

**FP11-B
floating-point
processor
engineering drawings**

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ALUC
 0 A
 1 A (A v B)
 2 A MINUS B
 3 B
 4 (A, B)
 5 B
 6 A MINUS B MINUS 1
 7 A v B
 8 A PLUS B PLUS 1
 9 A PLUS B
 10 B
 11 A, B
 12 A
 13 A, B
 14 1
 15 A MINUS 1
 16 A v B
 17 A

CNST
 0 200
 1 TO 10 1 TO 10
 11 100000
 12 TO 14 12 TO 14
 15 100004
 16&17 16&17
 20 220
 21 TO 31 21 TO 31
 32 70
 33 71
 34 TO 35 34 TO 35
 36 74
 37 75

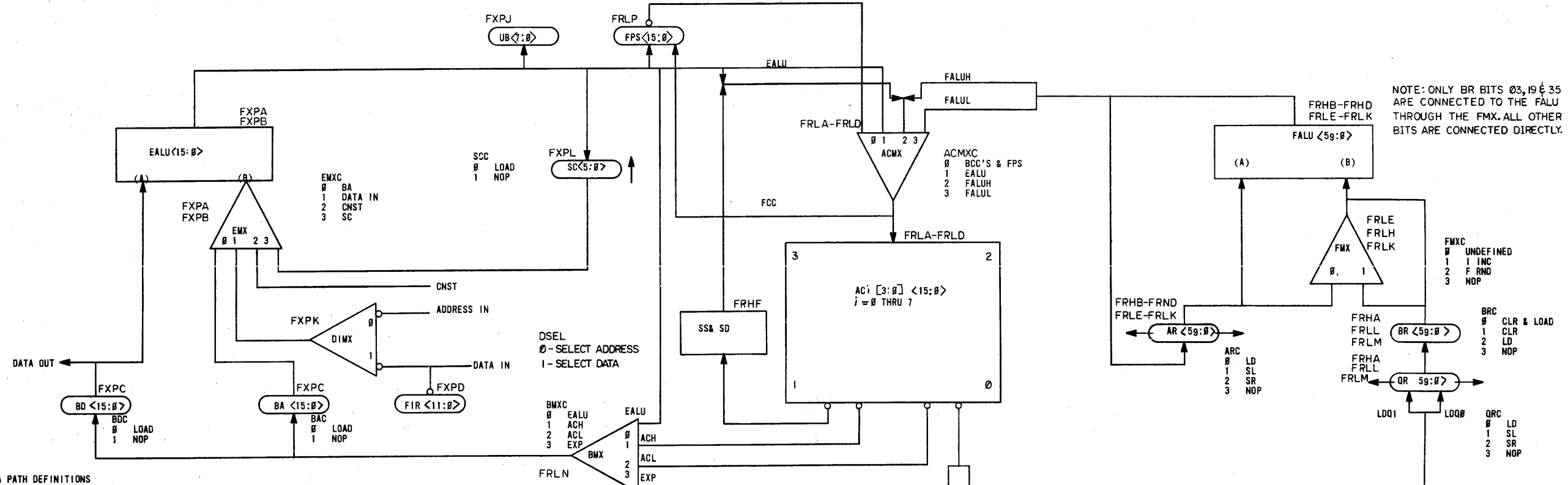
RDFN CNSTF (1)
 CNSTF0
 0 TRAP & WAIT FOR ACKN
 1 NOP
 CNSTF1
 0 WAIT FOR ATTN
 1 NOP
 CNSTF2
 0 NOT USED
 1 NOP
 CNSTF3
 0 DATI
 1 NOP
 CNSTF4
 0 TRAP IF -0
 1 NOP

FCC
 0 LD FN&FZ CLR FV&FC
 1 LD FN,FZ&FV&CLR FC
 2 LD FN&FZ,CLR FV&SET FC
 3 NOP

SYNC
 0 ENABLE
 1 NOP
 ADDR INCR
 0 ADD 2 TO ADDRESS
 1 ADD 0 TO ADDRESS
 DISBL0
 0 CLR INITF & ABORTF
 1 NOP
 DISBL1
 0 CLR FP REQ
 1 NOP

CONTROL SEL
 0 LD FPS
 1 LD UB
 2 REG WRITE
 3 DISABLE SYNC
 4 DISABLE SC
 5 FIR CLK
 6 NOT USED
 7 NOP

CSB
 0 FRAC-MUL
 1 FRAC-DIV
 2 RS-AR-SC
 3 LS-AR-NORM
 4 RS-QR-SC (0 IN)
 5 LS-QR-SC
 6 RS-QR-SC (1 IN)
 7 NOP



NOTE: ONLY BR BITS 03, 19 & 35 ARE CONNECTED TO THE FALU THROUGH THE FMX. ALL OTHER BITS ARE CONNECTED DIRECTLY.

DATA PATH DEFINITIONS

ACMX ← FPS = ACMX <31> ← BN; ACMX <30> ← BZ; ACMX <29:16> ← 7777; ACMX <15:0> ← FPS <15:0>
 ACMX ← EALU = ACMX <31:16> ← EALU <15:0>; ACMX <15:0> ← EALU <15:0>
 ACMX ← FALUH = ACMX <31:0> ← SD; ACMX <30:23> ← EALU <7:0>; ACMX <22:0> ← FALU <57:35>
 ACMX ← FALUL = ACMX <31:0> ← FALU <34:3>
 BMX ← EALU = BMX <15:0> ← EALU <15:0>
 BMX ← ACH = BMX <15:0> ← ACI [3] <15:0> OR ACI [1] <15:0>
 BMX ← ACL = BMX <15:0> ← ACI [2] <15:0> OR ACI [0] <15:0>
 BMX ← EXP = BMX <15:0> ← BMX <7:0> ACI [3:2] <30:23>
 EMX ← BA = EMX <15:0> ← BA <15:0>
 EMX ← DATA IN = EMX <15:0> ← DIMX <15:0>
 EMX ← CNST = EMX <15:0> ← CNST <15:0>
 EMX ← SC = EMX <15:0> ← SC <5:0>
 FMX ← BR = FMX <2> ← BR <35>; FMX <1> ← BR <19>; FMX <0> ← BR <3>
 FMX ← F-RND = FMX <2> ← AR <34> IF ~FD ELSE FMX <2> ← BR <35>; FMX <1> ← BR <19>; FMX <0> ← AR <2> IF FD ELSE FMX <0> ← BR <3>
 FMX ← I-INC = FMX <2> ← IL; FMX <1> ← IL; FMX <0> ← BR <3>
 LDQ1 = QR <59> ← 0; QR <58> ← 1 IF ACI [3:2] <30:23> ≠ 0 ELSE QR <58> ← 0; QR <57:35> ← ACI [3:2] <22:0>
 LDQ0 = QR <34:3> ← ACI [1:0] <31:0>; QR <2:0> ← 0

SIGNC
 0 SD ← SS IF SUB ELSE SD ← SS
 1 SD ← SS, SD
 2 SS ← 1
 3 NOP

ACF
 0 ACS
 1 ACSy1
 2 ACD
 3 ACDy1
 4 AC6
 5 AC7
 6 NOT USED
 7 NOT USED

ACC
 0 3:2
 1 3
 2 2
 3 1:0
 4 0
 5 0
 6 0
 7 NOP

ACRE
 0 WRITE
 1 READ

FMXC
 0 UNDEFINED
 1 INC
 2 F-RND
 3 NOP

BRC
 0 CLR & LOAD
 1 CLR
 2 LD
 3 NOP

QRC
 0 LD
 1 SL
 2 SR
 3 NOP

REVISIONS

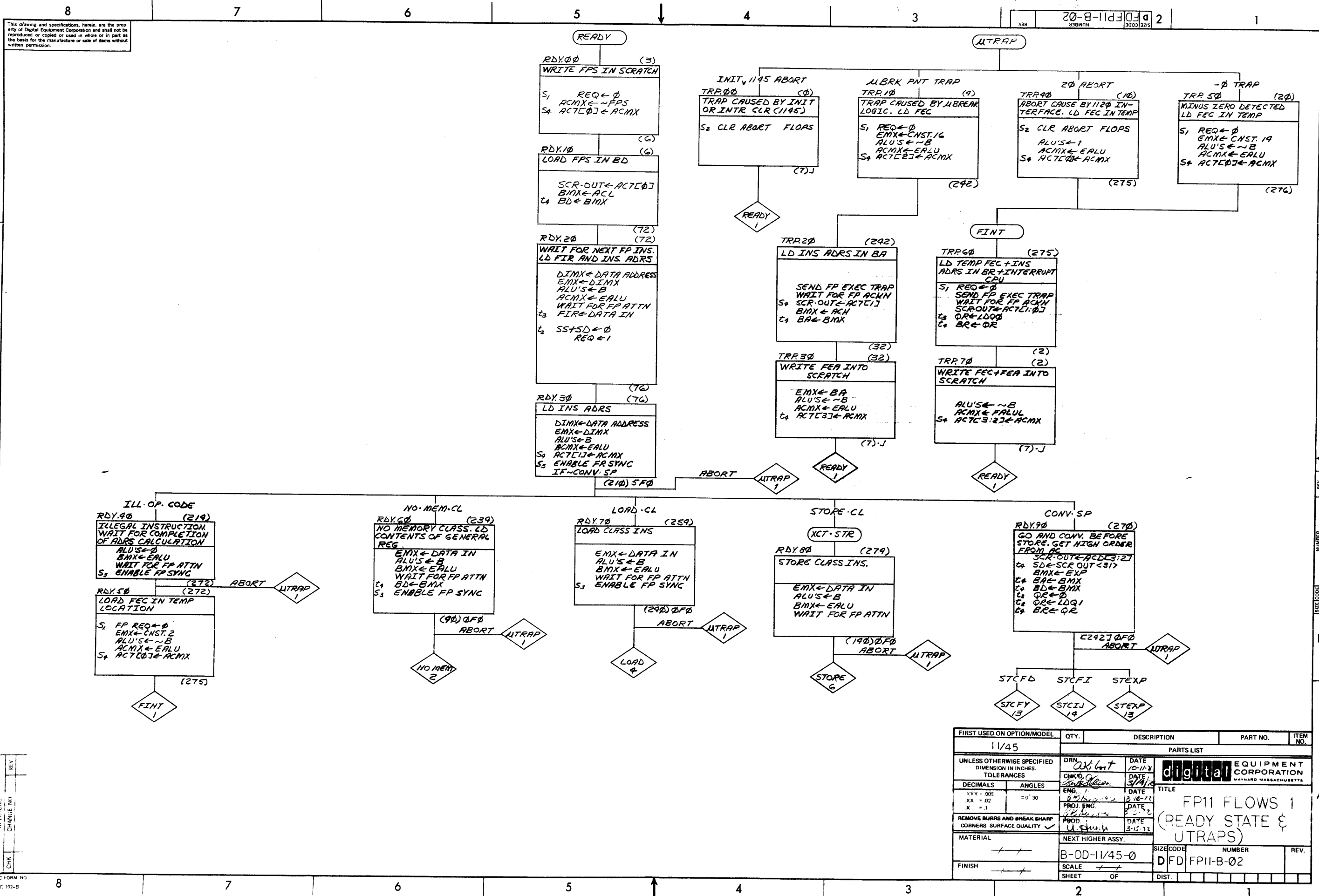
CHK	CHANGE NO.	REV

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DRN. <i>alint</i> DATE 12-27-71	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
		CHKD. <i>[Signature]</i> DATE 3/1/72		
DECIMALS	ANGLES	ENG. <i>[Signature]</i> DATE 3-10-72	TITLE FP DATA PATHS	
XXX + .005 .XX = .02 X = .1	±0° 30'	PROJ. ENG. <i>[Signature]</i> DATE 3-10-72		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		PROD. <i>[Signature]</i> DATE 3-15-72		
MATERIAL	NEXT HIGHER ASSY.		SIZE CODE	NUMBER
FINISH			D	FD FPII-B-01
	SCALE			
	SHEET	OF		

WORKING 40-522 15840

FORM NO. 102-B

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FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45		PARTS LIST		
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DATE 10-11-77	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
DECIMALS	ANGLES	DATE 3-10-78	TITLE	
XXX - .005	= 0' 30"	DATE 2-2-78	FP11 FLOWS 1	
XX - .02		DATE 2-2-78	(READY STATE & UTRAPS)	
X - .1		DATE 3-15-78		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		DATE 3-15-78		
MATERIAL	NEXT HIGHER ASSY.	DATE		
FINISH	SCALE	DATE		
	SHEET OF	DATE		
		DATE		

REV. 1
REV. 2
REV. 3
REV. 4
REV. 5
REV. 6
REV. 7
REV. 8
REV. 9
REV. 10
REV. 11
REV. 12
REV. 13
REV. 14
REV. 15
REV. 16
REV. 17
REV. 18
REV. 19
REV. 20

DEC FORM NO. 102-B

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NO. MEM

NO MEM-2

NOM.00 (66)
LD DATA INTO A/BREAK REG
S, REQ ← 0
ALU ← A
UB ← EALU
(7)J

READY

NOM.02 (42)
READ MOST SIGN. HALF OF SOURCE AC
S, REQ ← 0
SCR OUT ← ACSC3:23
BMX ← EXP
t, BA ← BMX
t, QR ← LDQI
t, SS ← SCR OUT <31>
t, BR ← QR
(5)

NOM.04 (5)
READ LEAST SIGN. HALF OF SOURCE AC + MOVE SS TO SD
SCR OUT ← ACSC1:0
t, QR ← LDQI
t, BR ← QR
t, SD ← SS
(21)

NOM.06 (21)
WRITE INTO MOST SIGN. HALF OF DEST. AC
ALU ← ~B
FMX ← BR
ACMX ← FALUH
EMX ← BA
S, ACSC3:23 ← SCR IN
t, SET FCC(0)
(12)9F1.J

NOM.08 (12)
WRITE INTO LEAST SIGN. HALF OF DEST. AC
ALU ← ~B
FMX ← BR
ACMX ← FALUL
S, ACSC1:07 ← SCR IN
(7)J

READY

NOM.10 (44)
READ MOST SIGN. HALF OF SOURCE AC
S, REQ ← 0
SCR OUT ← ACSC3:23
BMX ← EXP
t, BA ← BMX
t, QR ← LDQI
t, SD ← SCR OUT <31>
t, BR ← QR
(29)9F1

NOM.12 (24)
READ LEAST SIGN. HALF OF SOURCE AC
SCR OUT ← ACSC1:07
t, QR ← LDQI
t, BR ← QR
(25)

NOM.14 (25)
WRITE INTO MOST SIGN. HALF OF DEST. AC
ALU ← ~B
FMX ← BR
ACMX ← FALUH
EMX ← BA
S, ACSC3:23 ← SCR IN
(16)9F1.J

NOM.16 (16)
WRITE INTO LEAST SIGN. HALF OF DEST. AC
ALU ← ~B
FMX ← BR
ACMX ← FALUL
S, ACSC1:07 ← ACMX
(7)J

READY

NOM.18 (41)
WRITE 0 IN MOST SIGN. HALF OF AC
S, REQ ← 0
ALU ← 1
ACMX ← EALU
S, ACSC3:23 ← ACMX
t, SET FCC(0)
(22)9F1.J

NOM.20 (22)
WRITE 0 IN LEAST SIGN. HALF OF AC
ALU ← 1
ACMX ← EALU
S, ACSC1:07 ← SCR IN
(7)J

READY

NOM.22 (45)
LD 1'S COMP. OF DATA INTO SC
S, REQ ← 0
ALU ← ~A
ACMX ← EALU
S, SC ← EALU
t, FINN BLOCK SC LOADS
(7)J

READY

NOM.24 (43)
LD UPPER QUARTER OF AC IN BD
S, REQ ← 0
SCR OUT ← ACSC37
BMX ← ACH
t, BD ← BMX
(73)

NOM.26 (73)
LD EXP IN BA TO TEST FOR ZERO
SCR OUT ← ACSC37
BMX ← EXP
t, BA ← BMX
(11)1F0

NOM.28 (31)
SET FCC'S
ALU ← ~A
ACMX ← EALU
t, SET FCC(0)
(7)J

READY

NOM.30 (71)
COMPLIMENT SIGN
EMX ← CNST1000000
ALU ← A PLUS B
BMX ← EALU
t, BD ← BMX
(90)6F1

NOM.34 (90)
WRITE INTO UPPER QUARTER OF AC
ALU ← ~A
ACMX ← EALU
S, ACSC37 ← ACMX
t, SET FCC(0)
(7)J

READY

NOM.36 (67)
LD DATA INTO FPS
S, REQ ← 0
EALU ← A
t, FPS ← EALU
(7)J

READY

NOM.32 (51)
CLEAR SIGN
EMX ← CNST1000000
ALU ← A - B
BMX ← EALU
t, BD ← BMX
(90)6F1

CLR-AC

NOM.34 (90)
WRITE INTO UPPER QUARTER OF AC
ALU ← ~A
ACMX ← EALU
S, ACSC37 ← ACMX
t, SET FCC(0)
(7)J

READY

LDX-1

CLR-NON

CLR-NON

CLR-AC

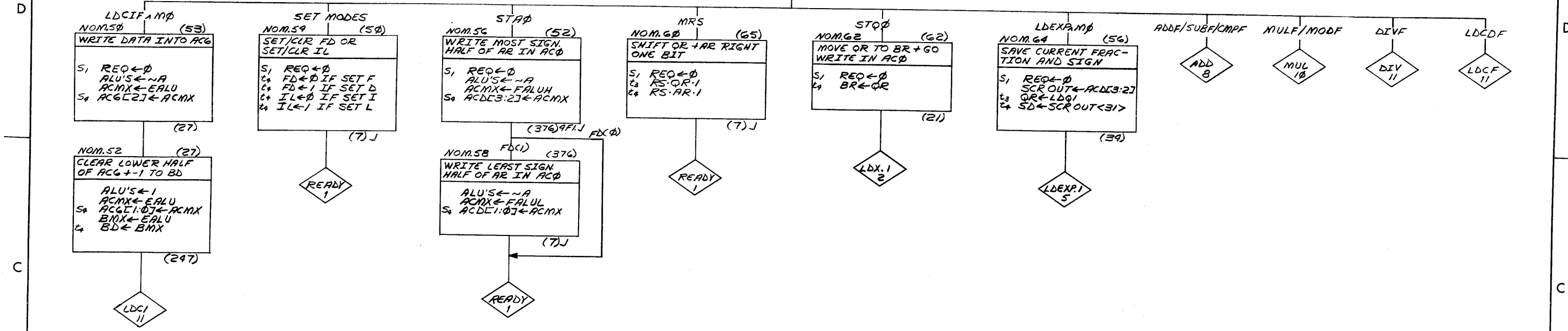
REV	CHANGE NO.

REV
NUMBER
D F D F P I I - B - 03

FIRST USED ON OPTION/MODEL 11/45	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN. CHKD ENG. PROJ. ENG. PROD.	DATE 10-12-71 1/11/72 2-10-72 2-10-72 3-15-72	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
DECIMALS .XXX = .005 .XX = .02 .X = .1	ANGLES ±0° 30'	TITLE FP11 FLOWS 2 (NO MEM CLASS)		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓	NEXT HIGHER ASSY.	SCALE B-DD-11/45-0	SIZE CODE D F D F P I I - B - 03	REV.
MATERIAL FINISH		SHEET OF	DIST.	

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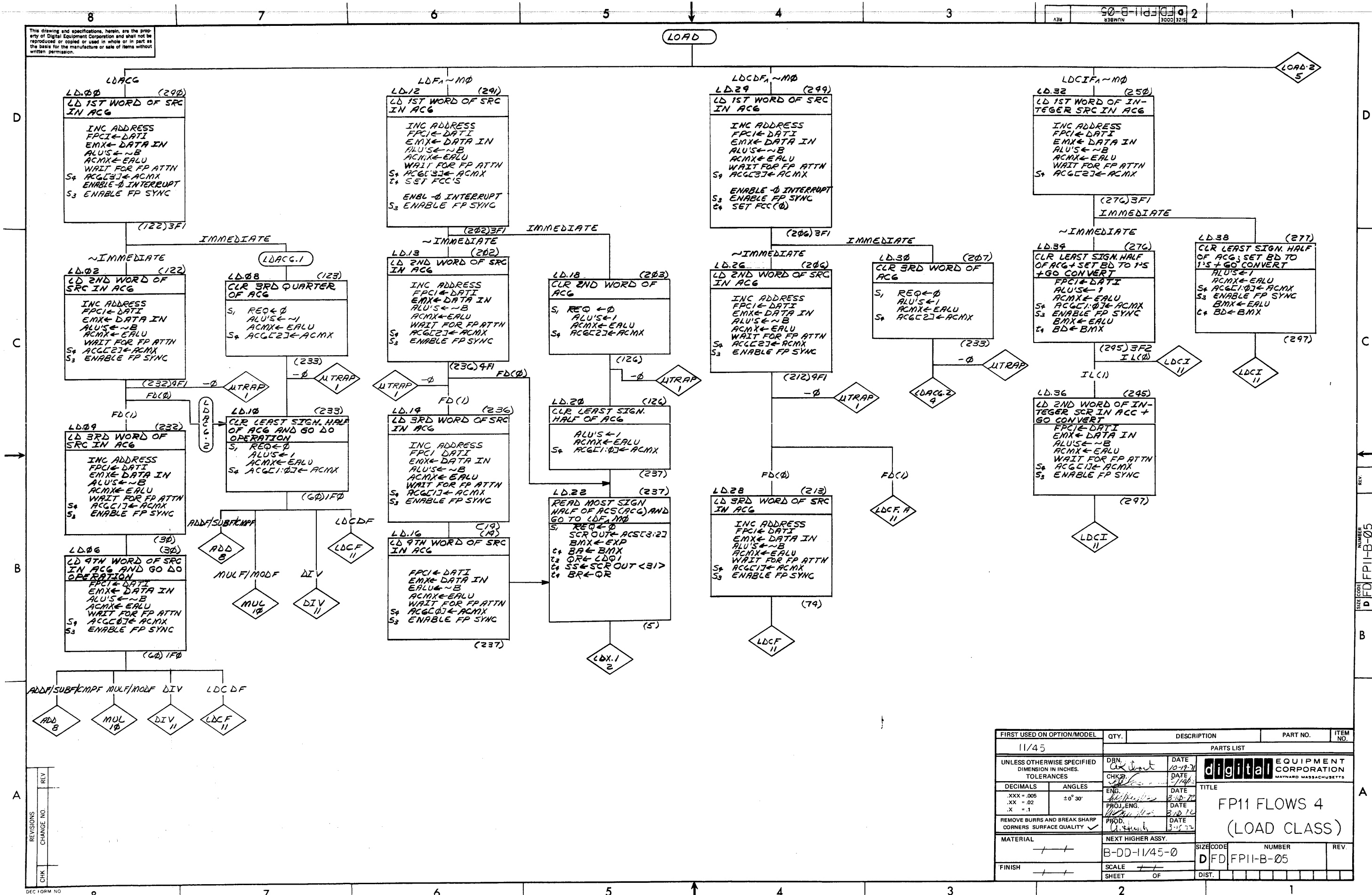
NO-MEM-2



REV	
CHG	
CHK	

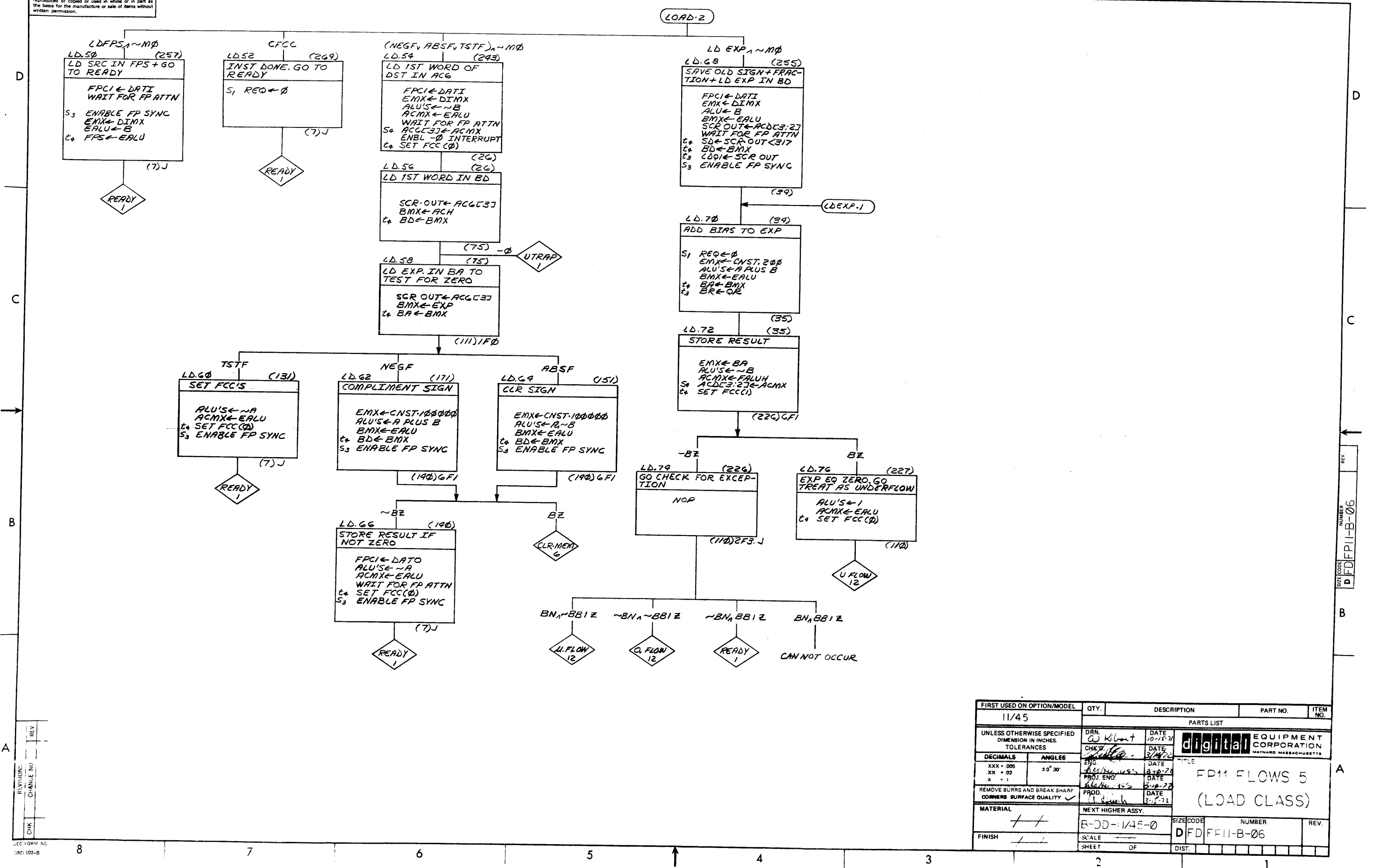
FIRST USED ON OPTION/MODEL 11/45	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN. <i>W. J. T.</i>	DATE 10/13/71	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
DECIMALS	CHK. <i>W. J. T.</i>	DATE 3/14/72	TITLE	
ANGLES	ENG. <i>W. J. T.</i>	DATE 3/14/72	FP11 FLOWS 3 (NO MEM CLASS)	
.XX = .05 .XX = .02 X = .1	PROJ. ENG. <i>W. J. T.</i>	DATE 3/14/72	SIZE CODE NUMBER	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PROD. <i>W. J. T.</i>	DATE 3/14/72	D FD FP11-B-04	
MATERIAL	NEXT HIGHER ASSY.	SCALE	REV	
FINISH	B-DD-11/45-0	SHEET OF	DIST.	

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FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN. <i>Car</i>	DATE 10-19-71	 DIGITAL EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
DECIMALS .XXX = .005 .XX = .02 .X = .1	CHKD. <i>Car</i>	DATE 7/14/72		
ANGLES ±0° 30'	ENG. <i>Car</i>	DATE 3-10-72	TITLE FP11 FLOWS 4 (LOAD CLASS)	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PROJ. ENG. <i>Car</i>	DATE 3-10-72		
MATERIAL	NEXT HIGHER ASSY.	DATE 3-10-72		
FINISH	B-DD-11/45-0		SIZE CODE	NUMBER
	SCALE		D	FD
	SHEET	OF	FP11-B-05	REV.

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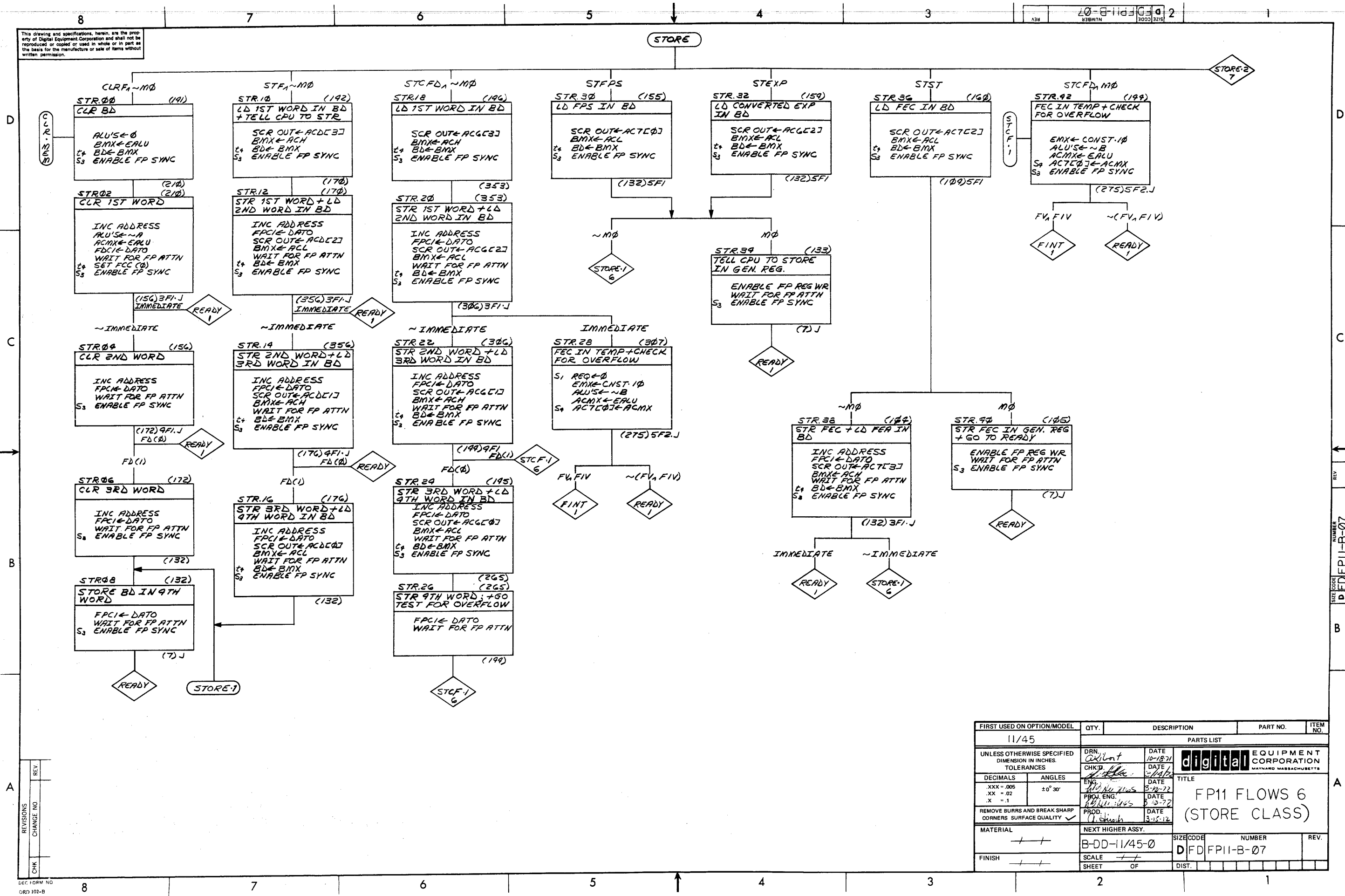


REV	
CHANGE NO	
CHK	
REVISION	

SEC FORM NO 102-B

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN. G. Kilbatt	DATE 10-15-71	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
DECIMALS	CHK'D	DATE 3/17/72	TITLE	
XX - .05	ENG. G. Kilbatt	DATE 3-20-72	FP11 FLOWS 5	
X - .1	PROJ ENG. G. Kilbatt	DATE 3-10-72	(LOAD CLASS)	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PROD. G. Kilbatt	DATE 3-1-72		
MATERIAL	NEXT HIGHER ASSY.			
FINISH	B-DD-11/45-0	SCALE	SIZE CODE DFD	NUMBER FFP11-B-06
	SHEET OF	DIST.		REV.

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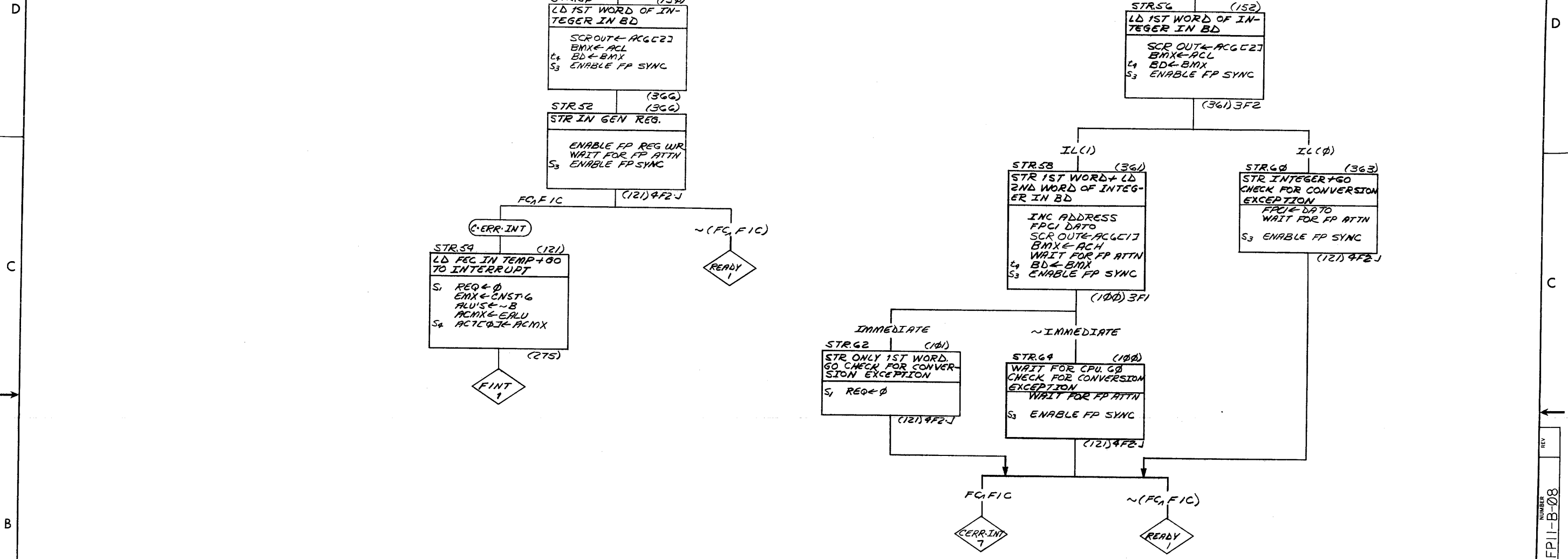
REV	NO
CHK	NO
CHG	NO
REV	NO

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45		PARTS LIST		
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN. <i>ad/lat</i>	DATE 10-18-71	 digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
DECIMALS ANGLES	CHK'D. <i>[Signature]</i>	DATE 11/16/71		
.xxx = .005 .xx = .02 .x = .1	ENG. <i>[Signature]</i>	DATE 3-10-72		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PROJ. ENG. <i>[Signature]</i>	DATE 5-12-72		
MATERIAL	PROD. <i>[Signature]</i>	DATE 3-15-72	TITLE FP11 FLOWS 6 (STORE CLASS)	
FINISH	NEXT HIGHER ASSY.		SIZE CODE B-DD-11/45-0	NUMBER DFD FPII-B-07
	SCALE		SHEET	REV.
			OF	
			DIST.	

REV. NO. DFD FPII-B-07

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REV. NUMBER DFDPII-B-08



REV	
CHANGE NO	
CHK	

DEC FORM NO DRD 102-B

FIRST USED ON OPTION/MODEL 11/45	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN <i>Robert</i>	DATE 1/27/73	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
DECIMALS	CHK'D <i>Robert</i>	DATE 3/14/72	TITLE FP11 FLOWS 7 (STORE CLASS)	
ANGLES	EMG. <i>Robert</i>	DATE 9-10-72		
XXX = .005	PROJ. ENG. <i>Robert</i>	DATE 8-22-72		
.XX = .02	PROD. <i>Robert</i>	DATE 8-14-72		
X = .1				
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓				
MATERIAL ++	NEXT HIGHER ASSY. B-DD-11/45-0	SIZE CODE D	NUMBER FDPII-B-08	REV.
FINISH ++	SCALE 1/1	SHEET OF	DIST.	

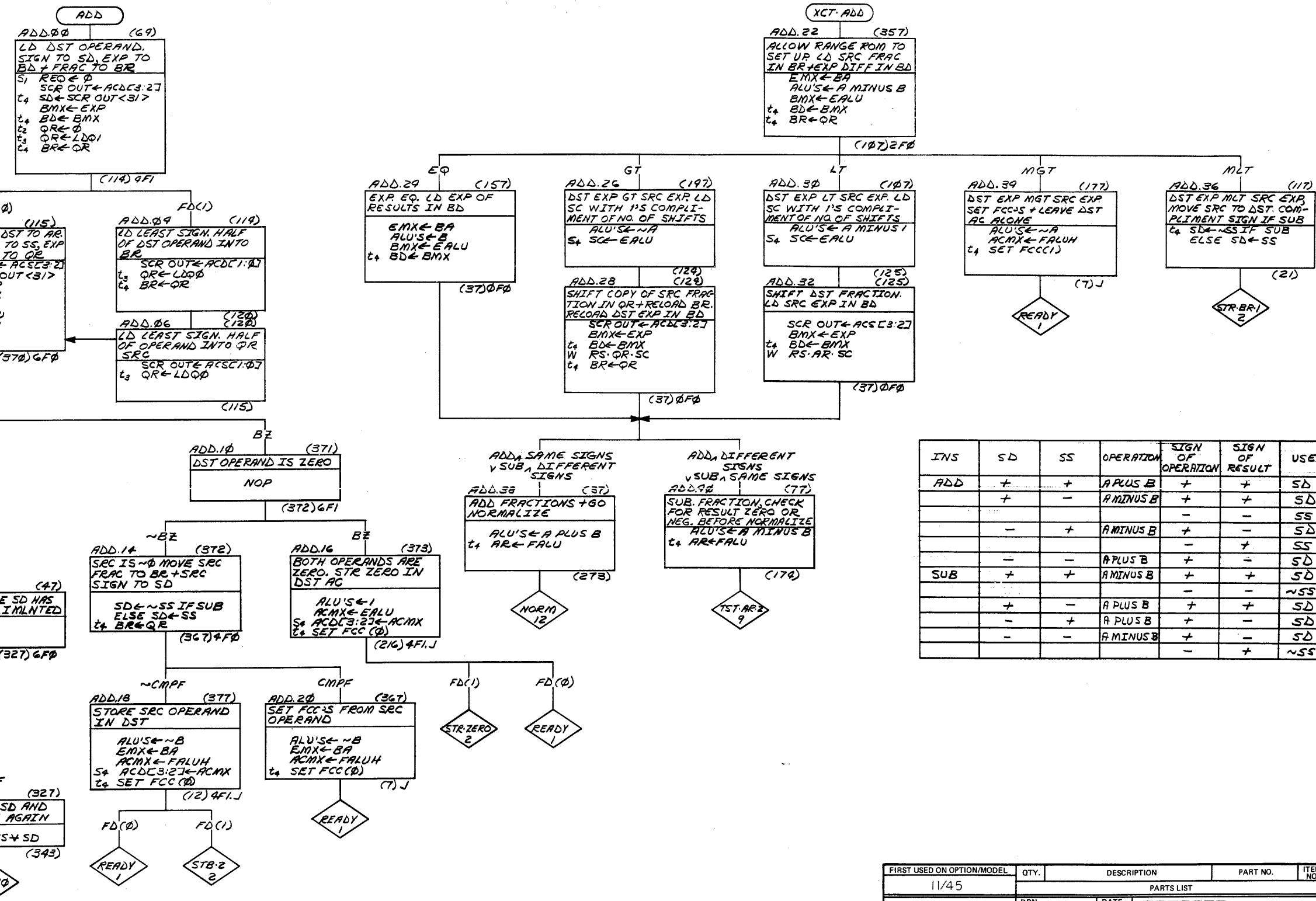
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D

C

B

A



INS	SD	SS	OPERATION	SIGN OF OPERATION	SIGN OF RESULT	USE
ADD	+	+	A PLUS B	+	+	SD
	+	-	A MINUS B	+	+	SD
	-	+	A MINUS B	+	-	SD
	-	-	A PLUS B	+	-	SD
SUB	+	+	A MINUS B	+	+	SD
	+	-	A PLUS B	+	+	SD
	-	+	A PLUS B	+	-	SD
	-	-	A MINUS B	+	-	SD
	-	+	-	-	+	SS

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DRN. <i>ak</i>	DATE 12/21/71	 digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
DECIMALS		CHK'D. <i>ak</i>	DATE 5/14/72	
ANGLES		ENG. <i>ak</i>	DATE 5-18-72	
.XXX = .005 .XX = .02 .X = .1		PROJ. ENG. <i>ak</i>	DATE 6-18-72	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		PRD. <i>ak</i>	DATE 3-15-73	TITLE
MATERIAL		NEXT HIGHER ASSY.		FP11 FLOWS 8 (EXECUTE ADD, SUB, OR CMP)
FINISH		B-DD-11/45-0	SIZE CODE	NUMBER
		SCALE	D	FD FP11-B-09
		SHEET	OF	REV.

REV	CHANGE NO.	REVISIONS

DEC FORM NO. DRD 102-B

8

7

6

5

4

3

2

1

D

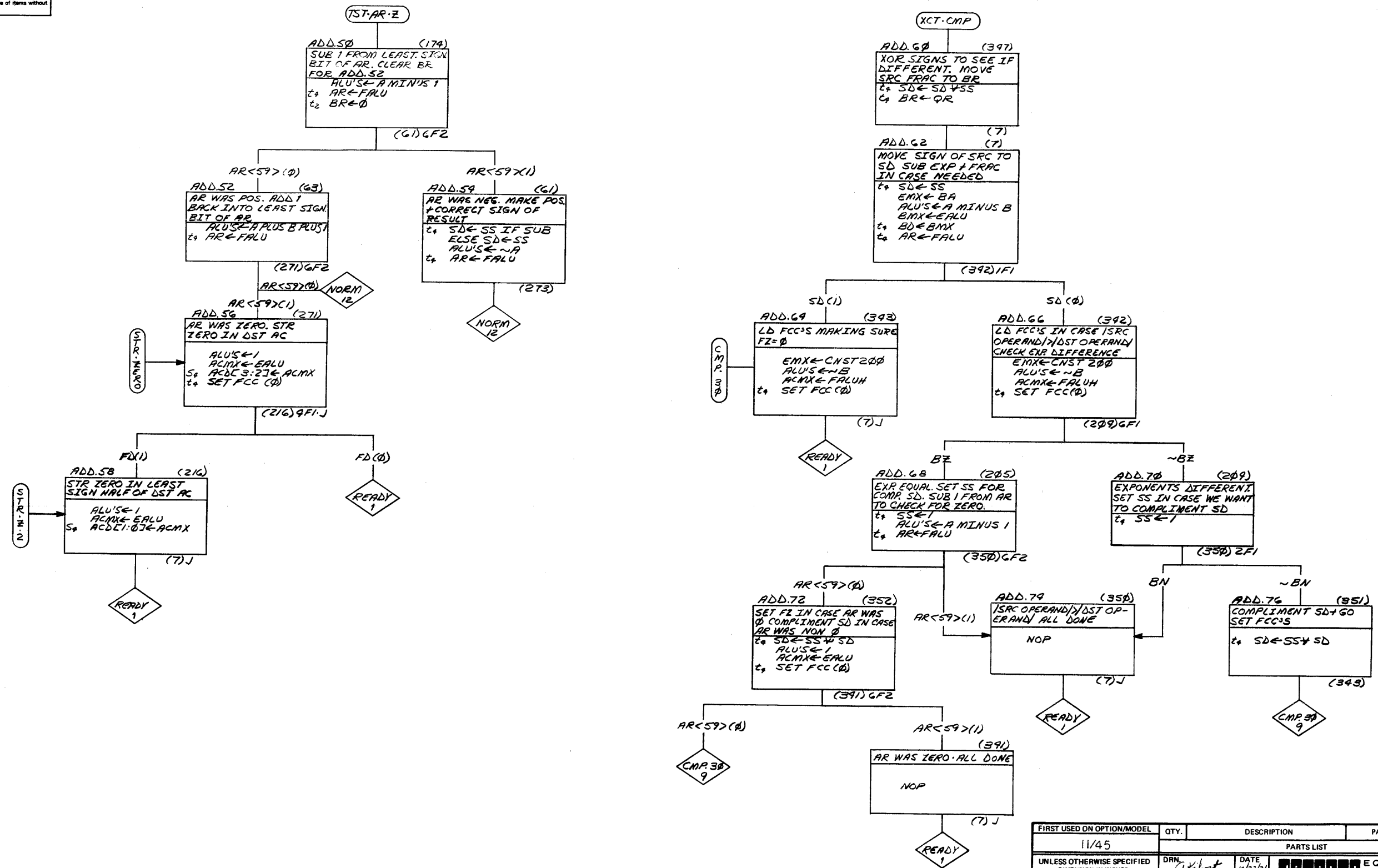
C

B

A

NUMBER DFD FP11-B-09

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REV	
CHANGE NO.	
NO.	
CHK	

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45		PARTS LIST		
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DRN	DATE	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS
DECIMALS	ANGLES	CHK'D	DATE	
XXX = .005	±0° 30'	ENG.	DATE	TITLE FP11 FLOWS 9 (EXECUTE ADD SUB OR CMP)
.XX = .02		PROJ. ENG.	DATE	
X = .1		PROD.	DATE	SIZE CODE NUMBER DFD/FPII-B-10
MATERIAL	NEXT HIGHER ASSY.			
FINISH	SCALE			REV.
	SHEET OF			

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D

C

B

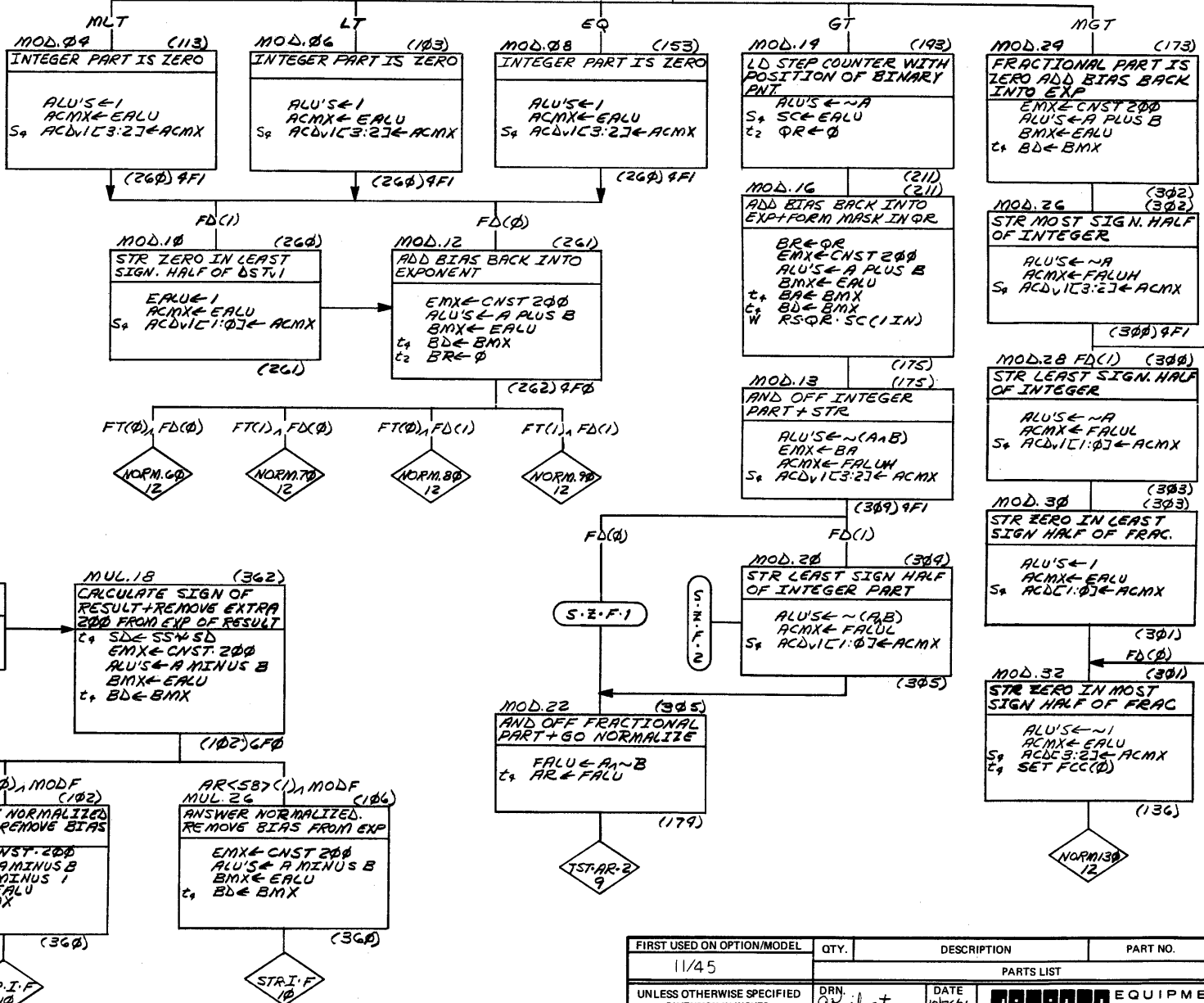
A

REVISIONS
CHANGE NO.
CHK

DEC FORM NO
DRD 102-B

MUL
MUL.00 (60)
LD DST SIGN TO SD EXP
TO BD+FRAC TO BR. LD
STEP CTR FOR 24 BIT MUL
S1 REG ← 0
EMX ← CNST. 31
ALU ← ~B
S2 SCE EALU
SCR OUT ← ACDC3:27
t1 SCE SCR OUT < 31
t2 B ← BMX
t3 Q ← LDQ1
t4 Q ← LDQ1
t5 BR ← QR

STR.I.F
MOD.00 (360)
LOOK AT RANGE OF
UNBIASED EXP
ALU ← A
MOD.02 (127)
ALLOW RANGE ROM TO
SETTLE
ALU ← A
(103) 2F0



D

C

B

A

REV. NUMBER
D F D F P I I - B - I I

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45		PARTS LIST		
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES.	DRN <i>OK</i>	DATE 10/24/71	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
TOLERANCES	CHKD. <i>OK</i>	DATE 3/19/72		
DECIMALS .XXX = .005 .XX = .02 .X = .1	ENG. <i>OK</i>	DATE 3/19/72	TITLE FP11 FLOWS 10 (EXECUTE MUL OR MOD)	
ANGLES 50° 30'	PROJ. ENG. <i>OK</i>	DATE 3/19/72		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓	PROD. <i>OK</i>	DATE 3/19/72	SIZE CODE NUMBER REV. D F D F P I I - B - I I	
MATERIAL	NEXT HIGHER ASSY.			
FINISH	B-DD-11/45-0	SCALE	SHEET OF	
		DIST.		

8

7

6

5

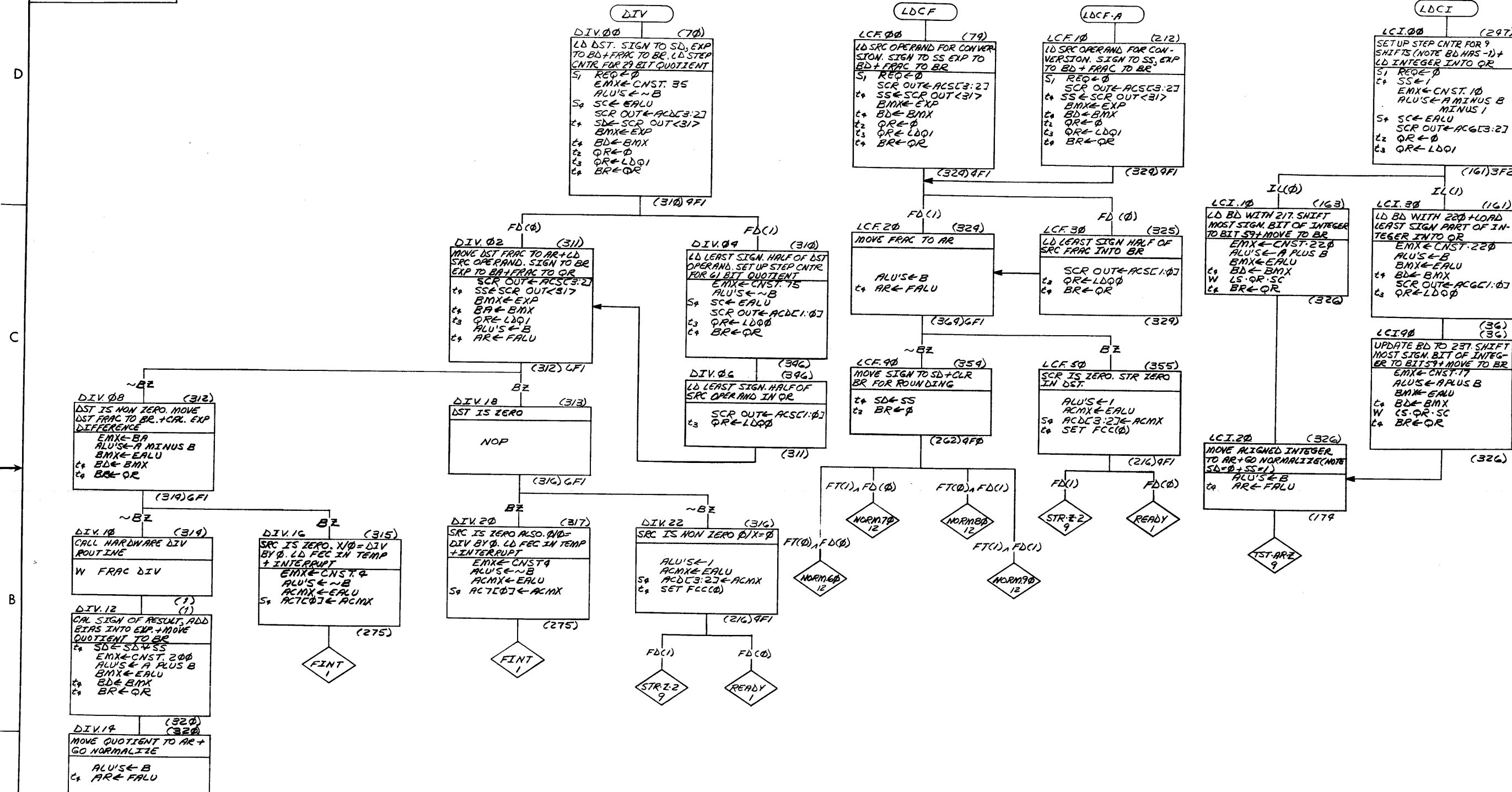
4

3

2

1

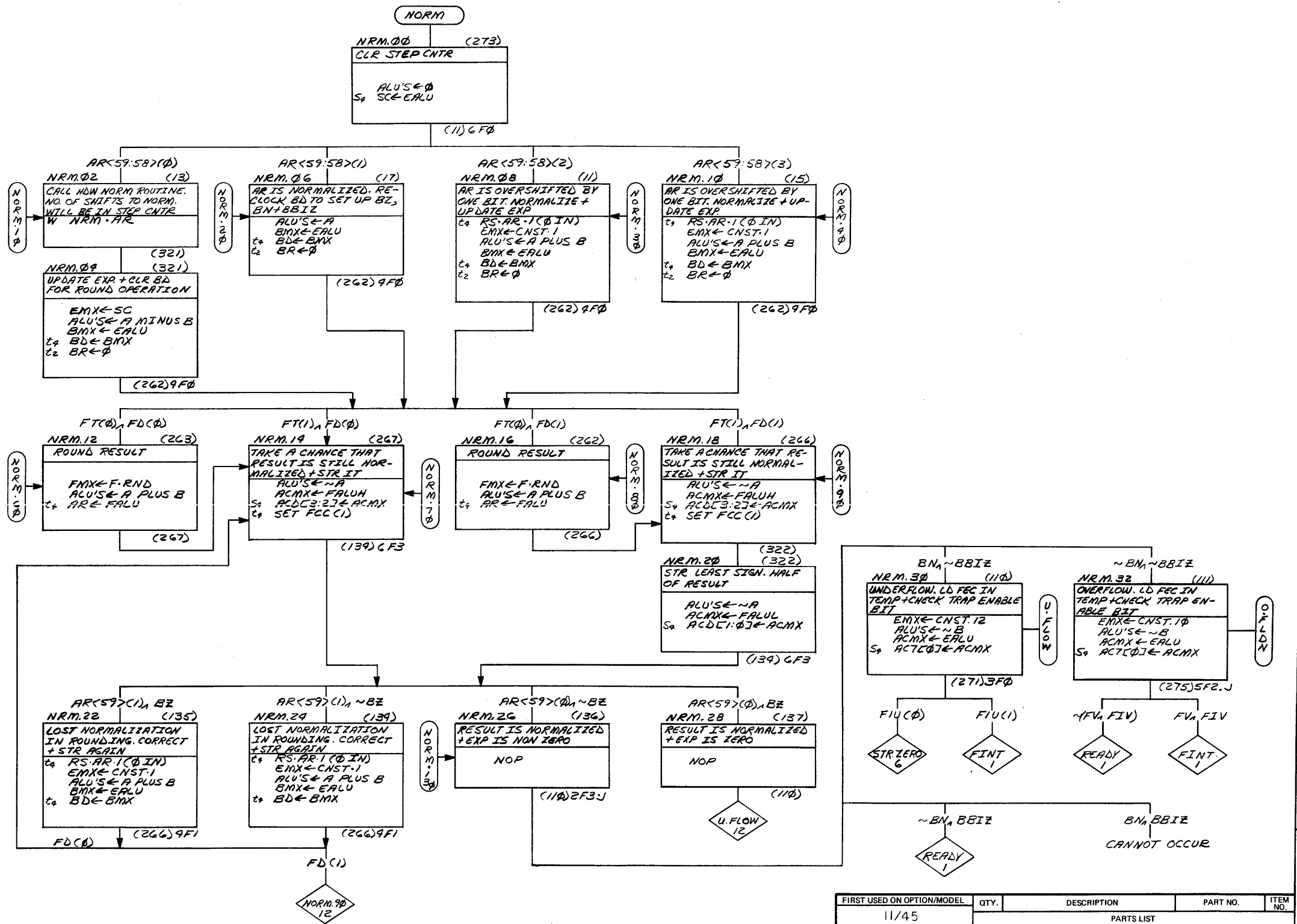
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REV.	NO.
CHG.	NO.
REV.	NO.
CHG.	NO.

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES				
DECIMALS	ANGLES	DATE		
.xxx = .005	.xx = .02	10-27-71		
.x = .1	±0'30"	DATE		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓				
MATERIAL				
NEXT HIGHER ASSY.				
FINISH				
SCALE				
SHEET OF				
TITLE				
FP11 FLOWS 11 (EXECUTE DIV, LDCF OR LDCI)				
SIZE CODE				
NUMBER				
REV.				
DIST.				

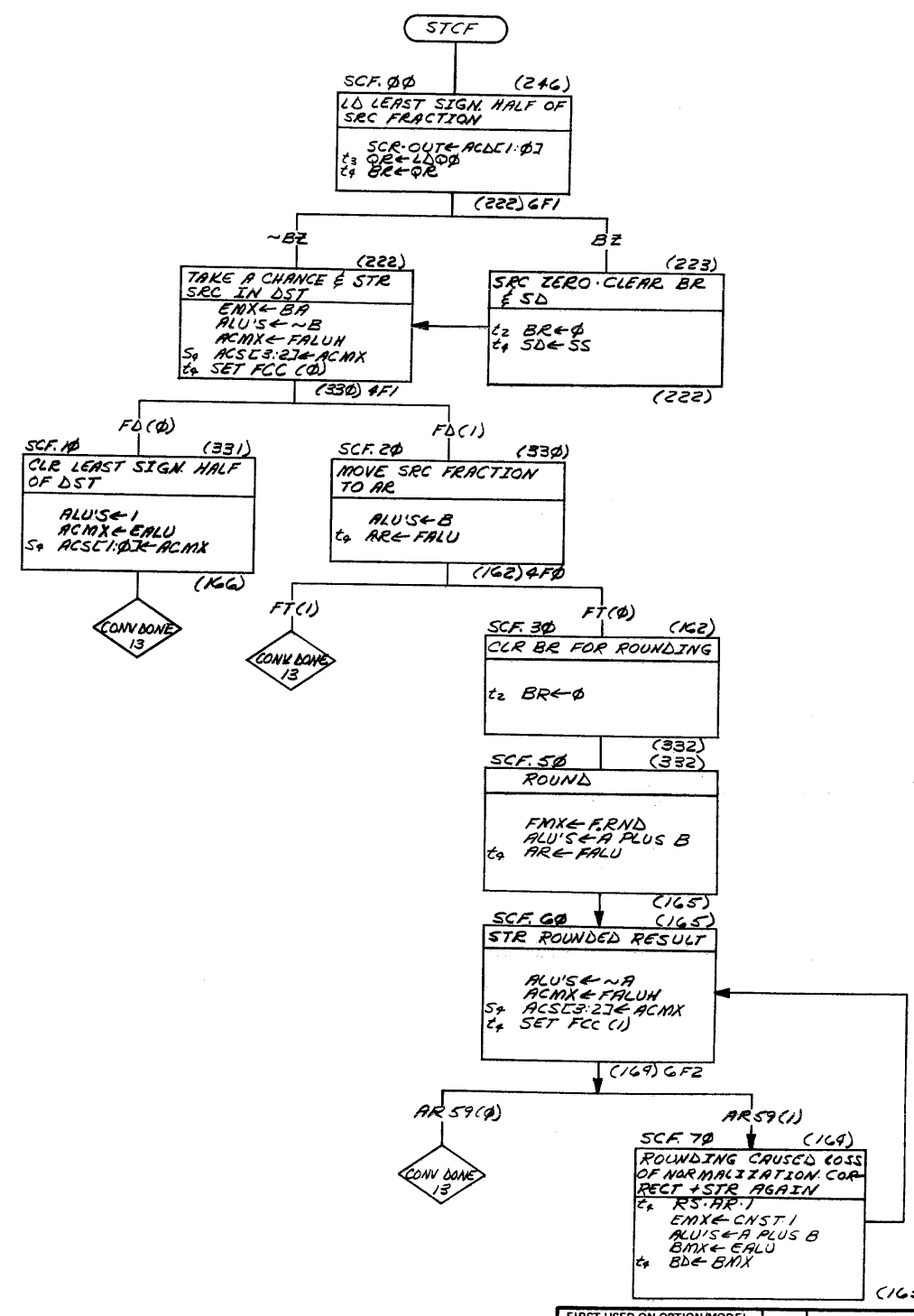
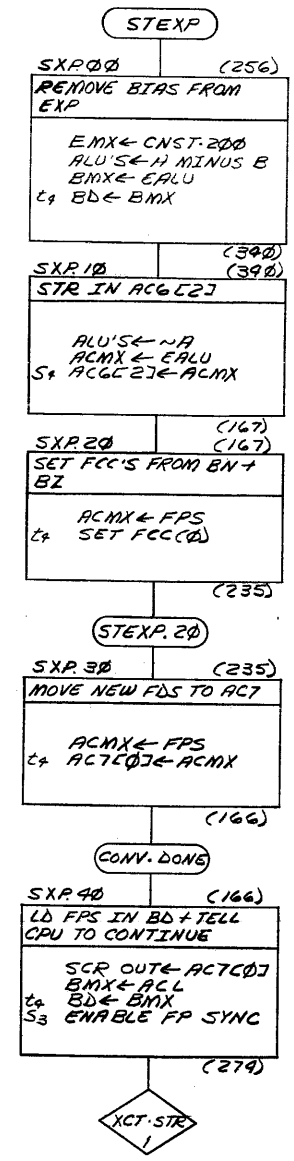
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REV	
CHANGE NO.	
CHK	

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45		PARTS LIST		
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN. <i>Admitt</i>	DATE 10/28/71	 digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
DECIMALS ANGLES	CHKD. <i>[Signature]</i>	DATE 3/19/72		
.XXX = .005 .XX = .02 .X = .1	ENG. <i>[Signature]</i>	DATE 3/19/72		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PROJ. ENG. <i>[Signature]</i>	DATE 3/19/72		
MATERIAL	PROD. <i>[Signature]</i>	DATE 3-15-72	TITLE FP11 FLOWS 12 (NORMALIZE & ROUND)	
FINISH	NEXT HIGHER ASSY.		SIZE CODE B-DD-11/45-0	NUMBER D F D F P I I - B - 13
	SCALE			REV.
	SHEET	OF		

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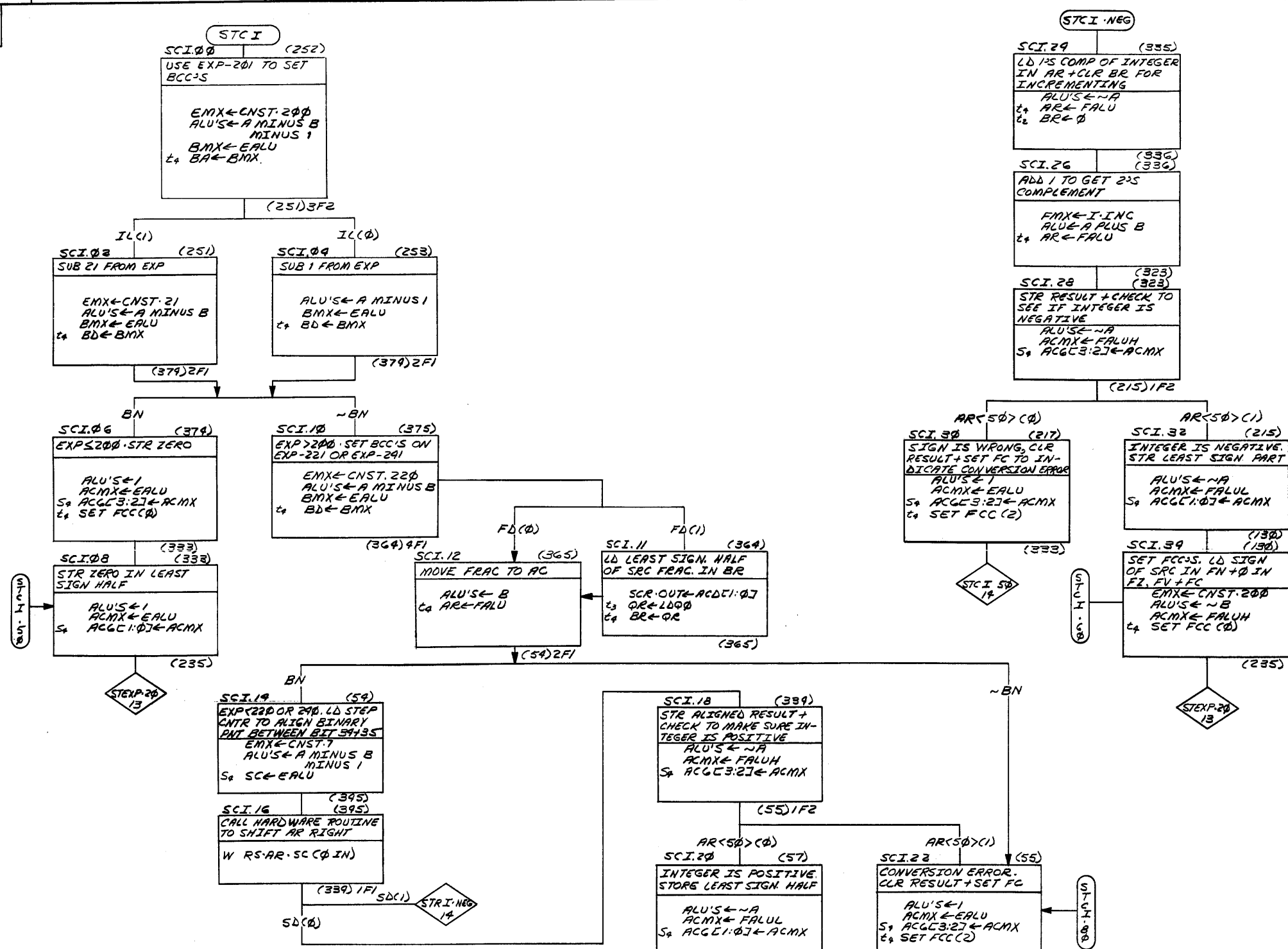


FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45		PARTS LIST		
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES		DRN <i>okint</i>	DATE 10-29-71	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS
DECIMALS	ANGLES	CHKD <i>okint</i>	DATE 3/4/72	
XXX = .005		ENG <i>okint</i>	DATE 6-2-72	TITLE FP11 FLOWS 13 (EXECUTE STEXP & STCF)
.XX = .02	±0° 30'	PROJ. ENG. <i>okint</i>	DATE 6-2-72	
.X = .1		PROD. <i>okint</i>	DATE 3-5-73	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		NEXT HIGHER ASSY.		
MATERIAL	FINISH	B-DD-11/45-0	SIZE CODE DFD	NUMBER FPII-B-14
		SHEET OF	DIST	REV.

REV	CHANGE NO

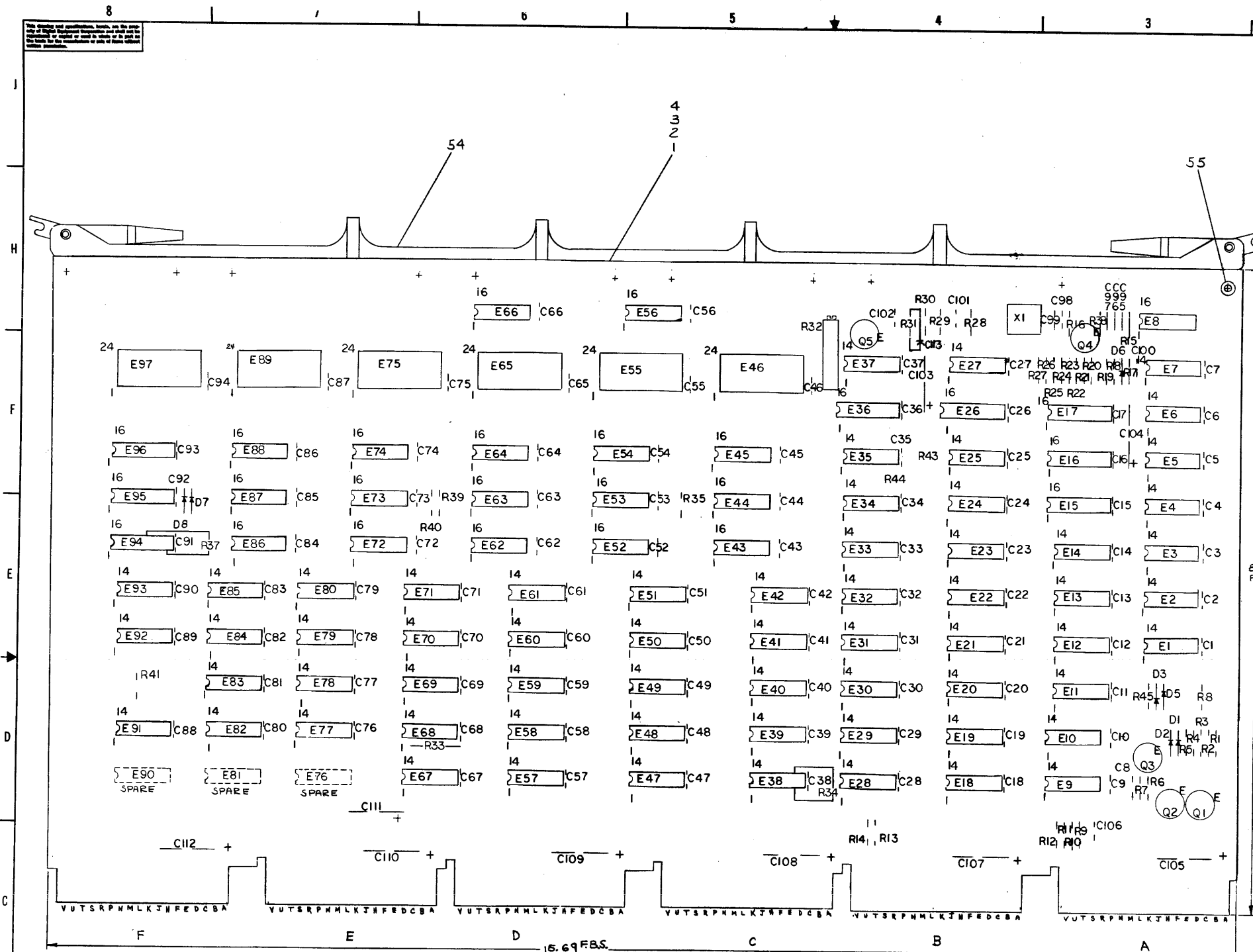
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REV. NUMBER
D F D F P I I - B - 1 5



FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES				
DECIMALS	ANGLES	DRN. <i>Edlent</i>	DATE 10/24/74	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS TITLE FP11 FLOWS 14 (EXECUTE STCI)
.XXX = .005	±0° 30'	CHK'D. <i>W. Ogan</i>	DATE 3/14/72	
.XX = .02		ENG. <i>H. B. Hughes</i>	DATE 2/18/72	
.X = .1		PROJ. ENG. <i>W. B. G. G. G.</i>	DATE 3/22/72	
		PRD. <i>A. Smith</i>	DATE 3/15/72	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓				
MATERIAL	NEXT HIGHER ASSY.		SIZE CODE	NUMBER
FINISH	B-DD-11/45-0		D F D F P I I - B - 1 5	
SCALE	SHEET OF		DIST.	

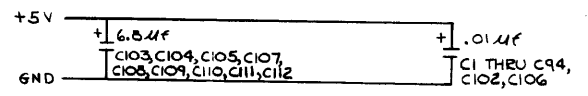
REV	CHANGE NO.	REVISIONS



QTY	REF DESIGNATION	DESCRIPTION	PART NO	ITEM NO
1	E10	IC DEC74574-45	1910950	59
1	C113	CAPACITOR .01UF 100V 5%	1002608	58
1	C101	CAPACITOR 47PF 100V 5%	1000011	57
1	X1	CRYSTAL 20MC	1809880	56
12		EYELET	9006732	55
1		HANDLE MODULE	E-PS-120711-2	54
1	Q1	TRANSISTOR DEC 4258	1505321	53
4	Q2, Q3, Q4, Q5	TRANSISTOR DEC 3009B	1503100	52
1	E24	IC DEC 74565	1910543	51
6	E46, E55, E65, E75, E89, E97	IC DEC 74181	1909982	50
6	E44, E53, E63, E73, E87, E95	IC DEC 74175	1910651	49
12	E43, E45, E52, E54, E62, E64, E72, E74, E86, E88, E94, E96	IC DEC 74194	1910623	48
1	E84	IC DEC 74174	1909667	47
1	E77	IC DEC 74150	1909060	46
3	E61, E80, E85	IC DEC 74140	1905586	45
2	E5, E82	IC DEC 74111	1909267	44
3	E27, E79, E91	IC DEC 74110	1909057	43
1	E78	IC DEC 74104	1909431	42
2	E71, E92	IC DEC 74100	1909056	41
2	E56, E66	IC DEC 74182-1	1910551	40
8	E7, E18, E19, E20, E37, E42, E47, E93	IC DEC 745140	1910546	39
5	E15, E16, E17, E26, E36	IC DEC 745112	1910545	38
8	E25, E28, E33, E39, E41, E68, E69, E99	IC DEC 74574	1910544	37
3	E4, E32, E38	IC DEC 74564	1910542	36
2	E40, E48	IC DEC 74520	1910539	35
6	E1, E11, E22, E30, E35, E49	IC DEC 74511	1910537	34
6	E12, E29, E34, E51, E57, E60	IC DEC 74510	1910536	33
1	E13	IC DEC 74505	1910535	32
9	E3, E14, E21, E31, E50, E58, E59, E67, E83	IC DEC 74500	1910532	31
2	E23, E70	IC DEC 74504	1910534	30
1	E6	IC DEC 7404	199686	29
1	E8	IC DEC 7400	195575	28
4	R33, R35, R37, R41	RESISTOR 100Ω, 1/4W, 5%	1300229	26
1	R32	RESISTOR VARIABLE, 5K, 1/4W	1309143-09	25
4	R1 THRU R4	RESISTOR 1.2K, 1/4W, 5%	1301320	24
5	R8 THRU R12	RESISTOR 1K, 1/4W, 5%	1300365	23
7	R13, R20, R22, R24, R26, R39, R44	RESISTOR 680Ω, 1/4W, 5%	1301424	22
1	E16	RESISTOR 10K, 1/4W, 10%	1300481	21
1	E19	RESISTOR 3.3K, 1/4W, 5%	1300439	20
2	R5, R38	RESISTOR 82Ω, 1/4W, 10%	1300224	19
10	R14, R21, R23, R25, R27, R29, R30, R31, R40, R43	RESISTOR 330Ω, 1/4W, 5%	1300295	18
2	R15, R34	RESISTOR 220Ω, 1/4W, 5%	1300271	17
3	R17, R18, R45	RESISTOR 470Ω, 1/4W, 5%	1300316	16
2	R6, R7	RESISTOR 22Ω, 1/4W, 5%	1301969	15
1	R28	RESISTOR 10Ω, 1/4W, 5%	1301317	14
5	D1, D2, D3, D5, D6	DIODE D662	1100113	13
2	D7, D8	DIODE FD777	1103041	12
1	C98	CAPACITOR 33PF, 00V, 5%	1000009	11
1	C96	CAPACITOR 68PF, 100V, 5%	1000014	10
1	C99	CAPACITOR 10PF, 100V, 5%	1000006	9
9	C103, C104, C105, C107, C108, C109, C110, C111, C112	CAPACITOR 6.8UF, 35V, 20%	1000067	8
96	C1 THRU C94, C102, C106	CAPACITOR .01UF, 100V, 20% DISC	1001610	7
1	C97	CAPACITOR 100PF, 00V, 5% DISC	1000016	6
2	C95, C100	CAPACITOR .047UF, 16V, 5% DISC	1009678	5
1		ETCHED CIRCUIT BOARD	5009863	4
REF		MODULE ECO HISTORY	B-MH-M814-0-4	3
REF		ASSY/DRILLING HOLE LAYOUT	F-AH-M814-0-5	2
REF		X-Y COORDINATE HOLE LOCATION	K-CO-M814-0-4	1

NOTES:
 1. UNLESS OTHERWISE NOTED RESISTANCE IS IN Ω AND CAPACITANCE IS IN PICO FARADS. CAPS. WITHOUT VALUE NOTED ARE .01 MFD.

AAZ, AV1, CAZ, CV1, BAZ, BV1, DAZ, DV1, EAZ, EV1, FAZ, FV1
 ACZ, ANZ, AHI, ATI, BCZ, BNZ, BHI, BTI, CCZ, CNZ, CHI, CTI, DCZ, DNZ, DHI, DTI, ECZ, ENZ, EHI, ETI, FCZ, FNZ, FHI, FTI



IC TYPE	QTY	REF	QTY	REF
DEC 74181	12	Z4	12	Z4
DEC 74175	6	16	6	16
DEC 74194	6	16	6	16
DEC 745182	6	16	6	16
DEC 745112	6	16	6	16

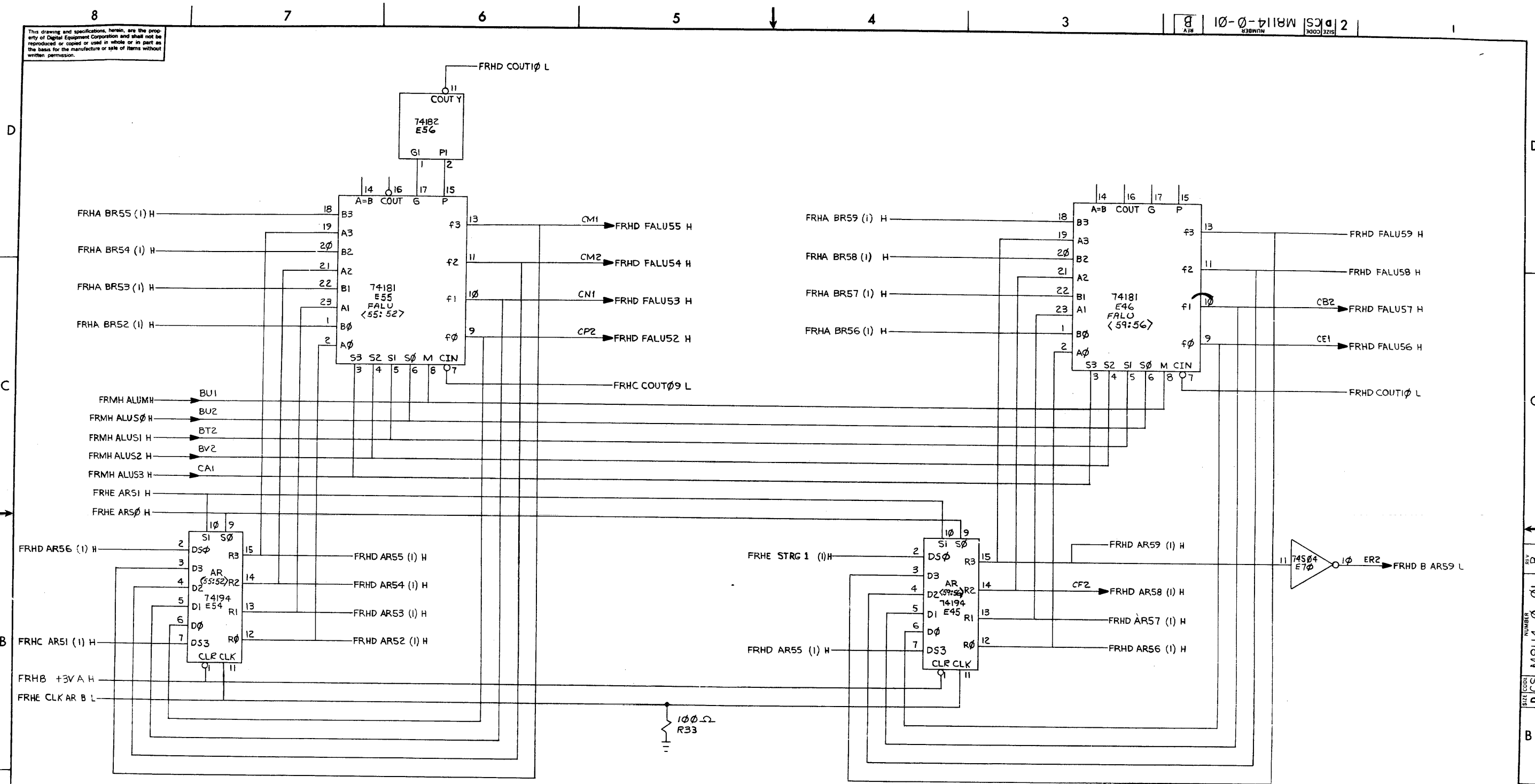
SEMICONDUCTOR CONVERSION CHART

DEC NO.	EIA NO.	DEC NO.	EIA NO.
DEC 4258	N.A.	DEC 3009 B	ZN3646
FD 777	SAME	D662	1NG45

EQUIPMENT CORPORATION
 FRACTION DATA PATH
 HIGH ORDER
 ESM814-0-1

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10-0-118W SCS 2



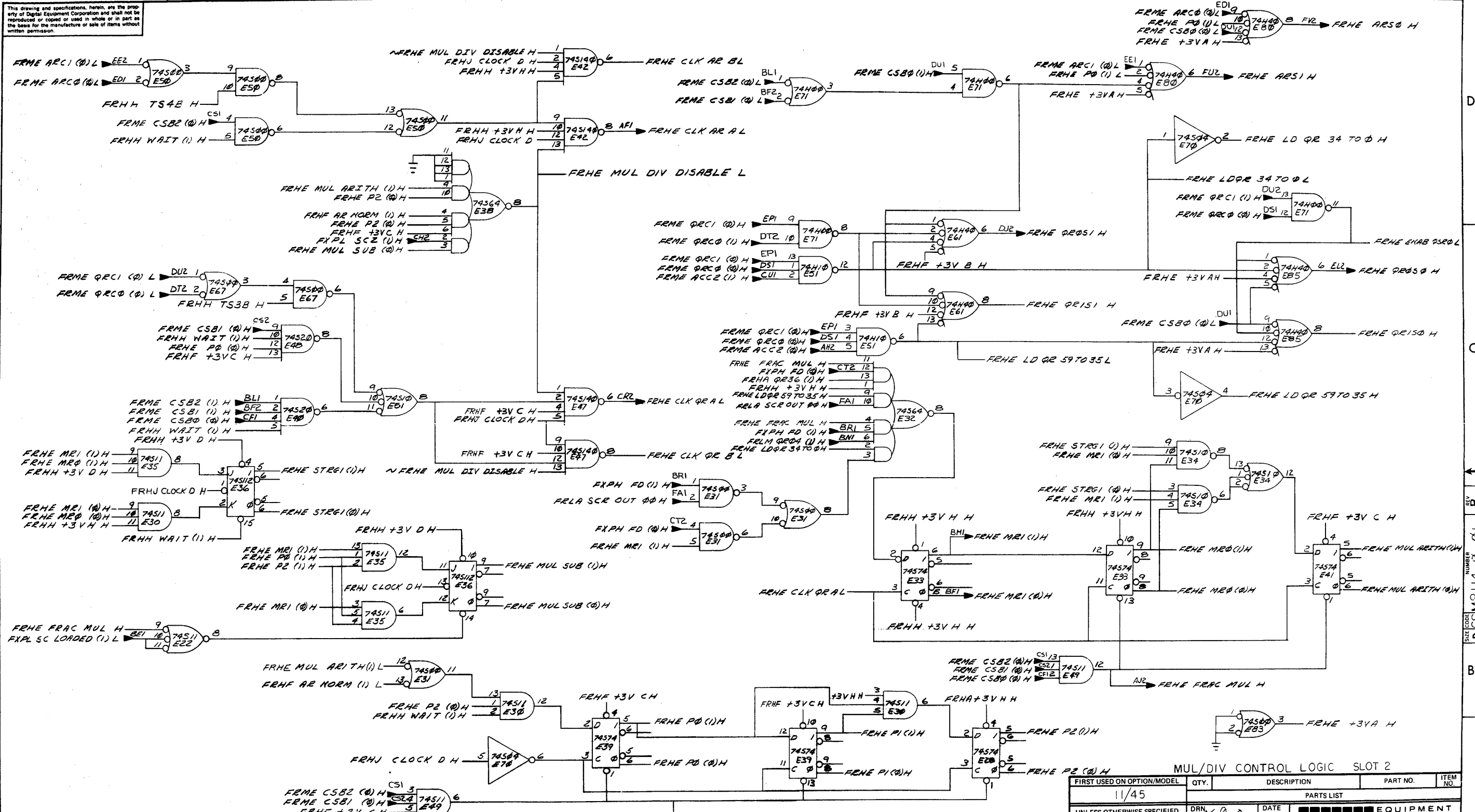
REV	
CHANGE NO	
CHK	

DEC FORM NO DRD 102-B

FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45					
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES					
DECIMALS	ANGLES	PARTS LIST			
.XXX = .005	± 0° 30'	DRN	DATE	digital EQUIPMENT CORPORATION	
.XX = .002		CHK	DATE	MAYNARD MASSACHUSETTS	
.X = .001		ENG	DATE	TITLE	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		PROJ. ENG	DATE	FRACTION DATA	
		PROD.	DATE	PATH HIGH ORDER	
MATERIAL	NEXT HIGHER ASSY.	(FRHD)			
FINISH	B-DD -11/45-0	SIZE CODE	NUMBER	REV.	
	SCALE	DCS	M8114-0-01	B	
	SHEET 5 OF 9	DIST.			

REV B
NUMBER
DCS M8114-0-01

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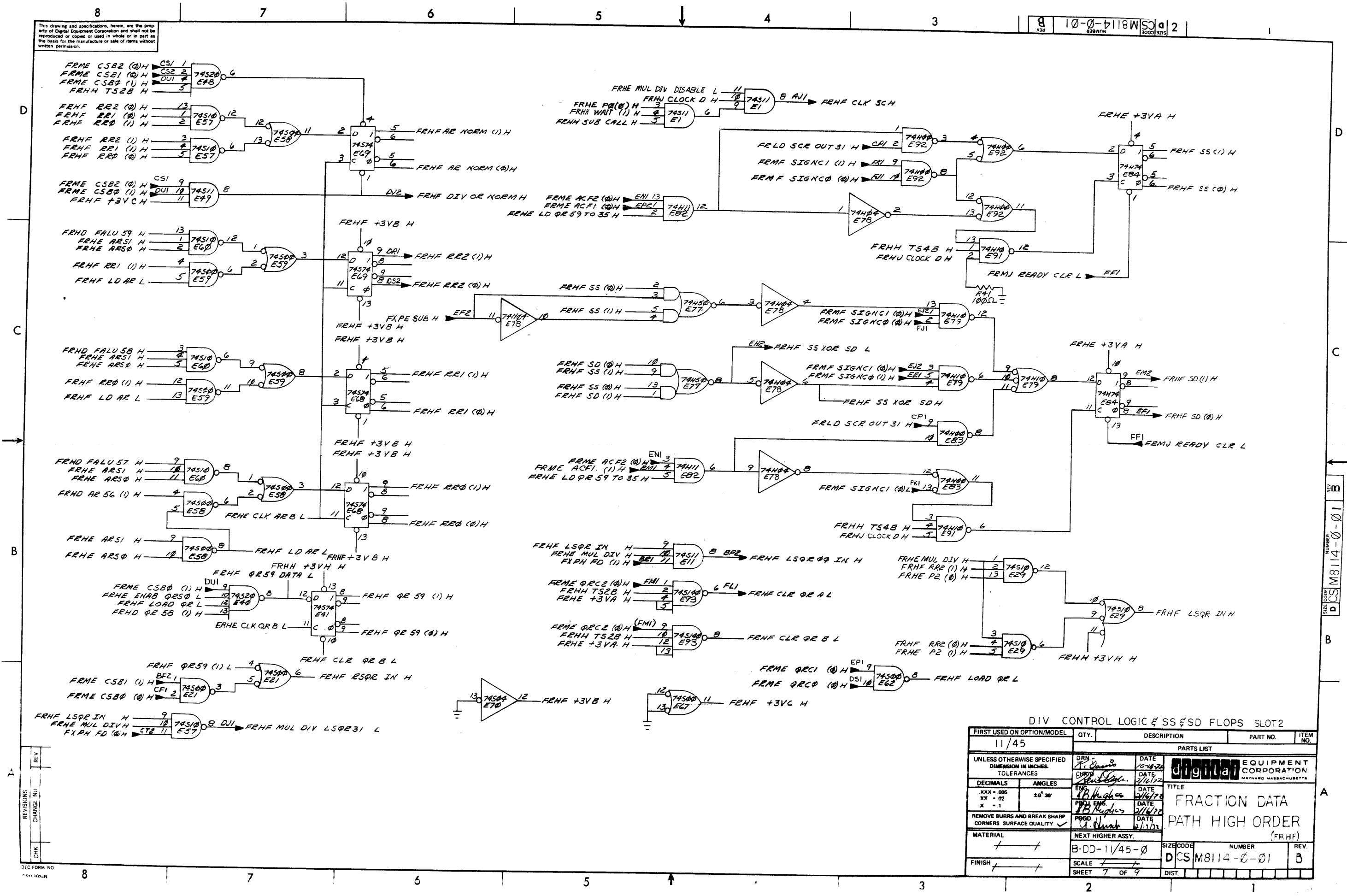
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES				
DECIMALS .XXX = .005 .XX = .02 .X = .1	ANGLES ±0° 30'	PARTS LIST		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		TITLE		
MATERIAL		NEXT HIGHER ASSY.		
FINISH		SCALE		
		SHEET 6 OF 9		

DRN	DATE		FRACTION DATA PATH HIGH ORDER (FRHE)
CHK	DATE		
ENG	DATE		
PROJ. ENG.	DATE		
PRD.	DATE		
MATERIAL		SIZE CODE	NUMBER
FINISH		DIST.	REV.
		B-DD-11/45-0	D CSM8114-0-01 B

REV.	CHANGE NO.

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10-0-1188 2



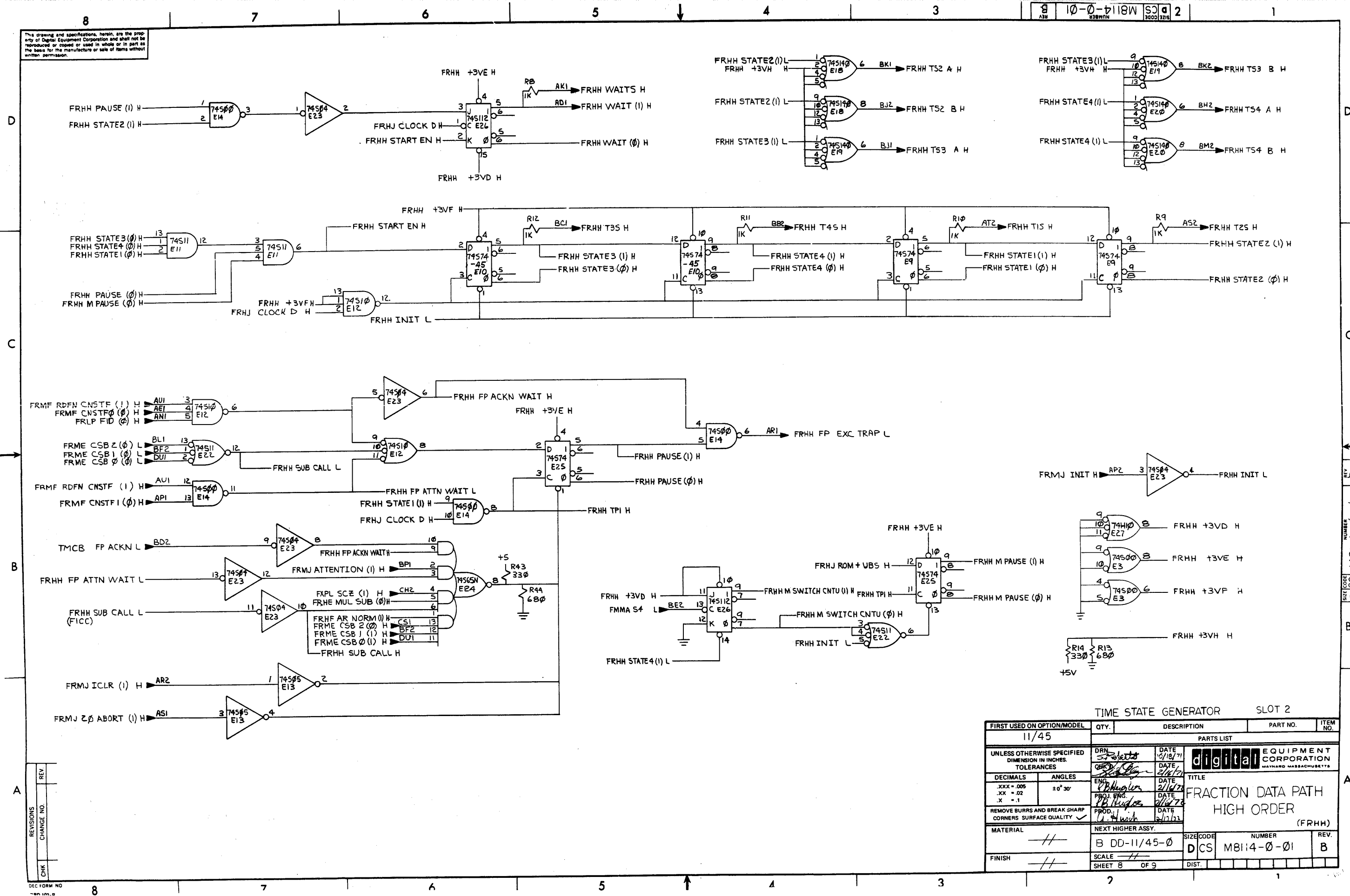
DIV CONTROL LOGIC & SS & SD FLOPS SLOT2

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES	DRN <i>R. D. ...</i>	DATE 10-18-72	 EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
DECIMALS .XXX - .005 ANGLES 30° - 30'	CHKD <i>R. D. ...</i>	DATE 2/16/72		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	ENG <i>R. D. ...</i>	DATE 2/16/72		
MATERIAL	PRD <i>R. D. ...</i>	DATE 2/17/72		
FINISH	NEXT HIGHER ASSY.	TITLE FRACTION DATA PATH HIGH ORDER (FRHF)		
	B-DD-11/45-0	SIZE CODE	NUMBER	REV.
	SHEET 7 OF 9	DICSM8114-0-01	B	

REV	
CHANGE NO	
CHK	

DIC FORM NO. 100-107-01

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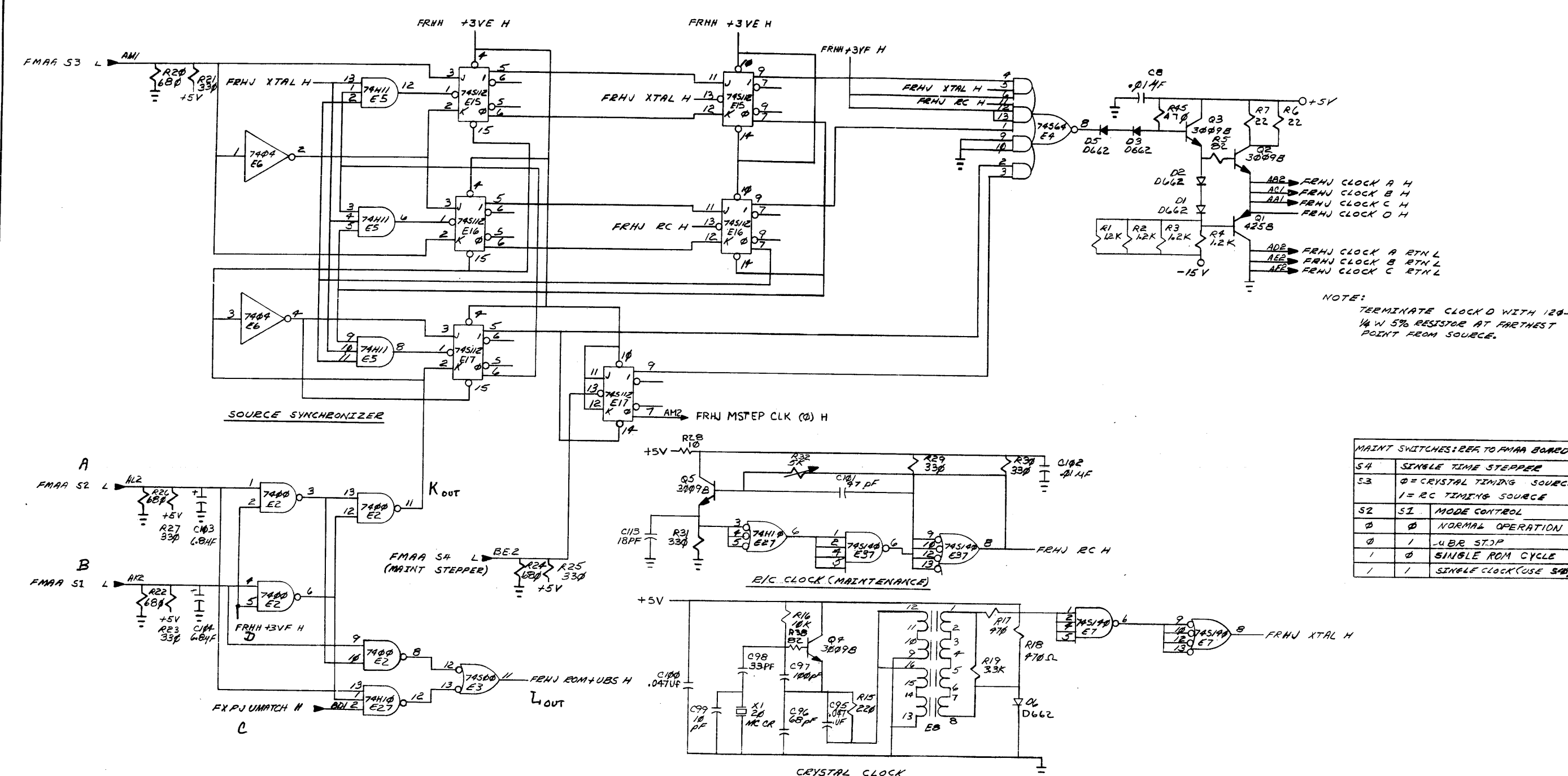
TIME STATE GENERATOR SLOT 2

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DRN <i>5/18/71</i>	DATE <i>10/18/71</i>	 digital EQUIPMENT CORPORATION <small>MAYNARD MASSACHUSETTS</small>
DECIMALS	ANGLES	ENG <i>2/16/71</i>	DATE <i>2/16/71</i>	
.XXX = .005	±0° 30'	PROJ. ENG. <i>2/16/71</i>	DATE <i>2/16/71</i>	FRACTION DATA PATH HIGH ORDER (FRHH)
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		PROD. <i>2/16/71</i>	DATE <i>2/16/71</i>	
MATERIAL	NEXT HIGHER ASSY.			
FINISH				
		SCALE	SIZE CODE	NUMBER
		SHEET 8 OF 9	D CS	M8114-0-01
		DIST.		REV. B

REV	
CHANGE NO.	
CHK	

REV. B
NUMBER M8114-0-01
SIZE CODE DCS

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NOTE:
TERMINATE CLOCK D WITH 120-Ω
¼ W 5% RESISTOR AT FARTHEST
POINT FROM SOURCE.

MAINT SWITCHES: REF TO FMAA BOARD

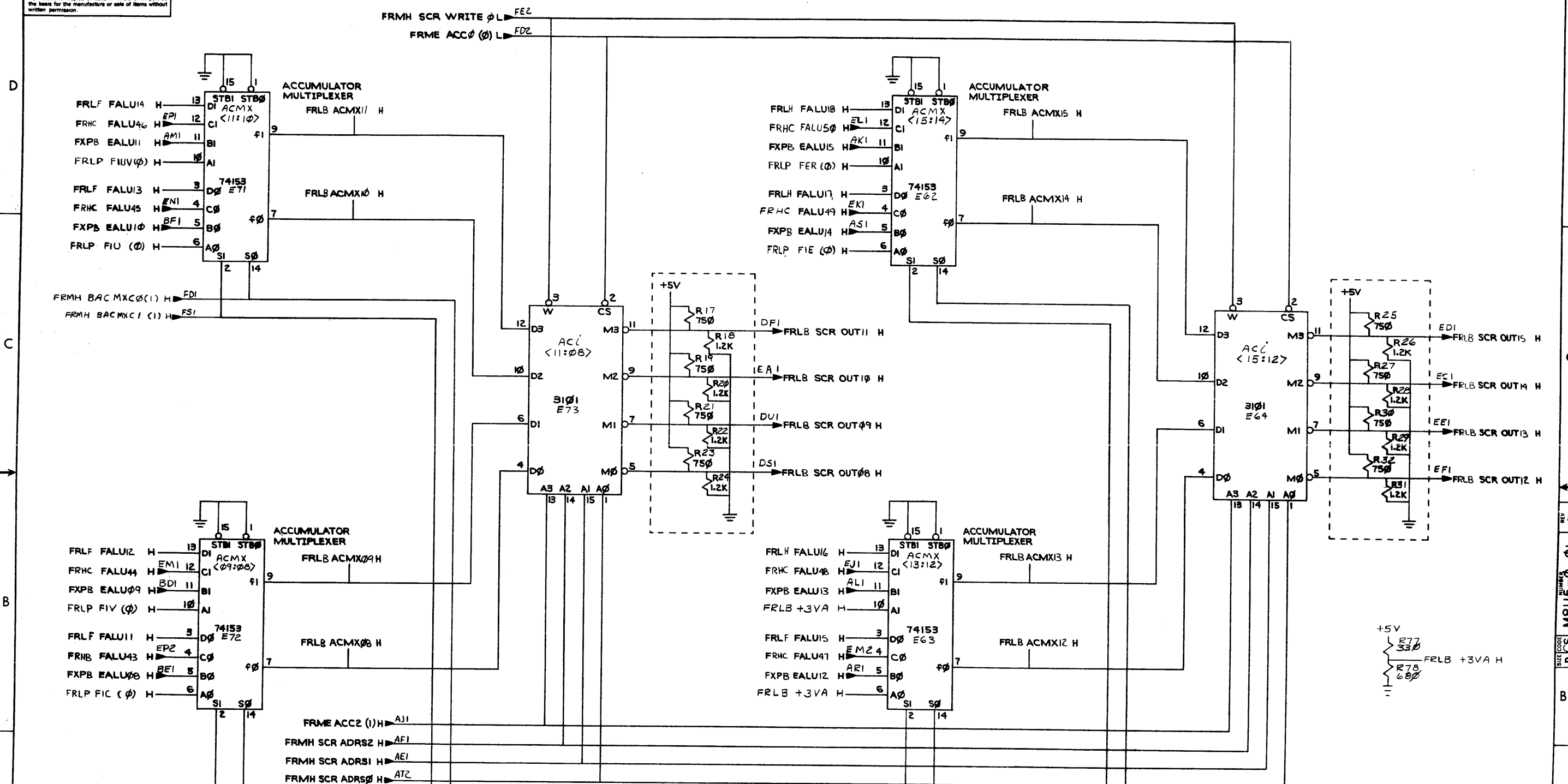
S4	SINGLE TIME STEPPER
S3	0 = CRYSTAL TIMING SOURCE 1 = RC TIMING SOURCE
S2	S1 MODE CONTROL
0	0 NORMAL OPERATION
0	1 CLR STJP
1	0 SINGLE ROM CYCLE
1	1 SINGLE CLOCK (USE S4)

CLOCKS & CLOCK SYNCHRONIZER SLOT 2

FIRST USED ON OPTION/MODEL 11/45	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN A. D. S.	DATE 10-17-77	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
DECIMALS .XXX - .005 .XX - .02 .X - .1	ANGLES ±0° 30'	DATE 2/16/78	TITLE FRACTION DATA PATH HIGH ORDER (FRHJ)	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PROD. C. N. S.	DATE 2/17/78	NEXT HIGHER ASSY. B-DD-11/45-0	
MATERIAL ++	FINISH ++	SCALE SHEET 9 OF 9	SIZE CODE D	NUMBER CSM8114-0-01
			REV. B	

REV.	
CHANGE NO.	
CHK	

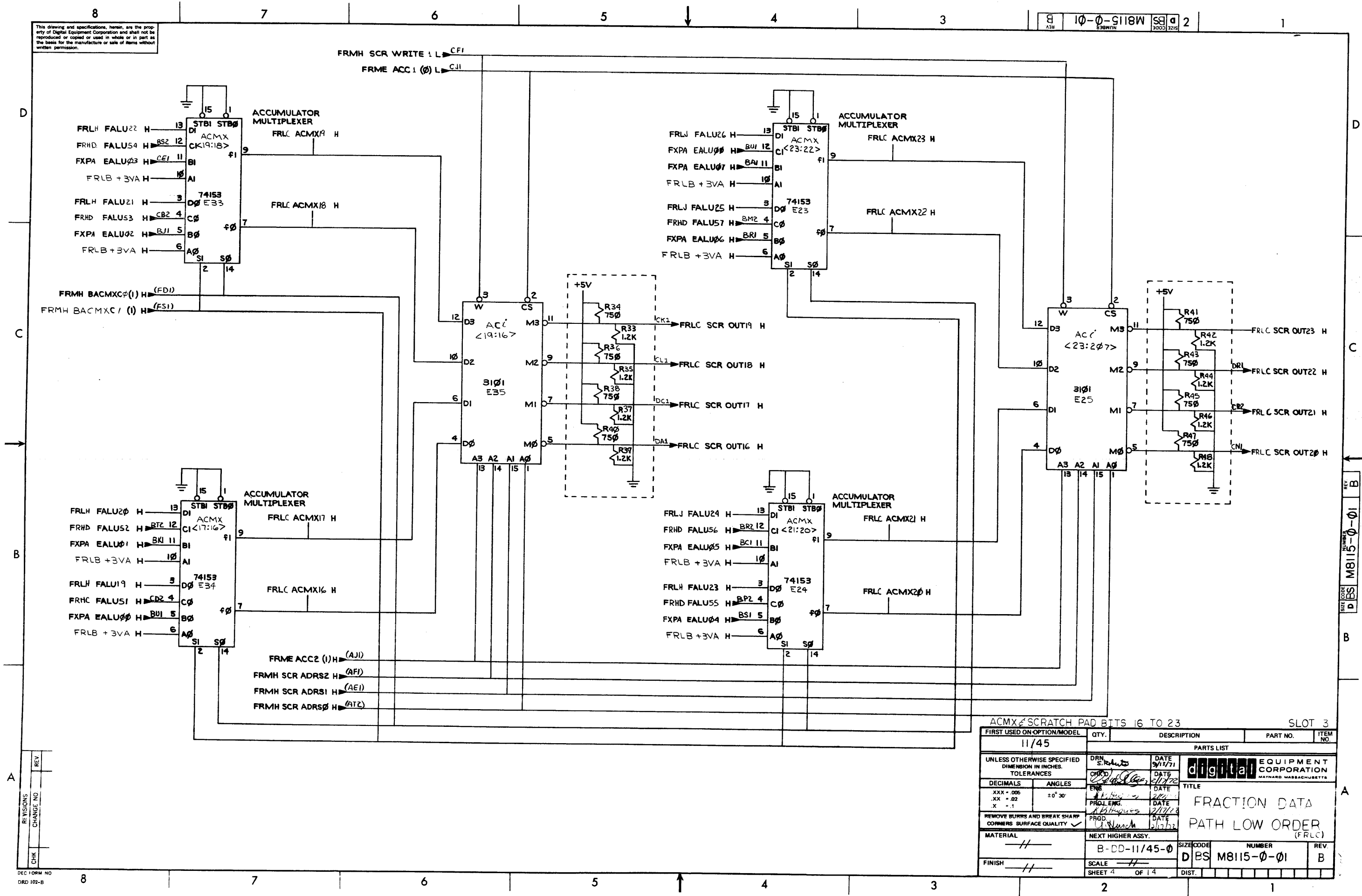
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REV.	
CHK	
CHANGE NO.	

FIRST USED ON OPTION/MODEL 11/45		QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES:					
DECIMALS	ANGLES	PARTS LIST			
.XXX = .005	±0° 30'	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			
.XX = .02		TITLE FRACTION DATA PATH LOW ORDER (FRLR)			
.X = .1		REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓			
MATERIAL	NEXT HIGHER ASSY.	SIZE CODE NUMBER			
FINISH	B-DD-11/45-0	D/CS M8115-0-01			
	SCALE	REV. B			
	SHEET 3 OF 14	DIST.			

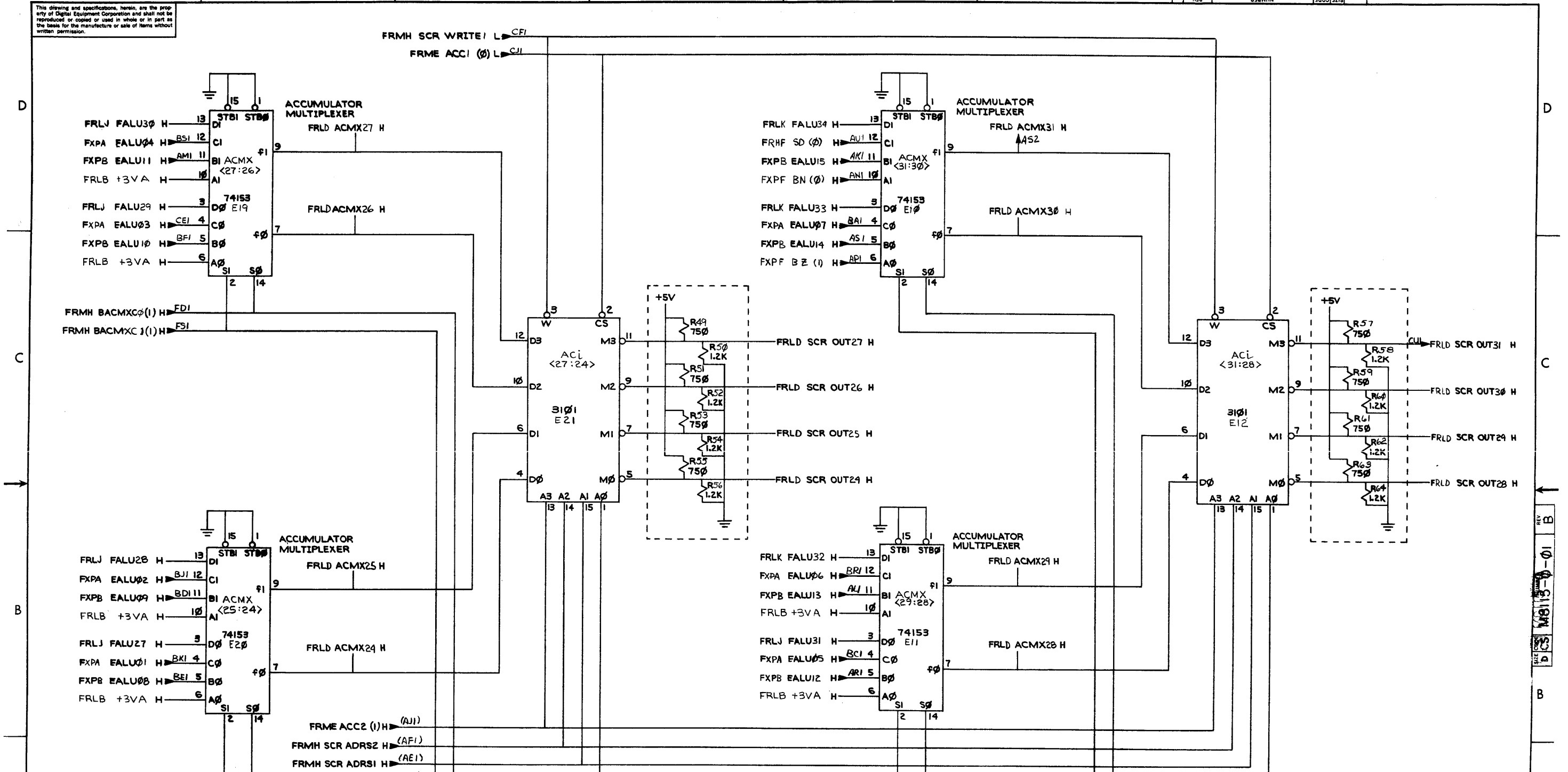
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FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45					
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES					
DECIMALS	ANGLES	PARTS LIST			
.XXX - .005	±0° 30'	DRN	DATE	digital EQUIPMENT CORPORATION	
.XX - .02		CHKD	DATE	MAYNARD, MASSACHUSETTS	
.X - .1		ENG	DATE	TITLE	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		PROL ENG.	DATE	FRACTION DATA	
		PROD	DATE	PATH LOW ORDER	
		NEXT HIGHER ASSY.		(FRLC)	
MATERIAL		B-DD-11/45-0		SIZE CODE	NUMBER
FINISH		SCALE		D BS	M8115-0-01
		SHEET 4 OF 14		DIST.	REV B

REVISIONS	REV
CHANGE NO.	
CHK	

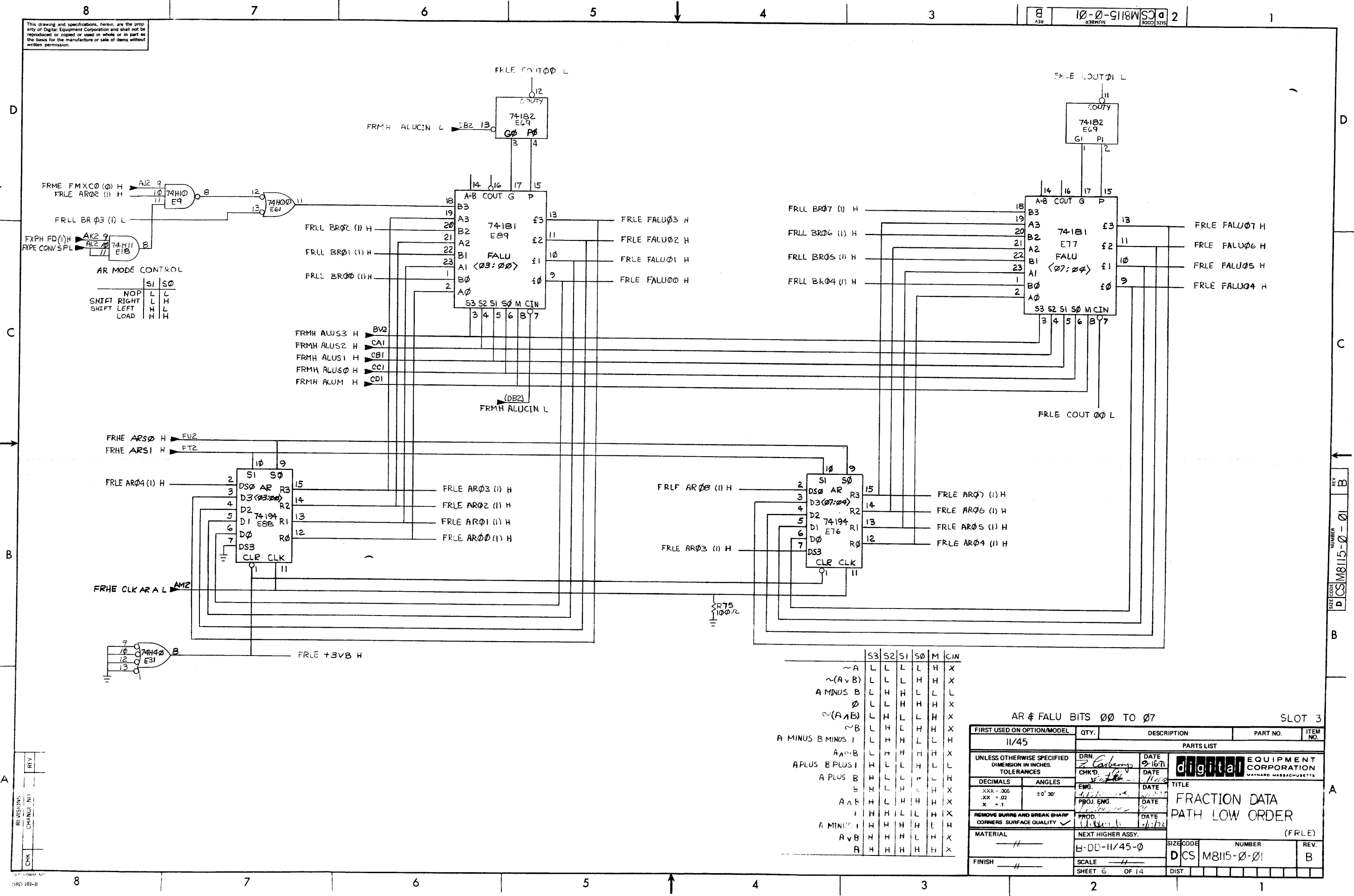
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REVISIONS	REV
CHANGE NO.	
CHK	

ACMX AND SCRATCH PAD BITS 24 TO 31		SLOT 3	
FIRST USED ON OPTION/MODEL 11/45	QTY.	DESCRIPTION	PART NO. ITEM NO.
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN S. <i>S. R. Lewis</i>	DATE 9/13/71	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS
DECIMALS .XXX = .005 .XX = .02 .X = .1	ENG <i>R. B. Hughes</i>	DATE 2/17/72	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PROD. <i>R. B. Hughes</i>	DATE 2/17/72	TITLE FRACTION DATA PATH LOW ORDER (FRLD)
MATERIAL //	NEXT HIGHER ASSY.	SIZE CODE B-DD-11/45-0	NUMBER D CS M8115-0-01
FINISH //	SCALE SHEET 5 OF 14	DIST.	REV. B

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AR MODE CONTROL

	SI	S0
NOP	L	L
SHIFT RIGHT	L	H
SHIFT LEFT	H	L
LOAD	H	H

	S3	S2	S1	S0	M	CIN
~A	L	L	L	L	H	X
~(A v B)	L	L	L	H	H	X
A MINUS B	L	H	H	L	L	L
0	L	L	H	H	H	X
~(A ^ B)	L	H	L	L	H	X
~B	L	H	L	H	H	X
A MINUS B MINUS 1	L	H	H	L	L	H
A ^ B	L	H	H	H	H	X
A PLUS B PLUS 1	H	L	L	H	L	L
A PLUS B	H	L	L	H	L	H
0	H	L	H	H	H	X
A ^ B	H	L	H	H	H	X
1	H	H	L	L	H	X
A MINUS 1	H	H	H	H	L	H
A v B	H	H	H	L	H	X
A	H	H	H	H	H	X

AR & FALU BITS 00 TO 07 SLOT 3

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

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: *Z. Carbery* DATE: 2-16-71
 CHK'D: *[Signature]* DATE: 11/73
 ENG: *[Signature]* DATE: 11/73
 PROJ. ENG: *[Signature]* DATE: 11/73
 PROD: *[Signature]* DATE: 11/73

TITLE: FRACTION DATA PATH LOW ORDER (FRLE)

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

SCALE: #

SHEET 6 OF 14

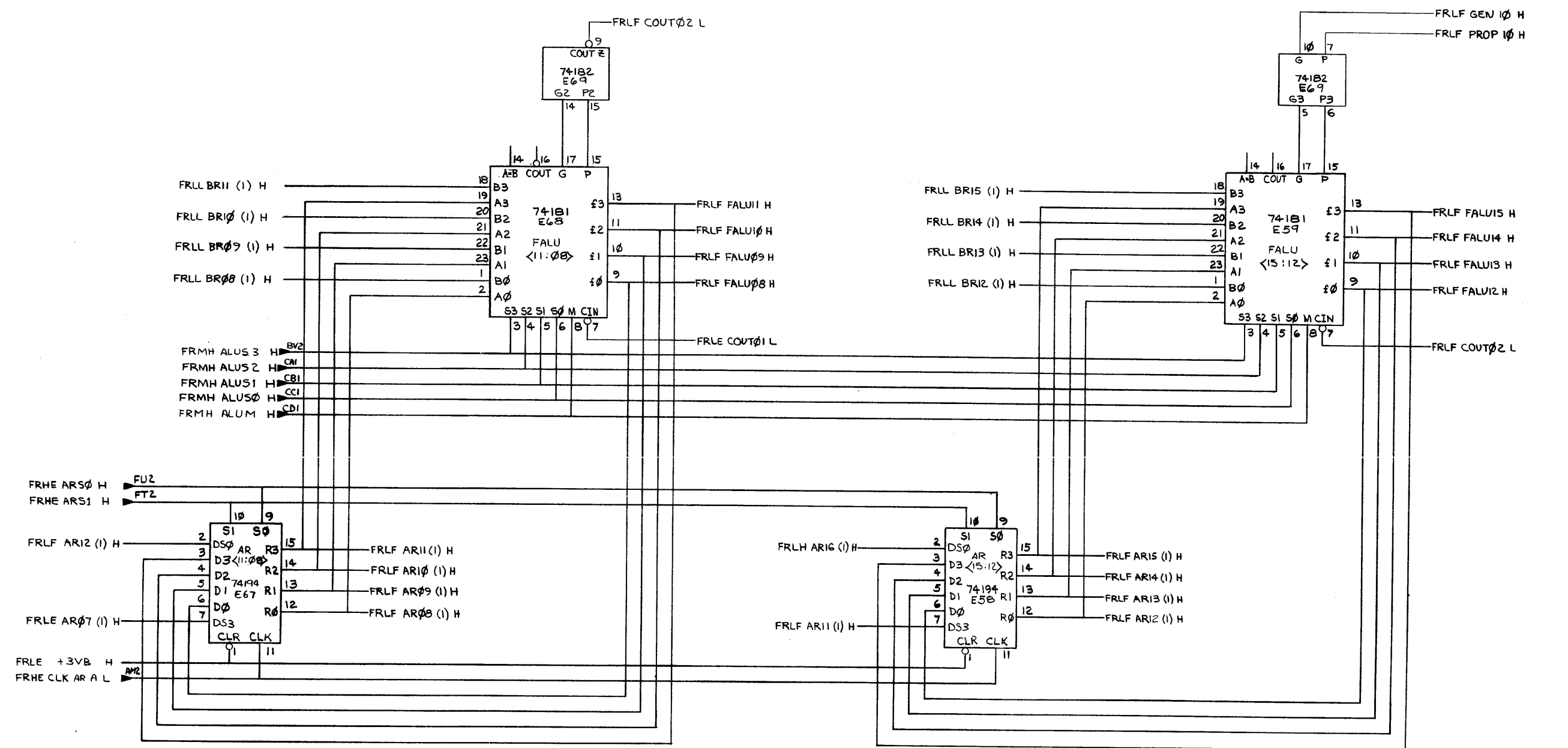
digital EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

SIZE CODE: DCS M8115-0-01 NUMBER: B REV. B

REV	
CHG	
REV	
CHG	

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8 7 6 5 4 3 2 1



REV	
CHANGE NO.	
CHK	

DEC FORM NO DRD 102-B

AR & FALU BITS 08 TO 15 SLOT 3

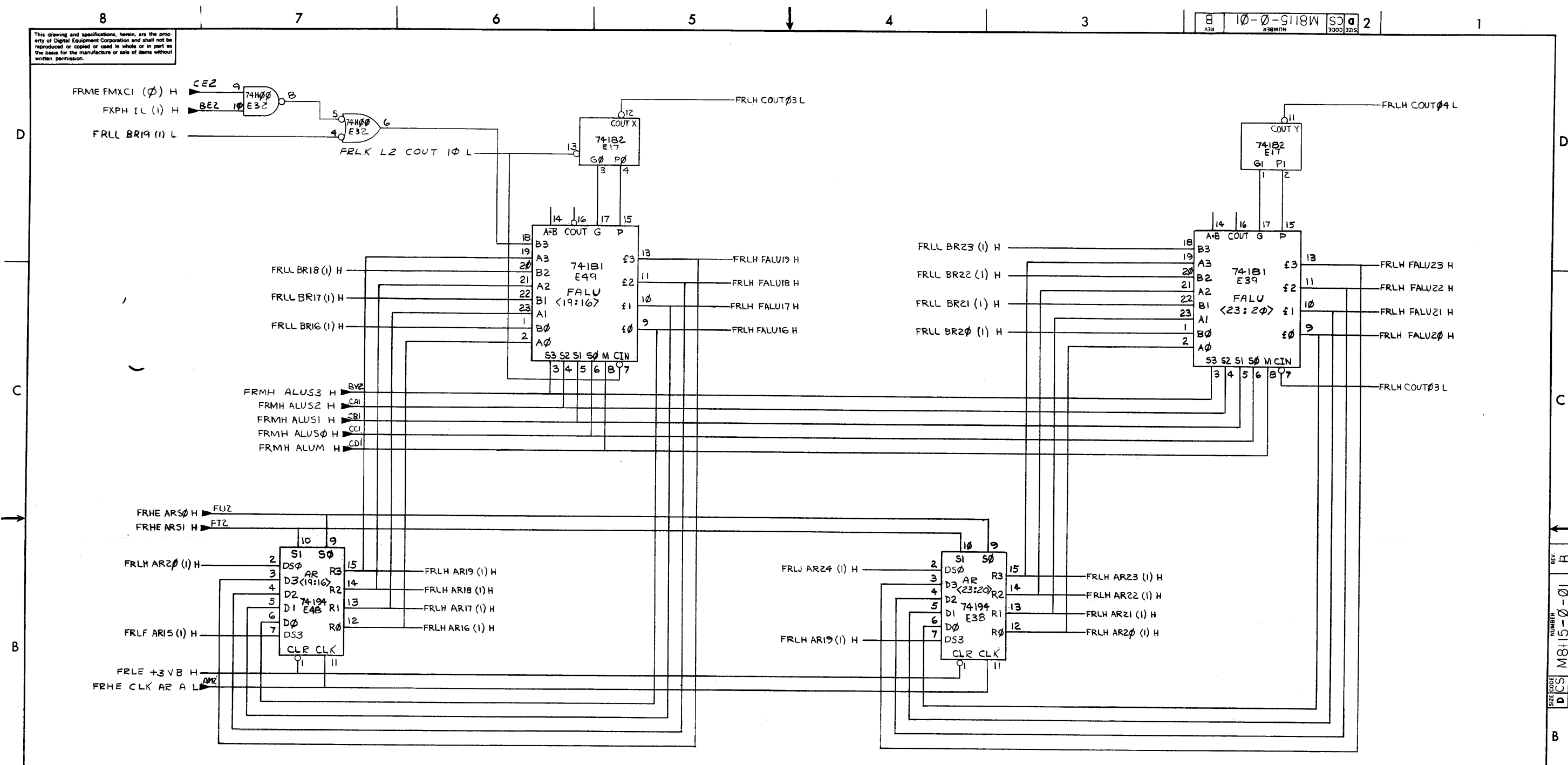
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45		PARTS LIST		
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DRN <i>R. Padberg</i>	DATE 2-16-71	
DECIMALS .XXX = .005 .XX = .02 .X = .1	ANGLES ±0° 30'	ENG <i>J. Hughes</i>	DATE 2/17/72	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓		PROJ. ENG. <i>J. Hughes</i>	DATE 2/17/72	TITLE FRACTION DATA PATH LOW ORDER (FRLF)
MATERIAL	NEXT HIGHER ASSY.	PROD. <i>D. Smith</i>	DATE 2/17/72	
FINISH	B-DD-11/45-0	SCALE	SHEET 7 OF 14	SIZE CODE DCS NUMBER M8115-0-01 REV. B

D
C
B
A

REV B
NUMBER M8115-0-01
SIZE CODE DCS

8 7 6 5 4 3 2 1

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REVISIONS	REV
CHANGE NO	
CHK	

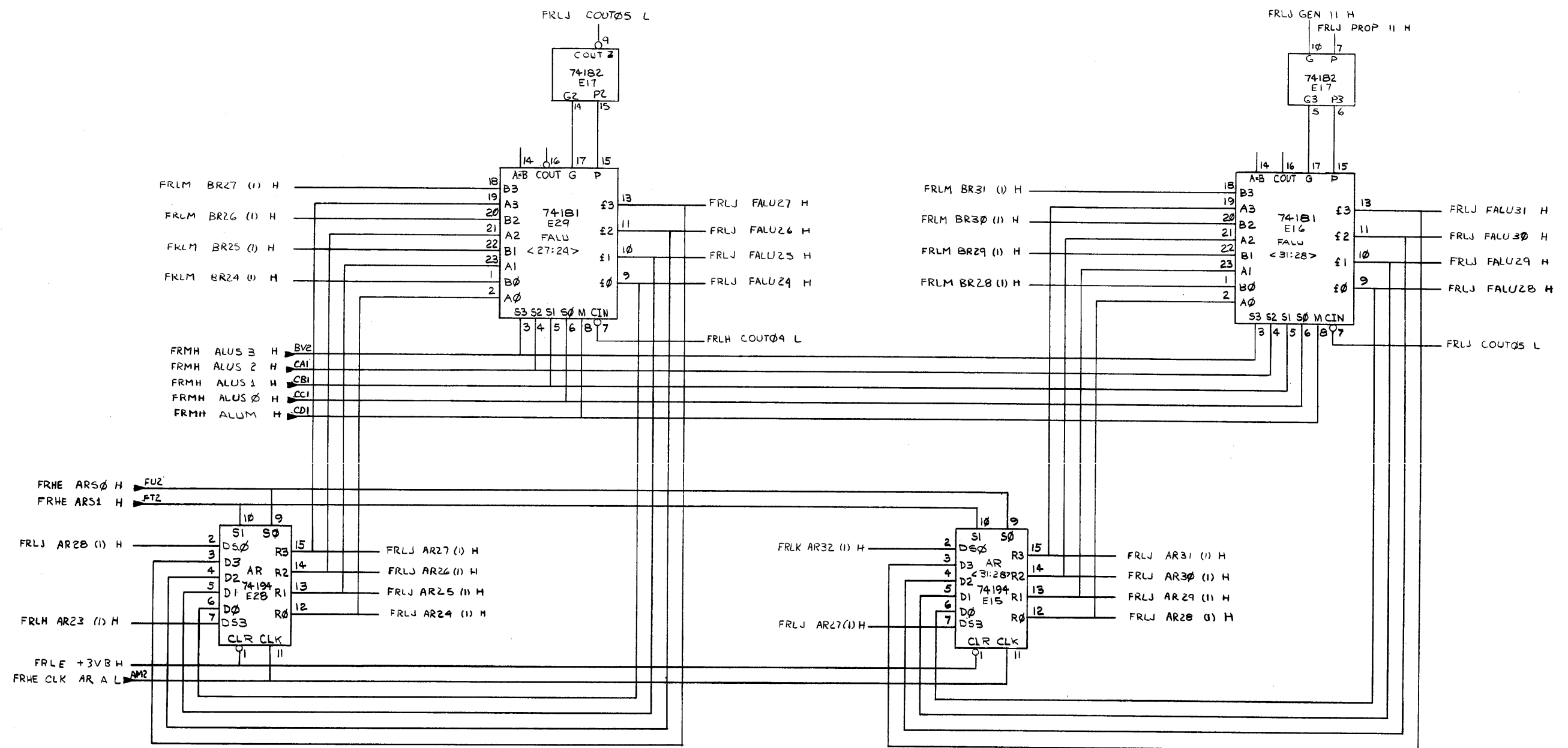
DEC FORM NO DRD 102-B

FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45					
PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DRN. <i>Z. Carberry</i>	DATE 2-16-71	digital EQUIPMENT CORPORATION MAYFORD, MASSACHUSETTS	
DECIMALS ANGLES		CHKD. <i>H. Hughes</i>	DATE 2/17/71	TITLE	
.XX = .005 .XX = .02 .X = .1		ENG. <i>H. Hughes</i>	DATE 2/17/71	FRACTION DATA PATH LOW ORDER (FRLH)	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		PROL. ENG. <i>H. Hughes</i>	DATE 2/17/71	NEXT HIGHER ASSY.	
MATERIAL		PROD. <i>H. Hughes</i>	DATE 2/17/71	B DD-11/45-0	
FINISH		SCALE 1/4"		SIZE CODE	NUMBER
		SHEET 3 OF 14		D CS	M8115-0-01
					REV. B

REV. B
NUMBER M8115-0-01
SIZE CODE DCS

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10-0-518 W 50 2
A28 838W1N 3000 2215



REV	NO.

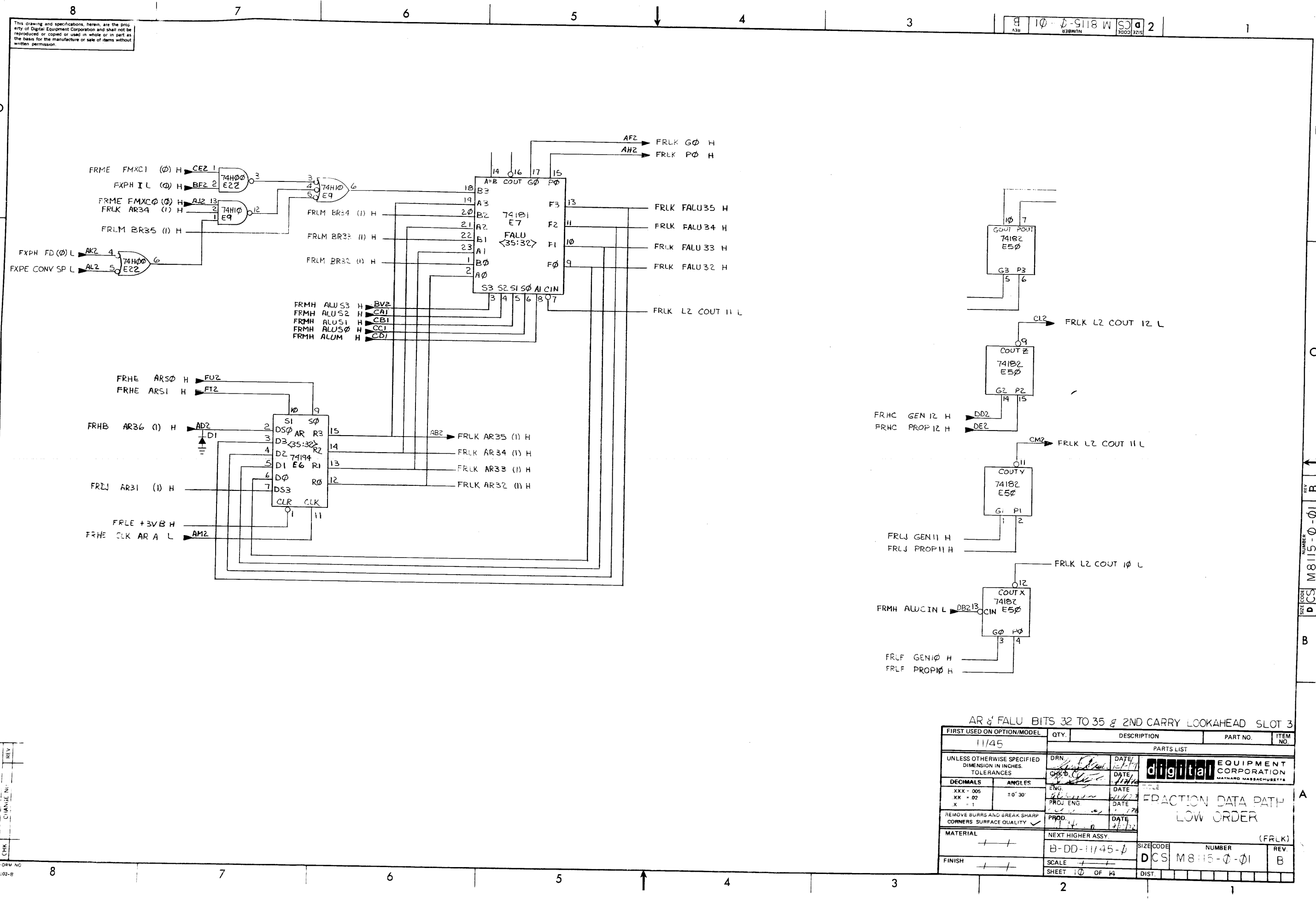
DEC FORM NO DRD 102-B

FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45					
PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DRN. <i>[Signature]</i> DATE 2/16/71	<p>digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS</p> <p>TITLE FRACTION DATA PATH LOW ORDER (FRLJ)</p>		
DECIMALS	ANGLES	ENG. <i>[Signature]</i> DATE 2/17/71			
.XXX = .005 .XX = .02 .X = .1	±0° 30'	PROJ. ENG. <i>[Signature]</i> DATE 2/17/71			
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		PRD. <i>[Signature]</i> DATE 2/17/71			
MATERIAL	FINISH	NEXT HIGHER ASSY.	SIZE CODE	NUMBER	REV.
		B-DD-11/45-0	DCS	M8115-0-01	B
SCALE		SHEET 9 OF 14	DIST.		

REV B
NUMBER DCS M8115-0-01

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D
 C
 B
 A



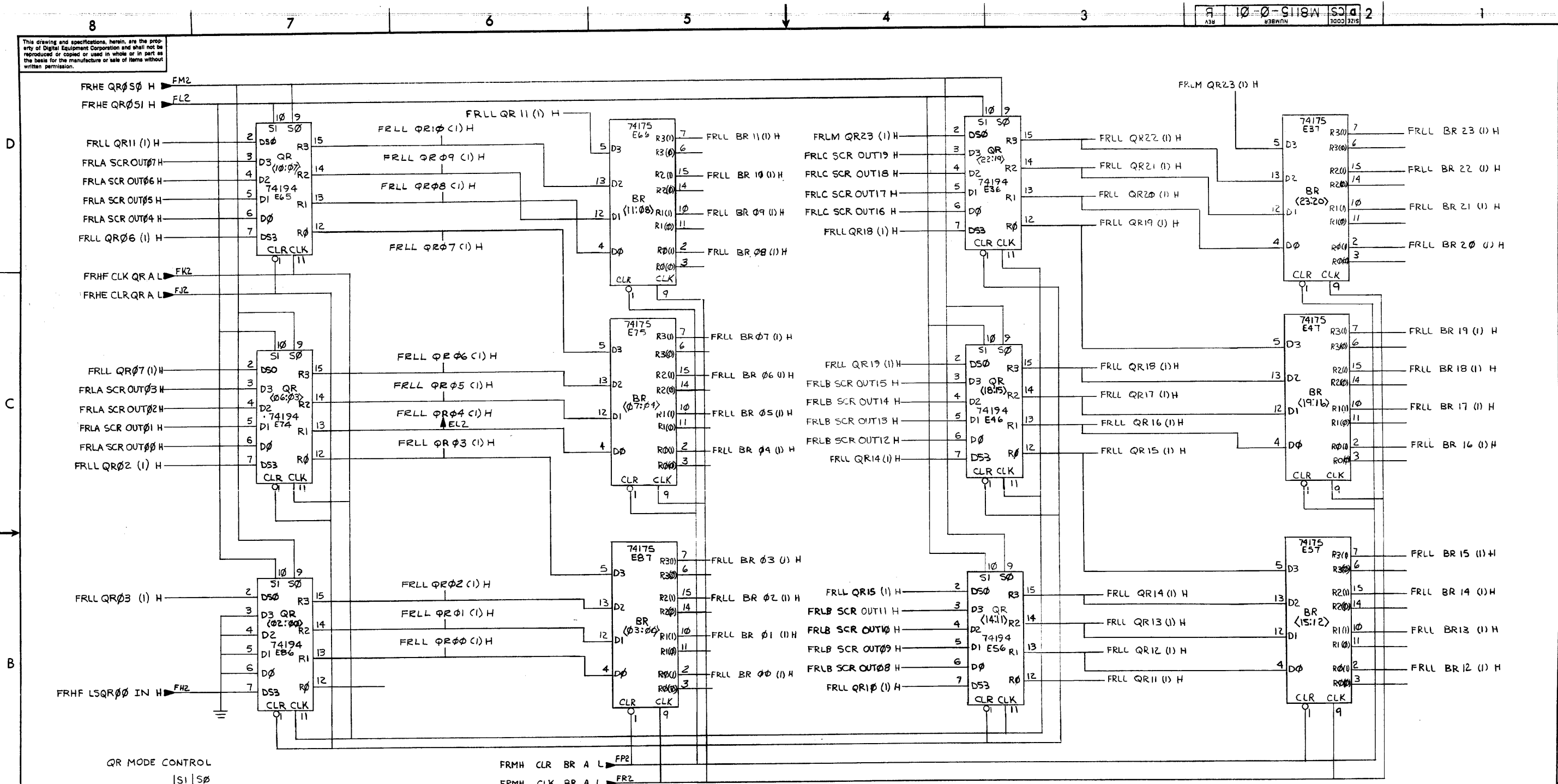
AR & FALU BITS 32 TO 35 & 2ND CARRY LOOKAHEAD SLOT 3

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DRN. DATE	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
DECIMALS	ANGLES	CHK. DATE	FRACTION DATA PATH LOW ORDER	
XXX - 005	± 0' 30"	ENG. DATE		
XX - 02		PROJ. ENG. DATE		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		PROD. DATE		
MATERIAL	NEXT HIGHER ASSY.			
FINISH		B-DD-11/45-0	SIZE CODE DCS	NUMBER M8115-0-01
		SCALE	REV. B	
		SHEET 10 OF 14	DIST.	

BRUNING 40-522 1964
 DEC. ORM NO. 3RD 102-B

REV. NO. B
 NUMBER M8115-0-01
 SIZE CODE DCS

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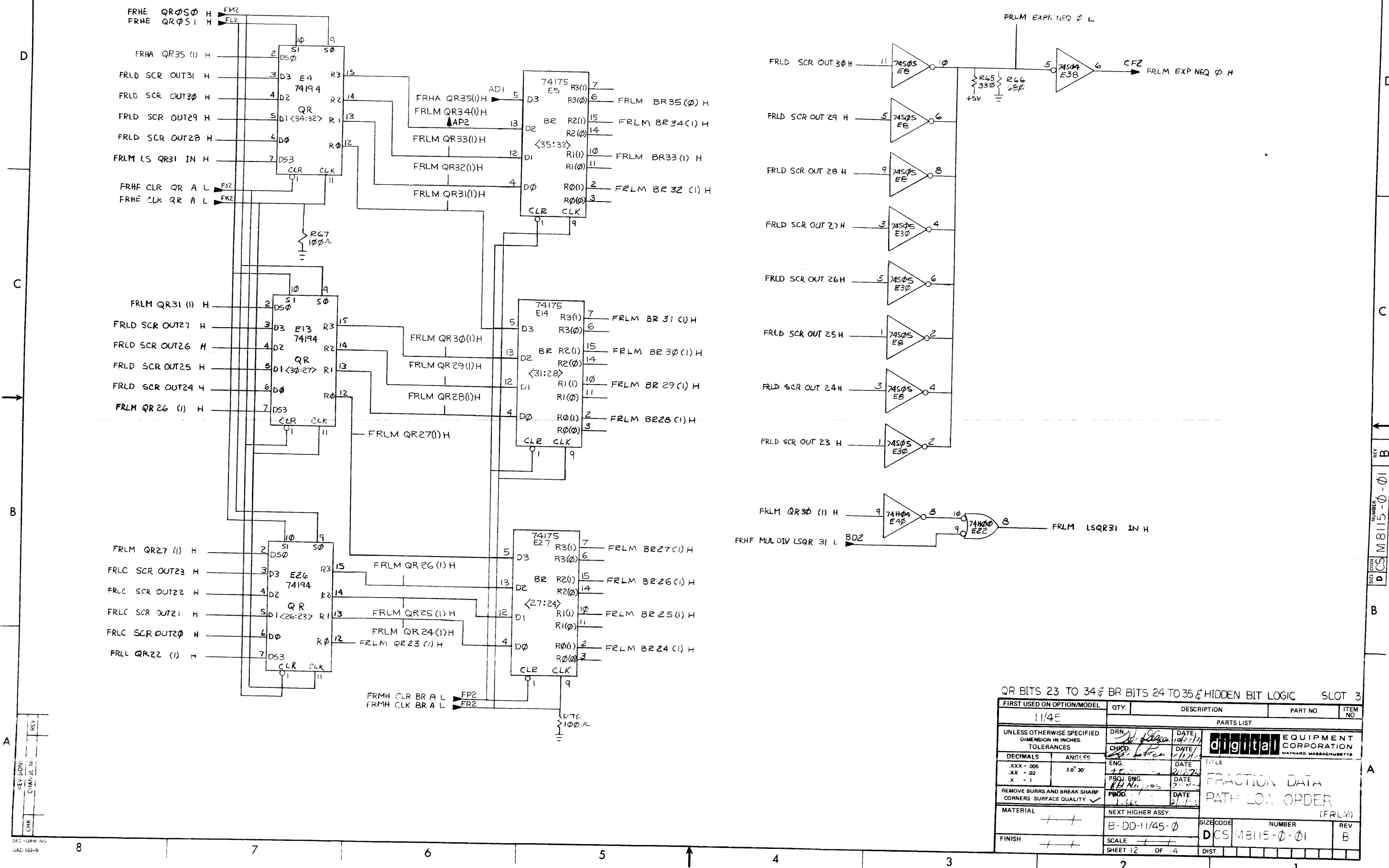
QR MODE CONTROL

	S1	S0
NOP	L	L
SHIFT RIGHT	L	H
SHIFT LEFT	H	L
LOAD	H	H

QR BITS 00 TO 22 & BR BITS 00 TO 23 SLOT 3

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN. <i>[Signature]</i>	DATE 10/22/71	 digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
DECIMALS ANGLES	CHKD. <i>[Signature]</i>	DATE 11/22/71		
.XXX = .005 .XX = .02 .X = .1	ENG. <i>[Signature]</i>	DATE 11/22/71		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PROJ. ENG. <i>[Signature]</i>	DATE 11/22/71		
MATERIAL	PROD. <i>[Signature]</i>	DATE 11/22/71	TITLE	
FINISH	NEXT HIGHER ASSY.		FRACTION DATA PATH LOW ORDER (FRL)	
	B-DD-11/45-0	SIZE CODE	NUMBER	REV.
	SCALE	DCS	M8115-0-01	B
	SHEET 11 OF 14	DIST.		

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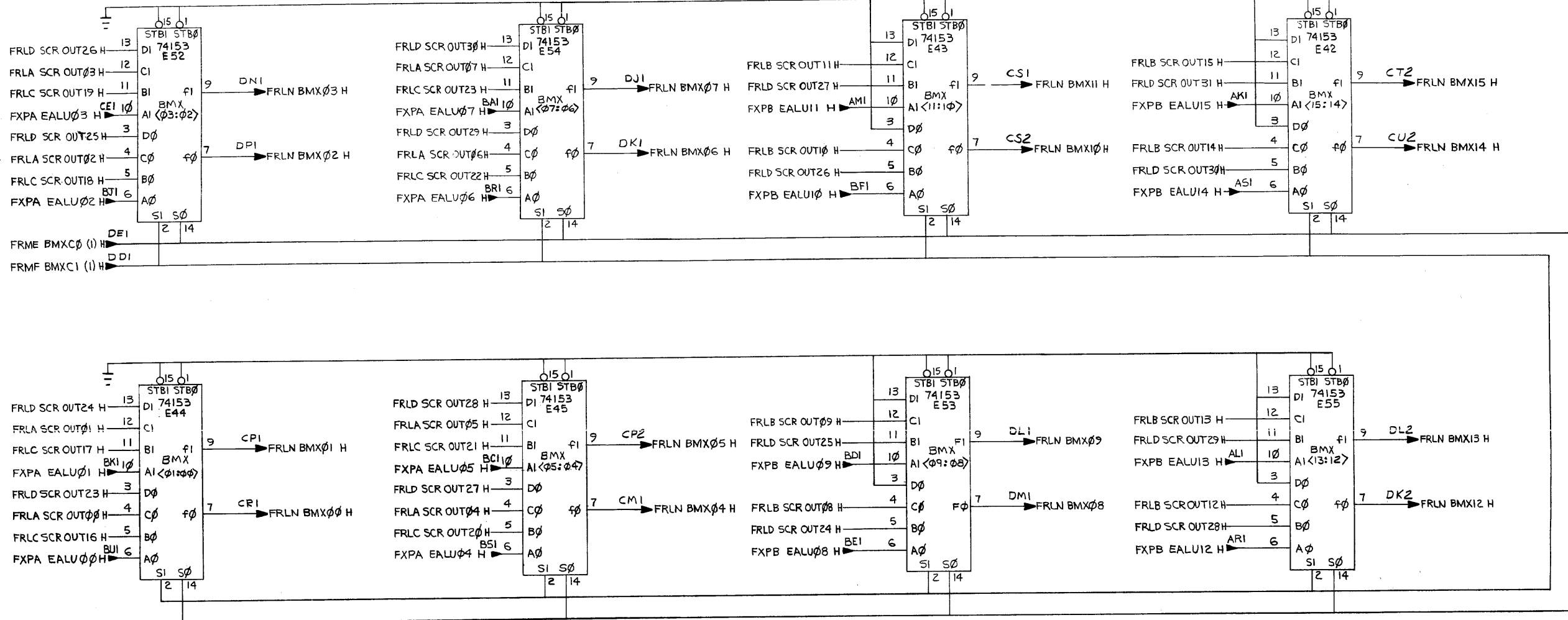


FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45					
PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES		DRN	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
DECIMALS	ANGLES	CHKD.	DATE	TITLE	
.XXX = .005	±0° 30'	ENG.	DATE	FRACTION DATA	
.XX = .02		PROJ. ENG.	DATE	PATH LOW ORDER	
.X = .1		PROD.	DATE	(FRLM)	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY					
MATERIAL		NEXT HIGHER ASSY.		SIZE CODE	NUMBER
FINISH		B-DD-11/45-0		DCS M8115-0-01	REV B
		SCALE		DIST.	
		SHEET 12 OF 14			

REV. B
 NUMBER 8115-0-01
 SIZE CODE 300/2715

REV. B
 CHANGE NO.
 DEC 1975
 QRD 102-B

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BMX CONTROL

	SI	S0
EALU	L	L
ACH	L	H
ACL	H	L
EXP	H	H

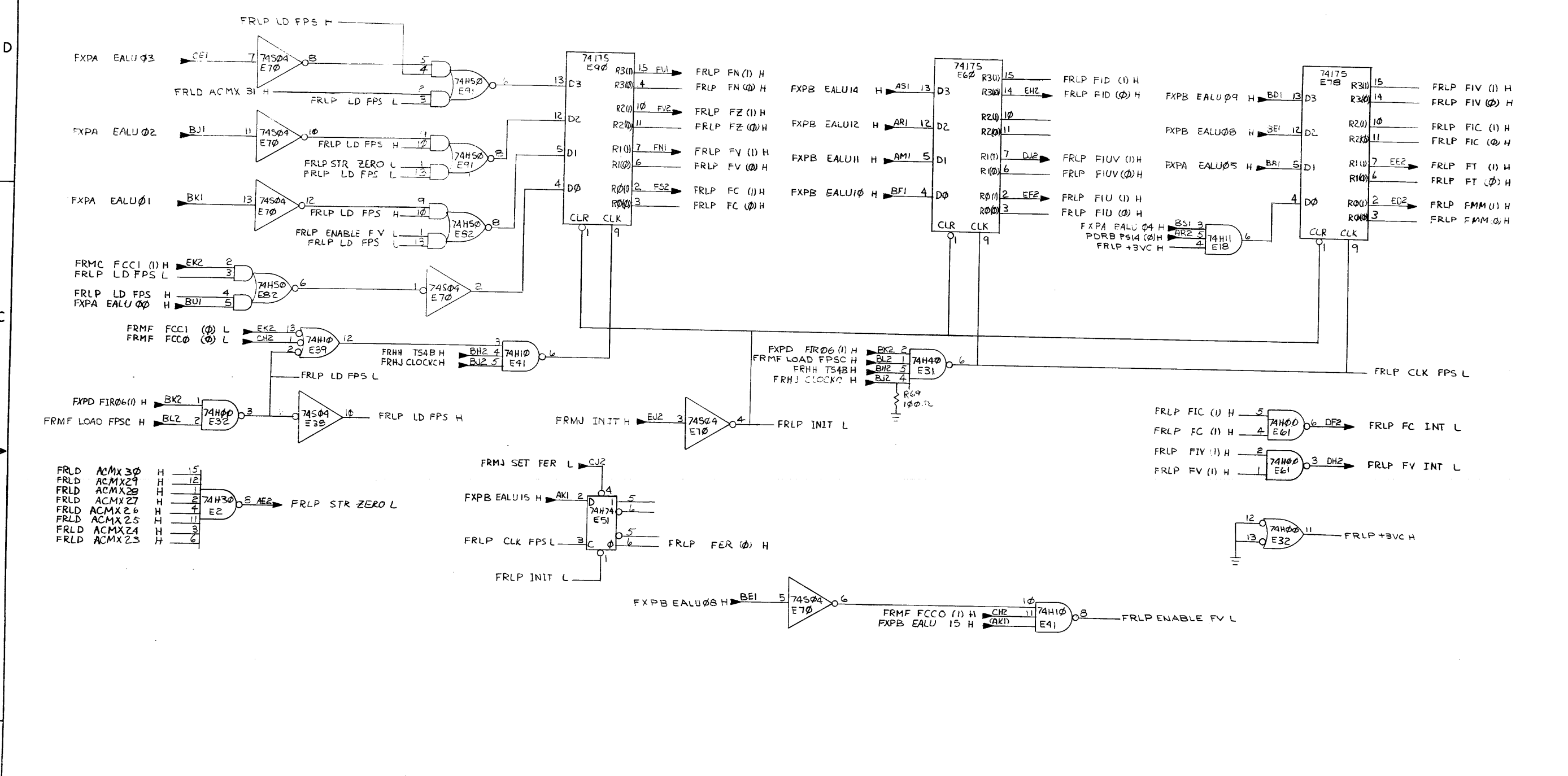
FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45					
PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DRN	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
DECIMALS	ANGLES	CHK'D	DATE	TITLE	
.XXX = .005	±0° 30'	ENG.	DATE	FRACTION DATA	
.XX = .02		PROJ. ENG.	DATE	PATH LOW ORDER	
.X = .1		PROD.	DATE	(FRLN)	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		NEXT HIGHER ASSY.			
MATERIAL		B-DD-11/45-0		SIZE CODE	NUMBER
FINISH		SCALE		DCS	M8115-0-01
		SHEET			REV.
		13 OF 14			B

REV	CHANGE NO.

DEC FORM NO. DRD 102-B

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10-0-918-W 2



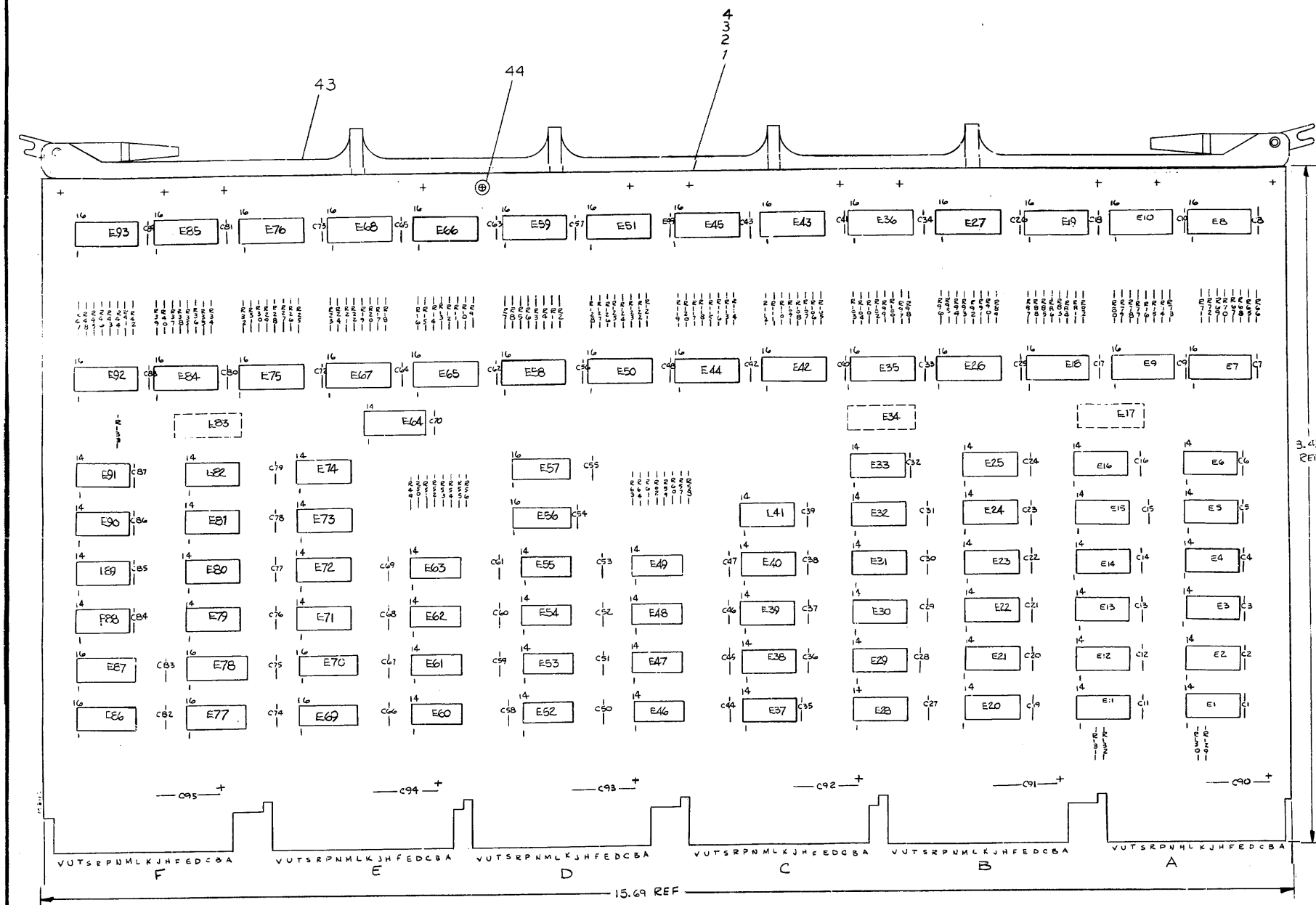
- FRLD ACMX30 H 15
- FRLD ACMX29 H 12
- FRLD ACMX28 H 1
- FRLD ACMX27 H 2
- FRLD ACMX26 H 4
- FRLD ACMX25 H 11
- FRLD ACMX24 H 3
- FRLD ACMX23 H 6

FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45					
PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES		DRN	DATE	 digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
DECIMALS		CHK'D.	DATE		
ANGLES		ENG.	DATE		
.XXX = .005		PROJ. ENG.	DATE		
.XX = .02		PROD.	DATE	FRACTION DATA PATH LOW ORDER (FRLD)	
X = .1					
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY					
MATERIAL		NEXT HIGHER ASSY.		SIZE CODE	NUMBER
FINISH		SCALE		D	CS M 8115-0-01
		SHEET 4 OF 14		DIST.	REV. B

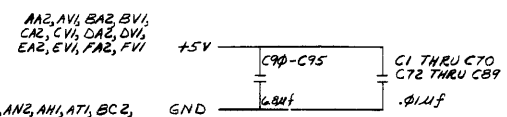
DEC FORM NO. 102-B

REV. B CS M 8115-0-01

ALL DIMENSIONS AND LOCATIONS ARE TO THE CENTER UNLESS OTHERWISE NOTED. DIMENSIONS ARE TO THE CENTER OF THE BOARD UNLESS OTHERWISE NOTED. DIMENSIONS ARE TO THE CENTER OF THE BOARD UNLESS OTHERWISE NOTED.



NOTE:
 1. UNLESS OTHERWISE NOTED RESISTANCE IS IN Ω . CAPACITANCE IS IN PICOFARADS. CAPS WITHOUT VALUE NOTED ARE .01 MFD.



A2, A1, B2, B1, C2, C1, D2, D1, E2, E1, F2, F1, G2, G1, H2, H1, I2, I1, J2, J1, K2, K1, L2, L1, M2, M1, N2, N1, O2, O1, P2, P1, Q2, Q1, R2, R1, S2, S1, T2, T1, U2, U1, V2, V1, W2, W1, X2, X1, Y2, Y1, Z2, Z1

IC TYPE	ITEM NO.	AWG	FROM PT	TO PT
IC				
GND				

QTY	REF	DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
1	E85		IC DEC 74187 ROM	23-C21A2	39
1	E76		IC DEC 74187 ROM	23-C22A2	38
1	E68		IC DEC 74187 ROM	23-C23A2	37
1	E66		IC DEC 74187 ROM	23-C24A2	36
1	E59		IC DEC 74187 ROM	23-C25A2	35
1	E51		IC DEC 74187 ROM	23-C26A2	34
1	E45		IC DEC 74187 ROM	23-C27A2	33
1	E43		IC DEC 74187 ROM	23-C28A2	32
1	E36		IC DEC 74187 ROM	23-C29A2	31
1	E27		IC DEC 74187 ROM	23-C30A2	30
1	E19		IC DEC 74187 ROM	23-C31A2	29
1	E10		IC DEC 74187 ROM	23-C32A2	28
1	E8		IC DEC 74187 ROM	23-C46A2	27
1	E2		IC DEC 74H74	1909667	26
4	E5, E6, E16, E25		IC DEC 74H11	1909267	25
4	E12, E13, E30, E32		IC DEC 74H00	909056	24
4	E4, E22, E23, E31		IC DEC 74H20	1905635	23
10	E7, E55, E26, E42, E44, E58, E67, E75, E84, E92		IC DEC 74175	910651	22
3	E14, E33, E71		IC DEC 74H50	1909060	21
1	E11		IC DEC 74H04	1909931	20
5	E20, E28, E29, E73, E81		IC DEC 74H40	1405586	19
3	E1, E21, E24		IC DEC 74H10	1909057	18
2	E63, E79		IC DEC 74S11	1910537	17
3	E40, E82, E91		IC DEC 74S140	1910546	16
4	E41, E62, E74, E64		IC DEC 74S00	1910532	15
4	E47, E53, E61, E90		IC DEC 74S04	1910534	14
1	E88		IC DEC 74H30	1909059	13
6	E49, E70, E77, E78, E86, E87		IC DEC 74S151	1910956	12
6	E38, E39, E48, E49, E54, E55		IC DEC 74S64	1910542	11
8	E15, E37, E46, E52, E60, E72, E80, E83		IC DEC 74S74	1910544	10
1	R133		RESISTOR 100 Ω , 1/4W, 5%	1300229	9
66	R2, R4, R6, R8, R10, R12, R14, R16, R18, R20, R22, R24, R26, R28, R30, R32, R34, R36, R38, R40, R42, R44, R46, R48, R50, R52, R54, R56, R58, R60, R62, R64, R66, R68, R70, R72, R74, R76, R78, R80, R82, R84, R86, R88, R90, R92, R94, R96, R98, R100, R102, R104, R106, R108, R110, R112, R114, R116, R118, R120, R122, R124, R126, R128, R130, R132		RESISTOR 680 Ω , 1/4W, 5%	1301424	8
66	R1, R3, R5, R7, R9, R11, R13, R15, R17, R19, R21, R23, R25, R27, R29, R31, R33, R35, R37, R39, R41, R43, R45, R47, R49, R51, R53, R55, R57, R59, R61, R63, R65, R67, R69, R71, R73, R75, R77, R79, R81, R83, R85, R87, R89, R91, R93, R95, R97, R99, R101, R103, R105, R107, R109, R111, R113, R115, R117, R119, R121, R123, R125, R127, R129, R131		RESISTOR 330 Ω , 1/4W, 5%	1300295	7
66	C1 THRU C70, C72 THRU C89		CAPACITOR .01MFD, 100V, 20% DISC	1001610	6
66	C90 THRU C95		CAPACITOR 6.8MFD, 35V, 20%	1000067	5
1			ETCHED CIRCUIT BOARD	5009862	4
1			MODULE ECO HISTORY	B-MH-12-0-6	3
1			ASSY/DRILLING HOLE LAYOUT	E-MH-12-0-5	2
1			X-Y COORDINATE HOLE LOCATION	K-CO-MH12-0-4	1

QTY	REF	DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
4	E9, E18, E58, E65		IC DEC 74175-1	190957	46
1	E89		IC DEC 74S10	1910536	45
12			EYELET	9006732	44
1			HANDLE MODULE	EPS-1210711-2	43
1	E57		IC DEC 74187 ROM	23-C18A2	42
1	E56		IC DEC 74187 ROM	23-C19A2	41
1	E93		IC DEC 74187 ROM	23-C20A2	40

REVISIONS

REV	DATE	DESCRIPTION
1		

ETCH BOARD REV B

SEMICONDUCTOR CONVERSION CHART

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

SCALE 2/1

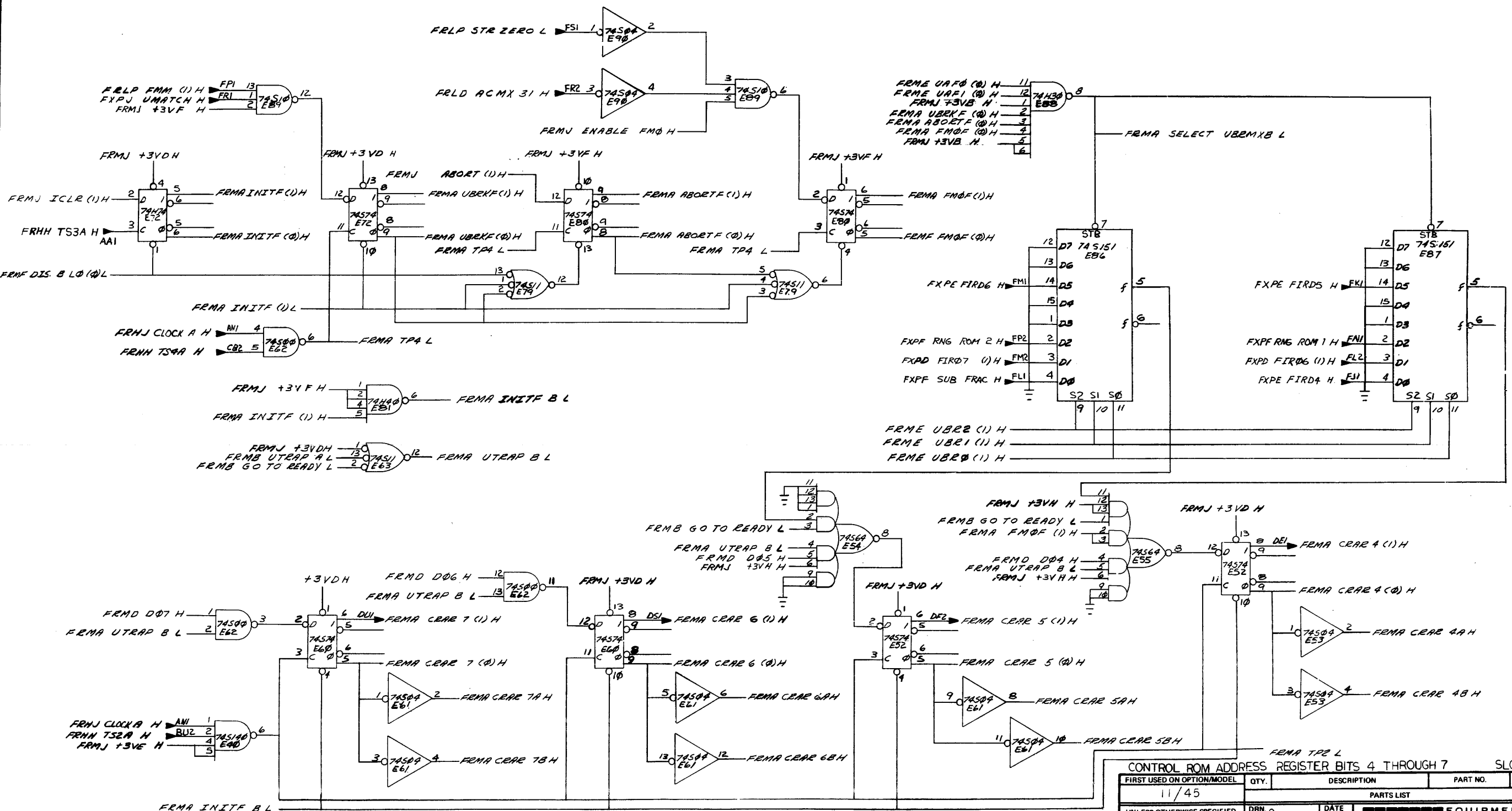
SHEET 1 OF 3

EQIPMENT CORPORATION

F P ROM & ROM CONTROL

RECORD NUMBER EC SM8112-0-1

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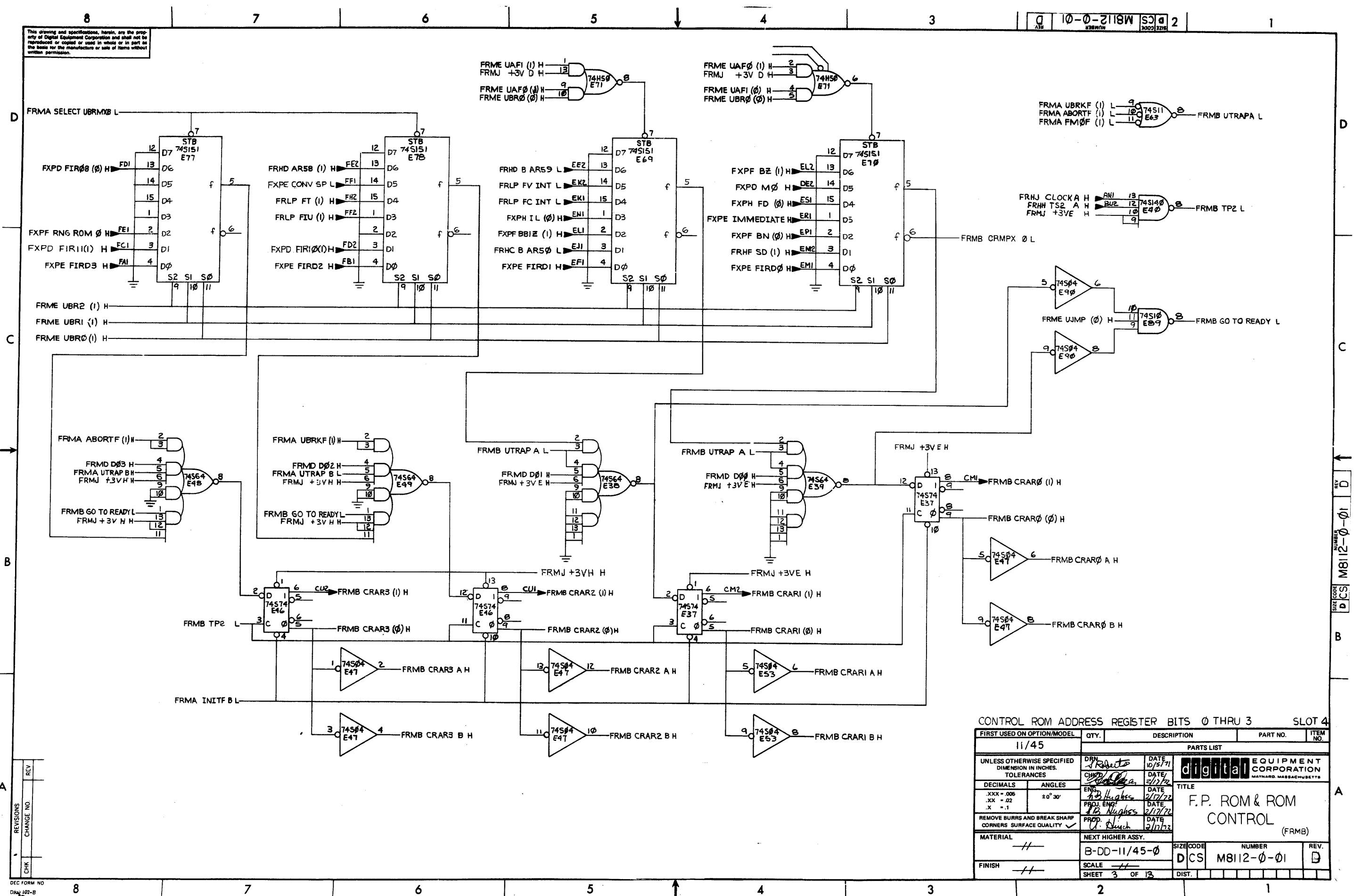


FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45					
PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES			DRN: T. Davis DATE: 9-30-71 ENGR: J. Miller DATE: 2/17/72 ENG: A.G. Hughes DATE: 2/17/72 PRD. ENG: A.G. Hughes DATE: 2/17/72 PRD. U. Wurach DATE: 3/17/72		
DECIMALS ANGLES			TITLE		
.XXX - .005 ±0°30'			F.P. ROM # ROM CONTROL (FRMA)		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY			MATERIAL		
			NEXT HIGHER ASSY.		
FINISH			B-DD-11/45-0		
			SCALE		
			D C S M 8 1 1 2 - 0 - 0 1		
			SHEET 2 OF 13		
			DIST.		

REV	CHANGE NO	REVISIONS

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10-0-2118W S3 2



CONTROL ROM ADDRESS REGISTER BITS 0 THRU 3 SLOT 4

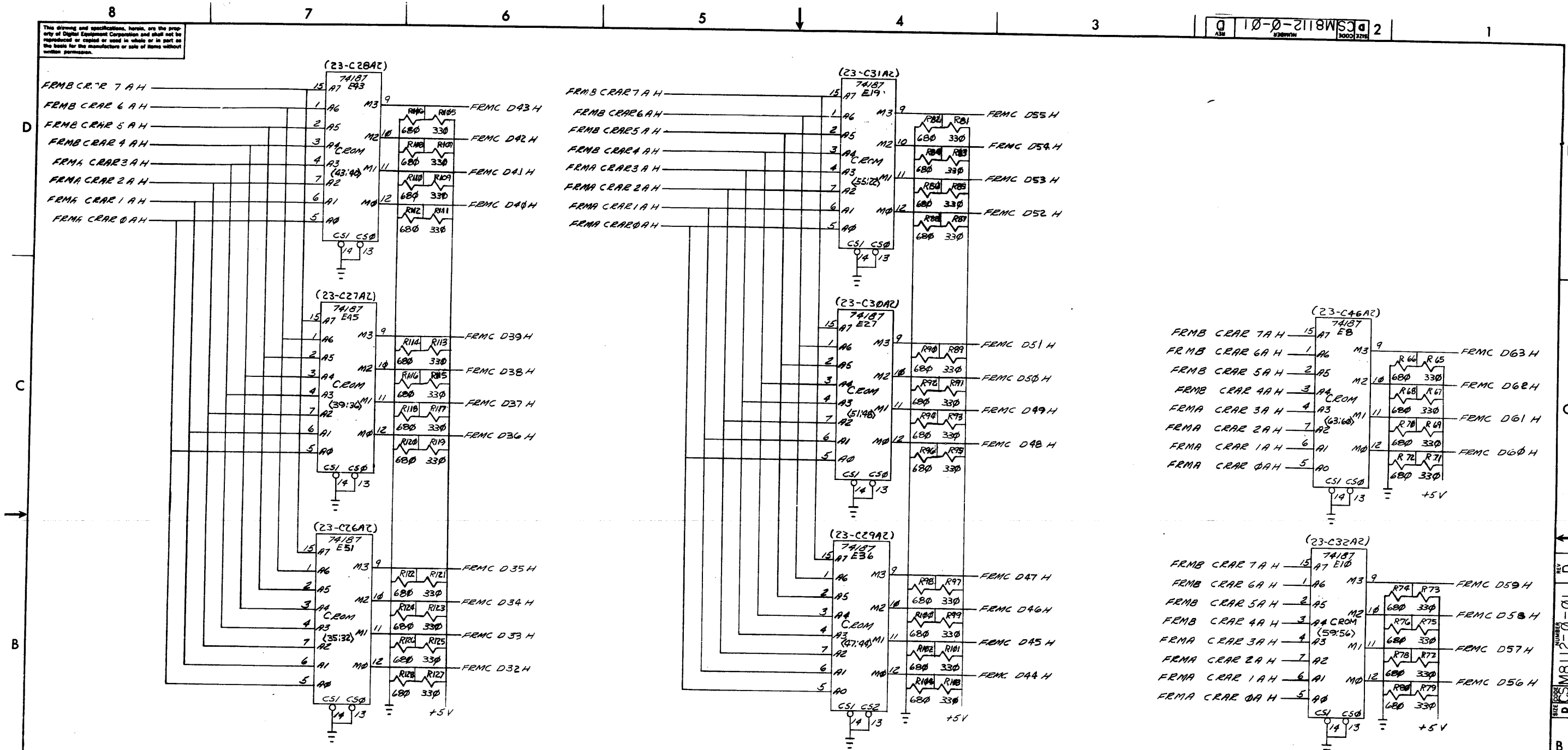
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DRN <i>J. Roberts</i>	DATE 10/5/71	 digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS TITLE F.P. ROM & ROM CONTROL (FRMB)
DECIMALS ANGLES		CHKD <i>[Signature]</i>	DATE 2/1/72	
.XXX = .006 ±0° 30'		ENG <i>[Signature]</i>	DATE 2/17/72	
.XX = .02		PROJ. ENG. <i>[Signature]</i>	DATE 2/17/72	
.X = .1		PROP. <i>[Signature]</i>	DATE 2/17/72	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓				
MATERIAL	FINISH	NEXT HIGHER ASSY.	SCALE	REV.
—	—	B-DD-11/45-0	—	D
SHEET 3 OF 12			DIST.	

REVISIONS	REV.
CHANGE NO.	
CHK	

DEC FORM NO DMM 102-B

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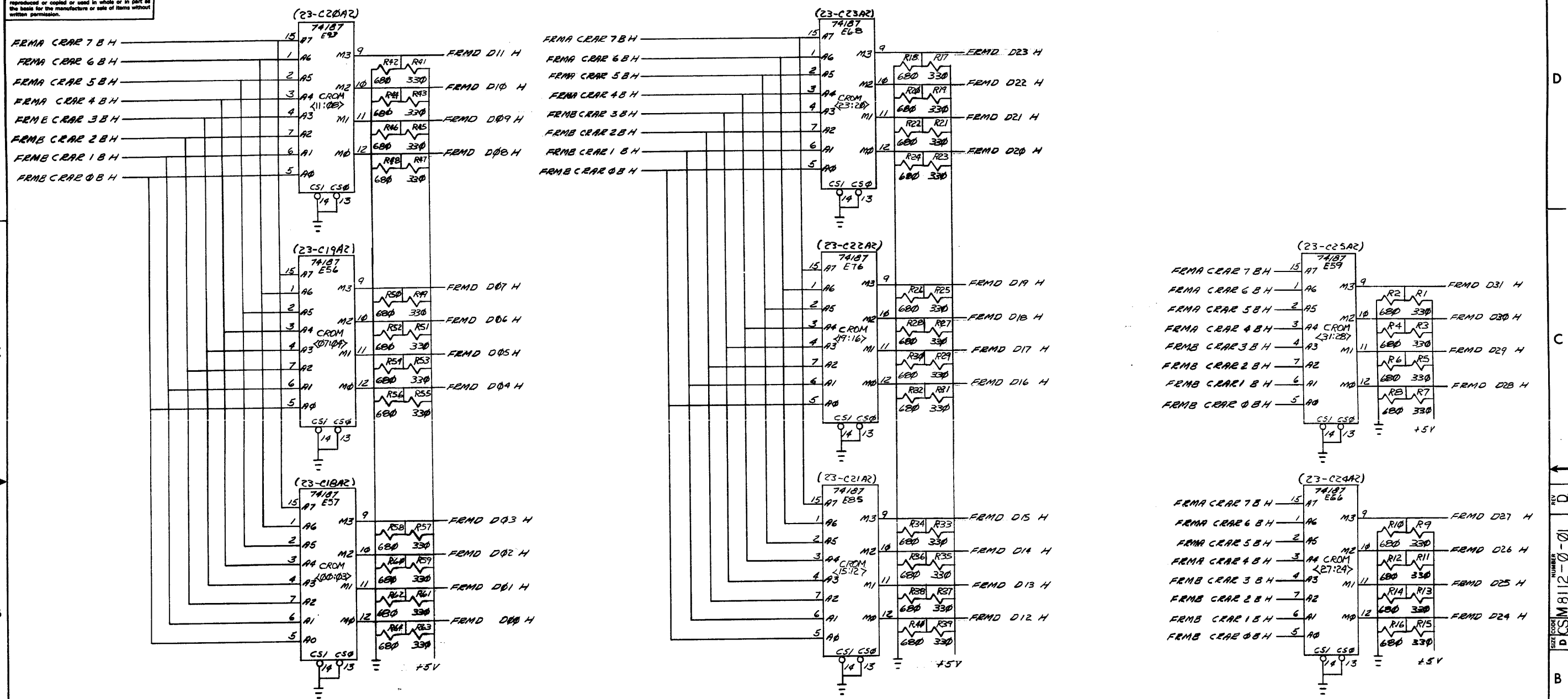
Q 10-0-2118WCS 2



REVISION:	REV
CHANGE NO.	
CHK	

CONTROL ROM DATA BUFFER BITS 32 TO 63		SLOT 4	
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO. ITEM NO.
11/45			
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DRN X DATE 10/1/77	 digital EQUIPMENT CORPORATION <small>MAINTENANCE MANUFACTURING</small>
DECIMALS	ANGLES	DATE 2/17/72	
.XX - .02	± 0° 30'	DATE 2/17/72	
X - .1		DATE 2/17/72	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		DATE 2/17/72	FP ROM & ROM CONTROL <small>(FRMC)</small>
MATERIAL	NEXT HIGHER ASSY.	DATE 2/17/72	
FINISH	SCALE	SIZE CODE	NUMBER
	SHEET 4 OF 13	D	DCSM8112-0-01
		DIST.	REV. D

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REV	
CHG	
CHK	

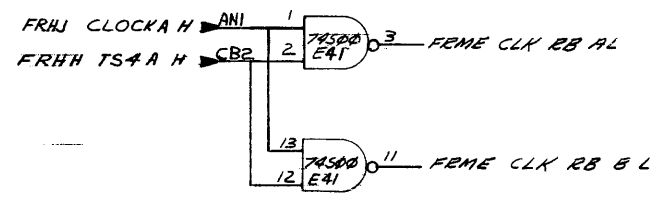
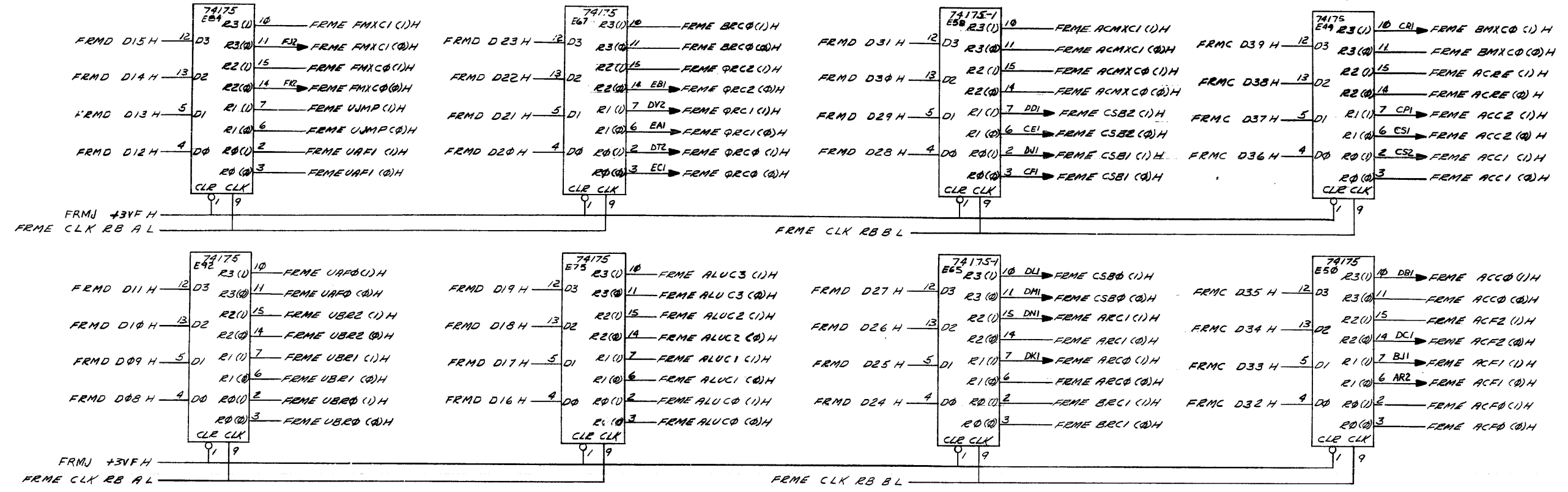
DEC FORM NO 102-B

CONTROL ROM BITS 00 TO 31 SLOT 4

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES				
DECIMALS	ANGLES	DATE	TITLE	
.XXX = .006	±0° 30'	12-8-71	F.P. ROM & ROM CONTROL	
.XX = .02		2/17/72		
.X = .1		2/17/72		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		DATE		
		2/17/72		
MATERIAL	NEXT HIGHER ASSY.	SIZE CODE	NUMBER	REV.
+	B-DD-11/45-0	DCSM8112-0-01		D
FINISH	SCALE	DIST.		
+	SHEET 5 OF 15			

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10-0-2118W 2



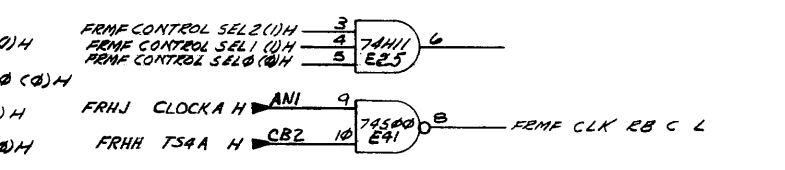
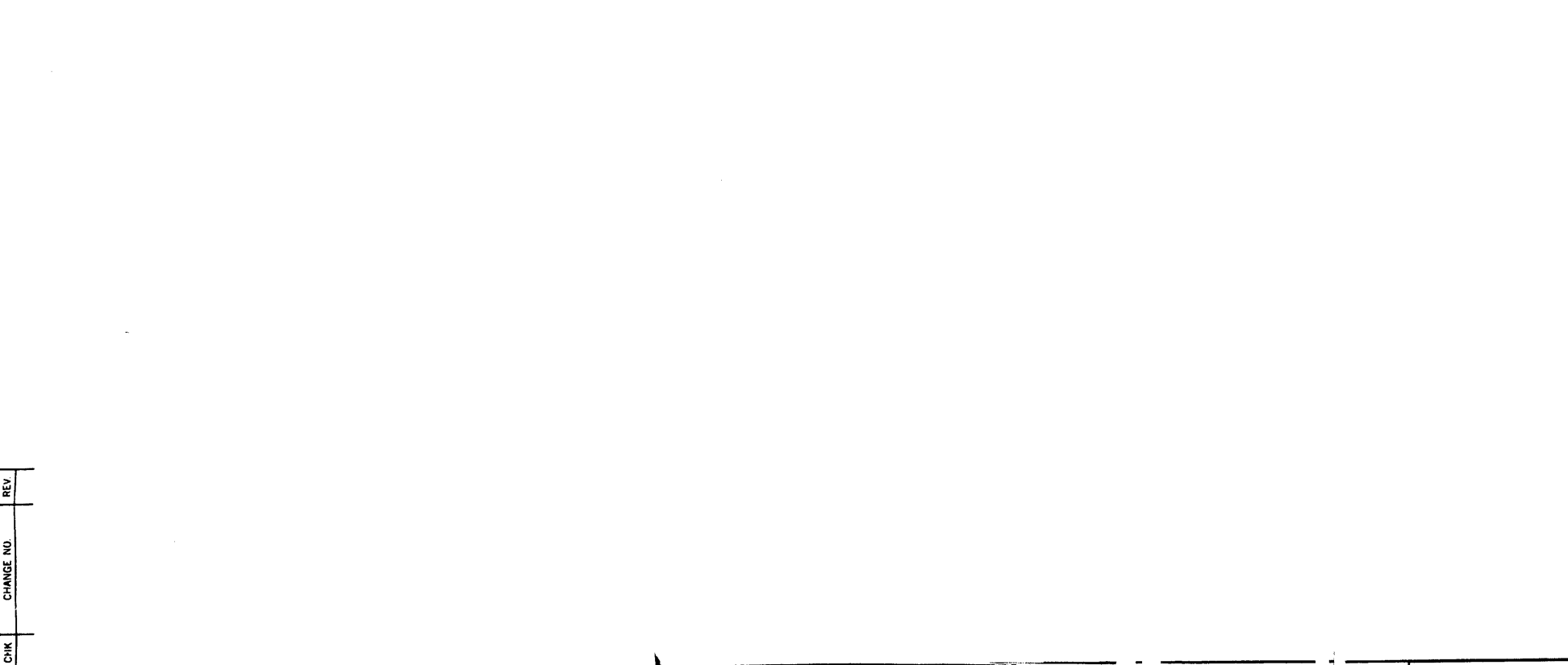
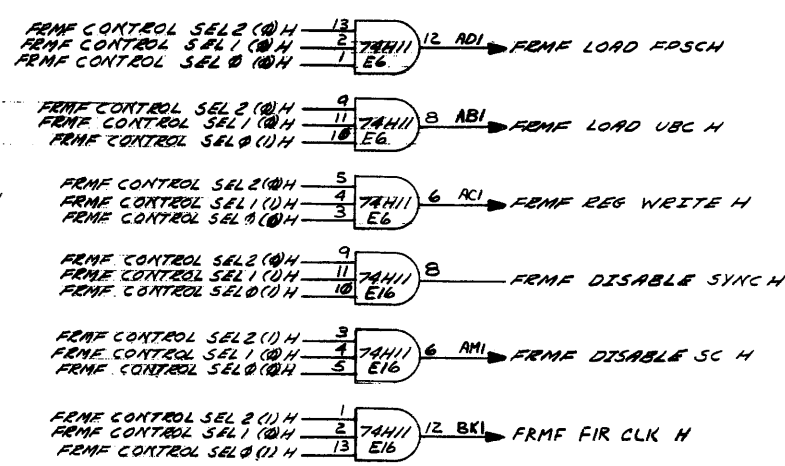
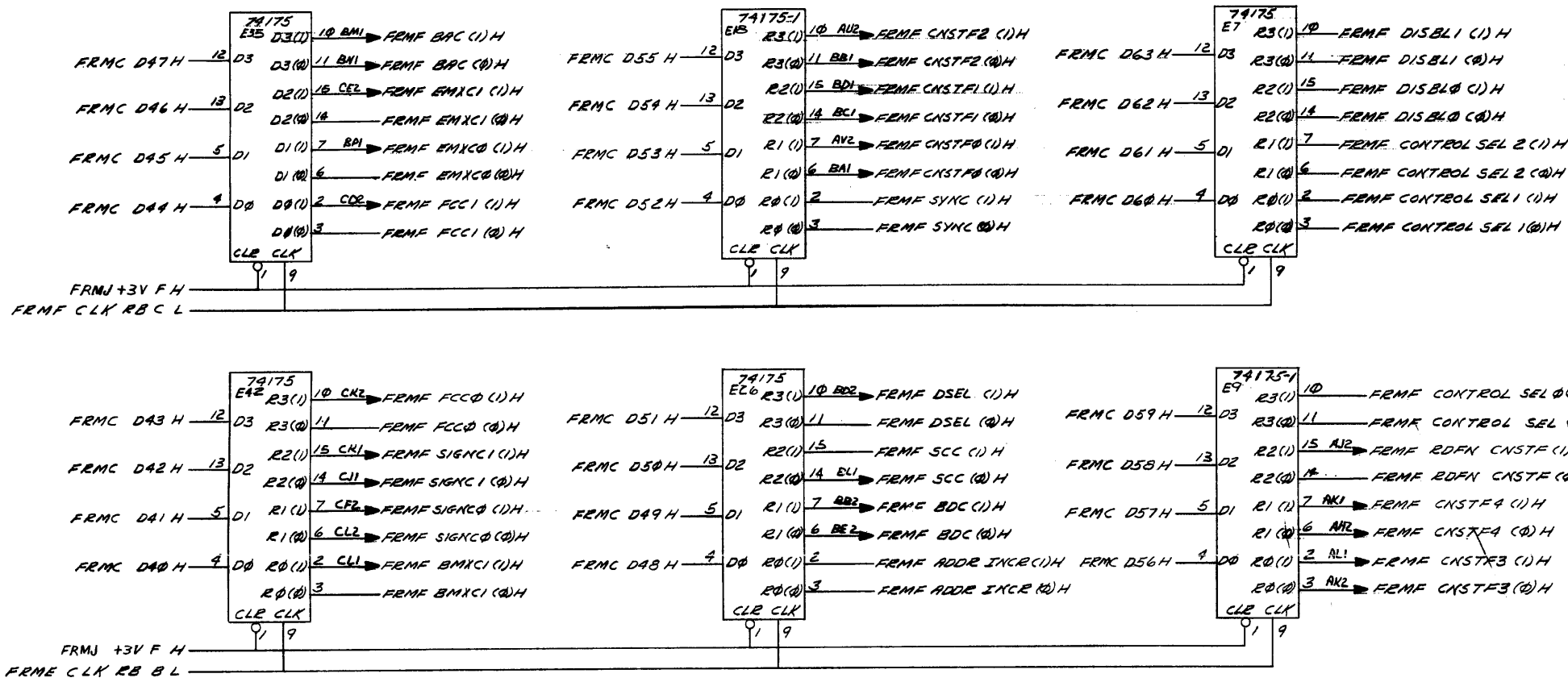
CONTROL ROM DATA BUFFER BITS 08 TO 39 SLOT 4

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES		DRN <i>A. B. Nichols</i>	DATE 10-4-71	 EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
DECIMALS .XXX - .005	ANGLES ±0° 30'	CHK <i>A. B. Nichols</i>	DATE 2/17/72	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		ENR <i>A. B. Nichols</i>	DATE 2/17/72	TITLE FR. ROM ROM CONTROL (FRME)
		PROJ. ENR <i>A. B. Nichols</i>	DATE 2/17/72	
MATERIAL	NEXT HIGHER ASSY.	PROD. <i>A. B. Nichols</i>	DATE 2/17/72	
FINISH				
B-DD-11/45-0		SIZE CODE	NUMBER	REV.
SCALE		DCSM8112-0-01		D
SHEET 6 OF 13		DIST.		

REV	
CHK	
REVISIONS	
CHANGE NO.	

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10-0-2118WCSJ 2

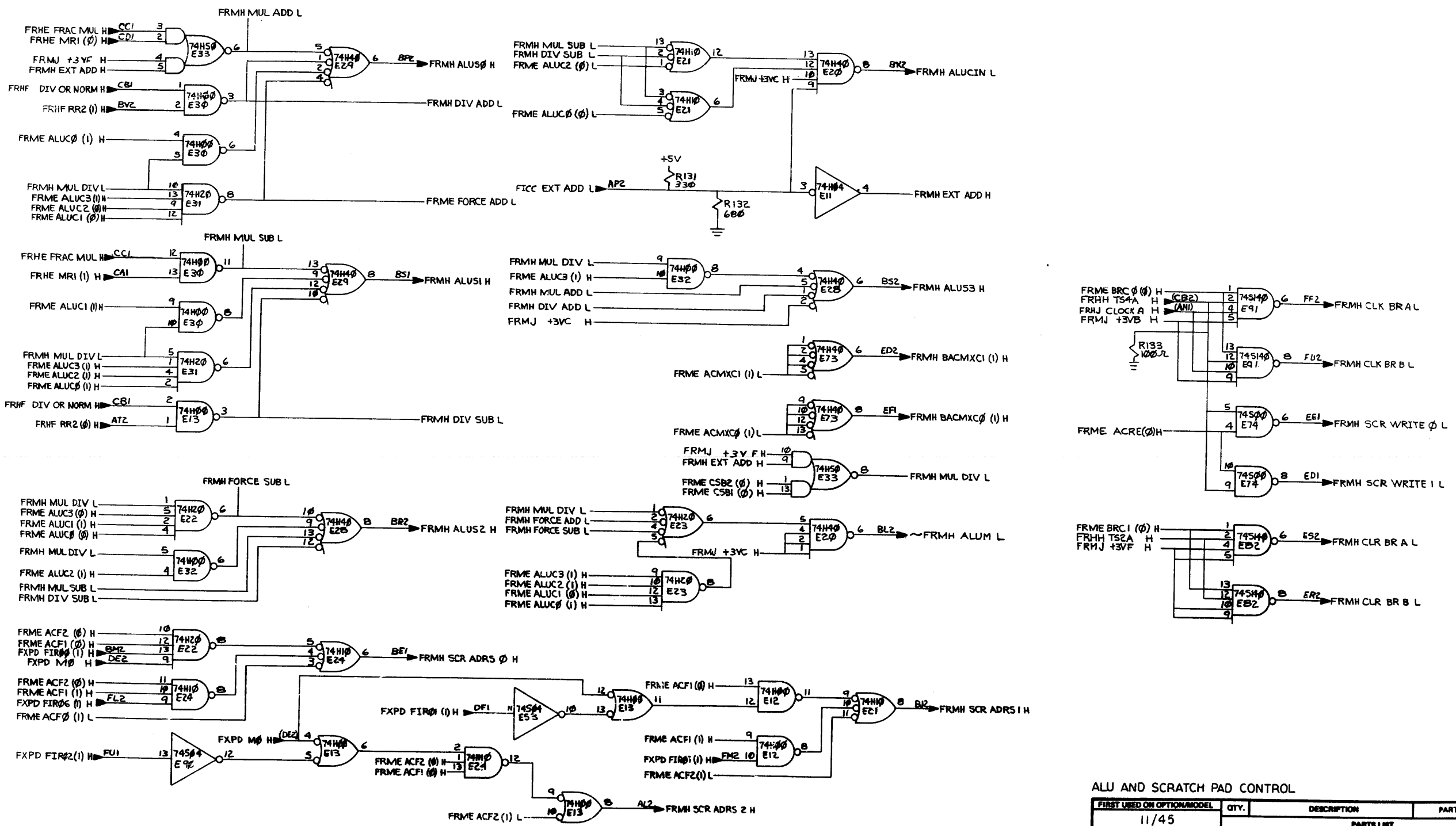


CONTROL ROM DATA BUFFER BITS 40 TO 63 SLOT 4

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DRN: <i>T. Hughes</i> DATE: 10-5-71	 DIGITAL EQUIPMENT CORPORATION <small>MAYNARD, MASSACHUSETTS</small>	
DECIMALS	ANGLES	ENG: <i>T. Hughes</i> DATE: 8/17/72		
.XXX = .006	±0° 30'	PROJ. ENG: <i>T. Hughes</i> DATE: 8/17/72		
.XX = .02		PROD. <i>T. Hughes</i> DATE: 8/17/72		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		PROJ. <i>T. Hughes</i> DATE: 8/17/72	F.P. ROM & ROM CONTROL <small>(FRMF)</small>	
MATERIAL		NEXT HIGHER ASSY.		
FINISH		SCALE		
		SIZE CODE	NUMBER	REV.
		B-DD-11/45-0	DCS M8112-0-01	D
		SHEET 7 OF 13	DIST.	

REV	
CHG	
CHK	

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ALU AND SCRATCH PAD CONTROL SLOT 4

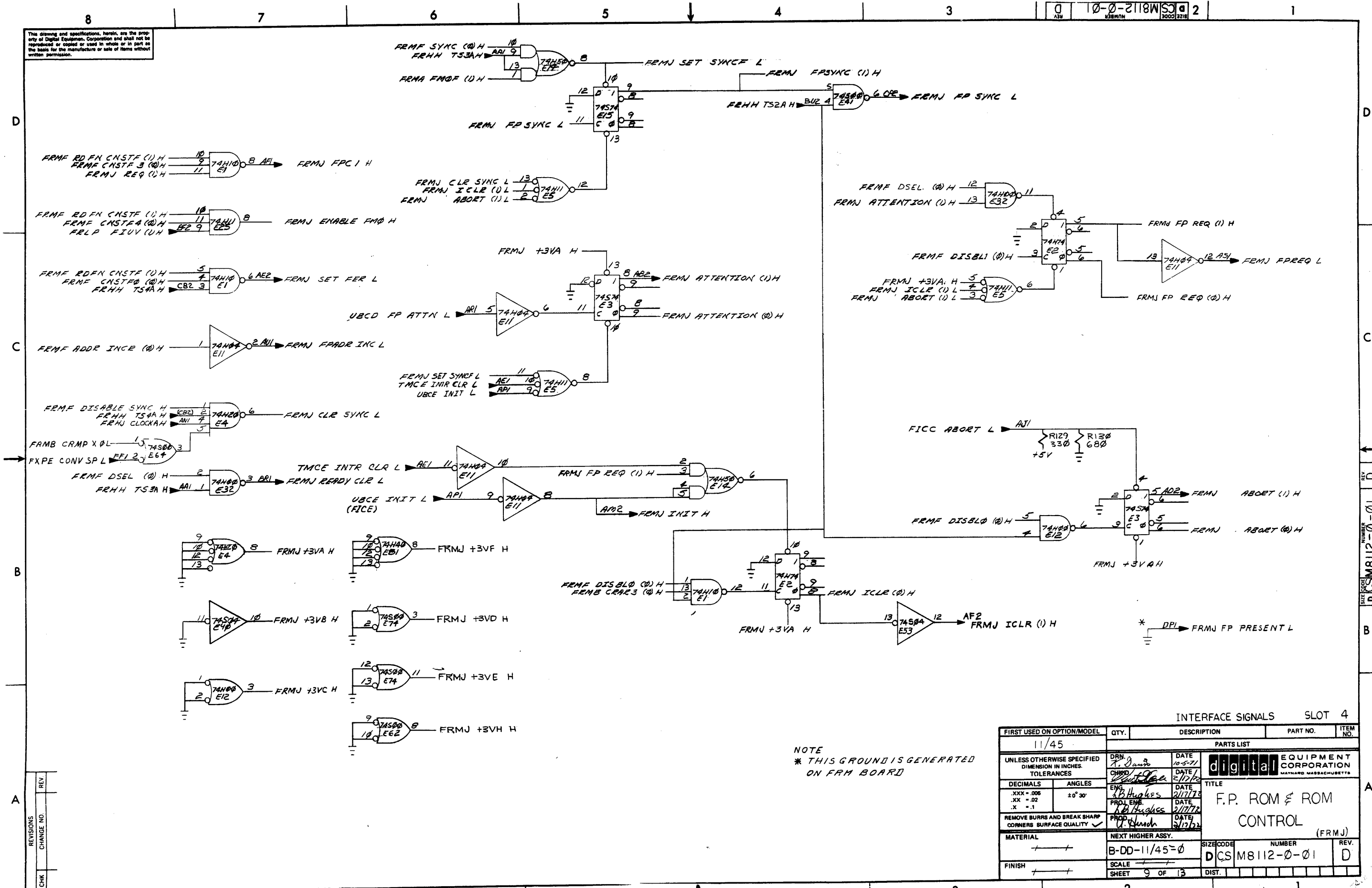
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES		DATE 10/6/77 10/12/77 11/17/77 2/17/78	DIGITAL EQUIPMENT CORPORATION	
DECIMALS ANGLES		DATE 2/17/77	TITLE F.P. ROM & ROM CONTROL	
REMOVES BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		DATE 2/17/77	(FRMH)	
MATERIAL	NEXT HIGHER ASBY.	SIZE CODE	NUMBER	REV.
-/-	B-DD-11/45-0	DCS	M8112-0-01	D
FINISH	SCALE	SHEET	DIST.	
-/-	8 OF 13			

REVISONS

CHK	CHANGE NO	REV

DEC FORM NO DDD 102-B

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NOTE
* THIS GROUND IS GENERATED
ON FRM BOARD

INTERFACE SIGNALS SLOT 4

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES				
DECIMALS	ANGLES	PARTS LIST		
.XXX = .005	±0° 30'	DRN	DATE	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS
.XX = .02		CHKD	DATE	
.X = .1		ENG	DATE	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY				
MATERIAL				
NEXT HIGHER ASSY.				
FINISH		TITLE		
		F.P. ROM & ROM CONTROL (FRMJ)		
		B-DD-11/45-0		
		SCALE		
		SHEET 9 OF 13		
		DISTRIBUTION		
		REV. D		

REVISIONS	REV.
CHANGE NO.	
CHK	

Table with 24 columns: FLOWS STATE, ADR, DL1, DL0, CSL, R0F, CST, SYN, DSL, SCC, BDC, AIC, BAC, EMX, FCC, SGN, BMX, ADR, ACC, ACF, AGR, CSB, ARC, BRC, ORC, ALU, FMX, UJP, UAF, UBR, NAD. Rows include various operations like STR, MUL, NRM, ADD, LD, and SCF.

Table with 24 columns: FLOWS STATE, ADR, DL1, DL0, CSL, R0F, CST, SYN, DSL, SCC, BDC, AIC, BAC, EMX, FCC, SGN, BMX, ADR, ACC, ACF, AGR, CSB, ARC, BRC, ORC, ALU, FMX, UJP, UAF, UBR, NAD. Rows include various operations like LD, STR, MUL, NRM, ADD, LD, and SCF.

Engineering form containing fields for DRN. (M. Prince), CHK'D (P. J. O'Connell), ENG. (P. O'Connell), PROJ. ENG. (P. O'Connell), and PROD. (A. Hamada). It also includes dates (3/21/72, 3/22/72), a title 'E.P. ROM & ROM CONTROL', and a revision number 'D'.

Table with columns: FLOWS STATE, ADR, DL1, DL0, CS1, RDF, CST, SYN, DSL, SDC, BDC, AIC, BAC, EMX, EMC, POC, SGN, BMX, BMR, ACC, ACF, ACM, CSB, ARC, BRC, ORC, ALU, FMX, UJP, UAF, UBR, NAD. Rows include instructions like 10 MOD, 10 ADD, 10 MUL, etc., with their corresponding flow counts.

Table with columns: FLOWS STATE, ADR, DL1, DL0, CS1, RDF, CST, SYN, DSL, SDC, BDC, AIC, BAC, EMX, EMC, POC, SGN, BMX, BMR, ACC, ACF, ACM, CSB, ARC, BRC, ORC, ALU, FMX, UJP, UAF, UBR, NAD. Rows include instructions like 13 SXP, 09 ADD, 09 XXX, etc., with their corresponding flow counts. Includes 'ECC' label at the top.

DRN.	DATE
<i>M. Bence</i>	3/21/72
CHK'D.	DATE
<i>[Signature]</i>	3/21/72
APP'D.	DATE
<i>[Signature]</i>	3/21/72
PRG. ENG.	DATE
<i>[Signature]</i>	3/21/72
PROD.	DATE
<i>[Signature]</i>	3/21/72
SHEET 13 OF 13	

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

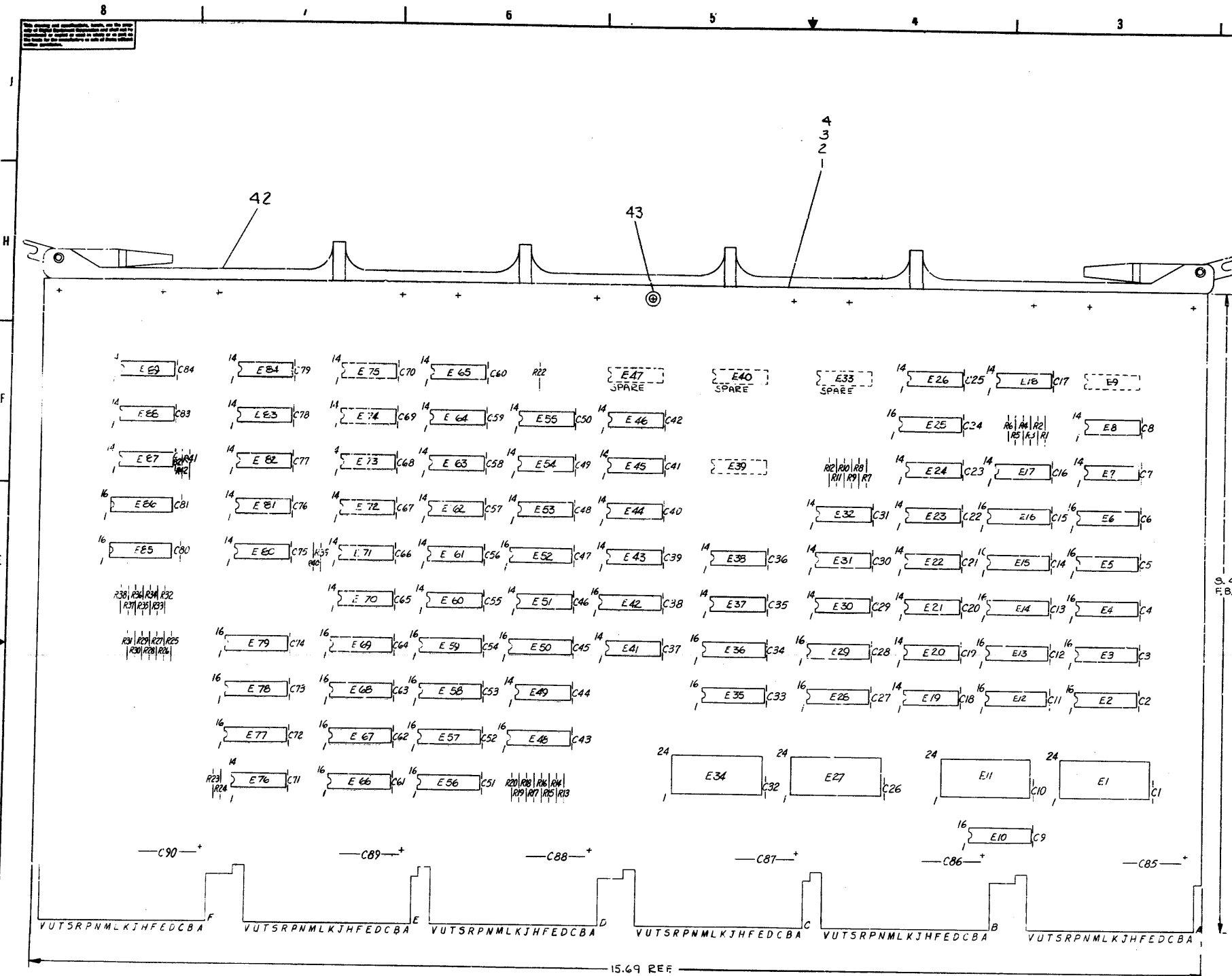
TITLE
F.P. ROM & ROM CONTROL
(ROM MAP 300 TO 377)

SIZE CODE
KCS

NUMBER
M8112-0-1

REV.
D

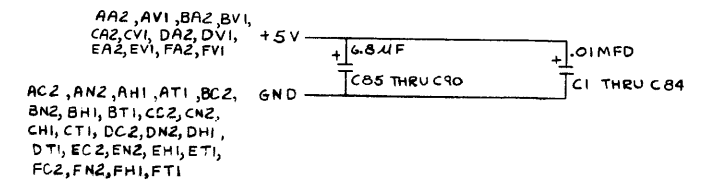
DIST.



NOTES:
 1. UNLESS OTHERWISE NOTED RESISTANCE IS IN Ω AND CAPACITANCE IS IN PICO FARADS. CAPS. WITHOUT VALUE NOTED ARE .01 MFD

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	TER. NO.
43	EYELET		19006732	43
1	HANDLE MODULE		E-PS-821011-2	42
84	C1 THRU C84	CAPACITOR .01MFD, 100V, 20%	10001610	41
6	C85 THRU C90	CAPACITOR 4.8MFD, 35V, 20%	1000067	40
1	E86	IC DEC DM 8598 ROM	23-C05A1	39
1	E85	IC DEC DM 8598 ROM	23-C04A1	38
1	E48	IC DEC 74187 ROM	23-C17A2	37
4	E5, E6, E15, E16	IC DEC 74174	1910652	36
8	E4, E14, E25, E58, E59, E77, E78, E79	IC DEC 74175	1910651	35
1	E10	IC DEC 74182-1	1910551	34
4	E66, E67, E68, E69	IC DEC 74515B	1910549	33
2	E42, E52	IC DEC 745112	1910545	32
1	E61	IC DEC 74565	1910543	31
2	E91, E82	IC DEC 74564	1910542	30
4	E37, E45, E72, E87	IC DEC 74520	1910539	29
5	E30, E32, E49, E65, E73	IC DEC 74511	1910537	28
6	E23, E24, E31, E43, E71, E83	IC DEC 74510	1910536	27
4	E7, E8, E17, E76	IC DEC 74505	1910535	26
4	E26, E38, E53, E88	IC DEC 74504	1910534	25
3	E51, E62, E89	IC DEC 74500	1910532	24
2	E56, E57	IC DEC 7485	1910224	23
1	E50	IC DEC 74191	1910096	22
1	E80	IC DEC 74H22	1910055	21
4	E1, E11, E27, E54	IC DEC 74181	1909982	20
8	E2, E3, E12, E13, E28, E29, E35, E36	IC DEC 745153	1910547	19
1	E10	IC DEC 74H04	1909931	18
5	E19, E20, E21, E22, E49	IC DEC 74H01	1909849	17
3	E46, E60, E74	IC DEC 74H74	1909667	16
2	E18, E81	IC DEC 74H11	1909267	15
2	E63, E75	IC DEC 74H10	1909057	14
3	E54, E64, E84	IC DEC 74H00	1909056	13
1	E55	IC DEC 74H20	1905635	12
1	R12	RESISTOR 270 Ω , 1/4W, 5%	1301972	11
5	R28, R30, R34, R36, R38	RESISTOR 2.4K, 1/4W, 5%	1303177	10
14	R1, R3, R5, R7, R9, R13, R15, R17, R19, R24, R26, R32, R40, R41	RESISTOR 680 Ω , 1/4W, 5%	1301424	9
14	R2, R4, R6, R8, R10, R14, R16, R18, R20, R23, R25, R33, R39, R42	RESISTOR 330 Ω , 1/4W, 5%	1300295	8
5	R27, R29, R31, R35, R37	RESISTOR 1.2K, 1/4W, 5%	1301320	7
1	R11	RESISTOR 470 Ω , 1/4W, 5%	1300316	6
1	R22	RESISTOR 100 Ω , 1/4W, 5%	1300229	5
1		ETCHED CIRCUIT BOARD	5009860	4
REF		MODULE ECO HISTORY	B-MH-MB13-0-4	3
REF		ASSY/DRILLING HOLE LAYOUT	F-MH-MB13-0-5	2
REF		X-Y COORDINATE HOLE LOCATION	K-CO-MB13-0-4	1

IC TYPE	QTY	REF	TER. NO.
DEC DM8598	8	16	
DEC 74187	8	16	
DEC 74174	8	16	
DEC 74175	8	16	
DEC 745182	8	16	
DEC 74515B	8	16	
DEC 745112	8	16	
DEC 7485	8	16	
DEC 74191	8	16	
DEC 74181	12	24	
DEC 7453	8	16	



ETCHED BOARD BY: C

DATE: 11/17/72

SCALE: 271

SEMICONDUCTOR CONVERSION CHART

EQUIPMENT CORPORATION

TITLE: F P EXPONENT DATA PATH

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

SHEET 1 OF 12

DATE: 11/17/72

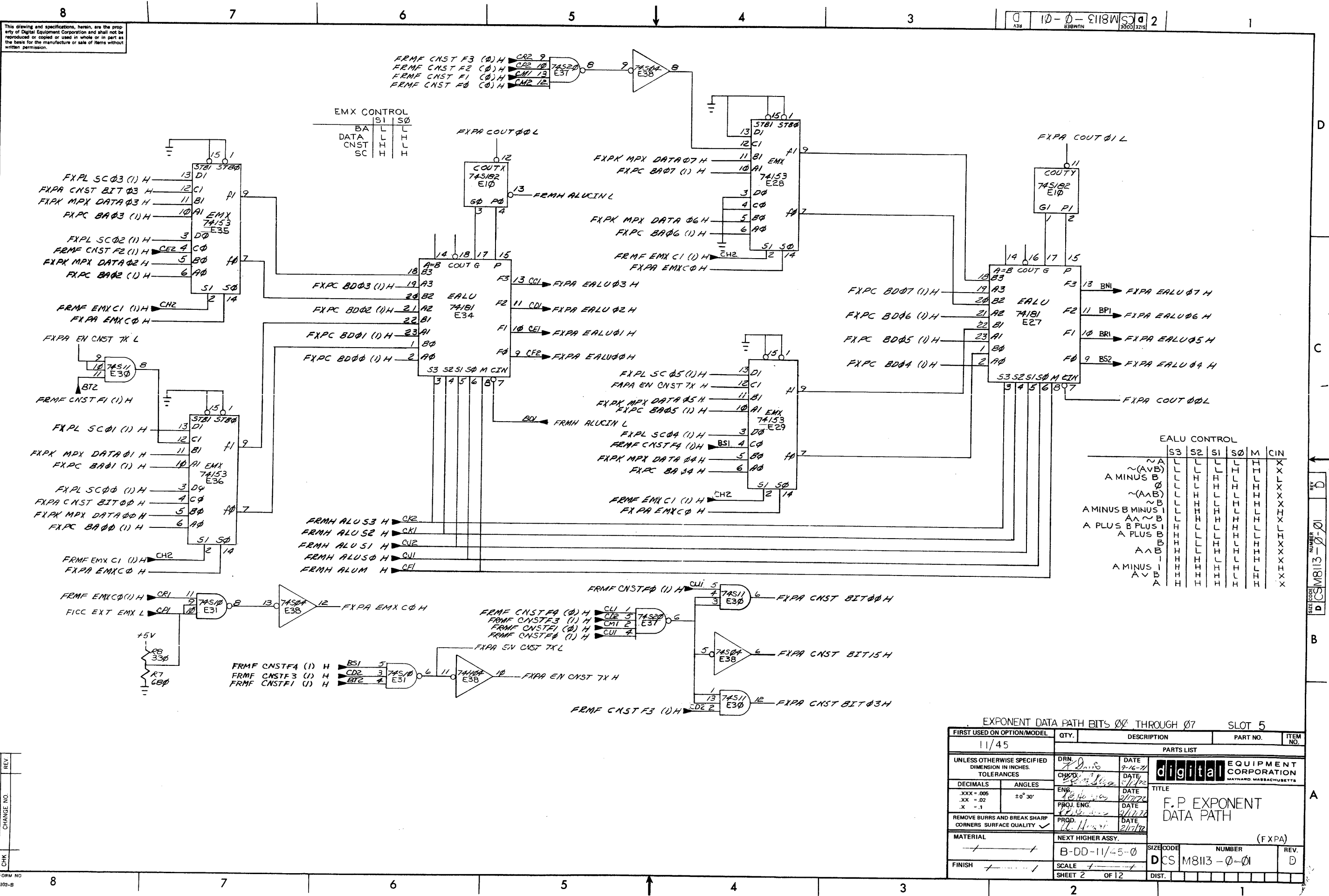
REV: 1

NO. 8-00-11/45-D

FORM: MB13-0-1

REV: D

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EMX CONTROL

BA	SI	S0
DATA	L	L
CNST	L	L
SC	H	H

EALU CONTROL

	S3	S2	S1	S0	M	CIN
~A	L	L	L	L	H	X
~(A∨B)	L	L	L	L	H	X
A MINUS B	L	L	L	L	H	X
0	L	L	L	L	H	X
~(A∧B)	L	L	L	L	H	X
~B	L	L	L	L	H	X
A MINUS B MINUS I	L	L	L	L	H	X
A∧~B	L	L	L	L	H	X
A PLUS B PLUS I	L	L	L	L	H	X
A PLUS B	L	L	L	L	H	X
A∧B	L	L	L	L	H	X
I	L	L	L	L	H	X
A MINUS I	L	L	L	L	H	X
A∨B	L	L	L	L	H	X
A	L	L	L	L	H	X

EXPONENT DATA PATH BITS 00 THROUGH 07 SLOT 5

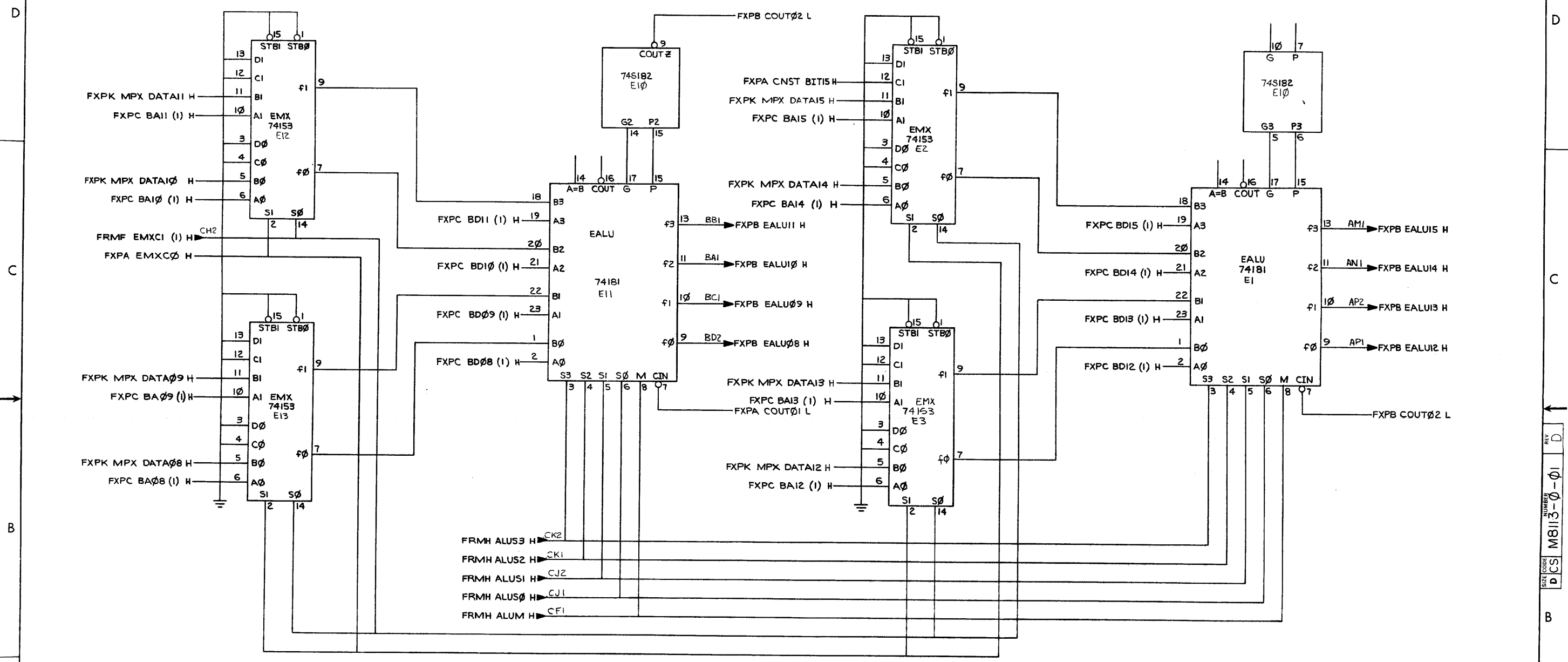
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES	DRN	DATE	digital EQUIPMENT CORPORATION	
DECIMALS ANGLES	CHKD	DATE	MAYNARD, MASSACHUSETTS	
.XXX = .005 ±0° 30'	ENG.	DATE	TITLE	
.XX = .02	PROJ. ENG.	DATE	F. P. EXPONENT DATA PATH	
.X = .1	PROD.	DATE	(F XPA)	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY			MATERIAL	
			NEXT HIGHER ASSY.	
			B-DD-11/45-0	
			FINISH	
			SCALE	
			SHEET 2 OF 12	
			SIZE CODE NUMBER REV.	
			DCS M8113 - 0-01 D	
			DIST.	

REVISIONS

REV	CHANGE NO.

DEC FORM NO DRD 102-B

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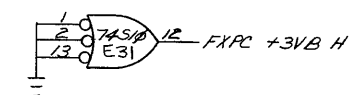
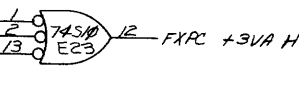
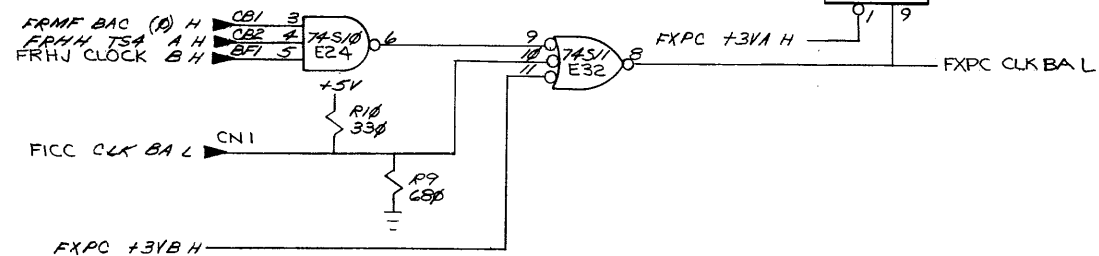
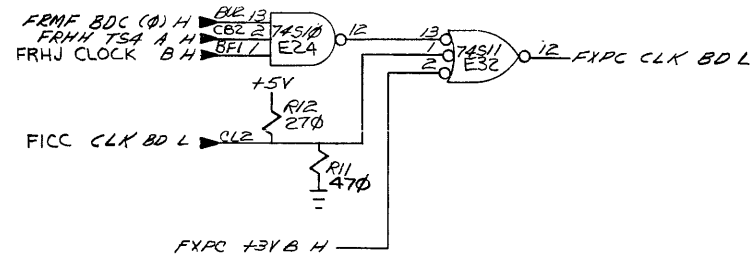
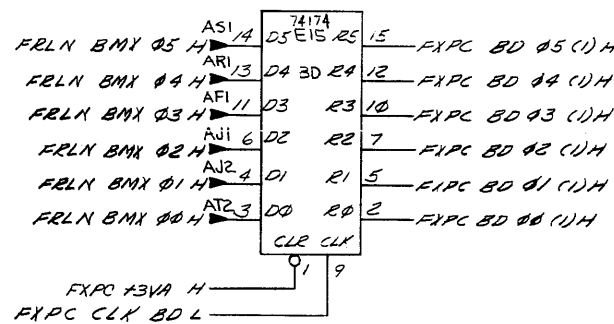
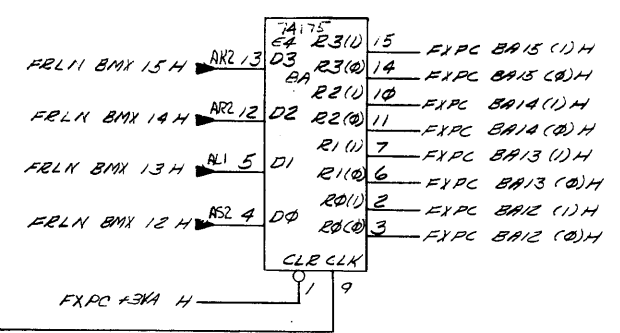
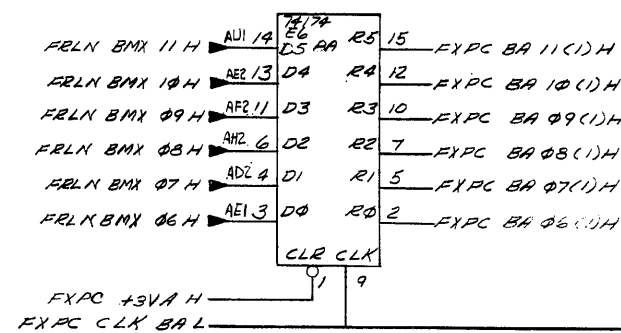
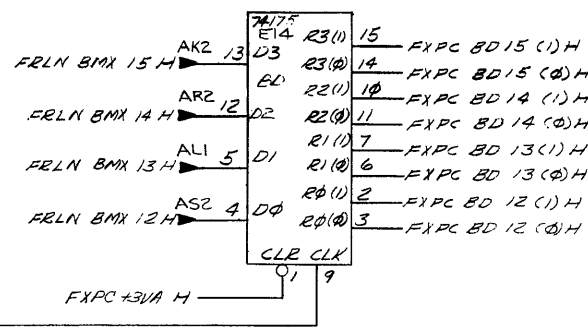
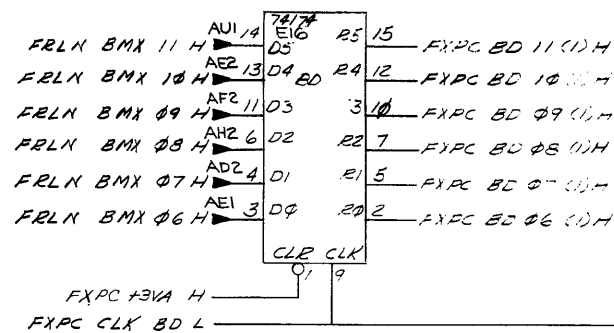


REV	
CHK	
DESIGN	
CHANGE	
NO	

FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45					
PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES.		DRN. S. R. 5/23/71	DATE		
TOLERANCES		CHK'D.	DATE		
DECIMALS	ANGLES	ENG.	DATE	TITLE F.P. EXPONENT DATA PATH	
.XXX - .005	= 0° 30'	PROJ. ENG.	DATE		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		PROD.	DATE	(11/13)	
MATERIAL	///	NEXT HIGHER ASSY.		SIZE CODE	NUMBER
FINISH	///	SCALE		DCS	M8113-0-01
		SHEET 3 OF 12		DIST.	

REV. D
M8113-0-01
DCS

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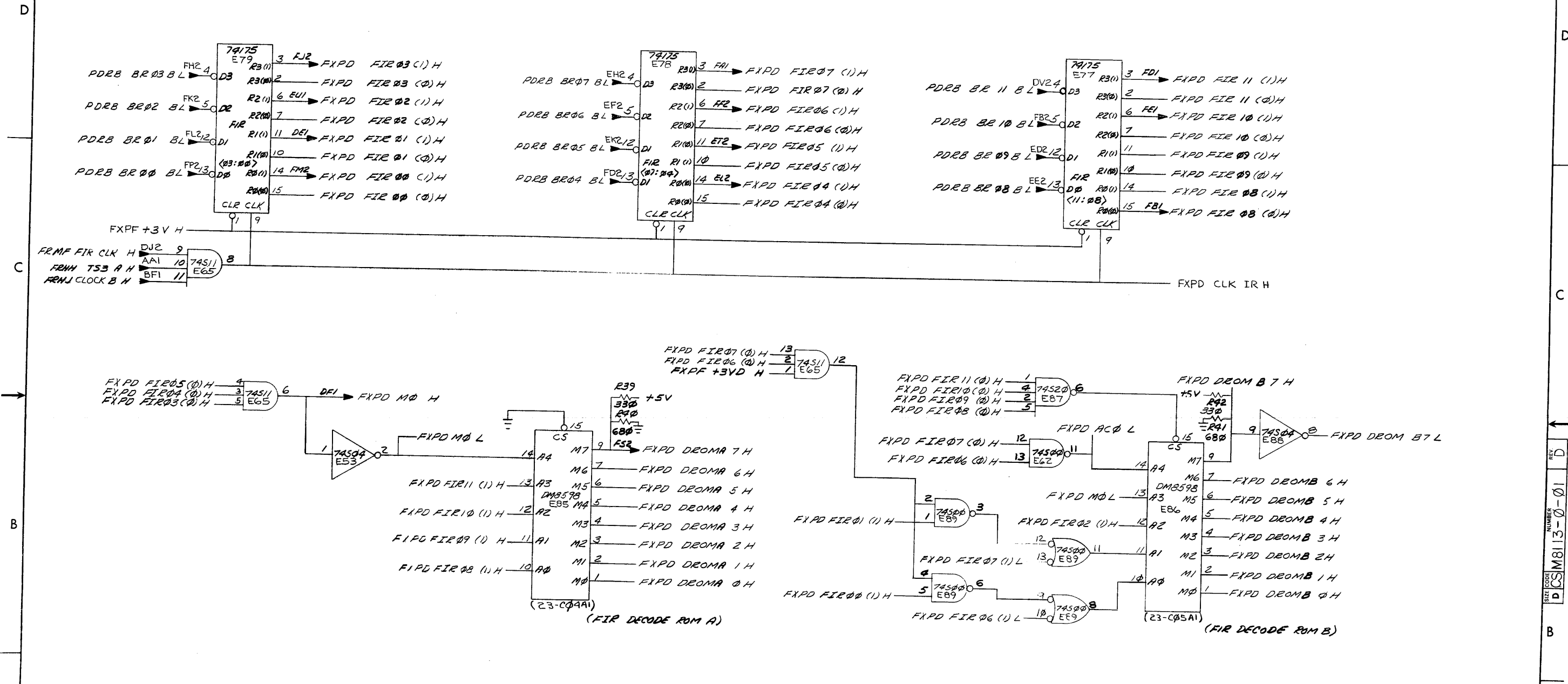
REV
CHANGE NO.
CHK

DEC FORM NO. DRD 102-B

BD & BA REGISTERS SLOT 5

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN A. Jones	DATE 9-17-71	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
DECIMALS .XXX = .005 .XX = .02 .X = .1	CHKD J. Jones	DATE 2/1/72	TITLE F.P. EXPONENT DATA PATH	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	ENG. J. Jones	DATE 2/1/72		
	PROJ. ENG. J. Jones	DATE 8/17/72		
	PRGD. J. Jones	DATE 2/1/72		
MATERIAL	NEXT HIGHER ASSY.			
	B-C-D-11/45-0	SIZE CODE DCS	NUMBER M8113-0-01	REV D
FINISH	SCALE			
	SHEET 4 OF 12			

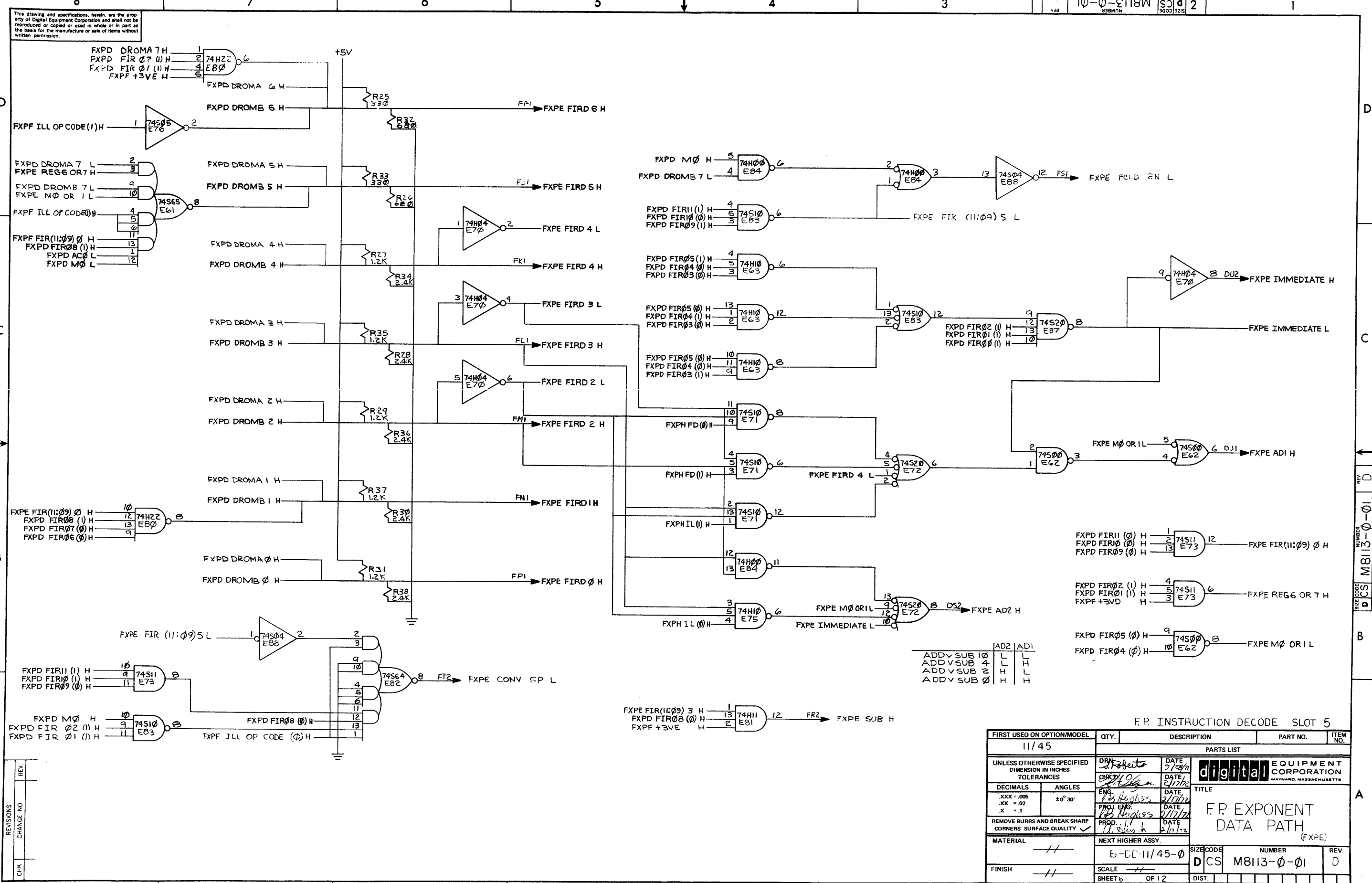
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F.P. INSTRUCTION REGISTER SLOT 5

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DRN: <i>A. Dando</i>	DATE: 7-23-71	
DECIMALS	ANGLES	CHKD: <i>A. Dando</i>	DATE: 7-17-71	
.XXX = .005	±0° 30'	ENG: <i>A. Dando</i>	DATE: 7-17-71	F.P. EXPONENT DATA PATH (FXPD)
.XX = .02		PROJ. ENG: <i>A. Dando</i>	DATE: 7-17-71	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		PROD: <i>A. Dando</i>	DATE: 7-17-71	SIZE CODE: DCSM8113-0-01 NUMBER: 0 REV: 0
MATERIAL	NEXT HIGHER ASSY.	SCALE: B-DJ-11/45-0		
FINISH	SHEET 5 OF 12	DIST.		

REV	DATE	BY	CHK



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REV.	NO.

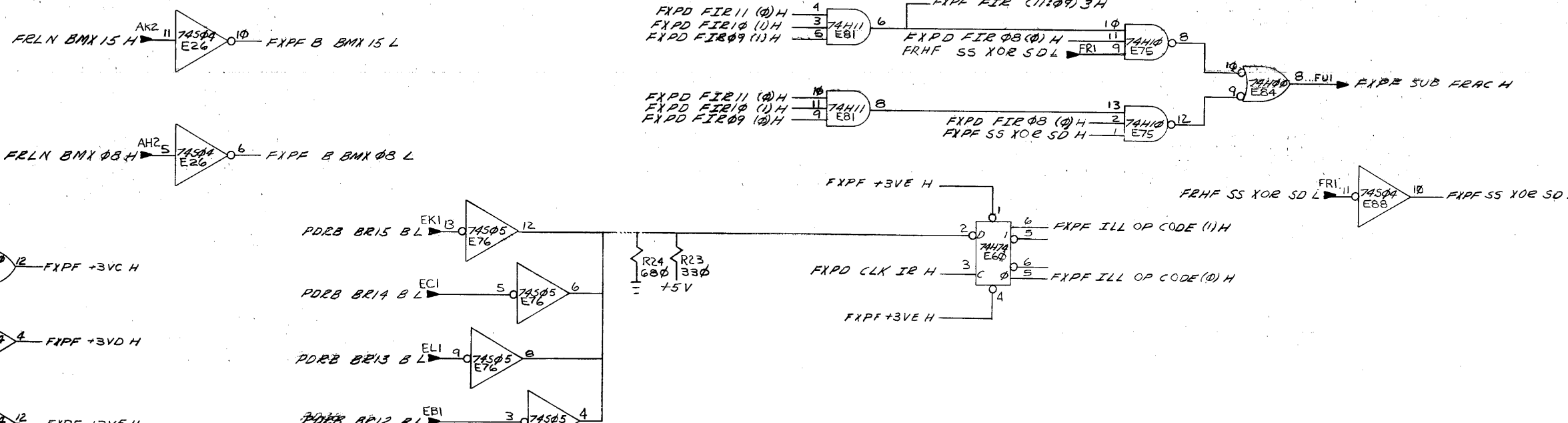
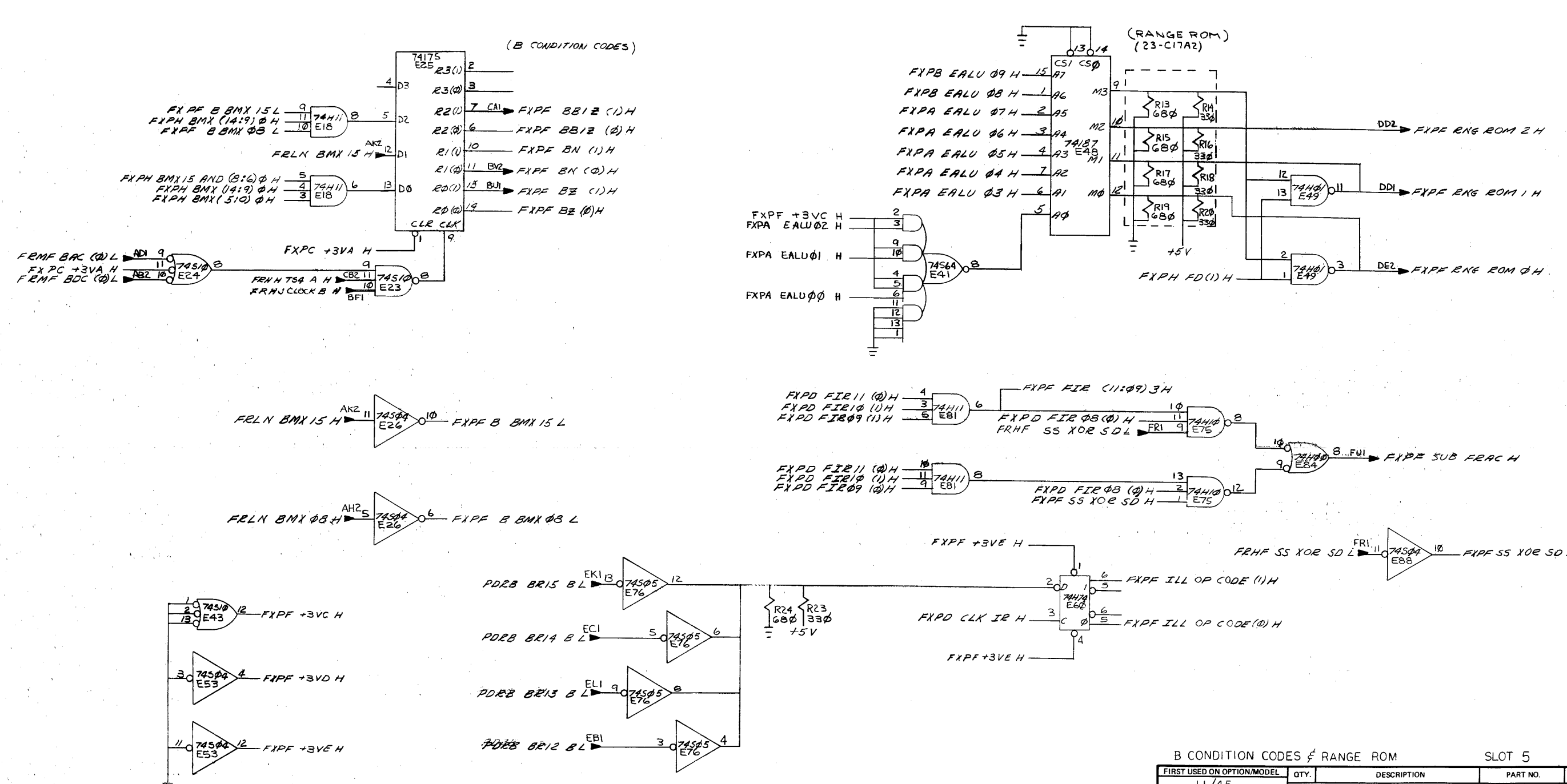
REVISIONS
CHANGE NO.
CHK

F.P. INSTRUCTION DECODE SLOT 5

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.														
11/45																		
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		NEXT HIGHER ASSY.																
FINISH		SCALE																
		SHEET 6 OF 12																
PARTS LIST		<table border="1"> <tr> <td>DATE</td> <td>5/28/74</td> <td rowspan="2"> </td> </tr> <tr> <td>DATE</td> <td>2/17/72</td> </tr> <tr> <td>DATE</td> <td>2/17/72</td> <td>TITLE</td> </tr> <tr> <td>DATE</td> <td>2/17/72</td> <td>F.P. EXPONENT DATA PATH (FXPE)</td> </tr> <tr> <td>DATE</td> <td>2/17/72</td> <td> </td> </tr> </table>			DATE	5/28/74		DATE	2/17/72	DATE	2/17/72	TITLE	DATE	2/17/72	F.P. EXPONENT DATA PATH (FXPE)	DATE	2/17/72	
DATE	5/28/74																	
DATE	2/17/72																	
DATE	2/17/72	TITLE																
DATE	2/17/72	F.P. EXPONENT DATA PATH (FXPE)																
DATE	2/17/72																	
E-DC-11/45-0		SIZE CODE	NUMBER	REV.														
		DCS	M8113-0-01	D														
		DIST.																

REV. D
NUMBER M8113-0-01
SIZE CODE DCS

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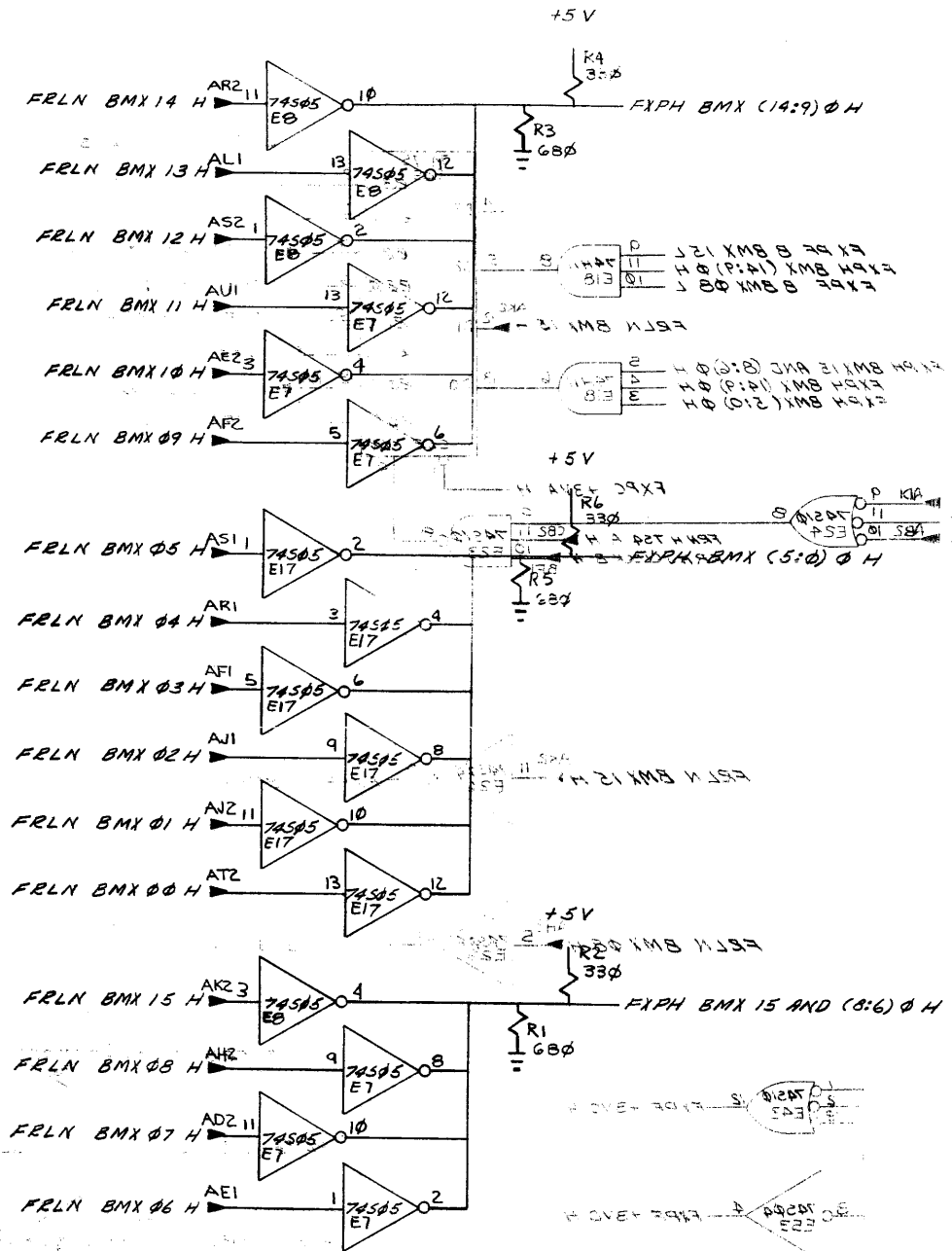
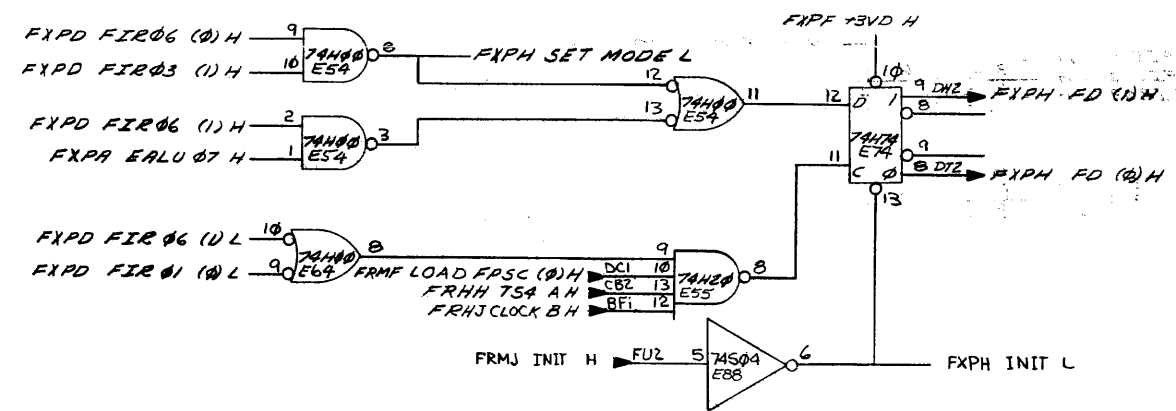
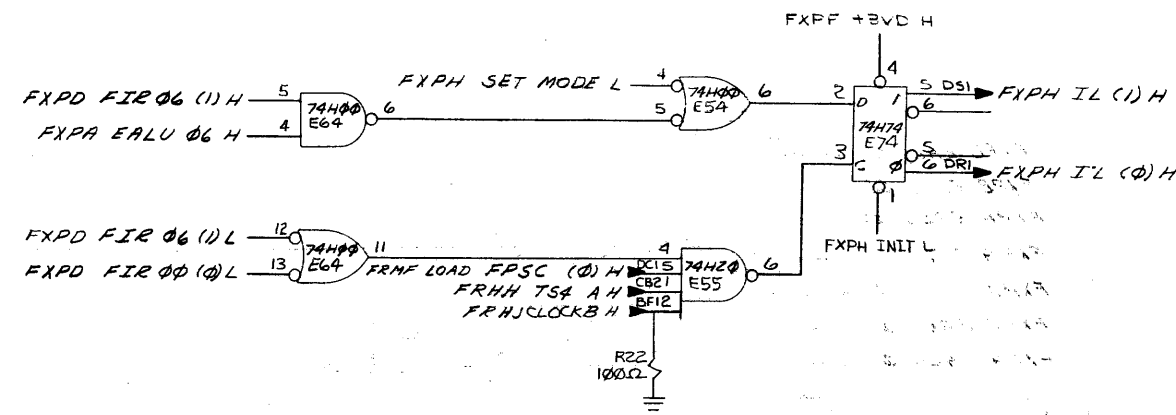
B CONDITION CODES & RANGE ROM		SLOT 5	
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.
11/45			
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES.		DRN <i>[Signature]</i>	DATE 7-27-71
TOLERANCES		CHKD <i>[Signature]</i>	DATE 2/11/72
DECIMALS	ANGLES	ENG <i>[Signature]</i>	DATE 3/17/72
.XXX = .005	±0° 30'	PROJ. ENG. <i>[Signature]</i>	DATE 6/11/72
.XX = .02		PROD. <i>[Signature]</i>	DATE 2/7/72
.X = .1			
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓			
MATERIAL	NEXT HIGHER ASSY	TITLE F.P. EXPONENT DATA PATH (FXPF)	
FINISH	SCALE B-DD-11/45-0	SIZE CODE DCS M8113-0-01	NUMBER REV. D
	SHEET 7 OF 12	DIST.	

REV.	CHANGE NO.

REV. D
 NUMBER DCS M8113-0-01
 SIZE CODE

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D
C
B
A

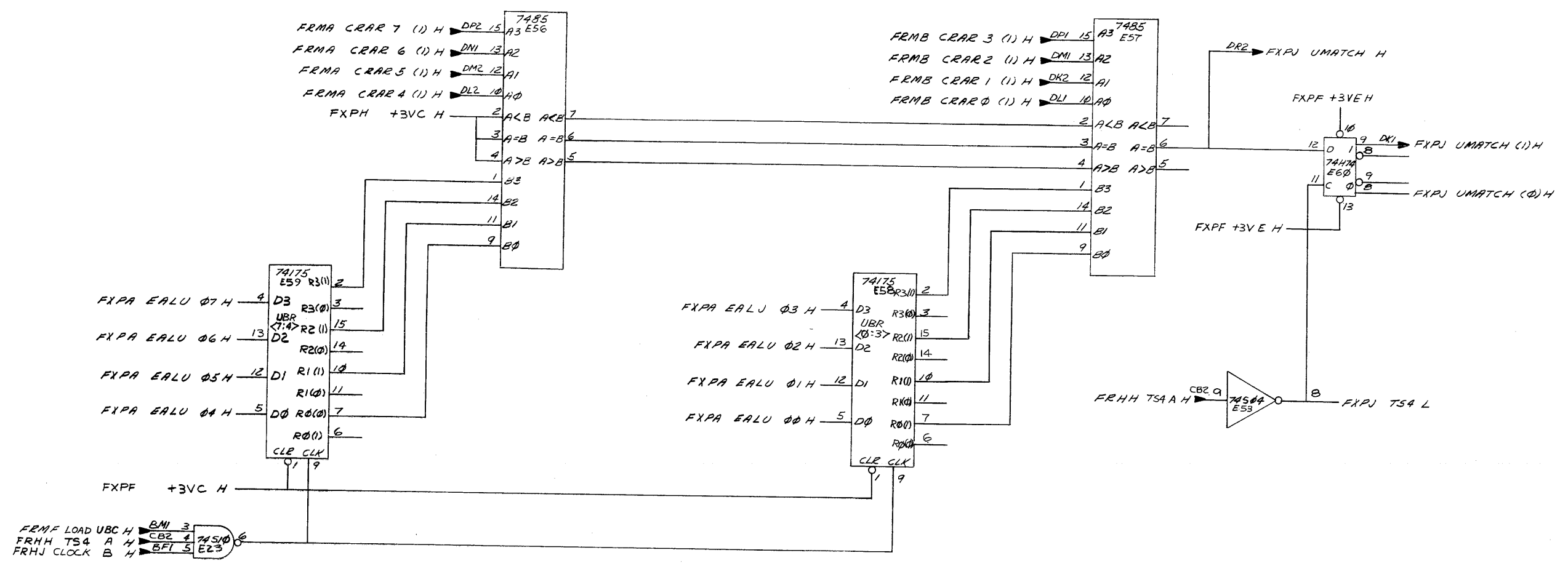


FD & IL MODE BITS & BMX DECODE SLOT 5

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DRN. DATE	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
DECIMALS	ANGLES	ENG. DATE	TITLE F.P. EXPONENT DATA PATH (FXPH)	
.xxx = .005	±0° 30'	PROJ. ENG. DATE		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		PROD. DATE	SIZE CODE NUMBER REV. DCS M8113-0-01 D	
MATERIAL	NEXT HIGHER ASSY.	SCALE		
FINISH		SHEET 5 OF 12		

REV. D
NUMBER DCS M8113-0-01
SIZE CODE D

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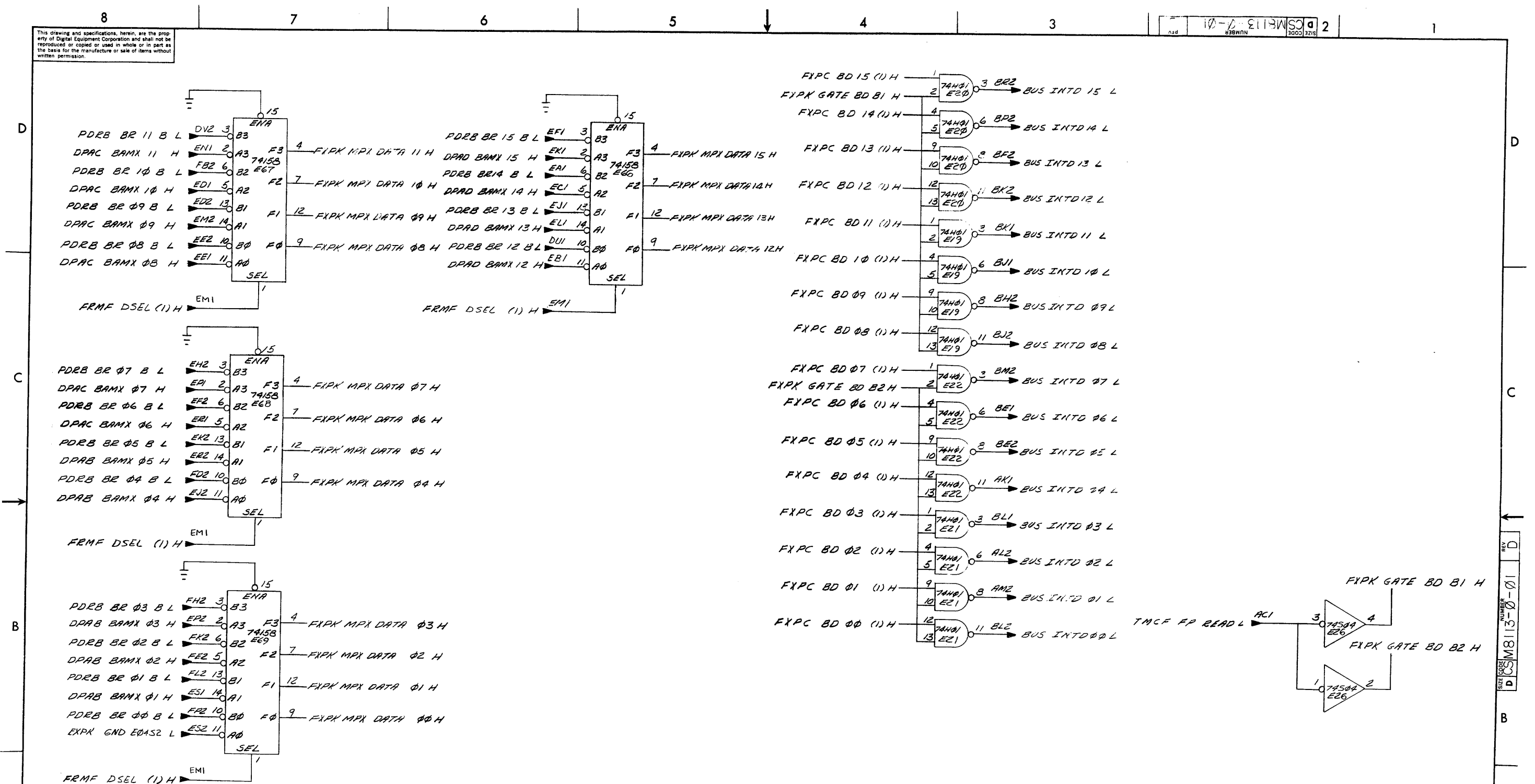


FIRST USED ON OPTION/MODEL				QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45							
PARTS LIST							
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DRN.	DATE	 digital EQUIPMENT CORPORATION <small>MAYNARD MASSACHUSETTS</small>			
DECIMALS		CHK'D	DATE				
ANGLES		ENG.	DATE				
XXX - .005		PROJ. ENG.	DATE				
XX - .02		PROD.	DATE	F R EXPONENT DATA PATH <small>(FXP.1)</small>			
X - .1							
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY							
MATERIAL	NEXT HIGHER ASSY.			SIZE CODE	NUMBER	REV.	
FINISH				D	C S M 8113-0-01	D	
		SCALE		SHEET 9 OF 12		DIST.	

REV.	
CHANGE NO.	
CHK	

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10-1313W 2



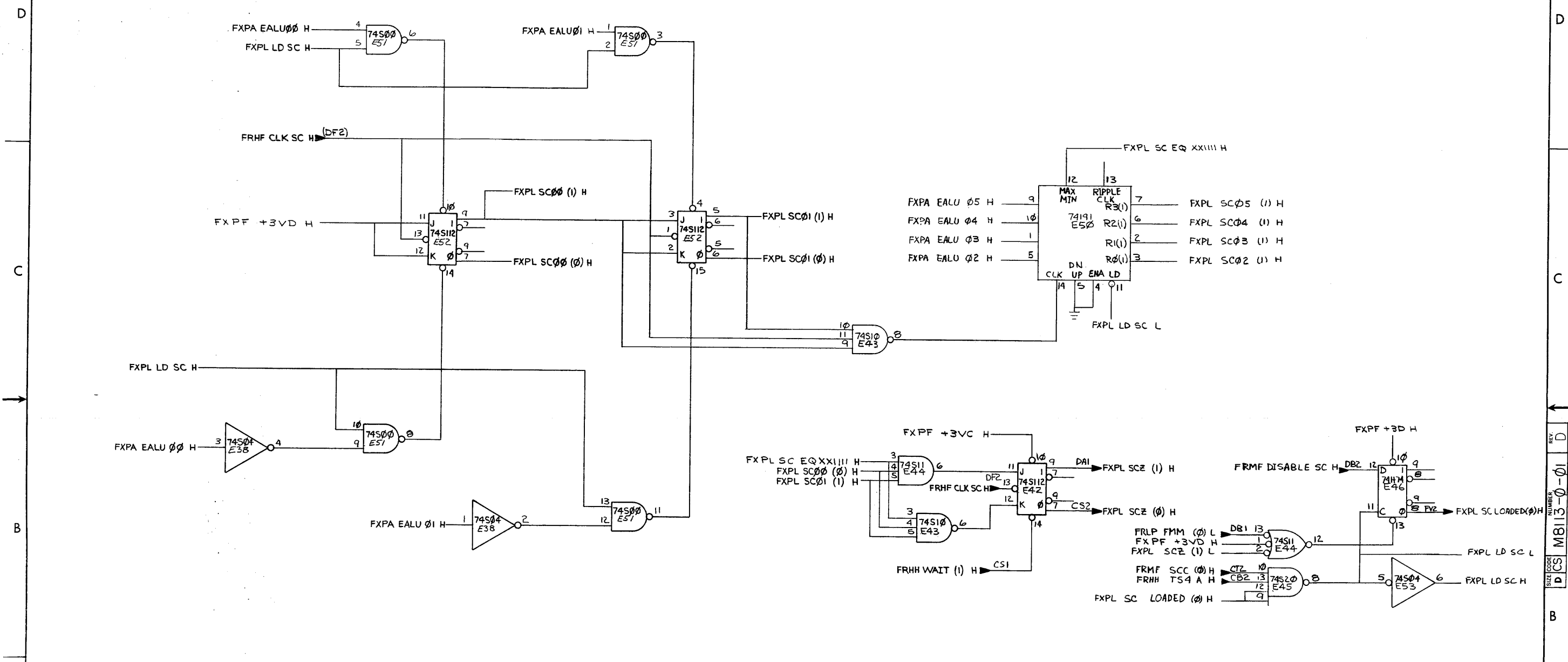
F. P. DATA RECEIVERS AND DRIVERS SLOT 5

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES				
DECIMALS	ANGLES	DRN	DATE	 digital EQUIPMENT CORPORATION <small>WATYARD MASSACHUSETTS</small>
.XXX = .005	±0° 30'	CHK'D	DATE	
.XX = .02		ENG.	DATE	
.X = .1		PROJ. ENG.	DATE	
		PRGD	DATE	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY				
MATERIAL		NEXT HIGHER ASSY.		
FINISH		B-DD 11/45-0	SIZE CODE	NUMBER
		SHEET 10 OF 12	D	CSM8113-0-01
			DIST.	REV. D

REV	
CHANGE NO.	
CHK	

SIZE CODE NUMBER
 D CSM8113-0-01
 REV. D

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STEP COUNTER SLOT 5

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN <i>J. Roberts</i>	DATE 9/29/71	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
DECIMALS	CHK'D <i>[Signature]</i>	DATE		
ANGLES	ENG <i>[Signature]</i>	DATE	TITLE F.P. EXPONENT DATA PATH (EXPL)	
XXX = .005 XX = .02 X = .1	PROJ. ENG.	DATE		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PROD. <i>[Signature]</i>	DATE 2/2/72		
MATERIAL	NEXT HIGHER ASSY.	SIZE CODE	NUMBER	REV.
FINISH	B-DD-11/45-0	D/CS	M8113-0-01	D
	SCALE	SHEET 11	OF 12	

REV	
CHG	
CHK	

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CONTENTS OF DECODE ROM A (DROMA)

ADDRESS	DATA				INSTRUCTION
	7	6	5	4	
0	0	1	1	1	FOP CODE 0 (CLR, TSTF, ABSF, NEGF)
1	1	0	1	0	MULF
2	1	0	1	1	MODF
3	1	0	1	0	ADDF
4	1	0	1	1	LDIF
5	1	0	1	0	SUBF
6	1	0	1	1	CMPF
7	1	0	1	0	STF
8	1	0	1	1	DIVF
9	1	0	1	0	STEXP
10	1	0	1	1	STCF1
11	1	0	1	0	STCFD
12	1	0	1	1	LDEXP
13	1	0	1	0	LDCIF
14	1	0	1	1	LDCDF
15	0	1	1	1	FOP CODE 1 (CLR, TSTF, ABSF, NEGF)
16	0	1	1	0	MULF
17	0	1	1	1	MODF
18	0	1	1	0	ADDF
19	0	1	1	1	LDIF
20	0	1	1	0	SUBF
21	0	1	1	1	CMPF
22	0	1	1	0	STF
23	0	1	1	1	DIVF
24	0	1	1	0	STEXP
25	0	1	1	1	STCF1
26	0	1	1	0	STCFD
27	0	1	1	1	LDEXP
28	0	1	1	0	LDCIF
29	0	1	1	1	LDCDF
30	0	1	1	0	FOP CODE 2 (CLR, TSTF, ABSF, NEGF)
31	0	1	1	1	MULF
32	0	1	1	0	MODF
33	0	1	1	1	ADDF
34	0	1	1	0	LDIF
35	0	1	1	1	SUBF
36	0	1	1	0	CMPF
37	0	1	1	1	STF

NOTE:

- FOP CODE 0 ALSO ENABLES DROMB. DATA BITS <6:0> OF DROMB ARE COLLECTOR OR'D WITH DATA BITS <6:0> OF DROMA.
- DATA BIT 7 IS USED TO DECODE F_A CLASS MB. F CLASS CONTAINS ALL INSTRUCTIONS THAT REFERENCE AN AC FOR ADDRESS MODE 0.
- DATA BITS <6:5> ENCODE THE INSTRUCTIONS INTO 4 CLASSES.
 - 0 ILL-OP-CODE; UNDEFINED FOR CODES
 - 1 NO-MEM-CL; THESE REQUIRE NO MEMORY CYCLES
 - 2 LOAD-CL; THESE REQUIRE DAT1'S
 - 3 STORE-CL; THESE REQUIRE DAT0'S
 ONE LEG OF THE AND-OR-INVERT GATE THAT IS COLLECTOR OR'D WITH DATA BIT 5 FORCES TSTF, ABSF & NEGF & MB INTO THE LOAD CLASS. THE REMAINING INPUTS TO THIS GATE FORCE AN ILLEGAL OP CODE
- DATA BITS <4:0> ENCODE THE INSTRUCTIONS INTO 6 CLASSES. THIS GROUPING DEFINES THE CONSTANT THAT IS ADDED TO OR SUBTRACTED FROM THE GENERAL REGISTER FOR ADDRESSING MODES 2 OR 4.
 - 0 CLASS 0; USE 4 (FD(0)) OR 8 (FD(1))
 - 1 CLASS 1; USE 8(FD(0)) OR 4 (FD(1))
 - 2 CLASS 2; USE 2 (1L(0)) OR 4 (1L(1))
 - 3 CLASS 3; USE 2
 - 4 CLASS 4; USE 4
 - 5,6,7 CLASS 5; DON'T CARE (MB ONLY)

CONTENTS OF DECODE ROM B (DROMB)

ADDRESS	DATA				INSTRUCTION
	7	6	5	4	
0	0	1	0	1	CFCC
1	1	0	1	0	SETD
2	1	0	1	1	SETL
3	1	0	1	0	LDUB
4	1	0	1	1	LDSC
5	1	0	1	0	STAB
6	1	0	1	1	MPS
7	1	0	1	0	STOB
8	1	0	1	1	ILLEGAL OP CODE
9	1	0	1	0	SETD
10	1	0	1	1	SETL
11	1	0	1	0	ILLEGAL OP CODE
12	1	0	1	1	ILLEGAL OP CODE
13	1	0	1	0	ILLEGAL OP CODE
14	1	0	1	1	ILLEGAL OP CODE
15	1	0	1	0	ILLEGAL OP CODE
16	1	0	1	1	ILLEGAL OP CODE
17	1	0	1	0	ILLEGAL OP CODE
18	X	X	X	X	NOT USED
19	1	0	1	0	LDFPS
20	1	1	1	0	STFPS
21	1	1	1	1	STST
22	X	X	X	X	NOT USED
23	1	0	1	0	LDFPS
24	1	1	1	0	STFPS
25	1	1	1	1	STST
26	X	X	X	X	NOT USED
27	1	1	1	0	LDFPS
28	1	1	1	1	STFPS
29	1	1	1	0	STST
30	X	X	X	X	NOT USED
31	1	1	1	0	LDFPS
32	1	1	1	1	STFPS
33	1	1	1	0	STST
34	X	X	X	X	NOT USED
35	1	1	1	0	LDFPS
36	1	1	1	1	STFPS
37	1	1	1	0	STST

NOTE:

- FOP CODE 0 ENABLES DROMB.
- FIR <07:06>(0) CAUSES THE LOWER QUARTER OF DROMB TO BE ADDRESSED BY THE LOWER 3 BITS OF THE FIR. ALL OF THESE OP CODES ARE USED DATA BIT 7 IS USED TO DECODE CFCC FOR THE GENERATION OF FOLD EN.
- FIR <07:06>(1) CAUSES THE SECOND QUARTER OF DROMB TO BE ADDRESSED BY THE LOWER 3 BITS OF THE FIR. ONLY TWO OP CODES ARE USED (SET D & SET L). DATA BIT 7 IS USED TO FORCE AN ILL OP CODE IF ADDRESSES 11 & 12 ARE ACCESSED & FIR <05:03> IS NOT 1
- FIR <07:06>(2) OR (3) CAUSE THE UPPER HALF OF DROMB TO BE ADDRESSED. THE INSTRUCTIONS LDFPS, STFPS, & STST USE ALL OF THIS OP CODE SPACE. NOTE THAT FIR 06 & FIR 07 ARE ALSO USED AS THE LEAST SIGNIFICANT TWO BITS OF THE ADDRESS.

CONTENTS OF RANGE ROM


ADDRESS	DATA				OUTPUT OF EALU	RANGE FD(0)	RANGE FD(1)
	3	2	1	0			
0	0	1	0	0	1 TO 7	GT	GT
1	0	1	0	1	0	EQ	EQ
2 TO 5	0	1	0	0	10 TO 27	GT	GT
6	1	1	1	1	31 TO 37	MGT	GT
7	0	1	0	0	30	GT	GT
10 TO 15	1	1	1	1	41 TO 67	MGT	GT
16	0	1	1	1	71 TO 77	MGT	MGT
17	1	1	1	1	70	MGT	GT
20 TO 177	0	1	1	1	100 TO 777	MGT	MGT
200 TO 361	0	0	0	1	-71 TO -1000	MLT	MLT
362 TO 371	0	0	0	0	-31 TO -70	MLT	LT
372 TO 377	0	0	0	0	-1 TO -30	LT	LT

NOTE:

DATA BITS <2:0> ARE USED TO PERFORM THE MLT, LT, EQ, GT & MGT BRANCH DATA BIT 3, WHEN TRUE IS USED TO ENABLE HARDWARE THAT MODIFIES MLT TO LT AND MGT TO GT IF FD(1).

BRUNING 40-522 15840
REV. NO. 1
CHK CHANGE NO.

AUX ROM MAPS

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
11/45		PARTS LIST		
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN. DATE 10/1/72	DATE 10/1/72		
DECIMALS ANGLES	CHK'D. DATE 10/1/72	DATE 10/1/72		
XXX = .005 XX = .02 X = .1	ENG. DATE 2/1/72	DATE 2/1/72	TITLE F.P. EXPONENT DATA PATH (FXPM)	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PROJ. ENG. DATE 2/1/72	DATE 2/1/72		
MATERIAL	NEXT HIGHER ASSY.	SIZE CODE	NUMBER	REV.
	B-DD-11/45-0	D	CS M8113-0-01	D
FINISH	SCALE	SHEET	DIST.	
	12	OF 12		

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ACCESSORY LIST

LEGEND

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

QUANTITY/VARIATION

MADE BY *J. Howman*
DATE *6-15-72*
ENG *D. Ives*
DATE *6-20-72*

CHECKED *J. Rogers*
DATE *6-15-72*
PROD *Jack Howman*
DATE *6-20-72*

SECTION
ISSUED SECT.

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY/VARIATION						KIT CHECK	BY	DATE	INSTALLATION CHECK	BY	DATE
	FP11-B	Print Set	1											
	Lib Kit11-FPP11-A-K	Software Kit	1											
	Dec11-HFPA-D	Maint. Manual (FP11B)	1											

TITLE Floating Point Processor	ASSY. NO.	SIZE CODE A AL	NUMBER FP11-B - 16	REV.	ECO NO.
SHEET OF	DIST.				