

Digital Equipment Corporation
Maynard, Massachusetts



**Maintenance Manual
Volume II**

RK8 Disk System

**RK8 DISK SYSTEM
MAINTENANCE MANUAL
VOLUME II**

Copyright © 1970 by Digital Equipment Corporation

The material in this manual is for information purposes and is subject to change without notice.

The following are trademarks of Digital Equipment Corporation, Maynard, Massachusetts:

DEC	PDP
FLIP CHIP	FOCAL
DIGITAL	COMPUTER LAB

CONTENTS

Figure Number	Description	Drawing Number
RK01 Disk Drive		
Figure II-1	RK01 Basic Format Diagram	D-TD-RK01-X-12
Figure II-2	RK01 Block Diagram	D-BD-RK01-X-13
Figure II-3	RK01 Flow Diagram	D-FD-RK01-X-14
Figure II-4	RK01/RK08 Timing Diagram	D-TD-RK01-X-15
Figure II-5	Format Delays Block Schematic Diagram	D-BS-RK01-X-01
Figure II-6	Cable to RK08 Block Schematic Diagram	D-BS-RK01-X-09
Figure II-7	Track Seek Block Schematic Diagram	D-BS-RK01-X-02
Figure II-8	Disk and Track Address Block Schematic Diagram	D-BS-RK01-X-03
Figure II-9	Compare Track Address Block Schematic Diagram	D-BS-RK01-X-04
Figure II-10	Disk Selection Block Schematic Diagram	D-BS-RK01-X-05
Figure II-11	Disk Cables Block Schematic Diagram	D-BS-RK01-X-06
Figure II-12	+3V Loads Block Schematic Diagram	D-BS-RK01-X-07
Figure II-13	+3V Clamp Block Schematic Diagram	D-BS-RK01-X-08
RK08 Disk Control		
Figure II-14	IOT Decoding Block Schematic Diagram	D-BS-RK08-0-05 Sheet 1 of 2
Figure II-15	IOT Decoding Block Schematic Diagram	D-BS-RK08-0-05 Sheet 2 of 2
Figure II-16	Skip and Break Block Schematic Diagram	D-BS-RK08-0-06
Figure II-17	Maintenance Register Block Schematic Diagram	D-BS-RK08-0-07
Figure II-18	Major Sequencer Register Block Schematic Diagram	D-BS-RK08-0-08
Figure II-19	R/W Command, Find Sector, End transfer Block Schematic Diagram	D-BS-RK08-0-09
Figure II-20	Read Block Schematic Diagram	D-BS-RK08-0-10
Figure II-21	Write Block Schematic Diagram	D-BS-RK08-0-11
Figure II-22	Data Buffer Block Schematic Diagram	D-BS-RK08-0-12
Figure II-23	Data Shift Register Block Schematic Diagram	D-BS-RK08-0-13
Figure II-24	Longitudinal Parity Block Schematic Diagram	D-BS-RK08-0-14 Sheet 1 of 2
Figure II-25	Longitudinal Parity Block Schematic Diagram	D-BS-RK08-0-14 Sheet 2 of 2

CONTENTS (Cont)

Figure Number	Description	Drawing Number
RK08 Disk Control (Cont)		
Figure II-26	Status Register Block Schematic Diagram	D-BS-RK08-0-15
Figure II-27	Sector Addressing Block Schematic Diagram	D-BS-RK08-0-16 Sheet 1 of 2
Figure II-28	Sector Addressing Block Schematic Diagram	D-BS-RK08-0-16 Sheet 2 of 2
Figure II-29	Bit and Block Counter Block Schematic Diagram	D-BS-RK08-0-17
Figure II-30	Word Count (WC) Register Block Schematic Diagram	D-BS-RK08-0-18
Figure II-31	Current Address and EMA Register Block Schematic Diagram	D-BS-RK08-0-19
Figure II-32	AC Input Gating 00-05 Block Schematic Diagram	D-BS-RK08-0-20
Figure II-33	AC Input Gating 06-11 Block Schematic Diagram	D-BS-RK08-0-21
Figure II-34	AC Memory Buffer (MB) Inverters Block Schematic Diagram	D-BS-RK08-0-22
Figure II-35	+3V Clamps Block Schematic Diagram	D-BS-RK08-0-23
Figure II-36	Cable to RK01-X Block Schematic Diagram	D-BS-RK08-0-24
Figure II-37	I/O and Data Break Cables Block Schematic Diagram	D-BS-RK08-0-25
Figure II-38	Indicator Cables Block Schematic Diagram	D-BS-RK08-0-26
Power Supply		
Figure II-39	Type 716 Power Supply Circuit Schematic Diagram	C-CS-716-0-1
Figure II-40	Type 854 Power Control Panel Wiring Diagram	B-CS-854-0-1
Figure II-41	Type 854 Power Control Panel Component Pin Location Diagram	D-UA-854-0-0
Figure II-42	Register Indicator Panel Circuit Schematic Diagram	D-CS-5408458-0-1
Figure II-43	Control Panel Switch Assembly Diagram	E-AD-7006672-0-0
Figure II-44	AC/DC Power Wiring Diagram	E-IC-RK01-0-2

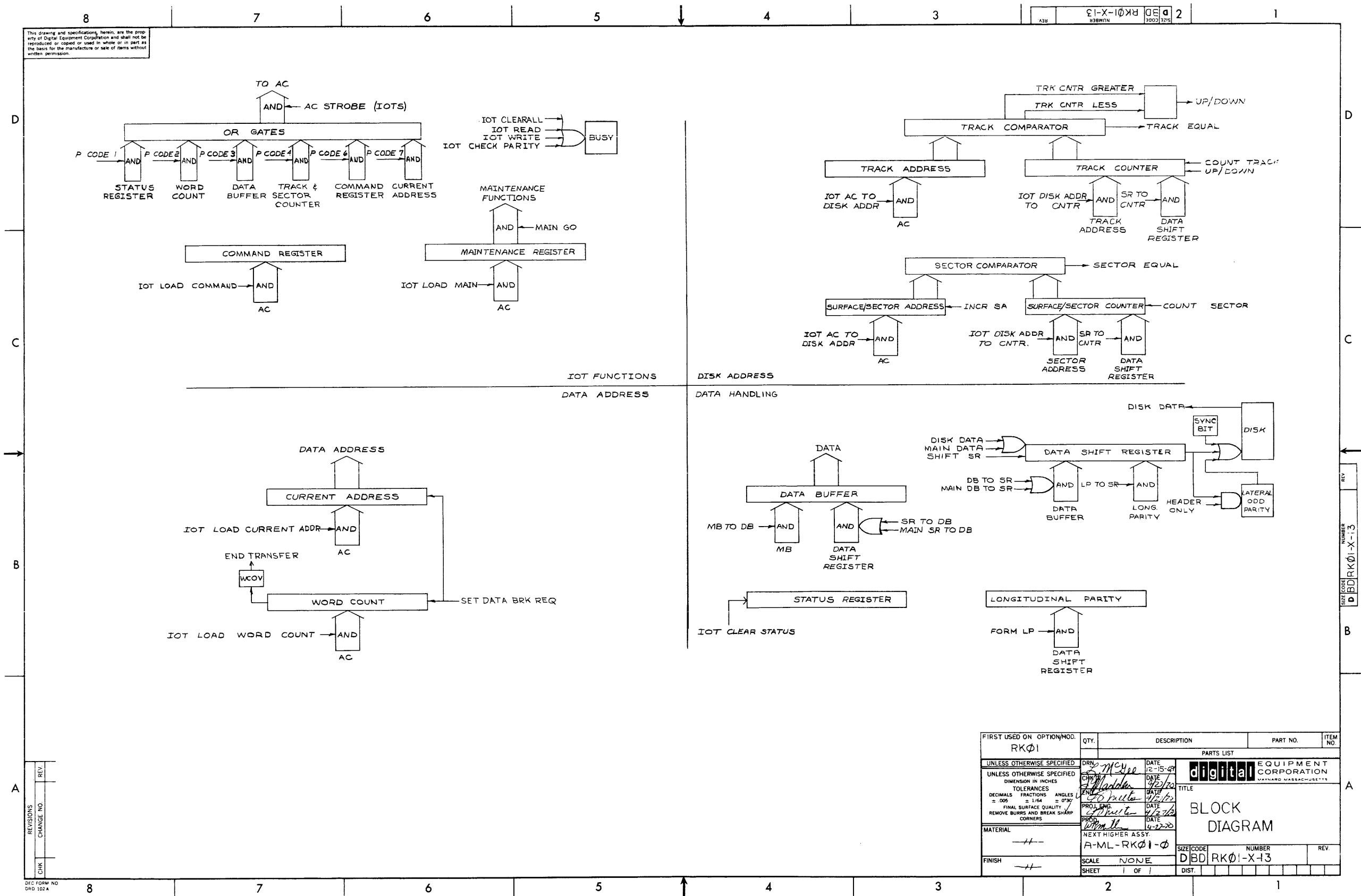


Figure II-2 RK01 Block Diagram

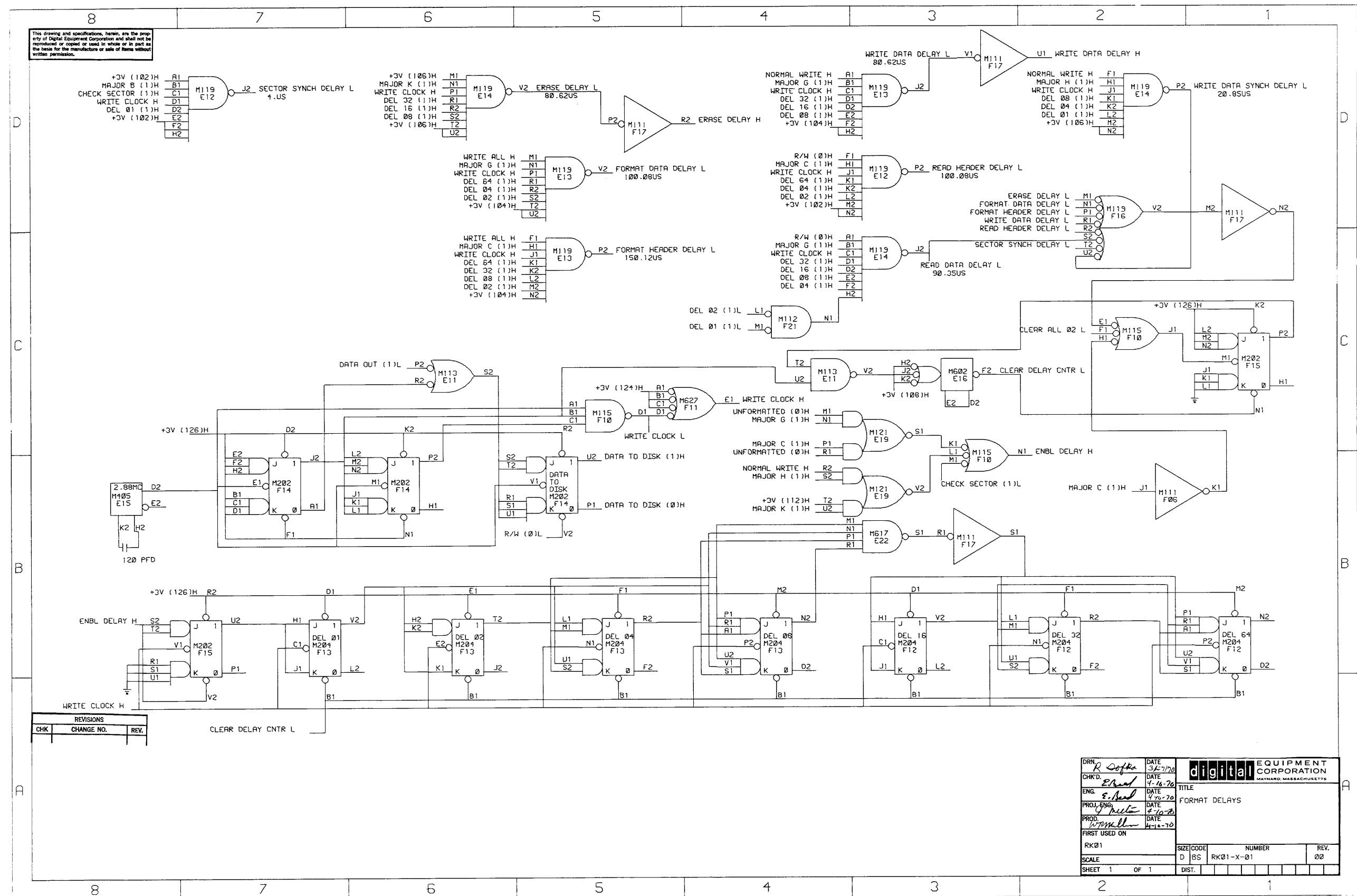


Figure II-5 Format Delays Block Schematic Diagram

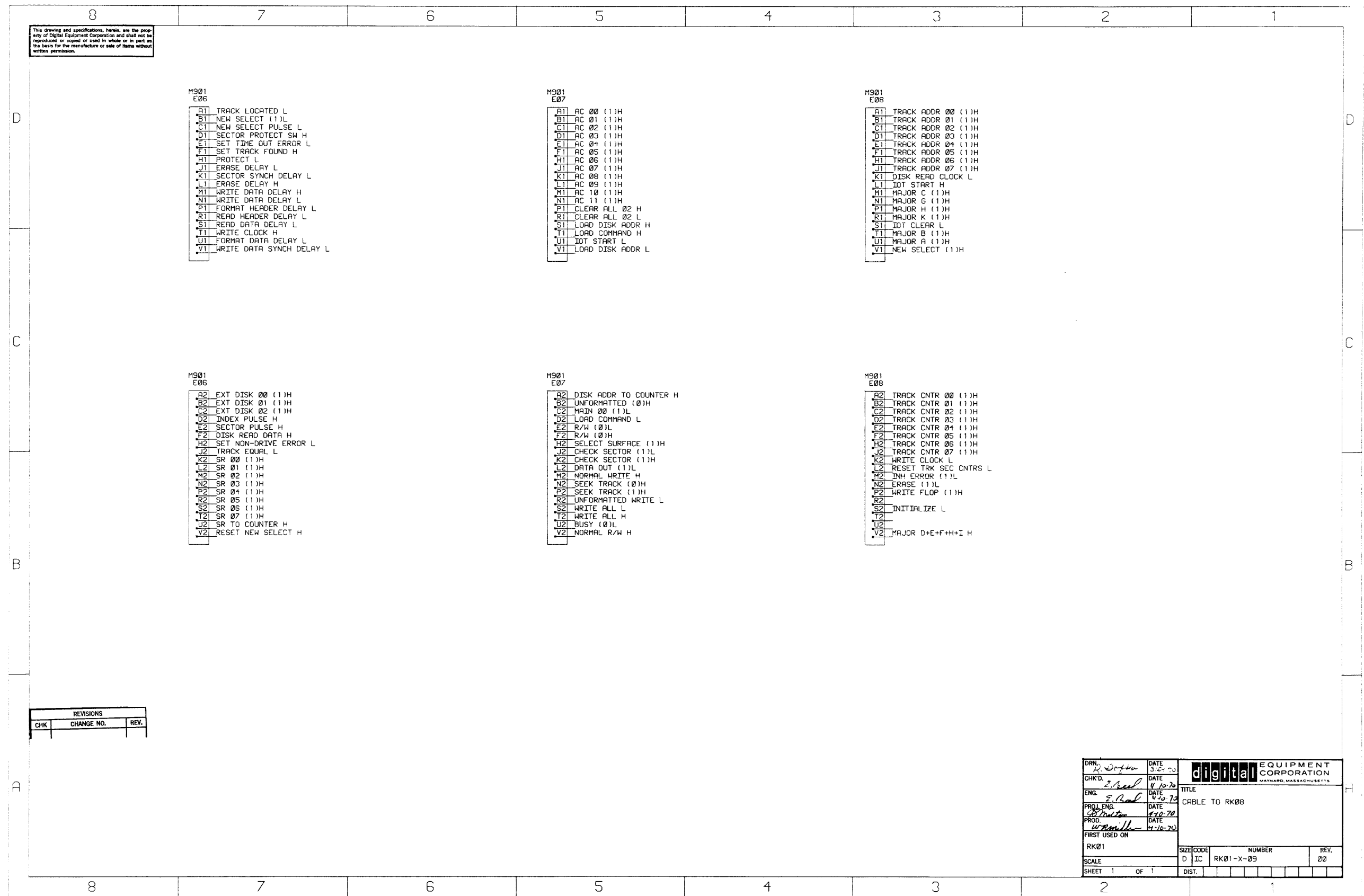


Figure II-6 Cable to RK08 Block Schematic Diagram

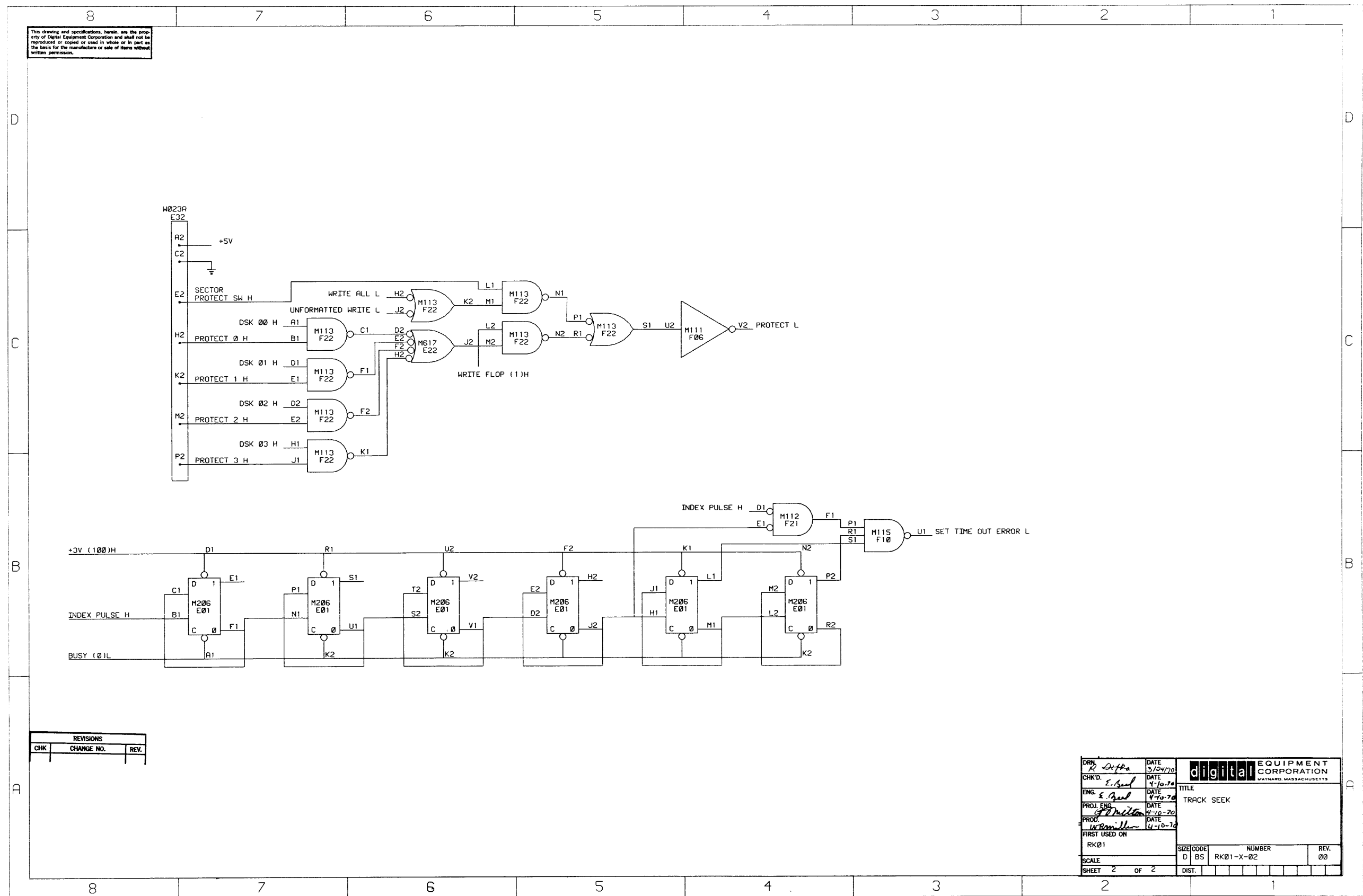


Figure II-7 Track Seek Block Schematic Diagram
(Sheet 2)

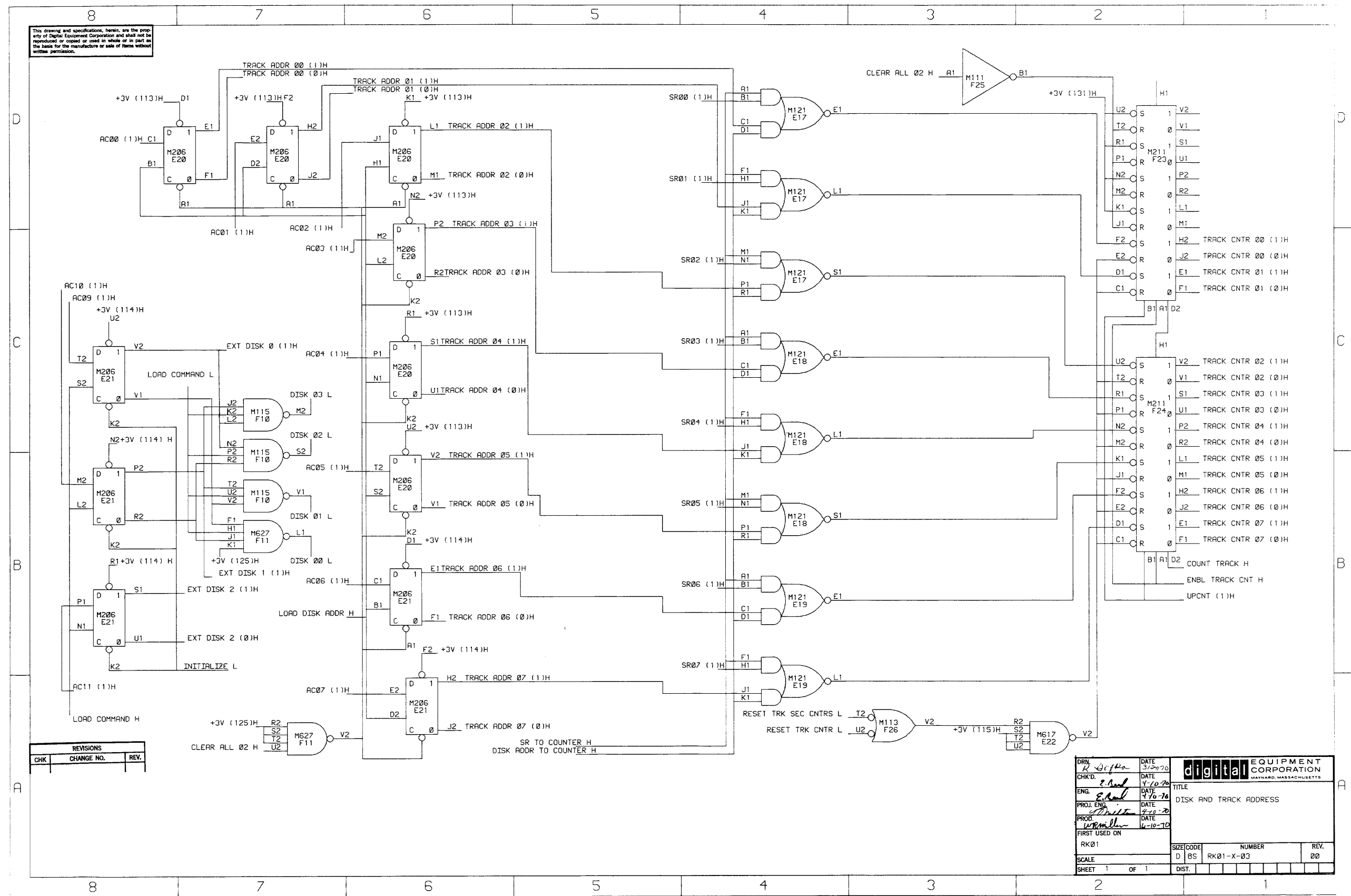


Figure II-8 Disk and Track Address Block Schematic Diagram

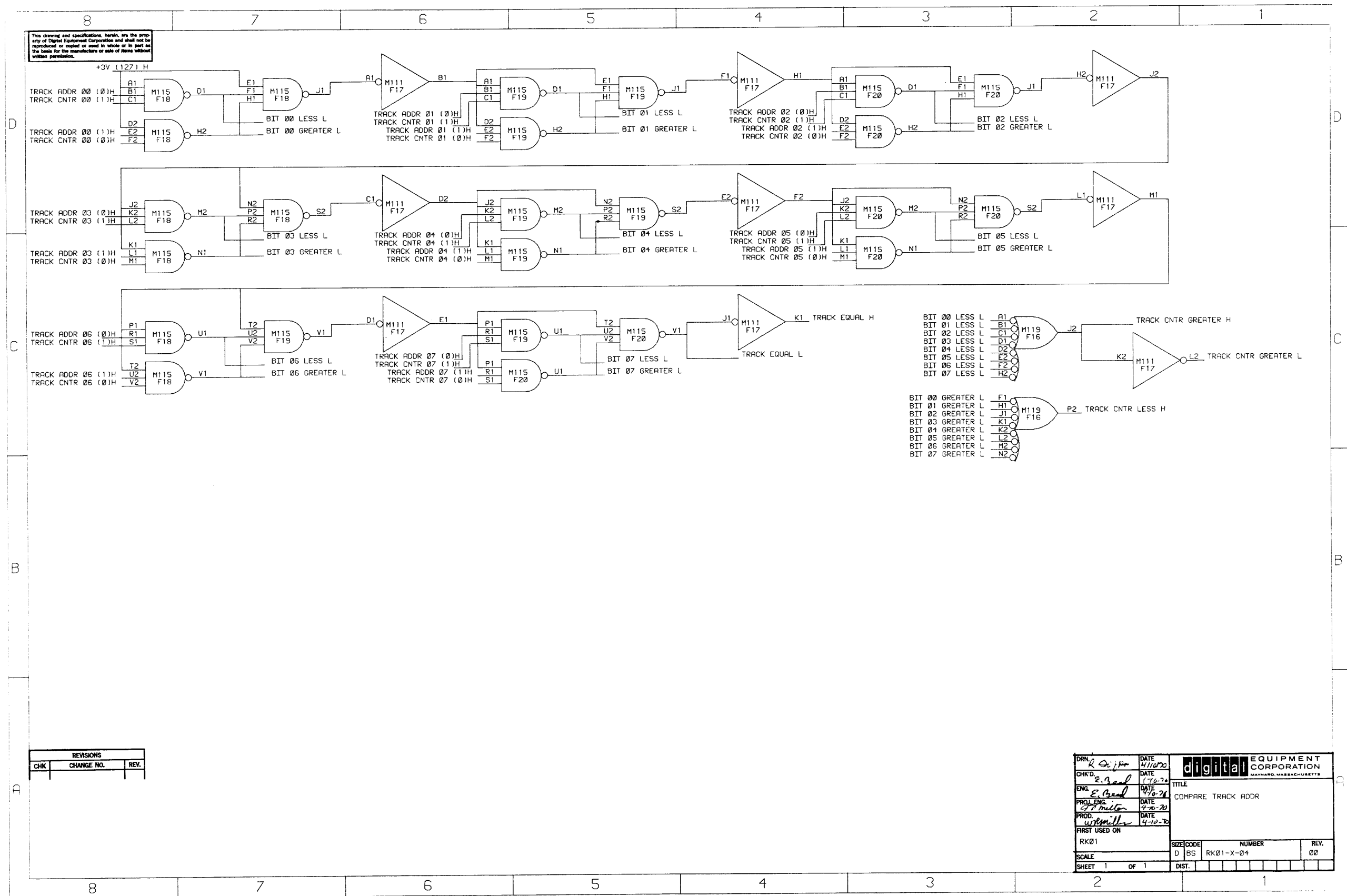


Figure II-9 Compare Track Address Block Schematic Diagram

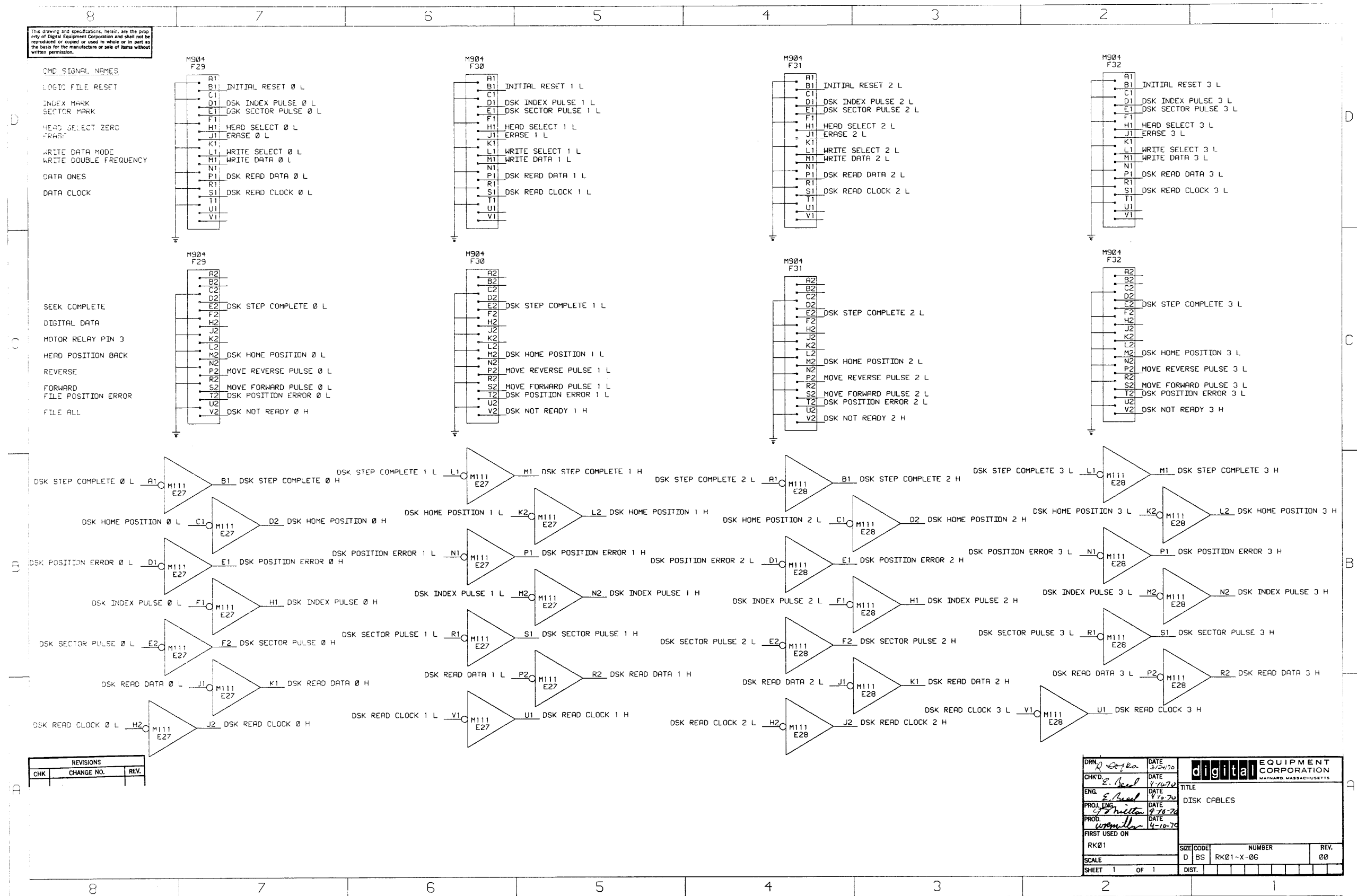


Figure II-11 Disk Cables Block Schematic Diagram

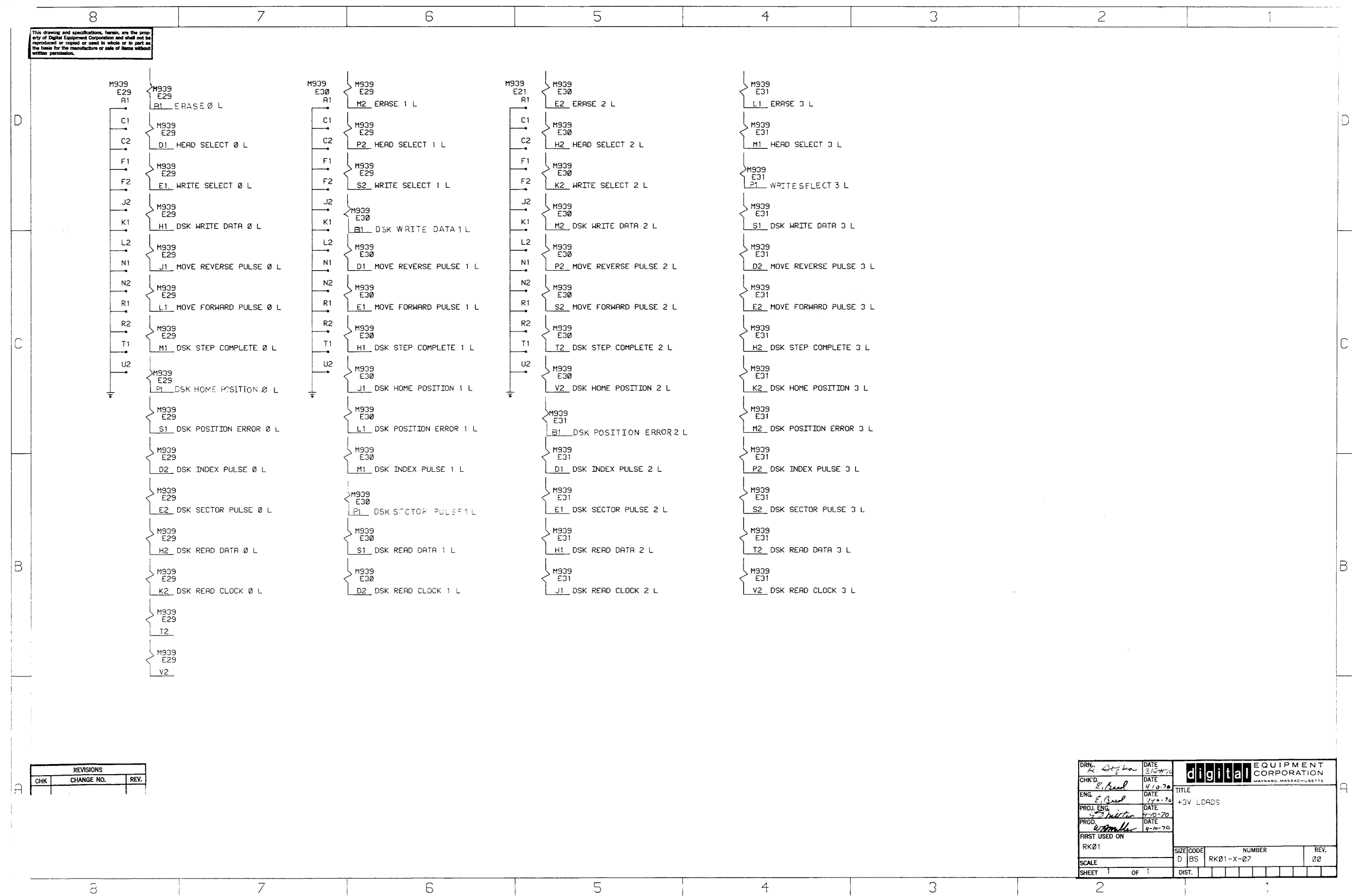


Figure II-12 +3V Loads Block Schematic Diagram

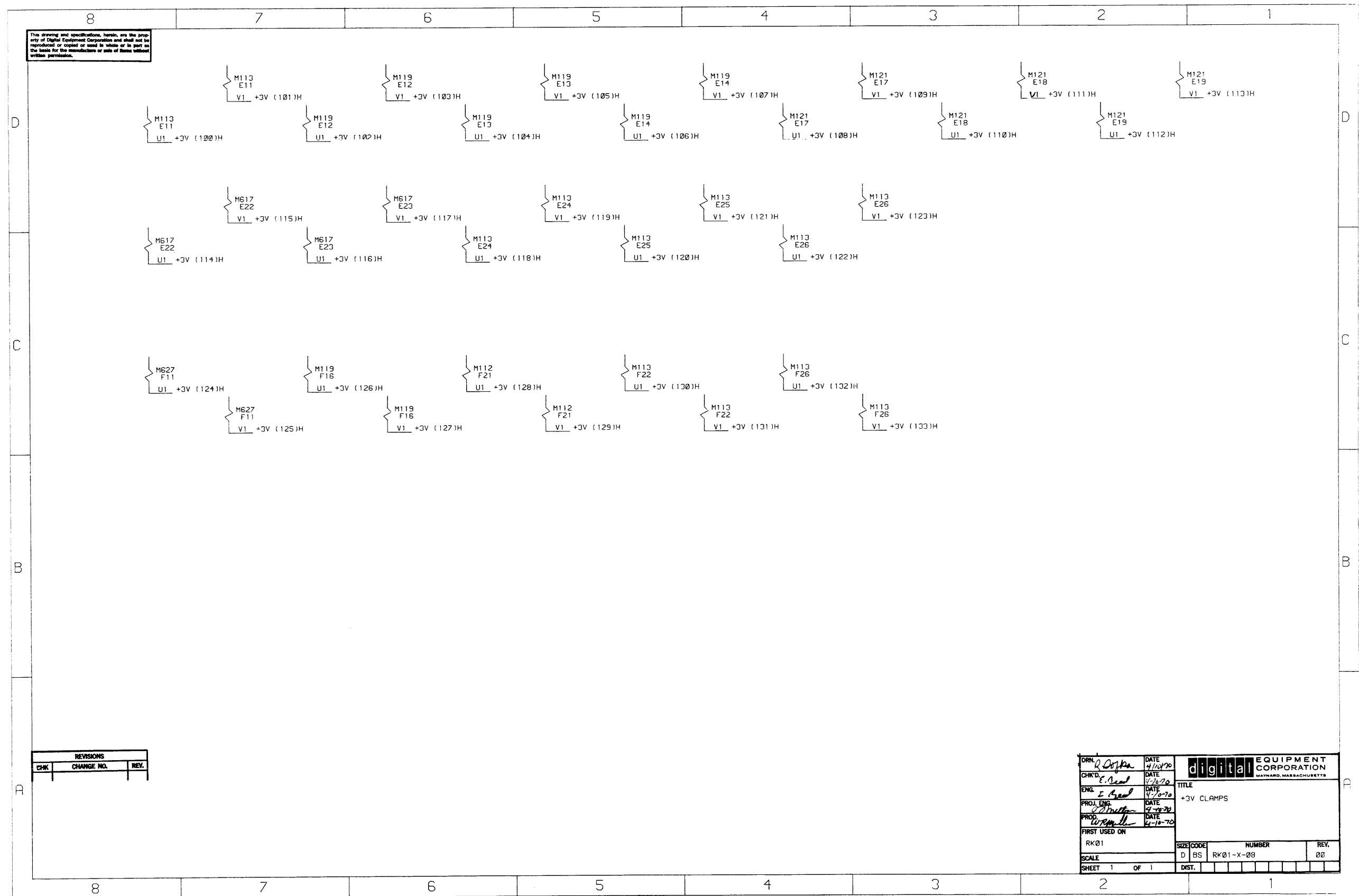
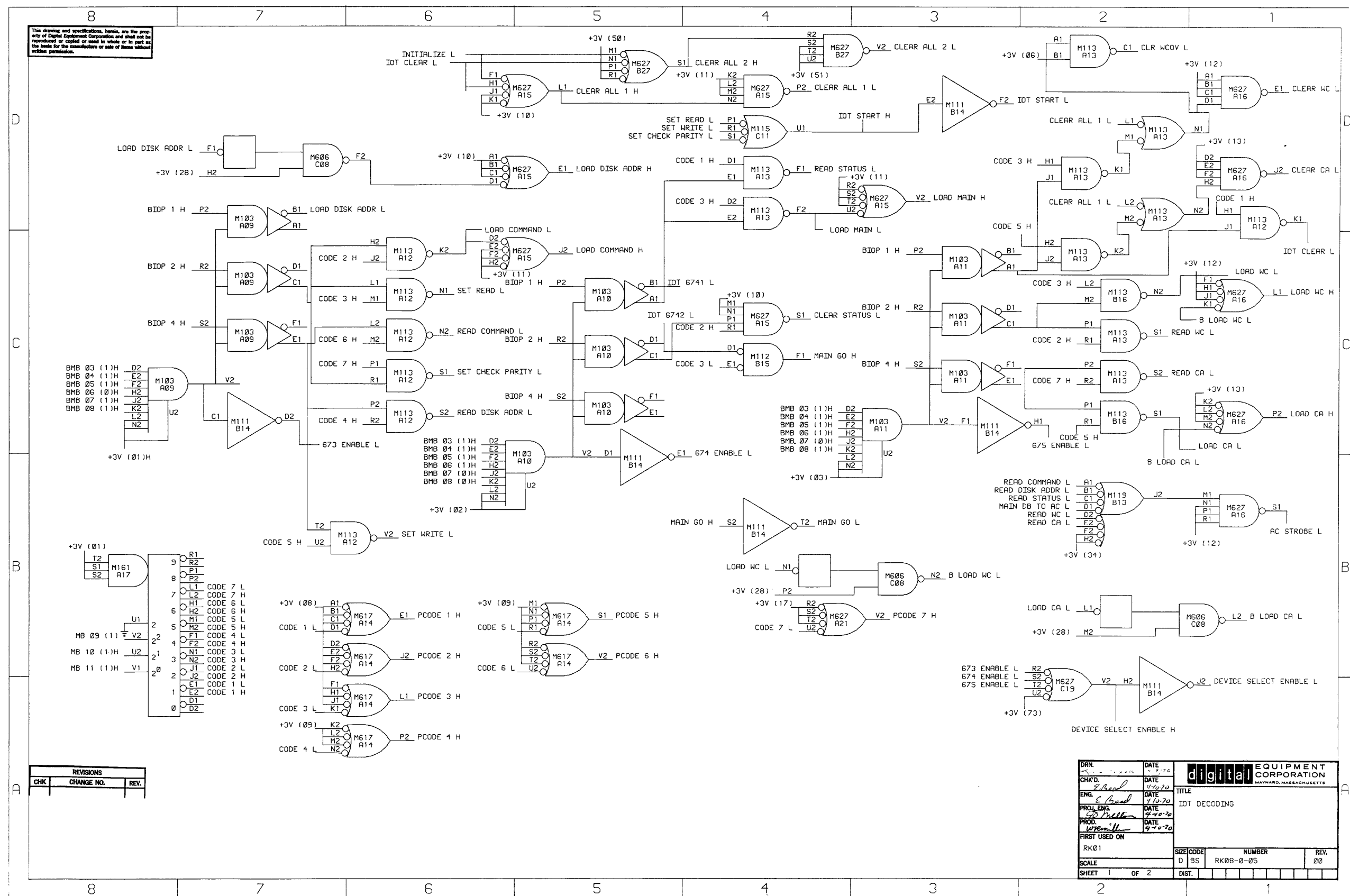


Figure II-13 +3V Clamp Block Schematic Diagram



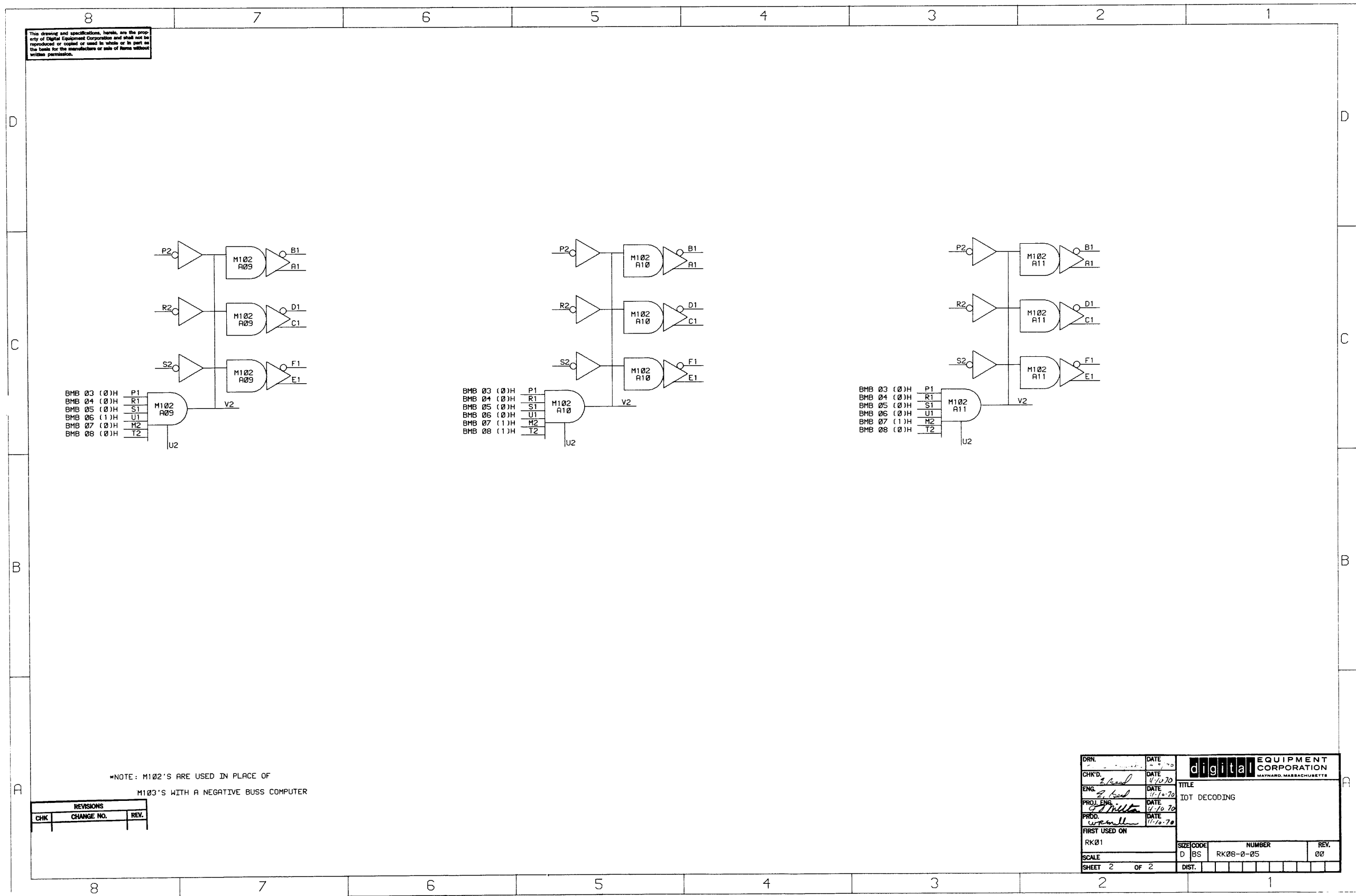


Figure II-15 IOT Decoding Block Schematic Diagram

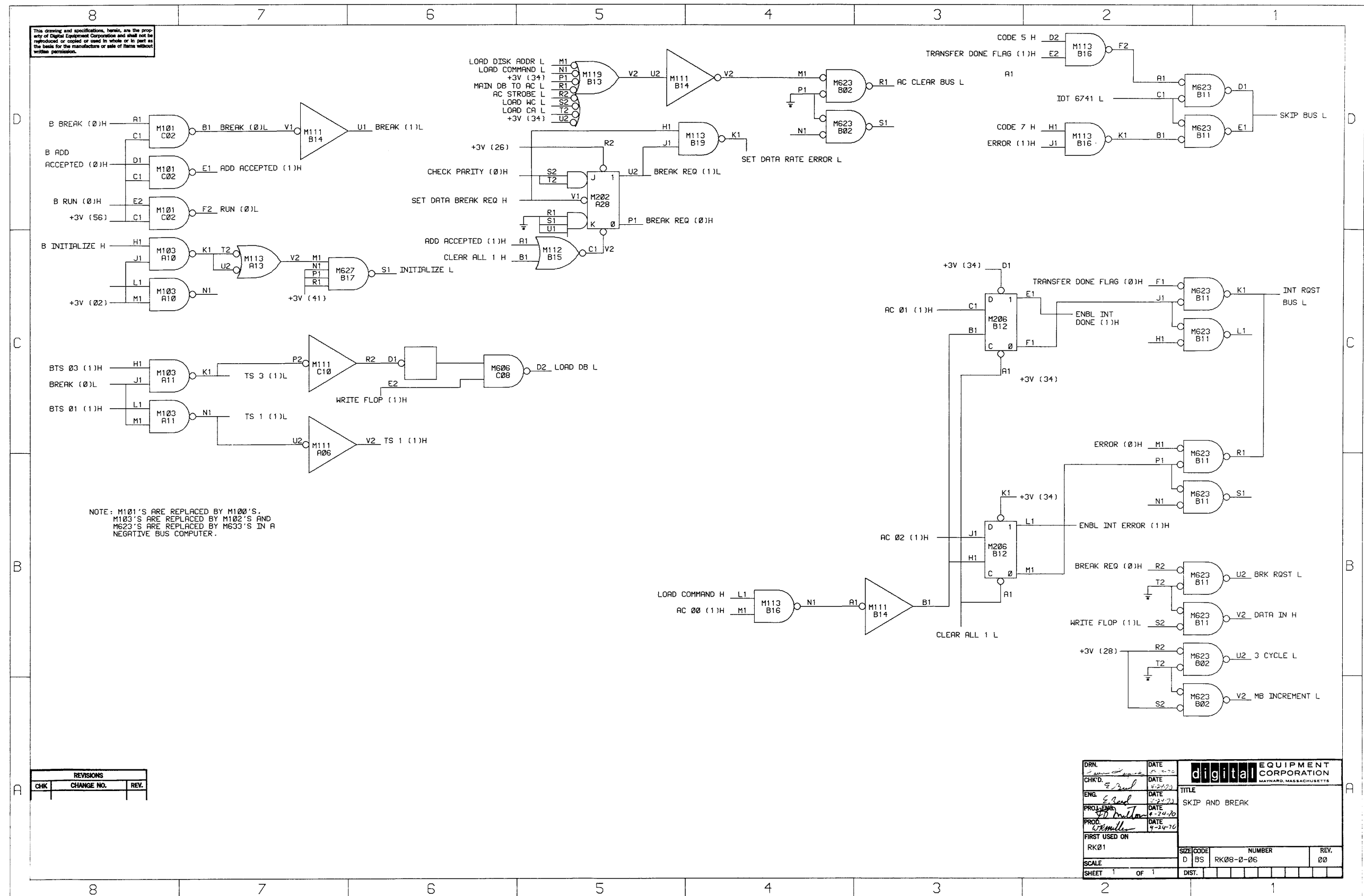


Figure II-16 Skip and Break Block Schematic Diagram

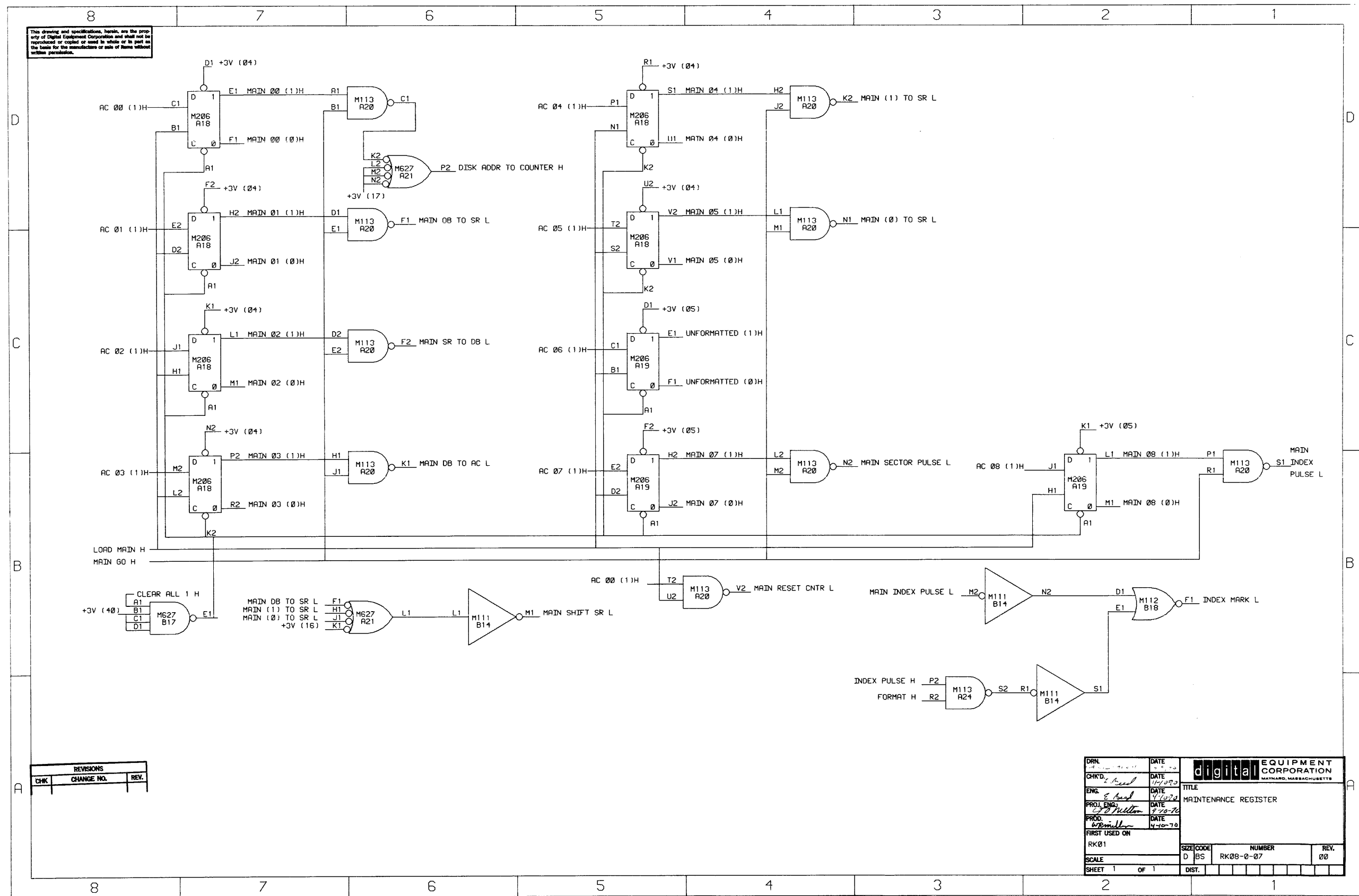


Figure II-17 Maintenance Register Block Schematic Diagram

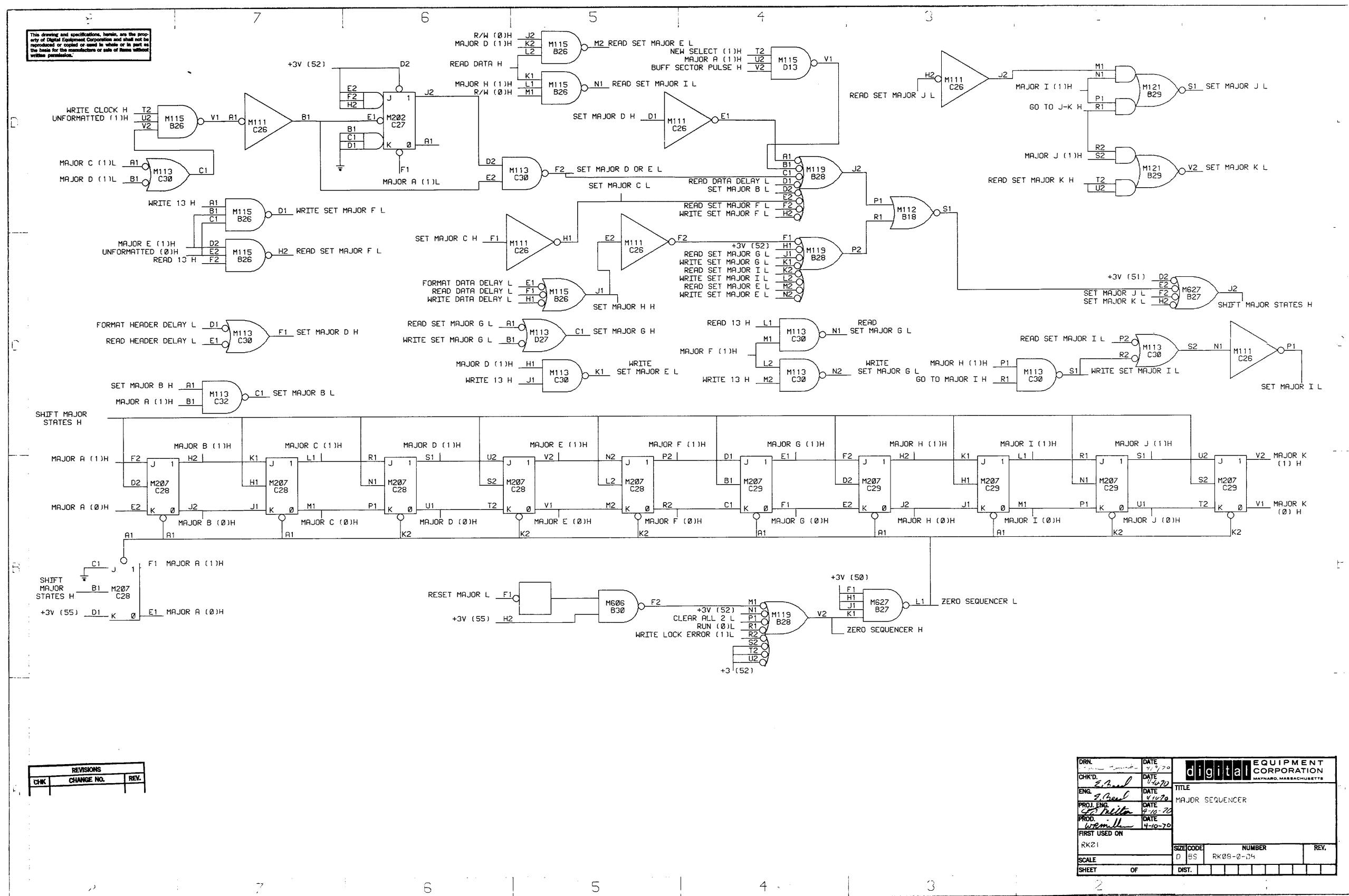


Figure II-18 Major Sequencer Register Block Schematic Diagram

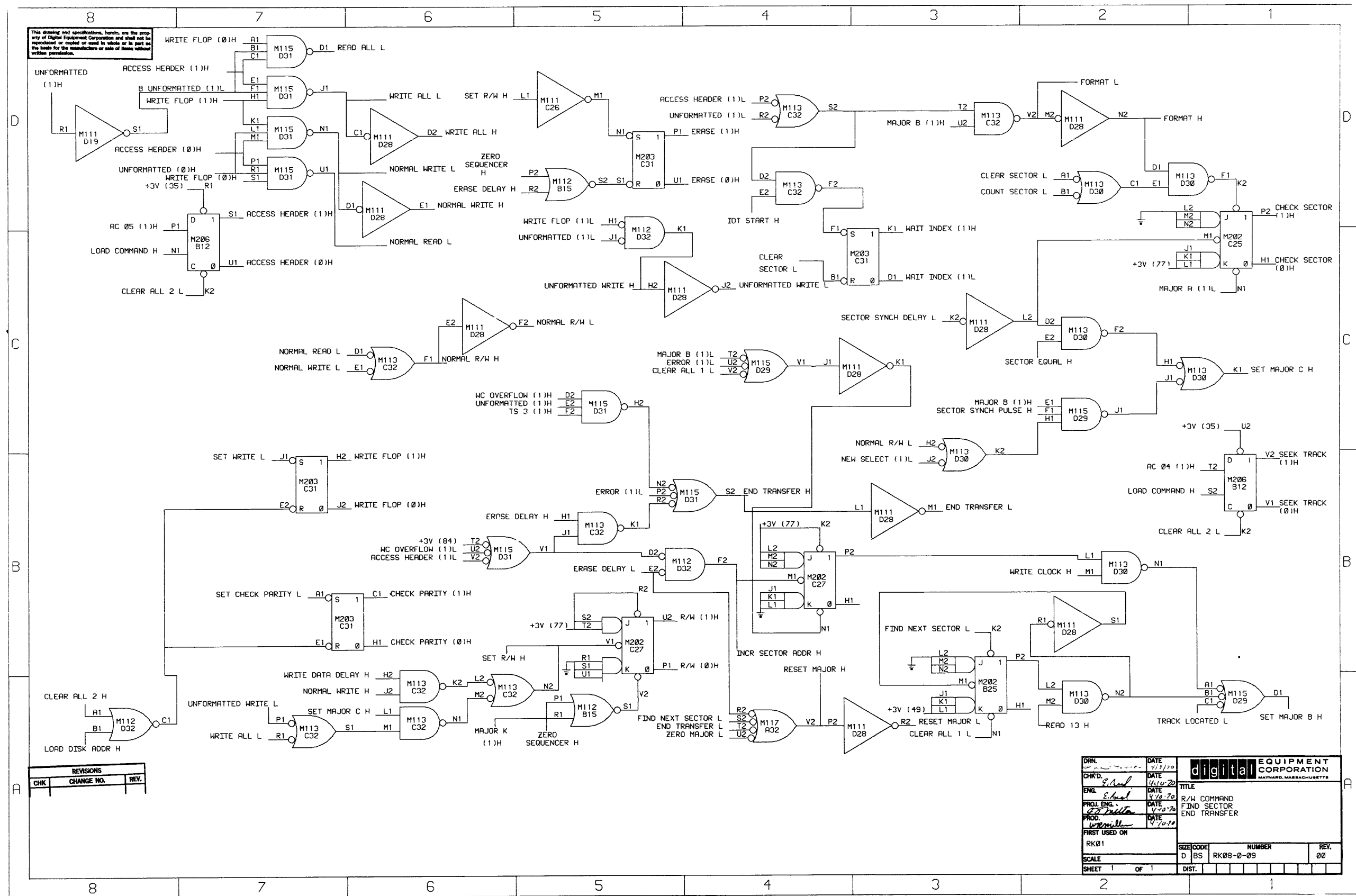


Figure II-19 R/W Command, Find Sector, End transfer
Block Schematic Diagram

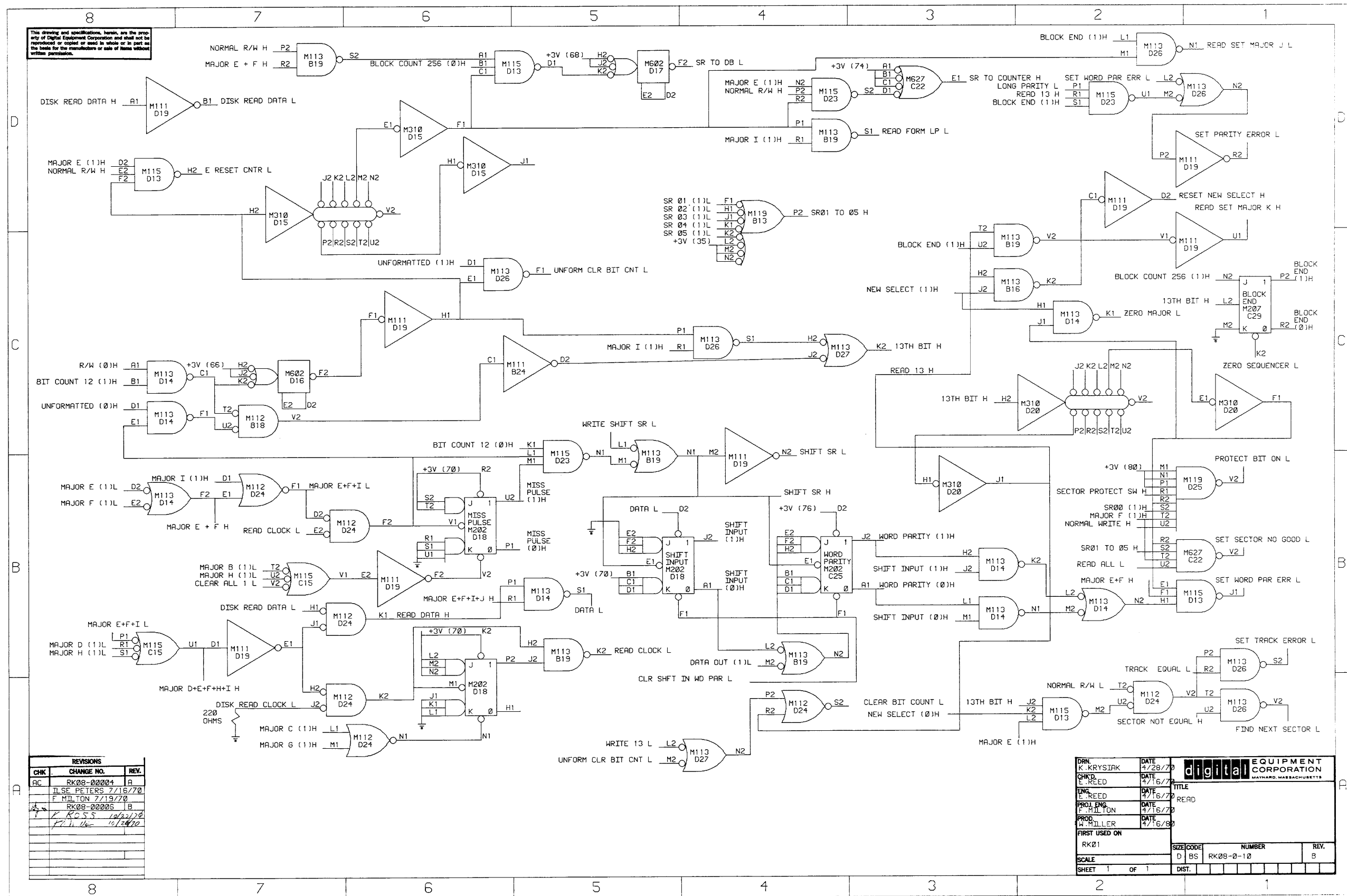


Figure II-20 Read Block Schematic Diagram

Figure II-21 Write Block Schematic Diagram



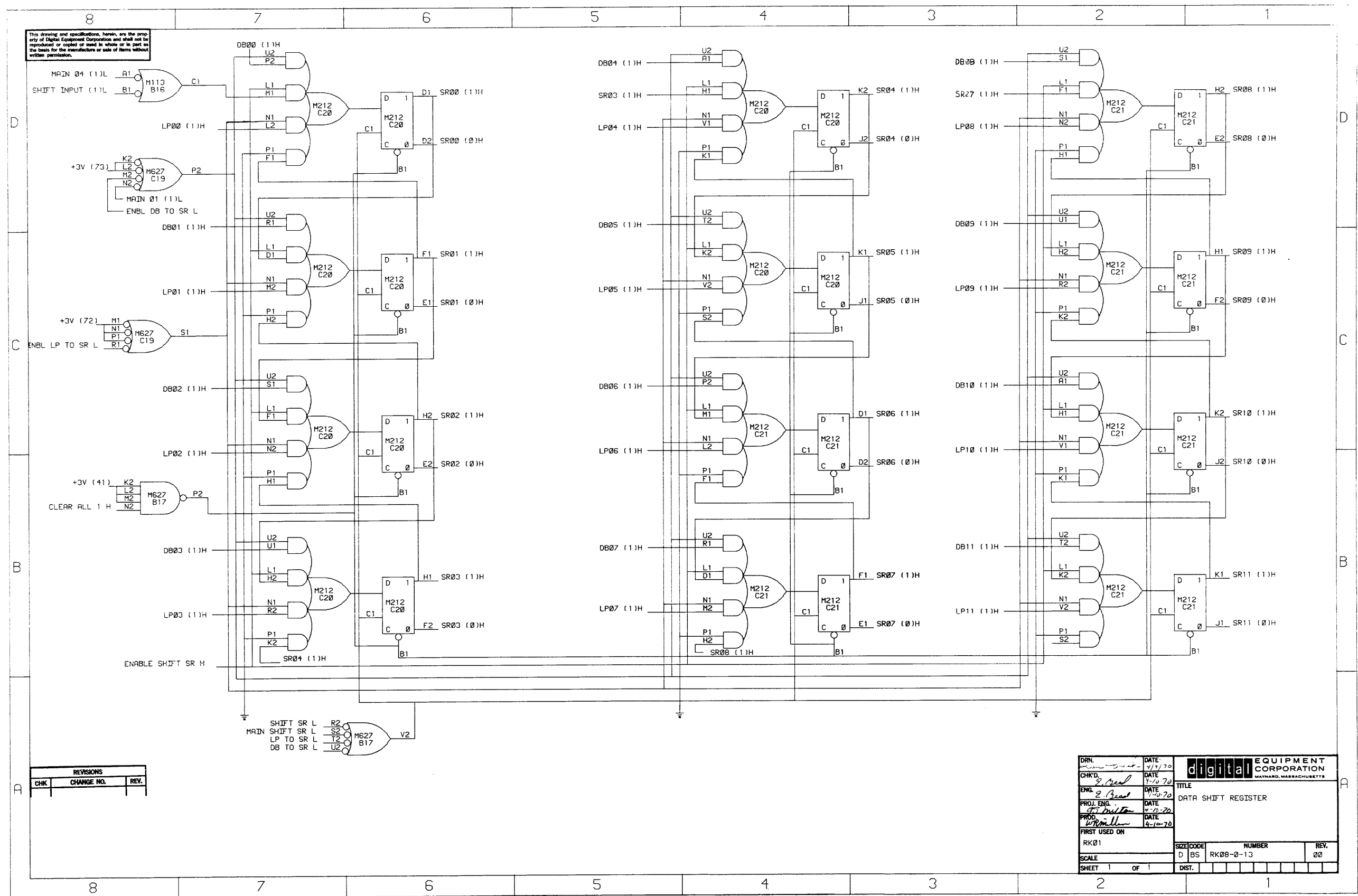


Figure II-23 Data Shift Register Block Schematic Diagram

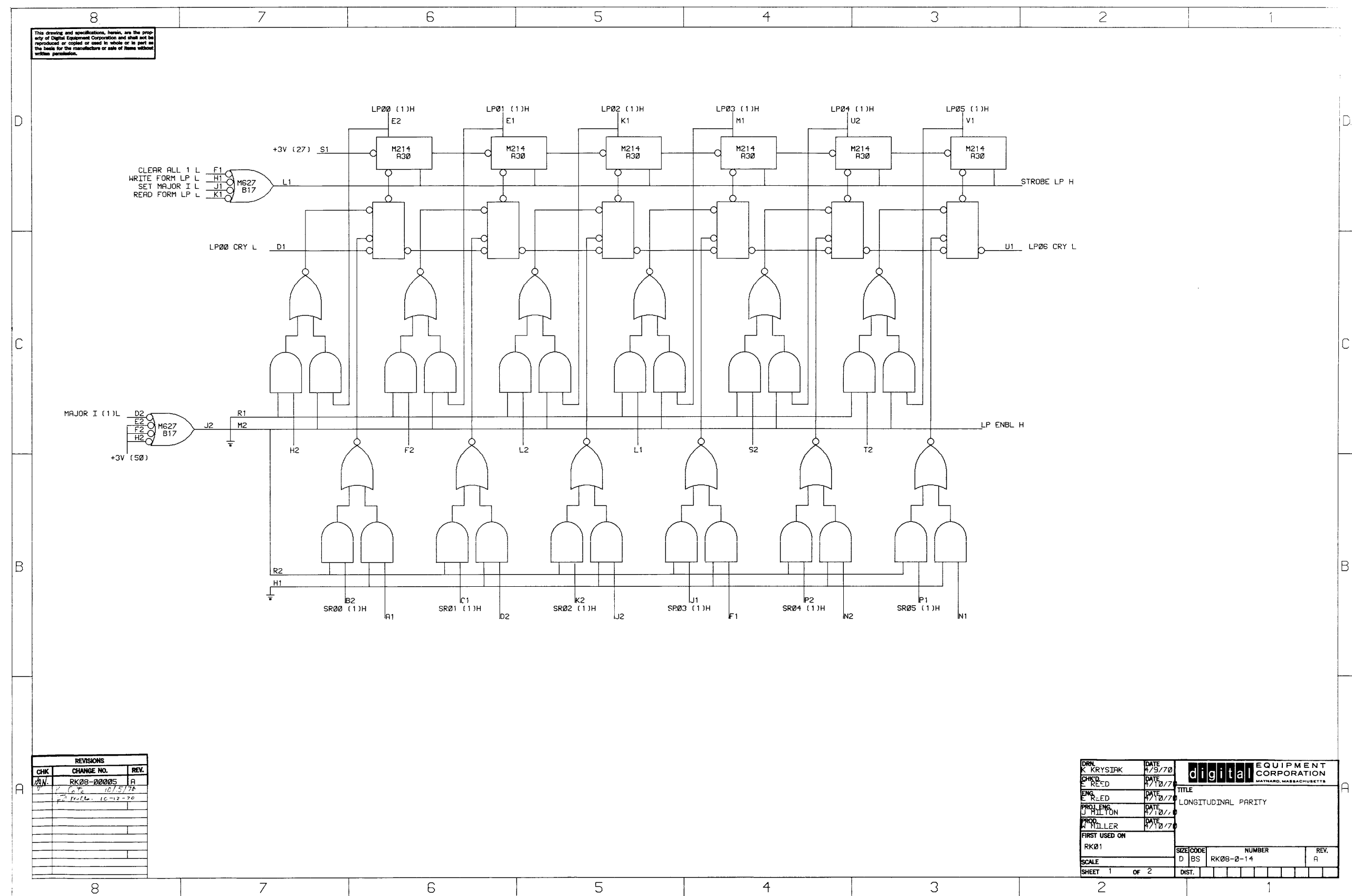


Figure II-24 Longitudinal Parity Block Schematic Diagram
(Sheet 1 of 2)

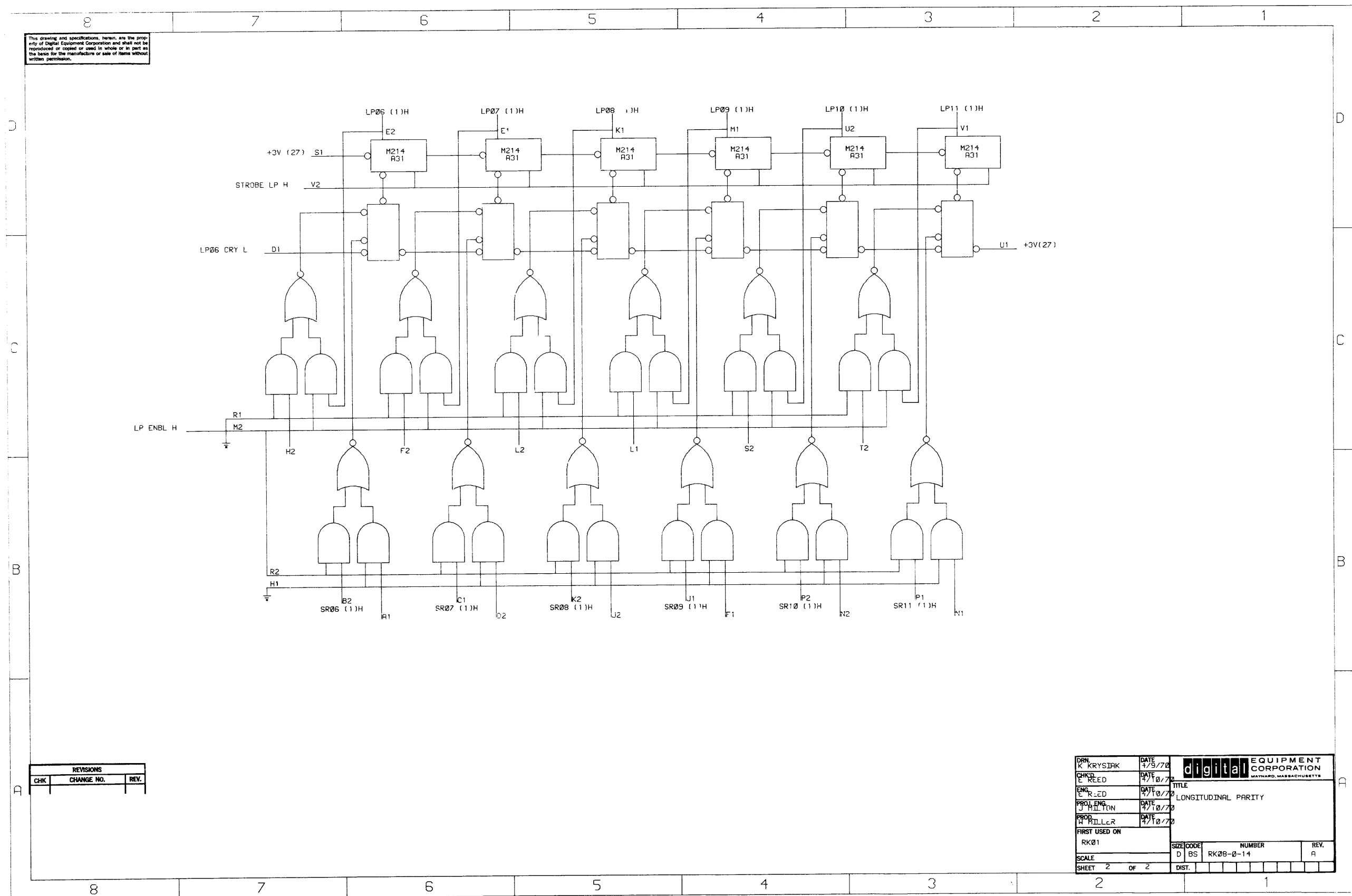


Figure II-25 Longitudinal Parity Block Schematic Diagram
(Sheet 2 of 2)

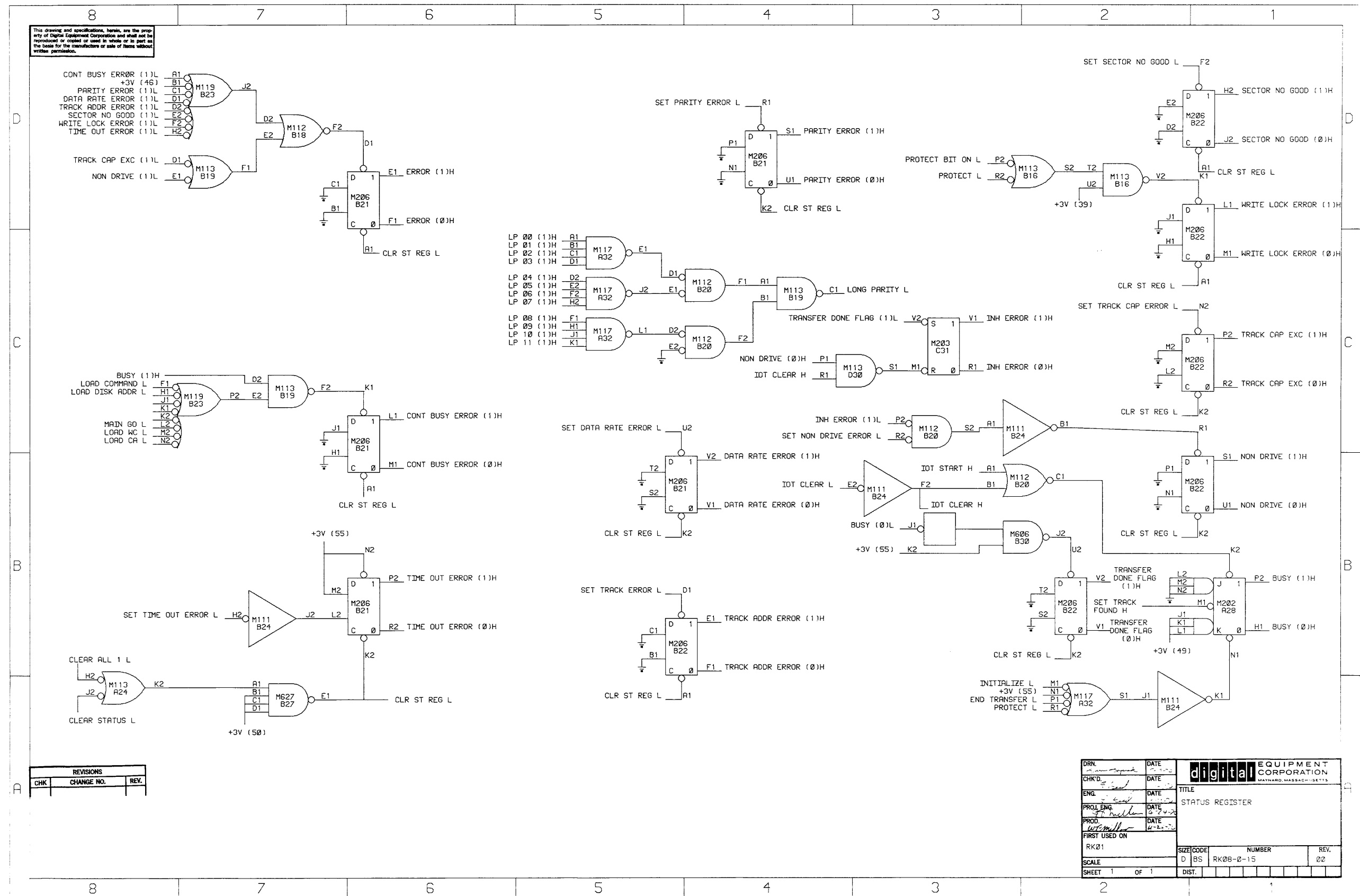


Figure II-26 Status Register Block Schematic Diagram

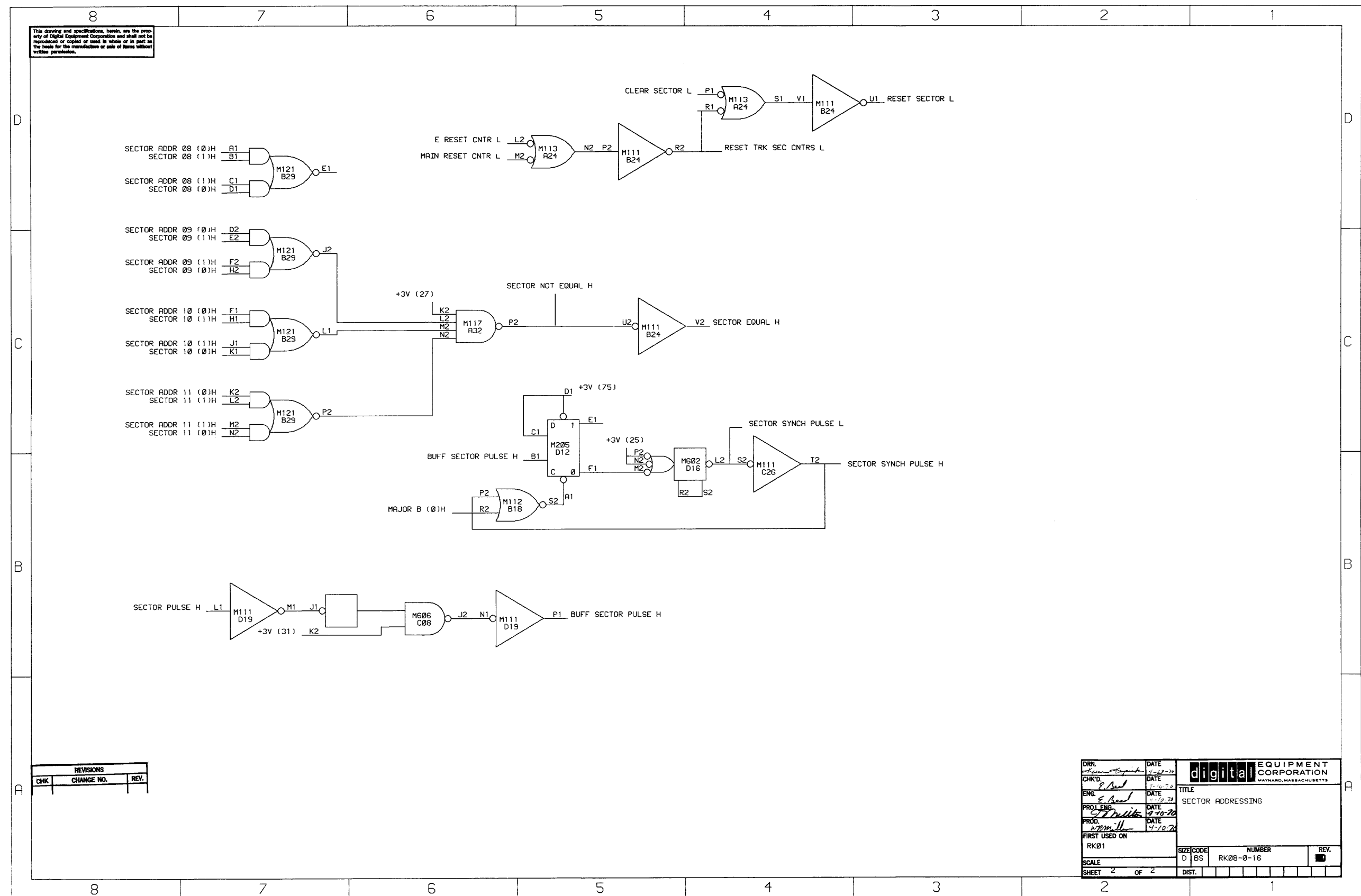


Figure II-28 Sector Addressing Block Schematic Diagram
(Sheet 2 of 2)

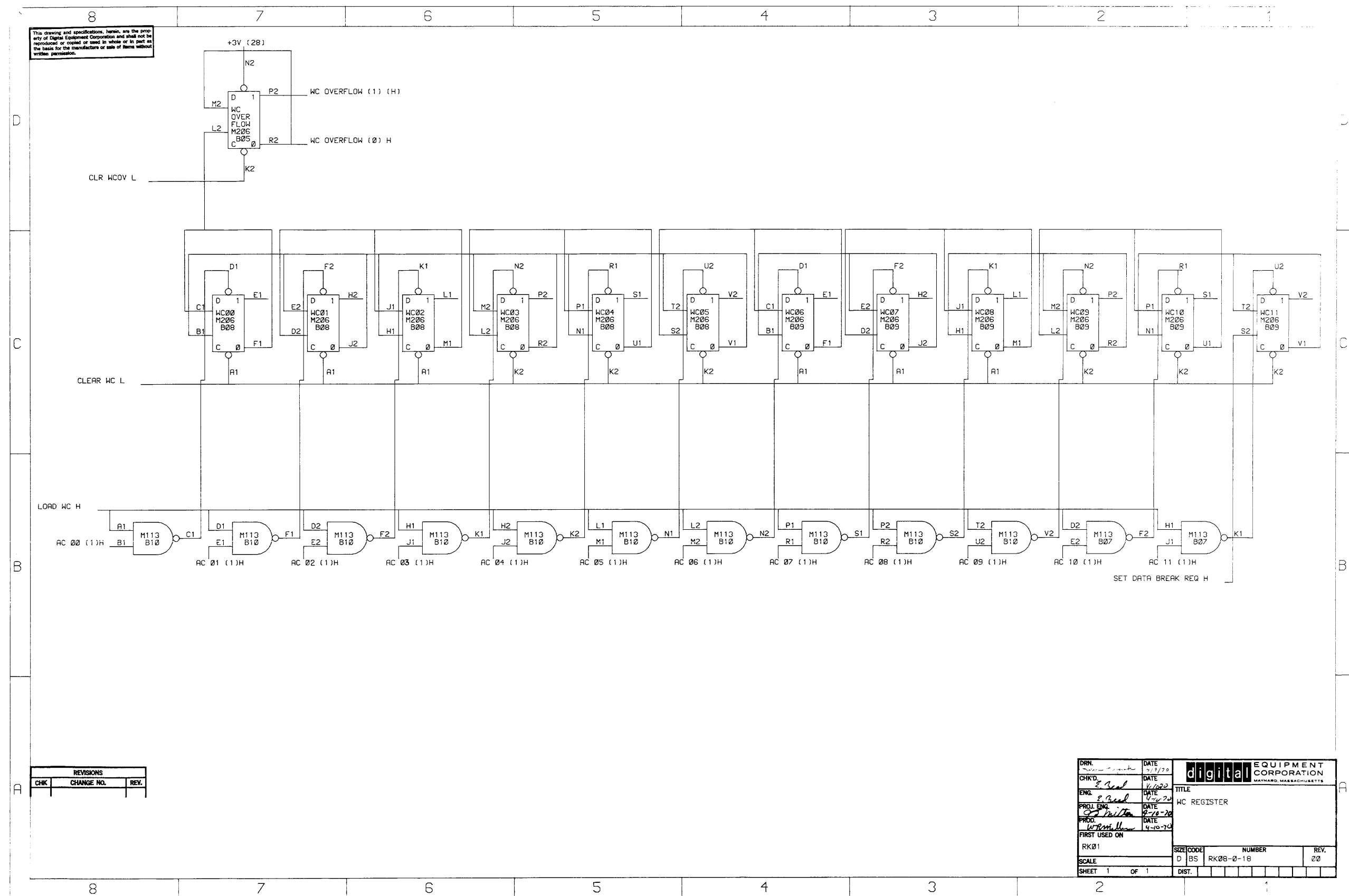


Figure II-30 Word Count (WC) Register Block Schematic Diagram

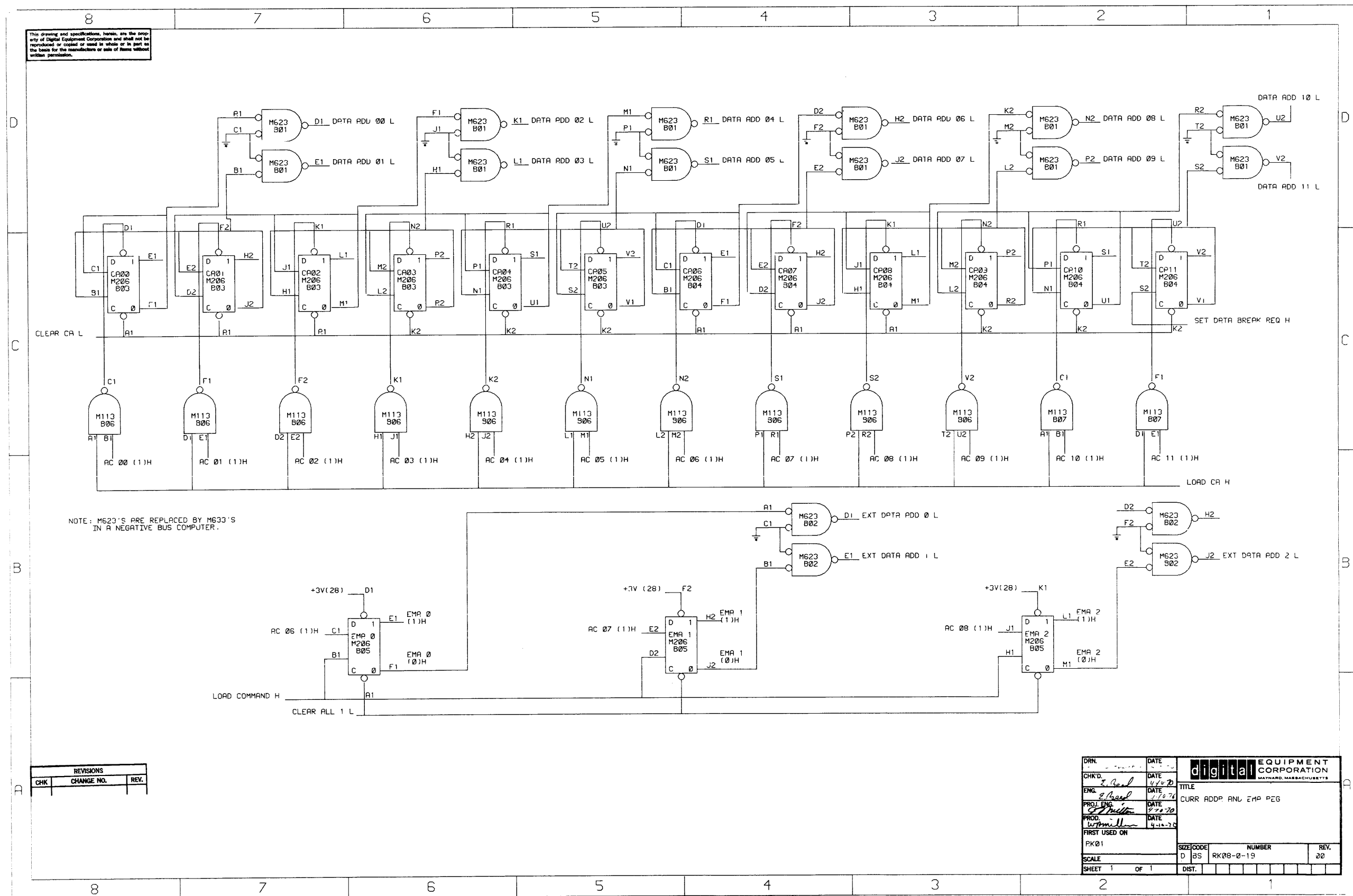


Figure II-31 Current Address and EMA Register Block Schematic Diagram

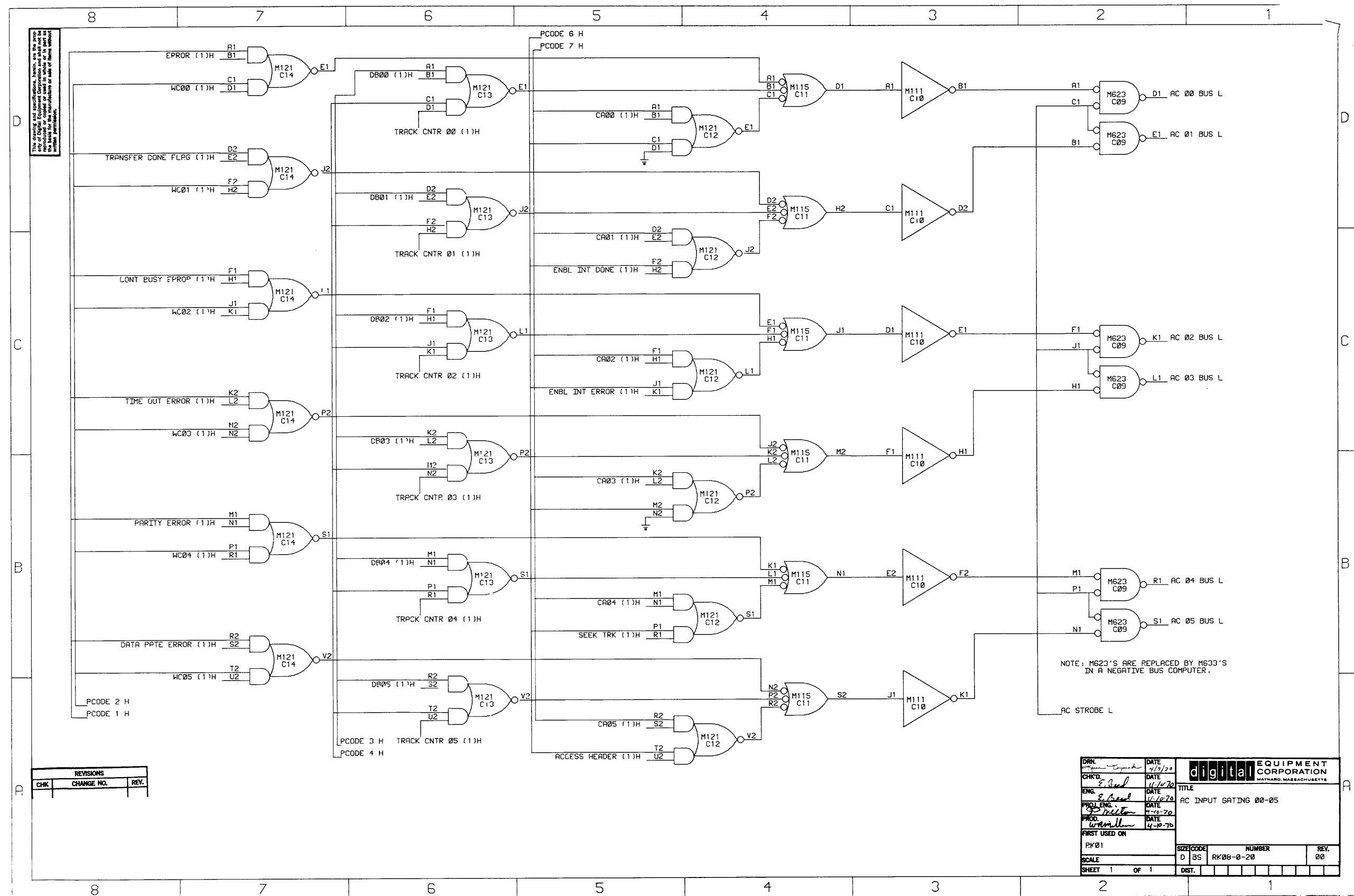


Figure II-32 AC Input Gating 00-05 Block Schematic Diagram

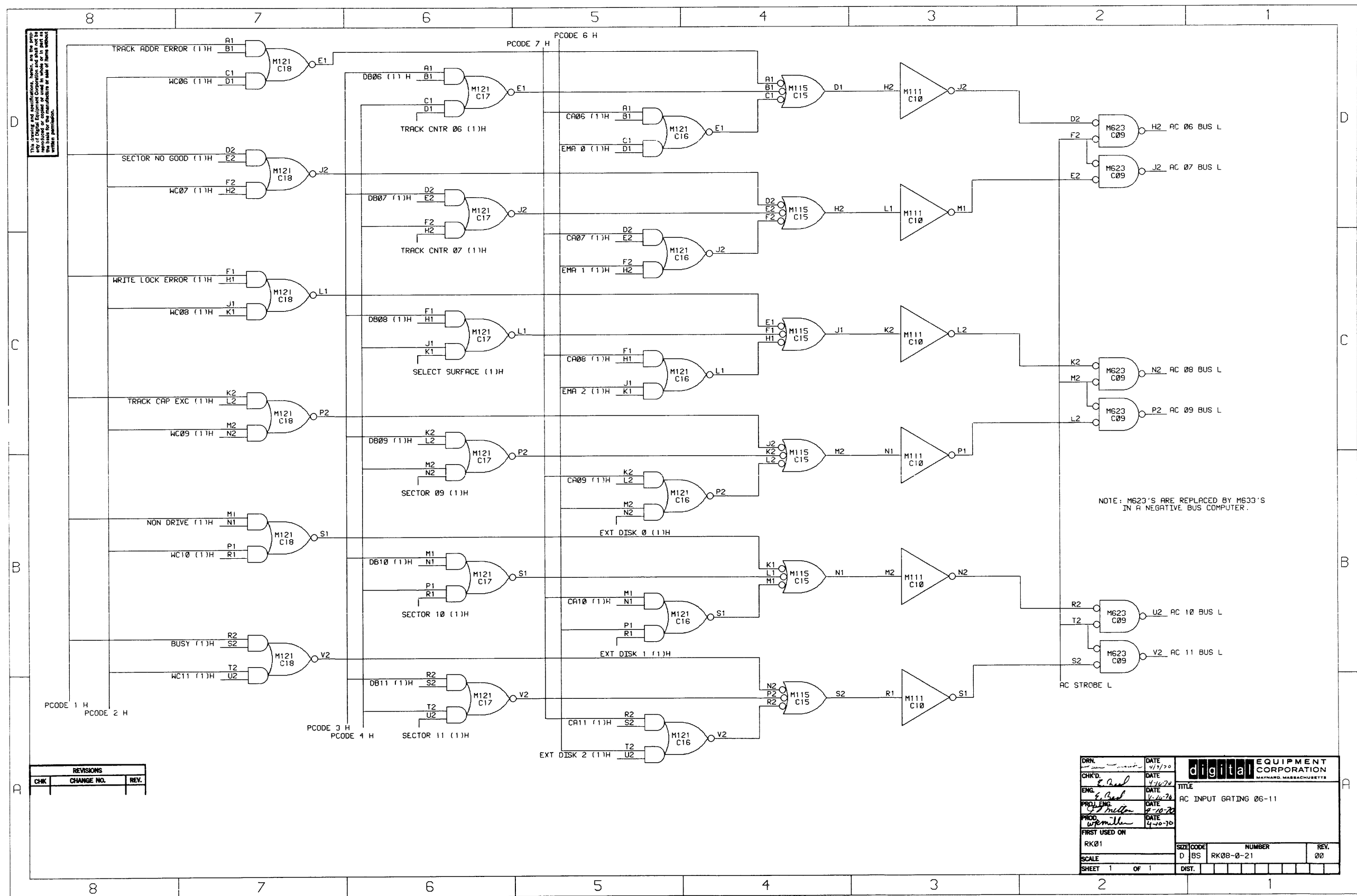


Figure II-33 AC Input Gating 06-11 Block Schematic Diagram

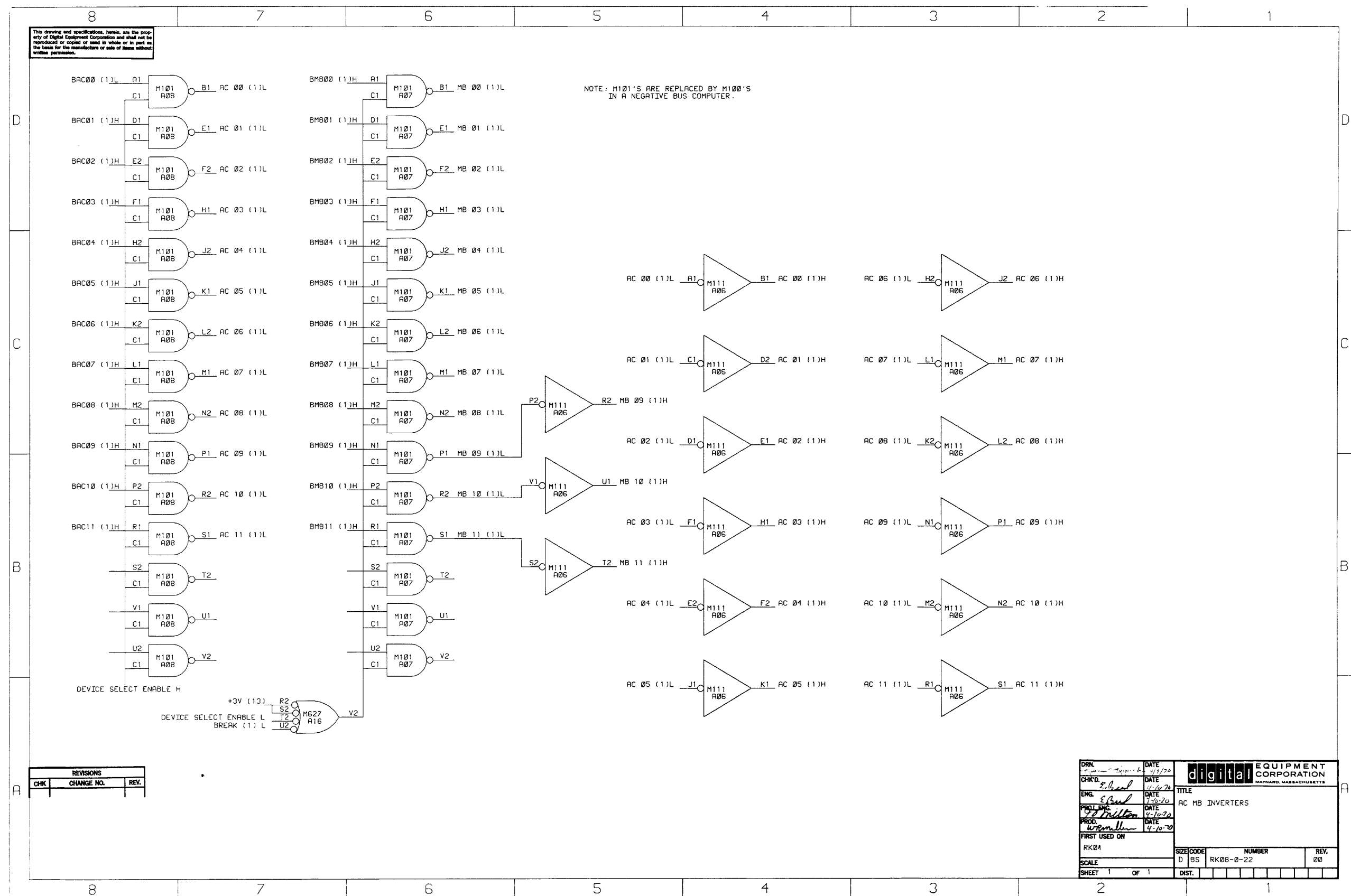


Figure II-34 AC Memory Buffer (MB) Inverters Block Schematic Diagram

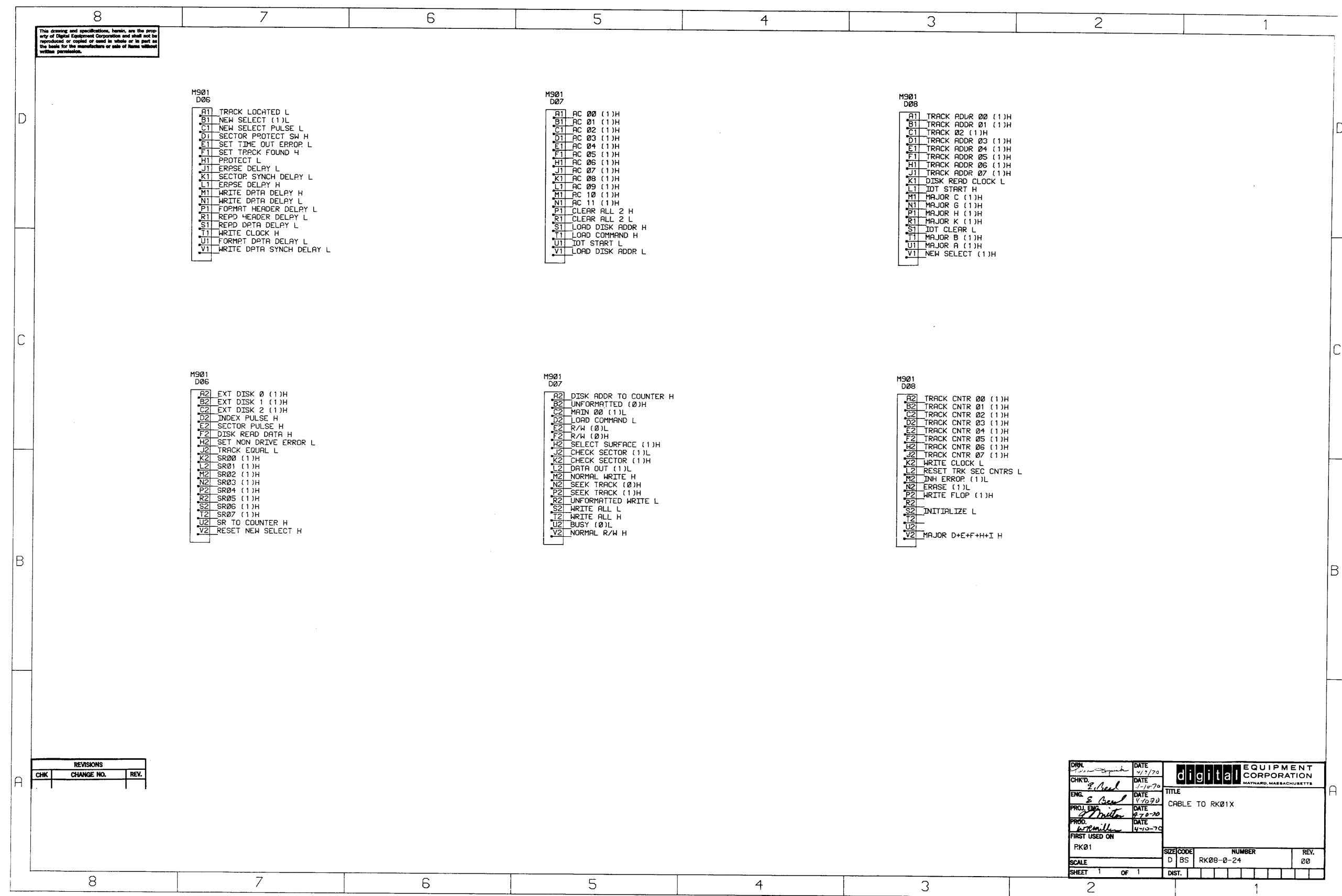


Figure II-36 Cable to RK01-X Block Schematic Diagram

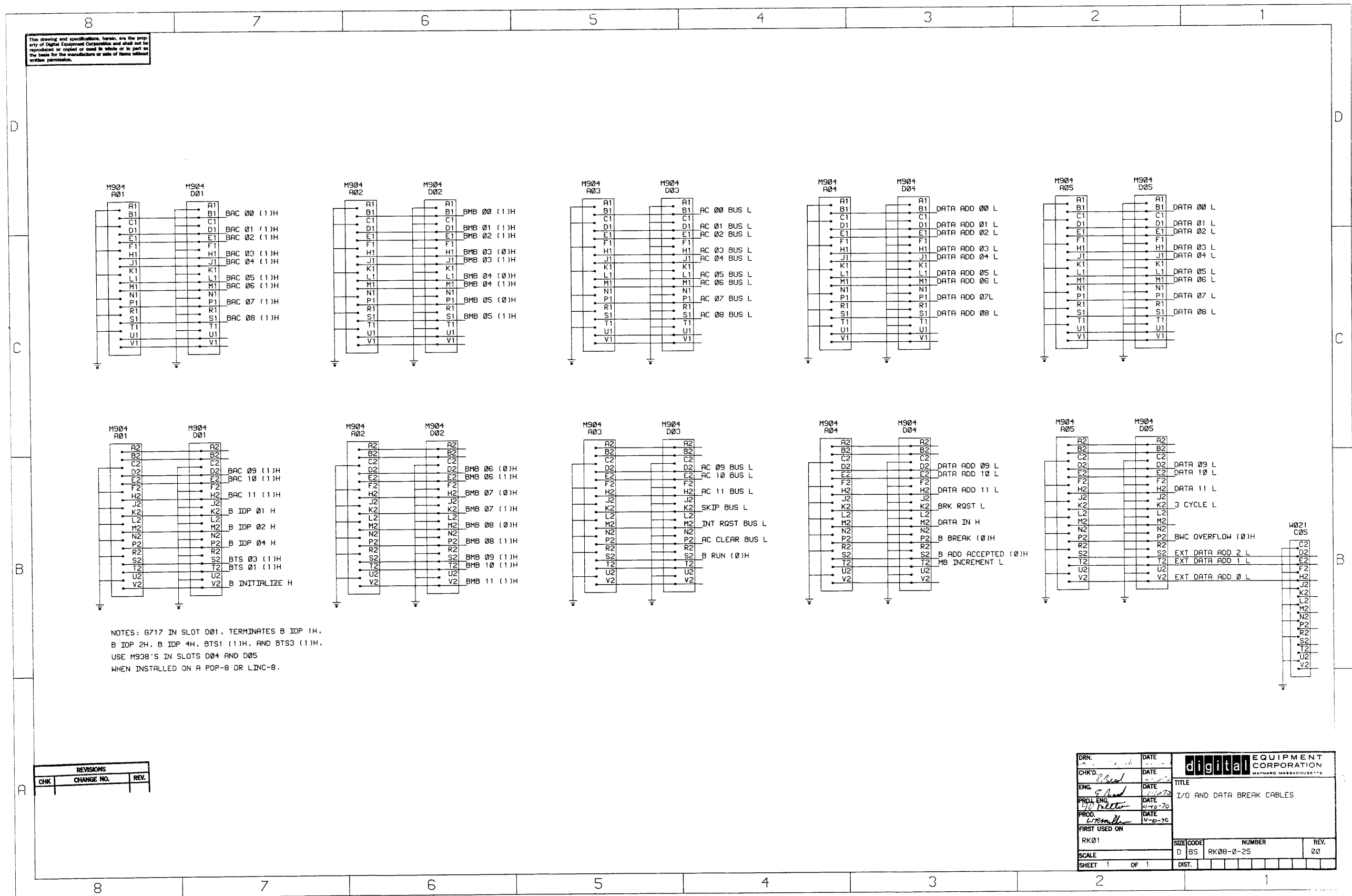


Figure II-37 I/O and Data Break Cables Block Schematic Diagram

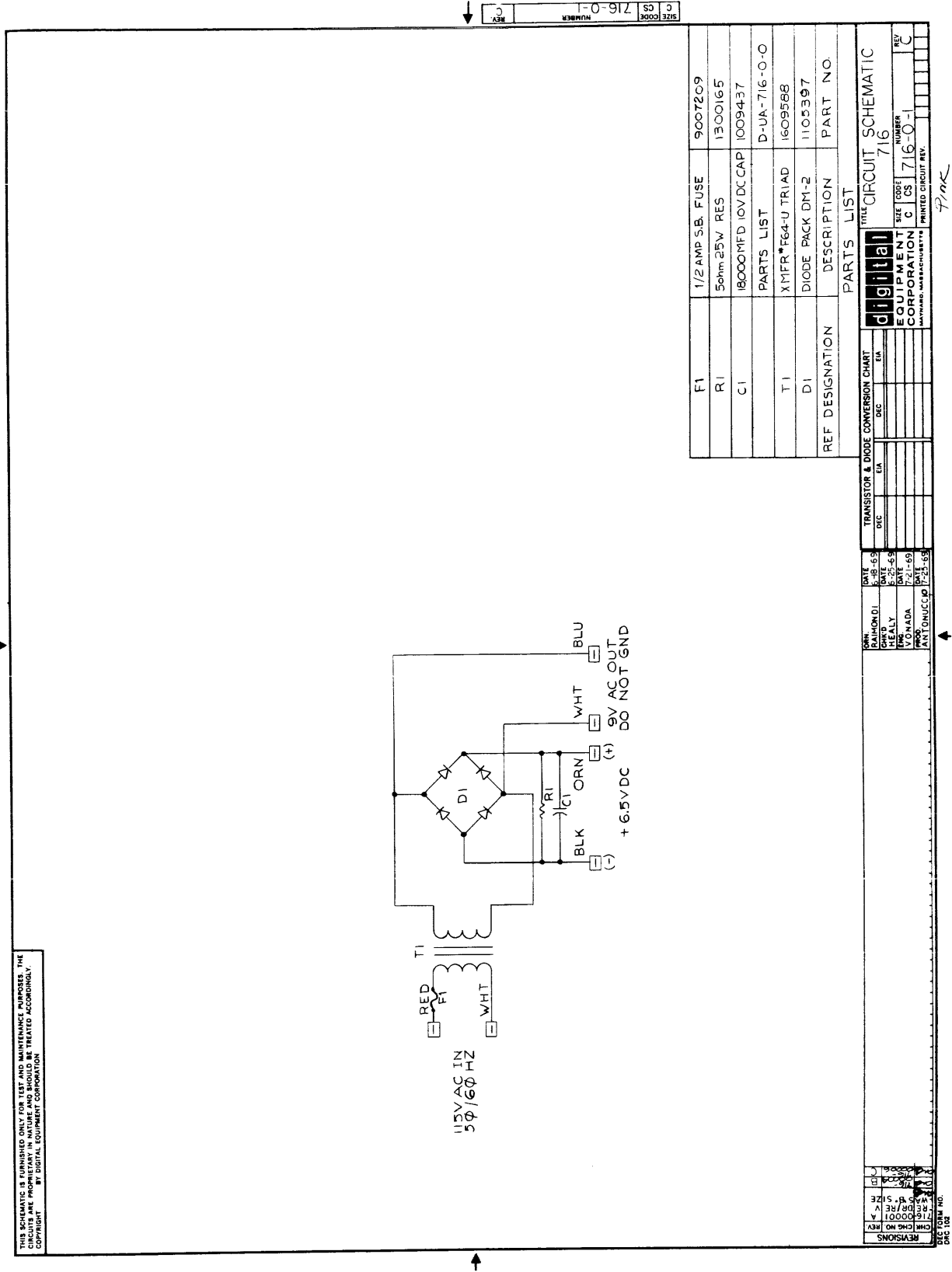


Figure II-39 Type 716 Power Supply Circuit Schematic Diagram

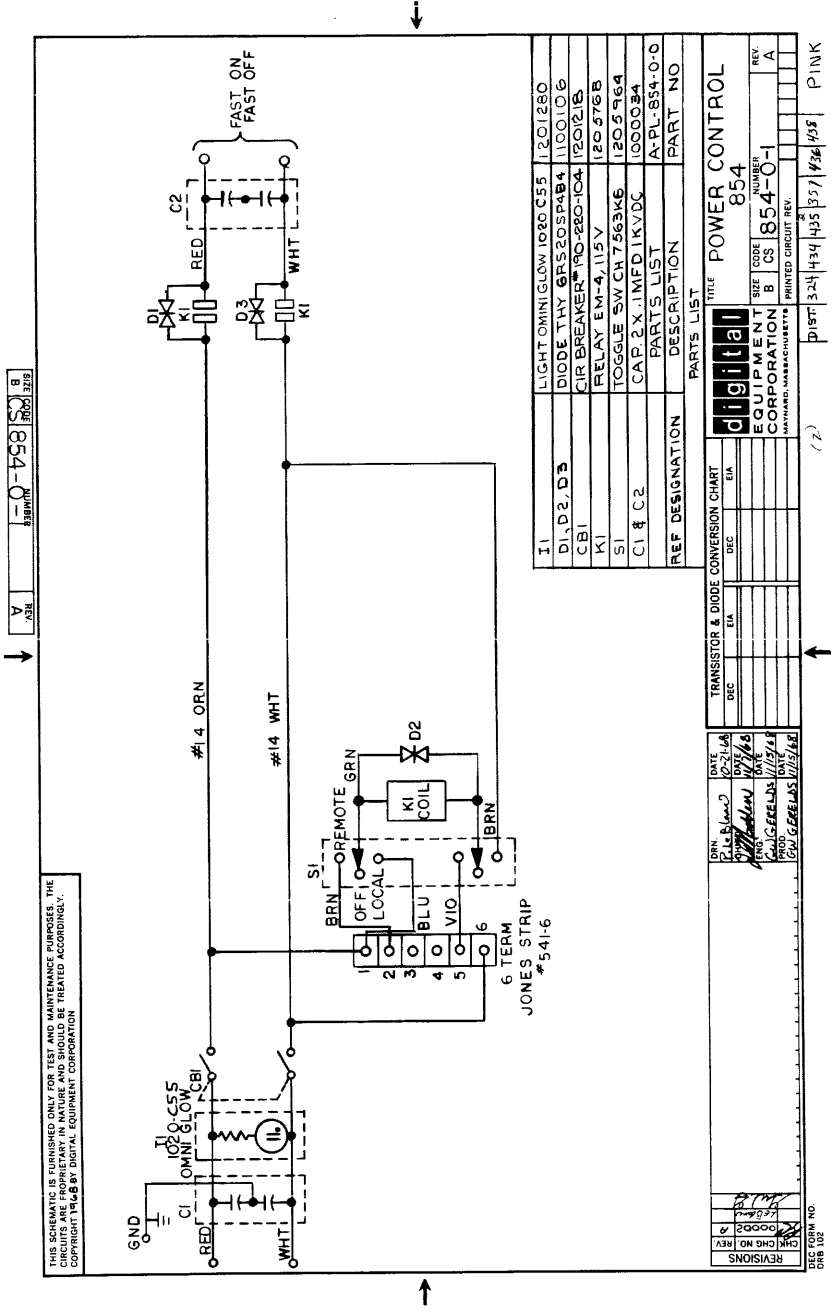


Figure II-40 Type 854 Power Control Panel Wiring Diagram

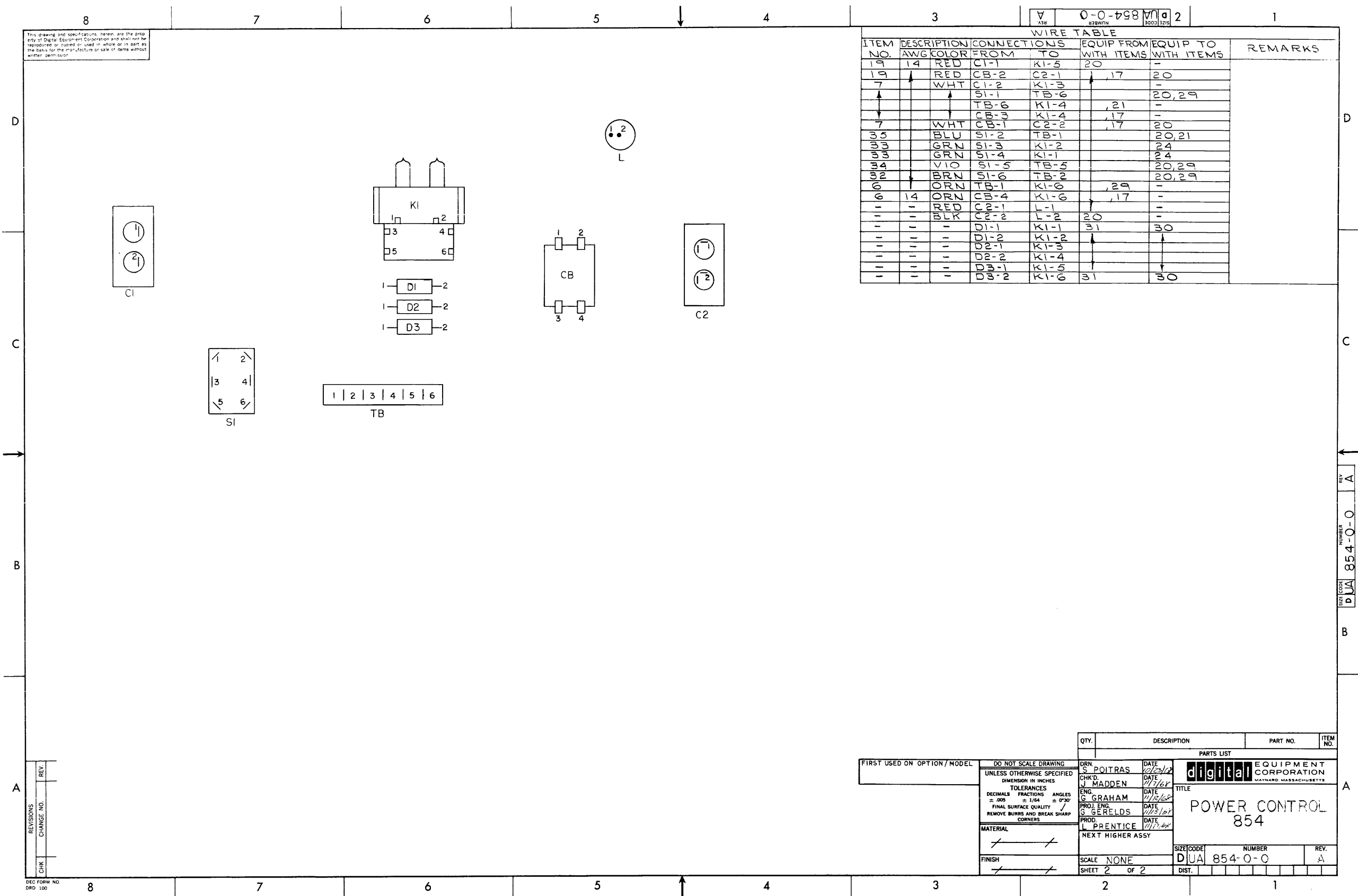


Figure II-41 Type 854 Power Control Panel
Component Pin Location Diagram
(Sheet 2)

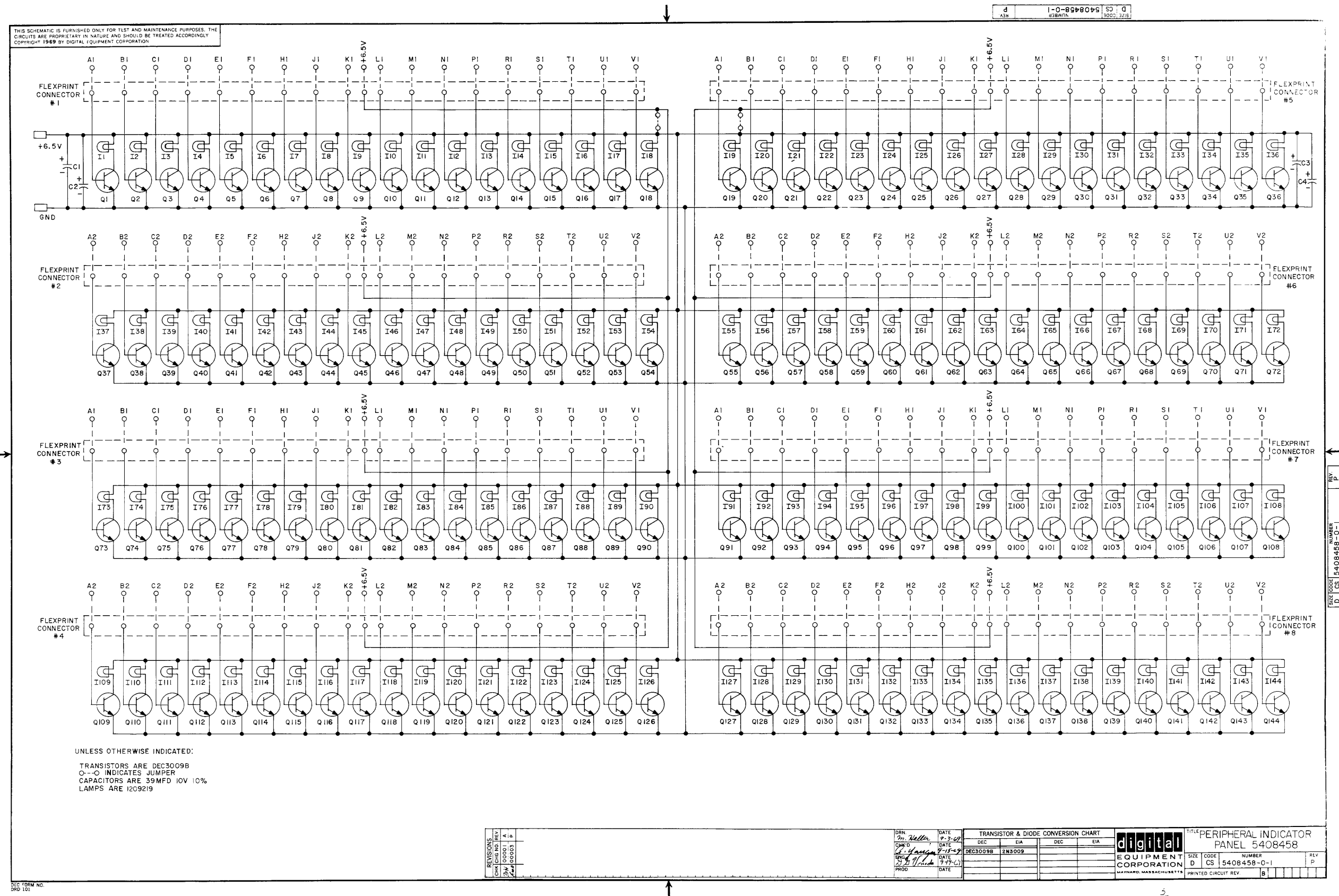


Figure II-42 Register Indicator Panel Circuit Schematic Diagram

Figure II-44 AC/DC Power Wiring Diagram

