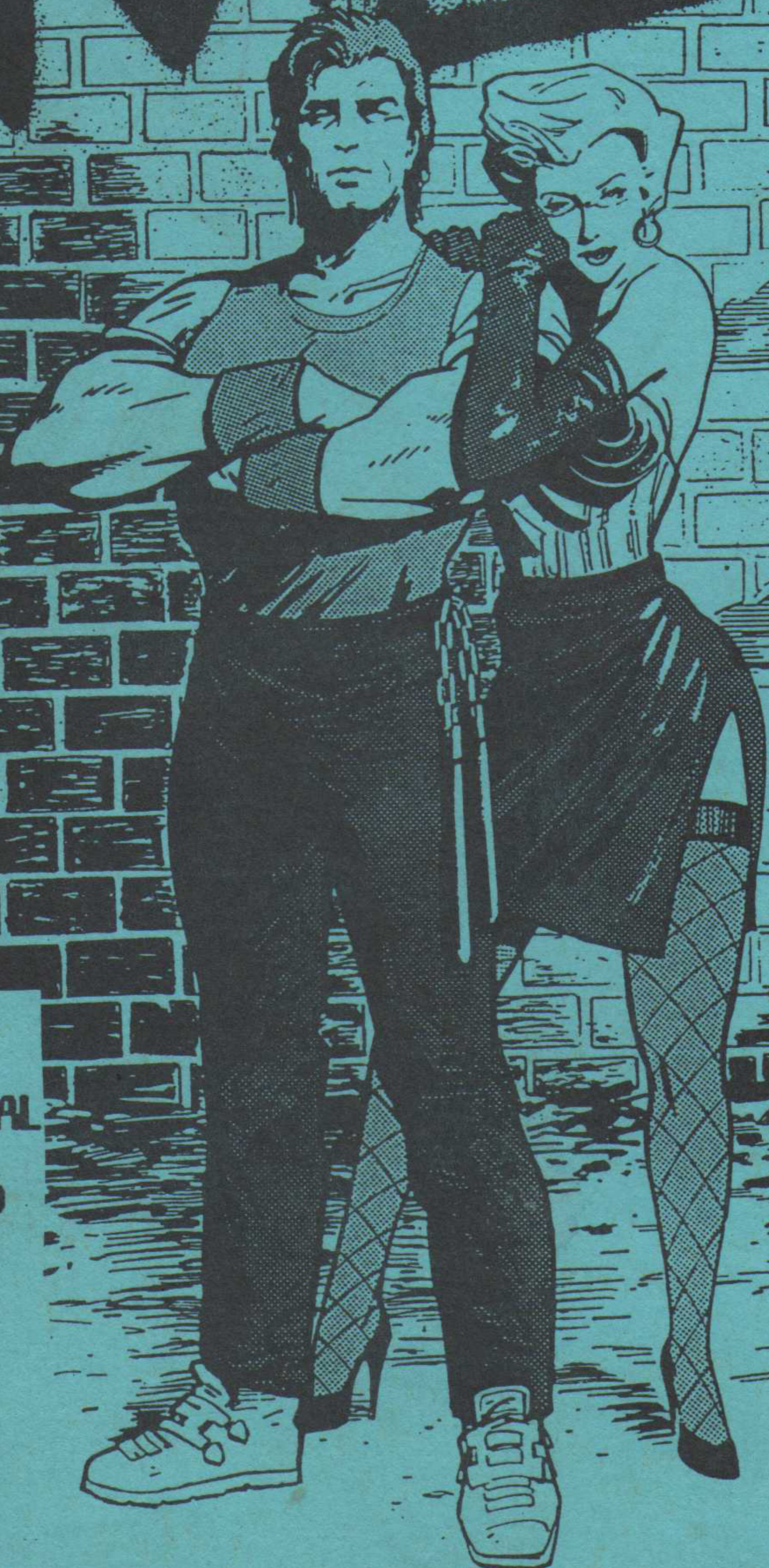


TRUMAN E



INSTALLATION & SERVICE MANUAL

PART NUMBER: 780-0083-00

DE DATA EAST USA, INC.
470 NEEDLES DRIVE
SAN JOSE, CA. 95112
(408) 286-7074

FCC WARNING

This equipment generates and uses radio frequency energy and if not installed and used properly, ie., in strict accordance with this instructions manual, may cause harmful interference to radio communications. This equipment has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of the FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment.

Operation of this equipment in a residential environment is likely to cause interference in which case the user, at his own expense, will be required to take whatever measures are necessary to correct the interference.

FBI WARNING

Federal law provides severe civil and criminal penalties for the unauthorized reproduction, distribution, or exhibition of copyrighted audiovisual works and video games. The Federal Bureau of Investigation investigates allegations of criminal copyright infringement.

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TECHNICAL SUPPORT

To obtain replacement parts or technical assistance, contact the authorized Data East distributor in your area. If you require referral or further technical assistance, you may contact Data East's Customer Service department during the hours of 8:00 am to 5:00 pm Pacific Time at (408) 286-7074.

VIGILANTE™

INSTALLATION & SERVICE MANUAL

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1. GENERAL INFORMATION

A. Specific Requirements.

The Vigilante™ game is a SINGLE PLAYER video game conversion kit. It is intended to be installed into an existing video game cabinet and comes with all the necessary components to make the converted game look and play like a new dedicated game!

THE GAME TO BE CONVERTED MUST MEET THE FOLLOWING REQUIREMENTS

MONITOR	Horizontal, RGB, negative Composite Sync input.
POWER SUPPLY	+ 5 vdc @ 7 amperes, and + 12 vdc @ 1 ampere (min)

B. List of Materials.

QTY	DESCRIPTION	PART NUMBER
1	PCB, VIGILANTE	510-0124-00
1	MAIN HARNESS, JAMMA, KIT	036-0158-01
1	JOYSTICK, 8 WAY, COIN CONTROL	450-0003-00
2	PUSHBUTTON ASSY, YELLOW	350-0016-04
2	PUSHBUTTON ASSY, BLUE	350-0016-06
1	CONTROL PANEL OVERLAY, VIGILANTE	800-0031-00
1	UNDERLAY CARD, VIGILANTE	810-0028-00
2	SIDE DECAL, VIGILANTE	820-0045-00
1	MARQUEE PLEX, VIGILANTE	830-0036-00
1	LABEL SET, VIGILANTE	406-0090-00
1	FCC WARNING LABEL	406-0003-00
1	MANUAL, INSTALLATION & SERVICE	780-0083-00

C. Warranty Information

Data East USA, Inc., ("Seller"), warrants only to the initial purchaser ("Buyer") of its products that the items listed below are free from defects in material and workmanship under normal use and service for the period specified:

GAME LOGIC PRINTED CIRCUIT BOARD(S) 90 DAYS

No other parts of Seller's products are warranted.

Warranty periods are effective from initial date of shipment from Seller to Buyer. Seller's sole liability shall be, at its option, to repair or replace products which are returned to Seller during the warranty periods specified, provided:

1. Seller is notified promptly upon discovery by Buyer that stated products are defective.
2. Such products are properly packaged and then returned freight pre-paid, to Seller's plant.

This warranty does not apply to any parts damaged during shipment and/or due to improper handling, or due to improper installation or usage, or alteration. In no event shall the Seller be liable for any anticipated profits, loss of profits, loss of use, accidental or consequential damages, or any other losses incurred by the customer in connection with the purchase of a Data East USA, Inc., product.

WARRANTY DISCLAIMER

EXCEPT AS SPECIFICALLY PROVIDED IN A WRITTEN CONTRACT BETWEEN SELLER AND PURCHASER, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

D. Installation Instructions.

When selecting a game to convert, make sure that the Power Supply, the Monitor, and the Coin Acceptors are functional. There is nothing more frustrating than installing a conversion kit and having it not operate due to a faulty Monitor or Power Supply. I know...we will all suspect that the new Logic PCB is defective, right?

It is mandatory that the cabinet be wired to conform with all National and Local Electric Code requirements before the conversion is attempted. The primary section must have adequate noise filtering on the AC line to prevent unwanted conducted radio frequency interference. 'Adequate' is defined as a filter with both common mode and differential mode filtering and a minimum current capacity of 1 ½ amperes.

According to the FCC and other regulatory agencies, every video game must have be clearly labeled with the Name and Address of the Original Manufacturer, Date of Manufacture (or serial number), Voltage Rating, Current Rating, Suitability for indoor or outdoor use, and Model Number. In addition, the FCC requires that after conversion, the unit must be labeled with a suitable warning stating that radio frequency interference may result from use in a residential area. An acceptable sticker is included in this kit.

IT IS THE RESPONSIBILITY OF THE PERSON PERFORMING THE INSTALLATION TO COMPLY WITH ALL LABELING REQUIREMENTS.

TAKING IT APART...

Performing a few simple tasks when preparing a game to be converted can save you much time and effort when you are installing the conversion kit.

Find the wiring diagram of the game to be converted! You will need to identify the required DC power supply output wires and the monitor video and sync wires. Note the color coding of these wires or better yet, label them as to their function. This kit contains a new Main Harness, but you will need to splice it into the existing power supply and video wires.

Remove the existing game harness parts that will not be used in this conversion. NOTE: You are modifying only the secondary (DC from power supply) and I/O (video, speaker, and controls) section of the wiring. DO NOT MODIFY OR REMOVE THE PRIMARY AC WIRING. The primary AC wiring has been designed and built to comply with UL and FCC regulations and must not be altered.

B. Installation Instructions (cont.)

Remove the game pcbs. Remove all exterior decals and repaint the cabinet if necessary. Repair any cabinet damage at this point. Remove the monitor plex (or glass). If your plex has silkscreened artwork on it, you will need to strip it off, or replace the plex with a piece cut to the same size. Using the Monitor Plex as a template, cut the supplied Underlay Card to the same size as the plex. **NOTE: Be certain that the opening in the Underlay Card lines up with the Monitor CRT.**

Remove the Marquee Plex from the game and use it as a template to cut the new Marquee Plex down to the correct size. Remove the control panel from the game and remove all controls and graphics from it. **NOTE: Save a Player Start button, as one is not supplied in this kit.**

PUTTING IT TOGETHER...

Control Panel: This is never any fun, so lets do it first and get it out of the way. Select a button and joystick layout that fits your control panel size. Refer to figure 1 for the suggested panel layout.

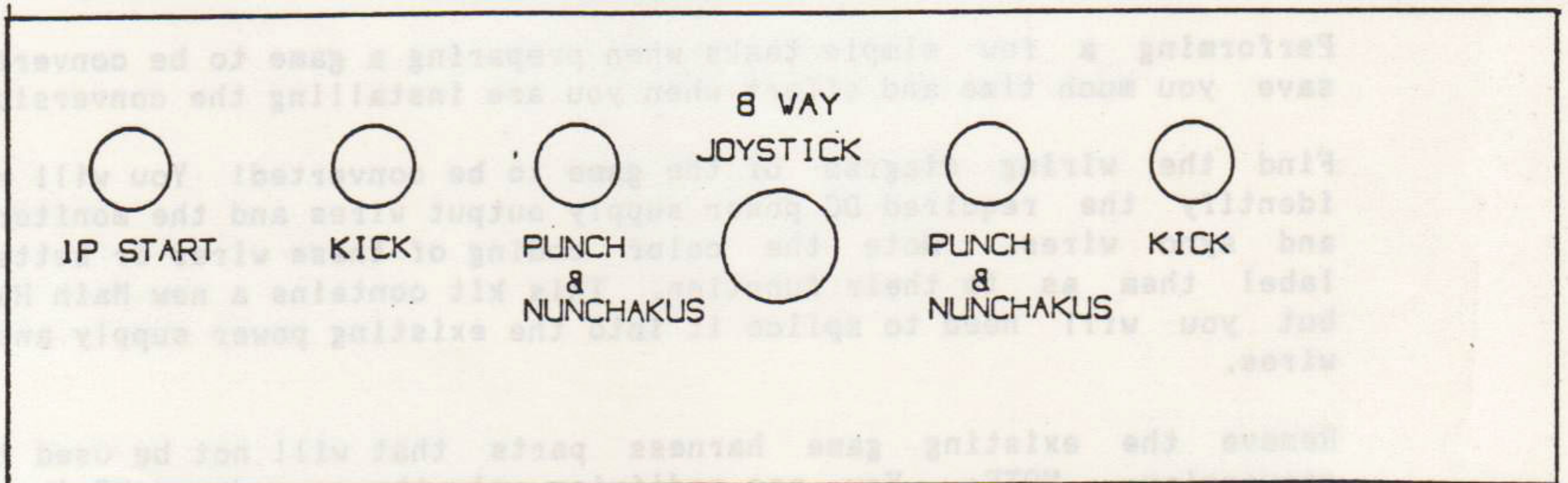


Figure 1

B. Installation Instructions (cont.)

Install the Control Panel Overlay by peeling off the paper backing and carefully laying the overlay down onto the panel. Smooth it out starting in the center and working your way out to the edges, removing all of the trapped air pockets. If possible, cut the edges of the overlay oversize and fold the excess under the panel. Cut out the button and joystick holes. Install the Control Function Labels found on the sheet of labels supplied in your kit. NOTE: Install the Control Function Labels in the formation shown in figure 1.

Cover the Control Panel Overlay and Control Function Labels with a clear plex to protect the overlay and labels. Install the buttons and joystick at this time. NOTE: This conversion kit does not supply the Player Start button. You must use a button removed from the control panel in an earlier step. Mount the completed control panel to the cabinet.

Game PCB: Mount the game PCB set to a convenient wall of the cabinet using the mounting feet and hardware supplied with the pcb.

Power Supply Wiring: Plug the Main Harness edge connector onto the Game PCB's edge connector. Separate the DC Power wires and route them through the cabinet to the Power Supply. Try to keep the length of these wires to a minimum for best results. NOTE: Use a minimum of 2 wires EACH for the +5 Volts and the Ground lines between the power supply and the PCB. Terminate them at the Power Supply as required.

NOTE: IMPROPER WIRING WILL DAMAGE THE PCB SET AND VOID YOUR WARRANTY!

THE DATA EAST MAIN HARNESS HAS LABELS ON THE EDGE CONNECTOR TO ASSIST IN IDENTIFYING EACH TERMINAL'S PIN NUMBER AND FUNCTION.

Player Control Wiring: Route the Pushbutton and Joystick wires up to their proper destinations, cut to length, and terminate as required.

REFER TO THE EDGE CONNECTOR PIN-OUT ON PAGE 9 FOR WIRE COLOR AND FUNCTION INFORMATION.

NOTE: No EMI Filter PCB is required for this conversion kit as suitable filtering is provided on the Main PCB Set.

B. Installation Instructions (cont.)

Monitor Wiring: The game PCB set has outputs for Positive Red, Green, Blue, and Negative Composite Sync. If your monitor has separate Horizontal and Vertical sync inputs, hook the Composite sync to the negative Horizontal input. This method will work on most monitors, however some model Electrohome's require that the Composite sync signal be hooked up to both the negative Horizontal and Vertical inputs. Contact your distributor for more information if you are uncertain as to how to hook up the monitor wires.

Coin Door: The Coin Counter(s) may be the 12 volt or 6 volt type as the game PCB utilizes an open collector drive circuit. Hook one coin counter wire to the required voltage (+12v or +5v) and the other wire to the coin counter signal wire from the game PCB.

Graphics: Install the Game Instruction Labels onto the Underlay Card, either in the lower portion, or on one side of the picture tube cutout. Install the Underlay Card under a clear monitor plex (or glass). Mount the new Marquee Plex, and install the Side Decals. **NOTE: Install the FCC Warning label to the upper rear of the cabinet.**

THE BIG TEST!

REMOVE THE MAIN HARNESS EDGE CONNECTOR FROM THE GAME PCB!

Apply power to the game. Measure the +5 volts at the edge connector and adjust to +5.15 VDC using a Digital Multi-Meter. Measure the +12 and -5 vdc wire to be certain they are connected properly and are on the correct terminals. Remove power to the game.

RE-CONNECT THE MAIN HARNESS EDGE CONNECTOR!

Apply power to the game once again. The attract mode video should appear on the screen. Adjust the picture size and colors on the monitor to get the optimum appearance. Adjust the Sync and Hold controls on the monitor for a stable picture. Coin it up and give it a try! Test all the controls and sound for proper operation.

Congratulations! You have successfully installed your Data East conversion kit! We hope that it gives you many years of successful operation.

2. GAME INFORMATION

A. Game Options.

The game options can be changed via 2 banks of dip-switches on the game PCB set. Be certain to remove power to the game when changing settings.

DIP SWITCH 1:

ITEM	ACTION	1	2	3	4	5	6	7	8
NUMBER OF FIGHTERS	THREE (3):	OFF	OFF						
	TWO (2):	ON	OFF						
	FOUR (4):	OFF	ON						
	FIVE (5):	ON	ON						
DIFFICULTY	NORMAL:						OFF		
	HARD:						ON		
DECREASE OF ENERGY	SLOW:					OFF			
	FAST:					ON			
COIN MODE 2	1 COIN = 1 CREDIT:					OFF	OFF		
	2 COIN = 1 CREDIT:					ON	OFF		
	3 COIN = 1 CREDIT:					OFF	ON		
	5 COIN = 1 CREDIT:					ON	ON		
COIN MODE 1	1 COIN = 2 CREDIT:							OFF	OFF
	1 COIN = 3 CREDIT:							ON	OFF
	1 COIN = 5 CREDIT:							OFF	ON
	1 COIN = 6 CREDIT:							ON	ON
	1 COIN = 1 CREDIT:					OFF	OFF	OFF	OFF
	2 COIN = 1 CREDIT:					ON	OFF	OFF	OFF
	3 COIN = 1 CREDIT:					OFF	ON	OFF	OFF
	4 COIN = 1 CREDIT:					ON	ON	OFF	OFF
	5 COIN = 1 CREDIT:					OFF	OFF	ON	OFF
	6 COIN = 1 CREDIT:					ON	OFF	ON	OFF
	1 COIN = 2 CREDIT:					OFF	ON	ON	OFF
	1 COIN = 3 CREDIT:					ON	ON	ON	OFF
	1 COIN = 4 CREDIT:					OFF	OFF	OFF	ON
	1 COIN = 5 CREDIT:					ON	OFF	OFF	ON
	1 COIN = 6 CREDIT:					OFF	ON	OFF	ON
	2 COIN = 3 CREDIT:					ON	ON	OFF	ON
3 COIN = 2 CREDIT:					OFF	OFF	ON	ON	
5 COIN = 3 CREDIT:					ON	OFF	ON	ON	
8 COIN = 3 CREDIT:					OFF	ON	ON	ON	
	FREE PLAY:					ON	ON	ON	ON

A. Game Options (cont).

DIP SWITCH 2:

ITEM	ACTION	1	2	3	4	5	6	7	8
FLIP PICTURE	NO: YES:	OFF ON							
CABINET TYPE	TABLE: UPRIGHT:		OFF ON						
COIN MODE	MODE 1: MODE 2:			OFF ON					
SOUND IN DEMO MODE	YES: NO:				OFF ON				
BUY-IN MODE	YES: NO:					OFF ON			
DEMO FREEZE MODE 2P=STOP 1P=CONTINUE	NO: YES:						OFF ON		
NO DEATH MODE	NO: YES:							OFF ON	
ALWAYS KEEP SWITCH 8 OFF									OFF

NOTE: For Coin 1 and Coin 2 = same value, use COIN MODE 1. For Coin 1 and Coin 2 = different value, use COIN MODE 2.

B. Power-Up Self Test.

When power is turned on, the following test is conducted automatically:

1. RAM TEST ;tests system RAMs for read and write capability.
2. ROM TEST ;tests system ROMs for valid data.

The RAM test causes various video patterns to appear on the screen for several seconds, and then displays results of RAM and ROM test.

If a RAM fails the test, the screen will display an error message indicating the defective device.

If a ROM fails the test, the screen will display an error message indicating the defective device.

3. TECHNICAL INFORMATION

A. PCB Edge Connector Pin-Out.

The game PCB set uses a 56 pin 'JAMMA' standard Edge Connector pin out as shown below in figure 2.

WIRE COLOR	SOLDER SIDE	PIN #	PIN #	PARTS SIDE	WIRE COLOR
BK	GROUND	A1	B1	GROUND	BK
BK	GROUND	A2	B2	GROUND	BK
RD	+5 VOLTS	A3	B3	+5 VOLTS	RD
RD	+5 VOLTS	A4	B4	+5 VOLTS	RD
BL	-5 VOLTS	A5	B5	-5 VOLTS	BL
OR	+12 VOLTS	A6	B6	+12 VOLTS	OR
	BLOCKING KEY	A7	B7	BLOCKING KEY	
VI	COIN COUNTER 2	A8	B8	COIN COUNTER 1	SL
		A9	B9		
WH/BK	SPEAKER (-)	A10	B10	SPEAKER (+)	BK/WH
		A11	B11		
GN	VIDEO-GREEN	A12	B12	VIDEO-RED	RD
WH	VIDEO-SYNC	A13	B13	VIDEO-BLUE	BL
YL	SERVICE SW.	A14	B14	VIDEO GROUND	BK
BK/YL *	TILT SW. (N/A)	A15	B15	TEST SW.	□ BK/GN
RD	COIN SWITCH 2	A16	B16	COIN SWITCH 1	GM
RD/WH *	2P START	A17	B17	1P START	BN/WH
YL/WH *	2P UP	A18	B18	1P UP	YL
GN/WH *	2P DOWN	A19	B19	1P DOWN	GN
OR/WH *	2P LEFT	A20	B20	1P LEFT	OR
RD/WH *	2P RIGHT	A21	B21	1P RIGHT	RD
BL/WH *	2P KICK SW.	A22	B22	1P KICK SW.	BL
VI/WH *	2P PUNCH SW.	A23	B23	1P PUNCH SW.	VI
PK/WH *		A24	B24	NOT USED	PK
		A25	B25		
		A26	B26		
BK	GROUND	A27	B27	GROUND	BK
BK	GROUND	A28	B28	GROUND	BK

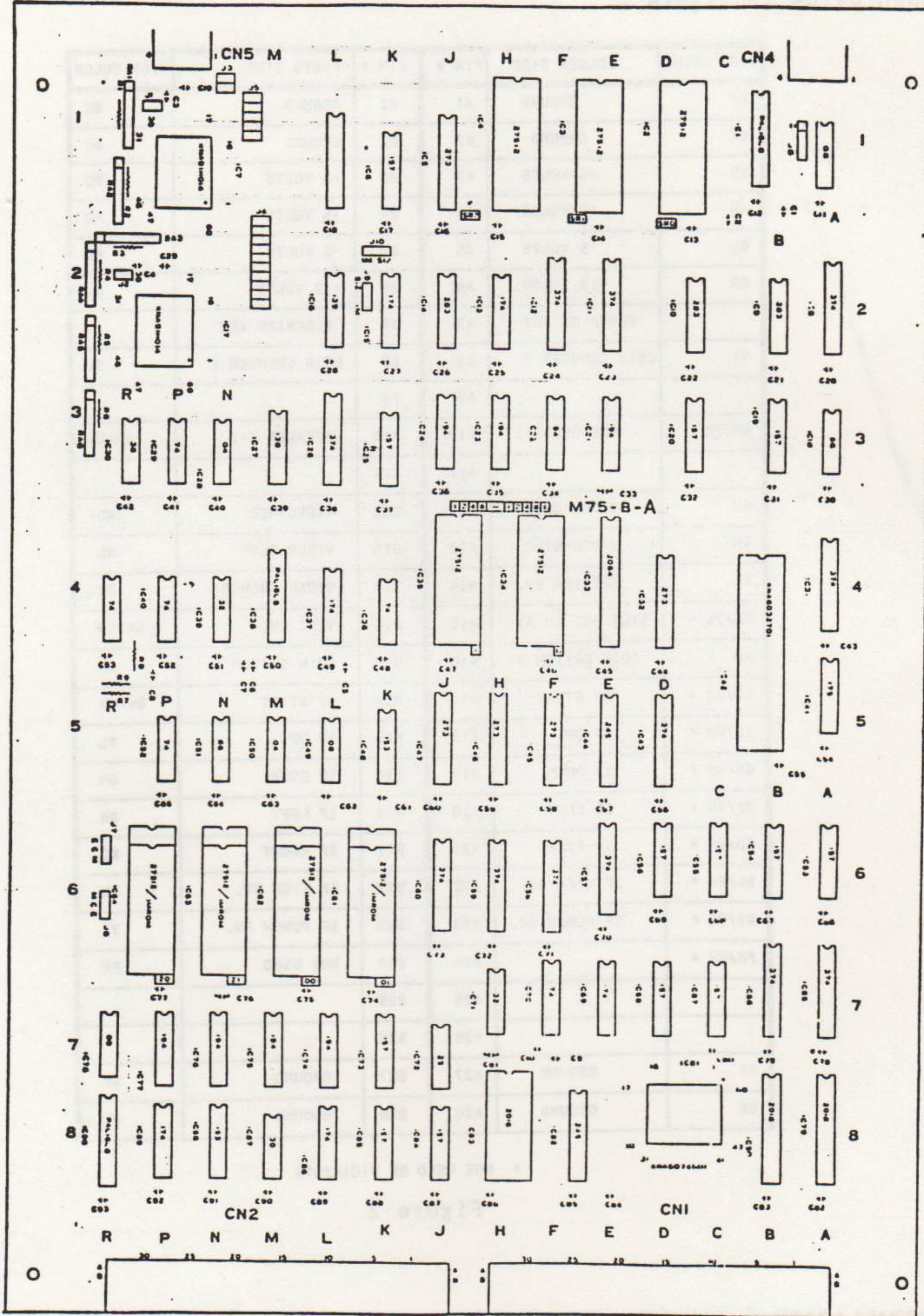
* NOT USED ON VIGILANTE

Figure 2

C. PCB Component Layout.

A. PCB Edge Connector Pin-Out

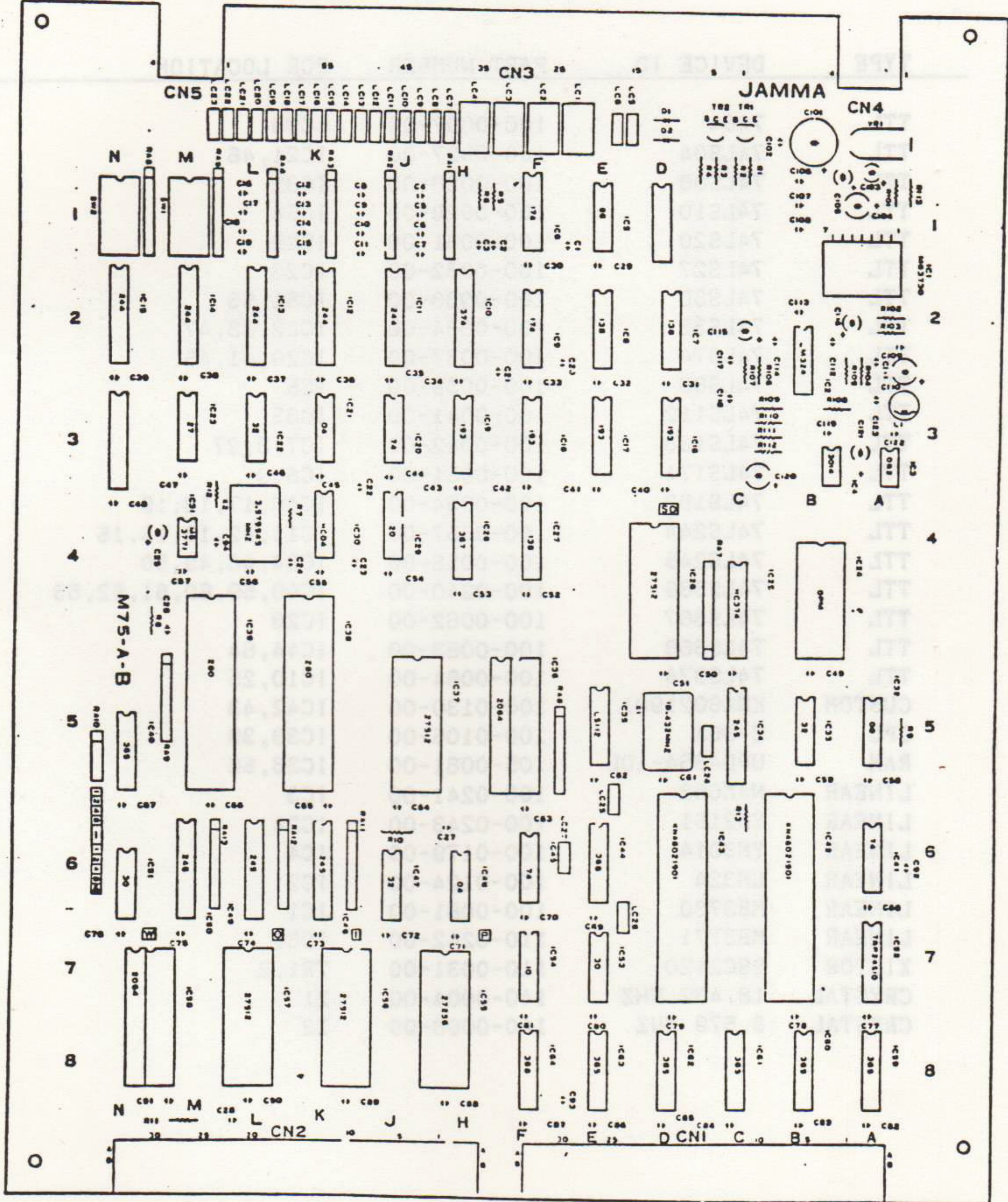
M75-B-A PCB



C. PCB Component Layout (cont).

D. Component List

M75-B-A PCB
 The following section lists the available components along with the Data Book part number and the PCB location where they are used.



D. Component List.

PCB Component Layout (cont.)

The following section lists the available components on the M75-A-B PCB along with the Data East part number and the PCB location(s) where they are used.

TYPE	DEVICE ID	PART NUMBER	PCB LOCATION
TTL	7404	100-0007-00	IC30
TTL	74LS04	100-0027-00	IC21, 46
TTL	74LS08	100-0028-00	IC32
TTL	74LS10	100-0029-00	IC54
TTL	74LS20	100-0031-00	IC29
TTL	74LS27	100-0032-00	IC23
TTL	74LS30	100-0033-00	IC51, 53
TTL	74LS32	100-0034-00	IC22, 33, 47
TTL	74LS74	100-0037-00	IC20, 41, 45
TTL	74LS86	100-0039-00	IC5
TTL	74LS112	100-0041-00	IC35
TTL	74LS138	100-0042-00	IC7, 8, 27
TTL	74LS174	100-0051-00	IC6, 9
TTL	74LS193	100-0054-00	IC16, 17, 18, 19
TTL	74LS244	100-0057-00	IC11, 12, 13, 14, 15
TTL	74LS245	100-0058-00	IC34, 48, 49, 50
TTL	74LS365	100-0240-00	IC40, 59, 60, 61, 62, 63
TTL	74LS367	100-0062-00	IC28
TTL	74LS368	100-0063-00	IC44, 64
TTL	74LS374	100-0064-00	IC10, 25
CUSTOM	KNA6021901	100-0130-00	IC42, 43
CPU	Z-80A	100-0105-00	IC38, 39
RAM	UPD4364-10L	105-0081-00	IC36, 58
LINEAR	NJM062	100-0241-00	IC3
LINEAR	YM2151	100-0243-00	IC24
LINEAR	YM3014	100-0179-00	IC4
LINEAR	LM324	100-0124-00	IC2
LINEAR	MB3730	100-0081-00	IC1
LINEAR	MB3771	110-0242-00	IC31
XISTOR	2SC2120	110-0031-00	TR1, 2
CRYSTAL	18.432 MHZ	140-0004-00	X1
CRYSTAL	3.579 MHZ	140-0008-00	X2

D. Component List (cont).

The following section lists the available components on the M75-B-A PCB along with the Data East part number and the location(s) where they are used.

TYPE	DEVICE ID	PART NUMBER	PCB LOCATION
TTL	74LS00	100-0025-00	IC78
TTL	74LS04	100-0027-00	IC28, 50
TTL	74LS08	100-0028-00	IC49, 1A
TTL	7425	100-0214-00	IC72
TTL	74LS30	100-0033-00	IC87
TTL	74LS32	100-0034-00	IC39, 71
TTL	74LS38	100-0239-00	IC30
TTL	74LS74	100-0037-00	IC29, 36, 40, 52, 4R
TTL	74LS86	100-0039-00	IC18, 51
TTL	74LS138	100-0042-00	IC27,
TTL	74LS139	100-0043-00	IC16
TTL	74LS153	100-0045-00	IC48, 88
TTL	74LS157	100-0046-00	13 USED, SEE PARTS LAYOUT
TTL	74LS174	100-0051-00	IC13, 15, 37, 69, 70, 86, 89
TTL	74LS175	100-0052-00	IC41
TTL	74LS194	100-0055-00	IC21, 22, 23, 24, 74, 75, 76, 77
TTL	74LS245	100-0058-00	IC44, 82
TTL	74LS273	100-0060-00	IC5, 32, 45, 46, 47
TTL	74LS283	100-0061-00	IC9, 10, 14
TTL	74LS374	100-0064-00	12 USED, SEE PARTS LAYOUT
CUSTOM	KNA91H014	100-0244-00	IC7, 17
CUSTOM	KNA6032701	100-0133-00	IC42
CUSTOM	KNA6074601	100-0112-00	IC81
RAM	UPD4364-10L	105-0081-00	IC33
RAM	TMM2018-45	105-0035-00	IC79, 80
RAM	TMM2016-10L	105-0053-00	IC83

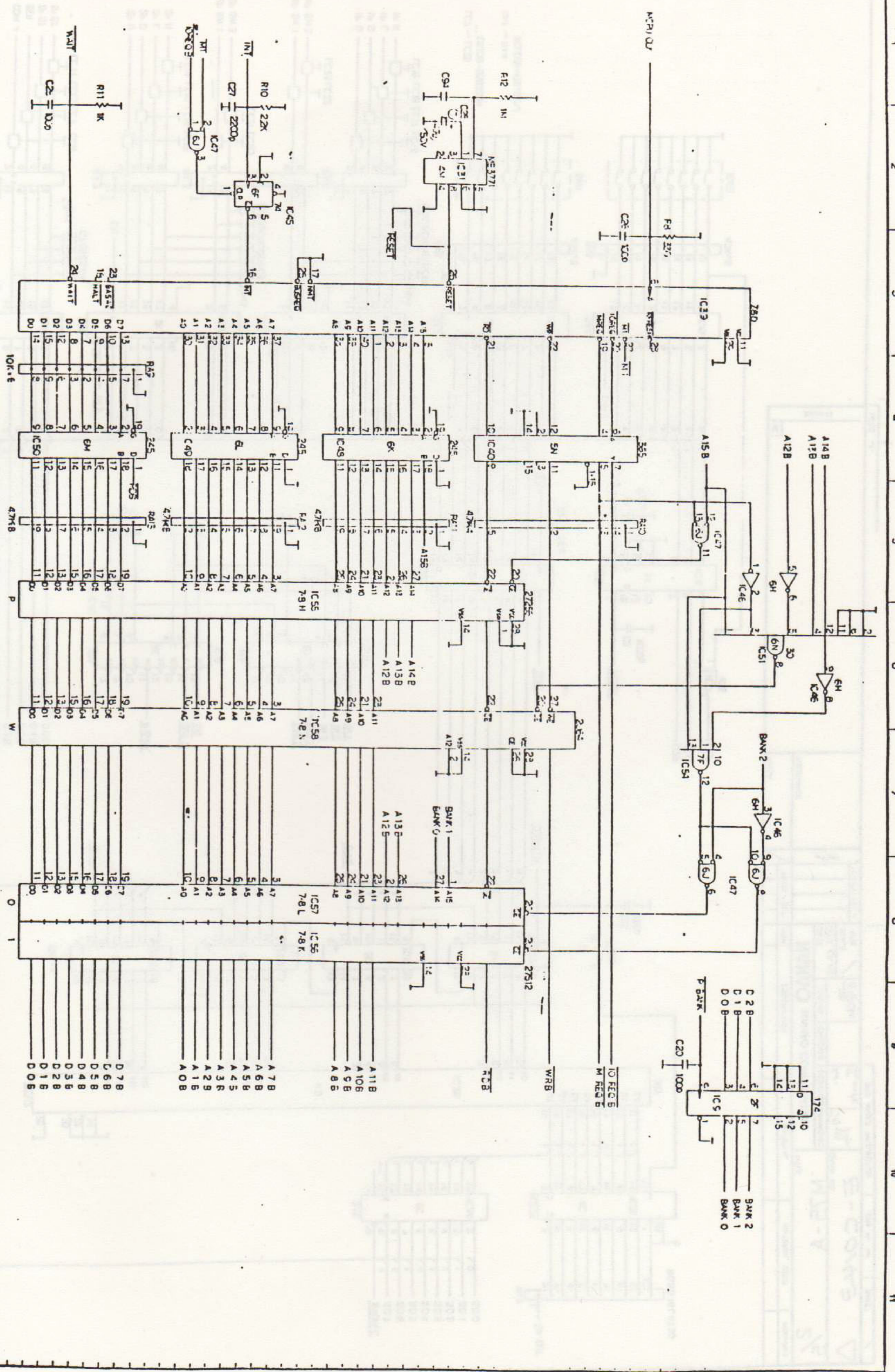
E. Schematic Diagrams.

D. Component List (cont.)

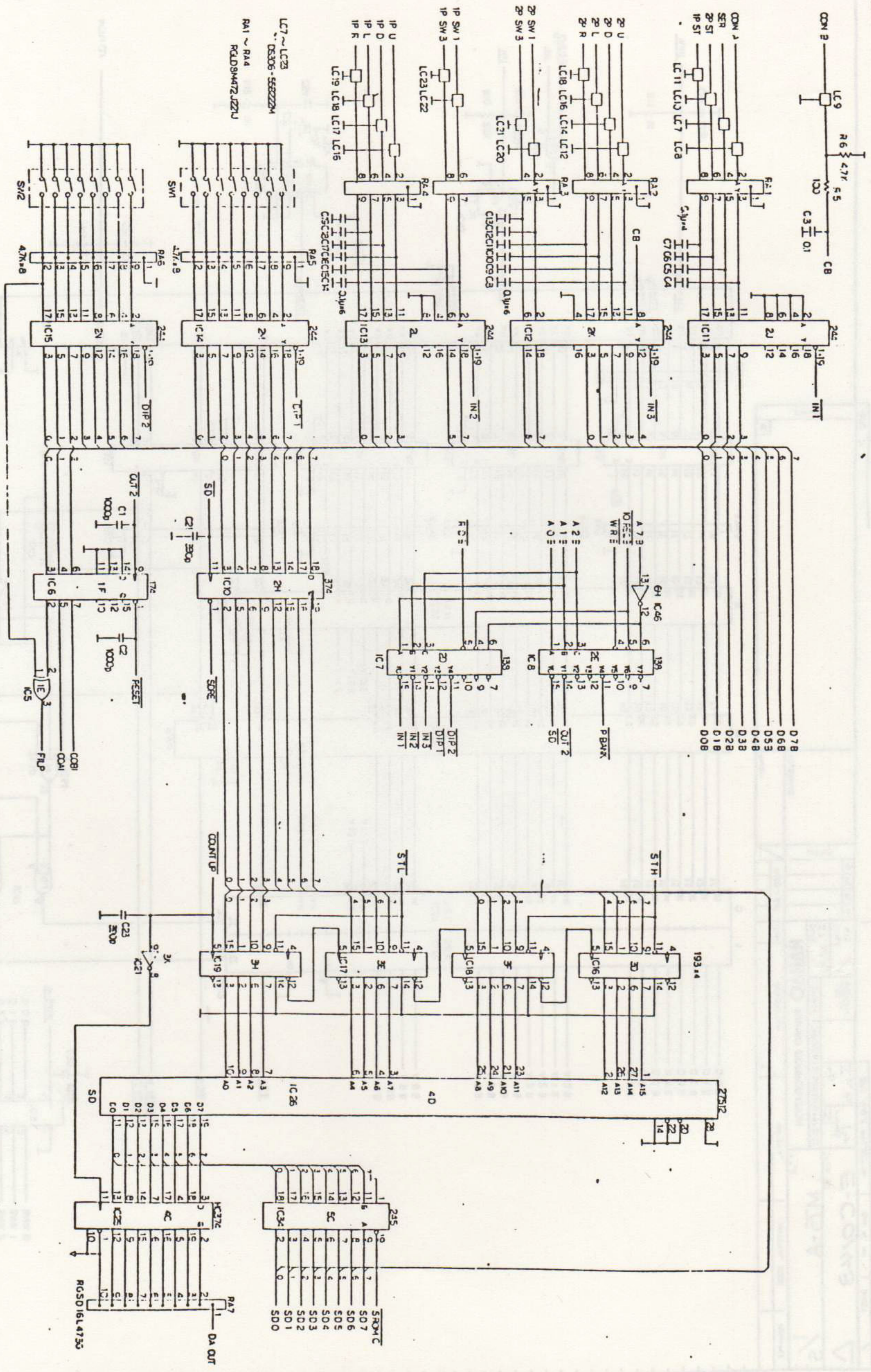
The following section lists the available components on the M75-B-A PCB along with the Data Book part number and the location(s) where they are used.

M75-A-B PCB: PAGES 1/5 THRU 5/5

PCB LOCATION	PART NUMBER	DEVICE ID	TYPE
M75-B-A PCB: PAGES 1/7 THRU 7/7			
1A, 2A, 3A, 4A, 5A, 6A, 7A, 8A, 9A, 10A, 11A, 12A, 13A, 14A, 15A, 16A, 17A, 18A, 19A, 20A, 21A, 22A, 23A, 24A, 25A, 26A, 27A, 28A, 29A, 30A, 31A, 32A, 33A, 34A, 35A, 36A, 37A, 38A, 39A, 40A, 41A, 42A, 43A, 44A, 45A, 46A, 47A, 48A, 49A, 50A, 51A, 52A, 53A, 54A, 55A, 56A, 57A, 58A, 59A, 60A, 61A, 62A, 63A, 64A, 65A, 66A, 67A, 68A, 69A, 70A, 71A, 72A, 73A, 74A, 75A, 76A, 77A, 78A, 79A, 80A, 81A, 82A, 83A, 84A, 85A, 86A, 87A, 88A, 89A, 90A, 91A, 92A, 93A, 94A, 95A, 96A, 97A, 98A, 99A, 100A	100-0025-00	7ALS00	TTL
	100-0027-00	7ALS04	TTL
	100-0028-00	7ALS08	TTL
	100-0214-00	7A25	TTL
	100-0038-00	7ALS10	TTL
	100-0034-00	7ALS22	TTL
	100-0038-00	7ALS28	TTL
	100-0037-00	7ALS7A	TTL
	100-0038-00	7ALS8B	TTL
	100-0042-00	7ALS13B	TTL
	100-0043-00	7ALS13B	TTL
	100-0045-00	7ALS18B	TTL
	100-0048-00	7ALS17	TTL
	100-0051-00	7ALS17A	TTL
	100-0052-00	7ALS17B	TTL
	100-0053-00	7ALS17A	TTL
	100-0058-00	7ALS20	TTL
	100-0060-00	7ALS27B	TTL
	100-0061-00	7ALS28B	TTL
	100-0064-00	7ALS27A	TTL
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	100-0138-00	KNR002701	CUSTOM
	100-0112-00	KNR0074801	CUSTOM
	100-0061-00	DRD-364-101	RAM
	100-0058-00	THN018-45	RAM
	100-0058-00	THN018-101	RAM



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				MATERIAL CODE		REMARKS			

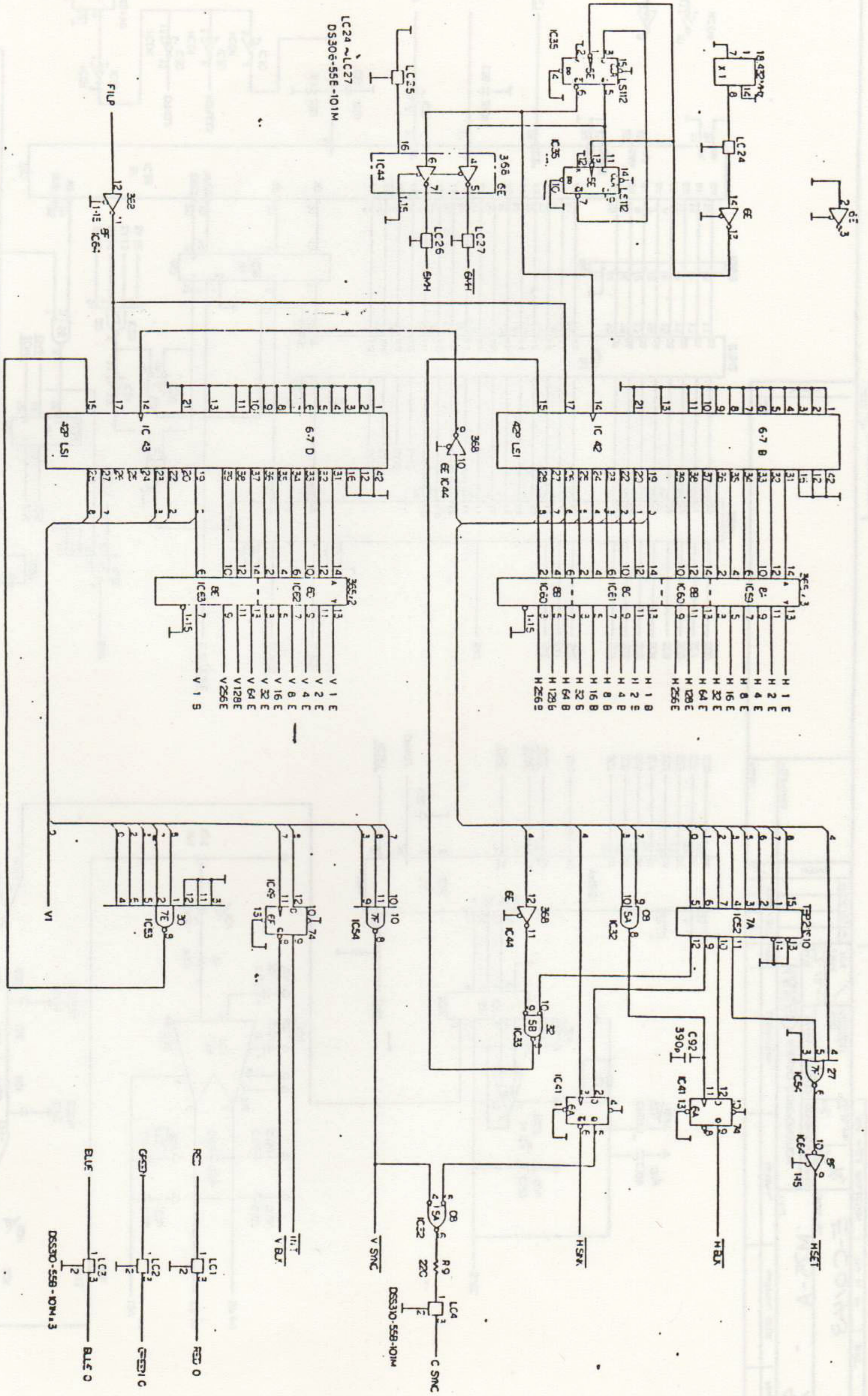


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SCALE	1/16	1	DESCRIPTION	MATERIAL	TITLE	REVISIONS
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DATE	SCALE	REVISION	DESCRIPTION	MATERIAL	TITLE	REVISIONS
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DATE	SCALE	REVISION	DESCRIPTION	MATERIAL	TITLE	REVISIONS
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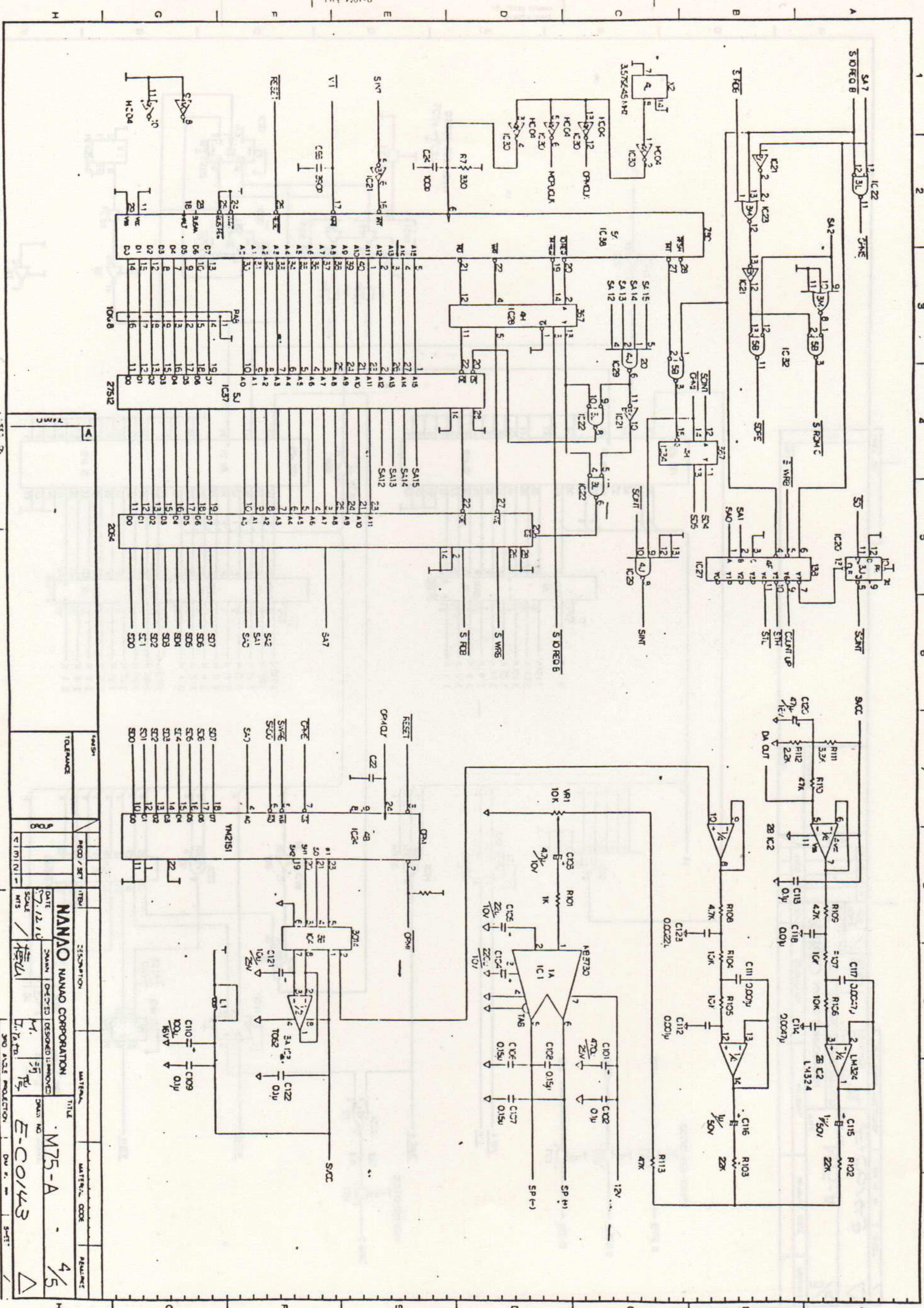
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A		57.12.10		M. Iwano		T. Iwano		E. COI43	
NANAO CORPORATION		DESCRIPTION		TITLE		MATERIAL CODE		REMARKS	
NANAO CORPORATION		M75-A		M75-A		M75-A		3/5	
SPEC. MADE PRODUCTION		DWG. NO.		DWG. NO.		DWG. NO.		SHEET	
SPEC. MADE PRODUCTION		DWG. NO.		DWG. NO.		DWG. NO.		SHEET	

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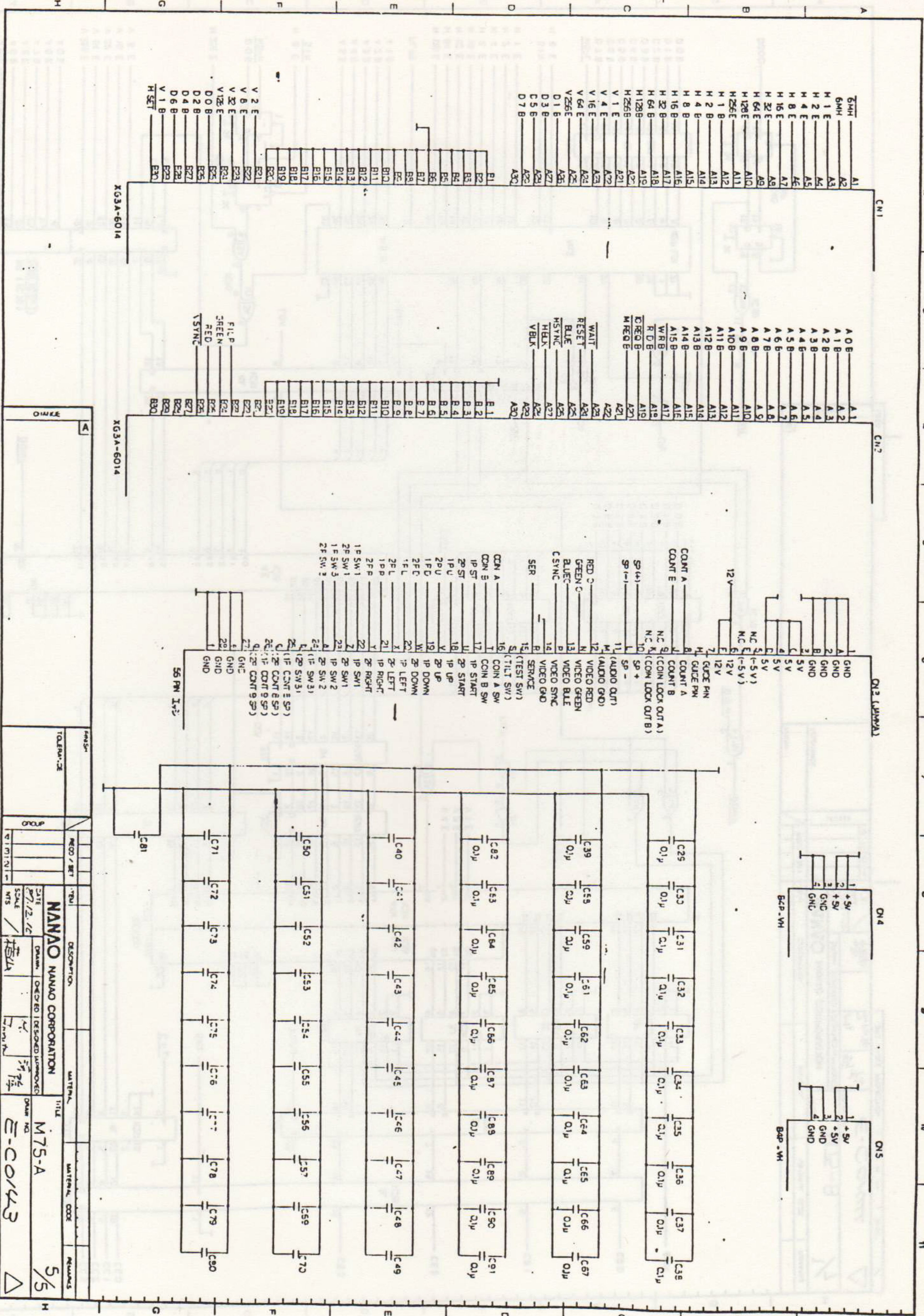
SCALE

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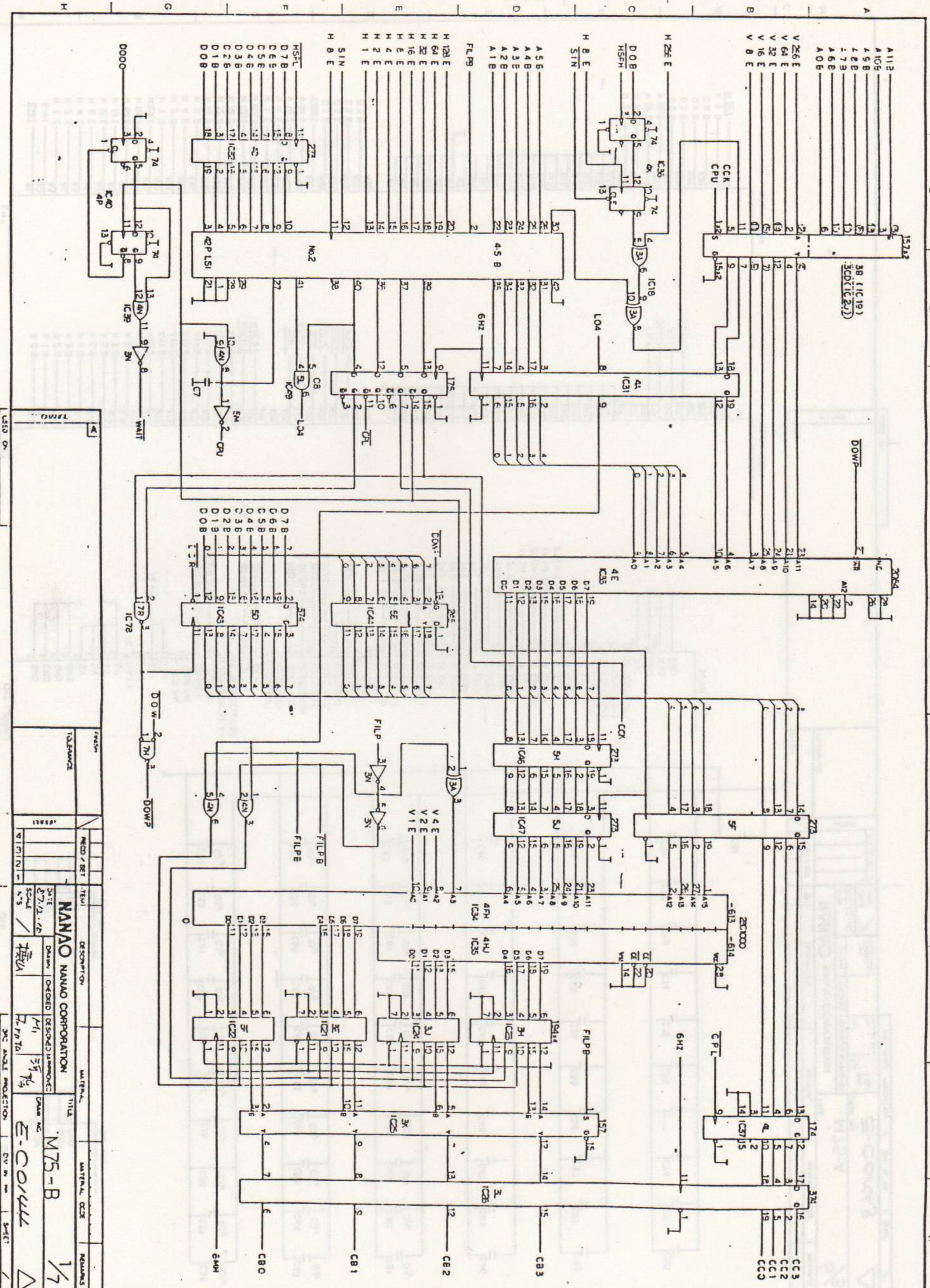
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DRN NO	DRN NO	SCALE	1:1
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SECTION		TITLE	
M75-A		MATERIAL CODE	
E-CO143		REVISION	
3RD ANGLE PROJECTION		DWG NO. 5-11	



DATE	SCALE	DESIGNER	CHECKED	DATE	DRW. NO.	TITLE	MATERIAL CODE	REVISIONS
27/12/16	1/16	HEBA	HEBA	27/12/16	M75-A	M75-A	E-CO143	5/5
NANO NANO CORPORATION			2ND ANGLE PROJECTION			SHEET		

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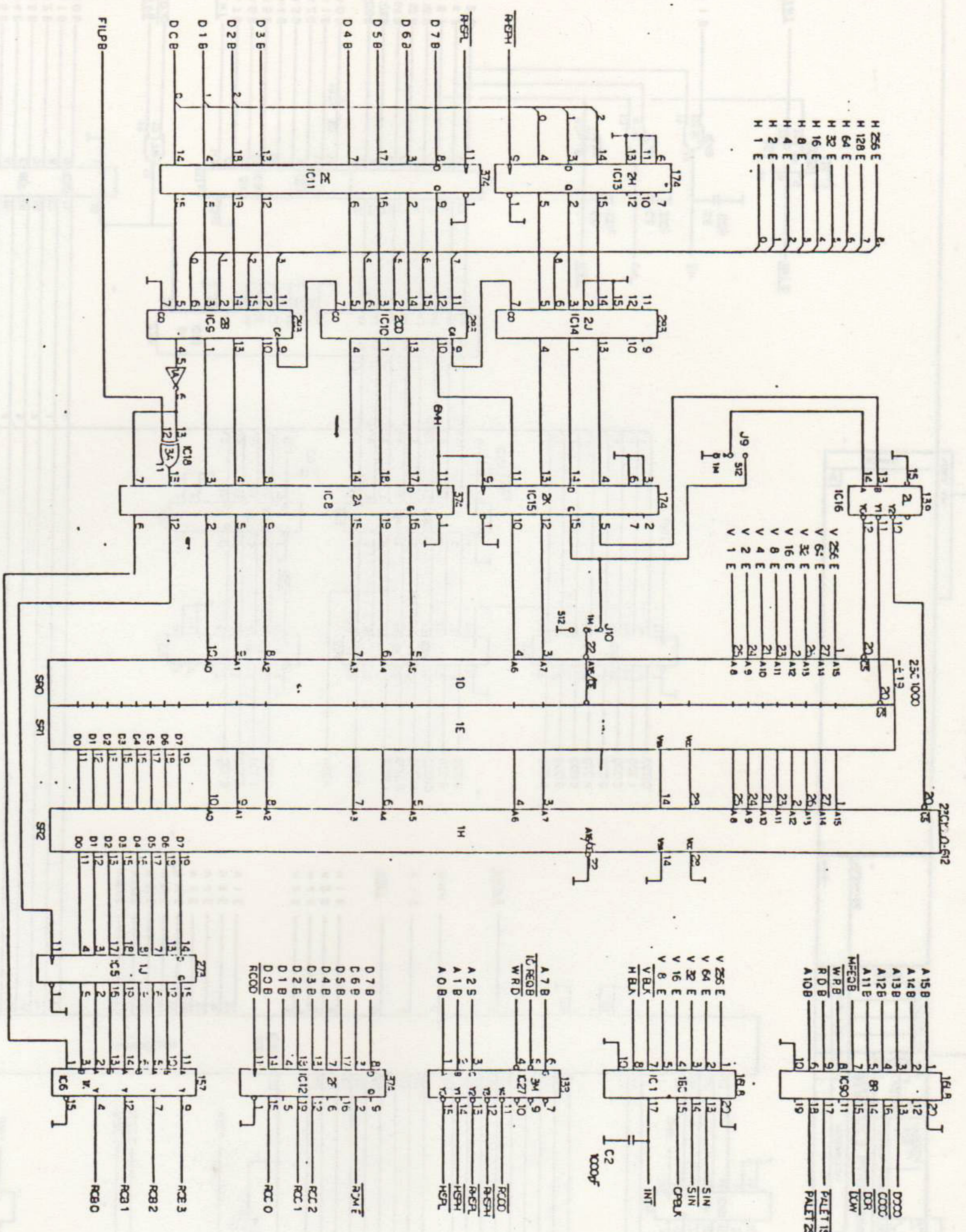
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TOLERANCE		MATERIAL		DATE		DRAWN		CHECKED		DESIGNED		MATERIAL		TITLE		REMARKS	
KANAO NANAO CORPORATION																	
DATE: 27/12/72																	
DRAWN: M11																	
CHECKED: M11																	
DESIGNED: M11																	
MATERIAL: M75-B																	
TITLE: 1/7																	
REMARKS:																	

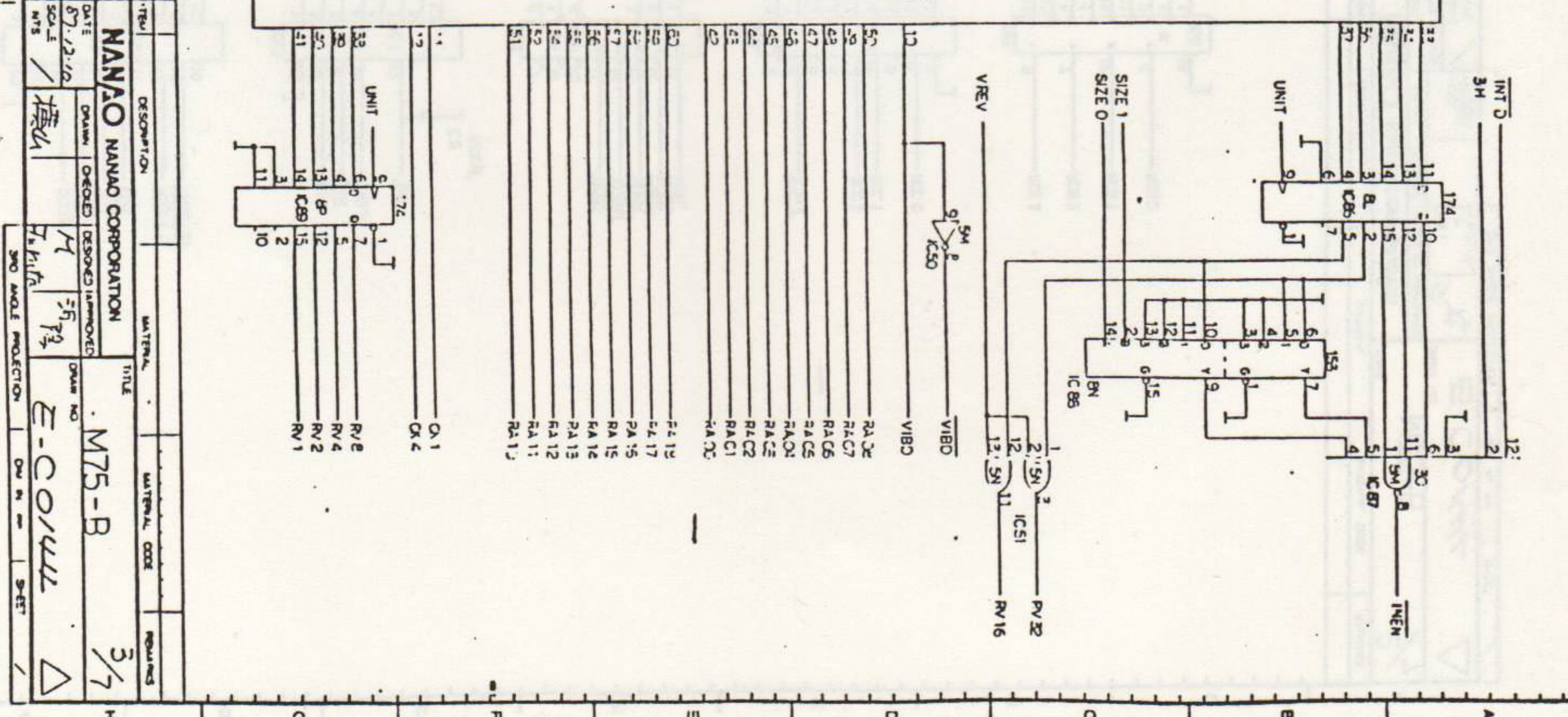
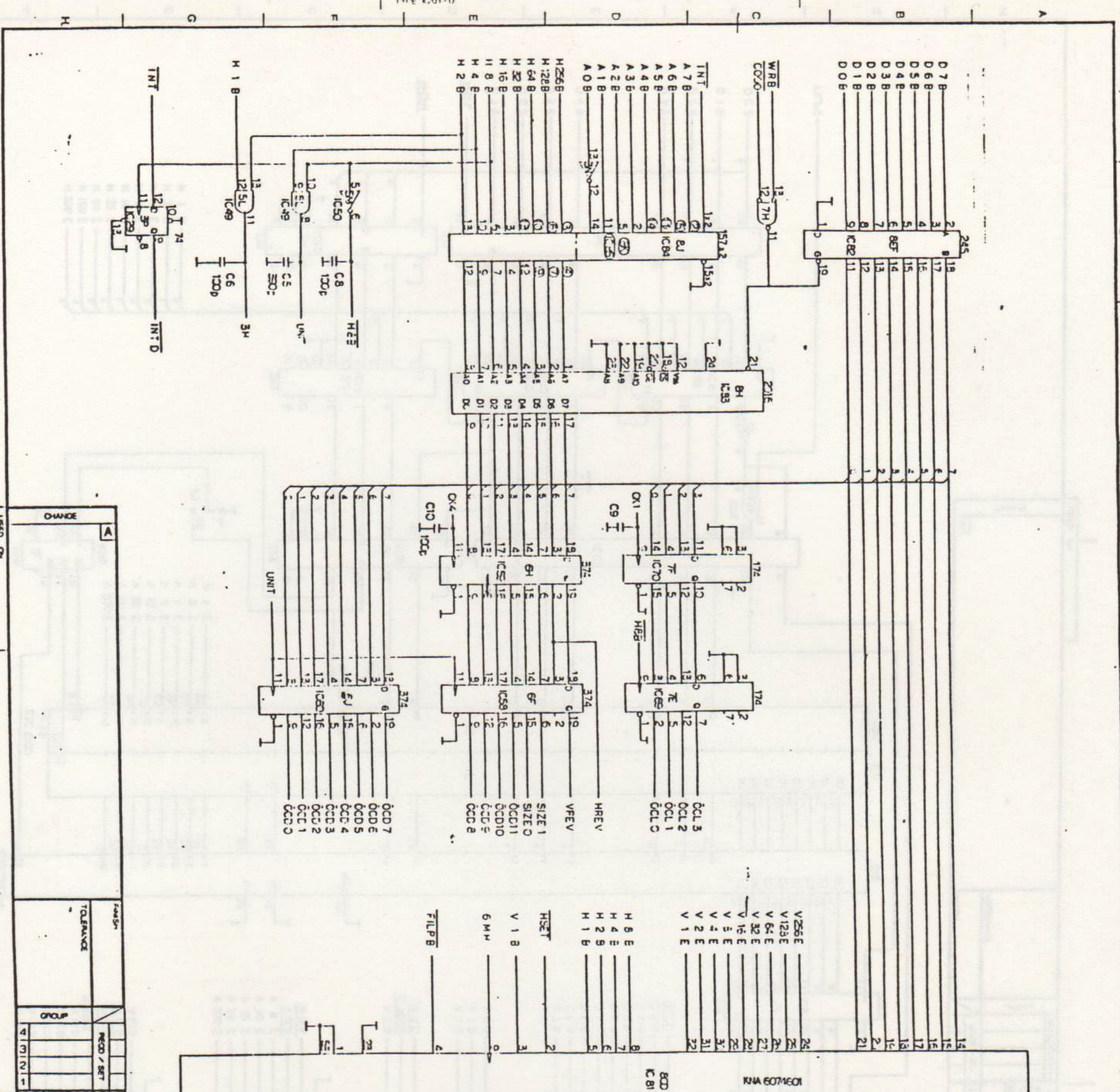
DATE: 27/12/72
DRAWN: M11
CHECKED: M11
DESIGNED: M11
MATERIAL: M75-B
TITLE: 1/7
REMARKS:

MATERIAL CODE: E-CORVLL
DRAWN: M11
CHECKED: M11
DESIGNED: M11
DATE: 27/12/72



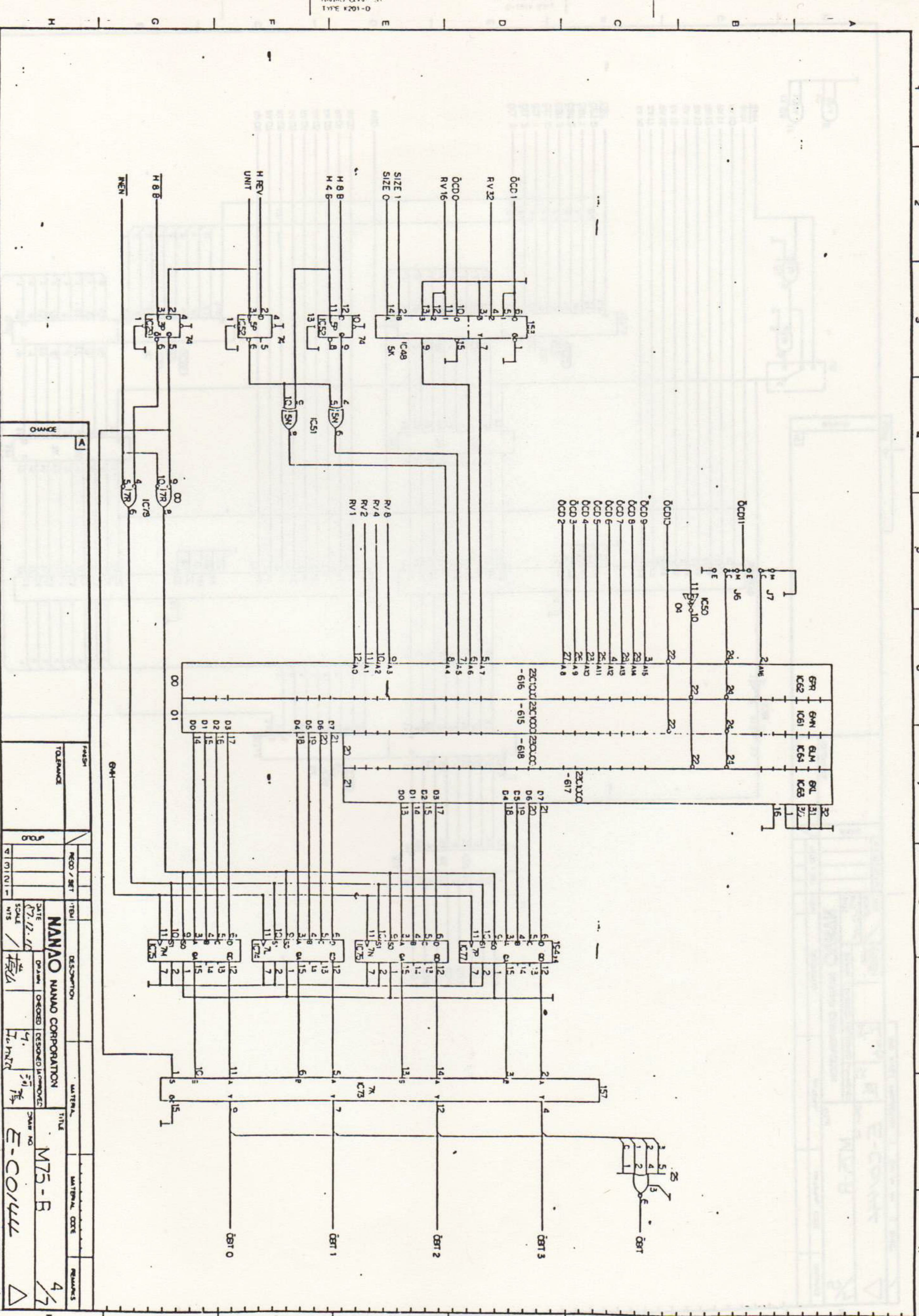
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17.12.10		M. Saito		S. Ito		S. Ito		S. Ito		17.12.10	
SCALE		TITLE		PART NO.		DATE		DRAWN		DATE	
1:1		M75-B		M75-B		17.12.10		S. Ito		17.12.10	
USED ON		DRAWN		CHECKED		DESIGNED		APPROVED		DATE	
M75-B		M. Saito		S. Ito		S. Ito		S. Ito		17.12.10	

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 E-CO144
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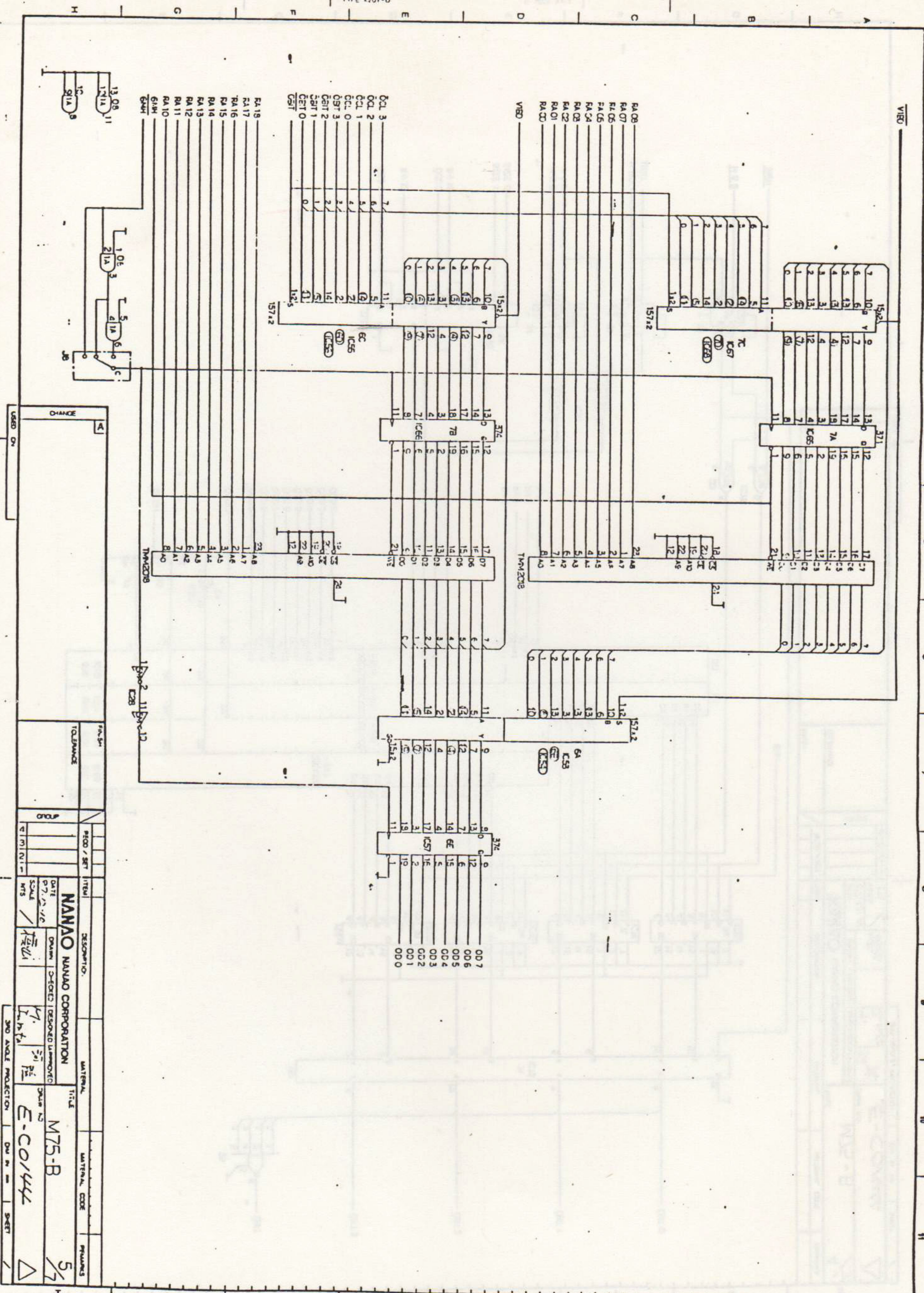


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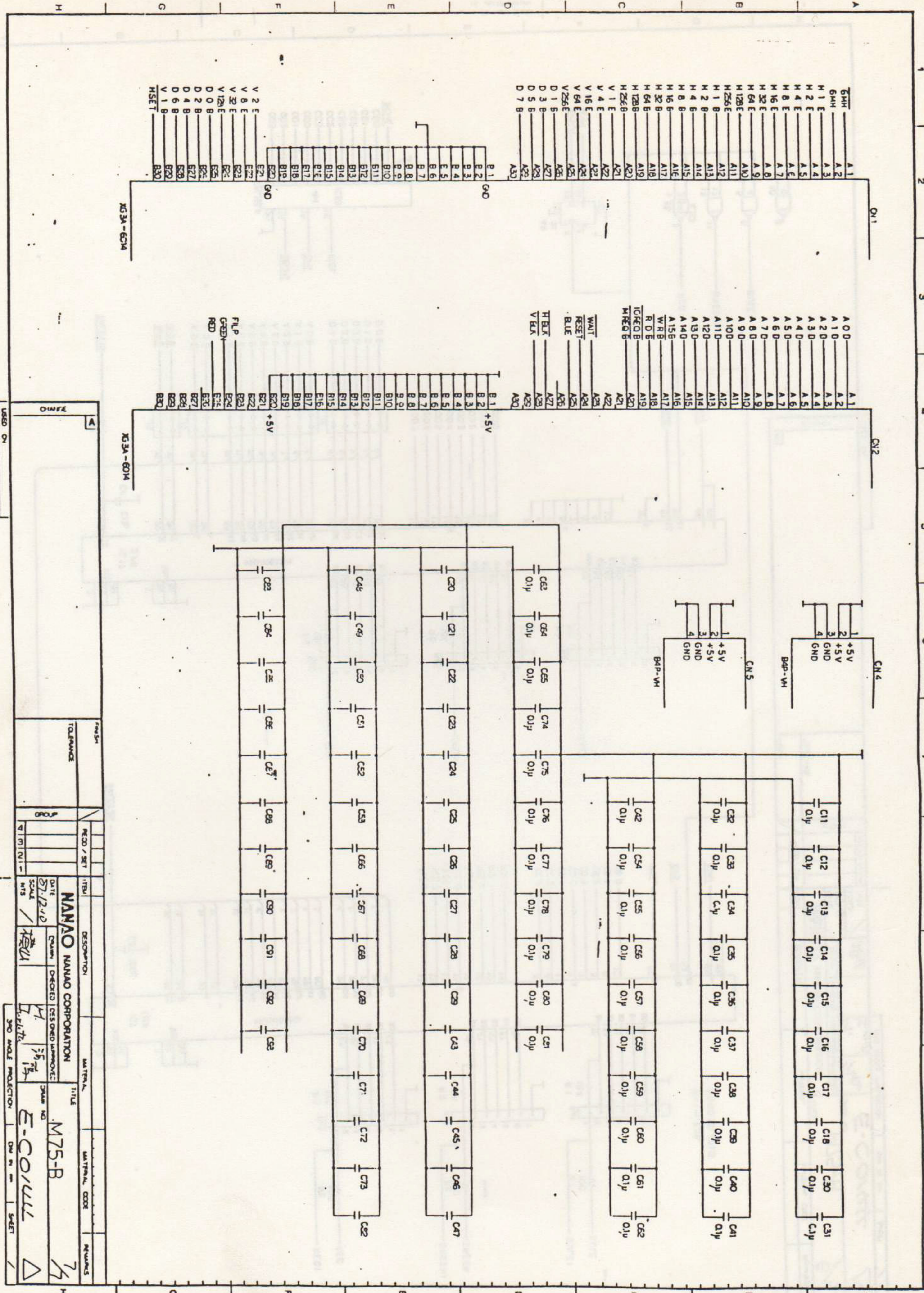
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REVISION	DATE	DESCRIPTION	TITLE
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DATE 07/11/60	DRAWN J. H. ...	CHECKED J. H. ...	DESIGNED J. H. ...	MANUFACTURED J. H. ...			E-CO1144		5/7
SCALE 1" = 1"							3RD ANGLE PROJECTION		5/7



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E-COIL		E-COIL		E-COIL		E-COIL	
MATERIAL		MATERIAL CODE		MATERIAL		MATERIAL	
M75-B		M75-B		M75-B		M75-B	
E-COIL		E-COIL		E-COIL		E-COIL	

