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FIELD MAINTENANCE PRINT SET

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UNIT VARIATIONS COVERED BY THIS PRINT SET
RTP20-EA
RTP20-EB
RTP20-EC
RTP20-ED
RTP20-EE
RTP20-EF
RTP20-EH
RTP20-EJ
RTP20-FA
RTP20-FB
RTP20-FC
RTP20-FD

Field Maintenance Print Set

Digital Equipment Corporation

MP01230

REVISIONS	REV				USED ON OPTION/MODEL	DRN.	DATE		
	CHG. NO.				RTP20	<i>Joe Donahoe</i>	30 80 oct		TITLE: RTP20 FIELD MAINTENANCE PRINT SET
	DATE					<i>J. Huson</i>	Dec 80		
						<i>B. McQuain</i>	15 DEC 80		
					SHEET 1 OF 1	<i>E. Brown</i>	15 DEC 80		SIZE B CODE TC NUMBER RTP20-0-0 REV. A DIST.

REV. A
NUMBER RTP20-0-0
CODE TC
SIZE B


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DRAWING DIRECTORY

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UNIT VARIATIONS

VAR	TITLE
RTP20-EA	MASTER SUBSYSTEM 60HZ (1091)
RTP20-EB	MASTER SUBSYSTEM 50HZ (1091)
RTP20-EC	DUAL CHANGE OPTION 60HZ (RTP20-EA)
RTP20-ED	DUAL CHANGE OPTION 50HZ (RTP20-EB)
RTP20-EE	MASTER SUBSYSTEM 60HZ (1090)
RTP20-EF	MASTER SUBSYSTEM 50HZ (1090)
RTP20-EH	DUAL CHANNEL OPTION 60HZ (RTP20-EE)
RTP20-EJ	DUAL CHANNEL OPTION 50HZ (RTP20-EF)
RTP20-FA	MASTER SUBSYSTEM 60HZ (2040/60)
RTP20-FB	MASTER SUBSYSTEM 50HZ (2040/60)
RTP20-FC	DUAL CHANNEL OPTION 60HZ (RTP20-FA)
RTP20-FD	DUAL CHANNEL OPTION 50HZ (RTP20-FB)

REVISIONS	REV.		USED ON OPTION/MODEL		DRN.	DATE	TITLE													
	CHANGE NO.		RTP20		Joe Donahan	30 Oct 80	RTP20 DRAWING DIRECTORY													
	CHK				CHK'D.	DATE														
					L. Huson	2 Dec 80														
					PROJ. ENG.	DATE														
				B. M. Quinn	15 Dec 80	SIZE CODE NUMBER REV		B	DD	RTP20-000	A									
				PROD.	DATE	DIST.														
				SHEET 1 OF 3	SE Banitt	15 DEC 80														

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	B-DD-RTP2Ø-Ø-Ø	RTP2Ø DRAWING DIRECTORY	E/M	6	B-DD-RP2Ø-H-Ø	RP2Ø-H DRAWING DIRECTORY	E/M
	K-PL-RTP2Ø-Ø-DBP	RTP2Ø DISK DRIVE SYSTEMS (PL)	E/M				
	B-PL-RTP2Ø-Ø-Ø	RTP2Ø SHIP LIST	E/M				
2	B-DD-RH2Ø-Ø-Ø	RH2Ø DRAWING DIRECTORY	E/M				
3	B-DD-DX2Ø-Ø-Ø	DX2Ø DRAWING DIRECTORY	E/M				
4	B-DD-RP2Ø-A-Ø	RP2Ø-A DRAWING DIRECTORY	E/M				
5	B-DD-RP2Ø-D-Ø	RP2Ø-D DRAWING DIRECTORY	E/M				

TYPE: E ELECTRICAL
M MECHANICAL
E/M ELECTRO/MECHANICAL



TITLE
RTP2Ø DRAWING DIRECTORY

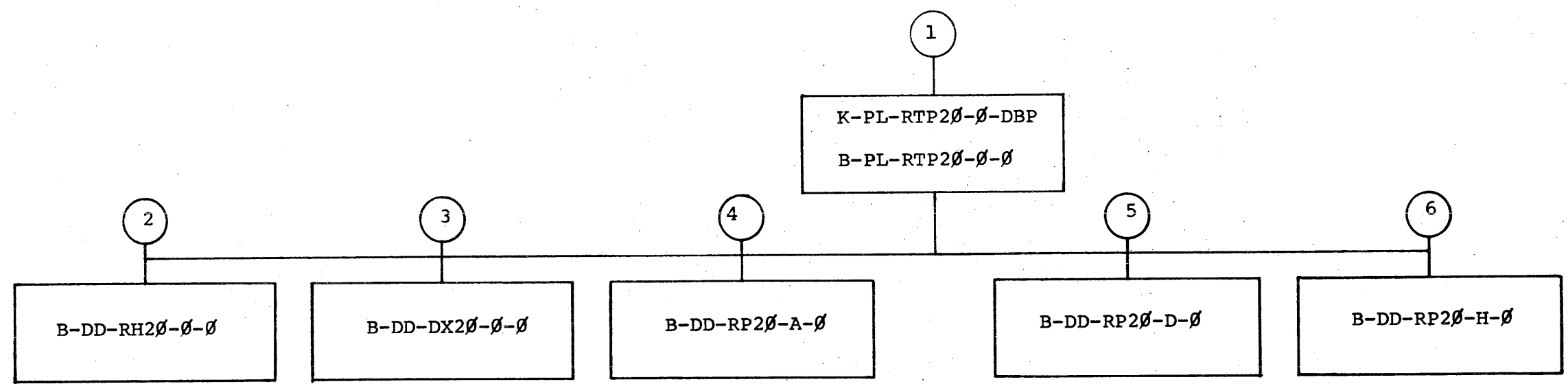
SHEET 2 OF 3

SIZE CODE
B DD

NUMBER
RTP2Ø-Ø-Ø

REV
A

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LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION													
				EA	EB	EC	ED	EE	EF	EH	EJ	FA	FB	FC	FD		
1	1	A=PL=RH20=0=0	ORH20=00	MASS BUS CONTROLLER	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	E=UA=DX20=0=0	ODX20=BE	DX20=BC WITH BLUE COSMETIC COVER	1	0	1	0	0	0	0	0	0	0	0	0	0
3	3	B=DD=RP20=H=0	ORP20=HA	SINGLE ACCESS CONTROL FOR RP20=A	1	0	0	0	1	0	0	0	0	1	0	0	0
4	4	K=PL=RP20=A=DBP	ORP20=AA	SINGLE PORT MASTER DISK,3 PHASE	1	0	0	0	1	0	0	0	0	0	0	0	0
5	5	E=UA=DX20=0=0	ODX20=BF	DX20=BD WITH BLUE COSMETIC COVER	0	1	0	1	0	0	0	0	0	0	0	0	0
6	6	B=DD=RP20=H=0	ORP20=HB	SINGLE ACCESS CONTROL FOR RP20=A	0	1	0	0	0	1	0	0	0	0	1	0	0
7	7	K=PL=RP20=A=DBP	ORP20=AB	SINGLE PORT MASTER DISK,3 PHASE	0	1	0	0	0	1	0	0	0	0	0	0	0
8	8	B=DD=RP20=D=0	ORP20=DA	DUAL ACCESS CONTROL UPGRADE KIT	0	0	1	1	0	0	1	1	0	0	1	1	1
9	9	E=UA=DX20=0=0	ODX20=BA	DISK MICROCODE INTFCE TO IBM MUX	0	0	0	0	1	0	1	0	0	0	0	0	0
10	10	E=UA=DX20=0=0	ODX20=BB	DISK MICROCODE INTFCE TO IBM MUX	0	0	0	0	0	1	0	1	0	0	0	0	0
11	11	E=UA=DX20=0=0	ODX20=BC	DISK MICROCODE INTFCE TO IBM MUX	0	0	0	0	0	0	0	0	1	0	1	0	0
12	12	K=PL=RP20=A=DBP	ORP20=AE	SINGLE PORT MASTER DISK,3 PHASE	0	0	0	0	0	0	0	0	1	0	0	0	0
13	13	E=UA=DX20=0=0	ODX20=BD	DISK MICROCODE INTFCE TO IBM MUX	0	0	0	0	0	0	0	0	0	0	1	0	1
14	14	K=PL=RP20=A=DBP	ORP20=AF	SINGLE PORT MASTER DISK,3 PHASE	0	0	0	0	0	0	0	0	0	1	0	0	0

REVISION HISTORY			BASIC PART NO: RTP20	DRN: J, DONAHER	DATE: 30-OCT-80	D I G I T A L				
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: J, HUSON	DATE: 19-NOV-80	TITLE		PARTS LIST		
	INITIAL	A	SECTION, VARIATION INDEX			RTP20 DISK DRIVE SUB SYSTEMS				
			(A) EA,EB,EC,ED,EE,EF, EH,EJ,FA,FB,FC,FD	DES,ENG, B MCQUAIN	DATE: 15-DEC-80			DOCUMENT NUMBER		
			(B)	RESP,ENG, B MCQUAIN	DATE: 15-DEC-80	SIZE	CODE	NUMBER	REV	
			(C)			K	PL	RTP20=0=DBP	A	
			(D)							
			(E)	MFG,ENG, T BARRETT	DATE: 15-DEC-80					
			(F)	ASSEMBLY NUMBER: B=AR-RTP20=0=0	TOP DOCUMENT NUMBER: B=DD-RTP20=0=0	FILE NAME: Z1705A,PLS		EDIT # 10		

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DIGITAL EQUIPMENT CORPORATION PARTS LIST

MADE BY <i>Joe Donaher</i>	CHECKED <i>J. Huson</i>	SECTION
DATE <i>30-OCT-80</i>	DATE <i>2 Dec 80</i>	
ENG <i>B.M. Quinn</i>	PROD <i>SE 2 unit</i>	ISSUED SECTION
DATE <i>15 DEC 80</i>	DATE <i>15 DEC 80</i>	

QUANTITY / VARIATION

NOTES:

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	QUANTITY / VARIATION												REF DESIGNATION	
				RTP20-EA	RTP20-EB	RTP20-EC	RTP20-ED	RTP20-EE	RTP20-EF	RTP20-EH	RTP20-EJ	RTP20-FA	RTP20-FB	RTP20-FC	RTP20-FD		
1.	K-PL-RTP20-0-DBP	RTP20-EA	MASTER SUBSYSTEM 60HZ (1091)	1	-	-	-	-	-	-	-	-	-	-	-	-	-
2.	K-PL-RTP20-0-DBP	RTP20-EB	MASTER SUBSYSTEM 50HZ (1091)	-	1	-	-	-	-	-	-	-	-	-	-	-	-
3.	K-PL-RTP20-0-DBP	RTP20-EC	DUAL CHANNEL OPTION 60HZ (RTP20-EA)	-	-	1	-	-	-	-	-	-	-	-	-	-	-
4.	K-PL-RTP20-0-DBP	RTP20-ED	DUAL CHANNEL OPTION 50HZ (RTP20-EB)	-	-	-	1	-	-	-	-	-	-	-	-	-	-
5.	K-PL-RTP20-0-DBP	RTP20-EE	MASTER SUBSYSTEM 60HZ (1090)	-	-	-	-	1	-	-	-	-	-	-	-	-	-
6.	K-PL-RTP20-0-DBP	RTP20-EF	MASTER SUBSYSTEM 50HZ (1090)	-	-	-	-	-	1	-	-	-	-	-	-	-	-
7.	K-PL-RTP20-0-DBP	RTP20-EH	DUAL CHANNEL OPTION 60HZ (RTP20-EE)	-	-	-	-	-	-	1	-	-	-	-	-	-	-
8.	K-PL-RTP20-0-DBP	RTP20-EJ	DUAL CHANNEL OPTION 50HZ (RTP20-EF)	-	-	-	-	-	-	-	1	-	-	-	-	-	-
9.	K-PL-RTP20-0-DBP	RTP20-FA	MASTER SUBSYSTEM 60HZ (2040/60)	-	-	-	-	-	-	-	-	-	1	-	-	-	-
10.	K-PL-RTP20-0-DBP	RTP20-FB	MASTER SUBSYSTEM 50HZ (2040/60)	-	-	-	-	-	-	-	-	-	-	1	-	-	-
11.	K-PL-RTP20-0-DBP	RTP20-FZ	DUAL CHANNEL OPTION 60HZ (RTP20-FA)	-	-	-	-	-	-	-	-	-	-	-	1	-	-
12.	K-PL-RTP20-0-DBP	RTP20-FD	DUAL CHANNEL OPTION 50HZ (RTP20-FB)	-	-	-	-	-	-	-	-	-	-	-	-	-	1

E.C.O. NO.

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TITLE **RTP20 SHIP LIST**

ASSY NO.

SIZE
B

CODE
PL

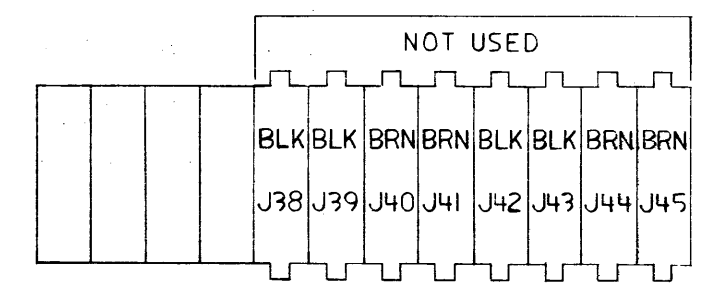
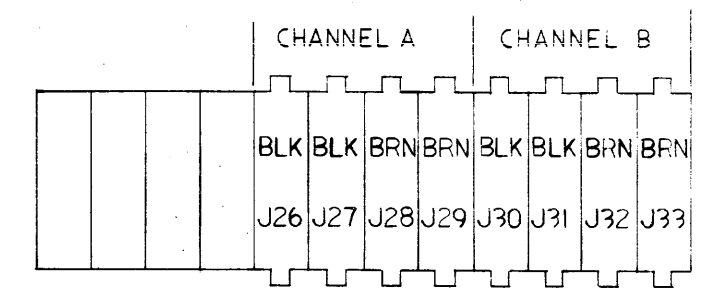
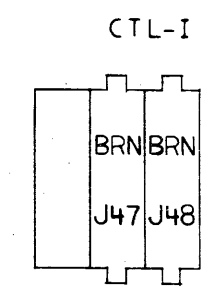
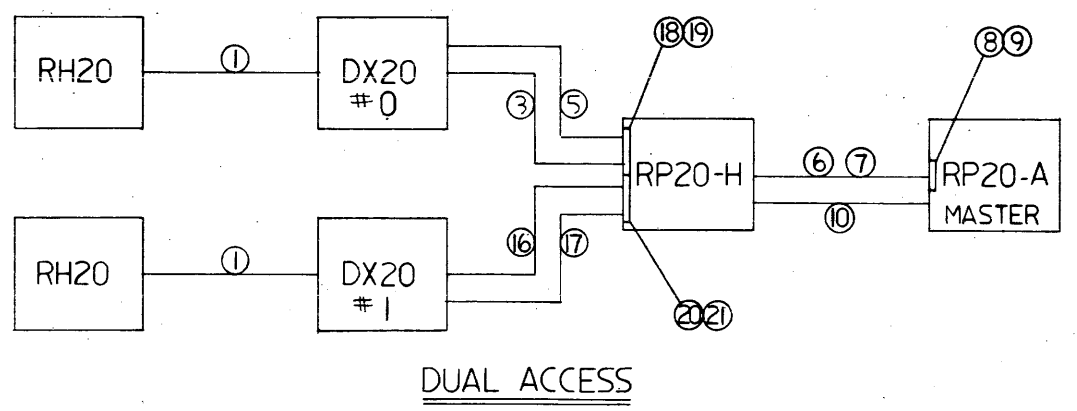
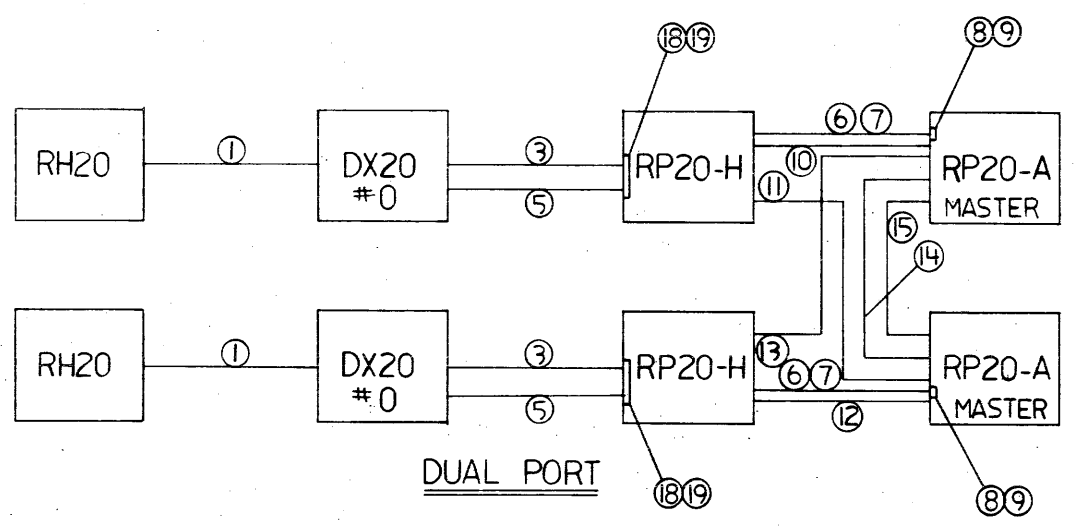
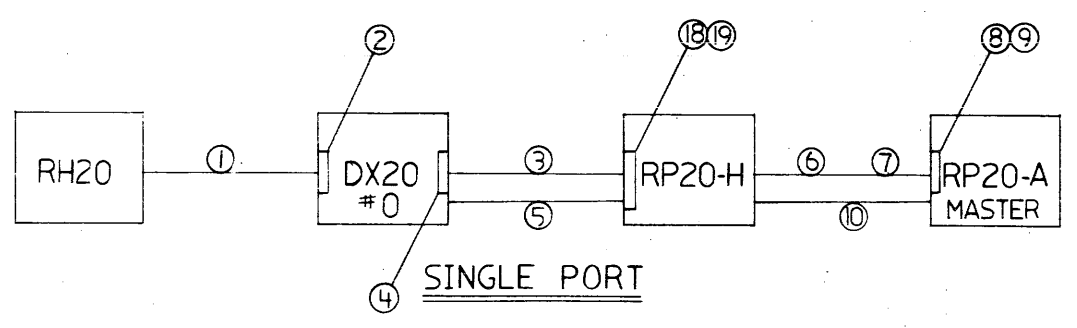
NUMBER
RTP20-0-0

REV.
A

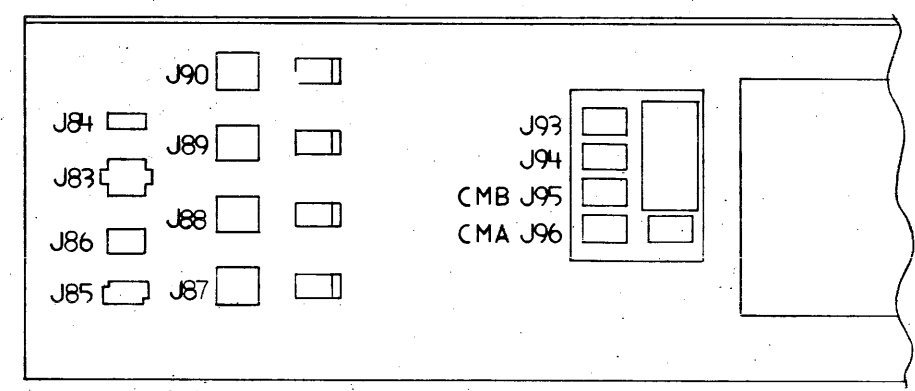
SHEET **1** OF **1**

INSERTION PARTS LIST DATA BASE REV

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RP20-H CHANNEL & CONTROL CABLE CONNECTORS (INSERTION VIEW)



RP20-H EPO CONNECTIONS (AC POWER SUPPLY)

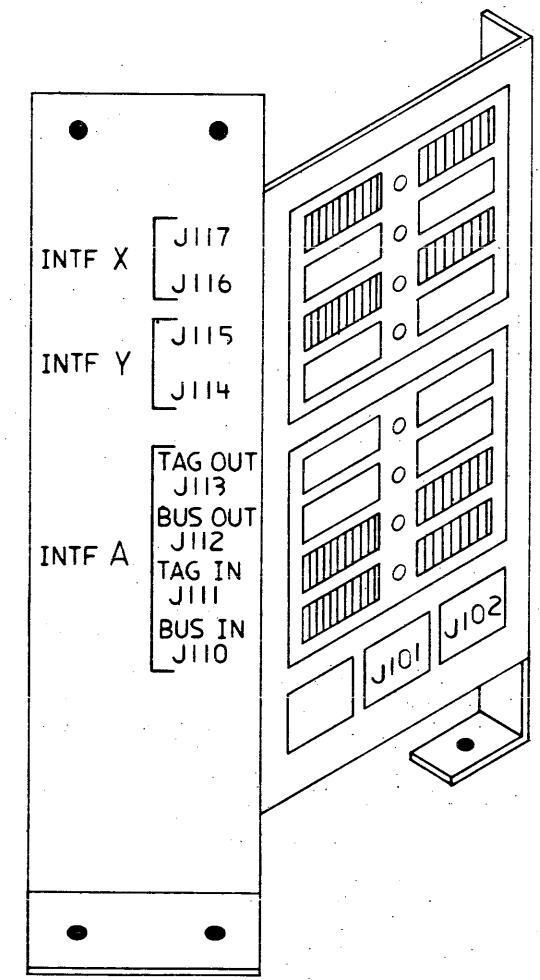
REV.	
CHK	
CHANGE NO.	

DESCRIPTION		DWG./PART NO.		ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES				
ANGLES 40° 30'	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES		
	(CHECK ONE)	OVER 0 TO 0.25	OVER 0.25 TO 1.2	OVER 1.2 TO 4.0
SURFACE QUALITY IN	MEDIUM	±.004	±.008	±.012
QUANTITY & VARIATION	PREFERRED	±.012	±.018	±.025
THIRD ANGLE PROJECTION	DRN. J. Huson 3/1/60	FIRST USED ON RP20 digital		
REMOVE BURRS AND BREAK SHARP CORNERS	CHK'D J. Huson 2/2/60	TITLE		
DO NOT SCALE DWG	ENG. J. Huson 15/2/60	RTP20 SYSTEM CABLING		
MATERIAL	PROJ. ENG. J. Huson 15/2/60	SIZE	CODE	NUMBER
FINISH	PROD. J. Huson 15/2/60	NONE	DIC	RTP20-0-0
	NEXT HIGHER ASSY.	SCALE	NONE	REV. A
		SHEET	OF 2	

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SYSTEM CABLING CHART

PART NUMBER	FROM	TO	REMARKS
① BC065	RH20 MASSBUS N	DX20 MB IN	DEVICE CABLE
② 7009938	—	DX20 MB OUT	MASSBUS TERMINATOR
③ 7010078	DX20 #0 CHANNEL IN	RP20-H #1+2 J27 BUS IN #3+4 J26 TAG IN	CHANNEL A SINGLE ACCESS
④ H866-A	—	DX20 CHANNEL OUT	CHANNEL TERMINATOR
⑤ 7010483	DX20 #0 EPO	RP20-H J87 CHANNEL A	DEVICE #0 EPO CABLE
⑥ I700219	RP20-H J48 CTL I BUS	RP20-A J110 BUS IN INTFA	CONTROL CABLE
⑦ I700219	RP20-H J47 CTL I TAG	RP20-A J111 TAG IN INTFA	CONTROL CABLE
⑧ I218044-00	—	RP20-A J112 BUS OUT INTFA	TERMINATOR
⑨ I218044-00	—	RP20-A J113 TAG OUT INTFA	TERMINATOR
⑩ I700095	RP20-H CM-A J96 DCU A	RP20-A J101 STRING A	EPO CABLE
⑪ I700095	RP20-H CM-B J95 DCU A	RP20-A J102 STRING B	EPO CABLE DUAL PORT
⑫ I700095	RP20-H CM-A J96 DCU B	RP20-A J101 STRING B	EPO CABLE
⑬ I700095	RP20-H CM-B J95 DCU B	RP20-A J102 STRING A	EPO CABLE DUAL PORT
⑭ I700218	RP20-A INTFX J117/J116 STRING A	RP20-A INTFY J115/J114 STRING B	DUAL PORT
⑮ I700218	RP20-A INTFX J117/J116 STRING B	RP20-A INTFY J115/J114 STRING A	DUAL PORT
⑯ 7010078	DX20 #1 CHANNEL IN	RP20-H #1+2 J31 BUS IN #3+4 J30 TAG IN	CHANNEL B DUAL ACCESS
⑰ 7010483	DX20 #1 EPO	RH20-H J88 CHANNEL B	DEVICE #1 EPO CABLE
⑱ I212171	—	RH20-H J29 BUS OUT CHANNEL A	TERMINATOR
⑲ I212172	—	RH20-H J28 TAG OUT CHANNEL A	TERMINATOR
⑳ I212171	—	RP20-H J33 BUS OUT CHANNEL B	TERMINATOR
㉑ I212172	—	RP20-H J32 TAG OUT CHANNEL B	TERMINATOR



MASTER DRIVE
 RP20-AA,AB,AE,AF
 CONTROL MODULE
 TAILGATE

REVISION HISTORY		
DATE	ECO NUMBER	REV.

A

B



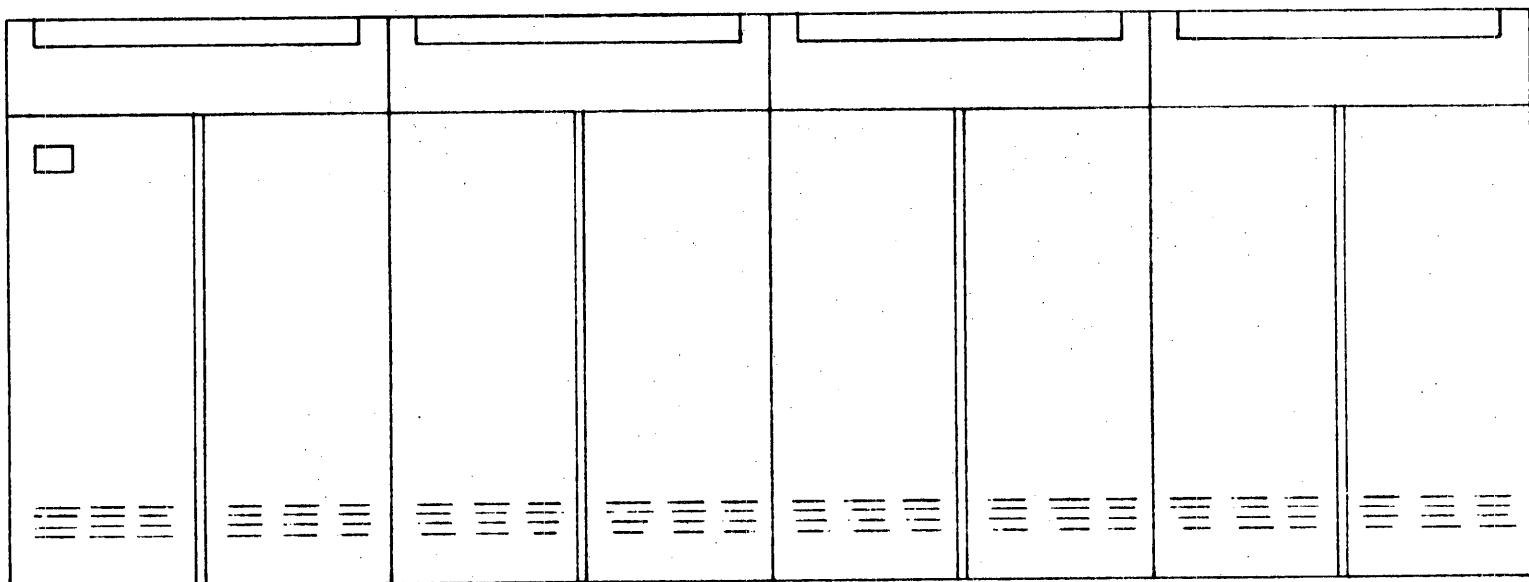
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4

4

ARRANGEMENT GUIDELINES



MASTER

SLAVE

SLAVE

SLAVE

3

3

1. ALL SLAVES MUST BE TO THE RIGHT OF MASTER AT ALL TIMES.
2. THERE IS TO BE NO SEPARATION BETWEEN DRIVES AT ANY TIME.
3. THREE SLAVE DRIVES ARE THE MAXIMUM NUMBER OF DRIVES PER MASTER.

SIZE B

CODE AR

NUMBER RTP20

0-0

REV. A

2

REV. A

NUMBER RTP20

0-0

SIZE B

CODE AR

2

1

1

REVISIONS

CHK	CHANGE NO.	REV.

TITLE RTP20 SUBSYSTEM
ARRANGEMENT

SIZE B

CODE AR

NUMBER

RTP20-0-C

REV. A

SCALE

NONE

SHEET | OF |

DIST.

A



B

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DRAWING DIRECTORY

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UNIT VARIATIONS

VAR	TITLE
RP2Ø-AA	MASTER DRIVE, SINGLE PORT TOPS 10 6ØHZ
RP2Ø-AB	MASTER DRIVE, SINGLE PORT TOPS 10 5ØHZ
RP2Ø-AC	SLAVE DRIVE, SINGLE PORT TOPS 10 6ØHZ
RP2Ø-AD	SLAVE DRIVE, SINGLE PORT TOPS 10 5ØHZ
RP2Ø-AE	MASTER DRIVE, SINGLE PORT TOPS 20 6ØHZ
RP2Ø-AF	MASTER DRIVE, SINGLE PORT TOPS 20 5ØHZ
RP2Ø-AH	SLAVE DRIVE, SINGLE PORT TOPS 20 6ØHZ
RP2Ø-AJ	SLAVE DRIVE, SINGLE PORT TOPS 20 5ØHZ

REVISIONS	REV.					
	CHANGE NO.					
CHK						
USED ON OPTION/MODEL	DRN.	DATE	TITLE	digital		
RTP2Ø	<i>Joe Dowler</i>	28 OCT 80	RP2Ø-A DISK DRIVE			
	CHK'D.	DATE				
	<i>J. Huson</i>	2 Dec 80				
	PROJ. ENG.	DATE	SIZE	CODE	NUMBER	REV
	<i>B.M. Duam</i>	15 DEC 80	B	DD	RP2Ø-A-Ø	A
SHEET 1 OF 2	PROD.	DATE	DIST.			
	<i>J.E. Barrett</i>	15 DEC 80				

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	R-DD-RP20-A-0	RP20 DISK DRIVE	E/M				
	K-PL-RP20-A-DBP	RP20-A DISK DRIVE	E/M				
	B-PL-RP20-A-0	SHIP LIST RP20-A	E/M				
	K-PL-7018185-0-DBP	RP20-A MASTER/SLAVE REWORK P.L.	E/M				
	D-AD-7018183-0-0	RP20-A MASTER/SLAVE REWORK	E/M				

TYPE: E ELECTRICAL
M MECHANICAL
E/M ELECTRO/MECHANICAL



TITLE RP20-A DISK DRIVE

SHEET 2 OF 2

SIZE CODE
B DD

NUMBER
RP20-A-0

REV
A

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION							
				AA	AB	AC	AD	AE	AF	AH	AJ
1	D-AD-7018183-0-0	7018183-00	RP20-A SINGLE PORT MASTER 60HZ	1	0	0	0	1	0	0	0
2	D-AD-7018183-0-0	7018183-01	RP20-A SINGLE PORT MASTER 50HZ	0	1	0	0	0	1	0	0
3	D-AD-7018183-0-0	7018183-02	RP20-A SINGLE PORT SLAVE 60HZ	0	0	1	0	0	0	1	0
4	D-AD-7018183-0-0	7018183-03	RP20-A SINGLE PORT SLAVE 50HZ	0	0	0	1	0	0	0	1

REVISION HISTORY		BASIC PART NO: ORP20		DRN: JOE DONAHER		DATE: 24-OCT-80		DIGITAL			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	J, HUSON	DATE:	19-NOV-80	TITLE		PARTS LIST	
---	INITIAL	A	SECTION, VARIATION INDEX [A] AA,AB,AC,AD,AE,AF, AH,AJ	DES,ENG,:	B MCQUAIN	DATE:	15-DEC-80	DOCUMENT NUMBER			
			[B]	RESP,ENG,:	B MCQUAIN	DATE:	15-DEC-80	SIZE:	CODE:	NUMBER	REV
			[C]	MFG,ENG,:	T BARRETT	DATE:	15-DEC-80	K	PL	RP20-A-DBP	A
			[D]	ASSEMBLY NUMBER:	K-PL-RP20-A-DBP	TOP DOCUMENT NUMBER:	B-DD-RP20-A-0	FILE NAME:	Z1703A,PLS	EDIT #	12
			[E]								
			[F]								

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DIGITAL EQUIPMENT CORPORATION PARTS LIST

QUANTITY / VARIATION

NOTES:

MADE BY <i>Joe Donaher</i>	CHECKED <i>J. Huson</i>	SECTION
DATE <i>28-OCT-80</i>	DATE <i>2 Dec 80</i>	
ENG <i>B. McCain</i>	PROD <i>SEbanitt</i>	ISSUED SECTION
DATE <i>15 DEC 80</i>	DATE <i>15 Dec 80</i>	

RP20-AA	RP20-AB	RP20-AC	RP20-AD	RP20-AE	RP20-AF	RP20-AH	RP20-AJ								
---------	---------	---------	---------	---------	---------	---------	---------	--	--	--	--	--	--	--	--

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	RP20-AA	RP20-AB	RP20-AC	RP20-AD	RP20-AE	RP20-AF	RP20-AH	RP20-AJ					
1	ER-83650-RM-001		8350/8650 MRM	1	1	-	-	1	1	-	-					
2	ER-3650M-RM-001		8650 MRM	1	1	-	-	1	1	-	-					
3	K-PL-RP20-A-DBP	RP20-AA	MASTER DRIVE 60HZ TOPS 10	1	-	-	-	-	-	-	-					
4	K-PL-RP20-A-DBP	RP20-AB	MASTER DRIVE 50HZ TOPS 10	-	1	-	-	-	-	-	-					
5	K-PL-RP20-A-DBP	RP20-AC	SLAVE DRIVE 60HZ TOPS 10	-	-	1	-	-	-	-	-					
6	K-PL-RP20-A-DBP	RP20-AD	SLAVE DRIVE 50HZ TOPS 10	-	-	-	1	-	-	-	-					
7	K-PL-RP20-A-DBP	RP20-AE	MASTER DRIVE 60HZ TOPS 20	-	-	-	-	1	-	-	-					
8	K-PL-RP20-A-DBP	RP20-AF	MASTER DRIVE 50HZ TOPS 20	-	-	-	-	-	1	-	-					
9	K-PL-RP20-A-DBP	RP20-AH	SLAVE DRIVE 60HZ TOPS 20	-	-	-	-	-	-	1	-					
10	K-PL-RP20-A-DBP	RP20-AJ	SLAVE DRIVE 50HZ TOPS 20	-	-	-	-	-	-	-	1					

REF DESIGNATION

E.C.O. NO. _____

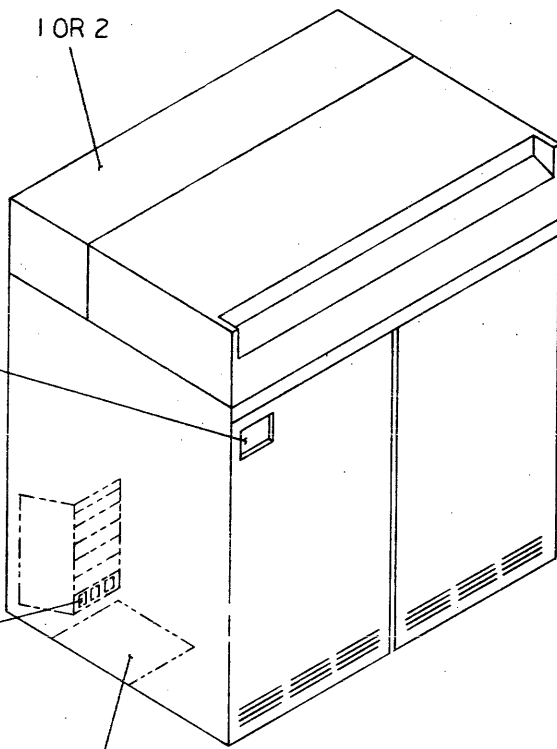
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		SHEET 1 OF 1	INSERTION PARTS LIST DATA BASE REV			

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION			
				00	01	02	03
1	1	3017689=00	DRIVE,MASTR DUAL PORT208/230V60H	1	0	0	0
2	2	3017689=01	DRIVE,MASTR DUAL PORT235/408V50H	0	1	0	0
3	3	3017690=00	DRIVE,SLAVE DUAL PORT208/230V60H	0	0	1	0
4	4	3017690=01	DRIVE,SLAVE DUAL PORT235/408V50H	0	0	0	1
5	5	3617953=01	LABEL,RP20	1	1	0	0

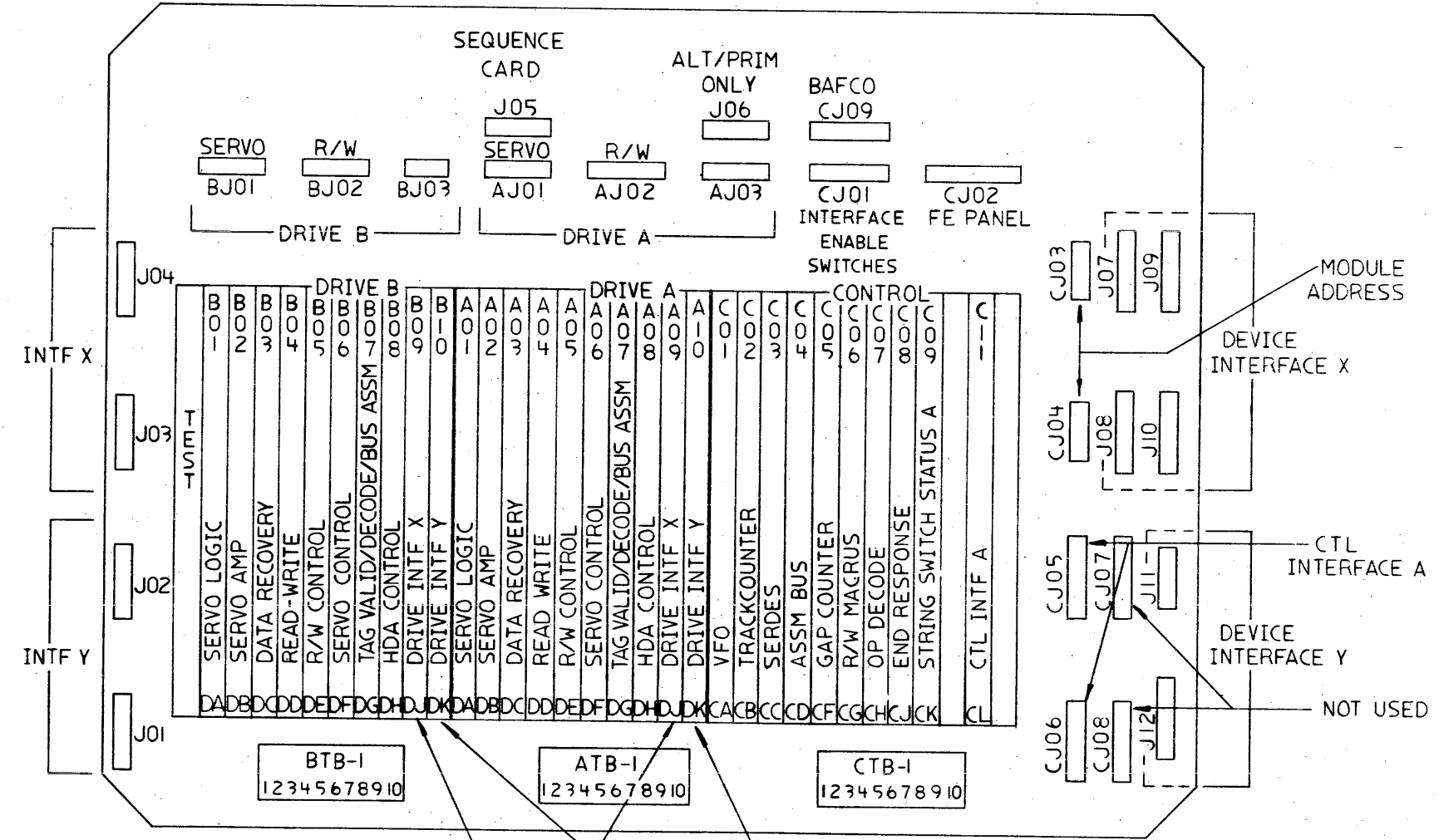
REVISION HISTORY			BASIC PART NO: 7018183		DRN: JOE DONAHER		DATE: 23-OCT-80		D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	J,HUSON	DATE:	19-NOV-80	TITLE		PARTS LIST		
---	INITIAL	A	SECTION, VARIATION INDEX [A] 00,01,02,03					RP20=A MASTER/SLAVE REWORK				
			[B]	DES,ENG,:	B MCQUAIN	DATE:	15-DEC-80					
			[C]	RESP,ENG,:	B MCQUAIN	DATE:	15-DEC-80	DOCUMENT NUMBER				
			[D]					SIZE	CODE	NUMBER	REV	
			[E]	MFG,ENG,:	T BARRETT	DATE:	15-DEC-80	K	PL	7018183=0=DBP	A	
			[F]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:		EDIT #		
				K=PL=RP20=A=DBP		B=DD=RP20=A=0		Z1704A,PLS		5		

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MASTER DRIVE
 RP20-AA,AB,AE,AF
 REF



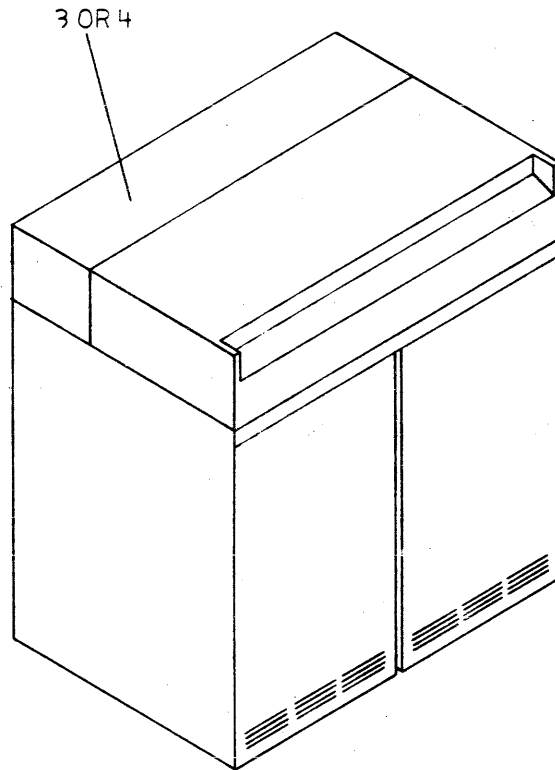
REMOVE THESE MODULES FOR MASTER DRIVES RP20-AA,AB,AE,AF
 SINGLE PORT
 DUAL PORT

CAUTION: OFF SHEETS PARTS LIST EXISTS SEE K-PL-7018183-0-DBP

REV.	
CHANGE NO.	
CHK	

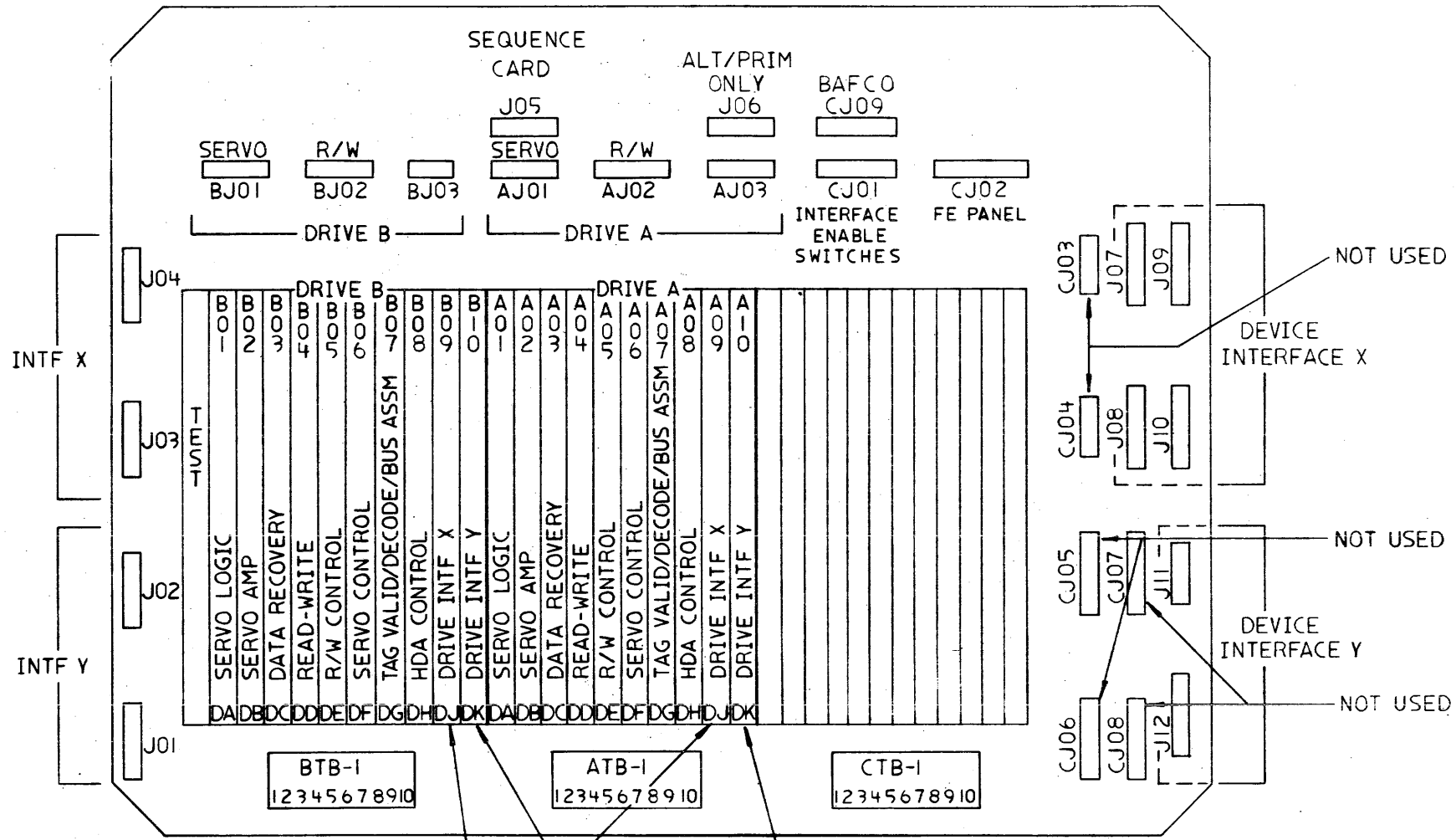
DESCRIPTION		DWG. PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			
ANGLES	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES	
30° 30'	0.1	0.125 TO 1.25	0.005 OVER
	0.2	1.25 TO 3.0	0.005 OVER
	0.3	3.0 TO 6.0	0.005 OVER
	0.4	6.0 TO 12.0	0.005 OVER
	0.5	12.0 TO 40.0	0.005 OVER
	0.6	40.0 TO 80.0	0.005 OVER
SURFACE QUALITY	FINISH	MICRONS	
IN		0.004	0.008
		0.012	0.016
		0.025	0.04
		0.05	0.08
		0.1	0.15
QUANTITY & VARIATION	FIRST USED ON		
	RP20		
THIRD ANGLE PROJECTION	TITLE		
	RP20-A		
REMOVE BURRS AND BREAK SHARP CORNERS	MASTER/SLAVE		
DO NOT SCALE DWG	REWORK		
MATERIAL	B-DD-RP20-A-0	SIZE	CODE
FINISH	SCALE NONE	D	AD 7018183-0-0
	SHEET OF 2	DIST.	

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3 OR 4

SLAVE DRIVE
 RP20-AC,AD,AH,AJ
 REF



SINGLE PORT

REMOVE THESE
 MODULES FOR SLAVE DRIVES
 RP20-AC,AD,AH,AJ

DUAL PORT

REVISION HISTORY		
DATE	ECO NUMBER	REV.

DOCUMENT NUMBER		
SIZE	CODE	NUMBER
D	AD	7018183-0-0
SCALE	NONE	SHEET 2 OF 2

TITLE
 RP20-A MASTER /
 SLAVE REWORK

DIGITAL EQUIPMENT CORPORATION PARTS LIST

QUANTITY / VARIATION

NOTES:

MADE BY <i>Joe Donaher</i>	CHECKED <i>J. Huson</i>	SECTION
DATE <i>28-OCT-80</i>	DATE <i>2 Dec 80</i>	
ENG <i>B.M. Quinn</i>	PROD <i>SEL #</i>	ISSUED SECTION
DATE <i>15 DEC 80</i>	DATE <i>15 DEC 80</i>	

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	RP20-CA	RP20-CR											REF DESIGNATION			
1	K-PL-7018290-0-0	7018290-00	DUAL PORT UPGRADE KIT (MASTER)	1	-														
2	K-PL-7018290-1-0	7018290-01	DUAL PORT UPGRADE KIT (SLAVE)	-	1														
3	A-SP-RP20-C-2		RP20 DUAL PORT INSTALLATION PROCEDURE	REF	REF														
4	A-SP-RP20-C-3		RP20 ADDRESS UPDATE/VERIFICATION PROCEDURE	REF	REF														

E.C.O. NO. _____

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		SHEET 1 OF 1	INSERTION PARTS LIST DATA BASE REV			

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DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION

DATE 12 DEC 80

TITLE RP20 DUAL PORT INSTALLATION PROCEDURE

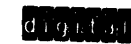
REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

ENG <i>Bruno Deoni</i>	APPD <i>Bruno Deoni</i>	SIZE A	CODE SP	NUMBER RP20-C-2	REV A
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EN-1079A-16-R873-(392)
DRA 107A

ENGINEERING SPECIFICATION



CONTINUATION SHEET

TITLE RP20 DUAL PORT INSTALLATION PROCEDURE

NOTE:

DCU "A" and String "A" will represent the low order addressed disk drives 0 through 7 and associated RP20-H controller.

DCU "B" and String "B" will represent the high order addressed disk drives 8 through F and associated RP20-H controller.

1. EQUIPMENT NEEDED

1. 30 gauge wire wrap gun
2. 30 gauge wire

2. INITIAL CHECKOUT

1. Obtain customer permission to install Dual Port Upgrade Kit.
2. Verify Control Unit microdiagnostics run on the DCU "A" and DCU "B" prior to installing upgrade kit.
3. Verify Functional/Inline microdiagnostics run on the ALL disk drives prior to installing dual port upgrade kit.
4. Correct all problems/failures before proceeding.

3. DCU ADDRESSING

1. Power down both RP20 subsystem by putting the ON/OFF switch to the "OFF" position on the DCU.
2. Remove the bottom logic door of both DCUs.
3. Remove the CI2 card (P/N 29-23734) from card location B13 of both DCUs.
4. Change the address switch setting of KA07 (DCU Address Switches) from 00 (hex) to X1 (hex) where X = any number 1 through F on both CI2 cards. The address must be the same for both CI2 cards.

NOTE:

This will be the new address of the DCU for dual port operation.

5. Reinstall the CI2 card in location B13 of both DCU's.

SIZE A	CODE SP	NUMBER RP20-C-2	REV A
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DEC FORM NO EN-01022-16-N370-(381)
DRA 108

TITLE RP20 DUAL PORT INSTALLATION PROCEDURE

6. Install the logic door on the card cage of both DCU's.
4. EPO CABLING
1. Remove EPO jumper plug from CM-B J95 and install in CM-C J94 on both DCU "A" and DCU "B" AC power supplies.
 2. Connect one end of EPO cable (supplied with kit) (P/N 17-00095) to CM-B J95 on DCU "A" AC power supply.
 3. Repeat step 2, except use DCU "B" and second EPO cable.
 4. Remove left end panel of both master drive to gain access to the control module tailgate.
 5. Route the EPO cable from DCU "A" to the master drive of string "B" and connect it to J102 on the control module tailgate.
 6. Route the EPO cable from DCU "B" to the master drive of string "A" and connect it to J102 on the control module tailgate.
5. DUAL PORT CABLING
1. Label one end of the dual port cable (P/N 17-00218) (VP/N 343026XX) as "X".
 2. label the other end of the dual port cable as "Y".
 3. Repeat steps 1 and 2 for the second dual port cable.
 4. Connect one of the dual port interface cable labled "Y" to the "Y" interface (J114, J115) on the control module tailgate of string "A". Make sure that the "LIGHT" colored cable connector goes to the "DARK" colored cable receptacle, the "DARK" colored cable connector goes to the "LIGHT" colored cable receptacle on the control module tailgate.
 5. Connect the second dual port interface cable labled "X" to the "X" interface (J116, J117) on the control module tailgate of string "A". Make sure that the "LIGHT" colored cable connector goes to the "DARK" colored cable receptacle, the "DARK" colored cable connector goes to the "LIGHT" colored cable receptacle on the control module tailgate.
 6. Route both dual port interface cables to string "B" control module tailgate.

SIZE	CODE	NUMBER	REV
A	SP	RP20-C-2	A

TITLE RP20 DUAL PORT INSTALLATION PROCEDURE

7. Connect dual port interface cable labled "Y" to the "Y" interface (J114, J115) on the control module tailgate of string "B". Make sure that the "LIGHT" colored cable connector goes to the "DARK" colored cable receptacle, the "DARK" colored cable connector goes to the "LIGHT" colored cable receptacle on the control module tailgate.
 8. Connect dual port interface cable labled "X" to the "X" interface (J116, J117) on the control module tailgate of string "B". Make sure that the "LIGHT" colored cable connector goes to the "DARK" colored cable receptacle, the "DARK" colored cable connector goes to the "LIGHT" colored cable receptacle on the control module tailgate.
 9. Reinstall the end panel on both master drives.
6. DISK DRIVE CABLING
1. Remove the 40 pin terminator (VP/N 34303002) from J09 of string "A" master drive and install it in J02 (INTF Y) of the last drive in string "A".
 2. Remove the 50 pin terminator (VP/N 34302902) from J10 of string "A" master drive and install it in J01 (INTF Y) of the last drive in string "A".
 3. Install cable labeled P9/P10 into receptacle J07 and receptacle J08 of the master drive of string "A". This cable is inside the master drive dressed into the harness that runs between the control module tailgate and the mother board.
 4. Install special dual port terminator (P/N 12-18047) (VP/N 34303902) into receptacle J10 of the master drive in string "A".
 5. Install special dual port terminator (P/N 12-18045) (VP/N 34304002) into receptacle J10 of the master drive in string "A".
 6. Verify that both X/Y cables between drives are installed.
 7. Repeat section 6 DISK DRIVE CABLING for string "B".
7. CONTROL MODULE ADDRESS JUMPERS
- Install the jumpers as follows on the master drive control logic:
1. With 4 to 8 spindle dual ported, jumper the following:

SIZE	CODE	NUMBER	REV
A	SP	RP20-C-2	A

TITLE RP20 DUAL PORT INSTALLATION PROCEDURE

1. C08 D41 to ground, both master drives.
2. With 10 to 16 spindle dual ported, jumper the following:
 1. C08 D41 to ground, both master drives.
 2. C08 D15 to ground, both master drives.
 3. C08 D34 to ground, high order master (string "B") ONLY.
8. DISK DRIVE ADDRESSING
 1. Starting with the master drive in string "A", remove the DJ card from card location A09 of drive A.
 2. Remove the 14 pin address plug (VP/N 33065801) from location DA17 on the card.
 3. Install 16 Pin address plug number 0 (P/N 12-18046) (VP/N 34133201) in location DA17 on the card.
 4. Reinstall the DJ card in card location A09.
 5. Take a DK card from the upgrade kits and install a 16 pins address plug in location DA47 on the card. The address plug MUST have the same address as its corresponding DJ card.
 6. Install this DK card in location A10.
 7. Remove the DJ card from card location B09 of drive B.
 8. Remove the 14 pin address plug from location DA17 on the card.
 9. Install 16 Pin address plug number 1 (P/N 12-18046) in location DA17 on the card.
 10. Reinstall the DJ card in card location B09.
 11. Take the next DK card from the upgrade kits and install a 16 pins address plug in location DA47 on the card. The address plug MUST have the same address as its corresponding DJ card.
 12. Install this DK card in location B10.
 13. Repeat steps 1 through 12 for each slave drive in string "A". Numbering each drive in sequence not to exceed address 7 for the low order drives.

SIZE	CODE	NUMBER	REV
A	SP	RP20-C-2	A

TITLE RP20 DUAL PORT INSTALLATION PROCEDURE

14. Repeat entire Drive Addressing procedure for string "B". Start numbering the master drive drive with 8 and go to F.
9. GENERAL INFORMATION
 1. In a dual port configuration, both master drives (string "A" and "B") will have the same control module address of 00.
 2. The low order address drives (string "A") will have an address of 0 through 7.
 3. The high order address drives (string "B") will have an address of 8 through F.
 4. When running functional/inline diagnostics on the disk drives, use 50 for access to string "A" and 51 for access to string "B" from any DCU.
10. INLINES DIAGNOSTICS
 1. Power up the RP20 subsystem by putting the "ON/OFF" switch to the "ON" position on both DCUs.
 2. Run Functional/Inline microdiagnostics on all spindles from DCU "A".
 3. Run Functional/Inline microdiagnostics on all spindles from DCU "B".
 4. Verify all inline microdiagnostics will run prior to proceeding from both DCU's.
 5. Load functional/inline microdiagnostics EC.
 6. Verify the the Dual Port microdiagnostics test EC will run from both DCU's.
11. DCU ADDRESS TABLE
 1. Reference RP20 ADDRESS UPDATE/VERIFICATION PROCEDURE (A-SP-RP20-C-3) to rewrite the address table onto the Functional/Inline diskettes for dual ported drives. The address table will be identical for both DCU's.
 2. Rewrite the address table on any SPARE Functional Inline diskette that is available.

SIZE	CODE	NUMBER	REV
A	SP	RP20-C-2	A

TITLE RP20 DUAL PORT INSTALLATION PROCEDURE**12. DIAGNOSTIC CHECKOUT**

1. Load DFDXG into the system and verify that the CPU can see all the spindle in a dual port configuration.
2. Verify that the CPU can read and write data to the MAINTENANCE TRACK on each spindle. DO NOT DESTROY CUSTOMER DATA.

SIZE
A**CODE**
SP**NUMBER**
RP20-C-2**REV**
A

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DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION

DATE 12 DEC 80

TITLE RP20 ADDRESS UPDATE/VERIFICATION PROCEDURE

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

ENG <i>Brian MacQuinn</i>	APPD <i>Brian MacQuinn</i>	SIZE A	CODE SP	NUMBER RP20-C-3	REV A
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EN-1079A-16-R873-(392)
DRA 107A

ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE RP20 ADDRESS UPDATE/VERIFICATION PROCEDURE

1. EQUIPMENT REQUIRED

1. CX Printer Interface Card <P/N 29-23722>
2. 20 mA, 300 Baud Printer (LA30 or equivalent)

2. ADDRESS UPDATE

NOTE:

If any indicator lights or prompts are incorrect, check input parameters and repeat entire procedure.

1. Disable all RP20-H channel interface switches.
2. Verify that the INTF DISABLE lamp is lit.
3. Verify that the INLINE DISPLAY lights indicates C000. If not re-IMPL the functional/inline diskette.
4. Enter "30" in the DATA switches and raise EXECUTE switch. This will perform a system reset.
5. Verify that the lights indicate CF30.
6. Enter "C4" in the DATA switches and raise EXECUTE switch. This causes routine C4 to be loaded.
7. Verify that the lights indicate CAC4.
8. Enter "10" in the DATA switches and raise EXECUTE switch. This allows parameter entry mode.
9. Verify that the lights indicate DIC4.
10. Enter "33" in the DATA switches and raise EXECUTE switch. Rewrite the address table.
11. Verify that the lights indicate CAC4.
12. Enter "38" in the DATA switches and raise EXECUTE switch. This establish "standalone mode".
13. Verify that the lights indicate CAC4.
14. Enter "00" in the DATA switches and raise EXECUTE switch. This start routine C4. The Printer will prompt as follows:

SIZE A	CODE SP	NUMBER RP20-C-3	REV A
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DEC FORM NO EN-01022-16-N370-(381)
DRA 108

TITLE

RP20 ADDRESS UPDATE/VERIFICATION PROCEDURE

ADDRESS TABLE ENTRY

DEV LEN FIF CHN

At this time the inline display will flash D100.

15. Enter "74" in the DATA switches and raise EXECUTE switch. This indicates dual ported RP20 drives are present.
16. Verify that the lights indicate D200 (flashing).
17. Enter "0X" in the DATA switches and raise EXECUTE switch. "X" equals the number of spindles (8 maximum) is a single string of disk drives.
18. Verify that the lights indicate D300 (flashing).
19. Enter "X0" in the DATA switches and raise EXECUTE switch. X equals the control module address of the master drive. It will be "0" for the low address disk drive # 0 through 7, and "1" for high order address disk drives # 8 through F.
20. Verify that the lights indicate D400.
21. Enter "XY" in the DATA switches and raise EXECUTE switch.
 1. X equals the address of the RP20-H. This is obtained from the DCU address switches KA07 1 through 4 located on the CI2 card in location B13 of the RP20-H. For dual port operation this address must be something other than "0".
 2. Y equals the starting address of each string of disk drives. That is "Y" will be "0" for the low order addressed drives, and "8" for the high order addressed drives.

The four parameters just entered for the first string of drives will be output to the printer as shown.

74 04 00 10

22. Verify that the lights indicate D100 (flashing) indicating requesting second set of parameter inputs.
23. Repeat steps 15 through 21 for the for the second string of disk drives.

SIZE A	CODE SP	NUMBER RP20-C-3	REV A
-----------	------------	--------------------	----------

SHEET 3 OF 5

TITLE

RP20 ADDRESS UPDATE/VERIFICATION PROCEDURE

24. The four parameters just entered for the second string of drives will be output to the printer as shown.

74 04 10 18

25. Verify that the lights indicate D100 (flashing) indicating requesting next set of parameter inputs.
26. Enter "FF" in the DATA switches and raise EXECUTE switch. FF indicates all parameters have been entered and to write the table on the diskette. The table will also be output to the printer as follows.

CHN FIF DEV

ADR ADR TYPE

10	00	8650	NATIVE
11	01	8650	NATIVE
12	02	8650	NATIVE
13	03	8650	NATIVE
18	10	8650	NATIVE
19	11	8650	NATIVE
1A	12	8650	NATIVE
1B	13	8650	NATIVE

27. Verify that the lights indicate FFFF.
28. Save the output and tape it to the inside of the rear door for future use.
29. Raise the RESET switch.
30. Repeat this entire procedure for the other functional/inline diskette in the second RP20-H controller. The parameters entered will be the same for both address tables.
31. Repeat this entire procedure for any spare functional/inline diskette that will be used as a backup for the original.
32. Label all functional/diskettes indicating address covered, and RP20-H used on if there are more than two RP20 subsystems at a sight.
33. Reinstall the updated functional/inline diskette in the floppy drive.
34. Raise the IMPL switch to load the new address into the RP20-H memory.

SIZE A	CODE SP	NUMBER RP20-C-3	REV A
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SHEET 4 OF 5

TITLE RP20 ADDRESS UPDATE/VERIFICATION PROCEDURE

35. Do not remove the functional/inline diskette. This diskette must be installed in the floppy drive and enabled at all times.
36. Enable Channel Interface Switch "A" on the for of both RP20-H controllers.

3. ADDRESS VERIFICATION

This section enables a F-S Engineer to obtain a listing of an address table that exist on an unknown functional/inline diskette. Or to verify the table was written correctly.

1. Repeat section 2. ADDRESS UPDATE steps 1 through 14, except in step 10 enter "66" into the data switches. Print the address table.
2. After the prompts have been output to the printer, D100 flashing in the lights, enter "FF" in the DATA switches and raise the EXECUTE switch. This will cause the address table to be output to the printer.
3. Verify that the lights indicate FFFF.
4. Raise the RESET switch.
5. If no correction are in order raise the IMPL switch to reload the address into the RP20-H memory.
6. If correction are needed repeat entire section 2. ADDRESS UPDATE.

SIZE	CODE
A	SP

NUMBER
RP20-C-3

REV
A

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION	
				00	01
1	1	2923694-00	37PCBA, DK	2	2
2	2	1218046-00	ADDRESS PLUGS, 0-F FOR RP20	1	-
3	3	1700218-01	CABLE, DUAL PORT INTERFACE, 20FT	1	-
4	4	1218045-00	TERMINATOR 40PIN MUX	1	-
5	5	1218047-00	TERMINATOR 50PIN MUX	1	-
6	6	1700095-04	CABLE, 6 COND, 25FT	1	-

REVISION HISTORY			BASIC PART NO: 7018290		DRN: JOE DONAHER		DATE: 28-OCT-80		D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	J. HUSON	DATE:	19-NOV-80	TITLE PARTS LIST				
---	INITIAL	A	SECTION, VARIATION INDEX	DES.ENG.:	B MCQUAIN	DATE:	15-DEC-80	UPGRADE KIT, RP20-A DUAL PORT				
			[A] 00,01	RESP.ENG.:	B MCQUAIN	DATE:	15-DEC-80	DOCUMENT NUMBER				
			[B]	MFG.ENG.:	T BARRETT	DATE:	15-DEC-80	SIZE:	CODE:	NUMBER	REV	
			[C]	ASSEMBLY NUMBER:	B-DD-RP20-C-0	TOP DOCUMENT NUMBER:	B-DD-RP20-C-0	K	PL	7018290-0-DBP	A	
			[D]							FILE NAME:	EDIT #	
			[E]							Z1708A.PLS	13	
			[F]									

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UNIT VARIATIONS	
VAR	TITLE
RP20-DA	RP20-H DUAL ACCESS UPGRADE KIT

REVISIONS	REV.		USED ON OPTION/MODEL RTP20	DRN. <i>Joe Danaher</i>	DATE 25 80 OCT	TITLE RP20-H DUAL ACCESS UPGRADE KIT	digital		
	CHANGE NO.			CHK'D. <i>J. Huson</i>	DATE 2 Dec 80				
	CHK			PROJ. ENG. <i>B.M. Quinn</i>	DATE 15 DEC 80		SIZE	CODE	NUMBER
				PROD. <i>S.E. Bennett</i>	DATE 15 Dec 80		B	DD	RP20-D-0
SHEET 1 OF 2				DIST.					

DIGITAL EQUIPMENT CORPORATION PARTS LIST

QUANTITY / VARIATION

NOTES:

MADE BY <i>Joe Donahue</i> DATE <i>28-OCT-80</i>	CHECKED <i>J. Huson</i> DATE <i>2 Dec 80</i>	SECTION
ENG <i>B McQuam</i> DATE <i>15 DEC 80</i>	PROD <i>J E Bennett</i> DATE <i>15 DEC 80</i>	ISSUED SECTION

RP20-DA

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION														REF DESIGNATION
1	K-PL-7018292-0-0	7018292-00	DUAL ACCESS CONTROLLER UPGRADE KIT	1													
2	A-SP-RP20-D-2		INSTALLATION PROCEDURE	REF													

E.C.O. NO.

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TITLE
RP20-H DUAL ACCESS SHIP LIST

ASSY NO.
SHEET 1 OF 1

SIZE	CODE	NUMBER	REV.
B	PL	RP20-D-0	A
INSERTION PARTS LIST DATA BASE REV			

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION

DATE 12 DEC 80

TITLE RP20 DUAL CHANNEL INSTALLATION PROCEDURE

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

Digital Equipment Corporation.

Copyright ©

ENG <i>Bruce Owen</i>	APPD <i>Bruce Owen</i>	SIZE A	CODE SP	NUMBER RP20-D-2	REV A
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EN-1079A-16-R873-(392)
DRA 107A

SHEET 1 OF 3

ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE RP20 DUAL CHANNEL INSTALLATION PROCEDURE

1. INITIAL CHECKOUT

1. Obtain customer permission to install Dual Channel Upgrade Kit.
2. Verify all Control Unit microdiagnostics run on the DCU prior to installing upgrade kit.
3. Correct all problems/failures before proceeding.

2. DCU ADDRESSING

1. Power down the DCU by putting the ON/OFF switch to the "OFF" position.
2. Remove the bottom logic door of the DCU.
3. Remove the CI2 card (P/N 29-23734) from card location B13.
4. Record the switch settings of KA07 (DCU Address Switches).
5. Record the switch settings of BA27 (Priority Data In Switches).
6. Reinstall the CI2 card in location B13.
7. Set switches KA07 and BA27 of the CI2 card supplied with the upgrade kit to the value obtained in steps 4 and 5.
8. Install the CI2 card in card location B11 of the DCU.

3. EPO CABLING

1. Install Channel EPO cable (P/N 70-10483) from second DX20 in J88-CHAN B of the AC Power Supply.

4. RP20-H CHECKOUT

1. Power up the DCU by putting the ON/OFF switch to the "ON" position.
2. Run Channel Interface Wraparound Test (01) as outlined in the RP20 USERS GUIDE (EK-0RP20-UG-001) with the following exceptions:

SIZE A	CODE SP	NUMBER RP20-D-2	REV A
---------------	---------	-----------------	--------------

DEC FORM NO EN-01022-16-N370-(381)
DRA 108

SHEET 2 OF 3

TITLE RP20 DUAL CHANNEL INSTALLATION PROCEDURE

1. Use Channel B for BUS/TAG receptacles J30/J31.
2. Use Channel B J32 for TAG terminator, J33 for BUS terminator.
3. Remove only the Channel Wraparound test cable.

5. DUAL CHANNEL CABLING

1. Route second DX20 Channel Cable P/N 70-10078 to RP20-HA/HB Channel B interface.
2. Connect connector labeled **1, 2** to J31 (BUS IN).
3. Connect connector labeled **3, 4** to J30 (TAG IN).
4. Verify BUS terminator P/N 12-12171 is installed in J33 (BUS OUT).
5. Verify TAG terminator P/N 12-12172 is installed in J32 (TAG OUT).

6. DIAGNOSTIC CHECKOUT

1. Power up the entire RP20 subsystem.
2. Enable Channel Interface switch "B" on the front operator panel of the DCU by putting it in the on position.
3. Load diagnostic DFDXG and test out the second RH20, DX20, Channel B interface.

SIZE	CODE	NUMBER	REV
A	SP	RP20-D-2	A

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
1	1	2923734-00	37PCBA, CI2	1

REVISION HISTORY		BASIC PART NO: 7018292		DRN:	DATE:	D I G I T A L			
ENG:	ECO NUMBER	REV	SECTION A OF A	JOE DONAHER	28 OCT 80	PARTS LIST			
---	INITIAL	A	SECTION, VARIATION INDEX	CHK'D: J, HUSON	DATE: 19-NOV-80	TITLE			
			[A] 00			UPGRADE KIT, RP20-H			
			[B]	DES,ENG,: B MCQUAIN	DATE: 15-DEC-80	DUAL ACCESS			
			[C]			DOCUMENT NUMBER			
			[D]	RESP,ENG,: B MCQUAIN	DATE: 15-DEC-80	SIZE	CODE	NUMBER	REV
			[E]	MFG,ENG,: T BARRETT	DATE: 15-DEC-80	K	PL	7018292-0-DBP	A
			[F]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME:		EDIT #	
				B-DD-RP20-D-0	B-DD-RP20-D-0	Z1707A,PLS		7	
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UNIT VARIATIONS	
VAR	TITLE
RP2Ø-HA	SINGLE ACCESS DCU 6ØHZ
RP2Ø-HB	SINGLE ACCESS DCU 5ØHZ

REVISIONS	REV.		USED ON OPTION/MODEL	DRN.	DATE	TITLE	digital						
	CHANGE NO.			RTP2Ø	<i>Re Drake</i>						<i>28 OCT 80</i>	RP2Ø-H SINGLE ACCESS DCU	
	CHK			CHK'D.	DATE						SIZE CODE NUMBER REV		
				<i>J. Huson</i>	<i>4 DEC 80</i>							B DD RP2Ø-H-Ø A	
			PROJ. ENG.	DATE	DIST. <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table>								
			<i>B McQuinn</i>	<i>15 DEC 80</i>									
			PROD.	DATE									
			SHEET 1 OF 2	<i>SE Bennett</i>	<i>15 DEC 80</i>								

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION	
				HA	HB
1	D-AD-7018291-0-0	7018291-00	RP20-H SINGLE ACCESS DCU 60HZ	1	0
2	D-AD-7018291-0-0	7018291-01	RP20-H SINGLE ACCESS DCU 50HZ	0	1

REVISION HISTORY		BASIC PART NO:	ORP20	DRN:	JOE DONAHER	DATE:	20-NOV-80	D I G I T A L			
ENG:	ECO NUMBER	REV	SECTION A OF A	CHK'D:	J HUSON	DATE:	20-NOV-80	TITLE PARTS LIST			
---	INITIAL	A	SECTION, VARIATION INDEX	DES,ENG,:	B MCQUAIN <td>DATE:</td> <td>15-DEC-80 <td colspan="4">SINGLE ACCESS DCU</td> </td>	DATE:	15-DEC-80 <td colspan="4">SINGLE ACCESS DCU</td>	SINGLE ACCESS DCU			
			[A] HA,HB	RESP,ENG,:	B MCQUAIN <td>DATE:</td> <td>15-DEC-80 <td colspan="4">DOCUMENT NUMBER</td> </td>	DATE:	15-DEC-80 <td colspan="4">DOCUMENT NUMBER</td>	DOCUMENT NUMBER			
			[B]	MFG,ENG,:	T BARRETT <td>DATE:</td> <td>15-DEC-80 <td>SIZE:</td> <td>CODE:</td> <td>NUMBER</td> <td>REV</td> </td>	DATE:	15-DEC-80 <td>SIZE:</td> <td>CODE:</td> <td>NUMBER</td> <td>REV</td>	SIZE:	CODE:	NUMBER	REV
			[C]	ASSEMBLY NUMBER:	B-DD-RP20-H-0 <td>TOP DOCUMENT NUMBER:</td> <td>B-DD-RP20-H-0 <td>K</td> <td>PL</td> <td>RP20-H-DBP</td> <td>A</td> </td>	TOP DOCUMENT NUMBER:	B-DD-RP20-H-0 <td>K</td> <td>PL</td> <td>RP20-H-DBP</td> <td>A</td>	K	PL	RP20-H-DBP	A
			[D]			FILE NAME:	Z1934A.PLS				EDIT #
			[E]								6
			[F]								

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DIGITAL EQUIPMENT CORPORATION PARTS LIST

QUANTITY / VARIATION

NOTES:

MADE BY <i>Joe Donaher</i>	CHECKED <i>J. Huson</i>	SECTION
DATE <i>28-OCT-80</i>	DATE <i>2 Dec 80</i>	
ENG <i>B McCusker</i>	PROD <i>E Bennett</i>	ISSUED SECTION
DATE <i>15 DEC 80</i>	DATE <i>15 DEC 80</i>	

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	QUANTITY / VARIATION												REF DESIGNATION		
				RP20-HA	RP20-HB													
1	ER-80002-RM-001		8000-2 MRM (3 VOL)	1	1													
2	ER-80002-DL-001		8000-2 DIAG. MICRO CODE (2 VOL)	1	1													
3	ER-91392-RM-001		8350/8650 IN-LINES	1	1													
4	ER-91025-RM-001		FLYER MANUAL	1	1													
5	ER-91407-DL-001		8650 FUNCTIONAL MICRO CODE LOGIC (2 VOL)	1	1													
6		3018425-00	FUNCTIONAL/INLINE DISKETTE	2	2													
7		3018424-00	CONTROL UNIT DIAG. DISKETTE	2	2													
8	K-PL-RP20-H-DBP	RP20-HA	SINGLE ACCESS DCU 60HZ	1	-													
9	K-PL-RP20-H-DBP	RP20-HB	SINGLE ACCESS DCU 50HZ	-	1													
10		17-00219-**	CONTROL INTERFACE CABLE (STD 20 ft)	2	2													
11		17-00095-**	EPO CABLE (STD 25 ft)	1	1													
12		12-18044	CONTROL BUS TERMINATOR	2	2													
13		17-00225	CHANNEL WRAP AROUND CABLE	1	1													
14		17-00226	CONTROL WRAP AROUND CABLE	1	1													

E.C.O. NO.	
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TITLE
RP20-H SINGLE ACCESS D.C.U. SHIP LIST

ASSY NO.

SIZE CODE
B PL

NUMBER
RP20-H-0

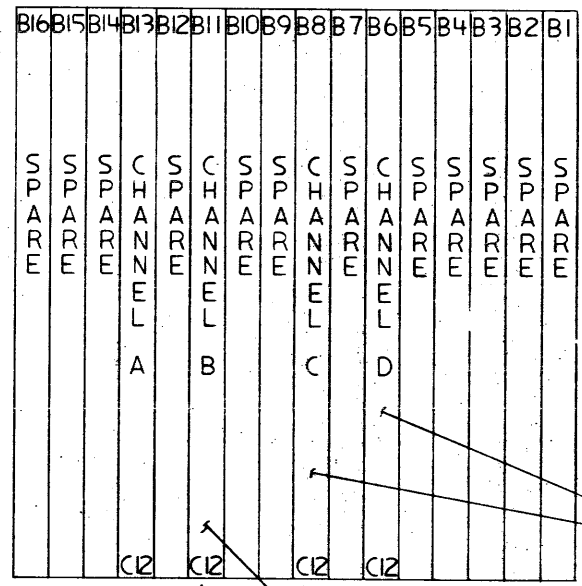
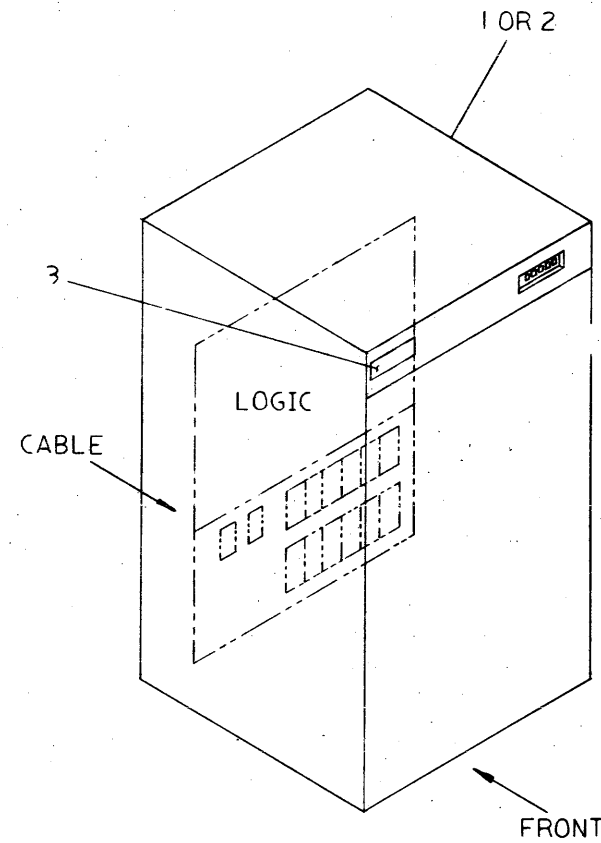
REV.
A

SHEET 1 OF 1

INSERTION PARTS LIST DATA BASE REV

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AD 2
0-0-162810



SINGLE ACCESS DUAL ACCESS THIS MODULE REMOVED FOR RP20-H

FRONT VIEW

CAUTION: OFF SHEET PARTS LIST EXISTS. SEE K-PL-7016291-0-DBP

REV.	
CHG	

DEC FORM NO. 100-C

THIRD ANGLE PROJECTION	DESCRIPTION	DWG./PART NO.	ITEM NO.
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
REMOVE BURRS AND BREAK SHARP CORNERS	ANGLES 40° 30'	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES
	SURFACE QUALITY IN	(CHECK ONE)	OVER TO OVER TO OVER TO OVER TO
DO NOT SCALE DWG	QUANTITY & VARIATION	PREFERRED	
	MATERIAL	SCALE	SIZE CODE
FINISH	FINISH	SHEET	DIST.
	TITLE		NUMBER
FIRST USED ON		REV.	
NEXT HIGHER ASSY.		D AD 7016291-0-0 A	

D AD 7016291-C-0 A

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION	
				00	01
1	1	3017688-00	CNTRLR,DUAL ACCESS 208/230V 60HZ	1	0
2	2	3017688-01	CNTRLR,DUAL ACCESS 235/408V 50HZ	0	1
3	3	3617952-01	LABEL,DIGITAL LOGO 2"X5.75"	1	1

REVISION HISTORY			BASIC PART NO: 7018291			D I G I T A L					
ENG	ECO NUMBER	REV	SECTION A OF A	DRN	J, DONAHER	DATE	28-OCT-80	TITLE			
---	INITIAL	A	SECTION, VARIATION INDEX (A) 00,01	CHK'D	J, HUSON	DATE	19-NOV-80	PARTS LIST			
			(B)	DES, ENG,	B MCQUAIN	DATE	15-DEC-80	RP20-H SINGLE ACCESS DCU			
			(C)					DOCUMENT NUMBER			
			(D)	RESP, ENG,	B MCQUAIN	DATE	15-DEC-80	SIZE	CODE	NUMBER	REV
			(E)	MFG, ENG,	T BARRETT	DATE	15-DEC-80	K	PL	7018291-0-DBP	A
			(F)	ASSEMBLY NUMBER		TOP DOCUMENT NUMBER		FILE NAME		EDIT #	
				D-AD-7018291-0-0		B-DD-RP20-H-0		Z1706A,PLS		5	

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