

PDP-15 Systems

**Maintenance Manual
Engineering Drawings
Volume 2**



PDP-15
MAINTENANCE MANUAL
ENGINEERING DRAWINGS
VOLUME 2

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PDP-15
Engineering Drawings

NOTE

Throughout the text and block schematic prints, block schematic references are noted in short form. For example, "D-BS-KP15-0-32" is shortened to "KP32" and "D-BS-KE15-0-04" is shortened to "KE04".

The short form references are only for reader convenience. Use the complete drawing number to order a specific print.

Drawing Codes

The codes assigned to each type of engineering drawing are listed in the following chart.

Type Code	Definition	Type Code	Definition
AD	Assembly drawing	IC	Interface cabling diagram
AR	Arrangement drawing	ML	Master drawing list
BD	Block diagram	MU	Module utilization drawing
BS	Block schematic	PL	Parts list
CD	Cable diagram	SP	Specification
CL	Cable list	TD	Timing diagram
CP	Component list	UA	Unit assembly
CS	Circuit schematic	WD	Wiring diagram
FD	Flow diagram	WL	Wire list

Drawing Number Index

Table 1-1 is an index to the engineering drawing arranged by section and drawing number in alpha-numeric order.

Signal Glossary

Table 1-2 is a signal glossary arranged in alphanumeric order. The signal glossary includes the short form block schematic print number (DRAWING) that shows how the signal is developed.

The ORIGIN column indicates the module location and output pin number for test purposes. The FUNCTION column provides a brief description of the purpose of the signal. The signal glossary is

INTRODUCTION

Volume 2 of the PDP-15 maintenance manual includes a set of engineering drawings for the basic processor and options.

ENGINEERING DRAWING ORGANIZATION

All PDP-15 systems, from the basic PDP-15/10 through the disk-oriented background/foreground PDP-15/40 system are organized into four main sections: central processor (CP), core memory, input/output (I/O) processor, and console. The designations of these sections are: KP15 Central Processor, MM15 Memory, KD15 I/O Processor and KC15 Console. Additional options that may be implemented in a system are: KE15 Extended Arithmetic Element, KA15 Automatic Priority Interrupt, KM15 Memory Protect, MP15 Memory Parity, KT15 Memory Protect/Relocate, KW15 Real Time Clock, and KF15 Power Fail. Each engineering drawing is assigned a coded drawing identification number that indicates the type of drawing, applicable section, and series.

For example, the drawing identification number D-FD-PDP-15-0-4 provides the following information:

D	"D" size (22 x 34 inches)
FD	Flow diagram (drawing type)
PDP-15	Pertains to overall PDP-15 system
0	Manufacturing variation
4	The fourth in a series of overall system flow diagrams.

As a second example, the drawing identification number D-BS-KP15-0-32 provides the following information:

D	"D" size
BS	Block schematic (Drawing type)
KP15	Pertains to KP15 Central Processor

not intended to be a complete list of signal mnemonics. Many of the mnemonics are self-explanatory and easily interpreted, once the reader is familiar with the signal mnemonic conventions which are described in the section titled SIGNAL NAMES.

LOGIC SYMBOLS

The logic modules used in the PDP-15 are primarily DEC M-series, which is the integrated circuit, positive logic series. The voltages used are:

Low (L) = 0V (0V — +0.4V)
High (H) = +3V (+2.4V — +3.6V)

For specific information on operating frequencies, loading etc., refer to the PDP-15 Module Manual. The logic symbology used is MIL-STD-806B. The gating symbols use small circles at the inputs of gates to indicate that a low signal activates the function. The absence of a circle indicates that a high signal activates the function. The presence or absence of a circle at the output of a gate indicates that the output is low (L) or high (H), respectively, when the gate has been activated (its output is true). An output is false if it is at a voltage different from that shown by the gate's polarity indicator (presence or absence of circle). Suffixes L or H indicate the low or high level of a signal when it is true or enabled.

Logic Gates

Boolean Functions are symbolized as follows:

Symbol	Function
*	Logic AND
+	Logical OR (inclusive)
-	Logical negation

The most commonly used gating symbols are the NAND (Figures 1 and 2); NOR (Figures 3 and 4), and the inverter (Figures 5 and 6). Each figure shows both the symbol and a Boolean expression of the logical operation it performs.

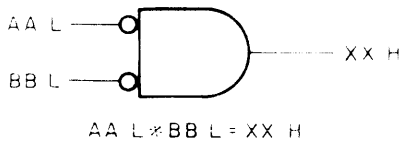


Figure 1 NAND Gate

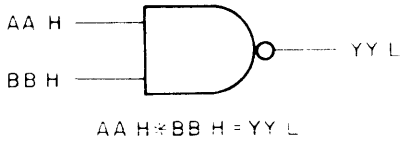


Figure 2 NAND Gate

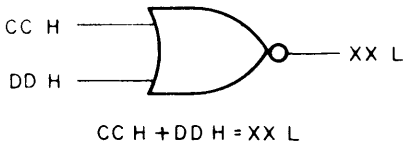


Figure 3 NOR Gate

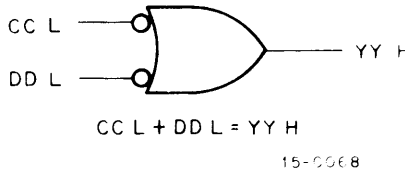


Figure 4 NOR Gate

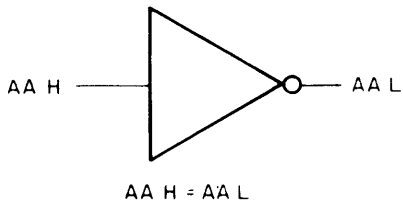


Figure 5 Inverter

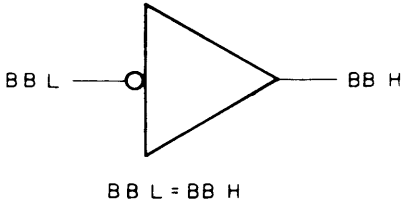


Figure 6 Inverter

Some of the logic gate symbols consist of combinations of basic logic functions, as shown in Figure 7. The logic functions of these gates can be determined by combining the basic logic functions.

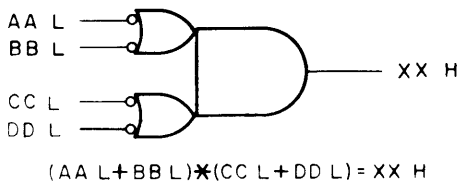


Figure 7 Combined Logic Functions

Flip-Flops

A major part of the work accomplished by the computer's logic is performed by flip-flops. Figures 8 through 10 illustrate the types of flip-flops used in the PDP-15 Systems.

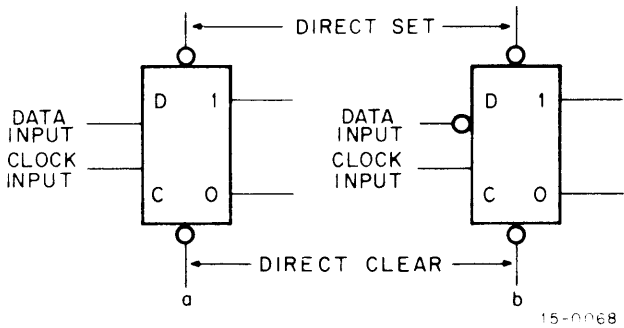


Figure 8 D Flip-Flop, Edge-Triggered

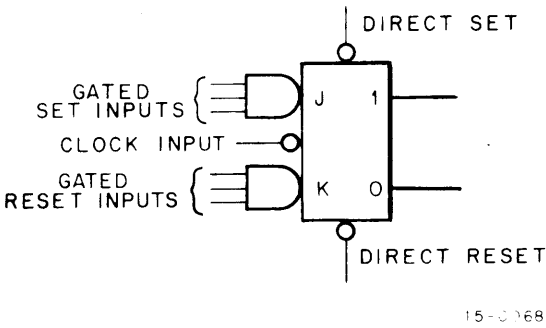


Figure 9 J-K Flip-Flop

The flip-flop in Figure 8a requires a high data input when clocked to set; the flip-flop in Figure 8b requires a low data input to be set. The D flip-flop will be drawn on the logic diagrams to agree with the voltage level of the data input necessary to set the flop.

Figure 9 shows the J-K flip-flop. The flop has direct set and reset inputs, and clock-gated set and reset inputs. If both gated inputs are high when the flop is clocked, the flop will complement.

The flip-flop in Figure 10a can be reset by either one of two inputs; the flip-flop in Figure 10b has the OR gate on its set side.

Variable Clock

The PDP-15 uses variable clocks to generate timing signals and control gating functions. Figure 11 shows a typical variable clock symbol.

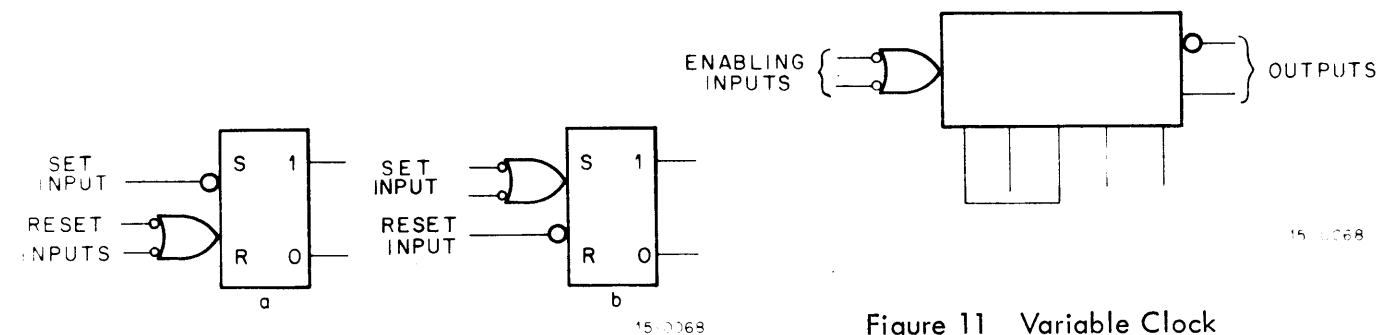


Figure 10 R-S Flip-Flop

Pulse Amplifier

The symbol for a typical pulse amplifier used in the PDP-15 is shown in Figure 12.

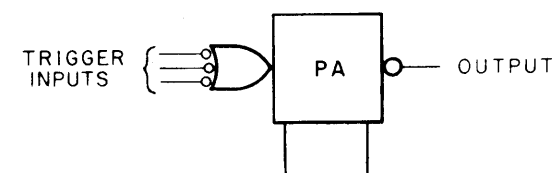


Figure 12 Pulse Amplifier

Miscellaneous Logic Symbols

Figures 13 through 15 show additional logic symbols that appear in the PDP-15 engineering drawing block schematics.

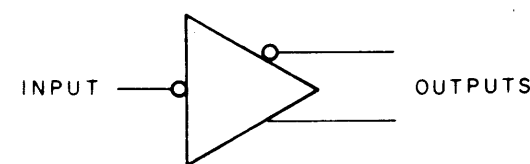


Figure 13 I/O Bus Receiver

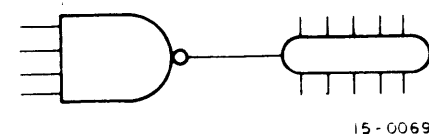


Figure 14 Delay

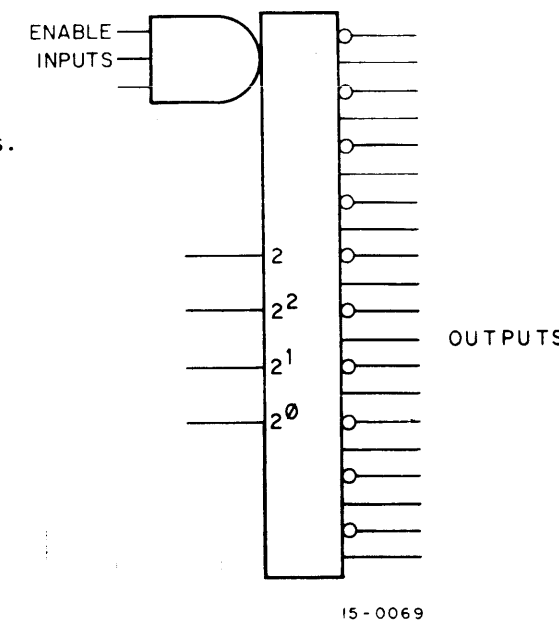


Figure 15 Binary to Octal Decimal Decoder

SYMBOL DESIGNATORS

Each logic symbol that appears on an engineering drawing block schematic contains designators that indicate the type of module used to perform the logic function, the physical location of the specific module used, and the electrical input and output pin connections that are used by that logic function.

The symbol designators used on the NAND gate shown in Figure 16 provide the following information:

- M112 The NAND gate is provided by an M112 module.
- L18 The module is installed in location L18.
- P1,R1 Input logic signals are applied to pins P1 and R1 on the module.
- S1 The output logic signal is available at pin S1 on the module.

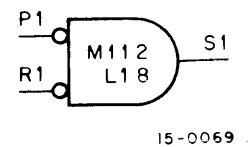


Figure 16 Gate Symbol Designators

In addition to the information listed above, flip-flop symbol designators include a name, such as READ, as shown in Figure 17.

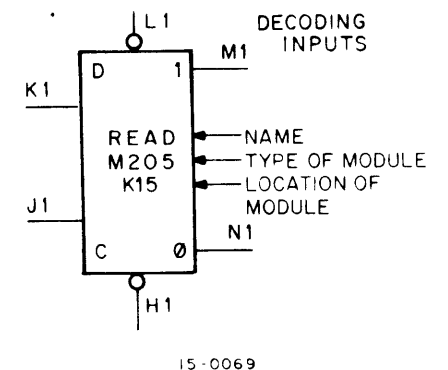


Figure 17 Flip-Flop Symbol Designators

SIGNAL NAMES

All signal mnemonics that appear on the block schematics include a prefix, signal mnemonic, and signal level indicators, as shown in Figure 18. The signal mnemonic provides the following information:

- a. The prefix indicates the short form print number where the signal originated. KP32 indicates the signal is developed as shown on print 32 of the KP15 Central Processor section.
- b. The signal mnemonic (RD RST) is usually an abbreviation of the complete signal name (read restart).
- c. The signal level indicator (H or L) indicates whether the signal is active when high (+3V) or low (0V).

When the signal is developed by a flip-flop, a (1) or (0) is included to indicate the flip-flop state required to provide the active signal. For example, KP32 CP ACT(1)H will be high (+3V) when the CP ACT flip-flop shown on KP32 is set. The source of this signal is the true (1) output of the CP ACT flip-flop. The signal convention allows this same signal to be designated KP32 CP ACT(0)L when it is applied as an active input to a low input type of gate.

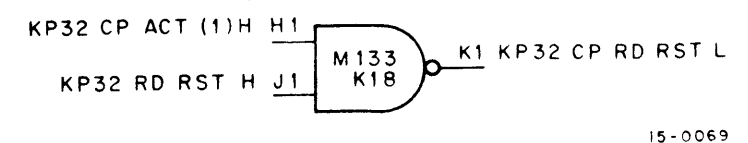


Figure 18 Typical Signal Names

Name Changes

If a flip-flop output is passed through an inverter (possibly for fan-out purposes) the signal name is changed to avoid confusion as to the signal origin. Refer to Figure 19. Logically, the KP66 IN STOP H signal is equivalent to KP64 IN STOP 02(0)L but a new name is assigned for identification purposes.

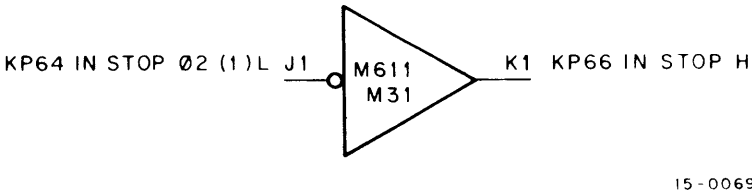


Figure 19 Signal Name Changes

Negated Signals

Negated signals are indicated by a dash that precedes the signal name. For example, when a signal called KP23 INC PC H is inverted, the output becomes — KP23 INC PC H. This convention is used when the signal is applied as an activating input to a high input gate. The signal is logically equivalent to KP23 INC PC L. The latter expression is used when the signal is applied as an activating input to a low input gate.

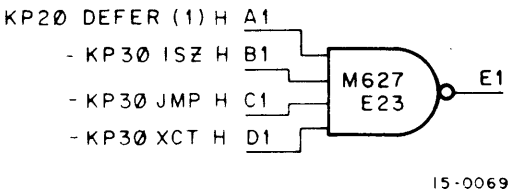


Figure 20 Negated Signals

An example of negated signals applied to a NAND gate is shown in Figure 20.

Disable Signals

Refer to Figure 21. A true output, logic 0, from gate A causes gate B to be disabled.

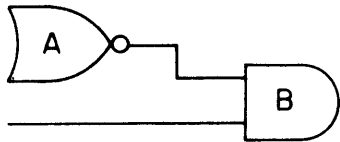


Figure 21 Disable Signal

Table 1-1
Drawing Number Index

Size (Original)	Type	Number	Title
E	UA	PDP15-0-0	PDP-15 Assembly
A	PL	PDP15-0-0	PDP-15 Assembly Parts List
D	DI	PDP15-0-1	Drawing Index List
D	AR	PDP15-0-2	System Configuration
D	IC	PDP15-0-3	Signal Wiring
D	IC	PDP15-0-14	Power Wiring
KC15A Console Assembly			
E	IA	5408392-0-0	Switch Board
D	CS	5408392-0-1	Circuit Schematic
D	IA	5408394-0-0	Console Light Board
D	CS	5408394-0-1	Console Indicator Panel Circuit Schematic
KP15 I/O and Central Processor			
D	MU	KP15-0-102	Module Utilization
D	BS	KP15-0-1	Register and Bus Bit 00
D	BS	KP15-0-2	Register and Bus Bit 01
D	BS	KP15-0-3	Register and Bus Bit 02
D	BS	KP15-0-4	Register and Bus Bit 03
D	BS	KP15-0-5	Register and Bus Bit 04
D	BS	KP15-0-6	Register and Bus Bit 05
D	BS	KP15-0-7	Register and Bus Bit 06
D	BS	KP15-0-8	Register and Bus Bit 07
D	BS	KP15-0-9	Register and Bus Bit 08
D	BS	KP15-0-10	Register and Bus Bit 09
D	BS	KP15-0-11	Register and Bus Bit 10
D	BS	KP15-0-12	Register and Bus Bit 11
D	BS	KP15-0-13	Register and Bus Bit 12
D	BS	KP15-0-14	Register and Bus Bit 13
D	BS	KP15-0-15	Register and Bus Bit 14
D	BS	KP15-0-16	Register and Bus Bit 15
D	BS	KP15-0-17	Register and Bus Bit 16

Table 1-1 (Cont)
Drawing Number Index

Size (Original)	Type	Number	Title
		KP15 I/O and Central Processor (Cont)	
D	BS	KP15-0-18	Register and Bus Bit 17
D	BS	KP15-0-19	Major Bus Control Logic
D	BS	KP15-0-20	Major State Generator
D	BS	KP15-0-21	Time State Generator
D	BS	KP15-0-22	Link and Link Control
D	BS	KP15-0-23	Skip Control
D	BS	KP15-0-24	Register Strobes
D	BS	KP15-0-25	Indicator Strobes
D	BS	KP15-0-26	Memory Mpx
D	BS	KP15-0-27	CP/Memory Interface Cables
D	BS	KP15-0-28	Operate Decoding
D	BS	KP15-0-29	Index Instruction Bus Control
D	BS	KP15-0-30	Major Instruction Decoding
D	BS	KP15-0-31	Instruction Register
D	BS	KP15-0-32	Memory Interface Control
D	BS	KP15-0-33	Detect X Mode and C Bus
D	BS	KP15-0-34	Console Interface
D	BS	KP15-0-35	Interrupt Control Logic
D	BS	KP15-0-38	I Bus 00-08, M1, M2, MQ
D	BS	KP15-0-39	I Bus 00-08, EAE, DSR
D	BS	KP15-0-40	I Bus 09-17, MQ, M1, M2
D	BS	KP15-0-41	I Bus 09-17, EAE, DSR
D	BS	KP15-0-42	I Bus 08, 10-17, SC
D	BS	KP15-0-43	I Bus 18-23, IR
D	BS	KP15-0-44	Console Control No. 1
D	BS	KP15-0-45	Console Control No. 2
D	BS	KP15-0-46	Miscellaneous Control Logic
D	BS	KP15-0-47	Memory Input Control
D	BS	KP15-0-48	Miscellaneous Logic
D	BS	KP15-0-49	CP Read In Logic
D	BS	KP15-0-50	Device Selector

Table 1-1 (Cont)
Drawing Number Index

Size (Original)	Type	Number	Title
		KP15 I/O and Central Processor (Cont)	
D	BS	KP15-0-51	I/O Control Sync
D	BS	KP15-0-52	I/O Bus Bits 09-17
D	BS	KP15-0-53	I/O Bus Bits 00-08
D	BS	KP15-0-55	IOT and Time Logic
D	BS	KP15-0-57	Power Fail and Real Time Clock
D	BS	KP15-0-58	Internal IOT Decoder
D	BS	KP15-0-59	MDL Drivers
D	BS	KP15-0-60	I Bus 00-08
D	BS	KP15-0-62	I Bus 09-17
D	BS	KP15-0-64	Teletype Receiver
D	BS	KP15-0-65	Teletype Transmitter
D	BS	KP15-0-66	Read In Logic
D	BS	KP15-0-68	I/O Address
D	BS	KP15-0-69	I/O Bus Cable
D	FD	KP15-0-70	KP15 Block Diagram and Print Key
D	FD	KP15-0-71	PDP-15 Address Calculation Flow Chart
D	FD	KP15-0-72	Indicator Bus Signal Chart
D	FD	KP15-0-73	Key Flow
D	FD	KP15-0-74	Interrupt Flow Graph
D	FD	KP15-0-75	Read In Flow
D	FD	KP15-0-76	Instruction Flow Chart
D	TD	KP15-0-77	API/PI Timing Diagram Bus Signals
D	TD	KP15-0-78	CP/Memory Timing
D	TD	KP15-0-79	CP Timing, Common Events
D	TD	KP15-0-80	IOT Instruction Timing Diagram
D	BS	KP15-0-81	Power Regulator and OK Bus
		KD15 Data Channel	
D	BS	KD15-0-01	DSR 00-05
D	BS	KD15-0-02	DSR 06-11
D	BS	KD15-0-03	DSR 12-17

Drawing Number Index

Size (Original)	Type	Number	Title
KD15 Data Channel (Cont)			
D	BS	KD15-0-04	I/O Buffer 00-08
D	BS	KD15-0-05	I/O Buffer 09-17
D	BS	KD15-0-06	Miscellaneous Data Channel Logic
D	TD	KD15-0-07	Single Cycle I/O Transfers, Detailed Timing
D	TD	KD15-0-08	Three-Cycle Data Channel In Transfer, Detailed Timing
D	TD	KD15-0-09	Increment MB Transfer, Detailed Timing
D	TD	KD15-0-10	Three-Cycle Data Channel Out Transfer, Detailed Timing
D	TD	KD15-0-11	Data Channel Input Timing Diagram, Bus Signals
D	TD	KD15-0-12	Data Channel Output Timing Diagram, Bus Signals
D	TD	KD15-0-13	Single Cycle Input Timing, Bus Signals
D	TD	KD15-0-14	Single Cycle Output Timing, Bus Signals
D	TD	KD15-0-15	Increment Memory Timing Diagram, Bus Signals
KE15 Extended Arithmetic Element (EAE)			
D	BS	KE15-0-01	Bi-directional Shift Register 00-08 (MQ Reg.)
D	BS	KE15-0-02	Bi-directional Shift Register 09-17 (MQ Reg.)
D	BS	KE15-0-03	Step Counter and Control
D	BS	KE15-0-04	EAE Control M770
D	BS	KE15-0-05	IR Sign Divide Logic
D	FD	KE15-0-06	EAE Flow Diagram
D	FD	KE15-0-07	Data Flow Diagram
MM15 Core Memory			
D	MU	MM15-0-26	Module Utilization
D	DI	MM15-0-25	MM15 Drawing Index
D	BS	MM15-0-01	Memory Control

Drawing Number Index

Size (Original)	Type	Number	Title
MM15 Core Memory (Cont)			
D	BS	MM15-0-02	Memory Control
D	BS	MM15-0-03	MA and MB Registers, 00-05
D	BS	MM15-0-04	MA and MB Registers, 06-11
D	BS	MM15-0-05	MA and MB Registers, 12-17
D	BS	MM15-0-06	X Axis, 0 to 4K
D	BS	MM15-0-07	Y Axis, 0 to 4K
D	BS	MM15-0-08	X Axis, 4 to 8K
D	BS	MM15-0-09	Y Axis, 4 to 8K
D	BS	MM15-0-10	Sense Amplifiers and Inhibit Drivers, 0-4K
D	BS	MM15-0-11	Sense Amplifiers and Inhibit Drivers, 0-4K
D	BS	MM15-0-12	Sense Amplifiers and Inhibit Drivers, 0-4K
D	BS	MM15-0-13	Sense Amplifiers and Inhibit Drivers, 4-8K
D	BS	MM15-0-14	Sense Amplifiers and Inhibit Drivers, 4-8K
D	BS	MM15-0-15	Sense Amplifiers and Inhibit Drivers, 4-8K
D	BS	MM15-0-16	Memory Bus Drivers
D	BS	MM15-0-17	Memory Bus Drivers
D	BS	MM15-0-18	Memory Bus Drivers
D	BS	MM15-0-19	I/O Memory Cables
D	BS	MM15-0-20	Memory Power Regulators
D	BS	MM15-0-21	Timing Diagram
D	BS	MM15-0-22	X Diode Matrix
D	BS	MM15-0-23	Y Diode Matrix
D	BS	MM15-0-24	Parity Bit
Power Supplies			
D	CS	715-0-1	715 Power Supply Circuit Schematic
B	CS	5408408-0-1	Bulk Regulator Circuit Schematic
C	CS	716-0-1	716 Power Supply Circuit Schematic
D	CS	H721-0-1	H721 Power Supply Circuit Schematic
B	CS	734D-0-1	734D Power Supply Circuit Schematic
A	PL	734D-0-1	734D Power Supply Parts List

Table 1-1 (Cont)
Drawing Number Index

Size (Original)	Type	Number	Title
Power Supplies (Cont)			
B	CS	799A-0-1	799A Power Supply Circuit Schematic
A	PL	799A-0-0	799A Power Supply Parts List
B	CS	841-B	841B Power Control Circuit Schematic
A	PL	841-B-0	841B Power Control Parts List
B	CS	853-F-1	853F Power Supply Circuit Schematic
A	PL	853-F-0	853F Power Supply Parts List
BB15 Peripheral Expander			
D	DI	BB15-0-01	BB15 Drawing Index List
D	MU	BB15-0-04	Module Utilization List
KA15 Automatic Priority Interrupt (API)			
D	BS	KA15-0-01	Requests
D	BS	KA15-0-02	Priority Levels 00-03
D	BS	KA15-0-03	Priority Levels 04-07
D	BS	KA15-0-04	API Control
D	BS	KA15-0-05	Test Request
D	BS	KA15-0-06	I/O Address Gating
D	BS	KA15-0-07	API Cables
D	BS	KA15-0-08	I/O Bus Receivers
D	BS	KA15-0-09	Miscellaneous Drivers
D	BS	KA15-0-10	I Bus Drivers
D	BS	KA15-0-11	I/O Bus Drivers
KM15 Memory Protect Option			
D	BS	KM15-0-10	Control Logic
D	BS	KM15-0-11	IOT and Control
D	BS	KM15-0-12	P Mode Enable
D	BS	KM15-0-13	Boundary Register and Boundary Detection No. 1
D	BS	KM15-0-14	Boundary Register and Boundary Detection No. 2

Table 1-1 (Cont)
Drawing Number Index

Size (Original)	Type	Number	Title
KM15 Memory Protect Option (Cont)			
D	BS	KM15-0-15	BB15 Jumper Card Configuration
KT15 Memory Protect/Relocate Option			
D	BS	KT15-0-10	MDL Control
D	BS	KT15-0-11	Relocation Register
D	BS	KT15-0-12	Relocate MDL's
D	BS	KT15-0-13	I/O Bus or BR
D	BS	KT15-0-14	RA Buffers and MDL Terminators
D	BS	KT15-0-15	Relocation Address Register 01-06
D	BS	KT15-0-16	Relocation Address Register 07-09
MP15 Memory Parity Option			
D	BS	MP15-0-10	Parity Control
D	BS	MP15-0-11	Parity Input Interface
D	BS	MP15-0-12	Parity Decoder and Parity Generator
D	BS	MP15-0-13	Parity Memory Bus Connections
BA15 Peripheral Expander			
D	MU	BA15-0-7	Module Utilization
D	DI	BA15-0-08	BA15 Drawing Index List
D	IC	BA15-0-01	I/O Bus Interface
D	BS	BA15-0-02	BA15 Line Receivers
D	BS	BA15-0-03	BA15 Line Drivers
D	BS	BA15-0-04	I/O Mixer
D	BS	BA15-0-05	Multiplexer
D	IC	BA15-0-06	Indicator Cable
PC15 High-Speed Paper Tape Reader and Punch			
D	BS	PC15-0-01	High Speed Punch Control
D	BS	PC15-0-02	High Speed Reader Control
D	BS	PC15-0-03	Reader Register

Table 1-1 (Cont)
Drawing Number Index

Size (Original)	Type	Number	Title
		LT15A Single TTY Interface	
D	BS	LT15-A-01	Teletype Control
D	BS	LT15-A-02	Teletype Receiver
D	BS	LT15-A-03	Teletype Transmitter
		VP15 Display Logic	
D	BS	VP15-0-1	Display D/A & Dev Sel
D	BS	VP15-0-2	Display Control BA15
D	IC	VP15-BL-1	Interconnection Diagram
		DW15A Positive-to-Negative Bus Converter	
D	BS	DW15-A-1	BI Direct I/O Bus
D	BS	DW15-A-2	BI Direct I/O Bus
D	BS	DW15-A-3	AP DCH RQ + BI BS CON
D	BS	DW15-A-4	API + DCH Enables
D	BS	DW15-A-5	API + DCH Grants
D	BS	*DW15-A-6	I/O Addr 03-10
D	BS	DW15-A-7	I/O Addr 11-17
D	BS	DW15-A-8	One Way Signals
D	BS	DW15-A-9	Positive Input Cables
D	BS	DW15-A-10	Positive Bus Cables
D	BS	DW15-A-11	Negative Bus Cables
D	MU	DW15-A-12	Module Utilization

Signal Glossary

Signal Mnemonic	Signal Origin		Signal Function
	Drawing	Module	
ADD-MEM	KD05	M17-L1	Adds contents of I/O bus to memory location specified by current address and writes new value into memory location.
ADD 1	KD04	N18-V2	Increment data storage register during word count and current address cycles in three cycle DCH Transfers and during increment memory breaks.
ADR ACK	MM02	A18-H2	Acknowledges memory address has been accepted and memory cycle has started. Refer to memory timing diagram MM21.
API CAL	KP31	N11-C1	Indicates CAL for Automatic Priority Interrupt.
API SYNC	KP51	N22-V2	Recognizes API request from API option and allows I/O Processor to synchronize with CPU during API break.
BAC-C 00-08, 09-17	KP19	F10-J2 F11-J2	Gates contents of buffered AC to C bus.
BACK-TO-BACK	KD06	M21-L1	Used for single cycle transfers to designate that two or more successive breaks will be made without returning control to CPU.
BANK MODE	KP46	M27-V1	Output of bank mode flop that selects memory bank or page mode of operation.
BANK 1 AVAIL	KP45	N25-E2	27.5 μ s pulse active during last half of console time slot 3. Clocks active key input from console into associated key flop.
BUMP IOT	KP51	N20-K2	Used by I/O processor to reset IOT flop for any priority higher than IOT request.
BUS DONE	MM02	A20-J2	Set by MRLS ACK to release MDL. Shown on memory timing diagram MM21.
C-A BUS	KP19	F16-S1	Gates C bus to A bus.
-C-A BUS	KP19	F30-S1	Gates complemented C bus to A bus.
CA	KD04	N23-M1	Signal specifies current address portion of the DCH multicycle break is in progress.
CA DLYD	KD06	L31-N1	Used for internal timing during three cycle DCH transfer. Clears the I/O memory hold flop during current address cycle, causing an I/O memory request to be available.
CARRY	KP22	F02-S1	Carry sets link if L (0) and resets link if L (1).
CARRY 01	KD03	H13-D1	Carry insert to more significant adder from previous 6-bit adder.
CARRY 02	KD02	H13-D1	
CDL 00 through 23	KP44 KP45		Buffered console data lines from I Bus.

Signal Glossary

Signal Mnemonic	Signal Origin		Signal Function
	Drawing	Module	
CF PULSE	KP45	N24-M2	Clock signal for KEY ACTIVE flop. For START, DEPOSIT, EXAMINE, READ IN, CONT and EXECUTE non-repeat, clock signal is 27.5- μ s pulse active during console time slot 4. For REPEAT, CONT, and EXECUTE, clock signal occurs at repeat clock frequency.
CLK IN	KP46	N28-D2	A 36-kHz signal, from clock oscillator, that is used to generate console timing.
CLK SYNC	KP51	N17-U1	Causes multiplexer to issue clock address (000008) on I/O address lines.
CLR IR 00-05	KP31	F31-J1	Clears IR register if FORCE FETCH, KEY ACTIVE, or PWR CLR occurs.
CONSOLE CK	KP45	N25-U2	Non-symmetrical 3-kHz output of console modulo 6 counter that drives console timing failure detector.
CONSOLE DLY 1	KP44	M26-K1	Provides 18-ms delay for console clock failure detection (for failure in ground state).
CONSOLE DLY 2	KP44	N26-K1	Provides 18-ms delay for console clock failure detection (for failure in +V state).
CONSOLE DLY 3	KP45	N25-H1	Connects R-C network to delay stage to provide 120 - 130 ms delay that prevents gating of more than one pulse for switch active input from console.
CONSOLE FAIL	KP46	N27-K2	Output of console failure detector that monitors operation of console timing. Inhibit timing outputs to console switch and indicator circuits if a failure occurs.
CONSOLE LOCKED	KP46	K03-L2	A ground level from console lock switch on 715 Power Supply that prevents program interruption at the console.
CONSOLE ONE	KP45	E22-01	Non-symmetrical 3-kHz square wave. Used with Console Zero and Console Two signals to generate strobes for console switch and indicator circuits.
CONSOLE TWO	KP45	E22-10	A 9-kHz symmetrical square wave used with Console Zero and Console One signals to generate strobes for console switch and indicator circuits.
CONSOLE ZERO	KP45	E22-04	Used with Console One and Console Two signals to generate strobes for console switch and indicator circuits.
CONTINUE	KP45	E08-05	Output of CONT ENABLE flop used to set KEY ACTIVE flop.

Signal Mnemonic	Signal Origin		Signal Function															
	Drawing	Module																
CP ACT	KP26	K13-P1	Initiates CP memory cycle and inhibits I/O ACT until memory cycle is completed.															
CP MEM REQ HOLD	KP32	K13-H1	Stores memory request until CP ACT can be set to initiate a CP M REQ.															
CP MRLS	KP32	K15-M1	CP memory release; indicates CP done with memory.															
CP WR ADR ACK	KP32	F12-J2	Acknowledges memory address during a CP initiated clear-write memory cycle.															
DATA CYCLE	KD05	M17-P2	Used during data cycle of 3-cycle DCH transfer.															
DATA IN	KD05	M17-S1	Generated during 3-cycle DCH transfer to indicate data transfer from device to memory.															
DATA OFLO	KD05	M21-S1	Signal used by I/O device to indicate an incorrect sum has occurred due to an overflow occurring during the third cycle of an add-to-memory operation.															
DATA OUT	KD05	M17-V2	Generated during 3-cycle DCH transfer to indicate data transfer from memory to device.															
DCH DONE	KD05	K31-K2	Indicates completion of a DCH transfer.															
DCH EN IOP2	KD06	N18-L2	Used during 3-cycle data transfer to enable data onto I/O bus from device.															
DCH OUT XFER	KD06	K18-V2	Indicates transfer of data from memory to device during 3-cycle DCH transfer and also causes IOP 4 to be generated.															
DCH RESET	KD05	K31-N2	Is generated as a result of I/O Reset or Power Clear to initialize the DCH circuitry.															
DCH REQ	KP69	N03-S2	A signal generated by an external device indicating a 3-cycle DCH transfer, an increment memory, or an add-to-memory. The signal is also used with SINC CYC REQ to indicate a single cycle transfer as indicated below: <table><tr><td colspan="3">DCH RQ L SING CYC REQ L FUNCTION</td></tr><tr><td>0</td><td>0</td><td>None</td></tr><tr><td>0</td><td>1</td><td>Single cycle transfer (from memory to device)</td></tr><tr><td>1</td><td>0</td><td>Multi-cycle transfer (in or out)</td></tr><tr><td>1</td><td>1</td><td>Single cycle transfer (from device to memory)</td></tr></table>	DCH RQ L SING CYC REQ L FUNCTION			0	0	None	0	1	Single cycle transfer (from memory to device)	1	0	Multi-cycle transfer (in or out)	1	1	Single cycle transfer (from device to memory)
DCH RQ L SING CYC REQ L FUNCTION																		
0	0	None																
0	1	Single cycle transfer (from memory to device)																
1	0	Multi-cycle transfer (in or out)																
1	1	Single cycle transfer (from device to memory)																

Signal Mnemonic	Signal Origin		Signal Function
	Drawing	Module	
DCH SYNC	KP51	N23-H2	Acknowledges receipt of request from control device by causing GRANT to be issued. The signal also causes the multiplexer to issue an I/O request to memory.
DCH WAIT	KD05	N12-N2	Causes I/O processor to wait until after DCH transfers from memory to device has been completed.
DEPOSIT	KP45	M25-M2	DEPOSIT flop output used to set KEY ACTIVE flop.
DISABLE SYNC	KD06	N32-M1	During DCH transfers, this signal allows time for I/O Processor to finish processing current DCH transfer and prevents I/O synchronizer from setting PI, API, or Clock flops.
DISPLAY STATUS	KP44	M26-M1	55-μs pulse active during console time slot 001. Gates I/O Bus 01, 02, and 08 through 17 and status of I/O devices to I Bus.
DS-C	KP19	F14-E1	Gates data switch buffer contents to the C bus during TS02 when DEPOSIT, NEXT, or EXEC key is pressed or OAS is executed.
DSR-I/O BUS	KD05	M21-P2	Data in DSR to be transferred to I/O Bus.
DSR - MDL	KD04	M20-L1	Data in DSR to be transferred to MDL.
DSR00 - DSR17	KD01 KD02 KD03		Data storage register bits 00 through 17.
DSR OVERFLOW	KD01	H13-D1	Carry out of most significant stage of DSR. Used to set word count overflow indicating completion of block transfer of data during 3-cycle DCH operation.
EAC	KP22	E08-R2	Enables ones complement end around carry when set by CARRY.
ENB CYCLE	KD05	M17-E1	Enables data cycle for three cycle DCH transfer and determines whether data is transferred to or from.
EN CA	KD06	L21-F1	Used to enable current address cycle of 3-cycle DCH transfer. This signal is inhibited during single cycle break, clock break or Increment MB.
END OF CP CYCLE	KP32	K16-L2	Indicates end of central processor memory cycle.
EN RD	KD04	N12-F2	Sets I/O WRITE flop indicating a transfer from an external device to memory.
EX SW	KP45	N25-E1	EXECUTE flop output used to set KEY ACTIVE flop.
EXAMINE	KP45	M25-U2	Output of EXAMINE flop used to set KEY ACTIVE flop.

Table 1-2 (Cont)
Signal Glossary

Signal Mnemonic	Signal Origin		Signal Function
	Drawing	Module	
GRANT	KD06	M22-J2	Signal generated by I/O Processor to acknowledge receipt of request from external device.
HOLD MO	KP26	K15-J2	Prevents contents of MO register from being removed from MDL until a CP memory cycle is initiated.
INC CA	KP68	N10-P1	Used to inhibit incrementing current address during DCH transfer.
IN XFER CYCLE	KD05	M17-H2	Used to denote data transfer position of the DCH cycle.
INCR PC	KP23	F23-J1	Increments program counter during TS01 of EXECUTE when SKIP is set.
INH	MM02	A19-S1	Gates data from MB register to inhibit drivers during write half-cycle. Shown on memory timing diagram MM21.
INH PC COUNT	KP24	F32-S2	Inhibits program counter incrementation if an execute switches instruction is in progress, an interrupt has been acknowledged or key functions are in progress.
I BUS 00 through 23	KP46		Bi-directional data lines between console panel and central processor.
I/O ACT	KP26	K14-H1	Part of the Memory Synchronization for the I/O Processor.
I/O ADDR ACK	KD04	M31-M1	Derived from ADR ACK when I/O is enabled. Clears M REQ.
I/O ADDR 03-17	KP68		I/O Address bit 03 through bit 17.
I/O ADR 15, 16, 17	KD03 KD03 KD03	K19-C1 K19-F2 K19-N2	When bits 15, 16 and 17 are logic 1, the real time clock address of 000007 is developed.
I/O ADDRESS - DSR	KD04	K27-E1	Gates I/O address to DSR.
I/O BUF-DSR	KD05	M12-M1	Gates contents of I/O buffer to DSR.
I/O CYCLE REQ	KD04	L10-S2	Indicates that I/O Processor is requesting a memory cycle.
I/O DATA ACK	KD04	M20-E1	This signal is generated in the I/O Processor and is sent to memory indicating that the processor has received the data from memory during a read-write cycle.
I/O ENABLE	KP32	M13-C1	Enables I/O processor functions when power is on and I/O ACT is set.

Table 1-2 (Cont)
Signal Glossary

Signal Mnemonic	Signal Origin		Signal Function
	Drawing	Module	
I/O M HOLD	KD04	M23-E1	Used during DCH transfers to temporarily store M REQ signal while the I/O Processor and memory are being synchronized.
I/O M REQ	KP26	K15-E1	Set to initiate an I/O memory request.
I/O MRLS	KD04	M20-H2	Signal generated by I/O processor during DCH transfers indicating that I/O processor is completed with current memory cycle and is releasing memory for additional requests.
I/O MRLS ACK	KD04	N18-T2	Response from memory that it has received the I/O MRLS signal.
IOP 1	KP51	N17-L1	Decoded from bit 17 of IOT instruction. This signal is used for skip instructions to test a device flag or other control function.
IOP 2	KP51	N17-H2	Decoded from bit 16 of IOT instruction. This signal is generally used to transfer data from an external device to the processor, to clear a device register, or for other control functions excluding skip sensing.
IOP 4	KP51	N17-E1	Decoded from bit 15 of IOT instruction. This signal is generally used to transfer data from the CPU to the device and cannot be used to transfer data from the device to the CPU or to determine a skip condition.
I/O RD RST	KP26	K18-F2	This signal is generated in memory and indicates to the I/O Processor that the information contained in the address, which was on the MDL when M REQ was issued, can now be read from the MDL.
I/O READ	KD04	M20-P2	Indicates that data is being read from memory to external device via the I/O Processor.
I/O RESET	KP45	E02-09	I/O RESET flop output used with STOP condition to clear major registers and control devices.
I/O WRITE	KD04	M20-S1	Indicates that data from external device is being written into memory.
IND A BUS	KP44	E01-08	55-μs pulse active during console time slot 001. Gates contents of accumulator to I Bus.
IND AC	KP44	E01-11	55-μs pulse active during console time slot 001. Gates contents of accumulator to I Bus.
IND B BUS	KP44	E16-06	55-μs pulse active during console time slot 001. Gates B Bus to I Bus.
IND C BUS	KP44	E16-08	55-μs pulse active during console time slot 001. Gates C Bus to I Bus.

Table 1-2 (Cont)
Signal Glossary

Signal Mnemonic	Signal Origin		Signal Function
	Drawing	Module	
IND DSR	KP44	E07-11	55-μs pulse active during console time slot 001 for gating content of Data Storage Register to I Bus.
IND EAE	KP44	E07-03	55-μs pulse active during console time slot 001. Gates discrete bits of EAE control functions to I Bus.
IND I/O A	KP44	E13-08	55-μs pulse active during console time slot 001. Gates 15 bits of I/O address to I Bus 03 through 17.
IND IOB	KP44	E04-03	55-μs pulse active during console time slot 001 for gating I/O Bus to the I Bus.
IND LR	KP44	E10-11	55-μs pulse active during console time slot 001. Gates contents of Limit Register onto I Bus.
IND OA	KP44	E16-11	55-μs pulse active during console time slot 001. Gates contents of Memory Address Register in CP onto I Bus.
IND MDL	KP44	E07-08	55-μs pulse active during console time slot 001. Gates Memory data lines to I Bus.
IND MMA	KP44	E04-06	55-μs pulse active during console time slot 001. Gates content of Memory Address Register onto I Bus.
IND MMB	KP44	E04-08	55-μs pulse active during console time slot 001. Gates content of Memory Buffer Register (MMB) onto I Bus.
IND MO	KP44	E01-03	55-μs strobe active during console time slot 001. Gates contents of Memory Output Register onto I Bus.
IND MQ	KP44	E13-03	55-μs pulse active during console time slot 001. Gates contents of Multiplier Quotient Register to I Bus.
IND MST	KP44	E10-0	55-μs pulse active during console time slot 001. Gates memory status and states onto I Bus.
IND M1	KP44	E10-08	55-μs pulse active during console time slot 001. Gates CP group I discrete control signals to the I Bus.
IND M2	KP44	E07-06	55-μs pulse active during console time slot 001. Gates CP control discretes to I Bus.
INC PC	KP44	E16-03	55-μs pulse active during console time slot 001. Gates content Program Counter onto I Bus.
IND PL/SC	KP44	E13-11	55-μs pulse active during console time slot 001. Gates status of Priority Level flops and contents of Step Counter to I Bus.

Table 1-2 (Cont)
Signal Glossary

Signal Mnemonic	Signal Origin		Signal Function
	Drawing	Module	
IND SHIFT BUS	KP44	E13-06	55-μs pulse active during console time slot 001. Gates CP Shift Bus to I Bus.
IND SUM BUS	KP44	E10-06	55-μs pulse active during console time slot 001. Gates Sum Bus to I Bus.
IND XR	KP44	E10-03	55-μs pulse active during console time slot 001. Gates contents of Index Register onto I Bus.
IR00-IR05	KP31	F09-E1, H2, L1, P2, S1, V2	Index register bits IR00-IR05 are loaded from MI00-MI05 during FETCH to store instruction op code.
JAM PC TO MO	KP23	J31-V1	Sets PC contents into MO register during TS01 of EXECUTE if SKIP is not set.
KEY ACT	KP34	F27-J2	Key active flow is set when console function keys are pressed.
KEY READ IN	KP45	E04-08	A level generated by READ-IN flop when READ IN key is on. Used to initiate paper tape read in to memory.
L BM UM-A	KP19	F14-T2	Gates status of link (L), bank mode (BM), and user mode bit (UM) to the A bus. Generated during TS02 (Fetch or Defer) of a group 4 instruction (JMS or CAL).
LD AC	KP24	H04-J2	Load accumulator bits AC00-AC17.
LR-C	KP19	F16-P2	Gates contents of limit register to C bus to test limit register or when XG ENAB LR is low.
LIKE SIGNS	KD06	N32-J2	Used to compare signs of data in I/O buffer (I/O BUF00) and data in memory (MDL 00). In add-to-memory cycle, this signal is used to set DATA OFLO.
MA HOLD	MM02	A18-E1	Set by START to prevent MA register contents from changing, once memory cycle has been initiated. Shown on memory timing diagram MM21.
MA LOAD	MM01	A15-L1	Strobes memory address from MDL to MA register. Refer to memory timing diagram MM21.
MB CLEAR	MM01	A15-S1	Clears MB register at start of memory cycle. Refer to memory timing diagram MM21.
MB LOAD	MM02	A15-J2	Strobes MDL data into MB register during write half-cycle. Shown on memory timing diagram MM21.
-MI-B 00-08	KP19	E07-N2	Gates complemented MI register bits MI00 through MI08 to the B bus.

Table 1-2 (Cont)
Signal Glossary

Signal Mnemonic	Signal Origin		Signal Function
	Drawing	Module	
-MI-B 09-17	KP19	F14-F2	Gates complemented MI register bits MI09 through MI17 to the B bus.
-MP API RQ	MP10	B15-U2	Automatic priority interrupt request generated by parity error flag.
MPX	KP26	K14-A1	Establishes priority of I/O M REQ if DCH SYNC or CLK SYNC are set.
MQ-C	KP19	F08-V2	Gates contents of MQ register to C bus during EAE instruction.
MRD	KP26	K10-E2, H2	Generated by I/O Read or by START READ (if I/O ACT (0)). Selects read-restore memory cycle.
MRLS ACK	MM02	A18-V2	Acknowledges MRLS after WR EN flop is set. Shown on memory timing diagram MM21.
-MRLS DLY	MP10	A16-J2	Produces INH MRLS to delay memory release until parity is decoded and parity bit is generated.
MWR (memory write)	KP32	K10-K2, M2	Generated by I/O WRITE or by START WRITE if I/O ACT (0). Selects clear-write memory cycle.
NO SHIFT-D	KP19	F15-L1	No shift enabled to D bus. Occurs if current instruction is not an EAE, OPR SHIFT, SWH, or CLA instruction.
ONE CYCLE BK	KD06	M21-E1	This signal indicates a single cycle transfer whereby the external device maintains its own word count and current address.
OPR	KP28	E06-E1	Indicates operate instruction decoded from IR bits IR00-IR04.
OVERFLOW	KP22	F03-C1	Sets link when Sum Bus bit 00 is positive and AC00 and MI00 are same sign.
PAR ERR	MP10	B16-K2	Indicates parity error has been detected.
PC-A 01-02	KP19	J13-U1	Gates program counter bits PC01 and PC02 to the A bus.
PC-A 03-04	KP19	J30-J2	Gates program counter bits PC03 and PC04 to the A bus.
PC-A 05	KP19	E07-S1	Gates program counter bit PC05 to the A bus.
PC-A 06-17	KP19	F18-P2	Gates program counter bits PC06 through PC17 to the A bus.
PI SYNC	KP51	N22-S1	This signal indicates that the I/O Processor has recognized a Program Interrupt and allows the I/O processor to synchronize with the CP.

Table 1-2 (Cont)
Signal Glossary

Signal Mnemonic	Signal Origin		Signal Function
	Drawing	Module	
PRE MRLS	KD06	N16-K2	Generated a short time after Read Restart. This signal is used to enable DSR-I/O BUS on transfers of data from memory to the device and also acknowledges when the I/O Processor has received the data.
RD CON	MM01	A18-R2	Set by MRD to control read-restore memory cycle. Refer to memory timing diagram MM21.
RD RST	MM02	A19-L1	Indicates data read from memory is available on MDL and the requesting processor can proceed. Shown on memory timing diagram MM21.
RD RST DLY	MP10	A14-F1	Produces INH RD RST to delay read restart until parity has been tested.
RDX	MM02	A19-H1	Generates read current in the selected X drive line. Shown on memory timing diagram MM21.
RDY	MM02	A19-E1	Generates read current in the selected Y drive line. Shown on memory timing diagram MM21.
REG MAINT STROBE	KP45	E21-06	55-μs pulse active during console time slot 001. Generated when REG GROUP switch is on. Combined with 12 register select inputs from I Bus to generate one of 12 I Bus gating strobes.
REG NORM STROBE	KP45	E21-08	55-μs pulse active during console time slot 001. Generated when REG GROUP switch is off. Combined with 12 register select inputs from I Bus to generate one of 12 I Bus gating strobes.
REPT VAR IN	KP46	N24-L2	Input from Repetitive Speed potentiometer on console switch panel that controls repetition rate of repeat clock.
REQ	MM01	A12-S1	Produced by M REQ to initiate a memory cycle. Refer to memory timing diagram MM21.
RESTART	KD06	M18-H1	Indicates completion of DCH transfer and clears out DCH and DCH SYNC flops.
RETURN DATA	KD04	L19-L2	Generated by the I/O Processor to indicate a transfer of data from the external device to memory.
RI RD RST	KP32	K30-E1	Re-starts central processor functions after data has been deposited by hardware read in.
RTL-D	KP19	F14-P1	Shifts D bus data left two places. Enabled by RTL during TS02 Fetch.
RTR-D	KP19	F14-L2	Shifts D bus data right two places. Enabled by RTR during TS02 Fetch.

Table 1-2 (Cont)
Signal Glossary

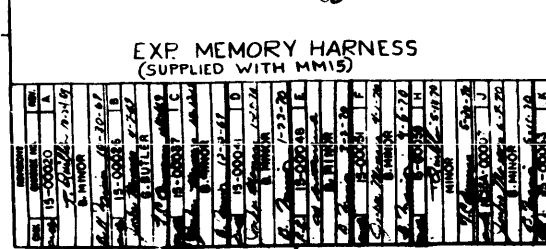
Signal Mnemonic	Signal Origin		Signal Function
	Drawing	Module	
SE (signs equal)	KP22	E08-N1	Indicates when MI and AC bits AC00 and MI00 (sign bits) are same sign. SE flop cleared when bits are opposite sign.
SET DSR-MDL	KD06	N15-F2	Enables contents of DSR to be placed on the MDL during DCH transfers.
SET FETCH	KP20	E22-F2	Enables the FETCH major state flop. Occurs if no other major state is enabled.
SET GRANT	KD06	K18-S2	Used to set the GRANT flop during single cycle back-to-back data transfers.
SING CYC DIR	KD06	M21-H2	This signal determines whether the single cycle transfer direction is to be an "in" transfer (from device to memory) or an "out" transfer (from memory to device). See note on KD06.
SING CYC IOP 4	KD06	M24-K2	Generated during single cycle, back-to-back from memory to the external device.
SING INST	KP46	M27-H2	Output of SING INST flop supplied to time state generator to implement a single instruction.
SING STEP	KP46	M27-L2	Output of SING STEP flop supplied to time state generator to permit the manual stepping of a program through major states of an instruction.
SING TIME	KP46	M27-E1	Output of SING TIME flop supplied to time state generator for manual stepping through time state of each major state.
SKIP	KP23	E08-U2	Causes PC to be incremented by one to skip next instruction.
START	KP45	M25-V2	Output of console START ENABLE flop used to set KEY ACTIVE flop.
START	MM01	A14-V2	Initiates a memory cycle when M REQ is received and no address has been acknowledged previously. Refer to memory timing diagram MM21.
START READ	KP32	F24-J2	Starts a read-restore memory cycle.
START WRITE	KP32	F30-E1	Starts a clear-write memory cycle.
STOP	KP45	M25-K2	STOP flop output terminates CP operation by resetting RUN flop.
STP TM CHAIN	KD05	M22-R2	Stops the I/O clock in Time 2 during memory data transfer. The I/O processor cannot generate IOP 4 until the next Time 1 signal occurs.
STROBE	MM02	C14	Produced by RD CON to gate sense amplifier outputs into MB register.

Table 1-2 (Cont)
Signal Glossary

Signal Mnemonic	Signal Origin		Signal Function
	Drawing	Module	
STROBE ADDR	KD06	L21-K2	Strobes the address from the I/O Bus to the DSR during DCH transfers.
STROBE ONE	KP46	K32-V1	A 55-μs pulse active during console time slot 2. Gates memory input register, instruction register code and defer and index bits onto I Bus.
STROBE TWO	KP45	N25-K2	55-μs pulse active during console time slot 011. Gates Memory Input Register and Instruction Register contents onto I Bus.
STROBE ZERO	KP45	E18-06	55-μs pulse active during console time slot 000. Gates central processor status to I Bus.
START CA	KD04	L22-L1	Enables current address cycle during a 3-cycle DCH transfer.
STROBE DSR	KD04	M16-S1	Loads DSR with address or data for transfers to or from memory.
STROBE I/O BUF	KD05	M16-J2	Used for DCH transfers from device to memory to strobe the data from the I/O Bus into the I/O Buffer.
STROBE IOP2	KP51	M14-V2	Occurs 750-ns after beginning of IOP2 and is used to load AC from the device during DCH and IOT transfers.
STROBE MRLS	KD06	L18-C1	A signal used to set the MRLS flop in order to release memory for further requests.
STROBE IOP1	KP51	L06-S2	Occurs 750-ns after IOP1 and is used to set the skip flop during DCH and IOT transfers.
STROBE MRLS DLY	KD06	M18-H1	This signal is delayed from strobe MRLS and is used in back-to-back single cycle transfers to strobe the address into the DSR.
SWITCH INHIBIT	KP46	N27-R2	Output of console delay 3 that prevents a second clock pulse to key flops for switch active functions. During run condition, blocks clock signal to key flops.
SYNC	KP55	L23-N1	SYNC occurs at time 1 and is set on the I/O bus by the I/O processor to synchronize the device with the I/O processor.
TIME 1	KP55	N13-J2	250-ns pulse.
TIME 2	KP55	N13-F2	250-ns pulse starting at completion of TIME 1 pulse.
TIME 3	KP55	N13-K1	250-ns pulse starting at completion of TIME 2 pulse.

Table 1-2 (Cont)
Signal Glossary

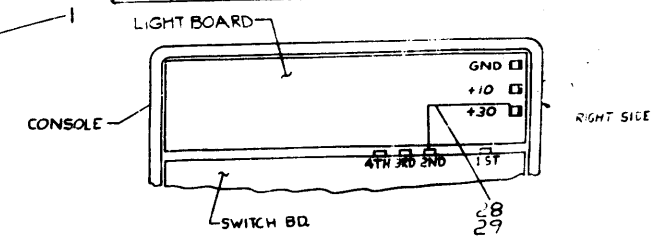
Signal Mnemonic	Signal Origin		Signal Function
	Drawing	Module	
TIME 4	KP55	N13-M1	250-ns pulse starting at completion of TIME 3 pulse.
WC	KD04	M22-U2	This signal indicates the word count cycle in a 3-cycle DCH transfer.
WC ENABLE	KD04	M22-E1	Indicates entry to word count cycle while I/O processor is synchronizing to memory.
WC OVERFLOW	KD04	M23-J2	Indicates completion of block transfer of data; i.e., desired number of words have been transferred.
WR	MM02	A19-V2	Generates write current in X and Y drive lines. Shown on memory timing diagram MM21.
WR CON	MM01	A18-U1	Set by MWR to control clear-write memory cycle. Refer to memory timing diagram MM21.
WR DONE	MM02	A20-F1	Indicates end of write half-cycle. Shown on memory timing diagram MM21.
WR EN	MM02	A19-P2	Enables write half-cycle to begin 50-ns after RD RST. Shown on memory timing diagram MM21.
WRITE REQ			Signal on MDL indicating transfer of data from Processor to memory.
+1 WC	KP68	N10-L1	Used during word count cycle of 3-cycle DCH transfer to increment the word count each time a word is transferred.
XG ENAB AC	KP29	F18-E1	Enables AC for index register instructions PAX and PAL.
XG ENAB LR	KP29	F18-J2	Enables limit register for index register instructions PLA and PLX.
XG ENAB XR	KP29	F19-E1	Enables index register for index register instructions to PXA and PXL.
XOR-C	KP19	F16-J2	Used to exclusive-OR AC with memory buffer contents during TS02 of XOR, or TS01 of SAD.
XR-B 00-05	KP19	E11-D1	Gates index register bits XR00-XR05 to the B bus.
XR-B 06-17	KP19	M01-H1	Gates index register bits XR06-XR17 to the B bus.
3 CYCLE	KD06	N18-U1	Indicates 3 cycle DCH transfer and is used to clear GRANT flop when address is available.
+1 TO CA INH	KP69	N03-E1	Used during increment memory operation to inhibit incrementing the current address. Produces KP68 - INC CA.



NOTES:

1. FOR DRAWING INDEX LIST REFER TO D-DI-PDPI5-0-1.
2. WARNESSES TO BE ROUTED INSIDE OF CABINET CHANNELS
3. WARNESSES TO BE SECURED USING ITEMS 26 & 38
4. REF DOCUMENTS REFER TO D-OC-M450-0-0 & D-AR-PDPI5-0-2
5. IF MAX NO. OF MEM UNITS ON THE REAR DOOR (3) IS NOT INCLUDED IN THE SYS. THE FOLLOWING PROCEDURE IS USED FOR UNUSED PWR. CONNS:
 - A. UNUSED MATE N-LOCK CONNS TO BE MATED WITH FEMALE MATE N-LOCK AND SECURED TO COOLING ASSY NINGE SCREWS
 - B. UNUSED HEVCO TABS TO BE COVERED WITH SHRINK TUBING AND SECURED TO WARNESSES WITH TIE WRAPS
 - C. FASTEN WARNESSES AGAINST CORNER USING ITEMS 26 & 38.

MAIN WIRING EXP MEM. HARNESS				
PART NO	COLOR	FROM/HARNESS LABEL NO	TO SYSTEM LOCATION	REMARKS
7006425	-	P1	715 P15 - P1	
-	-	P2	715 P15 - P2	
-	-	P3	715 P15 - P3	
-	-	P4	715 P15 - P4	
-	-	P5	715 P15 - P5	
-	-	P6	715 P15 - P6	
-	-	P7	715 P15 - P7	
-	-	P8	715 P15 - P8	
WHT	WHT	75	TOP FAN ASSY	WHT HEYCO TA
RED	RED	76	TOP FAN ASSY	RED HEYCO TA
-	-	P24	A101	GRN,BLK,BLK,RI
BLU	BLU	71	C101 TOP TAB	
RED	RED	72	C101 BOT TAB	
YEL	YEL	73	D116 TOP TAB	
BLK	BLK	74	D116 BOT TAB	
-	-	P23	K101	RED,BLK,BLK,GR
-	-	P22	K101	GRN,BLK,BLK,RE
-	-	P20	K103	YEL,BLK,BLK,GRN
-	-	P21	K101	RED,BLK,BLK,GR
RED	RED	55	L103 TOP TAB	
BLK	BLK	56	L103 2ND TAB	
BLK	BLK	57	L103 3RD TAB	
GRY	GRY	58	L103 4TH TAB	
-	-	P19	N101	RED,BLK,BLK,GR
WHT	WHT	44	BOT FAN ASSY	WHT HEYCO TA
RED	RED	45	BOT FAN ASSY	RED HEYCO TA
BLU	BLU	81	CONSOLE SW BD	1ST FROM RIGHT
GRNBL	GRNBL	02	CONSOLE SW BD	3RD FROM RIGHT
GRNBL	GRNBL	83	CONSOLE SW BD	4TH FROM RIGHT
RED	RED	84	CONSOLE 120V	
BLK	BLK	85	CONSOLE GND	
7006435	ORN	86	CONSOLE 120V	
7006401	-	09	715 P15 - P9	
-	-	P10	715 P15 - P10	
-	-	P11	715 P15 - P11	
-	-	P12	715 P15 - P12	
-	-	P13	715 P15 - P13	
-	-	P14	715 P15 - P14	
WHT	WHT	55	TOP FAN ASSY	WHT HEYCO TA
RED	RED	56	TOP FAN ASSY	RED HEYCO TA
-	-	P18	A201	GRN,BLK,BLK,RI
RED	RED	49	C201 BOT TAB	
BLU	BLU	50	C201 TOP TAB	
YEL	YEL	47	D316 TOP TAB	
BLK	BLK	68	D316 BOT TAB	
-	-	P17	A301	GRN,BLK,BLK,GR
RED	RED	41	C301 BOT TAB	
BLU	BLU	42	C301 TOP TAB	
YEL	YEL	39	D316 TOP TAB	
BLK	BLK	40	D316 BOT TAB	
-	-	P16	A401	GRN,BLK,BLK,RI
RED	RED	32	C401 BOT TAB	
BLU	BLU	31	C401 TOP TAB	
YEL	YEL	34	D416 TOP TAB	
BLK	BLK	33	D416 BOT TAB	
WHT	WHT	30	BOT FAN ASSY	WHT HEYCO TA
7006401	RED	29	BOT FAN ASSY	RED HEYCO TA
RED	RED	WHT	CARAVAN FAN BL	
RED	RED	WHT	FRONT FAN ASSY	

[illegible]

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS
PARTS LIST

MADE BY		J. FLEMING		CHECKED		J. MADDEN		SECTION	
DATE		7/25/69		DATE				1	
ENG		W. Banno		PROD		F. Banno		ISSUED SECT.	
DATE		8/18/69		DATE				1	

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION
1	D-UA-H95Ø-HA-Ø	SHORT DOOR ASSY (23-3/8)
2	D-UA-H95Ø-G-Ø	TABLE ASSY
3	E-UA-KC15A-Ø-Ø	CONSOLE ASSY KC15A
4	C-MD-7407290-0-0	BOTTOM PLATE (CONSOLE)
5	C-IA-7407093-2-0	BRACKET MTG CONSOLE R.H.
6	9006560	KEPS HEX NUT #6-32
7	9006021-1	SCR. PHL. HD. PAN #6-32 X 5/16 SST
8	D-UA-H95Ø-Q-Ø	H95Ø-Q 19 IN COVER PNL (10-1/2)
9	D-UA-H95Ø-P-Ø	H95Ø-P 19 IN COVER PNL (5-1/4)
10	A-PL-7006112-0-0	COOLING ASSY (LOGIC)
11	C-IA-7407384-0-0	PANEL LOGO PDP15
12	C-PL-7006501-4-0	BASIC CAB. ASSY. 19"
13	A-PL-MM15-Ø-Ø	MM15 (MEMOR.)
14	D-AD-7006199-0-0	19" MTG PNL DR REWORK
15	D-UA-H95Ø-C-Ø	H95Ø-C 19 IN FULL LG DR (L.H.)
16	E-UA-H952-A-Ø	H952-A END PANEL
17	9007651	WASH EXT TOOTH #10
18	9006231	SCR HEX HD CAP #10-32 X 1/2 SST
19	E-UA-715-Ø-Ø	POWER SUPPLY 715
20	9006073-3	SCR PNL HD TRUSS #10-32 X 1/2 SST
21	9007786	NUT #C31758-1032-27 TINNEMAN
22	C-IA-7407093-1-0	BRACKET MTG CONSOLE L.H.

TITLE	PDP15 ASSEMBLY	ASSY NO.	SIZE C
		E-UA-PDP15-Ø-Ø	A
		SHEET 1 OF 2	DIST

[illegible]

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

PARTS LIST

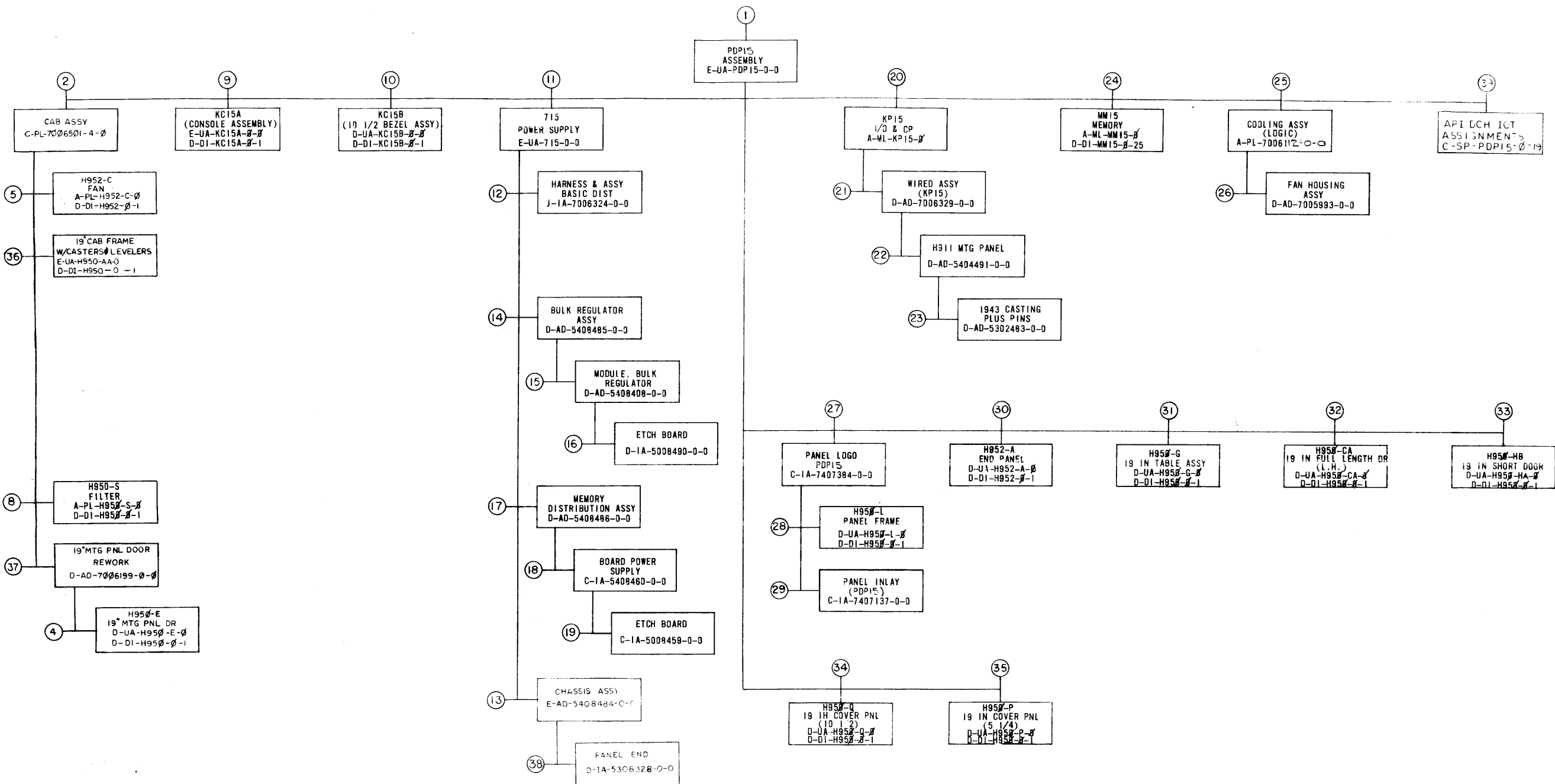
MADE BY	J. FLEMING	CHICKED	J. MADDEN	SECTION
DATE	7/25/69	DATE		1
ENG	W. <i>W. [signature]</i>	PROD	<i>8/14/69</i>	ISSUED SECT.
DATE	8/18/69	DATE	8/14/69	1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	3/8
23	9006071-2	SCR PHL HD FLAT 10-32 X 3/8 SST	
24	A-ML-KP15-0	KP15 I/O & CP	
25	9007772-14	CLAMP CAB L TITE 9CL X 200X DAKOTA	
26	9007032	TIE WRAP #SST-2-L (PANDUIT)	
27	J-IA-7006425-0-0	HARNES MAIN WIRING	
28	9107370-33	WIRE #14 AWG STRD ORN	
29	9007919	CONN #14 WIRE #50906 ARKLESS	
30	9007999	CLAMP 3/4 HOLUB	
31	9006072-3	PHL HD FLAT 10-32 X 1/4 SST	
32	9006565	NUT KEPS HEX 10-32 SST	
33	9006990	STRAP, GROUND 7407-33-20	
34	9007060	FASTENERS 1/2" OCT #48152	
35	9007055	FASTENER 7/32" OCT #48150	
36	9006233	SCR, HEX HD CAP # 10-32 X 3/4 SST	
37	9007772-9	CLAMP CAB L TITE 2CLX100 DAKOTA	
38	9008264-0	TIE WRAP MOUNT (PANDUIT ABMS-A)	
39	9008887	GROUND STRAP	
40	9006070-1	SCR, PHL, HD, PAN # 10-32 X 5/16 SST,	
41	9006074-2	SCR PHL HD FLAT 10-32 x 5/8 SST	
42	91007646	TUBING (BLACK)	

TITLE	PDP15 ASSEMBLY	ASSY NO.	SIZE	C
		E-UA-PDP15-ø-ø	A	F
		SHEET 2 OF 2	DIST.	

QUANTITY / VARIATION													CODE	NUMBER	ECO NO.
4													PL	PDP15-0-0	M
1															
3															
A/R															
1															
A/R															
2															
6															
2															
4															
A/R															
24															
1															
2															
2															
A/R															
A/R															
2															
24															
A/R															

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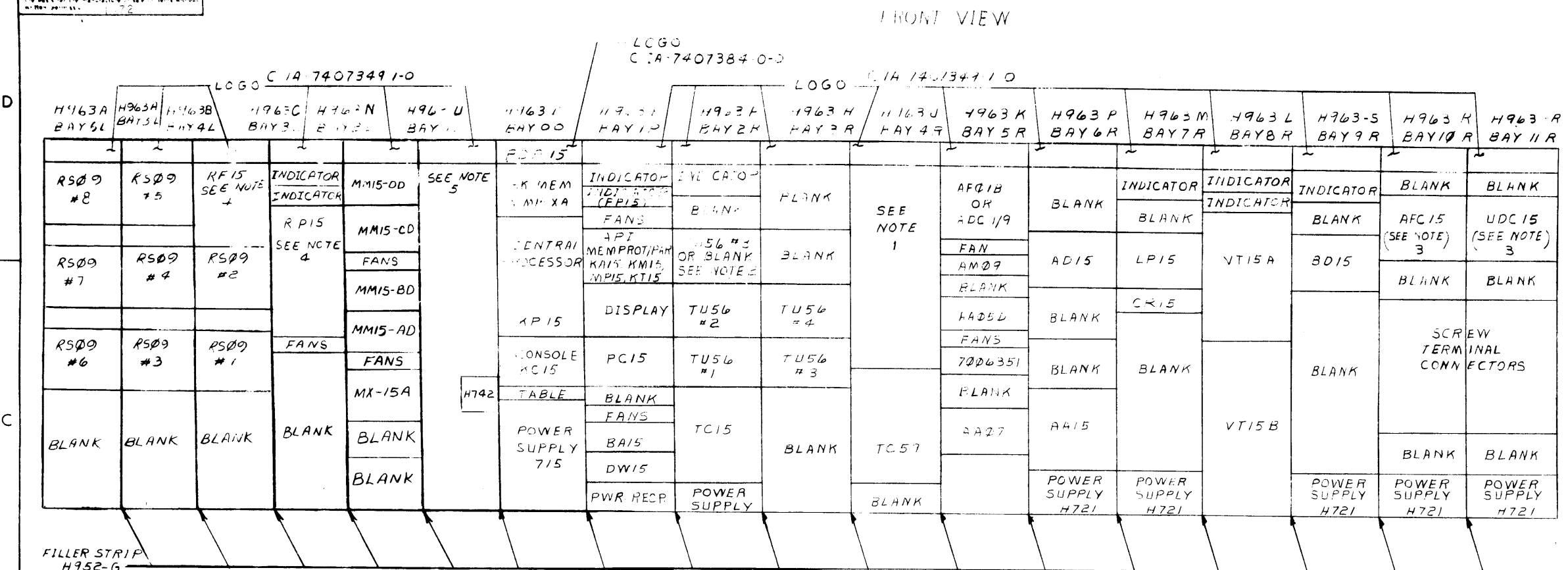
UNIT ASSY. NO. E-UA-PDP15-0-0

REVISIONS		CHANGE NO.	REV.
CHK	15-00020	A	
B-MINOR			
1	10-30-67	B	
D. O'CONNOR			
2	15-00022	B	
D. O'CONNOR			
3	15-00014	B	
C. O'CONNOR			
4	15-00052	D	
F. FAUMANN			
5	15-00060	E	
MINOR			
6	15-00007	F	
B-MINOR			
7	15-00007	H	
M			

FIRST USED ON OPTION/MODEL PDP15		DO NOT SCALE DRAWING UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± .005 ± .005 FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS		DRN. 7-2-69 CHD. 7-2-69 ENG. 7-2-69 PROJ. ENG. 7-2-69 PROD. 7-2-69	DATE 7-2-69 DATE 7-2-69 DATE 7-2-69 DATE 7-2-69 DATE 7-2-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
MATERIAL FINISH		NEXT HIGHER ASSY A-ML-PDP15-0		SCALE NONE		DRAWING INDEX LIST PDP15	
SHEET 1 OF 3		SIZE CODE		NUMBER		D-1 PDP15-0-1	

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- NOTES:
1. OPTIONS LT19, DP09, CR03B, XY15 OR DP29 AND THE LB29 & DE05 ARE LOCATED IN AVAILABLE SPACE IN THE H963-J CAB ORDER OF PREFERENCE IS TC59, LT19, DP29, ETC. PLACED IN THE ORDER LISTED ABOVE FROM BOTTOM TO TOP IN THE EVENT THAT ALL OPTIONS ARE INCLUDED A SECOND CAB IS REQUIRED.
 2. IF FOUR TU56'S ARE ORDERED, TU56 #3 & #4 ARE INSTALLED IN SECOND CAB AS SHOWN.
 3. AFC-15 & UDC-15 CABINETS COULD BE A MAX OF 11UDC AND 11AFC CABINETS EACH TO MEET THE REQUIREMENTS OF THE CUSTOMER.
 4. IF EXTENSIVE MX15 SYSTEM INSTALLED DISK SYSTEM (RF15 AND/OR RP15) CABINETS MAY BE PHYSICALLY SEPARATED AND REPOSITIONED AT INSTALLATION TO MAINTAIN CABLE LENGTHS.
 5. SEE A-SP-ME15-0 FOR H963U USAGE REQUIREMENTS

BAY 1L	BAY 00	BAY 1R
FANS	FANS	
ME15D	8K MEM MM15XB	FR15
ME15C	8K MEM MM15XC	
ME15A	8K MEM MM15XC	
ME15C		
FANS	FANS	
H742	BLANK	
	POWER SUPPLY 715	

STANDARD MODELS	
MODEL NO	OPTIONS INCLUDED
PDP15/10	MM15 (AC OR MM15BA), ASR-33, KC15 (A, B), KP15
PDP15/20	MM15CA (OR MM15DA), PC15, TC15 (OR TC02 & DW15A), KSR-35, KC15 (A, B), KP15, KE15, 1 TU56 (OR 2 TU55)
PDP15/30	MM15CA (OR MM15DA), MM15CB (OR MM15DA), PC15, TC15 (OR TC02 & DW15A), KE15, KA15, KM15, KW15, BA15, LT15, KSR-35, KSR-33, KC15 (A, B), KP15, 2 TU56 (OR 3 TU55)
PDP15/40	(1) MM15CA (OR MM15DA), MM15CB (OR MM15DB), PC15, TC15 (OR TC02 & DW15A), KE15, KA15, KM15, KW15, BA15, LT15A, RF15, 2 RS09, KSR-35, KSR-33, KC15 (A, B), KP15, MM15CC (OR MM15DC), 1 TU56 (OR 2 TU55)

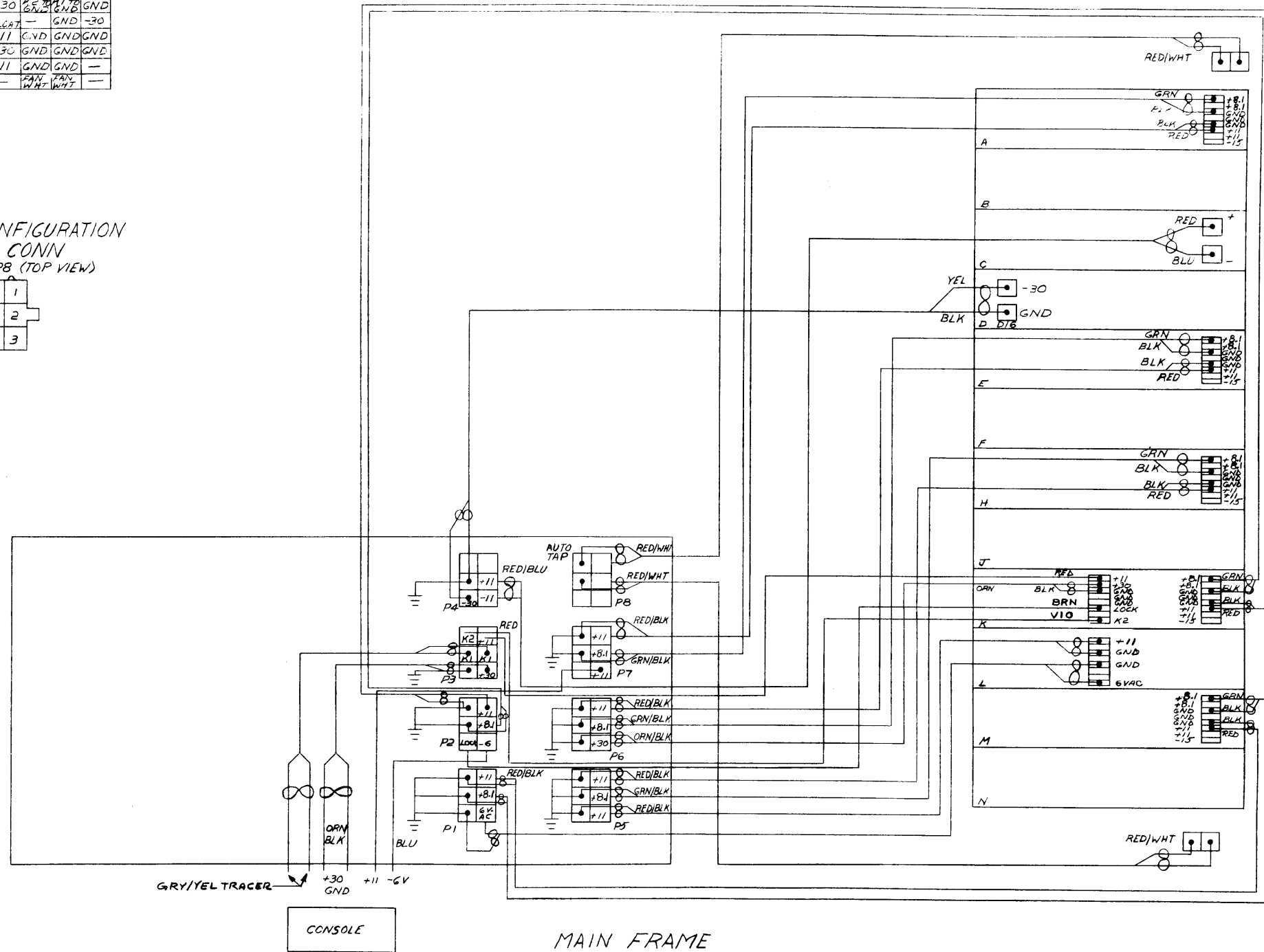
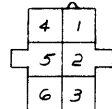
CABINET CONFIGURATION INFORMATION	
CAB. DES.	MAX CONFIGURATION DRAWING NUMBER
H-963-A	7006707 (RS29)
B	7006708 (RF15)
C	7006820 (RP-15)
D	(MAIN PROCESSOR)
E	7006621 (PC15)
F	7006725 (TC-15)
H	7006725 (TC-15)
J	7006633 (TC59)
K	(AA05)
L	(VT15)
M	(LP15)
N	7006863 (MX-15)
P	(ANALOG SUBSYSTEM)
R	(AFC15 & UDC15)
S	(BD15)

REV	CHANGE NO	REV
1	15-00019	M
2	15-00082	N
3	15-00086	P
4	15-00089	R
5	15-00091	S
6	15-00092	T
7	15-00093	U
8	15-00094	V
9	15-00095	W
10	15-00096	X
11	15-00097	Y
12	15-00098	Z
13	15-00099	AA
14	15-00100	AB
15	15-00101	AC
16	15-00102	AD
17	15-00103	AE
18	15-00104	AF
19	15-00105	AG
20	15-00106	AH
21	15-00107	AI
22	15-00108	AJ
23	15-00109	AK
24	15-00110	AL
25	15-00111	AM
26	15-00112	AN
27	15-00113	AO
28	15-00114	AP
29	15-00115	AQ
30	15-00116	AR
31	15-00117	AS
32	15-00118	AT
33	15-00119	AU
34	15-00120	AV
35	15-00121	AW
36	15-00122	AX
37	15-00123	AY
38	15-00124	AZ
39	15-00125	BA
40	15-00126	BB
41	15-00127	BC
42	15-00128	BD
43	15-00129	BE
44	15-00130	BF
45	15-00131	BG
46	15-00132	BH
47	15-00133	BI
48	15-00134	BJ
49	15-00135	BK
50	15-00136	BL
51	15-00137	BM
52	15-00138	BN
53	15-00139	BO
54	15-00140	BP
55	15-00141	BQ
56	15-00142	BR
57	15-00143	BS
58	15-00144	BT
59	15-00145	BU
60	15-00146	BV
61	15-00147	BW
62	15-00148	BX
63	15-00149	BY
64	15-00150	BZ
65	15-00151	CA
66	15-00152	CB
67	15-00153	CC
68	15-00154	CD
69	15-00155	CE
70	15-00156	CF
71	15-00157	CG
72	15-00158	CH
73	15-00159	CI
74	15-00160	CJ
75	15-00161	CK
76	15-00162	CL
77	15-00163	CM
78	15-00164	CN
79	15-00165	CO
80	15-00166	CP
81	15-00167	CQ
82	15-00168	CR
83	15-00169	CS
84	15-00170	CT
85	15-00171	CU
86	15-00172	CV
87	15-00173	CW
88	15-00174	CX
89	15-00175	CY
90	15-00176	CZ
91	15-00177	DA
92	15-00178	DB
93	15-00179	DC
94	15-00180	DD
95	15-00181	DE
96	15-00182	DF
97	15-00183	DG
98	15-00184	DH
99	15-00185	DI
100	15-00186	DJ
101	15-00187	DK
102	15-00188	DL
103	15-00189	DM
104	15-00190	DN
105	15-00191	DO
106	15-00192	DP
107	15-00193	DQ
108	15-00194	DR
109	15-00195	DS
110	15-00196	DT
111	15-00197	DU
112	15-00198	DV
113	15-00199	DW
114	15-00200	DX
115	15-00201	DY
116	15-00202	DZ
117	15-00203	EA
118	15-00204	EB
119	15-00205	EC
120	15-00206	ED
121	15-00207	EE
122	15-00208	EF
123	15-00209	EG
124	15-00210	EH
125	15-00211	EI
126	15-00212	EJ
127	15-00213	EK
128	15-00214	EL
129	15-00215	EM
130	15-00216	EN
131	15-00217	EO
132	15-00218	EP
133	15-00219	EQ
134	15-00220	ER
135	15-00221	ES
136	15-00222	ET
137	15-00223	EU
138	15-00224	EV
139	15-00225	EW
140	15-00226	EX
141	15-00227	EY
142	15-00228	EZ
143	15-00229	FA
144	15-00230	FB
145	15-00231	FC
146	15-00232	FD
147	15-00233	FE
148	15-00234	FF
149	15-00235	FG
150	15-00236	FH
151	15-00237	FI
152	15-00238	FJ
153	15-00239	FK
154	15-00240	FL
155	15-00241	FM
156	15-00242	FN
157	15-00243	FO
158	15-00244	FP
159	15-00245	FQ
160	15-00246	FR
161	15-00247	FS
162	15-00248	FT
163	15-00249	FU
164	15-00250	FV
165	15-00251	FW
166	15-00252	FX
167	15-00253	FY
168	15-00254	FZ
169	15-00255	GA
170	15-00256	GB
171	15-00257	GC
172	15-00258	GD
173	15-00259	GE
174	15-00260	GF
175	15-00261	GG
176	15-00262	GH
177	15-00263	GI
178	15-00264	GJ
179	15-00265	GK
180	15-00266	GL
181	15-00267	GM
182	15-00268	GN
183	15-00269	GO
184	15-00270	GP
185	15-00271	GQ
186	15-00272	GR
187	15-00273	GS
188	15-00274	GT
189	15-00275	GU
190	15-00276	GV
191	15-00277	GW
192	15-00278	GX
193	15-00279	GY
194	15-00280	GZ
195	15-00281	HA
196	15-00282	HB
197	15-00283	HC
198	15-00284	HD
199	15-00285	HE
200	15-00286	HF
201	15-00287	HG
202	15-00288	HH
203	15-00289	HI
204	15-00290	HJ
205	15-00291	HK
206	15-00292	HL
207	15-00293	HM
208	15-00294	HN
209	15-00295	HO
210	15-00296	HP
211	15-00297	HQ
212	15-00298	HR
213	15-00299	HS
214	15-00300	HT
215	15-00301	HU
216	15-00302	HV
217	15-00303	HW
218	15-00304	HX
219	15-00305	HY
220	15-00306	HZ
221	15-00307	IA
222	15-00308	IB
223	15-00309	IC
224	15-00310	ID
225	15-00311	IE
226	15-00312	IF
227	15-00313	IG
228	15-00314	IH
229	15-00315	II
230	15-00316	IJ
231	15-00317	IK
232	15-00318	IL
233	15-00319	IM
234	15-00320	IN
235	15-00321	IO
236	15-00322	IP
237	15-00323	IQ
238	15-00324	IR
239	15-00325	IS
240	15-00326	IT
241	15-00327	IU
242	15-00328	IV
243	15-00329	IW
244	15-00330	IX
245	15-00331	IY
246	15-00332	IZ
247	15-00333	JA
248	15-00334	JB
249	15-00335	JC
250	15-00336	JD
251	15-00337	JE
252	15-00338	JF
253	15-00339	JG
254	15-00340	JH
255	15-00341	JI
256	15-00342	JJ
257	15-00343	JK
258	15-00344	JL
259	15-00345	JM
260	15-00346	JN
261	15-00347	JO
262	15-00348	JP
263	15-00349	jq
264	15-00350	JR
265	15-00351	JS
266	15-00352	JT
267	15-00353	JU
268	15-00354	JV
269	15-00355	JW
270	15-00356	JX
271	15-00357	JY
272	15-00358	JZ
273	15-00359	KA
274	15-00360	KB
275	15-00361	KC
276	15-00362	KD
277	15-00363	KE
278	15-00364	KF
279	15-00365	KG
280	15-00366	KH
281	15-00367	KI
282	15-00368	KJ
283	15-00369	KK
284	15-00370	KL
285	15-00371	KM
286	15-00372	KN
287	15-00373	KO
288	15-00374	KP
289	15-00375	KQ
290	15-00376	KR
291	15-00377	KS
292	15-00378	KT
293	15-00379	KU
294	15-00380	KV
295	15-00381	KW
296	15-00382	KX
297	15-00383	KY
298	15-00384	KZ
299	15-00385	LA
300	15-00386	LB
301	15-00387	LC
302	15-00388	LD
303	15-00389	LE

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WIRE TABLE									
CONN.	P1	P2	P3	P4	P5	P6	P7	P8	
P1	+11	+8.1	6VAC	GND	GND	GND			
P2	+11	+3.1	-6	GND	GND	LOCK			
P3	+11	6VAC	+30	GND	GND	GND			
P4	-	FLCAT	FLCAT	-	GND	-30			
P5	+11	+8.1	+11	GND	GND	GND			
P6	+11	+8.1	+30	GND	GND	GND			
P7	+11	+8.1	+11	GND	GND	-			
P8	AC	RED	-	WHT	WHT	-			

PIN CONFIGURATION
FOR CONN
P1-P8 (TOP VIEW)



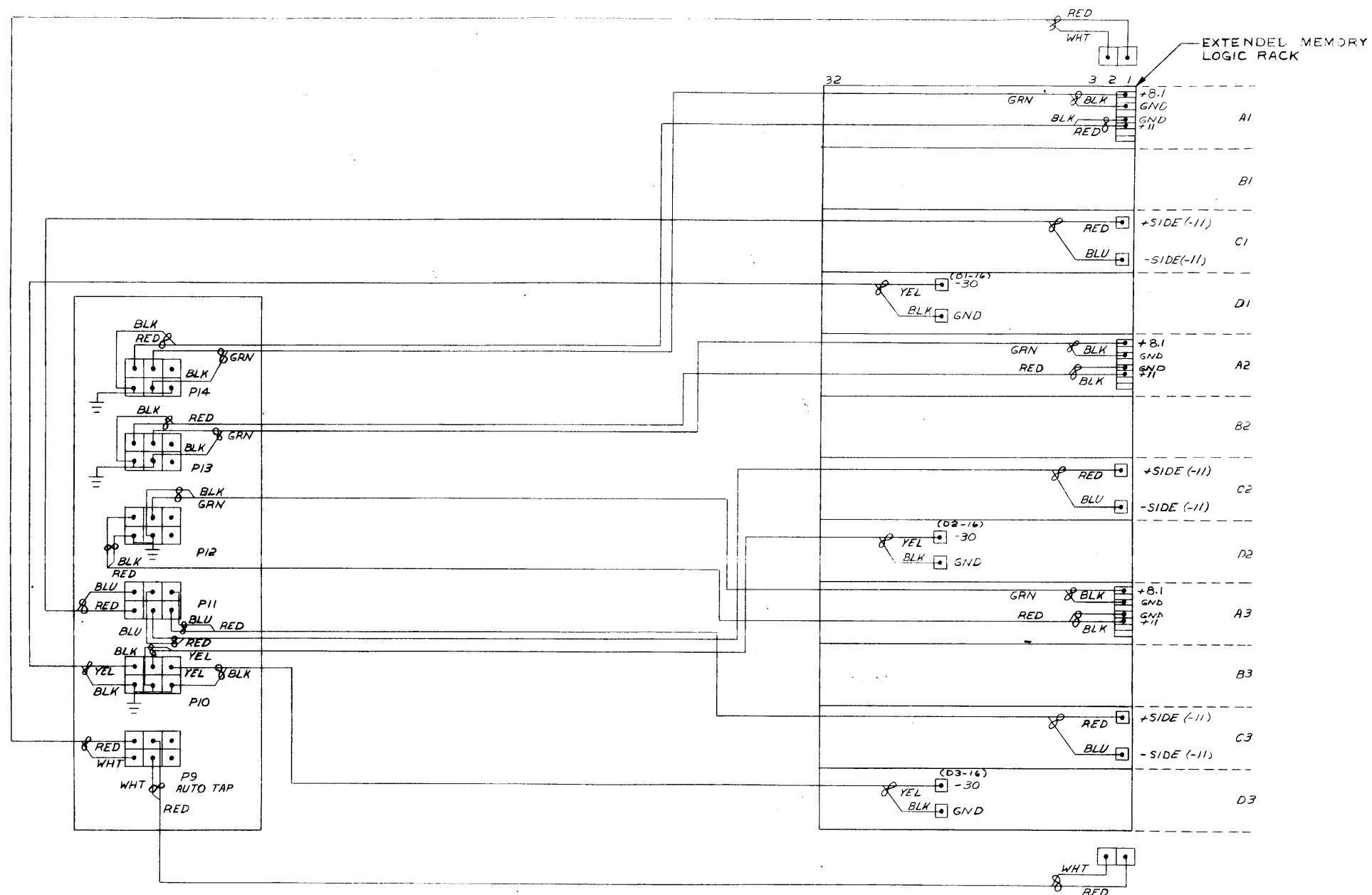
REV	DATE	BY	CHK
15-00022			
715-00014			
15-00078			
15-00078			
15-00078			

FIRST USED ON OPT/MOD PDP-15	QTY.	DESCRIPTION	PART NO.	ITEM NO.					
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES = .005 = 1/64 = 0°30' FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS					DRN. CHK'D. ENG. PRO. ENG. PROD.	DATE 10-24-69 10-28-69 11/4/69 11/1/69 11/1/69	PARTS LIST digital EQUIPMENT CORPORATION WATNARD MASSACHUSETTS TITLE POWER WIRING PDP-15		
MATERIAL	NEXT HIGHER ASSY A-ML-PDP15-0		SCALE NONE	SHEET 1 OF 2	SIZE/CODE D/IC PDP15-0-14	NUMBER PDP15-0-14	REV. B	DIST.	

PIN CONFIGURATION
FOR CONN 9-14
TOP VIEW

1	2	3
4	5	6

CONN	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6
P9	AC HOT	FANS HOT	—	AC FANS NEUT	FAN NEUT	—
P10	-30	-30	-30	GND	GND	GND
P11	—	—	—	—	—	—
P12	+11	+8.1	—	GND	GND	—
P13	+11	+8.1	—	GND	GND	—
P14	+11	+8.1	—	GND	GND	—

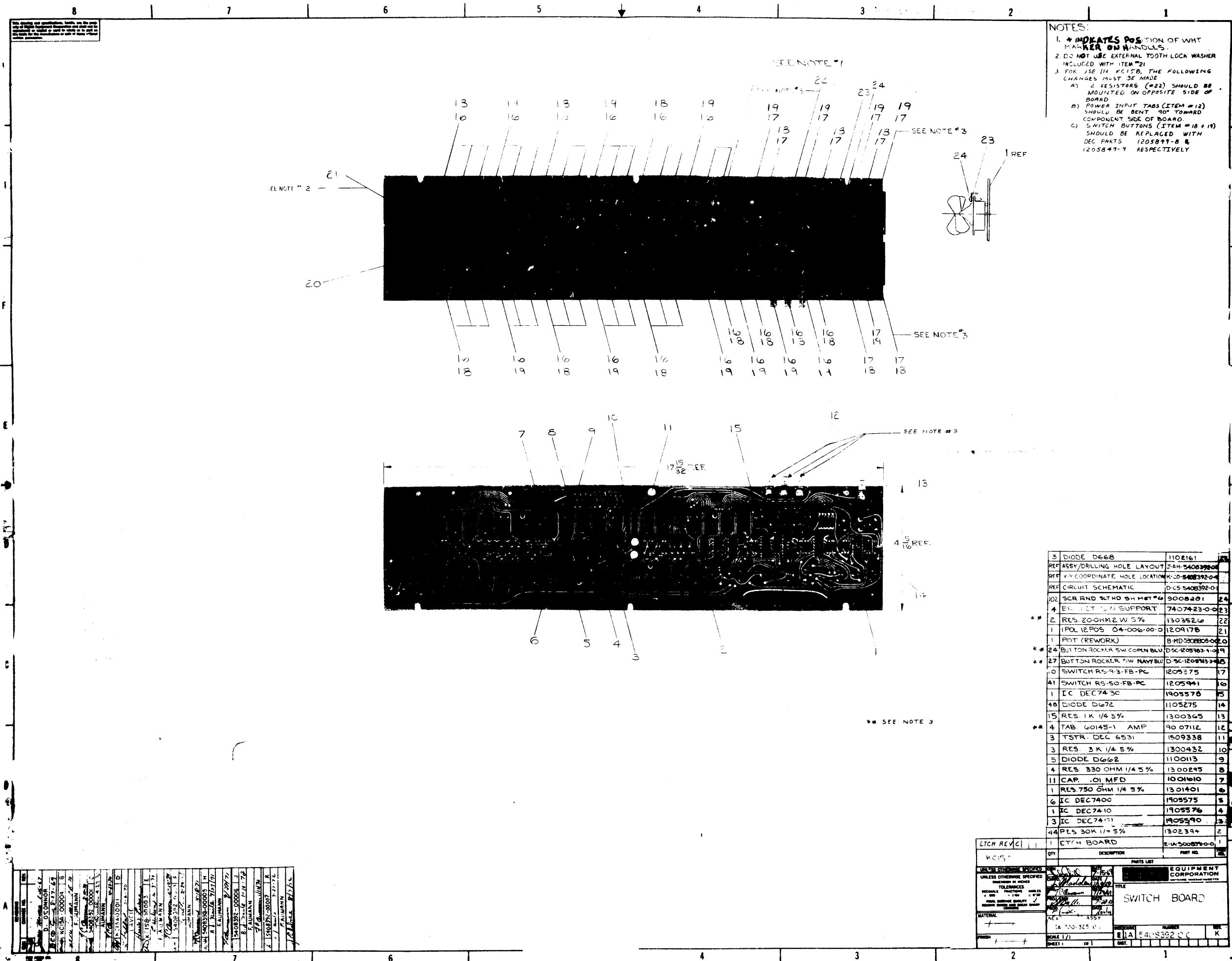


EXTENDED MEMORY

REVISIONS	
CHK	CHANGE NO. REV.

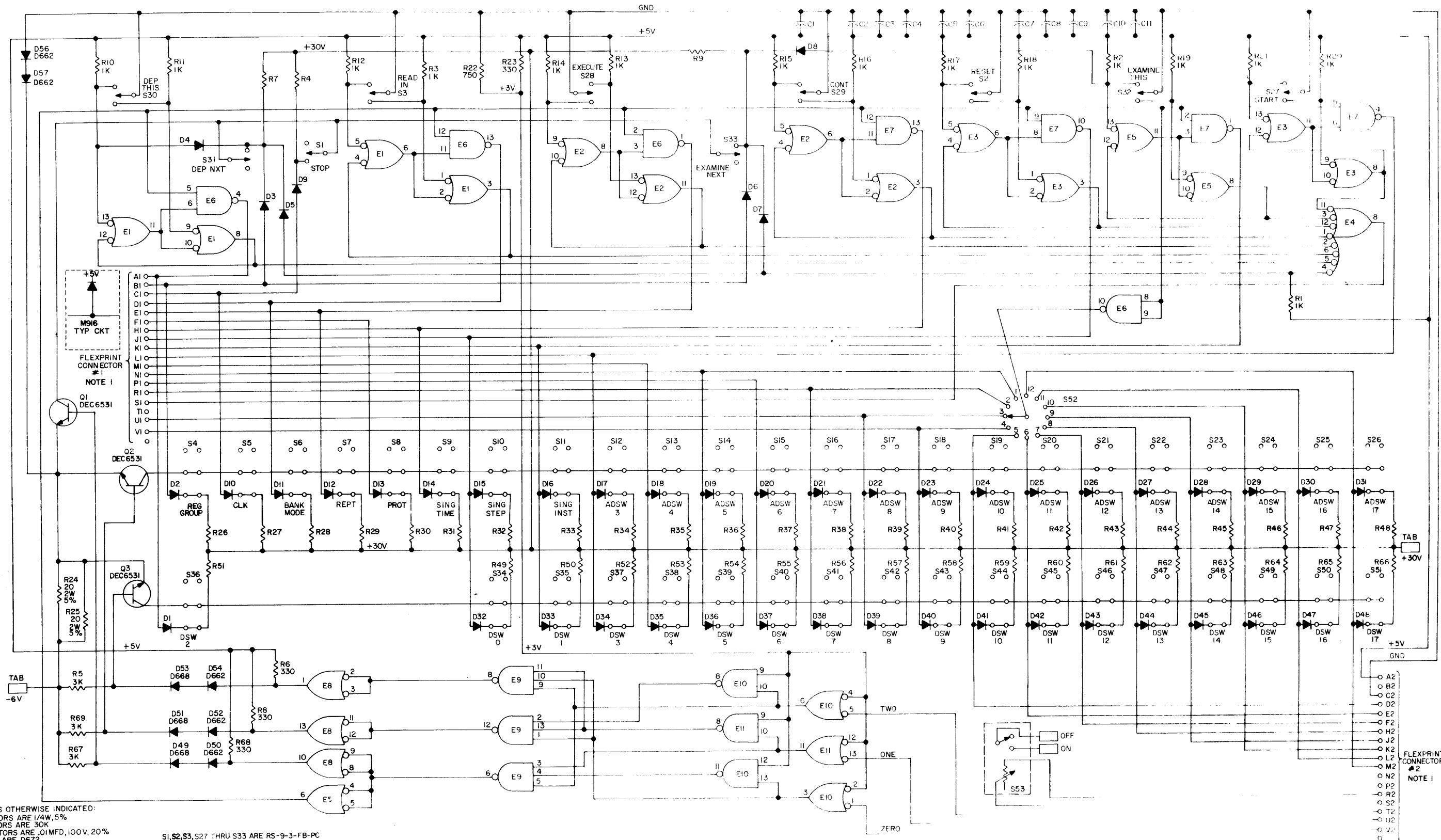
UNLESS OTHERWISE SPECIFIED		
UNLESS OTHERWISE SPECIFIED		
DIMENSION IN INCHES		
TOLERANCES		
DECIMALS	FRACTIONS	ANGLES
± .005	± 1/64	± 0°30'
FINAL SURFACE QUALITY		
REMOVE BURRS AND BREAK SHARP CORNERS		
MATERIAL		
FINISH		

QTY.	DESCRIPTION		PART NO.	ITEM
PARTS LIST				
DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	TITLE POWER WIRING PDP-15	
CHK'D.	DATE			
ENG.	DATE			
PROJ. ENG.	DATE			
PROD.	DATE			
FIRST USED ON				
SCALE				
SHEET 2 OF 2	DIST.	SIZE/CODE	NUMBER	REV.
		D1C	PDP15-0-14	B



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1 3 3690-0-1



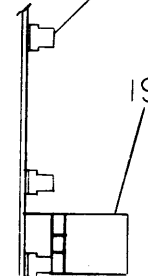
UNLESS OTHERWISE INDICATED:
RESISTORS ARE 1/4W, 5%
RESISTORS ARE 30K
CAPACITORS ARE .01MFD, 100V, 20%
DIODES ARE D672
E6, E7, E8 ARE SN7401N
E4 IS SN7430N
E9 IS SN7410N
E10, E1, E2, E3, E5, E11 ARE SN7400N
PIN 7 ON EACH IC = GND
PIN 14 ON EACH IC = +5V
S53 IS POT. ON/OFF SWITCH # 5308805
S52 IS ROTARY SWITCH 1P 12 POS -04-006-00-0
REF ASSY DWG # PL E-1A-5408392-0-0

S1, S2, S3, S27 THRU S33 ARE RS-9-3-FB-PC
S4 THRU S26, S34 THRU S51 ARE RS-50-FB-PC
NOTE:
1. THE OTHER END OF THE FLEXPRINT CABLE
IS CONNECTED TO AN M916 MODULE WHICH
PROVIDES A DIODE CLAMP TO +5V FOR EACH LINE.

REVISIONS	CHK	DATE	BY	APP
1	00101	C		
2	00102	D		
3	00103	E		
4	00104	F		
5	00105	G		
6	00106	H		
7	00107	I		
8	00108	J		
9	00109	K		
10	00110	L		
11	00111	M		
12	00112	N		
13	00113	O		
14	00114	P		
15	00115	Q		
16	00116	R		
17	00117	S		
18	00118	T		
19	00119	U		
20	00120	V		
21	00121	W		
22	00122	X		
23	00123	Y		
24	00124	Z		
25	00125	A		
26	00126	B		
27	00127	C		
28	00128	D		
29	00129	E		
30	00130	F		
31	00131	G		
32	00132	H		
33	00133	I		
34	00134	J		
35	00135	K		
36	00136	L		
37	00137	M		
38	00138	N		
39	00139	O		
40	00140	P		
41	00141	Q		
42	00142	R		
43	00143	S		
44	00144	T		
45	00145	U		
46	00146	V		
47	00147	W		
48	00148	X		
49	00149	Y		
50	00150	Z		
51	00151	A		
52	00152	B		
53	00153	C		
54	00154	D		
55	00155	E		
56	00156	F		
57	00157	G		
58	00158	H		
59	00159	I		
60	00160	J		
61	00161	K		
62	00162	L		
63	00163	M		
64	00164	N		
65	00165	O		
66	00166	P		
67	00167	Q		
68	00168	R		
69	00169	S		
70	00170	T		
71	00171	U		
72	00172	V		
73	00173	W		
74	00174	X		
75	00175	Y		
76	00176	Z		
77	00177	A		
78	00178	B		
79	00179	C		
80	00180	D		
81	00181	E		
82	00182	F		
83	00183	G		
84	00184	H		
85	00185	I		
86	00186	J		
87	00187	K		
88	00188	L		
89	00189	M		
90	00190	N		
91	00191	O		
92	00192	P		
93	00193	Q		
94	00194	R		
95	00195	S		
96	00196	T		
97	00197	U		
98	00198	V		
99	00199	W		
100	00200	X		

TRANSISTOR & DIODE CONVERSION CHART			
DEC	FIA	DEC	FIA
D662	1N645		
D672	1N645		
D682	1N645		
D692	1N645		
D702	1N645		
D712	1N645		
D722	1N645		
D732	1N645		
D742	1N645		
D752	1N645		
D762	1N645		
D772	1N645		
D782	1N645		
D792	1N645		
D802	1N645		
D812	1N645		
D822	1N645		
D832	1N645		
D842	1N645		
D852	1N645		
D862	1N645		
D872	1N645		
D882	1N645		
D892	1N645		
D902	1N645		
D912	1N645		
D922	1N645		
D932	1N645		
D942	1N645		
D952	1N645		
D962	1N645		
D972	1N645		
D982	1N645		
D992	1N645		
D1002	1N645		

digital EQUIPMENT CORPORATION
 5408392-0-1
 PRINTED CIRCUIT REV
 8

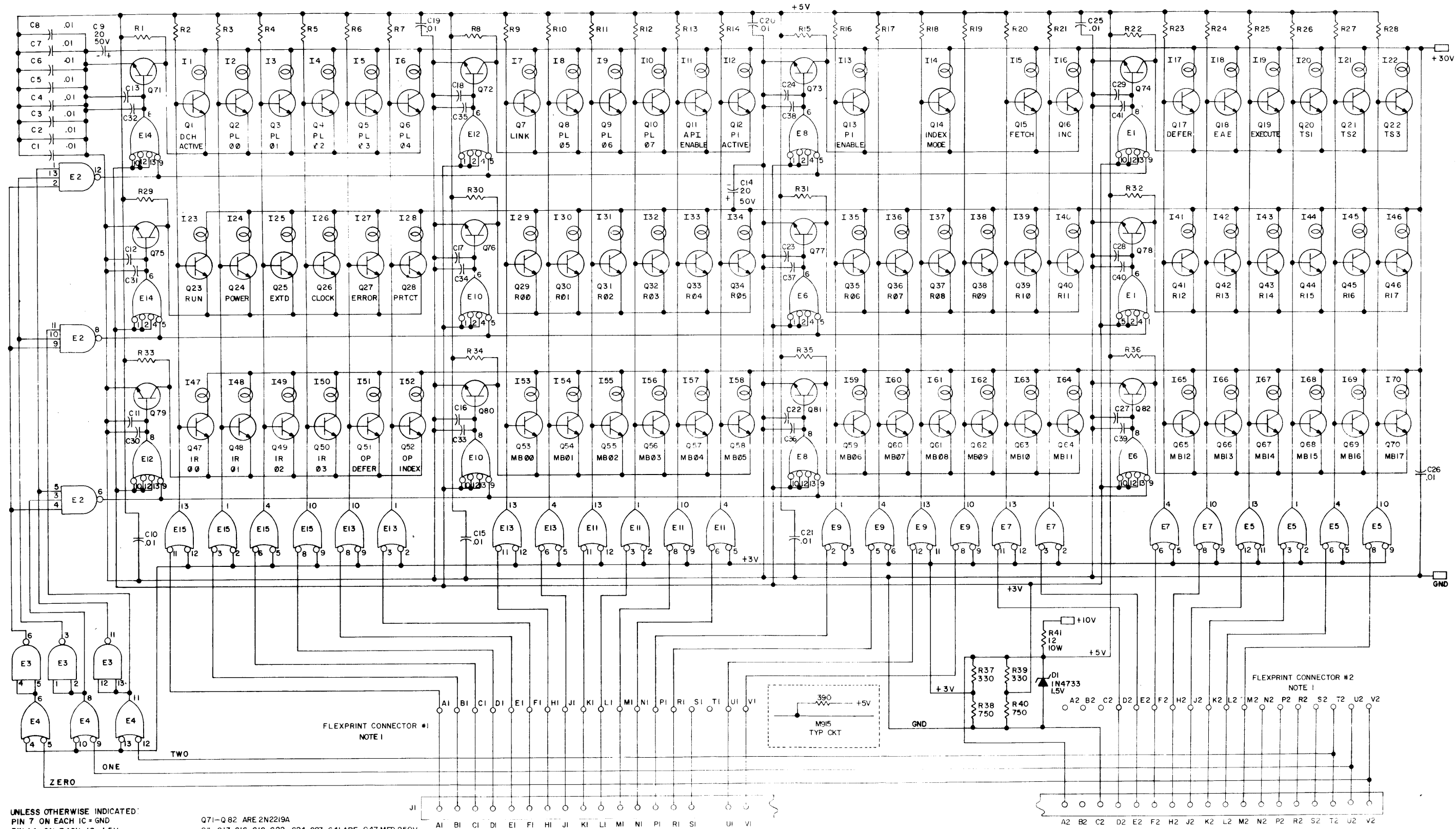


DATE	TIME	NO.
01A	5408394-0-0	D

FIRST USED ON OPTION MODEL PDP1S	QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED	PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .008 ± 1/64 ± 0°30' FINAL SURFACE QUALITY ✓ REMOVE BURRS AND BREAK SHARP CORNERS	DRN. D. Martine	DATE 7-17-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
	CAD J. Madden	DATE 7/23/69	TITLE BOARD CONSOLE LIGHT	
	J. Cameron	DATE 8/7/69		
	PROLONG K. L. O.	DATE 7/24/69		
MATERIAL + — +	NEXT HIGHER ASSY D-IA-7006388-0		SIZE CODE	NUMBER
FINISH + — +	SCALE NONE		D IA	5408394-0-0
	SHEET 1 OF 1	DIST.		REV. D

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D 1-0-1 CS 5408394-0-1



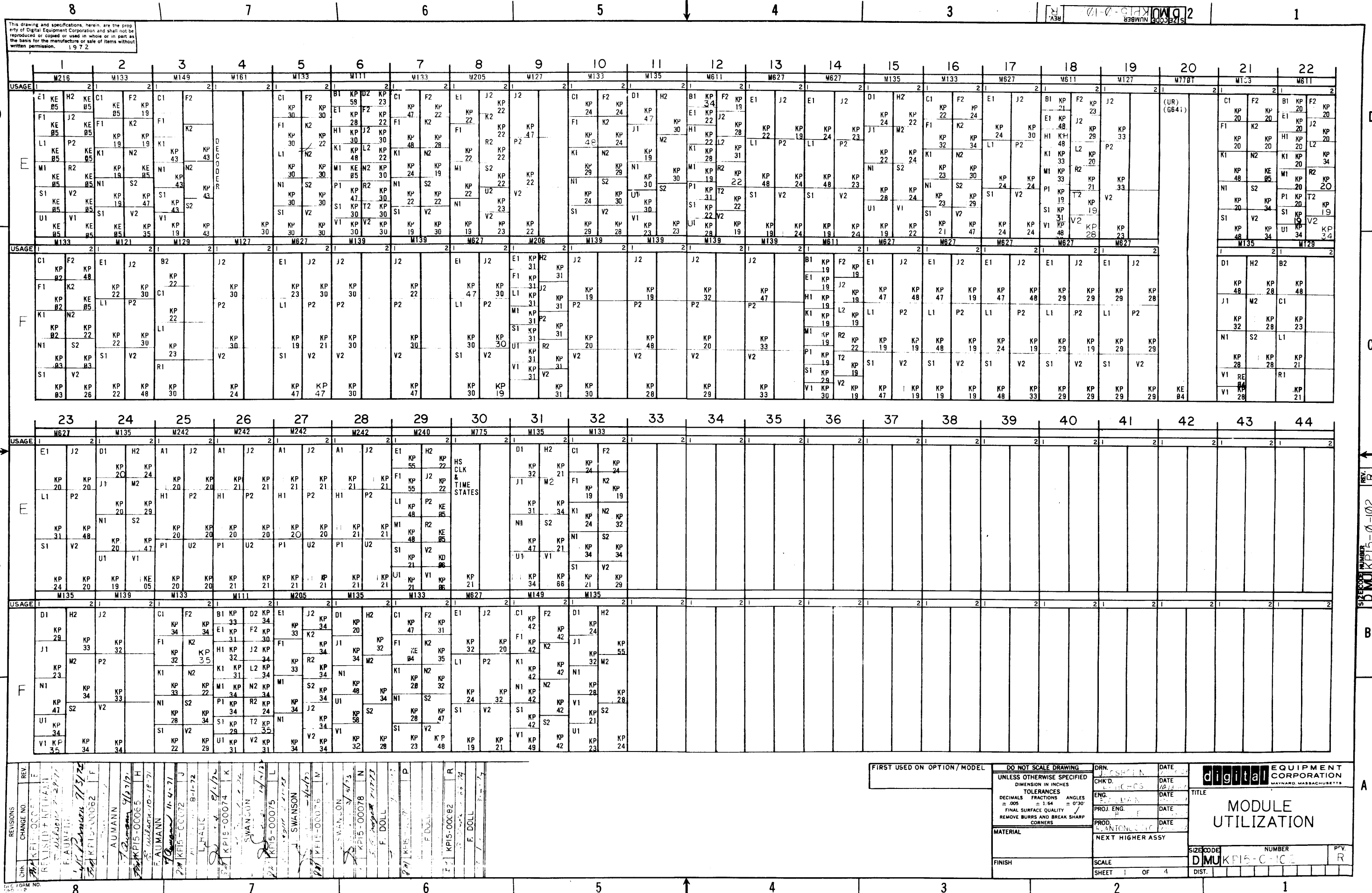
UNLESS OTHERWISE INDICATED:
PIN 7 ON EACH IC = GND
PIN 14 ON EACH IC = +5V
E1, E6, E8, E10, E12, E14 ARE DEC7440N
E2, IS DEC7410N
E3, E4 ARE DEC7400N
E5, E7, E9, E11, E13, E15 ARE DEC7401N
CAPACITORS ARE MFD, 100V
LIGHTS ARE #2335
RESISTORS ARE 1K, 1/4W, 5%
TRANSISTORS ARE DEC6531

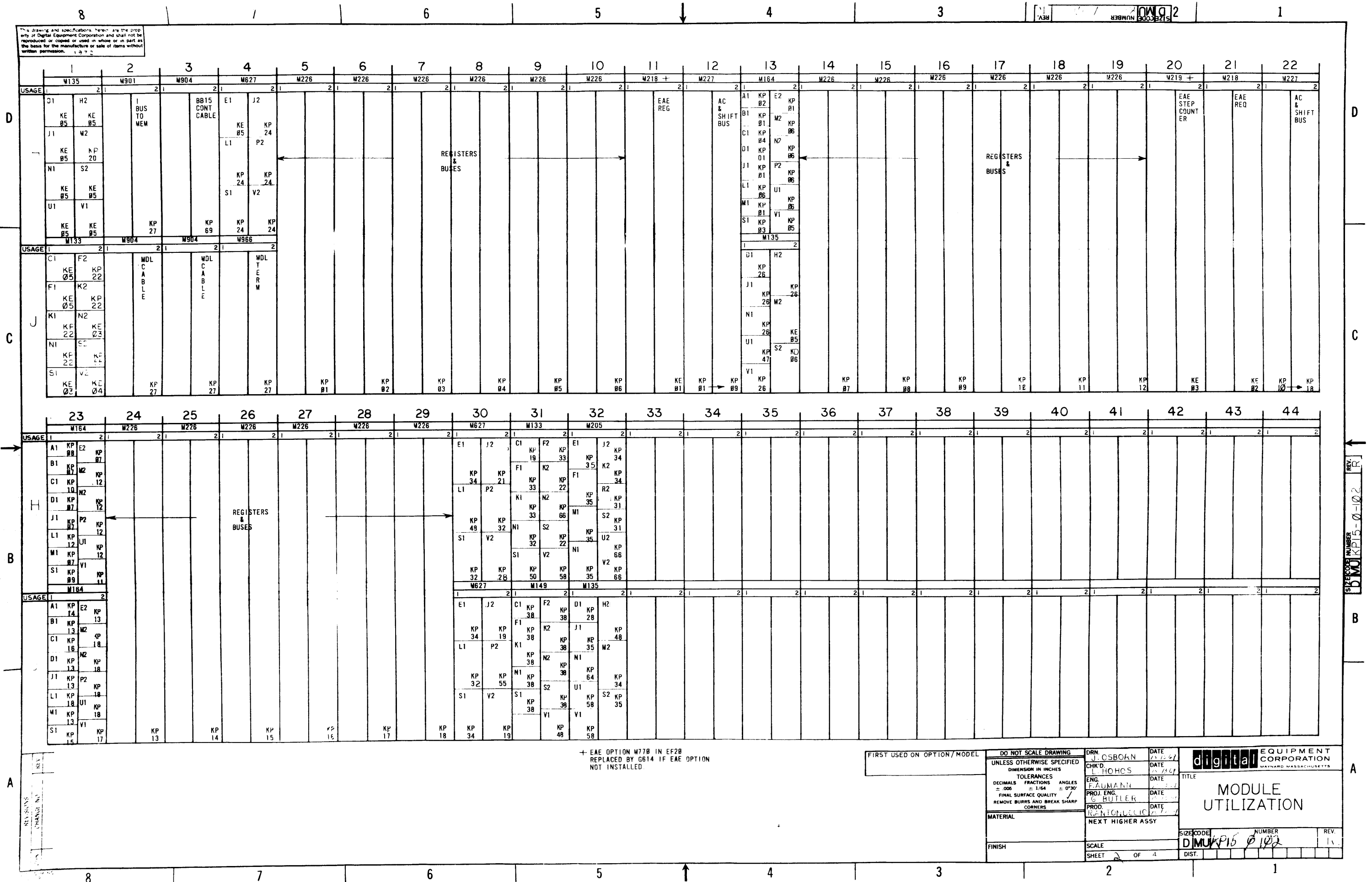
Q71-Q82 ARE 2N2219A
C11-C13, C16-C18, C22-C24, C27-C41 ARE .047 MFD 250V
NOTE 1: THE OTHER END OF FLEXPRINT CABLE IS CONNECTED TO AN M915. THIS PROVIDES A PULL UP OF 390 OHMS TO +5V FOR EACH LINE.

REV	DATE	BY	CHK
1	7-9-69	W. J. H. / J. S. H.	W. J. H.
2	11-1-70	W. J. H.	W. J. H.
3	1-1-71	W. J. H.	W. J. H.
4	1-1-72	W. J. H.	W. J. H.

TRANSISTOR & DIODE CONVERSION CHART			
DEC	EIA	DEC	EIA
2N2219A	2N2219A	1N4733	1N4733
DEC6531	NONE	1N750	SAME
1N4733	SAME		

digital EQUIPMENT CORPORATION		TITLE: CONSOLE INDICATOR PANEL 5408394	
SIZE: D	CODE: CS	NUMBER: 5408394-0-1	REV: D
MAYNARD, MASSACHUSETTS		PRINTED CIRCUIT REV: E	



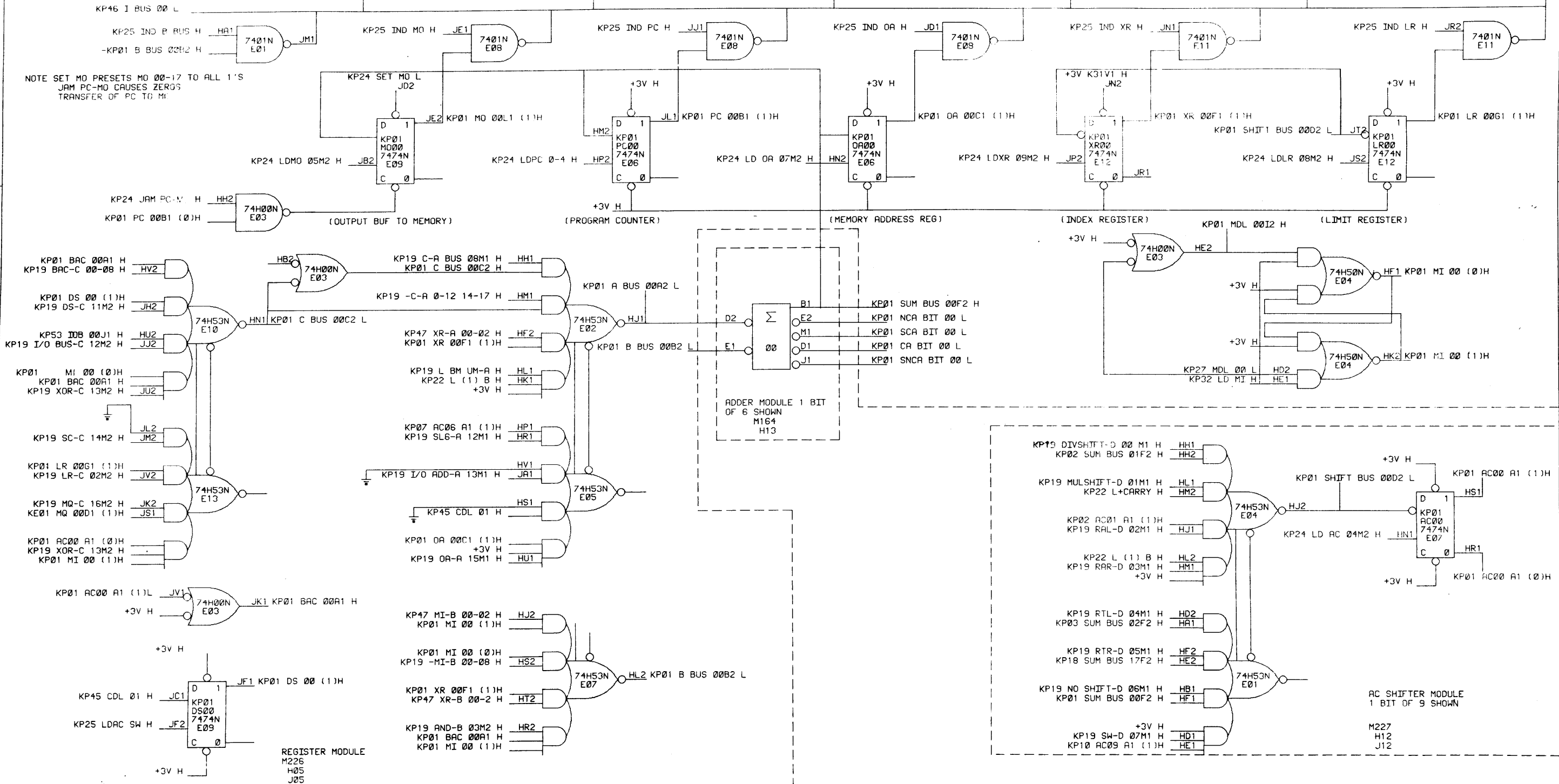


[illegible][illegible]

* POWER FAIL OPTION
▲ REAL TIME CLOCK OPTION
▽ IF NO I/O BUS CABLE INSTALLED,
4 M989 WILL BE. M989S. SHOULD
BE MOVED TO END OF BUS WHEN CABLE
IS INSTALLED.

FIRST USED ON OPTION / MODEL	DO NOT SCALE DRAWING	DRN OSBORN	DATE 10-15-97	 digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
	UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	CHK'D L. HOGHS	DATE 10-13-97	
	TOLERANCES	ENG. F. ABMAN	DATE 10-15-97	TITLE MODULE UTILIZATION
	DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°30'	PROJ. ENG. B. BILTER	DATE 10-15-97	
	FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	PROD. R. ANTONIUK	DATE 10-15-97	
	MATERIAL	NEXT HIGHER ASSY		
	FINISH	SCALE	SIZE CODE	NUMBER
		SHEET 3 OF 1	DIMU	REV. F
			DIST.	

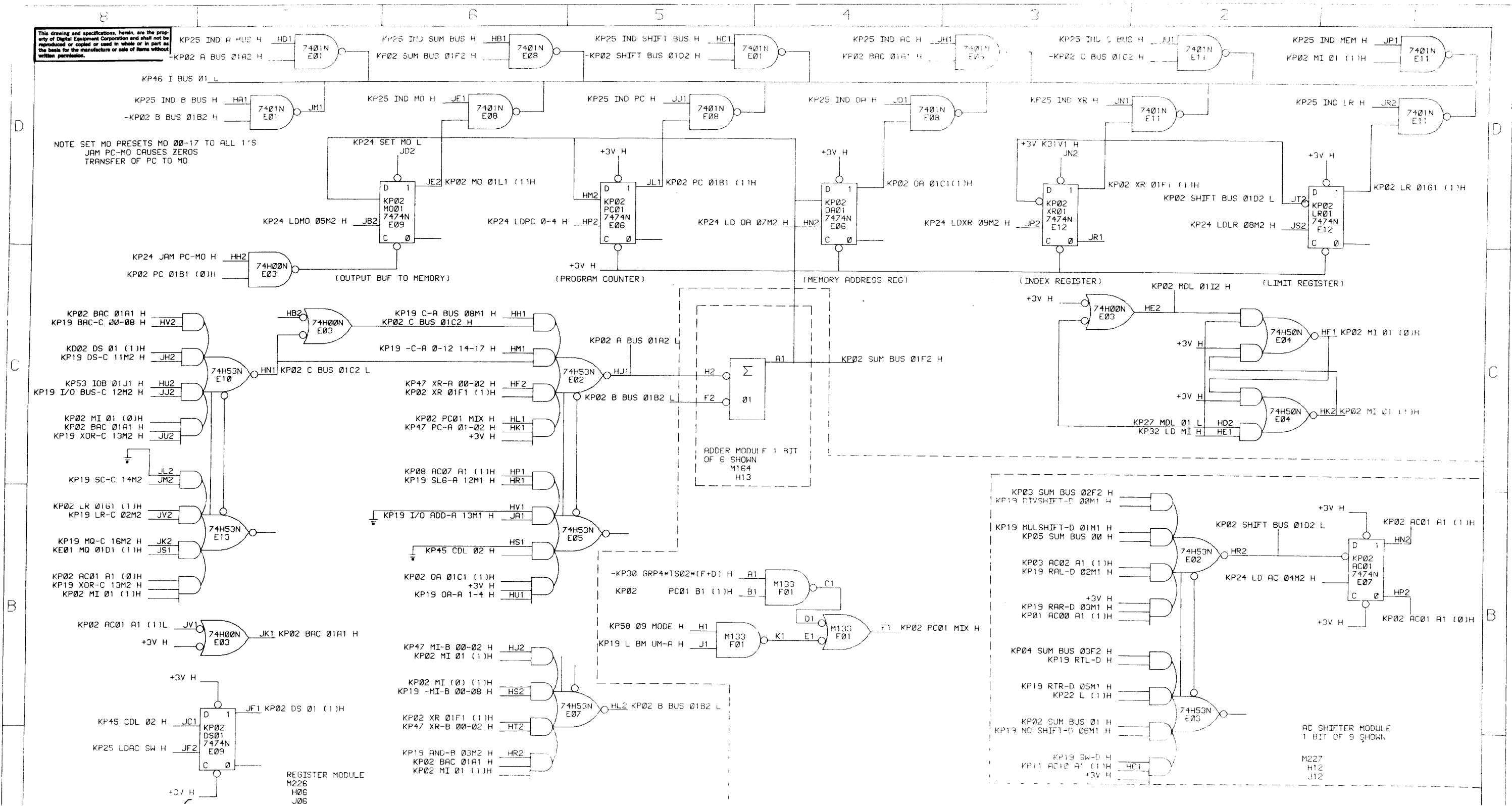
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REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
LH	KP15-00038	D		KP15-00038	J
S	GOLDSBY 7-14-70				
F	AUMANN 7-22-70				
GH	KP15-00046	E			
K	WALSH 12/11/70				
F	AUMANN 12/11/70				
GH	KP15-00052	F			
S	GOLDSBY 3/1/71				
F	AUMANN 3/2/71				
	KP15-00056	H			

DEN M. SCHURMAN	DATE 11-7-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHKD. N. RHEULT	DATE 11-7-69		
ENG. F. AUMANN	DATE 11-7-69	TITLE REG & BUS BIT 00	
PROJ. ENG. G. BUTLER	DATE 11-7-69		
PROD. F. LASKEY	DATE 11-7-69	FIRST USED ON	
KP15		SIZE CODE	NUMBER
SCALE		D BS	KP15-0-01
SHEET 1	OF 1	DIST.	
			REV. J

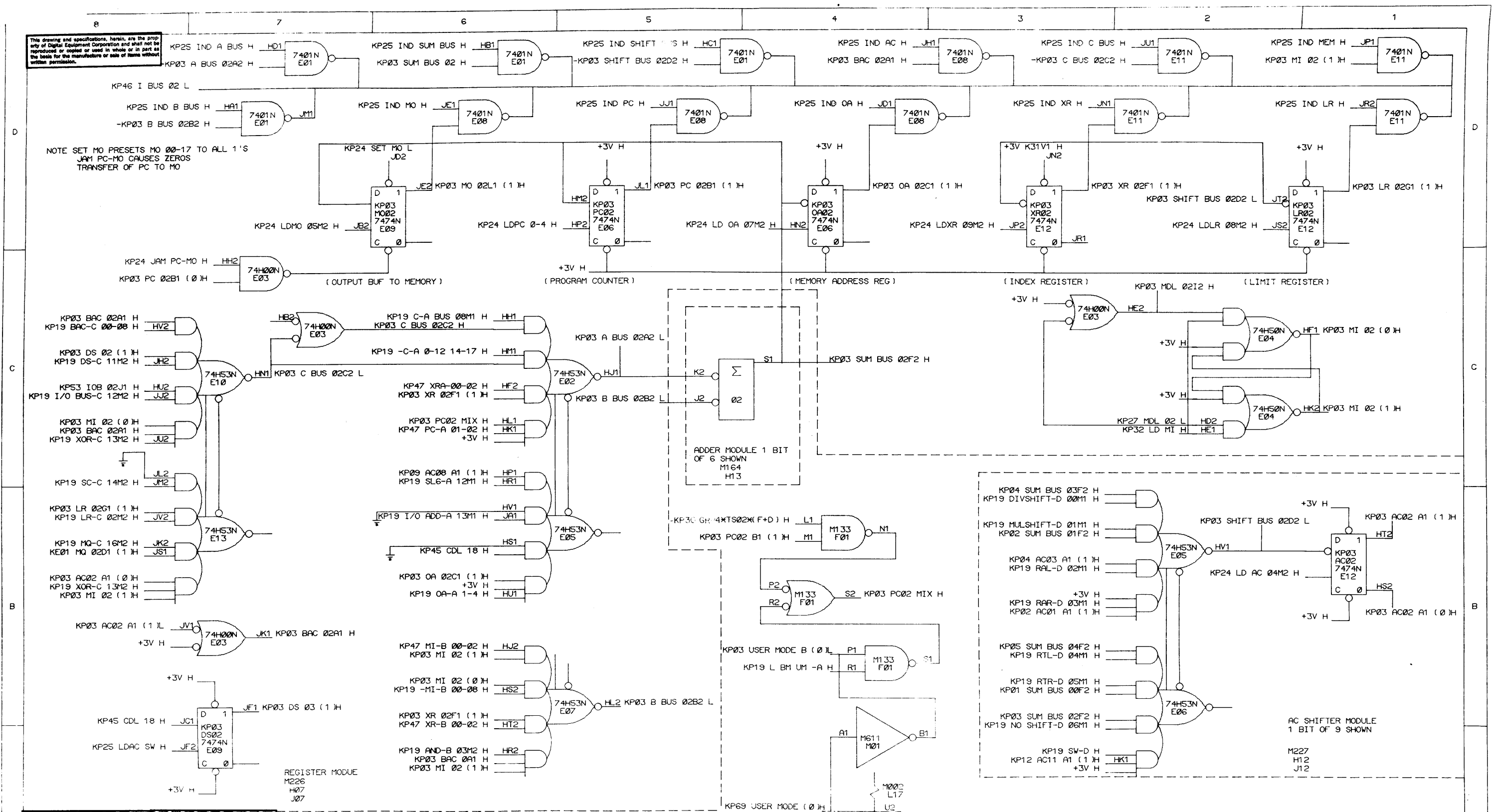
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REVIEWS			REVIEWS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
LH	KP15-00038	D			
	S GOLDSBY 7/15/70				
	F HUMANN 7/22/70				
54	KP15-00055	E			
	S GOLDSBY 5/11/71				
	F HUMANN 5/21/71				
	KP15-00056	F			
4 Dec 1970					

DRN. M. SCHURMAN	DATE 11-7-68	digital CORPORATION NATYARD MASSACHUSETTS								
CHKD. K. PHEULT	DATE 11-7-68									
ENG. J. HUMANN	DATE 11-7-68									
PROJ. ENG. B. BUTLER	DATE 11-7-68									
PROD. F. LASKEY	DATE 11-7-68									
FIRST USED ON KF15		TITLE REG & BUS RII 01								
SCALE _____		<table border="1" style="width: 100%;"> <tr> <th>SIZE</th> <th>CODE</th> <th>NUMBER</th> <th>REV.</th> </tr> <tr> <td>D</td> <td>BS</td> <td>KP15-0-02</td> <td>H</td> </tr> </table>	SIZE	CODE	NUMBER	REV.	D	BS	KP15-0-02	H
SIZE	CODE	NUMBER	REV.							
D	BS	KP15-0-02	H							
SHEET 1	OF 1	DIST. _____								

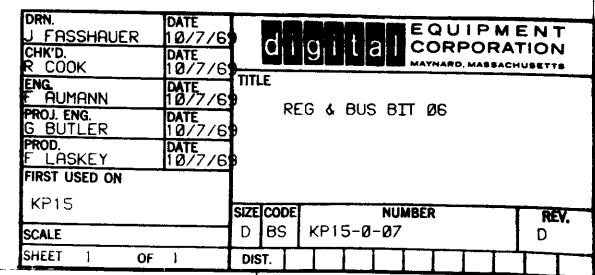
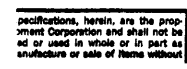
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REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
LH	KP15-00038	E			
S. GOLDSBY 7/14/70					
F. HUMANN 7/22/70					
S. GOLDSBY 3/1/71					
F. HUMANN 3/2/71					
KP15-00038					

DRN.	M. SCHURMAN	DATE	11-7-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D.	N. RHEAULT	DATE	11-7-69	
ENG.	F. HUMANN	DATE	11-7-69	
PROJ. ENG.	G. BUTLER	DATE	11-7-69	
PROD.	F. LASKEY	DATE	11-7-69	
FIRST USED ON				REG & BUS BIT 02
KP15				
SCALE				
SHEET 1 OF 1		DIST.		

SIZE	CODE	NUMBER	REV.
D	BS	KP15-0-03	J.



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NOTE SET M0 PRESETS M0-17 TO ALL 1'S
JAM PC-M0 CAUSES ZEROS
TRANSFER OF PC TO M0

REGISTERS:

- PROGRAM COUNTER (PC): KP08 PC07 7474N E06
- MEMORY ADDRESS REGISTER (MAR): KP08 OA07 7474N E06
- INDEX REGISTER (IR): KP08 XR07 7474N E12
- LIMIT REGISTER (LR): KP08 LR07 7474N E12

ALU:

- ADDER MODULE 1 BIT OF 6 SHOWN: M164 H23
- AC SHIFTER MODULE 1 BIT OF 9 SHOWN: M227 H12 J12

REVISIONS:

CHK	CHANGE NO.	REV.
LH	KP15-00038	B
S	GOLDSBY 7/15/70	
F	AUMANN 7/22/70	
GH	KP15-00052	C
S	GOLDSBY 3/1/71	
F	AUMANN 3/2/71	
LH	KP15-00056	D

DATE: 10/7/69
DRAWN: J. FASSHAUER
CHECKED: R. COOK
ENGINEER: F. AUMANN
PROJ. ENG: G. BUTLER
PROD. ENG: F. LASKEY
FIRST USED ON: KP15
SCALE: 1 OF 1
SHEET: 1 OF 1

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE: REG&BUS BIT 07

SIZE: CODE NUMBER REV.
D: BS KP15-0-06 D

DRN J FASSHAUER	DATE 10/7/68	 digitall CORPORATION MAYNARD MASSACHUSETTS											
CHKD A COOK	DATE 10/7/68												
ENG AUMANN	DATE 10/7/68			TITLE									
PROJ ENG G BUTLER	DATE 10/7/68			REG&BUS BIT Ø7									
PROD F LASKEY	DATE 10/7/68												
FIRST USED ON KP15													
SCALE		SIZE	CODE	NUMBER				REV.					
		D	BS	NP15-Ø-Ø6				D					
SHEET 1 OF 1		DIST.											

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NOTE SET MO PRESETS MO 00-17 TO ALL 1'S
JAM PC-MO CAUSES ZEROS
TRANSFER OF PC TO MO

KP09 BAC 08A1 H
KP19 BAC-C 00-08 H
KP09 DS 08 (1)H
KP19 DS-C 11M2 H
KP53 IOB 08J1 H
KP19 I/O BUS-C H
KP09 MI 08 (0)H
KP09 BAC 08A1 H
KP19 XOR-C 13M2 H

KP19 SC-C 14M2 H
KP09 LR 08G1 (1)H
KP19 LR-C 02M2 H
KP19 MQ-C 16M2 H
KE01 MQ 08D1 (1)H

KP09 AC08 A1 (0)H
KP19 XOR-C 13M2 H
KP09 MI 08 (1)H

KP09 AC08 A1 (1)H
+3V H
JK1 KP09 BAC 08A1 H

KP44 CDL 08 H
KP25 LDAC SW H
M226
H16
J16

KP19 C-A BUS 08M1 H
KP09 C BUS 08C2 H
KP19 -C-A 0-12 14-17 H
KP47 XR-A 06-17 H
KP09 XR 08F1 (1)H
KP19 PC-A 06-17 H
KP09 PC 08B1 (1)H
+3V H

KP15 AC14 A1 (1)H
KP19 SL6-A 12M1 H
KP68 I/O A 08E2 H
KP19 I/O ADD-A 13M1 H
KP19 ADR SW-A 14M1 H
KP44 CDL 08 H
KP09 OR 08C1 (1)H
+3V H
KP19 OR-A 15M1 H

KP47 MI-B 06-08 H
KP09 MI 08 (1)H
KP09 MI 08 (0)H
KP19 -MI-B 00-08 H
KP09 XR 08F1 (1)H
KP47 XR-B 06-17 15M2 H
KP19 AND-B 03M2 H
KP09 BAC 08A1 H
KP09 MI 08 (1)H

KP19 C-A BUS 08M1 H
KP09 C BUS 08C2 H
KP19 -C-A 0-12 14-17 H
KP47 XR-A 06-17 H
KP09 XR 08F1 (1)H
KP19 PC-A 06-17 H
KP09 PC 08B1 (1)H
+3V H

KP15 AC14 A1 (1)H
KP19 SL6-A 12M1 H
KP68 I/O A 08E2 H
KP19 I/O ADD-A 13M1 H
KP19 ADR SW-A 14M1 H
KP44 CDL 08 H
KP09 OR 08C1 (1)H
+3V H
KP19 OR-A 15M1 H

KP47 MI-B 06-08 H
KP09 MI 08 (1)H
KP09 MI 08 (0)H
KP19 -MI-B 00-08 H
KP09 XR 08F1 (1)H
KP47 XR-B 06-17 15M2 H
KP19 AND-B 03M2 H
KP09 BAC 08A1 H
KP09 MI 08 (1)H

KP19 C-A BUS 08M1 H
KP09 C BUS 08C2 H
KP19 -C-A 0-12 14-17 H
KP47 XR-A 06-17 H
KP09 XR 08F1 (1)H
KP19 PC-A 06-17 H
KP09 PC 08B1 (1)H
+3V H

KP15 AC14 A1 (1)H
KP19 SL6-A 12M1 H
KP68 I/O A 08E2 H
KP19 I/O ADD-A 13M1 H
KP19 ADR SW-A 14M1 H
KP44 CDL 08 H
KP09 OR 08C1 (1)H
+3V H
KP19 OR-A 15M1 H

KP47 MI-B 06-08 H
KP09 MI 08 (1)H
KP09 MI 08 (0)H
KP19 -MI-B 00-08 H
KP09 XR 08F1 (1)H
KP47 XR-B 06-17 15M2 H
KP19 AND-B 03M2 H
KP09 BAC 08A1 H
KP09 MI 08 (1)H

KP19 C-A BUS 08M1 H
KP09 C BUS 08C2 H
KP19 -C-A 0-12 14-17 H
KP47 XR-A 06-17 H
KP09 XR 08F1 (1)H
KP19 PC-A 06-17 H
KP09 PC 08B1 (1)H
+3V H

KP15 AC14 A1 (1)H
KP19 SL6-A 12M1 H
KP68 I/O A 08E2 H
KP19 I/O ADD-A 13M1 H
KP19 ADR SW-A 14M1 H
KP44 CDL 08 H
KP09 OR 08C1 (1)H
+3V H
KP19 OR-A 15M1 H

KP47 MI-B 06-08 H
KP09 MI 08 (1)H
KP09 MI 08 (0)H
KP19 -MI-B 00-08 H
KP09 XR 08F1 (1)H
KP47 XR-B 06-17 15M2 H
KP19 AND-B 03M2 H
KP09 BAC 08A1 H
KP09 MI 08 (1)H

KP19 C-A BUS 08M1 H
KP09 C BUS 08C2 H
KP19 -C-A 0-12 14-17 H
KP47 XR-A 06-17 H
KP09 XR 08F1 (1)H
KP19 PC-A 06-17 H
KP09 PC 08B1 (1)H
+3V H

KP15 AC14 A1 (1)H
KP19 SL6-A 12M1 H
KP68 I/O A 08E2 H
KP19 I/O ADD-A 13M1 H
KP19 ADR SW-A 14M1 H
KP44 CDL 08 H
KP09 OR 08C1 (1)H
+3V H
KP19 OR-A 15M1 H

KP47 MI-B 06-08 H
KP09 MI 08 (1)H
KP09 MI 08 (0)H
KP19 -MI-B 00-08 H
KP09 XR 08F1 (1)H
KP47 XR-B 06-17 15M2 H
KP19 AND-B 03M2 H
KP09 BAC 08A1 H
KP09 MI 08 (1)H

KP19 C-A BUS 08M1 H
KP09 C BUS 08C2 H
KP19 -C-A 0-12 14-17 H
KP47 XR-A 06-17 H
KP09 XR 08F1 (1)H
KP19 PC-A 06-17 H
KP09 PC 08B1 (1)H
+3V H

KP15 AC14 A1 (1)H
KP19 SL6-A 12M1 H
KP68 I/O A 08E2 H
KP19 I/O ADD-A 13M1 H
KP19 ADR SW-A 14M1 H
KP44 CDL 08 H
KP09 OR 08C1 (1)H
+3V H
KP19 OR-A 15M1 H

KP47 MI-B 06-08 H
KP09 MI 08 (1)H
KP09 MI 08 (0)H
KP19 -MI-B 00-08 H
KP09 XR 08F1 (1)H
KP47 XR-B 06-17 15M2 H
KP19 AND-B 03M2 H
KP09 BAC 08A1 H
KP09 MI 08 (1)H

KP19 C-A BUS 08M1 H
KP09 C BUS 08C2 H
KP19 -C-A 0-12 14-17 H
KP47 XR-A 06-17 H
KP09 XR 08F1 (1)H
KP19 PC-A 06-17 H
KP09 PC 08B1 (1)H
+3V H

KP15 AC14 A1 (1)H
KP19 SL6-A 12M1 H
KP68 I/O A 08E2 H
KP19 I/O ADD-A 13M1 H
KP19 ADR SW-A 14M1 H
KP44 CDL 08 H
KP09 OR 08C1 (1)H
+3V H
KP19 OR-A 15M1 H

KP47 MI-B 06-08 H
KP09 MI 08 (1)H
KP09 MI 08 (0)H
KP19 -MI-B 00-08 H
KP09 XR 08F1 (1)H
KP47 XR-B 06-17 15M2 H
KP19 AND-B 03M2 H
KP09 BAC 08A1 H
KP09 MI 08 (1)H

KP19 C-A BUS 08M1 H
KP09 C BUS 08C2 H
KP19 -C-A 0-12 14-17 H
KP47 XR-A 06-17 H
KP09 XR 08F1 (1)H
KP19 PC-A 06-17 H
KP09 PC 08B1 (1)H
+3V H

KP15 AC14 A1 (1)H
KP19 SL6-A 12M1 H
KP68 I/O A 08E2 H
KP19 I/O ADD-A 13M1 H
KP19 ADR SW-A 14M1 H
KP44 CDL 08 H
KP09 OR 08C1 (1)H
+3V H
KP19 OR-A 15M1 H

KP47 MI-B 06-08 H
KP09 MI 08 (1)H
KP09 MI 08 (0)H
KP19 -MI-B 00-08 H
KP09 XR 08F1 (1)H
KP47 XR-B 06-17 15M2 H
KP19 AND-B 03M2 H
KP09 BAC 08A1 H
KP09 MI 08 (1)H

KP19 C-A BUS 08M1 H
KP09 C BUS 08C2 H
KP19 -C-A 0-12 14-17 H
KP47 XR-A 06-17 H
KP09 XR 08F1 (1)H
KP19 PC-A 06-17 H
KP09 PC 08B1 (1)H
+3V H

KP15 AC14 A1 (1)H
KP19 SL6-A 12M1 H
KP68 I/O A 08E2 H
KP19 I/O ADD-A 13M1 H
KP19 ADR SW-A 14M1 H
KP44 CDL 08 H
KP09 OR 08C1 (1)H
+3V H
KP19 OR-A 15M1 H

KP47 MI-B 06-08 H
KP09 MI 08 (1)H
KP09 MI 08 (0)H
KP19 -MI-B 00-08 H
KP09 XR 08F1 (1)H
KP47 XR-B 06-17 15M2 H
KP19 AND-B 03M2 H
KP09 BAC 08A1 H
KP09 MI 08 (1)H

KP19 C-A BUS 08M1 H
KP09 C BUS 08C2 H
KP19 -C-A 0-12 14-17 H
KP47 XR-A 06-17 H
KP09 XR 08F1 (1)H
KP19 PC-A 06-17 H
KP09 PC 08B1 (1)H
+3V H

KP15 AC14 A1 (1)H
KP19 SL6-A 12M1 H
KP68 I/O A 08E2 H
KP19 I/O ADD-A 13M1 H
KP19 ADR SW-A 14M1 H
KP44 CDL 08 H
KP09 OR 08C1 (1)H
+3V H
KP19 OR-A 15M1 H

KP47 MI-B 06-08 H
KP09 MI 08 (1)H
KP09 MI 08 (0)H
KP19 -MI-B 00-08 H
KP09 XR 08F1 (1)H
KP47 XR-B 06-17 15M2 H
KP19 AND-B 03M2 H
KP09 BAC 08A1 H
KP09 MI 08 (1)H

KP19 C-A BUS 08M1 H
KP09 C BUS 08C2 H
KP19 -C-A 0-12 14-17 H
KP47 XR-A 06-17 H
KP09 XR 08F1 (1)H
KP19 PC-A 06-17 H
KP09 PC 08B1 (1)H
+3V H

KP15 AC14 A1 (1)H
KP19 SL6-A 12M1 H
KP68 I/O A 08E2 H
KP19 I/O ADD-A 13M1 H
KP19 ADR SW-A 14M1 H
KP44 CDL 08 H
KP09 OR 08C1 (1)H
+3V H
KP19 OR-A 15M1 H

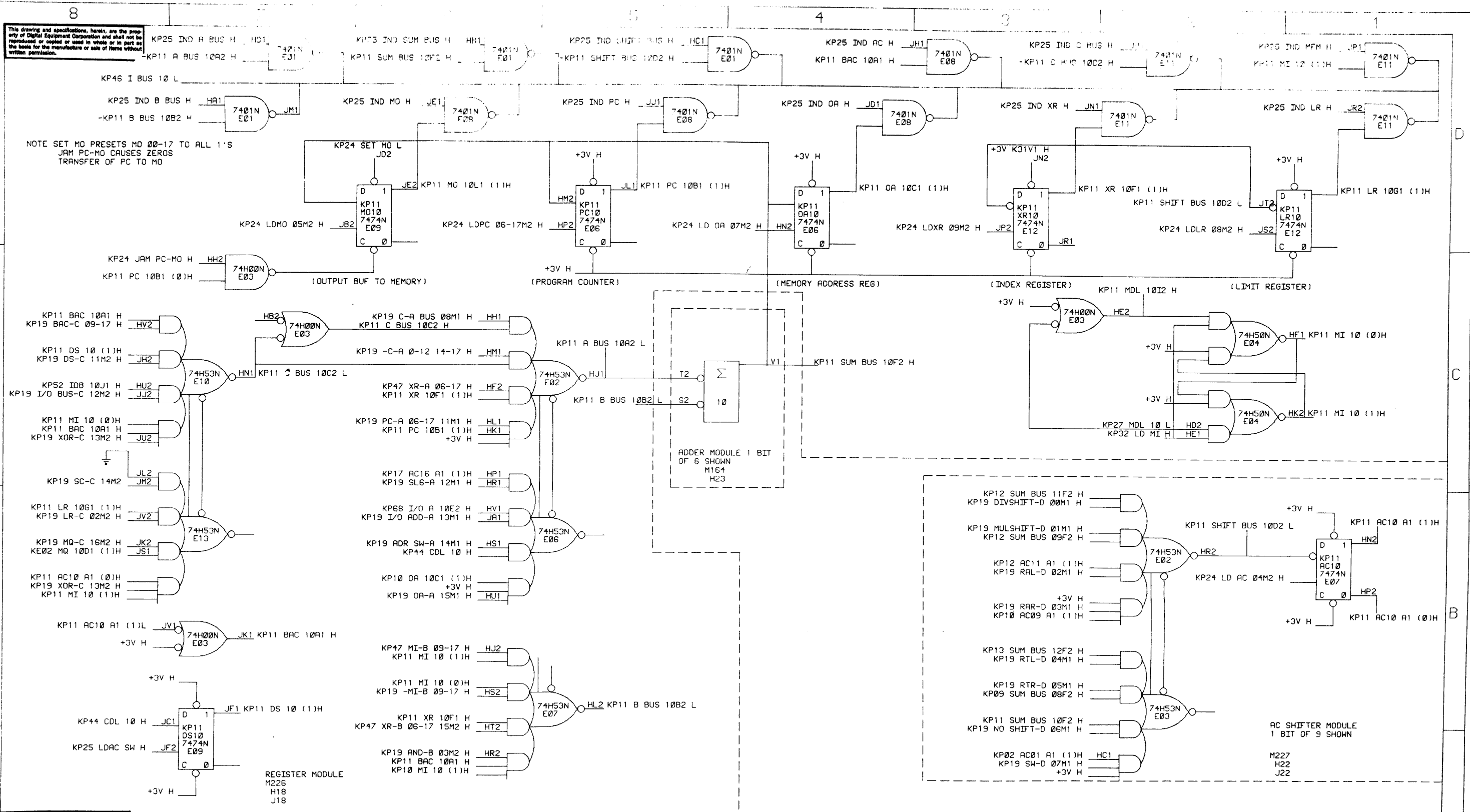
KP47 MI-B 06-08 H
KP09 MI 08 (1)H
KP09 MI 08 (0)H
KP19 -MI-B 00-08 H
KP09 XR 08F1 (1)H
KP47 XR-B 06-17 15M2 H
KP19 AND-B 03M2 H
KP09 BAC 08A1 H
KP09 MI 08 (1)H

REVISIONS		
CHK	CHANGE NO.	REV.
LH	KP15-00038	B
S	GOLDSBY 7/15/70	
F	AUMANN 7/22/70	
GH	KP15-00052	C
S	GOLDSBY 3/1/71	
F	AUMANN 3/2/71	
KP15-00056	D	
7/2/71		

DRN J FRASCHAUER	DATE 10/7/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D R COOK	DATE 10/7/69	TITLE REG & BUS BIT 08	
ENG F AUMANN	DATE 10/7/69		
PROJ ENG G BUTLER	DATE 10/7/69		
PROD LASKEY	DATE 10/7/69		
FIRST USED ON KP15		SIZE CODE D BS	NUMBER KP15-0-09
SCALE SHEET 1 OF 1		DIST.	REV. D

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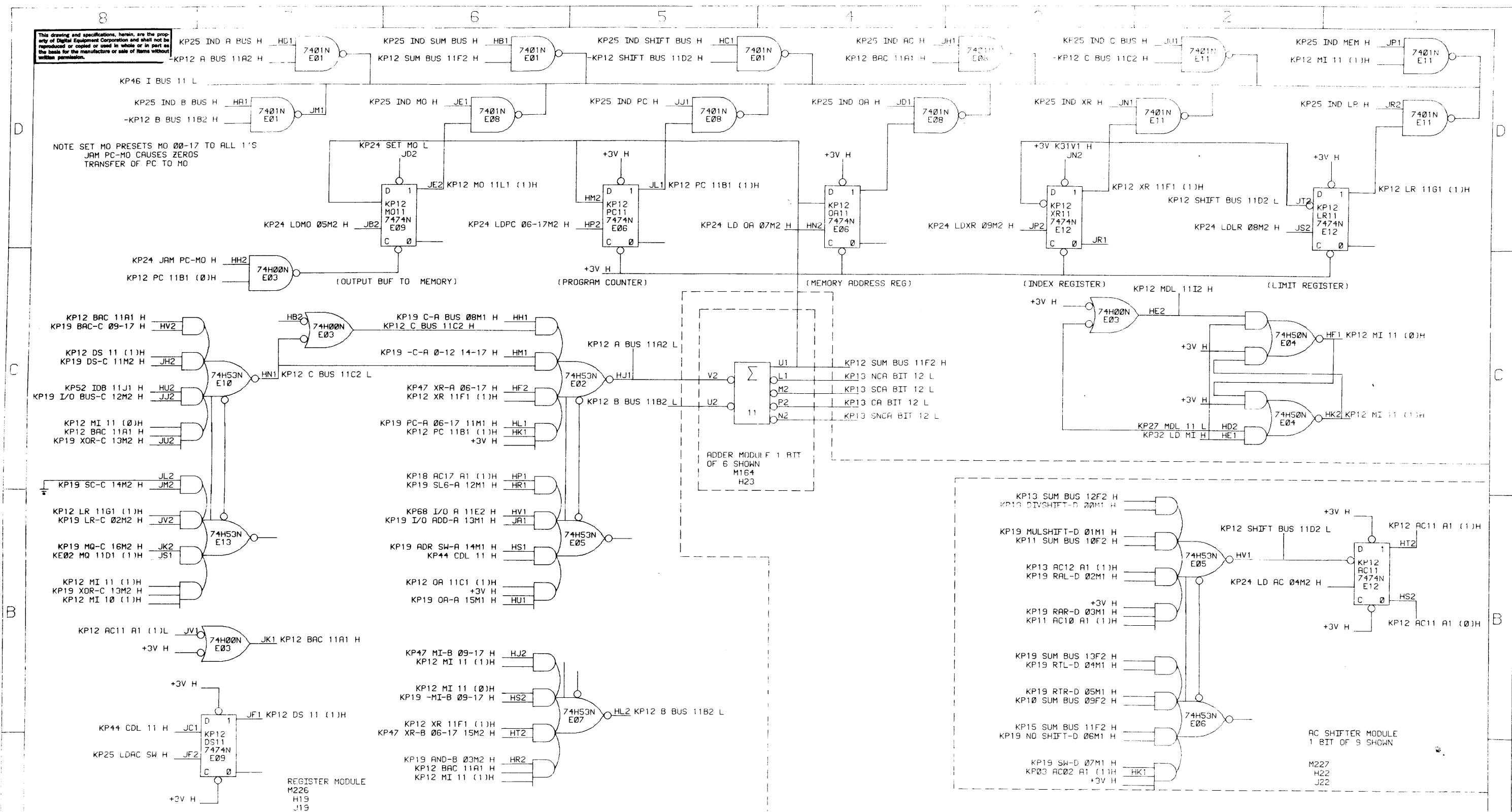
NOTE SET MO PRESETS MO 00-17 TO ALL 1'S
JAM PC-MO CAUSES ZEROS
TRANSFER OF PC TO MO



REVISIONS		
CHK	CHANGE NO.	REV.
LH	KP15-00038	B
S	GOLDSBY 7/15/70	
F	RUMANN 7/22/70	
GH	KP15-00052	C
S	GOLDSBY 3/1/71	
F	RUMANN 10/2/71	
KP15-00056	D	
W. C. C.	10/11/71	

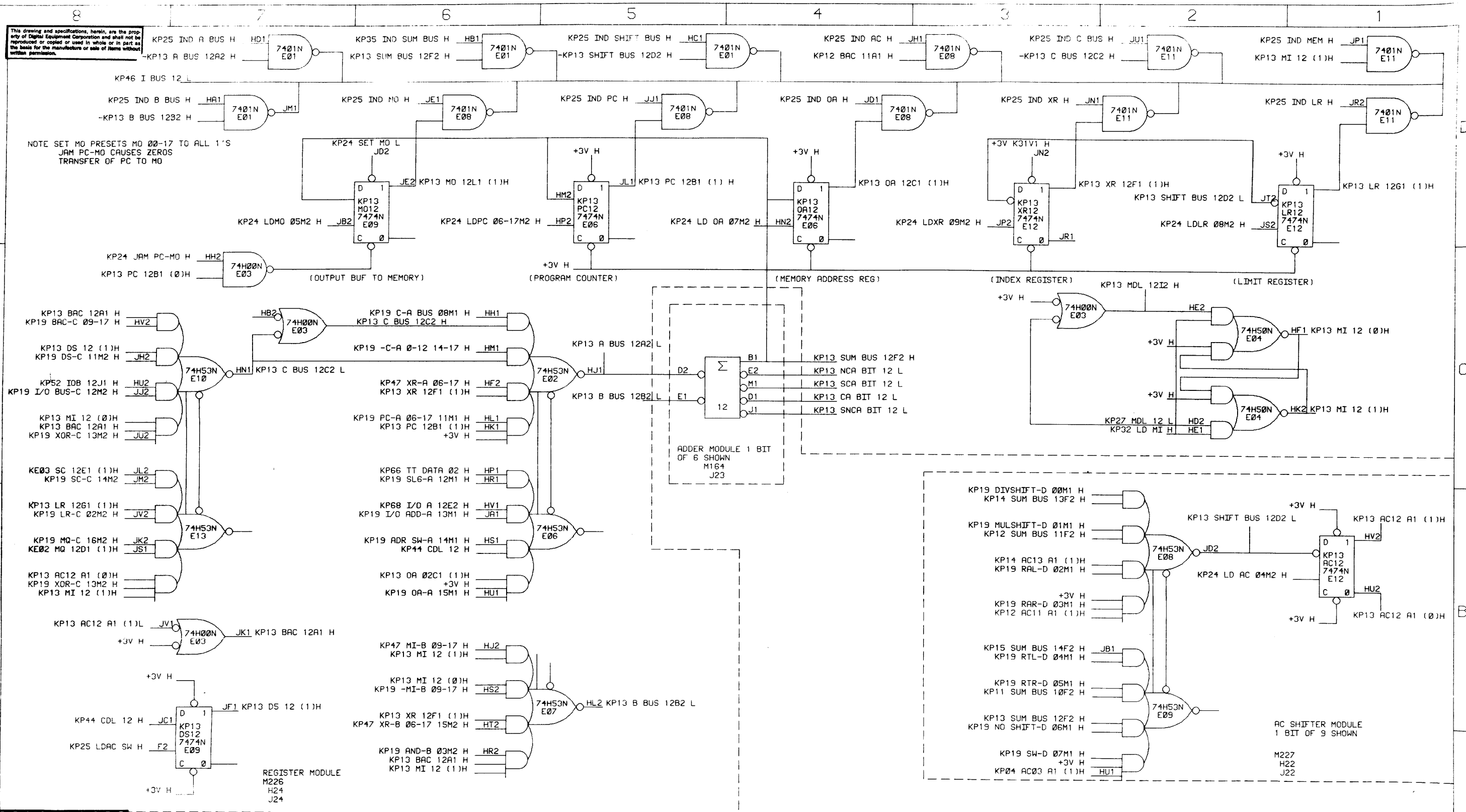
DRN	J FASSHAUER	DATE	10/7/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D	R COOK	DATE	10/7/69	
ENG	F RUMANN	DATE	10/7/69	
PROJ. ENG	S BUTLER	DATE	10/7/69	
PROD.	F LASKEY	DATE	10/7/69	
FIRST USED ON				
KP15				
SCALE		SIZE CODE	NUMBER	REV.
SHEET 1	OF 1	D BS	KP15-0-11	D
DIST.				

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REVISIONS		
CHK	CHANGE NO.	REV.
LH	KP15-00038	3
	S GOLDSBY 7/15/72	
	F AUMANN 7/22/72	
SH	KP15-202	2
	S GOLDSBY 7/17/72	
	F AUMANN 8/2/72	
	KP15-20200	2

DRN.	J FASSHAUER	DATE	10/7/69	digital CORPORATION MAYNARD MASSACHUSETTS
CHKD.	BOOK	DATE	10/7/69	
ENG.	RUMANN	DATE	10/7/69	
PROJ. ENG.	G BUTLER	DATE	10/7/69	
PROD.	F LASKEY	DATE	10/7/69	
FIRST USED ON				TITLE REG & BUS BIT 11
KP15				
SIZE CODE NUMBER REV. D B5 KP15-0-12 D				
SHEET 1		OF 1		DIST.



REVISIONS			
CHK	CHANGE NO.		REV.
LH	KP15-00038	B	
	S GOLDSBY 7/15/70		
	F RUMANN 7/22/70		
GH	KP15-00052	C	
	S GOLDSBY 3/1/71		
	F RUMANN 3/2/71		
	KP15-00056	D	
	<i>[Handwritten signature]</i>		
	<i>[Handwritten date]</i>		

DRN. J FASSHAUER	DATE 10/7/69	digital CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D R COOK	DATE 10/7/69		
ENG. AUMANN	DATE 10/7/69	TITLE	
PROJ. ENG. G BUTLER	DATE 10/7/69	REG & BUS BIT 12	
PROD. F LASKEY	DATE 10/7/69		
FIRST USED ON KP15		SIZE CODE D BS	NUMBER KP15-0-13
SCALE			REV. D
SHEET 1 OF 1		DIST.	

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NOTE SET MO PRESETS MO 00-17 TO ALL 1'S
JAM PC-MO CAUSES ZEROS
TRANSFER OF PC TO MO

(OUTPUT BUF TO MEMORY)

(PROGRAM COUNTER)

(MEMORY ADDRESS REG)

(INDEX REGISTER)

(LIMIT REGISTER)

ADDER MODULE 1 BIT
OF 6 SHOWN
M164 J23

AC SHIFTER MODULE
1 BIT OF 9 SHOWN

M227 H22 J22

REVISIONS

CHK	CHANGE NO.	REV.
LH	KP15-00038	P
S	GOLDSBY 7/15/70	
F	RUMANN 7/22/70	
GH	KP15-00052	C
S	GOLDSBY 7/21/71	
F	RUMANN 7/22/71	
F	KP15-00056	E

Digital Equipment Corporation
Maynard, Massachusetts

TITLE
REG & BUS BIT 15

DATE 10/77/69

PROJ ENG G BUTLER DATE 10/77/69

PROD F LASKY DATE 10/77/69

FIRST USED ON KP15

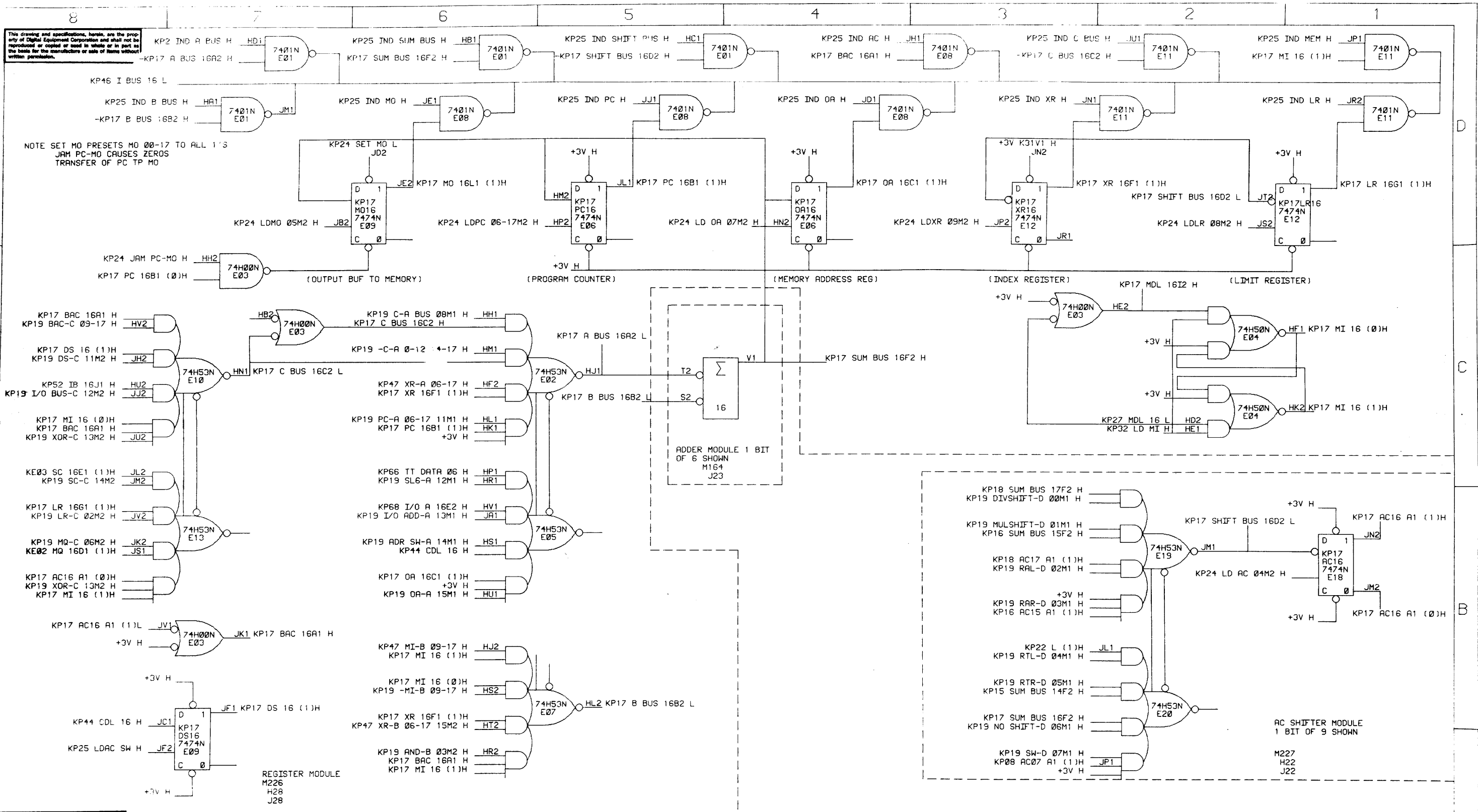
SIZE CODE D BS NUMBER KP15-0-16 REV. D

SHEET 1 OF 1 DIST.

REVISIONS		
CHK	CHANGE NO.	REV.
LH	KP15-00038	P
	S GOLDSBY 7/15/70	
	F HUMANN 7/15/70	
GH	S GOLDSBY 8/1/71	C
	S GOLDSBY 8/1/71	
	F HUMANN 8/2/71	
	KP15-00038	

DRAWN J. FASSHAUER	DATE 10/7/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		TITLE REG & BUS BIT 15	
CHECKED COOK	DATE 10/7/69				
ENG. RUMANN	DATE 10/7/69				
PROJ. ENG. G. BUTLER	DATE 10/7/69				
PROD. F. LASKEY	DATE 10/7/69				
FIRST USED ON KP15		SIZE D	CODE BS	NUMBER KP15-0-16	REV. D
SCALE					
SHEET 1 OF 1		DIST.			

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REVISIONS		
CHK	CHANGE NO.	REV.
LH	KP15-00038	B
S	GOLDSBY 7/15/70	
F	HUMANN 7/22/70	
GH	KP15-00052 IC	
S	GOLDSBY 7/17/71	
F	HUMANN 7/22/71	
	KP15-00056	

DRN J FASSHAUER	DATE 10/77/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D R COOK	DATE 10/77/69		
ENG F HUMANN	DATE 10/77/69	TITLE REG & BUS BIT 16	
PROD ENG G BUTLER	DATE 10/77/69		
PROD F LRSKEY	DATE 10/77/69		
FIRST USED ON KP15		SIZE CODE BS	NUMBER KP15-0-1
SCALE		REV. 2	
SHEET 1 OF 1			

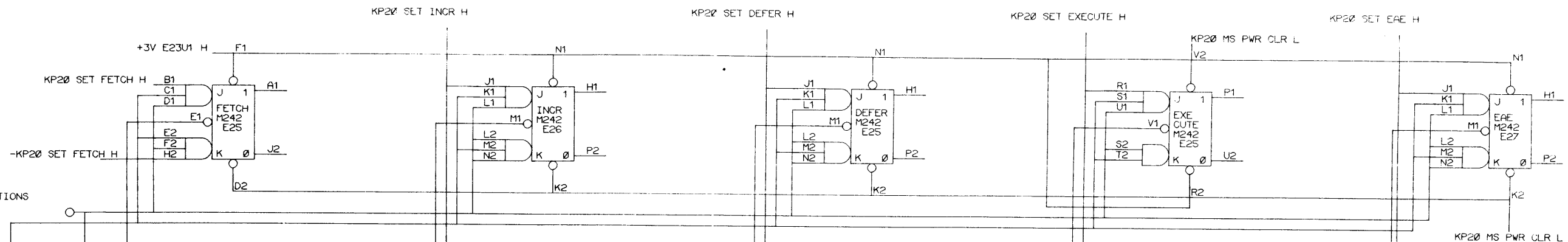
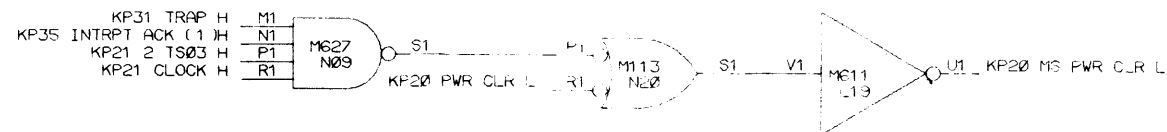
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+ IF ECO KP15-#52 IS NOT INSTALLED, INVERTER IS M133 E02 OUTPUT N2.

REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
LH	KP15-00038	H	GH	KP15-00056	M
	S GOLDSBY 7/15/70			N COTE 6/30/71	
	HUMANN 7/22/70			F HUMANN 6/30/71	
GH	KP15-00045	I		KP15-00058	N
	GOLDSBY 10/3/70				
	HUMANN 10/13/70			KP15-00062	P
	KP15-00050	K		F. DOLL	
	GOLDSBY 2/9/71				
	HUMANN 2/18/71				
	KP15-00052	L			
	GOLDSBY 3/1/71				
	HUMANN 3/2/71				

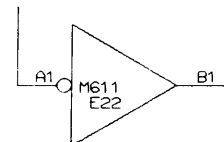
DRN. S GOLDSBY	DATE 7/01/59	digital EQUIPMENT CORPORATION	
CHK'D. L HOHOS	DATE 7/01/59	MAYNARD, MASSACHUSETTS	
ENG. J. FURMAN	DATE 7/07/68	TITLE	
PROJ. ENG. G BUTLER	DATE 7/07/68	MAJOR BUS CONTROL LOGIC	
PROD. F LASKEY	DATE 7/07/68		
FIRST USED ON KP15			
SCALE	SHEET 1 OF 1	SIZE CODE D BS KP15-0-19	NUMBER REV.
		DIST.	P.

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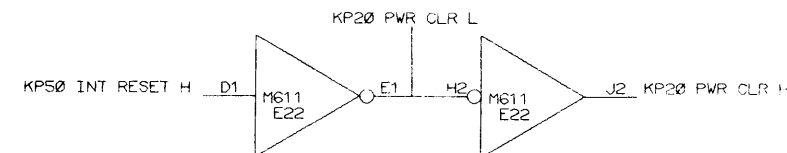
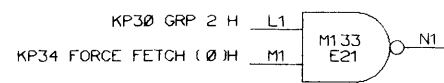
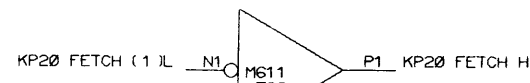
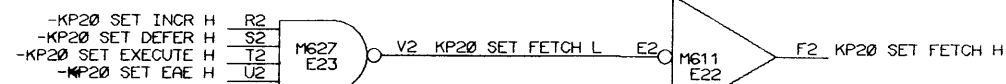


KP21 TIME STATE 3 (1) L

+3V E32V1 H



KP21 PHASE 3 (0) H



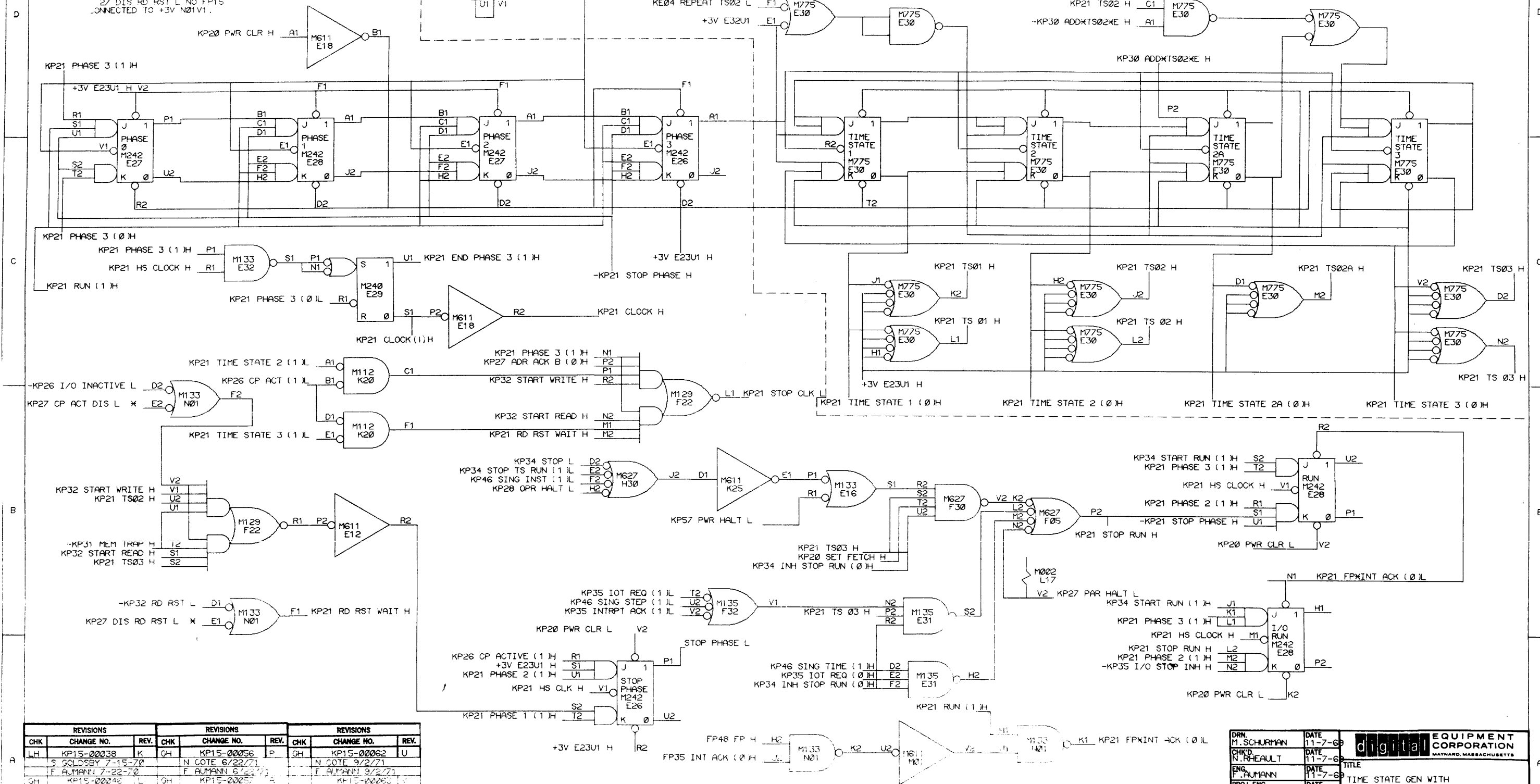
REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
LH	KP15-00038	E	LH	KP15-00065	K
S	GOLDSBY 7-15-70		S	GOLDSBY 7-15-70	
GH	F AUMANN 7-22-70		GH	F AUMANN 7-22-70	
GH	KP15-00046	F	GH	KP15-00046	F
GH	F AUMANN 3/2/71		GH	F AUMANN 3/2/71	
GH	KP15-00056	H	GH	KP15-00056	H
GH	N COTE 6/22/71		GH	N COTE 6/22/71	
GH	F AUMANN 6/22/71		GH	F AUMANN 6/22/71	
GH	KP15-00057	J	GH	KP15-00057	J
GH	N COTE 6/30/71		GH	N COTE 6/30/71	
GH	E PERMON 9/3/71		GH	E PERMON 9/3/71	

DRN.	J. FASSHAUER	DATE	10/7/69	d	igital	EQUIPMENT CORPORATION	MAYNARD, MASSACHUSETTS
CHK'D.	R. COOK	DATE	10/7/69				
ENG.	F. AUMANN	DATE	10/7/69				
PROD.	G. BUTLER	DATE	10/7/69				
FIRST USED ON				TITLE			
KP15				FOR STATE DEPT.			
SCALE				SIZE/CODE	NUMBER		REV.
SHEET 1 OF 1				KP15-K-20		K	
DIST.							

tions, herein, are the property of the Corporation and shall not be used in whole or in part as a part of the purchase or sale of items without the written consent of the Corporation.

NOTE: 4. WITHOUT THE FP15 OPTION THE
FOLLOWING SIGNALS ARE CONNECTED
+3V
27 GP ACT DIS L NO FP15
CONNECTED TO +3V N01U1
27 DIS RD RST L NO FP15
CONNECTED TO +3V N01V1.

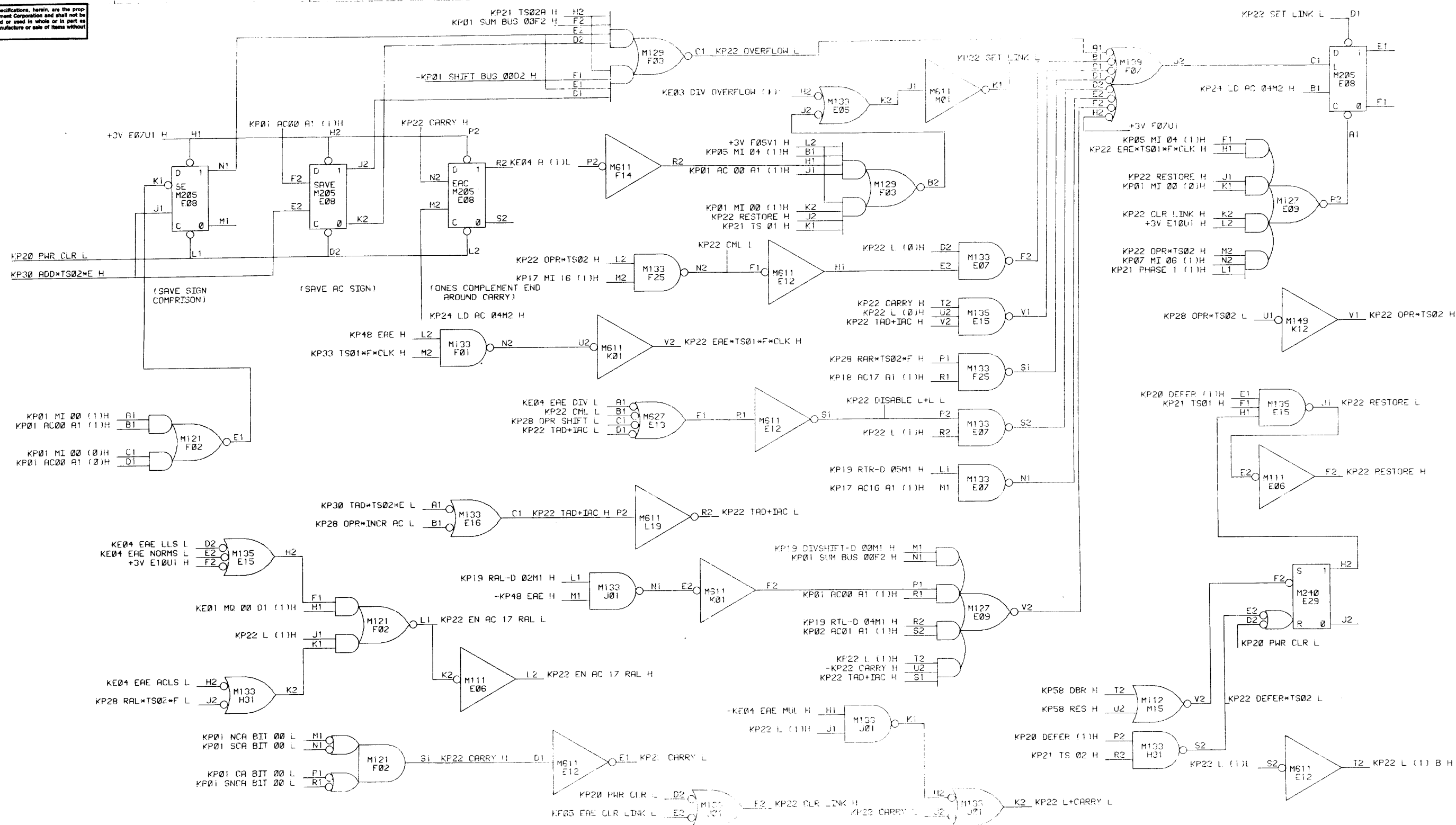
NOTE: TYPICAL TIME 66NS.



REVISIONS			REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
LH	KP15-00238	K	GH	KP15-00256	P	GH	KP15-00262	U
	S GOLDSEY 7/15/70			N COTE 6/22/71			N COTE 3/2/71	
	F AUMANN 7/22/70			F AUMANN 6/22/71			F AUMANN 3/2/71	
GH	KP15-00242	L	GH	KP15-00255	R		KP15-00263	V
	K WALSH 12/18/70			N COTE 6/30/71				
	F AUMANN 12/18/70			F AUMANN 6/30/71				
GH	KP15-00248	M	GH	KP15-00258	S		KP15-00262	N
	N LEGERE 1/12/71			N COTE 7/6/71				
	F AUMANN 1/12/71			F AUMANN 7/6/71				
GH	KP15-00257	N	GH	KP15-00259	T			
	S GOLDSEY 8/3/71			N COTE 3/1/71				
	F AUMANN 2/18/71			F AUMANN 3/1/71				

DRAWN M. SCHURMAN	DATE 11-7-69	digital CORPORATION			
CHECKED N. RHEAULT	DATE 11-7-69	MAYNARD, MASSACHUSETTS			
ENGINEER J. HUMANN	DATE 11-7-69	TITLE			
PROJ. ENG. G. BUTLER	DATE 11-7-69	TIME STATE GEN WITH START STOP CONTROL			
PROD. F. LASKEY	DATE 11-7-69				
FIRST USED ON KP15		SIZE	CODE	NUMBER	REV.
SCALE		D	BS	KP15-0-21	W
SHEET 1 OF 1		DIST.			

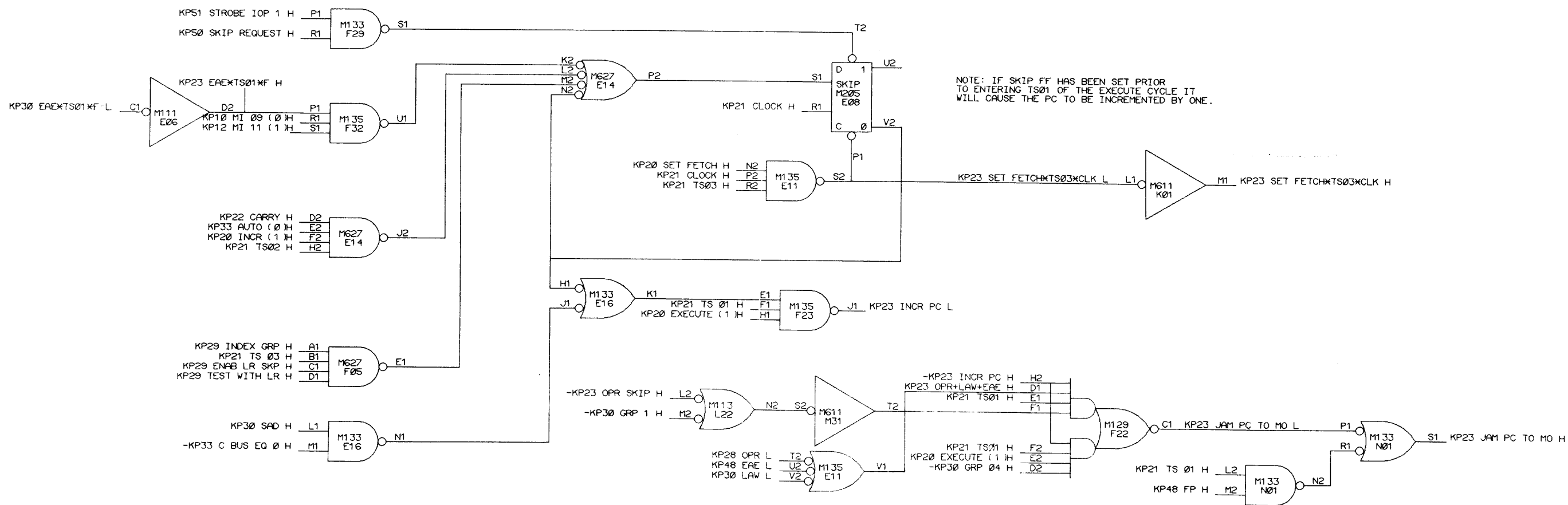
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REVISIONS			REVISIONS		
CHK	CHANGE NO	REV.	CHK	CHANGE NO	REV.
14	KP15-00038	F			
	S BOLDORBY 12-15-70				
	F HAMPIN 7-22	F		F DOLL	
	KP15-00015	F			
	K WH-514 12-19-72				
	F HAMPIN 12-19-72				
	KP15-0003F	11			

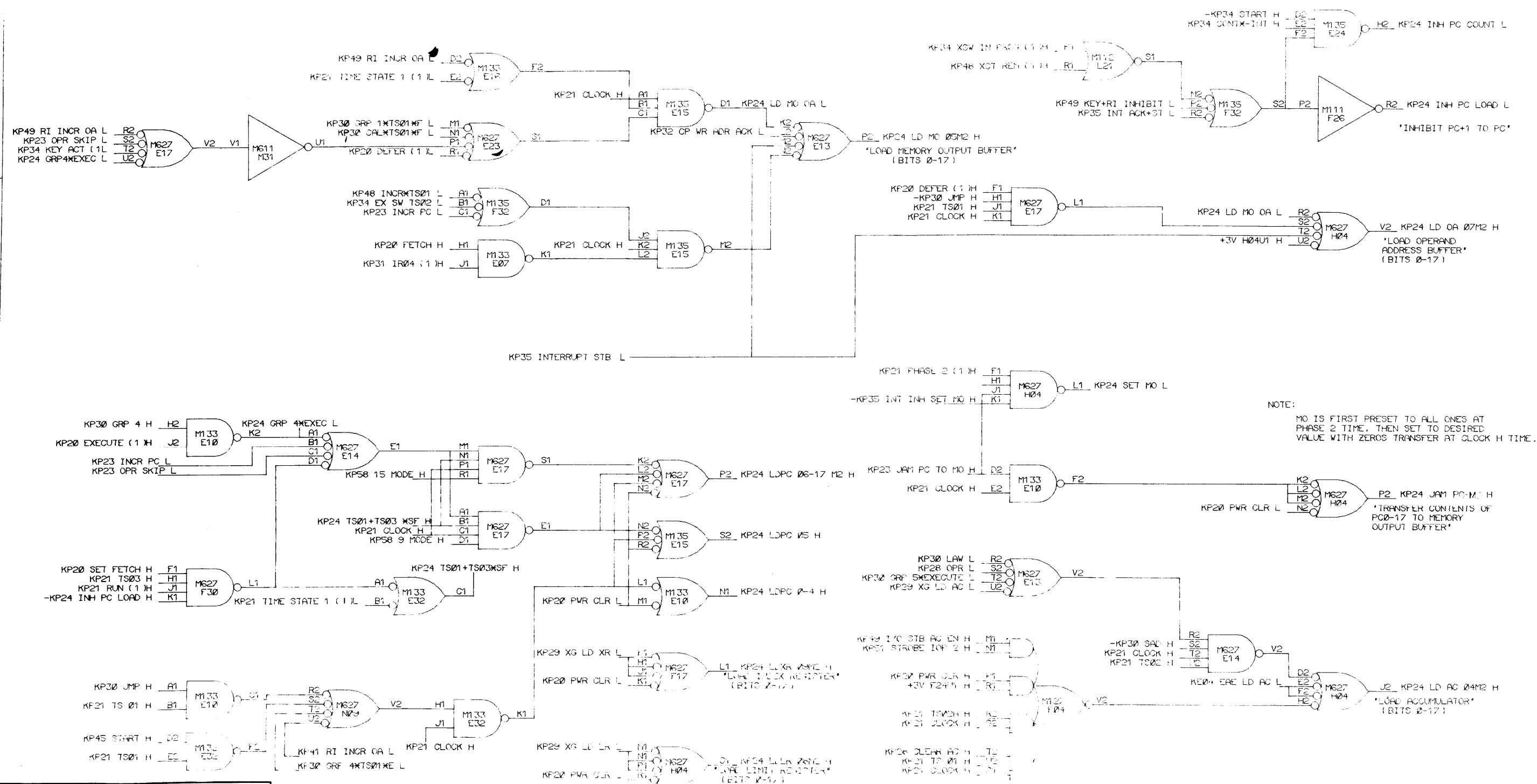
DRN. J. FASSHAUER	DATE 10/7/68	 digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS										
CHK'D. R. COOK	DATE 10/7/68		TITLE									
ENG. F. ALTMANN	DATE 10/7/68		LINK-LINK CONTROL									
PROJ. ENG. G. BUTLER	DATE 10/9/68											
PROD. F. LASKY	DATE 12/8/68											
FIRST USED ON				SIZE CODE		NUMBER		REV.				
KFC				C 1A5		K115-4-22		K				
SCALE				DIST.								
SHEET		OF										

ERROR ON Pin.



DRAWN J. FASSHAUER	DATE 10/7/69				
CHECKED C. COOK	DATE 10/7/69	TITLE SKIP CONTROL			
ENGINEER F. RUMANN	DATE 10/7/69				
PROJ. ENG. G. BUTLER	DATE 10/9/69				
PROD. F. LASKEY	DATE 10/8/69				
FIRST USED ON KP15					
SCALE		SIZE	CODE	NUMBER	REV.
SHEET 1 OF 1		D	BS	KP15-0-23	J
		DIST.			

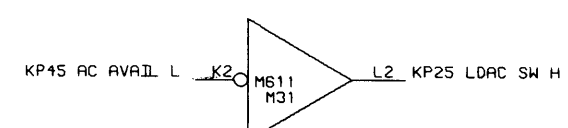
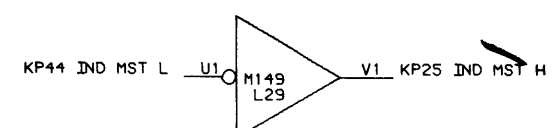
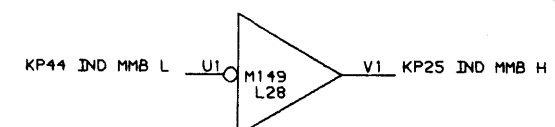
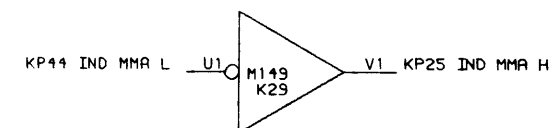
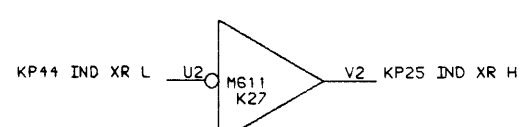
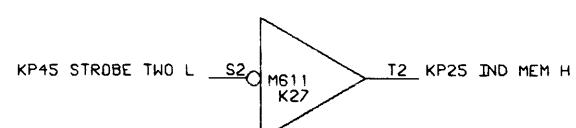
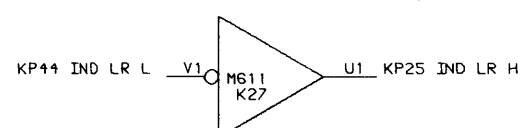
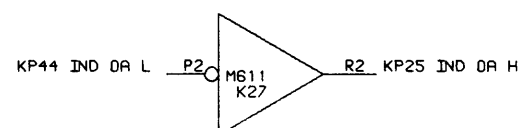
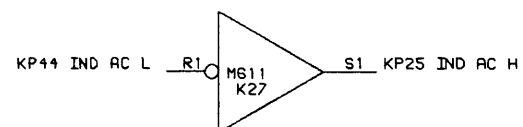
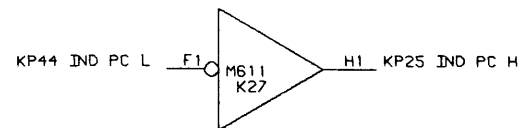
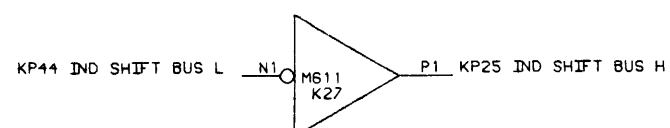
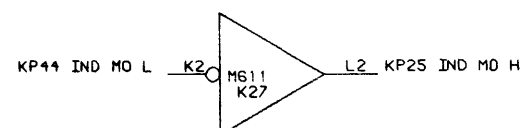
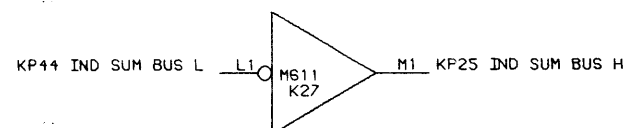
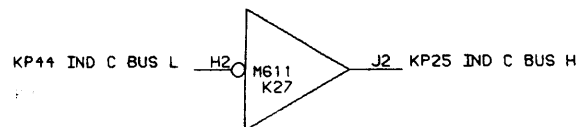
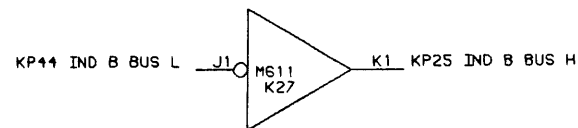
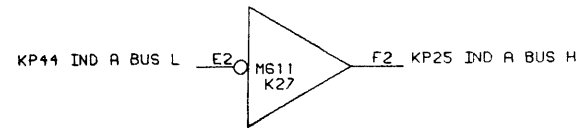
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REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
01	KP15-00038	1	2/2	KP15-00078	P
	F. DOLL			F. DOLL	
	KP15-00038	1		KP15-00082	R
	F. DOLL			F. DOLL	

D.R.N. M. SCHURMAN	DATE 11-7-68	digital	EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D. N. RHEULT	DATE 11-7-68			
ENG. E. HARRIS	DATE 11-7-68	TITLE		
PROJ. ENG. G. BURT JR.	DATE 11-7-68	REVISION NUMBER		
PROD. F. ECKERT	DATE 11-7-68			
FIRST USED ON				
K.F.T.		SIZE CODE	NUMBER	REV.
SCALE		UNIT	DESCRIPTION	R
SHEET	OF	DIST.		

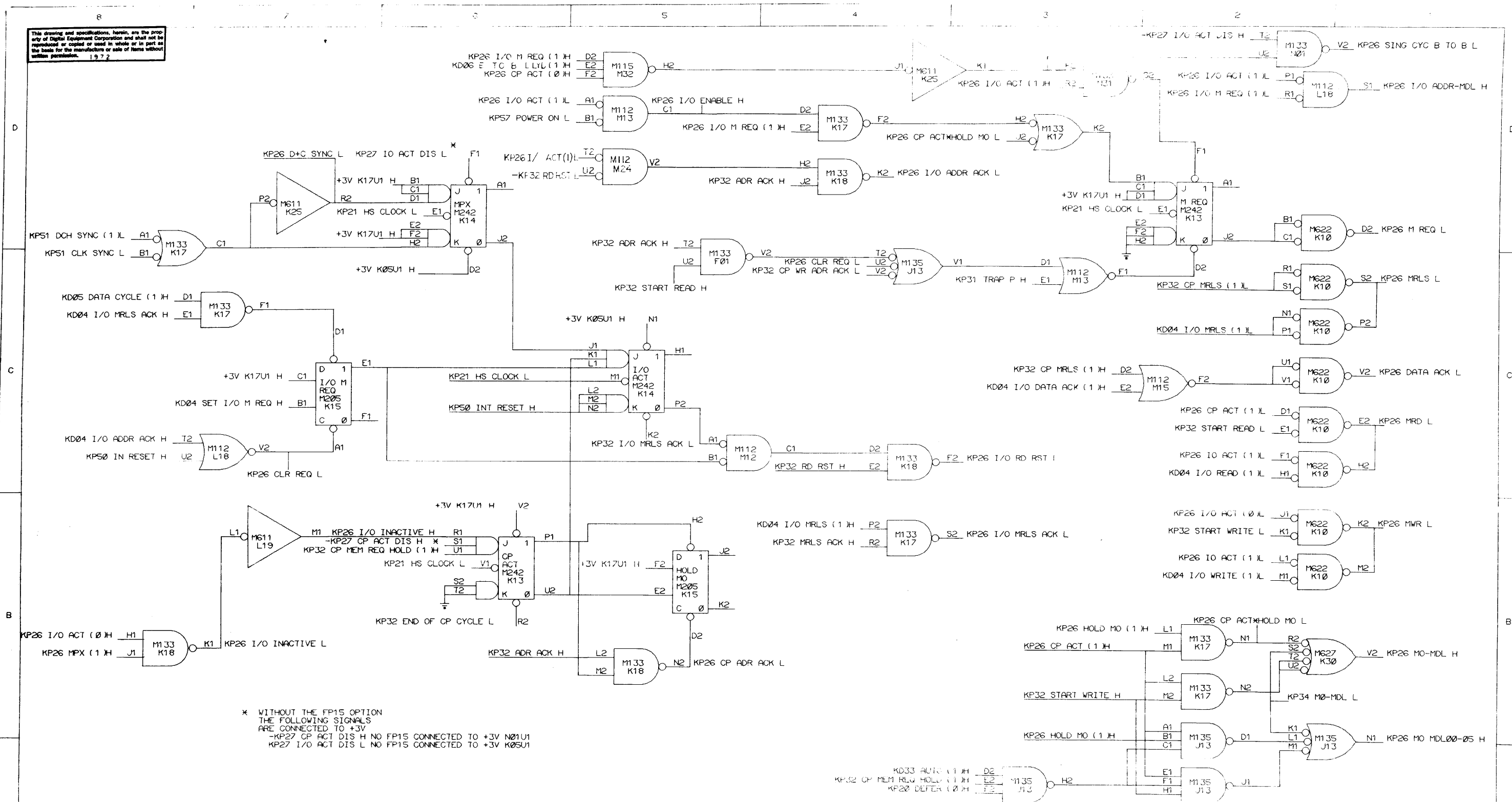
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REVISIONS		
CHK	CHANGE NO.	REV.
AK	1-11 00036	A

DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D.	DATE		
ENG.	DATE	INDICATOR STROBES	
PROJ. ENG.	DATE		
PROD.	DATE	NUMBER	
FIRST USED ON	DATE		
SCALE	DATE	REV.	
SHEET	OF		

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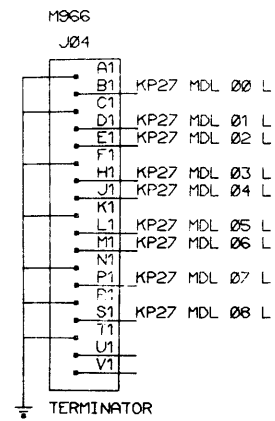
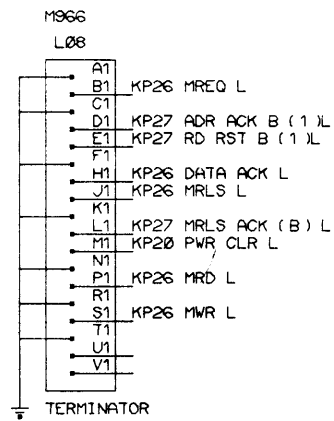
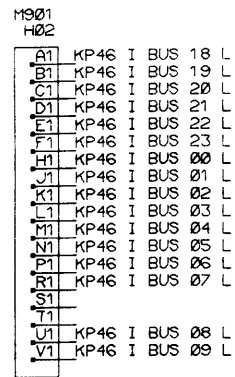
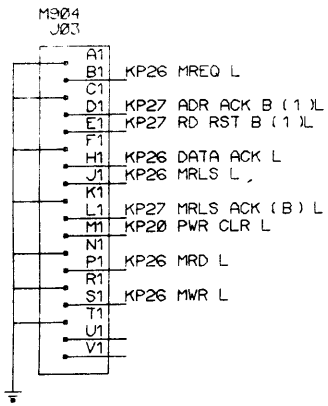
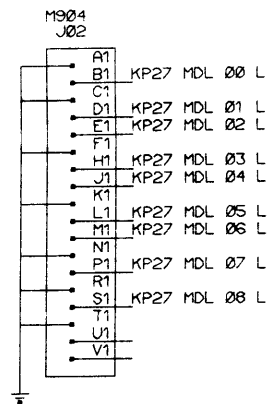


REVISIONS			REVISIONS			REVISIONS			REVISIONS		
CHK	CHANGE NO	REV	CHK	CHANGE NO.	REV.	CHK	CHANGE NO	REV	CHK	CHANGE NO	REV
GH	KP15-00044	A	GH	KP15-00056	L		KP15-00066	K	GH	KP15-00066	N
	3 GOLDSBY 12/9/70			1 JOE 8/22/71							
	F AUMANN 12/10/70			F AUMANN 8/22/71							
GH	KP15-00045	E		KP15-00057	F						
	K WALSH 12/14/70			1 JOE 8/22/71							
	F AUMANN 12/14/70			F AUMANN 8/23/71							
GH	KP15-00046	S	GH	KP15-00058	M						
	1 FERG 12/17/71			N JOE 8/23/71							
	F AUMANN 12/17/71			F AUMANN 8/23/71							
GH	KP15-00047	S	GH	KP15-00059							
	1 FERG 12/17/71			KP15-00060							
GH	KP15-00048	S		KP15-00061							
	1 FERG 12/17/71			F AUMANN 8/23/71							
GH	KP15-00049	S		KP15-00062							
	1 FERG 12/17/71			F AUMANN 8/23/71							

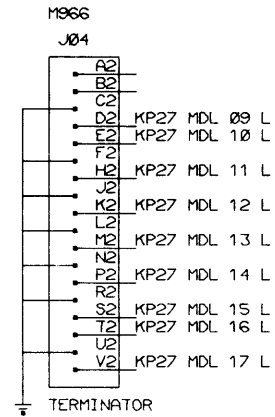
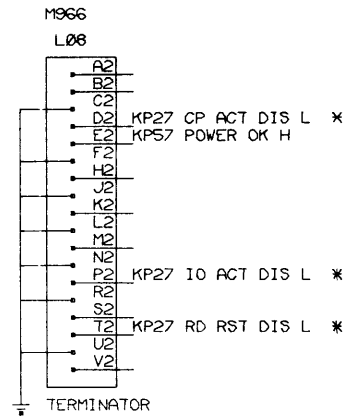
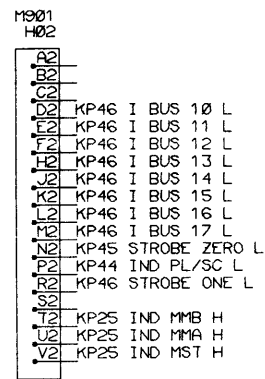
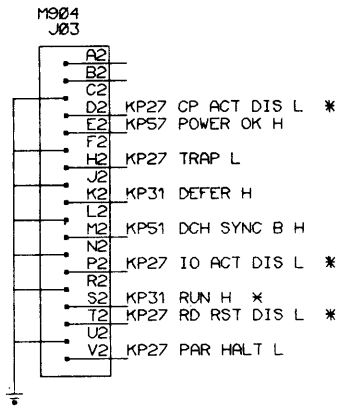
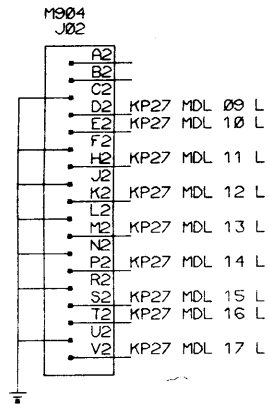
DRN.	DATE	digital CORPORATION	
5. GOLDSBY	7/15/79	MAYNARD, MASSACHUSETTS	
CHK'D.	DATE	TITLE	
1. FUCHS	7/15/79	MEMORY MPX	
ENG.	DATE		
1. GUMANN	7/20/79		
PROJ. ENG.	DATE		
1. GUMANN	7/20/79		
PROD.	DATE		
1. LASKEY	7/20/79		
FIRST USED ON			
POP15			
SCALE	SHEET	SIZE/CODE	NUMBER
	OF	D-30	115-0-26
		DIST.	REV.
			N

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D



C



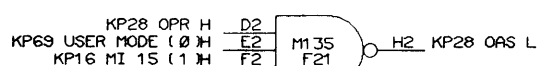
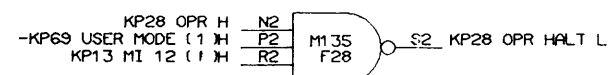
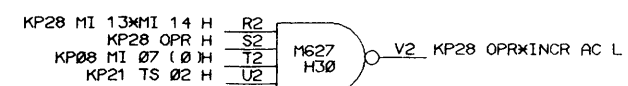
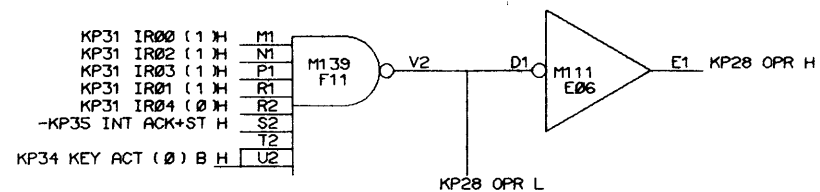
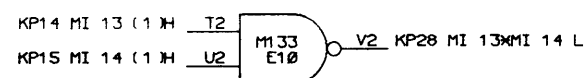
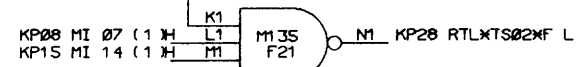
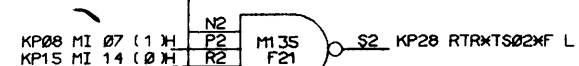
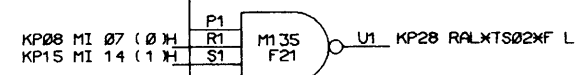
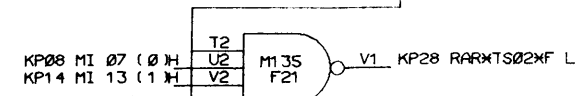
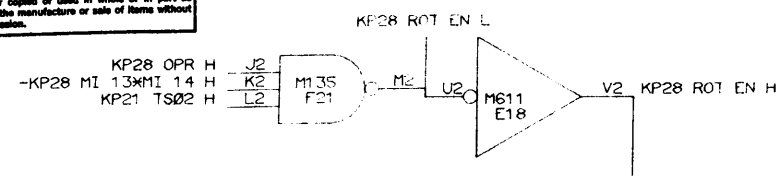
* THESE SIGNALS WILL ONLY
BE PRESENT ON THE CABLE
WHEN A FP15 IS INSTALLED
IN THE SYSTEM

B

REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
LH	KP15-00038	C	GH	KP15-00057	H
	S GOLDSBY 7/15/70			N COTE 6/30/71	
	F AUMANN 7/20/70			F AUMANN 7/22/71	
GH	KP15-00044	D		KP15-00059	J
	S GOLDSBY 10-9-70				
	F AUMANN 10-16-70				
GH	KP15-00046	E			
	K WALSH 12/11/70				
	F AUMANN 12/11/70				
GH	KP15-00055	F			
	K WALSH 12/11/70				
	F AUMANN 12/11/70				

DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	TITLE CP MEM INTERFACE CABLES
1. SCHURMAN	11-7-69		
CHKD.	DATE		
N. RHEAULT	11-7-69		
ENG.	DATE		
F. AUMANN	11-7-69		
PROJ. ENG.	DATE		
G. BUTLER	11-7-69		
PROD.	DATE		
F. LASKEY	11-7-69		
FIRST USED ON			
KP15		SIZE CODE	NUMBER
SCALE		D BS	KP15-0-27
SHEET 1	OF 1	DIST.	

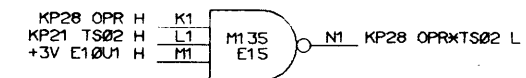
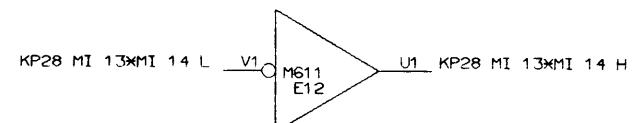
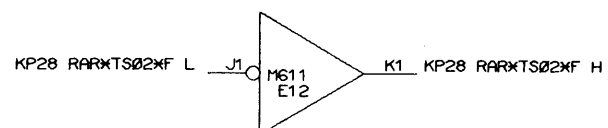
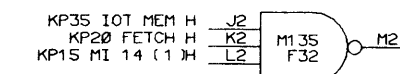
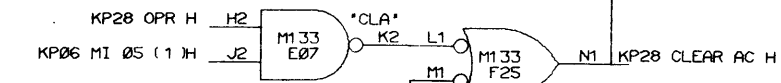
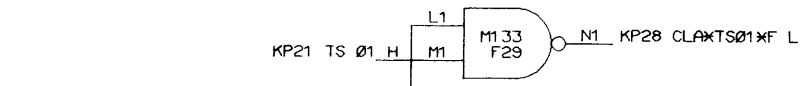
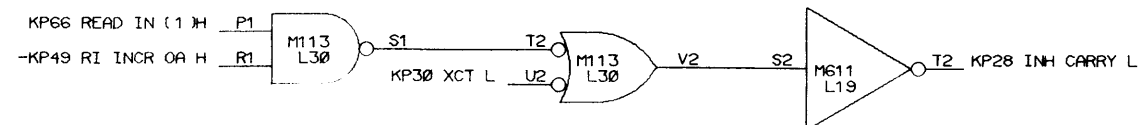
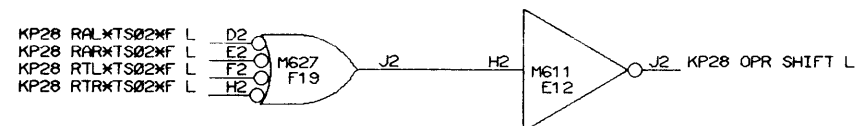
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OR AC WITH SWITCH REGISTER

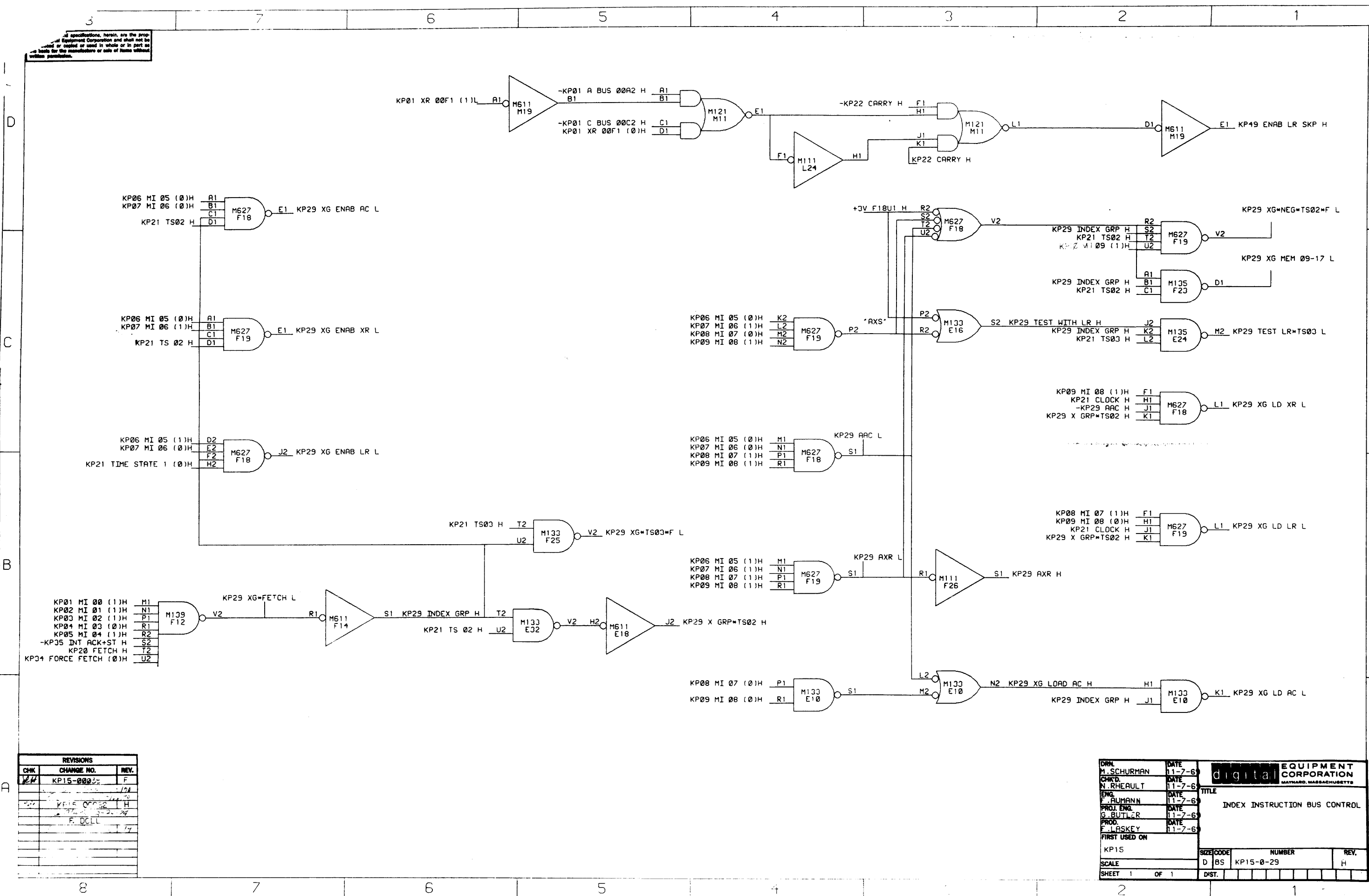


'COMPLIMENT ACCUMULATOR'



REVISIONS		
CHK	CHANGE NO.	REV.
LH	KP15- 00038	E
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	F AUMANN 7/15/70	
2/6	KP15- 00056	F
4	KP15- 00062	LH
	F DILL	

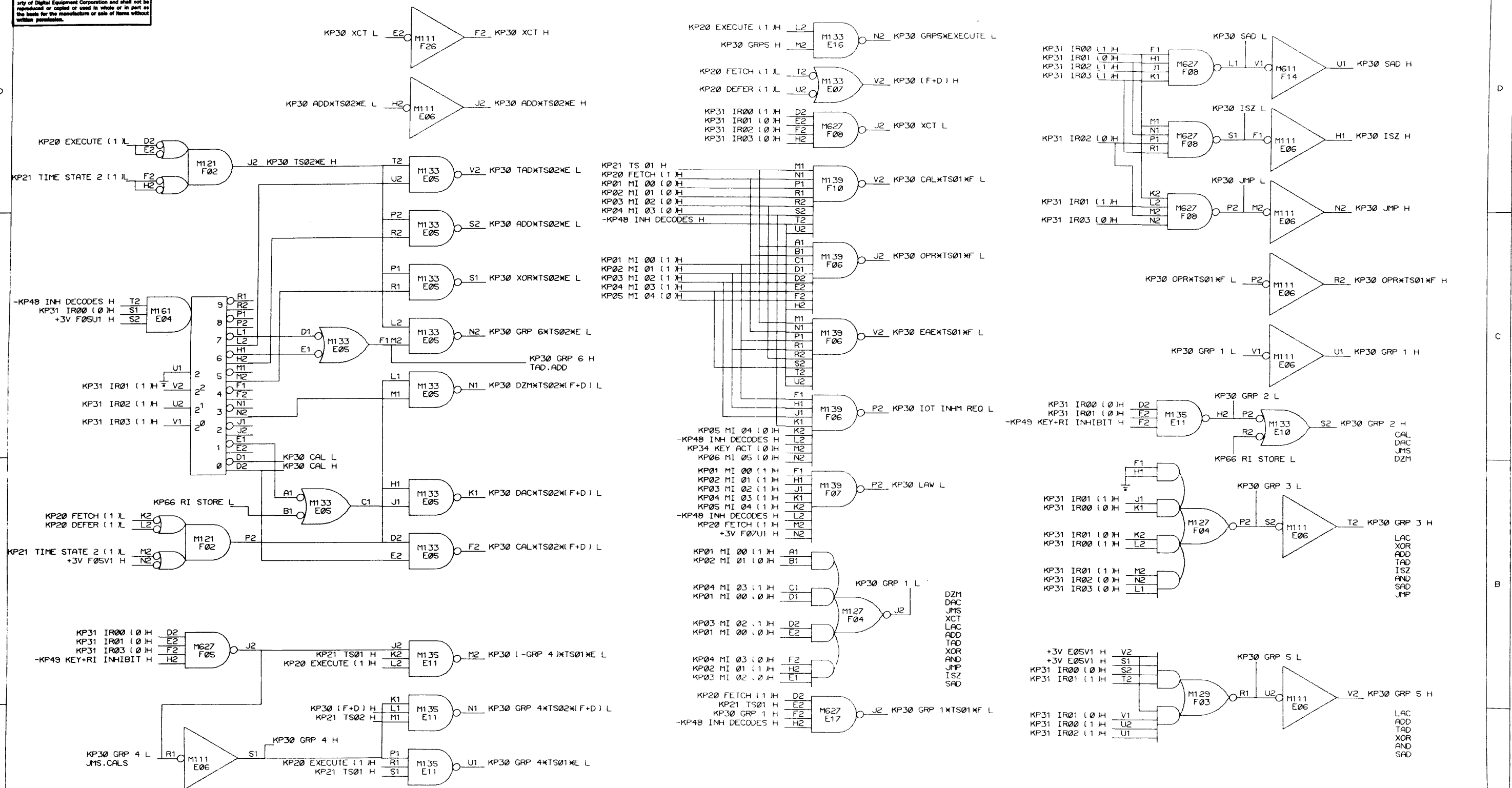
DNR.	DATE	digital EQUIPMENT CORPORATION	
M. SCHURMAN	11-7-69	MAYNARD, MASSACHUSETTS	
CHK'D.	DATE	TITLE	
N. RHEAULT	11-7-69		
ENG.	DATE	OPERATE DECODING	
F. GUMANN	11-7-69		
PROJ. ENG.	DATE		
G. BUTLER	11-7-69		
PROD.	DATE		
F. LASKEY	11-7-69		
FIRST USED ON			
KP15		SIZE CODE	NUMBER
SCALE		D. BS	KP15-2-28
SHEET 1 OF 1		DIST.	REV. H



REVISIONS		
CHK	CHANGE NO.	REV.
JKH	KP15-0002	F
		124
	KP15-0002	H
		24
	F. DCLL	17

DRM. M. SCHURMAN	DATE 11-7-69	digital EQUIPMENT CORPORATION MATHEW, MASSACHUSETTS										
CHWD. N. RHEAULT	DATE 11-7-69											
ENG. F. ALUMANN	DATE 11-7-69		TITLE									
PROJ. ENG. G. BUTLER	DATE 11-7-69		INDEX INSTRUCTION BUS CONTROL									
PROD. F. LASKEY	DATE 11-7-69											
FIRST USED ON												
KP15		SIZE	CODE	NUMBER						REV.		
SCALE		D	BS	KP15-0-29						H		
SHEET	1	OF	1	DIST.								

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REVISIONS			
CHK	CHANGE NO.	REV.	
LH	KP15-00038	H	
	S GOLDSBY 7-15-70		
	F AUMANN 7-22-70		
	KP15-00046	J	
	K WALSH		
GH	KP15-00050	K	
	S GOLDSBY 2/9/71		
	F AUMANN 2/10/71		
	KP15-00057	L	

DRN. M. SCHURMAN	DATE 11-7-69	digital CORPORATION MAYNARD, MASSACHUSETTS		
GKHD. N. CHEHAULT	DATE 11-7-69			
ENG. A. ALUMANN	DATE 11-7-69	TITLE		
PROJ. ENG. G. BUTLER	DATE 11-7-69	MAJOR INST DECODING		
PROD. F. LASKEY	DATE 11-7-69			
FIRST USED ON				
KP15				
SCALE		SIZE	NUMBER	REV.
		D BS	KP15-0-30	L
SHEET	1 OF 1	DIST.		

A

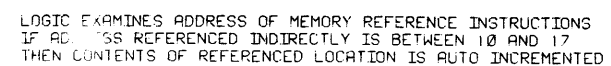


DPM R SCHURMAN	DATE 11-7-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	TITLE
RNG R RHAULT	DATE 7-69		INSTRUCTION REG
FNG AUMANN	DATE 7-69		
PBO, ENG G BUTLER	DATE 7-69		
BROD P LASKEY	DATE 11-7-69		
FIRST USED ON KP15			
SCALE	SIZE CODE D BS	NUMBER KP15-0-31	REV. N
SHEET OF	DISC.		

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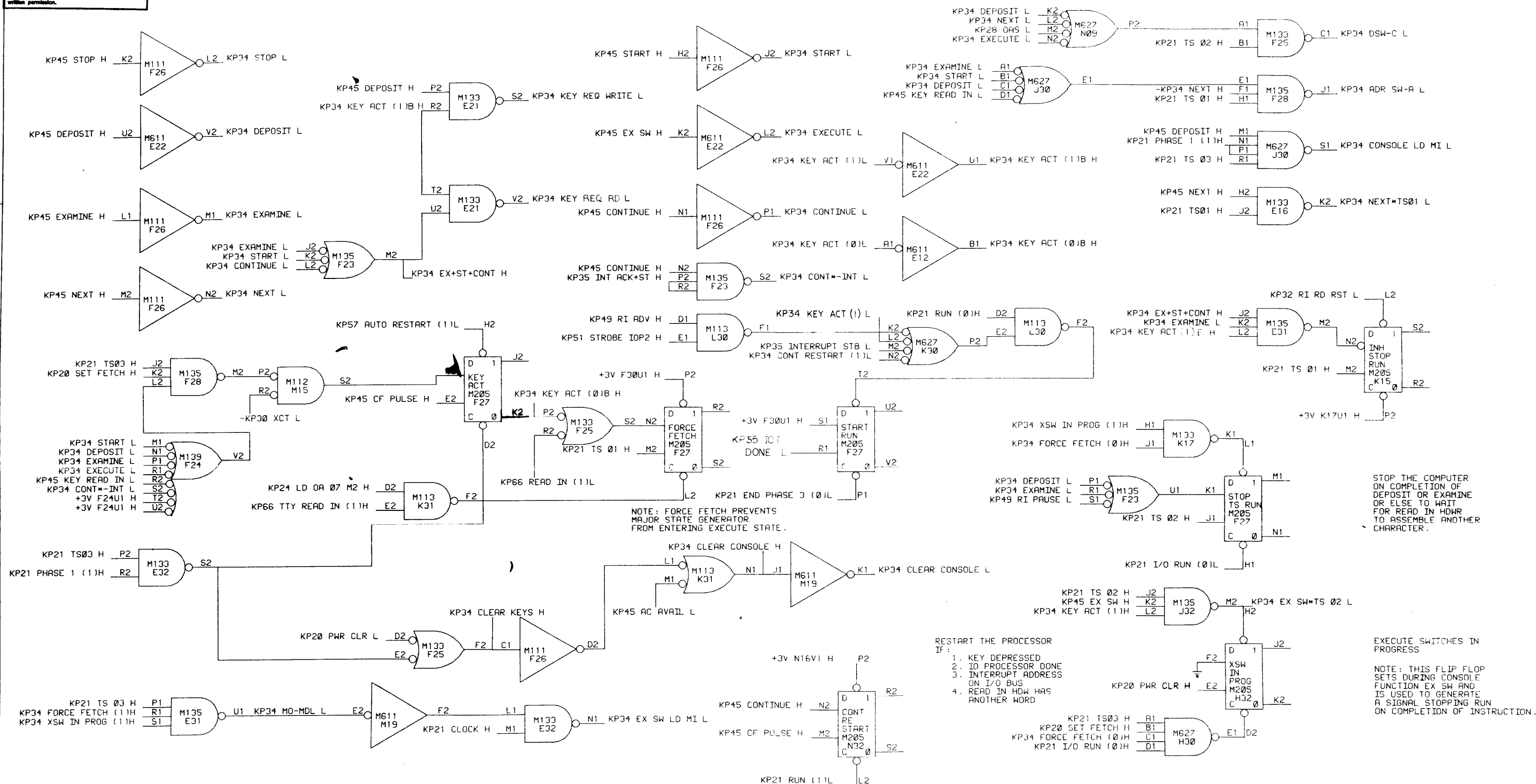
DRN. S GOLDSBY	DATE 10-15-69	digital		EQUIPMENT CORPORATION	
CHKD. L MOHOS	DATE 10-15-69	TITLE		MAYNARD, MASSACHUSETTS	
ENG. F ALMANN	DATE 10-7-69	MEMORY INTERFACE CONTROL			
PROJ. ENG. G BUTLER	DATE 10-7-69				
PROD. F LASKEY	DATE 10-7-69				
FIRST USED ON					
PDP15		SIZE	CODE	NUMBER	REV.
SCALE		D	RS	KP15-0-32	T
SHEET 1	OF 1	DIST.			

A



DNR. J. FASSHAUER	DATE 10/7/89	digital		EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D. R. COOK	DATE 10/7/89				
ENG. F. ALMANN	DATE 10/7/89	TITLE			
PROJ. ENG. G. BUTLER	DATE 10/9/89	DETECT XMODE & CBUS			
PROD. F. LASKLEY	DATE 10/8/89				
FIRST USED ON KP15		SIZE	CODE	NUMBER	REV.
SCALE		D	BS	KP15-0-33	F
SHEET	OF	DIST.			

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REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO	REV
LH	KP15-00038	L	22	KP15-00079	P
	S GOLDSBY 7/15/70			B Budget 116 13	
	F RUMANN 7/15/70			DOLL	
GH	KP15-00048	M			
	N LEGERE 1/12/71		101	KP15-00082	R
	F RUMANN 1/12/71				13
	KP15-00056	N		F DOLL	
	7/20/70				

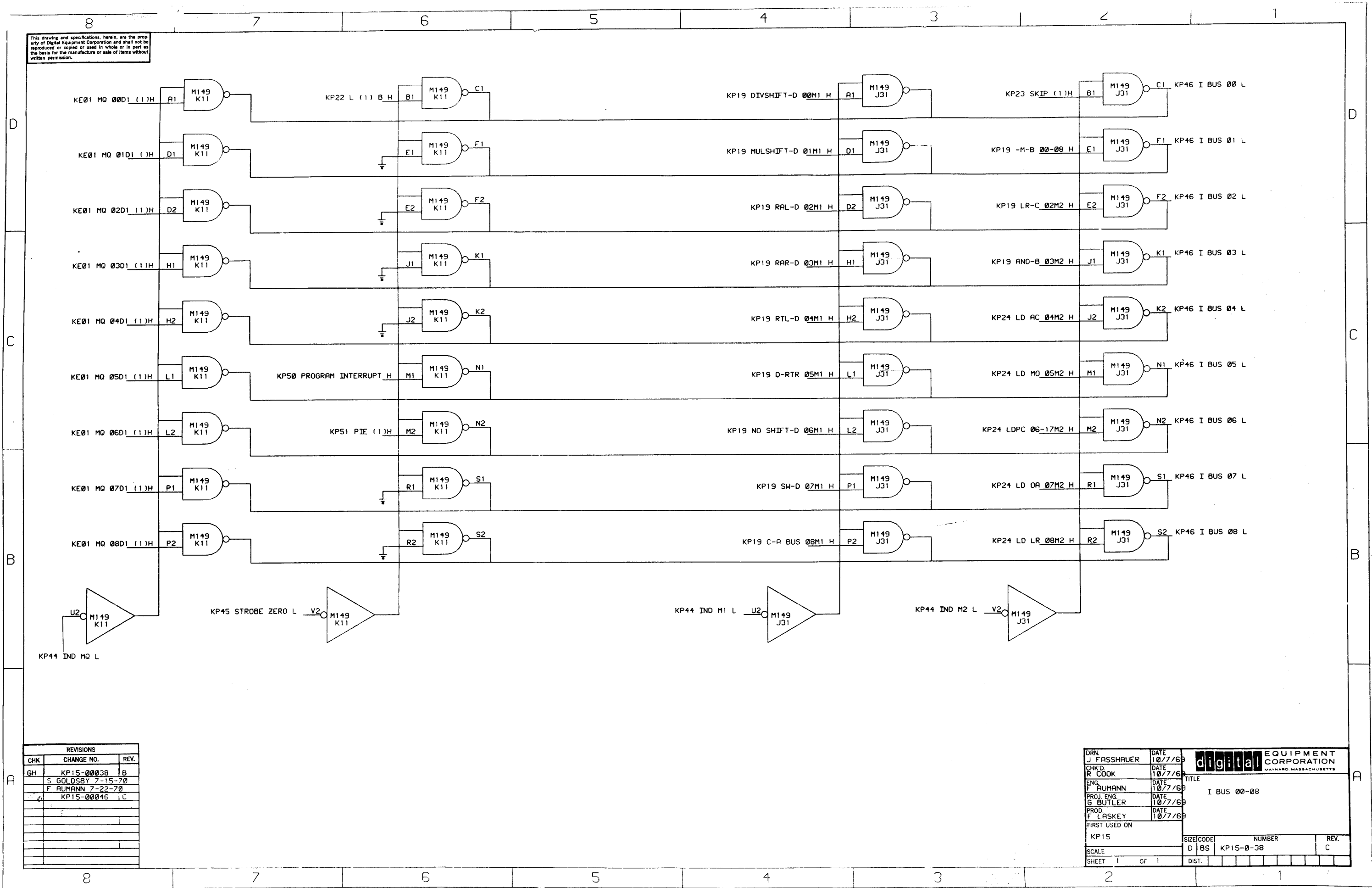
DRN. M. SCHURMAN	DATE 11-7-63	digital	EQUIPMENT CORPORATION	
CHKO N. KHEAULT	DATE 11-7-63		WAYNAD, MASSACHUSETTS	
ENG. A. MANN	DATE 11-7-63	TITLE		
PROJ. ENG. G. BULTER	DATE 11-7-63	CONSOLE INTERFACE		
PROD. F. LASKEY	DATE 11-7-63			
FIRST USED ON KP15		SIZE CODE	NUMBER	REV.
SCALE		D. BS	KP15 0 31	R
SHEET 1 OF 1		DIST.		

A



DRAWN S GOLDSBY	DATE 10-15-59	 DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D L LOROS	DATE 10-15-59		
ENG. J AUMANN	DATE 10-7-63	TITLE	
PROJ. ENG. G BUTLER	DATE 10-7-63	INTERRUPT CONTROL LOGIC	
PROD. F LASKEY	DATE 10-7-63		
FIRST USED ON			
KP15			
SCALE	SIZE CODE	NUMBER	REV.
	D BS	KP15-0-35	W
SHEET 1 OF 1	DIST.		

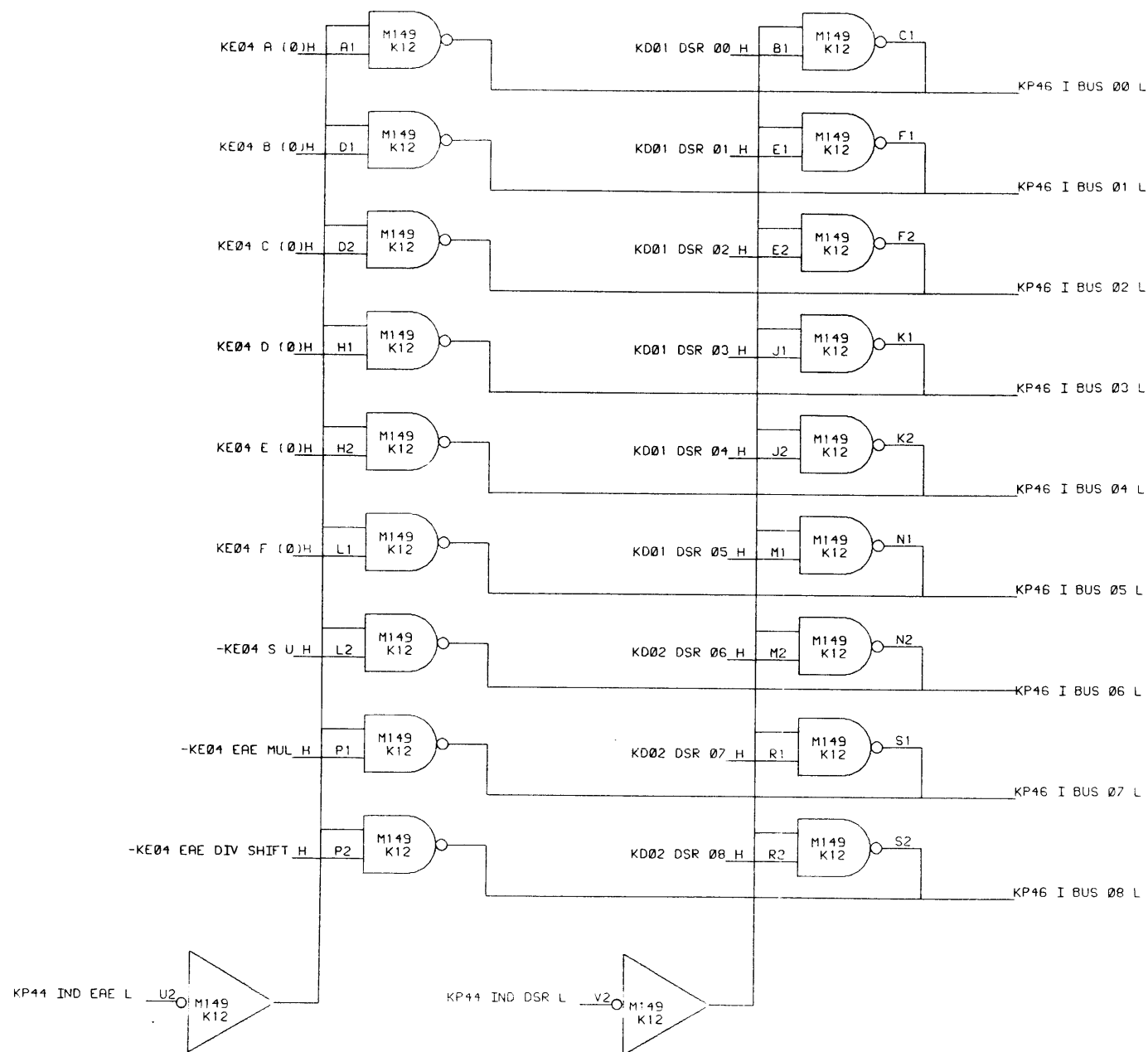
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REVISIONS		
CHK	CHANGE NO.	REV.
GH	KP15-00038	B
	S GOLDSBY 7-15-70	
	F RUMANN 7-22-70	
	KP15-00046	C

DRN	J FRASCHAUER	DATE	10/7/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D	R COOK	DATE	10/7/69		
ENG.	F RUMANN	DATE	10/7/69	TITLE I BUS 00-08	
PROJ. ENG.	G BUTLER	DATE	10/7/69		
PROD.	F LASKEY	DATE	10/7/69		
FIRST USED ON	KP15	SIZE/CODE	D BS	NUMBER	KP15-0-38
SCALE				REV.	C
SHEET	1	OF	1	DIST.	

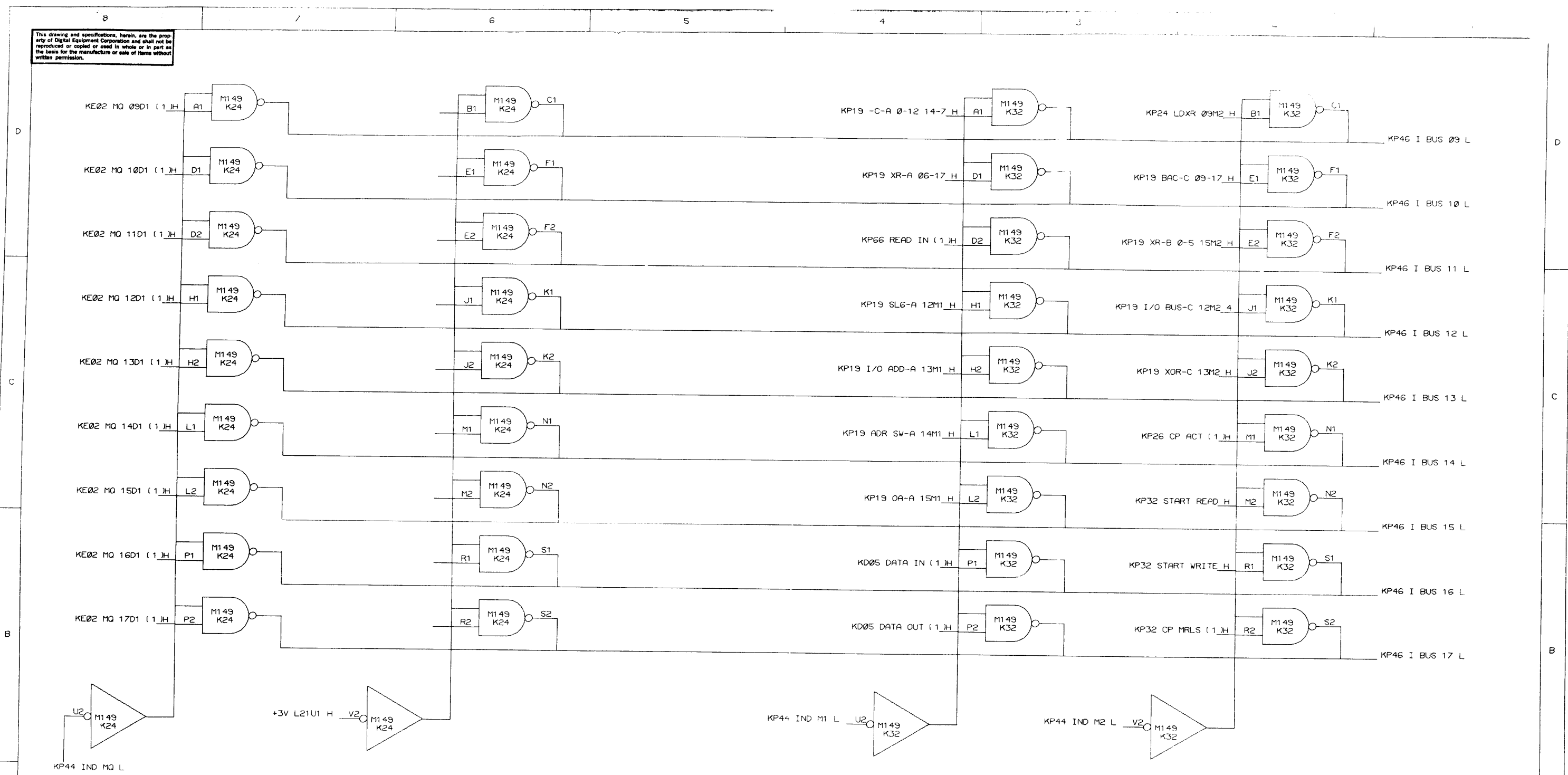
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REVISIONS		
CHK	CHANGE NO.	REV.
24	KE-00015	-

DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	TITLE I BUS 00-06	
CHK'D.	DATE			
ENG.	DATE			
PROJ. ENG.	DATE			
PROD.	DATE			
FIRST USED ON		SIZE/CODE	NUMBER	REV.
KP15		D 85	KP15 2-03	A
SCALE		SHEET	OF	DIST.

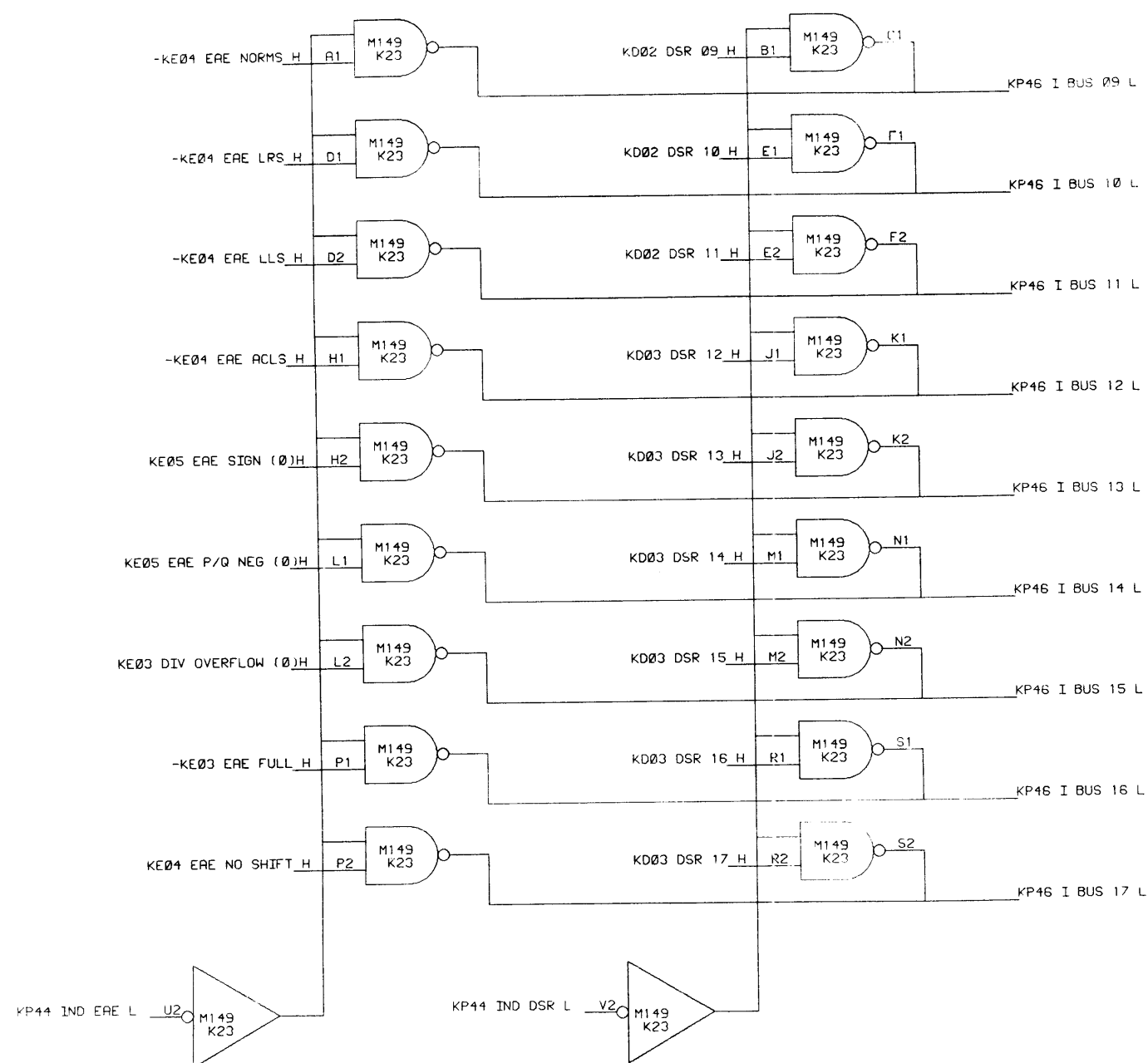
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REVISIONS		
CHK	CHANGE NO.	REV.
LH	KP15-00030	B
S	GOLDSBY 7/15/70	
F	AUMANN 7/22/70	
	KP15-00057	C

DRN	J. FASSHAUER	DATE	10/77/68	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS			
CHK'D	R. COOK	DATE	10/77/68				
ENG	AUMANN	DATE	10/77/68				
PROD	LASKEY	DATE	10/77/68				
TITLE				I BUS 09-17 MQ-M1-M2			
FIRST USED ON							
KP15				SIZE	CODE	NUMBER	REV.
SCALE				D	BS	KP15-0-40	C
SHEET				OF	DIS.		

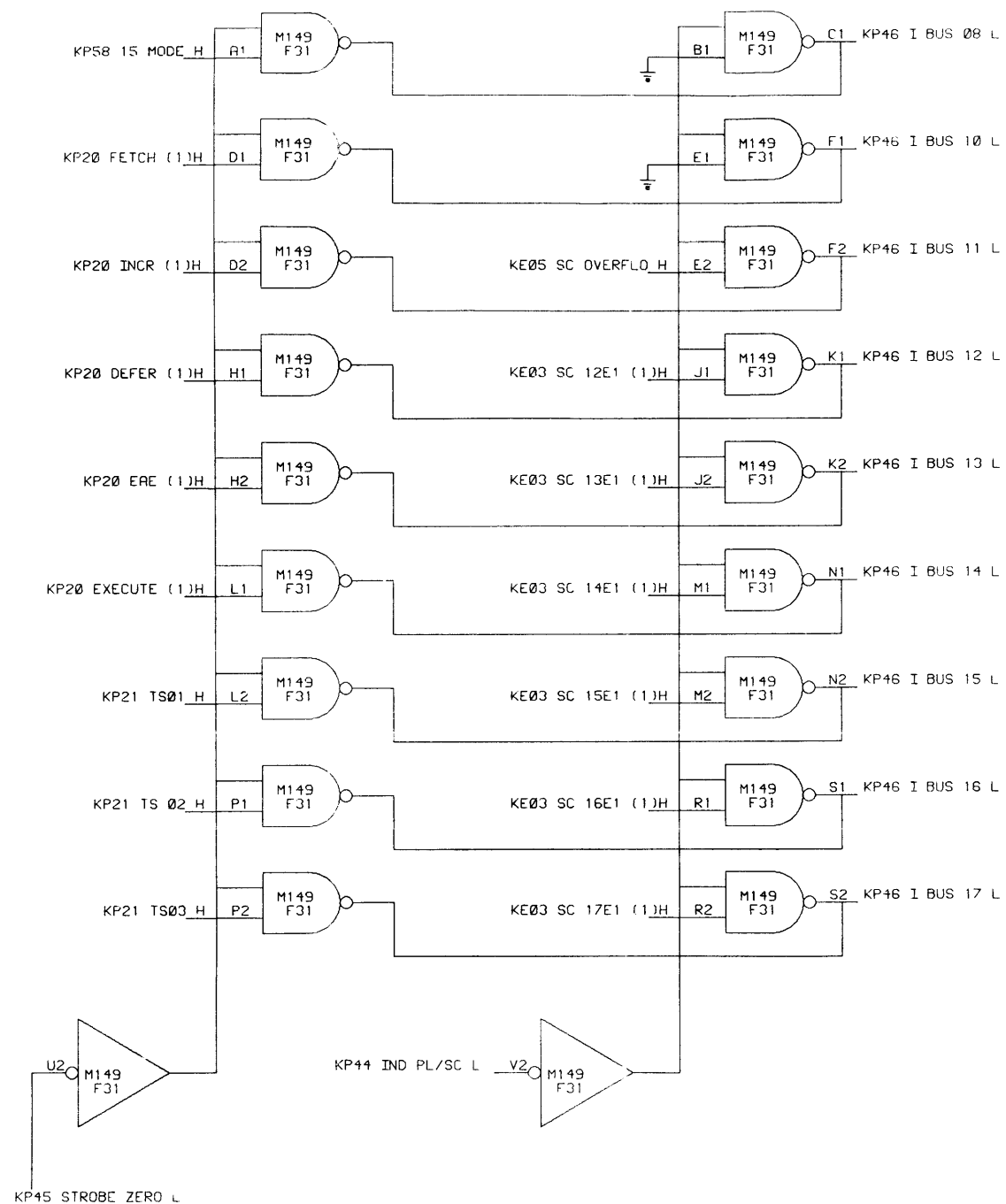
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REVISIONS		
CHK	CHANGE NO.	REV.
24	KP15-0003-	1

DRN J. FASSHAUER	DATE 10/7/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS								
CHCD R. COOK	DATE 10/7/69									
ENG J. MANN	DATE 10/7/69									
PROJ. ENG. S. BUIER	DATE 10/9/69									
PROD. P. LASKEY	DATE 10/8/69									
FIRST USED ON KP15		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">SIZE</td> <td style="width: 30%;">CODE</td> <td style="width: 30%;">NUMBER</td> <td style="width: 10%;">REV.</td> </tr> <tr> <td>D</td> <td>BS</td> <td>KP15-2-41</td> <td>B</td> </tr> </table>	SIZE	CODE	NUMBER	REV.	D	BS	KP15-2-41	B
SIZE	CODE		NUMBER	REV.						
D	BS		KP15-2-41	B						
SCALE										
SHEET	OF	DIS.								

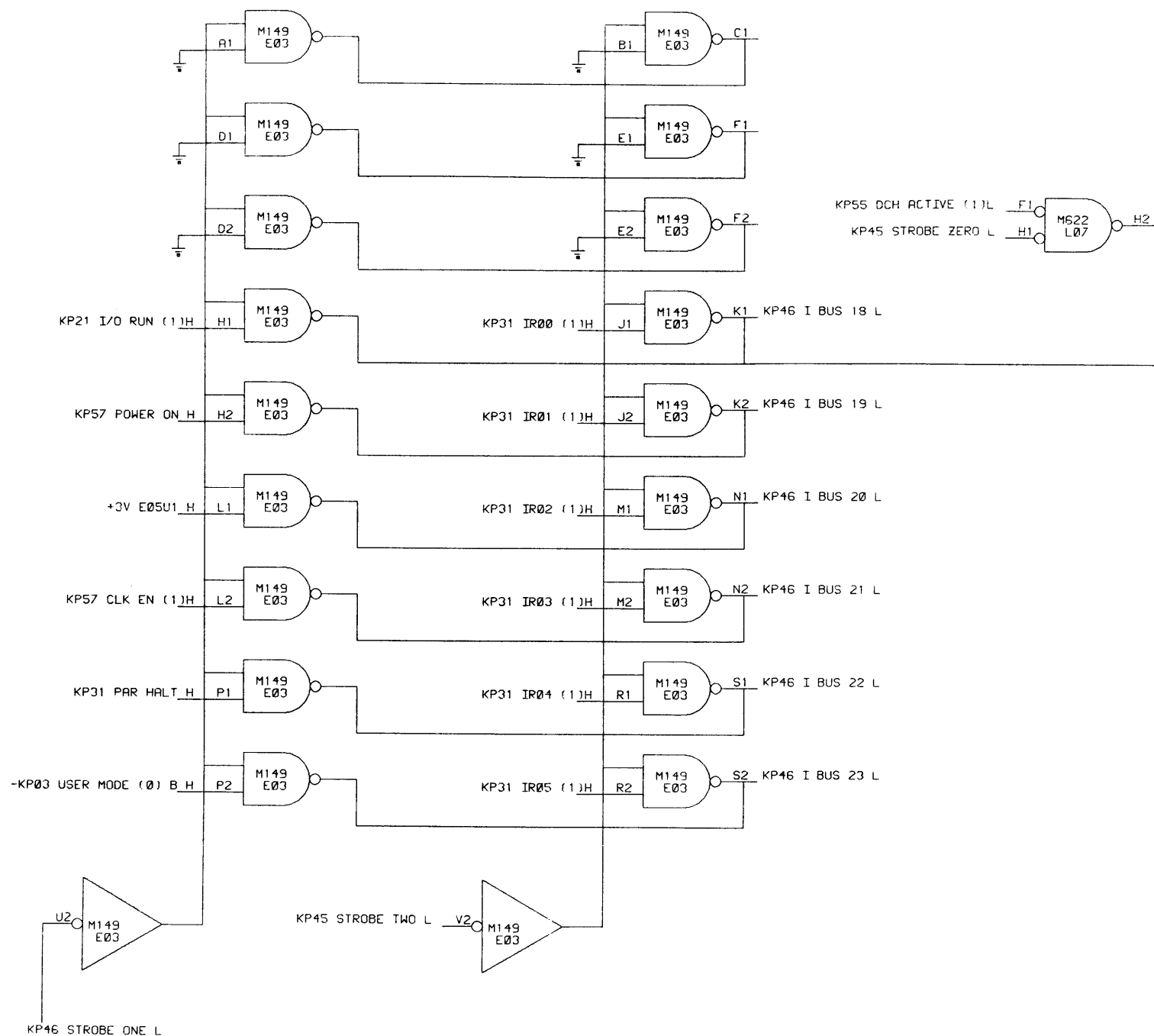
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REVISIONS		
CHK	CHANGE NO.	REV.
20	KP15-0003	1

DRN	J. FRASCHAUER	DATE	10/77/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D	R. COOK	DATE	10/77/69		
ENG	R. HUMANN	DATE	10/77/69	TITLE I BUS 08 10-17 SC	
PROJ. ENG.	G. BUTLER	DATE	10/79/69		
PROD.	P. LASKEY	DATE	10/78/69	FIRST USED ON KP15	
SCALE		SIZE/CODE	D BS	NUMBER	REV.
SHEET	1	OF	1	KP15-0-42	8
		DIS.			

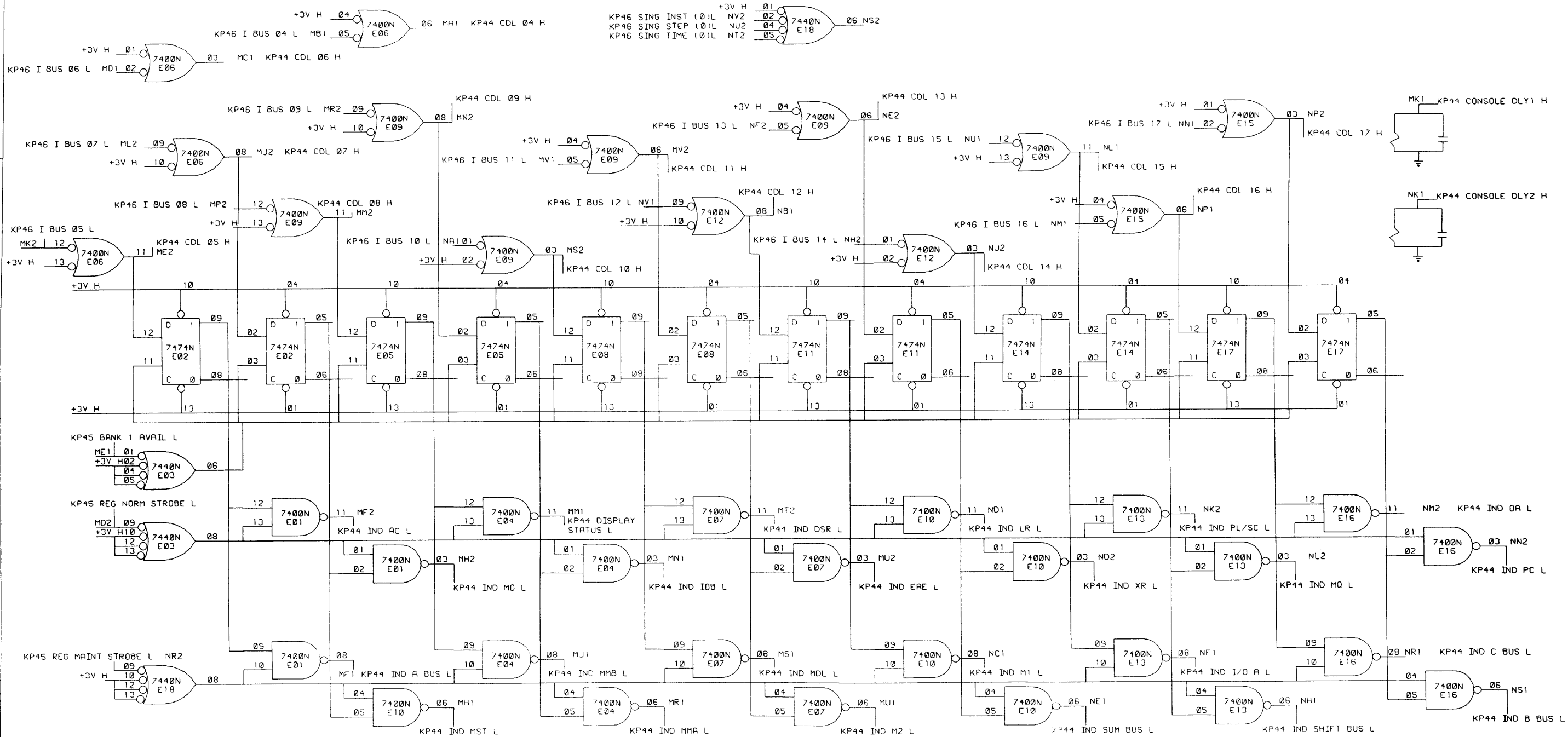
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REVISIONS		
CHK	CHANGE NO.	REV.
LH	KP15-00038	B
S	GOLDSBY 7/15/70	
F	RUMANN 7/22/70	
GH	KP15-00045	C
S	GOLDSBY 10-9-70	
F	RUMANN 10-13-70	
GH	KP15-00046	D
S	GOLDSBY 11/1/71	
F	RUMANN 11/2/71	
	KP15-00056	E

DRN.	S GOLDSBY	DATE	10-15-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D	L HOBOS	DATE	10-15-69		
ENG.	F RUMANN	DATE	10-7-69	TITLE I BUS 13-23 IR	
PROJ. ENG.	G BUTLER	DATE	10-7-69		
PROD.	F LASKEY	DATE	10-7-69	FIRST USED ON KP15	
SCALE		SIZE/CODE	NUMBER		REV.
		D BS	KP15-0-43		E
SHEET	OF	DIST.			

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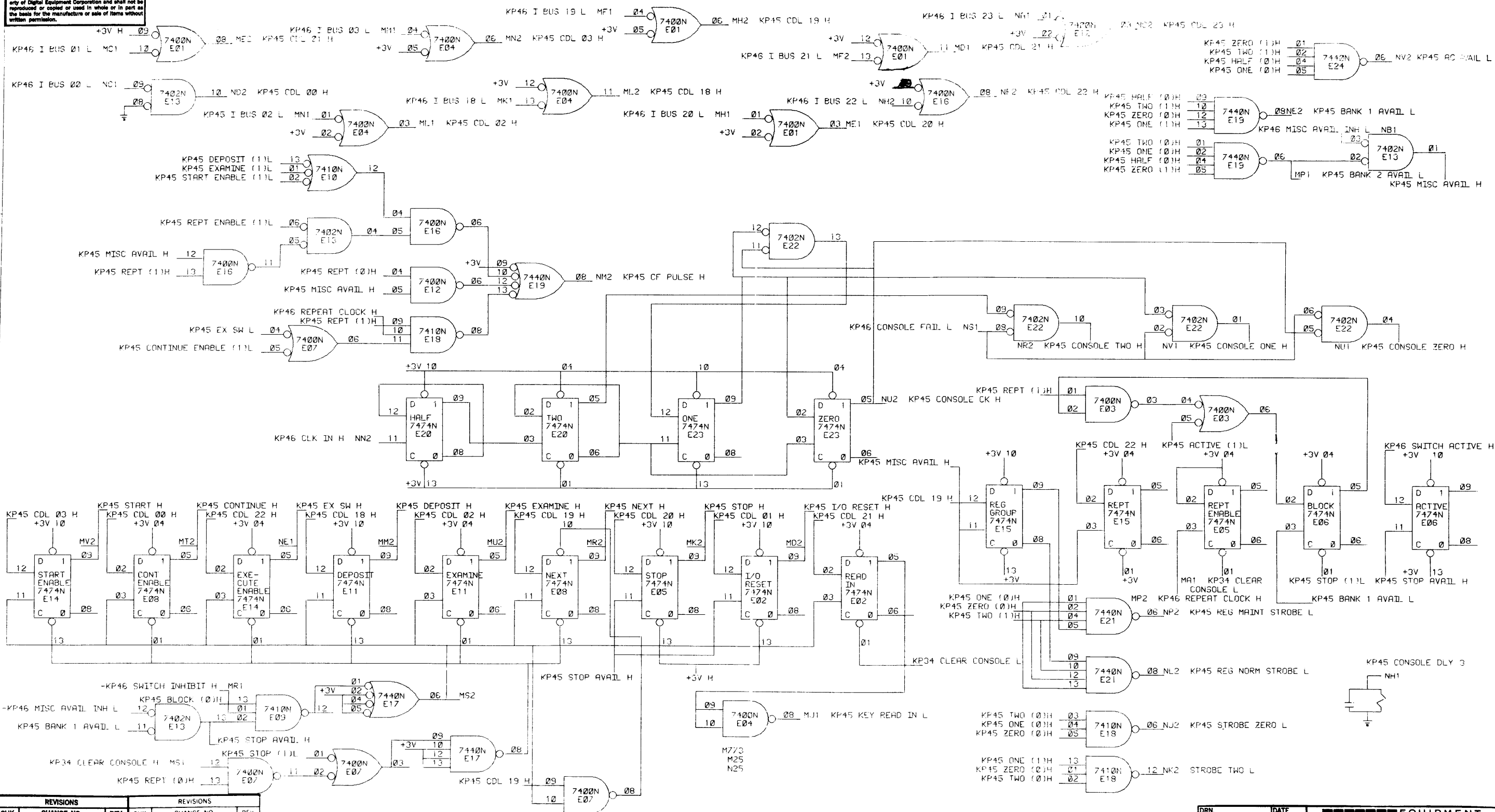


M772
M26
N26

REVISIONS		
CHK	CHANGE NO.	REV.
5#	REV 000-4	

DRN	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	TITLE CONSOLE CONTROL #1	
CHKD	DATE			
ENG	DATE			
PROJ. ENG.	DATE			
PROD.	DATE			
FIRST USED ON		SIZE/CODE	NUMBER	REV.
KP15		D 05	KP15-0-44	A
SCALE				
SHEET 1	OF 1	DIST.		

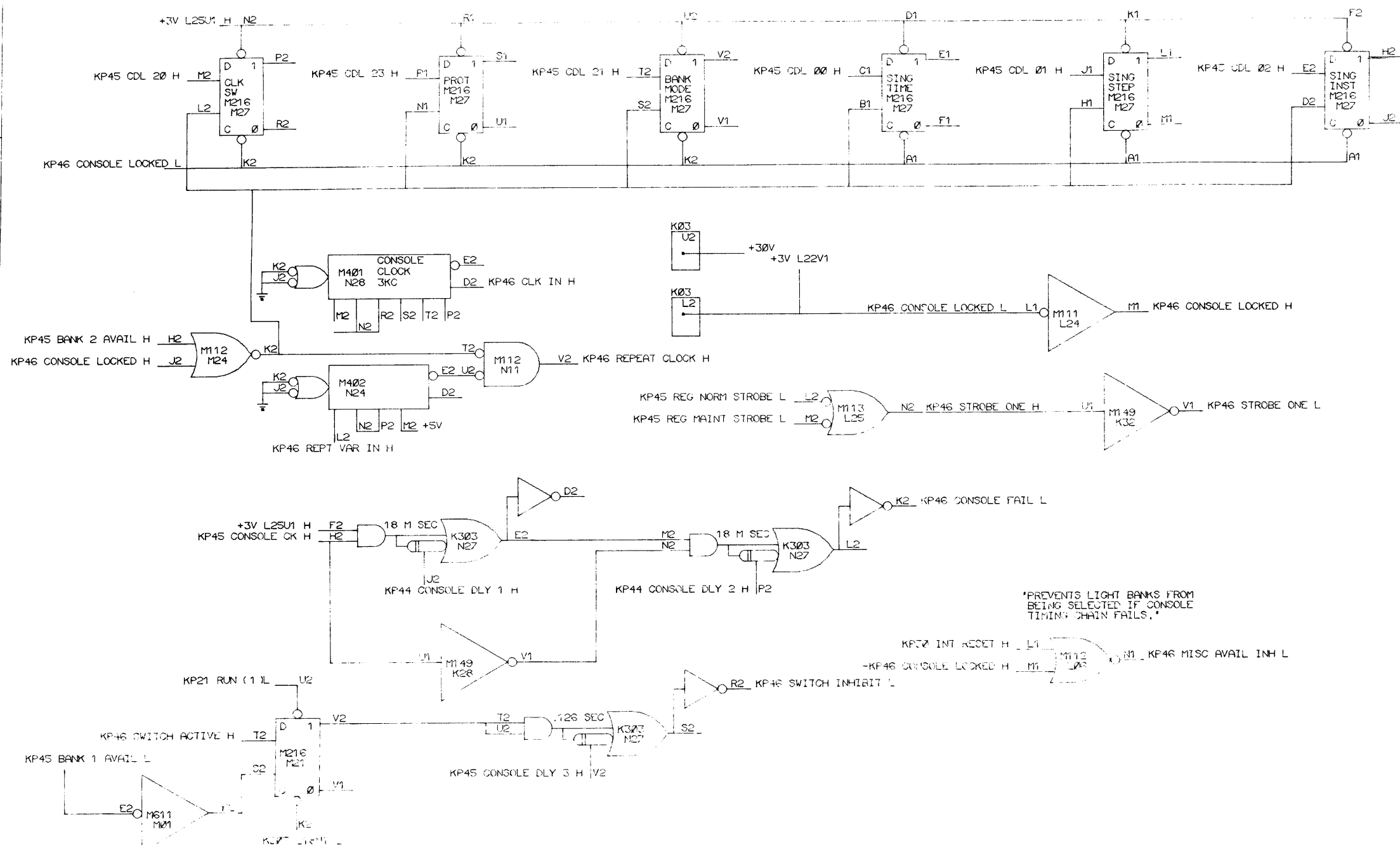
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REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
I.H.	KP15-00078	C			
S	GOLDSBY 7-15-70				
F	RUMANN 7-22-70				
	KP15-00048			F. COLL	
K	WALSH 12/18/70				
	RUMANN 12/18/70				
	KP15-00250				

D.R.N. J.FASSHAUER	DATE 10-7-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D R. COOK	DATE 10-7-69		
ENG. P. HUMANN	DATE 10-7-69		TITLE
PROJ. ENG. G. BUTLER	DATE 10-8-69		CONSOLE CONTROL #2
PROD. F. LASKEY	DATE 10-8-69		
FIRST USED ON KP15			
SCALE	SIZE CODE D BS	NUMBER KP15-0-15	REV. F
SHEET 1 OF 1	DIST.		

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M901			
L02			
A1	KP46	I BUS	18 L
B1	KP46	I BUS	19 L
C1	KP46	I BUS	20 L
D1	KP46	I BUS	21 L
E1	KP46	I BUS	22 L
F1	KP46	I BUS	23 L
H1	KP46	I BUS	00 L
J1	KP46	I BUS	01 L
K1	KP46	I BUS	02 L
L1	KP46	I BUS	03 L
M1	KP46	I BUS	04 L
N1	KP46	I BUS	05 L
P1	KP46	I BUS	06 L
R1	KP46	I BUS	07 L
ST	KP46	SWITCH	ACTIVE H
T1			
U1	KP46	I BUS	08 L
V1	KP46	I BUS	09 L

M901
L02

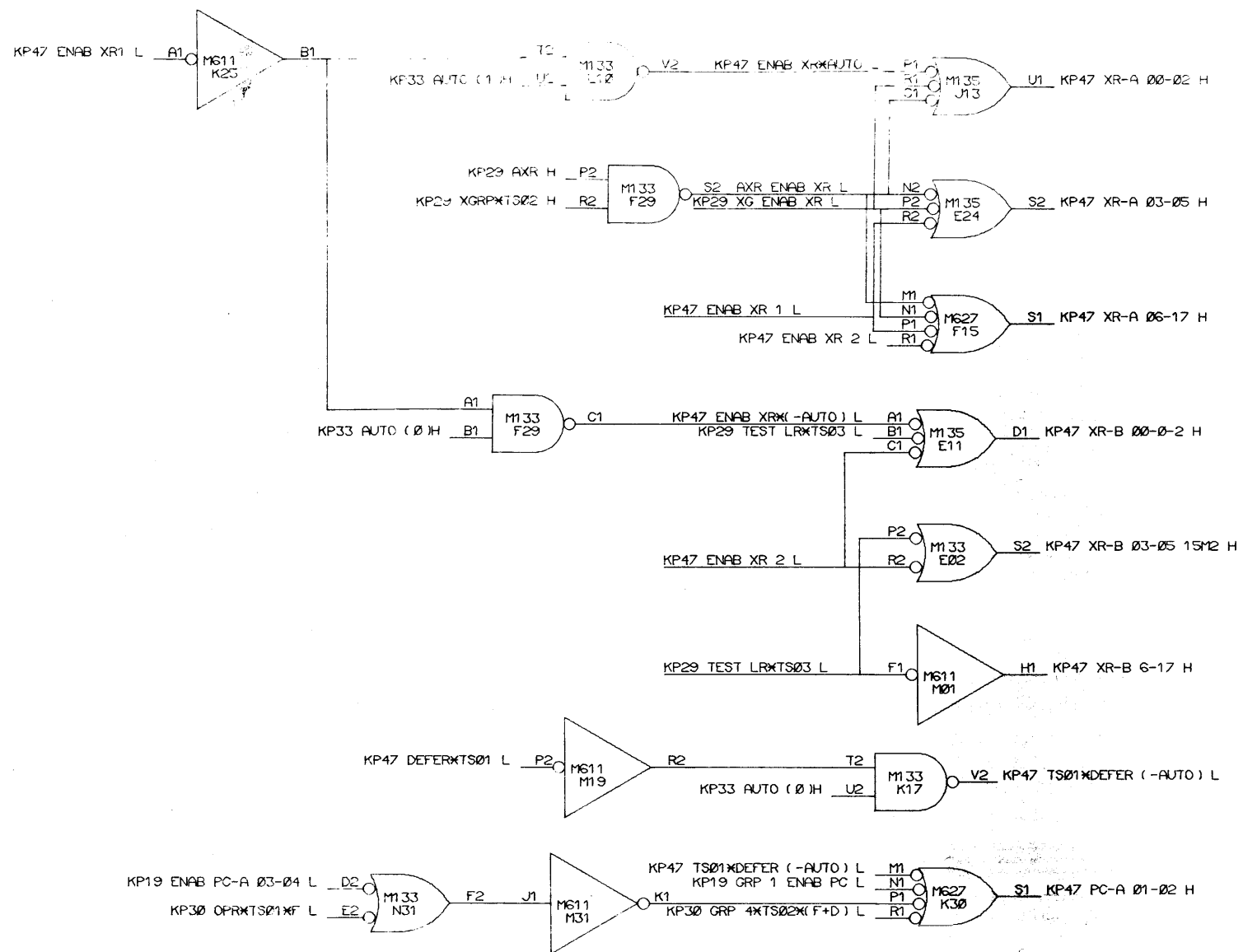
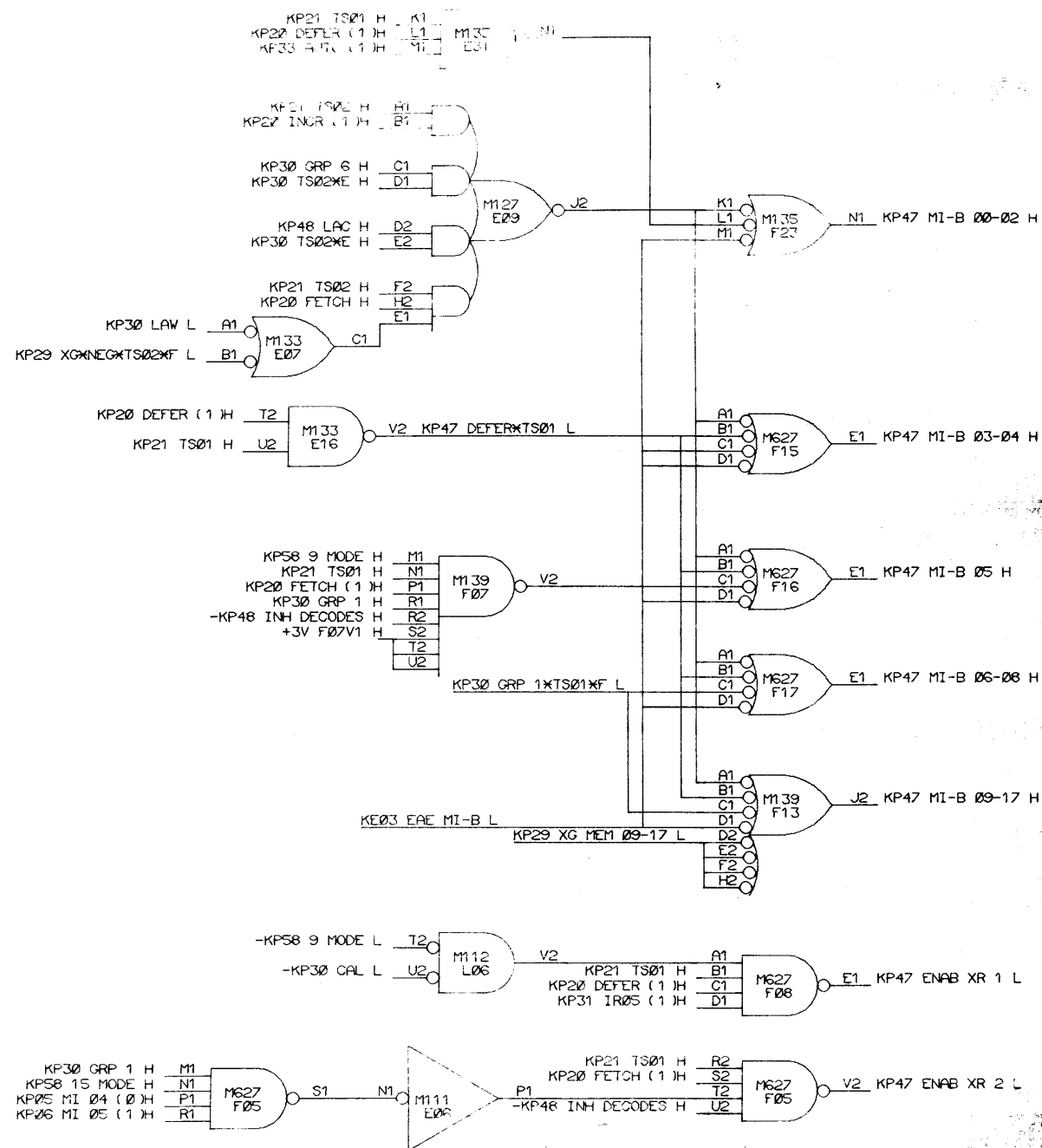
A2	+5V	H
B2		
C2		
D2	KP46	I BUS 10 L
E2	KP46	I BUS 11 L
F2	KP46	I BUS 12 L
G2	KP46	I BUS 13 L
H2	KP46	I BUS 14 L
J2	KP46	I BUS 15 L
K2	KP46	I BUS 16 L
L2	KP46	I BUS 17 L
M2		
N2		
P2		
R2	KP46	REPT VAR IN H
S2		
T2	KP45	CONSOLE TWO H
U2	KP45	CONSOLE ONE H
V2	KP45	CONSOLE ZERO H

REVISIONS		
CHK	CHANGE NO.	REV.
CH	KP15- 0002 38	H
	0 2X00BY 7-1-77	
	1 1X00BY 7-22-77	
331	KP15- 0002 40	
	K 1X01 12-16-77	
	F 1X01 12-16-77	
	KP15-2243	K

Three new *Waf.*

DRN M. SCHURMAN	DATE 11-7-69		
CHKD J. MEHRLT	DATE 11-7-69		
ENG. J. RUMANN	DATE 11-7-69		
PROJ. ENG. G. BUTLER	DATE 11-7-69		
PROD. J. LASKY	DATE 11-7-69		
FIRST USED ON		TITLE	
KPI-7		MISC CONSOLE LOGIC	
SCALE	SIZE	CODE	NUMBER
	11 x 17		KPI-7-46
SHEET 1	OF 1	DIST.	

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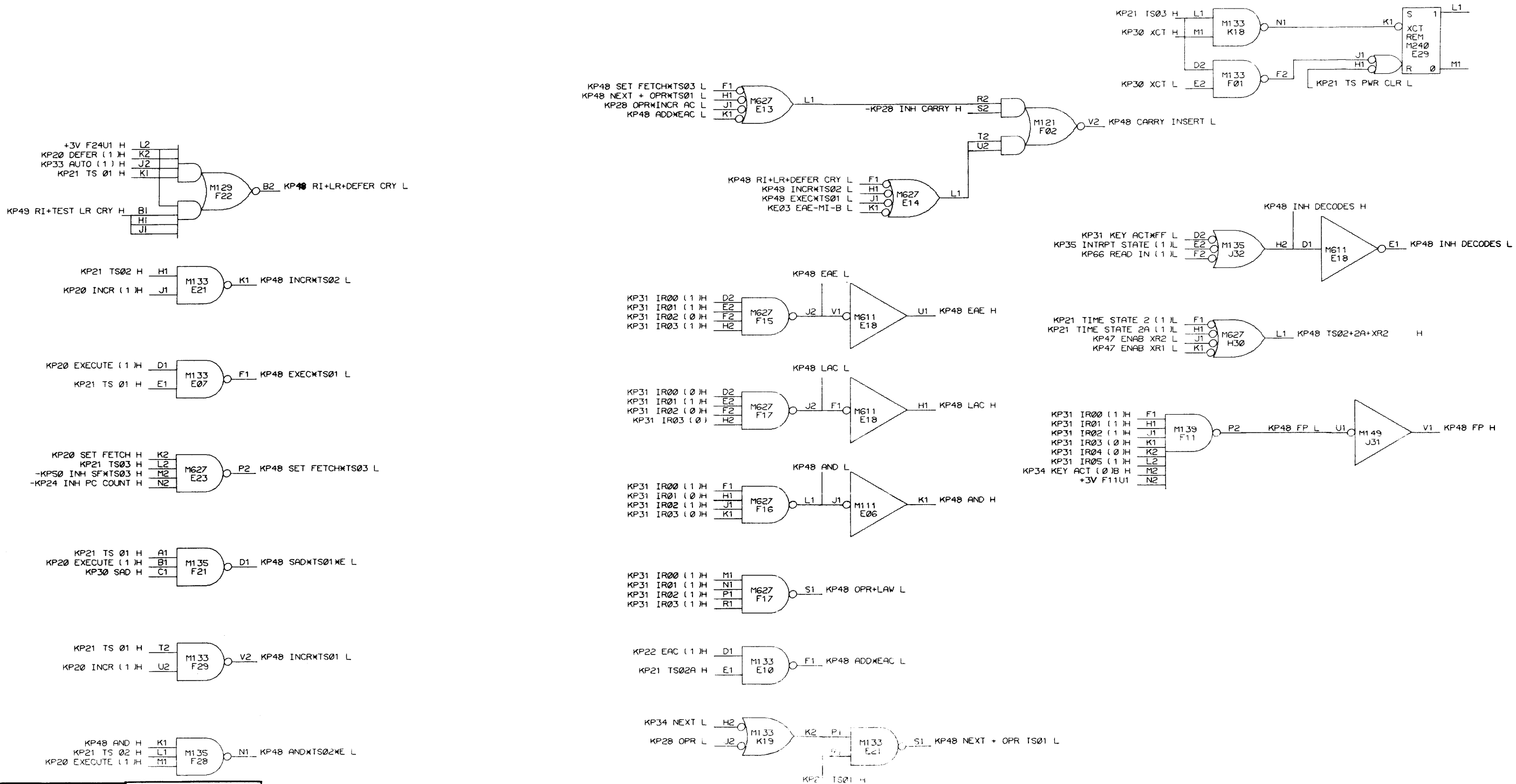


NOTE: THIS CIRCUITRY ADDED BY OPTIONAL ECO KP15-#52 FOR GREATER THAN 32K ADDRESSING OUTPUT SIGNALS PREVIOUSLY GENERATED ON KP19.

REVISIONS		
CHK	CHANGE NO.	REV.
LH	KP15-00038	1
	S. GOLDSBY 7/15/77	
	E. HUMANN 7/22/77	
	KP15-00038	
	S. GOLDSBY 3/1/78	
	E. HUMANN 3/2/78	
	KP15-00038	
	7/15/77	

DRN	J. FASSHAUER	DATE	10/7/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	TITLE	MI CONTROL
CHKD	R. COOK	DATE	10/7/69			
ENG	F. HUMANN	DATE	10/7/69			
PROJ. ENG	G. BUTLER	DATE	10/7/69			
PROD.	F. LASKEY	DATE	10/7/69			
FIRST USED ON						
KP15				SIZE CODE	NUMBER	REV.
				D BS	KP15-0-47	F
SCALE						
SHEET 1 OF 1				DIST.		

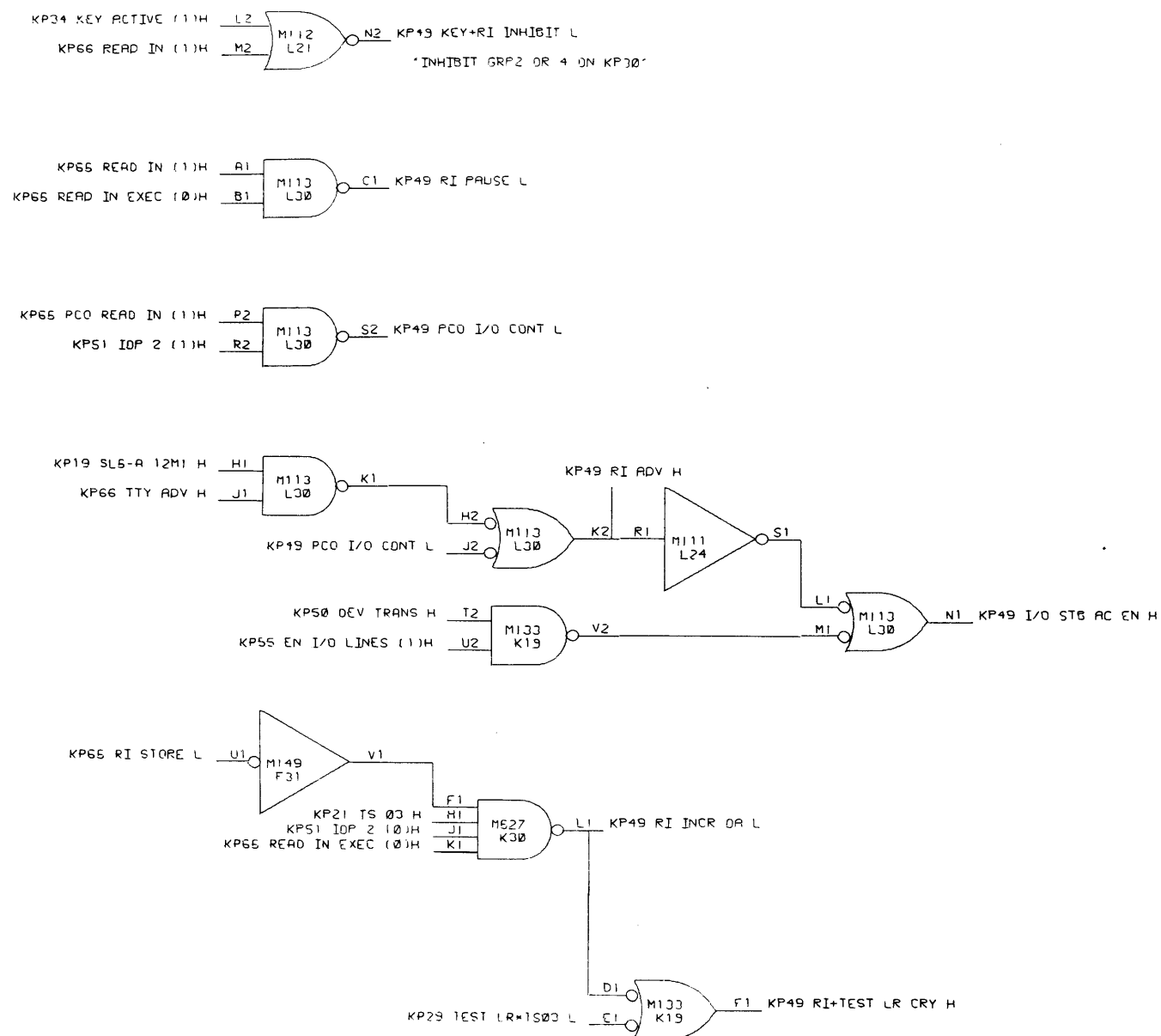
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REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
LH	KP15-00038	E			
	S. GOLDSBY 7-15-70				
	F. AUMANN 7-22-70				
GH	KP15-00046	F			
	K. WALSH 12/11/70				
	F. AUMANN 12/11/70				
	KP15-00057	H			

DRN.	M. SCHURMAN	DATE	11-7-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D.	N. RHEAULT	DATE	11-7-69		
ENG.	F. AUMANN	DATE	11-7-69	TITLE MISC LOGIC	
PROJ. ENG.	G. BUTLER	DATE	11-7-69		
PROD.	F. LASKEY	DATE	11-7-69		
FIRST USED ON	KP15	SIZE/CODE	D BS	NUMBER	KP15-0-48
SCALE				REV.	J
SHEET	1	OF	1	DIST.	

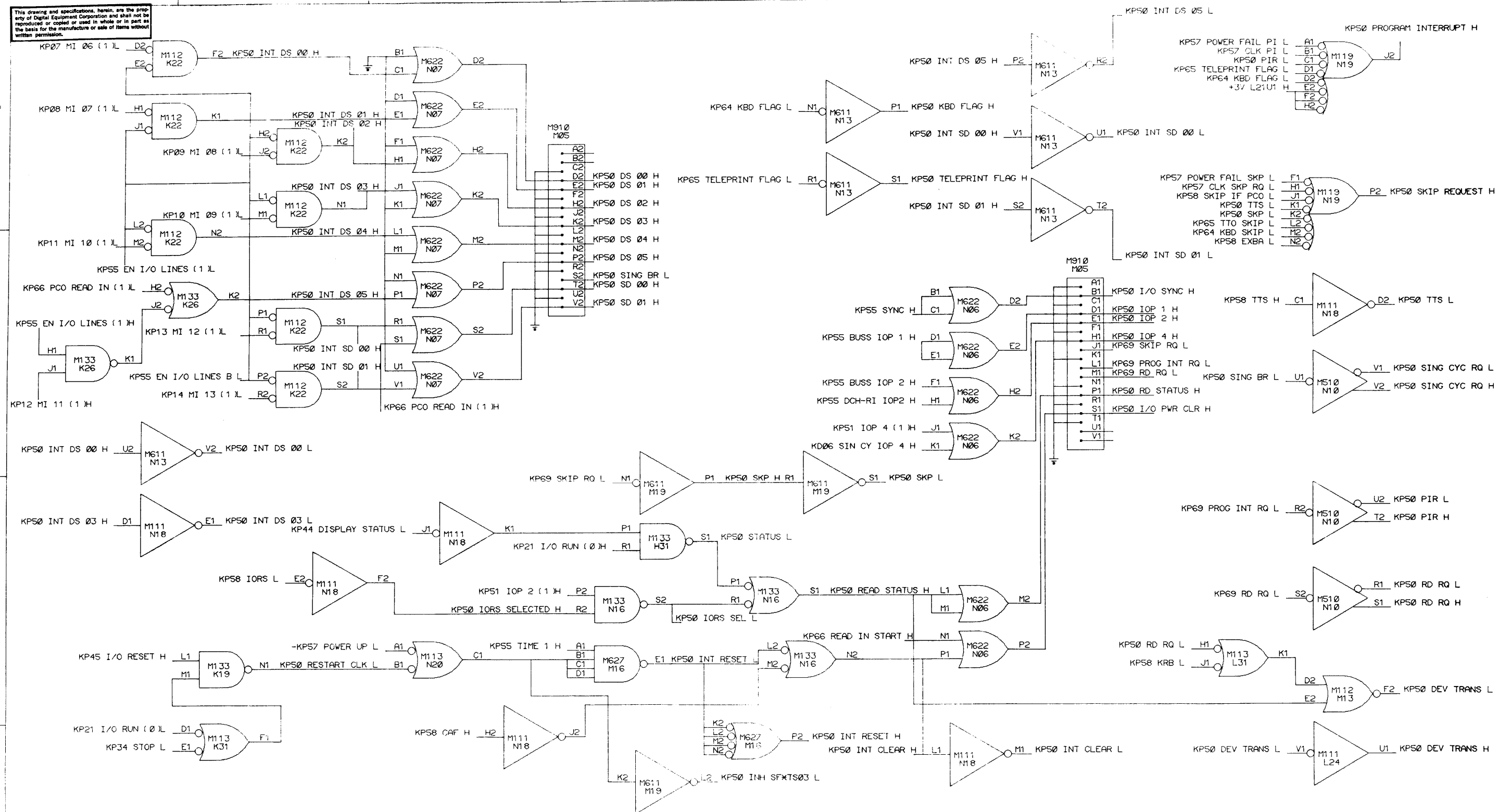
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REVISIONS		
CHK	CHANGE NO.	REV.
1	KP15-002	1
2	075	2
3	SWANSON 2-21-73	3

DRAWN M. SCHURMAN	DATE 11-7-69	 EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		
CHECK'D N. RHEAULT	DATE 11-7-69			
ENG. F. ALUMANT	DATE 11-7-69	TITLE CP READ IN LOGIC		
PROJ. ENG. G. BUTLER	DATE 11-7-69			
PROD. F. LASKEY	DATE 11-7-69			
FIRST USED ON KPI5		SIZE CODE D RS	NUMBER KPI5-0-49	REV. C
SCALE				
SHEET : OF 1		DIST.		

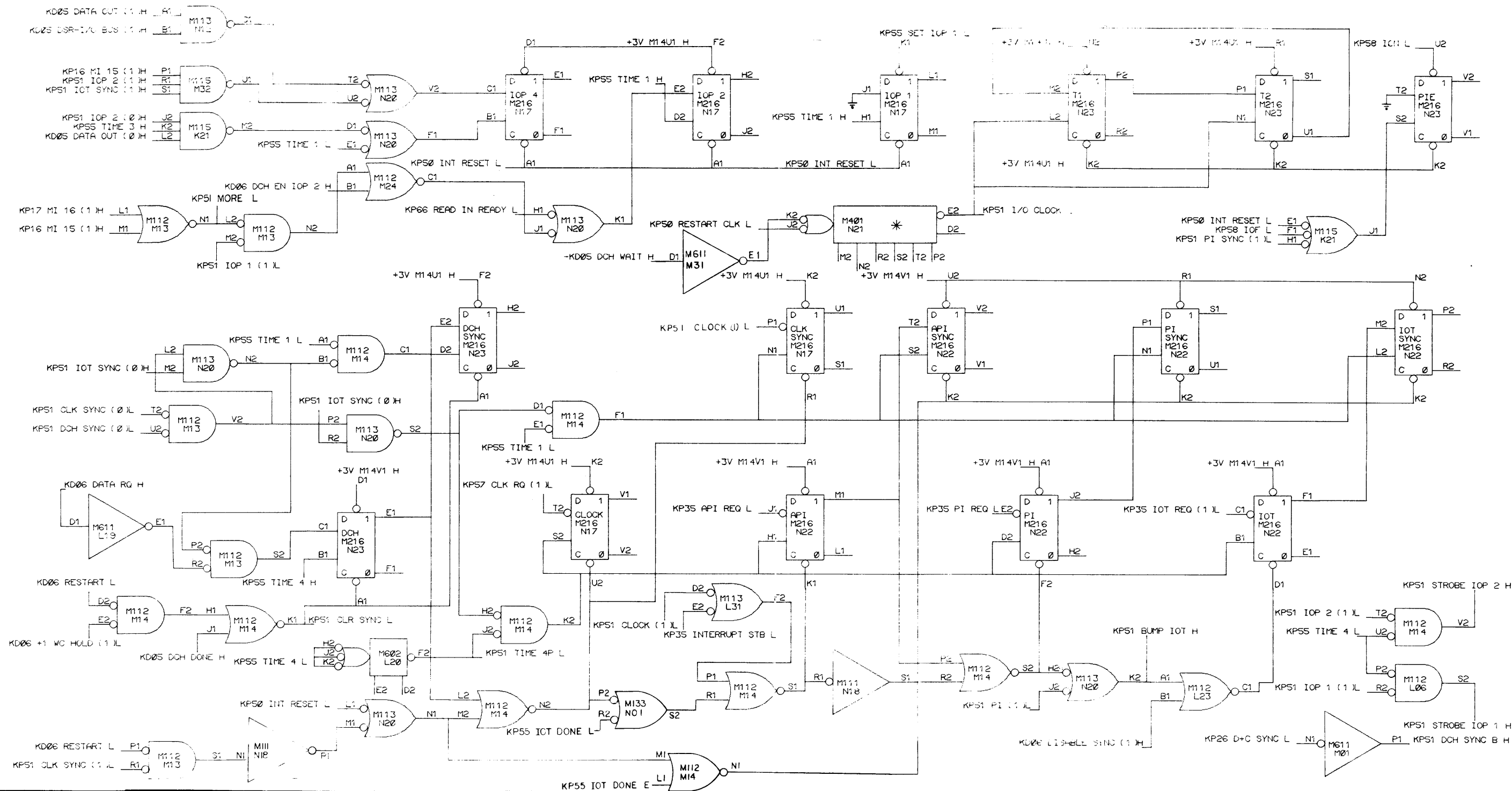
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REVISIONS		
CHK	CHANGE NO.	REV.
CH	KP15-00038	H
CH	8-20-70	7-15-70
CH	F. ALMANN	7-22-70
CH	KP15-00046	7-22-70
CH	K. WALSH	7-22-70
CH	F. ALMANN	7-22-70
CH	KP15-00050	7-22-70

DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D.	DATE		
ENG.	DATE	TITLE	
PROJ. ENG.	DATE		
PROD.	DATE	DEVICE SELECTOR	
FIRST USED ON	DATE		
KP15		SIZE CODE	NUMBER
SCALE		DIST.	REV.
SHEET 1 OF 1			K

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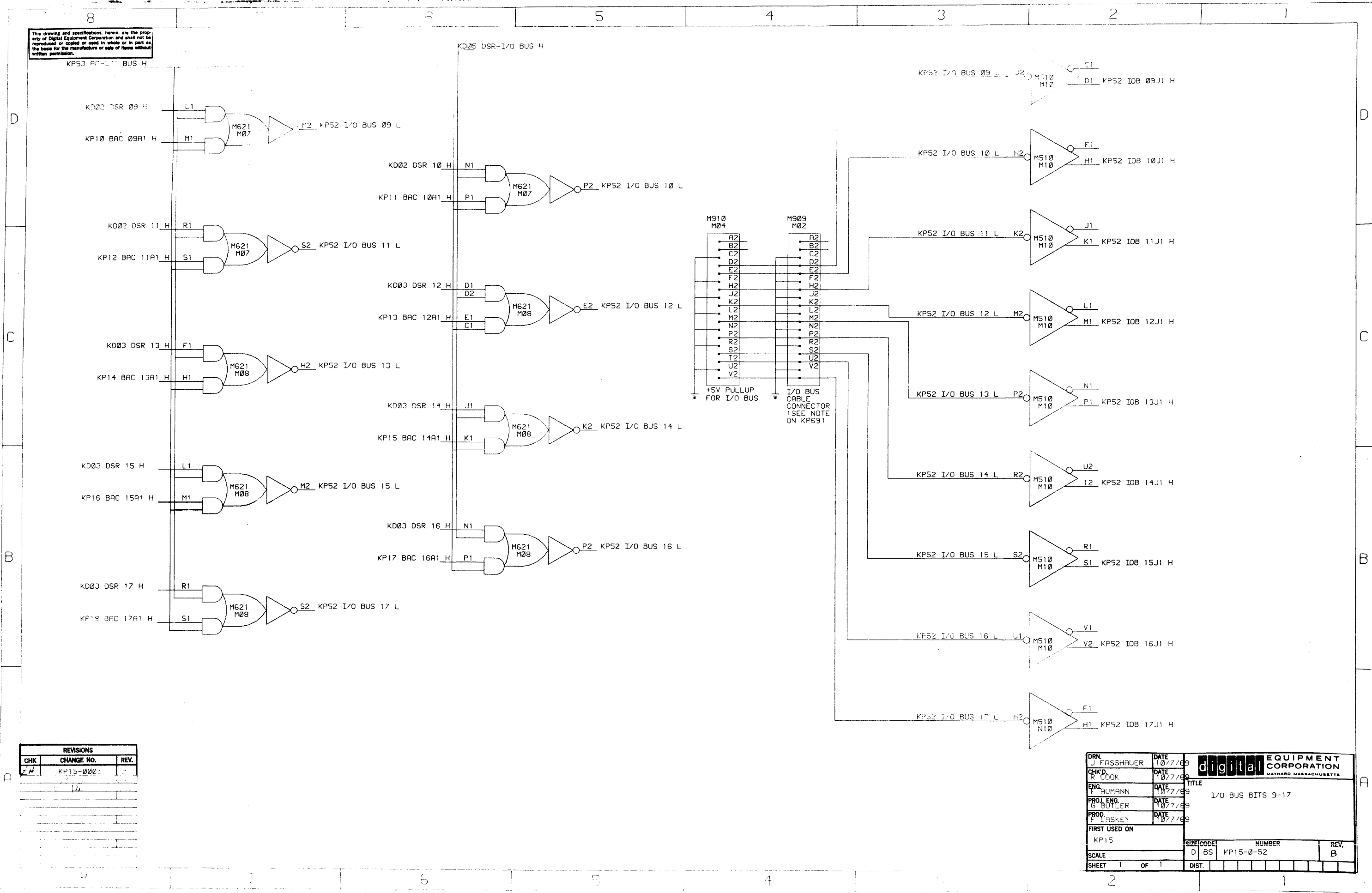


REVISIONS			REVISIONS			REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
H	KP15-00038		GH	KP15-00048	F	ALC	KP15-00067	V	JL	KP15-00078	Y
S. GOLDSEY 2/13/78			N. LEGERE 1/12/79			"			B.B. to right 1-6-79		
A. HARRIS 2/21/78			H. KIM 1/12/79			"			F. DOLL		
KP15-00038			KP15-00048			KING					
A. S. B. C. 2/21/78			J. E. B. C. 2/21/78								
KP15-00038			KP15-00048			KP15-00078		W	KP15-00078		Z
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								
KP15-00038			KP15-00048								
A. S. B. C. 2/21/78			KP15-00048								

* NORMAL SETTING IS 250 NS
SET TO 300 NS WHEN MX15A
AND MX15B ARE CONNECTED
TO THE MDL.

DRN.		DATE		 digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
J FASSHAUER		10/7/63			
CHK'D.		DATE		TITLE	
R COOK		10/7/63			
ENG.		DATE		I/O CONTROL SYNC	
F GUMMANN		10/7/63			
PROJ. ENG.		DATE			
G BUTLER		10/7/63			
PROD.		DATE			
F LASKY		10/7/63			
FIRST USED ON					
KP15				REV	
SCALE		SIZE CODE		NUMBER	
		D BS		KP15-0-S1	
SHEET 1 OF 1		DIST.		7	

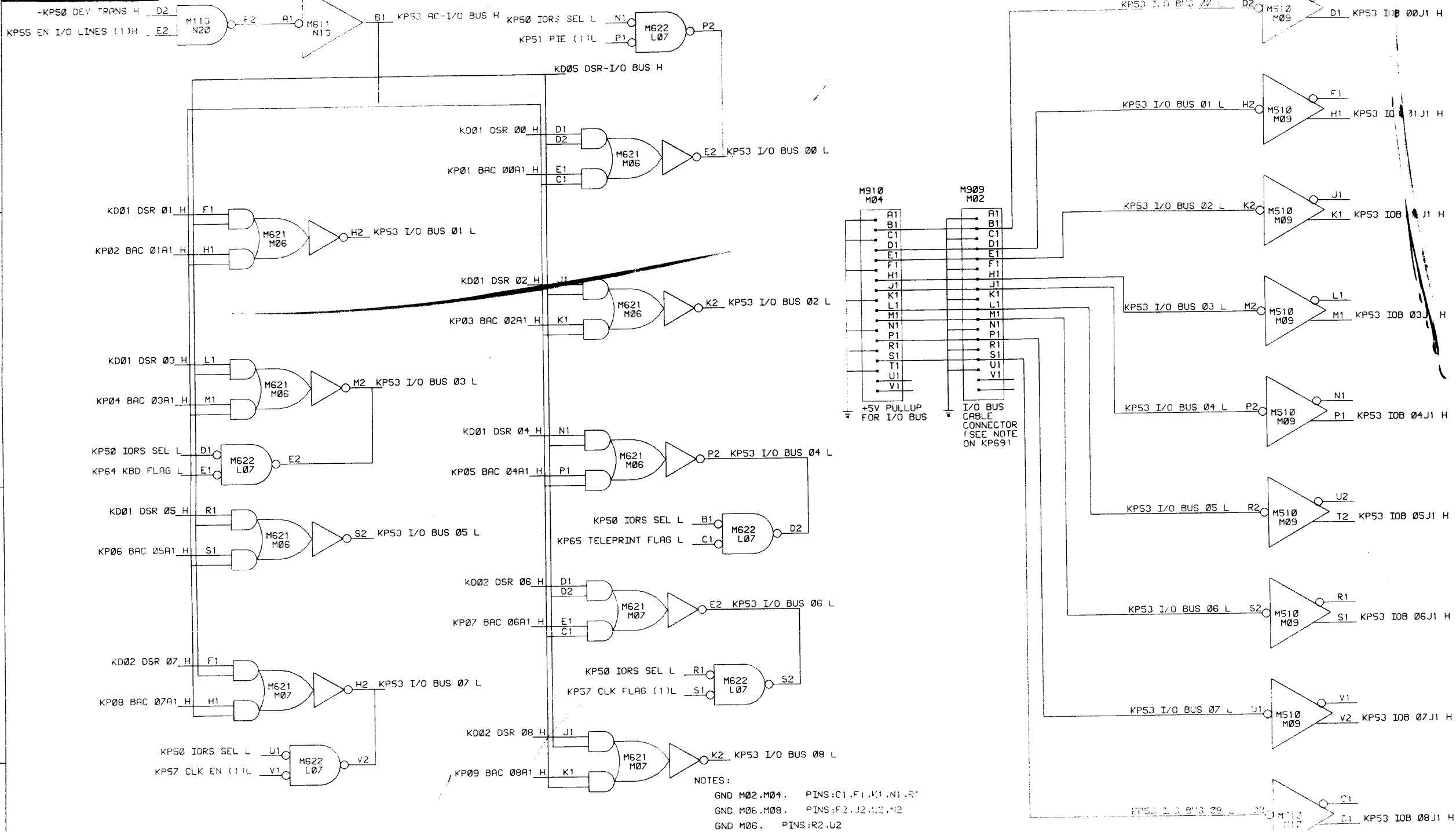
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REVISIONS		
CHK	CHANGE NO.	REV.
CH	KP15-000	1

DRN.	J FASSHAUER	DATE	10/7/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	TITLE I/O BUS BITS 9-17	
CHK'D	R COOK	DATE	10/7/69			
ENG.	P RUMANN	DATE	10/7/69			
PROJ. ENG.	G BUTLER	DATE	10/7/69			
PROD.	F LASKEY	DATE	10/7/69			
FIRST USED ON KP15				SIZE/CODE D BS	NUMBER KP15-0-52	REV. B
SCALE						
SHEET 1 OF 1						
DIST.						

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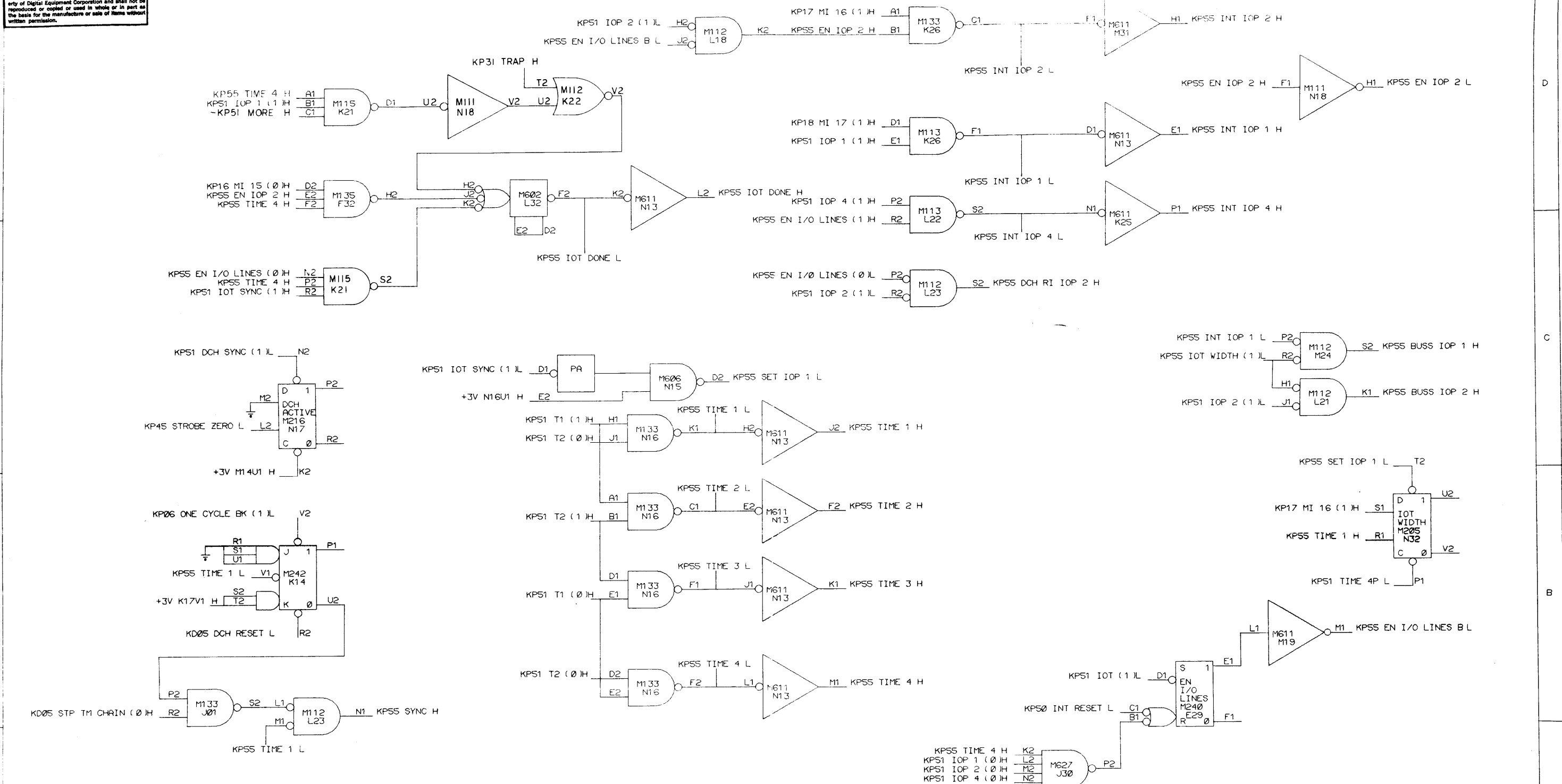
NOTES:
 GND M02, M04. PINS: C1, F1, K1, N1, R1
 GND M06, M08. PINS: F2, J2, L2, N2
 GND M06. PINS: R2, U2

REVISIONS		
CHK	CHANGE NO.	REV.
24	KP15-001	1

DRN	J. FASSHAUER	DATE	10/77/69
CHKD	R. COOK	DATE	10/77/69
ENG	L. RUMANN	DATE	10/77/69
PROJ. ENG.	G. BUTLER	DATE	10/77/69
PROD.	F. LASKEY	DATE	10/77/69
FIRST USED ON		TITLE	
KP15		I/O BUS BITS 0-8	
SCALE	D. BS	NUMBER	KP15-0-53
SHEET	1	OF	1
DIST.			

digital EQUIPMENT CORPORATION
 MAYNARD, MASSACHUSETTS

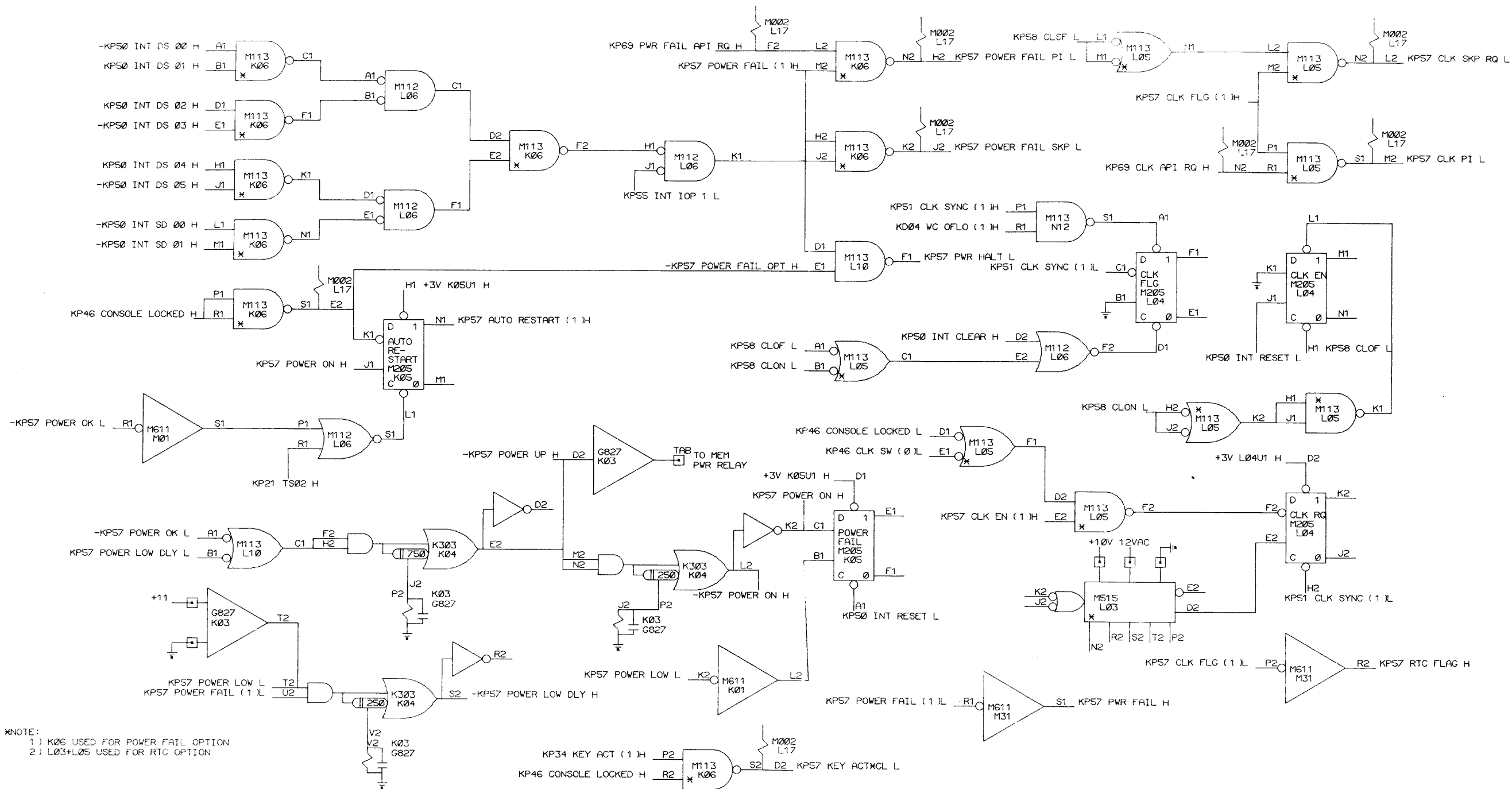
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REVISONS			REVISONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
LH	KP15-00038	H	21	KP15-00065	M
	S SOLIDSBY 7-15-70				
	F HUMPHRIS 7-21-70				
SH	KP15-00046	J	22	KP15-00078	J
	K WASH 12/11/70				
	F HUMPHRIS 12/11/70				
SH	KP15-00048	K			
	N LESERE 1/12/71				
	F HUMPHRIS 1/21/71				
	KP15-00050				
	N STEWART 2/2/71				
	F HUMPHRIS 2/2/71				

DRN. M. SCHURMAN	DATE 11-7-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		
CHNG. R. HÉAULT	DATE 11-7-69			
ENG. A. MANN	DATE 11-7-69			
PROJ. ENG. G. BUTLER	DATE 11-7-69			
PROD. F. LASKEY	DATE 11-7-69			
FIRST USED ON KP15		TITLE IOT AND TIME LOGIC		
SCALE	SIZE CODE D BS		NUMBER KP15-0-55	REV. F
SHEET 1 OF 1	D'ST.			

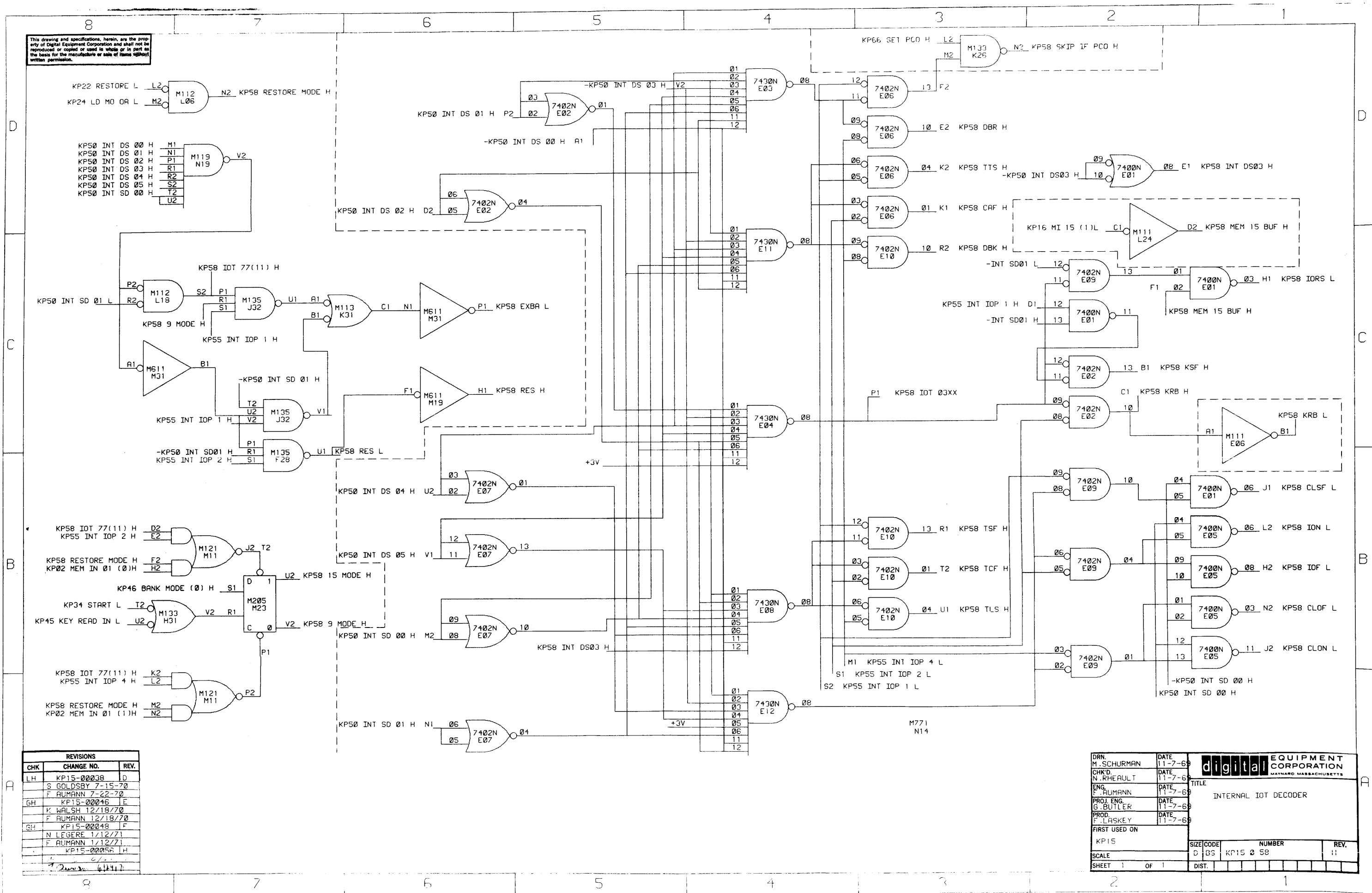
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REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
LH	KP15-00038	H		KP15-00056	M
	S. GOLDSBY 7/15/70				
	F. HUMANN 7/22/70				
GH	KP15-00043				
	J. EGGERE 3-6-70				
	F. HUMANN 3-19-70				
GH	KP15-00042				
	K. WALCH 12/11/70				
	F. HUMANN 12/11/70				
GH	KP15-00040				
	F. HUMANN 12/11/70				
	F. HUMANN 12/11/70				

DRN	J. FASSHAUER	DATE	10/7/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	TITLE POWER FAIL AND R T CLOCK
CHKD	R. COOK	DATE	10/7/69		
ENG	F. HUMANN	DATE	10/7/69		
PROD	F. LASKEY	DATE	10/7/69		
FIRST USED ON				SIZE/CODE	NUMBER
K: 1.1				D BS	KP15-0-57
SCALE				REV.	M
SHEET 1 OF 1				DIST.	

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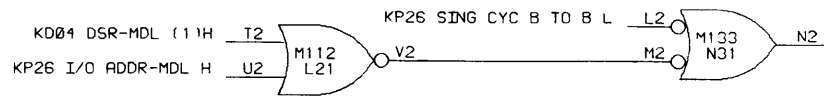
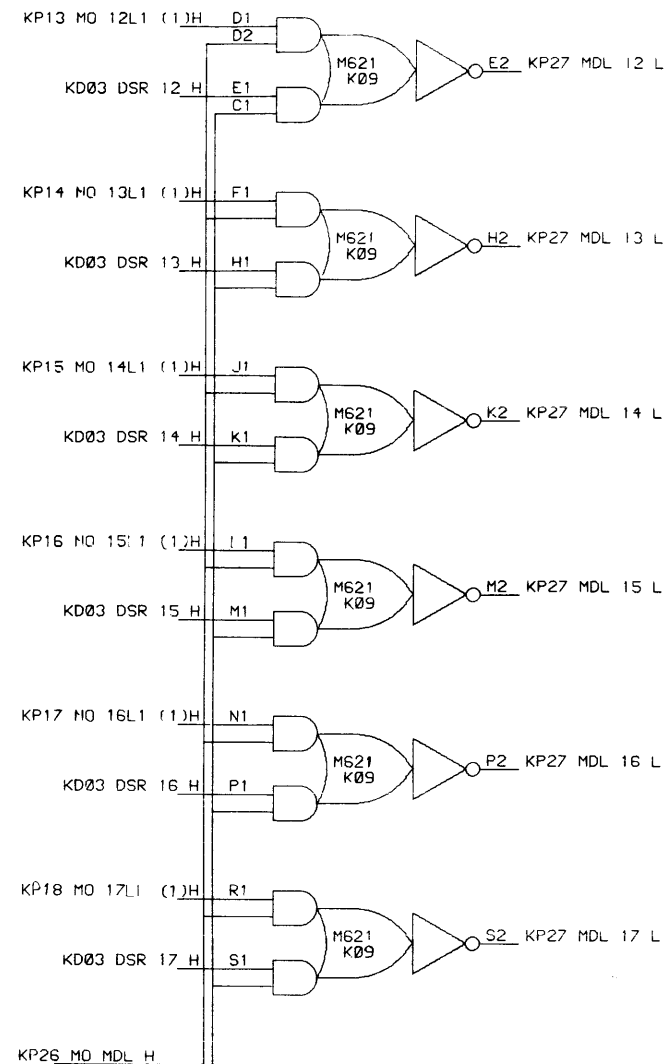
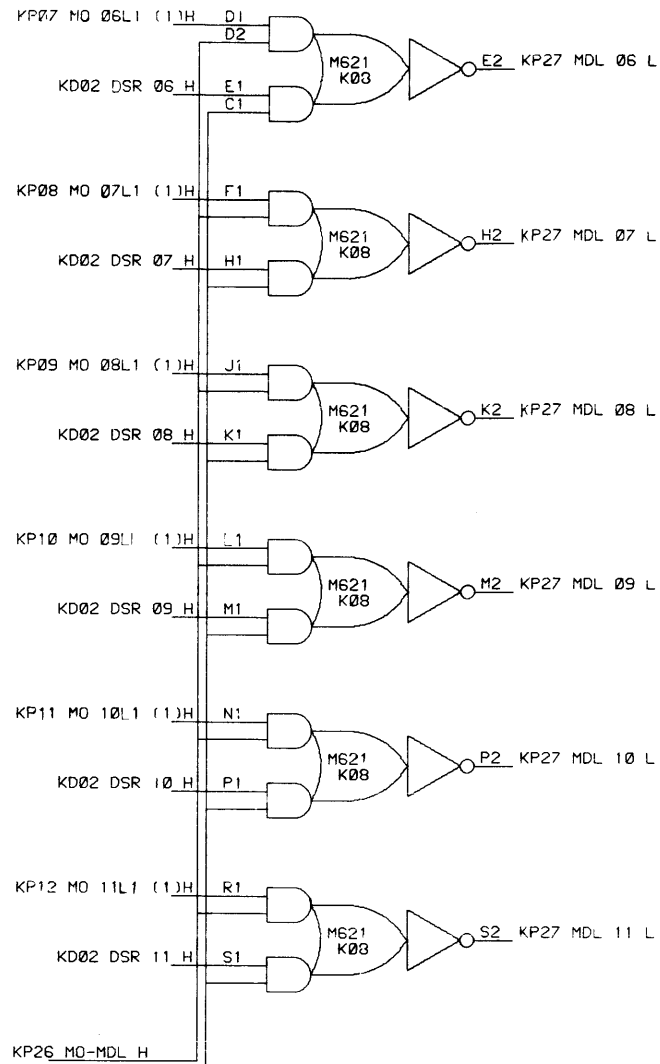
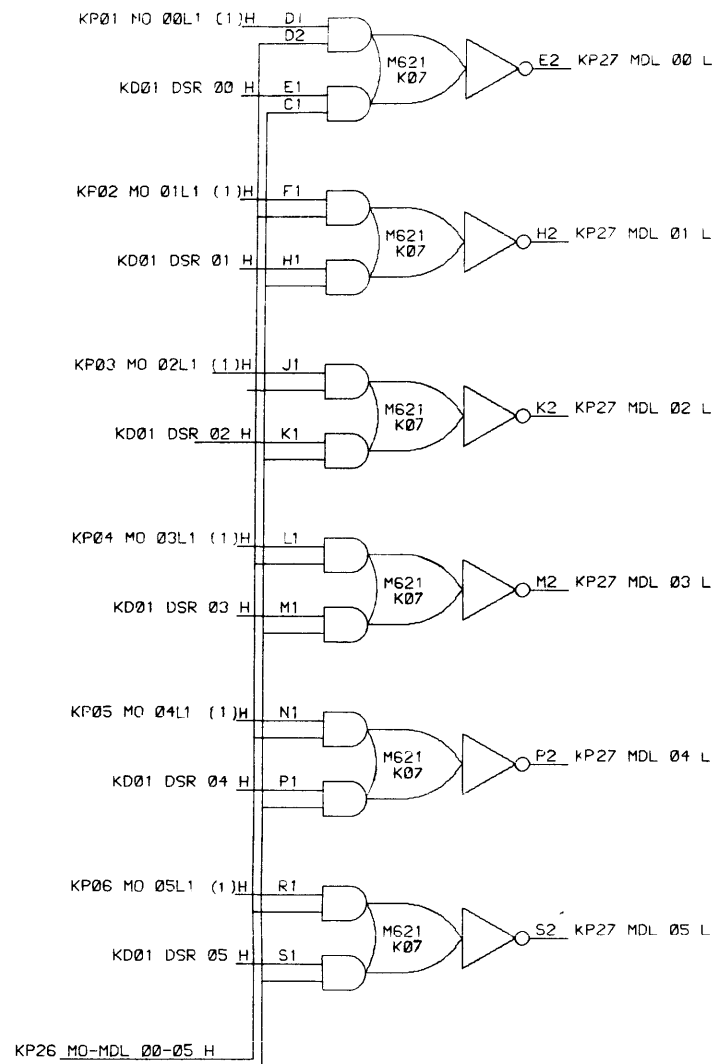


REVISIONS		
CHK	CHANGE NO.	REV.
LH	KP15-00038	D
	S GOLDSBY 7-15-70	
	F RUMANN 7-22-70	
GH	KP15-00046	E
	K WALSH 12/18/70	
	F RUMANN 12/18/70	
GH	KP15-00048	F
	N LEGERE 1/12/71	
	F RUMANN 1/12/71	
	KP15-00056	H

DRN.	M. SCHURMAN	DATE	11-7-69
CHKD.	N. RHEAULT	DATE	11-7-69
ENG.	F. RUMANN	DATE	11-7-69
PROJ. ENG.	G. BUTLER	DATE	11-7-69
PROD.	F. LASKEY	DATE	11-7-69
FIRST USED ON			
KP15			
SCALE	D 05	NUMBER	KP15 2 58
SHEET	1	OF	1
DIST.			

digital EQUIPMENT CORPORATION	
MAYNARD MASSACHUSETTS	
TITLE	
INTERNAL IOT DECODER	
REV.	11

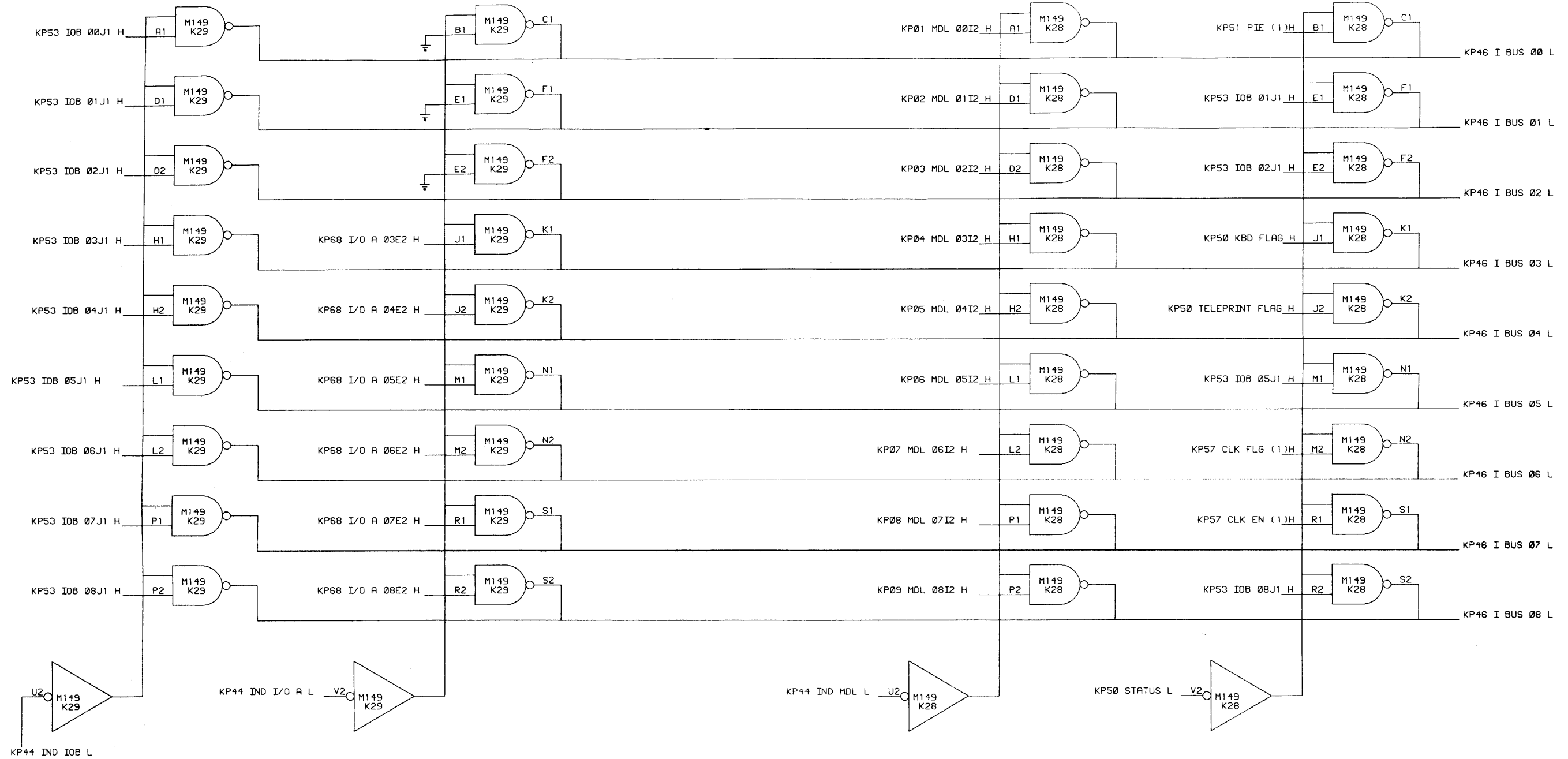
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REVISIONS		
CHK	CHANGE NO.	REV.
LH	KP15-00038	S
	S GOLDSBY 7-15-70	
	F AUMANN 7-22-70	
GI	KP15-00046	LC
	K WALSH 12/11/70	
	F AUMANN 12/11/70	
	KP15-00048	D

DRN.	M. SCHURMAN	DATE	11-7-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHKD.	N. RHEAULT	DATE	11-7-69		
ENG.	F. AUMANN	DATE	11-7-69	TITLE MDL DRIVER	
PROJ. ENG.	G. BUTLER	DATE	11-7-69		
PROD.	F. LASKEY	DATE	11-7-69	FIRST USED ON KP15	
SCALE	1/8"	CODE	BS		
SHEET	1	OF	1	DIST.	
				NUMBER	KP15-0-59
				REV.	D

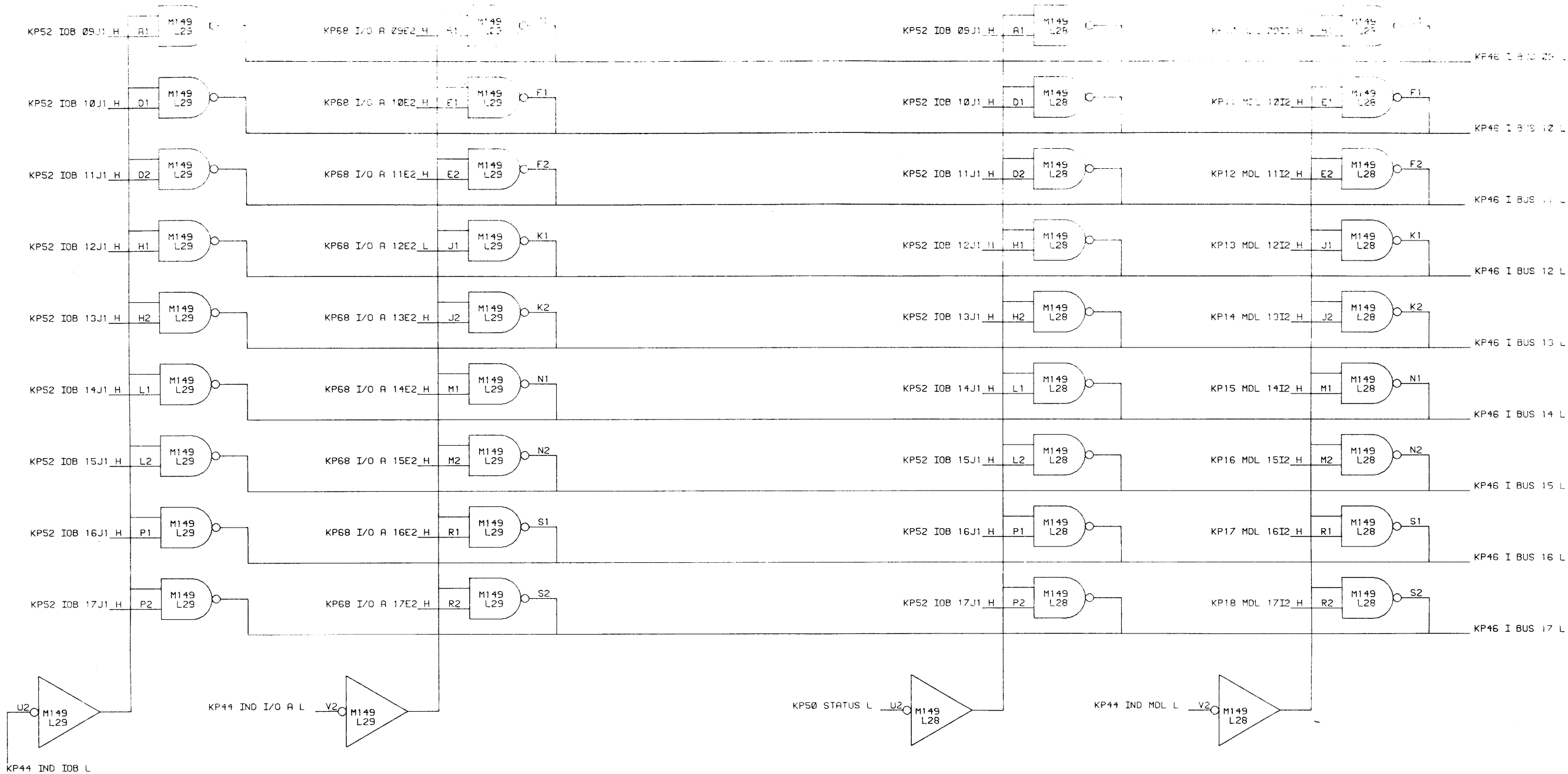
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REVISIONS		
CHK	CHANGE NO.	REV.
2H	KP15-00038	5

DRN.	J. FASSHAUER	DATE	10/7/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D.	R. COOK	DATE	10/7/69		
ENG.	F. RUMANN	DATE	10/7/69	TITLE I BUS 00-08	
PROJ. ENG.	G. BUTLER	DATE	10/7/69		
PROD.	F. LASKEY	DATE	10/7/69	FIRST USED ON KP15	
SCALE	0 BS	SIZE/CODE	KP15-0-60	NUMBER	REV. B
SHEET 1 OF 1	DIST.				

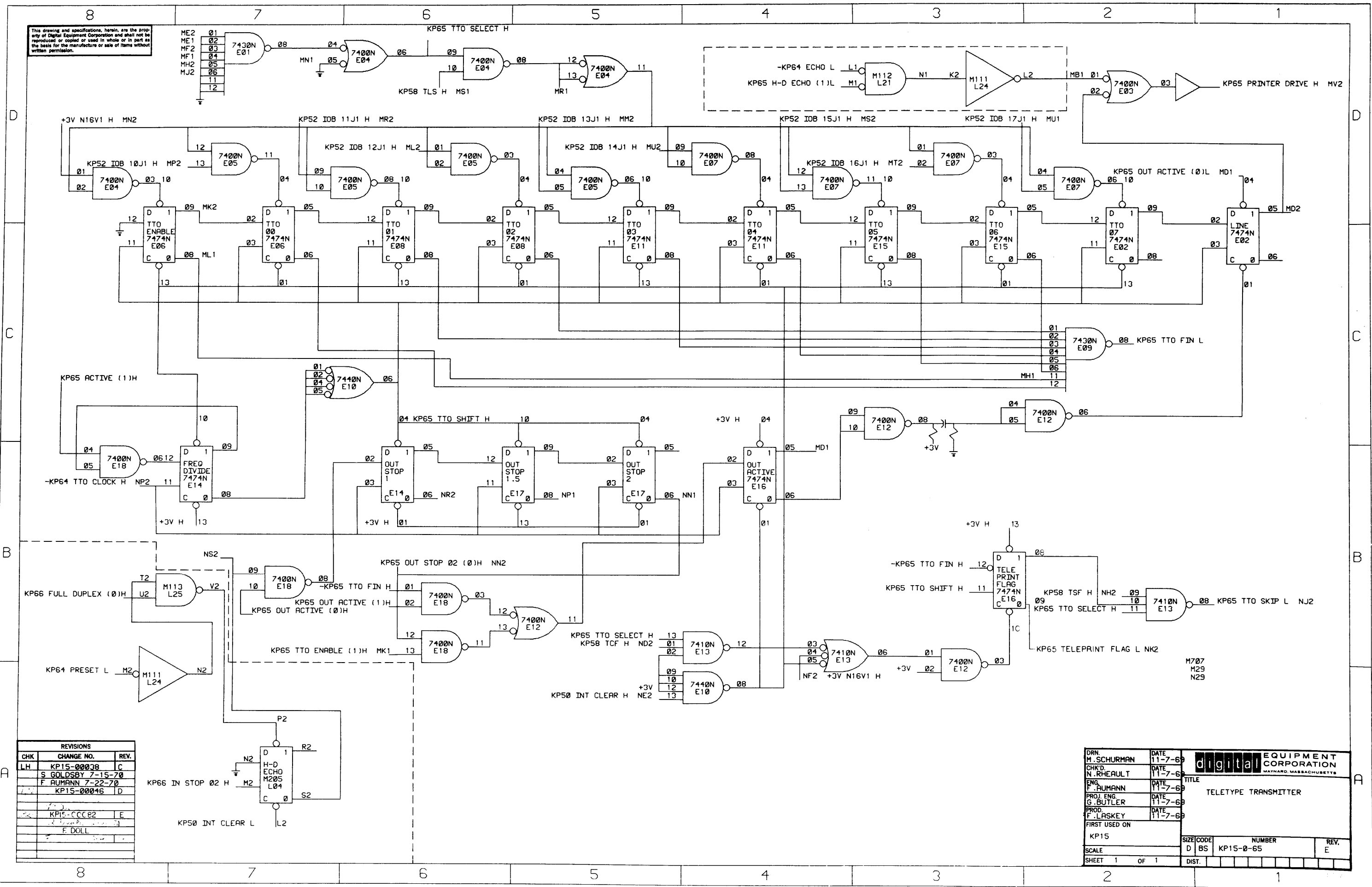
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REVISIONS		
CHK	CHANGE NO.	REV.
24	2415-00038	A

DRN	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHKD.	DATE	
ENG.	DATE	
PROJ. ENG.	DATE	
PROD.	DATE	
FIRST USED ON		TITLE
KP15		I BUS 09-17
SCALE	SIZE CODE	NUMBER
SHEET 1 OF 1	D 03	KP15-0 02
DIST.		REV. A

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REVISIONS		
CHK	CHANGE NO.	REV.
LH	KP15-00038	C
S	GOLDSBY 7-15-70	
F	AUMANN 7-22-70	
	KP15-00046	D
	KP15-00082	E
	F. DOLL	

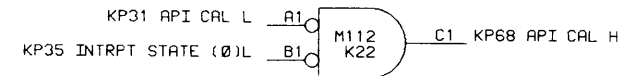
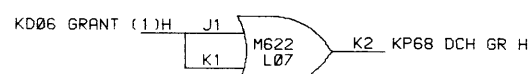
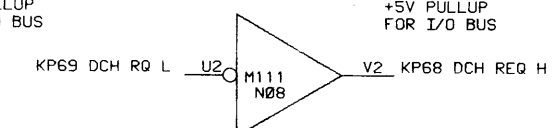
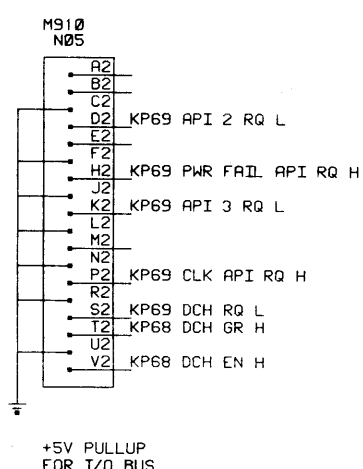
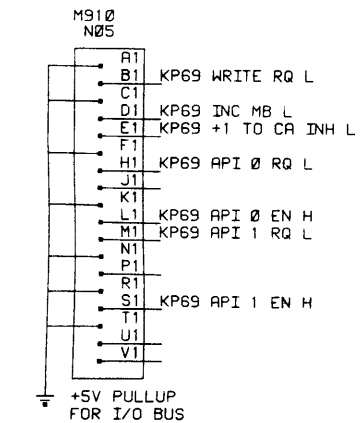
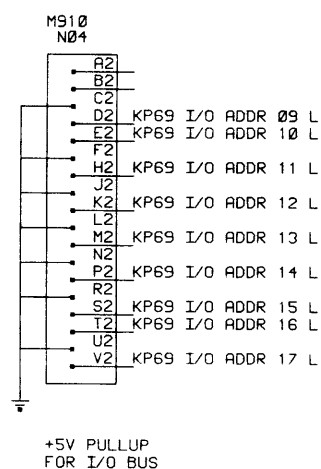
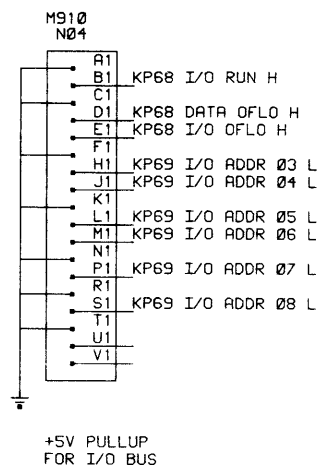
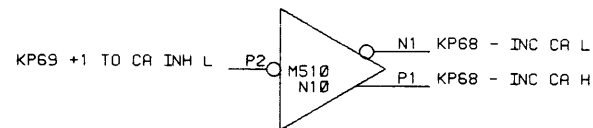
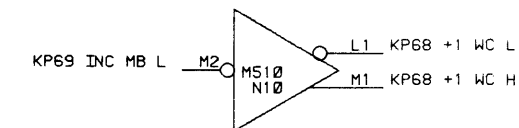
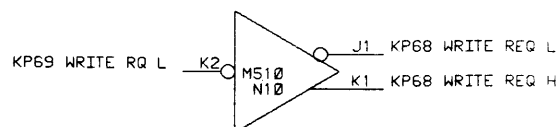
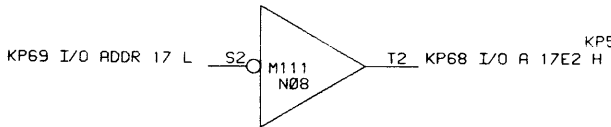
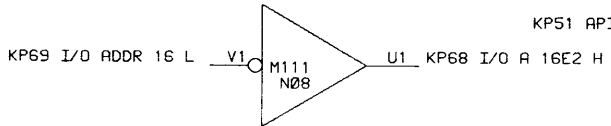
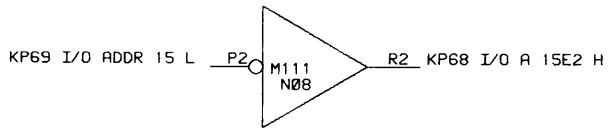
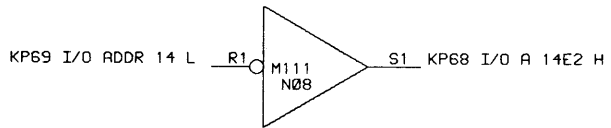
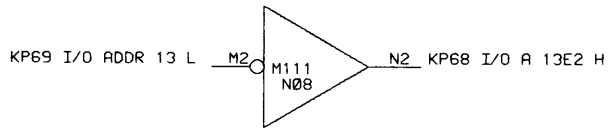
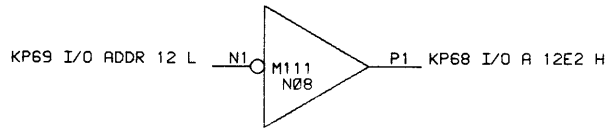
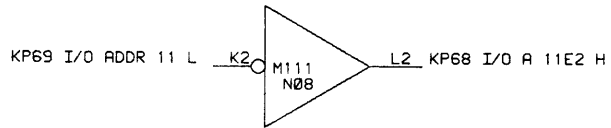
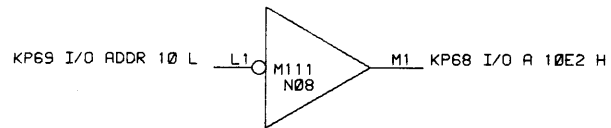
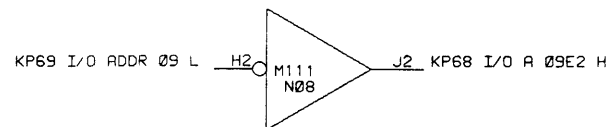
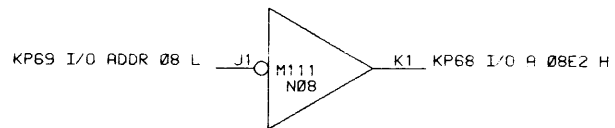
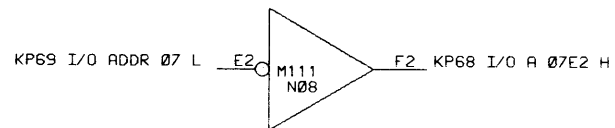
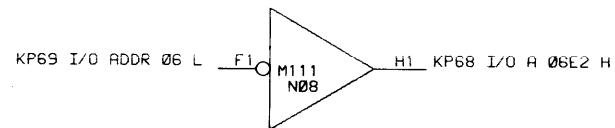
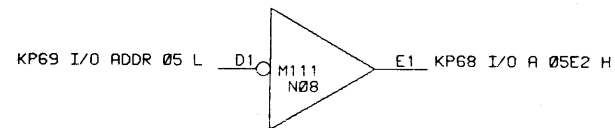
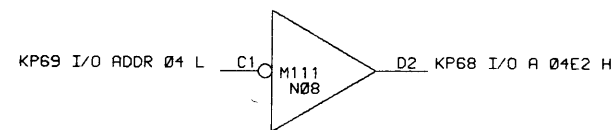
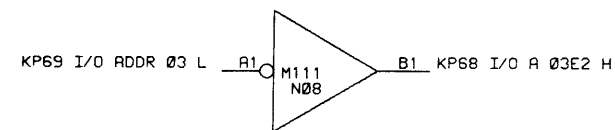
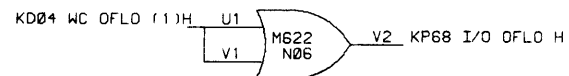
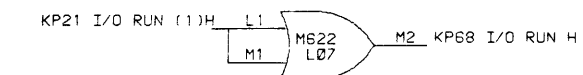
DRN. M. SCHURMAN	DATE 11-7-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			
CHK'D N. RHEAULT	DATE 11-7-69				
ENG. F. AUMANN	DATE 11-7-69	TITLE TELETYPE TRANSMITTER			
PROJ. ENG. G. BUTLER	DATE 11-7-69				
PROD. F. LASKEY	DATE 11-7-69	FIRST USED ON KP15			
KP15		SIZE	CODE	NUMBER	REV.
SCALE		D	BS	KP15-0-65	E
SHEET 1	OF 1	DIST.			

A



DRN. M. SCHURMAN		DATE 11-7-69			EQUIPMENT CORPORATION	
CHK'D. N. RHEAULT		DATE 11-7-69			MAYNARD, MASSACHUSETTS	
ENG. F. RAUMANN		DATE 11-7-69	TITLE		READ IN	
PROJ. ENG. G. BUTLER		DATE 11-7-69				
PROD. F. LASKEY		DATE 11-7-69				
FIRST USED ON						
KP15			CODE		NUMBER	REV.
SCALE			D BS		KP15-Ø-66	J
SHEET 1	OF 1	DIST.				

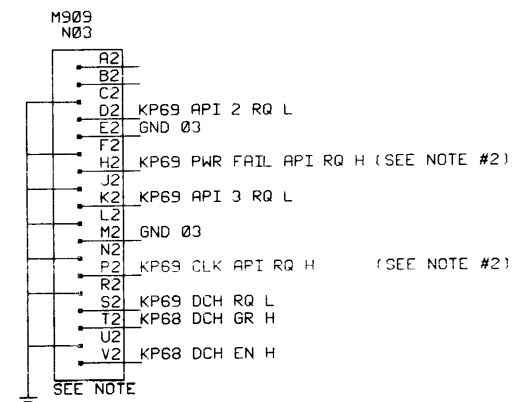
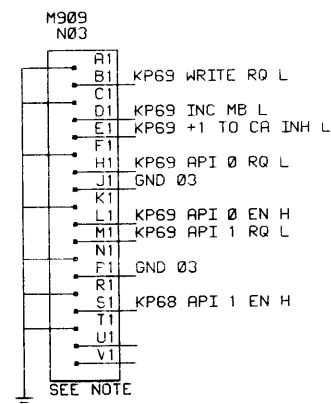
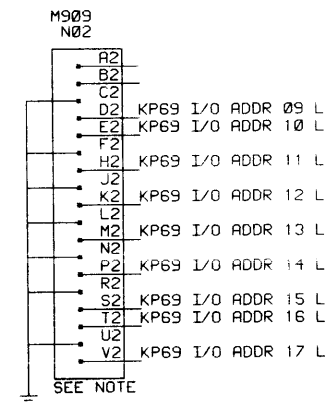
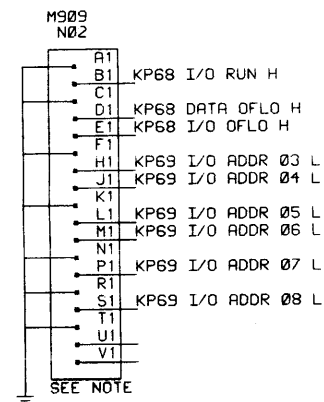
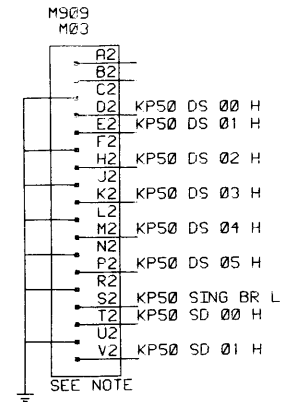
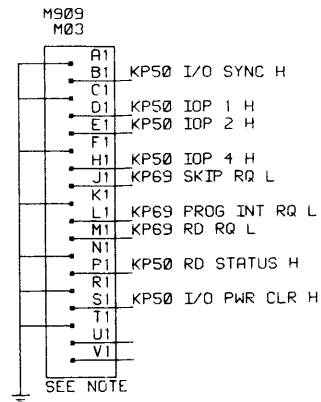
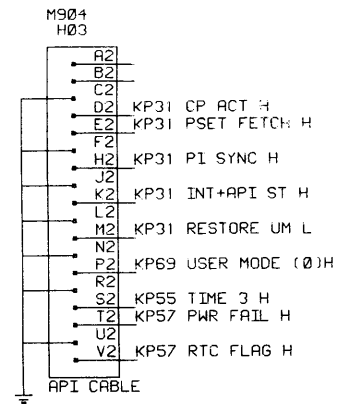
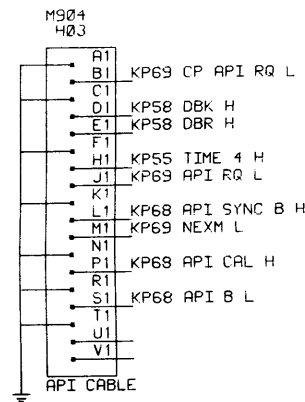
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REVISIONS		
CHK	CHANGE NO.	REV.
LH	KP15-00038	B
S GOLDSBY 7/15/70		
F AUMANN 7/22/70		
GH	KP15-00040	C
N LEBERE 1/12/71		
F AUMANN 1/12/71		
L	KP15-00056	D
F AUMANN 4/1/71		

DRN.	S GOLDSBY	DATE	10-15-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D.	L HOHOS	DATE	10-15-69	
ENG.	F AUMANN	DATE	10-7-68	I/O ADDRESS
PROJ. ENG.	G BUTLER	DATE	10-7-70	
PROD.	F LASKEY	DATE	10-7-70	FIRST USED ON
KP15				
SCALE	D BS	NUMBER	KP15-0-68	REV. D
SHEET 1	OF 1	DIST		

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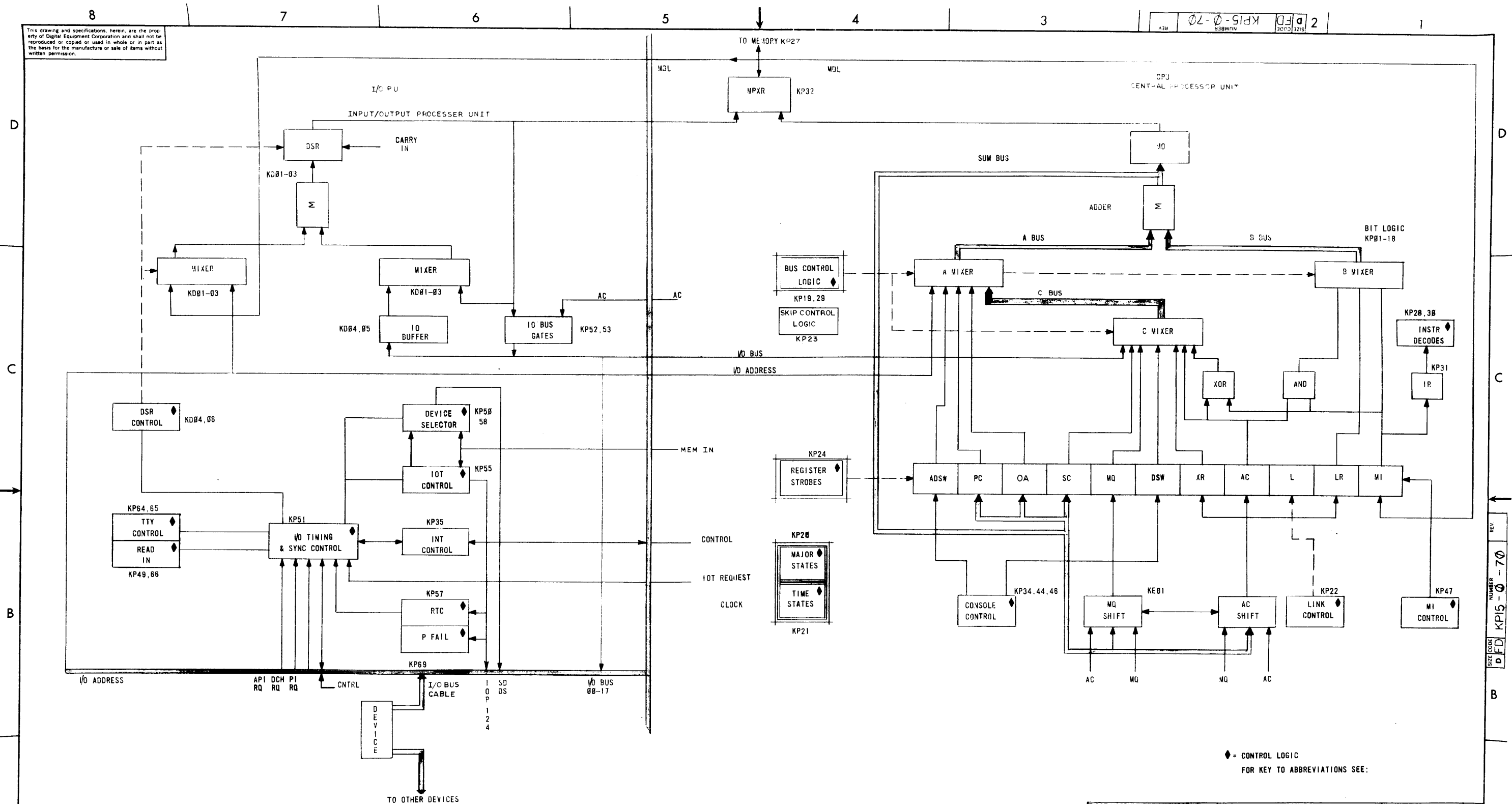
NOTE #1: M909 TERMINATOR BOARDS IN M.N02.03 ARE USED IN PLACE OF THE M912 I/O BUS CABLE CONNECTOR WHEN NO I/O BUS CABLE IS INCLUDED IN THE SYSTEM. IN SYSTEM USING AN I/O BUS CABLE THE M909'S MUST BE PLACED IN THE LAST DEVICE ON THE I/O BUS.

NOTE #2: IF API (KA15) IS PART OF SYSTEM, SIGNALS ON N03H2 AND N03P2 ARE RESPECTIVELY KP69 API 2 EN H AND KP69 API 3 EN H.

REVISIONS		
CHK	CHANGE NO.	REV.
LH	KP15-00038	E
	S GOLDSBY 7-15-70	
	F AUMANN 7-22-70	
GH	KP15-00046	F
	K WALSH 12/18/70	
	F AUMANN 12/19/70	
GH	KP15-00049	H
	N LEGERE 1/12/71	
	F AUMANN 1/12/71	
	KP15-00056	I

DRN. M. SCHURMAN	DATE 11-7-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D. N. RHEAULT	DATE 11-7-69		
ENG. F. HUMANN	DATE 11-7-69		
PROJ. ENG. G. BUTLER	DATE 11-7-69		
PROD. F. LASKEY	DATE 11-7-69		
FIRST USED ON KP15		TITLE I/O BUS CABLE	
SCALE			
SHEET 1 OF 1			
DIST.			
SIZE CODE		NUMBER	REV.
D. IC		KP15-0-69	J

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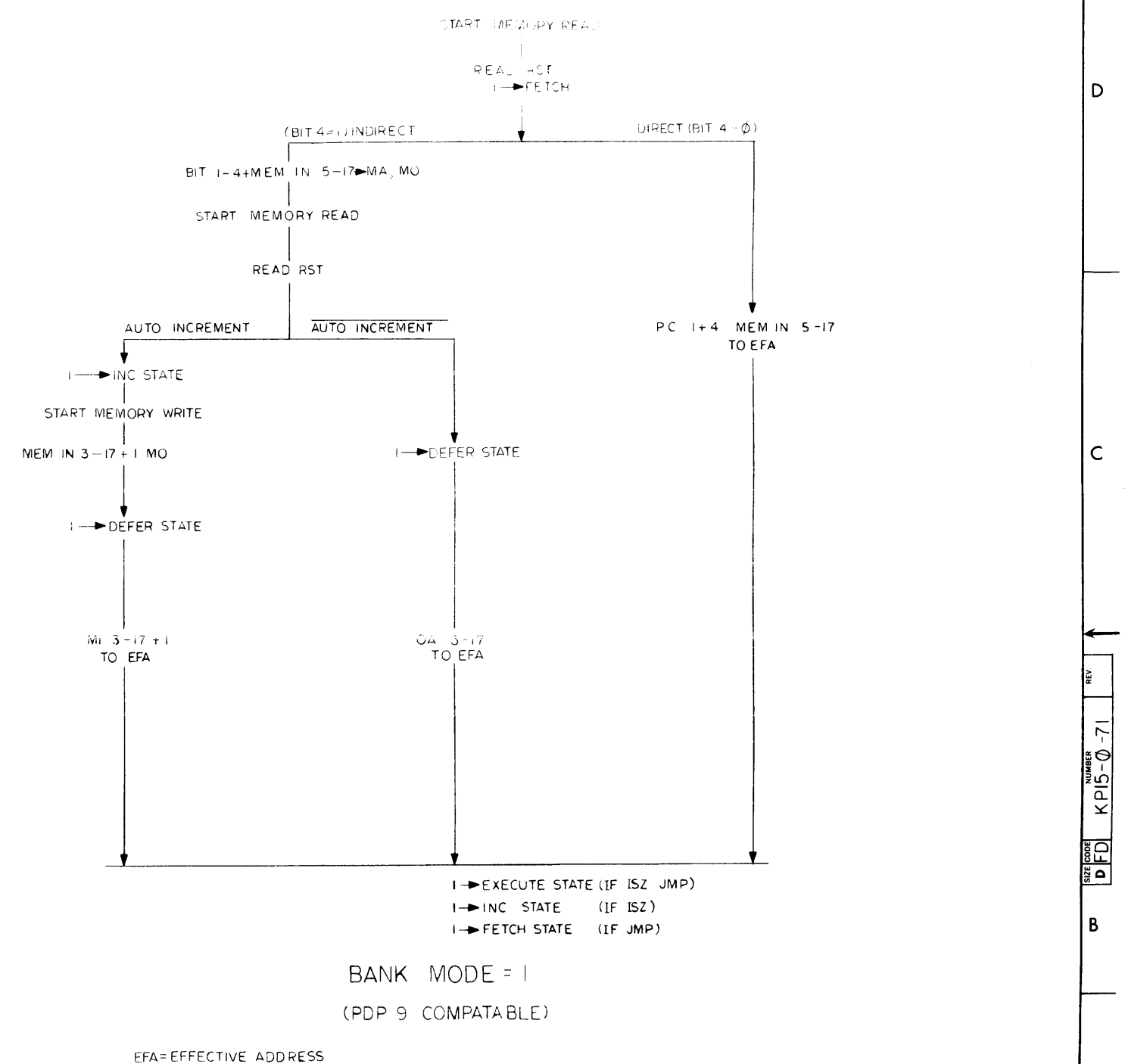
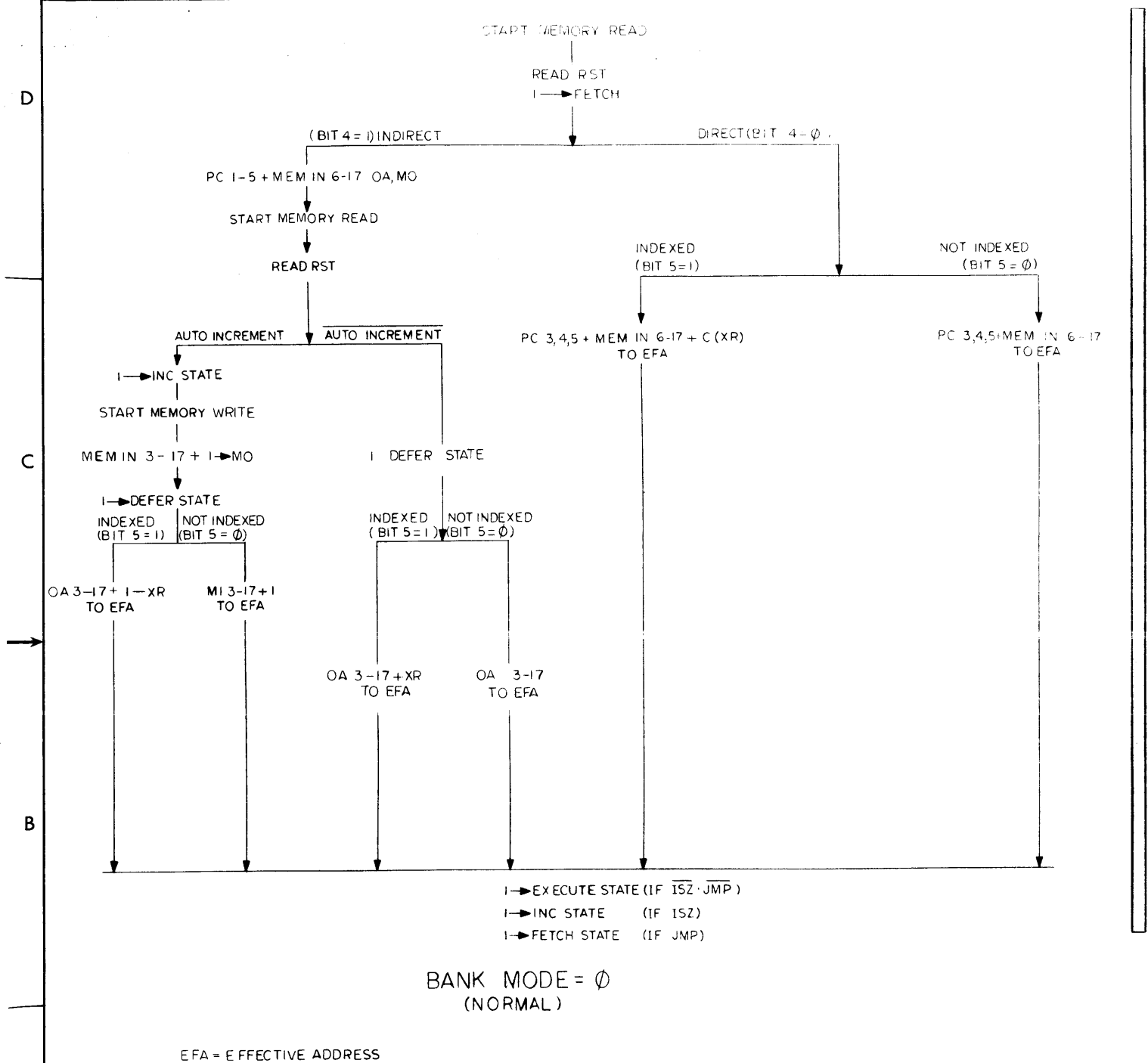


◆ = CONTROL LOGIC
FOR KEY TO ABBREVIATIONS SEE:

REV	CHG	NO
1	1	1

FIRST USED ON OPTION/MODEL PDP15		QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED		PARTS LIST			
UNLESS OTHERWISE SPECIFIED		digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			
DIMENSION IN INCHES		TITLE			
TOLERANCES		KPI5 BLOCK DIAGRAM & PRINT KEY			
DECIMALS FRACTIONS ANGLES		SIZE CODE NUMBER REV			
± .005 ± .010 ± .030		DFD KPI5-0-70			
FINAL SURFACE QUALITY		DIST.			
REMOVE BURRS AND BREAK SHARP CORNERS		SHEET 1 OF 1			
MATERIAL		NEXT HIGHER ASSY			
FINISH		A-ML- KPI5-0			

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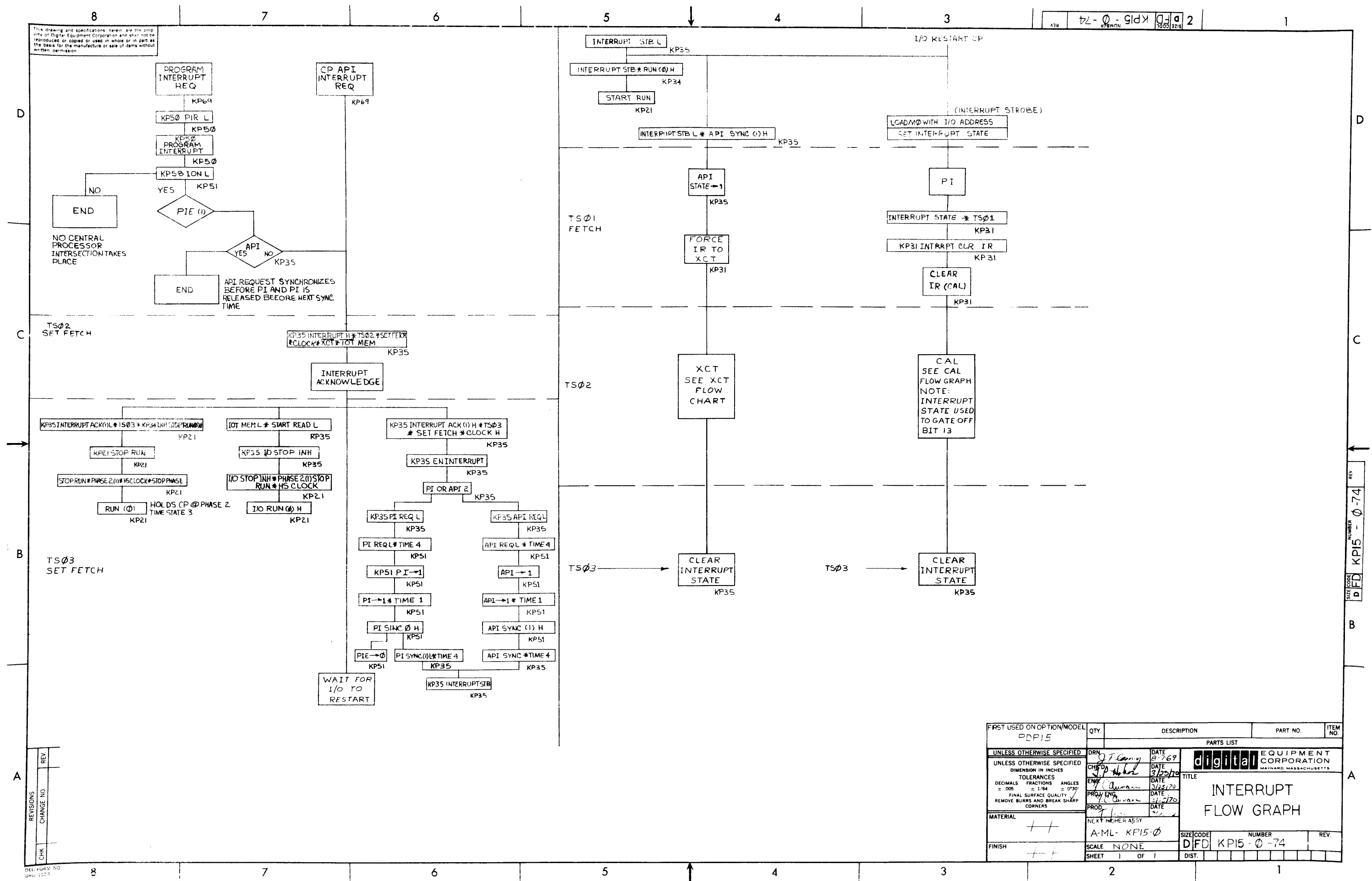
REV	CHANGE NO	CHK

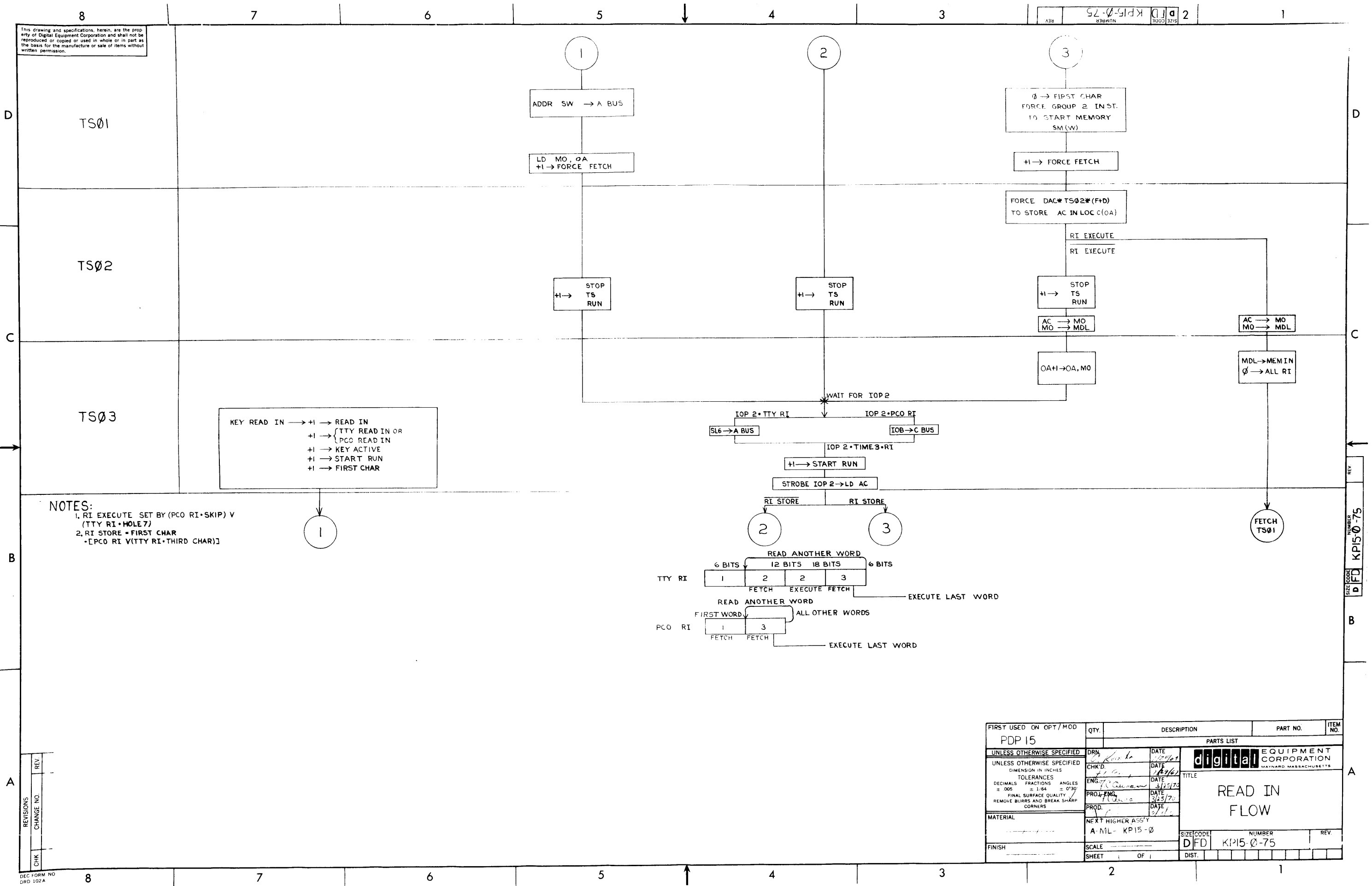
FIRST USED ON OPTION / MODEL
PDP15

DO NOT SCALE DRAWING		
UNLESS OTHERWISE SPECIFIED		
DIMENSION IN INCHES		
TOLERANCES		
DECIMALS	FRACTIONS	ANGLES
± .005	± 1/64	± 0°30'
FINAL SURFACE QUALITY		
REMOVE BURRS AND BREAK SHARP CORNERS		
MATERIAL		
FINISH		

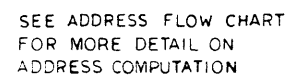
QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			
TITLE PDP15 ADDRESS CALCULATION FLOW CHART			
SCALE SHEET 1 OF 1		NUMBER KPI5-0-71	REV.

I

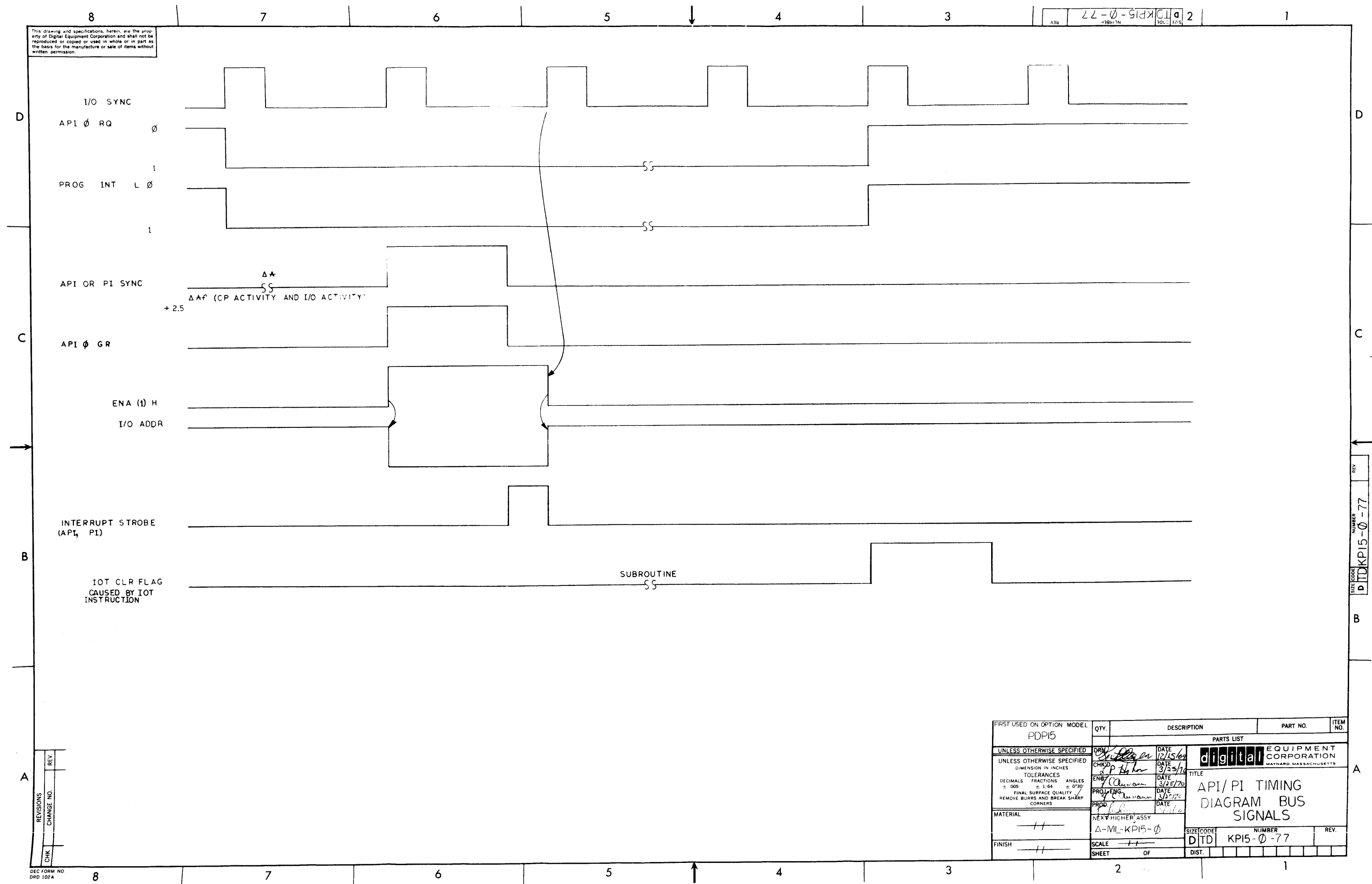




A



UNLESS OTHERWISE SPECIFIED		
DIMENSION IN INCHES		
TOLERANCES		
DECIMALS	FRACTIONS	ANGLES
± .005	± 1/64	± 0°30'
FINAL SURFACE QUALITY		
REMOVE BURRS AND BREAK SHARP CORNERS		
MATERIAL		
FINISH		



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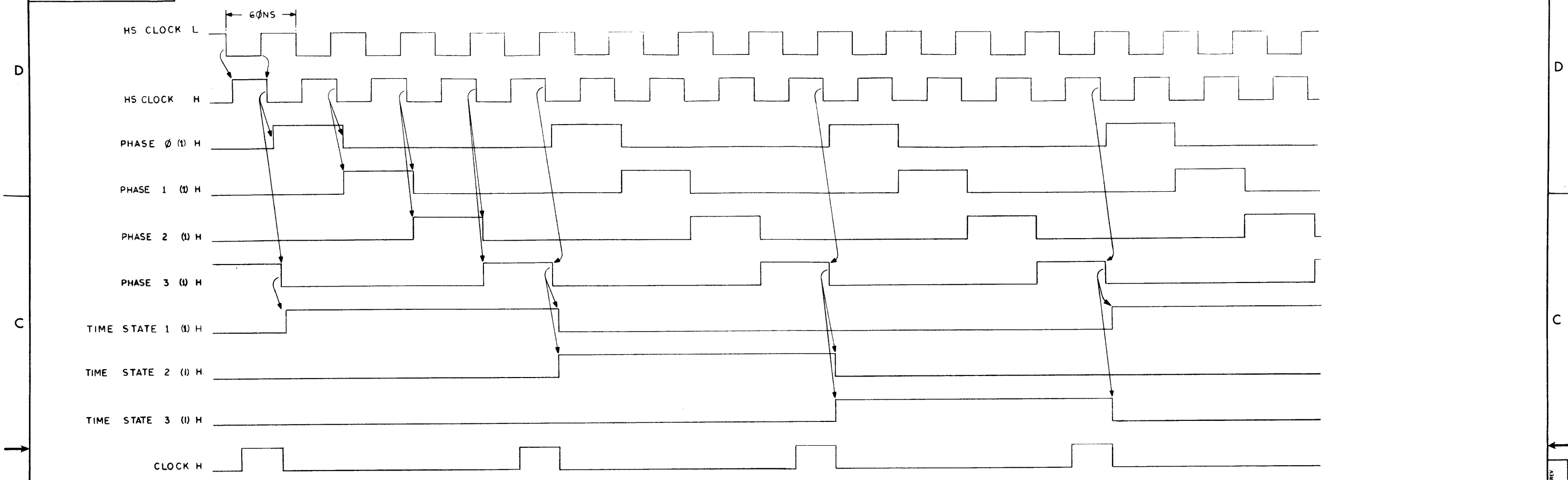
NOTE : *HOLD IN PHASE 2 WITH CLOCK
RUNNING IF I/O ACT WAIT FOR
MEMORY AVAILABILITY TO CP.

THIS CHART SHOWS WORSE CASE TIMING SITUATIONS.
TYPICAL TIMING MAY SHOW AS MUCH AS 50% LESS
DELAY BETWEEN CERTAIN SIGNALS

CHK	CHANGE NO	R/LV
12	KP15-CO0B2	A
F. DOLL		

FIRST USED ON OPTION/MODEL DDP15		QTY	DESCRIPTION		PART NO		ITEM NO.
UNLESS OTHERWISE SPECIFIED		DRY	PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES + .005 = .164 = 0°30' FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS		CHK	DATE		digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		
		ENG	DATE		TITLE		
		PROV	DATE		CP — MEMORY		
		PROD	DATE		TIMING		
MATERIAL		NEXT HIGHER ASSY		SIZE/CODE		NUMBER	REV.
FINISH		SCALE		D.T.D.		KP15-C-78	A
		SHEET 1 OF 1		DIST.			

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LOAD IR IN FETCH

ENABLES FOR ADDRESS CALCULATION

LOAD MO AND START MEMORY

WAIT FOR CP ACT ON WRITES

WAIT FOR ADD ACK ON WRITES

ENABLES FOR DATA CALCULATION

LOAD DATA TO REGISTERS

WAIT FOR CP ACT ON READS

WAIT FOR RD RST ON READS

ENABLES FOR PC UPDATE

LOAD PC

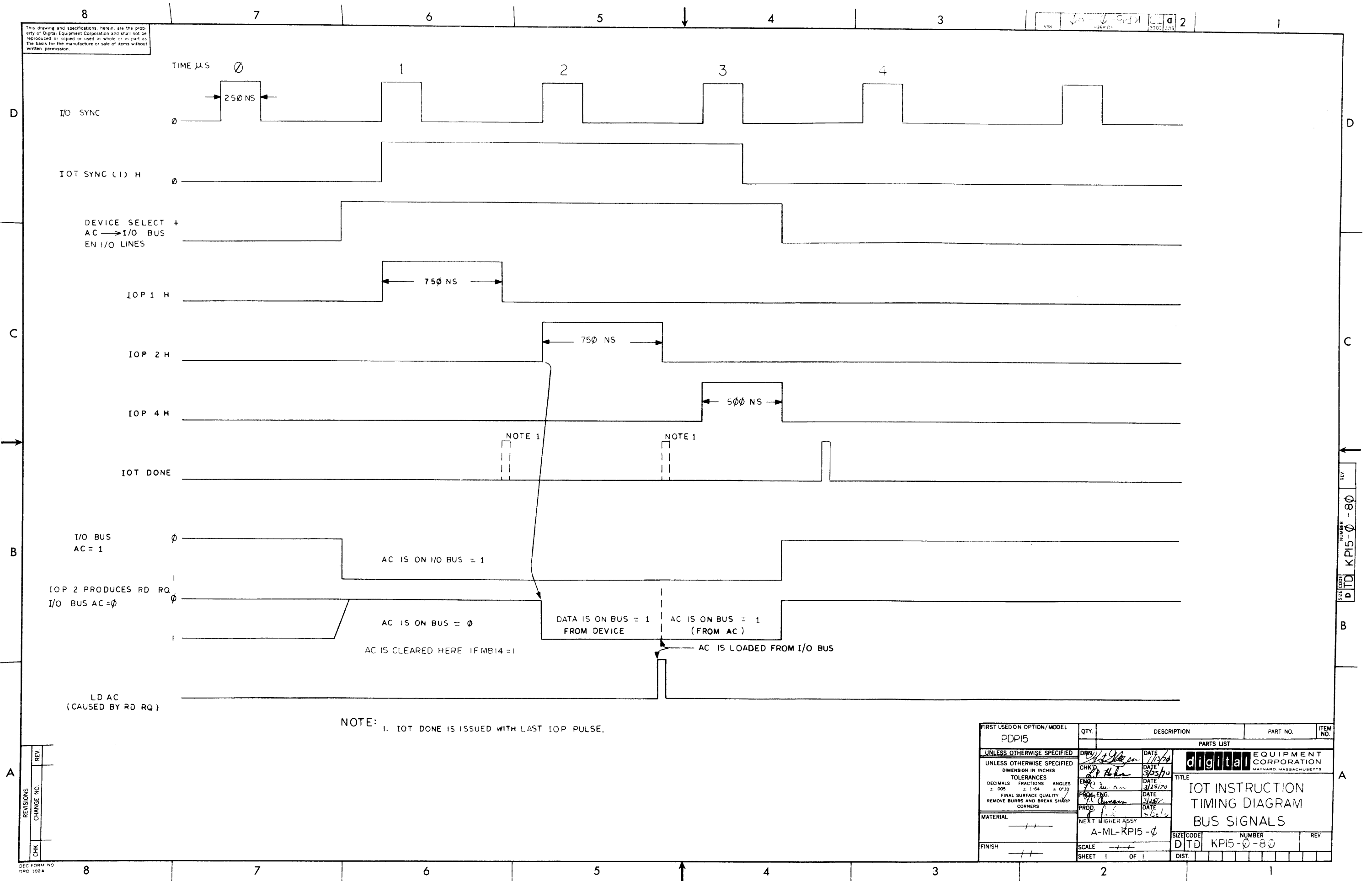
NOTE: DELAYS DUE TO MEMORY SYNCHRONIZING ARE NOT SHOW - SEE KP78

REV	CHANGE NO	CHK

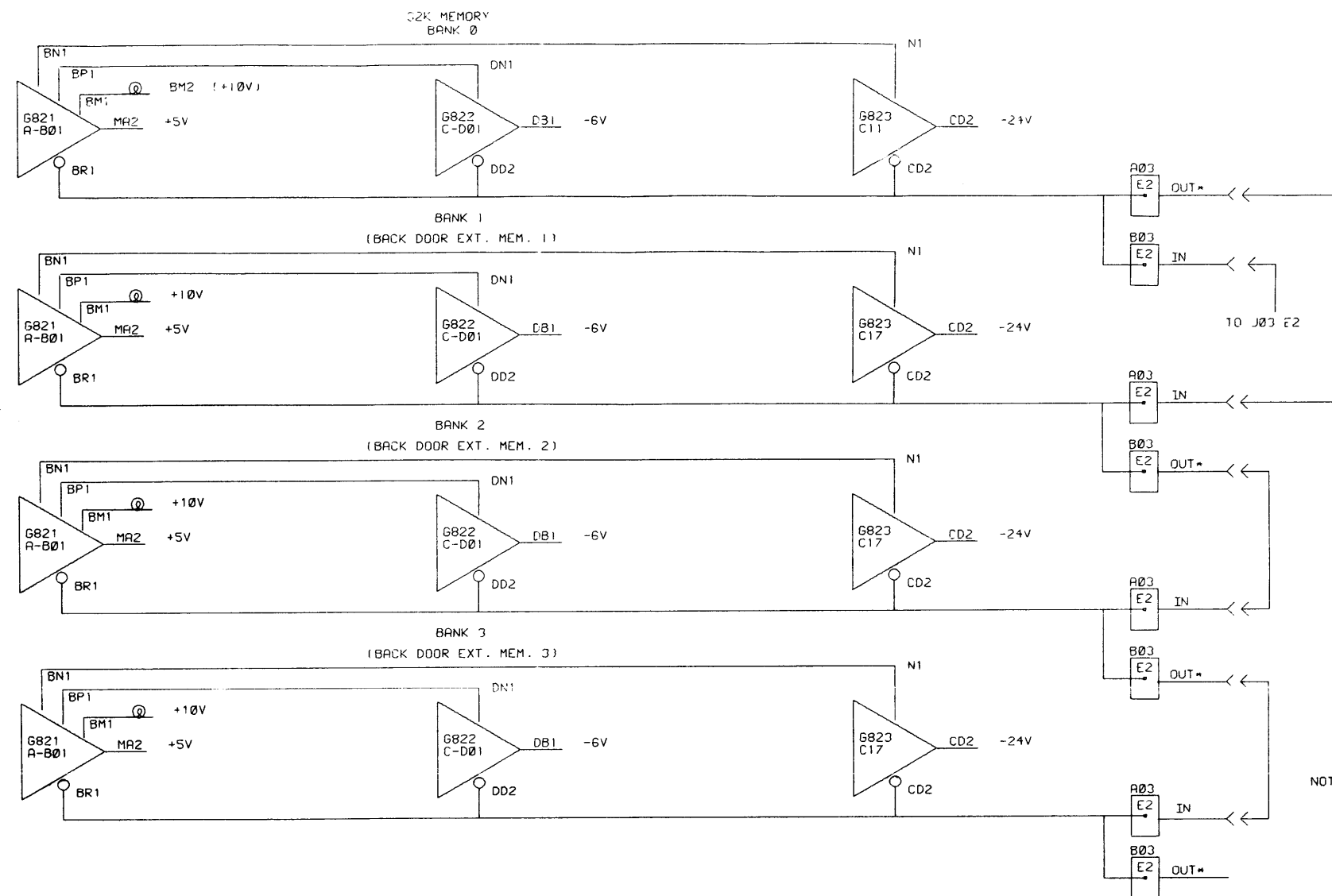
DEC FORM NO 102A

FIRST USED OR OPTION/ MODEL PDP15	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED	DRY	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED	CHK'D	DATE	TITLE	
TOLERANCES	ENG	DATE	CP TIMING -	
DECIMALS FRACTIONS ANGLES	PROJ. ENG.	DATE	COMMON EVENTS	
± .005 ± .164 ± 0°30'	PROD.	DATE	SIZE CODE NUMBER REV	
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	Δ-ML- KP15-0		D1D KP15-0-79	
MATERIAL	NEXT HIGHER ASSY		DIST.	
FINISH	SCALE	SHEET 1 OF 1	1	

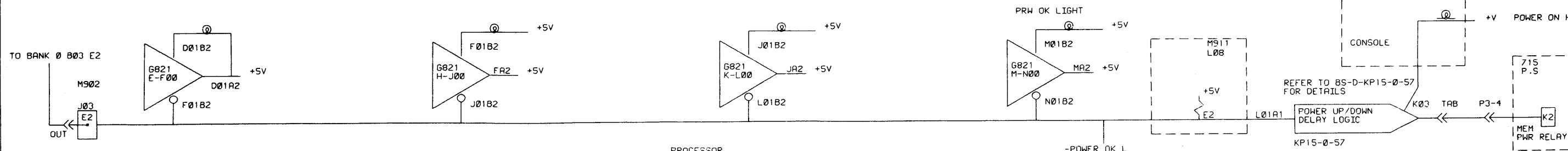
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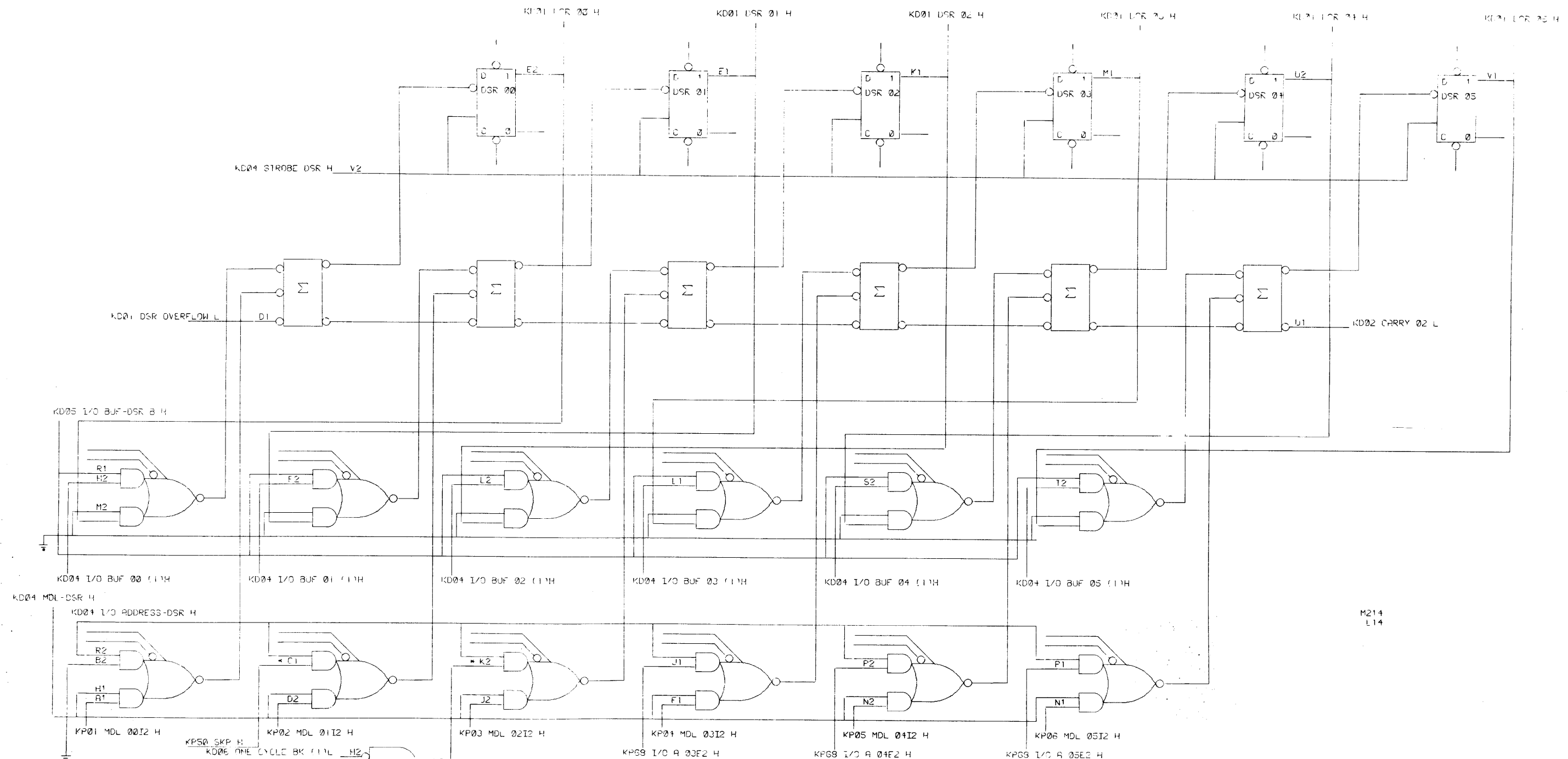
- NOTES:
- *THE M902 TERMINATOR CARD IS ALWAYS PLACED IN THE LAST BANK OF THE TOTAL MEMORY CAPACITY.
 - REFER TO MM15-0-20 FOR INDIVIDUAL REGULATOR VOLTAGE ADJUSTMENT.



REVISIONS		
CHK	CHANGE NO.	REV.
1	KP15-0003E	B
2	11.4.70	
3	7.8.70	

DRN	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D	DATE	
ENG	DATE	
PROJ. ENG.	DATE	
PROD.	DATE	
FIRST USED ON	DATE	TITLE
KP15	7/15/70	POWER REGULATOR & OK BUS
SCALE	OF	NUMBER
SHEET	OF	REV.
		B

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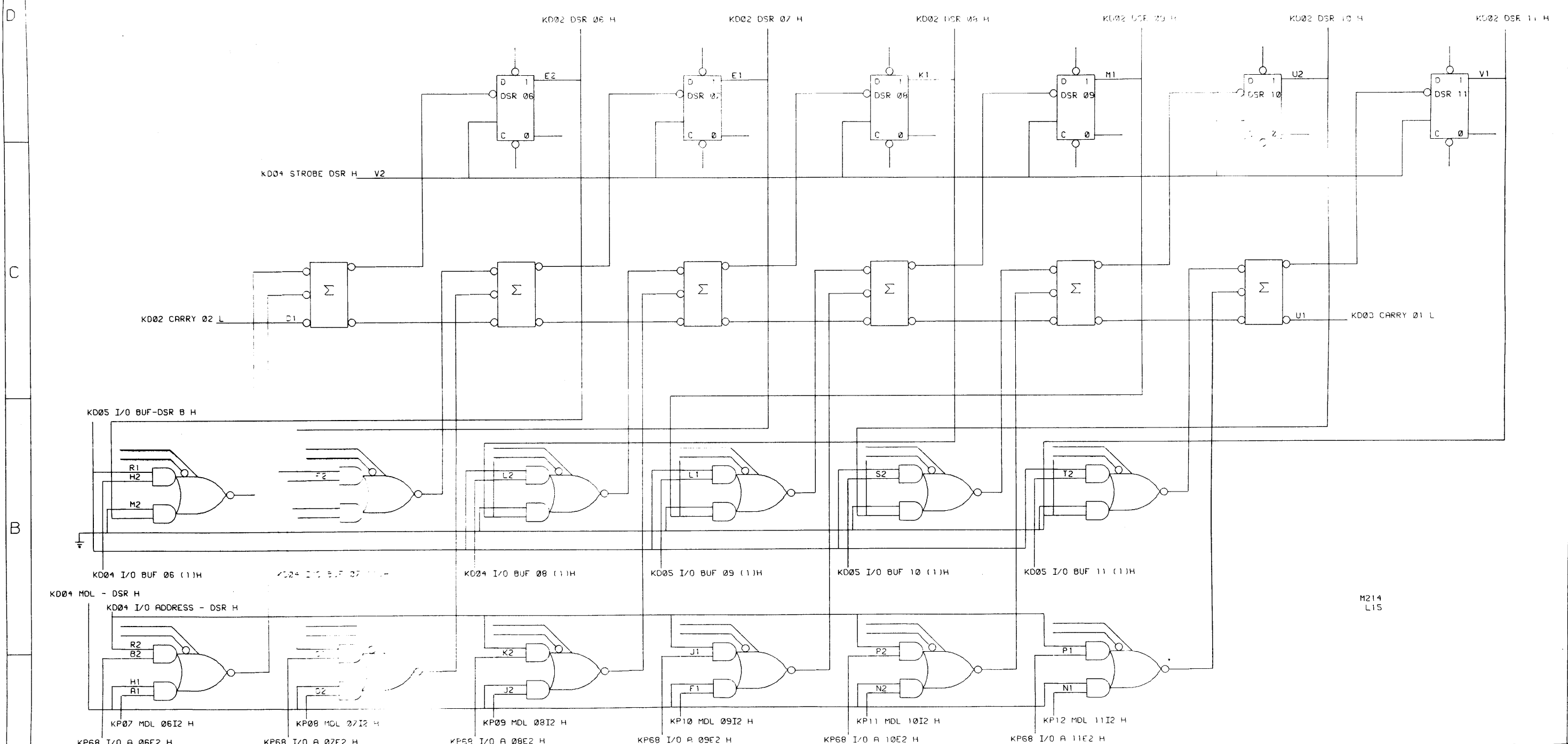


*NOTE: IF ECO KP15-#52 (OPTIONAL IN OLDER MACHINES) IS NOT INSTALLED, INDICATED PINS ARE GROUNDED.

REVISIONS		
CHK	CHANGE NO.	REV.
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10

DRN.	S. GOLDSBY	DATE	10/14/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D.	L. HOHOS	DATE	10/15/69	
ENG.	F. HUMANN	DATE	10/17/69	
PROJ. ENG.	G. BUTLER	DATE	10/17/69	
PROD.	F. LASKEY	DATE	10/17/69	
FIRST USED ON		TITLE		
KD15		DSR 00-05		
SCALE		SIZE CODE	NUMBER	REV.
		D B3	KD15-C-01	B
SHEET	1	OF	1	DIST.

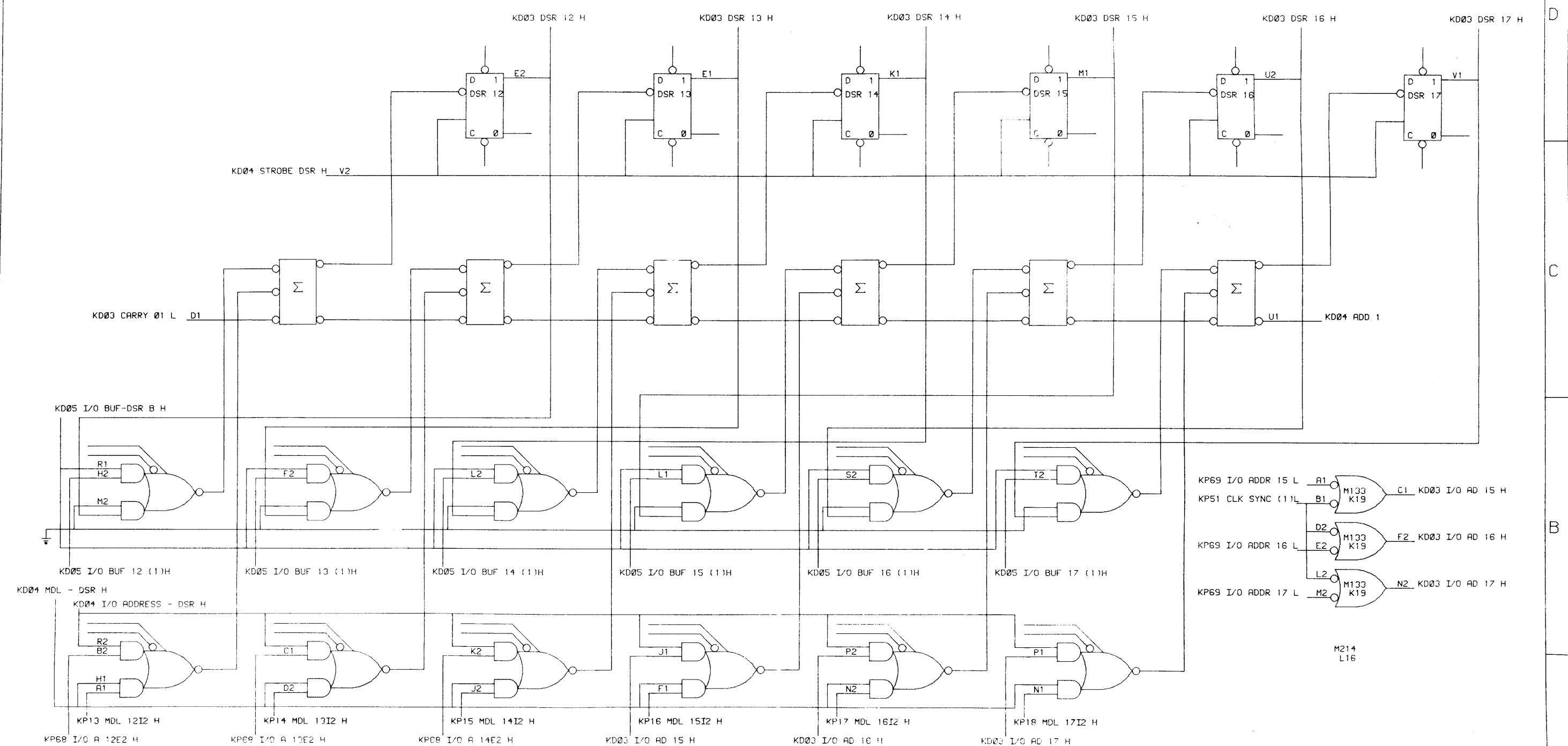
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REVISIONS		
CHK	CHANGE NO.	REV.
24	KP15-00038	A

DRN	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D	DATE	
ENG	DATE	
PROJ. ENG.	DATE	
PROD.	DATE	
FIRST USED ON		TITLE
KD15		DSR 06-11
SCALE	SIZE/CODE	NUMBER
SHEET	D BS	KD15-0-02
OF	DIST.	REV.
1		A

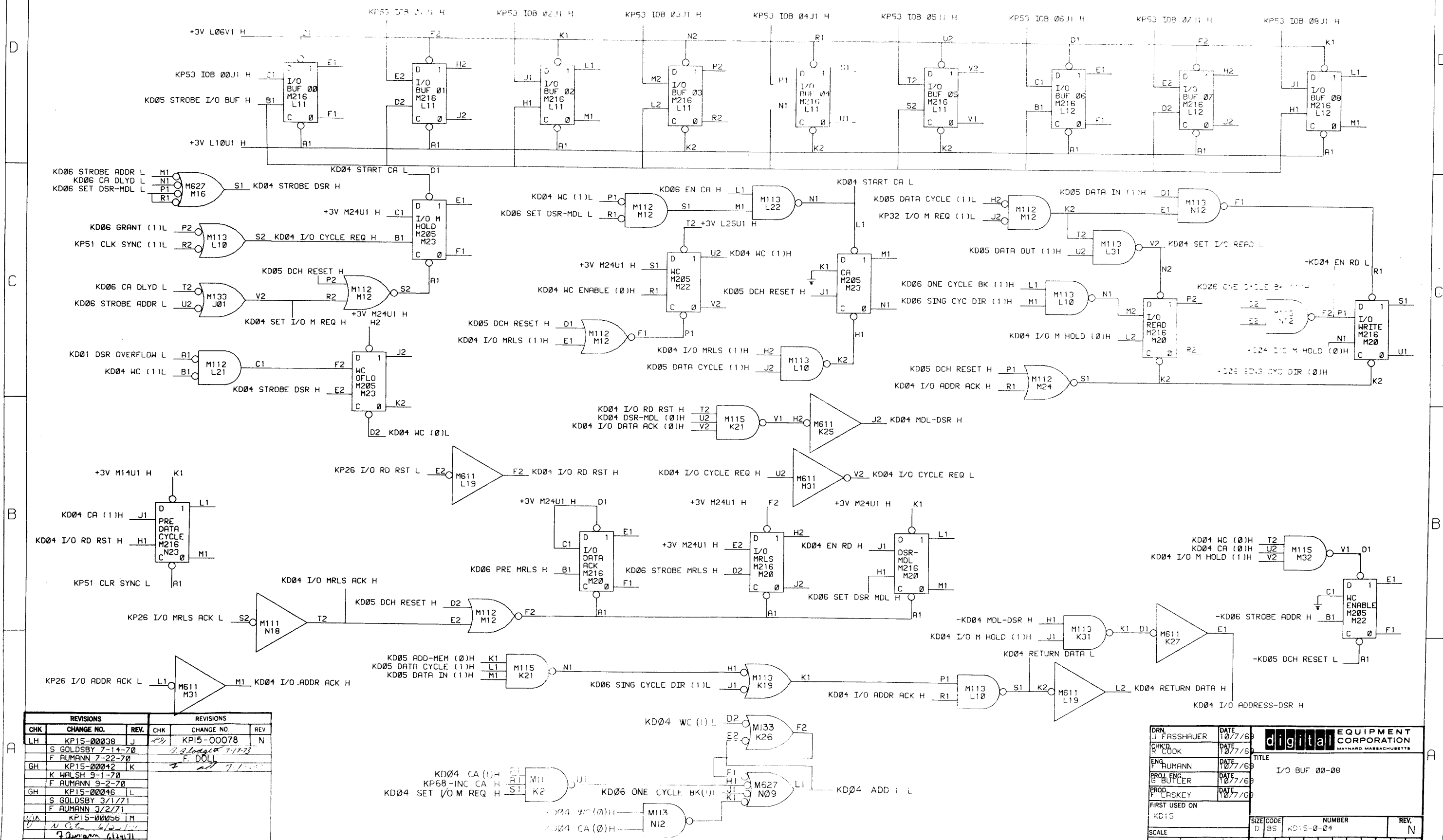
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REVISIONS		
CHK	CHANGE NO.	REV.
LH	KP15-00038	A
	S GOLDSBY 7/12/70	
	F AUMANN 7/12/70	
	KP15-00050	B
	7/12/70	

DRN. S.GOLDSBY	DATE 10/15/69	 digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D. L.HOHOS	DATE 10/15/69	
ENG. F.FUMANN	DATE 10/7/69	
PROJ. ENG. G.BUTLER	DATE 10/7/69	
PROD. F.LASKEY	DATE 10/7/69	
FIRST USED ON		TITLE DSR 12-17
KD15		
SCALE	SIZE CODE	NUMBER
SHEET 1 OF 1	D BS	KD15-0-03
DIST.		REV. B

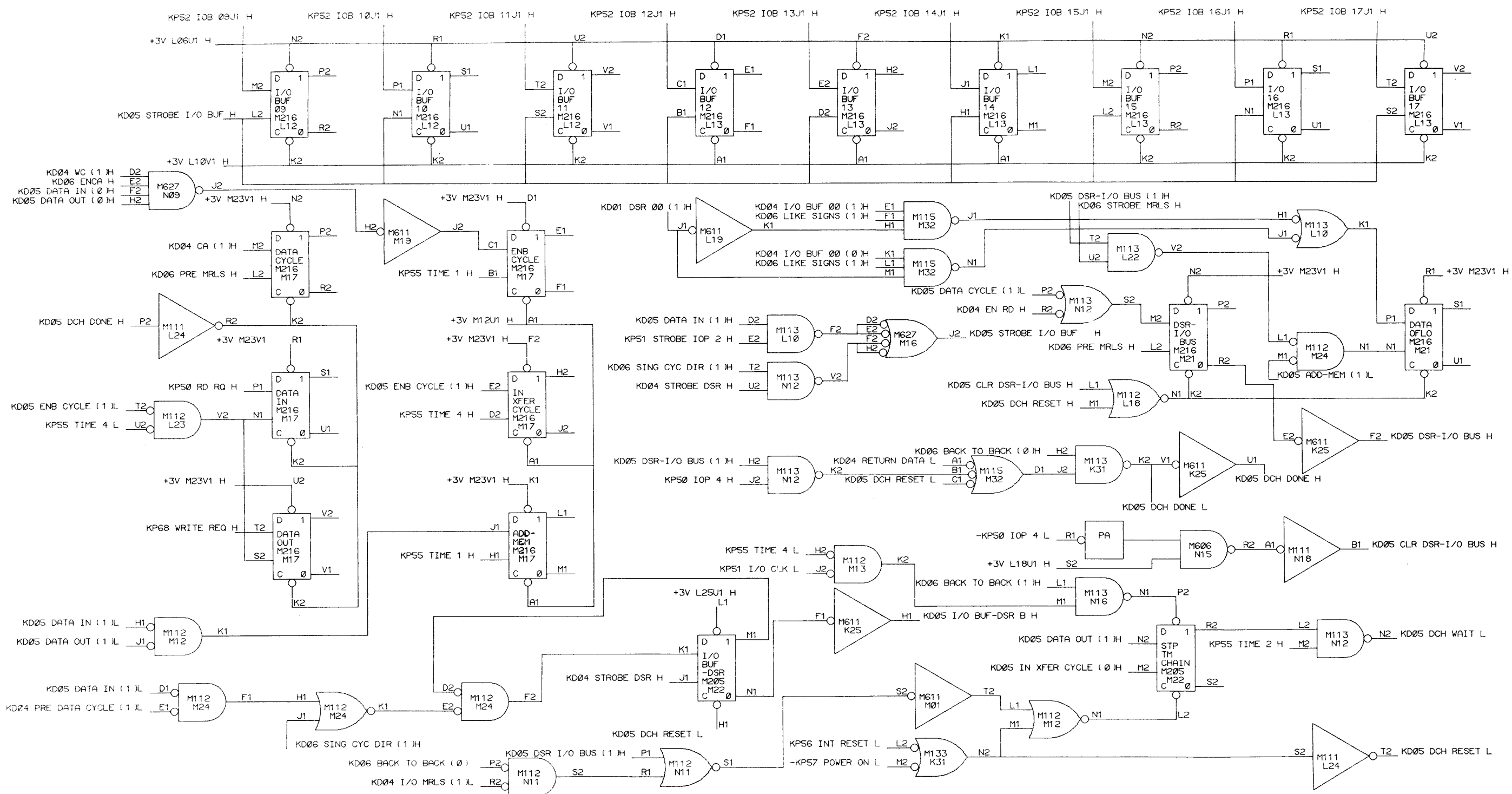
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REVSIONS			REVSIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV
LH	KP15-00038	J	24	KP15-00078	N
	S GOLDSBY 1-14-70			<i>3 longer 1-17-73</i>	
	F RUMANN 7-22-70			F. DOLL	
GH	KP15-00042	K		<i>2 21 7-1-73</i>	
	K WALSH 9-1-70				
	F RUMANN 9-2-70				
GH	KP15-00046	L			
	S GOLDSBY 3/1/71				
	F RUMANN 3/2/71				
<i>31A</i>	KP15-00056	M			
<i>0</i>	<i>N C.C. 6/21/71</i>				
	<i>F RUMANN 6/21/71</i>				

DRN J FASSHAUER	DATE 10/7/76	 digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	TITLE I/O BUF 00-08
CHKD K COOK	DATE 10/7/76		
ENG J HUMANN	DATE 10/7/76		
PROJ ENG B BUTLER	DATE 10/7/76		
PROD F LARKEY	DATE 10/7/76		
FIRST USED ON KD15		SIZE CODE D BS NUMBER KD15-0-04	REV 1
SCALE			
SHEET	OF		
DIST.			

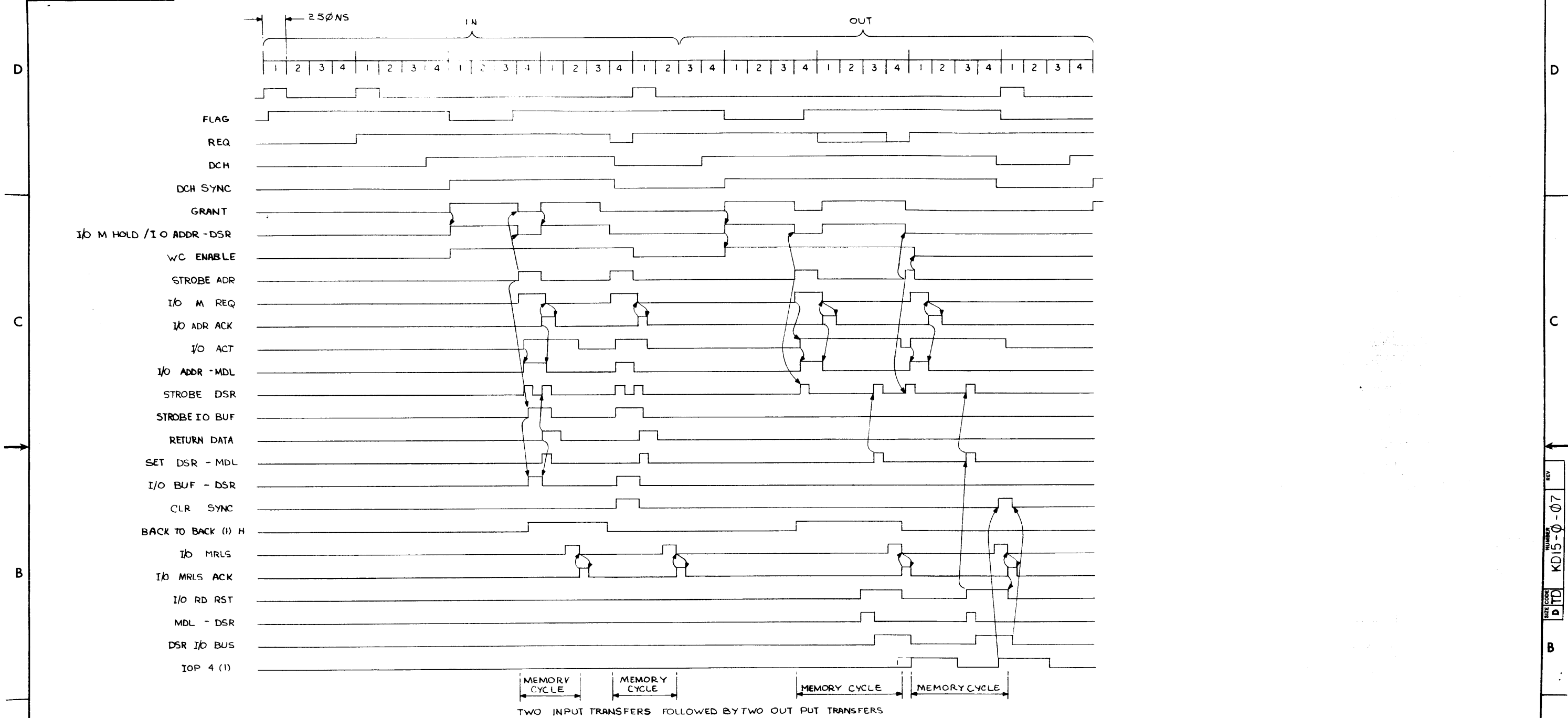
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REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
LH	KP15-00038	F	2/11	KP15-00056	K
	G GOLDSBY 7-15-70				
	F HUMPHN 7-17-72				
LH	KP15-00042	F		KP15-00057	L
	G GOLDSBY				
	F HUMPHN				
	KP15-00044	LH			
	G GOLDSBY 10-9-72				
	F HUMPHN 12-18-72				
	KP15-00046				
	G GOLDSBY 3/1/71				
	F HUMPHN 3/2/71				

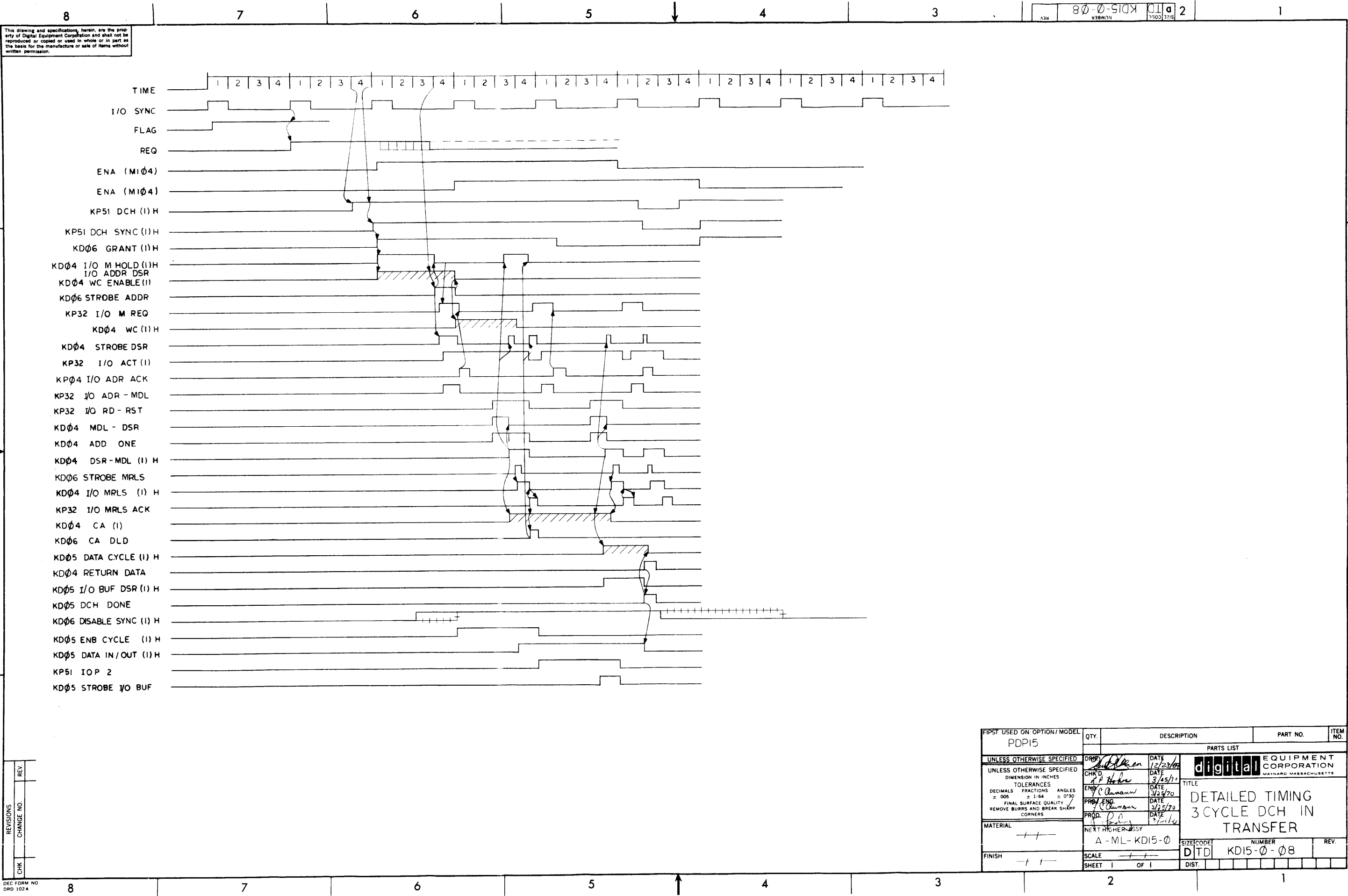
DRN J FASSHAUER	DATE 10/77/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D J COOK	DATE 10/77/69	TITLE I/O BUF 09-17	
ENG J HUMANN	DATE 10/77/69		
PROJ. ENG. G BUTLER	DATE 10/77/69		
PROD. F LASKEY	DATE 10/77/69		
FIRST USED ON KD15			
SCALE	SIZE	CODE	NUMBER
	D	BS	KD15-0-05
			REV. L
SHEET 1 OF 1	DIST.		

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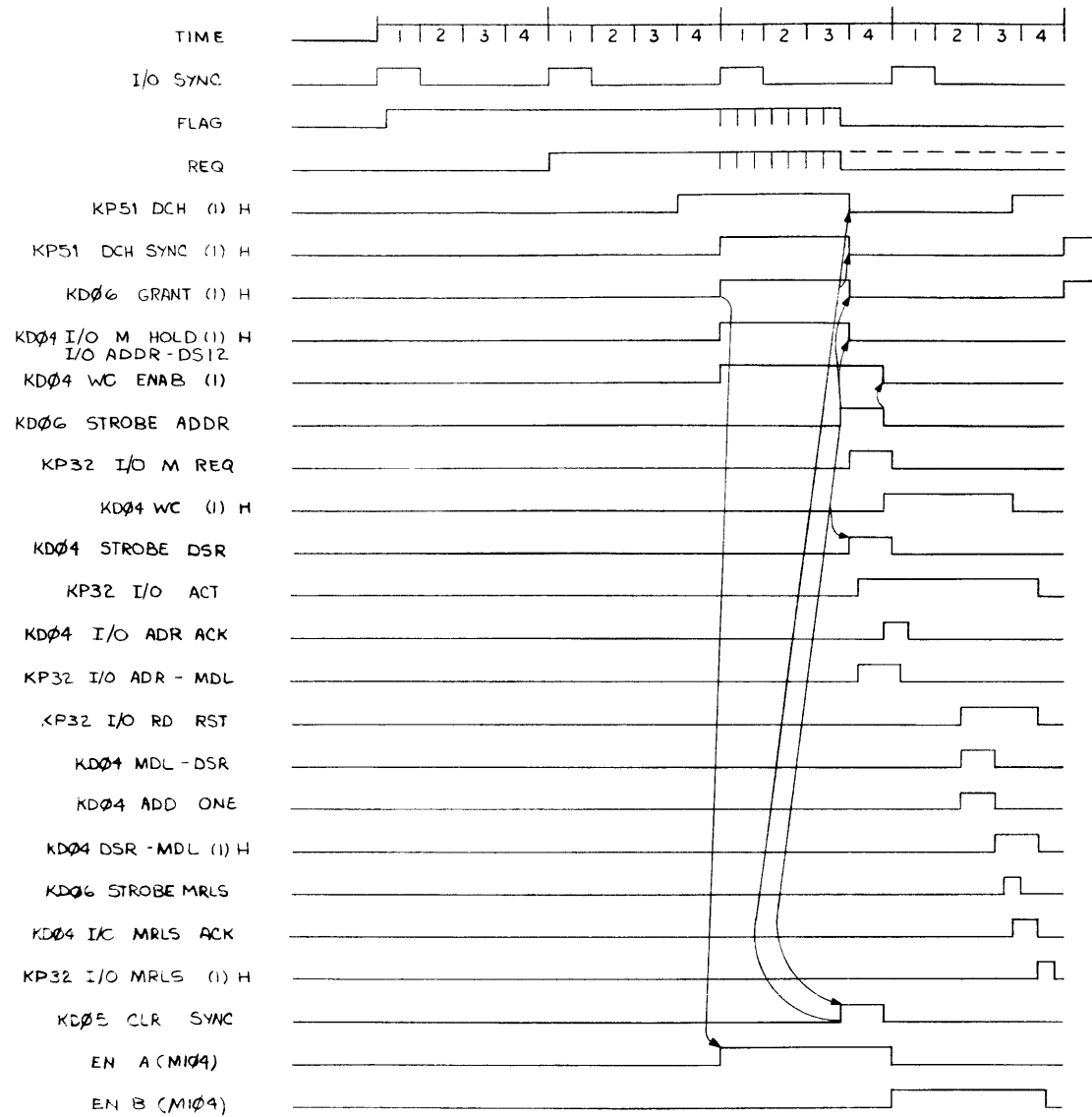
REV	CHANGE NO	REVISIONS
1	1	1

FIRST USED ON OPTION/ MODEL PDP15		QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED		PARTS LIST			
UNLESS OTHERWISE SPECIFIED		digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			
DIMENSION IN INCHES		TITLE			
TOLERANCES		DETAILED TIMING -			
DECIMALS FRACTIONS ANGLES		SINGLE CYCLE			
± .005 ± 1/64 ± 0°30'		IN&OUT TRANSFERS			
FINAL SURFACE QUALITY		NEXT HIGHER ASSY			
REMOVE BURRS AND BREAK SHARP CORNERS		A - ML - KD15 - 0			
MATERIAL		SIZE CODE			
FINISH		D TD KD15-0-07			
SCALE		NUMBER			
SHEET 1 OF 1		REV.			



FIRST USED ON OPTION / MODEL PDP15	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED	DRW	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED	CHK'D	DATE	TITLE	
DIMENSION IN INCHES	ENG	DATE	3	
TOLERANCES	PROV	DATE	4	
DECIMALS FRACTIONS ANGLES	PROD	DATE	5	
± .005 ± 1/64 ± 0°30'		DATE	6	
FINAL SURFACE QUALITY		DATE	7	
REMOVE BURRS AND BREAK SHARP CORNERS		DATE	8	
MATERIAL	NEXT HIGHER ASSY			
FINISH	A - ML - KD15-Ø			
SCALE	SHEET 1 OF 1			
DIST.		REV.		

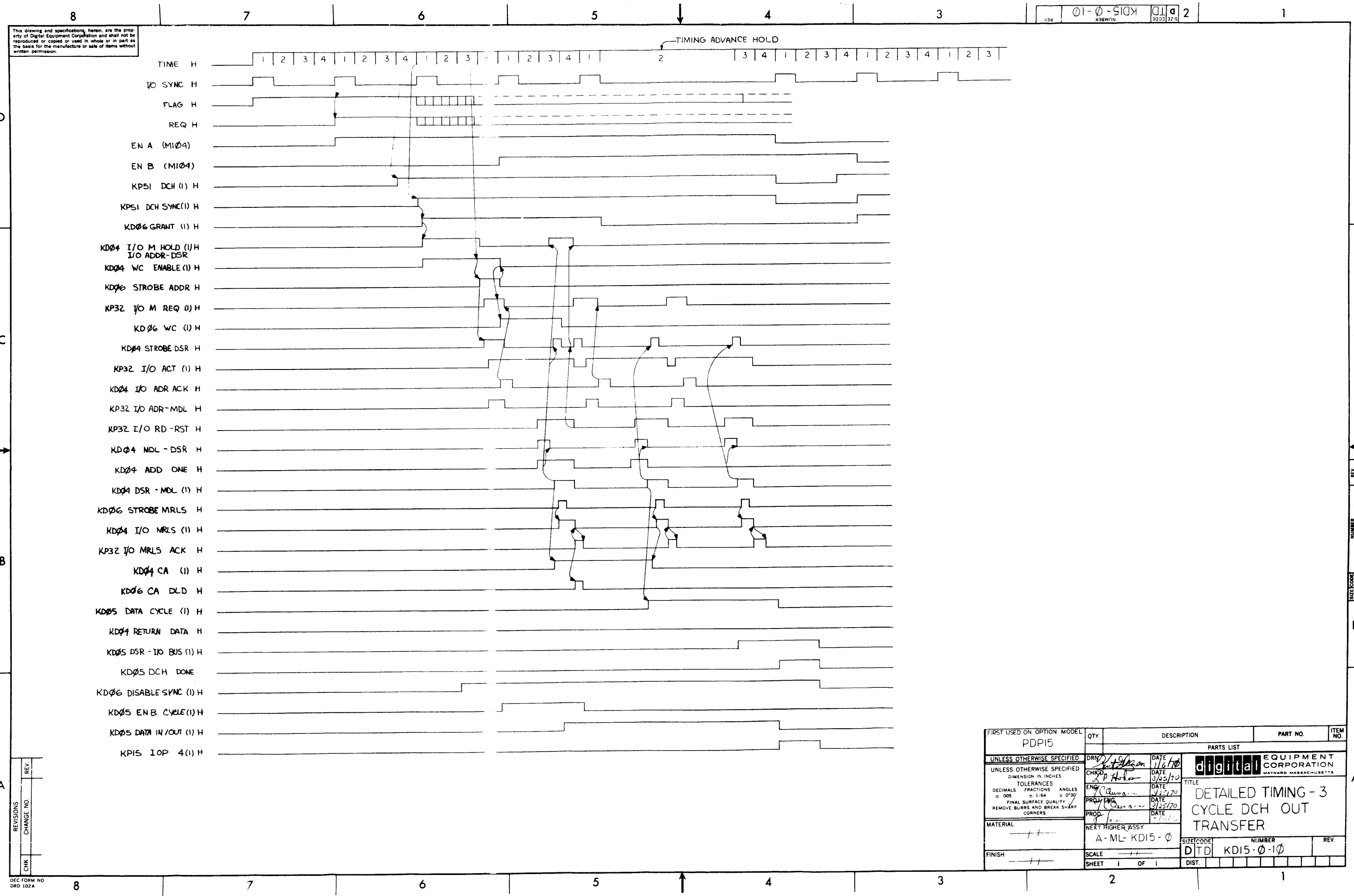
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FIRST USED ON OPTION / MODEL PDP15		QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED		PARTS LIST			
UNLESS OTHERWISE SPECIFIED		DRW. <i>[Signature]</i>	DATE <i>12/50/69</i>	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
DIMENSION IN INCHES		CHKD. <i>[Signature]</i>	DATE <i>3/25/70</i>	TITLE	
TOLERANCES		ENG. <i>[Signature]</i>	DATE <i>3/25/70</i>	DETAILED TIMING	
DECIMALS FRACTIONS ANGLES		PROD. <i>[Signature]</i>	DATE <i>3/25/70</i>	INC MB TRANSFER	
± .005 ± 1/64 ± 0°30'		NEXT HIGHER ASSY			
FINAL SURFACE QUALITY		A - ML - KD15 - 0			
REMOVE BURRS AND BREAK SHARP CORNERS		SCALE			
MATERIAL		SHEET 1 OF 1			
FINISH		SIZE CODE DTD			
		NUMBER KD15-0-09			
		REV.			
		DIST.			

REVISIONS
CHANGE NO.
REV.

DEC FORM NO
DRD 102A



REV	CHANGE NO.
1	1

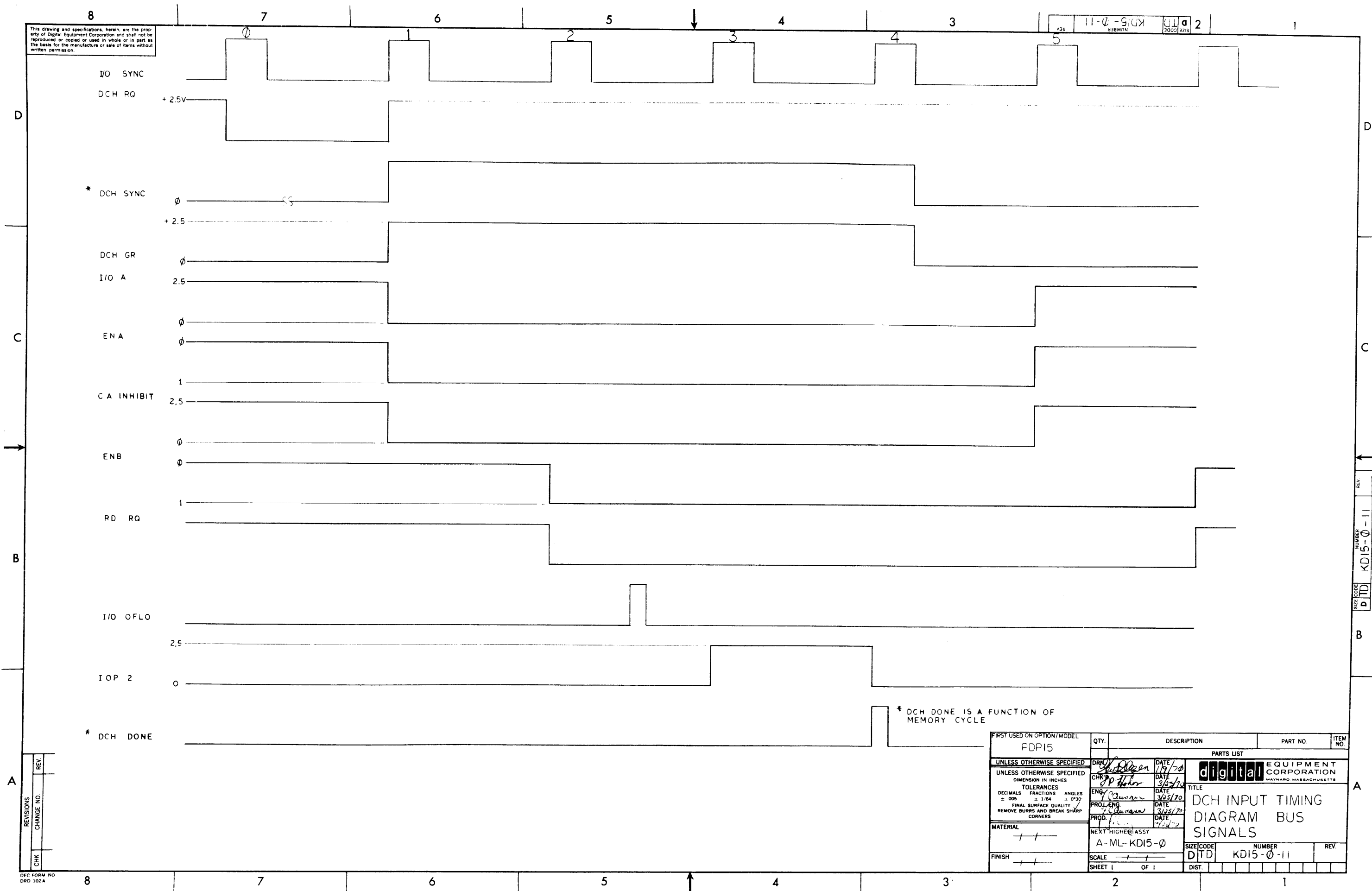
DEC FORM NO
DRD 102A

FIRST USED ON OPTION MODEL PDPI5	QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES				
TOLERANCES				
DECIMALS	FRACTIONS	ANGLES		
± .005	± 1/64	± 0°30'		
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL	NEXT HIGHER ASSY			
FINISH	SCALE			
SHEET 1 OF 1		DIST.		

DATE 1/16/70	DATE 3/23/70	DATE 3/23/70	DATE 3/23/70	DATE 3/23/70
CHKD P. H. H.	CHKD P. H. H.	CHKD P. H. H.	CHKD P. H. H.	CHKD P. H. H.
ENG P. H. H.	ENG P. H. H.	ENG P. H. H.	ENG P. H. H.	ENG P. H. H.
PROD P. H. H.	PROD P. H. H.	PROD P. H. H.	PROD P. H. H.	PROD P. H. H.

PARTS LIST	
digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
TITLE DETAILED TIMING - 3 CYCLE DCH OUT TRANSFER	
SIZE CODE D1TD	NUMBER KD15-Ø-1Ø
REV.	

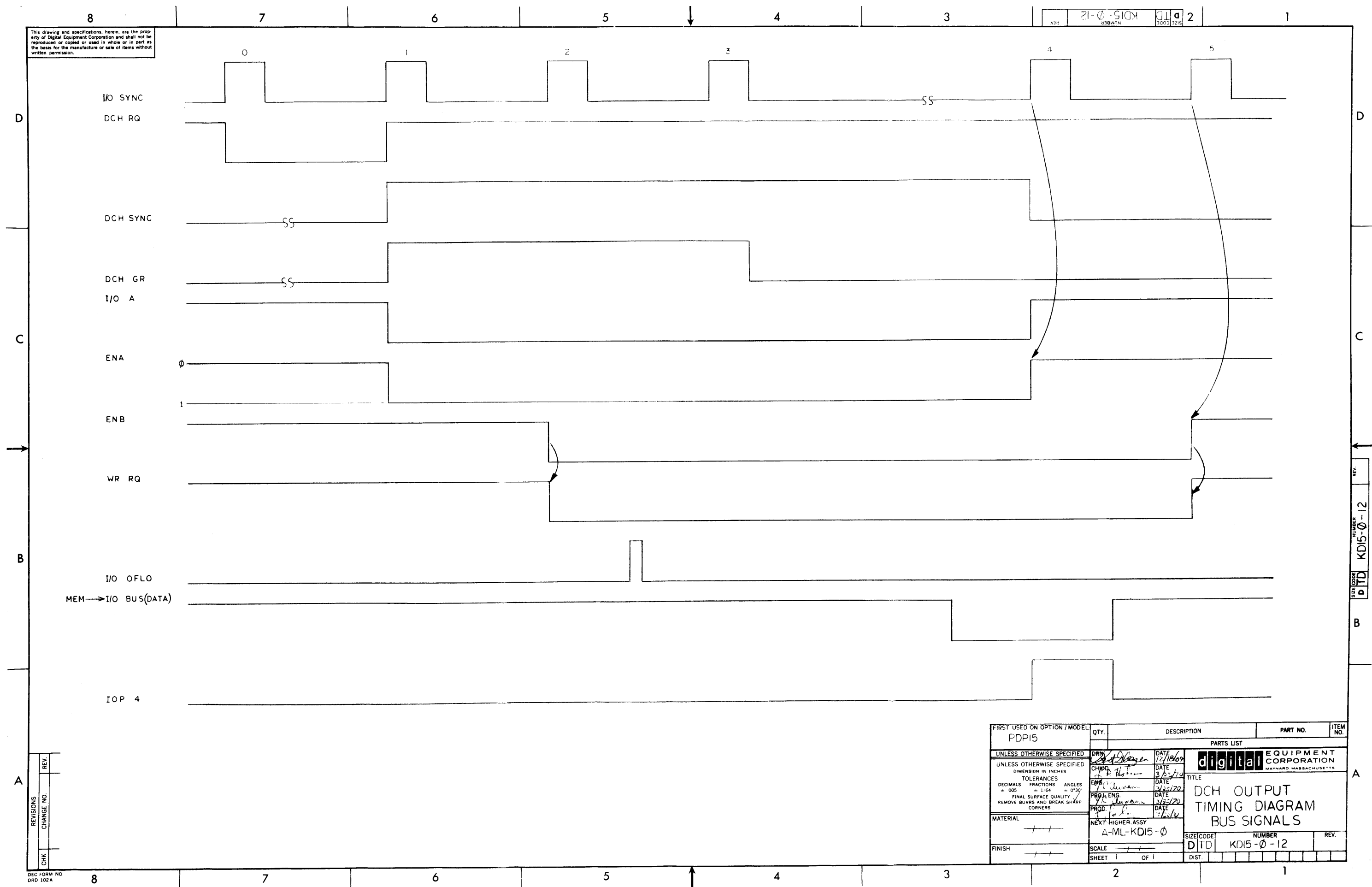
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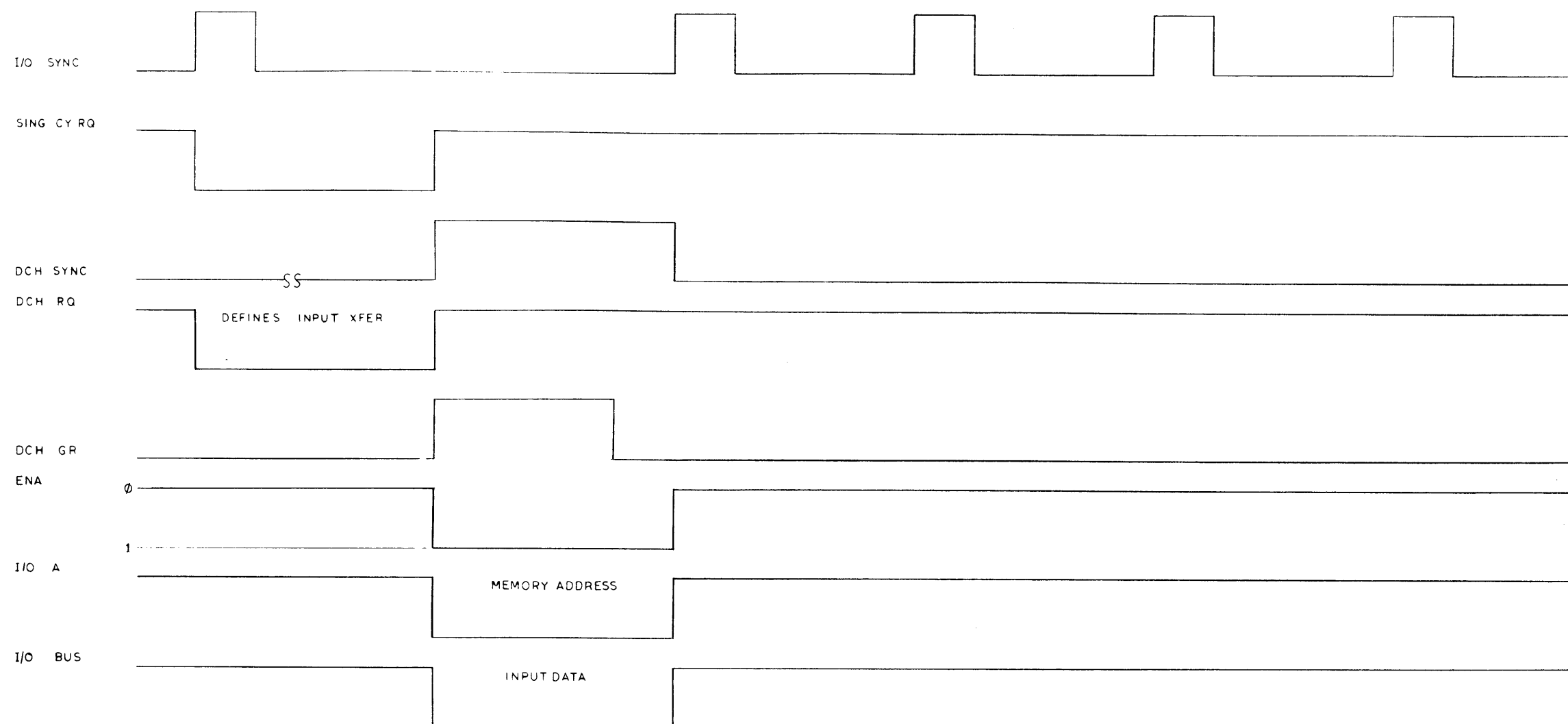
REV.	CHANGE NO.	CHK.
1		

DEC FORM NO
DRD 102A

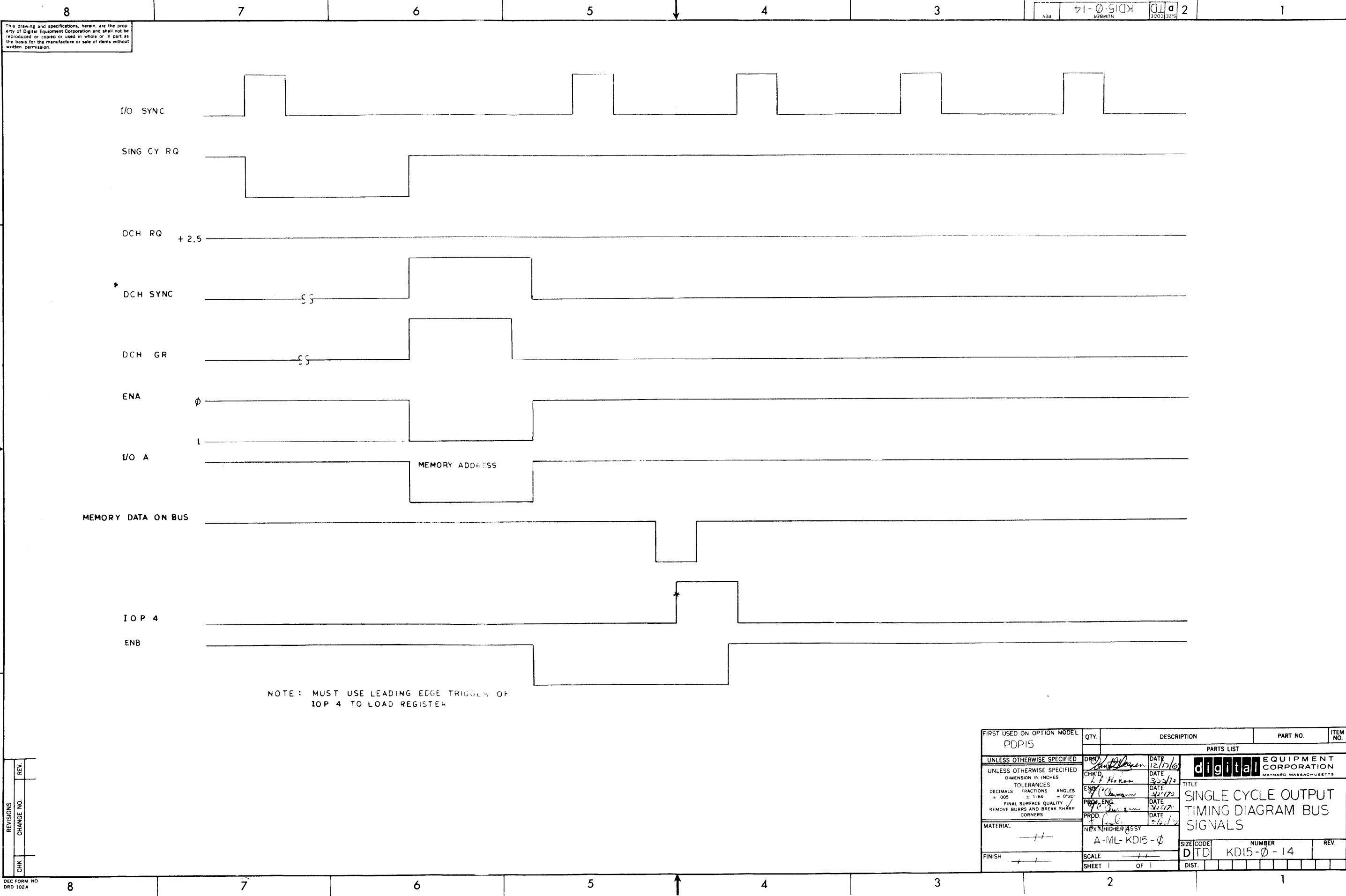
FIRST USED ON OPTION/MODEL FDP15		QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED		PARTS LIST			
UNLESS OTHERWISE SPECIFIED		DRN	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
DIMENSION IN INCHES		CHK	DATE	TITLE	
TOLERANCES		ENG	DATE	DCH INPUT TIMING	
DECIMALS FRACTIONS ANGLES		PROL ENG	DATE	DIAGRAM BUS	
± .005 ± 1/64 ± 0°30'		PROD.	DATE	SIGNALS	
FINAL SURFACE QUALITY		NEXT HIGHER CLASSY			
REMOVE BURRS AND BREAK SHARP CORNERS		A-ML-KD15-0			
MATERIAL		SCALE			
FINISH		SHEET 1 OF 1			
		DIST.			



REVISIONS		
CHK	CHANGE NO.	REV.



FIRST USED ON OPTION/MODEL PDP15		QTY.	DESCRIPTION		PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED		DRN	PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		DATE	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS			
TOLERANCES DECIMALS FRACTIONS ANGLES = .005 = 1/64 = 0°30'		CHKD	TITLE			
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS		ENG	SINGLE CYCLE INPUT TIMING BUS SIGNALS			
MATERIAL		PROJ. ENG.	SIZE CODE			
FINISH		PROD.	NUMBER			
		DATE	REV			
NEXT HIGHER ASSY		A-ML-KD15-0		D1D		KD15-0-13
SCALE		SHEET		OF		
		D1D				



FIRST USED ON OPTION MODEL PDP15		QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED		PARTS LIST			
UNLESS OTHERWISE SPECIFIED		DRN	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
DIMENSION IN INCHES		CHK'D	DATE	TITLE	
TOLERANCES		ENG	DATE	SINGLE CYCLE OUTPUT	
DECIMALS FRACTIONS ANGLES		PROG. ENG	DATE	TIMING DIAGRAM BUS	
$\pm .005$ $\pm .164$ $\pm 0^{\circ}30'$		PRD	DATE	SIGNALS	
FINAL SURFACE QUALITY		NEXT HIGHER ASSY			
REMOVE BURRS AND BREAK SHARP CORNERS		A-ML-KD15- $\emptyset$			
MATERIAL		SCALE			
FINISH		SHEET 1 OF 1			
		DIST.			

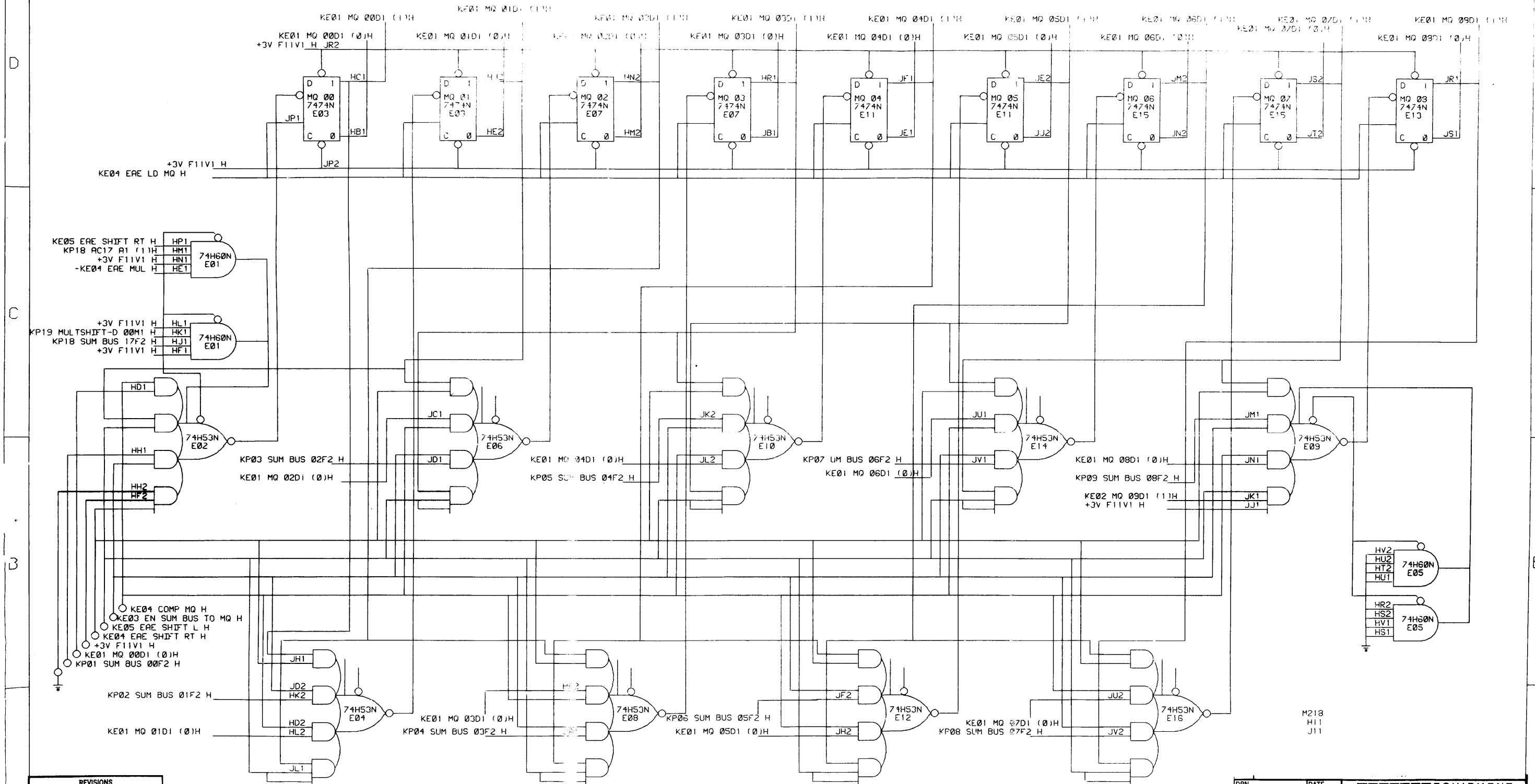
REV.	CHANGE NO.
1	1

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FIRST USED ON OPTION/MODEL PDP 15		QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED		DRK	DATE	PARTS LIST	
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		CHKD	DATE	 DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
TOLERANCES		CHKD	DATE		
DECIMALS FRACTIONS ANGLES = 008 = 1/64 = 0°30'		END	DATE		
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS		PROF. ENG.	DATE		
MATERIAL		PROD	DATE	TITLE INCREMENT MEMORY TIMING DIAGRAM BUS SIGNALS	
FINISH		NEXT NUMBER 655Y			
		A-ML-KD15-0			
		SCALE	SIZE CODE	NUMBER	REV.
		SHEET	D.T.D.	KD15-0-15	
		OF	DIST.		

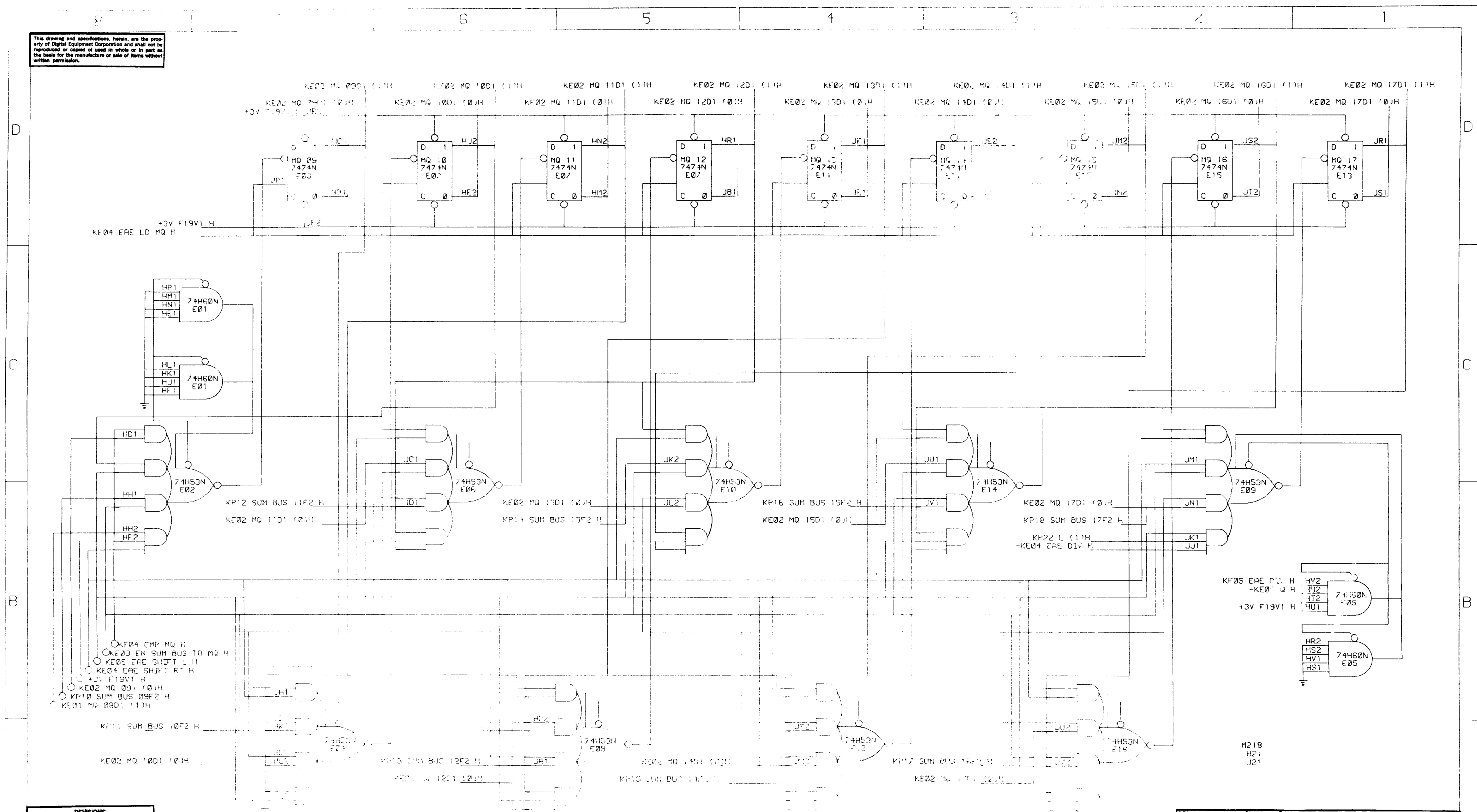
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REVISIONS		
CHK	CHANGE NO.	REV.
AK	KP15-00046	C

DRN. KATHY COTE	DATE 10-15-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D. LOU HOHOS	DATE 10-15-69		
ENG. HUMANN	DATE 10-7-69	TITLE BI DIRECTIONAL SHIFT REG 00-08 (MQ REG)	
PROJ. ENG. S. BUTLER	DATE 10-7-69		
PROD. F. LASKEY	DATE 10-7-69	FIRST USED ON	
KP15		SIZE/CODE	NUMBER
SCALE		D BS	KE15-0-01
SHEET 1 OF 1		DIST.	REV. C

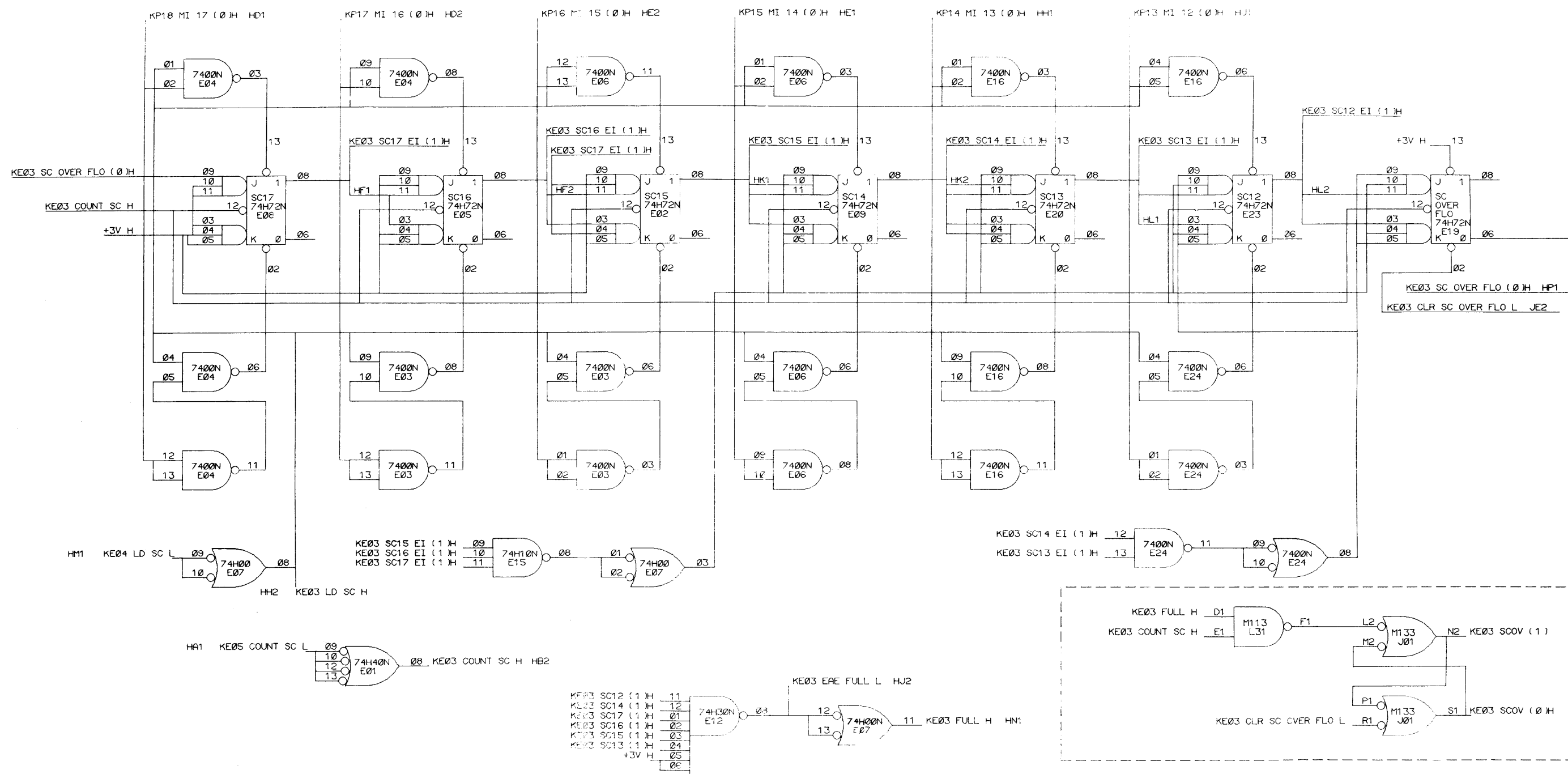
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REVISIONS		
CHK	CHANGE NO.	REV.
1	KH15-0004	1

[illegible]

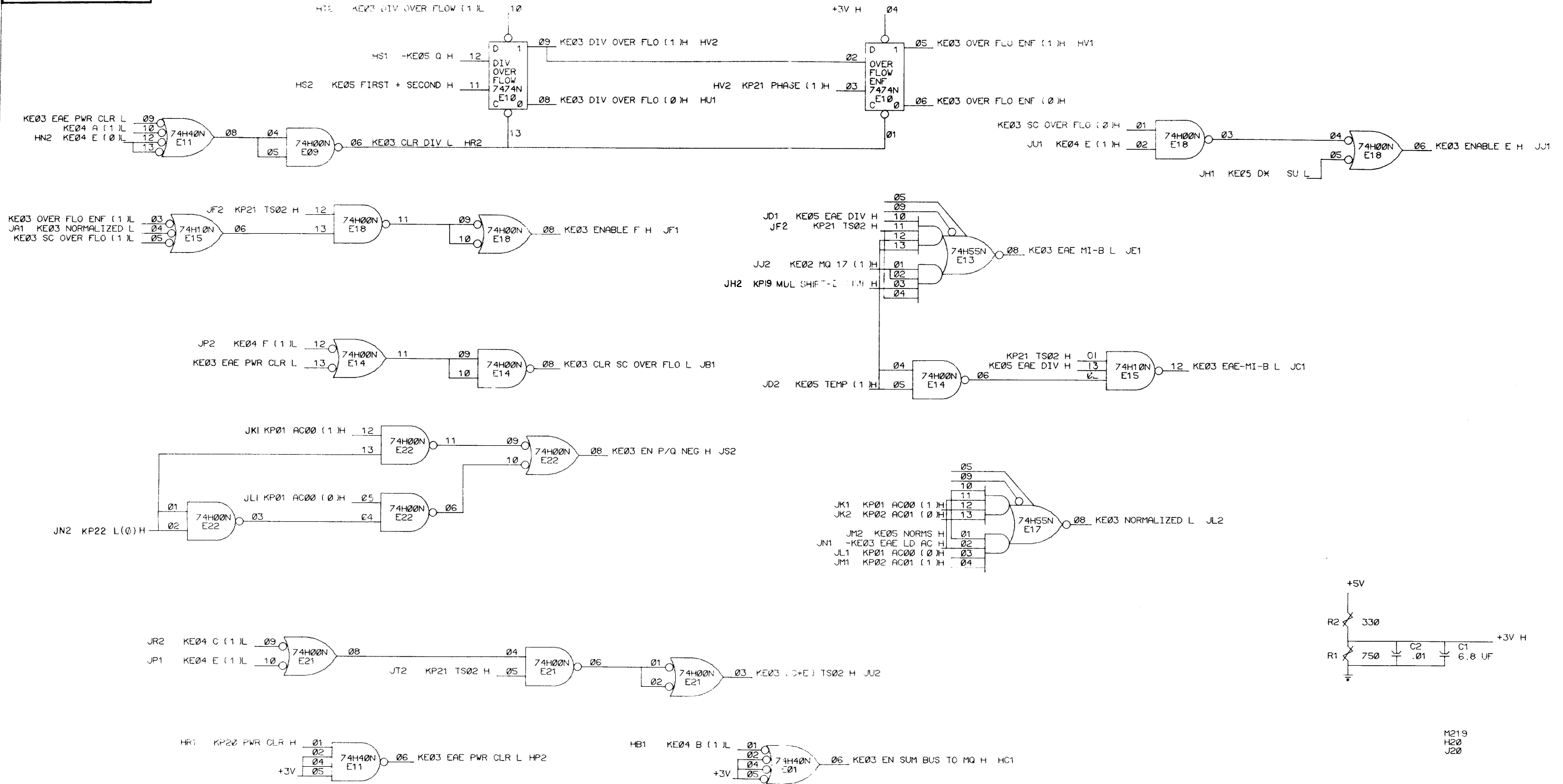
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REVISONS			REF	DATE	BY
CHK	CHANGE NO.	REV.			
SH	KP15-00046	G			
	K WALSH 12/9/78				
	F HUMANN 12/9/78				
	KP15-00056	D			
	N COTE				
	F HUMANN				
SH	KP15-00058	E			
	N COTE 7/6/79				
	F HUMANN 7/6/79				
	KP15-00062				

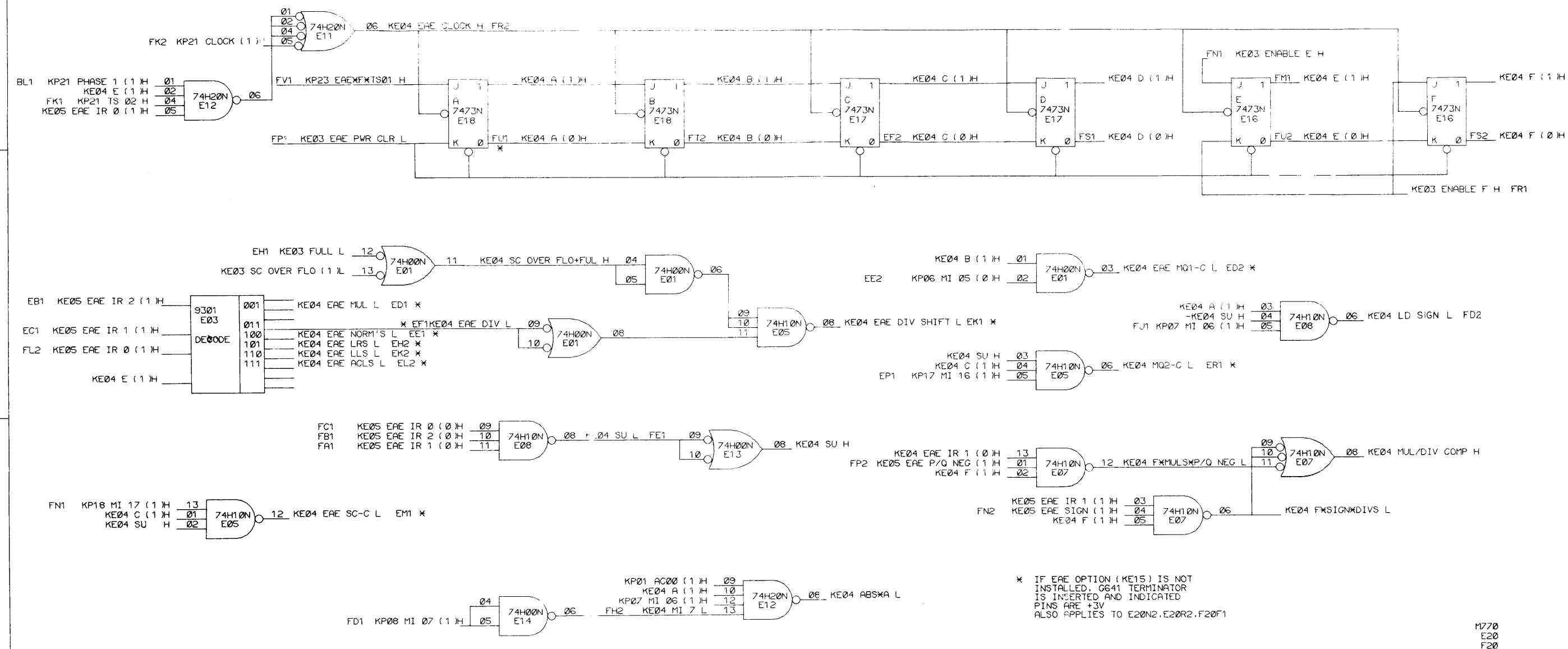
DRAWN KATHY COTE	DATE 10-15-69	digital CORPORATION		MAYNARD, MASSACHUSETTS	
CHECKED HOHOG	DATE 10-15-69	TITLE			
ENG. HUMANN	DATE 10-7-69	STEP COUNTER AND CONTROL			
PROL ENG. G BULLER	DATE 10-7-69				
PROD. F LASKEY	DATE 10-7-69				
FIRST USED ON KP15		SIZE(CODE)	NUMBER	REV.	
SCALE		D BS	KE15-Ø-Ø3	H	
SHEET 1 OF 2		DIST.			

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DRN	KATHY COTE	DATE	10-15-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHKD	LOU HOHOS	DATE	10-15-69		
ENG	B. MANN	DATE	10-7-69		
PROD	F. LASKEY	DATE	10-7-69		
FIRST USED ON		KEP15			
SCALE		2 OF 2		STEP COUNTER AND CONTROL	
SHEET		2 OF 2		DIST.	

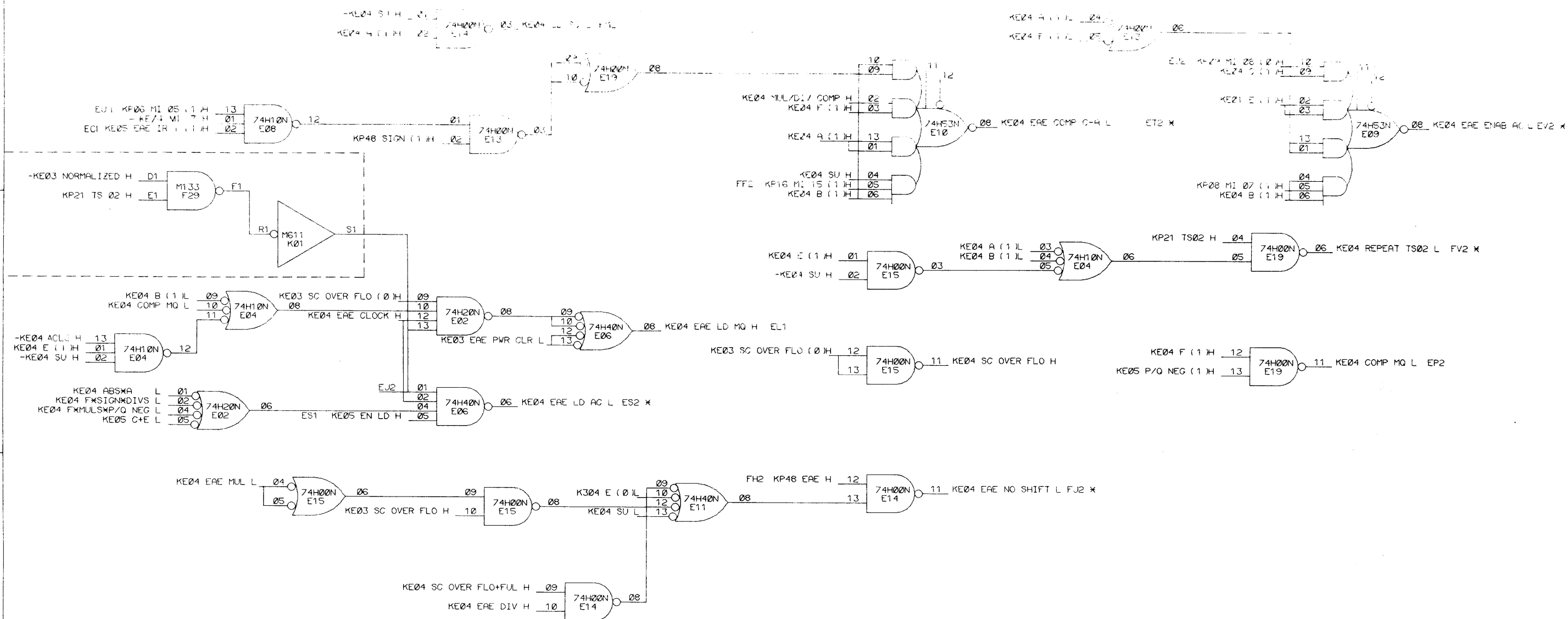
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REVISIONS		
CHK	CHANGE NO.	REV.
GH	KP15-00046	C
	K WALSH 12/18/70	
	F AUMANN 12/18/70	
	KP15-00056	C
	9C 00000 12/18/70	
25	KP15-00082	D
	2. 00000 12-18-74	
	F. DOLL	

DRN. KATHY COTE	DATE 10-15-69	digital CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D. LOU HOHOS	DATE 10-15-69	TITLE	
ENG. F. AUMANN	DATE 10-7-69	EAE CONTROL M770	
PROJ. ENG. G. BUTLER	DATE 10-7-69		
PROD. F. LASKEY	DATE 10-7-69		
FIRST USED ON KP15		SIZE CODE D BS	NUMBER KE15-0-04
SCALE			REV. 0
SHEET 1 OF 2	DIST.		

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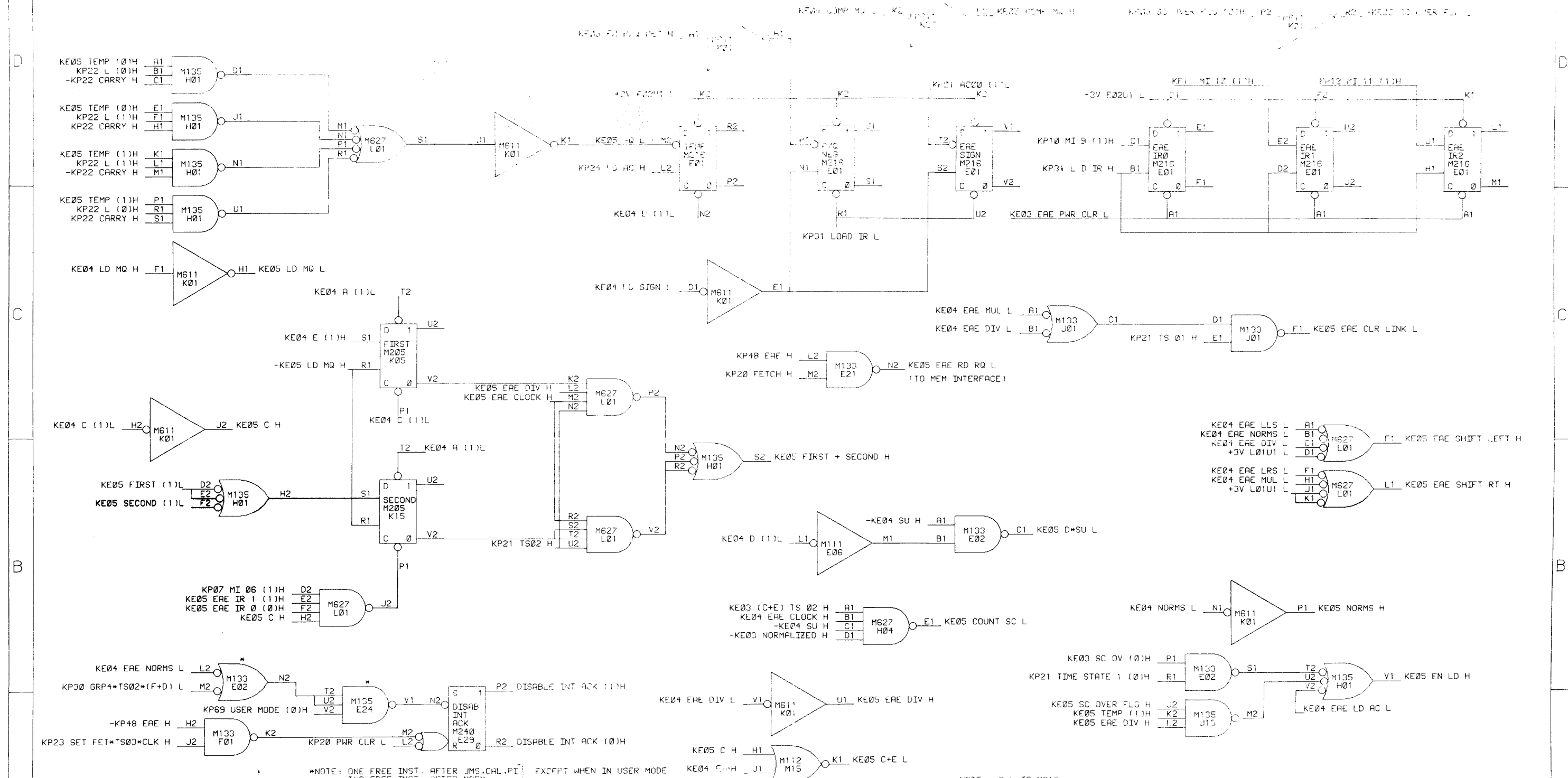


M770
E20
F20

REVISIONS		
CHK	CHANGE NO.	REV.
1/1	KP15-00056	C1
2/1	KP15-00056	C1
3/1	KP15-00056	C1
4/1	KP15-00056	C1
5/1	KP15-00056	C1
6/1	KP15-00056	C1
7/1	KP15-00056	C1
8/1	KP15-00056	C1
9/1	KP15-00056	C1
10/1	KP15-00056	C1
11/1	KP15-00056	C1
12/1	KP15-00056	C1
13/1	KP15-00056	C1
14/1	KP15-00056	C1
15/1	KP15-00056	C1
16/1	KP15-00056	C1
17/1	KP15-00056	C1
18/1	KP15-00056	C1
19/1	KP15-00056	C1
20/1	KP15-00056	C1

DRN. KATHY COTE	DATE 10-15-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHKD. LOU HOHOS	DATE 10-15-69		
ENG. F. HUMANN	DATE 10-7-69	TITLE EAE CONTROL M770	
PROJ. ENG. G. BUTLER	DATE 10-7-69		
PROD. F. LASKEY	DATE 10-7-69	FIRST USED ON KP15	
SCALE SHEET 2 OF 2			
SIZE CODE D BS		NUMBER KE15-0-04	REV. C
DIST.			

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[illegible]

*NOTE: ONE FREE INST. AFTER JMS,CHL,PI EXCEPT WHEN IN USER MODE
TWO FREE INST. AFTER NORM

OPTIONAL ECO KP15-#50
KE04 FAE NORMS L WILL BE TIED TO
E29N2 IF ECO NOT INSTALLED

```
*NOTE:  Q L TO MQ17
        TEMP (0)=SUB
        TEMP (1)=ADD
```

DRAWN K COTE	DATE 10/15/59	digital		CORPORATION	
CHECKED L J HOHOS	DATE 10/15/59			NAYNARD, MASSACHUSETTS	
ENGINEER HUMANN	DATE 10/17/59	TITLE			
PROJECT ENGINEER G BUTLER	DATE 10/17/59	IR SIGN DIVIDE LOGIC			
PRODUCED BY F CASKEY	DATE 10/17/59				
FIRST USED ON KE15		SIZE/CODE		NUMBER	REV.
		D BS		KE15-0-BS	E
SCALE					
SHEET 1 OF 1		DIST.			

SETUP INSTRUCTIONS

EVENT TIMES	CP OPERATIONS	LRS (S) MEM 4 (1): SIGNED 64050C	LLS (S) 64060C	ALS (S) 640700	NORM (S) 640444	MUL (S) 653122	DIV (S) 640323	IDIV (S) 653323	FRDIV (S) 650323	CP OPERATIONS	EAE NOP 64000C	LACQ 641002	LACS 641001	CLQ 65000C	ABS 644000	GSM 664000	OSC 640001	OMQ 640002	CMQ 640004	LMQ 65200C	
A AC MODIFICATIONS	↑	MEM IN 4 (1): AC 00 (1): 1 → LINK MEM IN 12-17 → SC, LOAD SC				MEM IN 12-17 → SC MEM 6 (1): AC 00 (1): 1 → SIGN MEM 6 (1): L ≠ AC 00: 1 → /Q NEG. MEM 6 (1): AC 00 (1): COMP AC MEM 6 (1): AC 00 (1): COMP AC				↑					AC → C BUS LDAC IF AC 00 (1): IF AC 00 (1) SET LINK, LD AC	AC → C BUS					
B MQ TRANSFERS	FETCH TS 02	MQ → MQ				SIGN (0): AC → MQ SIGN (1): AC → MQ	SIGN (2): COMP MQ	SIGN (3): AC → MQ SIGN (4): AC → MQ	0 → MQ	FETCH TS 02	MQ → MQ	MQ → MQ	MQ → MQ	MQ → C BUS LD MQ	MQ → MQ	MQ → MQ	MQ → MQ	MQ → MQ	MQ → MQ	MQ → C BUS LD MQ	AC → C BUS LD MQ
C AC TRANSFERS	↓	AC → AC				MEM 8 (1): 0 → AC	MEM 8 (2): 0 → AC				AC → AC	MQ → C BUS LD AC	SC → C BUS LD AC	AC → AC	AC → AC	AC → AC	SC → C BUS AC → C BUS LD AC	MQ → C BUS AC → C BUS LD AC	AC → AC	AC → AC	
D NO TRANSFERS	FETCH TS 03 SET EAE					0 → TEMP			0 → TEMP	0 → TEMP	FETCH TS 03 SET FETCH										
E SHIFTS	EAE TS 01 TS 02 LOOP IN TS 02 UNTIL SC OVERFLOW OR NORMALIZED	LRS DECODED L → AC 00 AC _n → AC _n + 1 AC ₁₇ → MQ 00 MQ _n → MQ _n + 1 MQ ₁₇ → LOST	LLS DECODED L → MQ 17 MQ _n → MQ _n - 1 MQ 00 → AC 17 AC _n → AC _n - 1 AC 00 → LOST	ALS DECODED L → AC 17 AC _n → AC _n - 1	NORMS DECODED L → MQ 17 MQ _n → MQ _n - 1 MQ 00 → AC 17 AC _n → AC _n - 1 AC 00 → LOST 1 → F WHEN NORMALIZED	MQ 17 (1): ADD MEM TO AC, SHIFT RT. MQ 17 (0): SHIFT RT. L → AC 00, MQ 17 LOST SUM BUS 17 MQ 00. MQ _n → MQ _n + 1 SUM BUS → AC _n + 1	CHECK FOR DIVIDE OVERFLOW IF CARRY ON FIRST OR SECOND SUB 1 → OVERFLOW TEMP (1) ADD TEMP (0) SUB SHIFT LEFT	SAME AS DIV	SAME AS DIV												
F COMPLEMENTING	EAE TS 03 SET EXECUTE					P/Q NEG (1): COMP MQ P/Q NEG (1) COMP AC				SIGN (1): COMP AC											

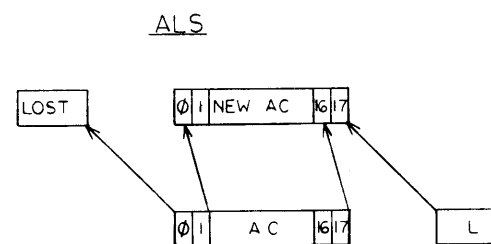
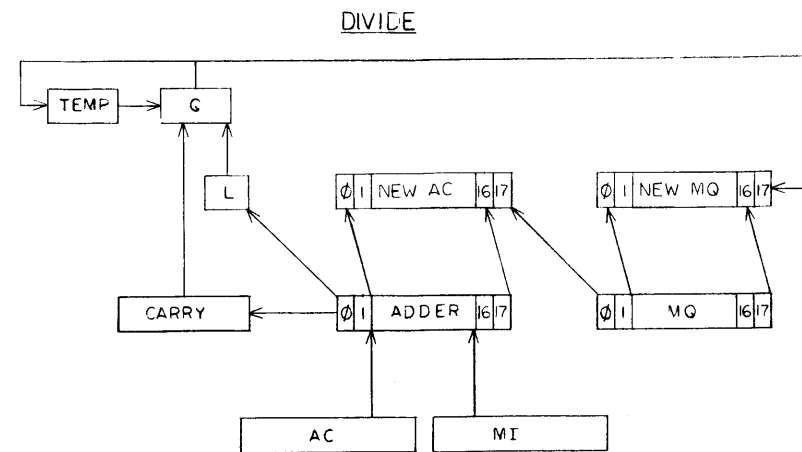
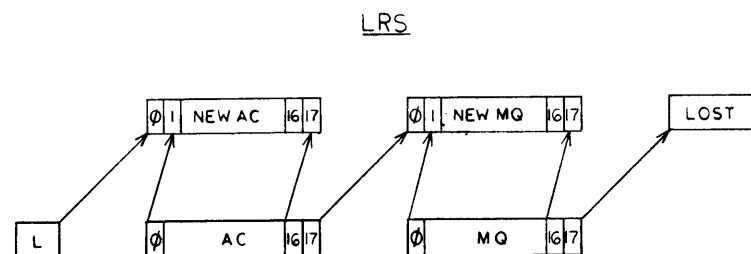
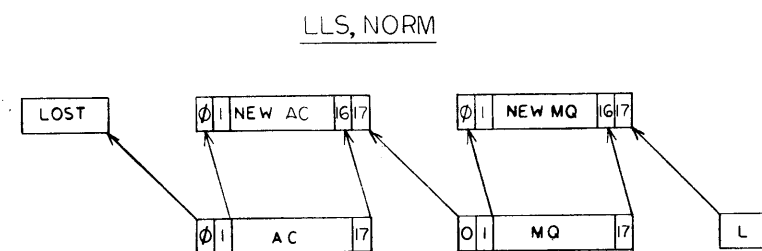
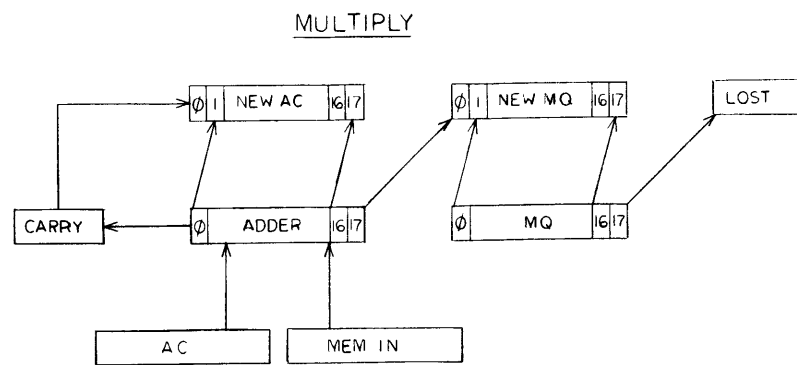
NOTE :

1. AN INTERRUPT IS HELD OFF FOR 2 CYCLES AFTER A NORM INSTRUCTION TO ALLOW A DAC TO STORE THE STEP COUNTER.
2. DURING LRS LLS ALS AND NORM OPERATIONS SHIFTING IS DONE AT TWICE THE NORMAL PULSE RATE. SHIFT AT PHASE 1 AND PHASE 3 TIME

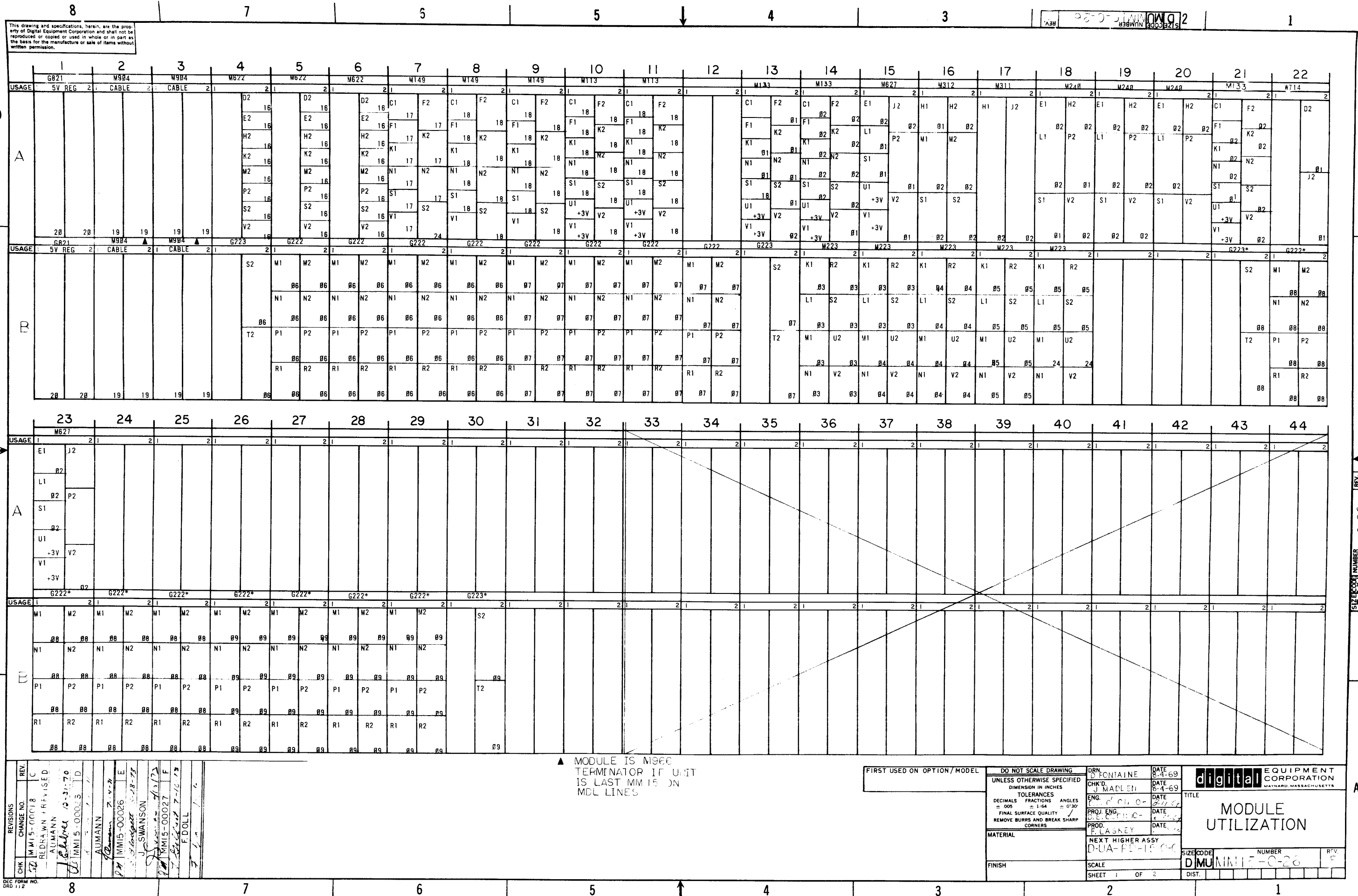
REVISED		REV
CHK	CHANGE NO.	
J. W.	KP15-00082	A
w/ change w-22-74		
F. DOLL		
		3-4-74

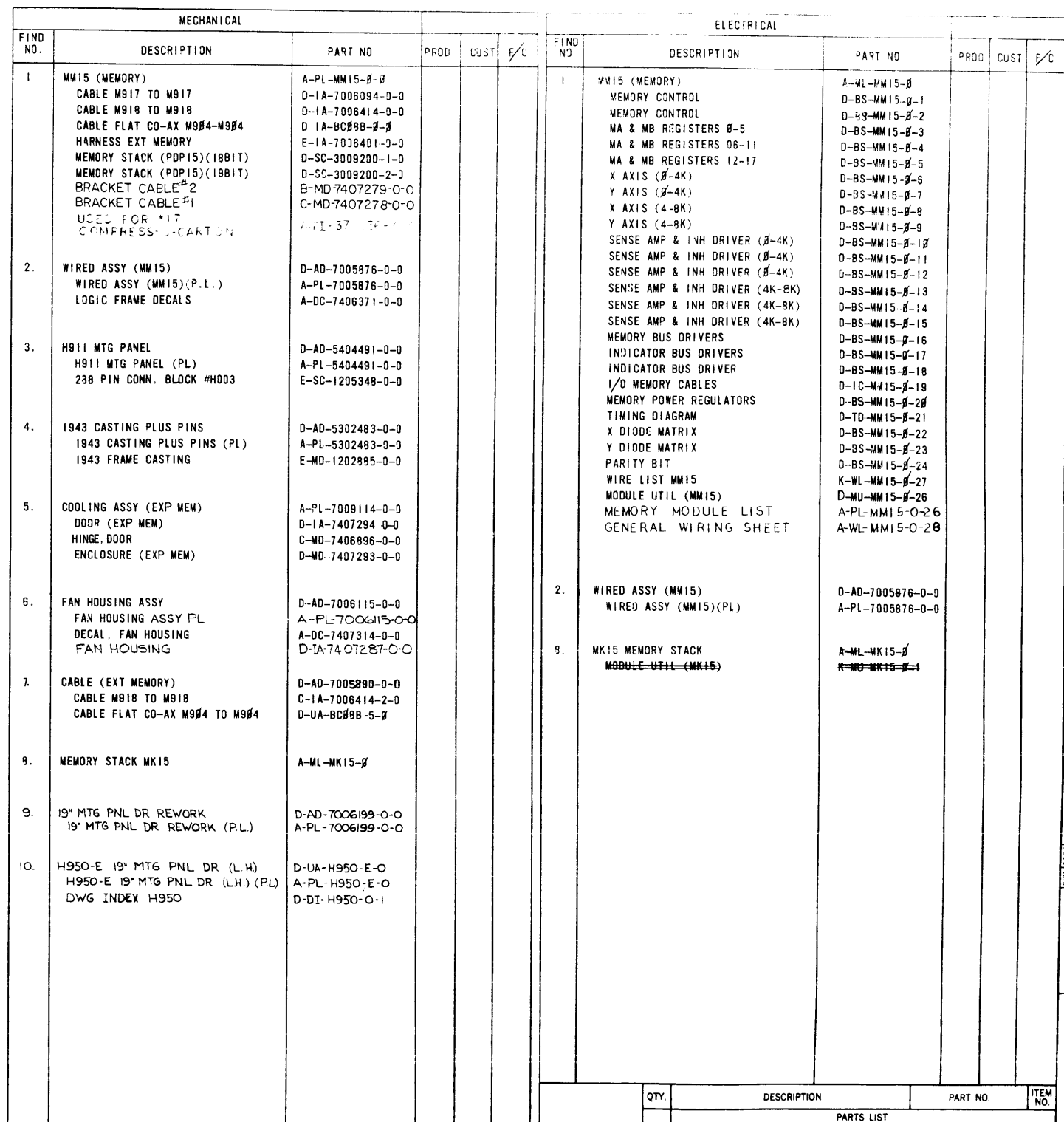
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				PARTS LIST			
UNLESS OTHERWISE SPECIFIED		DRN. <i>2000</i>		DATE <i>12/1/70</i>		digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED		CHK'D.		DATE			
DIMENSION IN INCHES							
TOLERANCES		ENG. <i>2000</i>		DATE <i>2-5-70</i>		TITLE EAE FLOW	
DECIMALS FRACTIONS ANGLES		PROJ. ENG. <i>2000</i>		DATE <i>2-5-70</i>			
± .005 ± 1/64 ± 0°30'		PROD. <i>2000</i>		DATE <i>2-5-70</i>			
FINAL SURFACE QUALITY							
REMOVE BURRS AND BREAK SHARP CORNERS							
MATERIAL		FIRST USED ON		SIZE CODE		NUMBER	
— + —				D F D		KE15- <i>1-06</i>	
FINISH		SCALE		DIST.		REV.	
— + —		— + —				A	
		SHEET		OF			

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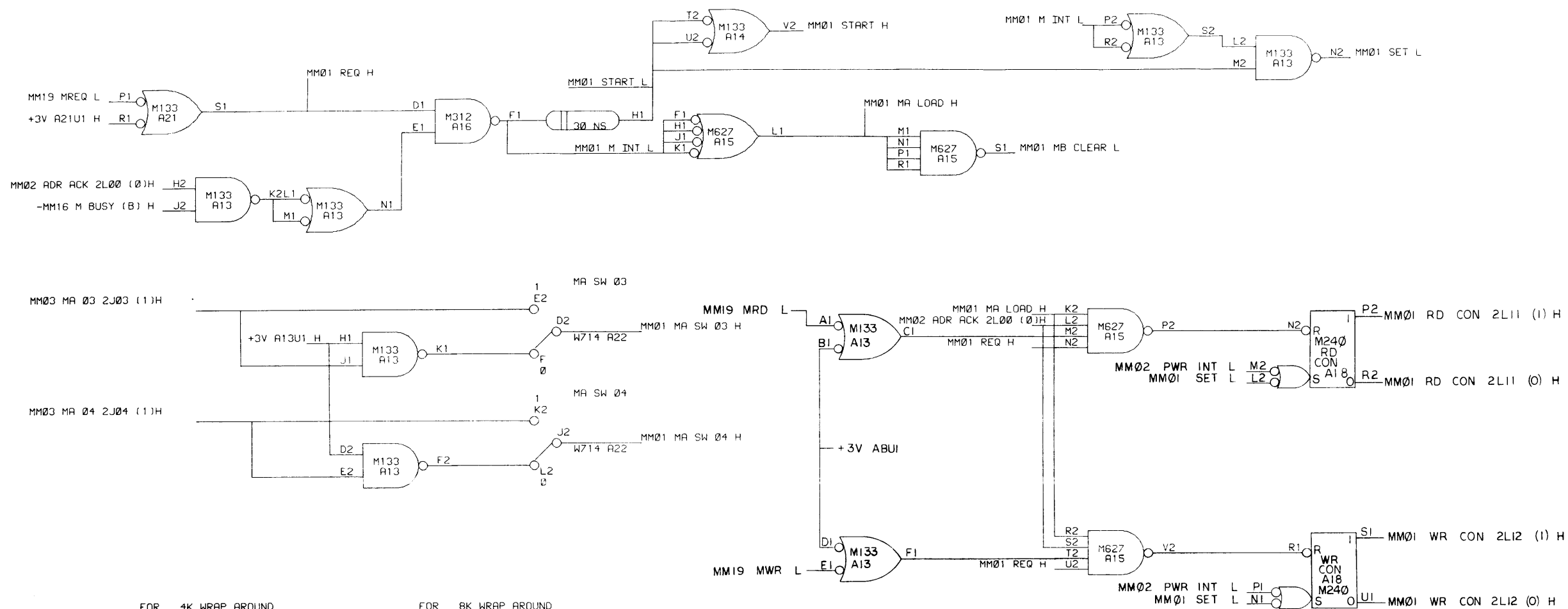
QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
UNLESS OTHERWISE SPECIFIED			
DIMENSION IN INCHES			
TOLERANCES			
DECIMALS FRACTIONS ANGLES			
= .005 ± .005 ± .010			
FINAL SURFACE QUALITY			
REMOVE BURRS AND BREAK SHARP CORNERS			
MATERIAL			
FINISH			
FIRST USED ON			
KE15			
SCALE			
SHEET OF 1			
TITLE			
DATA FLOW			
SIZE CODE			
DIFD			
NUMBER			
KE15-0-07			
REV.			



[illegible]

DO NOT SCALE DRAWING		DRN.	DATE		 digital EQUIPMENT CORPORATION NAYARD MASSACHUSETTS
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		CHK'D <i>M. Madson</i>	DATE <i>5/19/69</i>		
TOLERANCES		ENG.	DATE		TITLE DRAWING INDEX (MMI5)
DECIMALS FRACTIONS ANGLES		PROJ. ENG.	DATE		
= .005 = 1/64 = 0°30'		PROD.	DATE		
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS					
MATERIAL		NEXT HIGHER ASSY			
				SIZE CODE NUMBER REV. DDI MMI5 2 25 E	
FINISH		SCALE		DIST.	
		SHEET 1 OF 1			

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```
FOR 4K WRAP AROUND
DELETE:
      B13D2-B15S1
      B15S1-A21P2
      A17F2-A14N1
```

ADD:
A17F2-A23K1
A22D2-A22J2
A22J2-A21V1
C21S1-C21T1
A21P2-B13D2
A21P2-A23U1

REMOVE W714 FROM A22

```
FOR      8K WRAP AROUND
ADD:
      A22D2-A22J2
      A22J2-A21V1
```

REMOVE W714 FROM A22

MEMORY BANK SE		LECTION
	UPPER SW	LOWER SW
BANK	MA SW 03	MA SW 04
0-8K	0	0
8-16K	0	1
16-24K	1	0
24-32K	1	1

REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
NR	MM15-00001	H		H. LAVOIE 2 21-73	D
	K BOGGS 9/10/69			<i>Handwritten: H. Lavoie 2 21 73</i>	25
	C O'CONNOR 3/16/65				
NR	MM15-00009	B			
	KATHY COTE 2/4/70				
	C O'CONNOR 2/4/70				
<i>AK</i>	MM15-00000	C			
	<i>typical</i>				
<i>24</i>	MM15-00025	D			
	<i>1 Bldg 2 21 73</i>				

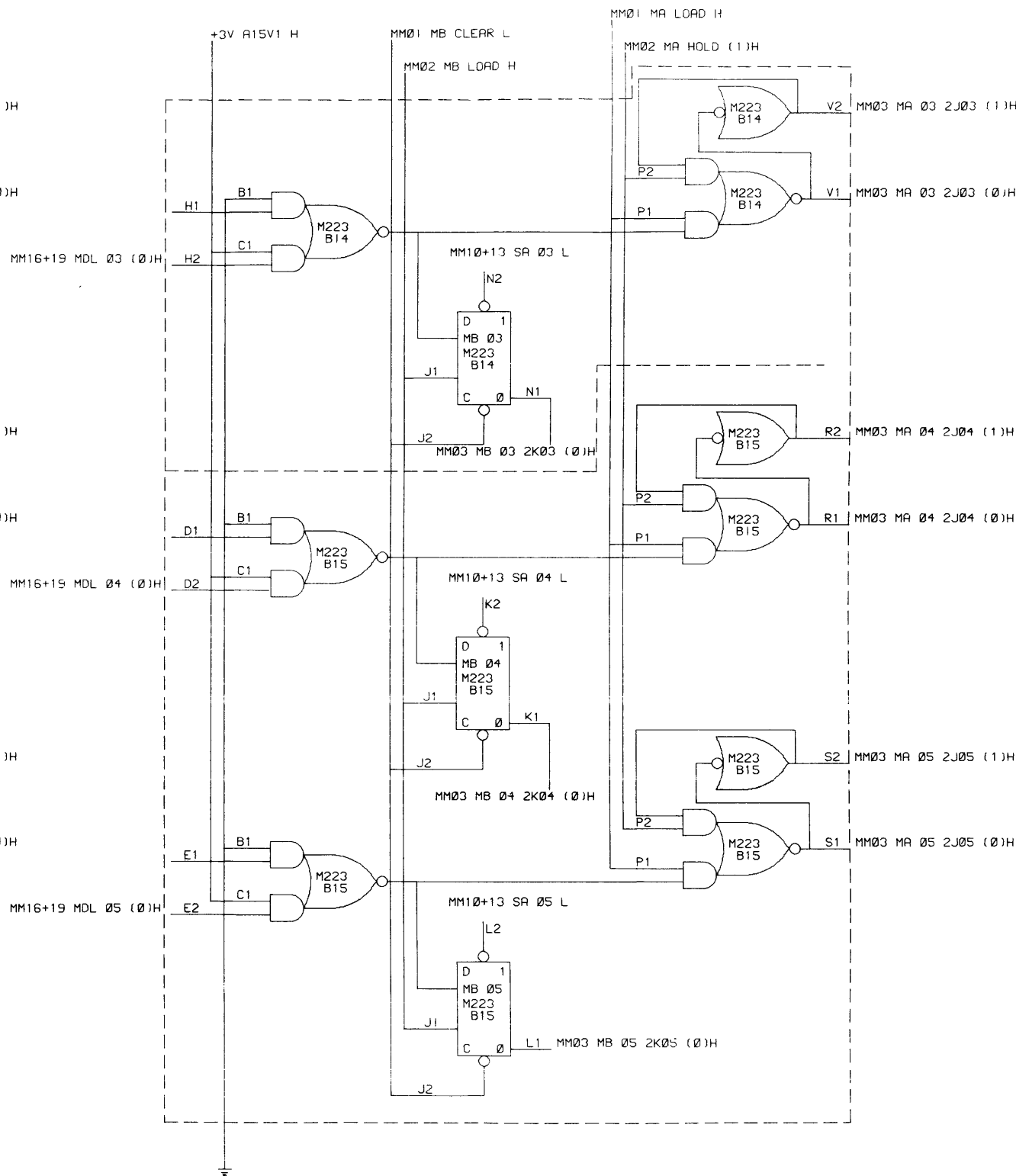
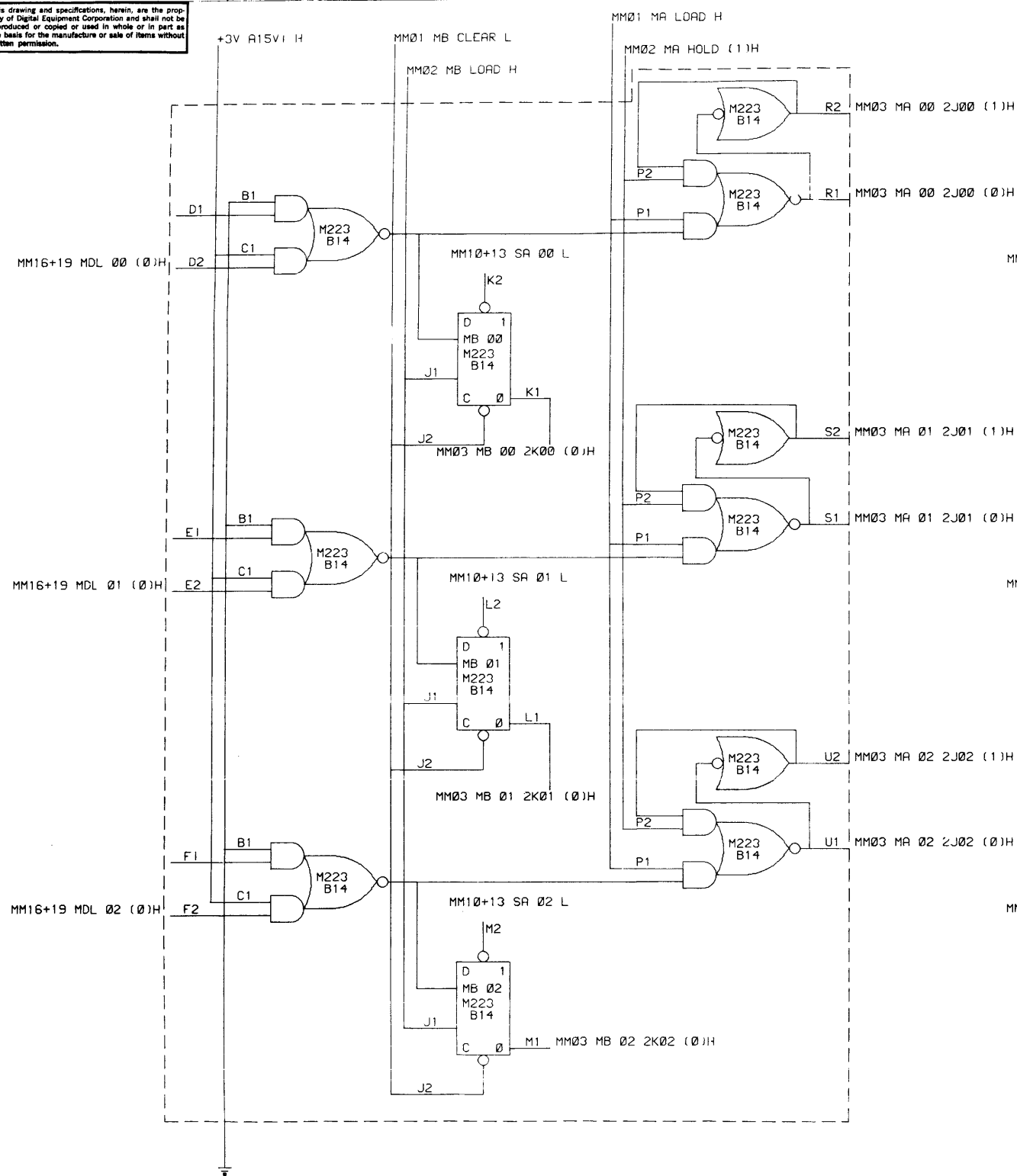
DRN.	DATE	digital		EQUIPMENT CORPORATION	
E. VOWLES	8/15/69			MAYNARD, MASSACHUSETTS	
CHK'D	DATE	TITLE			
N. RHEAULT	8/15/69	MEMORY CONTROL			
ENG.	DATE				
D. O'CONNOR	8/15/69				
PROJ. ENG.	DATE				
D. O'CONNOR	8/15/69				
PROD.	DATE				
F. LASKEY	8/15/69				
FIRST USED ON					
MM15		SIZE	CODE	NUMBER	REV.
SCALE		D	BS	MM15-0-01	D
SHEET	OF	DIST.			

D

D

1

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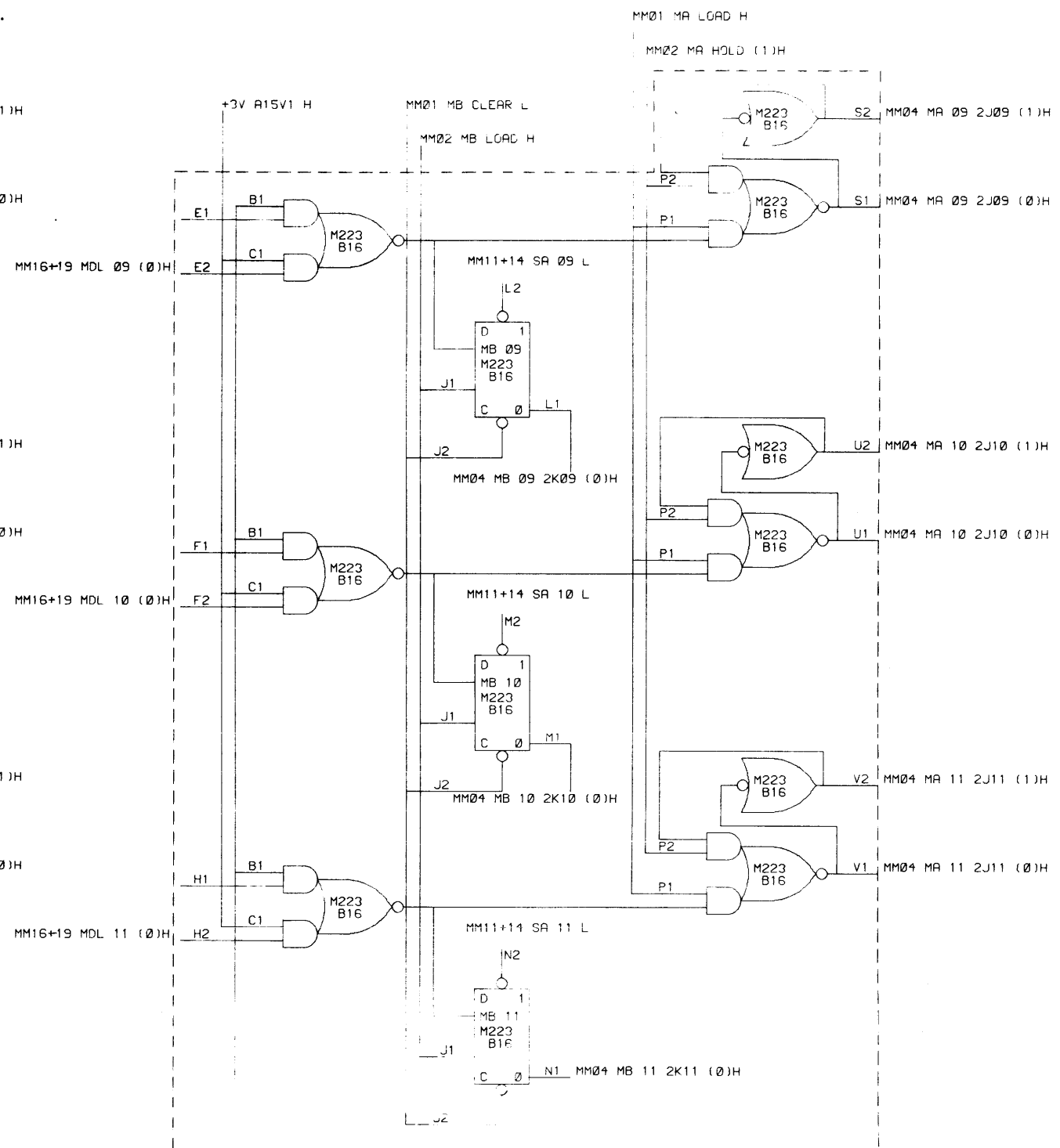
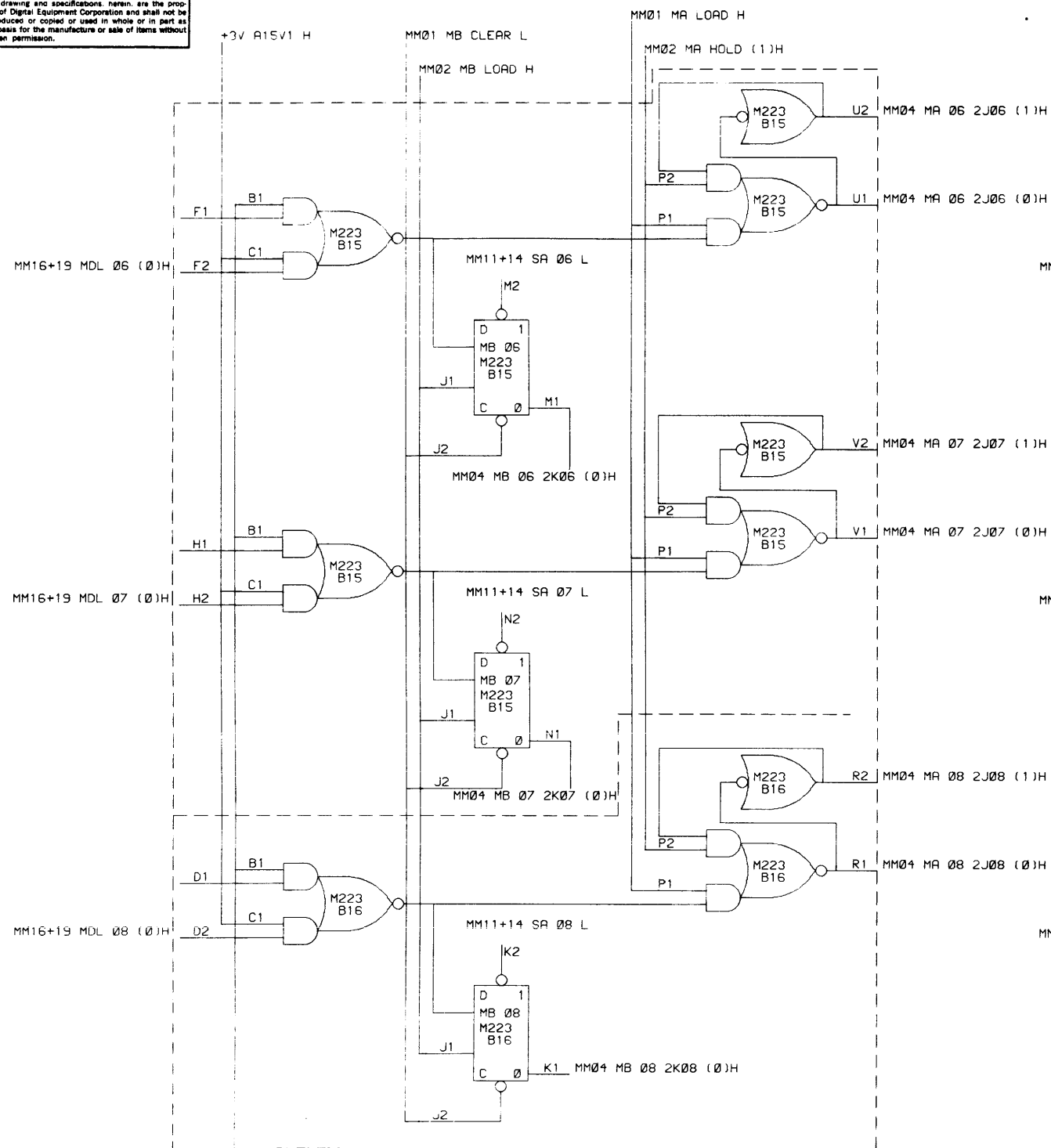
REVISIONS		
CHK	CHANGE NO.	REV.

DRN:	E. VOWLES	DATE	8-14-69
CHK'D:	N. RHEAULT	DATE	8-15-69
ENG:	D. C. COUNNER	DATE	8-15-69
PROJ. ENG:	D. C. COUNNER	DATE	8-15-69
PROD.	F. LAGNEY	DATE	8-15-69
FIRST USED ON			
MM15			
SCALE	1 OF 1	SIZE/CODE	D BS
SHEET	1	NUMBER	MM15-0-3
DIST.		REV.	00

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
MA+MB REGISTERS 0-5

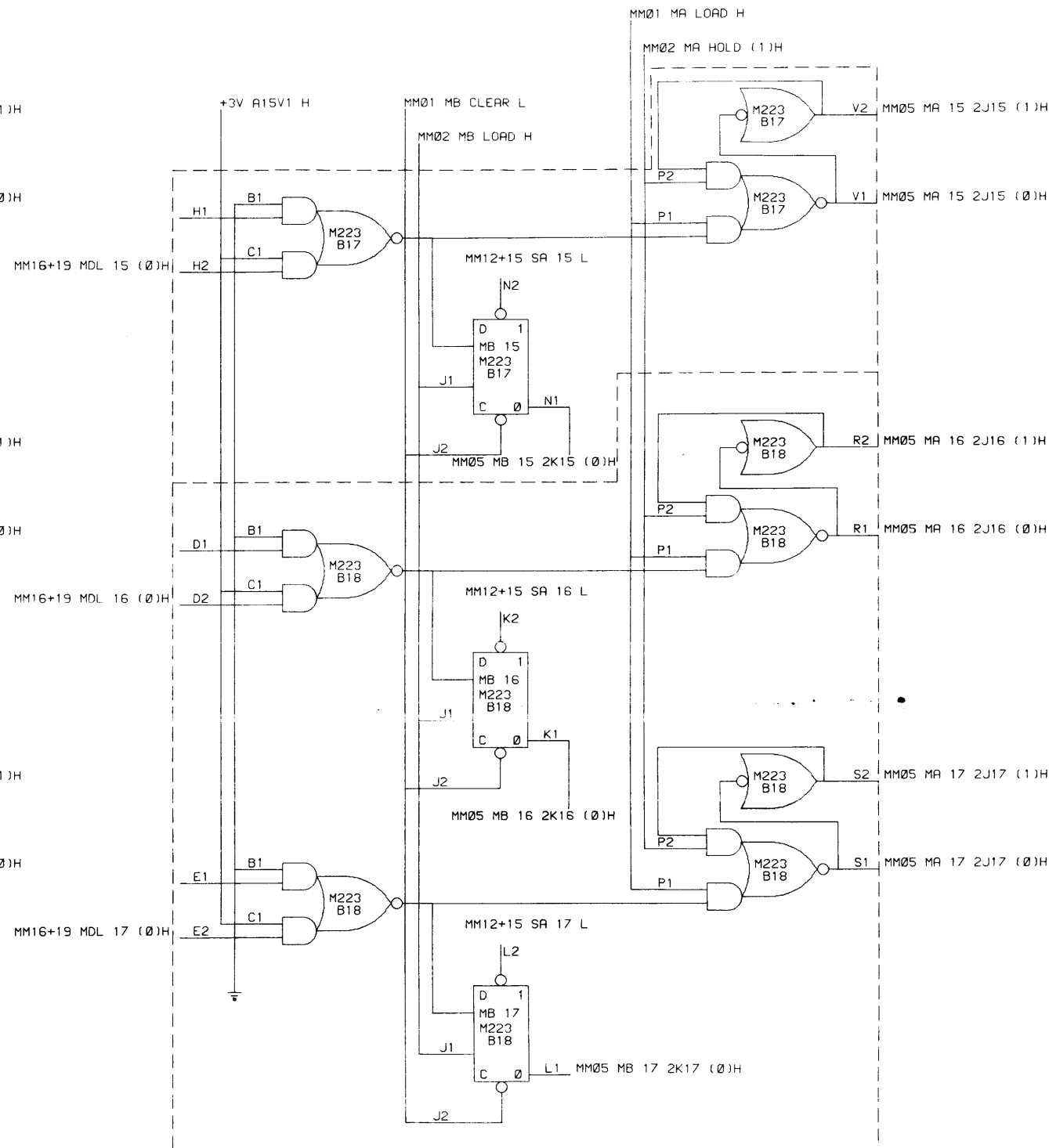
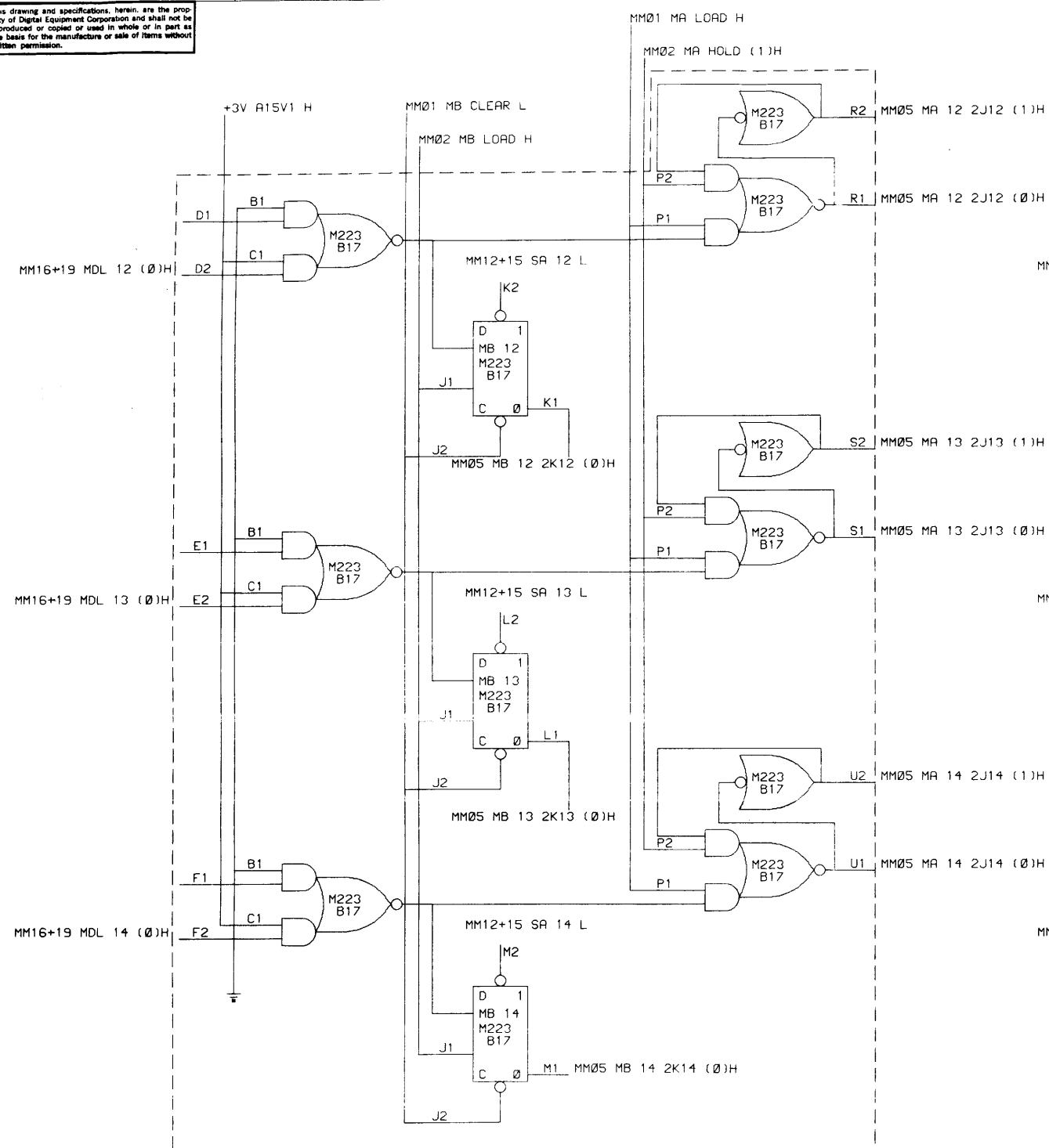
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REVISIONS		
CHK	CHANGE NO.	REV.

QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS TITLE MA+MB REGISTERS 06-11	
CHK'D.	DATE		
ENG.	DATE		
PROJ. ENG.	DATE		
PROD.	DATE		
FIRST USED ON		NUMBER MM15-0-4	
SCALE	DATE	REV. 00	
SHEET 1 OF 1	DIST.		

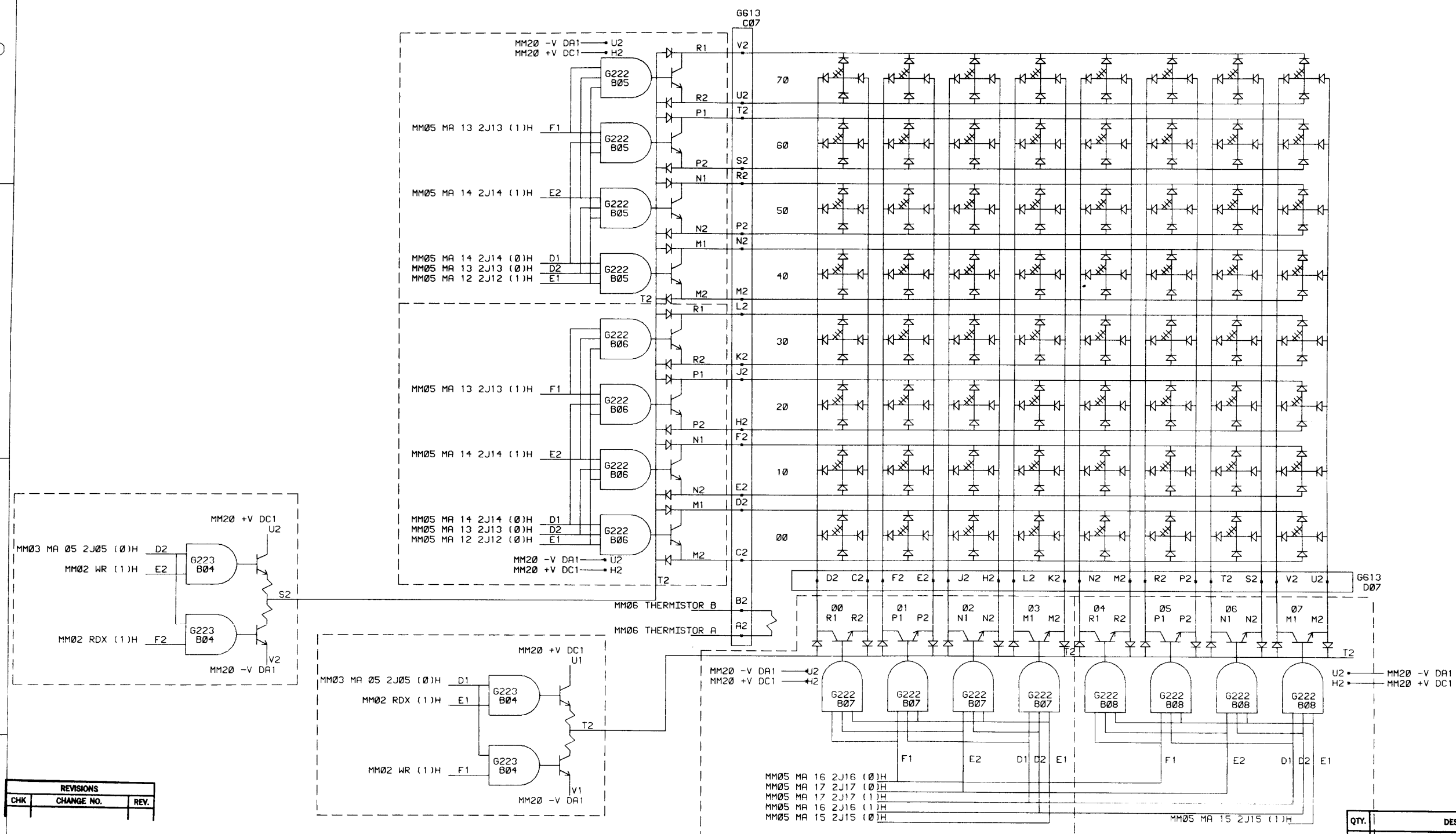
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REVISIONS		
CHK	CHANGE NO.	REV.

QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS TITLE MA+B REGISTERS 12-17	
CHK'D.	DATE		
ENG.	DATE		
PROJ. ENG.	DATE		
PROD.	DATE		
FIRST USED ON		NUMBER	
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SCALE	OF	REV.	00
SHEET	OF	DIST.	

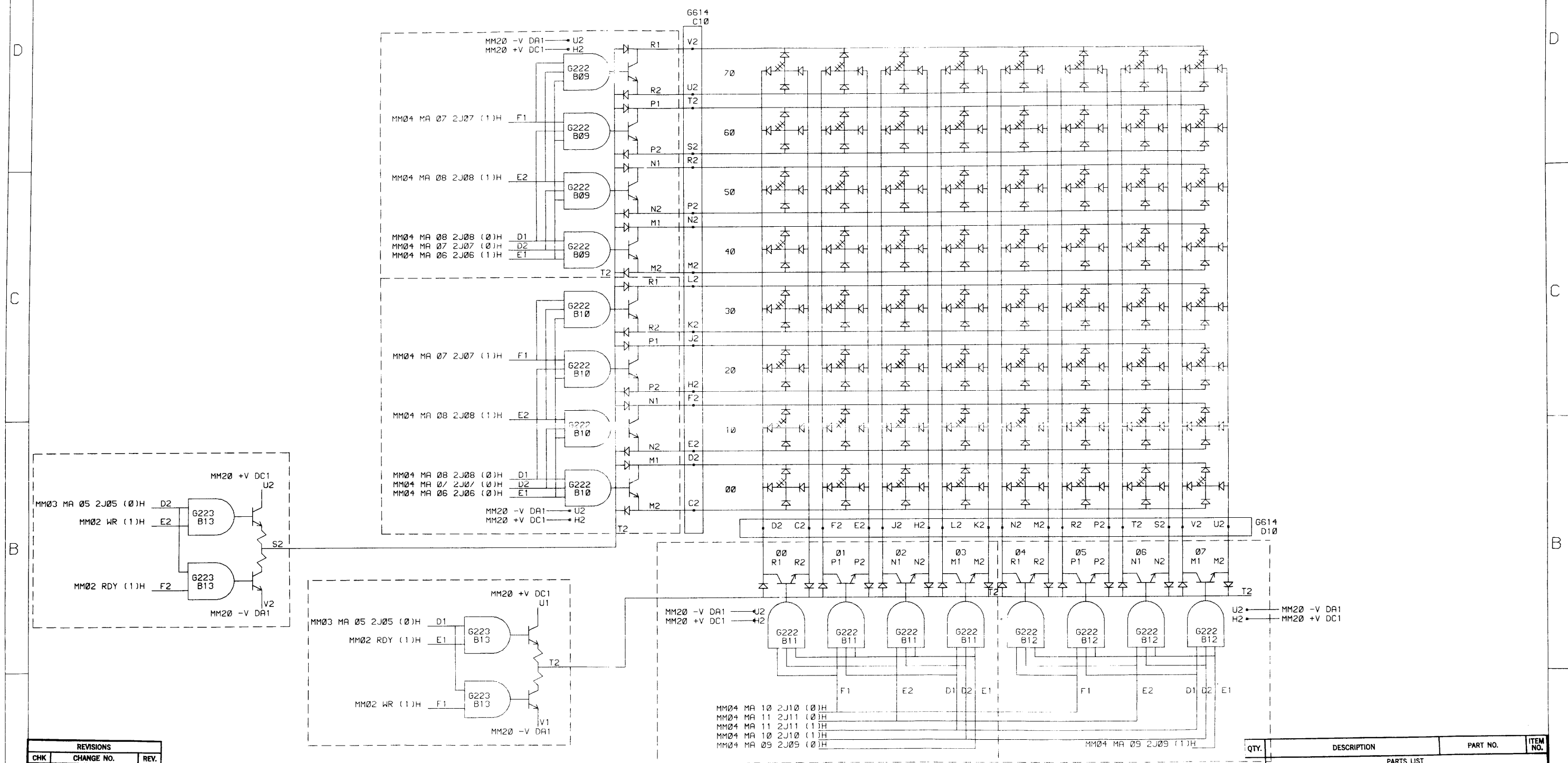
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REVISIONS		
CHK	CHANGE NO.	REV.

QTY.	DESCRIPTION		PART NO.		ITEM NO.
PARTS LIST					
DRN.	DATE	 DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			
CHK'D.	DATE				
ENG.	DATE				
PROJ. ENG.	DATE				
PROD.	DATE				
FIRST USED ON		TITLE			
MM15		X AXIS (0-4K)			
SCALE	SIZE	CODE	NUMBER		REV.
	D	BS	MM15-0-6		00
SHEET 1 OF 1	DIST.				

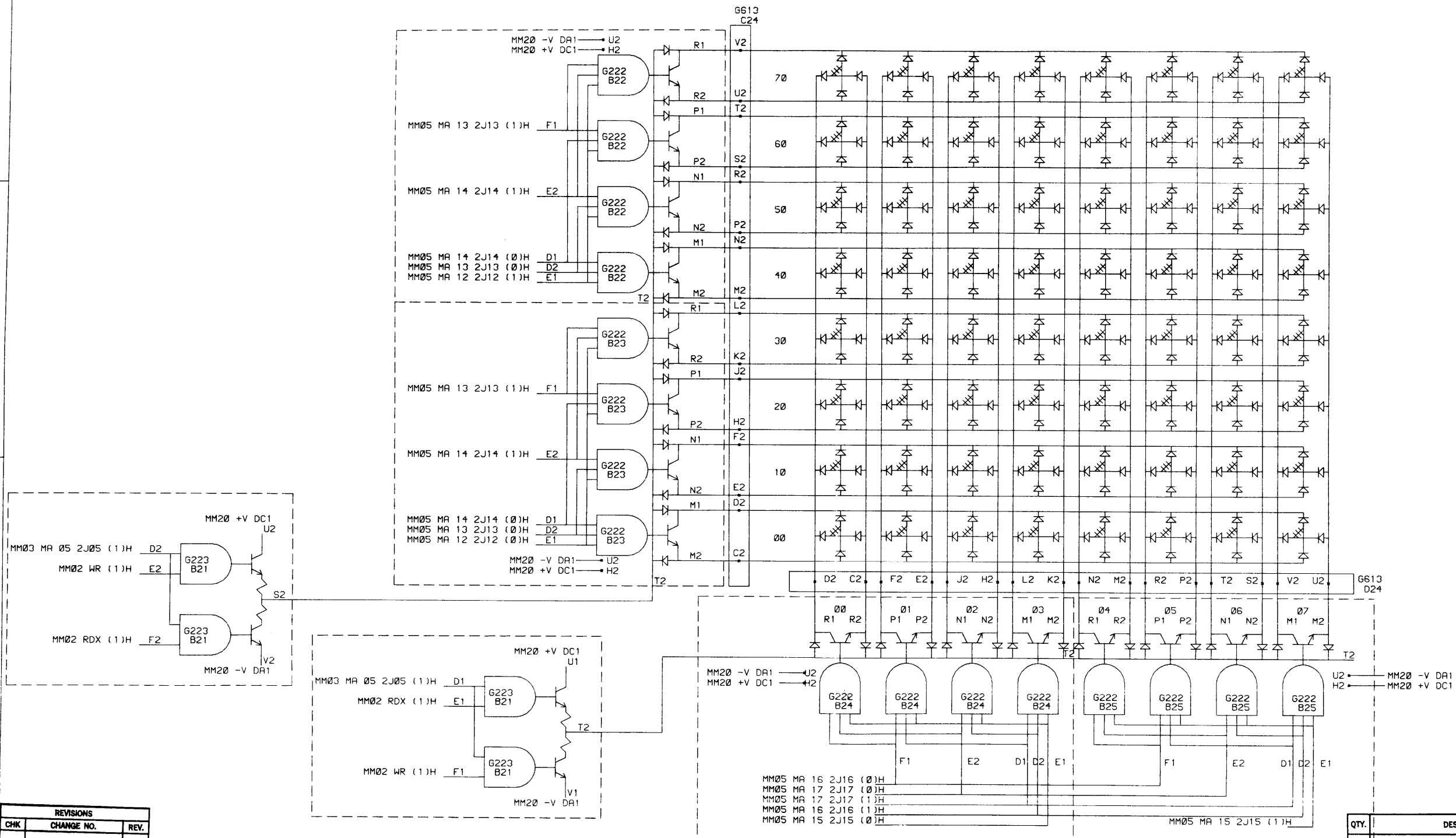
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REVISIONS		
CHK	CHANGE NO.	REV.

QTY.	DESCRIPTION	PART NO.	ITEM NO.	
PARTS LIST				
DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		
CHK'D.	DATE			
ENG.	DATE			
PROJ. ENG.	DATE			
PROD.	DATE			
FIRST USED ON MM15		SIZE CODE D BS	NUMBER MM15-0-7	REV. 00
SCALE		SHEET OF		

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REVISIONS		
CHK	CHANGE NO.	REV.

QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D.	DATE		
ENG.	DATE		
PROJ. ENG.	DATE		
PROD.	DATE		
FIRST USED ON		TITLE	
MM15		X AXIS (4-8K)	
SCALE	SIZE/CODE	NUMBER	REV.
SHEET 1 OF 1	D BS	MM15-0-8	00
DIST.			

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D

C

B

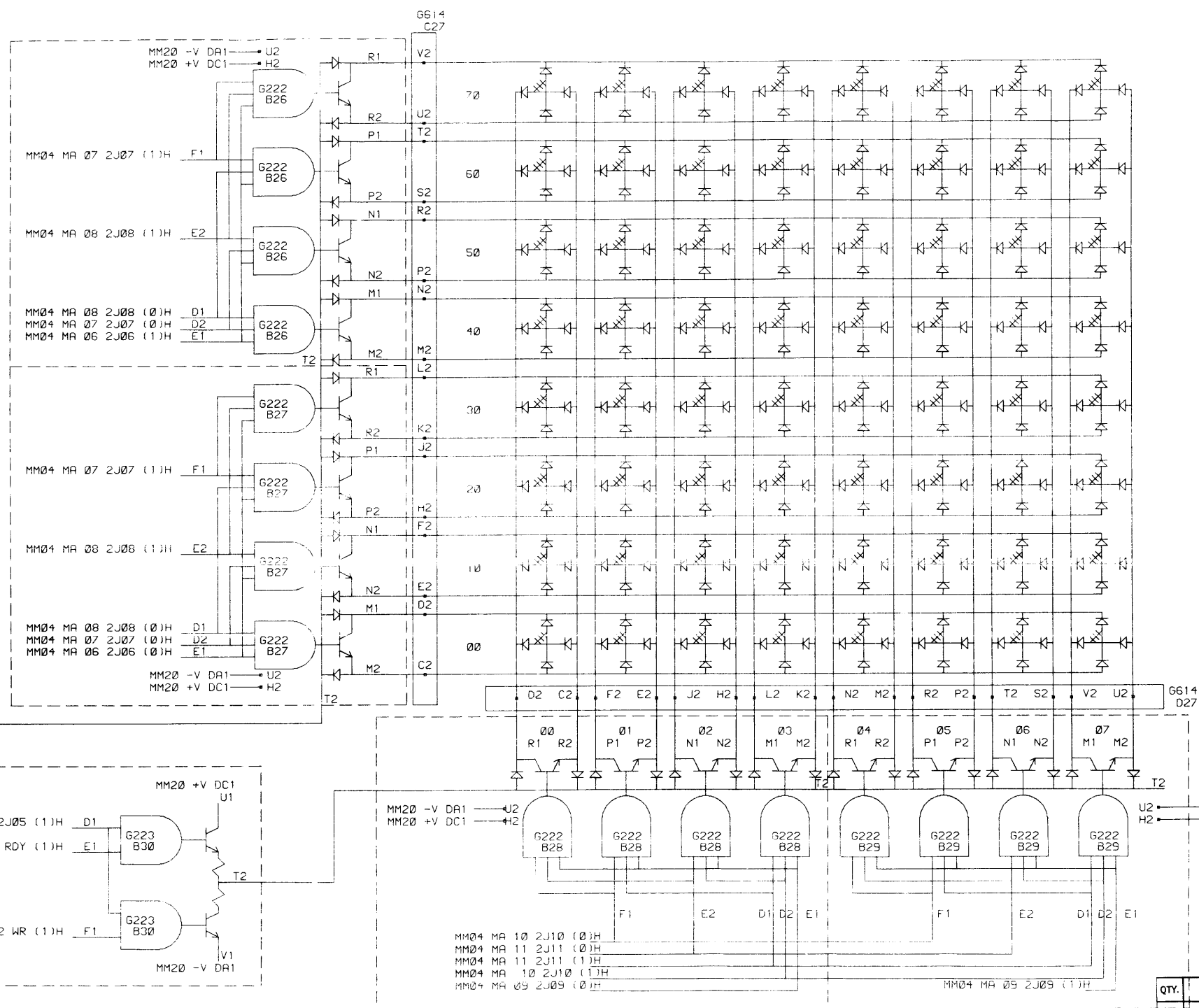
A

D

C

B

A

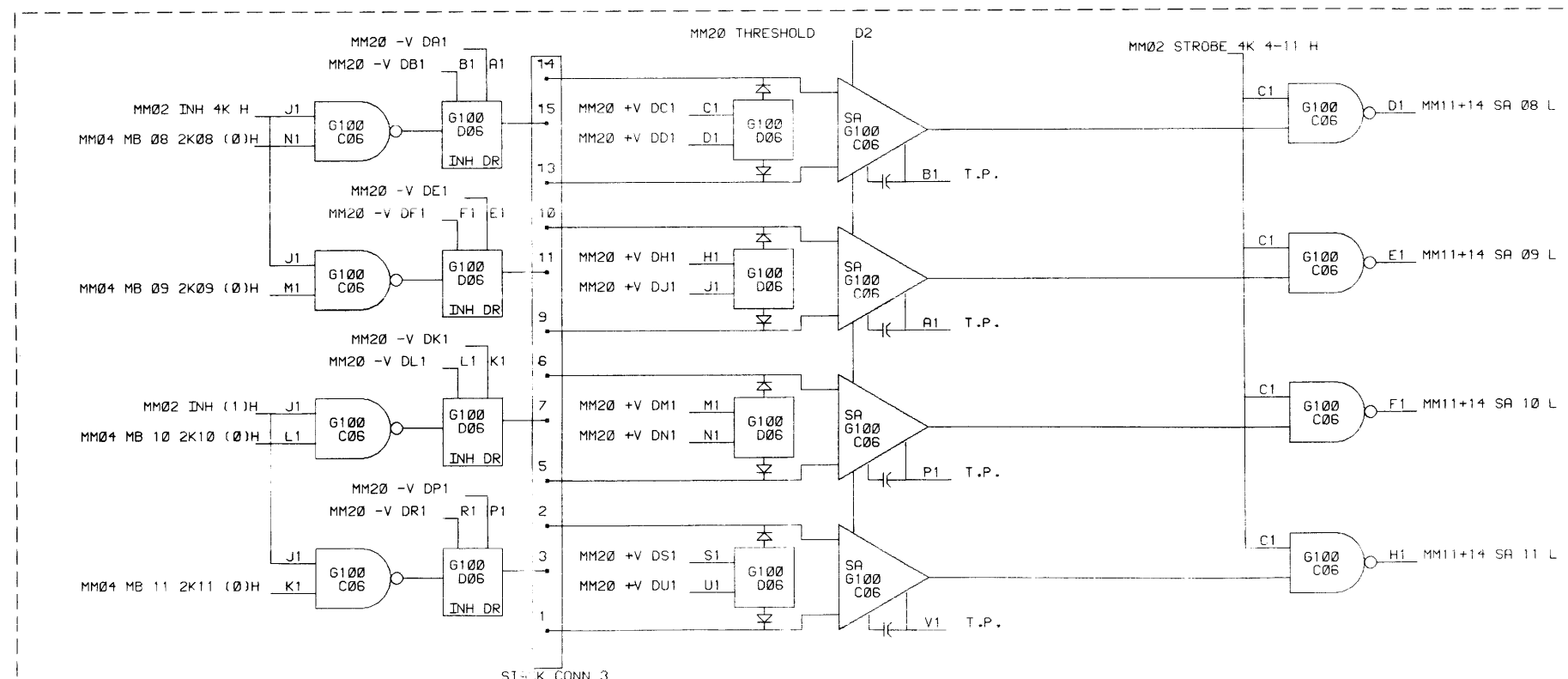
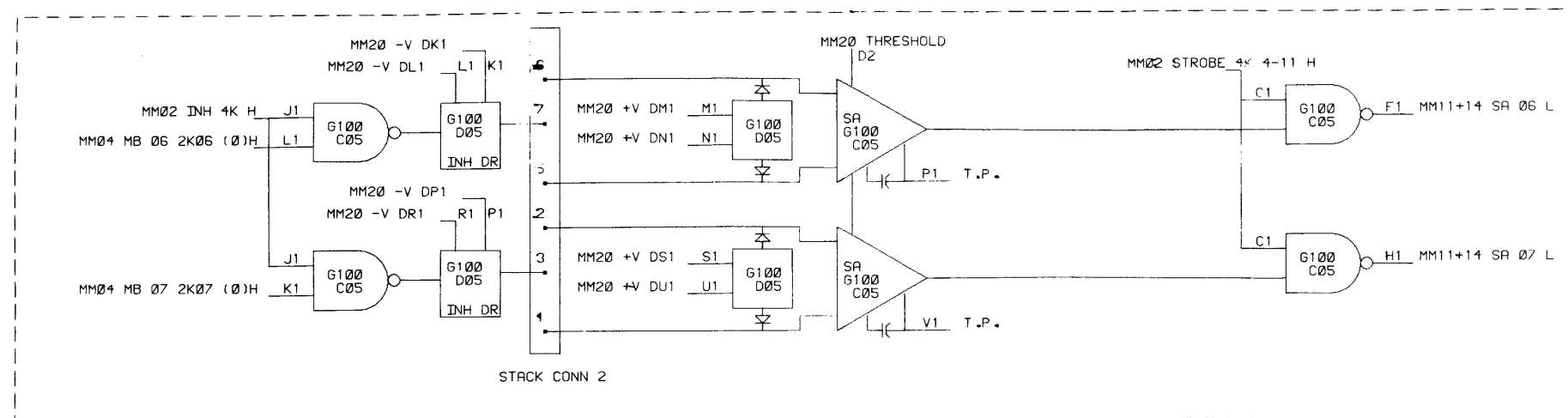


REVISIONS		
CHK	CHANGE NO.	REV.

QTY.	DESCRIPTION	PART NO.	ITEM NO.	
PARTS LIST				
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CHK'D.	DATE			
ENG.	DATE			
PROJ. ENG.	DATE			
PROD.	DATE			
FIRST USED ON MM15		SIZE CODE D BS	NUMBER MM15-0-9	REV. 00
SCALE	DIST.			
SHEET	OF			

QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
DRAWING NO.	DATE	 MAYNARD, MASSACHUSETTS	
CHECKED BY	DATE		
ENGINEER	DATE		
PROJECT ENG.	DATE		
PROD.	DATE		
TITLE			
FIRST USED ON	SENSE AMP + INH DRIVER (0-4K)		
MM15	SIZE CODE	NUMBER	REV.
SCALE	D BS	MM15-0-10	00
SHEET 1 OF 1	DIST.		

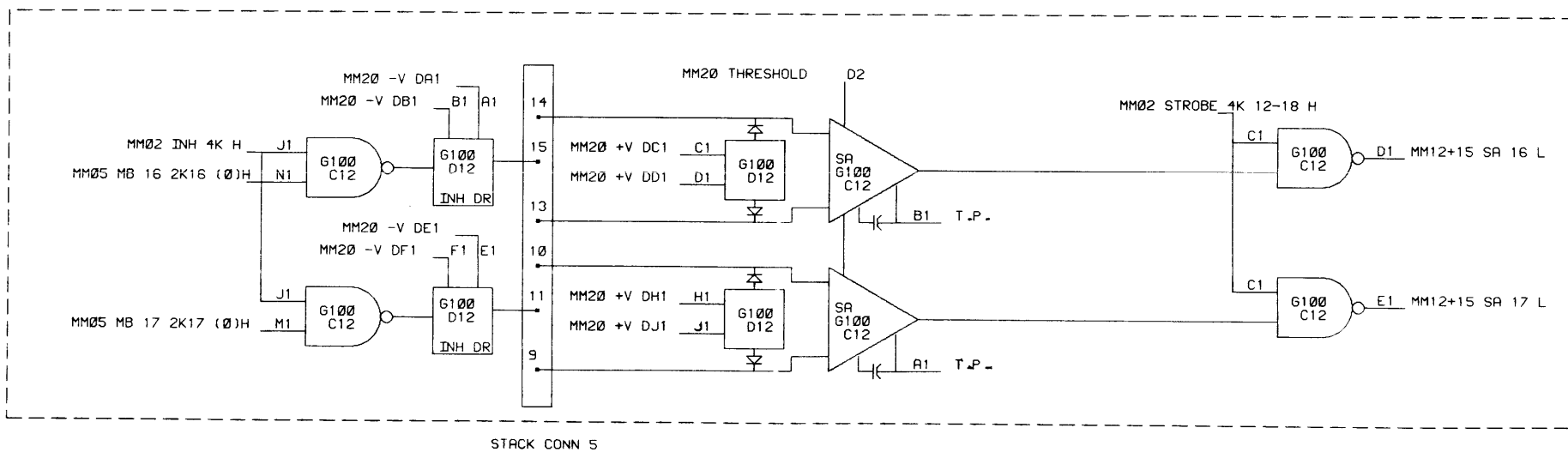
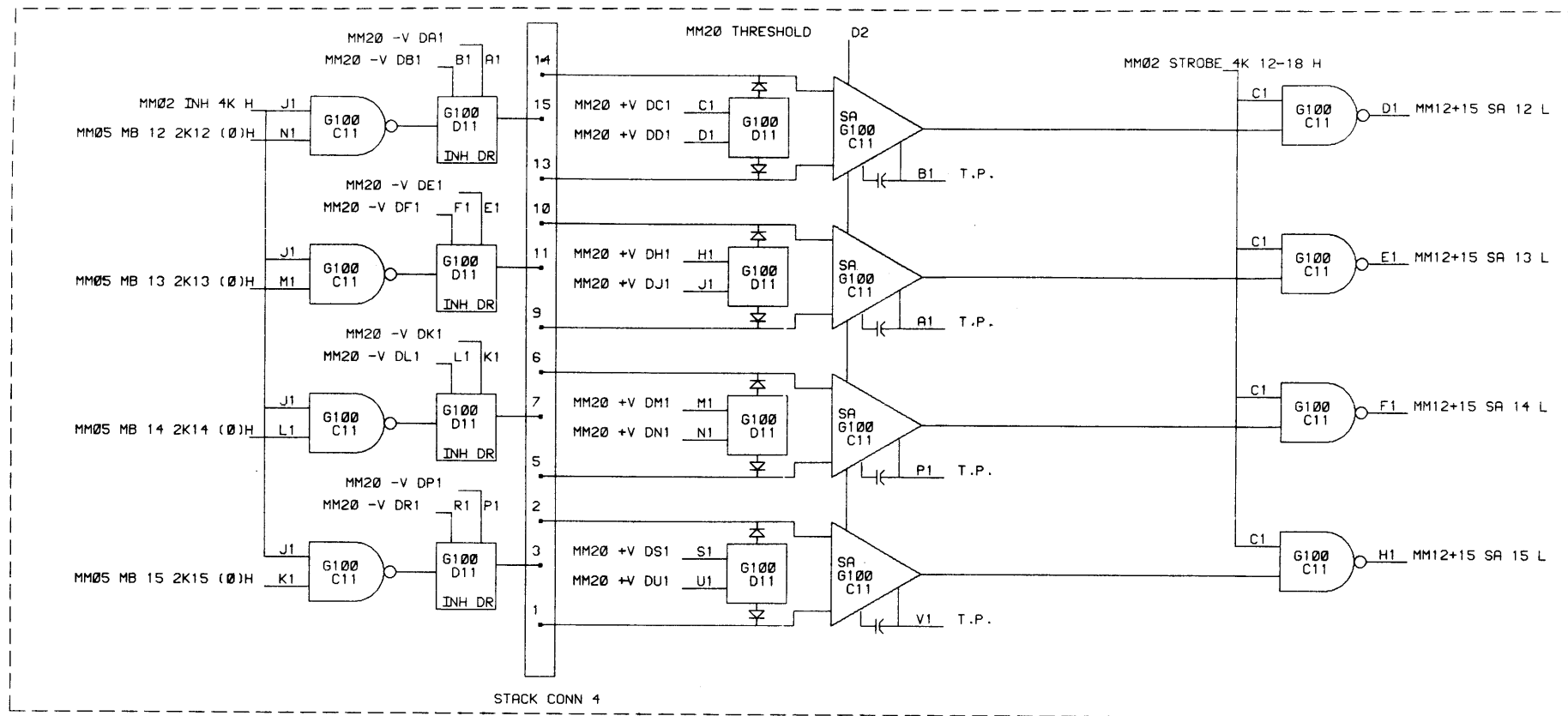
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REVISIONS		
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QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
DRN.	DATE	digital EQUIPMENT CORPORATION WATKINS, MASSACHUSETTS TITLE SENSE AMP + INH DRIVER (0-4K)	
CHK'D.	DATE		
ENG.	DATE		
PROJ. ENG.	DATE		
PROD.	DATE		
FIRST USED ON		REV.	
MM15		00	
SCALE	OF	SIZE/CODE	NUMBER
		D BS	MM15-0-11
SHEET	OF	DIST.	

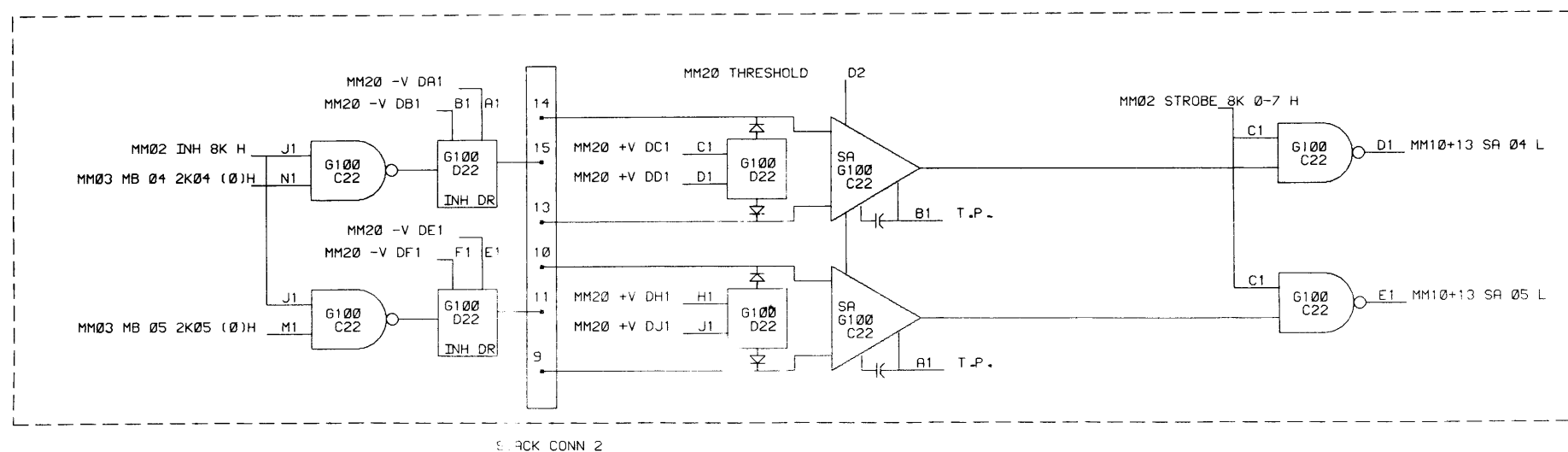
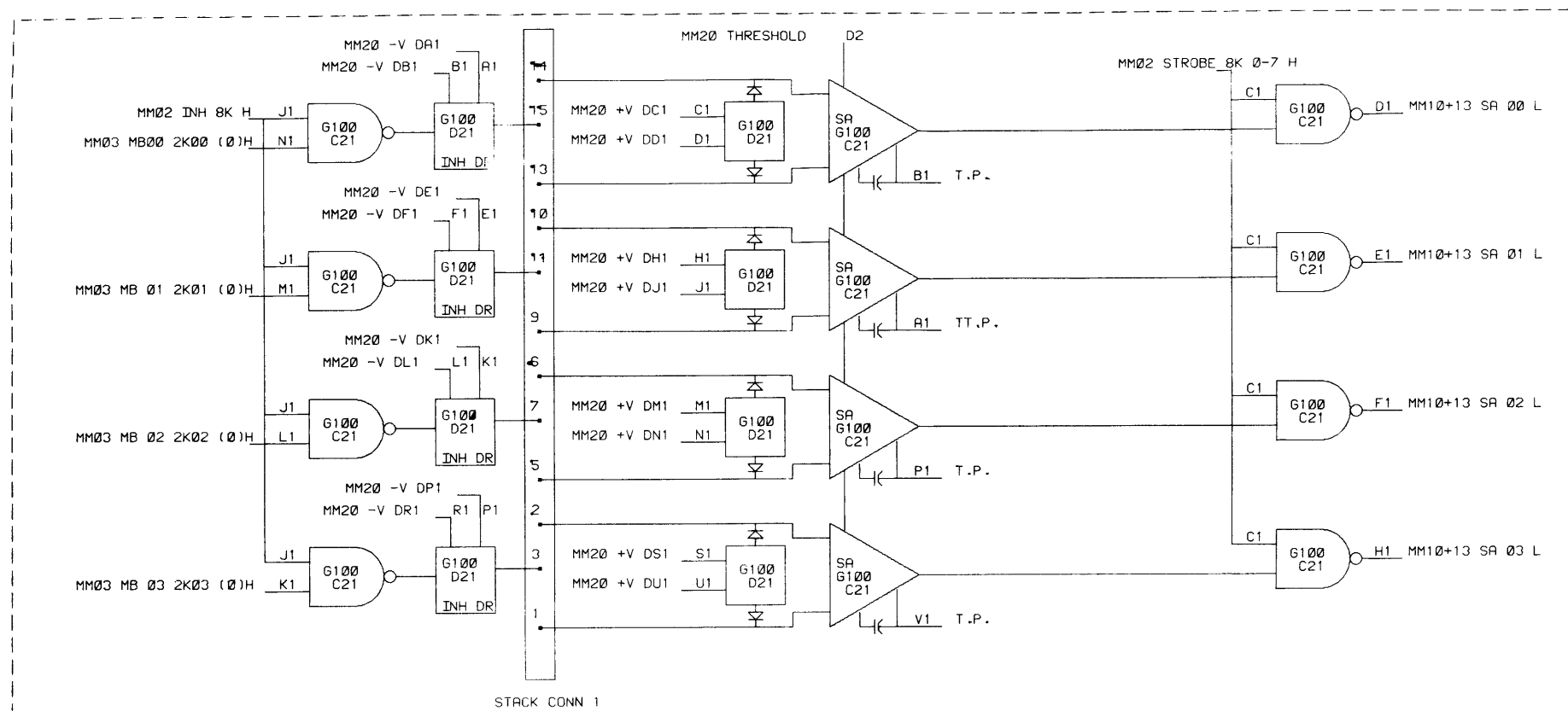
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REVISIONS		
CHK	CHANGE NO.	REV.

QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS TITLE SENSE AMP + INH DRIVER (0-4K)	
CHK'D.	DATE		
ENG.	DATE		
PROJ. ENG.	DATE		
PROD.	DATE		
FIRST USED ON		SIZE CODE	NUMBER
MM15		D BS	MM15-0-12
SCALE			REV.
SHEET 1 OF 1	DIST.		00

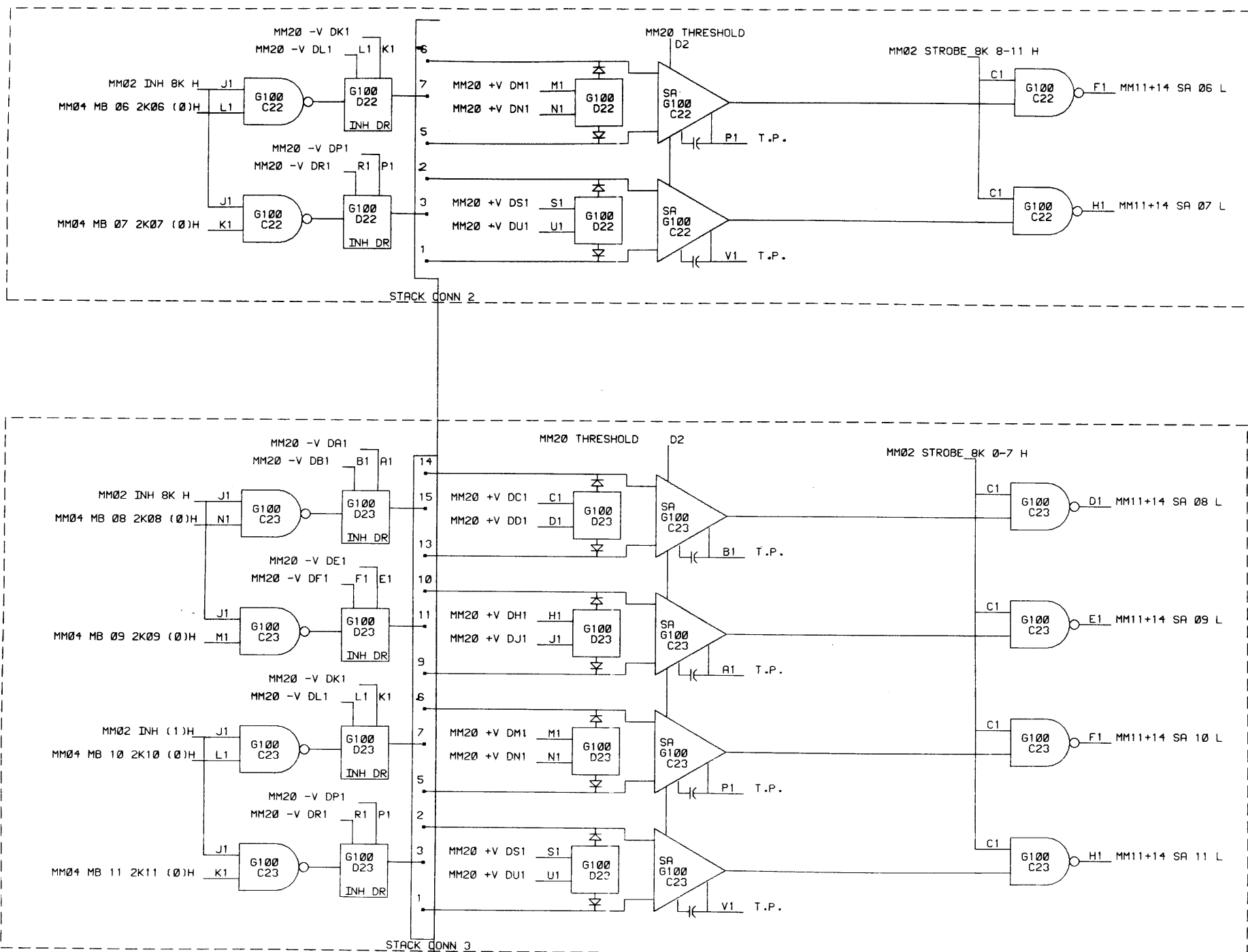
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REVISIONS		
CHK	CHANGE NO.	REV.

QTY.	DESCRIPTION	PART NO.	ITEM NO.		
	PARTS LIST				
DRN.	DATE	digital EQUIPMENT CORPORATION WAYNAD, MASSACHUSETTS TITLE SENSE AMP + INH DRIVER (4-8K)			
CHK'D.	DATE				
ENG.	DATE				
PROJ. ENG.	DATE				
PROD.	DATE				
FIRST USED ON MM15					
SCALE		SIZE	CODE	NUMBER	REV.
SHEET	OF	D	BS	MM15-0-13	00
		DIS.			

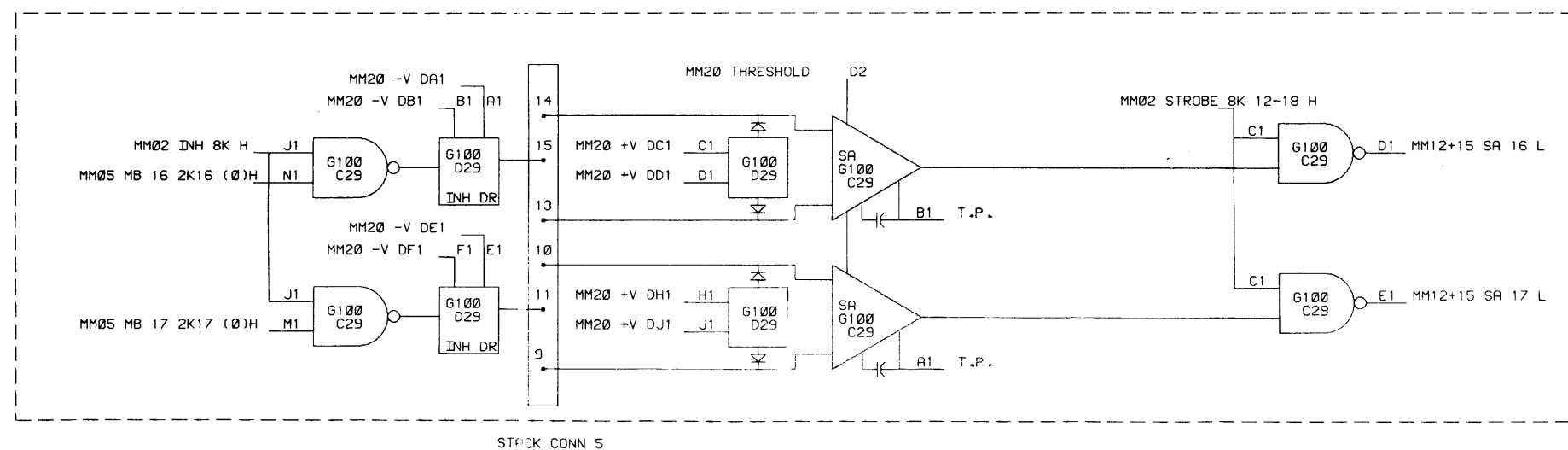
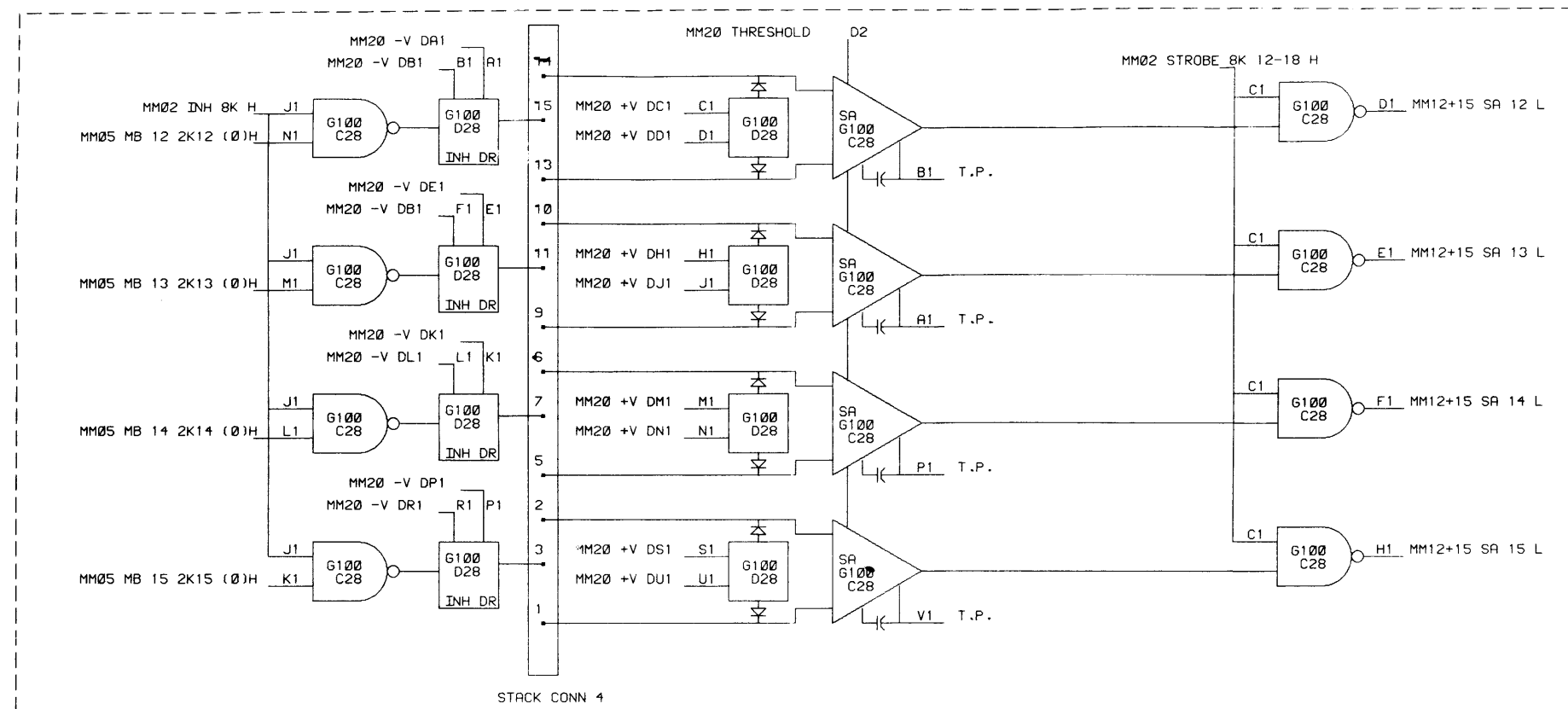
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REVISIONS		
CHK	CHANGE NO.	REV.

QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D.	DATE		
ENG.	DATE		
PROJ. ENG.	DATE		
PROD.	DATE		
FIRST USED ON		TITLE	
MM15		SENSE AMP + INH DRIVER (4-8K)	
SCALE	SIZE/CODE	NUMBER	REV.
SHEET 1 OF 1	D BS	MM15-0-14	00
DIST.			

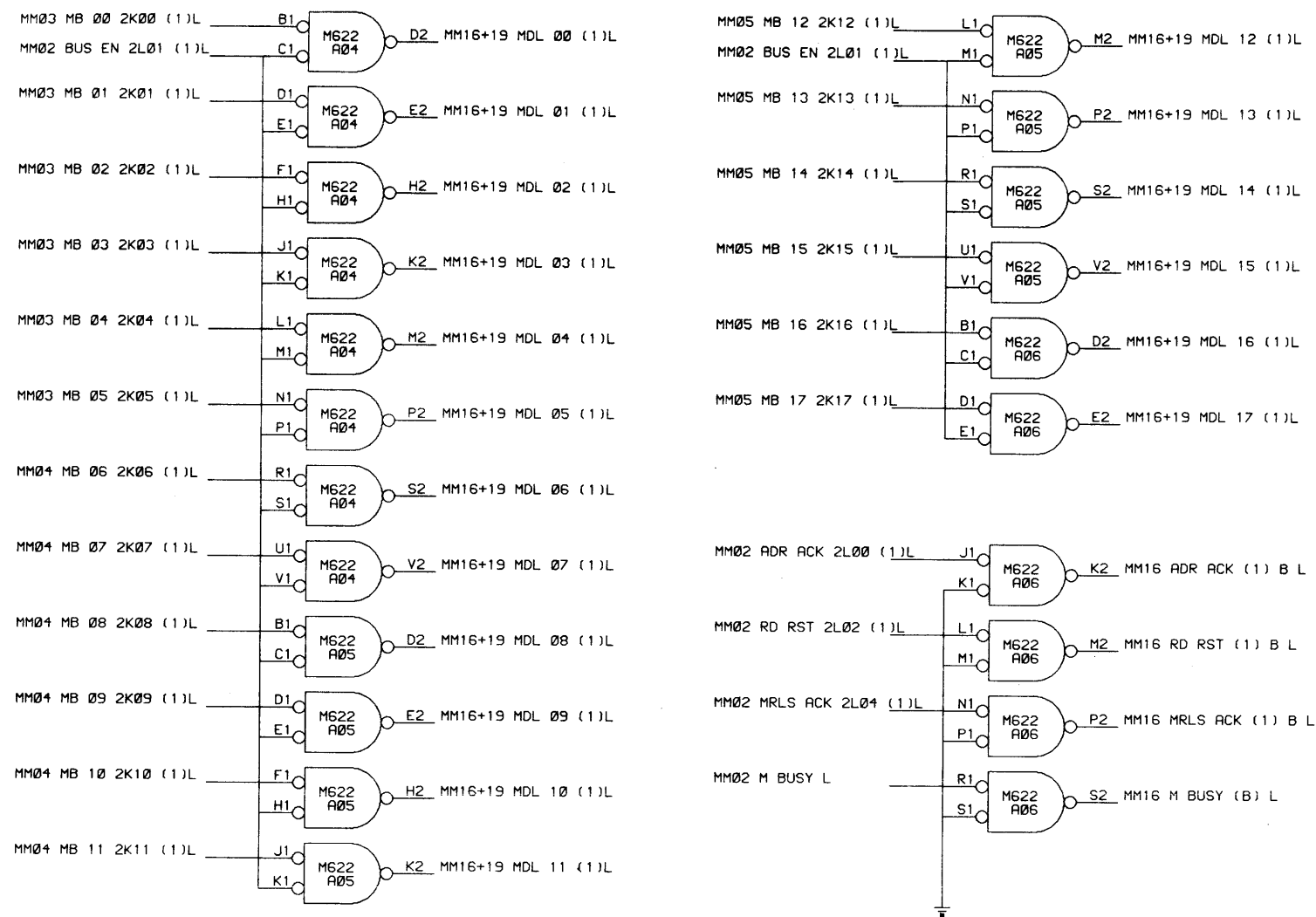
tions, herein, are the prop-
 ortion and shall not be
 sed in whole or in part as
 re or sale of items without



REVISIONS		
CHK	CHANGE NO.	REV.

QTY.	DESCRIPTION	PART NO.	ITEM NO.	
	PARTS LIST			
DRN.	DATE	 DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS TITLE SENSE AMP + INH DRIVER (4-8K)		
CHK'D.	DATE			
ENG.	DATE			
PROJ. ENG.	DATE			
PROD.	DATE			
FIRST USED ON				
MM15		SIZE CODE	NUMBER	REV.
SCALE		D BS	MM15-0-15	00
SHEET 1	OF 1	C'ST.		

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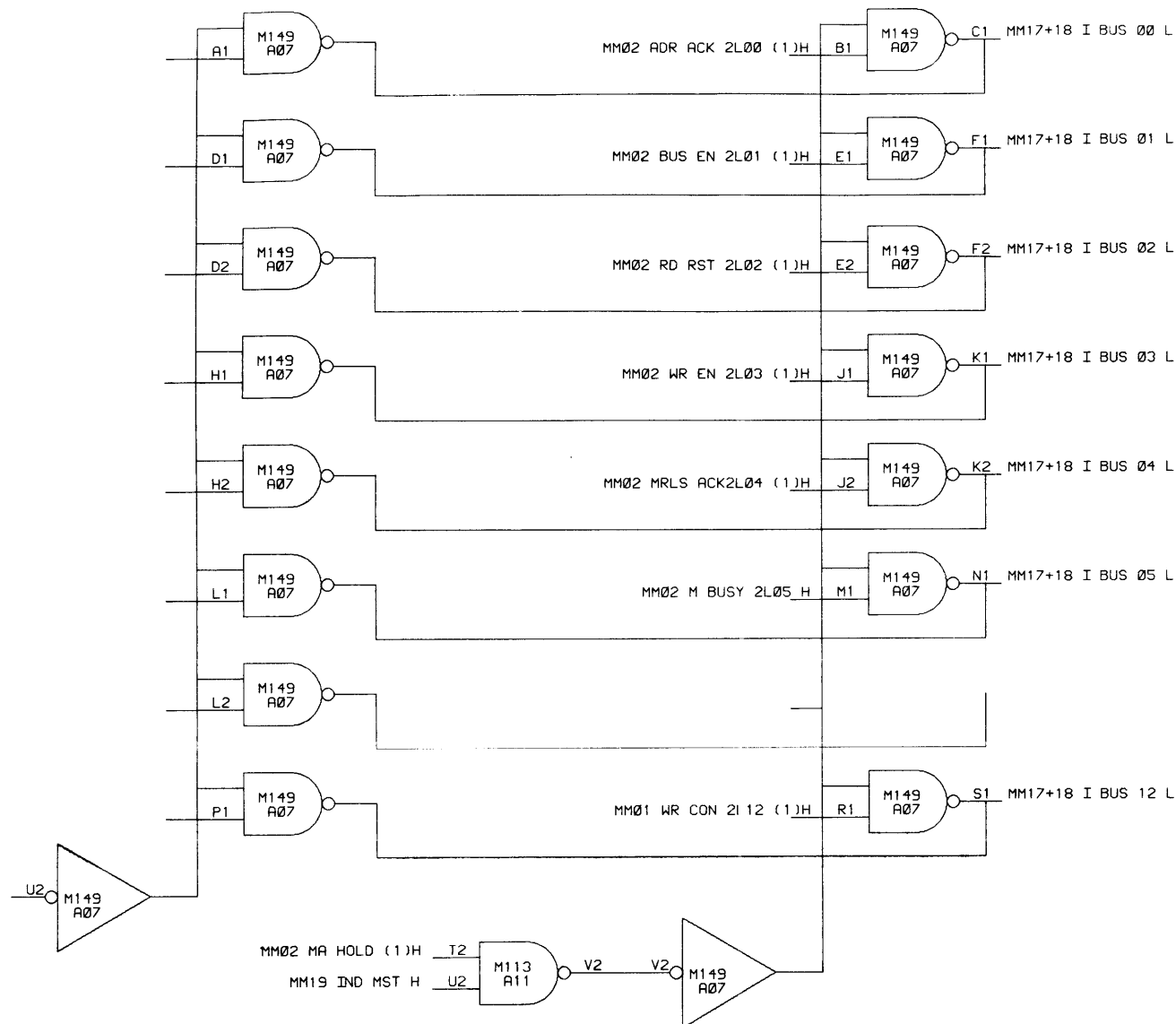


NOTE: GND PINS C2,F2,J2,L2,N2,R2,U2,T1 ON ALL M622

REVISIONS		
CHK	CHANGE NO.	REV.

QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D.	DATE		
ENG.	DATE		
PROJ. ENG.	DATE		
PROD.	DATE		
FIRST USED ON		TITLE	
MM15		MEMORY BUS DRIVERS	
SCALE	SIZE CODE	NUMBER	REV.
SHEET 1 OF 1	D BS	MM15-0-16	00
DIST.			

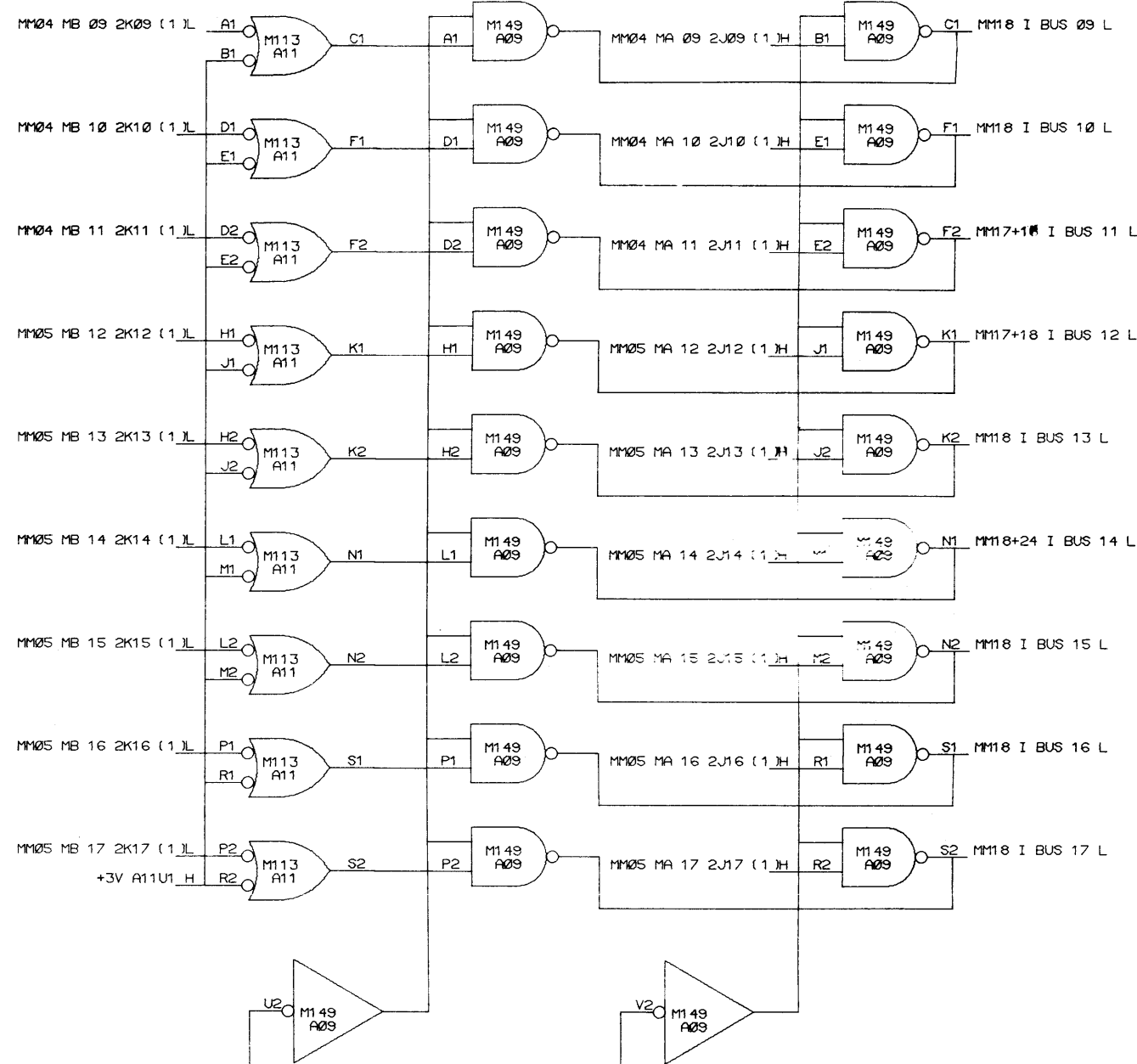
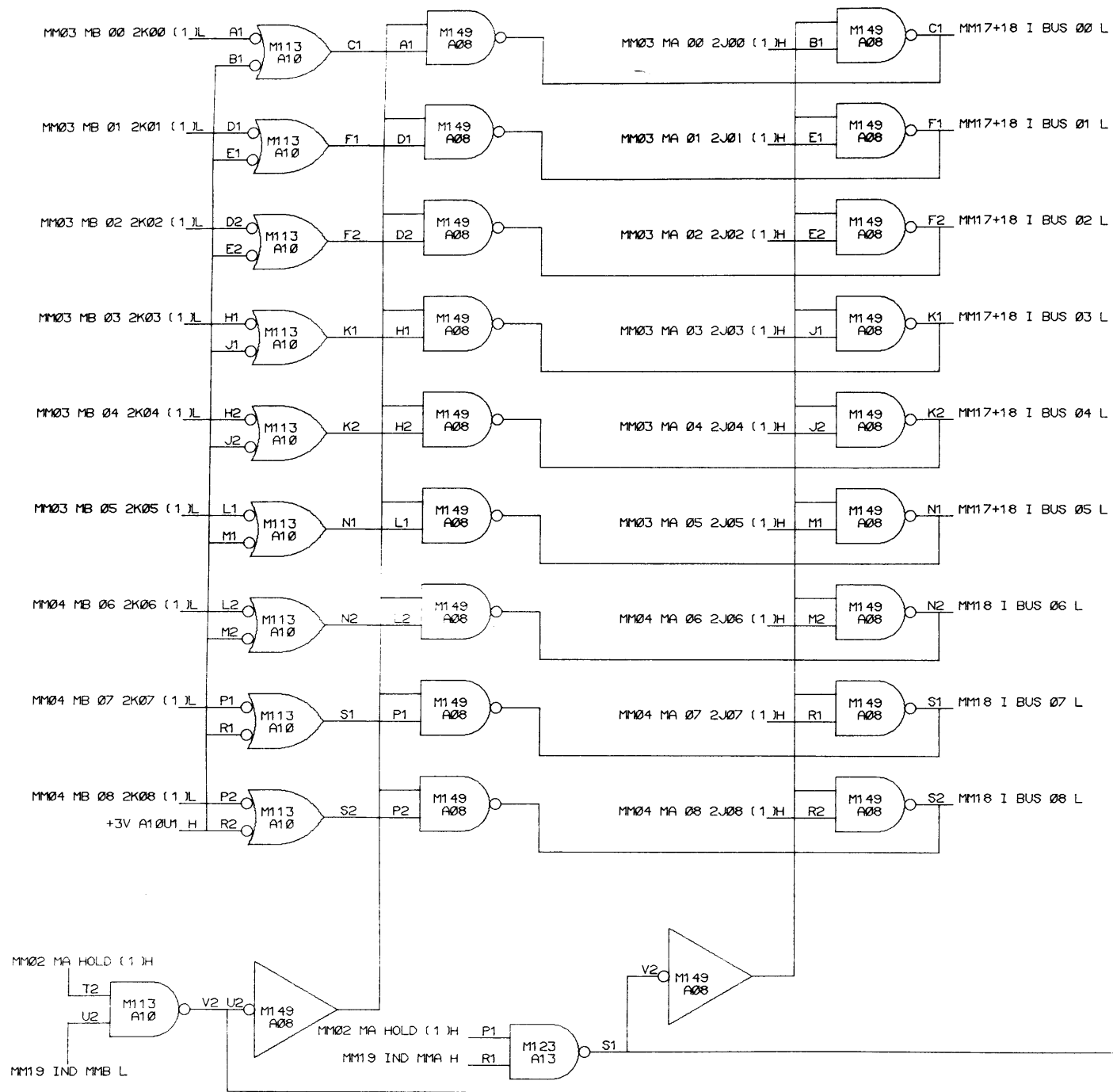
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REVISIONS		
CHK	CHANGE NO.	REV.

QTY.	DESCRIPTION	PART NO.	ITEM NO.	
PARTS LIST				
DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS TITLE INDICATOR BUS DRIVERS		
CHK'D.	DATE			
ENG.	DATE			
PROJ. ENG.	DATE			
PROD.	DATE			
FIRST USED ON MM15		SIZE/CODE D BS	NUMBER MM15-0-17	REV. 00
SCALE		SHEET 1 OF 1		

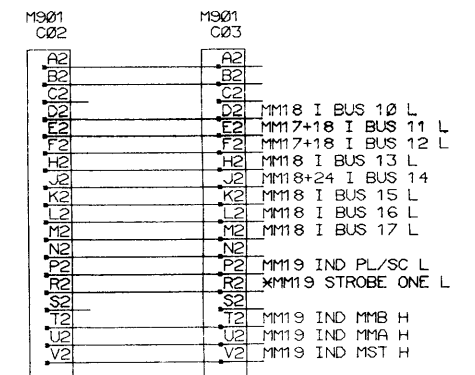
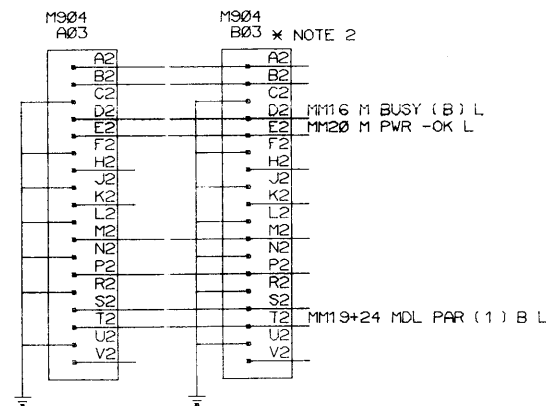
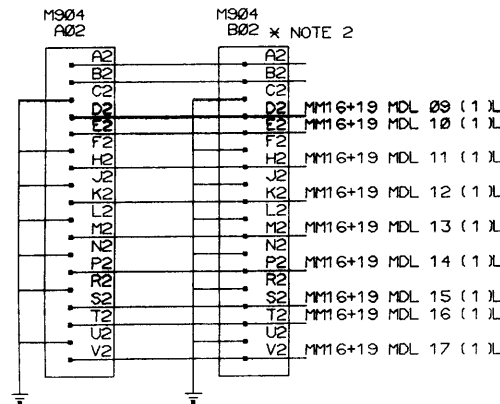
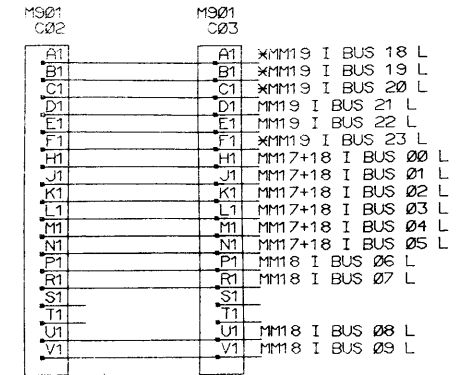
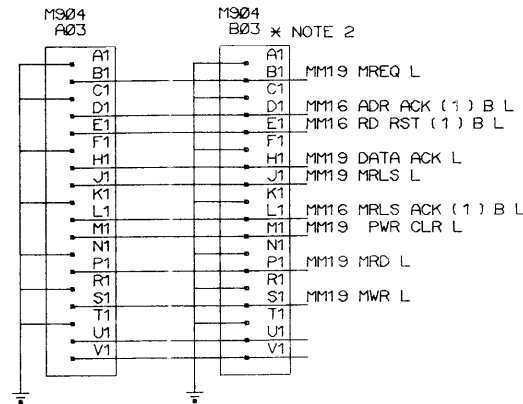
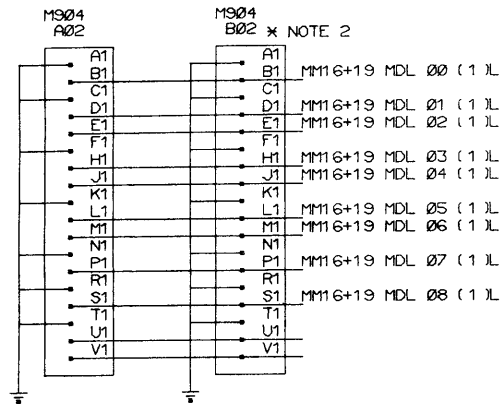
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REVISIONS		
CHK	CHANGE NO.	REV.
NR	MM15-00001	A
	K. BOGGS 9/16/69	
	D. O'CONNOR 9/18/69	
	MM15-00022	B

DRN	E. VOWLES	DATE	8/15/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHKD	R. RHEAULT	DATE	8/15/69	
ENG	D. O'CONNOR	DATE	8/15/69	INDICATOR BUS DRIVERS
PROJ. ENG.	D. O'CONNOR	DATE	8/15/69	
PROD.	F. LASKEY	DATE	8/15/69	
FIRST USED ON				
MM15				
SCALE	D BS	NUMBER	MM15-0-18	REV.
SHEET	1	OF	1	B
DIST.				

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NOTE:
1. SIGNALS PREFIXED MM19 COME FROM EXTERNAL SOURCE
SIGNALS MARKED WITH * NOT USED IN MM15

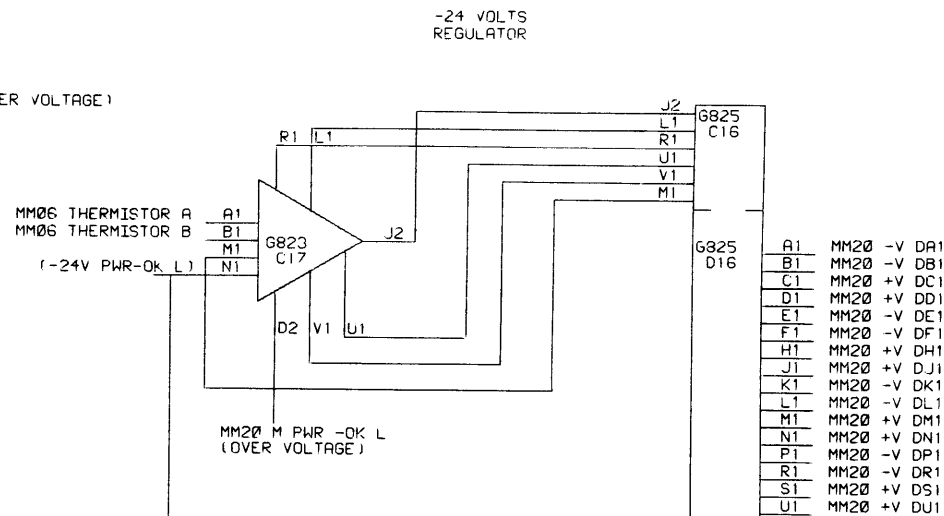
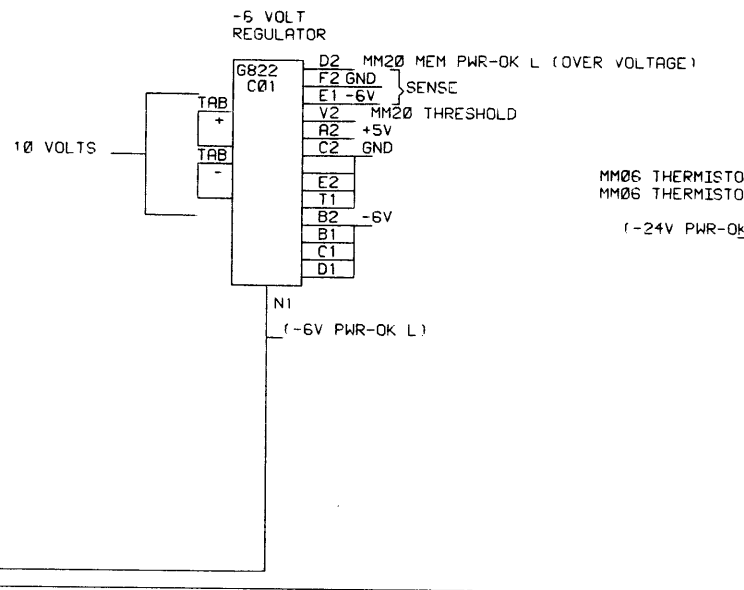
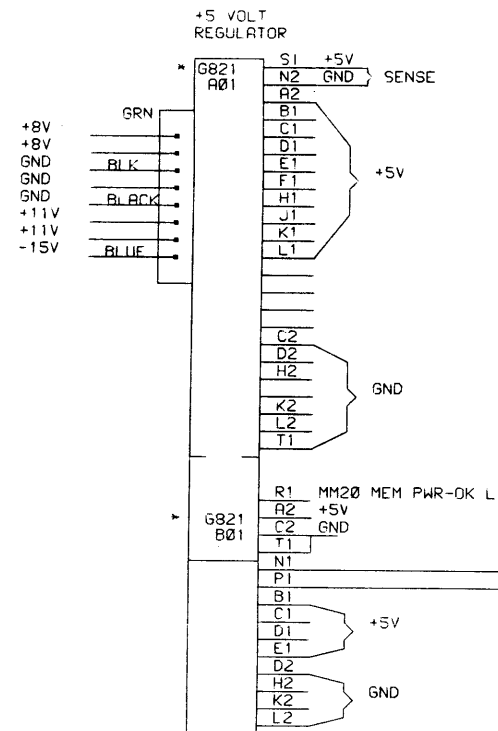
2. TERMINATE MDL LINES IN LAST MEMORY WITH TWO M966 MODULES.

REVISIONS		
CHK	CHANGE NO.	REV.
NR	MM15-00005	A
A WASHINGTON 1/14/70		
D O'CONNOR 1/19/70		
NR	MM15-00015	B
KATHY COTE		
D O'CONNOR		
MM15-00023		
7/2/70		

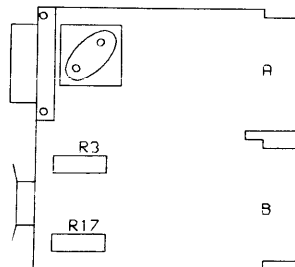
QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
E. VOWLES	8/15/69		
CHK'D.	DATE	TITLE	
N. RHEAULT	8/15/69		
ENG.	DATE	I/C MEMORY CABLES	
D.O. CONNOR	8/15/69		
PROJ. ENG.	DATE		
D.O. CONNOR	8/15/69		
PROD.	DATE		
F. LASKEY	8/15/69		
FIRST USED ON			
MM15			
SCALE	SIZE/CODE	NUMBER	REV.
D 1 C	MM15-0-19		C
SHEET 1 OF 1	DIST.		

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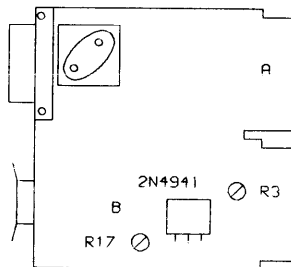
* MUST BE G929 IN MM15-AD.-BD.-CD. OR -DD.
MOUNTED IN H96J-N CABINET.



G821 REV D AND LATER



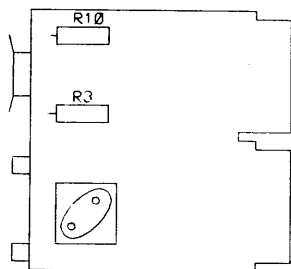
G821 REV C



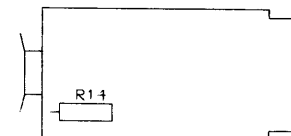
G821-TO ADJUST POWER OK-SET +5V TO 4.75V
(PIN A01A2 AND VARY R3). TURN R17 C.C.W. UNTIL
PANEL LIGHT RESPECTIVE TO MODULE BEING ADJUSTED TURNS
OFF. OR OBSERVE PIN B1 RESPECTIVE TO MODULE
GO TO GROUND.

THEN TURN R17 C.W. UNTIL THE SAME LIGHT TURNS ON. OR PIN B1 GOES HIGH.

TO ADJUST +5 VOLTS LOOK AT
PIN A01A2 AND VARY R3 ADJUST TO +5V.



G822-TO ADJUST -6VOLTS LOOK
AT PIN C01B2 AND SET R3 TO -6V.
TO ADJUST THRESHOLD LOOK AT PIN C01V2
AND SET R10 TO APPROX. -4.0V
SET IN CENTER OF RUNNING RANGE

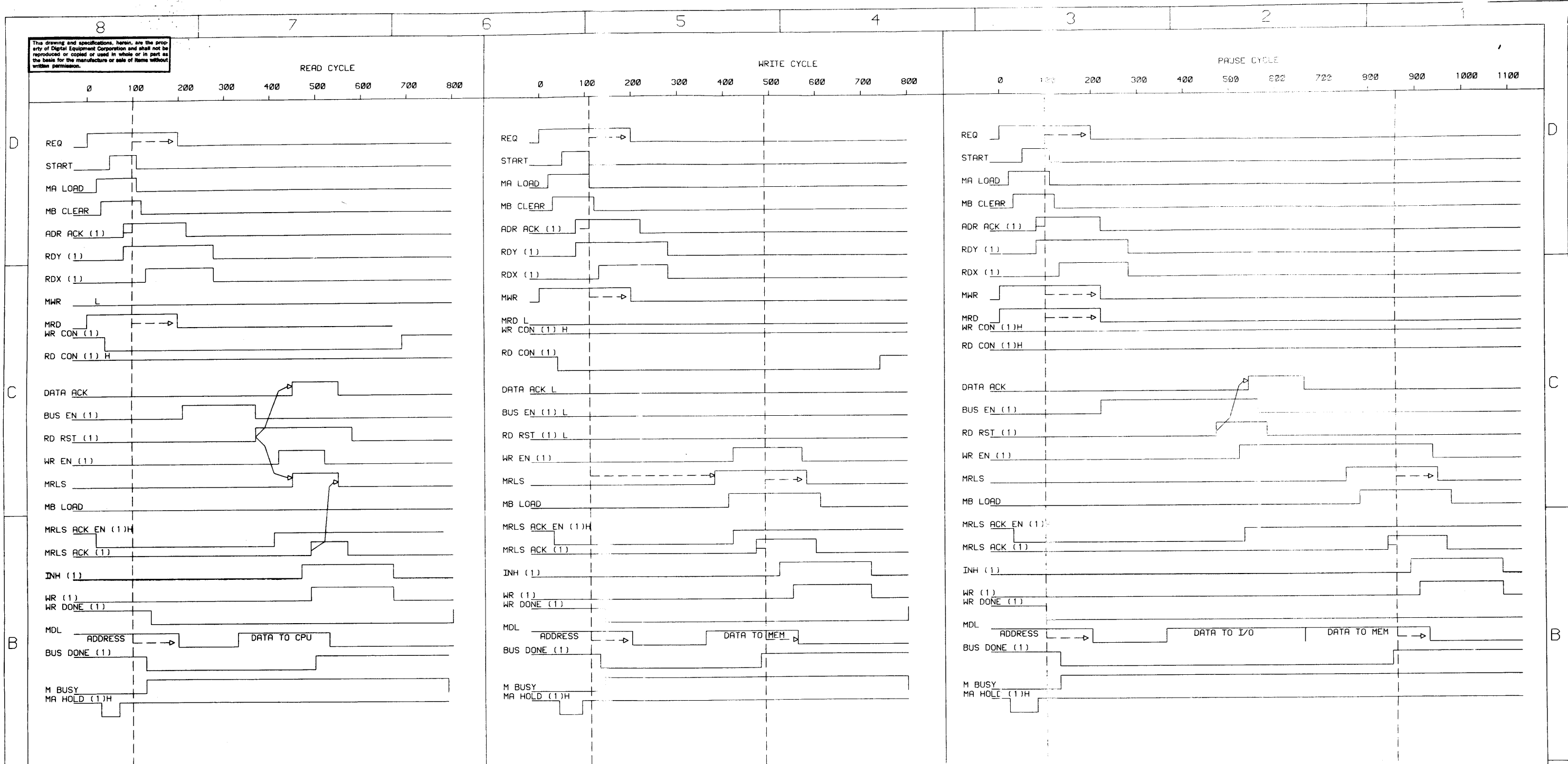


G823-TO ADJUST THE
-24VOLTS LOOK AT PIN
C17R1 AND SET R14 TO -24V.
(400MA IN CURRENT LOOP)

REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
		A	GH	MM15-00017	C
				K WALSH 9-1-70	
				F AUMANN 9-15-70	
NR	MM15-00007	B		KP15-00046	F
	A WASHINGTON				
	D. J. CONNER				
FV	MM15-00012	C			
	K. BOGGS				
	D. J. CONNER				
FV	MM15-00013	D			
	K KRYSIK				
	F AUMANN 5-25-70				

DRN E. VOYLES	DATE 8-15-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			
CHKD N. RHEAULT	DATE 8-15-69				
ENG D. J. CONNER	DATE 8-15-69	TITLE MEMORY POWER REGULATORS			
PROJ. ENG D. J. CONNER	DATE 8-15-69				
PROD F. LASKEY	DATE 8-15-69				
FIRST USED ON MM15		SIZE CODE D 65	NUMBER MM15-0-20	REV. F	
SCALE		DIST.			
SHEET 1 OF 1					

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NOTE:

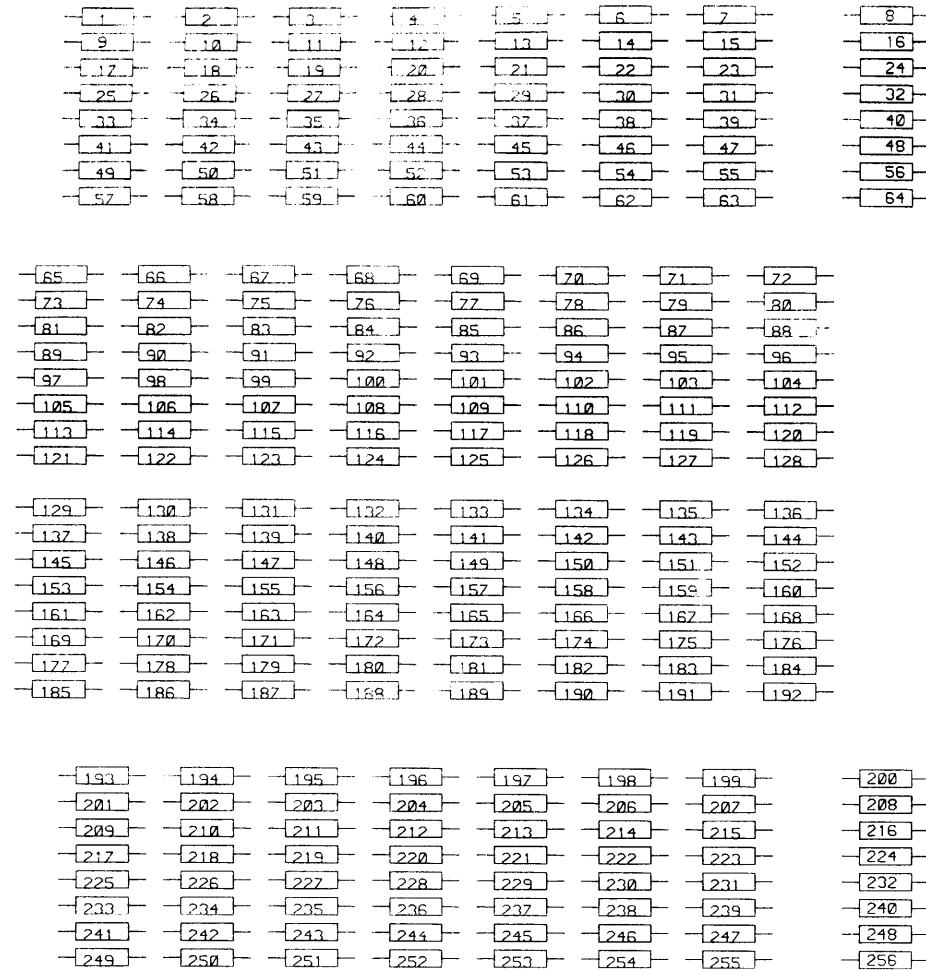
1. ALL SIGNALS SHOWN POSITIVE FOR ASSERTION
2. ARROWS INDICATE MEM BUS DELAY

REVISIONS		
CHK	CHANGE NO.	REV.

QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D.	DATE		
ENG.	DATE		
PROJ. ENG.	DATE		
PROD.	DATE		
FIRST USED ON		TITLE	
MM 5		TIMING DIAGRAM	
SCALE	SIZE/CODE	NUMBER	REV.
SHEET 1 OF 1	DIST.	MM15-0-21	00

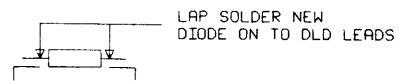
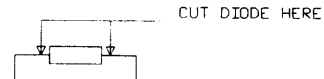
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SIDE 1

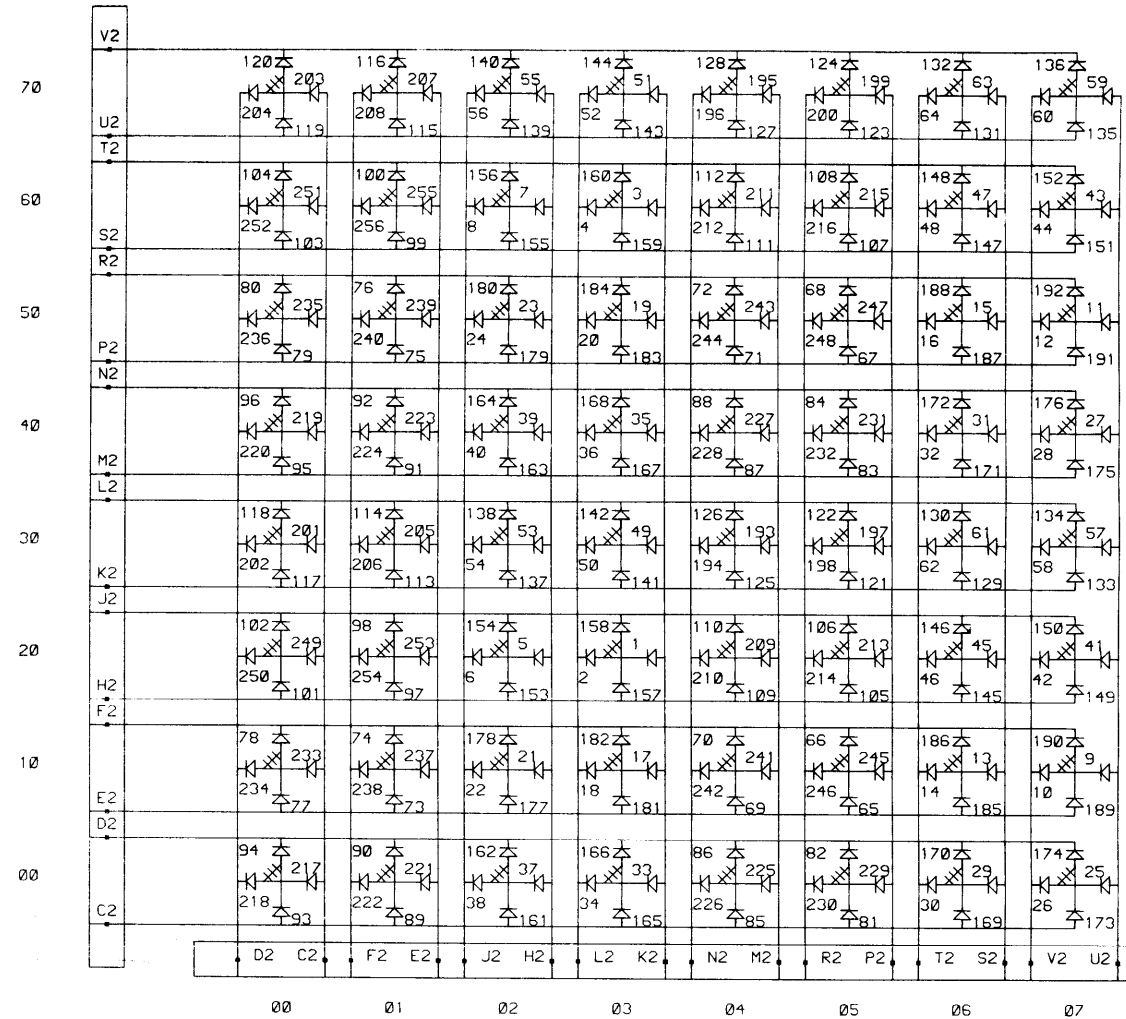


DIODE REPLACEMENT PROCEDURE:

1. DETERMINE WHICH DIODE IS DEFECTIVE IN MATRIX
2. USING DIODE NUMBERS FIND ITS PHYSICAL LOCATION ON BOARD
3. CLIP OUT DEFECTIVE DIODE. DO NOT UNSOLDER LEADS
4. TACK SOLDER NEW DIODE INTO PLACE ON OLD LEADS



6613

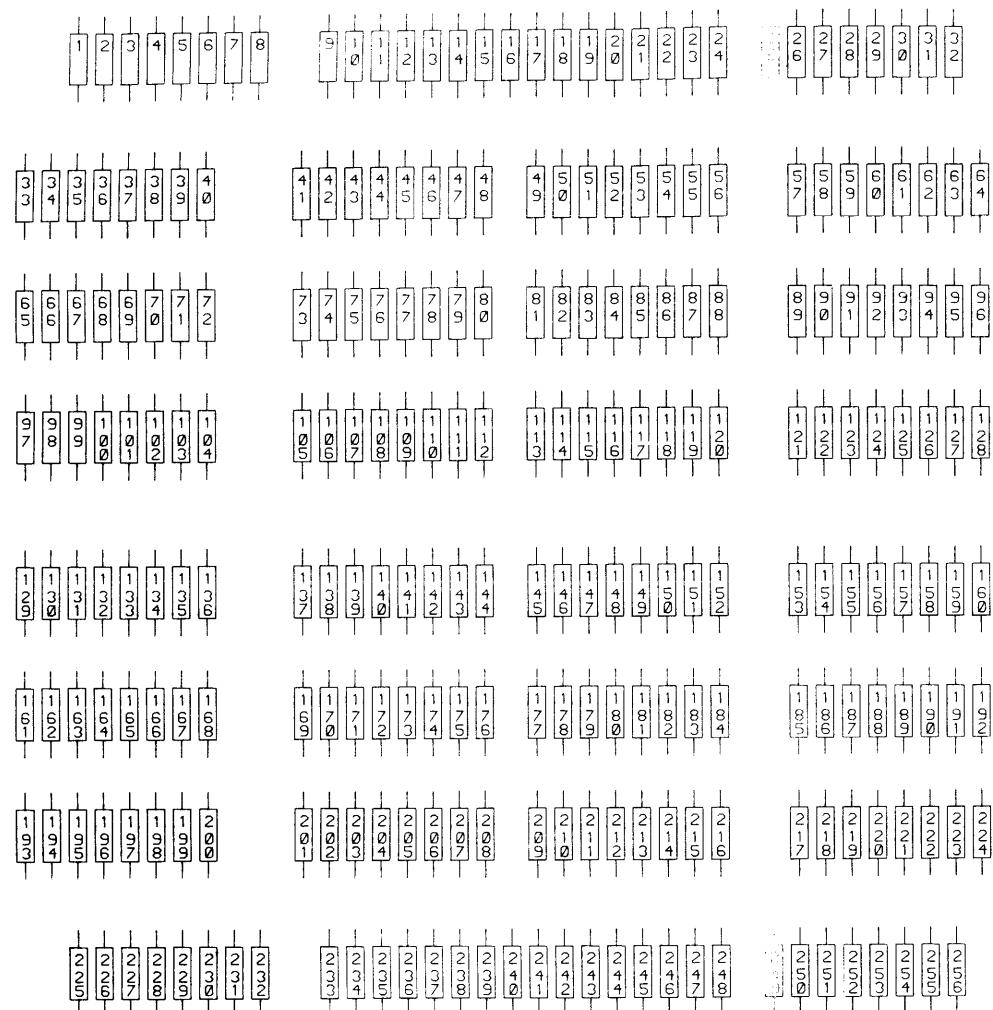


6613
D

REVISIONS		
CHK	CHANGE NO.	REV.
AB	MM15-00015	A

DRN. E. VOWLES	DATE 8/15/68	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D N. RHEULT	DATE 8/15/68		
ENG. D. O'CONNOR	DATE 8/15/68	TITLE 8 X DIODE MATRIX	
PROJ. ENG. D. O'CONNOR	DATE 8/15/68		
PROD. F. LASKEY	DATE 8/15/68	FIRST USED ON MM15	
SCALE			
SHEET 1 OF 1		SIZE CODE D 80	NUMBER MM15-0-22
		REV. A	

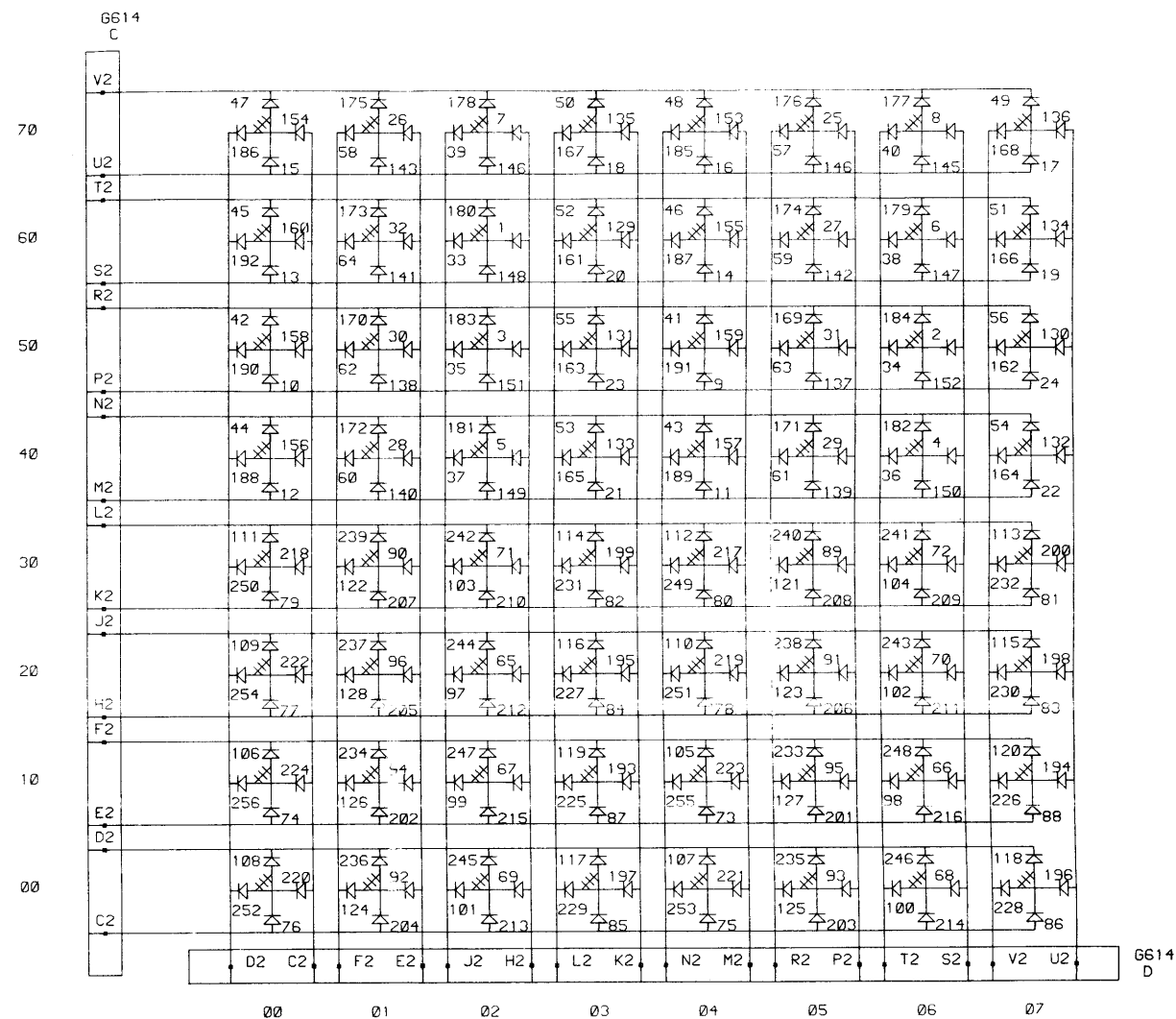
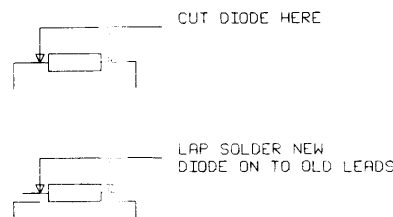
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SIDE 2

DIODE REPLACEMENT PROCEDURE:

1. DETERMINE WHICH DIODE IS DEFECTIVE IN MATRIX
2. USING DIODE NUMBERS FIND ITS PHYSICAL LOCATION ON BOARD
3. CLIP OUT DEFECTIVE DIODE. DO NOT UNSOLDER LEADS
4. TACK SOLDER NEW DIODE INTO PLACE ON OLD LEADS

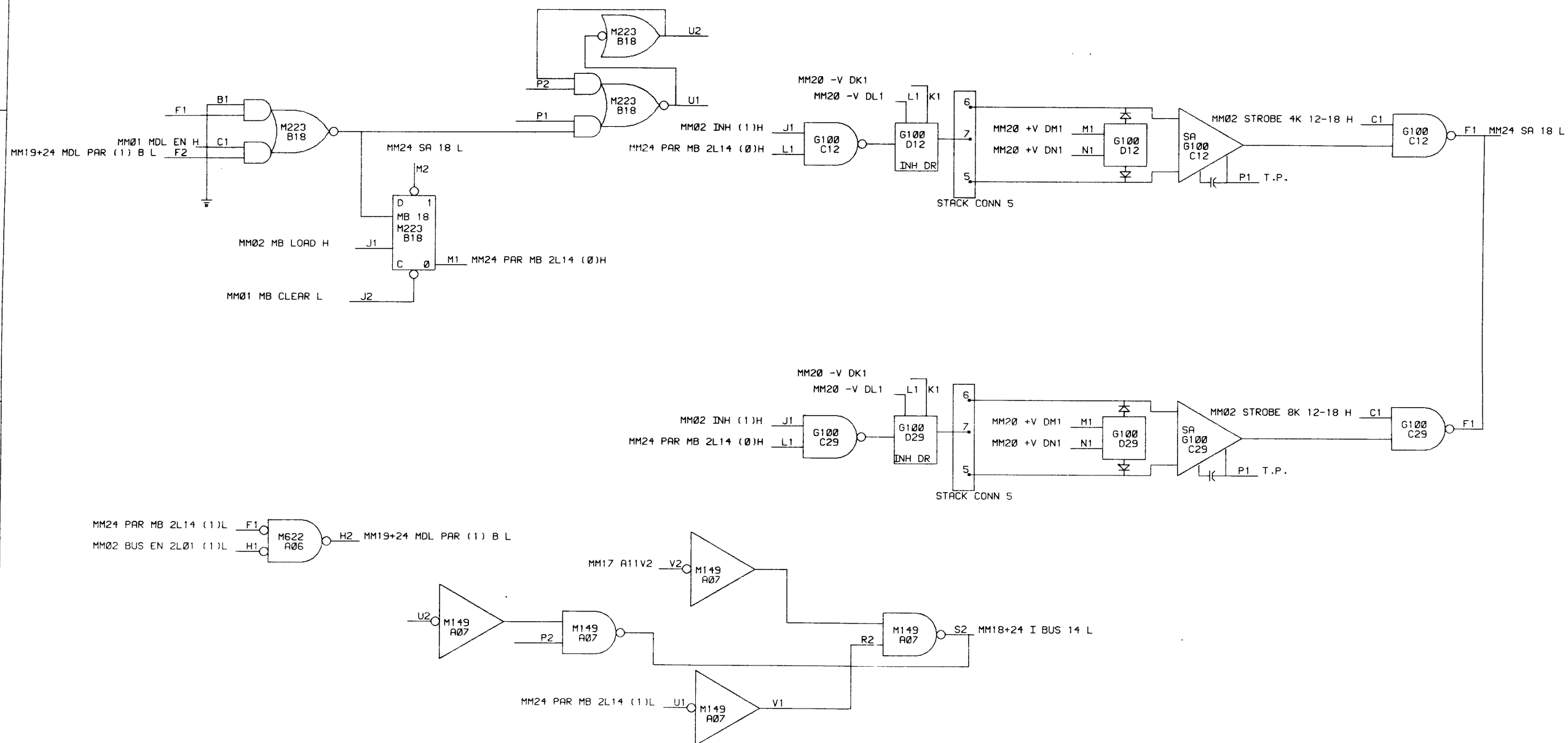


6614 D

REVISIONS		
CHK	CHANGE NO.	REV.
MM15-00015		A

DRN.	DATE	digital EQUIPMENT CORPORATION	
E. VOLLES	8/15/69	MAYNARD, MASSACHUSETTS	
CHK'D.	DATE		
N. RHEAULT	8/15/69		
ENG.	DATE	TITLE	
D. O'CONNOR	8/15/69	Y. DIODE MATRIX	
PROD. ENG.	DATE		
D. O'CONNOR	8/15/69		
PROD.	DATE		
F. LASKEY	8/15/69		
FIRST USED ON			
MM15			
SCALE	SIZE/CODE	NUMBER	REV.
D	BS	MM15-0-23	A
SHEET	OF	DIST.	

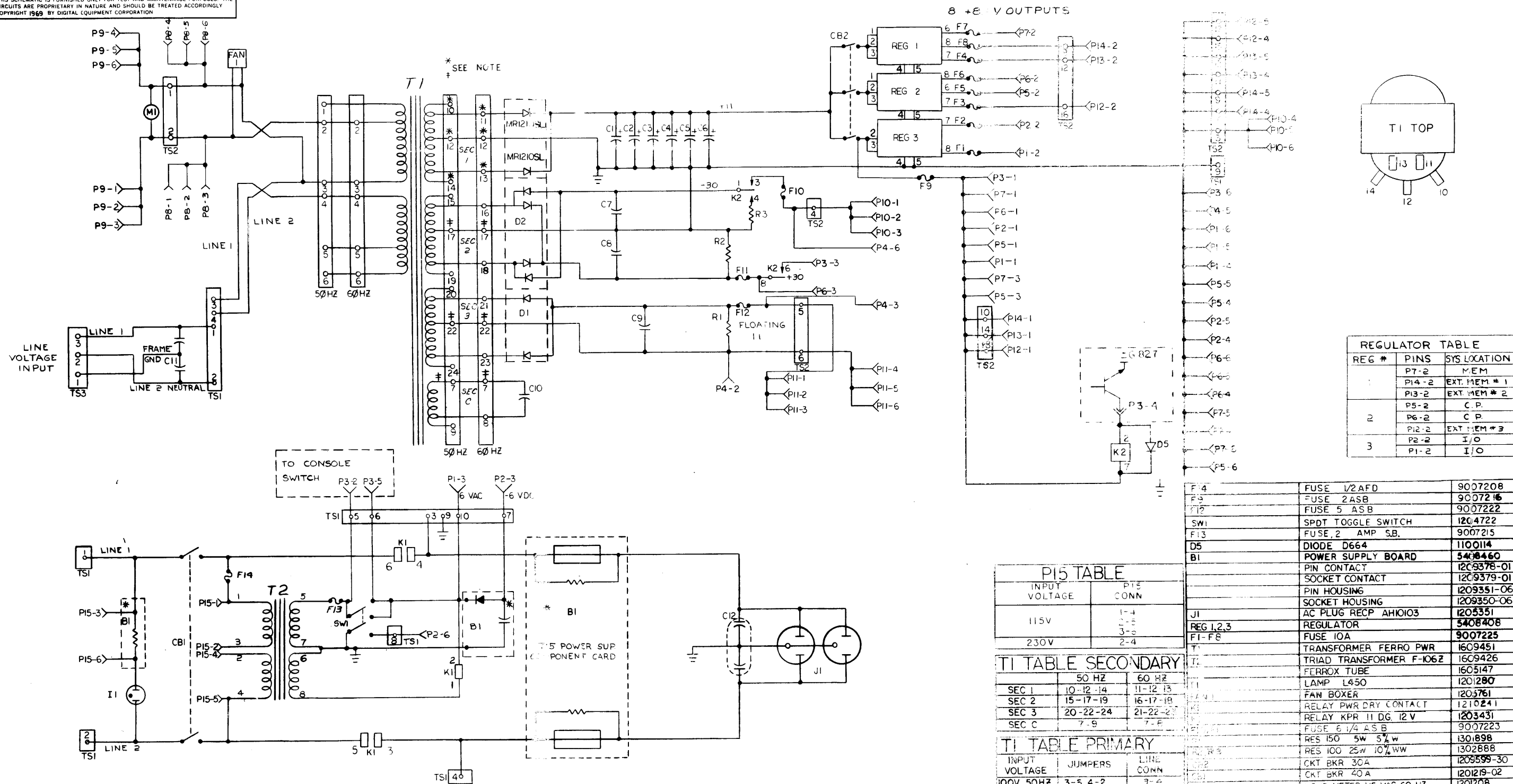
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REVISIONS		
CHK	CHANGE NO.	REV.

QTY.	DESCRIPTION		PART NO.		ITEM NO.
PARTS LIST					
DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS TITLE PARITY BIT			
CHK'D.	DATE				
ENG.	DATE				
PROJ. ENG.	DATE				
PROD.	DATE				
FIRST USED ON		MM15 SIZE CODE D BS NUMBER MM15-0-24 REV. 00			
SCALE					
SHEFT	OF				
DIST					

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REGULATOR TABLE		
REG #	PINS	SYS LOCATION
1	P7-2	MEM
	P14-2	EXT. MEM # 1
	P13-2	EXT. MEM # 2
2	P5-2	C.P.
	P6-2	C.P.
	P12-2	EXT. MEM # 3
3	P2-2	I/O
	P1-2	I/O

PI5 TABLE	
INPUT VOLTAGE	PI5 CONN
115V	1-4
	2-5
	3-6
230V	2-4

T1 TABLE SECONDARY		
	50 HZ	60 HZ
SEC 1	10-12-14	11-12-13
SEC 2	15-17-19	16-17-18
SEC 3	20-22-24	21-22-23
SEC C	7-9	7-8

T1 TABLE PRIMARY		
INPUT VOLTAGE	JUMPERS	LINE CONN
100V 50HZ	3-5,4-2	3-4
115V 50HZ	3-6,4-1	3-4
200V 50HZ	2-5	3-4
215V 50HZ	2-6	3-4
230V 50HZ	1-6	3-4
120V 60HZ	3-5,2-4	3-4
240V 60HZ	2-5	3-4
50 HZ		
AUTO TAP	6 AMP	1-3
60 HZ		
AUTO TAP	6 AMP	1-3

NOTE:

* INDICATES LUGS ON TRANSFORMER NOT CONNECTED TO JONES STRIP.

† INDICATES WIRES FROM TRANSFORMER NOT CONNECTED TO JONES STRIP.

F 4	FUSE 1/2 AFD	9007208
F 5	FUSE 2ASB	9007216
F 12	FUSE 5 ASB	9007222
SW1	SPDT TOGGLE SWITCH	1204722
F 13	FUSE 2 AMP S.B.	9007215
D5	DIODE D664	1100114
B1	POWER SUPPLY BOARD	5408460
	PIN CONTACT	1209378-01
	SOCKET CONTACT	1209379-01
	PIN HOUSING	1209351-06
	SOCKET HOUSING	1209350-06
J1	AC PLUG RECP AH10103	1205351
REG 1,2,3	REGULATOR	5408408
F1-F8	FUSE 10A	9007225
T1	TRANSFORMER FERRO PWR	1609451
T2	TRIAD TRANSFORMER F-1062	1609426
	FERROX TUBE	1605147
T1	LAMP L450	1201290
FAN	FAN BOXER	1203761
	RELAY PWR DRY CONTACT	1210241
	RELAY KPR 11 DG. 12V	1203431
	FUSE 6 1/4 ASB	9007223
	RES 150 5W 5% W	1301898
	RES 100 25W 10% WW	1302888
	CKT BKR 30A	1205595-30
	CKT BKR 40A	1201219-02
	HOOR METER 115 VAC 60 HZ	1201208
D3-D4	DIODE 80A 50V MR1210	1109425
D2	DIODE 10A-100V	1105397
D1	DIODE 10A-50V	1102933
C11-C12	CAP .1 MFD 440 VDC	1002153
C10 (SUPPLIED W/TRANS)	CAP 18 MFD 600 VDC	
C7,C8,C9	CAP 57,000 MFD 50VDC	1004875
C1,C2,C3,C4,C5,C6	CAP 160,000 MFD 20VDC	1004874
REF DESIGNATION	DESCRIPTION	PART NO.

PARTS LIST

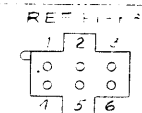
digital		715 POWER SUP.	
EQUIPMENT CORPORATION	SIZE 1 CONF	NUMBER	REV
MAYNARD, MASSACHUSETTS	D CS 715-0-1		L
PRINTED CIRCUIT REV			

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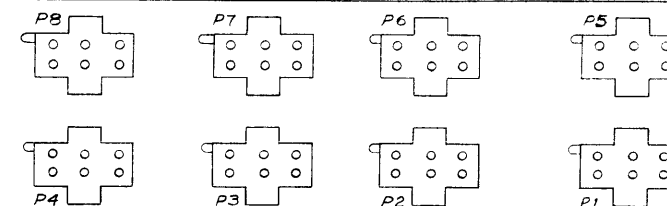
PIN CONFIGURATIONS AND LEVELS

PIN TABLE

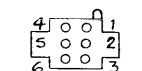
TOP VIEW



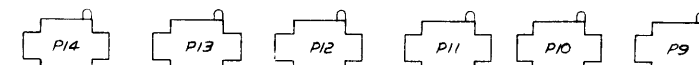
APPLIES FOR
120V 60-HZ
INPUT VOL.



PINS	LEVEL	PINS	LEVEL	PINS	LEVEL
P1-1	+11V	P2-1	+11V	P3-1	+11V
P1-2	+8.1V	P2-2	+8.1V	P3-2	6VA-C
P1-3	6VA-C	P2-3	-6V	P3-3	+30V
P1-4	GND	P2-4	GND	P3-4	GND
P1-5	GND	P2-5	GND	P3-5	CON. SW.
P1-6	GND	P2-6	LOCK	P3-6	GND
P4-2	+11V FLOATING	P5-1	+11V	P6-1	+11V
P4-3	-11V FLOATING	P5-2	+8.1V	P6-2	+8.1V
P4-5	GND	P5-3	+11V	P6-3	+30V
P4-6	-30V	P5-4	GND	P6-4	GND
		P5-5	GND	P6-5	GND
		P5-6	GND	P6-6	GND
P7-1	+11V	P8-1	HOT	P9-1	HOT
P7-2	+8.1V	P8-2	HOT	P9-2	HOT
P7-3	+11V	P8-3	HOT	P9-3	HOT
P7-4	GND	P8-4	NEUTRAL	P9-4	NEUTRAL
P7-5	GND	P8-5	NEUTRAL	P9-5	NEUTRAL
P7-6	GND	P8-6	NEUTRAL	P9-6	NEUTRAL
P10-1	-30V	P11-1	FLOATING -11V	P12-1	+11V
P10-2	-30V	P11-2	FLOATING -11V	P12-2	+8.1V
P10-3	-30V	P11-3	FLOATING -11V	P12-4	GND
P10-4	GND	P11-4	FLOATING +11V	P12-5	GND
P10-5	GND	P11-5	FLOATING +11V		
P10-6	GND	P11-6	FLOATING +11V		
P13-1	+11V	P14-1	+11V		
P13-2	+8.1V	P14-2	+8.1V		
P13-4	GND	P14-4	GND		
P13-5	GND	P14-5	GND		



REF.
P9-P14
TOP VIEW

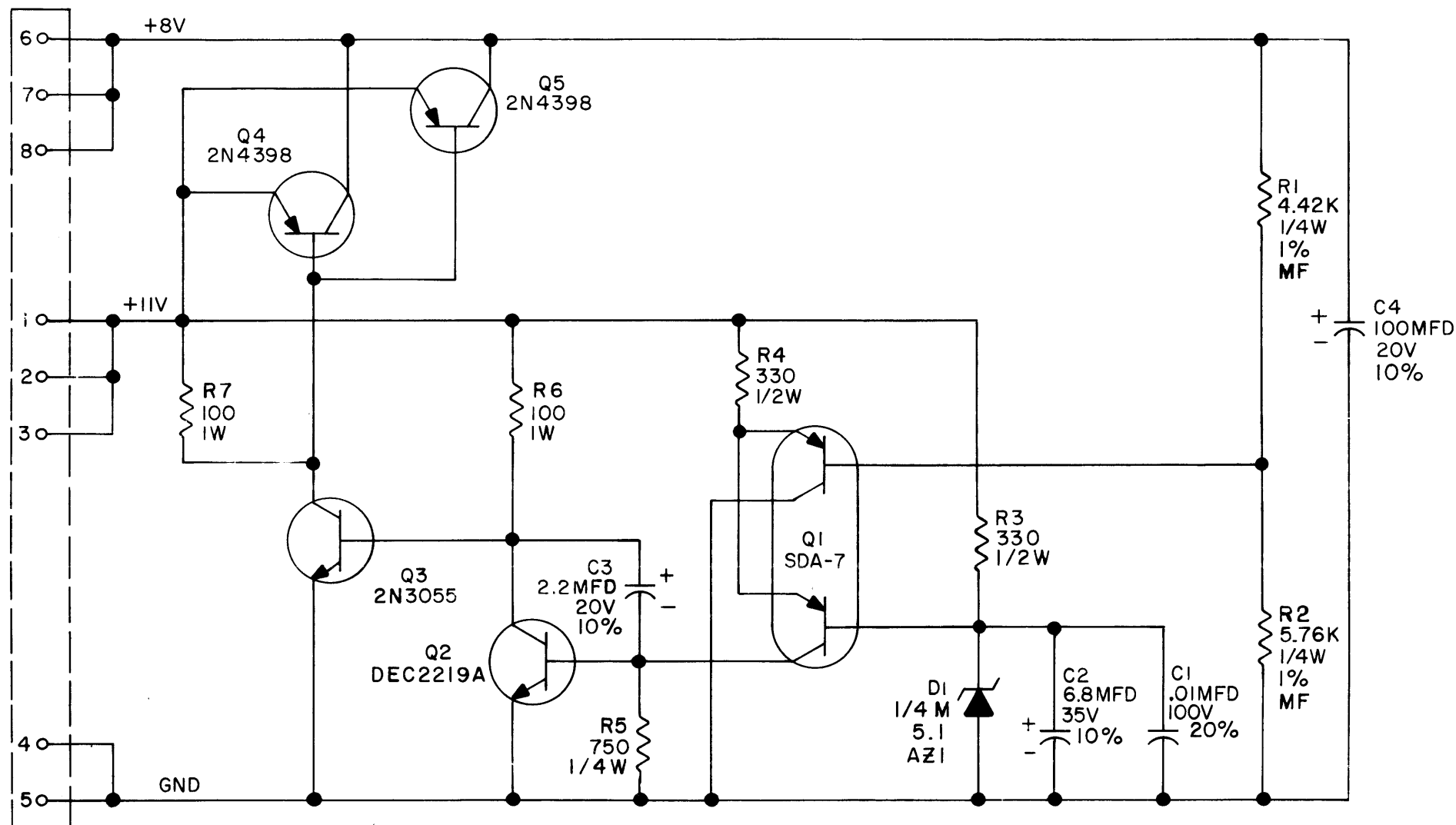


UNLESS OTHERWISE SPECIFIED	ORIGIN KELLY	DATE 6-24-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
UNLESS OTHERWISE SPECIFIED	CHK'D MADDEN	DATE 7-18-69	
DIMENSION IN INCHES	ENG O'CONNOR	DATE	
TOLERANCES	PROJ. ENG. O'CONNOR	DATE	
DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°30'	PROD. LASKEY	DATE 7-18-69	
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	FIRST USED ON		
MATERIAL	SCALE	SHEET 2 OF 2	
FINISH			

SIZE CODE	NUMBER	REV.
DCS	715-0-1	L

REVISIONS	REV.
CHANGE NO.	
CHK	

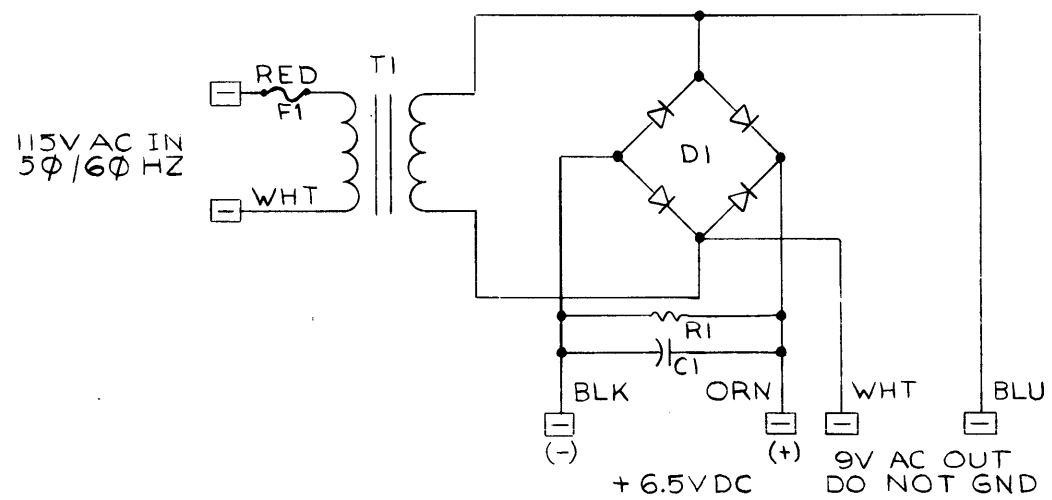
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UNLESS OTHERWISE INDICATED:
 RESISTORS ARE 5%

REVISIONS		CHK	CHG NO.	REV.	B	C	DRN.	DATE	TRANSISTOR & DIODE CONVERSION CHART				digital		TITLE		BULK REGULATOR	
		CHK	CHG NO.	REV.	B	C	BUTLER	8/1/69	DEC	EIA	DEC	EIA	EQUIPMENT CORPORATION		5408408		SIZE	CODE
		CHK	CHG NO.	REV.	B	C			1/4M 5.1 AZ1	SAME			MAYNARD, MASSACHUSETTS		NUMBER		REV.	
		CHK	CHG NO.	REV.	B	C			DEC2219	2N2219					5408408-0-1		C	
		CHK	CHG NO.	REV.	B	C			2N4398	NONE								
		CHK	CHG NO.	REV.	B	C			2N3055	NONE								
		CHK	CHG NO.	REV.	B	C			SDA-7	SAME								
		CHK	CHG NO.	REV.	B	C												

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F1	1/2 AMP S.B. FUSE	9007209
R1	5ohm 25W RES	1300165
C1	18000MFD 10V DC CAP	1009437
PARTS LIST		D-UA-716-0-0
T1	XMFR*F64-U TRIAD	1609588
DI	DIODE PACK DM-2	1105397
REF DESIGNATION	DESCRIPTION	PART NO.
PARTS LIST		

REVISIONS	CHK	CHG	NO	REV
1	716	00001	A	
2	716	00002	B	
3	716	00003	C	

DEC FORM NO.
DRC 102

DRN.	DATE
RAIMONDI	6-18-69
CHK'D	DATE
HEALY	6-25-69
ENG.	DATE
VONADA	7-21-69
PROD.	DATE
ANTONUCCIO	7-25-69

TRANSISTOR & DIODE CONVERSION CHART			
DEC	EIA	DEC	EIA

digital
EQUIPMENT
CORPORATION
MAYNARD, MASSACHUSETTS

TITLE		CIRCUIT SCHEMATIC	
716		716	
SIZE	CODE	NUMBER	REV.
C	CS	716-0-1	C
PRINTED CIRCUIT REV.			

SIZE	CODE	NUMBER	REV.
C	CS	716-0-1	C

Pink

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D

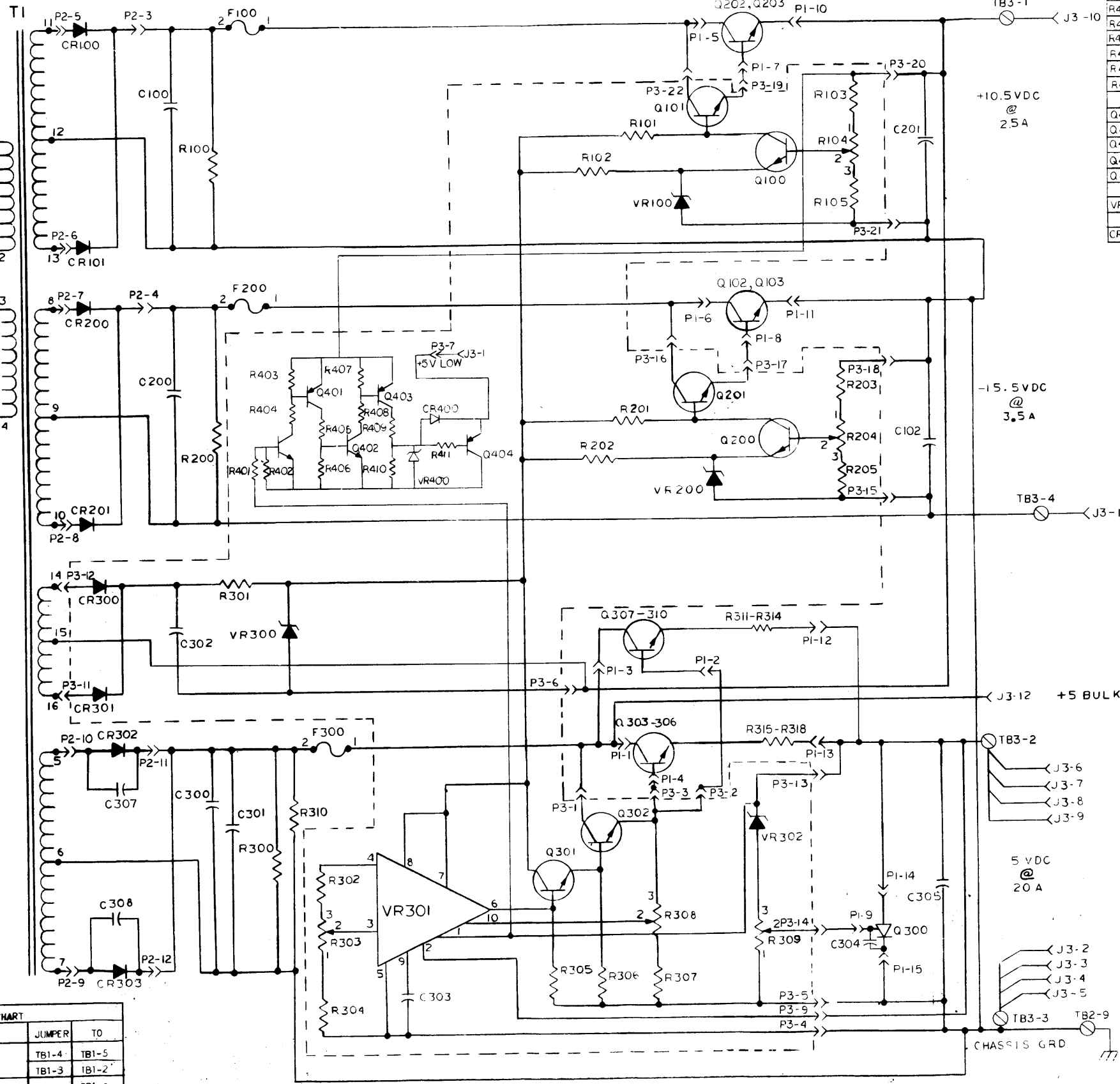
C

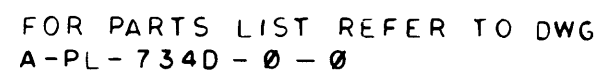
B

A

CHK	CHANGE NO.	REV.
✓	H721-00004	A
E. SHAUL		
✓	H721-00006	B
P. KOTSCHENRUTHER		
✓	H721-00007	C
KOTSCHENRUTHER		

INPUT	CONNECTION	JUMPER	TO
220 VAC	TB2-1 AND TB2-2	TB1-4	TB1-5
		TB1-3	TB1-2
110 VAC	TB2-1 AND TB2-2	TB1-1	TB1-3
		TB1-2	TB1-4
		TB1-3	TB1-5



[illegible]

PINK

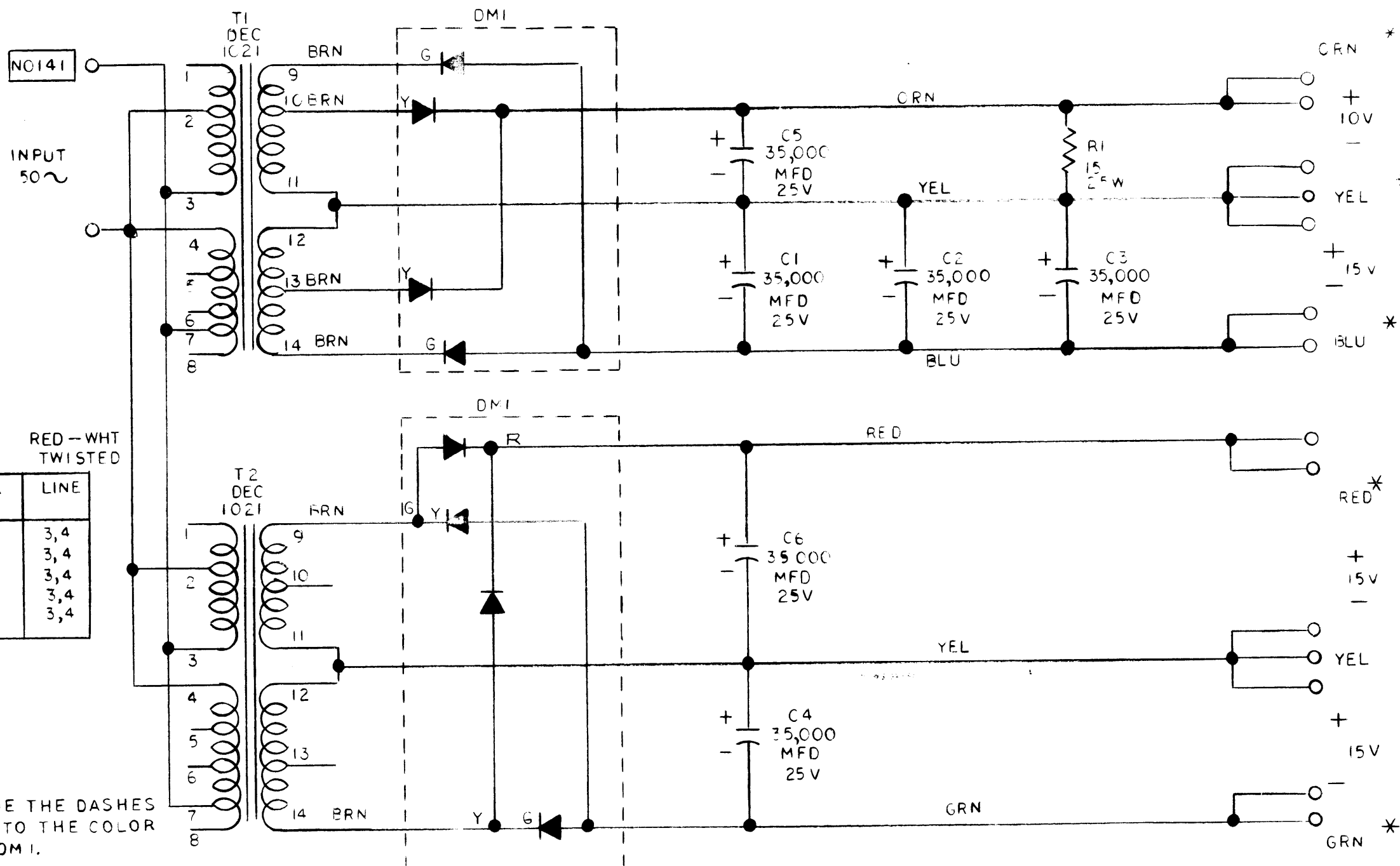
DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS										
PARTS LIST										
MADE BY KEN GULICK		CHECKED <i>R. J. K. [Signature]</i>		SECTION 1						
DATE 11/13/69		DATE 12-8-69		ISSUED SECT. 1						
ENG [Signature]		PROD [Signature]								
DATE 12/19/69		DATE 12/19/69								
ITEM NO.	DWG NO./PART NO. BASIC VAR.	DESCRIPTION				QTY/VAR		UNIT COST	UNIT QUANTITY	QUANTITY ISSUED
REF	B-CS-734D-0-1	VARIABLE POWER SUPPLY 734D				1	-			
REF	B-CS-734E-0-1	VARIABLE POWER SUPPLY 734E				-	1			
1	E-MD-5304671-0-0	CHASSIS 734D & E				1	1			
2	9007236	BUSH JUN TERM #DC-202-1 (GRN) 1/4" MAN				4	4			
3	9007238	CONN TAN #T-202-S HEYMAN				15	15			
4	9007239	BUSH JUN TERM #DC-202-1 (BLU) 1/4" MAN				1	1			
5	9006056-1	SCR 1/4" MD PAN #1/4-20 X 1/2 LG SST				4	4			
6	9007860	NUT KEYS #1/4-20 SST				4	4			
7	B-MD-500355-0-0	PROTECTION PLATE (8 TERM)				1	1			
8	9006020-1	SCR 1/4" MD PAN #6-32 X 1" LG SST				2	2			
9	9006533	WASH INT TOOTH #6 HOLE				6	6			
10	9006851	SPACER 1/4 AF X 1/2 LG X #6-32				2	2			
11	9006024-1	SCR 1/4" MD PAN #6-32 X 1/2 LG SST				13	13			
12	9006560	NUT KEYS #6-32 SST				6	6			
13	1100138	DIODE #IN3208 MOTOROLA				4	4			
14	9006094	FUSE EXTRACTOR POST #342001 "A" LITTLE FUSE				1	1			
15	9007221	FUSE SLO-SLO TYPE MDX-4AMP FUSETRON				1	1			
16	A-DC-5303615-0-0	DECALS 734D POWER SUPPLY				1	-			
17	9007619	CONN SOLDERLESS #3000C27 INS ARK-LESS				2	2			
18	1000098	CAP #FAM 792-11LP-35000 MFD 25WV C.D.				1	1			
19	9006091-1	SCR 1/4" MD PAN 10-32 X 1/2 LG SST				6	6			
20	9006565	NUT KEYS #10-32 SST				2	2			
TITLE		ASSY NO. D-UA-734D-0-0		SIZE CODE A PL		NUMBER 34D-0-0		REV. 734D-000C2		
VARIABLE POWER SUPPLY 734D		SHEET 1 OF 3		DIST. C						

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS										
PARTS LIST										
MADE BY KEN GULICK		CHECKED <i>R. J. K. [Signature]</i>		SECTION 1						
DATE 11/13/69		DATE 12-8-69		ISSUED SECT. 1						
ENG [Signature]		PROD [Signature]								
DATE 12/19/69		DATE 12/19/69								
ITEM NO.	DWG NO./PART NO. BASIC VAR.	DESCRIPTION				QTY/VAR		UNIT COST	UNIT QUANTITY	QUANTITY ISSUED
21	120914	SW TOGGLE 4PDT 3POS C.H.				1	1			
22	1205261	VAR AUTO XFMR #10B-40 SUPERIOR ELECT				1	1			
23	1205262	XFMR DEC #130-16-1025 TRIADE				1				
24	A-DC-5303616-0-0	DECALS 734E POWER SUPPLY				-	1			
25	1206180	METER D.C. TYPE DO-91 #516 X 4 G.R.				1	1			
26	1206169	KNOB #1930-2 H. DAVIS MOLD CO.				1	1			
27	9007231	BUSH JUN TERM #DC-202-1 (RED) HEYMAN				1	1			
28	9007234	BUSH JUN TERM #DC-202-1 (ORN) HEYMAN				4	4			
29	9007237	BUSH JUN TERM #DC-202-1 (BLK) HEYMAN				5	5			
30	1306212	RES FIXED #25F50 500 NS 25W LEONARD				1	1			
31	9007658-1	SCR 1/4" MD PAN #6-32 X 2 3/4 LG SST				1	1			
32	B-MD-5302605-0-0	JUNCTION TERMINAL BRACKET				1	1			
33	9006842	SPACER 1/4 AF X 1" LG X #6-32				4	4			
34	9107300-0-0	BUSS WIRE #14 AWG STRD				A/RA/R				
35	9107300-0-0	WIRE #14 AWG STRD TEF INS BLK				A/RA/R				
36	9107300-22	WIRE #14 AWG STRD TEF INS RED				A/RA/R				
37	9107300-23	WIRE #14 AWG STRD TEF INS ORN				A/RA/R				
38	9107370-0-0	WIRE #14 AWG STRD TEF INS GRN				A/RA/R				
39	9107370-0-0	WIRE #14 AWG STRD TEF INS FLU				A/RA/R				
40	9107306	Y-SHRING TUB 1/2 LG RED				A/RA/R				
41	9007000	TIE WRAP SST-2-B PANDUIT				A/RA/R				
42	9008100	CONN #2104 SHAKEPROOF				3	3			
TITLE		ASSY NO. D-UA-734D-0-0		SIZE CODE A PL		NUMBER 734D-0-0		REV. A		
VARIABLE POWER SUPPLY 734D		SHEET 2 OF 3		DIST. C						

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS					QTY/VAR								
PARTS LIST													
MADE BY KEN GULICK			CHECKED <i>K. Gulick</i>		SECTION								
DATE 11/13/69			DATE 12-8-69		1								
ENG <i>JS</i>			PROD		ISSUED SECT.								
DATE 12/9/69			DATE		1								
ITEM NO.	DWG NO. / PART NO.	DESCRIPTION							UNIT COST	UNIT QUANTITY	QUANTITY ISSUED		
CL	BASIC	VAR.											
43	9007919	CONN SOLDERLESS #50905 ARKLES			5	5							
44	9007925	CONN SOLDERLESS #3000-121A ARKLES			2	2							
45	9007595	SOLDER ALPHA 63/37			A	RA	R						
46	9107370-11	WIRE #14 AWG STRD TEF INS (BRN)			A	RA	R						
47	9107370-99	WIRE #14 AWG STRD TEF INS (WHT)			A	RA	R						
48	1602545	XFMR DEC 16-1026			-	1							
49	MD-C-01558	CAPACITOR MTG BRACKET			1	1							
50	9006674	WASH 916-CORE 2A WARD LEN			1	1							
51	9006831	SPACER 1/2 AF X 1/2 LG X #10 HOLE			1	1							
52	A-DC-5308703-0-0	LABLE PWR SUPPLY 734E			1	1							
53	9006635	WASH INT TOOTH #10 HOLE			4	4							
54	1202356	SCR SHOULDER #10-32 x 9/32 LG			4	4							
55	D-MD-5309646-0-1	SHIELD PLEXIGLAS			1	1							
56	9009062	SPACER HEX 1/2AF x 5 LG x #10-32			4	4							
TITLE VARIABLE POWER SUPPLY 734D				ASSY NO. D-UA-734D-Ø-Ø		SIZE A	CODE PL	NUMBER 734D-Ø-Ø			REV. A	ECO NO.	
SHEET 3 OF 3				DIST.		G							

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SIZE CODE NUMBER REV



NOTE:

INPUT VOLTAGE	JUMPER	LINE
112.5V 10%	2-4,3-7	3,4
123.5V 10%	1-4,3-8	3,4
195V 10%	1-5	3,4
220V 10%	1-6	3,4
235V 10%	2-8	3,4

NOTE:
1. LETTERS INSIDE THE DASHES CORRESPONDS TO THE COLOR DOTS ON THE DMI.

UNLESS OTHERWISE INDICATED
* HEYMAN MFG CO TAB-TERMINAL IN PLASTIC BUSHING
CINCH JONES TERMINAL STRIP

REVISIONS CHK CHG NO. REV 799A-000002 A St. Paul, MN GERELDS 11/1/68		DRN. Problems CHK'D EAM ENG. [Signature] PROD. [Signature]		DATE 10-18-68 DATE 11-3-69 DATE 11-9-68 DATE 11-2-68		TRANSISTOR & DIODE CONVERSION CHART <table border="1"> <tr> <td>DEC</td> <td>EIA</td> <td>DEC</td> <td>EIA</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>				DEC	EIA	DEC	EIA																	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		TITLE POWER SUPPLY 799-A SIZE B CODE CS NUMBER 799-A-1 REV. A PRINTED CIRCUIT REV.			
DEC	EIA	DEC	EIA																																

DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY STAN POITRAS		CHECKED E.A.MILEWSKI		SECTION
DATE	10/30/68	DATE	11/5/68	1
ENG	1	PROD		
DATE	11/30/68	DATE		ISSUED SECT.
				1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION
----------	--------------------	-------------

	B-CS-799-A-1	POWER SUPPLY-799-A
1	D-IA-7406925-0-0	CHASSIS (798-799)
2	D-MD-728-0-1-0-3	CAP HOLD DOWN BRACKET
	9006509	POP RIVET
4	9006565	KEPS HEX NUT #10-32 SST
5	C-MD-728A-0-1-2	JUNCTION TERMINAL BRACKET
6	9007238	TAB T-202-S
7	9007236	JUNCTION TERM BUSH DC-202-2 GRN
8	9007233	JUNCTION TERM BUSH DC-202-2 VEL
9	9007231	JUNCTION TERM BUSH DC-202-2 RED
10	A-DC-7406953-0-0	779-A-POWER SUPPLY (LABEL)
11	1300181	FIXED RESISTOR 15-OHM 25WFL5
12	9006050	SCR PH P#6-32x2 3/4 LG SST
13		CENTERING WASHER #916 CORE TYPE 2A
		(WARD LEONARD)
14	9006831	SPACER 1/2 OD x 3/16 ID x 1/2 LG
15	9107305	HY SHRINK TUBE RED #14x1/2 LG
16	9007649	WASH EXT TOOTH #6
17	9007234	JUNCTION TERMINAL BUSH #DC-202-2 ORN
18	9007232	JUNCTION TERMINAL BUSH #DC -202-2 BLU
19	9006586	NUT C-30110-1032-4 TINNEMAN
20	9006073	SCR PH TRUSS W #10-32x1/2 LGSST

TITLE	POWER SUPPLY 799-A	ASSY NO.		SIZE
		D-UA-799-A-0		A
		SHEET	1 OF 2	
				DIST

[illegible]

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

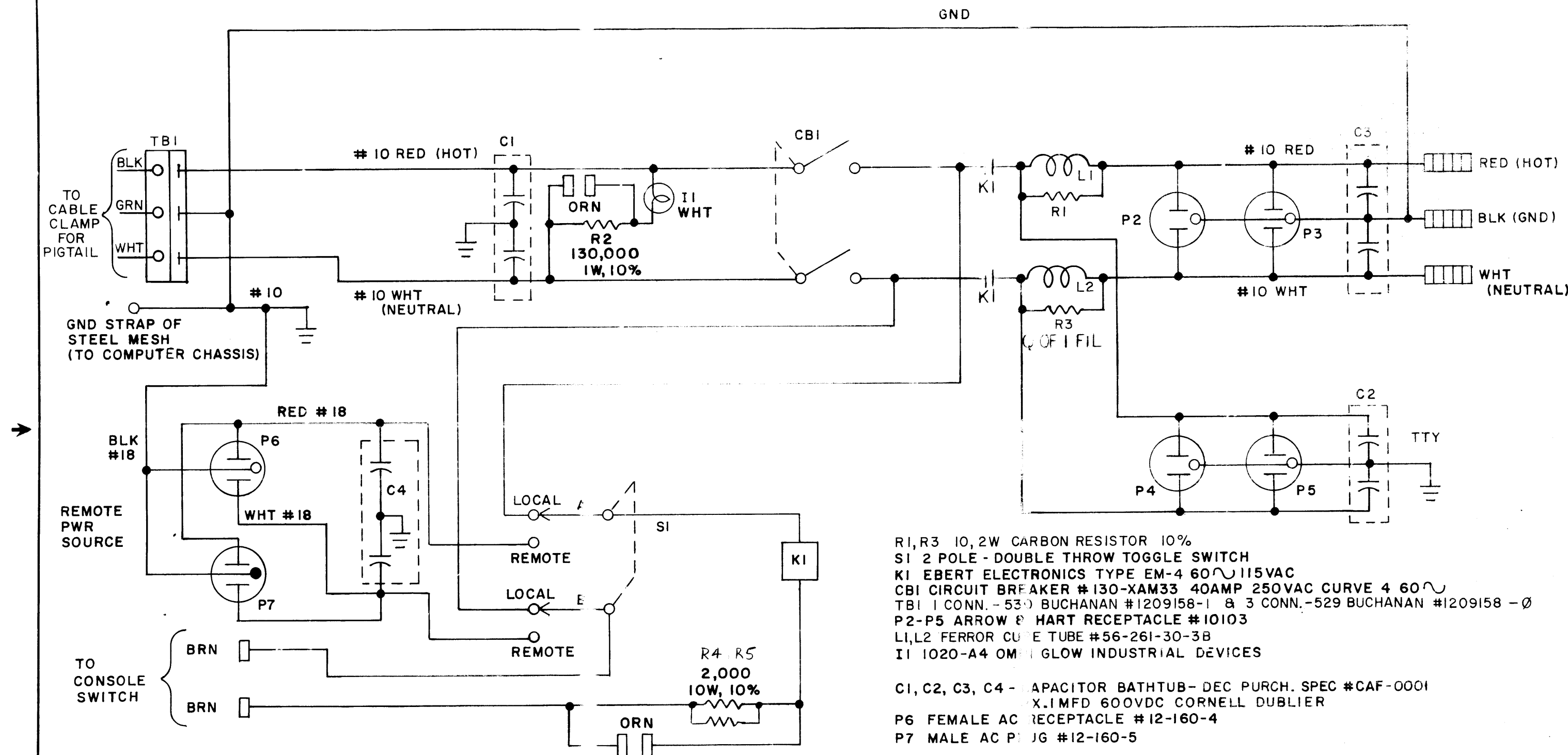
PARTS LIST				SECTION
MADE BY	STAN POITRAS	CHECKED	E. A. MILEWSKI	1
DATE	10/30/68	DATE	11/5/68	
ENG	✓	PROD	✓	ISSUED SECT.
DATE	11-6-68	DATE	11-6-68	

[illegible][illegible]

TITLE	POWER SUPPLY 7600	ASSY NO.	SIZE
		D-UA-799-A-0	A
		SHEET 2 OF 2	DIS

CODE	NUMBER	REV.	ECO NO.
PL	799-A-0	A	000002

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R1, R3 10, 2W CARBON RESISTOR 10%
 SI 2 POLE - DOUBLE THROW TOGGLE SWITCH
 K1 EBERT ELECTRONICS TYPE EM-4 60~115VAC
 CBI CIRCUIT BREAKER #130-XAM33 40AMP 250VAC CURVE 4 60~
 TBI 1 CONN. - 530 BUCHANAN #1209158-1 & 3 CONN. - 529 BUCHANAN #1209158 - 0
 P2-P5 ARROW & HART RECEPTACLE #10103
 L1, L2 FERROR CUBE TUBE #56-261-30-3B
 I1 1020-A4 OM GLOW INDUSTRIAL DEVICES
 C1, C2, C3, C4 - CAPACITOR BATHTUB- DEC PURCH. SPEC #CAF-0001
 P6 FEMALE AC RECEPTACLE #12-160-4
 P7 MALE AC PLUG #12-160-5

REVISIONS CHK CHG NO. REV 1 10-14 2 10-14				DRN M. Waller DATE 2-17-69 CHK DATE ENG DATE 2-25-69 PROC DATE				TRANSISTOR & DIODE CONVERSION CHART DEC EIA DEC EIA DEC EIA DEC EIA DEC EIA DEC EIA DEC EIA DEC EIA				digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS				TITLE POWER CONTROL 841B SIZE CODE NUMBER REV B CS 841-B-1 B PRINTED CIRCUIT REV			
--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--



P11A

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY K. GULICK
DATE 9/19/66
NG
DATE 3/1/69
CHECKED DICK REILLY
DATE 2/19/69
PROD
DATE 3/1/69
SECTION 1
ISSUED SECT. 1

ITEM NO.	DWG NO.	PART NO.	DESCRIPTION	SIZE CODE	ASSY NO.	SHEET	1 OF	3	DIST.	NUMBER	841-B-0	841-C
1	E-IA-5308295-0-0		CHASSIS-841-B	A PL	D-UA-841B					841-B-0		
2	9007231		BUSH TERM DC-202-1 RED							1 1		
3	9007238		TAB SOLDER T-202-S							5 5		
4	9007237		BUSH TERM DC-202-1 BLK							15 15		
5	9007235		BUSH TERM DC-202-1 WHT							5 5		
6	9107560-5		WIRE #14 AWG SOLID BUSSING							5 5		
7	B-IA-5304373-0-0		RECEPTACLE ASSEMBLY							A/RA/R		
8	9006024-1		SCR PHL H PAN 6-32 x 1/2 SST							2 2		
9	9006633		WASH INT TOOTH LOCK							10 10		
10	10-02153		CAP-BATH 1000VDC 440 AC 2 x .1 MFD							12 12		
11	9006022-1		SCR PHL H PAN 6-32 x 3/8 SST							4 4		
12	9006560		NUT KEPS 6-32							18 18		
13	9007089		CLAMP 3/4 NYLON							16 16		
14	1209158-0		BARRIER STRIP 3 BUCHANAN 529 MD							1 1		
15	9006656		WASH FLAT #6							3 3		
16	9008283		ARK #50918-1							2 2		
17	9007113		TERMINAL #11290 .MP							55 55		
18	1201219-02		CIR BREAKER AM33MG6 40 AMP 250V							2 2		
19	12-05303		LAMP #1020A4 (WHT) OMNI GLOW							1 1		
20	1204816		SW TOGGLE 7592K9 CUTLER HAM							1 1		
21	9007633		BUSH TERM DC-202-1 BRN							2 2		
22	9007239		TAB DOUB MALE T-202-D							6 6		

TITLE POWER CONTROL 841-B&C
ASSY NO. D-UA-841B
SHEET 1 OF 3
SIZE CODE A PL
DIST. 841-B-0
NUMBER 841-B-0

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY K. GULICK
DATE 9/19/66
NG
DATE 3/1/69
CHECKED D. REILLY
DATE 2/19/69
PROD
DATE 3/1/69
SECTION 1
ISSUED SECT. 1

ITEM NO.	DWG NO.	PART NO.	DESCRIPTION	SIZE CODE	ASSY NO.	SHEET	2 OF	3	DIST.	NUMBER	841-B-0	841-C
1	B-DC-5308302-0-0		DECAL 841-B + 841-C							1 1		
2	D-MD-5308214-0-0		COVER							1 1		
3	9007035		GROMMET CATERPILAR 1/16							A/RA/R		
4	1201219-02		PLUG #160-5 AMPHENOL							1 1		
5	12-1251		RECP #160-4 AMPHENOL							1 1		
6	9107440-4		WIRE #10 RED & WHT STRD							A/RA/R		
7	9107370-1		WIRE #10 BLK STRD							A/RA/P		
8	9107273-10		TUBING #18 WHITE							A/RA/R		
9	1305603		RESISTOR 2K 10W 10%							2		
10	1305604		RESISTOR 130K 1W 5%							1 1		
11	9107360-3		WIRE #18 RED STRD							A/RA/R		
12	9107360-10		WIRE #18 WHT STRD							A/RA/R		
13	9107255		SHRINK TUBING WHT							A/RA/R		
14	9107430-2		WIRE #18 RED & WHT STRD							A/RA/R		
15	12-05268		RELAY EM-4 120 VAC							1 -		
16	9006071-1		PHL H PAN 10-32 x 3/8 SST							2 2		
17	9006565		NUT KEPS HEX 10-32							2 2		
18	1300172		RESISTOR 10 OHMS 2W 10%							2 2		
19	1605147		FERRITE CUBE TUBE #56-261-30-38							2 2		
20	9007234		RUSH TERM DC-202-1 ORN							1 4		
21	9107278-3		TUBING #18 RED							A/RA/R		
22	9007015		GROMMET #1043-M							1 1		

TITLE POWER CONTROL 841-B&C
ASSY NO. D-UA-841B
SHEET 2 OF 3
SIZE CODE A PL
DIST. 841-B-0
NUMBER 841-B-0

MAYNARD, WILLIAM L. JR.

MADE BY K. GULICK

CHECKED D. REILLY

SECTION

DATE 11/1/77

DATE: 2/19/69

1

NAME K. J. [illegible]

DEED

TISSUE EFFECT

DATE 2-1-50

DATE _____

1

241-3

841-C

DEC FORM NO.
DRA 110



D1,D2,D3,D4,D5 THYRECTOR G.E. 20SP4B4, 115V
C1,C2,C3 CAPACITOR (BATH) 2 X .1 MFD
1000 VDC

S1 TOGGLE SWITCH DPDT 7563K6 C.H. 3POS CENTER OFF
S2 TOGGLE SWITCH DPST 7590K9
K1 RELAY #1040-8-687 NORMALLY OPEN 115 VAC COIL 3-5 SEC DELAY
QUICK OPERATE, SLOW RELEASE.
K2 RELAY #1040-8-58 NORMALLY OPEN 115 VAC COIL 3-5 SEC DELAY
SLOW OPERATE, QUICK RELEASE.
K3 RELAY # EM-4 115 VAC EBERT ELECTRONICS.
CBI CIRCUIT BREAKER #190-230-104 30 AMPS. 250V, 60 CYC-CURVE 4
TM HOBBS TIME METER TYPE M11906 120V 60 CYC-CURVE 4

REVISIONS <table><tr><td>CHK</td><td>CHG NO</td><td>REV</td><td></td></tr><tr><td>0000</td><td>1</td><td>A</td><td></td></tr></table>				CHK	CHG NO	REV		0000	1	A		DRW <i>Robert Mitrak</i>		DATE <i>12/13/65</i>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS
PARTS LIST

MADE BY ROBERT BUTNAK	CHECKED R. CARVELLI	SECTION
DATE 1/2/68	DATE 12/16/68	
ENG W.W. GERELDS	PROD L. PRENTICE	ISSUED SECT.
DATE 1/2/69	DATE 1/3/69	

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION
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REF	B-CS-853-F-1	POWER CONT 853-F
1	D-MD-5308193-0-0	CWASSIS
2	9006071-1	SCR PHL PAN ID #10-32 x 3/8 LG SST
3	9006625	WASHER INT TOOTH #10
4	B-D-5308221-0	DECALS 853-F PWR CONT
5	1205901	SWITCH DPDT CENT OFF CU7563K6
6	1201103	METER ML 1906 120V 60 CY 10EBS
7	9006011-1	SCR PHL PAN ID #4-40 x 3/8 LG SST
8	9006517	NUT, KEPS #4-40 SST
9	9007012	TERM, OFFSET# 6045-1 AMP
10	1104732	SWITCH DIST 7590K9 C..
11	9007011-1	SCR PHL PAN ID #6-32 x 3/8 LG SST
12	9007510	NUT KEPS #6-32 SST
13	1202153	CAPACITOR (BAT) 2 x .1 MFD 1000V D.C.
14	1205458	LAMP, #1020C55 DEV. INC
15	1201218-CC	CKT BKR, 20 AMP 2 PL 4 CURVE
16	1205901	SCR PHL PAN ID #6-32 x 1/4 LG SST
17	9006612	WASHER INT TOOTH #6
18	1205769	RELAY EM4 115V
19	1202193	RELAY #1000-3-53 ADAMS WESTLAKE
20	1201117	RELAY #1000-3-53 ADAMS WESTLAKE
21	9006881	STACER EX #10-22 3/8 AF X 3 LG

TITLE	2-F POWER CONTROL	ASSY NO.	SIZE
		D-VA-250 F-O-O	A
		SHEET 1 OF 3	DIST

PL	953F -0-0	NUMBER	REV. B	ECONO. NO. 00002
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DIGITAL EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

PARTS LIST

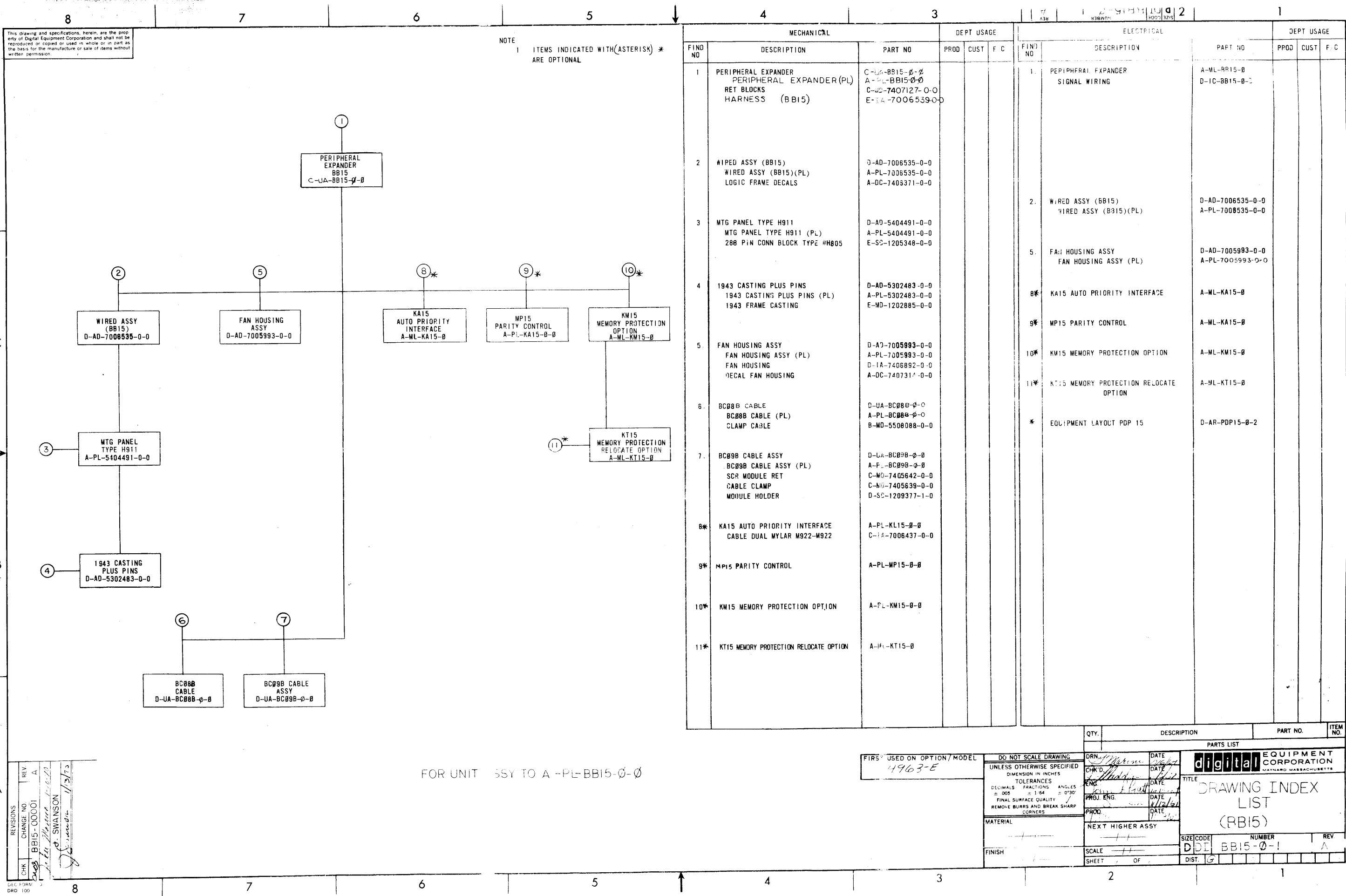
MADE BY ROBERT TUTNAK		CHECKED R. CARVELLI	SECTION
DATE	1/1/69	DATE	12/16/69
ENG W.W. GARELDC		PROD L. PRENTICE	ISSUED SECT.
DATE	1/3/69	DATE	1/3/69

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION
	1002256	SCR SLLD #10-32 x 7/16 LG SST
	C-MD-3403172-9-0	SHIELD
4	9008110	LUG, #41237 AMP
	9007596	ADAPTER #3000M446 ARKLES
	9007900	CONN #50906-7 ARKLES
	9007901	SCR PL VAN D #6-32 x 3/4 LG SST
	9007904	TERM STRIP #6-541 CINCA JONES
	9007589	JUMPER 541-3 CINCA JONES
	9007253	AMP LUG 45
	9007194	TERM ADAPTOR #3000S5-1 ARKLES
	900770-55	WIRE, #14 AWG STRD TEF INS GRN
	9007066	RELECTOR 4RS205P4B4 G.E. 115V
4	9107370-66	WIRE, #14 AWG STRD TEF INS BLU
	9006779	CONN., #409509 AMP
	9007199	WIRE S-LICEF 34071
	9007919	CONN SLD #50906 ARKLES
	9007370-33	WIRE, #14 AWG STRD TEF INS ORN
	9007071	CONN, #34142 AMP
	9107379-22	WIRE, #10 AWG STRD TEF INS RED
4	9007039	TIE WRAP #SST-2-B
	9107390-99	WIRE, #10 AWG STRD TEF INS WHT
	9107370-44	WIRE, #14 AWG STRD TEF INS YEL

[illegible]

TITLE	ASSY NO.	SIZE
		A
		DIS
D-4A-853 F-0-	SHEET	2 OF 3

CODE	NUMBER	REV.	ECONO
PL	452F-0-0	B	000002



MECHANICAL				DEPT USAGE			ELECTRICAL				DEPT USAGE		
FIND NO	DESCRIPTION	PART NO	PROD	CUST	F	C	FIND NO	DESCRIPTION	PART NO	PROD	CUST	F	C
1	PERIPHERAL EXPANDER PERIPHERAL EXPANDER (PL) RET BLOCKS HARNESS (BB15)	C-JA-BB15-0-0 A-PL-BB15-0-0 C-MD-7407127-0-0 E-BA-7006539-0-0					1	PERIPHERAL EXPANDER SIGNAL WIRING	A-ML-RP15-0 D-IC-BB15-0-0				
2	WIRED ASSY (BB15) WIRED ASSY (BB15) (PL) LOGIC FRAME DECALS	D-AD-7006535-0-0 A-PL-7006535-0-0 A-DC-7406371-0-0					2	WIRED ASSY (BB15) WIRED ASSY (BB15) (PL)	D-AD-7006535-0-0 A-PL-7006535-0-0				
3	MTG PANEL TYPE H911 MTG PANEL TYPE H911 (PL) 288 PIN CONN BLOCK TYPE #H805	D-AD-5404491-0-0 A-PL-5404491-0-0 E-SC-1205348-0-0					5	FAN HOUSING ASSY FAN HOUSING ASSY (PL)	D-AD-7005993-0-0 A-PL-7005993-0-0				
4	1943 CASTING PLUS PINS 1943 CASTING PLUS PINS (PL) 1943 FRAME CASTING	D-AD-5302483-0-0 A-PL-5302483-0-0 E-MD-1202885-0-0					8*	KA15 AUTO PRIORITY INTERFACE	A-ML-KA15-0				
5	FAN HOUSING ASSY FAN HOUSING ASSY (PL) FAN HOUSING DECAL FAN HOUSING	D-AD-7005993-0-0 A-PL-7005993-0-0 D-IA-7406892-0-0 A-DC-7407311-0-0					9*	MP15 PARITY CONTROL	A-ML-KA15-0				
6	BC08B CABLE BC08B CABLE (PL) CLAMP CABLE	D-UA-BC08B-0-0 A-PL-BC08B-0-0 B-MD-5508088-0-0					10*	KM15 MEMORY PROTECTION OPTION	A-ML-KM15-0				
7	BC09B CABLE ASSY BC09B CABLE ASSY (PL) SCR MODULE RET CABLE CLAMP MODULE HOLDER	D-UA-BC09B-0-0 A-PL-BC09B-0-0 C-MD-7405642-0-0 C-MD-7405639-0-0 D-SC-1209377-1-0					11*	KT15 MEMORY PROTECTION RELOCATE OPTION	A-ML-KT15-0				
8*	KA15 AUTO PRIORITY INTERFACE CABLE DUAL MYLAR M922-M922	A-PL-KA15-0-0 C-IA-7006437-0-0					*	EQUIPMENT LAYOUT PDP 15	D-AR-PDP15-0-2				
9*	MP15 PARITY CONTROL	A-PL-MP15-0-0											
10*	KM15 MEMORY PROTECTION OPTION	A-PL-KM15-0-0											
11*	KT15 MEMORY PROTECTION RELOCATE OPTION	A-PL-KT15-0											

FOR UNIT ASSY TO A-PL-BB15-0-0

REV	CHG	NO	DATE	BY	APP
1	1	1	11/3/73	SWANSON	

FIRST USED ON OPTION / MODEL
4963-E

DO NOT SCALE DRAWING	UNLESS OTHERWISE SPECIFIED
TOLERANCES	DECIMALS FRACTIONS ANGLES
± .005 ± .001 ± .010	± .005 ± .001 ± .010
FINAL SURFACE QUALITY	REMOVE BURRS AND BREAK SHARP CORNERS

DRN	DATE
CHK	DATE
ENG	DATE
PROJ. ENG.	DATE
PROD.	DATE

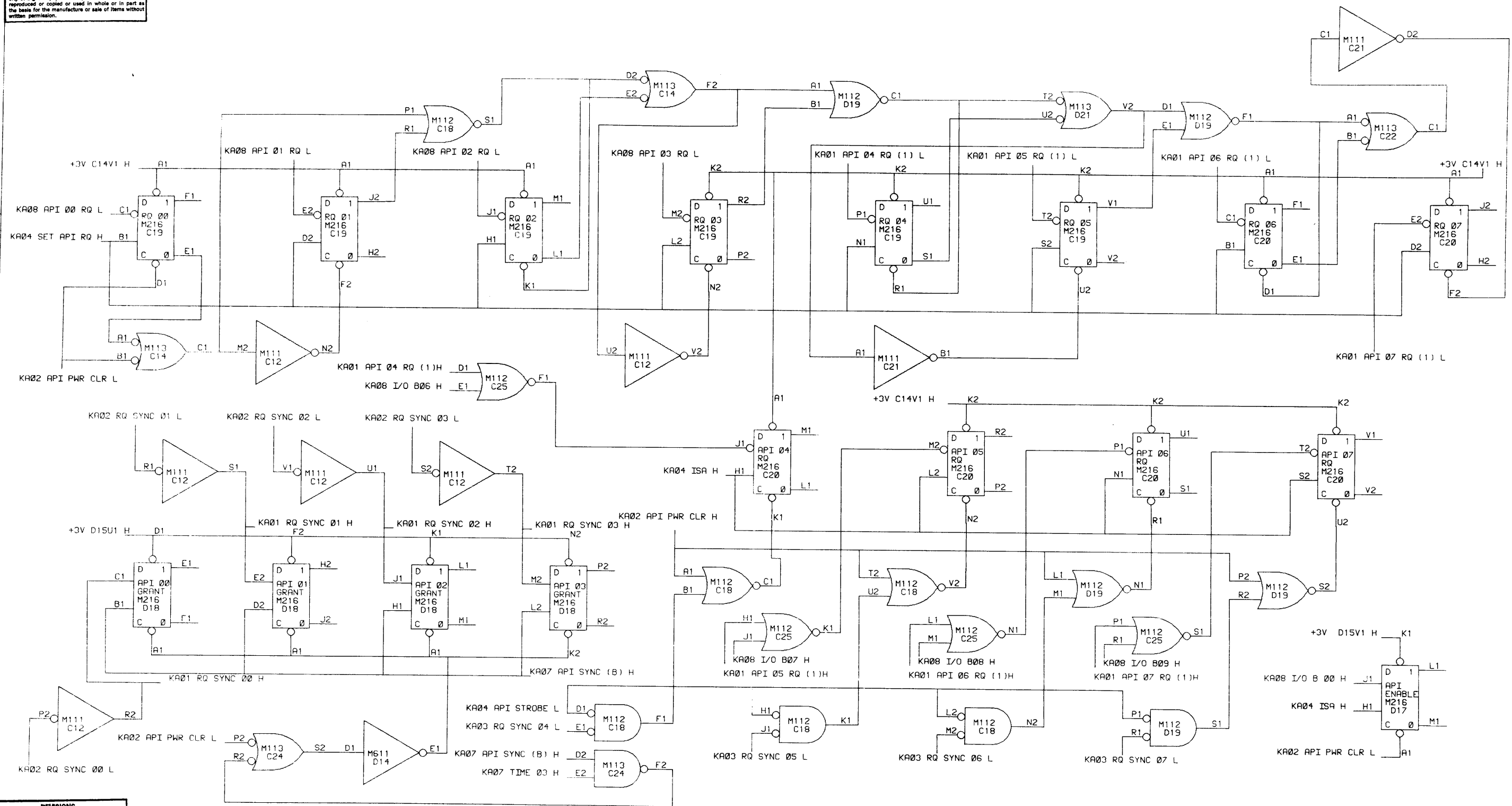
digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
DRAWING INDEX LIST
(BB15)

SIZE CODE NUMBER
DDI BB15-0-1

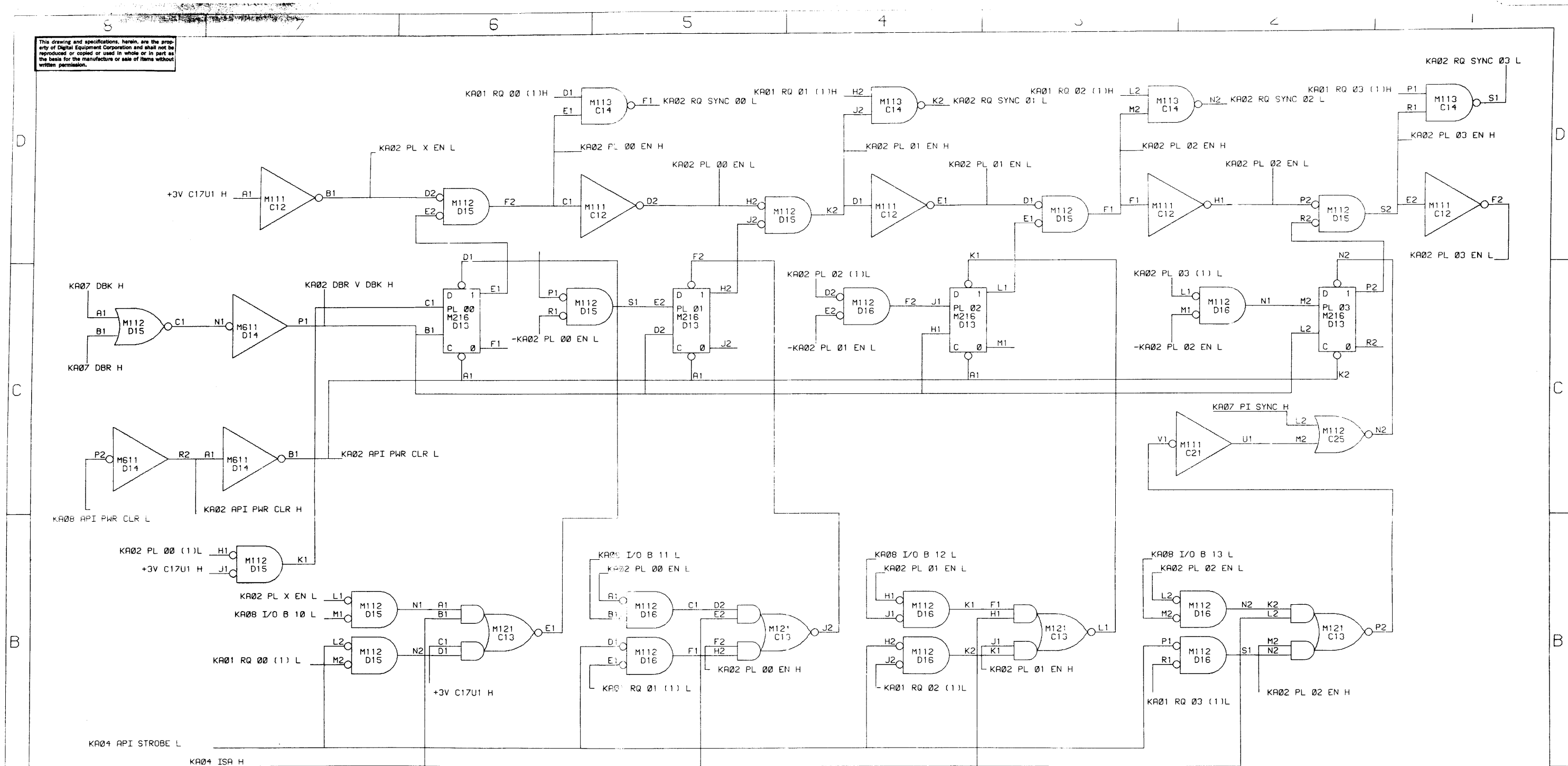
SCALE
SHEET OF

REVISIONS		
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	<i>[Handwritten signature]</i>	<i>[Handwritten date: 5-6-78]</i>
		<i>[Handwritten date: 5-6-78]</i>



DRN. K COTE	DATE 3/20/77	digital CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D ORIGINEAU LT	DATE 3/20/77		
ENG ELSBREE	DATE 3/25/77	TITLE REQUESTS	
PROJ. ENG. F HUMANN	DATE 3/25/77		
PROD. F LASKEY	DATE 3/27/77		
FIRST USED ON KA15		SIZE CODE D 183	NUMBER KA15-0-01
SCALE		REV. A	
SHEET 1 OF 1		DIST	

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REVISIONS		
CHK	CHANGE NO.	REV.

DRN. <i>1 Cat</i>	DATE <i>3-12-70</i>	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHRG. <i>C. Nagle</i>	DATE <i>3-15-70</i>		
ENG. <i>C. Chabree</i>	DATE <i>3/15/70</i>	TITLE PRIORITY LEVELS 0-3	
PROG. <i>W. L. Hermann</i>	DATE <i>3/15/70</i>		
PROD. <i>C. Fisher</i>	DATE <i>2/27/70</i>		
FIRST USED ON KA15			
SCALE	SIZE CODE	NUMFR	REV.
SHEET 1 OF 1	D BS	KA15-0-02	
	DIS.		

KP03	RQ	SYNC	07	L
KP03	RQ	SYNC	06	L
KP03	RQ	SYNC	05	L
KP03	RQ	SYNC	04	L
KP02	RQ	SYNC	03	L
KP02	RQ	SYNC	02	L
KP02	RQ	SYNC	01	L
KP02	RQ	SYNC	00	L

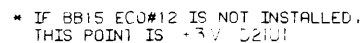
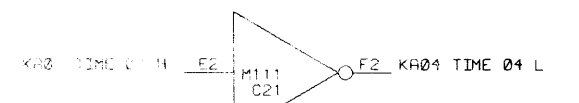
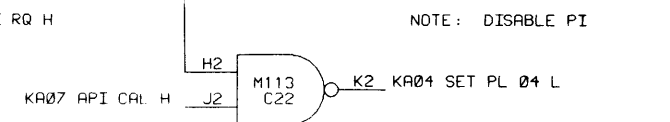
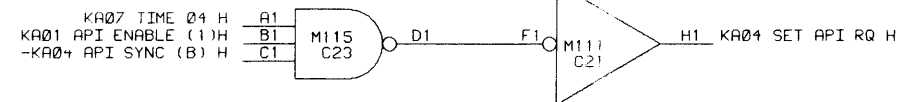
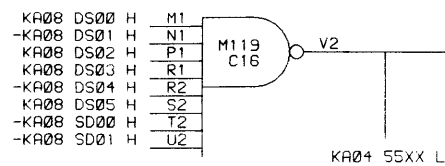
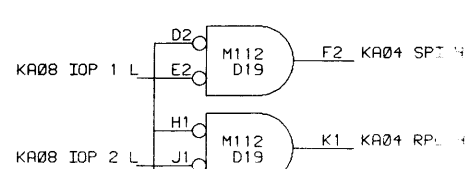
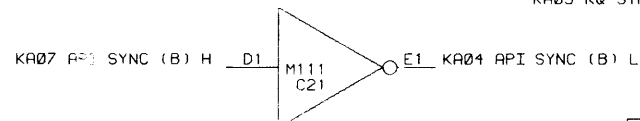
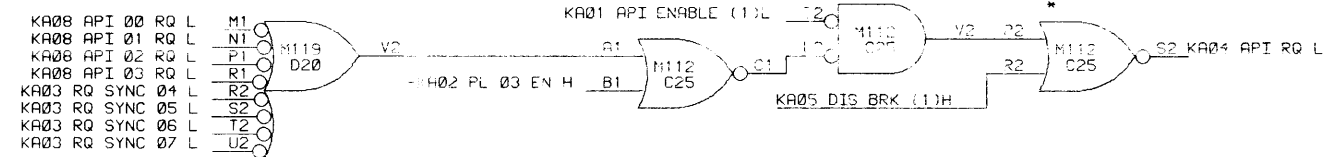
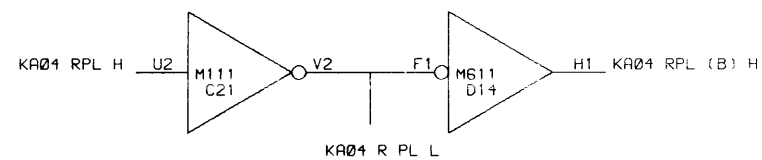
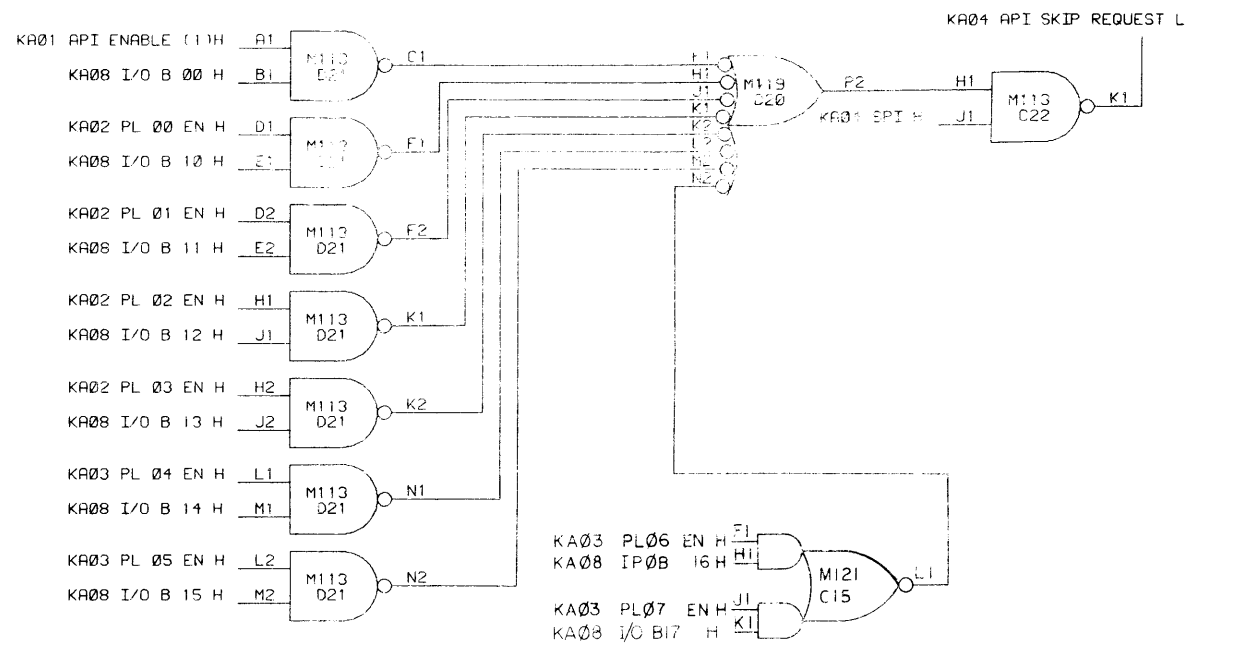
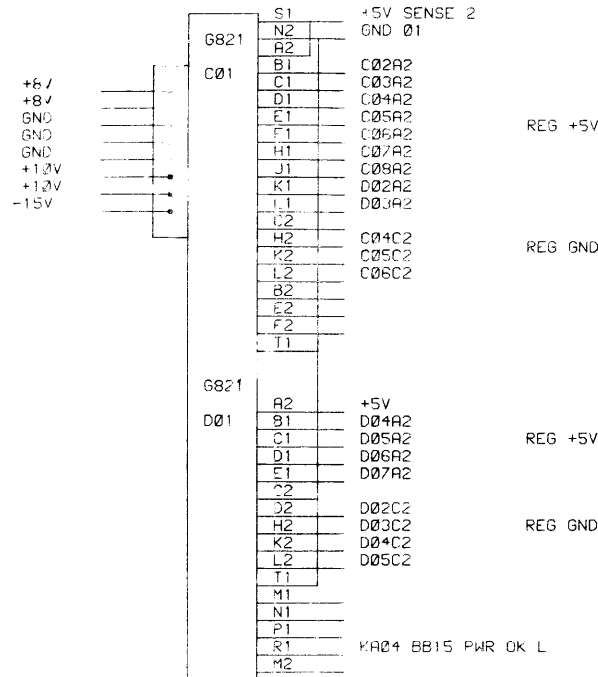
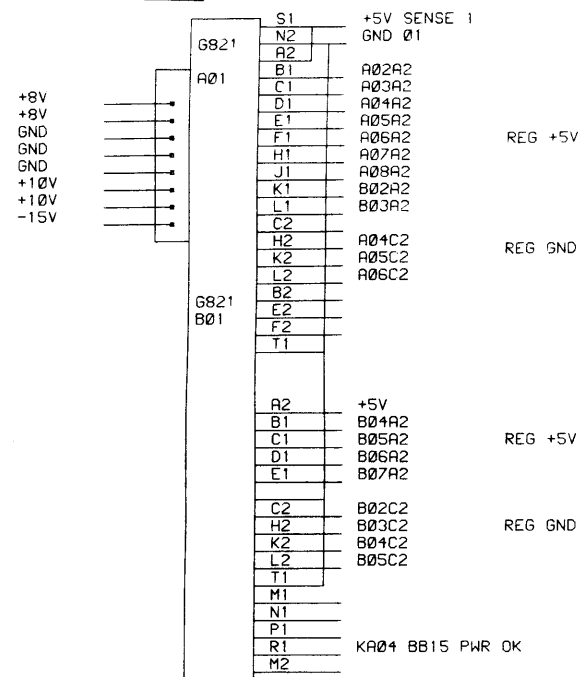


Figure 1: Schematic representation of the experimental design. The diagram illustrates the flow of information in a word production task. It is divided into three main stages: Stimulus, Response, and Feedback. In the Stimulus stage, a word is presented to the subject. In the Response stage, the subject generates a word. In the Feedback stage, the subject receives a word. The process is repeated for multiple trials, with the subject's internal state being updated after each trial.

DRN. K. COTE		DATE 3/13/77		digital CORPORATION MATNARD, MASSACHUSETTS	
CHK'D. F. DAIGNEAULT		DATE 3/13/77			
ENG. J. ELSBREE		DATE 3/25/77		TITLE PRIORITY LEVELS 04-07	
PROJ. ENG. F. ALMANN		DATE 3/25/77			
PROD. F. LASKEY		DATE 3/27/77			
FIRST USED ON KA15					
SCALE		SIZE CODE		NUMBER	
1 OF 1		D BS		KA15-0-03	
		DIST.		REV. B	

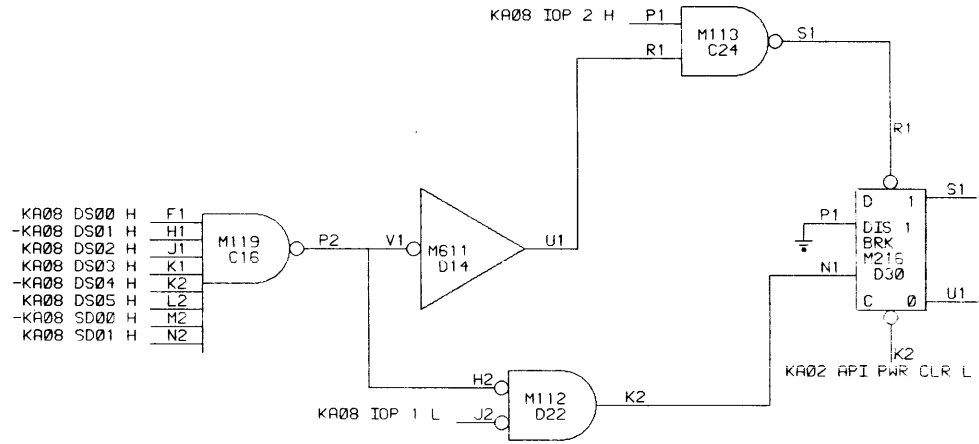
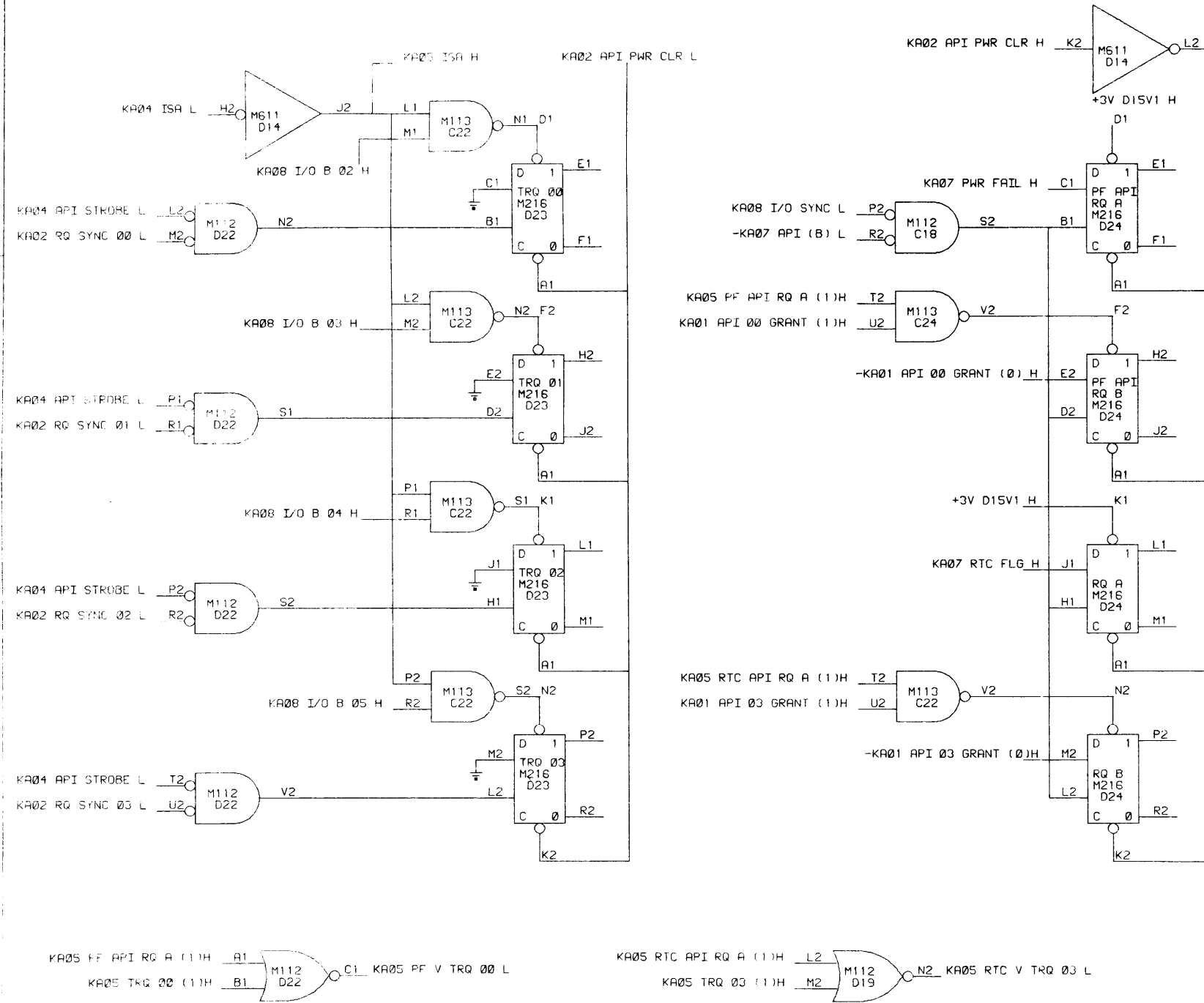
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ADDED BY OPTIONAL BB15 ECO#12

REVISIONS			REVISIONS		
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CH	BB15-00010	D	CH	BB15-00023	H
CH	BB15-00011	E	CH	BB15-00024	I
CH	BB15-00012	F	CH	BB15-00025	J
CH	BB15-00013	G	CH	BB15-00026	K
CH	BB15-00014	H	CH	BB15-00027	L
CH	BB15-00015	I	CH	BB15-00028	M
CH	BB15-00016	J	CH	BB15-00029	N
CH	BB15-00017	K	CH	BB15-00030	O
CH	BB15-00018	L	CH	BB15-00031	P
CH	BB15-00019	M	CH	BB15-00032	Q
CH	BB15-00020	N	CH	BB15-00033	R
CH	BB15-00021	O	CH	BB15-00034	S
CH	BB15-00022	P	CH	BB15-00035	T
CH	BB15-00023	Q	CH	BB15-00036	U
CH	BB15-00024	R	CH	BB15-00037	V
CH	BB15-00025	S	CH	BB15-00038	W
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CH	BB15-00027	U	CH	BB15-00040	Y
CH	BB15-00028	V	CH	BB15-00041	Z
CH	BB15-00029	W	CH	BB15-00042	AA
CH	BB15-00030	X	CH	BB15-00043	AB
CH	BB15-00031	Y	CH	BB15-00044	AC
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CH	BB15-00058	AZ	CH	BB15-00071	BD
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CH	BB15-00060	BB	CH	BB15-00073	BF
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CH	BB15-00062	BD	CH	BB15-00075	BH
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CH	BB15-00064	BF	CH	BB15-00077	BJ
CH	BB15-00065	BG	CH	BB15-00078	BK
CH	BB15-00066	BH	CH	BB15-00079	BL
CH	BB15-00067	BI	CH	BB15-00080	BM
CH	BB15-00068	BJ	CH	BB15-00081	BN
CH	BB15-00069	BK	CH	BB15-00082	BO
CH	BB15-00070	BL	CH	BB15-00083	BP
CH	BB15-00071	BM	CH	BB15-00084	BQ
CH	BB15-00072	BN	CH	BB15-00085	BR
CH	BB15-00073	BO	CH	BB15-00086	BS
CH	BB15-00074	BP	CH	BB15-00087	BT
CH	BB15-00075	BQ	CH	BB15-00088	BU
CH	BB15-00076	BR	CH	BB15-00089	BV
CH	BB15-00077	BS	CH	BB15-00090	BW
CH	BB15-00078	BT	CH	BB15-00091	BX
CH	BB15-00079	BU	CH	BB15-00092	BY
CH	BB15-00080	BV	CH	BB15-00093	BZ
CH	BB15-00081	BW	CH	BB15-00094	CA
CH	BB15-00082	BX	CH	BB15-00095	CB
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CH	BB15-00086	CB	CH	BB15-00099	CF
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CH	BB15-00141	EE	CH	BB15-00154	EI
CH	BB15-00142	EF	CH	BB15-00155	EJ
CH	BB15-00143	EG	CH	BB15-00156	EK
CH	BB15-00144	EH	CH	BB15-00157	EL
CH	BB15-00145	EI	CH	BB15-00158	EM
CH	BB15-00146	EJ	CH	BB15-00159	EN
CH	BB15-00147	EK	CH	BB15-00160	EO
CH	BB15-00148	EL	CH	BB15-00161	EP
CH	BB15-00149	EM	CH	BB15-00162	EQ
CH	BB15-00150	EN	CH	BB15-00163	ER
CH	BB15-00151	EO	CH	BB15-00164	ES
CH	BB15-00152	EP	CH	BB15-00165	ET
CH	BB15-00153	EQ	CH	BB15-00166	EU
CH	BB15-00154	ER	CH	BB15-00167	EV
CH	BB15-00155	ES	CH	BB15-00168	EW
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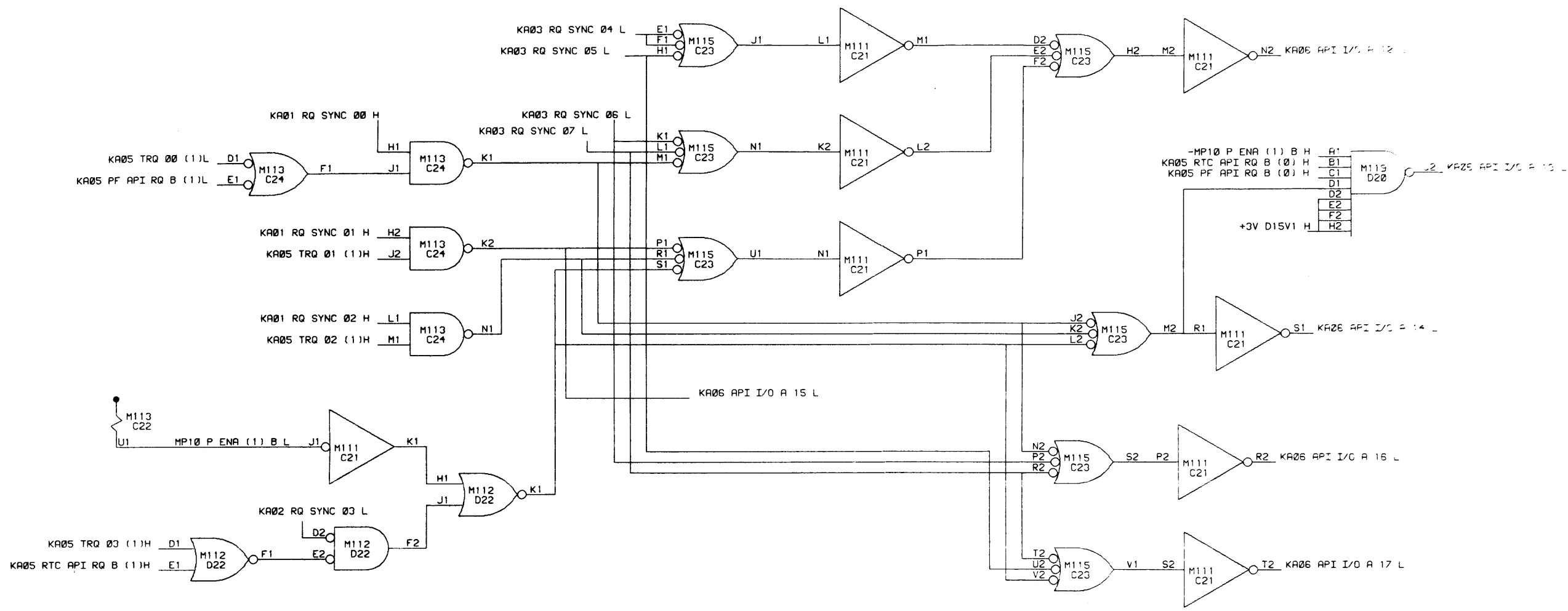
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REVISIONS		
CHK	CHANGE NO.	REV.
AKW	BB15-00012	A

DRN. K COTE	DATE 3/20/70	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		
CHKD. F DRAGNEAULT	DATE 3/20/70			
ENG. J ELSBREE	DATE 3/25/70	TITLE TEST REQUEST		
PROD. ENG. F HUMANN	DATE 3/25/70			
PROD. F LASKEY	DATE 3/26/70	FIRST USED ON KA15		
SCALE		SIZE/CODE D RS	NUMBER KA15-0-05	REV. A
SHEET 1 OF 1		DIST.		

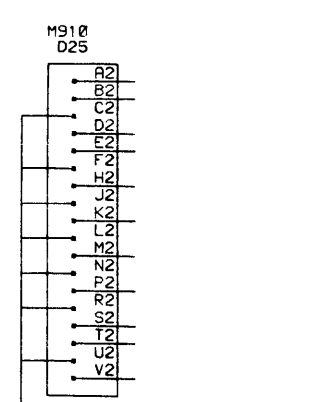
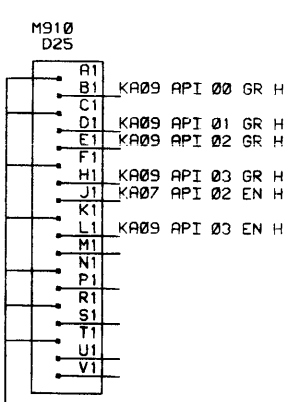
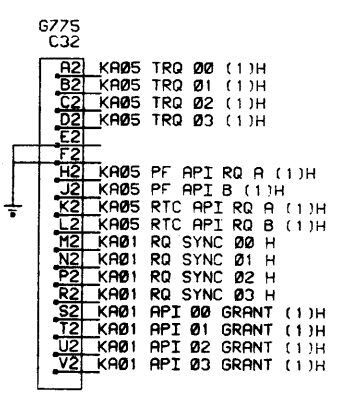
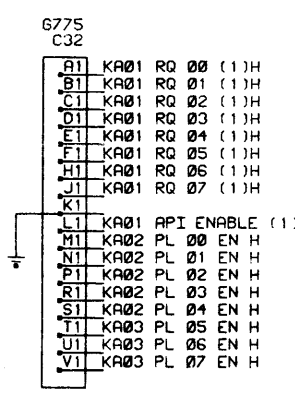
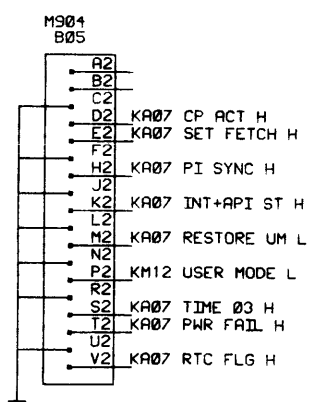
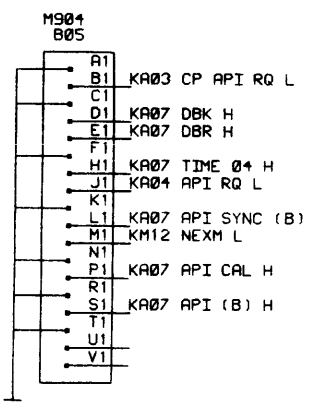
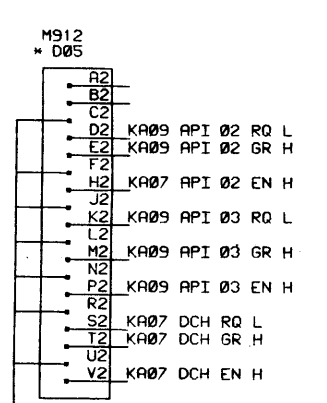
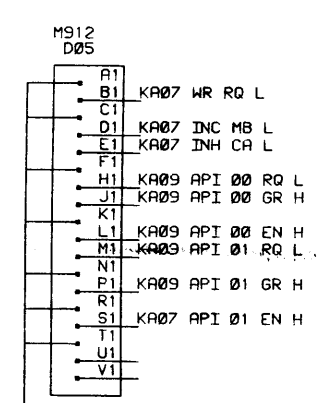
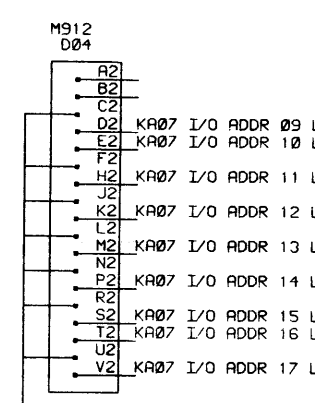
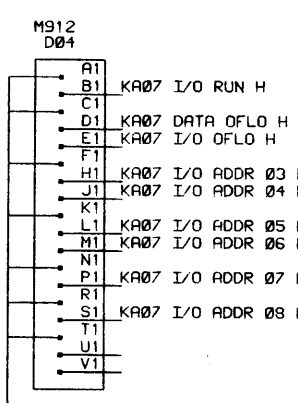
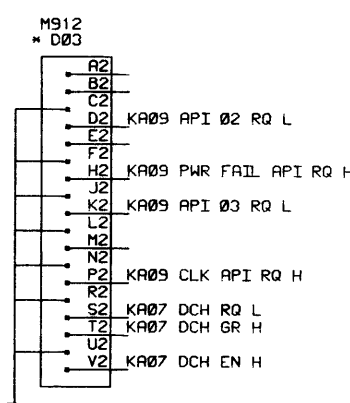
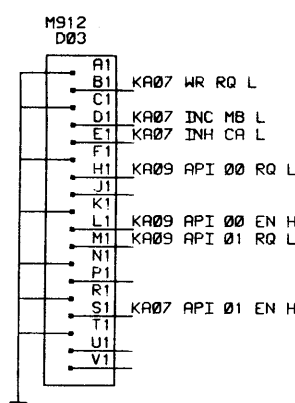
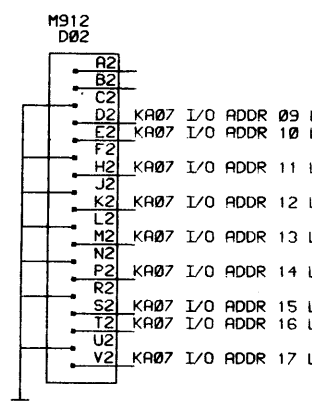
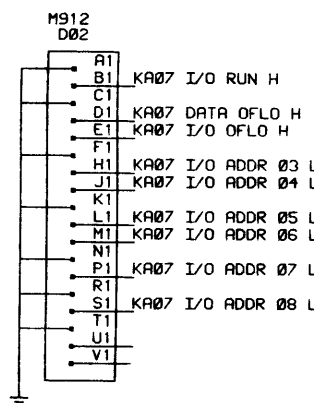
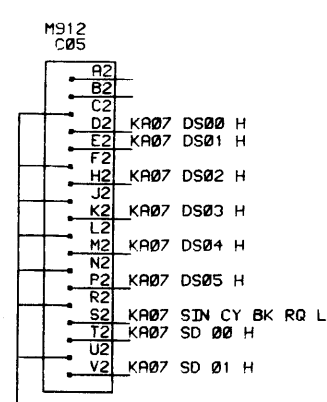
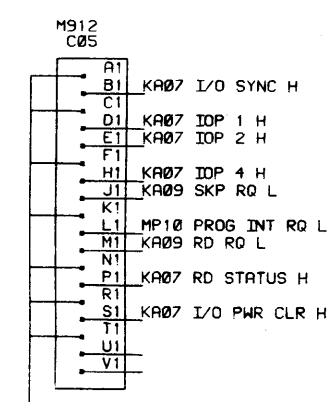
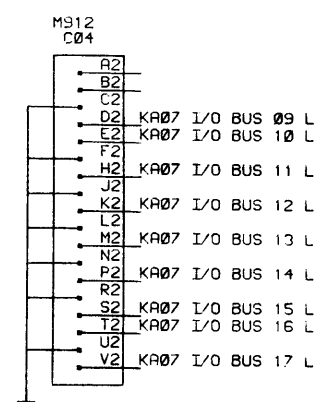
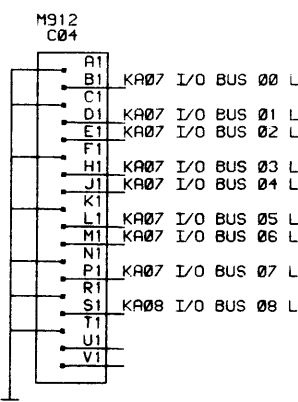
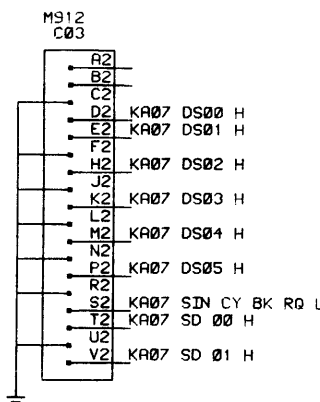
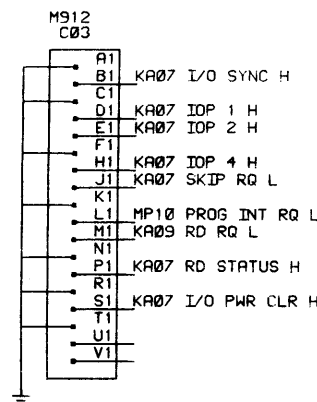
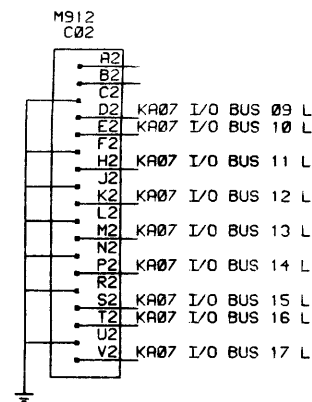
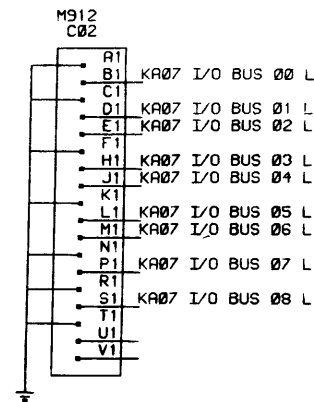
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REVISIONS		
CHK	CHANGE NO.	REV.

DRN <i>K. Gite</i>	DATE 3/13/70	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS TITLE I/O ADDRESS GATING
CHK'D <i>J. Bonaventura</i>	DATE 3-13-70	
ENG <i>J. Calver</i>	DATE 3/25/70	
PROD <i>J. Calver</i>	DATE 3/25/70	
FIRST USED ON KA15	DATE 3/25/70	
SCALE	SIZE CODE D BS	NUMBER KA15-0-06
SHEET 1	OF 1	DIST.

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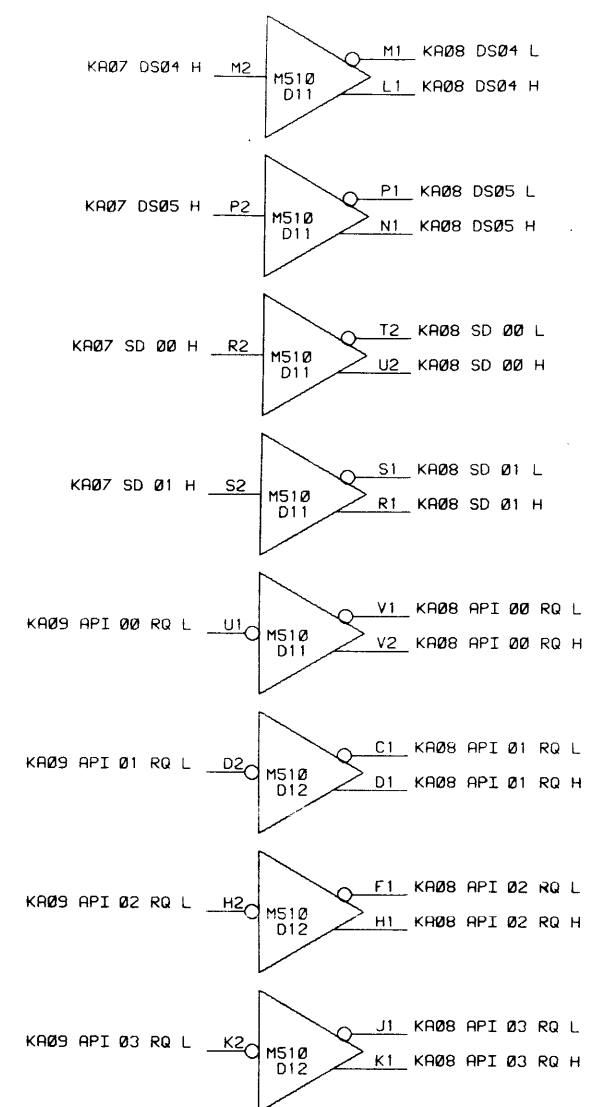
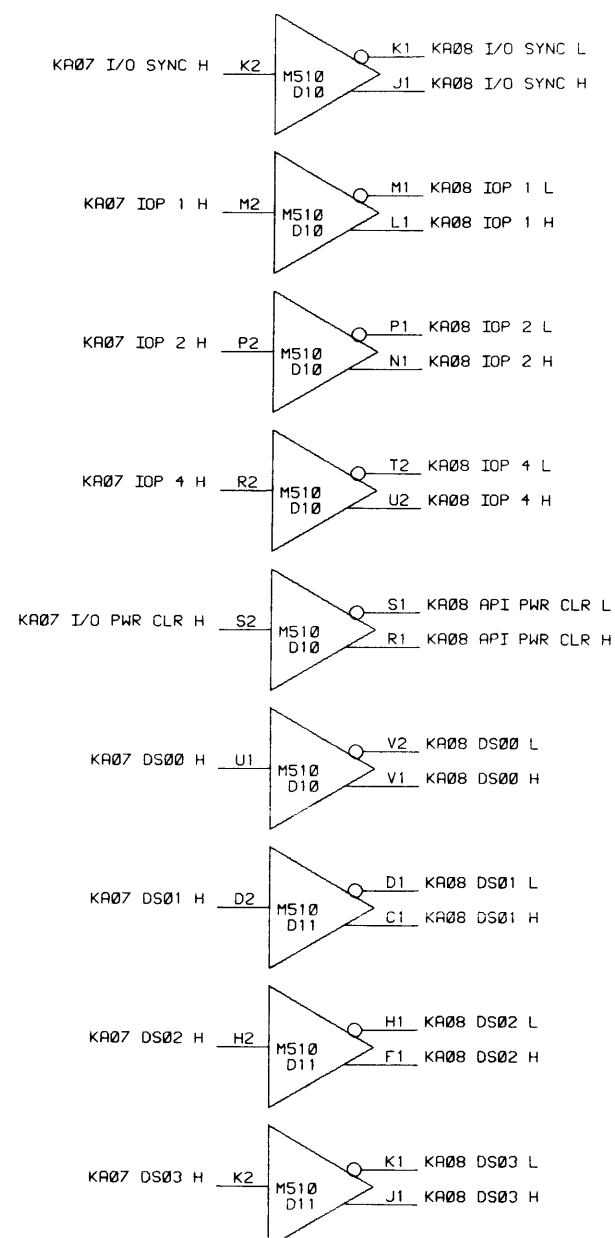
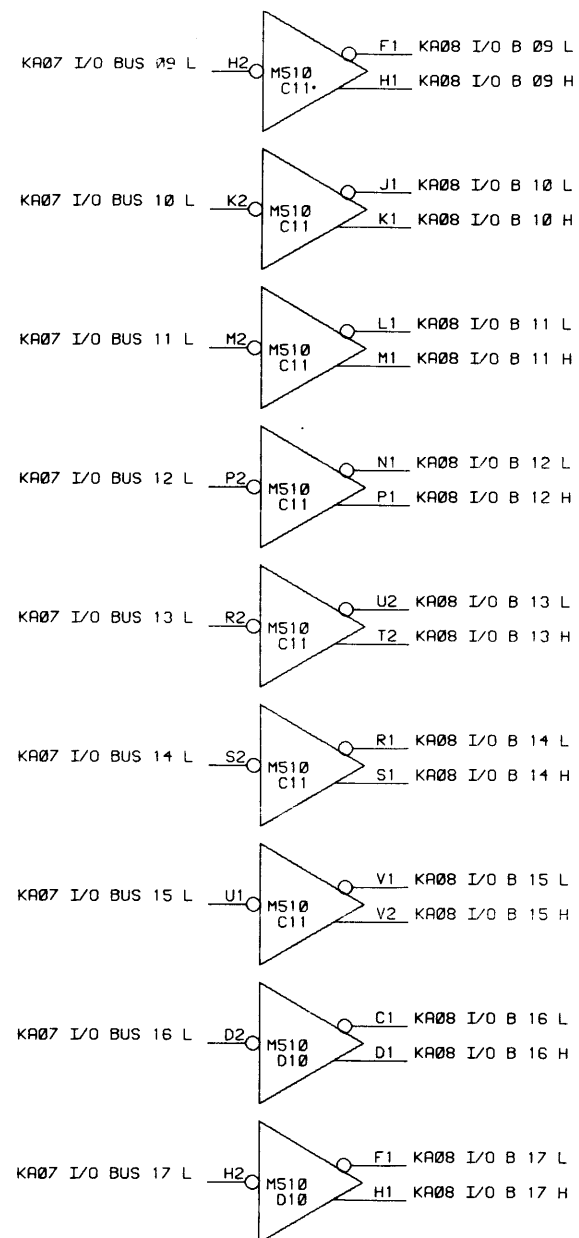
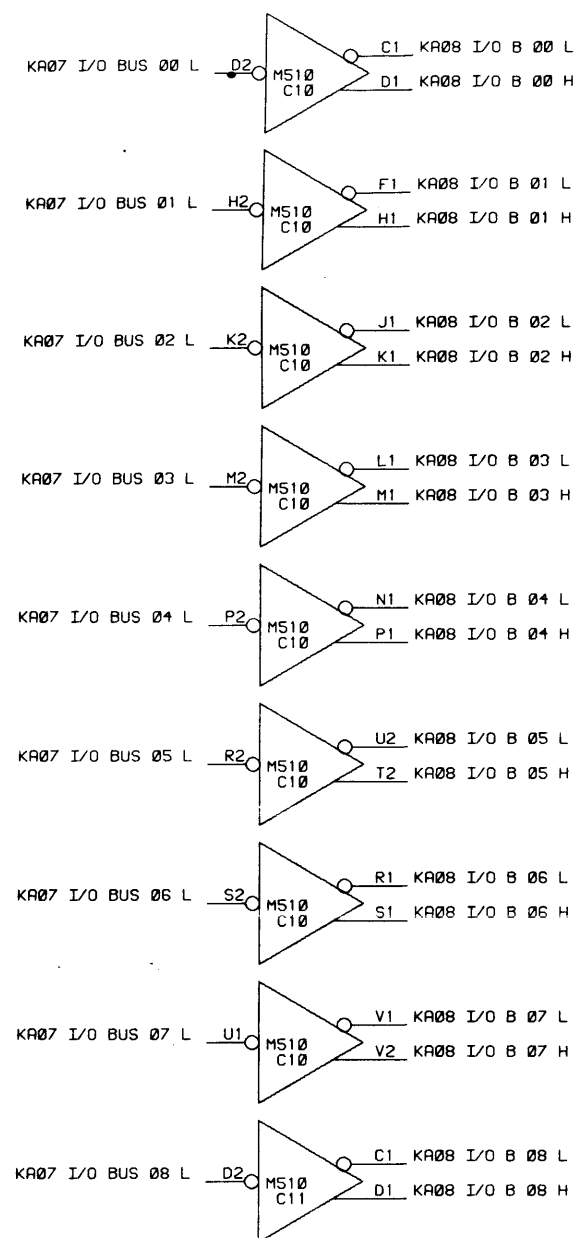


*NOTE: IF B815 IS INSTALLED WITHOUT
API (KA15) ADD THE FOLLOWING
WIRES:
D03H2 - D05H2
D03P2 - D05P2

REVISIONS		
CHK	CHANGE NO.	REV.
1	8815-00011	A
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DRAWN K COTE	DATE 1/13/77	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHCKD P ORIGNEAULT	DATE 3/13/77	TITLE API CABLES	
ENG J ELSBREE	DATE 3/25/77		
PROD. ENG. P ALUMANN	DATE 3/25/77		
PROD. F LASKY	DATE 3/27/77		
FIRST USED ON KA15		SIZE/CODE D BS	NUMBER KA15-0-07
SCALE SHEET 1 OF 1		DIST.	REV. A

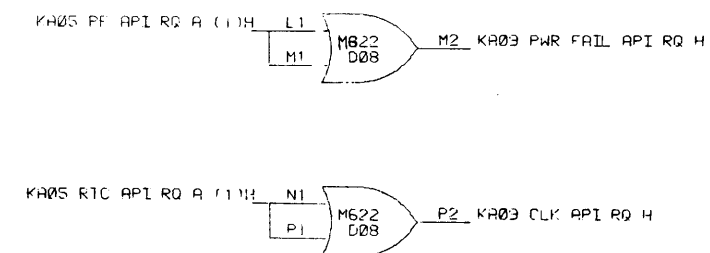
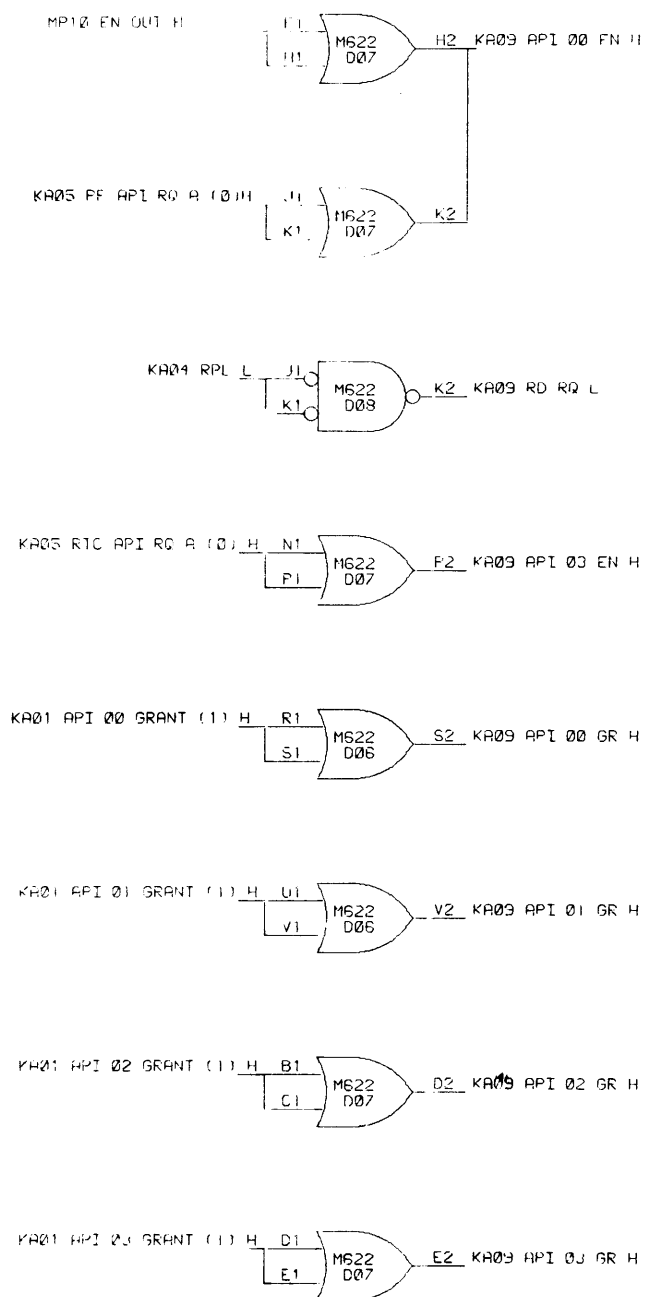
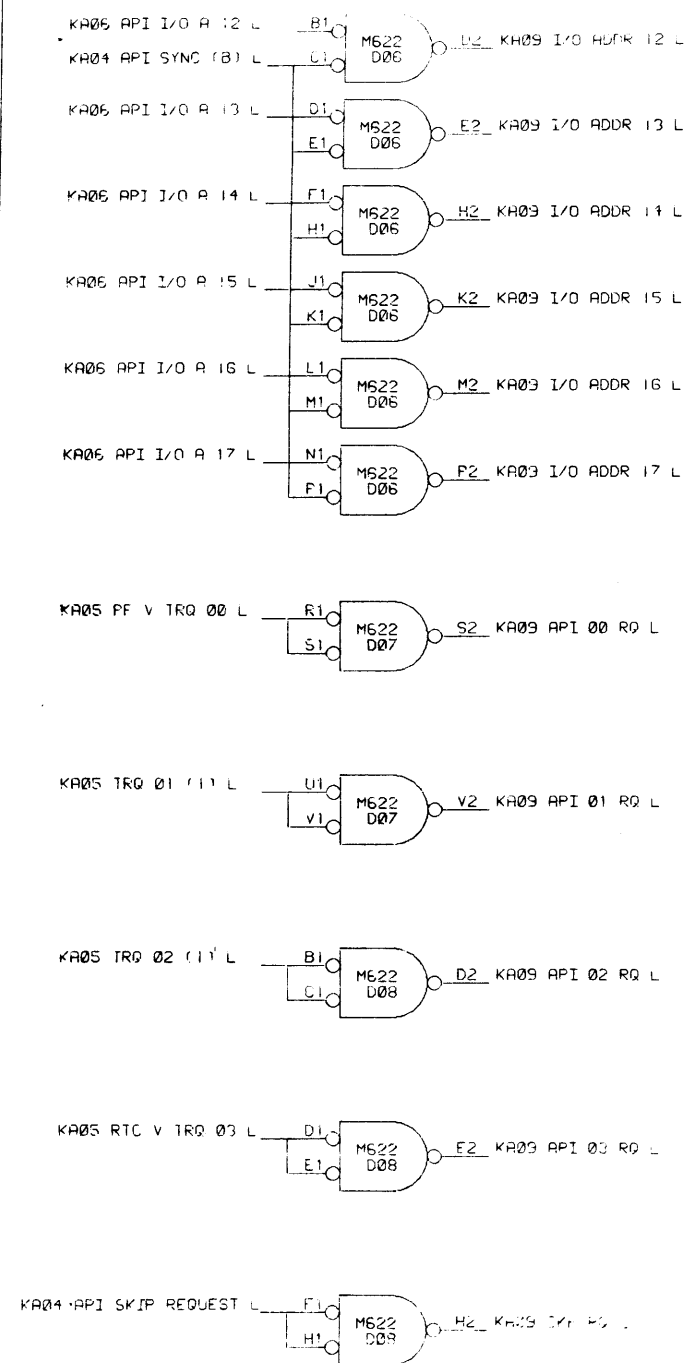
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REVISIONS		
CHK	CHANGE NO.	REV.

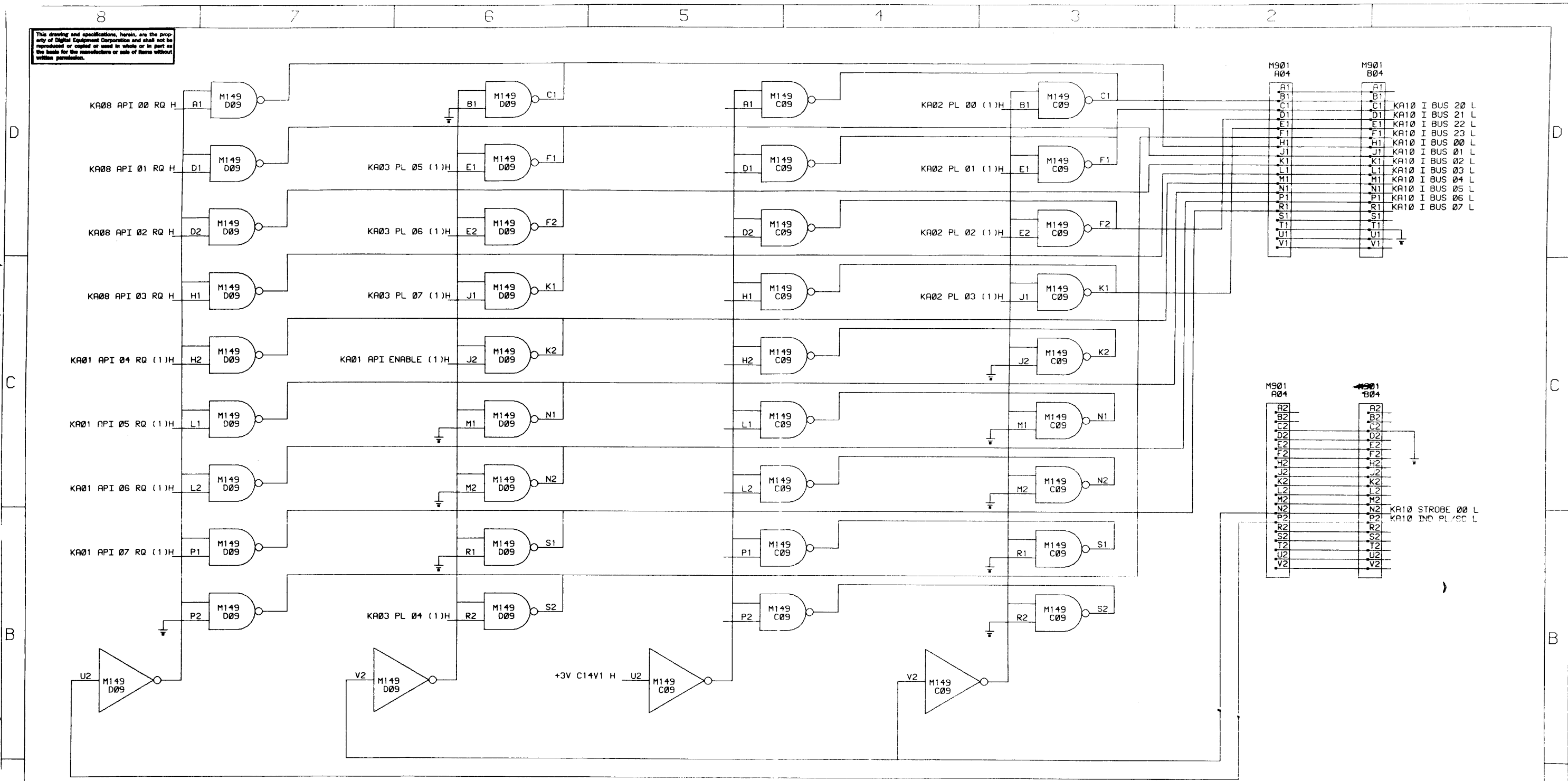
DRN K. Cate	DATE 5-15-70	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHND V. Brownell	DATE 3-13-70	
ENG. J. Palmer	DATE 3/15/70	
PROD. S. P. S.	DATE 3/25/70	
FIRST USED ON	DATE 3/26/70	
KA15		TITLE I/O BUS RECEIVERS
SCALE	SIZE/CODE D BS	NUMBER KA15-0-08
SHEET 1	OF 1	REV.

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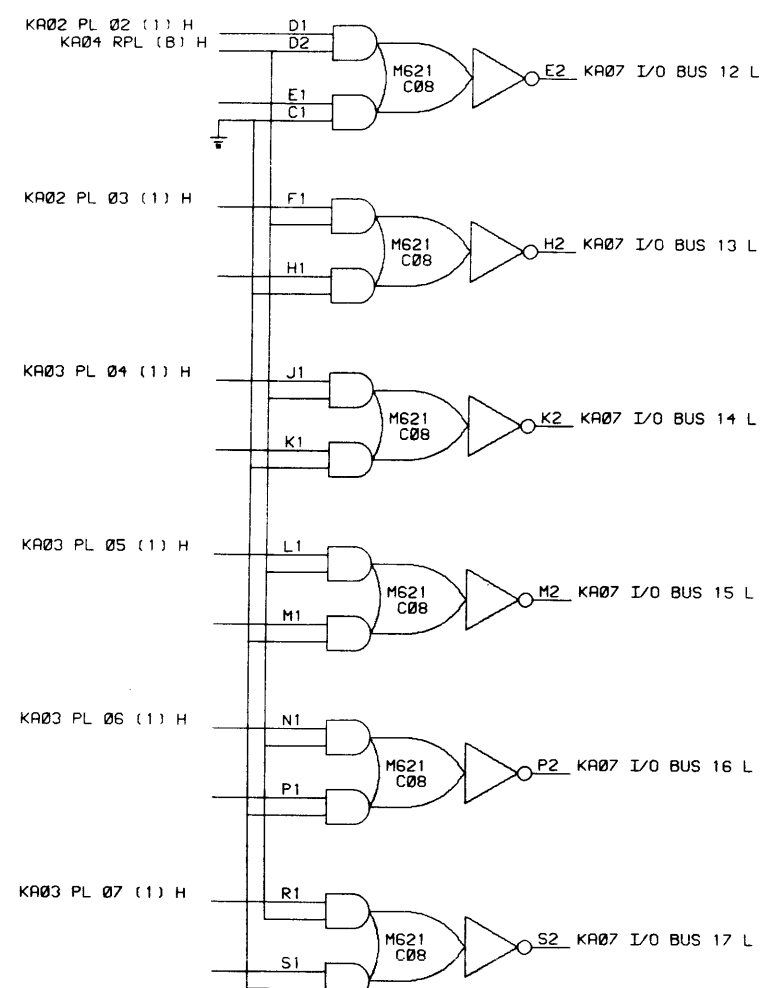
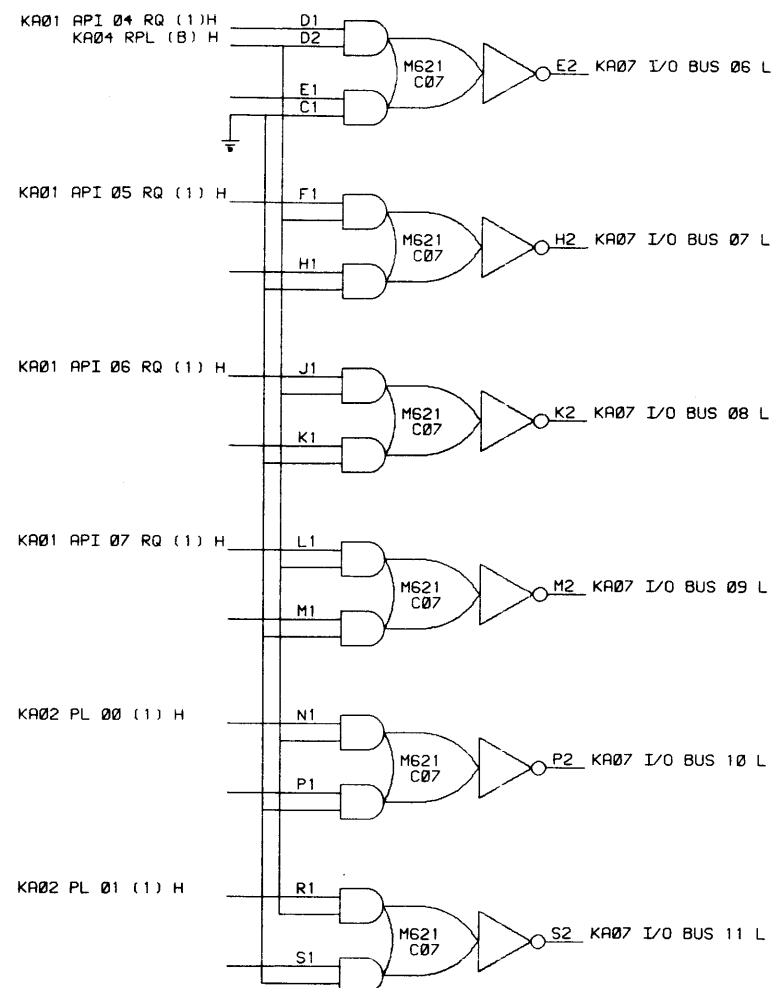
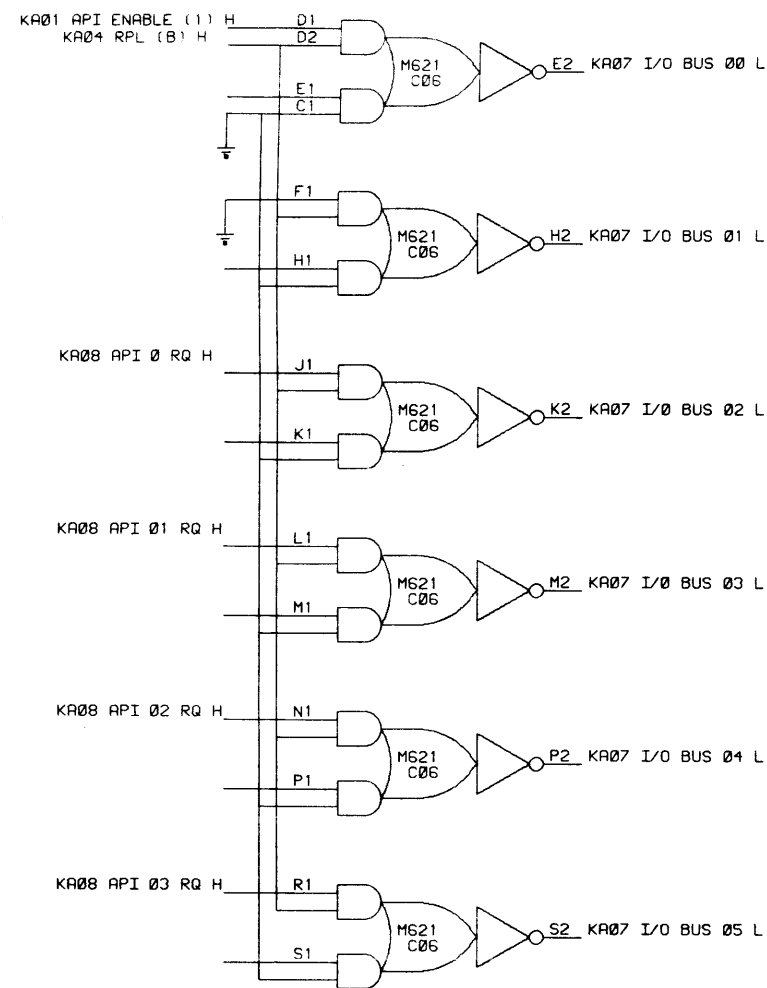
REVISIONS		
CHK	CHANGE NO.	REV.
AW	BB15-00011	A

DRN K COTE	DATE 3/13/70	 digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	TITLE		
CHRO DRIGNEAULT	DATE 3/13/70				
ENG ELSBREE	DATE 3/25/70				
PROJ ENG AUMANN	DATE 3/25/70				
PROD LASKEY	DATE 3/27/70				
FIRST USED ON KA15		MISC DRIVERS			
SIZE CODE				NUMBER	REV.
D BS				KA15-0-09	A
SHEET : OF :		DIST.			



DRN K COTE	DATE 3/28/77	digital CORPORATION MAYNARD, MASSACHUSETTS	
CHCK ORIGINEAULT	DATE 3/28/77	TITLE I BUS DRIVERS	
ENG LSBREE	DATE 3/25/77		
PROJ. ENG P HUMANN	DATE 3/25/77		
PROD P LASKEY	DATE 3/27/77		
FIRST USED ON KAIS		SHEET NO 155	REV. H
SCALE		NUMBER KAIS-0-10	
SHEET	OF	DIST	

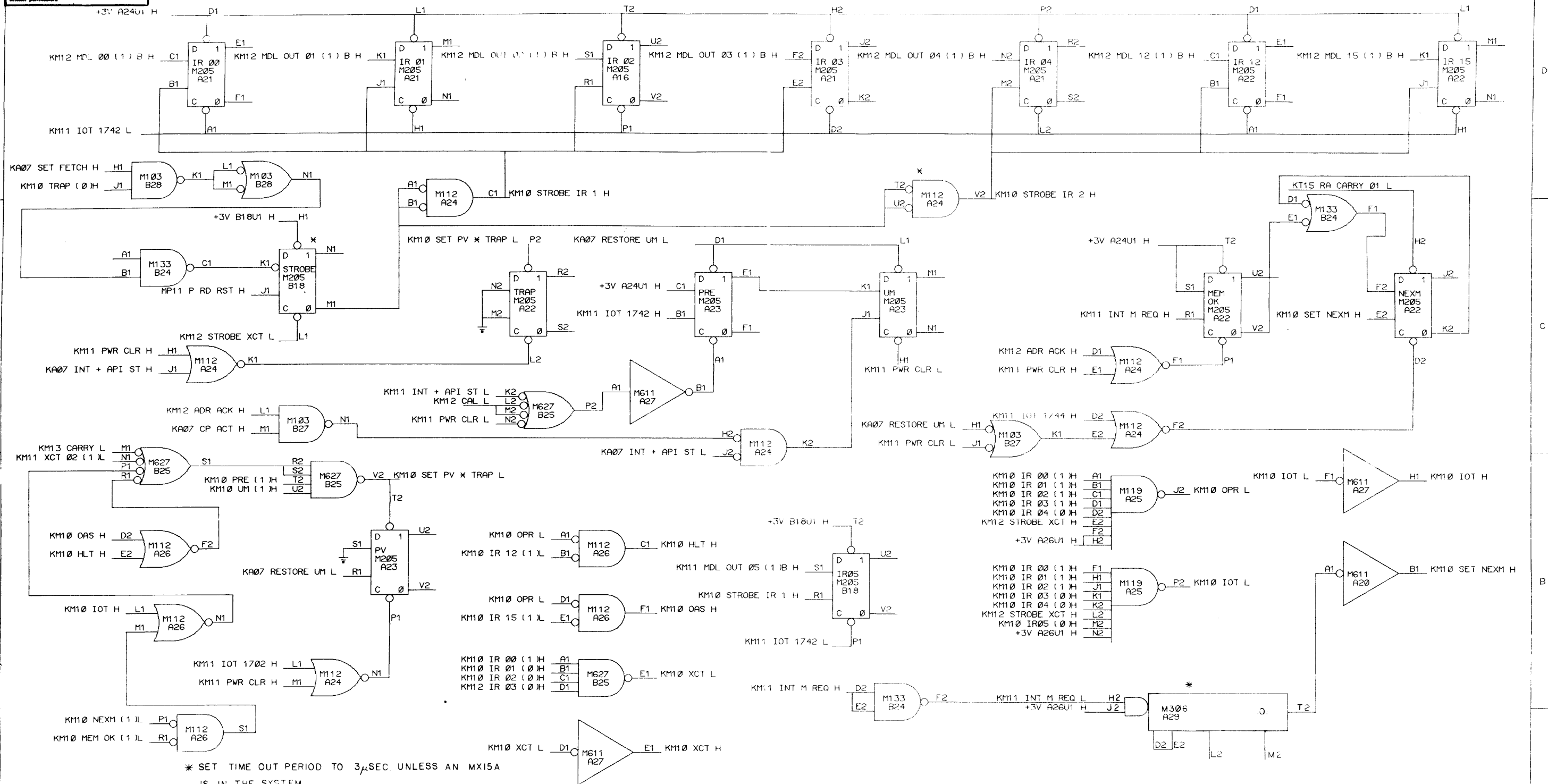
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REVISIONS		
CHK	CHANGE NO.	REV.

DESIGNED <i>R. Cote</i>	DATE 3-13-74	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHIEF ENGINEER <i>J. Chagnon</i>	DATE 3-13-74	
ENGINEER <i>J. C. LeBlond</i>	DATE 3-13-74	
PROD. ENG. <i>J. C. LeBlond</i>	DATE 3-13-74	
PROD. <i>J. C. LeBlond</i>	DATE 3-13-74	
FIRST USED ON KA15		TITLE I/O BUS DRIVERS
SCALE	SIZE CODE D BS	NUMBER KA15-0-11
SHEET 1 OF 1	DIST.	REV. 1

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* SET TIME OUT PERIOD TO $3\mu\text{SEC}$ UNLESS AN MX15A IS IN THE SYSTEM.

SET TIMEOUT PERIOD TO 40 μ SEC. IF MX15A IS IN THE SYSTEM AND THE MX IS JUMPED FOR EQUAL PRIORITY.
SET TIMEOUT PERIOD TO A VALUE GREATER THAN THE TIME THE PROCESSOR CAN BE HELD OFF IF THE MX IS
JUMPED FOR ABSOLUTE PRIORITY.

REVISIONS		
CHK	CHANGE NO.	REV
GH	BB15-00012 A	
	S. GOLDSBY 2-17-71	
	J. ELSBREE 2-18-71	
GH	BB15-00015 B	
	G. WYATT 6-13-71	
	J. ELSBREE 6-15-71	
GH	BB15-00017 C	
	F. ELSBREE 6-15-71	
	ELSBREE	

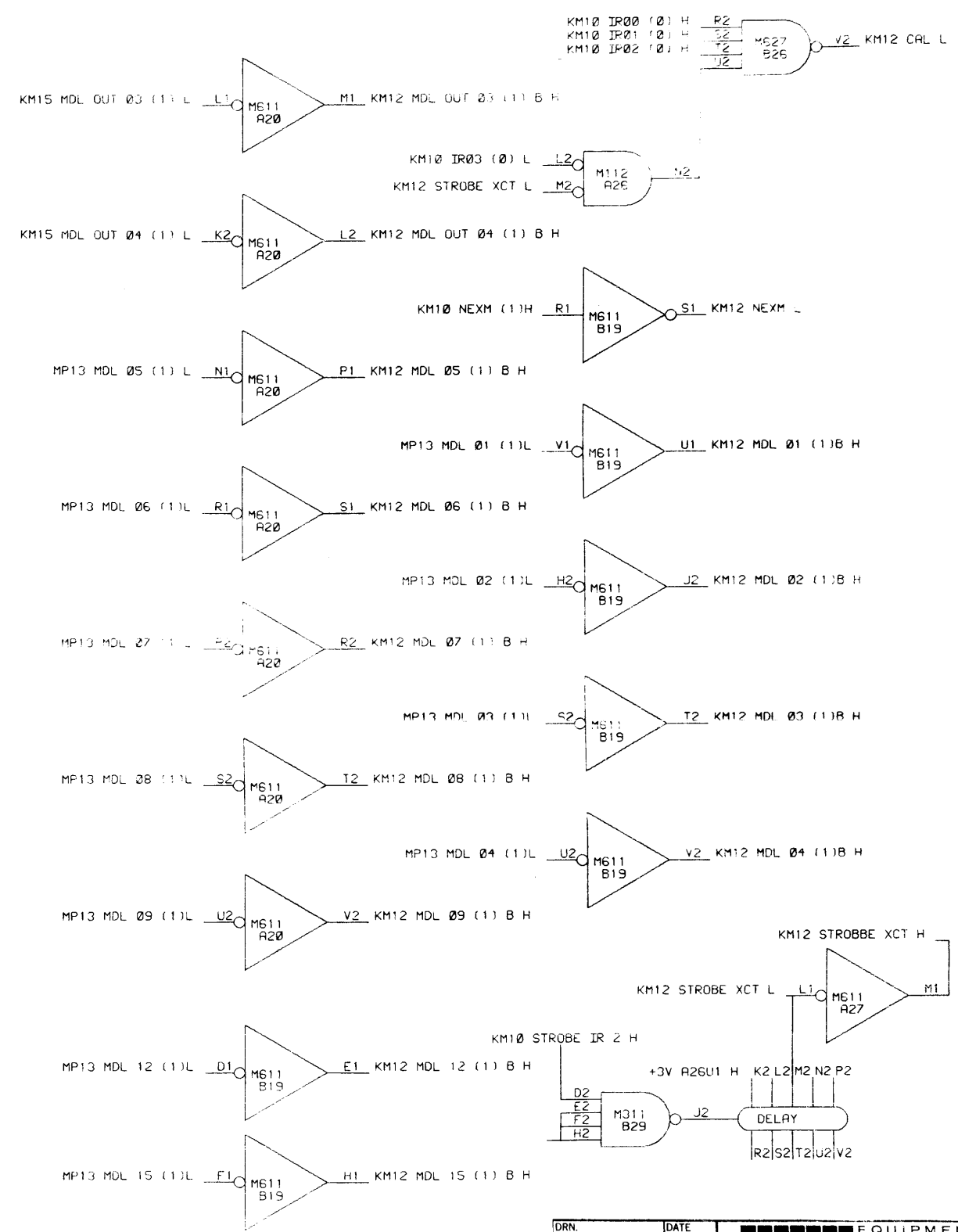
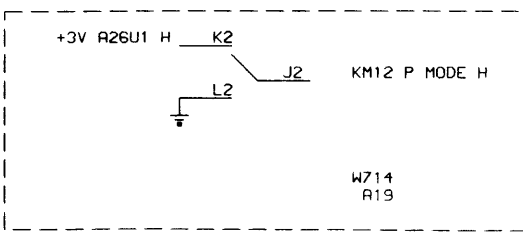
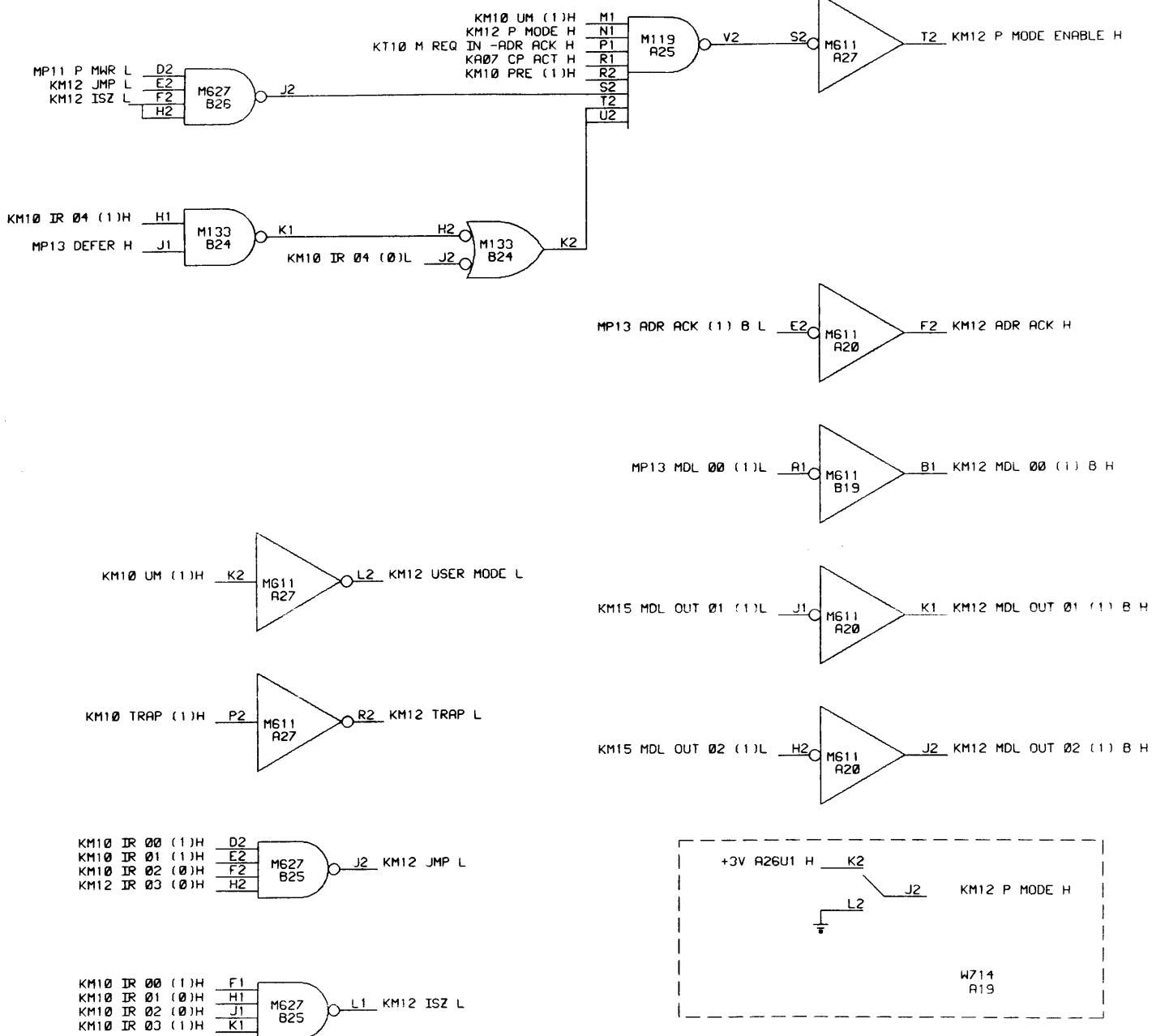
DRN 1	WASHINGTON	DATE 3/23/70	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS		
CHKD 1	DAIGHNEAULT	DATE 3/23/70			
ENG 1	ELSBREE	DATE 3/23/70	TITLE		
PROJ ENG 1	HUMANN	DATE 3/25/70	CONTROL		
PROD 1	LASKEY	DATE 3/27/70			
FIRST USED ON KM15			SIZE	NUMBER	REV.
SCALE			D	BS	J
SHEET 1 OF 1			DIST. KM15-0-10		

A	
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DRN. A. WASHINGTON		DATE 3/23/79		digital EQUIPMENT CORPORATION	
CHGK. P. D'AGNEAULT		DATE 3/23/79			
ENG. J. ELSBREE		DATE 3/25/79		TITLE IOT & CONTROL	
PROJ. ENG. F. ALTMANN		DATE 3/25/79			
PROD. F. LASKEY		DATE 3/27/79			
FIRST USED ON KM15					
SCALE		SIZE CODE		NUMBER	
SHEET, 1 OF 1		D BS		KM15-0-11	
DIST.					

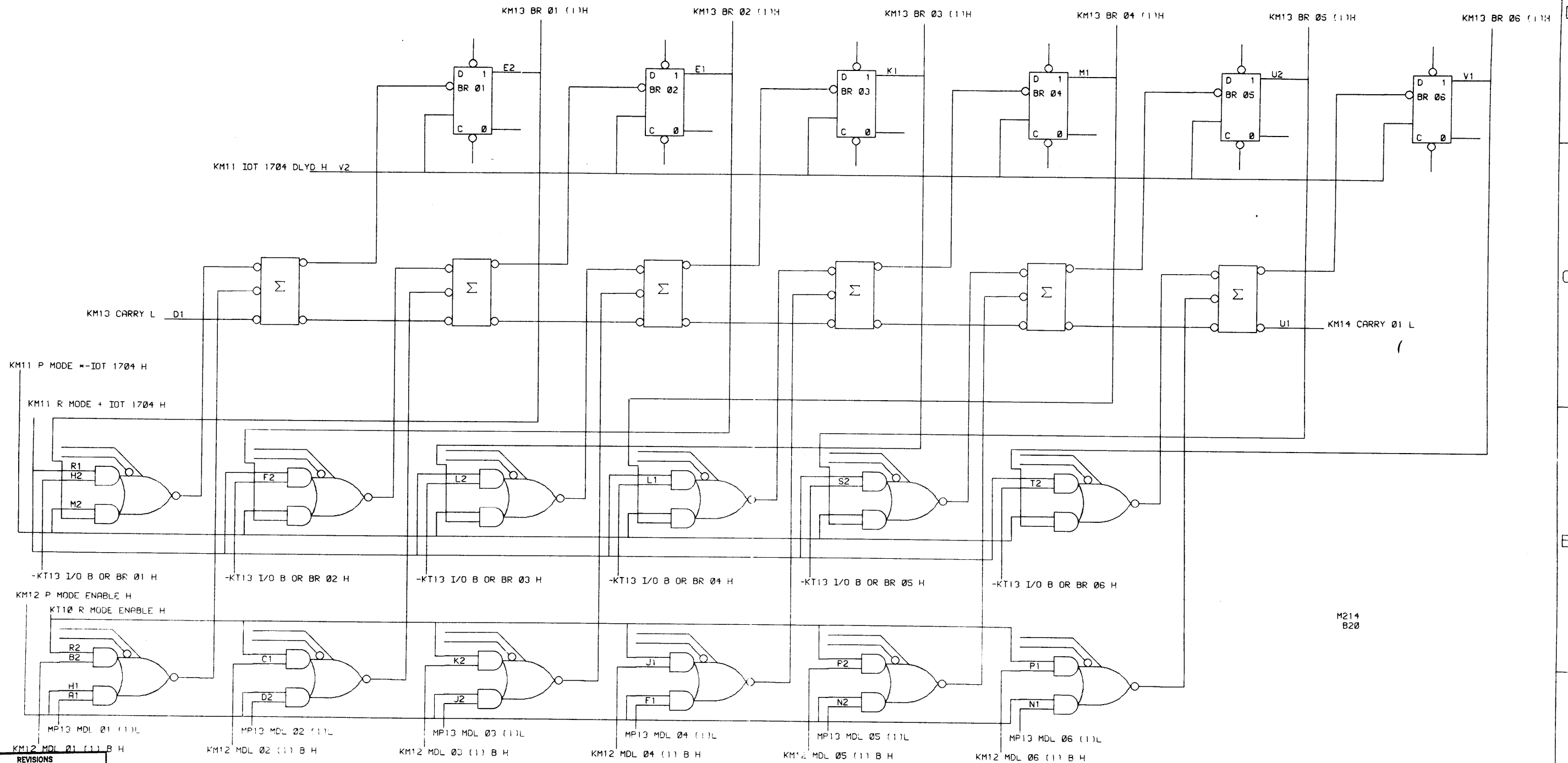
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REVISIONS		
CHK	CHANGE NO.	REV.
1	BB15-00012	A
2		
3		
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DRN	DATE	3/23/70	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
A WASHINGTON	DATE	3/23/70		
CHK'D	DATE	3/23/70	TITLE	
P. DRAINERULT	DATE	3/23/70		
ENG.	DATE	3/25/70	P MODE ENABLE	
J. ELSBREE	DATE	3/25/70		
PROJ. ENG.	DATE	3/25/70	FIRST USED ON	
F. AUMANN	DATE	3/25/70		
PROD.	DATE	3/27/70	SIZE CODE	
F. LASKEY	DATE	3/27/70		
KM15			NUMBER	
SCALE			REV.	
SHEET 1 OF 1			DIST	

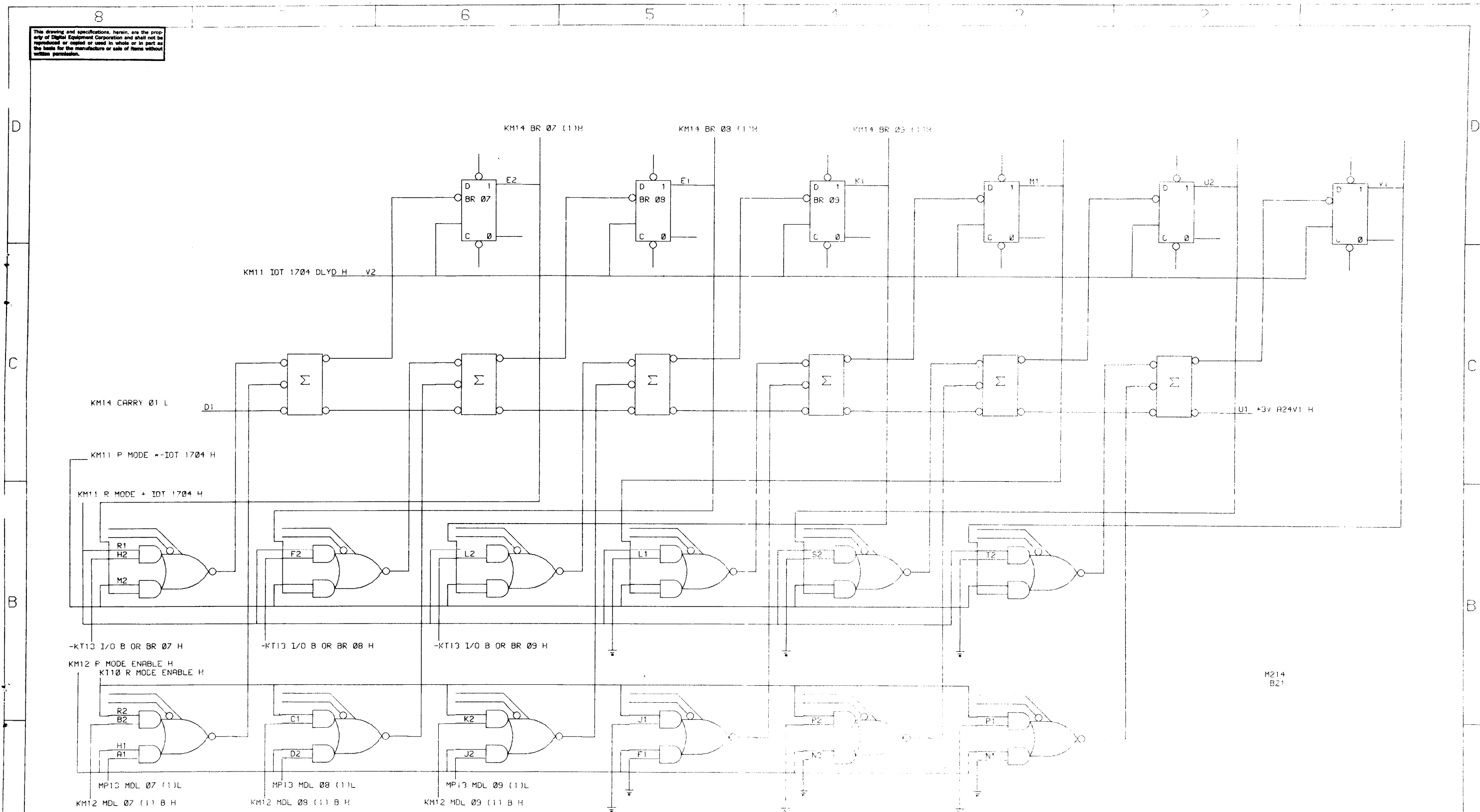
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REVISIONS		
CHK	CHANGE NO.	REV.

DESIGNED BY <i>W. W. Wright</i>	DATE 1-23-70	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHECKED BY <i>J. J. Johnson</i>	DATE 3-23-70	
ENG. <i>J. J. Johnson</i>	DATE 3/15/70	
PROD. ENG. <i>J. J. Johnson</i>	DATE 3/15/70	
PROD. <i>J. J. Johnson</i>	DATE 3/15/70	
FIRST USED ON KM15	SIZE/CODE D BS	TITLE BOUNDARY REQ 1-6
SCALE	NUMBER KM15-0-13	REV. 00
SHEET OF 1	DIST.	

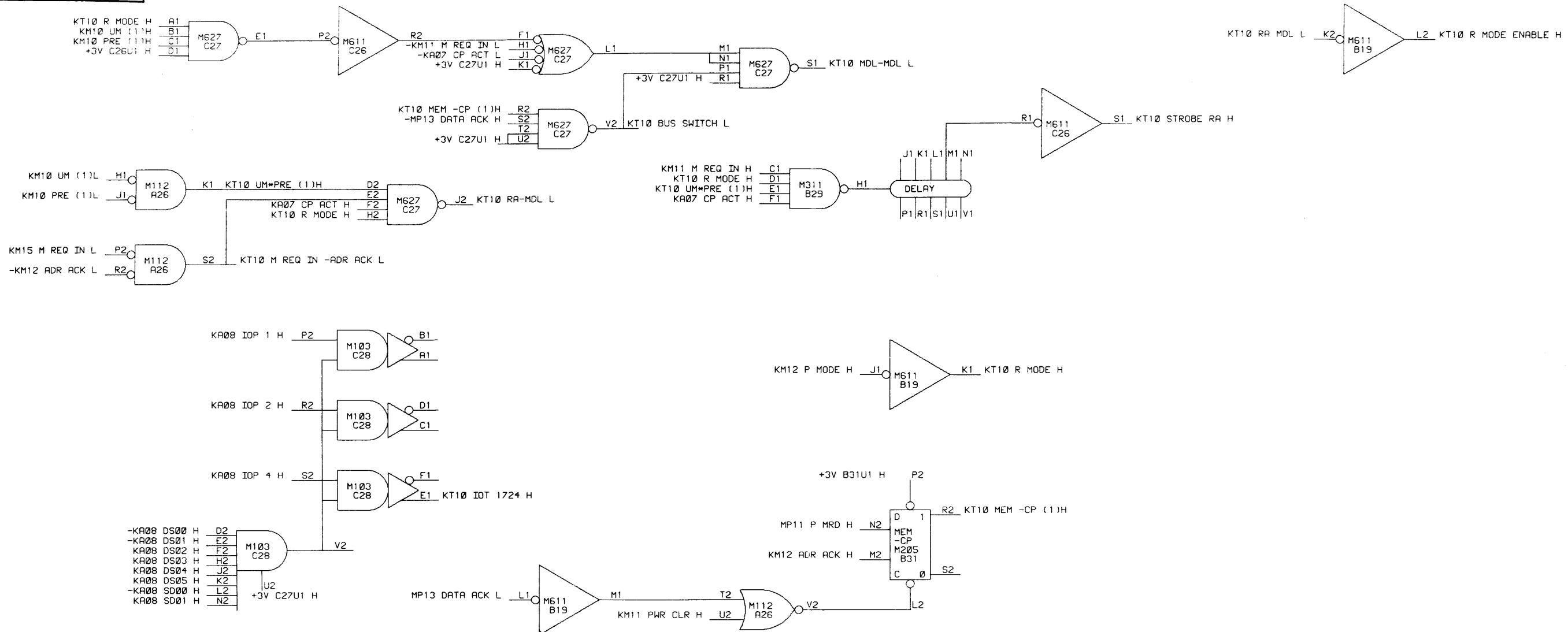
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REVISIONS		
CHK	CHANGE NO.	REV.

DRN 1/16-11/17	DATE 8/22/70	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHKD V. J. R. / J. R. / J. R.	DATE 8/25/70	
ENG J. R. / J. R. / J. R.	DATE 8/25/70	
PROD. ENG. J. R. / J. R. / J. R.	DATE 8/25/70	
PROD. J. R. / J. R. / J. R.	DATE 8/25/70	
FIRST USED ON KM14		TITLE 6-BIT ADDER
SCALE SHEET OF	SIZE CODE D-50	NUMBER KM14-11
	DIST.	REV. 00

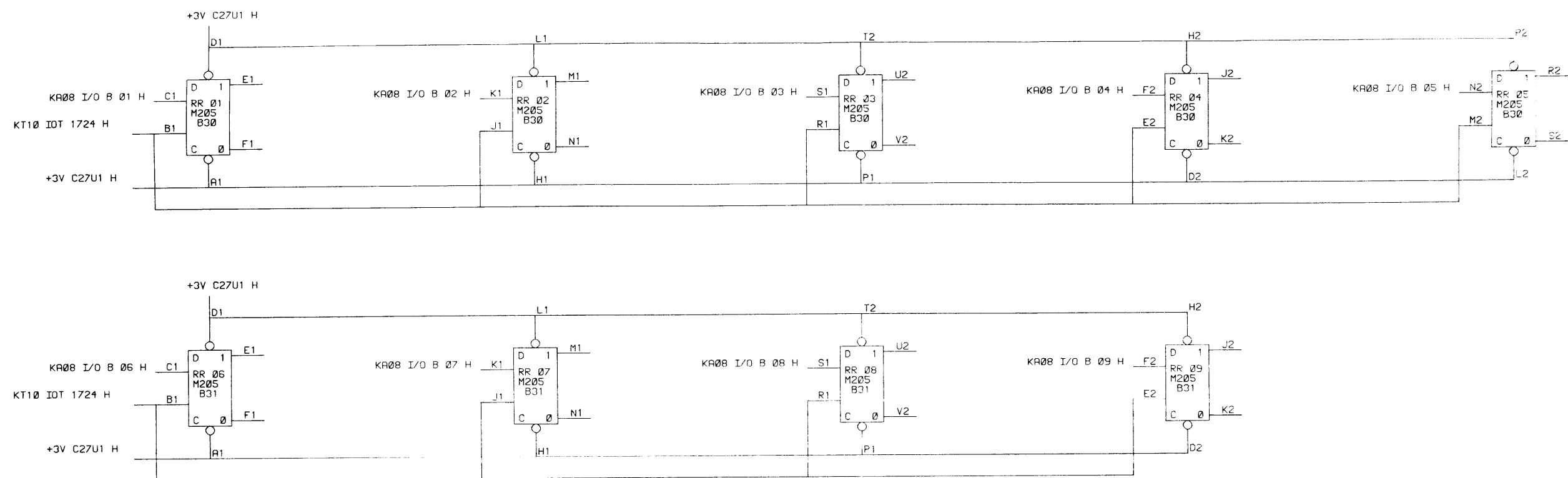
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REVISIONS		
CHK	CHANGE NO.	REV.

DRN 0 <i>H. W. Kingston</i>	DATE <i>3/23/70</i>	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS					
CHRD. <i>M. Gagnault</i>	DATE <i>3-23-70</i>	TITLE MDL CONTROL					
ENG <i>J. Calhoun</i>	DATE <i>3/25/70</i>						
PROJ. ENG. <i>P. C. Leumann</i>	DATE <i>3/23/70</i>						
PROD. <i>S. H. ...</i>	DATE <i>3/11/70</i>						
FIRST USED ON KTIS							
SCALE		SIZE	CODE	NUMBER		REV.	
SHEET 1 OF 1		D	BS	KTIS-0-10			
		DIST					

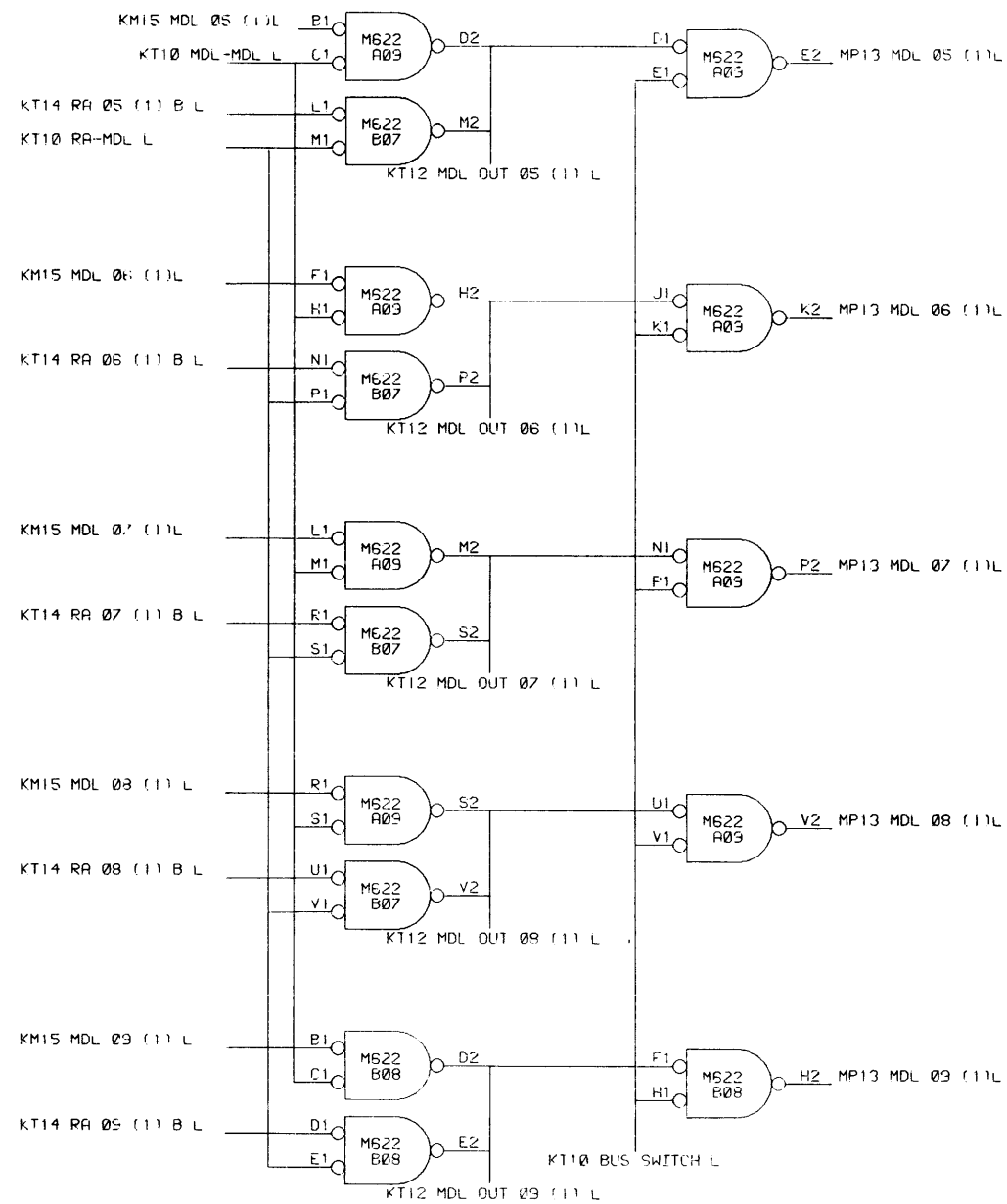
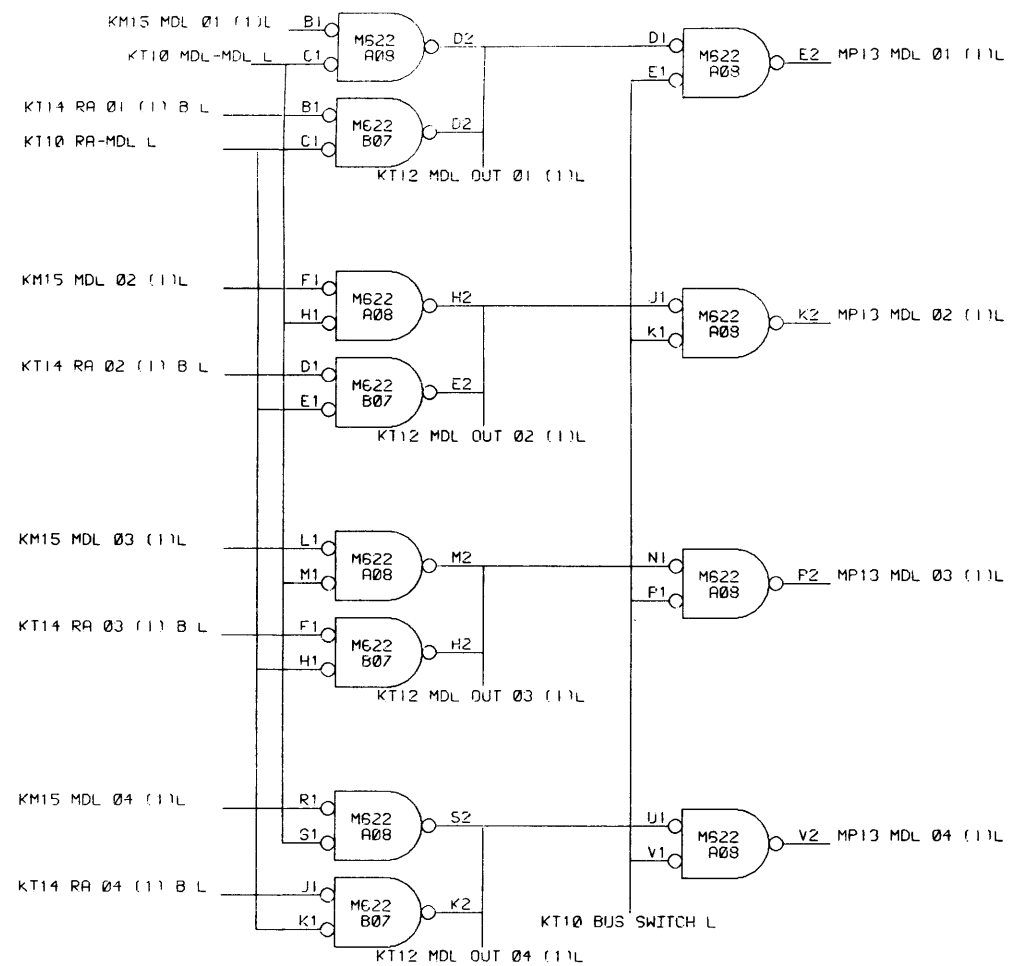
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REVISIONS		
CHK	CHANGE NO.	REV.

DB#	DATE	digital EQUIPMENT CORPORATION	
CH#	DATE	MAIN 401 HARVARD STREET	
ENG	DATE	TITLE	
PROD/ENG	DATE	RELOCATION REGISTER	
PROD	DATE		
FIRST USED ON			
KT15		SIZE CODE	NUMBER
SCALE		U BS	KT15-W-11
SHEET 1 OF 1		DIST.	REV. 00

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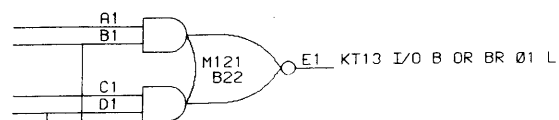


REVISIONS		
CHK	CHANGE NO.	REV.

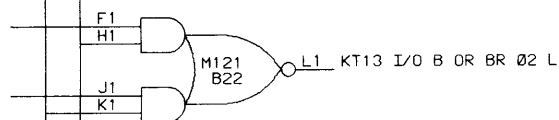
DRN	DATE	digital EQUIPMENT CORPORATION WAYNARD, MASSACHUSETTS	TITLE RELOCATE MDL'S	
CHK'D	DATE			
ENG	DATE			
PROG. ENG.	DATE			
PROD.	DATE			
FIRST USED ON	KT15	SIZE CODE	NUMBER	REV.
SCALE	D BS	KT15-0-10		
SHEET 1	OF 1	DIST.		

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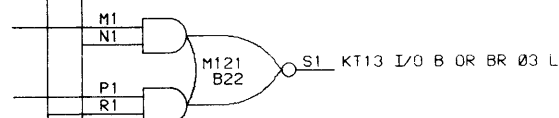
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KM11 IOT 1704 H
KM13 BR 01 (1)H
-KM11 IOT 1704 H



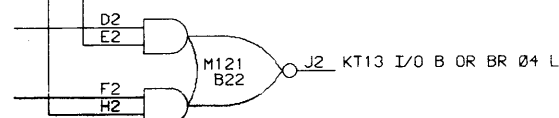
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KM13 BR 02 (1)H



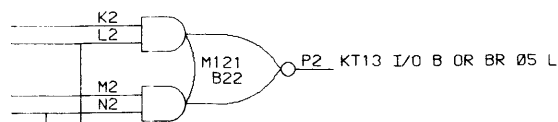
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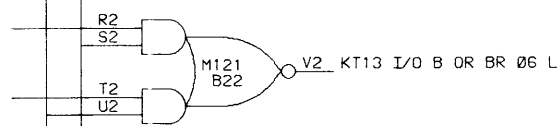
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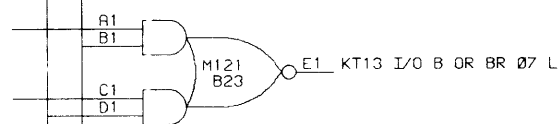
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KM13 BR 05 (1)H
-KM11 IOT 1704 H



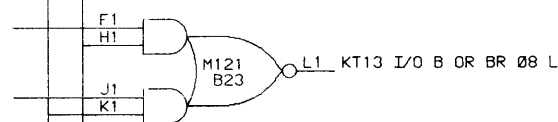
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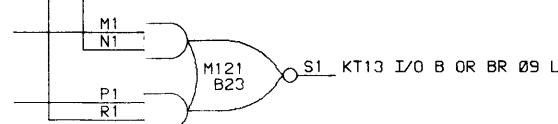
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-KA08 I/O B 08 H
KM13 BR 08 (1)H



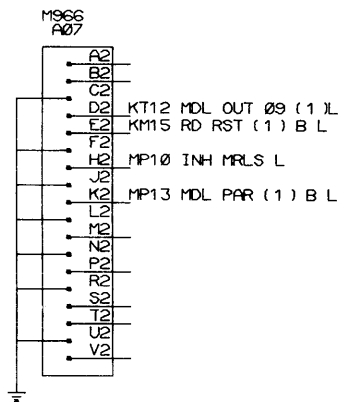
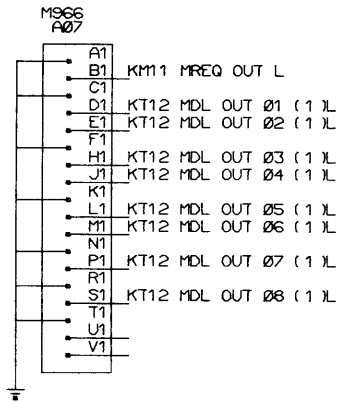
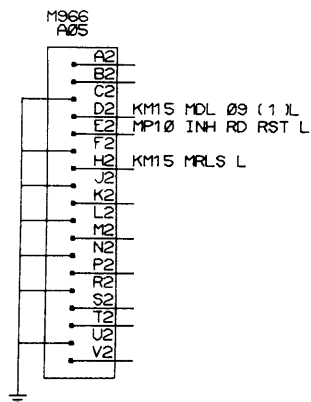
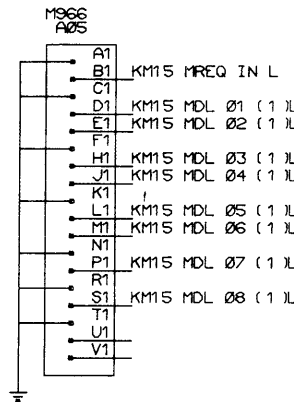
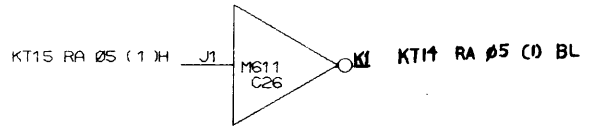
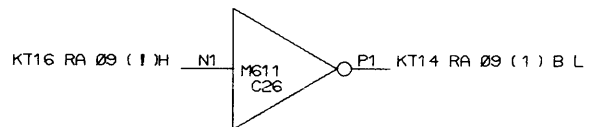
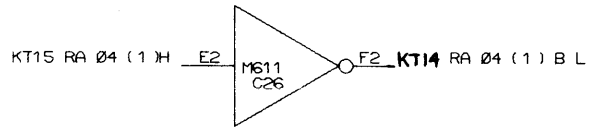
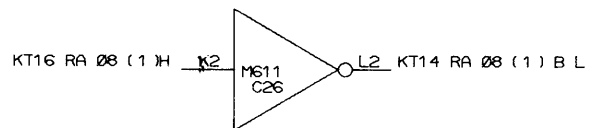
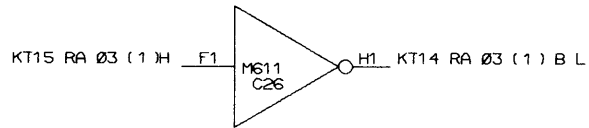
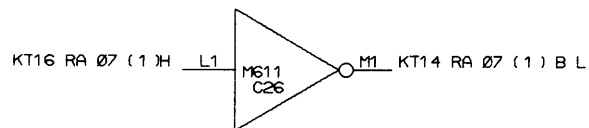
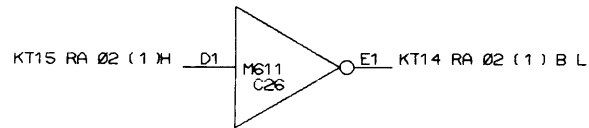
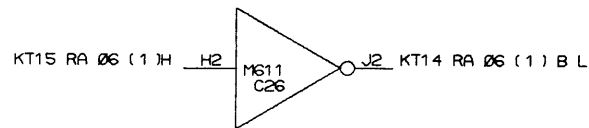
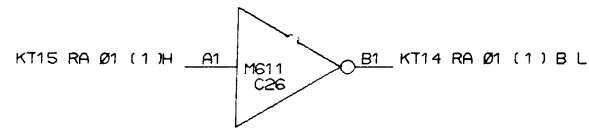
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KM13 BR 09 (1)H



REVISIONS		
CHK	CHANGE NO.	REV.

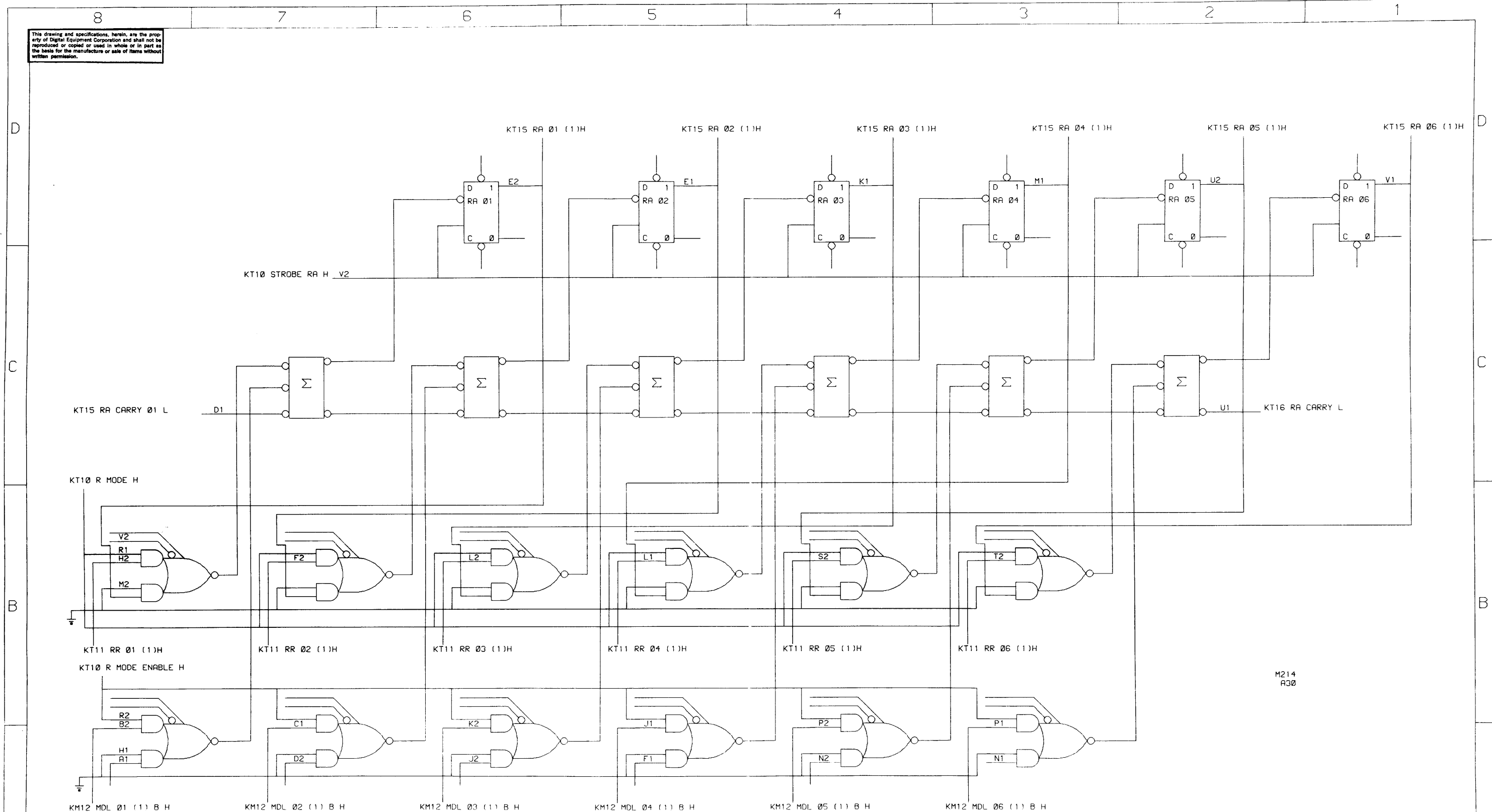
DATE	3-23-70	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D	P. Desjardins		
DATE	3-23-70		
ENG.	J. G. G. G.		
DATE	3-23-70		
PROD. ENG.	J. G. G. G.	TITLE I/O BUS OR BR	
DATE	3-23-70		
PROD.	J. G. G. G.		
DATE	3-23-70	FIRST USED ON KT15	
SIZE	CODE		NUMBER
SCALE	D BS		KT15-0-13
SHEET	1 OF 1	DIST	REV. 00

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DRN.	DATE	digital EQUIPMENT CORPORATION	
A WASHINGTON	3/23/70	MAYNARD, MASSACHUSETTS	
CHKD.	DATE	TITLE	
P. DAIGNEAULT	3/23/70	RA BUFFERS AND MDL TERMINATORS	
ENG.	DATE	FIRST USED ON	
J. ELSBREE	3/25/70	KT15	
PROJ. ENG.	DATE	SIZE/CODE	NUMBER
F. ALMANN	3/25/70	D BS	KT15-0-14
PROD.	DATE	REV.	B
F. LASKEY	3/27/70	SHEET 1 OF 1	
D'ST.			

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M214
A30

REVISIONS		
CHK	CHANGE NO.	REV.

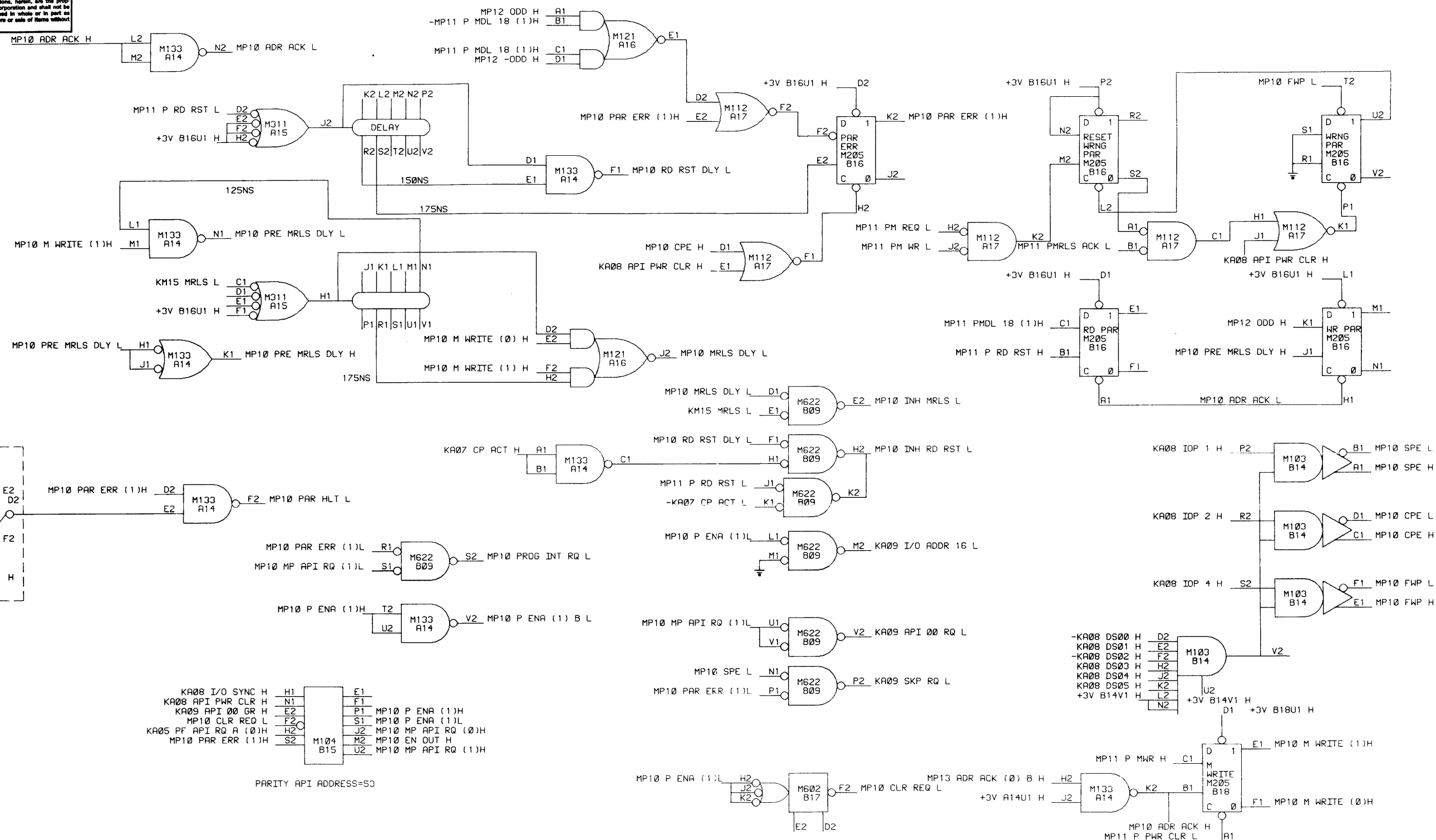
DRN <i>[Signature]</i>	DATE 3-23-70	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	TITLE RELOCATION ADDR REG 1-6
CHK <i>[Signature]</i>	DATE 3-23-70		
ENG <i>[Signature]</i>	DATE 3/25/70		
PROD <i>[Signature]</i>	DATE 3/25/70		
FIRST USED ON KT15	DATE 3/25/70		
SCALE	SIZE/CODE D BS	NUMBER KT15-0-15	REV. ●
SHEET 1 OF 1	DIST.		

A



DATE 3/24/70		digital CORPORATION MAYNARD, MASSACHUSETTS	
CHKD. H. H. H. H. H.		TITLE	
ENG. H. H. H. H. H.		RELOCATION ADDR REG 7-9	
PROJ. ENG. H. H. H. H. H.			
PROD. H. H. H. H. H.			
FIRST USED ON			
KT15			
SCALE			
SHEET 1 OF 1			
DIST.			

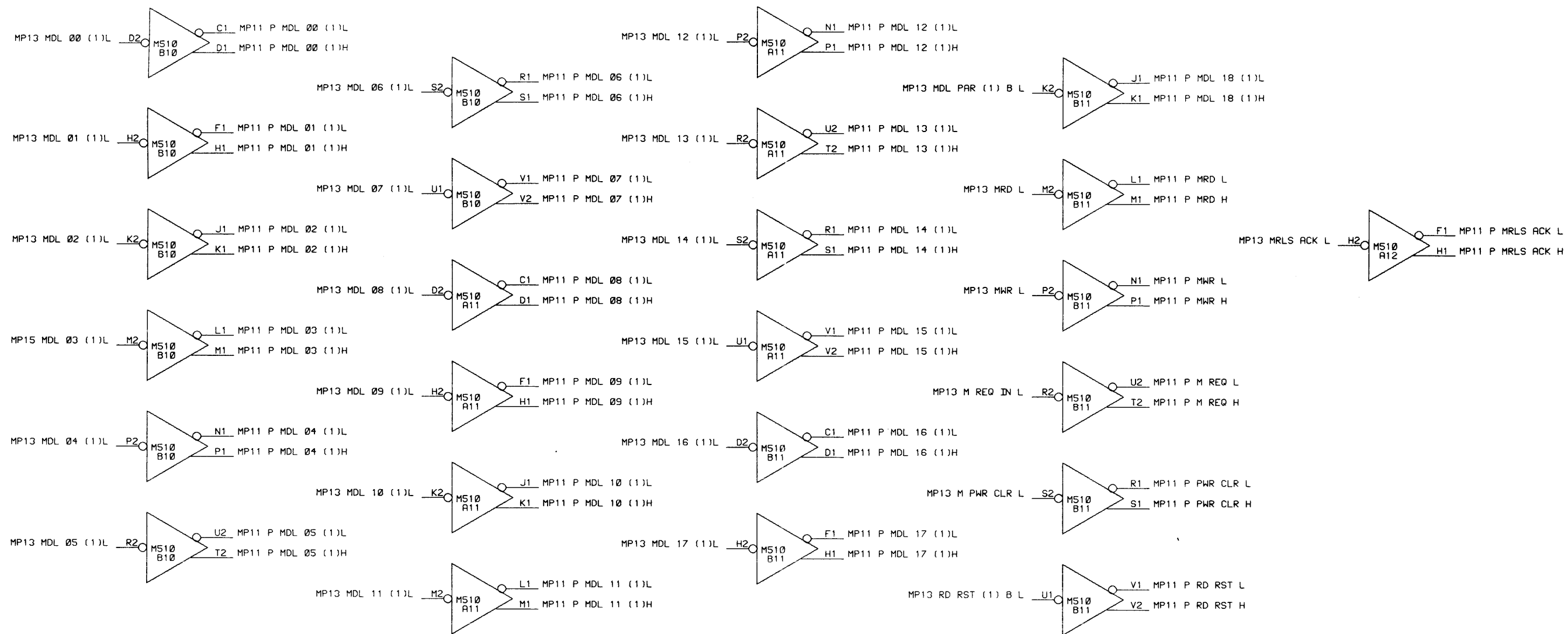
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REVISIONS		
CHK	CHANGE NO.	REV.
✓	KA15-00003	A
	1. Add 4-20-10	
	2. Add 4-20-10	

DRN. D. SOUTHER	DATE 3/26/79	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D. G. LAIGNEAULT	DATE 3/26/79	TITLE PARITY CONTROL	
ENG. J. ELSBREE	DATE 3/27/79		
PROJ. ENG. F. HUMANN	DATE 3/27/79		
PROD. S. LASHFY	DATE 3/27/79		
FIRST USED ON MP15			
SIZE	CODE	NUMBER	REV.
SHEET 1 OF 1	D BS	MP15-0-10	A
	DIST.		

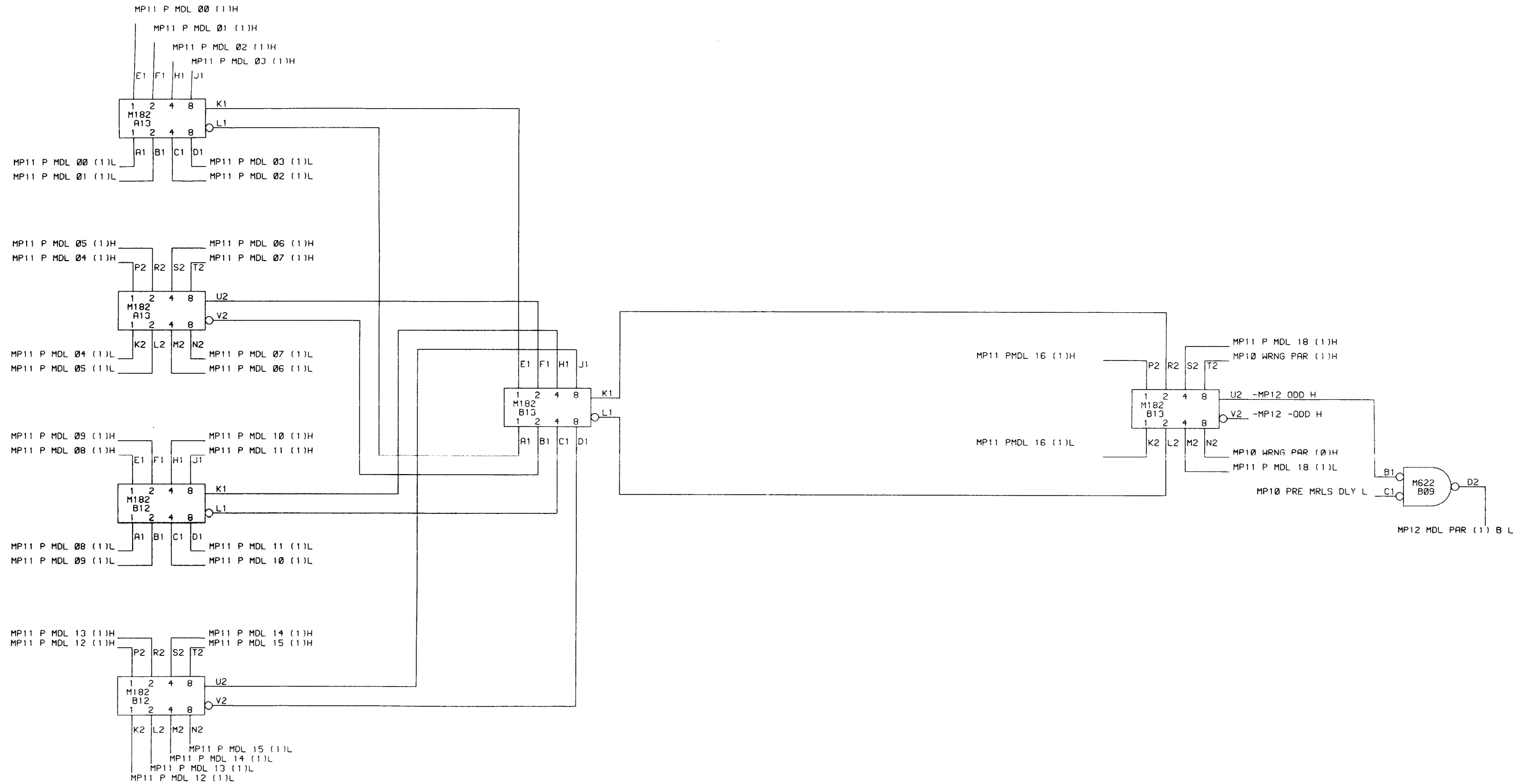
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REVISIONS		
CHK	CHANGE NO.	REV.
2A	KA15-00003	
Blank - better for 14		

DRN. D, SOUTHER	DATE 3/23/70	digital CORPORATION MAYNARD, MASSACHUSETTS													
CHK'D. F. DAIGNEAULT	DATE 3/23/70														
ENG. C. L. S. BREE	DATE 3/23/70	TITLE PARITY INPUT INTERFACE													
PROJ. ENG. F. ALMANN	DATE 3/25/70														
PROD. F. LASKEY	DATE 3/27/70	<table border="1"> <tr> <td>SIZE</td> <td>CODE</td> <td>NUMBER</td> <td>REV.</td> </tr> <tr> <td>D</td> <td>BS</td> <td>MP15-0-11</td> <td>A</td> </tr> <tr> <td colspan="2">DIST.</td> <td></td> <td></td> </tr> </table>		SIZE	CODE	NUMBER	REV.	D	BS	MP15-0-11	A	DIST.			
SIZE	CODE			NUMBER	REV.										
D	BS			MP15-0-11	A										
DIST.															
FIRST USED ON MP15															
SCALE															
SHEET 1 OF 1															

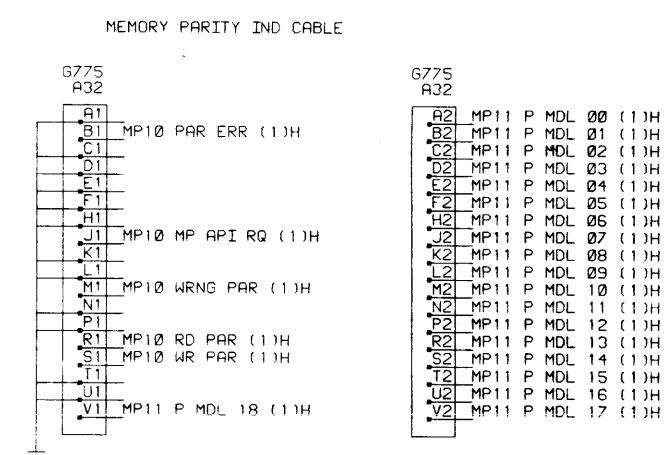
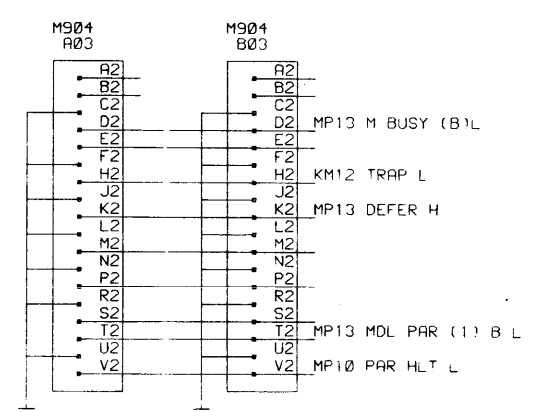
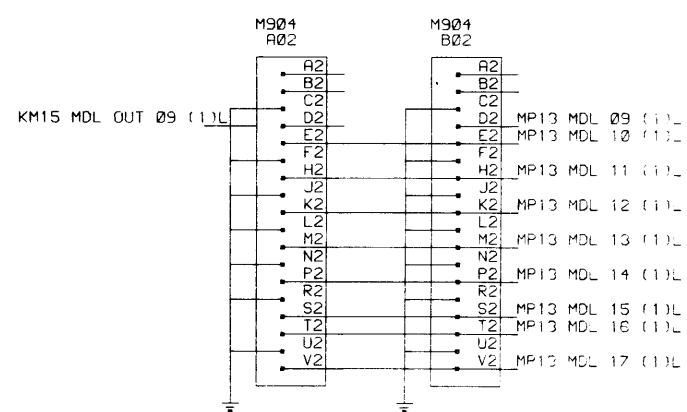
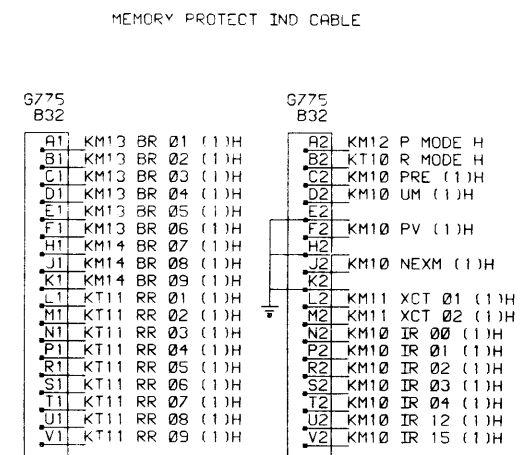
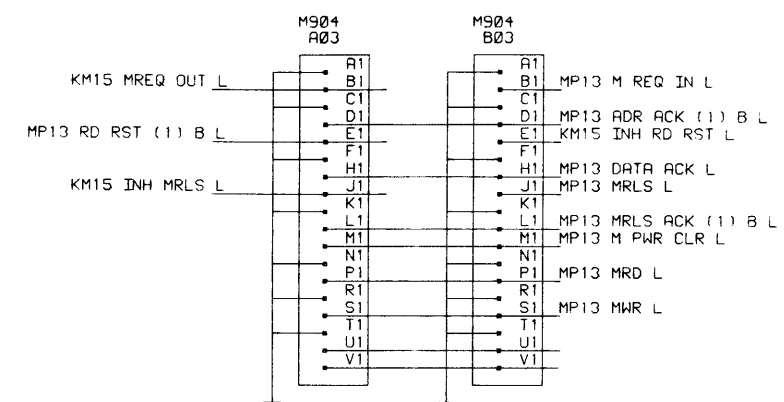
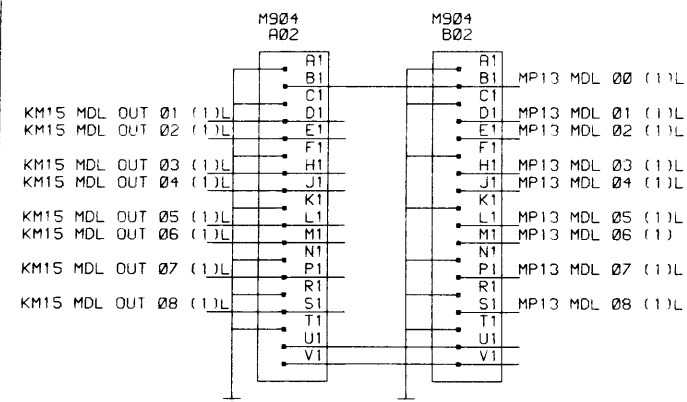
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REVISIONS		
CHK	CHANGE NO.	REV.

DRN.	DATE	digital EQUIPMENT CORPORATION	
NAME <i>James Lister</i>	2-23-70	MAYNARD, MASSACHUSETTS	
CHKD.	DATE	TITLE PARITY DECODER & PARITY GEN	
<i>Maguault</i>	2-23-70		
ENG.	DATE		
<i>Labreze</i>	3/5/70		
3/5/70	DATE		
<i>J. Duman</i>	3/25/70	SIZE CODE NUMBER REV. D BS MP15-0-12 	
PROD.	DATE		
<i>J. C.</i>	2/6/70		
FIRST USED ON			
MP15			
SCALE			
SHEET 1 OF 1	DIST.		

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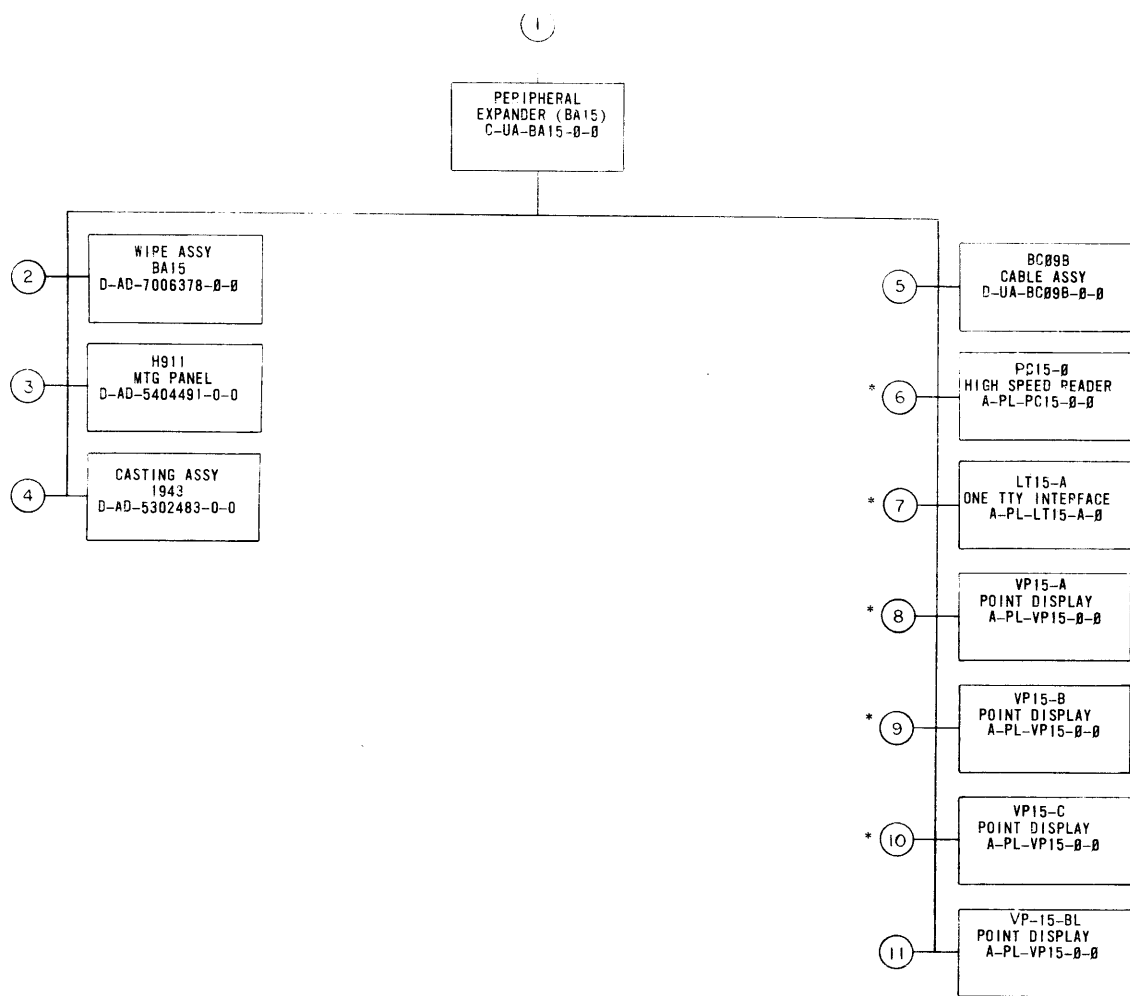


REVISIONS		
CHK	CHANGE NO.	REV.
W	BB15-00012	A
W	BB15-00019	F

DRN	D SOUTHER	DATE	3/23/70	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D	D RAGNEAULT	DATE	3/23/70		
ENG	J ELSBREE	DATE	3/25/70		
PROJ. ENG	F ALMANN	DATE	3/25/70		
PROD.	F LASKEY	DATE	3/27/70		
FIRST USED ON				TITLE PARITY-MEM BUS CONNECTIONS	
MP15					
SCALE	D IC	SIZE CODE	NUMBER MP15-0-13		
SHEET 1	OF 1	DIST.			
				REV. B	

[illegible]DRD 112

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* DENOTES OPTIONAL ITEMS

MECHANICAL					ELECTRICAL				
FIND NO.	DESCRIPTION	PART NO.	PROD.	CUST.	F/C	FIND NO.	DESCRIPTION	PART NO.	PROD.
1	PERIPHERAL EXPANDER BA15 PERIPHERAL EXPANDER BA15 (PL) RETAINER BLOCK	C-UA-BA15-0-0 A-PL-BA15-0-0 C-MD-7407127-0-0				1	PERIPHERAL EXPANDER (BA15) WIPE LIST (BA15) I/O BUS INTERFACE BA15 LINE RECEIVERS LINE DRIVERS I/O MIXER I/O MULTIPLEXER MODULE UTILIZATION (PL) MODULE UTILIZATION (PL) INDICATOR CABLE BA15-0-0	A-ML-BA15-0 K-WL-BA15-0-09 D-BL-BA15-0-1 D-BL-BA15-0-2 D-BL-BA15-0-3 D-BL-BA15-0-4 D-BL-BA15-0-5 D-BL-BA15-0-6 A-PL-BA15-0-07 A-PL-BA15-0-08	
2	WIRED ASSY BA15 WIRED ASSY BA15 (PL) LOGIC FRAME DECALS	D-AD-7006378-0-0 A-PL-7006378-0-0 A-DC-7406371-0-0				2	WIRED ASSY (BA15) WIRED ASSY (BA15) (PL)	D-AD-7006378-0-0 A-PL-7006378-0-0	
3	MTG PANEL TYPE H911 MTG PANEL TYPE H911 (PL) 288 PIN CONN BLOCK	D-AD-5404491-0-0 A-PL-5404491-0-0 E-SC-1205348-0-0				6	HIGH SPEED READER (PC15)	A-PL-PC15-0	
4	CASTING ASSY (1943) CASTING ASSY (1943) (PL) 1943 FRAME CASTING	D-AD-5302483-0-0 A-PL-5302483-0-0 E-MD-1202885-0-0				7	ONE TTY INTERFACE (LT15-A)	A-PL-LT15-A	
5	BC09B CABLE ASSY	D-UA-BC09B-0-0				8	POINT DISPLAY (VP15-A)	A-PL-VP15-A	
6*	HIGH SPEED READER PC15	A-PL-PC15-0-0				9	POINT DISPLAY (VP15-B)	A-PL-VP15-B	
7*	ONE TTY INTERFACE LT15-A	A-PL-LT15-A-0				10	POINT DISPLAY (VP15-C)	A-PL-VP15-C	
8*	POINT DISPLAY VP15-A	A-PL-VP15-0-0				11	POINT DISPLAY (VP15-BL)	A-PL-VP15-BL	
9*	POINT DISPLAY VP15-B	A-PL-VP15-0-0							
10*	POINT DISPLAY VP15-C	A-PL-VP15-0-0							
11	POINT DISPLAY VP15-BL	A-PL-VP15-0-0							

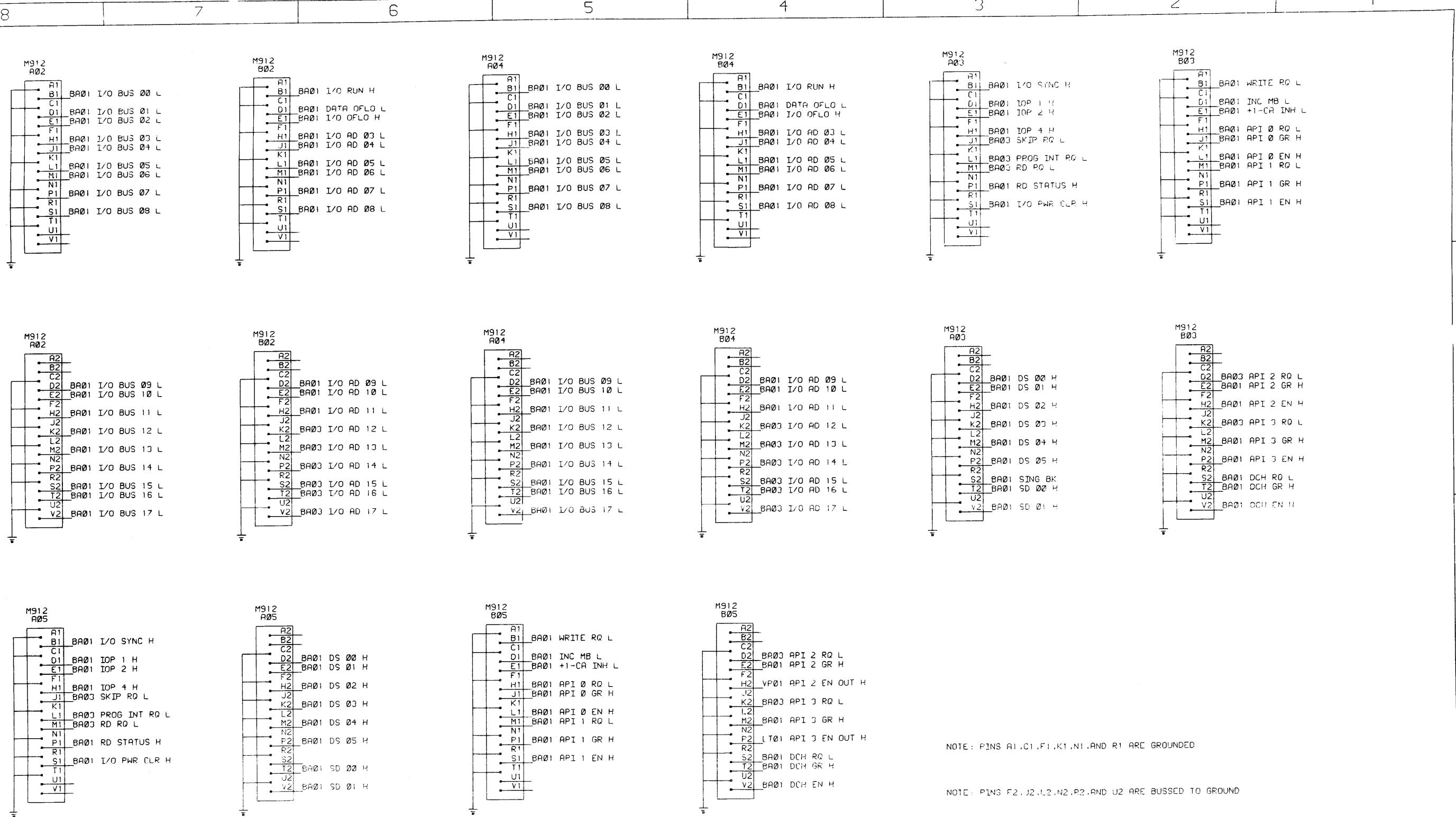
REV	CHANGE NO.	DATE	BY	CHKD.
A	BA15-00010	7-13-70	AUMANN	
B	BA15-00021	7-17-71	AUMANN	
C	BA15-00031	7-17-71	AUMANN	
D	BA15-00041	7-17-71	AUMANN	

FIRST USED ON OPTION / MODEL
BA15

DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS FRACTIONS ANGLES
± .005 ± 1/64 ± 0°30'
FINAL SURFACE QUALITY
REMOVE BURRS AND BREAK SHARP CORNERS

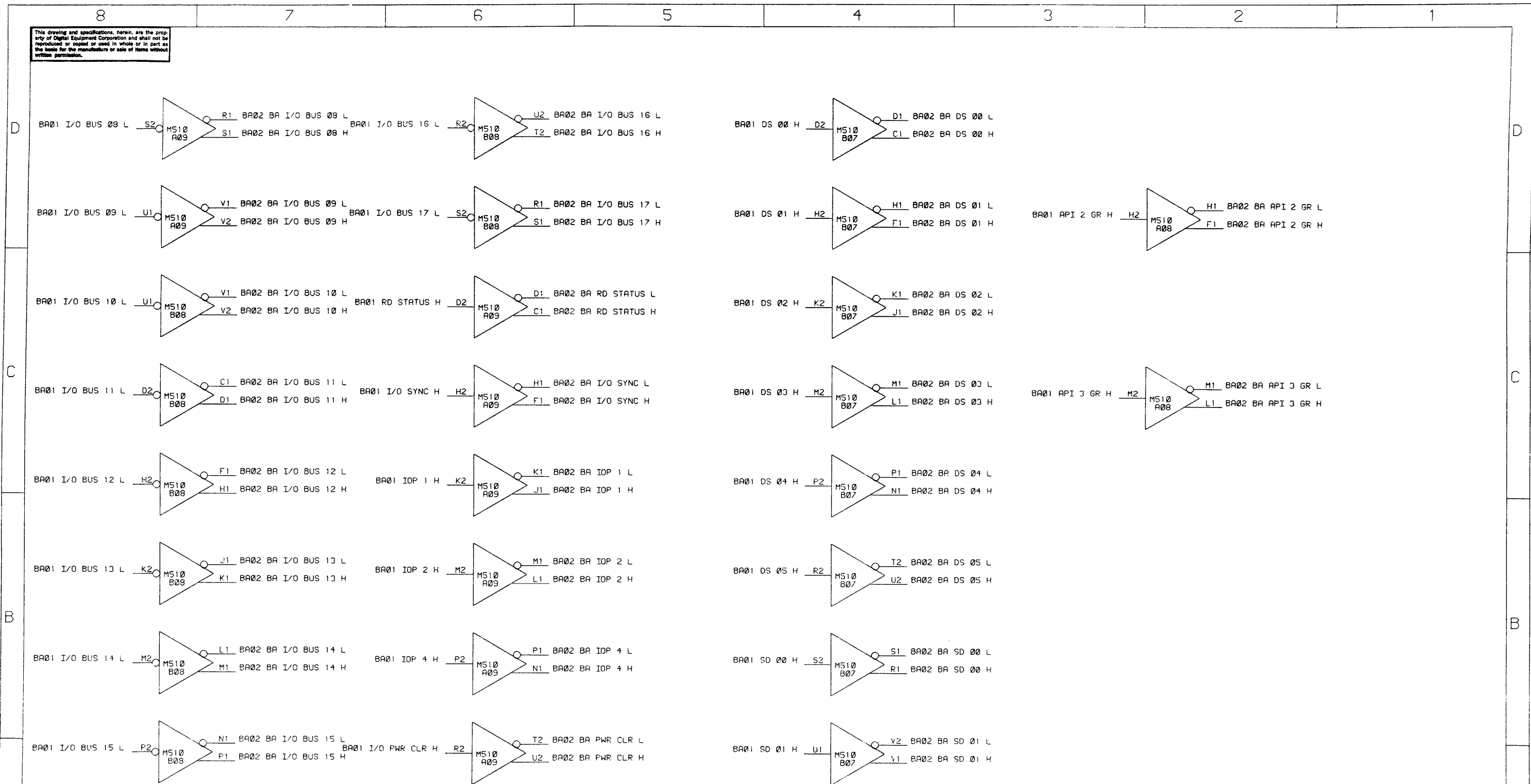
MATERIAL
FINISH

QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			
TITLE DRAWING INDEX LIST BA15			
NEXT HIGHER ASSY C-UA-BA15-0-0			
SCALE SHEET 1 OF 1			
DIST.			



DRN. M. SCHURMAN		DATE	11/12/69	digital CORPORATION	
CHKD. N RHEAULT		DATE	11/12/69	MAYNARD MASSACHUSETTS	
ENG. C. LEWMYER		DATE	12/3/69	TITLE	
PROD. ENG. F. ALMANN		DATE	12/3/69	1/O BUS INTERFACE	
PROD. F. LASKEY		DATE	12/6/69		
FIRST USED ON					
BA15		SIZE	CODE	NUMBER	REV.
SCALE		1	11	BA15-W-01	0
SHEET	1	OF	1	DIST.	

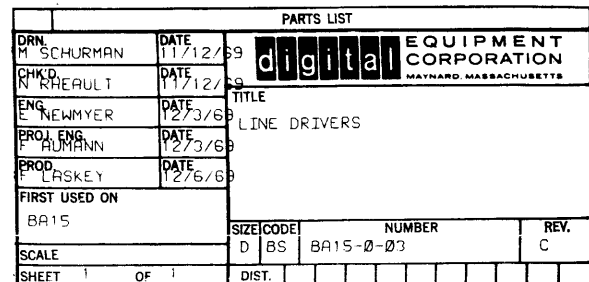
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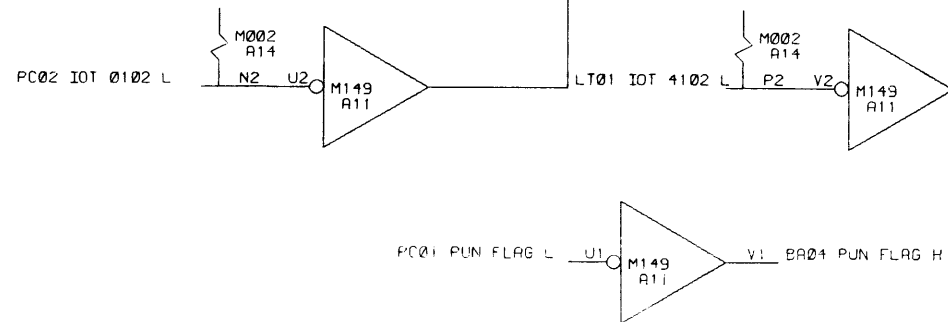
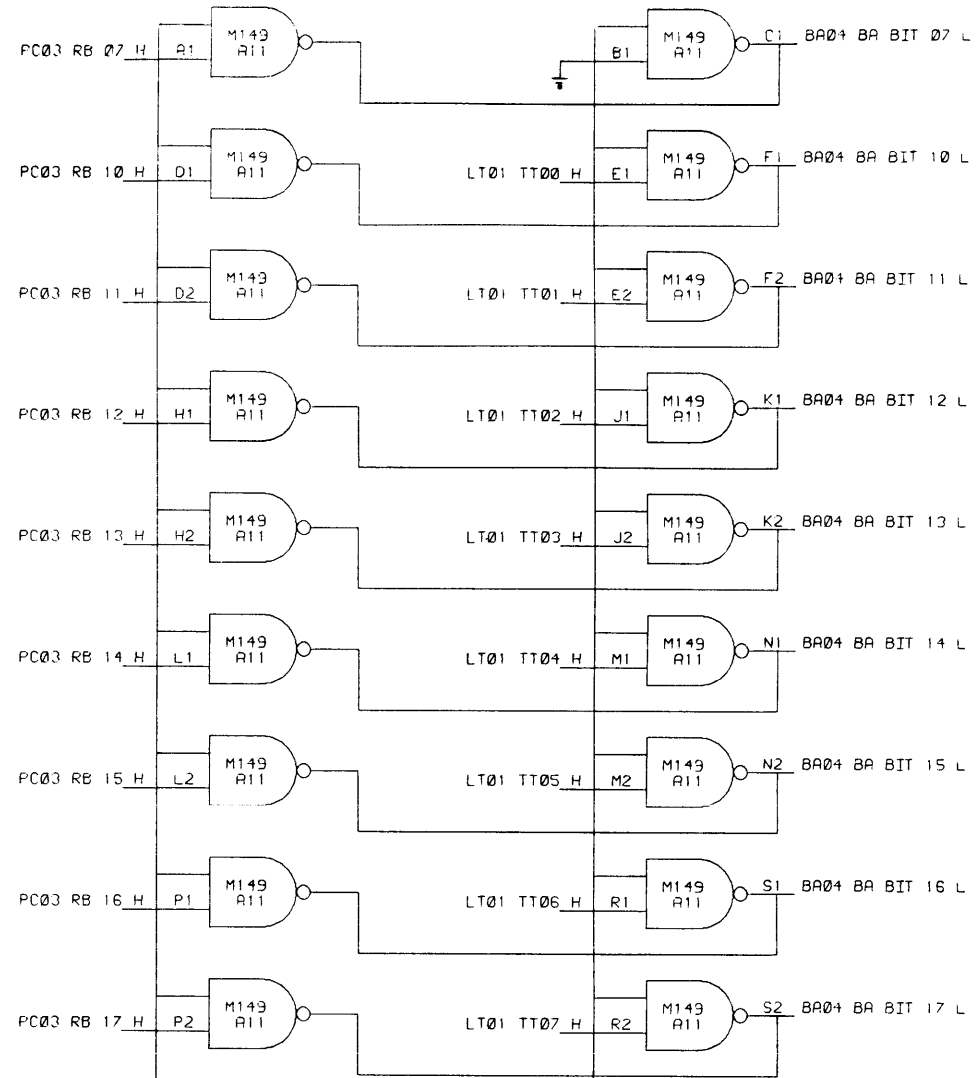
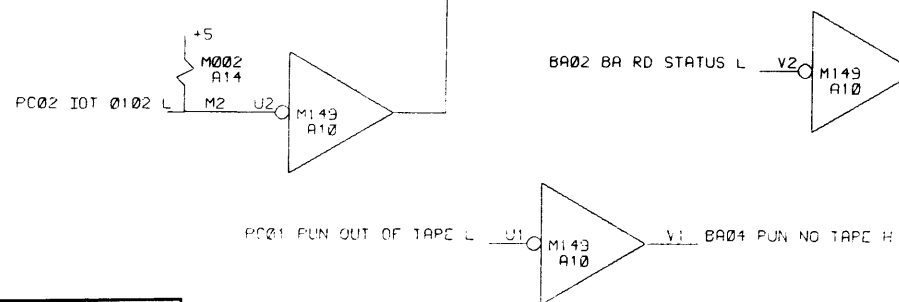
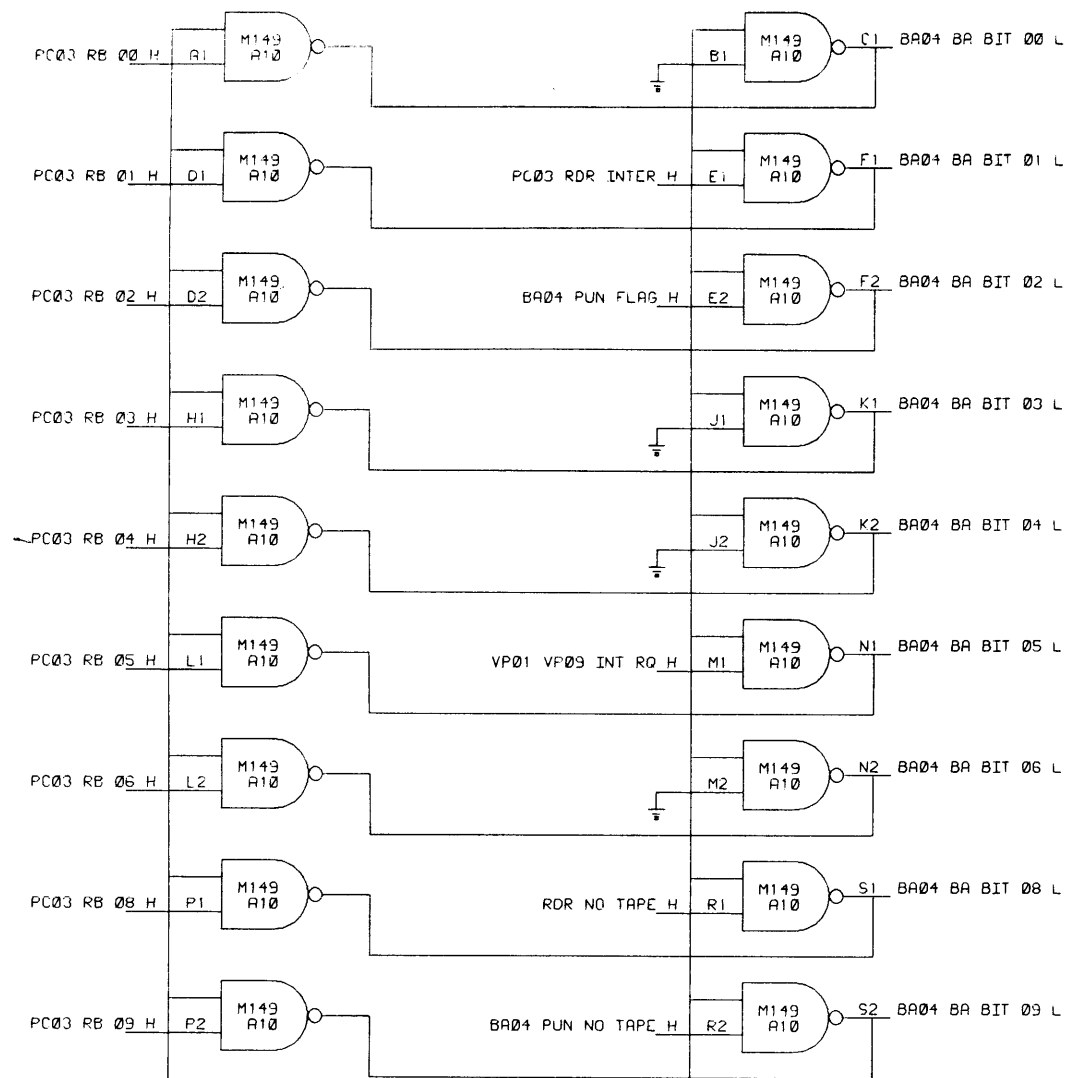
REVISIONS		
CHK	CHANGE NO.	REV.
PD	BA15-00005	A
	K COTE	
	F RUMANN	
	BA15-00008	B

DRN.	M. SCHURMAN	DATE	11/12/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D.	N. RHEULT	DATE	11/12/69		
ENG.	E. NEWMYER	DATE	12/3/69		
PROJ. ENG.	F. RUMANN	DATE	12/3/69		
PROD.	F. LASKEY	DATE	12/6/69	TITLE	BA15 LINE RECEIVERS
FIRST USED ON	BA15	SIZE	CODE	NUMBER	REV.
SCALE		D	BS	BA15-0-02	B
SHEET	1	OF	1	DIST.	

REVISIONS		
CHK	CHANGE NO.	REV.
NR	BA15-00001	A
	K COTE	
	F AUMANN	
PD	BA15-00002	B
	K COTE 3/25/70	
	F AUMANN 3/26/70	
	BA15-00003	C



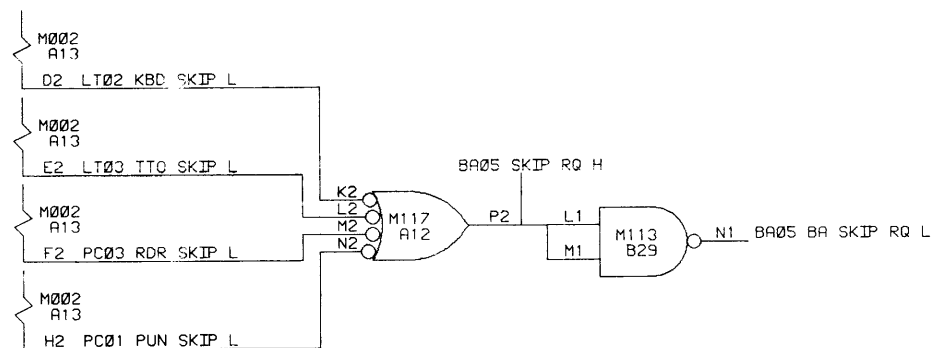
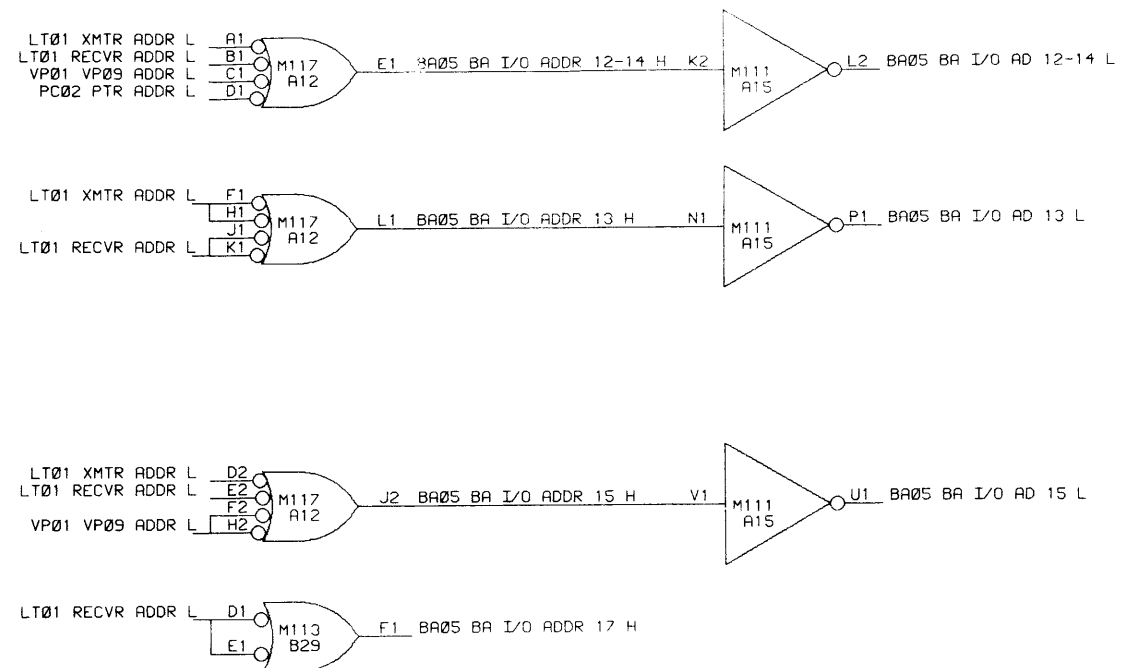
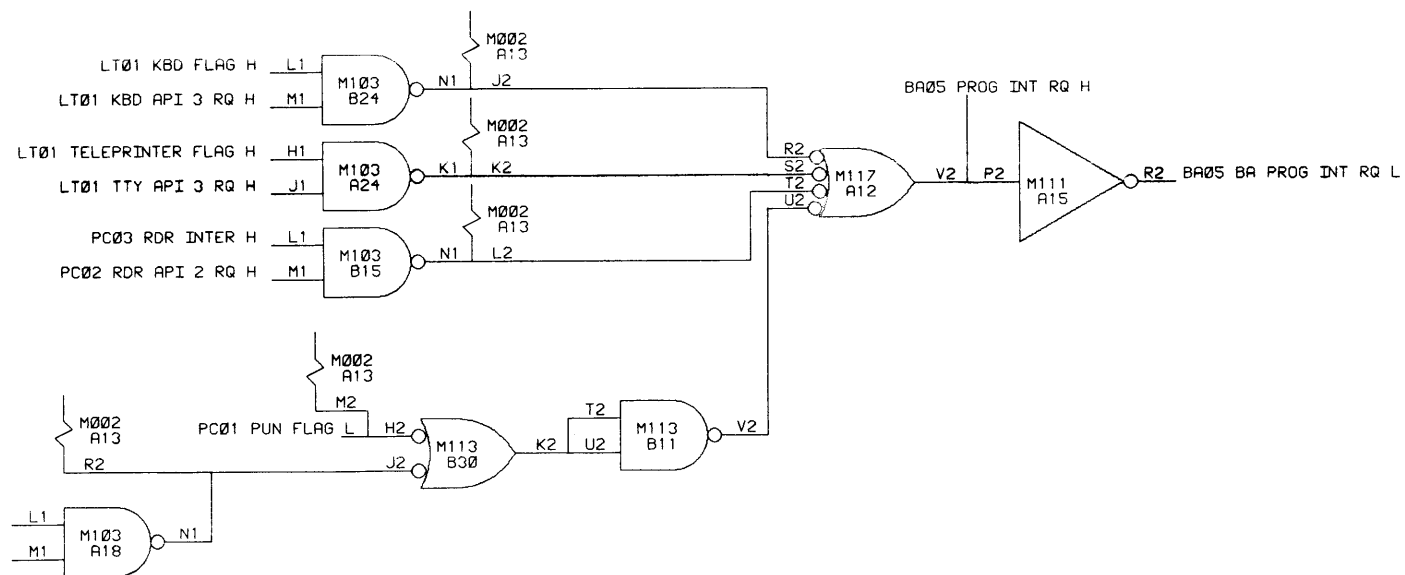
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REVISIONS		
CHK	CHANGE NO.	REV.
NR	BA15-00001	A
	K COTE	
	F ALUMANN	
PU	BA15-00002	B
	F COTE 3/25/70	
	F ALUMANN 3/26/70	
	BA15-00003	

DWN. M. SCHURMAN		DATE 11/12/69	digital CORPORATION MAYNARD, MASSACHUSETTS	
CHKD. N. RHEULT		DATE 11/12/69		
ENG. E. NEWMYER		DATE 12/3/69	TITLE 1/0 MIXER	
PROJ. ENG. F. AUMANN		DATE 12/3/69		
PROD. F. LASKEY		DATE 12/6/69		
FIRST USED ON BA15				
SCALE			SIZE	CODE
SCALE 1 OF 1			D	RS
			NUMBER	
			BA15-0-04	
			REV.	
			C	
DIST.				

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REVISIONS		
CHK	CHANGE NO.	REV.
01	BA15-00001	A
	K. COTE	
	F. RUMANN	
	BA15-00002	B

DRN. M. SCHURMAN	DATE 11/12/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHKD. N. RHEULT	DATE 11/12/69	TITLE	
ENG. E. NEWMYER	DATE 12/3/69	MULTIPLEXER	
PROD. F. RUMANN	DATE 12/3/69		
PROD. F. LASKEY	DATE 12/6/69		
FIRST USED ON		SIZE CODE	NUMBER
BA15		D BS	BA15-0-05
SCALE		REV. B	
SHEET 1	OF 1	DIST.	

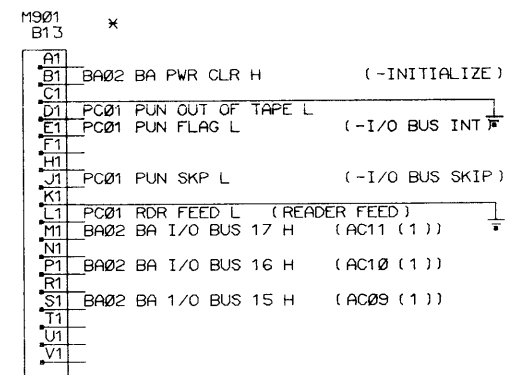
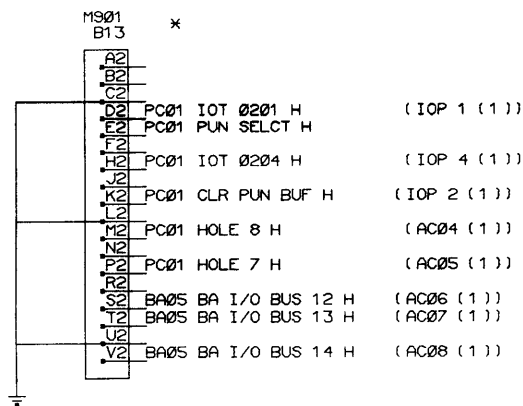
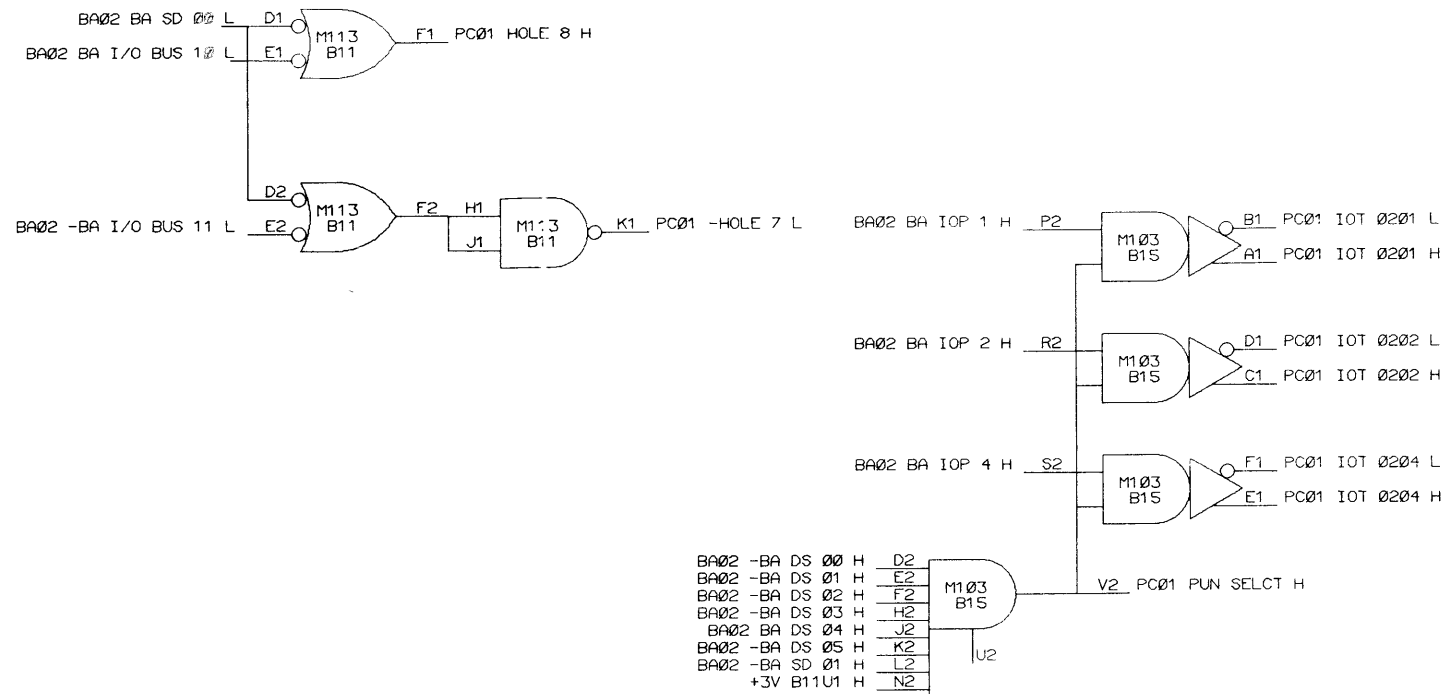
A

A

A1	PC03	RB	00	H
B1	PC03	RB	01	H
C1	PC03	RB	02	H
D1	PC03	RB	03	H
E1	PC03	RB	04	H
F1	PC03	RB	05	H
H1	PC03	RB	06	H
J1	PC03	RB	07	H
K1	PC03	RB	08	H
L1	PC03	RB	09	H
M1	PC03	RB	10	H
N1	PC03	RB	11	H
P1	PC03	RB	12	H
R1	PC03	RB	13	H
S1	PC03	RB	14	H
T1	PC03	RB	15	H
U1	PC03	RB	16	H
V1	PC03	RB	17	H

DIN. 1 SCHURMAN		DATE 1/12/69		 digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D P. REAULT		DATE 1/12/69			
ENG. E. NEWMYER		DATE 2/3/69		TITLE INDICATOR CABLE	
PROJ. ENG. P. HARMAN		DATE 2/3/69			
PROD. P. LASKEY		DATE 2/6/69			
FIRST USED ON BAIS					
SCALE		SIZE CODE		NUMBER	
SHEET 1 OF 1		D IC		BAIS-0-06	
		DIST.		REV. B	

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* PC05 SIGNAL
NAMES INDICATED IN
PARENTHESES IF DIFFERENT

REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
NR	BA15-00001	A	WM	BA15-00014	E
	K COTE			K WALSH 3/30/71	
	F AUMANN			F AUMANN 3/31/71	
PD	BA15-00002	B		BA15-00020	F
	K COTE				
	F AUMANN				
PC	BA15-00003	C			
	K COTE 4/9/70				
	F AUMANN 4/13/70				
GH	BA15-00012	D			
	R SUFKA 2-17-71				
	F AUMANN 2-22-71				

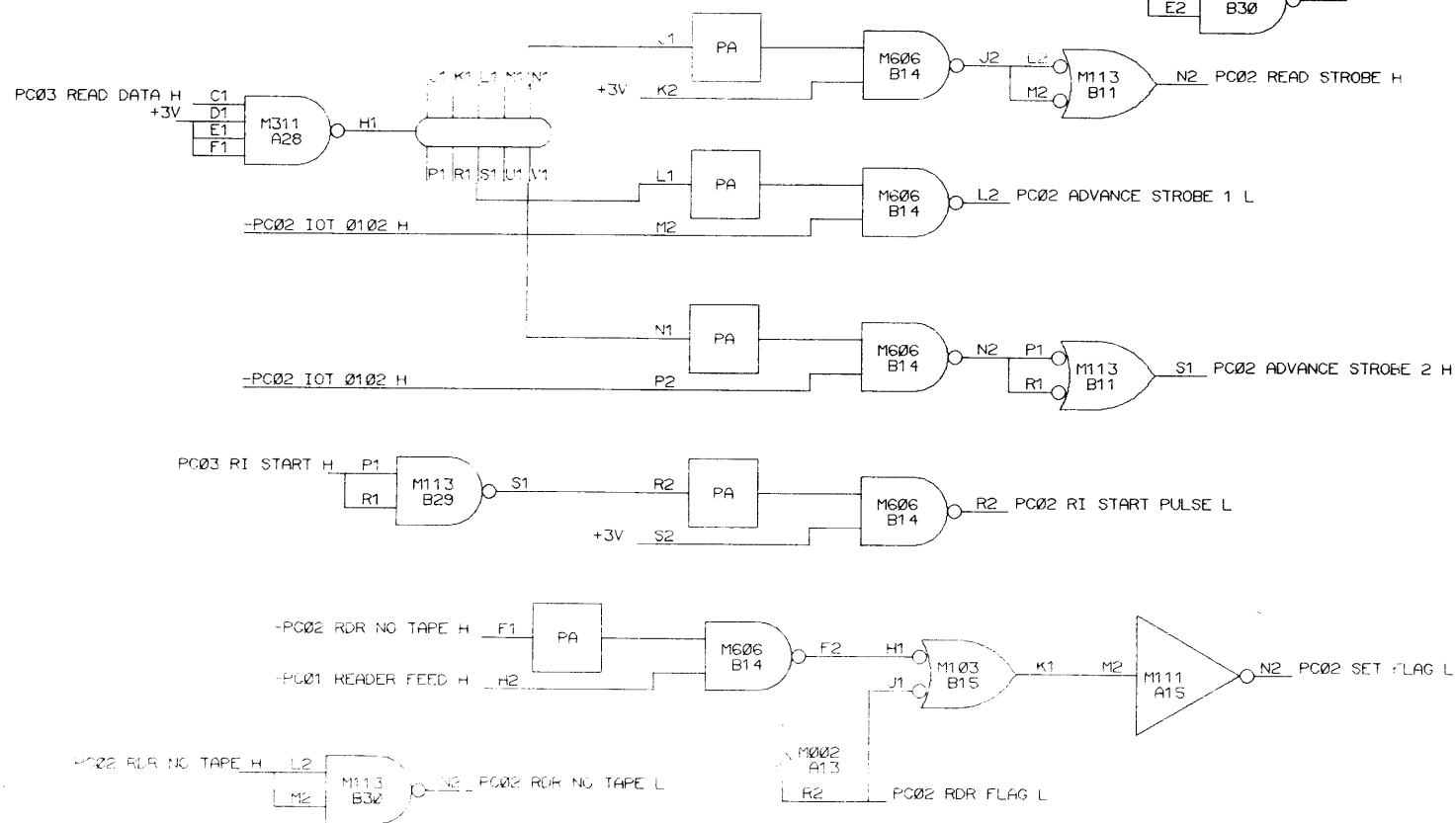
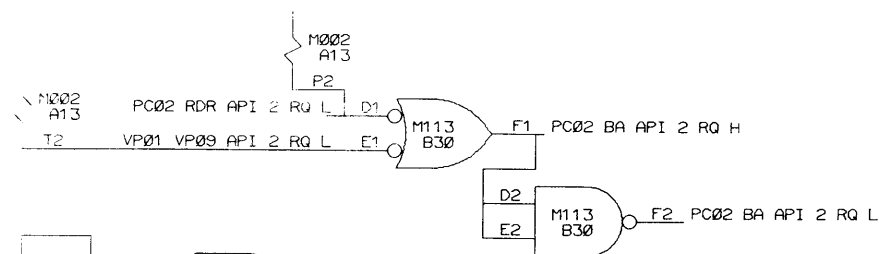
DRN	M SCHURMAN	DATE	11/12/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D	N RHEULT	DATE	11/12/69		
ENG	E NEWMYER	DATE	12/3/69	TITLE HIGH SPEED PUNCH CONTROL	
PROJ. ENG	F AUMANN	DATE	12/3/69		
PROD.	F LASKEY	DATE	12/6/69		
FIRST USED ON					
BA15				SIZE CODE	NUMBER
				D BS	PC15-0-01
SCALE				REV.	F
SHEET 1 OF 1					

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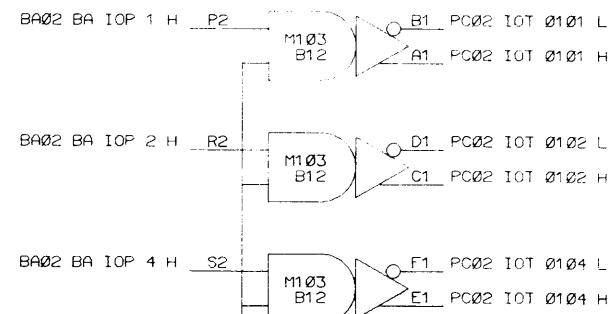
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PC02 IOT 0104 L L1
PC02 RI START PULSE L M103 B12

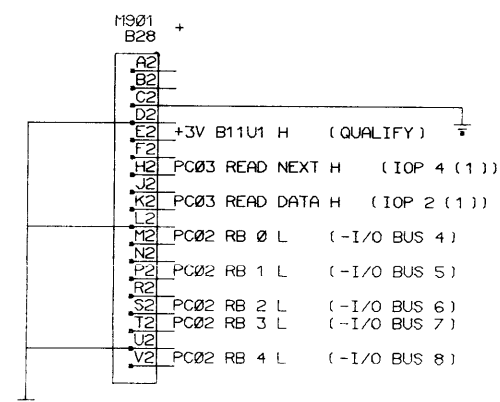
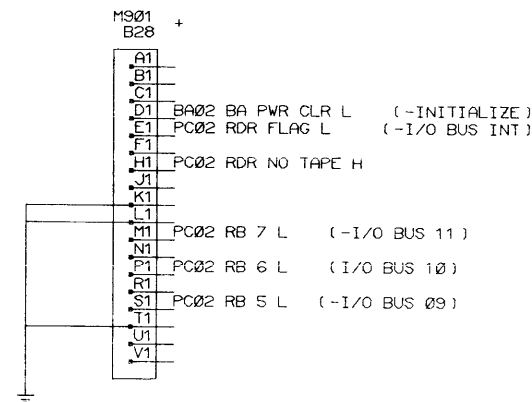
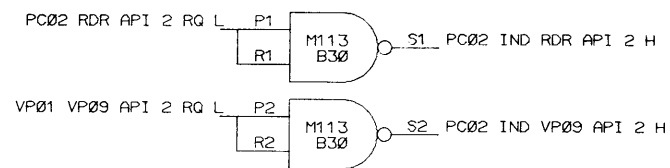
BA02 BA I/O SYNC H H1
BA02 BA I/O PWR CLR H N1
BA02 BA API 2 GR H F2
PC02 IOT 0102 L F2
BA01 API 2 EN H H2
PC03 RDR INTER H S2
E1
F1
P1
S1
J2
M2
U2
PC02 PTR ADDR L
PC02 RDR API 2 RQ L
PC02 VP03 EN IN H
PC02 RDR API 2 RQ H



*DELETE B10H2 TO B10M2
WHEN INSTALLING PC15



BA02 -BA DS 00 H D2
BA02 -BA DS 01 H F2
BA02 -BA DS 02 H F2
BA02 -BA DS 03 H H2
BA02 -BA DS 04 H J2
BA02 -BA DS 05 H K2
BA02 -BA SD 01 H L2
+3V B11U1 H N2
V2 PC02 PC SEL H
H1
J1
K1
PC02 SEL BINARY L

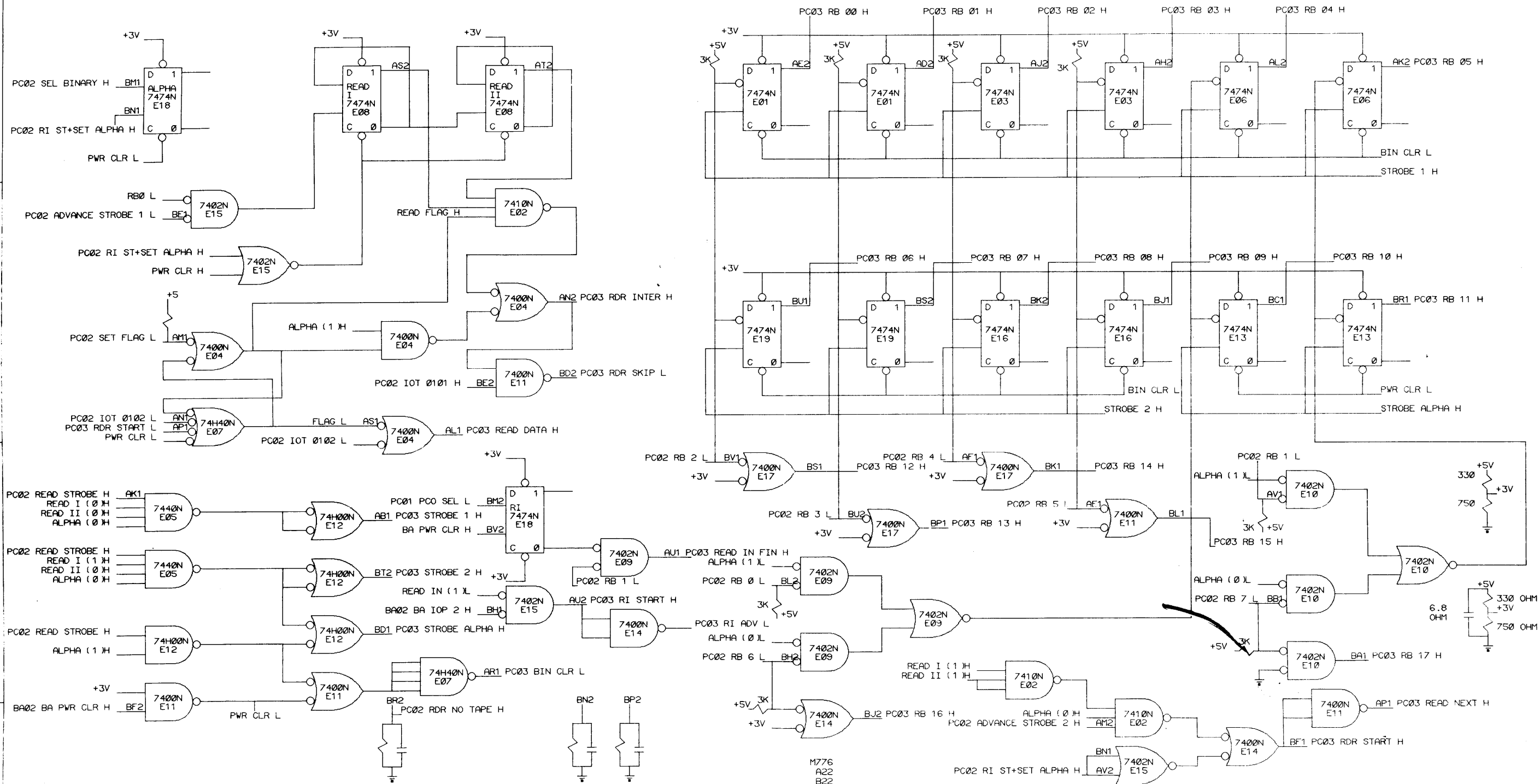


+ PC05 SIGNAL NAMES INDICATED
IN PARENTHESES IF DIFFERENT

REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
NR	BA15-00001	A	GH	BA15-00008	E
K	COTE		K	KRYSLAK 7/7/70	
F	AUMANN		F	AUMANN 7/7/70	
PC	BA15-00002 16	3H	F	AUMANN 7/7/70	
K	COTE		F	AUMANN 7/7/70	
F	AUMANN		F	AUMANN 7/7/70	
PC	BA15-00004	2	K	COTE 4/13/72	
K	COTE 4/13/72		F	AUMANN 4/13/72	
F	AUMANN 4/13/72		F	AUMANN 4/13/72	
R	SUTKA				
F	AUMANN				

DRAWN M. SCHURMAN	DATE 11/12/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHKD. N. RHEAULT	DATE 11/12/69	TITLE HIGH SPEED READER CONTROL	
ENG. F. NEWMYER	DATE 12/3/69		
PROD. F. LASKEY	DATE 12/6/69		
FIRST USED ON BA15		SIZE/CODE D BS	NUMBER PC15-0-02
SCALE SHEET 1 OF 1		DIST.	REV. J

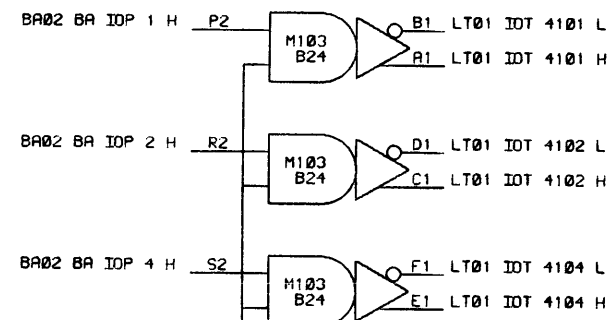
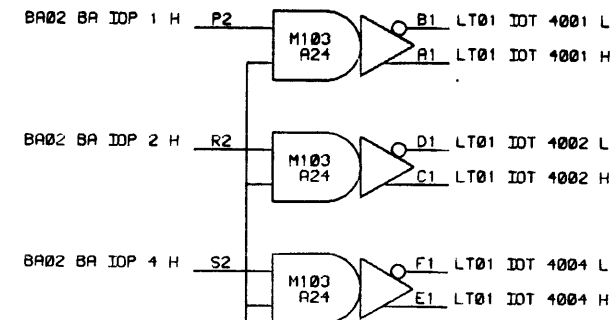
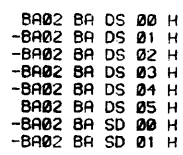
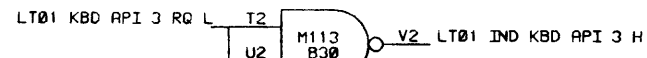
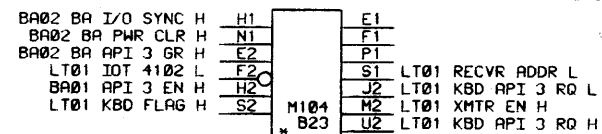
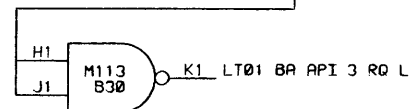
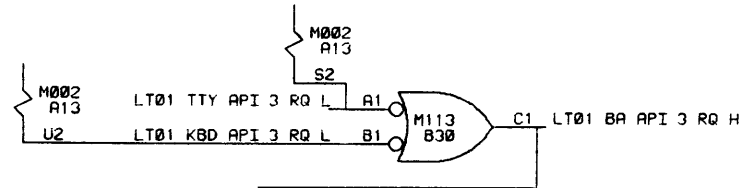
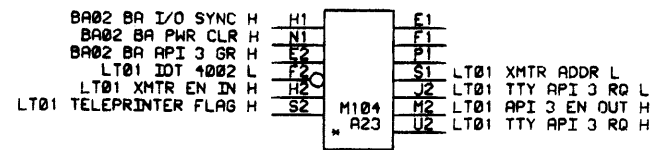
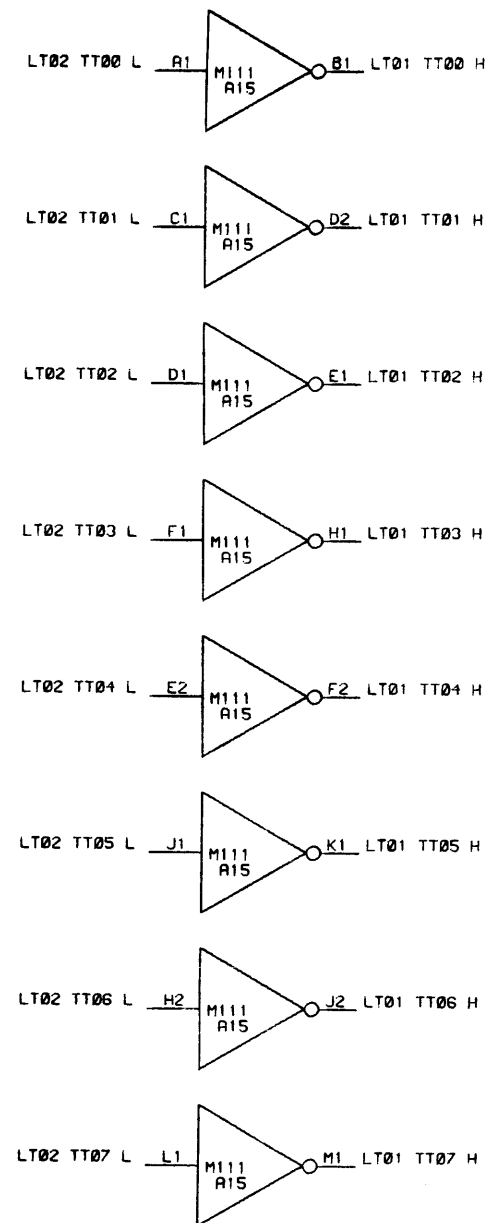
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REVISIONS			REVISIONS		
CHK	CHANGE NO.	REV.	CHK	CHANGE NO.	REV.
NR	BA15-00001	A	GH	BA15-00014	E
K	COTE		K	WALSH 4/5/71	
F	AUMANN		F	AUMANN 4/5/71	
PD	BA15-00002	B		BA15-00021	F
K	COTE 3/25/70				
F	AUMANN 3/26/70				
GH	BA15-00009				
K	KRAY 7/7/70				
F	AUMANN 7/9/70				
GH	BA15-00012				
R	SOFKA 2-17-71				
F	AUMANN 2-26-71				

DRN. M SCHURMAN	DATE 11/12/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			
CHKD. N RHEAULT	DATE 11/12/69				
ENG. E NEWMYER	DATE 12/3/69	TITLE READER REGISTER			
PROJ. ENG. F AUMANN	DATE 12/3/69				
PROD. F LASKEY	DATE 12/6/69	FIRST USED ON BA15			
SCALE		SIZE/CODE D 1 BS	NUMBER PC15-0-03	REV. F	
SHEET 1	OF 1	DIST.			

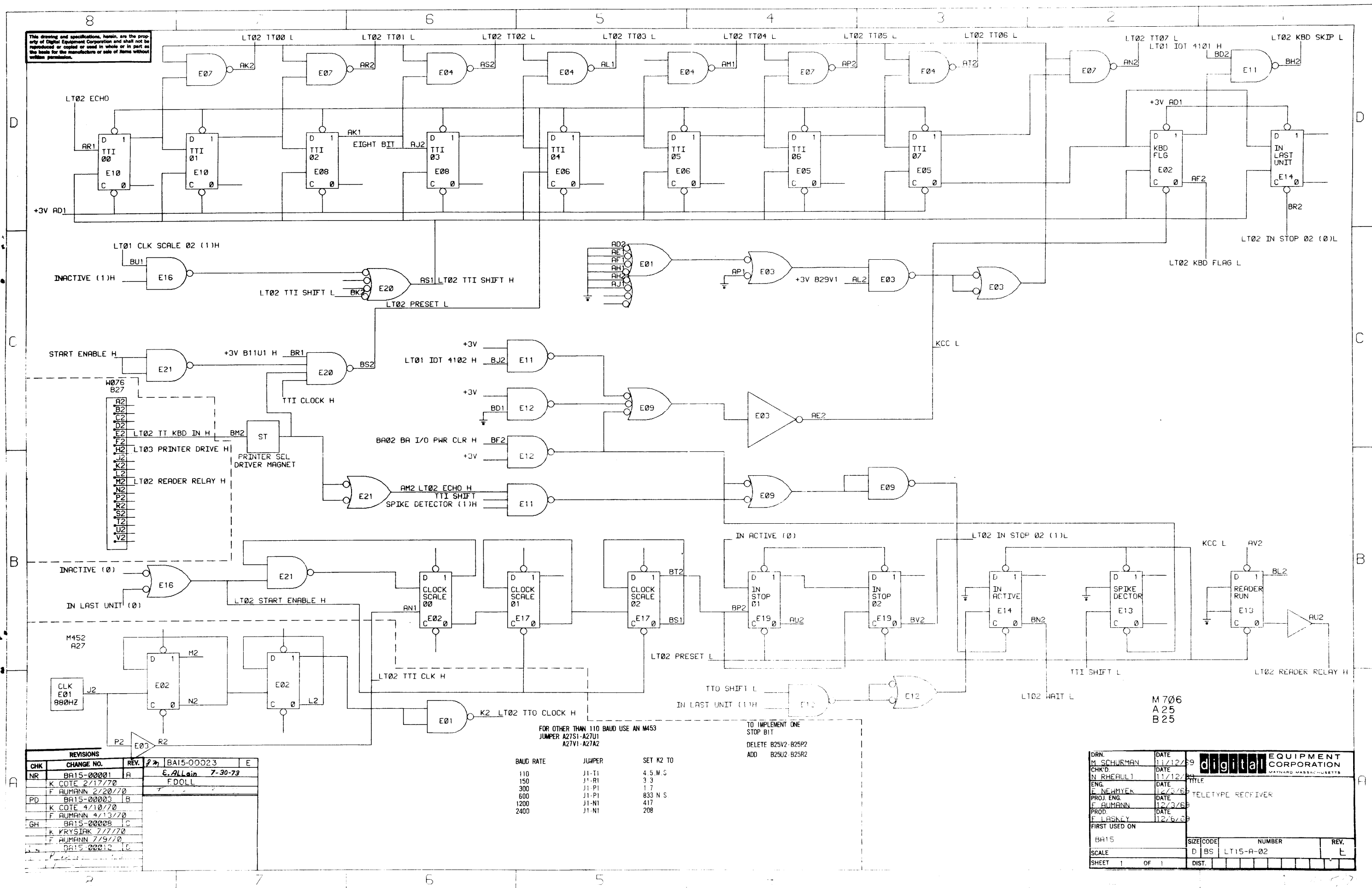
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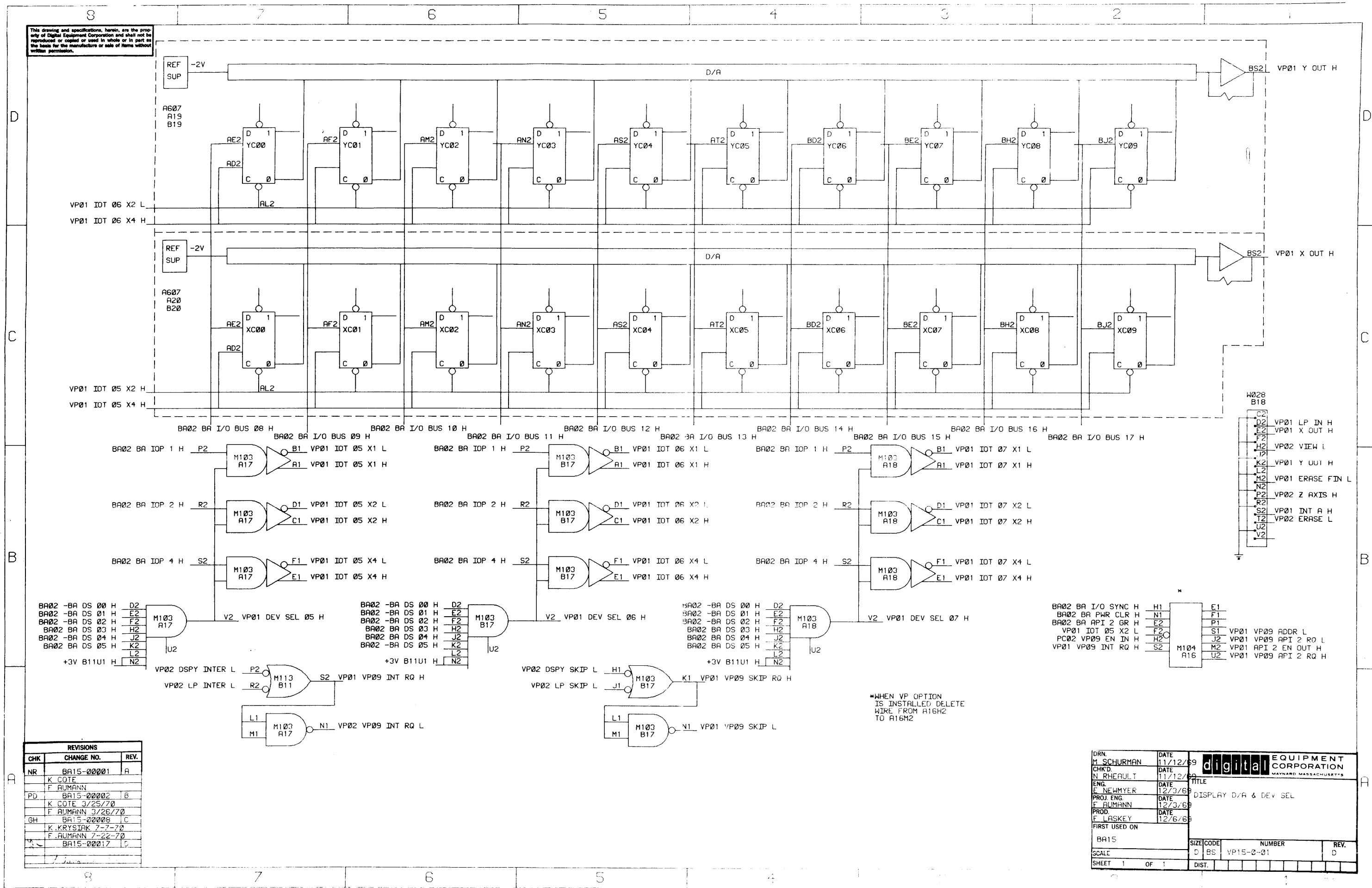
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WHEN INSTALLING LT15

REVISIONS		
CHK	CHANGE NO.	REV.
NR	BA15-00001	A
K COTE		
F AUMANN		
PD	BA15-00002	B
K COTE 3/25/70		
F AUMANN		
GH	BA15-00003	C
K KRYSTAK 7/7/70		
F AUMANN 7/9/70		
MA	BA15-00012	D
R. C. H. 11/1/71		

DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		
M. SCHURMAN	11/12/69			
CHKD.	DATE	TITLE		
N. RHEAULT	11/12/69			
ENG.	DATE	TELETYPE CONTROL		
E. NEWMYER	12/3/69			
PROJ. ENG.	DATE			
F. AUMANN	12/3/69			
PROD.	DATE			
F. LASKEY	12/6/69			
FIRST USED ON				
BA15		SIZE CODE	NUMBER	REV.
SCALE		D BS	LT15-A-01	D
SHEET 1 OF 1		DIST.		



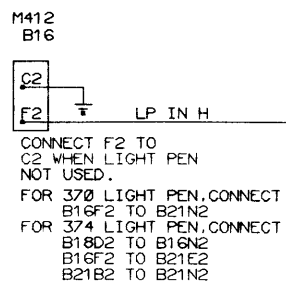
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REVISIONS		
CHK	CHANGE NO.	REV.
NR	BA15-00001	A
	K COTE	
	F AUMANN	
PD	BA15-00002	B
	K COTE 3/25/70	
	F AUMANN 3/26/70	
GH	BA15-00008	C
	K KRYSIAK 7-7-70	
	F AUMANN 7-22-70	
	BA15-00017	D

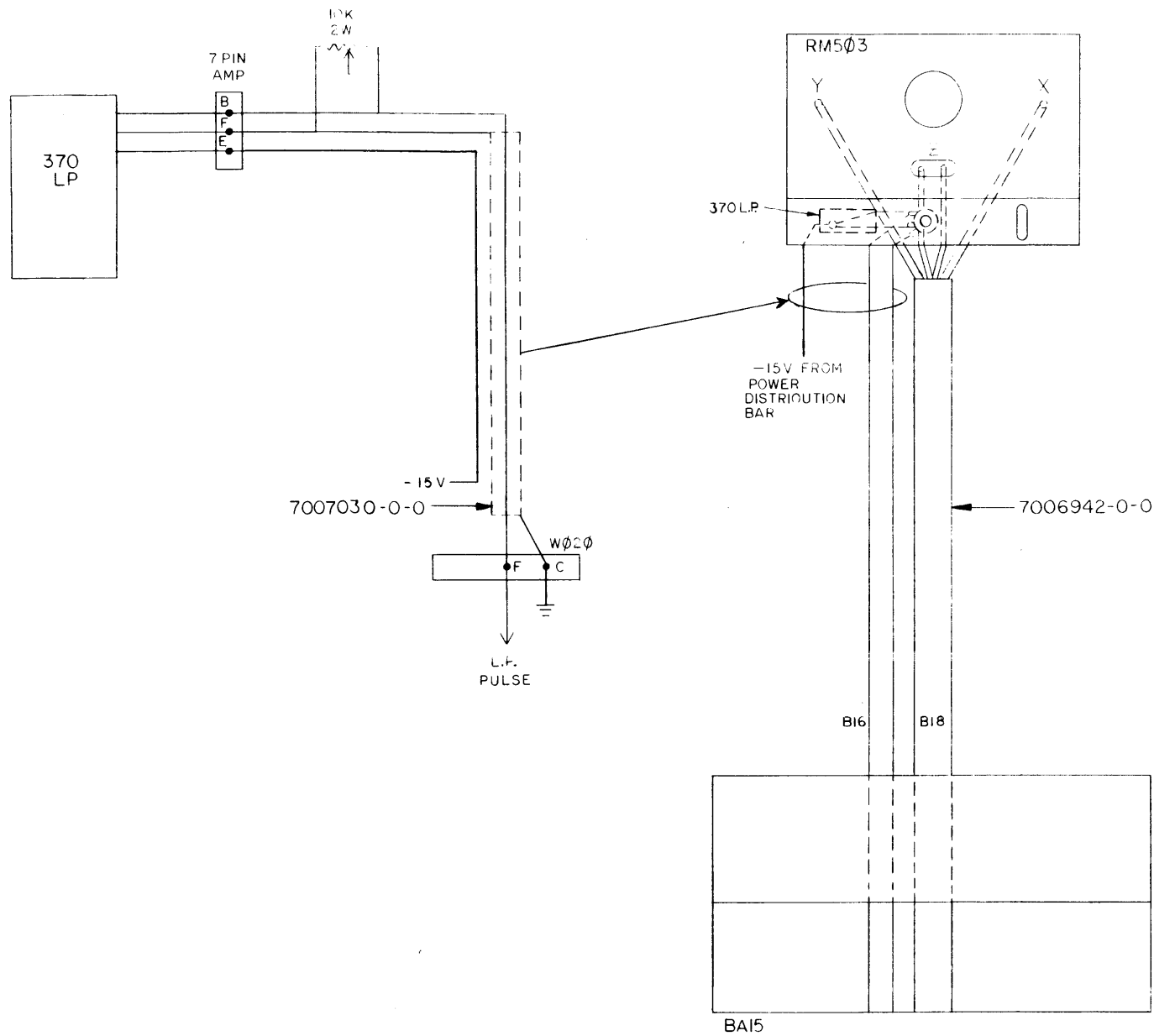
DRN	M SCHURMAN	DATE	11/12/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D	N RHEAULT	DATE	11/12/69	
ENG	E NEWMYER	DATE	12/3/69	
PROJ. ENG.	F AUMANN	DATE	12/3/69	
PROD.	F LASKEY	DATE	12/6/69	
FIRST USED ON				
BA15				
SCALE	D BS	NUMBER	VP15-0-01	REV.
SHEET 1 OF 1	DIST.			D

```
*SET DELAY AT PIN AT2 FOR
VR14          6US
RMS03         6US
611 STORAGE TUBE .8US
```



DRN 1 SCHURMAN	DATE 11/12/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHKD M FREALT	DATE 11/12/69	TITLE	
ENG N NEWMYER	DATE 12/3/69	DISPLAY CONTROL BA15	
PROJ. ENG F ALMANN	DATE 12/3/69		
PROD. F LASKEY	DATE 12/6/69		
FIRST USED ON BA15			
SCALE	CASE	NUMBER	REV.
	D BS	VP15-0-02	E
SHEET 1 OF 1	DIST.		

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REVISIONS		REV.
CHK	CHANGE NO.	BAI5-00011
ORIGINATED		BAI5-00013
DATE		3-15-71
BY		FDIETER
DATE		3-15-71

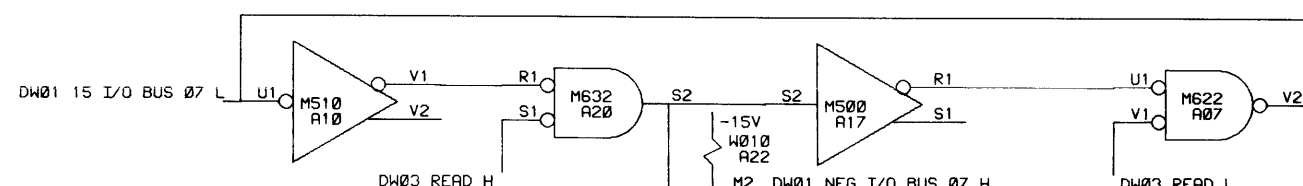
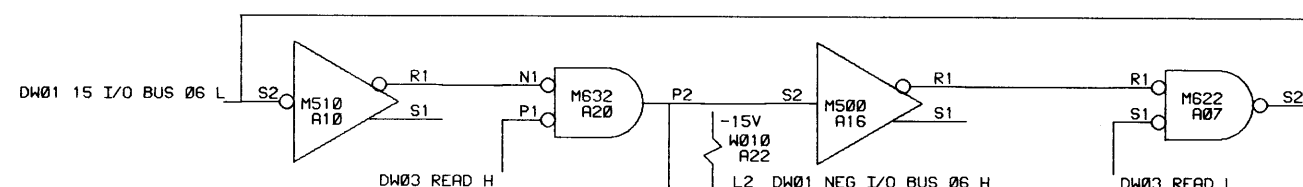
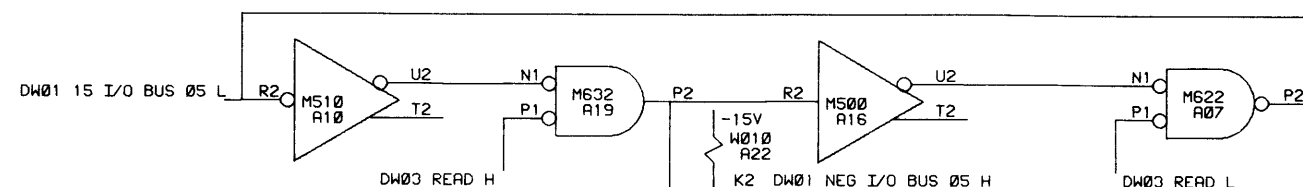
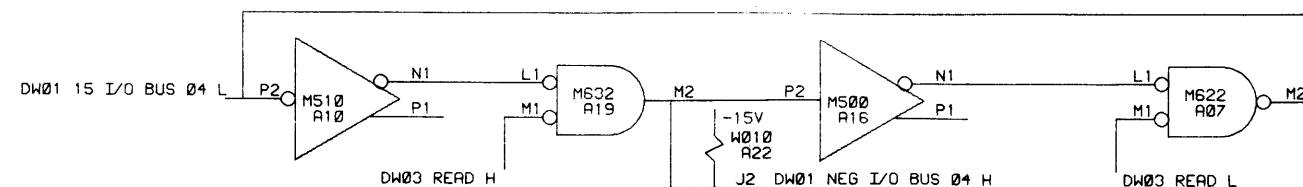
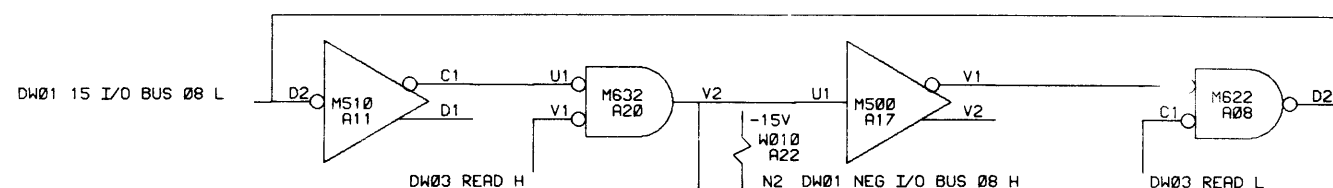
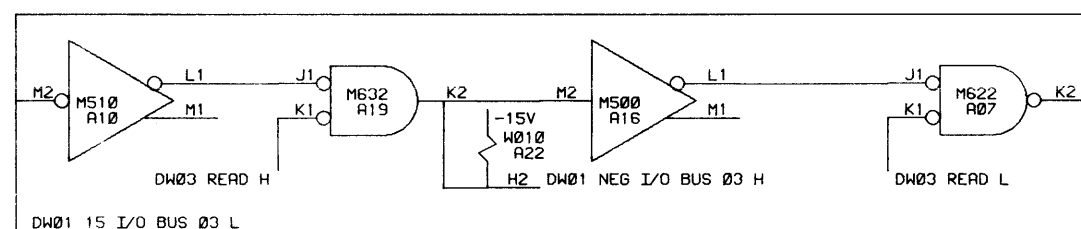
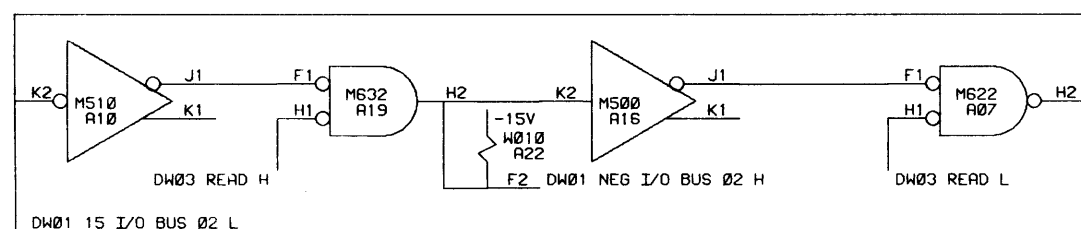
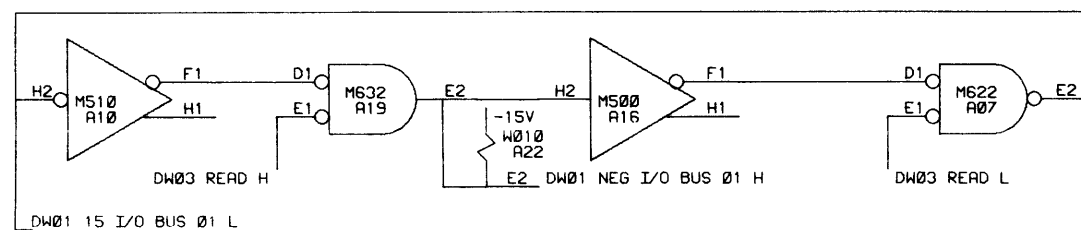
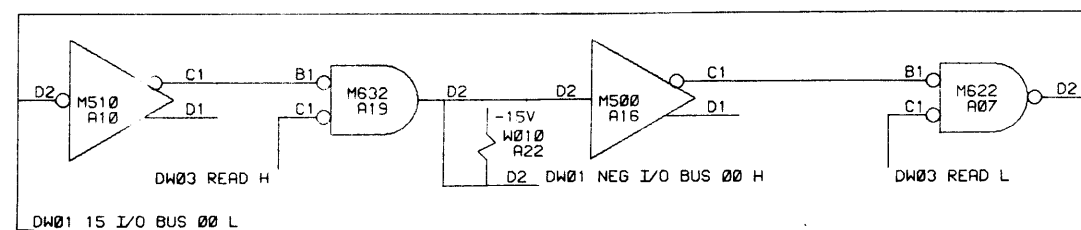
DEC FORM NO
ORD 100

FIRST USED ON OPTION / MODEL
VR15-BL

DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS FRACTIONS ANGLES
± .005 ± 1/64 ± 0°30'
FINAL SURFACE QUALITY
REMOVE BURRS AND BREAK SHARP CORNERS
MATERIAL
FINISH

QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST			
DRN	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D	DATE	TITLE	
ENG	DATE	INTERCONNECTION DIAGRAM	
PROJ/ENG	DATE	NEXT HIGHER ASSY	
PROD.	DATE	A-ML-VP15-BL-1	
SCALE	OF	SIZE CODE	NUMBER
SHEET	OF	DIC	VP15-BL-1
		DIST.	REV. A

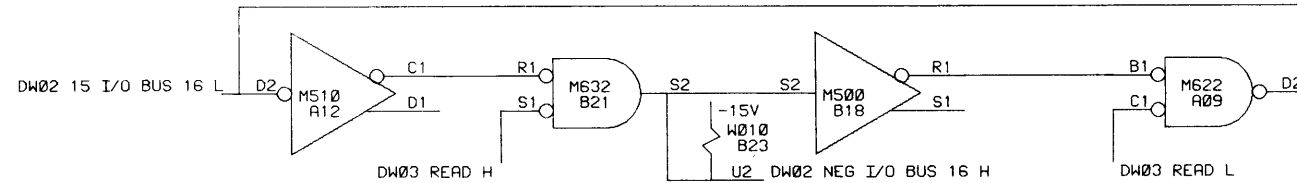
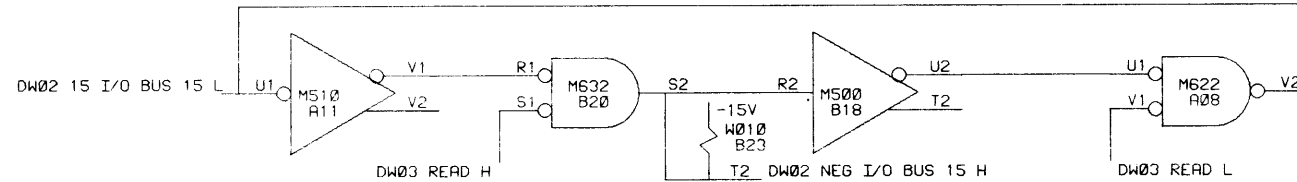
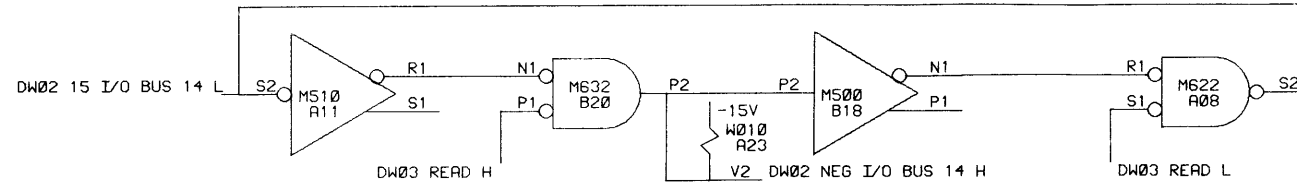
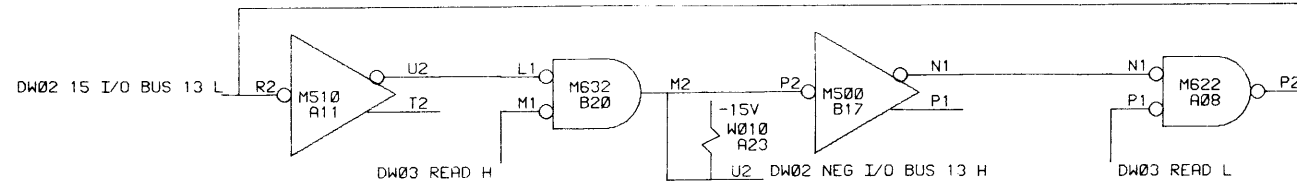
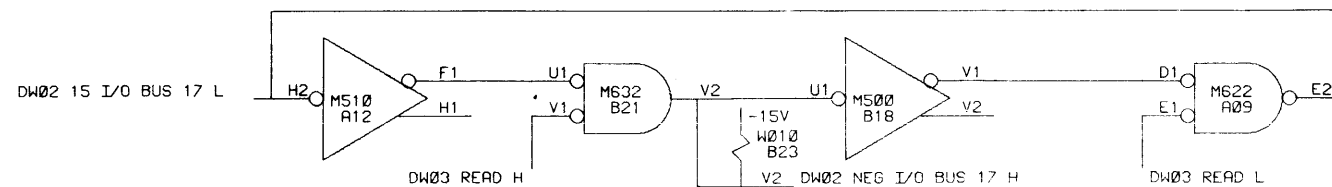
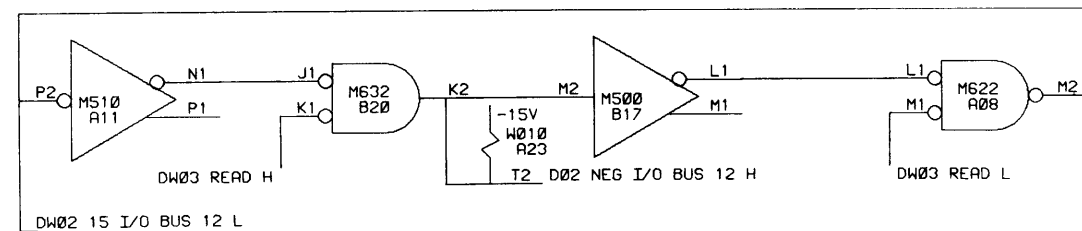
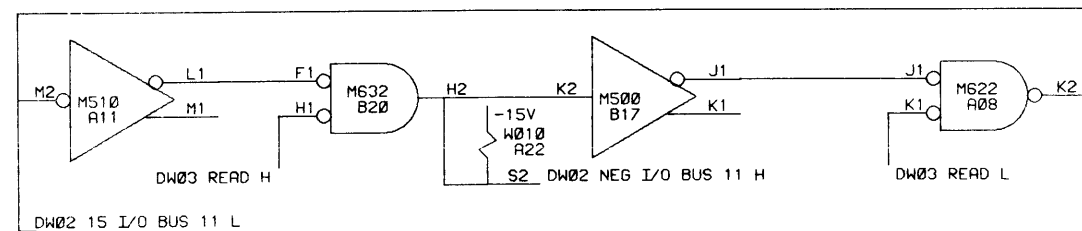
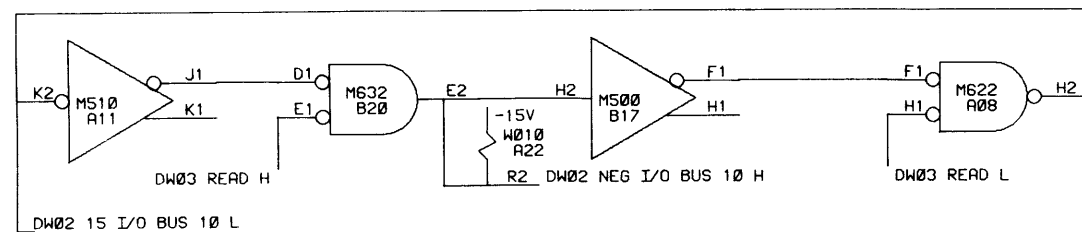
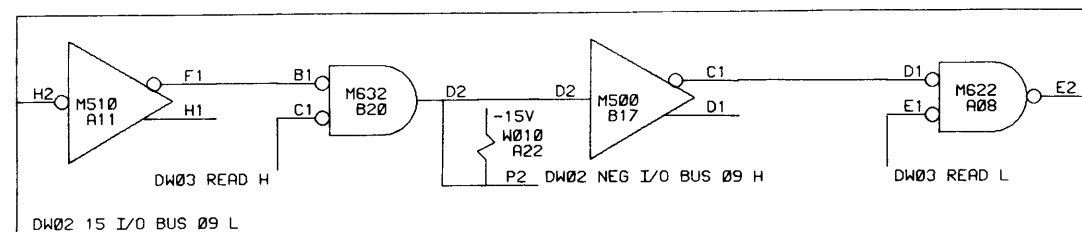
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CHK	CHANGE NO.	REV.

DRN.	K ROGGS	DATE	7-3-69	d i g i t a l		EQUIPMENT CORPORATION			
CHK'D.	N RHEAULT	DATE	7-3-69			MAYNARD, MASSACHUSETTS			
ENG.	J PRATT	DATE	7-3-69	TITLE BI DIRECT I/O BUS 0-8					
PROJ. ENG.	J PRATT	DATE	7-3-69						
PROD.	P LASKEY	DATE	7-2-69						
FIRST USED ON				SIZE CODE D BS		NUMBER DW15-A-01		REV. 00	
DW15									
SCALE									
SHEET				DIST.					
OF									

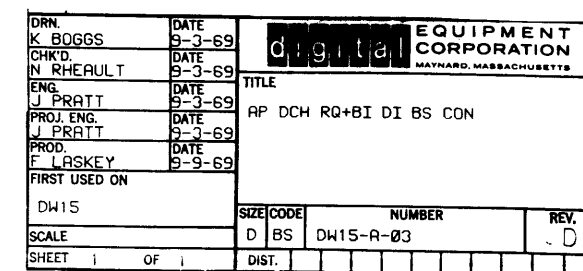
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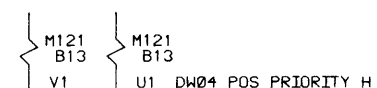
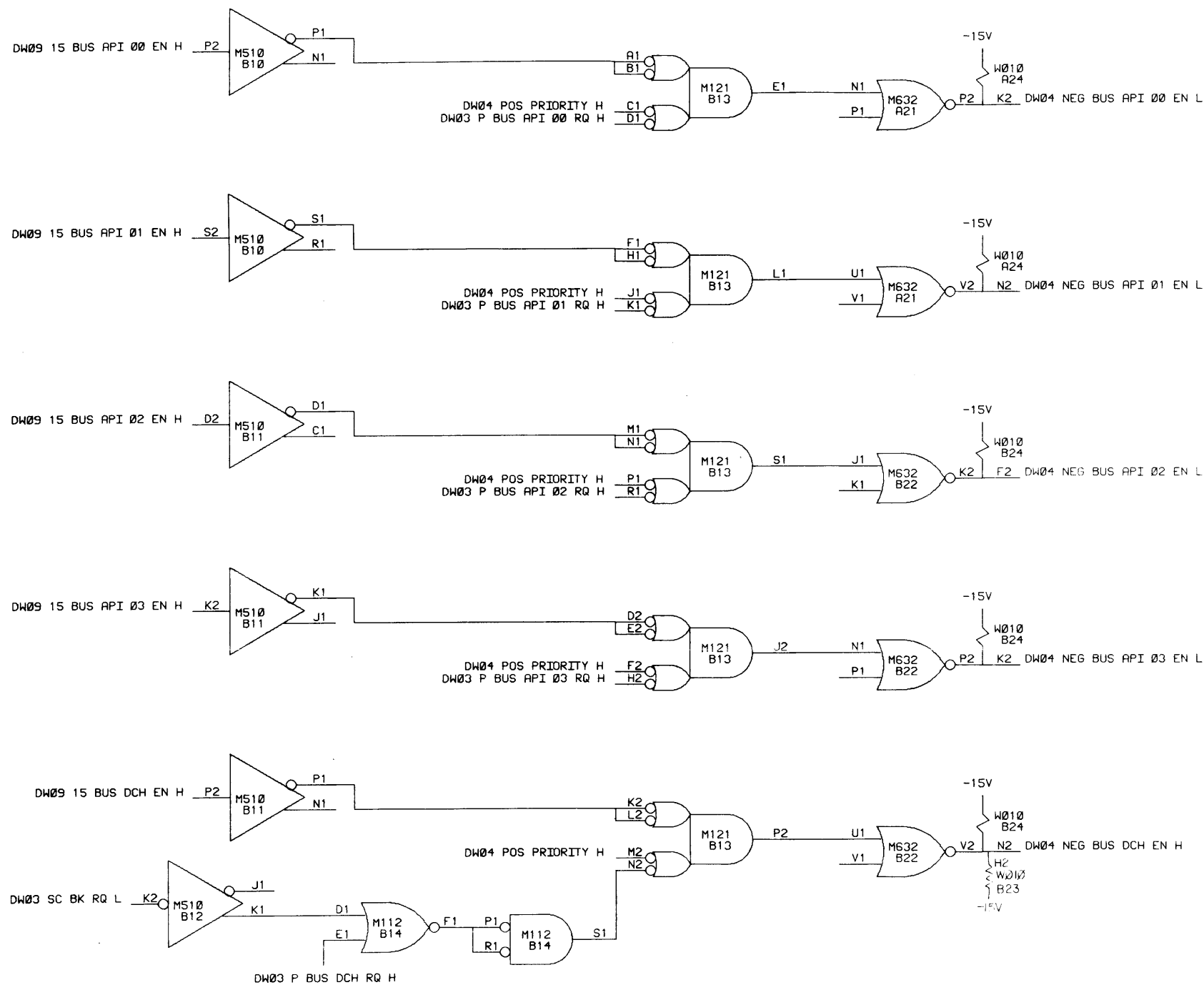
REVISIONS		
CHK	CHANGE NO.	REV.

DRN K ROGGS	DATE 9-3-67	digital EQUIPMENT CORPORATION 1100 MAIN STREET CAMBRIDGE, MASSACHUSETTS 02142		
CHK'D M RHEAULT	DATE 9-3-67			
ENG J PRATT	DATE 9-3-67			
PROD. F LASKY	DATE 9-9-67			
FIRST USED ON				
DW15		SIZE CODE D BS	NUMBER DW15-H-02	REV. 00
SHEET 1 OF 1		DIST		

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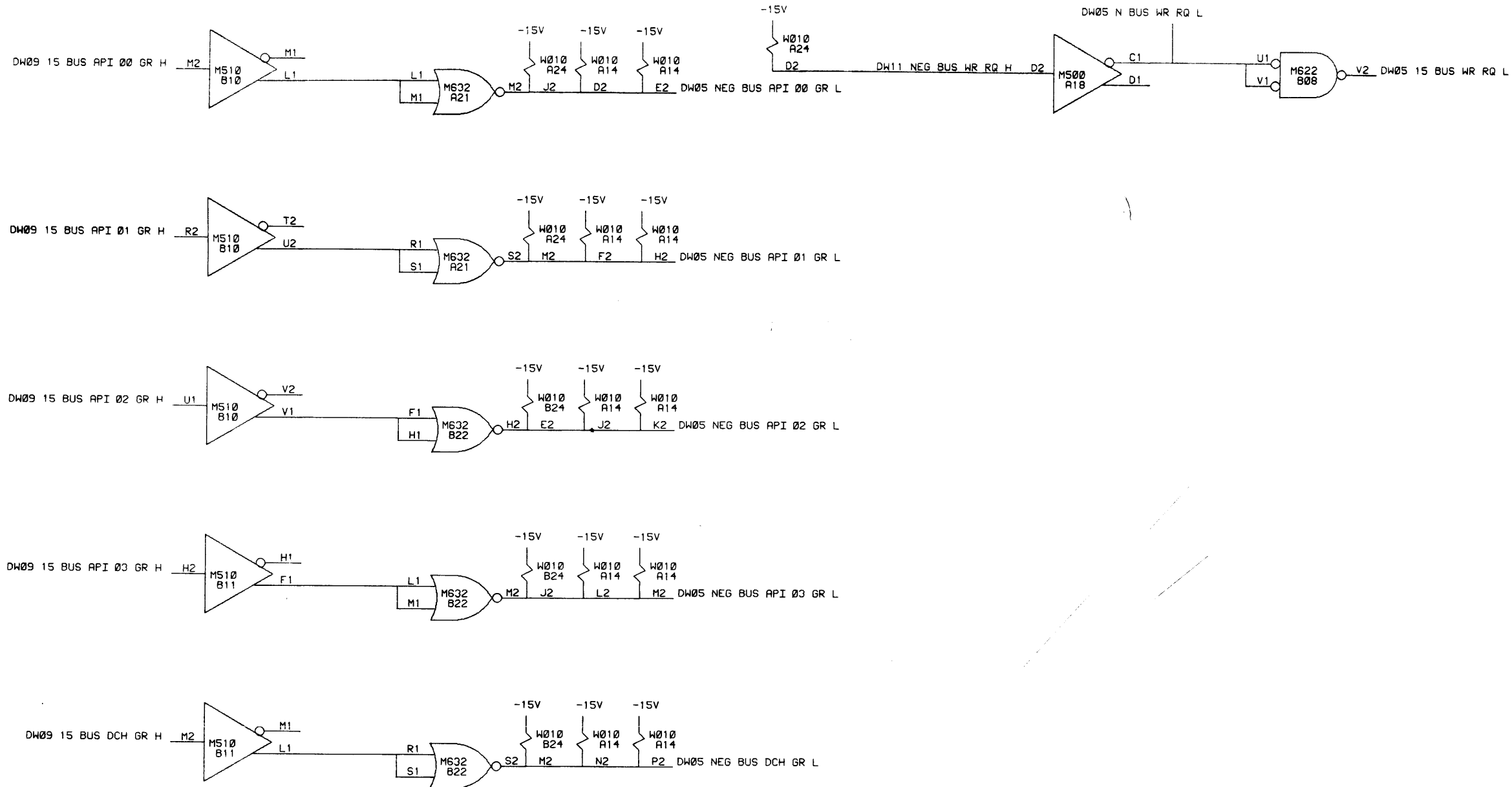
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REVISIONS		
CHK	CHANGE NO.	REV.
	DW15A-00004	A

DRN. K. BOGGS	DATE 9/3/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHKD. N. RHEAULT	DATE 9/3/69	
ENG. J. PRATT	DATE 9/3/69	TITLE API + DCH ENABLES
PROJ. ENG. J. PRATT	DATE 9/3/69	
PROD. F. LASKEY	DATE 9/9/69	
FIRST USED ON		
DW15		SIZE CODE NUMBER D BS DW15-A-04
SCALE		
SHEET 1 OF 1		
		REV. 6

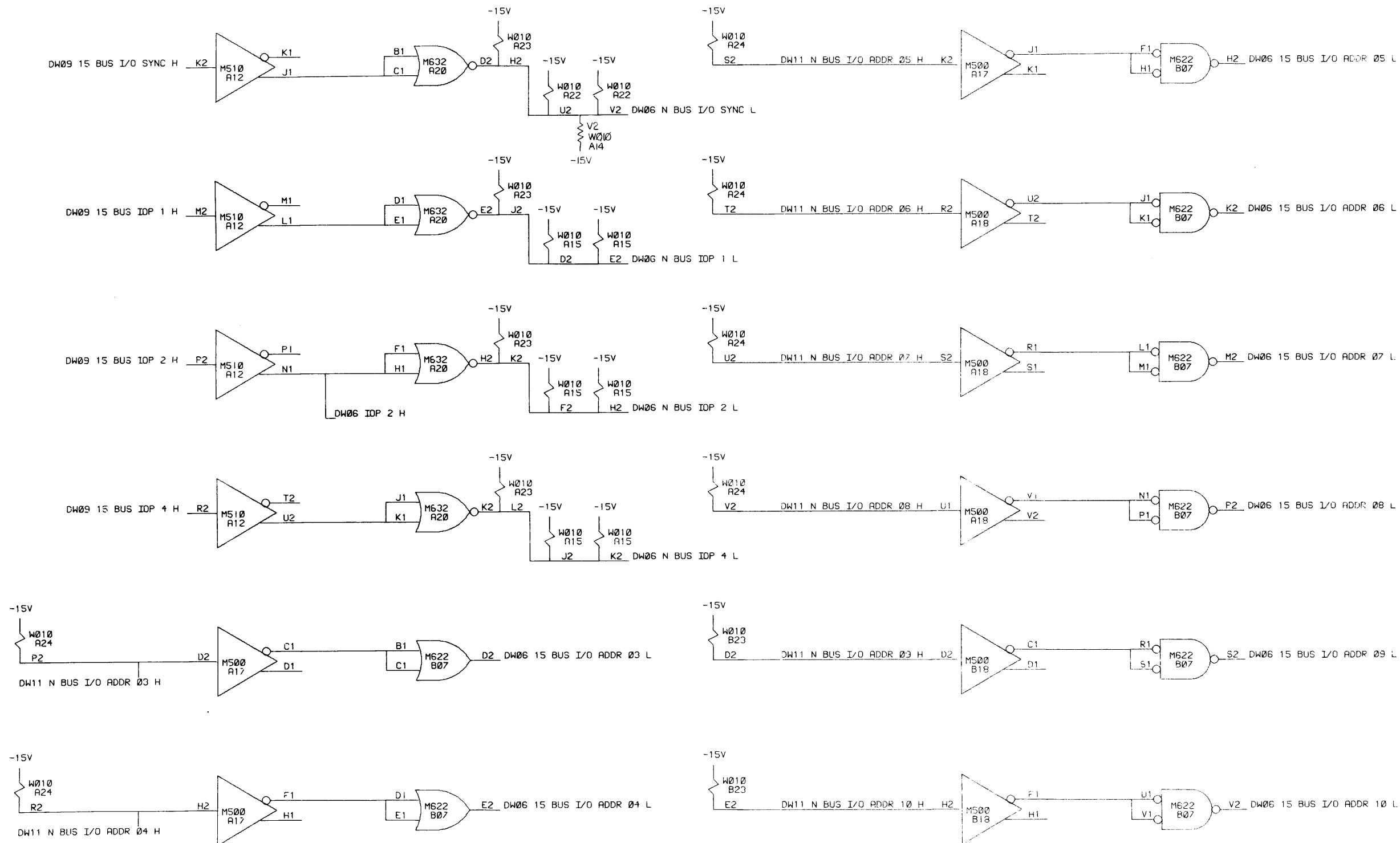
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REVISIONS		
CHK	CHANGE NO.	REV.

DRN R 80665	DATE 9-3-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D N RHEAULT	DATE 9-3-69		
ENG J PRATT	DATE 9-3-69	TITLE API + DCH GRANTS	
PROJ. ENG J PRATT	DATE 9-3-69		
PROD. F LASKY	DATE 9-9-69		
FIRST USED ON DW15		SIZE CODE D BS	NUMBER DW15-A-05
SCALE		REV. 00	
SHEET 1 OF 1		DIST.	

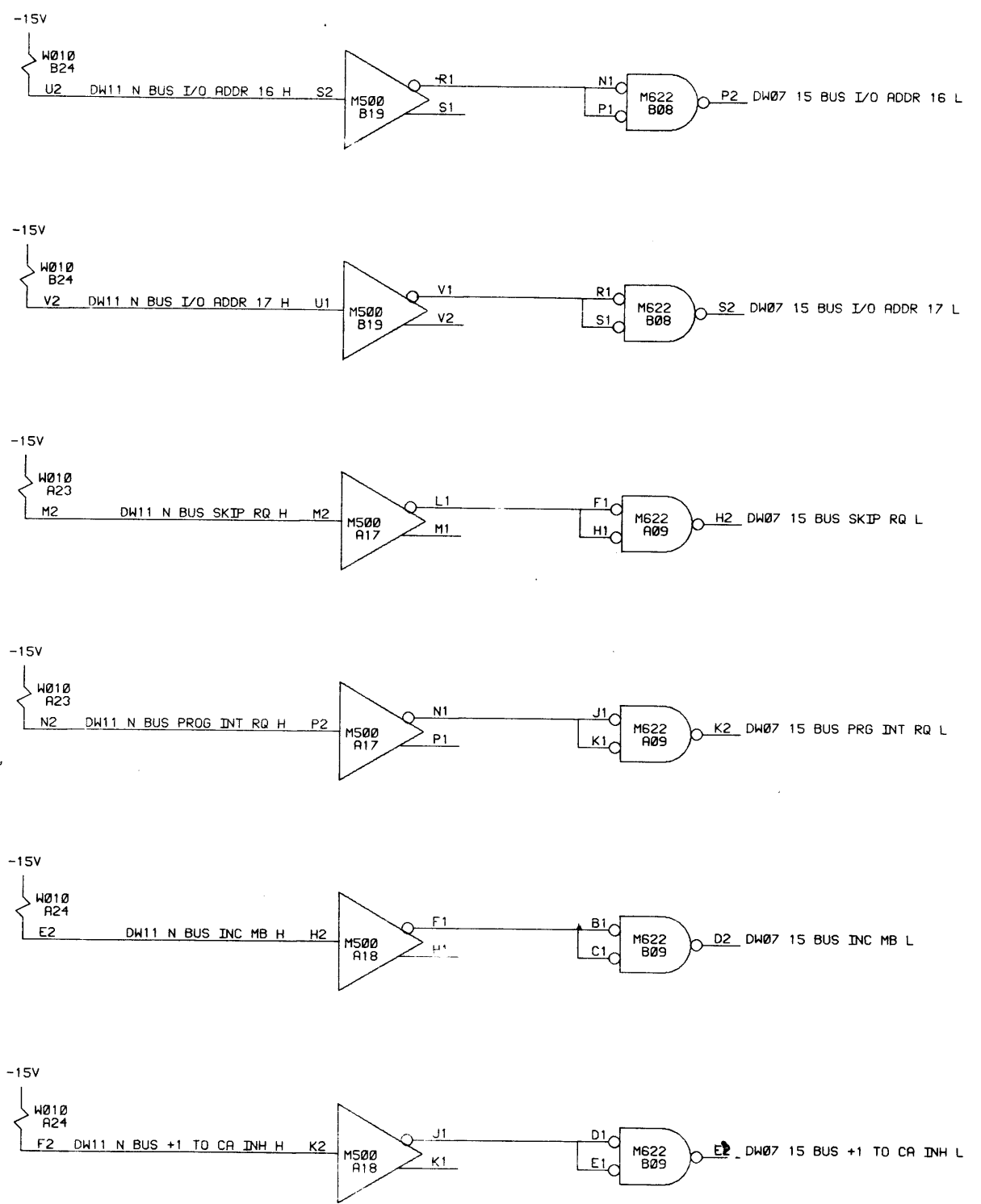
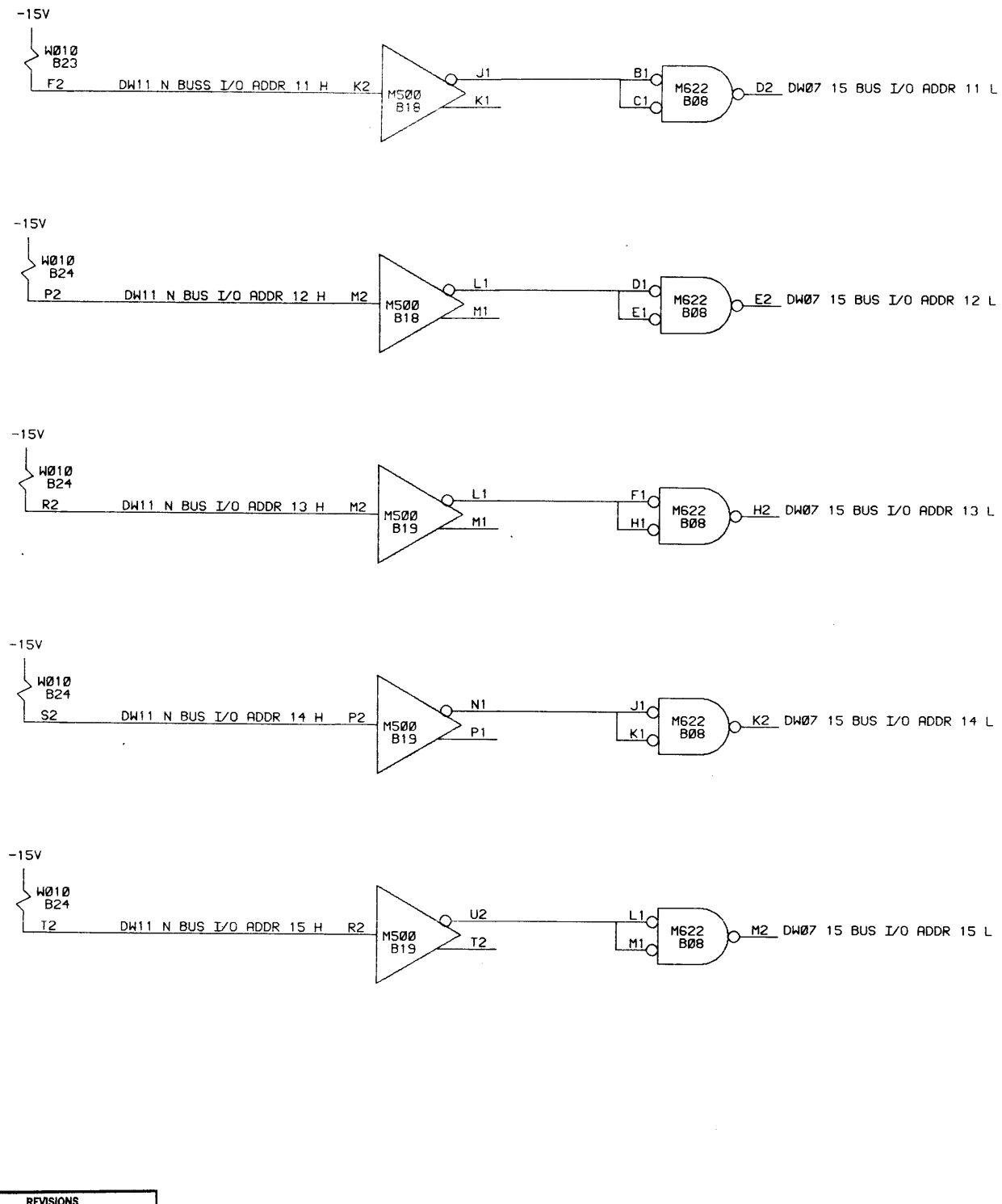
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REVISIONS		
CHK	CHANGE NO.	REV.
✓	DW15A-00006	A

DRN.	K. BOGGS	DATE	9-2-69	digital EQUIPMENT CORPORATION MANUFACTURING DEPARTMENT	
CHK'D	N. HEAL	DATE	9-3-69		
ENG.	✓ PRATT	DATE	9-3-69		
PROJ. ENG.	✓ PRATT	DATE	9-3-69		
PROD.	✓ LASKY	DATE	9-9-69		
FIRST USED ON					
DW15		SIZE	CODE	NUMBER	REV.
SCALE		D BS		DW15-A-06	A
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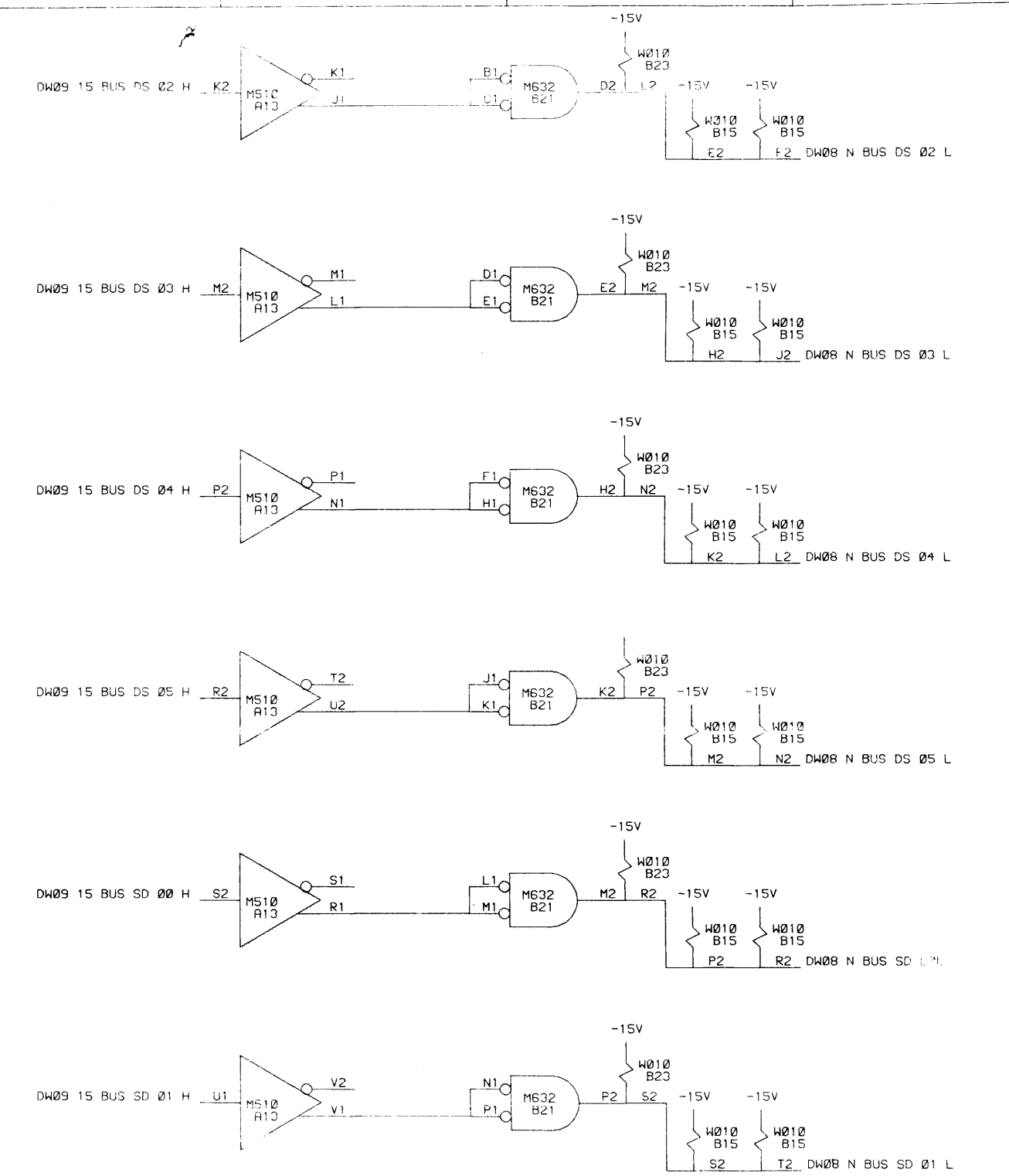
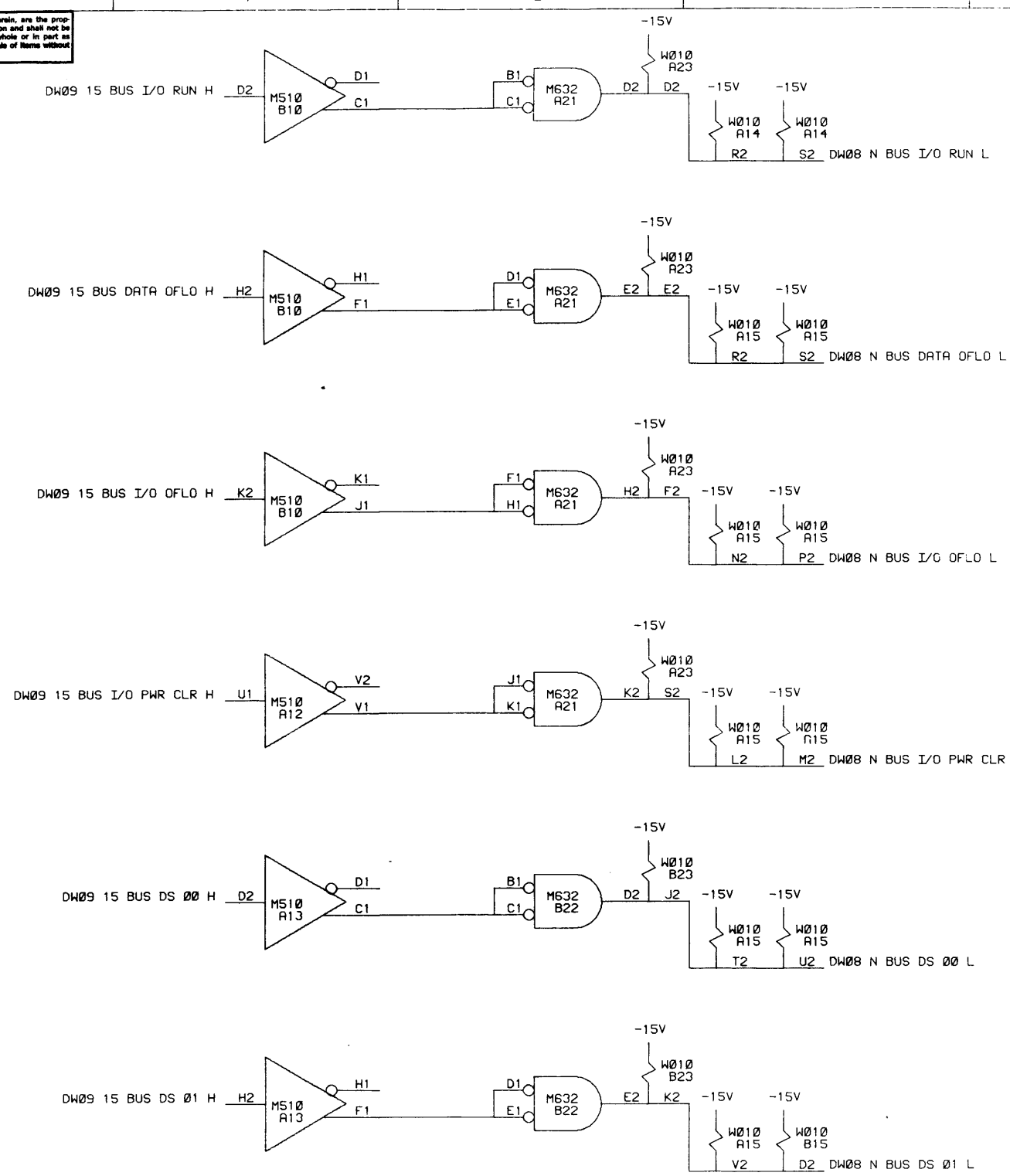


REVISIONS		
CHK	CHANGE NO.	REV.

DRN. <i>K 80645</i>	DATE <i>9-3-69</i>	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D. <i>N RHEAULT</i>	DATE <i>9-3-69</i>	
ENG. <i>J PRATT</i>	DATE <i>9-3-69</i>	
PROJ. ENG. <i>J PRATT</i>	DATE <i>9-3-69</i>	
PROD. <i>F LASKEY</i>	DATE <i>9-9-69</i>	
FIRST USED ON DW15		TITLE I/O ADDRESS 11-17
SCALE	SIZE CODE D BS	NUMBER DW15-A-07
SHEET 1 OF 1	DIST.	REV. 00

1/13

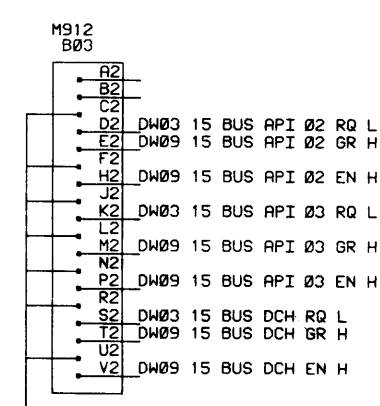
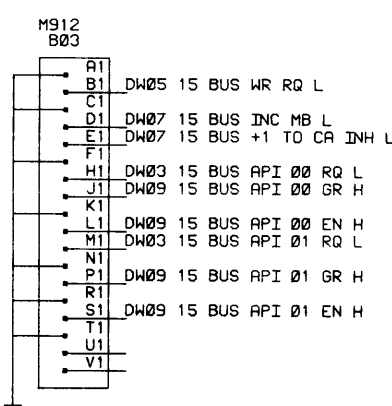
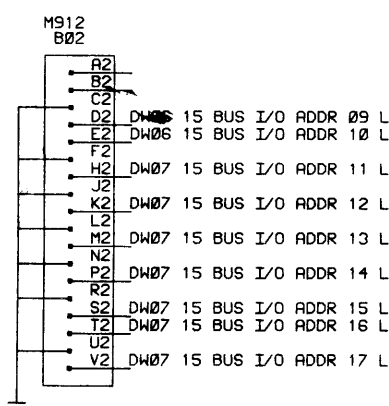
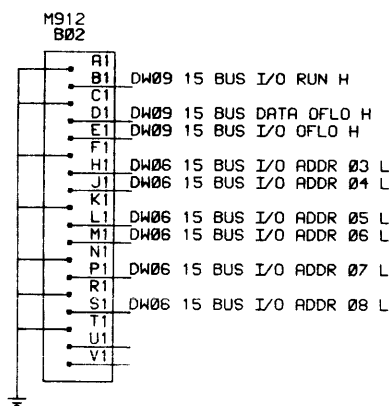
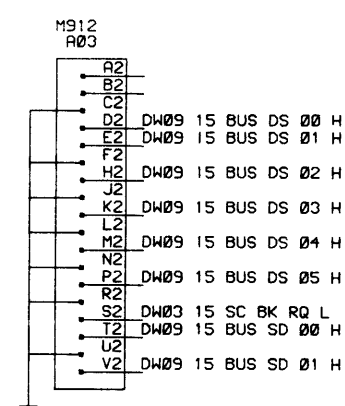
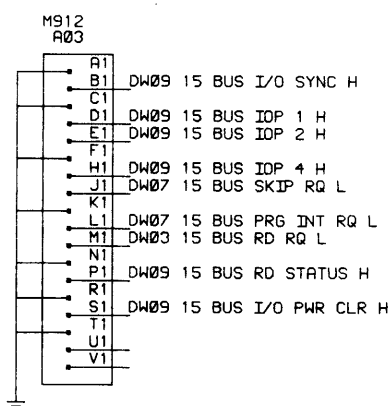
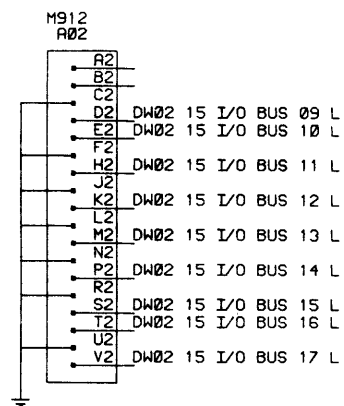
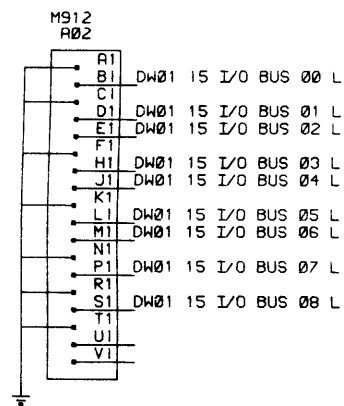
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CHK	CHANGE NO.	REV.

DRN. K R0665	DATE 7-3-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D V RHEAULT	DATE 7-3-69	
ENG T PRATT	DATE 7-3-69	
PROJ. ENG T PRATT	DATE 7-3-69	
PROD F LAKEY	DATE 7-3-69	
FIRST USED ON DW15		TITLE ONE WAY SIGNALS
SCALE	SIZE CODE D 6S	NUMBER DW15-A-06
SHEET 1 OF 1	DIST.	REV. 00

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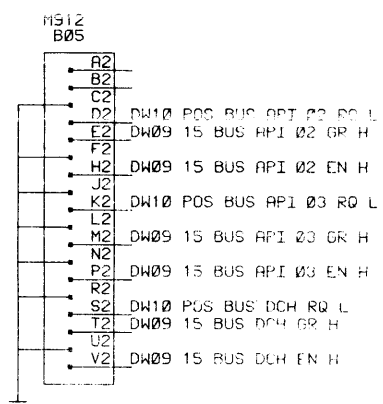
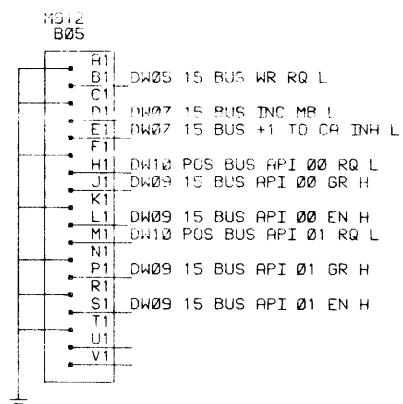
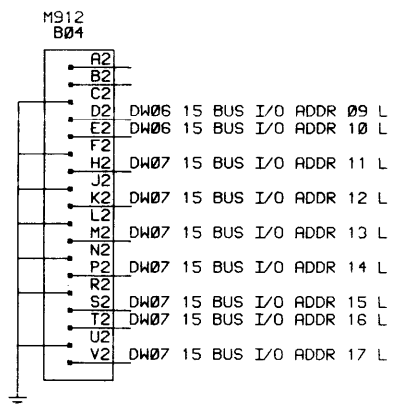
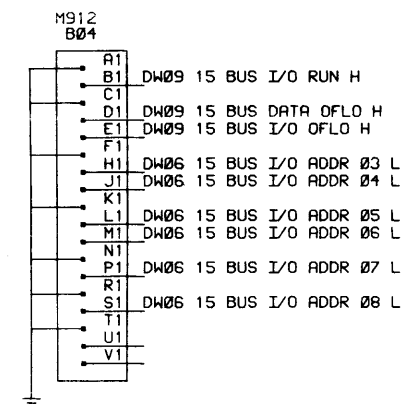
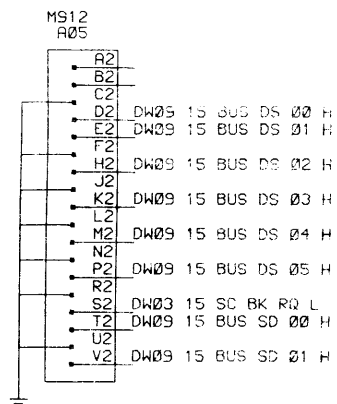
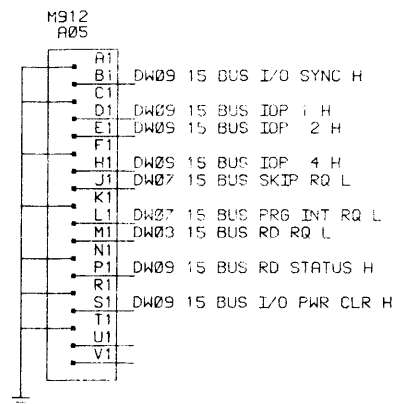
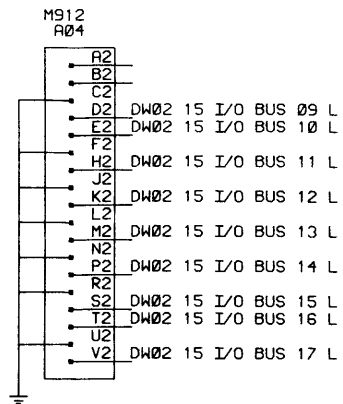
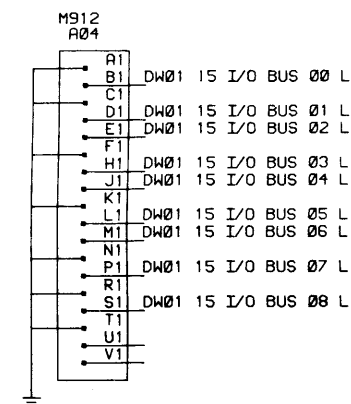
DRN.	K ROGERS	DATE	2-3-69
CHK'D.	N RHEAULT	DATE	2-3-69
ENG.	J PRATT	DATE	2-3-69
PROJ. ENG.	J PRATT	DATE	2-3-69
PROD.	E LASKEY	DATE	2-3-69
FIRST USED ON			
DW15			
SCALE	D	BS	DW15-A-09
SHEET	OF	DIST.	REV. 00

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
POSITIVE INPUT CABLES

1113

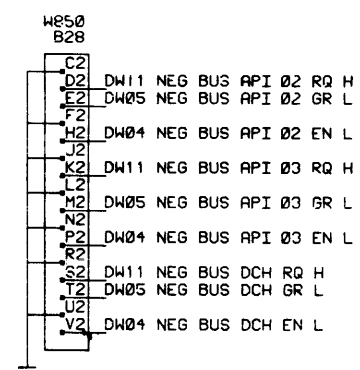
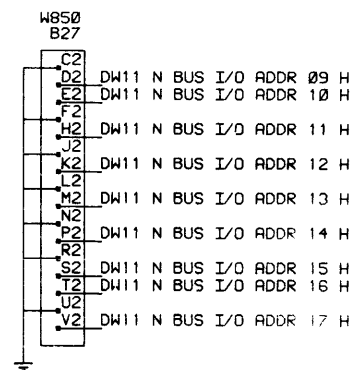
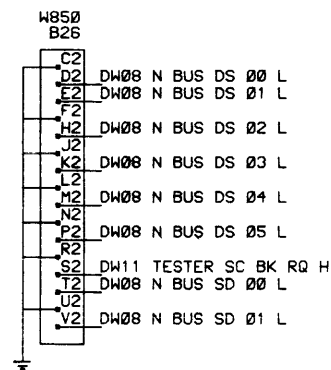
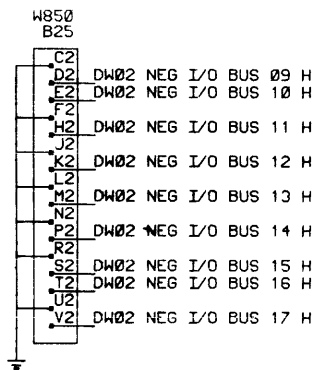
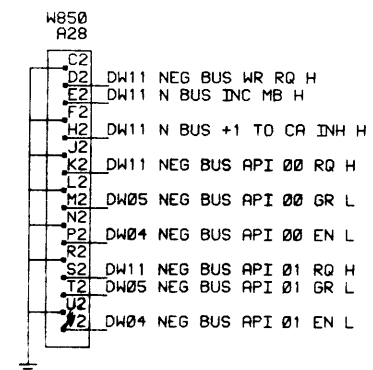
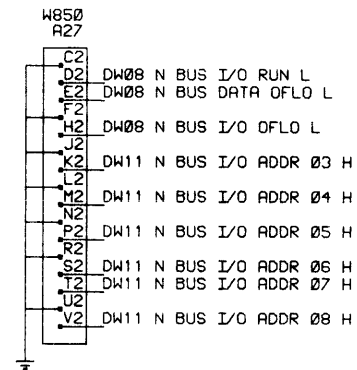
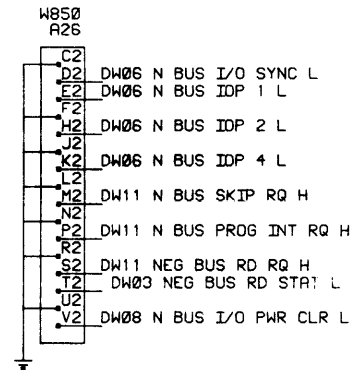
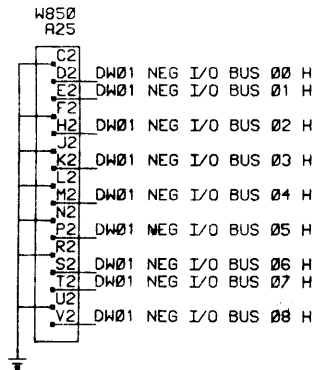
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CHK	CHANGE NO.	REV.

DRN K30665	DATE 9-3-69	digital EQUIPMENT CORPORATION	
CHK'D V. RHEAULT	DATE 9-3-69	TITLE POSITIVE BUS TABLES	
ENG J. PRATT	DATE 9-3-69		
PROJ ENG J. PRATT	DATE 9-3-69		
PROD. F. LASKEY	DATE 9-3-69		
FIRST USED ON DW15		SIZE CODE D BS	NUMBER DW15-A-10
SCALE SHEET 1 OF 1		DIST.	REV. 00

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REVISIONS		
CHK	CHANGE NO.	REV.

DRN. <i>K. ROGGS</i>	DATE 9-3-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	TITLE NEGATIVE BUS CABLES	
CHK'D <i>N. RHEAULT</i>	DATE 9-3-69			
ENG. <i>J. PRATT</i>	DATE 9-3-69			
PROJ. ENG. <i>J. PRATT</i>	DATE 9-3-69			
PROD. <i>E. LASKEY</i>	DATE 9-9-69			
FIRST USED ON DW15		SIZE CODE D BS	NUMBER DW15-R-11	REV. 00
SCALE		SHEET 1 OF 1		

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SIZE CODE	NUMBER	R
D MU	00015-A-12	
DIST		