PDP-11/45
system
engineering drawings

digital equipment corporation · maynard. massachusetts

Rison

digital EQUIPMENT CORPORATION

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX 11/45-1

	SEQUENCE
DRAWING DIRECTORY (SHT 1 & 2 ONLY)	B-DD-11/45-Ø
CONSOLE PHYSICAL LAYOUT	E-IA-5409684-0-0
CIRCUIT SCHEMATIC	D-CS-5409684-0-1
DRAWING DIRECTORY (SHT 1 & 2 ONLY)	B-DD-KB11-A-Ø
DRAWING DIRECTORY	B-DD-DL11-1
DRAWING DIRECTORY	B-DD-KW11-L
DRAWING DIRECTORY	B-DD-BM873-Ø
DRAWING DIRECTORY (SHT 1 ONLY)	B-DD-KT11-C-Ø
ACCESSORY LIST	A-AL-KT11-C-Ø
POWER SYSTEM CONFIGURATION	D-IC-11/45-Ø-1
11/45 BACK PANEL PC BOARD	D-IC-11/45-Ø-2
WIRE LIST	K-WL-7009540-0-2
DRAWING DIRECTORY (SHT 1 ONLY)	B-DD-861-Ø
DRAWING DIRECTORY (SHT 1 ONLY)	B-DD-H742Ø-Ø
DRAWING DIRECTORY	B-DD-H742-Ø
DRAWING DIRECTORY (SHT 1 ONLY)	B-DD-H744-Ø
DRAWING DIRECTORY (SHT 1 ONLY)	B-DD-H745-Ø
DRAWING DIRECTORY (SHT 1 ONLY)	B-DD-H746-Ø
CIRCUIT SCHEMATIC	E-CS-H754-Ø-1
G772-OPTION HARNESS	E-IA-7009562-0-0
ACCESSORY LIST	A-AL-11/45-Ø-3
ARRANGEMENT DRAWING	D-AR-11/45-Ø-4
ARRANGEMENT PARTS LIST	C-PL-11/45-Ø-4
DRAWING DIRECTORY (SHT 1 ONLY)	B-DD-M93Ø1-YB
TABLE OF CONTENTS	B-TC-DL11-W

CUSTOMER PRINT SET INDEX 11/45-2

	SEQUENCE
DRAWING DIRECTORY(SHT 1&2 ONLY)	B-DD-11/45-Ø
CONSOLE PHYSICAL LAYOUT	E-IA-5409684-0-0
CIRCUIT SCHEMATIC	D-CS-5409684-0-1
DRAWING DIRECTORY(SHT 1&2 ONLY)	B-DD-KB11-D-Ø
DRAWING DIRECTORY	B-DD-DL11-1
DRAWING DIRECTORY	B-DD-KW11-L
DRAWING DIRECTORY	B-DD-BM873-Ø
DRAWING DIRECTORY(SHT 1 ONLY)	B-DD-KT11-C-Ø
ACCESSORY LIST	A-AL-KT11-C-Ø
POWER SYSTEM CONFIGURATION	D-IC-11/45-Ø-1
11/45 BACK PANEL PC BOARD	D-IC-11/45-0-2
WIRE LIST	K-WL-7009540-0-2
DRAWING DIRECTORY(SHT 1 ONLY)	B-DD-861-0
DRAWING DIRECTORY)SHT 1 ONLY)	B-DD-H742Ø-Ø
DRAWING DIRECTORY	B-DD-H742-Ø
DRAWING DIRECTORY(SHT 1 ONLY)	B-DD-H744-Ø
DRAWING DIRECTORY(SHT 1 ONLY)	B-DD-H745-Ø
DRAWING DIRECTORY(SHT 1 ONLY)	B-DD-H746-Ø
CIRCUIT SCHEMATIC	E-CS-H754-Ø-1
G772-OPTION HARNESS	E-IA-7009562-0-0
ACCESSORY LIST	A-AL-11/45-0-3
ARRANGEMENT DRAWING	D-AR-11/45-0-4
ARRANGEMENT PARTS LIST	C-PL-11/45-0-4
DRAWING DIRECTORY (SHT 1 ONLY)	B-DD-M93Ø1-YB
TABLE OF CONTENT	B-TC-DL11-W

THIS IS PRINT SET

UNIT VARIATIONS

VAR	TITLE	PRINT SET 11/45-1	PRINT SET 11/45-2
11/45 CA	BASIC ASSY (PDP 11/45 115V	X	–
11/45-CB	BASIC ASSY (PDP 11/45) 230V	X	–
11/45-CC	BASIC ASSY & LA3Ø 115V	X	–
11/45-CD	BASIC ASSY & LA3Ø 230V	X	–
11/45-CE	BASIC ASSY & VTØ5B 115V	X	–
11/45-CF	BASIC ASSY & VTØ5B 230V	X	–
11/45-CH	BASIC ASSY & LA3Ø 115V	X	–
11/45-CJ	BASIC ASSY & LA3Ø 230V	X	–
11/45-CK	BASIC ASSY & VTØ5B 115V	X	–
11/45-CL	BASIC ASSY & VTØ5B 230V	X	–
11/45 FA	BASIC ASSY 115V	X	–
11/45-FB	BASIC ASSY 230V	X	–
11/45-GA	BASIC ASSY & LA3Ø 115V	X	–
11/45-GB	BASIC ASSY & LA3Ø 230V	X	–
11/45-GE	BASIC ASSY & LA3Ø 115V	X	–
11/45-GF	BASIC ASSY & LA3Ø 230V	X	–
11/45-AA	BASIC ASSY (PDP 11/45) 115V	–	X
11/45-AB	BASIC ASSY (PDP 11/45) 230V	–	X

REVISIONS	DATE	CHG. NO.	REV
	4-76	11/45-00065	AH
		REVISED & REDRAWN	
	6-76	11/45-00066	AJ

USED ON OPTION/MODEL	
PDP-11	

SHEET 1 OF 4

		DATE
DRN.	R. COOK	4/72
CHK'D.	R. COOK	4/72
PROJ ENG.	B. DELAGI	4/72
PROD.	A. HIRSCH	5/72
FIELD SERV.	A. ZINS	5/72

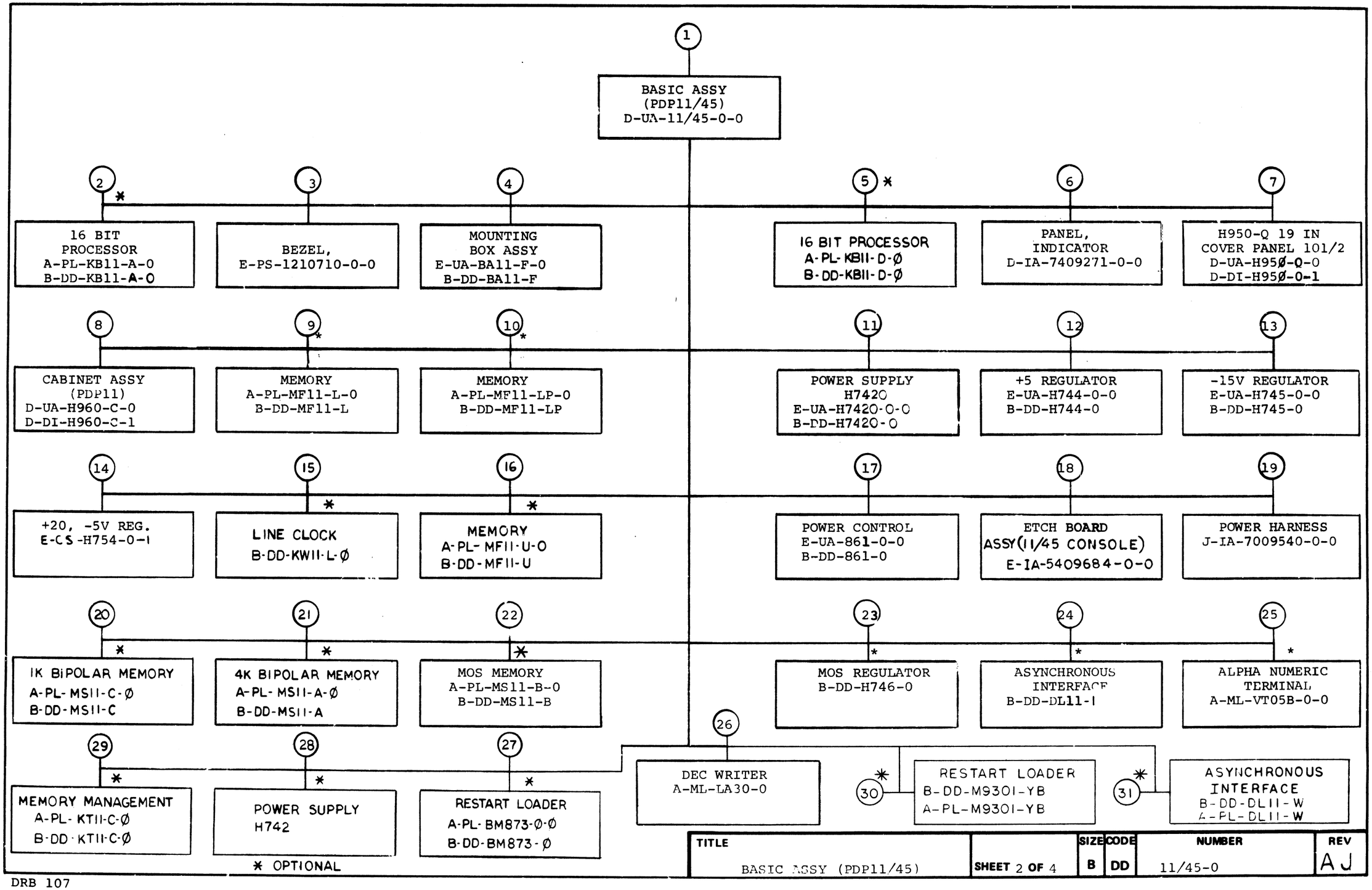
TITLE: BASIC ASSY (PDP11/45)

SIZE	CODE	NUMBER	REV
B	DD	11/45-0	AJ

DIST

EN-01062-1A-16-R972-(325)

DRB 106

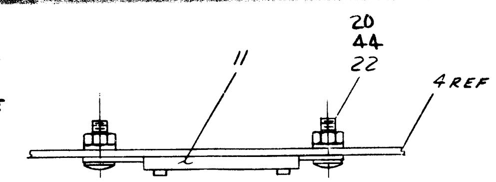


DRB 107
DEC 16—(325)—1062—3—N871

KNOB LOCATIONS	
ITEM NO.	REFERENCE DESIGNATIONS
8	S1-S.., S7-S9, S13-S15, S20, S22, S24, S26, S28
40	S4-S6, S10-S12, S16-S18, S21, S23, S25, S27
41	S19

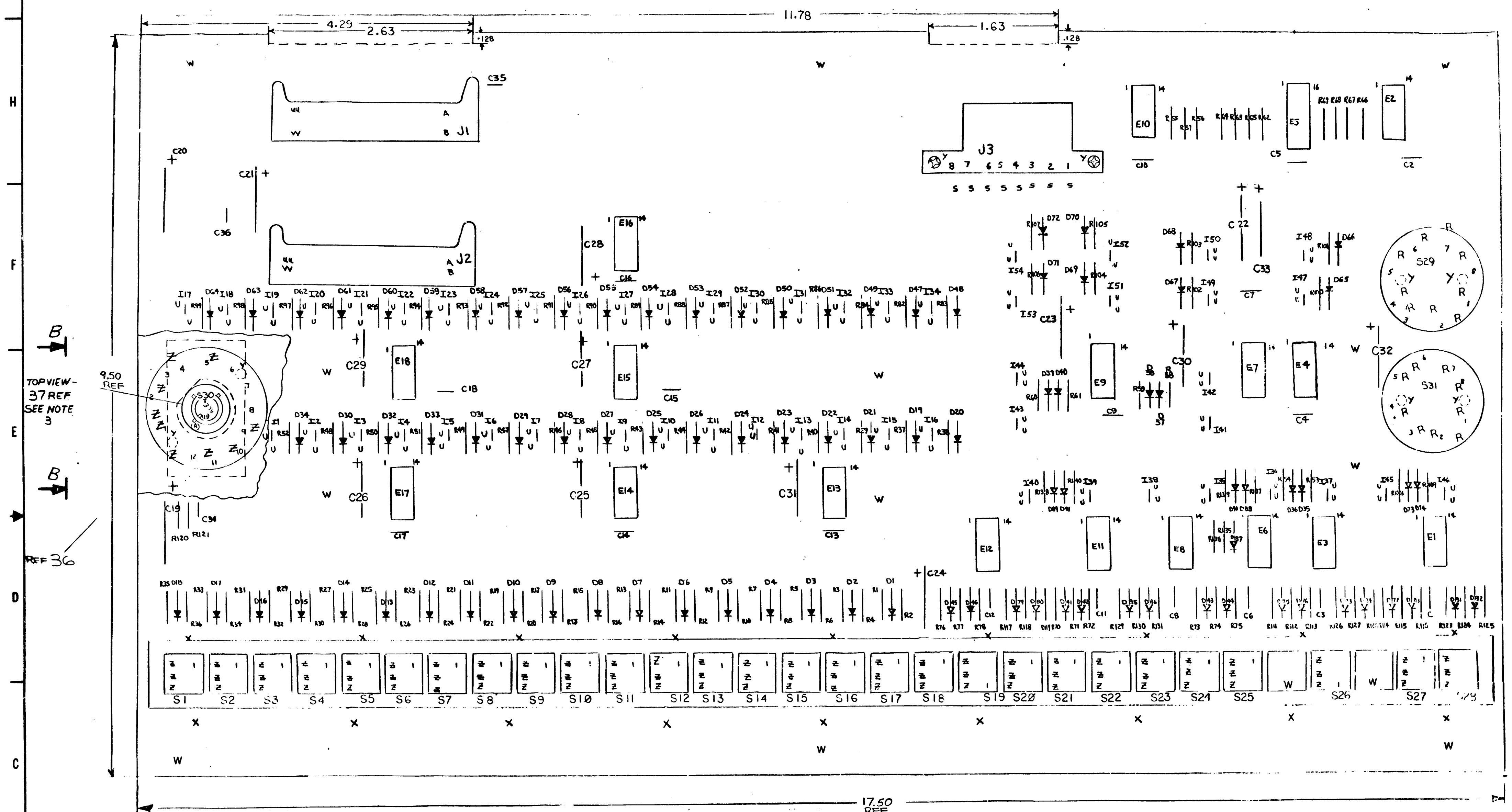
NOTES CONT.

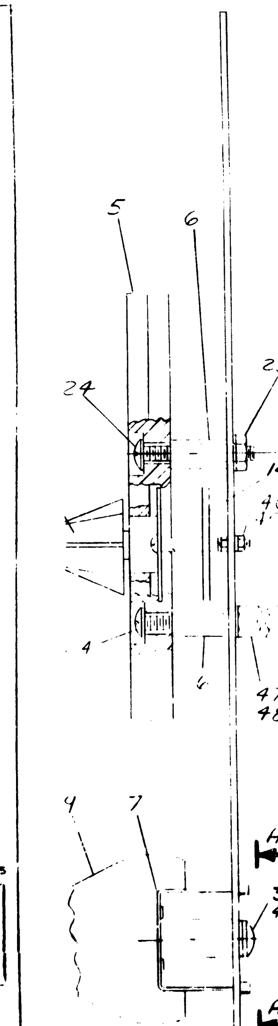
3. IN ORDER TO GET THE PROPER ALIGNMENT BETWEEN ROTARY SWITCH #17 AND POWER LOCK #37, MOUNT ITEM #17 ON P.C. BOARD AND TURN SHAFT C'CLOCKWISE (LEFT) TO STOP. MOUNT ITEM #37 TO SUPPORT BRACKET ITEM #5 WITH 'D' HOLE IN POSITION INDICATED. ROTATE KEY POSITION INDICATED AS "B" OF ITEM #37 TO LINE UP WITH KEY POSITION INDICATED AS "A" OF ITEM #37.



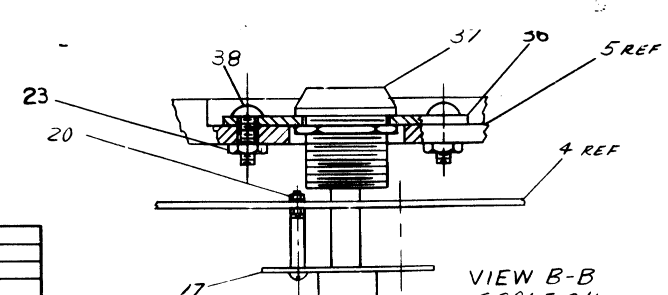
NOTES

1. AFTER ASSEMBLING ITEM #7 TO ITEM #4, THE TABS OF ITEM #7 ARE TO BE TWISTED AS SHOWN IN VIEW A-A
2. ON S1-S19, S26, S28, THE SWITCH ARM IS TO FLIP UP. THE SWITCH ARM TO FLIP DOWN ON 20-25:27.

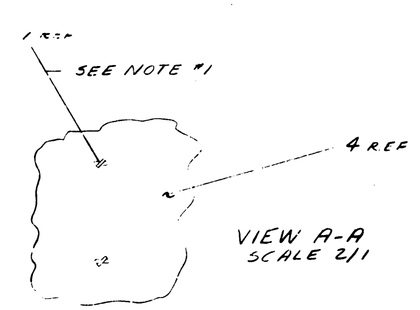




FOR INFORMATION ON COLOR OF KNOB SEE TABLE



VIEW B-B SCALE 2/1 (ROTATED 90° C'CLOCKWISE)



VIEW A-A SCALE 2/1

SEE SHEET 2 FOR PARTS LIST

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				

ETCH BOARD REV E

SEMICONDUCTOR CONVERSION CHART (DEC NO / EIA NO / DEC NO / EIA NO)

IC TYPE | GND | +5V

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

ITEM NO. | AWG | FROM PT | TO PT

JUMPER LIST

[redacted] EQUIPMENT CORPORATION

TITLE: ETCH BOARD ASSY (11/45 CONSOLE)

NEXT HIGHER ASSY: E-UA-AB11-A-0

SCALE 2/1 — SHEET 1 OF 2

B | A | 5409684-0-0 — REV H

PARTS LIST

QTY (5409684-1)	QTY (5409684-0)	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
13	0		KNOB, SWITCH AC RED	1210796-09	53
14	0		KNOB SWITCH DC BLUE	1210796-08	52
1	1	R120	RES. 68 1/4W 10%	1300221	51
1	1	R121	RES. 56 1/4W 10%	1301429	50
					49
3	3		LOCKWASHER INT TOOTH #6	9006633	48
3	3		SPACER .25 A.F. #6-32X.88LG	9006861	47
4	4		LOCKWASHER #2 INT TOOTH	9006631	46
4	4		NUT, HEX #2-56	9006555	45
2	2		SCR. PHL HD PAN #4-40 X 3/8	9006011-1	44
2	2		LOCKWASHER #8 INT TOOTH	9006634	43
REF	REF		ASSY/DRILLING HOLE LAYOUT	E-AH-5409684-0-5	42
1	1		KNOB, SWITCH GRAY	D-PS-1210796-3-0	41
0	13		KNOB, SWITCH MAGENTA	D-PS-1210796-2-0	40
1	1	E8	I.C. DEC 7404	1909686	39
2	2		SCR. PHL PAN HD #6 32 X 3/8 LG	9006022-1	38
1	1		POWER LOCK	1210754	37
1	1		STRAP, LOCK MTG	B IA-7409989-0-0	36
1	1	E9	I.C. MC 3001	1909514	35
7	7	E7, E13-E18	I.C DEC 7416	1909928	34
1	1	E5	I.C DEC 9318	1910454	33
2	2	E2, E4	I.C DEC 7417	1909929	32
6	6	E1, E3, E6, E10, E12	I.C DEC 7400	1905575	31
2	2		8 32 X 1/4 SELF TAPPING SCR	9008143-01	30
54	54	R37-R54, R58-R61, R82-R109, R137-R140	RES 220 Ω 1/4W, 10%	1300271	29
76	76	R1-R36, R55-R57, R62-R78, R111-R119, R123-R131, R135, R136	RES. 22K 1/4W, 10%	1300417	28
15	15	C19-C33	CAP 6.8 µf 35V 10% TANT	1005306	27
21	21	C1-C18, C34-C36	CAP. .01 µf 100V 10%	1001610-1	26
91	91	D1-D91	DIODE D664	1100114	25
6	6		SCR. PHL PAN HD #6-32X.50 LG	9006024-1	24
5	5		NUT, KEPS #6-32	9006560	23
2	2		WASHER, FIBER H.H.SMITH 2162	9006693	22
4	4		NUT, NYLON #4-40	9007992	20
108	108		LAMP SOCKET	9007812	19
54	54	I1-I54	LAMP 2309G HUDSON BLUE	1209219	18
1	1	S30	SWITCH ROTORY (LEDEX) 3 POS	1210753	17
8	8	S19-S22, S25-S28	SWITCH SPDT MOMENTARY (C&K)	1210841	16
20	20	S1-S18, S23, S24	SWITCH SPDT (C&K)	1210840	15
2	2	S[illegible] S31	SWITCH ROTARY (LEDEX) 8 POS	1210775	14
2	2	J1, J2	CONN. RIGHT ANGLE HEADER	1209991	13
8	8		PIN SOCKET AMP 61320-1	1209456	12
1	1	J3	PIN HOUSING	1209390-00	11
2	2		KNOB, FUNCTION BLK	1210773	10
2	2		KNOB, DUMMY GRAY	D-PS-1210825-0-0	9
0	14		KNOB, SWITCH ROSE	D-PS-1210796-1-0	8
1	1		SUPPORT, SWITCH	D-MD 7409270-1-0	7
6	6		STANDOFF, MALE/FEMALE 6-32	9009120-2	6
1	1		SUPPORT, INDICATOR PANEL	D MD-7409985-0-0	5
1	1		ETCHED CIRCUIT BOARD	5009683	4
REF	REF		MODULE ECO HISTORY	B-MH-5409684-0-0	3
REF	REF		CIRCUIT SCHEMATIC	D-CS-5409684-0-1	2
REF	REF		X-Y COORDINATE HOLE LOC	K-CO-5409684-0-4	1

IC TYPE	GND	+5V
DEC 9318	8	16

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

ITEM NO.	AWG	FROM PT	TO PT

JUMPER LIST

DEC FORM NO. DRK 104

DEC NO.	EIA NO.	DEC NO.	EIA NO.
D664	1N3606		

SEMICONDUCTOR CONVERSION CHART

REVISIONS — CHANGE NO. — REV — CHK.

NEXT HIGHER ASSY: E-UA-KBH-A-0

DATE: 3-30-72

[redacted] EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS

TITLE: ETCH BOARD ASSY (11/45 CONSOLE)

SIZE: E IA — NUMBER: 5409684-0-0 — REV: H

SCALE 2/1 — SHEET 2 OF 2

B IA 5409684-0-0 H

"SWITCH REGISTER" SWITCHES SHOWN IN LOGICAL "Ø" STATE (DOWN)

NOTES:
1. CONTROL LOGIC AND DISPLAY GROUNDS MUST BE KEPT SEPARATE.
2. ALL RESISTORS ARE 2.2K UNLESS MARKED OTHERWISE.
3. ALL UNMARKED DIODES ARE DGG4

SIGNALS TO PDR MODULE

KNL/PDR INTERFACE
12-9981
J1

SIGNALS FROM PDR MODULE

+5VC

R1 S18 R2 D1 KNLA SWRØØ H
R3 S17 R4 D2 KNLA SWRØ1 H
R5 S16 R6 D3 KNLA SWRØ2 H
R7 S15 R8 D4 KNLA SWRØ3 H
R9 S14 R10 D5 KNLA SWRØ4 H
R11 S13 R12 D6 KNLA SWRØ5 H
R13 S12 R14 D7 KNLA SWRØ6 H
R15 S11 R16 D8 KNLA SWRØ7 H
R17 S1Ø R18 D9 KNLA SWR Ø8 H
R19 SØ9 R2Ø D1Ø KNLA SWRØ9 H
R21 SØ8 R22 D11 KNLA SWR1Ø H
R23 SØ7 R24 D12 KNLA SWR11 H
R25 SØ6 R26 D13 KNLA SWR12 H
R27 SØ5 R28 D14 KNLA SWR13 H
R29 SØ4 R3Ø D15 KNLA SWR14 H
R31 SØ3 R32 D16 KNLA SWR15 H
R33 SØ2 R34 D17 KNLA SWR16 H
R35 SØ1 R36 D18 KNLA SWR17 H

+C19 6.8µfd
- C2Ø 6.8µfd

UNSWITCHED -15V

+5VC
C35 .01 µf
GND
KNLD DISP DATA SELØ H
KNLD DISP DATA SEL1 H
SSRB SAD MODEØ H

PDRH DISP DØØ H — 7Ø/16 E13 — 22Ø GGØ R37 D19 — IØ
PDRH DISP DØ1 H — 7Ø/16 E13 — 22Ø GGØ R38 D2Ø — I15
PDRH DISP DØ2 H — 7Ø/16 E13 — 22Ø GGØ R39 D21 — I14
PDRH DISP DØ3 H — 7Ø/16 E13 — 22Ø GGØ RØØ D22 — I13
PDRH DISP DØ4 H — 7Ø/16 E19 — 22Ø GGØ RØ1 D23 — I12
PDRH DISP DØ5 H — 7Ø/16 E19 — 22Ø GGØ RØ2 D24 — I11
PDRH DISP DØ6 H — 7Ø/16 E19 — 22Ø GGØ RØ3 D25 — I1Ø
PDRH DISP DØ7 H — 7Ø/16 E19 — 22Ø GGØ RØ4 D26 — IØ9
PDRH DISP DØ8 H — 7Ø/16 E19 — 22Ø GGØ RØ5 D27 — IØ8
PDRH DISP DØ9 H — 7Ø/16 E19 — C25 6.8UFD +15V — 22Ø GGØ RØ6 D28 — IØ7
PDRH DISP DIØ H — 7Ø/16 E17 — +15V C26 6.8UFD — 22Ø GGØ RØ7 D29 — IØ6
PDRH DISP DI1 H — 7Ø/16 E17 — 22Ø GGØ RØ8 D3Ø — IØ5
PDRH DISP DI2 H — 7Ø/16 E17 — 22Ø GGØ RØ9 D31 — IØ4
PDRH DISP DI3 H — 7Ø/16 E17 — 22Ø GGØ R5Ø D32 — IØ3
PDRH DISP DI4 H — 7Ø/16 E17 — 22Ø GGØ R51 D33 — IØ2
PDRH DISP DI5 H — 7Ø/16 E17 — +5VA — 22Ø GGØ R52 D34 — IØ1

GNDA
KNLD LAMP TEST (ALL 7Ø16 & 7Ø17)
+15V
KNLD LAMP TEST L

REVISIONS			
CHK	CHANGE NO	REV	
	5409684-00001	B	
	5409684-00002	C	
	5409684-00003	D	
	5409684-00004	E	
	5409684-00005	F	
	5409684-00006	H	

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45		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 ✓
MATERIAL
FINISH

DRN. — DATE 6-16-11
CHK'D — DATE 6/24/72
ENG — DATE 2/22/72
PROJ. ENG. — DATE 2/26/72
PROD. — DATE

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

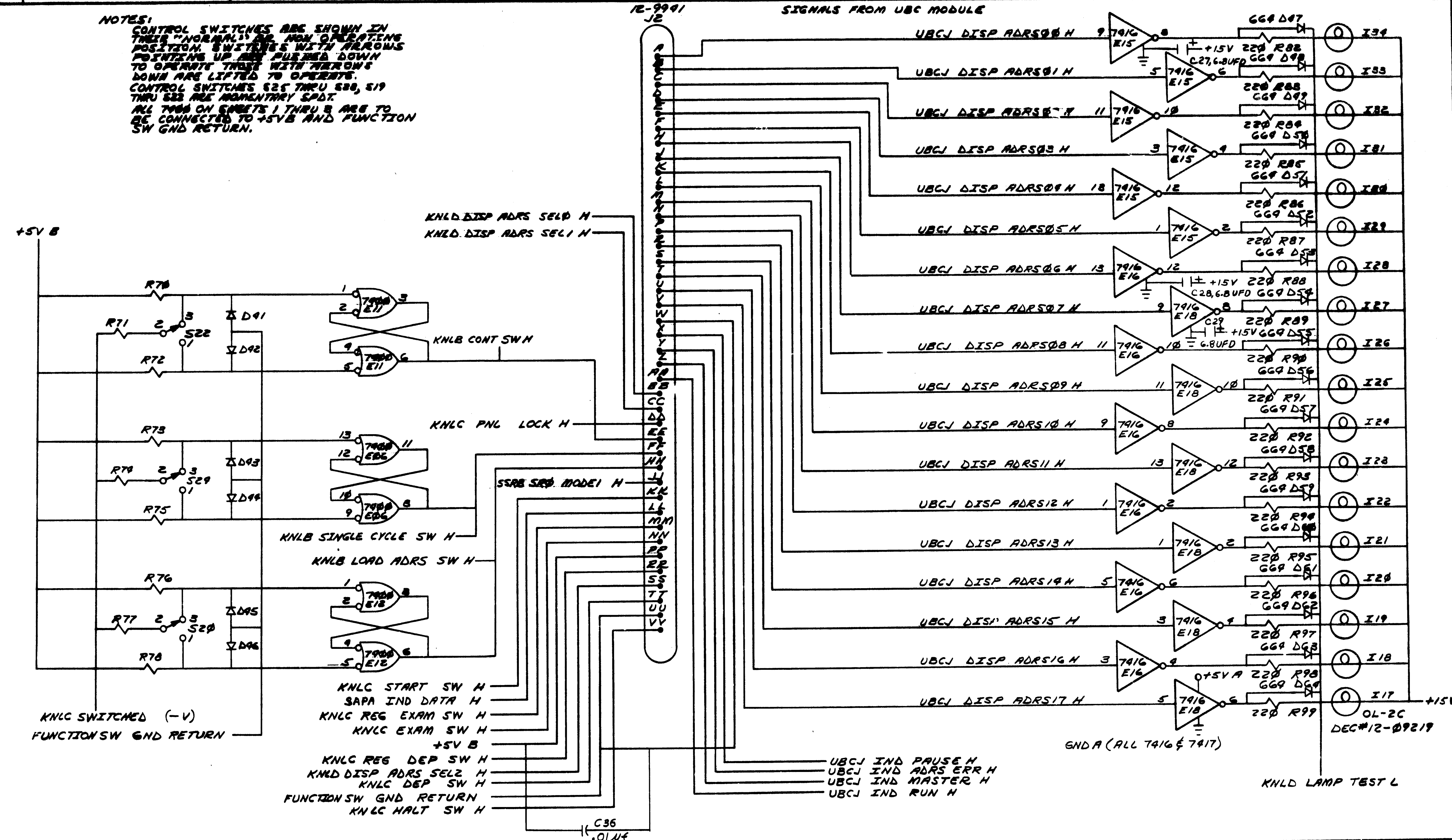
TITLE: 11/45 CONSOLE BOARD KNLA

NEXT HIGHER ASSY.: 8-DD-11/45-0
SCALE
SHEET 1 OF 4

SIZE D | CODE CS | NUMBER 5409684-0-1 | REV. H
DIST.

DEC FORM NO DRD 102-B

5409684-0-1 H


NOTES:
CONTROL SWITCHES ARE SHOWN IN THEIR "NORMAL" OR NON OPERATING POSITION. SWITCHES WITH ARROWS POINTING UP ARE PUSHED DOWN TO OPERATE THOSE WITH ARROWS DOWN ARE LIFTED TO OPERATE.
CONTROL SWITCHES S25 THRU S28, S19 THRU S22 ARE MOMENTARY SPDT.
ALL 7400 ON SHEETS 1 THRU 8 ARE TO BE CONNECTED TO +5VB AND FUNCTION SW GND RETURN.
12-9941
J2
SIGNALS FROM UBC MODULE
+5V B
KNLB CONT SW H
KNLC PNL LOCK H
KNLD DISP ADRS SEL0 H
KNLD DISP ADRS SEL1 H
SSRB SR0 MODE1 H
KNLB SINGLE CYCLE SW H
KNLB LOAD ADRS SW H
KNLC START SW H
SAPA IND DATA H
KNLC REG EXAM SW H
KNLC EXAM SW H
+5V B
KNLC REG DEP SW H
KNLD DISP ADRS SEL2 H
KNLC DEP SW H
FUNCTION SW GND RETURN
KNLC HALT SW H
KNLC SWITCHED (-V)
FUNCTION SW GND RETURN
C36 .01μf
UBCJ IND PAUSE H
UBCJ IND ADRS ERR H
UBCJ IND MASTER H
UBCJ IND RUN H
UBCJ DISP ADRS00 H
UBCJ DISP ADRS01 H
UBCJ DISP ADRS02 H
UBCJ DISP ADRS03 H
UBCJ DISP ADRS04 H
UBCJ DISP ADRS05 H
UBCJ DISP ADRS06 H
UBCJ DISP ADRS07 H
UBCJ DISP ADRS08 H
UBCJ DISP ADRS09 H
UBCJ DISP ADRS10 H
UBCJ DISP ADRS11 H
UBCJ DISP ADRS12 H
UBCJ DISP ADRS13 H
UBCJ DISP ADRS14 H
UBCJ DISP ADRS15 H
UBCJ DISP ADRS16 H
UBCJ DISP ADRS17 H
GND A (ALL 7416 & 7417)
OL-2C
DEC#12-09219
+15V
KNLD LAMP TEST L

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45		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. / CHKD. / ENG. / PROJ. ENG. / PROD.

NEXT HIGHER ASSY. B-DD-11/45-0

SCALE NONE

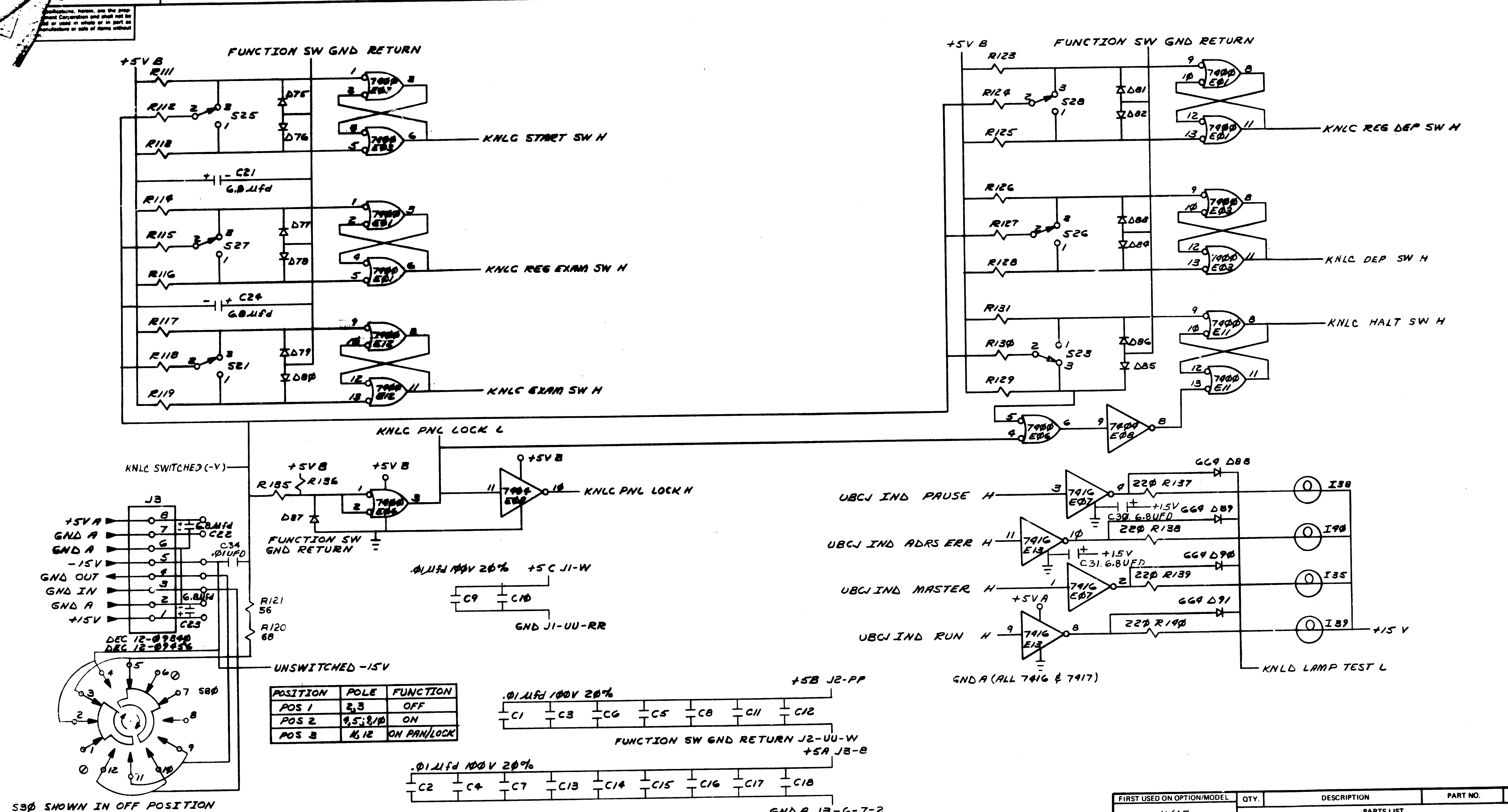
SHEET 2 OF 4

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE 11/45 CONSOLE BOARD KNLB

SIZE	CODE	NUMBER	REV.
D	CS	5409684-0-1	H

DEC FORM NO DRD 102-8



FUNCTION SW GND RETURN
+5V B
R111
R112
S25
R113
D75
D76
7400 E03
KNLC START SW H
C21
6.8 µfd
R114
R115
S27
R116
D77
D78
7400 E01
KNLC REG EXAM SW H
C24
6.8 µfd
R117
R118
S21
R119
D79
D80
7400 E12
KNLC EXAM SW H
R123
R124
S28
R125
D81
D82
7400 E01
KNLC REG DEP SW H
R126
R127
S26
R128
D83
D84
7400 E03
KNLC DEP SW H
R131
R130
S23
R129
D86
D85
7400 E11
KNLC HALT SW H
7400 E06
7404 E08
KNLC PNL LOCK L
KNLC SWITCHED (-V)
R135
R136
+5V B
7400 E06
D87
FUNCTION SW GND RETURN
7404 E08
KNLC PNL LOCK H
J3
+5V A
GND A
GND A
-15V
GND OUT
GND IN
GND A
+15V
C22
C34 .01UFD
6.8 µfd
C23
DEC 12-09840
DEC 12-09836
R121 56
R120 68
UNSWITCHED -15V
S30
S30 SHOWN IN OFF POSITION
.01 µfd 100V 20%
+5C J1-W
C9
C10
GND J1-UU-RR
UBCJ IND PAUSE H
7416 E07
220 R137
C30 6.8UFD
+15V
664 D88
I38
UBCJ IND ADRS ERR H
7416 E13
220 R138
C31 6.8UFD
+15V
664 D89
I40
UBCJ IND MASTER H
7416 E07
220 R139
664 D90
I35
+5V A
UBCJ IND RUN H
7416 E13
220 R140
664 D91
I39
+15 V
KNLD LAMP TEST L
GND A (ALL 7416 & 7417)
+5B J2-PP
.01 µfd 100V 20%
C1
C3
C6
C5
C8
C11
C12
FUNCTION SW GND RETURN J2-UU-W
+5A J3-8
.01 µfd 100V 20%
C2
C4
C7
C13
C14
C15
C16
C17
C18
GND A J3-6-7-2

POSITION	POLE	FUNCTION
POS 1	2,3	OFF
POS 2	4,5;8,10	ON
POS 3	11,12	ON PAN/LOCK

FIRST USED ON OPTION/MODEL: 11/45

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 12-23-71; CHK, DATE; ENG, DATE 3/28/72; PROJ. ENG, DATE 3/26/72; PROD, DATE 3-30-72

NEXT HIGHER ASSY. B-DD-11/45-0

SCALE

SHEET 3 OF 4

QTY. | DESCRIPTION | PART NO. | ITEM NO.

PARTS LIST

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: 11/45 CONSOLE BOARD

KNLC

SIZE D | CODE CS | NUMBER 5409684-0-1 | REV. H

DEC FORM NO DRD 102-B

CODE SELECT LINES	A2	A1	A0
USER I.V.	1	1	1
USER D.V.	1	1	Ø
SUPER I.V.	1	Ø	1
SUPER D.V.	1	Ø	Ø
KERNEL I.V.	Ø	1	Ø
KERNEL D.V.	Ø	Ø	1
PROGRAM PHY	Ø	Ø	Ø
CONSOLE PHY	Ø	1	1

KERNEL D.V. 6 7 GND
KERNEL I.V. 5 C.W. S29 8 PROGRAM PHY
CONSOLE PHY
SUPER D.V. 4 1 USER I.V.
SUPER I.V. 3 2 USER D.V.
+5V R62 R63 R64 R65 R60 R61 R67 R66

+5VB ENCODER 9318 E05 A2 A1 A0 GND
KNLD DISP ADRS SEL0 H
KNLD DISP ADRS SEL1 H
KNLD DISP ADRS SEL2 H
12-9991 J2 BB CC LL SS

KNLD KERNEL H
7416 E07 D78 CG9 220 R108 I95
SAPA IND DATA H
+5VA 7416 E07 D79 220 R109 I96 +15 V
GND A

+5VC R55 R56 R57
7400 E10 KNLD DISP DATA SEL0 H
7400 E10 KNLD DISP DATA SEL1 H
GND

12-9991 J1 SS TT UU VV

SUPER D.V. 7417 E04 DG9 CG9 220 R100 I51 +15V
C32, 6.8UFD +15V
CONSOLE PHY 7417 E02 DG5 220 R100 I97
C33, 6.8UFD +15V
PROGRAM PHY 7417 E02 DG6 220 R101 I98
KERNEL D.V. 7417 E02 DG7 220 R102 I99
KERNEL I.V. 7417 E02 DG8 220 R103 I50
SUPER I.V. 7417 E02 D70 220 R105 I52
USER D.V. 7417 E08 D71 220 R106 I53
+5VA
USER I.V. 7417 E08 D72 220 R107 I54
GND A

+5VC 7400 E10 KNLD DISP DATA SEL0 H
7400 E10 KNLD DISP DATA SEL1 H
GND

13 7417 E04 12 D37 CG4 R58 220 I41 DISPLAY REGISTER
5 7417 E09 6 D38 R59 220 I42 M ADRS FPP CPU
9 7417 E09 8 D39 R60 220 I43 BUS REGISTER
+5VA
11 7417 E08 10 D40 R61 220 I44 DATA PATHS
GND A
OL-2C +15V
KNLD LAMP TEST L

13 MC8001 E09 11 KNLD USER H
12
1 7400 E08 2
5 MC8001 E09 6 KNLD KERNEL H
4
+5VC
9 MC8001 E09 8 KNLD SUPER H
10
SSRB SR1 MODE Ø H
+5V B
3 7400 E08 4
SSRB SR0 MODE 1 H
FUNCTION SW GND RETURN

9 7416 E07 8 D35 R53 220 I37 +15 V
SUPER VISOR
+5VA (ALL 7416)
5 7416 E07 6 D36 R54 220 I36
USER
1 KNLD LAMP TEST L OL-2C DEC #12-09819
GND A (ALL 7416)
GND A

CODE SELECT LINES	DISP DATA SEL1	DISP DATA SEL0
BUS REGISTER	Ø	Ø
DATA PATHS	Ø	1
DISPLAY REGISTER	1	Ø
M ADRS FPA CPU	1	1

REVISIONS	KEY	CHANGE NO	CHK

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO	ITEM NO.
11/45		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 ✓
MATERIAL
FINISH

DRN. DATE 2/20/71
CHK'D DATE 2/26/71
ENG. DATE 3/4/71
PROJ. ENG. DATE 3/4/71
PROD. DATE 3/4/71
NEXT HIGHER ASSY. B-00-11/45-0
SCALE
SHEET 4 OF 4

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE 11/45 CONSOLE BOARD KNLD

SIZE	CODE	NUMBER	REV.
D	CS	5409684-0-1	M

DIST.

DEC FORM NO DRD 102-B

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

THIS IS PRINT SET ☐☐☐☐

SEQUENCE	
DRAWING DIRECTORY(SHT 1 ONLY)	B-DD-KB11-A-Ø
MODULE UTILIZATION	E-MU-KB11-A-1
BLOCK DIAGRAM	D-BD-KB11-A-Ø2
KB11-A FLOW DIAGRAMS	D-FD-KB11-A-Ø3
DATA PATHS (DAP)	E-CS-M81ØØ-Ø-1
GENERAL REGS & ALU CNTL(GRA)	E-CS-M81Ø1-Ø-1
IR DECODE & COND CODES(IRC)	E-CS-M81Ø2-Ø-1
ROM & ROM CONTROL(RAC)	E-CS-M81Ø3-Ø-1
PROC DATA & UNIBUS REG(PDR)	E-CS-M81Ø4-Ø-1
TRAP & MISC CNTL(TMC)	E-CS-M81Ø5-Ø-1
UNIBUS & CONSOLE CNTL (UBC)	E-CS-M81Ø6-Ø-1
TIMING GENERATOR(TIG)	E-CS-M81Ø9-Ø-1
SYSTEM JUMPER BOARD(SJB)	E-CS-M8116-Ø-1
BUS CABLES & GRANT CHAIN	D-IC-KB11-A-BG
CIRCUIT SCHEMATIC	C-CS-M93Ø-Ø-1
CIRCUIT SCHEMATIC	C-CS-M9202-Ø-1
CIRCUIT SCHEMATIC	E-CS-5409910-0-1
CIRCUIT SCHEMATIC	E-CS-5409912-0-1
CIRCUIT SCHEMATIC(TIG)	E-CS-M81Ø9-Ø-1
SPECIAL REVISION	

SEQUENCE	

UNIT VARIATIONS

VAR	TITLE	PRINT SET KB11-1
KB11-A	16 BIT PROCESSOR	X

REVISIONS	DATE	CHG. NO.	REV
REVISED & REDRAWN	4/76	11/45-00065	A A

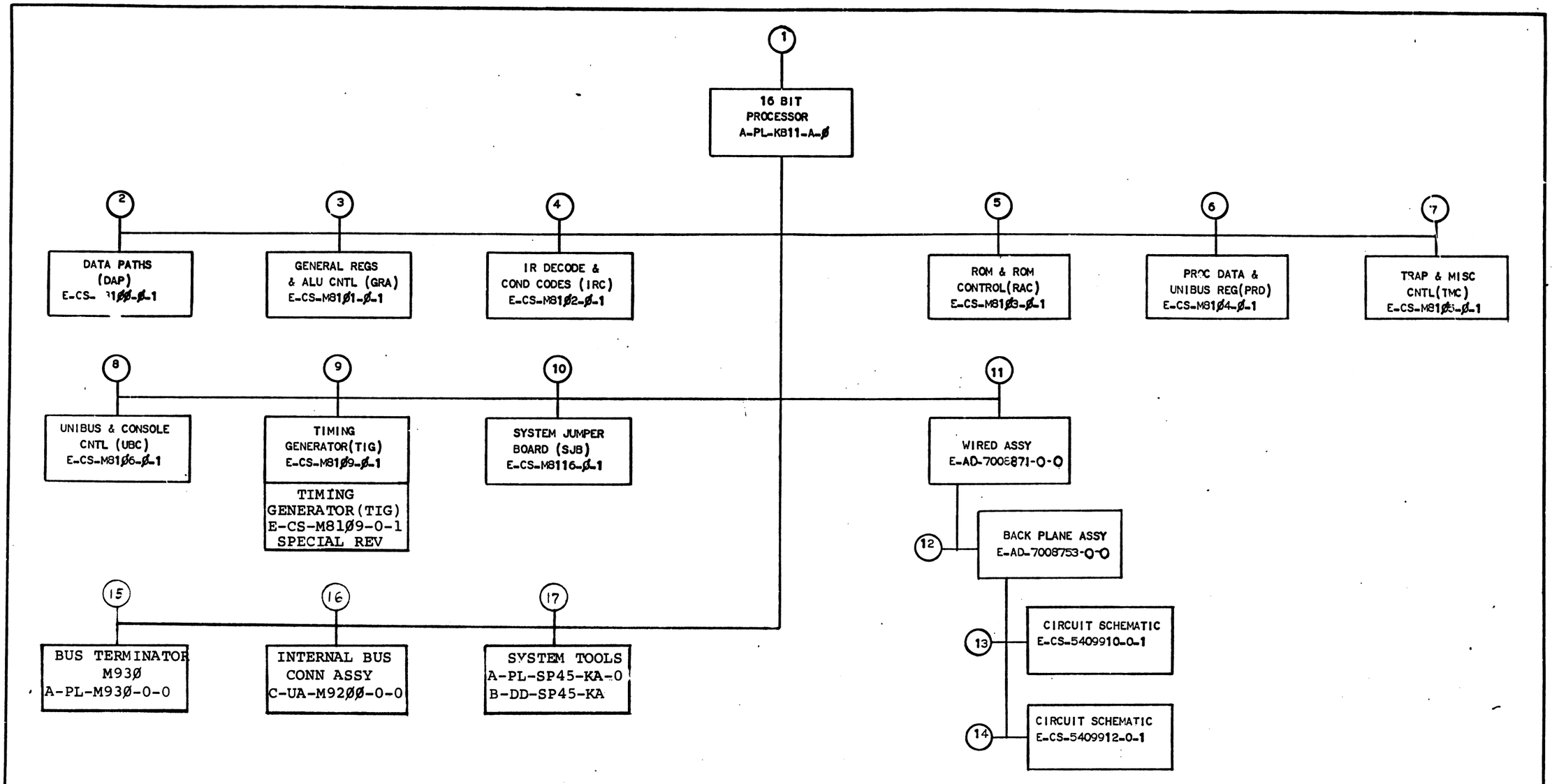
USED ON OPTION/MODEL
11/45

SHEET 1 OF 5

DRN. R. COOK	DATE MAR 72	TITLE 16 BIT PROCESSOR
CHK'D. R. COOK	DATE MAR 72	
PROJ ENG. B.A. DELAY	DATE APR 72	
PROD. A. HUSCH	DATE MAY 72	SIZE B / CODE DD / NUMBER KB11-A-Ø / REV A A
FIELD SERV. A. ZINA	DATE MAY 72	DIST

EN-01062-1A-16-R972-(325)

DRB 106



TITLE		SIZE	CODE	NUMBER	REV
16 BIT PROCESSOR	SHEET 2 OF 5	B	DD	KB11-A-Ø	AA

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

THIS IS PRINT SET ☐☐☐☐

SEQUENCE	
DRAWING DIRECTORY	B-DD-KB11-D (SHEETS 1 & 2 ONLY)
MODULE UTILIZATION	E-MU-KB11-D-1
BUS CABLES & GRANT CHAIN	D-IC-KB11-A-BG
BLOCK DIAGRAM	D-BD-KB11-D-2
KB11-C FLOW DIAGRAMS	D-FD-KB11-C-1
DATA PATHS (DAP)	E-CS-M8100-0-1
GEN REG & ALU CONTROL (GRA)	E-CS-M8101-0-1
IR DECODE & COND. CODES (IRC)	E-CS-M8132-0-1
ROM & ADDR CONTROL (RAC)	E-CS-M8123-0-1
PROC DATA & UNIBUS REG (PDR)	D-CS-M8104-0-1
TRAP & MISC CONTROL (TMC)	E-CS-M8105-0-1
UNIBUS & CONSL. CONTROL (UBC)	E-CS-M8119-0-1
TIMING GENERATOR	E-CS-M8109-0-1
SYSTEM JUMPER BOARD	D-CS-M8116-0-1
CIRCUIT SCHEMATIC	C-CS-M930-0-1
CIRCUIT SCHEMATIC	C-CS-M920-0-1
CIRCUIT SCHEMATIC	E-CS-5409910-0-1
CIRCUIT SCHEMATIC	E-CS-5409912-0-1

UNIT VARIATIONS

VAR	TITLE	PRINT SET 1
KB11-D	16 BIT PROCESSOR	X

REVISIONS	DATE	CHG. NO.	REV
	7-76	11/55-1	A

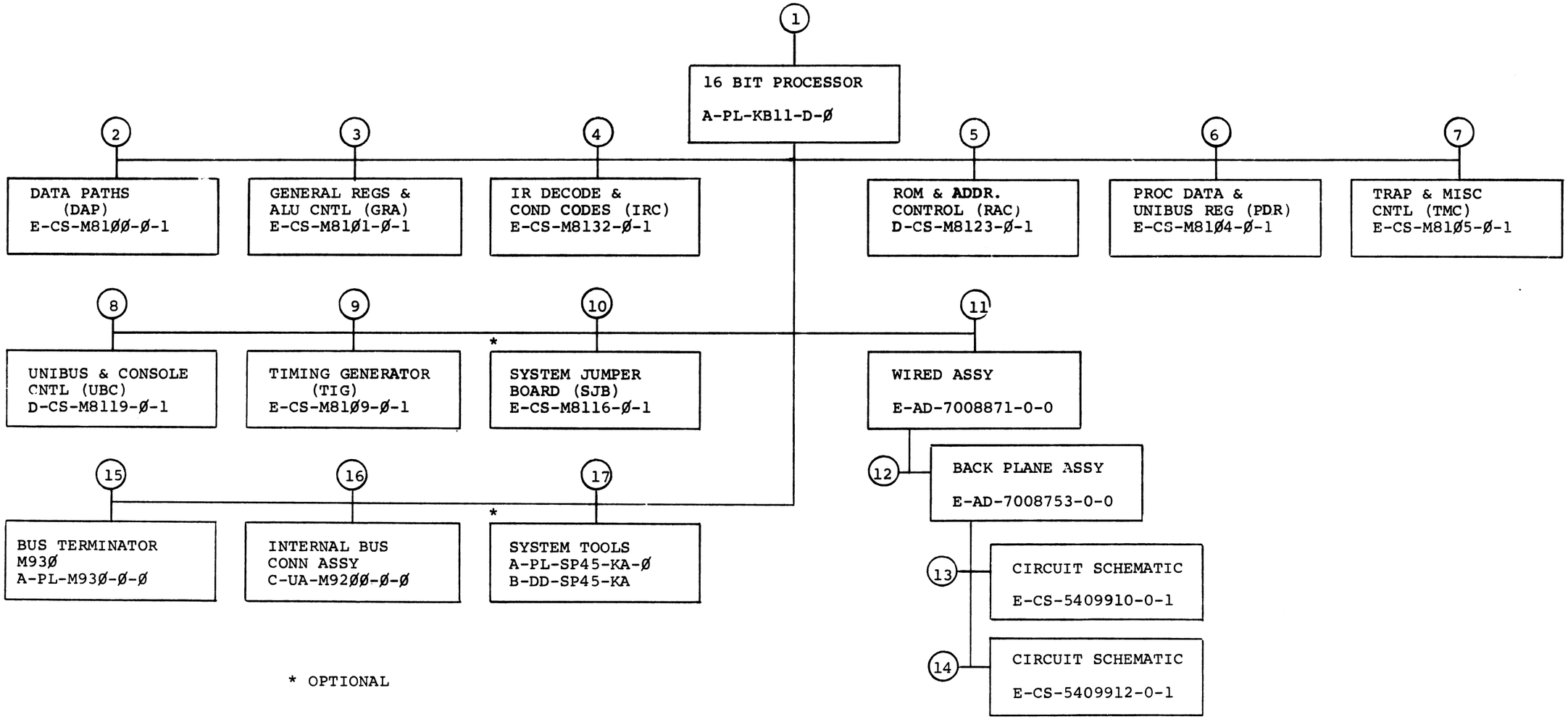
USED ON OPTION/MODEL	
11/45	
11/55	

SHEET 1 OF 5

DRN. D. HEALY	DATE 12/30/75	TITLE 16 BIT PROCESSOR	
CHK'D. D. HEALY	DATE 12/30/75		
PROJ ENG. Verell Boyd	DATE 4 JAN 76		
PROD. L. Borenstein	DATE 4 FEB 76	SIZE B / CODE DD / NUMBER KB11-D	REV A
FIELD SERV. C. Tyrell	DATE 5 FEB 76	DIST	

EN-01062-1A-16-R972-(325)

DRB 106



TITLE		SIZE	CODE	NUMBER	REV
16 BIT PROCESSOR	SHEET 2 OF 5	B		KB11-D	A

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

THIS IS PRINT SET ☐☐☐☐

PRINT SET #1

SEQUENCE	
DRAWING DIRECTORY	B-DD-DL11-Ø
ASYNCHRONOUS LINE INTERFACE	C-UA-DL11-Ø-Ø
ASYNCHRONOUS LINE INTERFACE (PL)	A-PL-DL11-Ø-Ø
ASYNCHRONOUS LINE INTERFACE	E-CS-M78ØØ-YA-1
CABLE ASSEMBLY (KL8/E)	D-IA-7008360-Ø-Ø
SOFTWARE LIST	A-SL-DL11-Ø-4
ACCESSORY LIST	A-AL-DL11-Ø-5
INSTALLATION PROCEDURE	A-SP-DL11-Ø-2

PRINT SET #2

SEQUENCE	
DRAWING DIRECTORY	B-DD-DL11-Ø
ASYNCHRONOUS LINE INTERFACE	C-UA-DL11-Ø-Ø
ASYNCHRONOUS LINE INTERFACE (PL)	A-PL-DL11-Ø-Ø
ASYNCHRONOUS LINE INTERFACE	E-CS-M78ØØ-Ø-1
CABLE, MODEM BCØ5C	D-UA-BCØ5C-Ø-Ø
FILTER NETWORK	B-CS-G8ØØØ-Ø-1
MODEM TEST CONN	D-CS-H315-Ø-1
SOFTWARE LIST	A-SL-DL11-Ø-4
ACCESSORY LIST	A-AL-DL11-Ø-5
INSTALLATION PROCEDURE	A-SP-DL11-Ø-2

PRINT SET #3

SEQUENCE	
DRAWING DIRECTORY	B-DD-DL11-Ø
ASYNCHRONOUS LINE INTERFACE	C-UA-DL11-Ø-Ø
ASYNCHRONOUS LINE INTERFACE (PL)	A-PL-DL11-Ø-Ø
ASYNCHRONOUS LINE INTERFACE	E-CS-M78ØØ-Ø-1
CABLE, MODEM BCØ5C	D-UA-BCØ5C-Ø-Ø
CABLE ASSEMBLY (KL81E)	D-IA-7008360-Ø-Ø
MODEM TEST CONN.	D-CS-H315-Ø-1
INSTALLATION PROCEDURE	A-SP-DL11-Ø-2

UNIT VARIATIONS

VAR	TITLE	PRINT SET DL11-1	PRINT SET DL11-2
DL11-A	ASYNC LINE INTERFACE, CURRENT LOOP	1	0
DL11-B	ASYNC LINE INTERFACE, EIA	0	1
DL11-C	ASYNC LINE INTERFACE, CURRENT LOOP	1	0
DL11-D	ASYNC LINE INTERFACE, EIA	0	1
DL11 E	ASYNC LINE INTERFACE, DATA SET	0	1

REVISIONS	DATE	CHG. NO.	REV
	2-76	REDRAWN DL11-00009	K

USED ON OPTION/MODEL		DRN.	DATE
		M. Pierce	4-28-72
		CHK'D. R. Cook	DATE 5-9-72
		PROJ ENG. P.E.Janson	DATE 5-11-72
		PROD. J.McIntyre	DATE 5-15-72
SHEET 1 OF 3		FIELD SERV. R. Evans	DATE 5-15-72

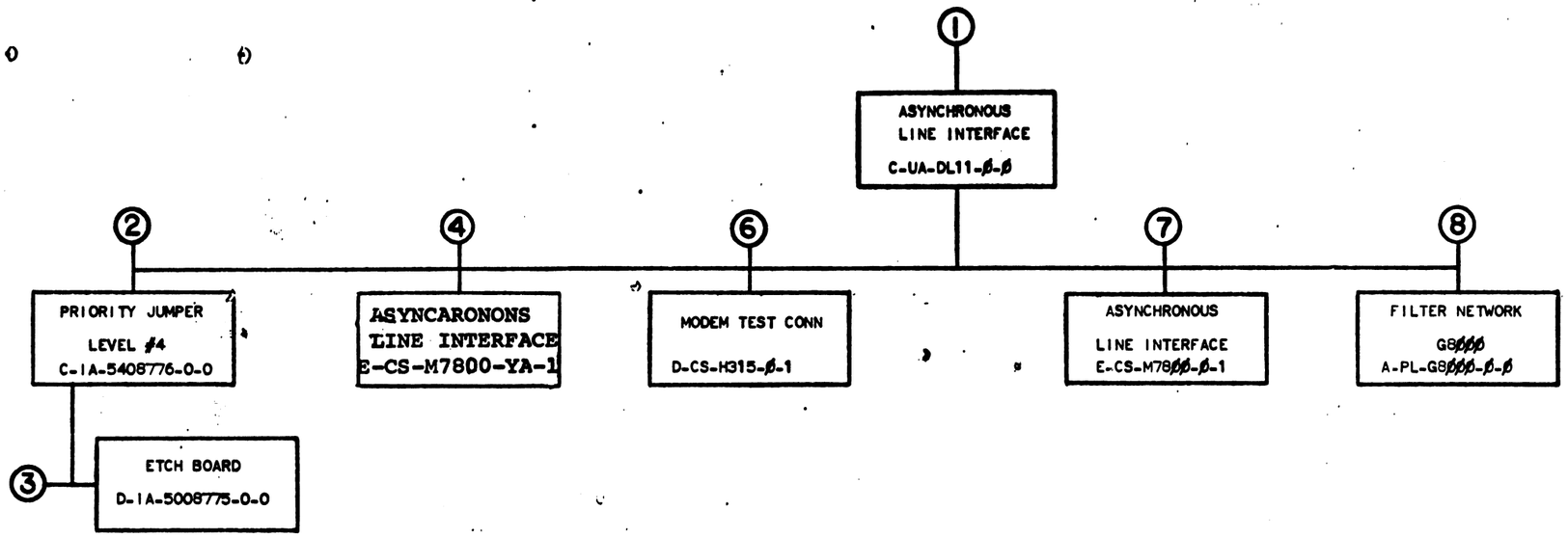
TITLE: ASYNCHRONOUS LINE INTERFACE

SIZE	CODE	NUMBER	REV
B	DD	DL11-Ø	K

DIST

EN-01062-1A-16-R972-(325)

DRB 106



TITLE	SHEET	SIZE	CODE	NUMBER	REV
ASYNCHRONOUS LINE INTERFACE	2 OF 3	B	DD	DL11-Ø	K

ELECTRICAL

CUSTOMER PRINT SET DL11-1	DL11-2	DL11-3	DEPOT SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO.
X	X	X		1.	C-UA-DL11-Ø-Ø	F	1	ASYNCHRONOUS LINE INTERFACE	
X	X	X			A-PL-DL11-Ø-Ø	F	1	ASYNCHRONOUS LINE INTERFACE (PL)	
	X	X			D-UA-BCØ5C-Ø-Ø	#	1	CABEE, MODEM, BCØ5C	
X		X			D-IA-7008360-0-0	#	1	CABLE, ASSEMBLY (KL8/E)	
					A-SP-DL11-Ø-1	*	11	ENGINEERING SPECIFICATION	
X	X	X			A-SP-DL11-Ø-2	F	9	INSTALLATION PROCEDURE	
					A-SP-DL11-Ø-3	B	8	TEST PRODEDURE (TEST & ACCEPTANCE)	
X	X				A-SL-DL11-Ø-4	*	1	SOFTWARE LIST	
X	X				A-AL-DL11-Ø-5	C	1	ACCESSORY LIST	
				2.	C-IA-5408776-0-0		1	PRIORITY JUMPER LEVEL #4	
					B-CS-5408776-0-1		1	CIRCUIT SCHEMATIC	
					K-CO-5408776-0-4		1	X-Y COORDINATE HOLE LOC	
					B-MH-5408776-0-6		1	MODULE ECO HISTORY	
				3.	C-AH-5408776-0-5		1	ASSY/DRILLING HOLE LAYOUT	
X				4	E-CS-M7800-YA-1	#	6	ASYNCHRONOUS LINE INTERFACE	
					K-CO-M7800-YA-4		1	X-Y COORDINATE HOLE LOCATION	
					D-AH-M7800-YA-5		1	ASSY DRILLING HOLE LAYOUT	
					B-MH-M7800-YA-6		1	MODULE ECO HISTORY	
	X	X		6.	D-CS-H315-Ø-1	#	1	MODEM TEST CONN	
					K-CO-H315-Ø-4		1	X-Y COORDINATE HOLE LOC	
					D-AH-H315-Ø-5		1	ASSY DRILLING HOLE LAYOUT	
					B-MH-H315-Ø-6		1	MODULE ECO HISTORY	
X	X	X		7.	E-CS-M7ØØØ-Ø-1	#	7	ASYNCHRONOUS LINE INTERFACE	
					K-CO-M7ØØØ-Ø-4		1	X-Y COORDINATE HOLE LOC	
					D-AH-M7ØØØ-Ø-5		1	ASSY/DRILLING HOLE LAYOUT	
					B-MH-M7ØØØ-Ø-6		1	MODULE ECO HISTORY	
	X			8.	A-PL-G8ØØØ-Ø-Ø		1	FILTER NETWORK	
					B-CS-G8ØØØ-Ø-1	#	1	CIRCUIT SCHEMATIC	
					K-CO-G8ØØØ-Ø-4		1	X-Y COORDINATE HOLE LOC	
					C-AH-G8ØØØ-Ø-5		1	ASSY/DRILLING HOLE LAYOUT	
					B-MH-G8ØØØ-Ø-6		1	MODULE ECO HISTORY	

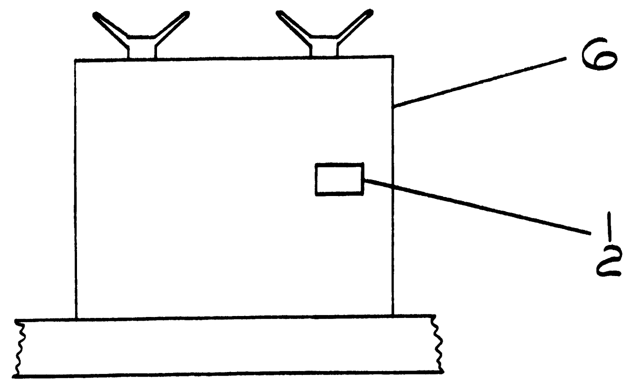
MECHANICAL

CUSTOMER PRINT SET DL11-1	DL11-2	DL11-3	DEPOT SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO.
				1.	C-UA-DL11-Ø-Ø	F	1	ASYNCHRONOUS LINE INTERFACE	
					A-PL-DL11-Ø-Ø	F	1	ASYNCHRONOUS LINE INTERFACE (PL)	
					D-UA-BCØ5C-Ø-Ø		1	CABLE, MODEM BCØ5C	
					D-IA-7008360-0-0		1	CABLE ASSEMBLY (KL8/E)	
				2.	C-IA-5408776-0-0		1	PRIORITY JUMPER LEVEL #4	
					K-CO-5408776-0-4		1	X-Y COORDINATE HOLE LOC	
					B-MH-5408776-0-6		1	ASSY/DRILLING HOLE LAYOUT	
				3.	D-IA-5008775-0-0		1	ETCH BOARD	
					C-AH-5408776-0-5		1	ASSY/DRILLING HOLE LAYOUT	
				6.	D-CS-H315-Ø-1		1	MODEM TEST CONN	
					K-CO-H315-Ø-4		1	X-Y COORDINATE HOLE LOC	
					C-AH-H315-Ø-5		1	ASSY/DRILLING HOLE LAYOUT	
					B-MH-H315-Ø-6		1	MODULE ECO HISTORY	
				7.	E-CS-M78Ø-Ø-1		7	ASYNCHRONOUS LINE INTERFACE	
					K-CO-M78Ø-Ø-4		1	X-Y COORDINATE HOLE LOC	
					D-AH-M78Ø-Ø-5		1	ASSY/DRILLING HOLE LAYOUT	
					B-MH-M78Ø-Ø-6		1	MODULE ECO HISTORY	
				8.	A-PL-G8ØØØ-Ø-Ø		1	FILTER NETWORK	
					K-CO-G8ØØØ-Ø-4		1	X-Y COORDINATE HOLE LOC	
					C-AH-G8ØØØ-Ø-5		1	ASSY/DRILLING HOLE LAYOUT	
					B-MH-G8ØØØ-Ø-6		1	MODULE ECO HISTORY	

TITLE	SHEET	SIZE	CODE	NUMBER	REV
ASYNCHRONOUS LINE INTERFACE	3 OF 3	B	DD	DL11-Ø	K

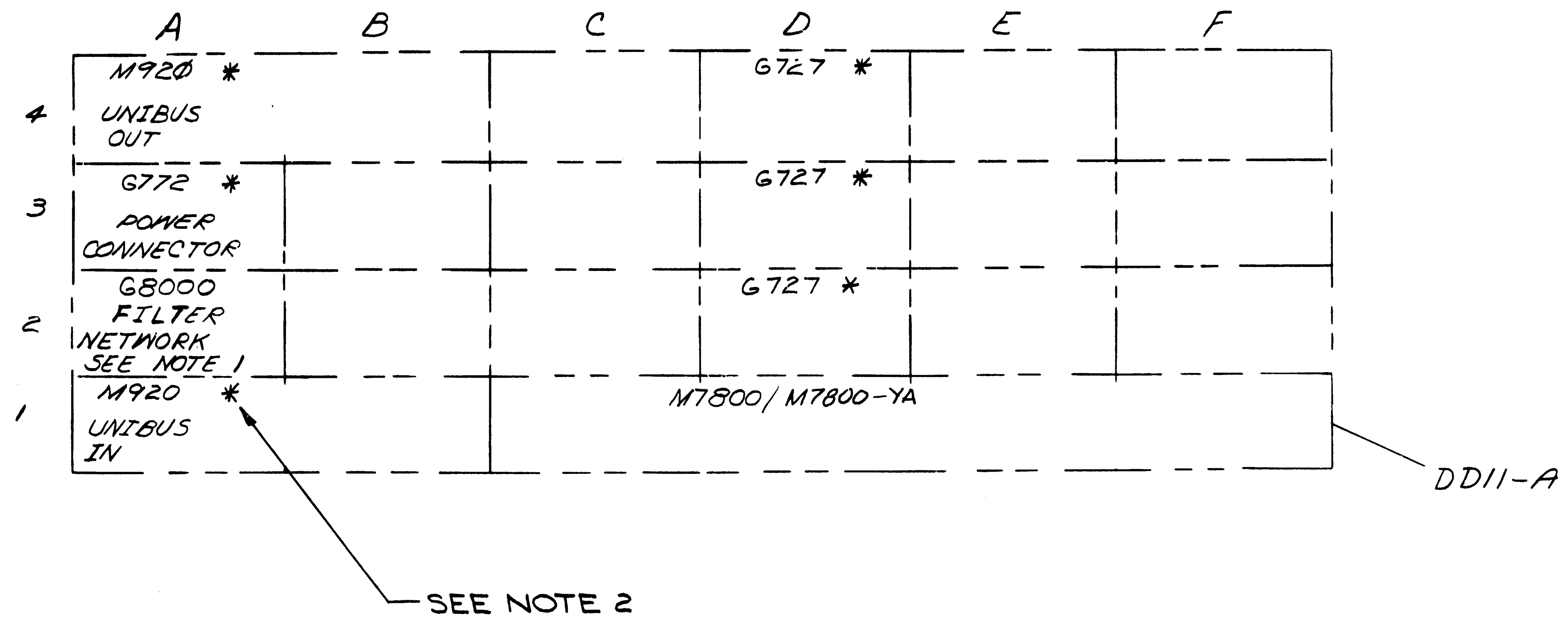
DRB 108

DEC 16-(325)-1062-2-NA71



NOTES:

1. G 8000 IS REQUIRED ONLY IN PDP 11 SYSTEMS WHERE +15V IS NOT AVAILABLE. THE INSTALATION REQUIRES 2 WIRES TO BE ADDED.
   AØ3V2 - AØ2V2
   AØ2N2 - CXXU1
   WHERE (XX) IS THE SLOT NUMBER CONTAINING THE DL11.
2. ITEMS INDICATED WITH ASTERICK (*) ARE SHOWN FOR REFERENCE ONLY AND ARE NOT PART OF THIS UNIT.



REV.	CHANGE NO.	CHK
A	DL11-00001 7-18-72	P.M.
B	DL11-00002	
C	DL11-00005 7-31-73	P.M.
D	DL11-00006	
E	DL11-00008	
F	DL11-00009 12-FEB-76	

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP-11	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 ✓

MATERIAL —

FINISH —

DRN. DATE 3/18/72 — CHK'D. DATE — ENG. DATE 5-11-72 — PROJ. ENG. DATE 5-11-72 — PROD. DATE 5-15-72

NEXT HIGHER ASSY. B-DD-DL11-Ø

SCALE NONE — SHEET 1 OF 1

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: ASYNCHRONOUS LINE INTERFACE

SIZE	CODE	NUMBER	REV.
C	UA	DL11-Ø-Ø	F

DIST G

DEC FORM NO. DRC 100-A

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

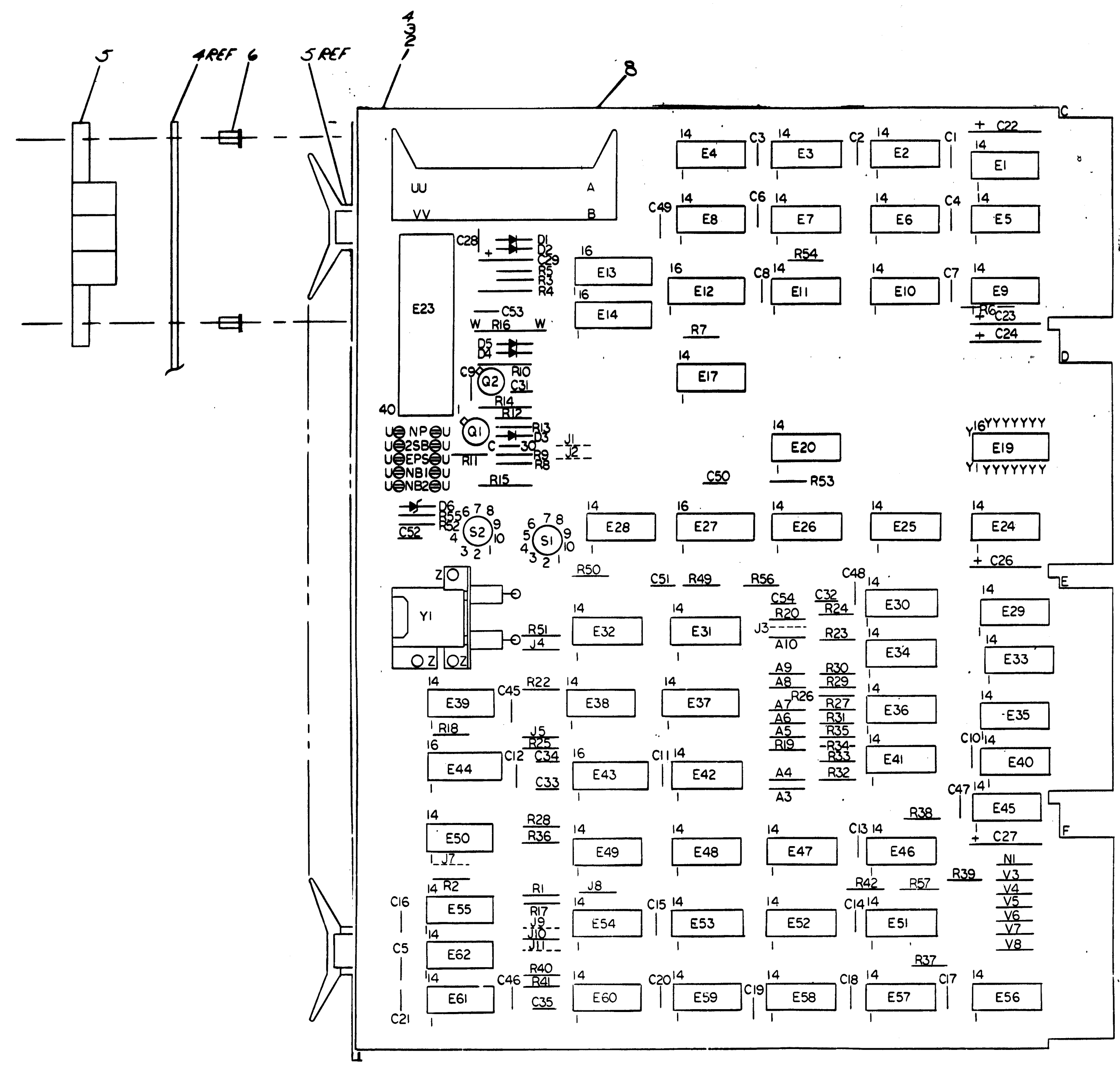
MADE BY M. PIERCE DATE 4/27/72	CHECKED J. FERGUSON DATE 4/27/72	SECTION 1
ENG P. E. JANSON DATE 5/11/72	PROD J. McIntyre DATE 5/15/72	ISSUED SECT. 1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION											
			DL11-A	DL11-B	DL11-C	DL11-D	DL11-E							
1	C-IA-5408776-0-0	PRIORITY JUMPER LEVEL #4	1	1	1	1	1							
3	D-UA-BCØ5C-25	CABLE MODEM BCØ5C	-	1	-	1	1							
4	D-IA-7008360-0-0	CABLE ASSEMBLY (KL8E)	1	-	1	-	-							
5	D-CS-H315-Ø-1	MODEM TEST CONNECTOR	-	-	-	-	A/R See Note 2							
6	E-CS-M7800-Ø-1	ASYNCHRONOUS LINE INTERFACE	-	1	-	1	1							
7	~~A-PL-G8ØØØ-Ø-Ø~~	~~FILTER NETWORK~~	~~-~~	~~A/R~~	~~-~~	~~A/R~~	~~A/R~~	~~See Note 1~~						
8		CRYSTAL	A/R	A/R	A/R	A/R	A/R	See Note 3						
9	E-CS-M7800-YA-1	ASYNCHRONOUS LINE INTERFACE	1	-	1	-	-							
10	9008269	TRANSPARENT VINYL TAPE	A/R											
	NOTES:													
	1. G8000 IS REQUIRED	ONLY IN PDP11 SYSTEMS WHERE +15V IS NOT												
	AVAILABLE. ONE PER DD11-A													
	2. ONE H315 PER PDP11 SYSTEM													
	3. CRYSTAL FREQUENCY	DEFINED BY CUSTOMER SPECIFIED BAUD RATE												
	OR BY THE DOCUMENTATION OF AN OPTION WHICH USES THE DL11.													
	4. APPLY TAPE TO TOP	SURFACES OF CRYSTAL AND MOUNTING												
	BRACKETS TO INSULATE FROM ADJACENT MODULES.													
	5. PRIORIY LEVELS 5.6, or 7 MAY BE SPECIFIED BY THE CUSTOMER													
	OR THE DOCUMENTATION OF AN OPTION WHICH USES THE DL11.													

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
ASYNCHRONOUS LINE INTERFACE	C-UA-DL11-Ø-Ø	A	PL	DL11-Ø-Ø	F	DL11-00009
	SHEET 1 OF 1	DIST.				

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

DIGITAL EQUIPMENT CORPORATION



NOTES:

1.) PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE SYSTEM UNIT. MODULE REFERENCE ALONE IS OBTAINED BY CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT THE LEFT.

2.) JUMPERS TO BE USED AT CONNECTIONS A3-A10, J4-J5, J8, J10, V3-V8, AND N1.

3.) LETTERS ENCLOSED IN PARENTHESIS REFER TO PINS ON THE BERG CONNECTOR. EXAMPLE: (X).

4.) DEC 8640'S WERE PHASED IN AS 380 REPLACEMENTS. ANY 380 FAILURES SHOULD BE REPLACED BY 8640'S, EXCEPT E28. E28 MUST BE REPLACED WITH A 7380 CHIP.

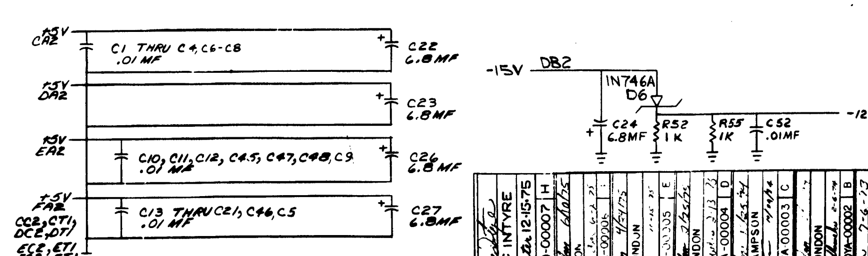
PIN NOMENCLATURE

MODULE	SYSTEM UNIT
A	C
B	D
C	E
D	F

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
3		WASHERS, INTERNAL TOOTH LOCK	9006631	70
1	E28	IC DEC 7380	1910390	69
19	J1 THRU J19	JUMPER, INSULATED	[illegible]	68
1	R3	RES 750Ω 1/4W 5%	1301401	67
1	R38	RES 390Ω 1/4W 5%	1300309	[illegible]
1	D6	DIODE 1N746A	1104860	[illegible]
2	Q1, Q2	TRANSISTOR G534D	1503409-00	[illegible]
1	C53	CAP 100PF 100V 5% MICA	1000016	[illegible]
1	C54	CAP 560PF 100V 5% MICA	1000025	[illegible]
2	C50, C51	CAP .047MF CERAMIC	1009678	61
1	E27	IC DEC 74161	1910650	[illegible]
2	C34, C35	CAP 330PF 100V 5% DIPPED MICA	1000023	[illegible]
1	C32	CAP 470PF 100V 5% DIPPED MICA	1000024	[illegible]
1	C31	CAP 1000PF 100V 5% DIPPED MICA	1000072	57
29	C1-C21, C28, C30, C45-C49, C52	CAP .01UF 100V 20% CERAMIC DISC	1000610	[illegible]
1	C29	CAP .47UF 35V 10% TANT	1005965	[illegible]
5	C22-C24, C26, C27	CAP 6.8UF 35V 20% TANT	1000067	[illegible]
1	C33	CAP 150PF 100V 5% DIPPED MICA	1000019	[illegible]
2	R14, R15	RES 1.5K 1/2W 5%	1300394	[illegible]
5	R23, R26, R40, R52, R55	RES 1K 1/4W 5%	1300165	[illegible]
1	R41	RES 47Ω 1/4W 5%	1300202	[illegible]
1	R10	RES 68Ω 1/2W 5%	[illegible]	[illegible]
1	R5	RES 82Ω 1/4W 5%	1301477	[illegible]
1	R24	RES 100Ω 1/4W 5%	1300229	[illegible]
1	R11	RES 150Ω 1/4W 5%	1300250	[illegible]
2	R42, R57	RES 180Ω 1/4W 5%	1301322	[illegible]
1	R53	RES 220Ω 1/4W 5%	1300271	[illegible]
5	D1-D5	DIODE D664 20V 100MA	1100114	[illegible]
3	R9, R13, R51	RES 470Ω 1/4W 5%	1300316	[illegible]
1	R4	RES 560Ω 1/2W 5%	1300338	[illegible]
3		NUT HEX #2-56	9006555	[illegible]
1	R16	RES 750Ω 1W 5%	1302385	39
26	R1, R2, R6, R7, R17-R20, R25, R27-R37, R39, R49, R50, R22, R54, R56	RES 10K 1/4W 5%	1300479	38
2	R8, R12	RES 1.5K 1/4W 5%	1300391	37
1	E23	IC DEC UART	1910459-01	[illegible]
4	E32, E55, E61, E62	IC DEC 7474	1905547	[illegible]
2	E36, E41	IC DEC 8242	1909712	[illegible]
3	E31, E49, E59	IC DEC 7408	1910135	33
3		SCR PHIL HD PAN #2-56X.25LG	9006001-1	[illegible]
2	E20, E26	IC DEC 7490	1909057	[illegible]
11	E1, E2, E5, E7-E9, E11, E30, E47, E54, E56	IC DEC 8881	1909705	30
2		AUGAT 8000 PG-1	1202812	[illegible]
1	E43	IC DEC 74123	[illegible]	[illegible]
3	E48, E57, E52	IC DEC 74H74	1909667	[illegible]
3	E42, E54, E58	IC DEC 7400	1905575	[illegible]
1	E10	IC DEC 7413	[illegible]	[illegible]
2	E50, E53	IC DEC 7402	1909004	[illegible]
7	E3, E4, E33, E35, E40, E45, E46	IC DEC 8640	[illegible]	[illegible]
1	E12	IC DEC 74153	[illegible]	22
1	E60	IC DEC 74H04	1909731	21
1	E25	IC DEC 7492	1909053	20
4	E6, E17, E38, E39	IC DEC 7404	1909686	19
1	E24	IC DEC 7493	1909056	[illegible]
1	E34	IC DEC 7410	1905576	17
1	E29	IC DEC 314	1909704	16
1	E37	IC DEC 7442	[illegible]	15
1	E44	IC DEC 8271	1909615	14
2	E13, E14	IC DEC 74175	1910631	13
1		BRACKET, CRYSTAL HOLDER	[illegible]	12
1		BRACKET, CRYSTAL HOLDER	5303154	11
1	E19	IC SOCKET	[illegible]	10
2	S1, S2	SWITCH, SINGLE POLE, 10 POS	[illegible]	9
1		40 PIN CONNECTOR BERG	1209941-02	8
10		SPLIT LUGS	9006135	7
8		EYELET #GS4-7 E.B.STIMPSON	[illegible]	6
4		HANDLE, FLIP-CHIP, MAGENTA	9008337-06	5
1		ETCHED CIRCUIT BOARD	[illegible]	4
REF		MODULE ECO HISTORY	[illegible]	3
REF		ASSY/DRILLING HOLE LAYOUT	[illegible]	2
REF		X-Y COORDINATE HOLE	[illegible]	1

PARTS LIST

ETCH BOARD REV H



IC TYPE	GND	+5V	+V	-12V
DEC 74161	8	16	—	—
DEC 7380	1	8	—	—
DEC UART	3	1	—	2
DEC 74175	8	16	—	—
DEC 8271	8	16	—	—
DEC 7442	8	16	—	—
DEC 314	1	8	—	—
DEC 7493	10	5	—	—
DEC 7492	10	5	—	—
DEC 74153	8	16	—	—
DEC 8640	1	8	—	—
DEC 7490	10	5	—	—
DEC 74123	8	16	—	—

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY. EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

DEC NO.	EIA NO.
G534D	MPS6534
1N746A	1N4733A
D664	1N3606

SEMICONDUCTOR CONVERSION CHART

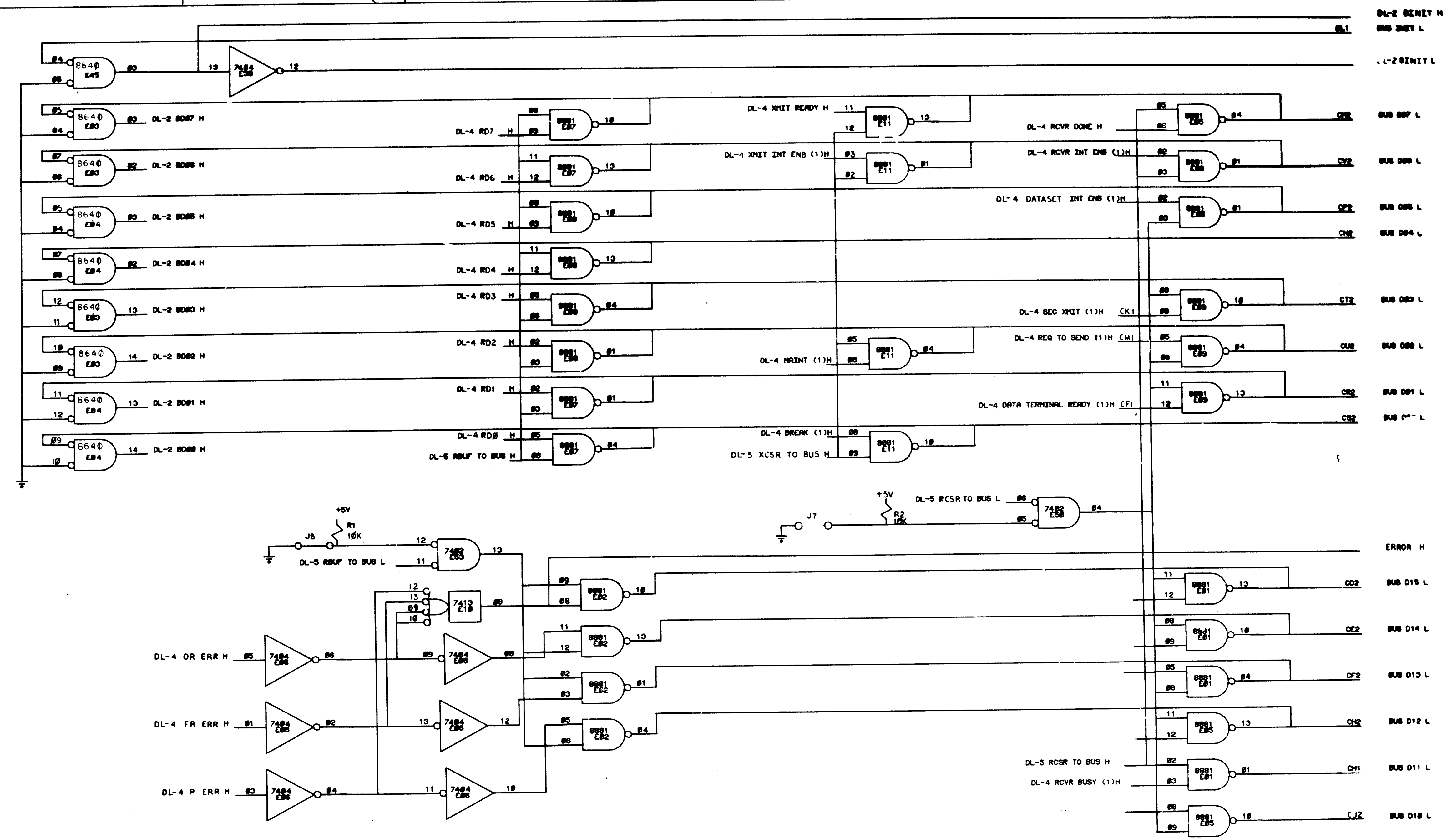
JOHN MC INTYRE; M7800-00007; M7800-00006; M7800-00005; M7800-00004; M7800-00003; M7800-00002; M7800-00001; L. CONDON; B. SAMPSON; P. IANSON

CHANGE NO. / REVISIONS

EQUIPMENT CORPORATION

TITLE: ASYNCHRONOUS LINE INTERFACE

CS M7800-YA-1 J


DL-2 BINIT H
BUS INIT L
DL-2 BINIT L
DL-2 BD07 H
DL-2 BD06 H
DL-2 BD05 H
DL-2 BD04 H
DL-2 BD03 H
DL-2 BD02 H
DL-2 BD01 H
DL-2 BD00 H
DL-4 RD7 H
DL-4 RD6 H
DL-4 RD5 H
DL-4 RD4 H
DL-4 RD3 H
DL-4 RD2 H
DL-4 RD1 H
DL-4 RD0 H
DL-5 RBUF TO BUS H
DL-4 XMIT READY H
DL-4 XMIT INT ENB (1)H
DL-4 MAINT (1)H
DL-4 BREAK (1)H
DL-5 XCSR TO BUS H
DL-4 RCVR DONE H
DL-4 RCVR INT ENB (1)H
DL-4 DATASET INT ENB (1)H
DL-4 SEC XMIT (1)H
DL-4 REQ TO SEND (1)H
DL-4 DATA TERMINAL READY (1)H
BUS D07 L
BUS D06 L
BUS D05 L
BUS D04 L
BUS D03 L
BUS D02 L
BUS D01 L
DL-5 RCSR TO BUS L
+5V
R1 10K
R2 10K
J7
J8
DL-5 RBUF TO BUS L
ERROR H
DL-4 OR ERR H
DL-4 FR ERR H
DL-4 P ERR H
DL-5 RCSR TO BUS H
DL-4 RCVR BUSY (1)H
BUS D15 L
BUS D14 L
BUS D13 L
BUS D12 L
BUS D11 L
BUS D10 L

REVISIONS		
CHK.	CHANGE NO.	REV.
	M7800-YA-00008	J
	18-OCT-76	
	S. MASAND	
	S Masand 11/7/76	

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.
DL11	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. DATE / CHKD. DATE / ENG. DATE 11/6/72 / PROD. ENG. DATE 11/6/72 / PROD. DATE 11/6/72

NEXT HIGHER ASSY. —

SCALE — SHEET 2 OF 6

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE ASYNCHRONOUS LINE INTERFACE (BUS RECEIVERS & DRIVERS) DL-2

SIZE	CODE	NUMBER	REV.
D	CS	M7800-YA-1	J

DIST.

SEE NOTE 3

YI		844.8 KHZ		1032.96 MHZ		1.152 MHZ		4.608 MHZ	
		BAUD	μSEC	BAUD	μSEC	BAUD	μSEC	BAUD	μSEC
SWITCH POS.	1	36.7	1700	44.8	1342	50	1250	200	312
	2	55	1135	67.3	928	75	833	300	208
	3	110	567	134.5	464	150	417	600	104
	4	220	284	269	232	300	208	1200	52
	5	440	142	538	116	600	104	2400	26
	6	880	71	1076	58	1200	52	4800	13
	7	1320	47.4	1614	38.7	1800	34.6	7200	8.7
	8	1760	35.5	2152	29	2400	26	9600	6.5
	9	BERG CLOCK INPUT-COMMON TO RCVR AND XMIT							
	10	EXTERNAL CLOCK INPUT-RCVR: DSI ; XMIT ORI							

NOTES:
1. LETTERS ENCLOSED IN PARENTHESIS REFER TO PINS ON THE BERG CONNECTOR. EXAMPLE: (X)
2. NUMBERS WITHIN TRIANGLES REFER TO PINS ON THE FEMALE MATE-N-LOCK CONNECTOR WHEN USING THE 7008360 CABLE. THIS CABLE ALSO CONNECTS BERG PINS H TO E.
3. ALTHOUGH THE ABOVE TABLE INCLUDES ONLY THE STANDARD DLII CRYSTALS OTHER VALUES MAY BE SPECIFIED BY THE CUSTOMER OR BY OTHER DOCUMENTATION OF AN OPTION WHICH USES THE DLII.

REVISIONS		
CHK.	CHANGE NO.	REV.

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DLII		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 ✓
MATERIAL —
FINISH —

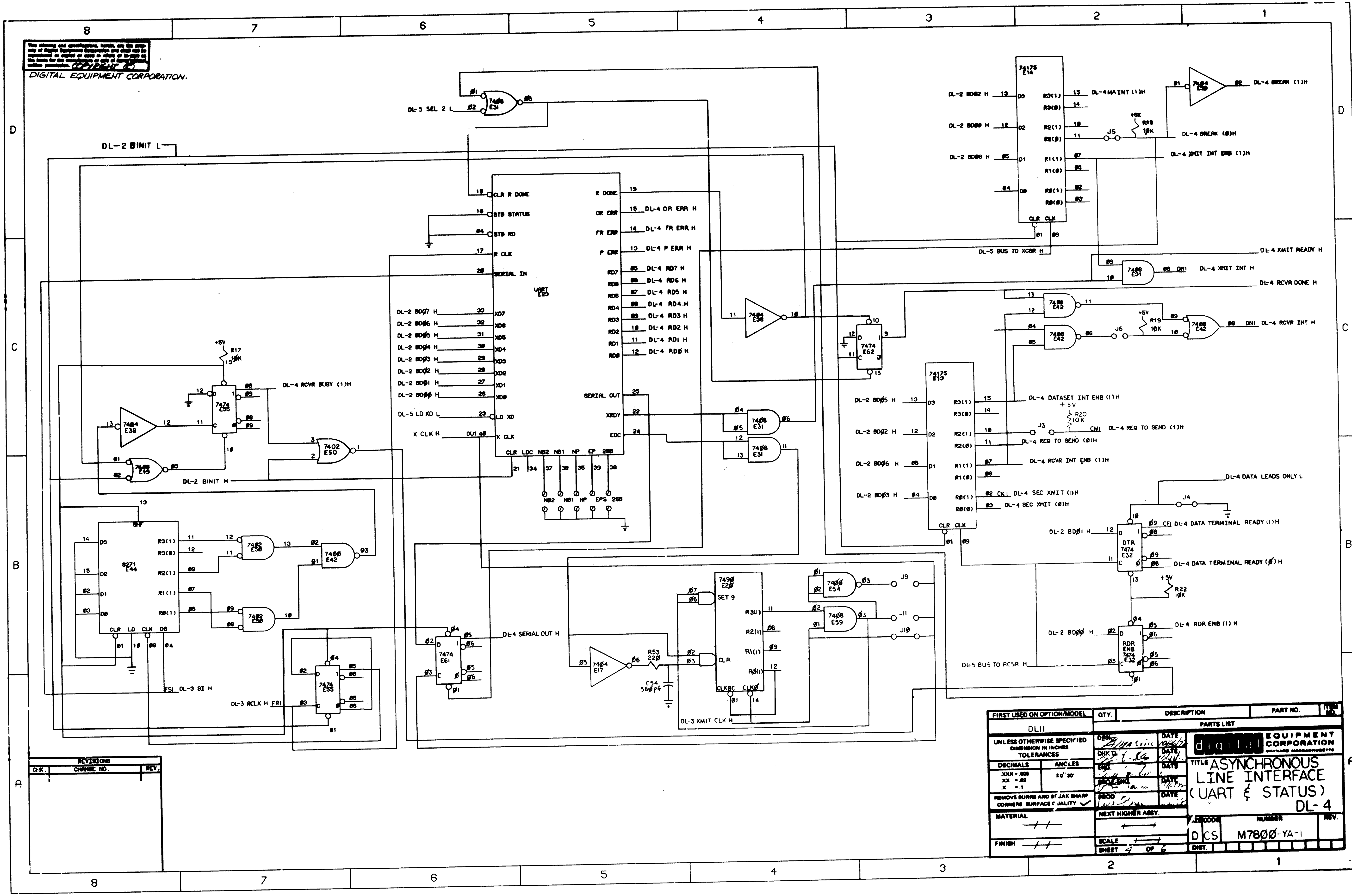
	NAME	DATE
DRAWN		
CHK'D		
ENGR		
PROJ ENGR		
PROD		
NEXT HIGHER ASSY.		
SCALE		
SHEET 3 OF 6		

EQUIPMENT CORPORATION

TITLE: ASYNCHRONOUS LINE INTERFACE (CLOCK & CURRENT LOOPS) DL-3

CAGE CODE	NUMBER	REV.
D CS	M7800-YA-1	

SIZE | DIST.


DL-5 SEL 2 L
DL-2 BINIT L
CLR R DONE
STB STATUS
STB RD
R CLK
SERIAL IN
UART E23
R DONE
OR ERR
FR ERR
P ERR
DL-4 OR ERR H
DL-4 FR ERR H
DL-4 P ERR H
DL-4 RD7 H
DL-4 RD6 H
DL-4 RD5 H
DL-4 RD4 H
DL-4 RD3 H
DL-4 RD2 H
DL-4 RD1 H
DL-4 RDØ H
DL-2 BDØ7 H
DL-2 BDØ6 H
DL-2 BDØ5 H
DL-2 BDØ4 H
DL-2 BDØ3 H
DL-2 BDØ2 H
DL-2 BDØ1 H
DL-2 BDØØ H
DL-5 LD XD L
X CLK H
LD XD
X CLK
SERIAL OUT
XRDY
EOC
NB2 NB1 NP EPS 2SB
DL-4 RCVR BUSY (1)H
DL-2 BINIT H
DL-3 SI H
DL-3 RCLK H
DL-4 SERIAL OUT H
DL-3 XMIT CLK H
SET 9
DL-2 BDØ2 H
DL-2 BDØØ H
DL-2 BDØ6 H
DL-4 MAINT (1)H
DL-4 BREAK (1)H
DL-4 BREAK (Ø)H
DL-4 XMIT INT ENB (1)H
DL-5 BUS TO XCSR H
DL-4 XMIT READY H
DL-4 XMIT INT H
DL-4 RCVR DONE H
DL-4 RCVR INT H
DL-2 BDØ5 H
DL-2 BDØ3 H
DL-4 DATASET INT ENB (1)H
DL-4 REQ TO SEND (1)H
DL-4 REQ TO SEND (Ø)H
DL-4 RCVR INT ENB (1)H
DL-4 SEC XMIT (1)H
DL-4 SEC XMIT (Ø)H
DL-4 DATA LEADS ONLY L
DL-2 BDØ1 H
DL-4 DATA TERMINAL READY (1)H
DL-4 DATA TERMINAL READY (Ø)H
DL-4 RDR ENB (1) H
DL-5 BUS TO RCSR H

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DL11		PARTS LIST		

UNLESS OTHERWISE SPECIFIED DIMENSIONS 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 — CHK'D. — DATE — ENG. — DATE — PROJ. ENG. — DATE — PROD. — DATE

NEXT HIGHER ASSY.

SCALE — SHEET 4 OF 6

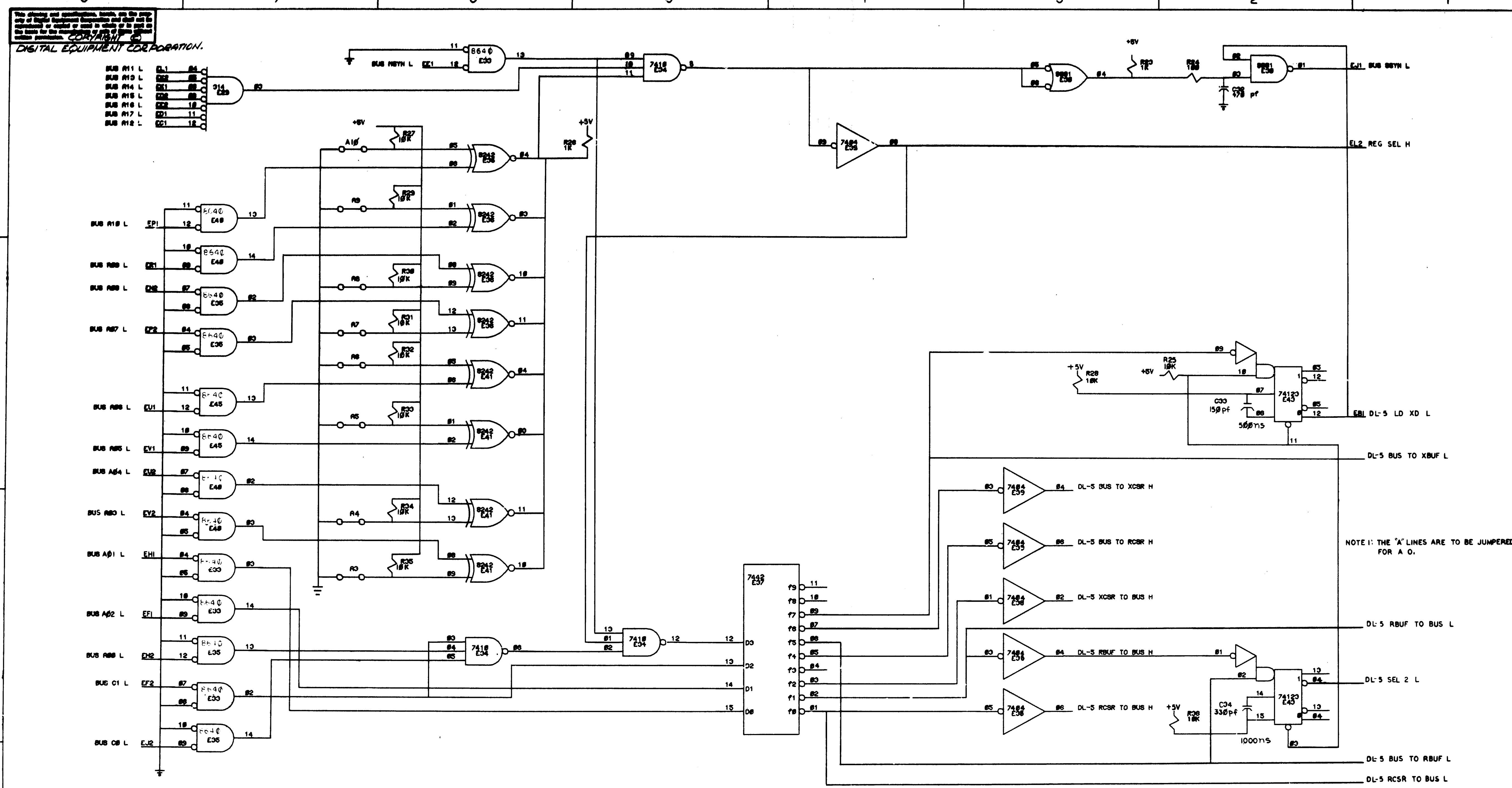
digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE ASYNCHRONOUS LINE INTERFACE (UART & STATUS) DL-4

SIZE	CODE	NUMBER	REV.
D	CS	M78ØØ-YA-1	

DIST.

REVISIONS		
CHK.	CHANGE NO.	REV.


BUS A11 L
BUS A13 L
BUS A14 L
BUS A15 L
BUS A16 L
BUS A17 L
BUS A12 L
BUS MSYN L
BUS A10 L
BUS A09 L
BUS A08 L
BUS A07 L
BUS A06 L
BUS A05 L
BUS A04 L
BUS A03 L
BUS A01 L
BUS A02 L
BUS A00 L
BUS C1 L
BUS C0 L
+5V
EJ1 BUS SSYN L
EL2 REG SEL H
EB1 DL-5 LD XD L
DL-5 BUS TO XBUF L
DL-5 BUS TO XCSR H
DL-5 BUS TO RCSR H
DL-5 XCSR TO BUS H
DL-5 RBUF TO BUS L
DL-5 RBUF TO BUS H
DL-5 SEL 2 L
DL-5 RCSR TO BUS H
DL-5 BUS TO RBUF L
DL-5 RCSR TO BUS L
500ns
1000ns
NOTE 1: THE "A" LINES ARE TO BE JUMPERED FOR A 0.

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
DL11		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 [signature] DATE

CHK'D [signature] DATE

ENG. [signature] DATE 11/6/72

PROJ. ENG. [signature] DATE 11/6/72

PROD. [signature] DATE

NEXT HIGHER ASSY.

SCALE

SHEET 5 OF 6

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE ASYNCHRONOUS LINE INTERFACE (ADDRESS SELECTION) DL-5

SIZE	CODE	NUMBER	REV.
D	CS	M7800-YA-1	J

DIST.

DL-4 RCVR INT H FV1
DL-4 XMIT INT H FV1
DL-3 BG IN H FB1
BUS NPR FJ1
BUS BSY L FD1
BUS SSYN L FC1
+5V R37 10K
+5 180 R57
+5V R39 10K
+5V R45 1K
R41 47
C35 330pF
R38 390
+5V R42 10K
FP1 DL-6 REQUEST L
FR1 DL-6 BR GUT H
FT2 BUS BACK L
FC2 BUS DØ2 L
FL1 BUS DØ3 L
FH2 BUS DØ4 L
FF1 BUS DØ5 L
FH1 BUS INTR L
FF2 BUS DØ6 L
FH1 BUS DØ7 L
FK1 BUS DØ8 L

NOTE: THE "V" LINES ARE TO BE JUMPERED FOR A 1.

REVISIONS		
CHK.	CHANGE NO.	REV.

FIRST USED ON OPTION/MODEL: DL11	QTY.	DESCRIPTION	PART NO.
		PARTS LIST	

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES
DECIMALS .XXX = .005 .XX = .02 .X = .1 ANGLES ±0° 15'
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓
MATERIAL —/—
FINISH —/—

DRWN. DATE
CHK'D. DATE
ENGR. DATE
PROD. DATE
NEXT HIGHER ASSY.
SCALE
SHEET OF

[redacted] EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE ASYNCHRONOUS LINE INTERFACE (INTERRUPT CONTROL) DL-6

ENT. CODE	NUMBER	REV.
D CS	M7800-YA-1	1

DIST.

This drawing and specifications, herein, are the property of Digital Equipment Corporation and shall not be reproduced or copied or used in whole or in part as the basis for the manufacture or sale of items without written permission.

WIRE TABLE

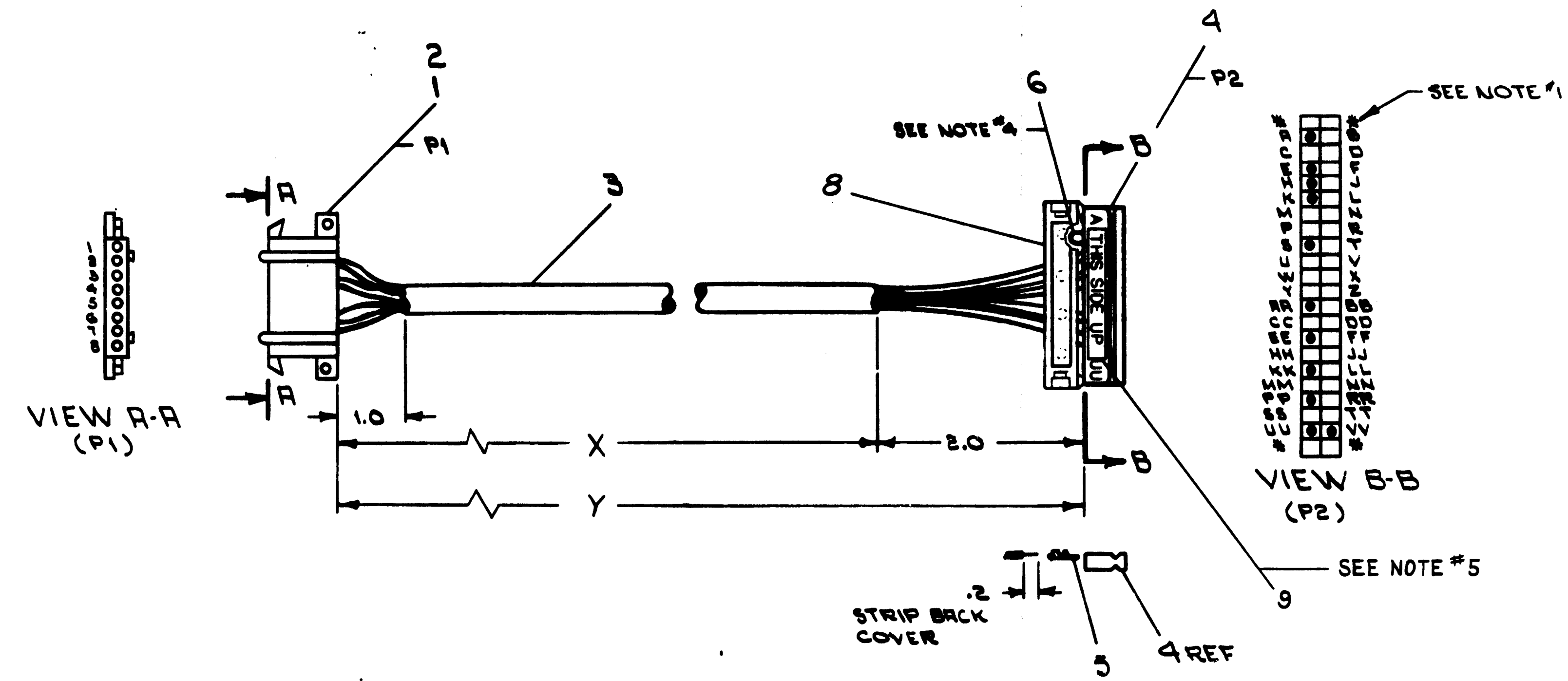
ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	PAIR NO.	FROM CONNECTION	FROM WITH	TO CONNECTION	TO WITH
3	22	BLK	1	P1-2	2	P2-KK	5
3	↑	RED		P1-3	2	P2-S	↑
3,7		SHIELD		SEE NOTE #2	—	P2-A(NOTE#3)	
3		BLK	2	P1-4	2	P2-EE	
3		WHT		P1-5	2	P2-RR	
3,7		SHIELD		SEE NOTE #2	—	P2-NN(NOTE#3)	
3		BLK	3	P1-6	2	P2-PP	
3		GRN		P1-7	2	P2-K	
3,7	↓	SHIELD		SEE NOTE #2	—	P2-VV(NOTE#3)	↓
6	22	BLK	—	P2-E	5	P2-H	5

LEGEND

VARIATION	LENGTH X	LENGTH Y
7008360-0	25IN±1.0	27IN±1.0
7008360-1	46IN±1.0	48IN±1.0
7008360-9	9FT±2IN	9FT2IN±2IN

NOTES:

1. * ASTERISKS INDICATE CAVITIES NOT USED OR DESIGNATED BY LETTERS.
2. DRAIN WIRES TO BE CUT BACK TO OUTER INSULATION ON P1 END OF CABLE ONLY. SHIELDS TO BE CUT BACK TO OUTER INSULATION ON BOTH ENDS OF CABLES.
3. DRAIN WIRES ON P2 END OF CABLE TO BE EACH ENCLOSED WITH ITEM#7 (TUBING) FROM END OF CABLE JACKET TO POINT WHERE THEY ENTER P2 CONNECTOR.
4. ITEM#6(WIRE) TO BE APPROXIMATELY ONE(1) INCH LONG.
5. PLACE ITEM#9("THIS SIDE UP" STICKER) ON LETTERED SIDE OF ITEM#4 (BERG HOUSING) AS SHOWN.



QTY.	DESCRIPTION	PART NO.	ITEM NO.
1	LABEL, THIS SIDE UP	3611567	9
1	STRAIN RELIEF	1211166	8
A/R	TUB. #18 TEF. THINWALL NAT	9107278-11	7
A/R	WIRE #22 AWG STRD TEF BLK	9107350-00	6
11	SOCKET, CRIMP # 47216	1210088-07	5
1	HOUSING, BERG #65043-015	1210913-15	4
A/R	CABLE, BELDEN #8777-3PR SHLD	9107723-0	3
6	CONTACT MATE-N-LOCK (FEMALE)	1209379-03	2
1	CONN. MATE-N-LOCK (FEMALE)	1209340-00	1

PARTS LIST

REVISIONS

CHK	CHANGE NO.	REV.
	KL8E-00002 5/3/71 J. MCNAMARA	A
	KL8E-00006 3-14-73 E. CLARK 3-15-73	B
	7008360-00001 E. ALLain 10-29-73 B. REGAN	C
	7008360-00002 3-18-74 REGAN 3/21/74	D
	7008360-00003 9-30-74 R. REGAN 10/2/74	E
	BC05M-00001 1-19-76 M.E. LEWANDOWSKI 1-22-76	F
	7008360-00004 7OCT 76 J. MCNAMARA	H

FIRST USED ON OPTION/MODEL: PDP-8E

DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES
TOLERANCES ANGLES ± 0°30'
FINAL SURFACE QUALITY
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL: SEE PARTS LIST
FINISH: —

DRN. DATE 7APR'71
CHK'D. DATE 4-8-71
ENG. DATE 4-8-71
PROJ. ENG. DATE 4-8-71
PROD. DATE 4/9/71
NEXT HIGHER ASSY: A-ML-KL8-E-Ø
SCALE: NONE
SHEET 1 OF 1

digital EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS

TITLE: CABLE ASSEMBLY (KL8E)

SIZE D | CODE IA | NUMBER 7008360-0-0 | REV H

DIST.

DEC FORM NO. DC 100

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

SOFTWARE LIST

MADE BY EMPellegrini DATE 8/29/72	CHECKED P. Janson DATE 8-30-72	SECTION
ENG P. Janson DATE 8/29/72	PROD J. Mitty DATE 8-31-72	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 DL11-A	DL11-B	DL11-C	DL11-D	DL11-E			KIT CHECK BY ____ DATE ____	INSTALLATION CHECK BY ____ DATE ____
1	LIBKIT-11-KL11-04	KL11 MAINDEC	1	1	0	0	0				
2	LIBKIT-11-DL11C-A-K	DL11 MAINDEC	0	0	1	1	0				
3	LIBKIT-11-DL11E-A-K	DL11 MAINDEC	0	0	0	0	1				

TITLE	ASSY. NO.	SIZE	CODE	NUMBER	REV.	ECO NO
DL11 SOFTWARE LIST	SHEET 1 OF 1	A	SL	DL11-0-4		
		DIST.				

DEC FORM NO. DEC 16 (325) 1049 N471
DRA 120

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ACCESSORY LIST

MADE BY	E. Pellegrini	CHECKED	SECTION
DATE	June 26, 1972	DATE 8-8-72	
ENG	Paul Janson	PROD	ISSUED SECT.
DATE	June 26, 1972	DATE 8-8-72	

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 DL11-A	DL11-B	DL11-C	DL11-D	DL11-E			KIT CHECK BY ____ DATE ____	INSTALLATION CHECK BY ____ DATE ____
1	M7800	ASYNCHRONOUS LINE INTERFACE (EIA)	-	1	-	1	1				
2	G8000	FILTER NETWORK	0	A/R	0	A/R	A/R				
3	M7800-YA	ASYNCHRONOUS LINE INTERFACE (CURRENT LOOP)	1	0	1	0	0				
4	5408776	PRIORITY JUMPER LEVEL #4	1	1	1	1	1				
5	BC05-C-25	MODEM CABLE	0	1	0	1	1				
6	7008360	TTY CABLE	1	0	1	0	0				
7	-	CRYSTAL	1	1	1	1	1				
8	-	DL11 ENGINEERING DRAWINGS	1	1	1	1	1				
9	DEC-11-HDLAA-A-D	DL11 ASYNCHRONOUS LINE INTERFACE MANUAL	1	1	1	1	1				
10	LIBKIT-11-KL11-04	KL11 MAINDEC	1	1	0	0	0				
11	LIBKIT-11-DL11C-A-K	DL11 MAINDEC	0	0	1	1	0				
12	LIBKIT-11-DL11E-A-K	DL11 MAINDEC	0	0	0	0	1				
13	H315	MODEM TEST CONNECTOR	0	0	0	0	A/R				

NOTES:
1. G8000 IS REQUIRED ONLY IN PDP-11 SYSTEMS WHERE +15V IS NOT AVAILABLE. ONE PER DD11-A.
2. CRYSTAL FREQUENCY DEFINED BY CUSTOMER SPECIFIED BAUD RATE.
3. ONE H315 PER PDP11 SYSTEM
4. INSURE THAT TRANSPARENT VINYL TAPE HAS BEEN APPLIED TO THE TOP SURFACE OF THE CRYSTAL AND MOUNTING BRACKET.

TITLE	ASSY. NO.	SIZE	CODE	NUMBER	REV.	ECO NO
DL11 CHECK LIST	SHEET 1 OF 1	A	AL	DL11-0-5	C	DL11-00005
		DIST.				

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

DATE 6-21-72

TITLE DL11 INSTALLATION PROCEDURE

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE
C	CHANGE PER ECO	DL11-4	JANSON	3/73	P. Janson	4-73
D	CHANGE PER ECO	DL11-5	CONDON	7/73	P.C. Condon	
E	CHANGE PER ECO	DL11-7	CONDON	8/74	[illegible]	
F	CHANGE PER ECO	DL11-8	CONDON	4-75	P.C. Condon	4/75

ENG	APPD	SIZE	CODE	NUMBER	REV
Paul E. Janson	P.C. Condon	A	SP	DL11-0-2	F

DEC FORM NO. DRA 107A

ENGINEERING SPECIFICATION [redacted] CONTINUATION SHEET

TITLE DL11 INSTALLATION PROCEDURE

DL11 INSTALLATION PROCEDURE:

Installation of the M7800 module or its variation as a DL11-A through DL11-E option consists of the following preparations:

1. Jumper insertion/deletion for selection of operation mode (A, B, C, D, or E).
2. Register address assignment.
3. Vector address assignment.
4. Priority assignment.
5. Special NPR jumper insertion/deletion.
6. Selection of data format (data bits, stop bits, parity).
7. Selection of crystal for baud rate.
8. Installation of G8000 in systems where +15v is not available.
9. Filter capacitor selection for high baud rate current-loop.

A. OPERATION MODE:

The following describes the jumpers associated with controlling the mode of operation (A,B,C,D, or E):

J1. Ties EIA driver to REQUEST-TO-SEND lead (pin 4) of dataset cable. IN for DL11-B,D, and E; does not affect DL11-A and C. Drawing DL-7.

J2. Ties EIA driver, normally used for the REQUEST-TO-SEND lead, to FORCE BUSY lead (pin 25) for use with Bell 103E. This is a customer option. If not specified, jumper is OUT for all DL11's. Drawing DL-7.

J3. When inserted, allows REQUEST-TO-SEND lead (pin 4) to be controlled by bit 2 of the receiver status register. OUT for DL11-B and D; IN for DL11-E; does not affect DL11-A and C. Drawing DL-4.

J4. When inserted, forces "DATA LEADS ONLY" mode of EIA operation. Turns DATA TERMINAL READY (pin 20) and REQUEST-TO-SEND (pin 4) on. IN for DL11-B and D; OUT for DL11-E; does not affect DL11-A and C. Drawing DL-4.

J5. When inserted, allows the BREAK bit to function. OUT for DL11-A and B; IN for DL11-C,D, and E. Drawing DL-4.

J6. When inserted, allows DSET INT to cause interrupts. OUT for DL11-A,B,C and D; IN for DL11-E. Drawing DL-4.

J7. When inserted, allows dataset control bits to be read as part of the receiver status register.

SIZE	CODE	NUMBER	REV
A	SP	DL11-0-2	F

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

ENGINEERING SPECIFICATION [redacted] CONTINUATION SHEET

TITLE DL11 INSTALLATION PROCEDURE

J7. (con't)

OUT for DL11-A,B,C and D; IN for DL11-E. Drawing DL-2.

J8. When inserted, allows error bits to be read as part of the receiver data register. OUT for DL11-A and B; IN for DL11-C,D and E. Drawing DL-2.

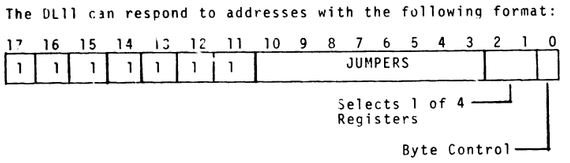
Summary of mode control jumpers:

JUMPER	A	B	C	D	E	DRAWING
J1	*	IN	*	IN	IN	DL-7
J2	OUT	OUT	OUT	OUT	OUT	DL-7
J3	*	OUT	*	OUT	IN	DL-4
J4	*	IN	*	IN	OUT	DL-4
J5	OUT	OUT	IN	IN	IN	DL-4
J6	OUT	OUT	OUT	OUT	IN	DL-4
J7	OUT	OUT	OUT	OUT	IN	DL-2
J8	OUT	OUT	IN	IN	IN	DL-2

*= don't care

B. REGISTER ADDRESS ASSIGNMENTS:

The DL11 can respond to addresses with the following format:



Bits 10 through 3 are controlled by jumpers A10 to A3. A jumper inserted indicates a zero.

For the DL11-A and B used as the console device, address 777560 is assigned. For additional units, assign 776XX0, where XX=50 for the first additional unit and XX=67 for the 16th unit.

For the DL11-C,D and E assign address 77XXX0, where XXX=561 for the first line, and XXX=617 for the 31st line. Assign all C's first, then D's, and then E's.

SIZE	CODE	NUMBER	REV
A	SP	DL11-0-2	F

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

ENGINEERING SPECIFICATION [redacted] CONTINUATION SHEET

TITLE DL11 INSTALLATION PROCEDURE

C. VECTOR ADDRESS ASSIGNMENT:

Jumpers V8 through V3 control the interrupt vector. A jumper inserted provides a vector bit of one. Vectors can be produced in the form XXØ and XX4 where XX ranges from ØØ to 77.

For the DL11-A and B used as a console device the vector address is 060/064. For additional units vectors are floating.

For the DL11-C,D, and E vector addresses are floating. Assign all C's first, then D's then E's.

D. PRIORITY ASSIGNMENT:

Interrupt priority is established by inserting a "priority plug" in the socket at IC location E19. For DL11-A B,C,D and E use level 4, for the standard assignment or level 5-7 as specified by the customer or the documentation of an option which uses the DL11.

SUMMARY OF REGISTER, VECTOR AND PRIORITY ASSIGNMENTS:

	ADDRESS	VECTOR	PRIORITY
DL11-A,B CONSOLE	777560 777562 777564 777566	60/64	BR4
DL11-A,B ADDITIONAL UNITS	776XXØ 776XX2 776XX4 776XX6	FLOATING	BR4

Where XX= 50 for line #1
and XX= 67 for line #16

	ADDRESS	VECTOR	PRIORITY
DL11-C,D,E	77XXXØ 77XXX2 77XXX4 77XXX6	Floating	4

Where XXX= 561 for line #1
and XXX= 617 for line #31

SIZE	CODE	NUMBER	REV
A	SP	DL11-0-2	F

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

E. SPECIAL NPR JUMPER:

Jumper N1, shown on drawing DL-6, controls the response of the interrupt circuit to an NPR request. The jumper should normally be IN, except for 11/20 and 11/15 systems without the KH11 option.

F. SELECTION OF DATA FORMAT:

1. Data Bits

Split lug pairs NB2 and NB1 control the number of data bits in the serial character as follows:

NB2	NB1	# OF DATA BITS
OUT	OUT	8
OUT	IN	7
IN	OUT	6
IN	IN	5

2. Parity

Parity is controlled by split lug pairs NP and EPS as follows:

NP	EPS	PARITY
OUT	OUT	OFF
OUT	IN	OFF
IN	OUT	EVEN
IN	IN	ODD

3. Stop Bits

Split lug pair 2SB and jumpers J9, J10 and J11 control the number of stop bits in the serial character as follows:

2SB	J9	J10	J11	# OF STOP BITS
OUT	OUT	IN	OUT	2
IN	OUT	IN	OUT	1
IN	OUT	OUT	IN	1.5 for TI, GI, and SCM UARTS
IN	IN	OUT	OUT	1.5 for WD UARTS

G. CRYSTAL SELECTION:

The clocking scheme of the DL11 consists of a single crystal oscillator feeding a divider network, with two 10-position switches tapping various points to feed into the UART's

G. Con't

transmitter and receiver sections. Thus, for a given crystal frequency, 8 baud rates are independently selectable for transmit and receive. The two addition switch positions select external clocks.

SPEED GROUP		1	2	3	4
		CRYSTAL (HZ)			
POSITION	FACTOR	844.8K	1.03296M	1.152M	4.608M
1*	23040	36.7	44.8	50	200
2	15360	55	67.3	75	300
3	7680	110	134.5	150	600
4	3840	220	269	300	1200
5	1920	440	538	600	2400
6	960	880	1076	1200	4800
7	640	1320	1614	1800	7200
8	480	1760	2152	2400	9600

*Most counter-clock wise position.

To determine a crystal frequency for a non-standard baud rate, pick the position of the closest baud rate in the 1.152MHz column, and then multiply the non-standard baud rate by the factor for that position. For example, if the customer specifies 1050 baud, this is closest to 1200 baud, position 6.

1050 X 960 = 10080000 = 1.008MHz.

The crystal frequency should not fall outside the range of the standard crystals. Although the above table includes only the standard DL11 crystals other values may be specified by the customer or by other documentation of an option which uses the DL11.

DEC part number for the standard crystals are as follows:

844.8 KHz	18-10245-1*
1.03296 MHz	18-05501-6
1.152 MHz	18-05501-5
4.608 MHz	18-05501-7

*Use A or C cut crystals only. Do not use crystals marked NE-6D.

When ordering a special crystal, refer to purchase specification 18-05501 for crystal specification.

Insure that transparent vinyl tape (9008269) is applied to the top surfaces of the crystal and mounting brackets to insulate from adjacent modules.

H. G8000 INSTALLATION:

For DL11-B, D, and E a positive voltage is required between 9 and 15 volts to operate the EIA drivers. For PDP-11/20 and PDP-11/15 systems with the H720 power supply, a G8000 module must be installed to provide this voltage. Using a filter network, this module converts the full-wave rectified "+8V" signal to a positive DC voltage.

1. Install G8000 into slot AØ2 of DD11-A.
2. Wire AØ3V2 to AØ2V2.
3. Wire AØ2N2 to CXXU1 where XX is the slot location of the M7800.

Refer to diagram 1.

I. FILTER CAPACITOR SELECTION:

For DL11-A's and DL11-C's, which operate with 20ma current loops, capacitors are used to filter the receive line and slow the switching time of the transmit line. To avoid excessive distortion above 150 baud, the capacitance in each of these two circuits must be reduced. This is accomplished by clipping C29 (.47 mfd) and C31 (1000 pf), both shown on drawing DL-3.

J. DL11-B,D,E in Systems with +15V available using DD11-A

There is a special situation of using a DD11-A to mount a DL11-B, D, Or E in systems with +15V available. These systems have +15V available and it appears at pin AØ3V2 of the DD11-A when using power harness such as 7009177, 7008855, or 7008909. In this situation, no G8000 is necessary, and +15V can be wired directly from AØ3V2 to CXXU1, where XX is the slot number of the DL11. NOTE: this does not apply to DL11-A or C or DD11-B.

K. When using the DL11-B,D,E in an 11/05 processor pin CXXU1 has +15V available on it so no G8000 or no jumpers are required.

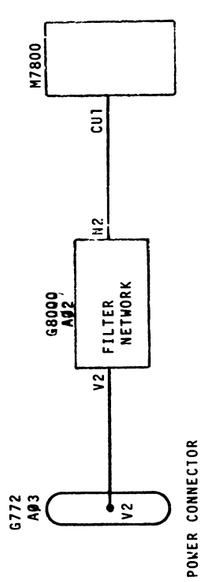
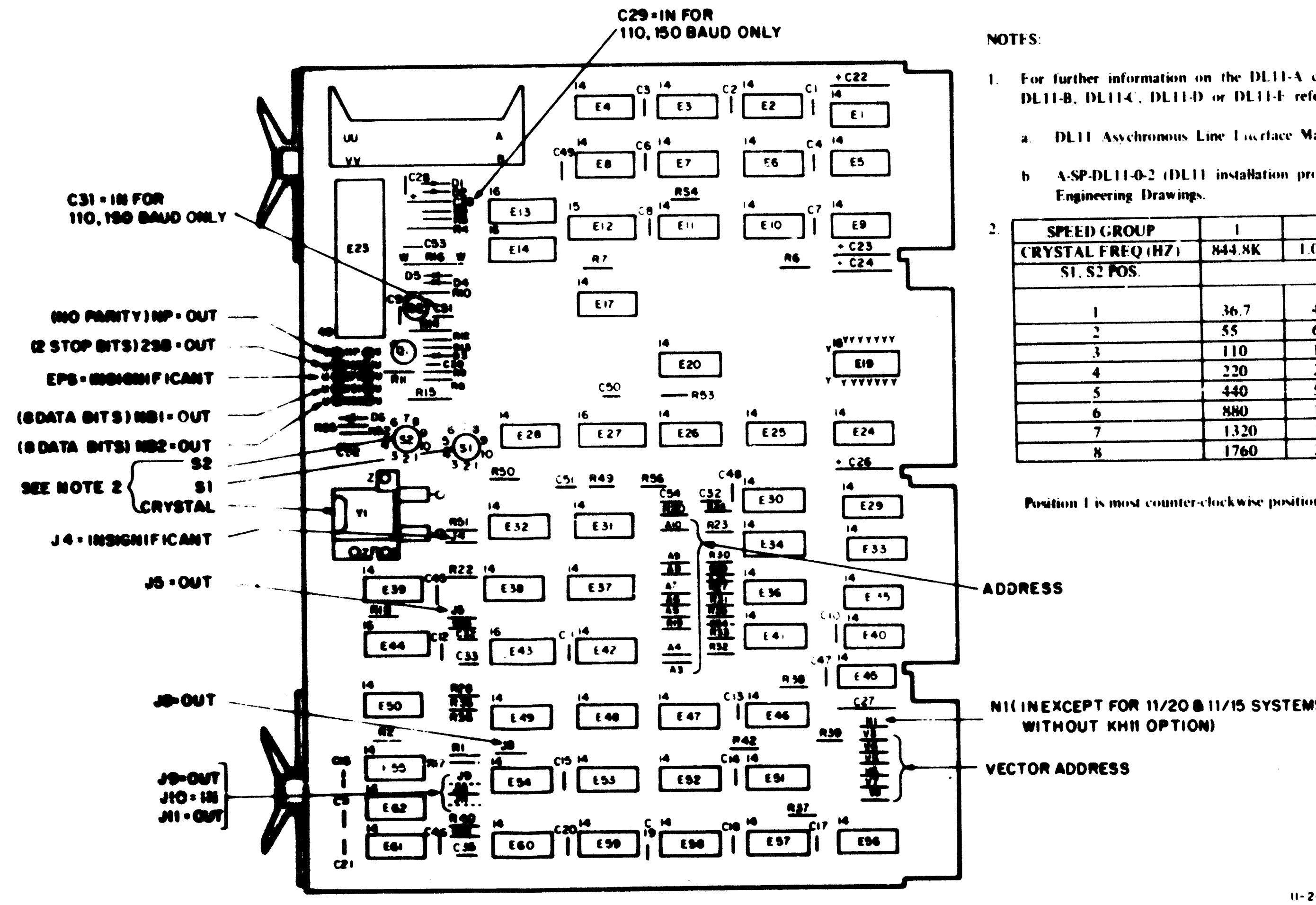


DIAGRAM 1. G8000 INSTALLATION

DL11—A



NOTES:

1. For further information on the DL11-A configuration or the installation of DL11-B, DL11-C, DL11-D or DL11-F refer to

   a. DL11 Asychronous Line Interface Manual

   b. A-SP-DL11-0-2 (DL11 installation procedure) in the DL11 Engineering Drawings.

2.

SPEED GROUP	1	2	3	4
CRYSTAL FREQ (HZ)	844.8K	1.03296M	1.152M	4.608M
S1, S2 POS.	BAUD RATE			
1	36.7	44.8	50	200
2	55	67.3	75	300
3	110	134.5	150	600
4	220	269	300	1200
5	440	538	600	2400
6	880	1076	1200	4800
7	1320	1614	1800	7200
8	1760	2152	2400	9600

Position 1 is most counter-clockwise position.

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

EQUIPMENT CORPORATION
HAYWARD, MASSACHUSETTS

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

THIS IS PRINT SET

	SEQUENCE
TIMING DIAGRAM	D-TD-KW11-L-02
LINE FREQUENCY CLOCK	D-BS-KW11-L-01
LINE CLOCK	D-CS-M787-0-1
LINE FREQUENCY CLOCK	A-PL-KW11-L-0
SOFTWARE LIST	A-SL-KW11-L-20
MFG PRINTS	
TEST PROCEDURE	A-SP-KW11-L-03

UNIT VARIATIONS

VARIATION	TITLE	PRINT SET TYPE: KW11-L
KW11-L	LINE FREQUENCY CLOCK	X

REVISIONS

REV	CHG. NO.	DATE

USED ON OPTION/MODEL

DRN. S Patterson	DATE 2 MAY 72
CHK'D. M Buczynski	DATE 6-13-72
PROJ. ENG. M Buczynski	DATE 6-14-72
PROJ. MGR. D Stanger	DATE 6/14/72
FIELD SERV.	DATE 6-14-72
SHEET 1 OF 2	

TITLE: LINE FREQUENCY CLOCK (KW11-L)

SIZE	CODE	NUMBER	REV
B	DD	KW11-L-0	*

DIST

DRB 106

CUSTOMER PRINT SET						DEPOT SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO.
KW11-L												
X						X		D-TD-KW11-L-02	*	1	TIMING DIAGRAM, KW11-L	
X						X		D-BS-KW11-L-01	A	2	LINE FREQUENCY INTERNAL CLOCK	
						X		A-SP-KW11-L-03	*	3	TEST PROCEDURE	
X						X		D-CS-M787-0-1	#	2	LINE CLOCK	
X						X		A-PL-KW11-L-0	*	1	LINE FREQUENCY CLOCK	
X						X		A SL KW11 L 28	*	1	SOFTWARE LIST	

CUSTOMER PRINT SET						DEPOT SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO.

TITLE		SIZE	CODE	NUMBER	REV
LINE FREQUENCY CLOCK (KW11-L)	SHEET 2 OF 2	B	DD	KW11-L-0	*

DRB 108

DEC 16--(325)--1062--2--N871

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

THIS IS PRINT SET ☐☐☐☐

SEQUENCE		SEQUENCE
RESTART LOADER (PL)	A-PL-BM873-Ø	
RESTART LOADER	D-CS-M873-Ø-1	
WORD LISTING OF ROM CONTENTS (FOR M873-YA)	B-AP-M873-Ø-9	
WORD LISTING OF ROM CONTENTS (FOR M873-YB)	B-AP-M873-Ø-14	
WORD LISTING OF ROM CONTENTS (FOR M873-YC)	B-CS-M873-Ø-17	
WORD LISTING OF ROM CONTENTS (FOR M873-YD)	B-CS-M873-Ø-22	
WORD LISTING OF ROM CONTENTS (FOR M873-YF)	B-CS-M873-Ø-27	
WORD LISTING OF ROM CONTENTS (FOR M873-WA)	K-CS-M873-0-32	
WORD LISTING OF ROM CONTENTS (FOR M873-YG)	B-CS-M873-Ø-33	
WORD LISTING OF ROM CONTENTS (FOR M873-YH)	B-CS-M873-Ø-34	

UNIT VARIATIONS

VAR	TITLE	PRINT SET
M873-Ø	RESTART LOADER	
BM873 YA	RESTART LOADER	
BM873 YB	RESTART LOADER	
BM873-YC	RESTART LOADER	
BM873-YD	RESTART LOADER	
BM873-YF	RESTART LOADER	
BM873-WA	RESTART LOADER DN80 SERIES	
BM873-YG	RESTART LOADER	
BM873-YH	RESTART LOADER	

REVISIONS		
DATE	CHG. NO.	REV
10/75	BM873-4	D
10/75	BM873-5	E
9/76	BM873-6	F

DEC-16-1231-1002-1A-8972

USED ON OPTION/MODEL

SHEET 1 OF 2

DRN. K. GLEEZEN	DATE 11/73	TITLE RESTART LOADER
CHK'D. K. GLEEZEN	DATE 11/73	
PROJ ENG. R. DIETER	DATE 11/73	
PROD. J. BORENSTEIN	DATE 11/73	SIZE B / CODE DD / NUMBER BM873 Ø / REV F
FIELD SERV. G. KLOPPMAN	DATE	DIST

DRB 106

CUSTOMER PRINT SET	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
X	X	1	A-PL-BM873-Ø-Ø	A	1	RESTART LOADER (PL)	
	X		A-SP-BM873-Ø-1		16	BM873 ENG. SPECIFICATION	
	X		A-SP-BM873-Ø-2		1	BM873 TEST PROCEDURE	
X			A-AL-BM8873Ø-3		1	BM873 ACCESSORY LIST	
X	X	2	D-CS-M873-Ø-1	#	4	RESTART LOADER	
			K-CO-M873-Ø-4		1	X-Y COORDINATE HOLE LOCATION	
			D-AH-M873-Ø-5		1	ASSY/DRILLING HOLE LAYOUT	
	X		B-MH-M873-Ø-6		1	MODULE ECO HISTORY	
	X		K-RL-M873-Ø-7	#	9	ROM LISTING (FOR 23044A2)	
	X		K-RL-M873-Ø-8	#	9	ROM LISTING (FOR 23045A2)	
X	X		B-AP-M873-Ø-9	#	1	WORD LISTING OF ROM CONTENTS (FOR M873-YA)	
	X		K-RL-M873-Ø-1Ø		9	ROM LISTING (FOR 23089A2)	
	X		K-RL-M873-Ø-11		9	ROM LISTING (FOR 23090A2)	
	X		K-RL-M873-0-12		9	ROM LISTING (FOR 23091A2)	
	X		K-RL-M873-Ø-13		9	ROM LISTING (FOR 23092A2)	
X	X		B-AP-M873-Ø-14		1	WORK LISTING OF ROM CONTENTS (FOR M873-YB)	
	x	4	K-RL-M873-0-7		9	ROM LISTING (FOR 23044A2)	
	x		K-RL-M873-0-8		9	ROM LISTING (FOR 23045A2)	
	x		K-CS-M873-0-15		9	ROM LISTING (FOR 23109A2)	
	x		K-CS-M873-0-16		9	ROM LISTING (FOR 23110A2)	
x	x		B-CS-M873-0-17		1	WORD LISTING OF ROM CONTENTS (FOR M873YC)	
	x	5	K-CS-M873-0-18		9	ROM LISTING (FOR 23095A2)	
	x		K-CS-M873-0-19		9	ROM LISTING (FOR 23096A2)	
	x		K-CS-M873-0-20		9	ROM LISTING (FOR 23097A2)	
	x		K-CS-M873-0-21		9	ROM LISTING (FOR 23098A2)	
x	X		B-CS-M873-0-22		1	WORD LISTING OF ROM CONTENTS (FOR M873 YD)	
	x	6	K-CS-M873-Ø-23		9	ROM LISTING (FOR 23215A2)	
	x		K-CS-M873-Ø-24		9	ROM LISTING (FOR 23216A2)	
	x		K-CS-M873-Ø-25		9	ROM LISTING (FOR 23217A2)	
	x		K-CS-M873-Ø-26		9	ROM LISTING (FOR 23218A2)	
	x		B-CS-M873-Ø-27		1	WORD LISTING OF ROM CONTENTS (FOR M873-YF)	

CUSTOMER PRINT SET	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
	X	7	K-CS-M873-0-28		9	ROM LISTING (FOR 23225A2)	
	X		K-CS-M873-0-29		9	ROM LISTING (FOR 23226A2)	
	X		K-CS-M873-0-30		9	ROM LISTING (FOR 23227A2)	
	X		K-CS-M873-0-31		9	ROM LISTING (FOR 23228A2)	
X	X		K-CS-M873-0-32		1	WORD LISTING OF ROM CONTENTS (FOR BM873-WA)	
	X	8	A-PS-23338A2-Ø-Ø		3	ROM LISTING (FOR 23338A2)	
	X		A-PS-23339A2-Ø-Ø		3	ROM LISTING (FOR 23339A2)	
	X		A-PS-23340A2-Ø-Ø		3	ROM LISTING (FOR 23340A2)	
	X		A-PS-23341A2-Ø-Ø		3	ROM LISTING (FOR 23341A2)	
X	X		B-CS-M873-Ø-33		1	WORD LISTING OF ROM CONTENTS (FOR BM873-YG)	
	X	9	A-PS-23327A2-Ø-Ø		3	ROM LISTING (FOR 23327A2)	
	X		A-PS-23328A2-Ø-Ø		3	ROM LISTING (FOR 23328A2)	
	X		A-PS-23329A2-Ø-Ø		3	ROM LISTING (FOR 23329A2)	
	X		A-PS-23330A2-Ø-Ø		3	ROM LISTING (FOR 23330A2)	
X	X		B-CS-M873-Ø-34		1	WORD LISTING OF ROM CONTENTS (FOR BM873-YH)	

CUSTOMER PRINT SET CODES	
	X = PRINT OF DOCUMENT INCLUDED IN PRINT SET
	C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT
	S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

TITLE	SHEET	SIZE	CODE	NUMBER	REV
RESTART LOADER	SHEET 2 OF 2	B	DD	BM873-Ø	F

DRB 108

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

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

THIS IS PRINT SET

SEQUENCE		SEQUENCE	
DRAWING DIRECTORY	B-DD-KT11-C	(SHEETS 1+2 ONLY)	
BLOCK DIAGRAM	D-BD-KT11-C-1		
SYSTEM ADDRESS PATHS	E-CS-M8107-0-1		
SYSTEM STATUS REGISTER	E-CS-M8108-0-1		
ACCESSORY LIST	A-AL-KT11-C-2		

NOTE: 1. USE KT11-C ONLY WITH KB11-A & FP11-B
2. USE KT11-CD ONLY WITH KB11-D & FP11-C

UNIT VARIATIONS

VARIATION	TITLE	PRINT SET TYPE: KT11-C-1
KT11-C	MEMORY MANAGEMENT UNIT (FOR KB11-A)	X
KT11-CD	MEMORY MANAGEMENT UNIT (FOR KB11-D)	X

REVISIONS	REV	CHG. NO.	DATE
	A	KT11C-1	EG
	B	KT11C-2	12/75

USED ON OPTION/MODEL	
11/45	
11/50	
11/55	

DRN. R.COOK	DATE 4/22/72	TITLE: MEMORY MANAGEMENT UNIT
CHK'D.	DATE	
PROJENG. R C Frey	DATE 4-26-72	
PROD.	DATE 5/1/72	SIZE B / CODE DD / NUMBER KT11-C / REV B
FIELD SERV.	DATE 5/1/72	
SHEET 1 OF 3		DIST

DRB 106

DEC 16-(325)-1062-1-N871

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ACCESSORY LIST

MADE BY [illegible]
DATE [illegible]-72
CHECKED [illegible]
DATE 6-15-72
SECTION
ENG R.C. Gray
DATE 6/19/72
PROD Jack Gorman
DATE 6-20-72
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 KT11-C	KT11-CD						KIT CHECK BY ___ DATE ___	INSTALLATION CHECK BY ___ DATE ___
	KT11-C	Print Set	1	1							
	Lib Kit 11-KT11C-A-K	Software Kit	1	1							
	Dec 11-HKTA-D	Maint. Manual (KT-11C	1	1							

TITLE Memory management unit
ASSY. NO. //
SHEET 1 OF 1
SIZE A
CODE AL
NUMBER KT11-C -
REV. A
ECO NO KT11-C-00002
DIST.

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

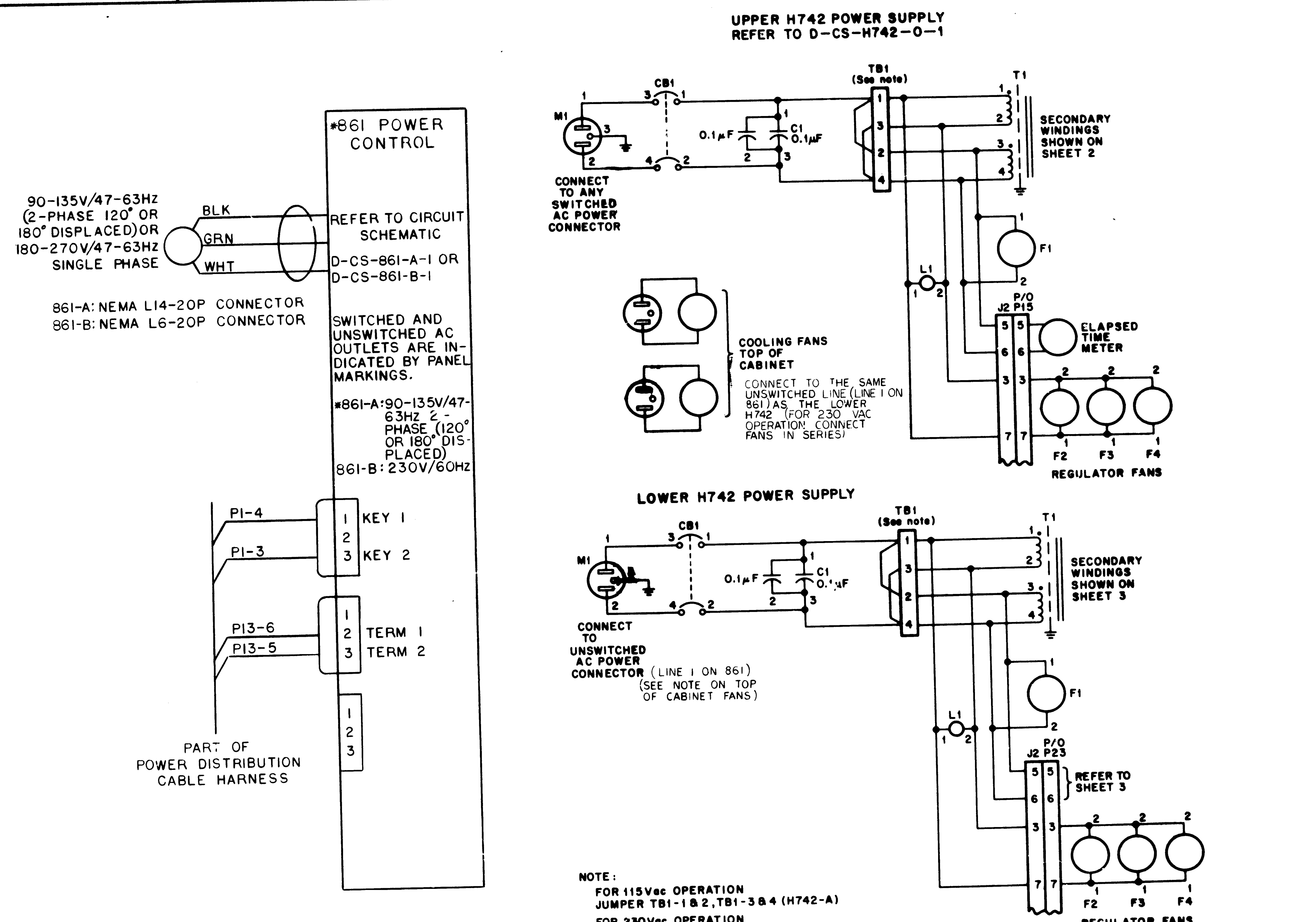
NOTE

1. FOR 11/45 SYSTEMS BUILT WITH 860 POWER CONTROLS, REFER TO D-IC-11/45-0-1 REV. A DRAWING.

TABLE I

POWER SYSTEM - MAJOR ECO SUMMARY

ECO#	D-IC-11/45-0-1 REV CHANGES FROM REV	TO REV	DESCRIPTION (PROBLEM-SOLUTION)
11/45-00031	A	B	REPLACED OBSOLETE 860 POWER CONTROL WITH 861 POWER CONTROL. (D-IC-11/45-0-1 REV. A DOCUMENTS MACHINES WITH 860 POWER CONTROL.)
11/45-00054	C	D	POWER DISTRIBUTION REDESIGNED TO ACCOMMODATE H754 REGULATOR (+20V & -5V) FOR 16K MEMORY. MAIN POWER HARNESS CHANGED FROM 7008784 TO 7009540. SYSTEM UNIT POWER DISTRIBUTION MOVED FROM BACK OF CPU BOX TO TOP REAR OF CPU BOX. SYSTEM UNIT CONNECTORS CHANGED FROM FLAT 8-PIN CONNECTOR TO 15-PIN AND 6-PIN RECTANGULAR CONNECTOR-PAIR. MACHINES WITH THIS ECO HAVE SERIAL NO'S ≥ 2000.
11/45-00057	D	E	7009540 HARNESS REVISED TO DISTRIBUTE -15V TO SYSTEM UNITS WHEN H754 REGULATOR IS INSTALLED FOR 16K MEMORY. P45/J45 (FLAT 4-PIN CONNECTORS) ADDED TO HARNESS NEAR P7. (AFFECTS ONLY MACHINES WITH S/N ≥ 2000).
11/45-00060	E	F	+5V FROM SLOT D H744 REWIRED TO LOWER VOLTAGE DROPS TO SYSTEM UNITS.
11/45-00061	F	H	CPU HARNESS MODIFIED TO ACCOMODATE SECOND H746 MOS REGULATOR. ADD P30 TO 7009540 HARNESS (NEAR P29 MACHINE WITH S/N ≥ 2000). IF S/N < 2000 P30 OF THE 7008784 HARNESS IS REWIRED TO DISTRIBUTE MOS VOLTAGE FROM AN H746 IN SLOT L OF THE LOWER H742. KB11-A ECO# MUST BE INSTALLED AT SAME TIME.



NOTE:
FOR 115Vac OPERATION
JUMPER TB1-1 & 2, TB1-3 & 4 (H742-A)
FOR 230Vac OPERATION
JUMPER TB1-2 & 3 (H742-B)

TABLE 2

MEMORY CONFIGURATION	REGULATOR SLOTS H	J	K	L	JUMPERS +5V2 (P5-7&8)	+5V1 (P5-3&4)	+5V3 (P6-7&8)
BIPOLAR ONLY	—	—	—	—	—	—	—
1-2K	H744	X	X	X	IN	IN	IN
3-4K	H744	H744	X	X	X	IN	IN
5-6K	H744	H744	H744	X	X	X	IN
7-8K	H744	H744	H744	H744	X	X	X
MOS ONLY	—	—	—	—	—	—	—
4-16K	H746	H744	X	X	IN	IN	IN
16-32K	H746	H744	X	H746	IN	IN	IN
MIXED-MOS/BIPOLAR	—	—	—	—	—	—	—
4-16K MOS; 1-2K BIPOLAR	H746	H744	H744	X	IN	X	IN
4-16K MOS; 3-4K BIPOLAR	H746	H744	H744	H744	IN	X	X

REVISIONS REV.	CHANGE NO.	CHK
A		
B	11/45-00031 SWANSON	
C	11/45-00047 B. MINOR	
D	11/45-00052 V. BOAEN	
E	11/45-00054 V. BOAEN	
F	11/45-00057 V. BOAEN	
H	11/45-00060 V. BOAEN	
	11/45-00061 V. BOAEN	

FIRST USED ON OPTION/MODEL	11/45
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 4-11-72
NEXT HIGHER ASSY.	B-DD-11/45-Ø
SCALE	—
SHEET	1 OF 5
TITLE	POWER SYSTEMS CONFIGURATION
SIZE	D
CODE	IC
NUMBER	11/45-Ø-1
REV.	H

QTY.	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

DEC FORM NO DRD 100-A

UPPER H742

SECONDARY - H742

TB2

20-30 VAC

20-30 VAC

20-30 VAC

20-30 VAC

20-30 VAC

J1 / P14

+8VI P2-8 WHT.
+15V1 P25-4 GRY
+15V2 P12-2 GRY
GND1 P21-3 BLK
GND2 P8-8 BLK
GND3 P25-3 BLK
LO GND1 P10-1 BLK 18GA
AC LO1 P3-7 YEL 18 GA
DC LO2 P22-10 YEL 18 GA / P5-1 VIO
AC LO4 P22-8 YEL 18 GA / P7-7 YEL 18 GA
LINE CLOCK P37-2 BRN 18GA
DC LO1 P9-8 VIO 18 GA

J3 / P16

AC-1 P18-6 WHT
AC-2 P18-7
AC-3 P19-6 RED
AC-4 P19-7 WHT

J2 / P15

AC-5 P17-6 RED
AC-6 P17-7 WHT
AC-7 P20-6 RED
AC-8 P20-7 WHT
AC-9 P21-6 RED
AC-10 P21-8 WHT

AC27 115 VAC
AC28 115 VAC

RED WHT — P34 P35 — TO ELAPSED TIME METER

TO H742 FANS

TO LOWER H742

P17 — H744 +5V REGULATOR (FP11) — SLOT A

RED P15-1 / WHT P15-2
AC-5
AC-6
+5VA1
GND A1
GND A2
+5VA2

P2-6 RED
P8-2 BLK
P8-1 BLK
P2-5 RED

P18 — H744 +5V REGULATOR — SLOT B

RED P16-3 / WHT P16-4
AC-1
AC-2
+5VB1
GND B1
GND B2
+5VB2

P2-2 RED
P8-4 BLK
P8-3 BLK
P2-1 RED

P19 — H744 +5V REGULATOR — SLOT C

RED P16-7 / WHT P16-8
AC-3
AC-4
+5VC1
GND C1
GND C2
+5VC2

P3-6 RED
P8-6 BLK
P8-5 BLK
P3-5 RED

P20 — H744 +5V REGULATOR — SLOT D

RED P15-8 / WHT P15-10
AC-7
AC-8
+5VD1
GND D1
GND D2
+5VD2

P36-1 RED
P36-7 BLK
P12-7 BLK
P12-1 RED

P21 — SEE NOTE *3 — H745 -15V REGULATOR (SYSTEM UNITS) — SLOT E

RED P15-9 / WHT P15-12
AC-9
AC-10
-15VE1
GND E1
GND D1
+15V3
+15V

P36-13 BLU
P36-11 BLK
P14-4 BLK
P25-5 GRY

P45/J45

BLU P7-1
BLU
-15V3

BLU(-15VF1) P25-1
BLU(-15 V2) P12-13

SEE NOTE 2

P40-H754

BLK P12-5
BRN P12-14
ORN P12-3
P15-9
P15-12

GND E2
-5VE1
+20VE1
AC-9
AC-10

TWP

SEE NOTE *2

TO PLUGS ON SHEET 2

P5

RED P28-5 — +5VK2
RED P28-2 — +5VK1
RED — +5VI *
+5VI
BLUE P3-1 — -15V5
BLUE P22-4 — -15V1
RED — +5V2 *
+5V2

P6

VIO P14-9 — DC LO Y
GRN P30-4 — +19.7VH1
YEL P30-5 — +23.2VH1
BRN P26-3 — -5VH1
RED P29-5 — +5VL2
RED P29-2 — +5VL1
RED — +5V3 *
+5V3

P7

BLUE — -15V3
BLUE P3-4 — -15V6
BLUE P1-5 — -15V4
VIO. 18GA. P22-9 — DC LO 2
RED P27-5 — +5VJ2
RED P4-4 — +5V1
YEL P14-10 — AC LO 2
RED P12-4 — +5V4

P8

BLK P17-4 — GND A2
BLK P17-3 — GND A1
BLK P18-4 — GND B2
BLK P18-3 — GND B1
BLK P19-4 — GND C2
BLK P19-3 — GND C1
P41 BLK — GND 13
BLK P14-5 — GND 2

* SEE TABLE 2

P1

GRY P3-3 — +15V5
BLK P10-3 — GND 11
BLK P32-3 — PWR CONT COM 1
WHT P32-1 — PWR CONT SW 1
BLU P7-3 — -15V4
BLK P10-4 — GND 12
BLK P36-5 — GND 14
RED P36-4 — +5V 6

P2

RED P18-5 — +5VB2
RED P18-2 — +5VE1
RED P17-5 — +5VA2
RED P17-2 — +5VA1
BRN 18GA. P37-2 — LINE CLK
WHT P14-1 — +8V

P3

BLU P5-5 — -15V5
GRY P36-2 — +15V4
GRY P1-1 — +15V5
BLU P7-2 — -15V6
RED P19-5 — +5VC2
RED P19-2 — +5VC1
YEL 18GA. P14-8 — AC LO 1
VIO. 18GA. P14-12 — DC LO 1

P4

RED P31-5 — +5VH2
RED P31-2 — +5VH1
VIO. 18GA. P22-12 — DC LO X
RED P7-6 — +5V5
RED P27-2 — +5VJ1
GRN P26-4 — + 19.7 VH1
YEL P22-5 — + 23.2 VH1

REVISIONS

REV	CHANGE NO	CHK

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45		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 √
MATERIAL
FINISH

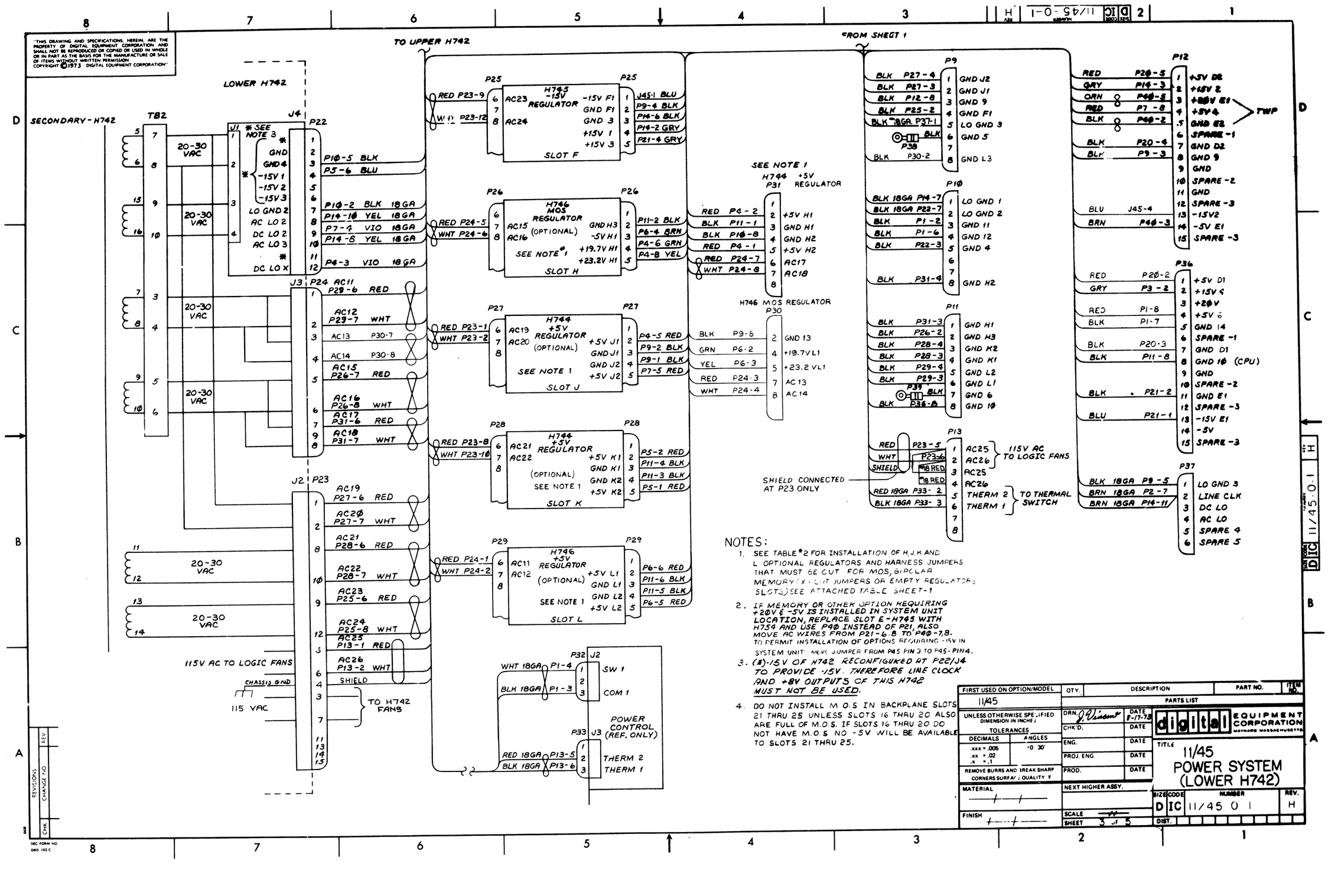
DRN R. Counter — DATE 8/16/73
CHK'D. — DATE
ENG. — DATE
PROJ. ENG. — DATE
PROD. — DATE
NEXT HIGHER ASSY.
SCALE NONE
SHEET 2 OF 5

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE 11/45 POWER SYSTEM (UPPER H742)

SIZE D | CODE IC | NUMBER 11/45-0-1 | REV. H | DIST.

DEC FORM NO DRD 100 B



NOTES:

1. SEE TABLE *2 FOR INSTALLATION OF H,J,K AND L OPTIONAL REGULATORS AND HARNESS JUMPERS THAT MUST BE CUT FOR MOS, BIPOLAR MEMORY (X-CUT JUMPERS OR EMPTY REGULATOR SLOTS) SEE ATTACHED TABLE SHEET-1
2. IF MEMORY OR OTHER OPTION REQUIRING +20V & -5V IS INSTALLED IN SYSTEM UNIT LOCATION, REPLACE SLOT E-H745 WITH H754 AND USE P40 INSTEAD OF P21, ALSO MOVE AC WIRES FROM P21-6,8 TO P40-7,8. TO PERMIT INSTALLATION OF OPTIONS REQUIRING -15V IN SYSTEM UNIT: MOVE JUMPER FROM P45 PIN 3 TO P45-PIN4.
3. (*)-15V OF H742 RECONFIGUKED AT P22/J4 TO PROVIDE -15V. THEREFORE LINE CLOCK AND +8V OUTPUTS OF THIS H742 MUST NOT BE USED.
4. DO NOT INSTALL M.O.S IN BACKPLANE SLOTS 21 THRU 25 UNLESS SLOTS 16 THRU 20 ALSO ARE FULL OF M.O.S. IF SLOTS 16 THRU 20 DO NOT HAVE M.O.S NO -5V WILL BE AVAILABLE TO SLOTS 21 THRU 25.

FIRST USED ON OPTION/MODEL: 11/45	QTY.	DESCRIPTION	PART NO.
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		PARTS LIST	
TOLERANCES: DECIMALS .XXX = .005, .XX = .02, .X = .1; ANGLES ±0 30'	DRN. J. Vinson	DATE 8-17-73	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ▽	CHK'D.	DATE	
	ENG.	DATE	TITLE: 11/45 POWER SYSTEM (LOWER H742)
	PROJ. ENG.	DATE	
	PROD.	DATE	
MATERIAL	NEXT HIGHER ASSY.		SIZE D, CODE IC, NUMBER 11/45 0 1, REV. H
FINISH	SCALE	SHEET 3 of 5	DIST.

REVISIONS: REV. | CHANGE NO | CHK

DEC FORM NO DRD 102-C

SIZE CODE DIC 11/45-0-1 REV H

UPPER H742 POWER SUPPLY

T1 — SECONDARY UPPER H742 POWER SUPPLY

TB2

J1

POWER CONTROL UPPER H742 POWER SUPPLY
REFER TO C-CS-5409730-0-1

J4 P14

+8V	1	P2-8
+15V	2	P21-5
+15V	3	P36-8
GND	4	P21-3
GND	5	P8-8
GND	6	P25-3
GND	7	P10-1
AC LO 1	8	P3-7/P22-10
	9	
AC LO 2	10	P22-8
CLOCK	11	P36-6
DC LO 1	12	P3-8

J3 P16

	1	AC-1 P18-7
	2	AC-2 P18-6
	3	
	4	
	5	P19-7
	6	P19-6
	7	
	8	

P/O J2 P15

	1	P17-7
	2	P17-6
	8	P20-7
	10	P20-6
	9	P21-8
	12	P21-6
115V AC FROM UPPER H742 TB1 TBI-2	5	
115V AC FROM UPPER H742 TB1 TBI-4	6	

P/O P15

TO ELAPSED TIME METER

J/P17 — AC IN — H744 +5V REGULATOR (FP11) — SLOT A

P15-2	6	
P15-1	7	
	8	
+5V	1	P2-6
GND	2	P8-2
GND	3	P8-1
+5V	4	P2-5
	5	

J/P18 — AC IN — H744 +5V REGULATOR — REFER TO D-CS-H744-0-1 — SLOT B

P16-4	6	
P16-3	7	
	8	
+5V	1	P2-2
GND	2	P8-4
GND	3	P8-3
+5V	4	P2-1
	5	

J/P19 — AC IN — H744 +5V REGULATOR — SLOT C

P16-8	6	
P16-7	7	
	8	
+5V	1	P3-6
GND	2	P8-6
GND	3	P8-5
+5V	4	P3-5
	5	

J/P20 — AC IN — H744 +5V REGULATOR — SLOT D

P15-10	6	
P15-8	7	
	8	
5VDI	1	P36-1
GNDD2	2	P36-4
GND	3	P12-6
+5V	4	P12-5
	5	

J/P21 — AC IN — H745 −15V REGULATOR — REFER TO D-CS-H745-0-1 — SLOT E

P15-12	6	
P15-9	7	
P14-2	8	
+15V	5	
P14-4	3	
GND		
−15V	1	P12-7
GND	2	P12-8
+15V	4	P25-5

7008784 OLD POWER DISTRIBUTION CABLE HARNESS

P5

P28-5	1	+5V
P28-2	2	+5V
	3	+5V *
	4	
P3-1	5	−15V
P22-4	6	−15V
	7	+5V *
	8	

*CUT JUMPERS

P5 7-8	P5 3-4	P6 7-8
BIPOLAR ONLY		
IF MORE THAN 2K OF BIPOLAR	IF MORE THAN 4K OF BIPOLAR	IF MORE THAN 6K OF BIPOLAR
BIPOLAR AND MOS		
NEVER CUT	ALWAYS CUT	IF MORE THAN 2K OF BIPOLAR

P6

	1	
P30-4	2	+19.7V
P30-5	3	+23.2V
P26-3	4	−5V
P29-5	5	+5V
P29-2	6	+5V
	7	+5V *
	8	

P7

P12-2	1	−15V
P3-4	2	−15V
P1-5	3	−15V
P22-9	4	DC LO 2
P27-5	5	+5V
P4-4	6	+5V
P22-8	7	AC LO 2
P12-4	8	+5V

P8

P17-4	1	
P17-3	2	
P18-4	3	
P18-3	4	
P19-4	5	GND
P19-3	6	
	7	
P14-5	8	

P1

P3-3	1	+15V
P10-3	2	GND
P32-3	3	860 GND IN
P32-1	4	860 GND OUT
P7-3	5	−15V
P10-4	6	GND
P36-3	7	GND
P36-2	8	+5V

TO CONSOLE CONNECTOR J3

P2

P18-5	1	+5V
P18-2	2	+5V
	3	
	4	
P17-5	5	+5V
P17-2	6	+5V
P36-5	7	CLOCK
P14-1	8	+8V

P3

P5-5	1	−15V
P36-7	2	+15V
P1-1	3	+15V
P7-2	4	−15V
P19-5	5	+5V
P19-2	6	+5V
P14-8	7	AC LO 1
P14-9	8	DC LO 1

P4

P31-2	1	+5V
P31-2	2	+5V
P22-12	3	DC LO X
P7-6	4	+5V
P27-2	5	+5V
P26-4	6	+19.7V HI
	7	
P26-5	8	+23.2V HI

THIS SHEET APPLIES TO MACHINES WITH SERIAL NUMBERS LESS THAN 2000.

REVISIONS

REV.	CHANGE NO.	CHK.
H		

FIRST USED ON OPTION/MODEL	11/45
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	—

PARTS LIST

QTY.	DESCRIPTION	PART NO.	ITEM NO.

DRN.		DATE 4-11-78
CHK.		DATE 4/11/78
ENG.		DATE
PROJ. ENG.		DATE 7/24/78
PROD.		DATE

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: OLD POWER SYSTEMS CONFIGURATION

NEXT HIGHER ASSY.: B-11C-11/45-0

SIZE D | CODE IC | NUMBER 11/45-0-1 | REV. H

SCALE —

SHEET 4 OF 5

DIST.

DEC FORM NO DRD 100-A

LOWER H742 POWER SUPPLY

T1 SECONDARY LOWER H742 POWER SUPPLY

TB2

J1

J4 P22

SEE NOTE: GND 1, GND 2, GND 3, -15V 4, GND 5, GND 6, GND 7, AC LO 2 8, DC LO 2 9, AC LO 1 10, CLOCK 11, DC LO X 12

POWER CONTROL
LOWER H742 POWER SUPPLY
REFER TO C-CS-5409730-0-1

NOTE: +15V output configured to provide -15V at J4-4 with respect to J4-3

P10-5, P5-6, P10-2, P7-7/P14-10, P7-4, P14-8, P4-3

J3 P24

20 - 30 VAC

P29-7, P29-6, P30-8, P30-7, P26-8, P26-7, P31-7, P31-6

P/O J2 P23

20 - 30 VAC

P27-7, P27-6, P28-7, P28-6, P25-8, P25-6, P13-1, P13-2

20 - 30 VAC

20 - 30 VAC

115 VAC FROM LOWER H742 TB1 { TB1-2, TB1-4 } TO LOGIC FANS

P/O P23

J/P25 AC IN — H745 -15V REGULATOR — SLOT F

J/P25: -15V 1, GND 2, GND 3, 4, +15V 5

P23-12, P23-9

P13-7, P13-8, P14-6, P21-4

J/P26 AC IN — H746 MOS REGULATOR — SLOT H

SEE NOTE 1 (OPTIONAL)

REFER TO D-CS-H746-0-1

J/P26: GND 2, -5V 3, +19.7V 4, +23.2V 5

P24-6, P24-5

P11-2, P6-4, P6-2, P6-3

J/P27 AC IN — H744 +5V REGULATOR (OPTIONAL) — SLOT J

J/P27: +5V 2, GND 3, GND 4, +5V 5

P24-2, P24-1

P4-5, P9-2, P9-1, P7-5

J/P28 AC IN — H744 +5V REGULATOR (OPTIONAL) — SLOT K

J/P28: +5V 2, GND 3, GND 4, +5V 5

P23-10, P23-8

P5-2, P11-4, P11-3, P5-1

J/P29 AC IN — H744 +5V REGULATOR (OPTIONAL) — SLOT L

J/P29: +5V 2, GND 3, GND 4, +5V 5

P23-2, P23-1

P6-6, P11-6, P11-5, P6-5

7008784 OLD POWER DISTRIBUTION CABLE HARNESS

P30

P10-7, P6-2, P6-3, P24-4, P24-3

2 GND 13, 4 +19.7 VLI, 5 +23.2 VLI

SEE NOTE 2

P31 H744

P4-2, P11-1, P10-8, P4-1, P24-8, P24-7

1 +5V REGULATOR OPTIONAL, 2 +5V, 3 GND, 4 GND, 5 +5V

SEE NOTE 1

P9

P27-4, P27-3, P12-1 } GND

P10

P14-7, P22-7, P1-2, P1-6, P22-3 } GND

P30-5, P30-2, P31-4

P11

P31-3, P26-2, P28-4, P28-3, P29-4, P29-3 } GND

P12-3

P12

P9-3 GND 1, P7-1 -15V 2, P11-8 GND 3, P7-8 +5V 4, P20-5 +5V 5, P20-4 GND 6, P21-1 -15V 7, P21-2 GND 8

P13

P23-5 115VAC TO LOGIC FANS 1, P23-6 2

P33-2, P33-3 } BA11 THERMAL SWITCH

P25-1 -15V 7, P25-2 GND 8

CONNECT TO SYSTEM UNIT POWER DISTRIBUTION BOARD (D-IA-5409903)

P36

RED P20-2 +5V 1, RED P1-8 +5V 2, BLK P1-7 GND 3, BLK P20-3 GND 4, P2-7 CLK 5, P14-11 CLK 6, P3-2 H5V 7, P14-3 +5V 8

POWER DISTRIBUTION CABLE HARNESS

NOTES:

1. If Bipolar Memory is used H746 is replaced by H744 in slot H and connector P31 is used instead of P26 SEE TABLE OR SHEET-1
2. IF OVER 16K OF MOS MEMORY IS INSTALLED SLOT L MUST CONTAIN A H746, AND P30 IS USED INSTEAD OF P-29 (SEE TABLE SHEET 3)

THIS SHEET APPLIES TO MACHINES WITH SERIAL NUMBERS LESS THAN 2000

REVISIONS	REV.	CHANGE NO.	CHK

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45	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 ✓
MATERIAL —
FINISH —

DRN — DATE 4-11-72
CHK'D — DATE 4/11/72
ENG. — DATE 7/28/72
PROJ. ENG. — DATE 7/28/72
MOD. — DATE 7/28/72

NEXT HIGHER ASSY. B-DD-11/45-Ø
SCALE —
SHEET 5 OF 5

EQUIPMENT CORPORATION [redacted] MAYNARD MASSACHUSETTS

TITLE: OLD POWER SYSTEMS CONFIGURATION

SIZE D | CODE IC | NUMBER 11/45-Ø-1 | REV. H

DIST.

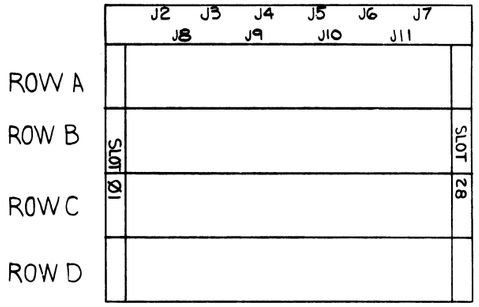
DEC FORM NO. DRD 100-A

VOLTAGE	REGULATOR LOCATION	PIN	ROW	SLOT	MATE N LOCK CONNECTION	WIRE WRAP PIN
+5V	A	A2,V1	A-F	2-5	J2-5,6	
↑	B	A2	↑	1,6-9	J2-3,4	
↑	B	V1	↑	6-9	J2-3,4	
↑	C	A2,V1	↑	10-15	J3-5,6	
↑	J	↑	↑	16-18	J4-6,7	
↑	H2	↑	↑	19,20	J4-1,2, J5-8	
↑	K	↓	↓	21-23	J5-1,2,3	
↑	L	A2,V1	A-F	24,25	J6-5,6,7	
↑	J	A2	A	16	J5-4,7, J6-8	
↑	D	↑	A,B	26	J7-8	
↓	D	↓	C-F	26-28	J7-8	
+5V	J	A2	A,B	27,28	J7-5,6	
+8V	TOP H742	B1	F	1	J2-8	SP-1
LTCL	TOP H742	R1	C	1	J2-7	
DCLOY	TOP H742	—	—	—	J6-1	SP10
DCLO1	TOP H742	U1	C	12	J3-8	
ACLO1	TOP H742	S1	C	12	J3-7	
-15V	E	B2	E	2	J3-4	SP-3
+15V	TOP H742	A1	E	15	J3-2,3	SP-4
-15V	BOT. H742	B2	E	16	J3-1	SP-5
+23.2VL1	L2	V2	A,C,E	22-25	J6-3	
+19.7VL1	L2	U2	A,C,E	22-25	J6-2	
DCLOX	BOT. H742	U2	B	16	J4-3	
-15V	BOT. H742	B2	E	21	J5-5,6	SP-8
-5V	H1	C1	F	17-20,22-25	J6-4	SP-9
+23VH1	H1	V2	A,C,E	17-20	J4-8	SP-6
+19VH1	H1	U2	A,C,E	17-20	J4-6	SP-7
ACLO2	BOT. H742	F1	B	28	J7-7	
DCLO2	BOT. H742	F2	B	28	J7-4	

	PIN	ROW	SLOT	MATE N LOCK CONNECTION
GROUND	C2,N2,T1	A-F	2-25	J8-1, 8
	C2,T1	A-F	1,26-28	J9-1, 8
	B2,V2	A,B	↕	J10-1, 8
	N1,P1,R1,S1	A	↕	J11-1,8
	D1,E1	B	1,26-28	

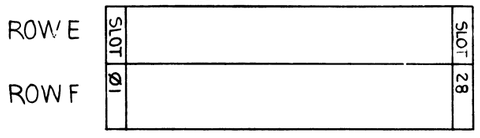
NOTES:
1. THIS LISTING IS FURNISHED TO SHOW COMBINATIONS OF MATE N LOCK CONNECTORS (J#) AND WIREWRAP PINS THAT ARE TO BE ETCHED TOGETHER. VOLTAGES WILL BE WIREWRAPPED BETWEEN 5409910 AND 5409912
2. ALL MATE N LOCK CONNECTORS AND PINS LISTED ARE CONNECTED TOGETHER BY THE GROUND PLANE (5409910-4 HIGH BOARD). WIREWRAP CONNECTIONS WILL BE MADE BETWEEN DXXT1 (5409910) AND EXXC2 (5409912)-XX= SLOT NUMBERS Ø1-28

4 HIGH BOARD

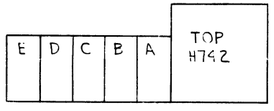


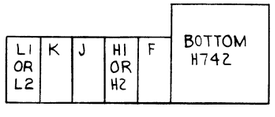
5409910
(POWER PLANE)

2 HIGH BOARD

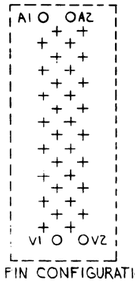


5409912
(POWER PLANE)



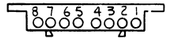


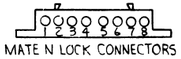
REGULATOR LOCATIONS



FIN CONFIGURATION
(ONE ROW-ONE SLOT SECTION)

MATE N LOCK CONNECTORS J2-J6





MATE N LOCK CONNECTORS J7-J11

REVISIONS	CHK	CHANGE NO.	REV.
	#10	11/45-00061	A
		4-10-75 V BOAEN	

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP11/45		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 ✓
MATERIAL —
FINISH —

DRN. Roberta 4/24/72
CHK'D. 4/28/72
ENG. 4/28/72
PROJ. ENG. 4/28/72
PROD. 5-1-72

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: 11/45 BACK PANEL PC BOARD

NEXT HIGHER ASSY. B-DD-11/45-0
SCALE —
SHEET 1 OF 1

SIZE	CODE	NUMBER	REV.
D	IC	11/45-0-2	A

DIST.

DEC FORM NO DRD 100-A

11/45-0-2 A
SIZE D CODE IC NUMBER 11/45-0-2 REV A

REVISIONS	CHANGE NO.	CHK	
A	11/45-00057	[illegible]	[illegible] 3-21-74 V. BOAEN
B	11/45-00060	[illegible]	[illegible] 3-26-74 V. BOAEN
C	11/45-00061	[illegible]	[illegible] 4-3-75 V. BOAEN

FIRST USED ON OPTION MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45		PARTS LIST		

DRN. B. Blodgett	DATE 10-5-73	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D. [illegible]	DATE 11/5/73	TITLE
ENG. [illegible]	DATE 11/5/73	WIRE LIST
PROJ. ENG. [illegible]	DATE 11/5/73	
PROD. [illegible]	DATE [illegible]	
NEXT HIGHER ASSEMBLY J-IA-7009540-0-0		SIZE K / CODE WL / NUMBER 7009540-0-2 / REV. C
SCALE —		
SHEET 1 OF —		DIST.

DEC FORM NO.
DRB 109

114SPH.WNL NAME SORT   WRL18D.SAV(18)   15-MAR-72   24-MAR-75   1515   PAGE 1

RUN NAME	A/P	PIN LOCATION		BAY ORDER	Q	DRAW RV RG Y	X	Z LEVEL	REMARKS	NEW RUN INDICATOR	RUN NUM
SEE NOTE:		NOTE							ALL WIRES #14 AWG	X	1
SEE NOTE:		NOTE							UNLESS OTHERWISE NOTED		1
+15V1		P14-2								X	2
+15V1		P25-4	42.25"			GRY					2
+15V2		P12-2								X	3
+15V2		P14-3	56.5"			GRY					3
+15V3		P21-4								X	4
+15V3		P25-5	51"			GRY					4
+15V4		P3-2								X	5
+15V4		P36-2	31.5"			GRY					5
+15V5		P1-1								X	6
+15V5		P3-3	18"			GRY					6
+19.7VH1		P26-4	96"			GRN				X	7
+19.7VH1		P4-6									7
+19.7VL1		P30-4								X	8
+19.7VL1		P6-2	81"			GRN					8
+20VE1		P12-3								X	9
+20VE1		P40-5	62.5"						ORN-BLK TWP(GND E2)		9
+23.2VH1		P26-5	96"			YEL				X	10
+23.2VH1		P4-8									10
+23.2VL1		P30-5								X	11
+23.2VL1		P6-3	81"			YEL					11
+5J1		P27-2	80"			RED				X	12
+5J1		P4-5									12
+5V1		P5-3								X	13
+5V1		P5-4	2.25"			RED					13
+5V2		P5-7								X	14
+5V2		P5-8	2.25"			RED					14
+5V3		P6-7								X	15
+5V3		P6-8	2.25"			RED					15
+5V4		P12-4	20.5"			RED				X	16
+5V4		P7-8									16
+5V5		P4-4								X	17
+5V5		P7-6	17"			RED					17
+5V6		P1-A	38"			RED				X	18
+5V6		P36-4									18

114SPH.WNL NAME SORT   WRL18D.SAV(18)   15-MAR-72   24-MAR-75   1515   PAGE 2

RUN NAME	A/P	PIN LOCATION		BAY ORDER	Q	DRAW RV RG Y	X	Z LEVEL	REMARKS	NEW RUN INDICATOR	RUN NUM
+5VA1		P17-2	65"			RED				X	19
+5VA1		P2-6									19
+5VA2		P17-5	65.5"			RED				X	20
+5VA2		P2-5									20
+5VB2		P18-5	69"			RED				X	21
+5VB2		P2-1									21
+5VC1		P19-2	71"			RED				X	22
+5VC1		P3-6									22
+5VC2		P19-5	71"			RED				X	23
+5VC2		P3-5									23
+5VD1		P20-2	61"			RED				X	24
+5VD1		P36-1									24
+5VD2		P12-1								X	25
+5VD2		P20-5	59.5"			RED					25
+5VE1		P18-2	69"			RED				X	26
+5VE1		P2-2									26
+5VH1		P31-2	77"			RED				X	27
+5VH1		P4-2									27
+5VH2		P31-5	77"			RED				X	28
+5VH2		P4-1									28
+5VJ2		P27-5	72.5"			RED				X	29
+5VJ2		P7-5									29
+5VK1		P28-2	81.25"			RED				X	30
+5VK1		P5-2									30
+5VK2		P28-5	81"			RED				X	31
+5VK2		P5-1									31
+5VL1		P29-2	81"			RED				X	32
+5VL1		P6-6									32
+5VL2		P29-5	81"			RED				X	33
+5VL2		P6-5									33
+8V		P14-1	71"			WHT				X	34
+8V		P2-8									34
-15V1		P22-4	76.5"			BLU				X	35
-15V1		P5-6									35
-15V2		J45-4	21"			BLU				X	36
-15V2		P12-13									36

RUN NAME	A/P	PIN LOCATION	BAY ORDER	Q	DRAW RV	RG Y	X	Z LEVEL	REMARKS	NEW RUN INDICATOR	RUN NUM
-15V3		P07-1 4"				BLU			*18AWG	X	37
-15V3		P45-1 2"				BLU			*18AWG		37
-15V3		P45-3									37
-15V4		P1-5								X	38
-15V4		P7-3 27.75"				BLU					38
-15V5		P3-1								X	39
-15V5		P5-5 14.5"				BLU					39
-15V6		P3-4								X	40
-15V6		P7-2 19.5"				BLU					40
-15VE1		P21-1								X	41
-15VE1		P36-13 64"				BLU					41
-15VF1		J45-1								X	42
-15VF1		P25-1 65"				BLU					42
-5VE1		P12-14								X	43
-5VE1		P40-3 62.75"				BRN					43
-5VH1		P26-3 72.5"				BRN				X	44
-5VH1		P6-4									44
AC L01		P14-8 70.5				YEL			*18AWG	X	45
AC L01		P3-7									45
AC L01'		P14-8								X	46
AC L01'		P22-10 47"				YEL			*18AWG		46
AC L02		P14-10				YEL			*18AWG	X	47
AC L02		P7-7 60.25"									47
AC L02'		P14-10								X	48
AC L02'		P22-8 46"				YEL			*18AWG		48
AC01		P16-1								X	49
AC01		P18-6 11"							RED-WHT TWP(AC2)		49
AC02		P16-2								X	50
AC02		P18-7 11"							WHT-RED TWP(AC1)		50
AC03		P16-7								X	51
AC03		P19-6 15.75"							RED-WHT TWP(AC4)		51
AC04		P16-8								X	52
AC04		P19-7 15.75"							WHT-RED TWP(AC3)		52
AC05		P15-1								X	53
AC05		P17-6 11.5"							RED-WHT TWP(AC6)		53
AC06		P15-2								X	54
AC06		P17-7 11.5"							WHT-RED TWP(AC5)		54

RUN NAME	A/P	PIN LOCATION	BAY ORDER	Q	DRAW RV	RG Y	X	Z LEVEL	REMARKS	NEW RUN INDICATOR	RUN NUM
AC07		P15-8								X	55
AC07		P20-6 16"							RED-WHT TWP(AC8)		55
AC08		P15-10								X	56
AC08		P20-7 16"							WHT-RED TWP(AC7)		56
AC09		P15-9								X	57
AC09		P21-6 21.5"							RED-WHT TWP(AC10)		57
AC10		P15-12								X	58
AC10		P21-8 21.5"							WHT-RED TWP(AC9)		58
AC11		P24-1								X	59
AC11		P29-6 27"							RED-WHT TWP(AC12)		59
AC12		P24-2								X	60
AC12		P29-7 27"							WHT-RED TWP(AC11)		60
AC13		P24-3								X	61
AC13		P30-7 27"							RED-WHT TWP(AC14)		61
AC14		P24-4								X	62
AC14		P30-8 27"							RED-WHT TWP(AC13)		62
AC15		P24-5								X	63
AC15		P26-7 18"							RED-WHT TWP(AC16)		63
AC16		P24-6								X	64
AC16		P26-8 18"							WHT-RED TWP(AC15)		64
AC17		P24-7								X	65
AC17		P31-6 17.5"							RED-WHT TWP(AC18)		65
AC18		P24-8								X	66
AC18		P31-7 17.5"							WHT-RED TWP(AC17)		66
AC19		P23-1								X	67
AC19		P27-6 21"							RED-WHT TWP(AC20)		67
AC20		P23-2								X	68
AC20		P27-7 21"							WHT-RED TWP(AC19)		68
AC21		P23-8								X	69
AC21		P28-6 17.5"							RED-WHT TWP(AC22)		69
AC22		P23-10								X	70
AC22		P28-7 17.5"							WHT-RED TWP(AC21)		70
AC23		P23-9								X	71
AC23		P25-6 9.5"							RED-WHT TWP(AC24)		71
AC24		P23-12								X	72
AC24		P25-8 9.5"							WHT-RED TWP(AC23)		72

RUN NAME	A/P	PIN LOCATION	BAY ORDER	Q	DRAW RV	RG Y	X	Z LEVEL	REMARKS	NEW RUN INDICATOR	RUN NUM
AC25		P13-1								X	73
AC25		P13-3 2.75"				RED			#18AWG		73
AC25'		P13-1								X	74
AC25'		P23-5 64.5"				RED			CABLE 9107761		74
AC26		P13-2								X	75
AC26		P23-6 64.5"				WHT			CABLE 9107761		75
AC26'		P13-2								X	76
AC26'		P13-4 2.75"				WHT			#18AWG		76
AC27		P15-5								X	77
AC27		P34 57"							RED-WHT TWP TO TIME MTR		77
AC28		P15-6								X	78
AC28		P35 57"							WHT-RED TWP TO TIME MTR		78
DC L01		P14-12 69.5"				VIO			#18AWG	X	79
DC L01		P3-8									79
DC L02		P22-9 71"				VIO			#18AWG	X	80
DC L02		P7-4									80
DC L0X		P22-12				VIO			#18AWG	X	81
DC L0X		P4-3 78.5"									81
DC L0Y		P14-9								X	82
DC L0Y		P6-1 64"				VIO					82
GND 01		P14-4								X	83
GND 01		P21-3 28.5"				BLK					83
GND 02		P14-5 73"				BLK				X	84
GND 02		P8-8									84
GND 03		P14-6								X	85
GND 03		P25-3 43.5"				BLK					85
GND 04		P10-5								X	86
GND 04		P22-3 74"				BLK					86
GND 05		P38 9"				BLK				X	87
GND 05		P9-6									87
GND 06		P11-7								X	88
GND 06		P39 9"				BLK					88
GND 09		P12-8 31.5"				BLK				X	89
GND 09		P9-3									89
GND 10		P11-8								X	90
GND 10		P36-8 25.5"				BLK					90

RUN NAME	A/P	PIN LOCATION	BAY ORDER	Q	DRAW RV	RG Y	X	Z LEVEL	REMARKS	NEW RUN INDICATOR	RUN NUM
GND 11		P1-2								X	91
GND 11		P10-3 24.5"				BLK					91
GND 12		P1-6								X	92
GND 12		P10-4 24.5"				BLK					92
GND 13		P41 9"				BLK				X	93
GND 13		P8-7									93
GND 14		P1-7 38				BLK				X	94
GND 14		P36-5									94
GND A1		P17-3 64.5"				BLK				X	95
GND A1		P8-2									95
GND A2		P17-4 66"				BLK				X	96
GND A2		P8-1									96
GND B1		P18-3 70.75"				BLK				X	97
GND B1		P8-4									97
GND B2		P18-4 71.5"				BLK				X	98
GND B2		P8-3									98
GND C1		P19-3 73.5"				BLK				X	99
GND C1		P8-6									99
GND C2		P19-4 73.5"				BLK				X	100
GND C2		P8-5									100
GND D1		P20-3 61"				BLK				X	101
GND D1		P36-7									101
GND D2		P12-7								X	102
GND D2		P20-4 61"				BLK					102
GND E1		P21-2								X	103
GND E1		P36-11 64"				BLK					103
GND E2		P12-5								X	104
GND E2		P40-2 63"							BLK-ORN TWP(+2UVE1)		104
GND F1		P25-2 75.5"				BLK				X	105
GND F1		P9-4									105
GND H1		P11-1								X	106
GND H1		P31-3 74.5"				BLK					106
GND H2		P10-8								X	107
GND H2		P31-4 74"				BLK					107
GND H3		P11-2								X	108
GND H3		P26-2 73"				BLK					108

RUN NAME	A/P	PIN LOCATION	BAY ORDER	#	DRAW RV	RG	Y	X	Z LEVEL	REMARKS	NEW RUN INDICATOR	RUN NUM
GND J1		P27-3 82.5"				BLK					X	109
GND J1		P9-2										109
GND J2		P27-4 82.5"				BLK					X	110
GND J2		P9-1										110
GND K1		P11-4									X	111
GND K1		P28-3 78"				BLK						111
GND K2		P11-3									X	112
GND K2		P28-4 78"				BLK						112
GND L1		P11-6									X	113
GND L1		P29-3 81"				BLK						113
GND L2		P11-5									X	114
GND L2		P29-4 81"				BLK						114
GND L3		P30-2									X	115
GND L3		P9-8 89"				BLK						115
LINE CLOCK		P14-11									X	116
LINE CLOCK		P37-2 58.5"				BRN				#18AWG		116
LINE CLOCK'		P2-7									X	117
LINE CLOCK'		P37-2 33"				BRN				#18AWG		117
LO GND 01		P10-1									X	118
LO GND 01		P14-7 66"				BLK				#18AWG		118
LO GND 02		P10-2									X	119
LO GND 02		P22-7 78"				BLK				#18AWG		119
LO GND 03		P37-1 30.5"				BLK				#18AWG	X	120
LO GND 03		P9-5										120
PWR CONT COM1		P1-3									X	121
PWR CONT COM1		P32-3 98.25"				BLK-WHT				TWP(P.C SW1)#18AWG		121
PWR CONT SW1		P1-4									X	122
PWR CONT SW1		P32-1 98.25"				WHT-BLK				TWP(P.C COM1)#18AWG		122
SHIELD		P23-4								CABLE 9107761	X	123
THERM 1		P13-6									X	124
THERM 1		P33-3 77.75"				BLK				#18AWG		124
THERM 2		P13-5									X	125
THERM 2		P33-2 77.75"				RED				#18AWG		125

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

THIS IS PRINT SET ☐☐☐☐

SEQUENCE		SEQUENCE	
DRAWING DIRECTORY	B-DD-861-0		
POWER CONTROL, 861	E-UA-861-0-0		
PILOT CONTROL	D-CS-5411522-0-1		
CIRCUIT SCHEMATIC 861	D-CS-861-A-1		
CIRCUIT SCHEMATIC 861	D-CS-861-B-1		
CIRCUIT SCHEMATIC 861	D-CS-861-C-1		
PACKAGING INSTRUCTION	A-PI-3700083-0-0		
CIRCUIT SCHEMATIC 861	D-CS-861-F-1		

UNIT VARIATIONS

VAR	TITLE	PRINT SET
861-A	POWER CONTROL, 861-A	
861-B	POWER CONTROL, 861-B	
861-C	POWER CONTROL, 861-C	
861-F	POWER CONTROL, 861-F	

REVISIONS		
DATE	CHG. NO.	REV
2/73	861-3	A
8/74	861-4	B
12-74	861-6	C
4-75	861-7	D
7-75	861-8	E
2-76	861-9	F
4-76	861-10	H
8-76	861-11	J
9-76	861-12	K
1-77	861-13	L

USED ON OPTION/MODEL

SHEET 1 OF 1

DRN		DATE 9/13/72
CHK'D		DATE 9/13/72
PROJ ENG		DATE 9/13/72
PROD	Patricia Bail	DATE 9/25/72
FIELD SERV.	Baron Irving	DATE 9/25/72

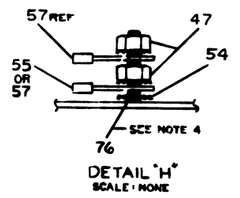
TITLE: 861 POWER CONTROL

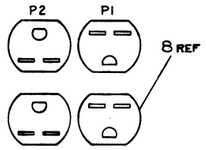
SIZE B | CODE DD | NUMBER 861-0 | REV L

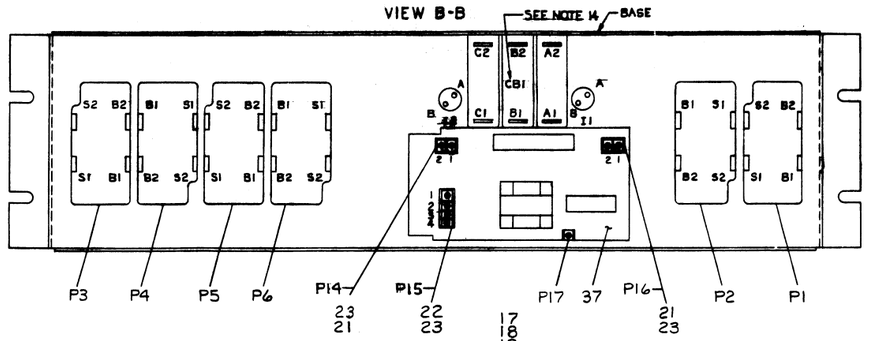
DIST

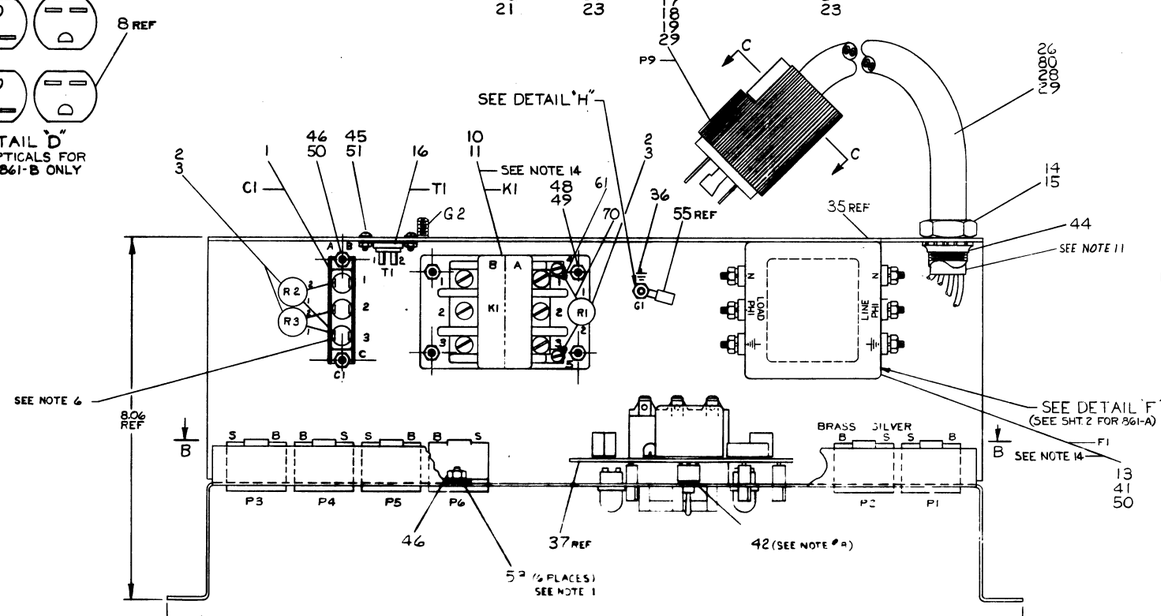
DEC 16-12521-1063-1-A-R972

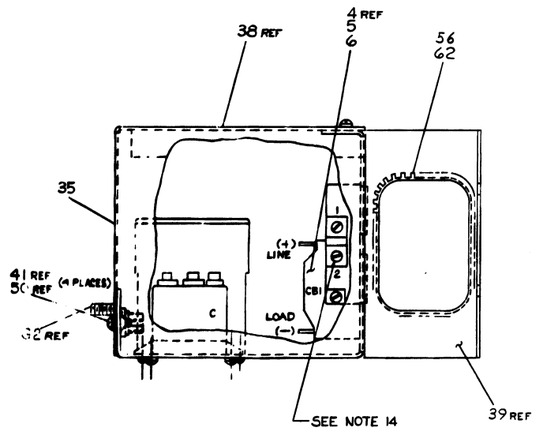
DRB 106

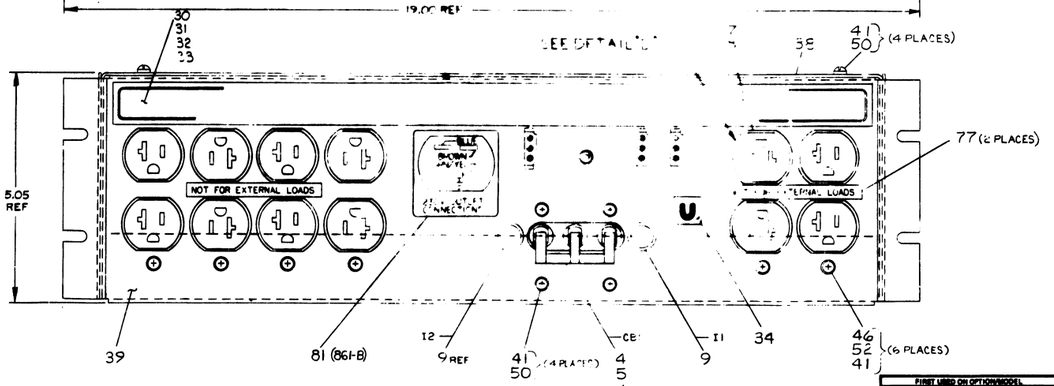












[illegible]

LEGEND

DWG. NO.	VARIATION		
	VAC INPUT	PHASES	AMP OUT
861-A	120	2	32
861-B	240	1	16
861-C	120	1	24
861-F	120	1	12

DETAIL "H"
SCALE: NONE

DETAIL "D"
RECEPTICALS FOR
VAR. 861-B ONLY

NOTES:

1. ITEM 53 #6 EXT WASHER MUST BE BETWEEN CHASSIS AND MOUNTING TAB OF RECEPTACLE (P1-P6).

~~2. REMOVE FASTON TABS FOR 861-F.~~

~~3. [illegible]~~

4. REMOVE PAINT MASK FROM AROUND 10-32 GROUND STUD (G1) AND COAT EXPOSED SURFACE WITH CONDUCTIVE GREASE (ITEM 76) PLACE EXTERNAL TOOTH LOCK-WASHER (ITEM 54) ON STUD FIRST, THEN CRIMP LUG (FROM THIS LUG A WIRE GOES TO THE FILTER, LUG IS ITEM 55 OR 57) THEN KEPNUT (ITEM 47), THEN CRIMP LUG (ITEM 57, WIRE FROM THIS LUG GOES TO PC BOARD), AND LAST KEPNUT (ITEM 47). SEE DETAIL "H".

~~5. REMOVE ALL FASTONS FROM FILTERS (ITEMS 12 & 13).~~

6. C1-3 IS THE COMMON (C) SIDE OF C1.

~~7. RECOMMENDED TORQUE LEVEL FOR VARIOUS HARDWARE SIZES:~~

~~THREAD~~	~~TORQUE~~
~~6-32~~	~~10 IN-LBS~~
~~8-32~~	~~14 IN-LBS~~
~~10-32~~	~~18 IN-LBS~~

8. TO PREVENT STRESS FROM SWITCH ON PC BOARD USE ITEM 42 (FIBER WASHER) BETWEEN CHASSIS AND PC BOARD.

9. USE TIE WRAPS (ITEM 43) A/R.

10. REMOVE PAINT MASK FROM AROUND 10-32 STUD (G2) AND APPLY CONDUCTIVE GREASE (ITEM 76).

11. POWER CORD TO EXTEND APPROX. .50 IN. BEYOND LOCKNUT (ITEM 44) FOR ITEMS 27 & 29. ITEMS 26 & 28 TO REMAIN FLUSH WITH LOCKNUT.

12. ~~RECOMMENDED TORQUE LEVEL FOR LUGS ON K1 (ITEMS 10 & 11) IS 18 INCH-LBS.~~

13. REF. WIRE LIST. THESE CONNECTIONS HAVE THREE RING TERMINALS AND REQUIRE (ITEM 82) SCREW 8-32 x 1/4" WITH (ITEM 40) LOCKWASHER.

14. REQUIRED TORQUE LEVELS FOR CERTAIN ELECTRO-MECHANICAL CONNECTIONS.
   - A. 18±2 IN-LBS FOR TERMINALS ON F1 (ITEMS 12 & 13), THE 6 LUG BOXES ON K1 (ITEMS 10 & 11) AND NUTS ON GROUND STUD G1.
   - B. 16±2 IN-LBS FOR 8-32 SCREW CONNECTIONS ON OUTLETS P1 THRU P6 (ITEMS 7 & 8).
   - C. 12±2 IN-LBS ON 8-32 SCREW CONNECTIONS ON CIRCUIT BREAKER CONNECTIONS CB1 (ITEMS 4, 5 & 6).

FOR PARTS LIST SEE
A-PL-861-0-0

REV.	CHANGE NO.	DRAWN	CHK'D	APPROVED
L	861-00013	R. KENNEDY	D. Chiasson 25 Jan 77	R. Kennedy 30 Jan 77
K	861-00012	S. CARTER	R. Chiasson 16 Sept 76	R. Kennedy 23 SEP 76
J	861-00011	S. CARTER	[illegible] 23 AUG 76	R. Kennedy 15 SEP 76
H	861 00010 REVISED AND REDRAWN	H. KENNEDY	[illegible]	R. Kennedy 25 Jan 76

FIRST USED ON OPTION/MODEL
861-PC

DIMENSIONAL TOLERANCE
DIMENSIONS ARE ~~MILLIMETERS~~ INCHES
UNLESS OTHERWISE SPECIFIED

~~MILLIMETERS~~	INCHES	ANGLES
~~.XXX ±.010~~	.XXX ±.005	±0° 30'
~~.XX ±0.5~~	.XX ±.02	
~~.X ±.2~~	.X ±.1	

THIRD ANGLE PROJECTION
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓
MATERIAL: SEE PARTS LIST
FINISH: —

QTY.	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

		DATE
DRN.	D. SCHMINT	9-12-72
CHK'D.	J. KALAGHN	10-6-72
ENG.	R. BERTON	10-6-72
PROJ. ENG.	ALLEN	10-6-72
PROD.	P. FAZIO	10-6-72

NEXT HIGHER ASSY.: B-DD-861-0-0
SCALE: 1/1
SHEET 1 OF 2

digital

TITLE
POWER CONTROL
861

SIZE	CODE	NUMBER	REV.
E	UA	861-0-0	L

DIST.

WIRE TABLE 861-A

ITEM NO	DESCRIPTION AWG	DESCRIPTION COLOR	FROM CONN	FROM POINT	FROM WITH	TO CONN	TO POINT	TO WITH	REMARKS
1	—	—	R1-1		—	B1-4		70,61	1. IN
2	—	—	R1-2		—	K1-5		70,61	1. IN
73	14	BLU	K1-B3		*	P6-S2		60	6. IN
↑	↑	↑			*	P4-S2		60	4.5 IN
↓	↓	↓	K1-B3		*	C1-3B		63	3.5 IN
↑	↑	↑			60	P5-S1		60	4.5 IN
73		BLU	P4-S1		60	P3-S1		60	4.5 IN
72		BRN	K1-B2		*	C1-2B		63	3.5 IN
72		BRN	P4-B2		*	P6-B1		60	6. IN
72		BRN			60	P5-B2		60	6. IN
71		BLK	K1-B1		*	C1-1B		63	3.5 IN
71		BLK			*	P4-B1		60	6. IN
71	↓	BLK	P4-B2		60	P3-B2		60	6. IN
73	1	BLU	CBI-C2		55	P1-S1		60	9. IN
66	12	↓				K1-A5		*	3.5 IN
73	14	↑	K1-A3		*	P15-2		23,22	3.75 IN
73	14	BLU	P16-2		23,21	K1-A4		*	6.5 IN
65	12	BRN	CBI-B2		55	K1-A2		*	6.75 IN
72	14	BRN				P1-B1		60	10.5 IN
64	12	BLK	CBI-A2		55	K1-A1		*	7.5 IN
71	14	BLK				P2-B1		60	6. IN
71	↑	BLK	K1-A1		*	P15-3		23,22	5.5 IN
72		BRN	K1-A2		*	K1-4		63	3. IN
72		BRN	P16-1		23,21	K1-5		63	7.5 IN
73	14	BLU	P1-S2		60	P2-S1		60	3. IN
66	12	BLU	CBI-C1	SEE NOTE 13	55	FI-N	LOAD	55	5.5 IN
9	—	RED	I1-A		—	CBI-C1	SEE NOTE 13	58	5.75 IN
9	—	RED	I2-A		—	CBI-C1		58	4. IN
9	—	BLK	I1-B		—	CBI-A1		58	3.75 IN
64	12	BLK	FI-PHI	LOAD	55	CBI-A1		55	3. IN
9	—	BLK	I2-B		—	CBI-B1		58	4.75 IN
65	12	BRN	FI-PHZ	LOAD	55	CBI-B1		55	5.25 IN
74	14	ORN	P14-1		23,21	T1-1		63	10. IN
74	14	ORN	P14-2		23,21	T1-2		63	10. IN
68	12	GRN/YEL	FI-⏚	LOAD	55	G1	SEE DETAIL H	55	4.75 IN
67	14	GRN/YEL	P17		SOLD	G1		57	7.78 IN
2	—	—	R2-1		70	C1-3A		59	1. IN
1	—	—	R3-1		↑				
↓	↓	↓	R2-2		↓	C1-1A		59	1.25 IN
2	—	—	R3-2		70	C1-2A		59	1. IN
26	12	BLK	P9-Y		17	FI-PHI	LINE	55	15. FT
↑	↑	WHT	P9-S		↑	FI-N	LINE	55	↓
↓	↓	RED	P9-X		↓	FI-PHZ	LINE	55	
26	12	GRN	P9-G		17	FI-⏚	LINE	55	15. FT

* STRIP WIRE .38 IN

WIRE TABLE 861-B

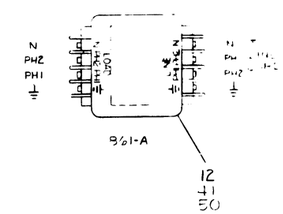
ITEM NO	DESCRIPTION AWG	DESCRIPTION COLOR	FROM CONN	FROM POINT	FROM WITH	TO CONN	TO POINT	TO WITH	REMARKS
3	—	—	R1-1		—	K1-4		70,61	1. IN
	—	—	R1-2		—	K1-5		70,61	1. IN
73	14	BLU	K1-B3		*	P6-S1		60	4. IN
↑	↑	↑			*	P4-S1		60	4. IN
↓	↓	↓	K1-B3		*	C1-3B		63	3.5 IN
↑	↑	↑			60	P5-S1		60	4.5 IN
73		BLU	P4-S2		60	P3-S1		↓	4.5 IN
72		BRN	K1-B1		*	P6-B1			5. IN
↑		↑			*	P4-B1		60	5.8 IN
↓		↓	K1-B1		*	C1-1B		63	3.5 IN
↑		↑	P6-B2		60	P6-B1		60	3. IN
↓		↓	P4-B2		60	P3-B1		60	3. IN
↑		↑	K1-A1		*	K1-4		63	3.25 IN
↓		↓	K1-A1		*	P15-4		23,22	6. IN
↑		↑	CBI-A2		55	P1-B2		60	10. IN
72		BRN				K1-A1		*	7.5 IN
73		BLU	CBI-C2		55	K1-A3		*	5.5 IN
↑		↑				P1-B2		60	8. IN
↓		↓	K1-A3		*	P16-2		23,21	6. IN
72	14	BRN	P1-B1		60	P15-2		23,22	4. IN
73	↓	BLU	P1-S1		60	P2-S2		60	3. IN
72	14	BRN	P1-B1		60	P2-B2		60	4.5 IN
9	—	BLK	I1-B		—	CBI B2		58	4. IN
↑	—	BLK	I2-B		—	CBI B2		58	4. IN
↓	—	RED	I1-A		—	CBI-A1		58	5. IN
9	—	RED	I2-A		—	CBI-C1		58	5. IN
72	14	BRN	CBI-A1		57	FI-PHI	LOAD	57	3. IN
73	↑	BLU	CBI-C1		57	FI-N	LOAD	57	4.75 IN
74	↓	ORN	P14-1		23,21	T1-1		63	10. IN
74		ORN	P14-2		23,21	T1-2		63	10. IN
67	↓	GRN/YEL	FI-⏚	LOAD	57	G1	SEE DETAIL "H"	57	4.75 IN
67	14	GRN/YEL	P17		SOLD	G1		57	7.75 IN
3	—	—	R2-1		70	C1-3A		59	1. IN
↑	—	—	R2-2		70	C1-1A		59	1. IN
↓	↓	↓			↓			↓	
72	14	BRN	P16-1		23,21	K1-5		63	7. IN
80	↑	GRN/YEL	P9-G		18	FI-⏚	LINE	57	15. FT
80		BRN	P9-Y		18	FI-PHI	LINE	57	15. FT
80	14	BLU	P9-X		18	FI-N	LINE	57	15. FT

WIRE TABLE 861-C

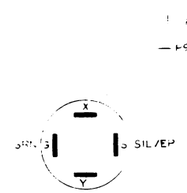
ITEM NO	DESCRIPTION AWG	DESCRIPTION COLOR	FROM CONN	FROM POINT	FROM WITH	TO CONN	TO POINT	TO WITH	REMARKS
2	—	—	R1-1		—	K1-4		70,61	1. IN
	—	—	R1-2		—	K1-5		70,61	1. IN
73	14	BLU	K1-B3		*	P6-S1		60	4.5 IN
↑	↑	BLU			↑	P4-S1		↑	4.75 IN
72		BRN	K1-B2		*	C1-3B		63	3.5 IN
↓		BRN			↓	P5-B2		↓	4.5 IN
71		BLK	K1-B1		*	P4-B1		60	6.0 IN
↑		BLK			*	P3-B2		↓	6.0 IN
73		BLU	P6-S2		60	P5-S1		↑	4.5 IN
73		BLU	P3-S1		60	P4-S2		60	4.5 IN
73		BLU	K1-B3		*	C1-3B		63	3.5 IN
72		BRN	K1-B2		*	C1-2B		63	3.5 IN
71		BLK	K1-B1		*	C1-1B		63	3.5 IN
72		BRN	CBI-B2		55	P1-B2		60	9.5 IN
↑		BRN				K1-A2		*	6.75 IN
72		BRN	K1-4		63	K1-A2		*	3.75 IN
71		BLK	CBI-C2		55	P1-B1		60	9.0 IN
↑		BLK				K1-A1		*	5.75 IN
71		BLK	K1-A1		*	P15-3		23,22	5.5 IN
73		BLU	CBI-A2		55	P1-S2		60	7.5 IN
↑		↑				K1-A3		*	6. IN
↓		↓	P1-S1		60	P2-S2		60	3.0 IN
↑		↑	P15-2		22,23	K1-A3		*	3.75 IN
73		BLU	P16-2		23,21	K1-A3		*	6.5 IN
72		BRN	P16-1		↑	K1-5		63	6.75 IN
74	↑	ORN	P14-1		↑	T1-1		63	10. IN
74	14	ORN	P14-2		23,21	T1-2		63	10. IN
2	—	—	R2-1		70	C1-3A		59	1. IN
1	—	—	R3-1		↑				
↓	↓	↓	R2-2		↓	C1-1A		59	1.25 IN
2	—	—	R3-2		70	C1-2A		59	1. IN
68	12	GRN/YEL	FI-⏚	LOAD	55	G1	SEE DETAIL H	55	4.75 IN
67	14	GRN/YEL	P17		SOLDER	G1		57	7.75 IN
65	12	BRN	CBI-B1	SEE NOTE 13	55	FI-PHI	LOAD	55	5.25 IN
64	12	BLK	CBI-C1		55	FI-PHI	LOAD	55	3.25 IN
9	—	RED	I1-A			CBI-B1	SEE NOTE 13	58	4.25 IN
↑	—	RED	I2-A			CBI-B1		↑	4.75 IN
↓	—	BLK	I1-B			CBI-A1	SEE NOTE 13	↓	3.00 IN
9	—	BLK	I2-B			CBI-A1		58	5.75 IN
66	12	BLU	CBI-A1	SEE NOTE 13	55	FI-N	LOAD	55	4.5 IN
28	↑	GRN	P9-G		19	FI-⏚	LINE	55	15. FT
28		BLK	P9-P		19	FI-PHI	LINE	55	15. FT
28	12	WHT	P9-S		19	FI-N	LINE	55	15. FT

WIRE TABLE 861-F

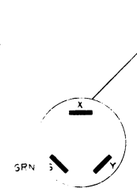
ITEM NO	DESCRIPTION AWG	DESCRIPTION COLOR	FROM CONN	FROM POINT	FROM WITH	TO CONN	TO POINT	TO WITH	REMARKS
2	—	—	R1-1		—	K1-4		70,61	1. IN
1	—	—	R1-2		—	K1-5		70,61	1. IN
73	14	BLU	K1-B3		*	P6-S1		60	5.25 IN
73		BLU				P4-S1			4. IN
72		BRN	K1-B2			P6-B1			5.25 IN
72		BRN				P5-B2			5.25 IN
71		BLK	K1-B1			P4-B1			6.25 IN
71		BLK				P3-B2		60	6.25 IN
73		BLU	K1-B3		*	C1-3B		63	3.5 IN
72		BRN	K1-B2		*	C1-2B		63	3.5 IN
71		BLK	K1-B1		*	C1-1B		63	3.5 IN
1	—	—	R2-2		70	C1-1A		59	1. IN
1	—	—	R2-1			C1-3A		59	1. IN
1	—	—	R3-1						1. IN
2	—	—	R3-2		70	C1-2A		59	1.25 IN
73	14	BLU	K1-A3		*	P15-2		23,22	4.25 IN
73		BLU	P16-2		23,21	K1-A3		*	5.75 IN
72		BRN	K1-A2		*	K1-A2		*	6.5 IN
↑		↑				P1-B2		60	8.25 IN
72		BRN	K1-5		63	P16-1		23,21	6.75 IN
71		BLK	K1-A1		*	P15-3		23,22	6. IN
71		BLK	CBI-C2		55	P2-B1		60	8. IN
71		BLK				K1-A1		*	7. IN
73	14	BLU	P1-S1		60	P2-S2		60	3. IN
9	—	BLK	I1-B		—	CBI-C1		58	4.5 IN
↑	—	BLK	I2-B		—	CBI-B1		58	4.5 IN
↓	—	RED	I1-A		—	CBI-A1	SEE NOTE 13	58	3.5 IN
9	—	RED	I2-A		—	CBI-A1		58	4.5 IN
73	14	BLU	CBI-A1	SEE NOTE 13	57	FI-N	LOAD	57	4.5 IN
71		BLK	CBI-C1		57	CBI-B1		55	3. IN
71		BLK	FI-PHI	LOAD		CBI-B1			5.5 IN
67		GRN/YEL	FI-⏚	LOAD	57	G1	SEE DETAIL H	57	4.75 IN
67		GRN/YEL	P17		SOLD	G1		57	7.75 IN
74		ORN	P14-1		23,21	T1-1		63	10. IN
74		ORN	P14-2		23,21	T1-2		63	10. IN
73		BLU	P3-S1		60	P4-S2		60	4.5 IN
73	14	BLU	P5-S1		60	P6-S2		60	4.5 IN
29	16	GRN	P9-G		—	FI-⏚	LINE	—	9. FT
29	16	BLK	P9-X		—	FI-PHI	LINE	57	9. FT
29	16	WHT	P9-Y		—	FI-N	LINE	57	9. FT



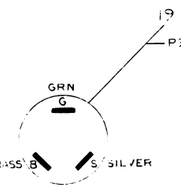
DETAIL "F"
SCALE : NONE



SECTION C-C
861-A
SCALE: NONE



SECTION C-C
861-B
SCALE : NONE



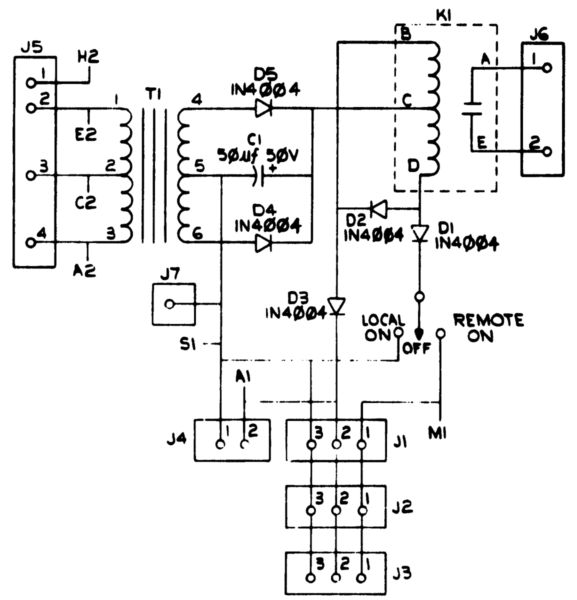
SECTION C-C
861-C
SCALE: NONE

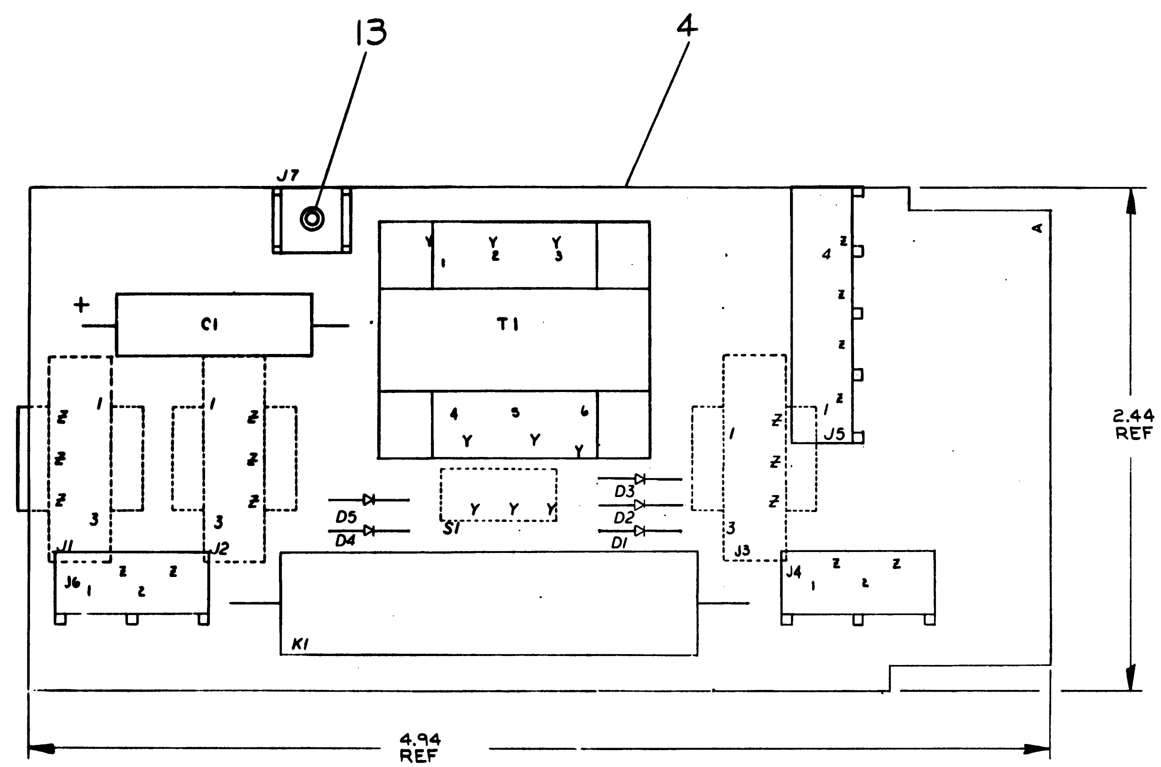
REAR VIEW

REVISIONS		
SYM	CHANGE NO.	REV.

TITLE	POWER CONTROL,861	SIZE/CODE	E UA	*NUMBER	861-0-0
SCALE	1/1	SHEET	2 OF 2	DIST.	REV. L

NOTES:





QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
REF		X-Y COORDINATE HOLE LOCATION	K-CO-5411522-0-4	1
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-5411522-0-5	2
REF		MODULE ECO HISTORY	B-MH-5411522-0-6	3
1		ETCHED CIRCUIT BOARD	5011521	4
1	K1	RELAY, REED, 48 V COIL, 2.5 A CONT.	1212267-00	5
1	T1	TRANSFORMER MMC 5415	1612342-00	6
1	C.	CAP 5Ø MFD 5ØV TANT	1000080-00	7
5	D1-D5	DIODE IN4004	1105796-00	8
1	S1	SWITCH	1211180-00	9
3	J1-J3	HOUSING, SOCKET	1209350-03	10
1	J5	CONN, UNIVERSAL, 4 PIN HEADER	1212297-01	11
2	J4, J6	CONN, UNIVERSAL, 2 PIN HEADER	1212297-00	12
1		EYELET	9006732-00	13
9		TERMINAL, SOCKET CONTACT	1209456-01	14
1	J7	TERMINAL, SOLDERLESS	9007113-00	15

PARTS LIST

IC TYPE	GND	+ 5V

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY. EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

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

SEMICONDUCTOR CONVERSION CHART

REV | CHANGE NO. | CHK | REVISIONS

FIRST USED ON OPTION MODEL: 861-D / 861-E

ETCH BOARD REV: B

DRN. K.E. Hellen — DATE 2/4/75
CHK'D W.F. McCarthy — DATE 2/11/75
ENG. — DATE 2/14/75
PROJ. ENG. — DATE 2/14/75
PROD. — DATE 2/14/75

NEXT HIGHER ASSY: E-UA-861-D-Ø

SCALE: NONE
SHEET 1 OF 1

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

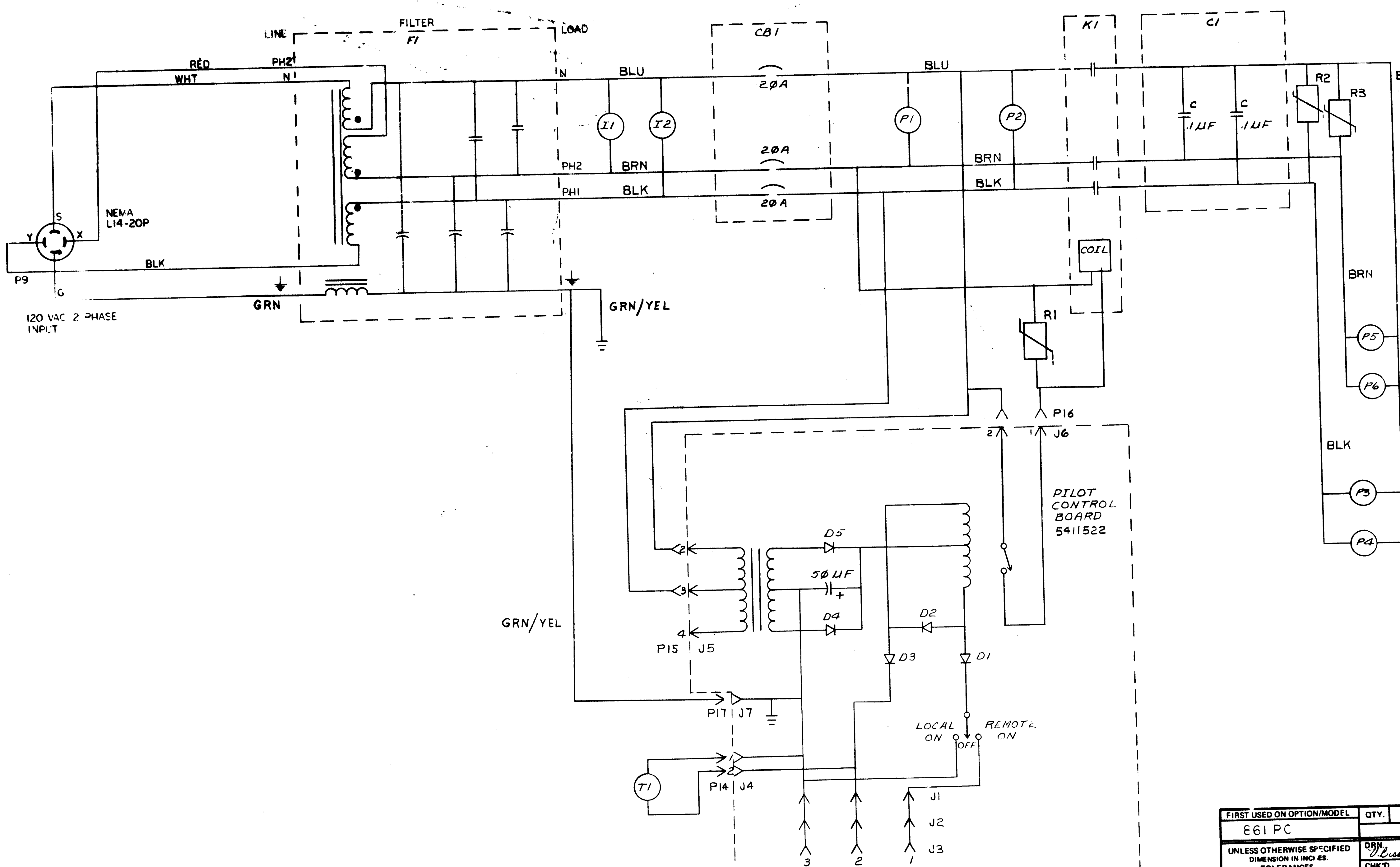
TITLE: PILOT CONTROL

SIZE	CODE	NUMBER	REV.
D	CS	5411522-0-1	A

DIST

NOTE :

1. R1, R2, + R3 ARE MOV VARISTOR SPIKE SURPRESSORS.



REV.	CHANGE NO.			CHK
A	861-00005	LOYA		
B	861-00009	R. KENNEDY		
C	861-00010	R. KENNEDY		
D	861-00011	S. CARTER		
E	861-00012	S. CARTER		

DEC FORM NO DRD 100-A

QTY.	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

FIRST USED ON OPTION/MODEL: 861 PC

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. V. Cussonrette DATE 9-11-72

CHK'D. DATE 10-6-72

ENG. R. Bent DATE 10-6-72

PROJ. ENG. DATE

PROD. DATE 10-6-72

NEXT HIGHER ASSY. B-DD-861-0

SCALE —

SHEET 1 OF 1

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE

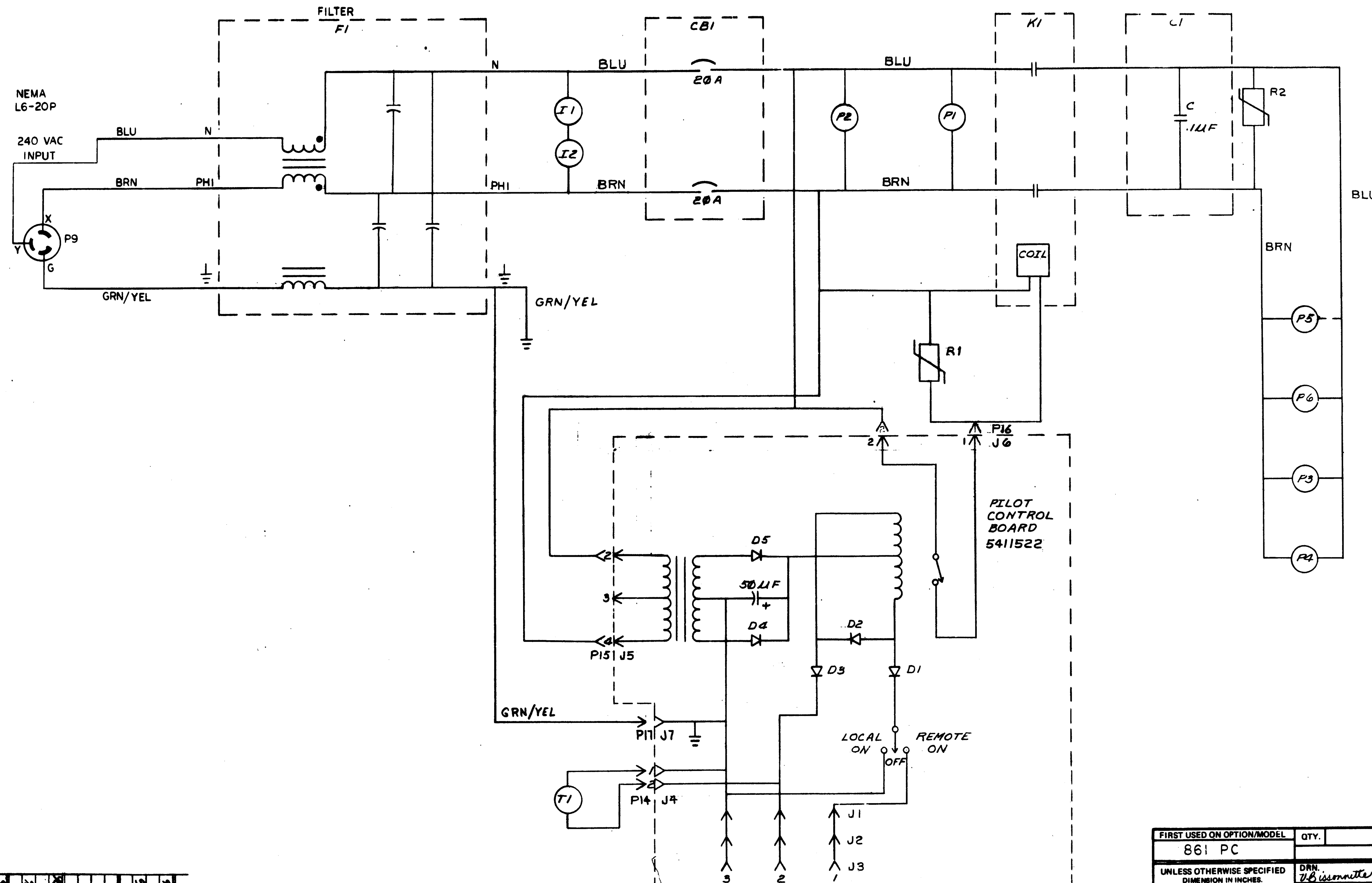
CIRCUIT SCHEMATIC (861-A-PC.)

SIZE	CODE	NUMBER	REV.
D	CS	861-A-1	E

DIST.

This drawing and specifications, herein, are the property of Digital Equipment Corporation and shall not be reproduced or copied or used in whole or in part as the basis for the manufacture or sale of items without written permission.

NOTE :
1. R1+R2 ARE MOV VARISTOR SPIKE SURPRESSORS.



FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
861 PC				

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

		DATE
DRN.	V. Bissonnette	4-11-72
CHK'D.	[signature]	10-6-72
ENG.	[signature]	10-6-72
PROJ. ENG.	[signature]	10/6/72
PROD.	[signature]	10-6-72

NEXT HIGHER ASSY. B-DD-861-0

SCALE

SHEET OF

DIST.

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

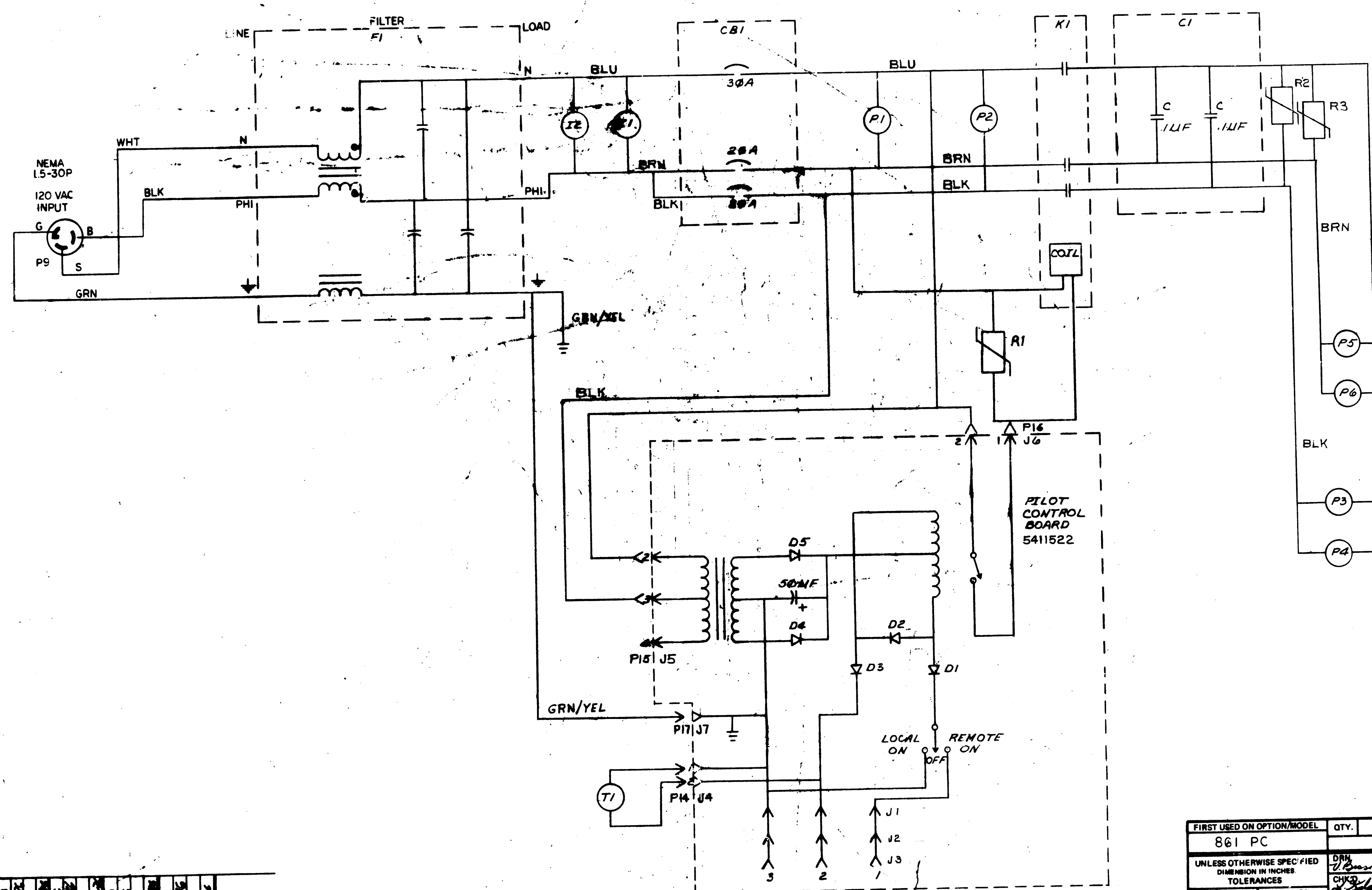
TITLE CIRCUIT SCHEMATIC (861-B P.C.)

SIZE	CODE	NUMBER	REV.
D	CS	861-B-1	E

REVISIONS

REV.	CHANGE NO.	CHK	
A	[illegible]		
B	861-00099		R. KENNEDY
C	861-00010		R. KENNEDY
D	861-00011		S. CARTER
E	861-00012		S. CARTER

DEC FORM NO DRD 102-A



This drawing and specifications, herein, are the property of Digital Equipment Corporation and shall not be reproduced or copied or used in whole or in part as the basis for the manufacture or sale of items without written permission.

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

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES
DECIMALS .XXX ± .005 .XX ± .02 .X ± .1 — ANGLES ± 3° 30'
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓
MATERIAL
FINISH

DIGITAL EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: CIRCUIT SCHEMATIC 861-C P.C.

NEXT HIGHER ASSY. B-DD-861-0

SIZE D CODE CS NUMBER 861-C-1 REV E

REVISIONS: 861-C-1 — CHANGE NO. 861-00008, 861-00009, 861-00010, 861-00011, 861-00012 — REV A, B, C, D, E

DIGITAL EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

PACKAGING INSTRUCTION	REV: A	DATE: 4-73
TITLE 861 POWER CONTROL, INTERPLANT PACKAGE		

MATERIAL REQUIREMENTS

Quantity	Identification No.	Purchase Spec	Description
1	7-2008 1314 0500-0	9905229	Full overlap carton
2		9905228	Expanded polystyrene foam insert
A/R			3-inch wide Glasflex tape

PACKAGING INSTRUCTIONS

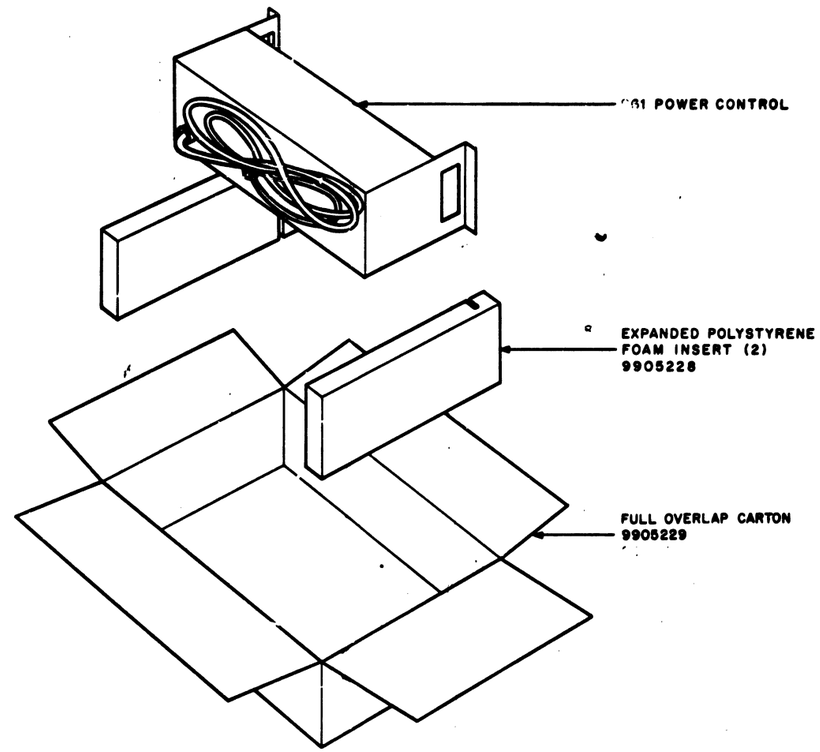
Step	Procedure
1	Set up the full over lap carton (9905229) using one strip of tape across the bottom and extending up the sides approximately three inches. See Figure 1.
2	Place one expanded polystyrene foam insert (9905228) in each end of the carton with the slots in the foam facing inward.
3	Place the 861 power control in the carton with the ears of the upright sliding into the slots in the foam.
4	Coil the power cord so that it fits into the cavity in the rear of the power control.
5	Close and seal the carton with one piece of tape across the top of the carton and extending down the sides approximately three inches.

ENG	APPD	SIZE	CODE	NUMBER	REV
4/13/73		A	PI	3700083-0-0	A

DEC 8-(551)-1031-1-R671
DRA - 129

PACKAGING INSTRUCTION	REV: A	DATE: 4/73
TITLE 861 POWER CONTROL, INTERPLANT PACKAGE		

FIGURE 1

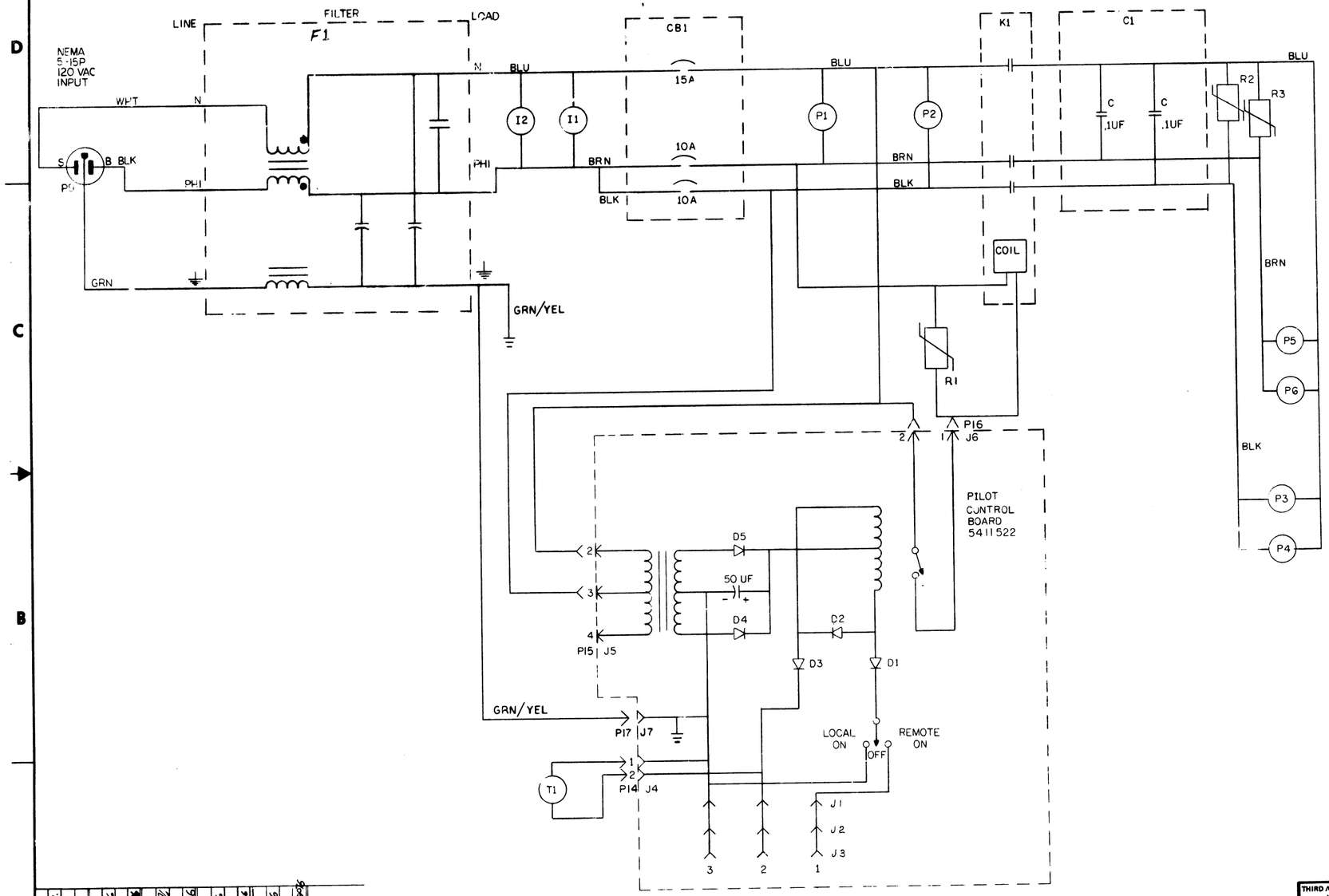


NOTE
Make changes to the "C" size original only and rephotograph.

ENG.	APPD.	SIZE	CODE	NUMBER	REV
12/11/72	12/11/72	A	PI	3700083-0-0	A

DRC-107

NOTE :
1 R1 R2 + R3 ARE MOV VARISTOR SPIKE SURPRESSORS.



REVS. CHK	CHANGE NO.	REV.
—	861-00007	*
	ORIGINATED	A
	861-00009	A
	861-00010	B
	861-00011	C
	861-00012	D

R. KENNEDY 12-FEB-76
R. KENNEDY 17 FEB 76
R. KENNEDY 27 JULY 76
R. KENNEDY 16 AUG 76
S. CARTER 1 SEPT 76
S. CARTER 16 SEPT 76

DEC FORM NO.

	DESCRIPTION	DWG./PART NO.	ITEM NO.
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES OVER 0 TO 0.2	OVER 0.2 TO 1.2	OVER 1.2 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 80.0
SURFACE QUALITY IN MICROINCHES	MEDIUM ☐	±.004	±.008	±.012	±.016	±.024	±.04
	PREFERRED ☐	±.012	±.016	±.025	±.04	±.063	±0.1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL

FINISH

DRN. [illegible] 4-24-76
CHK'D [illegible] 4-27-76
ENG. G. Barron 5-3-76
PROJ. ENG. G. Barron 5-3-76
PROD. [illegible] 5-3-76

NEXT HIGHER ASSY. B-DD-861-0

SCALE

SHEET 1 OF 1

FIRST USED ON 861 P.C.

digital

TITLE CIRCUIT SCHEMATIC 861-F P.C.

SIZE D | CODE CS | NUMBER 861-F-1 | REV. D

DIST.

D 861-F-1 CS D

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

	SEQUENCE
DRAWING DIRECTORY	B-DD-H742Ø-Ø
WIRING DIAGRAM	D-CS-H742Ø-Ø-Ø
POWER LINE MONITOR	D-CS-5411086-0-1
H742Ø POWER SUPPLY	E-UA-H742Ø-Ø-Ø
H7420 POWER SUPPLY (P.L.)	A-PL-H742Ø-Ø-Ø

THIS IS PRINT SET

UNIT VARIATIONS

VAR	TITLE	PRINT SET 1
H742ØA	H742Ø POWER SUPPLY (120V)	
H742ØB	H742Ø POWER SUPPLY (240V)	

REVISIONS		
DATE	CHG. NO.	REV
6-75	H7420-1	A
7-75	H7420-2	B
3-76	H7420-3	C
4-76	H7420-4	D
9-76	H7420-5	E

USED ON OPTION/MODEL

SHEET 1 OF 3

DRN. R.E.Thellen	DATE 1/29/75	TITLE H742Ø POWER SUPPLY
CHK'D. P.Cappabianca	DATE 2/3/75	
PROJ ENG. [illegible]	DATE 2/3/75	
PROD. [illegible]	DATE 4/3/7[illegible]	SIZE B / CODE DD / NUMBER H742Ø-Ø / REV E
FIELD SERV. [illegible]	DATE 5-19-75	DIST

DEC 16-12511-1062-1A-R972

DRB 106

digital EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

THIS IS PRINT SET

SEQUENCE	SEQUENCE
DRAWING DIRECTORY	B-DD-H742-Ø
CIRCUIT SCHEMATIC	D-CS H742-Ø-1
PWR CONTROL BOARD	E-1A 5409730-0-0
CIRCUIT SCHEMATIC	C-CS 5409730-0-1
UNIT ASSEMBLY H742	E-UA-H742-Ø-Ø
UNIT ASSEMBLY (PL)	A-PL-H742-Ø-Ø

MFG SET	
TEST PROCEDURE	A-SP H742 Ø-3
MFG SPEC.	A-SP-H742-Ø-8
PACKAGING INSTRUCTION	A-PI-3700078-0-0

UNIT VARIATIONS

VARIATION	TITLE	PRINT SET TYPE: H742-1
H742-A	CHASSIS ASSY (115V)	X
H742-B	CHASSIS ASSY (230V)	X
H742-C	CHASSIS ASSY (115V)	X
H742-D	CHASSIS ASSY (230V)	X

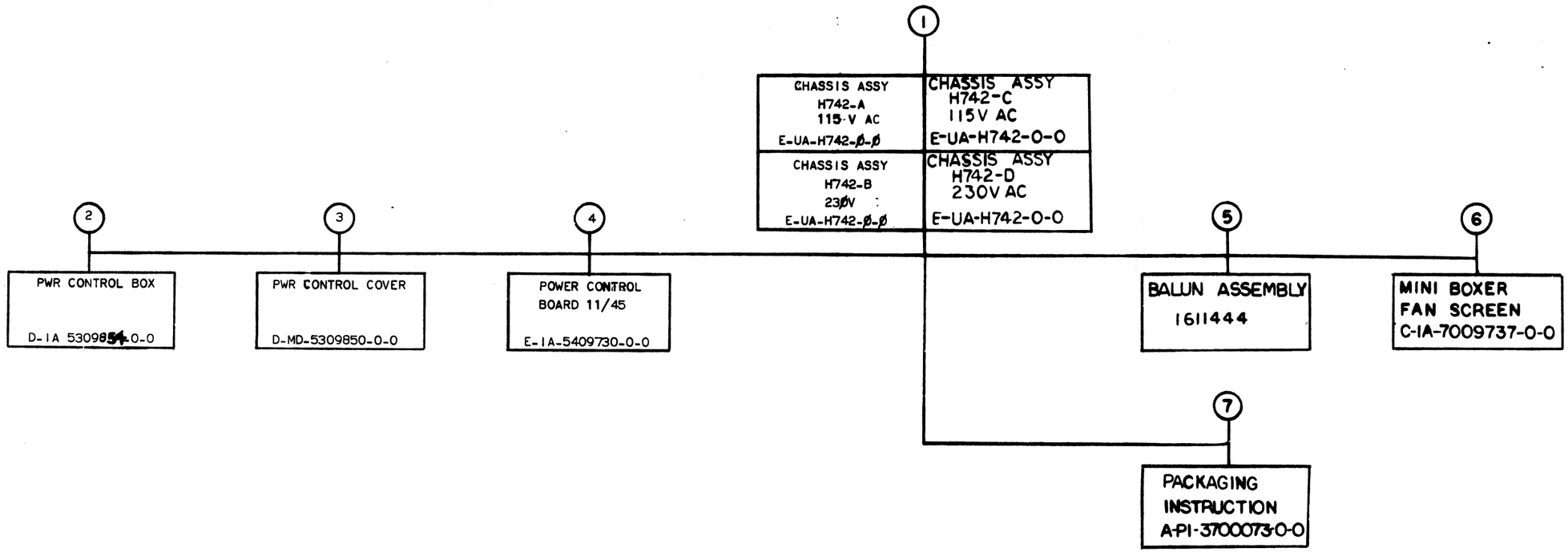
REVISIONS		
DATE	CHG. NO.	REV
7/72	H742-2	A
7/72	H742-3	B
8/72	H742-4	C
8/72	H742-5	D
10/72	H742-7	E
11/72	H742-8	F
12/72	H742-11	H
2/73	H742-12	J
2/73	H742-13	K
2-73	H742-14	L
4-73	H742-15	M
4-73	H742-16	N
5-73	H742-17	P
6-73	H742-18	R
12-73	H742-19	S
3-74	H742-20	T
4-74	H742-21	U
5-75	H742-22	V
9-75	H742-23	W
4-76	H742-24	Y

USED ON OPTION/MODEL
11/45

DRN. D.FONTAINE	DATE 13172	TITLE CHASSIS ASSY H742
CHK'D.	DATE 2-9-72	
PROJ ENG.	DATE 2-9-72	
PROD.	DATE 2-24-72	
FIELD SERV.	DATE 2-7-72	
SHEET 1 OF 3	DIST	SIZE B · CODE DD · NUMBER H742-Ø · REV Y

DRB 106

DEC 16-(325)-1062-1-N871



TITLE		SIZE	CODE	NUMBER	REV
CHASSIS ASSY H742	SHEET 2 OF 3	B	DD	H742-Ø	Y

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

ELECTRICAL

CUSTOMER PRINT SET	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
X		1	D-CS-H742-Ø-1	F	1	CIRCUIT SCHEMATIC	H742
	X		A-SP-H742-Ø-3			TEST PROCUDERE	H742
	X		A-SP-H742-Ø-8			MFG SPECIFICATION	H742
X		4	C-CS-5409730-0-1	#	1	CIRCIUT SCHEMATIC	H742

MECHANICAL

CUSTOMER PRINT SET H742-1	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
X		1	E-UA-H742-Ø-Ø	Y	3	CHASSIS ALLY H742	H742
X			A-PL-H742-Ø-Ø	Y	4	CHASSIS ASSY H742	H742
			E-IA-5309755-0-0		3	CHASSIS H742	H742
			D-IA-7409701-0-0		1	BRACKET, POWER SUPPLY	H742
			C-MD-7409702-0-0		1	COVER POWER SUPPLY	H742
			A-DC-5310459-0-0		1	DECAL, H742A	H742
			A-DC-5310460-0-0		1	DECAL, H742B	H742
			A-DC-5310461-0-0		1	DECAL, H742C	H742
			A-DC-5310462-0-0		1	DECAL, H742D	H742
		2	D-IA-5309854-0-0		1	POWER CONTROL BOX	H742
			A-SS-5309854-0-1		1	SILK SCREEN (H742)	H742
		3	D-MD-5309850-0-0		1	POWER CONTROL COVER	H742
			A-SS-5309850-0-1		1	SILK SCREEN	H742
X		4	E-IA-5409730-0-0	#	1	PWR CONTROL BD ASSY	H742
			5009729-0-0	#	1	PWR CONTROL BD	H742
		5	1611444		1	BALUN ASSEMBLY	H742
		6	C-IA-7009737-0-0		1	MINI BOXER FAN SCREEN	
			B-MD-7411626-0-0		1	FAN SCREEN	
			B-MD-7411627-0-0		1	FAN PLATE	
X		7	A-PI-3700073-0-0	#	2	PACKAGING INSTRUCTION	
			A-PS-9905205-0-0		2	REGULAR SLOTTED CARTON	
			A-PS-9905206-0-0		2	DIE-CUT SHEET	
			A-PS-9905207-0-0		2	LAMINATED BASE	

CUSTOMER PRINT SET CODES

X = PRINT OF DOCUMENT INCLUDED IN PRINT SET
C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT
S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

TITLE: CHASSIS ASSY H742

SHEET 3 OF 3 | SIZE: B | CODE: DD | NUMBER: H742-Ø | REV: Y

DRB 108

DRAWING DIRECTORY

CUSTOMER PRINT SET

DRAWING DIRECTORY	B-DD-H744-0
CIRCUIT SCHEMATIC	D-CS-H744-0-1
UNIT ASSY	E-UA-H744-0-0

MFG SET

TEST PROCEDURE	A-SP-H744-0-3
MFG SPEC	A-SP-H744-0-8
PACKAGING INST	A-PI-3700074-0-0

UNIT VARIATIONS

VAR	TITLE
H744	+5V REGULATOR

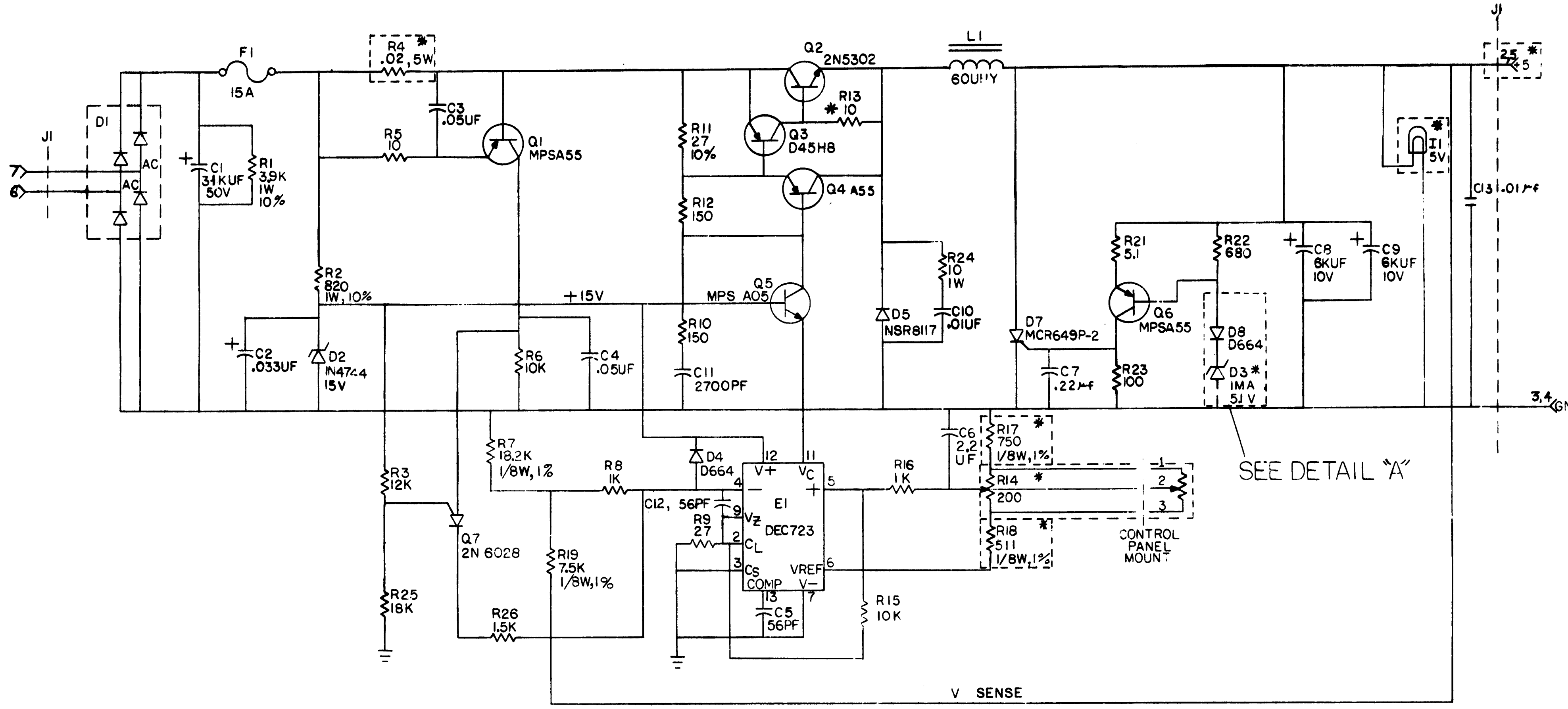
REVISIONS		
CHK	CHANGE NO.	REV.
CP	00019	R

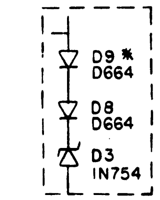
USED ON OPTION/MODEL	
11/45	

SHEET 1 OF 4

DRN. D.FONTAINE	DATE 2-4-72	TITLE +5V REGULATOR
CHK'D. D.FONTAINE	DATE 2-4-72	digital
PROJ. ENG. G.POTTER	DATE 2-24-72	SIZE B / CODE DD / NUMBER H744-0 / REV R
PROD. A.HIRSCH	DATE 2-24-72	DIST.

DRB 106A





DETAIL A
FOR YA VARIATION ONLY

*FUSIBLE RESISTOR

[*] FOR YA VARIATION COMPONENT VALUES ARE AS FOLLOWS:
R4 - .06 5W
R14 - 1K 10 TURN
R 7 - 300 1/8W 1%
R19 - 150 1/4W 5%
D3 - IN754
I1 - 15V
J1-2,5 - +2.0-8.0V

* D9 - D664 ADDED FOR YA VARIATION ONLY

UNLESS OTHERWISE INDICATED:
RESISTORS ARE 1/4W, 5%

DEC NO.	EIA NO.	DEC NO.	EIA NO.
IN964A	SAME	MPSA55	
D664	IN3606	2N5302	
MCR649P-2		D45H8	
IN751A	SAME	MPSA05	
IN4744	SAME		
NSR8117			
2N6028			

SEMICONDUCTOR CONVERSION CHART

REVISIONS — CHANGE NO. — REV — CHK

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

ETCH BOARD REV F H

DRN. Roger V. Doucette — DATE 11-2-71
CHK'D. Nancy Moore — DATE 1-3-71
ENG. — DATE 1/7/72
PROJ. ENG. — DATE 1/7/72
PROD. — DATE 1/13/72
NEXT HIGHER ASSY

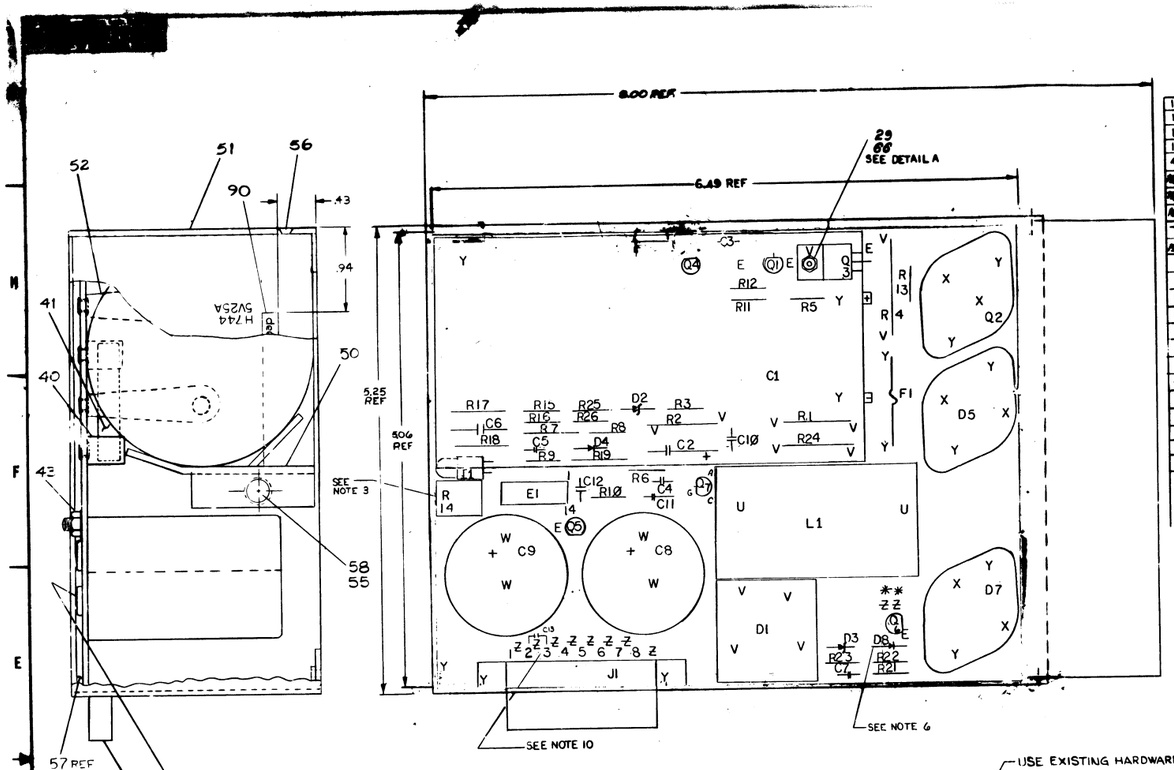
digital EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS

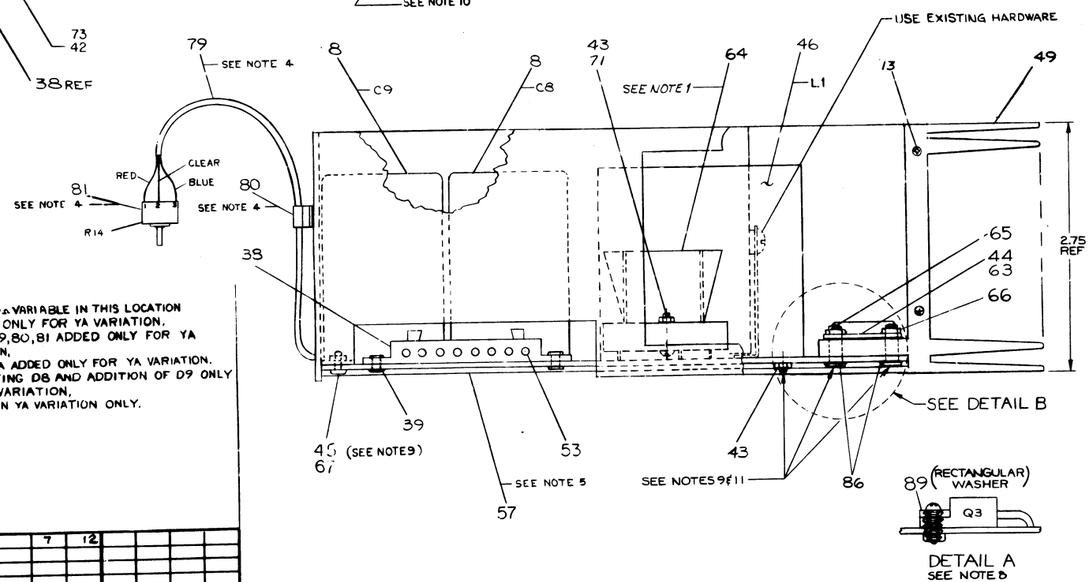
TITLE: 5V REGULATOR

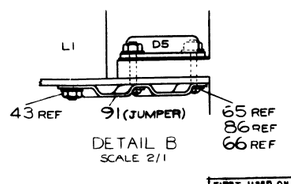
SIZE D — CODE CS — NUMBER H744-Ø-1 — REV. Y

SCALE
SHEET 1 OF 1
DIST.

DEC FORM NO. DRD-135







NOTES:

3. R14 - 200Ω VARIABLE IN THIS LOCATION DELETED ONLY FOR YA VARIATION.
4. ITEMS #79,80,81 ADDED ONLY FOR YA VARIATION.
5. ITEM #57A ADDED ONLY FOR YA VARIATION.
6. RELOCATING D8 AND ADDITION OF D9 ONLY FOR YA VARIATION.
7. USE D9 IN YA VARIATION ONLY.

NOTES CONT:

NOTE 8:
(1) Q3 SCREW HEAD SHOULD BE ON TOP OF FLAT RECTANGULAR WASHER AS SHOWN. APPLY 6 INCH LBS. OF TORQUE WHEN SECURING Q3 TO CKT. BOARD BEFORE SOLDERING.

NOTE 9: TORQUE APPLICATION
(1) APPLY 12 INCH LBS. OF TORQUE TO THE SCREWHEAD OF #4 HARDWARE EXCEPT Q3.
(2) APPLY 12 INCH LBS. OF TORQUE TO #6 HARDWARE ON L1.
(3) APPLY 16 INCH LBS. OF TORQUE TO ALL #6 AND #10 HARDWARE EXCEPT ON L1.
(4) ALL HARDWARE TO BE TORQUED BEFORE SOLDERING.

NOTE 10:
INSERT C13 INTO ETCH PAD HOLES CONNECTED TO J1 TERMINALS, 2-3.

NOTE 11:
MIN TORQUE REQUIRED FOR QC INSPECTION:
8 INCH LBS. FOR #4 HARDWARE;
12 INCH LBS. FOR #6 AND #10 HARDWARE.

*SEE NOTE 7

1. [illegible] 0) BETWEEN TRANSISTOR (Q2), [illegible] AND ITEM #44 (WASHER) ALSO BETWEEN ITEM #44 (WASHER) AND HEAT SINK (ITEM #49). ALSO APPLY ITEM #63 (COMPOUND) BETWEEN ITEM #9 (DIODE BRIDGE) AND ITEM #64 (HEAT SINK BRIDGE).

1	1	R22	RES 680 1/4W 5%	1301424	[illegible]
1	1		PACKING INSTRUCTIONS	API 3700074-0-0	70
1	1		SCR, PHL PAN HD #6-32 X 5/8 LG	9006025-1	71
1	ø	I1	15 VOLT LAMP	1209169	72
4	4		LOCKWASHER #10 INT	9006685	73
~~[illegible]~~	~~[illegible]~~		~~[illegible]~~	~~[illegible]~~	74
~~[illegible]~~	~~[illegible]~~		~~[illegible]~~	~~[illegible]~~	75
~~[illegible]~~	~~[illegible]~~		~~[illegible]~~	~~[illegible]~~	76
~~1~~	~~1~~	~~[illegible]~~	~~TRANSISTOR [illegible]~~	~~[illegible]~~	77
~~[illegible]~~	~~[illegible]~~		~~[illegible] SLEEVING~~	~~[illegible]-09~~	78
1	ø	12 IN	WIRE, MICRODOT	1700014	79
1	ø		CLAMP, CABLE	9007079	80
1	ø	R14	POT, 10 TURN, 1KΩ	1309532-04	[illegible]
1	ø	R17	RES, 300Ω 1/4W 5%	1301425	[illegible]
1	ø	R18	RES, 150Ω 1/4W 5%	1300250	[illegible]
1	ø	R4	RES, .06Ω 5W 3%	1310876-02	[illegible]
1	ø	D3	DIODE ZENER 1N754	1109991	[illegible]
6	6	-	WASHER, INT TOOTH #4	9006632	[illegible]
1	1	C7	CAP .22 µf 50V	1010274	87
1	1	R13	RES 10 1/4W 5% FUSIBLE	1312496	[illegible]
1	1	-	WASHER, RECTANGULAR	9009769	[illegible]
1	1	-	DECAL (H744)	ADC-7416945-1-0	90
1	1	-	JUMPER	1214074	91

H744-YA	H744				
ø	1	I1	5 VOLT LAMP	12-09219-1	68
2	2		WASHER #4	9006632	67
7	7		NUT KEPS #4-40	9006657	66
6	6		SCR. PHL PAN HD. #4-40×9/16 LG	9008033-1	65
1	1		HEAT SINK BRIDGE	1210907	64
AR	[illegible]		COMPOUND THERMAL JOINT	[illegible]	63
1	1	R26	RESISTOR 1.5K 1/4W 5%	[illegible]	62
1	1	R10	RESISTOR 7.5K 1/8W 1%	1305322	61
1	1	[illegible]	RESISTOR 12K 1/4W 5%	1300488	60
1	1	[illegible]7	TRANSISTOR, UNIJUNCTION 2N[illegible]	1510877	59
1	1		SCR. PHL PAN HD #6-32 X 1/4 LG	9006020-1	58
~~[illegible]~~	~~[illegible]~~		~~COVER~~	~~C-MD-5309760-0~~	57
1	1		SCR. PHL FLT HD #6-32 x 3/16 LG	9008[illegible]20-2	56
1	1		WASHER, LOCK #6	9006633	55
~~[illegible]~~	~~[illegible]~~		~~SCR. PHL FLT HD #4-40 X 1/4 LG~~	~~9006008-2~~	54
8	8		CONTACT FEMALE	1209456	53
2	2		STRAP, CAPACITOR	C-MD-5309759-0	52
1	1		BRACKET, REGULATOR	D-IA-5309756-09	51
1	1		HOLDER, CAPACITOR 2.5	C-IA-12388-0-0	50
1	1		HEAT SINK REGULATOR	D-PS-1210737-0-C	49
2	2	C8, C12	CAP 56 PF	1000012	48
1	1	R24	RESISTOR 10 1W	1300171	47
1	1	L1	REACTOR 60 µHY MMC4347	1610850	46
2	2		SCR, PHL PAN HD #4-40 1/4 LG	9008201-1	45
3	3		WASHER, INSULATOR	9006721	44
3	3		NUT, KEPS #6-32	9008185	43
4	4		SCR #10-32 X.31 SLOTTED PAN HD	9009669-01	42
1	1	F1	FUSE 15 AMP	1213237-01	41
2	2		FUSE CLIP	9007203	40
6	6		EYELET GS-4-5	9009000	39
1	1	J1	MATE-N-LOCK CONN, 8 PIN	1209340	38
1	1	E1	INTEGRATED CIRCUIT DEC 723C	1910415	37
1	1	Q5	TRANSISTOR A05	1510705	36
1	1	Q3	TRANSISTOR D45H8	1510708-1	35
3	3	Q1, Q6, Q4	TRANSISTOR MPSA55 MOT	1510706	34
1	1	Q2	TRANSISTOR 2N5302	1510196	33
ø	1	R14	RES VARIABLE 200	1310852	32
1	1	R21	RES 5.1 1/4W 5%	1309422	31
1	1	R23	RES 100 1/4W 5%	1300229	30
1	1		SCR, PPH #4-40 X 3/8	9006011-1	29
1	1	R11	RES 27 1/4W 10%	1301420	28
ø	1	[illegible]	RES 750 1/8W, 1%	1302955	27
1	1	R9	RES 27 1/4W 5%	1301522	26
1	1	R7	RES 18.2K 1/8W, 1%	1309412	25
2	2	R8, R16	RES 1K 1/4W 5%	1300365	24
ø	1	R18	RES 511 1/8W 1%	1302411	23
1	1	R25	RES 18 K 1/4W 5%	1302465	22
2	2	R6, R15	RES 10 K 1/4W 5%	1300479	21
ø	1	R4	RES .02 5W 3%	1310876	20
1	1	R2	RES 820 1W 10%	1300358	19
1	1	R1	RES 3.9K 1W 10%	1302927	18
1	1	R3	RES 10 1/4W 5%	1301317	17
2	2	R[illegible], R10	RES 150 1/4W 5%	1300250	16
ø	1	D3	DIODE ZENER 1 MA. 5.1V	1110925	15
1	1	D7	SCR MCR 649P-2	1109465	14
4	4		SCR, PFH #4 X 5/16 LG SELF TAP.	9009142	13
1	1	D5	DIODE PWR NSR 8117	1110715	12
3	2	D4, D8 D9*	DIODE PWR D664	1100114	11
1	1	D2	DIODE ZENER 1N4744	1105648	10
1	1	D1	DIODE BRIDGE	1110714	9
2	2	C8, C9	CAP 6K µf 10V	1010704	8
1	1	C1	CAP 31 K µf 30V	1010858	7
2	2	C4, C[illegible]	CAP [illegible] µf 35V	1001774	6
1	1	C[illegible]	CAP .033 µf 100V 10%	1000050	5
1	1	C11	CAP 2700PF 100V 5% DM	1001837	4
2	2	C10, C13	CAP .01 MF 100V 20% DISC	1001610	3
1	1	C6	CAP 2.2 UF, 20V, 10%	1002627	2
1	1		ETCHED CIRCUIT BOARD	5009725	1
			ASSY/DRILLING HOLE LAYOUT	D-AH-H744-[illegible]-5	
			X-Y COORDINATE HOLE LOCATION	K-CO-H744-[illegible]	REF
			MODULE ECO HISTORY	B-MH-H744-[illegible]	REF
			CIRCUIT SCHEMATIC	[illegible]H744-[illegible]	REF
QTY	QTY.	REF DESIGNATION	DESCRIPTION	PART NO.	

PARTS LIST

µA 723C	7	12
IC TYPE	GND	+5V

IC PIN LOCATIONS

JUMPER LIST

FIRST USED ON OPT/MOD
D-UA-H742A-0-0

ETCH BOARD REV H

D664	1N3606
1N4744	

A. BARON
H744-00019
Z

5V REGULATOR

Z

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

THIS IS PRINT SET

SEQUENCE

DRAWING DIRECTORY	B-DD-H745-Ø
CIRCUIT SCHEMATIC	D-CS-H745-Ø-1
UNIT ASS'Y	E-UA-H745-Ø-Ø

SEQUENCE

MFG. SET

TEST PROCEDURE	A-SP-11/45-TA-2
MFG. SPEC.	A-SP-H745-Ø-8
PACKAGING INSTRUCTION	A-PI-3700074-0-0

UNIT VARIATIONS

VAR	TITLE	PRINT SET H745-1			
H745	-15V REGULATOR	X			

REVISIONS

REV	CHG. NO.	DATE
K	H745-16	
L	H745-17	
M	H745-18	
N	H745-19	9-76
P	H745-20	10-76

USED ON OPTION/MODEL	
11/45	

SHEET 1 OF 2

DRN.	D. FONTAINE	DATE 2-7-72
CHK'D.	J GAUDETTE	DATE 2-17-72
PROJ ENG.	G POTTER	DATE 2-25-72
PROD.	A HUSCH	DATE 2-25-72
FIELD SERV.	A. ZINS	DATE 2-25-72

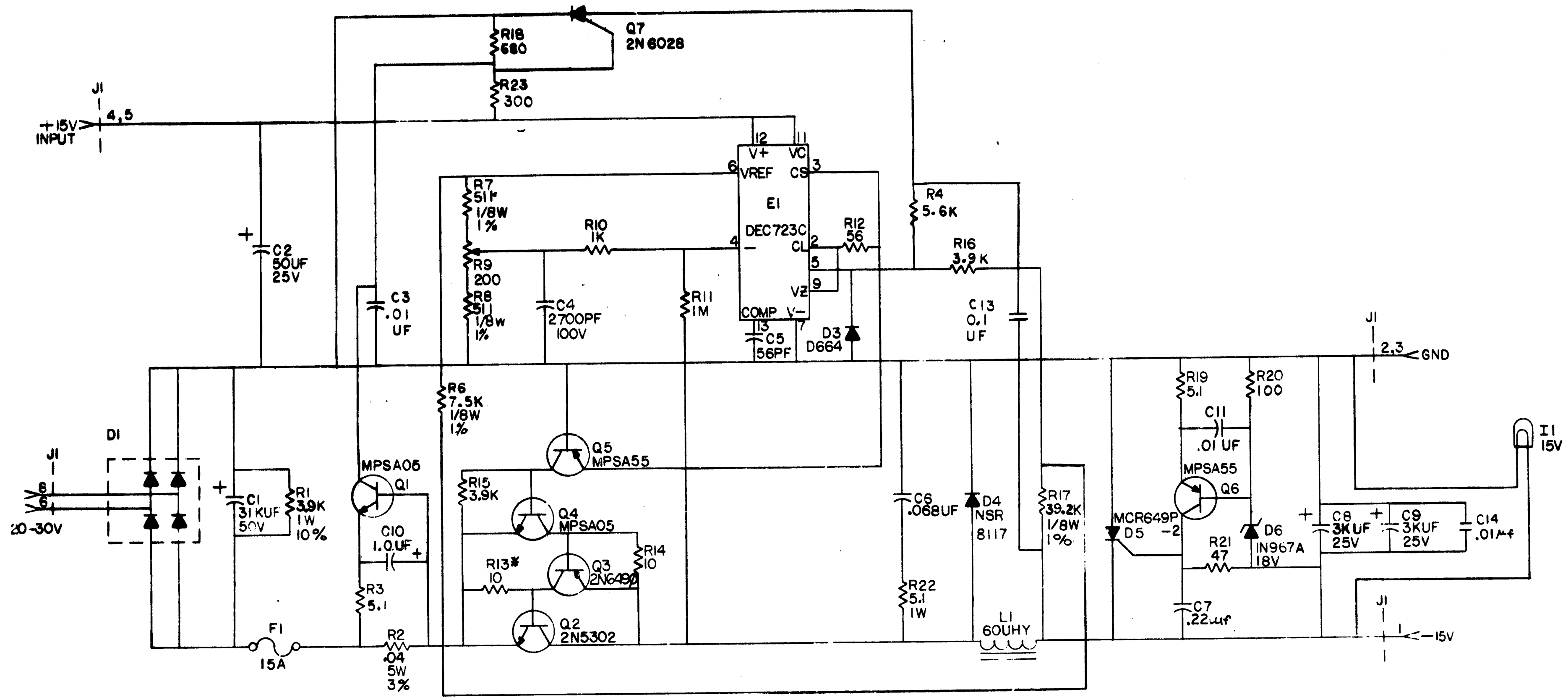
TITLE: -15V REGULATOR

SIZE	CODE	NUMBER	REV
B	DD	H745-Ø	P

DIST

DEC 16-(325)-1062-1A-R672

DRB 106



* FUSIBLE

UNLESS OTHERWISE INDICATED:

RESISTORS = 1/4W, 5%

SEMICONDUCTOR CONVERSION CHART

DEC NO.	EIA NO.	DEC NO.	EIA NO.
D664	1N3606	D45H8	
NSR 8117		2N 6028	
MCR 649P-2			
1N 967A	SAME		
2N 5302			
MPS A05			
MPS A55			

REVISIONS: REV E — CHANGE NO. H745-00021 — A. BARON

PARTS LIST

QTY	REF DESIGNATION	DESCRIPTION	PART NO	ITEM NO.
	ETCH BOARD REV E			

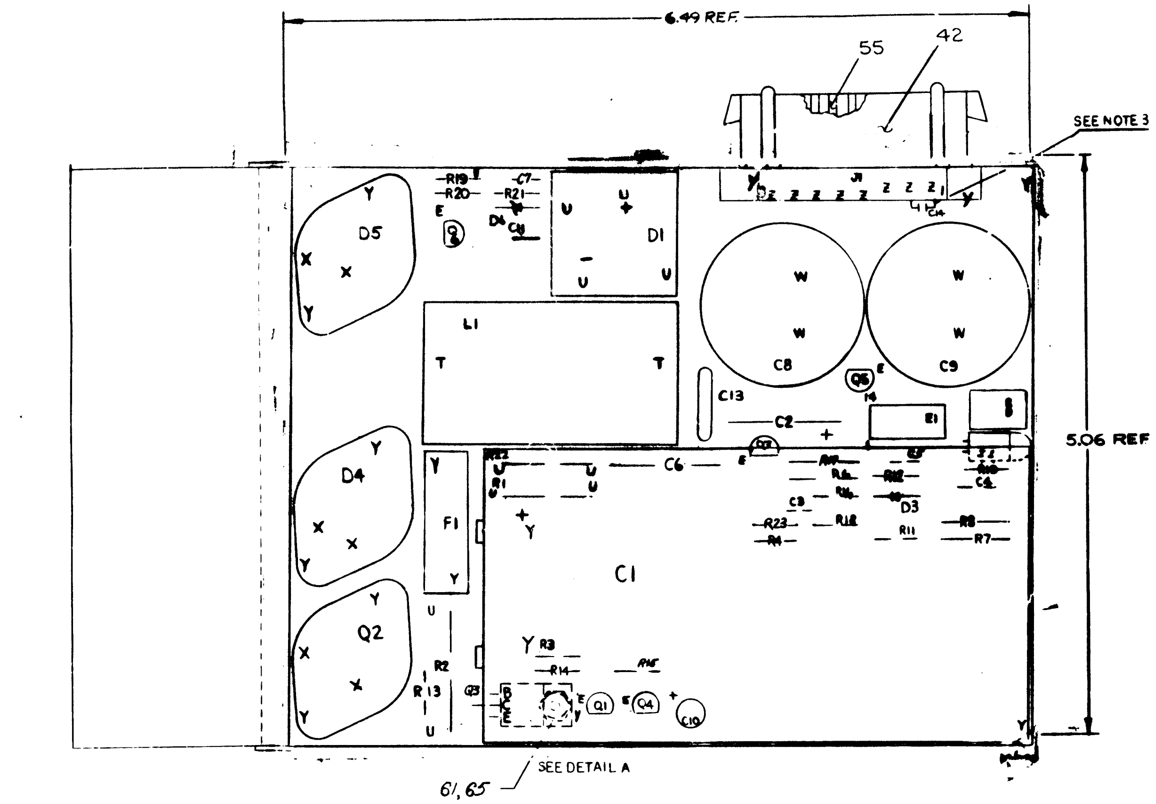
DRN. DATE 11-4-71
CHK'D. DATE 11-4-71
ENG. DATE
PROJ. ENG. DATE
PROD. DATE
NEXT HIGHER ASSY
SCALE
SHEET 1 OF 1

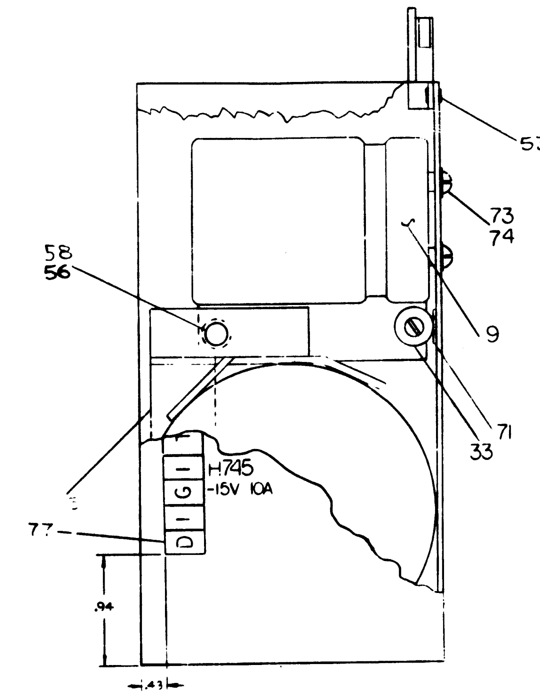
DIGITAL EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

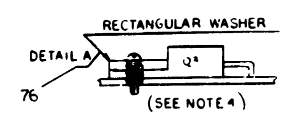
TITLE: —15V REG.

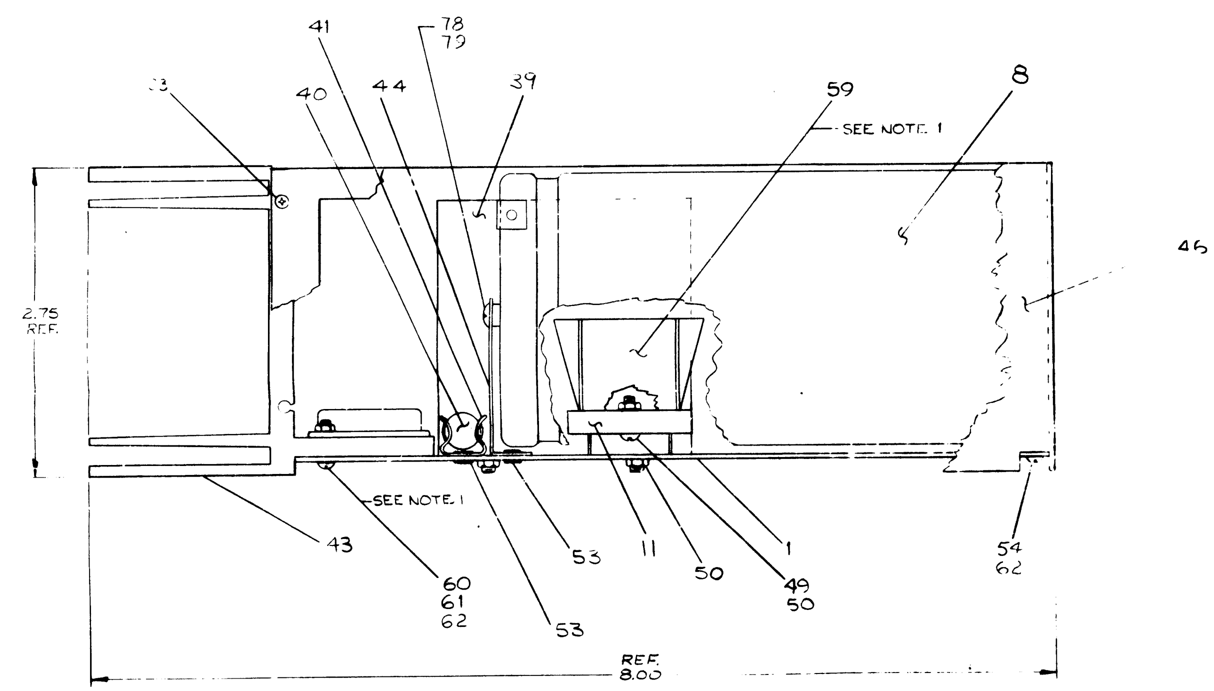
SIZE D CODE CS NUMBER H745-Ø-1 REV E

DEC FORM NO. DRD-138









NOTE:
3. INSERT C14 INTO ETCH PAD HOLES CONNECTED TO J1 TERMINALS 1-2.

NOTE 4:
Q3 SCREW HEAD SHOULD BE ON TOP OF FLAT RECTANGULAR WASHER AS SHOWN. APPLY 6 INCH LBS. OF TORQUE WHEN SECURING Q3 TO CKT. BOARD BEFORE SOLDERING.

NOTE 5: TORQUE APPLICATION
(1) APPLY 12 INCH LBS. OF TORQUE TO ALL #4 HARDWARE EXCEPT Q3.
(2) APPLY 16 INCH LBS. OF TORQUE TO ALL #6 AND #10 HARDWARE.
(3) ALL HARDWARE TO BE TORQUED BEFORE SOLDERING.

NOTE:
1. APPLY ITEM #51 (THERMAL COMPOUND) BETWEEN TRANSISTOR AND INSULATOR, WASHER (ITEM #52 ALSO BETWEEN WASHER & HEAT SINK FOR Q2, Q4 & D5. ALSO APPLY ITEM #51 (COMPOUND) BETWEEN ITEM #11 (DIODE BRIDGE AND ITEM #59 (HEAT SINK).
2. 1010621 MAY BE SUBSTITUTED FOR C13 (1000030).

QTY.	REF DESIGNATION	DESCRIPTION	PART NO.	
		ASSY/DRILLING HOLE LAYOUT	D-AH-H745-0-5	70
1		PACKING INSTRUCTIONS	API-3700074-0-0	69
1	R18	RES. 680 1/4W 5%	1301424	68
1	R23	RES. 300 1/4W 5%	1301425	67
1	C13 (SEE NOTE 2)	CAP. 0.1 UF 100V 20%	1000030	66
1		SCR PH #4-40 X 5/16 LG	9006010-1	65
1	I1	LAMP 15V	1209169	64
4		SCR, PFH #4 X 5/16 LG, SELF TAPPING	9009142	63
8		L. WASHER #4	90066[illegible]	62
7		NUT KEPS #4-40	9008557	61
6		SCR PHL PAN HD #4-40 X [illegible] LG	[illegible]	60
1		HEAT SINK BRIDGE RECT	1210907	59
1		SCR PHL PAN HD #6-32 X 1/4 LG	9006020-1	58
1		SCR PHL FLT HD #6-32 X 1/4 LG	9006020-02	57
1		WASHER LOCK #6	[illegible]633	56
8		CONTACT FEMALE	1209456	55
2		SCR PHL PAN HD 4-40 X 1/4 LG	[illegible]	54
6		EYELET GS-4-	[illegible]	53
3		INSULATOR WASHER	9006721	52
A/R		THERMAL COMPOUND	9308280	51
3		NUT KEPS 6-32	9008135	50
1		SCREW PHL PAN HD 6-32 X 5/8 LG	9006025-01	49
4		~~SCREW PHL FLT HD 4-40 X 1/4 LG~~	~~9006009-2~~	48
1		~~COVER COMPONENT~~	~~C-MD-5300760-0-0~~	47
1		REGULATOR BRKT	D-IA-5300756-0-	46
1		2.5 HOLDER CAPACITOR	C-IA-7412 [illegible] 0	45
2		STRAP CAPACITOR	C-MD-5300759-0-0	44
1		HEAT SINK	D-PS-1210737-0-0	43
1	J1	CONN. MATE-N-LOCK 8 PIN	1208340	42
2		FUSE CLIP	9007203	41
1	F1	FUSE	1213237-01	40
1	L1	REACTOR 60 UHY	1610850	39
1	E1	INTERGRATED CIRCUIT UA723C	1910415	38
1	Q3	TRANSISTOR 2N-4332	1512652-01	37
2	Q5 Q6	TRANSISTOR A55	1510706	36
2	Q1, Q4	TRANSISTOR A05	1510705	35
1	Q2	TRANSISTOR 2N5302	1510196	34
1	R9	RES VARIABLE 200 Ω, 20%	1310852	33
1	R20	RES 100 1/4W 5	1300229	32
1	R11	RES 1 MEG 1/4W 5	130[illegible]	31
1	R4	RES 5.6K 1/4W 5%	130[illegible]74	30
2	R15, R16	RES 3.9K 1/4W 5	1300444	29
2	R19, R3	RES 5.1 1/4W 5	1309422	28
1	R12	RES 56 1/4W 5	1302602	27
1	R21	RES 47 1/4W 5	1300202	26
1	R17	RES 39.2K 1/8W 1%	1305265	25
1	R10	RES 1K 1/4W 5	1300365	24
1	R14	RES 10 1/4W 5	1301317	23
1	R6	RES 7.5K 1.0W 1	1303322	22
2	R7, R8	RES 511 1.0W 1	1302411	21
1	R22	RES 5.1 1W 5	1302136	20
1	~~R24~~	~~RES 10K 1/4W 5~~	~~[illegible]~~	19
1	R2	RES .04 [illegible] 3%	1311362-00	18
1	R1	RES 3.9K 1W 10	1302927	17
1	D6	DIODE [illegible]	1110098	16
1	D5	SCR MCR649P-2	1109485	15
1	D4	DIODE NSR8117	1110715	14
1	D3	DIODE D664	1100114	13
1	Q7	TRANSISTOR UNI JUNCTION 2N6028	1510877	12
1	D1	DIODE BRIDGE	1110714	11
1	~~C12~~	~~CAP 150UF 20V 10%~~	~~1004812~~	10
2	C8 C9	CAP 3.0K UF 25V	1010703	9
1	C1	CAP 31K UF 50V	1010850	8
1	C10	CAP 1.0 UF 25V	1010866-01	7
1	C2	CAP 50 UF 25V -10+75%	1001796	6
1	C6	CAP .068 UF 100V 10%	1000052	5
1	C4	CAP 2700PF 100V 5%	1001637	4
3	C11, C3, C14	CAP .01UF 100V 20	1001610	3
1	C5	CAP [illegible] 100V 5%	[illegible]	2
1		ETCHED CIRCUIT BOARD	[illegible]	1
		MODULE ECO HISTORY	[illegible]	REF
		CIRCUIT SCHEMATIC	[illegible]745-0-1	REF
		X-Y COORDINATE HOLE LOCATION	[illegible]	REF

QTY.	REF DESIGNATION	DESCRIPTION	PART NO.	
		[illegible] (H745)	7416945-02	80
2		WASHER INT. TOOTH #10	9006635	79
2		SCREW PAN 10-32 [illegible]	9009669-01	78
1	C7	CAP .22 UF 50V	1010274	77
1		WASHER, RECTANGULAR	9009769	76
1	R13	RES 10Ω 1/4W, FUSIBLE	1312496-00	75
4		LOCKWASHER #10 INT	9006635	74
4		SCR #10-32 X.31 SLOTTED FIN HD.	9009669-01	73
				72
1		TRANSIPAD	9008206	71

PARTS LIST

ETCH BOARD REV E

DEC NO.	EIA NO.
0664	IN3606

SEMICONDUCTOR CONVERSION CHART

IC TYPE | GND | +5V

IC PIN LOCATIONS | JUMPER LIST

EQUIPMENT CORPORATION

TITLE -15 REGULATOR

E | UA | H745-0-0

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

THIS IS PRINT SET

	SEQUENCE		SEQUENCE
DRAWING DIRECTORY	B-DD-H746-Ø		
CIRCUIT SCHEMATIC	D-CS-H746-Ø-1		
UNIT ASS'Y	E-UA-H746-Ø-Ø	MFG SET	
		TEST PROCEDURE	A-SP-H746-Ø-3
		MFG SPEC.	A-SP-H746-Ø-8
		PACKAGING INSTRUCTION	A-PI-3700074-0-0

UNIT VARIATIONS

VARIATION	TITLE	PRINT SET TYPE: H746-1
H746	MOS REGULATOR	X

REVISIONS		
REV	CHG. NO.	DATE
A	-00005	[illegible]
B	-00006	[illegible]
C	-00007	[illegible]
D	-00012	[illegible]
E	-00013	5-76

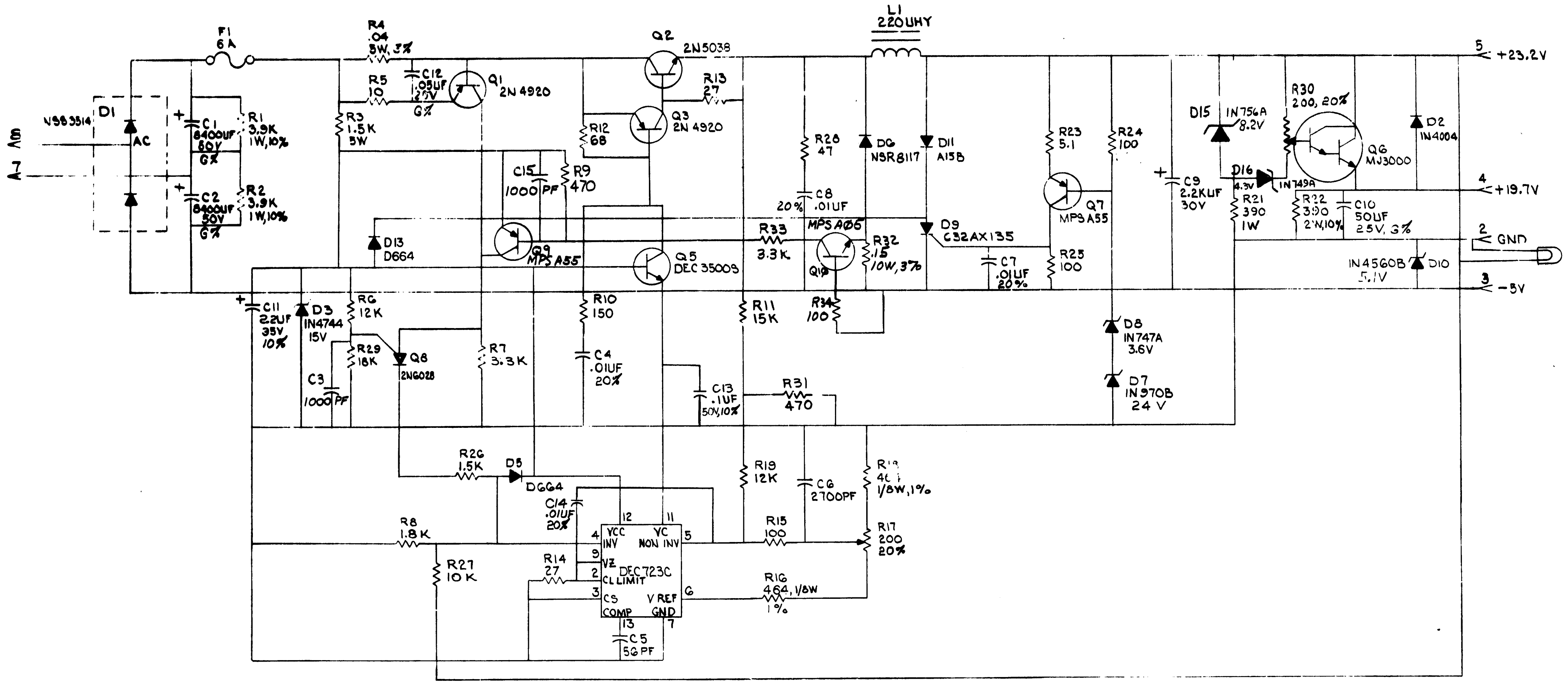
USED ON OPTION/MODEL	
11/	

DRN.	DATE	TITLE: MOS REGULATOR
CHK'D.	DATE	
PROJ ENG.	DATE	
PROD.	DATE	
FIELD SERV.	DATE	
SHEET 1 OF		DIST

SIZE	CODE	NUMBER	REV
B	DD	[illegible]	E

DRB 106

DEC 16—(325)—1062—1—N871



UNLESS OTHERWISE INDICATED:
CAPACITORS = 100V, 5%
RESISTORS = 1/4W, 5%
G% = -10% + 75%

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

ETCH BOARD REV H

REVISIONS

REV	CHANGE NO.	CHK
P	H746-00011	R. WOLF 3/27/74
N	H746-00010	R. WOLF
M	H746-00009	R. WOLF 11-2-73
L	H746-00008	R. WOLF
K	H746-00007	R. WOLF 4/13/73
J	H746-00006	G. POTTER 12-5-72
H	H746-00005	J.W. LAWRENCE 10/6/72; S. Blake 10-5-72
F	H746-00004-C	G. POTTER 6-4-72
E	H746-00003	G. POTTER
D	H746-00002	G. POTTER 3-27-72
	H746-00001-A	

SEMICONDUCTOR CONVERSION CHART

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

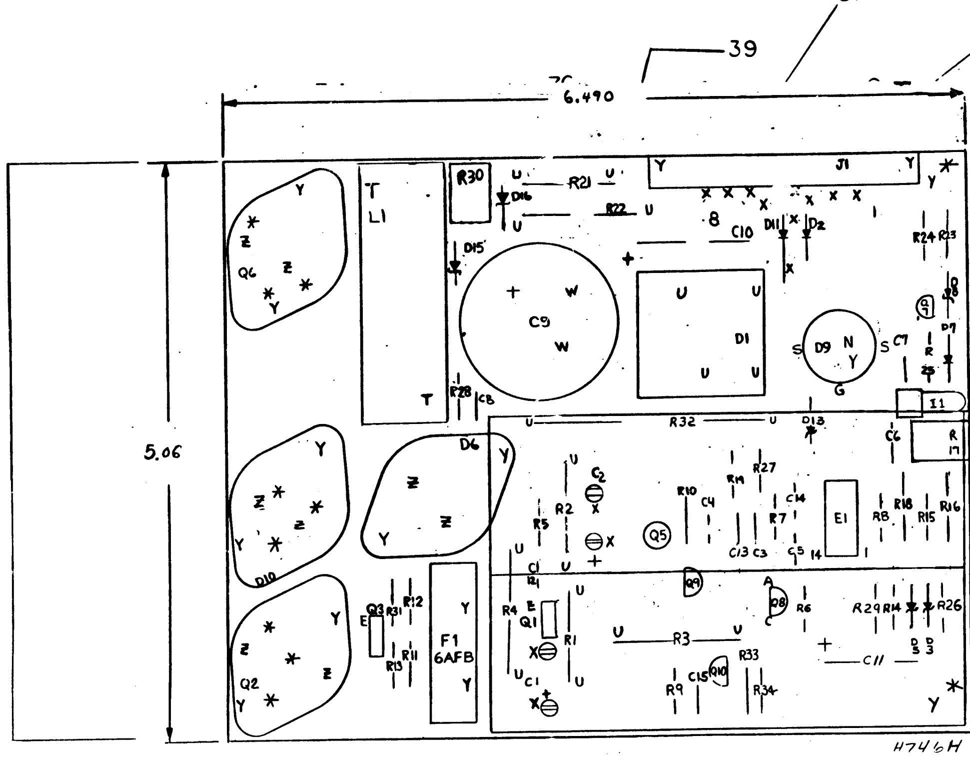
DRN. Roger J. Fouquette — DATE 8 Jan 72
CHKD — DATE 2/1/72
ENG. — DATE
PROJ. ENG. — DATE
PROD. — DATE 2/3/72
NEXT HIGHER ASSY
SCALE
SHEET 1 OF 1
DIST.

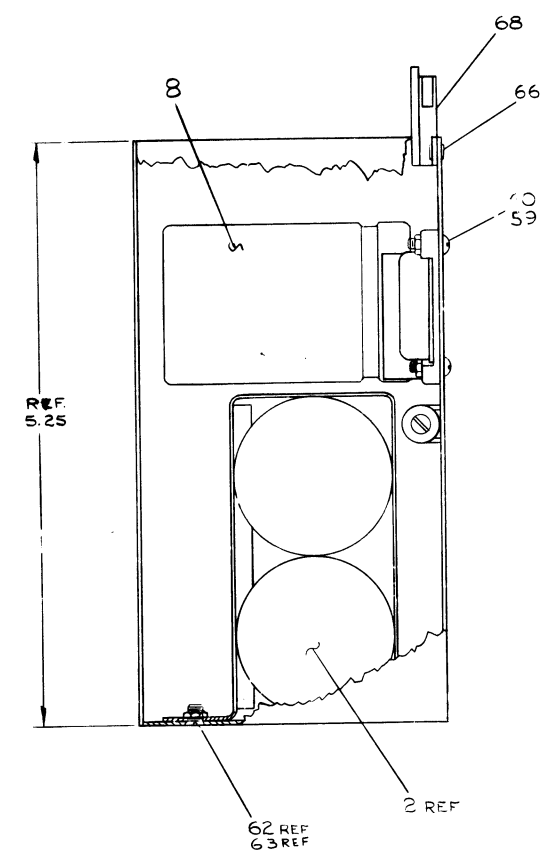
digital EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS

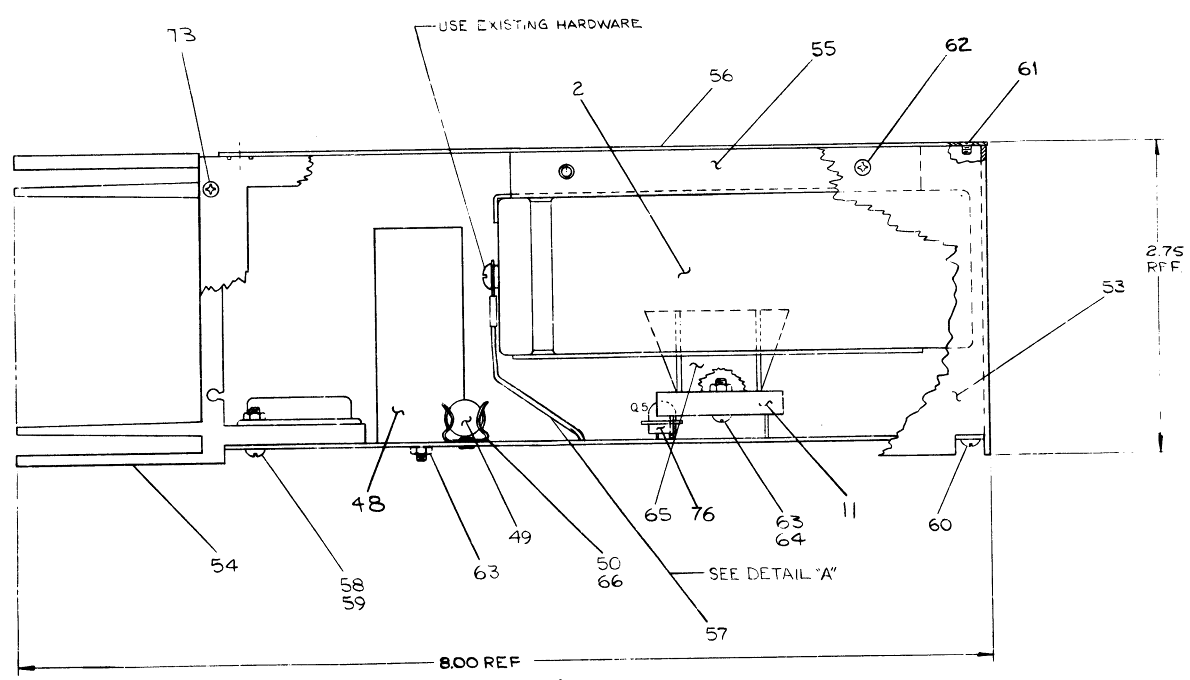
TITLE: MOS REGULATOR

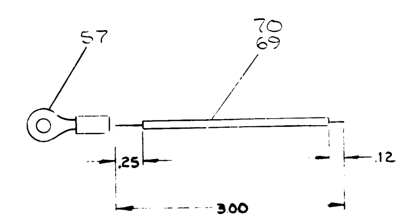
SIZE D | CODE CS | NUMBER H746-0-1 | REV. P

DEC FORM NO DRD-1









DETAIL "A"

RED WIRE GOES TO POSITIVE TERMINAL
BLK WIRE GOES TO NEGATIVE TERMINAL

NOTE:
APPLY ITEM 71 (COMPOUND) ON:
1. BOTH SIDES OF INSULATOR WASHERS FOR Q2, Q6, D6, D10.
2. BETWEEN ITEM #11 DIODE BRIDGE (D1) AND ITEM #65 HEAT SINK.

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
2	R7, R33	RES. 3.3K, 1/4W, 5%	13-00439	29
1	R8	RES. 1.8K, 1/4W, 5%	13-00398	74
1	R32	RES. .15Ω 10W, 3%	13-11625	25
1	D9	SCR C 32AX135	15-10928	15
1	Q10	TRANSISTOR A05 (MOT)	15-10705	84
2	C3, C15	CAP. 1000PF, 100V DM	10-00042	83
1	C13	CAP. .1UF, 50V, 10%	10-10978-36	92
1	R12	RES 68, 1/4W, 5%	13-00219	81

PARTS LIST

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
		ASSY/DRILLING HOLE LAYOUT	D-AH-746-0-5	REF
1		PACKING INSTRUCTIONS	API-3700074-0-0	80
1	D15	DIODE IN756A	11-03441	79
1	R21	RES. 390, 1W, 5%	13-02384	78
1	I1	LAMP, 28V	12-11239	77
2		TRANSIPAD	90-08205	76
1	D8	DIODE IN747A	1110672	75
4		SCR PHL FLAT HD. #4 SELF TAPPING	9009142-02	73
4		WASHER INSULATOR	9006721	72
AR		COMPOUND THERMAL	9008268	71
AR		#18 AWG STRD TEF INS (BLK)	9107360-00	70
AR		#18 AWG STRD TEF INS (RED)	9107360-22	69
1		MATE-N-LOCK CONN 8 PIN	1209340	68
8		CONTACT FEMALE	1209456	67
4		EYELET GS-4-7	9006732	66
1		HEAT SINK, BRIDGE	12 0807	65
1		SCR PHL PAN HD 6-32 X 5/8	9006025-1	64
5		KEPS NUT 6-32	9008185	63
2		SCR PHL FLAT HD 6-32 X 5 16	9006021-2	62
4		SCR PHL FLAT HD 4-40 X 1 4	900 009-2	61
4		SCR PHL PAN HD. 4-40 X 3 8	9006011-1	60
8		KEPS NUT 4-40	9006557	59
6		SCR PHL PAN HD 4-40 X 1 2	9006013-1	58
4		TERMINAL RING	9007930	57
1		COVER COMP	C-MD-5309760-0-0	56
1		1.5 CAP. BRKT	C-IA-5309758-0-0	55
1		HEAT SINK, REGULATOR	D-PS-1210737-0-0	54
1		BRACKET, REG.	C-IA-5309750-0-3	53
4		SPLIT LUG	9006735	52
1	Q8	TRANSISTOR 2N6028	15-10877	51
2		FUSE CLIP	9007203	50
1	F1	FUSE AGC6	9007989	49
1	L1	REACTOR 220UHY	16-10849	48
1	E1	INTEGRATED CIRCUIT UA 723C	19-10415	47
2	Q7 Q9	TRANSISTOR A55 (MOT)	15-10706	46
1	Q6	TRANSISTOR MJ3000 (MOT)	15-11349	45
1	Q5	TRANSISTOR DLC3500S	15-03209	44
1	Q2	TRANSISTOR 2N5038	15-10868	43
2	Q1, Q3	TRANSISTOR 2N4920	15 09605	42
2	R17, R30	RES VARIABLE 200, 20%	13-10852	41
1	R23	RES 5.1 1/4W 5	13 09422	40
2		#10 LOCKWASHER EXTERNAL TOOTH	90-07651	39
2	R31 R9	RES 470 1/4W 5	13-00316	38
1	R11	RES 15K 1/4W 5	13-00496	37
1	R10	RES 150 1/4W 5	13-00250	36
1	R27	RES 10K 1/4W 5%	13-00479	34
2	R6, R19	RES 12K 1/4W 5	13 00488	33
4	R15, R25, R24, R34	RES 100 1/4W 5	13-00229	32
2	R13, R14	RES 27 1/4W 5%	13-01522	31
1	R5	RES 10 1/4W 5%	13 01317	30
				23
				28
2	R16 R18	RES 4641 1/8W 1	13-03047	27
1	R29	RES 18K 1/4W 5	13-02465	26
1	C11	CAP, 2.2UF 35V 10%	10-02431	26
1	R4	RES .04 5W 3%	13-11362	24
1	R3	RES 1.5K 5W 5%	13-01897	23
1	R22	RES 390 2W 10%	13-01880	22
1	R26	RES 1.5K 1/4W 5%	13-00391	21
2	R1 R2	RES 3.9K 1W 10	13-02927	20
1	R28	RES 47 1/4W 5%	13-00202	19
1	D11	DIODE IN5624	11-10420	18
1	D2	DIODE IN4004	11-05796	17
1	D10	DIODE IN4560B	11-10855	16
1	D7	DIODE IN970B	11-10856	14
1	D6	DIODE TRWNSR8117	11-10715	13
1	D3	DIODE IN4744	11-05648	12
1	D1	DIODE NSS 3514	11-10714	11
2	D5, D13	DIODE D064	11-00114	10
1	C10	CAP 50UF 25V -10+75	10-01796	9
1	C9	CAP 2.2K UF 30V	10-10859	8
4	C7, C8, C4, C14	CAP .01UF 100V 20%	10-01610	7
1	C6	CAP 2700PF 100 5%	10-01637	6
1	C5	CAP 56PF 100V 5%	10-00012	5
1	D16	DIODE IN749A	11-03977	4
1	C12	CAP .05UF 25V	10-01774	3
2	C1 C2	CAP 8.4KUF 50V	10-10851	2
1		ETCHED CIRCUIT BOARD	5009721	1
		MODULE ECO HISTORY	B-MH-H746-0-6	REF
		X-Y COORDINATE HOLE LOCATION	K-CO-H746-0-4	REF
		CIRCUIT SCHEMATIC	D-CS-H746-0-1	REF

PARTS LIST

ETCH BOARD REV H

DEC NO.	EIA NO.	DEC NO.	EIA NO.
D664	IN3606		
IN4001	SEE MR 2069		

SEMICONDUCTOR CONVERSION CHART

IC TYPE	GND	+5V
	7	12

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY. EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

ITEM NO.	AWG	FROM PT	TO PT

JUMPER LIST

REVISIONS: H746-00011 P; H746-00010 N; H746-00009 M; H746-00008 L; H746-00007 K; H746-00006 J; H746-00005 H; H746-00004 F; H746-00003 E; H746-00002 D; H746-00001+IA C

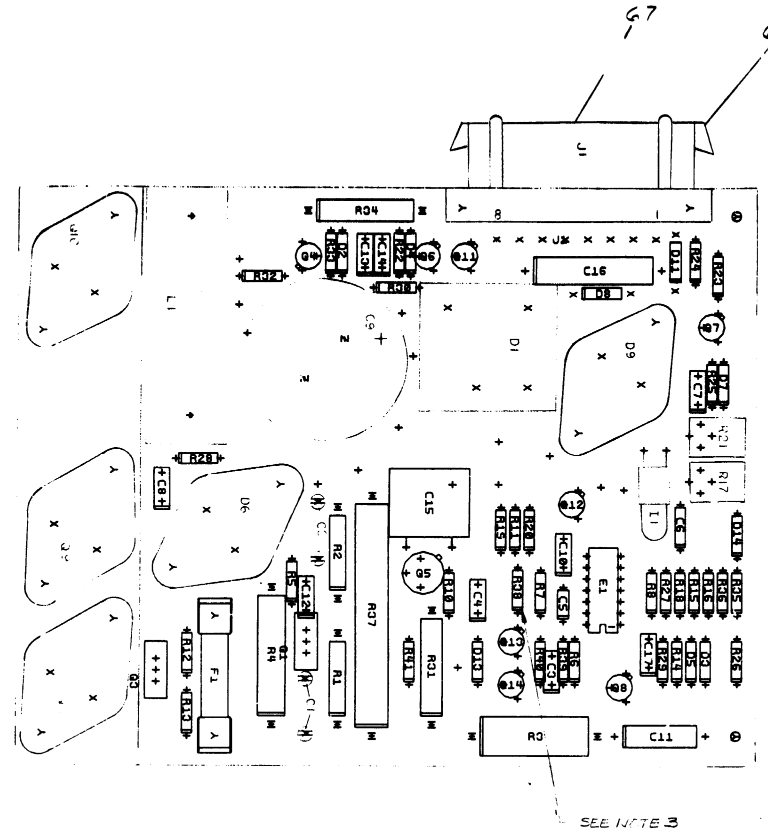
DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS

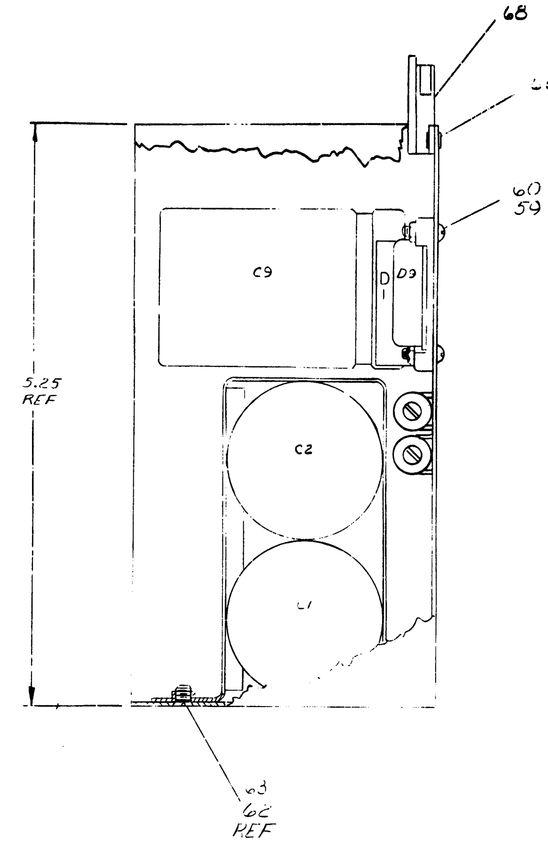
TITLE: MOS REGULATOR

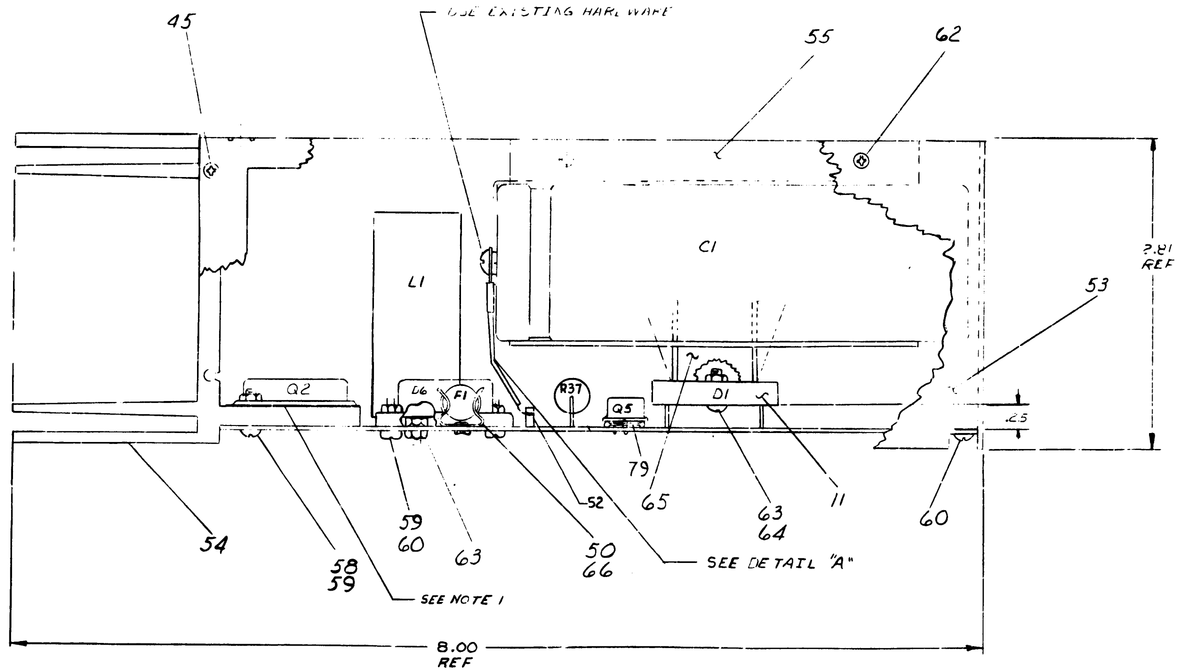
SIZE E, CODE UA, NUMBER H746-0-0, REV. P

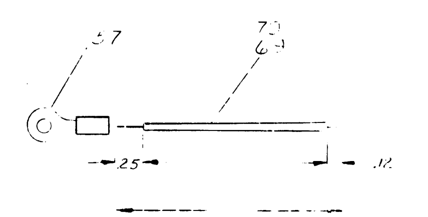
SCALE NONE, SHEET 1 OF 1

NEXT HIGHER ASSY









DETAIL "A"
SCALE: NONE
RED WIRE TO POSITIVE TERMINAL
BLK WIRE TO NEGATIVE TERMINAL

DELETED COMPONENTS	
RESISTORS	R9
DIODES	D10, D12

NOTES:

1. APPLY ITEM #71 (COMPOUND) ON BOTH SIDES OF ITEM #72 (INSULATOR WASHER) FOR Q2, Q9, Q10. ALSO APPLY BETWEEN ITEM #11 (DIODE BRIDGE D1) AND ITEM #65 (HEAT SINK, BRIDGE RECT)
2. UNLESS OTHERWISE INDICATED: RESISTORS ARE 1/4W, ±5%. CAPACITORS ARE 100V, ±5%.
3. ADD INSULATION (9107256-11) TO BOTH LEADS OF R38 TO AVOID SHORT TO ETCH.

PARTS LIST

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
1	C7	CAP .22 uf 50V	1010274	93
1	Q1	TRANSISTOR 2N4920-1	1509605-1	92
1	R13	RES. 27Ω 1/4W 5% FUSIBLE	1312496-01	91
A/R		INSULATION	9107256-11	90
1	R39	RES 220 1/4W 5%	1300271	89
1	R37	RES. .1 10W 1%	1309108	88
1	R38	RES. 1K 1% THERMISTOR	1310071	87
1	C16	CAP. 100uF 25V	1002781	86
1	Q10	TRANSISTOR MJ900	1510712	85
1	Q9	TRANSISTOR MJ3001	1511349	84
1	C13	CAP. 100 PF 100V ±5% DM	1000016	83
				82
2	Q4, Q14	TRANSISTOR MPS A05	1510705	81
1	D2	DIODE D003	1100100	80
2	(UNDER Q5 & R21)	TRANSIPAD	9031200	79
1	R31	RES .15Ω 2W 10%	1310127	78
2	C14, C17	CAP. 1000 PF, 100V, ±5% DM	1000042	77
1	R22	RES 383Ω 1/8W ±1%	1305125	76
2	R33, R8	RES 1.78K 1/8W ±1%	1302612	75
1	R11	RES 15K 1/4W ±5%	1300496	74
1	R20	RES 470Ω 1/4W ±5%	1300316	73
3		WASHER INSULATOR	9006721	72
A/R		COMPOUND, THERMAL	9006268	71
A/R		WIRE, #18AWG, STR. ... IN (BLK)	9107360-00	70
A/R		WIRE #18AWG, STR. ... PVC IN (RED)	9107360-22	69
1	J1	MATE-N-LOCK CONN 8 PIN	1209340	68
8		CONTACT, MATE-N-LOCK	1209456	67
4		EYELET GS-4-7	9006732	66
1		HEAT SINK BRIDGE RECTIFIER	1210907	65
1		SCR PHL PAN HD 6-32 X ½	9006024-1	64
5		KEPS NUT 6-32	9006185	63
2		SCR PHL FLAT HD 6-32 X 5/16	9006021-2	62
~~4~~		~~SCR PHL FLAT HD 4-40 X 1/4~~	~~9006000-2~~	61
6		SCR PHL PAN HD 4-40 X 3/8	9006011-1	60
10		KEPS NUT 4-40	9006557	59
6		SCR PHL PAN HD 4-40 X ½	9006013-1	58
4		TERMINAL SOLDERLESS ...	9007930	57
~~1~~		~~COVER COMP~~	~~[illegible]~~	56
1		1.5 CAP BRKT	C-IA-5309758-0-0	55
1		HEAT SINK REGULATOR	D-PS-1210737-0-0	54
1		BRACKET REG	D-IA-5309756-4	53
4		SPLIT LUG	9006735	52
1	Q8	TRANSISTOR 2N6028	15-10877	51
2		FUSE CLIP	9007203	50
1	F1	FUSE 10 AMP	1213237-00	49
1	L1	REACTOR 170 UHY	16-10849	48
1	E1	INTEGRATED CIRCUIT 723	19-10415	47
6	Q7, Q6, Q11, Q12, Q13	TRANSISTOR MPS A05	15-10706	46
4		SCR PHL FLAT HD #4- SELF TAPPING	9009142-02	45
1	Q5	TRANSISTOR DEC3500	15-03209	44
1	Q2	TRANSISTOR 2N5038	15-10969	43
1	Q3	TRANSISTOR 2N6491	1513704	42
2	R17, R21	RES VARIABLE 200 ±20% POT	13-10852	41
2	R23, R36	RES 5.1 ¼W 5%	13-09422	40
1	R16	RES 227 1/8W 1%	1304857	39
				38
2	R14, R5	RES ¼W 5% 27	13-01522	37
1	R10	RES 150 ¼W 5%	13-00250	36
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-H754-0-5	35
2	R7, R40	RES 2K 1/4W 5%	1302388	34
2	R6, R19	RES 12K ¼W 5%	13-00488	33
6	R15, R25, R30, R24, R35, R41	RES 100 ¼W 5%	13-00229	32
1	R12	RES 68Ω 1/4W 5% FUSIBLE	1312495-2	31
				30
1	R27	RES 10KΩ 1/8W 1%	1303-12	29
1	R32	RES 39K ¼W 5%	13-00444	28
1	R16	RES 287Ω 1/8W 1%	13-05124	27
1	R29	RES. 18K ¼W 5%	13-02465	26
1	C11	CAP. 2.2 UF 35V 10% TANT	10-02431	25
1	R4	RES 5W 3 .03 Ω	1310876-1	24
1	R3	RES 1.5K 5W 5%	13-01897	23
1	R34	RES 47 2W 5%	13-01[illegible]	22
1	R26	RES 1.5K ¼W 5%	13-00391	21
2	R1, R2	RES 3.9K 1W 10%	13-02927	20
1	R28	RES 10Ω 1/4W. 5%	1301317	19
2	D11, D8	DIODE 1N5624	1110420	18
				17
1	D14	DIODE 752A ZENER	1102808	16
1	D9	DIODE MCR 649 P-2	11-09465	15
1	D7	DIODE 1N970B 24V	11-10856	14
1	D6	DIODE, 20 AMP FAST REC	11-10715	13
1	D3	DIODE 1N4744, ZENER, 15V	11-05848	12
1	D1	DIODE NSS 3514	11-10714	11
3	D5, D13, D4	DIODE D664	11-00114	10
1	C15	CAP .1UF 100V 20% DISC	1000030	9
1	C9	CAP 2.2K UF 30V G% AL. EL.	10-10259	8
4	C3, C8, C4, C10	CAP .01UF 50V 20% DISC.	10-01610-01	7
1	C6	CAP 2700PF 100V 5% DM	10-01637	6
1	C5	CAP 56PF 100V 5% DM	10-00012	5
1	I1	LAMP 28V 40 MA	12-11239	4
1	C12	CAP .05UF 25V DISC	10-01774	3
2	C1, C2	CAP 5.8KUF 50V G% AL. EL.	10-11363	2
1		ETCHED CIRCUIT BOARD	5010531	1
		MODULE ECO HISTORY	P-MH-H754-0-6	REF
		X-Y COORDINATE HOLE LOCATION	K-CO-H754-0-4	REF

ETCH BOARD REV: J

D664	1N3606	

IC PIN LOCATIONS

IC TYPE	GND	+5V

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY. EXCEPTIONS ARE STATED ABOVE.

JUMPER LIST

ITEM NO.	AWG	FROM PT	TO PT

REVISIONS: H754-00016 (T), H754-00015 (S), H754-00014 (R), H754-00013 (P), H754-00012 (N), H754-00011 (M), ... H754-00004 (E), H754-00003 (D), H754-00002 (C), H754-00001 (B) — A. BARON, G. WHITCOMB, R. BURTON

SEMICONDUCTOR CONVERSION CHART

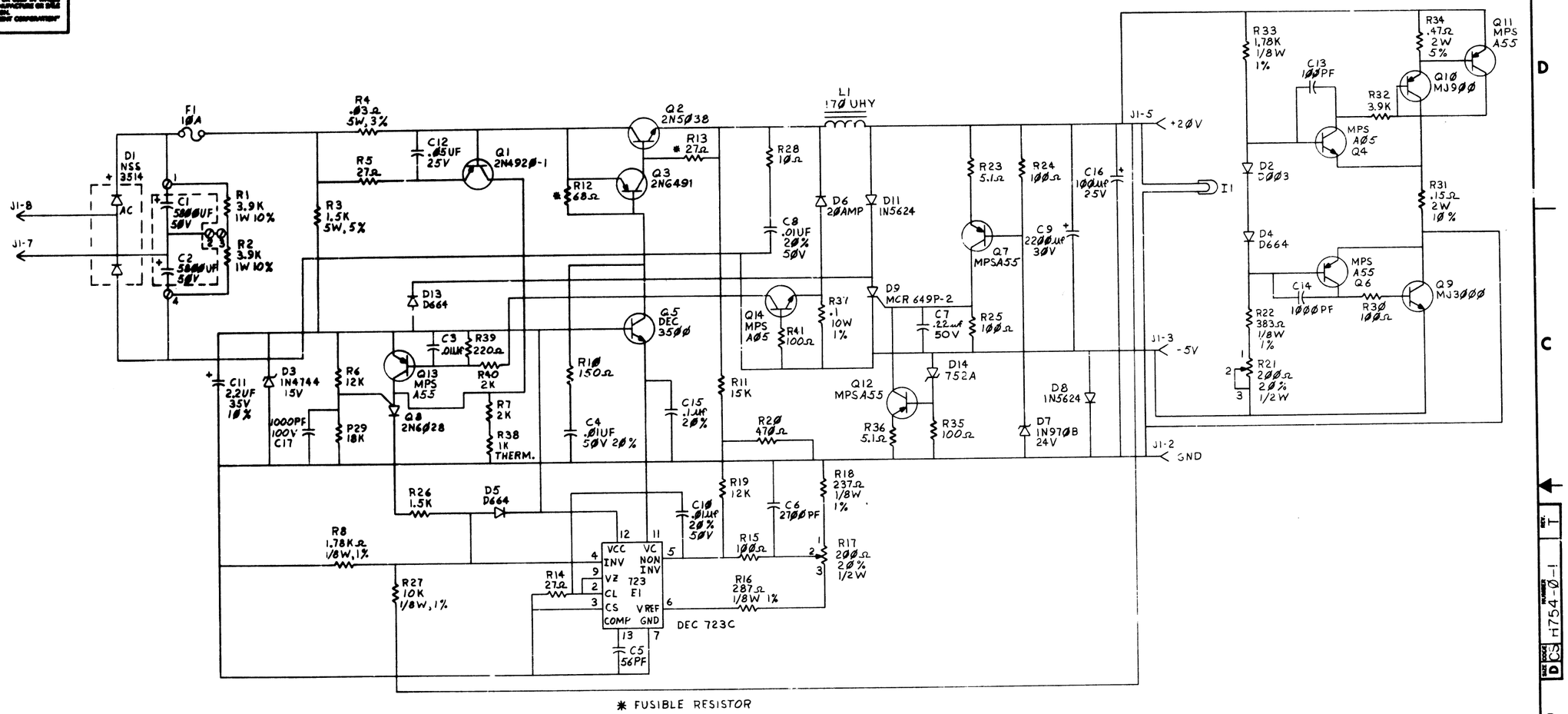
DEC NO.	EIA NO.	DEC NO.	EIA NO.

DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS

TITLE: + 20 VOLT REGULATOR

SIZE: E CS H754-0-1 REV. T

SHEET 1 OF 2



* FUSIBLE RESISTOR

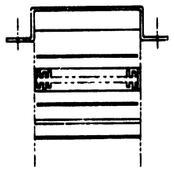
DRN V. BISSONNETTE	8-21-72	FIRST USED ON H754	20-00-0
CHK'D A. VOWLES	12-17-72	TITLE +20 VOLT REGULATOR	
ENG. H. BURTON	5-7-73		
PROJ. ENG. R. BURTON	5-7-73		
PROD. L. BAPTISTE	5-7-73		
NEXT HIGHER ASSY.		SIZE D CODE CS NUMBER H754-0-1 REV. T	
SCALE		DIST.	
SHEET 2 OF 2			

REVISIONS		
REV.	CHANGE NO.	DWG.

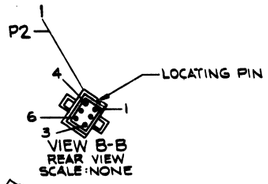
WIRE TABLE

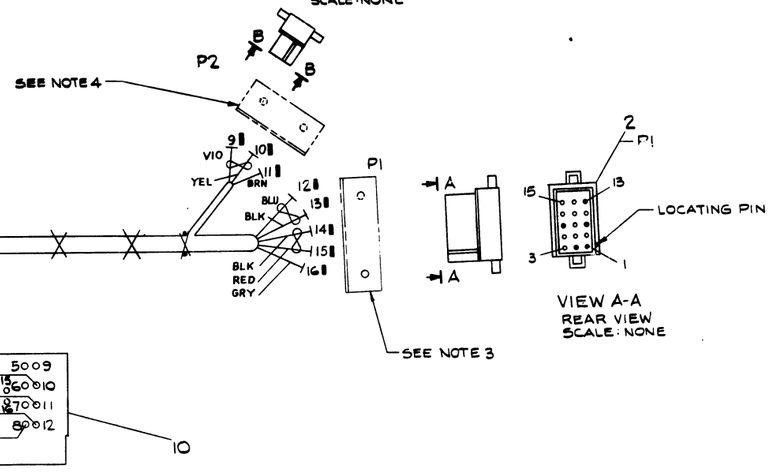
ITEM NO.	DESCRIP.	FROM COLOR	FROM POINT	FROM CONNECTION	FROM TERM	TO POINT	TO CONNECTION	TO TERM	SIGNAL
5	14 TWP	RED	5	P3-10	SOLD	15	P1-1	3	+5V
		BLK	4	P3-8	SOLD	14	P1-7	3	GND
9	14	GRY	6	P3-4	SOLD	16	P1-2	3	+15V
6	14 TWP	BLK	1	P3-12	SOLD	13	P1-8	3	GND
		BLU	2	P3-11	SOLD	12	P1-13	3	-15V
8	18	BRN	8	P3-1	SOLD	11	P2-2	3	LTG
7	18 TWP	VIO	6	P3-3	SOLD	9	P2-3	3	DATA
		YEL	7	P3-2	SOLD	10	P2-4	3	AGND
11	22	-	-	P3-13	SOLD	-	P3-14	SOLD	DGND
11	22	-	-	P3-15	SOLD	-	P3-16	SOLD	AGND

NOTES:
1. USE TIE WRAPS (X) ITEM "4 APPROXIMATELY EVERY THREE (3) INCHES WHEN NECESSARY AND AT EVERY BREAKOUT POINT.
2. DOT (●) INDICATES NAIL LOCATIONS FOR ASSEMBLY USE ONLY. COVER NAILS WITH SHRINK TUBING TO PREVENT CUTTING HARNESS.
3. USE CONN BRKT G-MD-9305764H150 MOUNT WITH WOOD SCREWS. USE MATING CONN 1209350-15.
4. USE CONN BRKT G-MD-9305764H-H6-0 MOUNT WITH WOOD SCREWS. USE MATING CONN 1209350-06
5. USE CONN. HOLD DOWN B-MD-9305767-00 WITH PLATE B-MD-9305767-0-1, USE TAPE DEC #9008794 & CONN HDW DEC # (1209123) REMOVE PINS & FLANGES AS SHOWN IN DETAIL "A". MOUNT WITH WOOD SCREWS.



DETAIL "A"





0 IN. SCALE 6 IN. 12 IN.

DO NOT REDUCE
DO NOT BUILD FROM REDUCED PRINT

CAUTION – DRAWING SIZE AND SCALE REDUCED FOR MICROFILM NOT TO BE USED FOR PRODUCTION

QTY		DESCRIPTION	PART NO	ITEM
A/R		BUSS WIRE #22 AWG	9107500-01	11
1		POWER CONN	6772	10
A/R		WIRE #14 AWG GRY	9107510-88	9
A/R		WIRE #18 AWG BRN	9107360-11	8
A/R		WIRE #18 TWP YEL/VIO	9107360-47	7
A/R		WIRE #14 TWP BLK/BLU	9107440-06	6
A/R		WIRE #14 TWP BLK/RED	9107440-02	5
X	A/R	WRAP TIE	9007031	4
8	8	PIN, MALE	1209378-00	3
1		HOUSING CONN, 5 PIN	1209358-15	2
1		HOUSING CONN, 6 PIN	1209358-06	1

[redacted] EQUIPMENT CORPORATION

G772 SYSTEM
UNIT HARNESS

SEE PARTS LIST

IA 7009562 00

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ACCESSORY LIST

MADE BY J. Forman	CHECKED J. Forman	SECTION
DATE 6-15-72	DATE 6-15-72	
ENG DATE 6/20/72	PROD Jack Forman DATE 6-20-72	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: ALL VARIATIONS
	Lib Kit 11-Bas 45-B-K	System Software Kit	1
	Dec 11-H45B-D	11/45 Systems and installation Manual	1
	112-01071-1854-D-09-25	11 Peripherals and interfacing Handbook	1
	112-01071-1876-D-09	11/45 Processor Handbook	1
	Dec 11-HKBA-D	KB11 Maintenance Manual	1
	B-DD-11/45-0	PDP-11/45 Systems Eng. Drawings	1
		Dec Supplies List	1
		Log Book	1
		PDP-11 Instruction Card	1
		H960C Cab Filter	1
	9007221	AGC 5 A Fuse	5
	9007226	AGC 15A Fuse	5
	9009039	Fuse 2/10A SB	5
		Key on off Switch	2
	7008855	POWER CABLE, SYSTEM UNIT	3

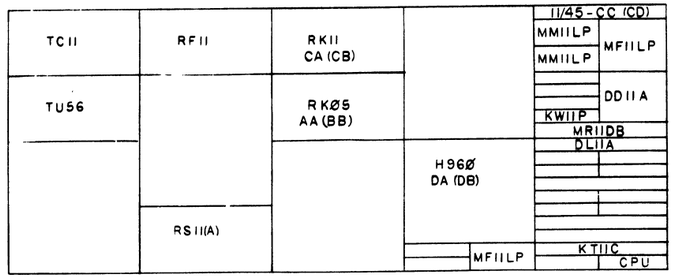
QUANTITY/VARIATION: KIT CHECK BY _____ DATE _____
QUANTITY/VARIATION: INSTALLATION CHECK BY _____ DATE _____

TITLE Central Processor	ASSY. NO.	SIZE A	CODE AL	NUMBER 11/45 – [illegible]	REV. B	ECO NO 11/45-00065
	SHEET 1 OF 1	DIST.				

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

NOTES:
1. SYSTEMS IN ( ) ARE 230V 50 HZ VERSIONS.
2. DL11A SPEED GROUP 3 (300 BAUD ONE STOP BITS, NO PARITY, 8 BITS)
3. DL11A MUST BE SET FOR 150 BAUD TO RUN DIAGNOSTICS.

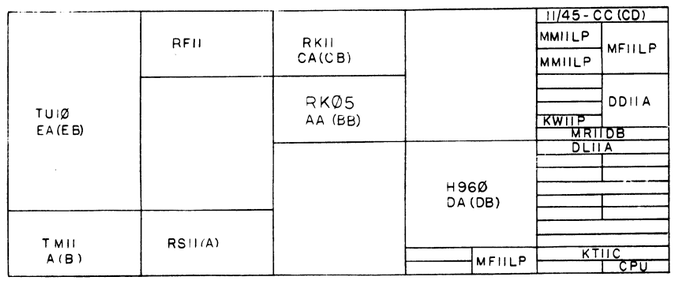
11/45 - RA (RB)



SOFTWARE QR430-AC

LA30
CA (CD)

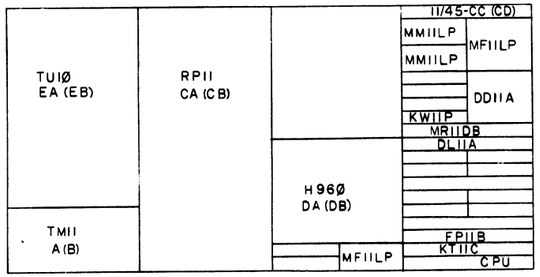
11/45 RC(RD)



SOFTWARE QR430-AD

LA30
CA (CD)

11/45-RE (RF)



SOFTWARE QR430-AD

RP03
AS (BS)

LA30
CA (CD)

REVISIONS			
CHK	CHANGE NO	REV	
	11/45-0C048	A	
	RELEASED REDRAWN		
	B. FITZGERALD		
	11/AF-0C065	C	
	V. BOAEN		

DRAWING 40 107 13988

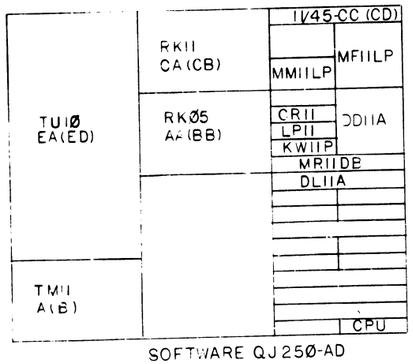
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP11/45		PARTS LIST		

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 ✓
MATERIAL —
FINISH —

DRN. B CRAMM	DATE 11-6-72	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS
CHK'D. J BAILEY	DATE 11-10-72	
ENG. SWANSON	DATE 11-13-72	TITLE TIME SHARING SYSTEMS
PROJ. ENG. SWANSON	DATE 11-13-72	
PROD HILGENDORF	DATE	
NEXT HIGHER ASSY. B-DD-11/45-0		SIZE D CODE AR NUMBER 11/45-0-4 REV. C
SCALE —		
SHEET 1 OF 5		DIST.

SAVE CODE D AR NUMBER 11/45-0-4 REV C

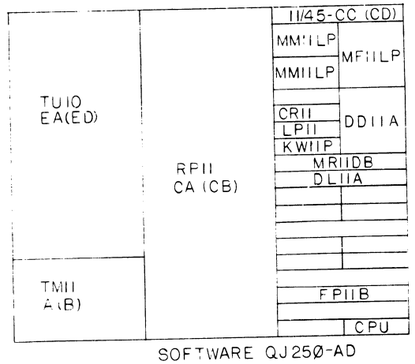
11/45 - PA (PB)



SOFTWARE QJ25Ø-AD

CR11(A) 300 CPM | LP11 JA (JB) | LA30 CA (CD)

11/45 - PC (PD)



SOFTWARE QJ25Ø-AD

RPØ3 AS (BS) | CR11(A) 300 CPM | LP11 JA (JB) | LA3Ø CA (CD)

REVISIONS	REV	CHK
CHANGE NO		

BRUNING 40-107 15968

DRD FORM NO DRD 100-A

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP11/45		PARTS LIST		

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 —

		DATE
DRN.	B CRAMM	11-6-72
CHK'D.	J BAILEY	11-10-72
ENG.	SWANSON	11-13-72
PROJ. ENG.	SWANSON	11-13-72
PROD.	R HILGENDORF	

NEXT HIGHER ASSY — B DD-11/45-Ø

SCALE —

SHEET 2 OF 5

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

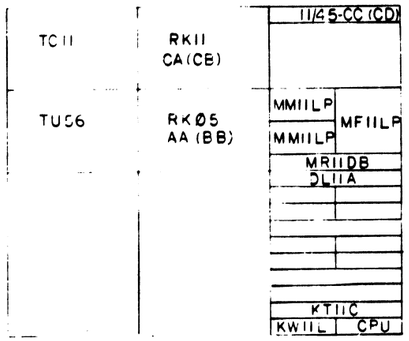
TITLE BATCH PROCESSING SYSTEMS

SIZE	CODE	NUMBER	REV.
D	AR	11/45-0-4	C

DIST

SIZE	CODE	NUMBER	REV
D	AR	11/45-0-4	C

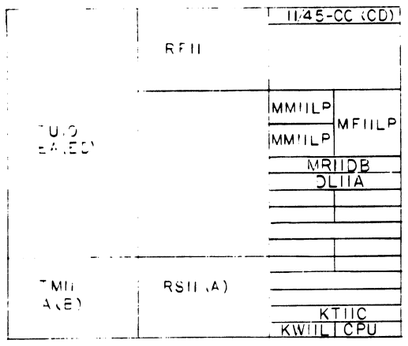
11/45 - MA (MB)



SOFTWARE QJ58Ø-AC

LA3Ø
CA(CD)

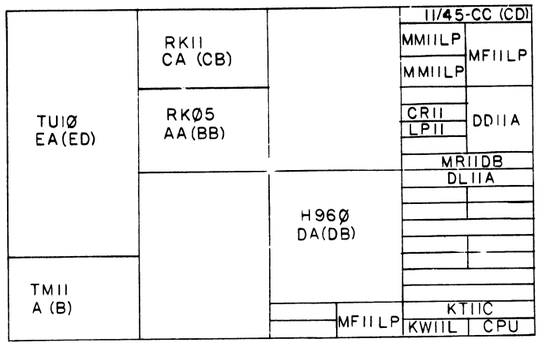
11/45 - MC (MD)



SOFTWARE QJ58Ø-AD

LA3Ø
CA(CD)

11/45 - MH (MJ)



SOFTWARE QJ58Ø - AD

CR11(A)
300
CPM

LP11
JA(JB)

LA3Ø
CA(CD)

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP11/45		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 ✓
MATERIAL —"—
FINISH —"—

DRN. B.CRAMM	DATE	11-6-72
CHK'D. J.BAILEY	DATE	11-10-72
ENG SWANSON	DATE	11-13-72
PROJ. ENG. SWANSON	DATE	11-13-72
PROD. HILGENDORF	DATE	

NEXT HIGHER ASSY. B-DD-11/45-0
SCALE —"—
SHEET 3 OF 5

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

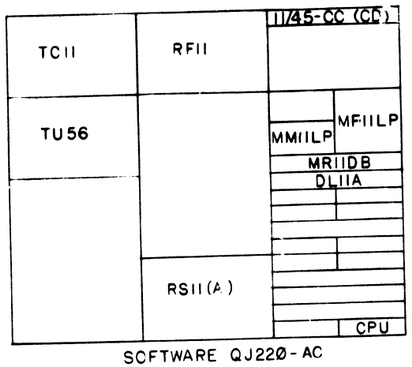
TITLE
REAL TIME SYSTEMS

SIZE D | CODE AR | NUMBER 11/45-Ø-4 | REV. C | DIST

BRUNING 40-107 1968

REVISIONS			
CHK	CHANGE NO		REV

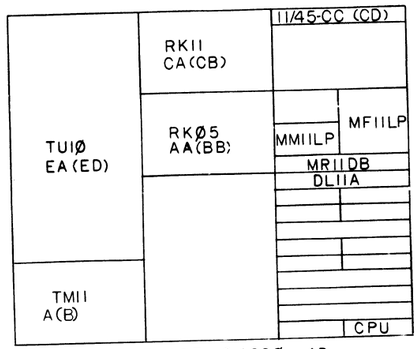
11/45 - DA (DB)



SOFTWARE QJ22Ø-AC

LA3Ø CA(CD)

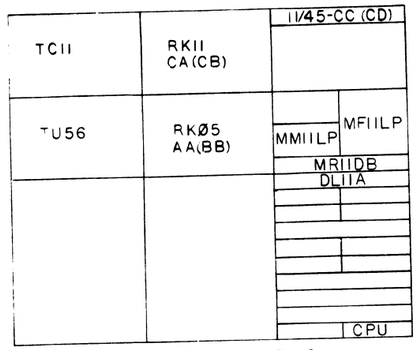
11/45 - DU (DV)



SOFTWARE QJ22Ø - AD

LA3Ø CA(CD)

11/45 - DS (DT)



SOFTWARE QJ22Ø-AC

LA3Ø CA(CD)

REV	CHANGE NO	REVISIONS	CHK

DRAWING 40-107 15968

DEC FORM NO DRD 100-A

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP11/45		PARTS LIST		

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES

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

REMOVE BURRS AND BREAK SHARP CORNERS SURF/CE QUALITY ✓

MATERIAL —//—

FINISH —//—

		DATE
DRN. BCRAMM		11-6-72
CHK'D. J.BAILEY		11-10-72
ENG. SWANSON		11-13-72
PROJ. ENG. SWANSON		11-13-72
PROD. HILGENDORF		

NEXT HIGHER ASSY. B-DD-11/45-Ø

SCALE —//—

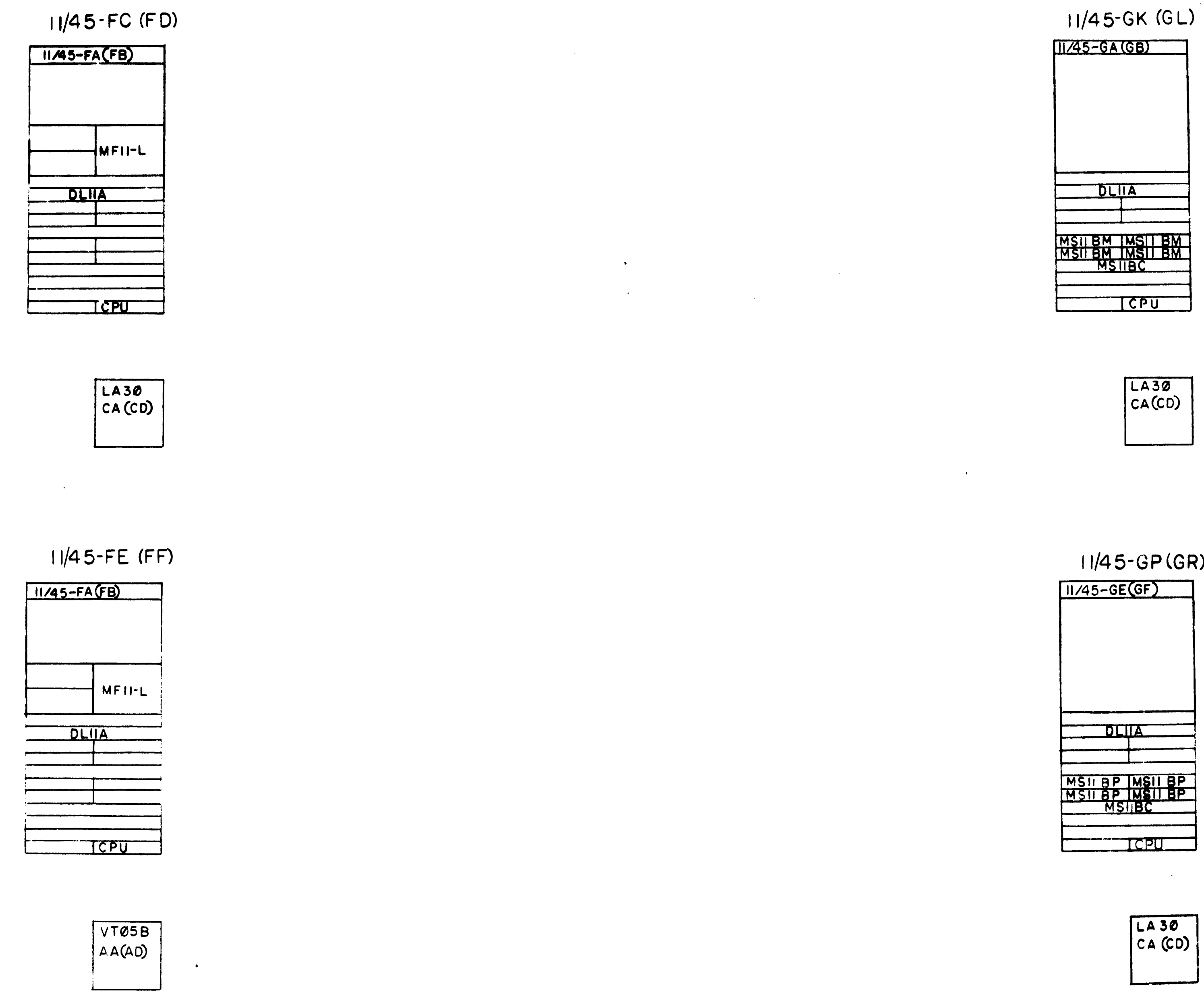
SHEET 4 OF 5

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE INTERACTIVE DISK SYSTEMS

SIZE	CODE	NUMBER	REV.
D	DAR	11/45-0-4	C

DIST



FIRST USED ON OPTION/MODEL: PDP-11	QTY. / DESCRIPTION / PART NO. / ITEM NO.	PARTS LIST
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES	DRN. B CRAMM — DATE 2-22-73	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS
DECIMALS: XXX ± .005, XX ± .02, X ± .1 — ANGLES: ±0° 30'	CHK'D. [signature] — DATE 3-30-7[illegible]	TITLE: OEM SYSTEMS
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓	ENG. — DATE; PROJ ENG — DATE; PROD — DATE	
MATERIAL: —	NEXT HIGHER ASSY: B-DD-11/45-Ø	SIZE: D — CODE: AR — NUMBER: 11/45-Ø-4 — REV.: C
FINISH: —	SCALE: — SHEET 5 OF 5	DIST

This drawing and specifications, herein, are the property of Digital Equipment Corporation and shall not be reproduced or copied or used in whole or in part as the basis for the manufacture or sale of items without written permission.

QUANTITY / VARIATION

ITEM NO.	DWG. NO./PART NO.	DESCRIPTION	11/45-RA	11/45-RB	11/45-RC	11/45-RD	11/45-RE	11/45-RF	11/45-PA	11/45-PB	11/45-PC	11/45-PD	11/45-MA	11/45-MB	11/45-MC	11/45-ME	11/45-MJ	11/45-DA	11/45-DB	11/45-DS	11/45-DT	11/45-DU	11/45-DV	11/45-FC	11/45-FD	11/45-FE	11/45-FF	11/45-GK	11/45-GL	11/45-GP	11/45-GR	11/45-MD	11/45 DW	11/45 DY
1	C-PL-11/45-CC	BASIC ASS'Y 115V 60 HZ	1	-	1	-	1	-	1	-	1	-	1	-	1	1	-	1	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
2	C-PL-11/45-CD	BASIE ASS'Y 230V ~~50 HZ~~	-	1	-	1	-	1	-	1	-	1	-	1	-	-	1	-	1	-	1	-	1	-	-	-	-	-	-	-	-	1	-	-
3	B-DD-KT11-C	MEMORY MANAGEMENT	1	1	1	1	1	1	-	-	-	-	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
4	B-DD-FP11-B	FLOATING POINT PROCESSOR		-	-	-	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
~~5~~	~~B-DD-KW11-L~~	~~LINE FREQUENCY CLOCK~~	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
6	B-DD-KW11-P	PROGRAMMABLE CLOCK	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	B-DD-MF11-LP	8K PARITY CORE MEM. AND CONTROL	1	1	1	1	1	1	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	B-DD-MM11-LP	8K PARITY CORE MEM.	1	1	1	1	1	1	-	-	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
9	B-DD-MR11-DB	MULTI-DEVICE BOOTSTRAP LOADER	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	1	-	-
10	A-ML-RF11-0	DISK CONTROL	1	1	1	1	-	-	-	-	-	-	-	-	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
11	A-ML-RK11-CA	DISK CONTROL 115V 60 HZ	1	-	1	-	-	-	1	-	-	-	1	-	-	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
12	A-ML-RK11-CB	DISK CONTROL 230V 50 HZ	-	1	-	1	-	-	-	1	-	-	-	1	-	-	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
13	B-DD-RP11-CA	DISK CONTROL 115V 60 HZ	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	B-DD-RP11-CB	DISK CONTROL 230V 50 HZ	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	A-ML-RS11-0	DISK DRIVE 115V 60 HZ	1	-	1	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	A-ML-RS11-A	DISK DRIVE 230V 50 HZ	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
17	B-DD-RK05-AA	DISK DRIVE 115V 60 HZ	1	-	1	-	-	-	1	-	-	-	1	-	-	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
18	B-DD-RK05-BB	DISK DRIVE 230V 50 HZ	-	1	-	1	-	-	-	1	-	-	-	1	-	-	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
19	A-PL-RP03-AS	DISK DRIVE 115V 60 HZ	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	A-PL-RP03-BS	DISK DRIVE 230V 50 HZ	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	A-ML-TC11-0	MAGNETIC TAPE CONTROL	1	1	-	-	-	-	-	-	-	-	1	1	-	-	-	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
22	A-ML-TM11-A	MAGNETIC TAPE CONTROL 115V 60 HZ	-	-	1	-	1	-	1	-	1	-	-	-	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
23	A-ML-TM11-B	MAGNETIC TAPE CONTROL 230V 50 HZ	-	-	-	1	-	1	-	1	-	1	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-
24	A-ML-TU56-0	MAGNETIC TAPE TRANSPORT	1	1	-	-	-	-	-	-	-	-	1	1	-	-	-	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
25	C-PL-TU10-EA	MAGNETIC TAPE TRANSPORT 115V 60 HZ	-	-	1	-	1	-	1	-	1	-	-	-	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
26	C-PL-TU10-ED	MAGNETIC TAPE TRANSPORT 230V 50 HZ	-	-	-	1	-	1	-	1	-	1	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-
27	A-PL-[illegible]11-JA	LINE PRINTER & CONTROL 115V 60 HZ	-	-	-	-	-	-	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	A-PL-LP11-JB	LINE PRINTER & CONTROL 230V 50 HZ	-	-	-	-	-	-	-	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	A-PL-LP11-RA	LINE PRINTER & CONTROL 115V 60 HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	A-PL-LP11-RB	LINE PRINTER & CONTROL 230V 50 HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	A-PL-CR11	CARD READER & CONTROL 115V 60 HZ	-	-	-	-	-	-	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	A-PL-CR11-A	CARD READER & CONTROL 230V 50 HZ	-	-	-	-	-	-	-	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
~~33~~	~~B-DD-DL11-A~~	~~TERMINAL CONTROL~~	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	C-PL-LA30-CA	SERIAL DEC WRITER 115V 60 HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
35	C-PL-LA30-CD	SERIAL DEC WRITER 230V 50 HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
36	D-UA-H960-DA	EXTENSION MOUNTING BOX 115V 60 HZ	1	-	1	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	D-UA-H960-DB	EXTENSION MOUNTING BOX 230V 50 HZ	-	1	-	1	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	A-PL-DD11-A	SYSTEM UNIT	1	1	1	1	1	1	1	1	1	1	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	QR430-AC	TIMESHARING SOFTWARE	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	QR430-AD	TIMESHARING SOFTWARE	-	-	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	QJ250-AD	BATCH SOFTWARE	-	-	-	-	-	-	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	QJ580-AC	REAL-TIME SOFTWARE	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	QJ580-AD	REAL-TIME SOFTWARE	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-

REVISIONS

CHK	CHANGE NO.	REV.	
-	11/45-00043	-	ORIGINATED
	11/45-00048	A	REVISED & REDRAWN DWG. NO. WAS 11/45-0-5 R. F. Beasley 3-29-73 B. FITZGERALD B. Fitzgerald 4-2-73
	11/45-00053	B	J Chartier 9-5-73 MINOR W. L. 9-14-73
LB	11/45 00065	C	B. Vowles 14-APRIL-76 V. BOAEN Verell Boaen 21APRIL-76
LB	11/45-00066	D	23 JUNE 76 V. BOAEN Verell Boaen 8-July-76

FIRST USED ON OPTION/MODEL
11/45

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.	BEASLEY	DATE 12/19/2
CHK'D.	L. GILBERT	DATE 1/2/73
ENG.	J. SWANSON	DATE 1/11/73
PROJ. ENG.	J. SWANSON	DATE 1/11/73
PROD.	A. ZINS	DATE 1/11/73

NEXT HIGHER ASSY.
B-DD-11/45-0

SCALE
SHEET 1 OF 2

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
ARRANGEMENT
PARTS LIST

SIZE	CODE	NUMBER	REV.
C	PL	11/45-0-4	D

DIST.

REV.	NUMBER	SIZE	CODE
D	11/45-0-4	C	PL

DEC FORM NO.
DRC 110

ITEM NO.	DWG. NO./PART NO.	DESCRIPTION	11/45-RA	11/45-RB	11/45-RC	11/45-RD	11/45-RE	11/45-RF	11/45-PA	11/45-PB	11/45-PC	11/45-PD	11/45-MA	11/45-MB	11/45-MC	11/45-MD	11/45-ME	11/45-MF	11/45-DA	11/45-DB	11/45-DS	11/45-DT	11/45-DU	11/45-DV	11/45-FC	11/45-FD	11/45-FE	11/45-FF	11/45-GK	11/45-GL	11/45-GF	11/45-GR	11/45-DW	11/45-DY
44	QJ220-AC	DISK-SYSTEM SOFTWARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-	-	-	-	-	1	-	-	1
45	QJ220-AD	DISK-SYSTEM SOFTWARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	1	-	-	1
~~46~~	~~QJ991~~	~~DDS-3~~	+	+	-	-	-	-	-	-	-	-	+	+	-	-	-	-	+	+	+	+	-	-	-	-	-	-	-	-	1	-	-	1
47	B-DD-MS11-BP	4K MOS MEM W/PARITY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-
48	B-DD-MS11-BM	4K MOS MEM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-
49	B-DD-MS11-BD	SECOND MOS MEM CONTROL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	C-PL-11/45-FA	BASIC ASS'Y 115V 60 HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
51	C-PL-11/45-FB	BASIC ASS'Y 230V 50 HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-
52	C-PL-11/45-GA	BASIC ASS'Y 115V 60 HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
53	C-PL-11/45-GB	BASIC ASS'Y 230V 50 HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
54	C-PL-11/45-GE	BASIC ASS'Y 115V 60 HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
55	C-PL-11/45-GF	BASIC ASS'Y 230V 50 HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
56	A-PL-VT05B-AA	ALPHANUMERIC CRT 115V 60 HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
57	A-PL-VT05B-AD	ALPHANUMERIC CRT 230V 50 HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
58	B-DD-MF11-L	8K CORE MEM. W/CONTROL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	B-DD-MM11-L	8K CORE MEM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	C-PL-11/45-AA	BASIC ASS'Y 115V 60HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
61	C-PL-11/45-AB	BASIC ASS'Y 230V 50HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
62	B-DD-LA36-CE	SERIAL DEC WRITER 60HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
63	B-DD-LA36-CJ	SERIAL DEC WRITER 50HZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-

FIRST USED ON OPTION/MODEL
11/45

REVISIONS
REV. | CHANGE NO. | CHK

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.	BEASLEY	12/19/72
CHK'D.	L.GILBERT	1/2/73
ENG.	J.SWANSON	1/11/73
PROJ. ENG.	J.SWANSON	1/11/73
PROD.	A.ZINS	1/11/73

NEXT HIGHER ASSY.
B-DD-11/45-0

SCALE

SHEET 2 OF 2

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
ARRANGEMENT
PARTS LIST

SIZE C | CODE PL | NUMBER 11/45-0-4 | REV. D

DIST.

DEC FORM NO. DRC 110

REV. D | NUMBER 11/45-0-4 | SIZE C | CODE PL

DRAWING DIRECTORY

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

CUSTOMER PRINT SET INDEX

THIS IS PRINT SET

SEQUENCE SEQUENCE

NOTE:
FOR FEILD MAINTENANCE
PRINT SET, REFER TO:
B-TC-M93Ø1-Ø-3

UNIT VARIATIONS

VAR	TITLE	PRINT SET			
M93Ø1-YA	UNIBUS TERMINATOR/BOOTSTRAP				
M93Ø1-YB	UNIBUS TERMINATOR/BOOTSTRAP				
M93Ø1-YC	UNIBUS TERMINATOR/BOOTSTRAP				
M93Ø1-YD	UNIBUS TERMINATOR/BOOTSTRAP				
M93Ø1-YF	UNIBUS TERMINATOR/BOOTSTRAP				
M93Ø1-YH	UNIBUS TERMINATOR/BOOTSTRAP				

REVISIONS

REV	CHG. NO.	DATE
-	M93Ø1-6 ORIGINATED	8-76
A	M93Ø1-7	[illegible]
B	M93Ø1-8	12-76
C	M93Ø1-9	2-77
D	M93Ø1-10	3-77

USED ON OPTION/MODEL	
11/34	
11/04	

DRN. W. Hamel	DATE 3AUG76	TITLE UNIBUS TERMINATOR BOOTSTRAP
CHK'D. E. Remomd	DATE 3AUG76	
PROJ ENG. John Elson	DATE 9-7-76	
PROD.	DATE	SIZE B / CODE DD / NUMBER M93Ø1-Ø / REV D
FIELD SERV.	DATE	DIST

SHEET 1 OF 2

EN-01062-1A-16-R972-(325)

DRB 106

FIELD MAINTENANCE PRINT SET

TABLE OF CONTENTS

UNIT VARIATIONS COVERED BY THIS PRINT SET
DL11-W
DL11-WA
DL11-WB
DL11-WC

DL11-W
Field Maintenance Print Set

Digital Equipment Corporation

PRINT SET ORDER NO.
MPØØ1Ø6

REVISIONS		
REV.	CHG. NO.	DATE
A	DL11W-1	NOV-76

USED ON OPTION/MODEL

SHEET 1 OF 1

DRN. D. Healy	DATE 26-MAR-76	
CHK'D D. Healy	DATE 26-MAR-76	
PROJ. ENG. R.E. Piatt	DATE 29-MAR 1976	
FIELD SERV. [illegible]	DATE 14-April 1976	

digital

TITLE:
FIELD MAINTENANCE PRINT SET
DL11-W

SIZE	CODE	NUMBER	REV.
B	TC	DL11-W-1	A
DIST.			

EN-01124-16-N675-(327)

DRB 124