PDP-8/F computer engineering drawings

digital equipment corporation · maynard, massachusetts

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

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CUSTOMER PRINT SET INDEX

SEQUENCE	
DRAWING DIRECTORY	B-DD-PDP8F-0
FIELD INSTALLATION PROCEDURE	A-SP-PDP8M-0-2
SOFTWARE LIST	A-SL-PDP8F-0-3
ACCESSORY LIST	A-AL-PDP8F-0-4
PDP8F ASSY.	D-UA-PDP8F-0-0
PDP8F ASSY. (PARTS LIST)	C-PL-PDP8F-0-0
POWER SUPPLY ASSY.	D-AD-7009282-0-0
LINE SET, 115V	D-UA-BC2ØA-0-0
LINE SET, 230V	D-UA-BC2ØB-0-0
POWER SUPPLY ASSY.	D-AD-7008714-0-0
LINE SET, 115V	C-UA-BCØ5H-0-0
LINE SET, 230V	C-UA-BCØ5J-0-0
REGULATOR BD. ASSY.	E-IA-5409728-0-0
REGULATOR BD. CIRCUIT	D-CS-5409728-0-1
RECOMMENDED OMNIBUS MODULE ASSIGN.	A-SP-PDP8E-0-4
TIMING DIAGRAM	D-TD-PDP8E-0-5
FLOW DIAGRAM	E-FD-PDP8E-0-6
OMNIBUS (H9191)	A-ML-H9191-0
PROGRAMMER'S CONSOLE	B-DD-KC8-FL
CENTRAL PROCESSOR	A-ML-KK8-E
MEMORY EXT. & TIME SHARE CONTROL	A-ML-KM8-E
ASYNC. DATA CONTROL	A-ML-KL8-E
MEMORY, MM8-E	B-DD-MM8-E
REC. 1ST LEVEL SPARES (4K)	A-PL-SP8-FA-0
REC. 1ST LEVEL SPARES (8K&16K)	A-PL-SP8-FC-0
REC. 2ND LEVEL SPARES	A-PL-SP8-MB-0
TELETYPE, ASR33 ACCESSORY LIST	A-AL-LT33-0-12
CUSTOMER PANEL DATA	D-MD-7605994-0-0
SYSTEM POWER WIRING DIAGRAM	D-IC-PDP8M-0-3
OPTION ARRANGEMENT	E-AR-PDP8M-0-1
PACKAGING INSTRUCTIONS	A-PI-3700055-0-0

SEQUENCE	MFG. SET
PDP8F ASSY. PROCEDURE	A-SP-PDP8F-0-5
POWER SUPPLY ASSY PROC.	A-SP-PDP8M-0-8
MANUFACTURING TEST PROC.	A-SP-PDP8E-0-8
OPTION POWER REQUIREMENTS	A-SP-PDP8E-0-11
DEC/X8 CHECKOUT & ACCEPT. PROC.	A-SP-PDP8E-0-13
MAN. ENVIRONMENT TEST PROC.	A-SP-7665114-0-0
INSPECTION & ACCEPT. PROC.	A-SP-7665165-0-0

THIS IS PRINT SET ☐☐☐☐

UNIT VARIATIONS

VAR	TITLE	PRINT SET PDP8F-Ø
PDP8F-AA	OBSOLETE	X
PDP8F-AB	OBSOLETE	X
PDP8F-AE	OBSOLETE	X
PDP8F-AF	OBSOLETE	X
PDP8F-AH	115V, 4K, KC8-FL, KL8-E	X
PDP8F-AJ	230V, 4K, KC8-FL, KL8-E	X
PDP8F-AK	115V, 8K, KC8-FL, KL8-E	X
PDP8F-AL	230V, 8K, KC8-FL, KL8-E	X
PDP8F-AS	115V,16K, KC8-FL, KL8-E	X
PDP8F-AT	230V,16K, KC8-FL, KL8-E	X
PDP8F-CA	OBSOLETE	X
PDP8F-CB	OBSOLETE	X
PDP8F-CE	OBSOLETE	X
PDP8F-CF	OBSOLETE	X

REVISIONS	DATE	CHG. NO.	REV
	12/7/73	PDP8F-6 REVISED & REDRAWN	F
	3/6/73	PDP8F-7	H

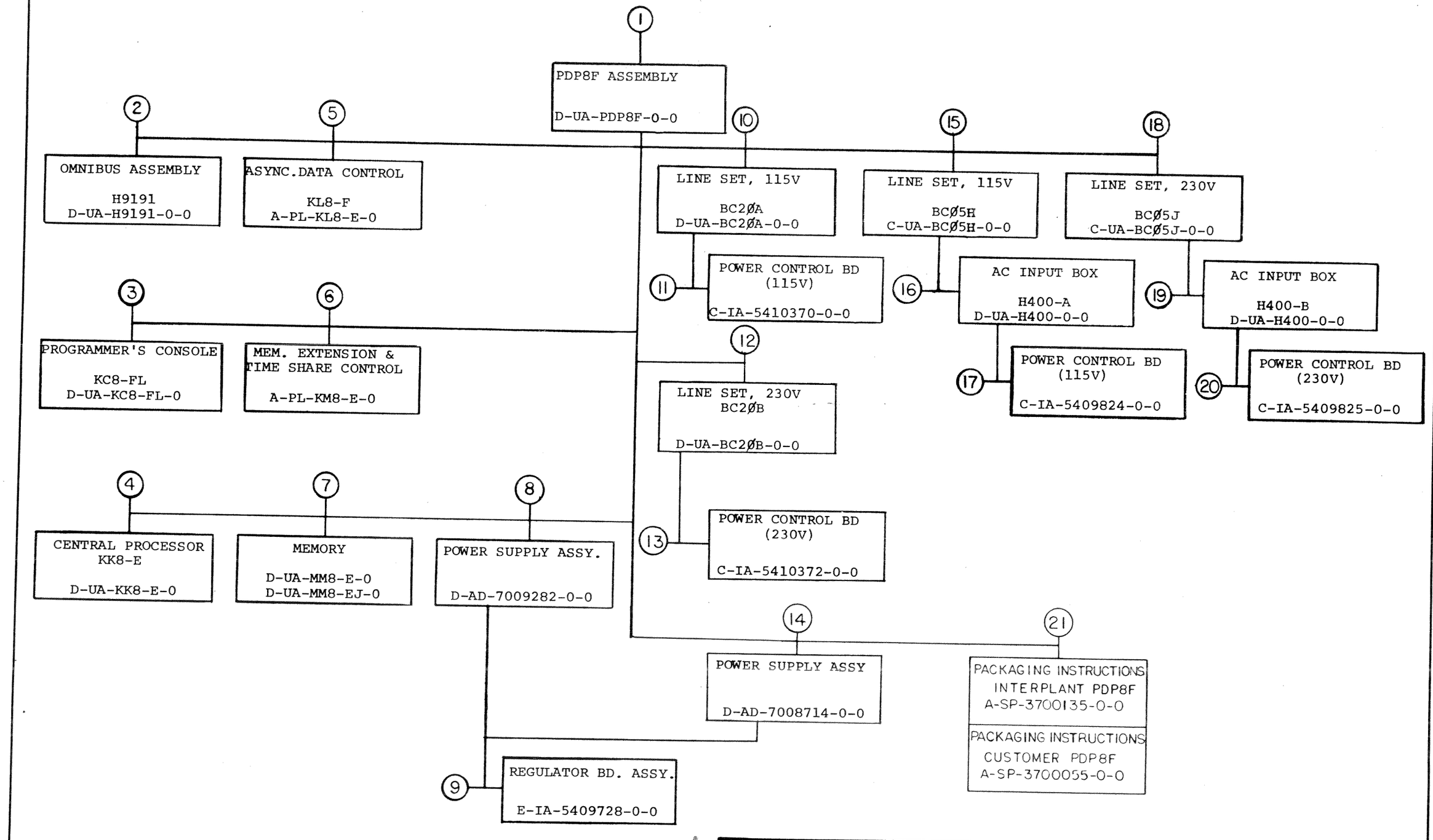
DEC 16-(3251-1062-1A-R972

DRB 106

USED ON OPTION/MODEL	
PDP8F	

SHEET 1 OF 5

DRN. J. KALAGHER	DATE 2/12/73	TITLE PDP8F
CHK'D. J. CAHILL	DATE 3/2/73	
PROJ ENG. P. GARDNER	DATE 3/6/73	
PROD. ALLEN	DATE 3/6/73	SIZE B / CODE DD / NUMBER PDP8F-0 / REV H
FIELD SERV. QUINN	DATE 3/6/73	DIST



TITLE		SIZE	CODE	NUMBER	REV
PDP8F	SHEET 2 OF 5	B	DD	PDP8F-Ø	H

DRB 107
DEC 16—(325)—1062—3—N871

ELECTRICAL

CUSTOMER PRINT SET PDP8F-Ø	SET MFG.	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
X		1	A-SL-PDP8F-Ø-3	B	1	SOFTWARE LIST	
X			A-AL-PDP8F-Ø-4	C	1	ACCESSORY LIST	
	X		A-SP-PDP8F-Ø-5	A	4	PDP8F ASSEMBLY PROCEDURE	
X			A-SP-PDP8E-Ø-4	#	2	RECOMMENDED OMNIBUS ASSIGN	PDP8E
X			D-TD-PDP8E-Ø-5	#	2	TIMING DIAGRAM	PDP8E
X			E-FD-PDP8E-Ø-6	#	1	FLOW DIAGRAM	PDP8E
	X		A-SP-PDP8E-Ø-8	#	14	MANUFACTURING TEST PROCEDURE	PDP8E
	X		A-SP-PDP8E-Ø-11	#	5	OPTION POWER REQUIREMENTS	PDP8E
	X		A-SP-PDP8E-Ø-13	#	15	DEC/X8 CHECKOUT & ACCEPT. PROC.	PDP8E
X			E-AR-PDP8M-Ø-1	#	1	OPTION ARRANGEMENT	PDP8M
X			A-SP-PDP8M-Ø-2	#	20	FIELD INSTALLATION PROCEDURE	PDP8M
X			D-IC-PDP8M-Ø-3	#	1	SYSTEM POWER WIRING	PDP8M
X			A-PL-SP8-FA-Ø	A	1	REC. 1ST LEVEL SPARES (4K)	
X			A-PL-SP8-FC-Ø	*	1	REC. 1ST LEVEL SPARES (8K&16K)	
X			A-PL-SP8-MB-Ø	#	4	REC. 2ND LEVEL SPARES	PDP8M
X			A-AL-LT33-Ø-12	#	1	ASR33 ACCESSORY LIST	LT33
			A-PL-LT33-SB-Ø		1	LT33 RECOMMENDED SPARE PARTS	LT33
			A-PL-LT33-ST-Ø		2	LT33 TOOL KIT	LT33
	X		A-SP-7665114-0-0	#	12	MAN. ENVIRONMENTAL TEST PROC.	
	X		A-SP-7665165-0-0	#	24	INSPECTION & ACCEPTANCE PROC.	
C		3	B-DD-KC8-FL	#	3	PROGRAMMER'S CONSOLE	
C		4	A-ML-KK8-E	#	2	CENTRAL PROCESSOR	PDP8E
C		5	A-ML-KL8-E	#	2	ASYNC. DATA CONTROL	PDP8E

ELECTRICAL

CUSTOMER PRINT SET PDP8F-Ø	SET MFG	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
C		6	A-ML-KM8-E	#	2	MEM. EXT. & TIME SHARE CONTROL	PDP8E
C		7	B-DD-MM8-E	#	3	MEMORY (MM8-E & MM8-EJ)	PDP8E
X		9	E-IA-5409728-0-0	#	1	REGULATOR BOARD ASSEMBLY	11/Ø5
X			D-CS-5409728-0-1	#	1	REGULATOR BOARD CIRCUIT	
			B-MH-5409728-0-6		3	MODULE ECO HISTORY	
		11	C-IA-5410370-0-0		1	POWER CONTROL BOARD (115V)	BC2ØA
			B-MH-5410370-0-6		1	MODULE ECO HISTORY	
		13	C-IA-5410372-0-0		1	POWER CONTROL BOARD (230V)	BC2ØB
			B-MH-5410372-0-6		1	MODULE ECO HISTORY	
		17	C-IA-5409824-0-0		1	POWER CONTROL BOARD (115V)	H4ØØ
			B-MH-5409824-0-6		1	MODULE ECO HISTORY	
		20	C-IA-5409825-0-0		1	POWER CONTROL BOARD (230V)	H4ØØ
			B-MH-5409825-0-6		1	MODULE ECO HISTORY	

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TITLE	SHEET	SIZE	CODE	NUMBER	REV
PDP8F	3 OF 5	B	DD	PDP8F-0	H

DRB 108

DEC 16-(325)-1062-2B-R972

MECHANICAL

CUSTOMER PRINT SET PDP8F-Ø	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
X		1	D-UA-PDP8F-Ø-Ø	H	6	PDP8F UNIT ASSEMBLY	
X			C-PL-PDP8F-Ø-Ø	H	2	PDP8F UNIT ASSEMBLY (PL)	
			A-PS-1210302-0-0		1	FOAM PAD	PDP8E
			D-IA-7008537-0-0		1	AC HARNESS (OBSOLETE)	
			C-IA-7008674-0-0		1	MICRO SWITCH HARNESS	
			D-IA-7008675-0-0		1	DC HARNESS (OBSOLETE)	
			D-IA-7009281-0-0		1	AC HARNESS	
			C-MD-7407449-0-0		1	COVER STRIP	PDP8E
			D-MD-7408861-0-0		1	CHASSIS SLIDES, 22 IN. TRAVEL	PDP8E
			C-IA-7409377-0-0		1	STRAIN RELIEF, EXP. (OBSOLETE)	
			E-IA-7409379-0-0		2	CHASSIS (OBSOLETE)	
			D-IA-7409380-0-0		1	COVER (OBSOLETE)	
			C-IA-7409387-0-0		1	STRAIN RELIEF, CABLE (OBSOLETE)	
			D-IA-7409419-0-0		1	BRKT. CABLE TROUGH (OBSOLETE)	
			C-IA-7409424-0-0		1	FILTER, SIDE (OBSOLETE)	
			E-IA-7410740-0-0		3	CHASSIS	
			D-IA-7410748-0-0		1	REAR COVER	
			C-IA-7410749-0-0		1	STRAIN RELIEF, CABLE	
			C-IA-7410750-0-0		1	BRACKET, KEY SWITCH	
			D-IA-7410751-0-0		1	TOP COVER	
			C-IA-7410752-0-0		1	STRAIN RELIEF, EXPANDER	
			B-IA-7410753-0-0		1	SUPPORT BRACKET	
			C-MD-7410754-0-0		1	SUPPORT BRACKET (OBSOLETE)	
			C-IA-7410768-0-0		1	SIDE FILTER	
			A-DC-7410910-0-0		1	DECAL	
X			D-MD-7605994-0-0	#	2	CUSTOMER PANEL DATA	
			D-IA-7606477-0-0		1	PDP8M CHASSIS PROTECTOR	PDP8M
C		2	A-ML-H9191-Ø	#	2	OMNIBUS ASSEMBLY (H9191)	

MECHANICAL

CUSTOMER PRINT SET PDP8F-Ø	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
X		8	D-AD-7009282-0-0	#	1	POWER SUPPLY ASSEMBLY	
	X		A-SP-PDP8M-Ø-8	*	3	P.S. ASSEMBLY PROCEDURE	
			E-IA-7009279-0-0		1	TRANSFORMER ASSEMBLY	
			D-IA-7009280-0-0		1	DC HARNESS	
			D-IA-7009452-0-0		1	THERMOSTAT ASSEMBLY	
			D-IA-7410746-0-0		1	CHASSIS, POWER SUPPLY	
			A-DC-7410790-0-0		1	DECAL	
X		10	D-UA-BC2ØA-Ø-Ø	#	1	LINE SET, 115V	
			D-IA-5309845-0-0		1	BOX, AC INPUT	BCØ5H
			C-MD-5310373-0-0		1	COVER, AC INPUT	
			B-SS-5310373-0-1		1	SILK SCREEN, COVER	
			A-DC-5310438-0-0		1	DECAL, (115V)	
X		12	D-UA-BC2ØB-Ø-Ø	#	1	LINE SET, 230V	
			D-IA-5309845-0-0		1	BOX, AC INPUT	BCØ5H
			C-MD-5310373-0-0		1	COVER, AC INPUT	
			B-SS-5310373-0-1		1	SILK SCREEN, COVER	
			A-DC-5310439-0-0		1	DECAL (230V)	
X		14	D-AD-7008714-0-0	#	1	POWER SUPPLY ASSY. (OBSOLETE)	
			D-IA-7008534-0-0		1	SECONDARY HARNESS	
			C-IA-7409375-0-0		1	BRACKET ETCH BD. SUPPORT	
			D-IA-7409376-0-0		2	CHASSIS, POWER SUPPLY	
			A-DC-7409651-0-0		1	POWER SUPPLY DECAL	
X		15	C-UA-BCØ5H-Ø-Ø	#	1	LINE SET, 115V (OBSOLETE)	11/Ø5

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TITLE	SHEET	SIZE	CODE	NUMBER	REV
PDP8F	4 OF 5	B	DD	PDP8F-0	H

DRB 108

DEC 16-(325)-1062-2B-R972

MECHANICAL

CUSTOMER PRINT SET PDP8F-Ø	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
		16	D-UA-H4ØØ-0-0		1	AC INPUT BOX, H4ØØ-A	BCØ5H
			D-IA-5309845-0-0		1	BOX, AC INPUT	
			C-MD-5309849-0-0		1	COVER	
			A-DC-5309899-0-0		1	DECAL, (115V)	
X		18	C-UA-BCØ5J-0-0	#	1	LINE SET, 230V (OBSOLETE)	11/05
		19	D-UA-H4ØØ-0-0		1	AC INPUT BOX, H4ØØ-B	BC2ØJ
			D-IA-5309845-0-0		1	BOX, AC INPUT	
			C-MD-5309849-0-0		1	COVER	
			A-DC-5309900-0-0		1	DECAL (230V)	
X		21	A-SP-3700135-0-0		3	PACK INST INTERPLANT PDP8F	
			A-PS-9905440-0-0			SCORED SHEET	
			A-PS-9905321-0-0			LAMINATED BUILDUP	
			A-PS-9905416-0-0			REGULAR SLOTTED CARTON	
			A-PS-9905129-0-0			POLY BAG	
			A-PS-9905729-0-0			CARTON SEALING TAPE	
			A-SP-3700055-0-0			PACK INST CUSTOMER PDP8F	
			A-PS-9905657-0-0			FULL TELESCOPE CAP	
			A-PS-9905655-0-0			FOAM PAD	
			A-PS-9905656-0-0			LAMINATED BUILDUP	
			A-PS-9905734-0-0			PLASTIC STRAPPING	

MECHANICAL

CUSTOMER PRINT SET PDP8F-Ø	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
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PDP8F	SHEET 5 OF 5	B	DD	PDP8F-0	H

DRB 108

DEC 16-(325)-1062-2B-R972

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DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION

DATE 8/18/73

TITLE PDP8/F or PDP8/M FIELD INSTALLATION PROCEDURE

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE
B	REWRITTEN	PDP8M-00019	P.GARDNER	7/72	[illegible]	12/3/73

ENG	APPD	SIZE	CODE	NUMBER	REV
Paul Gardner	Paul Gardner	A	SP	PDP8M-0-2	B

DEC 16-(392)-1079-N971
DRA 107

1.0 Scope

1.1 The purpose of this document is to assist the person who has the task of performing the installation of a basic PDP8/F or PDP8/M and has had little or no exposure to Digital Equipment Corporation's computers or computer programming. More advanced and detailed information is available in the following documents:

Small Computer Handbook
Introduction to Programming
PDP8/E, PDP8/F and PDP8/M Maintenance Manuals,
Volumes 1, 2, and 3.

2.0 Installation Requirements

2.1 The PDP8/F/M is general purpose computer that has practically unlimited applications. The basic computer can be ordered in many configurations. The PDP8/F/M can be ordered already mounted in a cabinet. To verify correct operation of the computer, a Programmer's Console (KC8-ML/KC8-FL) and an LT33 Teletype and its control (KL8-E) are necessary.

3.0 Unpacking Instructions

3.1 Use the following checklist to unpack the PDP8/F or PDP8/M.

PDP8/F or PDP8/M Without Cabinet

1. Check shipping tags attached to carton to verify that all boxes belonging to the shipment have arrived.*

2. Open the top of the carton and remove the polyurethane foam filler.

3. Carefully remove the laminated corrugated cardboard from top, sides, and the console of the computer.

4. Lift the computer, in its polyethylene bag, out of the carton and place it on a table or bench. If the computer is to be re-shipped, save all packing material.

5. Remove the polyethylene bag, untape the power cord, and remove the pair of keys from the rear.

6. Inspect the computer for damage.*

7. Unpack any other boxes included in the shipment.

8. Check that all equipment, software, manuals, etc., are present as specified on the Key Sheet, Software List, and Accessory List, respectively. (The Software and Accessory Lists are contained within the print set.) If any item is missing, notify the nearest Digital Sales Office.

*If an entire box is missing or damage is evident, notify the carrier immediately.

3.2 PDP8/F or PDP8/M with Cabinet

1. Inspect the container exterior for damage.*

2. Remove any straps, corrugated cardboard, or plywood.

3. Remove the polyethylene cover and console covering; inspect for damage.*

4. Remove the shipping pins from rear door.

5. Remove cabinet sides by gripping the edges and lifting straight up.

6. Unbolt the cabinet from the shipping skid.

7. Raise the four leveling feet above the level of the casters so that the weight is on the casters.

8. Use wooden blocks and planks to form a ramp from the skid to the floor; carefully roll the cabinet onto the floor.**

9. Roll the cabinet to the prepared location.

10. Lower all leveling feet to help support the weight.

11. If not already attached, attach the two cabinet legs to the front. (The legs will be found in the package with the software, etc.)

12. Remove the shipping screws from the rear of the chassis slides.

13. Undo the power cord and put the plug end through the bottom of the cabinet.

14. Remove the keys from the rear of the computer.

15. Replace the cabinet sides.

16. Unpack any other boxes included in the shipment.

17. Check that all equipment, software, manuals, etc., are present as specified on the Key Sheet, Software List, and Accessory List, respectively. (The Software and Accessory Lists are contained within the print set.) If any item is missing, notify the nearest Digital Sales Office. If any carton is missing, notify the carrier immediately.

* If damage is evident, notify the carrier immediately.
**It is recommended that at least two people perform this task.

4.0 PDP8/F/M Description

4.1 The prime units that constitute a basic PDP8/F or PDP8/M are:

Chassis
OMNIBUS
Power Supply
Processor Modules
Memory and Memory Control Modules
Console (optional types for PDP8/M)

4.2 Two types of memory, which differ as to the maximum capacity of data storage, are available; they are commonly referred to as 4K (kilo) and 8K memories.*

4.2.1 MM8-E - which contain 4096 memory locations (addresses); each can store a 12-bit (character) computer word.

4.2.2 MM8-EJ - which contains 8192 memory locations; each can store a 12-bit computer word.

4.2.3 The basic computer's capacity is expandable up to a maximum 32K total with the addition of either 4K or 8K memories.

*A basic PDP8/F or PDP8/M with an 8K memory would have the G233, H212 (Memory), and G111 modules installed instead of the G227, H220 (Memory), and G104 modules, respectively.

5.0 Environment and Power Requirements

5.1 Recommended operating conditions for a typical computer system provide an ambient temperature of 20° - $22^{\circ}C$ (68° - $72^{\circ}F$) with a noncondensing relative humidity of 40 - 50%. Voltage requirements can be from 95 - 130V AC and 47 - 63 Hz., single phase (using approximately 6A), or 185 - 250V AC and 47 - 63 Hz., single phase (using approximately 3A). Check the label at the rear of the computer to determine the correct voltage.

WARNING

For safety reasons, the computer and cabinet must be grounded properly. Be sure that the AC outlet provides a third pin ground.

For complete specifications refer to the PDP8/E, PDP8/F and PDP8/M Maintenance Manual, Volume 1.

6.0 Power-Up Procedure

NOTE

After unpacking the computer, allow at least thirty (30) minutes for the machine to stabilize to ambient temperature before applying power. (This time should be increased to one hour or longer when the difference between storage or shipping temperature and the operating ambient temperature exceeds $20^{\circ}F$ ($10^{\circ}C$).

6.1 1. Attach the foam air filter to the right side of the computer, as viewed from the front.

2. Connect the Teletype signal cable to the short cable in the PDP8/F/M.* The cable connectors are keyed for proper mating.

3. Ensure the PDP8/F/M OFF/POWER/PANEL LOCK Switch and the Teletype LINE/OFF/LOCAL switch are in the OFF position.

CAUTION

Both the Teletype and PDP8/F/M should receive power from the same AC source.

4. Plug the PDP8/F/M and Teletype into the AC outlet. If the computer is mounted in a DEC cabinet, the AC outlets provided inside on the 861 Control labeled SWITCHED should be used for the Teletype.

5. If the PDP8/F/M is mounted in a DEC cabinet, put power control circuit breaker, located at the bottom of the cabinet, to ON and the switch directly above to REMOTE ON.

6. Insert the key into the OFF/POWER/PANEL LOCK on the computer console and turn clockwise 90 degrees to the POWER position. (In the PANEL LOCK position, the function switches on the right side of the console will be disabled.) The fans should now be operating.

7. Turn the Teletype LINE/OFF/LOCAL switch to LINE. Only the low volume hum of the running motor will be heard.

CAUTION

Always be sure the power is OFF when removing or replacing modules and/or the computer cover.

*Refer to the installation procedure booklet to unpack and install the LT33 Teletype.

7.0 Operating the PDP8/F or PDP8/M

7.1 The PDP8/F/M accepts, understands and executes instructions, called programs, in computer language. This language is in binary numbers. On a basic computer, programs can be loaded into the computer's memory via two methods:

a. By hand, using the console switches.
b. By paper tape, using the mechanical reader of the Teletype.

Due to the time required for loading, the console method is only used for very short programs. Once a program is in memory it will remain indefinitely and can be run again and again, provided it is not disturbed by an operator or another program.

7.2 Diagnostic programs called MAINDECs, which are on paper tape, are designed to exercise sections of the computer's logic and indicate malfunctions. The MAINDECs should be run immediately after installation is completed and at regular intervals thereafter, depending on the environmental and operating conditions at the installation site. Each MAINDEC is supplied with a document giving a description of the test, its starting address, switch settings (if necessary), error indications, etc.

7.3 To load the computer with a diagnostic the PDP8/F/M requires two short programs in memory:

a. The READ IN MODE (RIM)
b. The BINARY LOADER

7.3.1 RIM is a short program (instructions) put into the computer memory by hand to enable the longer program, Binary Loader, which is on paper tape, to be read in. The Binary Loader, in turn, allows all binary tapes, which include the MAINDECs, to be read in.

7.3.2 For a PDP8/F/M with blank memory (no program in memory) the procedure would be:

1. Deposit RIM by hand via the console switches.

2. Using RIM, read in the Binary Loader via the Teletype reader.

3. Using Binary Loader, read in a MAINDEC program via the Teletype reader.

8.0 Octal Notation

8.1 The Switch Register, SR 0-11, is color-coded in groups of three; 0,1,2, being light in color; 3,4,5, darker; 6,7,8, light; and 9,10,11, dark. This was done for reasons other than appearance. The computer uses a binary method of counting; however, when dealing with large numbers, it is easier for people to express these values in the octal method of counting. Here's how it works. Using any group of three like-colored switches and ignoring the numerals directly above the switches, think of the right most switch of the three, when in the UP position, as equal to the value "1". Think of the middle switch of the three, when in the UP position, as equal to the value "2". Think of the left most switch of the three, when in the UP position, as equal to the value of "4".

When all three switches are in a down position, the total value is 0 (zero). If we always refer to each switch by the value assigned to it, it is possible to have any total value between the three switches of 0-7 (zero to seven). Depending on which switches are up or down, this gives us eight possibilities, hence the term "octal". Putting the four groups of color-coded switches together, we can express a four-digit number.

9.0 The Console

NOTE

The following is not intended to cover the console in its entirety but to give sufficient information to load and run MAINDECs. For a complete description, refer to the Small Computer Handbook and the PDP8/E, PDP8/F and PDP8/M Maintenance Manual, Volume I.

9.1 By manipulating the console switches, data in the form of 12-bit (character) words can be deposited into the computer's memory or read out. These 12-bit words are in octal notation.

9.2 As explained previously, a 4K memory contains 0000 to 4095 locations (addresses) into which 12-bit words can be deposited. Converted to octal, 4095 is equal to 7777; this is what can be obtained with Switch register switches 0-11. Before we can select a memory address, we must first select the memory, or more correctly, the 4K Instructions Field (IF) and the Data Field (DF). To make this selection, switches 6,7, and 8 are set to the octal value equal to the Instruction Field and 9, 10, and 11 to the Data Field desired (all other switches down) and EXT ADDR LOAD (Extended Address Load) is pressed. To select an address within the field, set the octal value in switches 0-11 and press ADDR LOAD, the MEMORY ADDRESS lights will then display this octal value.

Example: Suppose with a PDP8/M that has 16K of memory (4 fields) it is desired to address 0200 octal of Field 3 (Field 3 in this case would be the

highest field because, being in octal, the first 4K would be addressed as 0 (zero)).

1. Set all switches (0-11) down, then set switches 7,8,10, and 11 up.

2. Set the indicator selector knob to STATUS.

3. Press EXT ADDR LOAD.

This procedure selects Instruction Field 3 and Data Field 3 (in octal). This is displayed in the STATUS lights above IF0, IF1, IF2, DF0, DF1, and DF2; octal 3 will also be displayed by the EMA lights. (The IF, DF, and EMA lights will light only if more than 4K of memory is available.)

4. Set all switches (0-11) down, then set switch 4 up (octal 0200).

5. Press ADDR LOAD.

The MEMORY ADDRESS lights will now display 0200 octal.

9.3 If, in the previous example, the PDP8/M only had a 4K memory (1 field), and 0200 octal of it was to be addressed, the procedure would be the same except that in step 1 all switches would remain down, thereby selecting IF0 (octal) and DF0 (octal).

9.4 To deposit data into the memory address, the Switch register (0-11) is set to the octal value desired and the DEP switch is lifted. By positioning the Indicator Selector knob on MD (memory data) this 12-bit word is displayed.

9.5 To examine (read out) a data word from memory, the memory address is selected and EXAM is pressed. The memory word is displayed in the MD lights.

9.6 If sequential memory addresses are to be examined or deposited into, it is not necessary to select each address since the MEMORY ADDRESS is automatically incremented each time the EXAM or DEP switch functions.

10.0 RIM

NOTE

From this point on, each of the following steps must be performed in the order presented. Skipping instructions or jumping ahead will result in loss of time and confusion. The square boxes to the left of instructions indicate that the operator must perform an operation. Checking (☐) the box with pencil when each instruction has been performed reduces the chance of overlooking a step.

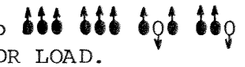
10.1 Loading

☐ 1. With computer power on, press the HALT Switch. Set Switch register switches 0-11 down, press EXTD ADDR LOAD (this selects octal memory 0), and position the selection switch to MD.

☐ 2. Perform the following set of switch manipulations. In each step, there are 12 figures which correspond to the twelve switches labeled the Switch Register (SR) on the front of the computer. The black circle with up-arrow symbol indicates that the corresponding switch should be set to its "up" position. The white circle with down-arrow symbol means that the corresponding switch should be set in its "down" position. After the ADDR LOAD function is performed, the MEMORY ADDRESS lights should be equal to the black and white symbols, black being lit, white unlit. After the DEP function has been performed, the MD lights should equal the black and white symbols. The four digit number to the right is the octal value of the switch settings.

Set SR to:	↑↑↑ ↑↑↑ ↓↓↓ ↑↑↑ then press ADDR LOAD	7756
Set SR to:	↑↑↓ ↓↓↓ ↓↑↑ ↓↑↓ then lift DEP	6032
Set SR to:	↑↑↓ ↓↓↓ ↓↑↑ ↓↓↑ then lift DEP	6031
Set SR to:	↑↓↑ ↓↑↑ ↑↓↑ ↑↑↑ then lift DEP	5357
Set SR to:	↑↑↓ ↓↓↓ ↓↑↑ ↑↑↓ then lift DEP	6036
Set SR to:	↑↑↑ ↓↓↑ ↓↓↓ ↑↑↓ then lift DEP	7106
Set SR to:	↑↑↑ ↓↓↓ ↓↓↓ ↑↑↓ then lift DEP	7006
Set SR to:	↑↑↑ ↑↓↑ ↓↓↑ ↓↓↓ then lift DEP	7510
Set SR to:	↑↓↑ ↓↑↑ ↑↓↑ ↑↑↑ then lift DEP	5357
Set SR to:	↑↑↑ ↓↓↓ ↓↓↓ ↑↑↓ then lift DEP	7006
Set SR to:	↑↑↓ ↓↓↓ ↓↑↑ ↓↓↑ then lift DEP	6031
Set SR to:	↑↓↑ ↓↑↑ ↑↑↓ ↑↑↑ then lift DEP	5367
Set SR to:	↑↑↓ ↓↓↓ ↓↑↑ ↑↓↓ then lift DEP	6034
Set SR to:	↑↑↑ ↑↓↓ ↓↓↓ ↓↓↓ then lift DEP	7420
Set SR to:	↓↑↑ ↑↑↑ ↑↑↑ ↑↑↓ then lift DEP	3776
Set SR to:	↓↑↑ ↓↑↑ ↑↑↑ ↑↑↓ then lift DEP	3376
Set SR to:	↑↓↑ ↓↑↑ ↑↓↑ ↑↑↓ then lift DEP	5356

3. After completing the above steps, the RIM can be checked by again setting the RIM starting address in the SR and examining each of the memory addresses.

4. Set SR to  (7756 octal) then press ADDR LOAD.

5. Press EXAM once, the octal value 6032 should be displayed in the MD. By pressing EXAM again and again, each subsequent memory address of the RIM loader can be examined for the correct data.

When you are sure the RIM loader is in the computer memory correctly, proceed with the Binary Loader.

11.0 The Binary Loader

11.1 Loading

1. Place the tape labeled Binary Loader, DEC-08-LBAA-PM, in the paper tape reader with the START/STOP/FREE lever set to FREE. Position the tape so that just the single row of data holes* at the beginning of the tape is over the read head.

2. Ensure that the LINE/OFF/LOCAL switch of the LT33 is set to LINE.

3. On the computer console, ensure that the HALT and SING STEP switches are up.

4. Set SR to:  (7756), then press ADDR LOAD. This is the starting address of the RIM loader.

5. Press the CLEAR switch.

6. Press the CONT switch. (The computer should now be in the run state as indicated by the RUN light.)

7. Set the paper tape reader START/STOP/FREE lever to the START position. The tape should now read in and continue to the end. If the tape fails to read in or stops before the end, go back to the loading RIM procedure. If all steps have been followed to the letter and, after several tries, the tape still fails to read in, refer to the warranty section located in the back of this booklet for service.

8. When the tape has read to the end, press HALT and the reader OFF switch.

*The tape may be placed so that any portion of the single data holes is over the read head, not necessarily the very first hole.

12.0 Loading and Running MAINDECs

12.1 After successfully loading the RIM and Binary Loader, the MAINDECs can be read in and run. The procedure for loading MAINDECs is the same for each, what may differ is the Switch register (SR) settings while the program is running. This information is contained in the document describing each MAINDEC. The following examples explain how to load and run two MAINDECs. Refer to their related documents and keep in mind the following procedures when using other MAINDEC documents. Table 1 lists the MAINDECs in the order they would normally be run.

12.2 Example 1

12.2.1 Memory Power On/Off Test (MAINDEC-8/E-D1GB-PB)

12.2.2 The purpose of this program is to ensure that in the case of a total power failure, the computer would automatically stop all operations without losing any data stored in memory.

12.2.3 Loading

1. Ensure that the computer is not in the run state* and that the SING STEP switch is up.

2. Place SR 0-11 down, press EXT ADDR LOAD. This selects memory zero.

3. Place SR 0-11 up (octal value 7777). Press ADDR LOAD. This is the Starting Address (SA) of the Binary Loader.

4. Place the program in the Teletype reader with the single row of holes at the beginning of tape over the reader head.

5. Press the CLEAR switch on the console, then the CONT switch.

6. a. Set the reader START/STOP/FREE lever to START. The tape should now read in and stop at the point where a single row of holes begins again at the end of the tape. At this time, the computer RUN light should be off.

   b. If the tape does not read in or stops before the end of data, recheck the RIM, reload the Binary Loader, and try again. If a read-in problem persists, try another MAINDEC to ascertain whether the problem is simply a defective tape. If other MAINDECs also fail to read-in, refer to your warranty for service.

7. After the MAINDEC has read in, place the selector switch on the console to AC, the data lights (but not the Memory Address lights) should be unlit.

8. Place the selector switch to STATUS, the light under the LINK should be lit.

   If the AC and LINK are other than the conditions stated in Steps 7 and 8, the computer is indicating that the program did not read in correctly. This could mean the tape is defective (torn, etc.), the RIM or Binary Loader is not in correctly, or that there may be a malfunction with the Teletype reader or the computer itself. Follow the same course of action as in Step 6b.

9. Press the reader OFF switch and remove the tape.

*If the computer RUN light is lit, press HALT, then put the halt switch up.

12.2.4 Running the MAINDEC

10. Load Address 0200 octal, i.e., SR: 000 010 000 000. Press ADDR LOAD. This is the starting address for the MAINDEC.

11. Press CLEAR and then CONT. The program should run a moment then halt (run light out) at address 0032 octal: 000 000 011 010. (Memory Address/lights)

12. Set SR to 0201 octal: 000 010 000 001. This is a new Starting Address (SA). Press ADDR LOAD, press CLEAR, then CONT. The program should now loop (repeating an operation over and over). In this case, the program is adding and checking the sums of two data patterns which are stored throughout memory.

13. While the program is looping, turn power off by placing the OFF/POWER/PANEL LOCK switch in the OFF position or by removing the plug.

NOTE

If the Teletype is plugged in independently (no DEC cabinet) it should be turned off first or else it will be heard to run open when the computer power is removed.

14. Apply power again. Set SR switches 0-11 down. Press EXTD ADDR LOAD.

15. Set Starting Address (SA) again to 0201 octal: 000 010 000 001.

16. Press ADDR LOAD, CLEAR, and then CONT.

12.2.5 The program should again loop indicating no loss of data during the power off/on process. If the program halts or does not appear to run as before, a malfunction may exist. If after reloading the program it still fails, refer to the warranty section located at the back of this booklet for service.

12.3 Example 2

12.3.1 Memory Checkerboard (MAINDEC-8/E-D1AB-PB)

12.3.2 This program tests the memory under worst-case conditions for the pick-up of data while writing various patterns and relocating the program, as well as the RIM and Binary Loader from one area of memory to another.

12.3.3 Loading*

17. The program is again read in using the Binary Loader. Set SR 0-11 down, press EXTD ADDR LOAD.

18. Set SA of Binary Loader in SR to 7777 octal: 111 111 111 111. Press ADDR LOAD.

19. Put the paper tape in the reader with the single row of holes at the beginning of tape over the reader head.

20. Press CLEAR, then CONT.

21. Set the reader START/STOP FREE lever to START. The tape should now read in and halt at the point where the single row of holes again begins.

22. Press the reader OFF switch.

23. Set the selector switch to AC; the AC should be unlit.

24. Set the selector switch to STATUS, the LINK should be lit.

*Ensure that the computer is not in the run state

12.3.4 Running the MAINDEC

25. Set the SA to 0200 octal: 000 010 000 000. Press ADDR LOAD.

26. Set the SR to 0000 octal: (SR 0-11 all down). Press CLEAR, then CONT.

The program now runs and will halt if it detects a malfunction (error). If there are no detected errors, the program continues to run until the operator stops it and will type a "5" on the printer every 5 minutes. In order for the program to test all of the memory without destroying itself and the RIM and Binary Loader, it relocates them to another part of memory some of the time. If it is desired that the relocation not take place, place SR 7 in the up position. To stop the program, put SR 7 and SR0 in the up position. The program could be stopped with the HALT switch; however, it is possible that the relocation process may be taking place and the program, RIM, or Binary Loader would be incomplete and, therefore, would not run when restarted.

27. The remaining MAINDECs may now be run. Refer to the recommended order list and related document for each.

TABLE 1
RECOMMENDED MAINDEC ORDER

Preferred Order	MAINDEC Name	MAINDEC #	Octal Start Address	Recommended Run Time	Indication On TTY
1	Memory On/Off Test	8/E-DLGA	0200		----
2	Memory Addr Test	8/E-DLEA	0200	5 min.	EA
3	Checkerboard Test	8/E-DLAA	200	15 min.	5
4	Instruction Test I	8/E-DOAA	0200	3 min.	Bell
5	Instruction Test II	8/E-DOBA	0200	3 min.	Bell
6	Adder Test	8/E-DOCA	0200	35 min.	1 Simad
					2 Simrot
					3 FTC
					4 Random
7	Basic JMP JMS Test	8/E-DOIA	200	3 min.	Bell
8	Random TAD Test	8/E-DOEA	0200	3 min.	T
9	Random AND Test	8/E-DODA	0200	3 min.	A
10	Random ISZ Test	8/E-DOFA	0200	3 min.	FA
11	Random DCA Test	8/E-DOGA	0200	3 min.	Bell
12	Random JMP Test	8/E-DOHA	0200	3 min.	HA

TABLE 1
RECOMMENDED MAINDEC ORDER (Con'd)

Preferred Order	MAINDEC Name	MAINDEC #	Octal Start Address	Recommended Run Time	Indication On TTY
13	Random JMP JMS	8/E-DOJA	0200	3 min.	JA
14	Teletype Control*	8/E-D2AA	0200	40 min.	

*The Teletype Control test is made up of 11 parts.

NOTE: When ordering from Program Library:
PB for Binary Tape, e.g., MAINDEC-DOAA-PB
D for Document, e.g., MAINDEC-DOAA-D.

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

SOFTWARE LIST

MADE BY P. GARDNER DATE 3-2-72	CHECKED P. GARDNER DATE 3-2-72	SECTION 1
ENG P. GARDNER DATE 3-9-72	PROD R. K. ALLEN DATE 4-21-72	ISSUED SECT. 1

LEGEND

D DOCUMENT
DN DOCUMENT CHANGE NOTICE
PA PAPER TAPE ASCII
PB PAPER TAPE BINARY
PM PAPER TAPE READ-IN-MODE

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION AJ AH AB AA	AT AS AL AK AF AE						KIT CHECK BY ____ DATE ____	INSTALLATION CHECK BY ____ DATE ____
1	B-DD-PDP8F-0	PDP8/F PRINT SET	1	1							
2	DEC-8E-HR1B-D	MAINTENANCE MANUAL VOL I	1	1							
3	DEC-8E-HR2A-D	MAINTENANCE MANUAL VOL II	—	1							
4		CUSTOMER ENVELOPE	1	1							
5	DEC-12-1015A	*CUSTOMER ACCEPTANCE SHEET	1	1							
6	DEC-3-1416	*ECO STATUS SHEET	1	1							
7	DEC-16-1000	*KEY SHEET	1	1							
8	DEC-3-1226	*SUPPLEMENTARY ACCESSORY LIST	1	1							
9		FORMS & CHECKLIST ENVELOPE	1	1							
10	DEC-7-1009	**CUSTOMER FOLLOW UP REPORT	1	1							
11		**CUSTOMER SERVICE LETTER	1	1							
12	DEC-7-1034	**SOFTWARE PERFORMANCE REPORT	1	1							
13	DEC-7-1-44	**SOFTWARE PERFORMANCE REPORT	1	1							
14	LIBKIT-8E-BASE	BASIC SOFTWARE KIT	1	1							
15	LIBKIT-8E-XBAS	EXTENDED SOFTWARE KIT	1	1							
16	LIBKIT-8E_KM8E	EXTENDED MEMORY DIAGNOSTIC KIT	-	1							
*	INCLUDED IN THE CUSTOMER ENVELOPE (ITEM #6)										
**	INCLUDED IN THE FORMS & CHECKLIST ENVELOPE (ITEM #11)										

TITLE	ASSY. NO.	SIZE	CODE	NUMBER	REV.	ECO NO
SOFTWARE LIST (PDP8/F)	B-DD-PDP8F-0	A	SL	PDP8F-0-3	B	PDP8F-00006
	SHEET 1 OF 1	DIST.				

DEC FORM NO. DEC 16-(327)-1049-N471
DRA 120

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ACCESSORY LIST

MADE BY P.GARDNER DATE 3-3-72	CHECKED P.GARDNER DATE 3-3-72	SECTION 1
ENG P.GARDNER DATE 3-9-72	PROD R.K.ALLEN DATE 4-21-72	ISSUED SECT. 1

LEGEND

D DOCUMENT
DN DOCUMENT CHANGE NOTICE
PA PAPER TAPE ASCII
PB PAPER TAPE BINARY
PM PAPER TAPE READ-IN-MODE

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QUANTITY/VARIATION: PDP8F-AA,AB	PDP8F-AE,AF	PDP8F-AH,AJ	PDP8F-AK,AL,AS,AT				KIT CHECK BY ____ DATE ____	INSTALLATION CHECK BY ____ DATE ____
1	B-DD-PDP8F-0	PDP8/F PRINT SET	1	1	1	1					
2	DEC-8E-HR1B-D	MAINTENANCE MANUAL VOL I	1	1	1	1					
3	DEC-8E-HR2A-D	MAINTENANCE MANUAL VOL II	-	1	-	1					
4		CUSTOMER ENVELOPE	1	1	1	1					
5		FORMS & CHECKLIST ENVELOPE	1	1	1	1					
6	LIBKIT-8E-BASE	BASIC SOFTWARE KIT	1	1	1	1					
7	LIBKIT-8E-XBAS	EXTENDED SOFTWARE KIT	1	1	1	1					
8	7408861	CHASSIS SLIDES	1	1	1	1					
9	7409424	FILTER, SIDE	1	1	-	-					
10	7410768	FILTER, SIDE	-	-	1	1					
11	LIBKIT -8E-KM8E	EXTENDED MEMORY SOFTWARE KIT	-	1	-	1					

TITLE	ASSY. NO.	SIZE	CODE	NUMBER	REV.	ECO NO
ACCESSORY LIST (PDP8/F	B-DD-PDP8F-0	A	AL	PDP8F-0-4	C	PDP8F 00006
	SHEET 1 OF 1	DIST.				

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ITEM NO.	DWG NO./PART NO.	DESCRIPTION	PDP8F-AA	PDP8F-AB	PDP8F-AE	PDP8F-AF	PDP8F-CA	PDP8F-CB	PDP8F-CE	PDP8F-CF	PDP8F-AH	PDP8F-AJ	PDP8F-AK	PDP8F-AL	PDP8F-AS	PDP8F-AT
1	E-IA-7409379-0-0	CHASSIS PDP8M	1	1	1	1	1	1	1	1	-	-	-	-	-	-
2	D-MD-7408861-0-0	SLIDE CHASSIS 22 IN TRAVEL	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	9006071-3	SCR PHL HD TRUSS #10-32 X .38	10	10	10	10	10	10	10	10	6	6	6	6	6	6
4	9006636	WASHER INT TOOTH LOCK #10	10	10	10	10	10	10	10	10	6	6	6	6	6	6
5	9007793-1	SCR PHIL HD PAN #6-32 X .56	9	9	9	9	9	9	9	9	8	8	8	8	8	8
6	9006560	NUT KEPS #6-32 X 5/16 X 5/32	3	3	3	3	3	3	3	3	2	2	2	2	2	2
7	9006020-1	SCR PHIL HD PAN #6-32 X .25	13	13	13	13	13	13	13	13	6	6	6	6	6	6
8	9007649	WASHER EXT TOOTH LOCK #6	1	1	1	1	1	1	1	1	-	-	-	-	-	-
9	D-IA-7409380-0-0	COVER	1	1	1	1	1	1	1	1	-	-	-	-	-	-
10	D-UA-KC8-FL-Ø	CONSOLE ASSY PROGRAMMER KC8-FL	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	~~9006035-1~~	~~SCR PHIL HD PAN #6/32 X .25~~	6	6	6	6	6	6	6	6	6	6	6	6	-	-
12	9006634	WASHER INT TOOTH LOCK #8	12	12	12	12	12	12	12	12	16	16	16	16	16	16
13	C-MD-7407449-0-0	COVER STRIP	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	C-IA-7409424-0-0	FILTER SIDE	1	1	1	1	1	1	1	1	-	-	-	-	-	-
15	1205033-1	FAN	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16	D-IA-7409419-0-0	BRKT CABLE THROUGH	1	1	1	1	1	1	1	1	-	-	-	-	-	-
17	C-UA-BCØ5H-Ø-Ø	LINE SET 115V	1	-	1	-	1	-	1	-	-	-	-	-	-	-
18	C-UA-BCØ5J-Ø-Ø	LINE SET 230V	-	1	-	1	-	1	-	1	-	-	-	-	-	-
19	D-AD-7008714-0-0	POWER SUPPLY ASSY	1	1	1	1	1	1	1	1	-	-	-	-	-	-
20	D-UA-H9191-Ø-Ø	OMNIBUS ASSY (H9191)	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	C-IA-7409377-0-0	STRAIN RELIEF EXPANDER	1	1	1	1	1	1	1	1	-	-	-	-	-	-
22	C-IA-7409387-0-0	STRAIN RELIEF CABLE	1	1	1	1	1	1	1	1	-	-	-	-	-	-
23	A-PS-1210302-0-0	FOAM PAD	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	9006653	WASHER, FLAT .375 OD X .156 ID X .032 THK	7	7	7	7	7	7	7	7	6	6	6	6	6	6
25	9008525	BUMPER RUBBER	4	4	4	4	4	4	4	4	4	4	4	4	4	4
26	D-IA-7008537-0-0	HARNESS A.C.	1	1	1	1	1	1	1	1	-	-	-	-	-	-
27	D-IA-7008675-0-0	HARNESS D.C.	1	1	1	1	1	1	1	1	-	-	-	-	-	-
28	C-IA-7008674-0-0	HARNESS MICRO SW	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	D-UA-KK8-E-0	CENTRAL PROCESSOR	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	D-UA-MM8-E	4K CORE MEMORY	1	1	-	-	1	1	-	-	1	1	-	-	-	-
31	A-PL-KL8-E	CONSOLE TTY CONT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	D-UA-MC8-EJ	8K MEMORY AND CONTROL (MM8-EJ & KM8-E)	-	-	1	1	-	-	1	1	-	-	1	1	1	1
33	9008072	WASHER, INTERNAL TOOTH, #8	-	-	-	-	-	-	-	-	1	1	1	1	1	1
34	1210789	LOCK ASSY	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	9006014-1	SCR PHIL HD PAN #4-40 X .62	4	4	4	4	4	4	4	4	4	4	4	4	4	4
36	9006800	SPACER ROUND AL. ¼ X ⅛ X #6	2	2	2	2	2	2	2	2	2	2	2	2	2	2
37	9006025-2	SCR PHIL FLAT HD #6-32 X .62	2	2	2	2	2	2	2	2	2	2	2	2	2	2
38	9008340	STRAIN RELIEF	1	1	1	1	1	1	1	1	1	1	1	1	1	1
39	D-UA-MM8-EJ-0	8K CORE MEMORY	-	-	-	-	-	-	-	-	-	-	-	-	1	1
40	H960-BC	MAIN CABINET 115V	-	-	-	-	1	-	1	-	-	-	-	-	-	-
41	H960-BD	MAIN CABINET 230V	-	-	-	-	-	1	-	1	-	-	-	-	-	-
42	9008202	MOUNTING CLIP	8	8	8	8	8	8	8	8	8	8	8	8	8	8
43	9009165	MTG CLIP	8	8	8	8	8	8	8	8	8	8	8	8	8	8

REVISIONS

REV.	CHANGE NO.	CHK	
D	PDP8F-4	JR	J.FERGUSON 3/6/73 P.GARDNER 3-7-73
E	PDP8F-00005	PM	P.GARDNER 5-17-73
F	PDP8F-00006	KB	P.GARDNER 12-17-73
H	PDP8F-00007	SM	P.GARDNER 5/29/74

FIRST USED ON OPTION/MODEL: PDP8F

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

MATERIAL

FINISH

		DATE
DRN.	D.SULLIVAN	3/5/73
CHK'D.	J.CAHILL	3/6/73
ENG.	P.GARDNER	3/7/73
PROJ. ENG.	P.GARDNER	3/7/73
PROD.	R.K.ALLEN	3/7/73

NEXT HIGHER ASSY. B-DD-PDP8F-Ø

SCALE

SHEET 1 OF 2

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: UNIT ASSY PDP8F

SIZE	CODE	NUMBER	REV.
C	PL	PDP8F-Ø-Ø	H

DIST.

DEC FORM NO. DRC 110

REV. H
NUMBER PDP8F-Ø-Ø
SIZE CODE C PL

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ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	PDP8F-AA	PDP8F-AB	PDP8F-AE	PDP8F-AF	PDP8F-CA	PDP8F-CB	PDP8F-CE	PDP8F-CF	PDP8F-AH	PDP8F-AJ	PDP8F-AK	PDP8F-AL	PDP8F-AS	PDP8F-AT
44	C-IA-7410750-0-0	BRKT KEY SWITCH	1	1	1	1	1	1	1	1	1	1	1	1	1	1
45	C-MD-7410754-0-0	BRKT SUPPORT	1	1	1	1	1	1	1	1	–	–	–	–	–	–
46	9006037-1	SCR PHL HD PAN #8-32 X .38	14	14	14	14	14	14	14	14	16	16	16	16	16	16
47	9006666	WASHER FLAT 500 OD X .187 ID X .032 THK	10	10	10	10	10	10	10	10	11	11	11	11	11	11
48	9006563	NUT KEPS #8-32	2	2	2	2	2	2	2	2	2	2	2	2	2	2
49	E-IA-7410740-0-0	CHASSIS	–	–	–	–	–	–	–	–	1	1	1	1	1	1
50	D-IA-7410751-0-0	COVER TOP	–	–	–	–	–	–	–	–	1	1	1	1	1	1
51	B-IA-7410753-0-0	BRACKET SUPPORT	–	–	–	–	–	–	–	–	1	1	1	1	1	1
52	C-IA-7410749-0-0	STRAIN RELIEF CABLE	–	–	–	–	–	–	–	–	1	1	1	1	1	1
53	C-IA-7410752-0-0	STRAIN RELIEF EXPANDER	–	–	–	–	–	–	–	–	1	1	1	1	1	1
54	D-IA-7410748-0-0	COVER REAR	–	–	–	–	–	–	–	–	1	1	1	1	1	1
55	D-IA-7009281-0-0	HARNESS AC	–	–	–	–	–	–	–	–	1	1	1	1	1	1
56	A-DC-7410910-0-0	DECAL, CHASSIS	–	–	–	–	–	–	–	–	1	1	1	1	1	1
57	D-AD-7009282-0-0	POWER SUPPLY ASSY	–	–	–	–	–	–	–	–	1	1	1	1	1	1
58	D-UA-BC20A-0-0	LINE SET 115V	–	–	–	–	–	–	–	–	1	–	1	–	1	–
59	D-UA-BC20B-0-0	LINE SET 230V	–	–	–	–	–	–	–	–	–	1	–	1	–	1
60	C-IA-7410768-0-0	FILTER SIDE	–	–	–	–	–	–	–	–	1	1	1	1	1	1
61	9007882-8	SCR SOC HD CAPTIVE BLK OXIDE #6-32X.35	–	–	–	–	–	–	–	–	2	2	2	2	2	2
62	9006633	WASHER INT TOOTH LOCK #6	14	14	14	14	14	14	14	14	8	8	8	8	8	8
63	~~9006782~~	~~BRACKET .187 DIA X .187 LG X #6 HOLE~~	–	–	–	–	–	–	–	–	2	2	2	2	–	–
64	1209351-03	SOC HOUSING MATE-N-LOK	–	–	–	–	–	–	–	–	1	1	1	1	1	1
65	9008141	SERIAL TAG	1	1	1	1	1	1	1	1	1	1	1	1	1	1
66	A-DC-5309414-0-0	DECAL UL APPROVAL	1	1	1	1	1	1	1	1	1	1	1	1	1	1
67	A-DC-5309413-0-0	DECAL NFPA TYPE II	1	1	1	1	1	1	1	1	1	1	1	1	1	1
68	~~A-DC-7409651-0-0~~	~~DECAL WARNING~~	–	–	–	–	–	–	–	–	1	1	1	1	–	–
69	DEC-4-1096B	OMINBUS ASSIGNMENT STICKER	1	1	1	1	1	1	1	1	1	1	1	1	1	1
70	A-SP-3700055-0-0	PACKAGING INST 8F CUSTOMER	1	1	1	1	1	1	1	1	1	1	1	1	1	1
71	A-SP-3700135-0-0	PACKAGING INST 8F INTERPLANT	1	1	1	1	1	1	1	1	1	1	1	1	1	1

REVISIONS | REV. | CHANGE NO. | CHK

FIRST USED ON OPTION/MODEL: PDP8F

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

MATERIAL

FINISH

DRN.	D.SULLIVAN	DATE 3/5/73
CHK'D.	J.CAHILL	DATE 3/6/73
ENG.	P.GARDNER	DATE 3/7/73
PROJ. ENG.	P.GARDNER	DATE 3/7/73
PROD.	R.K.ALLEN	DATE 3/7/73

NEXT HIGHER ASSY.
B-DD-PDP8F-Ø

SCALE

SHEET 2 OF 2

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE
UNIT ASSY PDP8F

SIZE	CODE	NUMBER	REV.
C	PL	PDP8F-Ø-Ø	H

DIST.

SIZE C | CODE PL | NUMBER PDP8F-Ø-Ø | REV. H

DEC FORM NO. DRC 110

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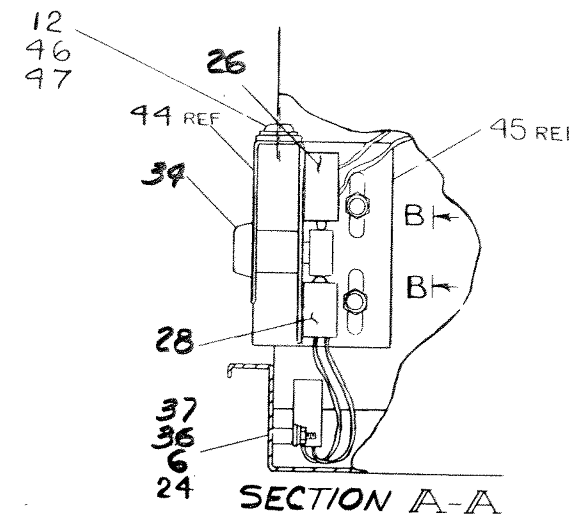
LEGEND #1

NUMBER	VARIATION
PDP 8F-O	BASIC 8/F END USER B/M WITH KC8-FL + KL8-E
PDP 8F-AA	RACK MOUNTABLE 8/F, 115V, 4K IN 12 IN BOX
PDP 8F-AB	RACK MOUNTABLE 8/F, 230V, 4K IN 12 IN BOX
PDP 8F-AE	PDP8F-AA WITH 8K
PDP 8F-AF	PDP8F-AB WITH 8K
PDP 8F-CA	CABINET MOUNTED 8/F, 115V, 4K IN 12 IN BOX
PDP 8F-CB	CABINET MOUNTED 8/F, 230V, 4K IN 12 IN BOX
PDP 8F-CE	PDP8F-CA WITH 8K
PDP8F-CF	PDP8F-CB WITH 8K

SEE SHEET #4 FOR LEGEND #2 (ADDITIONAL VARIATIONS)



SECTION A-A
SCALE: NONE

NOTES:

1. CONNECT TO TAB ON 5409668 (FRONT PNL. CONT. BD.) WHEN USING KC8-FL.

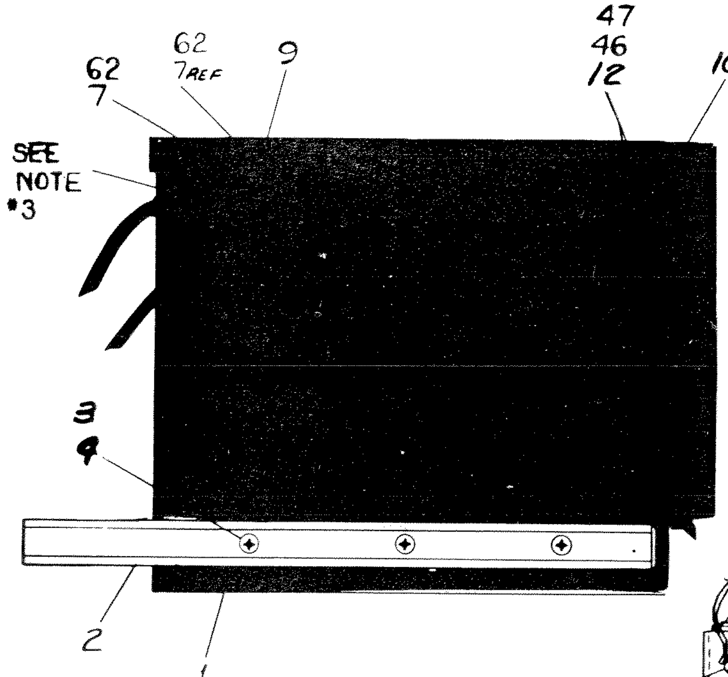
2. FOR PARTS LIST SEE DWG NO. C-PL-PDP8F-Ø-Ø

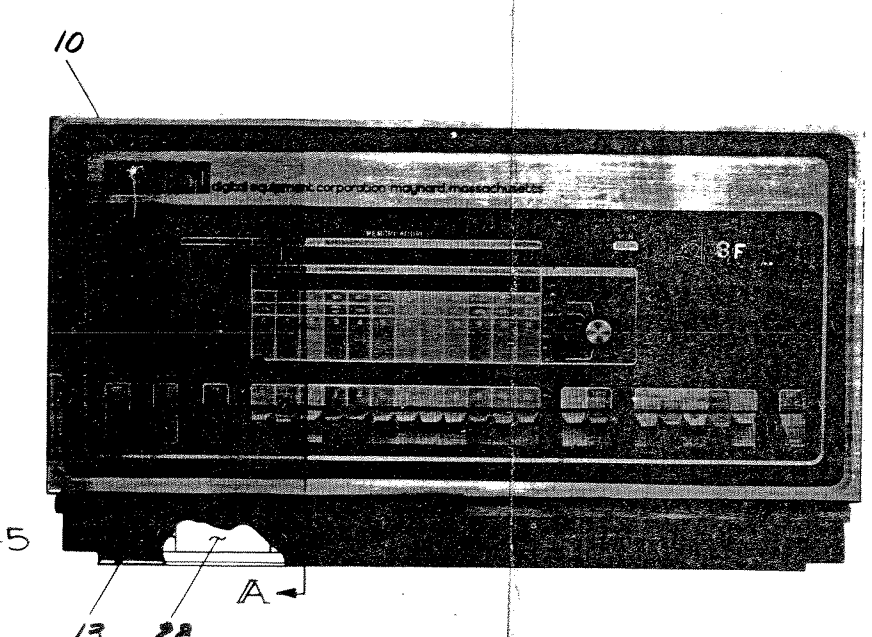
3. MOUNTING HARDWARE VARIATIONS FOR ITEM # 15 (FANS) ARE AS FOLLOWS:

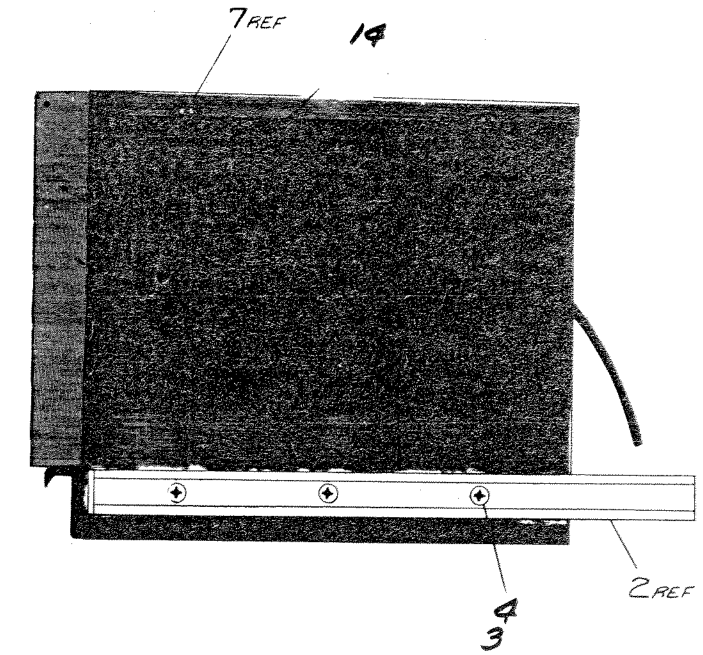
ITEM #6 FANS	MOUNTING HARDWARE ITEM NO.	DESCRIPTION
ROTRON	42	MOUNTING CLIP
	5	#6-32 X .56 SCREW
IMC	43	MOUNTING CLIP
	5	#6-32 X .56 SCREW

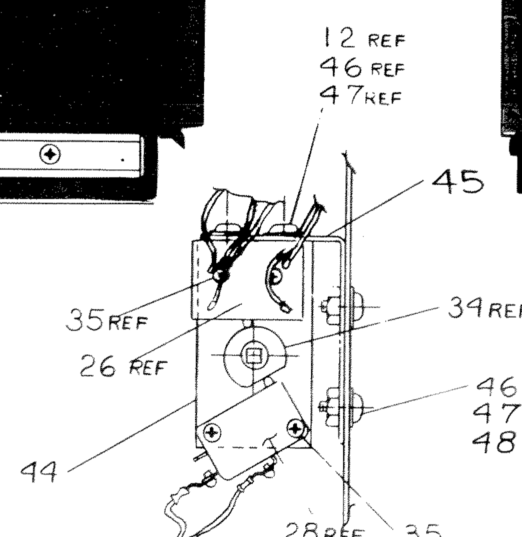
4. SHEETS #1, 2 & 3 ARE FOR VARIATIONS SHOWN IN LEGEND #1. SHEETS #4, 5 & 6 ARE FOR VARIATIONS SHOWN IN LEGEND #2.

NOTES CONTINUED ON SHEET #4









VIEW B-B
SCALE: NONE
KEY IN PANEL LOCK POSITION

REVISIONS			
CHK	CHANGE NO.		REV.
	PDP8F-00001	GARDNER 7-17-72	A
	PDP8F-00002	Beasley 11-17-72, P GARDNER 11-22-72	B
	PDP8F-00003	1-29-73, P GARDNER 1-25-73	C
	PDP8F-00004	P GARDNER 3-7-73	D
	PDP8F-00005	5-17-73, P GARDNER 5-16-73	E
	PDP8F-00006	12/5/73, P GARDNER 12-17-73	F
	PDP8F-00007	12 MAY 76, P. GARDNER 5/27/76	H

DEC FORM NO. DRD 100-A

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP 8F	PARTS LIST			

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES			
DECIMALS: .XXX = .005, .XX = .02, .X = .1	ANGLES: ±0° 30′		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓			
DRN	DATE 2-18-72		
CHKD	DATE 4-20-72		
ENG.	DATE 4-21-72		
PROJ. ENG	DATE 4-21-72		
PROD.	DATE 4-25-72		
MATERIAL —	NEXT HIGHER ASSY. B-DD-PDP8F-Ø		
FINISH —	SCALE —		
	SHEET 1 OF 6		

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: UNIT ASSY PDP 8F

SIZE	CODE	NUMBER	REV.
D	UA	PDP 8F-Ø-Ø	H

DIST. Q

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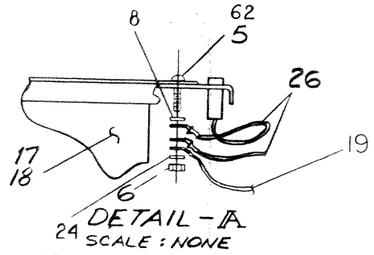
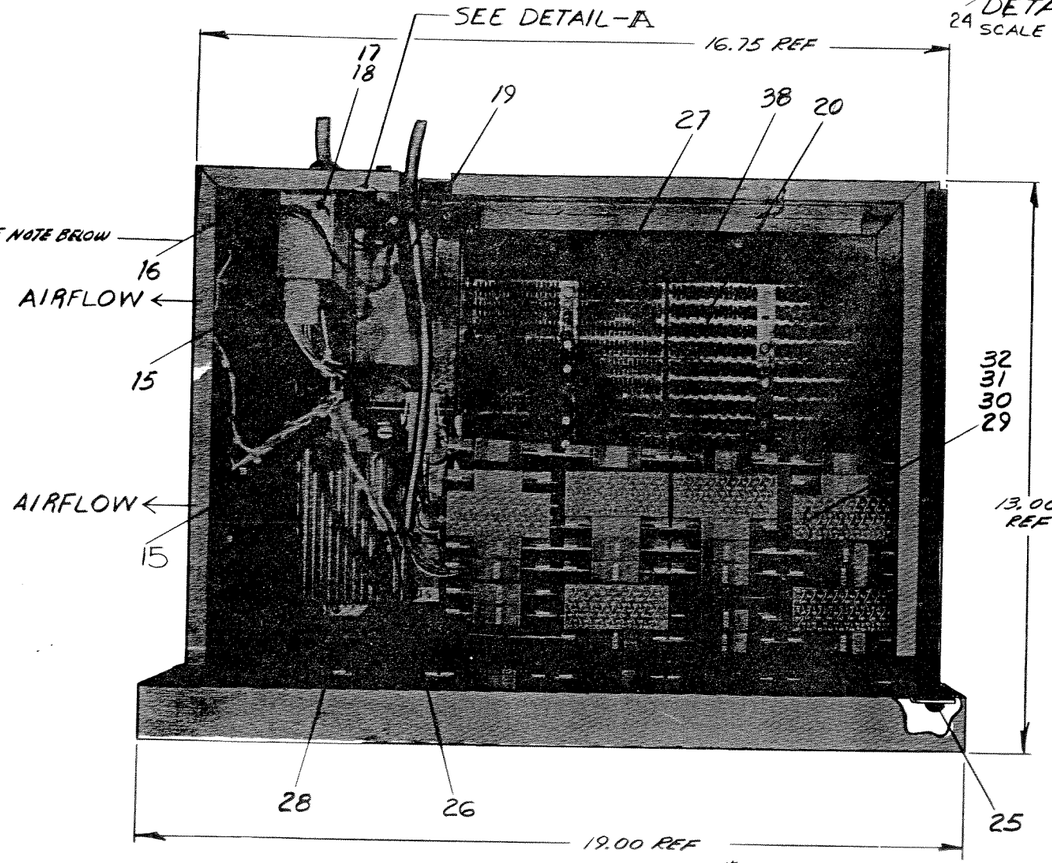
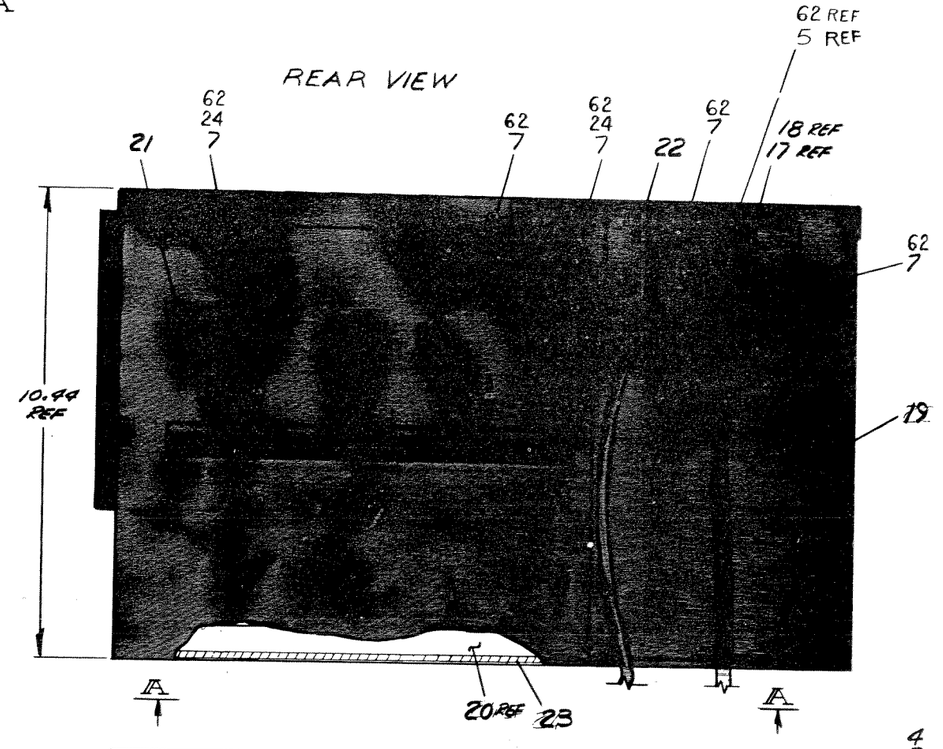


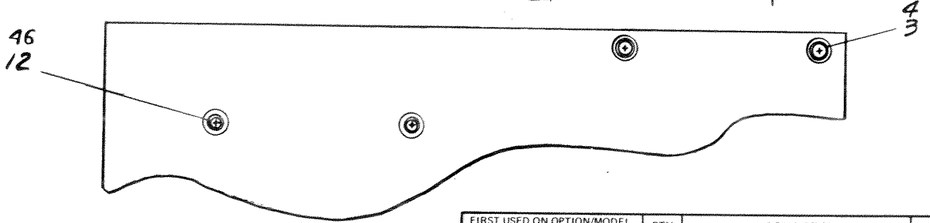
DETAIL-A
SCALE: NONE



TOP VIEW WITH COVER (ITEM #9), CABLE TROUGH (ITEM #16) & PORTION OF LOGIC REMOVED.

REAR VIEW





VIEW A-A (BOTTOM)
SCALE: NONE

REVISIONS		
REV.	CHANGE NO.	CHK.

FIRST USED ON OPTION/MODEL	QTY	DESCRIPTION	PART NO.	ITEM NO.
		PARTS LIST		

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES

DECIMALS	ANGLES
XXX ± .005 XX ± .02 X ± .1	± 0° 30'

REMOVE BURRS AND BREAK SHARP CORNERS. SURFACE QUALITY ✓

MATERIAL

FINISH

DRAWN	DATE	2-18-72
CHKD	DATE	4-20-72
ENG	DATE	4-21-72
PROJ. ENG	DATE	4-21-72
PROD	DATE	

NEXT HIGHER ASSY.

SCALE

SHEET 2 OF 3

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
UNIT ASSY
PDP8F

SIZE	CODE	NUMBER	REV.
D	UA	PDP 8F-Ø-Ø	H

DIST

SIZE D | CODE UA | NUMBER PDP8F-Ø-Ø | REV H

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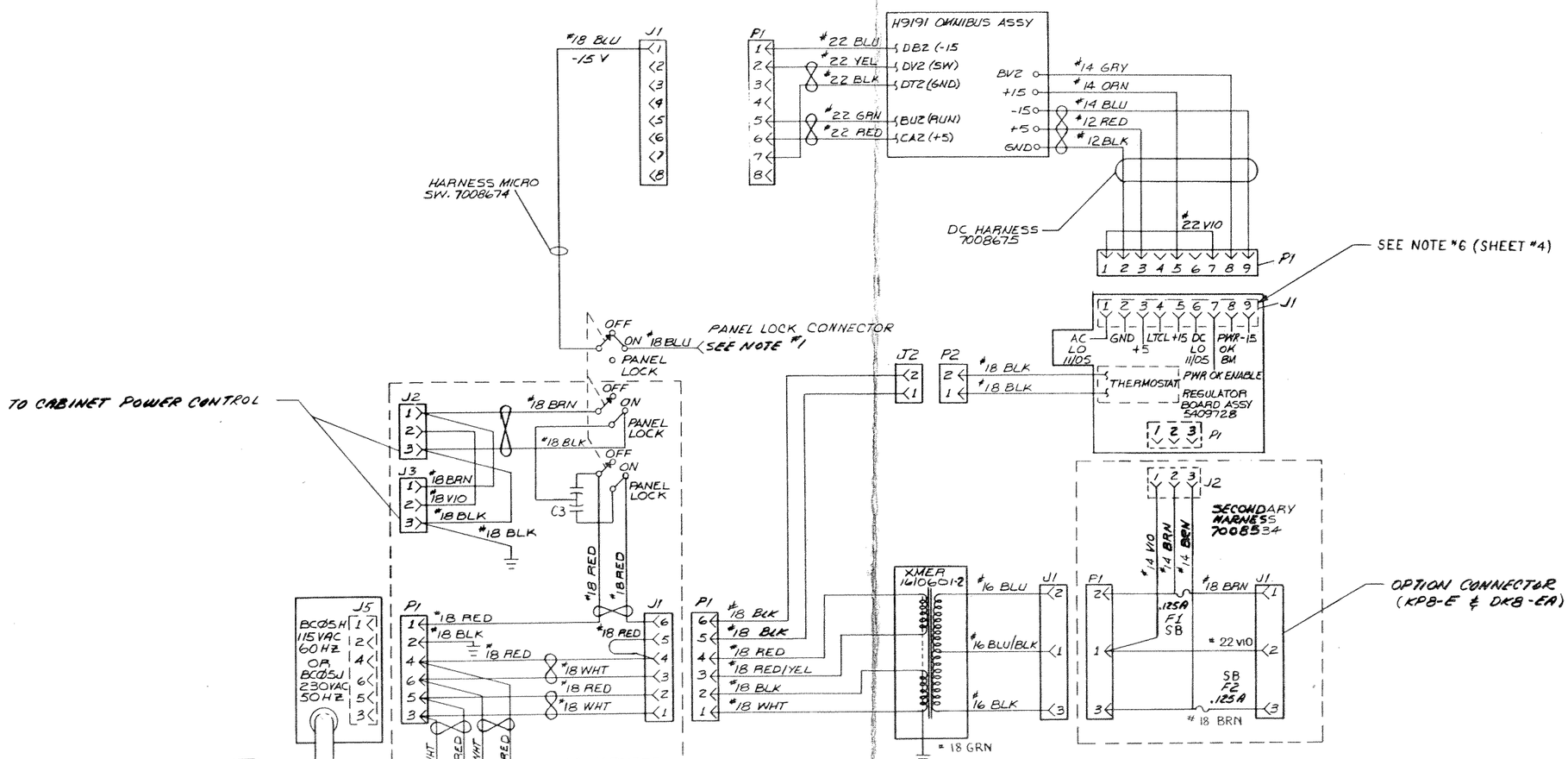

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
--		PARTS LIST		

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES

DECIMALS	ANGLES
.XXX - .005 .XX - .02 .X - .1	±0° 30'

REMOVE BURRS AND BREAK SHARP CORNERS. SURFACE QUALITY ✓

MATERIAL --

FINISH --

DBA		DATE 2-18-72
ENG.		DATE 4-20-72
ENG.		DATE 4-21-72
PROJ. ENG.		DATE 4-21-72
PROD.		DATE 4-25-72
NEXT HIGHER ASSY.	--	
SCALE		
SHEET 3 OF 6		

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: UNIT ASSY PDP 8F

SIZE	CODE	NUMBER	REV.
D	UA	PDP 8F -Ø -Ø	H

DIST. G

REVISIONS	REV.	CHG. NO.	CHK

DEC FORM NO. DRD 100-A

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LEGEND	
NUMBER	VARIATION
PDP8F-AH	115V, 4K, KC8-FL, KL8-E
PDP8F-AJ	230V, 4K, KC8-FL, KL8-E
PDP8F-AK	115V, 8K, KC8-FL, KL8-E
PDP8F-AL	230V, 8K, KC8-FL, KL8-E
PDP8F-AS	115V, 16K, KC8-FL, KL8-E
PDP8F-AT	230V, 16K, KC8-FL, KL8-E

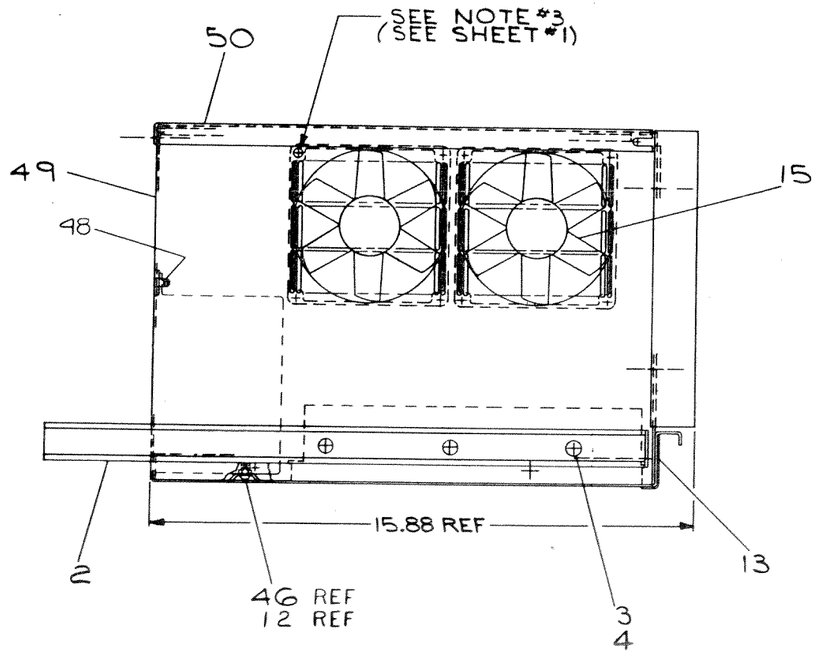
NOTES (CONT.)

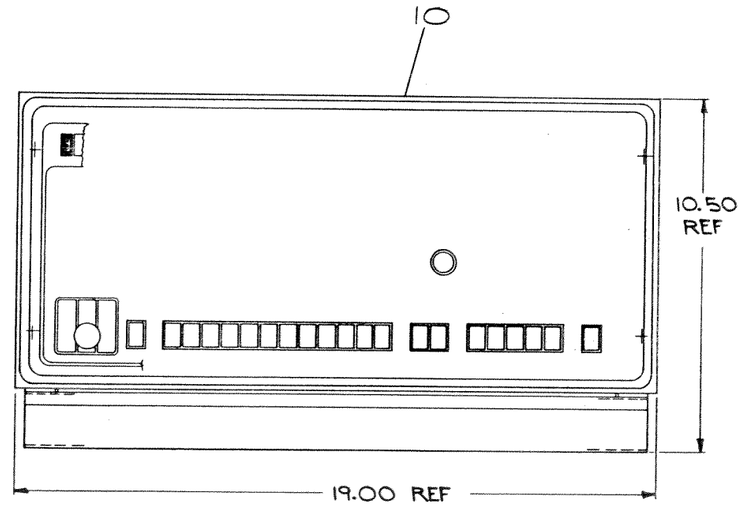
5. THE FOLLOWING CHART SHOWS THE CONNECTIONS ON THE BACK OF THE LINE SET (ITEM #58 OR #59)

LINE SET PLUG NO.	FROM		
	SOCKET NO.	ASSEMBLY	ITEM NO.
P1	J1	AC HARNESS	55
P2	J1	THERMOSTAT ASSY.	57
P3	J3	POWER SUPPLY TRANSFORMER ASSY	57
P4	J3	AC HARNESS	55

6. POWER SUPPLY DC OUTPUTS ARE PROVIDED TO DRIVE LOGIC INTERNAL TO THE BASIC MACHINE ENCLOSURE. DIGITAL WILL NOT BE RESPONSIBLE FOR THE PERFORMANCE OF THIS PRODUCT IF ANY DC POWER IS TAKEN OUTSIDE THE MACHINE.

7. FOR PDP8F ASSEMBLY PROCEDURE SEE A-SP-PDP8F-0-5. CHANGES TO THIS UNIT ASSEMBLY DRAWING MAY EFFECT THE ASSEMBLY PROCEDURE.





FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP8F		PARTS LIST		

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES

DECIMALS	ANGLES
XXX = .005 .XX = .02 .X = .1	±0° 30'

REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓

MATERIAL —/—

FINISH —/—

DRN J.FERGUSON	DATE 3/1/73	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D J.CAHILL	DATE 3/2/73	
ENG. P.GARDNER	DATE 3/6/73	
PROJ. ENG. P.GARDNER	DATE 3/6/73	
PROD. R.K.ALLEN	DATE 3/6/73	
NEXT HIGHER ASSY. B-DD-PDP8F-Ø		
SCALE —/—		
SHEET 4 OF 6		

TITLE: UNIT ASS'Y. PDP8F

SIZE	CODE	NUMBER	REV.
D	UA	PDP8F-Ø-Ø	H

DIST.

REV.	REVISIONS	CHK
	CHANGE NO	

BRUNING 40-107 15968
DEC FORM NO DRD 100-A

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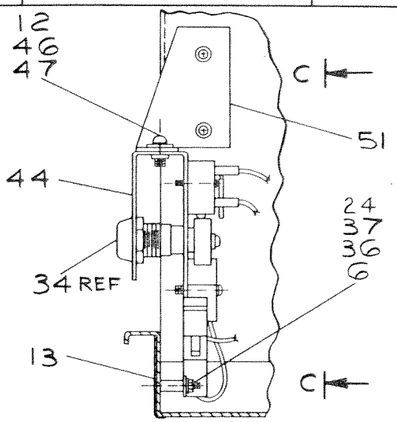
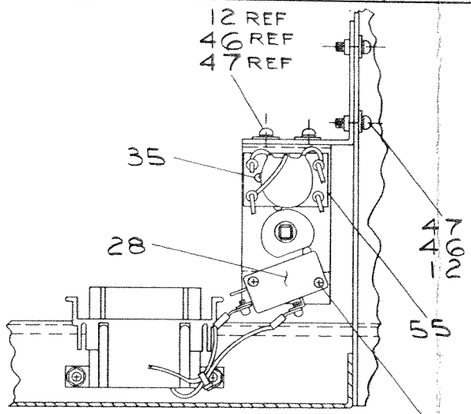
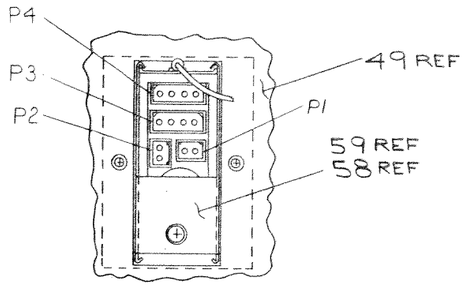


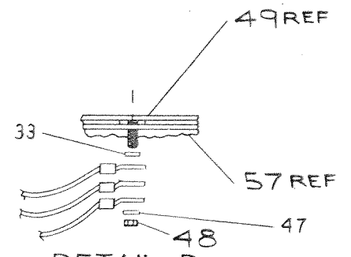
SECTION B-B
SCALE: NONE



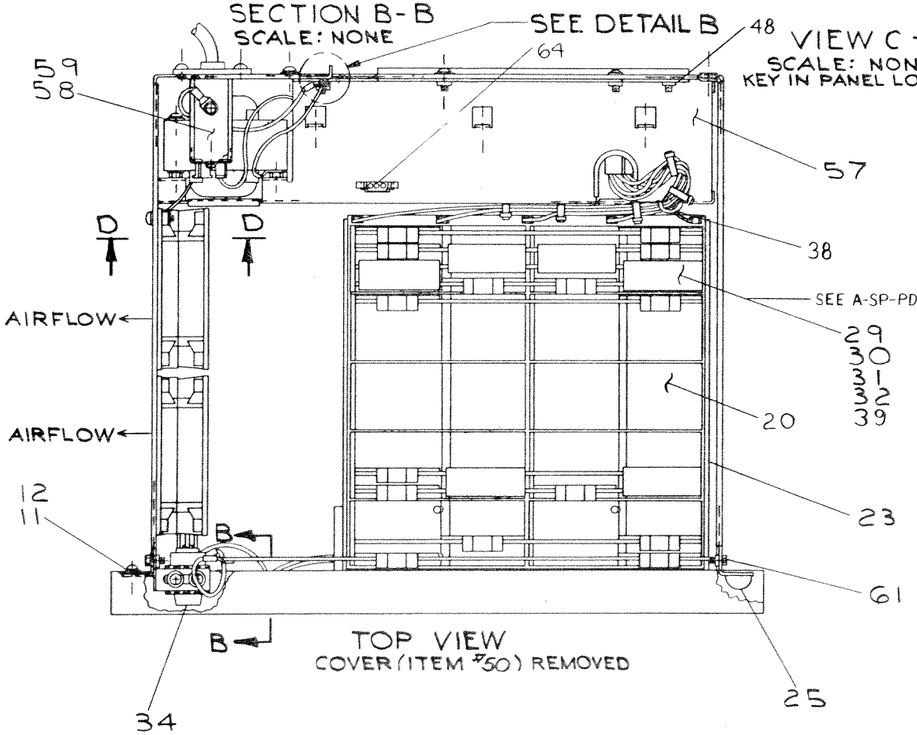
VIEW C-C
SCALE: NONE
KEY IN PANEL LOCK POSITION



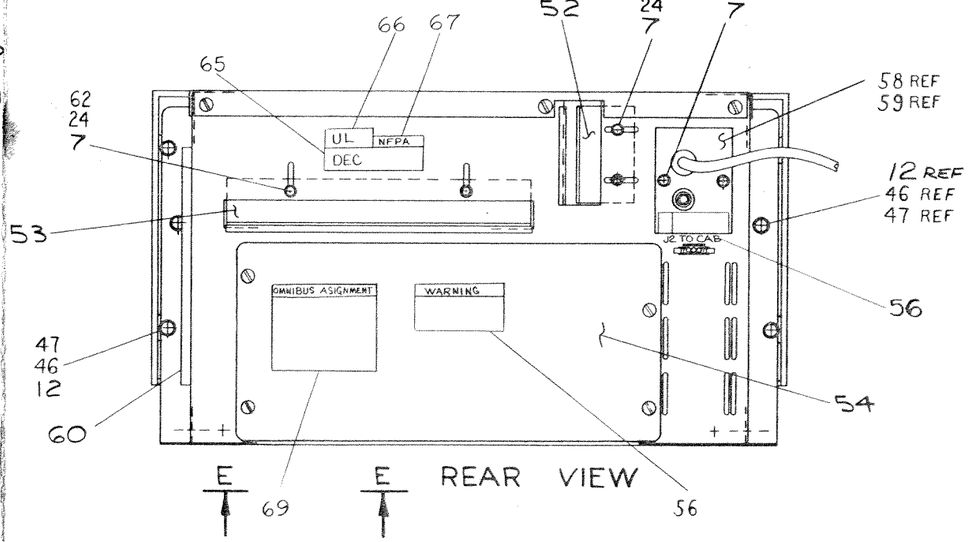
VIEW D-D
SCALE: NONE
SEE NOTE #5 SHEET #4



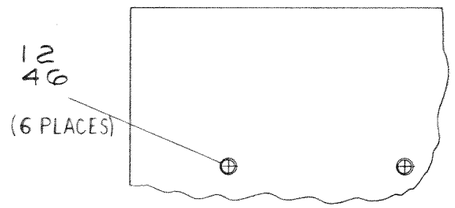
DETAIL B
SCALE: NONE



TOP VIEW
COVER (ITEM #50) REMOVED



REAR VIEW



VIEW E-E
(BOTTOM)
SCALE: NONE

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP8F		PARTS LIST		

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES	DRN. J. FERGUSON	DATE 3/1/73	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
DECIMALS: XXX ± .005, XX ± .02, X ± .1 — ANGLES: ±0° 30'	CHK'D. J. CAHILL	DATE 3/2/73	
	ENG. P. GARDNER	DATE 3/6/73	TITLE: UNIT ASS'Y. PDP8F
	PROJ. ENG. P. GARDNER	DATE 3/6/73	
REMOVE BURRS AND BREAK SHARP CORNERS. SURFACE QUALITY ✓	PROD. R.K. ALLEN	DATE 3/6/73	
MATERIAL —	NEXT HIGHER ASSY. B-DD-PDP8F-Ø	SIZE D	CODE UA	NUMBER PDP8F-Ø-Ø	REV. H
FINISH —	SCALE —				
	SHEET 5 OF 6			DIST.	

REVISIONS	CHANGE NO.	CHK	REV

BRUNING 40-107 15968
DEC FORM NO
DRD 100-A

SIZE D | CODE UA | NUMBER PDP8F-Ø-Ø | REV H

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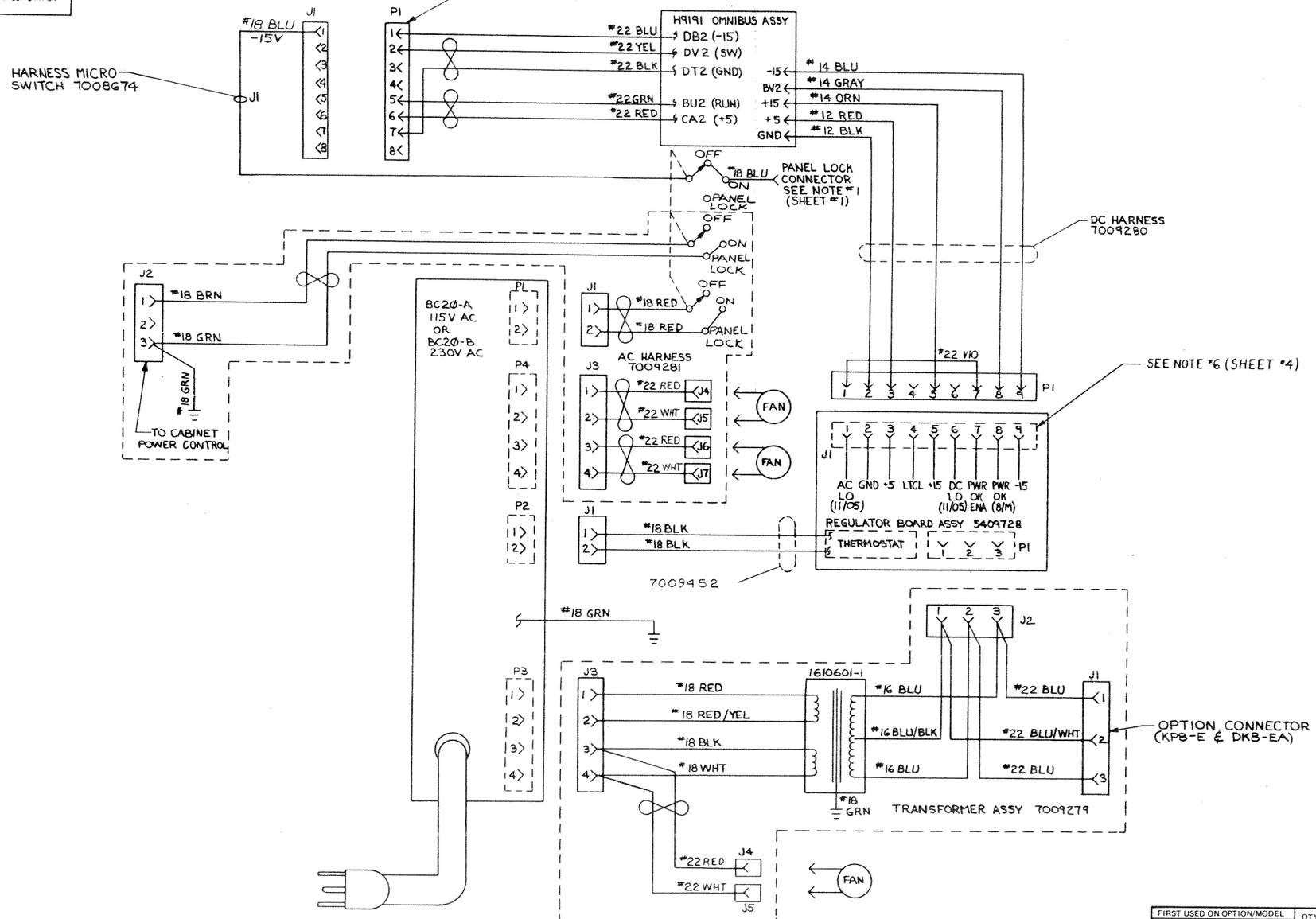

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP8F		PARTS LIST		

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES
TOLERANCES: DECIMALS .xxx = .005, .xx = .02, .x = .1; ANGLES ±0° 30'
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY √

DRN	D.SULLIVAN	DATE 3/1/73
CHK'D.	J.CAHILL	DATE 3/2/73
ENG.	P.GARDNER	DATE 3/6/73
PROJ. ENG.	P.GARDNER	DATE 3/6/73
PROD.	R.K. ALLEN	DATE 3/6/73

MATERIAL
FINISH
NEXT HIGHER ASSY. B-DD-PD8F-0
SCALE
SHEET 6 OF 6

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: UNIT ASSY PDP8F

SIZE	CODE	NUMBER	REV.
D	UA	PDP8F-0-0	H

DIST.

REVISIONS		
LTR	CHANGE NO	BY

SIZE	CODE	NUMBER	REV.
D	UA	PDP8F-0-0	H

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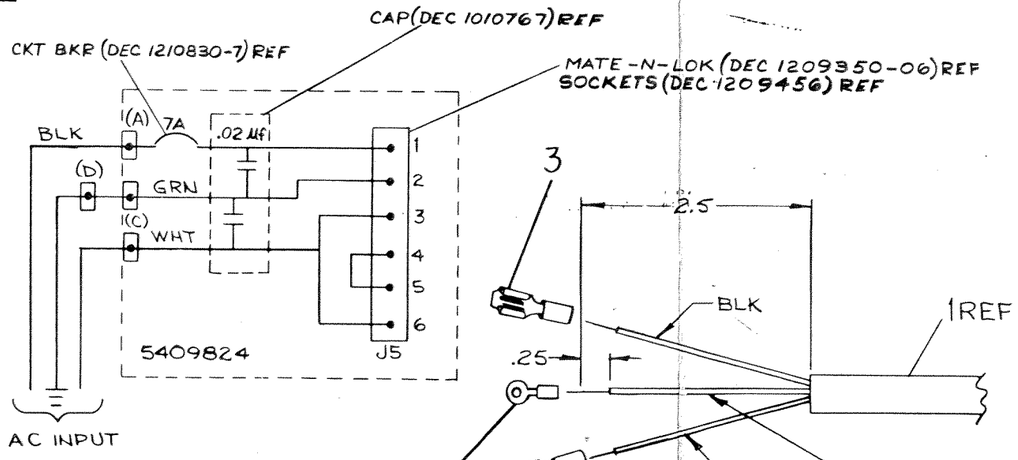

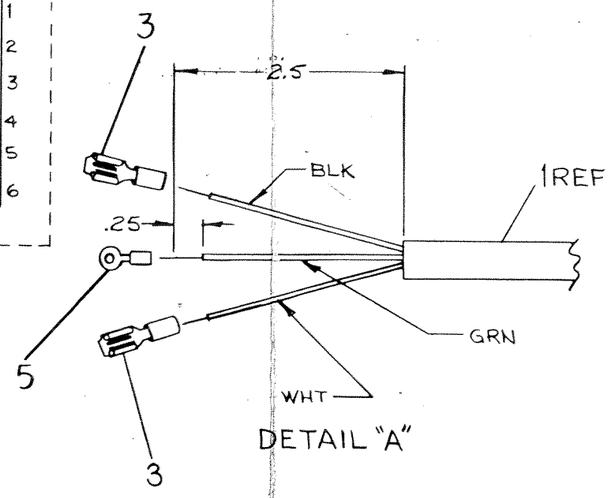

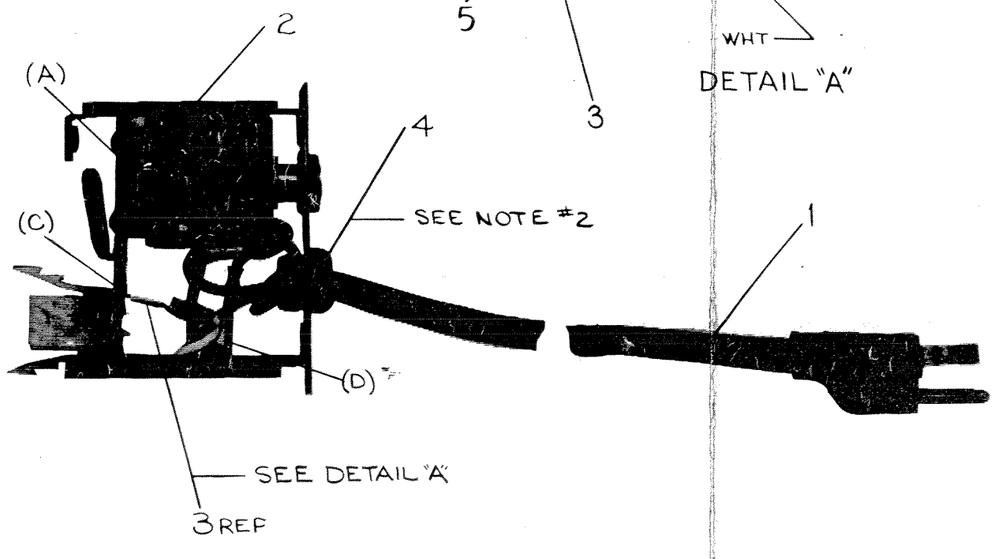

SHOWN WITHOUT COVER

NOTES:

1. CONNECT ITEM #1 (POWER CORD) AND ITEM #2 (AC INPUT BOX) PER CIRCUIT SCHEMATIC.
2. FOR INSTALLATION USE HEYCO #29 STRAIN RELIEF PLIERS

REVISIONS	CHK	CHANGE NO.	REV.
		BCØ5H-00001	A
en-Genin 3-28-72			
R. WOLFF			
		BCØ5H-00002	B
M. Toms 5-13-72			
DEMORANVILLE			
		H400-00002	C
R. BURTON			
R. Burton 5-31-72		BCØ5H-00003	D
M. Toms 10-30-72			
R. BURTON			
R. Burton 11-2-72		BCØ5H-00005	E
G. Mauldin 1-DEC-75			
R. KENNEDY			
R. Kennedy 5 DEC 75			

ITEM NO.	PART NO.	DESCRIPTION	QTY.
5	9007929-0	TERMINAL, RING, RED	1
4	9008492-2	STRAIN RELIEF SR-6N3-4	1
3	9007970	CONNECTOR, FASTON, RED	2
2	D-UA-H400-0-0	AC INPUT BOX H4ØØ A	1
1	1700015-6	POWER CORD 120 V	1

PARTS LIST

FIRST USED ON OPTION/MODEL: 11/Ø5

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES

DECIMALS	ANGLES
.XXX = .005 .XX = .02 .X = .1	±0° 30'

REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓

MATERIAL

FINISH

DRN T. Guillin	DATE 12-27-71	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS
CHK'D	DATE 1-4-72	
ENG: David DeMonville	DATE 1-4-72	
PROJ. ENG.	DATE 1-7-72	
PROD. R.K. Peterson	DATE 1/13/72	

NEXT HIGHER ASSY.

SCALE

SHEET 1 OF 1

TITLE: LINE SET 115V AC 7 AMP

SIZE	CODE	NUMBER	REV.
C	UA	BCØ5H-Ø-Ø	F

DIST. G

DEC FORM NO. DRC 100-A

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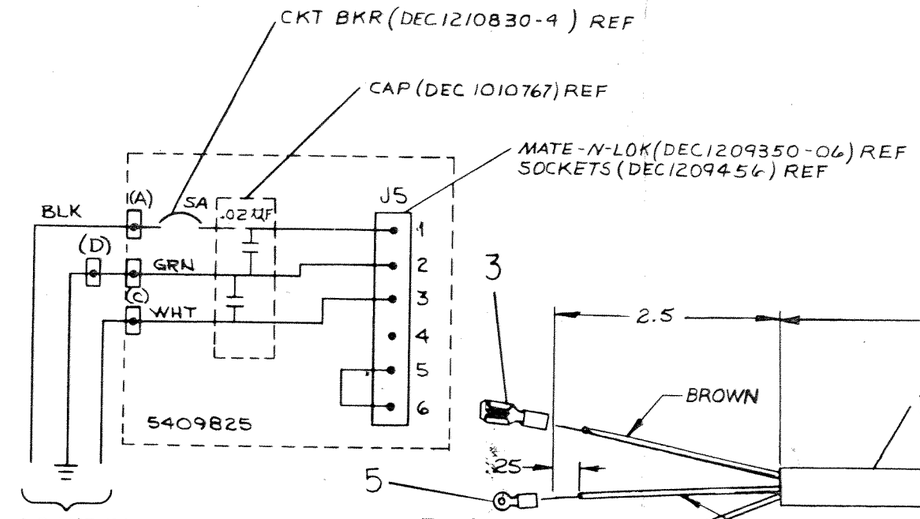
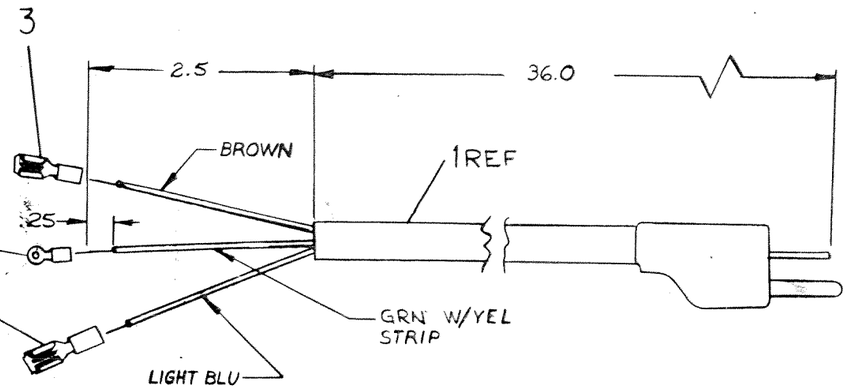
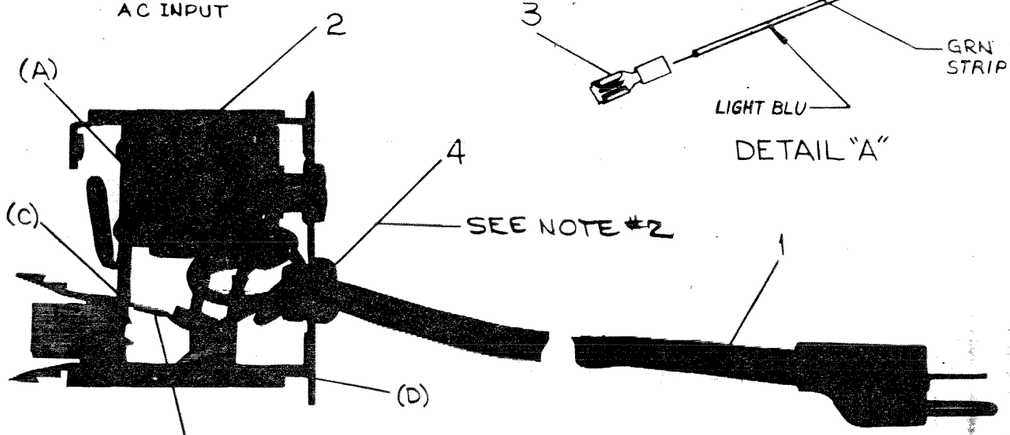
NOTES:

1. CONNECT ITEM #1 (POWER CORD) AND ITEM #2 (AC INPUT) PER CIRCUIT SCHEMATIC.
2. FOR INSTALLATION USE HAYCO #29 STRAIN RELIEF PLIERS.





DETAIL "A"



SHOWN WITHOUT COVER

ITEM NO.	QTY.	DESCRIPTION	PART NO.
5	1	TERMINAL, RING, RED	9007929-0
4	1	GROMMET HEYCO SR6N3-4	9008492-2
3	2	CONNECTOR, FASTON, RED	9007970
2	1	AC INPUT BOX H400B	DUA-H400-0-0
1	1	POWER CORD 240V	1700043

PARTS LIST

REV.	CHANGE NO.	CHK	
A	BC05J-00001		7-12-72
B	H400-00002		5-25-72
C	BC05J-00002		10-31-72
D	BC05J-00003		12-20-72
E	BC05J-00005		9 DEC 72

REVISIONS

FIRST USED ON OPTION/MODEL: 11/05

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES

DECIMALS	ANGLES
.XXX = .005	±0° 30'
.XX = .02	
.X = .1	

REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓

MATERIAL

FINISH

DRN T. Guilbeau	DATE 12-27-71	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS
CHK'D	DATE 1-9-72	
ENG.	DATE	
PROJ ENG.	DATE 1-7-72	
PROD R.K. Peterson	DATE 1/7/72	

NEXT HIGHER ASSY.

SCALE

SHEET 1 OF 1

TITLE: LINE SET 230V AC 4 AMP

SIZE	CODE	NUMBER	REV.
C	UA	BC05J-0-0	E

DIST. 6

DEC FORM NO. DRC 100-A

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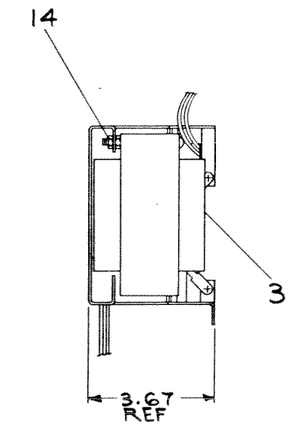
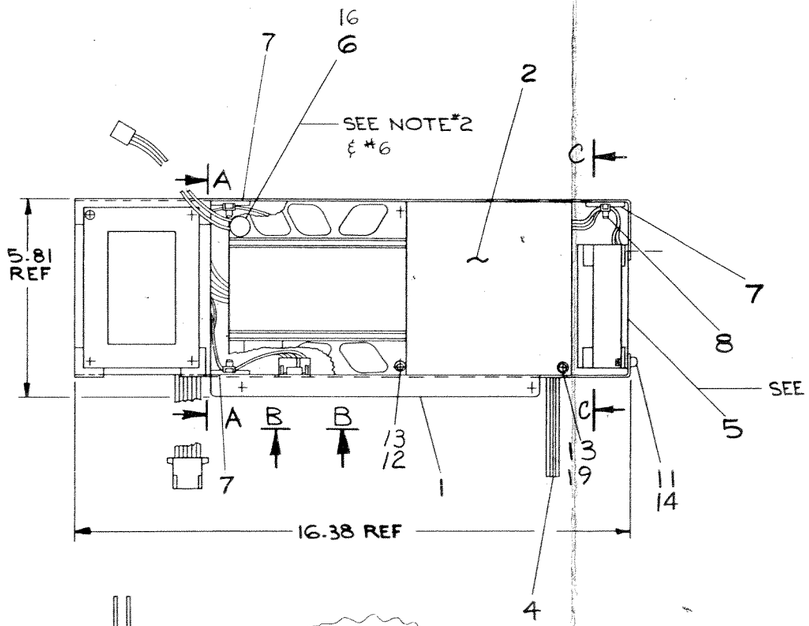
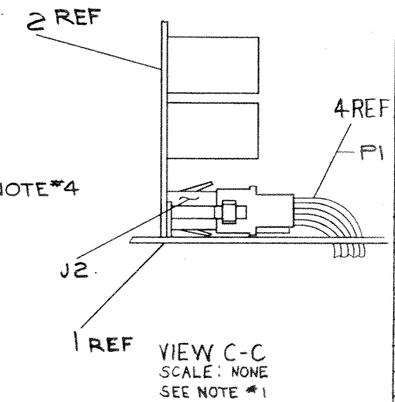
LEGEND	
7009282-0	DC HARNESS
7009282-1	NO DC HARNESS

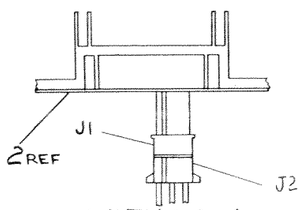
NOTES:
1. CONNECT J2 OF ITEM #2 (REGULATOR BOARD ASS'Y.) TO P1 OF ITEM #4 (D.C. HARNESS).
2. REPLACE THERMOSTAT ON ITEM #2, (ITEM #76 ON DWG. NO. E-IA-5409728-0-0) WITH ITEM #6 (THERMOSTAT). ~~LEAVE LEADS AT FULL LENGTH, AND ADD ITEM #10 (PIN) AND ITEM #9 (CONN.) TO END OF LEADS~~ RETURN OLD THERMOSTAT WITH 5 INCH LEADS TO STOCKROOM.
3. CONNECT J1 OF ITEM #2 (REGULATOR BOARD ASS'Y.) TO J2 OF ITEM #3 (TRANSFORMER ASS'Y.)
4. CONNECT J4 AND J5 OF ITEM #3 (TRANSFORMER ASS'Y.) TO ITEM #5 (FAN).
5. FOR POWER SUPPLY ASSEMBLY PROCEDURE SEE DWG. A-SP-PDP8M-0-8
6. REMOVE THERMOSTAT (ITEM #6) FROM THE BOARD AND LEAVE WITH THE MACHINE WHEN RETURNING THE REGULATOR BD. ASSY. (ITEM #2) FOR REPAIR.



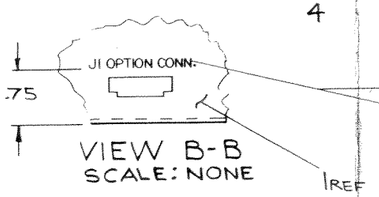




VIEW C-C
SCALE: NONE
SEE NOTE #1



VIEW A-A
SCALE: NONE
SEE NOTE #3



VIEW B-B
SCALE: NONE

ITEM NO.	QTY.	DESCRIPTION	PART NO.
19	2	SCR, PHL. PAN HD #6-32x.25	9006020-1
18	N/A	PACKAGING INSTRUCTIONS	A-SP-3700107-00
17	REF.	PS. ASSY. PROCEDURE	A-SP-~~PDP8M-0-8~~
16	A/R	COMPOUND THERMAL JOINT	9008268
15	1	DECAL (PDP8/M)	A-DC7410790-00
14	8	NUT, KEPS #8-32	9006563
13	6	WASHER, INT TOOTH LOCK #6	9006633
12	4	SCR, PHL. HD. PAN #6-32X.44	9006023-01
11	4	SCR, PHL HD PAN #8-32X.44	9006038-01
10	~~4~~	~~PIN, MATE-N-LOK (MALE)~~	~~1209878-01~~
9	~~2~~	~~CONN. MATE-N-LOK~~	~~1210822-02~~
8	3	CABLE, TIE	9007031
7	3	CABLE, TIE MOUNT	9008264
6	1	THERMOSTAT ASSY	C-IA-7009452-00
5	1	FAN,	1210719
4	0	HARNESS, D.C.	D-IA-7009280-00
3	1	TRANSFORMER ASSY.	E-IA-7009279-00
2	1	REGULATOR BD. ASS'Y	E-IA-5409728-00
1	1	CHASSIS, POWER SUPPLY	E-IA-7410746-00

PARTS LIST

REVISIONS	REV	CHANGE NO.	CHK	DRN
	A	PDP8M-00018	P. GARDNER	
	B		P. GARDNER	
	C	7009282-00002	B. PATTON	
	D	7009282-00003	P. GARDNER	

BRUNING 40-107 15968
DEC FORM NO. DRFJ 100-A

FIRST USED ON OPTION/MODEL	
PDP8M	

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES
DECIMALS: XXX ± .005, XX ± .02, X ± .1 — ANGLES: ±0° 30'
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓
MATERIAL
FINISH

DRN.		DATE 2-27-73
CHK'D.		DATE 3-6-73
ENG.		DATE 3-8-73
PROJ. ENG.		DATE 3-8-73
PROD.		DATE 3-8-73

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: POWER SUPPLY ASSY.

NEXT HIGHER ASSY.: D-UA-PDP8M-Ø-Ø
SCALE: NONE
SHEET 1 OF 1

SIZE	CODE	NUMBER	REV
D	AD	7009282-0-0	D

DIST.

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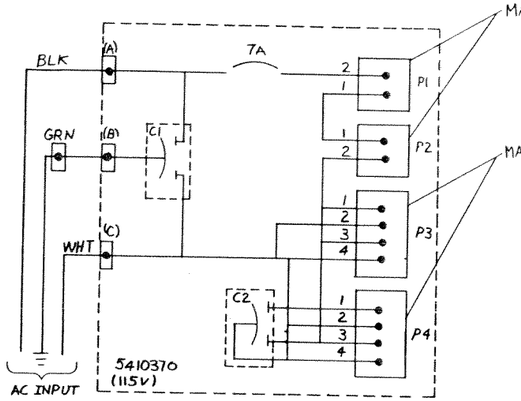
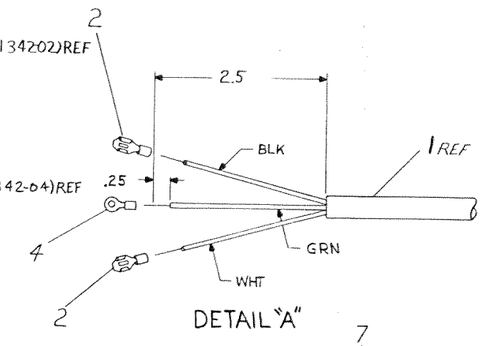
LEGEND		
PART NO.	ITEM # 1	VARIATION
BC20A-06	7000/5-06	6 FT
BC20A-09	7000/5-09	9 FT

NOTES:
1. CONNECT ITEM # 1 (POWER CORD) PER CIRCUIT SCHEMATIC.
2. FOR INSTALLATION USE HEYCO #29 STRAIN RELIEF PLIERS.
3. LENGTH OF THIS WIRE (ITEM #6) IS 7.75" ±.5
4. LENGTH OF THIS WIRE (ITEM #6) IS 3.0" ±.5

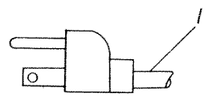


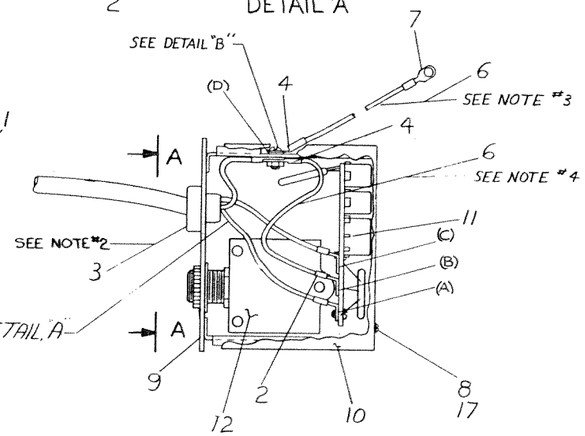
MATE-N-LOCK (DEC 1211342-02) REF

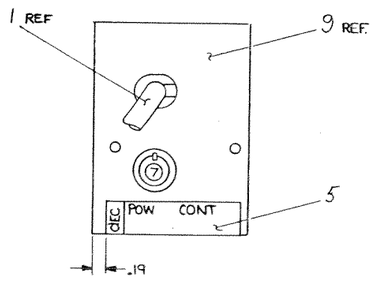
MATE-N-LOCK (DEC 1211342-04) REF



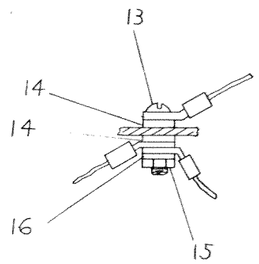
DETAIL "A"







VIEW A-A
SCALE: 1/1



DETAIL "B"

ITEM NO.	PARTS LIST		
1	WASHER, #6 INTERNAL TOOTH	9006633	17
1	WASHER, FLAT .312x.125x.027	9006655	16
1	KEPNUT #4-40	9006557	15
2	WASHER, #4 INTERNAL TOOTH	9006632	14
1	SCR, PHL, PAN HD #440x.38	9006011-1	13
1	CIRCUIT BREAKER (7 AMP.)	1210830-7	12
1	POWER CONTROL BD (115V)	C-IA-5410370-0-0	11
1	COVER, AC. INPUT	C-MD-5410373-0-0	10
1	BOX, AC. INPUT	D-IA-5307845-0-0	9
1	SCR, PHL, HD, PAN #6-32x.25	9006020-1	8
1	SOLDERLESS, CONN #50360	9007930	7
A/R	#18 AWG, STRD GRN	9107360-55	6
1	PWR CONTROL DECAL (115V)	A-DC-5310438-0-0	5
3	SOLDERLESS, CONN.	9007929-0	4
1	STRAIN RELIEF SR-6N3-4	9008492-2	3
3	SOLDERLESS CONN	9007917	2
1	POWER CORD 120V	SEE LEGEND	1

QTY.	DESCRIPTION	PART NO.	ITEM NO.

FIRST USED ON OPTION/MODEL: PDP8M

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES
DECIMALS: XXX = .005, .XX = .02, X = .1
ANGLES: ±0° 30'
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓
MATERIAL
FINISH

DRN	D. Sullivan	DATE 2-21-73
CHK'D		DATE 2-21-73
ENG		DATE 3-8-73
PROJ-ENG		DATE 3-8-73
PROD		DATE 3-8-73
NEXT HIGHER ASSY.		
SCALE		
SHEET	OF	

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: LINE SET, 115 V

SIZE	CODE	NUMBER	REV.
D	UA	BC20A-Ø-Ø	C

DIST.

REVISIONS			
CHK	CHANGE NO.	REV.	
	BC20-00001		ORIGINATED P. GARDNER
	BC20-00002	B	
	BC20-00003	C	DRAWING NO. WAS D-UA-4C20-0-0

DEC FORM NO. DRD 100-A

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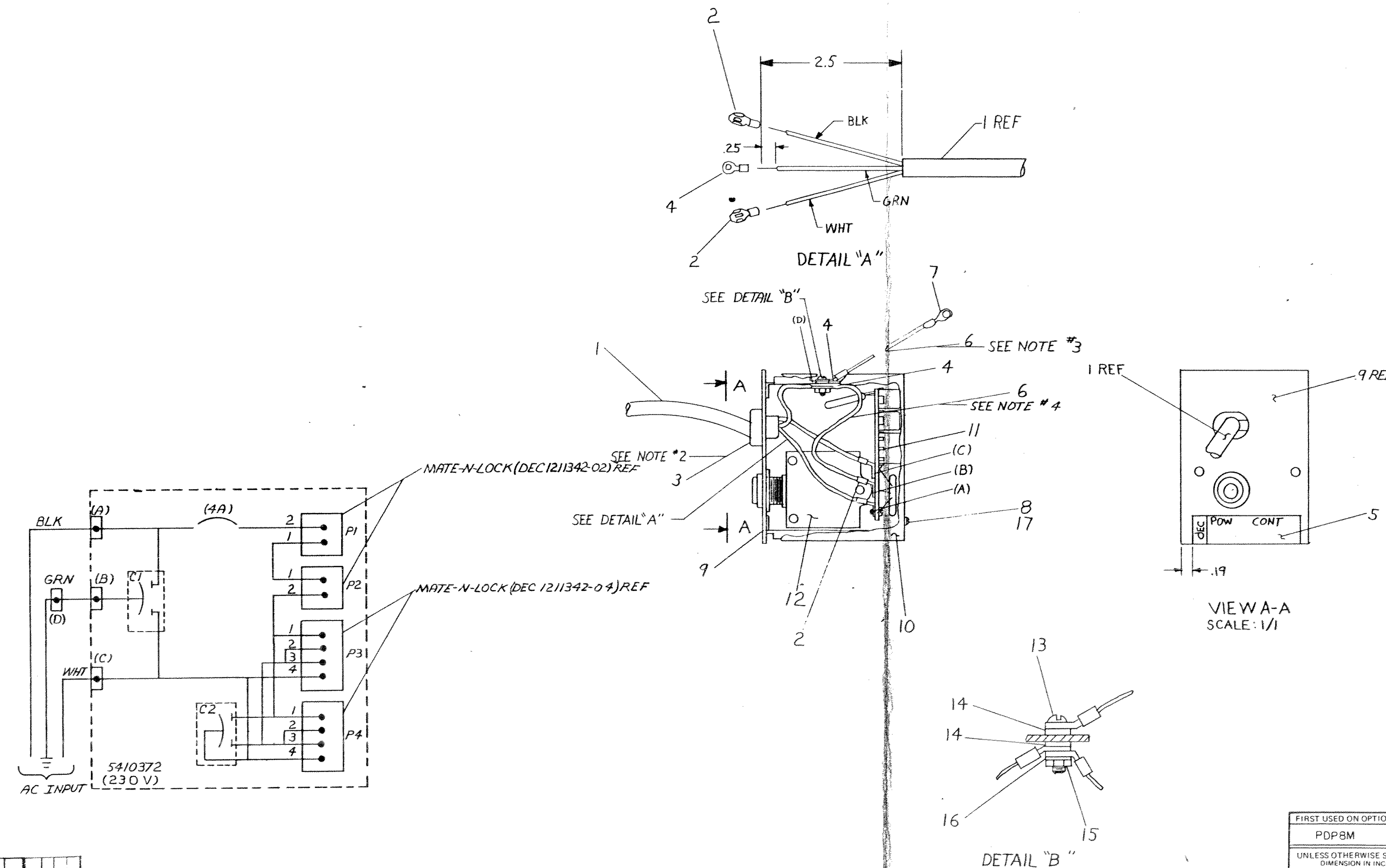
D UA BC2ØB-Ø-Ø A

LEGEND

PART NO.	ITEM #1	VARIATION
BC2ØB-Ø6	1700016-06	6 FT
BC2ØB-Ø9	1700016-09	9 FT

NOTES:

1. CONNECT ITEM #1 (POWER CORD) PER CIRCUIT SCHEMATIC.
2. FOR INSTALLATION USE HEYCO #29 STRAIN RELIEF PLIERS.
3. LENGTH OF THIS WIRE (ITEM #6) IS 9.75" ± .5
4. LENGTH OF THIS WIRE (ITEM #6) IS 3.0" ± .5



ITEM NO.	QTY.	DESCRIPTION	PART NO.
17	1	WASHER, #6 INTERNAL TOOTH	9006633
16	1	WASHER, FLAT. .312 x .125 x .027	9006655
15	1	KEP NUT #4-40	9006557
14	2	WASHER, #4 INTERNAL TOOTH	9006632
13	1	SCR. PHL PAN HD #4-40 x .38	9006011-1
12	1	CIRCUIT BREAKER (4AMP)	1210830-4
11	1	POWER CONTROL BD (230V)	C-IA-5410372-0-0
10	1	COVER, AC INPUT	C-MD-5310373-0-0
9	1	BOX, AC INPUT	D-IA-5309845-0-0
8	1	SCR. PHL. PAN HD. #6-32 X .25	9006020-1
7	1	SOLDERLESS CONN #50360	9007930
6	N/R	#18 AWG STRD, GRN	9107360-55
5	1	PWR CONTROL DECAL (230V)	A-DC-5310439-0-0
4	3	SOLDERLESS CONN	9007929-0
3	1	STRAIN RELIEF SR-6N3-4	9008492-2
2	3	SOLDERLESS CONN	9007917
1	1	POWER CORD 240V	SEE LEGEND

PARTS LIST

FIRST USED ON OPTION/MODEL: PDP8M

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES
TOLERANCES
DECIMALS: .xxx ± .005, .xx ± .02, .x ± .1
ANGLES: ± 0 30'
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY
MATERIAL —//—
FINISH —//—

DRN. DATE 9-5-73
CHK'D DATE 9-18-73
ENG. DATE 9-18-73
PROJ. ENG. DATE 9-18-73
PROD. DATE 9-18-73
NEXT HIGHER ASSY. //
SCALE //
SHEET 1 OF 1

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: LINE SET, 230V

SIZE D CODE UA NUMBER BC20B-Ø-Ø REV. A

REV	ECO	DESCRIPTION
A	BC20B-00001	ORIGINATED
	BC20-00003	

P. GARDNER 12/18/75

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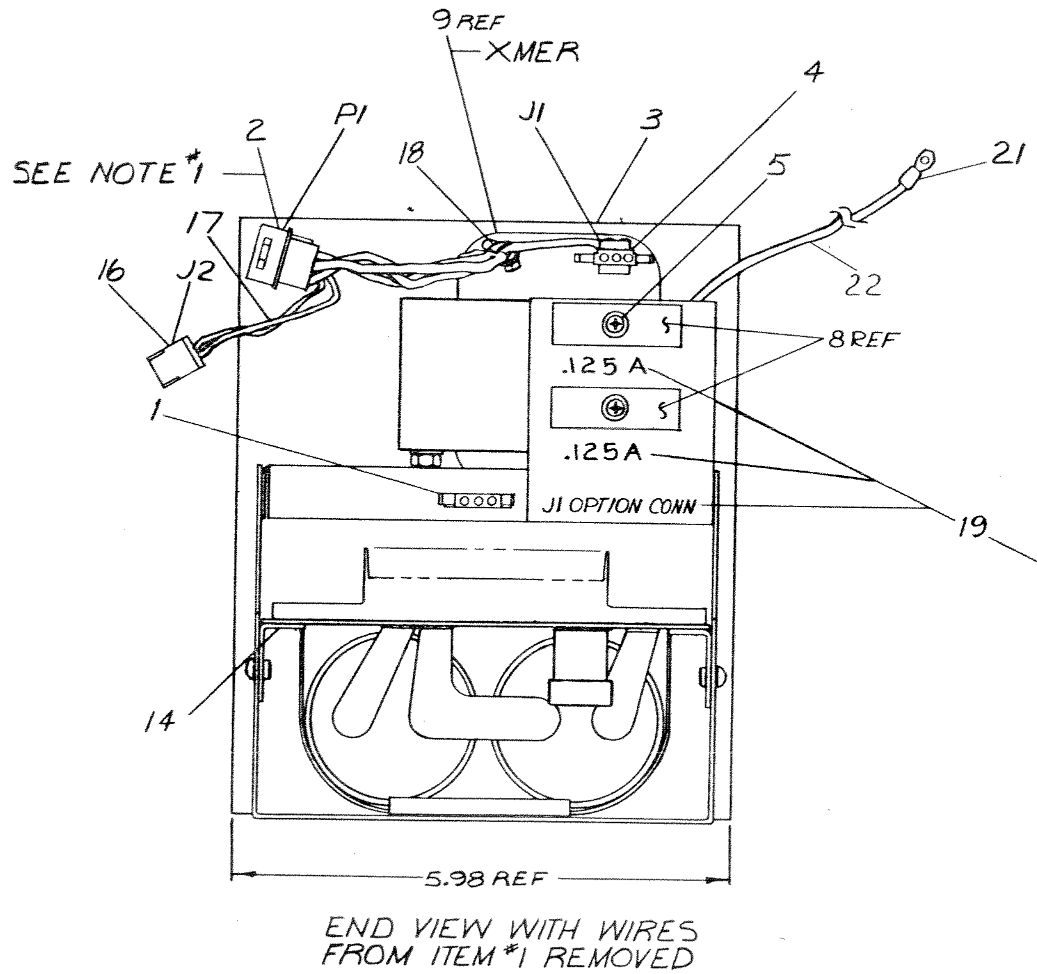
WIRE TABLE

ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	FROM: CONNECTION	FROM: WITH	TO: CONNECTION	TO: WITH
9		BLU	XMER	—	J1 -3	12
↕		BLU	↕	—	J1 -2	12
		BLU/BLK		—	J1 -1	12
		RED/YEL		—	P1 -3	13
		RED		—	P1 -4	13
		WHT		—	P1 -1	13
9		BLK	XMER	—	P1 -2	13
17	18	BLK	J2 -1	12	P1 -5	13
17	18	BLK	J2 -2	12	P1 -6	13
22	18	GRN	XMER	SOLDER	—	21

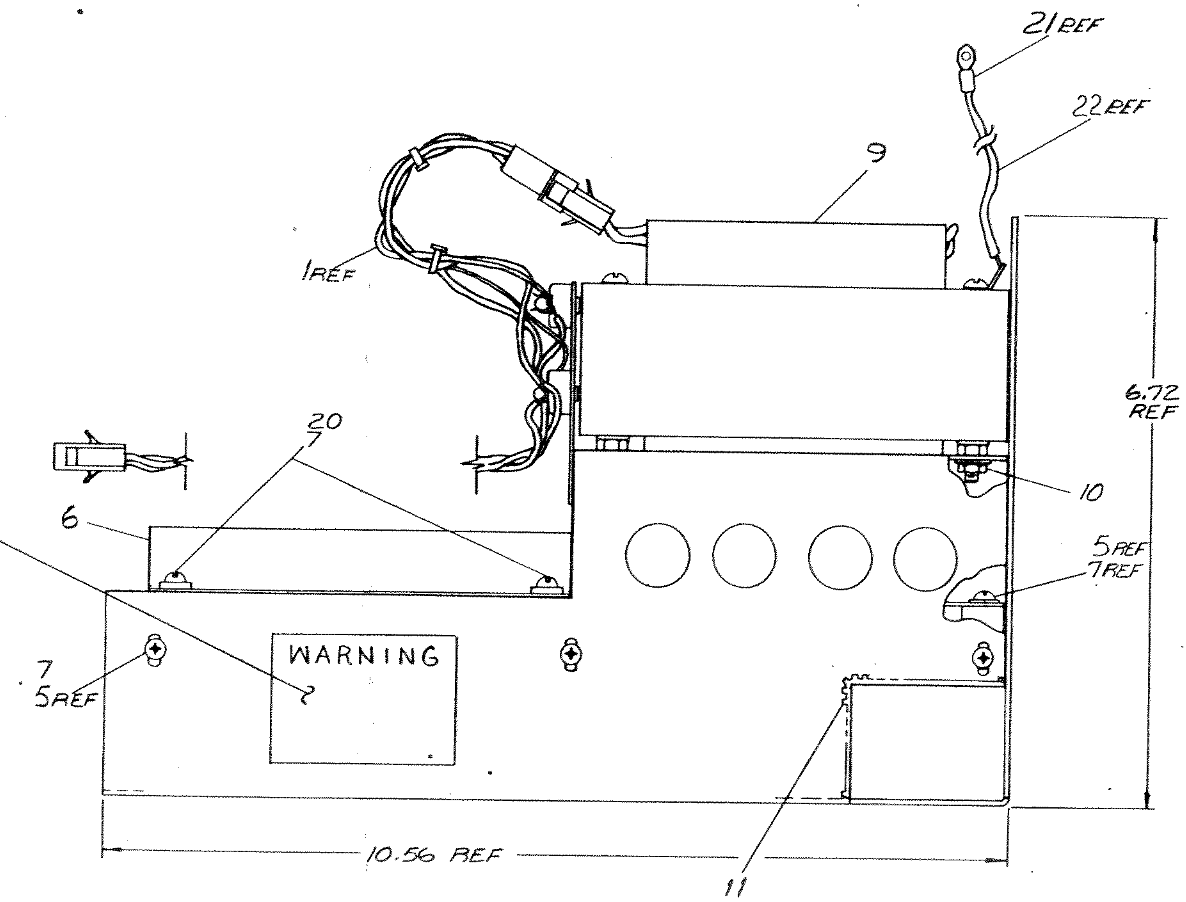
(Items 17: LENGTH OF WIRE TO BE 4IN ± 1/2 IN)

NOTES:

1. LENGTH OF WIRES TERMINATING TO P5 (ITEM #2) ARE TO BE 8 INCHES ± 1/2 INCH.
2. COMPONENTS J1, J2, & P1, TO BE LABELED WITH COMPONENT IDENTIFIERS, USING BRADY MARKERS.



END VIEW WITH WIRES FROM ITEM #1 REMOVED



PARTS LIST

QTY.	DESCRIPTION	PART NO.	ITEM NO.
A/R	WIRE 18 AWG GREEN	9107360-55	22
1	TERMINAL SOLDERLESS	9007927	21
4	SCR, PHIL PAN HD. #6-32 X .50	9006024-1	20
1	DECAL	A-DC-7409651-0-0	19
1	TIE WRAP PADUIT SST-1B	9007031	18
A/R	WIRE 18 AWG BLK	9107360-00	17
1	CONN MATE-N-LOK (FEM)	1210821-02	16
1	STRAIN, RELIEF	9008442	15
6	BRKT, SUPPORT ETCH BD	C-IA-7409375-0-0	14
6	CONTACT, MATE-N-LOK (MALE)	1209378-01	13
5	CONTACT, MATE-N-LOK (FEM)	1209379-01	12
A/R	GROMMET	9007621	11
4	NUT, KEP #8-32	9006563	10
1	XMER (TRANSFORMER)	1610601-02	9
2	FUSE 1/8 AMP (3AG) S.B.	9008527	8
12	WASHER, INT TOOTH LOCK #6	9006633	7
1	REGULATOR BD ASSY	E-IA-5409728-0-0	6
10	SCR, PHIL PAN HD #6-32 X .25	9006020-1	5
1	CONN, MATE-N-LOK 3 CKT	1209350-03	4
1	CHASSIS, P.S.	D-IA-7409376-0-0	3
1	CONN, MATE-N-LOK 6 CKT	1209351-06	2
1	HARNESS, SECONDARY	D-IA-7008534-0-0	1

CAUTION
CHANGE COULD AFFECT U.L. LISTING

FIRST USED ON OPTION/MODEL: PDP 8M

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES

DECIMALS	ANGLES
.XXX = .005 .XX = .02 .X = .1	±0° 30'

REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓

MATERIAL: —//—

FINISH: —//—

DRN: [illegible] DATE: 12/4/71
CHK'D: [illegible] DATE: 12/17/71
ENG.: [illegible] DATE: 1-7-72
PROJ. ENG.: [illegible] DATE: 1-7-72
PROD.: K.T. [illegible] DATE: 1-7-72

NEXT HIGHER ASSY.: D-UA-PDP8M-0-0

SCALE: NONE
SHEET 1 OF 1

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: POWER SUPPLY ASSY

SIZE	CODE	NUMBER	REV.
D	AD	7008714-0-0	C

REVISIONS

REV.	CHANGE NO.	CHK
A	7008714-00001 [illegible] 8-18-72 P GARDNER	
B	FDP8M-OC013 [illegible] P. GARDNER	
C	FDP8M-00014 [illegible] 10-6-72 P. GARDNER	

DEC FORM NO DRD 100-A

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DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION

DATE 11/24/70

TITLE RECOMMENDED OMNIBUS MODULE ASSIGNMENTS

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE
A	REORDERED ASSIGNMENTS	KK8E-00001	[illegible]	1/15/71	[illegible]	1/15/71
B	REORDERED ASSIGNMENTS	8E-00037	TEICHER	7-30-71	SNT	8-3-71
C		8E-00054	R. VOGELSANG	1-6-72	[illegible]	1-11-72
D	ADDED NOTE TO M8330	8E 00062	GARDNER	7-14-72	[illegible]	7-17-72

ENG	APPD	SIZE	CODE	NUMBER	REV
Dave Chertkow	Dave Chertkow	A	SP	PDP8/E-0-4	D

DEC FORM NO. DRA 107

ENGINEERING SPECIFICATION — CONTINUATION SHEET

TITLE RECOMMENDED OMNIBUS MODULE ASSIGNMENTS

The following ordering of modules on the OMNIBUS will result in best case timing and permit widest margins:

MODULE	
	Control Panel
M8330	Timing Board (ALWAYS AFTER CONTROL PANEL)
M8340	EAE
M8341	EAE
M8310	C.P. Major Register Control
M8300	C.P. Major Registers
M837	Extended Memory & Time Share Control
	. . .
	Other Non-Memory Options
	. . .
M8350	External I/O Bus Interface
M849	R.F.I. Shield
G104	Memory Sense/Inhibit (0)
H220	Memory Stack (0)
G227	Memory X/Y Drivers (0)
	. . .
G104	Memory Sense/Inhibit (n)
H220	Memory Stack (n)
G227	Memory X/Y Drivers (n)
	. . .
	Other Memories
	. . .
G105	Memory Sense/Inhibit (Parity)
H220	Memory Stack (Parity)
G227	Memory X/Y Drivers (Parity)
M8320	Bus Loads (Always in last slot)

SIZE	CODE	NUMBER	REV
A	SP	PDP8/E-0-4	D

DEC FORM NO 16-1022 DRA 108

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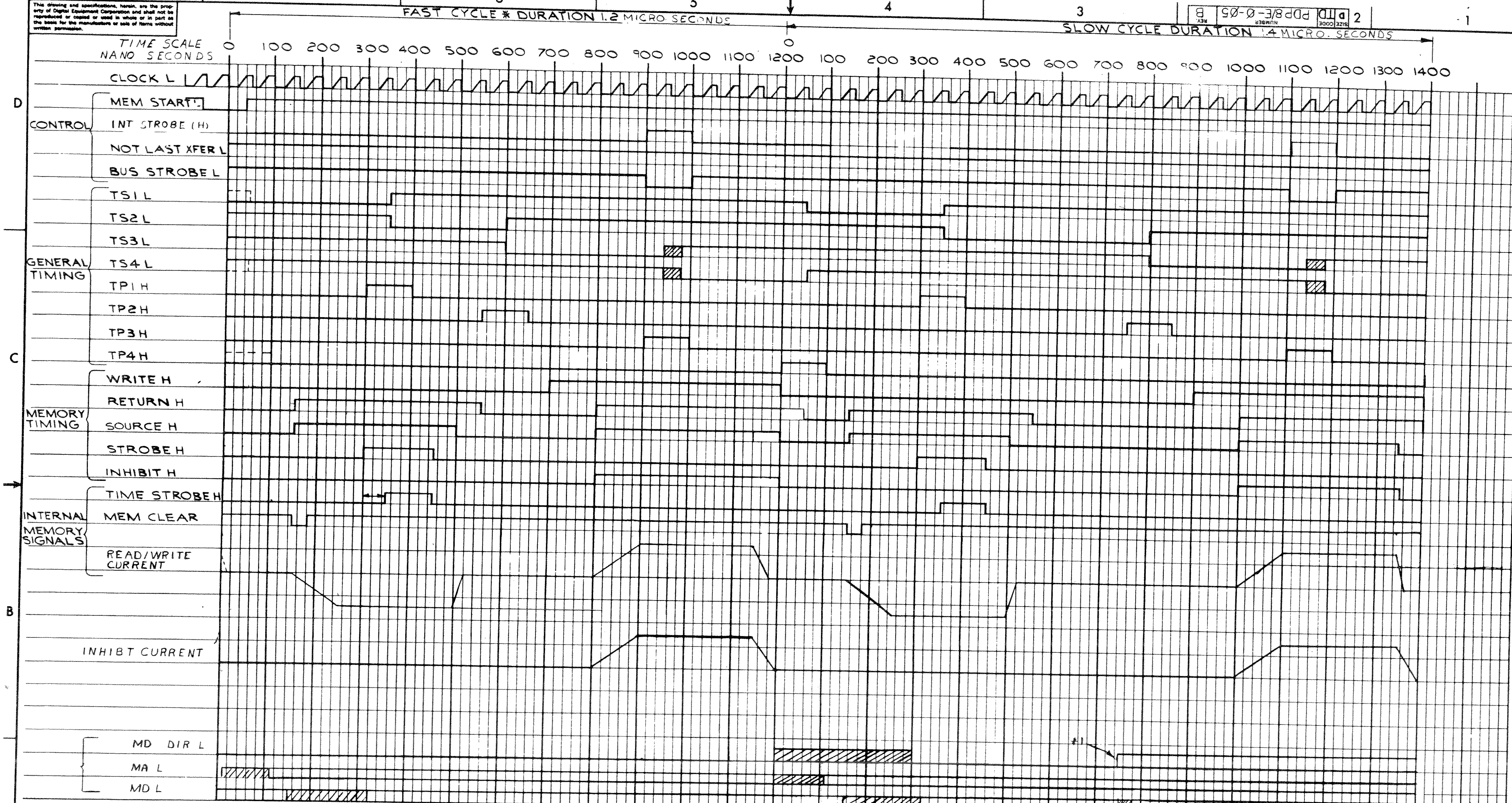


*THIS PLOT SHOWS AN INITIAL FAST CYCLE
THE DOTTED LINES INDICATE A REGULAR CYCLE

#1:MD DIR GOES LOW ONLY IF F* [D-AUTO INDEX]

CIRCUIT DELAYS ARE NEGLECTED IN THIS TIMING DIAGRAM

REVISIONS				
CHK	CHANGE NO.	REV.		
AJ	8E-00019	A	NARHI	
	8E-00049	B	11-10-71	L. KLOTZ

DEC FORM NO. DRD 102A

FIRST USED ON OPT/MOD	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP8/E		PARTS LIST		

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

MATERIAL
FINISH

		DATE
DRN.	J. Ferguson	1-9-71
CHK'D.	[signature]	1/11/71
ENG.	Larry Hacker	1/12/71
PROJ. ENG.	[signature]	1/12/71
PROD.	[signature]	1/13/71

NEXT HIGHER ASSY A-ML-PDP8/E-Ø

SCALE NONE
SHEET 1 OF 2

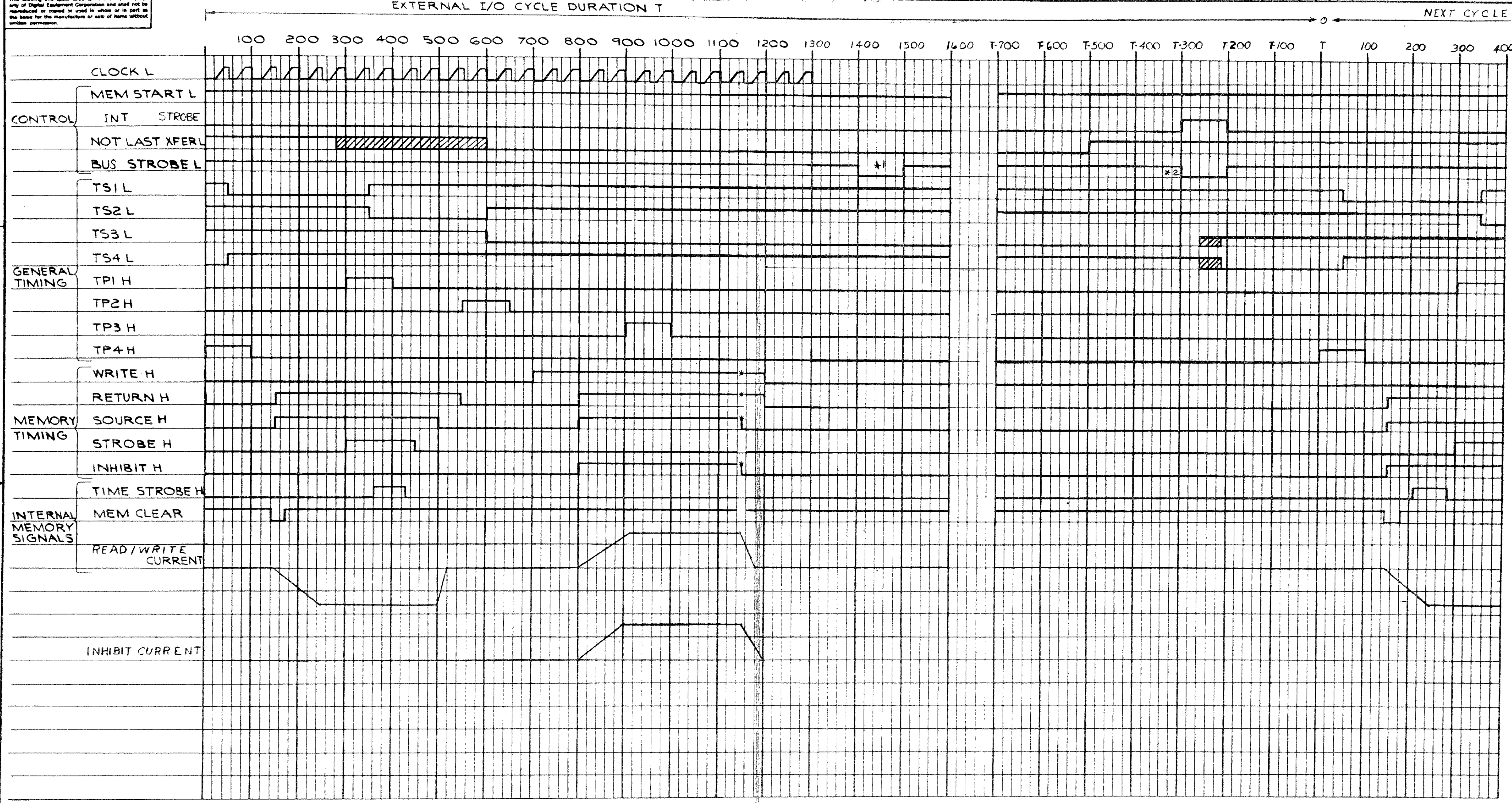
DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
TIMING (PDP8/E)

SIZE	CODE	NUMBER	REV.
D	TD	PDP8/E-Ø-Ø5	E

DIST.

D TD PDP8/E-Ø-Ø5 REV. B



NOTE: * MEMORY SIGNALS TIME OUT, AS IN A FAST CYCLE

*1 GENERATED BY PERIPHERAL TO STROBE DATA

*2 GENERATED BY PERIPHERAL TO TERMINATE EXT. I/O CYCLE AND RESUME NORMAL OPERATION

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FIRST USED ON OPT/MOD	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP8/E		PARTS LIST		

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

DRN. DATE 1-7-71
CHK'D. DATE 1/11/71
ENG. DATE 1/12/71
PROJ. ENG. DATE 1/12/71
PROD. DATE 1/13/71

MATERIAL

FINISH

NEXT HIGHER ASSY A-ML-PDP8/E-Ø

SCALE NONE

SHEET 2 OF 2

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE TIMING (PDP8/E)

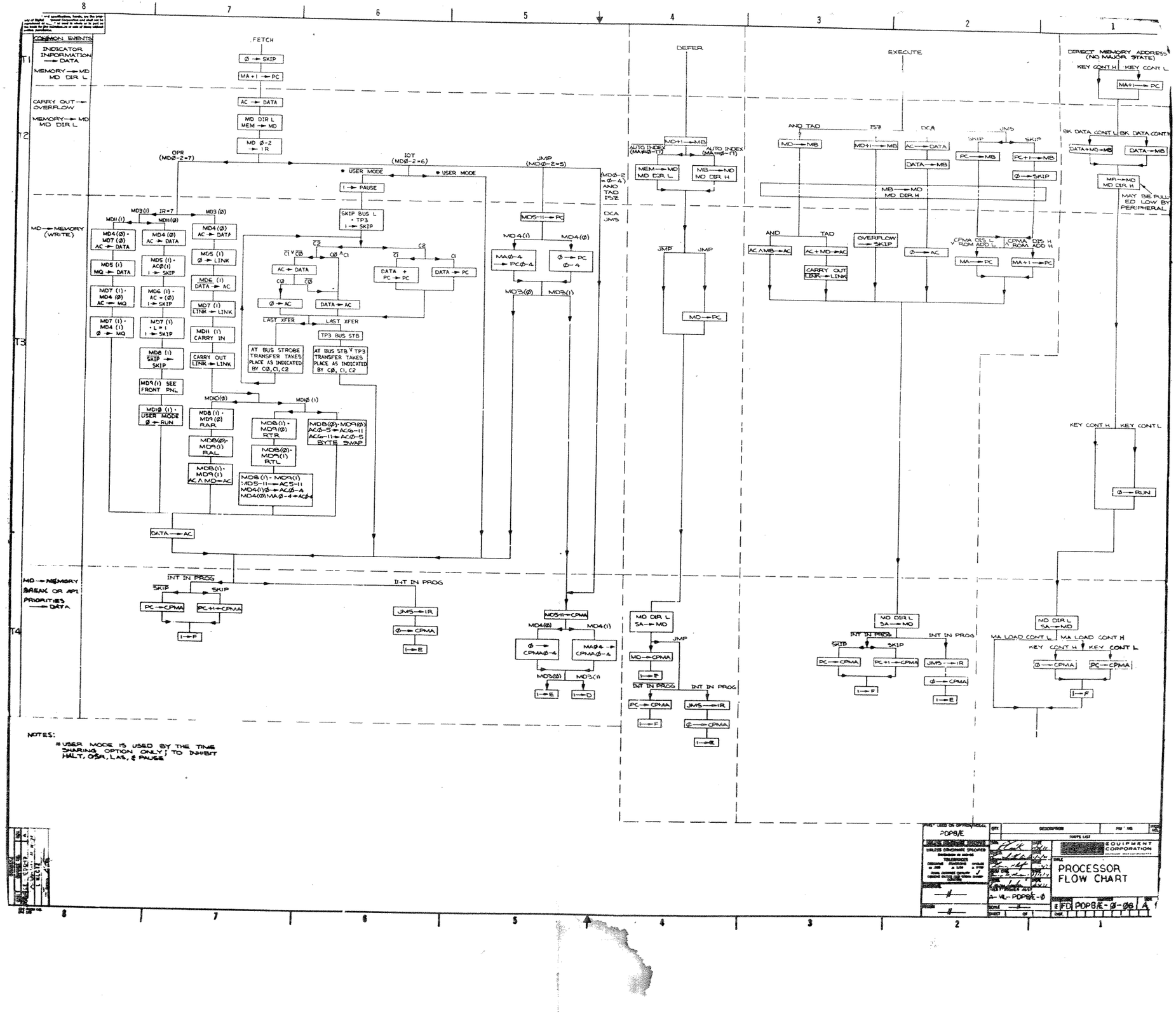
SIZE D CODE TD NUMBER PDP8/E-Ø-Ø5 REV. B

DIST.

REVISIONS REV. CHANGE NO. CHK

DEC FORM NO. DRD 102A

D TD PDP8/E-Ø-Ø5 B


COMMON EVENTS
INDICATOR INFORMATION → DATA
MEMORY → MD
MD DIR L
CARRY OUT → OVERFLOW
MEMORY → MD
MD DIR L
MD → MEMORY (WRITE)
FETCH
Ø → SKIP
MA+1 → PC
AC → DATA
MD DIR L MEM → MD
MD Ø-2 → IR
OPR (MDØ-2=7)
IOT (MDØ-2=6)
JMP (MDØ-2=5)
* USER MODE
1 → PAUSE
SKIP BUS L · TP3
1 → SKIP
MD5-11 → PC
MD4(1)
MD4(Ø)
MA Ø-4 → PC Ø-4
MD3(Ø)
MD3(1)
DEFER
MD+1 → MB
AUTO INDEX (MA=Ø-17)
MEM → MD MD DIR L
MB → MD MD DIR H
JMP
MD → PC
EXECUTE
AND TAD
ISZ
DCA
JMS
MD → MB
MD+1 → MB
AC → DATA
DATA → MB
SKIP
PC → MB
PC+1 → MB
Ø → SKIP
MB → MD MD DIR H
AND
AC ∧ MB → AC
TAD
AC + MD → AC
CARRY OUT LINK → LINK
OVERFLOW → SKIP
Ø → AC
CPMA DIS L ∨ ROM ADD L
CPMA DIS H ∧ ROM ADD H
MA → PC
MA+1 → PC
DIRECT MEMORY ADDRESS (NO MAJOR STATE)
KEY CONT H
KEY CONT L
BK DATA CONT L
BK DATA CONT H
DATA+MD → MB
DATA → MB
MD → MD MD DIR H
MAY BE PULLED LOW BY PERIPHERAL
Ø → RUN
MD DIR L SA → MD
INT IN PROG
SKIP
PC → CPMA
PC+1 → CPMA
JMS → IR
1 → F
1 → E
MA LOAD CONT L
MA LOAD CONT H
1 → D
MD → MEMORY BREAK OR API PRIORITIES → DATA
NOTES:
* USER MODE IS USED BY THE TIME SHARING OPTION ONLY; TO INHIBIT HALT, OSR, LAS, & PAUSE
PDP8/E
EQUIPMENT CORPORATION
PROCESSOR FLOW CHART
FD PDP8/E-0-D6

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ACCESSORY LIST

MADE BY L Gilbert DATE 9-27-79	CHECKED Gilbert DATE 9-27-79	SECTION	
ENG Bern Taylor DATE 9/-27-79	PROD B. Taylor DATE 9-27-79	ISSUED SECT.	

LEGEND
- D DOCUMENT
- DN DOCUMENT CHANGE NOTICE
- PA PAPER TAPE ASCII
- PB PAPER TAPE BINARY
- PM PAPER TAPE READ-IN-MODE

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QUANTITY/VARIATION KM8-E							KIT CHECK BY ___ DATE ___	INSTALLATION CHECK BY ___ DATE ___
1	M837	KM8E Control	1								
2	A-ML-KM8-E	Printset (when not included in CPU set)	1								
3	LIBKIT-8E-KM8E	Diagnostics	1								
4	DEC-8E-HR2C-D	Maintenance Manual Volume 11	1								

Note: KM8-E Accessories are normally called for by the CPU accessory list. This list is for address options only.

TITLE	ASSY. NO.	SIZE	CODE	NUMBER	REV.	ECO NO
KM8-E ACCESSORY LIST		A	AL	KM8-E-3		KM8E-00004
	SHEET 1 OF 1	DIST.				

DEC 16-(325)-1075-N172 DRA 121

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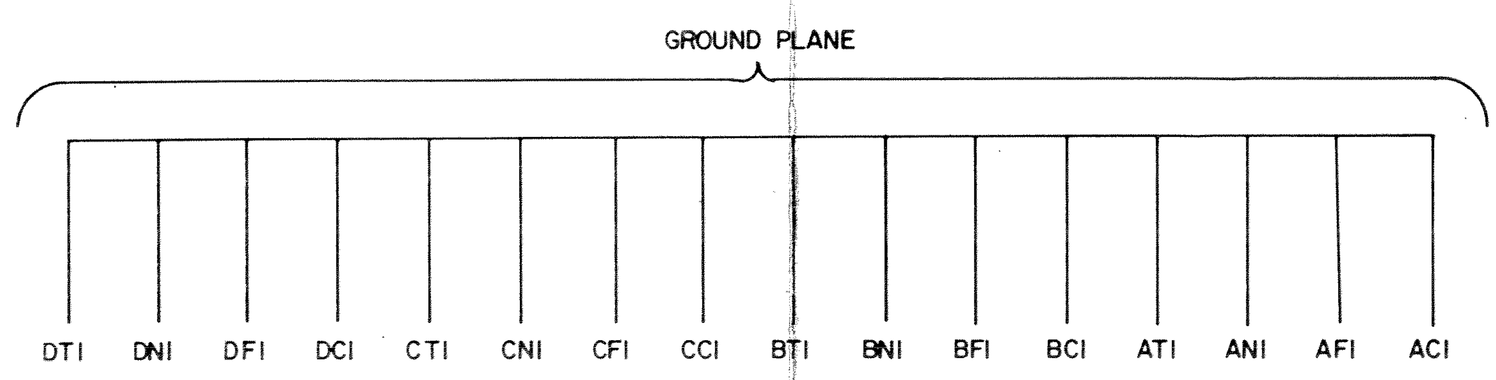

REVISIONS		
CHK	CHG NO.	REV.

DRN. NANCY MOORE	DATE 8/18/70
CHK'D R. Waldie	DATE 8/24/70
ENG. Al [illegible]	DATE 10/1/70
PROD. R.K. [illegible]	DATE 7-6-71

TRANSISTOR & DIODE CONVERSION CHART

DEC	EIA	DEC	EIA

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE RFI SHIELD M849

SIZE	CODE	NUMBER	REV.
B	CS	M849-0-1	C

PRINTED CIRCUIT REV. D

DEC FORM NO. DRB 102

DIST. 324,434,435[3] 5 PINK

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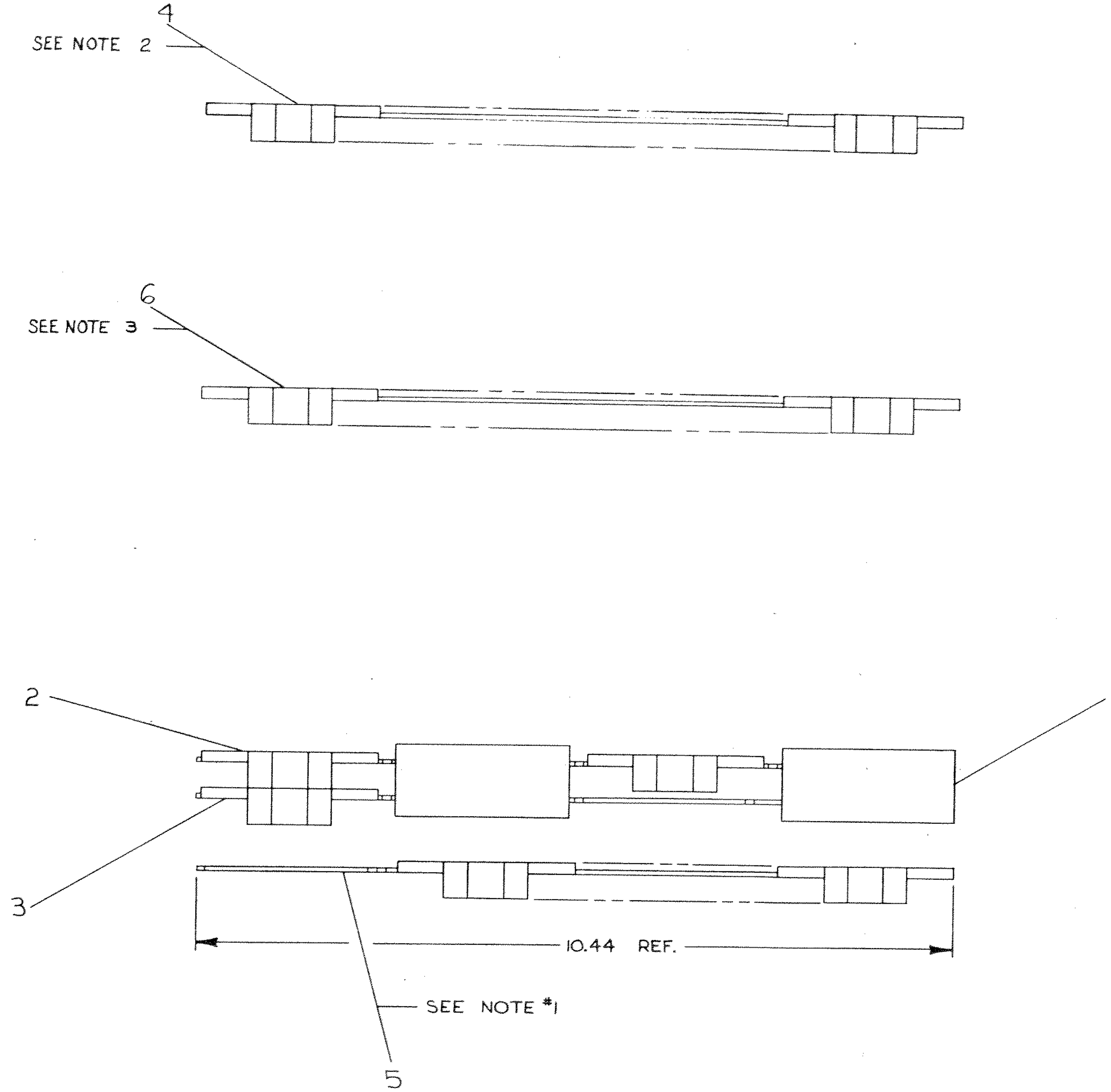


NOTES:

1. ITEM NO. 5 (M8330, TIMING GENERATOR) MUST BE PLACED IN THE FIRST SLOT OF THE OMNIBUS AFTER THE CONSOLE BOARD.
2. ITEM NO. 4 (M832Ø BUS LOADS) MUST BE PLACED IN THE LAST SLOT OF THE LAST OMNIBUS
3. ITEM NO. 6 (M849 RFI SHIELD) MUST BE PLACED IN THE SLOT PRECEEDING THE FIRST MM8E (4 K MEMORY) OR ANY OTHER MEMORY OPTION
4. REFER ALSO TO THE PRIORITY LISTING A-SP-PDP 8 E-Ø-4

PARTS LIST

QTY.	DESCRIPTION	PART NO.	ITEM NO.
1	RFI SHIELD	B-CS-M849-Ø-1	6
1	TIMING GENERATOR	E-CS-M833Ø-Ø-1	5
1	BUS LOADS	E-CS-M832Ø-Ø-1	4
1	MAJOR RESISTOR CONTROL	E-CS-M831Ø-Ø-1	3
1	MAJOR REGISTORS	E-CS-M83ØØ-Ø-1	2
2	EDGE CONNECTOR	B-UA-H851-Ø-Ø	1

FIRST USED ON OPTION MODEL: PDP 8/E

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

MATERIAL: —/—

FINISH: —/—

DRN. R.E. Heller DATE 12/14/70
CHK'D. DATE 12-15-70
ENG. DATE 1/12/71
PROJ. ENG. DATE 1/12/71
PROD. DATE 1/13/71

NEXT HIGHER ASSY A-ML-KK8-E

SCALE 1/1
SHEET 1 OF 1

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: CENTRAL PROCESSOR (KK8-E)

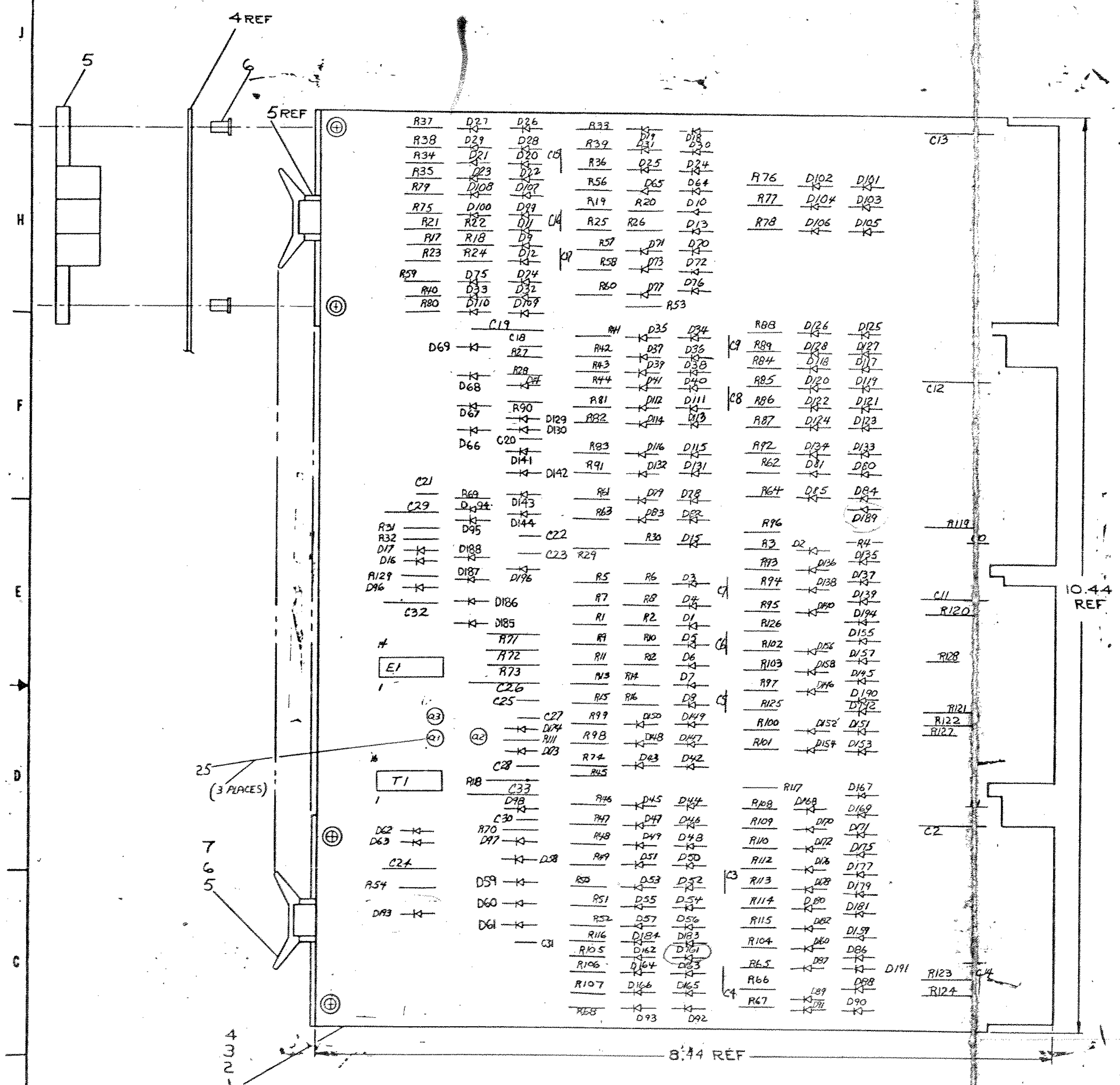
SIZE D CODE UA NUMBER KK8-E-Ø REV. C

DIST.

REVISIONS

REV	CHANGE NO	CHK
A	KK8E-00001 CHERTKOW	
B	KK8E-00004 KIRK	
C	KK8E-00005 KIRK	

DEC FORM NO DRD 102A



NOTES:

1. UNLESS OTHERWISE SPECIFIED:
   CAPACITORS = .047UF 16V 15-20%
   RESISTORS = 1500 ¼W 5%
   DIODES = D664
2. CONNECT ALL PINS C,F,N,T (EXCEPT AC1) TOGETHER TO GROUND.
3. ITEM NO. 8 (D664) MAY BE REPLACED WITH D600 P.N. 1105366 (REV C ONLY).
4. INSTALL ITEM 25 (TUBING) ON BASE LEAD OF EACH 2N3725.
5. ANY COLOR TUBING MAY BE USED FOR ITEM 25.

QTY.	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
A/R		TUBING, 22 AWG	9107256-11	25
3		TRANS 2N3725	1510959	24
12	R57-R68	RES 1K ¼W 5%	1300365	23
A/R		GRIPLET	1210244-0	22
3	C24, C29, C32	CAP 330PF 100V 5%	1000023	21
7	C2, C11, C12, C13, C19, C26, C33	CAP 6.8UF 35V 20%	1000067	20
23	C1, C3-C10, C14-C18, C20-C23, C25, C27, C28, C30, C31	CAP .047UF 16V 15-20%	1009678	19
1	E1	IC DEC 7400	1955799	18
1	T1	PULSE XMFR 8010 DUAL INLINE	1609651	17
~~1~~	~~Q1~~	~~TRANS DEC 4008~~	~~1510016~~	16
6	R119-R124	RES 1K ½W 10%	1302187	15
4	R71-R73, R118	RES 1.2K ½W 10%	1300387	14
46	R53, R69, R74-R117	RES 1500 ¼W 5%	1300391	13
40	R2, R4, R6, R8, R10, R12, R14, R16, R18, R20, R22, R24, R26, R28, R30, R32-R52, R56, R70, R127, R128	RES 470 ¼W 10%	1300316	12
20	R1, R3, R5, R7, R9, R11, R13, R15, R17, R19, R21, R23, R25, R27, R29, R31, R54, R125, R129, R126	RES 150 ¼W 5%	1300250	11
2	D17, D97	DIODE D672	1105275	10
16	D58-D61, D66-D69, D141-D144, D185-D188	DIODE D662	1100113	9
177	D1-D16, D18-D57, D62-D65, D70-D96, D98-D140, D145-D184, D189-D194, D196	DIODE D664	1100114	8
~~16~~		~~SPACER (CABLE CLAMP)~~	~~1202704~~	7
8		EYELET	9006732	6
4		HANDLE FLIP CHIP-MAGENTA	9008337-06	5
1		ETCHED CIRCUIT BOARD	5009486	4
REF		MODULE HISTORY LIST	B-MH-M8320-0-6	3
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-M8320-0-5	2
REF		X-Y COORDINATE HOLE LOC.	K-CO-M8320-0-4	1

PARTS LIST

ETCH BOARD REV D

DEC NO.	EIA NO.	DEC NO.	EIA NO.
DEC 4008	—		
D664	1N3606		
D672	1N3653		
D662	1N645		

SEMICONDUCTOR CONVERSION CHART

IC TYPE	GND / +5V
GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTFULLY. EXCEPTIONS ARE STATED ABOVE	
IC PIN LOCATIONS	

ITEM NO	AWG	FROM PT	TO PT

JUMPER LIST

REVISIONS: A — ORIGINATED M8320-00001 — L. KLOTZ

DIGITAL EQUIPMENT CORPORATION

TITLE: BUS LOADS

DRN. 5-3-71 · CHK'D. · ENG. · PROJ. ENG. · PROD.

FIRST USED ON: D-UA-KK8-E-0

SIZE: E · CODE: CS · NUMBER: M8320-0-1 · REV. J

SCALE 2/1 · SHEET 1 OF 2

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TP Ø4 N
CU2
E1 7400
R1 150
R2 470
D1
CO2 TP Ø1 N
R3 150
R4 470
D2
CF0 TP Ø2 N
R5 150
R6 470
D3
CM0 TP Ø3 N
R7 150
R8 470
D4
CK0 TS Ø1 L
R9 150
R10 470
D5
CL0 TS Ø2 L
R11 150
R12 470
D6
CM2 TS Ø3 L
R13 150
R14 470
D7
CP0 TS Ø4 L
R15 150
R16 470
D8
ARØ RETURN N
R17 150
R18 470
D9
ALØ SOURCE N
R19 150
R20 470
D10
AND STROBE H
R21 150
R22 470
D11
ASØ WRITE N
R23 150
R24 470
D12
APØ INHIBIT N
R25 150
R26 470
D13
GL2 INT STROBE N
R27 150
R28 470
D14
CO1 I/O PAUSE L
R29 150
R30 470
D15
GND
ALL C,F,N +T PINS EXCEPT AC1.

ARØ +5V
AR1
AR2
AR3
C18 .047 MF
C19 6.8 UF
C11 6.8 MF
C10 .047 MF
C7 .047 MF
C16 .047 MF
C12 6.8 UF
R31 150
C29 33 PF
T1
Q1 2N3725
C8 6.8 UF
C1 .047 MF
C13 6.8 MF
C27 .047 UF
D16 D17 D672
R32 470
TEST POINT AØ1
+5V
+15V DØ1
R53
R74
R56 470
AND MEM DIR IN L
D64 D65
C17 .047 MF
C23 .047 MF
DØ6 DØ7 DØ8 DØ9 DØ62 DØ62 DØ62 DØ62
E57 1K
D70 D71
E58 1K
D72 D73
E59 1K
D74 D75
E60 1K
D76 D77
E61 1K
D78 D79
E62 1K
D80 D81
E63 1K
D82 D83
E64 1K
D84 D85
E65 1K
D86 D87
E66 1K
D88 D89
E67 1K
D90 D91
E68 1K
D92 D93
R67
D94 D95
ARI DATA ØØ L
AØI DATA Ø1 L
AØ2 DATA Ø2 L
AØ3 DATA Ø3 L
BRI DATA Ø4 L
BØI DATA Ø5 L
BØ2 DATA Ø6 L
BØ3 DATA Ø7 L
DRI DATA ØØ L
DØI DATA Ø9 L
DØ2 DATA 1Ø L
DØ3 DATA 11 L
BG9 INT IN PROG H
+15 V
DØ7 D672
R70 470
DRI TEST POINT
R129 150
C32 .33 MF
T1
Q2 2N3725
C33 6.8 UF
C36 .047 UF
C28 .047 UF
D93
R71 1.2K
R72 1.2K
R73 1.2K
R118 1.2K
-15 V
E1 7400
+5V
R54 150
C24 .33 MF
T1
Q3 2N3725
D62 D63
+5V
E1 7400
E33 470
AØI MA ØØ L
E34 470
AR1 MA Ø1 L
E35 470
AN1 MA Ø2 L
E36 470
AN1 MA Ø3 L
E37 470
AØØ E MA ØØ L
E38 470
AR2 E MA Ø1 L
E39 470
AN2 E MA Ø2 L
E40 470
AUR ROM ADDRESS L
E41 470
BØI MA Ø4 L
E42 470
BØ1 MA Ø5 L
E43 470
BNI MA Ø6 L
E44 470
BU1 MA Ø7 L
E45 470
CWI MAS IR DISABLE L
E46 470
DØ1 MA Ø8 L
E47 470
DE1 MA Ø9 L
E48 470
DN1 MA 1Ø L
E49 470
DU1 MA 11 L
E50 470
DN2 F L
E51 470
DR2 D L
E52 470
DL2 E L
C31 .047 MF
DØ62 DØ62 DØ62 DØ62
DD9 DD9 DD8 DD1
C9 .047 MF
C21 .047 MF
R 96
E75
D99 D100
AN1 MD ØØ L
E76
D101 D102
AL1 MD Ø1 L
E77
D103 D104
AM1 MD Ø2 L
E78
D105 D106
AP1 MD Ø3 L
E79
D107 D108
AN2 MEM START L
E80
D109 D110
AV2 LINK L
E81
D111 D112
BE2 BRK IN PROG L
E82
D113 D114
BW2 OVERFLOW L
E83
D115 D116
BM2 LD ADD ENABLE L
E84
D117 D118
BN1 MD Ø4 L
E85
D119 D120
BL1 MD Ø5 L
E86
D121 D122
BM1 MD Ø6 L
E87
D123 D124
BP1 MD Ø7 L
E88
D125 D126
BH2 MA,MS LOAD CONT L
E89
D127 D128
BK2 BREAK DATA CONT L
E90
D129 D130
BL2 BREAK CYCLE L
E91
D131 D132
BR2 RES Ø1 L
E92
D133 D134
BS2 RES Ø2 L
E93
D135 D136
CE2 C ØØ L
E94
D137 D138
CH1 C Ø1 L
E95
D139 D140
CV1 C Ø2 L
C8 .047 MF
C20 .047 MF
DØ62 DØ62 DØ62 DØ62
DM1 DM2 DM3 DM4
C3 .047 MF
C5 .047 MF
E97
D141 D142
CP1 INT RQST L
E98
D143 D144
CS1 SKIP L
E99
D145 D146
CR2 LINK DATA L
E100
D147 D148
CU2 IND Ø1 L
E101
D149 D150
CV2 IND Ø2 L
E102
D151 D152
CL1 INTERNAL I/O L
E103
D153 D154
CM1 NOT LAST XFER L
E104
D155 D156
DD2 / SET L
E105
D157 D158
DD2 STOP L
E106
D159 D160
DU2 KEY CONTROL L
E107
D161 D162
DV2 SM L
E108
D163 D164
DD2 IR ØØ L
E109
D165 D166
DE2 IR Ø1 L
E110
D167 D168
DH2 IR Ø2 L
E111
D169 D170
CW1 CPMA DISABLE L
E112
D171 D172
DX1 MD ØØ L
E113
D173 D174
DL1 MD Ø1 L
E114
D175 D176
DM1 MD 1Ø L
E115
D177 D178
DN1 MD 11 L
E116
D179 D180
DM2 USER MODE L
C4 .047 MF
C6 .047 MF
DØ62 DØ62 DØ62 DØ62
DM5 DM6 DM7 DM8
D193
R119 1K
BV2 POWER ON H
R120 1K
D189
R121 1K
CR1 INITIALIZE H
R122 1K
D190
R123 1K
DØ2 LOAD ADDRESS L
R124 1K
D191
.047 MF CM
C82, D82
-15 V
R125 150
CØ2 LINK LOAD L
D192
R127 470
R126 150
CM1 BUS STROBE L
D194
R128 470
BU2 BUS H
D196

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
		PARTS LIST		

UNLESS OTHERWISE SPECIFIED
DIMENSIONS IN INCHES
TOLERANCES
FRACTIONAL ± 1/64 ANGLES ± 1°30'
2 PLACE DECIMAL ± .010
3 PLACE DECIMAL ± .005
FINAL SURFACE QUALITY REMOVE BURRS AND SHARP CORNERS
MATERIAL
FINISH

DRAWN M. Jolliff DATE 3-6-71
CHECKED DATE
ENG'G DATE 3-6-71
PROJ. ENG. DATE 3-6-71
PROD. DATE 3-11-71
APPROVED BRENT HISCHER 3/6/71
SCALE 3/4"=1" SHEET 2 OF 2

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE: BUS LOADS

SIZE D CODE 83520 NUMBER -0-1 REV. (*)
DIST.

M8320

REVISIONS			
LTR	CHANGE NO.	DESCRIPTION	DATE

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DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION

DATE 4/21/71

TITLE KK8-E PDP8/E Central Processor

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE
A	UPDATE PER ECO	KK8E-00004	GARDNER	9-73	J. Kirk	13Nov73
B	UPDATE PER ECO	KK8E-00005	GARDNER	12-74	J. Kirk	19Dec74

ENG	APPD	SIZE	CODE	NUMBER	REV
Louis Klotz	Hans Vogelsang	A	SP	KK8-E-1	B

DEC FORM NO. DRA 107

1.0 Overall Description

KK8-E is a 12-bit central processor for the PDP8 E. The Small Computer Handbook and the PDP8 E Maintenance Manual represent part of this specification and should be referred to.

2.0 General Specification

2.1 Definition of basic system

A. M83ØØ - Major Registers
B. M831Ø - Major Register Control
C. M833Ø Timing Generator
D. M832Ø - Bus Loads
E. M849 - RFI Shield

2.2 List of Included Options

A. M834Ø- KE8-E Extended Arithmetic Unit
B. May handle other options not directly connected to the processor - such as programmers console, teletype, etc. Reference Small Computer Handbook.

2.3 Mechanical Packaging

A. Each board is an 8½by10½ quad board, (REF D-MD-7605994-Ø-Ø
B. The M83ØØ is connected by the use of two H851's to the M831Ø.
C. The M833Øand M831Ø each have one slot provided to connect to the KE8-E using H851 connectors.
D. All modules plug into the Omnibus.
(Reference Small Computer Handbook & A-SP-PDP8E-Ø-4)

2.4 Environmental Specification

A. Temperature 32° - 122°F (Ø - 50°C)
B. Humidity Maximum 9Ø% Rel. No condensation
C. Power, total

+5	+15	-15
4.42a	.53a	.97a

SIZE	CODE	NUMBER	REV
A	SP	KK8-E-1	B

DEC FORM NO 16-1022 DRA 108

2.5 General Performance Specification

Refer to Small Computer Handbook.

3.Ø Specification of Vendor Supplied Equipment

Refer to Purchase Specification for component in question.

4.Ø Programming

Refer to Small Computer Handbook.

5.Ø Interface Specifications

Refer to Small Computer Handbook.

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DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION

DATE 5/26/71

TITLE KM8E ACCEPTANCE PROCEDURE

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

ENG	APPD	SIZE	CODE	NUMBER	REV
[signature]	[signature]	A	SP	7665140-0-0	

DEC FORM NO. DRA 107

1.0 SCOPE

1.1 This procedure defines the minimum performance standards required of a KM8E option which is not accepted as an integral part of a PDP8-E, i.e., add-on options.

2.0 SET UP

2.1 Inspect the M837 (KM8E) module to insure conformance to "Final Inspection Procedure for Flip-Chip Modules" (A-SP-7665039-0-0) and "Module Rework Standard" (A-SP-7605845-0-0).

2.2 Check the M837 (KM8E) module for a legible three character numerical date code.

2.3 Check the M837 module to insure the circuit and etch revisions are up to current ECO levels.

2.4 A PDP8-E with a minimum of two fields of known good memory must be used to accept the KM8E option.

2.5 Make sure the power to the PDP8-E is turned OFF.

2.6 Insert the M837 (KM8E) module into the omnibus. Be sure you adhere to the "Recommended Omnibus Assignment List" (A-SP-PDP8-e-0-4).

3.0 ELECTRICAL TEST

3.1 Turn on power to the PDP8-E.

3.2 Follow the loading procedure for the KM8-E Extended Memory and Time Share Control diagnostic (MAINDEC-8E-D1HA-D).

3.3 Run the KM8-E diagnostic following the instructions in the prgram write-up, this test must run error free for a minimum of 15 minutes.

3.4 Follow the loading procedure for Extended Memory Checkerboard (MAINDEC-8E-D1BA).

3.5 Run the Extended Memory Checkerboard diagnostic following the instructions in the program write-up. This test must run error free for two (2) minutes.

3.6 Follow the loading procedure for the Extended Memory Address Diagnostic (MAINDEC-8E-D1FA).

3.7 Run the Extended Memory Address Diagnostic following the instructions in the program write-up. This test must run error free for a minimum of two (2) minutes.

4.0 FAILURE CLASSIFICATION

4.1 Mechanical Failure.

4.1.1 Any M837 (KM8E) module that does not meet the criterion outlined in 2.1, 2.2 and 2.3 will be classified as a failure.

4.1.2 The acceptance supervisor has the option of either waivering the failure (using DEC waiver form 12-1026) or returning the M837 to production for repair.

4.2 Electrical Failure.

4.2.1 Any M837 which while performing 3.3, 3.5 or 3.7 halts, generates error printouts, garble, or runs other than continuous and as specified in the diagnostic write-up will be classified as a failure and returned to production for repair.

2.8 Connect the options together as follows:

MM8-EJ		MM8-EH
G234 or G233	- in back-	G234
H212	- in center-	H211
G115 or G111	- in front-	G115

3.0 ELECTRICAL TEST

3.1 Set strobe switch to position 6.

3.2 Turn on power to PDP8/E.

3.3 MM8-EJ: Follow loading procedure for PDP8/E extended memory data and checkerboard test (Main DEC-Ø8-DHKMA).

MM8-EH: Follow loading procedure for MM8E memory checkerboard (Main DEC-8E-D1AB).

3.4 Run diagnostic following the instructions in the program write-up. This test must run error-free for a minimum of:

MM8-EJ -- 20 minutes.

MM8-EH -- 10 minutes.

3.4.1 If memory runs in position 6:

a) Halt computer.
b) Turn off power.
c) Set strobe switch to position 4.
d) Turn on power.
e) Re-run diagnostic.

3.4.2 If memory runs in position 4:
Set Strobe switch per 3.7.

3.5 If memory does not run in position 6:

a) Halt the PDP8/E.
b) Turn off power.
c) Set strobe switch to position 5.
d) Turn on power.
e) Re-run diagnostic.

3.5.1 If memory runs in position 5:

a) Halt computer.
b) Turn off power.
c) Set strobe switch to position 3.
d) Turn on power.
e) Re-run diagnostic.

3.5.2 If memory runs in position 3:
Set strobe per 3.7.

3.6 Continue this procedure until two running positions, per above procedure, have been located. Memory must run these positions without error for times shown in Para 3.4 to be acceptable.

3.7 Set strobe switch as follows:

Memory Running Positions	Strobe Switch Setting
6, -, 4	5
5, -, 3	4
4, -, 2	3
3, -, 1	2

3.8 MM8-EJ: Follow loading procedure for PDP8/E extended memory address test (Main DEC-8E-D1FB).

MM8-EH: Follow loading procedure for MM8E memory address test (Main DEC-8E-DLEA).

3.9 Run the Diagnostic following the instructions in the program write-up. This test must run error-free for a minimum of:

MM8-EJ -- 20 minutes.
MM8-EH -- 10 minutes.

3.10 If the construction requisition specifically states a particular memory field is desired, have production cut the appropriate EMA jumper or jumpers.

4.0 FAILURE CLASSIFICATION

4.1 Mechanical Failure:

4.1.1 Any module that does not meet the criterion outlined in 2.2, 2.3, 2.4, 2.5 will be classified as a failure.

4.2 Electrical Failure:

4.2.1 Any option which while performing electrical tests in Sec. 3, halts, generates error printouts, garble or runs other than continuous and as specified in the diagnostic write-up will be classified defective and returned to production for repair.

5.0 ALLOWABLE MEMORY SYSTEM CONFIGURATIONS:

	MM8-EJ	MM8-EJ	MM8-EJ	MM8-EJ	MM8-EH
H212	X	X	X	X	
H211					X
G115	X		X		X
G111		X		X	
G234	X			X	X
G233		X	X		

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

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CUSTOMER PRINT SET INDEX

THIS IS PRINT SET ☐☐☐☐

SEQUENCE	MM8-1 PRINT SET	
	BLOCK DIAGRAM	E-BD-MM8-E-1
	4K XY DRIVER	E-CS-G227-Ø-1
	STACK BOARD	E-CS-G619-Ø-1
	SENSE INHIBIT (4K)	E-CS-G1Ø4-Ø-1
	MEMORY ASSY (4K)	D-UA-MM8-E-Ø
	MEMORY ASSY (PL)	A-PL-MM8-E-Ø
	STACK 4K 12 BIT	D-UA-H220-Ø-Ø
	ACCESSORY LIST	A-AL-MM8-E-3
	MM8-E ACCEPTANCE PROCEDURE	A-SP-7665139-0-0

SEQUENCE	MM8-2 PRINT SET	
	BLOCK DIAGRAM	E-BD-MM8-EJ-5
	8K XY DRIVER	E-CS-G233-Ø-1
	8K SENSE INHIBIT	E-CS-G111-Ø-1
	8K STACK SCHEMATIC	E-CS-H212-Ø-1
	MEMORY (8K)	D-UA-MM8-EJ-Ø
	ACCESSORY LIST	A-AL-MM8-E-3
	12 BIT STACK BOARD	D-CS-G646-0-1
	MM8-EJ & MM8-EH ACCEPTANCE PROCEDURE (F.S.)	A-SP-MM8-EJ-1

MFG SET

MANUFACTURING PROC.	A-SP-MM8-E-2
MM8-EJ & MM8-EH MANUFACTURING PROCEDURE (ON LINE)	A-SP-MM8-EJ-2
MM8-EJ & MM8-EH TEST PROCEDURE (OFF LINE)	A-SP-MM8-EJ-3
PURCHASE SPEC.	A-PS-3010654-0-0
PURCHASE SPEC.	A-PS-8009834-0-0
ENGINEERING SPEC.	A-SP-MM8-EJ-4

UNIT VARIATIONS

VAR	TITLE	PRINT SET MM8-1	MM8-2		
MM8-E	4K 12 BIT MEMORY	X			
MM8-EJ	8K 12 BIT MEMORY		X		

REVISIONS	DATE	CHG. NO.	REV
	WJC	MM8EJ-1	A
	7.9.	MM8E-5	B
	EW	MM8E-6	C

DEC 16-13251-1062-1A-8972

DRB 106

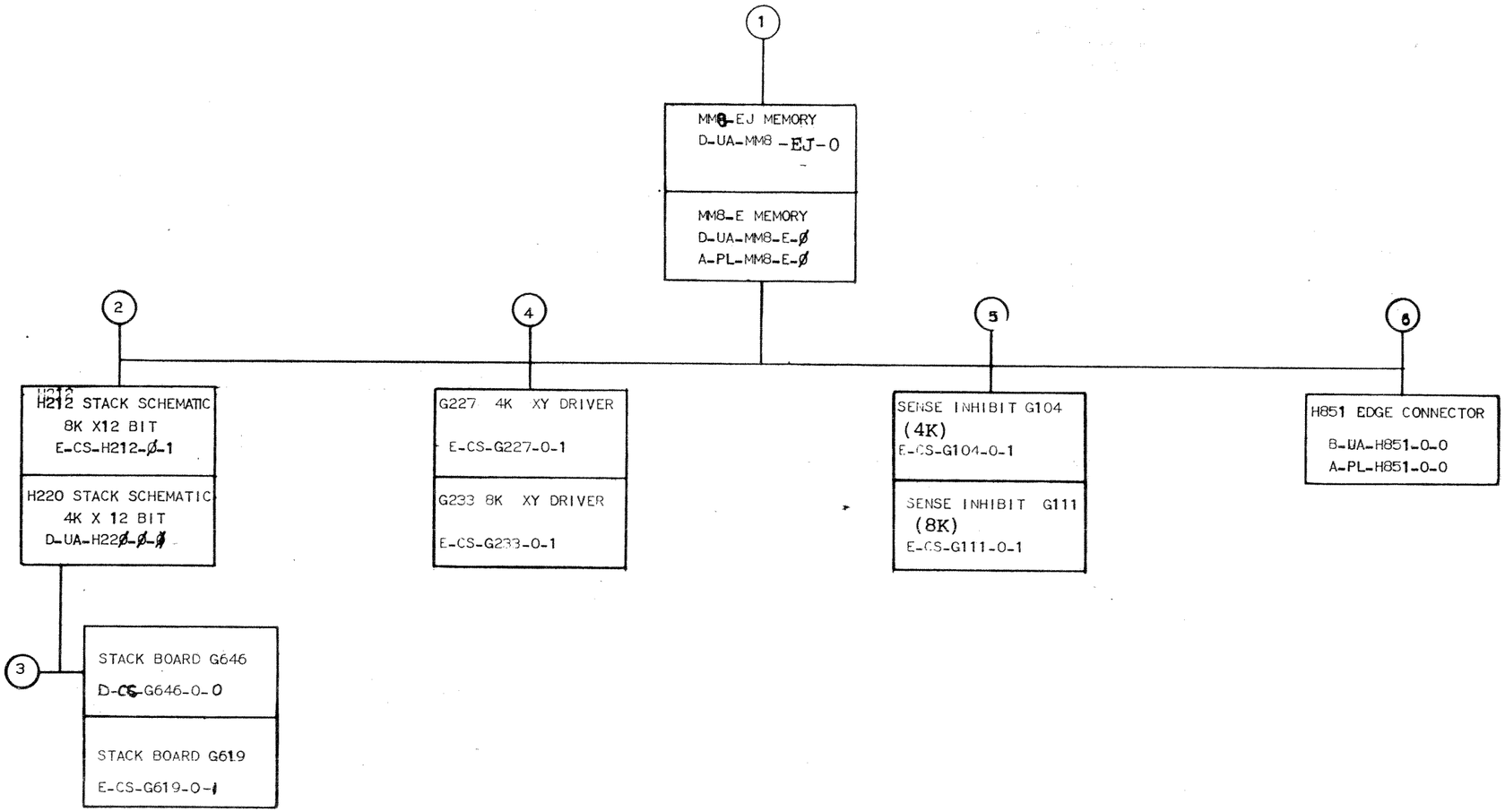
USED ON OPTION/MODEL		DRN.	DATE
		F.CARBERRY	2-17-72
		CHK'D. J. KALAGHER	DATE 6-6-72
		PROJ ENG. W. COATES	DATE 6-21-72
		PROD. W. COATES	DATE 6-21-72
		FIELD SERV. W.COATES	DATE 6-21-72

SHEET 1 OF 3

TITLE: MEMORY DRAWING DIRECTORY

SIZE	CODE	NUMBER	REV
B	DD	MM8-E	C

DIST G



TITLE		SIZE	CODE	NUMBER	REV
MEMORY	SHEET 2 OF 3	B	DD	MM8-E	C

DRB 107
DEC 16-(325)-1062-3-N871

ELECTRICAL

CUSTOMER PRINT SET MM8-1	CUSTOMER PRINT SET MM8-2	SET MFG.	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO.
X			1	E-BD-MM8-E-1		1	BLOCK DIAGRAM TIMING	
		X		A-SP-MM8-EJ-3	A	21	MM8-EJ&MM8-EH TEST PROCEDURE (OFFLINE)	
	X			E-BD-MM8-EJ-5	A	1	BLOCK DIAGRAM TIMING	
	X		2	E-CS-H212-Ø-1	#	2	STACK SCHEMATIC 8K X 12 BIT	
X			3	E-CS-G619-Ø-1	#	2	PLANAR STACK SCHEMATIC	
	X			D-CS-G646-Ø-1	#	1	12 BIT STACK BOARD	
X			4	E-CS-G227-0-1	#	2	4K XY DRIVER BOARD	
	X			E-CS-G233-0-1	#	5	8K XY DRIVER BOARD	
X			5	E-CS-G104-0-1	#	2	SENSE INHIBIT	
	X			E-CS-G111-0-1	#	3	8K SENSE INHIBIT BOARD	

MECHANICAL

CUSTOMER PRINT SET MM8-1	CUSTOMER PRINT SET MM8-2	SET MFG	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO.
X			1	D-UA-MM8-E-0		1	4K 12 BIT MEMORY	
X				A-PL-MM8-E-0		1	4K 12 BIT MEMORY (PL)	
	X			D-UA-MM8-EJ-0	B	1	8K 12 BIT MEMORY	
X				A-SP-7665139-0-0	#	4	ACCEPTANCE PROC	
		X		A-SP-MM8-E-2			MANUFACTURING PROC.	
	X			A-SP-MM8-EJ-1	A	5	MM8-EJ& MM8-EH ACCEPTANCE PROCEDURE	
		X		A-SP-MM8-EJ-2	A	4	MM8-EJ&MM8-EH MANUFACTURING PROC.(F.S.)	
X	X			A-AL-MM8-E-3	B	1	ACCESSORY SHIPPING LIST	
		X		A-SP-MM8-EJ-4			ENGINEERING SPECIFICATION	
			2	B-DD-H212-0		2	STACK 8K 12 BIT	
				D-UA-H220-0-0	#	2	STACK 4K 12 BIT	
		X	3	A-PS-3010654-0-0	#		PURCHASE SPEC	
		X		A-PS-3009834 -0-0	#		PURCHASE SPEC	
				C-MD-5509025-0-0		1	COVER PLATE	
			6	B-UA-H851-0-0			EDGE CONNECTOR	
				A-PL-H851-0-0			EDGE CONNECTOR PL	
				B-MD-5509071-1-0			RECEP 36 PIN REWORK	
				D-IA-5008903-0-0			ETCH BOARD	

TITLE		SIZE	CODE	NUMBER	REV
MEMORY	SHEET 3 OF 3	B	DD	MM8-E	C

DRB 108

DEC - 16- (325)-1062-2A-R272

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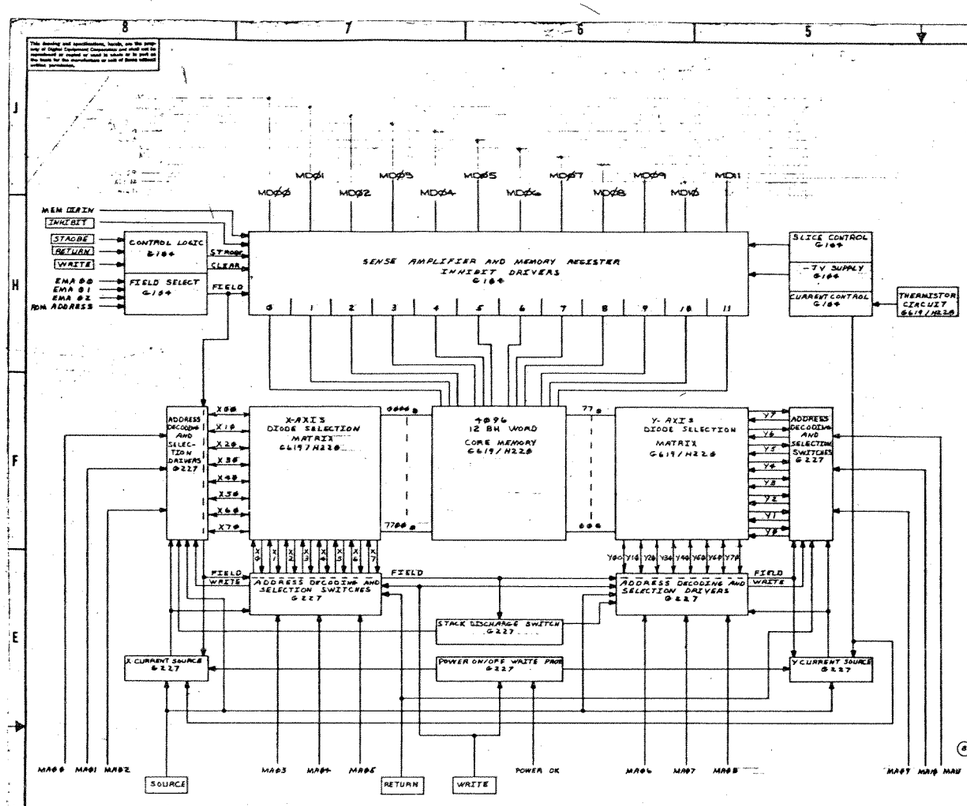

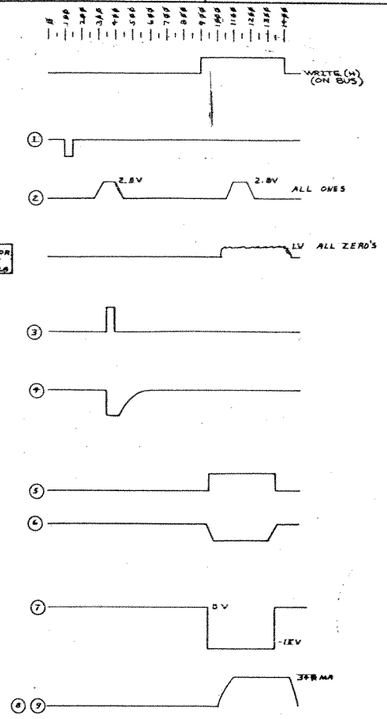

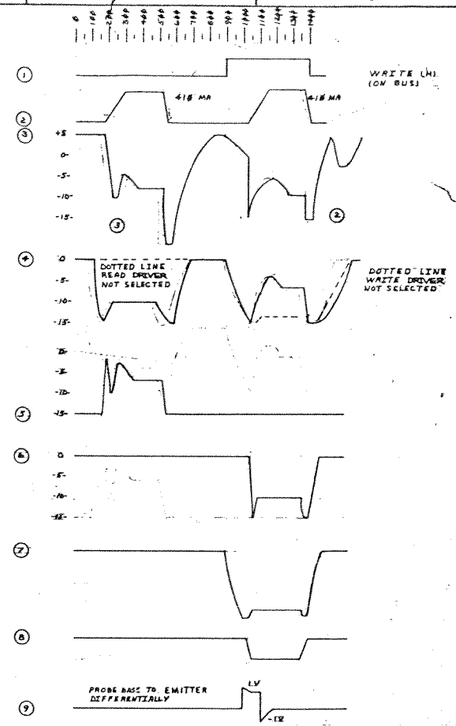

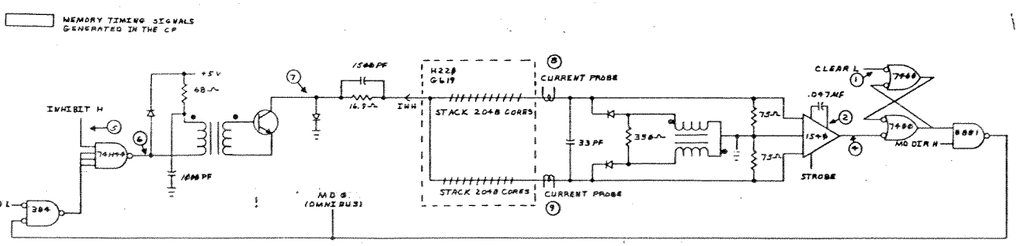

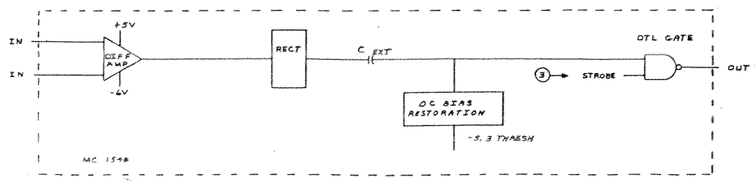

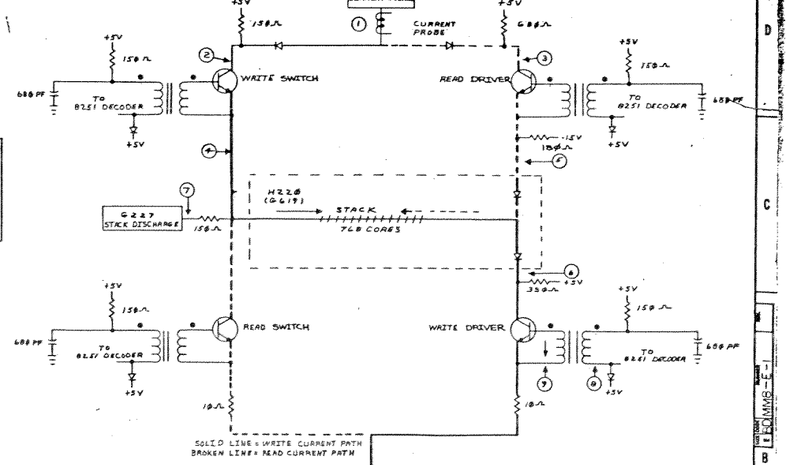

FIRST USED ON OPT/MOD: MM8-E	QTY.	DESCRIPTION	PART NO. / ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS .XXX ± FRACTIONS ± ANGLES ± FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	PARTS LIST		
MATERIAL	DRN.	DATE	DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
FINISH	CHK'D.	DATE	
	ENG.	DATE	
	PROJ. ENG.	DATE	TITLE: BLOCK DIAGRAM TIMING MM8-E
	PROD.	DATE	
	NEXT HIGHER ASSY: A-MC-MM8-E		SIZE: E; DRAWING NUMBER: D-MM8-E-1; REV.
	SCALE		
	SHEET OF		DIST.

REVISIONS		
LTR	CHANGE NO.	

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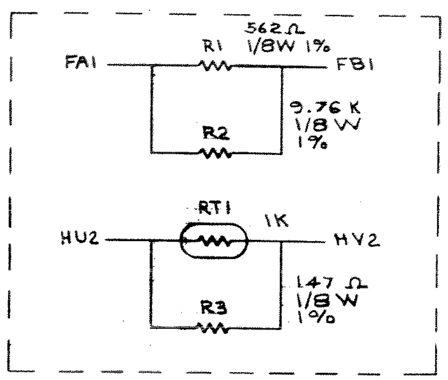

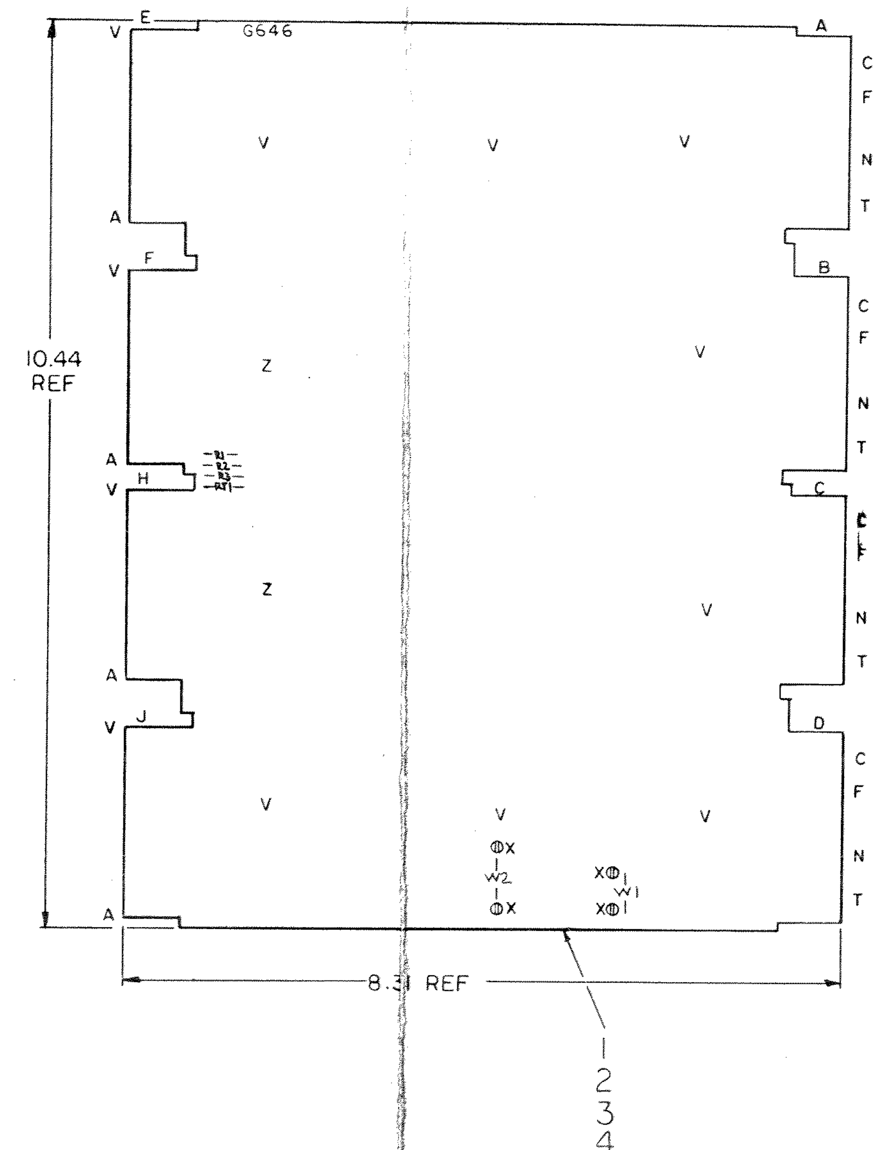

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
1	R3	RES 147 Ω 1/8W 1%	1302874	10
1	R1	RES 562 Ω 1/8W 1%	1304693	9
1	R2	RES 9.76 K 1/8W 1%	1309414	8
1	RT1	THERMISTOR 1K	1310071	7
4		EYELET (M-1Ø33)	9006735	6
A/R	W1, W2	WIRE, 24AWG STRD IPC INS	91-07450-00	5
1		ETCHED CIRCUIT BOARD	5009842	4
REF		MODULE ECO HISTORY	B-MH-G646-Ø-6	3
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-G646-Ø-5	2
REF		X-Y COORDINATE HOLE LOC	K-CO-G646-Ø-4	1

PARTS LIST

ETCH BOARD REV C

REV	CHANGE NO.	CHK
A	ORIGINATED	
B	G646-00001 W. COATES 3-2-72	
C	G646-00002 R. REGAN 10-13-72	

REVISIONS

DEC NO.	EIA NO.	DEC NO.	EIA NO.

SEMICONDUCTOR CONVERSION CHART

DRN. DATE 1-17-72
CHK'D. DATE 2-17-72
ENG. W. J. Coates DATE 2-17-72
PROJ. ENG. W. J. Coates DATE 2-17-72
PROD. R. K. Olson DATE 2-18-72
NEXT HIGHER ASSY E-CS-H212-0-1

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE
12 BIT STACK BD

SIZE D CODE CS NUMBER G646-Ø-1 REV. C
SCALE 1/1
SHEET 1 OF 1

DEC FORM NO. DRD-135

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DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION

DATE 6/1/72

TITLE MM8-EJ AND MM8-EH ACCEPTANCE PROCEDURE (F.S.)

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE
A	ECO Change	MM8E-00005	Caruso	5/73	Dave Caruso	10-1-73

ENG	APPD	SIZE	CODE	NUMBER	REV
S.S. for W. Coates		A	SP	MM8-EJ-1	A

DEC 16-(392)-1079-N971
DRA 107

ENGINEERING SPECIFICATION — CONTINUATION SHEET

TITLE MM8-EJ AND MM8-EH ACCEPTANCE PROCEDURE (F.S.)

1.0 SCOPE

1.1 This procedure defines the minimum performance standards required of an MM8-EJ & an MM8-EH option which is accepted as an integral part of a PDP8/E or accepted as an add-on option.

2.0 SET UP

2.1 Remove the four (4) edge connectors from the tops of the modules.

2.2 Inspect the modules for conformance to "Final Inspection Procedure for Flip-Chip Modules" (A-SP-7665039-0-0) and "Module Rework Standard" (A-SP-7605845-0-0).

2.3 Check the S/I and X-Y modules for a legible three character numerical date code.

2.4 Check the S/I and X-Y modules to insure the circuit and etch revisions are up to current ECO levels. Make sure all EMA jumpers on the S/I module are installed.

2.5 Ascertain that the option has been checked out in heat and vibrated by Production.

2.6 Make sure the power to the PDP8/E is turned OFF.

2.7 Insert the modules into the omnibus. Be sure you adhere to the "Recommended Omnibus Assignment List" (A-SP-PDP8-E-0-4).

SIZE	CODE	NUMBER	REV
A	SP	MM8-EJ-1	A

DEC FORM NO DEC 16-(381)-1022-N370
DRA 108

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ACCESSORY LIST

MADE BY J. CUDMORE	CHECKED PFYFFER	SECTION
DATE 7/21/69	DATE 7/25/69	1
ENG [signature]	PROD [signature]	ISSUED SECT.
DATE 7/28/69	DATE 7/29/69	1

LEGEND

D DOCUMENT
DN DOCUMENT CHANGE NOTICE
PA PAPER TAPE ASCII
PB PAPER TAPE BINARY
PM PAPER TAPE READ-IN-MODE

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY/VARIATION: LT33-B,-D,-E,-F,	-H, TYPES		LT33-AA,-AB,	-CA, -CB, -CC,	-CD, -CE		KIT CHECK BY ____ DATE ____	INSTALLATION CHECK BY ____ DATE ____
1	36-5360	ROLLS, ROLLED OILED PAPER TAPE	-			-					
2	36-5365	ROLL, TWX PAPER	1			1					
3	BULLETIN 273B	TTY MANUAL VOL #1 (VENDOR)	1			1					
4	BULLETIN 310B	TTY MANUAL VOL #2 (VENDOR)	1			1					
5	BULLETIN 1184B	TTY MANUAL PARTS (VENDOR)	1			1					
6	18-9137	ROLL TTY RIBBON	1			1					

TITLE: TELETYPE WRITERS LT33 SERIES	ASSY. NO.	SIZE A	CODE AL	NUMBER LT33-0-12	REV. C	ECO NO. LT33-00009
	SHEET 1 OF 1	DIST.				

DEC FORM NO.
DRA 121

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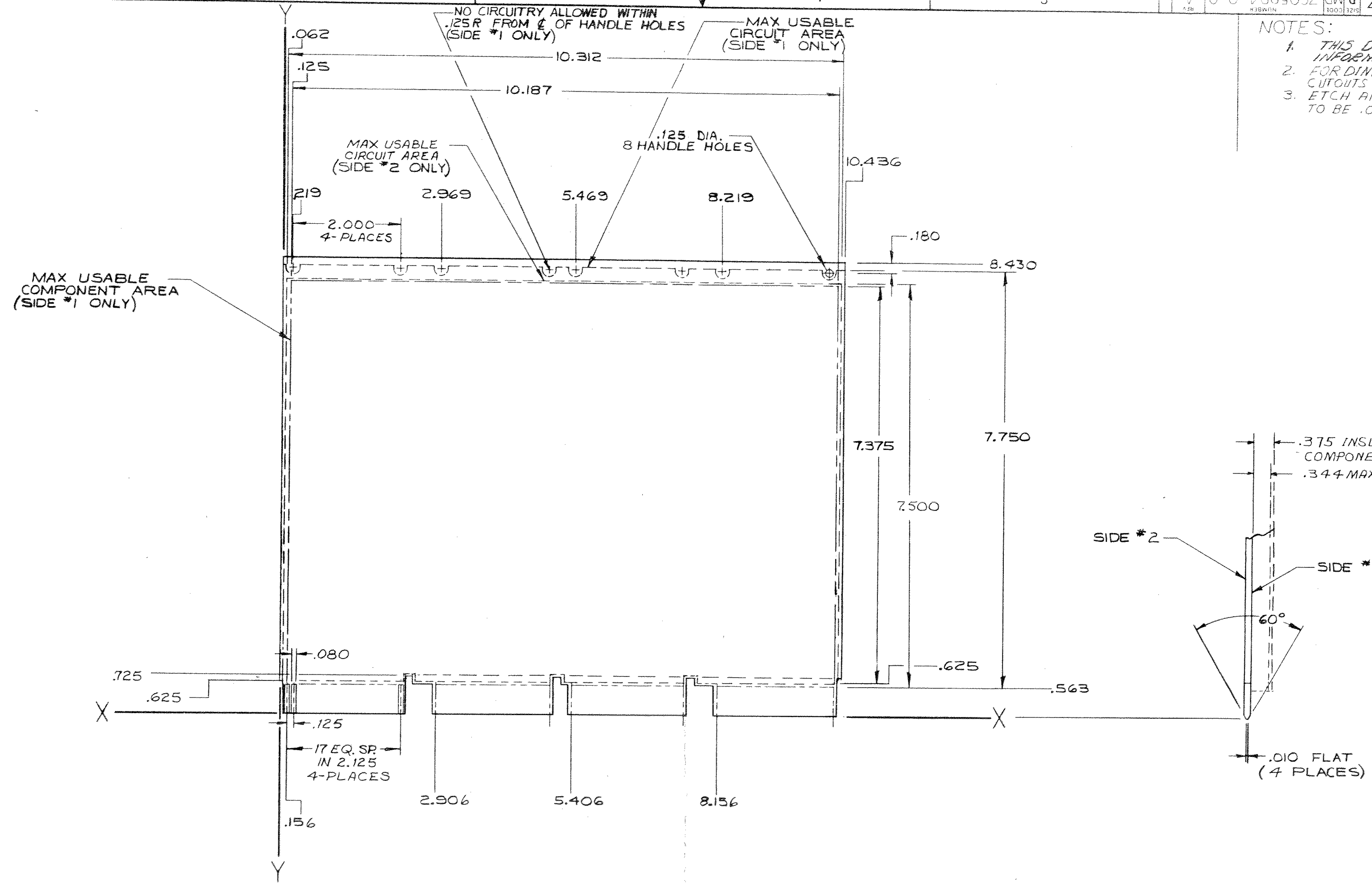

NOTES:

1. THIS DOCUMENT FOR REF INFORMATION ONLY.
2. FOR DIMENSIONS OF FINGER CUTOUTS REFER TO SHEET #2.
3. ETCH AREA AROUND NOTCHES TO BE .06 CLEARANCE.

TOLERANCE DECIMALS
.XXX = ±.005
.XX = ±.02
.X = ±.1

REVISIONS			
CHK	CHANGE NO		REV
	7605994-0001	6-30-71	A
	CHERTKOW	D. Chertkow 7/6/71	

FIRST USED ON OPT./MOD.	QTY.	DESCRIPTION	PART NO.	ITEM NO.
		PARTS LIST		

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

MATERIAL — / —
FINISH — / —

		DATE
DRN.	T. Quillin	4-13-71
CHK'D.		5-5-71
ENG.		
PROJ. ENG.		5-5-71
PROD.		5-5-71

NEXT HIGHER ASS'Y.

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: PANEL DATA CUSTOMER (REF)

SIZE	CODE	NUMBER	REV.
D	MD	7605994-0-0	A

SCALE 1/1 SHEET 1 OF 2
DIST.

DEC FORM NO DRD 102A

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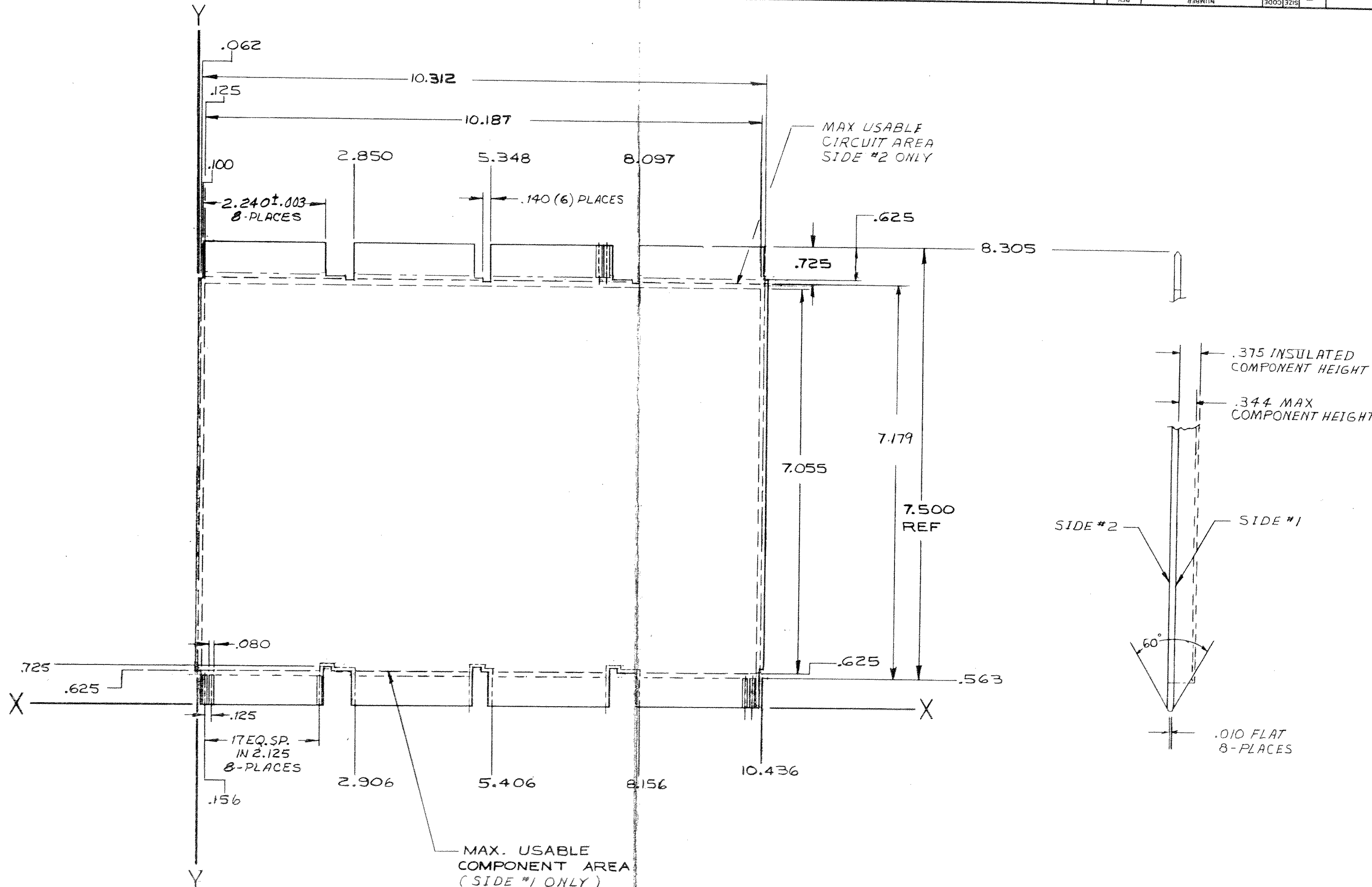

QTY.	DESCRIPTION	PART NO.	ITEM NO.
	PARTS LIST		

FIRST USED ON OPTION/MODEL

DO NOT SCALE DRAWING

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

MATERIAL

FINISH

DRN.	[signature]	DATE 4-13-71
CHK'D.	[signature]	DATE 5-5-71
ENG.	Dave Chertkow	DATE 5-5-71
PROJ. ENG.	[signature]	DATE 5-5-71
PROD.	[signature]	DATE 5-5-71

NEXT HIGHER ASSY

SCALE 1/1

SHEET 2 OF 2

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE

PANEL DATA
CUSTOMER (REF)

SIZE	CODE	NUMBER	REV.
D	MD	7605994-0-0	A

DIST. G

DEC FORM NO.
DRD 100

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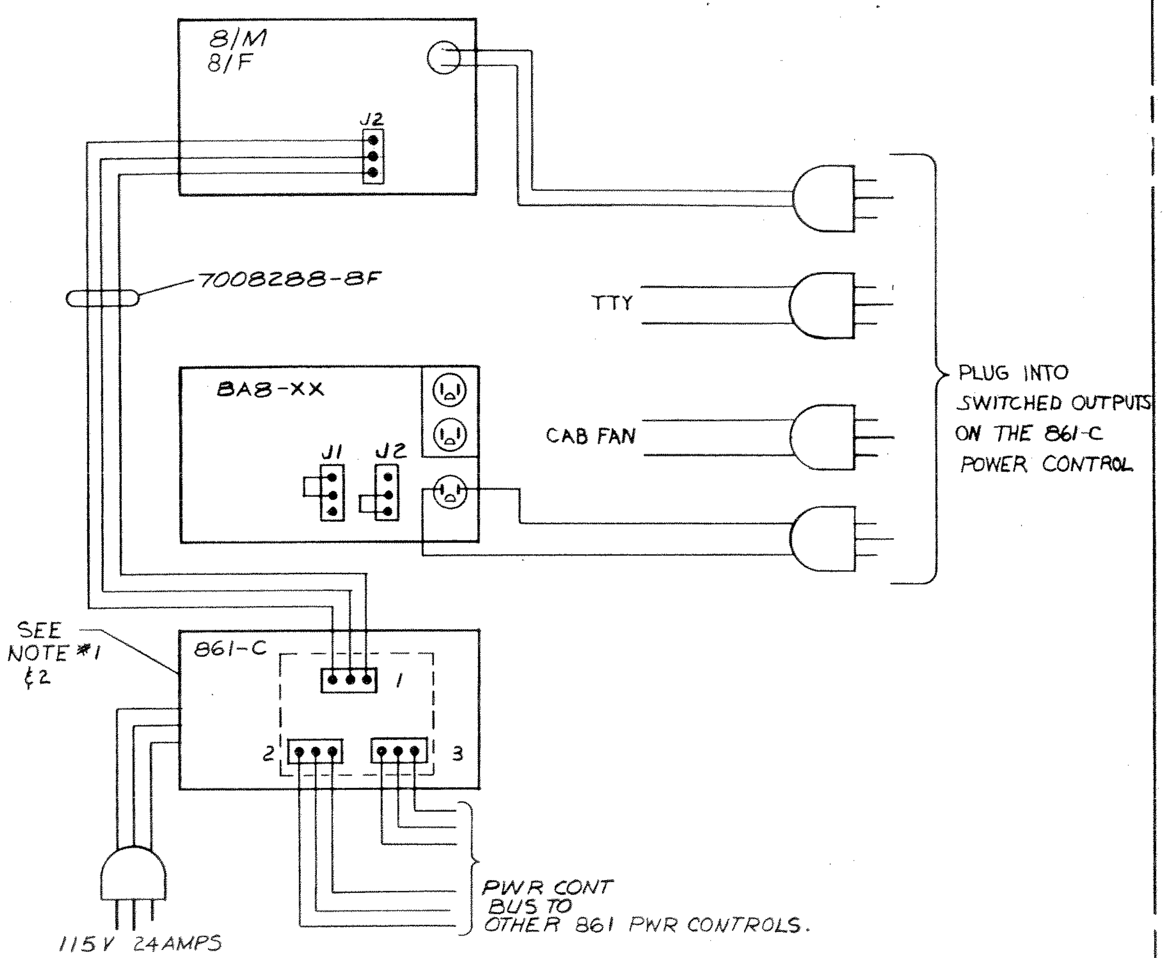
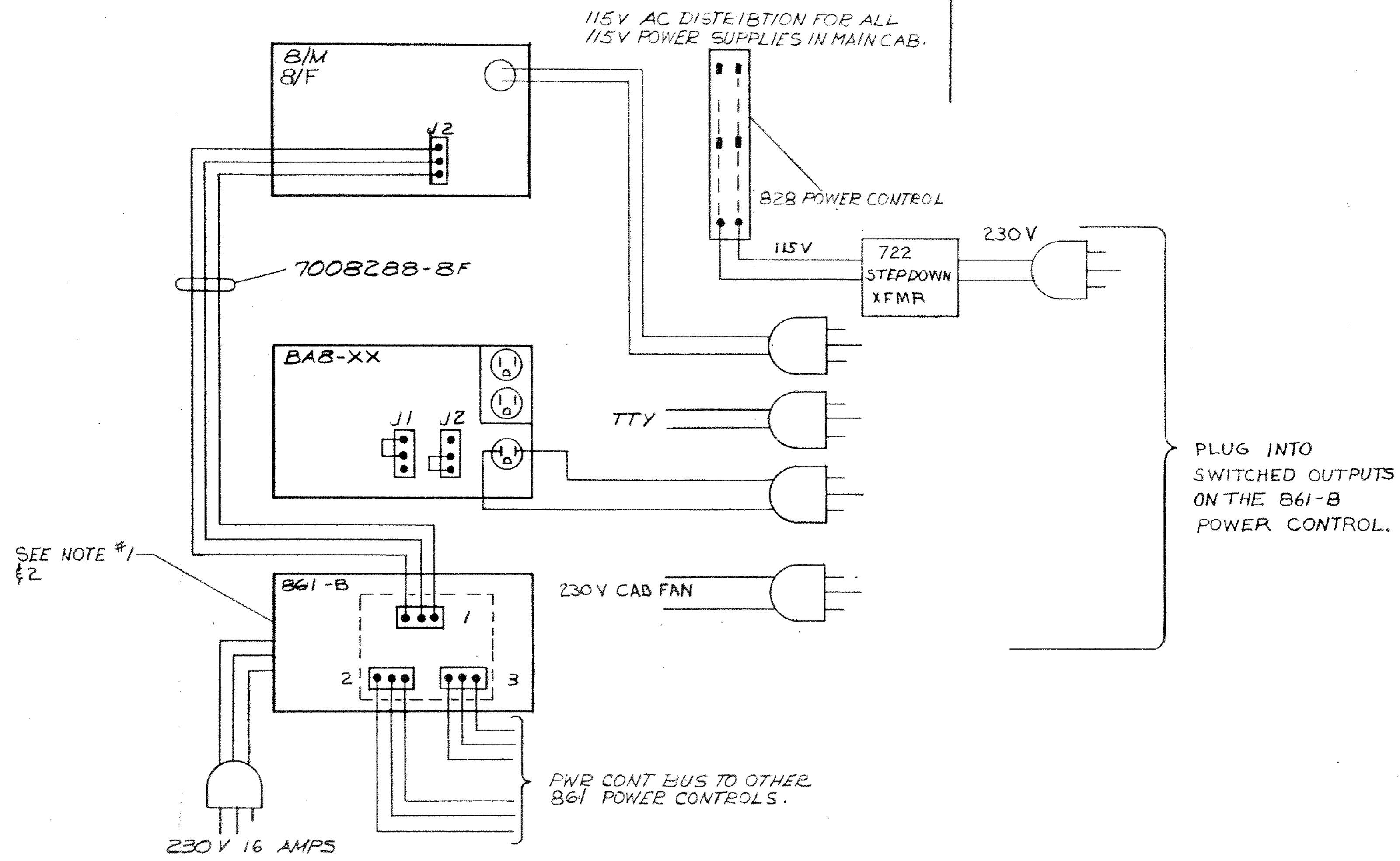
NOTES:

1. CONNECTORS 1, 2, & 3, ON THE 861 POWER CONTROL ARE ALL CONNECTED IN PARALLEL.
2. POWER CONTROLS WILL NOT BE SHIPPED WITH RACK MOUNTABLE (NOT CAB MOUNTED) SYSTEMS UNLESS SPECIFIED ON THE CONSTRUCTION REQUISITION.



8F OR 8M SYSTEM POWER WIRING FOR 115V



8F OR 8M SYSTEM POWER WIRING FOR 230V

REVISIONS			
REV.	CHANGE NO.		CHK
A	PDP8M-00010	P. GARDNER 3-17-72	
B	PDP8M-00013	P. GARDNER 7-21-72	
C	PDP8M-00019	P. GARDNER 11-0-73	

DEC FORM NO DRD 100-A

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP 8M		PARTS LIST		

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN	DATE
DECIMALS: XXX = .005, XX = .02, X = .1 / ANGLES: ±0° 30′	CHK'D	DATE 2/20/71
	ENG.	DATE 2/28/71
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓	PROJ. ENG.	DATE
	PROD. R. K.	DATE
MATERIAL —	NEXT HIGHER ASSY. B-DD-PDP8M-0	
FINISH —	SCALE — / SHEET 1 OF 1	

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: SYSTEM POWER WIRING DIAG

SIZE	CODE	NUMBER	REV.
D	IC	PDP8M-Ø-Ø3	C

DIST.

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY [illegible]	CHECKED [illegible]	SECTION 1
DATE 3-[illegible]-12	DATE 3-[illegible]-12	
ENG [illegible]	PROD R. [illegible]	ISSUED SECT. 1
DATE 3-7-12	DATE 4-21-12	

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION SP8-FA
1	M8300	Major Registers Module	1
2	M8310	Registers Control Module	1
3	M8330	Timing Module	1
4	G104	Sense/Inhibit Module	1
5	G227	X/Y Drive Module	1
6	1110864	Light Emmitting Diode	2
7	1210626	Slide Switch	2
8	1205375	Slide Switch, Momentary	2
9	1205849-12	Handle, Amber	2
10	1205849-13	Handle, Terra Cotta	2
11	5409728	Regulator Board Assy	1

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
PDP8 F Recommended 1st Level Spares (4K VARIATIONS)	B-DD-PDP8F-Ø	A	PL	SP8-FA-Ø	A	PDP8F-00006
	SHEET 1 OF 1	DIST.				

DEC FORM DRA 110 DEC 16-(325)-1031-N870

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY R. Gilbert DATE 12-10-73	CHECKED R. Gilbert DATE 12-10-73	SECTION
ENG PAUL GARDNER DATE 12-17-73	PROD PAUL GARDNER DATE 12-17-73	ISSUED SECT.

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION SP8-1A
1	M8300	Major Registers Module	1
2	M8310	Registers Control Module	1
3	M8330	Timing Module	1
4	G111	Sense/Inhibit Module	1
5	G233	X/Y Drive Module	1
6	1110864	Light Emmitting Diode	2
7	1210626	Slide Switch	2
8	1205375	Slide Switch, Momentary	2
9	1205849-12	Handle, Amber	2
10	1205849-13	Handle, Terra Cotta	2
11	5409728	Regulator Board Assy	1

TITLE: PDP8/F Recommended 1st Level Spares (8K & 16K Variations)	ASSY NO. B-DD-PDP8F-0 SHEET 1 OF 1	SIZE: A	CODE: PL	NUMBER: SP8-FC-Ø	REV: —	ECO NO. PDP8F-00006

DEC FORM DRA 110 DEC 16-(325)-1031-N870

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY Paul Gardner
DATE 12/7/71
ENG Paul Gardner
DATE 1-7-72
CHECKED Paul Gardner
DATE 1-7-72
PROD R. L. Ogden
DATE 1-7-72
SECTION
ISSUED SECT.

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION SP8-MB
1	1000004	Capacitor .02 MFD	2
2	1000016	Capacitor .100 MFD	2
3	1003053	Capacitor .47 MFD	2
4	1005306	Capacitor 6.8 MFD	2
5	1009678	Capacitor .47 MFD	2
6	1110324	Solid State Lamp	1
7	1110714	12A Diode BridgeNSS3514	1
8	1209355	Switch, Micro	1
9	1205033-1	Fan, ~~Super~~ Boxer	1
10	1210043	Switch, Miniature Rotary	1
11	1210073	Connector, 40 Terminal	2
12	1210627	Rotary Switch	1
13	1210790	Switch, DPST N.O.	1
14	1210824	Thermostat	1
15	1210830-5	Circuit Breaker, 5 Amp	1
16	1210830-7	Circuit Breaker, 7 AMP	1
17	1300229	Resistor 100 Ω, 1/4 W	2
18	1300317	Resistor 470 Ω, 1/4W	2
19	1300439	Resistor 3.3K Ω, 1/4W	2
20	1301420	Resistor 27 Ω, 1/4W	2
21	1302871	Resistor 1.21K, 1/8W	2
22	1302941	Resistor 14.7K, 1/8W	2

TITLE PDP 8F & 8M RECOMMENDED 2nd LEVEL SPARES (ALL VARIATIONS)
ASSY NO. B-DD-PDP8M-Ø
SHEET 1 OF 4
SIZE A | CODE PL | NUMBER SP8-MB-Ø | REV. B | ECO NO. PDP8M-00019
DIST.

DEC FORM DEC 16 (325)-1031-N870
DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS
PARTS LIST
MADE BY Paul Gardner
DATE 12/7/71
ENG Paul Gardner
DATE 1-7-72
CHECKED Paul Gardner
DATE 1-7-72
PROD R. L. Ogden
DATE 1-7-72
SECTION
ISSUED SECT.

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION SP8-MB
23	1302955	Resistor 750 Ω 1/8 W	2
24	1302956	Resistor 196 Ω, 1/8 W	2
25	1303156	Resistor 34.8K, 1/8W	2
26	1304833	Resistor 1.96K, 1/8W	2
27	1304855	Resistor 9.09K, 1/8W	2
28	1304868	Resistor 2.74K, 1/8W	2
29	1305128	Resistor 5.62K, 1/8W	2
30	1305252	Resistor 68.1K, 1/8W	2
31	1305872	Resistor .1 Ω, 5W, 5%	2
32	1310032	Resistor 16.9 Ω, 6W	2
33	1310071	Resistor 1K, 1%, Thermister	2
34	1310709	Resistor .03 Ω, 7W, 3%	2
35	1503409-01	MPS6534B or 2n3133	2
36	1505321	2N4258	3
37	1509338	MPS6531 or 2N1613	1
38	1509632	DEC 2007	4
39	1509649	2N3762	3
40	1509854	DEC 8251	2
41	1510015	DEC 4008	4
42	1510151	RCA 40372	2
43	1510196	2N5302	2
44	1510706	GPS-A55 or MPS-A55	2

TITLE PDP 8F & 8M RECOMMENDED 2nd LEVEL SPARES (ALL VARIATIONS)
ASSY NO. B-DD-PDP8M-Ø
SHEET 2 OF 4
SIZE A | CODE PL | NUMBER SP8-MB-Ø | REV. B | ECO NO.
DIST.

DEC FORM DEC 16-(325)-1031-N870
DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY Paul Gardner
DATE 12/7/71
ENG Paul Hanahan
DATE 1-7-72

CHECKED Paul Hanahan
DATE 1-7-72
PROD R. K. Olsen
DATE 1-7-72

SECTION
ISSUED SECT.

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION SP8-MB
45	1510765	Triac Mac 11-3	2
46	1609478	Transformer 17Z5	2
47	1609651	Transformer 8010	2
48	1609996	Transformer 6501	1
49	1809880	Crystal 20 MHz	1
50	1809880-01	Crystal 14.418 MHZ	1
51	1905521	Dec 1540	2
52	1905547	DEC 7474	3
53	1905586	DEC 74H40	2
54	1909004	Dec 7402	2
55	1909055	DEC 7495	2
56	1909056	DEC 74H00	1
57	1909057	DEC 74H10	1
58	1909267	DEC 74H11	1
59	1909373	DEC ML-9601	1
60	1909594	DEC 8251B	2
61	1909667	DEC 74H74	1
62	1909686	DEC 7404	2
63	1909705	DEC 8881	1
64	1909867	DEC 4007	1
65	1909927	DEC 74H87	1
66	1909928	DEC 7416	2

TITLE PDP 8F & 8M RECOMMENDED
2nd LEVEL SPARES
(ALL VARIATIONS)

ASSY NO. B-DD-PDP8M-Ø
SHEET 3 OF 4

SIZE A | CODE PL | NUMBER SP8-MB-Ø | REV. B | ECO NO.
DIST.

DEC FORM DEC 16-(325)-1031-N870
DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY Paul Gardner
DATE 12/7/71
ENG Paul Hanahan
DATE 1-7-72

CHECKED Paul Hanahan
DATE 1-7-72
PROD R. K. Olsen
DATE 1-7-72

SECTION
ISSUED SECT.

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION SP8-MB
67	1909929	DEC 7417	1
68	1909930	DEC 7405	1
69	1909931	DEC 74H04	1
70	1909932	DEC 7483	1
71	1909934	DEC 8266	2
72	1909935	DEC 8235	1
73	1909936	DEC 74151	2
74	1909937	DEC 74153	1
75	1909955	DEC 7412	1
76	1909971	DEC 6380A	3
77	1909972	DEC 6314A	1
78	1909973	DEC 97401	5
79	1910010	DEC FSA2501	4
80	1910011	DEC 7486	1
81	9007221	FUSE 5A	5
82	9007226	FUSE 15A	5
~~83~~	~~9008349~~	~~Socket~~	~~40~~
~~84~~	~~9008350-0~~	~~Housing~~	~~8~~
85	9008389	FUSE 125A 250V AGC 1/8	5
86	1511102	DEC 4011	1
87	1910046	DEC 7442-1	1
88	1910073	RC NETWORK	1

TITLE PDP 8F & 8M RECOMMENDED
2nd LEVEL SPARES
(ALL VARIATIONS)

ASSY NO. B-DD-PDP8M-Ø
SHEET 4 OF 4

SIZE A | CODE PL | NUMBER SP8-MB-Ø | REV. B | ECO NO.
DIST.

DEC FORM DEC 16-(325)-1031-N870
DRA 110

COMPUTER & EXPANDER PLUG-IN OPTIONS

OPTION	CABLE ASSY. QTY.	CABLE ASSY. ASSY. NO.	OPTION	CABLE ASSY. QTY.	CABLE ASSY. ASSY. NO.	OPTION	CABLE ASSY. QTY.	CABLE ASSY. ASSY. NO.
AD8-EA	1	7008533	KL8-EA	1	BCØ1V OR BCØ5C	XY8-E	1	7006965
AM8-EA	1	7008533	KL8-F	1	7008360			
BE8-A	2	M935	KL8-FA THRU FJ	1	BCØ1V OR BCØ5C			
CM8-E	1	7007252	KL8-M	1	BCØ1V OR BCØ5C			
CM8-F	1	7008738	KM8-E	0	—/——/—			
CR8-E	1	7007252	KP8-E	1	7007128			
CR8-F	1	7008738	LC8-E	1	7008417			
DB8-EA	1	BCØ8R	LE8-XX	1	7006964			
DB8-EB	2	BCØ8R & 5409209	MC8-E	0	—/——/—			
DK8-EA	1	7007128	MI8-E	0	—/——/—			
DK8-EF	1	BCØSR	MM8-E	0	—/——/—			
DP8-EA	1	BCØ1V OR BCØ5C	MP8-E	0	—/——/—			
DP8-EB	1	BCØ1W	MR8-E	0	—/——/—			
DR8-EA	1	BCØ8L	PC8-E	2	BCØ8K			
DR8-EB	1	BCØ8R	PP8-E	1	BCØ8K			
KA8-E	3	BCØ8J	PR8-E	1	BCØ8K			
KD8-E	2	BCØ8J	TA8-E	1	BCØ8R OR 7008624			
KE8-E	0	—/——/—	TD8-E	1	7008447			
KG8-E	0	—/——/—	TM8-E	2	BCØ8L			
KL8-E	1	7008360	VC8-E	1	7008499			

LEGEND

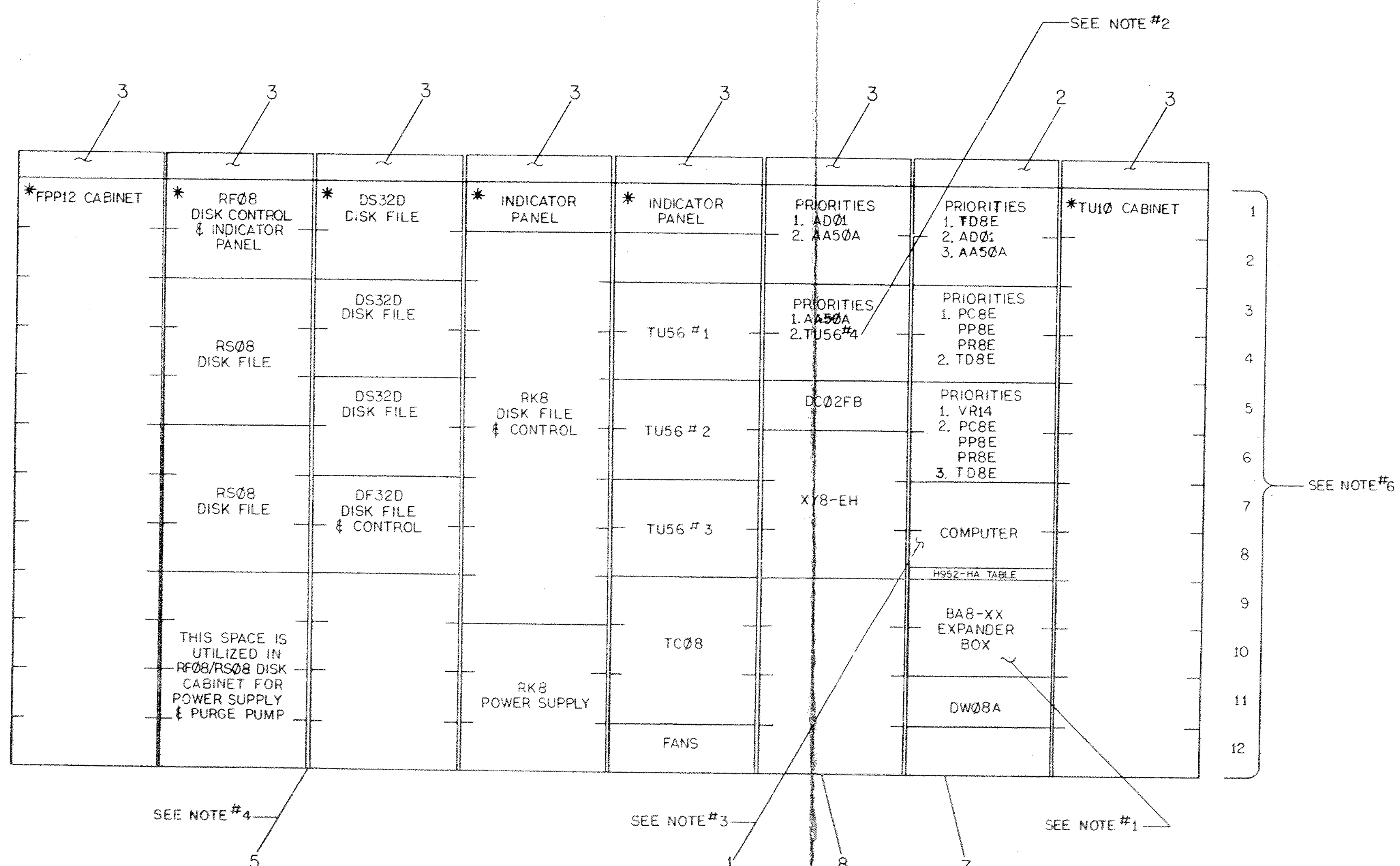
ITEM #1	ITEM #2	ITEM #3	ITEM #4
PDP 8/E	7407936-06	7407936-09	BC08H-3F
PDP 8/F	7407936-20	7407936-09	BC08H-4F
PDP 8/M	7407936-12	7407936-16	BC08H-4F

NOTES:

1. IF AN EXPANDER BOX (BA8-XX) IS USED, ITEM #4 (BUS EXTENDER CABLE) MUST RUN FROM THE LAST SLOT IN THE COMPUTER (ITEM #1) OMNIBUS TO THE LAST SLOT IN THE BA8-XX OMNIBUS.
2. A MAX OF THREE DEC TAPES (TU56) IS ALLOWED PER CABINET. AN ADDITIONAL CABINET IS REQUIRED FOR A FOURTH DRIVE.
3. SECURE ITEM #1 WITH ITEM #6 (SHIPPING BRACKET) BEFORE SHIPMENT.
4. ITEM #5 (FILLER STRIP SET) IS USED TO JOIN TWO CABINETS, FRONT & REAR.
5. NEXT HIGHER ASSEMBLY;
   A-ML-PDP8E-0
   B-DD-PDP8F-0
   B-DD-PDP8M-0
6. H960 & 961 CABINETS ARE DIVIDED INTO TWELVE 5.25" SECTIONS. WHERE EVER COVER PANELS ARE REQUIRED THEY SHOULD BE PLACED AS FOLLOWS;

SECTION	COVER PANEL
1	H950-P, 5.25"
2	H950-P, 5.25"
3 & 4	H950-Q, 10.5"
5 & 6	H950-Q, 10.5"
7 & 8	H950-Q, 10.5"
9 & 10	H950-Q, 10.5"
11 & 12	H950-Q, 10.5"

7. H960 - BC = 115V SYSTEM
   H960 - BD = 230V SYSTEM
8. H961 - AA = 115V SYSTEM
   H961 - AB = 230V SYSTEM



* INDICATES A DEDICATED SUBSYSTEM CABINET

QTY.	DESCRIPTION	PART NO.	ITEM NO.
A/R	OPTION CABINET	SEE NOTE #8	8
1	BASIC CABINET	SEE NOTE #7	7
1	SHIPPING BRACKET	7408867	6
A/R	FILLER STRIP SET	H952-GA	5
2	BUS EXTENDER CABLE	SEE LEGEND	4
A/R	BLANK LOGO	SEE LEGEND	3
1	PANEL LOGO	SEE LEGEND	2
1	COMPUTER	SEE LEGEND	1

PARTS LIST

FIRST USED ON OPTION/MODEL: PDP 8/E

DRN. G. FLANDERS 12-17-71
CHK'D. R. GARDNER 12-17-71
ENG. R. GARDNER
PROD. R. ALLEN

NEXT HIGHER ASSY.: SEE NOTE #5

EQUIPMENT CORPORATION

TITLE: OPTION ARRANGEMENT

AR PDP8M-Ø-Ø1 REV. B

SHEET 1 OF 1

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DIGITAL EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

PACKAGING INSTRUCTION

REV: D DATE: 11/74

TITLE PDP-8/F, 8/M, or 16/M – RACK MOUNTABLE

LEGEND

Number	Variation
3700055-00	New Style
3700055-01	Old Style

CUSHIONED CUSTOMER SHIPPING PACKAGE

MATERIAL REQUIREMENTS
(3700055-00)

Quantity	Purchase Specification No.	Description
2	9905657	Full Telescope Cap
2	9905655	Foam Pad
2	9905656	Foam with Corrugated Sidewall Assemblies
A/R	–	Strapping (plastic or steel)

PACKAGING INSTRUCTIONS
(37700055-00)

Step	Procedure
1	Set up both Full Telescope Caps (9905657). No taping or stapling is required.
2	Place one Full Telescope Cap on the floor. Place both Foam with Corrugated Sidewall Assemblies (9905656) inside the Full Telescope Cap.
3	Place one Foam Pad (9905655) inside the Foam with Corrugated Sidewall Assemblies, resting on the bottom of the Full Telescope Cap.
4	Place Computer (packaged in In-Plant Box #9905416) inside the Foam with Corrugated Sidewall Assemblies, resting on the Foam Pad.
5	Place the second Foam Pad on top of the boxed computer, inside the Foam with Corrugated Sidewall Assemblies.
6.	Place the second Full Telescope Cap on top of the assembly.
7.	Strap in both directions, using either plastic or steel strapping.

ENG	APPD	SIZE	CODE	NUMBER	REV
Ken Marcian 11/4/74	R.E. Bemer 11/4/74	A	SP	3700055-0-0	D

DEC 8–(551)–1031–1–R671
DRA - 129

PACKAGING INSTRUCTION CONTINUATION SHEET

TITLE

MATERIAL REQUIREMENTS
(3700055-01)

Quantity	Purchase Specification No.	Description
1	9905273	Regular Slotted Carton (with interior foam and corrugated pieces).
1	9905129-7	Poly Bag (20 x 13 x 40) 3-in. Wide
A/R	–	3-in. Wide Glasflex Tape

PACKAGING INSTRUCTIONS
(3700055-01)

Step	Procedure
1	Open the outer carton flaps (carton is purchased set up). Remove the top foam pieces, side protector, and bezel protector.
2	Place the Poly Bag around the computer. Close and seal the bag.
3	Place the computer inside the outer carton, with the underside of the front bezel resting on the piece of white bead foam.
4	Replace the bezel protector, with the slits outward, on top of the computer.
5	Replace the side protector and foam piece.
6	Close and seal the carton, using 3-in. wide Glasflex tape.

Ken Marcian 11/4/74	R.E. Bemer 11/4/74	A	SP	3700055-0-0	D

DEC 8–(551)–1031–2–R671
DRA - 130

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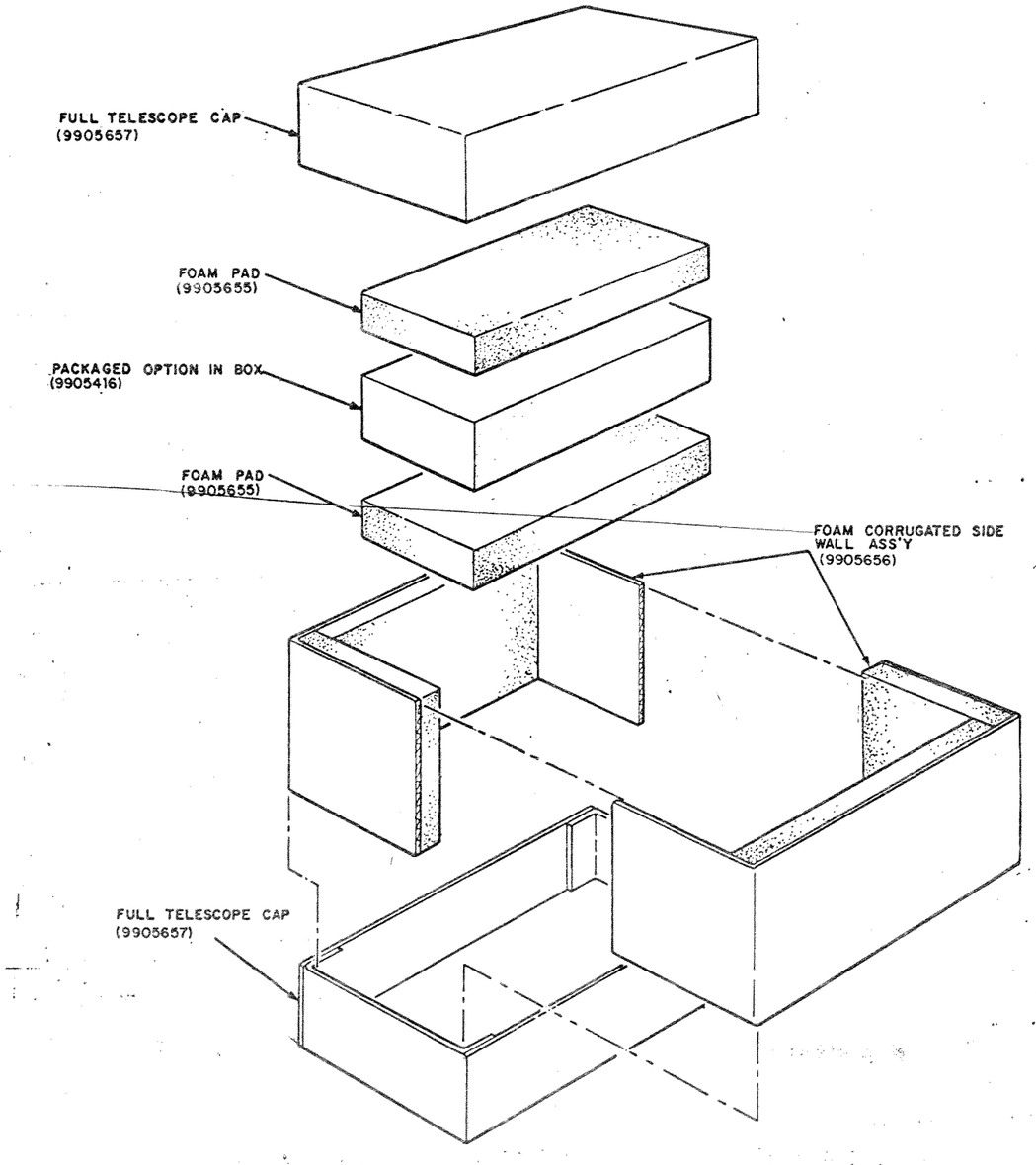
PACKAGING INSTRUCTION

REV: D DATE: 10/74

TITLE
CUSHIONED CUSTOMER SHIPPING PACKAGE



ENG.	APPD.	SIZE	CODE	NUMBER	REV.
B. Patton 10/4/74	R. E. Bemis 10/3/74	A	SP	3700055-0-0	D

DRC-106

SHEET 3 OF 4

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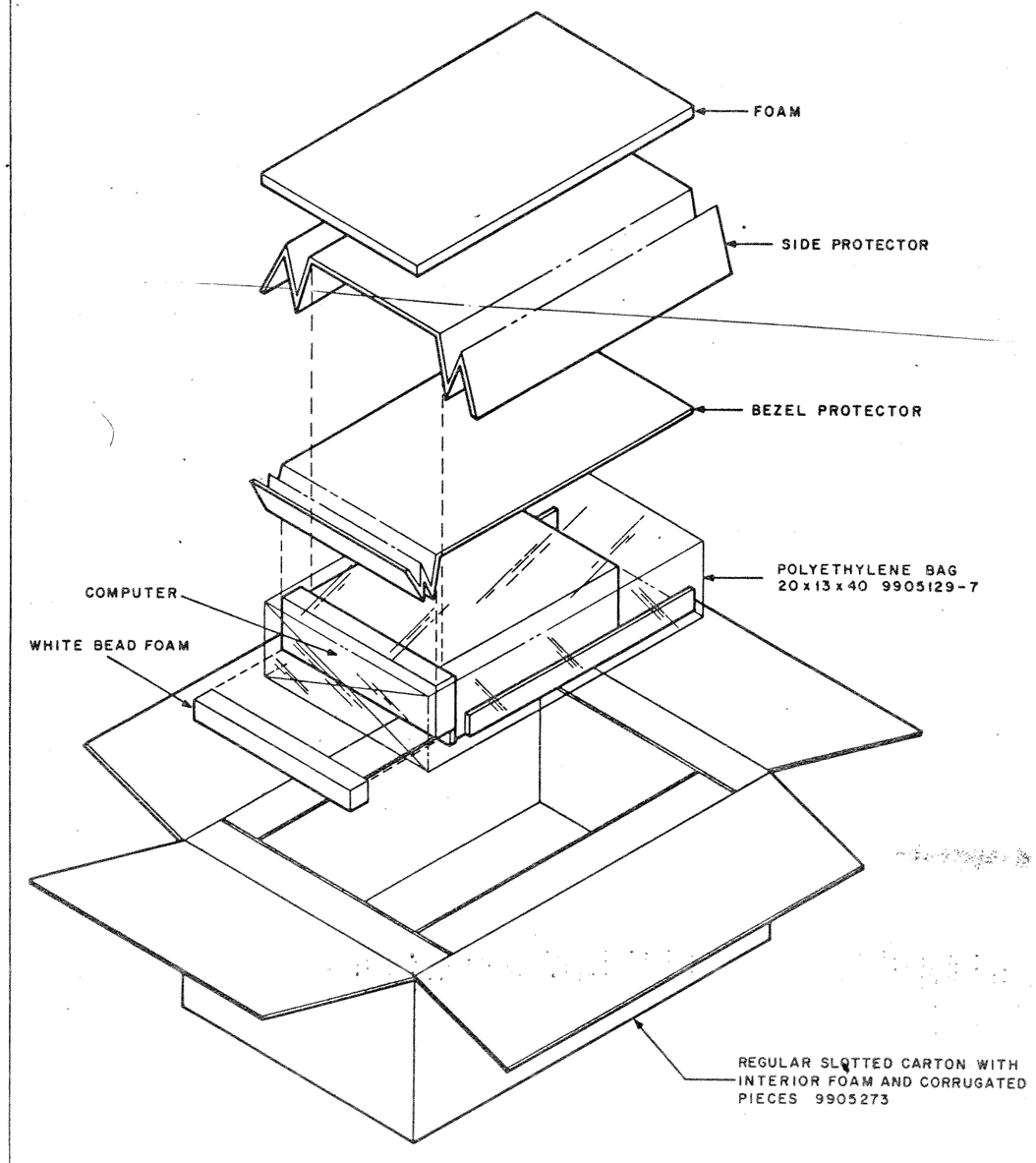
PACKAGING INSTRUCTION

REV: D DATE: 10/74

TITLE
PDP-8/F or PDP-8/M or PDP-16/M RACK MOUNTABLE

3700055-01



NOTE:
Make changes to "C" size original only and rephotograph.

ENG.	APPD.	SIZE	CODE	NUMBER	REV
R. E. Bemis 5/8/73	R. E. Bemis 5/8/73	A	SP	3700055-0-0	D

DRC-107

SHEET 4 OF 4