



# AIR TRAINING COMMAND

COMPUTER SYSTEMS DEPARTMENT

## CIRCUITS AND DIAGRAMS

AN/FSQ-7 DISPLAY SYSTEM SCHEMATICS

VOLUME I

5 JANUARY 1965

Course Nr. ABR30533-1

**KEESLER AFB, MISS**



This Schematics and Logic Diagrams Book provides  
student study material in support of Type II and  
Type III computer maintenance courses relating to  
WS416L.

SCHEMATICS

FOR

DISPLAY SYSTEM

OF

AN/FSQ-7

COMBAT DIRECTION CENTRAL

VOLUME I

The work reported in this document was performed under a government contract; information contained herein is of a proprietary nature. ALL INFORMATION CONTAINED HEREIN SHALL BE KEPT IN CONFIDENCE. No information shall be divulged to persons other than IBM employees authorized by the nature of their duties to receive such information or individuals or organizations who are authorized in writing by the Department of Engineering or its appointee to receive such information. GOVERNMENT RELEASE MUST BE OBTAINED THROUGH THE IBM PATENT DEPARTMENT BEFORE THIS INFORMATION MAY BE USED FOR COMMERCIAL APPLICATIONS.

This student study material has been  
reproduced intact from materials printed  
by IBM Corporation, Kingston, New York.

MILITARY PRODUCTS DIVISION

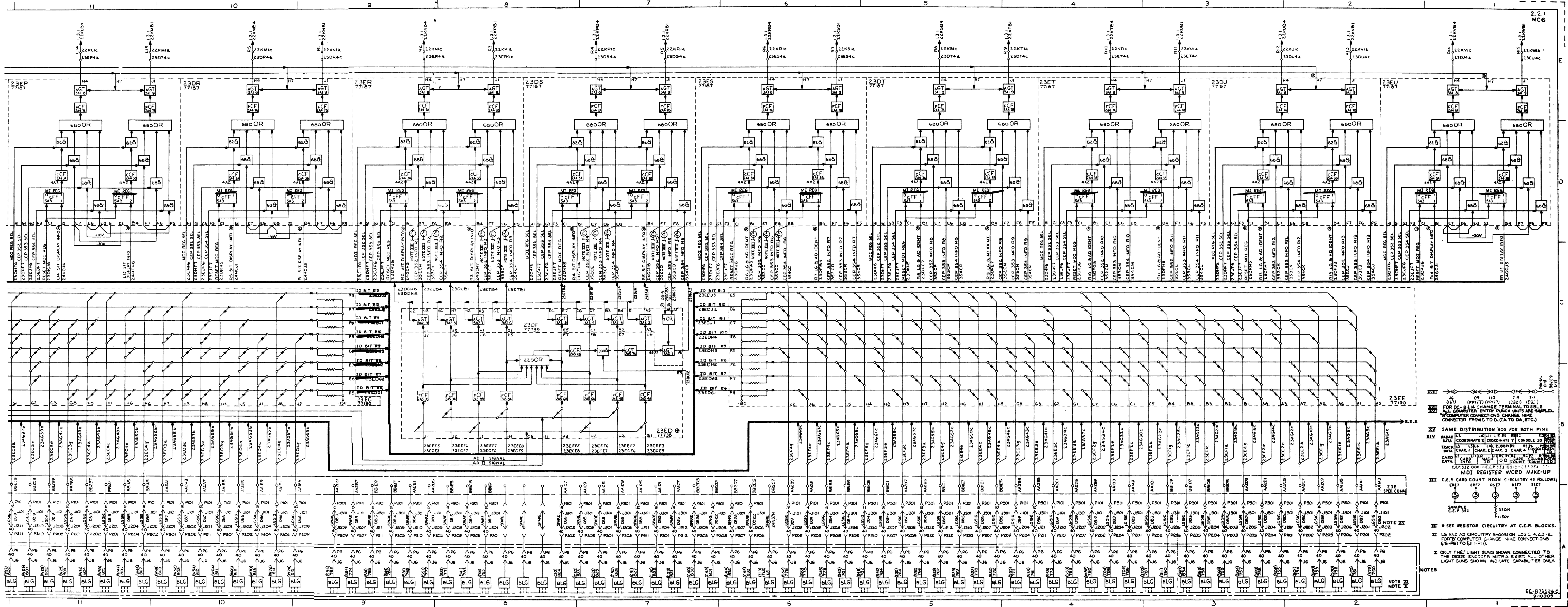
INTERNATIONAL BUSINESS MACHINES CORPORATION

KINGSTON, NEW YORK

LOGIC	DESCRIPTION
2. 2. 1	MDI DRUM ENTRY SECTION
2. 2. 2	MDI DIRECT ENTRY SECTION CORE MATRIX
2. 2. 2- 2	MDI DIRECT ENTRY SECTION CORE MATRIX
2. 2. 2- 3	MDI DIRECT INTERCONNECTION PANELS D&H
2. 2. 2- 4	MDI DIRECT INTERCONNECTION PANELS C&G
2. 2. 2- 5	MDI DIRECT INTERCONNECTION PANELS B&F
2. 2. 2- 6	MDI DIRECT INTERCONNECTION PANELS A&E
4. 0. 5	UNIT SUPPLEMENT CHART UNIT 24 MODULE J & K
4. 1. 1	SD INPUT SWITCHES, GATES AND TRANSFERS INP. SW. GTS AND XFER
4. 1. 1- 2	SD INPUT SWITCHES, GATES AND TRANSFERS XFER CKTS
4. 1. 2	SD WORD 0 STORAGE
4. 1. 3	SD WORD 5 STORAGE
4. 1. 4	SD WORD 6 STORAGE
4. 1. 5	SD WORD 7 STORAGE
4. 1. 6	SD WORD 1 STORAGE X, Y REG.
4. 1. 7	SD WORD 2-DAB STORAGE
4. 1. 8	SD WORD 3-DAB STORAGE
4. 1. 9	SD WORD 4-DAB STORAGE
4. 1.10	SD CHARACTER SELECTION X SEL REG
4. 1.10- 2	SD CHARACTER SELECTION Y SEL REG
4. 1.10- 3	SD CHARACTER SELECTION X & Y SEL. DEC. & ALD
4. 1.11	SD CHARACTER POSITIONING
4. 1.12	VECTOR GENERATION VECT. REG.
4. 1.12- 2	VECTOR GENERATION VECT. GEN. & VECT..INT. GEN.
4. 1.13	CATEGORY DRIVERS
4. 1.14	DAB DRIVERS
4. 1.15	SUPPLEMENTARY DRIVERS
4. 1.16	X & Y DRIVERS
4. 1.17	TEST MIXING DRIVERS
4. 1.18	RADAR & MIXED RADAR CATEGORY DRIVERS
4. 1.19	FEATURES A, B, C, D, PT., & SYMBOL SEQUENCER
4. 1.20	SD DISTRIBUTOR AND TIMER
4. 1.21	MISC. CONTROLS
4. 1.22	DAB DUMMY LOADS
4. 1.23	DD & MISC. DUMMY LOADS MISC. DUMMY LOADS



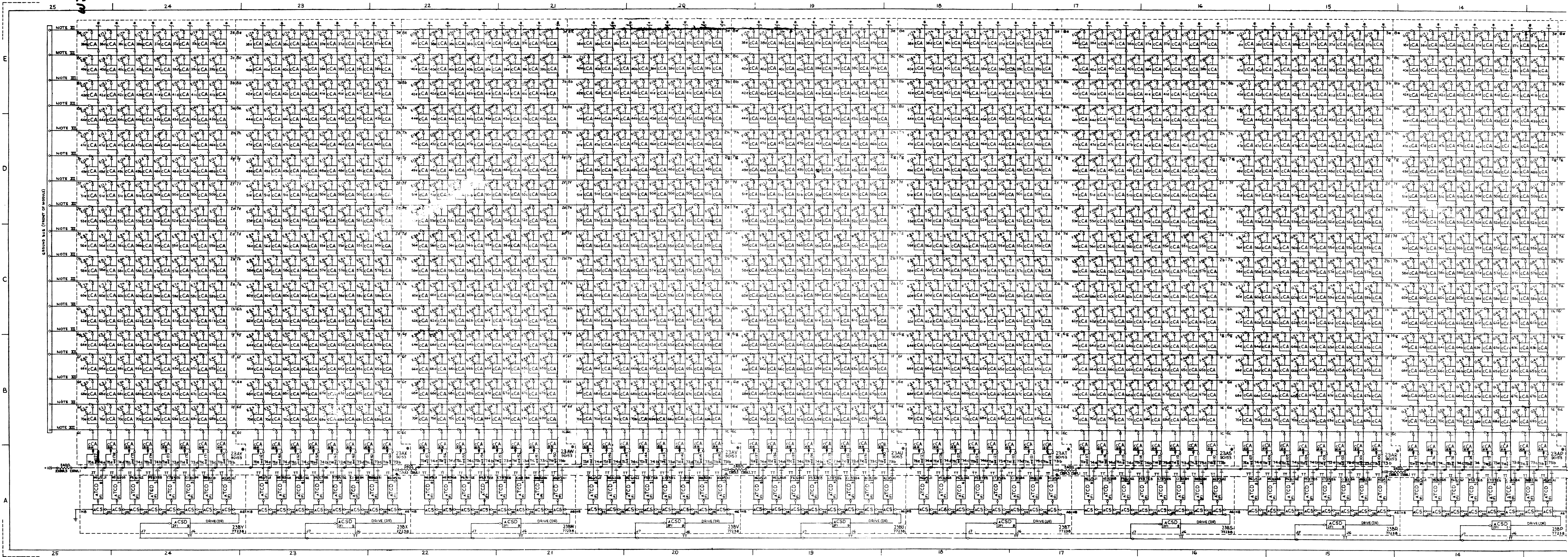




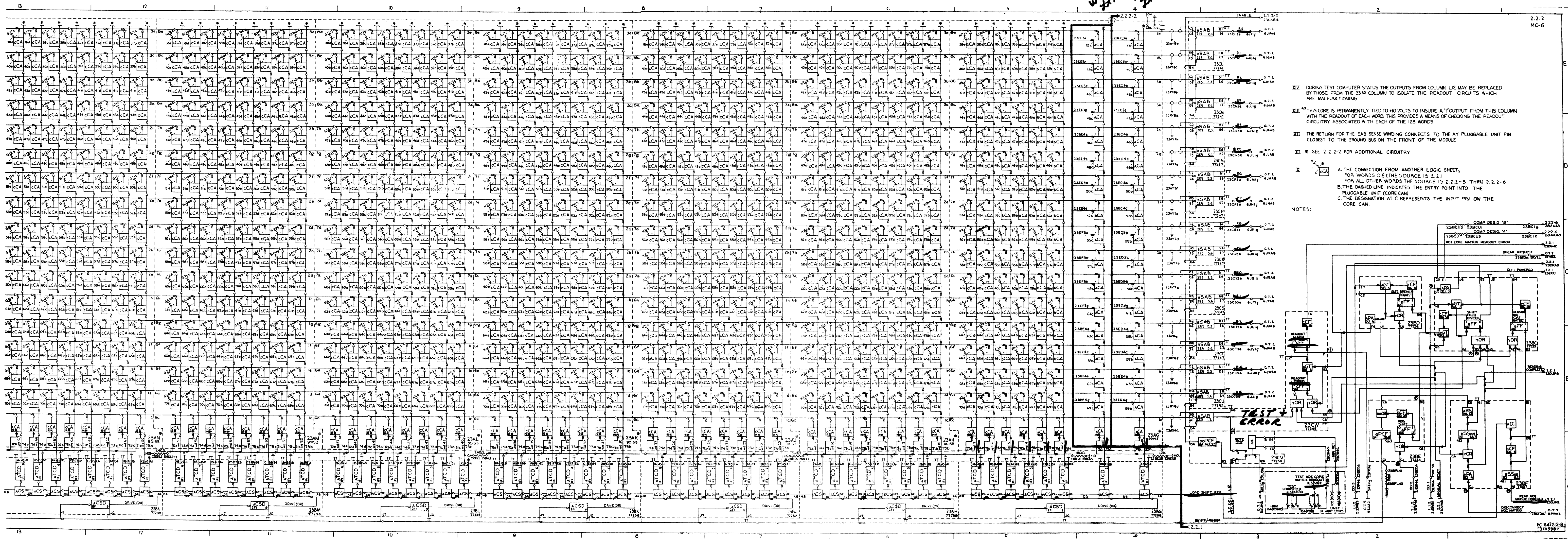
MDI DRUM ENTRY SECTION



177C2





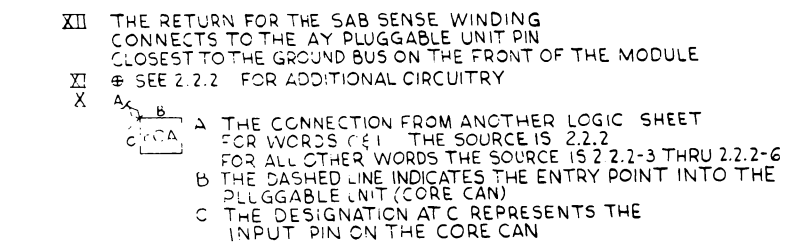


- XIV DURING TEST COMPUTER STATUS THE OUTPUTS FROM COLUMN 1/2 MAY BE REPLACED BY THOSE FROM THE 33RD COLUMN TO ISOLATE THE READOUT CIRCUITS WHICH ARE MALFUNCTIONING
- XIII THIS CORE IS PERMANENTLY TIED TO +10 VOLTS TO INSURE A "1" OUTPUT FROM THIS COLUMN WITH THE READOUT OF EACH WORD. THIS PROVIDES A MEANS OF CHECKING THE READOUT CIRCUITRY ASSOCIATED WITH EACH OF THE 128 WORDS
- XII THE RETURN FOR THE SAB SENSE WINDING CONNECTS TO THE AY PLUGGABLE UNIT PIN CLOSEST TO THE GROUND BUS ON THE FRONT OF THE MODULE
- XI \* SEE 2.2.2-2 FOR ADDITIONAL CIRCUITRY
- X A. THE CONNECTION FROM ANOTHER LOGIC SHEET, FOR WORDS 0-1 THE SOURCE IS 2.2.1. FOR ALL OTHER WORDS THE SOURCE IS 2.2.2-3. THRU 2.2.2-6  
B. THE DASHED LINE INDICATES THE ENTRY POINT INTO THE PLUGGABLE UNIT (CORE CAN)  
C. THE DESIGNATION AT C REPRESENTS THE INPUT ON THE CORE CAN.
- NOTES:





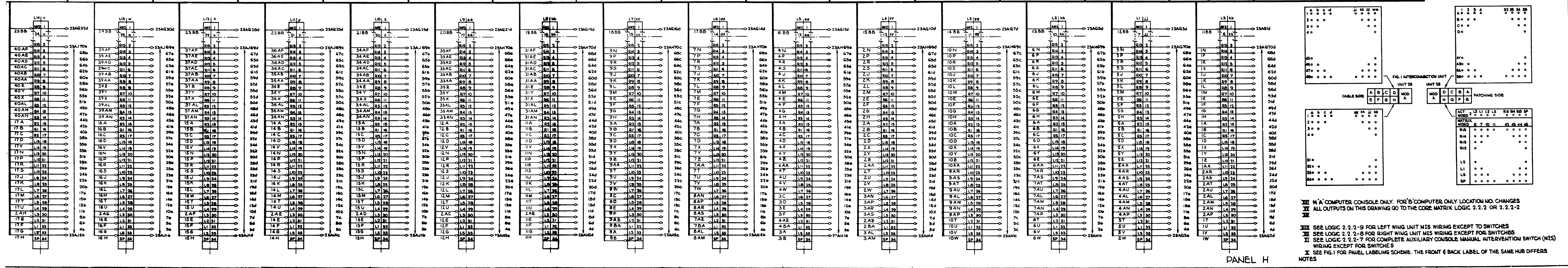
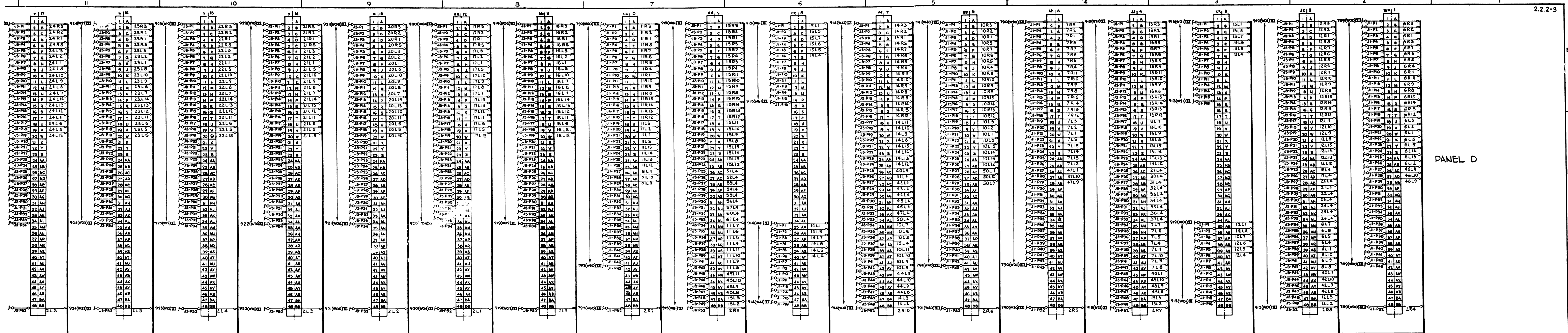












NOTES

III SEE LOGIC 2.2.2-9 FOR LEFT WING UNIT MIS WIRING EXCEPT TO SWITCHES

III SEE LOGIC 2.2.2-8 FOR RIGHT WING UNIT MIS WIRING EXCEPT FOR SWITCHES

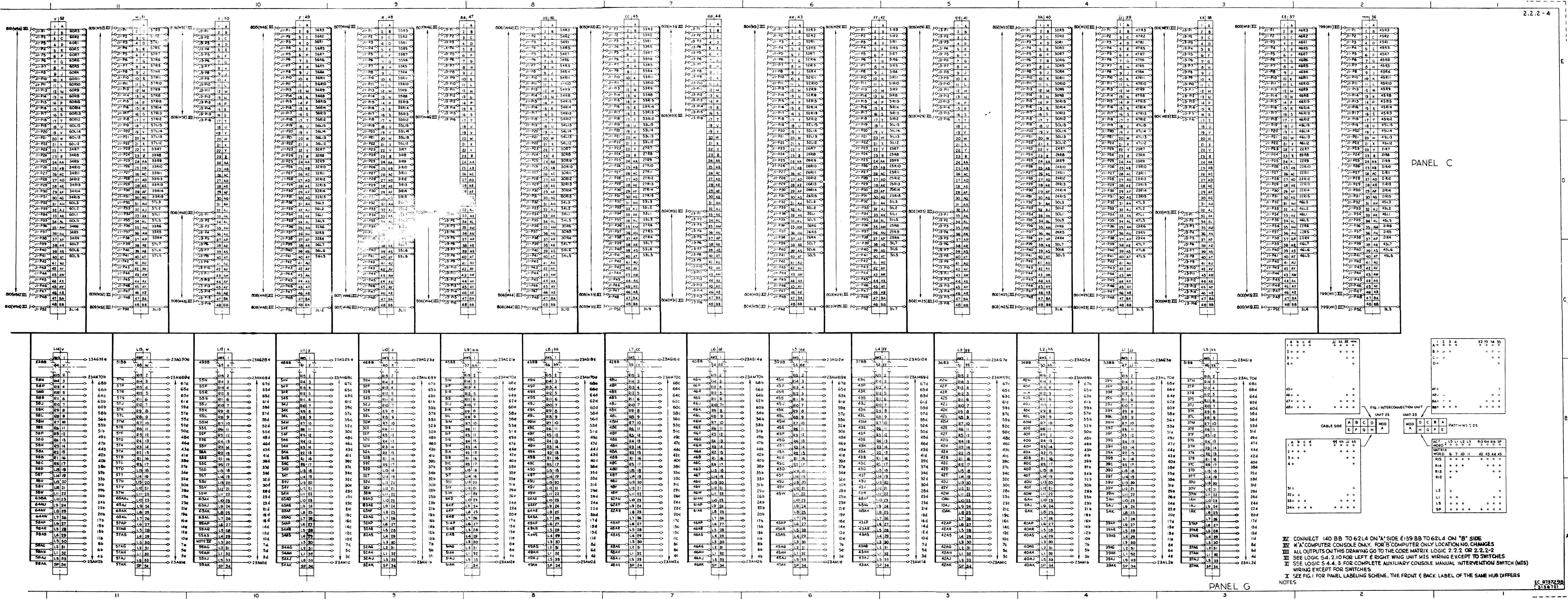
II SEE LOGIC 2.2.2-7 FOR COMPLETE AUXILIARY CONSOLE MANUAL INTERVENTION SWITCH (NIS) WIRING EXCEPT FOR SWITCHES

I SEE FIG. 1 FOR PANEL LABELING SCHEME. THE FRONT & BACK LABEL OF THE SAME HUB DIFFERS





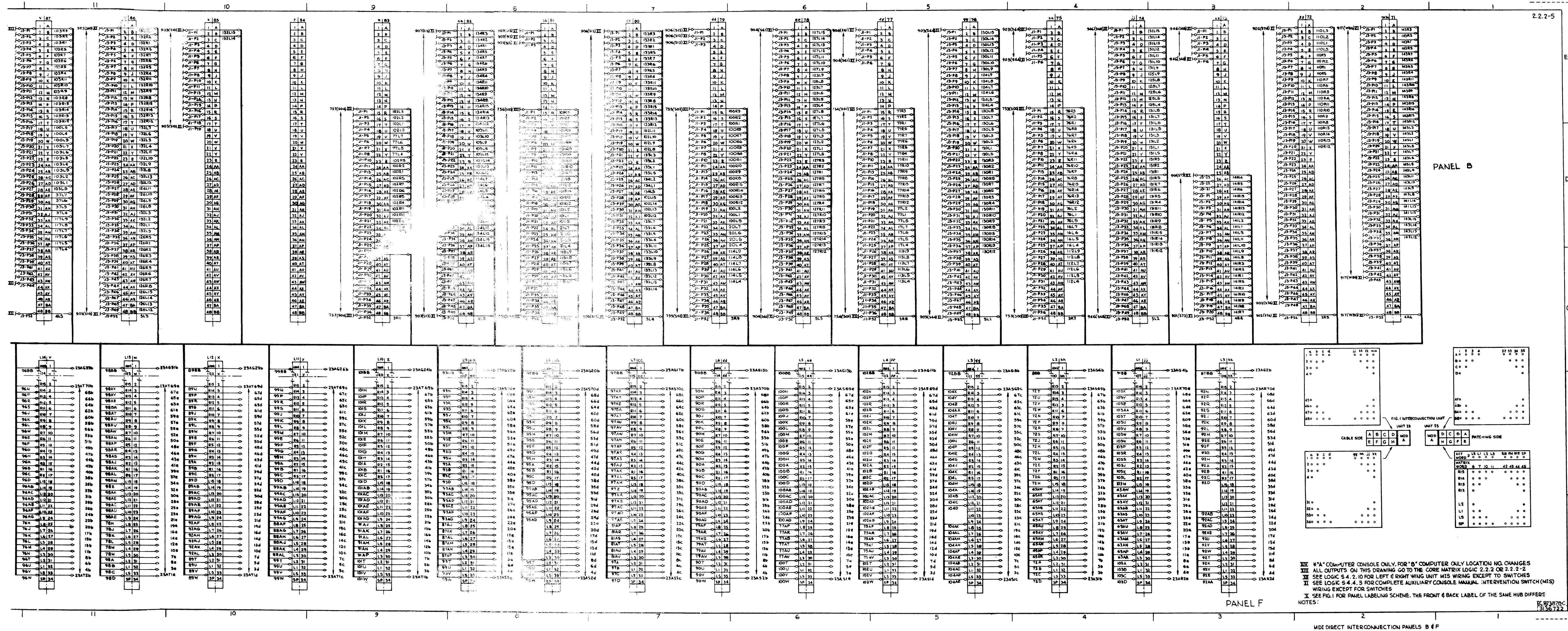








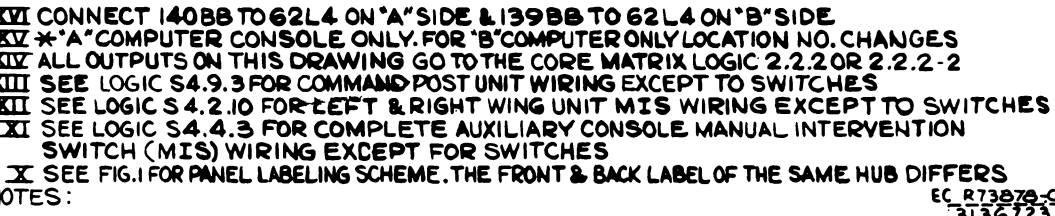






[illegible]



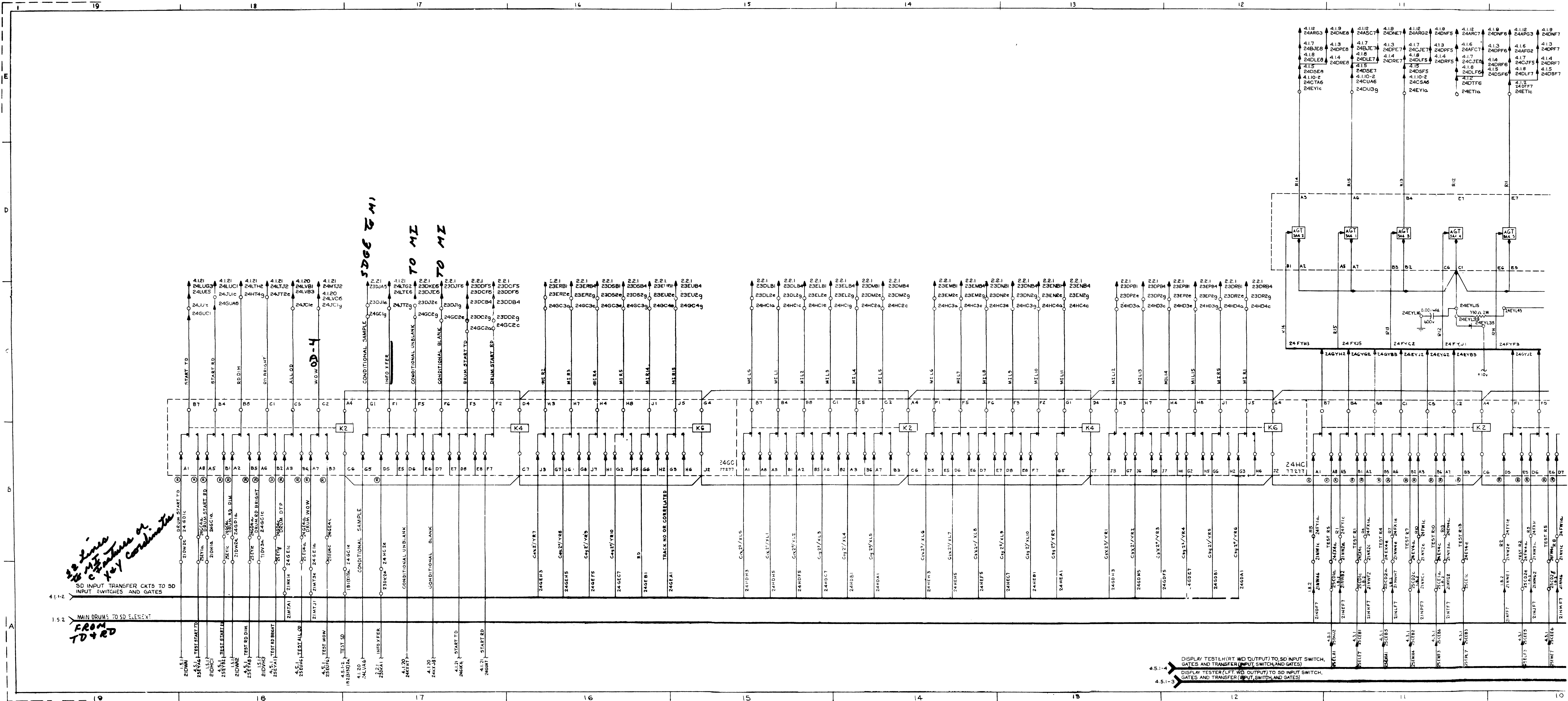






[illegible]

UNIT SUPPLEMENT CHART UNIT 24 MODULE J &amp; K

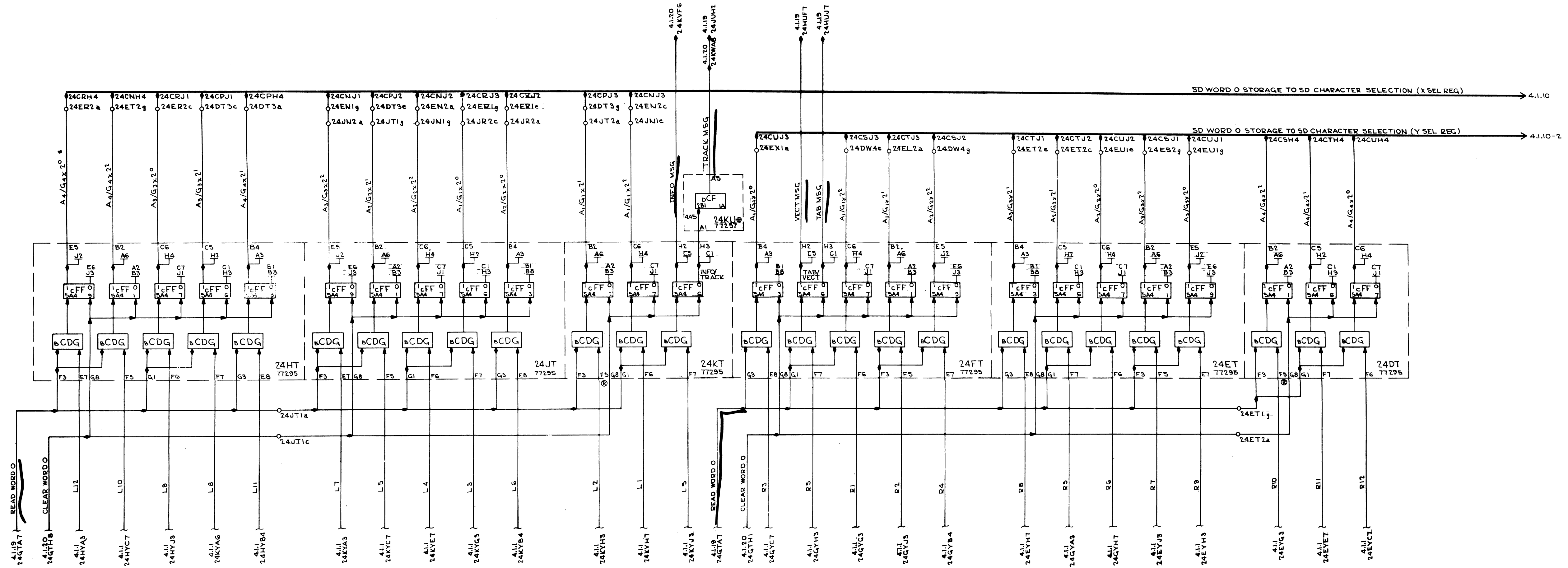


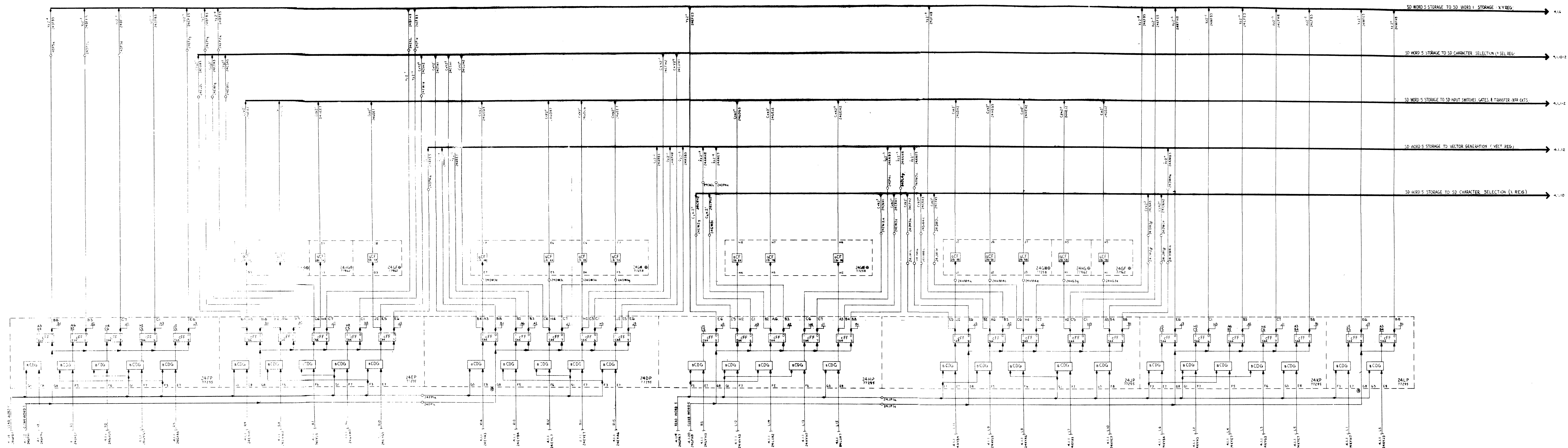


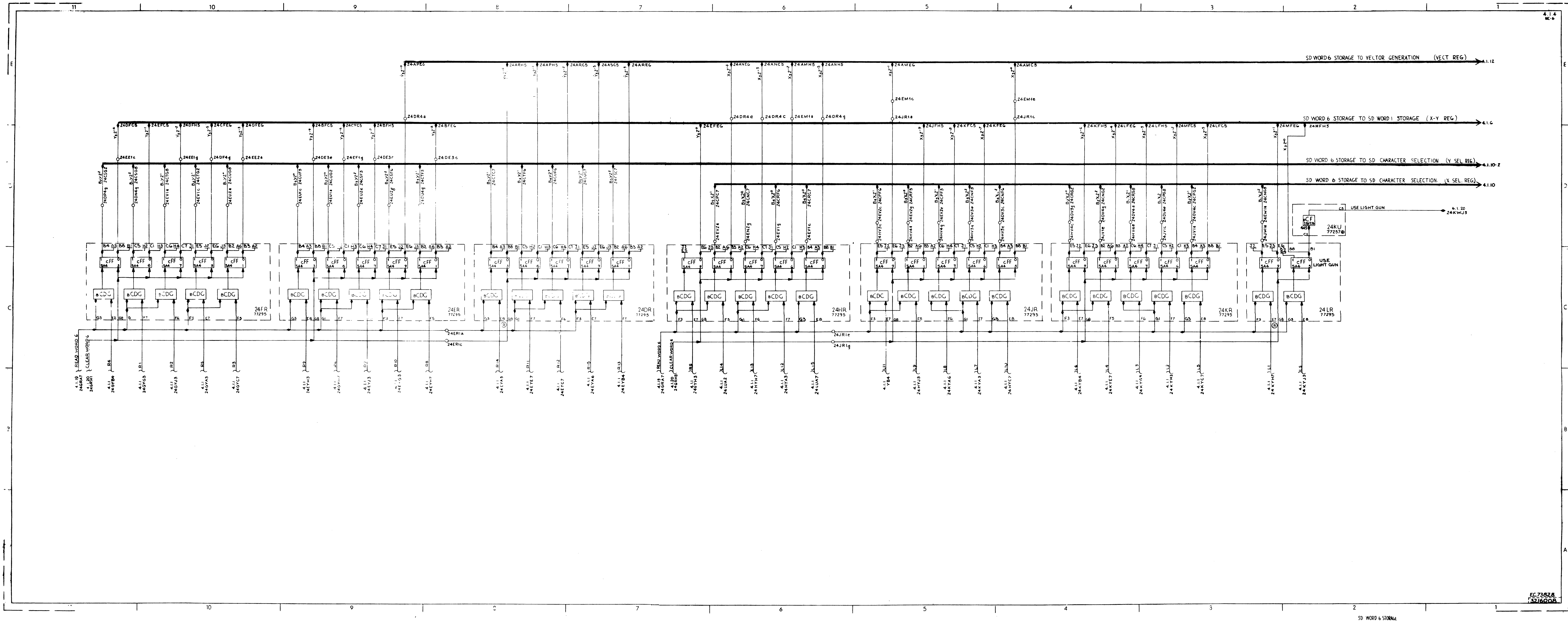


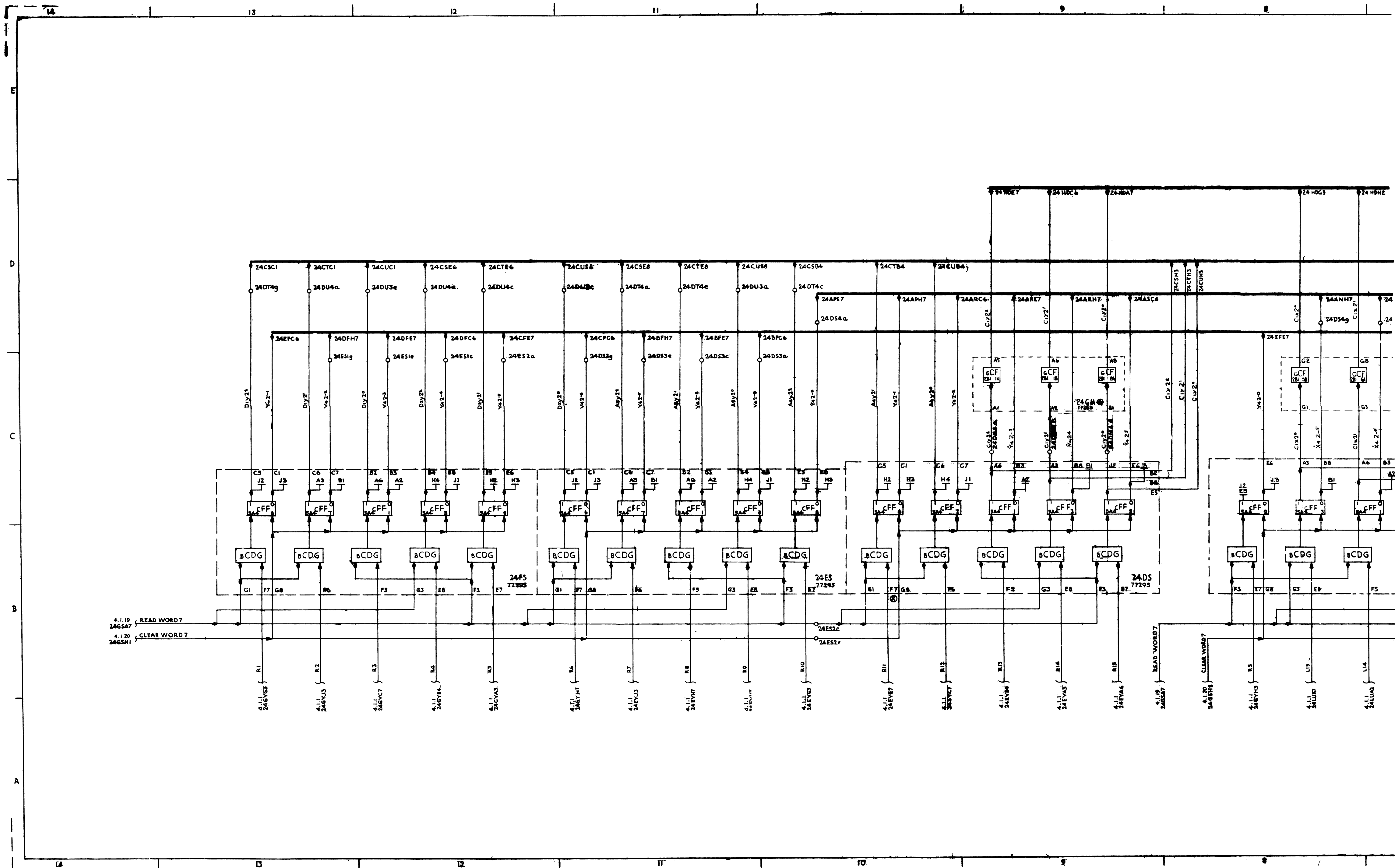


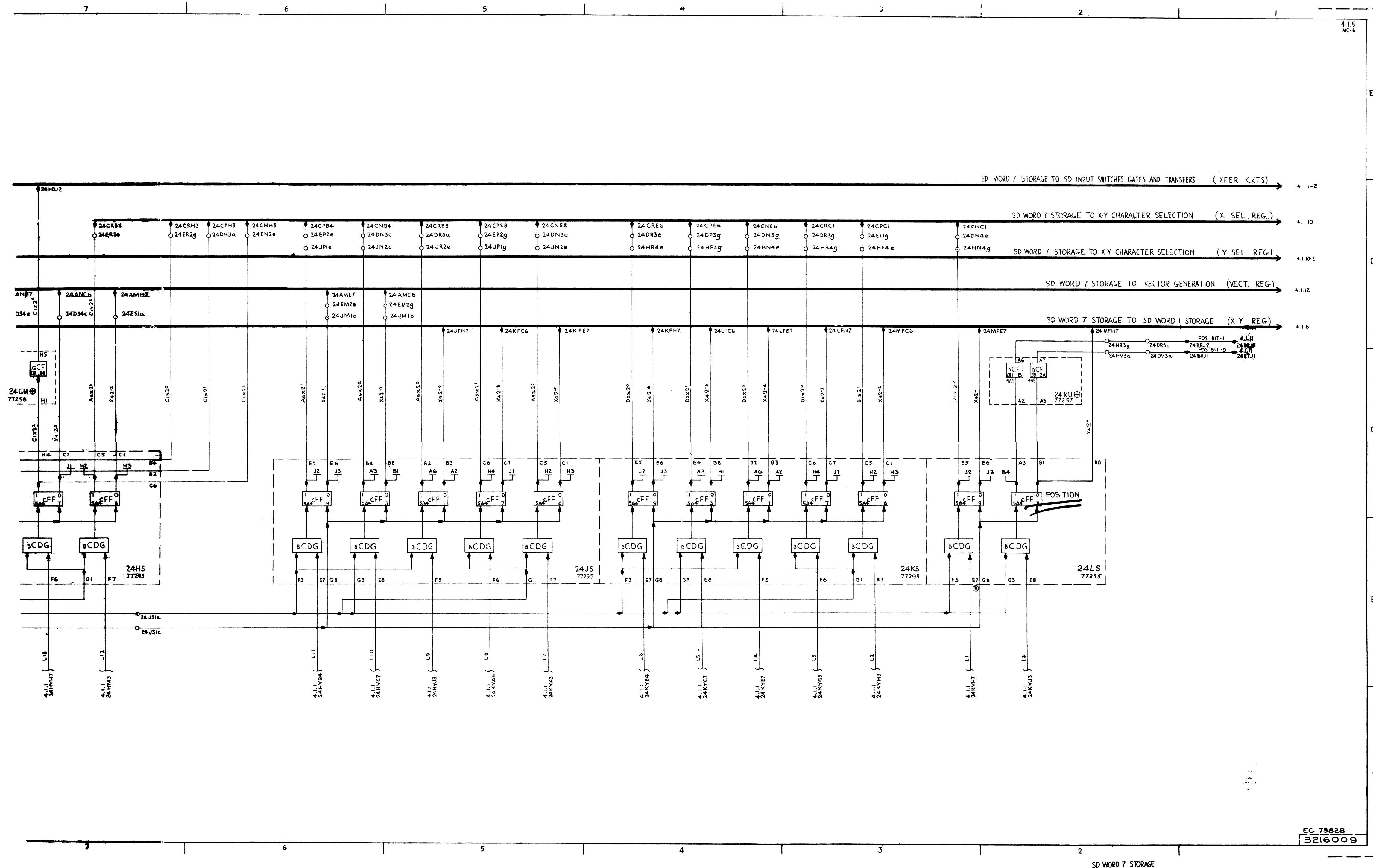












EC 73628  
3216009

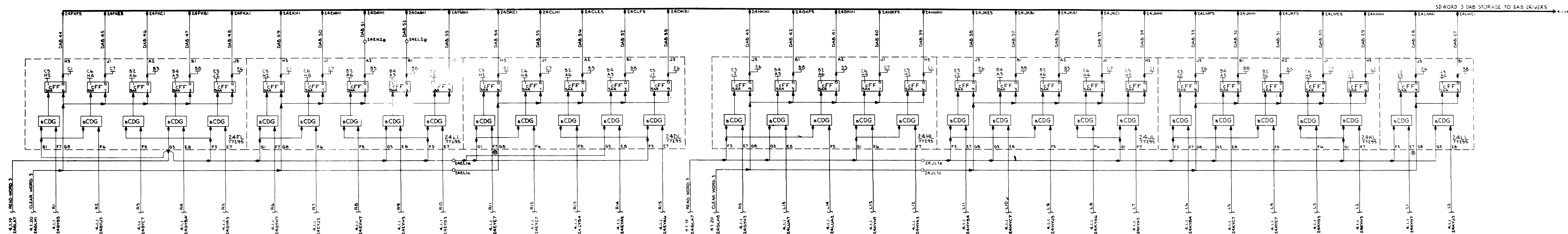
SD WORD 7 STORAGE

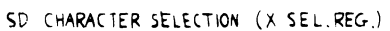


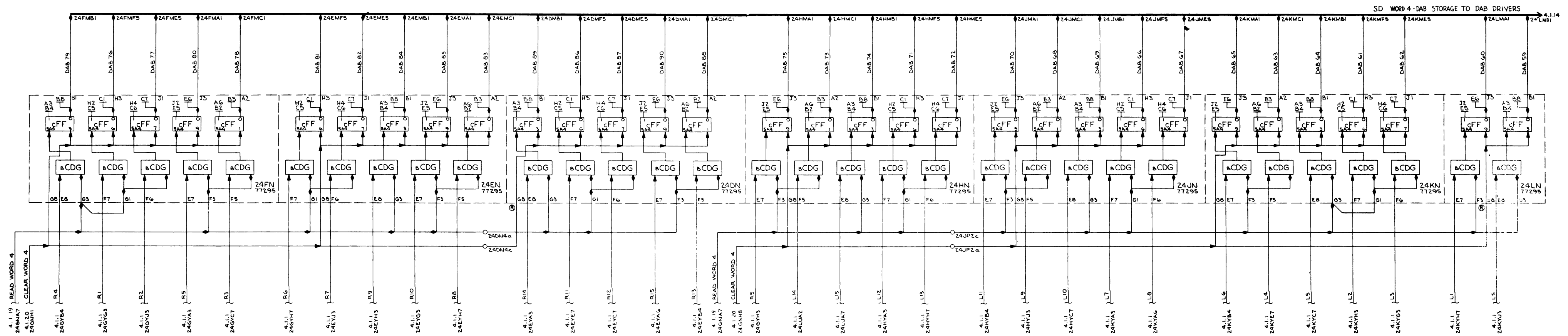










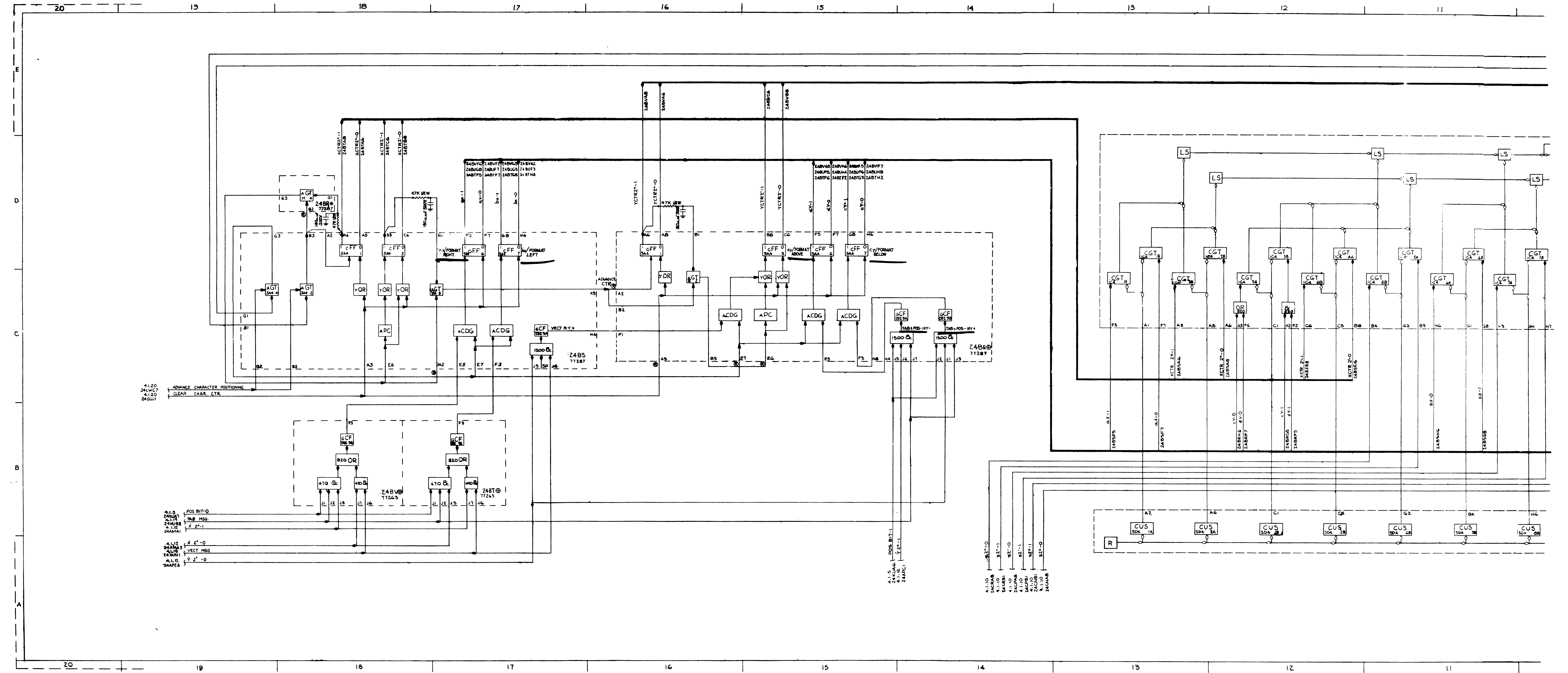


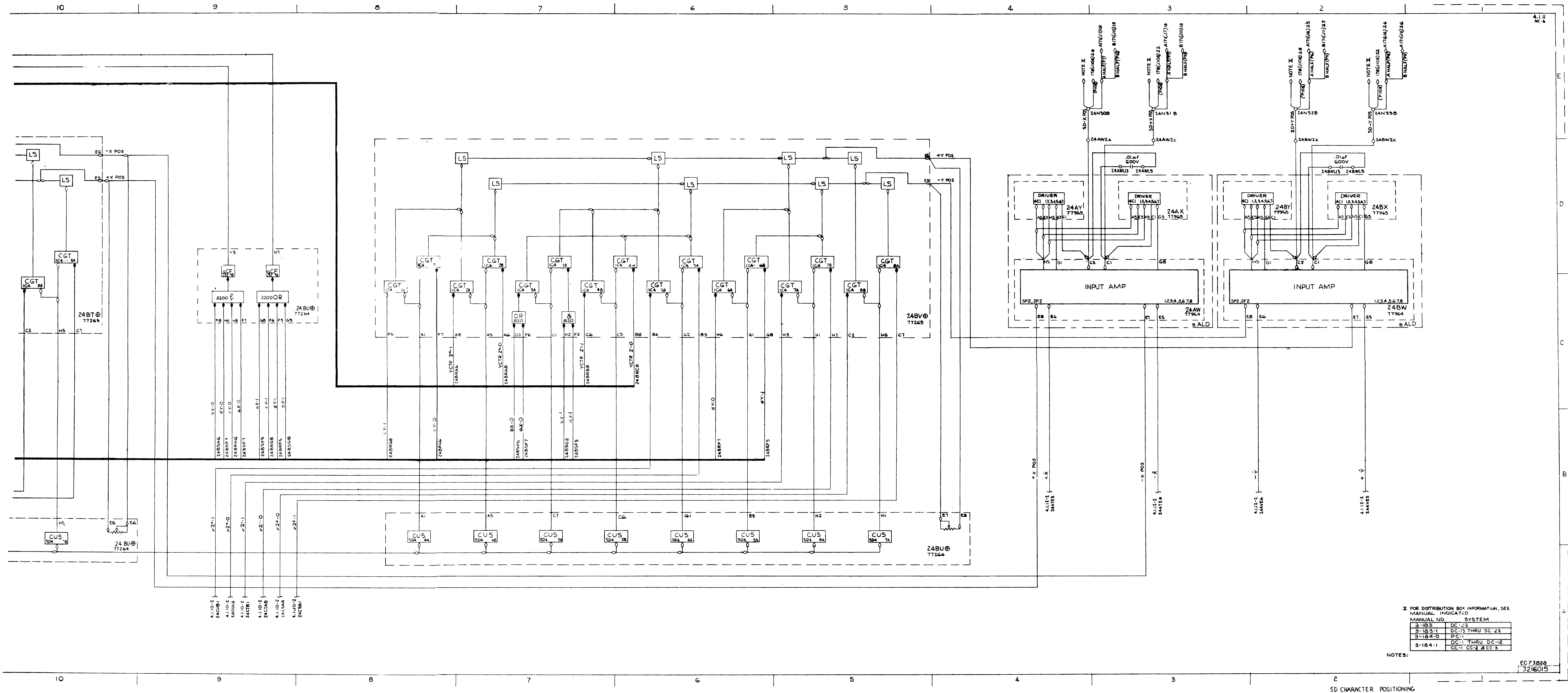


SD CHARACTER SELECTION (YSEL.REG)









X FOR DISTRIBUTION BOX INFORMATION, SEE  
 MANUAL INDICATED  
 MANUAL NO. SYSTEM  
 3-183 DC-23  
 3-183-1 DC-13 THRU DC-23  
 3-184-0 PC-1  
 3-184-1 DC-1 THRU DC-12  
 CC-1 CC-2 & CC-3

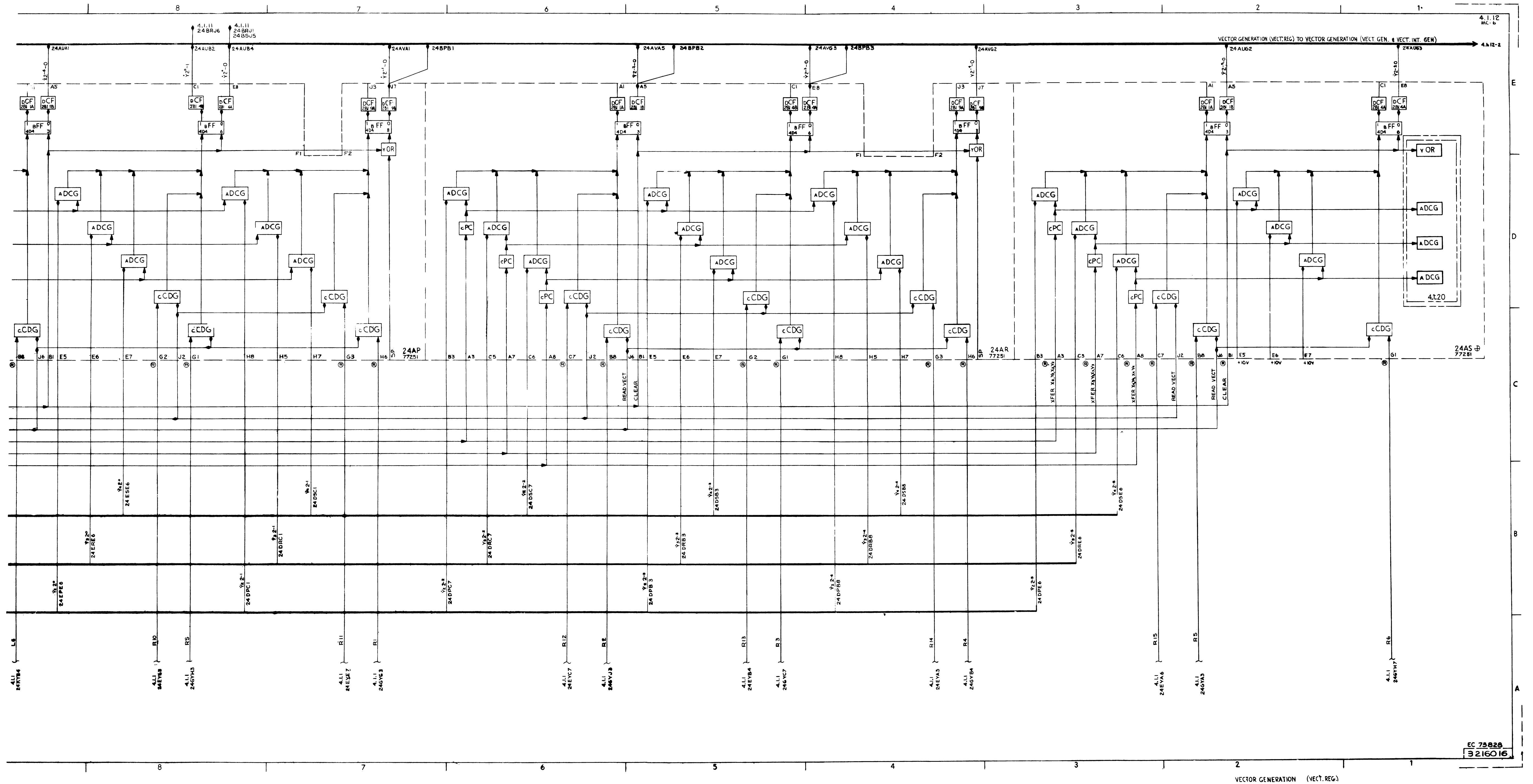
NOTES:

EC73828  
 3216015

SD CHARACTER POSITIONING







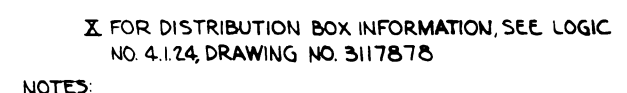






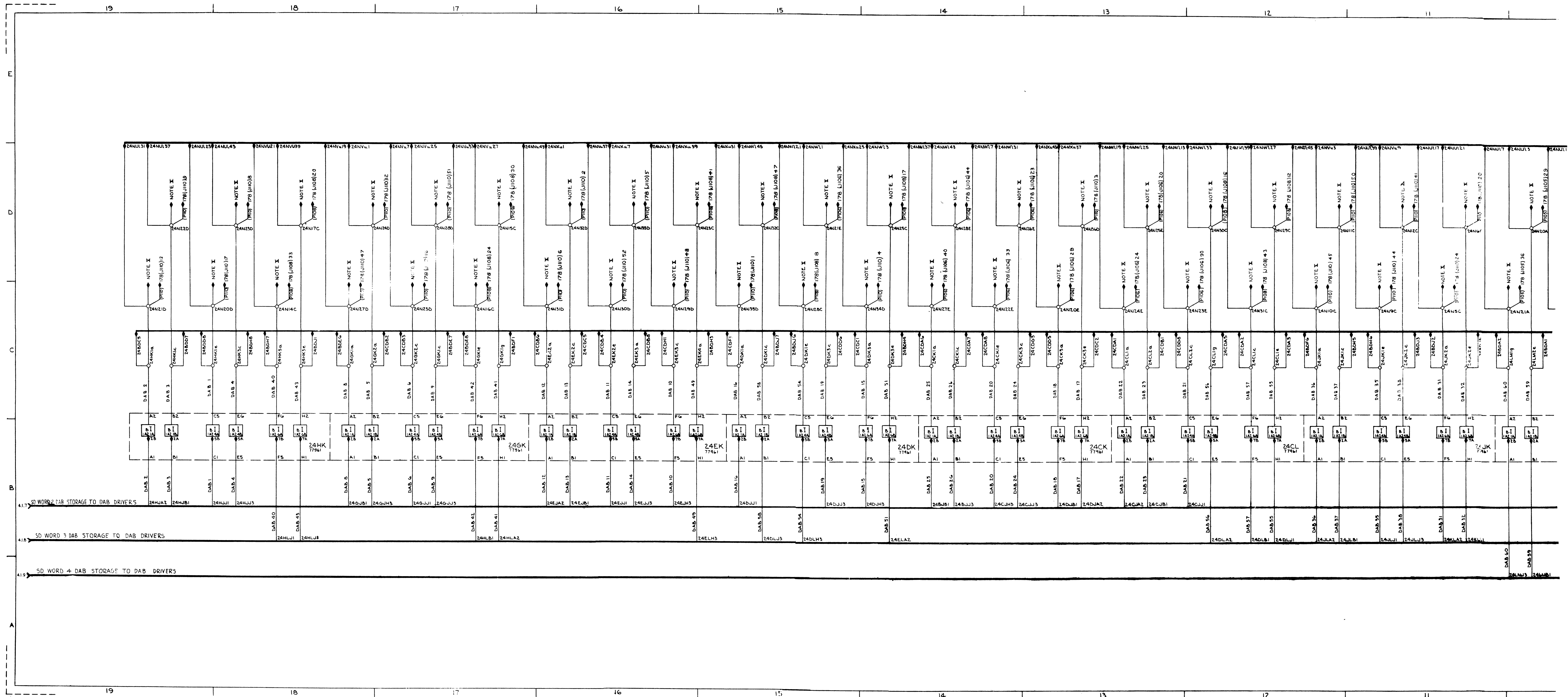


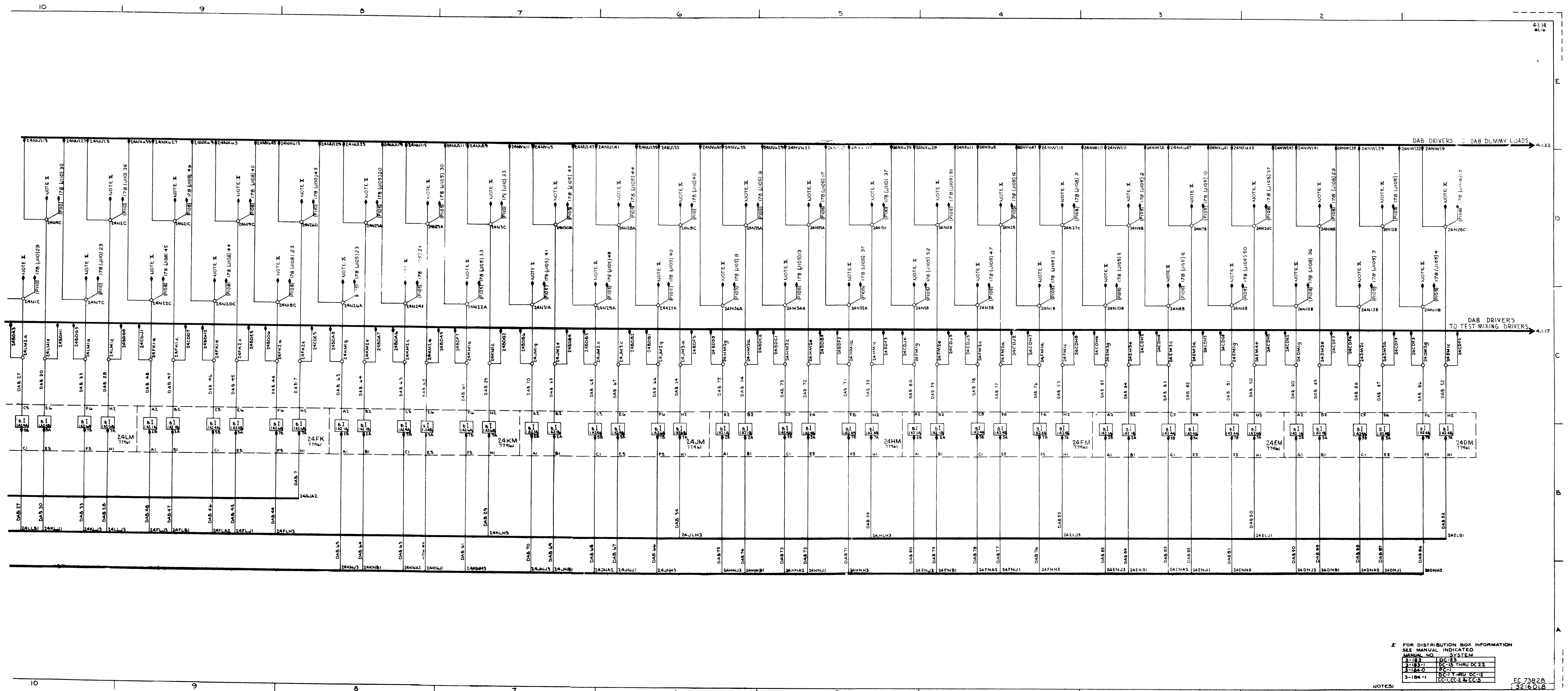




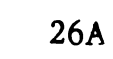
24B

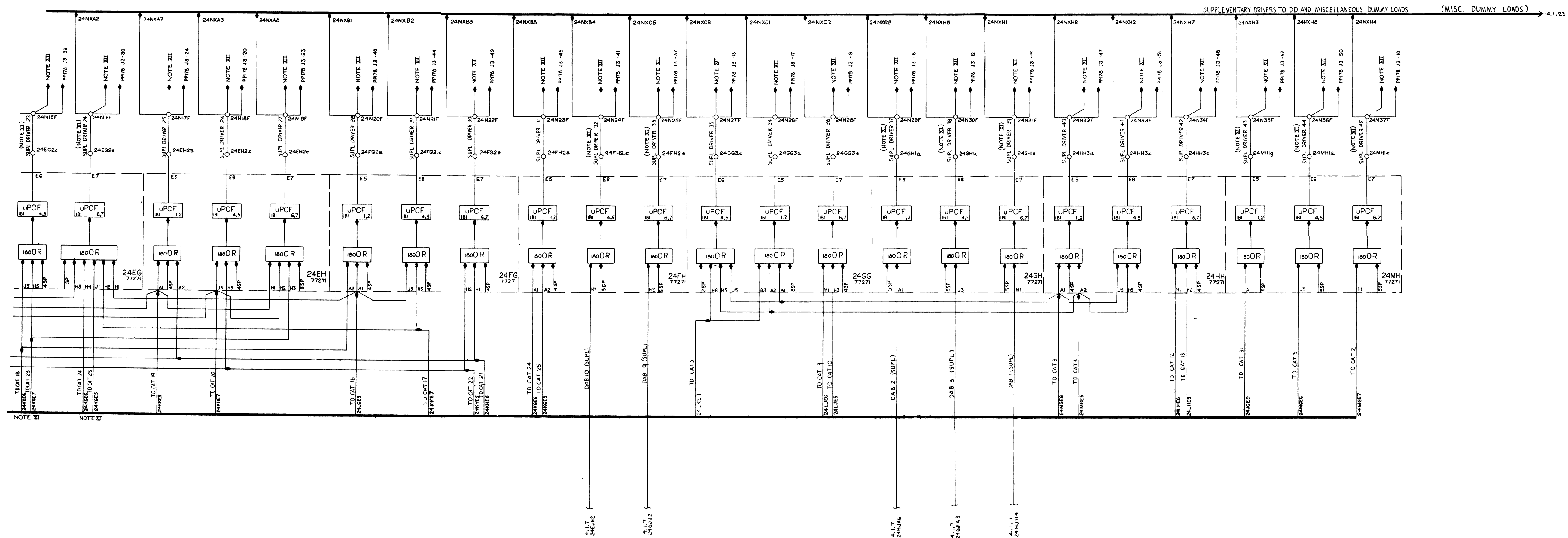




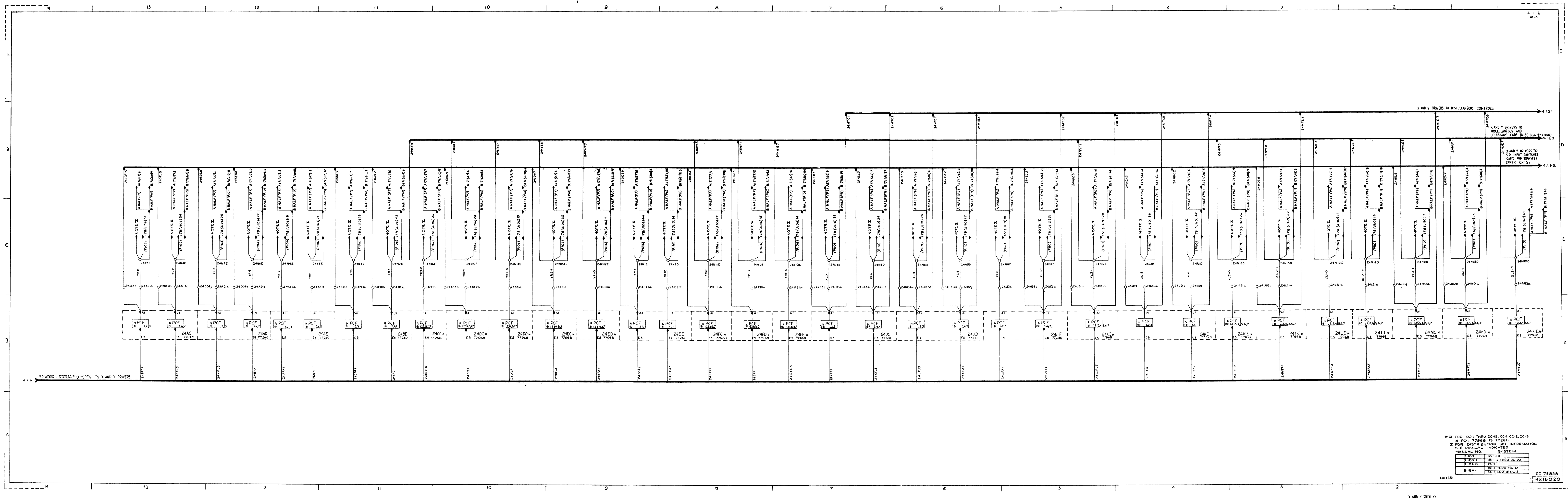




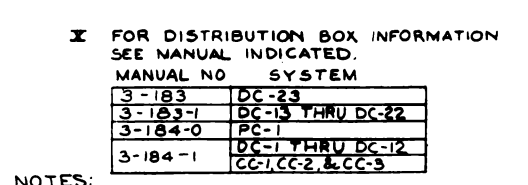




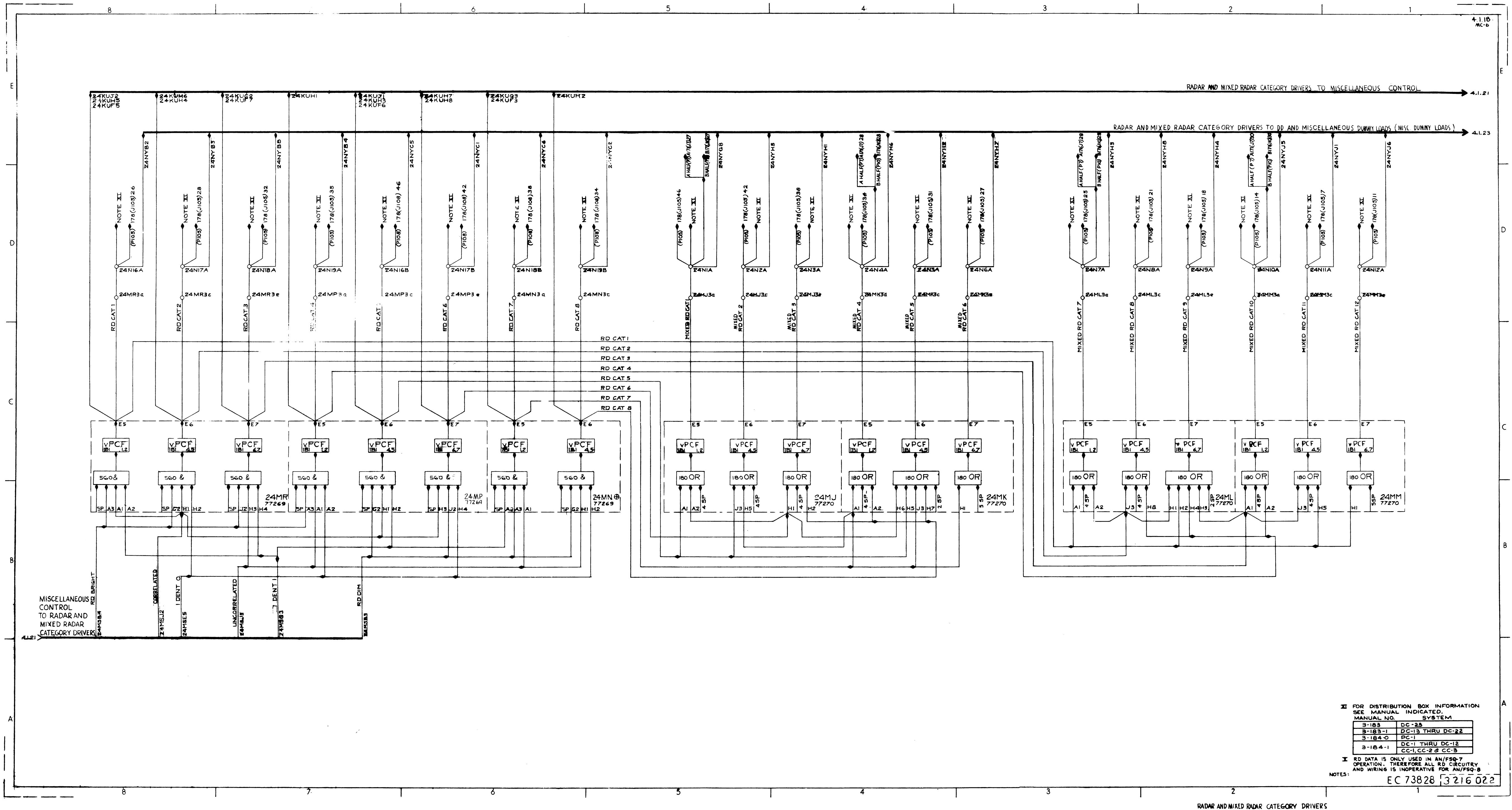
III FOR DISTRIBUTION BOX INFORMATION, SEE  
LOGIC NO 4.1.24, DRAWING NO 317B7B.  
II SUPPL. DVR. IS WIRED SOLELY FOR D.C. OPERATION  
I SUPPL. DVR. IS WIRED SOLELY FOR C.C. OPERATION  
NOTES:











II FOR DISTRIBUTION BOX INFORMATION  
SEE MANUAL INDICATED.  
MANUAL NO. SYSTEM  
3-183-1 DC-25  
3-184-0 DC-13 THRU DC-22  
3-184-1 DC-1 THRU DC-12  
CC-1, CC-2 & CC-3

III RD DATA IS ONLY USED IN AN/FSQ-7  
OPERATION. THEREFORE ALL RD CIRCUITRY  
AND WIRING IS INOPERATIVE FOR AN/FSQ-8

NOTES:  
EC 73828 3216 022





