18 Sept 1986
Pat Kindelon @ 805-584-0544
Diskdrive repair - RH05 Lamps?

digital

RK05 F

Engineering Drawings

Digital Equipment Corporation

DRAWING DIRECTORY

DRAWING DIRECTORY	B-DD-RKØ5F-Ø SHEET #1 ONLY
MODULE UTILIZATION LIST	C-MU-RKØ5F-Ø-2
READ/WRITE	D-CS-G18Ø-Ø-1
DECPAK INDEX & SECTOR	D-CS-M768Ø-Ø-1
CONTROL & INTERLOCK	D-CS-M7681-Ø-1
TRACK ADDRESS DIFFERENCE	D-CS-M77Ø1-Ø-1
POSITION SERVO PREAMP	D-CS-G938-YA-0-1
SERVO POWER AMP CIRCUIT	D-CS-H6Ø4-Ø-1
SERVO POWER AMP	E-UA-H6Ø4-Ø-Ø
CONTROL PANEL CIRCUIT	D-CS-5409698-0-1
CONTROL PANEL	E-IA-5409698-0-0
RELAY BOARD CIRCUIT	D-CS-5409574-0-1
DECPACK MOTOR RELAYS	E-IA-5409574-0-0
CHASSIS WIRING	D-BD-RKØ5-Ø-1
ACCESSORY LIST	A-PL-RKØ5F-Ø-17
POWER SUPPLY (H743)	B-DD-H743-Ø
WIRE LIST	K-WL-RKØ5-Ø-3
DECPAK INDEX & SECTOR (UA)	D-UA-M7680-0-0
DECPAK INDEX & SECTOR (PL)	B-PL-M7680-0-0
CONTROL & INTERLOCK (UA)	D-UA-M7681-0-0
CONTROL & INTERLOCK (PL)	B-PL-M7681-0-0

MFG. PRINT SET

MODULE UTILIZATION (PL)	A-PL-RKØ5F-Ø-2
RKØ5F TESTER	B-DD-RK05F-T
DECPACK ASSY	D-UA-RK05F-0-0
DECPACK ASSY (PL)	A-PL-RK05F-0-0
WIRED ASSY	D-AD-7008696-0-0
LINEAR POSITIONER ASSY	D-AD-7008702-0-0
LINEAR POSITIONER ASSY (PL)	A-PL-7008702-0-0
H743 POWER SUPPLY	B-DD-H743-Ø
REVISION STATUS	A-WT-7008696-0

UNIT VARIATIONS

VAR	TITLE
~~RKØ5F-AA~~	~~DECPACK 115V 6Ø HZ~~
~~RKØ5F-AB~~	~~DECPACK 230V 6Ø HZ~~
~~RKØ5F-BA~~	~~DECPACK 115V 5Ø HZ~~
~~RKØ5F-BB~~	~~DECPACK 230V 5Ø HZ~~
~~RKØ5F-CA~~	~~RKØ5F-AA H967~~
~~RKØ5F-CB~~	~~RKØ5F-BB H967~~
~~RKØ5F-DE~~	~~RKØ5F-AA H96Ø-861 PWR CONTROL~~
~~RKØ5F-DF~~	~~RKØ5F-AB H96Ø-861~~
~~RKØ5F-DH~~	~~RKØ5F-BA H96Ø-861~~
~~RKØ5F-DJ~~	~~RKØ5F-BB H96Ø-861~~
RKØ5F-AA	DECPACK, 16 SECTOR, 115V, 60 HZ
RKØ5F-AB	DECPACK, 16 SECTOR, 230V, 60 HZ
RKØ5F-AC	DECPACK, 16 SECTOR, 115V, 50 HZ
RKØ5F-AD	DECPACK, 16 SECTOR, 230V, 50 HZ
RKØ5F FA	DECPACK, 12 SECTOR, 115V, 60 HZ
RKØ5F-FB	DECPACK, 12 SECTOR, 230V, 60 HZ
RKØ5F-FC	DECPACK, 12 SECTOR, 115V, 50 HZ
RKØ5F-FD	DECPACK, 12 SECTOR, 230V, 50HZ
RKØ5F-FE	RKØ5F-FA W. BEZEL FOR H95ØØ CABS
RKØ5F-FF	RKØ5F-FB W. BEZEL FOR H95ØØ CABS
RKØ5F-FH	RKØ5F-FC W. BEZEL FOR H95ØØ CABS
RKØ5F-FJ	RKØ5F-FD W. BEZEL FOR H95ØØ CABS

REVISIONS

REV.	CHANGE NO.	CHK
A	RKØ5F-1	[signature]
B	RKØ5F-2	[signature]
C	RKØ5F-3	R.C.
D	RKØ5F-4	
E	RKØ5F-5	[signature]
F	RKØ5F-	BN

USED ON OPTION/MODEL: RKØ5F

DRN. [signature]	DATE 5/4/76	TITLE DECPACK ASSY
CHK'D. T. Quiller	DATE 18MAY76	
PROJ. ENG. [signature]	DATE 5/19/76	
PROD. [signature]	DATE 5/26/76	

digital

SIZE	CODE	NUMBER	REV
B	DD	RKØ5F-Ø	F

SHEET 1 OF 5

MP-ØRKØ5-FØ

DRB 106A

EN-01062-1A-1-N872-(328)

NOTE:

TERMINATOR OR DISK BUS CABLE CONNECTOR MAY BE INTERCHANGED BETWEEN SLOTS 7 AND 8

	1	2	3	4	5	6	7	8
	G180	M7680	M7681	M7701	G938-YA	M983	M930 *	M929
USAGE	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
	READ/ WRITE	INDEX & SECTOR	CYLINDER ADDRESS DIFFERENCE	CONTROL & INTERLOCK	POSITION SERVO PREAMP	CHASSIS CONNECTOR	TERMINATOR	DISK BUS CABLE CONNECTOR
USAGE								

* IF MORE THAN ONE DRIVE IS USED, M930 IS REPLACED BY M929 (BC11A) M930 IS USED IN THE LAST DRIVE ON THE BUS

REVISIONS		
CHK	CHANGE NO.	REV.

DESCRIPTION	DWG./PART NO.	ITEM NO.
QUANTITY & VARIATION		

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'

SURFACE QUALITY IN MICROINCHES

CLASS OF ACCURACY (CHECK ONE)	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
MEDIUM	±.004	±.008	±.012	±.016	±.024	±.04
PREFERRED	±.012	±.016	±.025	±.04	±.063	±0.1

(Column headings: NOMINAL DIMENSION RANGE INCHES)

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL —

FINISH —

DRN.	[illegible]	4/16/76
CHK'D	[illegible]	18 MAY 76
ENG.	[illegible]	5/19/76
PROJ. ENG.	[illegible]	5/19/76
PROD.	[illegible]	5/26/76

NEXT HIGHER ASSY. B-DD-RKØ5F-Ø

SCALE NONE

SHEET 1 OF 1

FIRST USED ON RKØ5F

digital

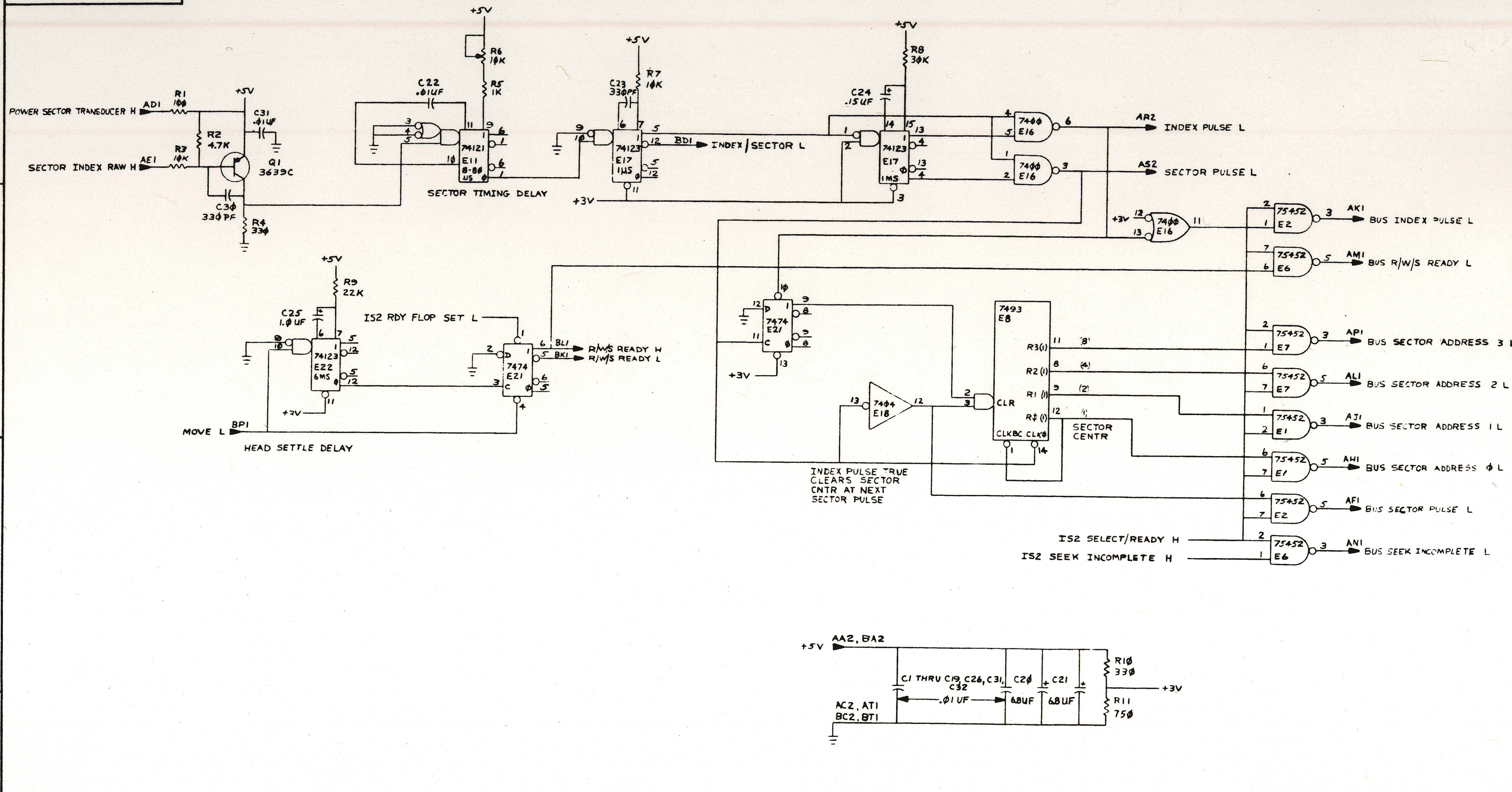
TITLE MODULE UTILIZATION

SIZE	CODE	NUMBER	REV.
C	MU	RKØ5F-Ø-2	

DIST.

C MU RKØ5F-Ø-2

DEC FORM NO. DRG 100-0

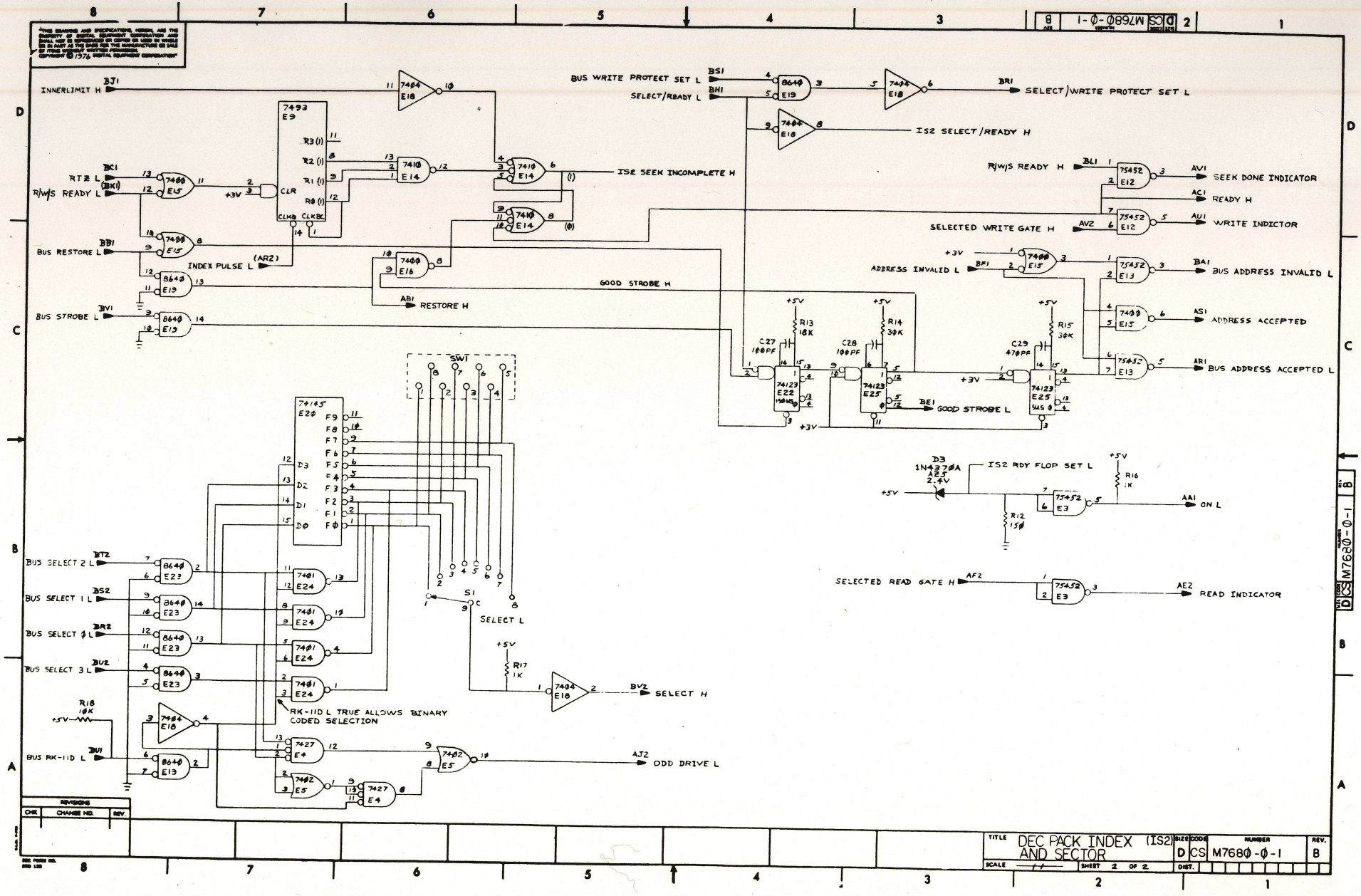


REVISIONS		
REV.	CHANGE NO.	CHK
B	M7680-00001	
	S. RADOFF	

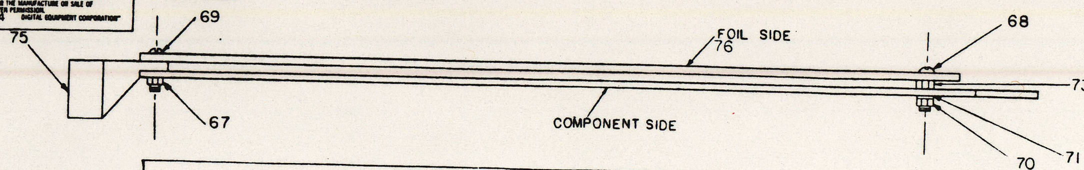
DRN. 22 JAN 76
CHK'D 3 FEB 76
ENG.
PROJ. ENG.
PROD.
NEXT HIGHER ASSY. D-UA-M768Ø-Ø-Ø
SCALE —
SHEET 1 OF 2
FIRST USED ON
digital

TITLE
DEC PACK INDEX AND SECTOR (IS1)

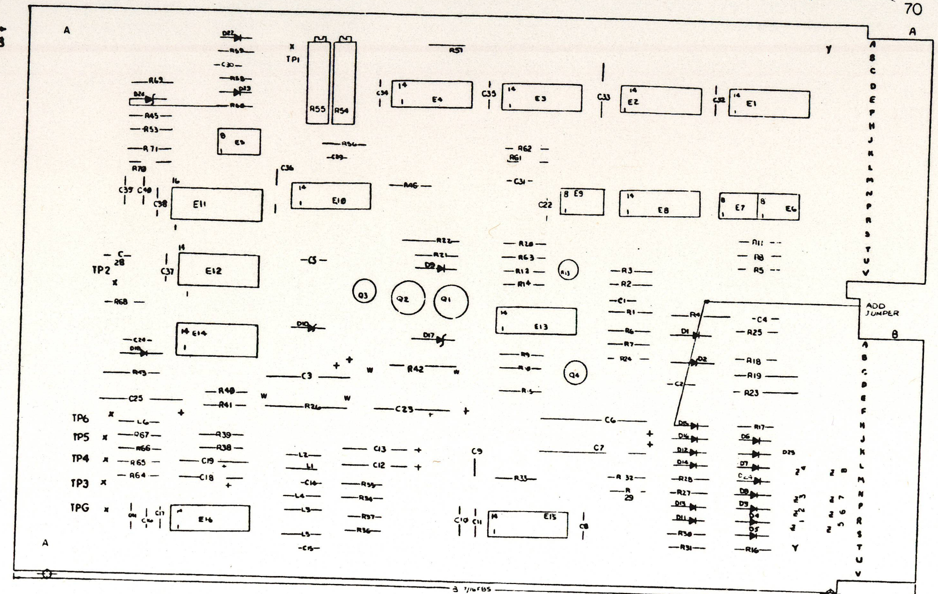
SIZE D CODE CS NUMBER M768Ø-Ø-1 REV. B

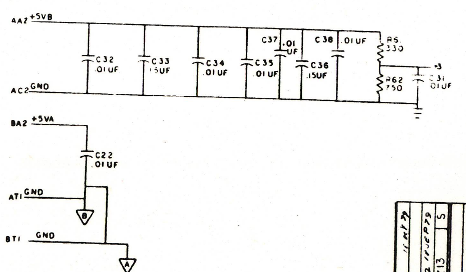

INNERLIMIT H
BJ1
7404 E18
7493 E9
R3 (1)
R2 (1)
R1 (1)
R0 (1)
CLR
CLKA
CLKBC
+3V
RT2 L
(BK1)
R/W/S READY L
BC1
7400 E15
7410 E14
ISE SEEK INCOMPLETE H
(I)
(Φ)
BUS RESTORE L
BB1
INDEX PULSE L
(AR2)
8640 E19
BUS STROBE L
BV1
7400 E16
ABI
RESTORE H
GOOD STROBE H
BUS WRITE PROTECT SET L
BS1
SELECT/READY L
BH1
BR1
SELECT/WRITE PROTECT SET L
IS2 SELECT/READY H
R/W/S READY H
BL1
75452 E12
AV1
SEEK DONE INDICATOR
AC1
READY H
SELECTED WRITE GATE H
AV2
AU1
WRITE INDICTOR
+3V
ADDRESS INVALID L
BF1
BA1
BUS ADDRESS INVALID L
AS1
ADDRESS ACCEPTED
AR1
BUS ADDRESS ACCEPTED L
+5V
R13 18K
R14 30K
R15 30K
C27 100PF
C28 100PF
C29 470PF
74123 E22
74123 E25
BE1
GOOD STROBE L
D3 1N4370A 2.4V
IS2 RDY FLOP SET L
R16 1K
R12 150
AA1
ON L
SELECTED READ GATE H
AF2
AE2
READ INDICATOR
74145 E20
D3
D2
D1
D0
F9
F8
F7
F6
F5
F4
F3
F2
F1
FΦ
SW1
S1
SELECT L
R17 1K
BV2
SELECT H
BUS SELECT 2 L
BT2
BUS SELECT 1 L
BS2
BUS SELECT 0 L
BR2
BUS SELECT 3 L
BU2
R18 10K
BUS RK-11D L
BU1
7401 E24
7427 E4
7402 E5
RK-11D L TRUE ALLOWS BINARY CODED SELECTION
AJ2
ODD DRIVE L
REVISIONS
CHK
CHANGE NO.
REV.
TITLE
DEC PACK INDEX (IS2) AND SECTOR
SIZE
CODE
NUMBER
REV.
D
CS
M7680-0-1
B
SCALE
SHEET 2 OF 2
DIST.

NOTES:



NOTE:
DO NOT INSERT HANDLE HOLE EYELETS ON OUTSIDE HANDLE HOLES: (2 PLCS)





A/R				
		WIRE, #30 AWG GREEN	9105740-55	80
1	D26	DIODE IN748A (3.9V ZENER)	1100122	79
1	R69	RES 180 1/4W 5%	1301322	78
2	R7.R10	RES 100 1/4W 5%	1300229	77
1		NOISE SHIELD	5009893	76
2		HANDLE, FLIP CHIP-GREEN	9008337-01	75
7	TPG, TP1 THRU TP6	SWAGE LUG	9007791	74
2		HEX NUT, NYLON, #2-56	9007263	73
2		EYELET #6S4-7	9006732	72
2		INTERNAL LOCK WASHER #2-56	9006631	71
2		HEX NUT #2-56	9006555	70
2		SCREW 4/40X3/8	9006011-4	69
2		SCREW PAN HD #2-56X 5/16	9006002-1	68
2		KEP NUT 4/40	9006557	67

QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
3	E6.E7.E9	I.C. DEC 75452	1910645	66
2	E15.16	I.C. DEC 733	1910644	65
1	E14	I.C. DEC 1414	1910337	64
1	E5	I.C. DEC 741	1910298	63
1	E1	I.C. DEC 8881	1909705	62
2	E2.E8	I.C. DEC 8640	1911469	61
1	E10	I.C. DEC 9601	1909373	60
1	E13	I.C. DEC 7472	[illegible]	59
2	E4.E12	I.C. DEC 7400	1905575	58
1	E3	I.C. DEC 7474	1905547	57
1	L6	INDUCTOR 120UH	1610663	56
2	L1.L2	INDUCTOR 56UH	1610661	55
3	L3.L4.L5	INDUCTOR 100UH	1610662	54
1	Q3	TRANSISTOR DEC 6534C	1503409-02	53
1	Q4	TRANSISTOR DEC 3009B	1503100	52
2	Q1.Q2	TRANSISTOR 2N2904	1501742	51
				50
1	R13	POT 1K 1/2W 20% 62PR	1309150-03	49
2	R54.55	POT 10K 3/4W 10% 78PR	1309143-10	48
2	R16.R17	RES. 27K 1/4W 5%	1305346	47
2	R27.R28	RES. 8.2K 1/4W 5%	1303179	46
1	R60	RES. 220K 1/4W 5%	1302092	45
1	R4	RES 270 1/2W 5%	1300285	44
2	R40.R41	RES 560 1/4W 5%	1301890	43
6	R6.9.45.53.70.71	RES 5.6K 1/4W 5%	1301874	42
1	R11	RES. 1.1K 1/4W 5%	1301475	41
1	R58	RES 3.3K 1/4W 5%	1300439	40
1	R62	RES. 750 1/4W 5%	1301401	39
2	R15.R21	RES 1.2K 1/4W 5%	1301320	38
2	R30.R31	RES. 15K 1/4W 5%	1300496	37
6	R5.8.18.38.39.57	RES 10K 1/4W 5%	1300479	36
1	R59	RES. 4.7K 1/4W 5%	1300447	35
1	E11	I.C. DEC. 74123	1910436	34
16	R1.R2.R3 R20.R34-37 R46 R56.R63-68	RES. 1K 1/4W 5%	1300365	33
2	R24 R12			
1	R43	RES 470 1/4W 5%	1300316	31
3	R22.R25.R61	RES 470 1/2W 5%	1300315	30
2	R29.R32	RES 330 1/4W 5%	1300295	29
2	R26 R42	RES 220 1/4 5%	1300271	28
1	R19	RES 180 1W 5%	1300262	27
1	R14	RES 180 1/2W 5%	1300260	26
1	R23	RES 150 1/4W 5%	1300250	25
1	R33	RES 150 1/2W 5%	1300249	24
8	1-8	RES. 100 1/4W 5%	1300229	23
18	D1.D3-9.D11-16.D22-25	WIREWRAP PINS	[illegible]	22
1	D2	DIODE D672	1105275	21
		DIODE IN 751A (5.1V ZENER)	1110394	20
3	D10.D17.D18			19
13	C9 C33.C36	DIODE IN 753A (6.2V ZENER)	1102421	18
~~1~~	~~C15~~	CAP 15UF 50V 10% POLYCARBONATE	1010031	17
4	C12.C13.C18.C19	~~CAP 18PF 100V 5% D.M.~~	~~1002608~~	~~16~~
14	C4.10.11.16.17.22 24.28 31 32.34.35 37.38	CAP. .01 UF 50V AXIAL	1001610-00	15
		CAP .01UF 100V 20% DISC	1001610-01	14
2	C6.C7			
3	C3.C23.C25	CAP 10UF 35V 20% S TANT	1000069	13
1	C2	CAP 6.8UF 35V 20% S. TANT	1000067	12
2	C5.C30	CAP 680PF 100V 5% D.M.	1000026	11
1	C29	CAP 470PF 100V 5% D.M.	1000024	10
1	C41	CAP 150PF 100V 5% DM.	1000019	9
1	C14	CAP 27PF 100V 5% D.M.	1001739	8
3	C1.C39.C40	CAP 56PF 100V 5% D.M.	1000012	7
2	C8.C15	CAP 47PF 100V 5% D.M.	1000011	6
		CAP 18 PF 100V 5% D.M.	1002608	5
		ETCHED CIRCUIT BOARD	5009743	4
		MODULE ECO HISTORY	B-MH-G180-0-6	3
		ASSY/DRILLING HOLE LAYOUT	E-AH-G180-0-5	2
		X-Y COORDINATE HOLE LOCATION	K-CO-G180-0-4	1

PARTS LIST

ETCH BOARD REV. L

IC TYPE	GND	+5V
DEC 8640	1	8
DEC 75452	4	8

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

IC PIN LOCATIONS

REV.	CHANGE NO.
S	G180-ML013
R	G180-00012
P	G180-00011
N	G180-00010
M	G180-00009
L	G180-00008
K	G180-00006

REVISIONS

DEC NO.	EIA NO.	DEC NO.	EIA NO.
		IN746A	SAME
2N2904	2N2118A	IN753A	SAME
DEC 3009B	2N3009	IN751A	SAME
DEC 6534C	MPS6534	D672	IN3653

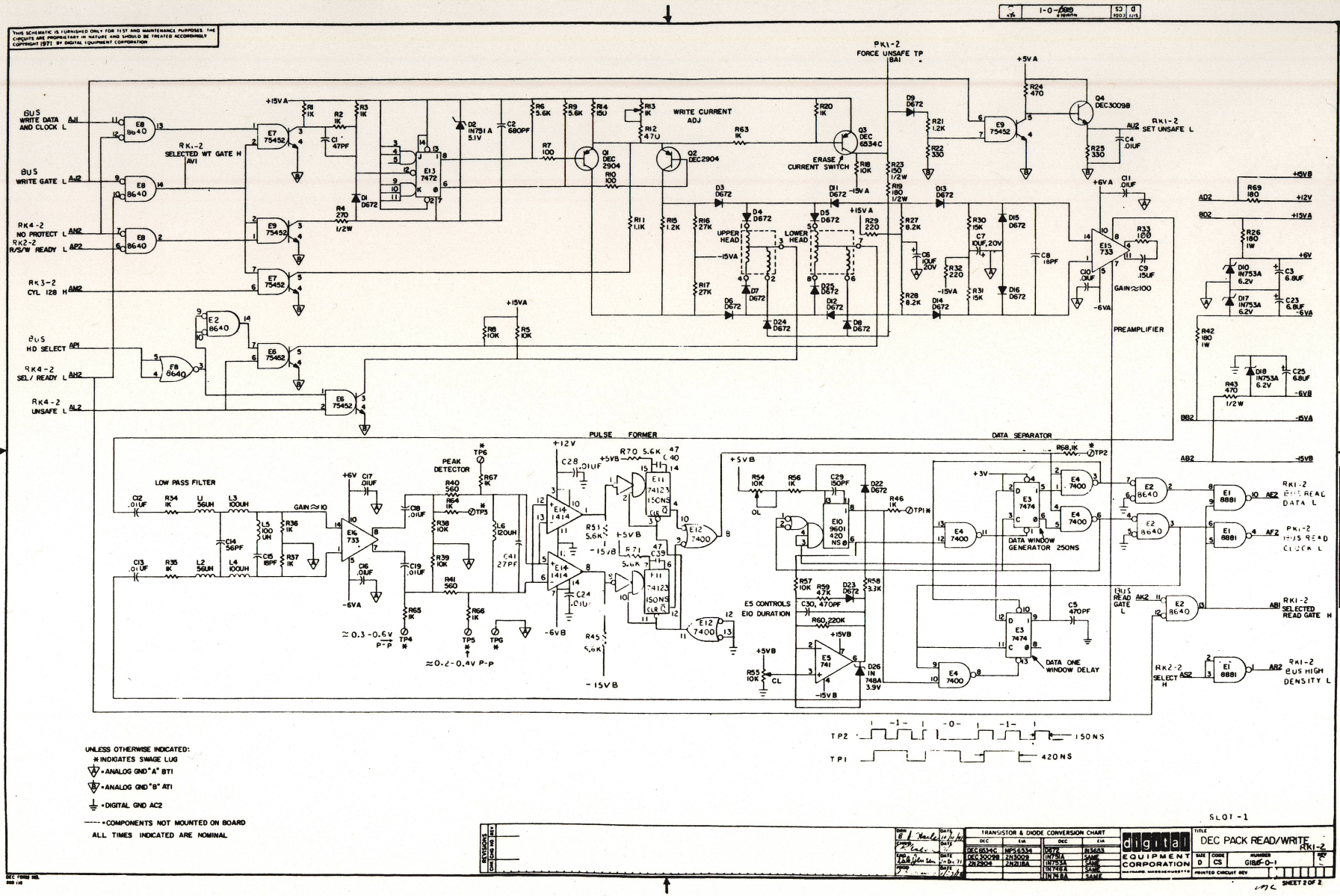
SEMICONDUCTOR CONVERSION CHART

DRN. R DOUCETTE DATE 10-22-71
CHK'D. NANCY MOORE DATE 11-30-71
ENG. DALE JENSEN DATE 1-22-72
PROJ. ENG. A KARLSBERG DATE 1-28-72
PROD. DATE
NEXT HIGHER ASSY
SCALE
SHEET 1 OF 2

digital

TITLE DEC PACK READ/ WRITE

SIZE D CODE CS NUMBER G18Ø-0-1 REV. S
DIST.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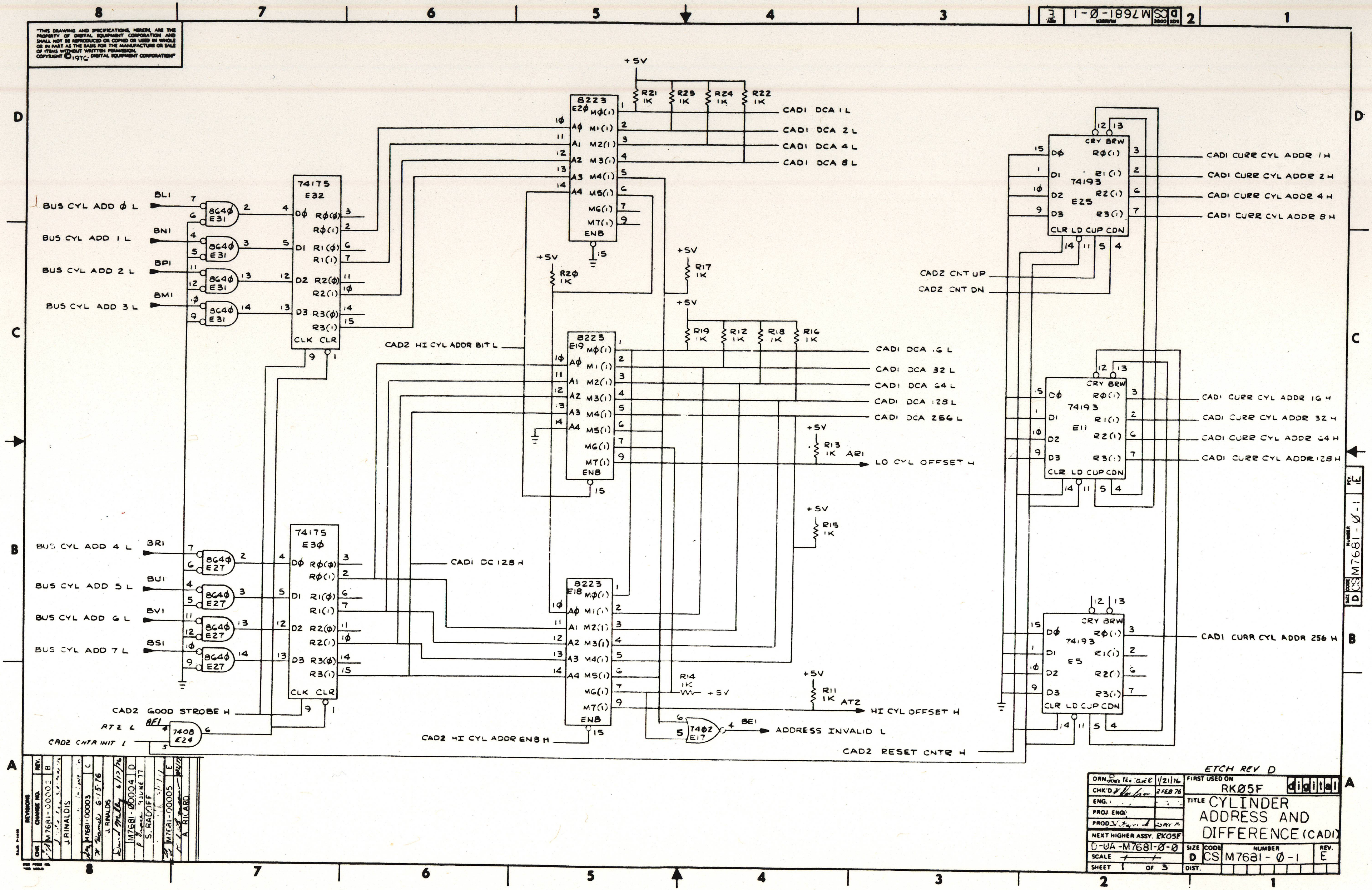
PK1-2 FORCE UNSAFE TP BA1
BUS WRITE DATA AND CLOCK L AJ1
BUS WRITE GATE L AJ2
RK4-2 NO PROTECT L AN2
RK2-2 R/S/W READY L AP2
RK3-2 CYL 128 H AM2
BUS HD SELECT AP1
RK4-2 SEL/ READY L AH2
RK4-2 UNSAFE L AL2
RK1-2 SELECTED WT GATE H AV1
WRITE CURRENT ADJ
ERASE CURRENT SWITCH
UPPER HEAD
LOWER HEAD
PREAMPLIFIER
GAIN≈100
PULSE FORMER
LOW PASS FILTER
PEAK DETECTOR
GAIN≈10
DATA SEPARATOR
DATA WINDOW GENERATOR 250NS
DATA ONE WINDOW DELAY
E5 CONTROLS E10 DURATION
RK1-2 SET UNSAFE L AU2
RK1-2 BUS READ DATA L AE2
RK1-2 BUS READ CLOCK L AF2
RK1-2 SELECTED READ GATE H AB1
RK2-2 SELECT H AS2
RK1-2 BUS HIGH DENSITY L AB2
≈0.3-0.6V P-P
≈0.2-0.4V P-P
TP2
TP1
150NS
420NS
UNLESS OTHERWISE INDICATED:
*INDICATES SWAGE LUG
▽ = ANALOG GND "A" BT1
▽ = ANALOG GND "B" AT1
⏚ = DIGITAL GND AC2
----- = COMPONENTS NOT MOUNTED ON BOARD
ALL TIMES INDICATED ARE NOMINAL
TRANSISTOR & DIODE CONVERSION CHART
digital EQUIPMENT CORPORATION
DEC PACK READ/WRITE RK1-2
SIZE D CODE CS NUMBER G185-0-1 REV
PRINTED CIRCUIT DEV
SLOT-1
SHEET 2 OF 2



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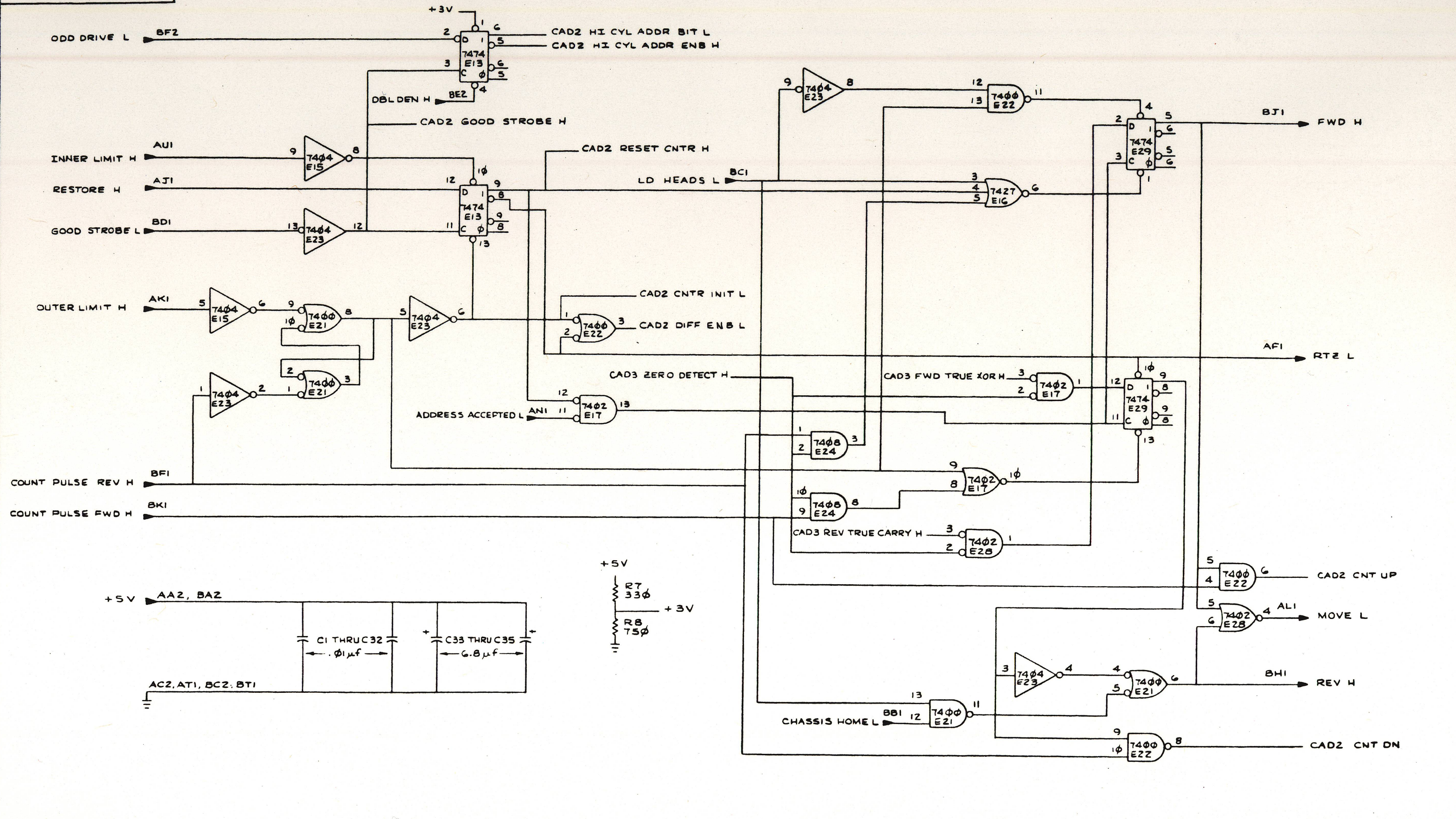
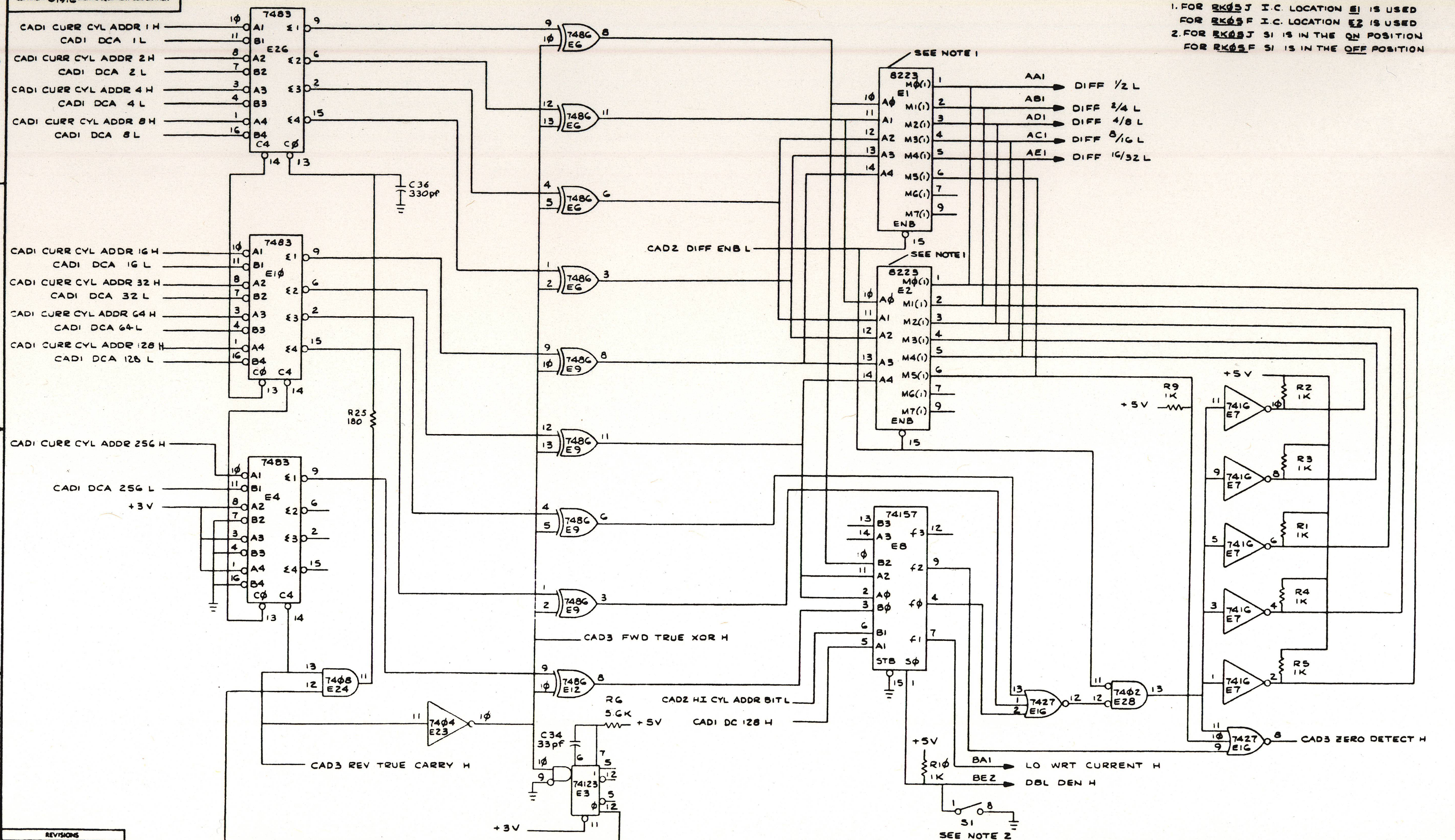
BUS CYL ADD Ø L
BUS CYL ADD 1 L
BUS CYL ADD 2 L
BUS CYL ADD 3 L
BUS CYL ADD 4 L
BUS CYL ADD 5 L
BUS CYL ADD 6 L
BUS CYL ADD 7 L
8640 E31
8640 E27
74175 E32
74175 E30
8223 E20
8223 E19
8223 E18
74193 E25
74193 E11
74193 E5
7408 E24
7402 E17
CADI DCA 1 L
CADI DCA 2 L
CADI DCA 4 L
CADI DCA 8 L
CADI DCA 16 L
CADI DCA 32 L
CADI DCA 64 L
CADI DCA 128 L
CADI DCA 256 L
CADI CURR CYL ADDR 1 H
CADI CURR CYL ADDR 2 H
CADI CURR CYL ADDR 4 H
CADI CURR CYL ADDR 8 H
CADI CURR CYL ADDR 16 H
CADI CURR CYL ADDR 32 H
CADI CURR CYL ADDR 64 H
CADI CURR CYL ADDR 128 H
CADI CURR CYL ADDR 256 H
CAD2 CNT UP
CAD2 CNT DN
CAD2 HI CYL ADDR BIT L
CADI DC 128 H
LO CYL OFFSET H
HI CYL OFFSET H
ADDRESS INVALID L
CAD2 GOOD STROBE H
ATZ L
CAD2 CNTR INIT L
CAD2 HI CYL ADDR EN8 H
CAD2 RESET CNTR H
+5V
ETCH REV D
FIRST USED ON RK05F
TITLE CYLINDER ADDRESS AND DIFFERENCE (CADI)
NEXT HIGHER ASSY. RK05F
D-UA-M7681-Ø-Ø
SIZE D CODE CS NUMBER M7681-Ø-1 REV. E
SHEET 1 OF 3



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE CYLINDER ADDRESS AND DIFFERENCE (CAD2)	SIZE D	CODE CS	NUMBER M7681-Ø-1	REV. E
SCALE —/—	SHEET 2 OF 3	DIST.		

NOTE:
1. FOR RKØ5J I.C. LOCATION E1 IS USED
FOR RKØ5F I.C. LOCATION E2 IS USED
2. FOR RKØ5J S1 IS IN THE ON POSITION
FOR RKØ5F S1 IS IN THE OFF POSITION



REVISIONS		
CHK	CHANGE NO.	REV

TITLE CYLINDER ADDRESS AND DIFFERENCE (CAD3)

SIZE	CODE	NUMBER	REV.
D	CS	M7681-Ø-1	E

SCALE —— SHEET 3 OF 3

DEC FORM NO. DRD 120

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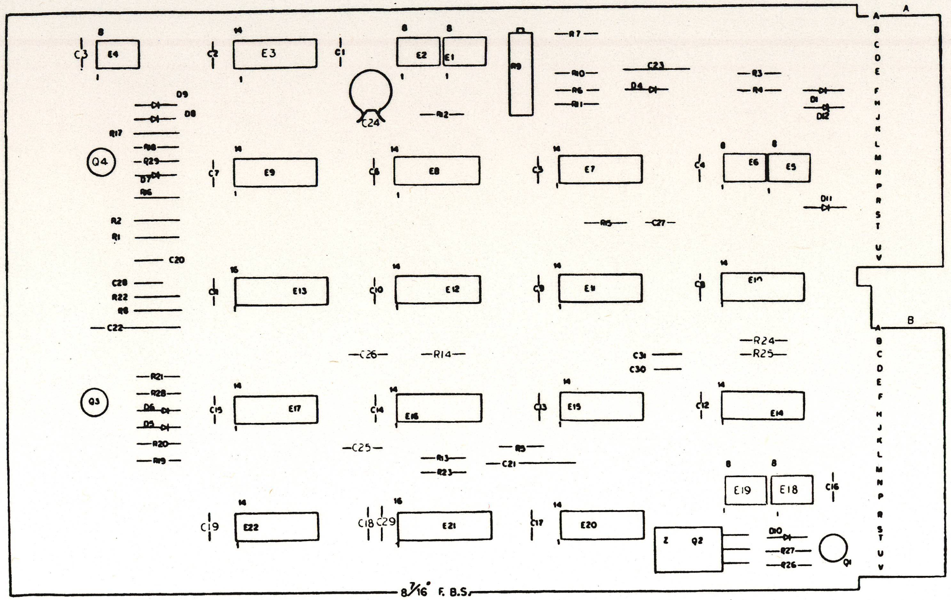
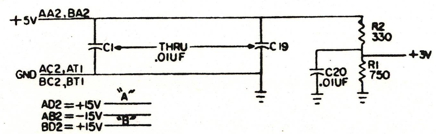




QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO

PARTS LIST

ETCH BOARD REV K

SEMICONDUCTOR CONVERSION CHART

DEC NO.	EIA NO.	DEC NO.	EIA NO.
IN748 3.9V	SAME	DEC6534D	MPS6534
IN746A 3.3V	SAME	DEC44C3	
IN4001	SAME	IN759 S	SAME
D670	IN3653		
D664	IN3606		
DEC6531	MPS6531		
DEC2219	2N2219		

REVISIONS

REV	CHANGE NO.		
D	M7701-00001A	B.A. Haile 1-20-72	D. JENSEN
F	M7701-00002	2-[illegible]-72	DALE JENSEN
F	M7701-00003	4-21-72	D JENSEN
H	M7701-00004	5-[illegible]-72	D. JENSEN
J	M7701-00005	9/15/72	E. SIMMONS
K	M7701-0006	10-4-72	D. JENSEN
L	M7701-00007	11/13/72	D. JENSEN
M	M7701-00008	1-23-73	D. JENSEN
N	M7701-00009	3-21-73	D.JENSEN 4-3-73
P	M7701 00011	S RADOFF 17 June 77	6-27-77

DRN. Roger V. Doucette	DATE 10-27-71
CHK'D. Barry Moore	DATE 11-3-71
ENG.	DATE 12-9-71
PROJ. ENG.	DATE 12-9-71
PROD.	DATE 1/21/72
NEXT HIGHER ASSY	
SCALE	
SHEET 1 OF 3	

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE DISK ENG. CONTROL + INTERLOCK

SIZE	CODE	NUMBER	REV.
D	CS	M7701-0-1	P

DIST.

DEC FORM NO. DRD-12B

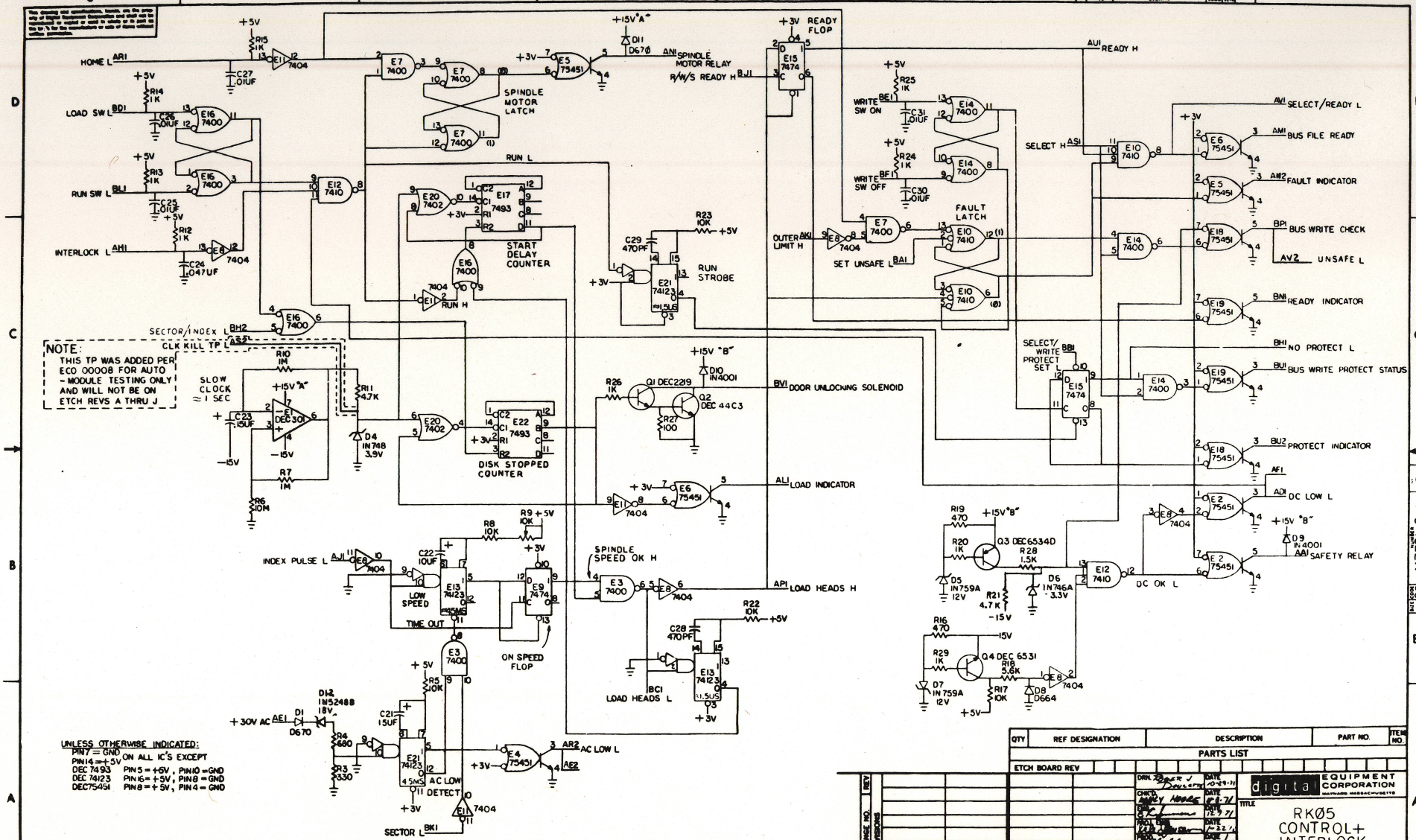
QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO
		X-Y COORDINATE HOLE LOCATION	K-CO-M7701-0-4	1
		ASST/DRILLING HOLE LAYOUT	E-AH-M7701-0-5	2
		MODULE ECO HISTORY	B-MH-M7701-0-8	3
1		ETCHED CIRCUIT BOARD	5009714	4
25	C1-C20, C25-C27, C30, C31	CAP, .01 UF, 100V, 20%, DISC	1001810	5
1	C21	CAP, .15 UF, 20V, 20%, TANT	1004812	6
1	C22	CAP, .10 UF, 20V, 20%, TANT	1004513	7
1	C23	CAP, .15 UF, 35V, 20%, TANT	1002198	8
2	C28, C29	CAP, 470 PF, 100V, 5%, CM	1000024	9
1	D8	DIODE, D664	1100114	10
2	D1, D11	DIODE, D870	1102182	11
2	D9, D10	DIODE, IN4001	1102942	12
1	D6	DIODE, IN748A, 3.3V	1104880	13
1	D4	DIODE, IN748, 3.9V	1100121	14
2	D5, D7	DIODE, IN759S, 12V	1110843	15
A/R		GRIPLETS	1210244-0	16
1	R27	RES, 100 OHMS, ¼W, 5%	1300229	17
2	R2, R3	RES, 330 OHMS, ¼W, 5%	1300295	18
2	R16, R19	RES, 470 OHMS, ¼W, 5%	1300316	19
1	R1	RES, 750 OHMS, ¼W, 5%	1301401	20
9	R12, R13, R15, R20, R24, R25, R28, R29, R14	RES., 1K, ¼W, 5%	1300365	21
1	R28	RES, 1.5K, ¼W, 5%	1300391	22
1	R4	RES, 680 OHMS, ¼W, 5%	1301424	23
2	R11, R21	RES, 47K, ¼W, 5%	1300447	24
1	R18	RES, 5.6K, ¼W, 5%	1301874	25
5	R5, R8, R17, R22, R23	RES, 10K, ¼W, 5%	1300479	26
				27
				28
2	R7, R10	RES, 1M, ¼W, 5%	1309595	29
1	R6	RES, 10 M, ¼W, 5%	1302688	30
1	R9	RES, 10 K, ¼W, 10%, 78 PR	1309143-10	31
1	Q4	TRANSISTOR, DEC 8531	1509338	32
1	Q1	TRANSISTOR, DEC 2219	1501881	33
1	Q3	TRANSISTOR, DEC 8534D	1503409-00	34
1	Q2	TRANSISTOR, DEC 44C3	151671	35
4	E3, E7, E16, E14	I C , DEC 7400	1905575	36
1	E20	I C , DEC 7402	1909004	37
2	E11, E8	I.C. DEC 7404	1909686	38
2	E12, E10	I.C., DEC 7410	1905578	39
2	E9, E15	I C., DEC 7474	1905547	40
2	E22, E17	I.C., DEC 7493	1909054	41
2	E21, E13	I C., DEC 74123	1910436	42
6	E2, E4, E8, E5, E18, E19	I.C., DEC 75451	1910206	43
1	E1	I C., DEC 301	1910282	44
4		EYELET #GSL-7	9006732	45
2		HANDLE FLIP CHIP - MAGENTA	9006337-08	46
1		SCREW #4-40 X 5/16	9006010-1	47
1		NUT, KEP #4-40	9006557	48
1	D12	DIODE, IN5248B, 18V, 5%	1110788	49
1	C24	CAP, .047 UF, 16V, DISC	1009878	50

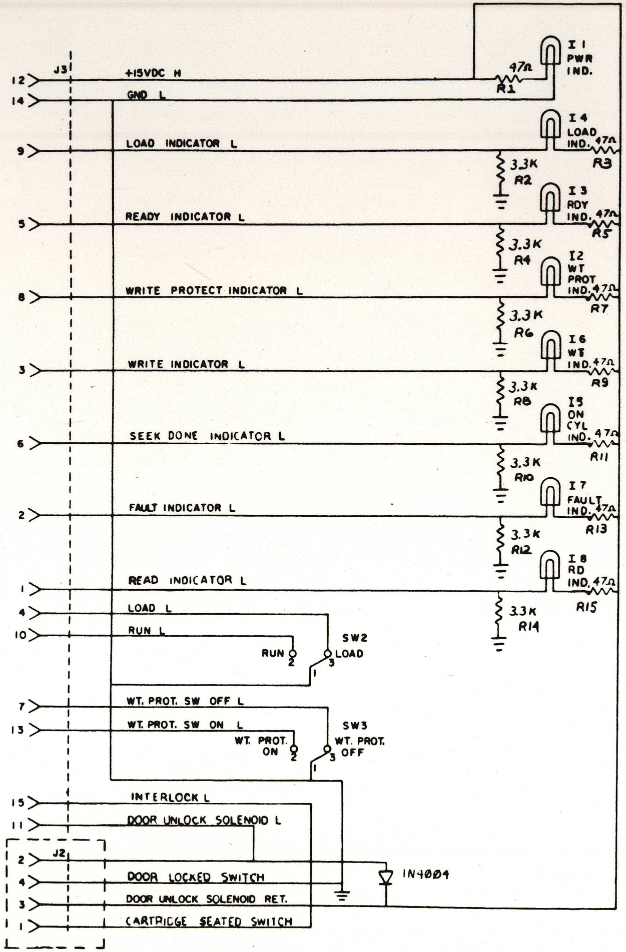
REVISIONS

CHK	CHANGE NO.	REV.

TITLE: DISK ENG. CONTROL +INTERLOCK
SIZE: D | CODE: CS | NUMBER: M7701-0-1 | REV: P
SCALE: — | SHEET 2 OF 3 | DIST.

DATA CODE: DCSM7701-0-1 REV P


HOME L AR1
LOAD SW L BD1
RUN SW L BJ1
INTERLOCK L AH1
SECTOR/INDEX L BH2
SPINDLE MOTOR LATCH
SPINDLE MOTOR RELAY
R/W/S READY H BJ1
+3V READY FLOP
AU1 READY H
RUN L
START DELAY COUNTER
RUN H
RUN STROBE
OUTER LIMIT H AK1
SET UNSAFE L BA1
FAULT LATCH
WRITE SW ON BE1
WRITE SW OFF BF1
SELECT H AS1
AV1 SELECT/READY L
AM1 BUS FILE READY
AM2 FAULT INDICATOR
BP1 BUS WRITE CHECK
AV2 UNSAFE L
BN1 READY INDICATOR
BH1 NO PROTECT L
BU1 BUS WRITE PROTECT STATUS
BU2 PROTECT INDICATOR
AF1
AD1 DC LOW L
AA1 SAFETY RELAY
DC OK L
SELECT/WRITE PROTECT SET L BB1
CLK KILL TP L AS2
NOTE: THIS TP WAS ADDED PER ECO 00008 FOR AUTO-MODULE TESTING ONLY AND WILL NOT BE ON ETCH REVS A THRU J
SLOW CLOCK ≈1 SEC
DISK STOPPED COUNTER
DOOR UNLOCKING SOLENOID BV1
LOAD INDICATOR AL1
INDEX PULSE L AJ1
LOW SPEED
TIME OUT
ON SPEED FLOP
SPINDLE SPEED OK H
LOAD HEADS H AP1
LOAD HEADS L BC1
AC LOW DETECT
AC LOW L AR2
SECTOR L BK1
+30V AC AE1
UNLESS OTHERWISE INDICATED:
PIN7 = GND
PIN14 = +5V ON ALL IC'S EXCEPT
DEC 7493 PIN5 = +5V, PIN10 = GND
DEC 74123 PIN16 = +5V, PIN8 = GND
DEC75451 PIN8 = +5V, PIN4 = GND
SEMICONDUCTOR CONVERSION CHART
PARTS LIST
QTY | REF DESIGNATION | DESCRIPTION | PART NO. | ITEM NO.
ETCH BOARD REV
digital EQUIPMENT CORPORATION
TITLE RK05 CONTROL+ INTERLOCK
NEXT HIGHER ASSY
SIZE D | CS | NUMBER M7701-0-1 | REV. P
SCALE
SHEET 3 OF 3
DIST.
M7701-0-1



DRN. S. COOPER	DATE 11-20-71
CHK'D	DATE 11-23-71
ENG. Dick Jensen	DATE 19 Dec 71
PROD.	DATE 19 Dec 71

TRANSISTOR & DIODE CONVERSION CHART

DEC	EIA	DEC	EIA

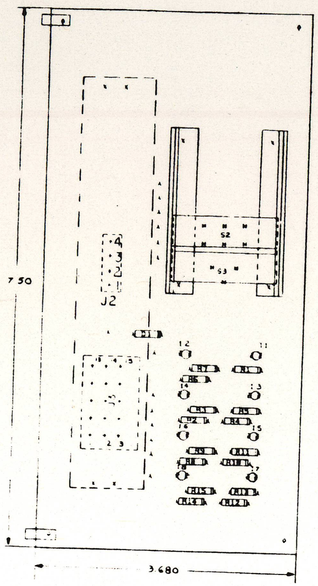
digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

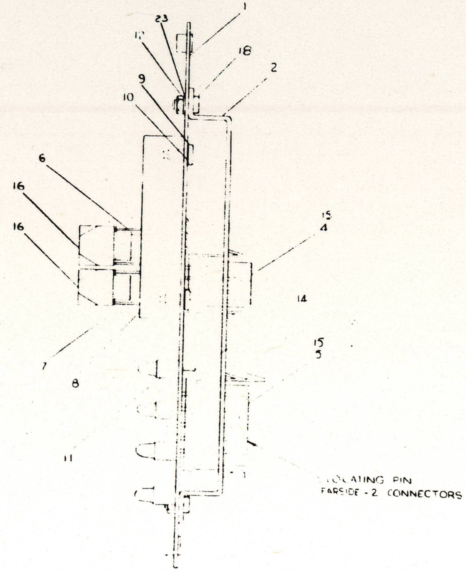
TITLE RK05 CONTROL PANEL RK7-1

SIZE	CODE	NUMBER	REV.
C	CS	5409698-0-1	F

PRINTED CIRCUIT REV. E-P2

DEC FORM NO. DRC 102





QTY	REF DESIGNATION	DESCRIPTION	PART NO.	
4		WASHER	9006655	23
1	D1	1N4004 DIODE	[illegible]	22
7	R2,4,6,8,10,12,14	3.3K 1/4W 5% RESISTOR	[illegible]	
8	R1,3,5,7,9,11,13,15	47 Ω 1/4W 5% RESISTOR	[illegible]	
REF		ASSY/DRILLING HOLE LAYOUT	[illegible]	
4		SCR PHL PAN HD #4 40 x 5/16	9006010	
2		NUT CLIP	[illegible]	17
2		SWITCH BUTTON	[illegible]	16
9		PIN SOCKET MATE N LOK	[illegible]	
6		TERMINAL SOLDERLESS	[illegible]	14
4		NUT [illegible] #4-40	[illegible]	
8	[illegible] 12,13,14,15,16,17,18	LAMP	[illegible]	
4		LOCK WASHER INTERNAL [illegible]	[illegible]	
4		SCREW [illegible]	[illegible]	
2		SWITCH MOUNTING BAR	[illegible]	9
	S3	SWITCH ROCKER	[illegible]	7
1	S2	SWITCH ROCKER	[illegible]	
1	J3	HOUSING [illegible] MATE N LOK	[illegible]	
	J2	HOUSING [illegible] MATE N LOK	[illegible]	
1		[illegible]	[illegible]	2
1		ETCHED [illegible] BOARD	[illegible]	
REF		[illegible]	[illegible]	
REF		[illegible]	[illegible]	4
A/R		[illegible]	[illegible]	

PARTS LIST

ETCH BOARD REV E

DEC NO	EIA NO	DEC NO	EIA NO

SEMICONDUCTOR CONVERSION CHART

IC TYPE	GND	+5V

IC PIN LOCATIONS

ITEM NO	WIRE	FROM PT	TO PT

JUMPER LIST

RK05

EQUIPMENT CORPORATION

TITLE RK7-2

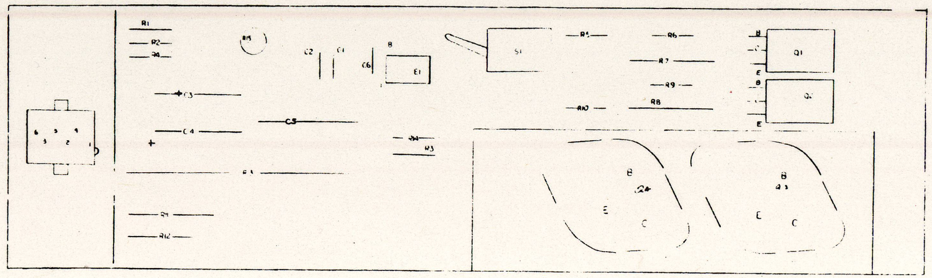
[illegible]NTR[illegible] PANEL

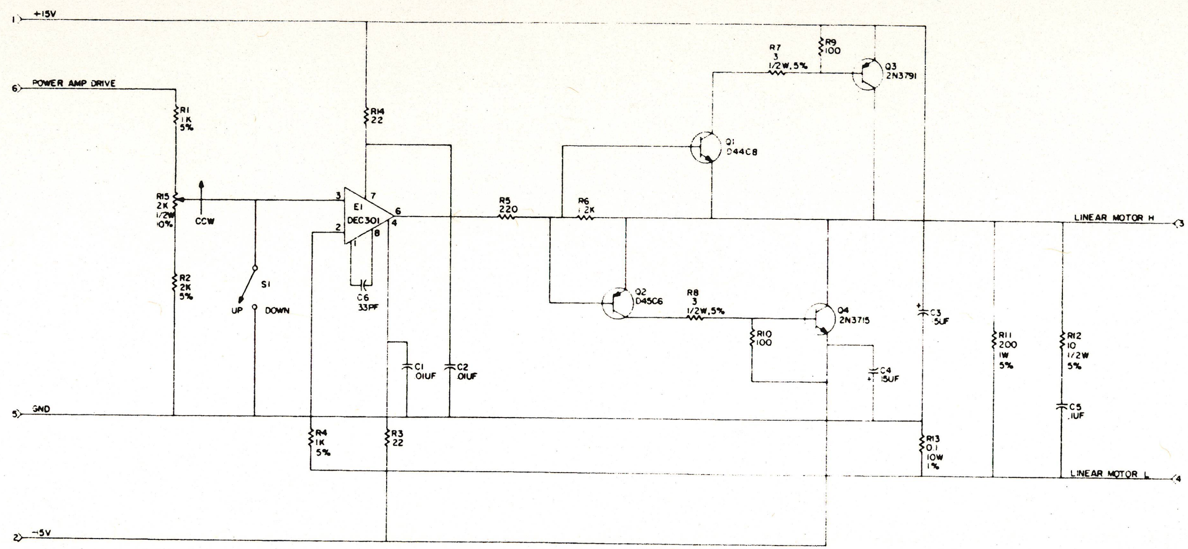
RK05

NEXT HIGHER ASSY [illegible] RK05 [illegible]

SIZE A

REV F





UNLESS OTHERWISE INDICATED:
RES. ARE 1/4W, 10%
R13 IS A CURRENT SAMPLING RES.

TRANSISTOR & DIODE CONVERSION CHART

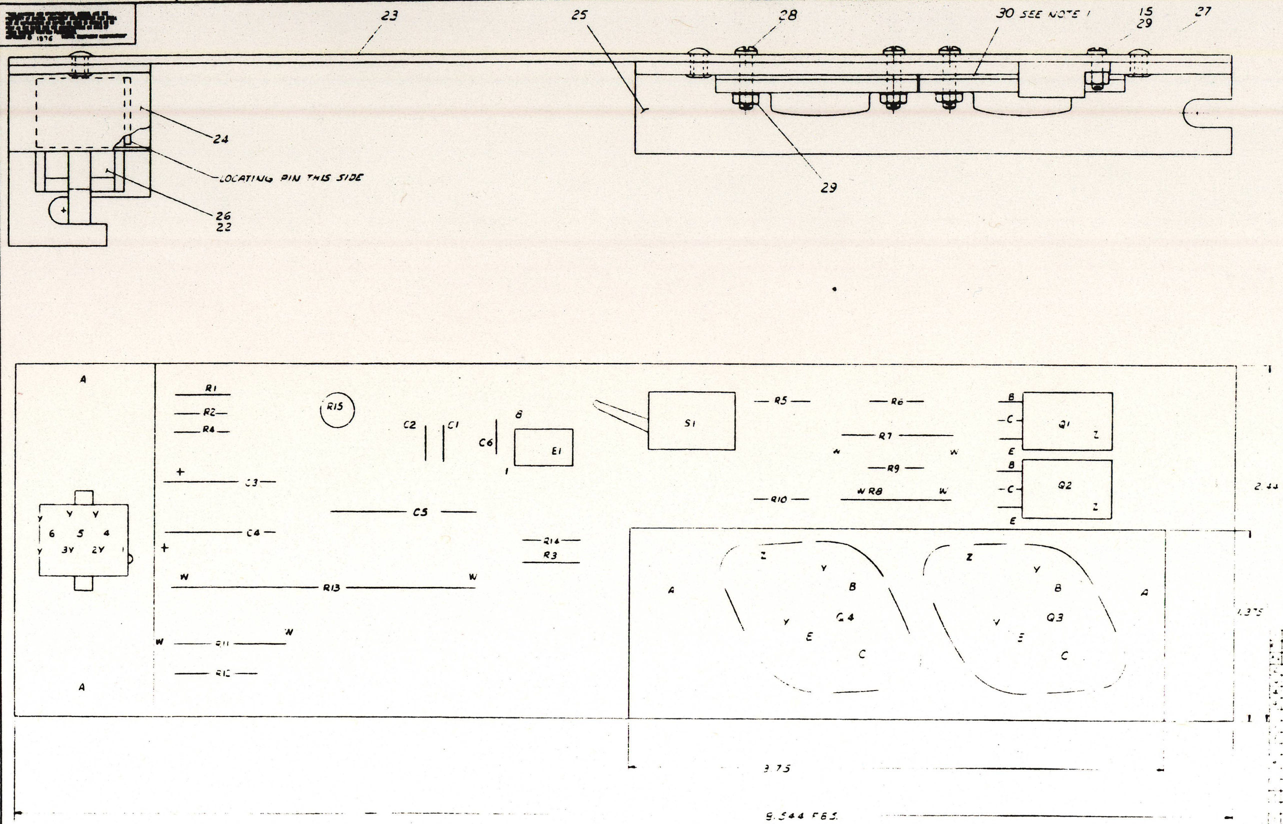
DEC	EIA	DEC	EIA
2N3715			
D45C6			
D44C8			

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: DECPAK HEAD POS. SERVO PWR. AMP.

SIZE: D | CODE: CS | NUMBER: H604-0-1 | REV: K

PRINTED CIRCUIT REV: K



NOTES

1. APPLY THERMAL JOINT COMPOUND, ITEM 31, BETWEEN TRANSISTORS Q3 & Q4 AND WASHER, ITEM 30. ALSO BETWEEN WASHER ITEM 30 AND BRACKET HEAT SINK ITEM 25

QTY	REF	DESCRIPTION	DWG/PART NO.	ITEM NO.
		RES 2K 1W 5%	302399	33
		ASSY HOLE [illegible]	D-AH H604-0-5	32
		COMPOUND THERMAL JNT	3000258	31
		INSULATING WASHER	300672	30
		NUT HEX #4-40	3006357	29
		SCR 8 [illegible] HD SLOT #4 40 X 44	30060-2-4	28
		EYELET [illegible]	300-732	27
		[illegible]	209350-06	26
		BRACKET HEAT SINK	MD 55038 000	25
		BRACKET [illegible]	MD-55039 200	24
		[illegible] BOARD	500974	23
		[illegible]	209456-01	22
	E	[illegible]	1310282	21
	Q4	TRANS 2N3715	509349	20
	Q3	TRANS 2N3719	130959	19
	Q2	TRANS [illegible]	1510414	18
	Q1	TRANS [illegible]	1310421	17
2	R4, R[illegible]	RES [illegible]K .25W 5%	1300365	16
2		[illegible]	3306009-4	15
	R5	POT 2K [illegible]	1309150-07	14
	R6	RES 1.2K .25W 5%	301920	13
	R5	RES 220 .25W 5%	1300271	12
	R[illegible]	RES 200 [illegible]W 5%	302392	11
2	R[illegible]	RES [illegible] .25W 5%	300229	10
2	R9 R[illegible]	RES 22 .25W 5%	301969	9
	R[illegible]	RES [illegible] .5W 5%	300169	8
2	R7 R9	RES 3[illegible] 2W 5%	1301649	7
	R3	RES [illegible]	309108	6
	S1	SWITCH TOGGLE [illegible]	210209	5
2	C[illegible]	CAP [illegible]	1004912	4
	C6	CAP [illegible] 5%	300009	3
	C5	CAP [illegible]	1002342	2
	C1 C2	CAP [illegible] 50V 20%	1001610	1
		MODULE [illegible] HISTORY	B-MH H604-0-0	
		[illegible] COORDINATE HOLE LOC	K-CO-H604-0-0	
		CIRCUIT SCHEMATIC	D-CS-H604-0-1	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

QUANTITY & VARIATION

PREFERRED

DO NOT SCALE DWG

TITLE

HEAD POSITION SERVO POWER AMP

UA H604-0-0

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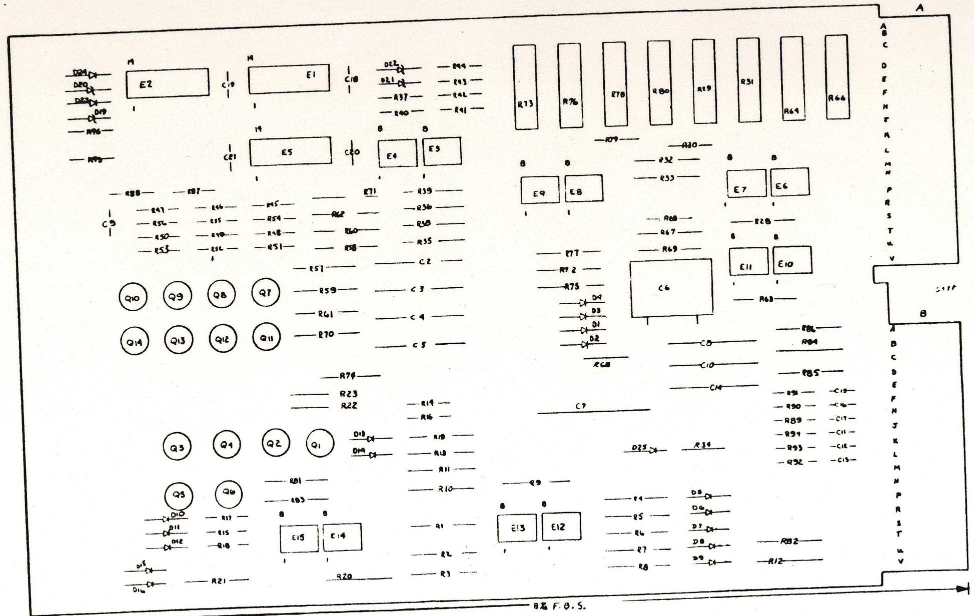
NOTES:



PARTS LIST

QTY G938-YA	QTY G938-0	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
REF	REF		X-Y COORDINATE HOLE LOCATION	K-CO-G938-0-4	1
REF	REF		ASSY/DRILLING HOLE LAYOUT	E-AH-G938-0-5	2
REF	REF		MODULE ECO HISTORY	B-MH-G938-0-6	3
1	1		ETCHED CIRCUIT BOARD	5009388	4
4	4	C2, C3, C4, C5	CAP. .015 UF 50V 2% POLY CARB	1010646	5
1	1	C6	CAP. 8200 PF 100V MICA	1000061	6
1	1	C7	CAP. .022 UF 100V 10% MYLAR	1002323	7
3	3	C8, C10, C14	CAP. 15UF 20V 10% S. TANT	1004812	8
11	11	C9, C11, C12, C13, C15 THRU C21	CAP. .01UF 100V 20% DISC	1001610-01	9
7	7	D1 THRU D4, D23 THRU D25	DIODE D662	1100113	10
10	10	D5 THRU D14	DIODE D664	1100114	11
2	2	D15, D16	DIODE IN758A 10V	1100125	12
4	4	D19 THRU D22	DIODE IN746A	1104860	13
7	7	R1, R15, R17, R46, R49, R52, R55	RES. 15K 1/4 W 5%	1300496	14
1	1	R2	RES. 13.3K 1/4 W 1% MF	1312565	15
1	1	R3	RES. 9.09K 1/8 W 1% MF	1304855	16
1	—	R4	RES. 34.8K 1/8W 1% MF	1303156	17
—	1	R4	RES. 68.1K 1/8W 1% MF	1305252	18
—	1	R5	RES. 34.8K 1/8W 1% MF	1303156	19
1	—	R5	RES. 21.5K 1/8W 1% MF	1303155	20
1	—	R6	RES. 11.5K 1/8W 1% MF	1309415	21
—	1	R6	RES. 21.5K 1/8W 1% MF	1303155	22
1	—	R7	RES. 5.62K 1/8W 1% MF	1305128	23
—	1	R7	RES. 11.5K 1/8W 1% MF	1309415	24
1	—	R8	RES. 2.74K 1/8W 1%	1304868	25
—	1	R8	RES. 5.62K 1/8W 1%	1305128	26
5	5	R9, R57, R59, R61, R70	RES. 10K 1/8 W 1% MF	1303312	27
12	12	R10, R11, R32, R33, R35, R36, R38, R39, R67, R69, R81, R83	RES. 19.6K 1/8W 1% MF	1309419	28
2	2	R12, R72	RES. 6.81K 1/8W 1% MF	1304870	29
-	2	R13, R19	RES. 4.64K 1/8W 1% MF	1304856	30
9	9	R14, R16, R43, R44, R45, R48, R51, R54, R68	RES. 1.5K 1/4 W 5%	1300391	31
5	5	R18, R47, R50, R53, R56	RES. 3.9K 1/4 W 5%	1300444	32
1	1	R20	RES. 200K 1/8W 1% MF	1305336	33
1	1	R21	RES. 3.83K 1/8 W 1% MF	1309413	34
—	1	R22	RES. 100K 1/4 W 5%	1302466	35
5	6	R23, R30, R41, R42, R65, R79	RES. 75K 1/4W 5%	1304841	36
5	5	R29, R64, R73, R76, R78	POT 10K 3/4W 20% 76PR	1309143-10	37
3	3	R31, R66, R80	POT 2K 3/4W 10% 76PR	1309143-08	38
3	3	R37, R40, R87	RES. 330 1/4W 5%	1300295	39
5	5	R58, R60, R62, R71, R82	RES. 511 1/8W 1% MF	1302411	40
1	1	R75	RES. 24.3K 1/8W 1% MF	1309418	41
2	2	R84, R85	RES. 10 1/2W 5%	1300168	42
1	1	R86	RES. 2.7 1/2W 10%	1309444	43
6	6	R89 THRU R94	RES. 22 1/4W 5%	1301969	44
1	1	R88	RES. 750 1/4W 5%	1301401	45
3	3	R28, R63, R77	RES. 1.96K 1/8W 1% MF	1304833	46
—	1	R74	RES. 1.47K 1/8W 1% MF	1305108	47
3	3	R34, R95, R96	RES. 10K 1/4W 5%	1300479	48
8	8	Q1 THRU Q4, Q11 THRU Q14	TRANSISTOR 2N5245	1509681	49
6	6	Q5 THRU Q10	TRANSISTOR DEC 6534D	1503409-00	50
1	1	E1	I.C. DEC 7404	1909686	51
1	1	E2	I.C. DEC 7413	1909989	52
2	2	E3, E4	I.C. DEC 301	1910282	53
1	1	E5	I.C. DEC 7400	1905575	54
7	7	E7, E8, E11 THRU E15	I.C. DEC 72741	1910298-00	55
4	4		EYELET #GS4-7	9006732	56
2	2		HANDLE, FLIP CHIP GREEN	9008337-01	57
A/R	A/R		GRIPLET	1210244-0	58
1	—	R22	RES 200K, 1/8W, 1%	1305336	59
1	—	R23	RES 137K, 1/8W, 1%	1305442	60
2	—	R13, R19	RES 9.09K, 1/8W, 1%	1304855	61
1	—	R74	RES 2.94K, 1/8W, 1%	1301981	62
3	3	E6, E9, E10	IC DEC 72741	1910298-01	63

IC PIN LOCATIONS

IC TYPE	GND	+5V
72741	SEE SHT 2	
LM301	SEE SHT 2	

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

SEMICONDUCTOR CONVERSION CHART

DEC NO.	EIA NO.	DEC NO.	EIA NO.
6534D	NONE		
2N5245			
D662	IN645		
D664	IN3606		
1746A	SAME		

FIRST USED ON OPTION MODEL

ETCH BOARD REV K

REVISIONS

REV	CHANGE NO.	CHK
S	G938-00011	A. Vowles 11 FEB 77, S. RADOFF, S. [illegible]
R	G938-00010	J. RINALDIS
P	G938-00009	J RINALDIS, 10 76
N	G938-00008, REVISED & REDRAWN	J. RINALDIS

DRN.	R. [illegible]	DATE 12-9-71
CHK'D	[illegible]	DATE 12-9-71
ENG.	[illegible]	DATE 12-30-71
PROJ. ENG.	[illegible]	DATE 12-30-71
PROD.	A. KARLSBERG	DATE [illegible]-72

NEXT HIGHER ASSY

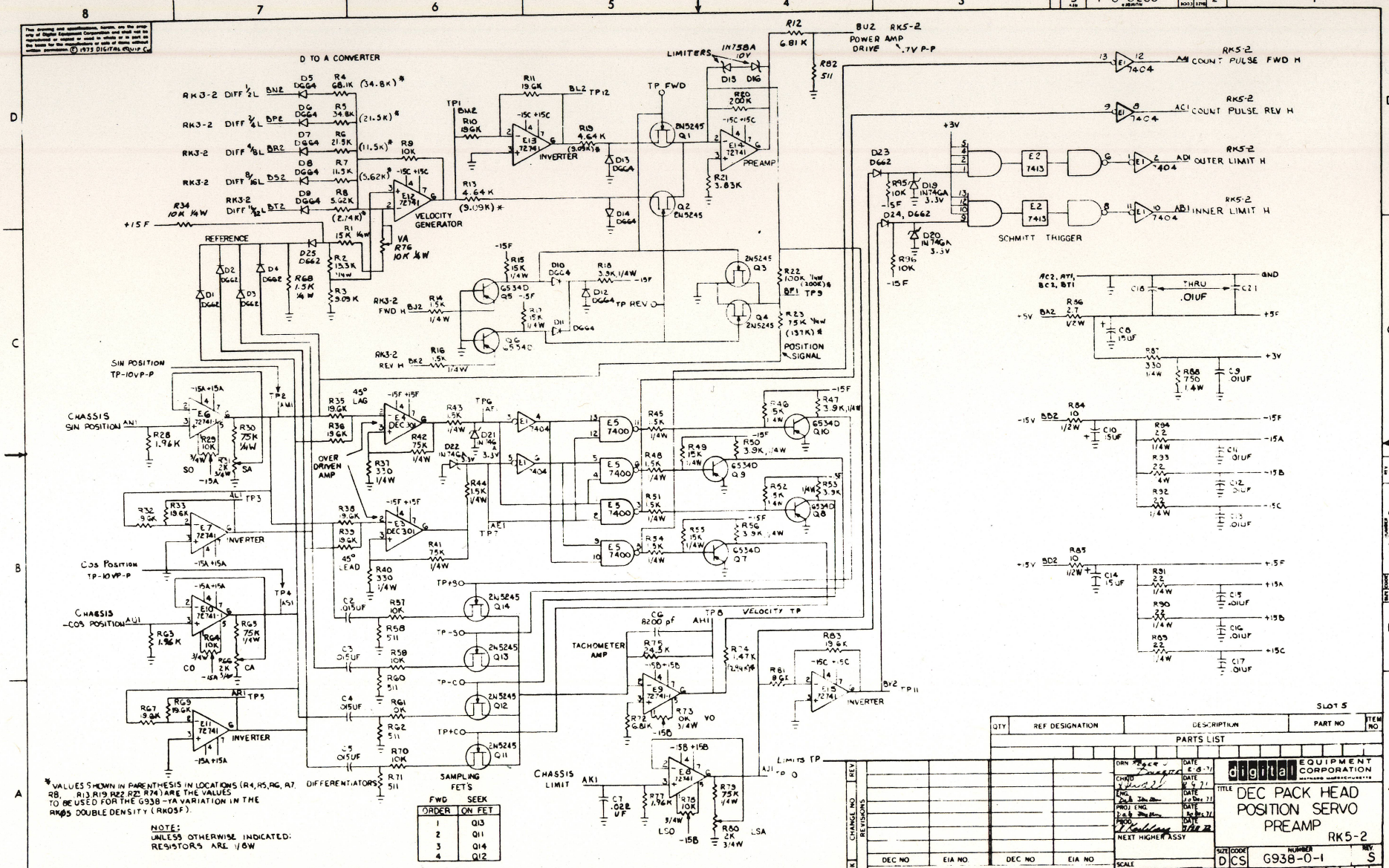
SCALE 1/1 SHEET 1 OF 2

digital

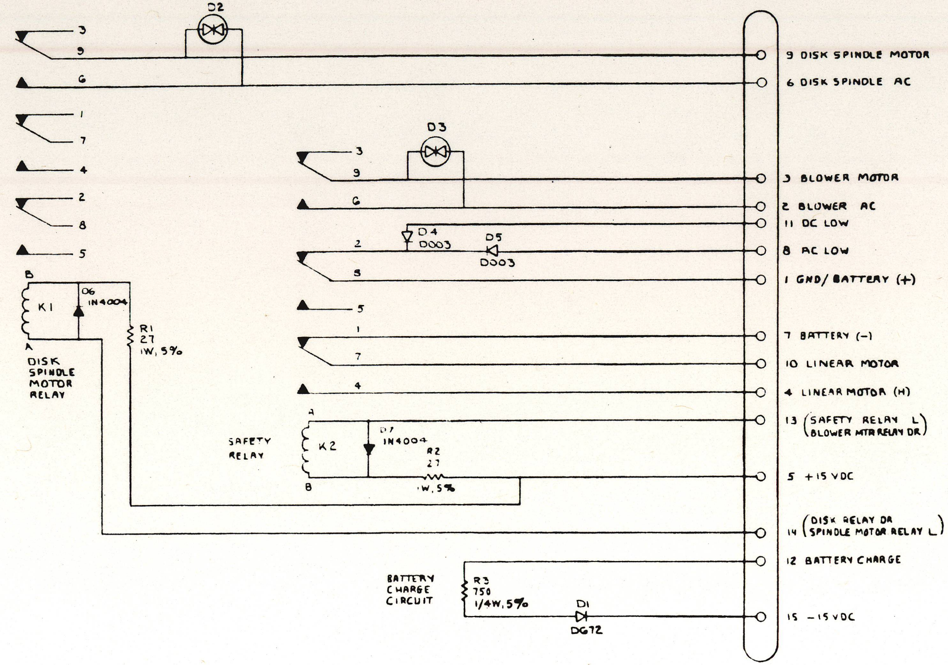
TITLE DEC PACK HEAD POSITION SERVO PREAMP RK5-1

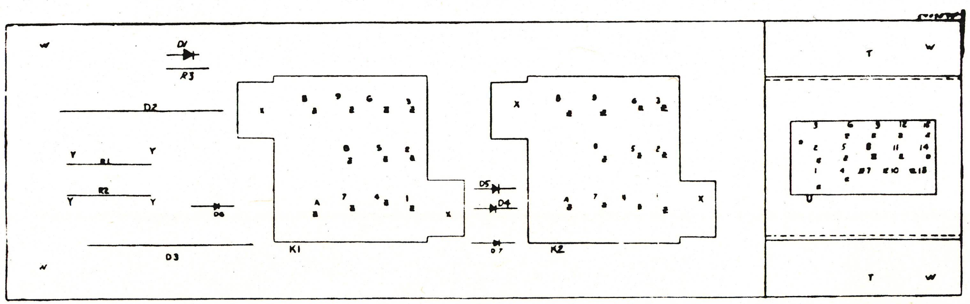
SIZE D CODE CS NUMBER G938-0-1 REV. S

DIST.


D TO A CONVERTER
RK3-2 DIFF 1/2L BN2
RK3-2 DIFF 3/4L BP2
RK3-2 DIFF 7/8L BR2
RK3-2 DIFF 15/16L BS2
RK3-2 DIFF 31/32L BT2
VELOCITY GENERATOR
REFERENCE
INVERTER
PREAMP
LIMITERS
IN758A 10V
POWER AMP DRIVE .7V P-P
TP FWD
TP REV
RK3-2 FWD H BJ2
RK3-2 REV H BK2
POSITION SIGNAL
SIN POSITION TP-10VP-P
CHASSIS SIN POSITION AN1
COS POSITION TP-10VP-P
CHASSIS -COS POSITION AU1
OVER DRIVEN AMP
45° LAG
45° LEAD
SAMPLING FET'S
DIFFERENTIATORS
TACHOMETER AMP
VELOCITY TP
CHASSIS LIMIT AK1
LIMITS TP
SCHMITT TRIGGER
RK5-2 COUNT PULSE FWD H AM
RK5-2 COUNT PULSE REV H AC1
RK5-2 OUTER LIMIT H AD1
RK5-2 INNER LIMIT H AB1
THRU .01UF
* VALUES SHOWN IN PARENTHESIS IN LOCATIONS (R4, R5, R6, R7, R8, R13, R19, R22, R23, R74) ARE THE VALUES TO BE USED FOR THE G938-YA VARIATION IN THE RK05 DOUBLE DENSITY (RK05F).
NOTE: UNLESS OTHERWISE INDICATED: RESISTORS ARE 1/8W
FWD ORDER / SEEK ON FET
1 Q13
2 Q11
3 Q14
4 Q12
PARTS LIST
QTY REF DESIGNATION DESCRIPTION PART NO ITEM NO
SEMICONDUCTOR CONVERSION CHART
DEC NO EIA NO DEC NO EIA NO
digital EQUIPMENT CORPORATION
TITLE DEC PACK HEAD POSITION SERVO PREAMP RK5-2
SIZE D CODE CS NUMBER G938-0-1 REV S
SHEET 2 OF 2
NEXT HIGHER ASSY
SLOT 5
G938-0-1 S

NOTE:
1. RELAY CONTACTS ARE SHOWN IN THE DE-ENERGIZED POSITIONS.
2. SAFETY RELAY L AND BLOWER MTR RELAY DR ARE THE SAME SIGNAL.
3. SPINDLE MOTOR RELAY L AND DISK RELAY DR ARE THE SAME SIGNAL.
4. THIS MODULE MUST BE UL APPROVED





QTY	REF DESIGNATION	DESCRIPTION	PART NO	ITEM NO

PARTS LIST

ETCH BOARD REV F

DEC NO	EIA NO	DEC NO	EIA NO
D003	1N994		
D672	1N3653		

SEMICONDUCTOR CONVERSION CHART

REVISIONS: J RINALDIS; N FIELD; JENSEN; 5409574

DRN Roger J Doucette — 12-9-71
CHK'D — 2-15-71
ENG J Jensen — 14 Jan 72
PROJ ENG — 14 Jan 72
PROD

NEXT HIGHER ASSY

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: DEC PACK MOTOR RELAYS

SIZE D CODE CS NUMBER 5409574-0-1 REV H

SCALE
SHEET 1 OF 1
DIST

DEC FORM NO

DIGITAL EQUIPMENT CORPORATION
PARTS LIST

MADE BY Lora Metzger | CHECKED W. Vaughn | SECTION
DATE 2/2/76 | DATE 4 FEB 76 |
ENG [illegible] | PROD Jack Fogarty | ISSUED SECTION
DATE 2 FEB 76 | DATE 25 FEB 76 |

NOTES:

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	QUANTITY/VARIATION	REF. DESIGNATION
20	1910155-00		IC 7408	1	E24
21	1910436-00		IC 74123	1	E3
22	1910651-00		IC 74175	2	E30,E32
23	1910655-00		IC 74157	1	E8
24	1910878-00		IC 7427	1	E16
25	1911469-00		IC 8640	2	E27,E31
26	23138A1-00		IC 8223	1	E18,
27	23139A1-00		IC 8223 (NOT TO BE INSERTED)	1	E1,
28			IC (SPARE)		E14,E2
29	1211164-0D		SW,RKR 4 IN A DIP	1	S1
30	1211813-02		SOCKET IC 16 PIN	2	XE1,XE2
31	9008337-06		HANDLE,FLIP-CHIP,MAGENTA	2	
32	9006732-00		EYELET	4	
33	23137A1-00		IC	1	E19
34	23136A1-00		IC	1	E20
~~35~~	~~9105140-55~~		~~WIRE, #30 AWG, GRN~~	~~AR~~	
36	1301322-00		RES 180 OHM 1/4W 5%	1	R25
37	1000023-00		CAP 330 PF 100V 5%	1	C36
~~38~~	~~9105748-55~~		~~WIRE #30 AWG GREEN~~	~~A/R~~	

E.C.O. NO.

TITLE: CYLINDER ADDRESS AND DIFFERENCE

ASSY NO. D-UA-M7681-0-0 | SIZE B | CODE PL | NUMBER M7681-0-0 | REV. E

SHEET 2 OF 2 | DIST.

DIGITAL EQUIPMENT CORPORATION
PARTS LIST

MADE BY Lora Metzger	CHECKED H. Vorobjian (signature)	SECTION
DATE 2/2/76	DATE 4 FEB 76	ISSUED SECTION
ENG Joseph ... (signature)	PROD Jack Z... (signature)	
DATE 25 FEB 76	DATE 25 FEB 76	

NOTES:

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION		QUANTITY / VARIATION	REF. DESIGNATION
1	D-CS-M7681-0-1		CYLINDER ADDRESS AND DIFFERENCE (C.S)		REF	
2	D-AH-M7681-0-5		ASSY/DRILLING HOLE LAYOUT		REF	
3	B-MH-M7681-0-6		MODULE ECO HISTORY		REF	
4	5012044		ETCH CIRCUIT BOARD		1	
5	1000009-00		CAP 33PF 100V 5%	DM	1	C34
6	1001610-01		CAP .01UF 100V	DISC	32	C1 THRU C32
7	1005306-00		CAP 6.8UF 35V 10%	S.TANT	2	C33,C35
8	1300365-00		RES 1K ¼W 5%		21	R1 THRU R5,R9 THRU R24
9	1300295-00		RES 330 ¼W 5%		1	R7
10	1301401-00		RES 750 ¼W 5%		1	R8
11	1301874-00		RES 5.6K ¼W 5%		1	R6
12	1905547-00		IC 7474		2	E13,E29
13	1905575-00		IC 7400		2	E21,E22
14	1909004-00		IC 7402		2	E17,E28
15	1909686-00		IC 7404		2	E15,E23
16	1909928-00		IC 7416		1	E7
17	1909932-00		IC 7483		3	E4,E10,E26
18	1910011-00		IC 7486		3	E6,E9,E12
19	1910018-00		IC 74193		3	E5,E11,E25

E.C.O. NO. 00002 00003 00004 00005

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.
CYLINDER ADDRESS AND DIFFERENCE	D-UA-M7681-0-0	B	PL	M7681-0-0	E
	SHEET 1 OF 2	DIST			

FN-01140-16-N1075-(325) DRB 124

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS
ACCESSORY LIST

MADE BY Lora Metzger	CHECKED T. Quilter [signature]	SECTION
DATE 18 MAY 76	DATE 18 MAY 76	
ENG [signature] 5/19/76	PROD [signature] 5/26/76	ISSUED SECT.

ITEM NO	DWG NO./PART NO.	DESCRIPTION	RK05F-FA,FB,FC,FD	RK05F-AA,AB,AC,AD
1	RK05F-0	CUSTOMER INT SET (B-DD-RK05F-C SHEET 1	1	1
~~2~~	~~DEC-RK05-TPB-1~~	~~ILLUSTRATED PARTS BREAK DOWN FOR RK05~~	~~1~~	~~1~~
3	DEC-00-RK5JF-DA	MAINTENANCE MANUAL	1	1
4 xxx	BC 11A-08	UNIBUS CABLE 8 FEET	1	1
5	2200007	HEAD CLEANING KIT	1	1
6	3013079-00	DISK CARTRIDGE 12 SECTOR	1	0
7	3013079-02	DISK CARTRIDGE 16 SECTOR	0	1
8*	A-AD-7009276-0-0	MOUNTING HARDWARE KIT	1	1
9*	1209152-0-2 REF	SLIDE CHASSIS (USE SET THAT WAS ISSUED TO ASSY LINE)	1	1
	NOTE:	ITEMS 10 AND 11 ARE ADDITIONALLY REQUIRED		
		WHEN UNIT IS SHIPPED IN A RACK.		
10	749691-1	SHIPPING BRACKET (LEFT HAND	1	1
11	749691-2	SHIPPING BRACKET (RIGHT HAND)	1	1
12**	7415710	DRIVE IDENTIFICATION NUMBERS	1	1
	*NOTE:	IF UNIT IS SHIPPED IN A RACK, ITEMS 8 & 9		
		ARE MOUNTED TO THE RACK.		
	**NOTE:	ATTACH THE DRIVE IDENTIFICATION NUMBER		
		SET TO THE INSTRUCTION SHEET #DEC-16-		
		(379)-1094-N573 USING TRANSPARENT		
		ADHESIVE TAPE. INSERT BEHIND FRONT COVER		
		OF MAINTENANCE MANUAL		
13	1212973	CARTRIDGE RETAINING SPRING	2	2

TITLE DECPACK ASSEMBLY	ASSY NO.	SIZE A	CODE PL	NUMBER RKØ5F-Ø-17	REV. A	ECO NO. RKØ5F-00001
	SHEET 1 OF 2	DIST.				

DEC FORM DEC 16 (325) 1031 N870
DRA 110

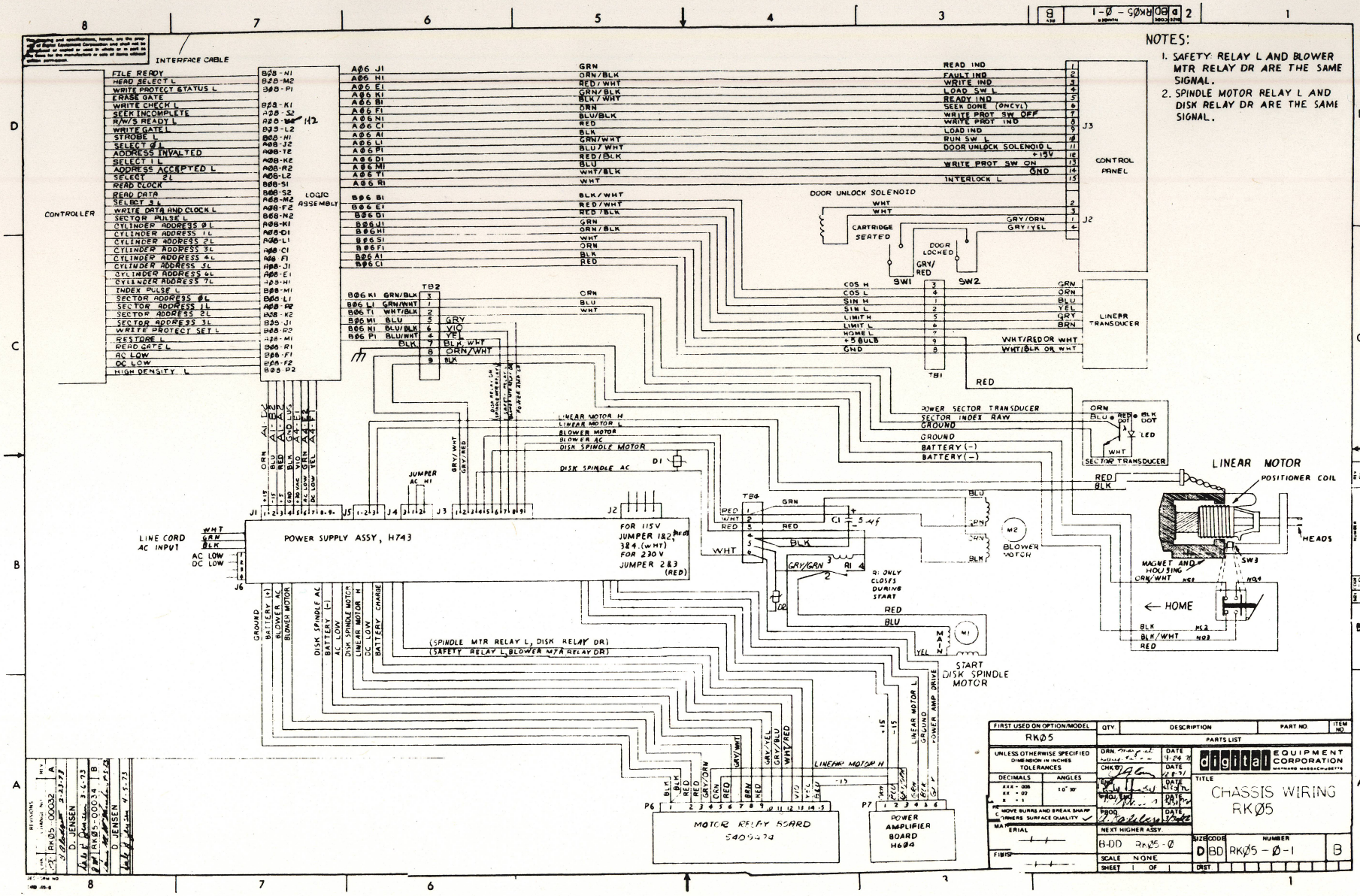
DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS
ACCESSORY LIST

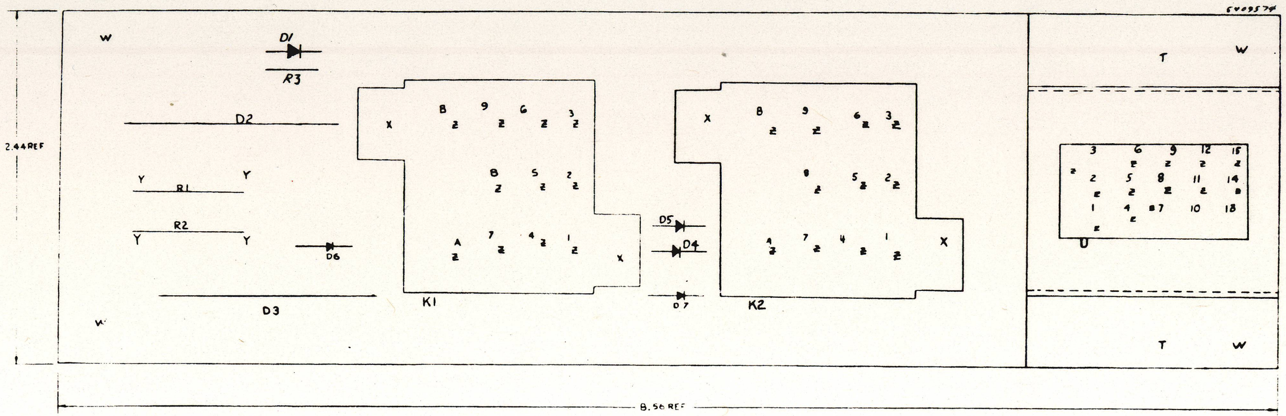
MADE BY Lora Metzger	CHECKED T. Quilter [signature]	SECTION
DATE 18 MAY 76	DATE 18 MAY 76	
ENG [signature] 5/19/76	PROD [signature] 5/26/76	ISSUED SECT.

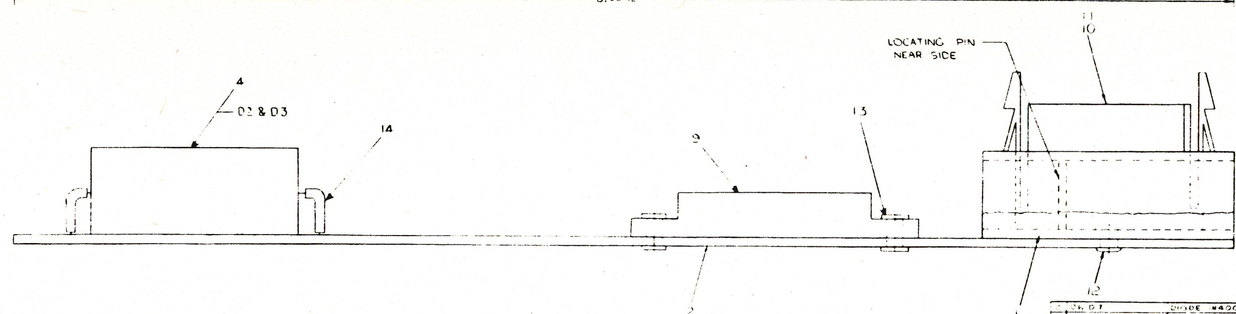
ITEM NO	DWG NO./PART NO.	DESCRIPTION	RK05F-FA,FB,FC,FD	RK05F-AA,AB,AC,AD
14	1213078	CARTRIDGE DOOR WEDGE	1	1
	xxx NOTE: MAXIMUM	TOTAL CABLE LENGTH = 50 FEET		

TITLE DECPACK ASSEMBLY	ASSY NO.	SIZE A	CODE PL	NUMBER RKØ5F-Ø-17	REV. A	ECO NO.
	SHEET 2 OF 2	DIST				

DEC FORM DEC 16 (325) 1031 N870
DRA 110


NOTES:
1. SAFETY RELAY L AND BLOWER MTR RELAY DR ARE THE SAME SIGNAL.
2. SPINDLE MOTOR RELAY L AND DISK RELAY DR ARE THE SAME SIGNAL.
INTERFACE CABLE
CONTROLLER
LOGIC ASSEMBLY
CONTROL PANEL
LINEAR TRANSDUCER
DOOR UNLOCK SOLENOID
CARTRIDGE SEATED
DOOR LOCKED
SW1
SW2
TB1
TB2
TB4
POWER SUPPLY ASSY, H743
LINE CORD AC INPUT
FOR 115V JUMPER 1&2, 3&4 (WHT) FOR 230V JUMPER 2&3 (RED)
(SPINDLE MTR RELAY L, DISK RELAY DR)
(SAFETY RELAY L, BLOWER MTR RELAY DR)
MOTOR RELAY BOARD 54D5470
POWER AMPLIFIER BOARD H684
LINEAR MOTOR
POSITIONER COIL
HEADS
MAGNET AND HOUSING
SECTOR TRANSDUCER
HOME
BLOWER MOTOR
START DISK SPINDLE MOTOR
R1: ONLY CLOSES DURING START
FIRST USED ON OPTION/MODEL
RKØ5
PARTS LIST
QTY
DESCRIPTION
PART NO.
ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES
DECIMALS
ANGLES
digital EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS
TITLE
CHASSIS WIRING RKØ5
NEXT HIGHER ASSY
SIZE
CODE
NUMBER
D BD RKØ5 - Ø - 1
B
SCALE NONE
SHEET 1 OF 1
REVISIONS
RKØ5-00032
RKØ5-00034
D. JENSEN





QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM
2	D6 D7	DIODE 1N4004	1105796	16
REF		[illegible] DRILLING LAYOUT	DAW 5409574-0-3	15
A/R		TUBING # BAWG TEFLON	9107278-11	14
4		EYELET [illegible]	9006746	13
2		EYELET .121 OD x .219 LG	9006732	12
15		PINS FOR MATE-N-LOCK	1209456-01	11
1		15 PIN MATE-N-LOCK	1209350-15	10
2		RELAY SOCKET	1210684	9
2	K1 K2	RELAY CP 3R2 51AD1000	1210683	8
2	R1 R2	RESISTOR 27 1W 5%	1301516	7
1	R3	RESISTOR 750 1/4W 5%	1301401	6
1	D1	DIODE [illegible]	1105275	5
2	D2 D3	[illegible] R5205 [illegible]	1100106	4
2	D4 D5	DIODE [illegible] D005	1100100	3
1		ETCHED CIRCUIT BOARD	5009373	2
REF		MODULE ECO HISTORY	B MH 5409574 0	
1		BRACKET MOTOR RELAY	C MD 5509811 0 0	1
REF		X Y COORD HOLE LOCAT	K CO 5409574 0	
REF		CIRCUIT SCHEMATIC	D CS 5409574 0	

PARTS LIST

ETCH BOARD REV

CAUTION
CHANGE COULD AFFECT UL LISTING

FIRST USED ON
RK05

SEMICONDUCTOR CONVERSION CHART

EQUIPMENT CORPORATION

TITLE
DECPACK
MOTOR RELAYS

D A PACK C O

SCALE 4

E A 5409574-0-0

IC TYPE | GND | +5V
IC PIN LOCATIONS

ITEM NO | ADDR | FROM PT | TO PT
JUMPER LIST

A 5409574 0 0

DIGITAL EQUIPMENT CORPORATION

PARTS LIST

ETCH REV B

MADE BY K. HODGSON
DATE 3 FEB 76
CHECKED [illegible]
DATE 3 FEB 76
SECTION
ENG [illegible]
DATE 3 FEB 76
PROD Jack Speidel
DATE 3 FEB 76
ISSUED SECTION

ITEM NO	DRAWING NO.	PART NO.	DESCRIPTION	QUANTITY/VARIATION M7680-0	QUANTITY/VARIATION M7680-YA	REF. DESIGNATION
39	1910878-00		IC 7427	1	1	E4
40	1211164-00		SWITCH 4 IN A DIP	1	1	SW1
41	9008337-06		HANDLE FLIP CHIP-MAGENTA	2	1	
42	9006732-00		EYELET	4	4	
43			SPARE IC			E10
44	C-IA-7014164-0-0		CABLE ASSY, REMOTE SWITCH	-	1	SWC
45	1202704		CLAMP, CABLE	-	1	

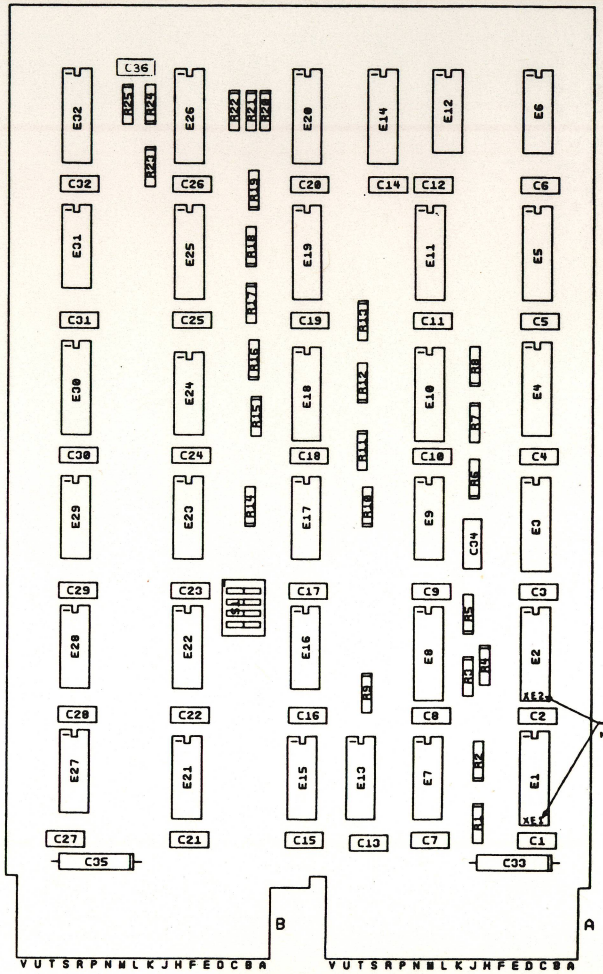
NOTES:

E.C.O. NO.

TITLE DEC PAK INDEX SECTOR

ASSY NO. D-UA-M7680-0-0
SHEET 3 OF 3

SIZE B | CODE PL | NUMBER M7680-0-0 | REV. C
DIST



NOTES:
1. FOR OPTIONAL COMPONENTS REFER TO SHEET 3 OF THE C.S.

CHG	CHANGE NO	REV
1		
2		

SIGNATURES	DATE
DRN. J.RICHARD	22MAR77
CHK'D.	24MAR77
ENG.	31/4/77
PROJ.ENG.	24/4/77
PROD.	
SCALE 2/1	
SHT. 1 OF 1	
NEXT HIGHER ASSY.	

digital

TITLE
CYLINDER ADDRESS AND DIFFERENCE

SIZE	CODE	NUMBER	REV
D		UAM7681-0-0	E

ETCH REV D

1 MS#

DIGITAL EQUIPMENT CORPORATION
PARTS LIST

ETCH REV B

MADE BY K. HODGSON	CHECKED W. Varikjian	SECTION
DATE 3 FEB 76	DATE 3 FEB 76	
ENG (signature)	PROD Jack Kruick	ISSUED SECTION
DATE 25 FEB 76	DATE 25 FEB 76	

QUANTITY/VARIATION

NOTES:

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION		M7680-0	M7680-YA											REF. DESIGNATION
1	D-CS-M7680-0-1		DEC PAK INDEX SECTOR (C.S.)		REF	REF											
2	D-AH-M7680-0-5		ASSY/DRILLING HOLE LAYOUT		REF	REF											
3	B-MH-M7680-0-6		MODULE ECO HISTORY		REF	REF											
4	5012018		ETCHED CIRCUIT BOARD		1	1											
5	1005306-00		CAP 6.8UF 35V 20%	S.TANT	2	2											C20,C21
6	1000016-00		CAP 100PF 100V 5%	D.M.	2	2											C27,C28
7	1000023-00		CAP 330PF 100V 5%	D.M.	2	2											C23,C30
8	1000024-00		CAP 470PF 100V 5%	D.M.	1	1											C29
9	1001610-01		CAP .01UF 100V	DISC	22	22											C1 THRU C19, C26,C31,C32
10	1001776-00		CAP 1.0UF 35V 10%	S.TANT	1	1											C25
11	1002180-00		CAP .15UF 35V 20%	S.TANT	1	1											C24
12	1005784-00		CAP .01UF 100V 10%	MYLAR	1	1											C22
13	1101938-00		DIODE 1N4370A VZ 2.4 5%		1	1											D3
14	1210042-00		SWITCH ROTARY 8 POS		1	-											S1
15	1300365-00		RES 1K ¼W 5%		3	3											R5,R16,R17
16	1300229-00		RES 100 ¼W 5%		1	1											R1
17	1300250-00		RES 150 ¼W 5%		1	1											R12
18	1300295-00		RES 330 ¼W 5%		2	2											R4,R10
19	1300447-00		RES 4.7K ¼W 5%		1	1											R2

E.C.O. NO. 00001

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.
DEC PAK INDEX SECTOR	D-UA-M7680-0-0	B	PL	M7680-0-0	C
	SHEET 1 OF 3	DIST			

EN-01140-16-N1075-(325) DRB 124

DIGITAL EQUIPMENT CORPORATION

PARTS LIST

ETCH REV B

MADE BY K. HODGSON
DATE 3 FEB 76
ENG
DATE

CHECKED K. Hodgson
DATE 3 FEB 76
PROD Jack Esposito
DATE 25 Feb 76

SECTION
ISSUED SECTION

NOTES:

ITEM NO	DRAWING NO.	PART NO.	DESCRIPTION	QUANTITY/VARIATION M7680-0	M7680-YA	REF. DESIGNATION
20	1300479-00		RES 10K ¼W 5%	3	3	R3,R7,R18
21	1301401-00		RES 750,¼W 5%	1	1	R11
22	1301808-00		RES 22K ¼W 5%	1	1	R9
23	1309143-00		RES 10K 3/4W 10% POT	1	1	R6
24	1302394-00		RES 30K ¼W 5%	3	3	R14,R15,R8
25	1302465-00		RES 18K ¼W 5%	1	1	R13
26	1502762-01		TRANSISTOR 3639C	1	1	Q1
27	1905547-00		IC 7474	1	1	E21
28	1905575-00		IC 7400	2	2	E15,E16
29	1905576-00		IC 7410	1	1	E14
30	1909054-00		IC 7493	2	2	E8,E9
31	1911469-00		IC 8640	2	2	E19,E23
32	1909686-00		IC 7404	1	1	E18
33	1910047-00		IC 74145	1	1	E20
34	1910230-00		IC 74121	1	1	E11
35	1910645-00		IC 75452	7	7	E1 THRU E3,E6,E7,E12,E13
36	1910436-00		IC 74123	3	3	E17,E22,E25
37	1905590-00		IC 7401	1	1	E24
38	1909004-00		IC 7402	1	1	E5

E.C.O. NO.

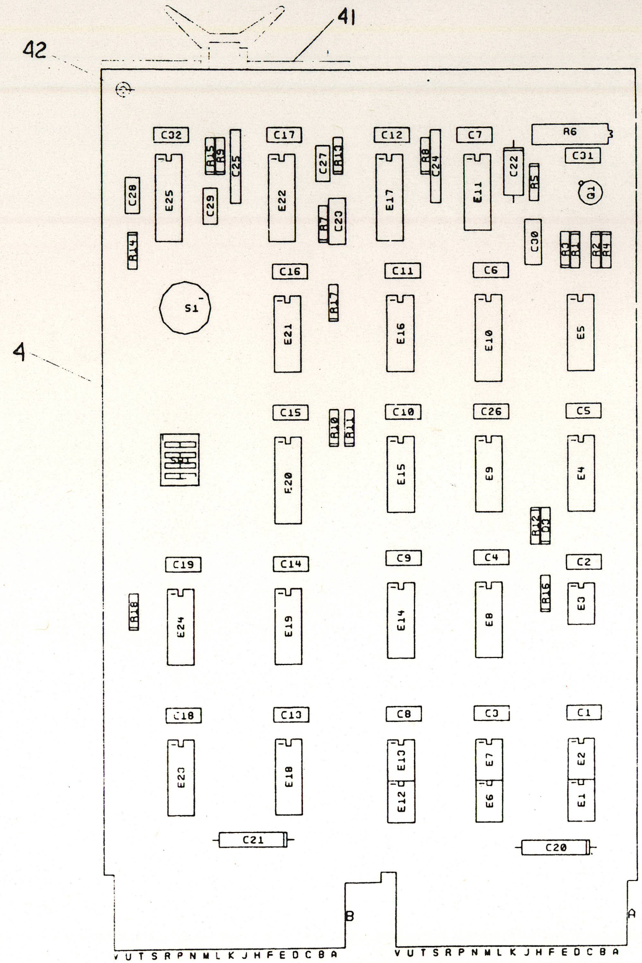
TITLE
DEC PAK INDEX SECTOR

ASSY NO.
D-UA-M7680-0-0

SHEET 2 OF 3

SIZE	CODE	NUMBER	REV.
B	PL	M7680-0-0	C

DIST



NOTES:

CHK	CHANGE NO	REV
	M7680-1 S.RADOFF	B
	M7680 N 0002 P.HOLMES	C

SIGNATURES	DATE
DRN.	1-6-76
CHK'D.	
ENG.	
PROJ.ENG.	
PROD.	
SCALE 2:1	
SHT. 1 OF 2	
ETCH REV B	FIRST USED ON

digital

TITLE DEC PACK INDEX & SECTOR

SIZE	CODE	NUMBER	REV
D	UA	M7680-0-0	C

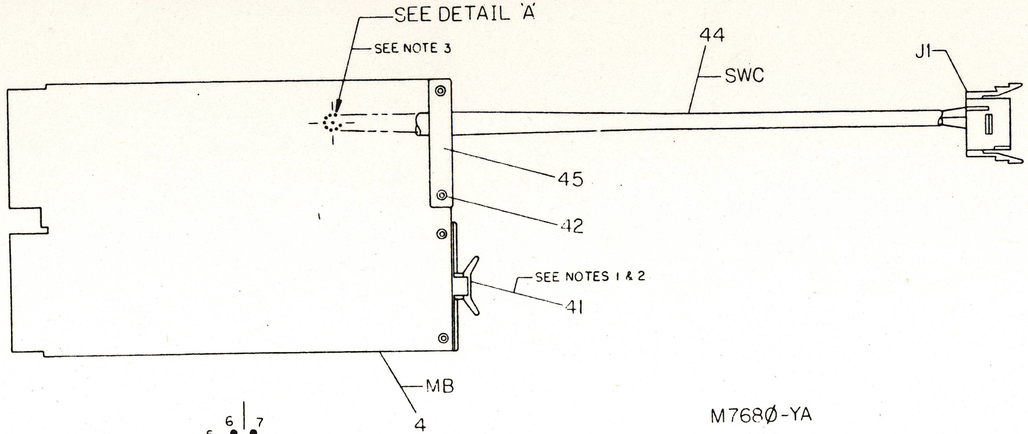
MS#BC 375

WIRE TABLE

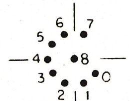
ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	FROM POINT	FROM WITH	TO POINT	TO WITH
44	22	RED	J1·1	—	MB 8	SOLDER
↑	↑	BLK	J1·2	↑	MB Ø	↑
		BRN	J1·3		MB 1	
		ORN	J1·4		MB 2	
		YEL	J1·5		MB 3	
		GRN	J1·6		MB 4	
		BLU	J1·7		MB 5	
↓	↓	VIO	J1·8	↓	MB 6	↓
44	22	WHT	J1·9	—	MB 7	SOLDER

NOTES: (FOR REWORK OF EXISTING M768Ø-Ø)

1. REMOVE EXISTING FLIP CHIP HANDLES ON M768Ø MODULE AND REPLACE WITH FLIP CHIP HANDLE LABELED M768Ø-YA AND CABLE CLAMP AS PER DRAWING.
2. STAMP FLIP CHIP HANDLE WITH C.S. REV. OF ORIGINAL M768Ø MODULE.
3. REMOVE EXISTING ROTARY SWITCH (S1), 8 POS. FROM M769Ø MODULE AND WIRE CABLE (ITEM 44) PER WIRE TABLE.



M768Ø-YA



DETAIL 'A'

SCALE: NONE

DESCRIPTION	DWG./PART NO.	ITEM NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	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: SEE PARTS LIST

FINISH: —//—

DRN. Carl McCoy 30 1977
CHK'D C. McCoy
ENG.
PROJ. ENG.
PROD.

NEXT HIGHER ASSY.

SCALE 1/1

SHEET 2 OF 2

FIRST USED ON: RKØ5-HC

digital

TITLE: DEC PACK INDEX & SECTOR

SIZE	CODE	NUMBER	REV.
D	UA	M768Ø-Ø-Ø	C

DIST.

RK05.C WRP288,V34(62)-1 31-Jul-75 2-Jun-76 8:56 PAGE 7

RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV PG Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
OUTER LIMIT	H	A03K1		1-01 •			D05-6		2		1	66
OUTER LIMIT	H	A04K1		1-02 •			D05-6		1		1-3/8	66
OUTER LIMIT	H	A05D1		1-03 •			D05-6					66
OUTER LIMIT	H			1							2-3/8	66
POWER AMP DR	H	A05U2		1-01 •			D05-9		1		1-3/8	67
POWER AMP DR	H	A06M1		1-02 •			D05-9					67
POWER AMP DR	H			1							1-3/8	67
PROTECT IND	H	A06C1		1-01 •			D05-9		1		5-5/8	68
PROTECT IND	H	B04U2		1-02 •			D05-8					68
PROTECT IND	H			1							5-5/8	68
PWR SEC XNSDUR	H	A02D1		1-01 •			D05-2		1		5-5/8	69
PWR SEC XNSDUR	H	B06K1		1-02 •			D05-2					69
PWR SEC XNSDUR	H			1							5-5/8	69
R/W/S READY	H	A03P1		1-01 •			D05-5		1		3-1/8	70
R/W/S READY	H	B04J1		1-02 •			D05-5		2		1-5/8	70
R/W/S READY	H	B02L1		1-03 •			D05-5					70
R/W/S READY	H			1							4-6/8	70
R/W/S READY	L	A01P2		1-01 •			D05-1		1		2-7/8	71
R/W/S READY	L	B02K1		1-02 •			D05-1					71
R/W/S READY	L			1							2-7/8	71
READ CLOCK	L	A01F2		1-01 •			D05-2		1		5-3/8	72
READ CLOCK	L	B07S1		1-02 •			D05-2		2		1	72
READ CLOCK	L	B08S1		1-03 •			D05-2					72
READ CLOCK	L			1							6-3/8	72
READ DATA	L	A01E2		1-01 •			D05-2		1		5-6/8	73
READ DATA	L	B07S2		1-02 •			D05-2		2		1	73
READ DATA	L	B08S2		1-03 •			D05-2					73
READ DATA	L			1							6-6/8	73
READ GATE	L	A01K2		1-01 •			D05-1		1		5-2/8	74
READ GATE	L	B08H1		1-02 •			D05-1		2		1	74
READ GATE	L	B07H1		1-03 •			D05-1					74
READ GATE	L			1							6-2/8	74
READ IND	H	A02F2		1-01 •			D05-9		1		2-5/8	75
READ IND	H	A06J1		1-02 •			D05-9					75
READ IND	H			1							2-5/8	75
READY	H	A02C1		1-01 •			D05-3		1		3-1/8	75
READY	H	A04U1		1-02 •			D05-3					76
READY	H			1							3-1/8	76
READY IND	H	A06B1		1-01 •			D05-8		1		5-3/8	77
READY IND	H	B04L1		1-02 •			D05-8					77
READY IND	H			1							5-3/8	77
RESTORE	H	A02R1		1-01 •			D05-4		1		1-3/8	78
RESTORE	H	A03J1		1-02 •			D05-4					78
RESTORE	H			1							1-3/8	78

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RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW OPT	RV PG Y	X	Z	REMARKS	NC LENGTH EXCEPTIONS FLAG	RUN NUMBER
RESTORE	L	A08M1		1-01 •			D05-2		2		1	79
RESTORE	L	A07M1		1-02 •			D05-2		1		4-1/8	79
RESTORE	L	B02R1		1-03 •			D05-2					79
RESTORE	L			1							5-1/8	79
REV	H	B03H1		1-01 •			D05-5		1		1-7/8	80
REV	H	B05K2		1-02 •			D05-5					80
REV	H			1							1-7/8	80
RK-11D	L	A08U1		1-01 •					2		1	81
RK-11D	L	A07U1		1-02 •					1		4-2/8	81
RK-11D	L	B02U1		1-03 •								81
RK-11D	L			1							5-2/8	81
RTZ	L	A03F1		1-01 •			D05-2		1		3-3/8	82
RTZ	L	B02C1		1-02 •			D05-2					82
RTZ	L			1							3-3/8	82
RUN SW	L	A06L1		1-01 •			D05-7		1		4-1/8	83
RUN SW	L	B04L1		1-02 •			D05-7					83
RUN SW	L			1							4-1/8	83
SECTOR	L	A02S2		1-01 •			D05-9		1		3-1/8	84
SECTOR	L	B04K1		1-02 •			D05-9					84
SECTOR	L			1							3-1/8	84
SECTOR/INDEX RAW	H	A02E1		1-01 •			D05-2		1		5-7/8	85
SECTOR/INDEX RAW	H	B06L1		1-02 •								85
SECTOR/INDEX RAW	H			1							5-7/8	85
SEEK DONE IND	H	A02V1		1-01 •			D05-5		1		3-2/8	86
SEEK DONE IND	H	A06F1		1-02 •			D05-5					86
SEEK DONE IND	H			1							3-2/8	86
SEL/WRITE PROTECT SET	L	B02H1		1-01 •			D05-5		1		2-5/8	87
SEL/WRITE PROTECT SET	L	B04R1		1-02 •			D05-5					87
SEL/WRITE PROTECT SET	L			1							2-5/8	87
SELECT	H	A01S2		1-01 •			D05-2		2		1-6/8	88
SELECT	H	A04S1		1-02 •			D05-2		1		4-1/8	88
SELECT	H	B02V2		1-03 •			D05-2					88
SELECT	H			1							5-7/8	88
SELECT 1	L	A08J2		1-01 •			D05-3		2		1	89
SELECT 1	L	A07J2		1-02 •			D05-3		1		5-7/8	89
SELECT 1	L	B02R2		1-03 •			D05-3					89
SELECT 1	L			1							6-7/8	89
SELECT 2	L	A08K2		1-01 •			D05-3		2		1	90
SELECT 2	L	A07K2		1-02 •			D05-3		1		5	90
SELECT 2	L	B02S2		1-03 •			D05-3					90
SELECT 2	L			1							6-[illegible]/8	90

RUN NAME	A/P	PIN NAM	ORDER PIN	RAY # ORDER	Q	DRAW OPT	RV RG Y	X	Z	REMARKS	NO LENGTH EXCEPTIONS FLAG	RUN NUMBER
SELECT 3	L	AM8L2		1-A1 #			D05-3		2		1	91
SELECT 3	L	AM7L2		1-A2 #			D05-3		1		5-7/8	91
SELECT 3	L	AM2T2		1-A3 #			D05-3					91
SELECT 3	L			1							6-7/8	91
SELECT 4	L	AM8M2		1-A1 #			D05-3		2		1	92
SELECT 4	L	AP7M2		1-A2 #			D05-3		1		5	92
SELECT 4	L	AM2H2		1-A3 #			D05-3					92
SELECT 4	L			1							6-8/8	92
SELECT/READY	L	AM1H2		1-A1 #			D05-1		1		2-3/8	93
SELECT/READY	L	AM4V1		1-A2 #					2		2-2/8	93
SELECT/READY	L	AM2H1		1-A3 #			D05-1					93
SELECT/READY	L			1							4-5/8	93
SELECTED READ GATE	H	AM1A1		1-A1 #			D05-9		1		1-3/8	94
SELECTED READ GATE	H	AM2F2		1-A2 #			D05-9					94
SELECTED READ GATE	H			1							1-3/8	94
SELECTED WRITE GATE	H	AM1V1		1-A1 #			D05-1		1		1-2/8	95
SELECTED WRITE GATE	H	AM2V2		1-A2 #			D05-1					95
SELECTED WRITE GATE	H			1							1-2/8	95
SET UNSAFE	L	AM1U2		1-A1 #			D05-1		1		2-2/8	96
SET UNSAFE	L	AM4A1		1-A2 #			D05-1					96
SET UNSAFE	L			1							2-2/8	96
SIN POSITION	H	AM5N1		1-A1 #			D05-9		1		2-5/8	97
SIN POSITION	H	BM6D1		1-A2 #			D05-9					97
SIN POSITION	H			1							2-5/8	97
STROBE	L	AM2V1		1-A1 #			D05-2		1		4-1/8	98
STROBE	L	AM7H1		1-A2 #			D05-2		2		1	98
STROBE	L	BMRH1		1-A3 #			D05-2					98
STROBE	L			1							5-1/8	98
UNSAFE	L	AM1L2		1-A1 #			D05-1		1		2-5/8	99
UNSAFE	L	AM4V2		1-A2 #			D05-1					99
UNSAFE	L			1							2-5/8	99
WRITE DATA + CLK	H	AM1J1		1-A1 #			D05-1		1		3-7/8	100
WRITE DATA + CLK	H	AM7F2		1-A2 #			D05-1		2		1	100
WRITE DATA + CLK	H	AMRF2		1-A3 #			D05-1					100
WRITE DATA + CLK	H			1							4-7/8	100
WRITE GATE	L	AM1J2		1-A1 #			D05-1		1		3-6/8	101
WRITE GATE	L	AM7L2		1-A2 #			D05-1		2		1	101
WRITE GATE	L	AMRL2		1-A3 #			D05-1					101
WRITE GATE	L			1							5-6/8	101
WRITE PROJECT SET	L	AM2S1		1-A1 #			D05-3		1		3-3/8	102
WRITE PROTECT SET	L	AM7R2		1-A2 #			D05-3		2		1	102
WRITE PROTECT SET	L	AMRR2		1-A3 #			D05-3					102
WRITE PROTECT SET	L			1							4-3/8	102

RUN NAME	A/P	PIN NAME	ORDER PIN	RAY # ORDER	Q	DRAW OPT	RV RG Y	X	Z	REMARKS	NO LENGTH EXCEPTIONS FLAG	RUN NUMBER
WRITE SW OFF	L	AM6N1		1-A1 #			D05-7		1		3-3/8	103
WRITE SW OFF	L	BM4F1		1-A2 #			D05-7					103
WRITE SW OFF	L			1							3-3/8	103
WRITE SW ON	L	AMHM1		1-A1 #			D05-7		1		3-3/8	104
WRITE SW ON	L	BM8E1		1-A2 #			D05-7					104
WRITE SW ON	L			1							3-3/8	104
WRITING IND	H	AM2U1		1-A1 #			D05-5		1		3-2/8	105
WRITING IND	H	AM6E1		1-A2 #			D05-5					105
WRITING IND	H			1							3-2/8	105

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RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - Q ORDER	DRAW OPT	WV RG Y	X	Z	REMARKS	WC LENGTH FLAG	EXCEPTIONS	RUN NUMBER
CYC ADDR 1	L	A07D1		1-01 *		D05-6		2		1		25
CYC ADDR 1	L	A08D1		1-02 *		D05-6		1		6-3/8		25
CYC ADDR 1	L	B03N1		1-03 *		D05-6						25
CYC ADDR 1	L			1						7-4/8		25
CYC ADDR 2	L	A08L1		1-01 *		D05-6		2		1		26
CYC ADDR 2	L	A07L1		1-02 *		D05-6		1		5-3/8		26
CYC ADDR 2	L	B03P1		1-03 *		D05-6						26
CYC ADDR 2	L			1						6-3/8		26
CYC ADDR 3	L	A07C1		1-01 *		D05-6		2		1		27
CYC ADDR 3	L	A08C1		1-02 *		D05-6		1		5-2/8		27
CYC ADDR 3	L	B03M1		1-03 *		D05-6						27
CYC ADDR 3	L			1						6-2/8		27
CYC ADDR 4	L	A07F1		1-01 *		D05-6		2		1		28
CYC ADDR 4	L	A08F1		1-02 *		D05-6		1		6-4/8		28
CYC ADDR 4	L	B03R1		1-03 *		D05-6						28
CYC ADDR 4	L			1						7-4/8		28
CYC ADDR 5	L	A07J1		1-01 *		D05-6		2		1		29
CYC ADDR 5	L	A08J1		1-02 *		D05-6		1		5-3/8		29
CYC ADDR 5	L	B03U1		1-03 *		D05-6						29
CYC ADDR 5	L			1						6-3/8		29
CYC ADDR 6	L	A08E1		1-01 *		D05-6		2		1		30
CYC ADDR 6	L	A07E1		1-02 *		D05-6		1		6-5/8		30
CYC ADDR 6	L	B03V1		1-03 *		D05-6						30
CYC ADDR 6	L			1						7-5/8		30
CYC ADDR 7	L	A07H1		1-01 *		D05-6		2		1		31
CYC ADDR 7	L	A08H1		1-02 *		D05-6		1		5-2/8		31
CYC ADDR 7	L	B03S1		1-03 *		D05-6						31
CYC ADDR 7	L			1						6-2/8		31
DC LOW	H	A04D1		1-01 *		D05-8		1		5		32
DC LOW	H	B08F2		1-02 *		D05-8		2		1		32
DC LOW	H	B07F2		1-03 *		D05-8						32
DC LOW	H			1						6-2/8		32
DIFF 1	L	A03A1		1-01 *		D05-7		1		5-7/8		33
DIFF 1	L	B05N2		1-02 *		D05-7						33
DIFF 1	L			1						5-7/8		33
DIFF 16	L	A03E1		1-01 *		D05-7		1		5-7/8		34
DIFF 16	L	B05T2		1-02 *		D05-7						34
DIFF 16	L			1						5-7/8		34
DIFF 2	L	A03B1		1-01 *		D05-7		1		5-5/8		35
DIFF 2	L	B05P2		1-02 *		D05-7						35
DIFF 2	L			1						5-5/8		35
DIFF 4	L	A03D1		1-01 *		D05-7		1		5-5/8		36
DIFF 4	L	B05R2		1-02 *		D05-7						36
DIFF 4	L			1						5-5/8		36

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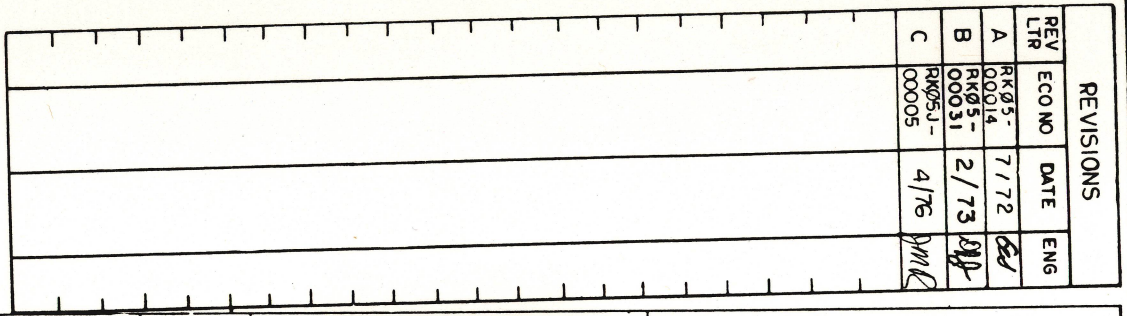
RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - Q ORDER	DRAW OPT	WV RG Y	X	Z	REMARKS	WC LENGTH FLAG	EXCEPTIONS	RUN NUMBER
DIFF 8	L	A03C1		1-01 *		D05-7		1		5-7/8		37
DIFF 8	L	B05S2		1-02 *		D05-7						37
DIFF 8	L			1						5-7/8		37
DISK RELAY DR	H	A04N1		1-01 *		D05-8		1		4-1/8		38
DISK RELAY DR	H	B06P1		1-02 *		D05-8						38
DISK RELAY DR	H			1						4-1/8		38
DR UNLOCKING SOLENOID	L	A06P1		1-01 *		D05-8		1		4-5/8		39
DR UNLOCKING SOLENOID	L	B04V1		1-02 *		D05-8						39
DR UNLOCKING SOLENOID	L			1						4-5/8		39
FAULT IND	H	A04N2		1-01 *		D05-8		1		1-3/8		40
FAULT IND	H	A06H1		1-02 *		D05-8						40
FAULT IND	H			1						1-3/8		40
FWD	H	B03J1		1-01 *		D05-5		1		1-6/8		41
FWD	H	B05J2		1-02 *		D05-5						41
FWD	H			1						1-6/8		41
GND 01		A01C2		1-01 *				1		2-1/8		42
GND 01		A01T1		1-02 *				2		1-5/8		42
GND 01		B01C2		1-03 *				1		2-1/8		42
GND 01		B01T1		1-04 *								42
GND 01				1						5-7/8		42
GND 02		A02C2		1-01 *				1		2-1/8		43
GND 02		A02T1		1-02 *				2		1-5/8		43
GND 02		B02C2		1-03 *				1		2-1/8		43
GND 02		B02T1		1-04 *								43
GND 02				1						5-7/8		43
GND 03		A03C2		1-01 *				1		2-1/8		44
GND 03		A03T1		1-02 *				2		1-5/8		44
GND 03		B03C2		1-03 *				1		2-1/8		44
GND 03		B03T1		1-04 *								44
GND 03				1						5-7/8		44
GND 04		A04C2		1-01 *				1		2-1/8		45
GND 04		A04T1		1-02 *				2		1-5/8		45
GND 04		B04C2		1-03 *				1		2-1/8		45
GND 04		B04T1		1-04 *								45
GND 04				1						5-7/8		45
GND 05		A05C2		1-01 *				1		2-1/8		46
GND 05		A05T1		1-02 *				2		1-5/8		46
GND 05		B05C2		1-03 *				1		2-1/8		46
GND 05		B05T1		1-04 *								46
GND 05				1						5-7/8		46

RUN NAME	A/P	PIN NAME	ORDER PIN	RAY = ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	SC LENGTH EXCEPTIONS FLAG	RUN NUMBER
GND A6		A06C2		1=A1 *							1		2-1/8	47
GND A6		A06T1		1=A2 *							2		1-5/8	47
GND A6		B06C2		1=A3 *		D05=9					1		0-1/8	47
GND A6		B06C1		1=A4 *		D05=9					2		0-4/8	47
GND A6		B06E1		1=A5 *		D05=9					1		0-5/8	47
GND A6		B06J1		1=A6 *		D05=9					2		1-4/8	47
GND A6		B06T1		1=A7 *		D05=9					1		0-1/8	47
GND A6		B06S1		1=A8 *		D05=9								47
GND A6				1									7-0/8	47
GND A7		A07R2		1=A1 *							1		0-1/8	48
GND A7		A07C2		1=A2 *							2		1-5/8	48
GND A7		A07N1		1=A3 *							1		0-1/8	48
GND A7		A07P1		1=A4 *							2		0-1/8	48
GND A7		A07R1		1=A5 *							1		0-1/8	48
GND A7		A07S1		1=A6 *							2		0-1/8	48
GND A7		A07T1		1=A7 *							1		0-4/8	48
GND A7		A07V1		1=A8 *							2		1-3/8	48
GND A7		B07B2		1=A9 *							1		0-1/8	48
GND A7		B07C2		1=A4 *							2		0-1/8	48
GND A7		B07G1		1=11 *							1		0-1/8	48
GND A7		B07E1		1=12 *							2		1-7/8	48
GND A7		B07T1		1=13 *							1		0-4/8	48
GND A7		B07V2		1=14 *										48
GND A7				1									6-7/8	48
GND A8		A08R2		1=A1 *							1		0-1/8	49
GND A8		A08C2		1=A2 *							2		1-5/8	49
GND A8		A08N1		1=A3 *							1		0-1/8	49
GND A8		A08P1		1=A4 *							2		0-1/8	49
GND A8		A08R1		1=A5 *							1		0-1/8	49
GND A8		A08S1		1=A6 *							2		0-1/8	49
GND A8		A08T1		1=A7 *							1		0-4/8	49
GND A8		A08V1		1=A8 *							2		1-3/8	49
GND A8		B08B2		1=A9 *							1		0-1/8	49
GND A8		B08C2		1=10 *							2		0-1/8	49
GND A8		B08D1		1=11 *							1		0-1/8	49
GND A8		B08E1		1=12 *							2		1-7/8	49
GND A8		B08T1		1=13 *							1		0-4/8	49
GND A8		B08V2		1=14 *										49
GND A8				1									6-7/8	49
GOOD STROBE	L	B02E1		1=A1 *		D05=5					1		1-1/8	50
GOOD STROBE	L	B03D1		1=A2 *		D05=5								50
GOOD STROBE	L			1									1-1/8	50
HEAD SELECT	L	A01P1		1=A1 *		D05=1					1		5-2/8	51
HEAD SELECT	L	A07M2		1=A2 *		D05=1					2		1	51
HEAD SELECT	L	B08M2		1=A3 *		D05=1								51
HEAD SELECT	L			1									6-2/8	51
HIGH DENSITY	L	A01B2		1=A1 *		D05=4					1		4-3/8	52
HIGH DENSITY	L	A07P2		1=A2 *		D05=4					2		1	52
HIGH DENSITY	L	B06P2		1=A3 *		D05=4								52
HIGH DENSITY	L			1									5-3/8	52

RUN NAME	A/P	PIN NAME	ORDER PIN	RAY = ORDER	Q	DRAW OPT	RV	RG	Y	X	Z	REMARKS	SC LENGTH EXCEPTIONS FLAG	RUN NUMBER
HOME	L	A04R1		1=A1 *		D05=7					2		2-1/8	53
HOME	L	A03R1		1=A2 *		D05=7					1		2-3/8	53
HOME	L	B06F1		1=A3 *		D05=7								53
HOME	L			1									4-4/8	53
INDEX PULSE	L	A02K2		1=A1 *		D05=3					1		1-4/8	54
INDEX PULSE	L	A04J1		1=A2 *		D05=3								54
INDEX PULSE	L			1									1-4/8	54
INDEX/SECTOR	L	B02D1		1=A1 *		D05=5					1		1-7/8	55
INDEX/SECTOR	L	B04H2		1=A2 *		D05=5								55
INDEX/SECTOR	L			1									1-7/8	55
INNER LIMIT	H	A05A1		1=A1 *		D05=2					1		3-3/8	56
INNER LIMIT	H	A03U1		1=A2 *		D05=2					2		2-3/8	56
INNER LIMIT	H	B02J1		1=A3 *		D05=2								56
INNER LIMIT	H			1									5-6/8	56
INTERLOCK	L	A04H1		1=A1 *		D05=7					1		1-7/8	57
INTERLOCK	L	A06R1		1=A2 *		D05=7								57
INTERLOCK	L			1									1-7/8	57
LIMIT	H	A05N1		1=A1 *		D05=9					1		3-3/8	58
LIMIT	H	B06H1		1=A2 *		D05=9								58
LIMIT	H			1									3-3/8	58
LOAD HEADS	L	B03C1		1=A1 *		D05=6					1		1	59
LOAD HEADS	L	B04C1		1=A2 *		D05=6								59
LOAD HEADS	L			1									1-0/8	59
LOAD IND	H	A04L1		1=A1 *		D05=8					1		1-7/8	60
LOAD IND	H	A06A1		1=A2 *		D05=8								60
LOAD IND	H			1									1-7/8	60
LOAD SW	L	A06K1		1=A1 *		D05=7					1		3-3/8	61
LOAD SW	L	B04D1		1=A2 *		D05=7								61
LOAD SW	L			1									3-3/8	61
MOVE	L	A03L1		1=A1 *		D05=2					1		4-1/8	62
MOVE	L	B02P1		1=A2 *		D05=2								62
MOVE	L			1									4-1/8	62
NO PROTECT	L	A01N2		1=A1 *		D05=1					1		3-5/8	63
NO PROTECT	L	B04M1		1=A2 *		D05=1								63
NO PROTECT	L			1									3-5/8	63
ODD DRIVE	L	A02J2		1=A1 *							1		3-3/8	64
ODD DRIVE	L	B03F2		1=A2 *										64
ODD DRIVE	L			1									3-3/8	64
ON	L	A02A1		1=A1 *		D05=5					1		2-1/8	65
ON	L	A03M1		1=A2 *		D05=5								65
ON	L			1									2-1/8	65

DRWG NO	REVLTR
K-WL-RKØ5-Ø-3	C



REVISIONS				
REV LTR	ECO NO	DATE	ENG	
A	RKØ5-00014	7/72		
B	RKØ5-00031	2/73		
C	RKØ5J-00005	4/76		

DRAWN RE Hellen	DATE 11/8/71	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	TITLE WIRE LIST (RKØ5)
CHECKED JT Conroy	DATE 11-9-71		FOR TAPE* FILE*
ENG Dale Jensen	DATE 24 Nov 71		
PROJ ENG EC Simmons	DATE 11-24-71		
PROD Alan Kaelberer	DATE 11/29/71		

ASSY NO	SIZE	CODE	DWG. NO.	REV LTR
D-AD-7008696-0-0	K	WL	RKØ5-Ø-3	C

SCALE NONE | SHEET 1 OF 1 | DIST.

RK05.C WRP28R.V34(62)-1 31-JUL-75 2-JUN-76 8:56 PAGE 1

RUN NAME	A/P	PIN NAME	ORDER PIN	PAY = ORDER	Q	DRAW OPT	RV RG Y	X	Z	REMARKS	LENGTH EXCEPTIONS FLAG	RUN NUMBER
+15VDC +15VDC +15VDC	H H H	A05D2 A06D1		1-Ø1 * 1-Ø2 * 1			D05-9 D05-9	1			Ø-4/8 Ø-4/8	1 1 1
+5VDC BULB +5VDC BULB +5VDC BULB	H H H	B06A1 B06A2		1-Ø1 * 1-Ø2 * 1			D05-9 D05-9	1			Ø-4/8 Ø-4/8	2 2 2
128 128 128	H H H	A01M2 B03A1		1-Ø1 * 1-Ø2 * 1			D05-1 D05-1	1			2-5/8 2-5/8	3 3 3
AC LOW AC LOW AC LOW AC LOW	H H H H	A04R2 F08F1 B07F1		1-Ø1 * 1-Ø2 * 1-Ø3 * 1			D05-8 D05-8 D05-8	1 2			2-7/8 1 3-7/8	4 4 4 4
ADDR ACCEPTED ADDR ACCEPTED ADDR ACCEPTED	L L L	A02S1 A03N1		1-Ø1 * 1-Ø2 * 1			D05-5 D05-5	1			1-2/8 1-2/8	5 5 5
ADDRESS INVALID ADDRESS INVALID ADDRESS INVALID	L L L	B02F1 B03E1		1-Ø1 * 1-Ø2 * 1			D05-2 D05-2	1			Ø-5/8 Ø-5/8	6 6 6
BLOWER MTR RELAY DR BLOWER MTR RELAY DR BLOWER MTR RELAY DR	H H H	A04A1 B05N1		1-Ø1 * 1-Ø2 * 1			D05-9 D05-9	1			5-5/8 5-5/8	7 7 7
BUS ADDR ACCEPTED BUS ADDR ACCEPTED BUS ADDR ACCEPTED BUS ADDR ACCEPTED	L L L L	A02R1 A07R2 A08R2		1-Ø1 * 1-Ø2 * 1-Ø3 * 1			D05-4 D05-4 D05-4	1 2			3-2/8 1 4-2/8	8 8 8 8
BUS ADDR INVALID BUS ADDR INVALID BUS ADDR INVALID BUS ADDR INVALID	L L L L	A08T2 A07T2 F02A1		1-Ø1 * 1-Ø2 * 1-Ø3 * 1			D05-4 D05-4 D05-4	2 1			1 4-1/8 5-1/8	9 9 9 9
BUS FILE READY BUS FILE READY BUS FILE READY BUS FILE READY	L L L L	A04M1 F08M1 B07M1		1-Ø1 * 1-Ø2 * 1-Ø3 * 1			D05-7 D05-7 D05-7	1 2			4-6/8 1 5-6/8	10 10 10 10
BUS INDEX PUL BUS INDEX PUL BUS INDEX PUL BUS INDEX PUL	L L L L	A02K1 B08M1 B07M1		1-Ø1 * 1-Ø2 * 1-Ø3 * 1			D05-3 D05-3 D05-3	1 2			4-6/8 1 5-6/8	11 11 11 11
BUS R/W/S READY BUS R/W/S READY BUS R/W/S READY BUS R/W/S READY	L L L L	A02M1 A07H2 A08H2		1-Ø1 * 1-Ø2 * 1-Ø3 * 1			D05-4 D05-4 D05-4	1 2			3-5/8 1 4-5/8	12 12 12 12

RK05.C WRP28R.V34(62)-1 31-JUL-75 2-JUN-76 8:56 PAGE 2

RUN NAME	A/P	PIN NAME	ORDER PIN	PAY = ORDER	Q	DRAW OPT	RV RG Y	X	Z	REMARKS	LENGTH EXCEPTIONS FLAG	RUN NUMBER
BUS SECTOR ADDR BUS SECTOR ADDR BUS SECTOR ADDR BUS SECTOR ADDR	L L L L	A02H1 B08L1 B07L1		1-Ø1 * 1-Ø2 * 1-Ø3 * 1			D05-3 D05-3 D05-3	1 2			4-7/8 1 5-7/8	13 13 13 13
BUS SECTOR ADDR 1 BUS SECTOR ADDR 1 BUS SECTOR ADDR 1 BUS SECTOR ADDR 1	L L L L	A02J1 A07P2 A08P2		1-Ø1 * 1-Ø2 * 1-Ø3 * 1			D05-4 D05-4 D05-4	1 2			3-5/8 1 4-5/8	14 14 14 14
BUS SECTOR ADDR 2 BUS SECTOR ADDR 2 BUS SECTOR ADDR 2 BUS SECTOR ADDR 2	L L L L	A02L1 B07K2 B08K2		1-Ø1 * 1-Ø2 * 1-Ø3 * 1			D05-4 D05-4	1 2			4-1/8 1 5-1/8	15 15 15 15
BUS SECTOR ADDR 3 BUS SECTOR ADDR 3 BUS SECTOR ADDR 3 BUS SECTOR ADDR 3	L L L L	A02P1 B07J1 B08J1		1-Ø1 * 1-Ø2 * 1-Ø3 * 1			D05-4 D05-4 D05-4	1 2			4-1/8 1 5-1/8	16 16 16 16
BUS SECTOR PULSE BUS SECTOR PULSE BUS SECTOR PULSE BUS SECTOR PULSE	L L L L	A02F1 B08N2 B07N2		1-Ø1 * 1-Ø2 * 1-Ø3 * 1			D05-3 D05-3 D05-3	1 2			5-2/8 1 6-2/8	17 17 17 17
BUS SEEK INCOMPLETE BUS SEEK INCOMPLETE BUS SEEK INCOMPLETE BUS SEEK INCOMPLETE	L L L L	A02N1 A07S2 A08S2		1-Ø1 * 1-Ø2 * 1-Ø3 * 1			D05-4 D05-4 D05-4	1 2			3-3/8 1 4-3/8	18 18 18 18
BUS WR PROTECT STATUS BUS WR PROTECT STATUS BUS WR PROTECT STATUS BUS WR PROTECT STATUS	H H H H	B04U1 B07P1 B08P1		1-Ø1 * 1-Ø2 * 1-Ø3 * 1			D05-8 D05-8 D05-8	1 2			2-3/8 1 3-3/8	19 19 19 19
BUS WRITE CK BUS WRITE CK BUS WRITE CK BUS WRITE CK	H H H H	B04P1 B07K1 B08K1		1-Ø1 * 1-Ø2 * 1-Ø3 * 1			D05-8 D05-8 D05-8	1 2			2-3/8 1 3-3/8	20 20 20 20
COS POSITION COS POSITION COS POSITION	H H H	A05U1 B06B1		1-Ø1 * 1-Ø2 * 1			D05-9 D05-9	1			1-5/8 1-5/8	21 21 21
COUNT PULSE FWD COUNT PULSE FWD COUNT PULSE FWD	H H H	A05A1 B03K1		1-Ø1 * 1-Ø2 * 1			D05-5 D05-5	1			5-1/8 5-1/8	22 22 22
COUNT PULSE REV COUNT PULSE REV COUNT PULSE REV	H H H	A05C1 B03F1		1-Ø1 * 1-Ø2 * 1			D05-5 D05-5	1			4-3/8 4-3/8	23 23 23
CYC ADDR Ø CYC ADDR Ø CYC ADDR Ø CYC ADDR Ø	L L L L	A07K1 A08K1 B03L1		1-Ø1 * 1-Ø2 * 1-Ø3 * 1			D05-5 D05-5 D05-5	2 1			1 4-4/8 5-4/8	24 24 24 24

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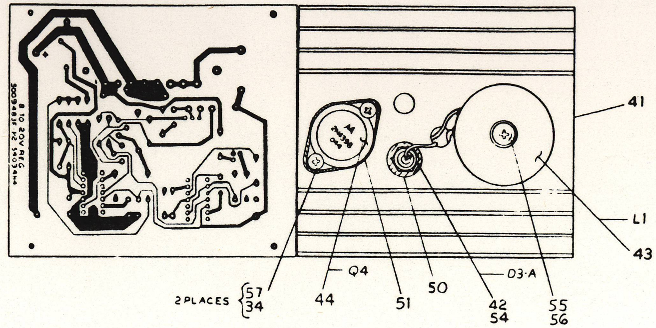
WIRE TABLE

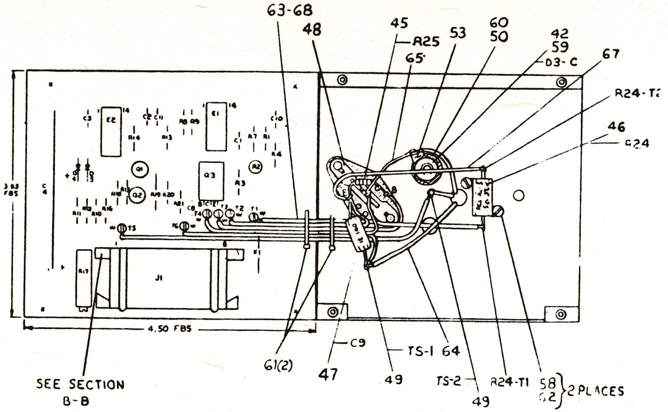
ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	LENGTH INCHES +- 1/8	STRIP LENGTH X	STRIP LENGTH Y	CONNECTIONS FROM	CONNECTIONS TO
43	—	BLK	2 1/8	—	1/2	L1	D3-(CATHODE) LUG
43	—	BLK	2 1/8	—	1/2	L1	TS-2
65	18	BLU	2 1/4	1/2	1/2	Q4-C	D3-(CATHODE) LUG
67	18	GRY	3 5/8	1/2	1/2	Q4-E	R24-T2
64	18	GRN	4 1/2	1/2	1/2	D3-ANODE	TS-1
68	18	WHT	5 7/8	1/2	1/2	SPLIT LUG #1	R24-T1
67	18	GRY	4 7/8	1/2	1/2	#2	Q4-E
66	18	VIO	5 1/8	1/2	1/2	#3	Q4-B
65	18	BLU	5 1/8	1/2	1/2	#4	Q4-C
64	18	GRN	5 1/2	1/2	1/2	#6	TS-1
63	18	YEL	6 7/8	1/2	1/2	SPLIT LUG #5	TS-2

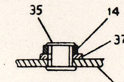
(Items 68 through 63: SEE NOTE 5)

EXTERNAL COMPONENTS

ITEM NO.	LENGTH	DESCRIPTION	POL	CONNECTIONS FROM	CONNECTIONS TO	POL
45	SEE NOTE 2	RES 100Ω 1/4W 5%		Q4-E	Q4-B	
47	SEE NOTE 3	CAP 10 uF 50V 10%	+	Q4-E	TS-1	−







SECTION B-B

NOTES:

1. R17 IS USED FOR OUTPUT VOLTAGE ADJUSTMENT R2 IS USED FOR OUTPUT POWER ADJUSTMENT.
2. CUT LEADS OF RES. (R25) SO THERE IS 3/8" OF A LEAD LEFT AT BOTH ENDS. (R25, 3/8)
3. CUT LEADS OF CAP. (C9) SO THERE IS 1/2 OF A LEAD LEFT AT BOTH ENDS. (C9, 1/2)
4. THERMAL COMPOUND (ITEM #39) IS TO BE APPLIED TO BOTH SIDES OF ALL THERMAL INSULATORS (ITEM #50+51) BOTH SIDES OF EACH INSULATOR SHOULD BE COMPLETELY COVERED, LEAVING NO VOIDS WHEN INSTALLED. CARE MUST BE EXERCISED SO THAT NO EXTRA COMPOUND INTERFERES WITH ANY ELECTRICAL CONNECTION MADE TO ANY DEVICE.
5. WHEN ASSEMBLING THE WIRES FROM THE CIRCUIT BOARD TO THE HEAT SINK, PLACE THE MODULE AGAINST THE HEAT SINK. WIRE AS SHOWN BY THE WIRE LIST AND MAKE A SERVICE LOOP AT THE CONNECTIONS ON THE HEAT SINK TO TAKE UP ANY EXCESS WIRE THAT MIGHT BE AVAILABLE.

QTY	REF DESIGNATION	DESCRIPTION	PART NO	ITEM NO

PARTS LIST

ETCH BOARD REV

REV	CHANGE NO	CHK
K	REVISED/REDRAWN 54C9484-00007	J. RINALDIS

REVISIONS

DEC NO.	EIA NO.	DEC NO	EIA NO.

SEMICONDUCTOR CONVERSION CHART

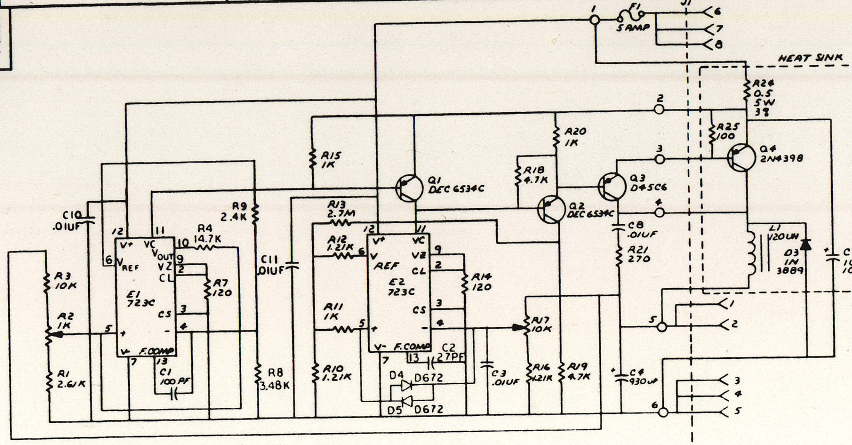
DRN. T. GUILLIN DATE 7 SEP 71
CHK'D. J. FLEMING DATE 8 SEP 71
ENG. P. SVENDSEN DATE 8 SEP 71
PROJ. ENG. P. SVENDSEN DATE 8 SEP 71
PROD. P. FAZI DATE 9 OCT 71
NEXT HIGHER ASSY D-UA-H737-0-0
SCALE NONE
SHEET 1 OF 1

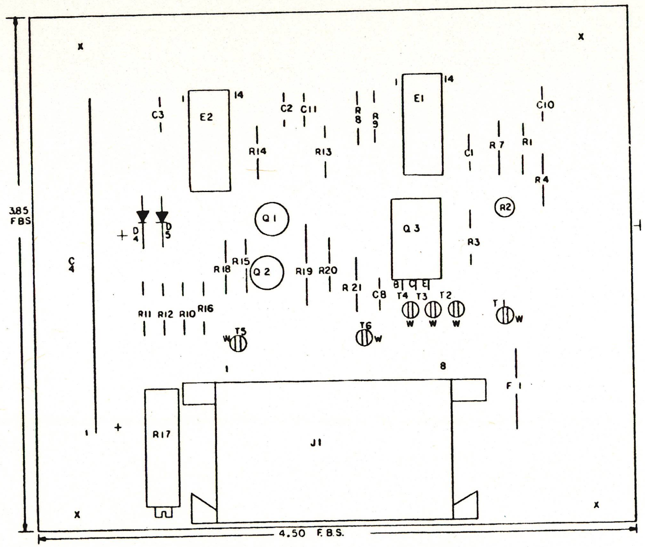
digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: 8 TO 20V REGULATOR

SIZE D CODE IA NUMBER 5409484-0-0 REV. K

DIST.





QTY	REF DESIGNATION	DESCRIPTION	PART NO	
4		WASHER, LOCK SPRING	9007801	69
A/R		WIRE #18 AWG STRD (WHT)	9107360-99	68
A/R		WIRE #18 AWG STRD (GRY)	9107360-88	67
A/R		WIRE #18 AWG STRD (VIO)	9107360-77	66
A/R		WIRE #18 AWG STRD (BLU)	9107360-66	65
A/R		WIRE #18 AWG STRD (GRN)	9107360-55	64
A/R		WIRE #18 AWG STRD (YEL)	9107360-44	63
2		#2 INTERNAL LOCK WASHER	9006631	62
2		TIE WRAPS	9007031	61
1		WASHER FLAT 3/16	9006666	60
1		#10-32 HEX NUT	9006564	59
2		2/56 x 3/16" SCREW	9006000-4	58
2		6/32 x 5/8" PAN HD SCREW	9006025-1	57
1		10-32 x 1" TRUSS HD SCREW	9006077-3	56
1		#10 INTERNAL LOCK WASHER	9006635	55
1		BUSHING (DIODE)	9008441	54
1		SOLDER LUG	9008150	53
4		#6-20 x 3/8 SELF TAPPING SCREW	9008407-01	52
1		THERMAL INSULATOR	9008419	51
2		THERMAL INSULATOR	9008424	50
2	TS-1, TS-2	STAND OFF (STUD TYPE)	9009060	49
1		TRANSISTOR SOCKET	1210130	48
1	C9	CAP 1UF 100V	1005507	47
1	R24	RES. 0.5 3% 5W	1310508	46
1	R25	RES. 100 5% 1/4W	1300229	45
1	Q4	TRANSISTOR 2N4398	1505870	44
1	L1	120UH CHOKE	1610573	43
1	D3	DIODE 1N3889	1110491	42
1		HEAT SINK	D-IA-5309543-0-0	41
6		SPLIT LUGS	9006735	40
A/R		THERMAL COMPOUND	9008268	39
1	F1	FUSE 5 AMPS	1209070	38
2		WASHER NYLON	9006707	37
8		CONNECTOR PINS	1209456	36
2		EYELET	9006732	35
2		WASHER INT TOOTH #6	9006633	34
2	E1, 2	DIP REGULATOR 723C	1910415	33
1	Q3	TRANSISTOR D45C6	1510414	32
2	Q1, 2	TRANSISTOR DEC 6534C	1503409-02	31
				30
1	R21	RES. 270 1/4W 5%	1301972	29
1	R19	RES. 4.7K 1/2W 5%	1300445	28
1	R18	RES. 4.7K 1/4W 5%	1300447	27
1	R17	RES. VARIABLE 10K 3/4W 10%	1309143-10	26
1	R13	RES 2.7M 1/4W 5%	1309680	25
3	R11, 15, 20	RES 1K 1/4W 5%	1300365	24
3	R10, 12, 16	RES 1.21K 1/8W 1% MF	1302871	23
1	R8	RES 3.48K 1/8W 1% MF	1305114	22
2	R7, 14	RES 120 1/4W 5%	1300247	21
				20
1	R9	RES 2.4K 1/4W 5%	1303177	19
1	R4	RES 14.7K 1/8W 1% MF	1302941	18
1	R3	RES 10K 1/8W 1% MF	1303312	17
1	R2	RES VARIABLE 1K 1/2W	1309150-03	16
1	R1	RES 2.61K 1/8W 1% MF	1303303	15
1	J1	AMP 8 PIN CONNECTOR (MATE-N-LOC)	1209340-00	14
2	D4, D5	DIODE D672	1105275	13
				12
				11
				10
1	C4	CAP. 930UF 30V, -10 +75%	1010509	9
4	C3, 8, 10, 11	CAP. .01UF 100V 20% AXIAL	1001610	8
1	C2	CAP. 27PF 100V 5% MICA	1001739	7
1	C1	CAP. 100PF 100V 5% DM.	1000016	6
1		ETCHED CIRCUIT BOARD	5009483	5
		MODULE ECO HISTORY	B-MH-5409484-0-6	4
		ASSY DRILLING HOLE LAYOUT	D-AH-5409484-0-5	3
		X-Y COORDINATE HOLE LOCATION	K-CO-5409484-0-4	2
		8 TO 20 V REGULATOR	E-IA-5409484-0-0	1

REVISIONS

CHK	CHANGE NO.	REV.
	00005	H
	5409484-00006	J
	5409484-00007	K

J. RINALDIS

TITLE: 8 TO 20V REGULATOR

SIZE: D | CODE: CS | NUMBER: 5409484-0-1 | REV.: K

SCALE | SHEET 1 OF 1 | DIST. F

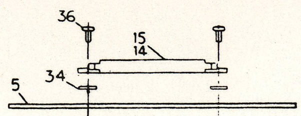
WIRE TABLE

ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	LENGTH IN. ± 1/8"	STRIP LENGTH-X	STRIP LENGTH-Y	CONNECTIONS FROM	CONNECTIONS TO
42	—	BLK	2 1/8	—	1/2"	L1	CATHODE D2 — LUG
42	—	BLK	2 1/8	—	1/2"	L1	R21-T2
68	18	VIO	2 1/4	1/2"	1/2"	Q5-C	CATHODE D2 — LUG
66	↑	GRN	4 1/4	1/2"	1/2"	D2 ANODE	ANODE D3 — LUG
65		YEL	4 1/8	1/2"	1/2"	D3 CATHODE	R21-T1
70		WHT	4 3/8	1/2"	1/2"	SPLIT LUG #1	Q5-E
69		GRY	5 1/4	1/2"	1/2"	SPLIT LUG #2	Q5-B
68		VIO	5 1/4	1/2"	1/2"	SPLIT LUG #3	Q5-C
67		BLU	8	1/2"	1/2"	SPLIT LUG #4	R21-T2
66	↓	GRN	5 3/4	1/2"	1/2"	SPLIT LUG #6	ANODE D3 — LUG
65	18	YEL	8 1/4	1/2"	1/2"	SPLIT LUG #5	R21-T1

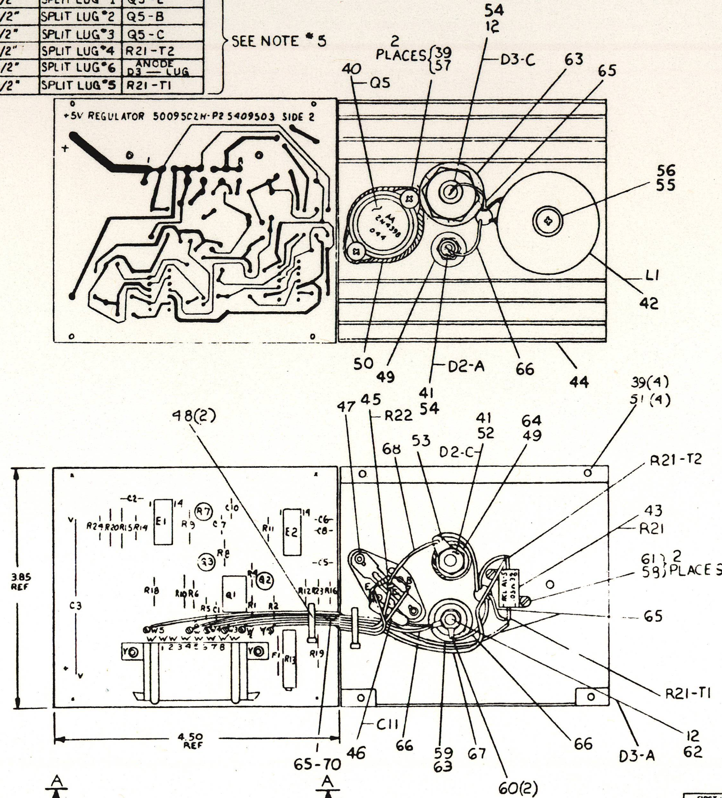
(Items 70 through 65: SEE NOTE #5)

EXTERNAL COMPONENTS

ITEM NO.	LENGHT	DESCRIPTION	POL	CONNECTIONS FROM	CONNECTIONS TO	POL
45	NOTE #2	RES. 100 1/4W 5%		Q5-E	Q5-B	
46	NOTE #3	CAP. 10UF, 50V 10%	+	Q5-E	ANODE D3 — LUG	−



VIEW A-A
SCALE: NONE



NOTES:

1. R13 IS USED FOR OUTPUT VOLTAGE ADJUSTMENT. R7 IS USED FOR OUTPUT CURRENT ADJUSTMENT.
2. CUT LEADS OF RES. (R22) SO THERE IS 3/8" OF A LEAD LEFT ON BOTH ENDS.
3. CUT LEADS OF CAP. (C11) SO THERE IS 1/2" OF A LEAD LEFT ON BOTH ENDS.
4. THERMAL COMPOUND (ITEM 31) IS TO BE APPLIED TO BOTH SIDES OF ALL THERMAL INSULATORS (ITEM 49, 50 & 63). BOTH SIDES OF EACH INSULATOR SHOULD BE COVERED, LEAVING NO VOIDS WHEN INSTALLED. CARE MUST BE EXERCISED SO THAT NO EXTRA COMPOUND INTERFERES WITH ANY ELECTRICAL CONNECTION MADE TO ANY DIVICE.
5. WHEN ASSEMBLING THE WIRES FROM THE CIRCUIT BOARD TO THE HEAT SINK, PLACE THE MODULE AGAINST THE HEAT SINK, WIRE AS SHOWN BY THE WIRE LIST AND MAKE A SERVICE LOOP AT THE CONNECTIONS ON THE HEAT SINK TO TAKE UP ANY EXCESS WIRE THAT MIGHT BE AVAILABLE.

IC TYPE	GND	+5V

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

IC PIN LOCATIONS

QTY	REF DESIGNATION	DESCRIPTION	PART NO	ITEM NO

PARTS LIST

FIRST USED ON OPTION MODEL

ETCH BOARD REV: H

REVISIONS: REV R — CHANGE NO 5409503-(((((3 — REVISED & REDRAWN — J. RINALDI

SEMICONDUCTOR CONVERSION CHART

DEC NO.	EIA NO	DEC NO.	EIA NO
		1N 3899	SAME
		2N 4398	—
		D4526	—
		2N 4441	—
		DEC 6534 D	MPS 6534
		1N 752 A	SAME

DRN.	C. MARINI	DATE 8-21-71
CHK'D.	J. FLEMING	DATE 8-27-71
ENG.	P. VENDSON	DATE 9-8-71
PROJ. ENG.	P. VENDSON	DATE 9-8-71
PROD.	P. FAZIO	DATE 9-9-71

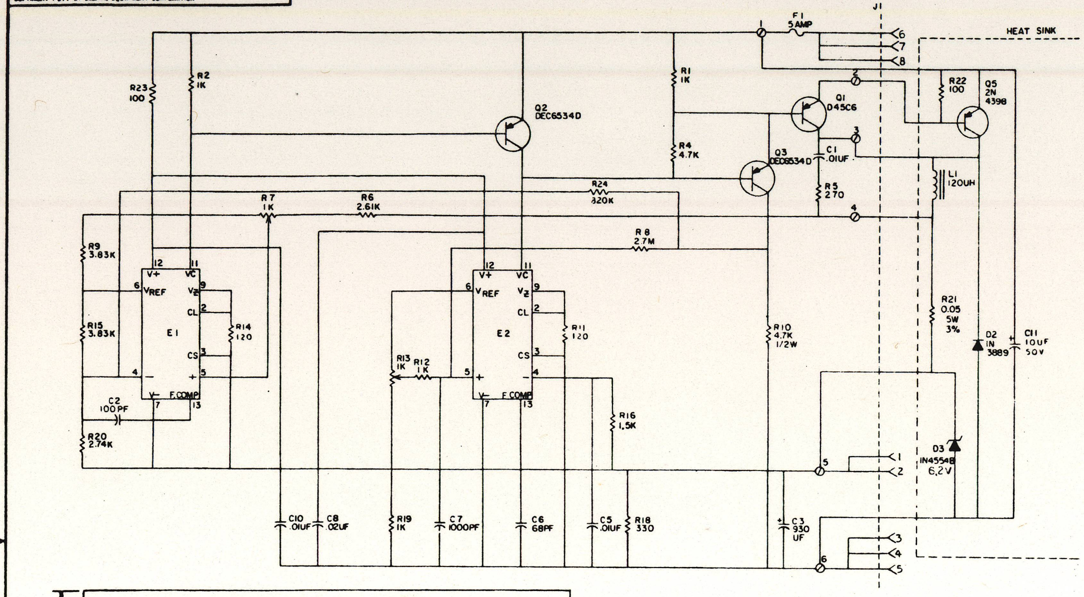
NEXT HIGHER ASSY: —

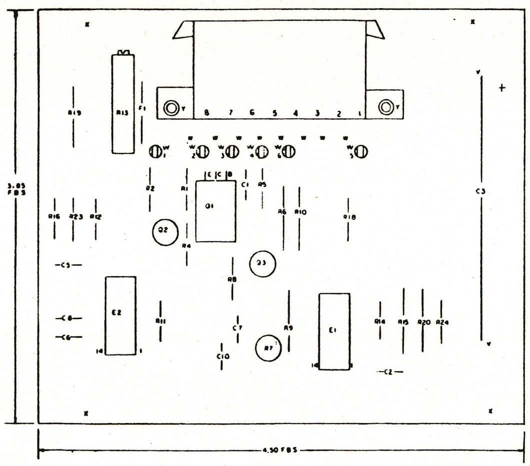
SCALE: NONE
SHEET: 1 OF 1

digital EQUIPMENT CORPORATION, MAYNARD MASSACHUSETTS

TITLE: + 5 VOLT POWER REGULATOR

SIZE: D CODE: IA NUMBER: 5409503-0-0 REV.: R





QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
A/R		WIRE #18 AWG STRD (WHT.)	9107360-99	70
A/R		WIRE #18AWG STRD (GRY.)	9107360-88	69
A/R		WIRE #18AWG STRD (VIO.)	9107360-77	68
A/R		WIRE #18AWG STRD (BLU.)	9107360-66	67
A/R		WIRE #18AWG STRD (GRN.)	9107360-55	66
A/R		WIRE #18AWG STRD (YEL.)	9107360-44	65
1		3/16 FLAT WASHER	9006666	64
2		THERMAL INSULATOR	9009678	63
1		NUT, HEX 1/4 X28	9008063	62
2		WASHER, INT TOOTH LOCK #2	9006631	61
2		SOLDER LUG	9006764	60
1		1/4 FLAT WASHER	9006676	59
2		SCR BINDING HD 2-56X 3/16 SST	9006000-4	58
2		SCR PHIL PAN HD 6-32 X 5/8 SST	9006025-1	57
1		SCR PHIL TRUSS HD 10-32 X 1 SST	9006077-3	56
1		WASHER INT TOOTH LOCK #10	9006635	55
2		BUSHING	9008441	54
1		SOLDER LUG	9008150	53
1		NUT, HEX #10-32	9006564	52
4		SCR PHL PAN HD #6-20 X 3/8 ST	9008407	51
1		THERMAL INSULATOR	9008419	50
2		THERMAL INSULATOR	9008424	49
2		TIE WRAPS	9007031	48
1		TRANSISTOR SOCKET	1210130	47
1	C11	CAP 10UF 50V	1000070	46
2	R22, R23	RES 100 1/4W 5%	1300229	45
1		HEAT SINK	D-IA-5309543-0-0	44
1	R21	RES 0.05 5W 3%	1310507	43
1	L1	CHOKE 120 UH	1610573	42
1	D2	DIODE IN3889	1110491	41
1	Q5	TRANSISTOR 2N4398	1505870	40
6		WASHER INT TOOTH # 6	9006633	39
2	R11, R14	RES 120 1/4W 5%	1300247	38
1	R16	RES 1.5K 1/4W 5%	1300391	37
2		EYELETS	9006732	36
6		SPLIT LUGS	9006735	35
2		WASHER NYLON	9006707	34
2	E1, E2	IC 723C D.I.P. REGULATOR	1910415	33
1	Q1	TRANSISTOR D45C6 G.E.	1510414	32
A/R		THERMAL COMPOUND	9008268	31
2	Q2, Q3	TRANSISTOR DEC6534D	1503409-00	30
1	R8	RES 2.7M 1/4W 5%	1309680	29
2	R9, R15	RES 3.83K 1/8W 1%	1309413	28
1	R7	RES 1K 1/2W 20%	1309150-3	27
1	R13	RES 1K 10W 76PR	1309143-07	26
1	R20	RES 2.74K 1/8W 1% MF	1304868	25
1	R6	RES 2.61K 1/8W 1% MF	1303303	24
1	R19	RES 1K 1/8W 1% MF	1303114	23
				22
1	R10	RES 4.7K 1/2W 5%	1300445	21
1	R5	RES 270 1/4W 5%	1301972	20
1	R4	RES 4.7K 1/4W 5%	1300447	19
3	R1, R2, R12	RES 1K 1/4W 5%	1300365	18
1	R18	RES 330 1/4W 5%	1300295	17
1	R24	RES 820K 1/4W 10%	1303187	16
8		CONNECTOR PIN	1209456	15
1	J1	CONN. 8 PIN AMP	1209340-00	14
1	F1	FUSE 5 AMPS	1209070	13
1	D3	DIODE IN4554B 6.2V	1112122	12
1	C8	CAP .02UF 100V -0 +20% DISC	1000004	11
1	C3	CAP 930UF 30V -10 +75% ELEC.	1010509	10
3	C1, C5, C10	CAP .01UF 100V 20% DISC	1001610	9
1	C7	CAP 1000PF 100V 5% MICA	1000042	8
1	C2	CAP 100PF 100V 5% DM	1000016	7
1	C6	CAP 68PF 100V 5% DM	1000014	6
1		ETCH CIRCUIT BOARD	5009502	5
		MODULE ECO HISTORY	B-MH-5409503-0-6	4
		ASSY/DRILLING HOLE LAYOUT	D-AH-5409503-0-5	3
		X-Y COORDINATE HOLE LOCATION	K-CO-5409503-0-4	2
		+5V REGULATOR	D-IA-5409503-0-0	1

PARTS LIST

TRANSISTOR & DIODE CONVERSION CHART

DEC	EIA	DEC	EIA
DEC6534C	MPS6534	IN752A	SAME
D45C6		IN3889	SAME
2N4441			
2N4398			

digital EQUIPMENT CORPORATION

TITLE: +5 VOLT REGULATOR

SIZE	CODE	NUMBER	REV
D	CS	5409503-0-1	A

D CS 5409503-0-1 A

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

THIS IS PRINT SET

	SEQUENCE	
DRAWING DIRECTORY	B-DD-H743-Ø	SHEET #1 ONLY
CIRCUIT SCHEMATIC	D-CS-H743-Ø-1	
+5V REGULATOR	E-IA-5409503-0-0	
CIRCUIT SCHEMATIC	D-CS-5409503-0-1	
±15V REGULATOR	E-IA-5409484-0-0	
CIRCUIT SCHEMATIC	D-CS-5409484-0-1	

MFG PRINTS

POWER SUPPLY	E-UA-H743-0-0
POWER SUPPLY (PL)	A-PL-H743-0-0
DRAWING DIRECTORY	B-DD-H743-Ø
PACKAGING INSTRUCTION	A-PI-3700130-0-0

UNIT VARIATIONS

VARIATION	TITLE	PRINT SET TYPE					
H743-AA	POWER SUPPLY 115V	X					
H743-AB	POWER SUPPLY 230V	X					

REVISIONS

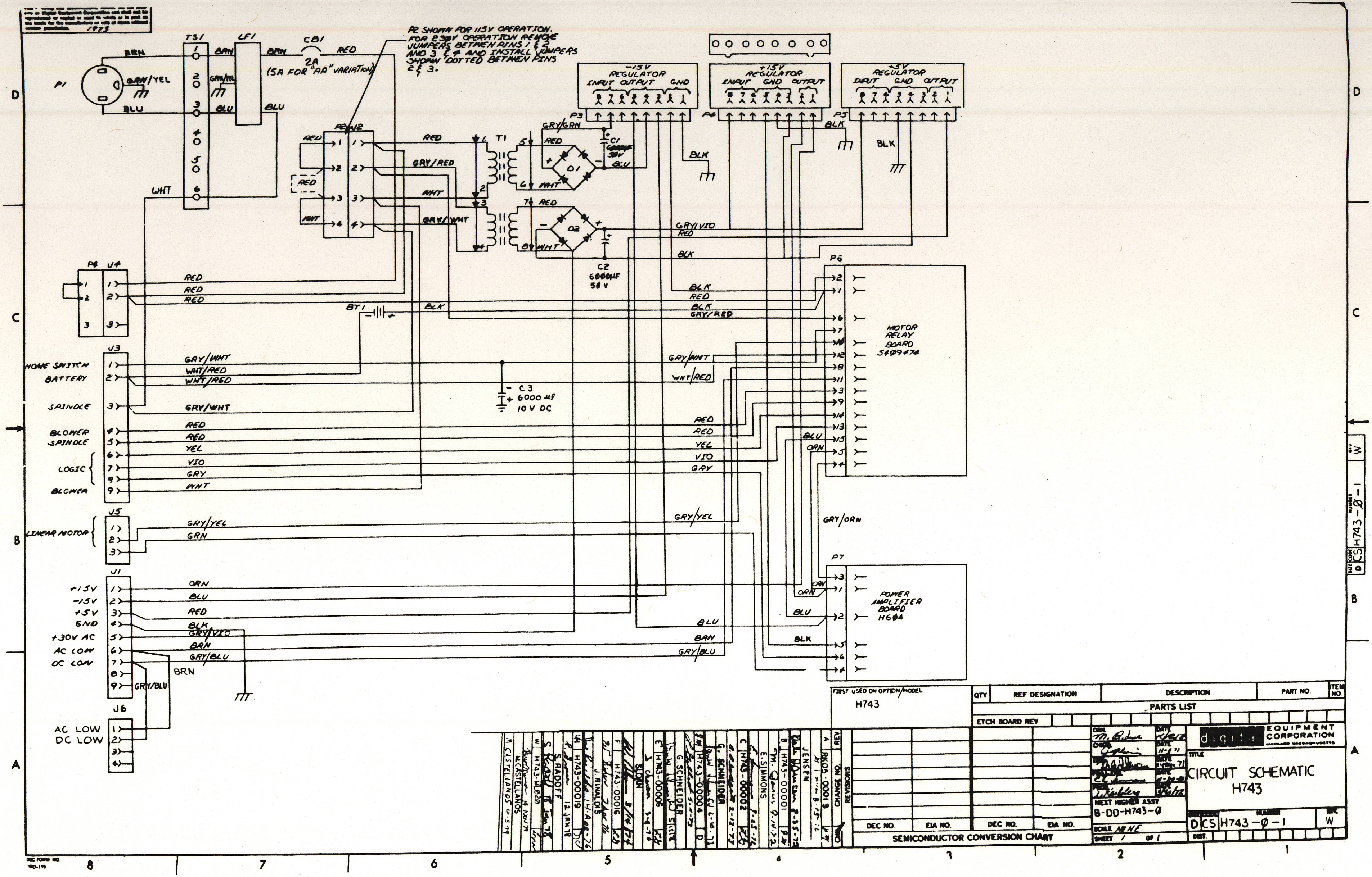
REV	CHG. NO.	DATE
A	RK05-15	[illegible]
B	H743-1	8/72
C	H743-2	[illegible]
D	H743-3	[illegible]
E	H743-4	[illegible]
F	H743-5	[illegible]
H	H743-6	2-74
J	H743-7	6-74
K	H743-10	3-75
L	H743-11	5-75
M	H743-12	6-75
N	H743-13	3-75
P	H743-14	9-75
R	H743-15	1-76
S	H743-16	4-76
T	H743-17	12-76
U	H743-18	2-76
V	H743-19	1-78
W	H743-MLØ20	11-79

USED ON OPTION/MODEL	
RKØ5	

DRN. J. FLEMING	DATE 12/6/71	TITLE POWER SUPPLY (H743)
CHK'D. [illegible]	DATE 7-7-72	
PROJ ENG. [illegible]	DATE [illegible]	
PROD. [illegible]	DATE 4/11/72	SIZE B · CODE DD · NUMBER H743-Ø · REV W
FIELD SERV.	DATE	
SHEET 1 OF 3		DIST 5

DRB 106

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


P2 SHOWN FOR 115V OPERATION. FOR 230V OPERATION REMOVE JUMPERS BETWEEN PINS 1 & 2 AND 3 & 4 AND INSTALL JUMPERS SHOWN DOTTED BETWEEN PINS 2 & 3.
P1
TS1
LF1
CB1
2A
(5A FOR "AA" VARIATION)
-15V REGULATOR
INPUT OUTPUT GND
+15V REGULATOR
INPUT GND OUTPUT
+5V REGULATOR
INPUT GND OUTPUT
T1
D1
D2
C1
C2
6000µF
50 V
BT1
C3
6000 µf
10 V DC
HOME SWITCH
BATTERY
SPINDLE
BLOWER
SPINDLE
LOGIC
BLOWER
LINEAR MOTOR
+15V
-15V
+5V
GND
+30V AC
AC LOW
DC LOW
AC LOW
DC LOW
MOTOR RELAY BOARD 5409474
POWER AMPLIFIER BOARD H604
FIRST USED ON OPTION/MODEL
H743
PARTS LIST
SEMICONDUCTOR CONVERSION CHART
DIGITAL EQUIPMENT CORPORATION
CIRCUIT SCHEMATIC H743
NEXT HIGHER ASSY B-DD-H743-Ø
D CS H743-Ø-1
W