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VXIbus SWITCH MODULE

USERS GUIDE

A.D. DATA SYSTEMS CORP.

MODEL 230122

VXIbus SWITCH MODULE
USERS GUIDE

AD VXIbus MODEL 230122 COMBINATION 12(1x4) & 48(1x1)

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LIMITATIONS

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GENERAL INFORMATION

1.1 INTRODUCTION

This section contains information regarding the installation and operation of AD Data's VXIbus Switch Modules. the contents of this section should be read and understood before proceeding to the other sections of this users guide. If you encounter any difficulty during operation, please contact your nearest AD Data Sales Representative or customer service at Information Transfer, Inc./AD Data Systems, 4R East Main Street, P.O. Box 357, Bloomfield, New York 14469 (USA). Tel (716) 657-7074, or Fax (716) 657-7432.

1.2 SHIPPING INFORMATION

The AD Data VXIbus Switching Modules are packaged and shipped in an appropriate shock absorbing container. After unpacking, inspect the module to note any damage that may have occurred during transit.
If damage to the unit has occurred, retain the original shipping container and contact the Shipping carrier for claim purposes.

1.3 INPUT POWER

AD Data's VXIbus switching equipment is factory-wired for feed of its primary voltages, +5 and +12vdc, from the users VXIbus card cage. AD Data's VXIbus Switch Modules also provide for an external input of +12vdc should the user want or need to conserve this internal card cage power.

1.4 INSTALLATION

AD Data's VXIbus Switch Modules are designed for mounting in a standard VXIbus card cage which is designed to accept "C" size modules.

***********IMPORTANT***IMPORTANT***IMPORTANT***IMPORTANT***IMPORTANT***********

IF THE VXIbus SWITCH MODULE PURCHASED IS POPULATED WITH MERCURY-WHETTED REED RELAYS, IT IS NECESSARY TO RE-POOL THE MERCURY WHICH BECAME DISORIENTED DURING SHIPMENT FROM AD DATA'S FACTORY.

PRIOR TO INSTALLATION INTO THE VXIbus CARD CAGE, AND WHILE MAINTAINING THE SWITCH MODULE'S NORMAL INSTALLATION ORIENTATION, GENTLY TAP ITS LOWER CASE EDGE SEVERAL TIMES ON A FLAT SURFACE.

THIS PROCEDURE IS REQUIRED ONLY ONCE UNLESS THE VXIbus CARD CAGE, CONTAINING THIS TYPE OF SWITCH, IS DISORIENTED DURING SERVICE OR WHILE BEING TRANSPORTED TO ANOTHER LOCATION.

SECTION 2

AD VXI MODEL 230122 **COMBINATION 12(1x4) & 48(1x1)**

PROGRAMMING INFORMATION

2.1 GENERAL

The following along with the Register Maps on the following pages will provide sufficient information to properly program AD Data's Model 230122 Combination Switch Module. The Model Codes for this module are as follows:

230122-111 12(1x4) & 48(1x1) 0.5 Amp **Model Code# 122**
230122-112 12(1x4) & 48(1x1) 2.0 Amp **Model Code# 123**

An example of the Model Code# 123 read out is shown in the **Device Type Register** map.

2.2 DEVICE LOGICAL ADDRESS SET

Locate the Logical Address dip switch access window on the module's left side cover plate when facing it's front panel. This eight pole double throw switch is weighted **1,2,4,8,16,32,64,128.**
A switch in the **"OFF"** position represents a logic **"1"**, therefore with the **8,32,** and **64,** switches in their **"OFF"** positions the logical address set is **104.** The module as shipped from AD Data's factory will have all the switches in their **"OFF"** positions for a logical address of **255.**

2.3 PROGRAMMING

A **"1"** written to the **Device Dependant Register** at a bit location associated with a particular relay(s) will cause that relay(s) to close.
A **"0"** written to the **Device Dependant Register** at a bit location associated with a particular relay(s) will cause that relay(s) to open.
A **"1"** written to the **Reset Bit of the Status/Control Register** will open all relays (Clear All) and will keep them open until a **"0"** is written to that bit.

A D DATA SYSTEMS CORP.

VXIbus SWITCH MODULES

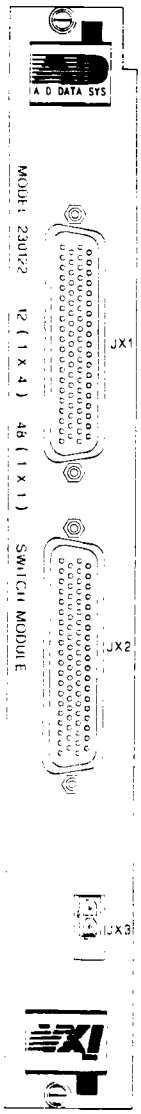
"C" Size
Register Based
LabWindows Supported

COMBINATION

12 (1 X 4) - 48 (1X 1)

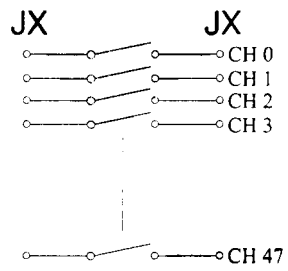
A.D. MODEL 230122

A. D. Data's Combination Switch Module has been designed to satisfy some of the most fundamental requirements of the ARINC 608A specification. This quality VXIbus switching instrument provides a unique arrangement of discrete and multiplexer switching capabilities.

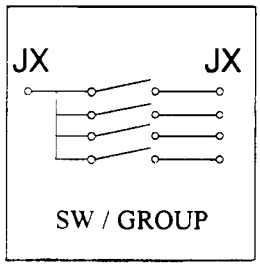


230122 DIAGRAM

48(1 X 1)



12(1 X 4)



SW / GROUP 0
SW / GROUP 1
SW / GROUP 2
SW / GROUP 11

MATING CONNECTOR KITS

JX 1 & JX 2 78 Pin Part No. 212935
JX 3 2 Pin Part No. 212936

2.4 REGISTER MAPS

STATUS/CONTROL REGISTER

Reset bit latched only

HEX ADDRESS 04	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
WRITE	A24 A32		Device Dependant												Sys Fal	Rst
READ	A24 A32	MOD ID	Device Dependant										Rdy	Pas	Device Depend	
	1	x	1	1	1	1	1	1	1	1	1	1	1	1	1	1

MOD ID is driven only. All other bits return "1"

Not required for A16 only devices

DEVICE TYPE REGISTER

HEX ADDRESS 02	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
WRITE	RESERVED															
READ	Required Memory				Model Code register based 12(1x4) and 48(1x1) 2.0 Amp Model 230122-112 (123)											
	1	1	1	1	0	0	0	1	0	0	1	0	0	0	1	1

Not required for A16 only devices

ID/LOGICAL ADDRESS REGISTER

HEX ADDRESS 00	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
WRITE	RESERVED								(Logical Address)							
READ	Device Class		Address Space		Manufacture's ID (F2E) "AD Data System Corp"											
	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	0

Register Based

A16 Only

2.4 REGISTER MAPS (Cont'd)

REGISTER BIT LOCATION/RELAY "K" NUMBER

		15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
DEVICE DEPENDANT REGISTERS	3E																
	3C																
	3A	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80
	38	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64
	36	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48
	34	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32
	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
	30	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
	2E																
	2C																
	2A	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80
	28	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64
	26	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48
	24	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32
	22	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
	20	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
	1E																
	1C																
	1A	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80
	18	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64
	16	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48
	14	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32
	12	31	31	29	28	27	26	25	24	23	22	21	20	19	18	17	16
	10	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
	0E																
	0C																
	0A																
	08																
BASIC CONFIG. REGISTERS	06	Offset Register															
	04	Status/Control Register															
	02	Device Type Register															
	00	ID/Logical Address Register															

QUICK REFERENCE INFORMATION

3.1 GENERAL

This section provides the user with a quick access to front panel connector pin out information without the laborious activity of tracing miles of schematic lines. This section will also highlight those areas that AD Data feels will be useful in getting the switching portion of the VXIbus test system up and running in the shortest possible time. We feel that this section and section 2, dealing with switch module programming, will be the most used.

3.2 EXTERNAL/INTERNAL +12vdc INPUT and SHIELD PLANE TIE DOWN

There are two jumpers, **JP1** and **JP2**, on the Model 230122 switch module PC board.
JP1 connects switch assembly coil power to either the Internal VXIbus +12vdc power supply or to an External +12vdc power supply through a designated pin on the Jx3 front panel connector. (See the Quick Reference Pin Out table). This jumper is factory installed with coil power supplied by the Internal VXIbus +12vdc power supply. the ground pin on the Jx3 front panel connector is tied to VXIbus system logic ground.

JP2 connects the copper ground plane under the relays (Labeled Shield Plane on the schematic) to either the VXIbus System logic ground or to chassis ground. This jumper is **NOT** factory installed, therefore the Shield Plane is left floating. The user then has two internal options of choosing the best common Shield Plane tie point for optimum switched signal performance.

3.3 FRONT PANEL RELAY PIN OUTS

The following Quick Reference Pin Out Table has been compiled to aide both the hardware and software engineer. This table lists the relay by it's "K" designation along with where it's contacts appear on the respective front panel connector/pins. AD Data feels that it should be possible to properly install and operate this VXIbus switch module without having to refer to the schematic provided.

If any difficulty is encountered, we welcome the opportunity to discuss any situation with you so please do not hesitate to call.

3.3 FRONT PANEL PIN OUTS (Cont'd)

QUICK REFERENCE PIN OUT TABLE

Relay	Jx2	Relay	Jx2	Relay	Jx2	Relay	Jx2
K0	58	K12	35	K24	30	K36	50
K1	59	K13	15	K25	9	K37	49
K2	39	K14	74	K26	29	K38	48
K3	20	K15	14	K27	8	K39	67
Com	78	Com	75	Com	55	Com	45
K4	57	K16	73	K28	28	K40	66
K5	19	K17	13	K29	7	K41	26
K6	38	K18	53	K30	47	K42	65
K7	18	K19	12	K31	27	K43	6
Com	77	Com	34	Com	36	Com	5
K8	37	K20	32	K32	33	K44	68
K9	17	K21	11	K33	72	K45	69
K10	56	K22	31	K34	52	K46	70
K11	16	K23	10	K35	51	K47	71
Com	76	Com	54	Com	25	Com	46

Relay	Jx2(In)	Jx2(Out)
K48	4	64
K49	3	63
K50	2	62
K51	1	61
K52	24	41
K53	23	42
K54	22	43
K55	21	44
K56	40	60

Relay	Jx1(In)	Jx1(Out)
K57	39	58
K58	20	59
K59	38	78
K60	77	19
K61	57	18
K62	76	56
K63	37	17

Relay	Jx1(In)	Jx1(Out)
K64	75	48
K65	36	9
K66	16	29
K67	35	68
K68	74	49
K69	15	10
K70	30	55
K71	34	69
K72	14	50
K73	73	11
K74	54	31
K75	53	70
K76	72	51
K77	33	12
K78	13	32
K79	52	71

Relay	Jx1(In)	Jx1(Out)
K80	28	60
K81	67	61
K82	47	62
K83	66	63
K84	27	4
K85	8	43
K86	7	24
K87	46	42
K88	26	3
K89	65	22
K90	45	2
K91	6	40
K92	25	41
K93	44	21
K94	64	23
K95	5	1

Jx3

1 Aux +12vdc (In)
2 Aux Ground (In)
(VXIbus Sys. Logic Ground)

3.4 RELAY STRAPPING OPTIONS

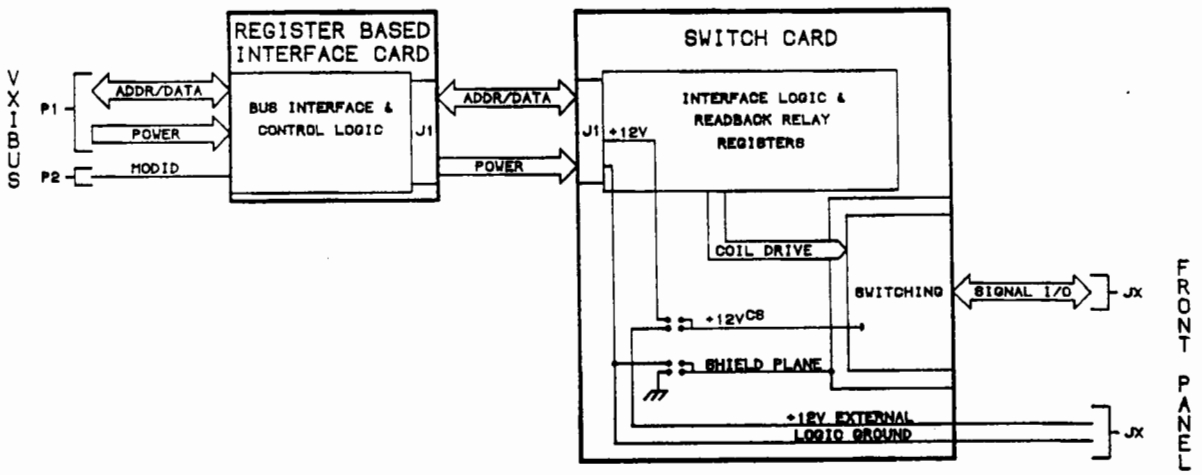
The Model 230122 provides 12(1x4) Multiplexers and 48(1x1) discrete switches. Since it's internal PC board has no provisions for relay configuration strapping, any such desired configuration changes must be performed via external wiring.

THEORY OF OPERATION

4.1 GENERAL

AD Data's Register Based Switch Modules are A16 Only Devices and are made up of three major design blocks; Bus Interface & Control Logic, Interface & Readback Relay Registers, and Switching.

4.2 FUNCTIONAL BLOCK DIAGRAM



4.3 REGISTER BASED INTERFACE CARD

4.3.1 BUS INTERFACE & CONTROL LOGIC

The Register Based Interface Card, a plug-on to the Switch Card, includes all of the VXIbus interface circuitry.

This card is an A16 Only Device which allows static or dynamic addressing via an 8 position DIP switch.

It also contains the Device Configuration Registers. The most significant nibble of the Model Code is set on this card is set to "1".

The interface to the Device Dependant Registers on the Switch Card, are also provided here.

THEORY OF OPERATION (Cont'd)

4.4 SWITCH CARD

4.4.1 INTERFACE LOGIC & READBACK RELAY REGISTERS

The Switch Card on-board logic includes the least significant byte of the Model Code and the Read/Write Device Dependant Registers. These registers include the signal switching relay assembly drivers, and coil suppression diodes.

4.4.2 SWITCHING

An inner Shield Plane, under the signal switching relay section, can be connected to the VXIbus logic ground or chassis ground via the installation of a jumper on the Switch Card. It can also be tied to an external ground or shield ground through unused pins, if available, on the front panel Jx connectors. This jumper is left as a user option, therefore, is not factory installed.

Coil power, +12vdc, can be routed from the VXIbus power supply or from an external power supply through designated pins on the Jx front panel connectors. This option is provided via the positioning of a jumper on the Switch Card. It is factory installed routing power from the VXIbus power source.

AD Data's complete list of switch module configurations; Discrete, Power Discrete, Multiplexer, Matrix, and Combination can be found in the Appendix Section 5.0

SECTION 5

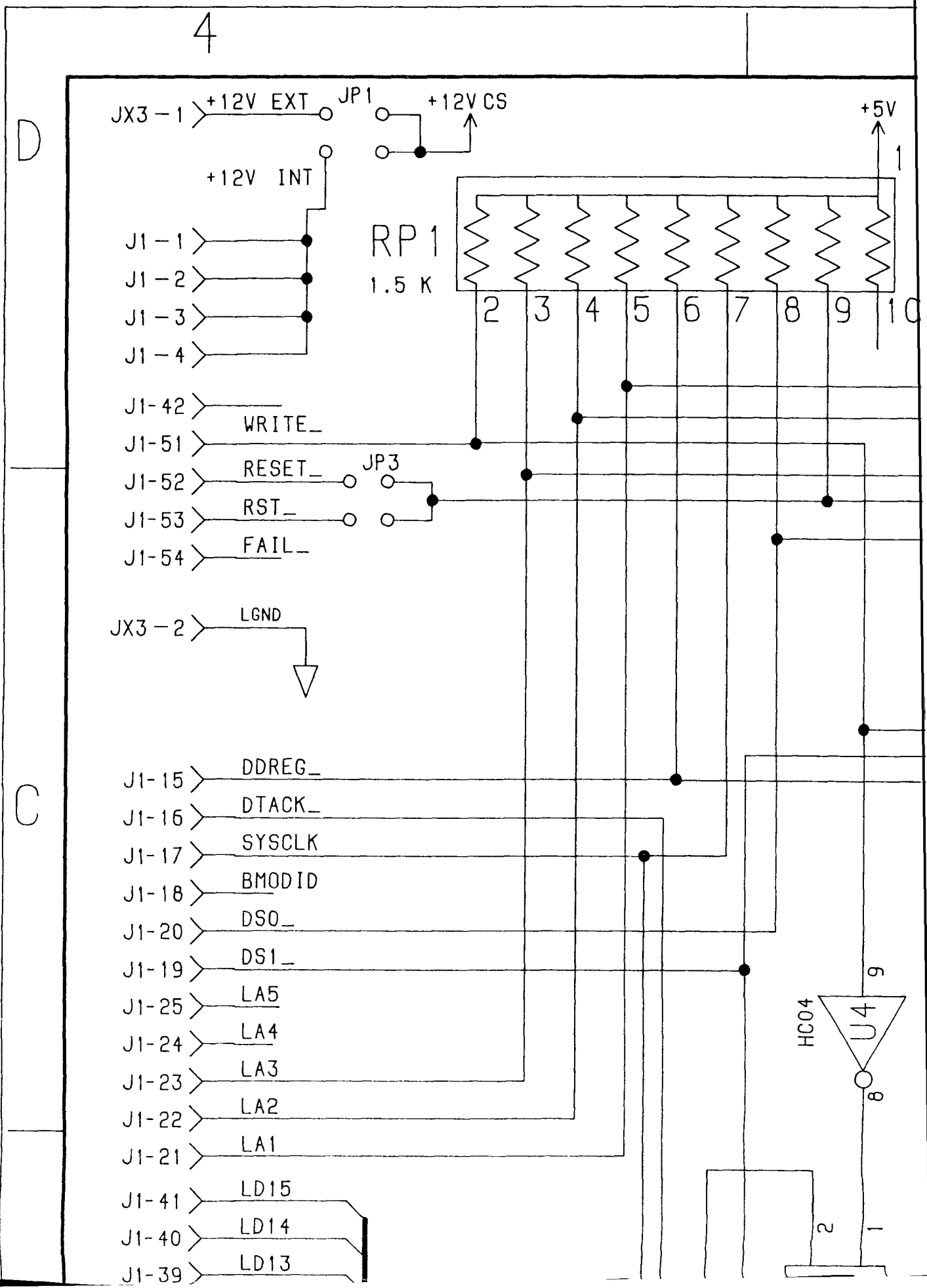
AD VXIbus MODEL 230122 COMBINATION 12(1x4) & 48(1x1)

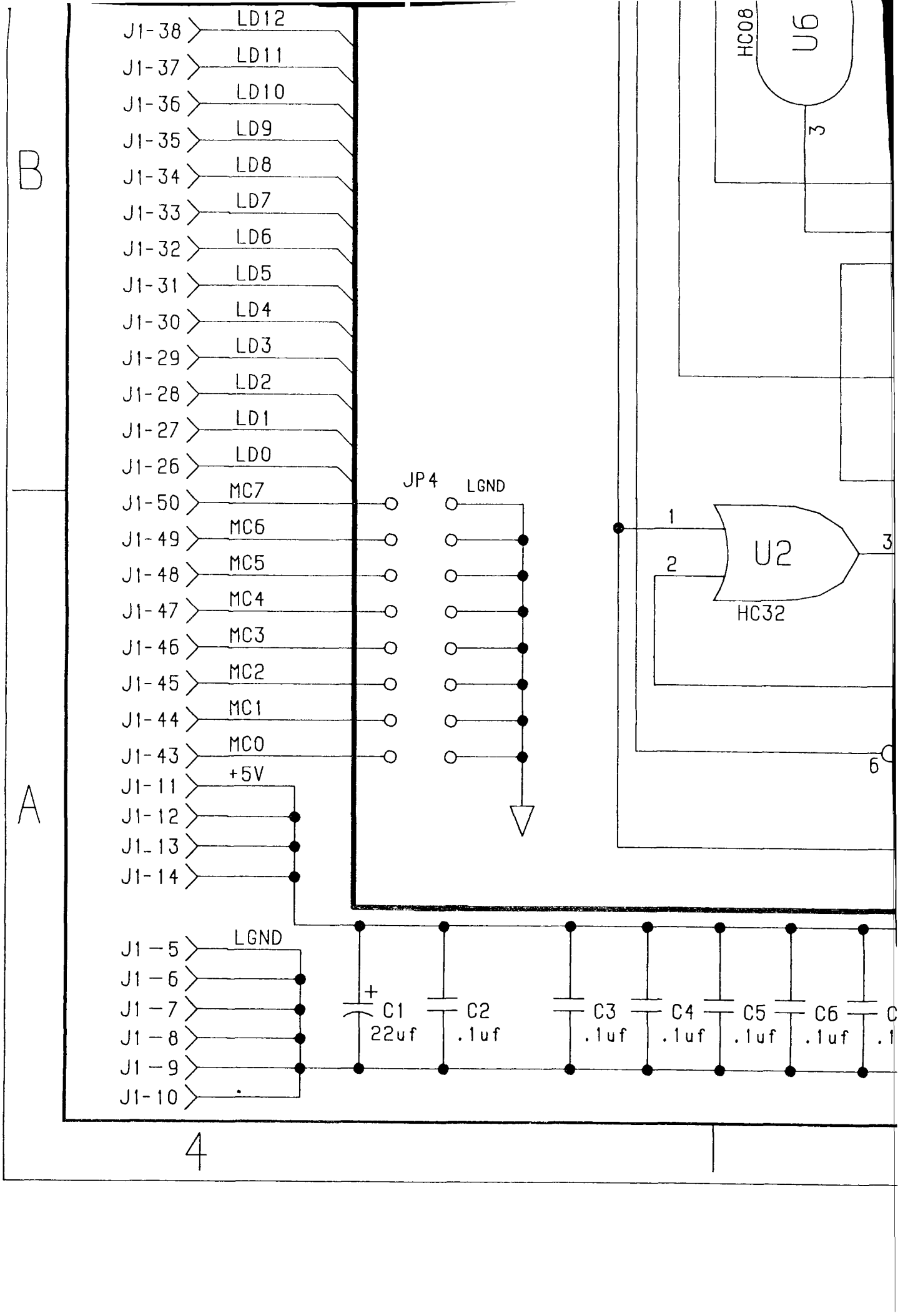
APPENDICES

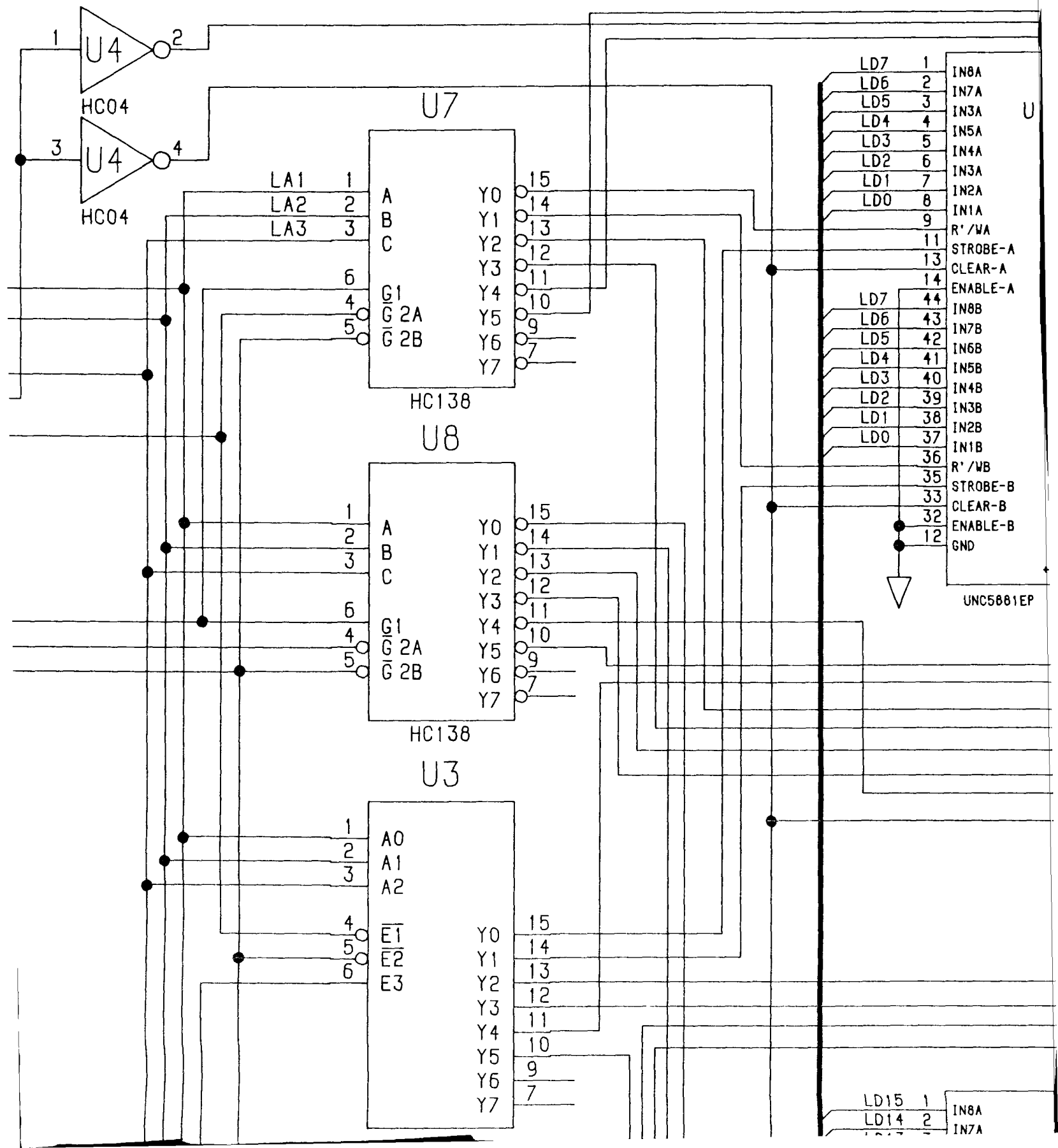
5.1 VXIbus SWITCH MODULE PRICE LIST

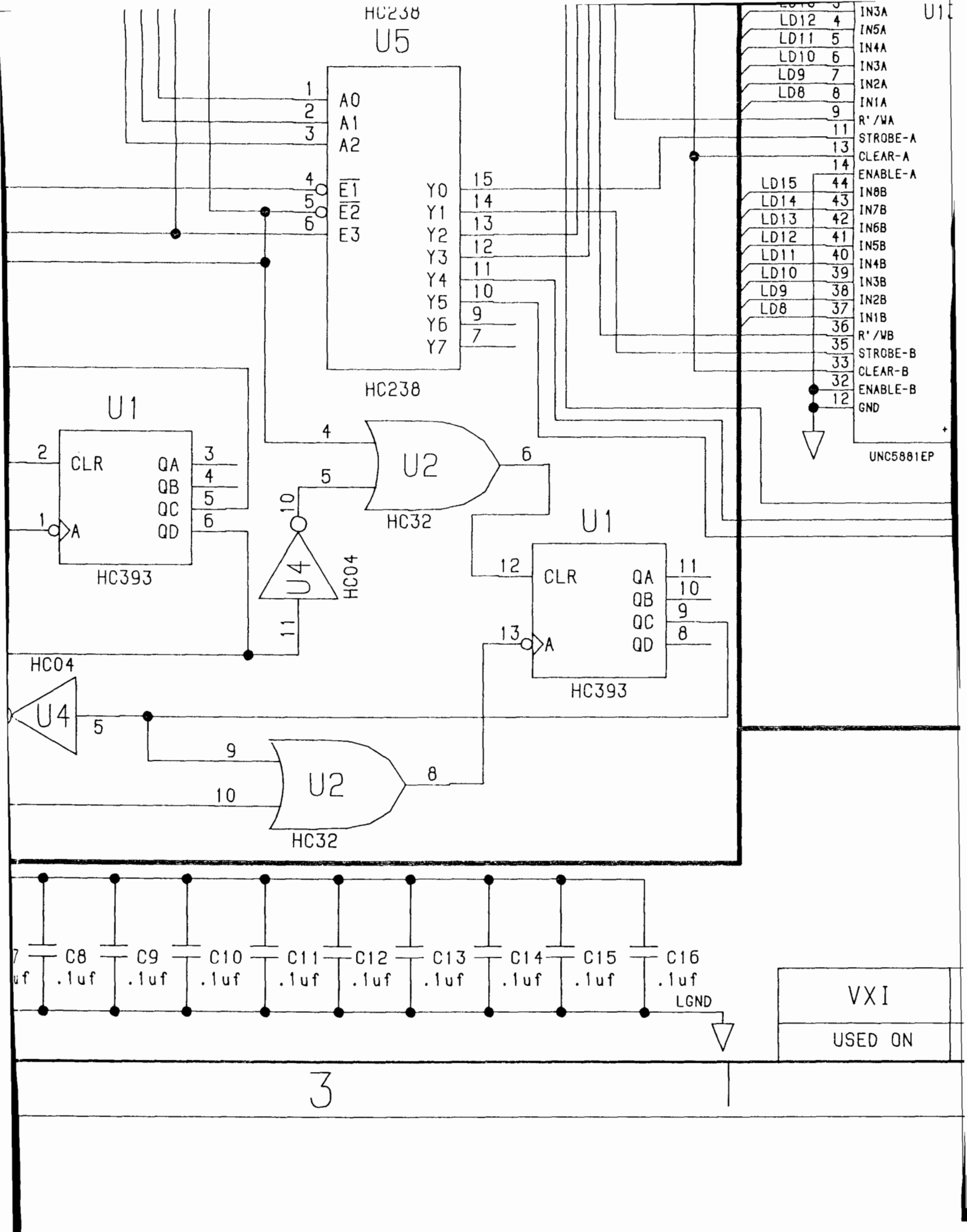
5.2 REPLACEMENT RELAY PRICE LIST

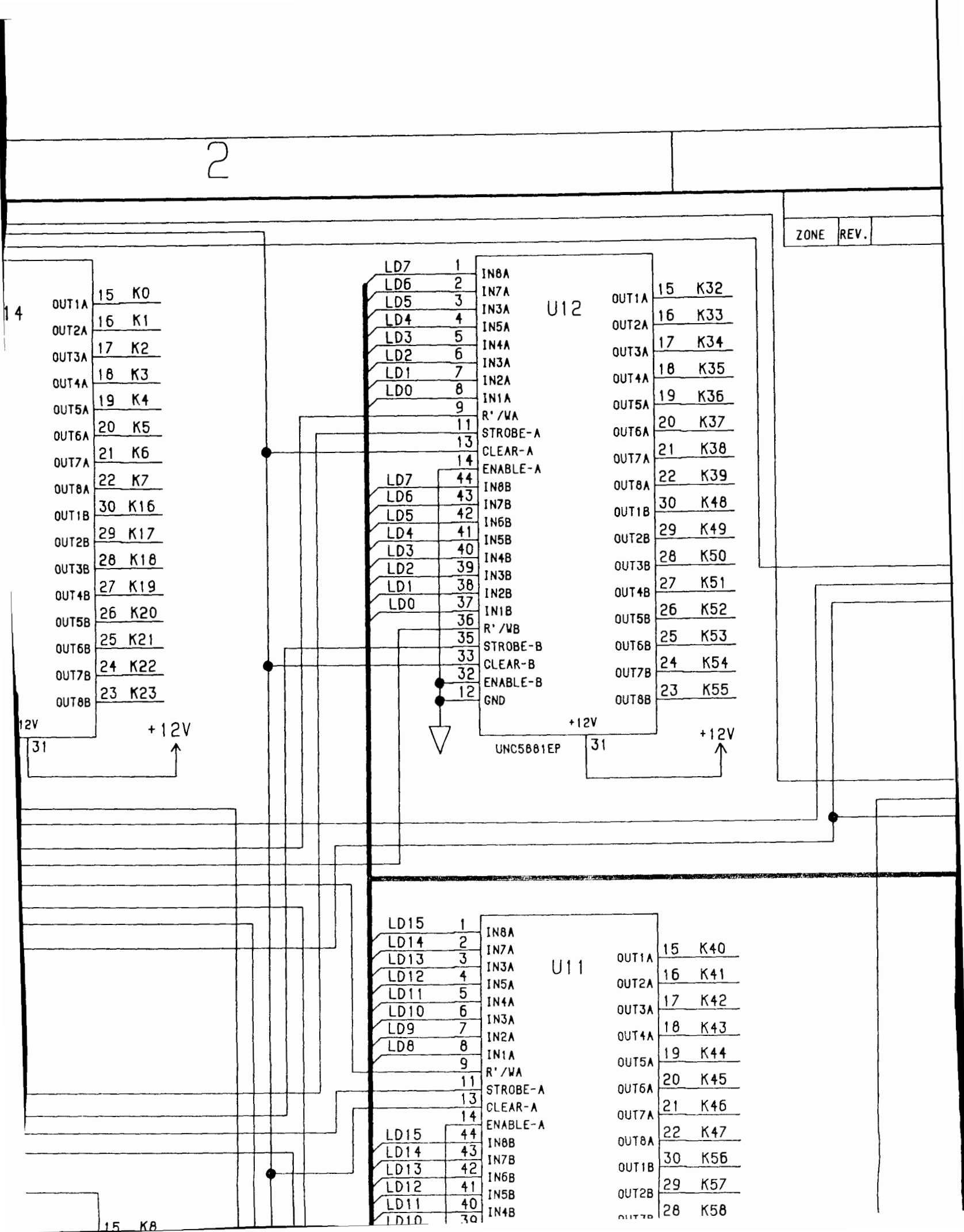
5.2 SCHEMATIC

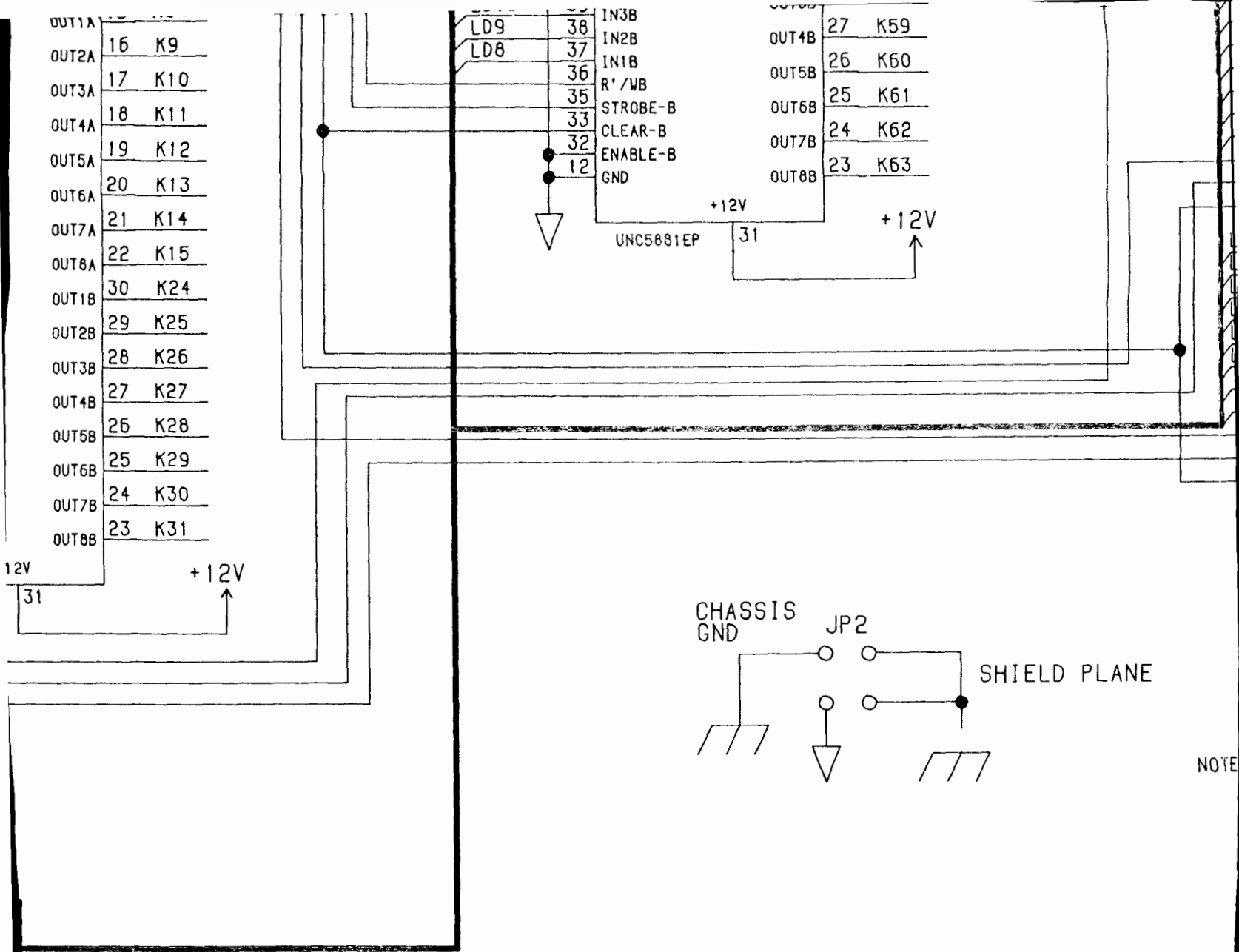

4
D
C
JX3 – 1
+12V EXT
JP1
+12V CS
+5V
+12V INT
J1 – 1
J1 – 2
J1 – 3
J1 – 4
RP1
1.5 K
1
2 3 4 5 6 7 8 9 10
J1-42
J1-51
WRITE_
J1-52
RESET_
JP3
J1-53
RST_
J1-54
FAIL_
JX3 – 2
LGND
J1-15
DDREG_
J1-16
DTACK_
J1-17
SYSCLK
J1-18
BMODID
J1-20
DS0_
J1-19
DS1_
J1-25
LA5
J1-24
LA4
J1-23
LA3
J1-22
LA2
J1-21
LA1
J1-41
LD15
J1-40
LD14
J1-39
LD13
HC04
U4
9
8
2
1


J1-38 LD12
J1-37 LD11
J1-36 LD10
J1-35 LD9
J1-34 LD8
J1-33 LD7
J1-32 LD6
J1-31 LD5
J1-30 LD4
J1-29 LD3
J1-28 LD2
J1-27 LD1
J1-26 LD0
J1-50 MC7
J1-49 MC6
J1-48 MC5
J1-47 MC4
J1-46 MC3
J1-45 MC2
J1-44 MC1
J1-43 MC0
J1-11 +5V
J1-12
J1_13
J1-14
J1-5 LGND
J1-6
J1-7
J1-8
J1-9
J1-10
JP4
LGND
HC08
U6
3
U2
HC32
1
2
3
6
C1
22uf
C2
.1uf
C3
.1uf
C4
.1uf
C5
.1uf
C6
.1uf
B
A
4
1


U4
HC04
U4
HC04
U7
LA1
LA2
LA3
A
B
C
G1
G 2A
G 2B
Y0
Y1
Y2
Y3
Y4
Y5
Y6
Y7
HC138
U8
HC138
U3
A0
A1
A2
E1
E2
E3
LD7
LD6
LD5
LD4
LD3
LD2
LD1
LD0
IN8A
IN7A
IN3A
IN5A
IN4A
IN3A
IN2A
IN1A
R'/WA
STROBE-A
CLEAR-A
ENABLE-A
IN8B
IN7B
IN6B
IN5B
IN4B
IN3B
IN2B
IN1B
R'/WB
STROBE-B
CLEAR-B
ENABLE-B
GND
UNC5801EP
LD15
LD14


HC238
U5
A0
A1
A2
E1
E2
E3
Y0
Y1
Y2
Y3
Y4
Y5
Y6
Y7
HC238
U1
CLR
A
QA
QB
QC
QD
HC393
U2
HC32
U4
HC04
U1
CLR
A
QA
QB
QC
QD
HC393
HC04
U4
U2
HC32
IN3A
IN5A
IN4A
IN3A
IN2A
IN1A
R'/WA
STROBE-A
CLEAR-A
ENABLE-A
LD15
LD14
LD13
LD12
LD11
LD10
LD9
LD8
IN8B
IN7B
IN6B
IN5B
IN4B
IN3B
IN2B
IN1B
R'/WB
STROBE-B
CLEAR-B
ENABLE-B
GND
UNC5881EP
C8 .1uf
C9 .1uf
C10 .1uf
C11 .1uf
C12 .1uf
C13 .1uf
C14 .1uf
C15 .1uf
C16 .1uf
LGND
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USED ON
3


2
ZONE
REV.
14
OUT1A 15 K0
OUT2A 16 K1
OUT3A 17 K2
OUT4A 18 K3
OUT5A 19 K4
OUT6A 20 K5
OUT7A 21 K6
OUT8A 22 K7
OUT1B 30 K16
OUT2B 29 K17
OUT3B 28 K18
OUT4B 27 K19
OUT5B 26 K20
OUT6B 25 K21
OUT7B 24 K22
OUT8B 23 K23
12V
31
+12V
LD7 1
LD6 2
LD5 3
LD4 4
LD3 5
LD2 6
LD1 7
LD0 8
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13
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LD7 44
LD6 43
LD5 42
LD4 41
LD3 40
LD2 39
LD1 38
LD0 37
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IN8A
IN7A
IN3A
IN5A
IN4A
IN3A
IN2A
IN1A
R'/WA
STROBE-A
CLEAR-A
ENABLE-A
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CLEAR-B
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GND
U12
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31
+12V
OUT1A 15 K32
OUT2A 16 K33
OUT3A 17 K34
OUT4A 18 K35
OUT5A 19 K36
OUT6A 20 K37
OUT7A 21 K38
OUT8A 22 K39
OUT1B 30 K48
OUT2B 29 K49
OUT3B 28 K50
OUT4B 27 K51
OUT5B 26 K52
OUT6B 25 K53
OUT7B 24 K54
OUT8B 23 K55
LD15 1
LD14 2
LD13 3
LD12 4
LD11 5
LD10 6
LD9 7
LD8 8
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13
14
LD15 44
LD14 43
LD13 42
LD12 41
LD11 40
LD10 39
IN8A
IN7A
IN3A
IN5A
IN4A
IN3A
IN2A
IN1A
R'/WA
STROBE-A
CLEAR-A
ENABLE-A
IN8B
IN7B
IN6B
IN5B
IN4B
U11
OUT1A 15 K40
OUT2A 16 K41
OUT3A 17 K42
OUT4A 18 K43
OUT5A 19 K44
OUT6A 20 K45
OUT7A 21 K46
OUT8A 22 K47
OUT1B 30 K56
OUT2B 29 K57
28 K58
15 K8



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AUTHENTICATION BLOCK

ABH 7/2/96

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MATERIAL

FINISH

TREATMENT

TOLER OTHERW

2 PLA DECIM

3 PLA DECIM

ANGL

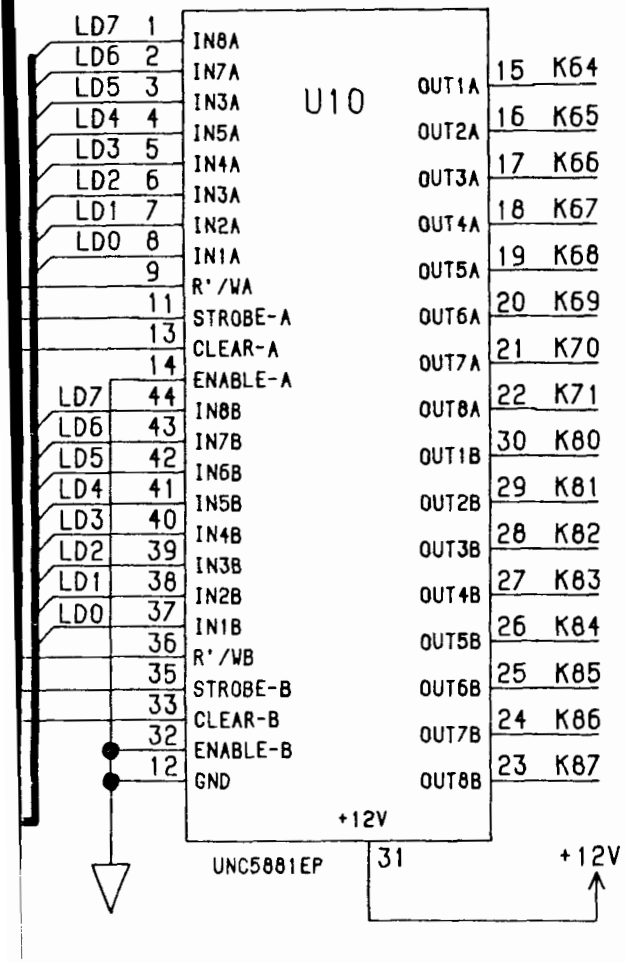
SCALE

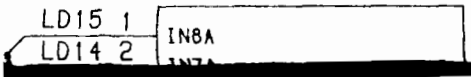
DO NOT

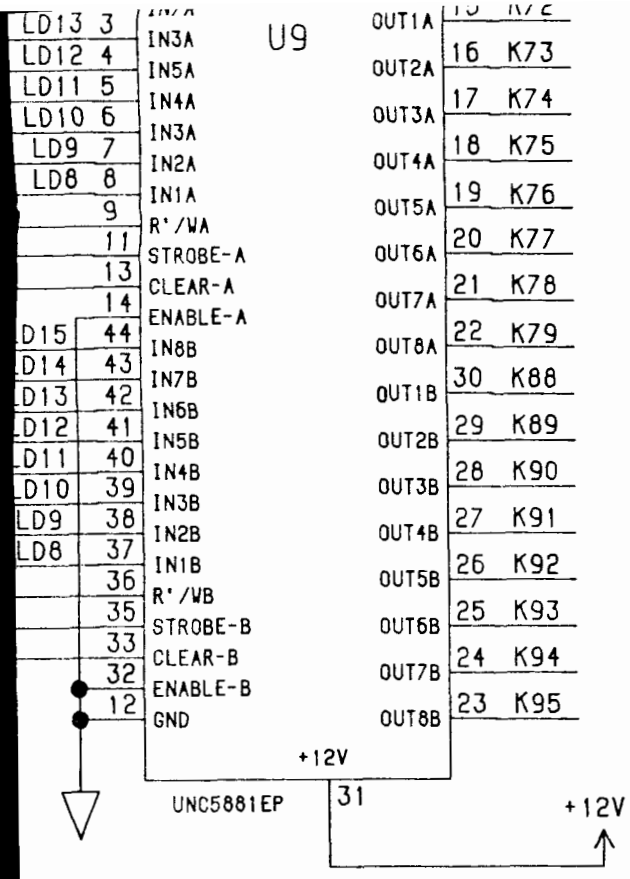
230122
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NEXT ASSY

2

REVISIONS		
DESCRIPTION	DATE	APPROVED







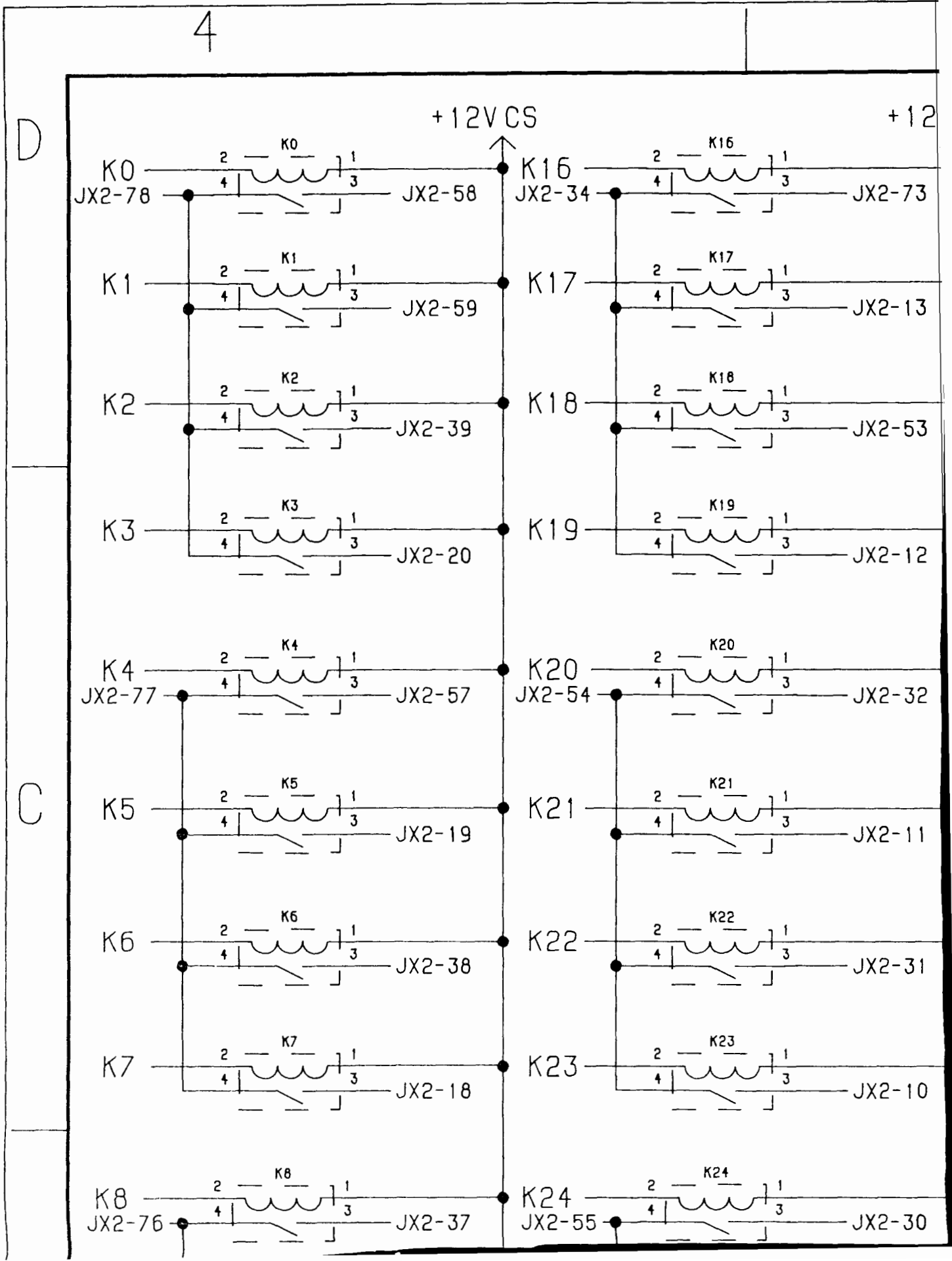
: THE CONNECTOR SHELL SHORTS THE SHIELD PLANE TO CHASSIS GROUND.

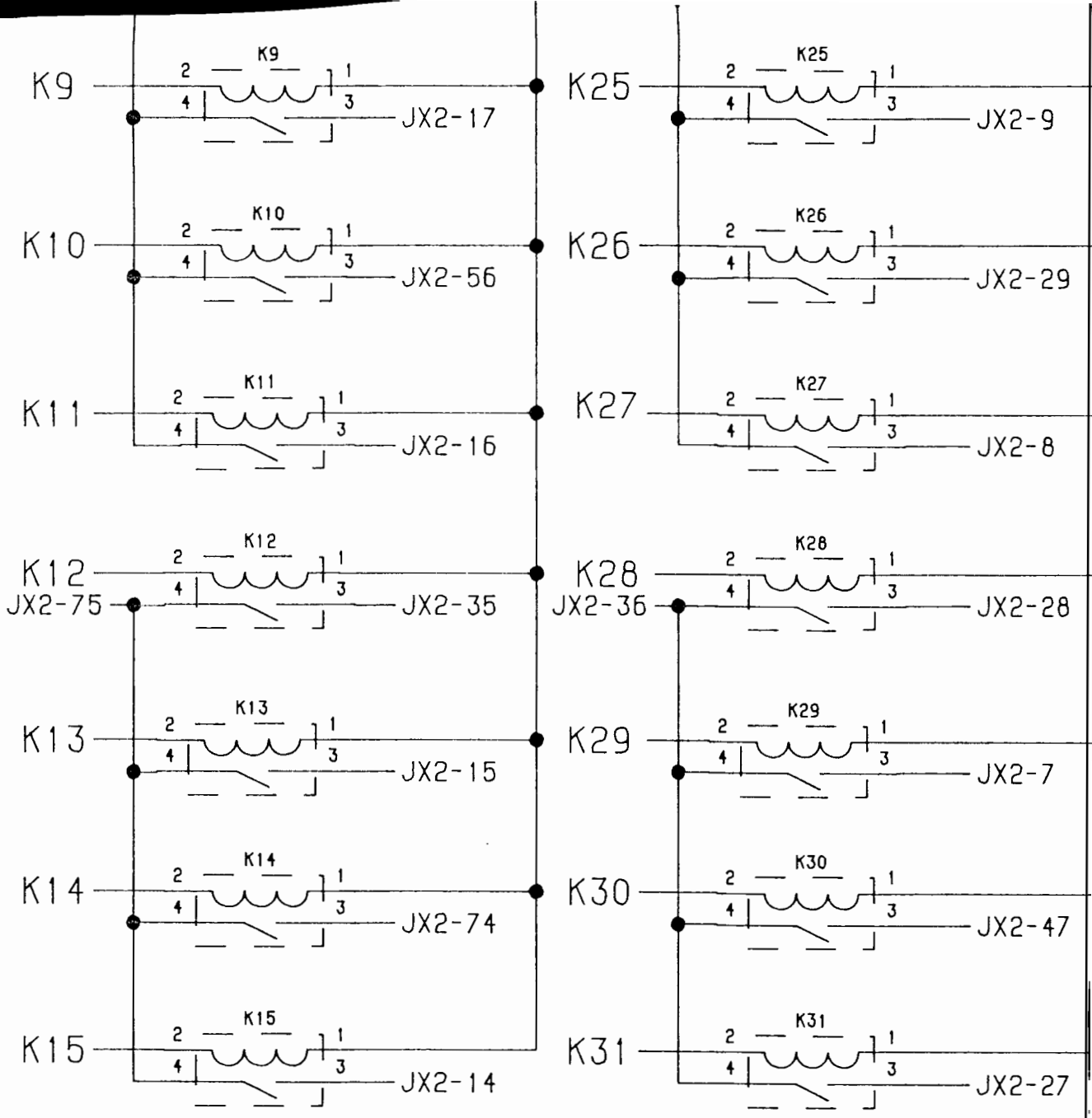
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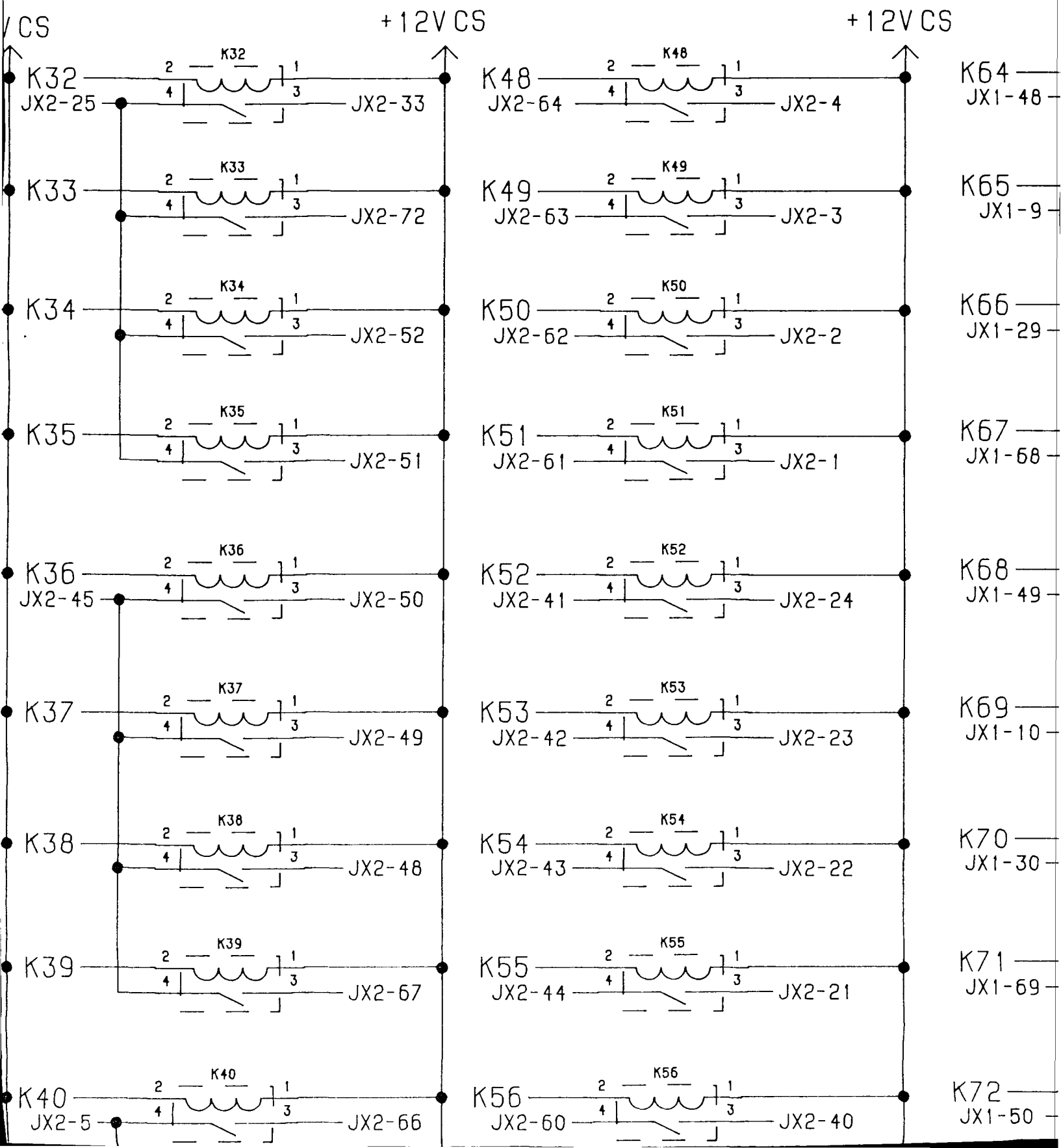
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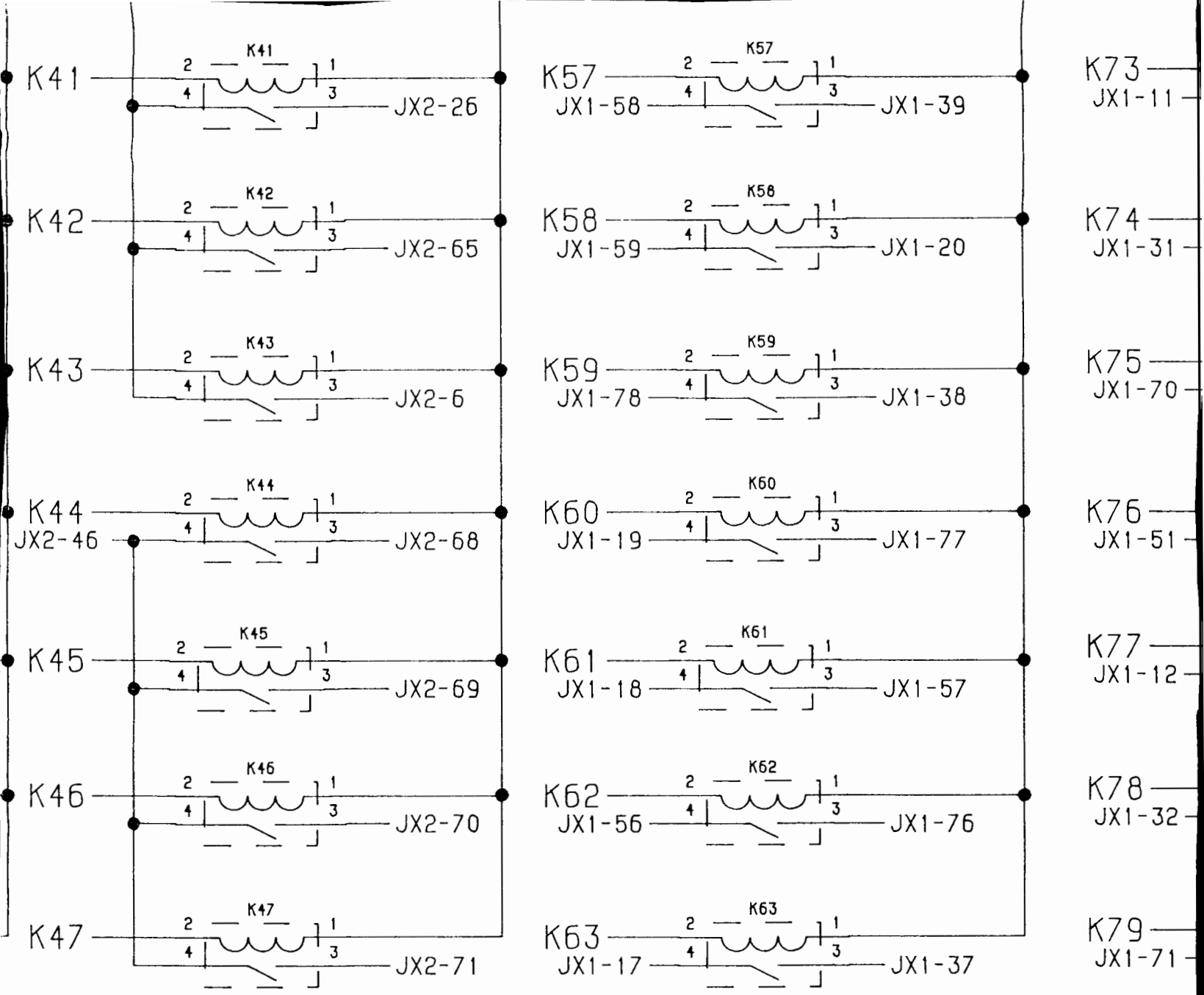
ANCE UNLESS SE SPECIFIED	A D DATA INC.	
E ±.02	WEBSTER, NEW YORK U.S.A. 14580	
CE ±.005	TITLE 12 (1X4) - 48 (1X1) SW BD SCHEMATIC	
E ± 1°	DATE 3-29-96	DRAWING NO. D-S-230153
	DRAWN BY W M	REV. —
SCALE DRAWING	CHECK	APPD. AB 7/2/96
	PART NO. 230153	SIZE D
		SHEET 1 OF 2

1


4
D
C
+12VCS
+12
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JX2-78
JX2-58
K1
JX2-59
K2
JX2-39
K3
JX2-20
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JX2-57
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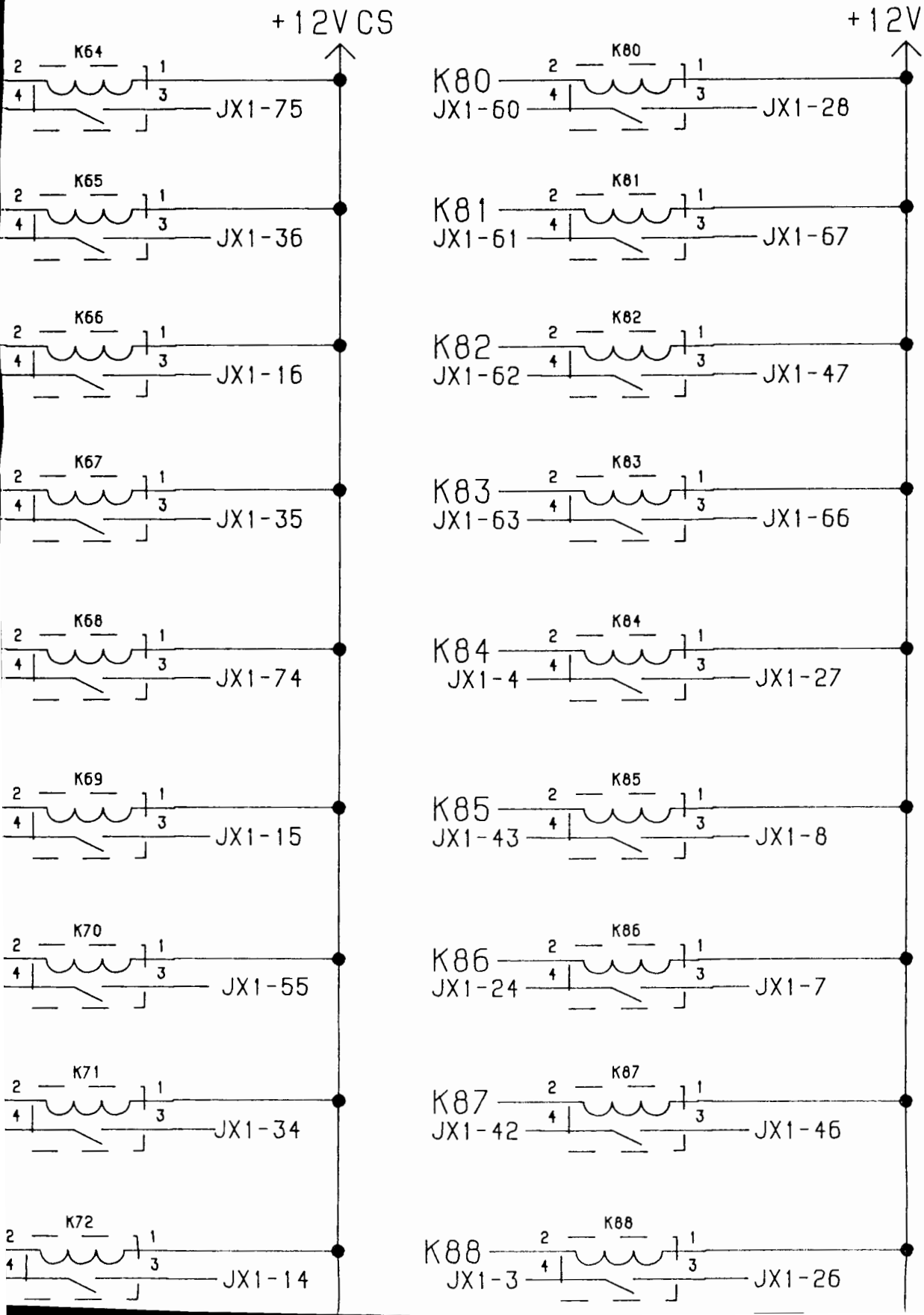

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JX2-56
JX2-16
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JX2-35
JX2-15
JX2-74
JX2-14
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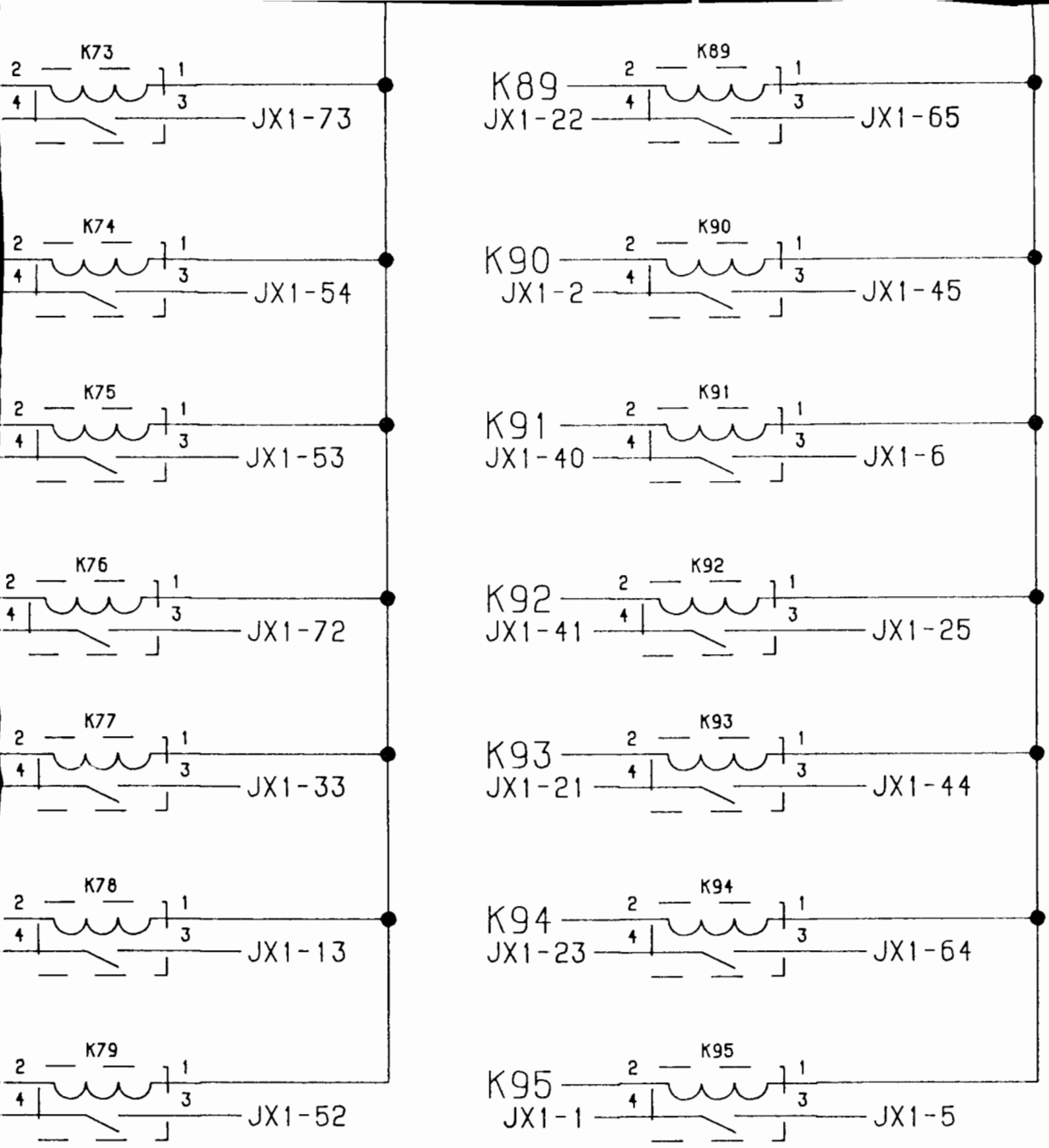

/CS
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+12VCS
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JX1-32
K79
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VXI
USED ON

ZONE	REV.


+12VCS
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JX1-36
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JX1-16
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K68
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K69
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+12VCS
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K85
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K87
JX1-42
JX1-46
K88
JX1-3
JX1-26



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AUTHENTICATION BLOCK

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2000788
NEXT ASSY

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REVISIONS		
DESCRIPTION	DATE	APPROVED

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RANCE UNLESS ISE SPECIFIED		
CE AL	±.02	
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T SCALE DRAWING

A D DATA INC.

WEBSTER, NEW YORK U.S.A. 14580

TITLE 12(1X4) - 48(1X1) SW BD SCHEMATIC

DATE 3-29-96	DRAWING NO. D-S-230153		REV. —
DRAWN BY W M			
CHECK	APPD.	PART NO. 230153	SIZE D	SHEET 2 OF 2

1

NOTES:

1. PRESS PEM SPACER, ITEM 2, FAR SIDE.
2. INSTALL "INTERNAL" JUMPER ON THE WIRE SIDE ON JP1.
3. INSTALL "RESET" JUMPER ON THE WIRE SIDE ON JP3.
4. INSTALL THE FOLLOWING JUMPERS ON THE COMPONENT SIDE ON JP4:

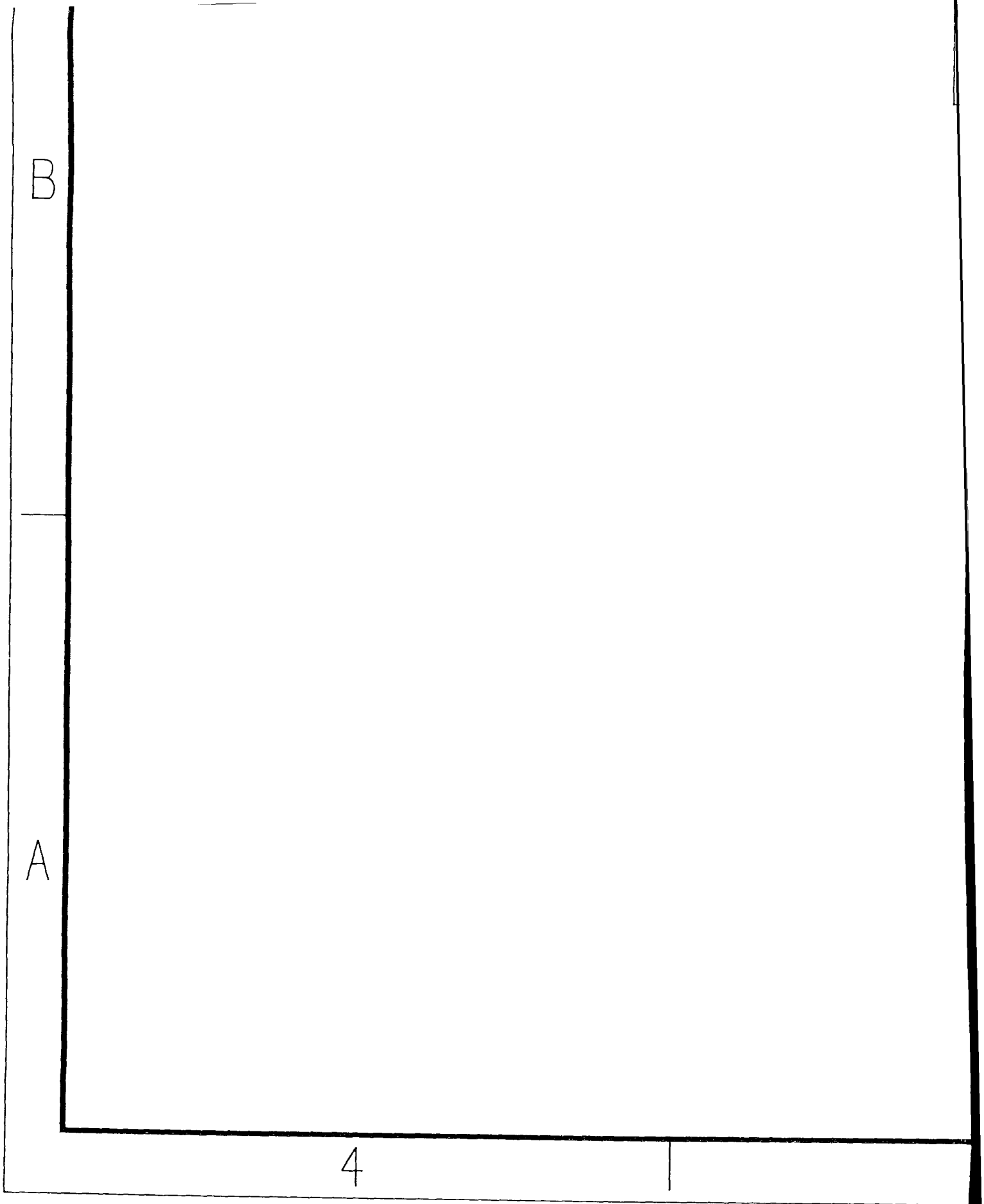
   230153-111 MC0,2,3,4,6,7
   230153-112 MC2,3,4,6,7

5. INSTALL JX3, AND TIE DOWN WITH LACING CORD.
6. ATTATCH 3 RUBBER BUMPERS, ITEM 19, P/N 3000719, AFTER BOARD HAS COMPLETED FUNCTIONAL TEST.
7. FOR REV - AND REV A BOARDS, IGNORE THE REF. DES. FOR U9 THRU U14 ON BOARD, AND REFER TO THIS DRAWING FOR CORRECT REF. DES.

SEE NOTE 5

D

C


B
A
4

JX1

JX2

DATA INC. I_0 K64	o A D DATA INC. I_0 K48 UP	o A D DATA INC. I_0 K32 UP	o A D DATA INC. I_0 K16 UP
DATA INC. I_0 K65	o A D DATA INC. I_0 K49 UP	o A D DATA INC. I_0 K33 UP	o A D DATA INC. I_0 K17 UP
DATA INC. I_0 K66	o A D DATA INC. I_0 K50 UP	o A D DATA INC. I_0 K34 UP	o A D DATA INC. I_0 K18 UP
DATA INC. I_0 K67	o A D DATA INC. I_0 K51 UP	o A D DATA INC. I_0 K35 UP	o A D DATA INC. I_0 K19 UP
DATA INC. I_0 K68	o A D DATA INC. I_0 K52 UP	o A D DATA INC. I_0 K36 UP	o A D DATA INC. I_0 K20 UP
DATA INC. I_0 K69	o A D DATA INC. I_0 K53 UP	o A D DATA INC. I_0 K37 UP	o A D DATA INC. I_0 K21 UP
DATA INC. I_0 K70	o A D DATA INC. I_0 K54 UP	o A D DATA INC. I_0 K38 UP	o A D DATA INC. I_0 K22 UP
DATA INC. I_0 K71	o A D DATA INC. I_0 K55 UP	o A D DATA INC. I_0 K39 UP	o A D DATA INC. I_0 K23 UP
DATA INC. I_0 K72	o A D DATA INC. I_0 K56 UP	o A D DATA INC. I_0 K40 UP	o A D DATA INC. I_0 K24 UP
DATA INC. I_0 K73	o A D DATA INC. I_0 K57 UP	o A D DATA INC. I_0 K41 UP	o A D DATA INC. I_0 K25 UP
DATA INC. I_0 K74	o A D DATA INC. I_0 K58 UP	o A D DATA INC. I_0 K42 UP	o A D DATA INC. I_0 K26 UP
DATA INC. I_0 K75	o A D DATA INC. I_0 K59 UP	o A D DATA INC. I_0 K43 UP	o A D DATA INC. I_0 K27 UP
DATA INC. I_0 K76	o A D DATA INC. I_0 K60 UP	o A D DATA INC. I_0 K44 UP	o A D DATA INC. I_0 K28 UP
DATA INC. I_0 K77	o A D DATA INC. I_0 K61 UP	o A D DATA INC. I_0 K45 UP	o A D DATA INC. I_0 K29 UP
DATA INC. I_0 K78	o A D DATA INC. I_0 K62 UP	o A D DATA INC. I_0 K46 UP	o A D DATA INC. I_0 K30 UP
DATA INC. I_0 K79	o A D DATA INC. I_0 K63 UP	o A D DATA INC. I_0 K47 UP	o A D DATA INC. I_0 K31 UP

JX3

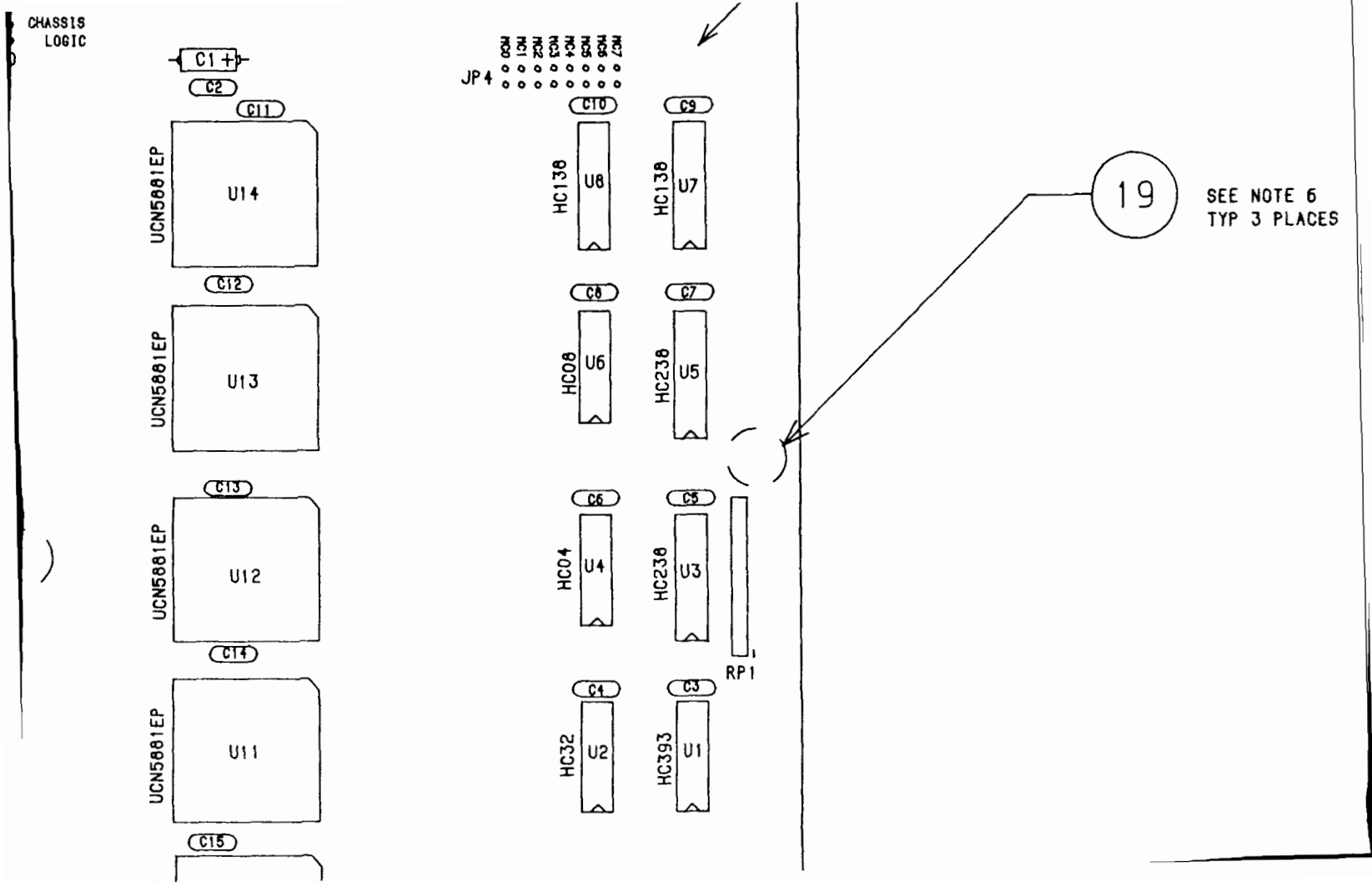
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- A D DATA INC. K1 — UP
- A D DATA INC. K2 — UP
- A D DATA INC. K3 — UP
- A D DATA INC. K4 — UP
- A D DATA INC. K5 — UP
- A D DATA INC. K6 — UP
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- A D DATA INC. K8 — UP
- A D DATA INC. K9 — UP
- A D DATA INC. K10 — UP
- A D DATA INC. K11 — UP
- A D DATA INC. K12 — UP
- A D DATA INC. K13 — UP
- A D DATA INC. K14 — UP
- A D DATA INC. K15 — UP

JP3 GND

JP +12

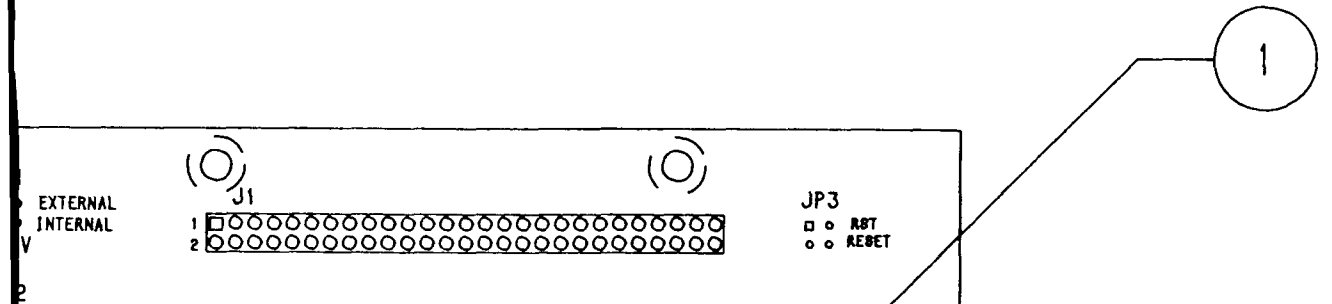
USED ON	VX1

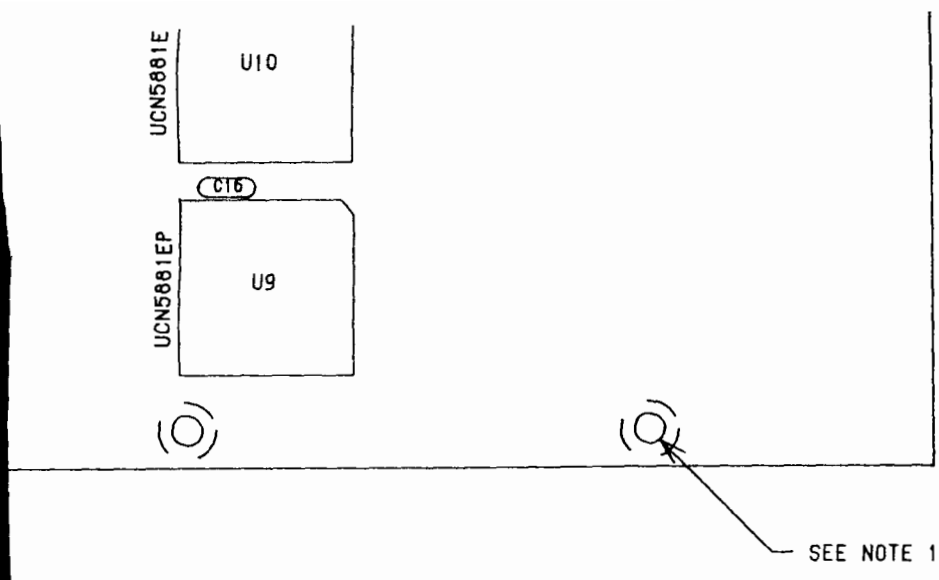
A D DATA INC.
UP
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K94
K95


CHASSIS
LOGIC
C1 +
C2
C11
UCN5801EP
U14
C12
UCN5801EP
U13
C13
UCN5801EP
U12
C14
UCN5801EP
U11
C15
JP4
NC0
NC1
NC2
NC3
NC4
NC5
NC6
NC7
C10
HC138
U8
C9
HC138
U7
C8
HC08
U6
C7
HC238
U5
C6
HC04
U4
C5
HC238
U3
RP1
C4
HC32
U2
C3
HC393
U1
19
SEE NOTE 6
TYP 3 PLACES

2

ZONE	LTR	





SEE NOTE 1 (TYP 10. FAR SIDE)

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AUTHENTICATED BLOCK

PBH 7/2/96

RELEASED ON ECN 4592

MATERIAL

SEE A-BM-230153

FINISH

TREATMENT

TOLERAN
OTHERWI
2 PLACE
DECIMAL
3 PLACE
DECIMAL
ANGLE
SCALE
DO NOT S

FINAL

NEXT ASSY

1

REVISIONS		
DESCRIPTION	DATE	APPROVED

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CE UNLESS SE SPECIFIED		
	±.02	
	±.005	
	± 1°	
FULL		
CALE DRAWING		

A D DATA INC.

WEBSTER, NEW YORK U.S.A. 14580

TITLE: 12 (1X4) - 48 (1X1) SWITCH BD. ASSEMBLY

DATE	DRAWING NO.	REV.
12-2-91	D-A-230153	—
DRAWN BY W M		

CHECK	APPD.	PART NO.	SIZE	SHEET
	ABH 7/2/96	230153	D	1 OF 1

1

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