DIGITAL EQUIPMENT CORPORATION

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

THIS IS PRINT SET

SEQUENCE	
TA11 DRAWING DIRECTORY	B-DD-TA11-Ø
TA11 CASSETTE INTERFACE	C-UA-TA11-Ø-Ø
CASSETTE INTERFACE	D-CS-M7892-Ø-1
ROM LISTING M7892	K-RL-M7892-Ø-8
ROM LISTING M7892	K-RL-M7892-Ø-7
TA11 INTERFACE CABLE	C-IA-BCØ8S-Ø-Ø
PRIORITY JUMPER LEVEL #6	B-CS-5408780-0-1
ACCESSORY LIST	A-AL-TA11-Ø-9
TU60 DRAWING DIRECTORY	B-DD-TU60-Ø-Ø
TA11 ACCEPTANCE PROCEDURE	A-SP-TA11-Ø-11

SEQUENCE

TA11 DECcassette

Engineering

Drawings

F. van Kempen

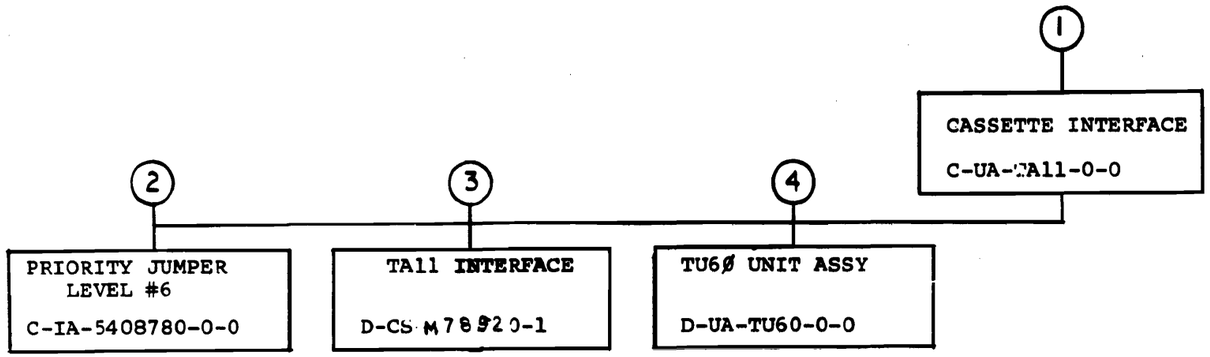
UNIT VARIATIONS		PRINT SET			
VAR	TITLE	1	2	3	4
TA11-AA	TA11&TU6Ø-AA RACK MOUNT 115V	1			
TA11-AB	TA11&TU6Ø-AB RACK MOUNT 230V	1			
TA11-0	CONTRO	1			

REVISIONS	REV	ORG. NO.	DATE

USED ON OPTION/MODEL

SHEET 1 OF

DRN. M. PIERCE	DATE 1/12/73	TITLE: TA11 INTERFACE
CHK'D.	DATE	
PROJ ENG.	DATE 5-24-73	
PROD.	DATE 5-29-73	SIZE B · CODE DD · NUMBER TA11-0 · REV
FIELD SERV.	DATE 5-25-73	DIST



TITLE		SIZE	CODE	NUMBER	REV
TA11 CASSETTE INTERFACE	SHEET 2 OF 3	B	DD	TA11-Ø	

DRB 107
DEC 16—(325)—1062—3—N871

ELECTRICAL

CUSTOMER PRINT SET 1	2	4	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
X				1	C-UA-TA11-0-0		1	CASSETTE INTERFACE	
X					C-IA-BC08S-0-0	#	1	I/O CABLE ASSY (DIAG JUMPER)	
					A-SP-TA11-Ø-1Ø			TA11 TEST PROCEDURE	
X					A-AL-TA11-Ø-9			TA11 ACCESSORY LIST	
					A-SP-TA11-Ø-12			TA11 ENGINEERING SPECIFICATION	
X					A-SP-TA11-Ø-11			TA11 ACCEPTANCE PROCEDURE	
				2	C-IA-5408780-0-0		1	PRIORITY JUMPER LEVEL #6	
X					B-CS-5408780-0-1	#	1	PRIORITY JUMPER LEVEL #6	
					C-AH-5408780-0-5		1	ASSY/DRILLING HOLE LAYOUT	
					B-MH-5408780-0-6		1	MODULE ECO HISTORY	
X				3	D-CS-M7892-Ø-1	#	5	TA11 INTERFACE	
					K-CO-M7892-Ø-4	#	1	X-Y COORDINATE HOLE LOCATION	
					D-AH-M7892-Ø-5	#	1	ASSY/DRILLING HOLE LAYOUT	
					B-MH-M7892-Ø-6	#	1	MODULE ECO HISTORY	
X					K-RL-M7892-Ø-7	#	2	ROM LISTING(FOR 23022A1)	
X					K-RL-M7892-Ø-8	#	9	ROM LISTING (FOR 23021A2)	
				4	D-UA-TU60-0-0	#	2	TU60 UNIT ASSY	
					A-PL-TU60-0-0	#	2	TU60 UNIT ASSY (PL)	
C					B-DD-TU60-0-0	#	4	TU60 DECASSETTE	

MECHANICAL

CUSTOMER PRINT SET 1	2	3	4	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO / FILE DATE
					1	C-UA-TA11-0-0		1	CASSETTE INTERFACE	
						C-IA-BC08S-0-0	#	1	I/O CABLE ASSY (DIAG JUMPER)	
X					2	C-IA-5408780-0-0	#	1	PRIORITY JUMPER LEVEL #6	
X						C-AH-5408780-0-5	#	1	ASSY/DRILLING HOLE LAYOUT	
X						B-MH-5408780-0-6	#	1	MODULE ECO HISTORY	
					4	D-UA-TU60-0-0	#	2	TU60 UNIT ASSY	
						A-PL-TU60-0-0	#	2	TU60 UNIT ASSY	
						B-DD-TU60-0-0	#	4	TU60 DECASSETTE	

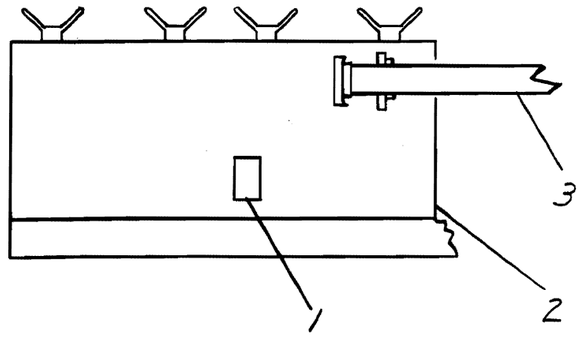
CUSTOMER PRINT SET CODES	
	X = PRINT OF DOCUMENT INCLUDED IN PRINT SET
	C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT
	S = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED

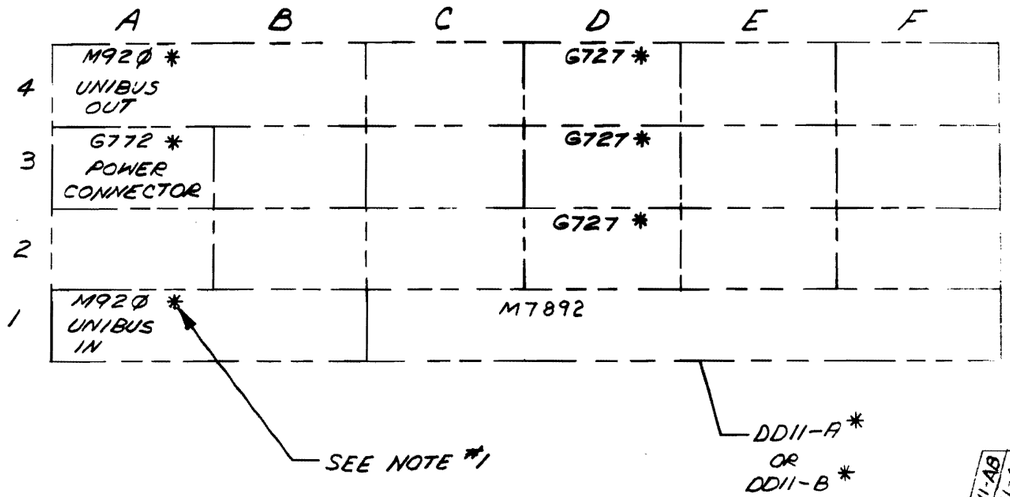
TITLE	SHEET 3 OF 3	SIZE	CODE	NUMBER	REV
TA11 INTERFACE		B	DD	TA11-0	

DPB 108

DEC 16-(325)-.062 2B-R972

NOTES:
1. ITEMS INDICATED WITH ASTERICKS (*) ARE SHOWN FOR REFERENCE ONLY AND ARE NOT PART OF THIS UNIT.





TA11-AB	TA11-AA	TA11-Ø	DESCRIPTION	PART NO.	ITEM NO.
1	-	-	TU60-AB RACKMOUNT 230V	D-UA-TU60-AB-Ø	5
-	1	-	TU60-AA RACKMOUNT 115V	D-UA-TU60-AA-Ø	4
2	2	2	I/O CABLE ASSY	C-IA-BC05S-15-0	3
1	1	1	CASSETTETTE INTERFACE	D-CS-M7892-Ø-1	2
1	1	1	PRIORITY JUMPER LEVEL #6	C-IA-3405700-00	1

PARTS LIST

FIRST USED ON OPTION/MODEL: PDP 11

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. M. Reece DATE 11/24/73
CHK'D DATE
ENG. DATE 5-29-73
PROJ. ENG. DATE 5-24-73
PROD. DATE 5-29-73
NEXT HIGHER ASSY. B-DD-TA11-Ø
SCALE NONE
SHEET 1 OF 1

digital EQUIPMENT CORPORATION MAYNARD MASS.—CHUSETTS

TITLE: TA11 CASSETTE INTERFACE

SIZE	CODE	NUMBER	REV.
C	UA	TA11-Ø-Ø	

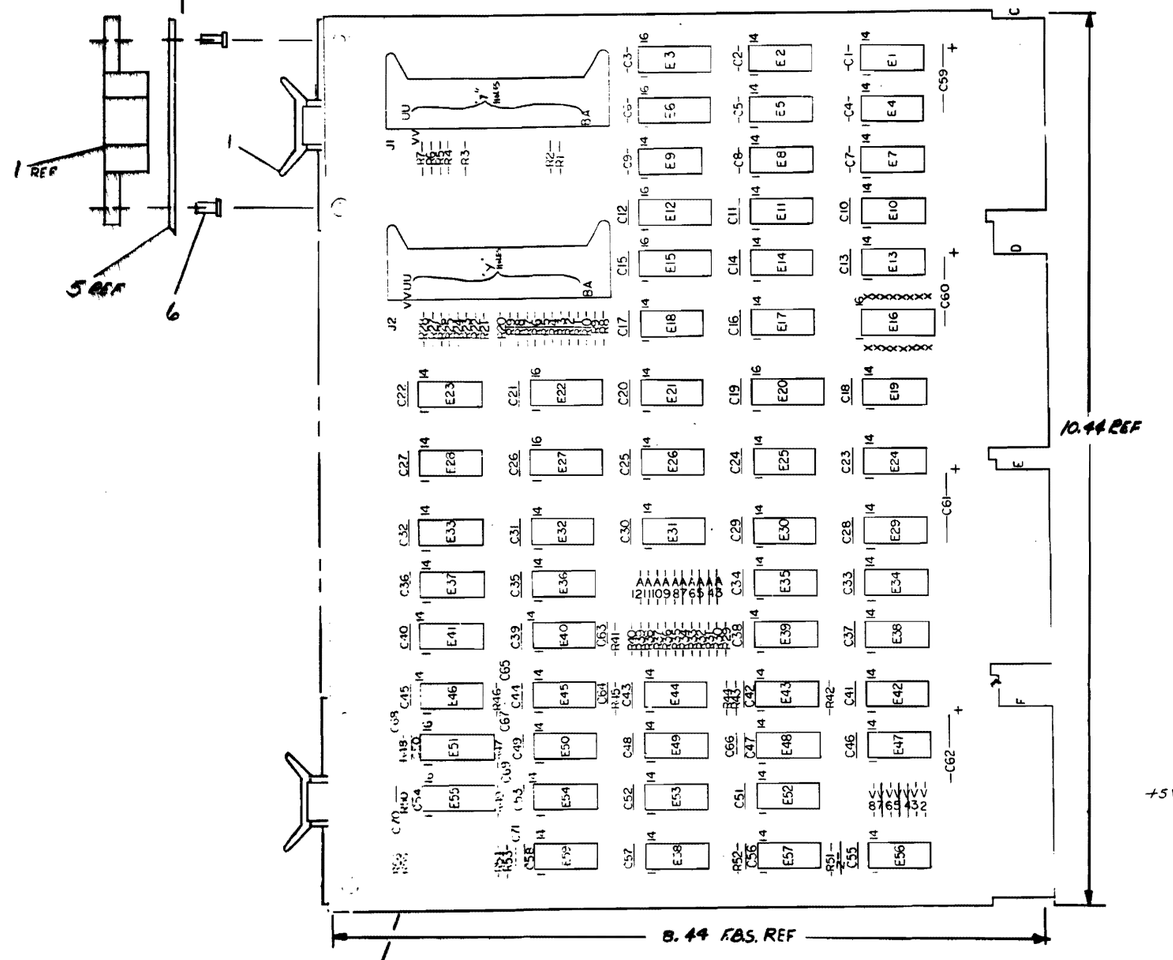
DIST.

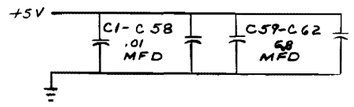
REVISIONS: REV. | CHANGE NO | CHK

DEC FORM NO. DRC 100-B

NOTES:

1. UNLESS OTHERWISE INDICATED RESISTORS ARE 10K, 1/4W, 5% AND CAPACITOR VALUES IN PICO FARADS.
2. ADDRESS JUMPERS ARE INSERTED FOR A ZERO
3. VECTOR JUMPERS ARE INSERTED FOR A ONE.
4. ON ITEM NO. 40, ALL 13 CHIPS MUST BE EITHER DEC 380's OR ITS' SUBSTITUTE 11380 IC's. COMBINATIONS ARE NOT ALLOWED ON THE SAME OPTION.





4		HANDLE - FLIP CHIP, MAGENTA	9008937-6	1
		X-Y COORDINATE HOLE LOCATION	K-CO-M7892-0-4	2
		ASSY/DRILLING HOLE LAYOUT	D-AH-M7892-0-5	3
		MODULE ECO HISTORY	B-MH-M7892-0-6	4
1		ETCHED CIRCUIT BOARD	5010508	5
8		ETCH CLIP (GS-4-7 STIMPSON)	9006732	6
2	J1, J2	BERG 40 PIN CONNECTOR	1209961	7
2	C87, C70	CAP 270 MMF 100V 5% DM	1000022	8
1	C71	CAP 330 MMF 100V 5% DM	1000023	9
4	C63, C64, C65, C66	CAP 470 MMF 100V 5% DM	1000024	10
2	C68, C69	CAP 560 MMF 100V 5% DM	1000025	11
4	C59-C62	CAP 6.8 MFD 35V 10% TANT	1005306	12
58	C1-C58	CAP .01 MFD 100V 20%	1001810-01	13
/	E16	SOCKET I.C.	1209838	14
1	R53	RES 47 1/4W 5%	1300202	15
4	R41, R43, R45, R46	RES 100 1/4W 5%	1300229	16
8	R2, R3, R15, R16, R21, R22, R23, R2	RES 120 1/4W 5%	1300247	17
1	R51	RES 390 1/4W 5%	1300309	18
11	R8-R14, R17-R20	RES 470 1/4W 5%	1300316	19
3	R40, R44, R54	RES 1K 1/4W 5%	1300385	20
18	R29-R39, R47-P50, R52, R55, R56	RES 10K 1/4W 5%	1300479	21
9	R1, R4-R7, R25, R26, R27, R42	RES 180 1/4W 5%	1301322	22
1	R24	RES 2K 1/4W 5%	1302388	23
/	E22	IC. DEC IM5603	23021A2	24
4	E31, E41, E50, E53	I.C. DEC 7474	1905547	25
4	E40, E44, E45, E52	I.C. DEC 7400	1905575	26
1	E25	I.C. DEC 7450	1905880	27
2	E21, E49	I.C. DEC 7402	1906004	28
1	E54	I.C. DEC 74H74	1906887	29
3	E26, E46, E59	I.C. DEC 7404	1906888	30
1	E27	I.C. DEC IM5600	23022A1	31
3	E30, E35, E39	I.C. DEC 8242	1908712	32
2	E32, E33	I.C. DEC 7416	1908828	33
3	E13, E36, E58	I.C. DEC 7408	1910135	34
2	E51, E55	I.C. DEC 74123	1910436	35
4	E3, E6, E12, E15	I.C. DEC 74175	1910851	36
1	E20	I.C. DEC 74174	1910852	37
1	E42	I.C DEC 7427	1910878	38
12	E1, E4, E5, E7, E8, E10, E14 E17, E43, E47, E48, E56	IC DEC 8881	1909705	39
13	E2, E9, E11, E18, E19 E23, E24, E28, E29, E34, E37, E38, E57	IC DEC 380	1909485 *	40
REF		ROM LISTING (FOR 23022A1)	K-RL-M7892-0-7	41
REF		ROM LISTING (FOR 23021A1)	K-RL-M7892-0-8	42

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

* SEE ALLOWABLE SUBSTITUTION LIST & NOTE 4

ALLOWABLE SUBSTITUTION LIST

ORIG. PART NO	SUBSTITUTE PART DESCRIPTION	SUBSTITUTE PART PART NO.	ITEM NO.
1909485	IC. 11380	1911113	40

IC 74125	8	16
IC 380	1	8
IC 11/5603	9	16
IC 11/5600	8	16
IC 74174	8	16
IC 74175	8	16
IC TYPE	GND	+ 5V

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

IC PIN LOCATIONS

DEC FORM NO. 5008-1384

FIRST USED ON OPTION MODEL: TA11

ETCH BOARD REV: A

REV	CHANGE NO.	DESCRIPTION	DRN	CHK	DATE
A	9001	ADDED ROM LISTINGS	R. Bisson	D. MUTANSKY	7-3-73

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

SEMICONDUCTOR CONVERSION CHART

DRN G. Wilson 4/25/73
CHK [illegible] 5-16-73
ENGR [illegible] 5/22/73
PROJ [illegible] 5-29-73
MGR [illegible] 5-29-73

NEXT HIGHER ASSY: C-UA-TA11-0-0

SCALE:

SHEET 1 OF 5

EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE: CASSETTE INTERFACE

SIZE D | CODE CS | NUMBER M7892-0-1 | REV. A

DIST.

BUS MSYN L EL1 — BUS AI7 L EJ1 — BUS AI6 L EK2 — BUS AI5 L EK1 — BUS AI4 L EK1 — BUS AI3 L EK2 — BUS AI2 L EJ1 — BUS AI1 L EL1 — BUS AI0 L EA1 — BUS AØ9 L EG1 — BUS AØ8 L EH2 — BUS AØ7 L EF2 — BUS AØ6 L EL1 — BUS AØ5 L EJ1 — BUS AØ4 L EJ2 — BUS AØ3 L EJ2 — BUS AØ2 L EF1 — BUS AØ1 L EH1 — BUS AØØ L EH2 — BUS CØ L EJ2 — BUS C1 L EF2 — BUS INIT L DL1 — BU. SSYN L FC1

+5V R49 1K — +5V R44 1K — +5V R52 10K — +5V R55 10K TA-2 H — +5V R42 180

W11 (AI2) — W10 (AI1) — W9 (AI0) — W8 (AG9) — W7 (AG8) — W6 (AI7) — W5 (AG6) — W4 (AG5) — W3 (AG4) — W2 (AG3) — W1 (AG2)

R29 — R39 — R38 — R37 — R36 — R35 — R34 — R33 — R32 — R31 — R30

BUS MAR L EL1 — W1 (NI) — R52 10K +5V — BUS SSYN INH L EL1 — BUS SSYN L EL1

EL2 REG SELECT L — TA-5 INT H EK2 — INT ENB H EK2 — C46 33Ø MMF

TA-4 BG IN H EB1 — R51 39Ø

BUS BBSY L FD1 — TA2 SELECT ØØH E42 — TA2 SELECT Ø2H E42 — TA-2 OUT HIGH H EM2 — TA-2 OUT LOW H EM1

R53 47 — C71 33Ø MMF

EM1 TA-2 IN H — TA-2 BINIT H — TA-2 BINIT L — TA-2 INIT L

TA-2 H — GRANT — FBH TA2 BUS ARQUEST L — FBL TA2 BG OUT H — FBK BUS SACK L

BUS DØ2 L FE2 — BUS DØ3 L FE1 — BUS DØ4 L FE2 — BUS DØ5 L FE1

FAH BUS INTR L — FAL BUS DØ6 L — FAK BUS DØ7 L — FAJ BUS DØ8 L

(ADDRESS SELECT INTERRUPT CONT.)

REVISIONS		
ENG	CHANGE NO.	REV.
F.Wilson 5/11/73	PP1	
F.Wilson 5/11/73	PØ2	

TITLE (TA-2) CASSETTE INTERFACE		SIZE D	CODE CS	NUMBER M7892-Ø-1 REV. A
SCALE	SHEET 2 OF 5	DIST.		

DCSM7892-0-1

TA-4 R/W 8 H
TA-4 R/W 7 H
TA-4 R/W 6 H
TA-4 R/W 5 H
TA-2 BINIT L
TA-5 LOAD TAPE H
74175 E6 READ BUFFER
D2 R2(1) R2(Ø)
D3 R3(1) R3(Ø)
DØ R0(1) R0(Ø)
D1 R1(1) R1(Ø)
CLR CLK

TA-4 R/W 4 H
TA-4 R/W 3 H
TA-4 R/W 2 H
TA-4 R/W 1 H
74175 E13 READ BUFFER
D2 R2(1) R2(Ø)
D3 R3(1) R3(Ø)
DØ R0(1) R0(Ø)
D1 R1(1) R1(Ø)
CLR CLK

8881 E5
8881 E14
8881 E19
38Ø E2
38Ø E11
TA-3 BDØ7 H
TA-3 BDØ6 H
TA-3 BDØ5 H
TA-3 BDØ4 H
TA-3 BDØ3 H
TA-3 BDØ2 H
TA-3 BDØ1 H
CS2 BUS DØØ L
TA-3 BDØØ H

74174 E2Ø
D5 R5(1)
D4 R4(1)
D3 R3(1)
D2 R2(1)
D1 R1(1)
DØ R0(1)
CLR CLK
TA-2 BINIT L

TA-2 SELECT Ø2 H EI2
TA-2 IN H EN1
7400 E52
74Ø4 E17
TA-2 SELECT ØØ H DØ1
TA-2 OUT LOW H EN1
TA-2 SELECT Ø2 H DJ1
74Ø8 E13
7400 E13
TA-3 BUS → TAC3 H
TA-3 CLK WRITE BUFF H

TA-5 TAPE TR(1) H
TA-5 READY H
8881 E4
8881 E10
8881 E1
8881 E7
CN2 BUS DØ7 L
CV2 BUS DØ6 L
CP2 BUS DØ5 L
CN2 BUS DØ4 L
CT2 BUS DØ3 L
CU2 BUS DØ2 L
CR2 BUS DØ1 L
CQ2 BUS DØ5 L
CE2 BUS DØ4 L
CF2 BUS DØ3 L
CH2 BUS DØ2 L
CM1 BUS DØ1 L
CV2 BUS DØØ L
CK2 BUS DØ9 L
CL2 BUS DØ8 L
TA-4 ERROR H
TA-4 CRC ERR H
TA-4 CLR LEAD H
TA-4 WAT LOC ERR H
TA-4 END FILE H
TA-4 TIMING ERR H
TA-4 OFFLINE H
CLI TA-3 INT ENB H
TA-3 ILBS(1) H
TA-3 FUNC ØØ H
TA-3 FUNC Ø1 H
TA-3 FUNC Ø2 H
J2 TU4Ø RWD CPL L
7404 E33
7400 E36
38Ø E28
TA-2 SELECT ØØ H
TA-2 OUT HIGH H
TA-2 N
74174 E31
J2 JJ TU4Ø SELECT ENABLE L
J2 X TU4Ø DRIVE B L
TA-2 BINIT L

(DATA PATHS)

REVISIONS		
CHK	CHANGE NO.	REV.
F.W.Loom 5/11/73		P01
F.Wilson 5/11/73		P01

TITLE	(TA-3)	SIZE CODE	NUMBER	REV.
CASSETTE INTERFACE		D CS	M7892-Ø-1	A
SCALE	SHEET 3 OF 5	DIST.		

M7892-Ø-1 REV A

TA-3 DISAB WRITE BUFF L

TA-2 BINIT L
TA-3 CLR WRITE BUFF H

74175 E3 WRITE BUFFER
74175 E12 WRITE BUFFER

TA-3 BDØ7 H
TA-3 BDØ6 H
TA-3 BDØ5 H
TA-3 BDØ4 H
TA-3 BDØ3 H
TA-3 BDØ2 H
TA-3 BDØ1 H
TA-3 BDØØ H

+5V
R26 18Ø
R27 18Ø
R25 18Ø
R1 18Ø
R7 18Ø
R6 18Ø
R5 18Ø
R4 18Ø

8881 E8
8881 E17

38Ø E9
38Ø E18

TA-4 R/W 8 H
TA-4 R/W 7 H
TA-4 R/W 6 H
TA-4 R/W 5 H
TA-4 R/W 4 H
TA-4 R/W 3 H
TA-4 R/W 2 H
TA-4 R/W 1 H

J1 E
J1 LL NN RR TT
TU6Ø R/W 5 L
TU6Ø R/W 1 L
TU6Ø R/W 2 L
TU6Ø R/W 3 L
TU6Ø R/W 4 L

J2 NN RR LL
TU6Ø R/W 8 L
TU6Ø R/W 7 L
TU6Ø R/W 6 L

J2 TT
TU6Ø CRC ERORR L
J2 2
TU6Ø END FILE L
J2 BB
TU6Ø EOT/BOT
J2 DD
TU6Ø TIMING ERR L
J1 FF
TU6Ø WRITE LOCK L
J1 4
TU6Ø OFF LINE L
J2 FF
TU6Ø POWER OK L

R28 18Ø
R21 12Ø
R22 12Ø
R23 12Ø
R3 12Ø
R2 12Ø
R24 2K

38Ø E23
38Ø E28
7402 E21
7404 E26

TA-4 CRC ERR H
TA-4 END FILE H
TA-4 CLR LEAD H
TA-4 TIMING ERR H

R1Ø 47Ø
R11 47Ø
R12 47Ø
R13 47Ø

INS6Ø3 E22 MSI/T STATUS REG

TA-4 ERROR H
TA-4 ENAB REPEAT H
TA-4 ENAB GO H
TA-4 XMT LOC. ERR H
TA-4 OFF LINE H

TA-3 FUNC Ø2 H
TA-3 FUNC Ø1 H
TA-3 FUNC ØØ H

TA-4 POWER OK L

PRIORITY PLUG E1C

TA-4 BG IN H
TA-2 BG OUT H
BUS BG 4 OUT H
BUS BG 4 IN H
BUS BG 5 OUT H
BUS BG 5 IN H
BUS BG 6 OUT H

BUS BR 7 L
BUS BR 6 L
BUS BR 5 L
BUS BR 4 L
TA-2 BUS REQUEST L
BUS BG 7 IN H
BUS BG 7 OUT H
BUS BG 6 IN H

REVISIONS
CHK | CHANGE NO. | REV.
F. Wilson 5/1/73 | Appl.

(DATA PATHS & CONTROL LOGIC)

TITLE TA-4 CASSETTE INTERFACE
SIZE D CODE DCS NUMBER M7892-Ø-1 REV A
SCALE SHEET 4 OF 5 DIST.

8 7 6 5 4 3 2 1

TA-3 BDAB H
TA-3 BUS → TACS H
TA-5 H
TA-4 ENAB REPEAT H
TU60 READY L
TA-4 ENAB GO H
TA-2 BINIT H
TA-2 BINIT L
TA-2 BINIT L
TA-4 POWER OK L
TA-4 ENAB GO H
TA-2 BINIT L
TA-3 ILBS (1) H
TA-2 SELECT 02 H
TA-2 BINIT L
TU60 TRANSFER REQ L
TA-5 H
TA-5 H
TA-3 FUNC 00 H
TA-3 FUNC 01 H
TA-3 FUNC 02 H
TA-5 DISAB WRITE BUFF L
TU60 WRITE L
TU60 REWIND CMD L
TU60 R/W GAP L
TU60 BACK BLOCK GAP L
TU60 BACK FILE GAP L
SPACE FOR HARD BLOCK L
WRITE H
TA-5 READY H
TA-5 TU60 START L
TA-5 TA11 TR(1) H
3 EXT TA-5 INT H
TU60 TRANSFER L
TA-5 LOAD TADB H

REVISIONS		
CHK	CHANGE NO.	REV.
E Wilson 5/14/72	PCI	
E Wilson 5/17/72	PC2	

(CONTROL LOGIC)

TITLE		SIZE	CODE	NUMBER	REV.
CASSETTE INTERFACE	(TA-5)	D	CS	M7892-Ø-1	A
SCALE	SHEET 5 OF 5	DIST.			

DCS M7892-Ø-1 A

SIZE	CODE	NUMBER	REV.
K	RL	M7892-0-8	

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

DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D.	DATE 5/15/73	
ENG.	DATE 5/24/73	TITLE
PROJ. ENG.	DATE 5/24/73	ROM LISTING (FOR 23021A2)
PROD.	DATE 5-29-73	
NEXT HIGHER ASSEMBLY		
B-DD-TAII-Ø		SIZE K · CODE RL · NUMBER M7892-Ø-8 · REV.
SCALE		
SHEET 1 OF 9		DIST.

REVISIONS	CHANGE NO.	REV.
		CHK

DEC FORM NO. DRR 109

DEC PART NUMB: 23-021A2
ORIGINATOR: DAN MUTNANSKY
DATE OF ORIGIN: 12-6-72

DECIMAL LOC	OCTAL LOC	BINARY DATA	OCTAL DATA
0	000	1000	10
1	001	1000	10
2	002	1000	10
3	003	1000	10
4	004	1000	10
5	005	1000	10
6	006	1000	10
7	007	1000	10
8	010	0010	02
9	011	1010	12
10	012	1010	12
11	013	0010	02
12	014	0010	02
13	015	0010	02
14	016	0010	02
15	017	0010	02
16	020	1000	10
17	021	1000	10
18	022	1000	10
19	023	1000	10
20	024	1000	10
21	025	1000	10
22	026	1000	10
23	027	1000	10
24	030	1001	11
25	031	1001	11
26	032	1010	12
27	033	0010	02
28	034	0010	02
29	035	0010	02
30	036	0010	02
31	037	0010	02
32	040	1000	10
33	041	1000	10
34	042	1000	10
35	043	1000	10

DEC PART NUMB: 23-021A2
ORIGINATOR: DAN MUTNANSKY
DATE OF ORIGIN: 12-6-72

DECIMAL LOC	OCTAL LOC	BINARY DATA	OCTAL DATA
36	044	1000	10
37	045	1000	10
38	046	1000	10
39	047	1000	10
40	050	1010	12
41	051	1110	16
42	052	1010	12
43	053	1010	12
44	054	1010	12
45	055	1010	12
46	056	1010	12
47	057	0010	02
48	060	1000	10
49	061	1000	10
50	062	1000	10
51	063	1000	10
52	064	1000	10
53	065	1000	10
54	066	1000	10
55	067	1000	10
56	070	1001	11
57	071	1001	11
58	072	1010	12
59	073	1010	12
60	074	1010	12
61	075	1010	12
62	076	1010	12
63	077	0010	02
64	100	1000	10
65	101	1000	10
66	102	1000	10
67	103	1000	10
68	104	1000	10
69	105	1000	10
70	106	1000	10
71	107	1000	10

DEC PART NUMB: 23-021A2
ORIGINATOR: DAN MUTNANSKY
DATE OF ORIGIN: 12-6-72

DECIMAL LOC	OCTAL LOC	BINARY DATA	OCTAL DATA
72	110	0010	02
73	111	1010	12
74	112	1010	12
75	113	0010	02
76	114	0010	02
77	115	0010	02
78	116	1010	12
79	117	0010	02
80	120	1000	10
81	121	1000	10
82	122	1000	10
83	123	1000	10
84	124	1000	10
85	125	1000	10
86	126	1000	10
87	127	1000	10
88	130	1001	11
89	131	1001	11
90	132	1010	12
91	133	0010	02
92	134	0010	02
93	135	0010	02
94	136	1010	12
95	137	0010	02
96	140	1000	10
97	141	1000	10
98	142	1000	10
99	143	1000	10
100	144	1000	10
101	145	1000	10
102	146	1000	10
103	147	1000	10
104	150	1010	12
105	151	1110	16
106	152	1010	12
107	153	1010	12

DEC PART NUMB: 23-021A2
ORIGINATOR: DAN MUTNANSKY
DATE OF ORIGIN: 12-6-72

DECIMAL LOC	OCTAL LOC	BINARY DATA	OCTAL DATA
108	154	1010	12
109	155	1010	12
110	156	1010	12
111	157	0010	02
112	160	1000	10
113	161	1000	10
114	162	1000	10
115	163	1000	10
116	164	1000	10
117	165	1000	10
118	166	1000	10
119	167	1000	10
120	170	1001	11
121	171	1001	11
122	172	1010	12
123	173	1010	12
124	174	1010	12
125	175	1010	12
126	176	1010	12
127	177	0010	02
128	200	1000	10
129	201	1000	10
130	202	1000	10
131	203	1000	10
132	204	1000	10
133	205	1000	10
134	206	1000	10
135	207	1000	10
136	210	0010	02
137	211	0010	02
138	212	0010	02
139	213	0010	02
140	214	0010	02
141	215	0010	02
142	216	0010	02
143	217	0010	02

DEC PART NUMB: 23-021A2
ORIGINATOR: DAN MUTNANSKY
DATE OF ORIGIN: 12-6-72

DECIMAL LOC	OCTAL LOC	BINARY DATA	OCTAL DATA
144	220	1000	10
145	221	1000	10
146	222	1000	10
147	223	1000	10
148	224	1000	10
149	225	1000	10
150	226	1000	10
151	227	1000	10
152	230	1001	11
153	231	1001	11
154	232	0010	02
155	233	0010	02
156	234	0010	02
157	235	0010	02
158	236	0010	02
159	237	0010	02
160	240	1000	10
161	241	1000	10
162	242	1000	10
163	243	1000	10
164	244	1000	10
165	245	1000	10
166	246	1000	10
167	247	1000	10
168	250	1010	12
169	251	1110	16
170	252	1010	12
171	253	1010	12
172	254	1010	12
173	255	1010	12
174	256	1010	12
175	257	0010	02
176	260	1000	10
177	261	1000	10
178	262	1000	10
179	263	1000	10

DECIMAL LOC	OCTAL LOC	BINARY DATA	OCTAL DATA
180	264	1000	10
181	265	1000	10
182	266	1000	10
183	267	1000	10
184	270	1001	11
185	271	1001	11
186	272	1010	12
187	273	1010	12
188	274	1010	12
189	275	1010	12
190	276	1010	12
191	277	0010	02
192	300	1000	10
193	301	1000	10
194	302	1000	10
195	303	1000	10
196	304	1000	10
197	305	1000	10
198	306	1000	10
199	307	1000	10
200	310	0010	02
201	311	0010	02
202	312	1010	12
203	313	0010	02
204	314	0010	02
205	315	0010	02
206	316	1010	12
207	317	0010	02
208	320	1000	10
209	321	1000	10
210	322	1000	10
211	323	1000	10
212	324	1000	10
213	325	1000	10
214	326	1000	10
215	327	1000	10

DEC PART NUMB: 23-021A2
ORIGINATOR: DAN MUTNANSKY
DATE OF ORIGIN: 12-6-72

DECIMAL LOC	OCTAL LOC	BINARY DATA	OCTAL DATA
216	330	1001	11
217	331	1001	11
218	332	1010	12
219	333	0010	02
220	334	0010	02
221	335	0010	02
222	336	1010	12
223	337	0010	02
224	340	1000	10
225	341	1000	10
226	342	1000	10
227	343	1000	10
228	344	1000	10
229	345	1000	10
230	346	1000	10
231	347	1000	10
232	350	1010	12
233	351	1110	16
234	352	1010	12
235	353	1010	12
236	354	1010	12
237	355	1010	12
238	356	1010	12
239	357	0010	02
240	360	1000	10
241	361	1000	10
242	362	1000	10
243	363	1000	10
244	364	1000	10
245	365	1000	10
246	366	1000	10
247	367	1000	10
248	370	1001	11
249	371	1001	11
250	372	1010	12
251	373	1010	12

DEC PART NUMB: 23-021A2
ORIGINATOR: DAN MUTNANSKY
DATE OF ORIGIN: 12-6-72

DECIMAL LOC	OCTAL LOC	BINARY DATA	OCTAL DATA
252	374	1010	12
253	375	1010	12
254	376	1010	12
255	377	0010	02

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

REVISIONS	REV.	CHANGE NO.	CHK

DRN.		DATE
CHK'D.		DATE 5/24/73
ENG.		DATE 5/24/73
PROJ. ENG.		DATE 5/24/73
PROD.		DATE 5-29-73
NEXT HIGHER ASSEMBLY	B-DD-TAII-Ø	
SCALE		
SHEET	1 OF 2	

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE

ROM LISTING (FOR 23022AI)

SIZE	CODE	NUMBER	REV.
K	RL	M7892-Ø-7	

DIST.

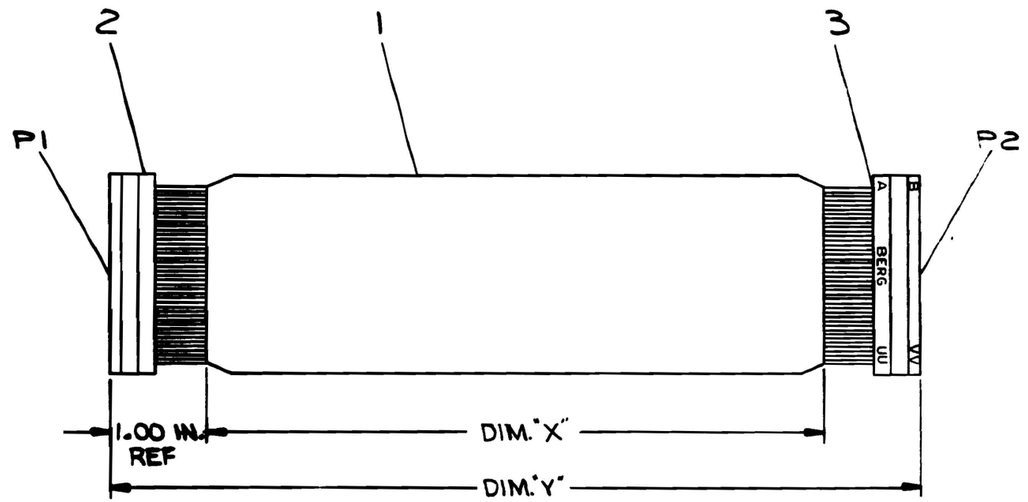
DEC PART NUMB: 23-022A1
ORIGINATOR: DAN MUTNANSKY
DATE OF ORIGIN: 12-6-72

ROM PATTERN SPEC

DECIMAL LOC	OCTAL LOC	BINARY DATA	OCTAL DATA
0	00	00000101	005
1	01	01100001	141
2	02	00100000	040
3	03	00010000	020
4	04	00001000	010
5	05	00000100	004
6	06	00000000	000
7	07	00000010	002
8	10	00000000	000
9	11	00000101	005
10	12	00000000	000
11	13	00000000	000
12	14	00000000	000
13	15	00000000	000
14	16	00000000	000
15	17	00000000	000
16	20	00000000	000
17	21	00000000	000
18	22	00000000	000
19	23	00000000	000
20	24	00000000	000
21	25	00000000	000
22	26	00000000	000
23	27	00000000	000
24	30	00000000	000
25	31	00000000	000
26	32	00000000	000
27	33	00000000	000
28	34	00000000	000
29	35	00000000	000
30	36	00000000	000
31	37	00000000	000

LEGEND		
NUMBER	DIM. "X" VAR.	DIM. "Y" REF
BCØ8S-1	10.00 IN. ±1.00 IN.	1.00 FT ± 1.00 IN.
BCØ8S-15	15.0 FT. + 5.00 IN. - 0.00 IN.	15 FT. 2 IN. + 5.00 IN. - 0.00 IN.
BCØ8S-25	25.0 FT. ± 3 IN.	25 FT. 2 IN. ± 3 IN.
BCØ8S-2K	2.0 FT 9 IN ± 1.0 IN	2.0 FT. 11 IN ± 1.0 IN

NOTES:
1. CONNECTORS P1 AND P2 ARE TO BE WIRED POINT TO POINT.



REVISIONS			
DWG	CHANGE NO.	REV.	
	BCØ8S-00001	A	THIS DWG WAS 7009418-0-C Revised 12-2-71 A. WALLACK
	BCØ8S-00002	B	Combined Revised 1-3-72 V. BASTIANI
	BCØ8S-00003	C	Revised 1-6-72 ANDERSON
	BCØ8S-00004	D	Revised 5-9-73 A. WALLACK

ITEM NO.	PART NO.	DESCRIPTION	QTY.
3	1210089-0	SOCKET #47783 BERG	80
2	1210090-1	HOUSING #20383 BERG	2
1	9107722-0	CABLE, FLAT 40 COND	A/R

PARTS LIST

FIRST USED ON OPTION/MODEL: AB8-E

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES

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

REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓

MATERIAL —

FINISH —

DRN. J. Ferguson	DATE 5-12-71	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS
CHK'D. [illegible]	DATE 5-13-71	
ENG. [illegible]	DATE 5-13-71	TITLE: I/O CABLE ASSY (DIAG. JUMPER)
PROJ. ENG. [illegible]	DATE 5-20-71	
PROD. [illegible]	DATE 5/6/71	

NEXT HIGHER ASSY. A-PL-DR8-EA-Ø

SCALE NONE

SHEET OF

SIZE	CODE	NUMBER	REV
C	IA	BCØ8S-Ø-Ø	D

DIST. G

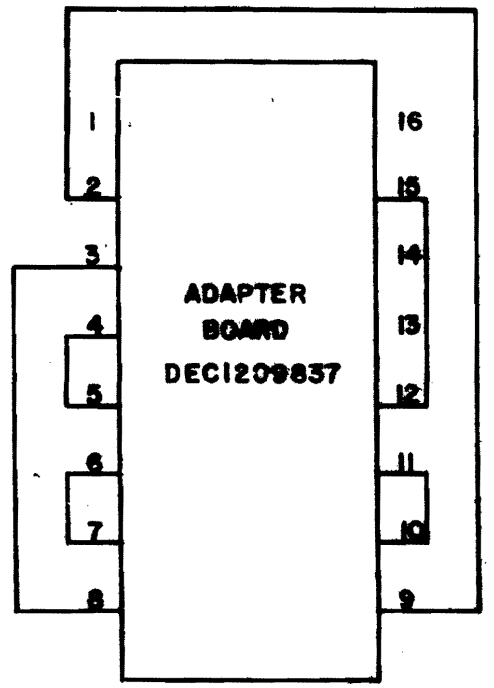
REV D

NUMBER BCØ8S-Ø-Ø

SIZE C CODE IA

B

DEC FORM NO. DRC 169-A



TERMINATOR & SIGNAL CONVERSION CHART			
DEC	EIA	DEC	EIA

EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE PRIORITY JUMPER
LEVEL #6 5408780

SIZE B | CODE CS | NUMBER 5408780-0-1 | REV.

PRINTED CIRCUIT REV.

DEC FORM NO. DRB 102

M5904-P1

DIST. 324,434,435

5 PINS

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ACCESSORY LIST

MADE BY Barb Bartels DATE 5-7-73	CHECKED DATE 5-17-73	SECTION
ENG Paul Janson DATE 5-7-73	PROD DATE	ISSUED SECT.

TEST
- 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							KIT CHECK BY ____ DATE ____	INSTALLATION CHECK BY ____ DATE ____
			TA11-AA	TA11-AB							
1	TU6Ø-AB	TU6Ø-AB Rack Mount 230V	1	-							
2	TU6Ø-AA	TU6Ø-AA Rack Mount 115V	-	1							
3	M7892	TA11 Interface Module	1	1							
4	54Ø878Ø	Priority Jumper Level #6	1	1							
5	BCØ8S-15	Cable	2	2							
6	B-DD-TA11-Ø	TA11/TU6Ø Print Set	1	1							
7	DEC-11-HTACA-A-D	TA11 Manual	1	1							
8	LIBKIT-11-TA11A-K	TA11 Diagnostic Kit	1	1							
9	DEC-ØØ-TU6Ø-D	TU6Ø-Manual	1	1							
10	36-11226	Cassette Tape	2	2							

TITLE	ASSY. NO.	SIZE	CODE	NUMBER	REV.	ECO NO
TA11 ACCESSORY LIST	SHEET 1 OF 1	A	AL	A11-Ø-9		
		DIST.				

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

SEQUENCE	SEQUENCE
DRAWING DIRECTORY	B-DD-TU6Ø-Ø
TU6Ø LOGIC (M776Ø)	D-CS-M776Ø-Ø-1
READ/WRITE AND SERVO (M7761)	D-CS-M7761-Ø-1
TERMINATOR, CASSETTE DRIVE	D-CS-5410135-0-1
H751 POWER SUPPLY	B-DD-H751-Ø
CASSETTE DRIVE WIRING DIAGRAM	D-WD-TU6Ø-Ø-WD
TU6Ø UNIT ASSEMBLY	D-UA-TU6Ø-Ø-Ø
TU6Ø UNIT ASSEMBLY	A-PL-TU6Ø-Ø-Ø
TRANSPORT ASSEMBLY (TU6Ø)	D-AD-7009014-0-0
TRANSPORT ASSEMBLY (TU6Ø)	A-PL-7009014-0-0
BASE ASSEMBLY	D-IA-7410640-0-0
SWITCH ASSEMBLY	D-AD-7009141-0-0
SPINDLE ASSEMBLY	C-AD-7009146-0-0
MOTOR MOUNT ASSEMBLY	C-AD-7009140-0-0
DRIVE MOTOR ASSEMBLY	C-IA-7009139-0-0
LEVER ASSEMBLY	C-AD-7009148-0-0

THIS IS PRINT SET [X]

UNIT VARIATIONS

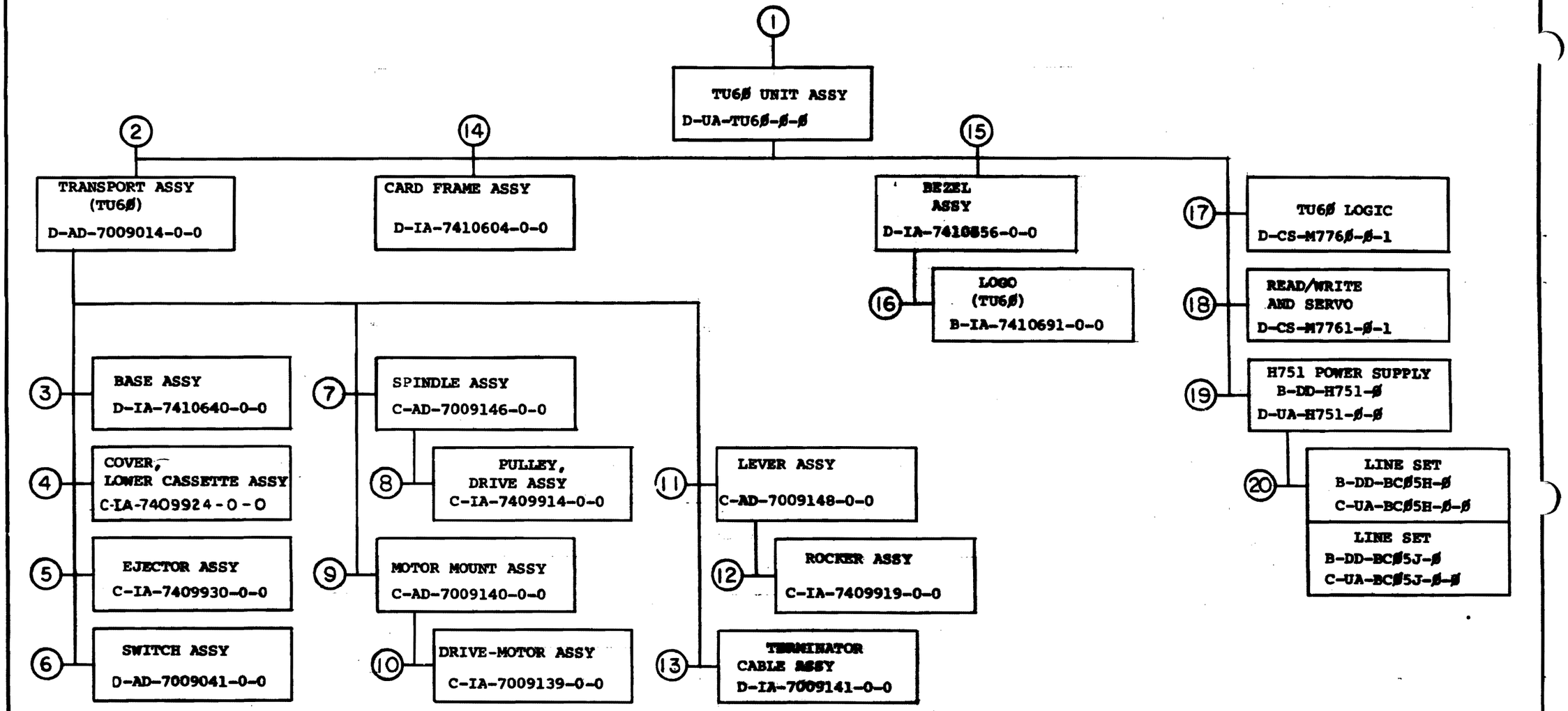
VARIATION	TITLE	PRINT SET TYPE: TU6Ø-Ø
TU6Ø-AA	TU6Ø UNIT ASSY (115V)	X
TU6Ø-AB	TU6Ø UNIT ASSY (23ØV)	X

REVISIONS			
DATE	CHG. NO.	REV	
2/73	TU60-07	A	
8/73	TU60-12	B	

DRB 106

USED ON OPTION/ MODEL

DRN. W. MAJOR	DATE 1/9/73	TITLE TU6Ø DECASSETTE
CHK'D	DATE 1/17/73	
PROJ ENG.	DATE 1/18/73	
PROD.	DATE 1/22/73	
FIELD SERV.	DATE 1-19-73	SIZE B · CODE DD · NUMBER TU6Ø-Ø · REV B
SHEET 1 OF 4		DIST



TITLE		SIZE	CODE	NUMBER	REV
TU6Ø DECASSETTE	SHEET 2 OF 4	B	DD	TU6Ø-Ø	B

DRB 107

ELECTRICAL

CUSTOMER PRINT SET TU6Ø-Ø	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
X		1	D-WD-TU6Ø-Ø-WD		1	CASSETTE DRIVE WIRING DIAGRAM	
X		13	D-IA-7009041-0-0		1	TERMINATOR CABLE ASSY	
			D-CS-5410135-0-1		2	TERMINATOR,CASSETTE DRIVE	
X		17	D-CS-M776Ø-Ø-1		4	TU6Ø LOGIC	
X		18	D-CS-M7761-Ø-1		5	READ/WRITE AND SERVO	
C		19	B-DD-H751-Ø		3	H751 POWER SUPPLY	
			D-UA-H751-Ø-Ø		2	H751 POWER SUPPLY	
			E-IA-5310191-0-0		1	CHASSIS,POWER SUPPLY	
		20	B-DD-BCØ5H-Ø		3	LINE SET	
			C-UA-BCØ5H-Ø-Ø		1	LINE SET BCØ5H (115V)	
			C-UA-BC05J-Ø-Ø		1	LINE SET BCØ5J (230V)	

MECHANICAL

CUSTOMER PRINT SET TU6Ø-Ø	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
X		1	D-UA-TU6Ø-Ø-Ø	B	2	TU6Ø UNIT ASSEMBLY	
X			A-PL-TU6Ø-Ø-Ø	B	2	TU6Ø UNIT ASSEMBLY	
			E-IA-7409943-0-0		2	CHASSIS (TU6Ø)	
			D-IA-7409990-0-0		1	PLATE,CHASSIS,FRONT (TU6Ø)	
			E-MD-7409941-0-0		1	COVER,CHASSIS	
			C-MD-7409904-0-0		1	BRACKET,SYMMETRICAL	
			B-MD-7409933-0-0		1	BUSHING,PIVOT	
			D-UA-BCØ5L-Ø-Ø		1	CABLE,JUMPER	
			D-PS-1210931-0-0		1	BLOCK,CABLE RETAINING	
			C-MD-7410690-0-0		1	BRACKET,SHIPPING	
			D-PS-1209154-0-0		1	CHASSIS-TRAK	
X		2	D-AD-7009014-0-0		2	TRANSPORT ASSY (TU6Ø)	
X			A-PL-7009014-0-0		3	TRANSPORT ASSY (TU6Ø)	
			C-MD-7409911-0-0		1	SPACER,TAPE GUIDE	
			C-MD-7409912-0-0		1	GUIDE,TAPE	
			C-MD-7409928-0-0		1	BRACKET,SOLENOID	
			C-MD-7409908-0-0		1	PLATE,HEAD MOUNT	
			B-MD-7410518-0-0		1	BUTTON,REWIND SWITCH	
			B-MD-7410519-0-0		1	BRACKET,REWIND SWITCH	
			C-MD-7410537-0-0		1	SPRING,LOCK BAR	
			B-MD-7410544-0-0		1	SPACER,E.O.T. BLOCK	
			D-PS-1211279-0-0		1	COUPLING,CASSETTE DRIVE(3MM)	
			D-MD-7409917-0-0		1	LOCK-BAR, CASSETTE	
			D-PS-1211289-0-0		1	SENSOR ASSY	
			B-MD-7409929-0-0		1	BRACKET,TERMINAL BOARD	
X		3	D-IA-7410640-0-0		1	BASE ASSEMBLY	
			E-MD-7409835-0-0		1	BASE,CASSETTE TRANSPORT (MACH)	
			B-MD-7409938-0-0		1	BUSHING,ROCKER	
			B-MD-7410553-0-0		1	SHIM,SKEW	
			C-MD-7410539-0-0		1	PIN,ANCHOR	
			C-MD-7409934-0-0		1	PIN,SPRING,MOTOR BIAS	
			E-PS-1211122-0-0		1	BASE,CASSETTE TRANSPORT (CAST)	

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: TU6Ø DECASSETTE

SHEET 3 OF 4 | SIZE: B | CODE: DD | NUMBER: TU6Ø-Ø | REV: B

DRB 108

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

CUSTOMER PRINT SET					MECHANICAL															
TU6Ø-Ø				MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE	TU6Ø-Ø				MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
					4	C-IA-7409924-0-0		1	COVER,LOWER CASSETTE ASSY		X					10	C-IA-7009139-0-0		1	DRIVE-MOTOR ASSY	
						C-MD-7409905-0-0		1	COVER,LOWER CASSETTE								C-MD-7409913-0-0		1	SLEEVE,MOTOR	
						C-MD-7410541-0-0		1	PIN,SPRING,COVER,CASSETTE												
						B-MD-7410552-0-0		1	LENS												
											X					11	C-AD-7009148-0-0		1	LEVER ASSY	
																	C-MD-7409931-0-0		1	LEVER,ROCKER	
					5	C-IA-7409930-0-0		1	EJECTOR ASSY								B-MD-7409932-0-0		1	ROLLER,IDLER	
						C-MD-7409907-0-0		1	EJECTOR												
						B-MD-7410543-0-0		1	ROLLER,EJECTOR												
																12	C-IA-7409919-0-0		1	ROCKER ASSY	
																	C-MD-7409916-0-0		1	PLATE,ROCKER	
X					6	D-AD-7009141-0-0		1	SWITCH ASSY								B-MD-7409921-0-0		1	SLEEVE,ROCKER	
						C-MD-7409926-0-0		1	BLOCK,SWITCH								B-MD-7409922-0-0		1	SHAFT,IDLER	
						C-MD-7409935-0-0		1	SPACER, MICRO SWITCH												
																14	D-IA-7410604-0-0		1	CARD FRAME ASSY	
X					7	C-AD-7009146-0-0		1	SPINDLE ASSY								E-MD-7409942-0-0		1	FRAME,CARD	
						D-MD-7410509-0-0		1	COUPLING,CASSETTE DRIVE (2MM)								C-MD-7410587-0-0		1	STAND-OFF,THREADED	
						C-MD-7410692-0-0		1	BEARING,SPINDLE												
																15	D-IA-7410556-0-0		1	BEZEL ASSY	
					8	C-IA-7409914-0-0		1	PULLEY,DRIVE ASSY								C-MD-7409882-0-0		1	ADAPTER,BEZEL	
						C-MD-7410535-0-0		1	PULLEY,DRIVE								D-MD-7410579-0-0		1	INLAY,BEZEL	
						C-MD-7410527-0-0		1	SPINDLE								D-CS-1209226-0-0		1	BEZEL 5 1/4"	
																16	B-IA-7410691-0-0		1	LOGO (TU6Ø)	
X					9	C-AD-7009140-0-0		1	MOTOR MOUNT ASSY								A-SS-7410691-0-1		1	SILK SCREEN	
						C-MD-7409915-0-0		1	PIVOT,MOTOR												
						C-MD-7409910-0-0		1	MOUNT,MOTOR												
																19	B-DD-H751-Ø		3	H751 POWER SUPPLY	
																	D-UA-H751-Ø-Ø		2	H751 POWER SUPPLY	
																	E-IA-5310191-0-0		1	CHASSIS,POWER SUPPLY	

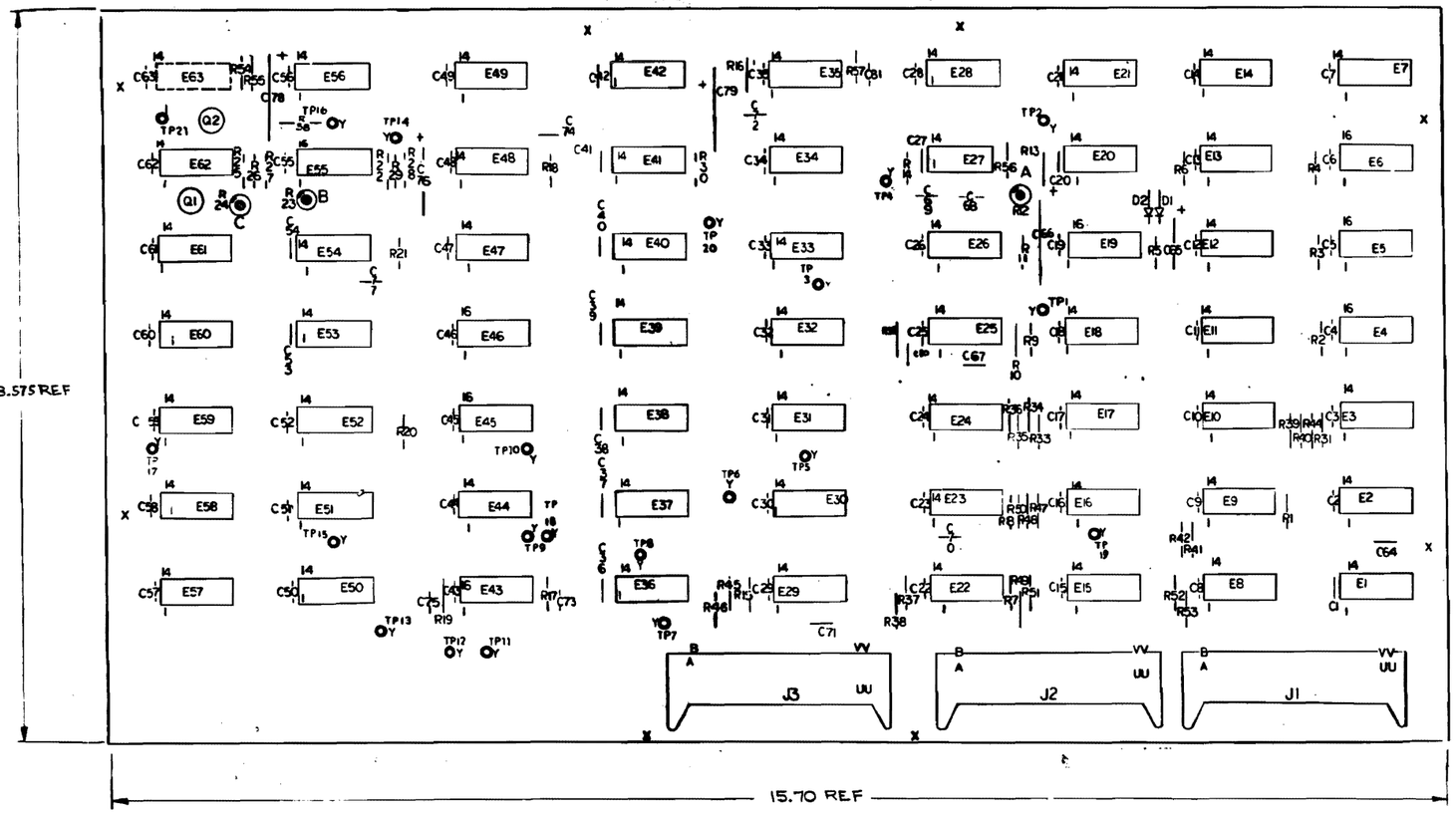
CUSTOMER PRINT SET CODES		TITLE		SIZE	CODE	NUMBER	REV
	X = PRINT OF DOCUMENT INCLUDED IN PRINT SET C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT $ = CONFIDENTIAL AUTHORIZED SIGNATURE REQUIRED	TU6Ø DECASSETTE	SHEET 4 OF 4	B	DD	TU6Ø-Ø	B

DRB 108

DEC 14-(325)-1065-20-0972

NOTES:

1. UNLESS OTHERWISE SPECIFIED:
   RESISTANCE IS IN OHMS
   CAPACITANCE IS IN MICROFARADS



J3-AA, BB, CC, DD, +5V — TP21

C1 .01 — C62 THRU .01 — C79 6.8 +

TP2Φ

J1: A, B, C, E, H, K, M, P, S, U, W, Y, AA, CC, EE, HH, KK, MM, PP, SS, UU, VV.

J2: A, B, C, E, H, K, M, P, S, U, W, Y, AA, CC, EE, HH, KK, MM, PP, SS, UU, VV.

J3: M, N, P, R

IC TYPE	GND	+ 5V
7400	7	14
8271	8	16
380	1	8
74193	8	16
74123	8	16

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

IC PIN LOCATIONS

DEC FORM NO. 1958

COMPONENT SUBSTITUTION

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
ACCEPTANCE SIG		DATE		
1	R26	RES 620 1/4W 5%	1303178	52
1	R25	RES 680 1/4W 5%	1301424	51
1	R11	RES 5.6K 1/4W 5%	1301874	50
1	C66	CAP 80 MFD 6V 20% ELECT	300086	49
1	R56	RES 30K 1/4W 5%	1302394	48
11	R34, R36, R38, R40, 42, R44, R46, R48, R49, R51, 253	RES 390 1/4W 5%	1300309	47
1	R16, R58	RES 50 1/4W 5%	1300250	46
1	R5	RES 24K 4W 5%	1302337	45
2	R12, R24	RES 10K 1/4W 5% MFF FILM	1309150-13	44
1	R55	RES 2K 4W 5%	1302338	43
1	R13	RES 200 1/4W 5% MFF FILM	1309150-10	42
1	R22	RES 47K 4W 5%	1302177	41
1	R27	RES 6K 4W 5%	1302340	40
1	R28	RES 14.7K 1/8W 1%	1302941	39
1	R8, R33, R35, R37, R39, R41, R45, R47, R31, R50, R52	RES 5Ω 4W 5%	1302322	38
1	R17	RES 2K 4W 5%	1302177	37
7	R1, R3, R4, R9, R30, R31, R32	RES 1K 4W 5%	1302176	36
2	R6, R29	RES 3.3K 4W 5%	1302335	35
10	R1, R7, R10, R14, R15, R18, R23, R27, R32, R57	RES 22K 4W 5%	1302	34
1	R19	RES 10K 4W 5%	1302	33
1	E56	IC DEC 7404	9	32
3	E19, E42, E27	IC DEC 7410	9	31
4	E45, E46	IC DEC 7420	9	30
1	E21	IC DEC 7427	9	29
5	E1, E2, E11, E13, E14	IC DEC 7430	9	28
3	E17, E12, E18	IC DEC 7440	9	27
5	E3, E4, E5, E6, E7	IC DEC 7442	9	26
6	E8, E9, E10, E20, E28, E35	IC DEC 7474	9	25
2	E22, E54	IC DEC 7486	9	24
2	E50, E34	IC DEC 7490	9	23
9	E31, E32, E33, E36, E37, E38, E39, E40, E41	IC DEC 7493	9	22
8	E23, E24, E25, E26, E29, E30, E43, E62	IC DEC 7496	9	21
2	D1, D2	DIODE 1N4148	50	20
1	C78	CAP 1.0 MFD 100V 10% DISC	300110	19
1	C65	CAP 6.8 MFD 35V 10% TANT	300068	18
64	C1 THRU C62, C73, C75	CAP .01 MFD 100V 10% DISC	300101	17
2	C76, C77	CAP 68 MFD 35V 10% TANT	300068	16
4	C67, C72, C72, C81	CAP 100 PF 100V 5% MICA	300101	15
4	C68, C69, C71, C74	CAP 680 PF 100V 5% DISC	300101	14
2	C63, C70	CAP 470 PF 100V 5% DISC	300101	13
3	J1, J2, J3	CONN EDGE 22/44	300102	12
61	TP1 THRU TP21	LUG, SWAGE #1026-2	900791	11
2	Q1, Q2	TRANS, 2N3640 PNP 310 MIN	1550450	10
1	C80	CAP 33 PF 500V 5% DM	300116	9
REF		MOUNTING HARDWARE FOR BOARD TEST		8
REF		ASSEMBLY WIRE SET		7
REF		WIRE SET		6
1		PC BOARD		5
QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

DEC NO.	EIA NO.	DEC NO.	EIA NO.
D664	1N3600		

SEMICONDUCTOR CONVERSION CHART

FIRST USED ON OPTION MODEL: -J60

ETCH BOARD REV: E

REV	CHANGE NO.	CHK	REVISIONS
C	M7760-00001/M	G. Clarke	Pin 6/7/8
D	M7760-00002	G. Clarke	12-21-72
E	M7760-00003	M. Lewis	1/5/73
F	M7760-00004	M. Lewis	6-14-73

DRN. M. LEIS 6-14-73 — CHK'D A. Hale 6-14-73 — ENGR — MFG — QUAL — NEXT HIGHER ASSY B-DD-TU62-2 — SCALE — SHEET 1 OF 4

EQUIPMENT CORPORATION

TITLE: -J60 L. HC

SIZE D — CODE — NUMBER D CS M7760-0-1 — REV. F — DIST.

SELECT ENABLE L J2-JJ
DRIVE B L J2-X
J3-SS DRIVE A L
READ L
READ SELECT H
TP1 SELENA L
DRIVE EMPTY H J3-PP
REWIND H J3-FF
WRITE H (READ L)
W GAP L
SIGNAL H
R/W GAP L J2-F
READ FG H
J3-RR R/W GAP H
BACK BLOCK GAP L J1-NN
J3-J REV L
LDR L
TP5 DATA MODE H
BACK FILL GAP L
J3-L HIGH SPEED H
J3-LL REWIND CMD H
REWIND CMD L J1-DD
D GO H
J3-NN GO –
R/W CRC L J3-D
R/W CRC H
INHIBIT H
TRANSFER L J2-V
TRANSFER H
CLEAR L
START L J2-R
READY L
J3-MM CLEAR H
INITIALIZE L J2-T
J3-JJ
INIT L
WRITE MODE L J1-B
J3-U WRITE H (READ L)
J3-TT READ H (WRITE L)
TP15
TR H
SHIFT CLK H
TP3 CRC ERR PRESET L
T ERROR L
END FILE H
J2-Z END FILE L
J2-L READY L
J1-J OFF LINE L
J1-X REWIND L
J2-BB EOT/BOT L
J2-N TRANSFER REQ L
J2-DD TIME ERROR L
J2-TT CRC ERROR L
J2-V WRITE STATUS L
J1-FF WRITE PROTECT L
WRITE H
BLANK STOP L
END WRITE H
SEL ENA L
DRIVE L
WRITE PERMIT H
J3-UU
READ DATA L J3-VV
READ SELECT H
R/W 8 L
R/W 7 L
R/W 6 L
R/W 5 L
R/W 4 L
R/W 3 L
R/W 2 L
R/W 1 L
LOAD BUFFER H
J2-MM R/W 8 L
J2-RR R/W 7 L
J2-LL R/W 6 L
J1-F R/W 5 L
J1-TT R/W 4 L
J1-RR R/W 3 L
J1-NN R/W 2 L
J1-LL R/W 1 L
WDL
DRIVE A L
DRIVE A H
FWD DIR A H J3-W
FWD DIR B H J3-X
REV L
SAME DIR AGAIN L
LDR L
INHIBIT H

FIRST USED ON OPTION/MODEL: TU6Ø	QTY.	DESCRIPTION / PARTS LIST	PART NO.
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 ✓	DRAWN A.C. Plourde	DATE 6-8-72	EQUIPMENT CORPORATION
	CHK'D. W.M. Main	DATE 8/8/72	
	ENG. M. Lewis	DATE 9-7-72	TITLE: TU6Ø LOGIC (INTERFACE)
	PROJ. ENG. M. [illegible]	DATE 9-7-72	
	PROD. M. Bowen	DATE 9-27-72	
MATERIAL: —	NEXT HIGHER ASSY. B-DD-TU6Ø-Ø		
FINISH: —	SCALE —	SHEET 2 OF 4	DCS M776Ø-Ø-1 REV. F

REVISIONS: REV | CHANGE NO | CHK
DRAWING NO 302 1940
DEC-11-ORW-NO
DWG NO-0

READ STOP H
TRANSFER STOP H
74H7 E53
TR L
TP7
R15 220Ω
C71 680PF
74ØØ E29
74Ø2 E5Ø
LOAD BUFFER H
SIGNAL H J3-T
DRIVE L
74Ø2 E35
LDR H
74Ø4 E47
LDR L
74LS74 E52 FIRST LDR
FIRST LDR L
FIRST LDR H
READ FG H
DRIVE H
74Ø1 E41
74Ø4 E47
+5V
R30 1K
74Ø8 E48
74LS10 E54
POTC
R24 20K
R27 12K
C78 68UF
74123 E55 TAPE BLANK
385MS
TAPE BLANK L
TP16
R18 220Ω
C74 680 PF
74ØØ E48
FLAPPY STOP L
CØ H
SHIFT CLK H
END BYTE L
WC24 L
74ØØ E29
7474 E36 TERM REQ
TR H
E/W CRC H
ERROR L
7474 E36 CRC TIME
TP8
J3-F CRC TIME H
CLEAR L
WRITE L
74Ø2 E5Ø
R CRC CLK H
DGO L
WRITE CRC L
WRITE CRC H
GAP TIME H
PREAMBLE H
+5V
R26 620
Q1 6534
E25 680
R23 200Ω POT B
R22 47K
R28 14.7K
229 470
C17 L
40 MS PRE 30 MS POST
74123 E55 GAP TIME
TP17 GAP TIME H
R21 220Ω
C77 1000 PF
74LS10 E54
END W DATA L
PREAMBLE H
DATA TIME H
TAPE READING L
74Ø1 E41
C76 6.8 UF
GAP TIME L
END WRITE H
74ØØ E48
DATA MODE H
DRIVE H
J3-V DRIVE L
7474 E37 DRIVE
TP6
74Ø4 E3Ø
READ H
TP14 TAPE READING L
74LS10 E54
INIT L
74ØØ E27
74Ø2 E58
BLANK STOP L
HIGH SPEED H
READ H
SIGNAL H
7474 E37 EOF
TP19
END FILE H
CLEAR L
R CRC CLK H
CLEAR H
74Ø2 E58
PREAMBLE H
TP15
74Ø2 E59
74Ø4 E6Ø
SHIFT CLK H
74ØØ E51
74Ø2 E5Ø
74ØØ E6Ø
74ØØ E61
STOP H
DRIVE H
CLK 2 L
WRITE L
74Ø2 E58
74ØØ E31
READ SYNC L
J3-B
7474 E44 STATE
C32 H
WRITE CRC H
CLK 2 L J3-E
R51 1K +5V
R56 10K
Q2 6534
R55 2K
FIRST LDR H
WGAP L
1.6 SEC OFFBOT
535 MS
DGO H
74123 E19 NF GAP
213 220Ω
CG8 650PF
74ØØ E27
R12 20K
2.1K
C66 5.6K 180UF
D2
LDR H J3-S
74Ø1 E41
TP2 NF GAP H
END W FG L
CLEAR L
2.4 220Ω
CG9 650PF
7474 E34 EOT
74ØØ E27
EOT P L
EOT H TP4
ENERGY H J3-H
SEEK H J3-T
READ H
END BYTE L
74ØØ E61
74ØØ E61
74LS10 E54
74Ø4 E47
READ STOP H
LD BRW CUP 74193 E45 PREAMBLE COUNTER
CLR CDN CRY
TP13
E53 7427
CØ H
74ØØ E31
C17 L
74ØØ E31
C32 H
74Ø4 E3Ø
C32 L
+5V 22Ø 1/4W
1401 E52
74Ø1 E52
CLK 1 L
C32 L
74Ø1 E52
WD L
74Ø2 E59
74ØØ E51
74Ø4 E6Ø
74ØØ E51
J3-A
TP15
TP18 GND
+5V TP21
J3-KK J2-FF
J3-Z C24 H
74ØØ E57
WC 24 L
WRITE H

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO	ITEM NO
TU60		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. [illegible] DATE 8-7-72
CHK'D. [illegible] DATE 9/7/72
ENG. M LEIS DATE 9/7/72
PROJ. ENG. [illegible] DATE
PROD. M. Comey DATE 9/27/72
NEXT HIGHER ASSY. B-DD-TU60-0

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: TU60 LOGIC (FORMATTER)

SIZE D | CODE DCS | NUMBER M7760-C- | REV
SCALE
SHEET 3 OF 4
DIST

REV	CHANGE NO	CHK
	REVISIONS	

WRITE CRC H
GO H
CRC CLR L
READ DATA L
READ H
WRITE H
WD L
TEST IN L
TEST IN H
TEST OUT H
GOOD CRC H
CRC BIT 1 L
+5V
R1 470
R2 1K
R3 1K
R4 1K
R9 20K
R10 20K
R17 10K
C75 .01
C73 .01
7402 E20
7486 E21
7474 E7
7474 E14
SIN PLD SFT 8271 E6
SIN PLD SFT 8271 E5
SIN PLD SFT 8271 E4
7416 E13
7416 E12
7416 E11
7400 E28
74123 E43 TEST
TP12
TP11
TP9
100 US
50 US

FIRST USED ON OPTION/MODEL: TU60	QTY.	DESCRIPTION	PART NO.
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 —

DWN. [redacted] DATE 1-nov-72
CHK'D L. Mayo DATE 11/6/72
ENG. M. Lees DATE 11/7/72
ENGR. ENG. DATE
PROJ. M. Lemon DATE 11/7/72
NEXT HIGHER ASSY. B-DD-TU60-0
SCALE —
SHEET 4 OF 4

[redacted] EQUIPMENT CORPORATION

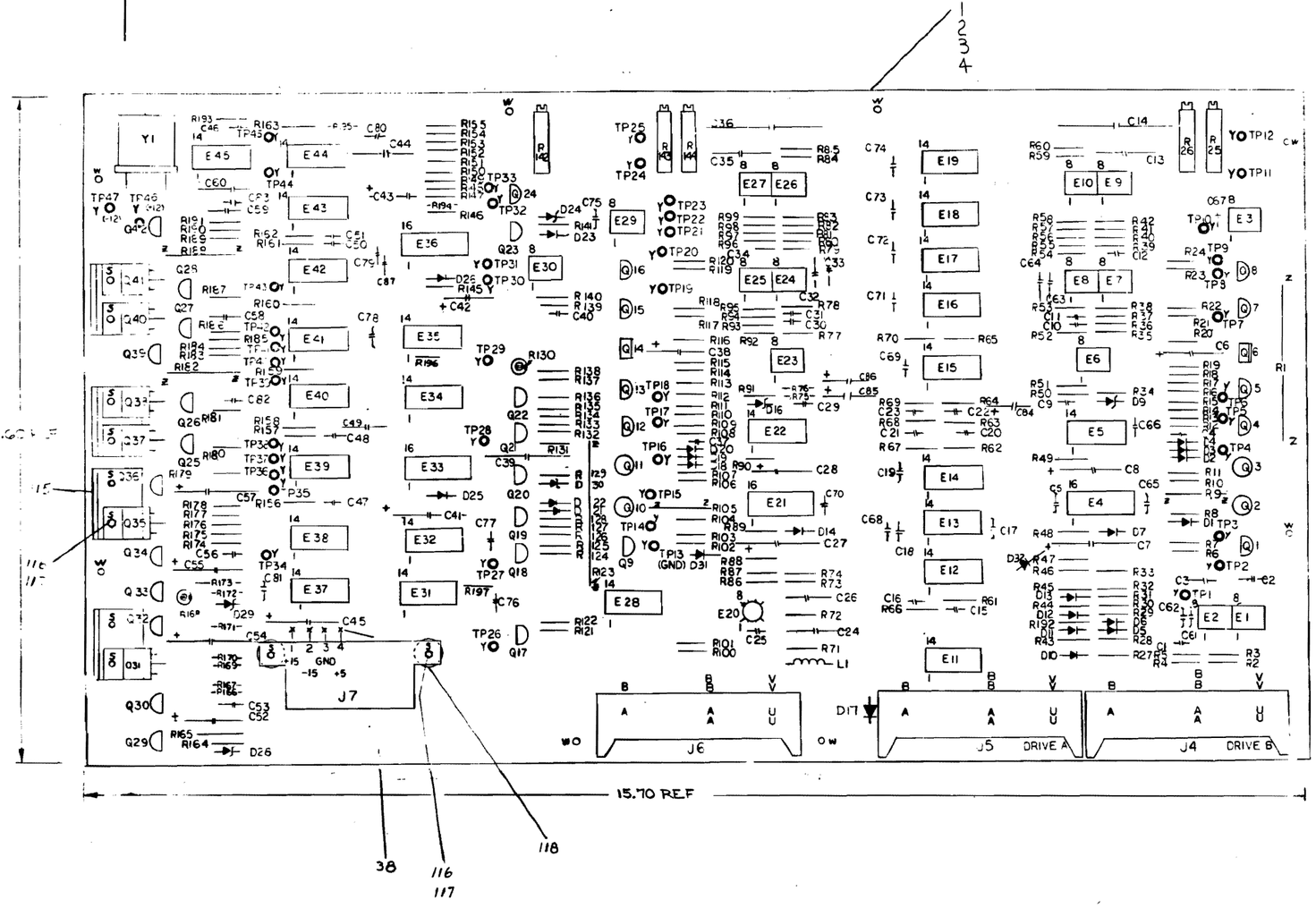
TITLE: TU60 LOGIC (CRC LOGIC)

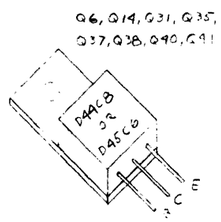
SIZE D | CS | NUMBER M7760-0-1 | REV. F

DRAWING 40 533 11640 — REVISIONS: REV | CHANGE NO | CHK
DEC FORM NO DRD 103-B

NOTES:

1. UNLESS OTHERWISE SPECIFIED:
   RESISTANCE IS IN OHMS
   CAPACITANCE IS IN MICROFARADS





FOR PARTS LIST INFORMATION SEE SHEET 2

IC TYPE	GND	+5V	+12V	-12V
4024	5,7,9	1,13,14		
3Ø6	1		8	4
7492	1Ø	5		
7493	1Ø	5		
38Ø	1	8		
3Ø1			7	4
741			7	4
74123	8	16		
75452	4	8		

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

IC PIN LOCATIONS

REV	CHANGE NO.	CHK
L	M7761-00009	G.G. Pierce 5-15-73 M.LEIS
K	M7761-00008 AMP	Robert O. Hall 5-15-73 M.LEIS
H	M7761-00006	Gary Thurston 7-13-73 M.LEIS
F	M7761-00005	Gary Thurston 6-21-73 M.LEIS
E	M7761-00004	Robert O. Hall 5-22-73 M.LEIS
D	M7761-00003	Richard Hall 1/22/73 M.LEIS
C	M7761-00001	M. Leis - eqr 1-25-73 M. Leis 12-19-72 M. LEIS

FIRST USED ON OPTION MODEL	QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
U60			PARTS LIST		
		ETCH BOARD REV	E		
D664		IN3606			
DEC NO.		EIA NO.	DEC NO.	EIA NO.	

SEMICONDUCTOR CONVERSION CHART

DRN. M. Carbone DATE 2/4/72
CHK'D. [illegible] DATE 2-7-72
ENG. M. LEIS DATE 9/6/72
PROJ. ENG. [illegible] DATE 9/6/72
PROD. [illegible] DATE
NEXT HIGHER ASSY B-BD-T060-2
SCALE --
SHEET 1 OF 5

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: READ/WRITE AND SERVO

SIZE D | CODE CS | NUMBER M7761-0-1 | REV L | DIST.

DEC FORM NO

ITEM NO	PART NO	DESCRIPTION	QTY	REF DESIGNATION
1	5010029	ETCH BOARD	1	
2	K-CO-M7761-0-4	X-Y COORDINATE HOLE LOCATION	REF	
3	D-AH-M7761-0-5	ASSY/DRILLING HOLE LAYOUT	REF	
4	B-AH-M7761-0-6	MODULE ECO HISTORY	REF	
5	1000008	CAP 10PF 100V 5% DM	2	C61,C62
6	1000016	CAP 100PF 100V 5% DM	3	C12,C25,C34
7	1000019	CAP 150PF 100V 5% DM	2	C17,C18
8	1000023	CAP 330PF 100V 5% DM	2	C4,C37
9	1000026	CAP 680PF 100V 5% DM	5	C22,C23,C50,C51,C67
10	1000042	CAP 1000PF 100V 5% DM	2	C47,C48
11	1000054	CAP 1500PF 250V 10% DISC	2	C11,C31
12	1002423	CAP 3300PF 100V 5% DM	2	C53,C56
13	1000061	CAP 8200PF 100V 10% MYLAR	1	C80
14	1001610	CAP .01UF 100V 20% DISC	29	C5,C9,C15,C16,C19,C20,C21, C29,C40,C48,C65,C66,C67, C68,C69,C70,C71,C72,C73, C74,C75,C76,C77,C78,C79, C80,C81,C82,C83
15	1002323	CAP .022UF 100V 10% MYLR	3	C24,C26,C44
16	1000049	CAP .027UF 100V 10% MYLR	2	C13,C35
17	1000030	CAP .1UF 100V 20% DISC	8	C2,C3,C32,C39,C58,C59,C63, C64
18	1010978-36	CAP .1UF 50V 10% CER	2	C10,C30
19	1002180	CAP .15UF 35V 20% TANT	2	C42,C43
20	1010279	CAP .47UF 25V 20% CER	1	C1
21	1009871	CAP .51UF 100V 5% MYLR	2	C14,C36
22	1001776	CAP 1UF 35V 10% TANT	3	C84,C85,C86
23	1009725	CAP 1.5UF 35V 10% TANT	2	C8,C38
24	1002627	CAP 2.2UF 20V 10% TANT	1	C49
25	1005306	CAP 6.8UF 35V 10% TANT	5	C9,C28,C45,C52,C55
26	1004812	CAP 15UF 20V 10% TANT	1	C41
27	1004814	CAP 47UF 20V 10% TANT	2	C54,C57
28	1000002	CAP 68UF 15V 10% TANT	2	C7,C27
29	1005572	CAP 150UF 6V 20% TANT	1	C39
30	1100114	DIODE D664	17	D4,D5,D6,D7,D10,D11,D12, D13,D14,D20,D21,D22,D23, D25,D26,D31,D32
31	1104860	IN746A 3.3VZ 5% .4W	1	D30
32	1100124	IN750A 4.7VZ 5% .4W	2	D9,D16
33	1102808	IN752A 5.6VZ 5% .4W	1	D24
34	1102421	IN753A 6.2VZ 5% .4W	2	D28,D29
35	1105796	IN4004 400V PIV 1A	6	D1,D2,D3,D17,D18,D19
36	1209941	CONN 40 PIN	3	J4,J5,J6
37	1209340	CONN #1-480459	1	J7
38	1209456	PIN, SOCKET, #61320-1	4	
39	1311084	RES 8.2 10W 5% WW	2	R1,R123
40	1301317	RES 10 1/4W 5% CC	2	R7,R103
41	1300229	RES 100 1/4W 5% CC	5	R33,R46,R159,R181,R187
42	1302380	RES 100 2W 5% CC	2	R182,R188
43	1308150-10	RES 200 1/2W 10% 62 PR	1	R130
44	1300271	RES 220 1/4W 5% CC	17	R6,R11,R27,R32,R61,R64, R66,R69,R74,R102,R107,R129 R126,R156,R157,R161,R162, R193
45	1301425	RES 300 1/4W 5% CC	4	R15,R111,R196,R197
46	1300285	RES 330 1/4W 5% CC	5	R8,R63,R68,R104,R141
47	1300309	RES 390 1/4W 5% CC	2	R19,R115
48	1300300	RES 390 1/2W 5% CC	2	R165,R173
49	1300316	RES 470 1/4W 5% CC	10	R20,R116,R166,R167,R169, R170,R174,R175,R177,R178,

ITEM NO	PART NO	DESCRIPTION	QTY	REF DESIGNATION
50	1303048	RES 560 1W 5% CC	2	R9,R105
51	1303178	RES 620 1/4W 5% CC	2	R14,R110
52	1302872	RES 681 1/8W 1% MF	4	R43,R44,R45,R192
53	1305143	RES 825 1/8W 1% MF	2	R37,R85
54	1303114	RES 1K 1/8W 1% MF	4	R52,R83,R176,R179
54	1300365	RES 1K 1/4W 5% CC	34	R4,R10,R47,R50,R58,R82,R85, R87,R70,R72,R73,R75,R83,R86, R87,R88,R100,R108,R122,R125 R127, ,R133,R137,R139, R180,R183,R184,R171,R172, R180,R183,R185,R190
56	1300361	RES 1.5K 1/4W 5% CC	4	R13,R57,R62,R108
57	1300386	RES 1.8K 1/4W 5% CC	2	R185,R190
58	1304833	RES 1.96K 1/8W 1% MF	4	R28,R30,R146,R149
59	1302389	RES 2K 1/4W 5% CC	9	R16,R17,R112,R114,R121,R124, R128,R132,R136
60	1308150-07	RES 2K 1/2W 10% 62 PR	1	R188
61	1300417	RES 2.2K 1/4W 5% CC	2	R58,R81
62	1300439	RES 3.3K 1/4W 5% CC	8	R12,R22,R23,R109,R118,R119, R150,R151
63	1305114	RES 3.48K 1/8W 1% MF	4	R21,R24,R117,R120
64	1308413	RES 3.83K 1/8W 1% MF	1	R131
65	1300444	RES 3.9K 1/4W 5% CC	4	R18,R113,R184,R191
66	1305324	RES 4.99K 1/8W 1% MF	3	R152,R155,R158
67	1304854	RES 5.11K 1/8W 1% MF	1	R147
68	1301874	RES 5.6K 1/4W 5% CC	1	R154
69	1304870	RES 6.81K 1/8W 1% MF	6	R41 R54,R55,R79,R80,R98
70	1305322	RES 7.5K 1/8W 1% MF	2	R59,R84
71	1303312	RES 10K 1/8W 1% MF	10	R35,R38,R39,R40,R42,R92,R94, R96,R97,R99
72	1309479	RES 10K 1/4W 5% CC	3	R2,R3,R140
73	1308143-10	RES 10K 3/4W 10% 78 PR	2	R25,R144
74	1300466	RES 12K 1/4W 5% CC	1	R153
75	1302391	RES 20K 1/4W 5% CC	1	R139
76	1308143-11	RES 20K 3/4W 10% 78 PR	2	R26,R143
77	1305346	RES 27K 1/4W 5% CC	1	R5
78	1302394	RES 39K 1/4W 5% CC	2	R48,R89
79	1303158	RES 34.8K 1/8W 1% MF	2	R134,R135
80	1302514	RES 36K 1/4W 5% CC	1	R145
81	1308143-13	RES 90K 3/4W 10% 78 PR	1	R142
82	1304830	RES 51K 1/4W 5% CC	7	R49,R51,R71,R76,R90,R101, R148
83	1310838	RES 82.5K 1/8W 1% MF	2	,R80,R85
84	1303044	RES 100K 1/8W 1% MF	6	R29,R31,R34,R36,R77,R91
85	1300530	RES 120K 1/4W 5% CC	2	R194,R195
86	1302387	RES 160K 1/4W 5% CC	2	R53,R78
87	1509632	TRANSISTOR DEC2007.6W NPN	2	Q2,Q10
88	1501913	TRANSISTOR 2N2904A .6W PNP	2	Q3,Q11
89	1506336	TRANSISTOR 9531B .31W NPN	11	Q1,Q4,Q9,Q12,Q20,Q24,Q25,Q27, Q30,Q33,Q38
90	1503489	TRANSISTOR 9534D .31W PNP	19	Q5,Q7,Q8,Q13,Q15,Q16,Q17,Q18, Q19,Q21,Q22,Q23,Q26,Q28,Q29, Q32,Q34,Q39,Q42
91	1510421	TRANSISTOR D44C8 30W (RED) NPN	3	Q35,Q37,Q40
92	1510414	TRANSISTOR D45C8 30W (GRN) PNP	5	Q6,Q14,Q31,Q36,Q41
93	1611034-01	INDUCTOR 47 MH	1	L1
94	1811110	CRYSTAL 2.304 MHZ	1	Y1
95	1910262	IC 301	5	E1,E2,E6,E23,E30
96	1908975	IC 386	1	E20

ITEM NO	PART NO	DESCRIPTION	QTY	REF DESIGNATION
97	1908485	IC 380	1	E40
98	1910298	IC 741	8	E7,E8,E9,E10,E24,E25,E26, E27
99	1911038	IC 4024	1	E45
100	1911039	IC 4044	1	E44
101	1905575	IC 7400	3	E16,E35,E39
102	1905580	IC 7401	1	E12
103	1908004	IC 7402	2	E13,E15
104	1908686	IC 7404	2	E28,E34
105	1910741	IC 7408	1	E43
106	1905578	IC 7410	1	E42
107	1910236	IC 7428	2	E11,E18
108	1910878	IC 7427	1	E17
109	1905580	IC 7450	3	E5,E22,E31
110	1905547	IC 7474	3	E19,E32,E41
111	1910011	IC 7486	1	E14
112	1908054	IC 7493	2	E37,E38
113	1910436	IC 74123	4	E4,E21,E33,E36
114	1910845	IC 75452	2	E3,E29
115	5510315	HEAT SINK	4	
116	9008010-1	SCREW,PPH 4-40 X 5/16	10	
117	9008557	NUT,HEP 4-40 X 1/4 X 1/16	10	
118	9008708	WASHER,NYLON #4	2	
119	9007791	LUG,SWAGE #1028-2	47	TP1 TO TP47

COMPONENT SUBSTITUTION

ITEM NO	PART NO	DESCRIPTION	QTY	REF. DESIGNATION

ACCEPTANCE SIGNATURE DATE

ITEM NO	PART NO	DESCRIPTION	QTY	REF DESIGNATION

FIRST USED ON OPTION/MODEL: TU60

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. F.CARBERRY	DATE 8-4-72	
CHK'D. W.MAJOR	DATE 9-18-72	
ENG. M.LEIS	DATE 9-15-72	
PROJ. ENG. M.LEIS	DATE 9-15-72	
PROD. M.CONROY	DATE 9-27-72	

NEXT HIGHER ASSY. B-DD-TU60-0
SCALE —
SHEET 2 OF 5

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: READ/WRITE AND SERVO

SIZE D | CODE DCS | NUMBER M7761-0-1 | REV L | DIST.

REVISIONS

REV	CHANGE NO	CHK

MANUFACTURING 401522 15980

DEC FORM NO

HIGH SPEED H (5) · +12V · R151 3.3K · Q23 · R147 5.11K · R148 1.96K · R150 3.3K · R149 1.96K · TP32 VREF · TP44 HIGH SPEED L · 7406 E43

LDR H (4) · 7406 E43

+5V · R70 1K · REWIND A L (4) · 7402 E15 · 7400 E16 · PWR CLR H (5) · R107 220 · R106 1K · Q11 2N2906A · D17 1N4004 · SOL A · J5 · R105 560 · Q10 DEC2007 · R104 330 · LOADED A H (4) · -12V · READY A L (3) (5)

+5V · CAS LOAD A · J5 · R102 220 · Q9 · R103 1Ø · MOVE A H · 7426 E18 · +12V · C38 · R115 390 · R113 3.9K · R114 2K · R116 47Ø · Q14 45CG · D18 1N4004 · Q13 · R112 2K · +5V C37 33ØPF · R109 33K · Q12 · D20 · R110 620 · R108 1.5K · R111 390 · D19 1N4004 · J5 TENSION MOT A · TP16 TENSION MOT CUR A · R123 82 · REWIND A H (4) · 7426 E18

READY A L (3) SEL A L (5) · 7427 E17 · 75452 E29 · MOVE A H (3,4) · TP23 FWD A L · R119 3.3K · R118 3.3K · R120 3.48K · Q16 · R117 3.48K · Q15 · TP22 REV A L · TP17 TENSION MOT VOLT A

R97 1ØK · R96 1ØK · R99 1ØK · R98 6.81K · 741 E27 · R84 7.5K · C35 .ØØ27 · R85 82.5K · 741 E26 · C36 .51 · RAMP A · TP25 · SPEED A · 20K · R143 · R80 6.81K · R81 2.2K · R79 6.81K · 294 1ØK · 741 E24 · C34 100PF · R93 1K · R92 1ØK · -15V · J5 · CONT MOT POT · TACH AMP A OUT · TP19 · 741 E25 · 295 825 · BAL A · R144 1ØK · -12V · MOT A RET · TACH POT · SS

C3Ø · R77 1ØØK · +15V · R184 3.9K · Q39 · R183 1K · C31 15ØØPF · R185 1.8K · R182 1ØØ · Q38 45CG · Q25 · Q26 · R181 1Ø · Q37 44CG · R180 1K

J6-MM 9 · 7404 E34 · REWIND B L (4) · 7402 E15 · 7400 E16 · PWR CLR H (5) · R11 220 · R10 1K · Q3 2N2906A · D1 1N4004 · SOL B · J4 · R9 560 · Q2 DEC 2007 · R8 330 · LOADED B H (4) · -12V · READY B L (3)

+5V · CAS LOAD B · J4 · R6 220 · Q1 · R7 1Ø · MOVE B H (3) · 7426 E18 · +12V · C6 1.5 · R17 2K · R20 47Ø · Q4 45CG · D2 1N4004 · R19 390 · R18 3.9K · Q5 · R16 2K · +5V C4 33ØPF · R12 3.3K · Q4 · R14 62Ø · D4 · R13 1.5K · R15 390 · D3 1N4004 · J4 TENSION MOT B · TP4 TENSION MOT CUR B · R1 8.2 · REWIND B H (4) · 7426 E18

SEL B L (5) READY B L (3) · 7427 E17 · 75452 E3 · FWD B L · TP8 · R23 3.3K · R22 3.3K · R24 3.48K · Q8 · R21 3.48K · Q7 · TP10 REV B L · MOVE B H (3,4) · TP5 TENSION MOT VOLT B

R40 1ØK · R39 1ØK · R42 1ØK · R41 6.81K · 741 E9 · R60 82.5K · 741 E10 · C13 .ØØ27 · R59 7.5K · C14 .51 · RAMP B · TP · SPEED B · TP11 · 20K · R26 · SPEED B · R55 6.81K · R56 2.2K · R54 6.81K · 238 1ØK · 741 E7 · 337 825 · TACH AMP B OUT · TP7 · BAL B · R25 1ØK · -12V · C12 1ØØPF · AMP B · R53 1ØØK · C11 1ØØPF · R57 1.5K · C10 · R58 1K · C58 .1 · MOT B RET · TACH POT · SS

C10 · R2 1ØØK · +15V · R191 3.9K · Q42 · R189 1K · C59 .1 · R190 1.8K · C11 1ØØPF · R53 1ØØK · Q41 45CG · C193 .ØØ · Q27 · Q28 · R187 .Ø · Q40 44CG · R136 1K · R135 1ØK · -15V · J4 · CONT MOT POT · TACH POT · TACH B · SS

FIRST USED ON OPTION/MODEL: TU6Ø	QTY	DESCRIPTION	PART NO. / ITEM NO.
		PARTS LIST	

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES
DECIMALS: XXX ± .ØØ5, XX ± .Ø2, X ± .1 · ANGLES: ±Ø°3Ø'
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓
MATERIAL · FINISH

DWN · CHK'D · ENG M. LEVY · PROJ ENG · MGR. · DATE 4/6/72 · NEXT HIGHER ASSY B-DD-TU6Ø-Ø

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: READ / WRITE AND SERVO (MOTOR CIRCUITS)

SIZE CODE D · NUMBER CS-M7761-Ø- · REV L · SCALE · SHEET 2 OF 3 · DIST.

REVISIONS: REV. · CHANGE NO. · CHK

TOLEDO MD

+15V J7-1 — R173 390 — R172 1K — Q34 — Q35 D44C8 — TP46 — +12V
C55 6.8 — R174 470 — R175 470 — R177 470 — R176 1K — C57 47
D29 6.2V2 1N753A — C56 3300 PF — Q33 Q36 — R178 470 — R179 1K
GND J7-3

D28 6.2V2 1N753A — C53 3300 PF — R170 470 — R171 1K — C54 47 — -12V ADJ (RAMP)
C52 6.8 — Q29 Q32 — R168 2K — -12V
R166 470 — R167 470 — R169 470 — Q31 Q30 D45C8 — TP47
R165 390 — R164 1K — -15V
-15V J7-2 — -6V
C86 1 UF

+3V — R160 1K — TP43 — +5V
J7-4 — C45 6.8 — C65-C69 .01 — C71-C88 .01
GND — TP13 — GND

+12V — C3 .1 — C32 .1 — C63 .1
GND — C2 .1 — C33 .1 — C64 .1
-12V

+5V — J4-W, X. J5-W, X. J6-S, T, U, V.
GND — J4-A, C, E, H, K, L, Y, Z, AA, BB, PP, RR. J5-A, C, E, H, K, L, Y, Z, AA, BB, PP, RR. J6-EE, FF, HH, JJ.

+5V — R196 300 — D31 — E35 7400 — R89 30K
J6-H GO H — J6-K REWIND CMD H — E36 7400
REWIND A L (3,4)

LOADED A H (3) — FWD DIR A H — J6-X — E19 7474 — E14 7480 — R69 220 — C23 680 PF
REWIND A L (4) — MOVE A H (3)
LDR A L (4) — 125 MS — E21 74123 LDR A — R90 51K — C28 6.8 — +3V
LDR INH A L

J5 — LDR SENSOR A — R91 100K — R75 1K — C85 1UF — -6V
E23 3401 — D16 4.7 V ± 1N750A — TP18
MANUAL REWIND A H — E16 7400 — CLR LEADER A H

C70 .01 — SEL A H (5) — DM — C27 68 — E21 74123 REWIND A — 1 SEC
TP15 REWIND A H (3)
E13 7402 — E12 7401 — R33 100 — C16 .01 — R66 220
R67 1K — C21 .01 — R68 330 — E28 7404 — E15 7402
PWR CLEAR H

WRITE PROTECT SW A — J5 — R88 1K — R47 1K — +5V
WRITE PROTECT SW B — J4 — J7
E22 7450 — J6-B WRITE PERMIT H (5)
C18 150 PF
REWIND B L (3,4) — E5 7450 — J6-P REWIND H

+5V — PWR CLEAR H (5) — R197 300 — D32 — E31 7450 — R48 30K
LDR A L (4)
C5 .01 — SEL B H (5) — 1 SEC — C7 68 — D7 — E21 74123 REWIND B — C17 1500
TP3 REWIND B H (3) — LOADED A H (3) — LOADED B H (3) — SEL A H (5) — SEL B H (5)
E22 7450 — J6-DD LDR H (3)
E5 7450 — J6-F DRIVE EMPTY H

LOADED B H (3) — FWD DIR B H — J6-Y — E19 7474 — E14 7486 — R64 220 — C22 680 PF
REWIND B L (4) — MOVE B H (3)
LDR B L (4) — 125 MS — E24 74123 LDR B — R49 51K — C8 6.8 — +3V
LDR INH B L

J4 — LDR SENSOR B — R34 100K — R90 1K — C84 1UF — -6V
E6 3401 — D9 4.7 VZ 1N750A — TP6
MANUAL REWIND B H — E16 7400 — CLR LEADER B H

R46 100 — C15 .01 — R61 220 — R62 1K — C20 .01 — R63 330 — +5V — +3V
E13 7402 — E12 7401 — E19 7486 — E15 7402
PWR CLEAR H
LDR B L (4)

FIRST USED ON OPTION: TU60	QTY.	DESCRIPTION	PART NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES: DECIMALS .XXX ± .005, .XX ± .02, .X ± .1; ANGLES ±0° 30'		PARTS LIST	
MATERIAL —			
FINISH —			

DIGITAL EQUIPMENT CORPORATION [redacted]

TITLE: READ/WRITE AND SERVO (REWIND/REG)

B-DD-TU60-0 — DCS M7761-0-1 — REV L

REVISIONS	REV	CHANGE NO	CHK

DRAWING 40 107 1366 — DTC FORM 810

PWR CLR H (3,9)

+5V

D22 J6-L PWR OK L

D21 R128 220 D36 IN746 3.3V2 R129 220 Q20 R127 1K R126 2K Q19

C39 .01

R122 1K R123 2K Q17

SEL A L (5)

A ON TP26

R45 68 R46 68 R32 220

W DATA H J6-VV

7426 E11 7404 E28 7426 E11

J5

D13 D12

SEL B L (5)

R125 1K R124 2K Q18

B ON TP27

R43 68 R44 68 R27 220

WRITE L J6-C

7426 E11 380 E40 7404 E34

J4

D10 D11

WRITE ENABLE H

WRITE PERMIT H (4)

SEL A L/SEL B H (5) R74 220 C19 .01 (5) SEL A H/SEL B L

7400 E35

R30 1.96K R28 1.96K

R31 100K R29 100K

AMP 1 OUT TP1 .25VPP

C1 .47 R3 10K R4 1K R2 10K C61 10PF C62 10PF

301 E2 301 E1

D5 D6

R5 27K

AMP 2 OUT TP2

R22 1K R86 1K L1 47MH C26 .022 C25 100PF C24 .022 R73 1K R71 51K

306 E20

R101 51K R97 1K +5V

TP19 PEAK DETECTOR L

R100 1K

7404 E28 7404 E34

TP27

C40 .01 R140 10K R139 20K R142 50K TP30 THRESHOLD (.7V)

301 E30

D23 D24 IN752A 5.6V±

R141 330

TP33 THRESHOLD DELAY

380 E40

C49 2.2 R138 4.99K

TP31 ENERGY H

1MS R145 39K C42 .15 74123 ENERGY E36

2MS R146 51K C43 .15 74123 ENERGY CLEAR E36

C87 680 PF

7406 E43 7404 E43

+3V

7404 E34 4 J6-N ENERGY H

CLEAR H J6-J 7406 E43 7404 E34

CLEAR L (4)

J6-A READ DATA L

7410 E42 VFG PEAKS L R162 220 C51 680PF 7410 E42 7404 E35 PEAKS L R161 220 C50 680 PF 7410 E42 PEAKS L TP28

7400 E39

READ DATA L 12 7474 E41 SYNC 9 J6-UU 8 CLK 1 L 11 @TP42 13 +3V

R/W GAP H J6-E HIGH SPEED H J6-KK

+5V R137 1K R136 2K Q22 R133 1K R132 2K Q21 R131 200 R135 34.8K R131 383K R134 34.8K R136 1K

15MS READ 75MS BFG 150MS FFG 7413 E33 SIGNAL 12 SIGNAL - TP39 CLK 1 L D25 C41 15

J6-GG SIGNAL H

+3V 7474 E41 SEEK 6 SEEK - TP40 J6-NN SEEK H

R160 14 R159 12Ω TP41 INH BIT SEEK L

CRC TIME H J6-PP

J6-TT CLK 1 L

TP37 CLK 1 L

R157 220 C48 1000 PF

TP35 J6-RR CLK 2 L

R156 220 C47 1000 PF

FREQ CONT. TP45

+5V R163 1K C44 PHASE DETECTOR

C62 .022 Q24 R154 5.6K

4012A E45 READ VCO C60 820PF

R194 R195

FREQ TP36

BLANK H TP38

7450 E31

7493 E38 ÷8

TP34 Y1 2304 4024 E45 WRITE CLOCK R103 220 C46 .01

7493 E37 ÷16 7493 E38 ÷2 7474 E32 ÷2

DRIVE A L J6-D 7404 E34 7404 E28 SEL A L/SEL B H (3,4,5) SEL A H/ SEL B L(3,4,5)

BUF READ H

WRITE H J6-BB 7404 E28

REVISIONS		
REV	CHANGE NO	CHK

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO
TL60		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	6-14-72
CHK'D.	DATE	6-15-72
ENG.	DATE	6/16/72
PROJ. ENG.	DATE	6/16/72
PROD.	DATE	

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: READ/WRITE AND SERVO (READ CIRCUITS)

NEXT HIGHER ASSY. B-CO-TU60-0

SCALE

SHEET 5 OF 5

SIZE	CODE	NUMBER	REV.
D	CS	M7741-0-1	L

DIST.

STATE CODE D

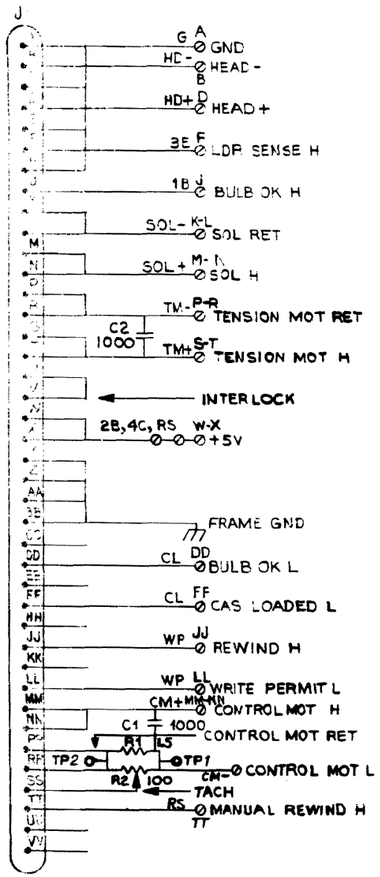
NUMBER M7741-0-1

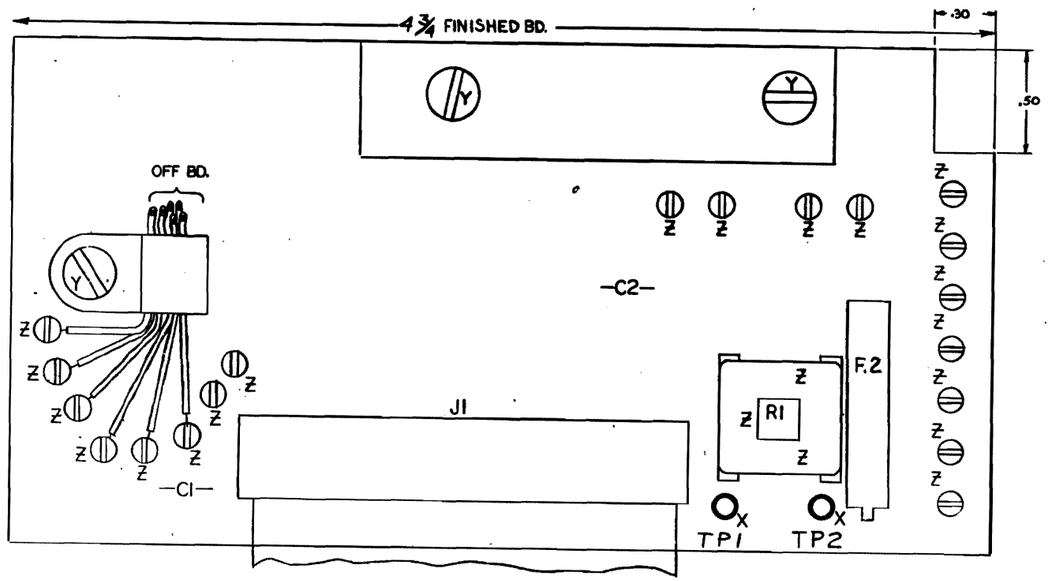
8 7 6 5 4 3 2 1

A B C D

NOTES:

1. UNLESS OTHERWISE SPECIFIED:
   RESISTANCE IS IN OHMS.
   CAPACITANCE IS IN PICOFARADS.





REF				
2	TP1, TP2	TURRET LUG #1026-2	9007791	10
2	C1, C2	CAP 1000 pfd	1000042	9
1	R1	RES 1.5 - 10W WIRE WOUND	131.1112	8
1	R2	RES 100Ω 3/4W 10% POT 1/4"	1309143-04	7
1	J1	CONNECTOR 40 TERMINAL	1210073	6
19		SPLIT LUGS	9006735	5
REF		MODULE ECO HISTORY	8-MH-5410135-0-0	4
REF		X-Y COORDINATE TABLE LOCATION	MK-05-5410135-0-0	2
1		ETCHED CIRCUIT BOARD	5010134	1
QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

ETCH BOARD REV D

FIRST USED ON OPTION MODEL: TU60

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	DESCRIPTION	DATE	APPROVED
D	ECO 5410135-0-0	2-28-72	
C	ECO 5410135-0-0	12-19-71	
B	ECO 5410135-0-0	11-10-71	

DRAWN T.D. 5-3-72
CHECKED W. Mann
ENG
MFG
QUAL
NEXT HIGHER ASSY D-DA-7010004-0-0
SCALE 2/1
SHEET 1 OF 1

EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE: TERMINATOR, CASSETTE DRIVE

SIZE D
CS 5410135-0-1
REV D

digital EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

SEQUENCE		SEQUENCE	
DRAWING DIRECTORY	B-DD-H751-Ø		
CIRCUIT SCHEMATIC	D-CS-H751-Ø-1		
UNIT ASSY	D-UA-H751-Ø-Ø		
UNIT ASSY (PL)	A-PL-H751-Ø-Ø		
CIRCUIT SCHEMATIC	D-CS-5410131-0-1		

THIS IS PRINT SET

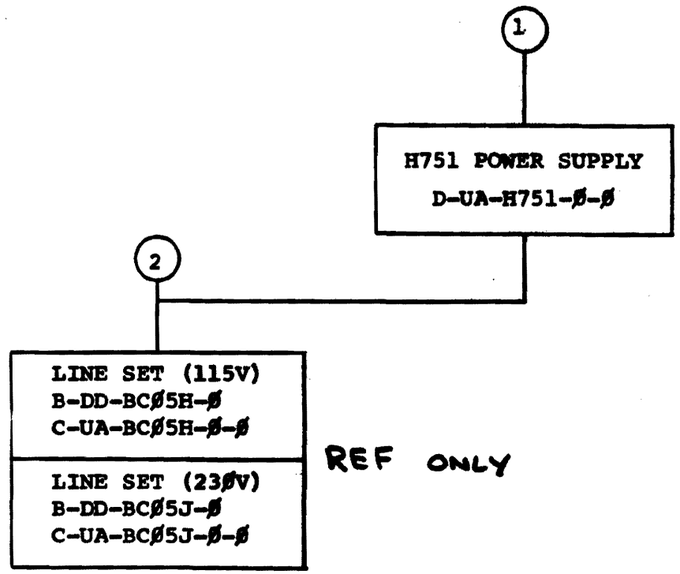
UNIT VARIATIONS		PRINT SET
VAR	TITLE	H751-Ø
H751-A	H751 POWER SUPPLY 115V	X
H751-B	H751 POWER SUPPLY 230V	X

REVISIONS		
DATE	CHG. NO.	REV
12-72	H751-1	A
3-73	H751-2	B
4-73	H751-3	C
8-73	H751-4	D
10-73	H751-5	E

USED ON OPTION/MODEL	
TU6Ø	

SHEET 1 OF

DRN. B.MAJOR	DATE 10/25/72	TITLE H751 POWER SUPPLY
CHK'D.	DATE	
PROJ ENG.	DATE 10-26-72	
PROD.	DATE 10-26-72	SIZE B / CODE DD / NUMBER H751-Ø / REV E
FIELD SERV.	DATE	DIST



TITLE		SIZE	CODE	NUMBER	REV
H751 POWER SUPPLY	SHEET 2 OF 3	B	DD	H751-Ø	E

ELECTRICAL

CUSTOMER PRINT SET H751-Ø	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
X		1	D-UA-H751-Ø-Ø	E	2	H751 POWER SUPPLY	
X			A-PL-H751-Ø-Ø	E	2	H751 POWER SUPPLY (PL)	
			E-IA-5310191-0-0		1	CHASSIS, POWER SUPPLY	
X			D-CS-H751-Ø-1	B	1	CIRCUIT SCHEMATIC H751	
X			D-CS-5410131-0-1	#	2	CIRCUIT SCHEMATIC	
		2	B-DD-BCØ5H-Ø	#	3	LINE SET	
			C-UA-BCØ5H-Ø-Ø		1	LINE SET BCØ5H (115V)	
			C-UA-BCØ5J-Ø-Ø		1	LINE SET BCØ5J (230V)	

MECHANICAL

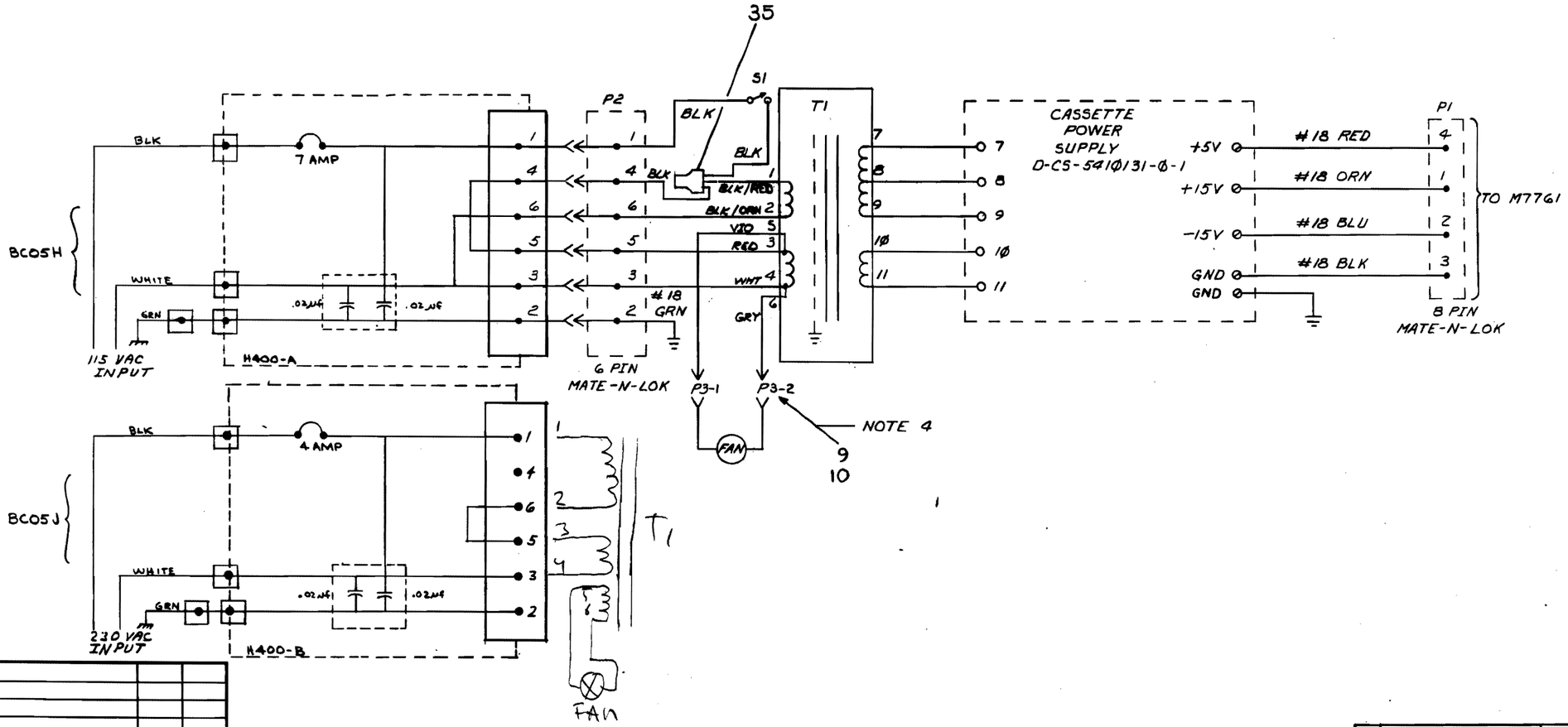
CUSTOMER PRINT SET H751-Ø	MFG SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
		1	D-UA-H751-Ø-Ø	#	2	H751 POWER SUPPLY	
			A-PL-H751-Ø-Ø	#	2	H751 POWER SUPPLY (PL)	
			E-IA-5310191-0-0		1	CHASSIS, POWER SUPPLY	

CUSTOMER PRINT SET CODES		TITLE		SIZE	CODE	NUMBER	REV
	X = PRINT OF DOCUMENT INCLUDED IN PRINT SET C = INCLUDES ALL PRINTS INDICATED ON DOCUMENT S = CONFIDENTIAL 'THORIZED SIGNATURE REQUIRED	H751 POWER SUPPLY	SHEET 3 OF 3	B	DD	H751-Ø	E

DRB 108

NOTES:

1. WIRES NUMBERED 1-11 ARE TRANSFORMER LEADS.
2. FOR DIAGRAM OF CASSETTE POWER SUPPLY SEE D-CS-5410131-0-1.
3. ℄ INDICATES SPLIT LUGS.
4. P3-1 AND P3-2 ARE FASTABS.



IC TYPE	GND	+ 5V

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

IC PIN LOCATIONS

BRUNING 40-522 16499

OFC FORM NO.

FIRST USED ON OPTION MODEL: H751

ETCH BOARD REV

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

REVISIONS	REV	CHANGE NO.	CHK	DATE
M. LEIS	B	H751-00004		5-10-72
L. MARHI	A	H751-00001		8-9-72
				8-19-72

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

SEMICONDUCTOR CONVERSION CHART

DWN	M. Cummiskey	2-17-72
CHK	W. Main	10/15/72
ENGR	Gary Hall	10-28-72
PROJ MGR		12/15/72
MFG	Ed Dingman	12/15/72

NEXT HIGHER ASSY: B-DD-H751-0

SCALE: 1

SHEET: 1 OF 1

EQUIPMENT CORPORATION [redacted], MASSACHUSETTS

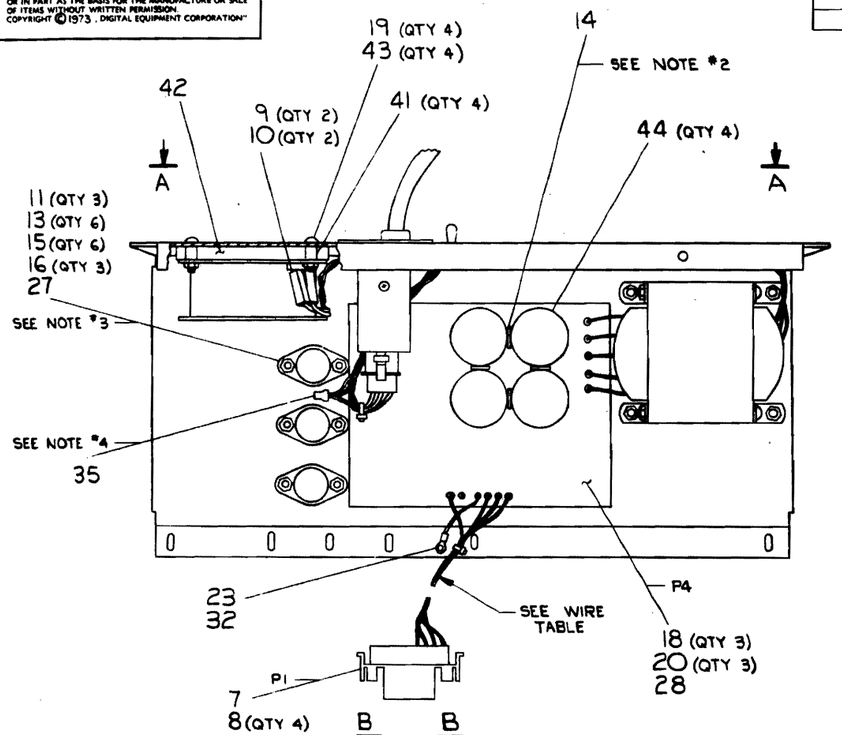
TITLE: CIRCUIT SCHEMATIC H751

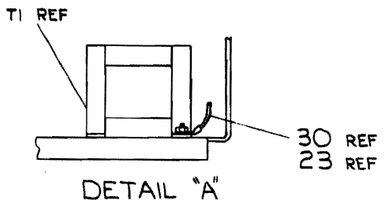
SIZE	CODE	NUMBER	REV.
D	CS	H751-0-1	B

SHEET

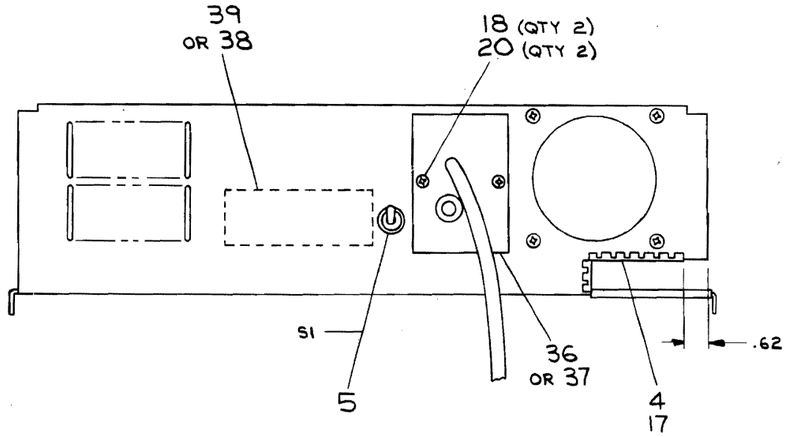
SIZE D CS H751-0-1 REV B

LEGEND	
H751-A	115 V
H751-B	230 V

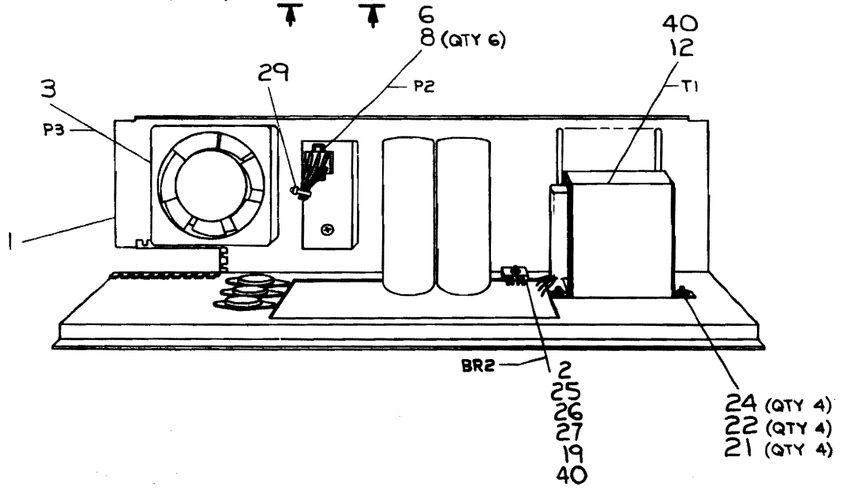


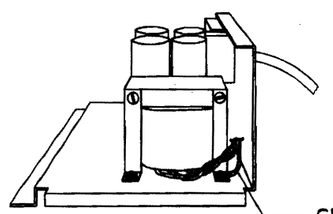


DETAIL "A"



VIEW A-A
ROTATED 180°





NOTES:

1. MOUNT ITEM * 28 (CASSETTE POWER SUPPLY) TO ITEM *1 (CHASSIS) BEFORE MOUNTING ITEMS *2, *11, & *12.
2. USE ITEM *14 (TAPE) BETWEEN EACH OF FOUR LARGE CAPACITORS AS SHOWN.
3. ITEM *27 (COMPOUND) TO BE APPLIED TO BOTH SIDES OF ITEM * 16 (WASHER) BEFORE ASSEMBLY.
4. USE CRIMP TOOL *45219 FOR ITEM *35.
5. *'S IN PARENTHESIS INDICATE QUANTITY USED AT THAT LOCATION.

REVISIONS		
REV.	CHANGE NO.	
D	H751-00004	REVISED, REDRAWN R. THELLEN M. LEIS
E	H751-00005	M. LEIS

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
TU60		PARTS LIST		

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

DRN.	F. CARBERRY	DATE 9-25-72
CHK'D.	B. MAJOR	DATE 10-25-72
ENG.	LARRY NARHI	DATE 10-25-72
PROJ. ENG.	M. LEIS	DATE 10-25-72
PROD.	B. DIGREGORIO	DATE 10-26-72

MATERIAL —/—/—
FINISH —/—/—
NEXT HIGHER ASSY. B-DD-H751-0
SCALE NONE
SHEET 1 OF 2

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

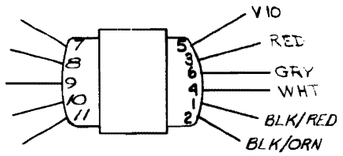
TITLE
H751
POWER SUPPLY

SIZE	CODE	NUMBER	REV.
D	UA	H751-0-0	E

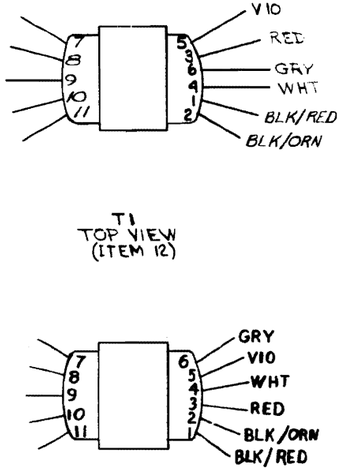
DIST.

WIRE TABLE

ITEM NO	DESCRIPTION AWG	COLOR	FROM CONN	FROM WITH	TO CONN	TO WITH	REMARKS	LENGTH (IN.)
5	18	BLK	S1-1	—	P2-1	8		DO NOT CUT
5	18	BLK	S1-2	—	——	35	SEE NOTE 4	DO NOT CUT
12	18	BLU/RED	T1-1	—				15
32	18	BLU	P2-4	8				3
12	18	VIO	T1-5	—	P3-1	9,10		18
12	18	RED	T1-3	—	P2-5	8		18
12	18	WHT	T1-4	—	P2-3	8		18
30	18	GRN	P2-2	8	GND	23	SEE DETAIL A	16
12	18	GRY	T1-6	—	P3-2	9,10		18
12	18	—	T1-7	40	P4-7	SOLDER		1 1/4
12	18	—	T1-8	40	P4-8	SOLDER		1 1/4
12	18	—	T1-9	40	P4-9	SOLDER		1 1/4
12	18	—	T1-10	40	P4-10	SOLDER		1 1/4
12	18	—	T1-11	40	P4-11	SOLDER		1 1/4
31	18	RED	P4 — +5V	SOLDER	P1-4	8		16
33	18	ORN	P4 — +15V	SOLDER	P1-1	8		16
34	18	BLU	P4 — -15V	SOLDER	P1-2	8		16
32	18	BLK	P4 — GND	SOLDER	P1-3	8		16
12	18	BLK/ORN	T1-2	——	P2-6	8		18
2	——	——	BR2-(+)	40	P4-(+)	SOLDER		1
2	——	——	BR2-(-)	40	P4-(-)	SOLDER		1
2	——	——	BR2-A	40	P4-A	SOLDER		1
2	——	——	BR2-B	40	P4-B	SOLDER		1
32	18	BLK	P4-GND	SOLDER	—	23		2

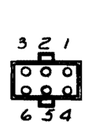


T1
TOP VIEW
(ITEM 12)

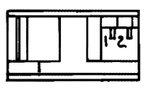


T1
(ALTERNATE VENDOR)

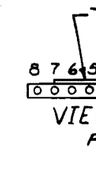
S1
REAR VIEW
(ITEM 5)



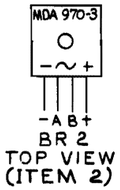
P2
(ITEM 6)



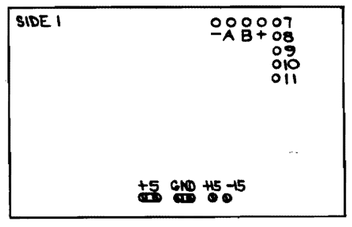
P3
(ITEM 8)
TOP VIEW



VIEW B-B
P1



BR 2
TOP VIEW
(ITEM 2)



P4
(ITEM 28)

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
TU60		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 —

DRW. L Anthony 9/26/72
CHK'D. L.J. Mayon 10/5/72
ENG. Terry Martin 10-25-72
PROJ. ENG. M. Ross 10/27/72
PROD. Rod DeGrazia 10/30/72

NEXT HIGHER ASSY. B-DD-H751-0

SCALE NONE
SHEET 2 OF 2

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE
H751
POWER SUPPLY

SIZE D | CODE UA | NUMBER H751-0-0 | REV. E
DIST. C

REV.	REVISIONS CHANGE NO.	CHK.

BRUNING 40-107 13568
DEC FORM NO

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS
PARTS LIST

MADE BY F.CARBERRY	CHECKED W.MAJOR	SECTION 1
DATE 9/19/72	DATE 10/6/72	
ENG Larry Harlig	PROD Carl Buss	ISSUED SECT. 1
DATE 10/26/72	DATE 10/26/72	

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QUANTITY/VARIATION H751-A	H751-B
1	E-IA-5310191-0-0	CHASSIS, POWER SUPPLY	1	1
2	1110208	DIODE ARRAY MDA970-3 (BR2)	1	1
3	1210719	FAN, BOXER 115V, 25-35 CUFT	1	1
4	9007036	GROMMET, CATERPILLAR	A/R	A/R
5	1203376	SWITCH, TOGGLE SPST	1	1
6	1209351-06	CONNECTOR, MATE-N-LOCK 6 PIN	1	1
7	1209340-01	CONNECTOR, MATE-N-LOK 8 PIN	1	1
8	1209378-01	PIN, MATE-N-LOK	10	10
9	1210820-01	MINI-FASTAB, HOUSING #1-480417-0	2	2
10	1210820-02	MINI-FASTAB, PIN #60291-1	2	2
11	1505819	TRANSISTOR, 2N3055 (Q2, Q3, Q4)	3	3
12	1611096	TRANSFORMER, MMC 4565-1/T72105 (T1)	1	1
13	9006012-1	SCR, #4-40 x 7/16, PHL PAN HD	6	6
14	9007834	TAPE, DOUBLE SIDED, ½ INCH	A/R	A/R
15	9006557	KEP NUT #4	6	6
16	9006721	WASHER, INSULATING	3	3
17		LOCTITE, IS-15Ø	A/R	A/R
18	9006633	LOCK WASHER #6, INT TOOTH	5	5
19	9008185	KEP NUT #6	5	5
20	9006020-1	SCR, 6-32 x ¼, PHL PAN HD	5	5
21	9006039-1	SCR, 8-32 x ½, PHL PAN HD	4	4
22	9006666	WASHER, FLAT, #8	4	4

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
H751 POWER SUPPLY	D-UA-H751-Ø-Ø	A	PL	H751-Ø-Ø	E	H751-00005
	SHEET 1 OF 2	DIST.				

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

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS
PARTS LIST

MADE BY F.CARBERRY	CHECKED W.MAJOR	SECTION 1
DATE 9/19/72	DATE 10/6/72	
ENG Larry Harlig	PROD Carl Buss	ISSUED SECT. 1
DATE 10/26/72	DATE 10/26/72	

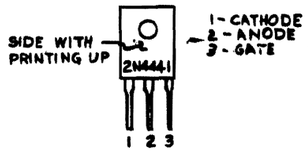
ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QUANTITY/VARIATION H751-A	H751-B
23	9006776	CONN, SOLDERLESS, AMP #31889	2	2
24	9006563	KEP NUT, #8	4	4
25	9007793-1	SCR, #6-32 x 9/16, PHL PAN HD	1	1
26	9006656	WASHER, FLAT, #6	1	1
27	9008268	COMPOUND, THERMAL JOINT	A/R	A/R
28	D-CS-5410131-0-1	CASSETTE POWER SUPPLY	1	1
29	9007031	CABLE TIE, PANDUIT, SST 1 M	A/R	A/R
30	9107360-55	WIRE, #18 AWG STRD, IPVC, GRN	A/R	A/R
31	9107360-22	WIRE, #18 AWG, STRD, IPVC, RED	A/R	A/R
32	9107360-00	WIRE, #18 AWG, STRD, IPVC, BLK	A/R	A/R
33	9107360-33	WIRE, #18 AWG, STRD, IPVC, ORN	A/R	A/R
34	9107360-66	WIRE, #18 AWG, STRD, IPVC, BLU	A/R	A/R
35	9009541	SPLICE, CLOSED END AMP #36965	1	1
36	C-UA-ECØ5H-Ø-Ø	LINE CORD SET, 115VAC	1	
37	C-UA-BCØ5J-Ø-Ø	LINE CORD SET, 230VAC		1
38	A-DC-5310297-0-0	H751-A DECAL (115V)	1	
39	A-DC-5310298-0-0	H751-B DECAL (230V)		1
40	9107278-00	TUBING, BLACK, TFE #18 AWG	A/R	A/R
41	9007615	1/4 X 1/4 X 6 ROUND FIBER SPACER	4	4
42	A-PS-1211343-0-0	FILTER	1	1
43	9006025-1	SCR. 6-32 X 5/8 PHL. PAN HD.	4	4
44	1011023	CAP. 14000 UF, 20V, (C7, C8, C9, C10)	4	4

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
H751 POWER SUPPLY	D-UA-H751-Ø-Ø	A	PL	H751-Ø-Ø	E	
	SHEET 2 OF 2	DIST.				

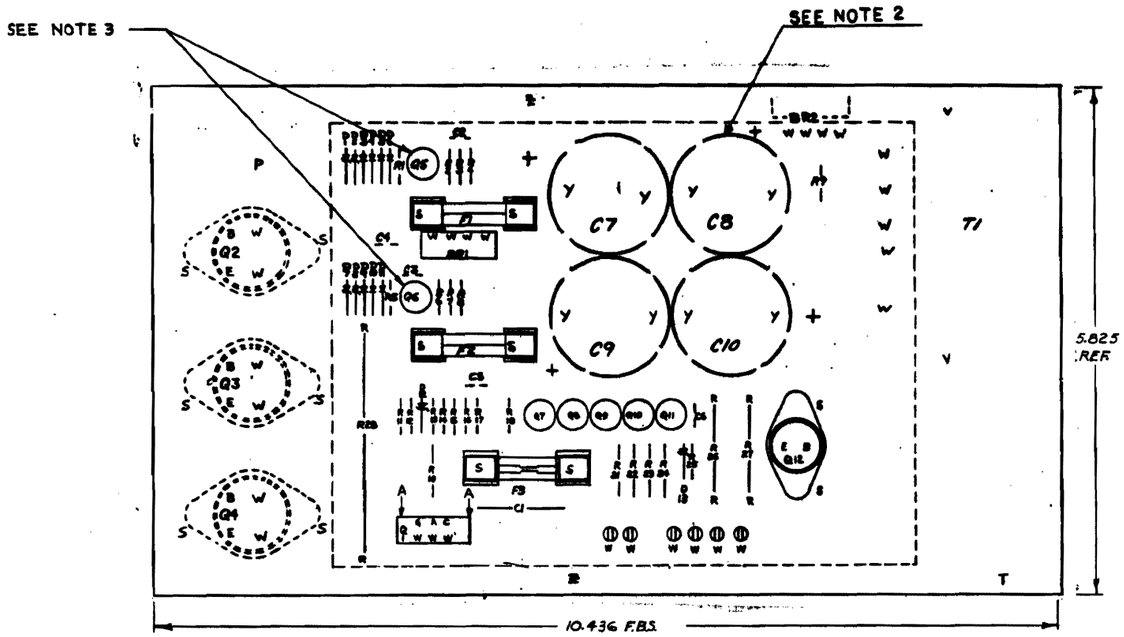
DEC FORM DEC 16-(325)-1031-N870
DRA 110

NOTES:

1. UNLESS OTHERWISE SPECIFIED:
   RESISTANCE IS IN OHMS
   CAPACITANCE IS IN PICOFARADS
2. C7 - C10 ARE MOUNTED ON NEXT HIGHER ASSEMBLY (H751).
3. INSTALL ITEM # 37 (TRANSIPADS) UNDER Q5 & Q6.



VIEW A-A
(Q1)



2		TRANSIPADS #10134	90-07200	37
1	R28	RES .3 10 W 5% W.W.	13-09107	36
1	Q6	TRANS. DEC. 3762	15-09649	35
1	Q5	TRANS. DEC. 3734	15-10062	34
5	Q7 THRU Q11	TRANS. DEC. 3009 B	15-03100	33
1	Q1	TRANS. 2N4441 SCR	15-05867	32
1	Q12	TRANS. 2N4912	15-09483	31
6	R2,R6,R9,R11,R12,R18	RES. 470 1/4W 5%	13-00316	30
1	R24	RES. 348 1/8W 1% MF	13-04858	29
2	R26,R27	RES. 100 2W 5%	13-02380	28
1	R10	RES. 82 1/2W 10%	13-00225	27
2	R15,R16	RES. 10K 1/4W 5%	13-00479	26
2	R3,R7	RES. 10 1/4W 5%	13-01317	25
2	R14,R28	RES. 4.7K 1/4W 5%	13-00447	24
1	R21	RES. 3.16K 1/8W 1% MF	13-03045	23
1	R23	RES. 1.96K 1/8W 1% MF.	13-04833	22
1	R22	RES. 1.47K 1/8W 1% MF.	13-05108	21
6	R1,R4,R5,R8,R13,R17	RES. 1K 1/4W 5%	13-00365	20
1	BR1	DIODE ARRAY MDA-970-3	11-10208	19
5	D1,D2,D7,D8,D13	DIODE AZ1 1/4M 6.8V ZENER 1%	11-03991-1	18
1	D12	DIODE IN752A 5.6V ZENER	11-02808	17
7	D3,THRU D6,D9,D10,D11	DIODE D662	11-00113	16
				15
1	C1	CAP 47UF, 20V, 10% S.TANT	10-04814	14
5	C2 THRU C6	CAP .01UF, 100V, 20% DISC	10-01610	13
6		SPLIT LUGS	90-06735	12
1	F3	FUSE 5 AMP	90-07221	11
2	F1,F2	FUSE 3 AMP	90-07217	10
6		FUSE CLIP	90-07203	9
6		EYELET	90-0900	8
2		FLAT WASHER	90-06655	7
2		KEPNUT #4-40	90-06557	6
2		SCREW, PAN HEAD, #4-40 X 5/16	90-06010-1	5
REF		MODULE ECO HISTORY	B-MH-5410131-0-6	4
REF		ASSY/DRILLING HOLE LAYOUT	E-AH-5410131-0-5	3
REF		X-Y COORDINATE HOLE LOCATION	K-CO-5410131-0-4	2
1		ETCHED CIRCUIT BOARD	5010130	1
QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

ETCH BOARD REV C

IC TYPE	GND	+ 5V

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

IC PIN LOCATIONS

FIRST USED ON OPTION MODEL	
TU60	

2N4441	
2N4912	
DEC 3762	
DEC 3734	
D662	IN645
IN752A	SAME
AZ1	
DEC NO.	EIA NO.

ETCH BOARD REV C		
DEC 3009B	2N3009	
2N4912		
DEC NO.	EIA NO.	

SEMICONDUCTOR CONVERSION CHART

DRN [redacted] DATE 7-25-72
CHK'D NANCY MOORE DATE 7-26-72
DES ENG [redacted] DATE
MFG ENG [redacted] DATE
APVD [redacted] DATE
NEXT HIGHER ASSY
SCALE
SHEET 1 OF 2

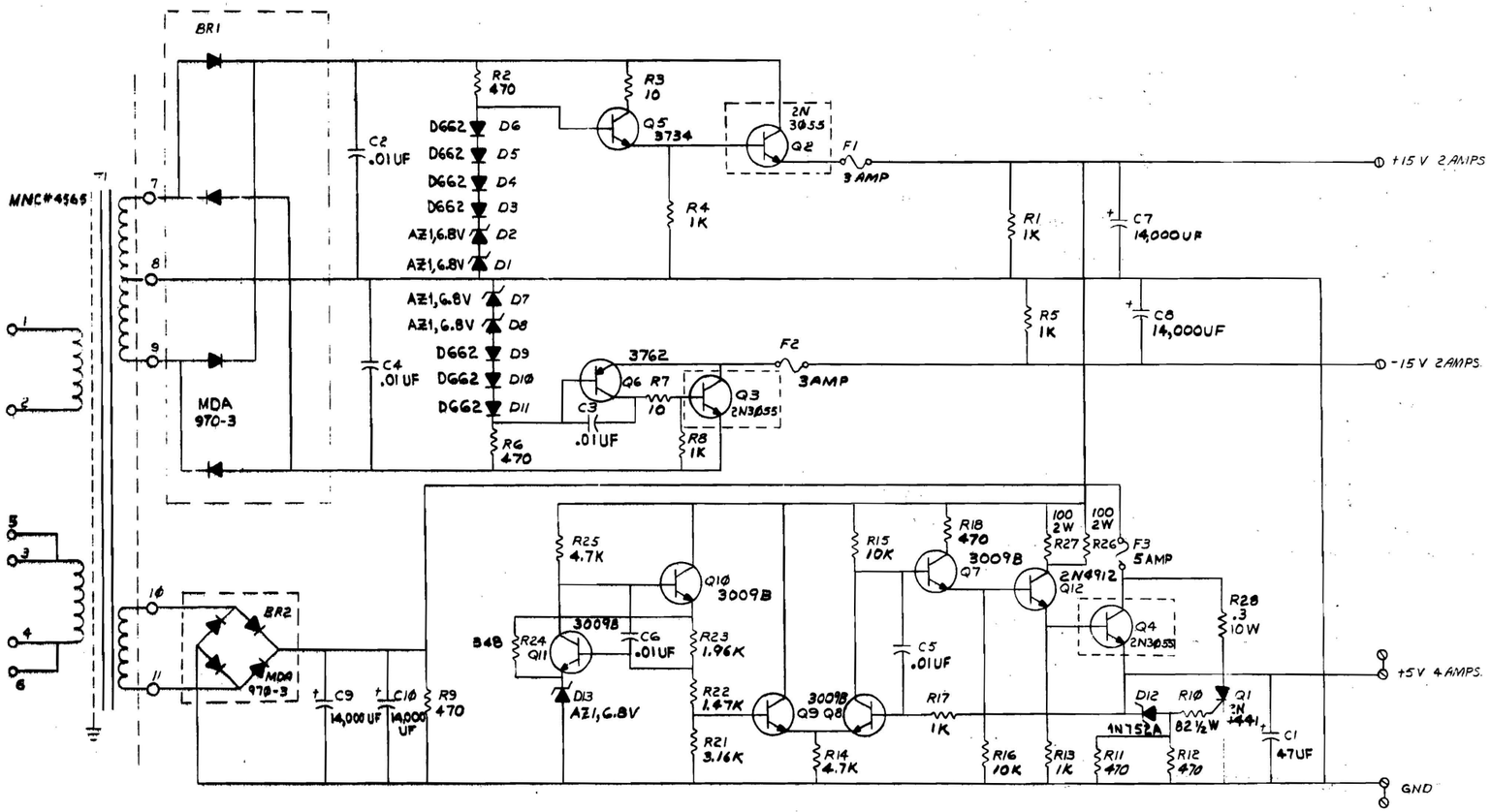
EQUIPMENT CORPORATION

TITLE
CASSETTE POWER SUPPLY

SIZE D | CS | 5410131-0-1 | REV E

DIST.

PART CODE CS | NUMBER 5410131-0-1 | REV D



O INDICATES HOLES FOR DIODE BRIDGE
Q2, Q3, Q4, BR2 & T1 ARE MOUNTED ON CHASSIS/HEAT SINK

QTY	REF DESIGNATION	DESCRIPTION	PART NO	ITEM NO.

PARTS LIST

ETCH BOARD REV C

REV	CHANGE NO.	DEC NO.	EIA NO.	DEC NO.	EIA NO.

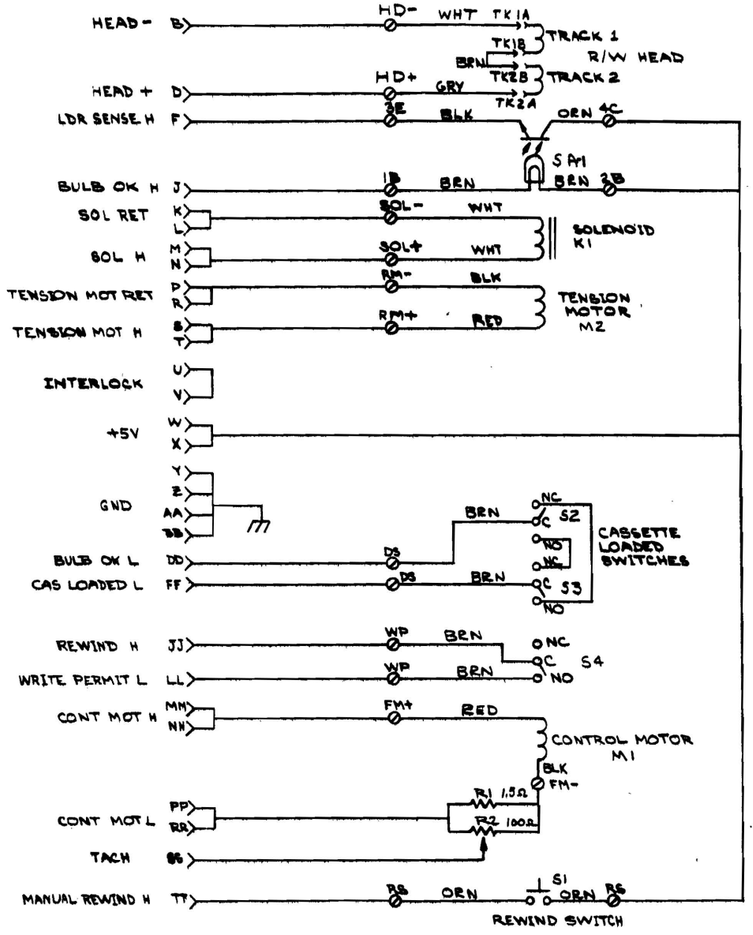
SEMICONDUCTOR CONVERSION CHART

DRN. J. Manchester DATE 7-25-72
CHK'D. MARY MOORE DATE 7-26-72
ENG. Larry Marlin DATE 7/27/72
PROJ ENG. Larry Marlin DATE 7/27/72
MOD. Bob Di Pasquale DATE 7/27/72
NEXT HIGHER ASSY
SCALE
SHEET 2 OF 2

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE
CASSETTE
POWER SUPPLY

SIZE D CODE CS NUMBER 5410 REV E
DIST.



NOTES:
1. SWITCHES ARE SHOWN WITH "CAS LOADED" AND "WRITE PERMIT" ACTIVATED.
2. CONNECT WIRE (ITEMS #44 & #45) TO HEAD (ITEM #20) USING CONNECTOR PINS SUPPLIED WITH HEAD (ITEM #20). SEE DETAIL "A".

REV	DESCRIPTION	DATE	APPROVED

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
TU60		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: SS
FINISH: SS

		DATE
DRN	[redacted]	10/19/72
CHK'D	[redacted]	12/1/72
ENG.	[redacted]	12/7/72
PROJ. ENG.	[redacted]	12/7/72
APPD.	[redacted]	12/7/72

NEXT HIGHER ASSY.: 5-DD-TU60-0
SCALE:
SHEET 1 OF 1

[redacted] EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

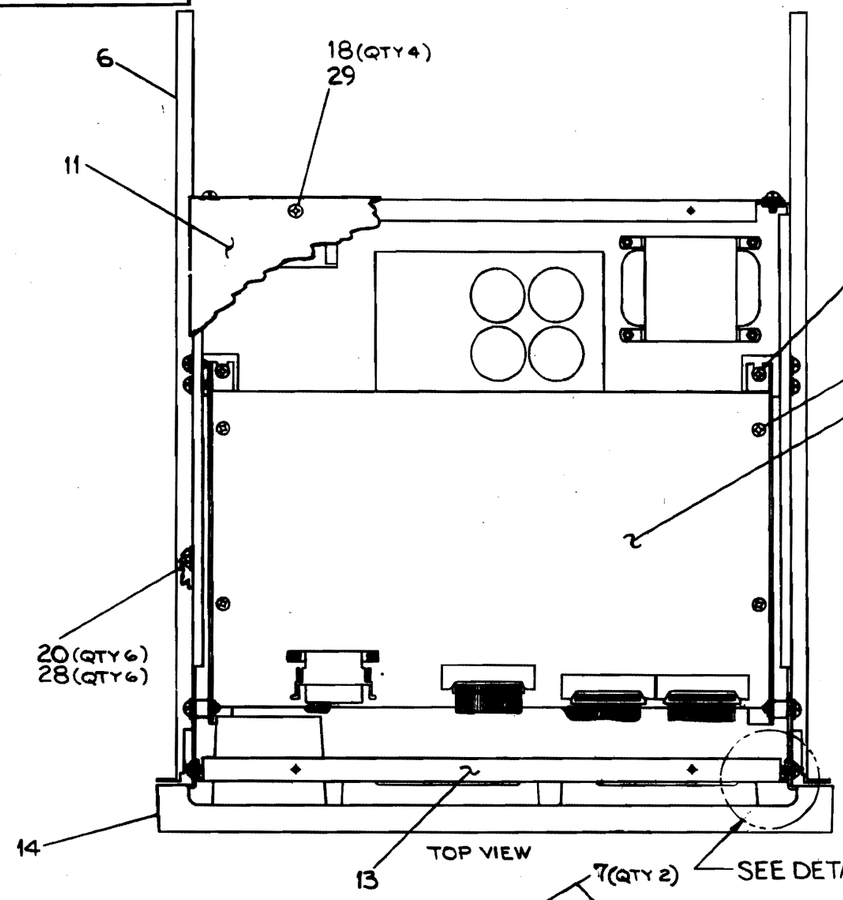
TITLE: CASSETTE DRIVE WIRING DIAGRAM

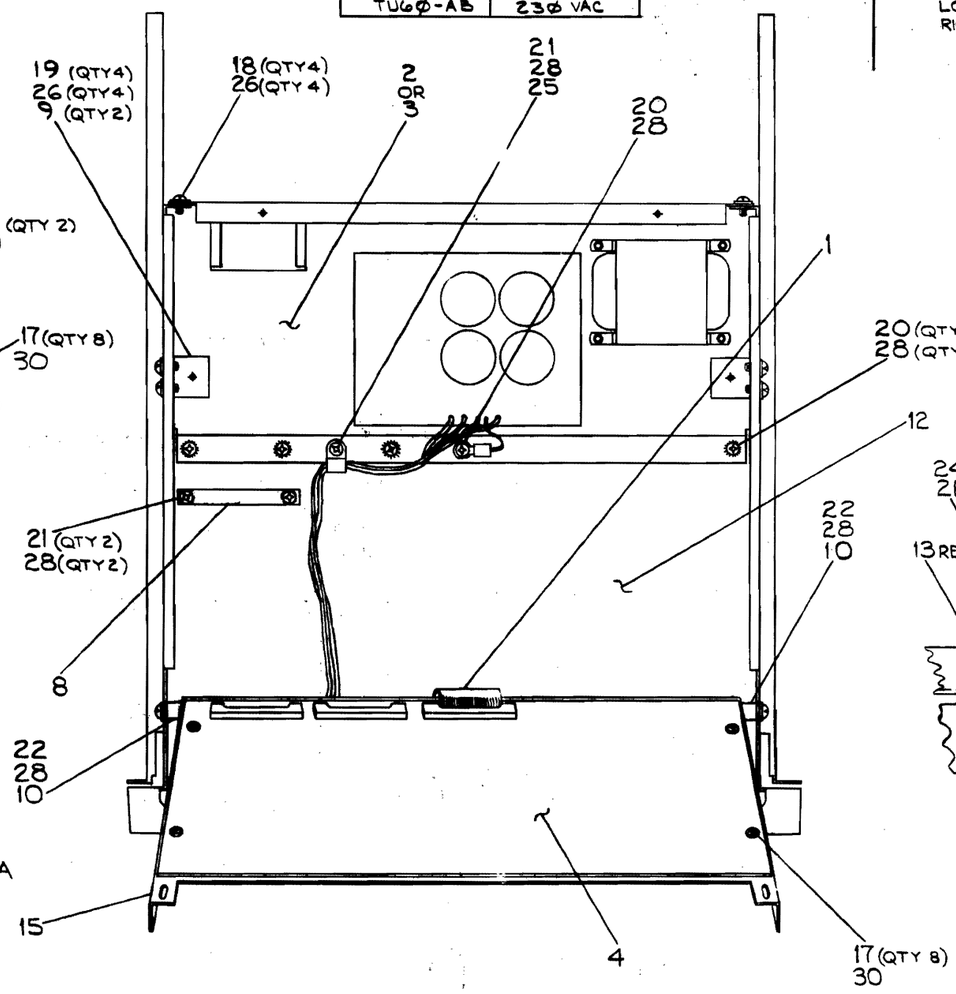
SIZE D | DWG TU60-0-WD | REV.

DEC FORM NO. DRD 105-0

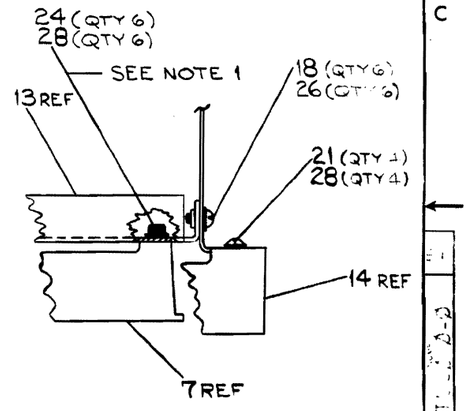
LEGEND	
NUMBER	VARIATION
TU6Ø-AA	115 VAC
TU6Ø-AB	23Ø VAC

NOTES:
1. DO NOT INSTALL DRIVE MTG SCREWS & WASHERS (ITEMS #24 & #28) AT LOWER FAR LEFT AND LOWER FAR RIGHT CORNER OF DRIVE ASSEMBLIES.





TOP VIEW WITH ITEM #11 (COVER) REMOVED AND ITEM #15 (CARD FRAME ASSY) IN UP POSITION



DETAIL-A

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
TU6Ø		PARTS LIST		

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

DRN. G. FLANDERS	DATE 12/20/72	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS
CHK'D. W. MAJOR	DATE 1/1/73	
ENG. M. LEIS	DATE 1/15/73	
PROJ. ENG. M. LEIS	DATE 1/15/73	TITLE: TU6Ø UNIT ASSY
PROD. M. LEIS	DATE 1/15/73	
MATERIAL	NEXT HIGHER ASSY. B-DD-TU6Ø-Ø	SIZE D CODE UA NUMBER TU6Ø-Ø-Ø REV. B
FINISH	SCALE	DIST.
	SHEET 1 OF 2	

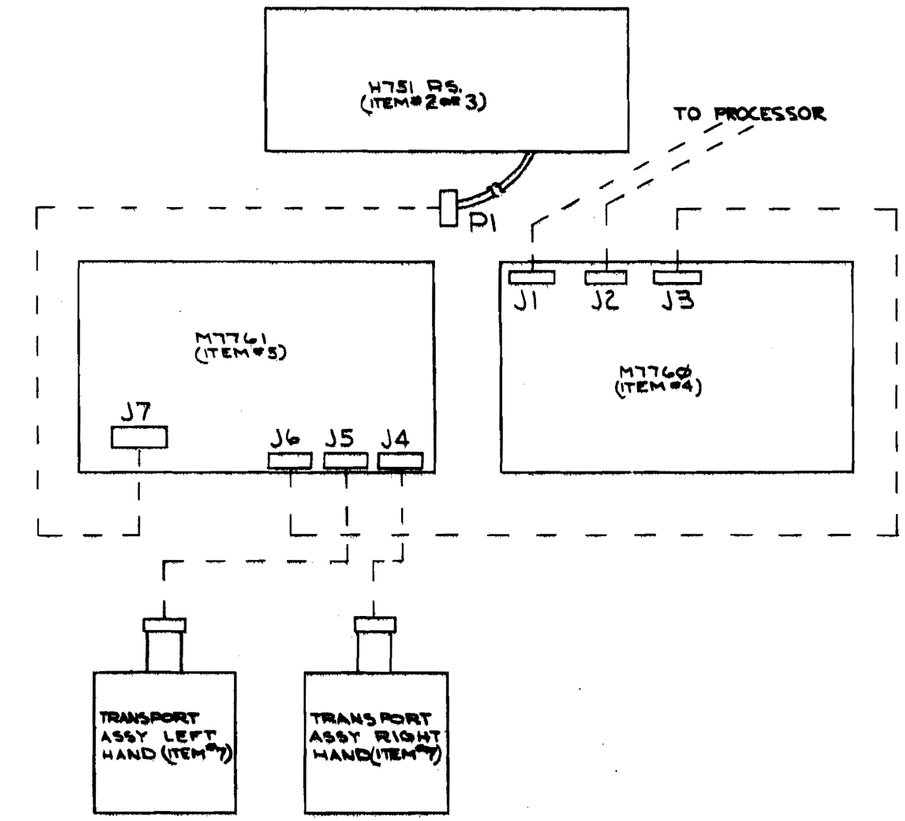
REVISIONS			
CHR	CHANGE NO.	REV.	

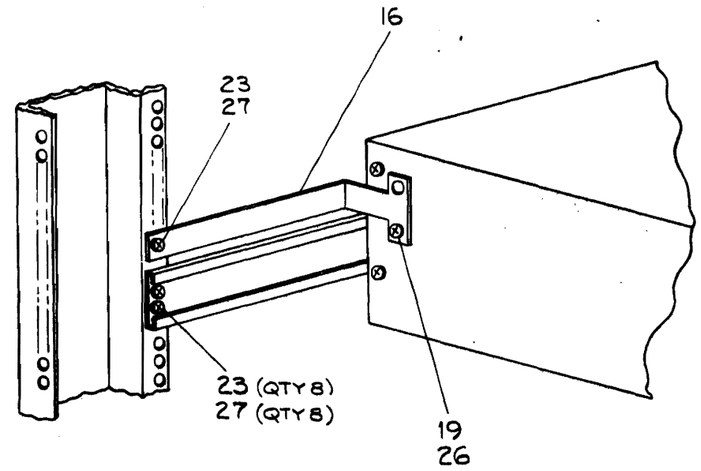
ASSY CONNECTIONS

FROM		TO	
ITEM NO	DESCRIPTION	ITEM NO	DESCRIPTION
2 or 3	H751 P.S. -P1	5	M7761-J7
7	TRANSPORT ASSY LEFT	5	M7761-J5
7	TRANSPORT ASSY RIGHT	5	M7761-J4

CABLE CONNECTIONS

ITEM NO	FROM	TO
1	M7761-J6	M7760-J3





LOCATION OF SHIPPING BRACKET (ITEM #16) WHEN UNIT IS SUPPLIED IN CABINET

REVISIONS	CHANGE NO.	REV.
CHK		

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

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES

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

REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓

MATERIAL

FINISH

DRN. — DATE 10/6/72
CHK'D — DATE 11/1/72
ENGR. — DATE 11/1/72
PROJ. ENGR. — DATE 11/1/72
PROD. — DATE 11/1/72

NEXT HIGHER ASSY.

SCALE

SHEET 2 OF 2

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: TU60 UNIT ASSY

SIZE CODE: D | JA — NUMBER: TU60-0-0

DIST.

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY	G.Flanders	CHECKED	W.Major	SECTION	1
DATE	12/20/73	DATE	1/3/73		
ENG	M.Leis	PROD	M.Leis	ISSUED SECT.	1
DATE	1/12/73	DATE	1/12/73		

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION TU6Ø-AA	TU6Ø-AB
1	D-UA-BCØ5L-Ø-Ø	CABLE, JUMPER	1	1
2	D-UA-H751-A	H751 POWER SUPPLY (115V)	1	
	D-UA-H751-B	H751 POWER SUPPLY (230V)		1
4	D-CS-M776Ø-Ø-1	TU6Ø LOGIC	1	1
5	D-CS-M7761-Ø-1	READ/WRITE AND SERVO	1	1
6	D-PS-1209154-0-0	CHASSIS-TRAK (PAIR	1	1
7	D-AD-7009014-0-0	TRANSPORT ASSY (TU6Ø)	2	2
8	C-MD-7409479-0-0	PLATE, PRESSURE	1	1
9	C-MD-7409904-0-0	BRACKET, SYMMETRICAL	2	2
10	B-MD-7409933-0-0	BUSHING, PIVOT	2	2
11	E-MD-7409941-0-0	COVER, CHASSIS	1	1
12	E-IA-7409943-0-0	CHASSIS (TU6Ø)	1	1
13	D-IA-74009990-0-0	PLATE, CHASSIS, FRONT (TU6Ø)	1	1
14	D-IA-7410556-0-0	BEZEL ASSY	1	1
15	D-IA-7410604-0-0	CARD FRAME ASSY	1	1
16	C-MD-7410690-0-0	BRACKET, SHIPPING	1	1
17	9006020-1	SCR, PHL PAN HD#6-32 x ¼ LG	16	16
18	9006020-3	SCR, PHI TRUSS HD#6-32 x ¼ LG	14	14
19	9006021-3	SCR, PHL TRUSS HD #6-32 x 5/16 LG	7	7
20	9006035-3	SCR, PHL TRUSS HD #8-32 x ¼ LG	11	11
21	9006037-3	SCR, PHL TRUSS HD #8-32 x 3/8 LG	7	7
22	9006040-3	SCR, PHL TRUSS HD #8-32 5/8 LG	2	2

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO
TU6Ø UNIT ASSY	D-UA-TU6Ø-Ø-Ø	A	PL	TU6Ø-Ø-Ø	B	TU6Ø 00012
	SHEET 1 OF 2	DIST				

DEC FORM DEC 16 (325) 1031 N870
DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

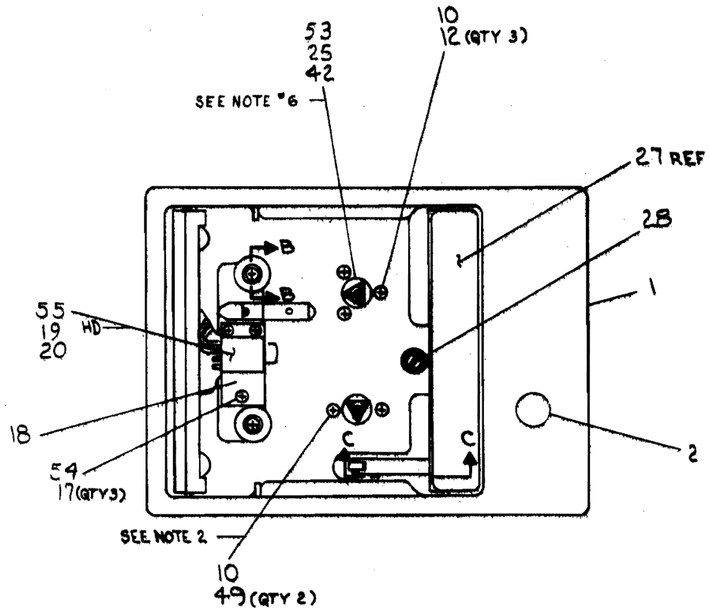
MADE BY	G.Flanders	CHECKED	W.Major	SECTION	1
DATE	12/20/73	DATE	1/3/73		
ENG	M.Leis	PROD	M.Leis	ISSUED SECT.	1
DATE	1/12/73	DATE	1/12/73		

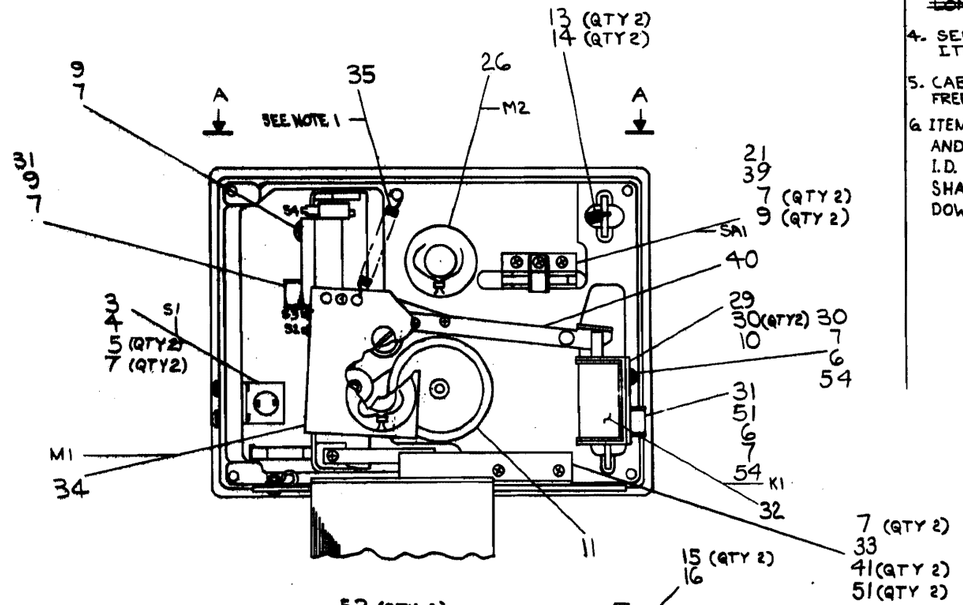
ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION TU6Ø-AA	TU6Ø-AB
23	9006071-3	SCR, PHL TRUSS HD #10-32 x 3/8 LG	9	9
24	9006337-8	SCR, SOCKET HD #8-32 x 3/8 LG	6	6
25	9007080	CABLE CLAMP 3/16	1	1
26	9007649	LOCKWASHER #6 EXT TOOTH	15	15
27	9007786	NUT, #10-32 TINNERMAN	9	9
28	9008072	LOCKWASHER # 8 EXT TOOTH	26	26
29		LOCTITE ?42	A/R	A/R
30		TORQUE SEAL	A/R	A/R

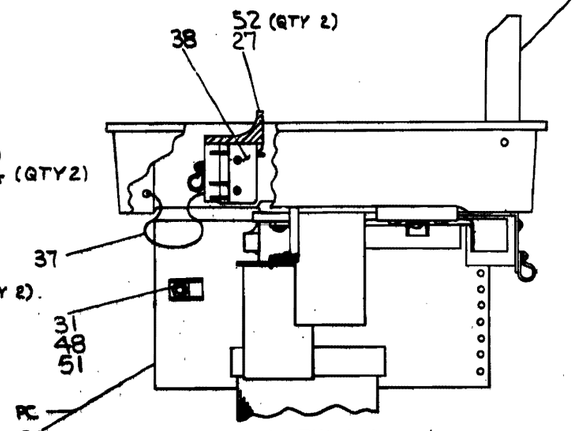
TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO
TU6Ø UNIT ASSY	D-UA-TU6Ø-Ø-Ø	A	PL	TU6Ø-Ø-Ø	B	

| | SHEET 2 OF 2 | DIST | | | | |

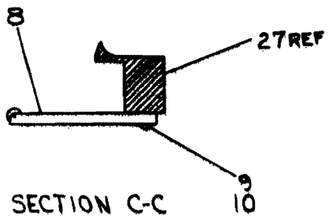
DEC FORM DEC 16 (325) 1031 N870



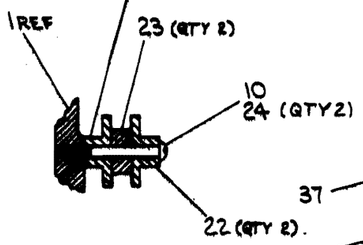




VIEW A-A



SECTION C-C



SECTION B-B

NOTES:

1. SET SPRING TENSION 45/55 GRAMS MEASURED ON ROCKER ASSY LEVER AT POSITION WHERE SOLENOID STRIKES LEVER. TRANSPORT MUST BE IN OPERATING POSITION.
2. TIGHTEN SCR (ITEM #49) TO 6 INCH-POUNDS OF TORQUE.
3. ~~TRIM LEADS OF ITEM #50 (CAP) TO 3/8 LONG BEFORE SOLDERING TO ITEM #36.~~
4. SEE DETAILS B, C & D TO LOCATE ITEM #47 (CABLE TIES).
5. CABLE WILL BE LACED SO AS NOT TO INHIBIT FREE MOTION OF LOCK-BAR #27.
6. ITEM #53 TO BE USED BETWEEN MOTOR SHAFT AND I.D. OF COUPLING. APPLY LOCTITE TO I.D. OF COUPLING AND SLIP ON MOTOR SHAFT. BE SURE LOCTITE DOES NOT RUN DOWN MOTOR SHAFT TO MOTOR BEARING.

REVISIONS				
REV	CHANGE NO			
A	TU60-00008	W.	1.19.73	V. DEMPSEY
B	7009014-0000			
C	TU60-00028		5.1.73	W. LEIS

DRAWING 40-107 12868

DEC FORM 80

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
TU60		PARTS LIST		

UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES. TOLERANCES

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

REMOVE BURRS AND BREAK SHARP CORNERS. SURFACE QUALITY ✓

MATERIAL —

FINISH —

DRWN. [redacted] DATE 12-27-72
CHK'D. W. Mabe DATE 12-27-72
ENG. [redacted] DATE 12-27-72
PROJ. MGR. [redacted] DATE 12-27-72
PROD. [redacted] DATE 1/11/73

NEXT HIGHER ASSY.
D-UA-TU60-0-0

SCALE NONE
SHEET 1 OF 1

[redacted] EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

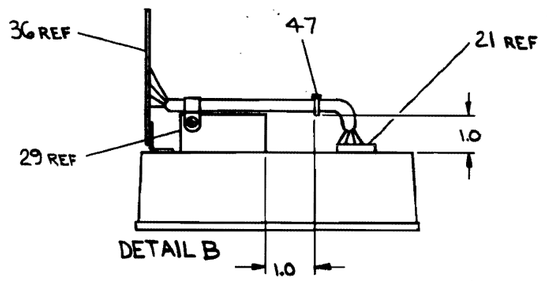
TITLE
TRANSPORT ASSY (TU60)

SIZE CODE: D AD
NUMBER: 7009014-0-0
REV: C

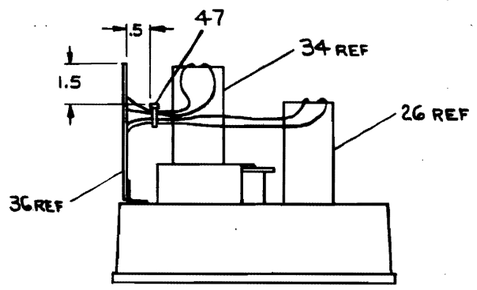
DIST. K2

WIRE TABLE

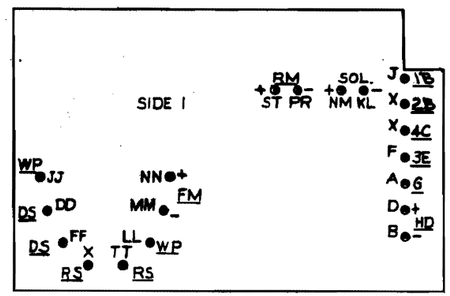
ITEM NO.	DESCRIPTION COLOR	AWG	FROM CONN	FROM WITH	TO CONN	TO WITH	REMARKS	LENGTH
43	ORN	26	S1	SOLDER	PC-X	SOLDER	EITHER S1 TERM.	3.5
43	ORN	26	S1	SOLDER	PC-TT		REMAINING S1 TERM	3.5
⟷	⟷	⟷	S2-C	⟷	PC-DD			⟷
45	WHT	26	HD-TK1A	SOLD&46	PC-D		SEE DETAIL A	4.5
	GRY	26	HD-TK2A	SOLD&46	PC-B			4.5
⟷	⟷	⟷	S3-C	⟷	PC-FF			⟷
⟷	⟷	⟷	S4-C	⟷	PC-LL			⟷
⟷	⟷	⟷	S4-NO	⟷	PC-JJ			⟷
⟷	BLK	⟷	M1-1	⟷	PC-MM			5.0
⟷	RED	⟷	M1-2	⟷	PC-NN			5.0
⟷	BLK	⟷	M2-1	⟷	PC-PR			5.0
⟷	RED	⟷	M2-2	⟷	PC-ST			5.0
⟷	WHT	⟷	K1	⟷	PC-MN		EITHER K1 LEAD	1.25
⟷	WHT	⟷	K1	⟷	PC-KL		REMAINING K1 LEAD	1.25
⟷	BRN	⟷	SA-1	⟷	PC-J		EITHER BRN LEAD	⟷
⟷	BRN	⟷	SA-2	⟷	PC-X		REMAINING BRN LEND	⟷
⟷	BLK	⟷	SA-3	⟷	PC-F			⟷
⟷	ORN	⟷	SA-4	⟷	PC-X	SOLDER		⟷
44	BRN	26	HD-TK1B	SOLD&46	HD-TK2B	SOLD&46	SEE DETAIL A	.75



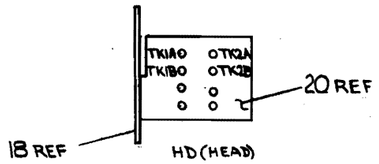
DETAIL B



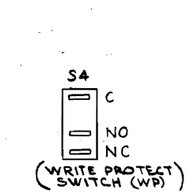
DETAIL C

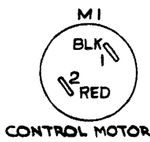


PC
(DRIVE TERMINATOR CARD)

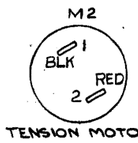


HD(HEAD)

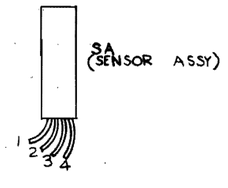


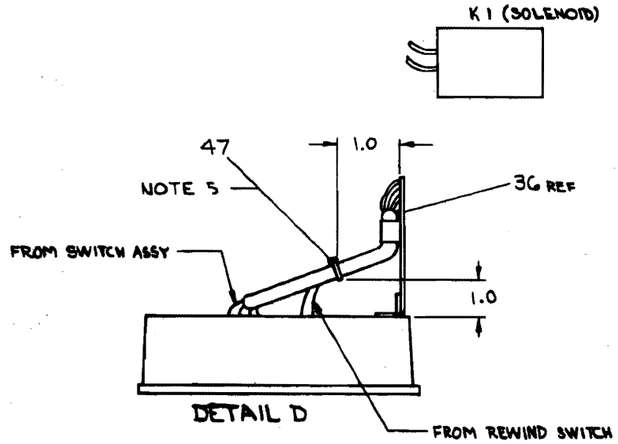


CONTROL MOTOR(CM)

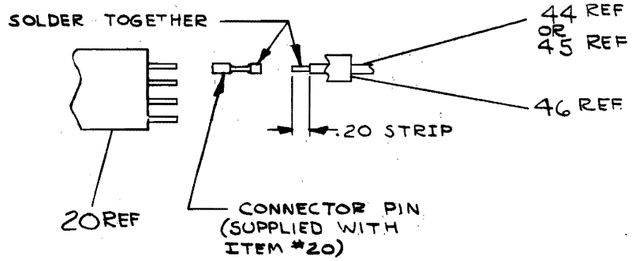


TENSION MOTOR(TM)





DETAIL D



DETAIL A

REV.	CHG.	CHANGE NO.	DESCRIPTION

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
TU60		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 9/27/72
CHK'D	W. Major	DATE 12/21/72
ENG.		DATE 12-19-72
PROJ. ENG.		DATE 12-28-72
PROD.		DATE 1/5/73

NEXT HIGHER ASSY. D-UA-TU60-0-0
SCALE
SHEET 2 OF 2

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE
TRANSPORT ASSY (TU60)

SIZE	CODE	NUMBER	REV.
D	AD	7009014-0-0	C

DIST.

SIZE DOCK D AD NUMBER 7009014-0-0 REV C

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY W. MAJOR
DATE 11/27/72
ENG W Benson
DATE 1-16-73
CHECKED W. Major
DATE 1/16/73
PROD [illegible]
DATE 1/16/73
SECTION 1
ISSUED SECT. 1

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QUANTITY/VARIATION
1	D-IA-7410640-0-0	BASE ASSY	1
2	B-MD-7410518-0-0	BUTTON, REWIND SWITCH	1
3	1211040	SWITCH,PUSHBUTTON SPST	1
4	B-MD-7410519-0-0	BRACKET,REWIND SWITCH	1
5	9006011-1	SCR,PHL HD PAN #4-40 X 3/8	2
6	9008172	WASHER, FLAT #4 S.S.	2
7	9006632	WASHER, INT TOOTH #4	12
8	C-IA-7409930-0-0	EJECTOR ASSY	1
9	9006013-1	SCR,PHL HD PAN #4-40 X 1/2	5
10		LOCTITE 242	A/R
11	D-AD-7009146-0-0	SPINDLE ASSEMBLY	1
12	9009275-2	SCR,PHL HD PAN #4-40 X 3/8	3
13	9009308	SPRING	2
14	9006527	ROLL PIN 3/32 X 11/16 LG	2
15	9006531	ROLL PIN 1/8 X 3/8 LG	2
16	C-IA-7409924-0-0	COVER,LOWER CASSETTE ASSY	1
17	9006001-1	SCR,PHL HD PAN #2-56 X 1/4	3
18	C-MD-7409908-0-0	PLATE,HEAD MOUNT	1
19	9009276	SCR,PHL HD PAN #2-56 X 1/8	1
20	1211174	HEAD	1
21	D-PS-1211289-0-0	SENSOR ASSEMBLY	1
22	C-MD-7409912-0-0	GUIDE, TAPE	4

TITLE: TRANSPORT ASSY (TU6Ø)
ASSY NO. D-AD-7009014-0-0
SHEET 1 OF 3
SIZE A | CODE PL | NUMBER 7009014-0-0 | REV. C | ECO NO. TU60-0001E
DIST.

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

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY W. MAJOR
DATE 11/27/72
ENG W Benson
DATE 1-16-73
CHECKED W. Major
DATE 1/16/73
PROD [illegible]
DATE 1/16/73
SECTION 1
ISSUED SECT. 1

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QUANTITY/VARIATION
23	C-MD-7409911-0-0	SPACER,TAPE GUIDE	2
24	9006015-1	SCR,PHL HD PAN #4-40 X 3/4	2
25	D-PS-1211279-0-0	COUPLING,CASSETTE DRIVE	1
26	1211111	MOTOR, CASSETTE	1
27	D-MD-7409917-0-0	LOCK-BAR,CASSETTE	1
28	9009277-1	SCR,SLOTTED HD PAN #8-32 X 1/4	1
29	C-MD-7409928-0-0	BRACKET, SOLENOID	1
30	9008301-1	SCR,PHL HD PAN #4-40 X 1/4	5
31	9007079	CLAMP,CABLE 5/16	3
32	1211189	SOLENOID	1
33	B-MD-7409929-0-0	BRACKET, TERMINAL BOARD	1
34	C-AD-7009140-0-0	MOTOR MOUNT ASSY	1
35	9009279	SPRING	1
36	D-IA-7009041-0-0	TERMINATOR CABLE ASSY	1
37	C-MD-7410537-0-0	SPRING,LOCK BAR	1
38	C-AD-7009141-0-0	SWITCH ASSY	1
39	B-MD-7410544-0-0	SPACER, E.O.T. BLOCK	1
40	C-AD-7009148-0-0	LEVER ASSY	1
41	9006791	SPACER, AL HEX #4 1/8 LG	2
42	9009274	SCREW, SET #2-56 X 1/8 LG	1
43	9107636-33	WIRE, #26 AWG IPVC STRD ORN	A/R
44	9107636-11	WIRE, #26 AWG IPVC STRD BRN	A/R

TITLE: TRANSPORT ASSY (TU6Ø)
ASSY NO. D-AD-7009014-0-0
SHEET 2 OF 3
SIZE A | CODE PL | NUMBER 7009014-0-0 | REV. C | ECO NO.
DIST.

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

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY W. MAJOR 11/27/72
ENG W Benson
DATE 1-16-73
CHECKED W. Major
DATE 1/16/73
PROD [illegible]
DATE 1/16/73
SECTION 1
ISSUED SECT. 1

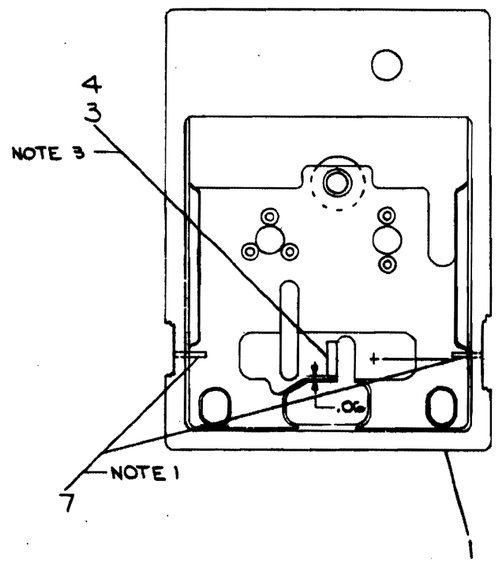
ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QUANTITY/VARIATION
45	9107678-26	WIRE, #26 AWG TEF INS WHT/GRY	A/R
46	9107755	TUBING, SHRINKABLE 3/64 DIA	A/R
47	9007031	TIE,CABLE 3 3/4 LG X 3/32 WIDE	A/R
48	9009280	NUT,HEX #4-40 X 3/16 X 1/16	1
49	9009504-2	SCR,PHL FLAT HD #4-40 X 5/8	2
50	[illegible]	[illegible]	[illegible]
51	9006010-1	SCR,PHL PAN HD #4-40 X 5/16	4
52	9006517	ROLL PIN 1/8 X 1/4 LG	2
53		LOCTITE 18-150	A/R
54		TORQUE SEAL	A/R
55	9006631	WASHER, INT TOOTH #2	1

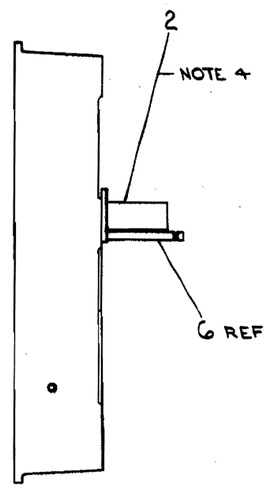
TITLE: TRANSPORT ASSY (TU6Ø)
ASSY NO. D-AD-7009014-0-0
SHEET 3 OF 3
SIZE A | CODE PL | NUMBER 7009014-0-0 | REV. C | ECO NO.
DIST.

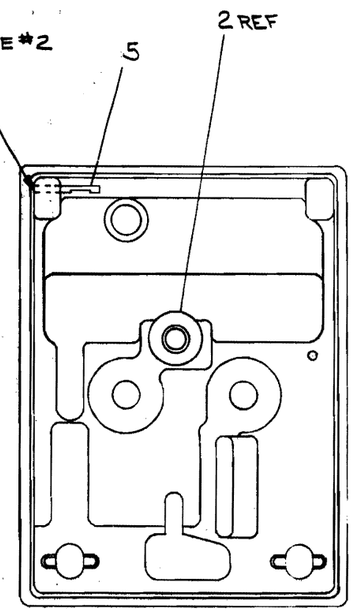
DEC FORM DEC 16-(325)-1031-N870
DRA 110

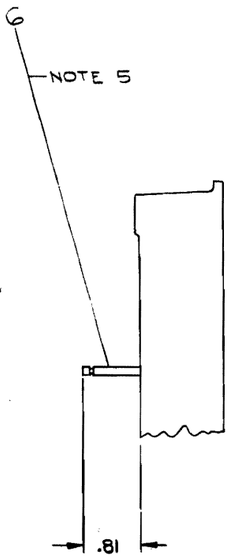
NOTES:

1. ROLL PIN (ITEM #7) TO BE PRESSED FLUSH WITH OUTSIDE SURFACE OF BASE AS SHOWN, 2 PLACES.
2. PIN (ITEM #5) TO BE PRESSED FLUSH WITH THIS SURFACE AS SHOWN. NOTE POSITION OF CUTOUT ON ITEM #5.
3. WHEN MOUNTING SHIM (ITEM #3) TO BASE (ITEM #1), USE LOCTITE IS-06 (ITEM #4) SPARINGLY TO AVOID BUILDUP BUT ENOUGH TO OBTAIN A GOOD BOND. NOTE LOCATION OF SHIM ALONG EDGE OF SLOT IN BASE.
4. BUSHING (#2) TO BE PRESSED INTO ITEM #1 AS SHOWN.
5. PIN (#6) TO BE PRESSED INTO ITEM #1 TO DIMENSION SHOWN.









2	ROLL PIN	9006531	7
1	PIN, SPRING, MOTOR BIAS	C-MD-7409934-0-0	6
1	PIN, ANCHOR	C-MD-7410539-0-0	5
A/R	LOCTITE IS-06		4
1	SHIM, SKEW	B-MD-7410553-0-0	3
1	BUSHING, ROCKER	B-MD-7409938-0-0	2
1	BASE, CASSETTE TRANS (W.PCH)	E-MD-7409535-0-0	1
QTY.	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

FIRST USED ON OPTION/MODEL: TU60

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES

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

REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓

MATERIAL

FINISH

DRN. T. Davis 4-15-72
CHK'D W. Major
ENG. W. Bowers
PROD. ENG.
NEXT HIGHER ASSY. D-AD-7009014-0-0
SCALE 1/1
SHEET OF

[redacted] EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

TITLE: BASE ASSY

SIZE CODE: D IA | NUMBER: 7410640-0-0 | REV: A

DIST.

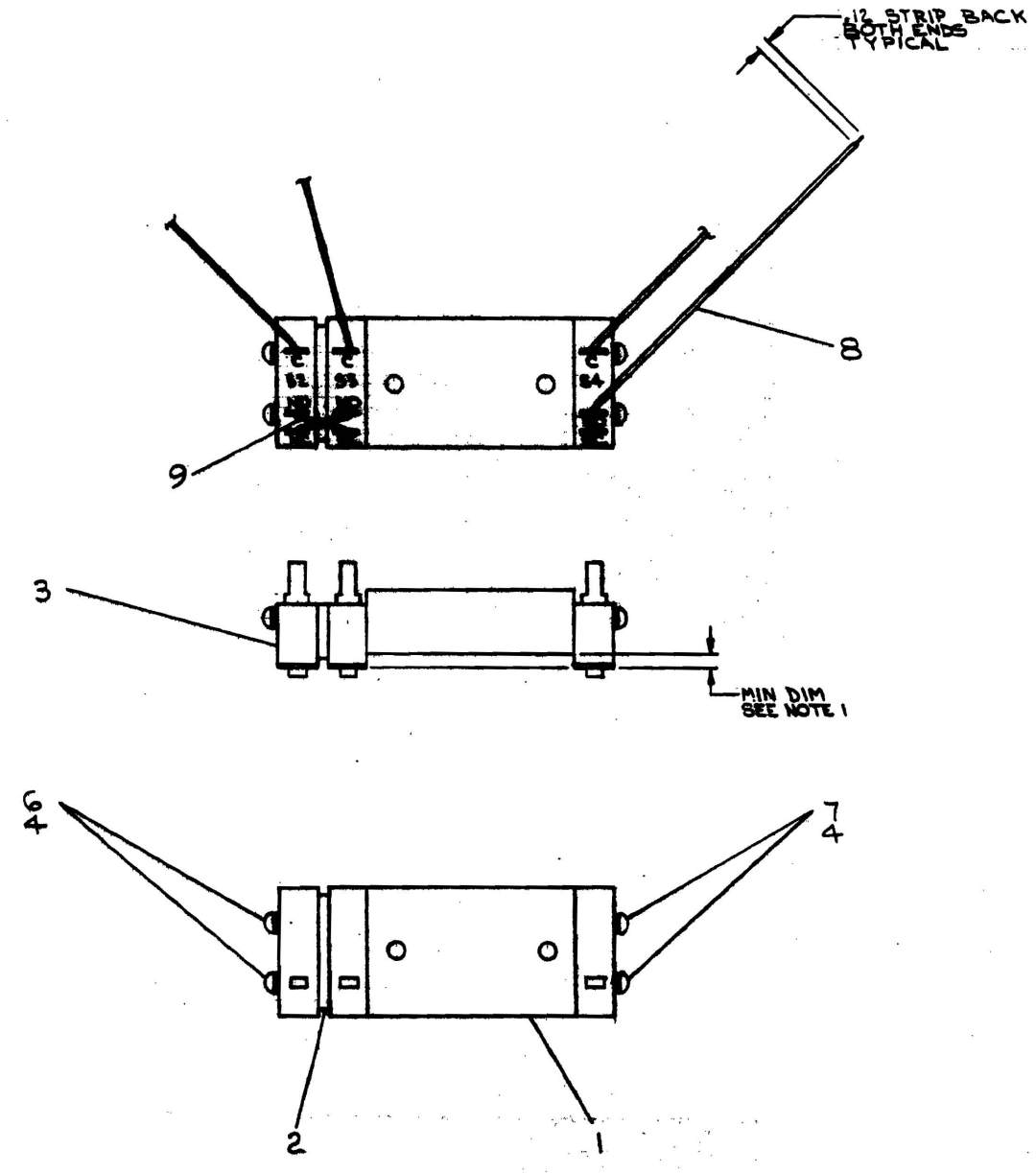
REVISIONS			
SYM	ORDER NO.	REV.	
	TU60-00012	A	

DRAWN 4-15-72
CHECKED
APPROVED

SIZE CODE: D IA | NUMBER: 7410640-0-0 | REV: A

WIRE TABLE

ITEM NO.	DESCRIPTION COLOR	AWG	FROM CONN	FROM WIRE	TO CONN	TO WIRE	LENGTH
8	BRN	22	S1-C	SOLDER			6"
9	BUSS	22	S1-NO	SOLDER	S3-NC	SOLDER	.75"
9	BUSS	22	S2-NC	SOLDER	S3-NO	SOLDER	.75"
8	BRN	22	S3-C	SOLDER			6"
8	BRN	22	S5-C	SOLDER			6"
8	BRN	22	S4-NO	SOLDER			4.8"



NOTES:
1. SWITCHES MUST BE ADJUSTED AT ASSY TO OBTAIN MINIMUM DIMENSION FROM BOTTOM SURFACE OF SWITCHES TO BOTTOM SURFACE OF SWITCH BLOCK.

QTY.	DESCRIPTION	PART NO.	ITEM NO.
A/R	WIRE, BUSS, #22 AWG	9107580-01	9
A/R	WIRE, #22 AWG, IPVC., STRD	9107636-11	8
2	SCR, PHL HD PAN 2-56 X 1/4 SST	9006005-1	7
2	SCR, PHL HD PAN 2-56 X 3/4 SST	9006006-1	6
[illegible]	[illegible]	[illegible]	5
4	WASHER, INT TOOTH #2 SST	9006651	4
3	SWITCH, MICRO	12057182	3
1	SPACER, MICRO SWITCH	9107605-00	2
1	BASE, SWITCH	9107607-0-0	1

FIRST USED ON OPTION NO.: TU60

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: —

NEXT HIGHER ASSY.: 9107605-0-0

DRAWN: [redacted] DATE 11/6/72
CHKD: W. DeMaio DATE 12/8/72
ENGR: [illegible] DATE 11-7-72
RELIAB: [illegible] DATE [illegible]
PROJ: [illegible] DATE [illegible]
MFG: [illegible] DATE [illegible]

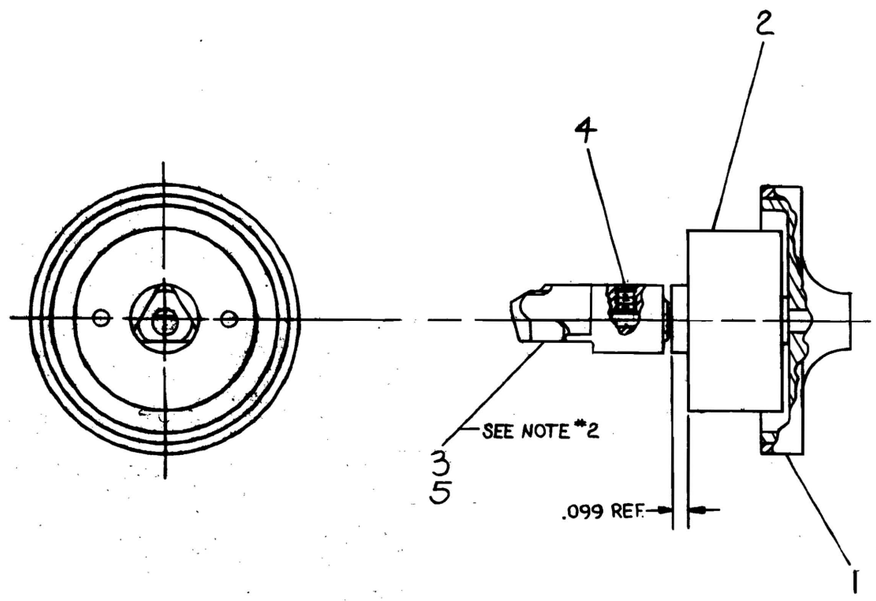
[redacted] EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE: SWITCH ASSY

SIZE B | CAGE CODE 07700 | NUMBER AD-7009141-0-0 | REV. A
SCALE: 1/1 | SHEET 1 OF 1

AD-7009141-0-0 B

REVISIONS			
SYM	CHANGE NO.		
A	TU60-00012	[illegible]	4-5-73



NOTES:
1. ITEM #3 TO BUTT AGAINST SHOULDER OF SPINDLE.
2. LOCTITE TO BE USED BETWEEN SPINDLE SHAFT AND I.D. OF COUPLING. APPLY LOCTITE TO I.D. OF COUPLING AND SLIP ON SPINDLE SHAFT. BE SURE LOCTITE DOES NOT RUN DOWN TO BEARING.

QTY.	DESCRIPTION	PART NO.	ITEM NO.
A/R	LOCTITE IS 150		5
1	SCREW, SET, #2-56	9009274	4
1	COUPLING, CASSETTE DRIVE	D-PS-1211279-0-0	3
1	BEARING	C-MD-7410692-0-0	2
1	PULLEY, DRIVE ASSY	C-IA-7409914-0-0	1

PARTS LIST

FIRST USED ON OPTION/MODEL: TU60

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: SS
FINISH: SS

DRN: L Carberry DATE 9/11/72
CHK'D: W. Major DATE 10/25/72
ENG: M Bowen DATE 10/27/72
PROD. ENG. DATE 10/27/72
DATE 10/27/72

NEXT HIGHER ASSY.: D-AD-7009014-0-0
SCALE 2/1
SHEET 1 OF 1

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

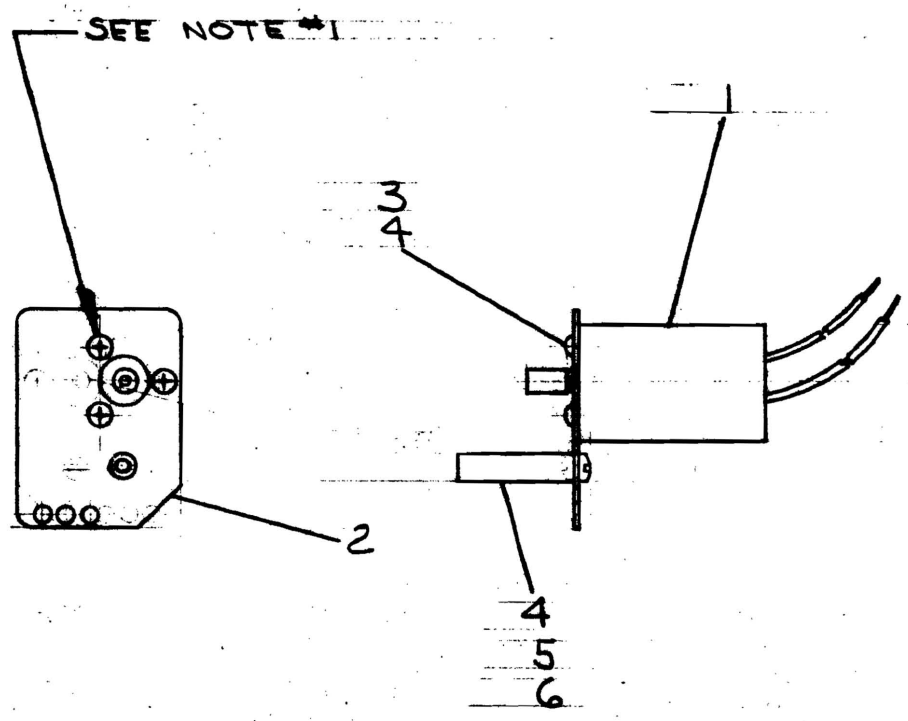
TITLE: SPINDLE ASSY

SIZE	CODE	NUMBER	REV.
C	AD	7009146-0-0	B

DIST. C

DRAWING 40-107 15M8

NOTES:
1: LOCTITE(#4) TO BE APPLIED TO THREADS OF ITEMS #3 & #5.



QTY.	DESCRIPTION	PART NO.	ITEM NO.
1	PIVOT, MOTOR	C-MD-7403715-0-0	6
1	SCR, SLOT HD PAN	9009277	5
A/R	LOCTITE 242		4
3	SCR, PHL PAN HD 4-40-1/4	9008301-1	3
1	MOUNT, MOTOR	C-MD-7409110-0-0	2
1	DRIVE MOTOR ASSY	C-YA-7009159-0-0	1

PARTS LIST

FIRST USED ON OPTION/MODEL: TU6Ø

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES: DECIMALS .XXX ± .005, .XX ± .02, .X ± .1; ANGLES ±0° 30'

DRN. K Smith 9-12-72
CHK'D W Major 9-12-72
APP'D [illegible] DATE

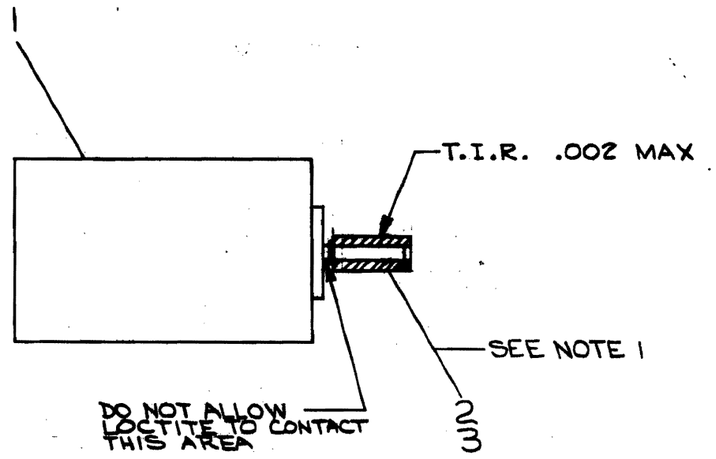
[redacted] EQUIPMENT CORPORATION

TITLE: MOTOR MOUNT ASSY

NUMBER: C-MD-7009140-0-0 REV. A

REV.	DESCRIPTION	DATE	APPROVED
A	ECO 1115	1-2-73	[illegible]

C-MD-7009140-0-0 REV. A



NOTES:
1. SLEEVE (#2) TO BE PRESSED ON MOTOR SHAFT TO "E" RING. LOCTITE TO BE APPLIED SPARINGLY TO INSIDE OF SLEEVE BEFORE ASSEMBLY.

QTY.	DESCRIPTION	PART NO.	ITEM NO.
A/R	LOCTITE IS-150		3
1	SLEEVE, MOTOR	C-MD-7009913-0-0	2
1	MOTOR	12111111	1

PARTS LIST

REV.	CHNGE NO.	
A	TU60-00012	5-10-72 M.LEIS

BURNING 40-107 13946

FIRST USED ON OPTION/MODEL: TU60

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. E. Carberry	DATE 10-5-72	
CHK'D. W. Major	DATE 10/25/72	
ENG. W. Pierson	DATE 10/27/72	
PROJ. ENG.	DATE 10/27/72	
	DATE 10/27/72	

NEXT HIGHER ASSY. C-AD-7009140-0-0

SCALE 2/1

SHEET 1 OF 1

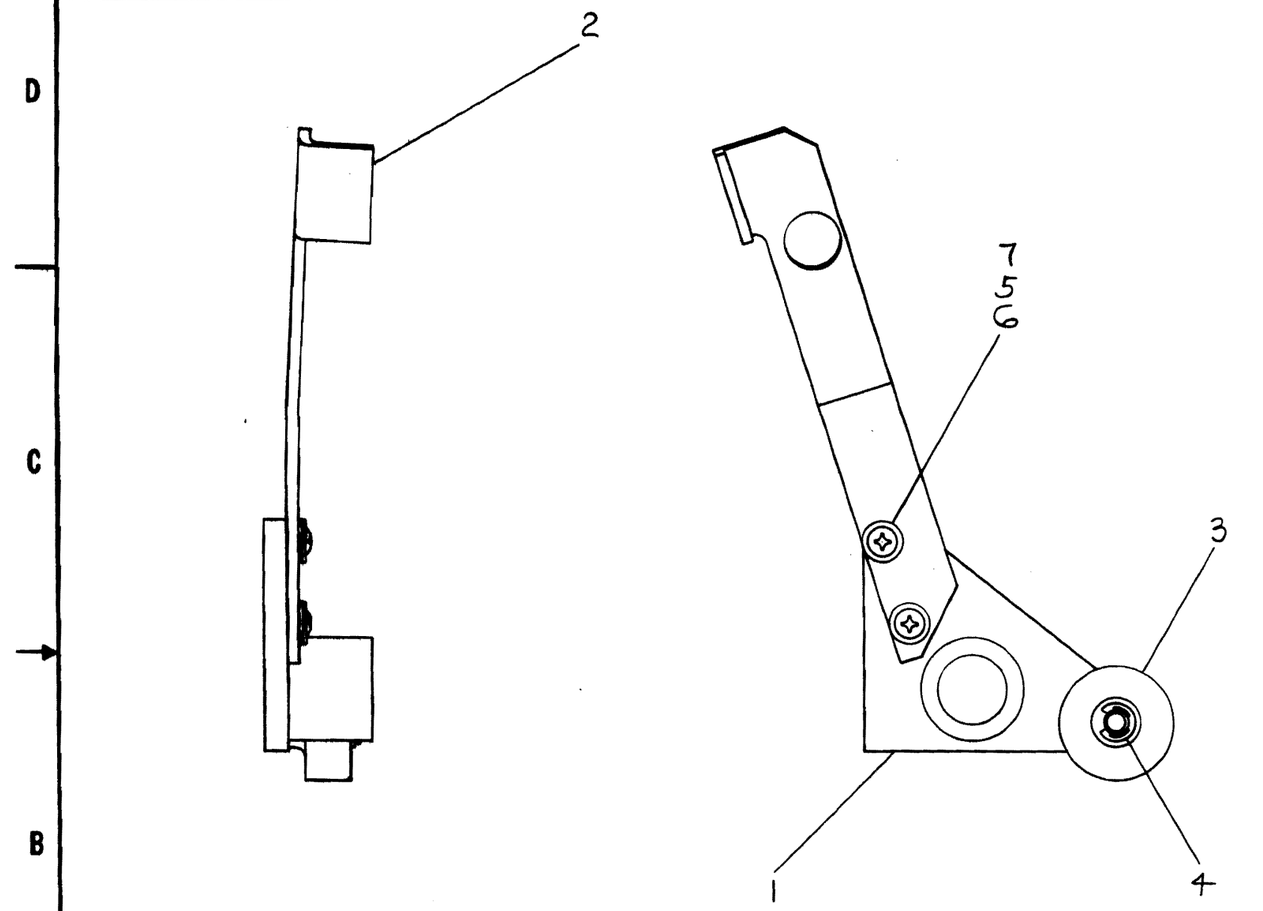
digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: DRIVE-MOTOR ASSY

SIZE	CODE	NUMBER	REV.
C	IA	7009139-0-0	A

DIST. G

7009139-0-0 C IA



QTY.	DESCRIPTION	PART NO.	ITEM NO.
2	WASHER, FLAT #4	9008172	7
2	WASHER, INT TOOTH TYPE, #4	9006632	6
2	SCR, #4-40 X 1/4, PHL PAN HD	9008301-1	5
1	RING, RETAINING	9009273	4
1	ROLLER, IDLER	C-MD-7409932-0-0	3
1	LEVER, ROCKER	C-MD-7409931-0-0	2
1	ROCKER ASSY	C-IA-7409919-0-0	1

PARTS LIST

FIRST USED ON OPTION/MODEL: TU60

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: SS

FINISH: SS

DRN. F. Carberry	DATE 9/12/72	d g EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D W. Major	DATE 11/1/72	TITLE: LEVER ASSY
ENG. Cody Bergen	DATE 11/1/72	
PROJ. ENG. Tom Lee	DATE 11/6/72	
	DATE	

NEXT HIGHER ASSY.: D-AD-7009014-0-0

SCALE 2/1

SHEET 1 OF 1

SIZE C | CODE AD | NUMBER 7009148-0-0 | REV.

DIST. G

SIZE C | CODE AD | NUMBER 7009148-0-0 | REV.

REVISIONS			
ECO NO. 48-197 10/26/72	CHANGE NO.	CHK	REV.

DEC FORM NO. DSC 100-A

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION DATE 5/17/73

TITLE TA11 ACCEPTANCE PROCEDURE

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

This document describes the TA11 Acceptance Procedure. Section 1 through 5 describes acceptance at the option level. Section 6 describes acceptance at a system level.

NOTE: Any failure or deficiencies noted during this procedure shall be corrected before proceeding to the next step.

ENG	APPD	SIZE	CODE	NUMBER	REV
Dan Mutnansky	Daniel Mutnansky	A	SP	TA11-0-11	

DEC 16-(3825-1079-N0971
DRA 107

ENGINEERING SPECIFICATION [redacted] CONTINUATION SHEET

TITLE TA11 ACCEPTANCE PROCEDURE

1.0 ACCEPTANCE HARDWARE

1.1 TA11 Cassette interface module.

1.1.1 M7892 with priority level #6.

1.2 TU60 Cassette dual drive.

1.2.1 TA11-AA; TU60-AA Cassette, dual drive, 115 VAC, 50-60 HZ, rack mountable.

1.2.2 TA11-AB; TU60-AB Cassette, dual drive, 230 VAC, 50-60 HZ, rack mountable.

1.3 Interface Cables

1.3.1 Two (2) BC08S-15.

2.0 ACCEPTANCE ACCESSORIES

2.1 Cassette MAINDEC LIBKIT-11-TA11A-K

2.1.1 TA11 Cassette Diagnostics

11-DSTAA Basic Test (Part 1)
11-DSTAB Basic Test (Part 2)
11-DSTAC Manual Intervention Test
11-DSTAD Motion Test
11-DSTAE Data Reliability

2.2 TA11 Manual, DEC-11-HTACA-A-D

2.3 TU60 Maintenance Manual, DEC-00-TU60-DA

2.4 TA11 Print Set, B-DD-TA11-0

2.5 DEC 150 - Cassette tapes (2) PN36-11226

3.0 INSPECTION

3.1 Utilize drawing directory to assure that the print sets are complete.

3.2 Use parts list and accessory list to verify that all items are present.

3.3 Assure diagnostics waiver sheet (if applicable) manuals, ECO status sheet, and QC status sheet are present.

3.4 Inspect interface (M7892) and TU60 modules (M7760 and 7761) to insure conformance to:

	SIZE	CODE	NUMBER	REV
	A	SP	TA11-A-B-11	

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

SHEET 2 OF 7

ENGINEERING SPECIFICATION [redacted] CONTINUATION SHEET

TITLE TA11 ACCEPTANCE PROCEDURE

3.4 A. Final inspection procedure for Flip Chip modules (A-SP-7665039-0-0).

B. Module Rework Standards (A-SP-7605845-0-0).

3.4.1 Assure that adjustments are sealed on TU60 modules.

3.5 Check the M7892, M7760, and M7761 for legible three character date code.

3.6 Check the M7892, M7760, and M7761 to insure that circuit and etch revisions are up to current ECO levels. Perform a visual inspection of cables and wiring.

3.7 Check the M7892 to insure that the device address and vector address jumpers are in the correct configuration.

3.7.1 Address (777500) - jumpers installed: A3, A4, A5, A7, jump for a zero.

3.7.2 Vector (260) - jumpers installed: V4, V5, V7, jump for a one.

3.7.3 Assure that priority jumper is level 6 and installed correctly.

3.8 Multiple controllers on a system will be assigned addresses and vectors as follows:

Options have been separated into two classes, those with fixed vectors and those with floating vectors. Installation of a duplicate standard fixed vector device on the Unibus (i.e., 2-RF11 Disk Controllers) creates a non-standard configuration which no system software can support.

A procedure to use for assigning addresses and vectors to the duplicate device follows:

1. Use the following list to determine the sequence of selection:

   AA11, AD01, AFC11, CD11, CR11, CM11, KW11-L, KW11-P, LP11, PC11, RC11, RF11, RK11, RP11, TM11, UDC11, DR11-B, and LPS11.

2. Vector assignments should be selected in the following sequence:

   170, 174, 270, 274

	SIZE	CODE	NUMBER	REV
	A	SP	TA11-A-B-11	

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

SHEET 3 OF 7

ENGINEERING SPECIFICATION [redacted] CONTINUATION SHEET

TITLE TA11 ACCEPTANCE PROCEDURE

3.8 2. (Continued)

Then use the high end of vector locations assigning downward:

774, 770, 764, 760, and continuing toward 300.

3. Device addresses assigned from the user area, 764000 and upward.

NOTE: A DR11-B would start at 764010. This assignment of extra addresses and vectors is a change from the original issuance of the option bulletin. The address for a DR11-B must have address Bit 03 as a one, i.e., XXXX10, XXXX30, XXXX50, - each address is +20 greater.

4.0 INSTALLATION

4.1 Ensure that the power switch on the processor is turned off. Ensure that power is removed from the box which will contain the interface module(s). Ensure that TU60 power is turned off.

4.2 Remove the cover from the TU60 and the two screws holding the hex modules (M7760 and M7761) down.

4.3 Connect the interface cables to the M7892. (Reference TA11 Interconnection Drawing 4.3A on sheet 7).

4.4 Install the interface card into the appropriate system unit (Last device on BR6) Bus Load = 1, amps at 5V = 1.5.

4.5 Route the cables through the opening below the fan on the rear of the TU60.

4.6 Connect the cables to the M7760 module in the TU60. (Reference TA11 Interconnection Dwg. 4.3A on sheet 7).

4.7 Connect the TU60's AC power cord to a source of switched AC power amps at 115V = 1.5.

5.0 ACCEPTANCE TESTING

5.1 Hardware requirements (minimal)

5.1.1 ASR-33 teletype or equivalent.

5.1.2 A PDP-11/05, 11/15, 11/20, 11/40 with 8K Memory.

	SIZE	CODE	NUMBER	REV
	A	SP	TA11-A-B-11	

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

SHEET 4 OF 7

5.2 Testing Procedure

5.2.1 Ensure TU60's power switch is in the OFF position.

5.2.2 Energise the PDP-11 processor.

5.2.3 Place the TU60 power switch in the ON position and observe that the two (one on each drive) power on indicators light.

5.2.4 Insert a cassette into each drive with the tape wound around the lower hub. Refer to TU60 Maintenance Manual, Chapter 2, for cassette insertion and removal procedure. Check to see that the drive receives the cassettes without binding.

5.2.5 Ensure that tape does not creep from one hub to another.

5.2.6 Momentarily depress the rewind pushbutton on each drive and insure that the tape completely rewinds (move tape to upper reel) to the BOT clear leader (about 70 seconds).

5.2.7 Momentarily depress the rewind pushbutton on each drive rewinding for about one second, hitting the cassette stops.

5.2.8 Perform the following tests in order, utilising the loading and operating procedure in the program document. All programs will be run in worst case mode (switches = 0).

5.2.8.1 11-DSTAA Basic Test (Part 1) run until "Testing Drive B" is printed the second time, then halt the test, each Control.
Tests Drive A (single iteration)
Tests Drive B (full iteration)
Tests Drive A (full iteration)
then Halt.

5.2.8.2 11-DSTAB Basic Test (Part 2) run until "Testing Drive B" is printed the second time, then halt the test. Do for each controller.

5.2.8.3 11-DSTAC Manual Intervention (one pass) run until "Testing Drive A" is printed the second time.

5.2.8.4 11-DSTAB Motion Test (2 passes) run until second "Testing Drives A & B" is printed.

5.2.8.5 11-DSTAB Data Reliability run until "End of Test" is typed the second time. Reference conditions specified in section 5.2.8.6.

5.2.8.6 One soft error per drive while performing step 5.2.8.5 is acceptable. If, while performing step 5.2.8.5 more than one soft error per drive is observed, the testing should be stopped. The tape guides and the head are to be cleaned with magnetic head cleaner, and the cassette on the failing drive replaced.

5.2.8.7 For multiple-unit data testing the DEC-X11 module should be utilised instead of DZTAE. However, the previously stated criteria in 5.2.8.6 must be adhered to.

6.0 SYSTEM TESTING

6.1 Run DEC-X11 or GTP with appropriate overlay to insure system compatibility. To insure system compatibility run for 10 minutes. However, if the system is run for longer than 10 minutes an error rate of not more than one soft error per hour should occur.

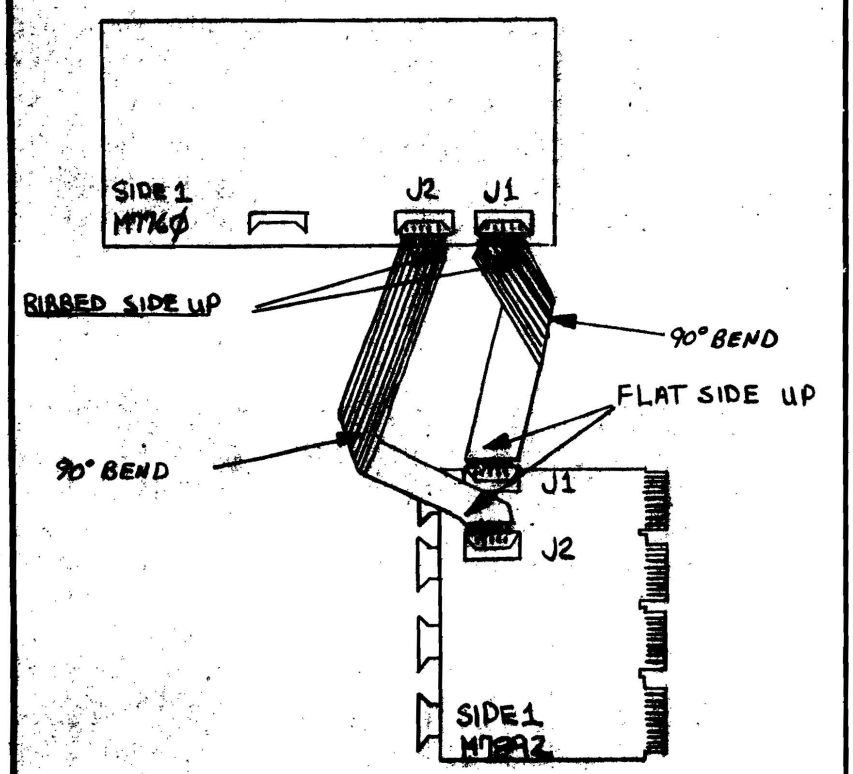


FIG 4.3 A
TA11 INTERCONNECTION DRAWING