

RK11-D
disk drive controller
engineering drawings

digital equipment corporation • maynard, massachusetts

CUSTOMER PRINT SET INDEX

SEQUENCE	DESCRIPTION	SEQUENCE	DESCRIPTION
	MODULE UTILIZATION	D-MU-RK11-D-1	
	PARTS LIST	A-PL-RK11-D-1	
	STATUS CONTROL	D-CS-M7254-0-1	
	DISK CONTROL	D-CS-M7255-0-1	
	DATA PATHS	D-CS-M7256-0-1	
	BUS CONTROL	D-CS-M7257-0-1	
	BACK PANEL INTERCONNECTION	D-IC-RK11-D-3	
	RK11-D FUNCTION FLOWS	D-FD-RK11-D-9	
	ETCH BACK PANEL	D-CS-5410185-0-1	
	UNIT ASSEMBLE	D-UA-RK11-0-0	
	WIRED ASSEMBLY	C-IA-7009142-0-0	
	BUS TERMINATOR	A-PL-M930-0-0	
	OPTION HARNESS	D-IA-7009559-0-0 (SEE NOTE)	
	RK05 OPTION CONFIGURATION	D-OC-RK05-0-15	
	MAINTENANCE MODULE	A-SS-5509081-0-11	
	ACCESSORY LIST	A-AL-RK11-D-6	
	SOFTWARE LIST	A-SL-RK11-D-7	
	ETCH/WIRE LIST	K-WL-RK11-D-2	

THIS IS PRINT SET

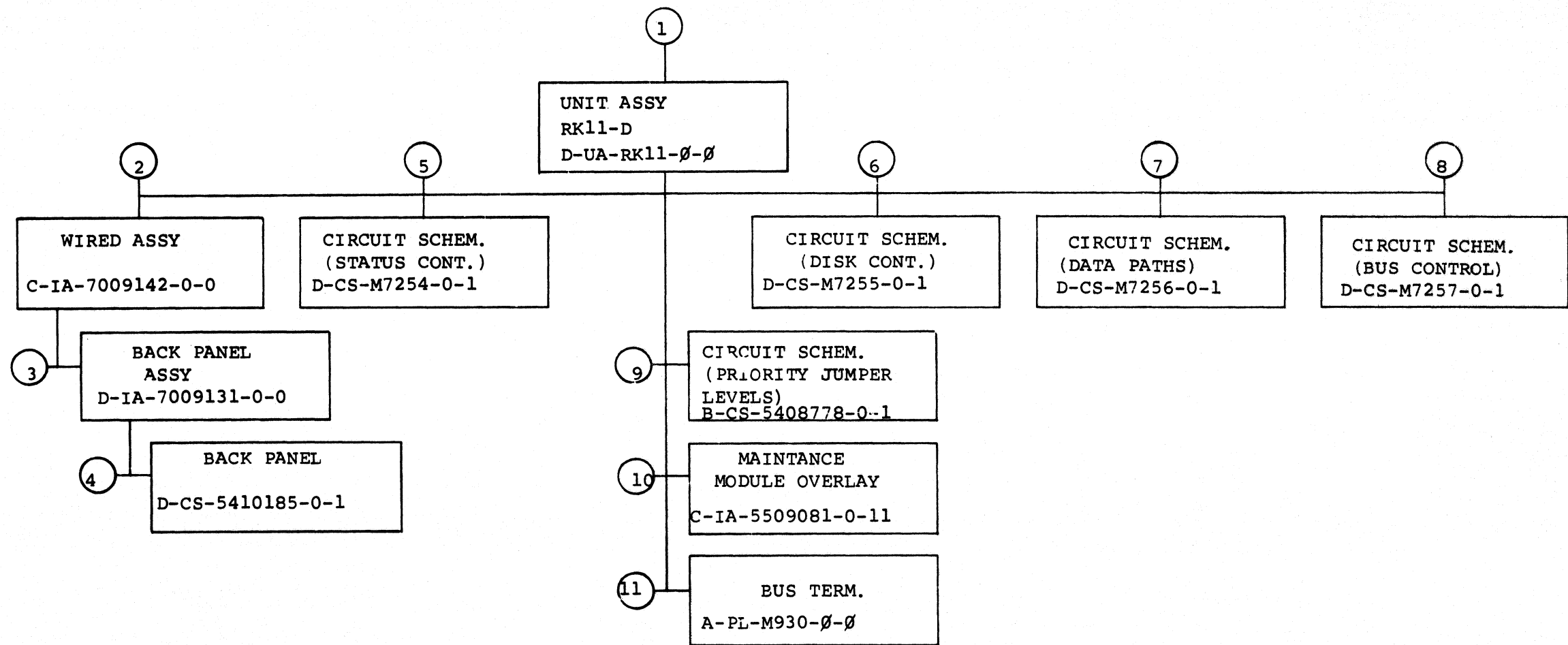
UNIT VARIATIONS		PRINT SET		
VAR	TITLE	1	2	3
RK11-D	DISK CONTROL	X		
RK11-E	DISK CONTROL	X		
RK11-DE	RK11-D, RK05-DE (TALL CAB, 861 115V, 60HZ)	X		
RK11-DF	RK11-D, RK05-DF (TALL CAB, 861, 230V, 60HZ)	X		
RK11-DH	RK11-D, RK05-DH (TALL CAB, 861, 115V, 50 HZ)	X		
RK11-DJ	RK11-D, RK05-DJ (TALL CAB, 861, 230V, 50 HZ)	X		
RK11J DE	RK11-D RK05J DE	X		
RK11J DF	RK11-D RK05J DF	X		
RK11J DH	RK11-D RK05J-DH	X		
RK11J DJ	RK11-D RK05J-DJ	X		
RK11J DK	RK11-D RK05J-DK	X		
RK11J DL	RK11-D RK05J-DL	X		
RK11J DM	RK11-D RK05J-DM	X		
RK11J DN	RK11-D RK05J-DN	X		

NOTE: USE RK11-D OPTION HARNESS 7009559 IN 11/40 SYSTEMS WITH S/N GREATER THAN 6000 AND 11/45 SYSTEMS WITH S/N GREATER THAN 2000. OLDER MACHINES REQUIRE RK11-D POWER HARNESS 7008992.

PDP11/15 AND PDP11/20 SYSTEM AND Ball-ES BOXES USE NO POWER HARNESS OTHER THAN THAT SUPPLIED INTERNAL TO THE BOX. Ball-D BOXES REQUIRE RK11-D POWER HARNESS 7008992.

DEC 16/132511062-1A-R972

REVISIONS		USED ON OPTION/MODEL	DRN.	DATE	TITLE			
DATE	CHG. NO.		E. WILSON	12-72	DISK CONTROL			
REV			CHK'D.	DATE	SIZE	CODE	NUMBER	REV
3-74	RK11D-14		GILBERT	12-72	B	DD	RK11-D	P
4-74	RK11D-15		PROJ ENG.	DATE				
5-74	RK11D-16		T. ORR	12-72				
7-75	RK11D-17		PROD.	DATE				
10-75	RK11D-18		R. DOOLEY	12-72				
			FIELD SERV.	DATE				
			R. FULTON	12-72				
			SHEET 1 OF 4					



TITLE	SHEET	SIZE	CODE	NUMBER	REV
DISK CONTROL	2 OF 4	B	DD	RK11-D	P

CUSTOMER PRINT SET		ELECTRICAL					CUSTOMER PRINT SET		ELECTRICAL						
1	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE	1	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE
X		1	D-UA-RK11-0-0	C	1	UNIT ASSY (RK11-D)		X		8	D-CS-M7257-0-1	#	6	CIRCUIT SCHEMATIC (BUS CONT.)	
X			D-MU-RK11-D-1	*	1	MODULE UTILIZATION (RK11-D)					K-CO-M7257-0-4		1	X-Y COORDINATE HOLE LOCATION	
X			A-PL-RK11-D-1	*	1	MODULE UTILIZATION (RK11-D) PL					D-AH-M7257-0-5		1	ASSY DRILLING HOLE LOCATION	
			D-IA-7008992-0-0		1	POWER HARNESS (REF)					B-MH-M7257-0-6		1	MODULE ECO HISTORY	
X			D-IC-RK11-D-3	C	4	BACK PANEL INTERCONNECTION									
X			D-IA-7009559-0-0	#	1	OPTION HARNESS									
X		2	C-IA-7009142-0-0	B	1	WIRED ASSY (RK11-D)				9	B-CS-5408778-0-1		1	CIRCUIT SCHEMATIC (PRIORITY JUMPLK LEVELS)	
											C-IA-5408778-0-0		1	PRIORITY JUMPER LEVEL #5	
											D-IA-5008777-0-0		1	ETCH BOARD	
								X		10	A-SS-5509081-0-11	#		MAINTENANCE MODULE OVERLAY (RK11-D)	
											C-IA-5509081-0-0			MAINTENANCE MODULE OVERLAY	
X		4	D-CS-5410185-0-1	#	1	CIRCUIT SCHEMATIC (BACKPANEL)		X			D-OC-RK05-0-15	#		RK05 OPTION CONFIGURATION (REF)	
			K-CO-5410185-0-4		1	X-Y COORDINATE HOLE LOCATION									
			E-AH-5410185-0-5		1	ASSY DRILLING HOLE LOCATION									
			B-MH-5410185-0-6		1	MODULE ECO HISTORY									
C			K-WL-RK11-D-2	F	1	ETCH/WIRE LIST (RK11-D)		X		11	A-PL-M930-0-0	#		BUS TERMINATOR	
X		5	D-CS-M7254-0-1	#	6	CIRCUIT SCHEMATIC (STATUS CONT)				12	A-SP-RK11-D-4	A	18	RK11-D ENGINEERING SPECS	
			K-CO-M7254-0-4		1	X-Y COORDINATE HOLE LOCATION					A-SP-RK11-D-5	A	5	RK11-D CHECK OUT PROCEDURE	
			D-AH-M7254-0-5		1	ASSY DRILLING HOLE LOCATION					A-AL-RK11-D-6	*	1	RK11-D ACCESSORY LIST	
			B-MH-M7254-0-6		1	MODULE ECO HISTORY		X			A-PL-RK11-D-7	A	1	RK11-D SOFTWARE LIST	
								X			A-SP-RK11-D-8	A	4	RK11-D ACCEPTANCE PROCEDURE	
X		6	D-CS-M7255-0-1	#	7	CIRCUIT SCHEMATIC (DISK CONT.)					D-FD-RK11-D-9	*	5	RK11-D, E FUNCTION FLOWS	
			K-CO-M7255-0-4		1	X-Y COORDINATE HOLE LOCATION					B-DD-RK11-TA			RK11-D, E TESTER	
			D-AH-M7255-0-5		1	ASSY DRILLING HOLE LOCATION					A-SP-RK11-0-2		23	DISK SYSTEM MANUFACTURING PROCEDURES (REF)	
			B-MH-M7255-0-6		1	MODULE ECO HISTORY									
X		7	D-CS-M7256-0-1	#	7	CIRCUIT SCHEMATIC (DATA PATHS)									
			K-CO-M7256-0-4		1	X-Y COORDINATE HOLE LOCATION									
			D-AH-M7256-0-5		1	ASSY DRILLING HOLE LOCATION									
			B-MH-M7256-0-6		1	MODULE ECO HISTORY									

CUSTOMER PRINT SET					MECHANICAL					CUSTOMER PRINT SET					MECHANICAL				
1	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE	1	MFG. SET	FIND NO.	DRAWING NO.	REV	NO OF SHT	DESCRIPTION	OPTION NO./FILE DATE				
		1	D-UA-RK11-0-0	C	1	UNIT ASSY (RK11-D)				8	D-CS-M7257-0-1	#	5	CIRCUIT SCHEMATIC (BUS CONTROL)					
											K-CO-M7257-0-4		1	X-Y COORDINATE HOLE LOCATION					
											D-AH-M7257-0-5		1	ASSY DRILLING HOLE LOCATION					
											B-MH-M7257-0-6		1	MODULE ECO HISTORY					
		2	C-IA-7009142-0-0	B	1	WIRED ASSY (RK11-D)													
		3	D-IA-7009131-0-0	#	1	BACKPANEL													
			E-SC-1209583-0-1		1	CASTING, THREE BLOCK													
			A-SS-7407846-0-0		1	DECAL LOGIC SERIAL NUMBER													
		4	D-CS-5410185-0-1	#	1	CIRCUIT SCHEMATIC (BACKPANEL)													
			K-CO-5410185-0-4		1	X-Y COORDINATE HOLE LOCATION													
			E-AH-5410185-0-5		1	ASSY DRILLING HOLE LOCATION													
			B-MH-5410185-0-6		1	MODULE ECO HISTORY													
		5	D-CS-M7254-0-1	#	5	CIRCUIT SCHEMATIC (STATUS CONT.)													
			K-CO-M7254-0-4		1	X-Y COORDINATE HOLE LOCATION													
			D-AH-M7254-0-5		1	ASSY DRILLING HOLE LOCATION													
			B-MH-M7254-0-6		1	MODULE ECO HISTORY													
		6	D-CS-M7255-0-1	#	6	CIRCUIT SCHEMATIC (DISK CONT.)													
			K-CO-M7255-0-4		1	X-Y COORDINATE HOLE LOCATION													
			D-AH-M7255-0-5		1	ASSY DRILLING HOLE LOCATION													
			B-MH-M7255-0-6		1	MODULE ECO HISTORY													
		7	D-CS-M7256-0-1	#	6	CIRCUIT SCHEMATIC (DATA PATHS)													
			K-CO-M7256-0-4		1	X-Y COORDINATE HOLE LOCATION													
			D-AH-M7256-0-5		1	ASSY DRILLING HOLE LOCATION													
			B-MH-M7256-0-6		1	MODULE ECO HISTORY													

CUSTOMER PRINT SET CODES

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

= PRINT OF DOCUMENT IS LATEST REVISION LEVEL

TITLE

DISK CONTROL

SHEET 4 OF 4

SIZE CODE
 B DD

NUMBER
 RK11-D

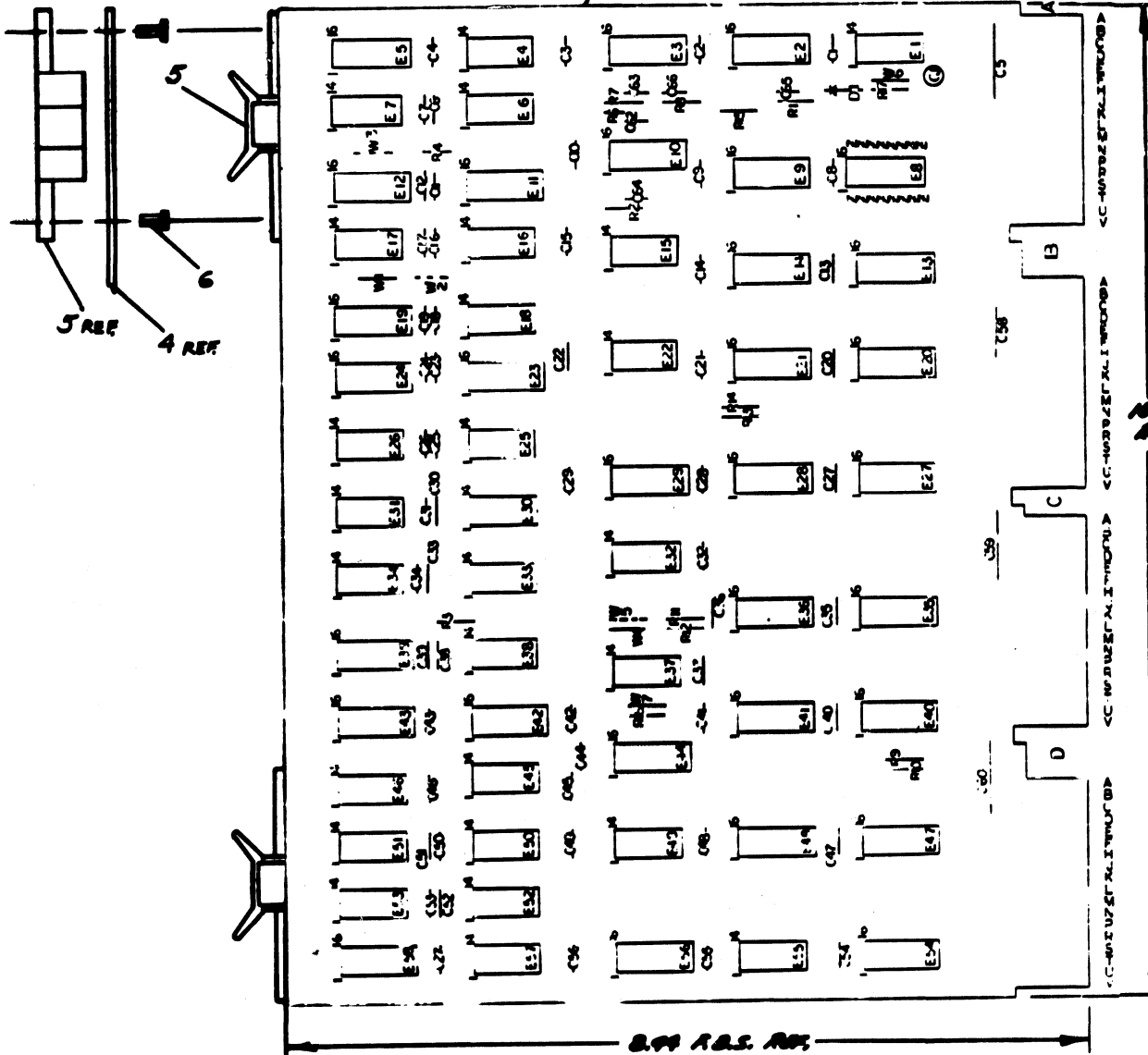
REV
 P

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS				QUANTITY / VARIATION												
PARTS LIST																
MADE BY DATE		LEWIS 9-26-72	CHECKED	SECTION												
ENG DATE			PROD	ISSUED SECT.												
DATE			DATE													
ITEM NO.	DWG NO. / PART NO.	DESCRIPTION														
1	M7254	STATUS CONTROL		1												
2	M7255	DISK CONTROL		1												
3	M7256	DATA PATHS		1												
4	M7257	BUS CONTROL		1												
TITLE			ASSY NO.		SIZE	CODE	NUMBER				REV.	ECO NO.				
MODULE UTILIZATION (RK11-D)			D-MU-RK11-D-1		A	PL	RK11-D-1									
			SHEET 1 OF 1		DIST.											

DEC 5 1972

NOTES:
DIGITAL EQUIPMENT CORPORATION

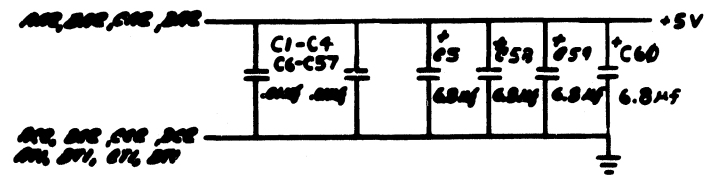
* IF NECESSARY USE I.C. DEC 8875 P/N 1910647
* IC DEC 384 P/N 1909486 OR 5384 P/N 1910394 MAY BE SUBSTITUTED FOR 7384 IN E26. E1 MUST BE A 7384



PIN NOMENCLATURE
MODULE RKII-D

QTY	REF DESIGNATION	DESCRIPTION	PART NO.
1	Q1	TRANSISTOR DEC 6534B	1503409-01
1	E8	IC SOCKET	1209838
4	W1,W4,W6,W7	RESISTOR 1-2007-1	5009185
1	E37	J.C. DEC 7978	1203280
2	E23,E41	J.C. DEC 7975	1210081
1	E25	J.C. DEC 8846	1203248
1	E4	J.C. DEC 7945B	1206083
2	E17,E52	J.C. DEC 7945B	1207052
1	E38	J.C. DEC 7968	1210125
1	E45	J.C. DEC 7944	1203267
5	E21,E27,E28,E29,E40	J.C. DEC 7918	1210018
4	E12,E19,E24,E56	J.C. DEC 7946	1210650
1	E57	J.C. DEC 7947	1207867
2	E6,E7,E37	J.C. DEC 7978	1203280
1	E53	J.C. DEC 7988	1203061
2	E15,E22	J.C. DEC 7987	1210081
2	E1,E26	J.C. DEC 7987	1203280
1	E30	J.C. DEC 8881	1203280
2	E9,E3,E10	J.C. DEC 7978	1210081
2	E9,E42,E44	J.C. DEC 8846	1210081
2	E31,E32	J.C. DEC 7988	1203280
1	E16	J.C. DEC 7940	1203280
2	E18,E39,E49	J.C. DEC 7988	1203280
2	E46,E50	J.C. DEC 7988	1203280
2	E47,E48	J.C. DEC 7945B	1203280
1	E11	J.C. DEC 7988	1203280
1	E25	J.C. DEC 7987	1210081
2	E51,E33	J.C. DEC 7988	1203280
1	E43	J.C. DEC 7988	1210081
3	R10,R12,R14	RES. 750 Ω 1/4 W 5%	1201401
2	R5,R11,R13	RES. 330 Ω 1/4 W 5%	1202295
3	R2,R15,R16	RES. 1K Ω 1/4 W 5%	1202295
1	R1	RES. 47K Ω 1/4 W 5%	1202177
1	R4	RES. 2K Ω 1/4 W 5%	1202295
4	R3,R6,R7,R8	RES. 10K Ω 1/4 W 5%	1202295
1	R17	RES. 470 Ω 1/4 W 5%	1202316
1	D1	DIODE IN748A 3.9V	1100122
2	C62,C63	CAP. 470P 100V 5% AXIAL	1000001
1	C65	CAP. 200P 100V 5% AXIAL	1000001
1	C64	CAP. 200P 100V 5% AXIAL	1000001
1	C66	CAP. 120P 100V 5% AXIAL	1000018
36	C1-C4, C6-C57	CAP. .01/.05/100V 5% AXIAL	1000018
4	C5,C58,C59,C60	CAP. 6.8M 35V, 100V 5% AXIAL	1000008
2		DIODE (1N4001) STANDARD	1000001
2		DIODE (1N4001) STANDARD	1000001
1		STANDARD CURRENT BOARD	1000001
2		MODULE AND MOUNTING	1000001
2		SCHEMATIC AND BOARD	1000001
2		X-Y COORDINATE UNIT BOARD	1000001

I.C. DEC 7175	8	16
I.C. DEC 79161	8	16
I.C. DEC 7384	1	8
I.C. DEC 4015	8	16
I.C. DEC 7496	12	5
I.C. DEC 7978	8	16
I.C. DEC 7945	8	16
I.C. DEC 7947	12	5
I.C. DEC 7946	8	16
IC TYPE	QTY	+ DV



PARTS LIST

ETCH BOARD REV E

DATE: 1-5-73

STATUS CONTROL
RKII-D

DEC 6534B NONE
IN748A IN748A

B-DD-RKII-D

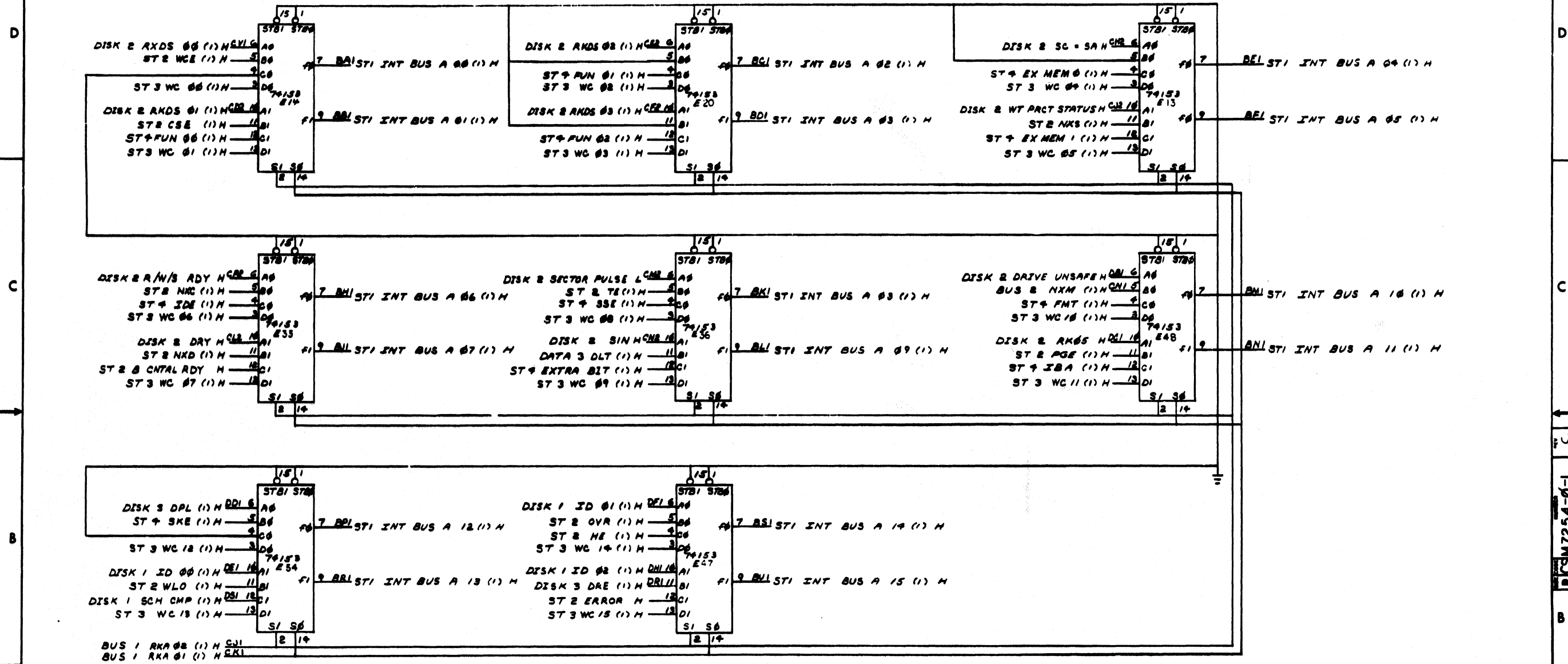
SEMICONDUCTOR CONVERSION CHART

SCALE: 100%

SHEET 2 OF 2

DJCS M7254-0-1 H

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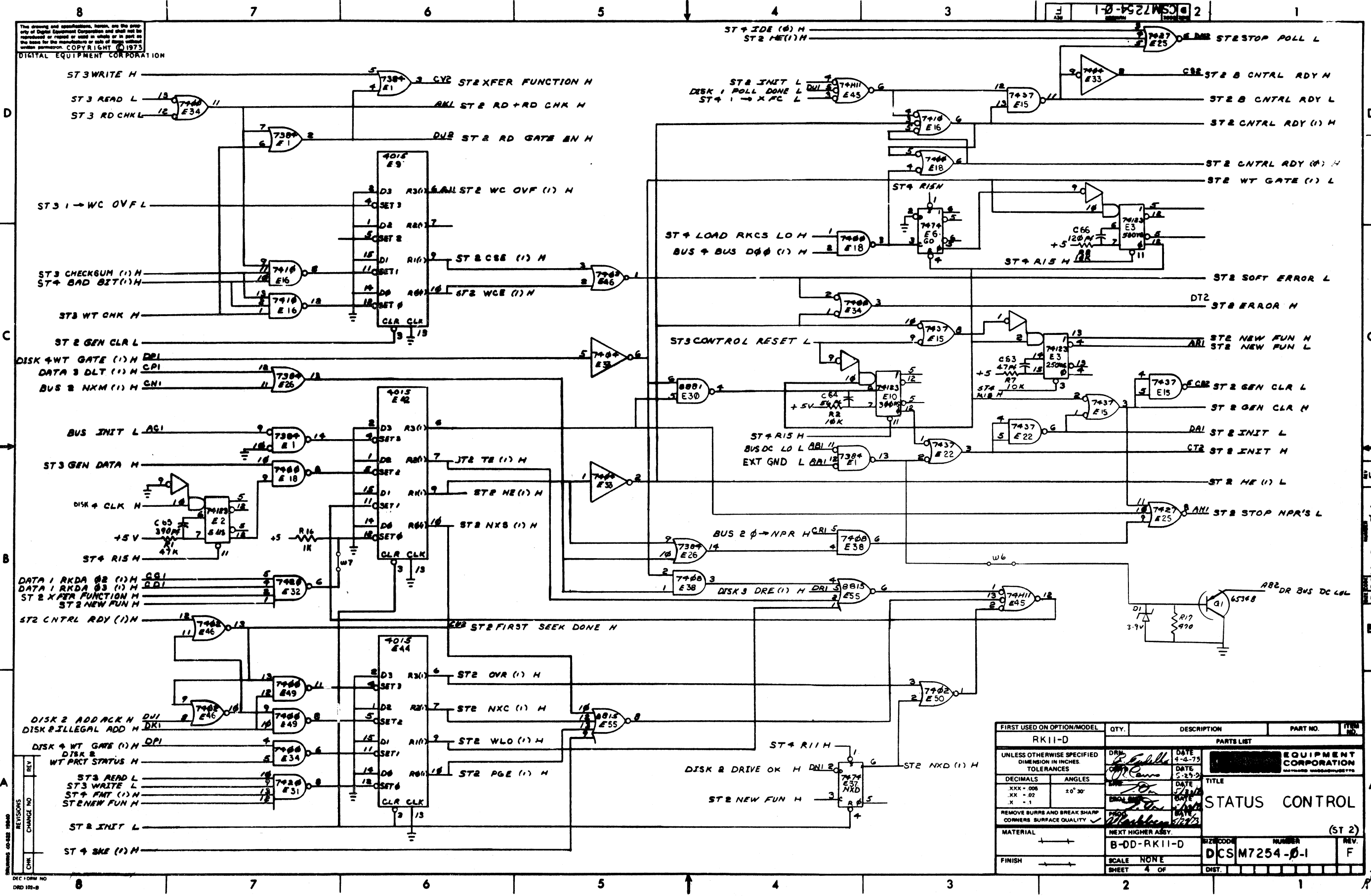


- NOTES:
1. CUT W3 FOR 16 BIT OPERATION (RK11-D)
 2. CUT W1 FOR 18 BIT OPERATION (RK11-B)
CUT W2 FOR 16 BIT OPERATION (RK11-D)
 3. CUT W5 FOR NORMAL OPERATION (CHECKS HEADER 16 TIMES BEFORE FLAGGING SEEK ERROR)
CUT W4 FOR RK11-C COMPATABILITY (CHECKS HEADER ONCE)

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.
RK11-D			
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN	DATE	EQUIPMENT CORPORATION
DECIMALS	ANGLES	DATE	
.XXX - .006	20° 30'	DATE	
.XX - .02		DATE	
.X - .1		DATE	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY			
MATERIAL	NEXT HIGHER ASSY.	REV.	
	B-DD-RK11-D	DCSM7254-0-1	(ST 1)
FINISH	SCALE NONE		
	SHEET 3 OF		

REV. CHANGE NO. 1

DCSM7254-0-1

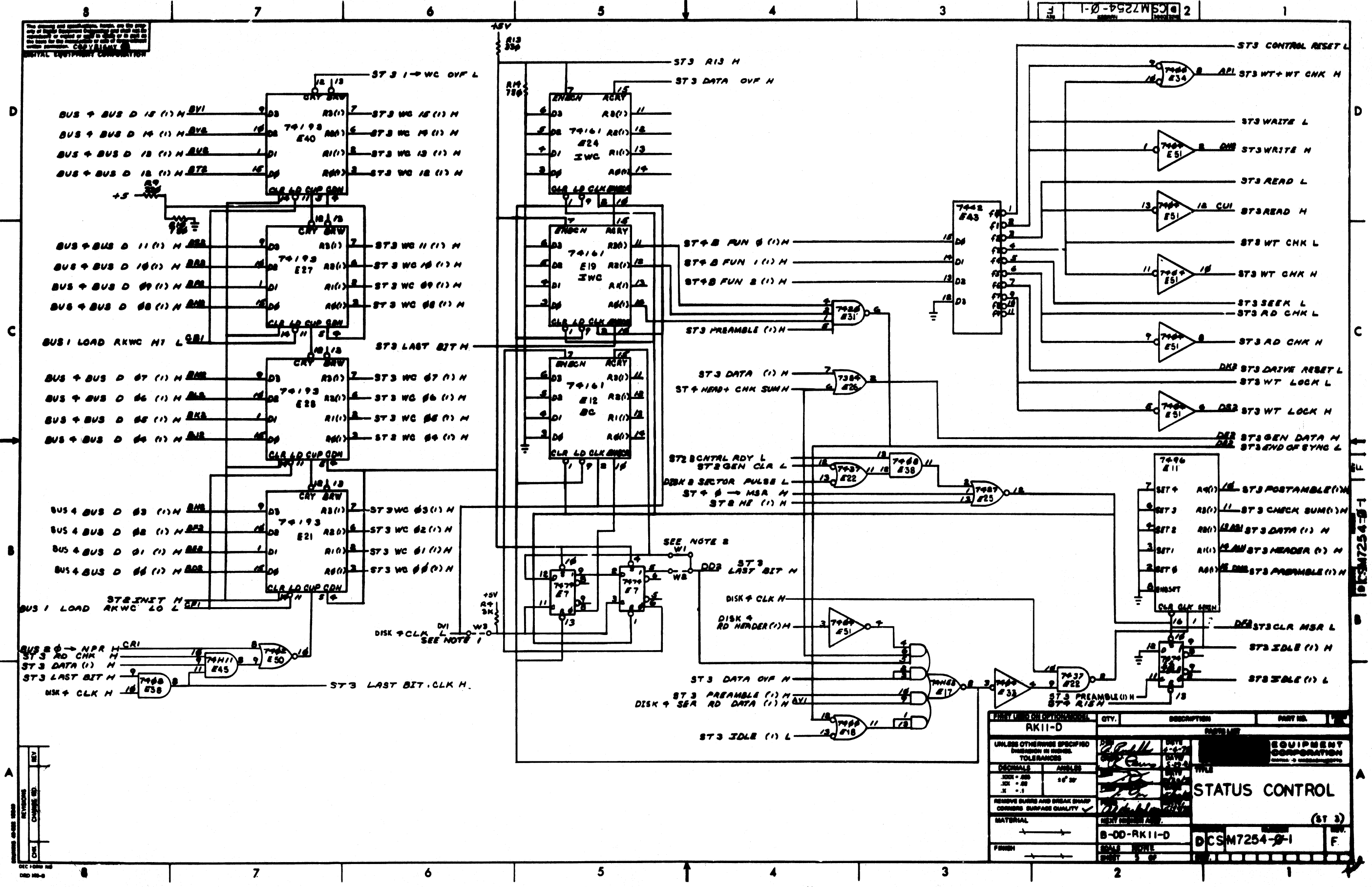


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REV	CHANGE NO

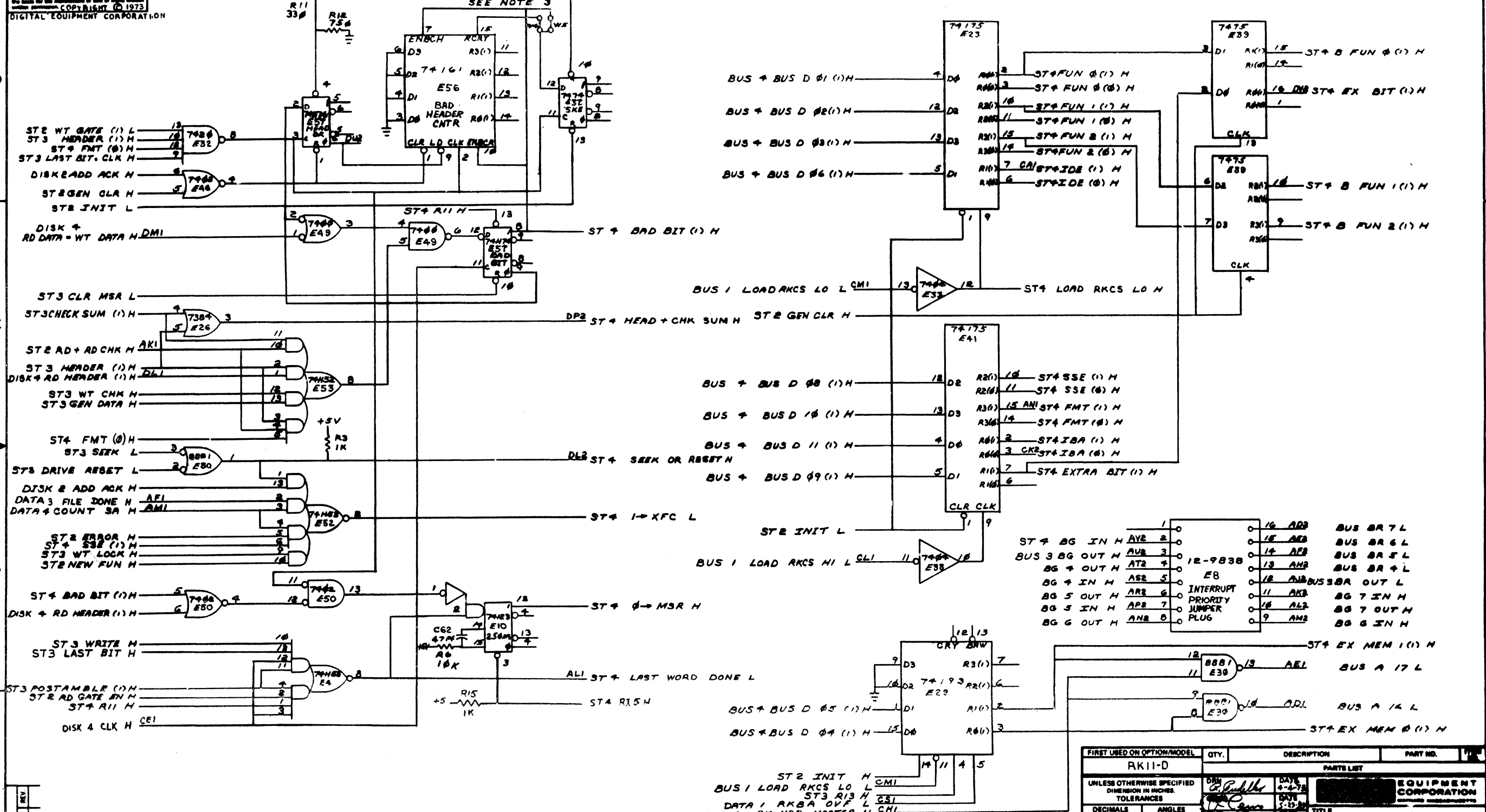
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RK11-D		PARTS LIST		
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN <i>[Signature]</i>	DATE 4-8-75	EQUIPMENT CORPORATION	
DECIMALS .XXX - .006	<i>[Signature]</i>	DATE 5-25-75	TITLE	
ANGLES .XX - .02	<i>[Signature]</i>	DATE	STATUS CONTROL	
.X - .1	<i>[Signature]</i>	DATE	(ST 2)	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PROF. <i>[Signature]</i>	DATE	MATERIAL	
			NEXT HIGHER ASSY.	
			B-0D-RK11-D	
			SCALE NONE	
			FINISH	
			SHEET 4 OF	
			DIST.	
			DCSM7254-0-1	
			NUMBER	
			REV. F	

DCSM7254-0-1



PART NUMBER	QTY.	DESCRIPTION	PART NO.
RK11-D		DESCRIPTION	
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES			
DECIMALS	FRACTIONS		
.XXX - .000	10/100		
.XX - .00	10/100		
.X - .0	10/100		
REMOVE BURRS AND BREAK SHARP CORNER SURFACE QUALITY			
MATERIAL	REVISION	DATE	
FINISH	SCALE	DATE	
B-00-RK11-D		DCSM7254-B-1	
		STATUS CONTROL (ST 3)	
		F	

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FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.
RK11-D			
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES			
DECIMALS	ANGLES		
.XXX - .000	±0° 30'		
.XX - .00			
.X - .1			
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY			
MATERIAL	NEXT HIGHER ASSY.		
FINISH	SCALE NONE		
SHEET 6 OF 6			

STATUS CONTROL

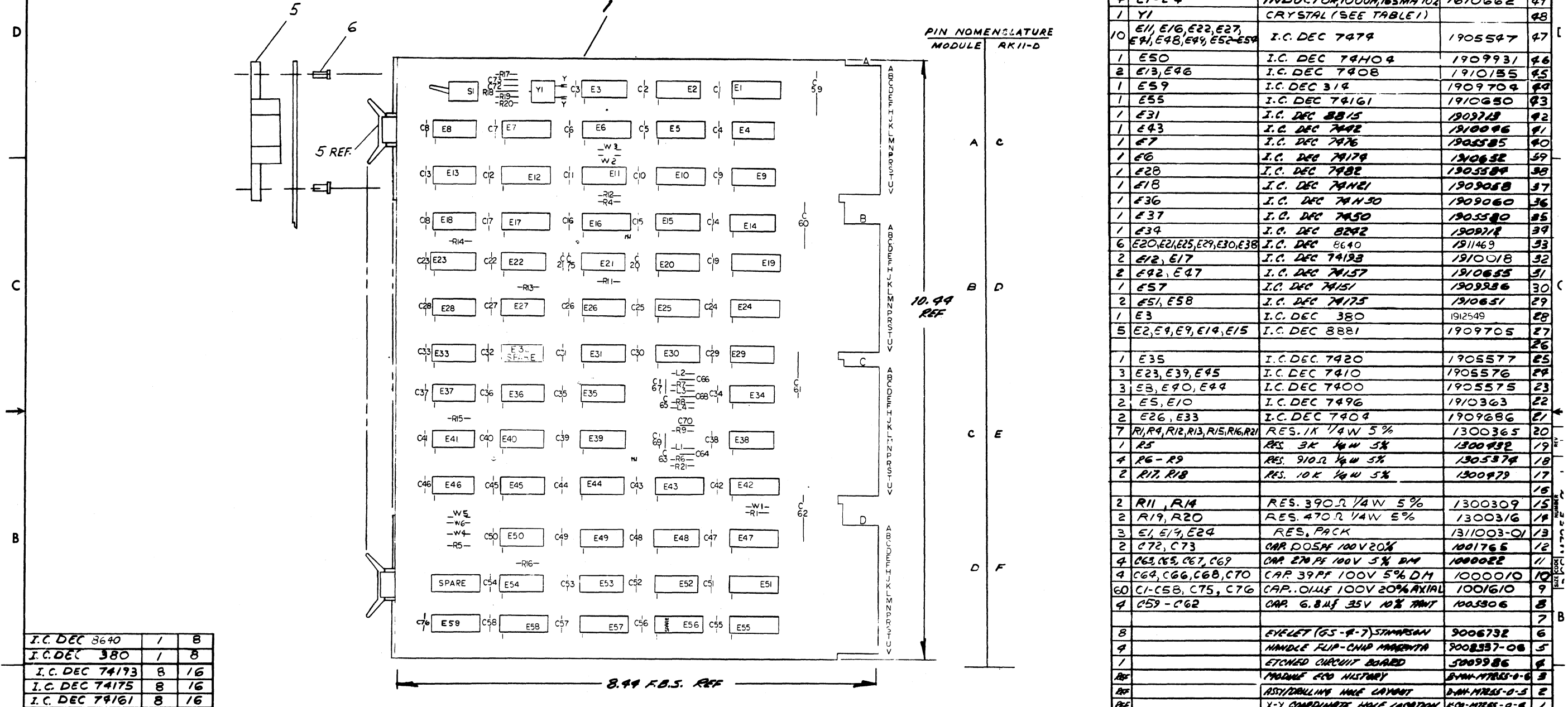
DCS M7254-0-1

REV. F

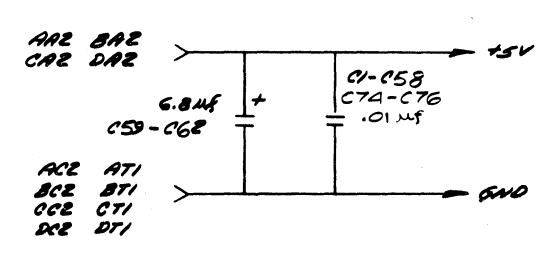
DCS FORM NO. 010 11-68

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NOTES:
 1.) IF 8640'S (ITEM#33) ARE NOT AVAILABLE, USE 11380'S PART NO. 19-11113



I.C. DEC 8640	1	8
I.C. DEC 380	1	8
I.C. DEC 74173	8	16
I.C. DEC 74175	8	16
I.C. DEC 74161	8	16
I.C. DEC 74151	8	16
I.C. DEC 74157	8	16
I.C. DEC 74176	5	12
I.C. DEC 314	1	8
I.C. DEC 74182	11	4
I.C. DEC 74174	8	16
I.C. DEC 74176	5	13
I.C. DEC 74182	8	16
I.C. DEC 74183	8	16
IC TYPE		GND + 5V
GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTS ARE STATED ABOVE		



PIN NOMENCLATURE
MODULE RK11-D

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
3	W1, W2, W6	INSULATED JUMPER L2007-1	9009185	53
2		SPLIT LUGS	9006735	52
2		SWAGE LUGS	9007791	51
1	S1	SWITCH TOGGLE SPDT	1210209	50
4	L1-L4	INDUCTOR 100UH, 16SMA 10%	1610662	49
1	Y1	CRYSTAL (SEE TABLE 1)		48
10	E11, E16, E22, E27, E41, E48, E49, E52-E59	I.C. DEC 7474	1905547	47
1	E50	I.C. DEC 74104	1909931	46
2	E13, E46	I.C. DEC 7408	1910155	45
1	E59	I.C. DEC 314	1909704	44
1	E55	I.C. DEC 74161	1910650	43
1	E31	I.C. DEC 8815	1909713	42
1	E43	I.C. DEC 7492	1910096	41
1	E7	I.C. DEC 7476	1905585	40
1	E6	I.C. DEC 74174	1910652	39
1	E28	I.C. DEC 7482	1905584	38
1	E18	I.C. DEC 74161	1909068	37
1	E36	I.C. DEC 74150	1909060	36
1	E37	I.C. DEC 7450	1905580	35
1	E34	I.C. DEC 8242	1909718	34
6	E20, E21, E25, E29, E30, E38	I.C. DEC 8640	1911469	33
2	E12, E17	I.C. DEC 74123	1910018	32
2	E42, E47	I.C. DEC 74157	1910655	31
1	E57	I.C. DEC 74151	1909986	30
2	E51, E58	I.C. DEC 74175	1910651	29
1	E3	I.C. DEC 380	1912549	28
5	E2, E4, E9, E14, E15	I.C. DEC 8881	1909705	27
1	E35	I.C. DEC 7420	1905577	26
3	E23, E39, E45	I.C. DEC 7410	1905576	25
3	E8, E40, E44	I.C. DEC 7400	1905575	23
2	E5, E10	I.C. DEC 7496	1910363	22
2	E26, E33	I.C. DEC 7404	1909686	21
7	R1, R4, R12, R13, R15, R16, R21	RES. 1K 1/4W 5%	1300365	20
1	R5	RES. 3K 1/4W 5%	1300482	19
4	R6-R9	RES. 910Ω 1/4W 5%	1305374	18
2	R17, R18	RES. 10K 1/4W 5%	1300979	17
2	R11, R14	RES. 390Ω 1/4W 5%	1300309	15
2	R19, R20	RES. 470Ω 1/4W 5%	1300316	14
3	E1, E14, E24	RES. PACK	1311003-01	13
2	C72, C73	CAP. 0.05μF 100V 20%	1001765	12
4	C63, C65, C67, C69	CAP. 270PF 100V 5% DM	1000022	11
4	C64, C66, C68, C70	CAP. 39PF 100V 5% DM	1000010	10
60	C1-C58, C75, C76	CAP. 0.01μF 100V 20% AXIAL	1001610	9
4	C59-C62	CAP. 6.8μF 35V 10% TANT	1005306	8
8		EYELET (G5-R-7) SIMPSON	9006732	6
4		HANDLE FLIP-CHIP MARGENTA	9008397-08	5
1		ETCHED CIRCUIT BOARD	5009986	4
REF		MODIFY ECO HISTORY	8MM-M785-0-6	3
REF		AST/DRAWING HOLE LOCATION	8MM-M785-0-5	2
REF		X-Y COORDINATE HOLE LOCATION	8MM-M785-0-4	1


FIRST USED ON OPTION MODEL RK11-D		ETCH BOARD REV F		PARTS LIST	
DATE	6-10-78	DATE	6-10-78	EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
DRN	D. J. Mansoni	DATE	7-2-73	TITLE DISK CONTROL RK11-D	
CHK	REVISIONS	DATE	7-2-73	SIZE CODE NUMBER REV. D CS M7255-0-1 J	
DEC NO.	EIA .0.	DEC NO.	EIA NO.	SCALE NAME 2 OF	
SEMICONDUCTOR CONVERSION CHART				SHEET 2 OF	

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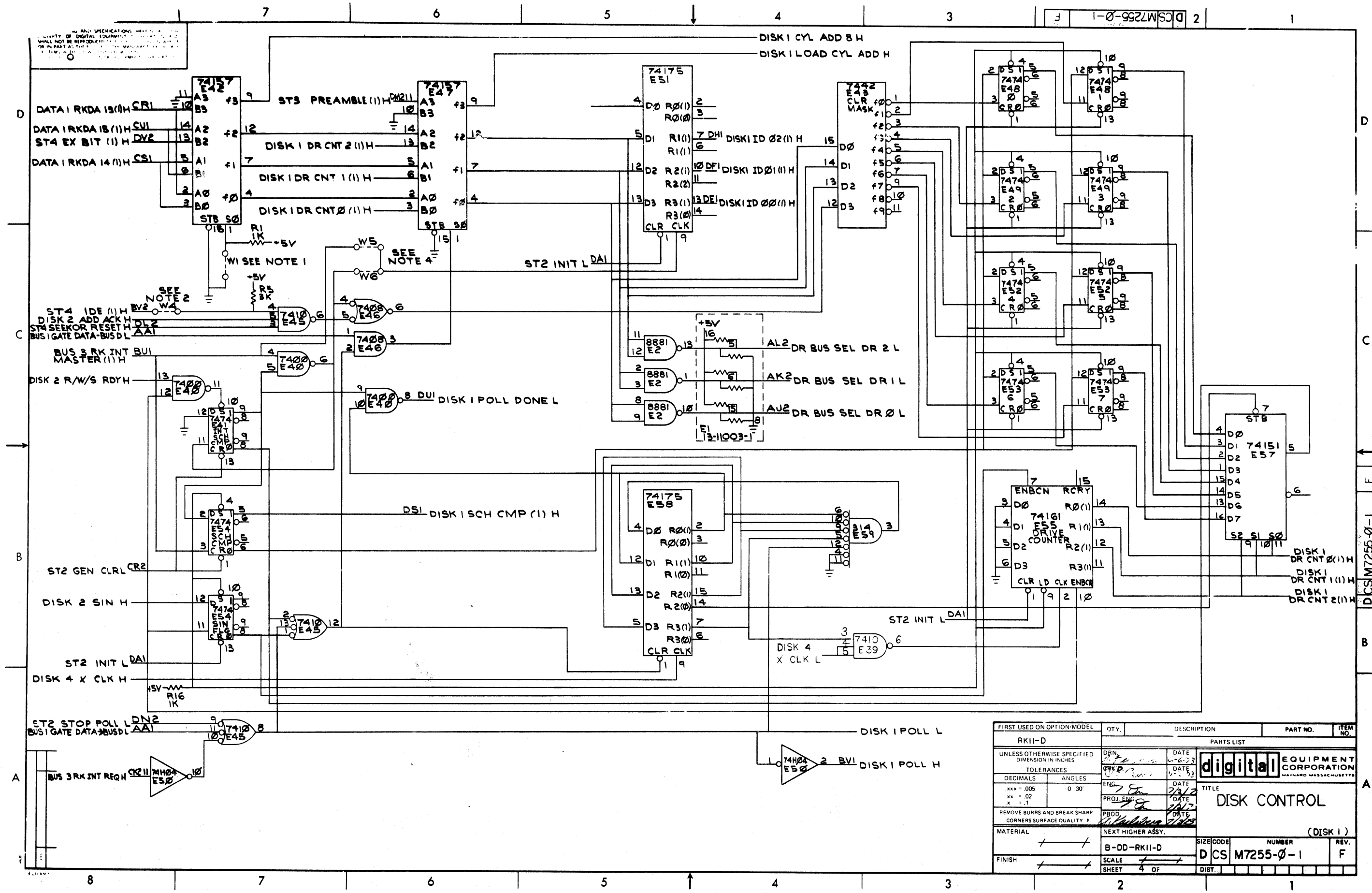
- NOTES:**
- 1) INSTALL W1 FOR RK05.
 - 2) CUT W4 FOR RKII-C COMPATIBILITY (NORMAL OPERATION)
 - 3) FOR RKII-D (RK05) CUT JUMPER W3 FOR RKII-E (18 BIT RK05) CUT JUMPER W2.
 - 4) FOR NORMAL OPERATION INSTALL W6 (CHANGES ID BITS ONLY FOR SEARCH COMPLETE INTERRUPT). INSTALL W5 TO CHANGE ID BITS FOR ANY INTERRUPT.
 - 5) INSTALL PROPER CRYSTAL IN SPLIT LUGS AS OUTLINED IN TABLE I.

TABLE I

	DISK	BITS/WORD	MHZ	DEC P/N
RKII-D	RK05	16	2.880	16-12694-3
RKII-E	RK05	18	3.090	16-12694-4

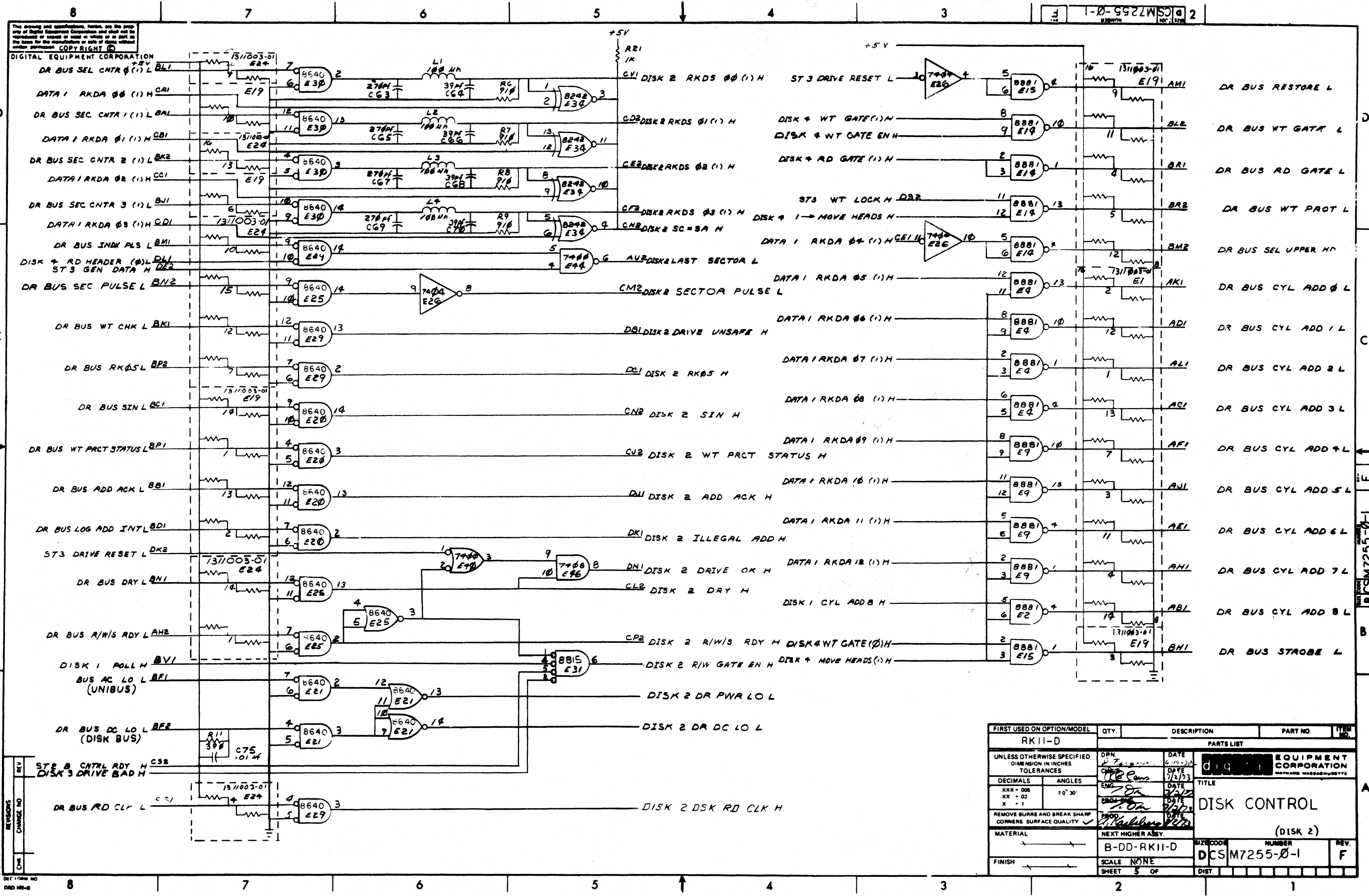
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RKII-D				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	DRN. <i>P. F. Brown</i>	DATE <i>6-28-73</i>	 DIGITAL EQUIPMENT CORPORATION <small>MAYNARD MASSACHUSETTS</small>	
TOLERANCES	CHK'D <i>Mc Conn</i>	DATE <i>7-2-73</i>		
DECIMALS	ENG. <i>Mc Conn</i>	DATE <i>7-11-73</i>		
.XXX = .005	PROL. ENG. <i>Mc Conn</i>	DATE <i>7-11-73</i>		
.XX = .02	PROD. <i>Mc Conn</i>	DATE <i>7-11-73</i>		
.X = .1			TITLE DISK CONTROL	
			RKII-D	
MATERIAL	NEXT HIGHER ASSY.		SIZE CODE	NUMBER
FINISH	SCALE NONE		DCS	M7255-0-1
	SHEET 3 OF		DIST.	

REV.	CHANGE NO.



FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RK11-D		PARTS LIST		
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES		DRN	DATE	
TOLERANCES		CHK'D	DATE	
DECIMALS	ANGLES	ENG	DATE	
.xxx = .005	.0 30'	PROJ ENGR	DATE	
.xx = .02		PROD	DATE	
.x = .1				
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY 1				
MATERIAL	NEXT HIGHER ASSY.			
FINISH				

		EQUIPMENT CORPORATION	
		MADE IN MASSACHUSETTS	
TITLE			
DISK CONTROL			
MATERIAL			
NEXT HIGHER ASSY.			
B-DD-RK11-D		SIZE CODE	NUMBER
D CS M7255-0-1			
SCALE			
SHEET 4 OF			
REV.			
F			



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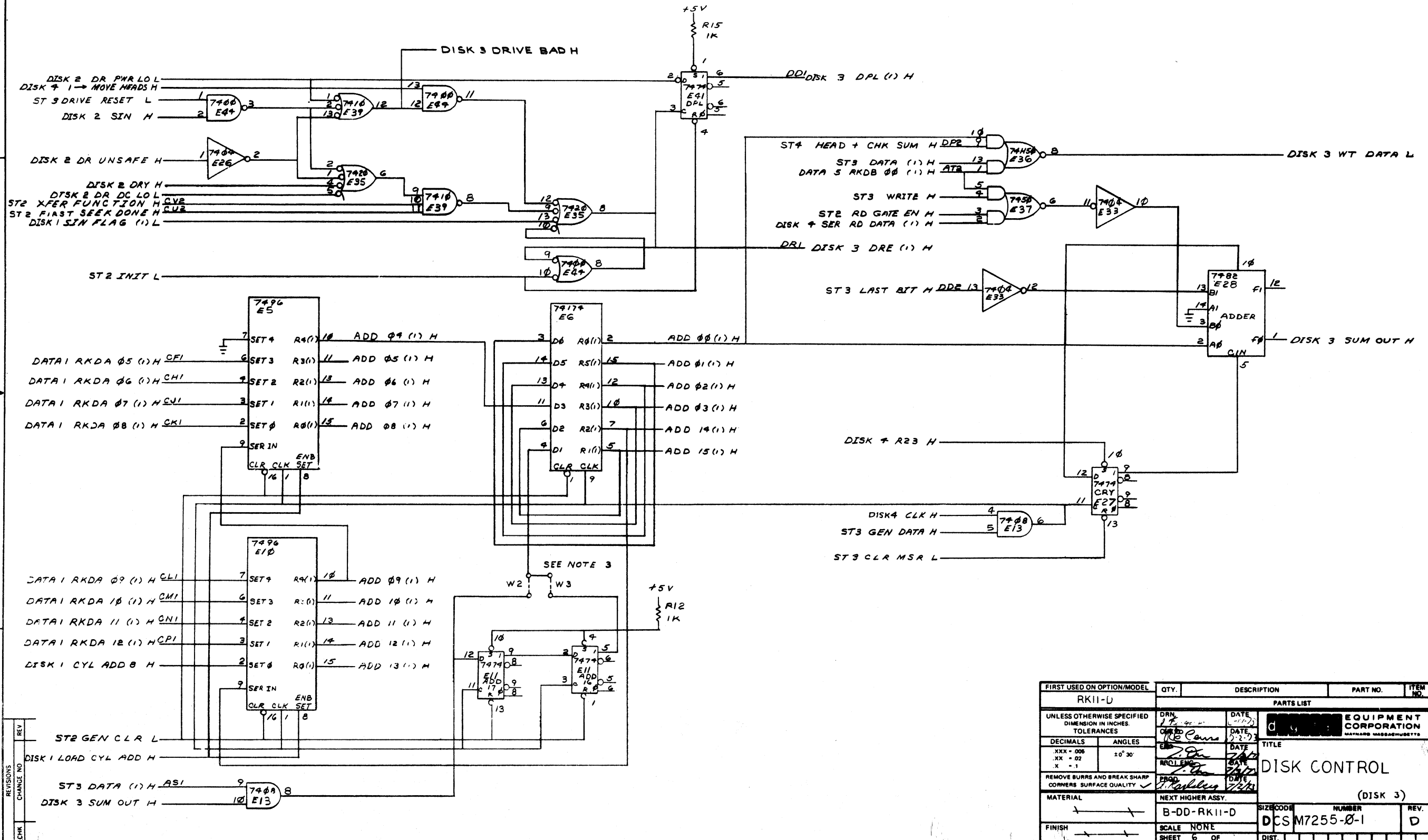
D
C
B
A

DEC 1969 NO. 000 100-0

CSM7255-0-1

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RK11-D				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES				
DECIMALS	ANGLES	DRN	DATE	EQUIPMENT CORPORATION
XXX + 006	± 0° 30'	CHK	DATE	
XX - 02		ENG	DATE	DISK CONTROL
X - 1		DRG	DATE	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY				
MATERIAL	NEXT HIGHER ASSY.	PROF	DATE	(DISK 2)
FINISH	B-DD-RK11-D	SIZE CODE	NUMBER	REV.
	SCALE NONE	DCSM7255-0-1		F
	SHEET 5 OF	DIST.		

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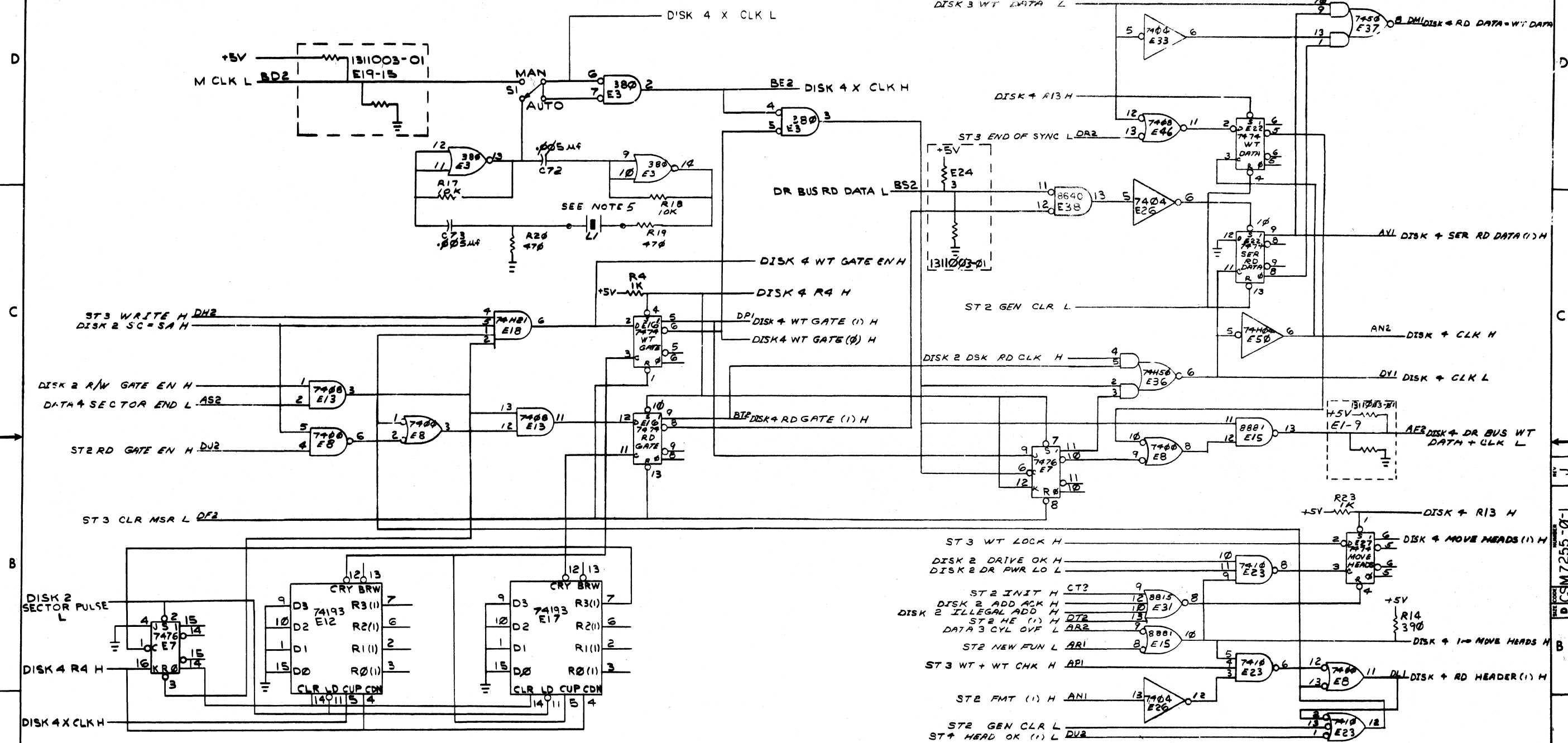
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RK11-D				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES	DRN DATE 1-1-73	DATE 1-2-73	 EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
DECIMALS ANGLES	DATE 1-2-73	DATE 1-2-73		
.XXX - .005 .XX - .02 X - .1	REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓		TITLE DISK CONTROL (DISK 3)	
MATERIAL	NEXT HIGHER ASSY.		SIZE CODE	NUMBER
FINISH	SCALE NONE		DCS M7255-0-1	REV. D
	SHEET 6 OF		DIST.	

REV. 15530
CHG. NO. 15530
DEC FORM NO. ORN 102-B

DCS M7255-0-1

A10

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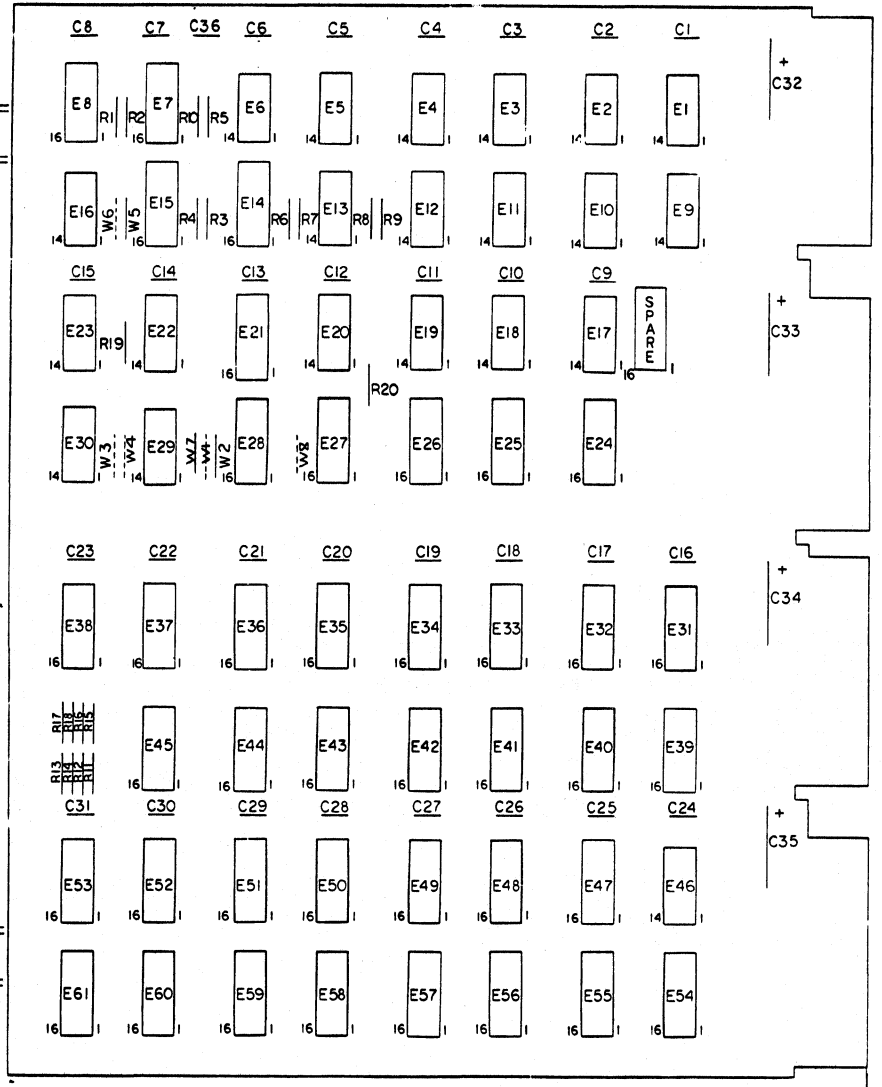
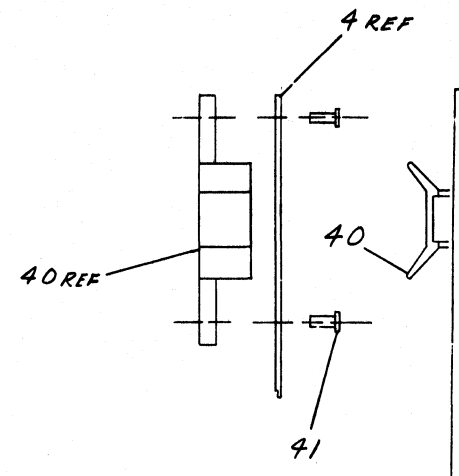
REV	CHANGE NO

FIRST USED ON OPT./UN/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RK11-D				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES	DRN 1/15/73	DATE 2-2-73	 DIGITAL EQUIPMENT CORPORATION <small>WALTHAM MASSACHUSETTS</small>	
DECIMALS ANGLES	CHK 2/2/73	DATE 2/2/73		
XXX - .008	ENG 2/2/73	DATE 2/2/73		
.XX - .02	BRD 2/2/73	DATE 2/2/73		
X - .1	PROD 2/2/73	DATE 2/2/73	DISK CONTROL (DISK 4)	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY				
MATERIAL	NEXT HIGHER ASSY.			
FINISH	B-DD-RK11-D	SCALE NONE	SIZE CODE	NUMBER
		SHEET 7 OF	DCS M7255-0-1	REV. J

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NOTES:

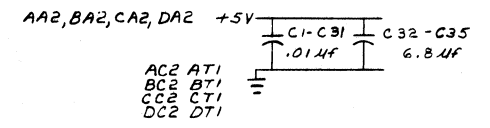
* DEC 8640'S WERE PHASED IN AS 360 REPLACEMENTS. ANY 360 FAILURES SHOULD BE REPAIRED BY 8640'S



PIN NOMENCLATURE
MODULE RK11-D

QTY	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
1	R6	5.6K 1/4 W 5% CC	1301874	
3	WB, W5, W7	INSULATED JUMPER L-2007-1	90097	
8		EYELET #654-7 E.B. STIMPSON	9006732	41
4		HANDLE, FLIP CHIP MAGENTA	9008337-6	40
4	E52, E53, E60, E61	I.C. DEC 74157	1910655	39
8	E48-E51, E56-E59	I.C. DEC 74153	1909937	38
1	E46	I.C. DEC 8281 DC	1909490	37
1	E38	DIP RESISTOR PACK	1311003-02	36
5	E33-E37	I.C. DEC 74170	1910738	35
7	E31, E32, E39, E40, E47, E54, E55	I.C. DEC 74173	1910018	34
1	E30	I.C. DEC 8642	911469	33
10	E24-E28, E41-E45	I.C. DEC 8271	1909615	32
1	E23	I.C. DEC 8881	1909705	31
2	E22, E29	I.C. DEC 7473	1905587	30
1	E21	I.C. DEC 4007	1909867	29
1	E18	I.C. DEC 7421	1909058	28
1	E17	I.C. DEC 7437	1910091	27
1	E13	I.C. DEC 7412	1909955	26
1	E12	I.C. DEC 7400	1905575	25
4	E11, E16, E19, E20	I.C. DEC 7474	1903547	24
1	E10	I.C. DEC 74110	1909057	23
1	E9	I.C. DEC 74455	1909063	22
1	E8	I.C. DEC 74161	1910650	21
3	E7, E14, E15	I.C. DEC 74123	1910436	20
1	E5	I.C. DEC 74474	1909667	19
2	E4, E6	I.C. DEC 74453	1909360	18
1	E3	I.C. DEC 7402	1909004	17
1	E2	I.C. DEC 74404	1909931	16
1	E1	I.C. DEC 7400	1910155	15
4	R15-R18	RES. 680Ω 1/4W 5% CC	1301424	14
4	R11-R14	RES. 330Ω 1/4W 5% CC	1302295	13
1	R10	RES. 20K 1/4W 5% CC	1302391	12
4	R8, R9, R19, R20	RES. 1K 1/4W 5% CC	1300365	11
4	R3-R5, R7	RES. 5.11K 1/4W 1% MF	1304854	10
1	R2	RES. 390Ω 1/4W 5% CC	1300309	9
1	R1	RES. 180Ω 1/4W 5% CC	1301322	8
1	C36	CAP. 150PF 100V 5% D.M.	1000019	7
4	C32-C35	CAP. 6.8UF 35V 20% TANT	1000067	6
31	C1-C31	CAP. .01UF 100V 20% DISC.	1001610	5
1		ETCHED CIRCUIT BOARD	6009987	4
REF		MODULE ECO HISTORY	B-MN-M7256-B-4	3
REF		ASSY/DRILLING HOLE LAYOUT	B-MN-M7256-B-5	2
REF		X-Y COORDINATE HOLE LOCATION	KCO-M7256-B-4	1

DEC NO.	QTY	LOCATIONS
DEC 4007	8	16
DEC 7473	11	4
DEC 74170	8	16
DEC 74193	8	16
DEC 74161	8	16
DEC 74157	8	16
DEC 74153	8	16
DEC 8271	8	16
DEC 8640	1	8
IC TYPE	GND	+5V



FIRST USED ON OPTION MODEL
RK11-D

REVISIONS

REV	DATE	BY	REASON
1	8-20-72	...	...
2	...	...	...
3	...	...	...
4	...	...	...

DATE: 8-20-72
DRAWN: ...
CHECKED: ...
DESIGNED: ...
PROJ. ENG: ...
PROJ. MGR: ...

NEXT HIGHER ASSY: B-CD-RK11-D

SCALE: 1:1

SHEET 2 OF 2

EQUIPMENT CORPORATION
MAYFLE, MASSACHUSETTS

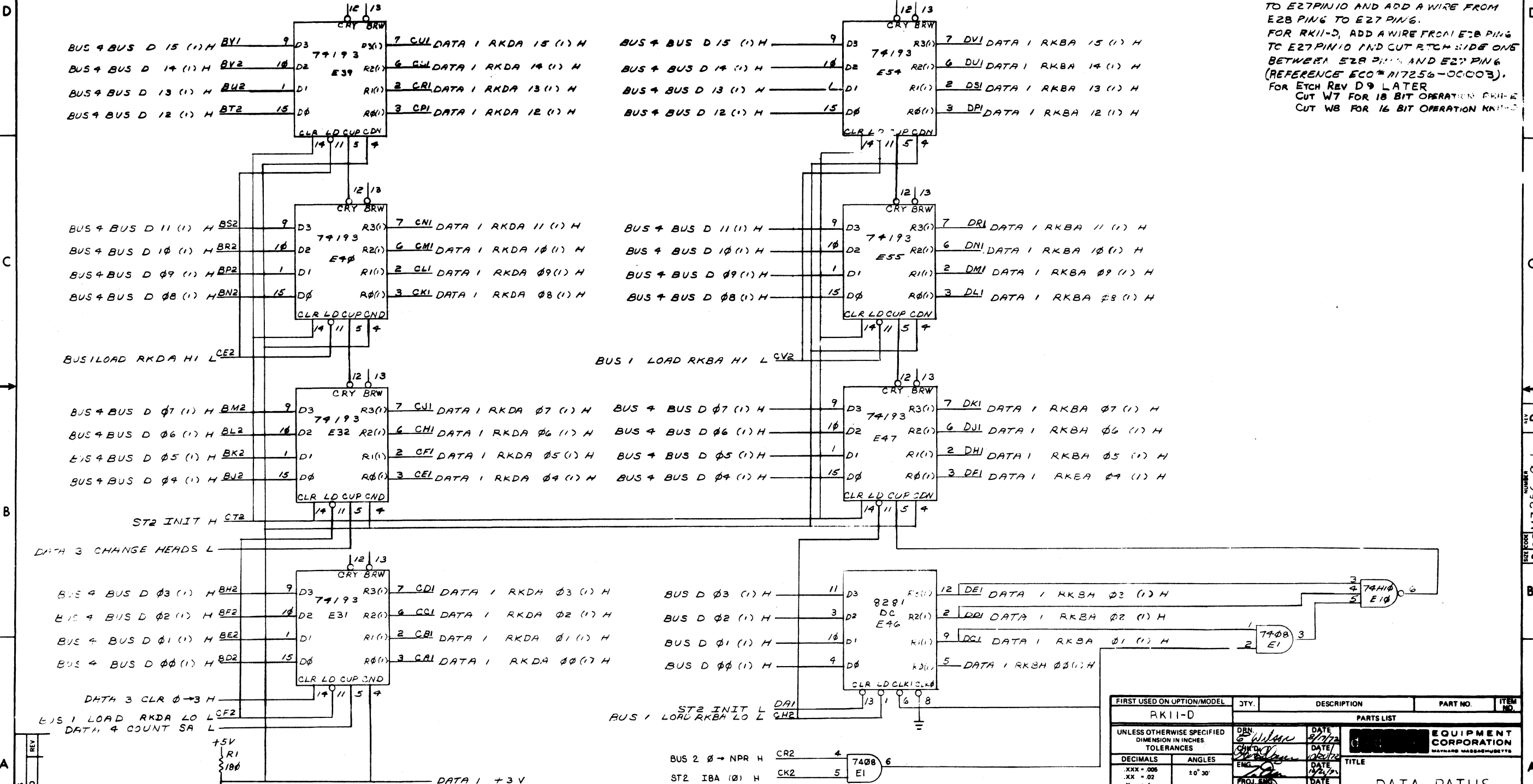
DATA PATHS

DCS M7256-B-1

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1-0-992-1 W S J 2

- NOTES:
- CUT W1 FOR 16 BIT OPERATION (RK11-D)
CUT W2 FOR 18 BIT OPERATION (RK11-E)
 - CUT W3+W4 FOR 16 BIT OPERATION
 - CUT W5 FOR 18 BIT OPERATION
CUT W6 FOR 16 BIT OPERATION
 - FOR ETCH REV C & EARLIER
FOR RK11-E, REMOVE WIRE FROM E28 PING TO E27 PIN 10 AND ADD A WIRE FROM E28 PING TO E27 PIN 6.
FOR RK11-D, ADD A WIRE FROM E28 PING TO E27 PIN 10 AND CUT ETCH SIDE ONE BETWEEN E28 PING AND E27 PIN 6 (REFERENCE ECO # M7256-00003).
FOR ETCH REV D & LATER
CUT W7 FOR 18 BIT OPERATION (RK11-E)
CUT W8 FOR 16 BIT OPERATION (RK11-D)



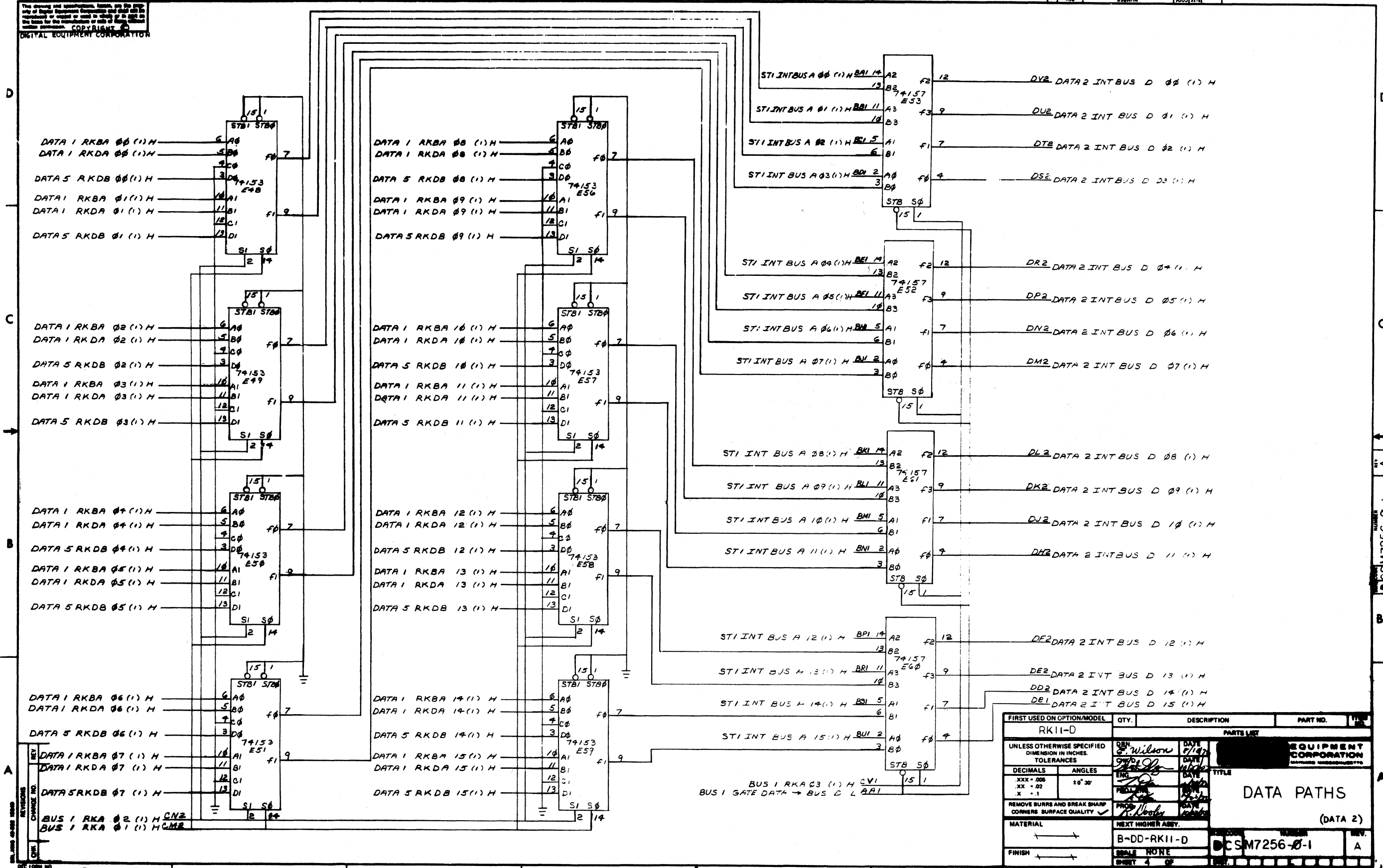
REV	CHANGE NO

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RK11-D				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES				
DECIMALS .XXX ± .006	ANGLES ± 0° 30'	TITLE		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY				
MATERIAL	NEXT HIGHER ASSY.	SIZE CODE	NUMBER	REV.
	B-DD-RK11-D		DCS M7256-0-1	D
FINISH	SCALE NONE	SHEET 3 OF	DIST.	

DEC 1 08PM '68
DND 102-8

DCS M7256-0-1

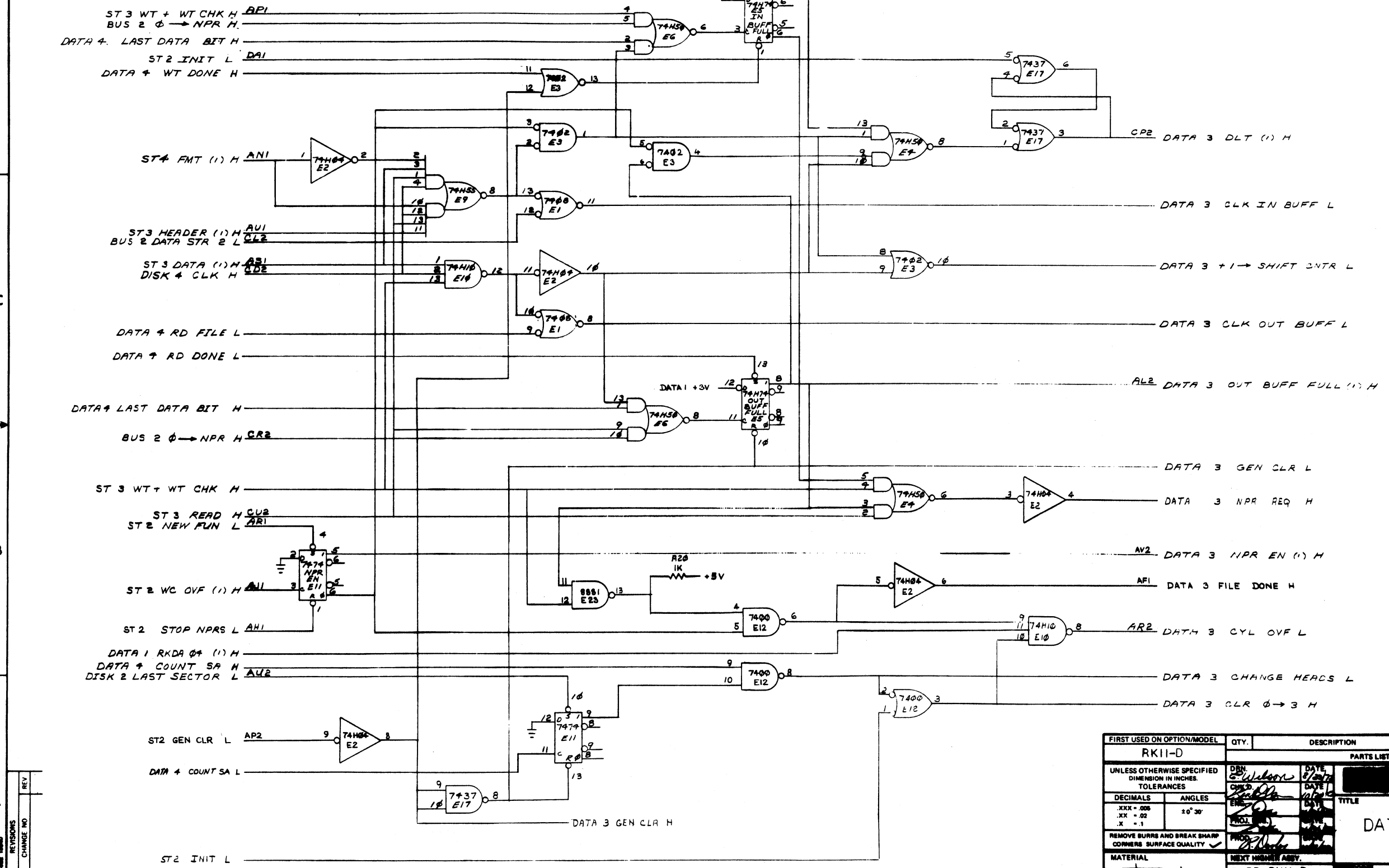
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FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.
RK11-D			
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES			
DECIMALS	ANGLES	TITLE	
.XXX - .008	± 0° 30'	DATA PATHS	
.XX - .02		(DATA 2)	
.X - .1			
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY			
MATERIAL	NEXT HIGHER ASSEMBLY		
FINISH	B-DD-RK11-D	CSM7256-0-1	A
	SCALE NONE		
	SHEET 4 OF		

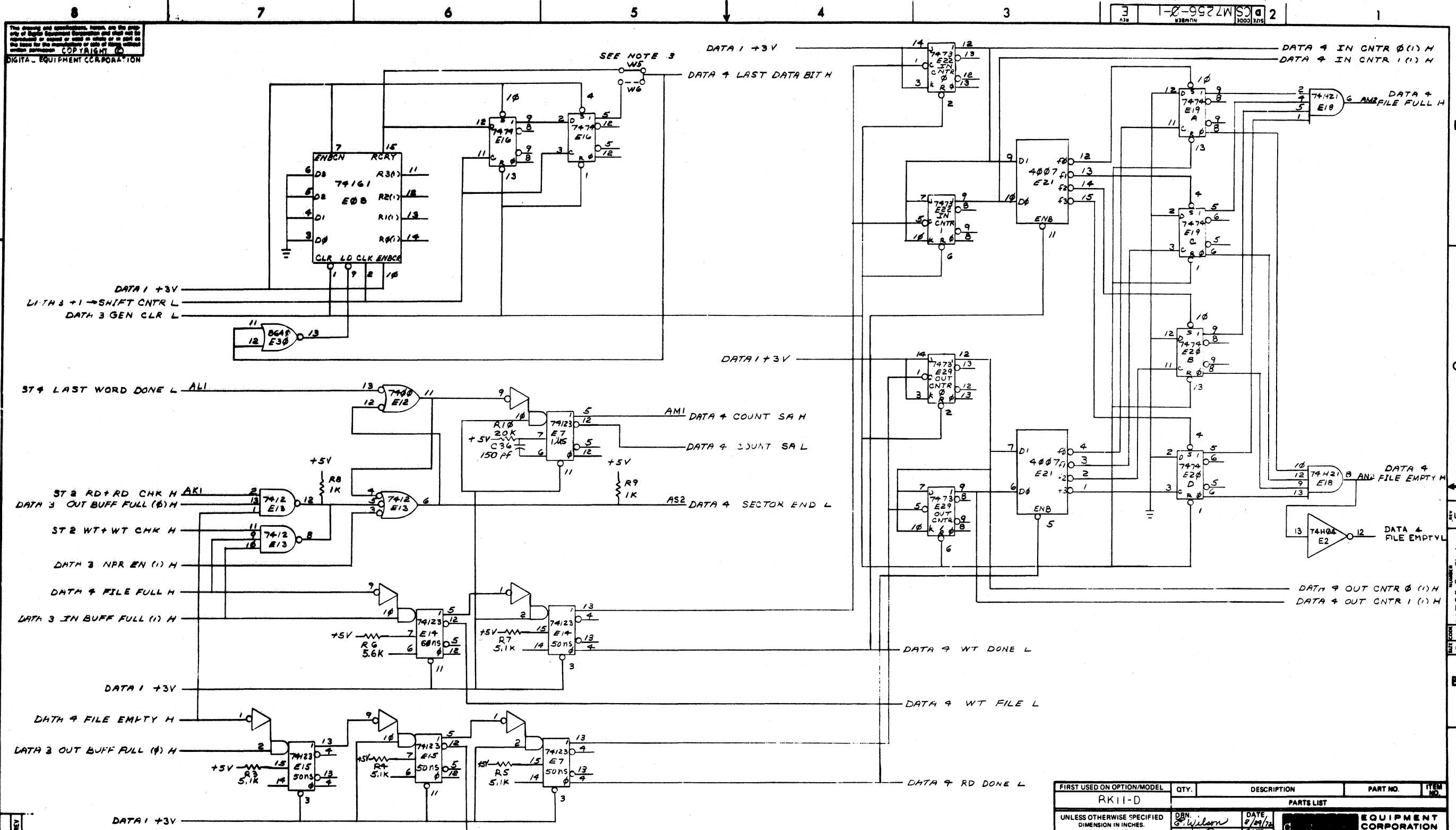
REVISIONS
 CHANGE NO.
 DATE

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REV	CHANGE NO	REVISIONS

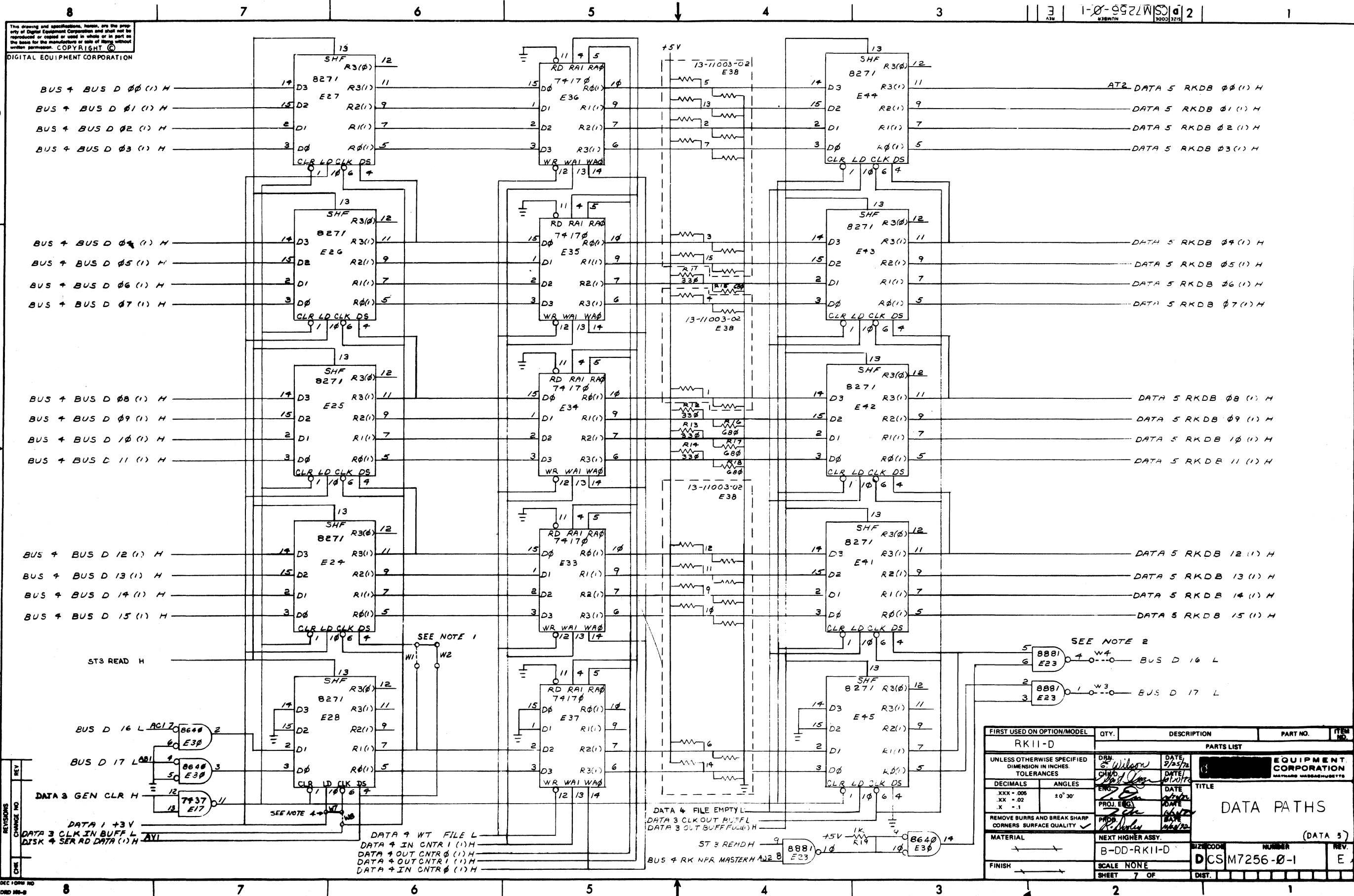
FIRST USED ON OPTION/MODEL RK11-D	QTY.	DESCRIPTION	PART NO.
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES	DRN DATE	CHK'D DATE	DATE DATE
DECIMALS	ANGLES	TITLE DATA PATHS (DATA 3)	
XXX - .008	±0° 30'	EQUIPMENT CORPORATION	
XX - .02		MATERIAL B-DD-RK11-D	
X - .1		FINISH SCALE NONE	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	NEXT WORKMAN ASBY.	NO. 1	REV. C
	B-DD-RK11-D	DCS M7256-0-1	
	SCALE NONE	SHEET 5 OF 5	



FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RK11-D				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES	DRN. <i>G. Wilson</i>	DATE <i>8/29/72</i>	EQUIPMENT CORPORATION	
DECIMALS	CHK'D. <i>[Signature]</i>	DATE <i>9/20/72</i>	MAYNARD ROAD, HUNTSVILLE, ALA. 35894	
ANGLES	ENG. <i>[Signature]</i>	DATE <i>11/2/72</i>	TITLE	
.XXX - .006	PROJ. ENG. <i>[Signature]</i>	DATE <i>11/2/72</i>	DATA PATHS	
.XX - .02	PROJ. <i>[Signature]</i>	DATE <i>11/2/72</i>	(DATA 4)	
.X - .1	PROJ. <i>[Signature]</i>	DATE <i>11/2/72</i>		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PROJ. <i>[Signature]</i>	DATE <i>11/2/72</i>		
MATERIAL	NEXT HIGHER ASSY.	SIZE CODE	NUMBER	REV.
FINISH	B-DD-RK11-D	DCSM7256-01	E	
	SCALE NONE	SHEET 6 OF		

REVISIONS
 CHANGE NO.
 DATE

DC SM 7256-01
 E



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1-0-052710S 2

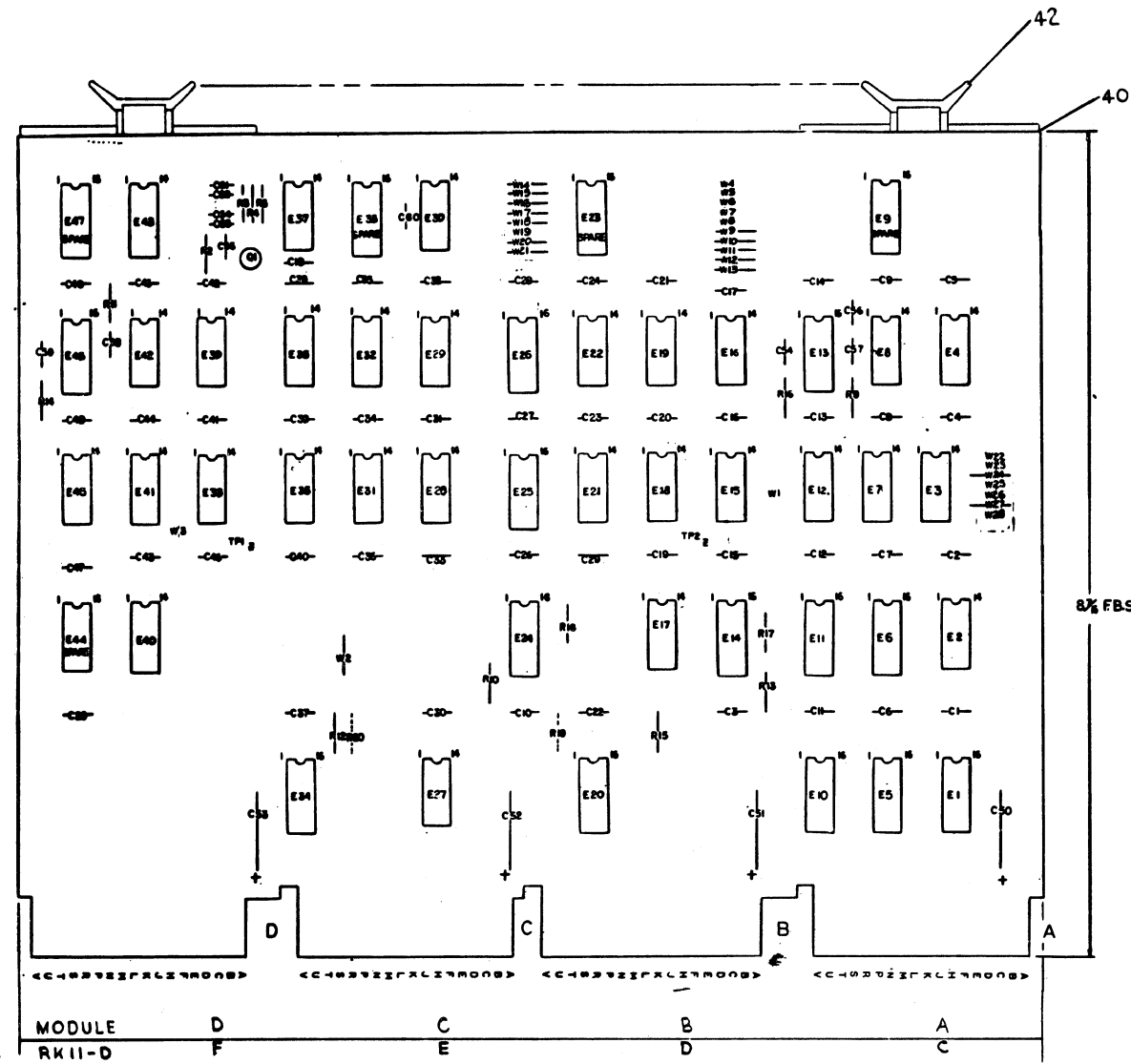
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RKII-D				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES				
DECIMALS	ANGLES	TITLE		
.XXX - .005	± 0° 30'	DATA PATHS (DATA 5)		
.XX - .02				
.X - .1				
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY				
MATERIAL	NEXT HIGHER ASSY.			
FINISH	SCALE NONE			
SHEET 7 OF		D C S M 7 2 5 6 - 0 - 1		E

REV. E
NUMBER
CSM7256-0-1

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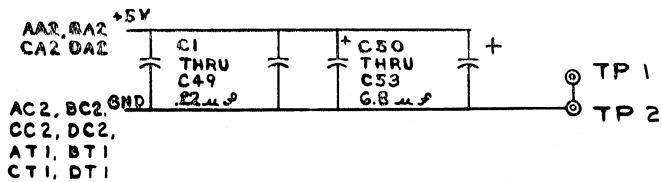
NOTES: 1. R19 AND R20 ARE OPTIONAL COMPONENTS DO NOT INSERT
 2. W1, W3 THRU W8, W19, W22, W23, W25, W26 W28, ARE OPTIONAL JUMPERS. DO NOT INSERT.

* IF 8641'S ARE NOT AVAILABLE, USE 8838'S, PART NO. 191117-00.



PIN NOMENCLATURE

MODULE
RK11-D



IC TYPE	GND	+5V
I.C. DEC 2640	1	8
I.C. DEC 74H103	11	4
I.C. DEC 314	1	8
I.C. DEC 7442	8	16
I.C. DEC 74123	8	16
I.C. DEC 74151	8	16

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

IC PIN LOCATIONS

REF	X-Y COORDINATE HOLE LOC.	K-CO-M7257-0-4	1
REF	ASSY/DRILLING HOLE LAYOUT	D-AH-M7257-0-5	2
REF	MODULE ECO HISTORY	B-MH-M7257-0-6	3
1	ETCHED CIRCUIT BOARD	5009990	4
2	C58, C59 CAP 10 MMF 100V 5%	1000008	5
1	C54 CAP 270 MMF 100V 5%	1000022	6
2	C57, C 60 CAP 330 MMF 100V 5%	1000023	7
1	C56 CAP 1200 MMF 100V 5%	1002424	8
49	C1 THRU C49 CAP .22 MF 50V 20%	1010274-01	9
4	C50 THRU C53 CAP 6.8 MFD 35V 10% TANT	1005306	10
4	C61, C62, C64, C65 CAP 6.8 MMF 100V 5%	1000005	11
1	C55 CAP 27 MMF 100V 5%	1001739	12
1	Q1 TRANS DEC 3009B	1503100	13
3	R2, R3, R4, RES. 330 1/4 W 5%	1300295	14
2	R10, R13 RES. 390 1/4 W 5%	1300309	15
1	R5 RES. 287 1/8 W 1%	1305124	16
4	R12, R15, R17, R18 RES. 180 1/4 W 5%	1301322	17
1	R16 RES. 5.6K 1/4 W 5%	1301874	18
1	R9 RES. 4.7K 1/4 W 5%	1302177	19
2	R11, R14 RES. 5.1K 1/8 W 1%	1304854	20
			21
2	E16, E30 RES. 1K RESISTOR PACK	1300005-01	22
1	E19 I.C. 74H20	1905635	23
2	E22, E38 I.C. 7402	1909004	24
3	E18, E31, E37 I.C. 74H00	1909058	25
4	E40, E41, E42, E35 I.C. 74H74	1909667	26
1	E2 I.C. 314	1909704	27
4	E3, E4, E6, E27 I.C. 8881	1909705	28
3	E7, E12, E15 I.C. 8242	1909712	29
1	E21 I.C. 74H04	1909931	30
1	E26 I.C. 74151	1909936	31
2	E24, E25 I.C. 7442	1910046	32
1	E28 I.C. 7437	1910091	33
3	E36, E39, E45 I.C. 7408	1910155	34
3	E29, E32, E43 I.C. 74H103	1910409	35
2	E13, E46 I.C. 74123	1910436	36
1	E17 I.C. 8640	1911469	37
8	E1, E5, E6, E10, E11, E14, E20, E34 I.C. 8641	1911579	38
15	W2, W9 THRU W18, W20, W21, W24, W27 INSULATED JUMPER	9009185	39
8	EYELET	9006732	40
2	TP1, TP2 SOLDER TERMINALS	9007791	41
4	HANDLE (FLIPCHIP) MAGENTA	9008337-06	42

FIRST USED ON OPTION MODEL
RK11-D

ETCH BOARD REV | C | PARTS LIST

REV	DATE	BY	CHKD

CHANGE IN REVISIONS

DATE: 10/1/73
 DATE: 10/1/73
 DATE: 11-13-74
 DATE: 1/18/75

PROJ. ENG. DATE: 1/18/75
 PROD. DATE: 1/18/75

NEXT HIGHER ASSY
B-00-RK11-D

SCALE: NONE

SEMICONDUCTOR CONVERSION CHART

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

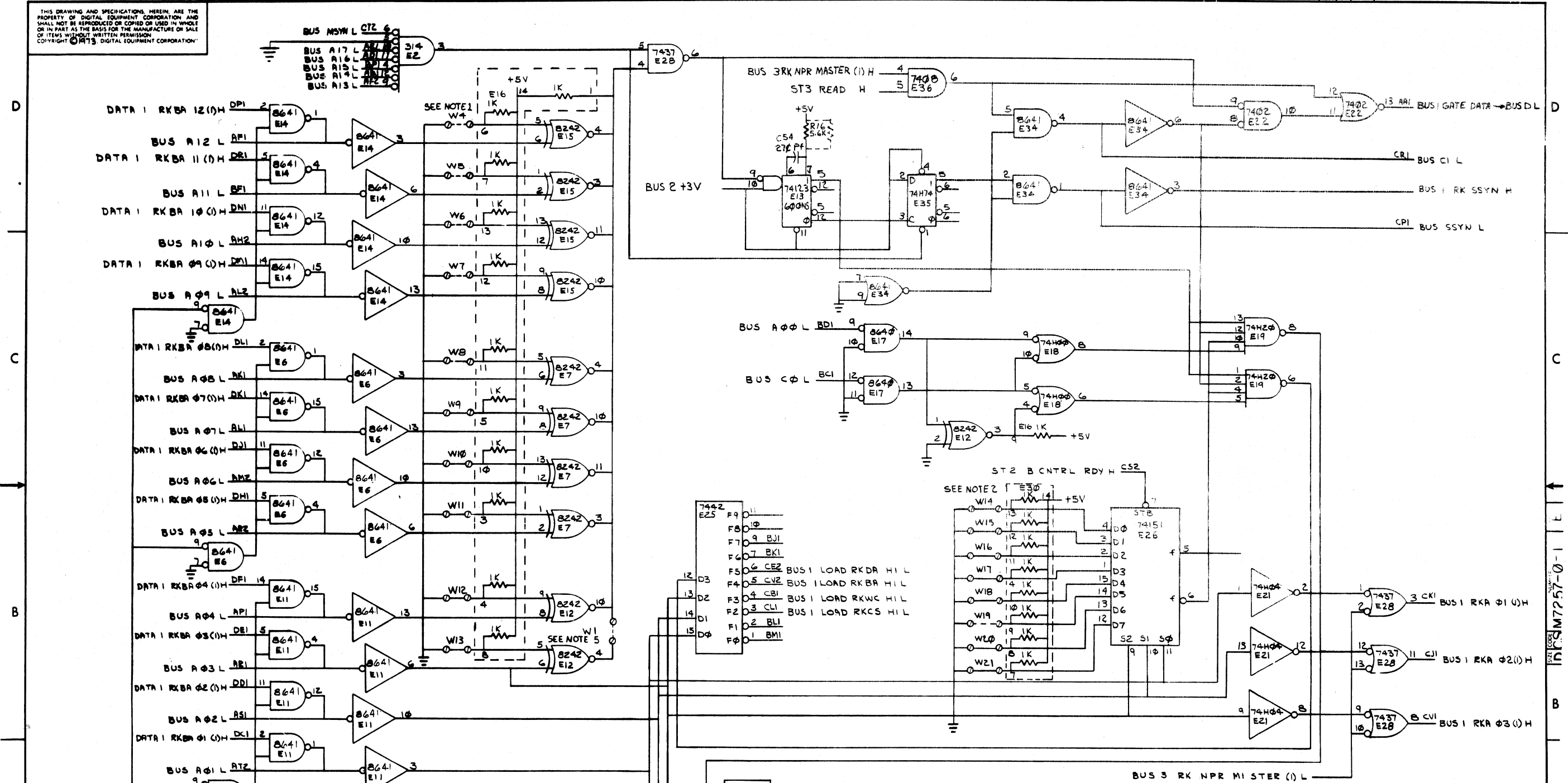
SHEET 2 OF 6

digital EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

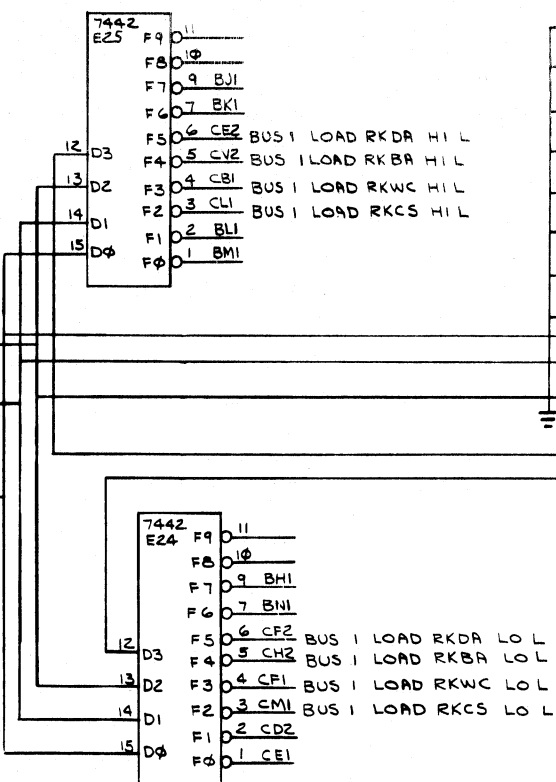
TITLE: BUS CONTROL
RK11-D

DCS/M7257-0-1 M

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- NOTE:
1. CUT JUMPER FOR ONE. FOR NORMAL RK11 OPERATION CUT JUMPERS W4, W5, W6, W7, W8.
 2. CUT JUMPER TO INHIBIT STROBE IF BUSY. FOR NORMAL RK11 OPERATION CUT JUMPER W19.
 3. FOR NORMAL OPERATION CUT JUMPER W3. IN 11/15 OR 11/20 SYSTEMS WITHOUT KH-11 OPTION CUT JUMPER W2.
 4. CUT JUMPER FOR ZERO. FOR NORMAL RK11 OPERATION CUT JUMPERS W22, W23, W25, W26, W28.
 5. FOR NORMAL OPERATION CUT JUMPER W1. FOR APPLICATIONS REQUIRING 4 ADDRESS RECOGNITION INSTALL W1.

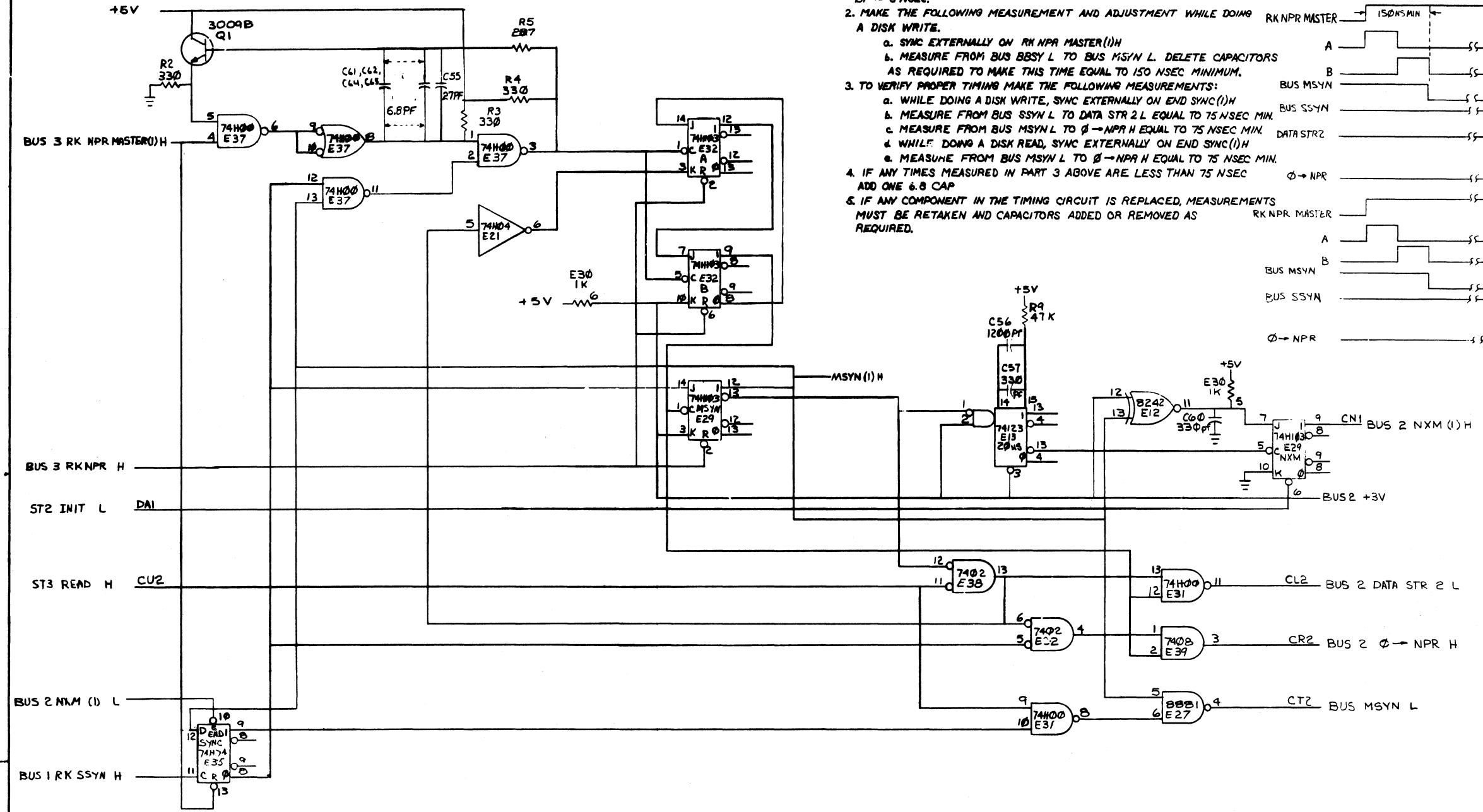
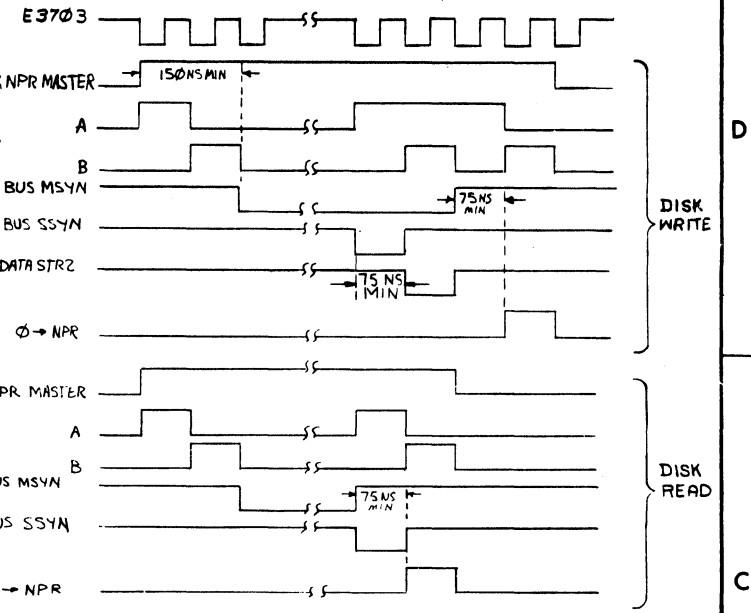


FIRST USED ON OPTION/MODEL RK11-D	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	DRN. <i>T. Davis</i>	DATE 7-18-73	DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
TOLERANCES	CHKD. <i>[Signature]</i>	DATE <i>[Date]</i>	TITLE	
DECIMALS .xxx = .005	ENGR. <i>[Signature]</i>	DATE 11-18-70	BUS CONTROL (BUS 1)	
ANGLES '0 30'	PROJ. ENG. <i>[Signature]</i>	DATE 1/18/72	REV. E	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY V	PROD. <i>[Signature]</i>	DATE	SIZE CODE NUMBER	
MATERIAL	NEXT HIGHER ASSY.	B-DD-RK11-D		
FINISH	SCALE	DCSM7257-0-1		
	SHEET 3 OF 6	DIST.		

REVISIONS
CHG. CHANGE PNO. REV.

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SET UP UNIBUS TIMING AS FOLLOWS:
 1. TIMING ADJUSTMENTS ARE MADE BY REMOVING CAPACITORS C61 THRU C65 AS REQUIRED. WITH C61 THRU C65 ALL INSTALLED THE OUTPUT AT E3703 HAS A PERIOD OF ≈ 88 NSEC. REMOVAL OF EACH CAP DECREASES THIS BY ≈ 5 NSEC.
 2. MAKE THE FOLLOWING MEASUREMENT AND ADJUSTMENT WHILE DOING A DISK WRITE.
 A. DISK WRITE.
 a. SYNC EXTERNALLY ON RK NPR MASTER(1)H
 b. MEASURE FROM BUS BBSY L TO BUS MSYN L. DELETE CAPACITORS AS REQUIRED TO MAKE THIS TIME EQUAL TO 150 NSEC MINIMUM.
 3. TO VERIFY PROPER TIMING MAKE THE FOLLOWING MEASUREMENTS:
 a. WHILE DOING A DISK WRITE, SYNC EXTERNALLY ON END SYNC(1)H
 b. MEASURE FROM BUS SSYN L TO DATA STR 2 L EQUAL TO 75 NSEC MIN.
 c. MEASURE FROM BUS MSYN L TO $\phi \rightarrow$ NPR H EQUAL TO 75 NSEC MIN.
 d. WHILE DOING A DISK READ, SYNC EXTERNALLY ON END SYNC(1)H
 e. MEASURE FROM BUS MSYN L TO $\phi \rightarrow$ NPR H EQUAL TO 75 NSEC MIN.
 4. IF ANY TIMES MEASURED IN PART 3 ABOVE ARE LESS THAN 75 NSEC ADD ONE 6.8 CAP
 5. IF ANY COMPONENT IN THE TIMING CIRCUIT IS REPLACED, MEASUREMENTS MUST BE RETAKEN AND CAPACITORS ADDED OR REMOVED AS REQUIRED.



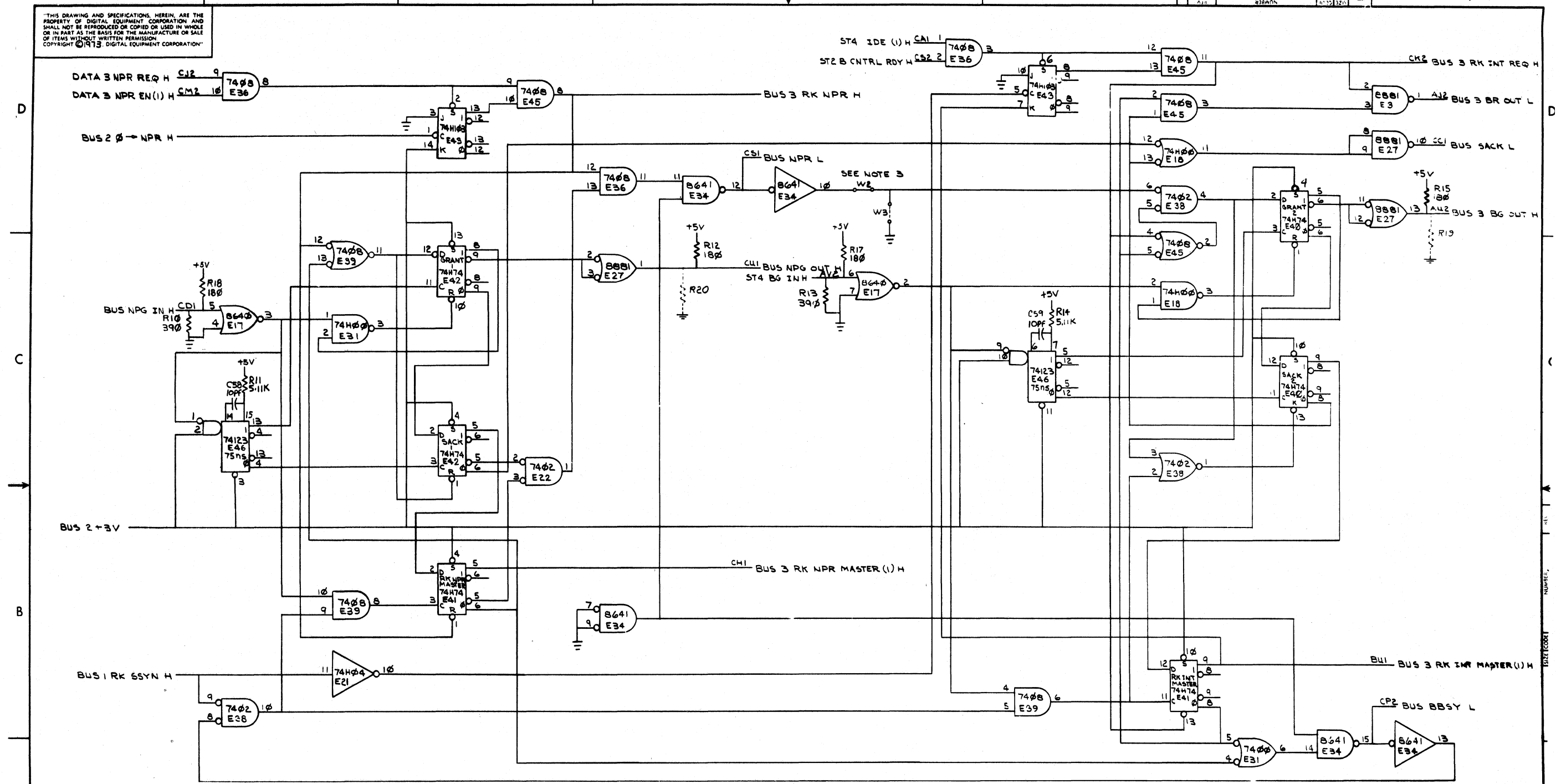
REV	CHANGE NO	REVISIONS

FIRST USED ON OPTION/MOD#1	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RK11-D				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES				
TOLERANCES				
DECIMALS	ANGLES	DATE		
.xxx = .005	'0 30'	DATE	DATE	DATE
.xx = .02		DATE	DATE	DATE
.x = .1		DATE	DATE	DATE
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY V				
MATERIAL	NEXT HIGHER ASSY.			
FINISH	B-DD-RK11-D	SIZE CODE	NUMBER	REV.
		DCS M7257-0-1		E
	SCALE	SHEET 4 OF 6		
		DST.		



BUS CONTROL
(BUS 2)

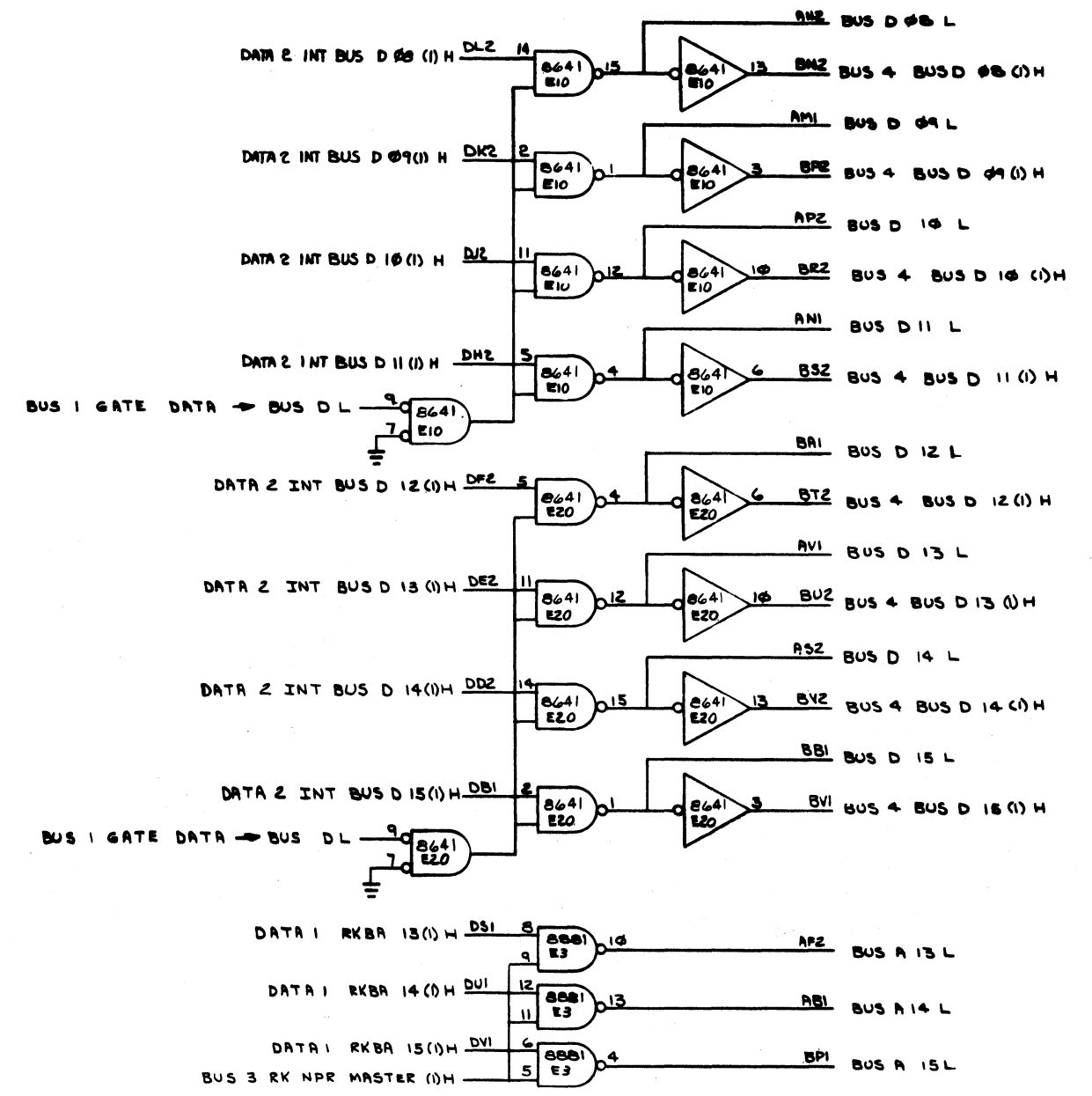
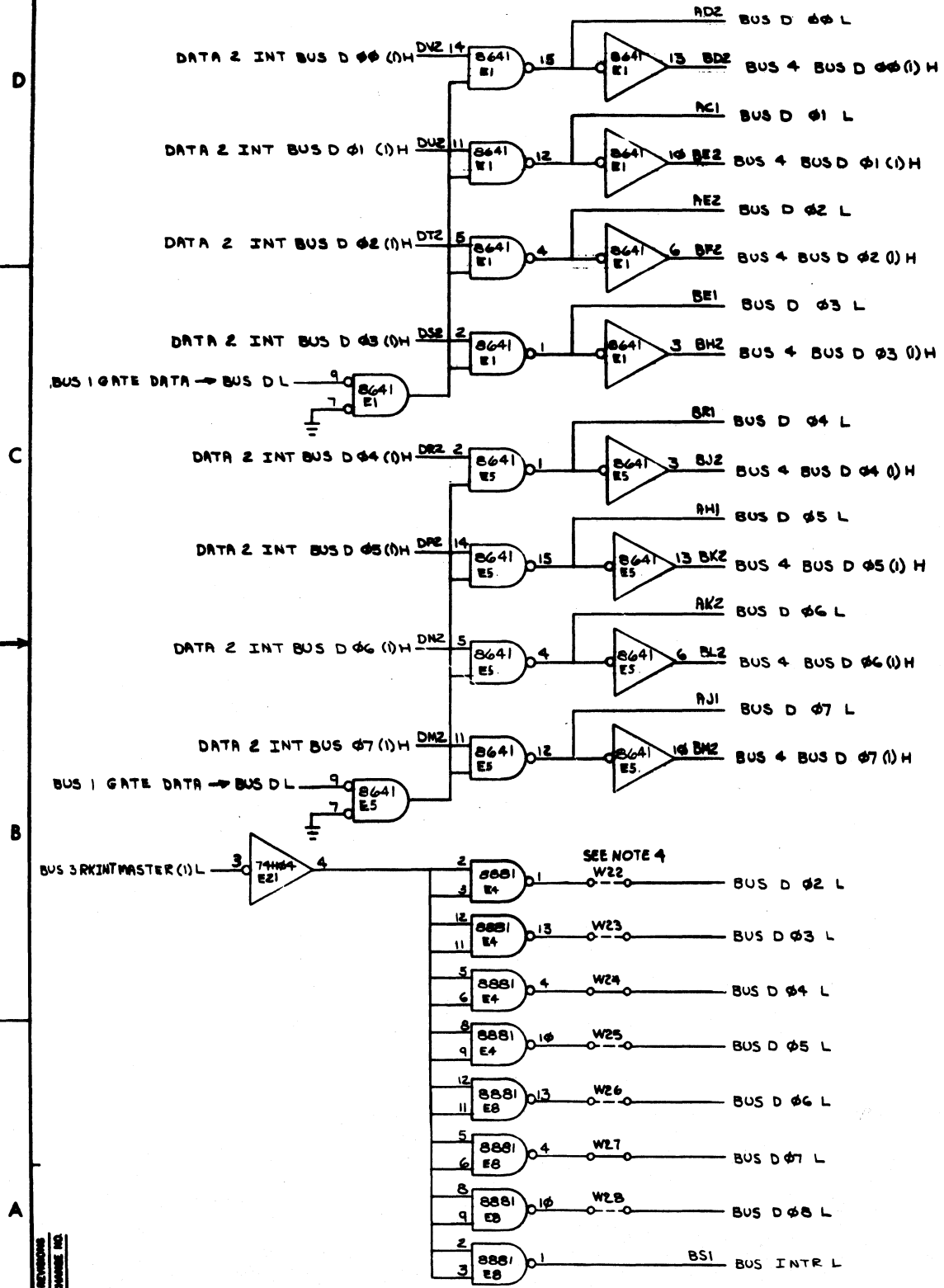
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REV	
CHANGE NO	
CM	

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RK11-D				
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 V				
MATERIAL		NEXT HIGHER ASSY.		
		B-DD-RK11-D		
FINISH		SCALE		
		SHEET 5 OF 6		
		PARTS LIST		
		digital EQUIPMENT CORPORATION		
		MAYNARD, MASSACHUSETTS		
		TITLE		
		BUS CONTROL		
		(BUS 3)		
		SIZE CODE	NUMBER	REV.
		D	CS M7257-0-1	F
		DIST.		

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NEXT HIGHER ASSY	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RK11-D				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES				
TOLERANCES				
DECIMALS	FRACTIONS	ANGLES		
$\pm .005$	$\pm 1/64$	$\pm .030$		
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS				
MATERIAL	PART USED ON			
+	B-DD RK11-D-0 (BUS 4)			
FINISH	SCALE			
+	6 OF 6			
TITLE			DCS M7257-0-1	
BUS CONTROL			D	

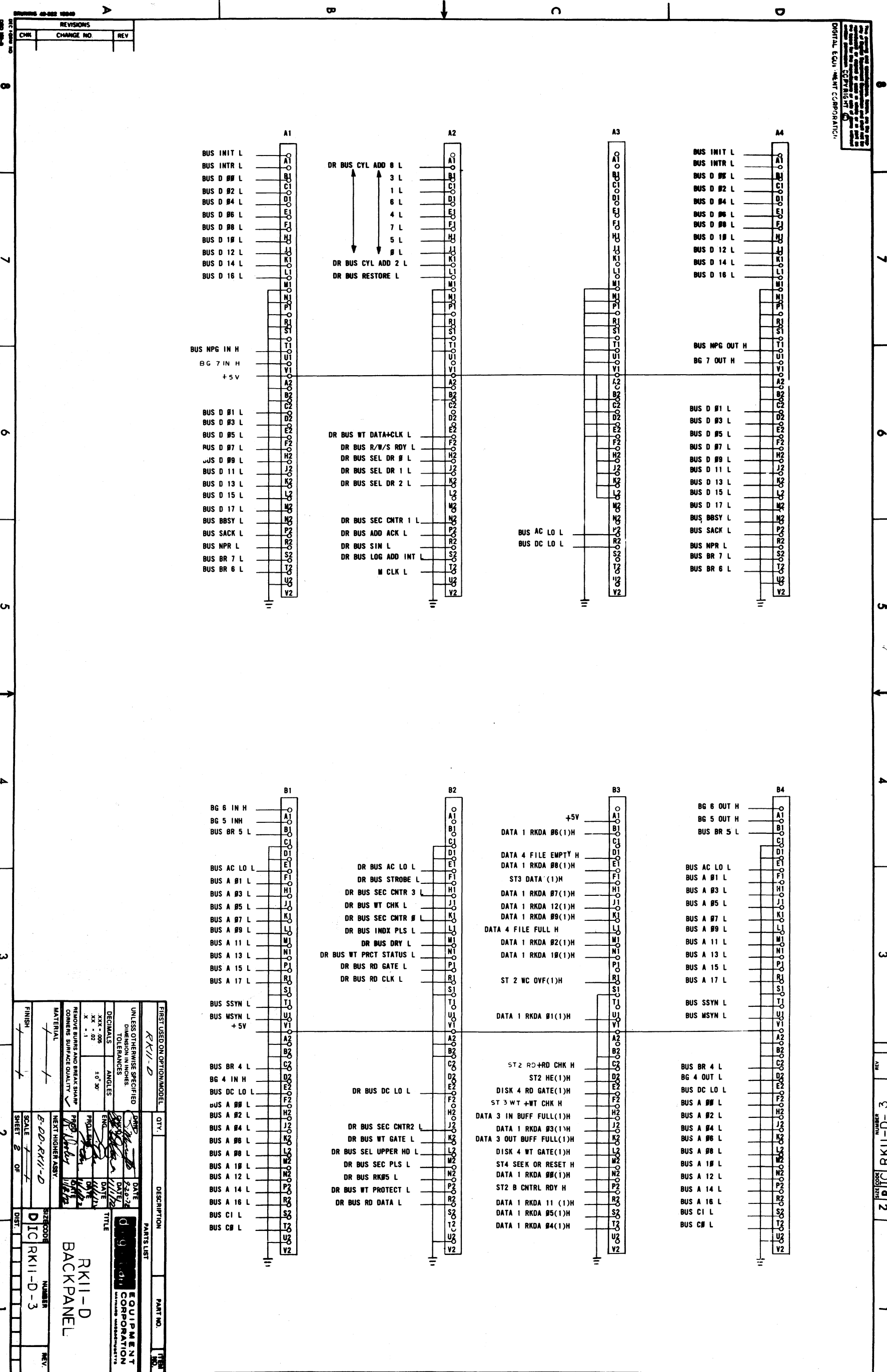
PAGE REVISION CONTROL SHEET

SH NO.	PAGE REVISIONS													REMARKS
1	*	A	B	C										
2	*	*	*	*										
3	*	A	B	C										
4	*	A	A	A										
	ECO NO.		RK11D-C0903	RK11L-00005	RK11D-00005									
	ETCH REV.													
	ENG.		T.O.	T.O.	KPE									
	DATE		11/72	4/73	9/83									

FIRST USED ON OPTION/MODEL
RK11-D

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	CHK'D.	<i>[Signature]</i>	DATE	11/1/72				
	ENG.	<i>[Signature]</i>	DATE	11/1/72				
	PROJ. ENG.	<i>[Signature]</i>	DATE	11/1/72				
	PROD.	<i>[Signature]</i>	DATE	11/3/72				
NEXT HIGHER ASSY.	B-DD-RK11-D				SIZE	CODE	NUMBER	R
SCALE	++				B	IC	RK11-D-3	C
SHEET	1 OF 4				DIST.			

DIGITAL EQUIPMENT CORPORATION



REVISIONS	
CHG	REV

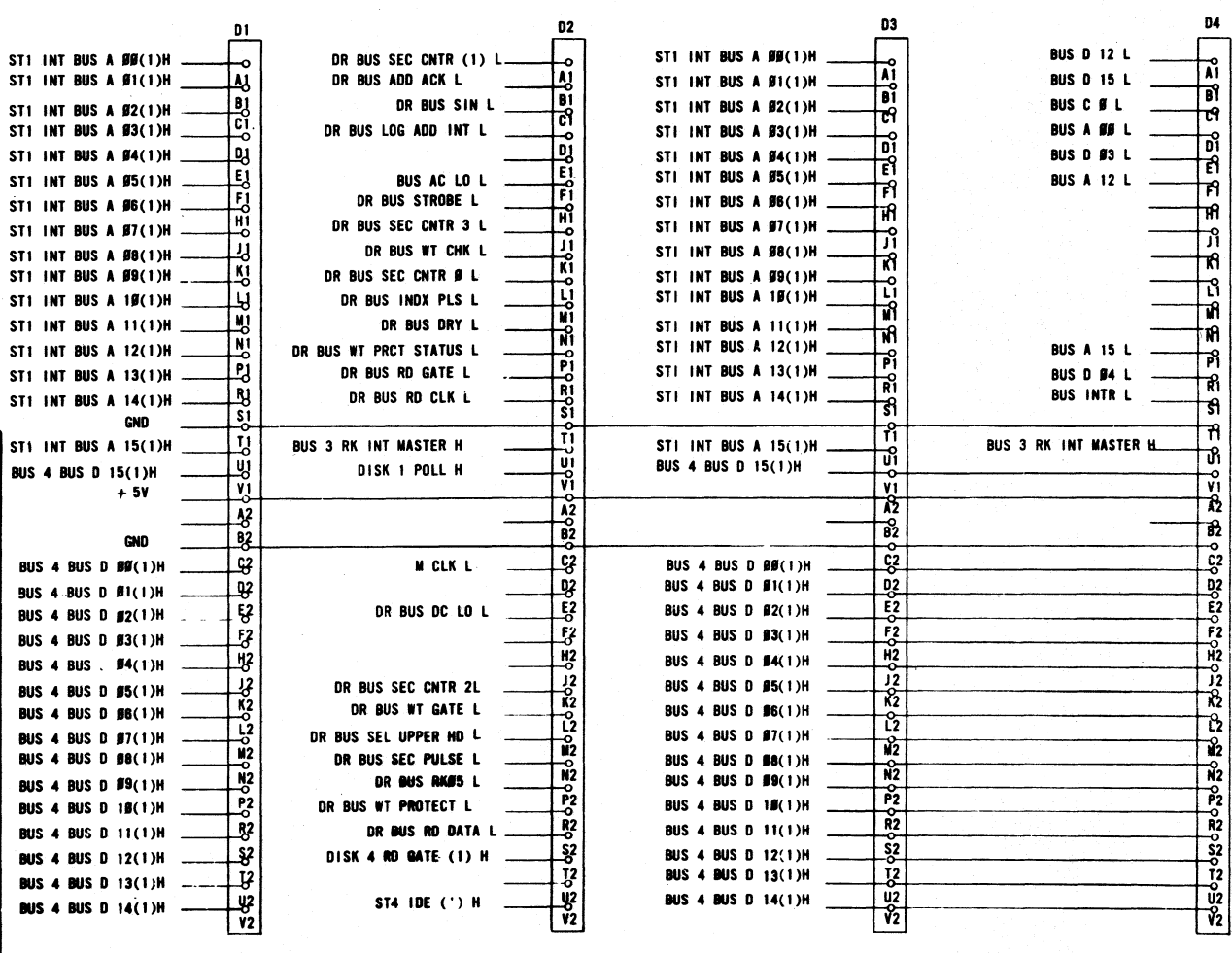
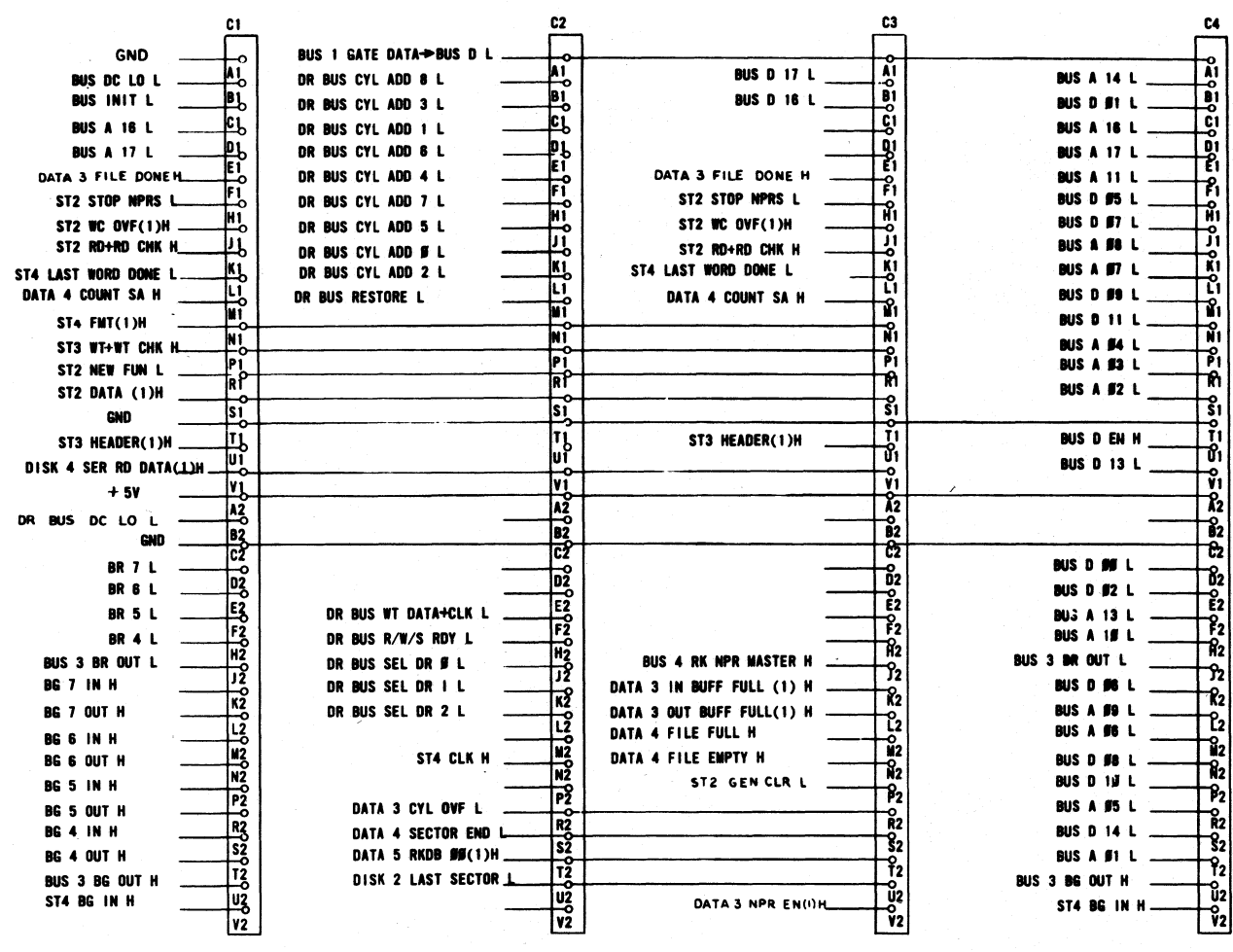
FIRST USED ON OPTION/MODEL		QTY	DESCRIPTION	PART NO.	ITER
RK11-D					
PARTS LIST					
DATE	DATE	DATE	DATE	DATE	DATE
UNLESS OTHERWISE SPECIFIED					
DIMENSIONS IN INCHES					
TOLERANCES					
DECIMALS	ANGLES				
.XX	± .00				
X .1	± .00				
REMOVE BURRS AND BREAK SHARP					
COMMENTS SURFACE QUALITY					
MATERIAL					
NEXT HIGHER ASSY					
PROD. BY					
DATE					
TITLE					
RK11-D					
BACKPANEL					
FINISH	SCALE	SHEET	OF	REV.	
SIZE CODE		NUMBER		REV.	
DIC		RK11-D-3			

REV. NUMBER D1CRK11-D-3

REV. NUMBER D1CRK11-D-3

REV C 2 1
NO. 02
2 3 4 5 6 7 8
A B C D

REVISIONS		
CHK	CHANGE NO.	REV



PARTS LIST	
QTY	DESCRIPTION
	RR11-D

UNLESS OTHERWISE SPECIFIED	DATE
DIMENSIONS	1-24-82
TOLERANCES	
DECIMALS	
ANGLES	
XXX .005	
XX .02	
X .03	
.1	

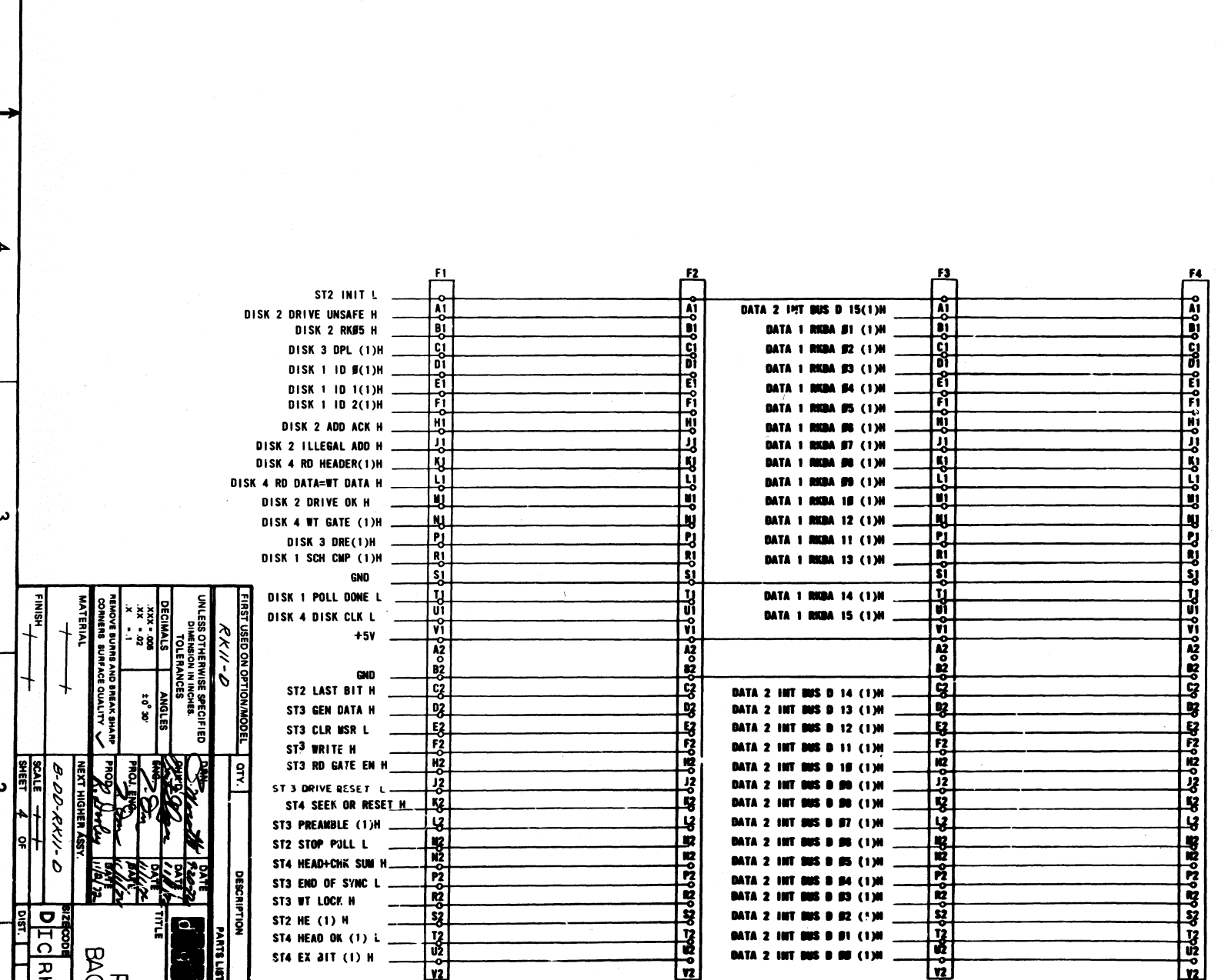
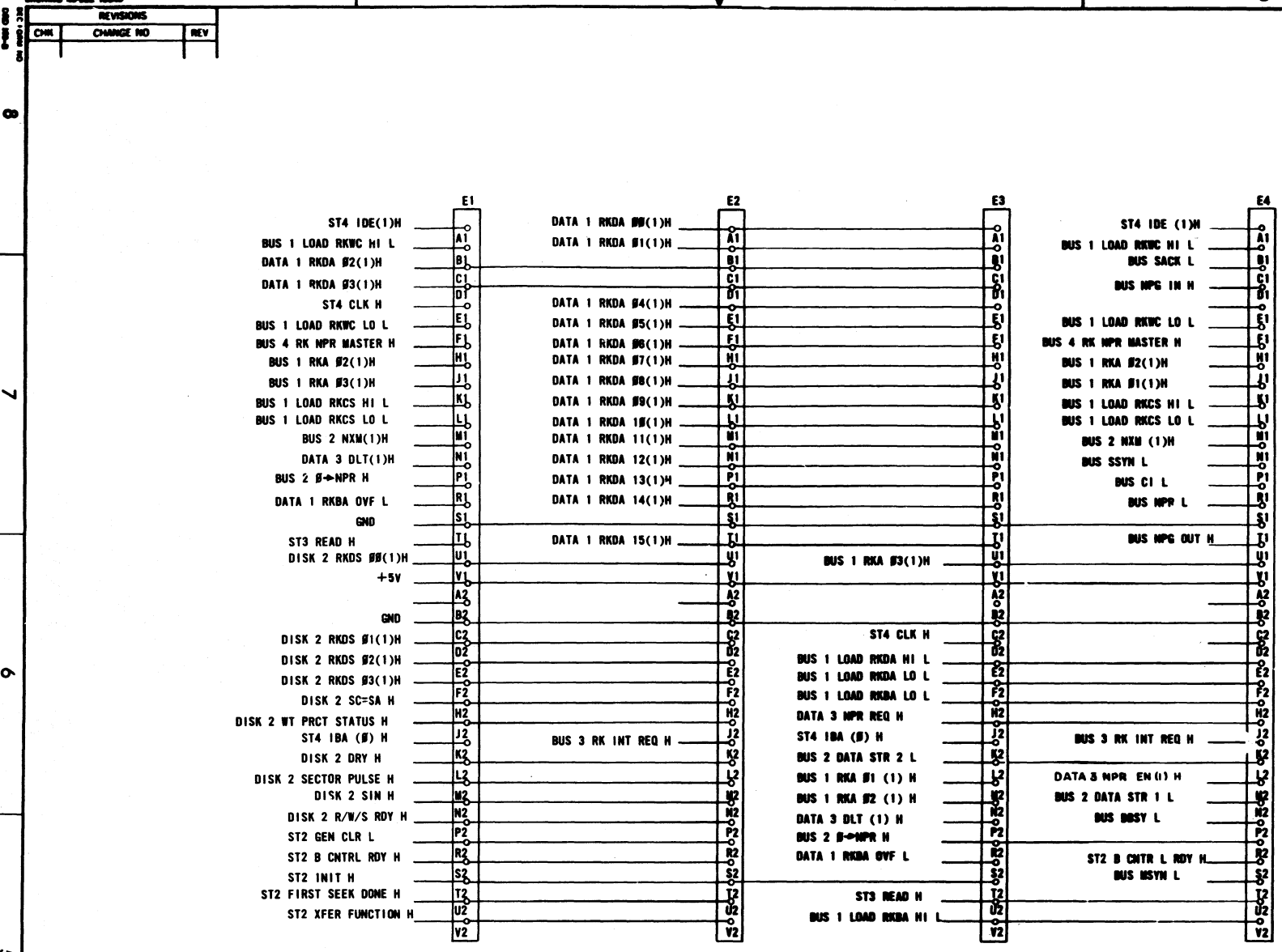
REMOVED BURNS AND BREAK SHARP CORNERS SURFACE QUALITY	DATE	BY

MATERIAL	PROL. ENGR.	DATE	BY

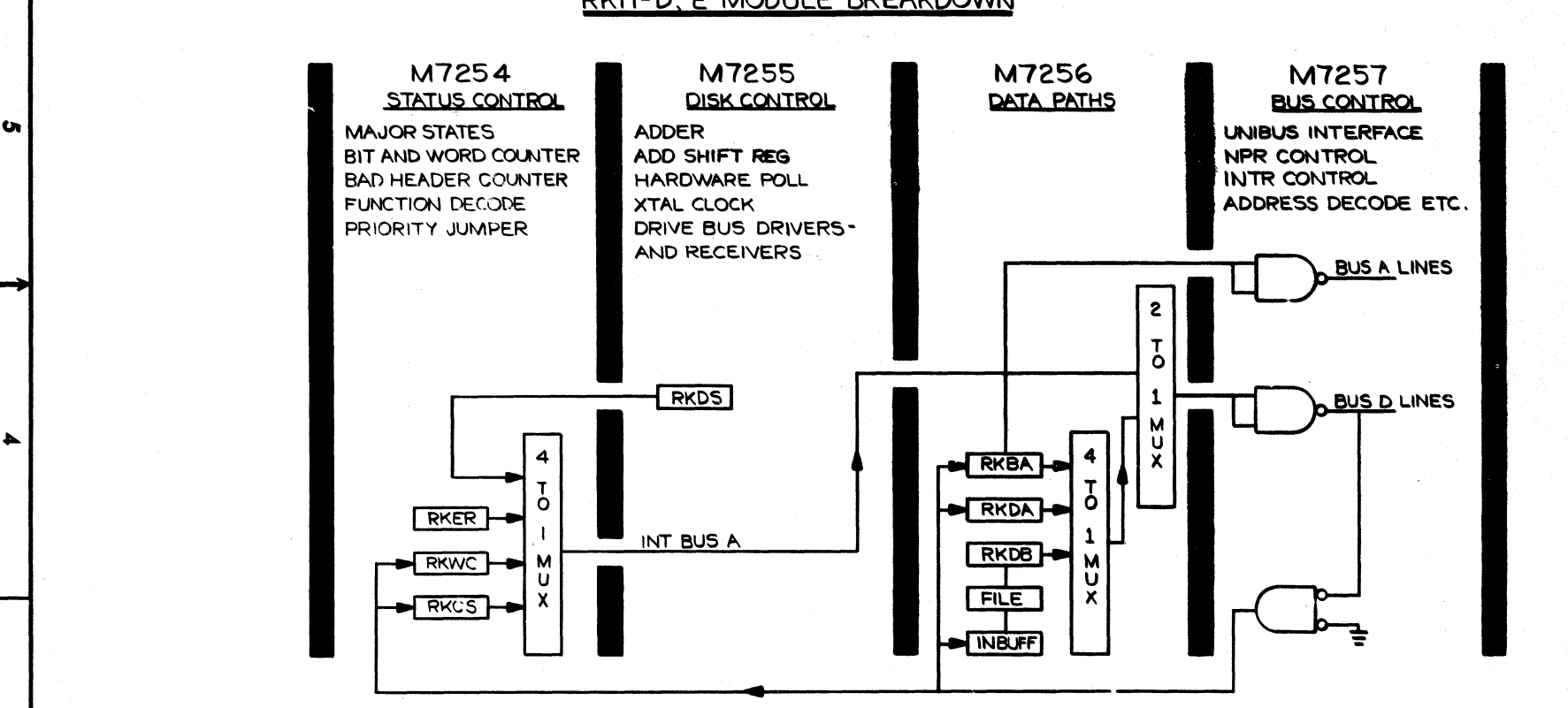
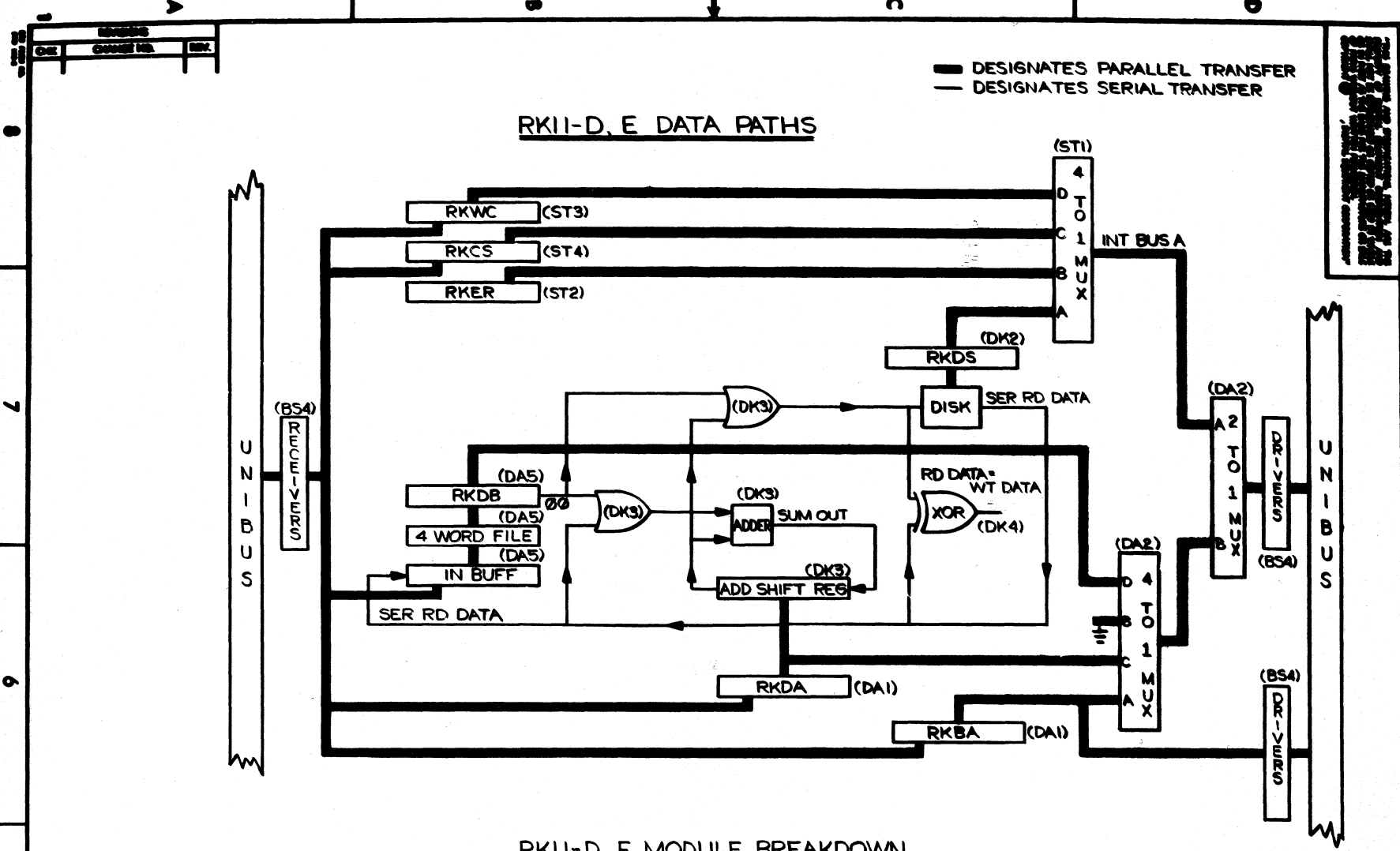
FINISH	SCALE	SIZE CODE	NUMBER	REV
	3 OF	D1CRK11-D-3		C

RR11-D
BACKPANEL

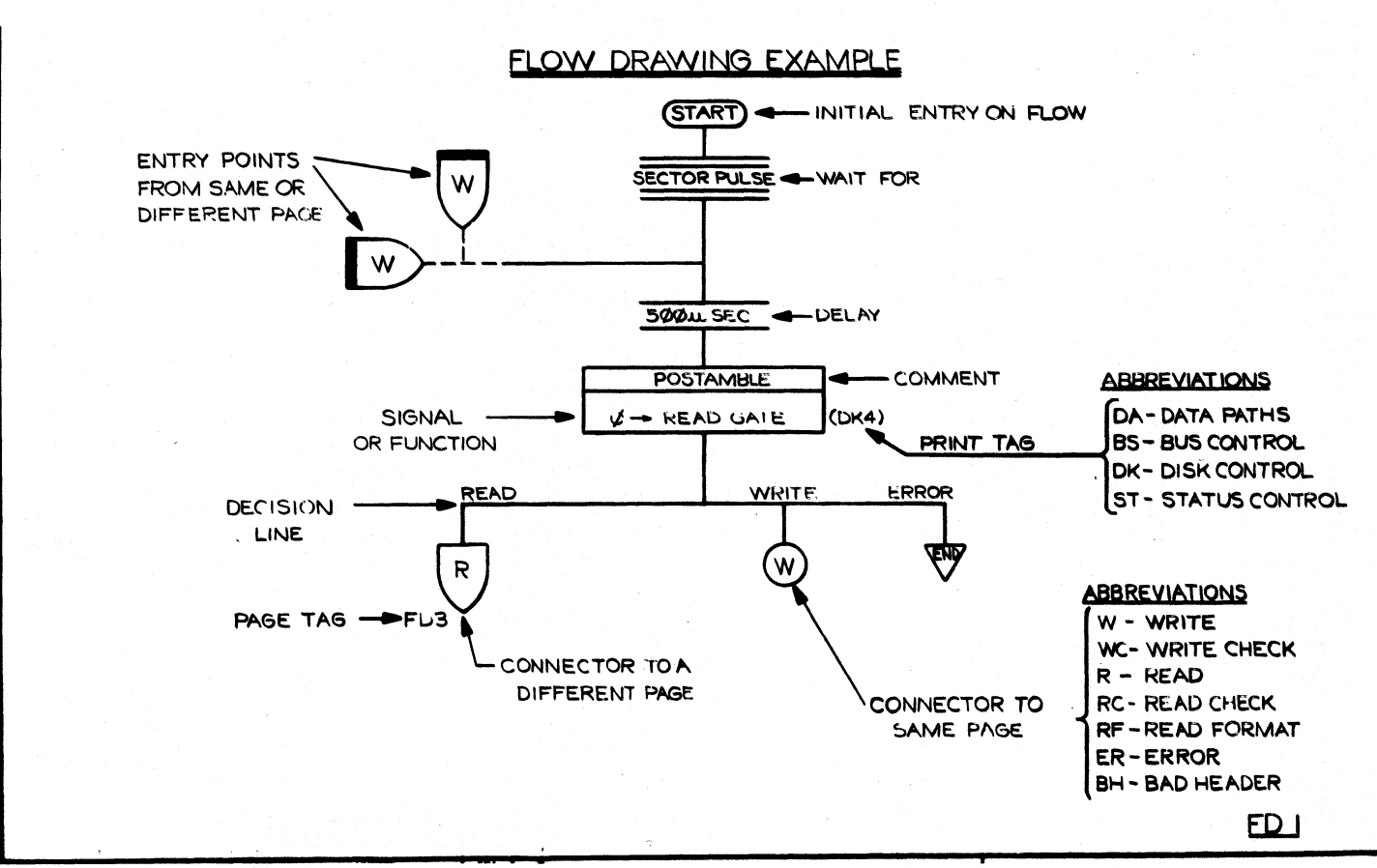
DCR011-1-3



FIRST USED ON OPTION/MODEL		QTY.	DESCRIPTION	PART NO.	UNIT						
<p>REVISIONS</p> <table border="1"> <tr> <th>CHK</th> <th>CHANGE NO</th> <th>REV</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>						CHK	CHANGE NO	REV			
CHK	CHANGE NO	REV									
<p>UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS ANGLES .XX - .02 5.0° 30' .X - .1 X - .1</p> <p>REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY</p> <p>MATERIAL: NEXT HIGHER ASSY.</p> <p>FINISH: +</p> <p>SCALE: 1" = 1"</p> <p>SHEET: 4 OF 2</p> <p>DIST.:</p>											
<p>BACKPANEL</p> <p>RKII-D EQUIPMENT CORPORATION</p> <p>DATE: 11/18/70 PART NO: 8-22-RKII-D TITLE: BACKPANEL NUMBER: D1C/RKII-D-3 REV: A</p>											



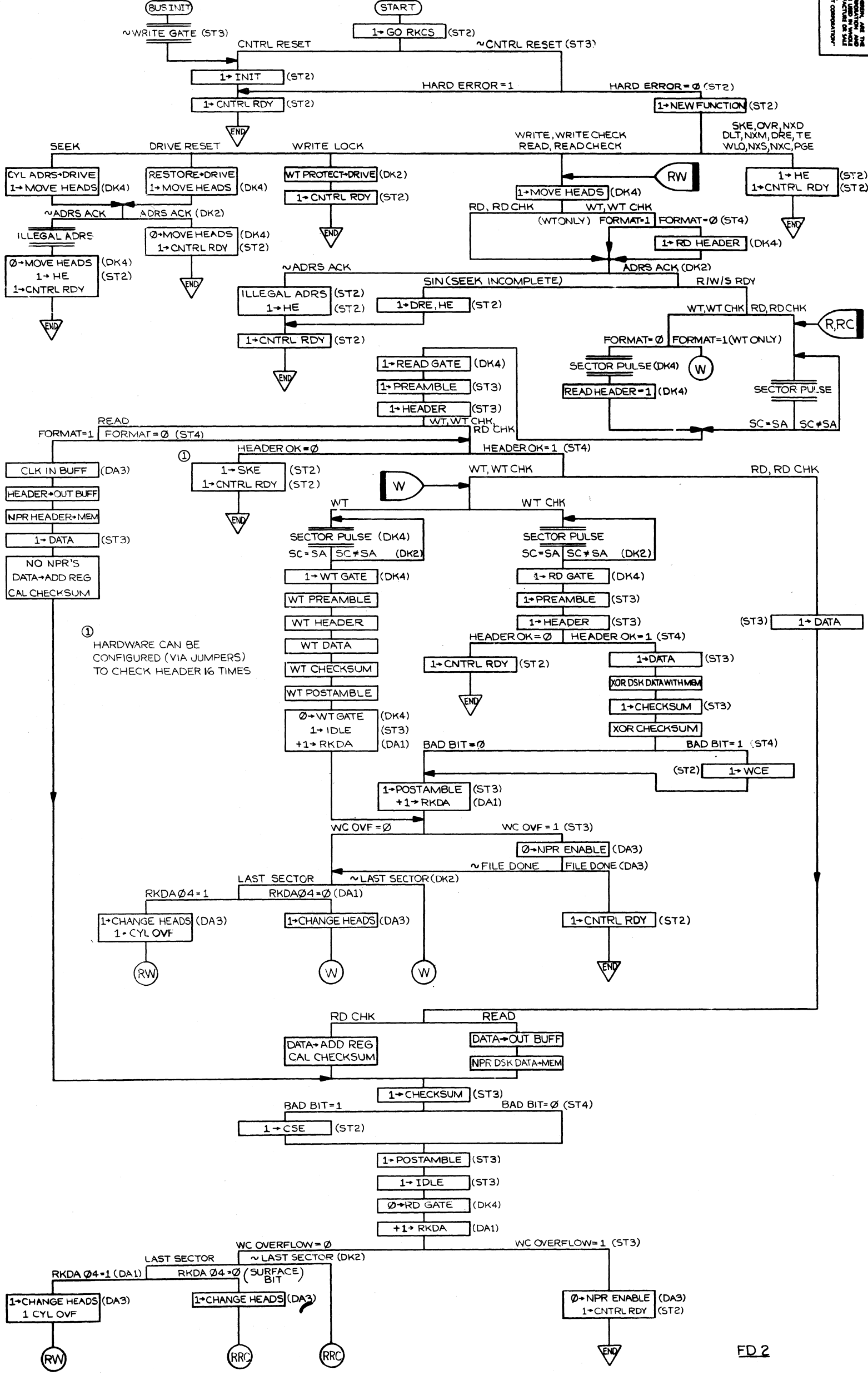
FIRST USED ON OPTION/MODEL	RK11-D	DIMENSIONAL TOLERANCE	UNLESS OTHERWISE SPECIFIED	DATE	PART NO.
FINISH		SCALE	B-DD-RK11-D	DESCRIPTION	PARTS LIST
RK11-D, E FUNCTION FLOWS					
ABBREVIATIONS W - WRITE WC - WRITE CHECK R - READ RC - READ CHECK RF - READ FORMAT ER - ERROR BH - BAD HEADER					



6-U-11KX (11) 21

GENERAL FLOW DRAWING

REV	CHG	NO	BY



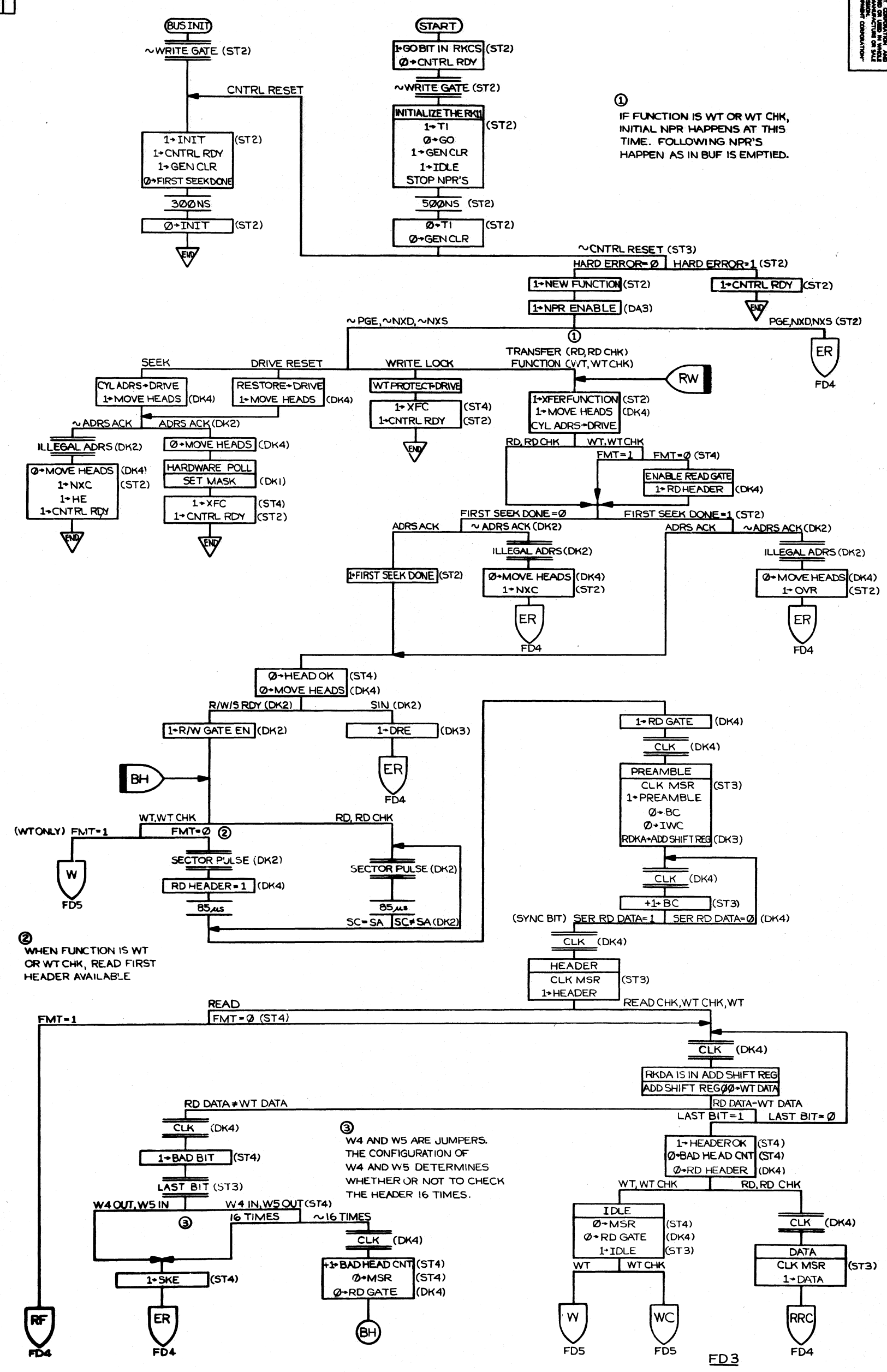
THIS DRAWING IS A FUNCTIONAL REPRESENTATION OF THE SYSTEM AND IS NOT TO BE USED FOR THE DESIGN OF THE SYSTEM OR FOR THE DESIGN OF THE HARDWARE OR SOFTWARE. IT IS THE RESPONSIBILITY OF THE USER TO VERIFY THAT THE SYSTEM OPERATES AS INTENDED AND TO TAKE APPROPRIATE PRECAUTIONS TO PROTECT THE SYSTEM FROM DAMAGE.

TITLE	RK11-D-E
FUNCTION FLOWS	
SHEET	2 OF 5
SCALE	
SIZE CODE	DFD
NUMBER	RK11-D-9
REV.	

REV. 2 DFD

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REV.	CHANGE NO.	DESCRIPTION



① IF FUNCTION IS WT OR WT CHK, INITIAL NPR HAPPENS AT THIS TIME. FOLLOWING NPR'S HAPPEN AS IN BUF IS EMPTIED.

② WHEN FUNCTION IS WT OR WT CHK, READ FIRST HEADER AVAILABLE.

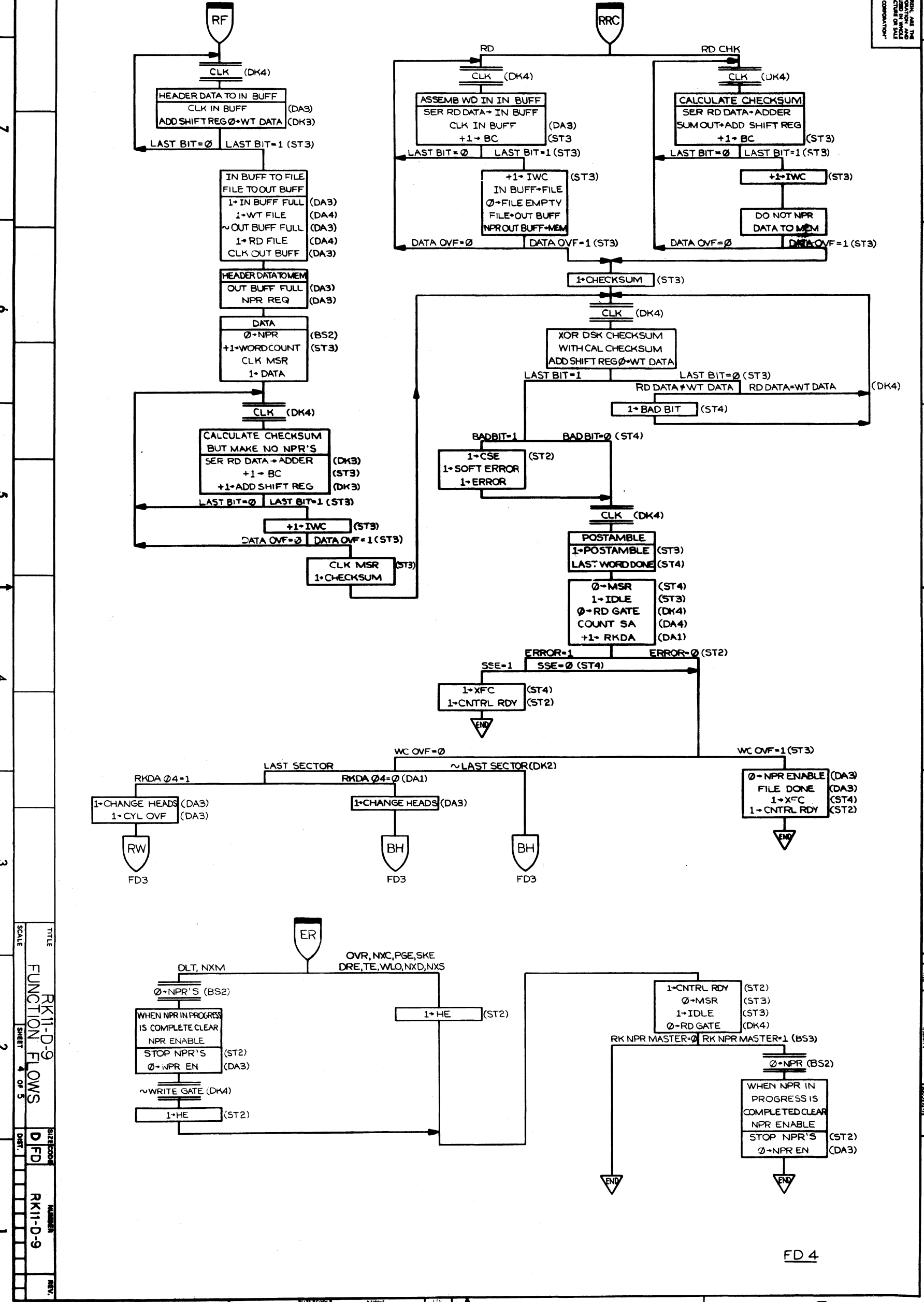
③ W4 AND W5 ARE JUMPERS. THE CONFIGURATION OF W4 AND W5 DETERMINES WHETHER OR NOT TO CHECK THE HEADER 16 TIMES.

TITLE: RK11-D-9
 FUNCTION FLOWS
 DATE: 5/75
 REV: 5
 DFD: RK11-D-9

REV: 5
 DFD: RK11-D-9

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REV	CHG	NO	REV

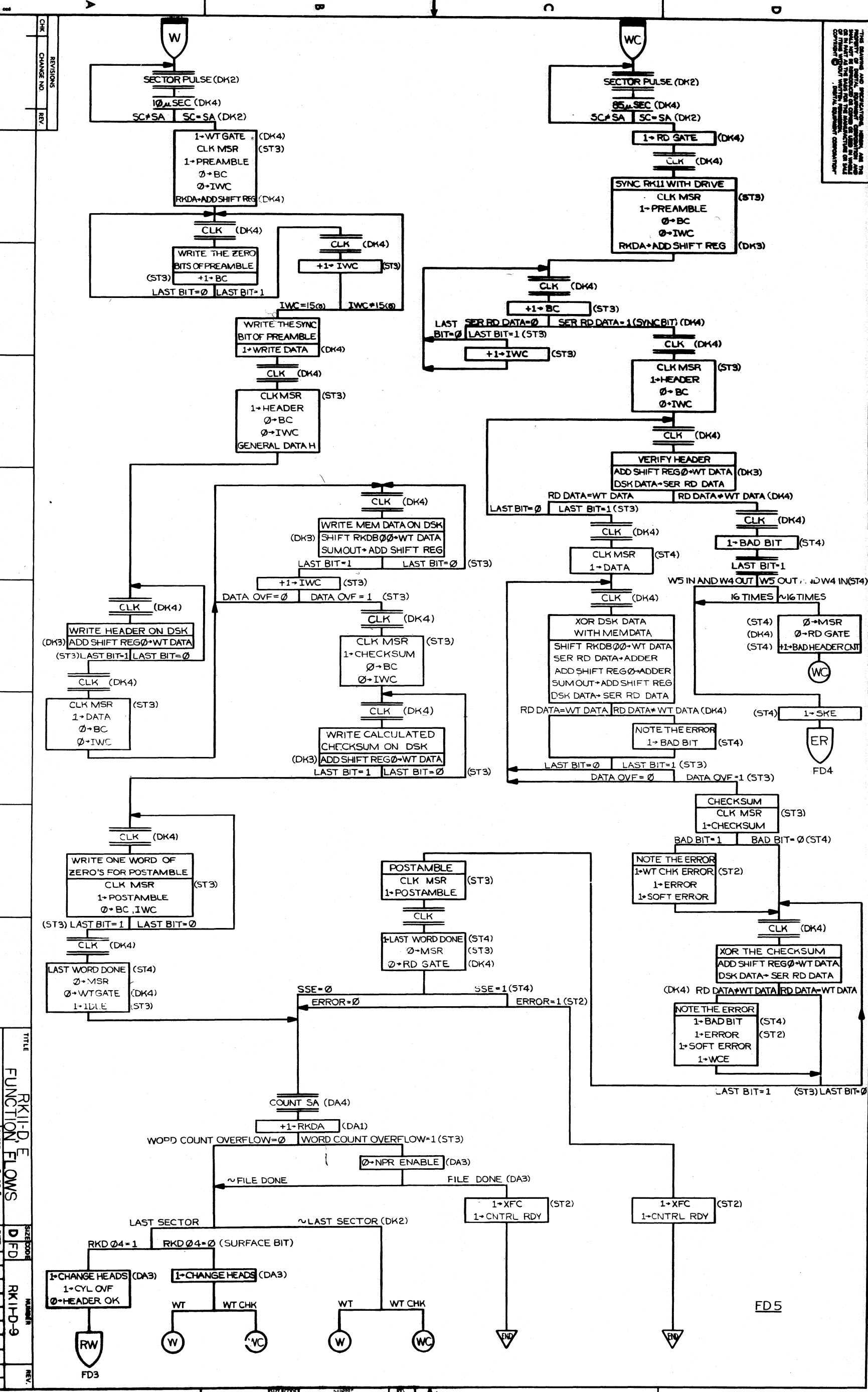


REV.	
NUMBER	RK11-D-9
SIZE	FD
DATE	
SHEET	4 OF 5
TITLE	FUNCTION FLOWS
SCALE	

6-RK11-D-9

2-D-9

REVISIONS
 CHK CHANGE NO. REV.
 8



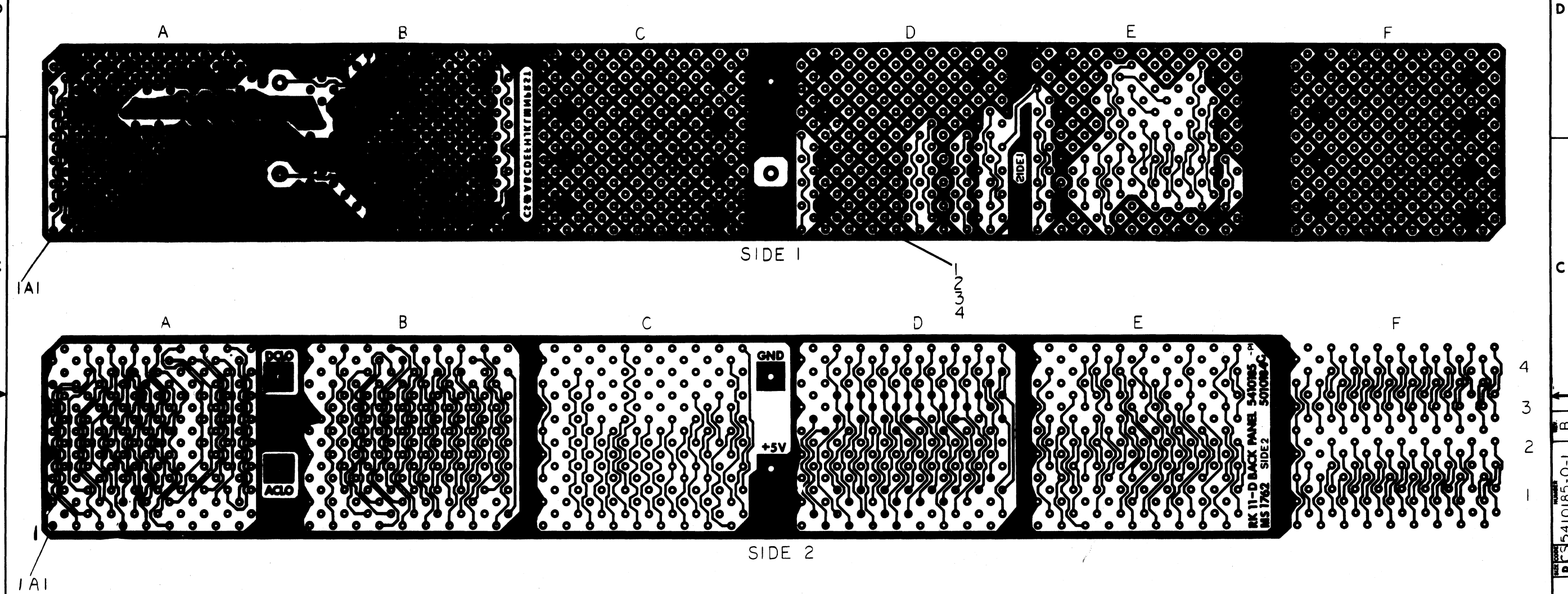
8
7
6
5
4
3
2
1

8
7
6
5
4
3
2
1

SCALE: FUNCTION FLOWS
 SIZE CODE: D FD
 SHEET: 5 OF 5
 NUMBER: RK11-D-9
 REV: 1

NUMBER: RK11-D-9
 SIZE CODE: D FD
 SHEET: 5 OF 5
 REV: 1

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REVISIONS	REV.	DATE
CHANGE NO.	A	
ORIGINATED	B	
5410185-0001		
H. Sturmann 7-23-74		
B. MINOR		
J. C. [unclear] 8-11-74		

1	AWT REVISION STATUS	A-WT-7009142-0	6
1	ETCH/WIRE LIST (RKII-D)	K-WL-RKII-D-2	5
1	ETCHED CIRCUIT BOARD	5010185	4
REF	MODULE ECO HISTORY	B-MH-5410185-04	3
R.	ASSY/DRILLING HOLE LAYOUT	D-AN-5410185-05	2
REF	X-Y COORDINATE HOLE LOCATION	K-CO-5410185-04	1

ETCH - FV			
FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.
RKII-D			

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES	DRN. <i>Wilson</i> DATE <i>10/17/72</i>	<table border="1"> <tr> <td colspan="2">EQUIPMENT CORPORATION</td> </tr> <tr> <td colspan="2">CIRCUIT SCHEMATIC (RKII-D)</td> </tr> <tr> <td>NO. CODE</td> <td>NUMBER</td> </tr> <tr> <td>D</td> <td>CS 5410185-0-1</td> </tr> <tr> <td>REV.</td> <td>B</td> </tr> </table>	EQUIPMENT CORPORATION		CIRCUIT SCHEMATIC (RKII-D)		NO. CODE	NUMBER	D	CS 5410185-0-1	REV.	B
EQUIPMENT CORPORATION												
CIRCUIT SCHEMATIC (RKII-D)												
NO. CODE	NUMBER											
D	CS 5410185-0-1											
REV.	B											
TOLERANCES	CHK'D. <i>CPG</i> DATE <i>11/1/72</i>											
DECIMALS	ENG. <i>[unclear]</i> DATE <i>11/1/72</i>											
.XXX - .005	PROL. ENG. <i>[unclear]</i> DATE <i>11/1/72</i>											
.XX - .02	PRD. <i>[unclear]</i> DATE <i>11/1/72</i>											
.X - .1												
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY												
MATERIAL	NEXT HIGHER ASSY.											
FINISH	B-DD-RKII-D											
	SCALE											
	SHEET OF											

DEC FORM NO. DRD 100-A

CS 5410185-0-1 B

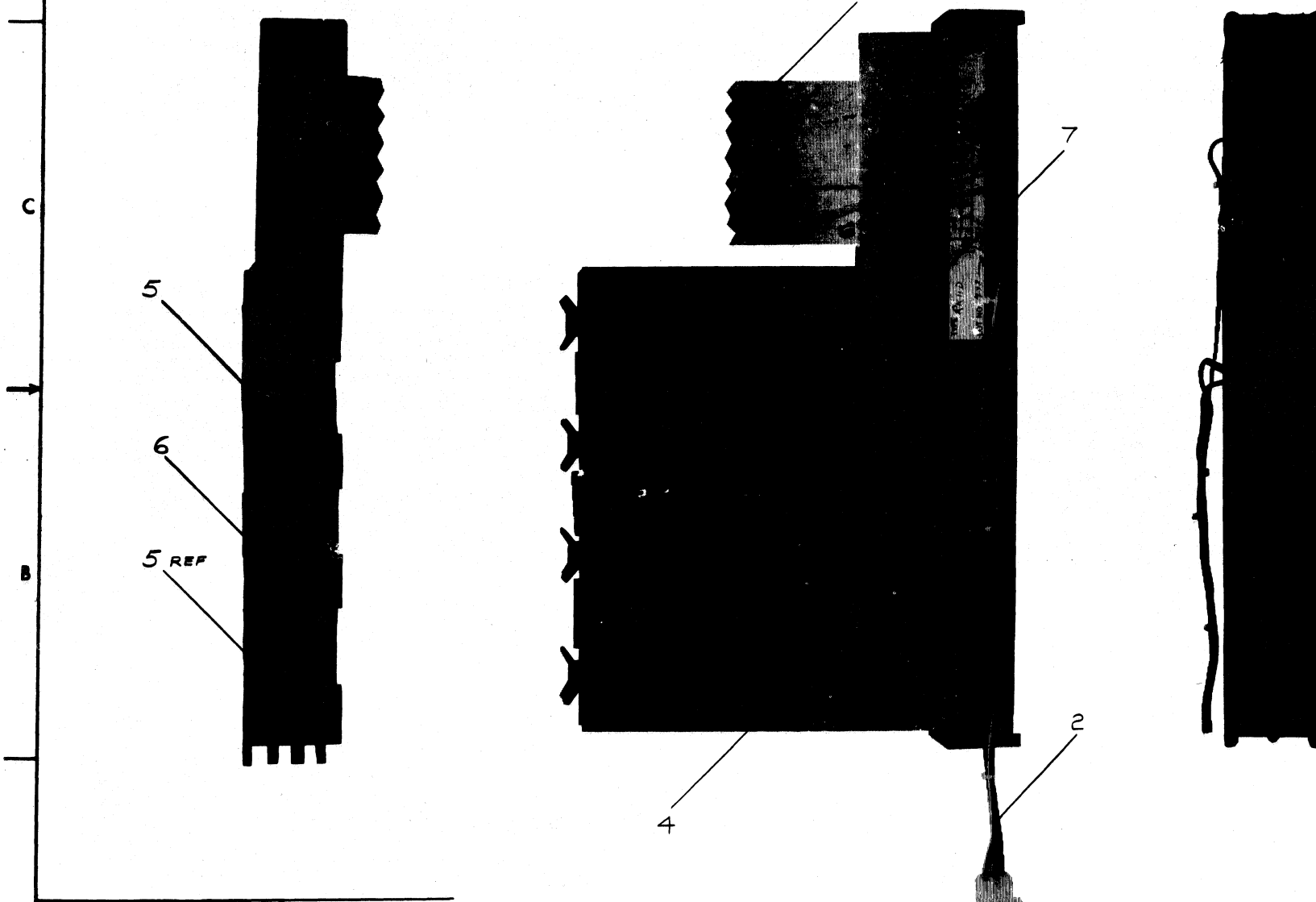
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WIRE TABLE			
ITEM NO	DESCRIPTION	CONNECTION TO RK11-D	
2	18	VIO	DC L3
	18	YEL	AC L0
	14	BLK	GND
	14	RED	+5V

LEGEND	
OPTION	VARIATION
RK11-D	DISK CONTROL
RK11-E	DISK CONTROL
RK11-DE	RK11-D WITH RK05-DE
RK11-DF	RK11-D WITH RK05-DF
RK11-DH	RK11-D WITH RK05-DH
RK11-DJ	RK11-D WITH RK05-DJ
RK11J-DE	RK11-D WITH RK05J-DE
RK11J-DF	RK11-D WITH RK05J-DF
RK11J-DH	RK11-D WITH RK05J-DH
RK11J-DJ	RK11-D WITH RK05J-DJ
RK11J-DK	RK11-D WITH RK05J-DK
RK11J-DL	RK11-D WITH RK05J-DL
RK11J-DM	RK11-D WITH RK05J-DM
RK11J-DN	RK11-D WITH RK05J-DN

NOTES:

- ITEM 17 IS MADE UP OF ITEMS 1 THRU 8 AND 10 THRU 12.
- USE RK11-D OPTION HARNESS 7008559 IN 11/40 SYSTEMS WITH S/N GREATER THAN 6000 AND 11/45 SYSTEMS WITH S/N GREATER THAN 2000. OLDER MACHINES REQUIRE RK11-D POWER HARNESS 7008992. POP 11/20 AND POP 11/15 SYSTEMS AND BAI1-ES BOXES USE NO POWER HARNESS OTHER THAN THAT SUPPLIED INTERNAL TO THE BOX. BAI1-D BOXES REQUIRE RK11-D POWER HARNESS 7008992.
- ITEM 8 OR 9 IS INSTALLED ON THE M1285 MODULE DURING SYSTEM INTEGRATION.



RK11J-DN	RK11J-DM	RK11J-DL	RK11J-DK	RK11J-DJ	RK11J-DH	RK11J-DF	RK11J-DE	RK11-DJ	RK11-DH	RK11-DF	RK11-DE	RK11-E	RK11-D				
															CAB, RK05J 230V 50HZ	RK05J-DN	25
															CAB, RK05J 115V 50HZ	RK05J-DM	24
															CAB, RK05J 230V 60HZ	RK05J-DL	23
															CAB, RK05J 115V 60HZ	RK05J-DK	22
															TALL CAB, 861, RK05J 230V 50HZ	RK05J-DJ	21
															TALL CAB, 861, RK05J 115V 50HZ	RK05J-DH	20
															TALL CAB, 861, RK05J 230V 60HZ	RK05J-DF	19
															TALL CAB, 861, RK05J 115V 60HZ	RK05J-DE	18
															DISK CONTROL	RK11-D	17
															TALL CAB, 861, RK05 115V 60HZ	RK05-DE	16
															TALL CAB, 861, RK05 230V 60HZ	RK05-DF	15
															TALL CAB, 861, RK05 115V 50HZ	RK05-DH	14
															TALL CAB, 861, RK05 230V 50HZ	RK05-DJ	13
															INTERNAL BUS CONNECTOR	C-25-M280-0-1	12
															BUS TERMINATOR	C-65-MT30-0-1	11
															MAINT MODULE OVERLAY/RK11	A-55-5509081-04	10
															3.090 MHZ CRYSTAL	18-10699-9	9
															2.880 MHZ CRYSTAL	18-10699-3	8
															PRIORITY PLUG LEVEL 5	5908778	7
															MODULE CLAMPS WITHOUT SEPARATE	18-09836-2	6
															MODULE CLAMPS WITH SEPARATE	18-09836-1	5
															MODULE UTILIZATION	D-MU-AK11-D-1	4
															CABLE 15 FT.	D-UA-BC11A-15	3
															OPTION HARNESS	D-1A-7001557-0	2
															WIRED ASSY	C-1A-7007142-0	1

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.
RK11-D			

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES.		TOLERANCES	
DECIMALS	ANGLES		
.XXX - .006	±0° 30'		
.XX - .02			
.X - .1			

MATERIAL	NEXT HIGHER ASSY.
	B-DD-RK11-D

FINISH	SCALE	SHEET	OF
	NONE		

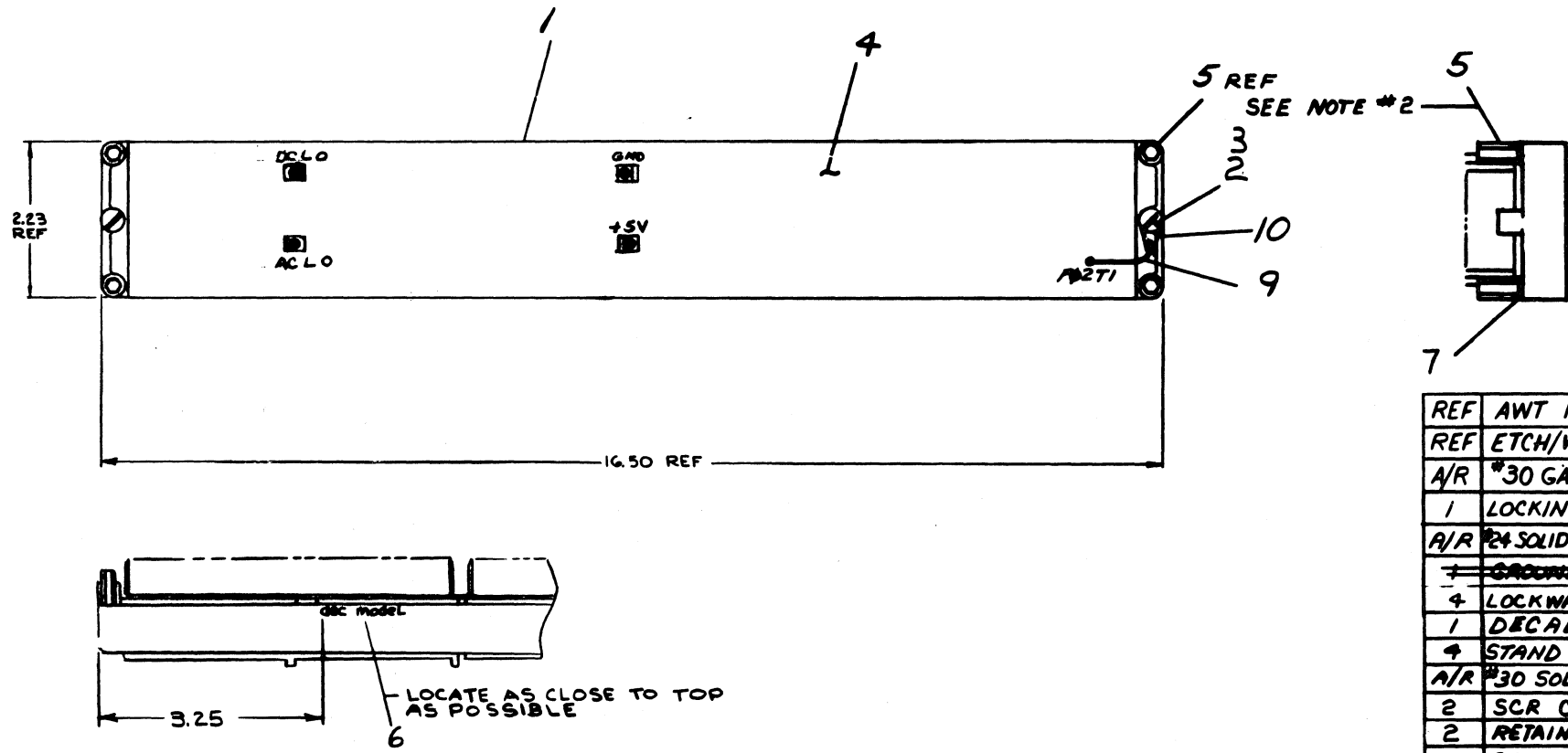
PARTS LIST		TITLE	
DISK CONTROL		DISK CONTROL	
DJA RK11-0-0		C	

REV.	DATE	BY	CHKD
A	6-18-73		
B	1-4-74		
C	1/23/77		
	10 Nov 75		
	11-12-75		

1. ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED IN INCHES.
 2. DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.
 3. DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.
 4. DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.

- NOTES:**
1. USE YELLOW WIRE ITEM #4 FOR MACHINE WRAPPED.
 2. INSTALL STAND-OFFS (ITEM #5) BEFORE AWT.
 3. FOR CIRCUIT SCHEMATIC REFER TO D-CS-5401B5-0-1
 4. GROUND BACKPANEL BY WIRE WRAPPING A BLK 24 AWG WIRE (ITEM #9) ON PIN #271 AND ATTACH OTHER END UNDER CAPTIVE SCREW (ITEM #3) WITH SOLDER TERMINAL (ITEM #10)

D
C
B
A



REF	AWT	REVISION	STATUS	A-WT-7009142-0	13
REF	ETCH/WIRE LIST (RK11-D)			K-WL-RK11-D-2	12
A/R	#30 GA. TWP	GREY/VIO.		9107773-87	11
1	LOCKING TERMINAL	SHAKEPROOF		9006766	10
A/R	#24 SOLID CONDUCTOR	BLK KYMAR		9107688-00	9
1	GROUND CABLE			9007688-00	8
4	LOCKWASHER #6 EXT TOOTH			9007689	7
1	DECAL LOGIC SERIAL NUMBER			A-SS-790788-00	6
4	STAND-OFF JAN #146 B			9009120-1	5
A/R	#30 SOLID CONDUCTOR	KYNAR		9105790-99	4
2	SCR CAPTIVE (8-32X1.78)			9008157	3
2	RETAINING RING			9009316-1	2
1	BACK PANEL (RK11-D)			D-PA-70091310	1

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	REV.
RK11-D				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DWN. <i>E. Wilson</i> DATE 9/25/72 CHKD. <i>W. Wilson</i> DATE 10/1/72 ENG. <i>W. Wilson</i> DATE 10/1/72 PROJ. ENG. <i>W. Wilson</i> DATE 10/1/72 PROD. <i>R. Doolan</i> DATE 11/9/72	EQUIPMENT CORPORATION TITLE WIRED ASS'Y (RK11-D)	
DECIMALS .XXX = .005 .XX = .02 .X = .1	ANGLES ± 0° 30'	REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓	MATERIAL	NEXT HIGHER ASSY.
FINISH		SCALE	SIZE CODE	NUMBER
		SHEET 1 OF 1	CIA	7009142-0-0
			DIST. <input checked="" type="checkbox"/>	REV. C

REV.	CHANGE NO.	DATE	BY
A	RK11D-00010	10-21-72	<i>W. Wilson</i>
B	RK11D-00015	11-12-73	<i>R. Gruda</i>
C	RK11D-00019	6-4-74	<i>R. Gruda</i>
	RK11D-00019	28 Oct. 76	<i>B. Chinn</i>
	RK11D-00019	10-29-77	<i>R. Gruda</i>

REV. FORM NO. 100-1

CIA7009142-0-0 C

4

3

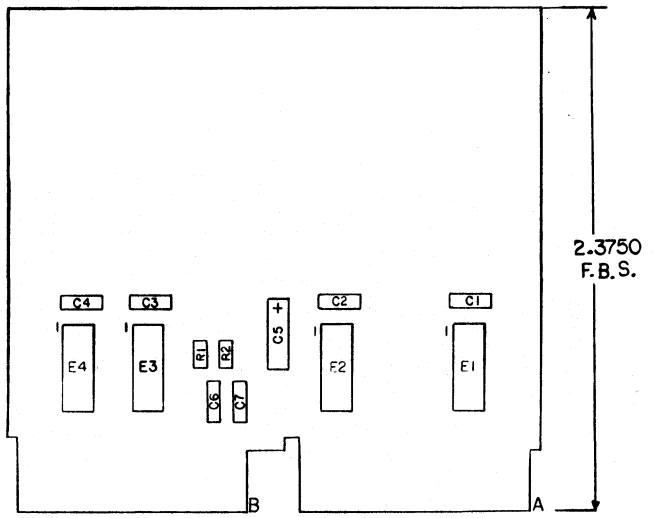
2

1

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NOTES:

REF	X-Y COORDINATE HOLE LOCATION	K-CO-M930-0-4	1
REF	ASSY/ DRILLING HOLE LAYOUT	D-AH-M930-0-5	2
REF	MODULE ECO HISTORY	B-MH-M930-0-6	3
1	ETCHED CIRCUIT BOARD	5008696	4
4	C1 THRU C4	CAP .22 μF 50V CER	1010274-01
2	C6, C7	CAP 1000 pF 250V 20% DISC	1000043
1	C5	CAP 39 μF 10V 10% TANT	1000076
2	R1, R2	RES 303Ω 1/4W 1%	1305125
2	E1, E4	28 RES DIVIDER NETWORK	1312628-00
2	E2, E3	25 RES DIVIDER NETWORK	1312628-01



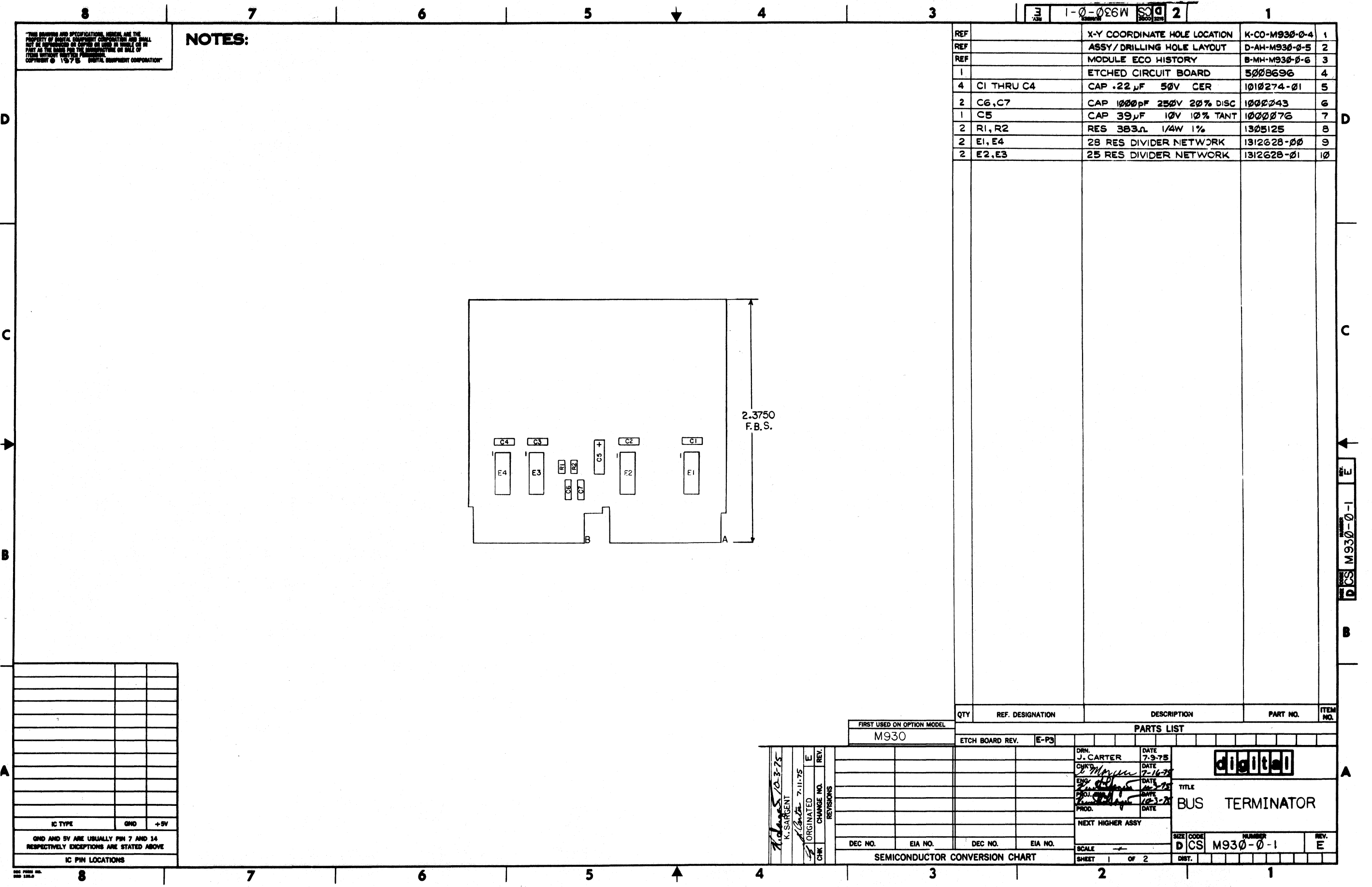
QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
-----	------------------	-------------	----------	----------

FIRST USED ON OPTION MODEL M930 PARTS LIST

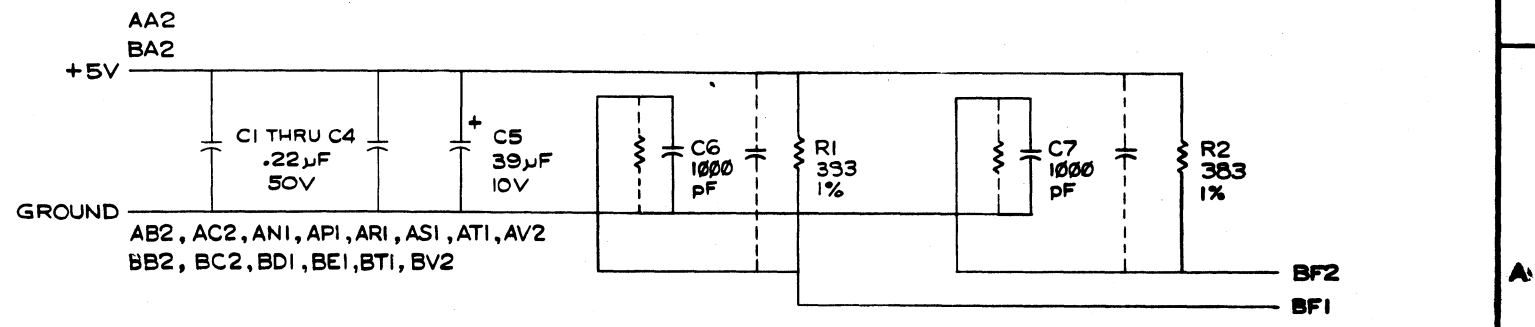
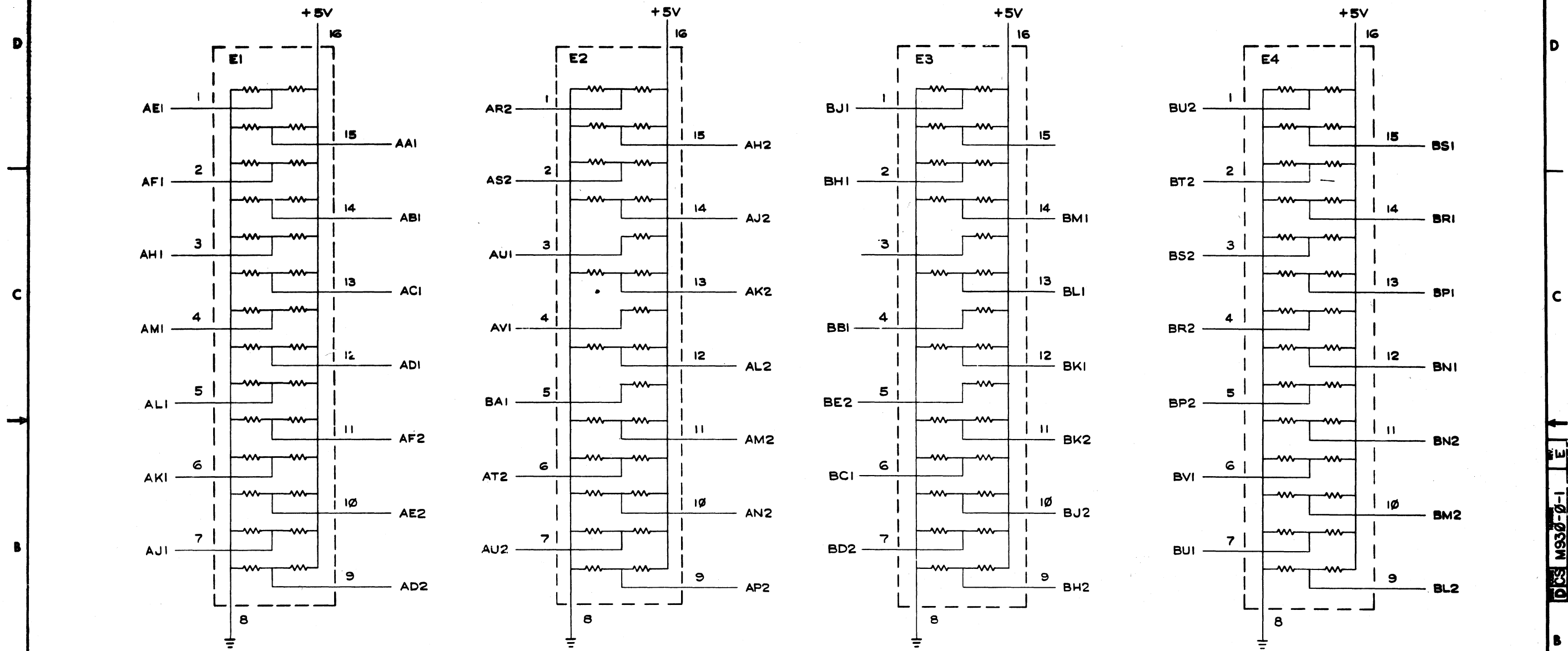
ETCH BOARD REV. E-P3

DRN. J. CARTER DATE 7-9-75 CHKD. MAYN DATE 7-16-75 ENGR. MAYN DATE 7-27-75 PROD. MAYN DATE 10-2-75	DATE 7-9-75		TITLE BUS TERMINATOR
	DATE 7-16-75		
	DATE 7-27-75		
	DATE 10-2-75		
	DATE 10-2-75		
NEXT HIGHER ASSY			digital
DEC NO. EIA NO. DEC NO. EIA NO.			
SCALE SHEET 1 OF 2			
SEMICONDUCTOR CONVERSION CHART			
SIZE CODE NUMBER REV. D CS M930-0-1 E			

IC TYPE	GND	+5V
GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE		
IC PIN LOCATIONS		



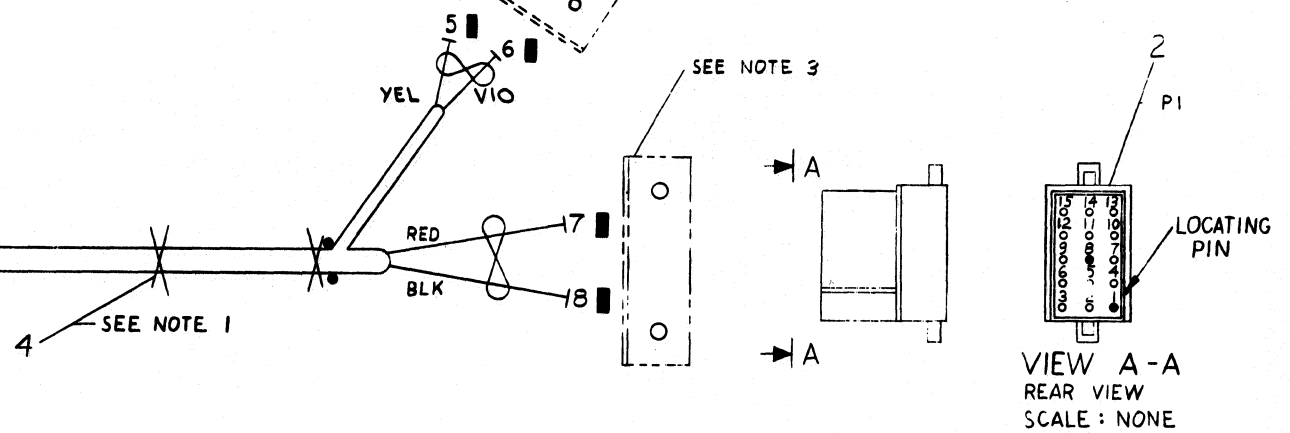
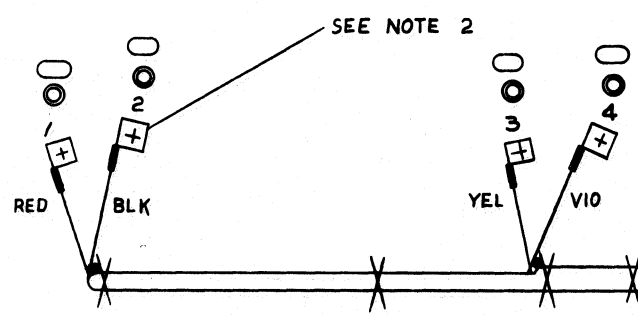
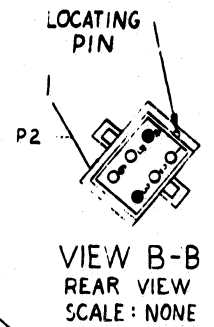
ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 07-28-2010 BY 60322 UCBAW/SJS



REVISIONS		
CHK	CHANGE NO.	REV.

WIRE TABLE										
ITEM NO	DESCRIPTION			FROM			TO			SIGNAL
	AWG	COLOR	POINT	CONNECTION	TERM	POINT	CONNECTION	TERM		
6	#18	YEL	3		7,8	5	P2-4	3	AC LO	
TWP	#18	VIO	4		7,8	6	P2-3	3	DC LO	
5	#14	RED	1		7,8	7	P1-1	3	-5	
TWP	#14	BLK	2		7,8	8	P1-8	3	GND	

- NOTES:
- USE TIE WRAPS (X) ITEM #4 APPROXIMATELY EVERY THREE (3) INCHES WHEN NECESSARY, AND AT EVERY BREAKOUT POINT.
 - ATTACH MALE FASTON DEC # (9008219-0) WITH #4 WOOD SCREWS (4 PLACES).
 - USE CONN. BRKT. #C-MD-9305761-H15-0, MOUNT WITH #6 WOOD SCREWS. USE MATING CONN. 1209350-15.
 - USE CONN. BRKT. #C-MD-9305761-H6-0 MOUNT WITH #6 WOOD SCREWS. USE MATING CONN. 1209350-06.
 - DOT (●) INDICATES NAIL LOCATIONS FOR ASSEMBLY USE ONLY. COVER NAILS WITH SHRINK TUBING TO PREVENT CUTTING HARNESS.



DO NOT REDUCE
DO NOT BUILD FROM REDUCED PRINT

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

SYMBOL	DESCRIPTION	QTY.	PART NO.	ITEM NO.
○	A/R TUBING, SHRINKABLE 3/16 I.D. X 3/16	8	9107305-02	8
○	4 CONN. SOLDERLESS	7	9009262-00	7
○	A/R WIRE #18 AWG TWP YEL/VIO	6	9107430-47	6
○	A/R WIRE #14 AWG TWP BLK/RED	5	9107440-02	5
X	A/R WRAP, TIE	4	9007031	4
■	4 PIN, MALE	3	1209378-01	3
□	1 HOUSING, CONN. 15 PIN	2	1209351-15	2
□	1 HOUSING, CONN. 6 PIN	1	1209351-06	1

FIRST USED ON OPT/VOL.	SYMB.	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RK11-D					
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES					
TOLERANCES					
DECIMALS	ANGLES				
.XXX = .006	50° 30'				
.XX = .02					
.X = .1					
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY V					
MATERIAL					
SEE PARTS LIST					
FINISH					
NEXT HIGHER ASSY.					
SCALE 1/1					
SHEET 1 OF 1					

DRN.	DATE	CHK'D.	DATE	ENG.	DATE	PROJ. ENG.	DATE	PROD.	DATE
B. B. L...	8-24-71	J. J. R...	9-27-71	J. J. R...	10-11-71			J. J. R...	10-11-71

digital EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

TITLE: **OPTION HARNESS RK11-D**

SIZE CODE: **DIA 7009559-0-0**

NUMBER: **7009559-0-0**

REV.:

DIA 7009559-0-0

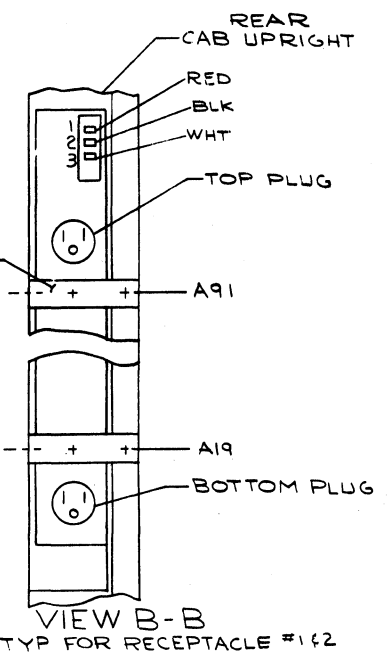
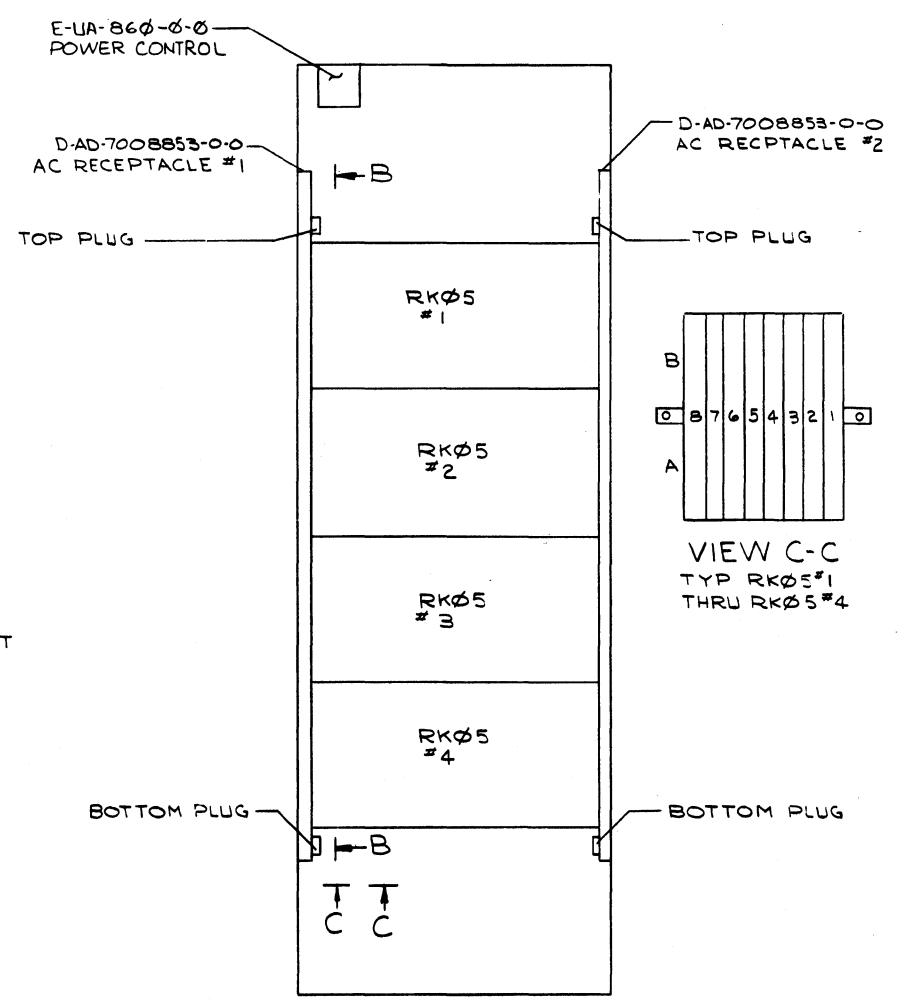
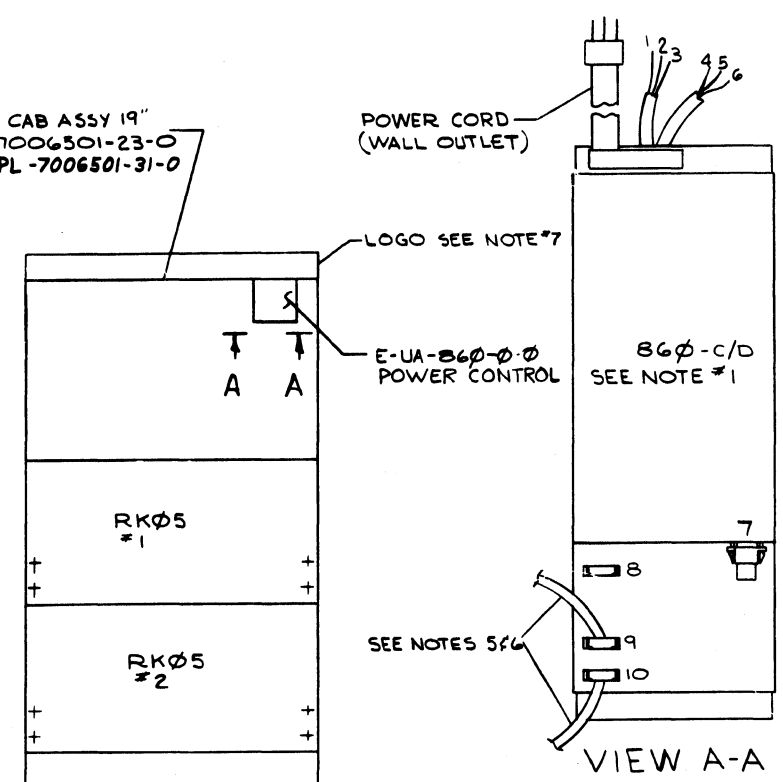
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8 15-0-50RK05 2 1

NOTES:

- 1) TO RENOTE 860-A & B TO 860-C & D REFER TO DRAWING E-UA-860-0-0.
- 2) IF LESS THAN 4 DRIVES, THE M930 MODULE IS MOVED TO THE LAST DRIVE ON THE BUS IN THE SLOT NORMALLY OCCUPIED BY THE OUTCOMING BC11A CABLE.
- 3) IF MORE THAN 4 DRIVES, EACH WILL BE CONFIGURED SIMILARLY IN A SECOND CAB.
- 4) AS REQUIRED BY CONTROLLER, THE INCOMING CABLE TO RK05 #5 MAY COME DIRECTLY FROM A DISK CONTROL OR FROM THE SLOT NORMALLY OCCUPIED BY THE M930 IN RK05 #4. (SEE NOTE #2). POWER AND CABLING INFORMATION ALSO APPLY TO CAB #2.
- 5) IN A SYSTEM USING PDP-11/15, 11/20, OR PDP-8 PROCESSORS AND IF 860 OR 861 POWER CONTROL IS FIRST IN THE CHAIN OF POWER CONTROLS, CONNECT P1 OF CABLE #7008964 TO POWER CONTROL AND P2 OF 2 CABLE #7008964 TO H720-E/F IN THE PROCESSOR. DO NOT USE ANY OTHER JUMPER PLUG IN THE PROCESSOR POWER SUPPLY. IN ALL OTHER SITUATIONS USE CABLE #7008288 FOR INTERCONNECTIONS.
- 6) PLUGS 8, 9 AND 10 ARE WIRED IN PARALLEL. USE ANY PLUGS AS REQUIRED. NO JUMPER PLUG IS REQUIRED ON THE 860 OR 861 POWER CONTROL.
- 7) USE BLANK LOGO COLOR TO COINCIDE WITH PRODUCT LINE.
- 8) TO MOUNT CHASSIS SLIDES ON RACK USE MOUNTING HARDWARE KIT #7008276 OR ITEMS.
 1. TINNEMAN NUT #9007786
 2. #10-32 PHL TRUSS #9006074-3
 3. #10 EXTERNA. TOOTH #9007851
 WASHER
 LOCATION OF MOUNTING HOLES TO BE AS FOLLOWS: STARTING FROM BOTTOM OF RACK HOLE NUMBERS FOR FRONT AND REAR LEFT AND RIGHT:
 21.24
 39.42
 57.60
 75.78
- 9) USE THE PRE-FOLDED CREASES ON THE DISK BUS CABLE FOR CLAMPING. DO NOT PULL THE CABLE TIGHT AGAINST PRE-FILTER. LEAVE SERVICE LOOP SO THAT HAND CAN FIT BETWEEN THE CABLE AND FILTER.
- 10) RK05'S PLUG INTO SWITCHED AC OUTLETS ONLY.

BASIC CAB ASSY 19"
C-PL-7006501-23-0
OR C-PL-7006501-31-0



CONFIGURATION WITH 860 POWER CONTROL

REV	CHANGE NO.	DATE	BY	CHKD.
1	RK05-00028	12-30-72	G. SCHNEIDER	
2	RK05-00043	9-14-79	G. SCHNEIDER	

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RK05				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES				
DECIMALS	ANGLES	DATE		
.XXX - .005	±0° 30'	DRN.	DATE	3/12/72
.XX - .02		CHK'D.	DATE	6-21-72
.X - .1		ENG.	DATE	7-12-72
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY				
MATERIAL				
NEXT HIGHER ASSY.				
FINISH				
SCALE				
SHEET 1 OF 3				

digital EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

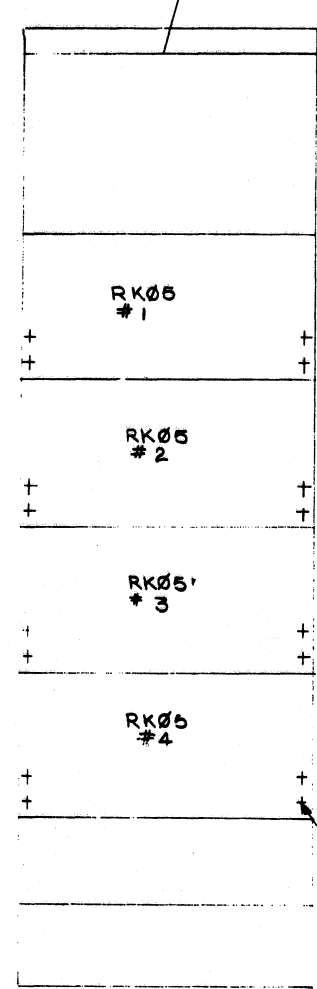
TITLE: **RK05 OPTION CONFIGURATION**

SIZE CODE: **D** NUMBER: **DOC RK05-0-15** REV. **B**

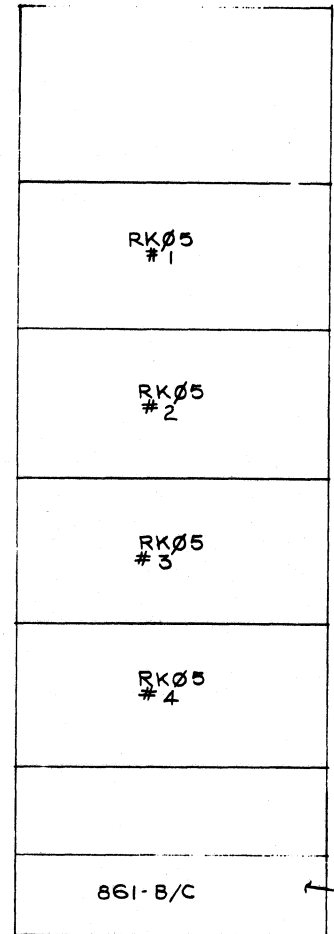
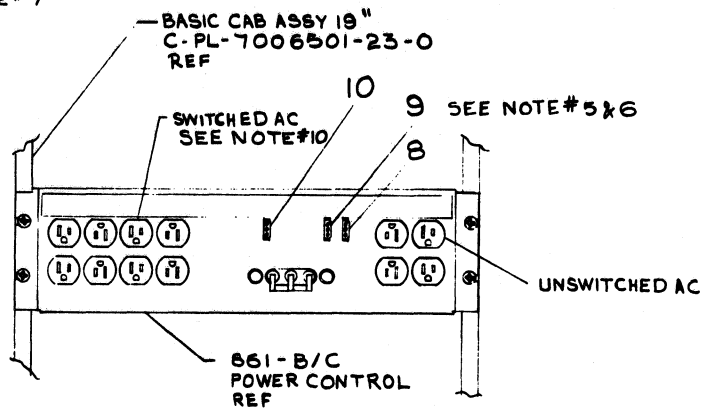
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91-0-05R10012

BASIC CABINET ASSY 19"
C-PL-7006501-23-0
ORC-PL-7006501-31-0



LOGO SEE NOTE #7



CONFIGURATION WITH 861 POWER CONTROL

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN. <i>[Signature]</i> DATE 7-10-72	EQUIPMENT CORPORATION MAYLAND MASSACHUSETTS		
DECIMALS .XXX - .006 .XX - .02 .X - .1	CHK'D. <i>[Signature]</i> DATE 7-10-72			
ANGLES ±0° 30'	ENG. E. SIMMONS DATE 7-12-72	TITLE RK05 OPTION CONFIGURATION		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓	PROJ. ENG. E. SIMMONS DATE 7-12-72			
MATERIAL	PROD. A. KARLSBERG DATE 7-31-72	NEXT HIGHER ASSY.		
FINISH	SCALE	SIZE CODE NUMBER REV.		
	SHEET 2 OF 3	DOC RK05-0-15 B		
		DIST.		

REVISIONS
CHANGE NO. REV.
CHK

DEC FORM NO D81 100-A

REV B
NUMBER
DOC RK05-0-15

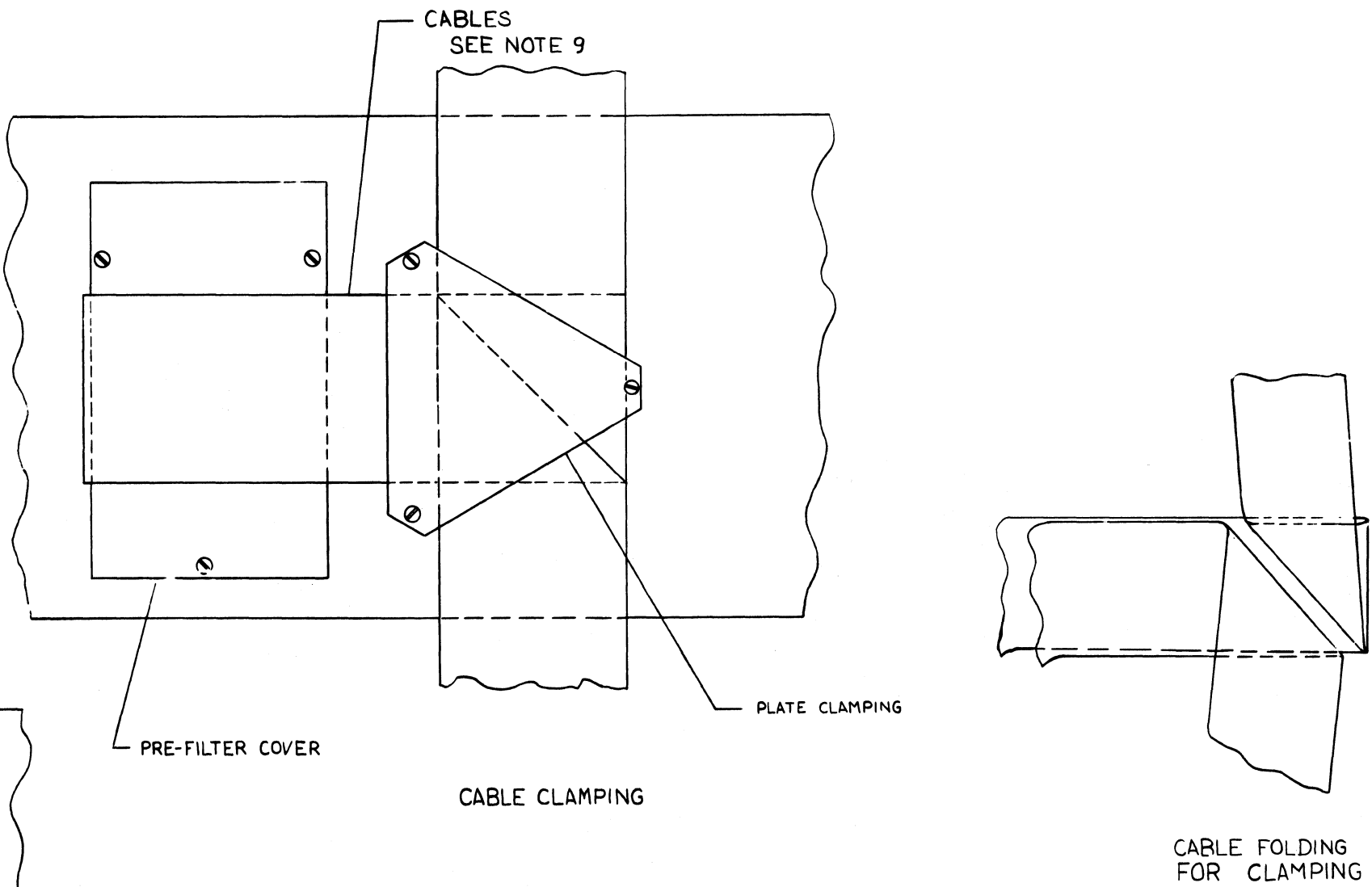
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POWER CORD CONNECTIONS WITH 860 POWER CONTROL	
FROM	TO
RK05 #1	AC RECEPTACLE #1 TOP PLUG
RK05 #2	AC RECEPTACLE #2 TOP PLUG
RK05 #3	AC RECEPTACLE #2 BOTTOM PLUG
RK05 #4	AC RECEPTACLE #1 BOTTOM PLUG

BUS CABLE CONNECTIONS					
FROM		TO		CABLE	REMARKS
DEVICE	LOCATION	DEVICE	LOCATION		
DISK CONTROL	A/R	RK05 #1	AB8	BC11A	LENGTH A/R
RK05 #1	AB7	RK05 #2	AB7	BC11A-6	
RK05 #2	AB8	RK05 #3	AB8	BC11A-6	
RK05 #3	AB7	RK05 #4	AB7	BC11A-6	
RK05 #4	AB8	—	—	M930	MODULE

860 POWER CONNECTIONS				
AWG	COLOR	FROM	TO	REMARKS
10 TWP	BLK	860-PT1*	RECP #1-1	
	WHT	860-PT2*	#1-2	
	RED	860-PT3*	#1-3	SEE VIEW B-B
10 TWP	BLK	860-PT4*	#2-1	
	WHT	860-PT5*	#2-2	
	RED	860-PT6*	RECP #2-3	

*(ASTERISK) INDICATES WIRE POINTS ON 860 POWER CONTROL MARKED WITH BRADY MARKERS.



REV.	CHANGE NO.

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES	DRN. DATE 7/12/72	DATE 6-21-72	 digital EQUIPMENT CORPORATION <small>MAYNARD MASS 01901 U.S.A.</small>	
DECIMALS .XXX - .005	CHK'D. DATE 7-12-72	DATE 7-12-72		
ANGLES ±0° 30'	ENG. DATE 7-12-72	DATE 7-12-72		
.XX - .02	PROD. DATE 7/12/72	DATE 7/12/72		
.X - .1	REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	DATE 7/12/72	RK05 OPTION CONFIGURATION	
MATERIAL	NEXT HIGHER ASSY.	SIZE CODE	NUMBER	REV.
FINISH	SCALE	DOC RK05-0-15		B
SHEET 3 OF 3		DIST. []		

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RK11-D B2 V2			
OFF	OFF		
A1	U1		
OFF	OFF		
CNTL RDY	HE	DATA	OUT BUFF FULL
SEEK OR RSET	RD OR RDCK	WT OR WTCK	IN BUFF FULL
WC OVF	WT GATE	RD GATE	FILE EMPTY
R1	RKDA 12	RKDA 11	FILE FULL
RKDA 10	RKDA 09	RKDA 08	D1
RKDA 07	RKDA 06	RKDA 05	RKDA 04
RKDA 03	RKDA 02	RKDA 01	RKDA 00

FIRST USED - 2/27/11/00

RK11 D

REVISIONS		
CHK	CHANGE NO.	REV.

SPEC # 7200100-74 (BLACK)

DRN. #	M. Adams	DATE	6-2-72	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D	[Signature]	DATE	6-2-72	
ENG	[Signature]	DATE	6-2-72	
PROJ. ENG.	[Signature]	DATE	6-2-72	
PROJ. MGR.	[Signature]	DATE	6-2-72	TITLE
EXT. ENGINEER	[Signature]	DATE	6-2-72	MAINTENANCE MODULE COVER LID (R 511-D)
Q-MD-5507081-0-0-0		SIZE CODE	55	NUMBER
SCALE			5507081-0-1	REV.
SHEET	OF	DIST.		

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS			LEGEND	QUANTITY / VARIATION												
ACCESSORY LIST			D	DOCUMENT												
MADE BY <i>[Signature]</i>		CHECKED <i>[Signature]</i>	DN	DOCUMENT CHANGE NOTICE												
DATE <i>12/13/72</i>	DATE	SECTION	PA	PAPER TAPE ASCII												
ENG DATE <i>1/11/73</i>	PROD <i>R. Dooley</i>	ISSUED SECT.	PB	PAPER TAPE BINARY												
DATE <i>12/13/72</i>	DATE		PM	PAPER TAPE READ-IN-MODE												
ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	RK11-D	RK11-E							KIT CHECK	BY	DATE	INSTALLATION CHECK	BY	DATE
1	See variations	Complete print set	1	1												
2	DEC-11-HRKDA-A-D	Manual, RK11-D,E	1	1												
3	LIBKIT-11-RK11-0	Sealed software kit	1	1												
4	MAINDEC-11-DZQGA-B-D	GTP write-up (Field add-on only)	1	1												
5	MAINDEC-11-DZQGA-B-PB	GTP binary tape (Field add-on only)	1	1												
6	M920	UNIBUS jumper	1	1												
7	BC11-A-15	15 foot UNIBUS cable	1	1												
8	A-SS-5509081-11	Transparent overlay to KM11-A														
TITLE		ASSY. NO.	SIZE	CODE	NUMBER		REV.	ECO NO								
MOVING HEAD DISK CONTROL RK11-D,E			A	AL	RK11-D-6											
SHEET 1 OF 1			DIST.													

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS PARTS LIST				QUANTITY/VARIATION																		
MADE BY B. VOWLES		CHECKED T. ORR		SECTION		RK11-C	RK11-D	RK11-E														
DATE 10/1/72		DATE 11/1/72																				
ENG T. ORR		PROD R. DOOLEY		ISSUED SECT.																		
DATE 11/1/72		DATE 12/13/72																				
ITEM NO.	DWG NO. / PART NO.	DESCRIPTION																				
1	MAINDEC-11-DZRKA-D	RK11 DISK STATIC TEST - WRITE UP		1	1	1																
2	MAINDEC-11-DZRKA-PB	RK11 STATIC TEST BINARY TAPE		1	1	1																
3	MAINDEC-11-DZRKB-D	RK11 DATA TEST WRITE UP		1	1	1																
4	MAINDEC-11-DZRKB-PB	RK11 DATA TEST BINARY TAPE		1	1	1																
5	MAINDEC-11-DZRKC-A-D	RK11 RANDOM EXERCISOR WRITE UP		1	1	1																
6	MAINDEC-11-DZRKC-A-PB	RK11 PANDOM EXERCISOR BINARY TAPE		1	1	1																
7	MAINDEC-11-DZRKD-A-D	BASIC LOGIC TEST WRITE UP		1	1	1																
8	MAINDEC-11-DZRKD-PB	BASIC LOGIC TEST BINARY TAPE		1	1	1																
9	MAINDEC-11-DZRKF-A-D	RK11/RK05 DYNAMIC TEST WRITE UP		1	1	1																
10	MAINDEC-11-DZRKF-PB	RK11/RK05 DYNAMIC TEST BINARY TAPE		1	1	1																
11	MAINDEC-11-DZRKH-A-D	RK11/RK05 PERFORMANCE EXERCISER WRITE UP		1	1	1																
12	MAINDEC-11-DZRKH-PB	RK11/RK05 PERFORMANCE EXERCISER BINARY TAPE		1	1	1																
13	MAINDEC-11-DZRKI-A-D	UTILITY PACKAGE WRITE UP		1	1	1																
14	MAINDEC-11-DZRKI-PB	UTILITY PACKAGE BINARY TAPE		1	1	1																
TITLE MOVING HEAD DISK CONTROL RK11-D,E				ASSY NO.		SIZE CODE A PL		NUMBER RK11-D-7				REV. A		ECO NO. RK11-D-00017								
SHEET OF				DIST.																		

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A

FIRST USED ON OPTION MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RKII-D				

PARTS LIST

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

DRN <i>E. Wilson</i>	DATE 9/27/72
CHK'D. <i>[Signature]</i>	DATE 10/11/72
ENG. <i>[Signature]</i>	DATE 10/11/72
PROJ. ENG. <i>[Signature]</i>	DATE 10/11/72
PROD. <i>K. Dooly</i>	DATE 11/2/72
NEXT HIGHER ASSEMBLY C-1A-7009142-0-0	
SCALE + +	
SHEET	OF

TITLE
ETCH/WIRE LIST
(RKII-D)

REVISIONS	CHANGE NO.	REV.
821	RKIID-00003	A
Beasley 12-4-72		
T. ORR		
<i>[Signature]</i> 12/7/74		
821	RKIID-00005	B
B. Blodgett 4-3-73		
T. ORR		
<i>[Signature]</i> 4/6/73		
825	RKIID-00009	C
E. Allain 9-26-73		
T. ORR		
R. Burns 9-28-73		
824	RKIID-00011	D
J. Charbon 11-12-73		
ORR		
<i>[Signature]</i> 1/14/74		
824	RKIID-00013	E
J. Mansour 2-5-74		
T. ORR		
<i>[Signature]</i>		
827	RKIID-00015	F
J. Charbon 4-30-74		
T. ORR		
<i>[Signature]</i> 5/1/74		

RK11D.F
RUN NAME

HND288.V22(22) 11/06/73
A/P PIN ORDER BAY -
NAME PIN ORDER

Q DRAW KV PG 1 X Z

REMARKS

1-MAY-74

LENGTH

19:27

EXCEPTIONS

PAGE 1

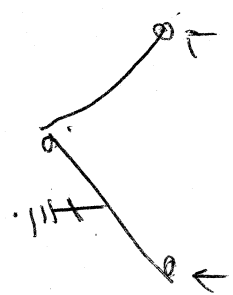
RUN
NUMBER

+5V		A01A2	1-01 *	H	002		2	P	HAND WIRE	1
+5V		A02A2	1-02 *	H	002		1	P	HAND WIRE	1
+5V		A03A2	1-03 *	H	002		2	P	HAND WIRE	1
+5V		A04A2	1-04 *	H	002		1	P	HAND WIRE	1
+5V		A03H2	1-05 *	H	002		2	P	HAND WIRE	1
+5V		A03J2	1-06 *	H	002		1	P	HAND WIRE	1
+5V		A03K2	1-07 *	H	002		2	P	HAND WIRE	1
+5V		A03L2	1-08 *	H	002		1	P	HAND WIRE	1
+5V		A03M2	1-09 *	H	002		2	P	HAND WIRE	1
+5V		B01A2	1-10 *	H	002		1	P	HAND WIRE	1
+5V		B02A2	1-11 *	H	002		2	P	HAND WIRE	1
+5V		B03B1	1-12 *	H	002		1	P	HAND WIRE	1
+5V		B03A2	1-13 *	H	002		2	P	HAND WIRE	1
+5V		B04A2	1-14 *	H	002		1	P	HAND WIRE	1
+5V		C04A2	1-15 *	H	001		2	P	HAND WIRE	1
+5V		C03A2	1-16 *	H	001		1	P	HAND WIRE	1
+5V		C02A2	1-17 *	H	001		2	P	HAND WIRE	1
+5V		C01A2	1-18 *	H	001		1	P	HAND WIRE	1
+5V		D01A2	1-19 *	H	001		2	P	HAND WIRE	1
+5V		D02A2	1-20 *	H	001		1	P	HAND WIRE	1
+5V		D03A2	1-21 *	H	001		2	P	HAND WIRE	1
+5V		D04A2	1-22 *	H	001		1	P	HAND WIRE	1
+5V		E04A2	1-23 *	H	001		2	P	HAND WIRE	1
+5V		E03A2	1-24 *	H	001		1	P	HAND WIRE	1
+5V		E02A2	1-25 *	H	001		2	P	HAND WIRE	1
+5V		E01A2	1-26 *	H	001		1	P	HAND WIRE	1
+5V		F01A2	1-27 *	H	001		2	P	HAND WIRE	1
+5V		F02A2	1-28 *	H	001		1	P	HAND WIRE	1
+5V		F03A2	1-29 *	H	001		2	P	HAND WIRE	1
+5V		F04A2	1-30 *	H	001			P	H TO WHERE	1
+5V			1						89-0/8	1
0 TO NPR	H	E01R1	1-01 *	H	001		1	P	HAND WIRE	2
0 TO NPR	H	E03R2	1-02 *	H	001		2	P	HAND WIRE	2
0 TO NPR	H	E04R2	1-03 *	H	001			P	H TO WHERE	2
0 TO NPR			1						6-2/8	2
ADD ACK	H	F01J1	1-01 *	H	001		1	P	HAND WIRE	3
ADD ACK	H	F02J1	1-02 *	H	001			P	H TO WHERE	3
ADD ACK			1						2-6/8	3
B CNTRL RDY	H	B03R2	1-01 *		002		1			4
B CNTRL RDY	H	E04S2	1-02 *	H	001		2	P	HAND WIRE	4
B CNTRL RDY	H	E02S2	1-03 *	H	001		1	P	HAND WIRE	4
B CNTRL RDY	H	E01S2	1-04 *	H	001			P	H TO WHERE	4
B CNTRL RDY			1						16-4/8	4

RR110.F RUN NAME	HND288.V22(22) 11/06/73										1-MAY-74	19:27	PAGE 2		
	A/P	PIN NAME	ORDER PIN	HAY - ORDER	U	DNAM	KV	PG	I	X	Z	REMARKS	LENGTH	EXCEPTIONS	RUN NUMBER
BG 4 IN	H	B01E2		1-01 *			U02				1				5
BG 4 IN	H	C01E2		1-02 *			U01								5
BG 4 IN				1									6-0/8		5
BG 4 OUT	H	B04E2		1-01 *			U02				1				6
BG 4 OUT	H	C01T2		1-02 *			U01								6
BG 4 OUT				1									6-6/8		6
BG 5 IN	H	B01B1		1-01 *			U02				1				7
BG 5 IN	H	C01P2		1-02 *			U01								7
BG 5 IN				1									6-2/8		7
BG 5 OUT	H	B04B1		1-01 *			U02				1				8
BG 5 OUT	H	C01R2		1-02 *			U01								8
BG 5 OUT				1									7-0/8		8
BG 6 IN	H	B01A1		1-01 *			U02				1				9
BG 6 IN	H	C01M2		1-02 *			U01								9
BG 6 IN				1									6-2/8		9
BG 6 OUT	H	B04A1		1-01 *			U02				1				10
BG 6 OUT	H	C01N2		1-02 *			U01								10
BG 6 OUT				1									6-6/8		10
BG 7 IN	H	A01V1		1-01 *			U02				1				11
BG 7 IN	H	C01K2		1-02 *			U01								11
BG 7 IN				1									6-4/8		11
BG 7 OUT	H	A04V1		1-01 *			U02				1				12
BG 7 OUT	H	C01L2		1-02 *			U01								12
BG 7 OUT				1									7-2/8		12
BG IN	H	C01V2		1-01 *	H		U01				1		P	HAND WIRE	13
BG IN	H	C04V2		1-02 *	H		U01						P	H TO WHERE	13
BG IN				1									3-6/8		13
BG OUT	H	C01U2		1-01 *	H		U01				1		P	HAND WIRE	14
BG OUT	H	C04U2		1-02 *	H		U01						P	H TO WHERE	14
BG OUT				1									3-6/8		14
BR OUT	L	C01J2		1-01 *	H		U01				1		P	HAND WIRE	15
BR OUT	L	C04J2		1-02 *	H		U01						P	H TO WHERE	15
BR OUT				1									3-6/8		15

RR110.F RUN NAME	HND288.V22(22) 11/06/73										1-MAY-74	19:27	PAGE 3		
	A/P	PIN NAME	ORDER PIN	HAY - ORDER	U	DNAM	KV	PG	I	X	Z	REMARKS	LENGTH	EXCEPTIONS	RUN NUMBER
BUS A00	L	B01H2	R04H2	1-01 *	H		U02				2		P	HAND WIRE	16
BUS A00	L	B04H2		1-02 *			U02				1		J-4	TO HERE	16
BUS A00	L	D04D1		1-03 *			U01								16
BUS A00				1									11-3/8		16
BUS A01	L	B01H1		1-01 *	H		U02				2		P	HAND WIRE	17
BUS A01	L	B04H1		1-02 *			U02				1			TO HERE	17
BUS A01	L	C04T2		1-03 *			U01								17
BUS A01				1									10-0/8		17
BUS A02	L	B01J2		1-01 *	H		U02				2		P	HAND WIRE	18
BUS A02	L	B04J2		1-02 *			U02				1			TO HERE	18
BUS A02	L	C04S1		1-03 *			U01								18
BUS A02				1									9-6/8		18
BUS A03	L	B01J1		1-01 *	H		U02				2		P	HAND WIRE	19
BUS A03	L	B04J1		1-02 *			U02				1			TO HERE	19
BUS A03	L	C04R1		1-03 *			U01								19
BUS A03				1									9-2/8		19
BUS A04	L	B01K2		1-01 *	H		U02				2		P	HAND WIRE	20
BUS A04	L	B04K2		1-02 *			U02				1			TO HERE	20
BUS A04	L	C04P1		1-03 *			U01								20
BUS A04				1									9-2/8		20
BUS A05	L	B01K1		1-01 *	H		U02				2		P	HAND WIRE	21
BUS A05	L	B04K1		1-02 *			U02				1			TO HERE	21
BUS A05	L	C04R2		1-03 *			U01								21
BUS A05				1									9-4/8		21
BUS A06	L	B01L2		1-01 *	H		U02				2		P	HAND WIRE	22
BUS A06	L	B04L2		1-02 *			U02				1			TO HERE	22
BUS A06	L	C04M2		1-03 *			U01								22
BUS A06				1									8-6/8		22
BUS A07	L	B01L1		1-01 *	H		U02				2		P	HAND WIRE	23
BUS A07	L	B04L1		1-02 *			U02				1			TO HERE	23
BUS A07	L	C04L1		1-03 *			U01								23
BUS A07				1									8-4/8		23
BUS A08	L	B01M2		1-01 *	H		U02				2		P	HAND WIRE	24
BUS A08	L	B04M2		1-02 *			U02				1			TO HERE	24
BUS A08	L	C04K1		1-03 *			U01								24
BUS A08				1									8-4/8		24

RK11D.F RUN NAME	HND288.V22(22) 11/06/73										1-MAY-74	19:27	PAGE 4		
	A/P	PIN NAME	ORDER PIN	RAY - ORDER	U	DRW	KV	PG	I	X	Z	REMARKS	LENGTH	EXCEPTIONS	RUN NUMBER
BUS A09	L	B01M1		1-01 *	H		002				2				25
BUS A09	L	B04M1		1-02 *			002				1			HAND WIRE TO HERE	25
BUS A09	L	C04L2		1-03 *			002								25
BUS A09				1									8-6/8		25
BUS A10	L	B01N2		1-01 *	H		002				2				26
BUS A10	L	B04N2		1-02 *			002				1			HAND WIRE TO HERE	26
BUS A10	L	C04H2		1-03 *			001								26
BUS A10				1									8-0/8		26
BUS A11	L	B01N1	B04N1	1-01 *	H		002				2				27
BUS A11	L	B04N1		1-02 *			002				1		3-2	HAND WIRE TO HERE	27
BUS A11	L	D04F1		1-03 *			001								27
BUS A11				1									10-7/8		27
BUS A12	L	B01P2		1-01 *	H		002				2				28
BUS A12	L	B04P2		1-02 *			002				1			HAND WIRE TO HERE	28
BUS A12	L	C04F1		1-03 *			001								28
BUS A12				1									7-6/8		28
BUS A13	L	B01P1		1-01 *	H		002				2				29
BUS A13	L	B04P1		1-02 *			002				1			HAND WIRE TO HERE	29
BUS A13	L	C04F2		1-03 *			001								29
BUS A13				1									8-0/8		29
BUS A14	L	B01R2		1-01 *	H		002				1				30
BUS A14	L	B04R2		1-02 *			002				2			HAND WIRE TO HERE	30
BUS A14	L	C04B1		1-03 *			001								30
BUS A14				1									7-2/8		30
BUS A15	L	B01R1	B04R1	1-01 *	H		002				2				31
BUS A15	L	B04R1		1-02 *			002				1		3-5	HAND WIRE TO HERE	31
BUS A15	L	D04P1		1-03 *			001								31
BUS A15				1									11-5/8		31
BUS A16	L	B01S2	R04S2	1-01 *	H		002				1				32
BUS A16	L	B04S2	C04D1	1-02 *			002				2			HAND WIRE TO HERE	32
BUS A16	L	C04D1	C01D1	1-03 *	H		001				1			HAND WIRE TO HERE	32
BUS A16	L	C01D1		1-04 *			001								32
BUS A16				1									11-0/8		32
BUS A17	L	B01S1	B04S1	1-01 *	H		002				1				33
BUS A17	L	B04S1	C04E1	1-02 *			002				2			HAND WIRE TO HERE	33
BUS A17	L	C04E1	C01E1	1-03 *	H		001				1			HAND WIRE TO HERE	33
BUS A17	L	C01E1		1-04 *			001								33
BUS A17				1									11-0/8		33



RK11D.F RUN NAME	HND288.V22(22) 11/06/73										1-MAY-74	19:27	PAGE 5		
	A/P	PIN NAME	ORDER PIN	RAY - ORDER	U	DRW	KV	PG	I	X	Z	REMARKS	LENGTH	EXCEPTIONS	RUN NUMBER
BUS AC L0	L	D02F1		1-01 *							1				34
BUS AC L0	L	B01F1		1-02 *	H						2		3-6	HAND WIRE TO HERE	34
BUS AC L0	L	B04F1		1-03 *							1				34
BUS AC L0	L	A03R2		1-04 *											34
BUS AC L0				1									16-1/8		34
BUS BBSY	L	A01P2		1-01 *	H		002				2				35
BUS BBSY	L	A04P2		1-02 *			002				1			HAND WIRE TO HERE	35
BUS BBSY	L	E04P2		1-03 *			001								35
BUS BBSY				1									16-4/8		35
BUS BR 4	L	B04D2		1-01 *	H		002				2				36
BUS BR 4	L	B01D2		1-02 *			002				1			HAND WIRE TO HERE	36
BUS BR 4	L	C01H2		1-03 *			001								36
BUS BR 4				1									9-0/8		36
BUS BR 5	L	B04C1		1-01 *	H						2				37
BUS BR 5	L	B01C1		1-02 *			002				1			HAND WIRE TO HERE	37
BUS BR 5	L	C01F2		1-03 *			001								37
BUS BR 5				1									9-2/8		37
BUS BR 6	L	A04U2		1-01 *	H		002				2				38
BUS BR 6	L	A01U2		1-02 *			002				1			HAND WIRE TO HERE	38
BUS BR 6	L	C01E2		1-03 *			001								38
BUS BR 6				1									9-6/8		38
BUS BR 7	L	A04T2		1-01 *	H		002				2				39
BUS BR 7	L	A01T2		1-02 *			002				1			HAND WIRE TO HERE	39
BUS BR 7	L	C01D2		1-03 *			001								39
BUS BR 7				1									9-6/8		39
BUS C0	L	B01U2	B04U2	1-01 *	H		002				2				40
BUS C0	L	B04U2		1-02 *			002				1		2-7	HAND WIRE TO HERE	40
BUS C0	L	D04C1		1-03 *			001								40
BUS C0				1									10-1/8		40
BUS C1	L	B01T2	B04T2	1-01 *	H		002				2				41
BUS C1	L	B04T2		1-02 *			002				1		4-7	HAND WIRE TO HERE	41
BUS C1	L	E04R1		1-03 *			001								41
BUS C1				1									14-1/8		41
BUS D EN	H	C04U1			H		001							1-PIN RUN	42
BUS D00	L	A01C1		1-01 *	H		002				2				43
BUS D00	L	A04C1		1-02 *			002				1			HAND WIRE TO HERE	43
BUS D00	L	C04U2		1-03 *			001								43
BUS D00				1									11-6/8		43

RRID.F RUN NAME	HND288.V22(22) 11/06/73										1-MAY-74	19:27	PAGE 6		
	A/P	PIN NAME	ORDER PIN	BAY - ORDER	U	DRAW	KV	PG	I	X	Z	REMARKS	LENGTH	EXCEPTIONS	NUM NUMBER
BUS D00 (1)	H	D01D2		1-01 *	H	D01					1			HAND WIRE	44
BUS D00 (1)	H	D03D2		1-02 *	H	D01					2			HAND WIRE	44
BUS D00 (1)	H	D04D2		1-03 *	H	D01								H TO WHERE	44
BUS D00 (1)				1									6-0/8		44
BUS D01	L	A01D2		1-01 *	H	D02					2			HAND WIRE	45
BUS D01	L	A04D2		1-02 *		D02					1			TO HERE	45
BUS D01	L	C04C1		1-03 *		D01									45
BUS D01				1									11-4/8		45
BUS D01 (1)	H	D01E2		1-01 *	H	D01					1			HAND WIRE	46
BUS D01 (1)	H	D03E2		1-02 *	H	D01					2			HAND WIRE	46
BUS D01 (1)	H	D04E2		1-03 *	H	D01								H TO WHERE	46
BUS D01 (1)				1									6-0/8		46
BUS D02	L	A01D1		1-01 *	H	D02					2			HAND WIRE	47
BUS D02	L	A04D1		1-02 *		D02					1			TO HERE	47
BUS D02	L	C04E2		1-03 *		D01									47
BUS D02				1									11-4/8		47
BUS D02 (1)	H	D01F2		1-01 *	H	D01					1			HAND WIRE	48
BUS D02 (1)	H	D03F2		1-02 *	H	D01					2			HAND WIRE	48
BUS D02 (1)	H	D04F2		1-03 *	H	D01								H TO WHERE	48
BUS D02 (1)				1									6-0/8		48
BUS D03	L	A01E2		1-01 *	H	D02					2			HAND WIRE	49
BUS D03	L	A04E2		1-02 *		D02					1			TO HERE	49
BUS D03	L	D04E1		1-03 *		D01									49
BUS D03				1									14-2/8		49
BUS D03 (1)	H	D01H2		1-01 *	H	D01					1			HAND WIRE	50
BUS D03 (1)	H	D03H2		1-02 *	H	D01					2			HAND WIRE	50
BUS D03 (1)	H	D04H2		1-03 *	H	D01								H TO WHERE	50
BUS D03 (1)				1									6-0/8		50
BUS D04	L	A01E1		1-01 *	H	D02					2			HAND WIRE	51
BUS D04	L	A04E1		1-02 *		D02					1			TO HERE	51
BUS D04	L	D04R1		1-03 *		D01									51
BUS D04				1									15-2/8		51
BUS D04 (1)	H	D01J2		1-01 *	H	D01					1			HAND WIRE	52
BUS D04 (1)	H	D03J2		1-02 *	H	D01					2			HAND WIRE	52
BUS D04 (1)	H	D04J2		1-03 *	H	D01								H TO WHERE	52
BUS D04 (1)				1									6-0/8		52

RRID.F RUN NAME	HND288.V22(22) 11/06/73										1-MAY-74	19:27	PAGE 7		
	A/P	PIN NAME	ORDER PIN	BAY - ORDER	U	DRAW	KV	PG	I	X	Z	REMARKS	LENGTH	EXCEPTIONS	NUM NUMBER
BUS D05	L	A01F2		1-01 *	H	D02					2			HAND WIRE	53
BUS D05	L	A04F2		1-02 *		D02					1			TO HERE	53
BUS D05	L	C04H1		1-03 *		D01									53
BUS D05				1									11-6/8		53
BUS D05 (1)	H	D01K2		1-01 *	H	D01					1			HAND WIRE	54
BUS D05 (1)	H	D03K2		1-02 *	H	D01					2			HAND WIRE	54
BUS D05 (1)	H	D04K2		1-03 *	H	D01								H TO WHERE	54
BUS D05 (1)				1									6-0/8		54
BUS D06	L	A01F1		1-01 *	H	D02					2			HAND WIRE	55
BUS D06	L	A04F1		1-02 *		D02					1			TO HERE	55
BUS D06	L	C04K2		1-03 *		D01									55
BUS D06				1									11-6/8		55
BUS D06 (1)	H	D01L2		1-01 *	H	D01					1			HAND WIRE	56
BUS D06 (1)	H	D03L2		1-02 *	H	D01					2			HAND WIRE	56
BUS D06 (1)	H	D04L2		1-03 *	H	D01								H TO WHERE	56
BUS D06 (1)				1									6-0/8		56
BUS D07	L	A01H2	A04H2	1-01 *	H	D02					2			HAND WIRE	57
BUS D07	L	A04H2		1-02 *		D02					1			TO HERE	57
BUS D07	L	C04J1		1-03 *		D01									57
BUS D07				1									11-7/8		57
BUS D07 (1)	H	D01M2		1-01 *	H	D01					1			HAND WIRE	58
BUS D07 (1)	H	D03M2		1-02 *	H	D01					2			HAND WIRE	58
BUS D07 (1)	H	D04M2		1-03 *	H	D01								H TO WHERE	58
BUS D07 (1)				1									6-0/8		58
BUS D08	L	A01H1		1-01 *	H	D02					2			HAND WIRE	59
BUS D08	L	A04H1		1-02 *		D02					1			TO HERE	59
BUS D08	L	C04N2		1-03 *		D01									59
BUS D08				1									12-2/8		59
BUS D08 (1)	H	D01N2		1-01 *	H	D01					1			HAND WIRE	60
BUS D08 (1)	H	D03N2		1-02 *	H	D01					2			HAND WIRE	60
BUS D08 (1)	H	D04N2		1-03 *	H	D01								H TO WHERE	60
BUS D08 (1)				1									6-0/8		60
BUS D09	L	A01J2		1-01 *	H	D02					2			HAND WIRE	61
BUS D09	L	A04J2		1-02 *		D02					1			TO HERE	61
BUS D09	L	C04M1		1-03 *		D01									61
BUS D09				1									12-0/8		61

RR110.F RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	U	DRAW	HV	PG	I	X	Z	REMARKS	1-MAY-74 LENGTH	19:27 EXCEPTIONS	PAGE 8 RUN NUMBER
BUS D09 (1)	H	D01P2		1-01 *	H						1		P		62
BUS D09 (1)	H	D03P2		1-02 *	H						2		P	HAND WIRE	62
BUS D09 (1)	H	D04P2		1-03 *	H								P	H TO WHERE	62
BUS D09 (1)				1										6-0/8	62
BUS D10	L	A01J1		1-01 *	H						2		P	HAND WIRE	63
BUS D10	L	A04J1		1-02 *							1			TO HERE	63
BUS D10	L	C04P2		1-03 *											63
BUS D10				1										12-0/8	63
BUS D10 (1)	H	D01R2		1-01 *	H						1		P	HAND WIRE	64
BUS D10 (1)	H	D03R2		1-02 *	H						2		P	HAND WIRE	64
BUS D10 (1)	H	D04R2		1-03 *	H								P	H TO WHERE	64
BUS D10 (1)				1										6-0/8	64
BUS D11	L	A01K2	A04K2	1-01 *	H						2		P	HAND WIR	65
BUS D11	L	A04K2		1-02 *							1			TO HERE	65
BUS D11	L	C04N1		1-03 *											65
BUS D11				1										12-1/8	65
BUS D11 (1)	H	D01S2		1-01 *	H						1		P	HAND WIRE	66
BUS D11 (1)	H	D03S2		1-02 *	H						2		P	HAND WIRE	66
BUS D11 (1)	H	D04S2		1-03 *	H								P	H TO WHERE	66
BUS D11 (1)				1										6-0/8	66
BUS D12	L	A01K1	A04K1	1-01 *	H						2		P	HAND WIRE	67
BUS D12	L	A04K1		1-02 *							1			TO HERE	67
BUS D12	L	D04A1		1-03 *											67
BUS D12				1										13-5/8	67
BUS D12 (1)	H	D01T2		1-01 *	H						1		P	HAND WIRE	68
BUS D12 (1)	H	D03T2		1-02 *	H						2		P	HAND WIRE	68
BUS D12 (1)	H	D04T2		1-03 *	H								P	H TO WHERE	68
BUS D12 (1)				1										6-0/8	68
BUS D13	L	A01L2	A04L2	1-01 *	H						2		P	HAND WIRE	69
BUS D13	L	A04L2		1-02 *							1			TO HERE	69
BUS D13	L	C04V1		1-03 *											69
BUS D13				1										12-7/8	69
BUS D13 (1)	H	D01U2		1-01 *	H						1		P	HAND WIRE	70
BUS D13 (1)	H	D03U2		1-02 *	H						2		P	HAND WIRE	70
BUS D13 (1)	H	D04U2		1-03 *	H								P	H TO WHERE	70
BUS D13 (1)				1										6-0/8	70

RR110.F RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	U	DRAW	HV	PG	I	X	Z	REMARKS	1-MAY-74 LENGTH	19:27 EXCEPTIONS	PAGE 9 RUN NUMBER
BUS D14	L	A01L1		1-01 *	H						2		P	HAND WIRE	71
BUS D14	L	A04L1		1-02 *							1			TO HERE	71
BUS D14	L	C04S2		1-03 *											71
BUS D14				1										12-0/8	71
BUS D14 (1)	H	D01V2		1-01 *	H						1		P	HAND WIRE	72
BUS D14 (1)	H	D03V2		1-02 *	H						2		P	HAND WIRE	72
BUS D14 (1)	H	D04V2		1-03 *	H								P	H TO WHERE	72
BUS D14 (1)				1										6-0/8	72
BUS D15	L	A01M2	A04M2	1-01 *	H						2		P	HAND WIRE	73
BUS D15	L	A04M2		1-02 *							1			TO HERE	73
BUS D15	L	D04B1		1-03 *											73
BUS D15				1										13-5/8	73
BUS D15 (1)	H	D01V1		1-01 *	H						1		P	HAND WIRE	74
BUS D15 (1)	H	D03V1		1-02 *	H						2		P	HAND WIRE	74
BUS D15 (1)	H	D04V1		1-03 *	H								P	H TO WHERE	74
BUS D15 (1)				1										6-0/8	74
BUS D16	L	A01M1	A04M1	1-01 *	H						2		P	HAND WIRE	75
BUS D16	L	A04M1		1-02 *							1			TO HERE	75
BUS D16	L	C03C1		1-03 *											75
BUS D16				1										10-4/8	75
BUS D17	L	A01N2	A04N2	1-01 *	H						2		P	HAND WIRE	76
BUS D17	L	A04N2		1-02 *							1			TO HERE	76
BUS D17	L	C03B1		1-03 *											76
BUS D17				1										10-4/8	76
BUS DC LO	L	A03S2		1-01 *							1				77
BUS DC LO	L	B04F2		1-02 *							2				77
BUS DC LO	L	B01F2		1-03 *							1				77
BUS DC LO	L	C01B1		1-04 *											77
BUS DC LO				1										12-4/8	77
BUS INIT	L	A04A1		1-01 *	H						2		P	HAND WIRE	78
BUS INIT	L	A01A1		1-02 *							1			TO HERE	78
BUS INIT	L	C01C1		1-03 *											78
BUS INIT				1										11-4/8	78
BUS INTR	L	A01B1		1-01 *	H						2		P	HAND WIRE	79
BUS INTR	L	A04B1		1-02 *							1			TO HERE	79
BUS INTR	L	D04S1		1-03 *											79
BUS INTR				1										15-6/8	79

RAID.F RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	U	DNAM	KV	PG	I	X	Z	REMARKS	1-MAY-74 LENGTH	19:27 EXCEPTIONS	PAGE 10 RUN NUMBER
BUS MSYN	L	B01V1		1-01 *	H		002				2		P		80
BUS MSYN	L	B04V1		1-02 *			002				1			HAND WIRE TO HERE	80
BUS MSYN	L	E04T2		1-03 *			001								80
BUS MSYN				1									13-6/8		80
BUS NPG IN	H	A01U1		1-01 *			002				1				81
BUS NPG IN	H	E04D1		1-02 *			001								81
BUS NPG IN				1									12-0/8		81
BUS NPG OUT	H	A04U1		1-01 *	1		002				1		6-3		82
BUS NPG OUT	H	E04U1		1-02 *			001								82
BUS NPG OUT				1									13-3/8		82
BUS NPR	L	A01S2		1-01 *	H		002				2				83
BUS NPR	L	A04S2		1-02 *			002				1				83
BUS NPR	L	E04S1		1-03 *			001								83
BUS NPR				1									16-6/8		83
BUS SACK	L	A01R2		1-01 *	H		002				2				84
BUS SACK	L	A04R2		1-02 *			002				1				84
BUS SACK	L	E04C1		1-03 *			001								84
BUS SACK				1									15-4/8		84
BUS SSYN	L	B01U1	B04U1	1-01 *	H		002				2				85
BUS SSYN	L	B04U1		1-02 *			002				1		4-5		85
BUS SSYN	L	E04P1		1-03 *			001								85
BUS SSYN				1									13-5/8		85
CLK	H	C02N2		1-01 *							1				86
CLK	H	E01E1		1-02 *	H		001				2				86
CLK	H	E03D2		1-03 *	H		001								86
CLK				1									10-6/8		86
CLR MSR	L	F01F2		1-01 *	H		001				1				87
CLR MSR	L	F02F2		1-02 *	H		001								87
CLR MSR				1									2-6/8		87
COUNT SA	H	C01M1		1-01 *	H		001				1				88
COUNT SA	H	C03M1		1-02 *	H		001								88
COUNT SA				1									3-2/8		88
CYL OVF	L	C02R2		1-01 *	H		001				1				89
CYL OVF	L	C03R2		1-02 *	H		001								89
CYL OVF				1									2-6/8		89

RAID.F RUN NAME	A/P	PIN NAME	ORDER PIN	BAY - ORDER	U	DNAM	KV	PG	I	X	Z	REMARKS	1-MAY-74 LENGTH	19:27 EXCEPTIONS	PAGE 11 RUN NUMBER
DATA (1)	H	B03H1		1-01 *			002				1				90
DATA (1)	H	C03S1		1-02 *	H		001				2				90
DATA (1)	H	C02S1		1-03 *	H		001				1				90
DATA (1)	H	C01S1		1-04 *	H		001								90
DATA (1)				1									11-2/8		90
DATA STR 1	L	E04N2			H		001								91
DATA STR 2	L	E03L2		1-01 *	H		001				1				92
DATA STR 2	L	E04L2		1-02 *	H		001								92
DATA STR 2				1									2-6/8		92
DISK CLK	L	F01V1		1-01 *	H		001				1				93
DISK CLK	L	F02V1		1-02 *	H		001								93
DISK CLK				1									2-6/8		93
DLT (1)	H	E01P1		1-01 *	H		001				1				94
DLT (1)	H	E03P2		1-02 *	H		001								94
DLT (1)				1									3-4/8		94
DPL (1)	H	F01D1		1-01 *	H		001				1				95
DPL (1)	H	F02D1		1-02 *	H		001								95
DPL (1)				1									2-6/8		95
DR BUS ADD ACK	L	A02R2		1-01 *			002				1				96
DR BUS ADD ACK	L	D02H1		1-02 *			001								96
DR BUS ADD ACK				1									9-0/8		96
DR BUS CYL ADD 0	L	A02K1		1-01 *			002				1		3-5		97
DR BUS CYL ADD 0	L	C02K1		1-02 *			001								97
DR BUS CYL ADD 0				1									7-7/8		97
DR BUS CYL ADD 1	L	A02D1		1-01 *			002				1		3-5		98
DR BUS CYL ADD 1	L	C02D1		1-02 *			001								98
DR BUS CYL ADD 1				1									7-7/8		98
DR BUS CYL ADD 2	L	A02L1		1-01 *			002				1		3-5		99
DR BUS CYL ADD 2	L	C02L1		1-02 *			001								99
DR BUS CYL ADD 2				1									7-7/8		99
DR BUS CYL ADD 3	L	A02C1		1-01 *			002				1		3-5		100
DR BUS CYL ADD 3	L	C02C1		1-02 *			001								100
DR BUS CYL ADD 3				1									7-7/8		100
DR BUS CYL ADD 4	L	A02F1		1-01 *			002				1		3-5		101
DR BUS CYL ADD 4	L	C02F1		1-02 *			001								101
DR BUS CYL ADD 4				1									7-7/8		101

RK11D.F RUN NAME	A/P	HND288,V22(22) 11/06/73 PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW	KV	PG	I	X	Z	REMARKS	1-MAY-74 LENGTH	19:27 EXCEPTIONS	PAGE 12 RUN NUMBER
DR BUS CYL ADD 5	L	A02J1		1-01 *							1		3-5		102
DR BUS CYL ADD 5	L	C02J1		1-02 *											102
DR BUS CYL ADD 5				1									7-7/8		102
DR BUS CYL ADD 6	L	A02E1		1-01 *							1		3-5		103
DR BUS CYL ADD 6	L	C02E1		1-02 *											103
DR BUS CYL ADD 6				1									7-7/8		103
DR BUS CYL ADD 7	L	A02H1		1-01 *							1		3-5		104
DR BUS CYL ADD 7	L	C02H1		1-02 *											104
DR BUS CYL ADD 7				1									7-7/8		104
DR BUS CYL ADD 8	L	A02B1		1-01 *							1		3-5		105
DR BUS CYL ADD 8	L	C02B1		1-02 *											105
DR BUS CYL ADD 8				1									7-7/8		105
DR BUS DC LU	L	C01B2		1-01 *	2						2				106
DR BUS DC LU	L	B02F2		1-02 *							1				106
DR BUS DC LU	L	D02F2		1-03 *											106
DR BUS DC LU				1									12-8/8		106
DR BUS DRY	L	B02N1		1-01 *	1						1		3-5		107
DR BUS DRY	L	D02N1		1-02 *											107
DR BUS DRY				1									7-7/8		107
DR BUS INDX PLS	L	B02M1		1-01 *	1						1		3-5		108
DR BUS INDX PLS	L	D02M1		1-02 *											108
DR BUS INDX PLS				1									7-7/8		108
DR BUS LOG ADD INT	L	A02T2		1-01 *							1				109
DR BUS LOG ADD INT	L	D02D1		1-02 *											109
DR BUS LOG ADD INT				1									9-8/8		109
DR BUS R/W/S RDY	L	A02H2		1-01 *							1				110
DR BUS R/W/S RDY	L	C02H2		1-02 *											110
DR BUS R/W/S RDY				1									7-4/8		110
DR BUS RD CLK	L	B02S1		1-01 *	1						1		3-5		111
DR BUS RD CLK	L	D02S1		1-02 *											111
DR BUS RD CLK				1									7-7/8		111
DR BUS RD DATA	L	B02S2		1-01 *							1				112
DR BUS RD DATA	L	D02S2		1-02 *											112
DR BUS RD DATA				1									7-4/8		112

RK11D.F RUN NAME	A/P	HND288,V22(22) 11/06/73 PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW	KV	PG	I	X	Z	REMARKS	1-MAY-74 LENGTH	19:27 EXCEPTIONS	PAGE 13 RUN NUMBER
DR BUS RD GATE	L	B02R1		1-01 *	1						1		3-5		113
DR BUS RD GATE	L	D02R1		1-02 *											113
DR BUS RD GATE				1									7-7/8		113
DR BUS RESTORE	L	A02M1		1-01 *	1						1		3-5		114
DR BUS RESTORE	L	C02M1		1-02 *											114
DR BUS RESTORE				1									7-7/8		114
DR BUS RK05	L	B02P2		1-01 *							1				115
DR BUS RK05	L	D02P2		1-02 *											115
DR BUS RK05				1									7-4/8		115
DR BUS SEC CNTR 0	L	B02L1		1-01 *	1						1		3-5		116
DR BUS SEC CNTR 0	L	D02L1		1-02 *											116
DR BUS SEC CNTR 0				1									7-7/8		116
DR BUS SEC CNTR 1	L	A02P2		1-01 *							1				117
DR BUS SEC CNTR 1	L	D02A1		1-02 *											117
DR BUS SEC CNTR 1				1									9-8/8		117
DR BUS SEC CNTR 2	L	B02K2		1-01 *							1				118
DR BUS SEC CNTR 2	L	D02K2		1-02 *											118
DR BUS SEC CNTR 2				1									7-4/8		118
DR BUS SEC CNTR 3	L	B02J1		1-01 *	1						1		3-5		119
DR BUS SEC CNTR 3	L	D02J1		1-02 *											119
DR BUS SEC CNTR 3				1									7-7/8		119
DR BUS SEC PLS	L	B02N2		1-01 *							1				120
DR BUS SEC PLS	L	D02N2		1-02 *											120
DR BUS SEC PLS				1									7-4/8		120
DR BUS SEL DR 0	L	A02J2		1-01 *							1				121
DR BUS SEL DR 0	L	C02J2		1-02 *											121
DR BUS SEL DR 0				1									7-4/8		121
DR BUS SEL DR 1	L	A02K2		1-01 *							1				122
DR BUS SEL DR 1	L	C02K2		1-02 *											122
DR BUS SEL DR 1				1									7-4/8		122
DR BUS SEL DR 2	L	A02L2		1-01 *							1				123
DR BUS SEL DR 2	L	C02L2		1-02 *											123
DR BUS SEL DR 2				1									7-4/8		123
DR BUS SEL UPPER HD	L	B02M2		1-01 *							1				124
DR BUS SEL UPPER HD	L	D02M2		1-02 *											124
DR BUS SEL UPPER HD				1									7-4/8		124

RK11D.F RUN NAME	A/P	HND288.V22(22) PIN NAME	11/06/73 ORDER PIN	BAY - ORDER	U	DRAW	NV	PG	I	X	Z	REMARKS	1-MAY-74 LENGTH	19:27 EXCEPTIONS	PAGE 14 RUN NUMBER
DR BUS SIN	L	A02S2		1-01 *											125
DR BUS SIN	L	D02C1		1-02 *											125
DR BUS SIN				1									9-0/8		125
DR BUS STROBE	L	B02H1		1-01 *									3-5		126
DR BUS STROBE	L	D02H1		1-02 *											126
DR BUS STROBE				1									7-7/8		126
DR BUS WT CHK	L	B02K1		1-01 *	1								3-5		127
DR BUS WT CHK	L	D02K1		1-02 *											127
DR BUS WT CHK				1									7-7/8		127
DR BUS WT DATA+CLK	L	A02F2		1-01 *											128
DR BUS WT DATA+CLK	L	C02F2		1-02 *											128
DR BUS WT DATA+CLK				1									7-4/8		128
DR BUS WT GATE	L	B02L2		1-01 *											129
DR BUS WT GATE	L	D02L2		1-02 *											129
DR BUS WT GATE				1									7-4/8		129
DR BUS WT PRCT STATUS	L	B02P1		1-01 *	1								3-5		130
DR BUS WT PRCT STATUS	L	D02P1		1-02 *											130
DR BUS WT PRCT STATUS				1									7-7/8		130
DR BUS WT PROTECT	L	B02R2		1-01 *											131
DR BUS WT PROTECT	L	D02R2		1-02 *											131
DR BUS WT PROTECT				1									7-4/8		131
DRE (1)	H	F01R1		1-01 *	H								P	HAND WIRE	132
DRE (1)	H	F02R1		1-02 *	H								P	H TO WHERE	132
DRE (1)				1										2-6/8	132
DRIVE OK	H	F01N1		1-01 *	H								P	HAND WIRE	133
DRIVE OK	H	F02N1		1-02 *	H								P	H TO WHERE	133
DRIVE OK				1										2-6/8	133
DRIVE RESET	L	F01K2		1-01 *	H								P	HAND WIRE	134
DRIVE RESET	L	F02K2		1-02 *	H								P	H TO WHERE	134
DRIVE RESET				1										2-6/8	134
DRIVE UNSAFE	H	F01B1		1-01 *	H								P	HAND WIRE	135
DRIVE UNSAFE	H	F02B1		1-02 *	H								P	H TO WHERE	135
DRIVE UNSAFE				1										2-6/8	135
DRY	H	E01L2		1-01 *	H								P	HAND WIRE	136
DRY	H	E02L2		1-02 *	H								P	H TO WHERE	136
DRY				1										2-6/8	136

RK11D.F RUN NAME	A/P	HND288.V22(22) PIN NAME	11/06/73 ORDER PIN	BAY - ORDER	U	DRAW	NV	PG	I	X	Z	REMARKS	1-MAY-74 LENGTH	19:27 EXCEPTIONS	PAGE 15 RUN NUMBER
END OF SYNC	L	F01R2		1-01 *	H								P	HAND WIRE	137
END OF SYNC	L	F02R2		1-02 *	H								P	H TO WHERE	137
END OF SYNC				1										2-6/8	137
EX BIT	H	F01V2		1-01 *	H								P	HAND WIRE	138
EX BIT	H	F02V2		1-02 *	H								P	H TO WHERE	138
EX BIT				1										2-6/8	138
FILE DONE	H	C01F1		1-01 *	H								P	HAND WIRE	139
FILE DONE	H	C03F1		1-02 *	H								P	H TO WHERE	139
FILE DONE				1										3-2/8	139
FILE EMPTY	H	B03E1		1-01 *											140
FILE EMPTY	H	C03N2		1-02 *											140
FILE EMPTY				1										6-0/8	140
FILE FULL	H	B03M1		1-01 *											141
FILE FULL	H	C03M2		1-02 *											141
FILE FULL				1										5-0/8	141
FIRST SEEK DONE	H	E01U2		1-01 *	H								P	HAND WIRE	142
FIRST SEEK DONE	H	E02U2		1-02 *	H								P	H TO WHERE	142
FIRST SEEK DONE				1										2-6/8	142
FMT (1)	H	C01N1		1-01 *	H								P	HAND WIRE	143
FMT (1)	H	C02N1		1-02 *	H								P	HAND WIRE	143
FMT (1)	H	C03N1		1-03 *	H								P	H TO WHERE	143
FMT (1)				1										5-4/8	143
GATE DATA TO BUS D	L	C02A1		1-01 *	H								P	HAND WIRE	144
GATE DATA TO BUS D	L	C03A1		1-02 *	H								P	HAND WIRE	144
GATE DATA TO BUS D	L	C04A1		1-03 *	H								P	H TO WHERE	144
GATE DATA TO BUS D				1										5-4/8	144
GEN CLR	L	E01R2	E02R2	1-01 *	H								P	HAND WIRE	145
GEN CLR	L	E02R2		1-02 *											145
GEN CLR	L	C03P2		1-03 *											145
GEN CLR				1										10-6/8	145
GEN DATA	H	F01E2		1-01 *	H								P	HAND WIRE	146
GEN DATA	H	F02E2		1-02 *	H								P	H TO WHERE	146
GEN DATA				1										2-6/8	146

RK110.F RUN NAME	A/P	HND288.V22(22) 11/06/73 PIN NAME	ORDER PIN	RAY - ORDER	Q	DRAW	KV	PG	I	X	Z	REMARKS	1-MAY-74 LENGTH	19:27 EXCEPTIONS	PAGE 18 RUN NUMBER
HE (1)	H	B03E2		1-01 *							1				151
HE (1)	H	F02T2		1-02 *	H						2			HAND WIRE	151
HE (1)	H	F01T2		1-03 *	H									H TO WHERE	151
HE (1)				1									17-2/8		151
HEAD + CHK SUM	H	F01P2		1-01 *	n						1			HAND WIRE	152
HEAD + CHK SUM	H	F02P2		1-02 *	H									H TO WHERE	152
HEAD + CHK SUM				1									2-6/8		152
HEAD OK (1)	L	F01U2		1-01 *	H						1			HAND WIRE	153
HEAD OK (1)	L	F02U2		1-02 *	n									H TO WHERE	153
HEAD OK (1)				1									2-6/8		153
HEADER (1)	H	C01U1		1-01 *	H						1			HAND WIRE	154
HEADER (1)	H	C03U1		1-02 *	H									H TO WHERE	154
HEADER (1)				1									3-2/8		154
IBA (0)	H	F01K2		1-01 *	H						1			HAND WIRE	155
IBA (0)	H	F03K2		1-02 *	H									H TO WHERE	155
IBA (0)				1									3-2/8		155
ID 0 (1)	H	F01E1		1-01 *	n						1			HAND WIRE	156
ID 0 (1)	H	F02E1		1-02 *	n									H TO WHERE	156
ID 0 (1)				1									2-6/8		156
ID 1 (1)	H	F01F1		1-01 *	H						1			HAND WIRE	157
ID 1 (1)	H	F02F1		1-02 *	H									H TO WHERE	157
ID 1 (1)				1									2-6/8		157
ID 2 (1)	H	F01H1		1-01 *	H						1			HAND WIRE	158
ID 2 (1)	H	F02H1		1-02 *	H									H TO WHERE	158
ID 2 (1)				1									2-6/8		158
IDE (1)	H	F01A1		1-01 *	H						1			HAND WIRE	159
IDE (1)	H	D02V2		1-02 *	H						2			HAND WIRE	159
IDE (1)	H	E04A1		1-03 *	H									H TO WHERE	159
IDE (1)				1									6-6/8		159
ILLEGAL ADD	H	F01K1		1-01 *	H						1			HAND WIRE	160
ILLEGAL ADD	H	F02K1		1-02 *	H									H TO WHERE	160
ILLEGAL ADD				1									2-6/8		160
IN BUFF FULL (1)	H	B03J2		1-01 *							1				161
IN BUFF FULL (1)	H	C03K2		1-02 *											161
IN BUFF FULL (1)				1									5-0/8		161

RK110.F RUN NAME	A/P	HND288.V22(22) 11/06/73 PIN NAME	ORDER PIN	RAY - ORDER	Q	DRAW	KV	PG	I	X	Z	REMARKS	1-MAY-74 LENGTH	19:27 EXCEPTIONS	PAGE 19 RUN NUMBER
INIT	H	F01T2		1-01 *	H						2			HAND WIRE	162
INIT	H	F02T2		1-02 *	H						1			HAND WIRE	162
INIT	H	F03T2		1-03 *	H									H TO WHERE	162
INIT				1									5-4/8		162
INIT	L	F01A1		1-01 *	n						2			HAND WIRE	163
INIT	L	F02A1		1-02 *	H						1			HAND WIRE	163
INIT	L	F03A1		1-03 *	H						2			HAND WIRE	163
INIT	L	F04A1		1-04 *	n									H TO WHERE	163
INIT				1									8-2/8		163
INT BUS A00 (1)	H	D01A1		1-01 *	H						1			HAND WIRE	164
INT BUS A00 (1)	H	D03A1		1-02 *	n									H TO WHERE	164
INT BUS A00 (1)				1									3-2/8		164
INT BUS A01 (1)	H	D01B1		1-01 *	H						1			HAND WIRE	165
INT BUS A01 (1)	H	D03B1		1-02 *	n									H TO WHERE	165
INT BUS A01 (1)				1									3-2/8		165
INT BUS A02 (1)	H	D01C1		1-01 *	H						1			HAND WIRE	166
INT BUS A02 (1)	H	D03C1		1-02 *	n									H TO WHERE	166
INT BUS A02 (1)				1									3-2/8		166
INT BUS A03 (1)	H	D01D1		1-01 *	H						1			HAND WIRE	167
INT BUS A03 (1)	H	D03D1		1-02 *	n									H TO WHERE	167
INT BUS A03 (1)				1									3-2/8		167
INT BUS A04 (1)	H	D01E1		1-01 *	H						1			HAND WIRE	168
INT BUS A04 (1)	H	D03E1		1-02 *	n									H TO WHERE	168
INT BUS A04 (1)				1									3-2/8		168
INT BUS A05 (1)	H	D01F1		1-01 *	H						1			HAND WIRE	169
INT BUS A05 (1)	H	D03F1		1-02 *	n									H TO WHERE	169
INT BUS A05 (1)				1									3-2/8		169
INT BUS A06 (1)	H	D01H1		1-01 *	H						1			HAND WIRE	170
INT BUS A06 (1)	H	D03H1		1-02 *	n									H TO WHERE	170
INT BUS A06 (1)				1									3-2/8		170
INT BUS A07 (1)	H	D01J1		1-01 *	H						1			HAND WIRE	171
INT BUS A07 (1)	H	D03J1		1-02 *	n									H TO WHERE	171
INT BUS A07 (1)				1									3-2/8		171
INT BUS A08 (1)	H	D01K1		1-01 *	H						1			HAND WIRE	172
INT BUS A08 (1)	H	D03K1		1-02 *	n									H TO WHERE	172
INT BUS A08 (1)				1									3-2/8		172

RK11D,F RUN NAME	HND288.V22(22) 11/06/73										1-MAY-74	19:27	PAGE 20		
	A/P	PLN NAME	ORDER PIN	BAY - ORDER	Q	DRAW	KV	PG	Y	X	Z	REMARKS	LENGTH	EXCEPTIONS	RUN NUMBER
INT BUS A09 (1)	H	D01L1		1-01 * H			001				1			HAND WIRE	173
INT BUS A09 (1)	H	D03L1		1-02 * H			001							H TO WHERE	173
INT BUS A09 (1)				1									3-2/8		173
INT BUS A10 (1)	H	D01M1		1-01 * H			001				1			HAND WIRE	174
INT BUS A10 (1)	H	D03M1		1-02 * H			001							H TO WHERE	174
INT BUS A10 (1)				1									3-2/8		174
INT BUS A11 (1)	H	D01N1		1-01 * H			001				1			HAND WIRE	175
INT BUS A11 (1)	H	D03N1		1-02 * H			001							H TO WHERE	175
INT BUS A11 (1)				1									3-2/8		175
INT BUS A12 (1)	H	D01P1		1-01 * H			001				1			HAND WIRE	176
INT BUS A12 (1)	H	D03P1		1-02 * H			001							H TO WHERE	176
INT BUS A12 (1)				1									3-2/8		176
INT BUS A13 (1)	H	D01R1		1-01 * H			001				1			HAND WIRE	177
INT BUS A13 (1)	H	D03R1		1-02 * H			001							H TO WHERE	177
INT BUS A13 (1)				1									3-2/8		177
INT BUS A14 (1)	H	D01S1		1-01 * H			001				1			HAND WIRE	178
INT BUS A14 (1)	H	D03S1		1-02 * H			001							H TO WHERE	178
INT BUS A14 (1)				1									3-2/8		178
INT BUS A15 (1)	H	D01U1		1-01 * H			001				1			HAND WIRE	179
INT BUS A15 (1)	H	D03U1		1-02 * H			001							H TO WHERE	179
INT BUS A15 (1)				1									3-2/8		179
INT BUS D00 (1)	H	F03V2		1-01 * H			001				1			HAND WIRE	180
INT BUS D00 (1)	H	F04V2		1-02 * H			001							H TO WHERE	180
INT BUS D00 (1)				1									2-6/8		180
INT BUS D01 (1)	H	F03U2		1-01 * H			001				1			HAND WIRE	181
INT BUS D01 (1)	H	F04U2		1-02 * H			001							H TO WHERE	181
INT BUS D01 (1)				1									2-6/8		181
INT BUS D02 (1)	H	F03T2		1-01 * H			001				1			HAND WIRE	182
INT BUS D02 (1)	H	F04T2		1-02 * H			001							H TO WHERE	182
INT BUS D02 (1)				1									2-6/8		182
INT BUS D03 (1)	H	F03S2		1-01 * H			001				1			HAND WIRE	183
INT BUS D03 (1)	H	F04S2		1-02 * H			001							H TO WHERE	183
INT BUS D03 (1)				1									2-6/8		183
INT BUS D04 (1)	H	F03R2		1-01 * H			001				1			HAND WIRE	184
INT BUS D04 (1)	H	F04R2		1-02 * H			001							H TO WHERE	184
INT BUS D04 (1)				1									2-6/8		184

RK11D,F RUN NAME	HND288.V22(22) 11/06/73										1-MAY-74	19:27	PAGE 21		
	A/P	PLN NAME	ORDER PIN	BAY - ORDER	Q	DRAW	KV	PG	Y	X	Z	REMARKS	LENGTH	EXCEPTIONS	RUN NUMBER
INT BUS D05 (1)	H	F03P2		1-01 * H			001				1			HAND WIRE	185
INT BUS D05 (1)	H	F04P2		1-02 * H			001							H TO WHERE	185
INT BUS D05 (1)				1									2-6/8		185
INT BUS D06 (1)	H	F03N2		1-01 * H			001				1			HAND WIRE	186
INT BUS D06 (1)	H	F04N2		1-02 * H			001							H TO WHERE	186
INT BUS D06 (1)				1									2-6/8		186
INT BUS D07 (1)	H	F03M2		1-01 * H			001				1			HAND WIRE	187
INT BUS D07 (1)	H	F04M2		1-02 * H			001							H TO WHERE	187
INT BUS D07 (1)				1									2-6/8		187
INT BUS D08 (1)	H	F03L2		1-01 * H			001				1			HAND WIRE	188
INT BUS D08 (1)	H	F04L2		1-02 * H			001							H TO WHERE	188
INT BUS D08 (1)				1									2-6/8		188
INT BUS D09 (1)	H	F03K2		1-01 * H			001				1			HAND WIRE	189
INT BUS D09 (1)	H	F04K2		1-02 * H			001							H TO WHERE	189
INT BUS D09 (1)				1									2-6/8		189
INT BUS D10 (1)	H	F03J2		1-01 * H			001				1			HAND WIRE	190
INT BUS D10 (1)	H	F04J2		1-02 * H			001							H TO WHERE	190
INT BUS D10 (1)				1									2-6/8		190
INT BUS D11 (1)	H	F03H2		1-01 * H			001				1			HAND WIRE	191
INT BUS D11 (1)	H	F04H2		1-02 * H			001							H TO WHERE	191
INT BUS D11 (1)				1									2-6/8		191
INT BUS D12 (1)	H	F03F2		1-01 * H			001				1			HAND WIRE	192
INT BUS D12 (1)	H	F04F2		1-02 * H			001							H TO WHERE	192
INT BUS D12 (1)				1									2-6/8		192
INT BUS D13 (1)	H	F03E2		1-01 * H			001				1			HAND WIRE	193
INT BUS D13 (1)	H	F04E2		1-02 * H			001							H TO WHERE	193
INT BUS D13 (1)				1									2-6/8		193
INT BUS D14 (1)	H	F03D2		1-01 * H			001				1			HAND WIRE	194
INT BUS D14 (1)	H	F04D2		1-02 * H			001							H TO WHERE	194
INT BUS D14 (1)				1									2-6/8		194
INT BUS D15 (1)	H	F03B1		1-01 * H			001				1			HAND WIRE	195
INT BUS D15 (1)	H	F04B1		1-02 * H			001							H TO WHERE	195
INT BUS D15 (1)				1									2-6/8		195
LAST BIT	H	F01D2		1-01 * H			001				1			HAND WIRE	196
LAST BIT	H	F02D2		1-02 * H			001							H TO WHERE	196
LAST BIT				1									2-6/8		196

RK11D.F RUN NAME	A/P	HND288.V22(22) PIN NAME	11/06/73 ORDER PIN	BAY - ORDER	Q	DRAW	RV	PG	I	X	Z	REMARKS	1-MAY-74 LENGTH	19:27 EXCEPTIONS	PAGE 22 RUN NUMBER
LAST SECTOR	L	C02U2	1-01 *	H				D01			1				197
LAST SECTOR	L	C03U2	1-02 *	H				D01						H TO WHERE	197
LAST SECTOR			1										2-6/8		197
LAST WORD DONE	L	C01L1	1-01 *	H				D01			1				198
LAST WORD DONE	L	C03L1	1-02 *	H				D01						H TO WHERE	198
LAST WORD DONE			1										3-2/8		198
LOAD RKBA HI	L	E03V2	1-01 *	H				D01			1				199
LOAD RKBA HI	L	E04V2	1-02 *	H				D01						H TO WHERE	199
LOAD RKBA HI			1										2-6/8		199
LOAD RKBA LU	L	E03H2	1-01 *	H				D01			1				200
LOAD RKBA LU	L	E04H2	1-02 *	H				D01						H TO WHERE	200
LOAD RKBA LU			1										2-6/8		200
LOAD RKCS HI	L	E01L1	1-01 *	H				D01			1				201
LOAD RKCS HI	L	E04L1	1-02 *	H				D01						H TO WHERE	201
LOAD RKCS HI			1										3-6/8		201
LOAD RKCS LU	L	E01M1	1-01 *	H				D01			1				202
LOAD RKCS LU	L	E04M1	1-02 *	H				D01						H TO WHERE	202
LOAD RKCS LU			1										3-6/8		202
LOAD RKDA HI	L	E03E2	1-01 *	H				D01			1				203
LOAD RKDA HI	L	E04E2	1-02 *	H				D01						H TO WHERE	203
LOAD RKDA HI			1										2-6/8		203
LOAD RKDA LU	L	E03F2	1-01 *	H				D01			1				204
LOAD RKDA LU	L	E04F2	1-02 *	H				D01						H TO WHERE	204
LOAD RKDA LU			1										2-6/8		204
LOAD RKWC HI	L	E01B1	1-01 *	H				D01			1				205
LOAD RKWC HI	L	E04B1	1-02 *	H				D01						H TO WHERE	205
LOAD RKWC HI			1										3-6/8		205
LOAD RKWC LU	L	E01F1	1-01 *	H				D01			1				206
LOAD RKWC LU	L	E04F1	1-02 *	H				D01						H TO WHERE	206
LOAD RKWC LU			1										3-6/8		206
M CLK	L	A02U2	1-01 *								1				207
M CLK	L	D02U2	1-02 *												207
M CLK			1										8-6/8		207

RK11D.F RUN NAME	A/P	HND288.V22(22) PIN NAME	11/06/73 ORDER PIN	BAY - ORDER	Q	DRAW	RV	PG	I	X	Z	REMARKS	1-MAY-74 LENGTH	19:27 EXCEPTIONS	PAGE 23 RUN NUMBER
NEW FUN	L	C01R1	1-01 *	H				D01			2				208
NEW FUN	L	C02R1	1-02 *	H				D01			1				208
NEW FUN	L	C03R1	1-03 *	H				D01						H TO WHERE	208
NEW FUN			1										5-4/8		208
NPR EN (1)	H	C03V2	1-01 *								1				209
NPR EN (1)	H	E04M2	1-02 *												209
NPR EN (1)			1										7-0/8		209
NPR REQ	H	E03J2	1-01 *	H				D01			1				210
NPR REQ	H	E04J2	1-02 *	H				D01						H TO WHERE	210
NPR REQ			1										2-6/8		210
NXM (1)	H	E01N1	1-01 *	H				D01			1				211
NXM (1)	H	E04N1	1-02 *	H				D01						H TO WHERE	211
NXM (1)			1										3-6/8		211
OUT BUFF FULL (1)	H	B03L2	1-01 *					D02			1				212
OUT BUFF FULL (1)	H	C03L2	1-02 *												212
OUT BUFF FULL (1)			1										4-6/8		212
PULL DONE	L	F01U1	1-01 *	H				D01			1				213
PULL DONE	L	F02U1	1-02 *	H				D01						H TO WHERE	213
PULL DONE			1										2-6/8		213
PREAMBLE (1)	H	F01M2	1-01 *	H				D01			1				214
PREAMBLE (1)	H	F02M2	1-02 *	H				D01						H TO WHERE	214
PREAMBLE (1)			1										2-6/8		214
R/W/S RDY	H	E01P2	1-01 *	H				D01			1				215
R/W/S RDY	H	E02P2	1-02 *	H				D01						H TO WHERE	215
R/W/S RDY			1										2-6/8		215
RD DATA=WT DATA	H	F01M1	1-01 *	H				D01			1				216
RD DATA=WT DATA	H	F02M1	1-02 *	H				D01						H TO WHERE	216
RD DATA=WT DATA			1										2-6/8		216
RD GATE (1)	H	B03F2	1-01 *					D02			1				217
RD GATE (1)	H	D02T2	1-02 *												217
RD GATE (1)			1										9-0/8		217
RD GATE EN	H	F01J2	1-01 *	H				D01			1				218
RD GATE EN	H	F02J2	1-02 *	H				D01						H TO WHERE	218
RD GATE EN			1										2-6/8		218

RKIID,F RUN NAME	A/P	HND288.V22(22) 11/06/73 PIN NAME	ORDER PIN	RAY - ORDER	Q	DRAM	KV	PG	I	X	Z	REMARKS	1-MAY-74 LENGTH	19:27 EXCEPTIONS	PAGE 24 RUN NUMBER	
RD HEADER (1)	H	F01L1		1-01 *	H						1		P		HAND WIRE	219
RD HEADER (1)	H	F02L1		1-02 *	H								P		H TO WHERE	219
RD HEADER (1)				1										2-6/8		219
RD+RD CHK	H	B03D2		1-01 *							1					220
RD+RD CHK	H	C03K1		1-02 *	H						2		P		HAND WIRE	220
RD+RD CHK	H	C01K1		1-03 *	H								P		H TO WHERE	220
RD+RD CHK				1										9-0/8		220
READ	H	E01U1		1-01 *	H						1		P		HAND WIRE	221
READ	H	E03U2		1-02 *	H						2		P		HAND WIRE	221
READ	H	E04U2		1-03 *	H								P		H TO WHERE	221
READ				1										6-2/8		221
RK INT MASTER	H	D02U1		1-01 *	H						1		P		HAND WIRE	222
RK INT MASTER	H	D04U1		1-02 *	H								P		H TO WHERE	222
RK INT MASTER				1										3-2/8		222
RK INT REQ	H	E02K2		1-01 *	H						1		P		HAND WIRE	223
RK INT REQ	H	E04K2		1-02 *	H								P		H TO WHERE	223
RK INT REQ				1										3-2/8		223
RK NPR MASTER	H	C03J2		1-01 *	1						1			3-5		224
RK NPR MASTER	H	E04H1		1-02 *	H						2		P		HAND WIRE	224
RK NPR MASTER	H	E01H1		1-03 *	H								P		H TO WHERE	224
RK NPR MASTER				1										11-5/8		224
RK05	H	F01C1		1-01 *	H						1		P		HAND WIRE	225
RK05	H	F02C1		1-02 *	H								P		H TO WHERE	225
RK05				1										2-6/8		225
RKA 01 (1)	H	E01K1		1-01 *	H						2		P		HAND WIRE	226
RKA 01 (1)	H	E04K1		1-02 *	H						1		P		HAND WIRE	226
RKA 01 (1)	H	E03M2		1-03 *											H TO WHERE	226
RKA 01 (1)				1										6-4/8		226
RKA 02 (1)	H	E01J1		1-01 *	H						1		P		HAND WIRE	227
RKA 02 (1)	H	F04J1		1-02 *	H						2		P		HAND WIRE	227
RKA 02 (1)	H	E03N2		1-03 *											H TO WHERE	227
RKA 02 (1)				1										6-6/8		227
RKA 03 (1)	H	E03V1		1-01 *	H						1		P		HAND WIRE	228
RKA 03 (1)	H	E04V1		1-02 *	H								P		H TO WHERE	228
RKA 03 (1)				1										2-6/8		228

RKIID,F RUN NAME	A/P	HND288.V22(22) 11/06/73 PIN NAME	ORDER PIN	RAY - ORDER	Q	DRAM	KV	PG	I	X	Z	REMARKS	1-MAY-74 LENGTH	19:27 EXCEPTIONS	PAGE 25 RUN NUMBER	
RKBA 01 (1)	H	F03C1		1-01 *	H						1		P		HAND WIRE	229
RKBA 01 (1)	H	F04C1		1-02 *	H								P		H TO WHERE	229
RKBA 01 (1)				1										2-6/8		229
RKBA 02 (1)	H	F03D1		1-01 *	H						1		P		HAND WIRE	230
RKBA 02 (1)	H	F04D1		1-02 *	H								P		H TO WHERE	230
RKBA 02 (1)				1										2-6/8		230
RKBA 03 (1)	H	F03E1		1-01 *	H						1		P		HAND WIRE	231
RKBA 03 (1)	H	F04E1		1-02 *	H								P		H TO WHERE	231
RKBA 03 (1)				1										2-6/8		231
RKBA 04 (1)	H	F03F1		1-01 *	H						1		P		HAND WIRE	232
RKBA 04 (1)	H	F04F1		1-02 *	H								P		H TO WHERE	232
RKBA 04 (1)				1										2-6/8		232
RKBA 05 (1)	H	F03H1		1-01 *	H						1		P		HAND WIRE	233
RKBA 05 (1)	H	F04H1		1-02 *	H								P		H TO WHERE	233
RKBA 05 (1)				1										2-6/8		233
RKBA 06 (1)	H	F03J1		1-01 *	H						1		P		HAND WIRE	234
RKBA 06 (1)	H	F04J1		1-02 *	H								P		H TO WHERE	234
RKBA 06 (1)				1										2-6/8		234
RKBA 07 (1)	H	F03K1		1-01 *	H						1		P		HAND WIRE	235
RKBA 07 (1)	H	F04K1		1-02 *	H								P		H TO WHERE	235
RKBA 07 (1)				1										2-6/8		235
RKBA 08 (1)	H	F03L1		1-01 *	H						1		P		HAND WIRE	236
RKBA 08 (1)	H	F04L1		1-02 *	H								P		H TO WHERE	236
RKBA 08 (1)				1										2-6/8		236
RKBA 09 (1)	H	F03M1		1-01 *	H						1		P		HAND WIRE	237
RKBA 09 (1)	H	F04M1		1-02 *	H								P		H TO WHERE	237
RKBA 09 (1)				1										2-6/8		237
RKBA 10 (1)	H	F03N1		1-01 *	H						1		P		HAND WIRE	238
RKBA 10 (1)	H	F04N1		1-02 *	H								P		H TO WHERE	238
RKBA 10 (1)				1										2-6/8		238
RKBA 11 (1)	H	F03R1		1-01 *	H						1		P		HAND WIRE	239
RKBA 11 (1)	H	F04R1		1-02 *	H								P		H TO WHERE	239
RKBA 11 (1)				1										2-6/8		239
RKBA 12 (1)	H	F03P1		1-01 *	H						1		P		HAND WIRE	240
RKBA 12 (1)	H	F04P1		1-02 *	H								P		H TO WHERE	240
RKBA 12 (1)				1										2-6/8		240

RK11D.F		HND288.V22(22) 11/06/73										1-MAY-74		19:27	PAGE 26
RUN NAME		A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW	KV	PG	X	Z	REMARKS	LENGTH	EXCEPTIONS	RUN NUMBER
RKBA 13 (1)	H	F0351			1-01 *	H		001			1			HAND WIRE	241
RKBA 13 (1)	H	F0481			1-02 *	H		001						H TO WHERE	241
RKBA 13 (1)					1								2-6/8		241
RKBA 14 (1)	H	F0301			1-01 *	H		001			1			HAND WIRE	242
RKBA 14 (1)	H	F0401			1-02 *	H		001						H TO WHERE	242
RKBA 14 (1)					1								2-6/8		242
RKBA 15 (1)	H	F03V1			1-01 *	H		001			1			HAND WIRE	243
RKBA 15 (1)	H	F04V1			1-02 *	H		001						H TO WHERE	243
RKBA 15 (1)					1								2-6/8		243
RKBA OVF	L	E01S1			1-01 *	H		001			1			HAND WIRE	244
RKBA OVF	L	E01S2			1-02 *	H		001						H TO WHERE	244
RKBA OVF					1								3-4/8		244
RKDA 00 (1)	H	B03P2			1-01 *			002			1				245
RKDA 00 (1)	H	E03A1			1-02 *	H		001			2			HAND WIRE	245
RKDA 00 (1)	H	E02A1			1-03 *	H		001						H TO WHERE	245
RKDA 00 (1)					1								11-4/8		245
RKDA 01 (1)	H	B03V1			1-01 *			002			1				246
RKDA 01 (1)	H	E03B1			1-02 *	H		001			2			HAND WIRE	246
RKDA 01 (1)	H	E02B1			1-03 *	H		001						H TO WHERE	246
RKDA 01 (1)					1								10-6/8		246
RKDA 02 (1)	H	B03N1			1-01 *			002			1				247
RKDA 02 (1)	H	E03C1			1-02 *	H		001			2			HAND WIRE	247
RKDA 02 (1)	H	E02C1			1-03 *	H		001			1			HAND WIRE	247
RKDA 02 (1)	H	E01C1			1-04 *	H		001						H TO WHERE	247
RKDA 02 (1)					1								14-4/8		247
RKDA 03 (1)	H	B03K2			1-01 *			002			1				248
RKDA 03 (1)	H	E03D1			1-02 *	H		001			2			HAND WIRE	248
RKDA 03 (1)	H	E02D1			1-03 *	H		001			1			HAND WIRE	248
RKDA 03 (1)	H	E01D1			1-04 *	H		001						H TO WHERE	248
RKDA 03 (1)					1								15-0/8		248
RKDA 04 (1)	H	B03U2			1-01 *			002			1				249
RKDA 04 (1)	H	E03E1			1-02 *	H		001			2			HAND WIRE	249
RKDA 04 (1)	H	E02E1			1-03 *	H		001						H TO WHERE	249
RKDA 04 (1)					1								11-4/8		249
RKDA 05 (1)	H	B03T2			1-01 *			002			1				250
RKDA 05 (1)	H	E03F1			1-02 *	H		001			2			HAND WIRE	250
RKDA 05 (1)	H	E02F1			1-03 *	H		001						H TO WHERE	250
RKDA 05 (1)					1								11-6/8		250

RK11D.F		HND288.V22(22) 11/06/73										1-MAY-74		19:27	PAGE 27
RUN NAME		A/P	PIN NAME	ORDER PIN	BAY - ORDER	Q	DRAW	KV	PG	X	Z	REMARKS	LENGTH	EXCEPTIONS	RUN NUMBER
RKDA 06 (1)	H	B03C1			1-01 *			002			1				251
RKDA 06 (1)	H	E03H1			1-02 *	H		002			2			HAND WIRE	251
RKDA 06 (1)	H	E02H1			1-03 *	H		001						H TO WHERE	251
RKDA 06 (1)					1								13-2/8		251
RKDA 07 (1)	H	B03J1			1-01 *			001			1				252
RKDA 07 (1)	H	E03J1			1-02 *	H		001			2			HAND WIRE	252
RKDA 07 (1)	H	E02J1			1-03 *	H		001						H TO WHERE	252
RKDA 07 (1)					1								12-6/8		252
RKDA 08 (1)	H	B03F1			1-01 *			002			1				253
RKDA 08 (1)	H	E03K1			1-02 *	H		001			2			HAND WIRE	253
RKDA 08 (1)	H	E02K1			1-03 *	H		001						H TO WHERE	253
RKDA 08 (1)					1								13-2/8		253
RKDA 09 (1)	H	B03L1			1-01 *			002			1				254
RKDA 09 (1)	H	E03L1			1-02 *	H		001			2			HAND WIRE	254
RKDA 09 (1)	H	E02L1			1-03 *	H		001						H TO WHERE	254
RKDA 09 (1)					1								12-6/8		254
RKDA 10 (1)	H	B03P1			1-01 *			002			1				255
RKDA 10 (1)	H	E03M1			1-02 *	H		001			2			HAND WIRE	255
RKDA 10 (1)	H	E02M1			1-03 *	H		001						H TO WHERE	255
RKDA 10 (1)					1								12-4/8		255
RKDA 11 (1)	H	B03S2			1-01 *			002			1				256
RKDA 11 (1)	H	E03N1			1-02 *	H		001			2			HAND WIRE	256
RKDA 11 (1)	H	E02N1			1-03 *	H		001						H TO WHERE	256
RKDA 11 (1)					1								12-4/8		256
RKDA 12 (1)	H	B03K1			1-01 *			002			1				257
RKDA 12 (1)	H	E03P1			1-02 *	H		001			2			HAND WIRE	257
RKDA 12 (1)	H	E02P1			1-03 *	H		001						H TO WHERE	257
RKDA 12 (1)					1								13-2/8		257
RKDA 13 (1)	H	E02R1			1-01 *	H		001			1			HAND WIRE	258
RKDA 13 (1)	H	E03R1			1-02 *	H		001						H TO WHERE	258
RKDA 13 (1)					1								2-6/8		258
RKDA 14 (1)	H	E02S1			1-01 *	H		001			1			HAND WIRE	259
RKDA 14 (1)	H	E03S1			1-02 *	H		001						H TO WHERE	259
RKDA 14 (1)					1								2-6/8		259
RKDA 15 (1)	H	E02U1			1-01 *	H		001			1			HAND WIRE	260
RKDA 15 (1)	H	E03U1			1-02 *	H		001						H TO WHERE	260
RKDA 15 (1)					1								2-6/8		260

RKIID.F RUN NAME	HND288.V22(22) 11/06/73										1-MAY-74	19:27	PAGE 28	
	A/P	PTN NAME	ORDER PIN	RAY - ORDER	Q	DRAW	KV	PG	X	Z	REMARKS	LENGTH	EXCEPTIONS	RUN NUMBER
RKDB 00 (1)	H	C02T2		1-01 *	H		001			1			HAND WIRE	261
RKDB 00 (1)	H	C03T2		1-02 *	H		001						H TO WHERE	261
RKDB 00 (1)				1								2-6/8		261
RKDS 00 (1)	H	E01V1		1-01 *	H		001			1			HAND WIRE	262
RKDS 00 (1)	H	E02V1		1-02 *	H		001						H TO WHERE	262
RKDS 00 (1)				1								2-6/8		262
RKDS 01 (1)	H	E01D2		1-01 *	H		001			1			HAND WIRE	263
RKDS 01 (1)	H	E02D2		1-02 *	H		001						H TO WHERE	263
RKDS 01 (1)				1								2-6/8		263
RKDS 02 (1)	H	E01E2		1-01 *	H		001			1			HAND WIRE	264
RKDS 02 (1)	H	E02E2		1-02 *	H		001						H TO WHERE	264
RKDS 02 (1)				1								2-6/8		264
RKDS 03 (1)	H	E01F2		1-01 *	H		001			1			HAND WIRE	265
RKDS 03 (1)	H	E02F2		1-02 *	H		001						H TO WHERE	265
RKDS 03 (1)				1								2-6/8		265
SC=SA	H	E01H2		1-01 *	H		001			1			HAND WIRE	266
SC=SA	H	E02H2		1-02 *	H		001						H TO WHERE	266
SC=SA				1								2-6/8		266
SCH CMP (1)	H	F01S1		1-01 *	H		001			1			HAND WIRE	267
SCH CMP (1)	H	F02S1		1-02 *	H		001						H TO WHERE	267
SCH CMP (1)				1								2-6/8		267
SECTOR END	L	C02S2		1-01 *	H		001			1			HAND WIRE	268
SECTOR END	L	C03S2		1-02 *	H		001						H TO WHERE	268
SECTOR END				1								2-6/8		268
SECTOR PULSE	H	E01M2		1-01 *	H		001			1			HAND WIRE	269
SECTOR PULSE	H	E02M2		1-02 *	H		001						H TO WHERE	269
SECTOR PULSE				1								2-6/8		269
SEEK OR RESET	H	B03N2		1-01 *			002			1				270
SEEK OR RESET	H	F02L2		1-02 *	H		001			2			HAND WIRE	270
SEEK OR RESET	H	F01L2		1-03 *	H		001						H TO WHERE	270
SEEK OR RESET				1								15-4/8		270
SER RD DATA (1)	H	C01V1		1-01 *	H		001			2			HAND WIRE	271
SER RD DATA (1)	H	C02V1		1-02 *	H		001			1			HAND WIRE	271
SER RD DATA (1)	H	C03V1		1-03 *	H		001						H TO WHERE	271
SER RD DATA (1)				1								5-4/8		271

RKIID.F RUN NAME	HND288.V22(22) 11/06/73										1-MAY-74	19:27	PAGE 29	
	A/P	PTN NAME	ORDER PIN	RAY - ORDER	Q	DRAW	KV	PG	X	Z	REMARKS	LENGTH	EXCEPTIONS	RUN NUMBER
SIN	H	E01N2		1-01 *	H		001			1			HAND WIRE	272
SIN	H	E02N2		1-02 *	H		001						H TO WHERE	272
SIN				1								2-6/8		272
STOP NPRS	L	C01H1		1-01 *	H		001			1			HAND WIRE	273
STOP NPRS	L	C03H1		1-02 *	H		001						H TO WHERE	273
STOP NPRS				1								3-2/8		273
STOP POLL	L	F01N2		1-01 *	H		001			1			HAND WIRE	274
STOP POLL	L	F02N2		1-02 *	H		001						H TO WHERE	274
STOP POLL				1								2-6/8		274
WC UVF (1)	H	B03S1		1-01 *			002			1				275
WC UVF (1)	H	C03J1		1-02 *	H		001			2			HAND WIRE	275
WC UVF (1)	H	C01J1		1-03 *	H		001						H TO WHERE	275
WC UVF (1)				1								1-2/8		275
WRITE	H	F01H2		1-01 *	H		001			1			HAND WIRE	276
WRITE	H	F02H2		1-02 *	H		001						H TO WHERE	276
WRITE				1								2-6/8		276
WT GATE (1)	H	B03L2		1-01 *			002			1				277
WT GATE (1)	H	F02P1		1-02 *	H		001			2			HAND WIRE	277
WT GATE (1)	H	F01P1		1-03 *	H		001						H TO WHERE	277
WT GATE (1)				1								16-2/8		277
WT LOCK	H	F01S2		1-01 *	H		001			1			HAND WIRE	278
WT LOCK	H	F02S2		1-02 *	H		001						H TO WHERE	278
WT LOCK				1								2-6/8		278
WT PRCT STATUS	H	E01J2		1-01 *	H		001			1			HAND WIRE	279
WT PRCT STATUS	H	E02J2		1-02 *	H		001						H TO WHERE	279
WT PRCT STATUS				1								2-6/8		279
WT+WT CHK	H	B03H2		1-01 *			002			1				280
WT+WT CHK	H	C03P1		1-02 *	H		001			2			HAND WIRE	280
WT+WT CHK	H	C02P1		1-03 *	H		001			1			HAND WIRE	280
WT+WT CHK	H	C01P1		1-04 *	H		001						H TO WHERE	280
WT+WT CHK				1								11-2/8		280
XFER FUNCTION	H	E01V2		1-01 *	H		001			1			HAND WIRE	281
XFER FUNCTION	H	E02V2		1-02 *	H		001						H TO WHERE	281
XFER FUNCTION				1								2-6/8		281