCLKS	94 4# 83 36
94 13	*BETA2	*KCHCLKS	94 5# 82 5
94 14	*BETA1	*KCHCLKS	94 7# 88 33
94 15	*IDFLAG3	*KCHCLKS	94 9# 88 34
94 19	*FORCEBLANK	*KCHCLKS	94 13# 88 36
94 20	*UNBLANK	*KCHCLKS	94 14# 88 35
94 23	*HMAIN	*KCHCLKS	94 15 96 15 64 15 62 15 24 55 18 55 15 55 12 38#
94 24	*YSETL	*KCHCLKS	96 19 94 19 62 19 64 19 12 20#
94 25	*XSETL	*KCHCLKS	96 20 94 20 83 78#
94 26	*SHIFTACOF5	*KCHCLKS	94 23# 92 76 90 76 88 66 82 27 81 27
94 29	*SHIFT	*KCHCLKS	94 24 92 73#
		*KCHCLKS	94 25 90 73#
		*KCHCLKS	94 26 83 22#
		*KCHCLKS	31 16 29 16 27 16 25 16 12 6# 8 73 9 79 37 12 47 28 51 26 62 29

SLOT PIN	CARD SIGNAL NAME	STRING NAME	STRING PINS	ECD B1
96 29	SHIFT	1SD1GND	96 29 96 41# 96 45	
96 35	DDXB2	1DDXB2	96 35 94 35 88 16	
96 36	YMD14	1DDYMD14	96 36 94 36 92 66	
96 37	YMD15	1DDYMD15	96 37 94 37 92 67 82 57# 73 28 72 28	
96 38	DDXB3	1DDXB3	96 38 94 38 88 13	
96 39	LDANREGS	1ACL DANREGS	96 39 94 39 92 70 83 27#	
96 41	GROUND	1SD1GND	96 41 96 41# 96 45	
96 42	DDXB1	1DDXB1	96 42 94 42 88 8	
96 43	DDXB0	1DDXB0	96 43 94 43 88 7 81 18#	
96 45	CHAN	1SD1GND	96 45 96 45# 96 45	
96 47	DDYB6	1DDYB6	96 47 94 47 83 44 82 7# 69 57	
96 49	XMD14	1DDXMD14	96 49 94 49 90 66 81 64# 71 28 70 28	
96 50	XMD15	1DDXMD15	96 50 94 50 90 67 81 57# 71 62 70 62	
96 51	*CLKRET	*CHCLK3	TWISTED PAIR RETURN OF 96 52	
96 52	*CLK	*CHCLK3	12 18# 49 72 50 72 51 42 56 72 58 79 60 79 62 52 64 52 96 52 94 52	
			C 12 11JL 49 71JL 50 71JL 51 41JL 51 41JL 56 71JL 58 80JL 60 80JL 62 51JL 64 51JL 96 51JL 94 51J	
			92 79 90 79 88 72 83 42 82 72 81 72	
96 57	INSTRONSEL	CHFLA01	C 12 40# 15 28 18 28 21 28 24 28 94 57 96 57	
96 58	ANALOGGND	AGND10	96 58# 121 63#	
96 68	DDYB4	1DDYB4	96 68 94 68 83 6 82 13# 79 22 69 43	
96 69	DDYB3	1DDYB3	96 69 94 69 83 5 82 15# 79 23 69 42	
96 70	DDYB2	1DDYB2	96 70 94 70 82 17# 83 4 69 55	
96 72	DDYB1	1DDYB1	96 72 94 72 82 37# 79 39	
96 73	AIIN	1AIOUT2	TWISTED PAIR RETURN OF 96 74	
96 74	AI0ND	1AIOUT2	96 74 88 30#	
			C 96 73JL 88 28J	
96 75	YPOS	1DAYOUT	96 75 94 75 92 14#	
96 76	YRET	1DAYOUT	C 96 76JL 94 76JL 92 18J	
96 77	XPOS	1DAXOUT	TWISTED PAIR RETURN OF 96 75	
			96 77 94 77 90 14#	
			C 96 78JL 94 78JL 90 18J	
96 78	XRET	1DAXOUT	TWISTED PAIR RETURN OF 96 77	
96 79	-15V	-15V10	96 79# 122 63#	
96 80	+15V	+15V10	96 80# 120 63#	
102 47	PWR	-15V1	56 6# 102 47#	
102 49	PWR	-15V11	25 79 102 49#	
102 51	PWR	-15V3	58 6 102 51#	
102 52	GND	-15V12	28 79 102 52#	
102 53	PWR	-15V13	27 79 102 53#	
102 55	PWR	-15V4	60 6 102 55#	
102 56	GND	-15V14	28 79 102 56#	
102 57	PWR	-15V15	29 79 102 57#	
102 60	GND	-15V16	30 79 102 60#	
102 61	PWR	-15V17	31 79 102 61#	
102 64	GND	-15V18	32 79 102 64#	
103 50	GND	+12V1	25 80 103 50#	
103 52	GND	+12V2	26 80 103 52#	

103 25

STRING LIST FOR FIELD USE

P/N 200100-000

ECO B1

Date 04/23/79

Page 115

STRING CARD SIGNAL NAME	STRING NAME	STRING PINS
103 54 GND	+12V3	27 80 103 54
103 56 GND	+12V4	28 80 103 56
103 58 GND	+12V5	29 80 103 58
103 60 GND	+12V6	30 80 103 60
103 62 GND	+12V7	31 80 103 62
103 64 GND	+12V8	32 80 103 64
110 48 GND	+15V1	54 3 110 48
110 52 GND	+15V3	58 3 110 52
110 56 GND	+15V4	60 3 110 56
111 47 PWR	AGND1	56 4 111 47
111 51 PWR	AGND3	58 4 111 51
111 55 PWR	AGND4	60 4 111 55
112 10 GND	-15V35	35 79 112 10
112 47 PWR	-15V6	88 6 112 47
112 51 PWR	-15V8	90 6 112 51
112 55 PWR	-15V9	92 6 112 55
112 59 PWR	-15V2	62 79 112 59
112 63 PWR	-15V5	64 79 112 63
113 11 PWR	+12V35	35 80 113 11
120 48 GND	+15V6	88 3 120 48
120 52 GND	+15V8	90 3 120 52
120 56 GND	+15V9	92 3 120 56
120 59 PWR	+15V7	94 80 120 59
120 60 GND	+15V2	62 80 120 60
120 63 PWR	+15V10	96 80 120 63
120 64 GND	+15V5	64 80 120 64
121 47 PWR	AGND6	88 4 121 47
121 55 PWR	AGND8	90 4 121 55
121 59 PWR	AGND9	92 4 121 59
121 60 GND	AGND7	94 58 121 60
121 63 PWR	AGND2	62 58 121 63
121 64 GND	AGND10	96 58 121 64
122 10 GND	AGND5	64 58 122 10
122 59 PWR	-15V67	67 79 122 59
122 63 PWR	-15V7	88 4 122 63
123 11 PWR	+12V67	67 80 123 11

STRING CARD SIGNAL NAME STRING NAME STRING PINS

103 25 103 25

103 25 103 25

103 25 103 25

103 25 103 25

103 25 103 25

103 25 103 25

103 25 103 25

103 25 103 25

103 25 103 25

103 25 103 25

