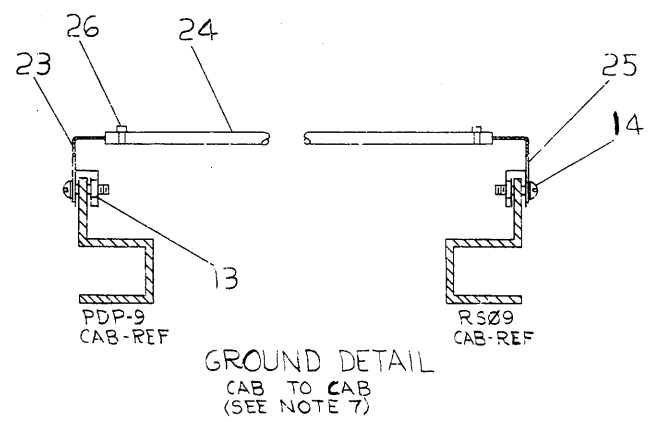
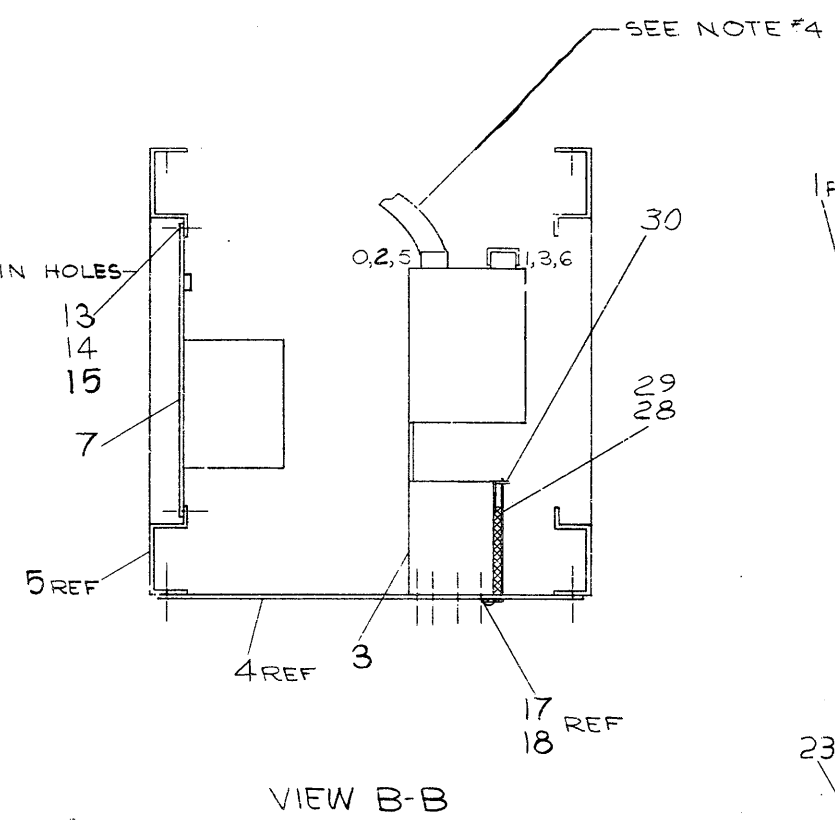
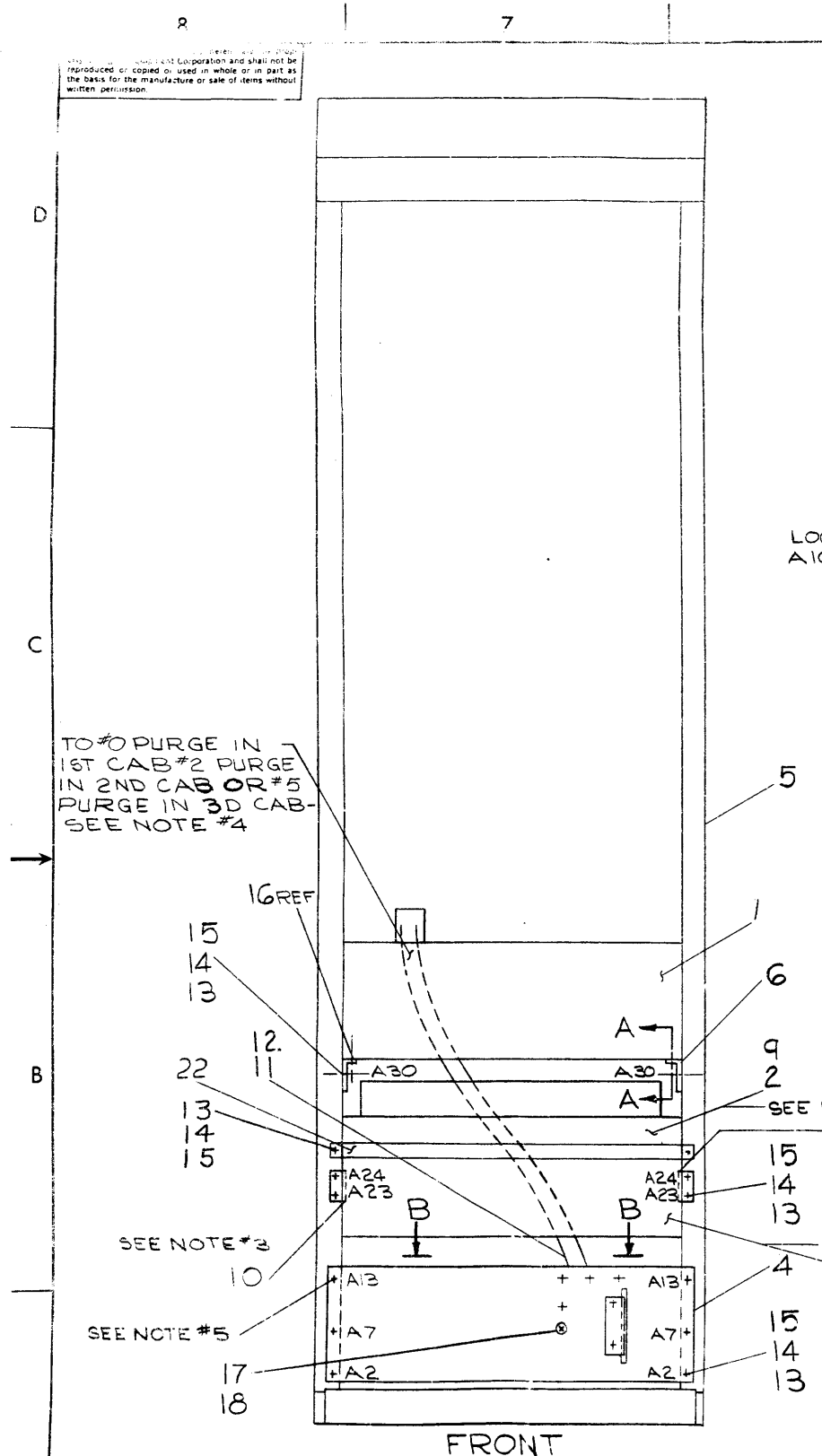






LEGEND	
NUMBER	VARIATION
RS09-0	60 HZ
RS09-A	50 HZ

- NOTES:
- FOR DWG INDEX LIST REFER TO DWG D-DI-RS09-0-8.
  - PLACE PROPER DECAL ITEM #9 (50 OR 60 HZ) IN SILK SCREENED SQUARE BOX AT REAR OF CHASSIS ASS'Y.
  - IF CABINETS ARE MADE OVER SIZE SPACER ITEM #10 SHALL BE USED ON EITHER ONE END OR BOTH ENDS UNDER CHASSIS SLIDES.
  - REMOVE CAP & ATTACH HOSE ITEM #12 TO PURGE #0 OR #2 OR #5 - REFER TO RF09/RS09 ARRANGEMENT DWG #D-AR-RF09-0-37.
  - INDICATES LOCATIONS FOR MTG ITEMS 4, 6, 7, - SEE DWG# E-UA-H950-A-0 SHEET #2.
  - FOR CABLE ORIENTATION REFER TO MODULE UTILIZATION #D-MU-RS09-0-5 & D-MU-RF09-0-33.
  - GROUND STRAP WITH BLACK TUBING AND TIEWRAPS TO BE CONNECTED BETWEEN COMPUTER CAB AND FREE STANDING RS09 CAB.



REV	CHANGE NO	DESCRIPTION
A	1	RS09-0-0004
B	2	D. VONADA
C	3	RS09-00010
D	4	RS09-00019
E	5	VONADA

FIRST USED ON OPTION/ MODEL RS09-0	DO NOT SCALE DRAWING UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± .164 ± 0°30' FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	DRN CHKD ENG PROJ. ENG DATE DATE DATE DATE
---------------------------------------	--	---

QTY.	DESCRIPTION	PART NO	ITEM NO.
PARTS LIST			
<b>digital</b> CORPORATION MAYNARD, MASSACHUSETTS			
TITLE 262 K 18 BIT DEC DISK (RS09)			
NEXT HIGHER ASSY A-ML-RS09-0		SCALE NONE	REV D
FINISH		SHEET OF	DIST. 8

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS <b>PARTS LIST</b>			QUANTITY / VARIATION																		
MADE BY G. FLANDERS		CHECKED D. HEALY	SECTION 1																		
DATE 6/30/69		DATE 7/2/69	ISSUED SECT. 1																		
ENG <i>[Signature]</i>		PROD <i>R/M Canton</i>																			
DATE 7/2/69		DATE 7-29-69																			
ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	RS09-0 (60 HZ)	RS09-A (50 HZ)																	
1	D-UA-RS08-M-0	DISK ASSY 60 HZ	1																		
1	D-UA-RS08-MA-0	DISK ASSY 50 HZ		1																	
2	D-UA-RS09-P-0	CHASSIS ASSY WITH LOGIC	1	1																	
3	E-AD-7006255-0-0	BLOWER FILTER	1	1																	
4	D-MD-7407235-0-0	PLATE, MTG BLOWER	1	1																	
5	A-AD-7006379-0-0	19" CAB ASSY	1	1																	
6	B-MD-7407013-0-0	SUPPORT	2	2																	
7	* D-AD-7006416-0-0	STEP DOWN TRANS ASSY	1	1																	
8	<del>D-UA-855-0-0</del>	<del>LINE FILTER &amp; POWER CONTROL 855</del>	1	1																	
9	A-DC-7406707-0-0	POWER PANEL DECAL (60 HZ)	1																		
9	A-DC-7406707-0-0	POWER PANEL DECAL (50 HZ)		1																	
*10	C-MD-7407442-0-0	SPACER, CHASSIS SLIDES	A/R	A/R																	
11	9007779	HOSE CLAMP 1-3/4	2	2																	
12	1209470	HOSE 1-1/2 I.D. #CMD#FT-3214-1 VAC-U-FLEX	A/R	A/R																	
13	9007786	NUT, C31758+1032-27 TINNERMAN	26	26																	
14	9006073-3	SCR, PHL HD TRUSS #10-32 x 1/2 SST	26	26																	
15	9007651	WASH, EXT TOOTH #10	26	26																	
16	9006368	SCR, SOC HD CAP #1/4-20 x 1/2 SST	4	4																	
17	9006056-3	SCR PH HD TRUSS #1/4-20 x 1/2 SST	6	6																	
18	9006724	WASH, EXT TOOTH 1/2 I.D.	6	6																	
REF	D-AR-RF09-0-37	RF09/RS09 ARRANGEMENT DWG	X	X																	
*	NOT A PRODUCTION PART--SEE NOTE 3 ON ASSY D-UA-RS09-0-0																				
TITLE 262K 18 BIT DEC DISK (RS09)			ASSY NO. D-UA-RS09-0-0				SIZE CODE A PL		NUMBER RS09-0-0				REV. D		ECO NO. RS09-00019						
			SHEET 1 OF 2				DIST. <i>[Mark]</i>														

DEC FORM NO. DRA 110

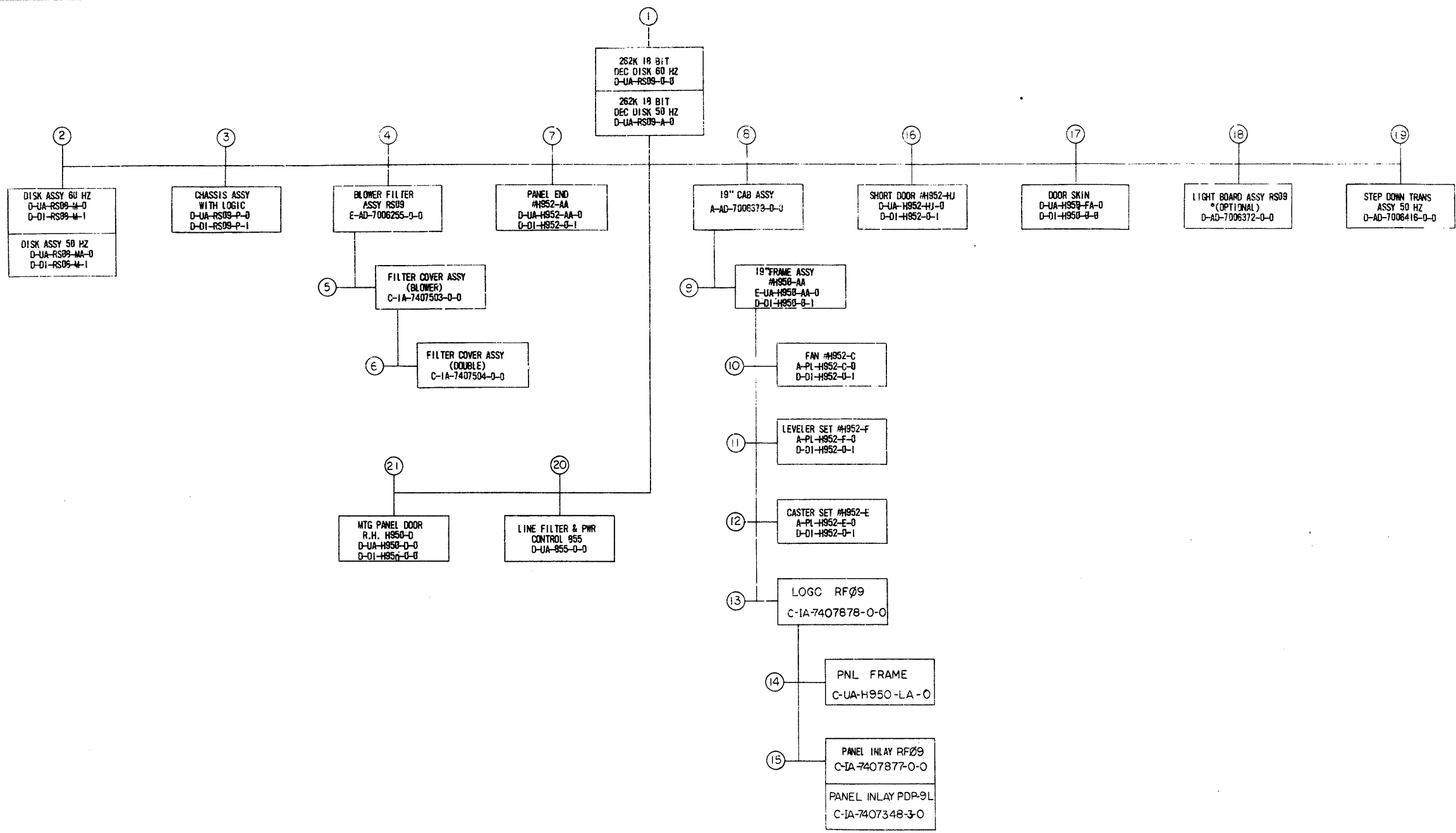
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DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS <b>PARTS LIST</b>			QUANTITY / VARIATION																		
MADE BY G. Flanders		CHECKED D. Healy	SECTION 1																		
DATE 6/30/69		DATE 7/2/69	ISSUED SECT. 1																		
ENG <i>[Signature]</i>		PROD <i>R/M Canton</i>																			
DATE 7-25-69		DATE																			
ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	RS09-0 (60HE)	RS09-A (50HE)																	
<del>19</del>	<del>C-IA-7006266-1</del>	<del>Cable Line Filter (Female)</del>	<del>1</del>	<del>1</del>																	
<del>20</del>	<del>C-IA-7006266-2</del>	<del>Cable Line Filter (Male)</del>	<del>1</del>	<del>1</del>																	
21	C-IA-7005820-4-0	Cable W021 to W011 9 FT Long	4	4																	
22	B-5100	PANEL BLANK 7402025	1	1																	
23	9107682	CABLE BRAIDED 5/8" x 10 FT LG BELDEN 8672	1	1																	
24	9107245-00	TUBING 3/8" x 10 FT LG BLK	1	1																	
25	9007926	CONNECTOR #50321 ARKLESS	2	2																	
26	9007880	TIEWRAP PANDUIT SST 1.5M	2	2																	
27	C-IA-7006481-3-0	POWER CORD	1	1																	
28	D-IA-7409012-0-0	FILTER	1	1																	
29	D-IA-7409013-0-0	FILTER FRAME	1	1																	
30	9006022-1	SCR, PHL HD PAN #6-32 X 3/8 SST	2	2																	
* USE ONLY ON FIRST CAB, 240 VOLTS ONLY																					
TITLE 262K 18BIT DEC DISK (RS09)			ASSY NO. D-UA-RS-09-0-0				SIZE CODE A PL		NUMBER RS09-0-0				REV. D		ECO NO.						
			SHEET 2 OF 2				DIST. <i>[Mark]</i>														

DEC FORM NO. DRA 110

X

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\* NOT A PRODUCTION PART - USED FOR TEST PURPOSES ONLY.

REV	CHANGE NO	REV
A	RS09-0000-4	11-1-68
B	RS09-0000-8	11-6-68
C	RS09-0001-4	1-25-70
D	RS09-0001-9	6-1-70
E	RS09-0002-2	5-25-71
F	RS09-0002-2	5-25-71
G	RS09-0002-2	5-25-71

FIRST USED ON OPTION/MODEL RS09-0	DO NOT SCALE DRAWING UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES = .005 = 1/64 = 0°30' FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS
MATERIAL + + +	FINISH + + +

QTY.	DESCRIPTION	PART NO	ITEM NO.
PARTS LIST			
DRN	DATE	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
CHK'D	DATE	TITLE DRAWING INDEX LIST RS09-C	
ENG	DATE	NEXT HIGHER ASSY A-ML-RS09-0-	
PROJ. ENG	DATE	SIZE CODE	NUMBER
PROJ. MGR	DATE	D	DI RS09-0-8
SCALE	+	SHEET	1 OF 2
DIST.	C	REV	E

DRAWING INDEX LIST RS09-C

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8-0-60SRIC 2 1

MECHANICAL			DEPT USAGE			MECHANICAL			DEPT USAGE			ELECTRICAL			DEPT USAGE			ELECTRICAL			DEPT USAGE										
FIND NO	DESCRIPTION	PART NO	PROD	CUST	F	C	FIND NO	DESCRIPTION	PART NO	PROD	CUST	F	C	FIND NO	DESCRIPTION	PART NO	PROD	CUST	F	C	FIND NO	DESCRIPTION	PART NO	PROD	CUST	F	C				
1	262K 18 BIT DEC DISK 60 HZ 262K 18 BIT DEC DISK 50 HZ 262K 18 BIT DEC DISK (P.L.) PLATE, MTG BLOWER SUPPORT SPACER CHASSIS (OPTIONAL) POWER PANEL DECAL 60 HZ POWER PANEL DECAL 50 HZ CABLE W/21 TO W/1 9FT PANEL BLANK PACKAGING INSTRUCTIONS FILTER FILTER FRAME	D-UA-RS09-0-0 D-UA-RS09-A-0 A-PL-RS09-0-0 D-MD-7407235-0-0 B-MD-7407013-0-0 C-MD-7407442-0-0 D-DC-7406707-0-0 A-7406707-0-0 C-IA-7005820-4-0 B-5100 A-PI-3700006-0-0 D-IA-7409012-0-0 D-IA-7409013-0-0					10	FAN H952-C DWG INDEX LIST	A-PL-H952-C-0 D-01-H952-0-0					1	262K 18 BIT DEC DISK 60 HZ 262K 18 BIT DEC DISK 50 HZ CONTROL 1 TRACK SELECT MATRIX 0 TRACK SELECT MATRIX 1 CONTROL UNIT CONNECTORS CONTROL 2 WIRE LIST MODULE UTILIZATION MODULE UTILIZATION LIST LOC CHART, TRACK, HEAD, CABLE POWER WIRING AC DC RF09 RS09 ARRANGEMENT HAND WRAP WIRE LIST HAND WRAP ROUTING RS09 CALIBRATION PROCEDURE	A-ML-RS09-0 A-ML-RS09-A D-BS-RS09-0-1 D-BS-RS09-0-2 D-BS-RS09-0-3 D-BS-RS09-0-4 D-BS-RS09-0-5 K-ML-RS09-0-WL D-ML-RS09-0-9 A-PL-RS09-0-9 D-IC-RS09-0-7 D-IC-RF09-0-35 D-AR-RF09-0-37 A-WL-RS09-0-10 C-WD-RS09-0-11 A-SP-RS09-0-12															
2	DISK ASSY 60 HZ DISK ASSY 50 HZ DISK ASSY (P.L.) DWG INDEX LIST	D-UA-RS09-M-0 D-UA-RS09-MA-0 A-PL-RS09-M-0 D-01-RS09-M-1					11	LEVELER SET H952-F DWG INDEX LIST	A-PL-H952-F-0 D-01-H952-0-1					2	DISK ASSY RS09-M-0 DISK ASSY RS09-MA-0	A-ML-RS09-M A-ML-RS09-MA															
3	CHASSIS ASSY WITH LOGIC CHASSIS ASSY WITH LOGIC (P.L.) DWG INDEX LIST	D-UA-RS09-P-0 A-PL-RS09-P-0 D-01-RS09-P-1					12	CASTER SET H952-E DWG INDEX LIST	A-PL-H952-E-0 D-01-H952-E-0					3	CHASSIS ASSY LOGIC	A-ML-RS09-P															
4	BLOWER FILTER ASSY RS09 BLOWER FILTER ASSY RS98 (P.L.) FILTER FRAME RETAINER SCREEN, PREFILTER PLATE, MTG SIDE CONTAINER, FILTER	E-AD-7006255-0-0 A-PL-7006255-0-0 C-MD-7409014-0-0 B-MD-7407182-0-0 D-IA-7407237-0-0 D-IA-7407236-0-0					13	LOGO RF09	C-IA-7407878-0-0					4	BLOWER FILTER ASSY	E-AD-7006255-0-0															
5	FILTER COVER ASSY BLOWER COVER, FILTER	C-IA-7407503-0-0 D-MD-7407256-1-0					14	PANEL, FRAME H950-LA PANEL FRAME H950-LA (P.L.) DWG INDEX LIST PNL FRAME	C-UA-H950-LA-0 A-PL-H950-LA-0 D-01-H950-0-1 C-IA-7406694-0-0					19	STEP DOWN TRANS ASSY	D-AD-7006416-0-0															
6	FILTER COVER ASSY (DOUBLE) COVER, FILTER	C-IA-7407504-0-0 D-MD-7407256-2-0					15	PANEL INLAY PDP 9L PANEL INLAY RF09	C-IA-7407349-3-0 C-IA-7407877-0-0					20	LINE FILTER & PWR CONT 955 CIRCUIT SCHEMATIC 955	D-UA-955-0-0 C-CS-955-0-0															
7	PANEL, END H952-AA PANEL, END (P.L.) DWG INDEX LIST	D-UA-H952-AA-0 A-PL-H952-0-0 D-01-H952-0-1					16	SHORT DOOR H952-HJ SHORT DOOR (P.L.) DWG INDEX LIST	D-UA-H952-HJ-0 A-PL-H952-HJ-0 D-01-H952-0-1					17	DOOR SKIN H950-FA-0 DOOR SKIN (P.L.) DWG INDEX LIST	D-UA-H950-FA-0 A-PL-H950-0-1 D-01-H950-0-1															
8	19" CAB ASSY 19" CAB ASSY (P.L.)	A-AD-7006379-0-0 A-PL-7006379-0-0					18	LIGHT BOARD ASSY RS09 (OPTIONAL) LIGHT BOARD ASSY RS09 (P.L.)	D-AD-7006372-0-0 A-PL-7006372-0-0					19	STEP DOWN TRANS ASSY (50 HZ) STEP DOWN TRANS ASSY (50 HZ) (P.L.) PANEL, TRANSFORMER BRACKET, TRANSFORMER	D-AD-7006416-0-0 A-PL-7006416-0-0 D-IA-7407500-0-0 D-IA-7407493-0-0															
9	19" FRAME ASSY H950-AA 19" FRAME ASSY (P.L.) DWG INDEX LIST	E-UA-H950-AA-0 A-PL-H950-0-0 D-01-H950-0-1					20	LINE FILTER & PWR CONT 955 LINE FILTER & PWR CONT 955 (P.L.)	D-UA-955-0-0 A-PL-955-0-0					21	MTG PANEL DOOR R.H. #H950-0 MTG PANEL DOOR R.H. #H950-0 (P.L.) DWG INDEX LIST	D-UA-H950-0-0 A-PL-H950-0-0 D-01-H950-0-0															

REV	
CHK	
CHG	

FIRST USED ON OPTION / MODEL + +

DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED  
DIMENSION IN INCHES  
TOLERANCES  
DECIMALS FRACTIONS ANGLES  
± .005 ± 1/64 ± 0°30'

FINAL SURFACE QUALITY  
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL + + +

FINISH + + +

SCALE 2 OF 2

SHEET 2 OF 2

QTY. DESCRIPTION PART NO. ITEM NO.

PARTS LIST

DRN. DATE 8/11/69  
CHK'D. DATE 7-22-69  
ENG. DATE 7-27-69  
PROJ. ENG. DATE 7-28-69  
PROB. DATE 7-27-69

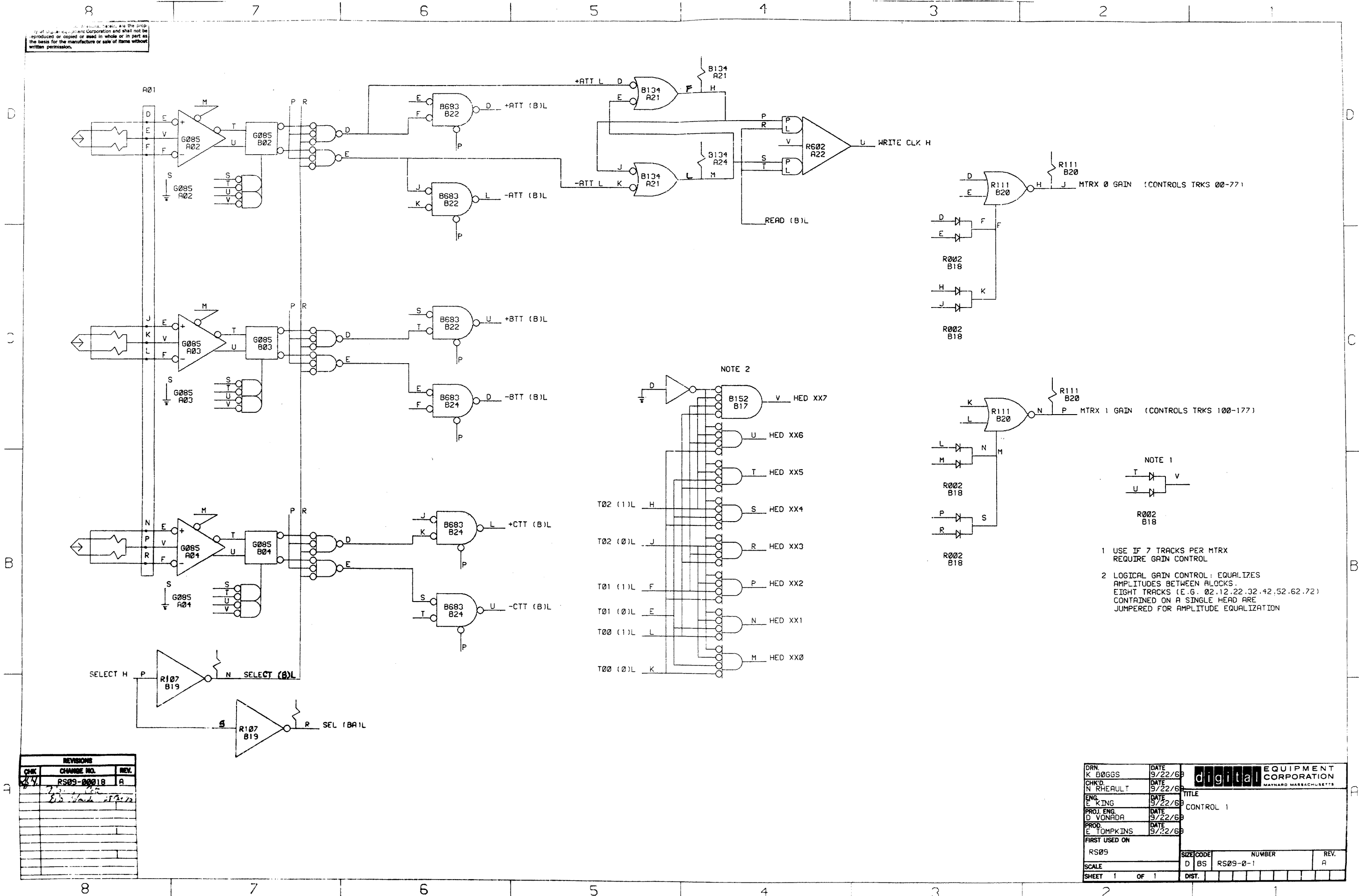
digital EQUIPMENT CORPORATION  
WAYNARD, MASSACHUSETTS

TITLE  
DRAWING INDEX LIST RS09-0

NEXT HIGHER ASSY

SIZE CODE NUMBER REV  
D D I R S 0 9 - 0 - 8 E

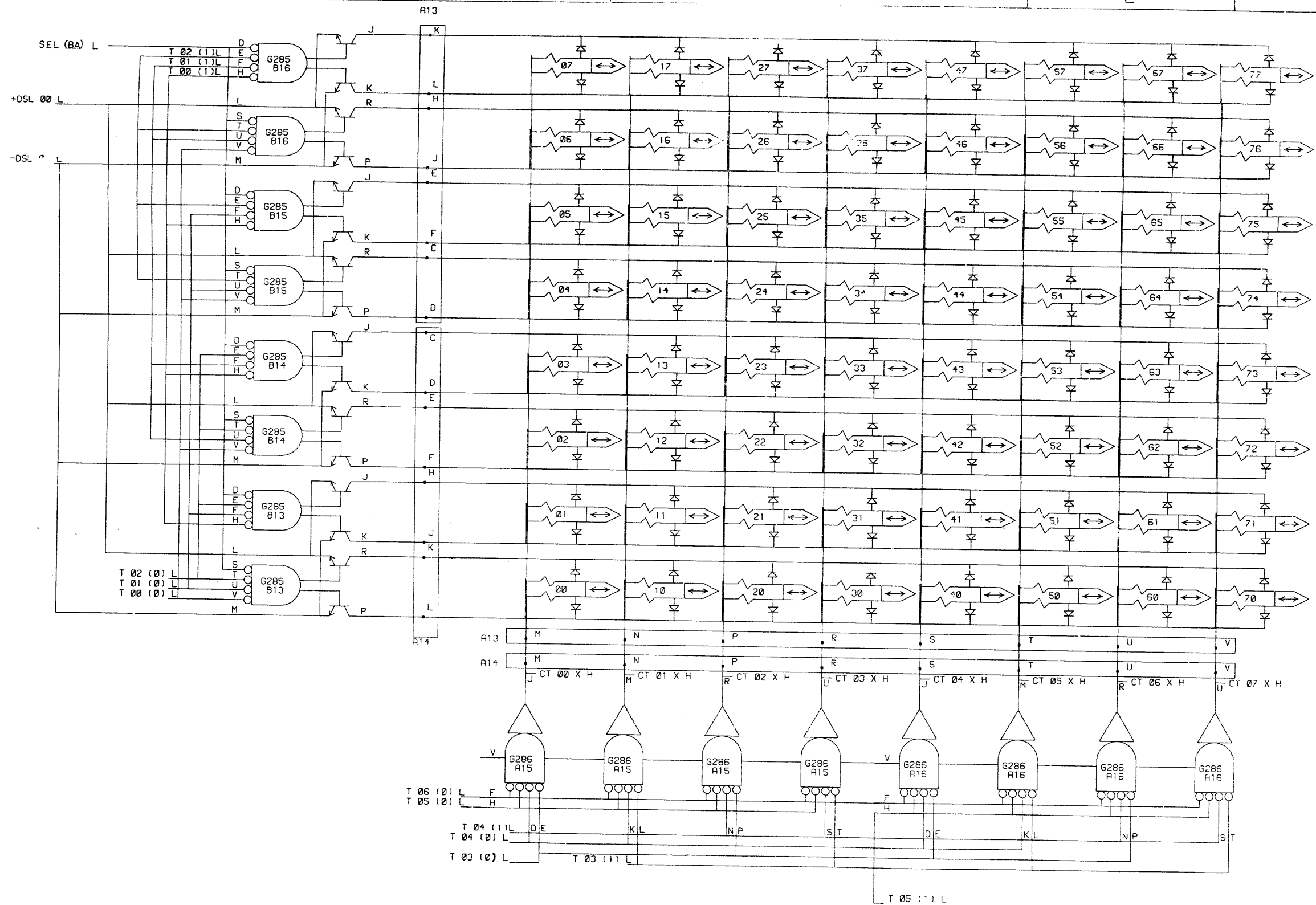
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REVISIONS		
CHK	CHANGE NO.	REV.
4/1	RS09-00018	A

DRN. K. BGGGS	DATE 9/22/69	 <b>digital</b> EQUIPMENT CORPORATION <small>MAYNARD, MASSACHUSETTS</small>
CHK'D N. RHEAULT	DATE 9/22/69	
ENG. E. KING	DATE 9/22/69	TITLE CONTROL 1
PROJ. ENG. D. VONADA	DATE 9/22/69	
PROD. E. TOMPKINS	DATE 9/22/69	
FIRST USED ON		
RS09	SIZE CODE D BS	NUMBER RS09-0-1
SCALE		REV. A
SHEET 1 OF 1	DIST.	

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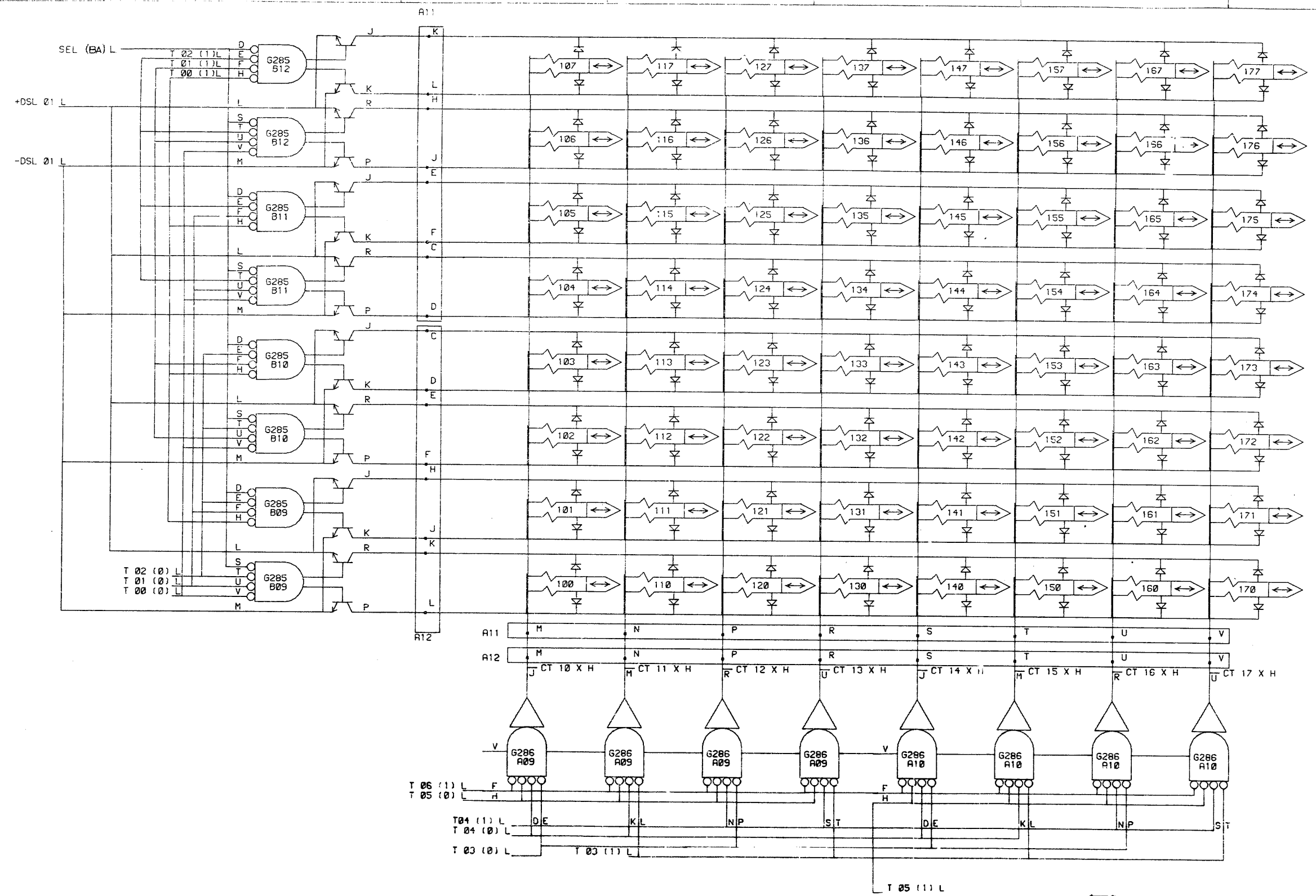


REVISIONS		
CHK	CHANGE NO.	REV.

DRN <i>A. Duggan</i>	DATE 9-22-69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D <i>M. Blum</i>	DATE 9-22-69	
ENG. <i>C. K.</i>	DATE 9-22-69	TITLE TRACK SELECT MATRIX 0
PROJ. ENG. <i>C. V. Toulson</i>	DATE 9-22-69	
PRG. <i>C. V. Toulson</i>	DATE 9-22-69	
FIRST USED ON		
RSC9	SIZE CODE D BS	NUMBER RS09-0-2
SCALE		REV. 00
SHEET 1 OF 1	DIST.	



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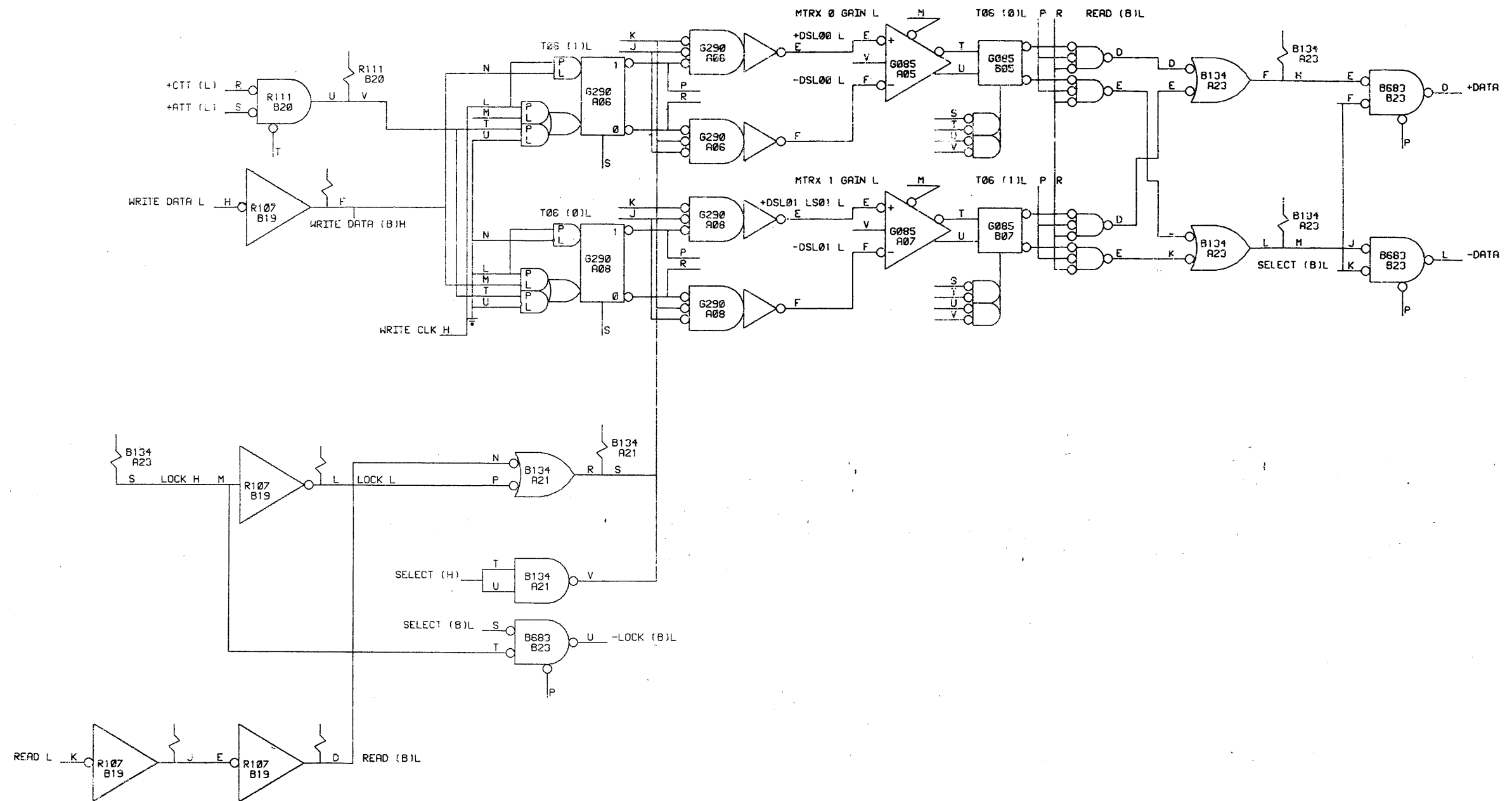


REVISIONS		
CHK	CHANGE NO.	REV.

DATE 7-26-69 DRAWN BY M. Beatty CHECKED BY J. King DESIGNED BY J. King FIRST USED ON		<b>DIGITAL EQUIPMENT CORPORATION</b> MARLBOROUGH, MASSACHUSETTS	
TITLE			
TRACK SELECT MATRIX I			
SCALE	D BS	RS09-0 3	REV. 1
SHEET 1 OF 1	DATE	REV.	NO.

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REVISIONS		
CHK	CHANGE NO.	REV.
7/1	RS09-0006	A
	D. G. YONADA	12-15-69

DRN K. BOGGS	DATE 9/22/69	DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D. M. H. BAULT	DATE 9/22/69	
ENR. D. KING	DATE 9/22/69	TITLE CONTROL 2
PROJ. ENG. D. G. YONADA	DATE 9/22/69	
PROD. C. R. JENKINS	DATE 9/22/69	
FIRST USED ON RS09		
SCALE D BS	NUMBER RS09-0-5	REV. A
SHEET 1 OF 1	DIST.	

8 7 6 5 4 3 2 1

DRWG NO  
 K-WL-RS09-0-WL

REVLTR  
 C

REVISIONS			
REV LTR	ECO NO	DATE	ENG
A	RS09-00004	11-1-69	SDW
B	00009	1-16-70	SDW
C	RS09-00013	5-11-70	SDW

FIRST USED ON OPTION/MODEL  
 RS09

DRAWN	DATE
<i>E. Flanigan</i>	11/21/69
CHECKED	DATE
<i>H. Washburn</i>	9/5/69
ENG	DATE
<i>E. King</i>	9-22-69
PROJ. ENGR	DATE
<i>D. S. Horada</i>	9-22-69
PROD	DATE
<i>C. J. Tompkins</i>	9-22-69



TITLE  
 WIRE LIST

FOR TAPE # FILE #

SIZE	CODE	DWG. NO.	REV LTR
K	WL	RS09-0-WL	C

ASSY NO  
 A-ML-RS09-0

SCALE SHEET OF DIST.



**DIGITAL EQUIPMENT CORPORATION**  
MAYNARD, MASSACHUSETTS  
**PARTS LIST**

<b>MADE BY</b> ROBICHARD	<b>CHECKED</b> D. HEALY	<b>SECTION</b>
<b>DATE</b> 6/25/69	<b>DATE</b> 6/26/69	1
<b>ENG</b> <i>D.D. Vada</i>	<b>PROD</b> <i>R.M. Antonuccio</i>	<b>ISSUED SECT.</b>
<b>DATE</b> 7-28-69	<b>DATE</b> 7-25-69	1

QUANTITY/VARIATION

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION
	B134	DIODE GATE
	B152	BINARY TO OCTAL DECODER
	B683	BUS DRIVER
	G085	DISC READ AMP & SLICE
	G285	SERIES SWITCH
	G286	CENTER TAP SELECTOR
	G290	WRITE AMP
	R002	DIODE CLUSTER
	R107	INVERTER
	R111	DIODE GATE
	R602	PULSE AMPLIFIER


<b>TITLE</b> MODULE UTILIZATION LIST (RS09)	<b>ASSY NO.</b> D-MU-RS09-0-9	<b>SIZE</b> A	<b>CODE</b> PL	<b>NUMBER</b> RS09-0-9	<b>REV.</b> A	<b>ECO NO.</b> RSC9-00009
	<b>SHEET 1 OF 1</b>	<b>DIST.</b>				

DEC FORM NO. 894 110



**DIGITAL EQUIPMENT CORPORATION**  
MAYNARD, MASSACHUSETTS  
**PARTS LIST**

<b>MADE BY</b> ROBICHARD	<b>CHECKED</b> D. HFALY	<b>SECTION</b>
<b>DATE</b> 6/25/69	<b>DATE</b> 6/26/69	1
<b>ENG</b> <i>D. J. Truda</i>	<b>PROD</b> <i>R. M. Antonuccio</i>	<b>ISSUED SECT.</b>
<b>DATE</b> 7-28-69	<b>DATE</b> 7-25-69	1

QUANTITY / VARIATION

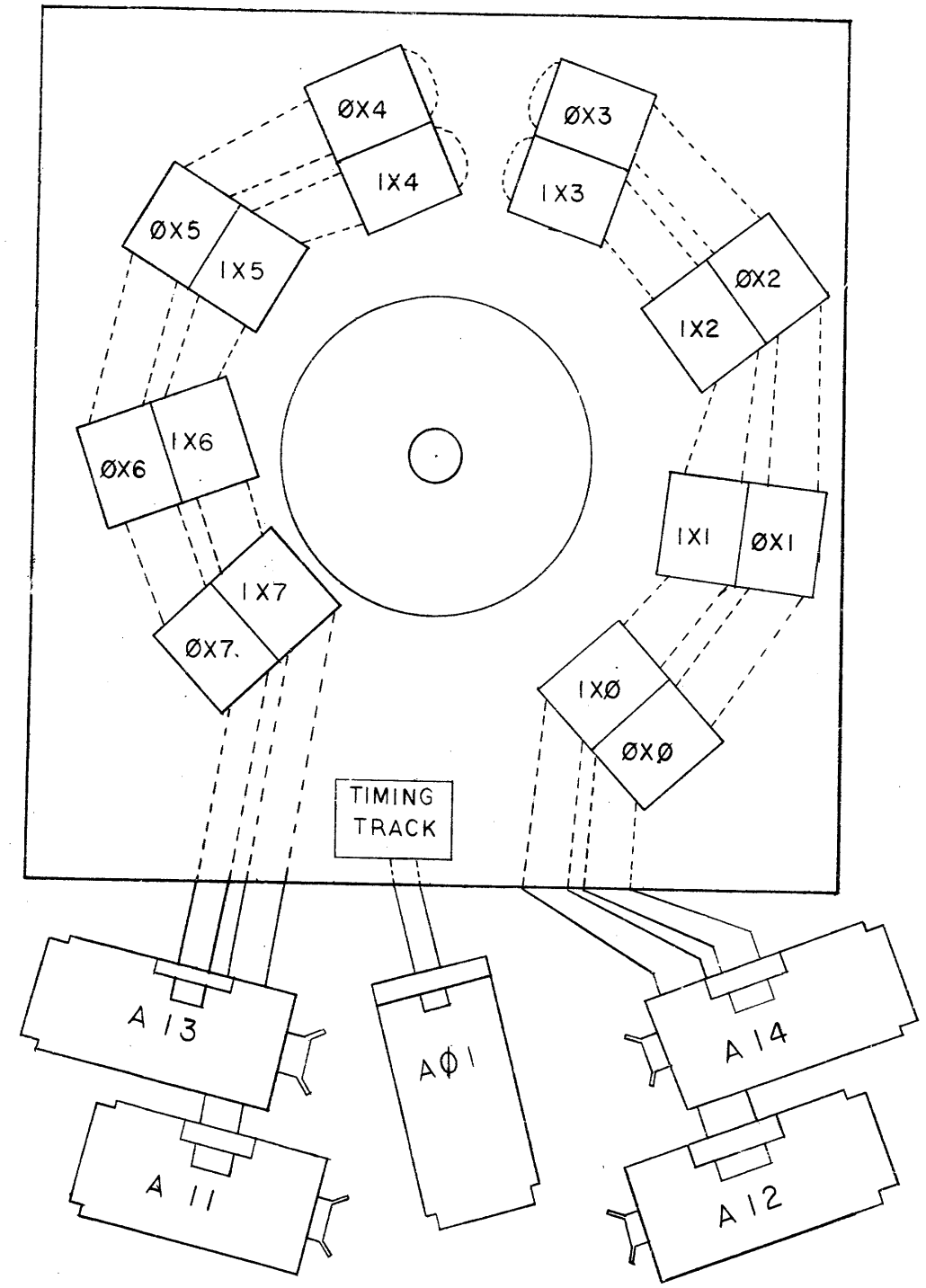
ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY	UNIT	VAR 1	VAR 2	VAR 3	VAR 4	VAR 5	VAR 6	VAR 7	VAR 8	VAR 9	VAR 10	VAR 11	VAR 12
	B134	DIODE GATE	2													
	B152	BINARY TO OCTAL DECODER	1													
	B683	BUS DRIVER	3													
	GØ85	DISC READ AMP & SLICE	5													
	G285	SERIES SWITCH	8													
	G286	CENTER TAP SELECTOR	4													
	G29Ø	WRITE AMP	2													
	RØØ2	DIODE CLUSTER	1													
	R1Ø7	INVERTER	1													
	R111	DIODE GATE	1													
	R6Ø2	PULSE AMPLIFIER	1													

<b>TITLE</b> MODULE UTILIZATION LIST (RSØ9)	<b>ASSY NO.</b> D-MU-RSØ9-Ø-9	<b>SIZE CODE</b> A PL	<b>NUMBER</b> RSØ9-Ø-9	<b>REV.</b> A	<b>ECO NO.</b> RSØ9-00009
<b>SHEET 1 OF 1</b>		<b>DIST.</b>			

DEC FORM NO. 28A 110

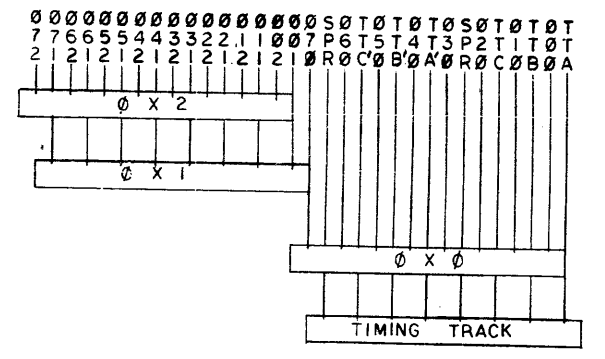
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TOP VIEW  
DISK REMOVED



TRACK INTERLACE SCHEME

HEAD	INTERLACES	HEAD
T. TRACK		Ø X Ø
Ø X 1		Ø X 2
Ø X 3		Ø X 4
Ø X 5		Ø X 6
Ø X 7		I X Ø
I X 1		I X 2
I X 3		I X 4
I X 5		I X 6
I X 7		—



OUTER EDGE  
ROTATION AS SHOWN

REV.	CHANGE NO.

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RS09-0				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES ± .005 ± 1/64 ± 0°30'	DRN. DATE 6-15-69	DATE 6-15-69	<b>digital</b> EQUIPMENT CORPORATION MATTAPOISETT, MASSACHUSETTS TITLE (RS09) LOCATION CHART TRACK, HEAD, CABLE	
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS	CHK'D. DATE 6-20-69	DATE 6-20-69		
	ENG. DATE 7-27-69	DATE 7-27-69		
	PROJ. ENGR. DATE 7-27-69	DATE 7-27-69		
MATERIAL	PRT. DATE 7-27-69	DATE 7-27-69	NEXT HIGHER ASSY A-M-L-RS09-0	
FINISH	SCALE NONE	SHEET 1 OF 1		
SIZE CODE D I C R S 0 9 - 0 - 7			REV.	





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SIGNAL NAME	FROM PIN	TO PIN	COLOR	REMARKS
A01J	A01J	A03E	BLUE	
A01L	A01L	A03F	"	
A01N	A01N	A04E	"	
A01R	A01R	A04F	"	
A23D	A23D	B05D	"	
A23J	A23J	B05E	"	
B03D	B03D	B22T	"	
B03E	B03E	B24E	"	
B04E	B04E	B24S	"	
+CIT	B04D	B20R	"	
+CIT	B20R	B24K	"	
B07D	A23E	B07D	"	
B07E	A23K	B07E	"	
B09J	A12H	B09J	"	
B09K	A12J	B09K	"	
B09P	A12L	B09P	"	
B09R	A12K	B09R	"	

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SIGNAL NAME	FROM PIN	TO PIN	COLOR	REMARKS
B10J	A12C	B10J	BLUE	
B10K	A12D	B10K	"	
B10P	A12F	B10P	"	
B10R	A12E	B10R	"	
B11J	A11E	B11J	"	
B11K	A11F	B11K	"	
B11P	A11D	B11P	"	
B11R	A11C	B11R	"	
B12J	A11K	B12J	"	
B12K	A11L	B12K	"	
B12P	A11J	B12P	"	
B12R	A11H	B12R	"	
B13J	A14H	B13J	"	
B13K	A14J	B13K	"	
B13P	B13P	A14L	"	
B13R	A14K	B13R	"	
B14J	A14C	B14J	"	
B14K	A14D	B14K	"	

REVISIONS				DRN. E. STEVENSON	DATE 10-20-9	 <b>EQUIPMENT CORPORATION</b> MAYNARD, MASSACHUSETTS	TITLE <b>GENERAL WIRING SHEET</b> FOR SPECIAL HAND WRAP	SIZE	CODE	NUMBER	REV.
REV.	DATE	CHG. NO.	APP'D.	CHK'D.	DATE			A	WL	RS09-0-10	
ORIGINATED BY CO# RS09-00004				ENG. <i>W. Sutherland</i>	DATE 11-4-69						
				PROJ. ENG. <i>Cal King</i>	DATE 11-6-69						
				PROD. <i>W. Sutherland</i>	DATE 11-5-69						
				FIRST USED ON <i>C. P. T...</i>	DATE 11-7-69						
				SHEET 1 OF 4		DIST.					

REVISIONS				DRN. E. STEVENSON	DATE 10-20-9	 <b>EQUIPMENT CORPORATION</b> MAYNARD, MASSACHUSETTS	TITLE <b>GENERAL WIRING SHEET</b> FOR SPECIAL HAND WRAP	SIZE	CODE	NUMBER	REV.
REV.	DATE	CHG. NO.	APP'D.	CHK'D.	DATE			A	WL	RS09-0-10	
				ENG. <i>W. Sutherland</i>	DATE 11-8-69						
				PROJ. ENG. <i>Cal King</i>	DATE 11-6-69						
				PROD. <i>W. Sutherland</i>	DATE 11-5-69						
				FIRST USED ON <i>C. P. T...</i>	DATE 11-7-69						
				SHEET 2 OF 4		DIST.					

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SIGNAL NAME	FROM PIN	TO PIN	COLOR	REMARKS
B14P	A14F	B14P	BLUE	
B14R	A14E	B14R	"	
B15J	A13E	B15J	"	
B15K	A13F	B15K	"	
B15P	A13D	B15P	"	
B15R	A13C	B15R	"	
B16J	A13K	B16J	"	
B16K	A13L	B16K	"	
B16P	A13J	B16P	"	
B16R	A13H	B16R	"	
+ATT	B02D	B20S	"	
+ATT	B20S	B22F	"	
+ATT	B22F	A21D	"	
-ATT	B02E	B22J	"	
-ATT	B22J	A21K	"	
+DSL00	A06E	B13L	"	
-DSL00	A06F	B13M	"	
+DSL01	A08E	B09L	"	
-DSL01	A08F	B09M	"	

REVISIONS				DRN.	DATE
REV.	DATE	CHG. NO.	APP'D.	E. STEVENSON	10-20-9
				<i>W. Stevenson</i>	11-4-69
				ENG. <i>D. K.</i>	DATE 11-6-69
				PROJ. ENG. <i>E. D. K.</i>	DATE 11-5-69
				PROD. <i>P. K. J.</i>	DATE 11-7-69
				FIRST USED ON	

TITLE: **GENERAL WIRING SHEET**

FOR: **SPECIAL HAND WRAP**

SIZE	CODE	NUMBER	REV.
A	WL	RS09-0-10	

SHEET 3 OF 4

DIST.

SIGNAL NAME	FROM PIN	TO PIN	COLOR	REMARKS
CLR WRTRS	A06T	B20U	BLUE	
CLR WRTRS	A06T	A08T	"	
CLR WRTRS	B20U	B20V	"	

REVISIONS				DRN.	DATE
REV.	DATE	CHG. NO.	APP'D.	E. STEVENSON	10-20-9
				<i>W. Stevenson</i>	11-4-69
				ENG. <i>D. K.</i>	DATE 11-6-69
				PROJ. ENG. <i>E. D. K.</i>	DATE 11-5-69
				PROD. <i>P. K. J.</i>	DATE 11-7-69
				FIRST USED ON	

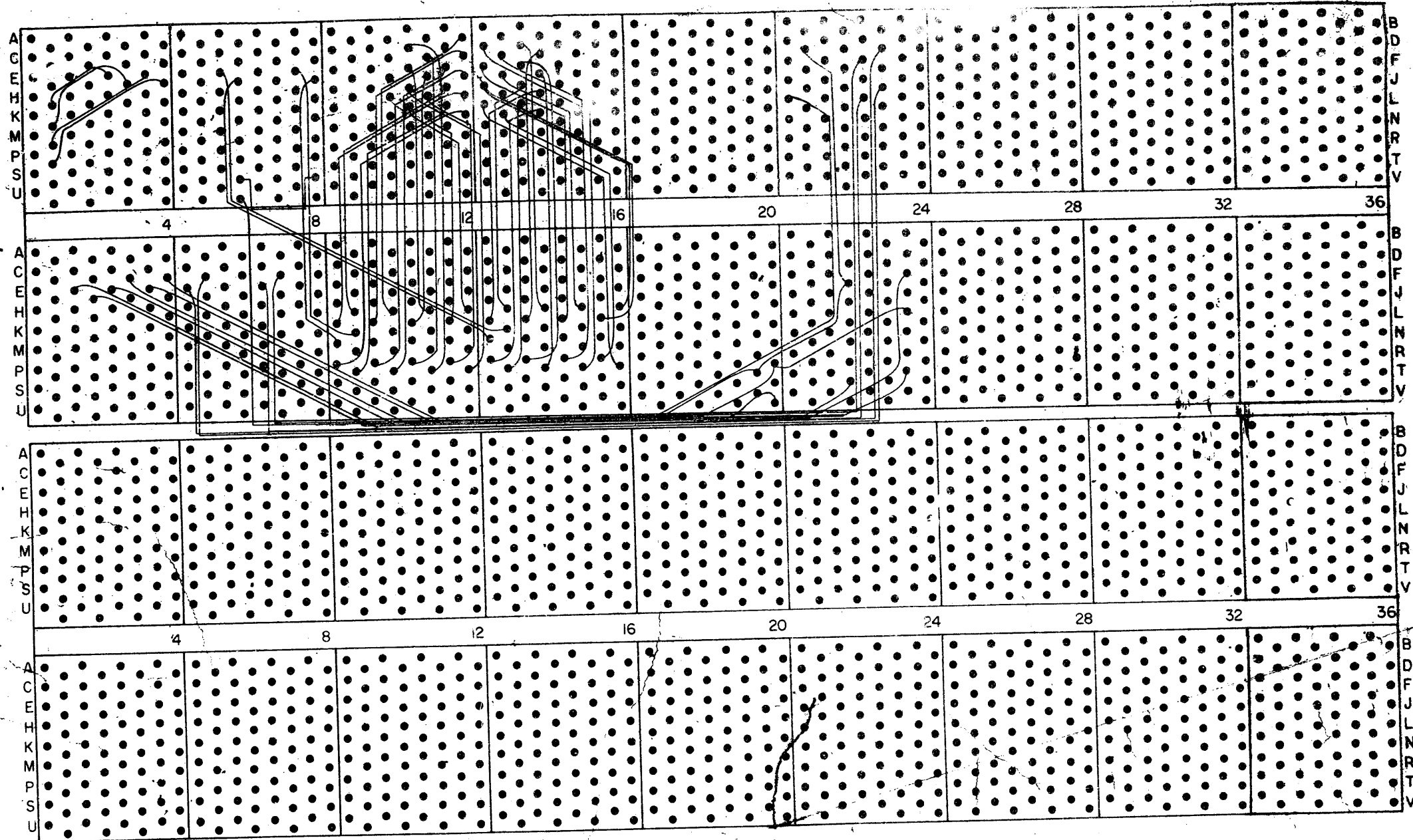
TITLE: **GENERAL WIRING SHEET**

FOR: **SPECIAL HAND WRAP**

SIZE	CODE	NUMBER	REV.
A	WL	RS09-0-10	

SHEET 4 OF 4

DIST.



REV. LTR.	ECO NO.	DATE	ENG.
A	00013	5-17-70	SMU
	00004		
	00003		
	00002		
	00001		

DRAWN <i>John Monaco</i>	DATE 11-4-69
CHECKED <i>[Signature]</i>	DATE 11-4-69
<i>[Signature]</i>	DATE 11-6-69
<i>[Signature]</i>	DATE 11-5-69
<i>[Signature]</i>	DATE 11-7-69

**digital**  
EQUIPMENT CORPORATION  
MAYNARD, MASSACHUSETTS

ASSY NO  
A-ML-RS09-0

SCALE

SHEET 1 OF 1

TITLE  
HAND WRAP ROUTING

FOR  
RS09

DRW. NUM.  
C-RS09-0-11

REV. LTR.  
A

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**DIGITAL EQUIPMENT CORPORATION  
MAYNARD, MASSACHUSETTS**

ENGINEERING SPECIFICATION

DATE 6/8/71

TITLE RS09 CALIBRATION PROCEDURE

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

1. Limit release until final version of RS09 Preliminary Calibration Program is completed.

ENG	APPD <i>Donald G. Torada</i>	SIZE A	CODE SP	NUMBER RS09-0-12	REV
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DEC FORM NO. DRA 107A

CONTINUATION SHEET

TITLE RS09 CALIBRATION PROCEDURE

TABLE OF CONTENTS

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1.0	General Information	3-11
1.1	Introduction	3-11
1.2	General Description of Calibration Procedure	3-11
1.3	Preliminary Preparations	5-11
1.4	Troubleshooting Tips	5-11
2.0	RS09 Calibration Procedure	6-11
2.1	Gain and Slice Measurements Techniques	6-11
2.2	Timing Track Calibration	6-11
2.3	Data Track Gain Calibration	6-11
2.4	Data Track Slice Calibration	7-11
2.5	Multi-Disk Program Operating Instructions	9-11

SIZE A	CODE SP	NUMBER RS09-0-12	REV
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DEC FORM NO. DRA 108A

TITLE RS09 CALIBRATION PROCEDURE

## 1.0 GENERAL INFORMATION

## 1.1 INTRODUCTION

This procedure is intended to supplement the information given in the RF15/RS09 DECdisk System Maintenance Manual. It is assumed that the reader is familiar with the general theory of operation and maintenance procedures for the RS09.

The primary purpose of this procedure is to specify the techniques to be used in calibrating the G085 Disk Read Amplifier and Slice Modules in the RS09. A further goal is to give the user an understanding of the reasons behind the procedures so that he can use them with confidence.

## 1.2 GENERAL DESCRIPTION OF CALIBRATION PROCEDURE

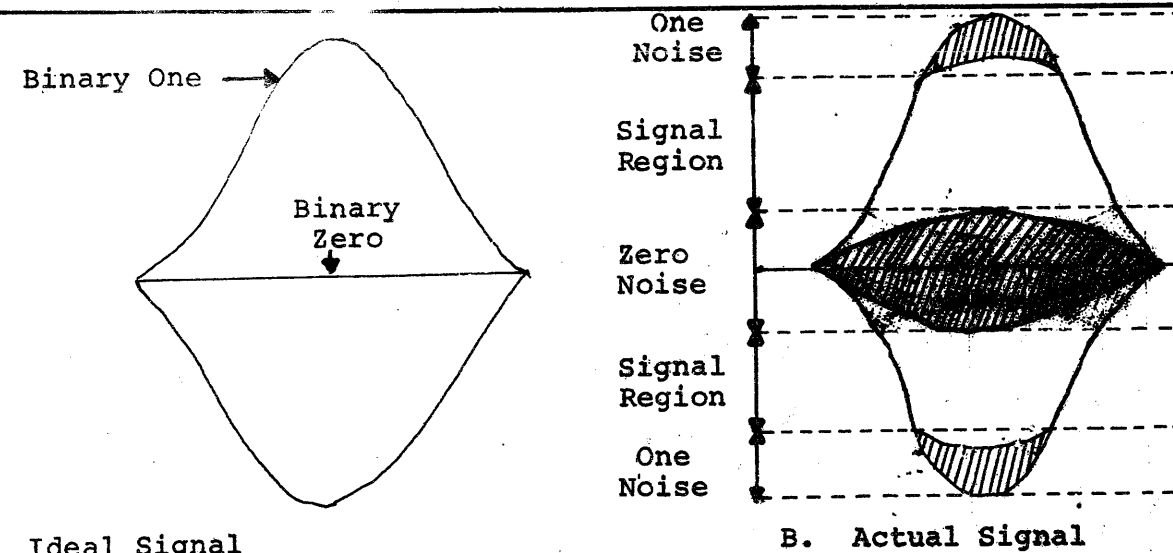
The RS09 Fixed Head Disk uses the Non-Return-to-Zero (NRZ) recording technique which means that the track magnetization is reversed everytime a binary one is recorded. No reversal occurs when recording a binary zero, i.e., nothing at all is done to the track. When reading a track, the flux reversals (binary ones) are detected by the head and appear as positive or negative pulses at the output of the sense amplifier. Binary zeros, of course, do not develop any signals. In the ideal case, data read from the disk would produce a clean signal as shown in Figure 1A. A regular data pattern such as alternating ones and zeros does, in fact, produce a signal very close to the ideal. However, experience has shown that a complex data pattern produces an extremely noisy signal as shown in Figure 1B. Since the noise depends on the data, the only reliable method of calibrating a disk is with a diagnostic that simulates a realistic data pattern.

The calibration procedure has two objectives: to maximize the good signal region and to achieve the widest possible margins against noise. The best method of reaching these goals is to use a procedure as follows (see Figure 2):

1. Check the "zero" noise level.
2. Check the "one" noise level.
3. Calculate the Figure of Merit (FM) and the signal region ( $\Delta$ ).
4. Put an AGC jumper on the shoe containing the track that caused the first error in Step 2.

SIZE	CODE	NUMBER	REV
A	SP	RS09-0-12	

TITLE RS09 CALIBRATION PROCEDURE



A. Ideal Signal

B. Actual Signal

Figure 1. Sense Amplifier Output Signal - Ones &amp; Zeros Superimposed

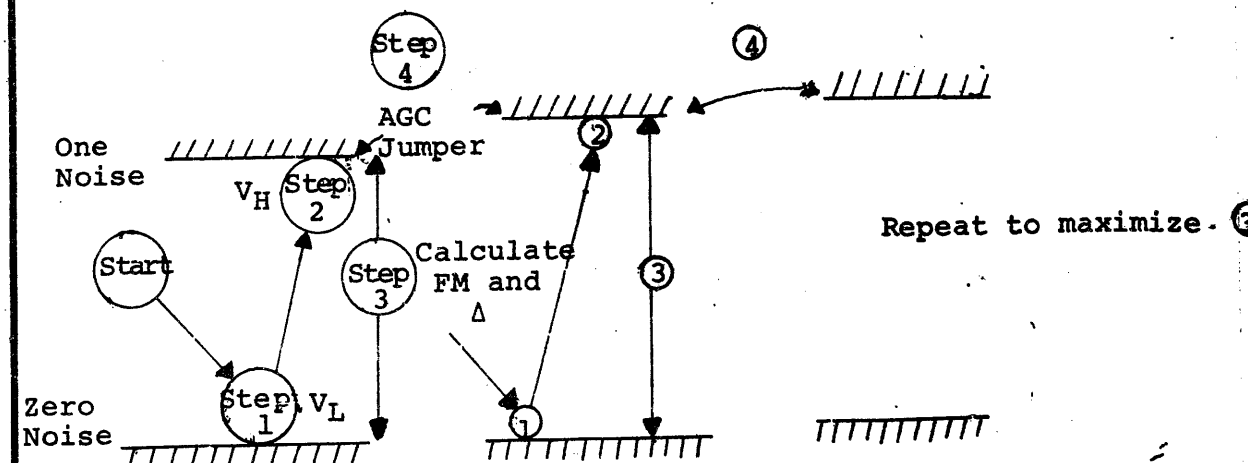


Figure 2. RS09 Setup Procedure

SIZE	CODE	NUMBER	REV
A	SP	RS09-0-12	

TITLE RS09 CALIBRATION PROCEDURE

5. Repeat steps 1 to 4 until the FM and signal region are maximized.
6. Set the slice at the midpoint of the signal region.

The adjustment potentiometers on the G085 module have been modified to simplify the procedure. The gain adjustment pot has been changed so that all disk surfaces, whether high or low output, can be set to produce the same size signal out of the sense amplifier. The range of the slice adjustment pot has been increased so that it is possible to measure both the "zero" noise level and the "one" noise level without adjusting the gain pot. As a result, the gain need be set only once at the beginning of the procedure.

## 1.3 PRELIMINARY PREPARATIONS

Before using this calibration procedure, insure that the following steps have been taken:

1. All G085 modules have been retrofitted to Revision (f).
2. Spot check the head output signals to see if they agree with the readings on the original Head Data Sheet.
3. If the surface or any shoes have been replaced, fill out a new Head Data Sheet according to the procedures in the Maintenance Manual.
4. Have on hand a copy of the RF15 Preliminary Calibration Program (Pre CAC al Prog.) AUTOCAD-15-05AA. This program contains a switch-selectable subroutine similar to the Stamp Test in the Disk Data Diagnostic. If this program is not available, MULT-DISK and DISK DATA (STAMP TEST) can be used instead.

## 1.4 TROUBLESHOOTING TIPS

In order to calibrate an RS09 successfully, it is necessary to have a uniform disk surface and a set of shoes that are well matched and adjusted. In many cases, an excessive error rate may be due to a bad spot on the surface or a degraded or mis-adjusted shoe. If the disk has a high error rate that cannot be corrected by recalibrating the gain and slice adjustment, then it may be necessary to replace the surface or a shoe. To localize the problem area, take the following steps:

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TITLE RS09 CALIBRATION PROCEDURE

1. Determine the troublesome tracks from the error printouts on the teletype.
2. Inspect the individual tracks using the Stamp Test.
3. If the surface modulation is too great for any track (more than 20%) or if there is a spot on the track with a low output signal, replace the surface.
4. If the surface appears to be within specification, compare the tracks within a particular shoe. If the range of head outputs within the same shoe differs by more than 25%, replace the entire shoe.

## 2.0 RS09 CALIBRATION PROCEDURE

## 2.1 GAIN AND SLICE MEASUREMENTS TECHNIQUES

To measure Gain and Slice, use the procedures outlined in Section 6.2 of the Maintenance Manual with the following exception:

Measure Slice by reading the leading edge of the composite Gain-Slice waveform.

## 2.2 TIMING TRACK CALIBRATION

Calibrate the A, B, and C timing tracks using the procedures in Section 6.2.3 of the Maintenance Manual with the following exceptions:

Set the average voltage (gain) to 6 volts peak-to-peak.

Set the slice to 1.4 volts (reading the leading edge).

## 2.3 DATA TRACK GAIN CALIBRATION

1. Find the average track in Matrix 0 from the head data sheet and record its number on the Calibration Record Sheet (Figure 3).
2. Load and run the Pre Cal ProgStamp Test Program (see paragraph 2.5.4) selecting the average track noted in Step 1.

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A	SP	RS09-012	

TITLE RS09 CALIBRATION PROCEDURE

3. Adjust the gain of the average track to 6 volts peak-to-peak and the slice to 1.4 volts.
4. Repeat Steps 1 to 3 for Matrix 1.

NOTE:

Do not readjust gain during the rest of the calibration procedure.

## 2.4 DATA TRACK SLICE CALIBRATION

- 2.4.1 The Data Track Slice Calibration procedure is repetitive and has the overall objective of maximizing the signal region and the Figure of Merit for the disk. The procedure will be described for Matrix 0 through it can be performed on both matrices simultaneously to save time. Note that the low failing track found on the first pass will be considered the reference track. All subsequent slice voltage readings will be taken from this track. Since the reference track exhibits the highest "zero" noise level, do not put on AGC jumper on its shoe; to do so would increase the "zero" noise level.
- 2.4.2 To calibrate the Data Track Slice Adjustment, perform the following steps:
  1. Run the Pre. Cal. Program in the Random Pattern, Non-Save Mode.
  2. Carefully reduce the Slice voltage on Matrix 0 and find the low failing point, Increase Slice slightly until the program just runs error free. This test find the "zero" noise level illustrated above. Record the number of the first track that caused an error on the Calibration Record Sheet.
  3. Stop the Random Mode program and run one pass of the Prel. Cal. Prog. to write the pattern 252525 and restart the Stamp Test, selecting the reference track (i.e., the track found in Step 2 on the first pass.) Record the low slice voltage level ( $V_L$ ). (On the first pass, also measure and record the Gain of the reference track.)

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A	SP	RS09-0-12	

TITLE RS09 CALIBRATION PROCEDURE

4. Restart Prel. Cal. Prog. Random Non-Save Mode. Carefully increase the slice voltage and find the high failing point. Reduce slice slightly until the program just runs error free. This test finds the "one" noise level illustrated above.
5. Write 252525 PATTERN by running one pass of Prel. Cal. Prog. Go back to the Stamp Test, selecting the reference track. Record the high failing track number and the high slice voltage ( $V_H$ ).
6. Install an AGC jumper on the shoe containing the high failing track found in Step 4 and record the jumper location.
7. Calculate and record the Figure of Merit (FM) and the Signal REgion ( $\Delta$ ), where:

$$FM = \frac{V_H - V_L}{V_H + V_L}$$

$$\text{and } \Delta = V_H - V_L$$

8. Repeat steps 1 through 7 until  $\Delta$  is maximized. If  $\Delta$  decreases significantly on a subsequent pass, remove the previous AGC jumper.
9. The following figures are the minimum acceptable results in calibrating the RS09. In actual practice, a disk with a good surface and well matched shoes will surpass these figures by a wide margin. Since the goal of the calibration procedure is to maximize disk performance, every effort should be made to exceed these figures.
 

Minimum FM = 0.4

Minimum  $\Delta$  = 1.3 Volts

Maximum  $V_L$  = 1.0 Volts
10. When  $\Delta$  has been maximized, calculate and record the final slice voltage setting ( $V_F$ ) using the data from the last pass, where:

$$V_F = \frac{V_H + V_L}{2}$$

Set the slice voltage to  $V_F$  on the reference track.

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A	SP	RS09-0-12	

TITLE RS09 CALIBRATION PROCEDURE

11. Repeat the procedure for Matrix 1.

2.5 MULTI-DISK PROGRAM OPERATING INSTRUCTIONS

2.5.1 The program used in this calibration procedure is:

AUTOCAD-15-D5AA  
RF15 Calibration Program  
Date:

2.5.2 Multi-Disk operates in four modes as selected by the console data switches:

Data Switch	Setting	Mode
1	0	Save Mode
	1	Non-Save Mode
3	0	Random Pattern
	1	252525 Pattern

2.5.3 To run the Random Pattern, perform the following steps:

1. Start Multi-Disk at location 200 with:

Data Switch 1 = 1  
Data Switch 3 = 0

2. The operator will then be asked (via the teletype) what the last available location of memory is for the system.

Reply (in octal notation); 007777 for a 4K System  
to  
377777 for a 131K System

The program will then printout the number of disks on-line and start running the program.

TITLE RS09 CALIBRATION PROCEDURE

Example:

LAST AVAILABLE MEMORY LOCATION OCTAL:17777

1 EXISTENT DISK(S)

2.5.4 To run the Stamp Test, perform the following steps:

1. Start Cal. Prog. at location 200 with:

Data Switch 1 = 1  
Data Switch 3 = 1

2. Stop the computer after one pass .

3. Load the number of the desired disk in Data Switches 15 - 17. This writes a 25 pattern on the disk in non-save mode.

4. Start the Stamp Test at location 201.

5. The program will HALT at location 1235. Set the Data Switches to the 18-bit address of the desired track and press CONTINUE.



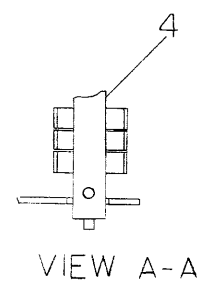
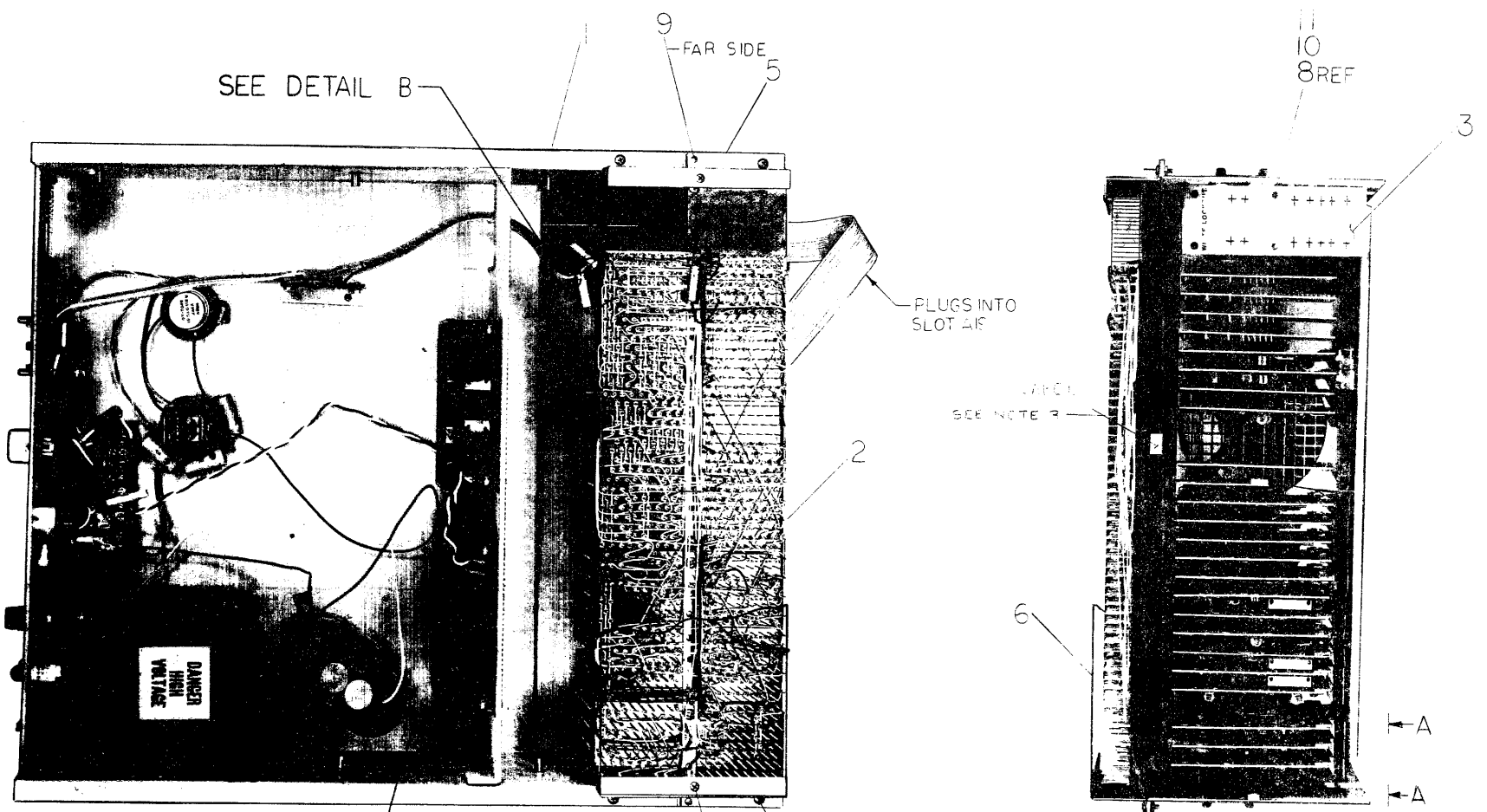
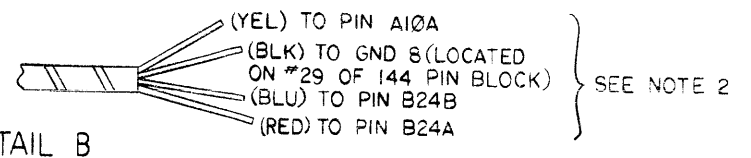




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REV. 2  
 NUMBER 3000 13215  
 DUA-RS09-P-0

- NOTES:
- 1 FOR DWG INDEX LIST REFER TO C-DI-RS09-P-
  - 2 WIRES TO BE SOLDERED TO LOCATIONS SHOWN PER DETAIL B
  - 3 LABEL (PURCHASE SPEC #1809816) TO BE APPLIED AS REQUIRED AT FINAL ASSEMBLY



PICTURE INCORRECT  
 REFER TO DWG D-40-7006156-0-0  
 FOR CORRECT PICTURE

REV.	CHANGE NO.	DATE	BY
A	RS09P-CC-01	1-22-70	J. JORDAN

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
RS09-0				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED	DRN.	DATE	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED	CHK'D.	DATE	TITLE	
DIMENSION IN INCHES	D. J. Deady	5/27/69	CHASSIS ASS'Y WITH LOGIC (RS09-P)	
TOLERANCES	ENG.	DATE	SIZE CODE NUMBER REV.	
DECIMALS ±.005	W. J. Minahan	6/10/69	DUA-RS09-P-0 A	
FRACTIONS ± 1/64	DATE	DATE	DIST. G	
ANGLES ± 0°30'	DATE	DATE		
FINAL SURFACE QUALITY	DATE	DATE		
REMOVE BURRS AND BREAK SHARP CORNERS	DATE	DATE		
MATERIAL	NEXT HIGHER ASSY			
	DUA-RS09-0-0			
FINISH	SCALE NONE			
	SHEET 1 OF 1			

DIGITAL EQUIPMENT CORPORATION  
MAYNARD, MASSACHUSETTS

**PARTS LIST**

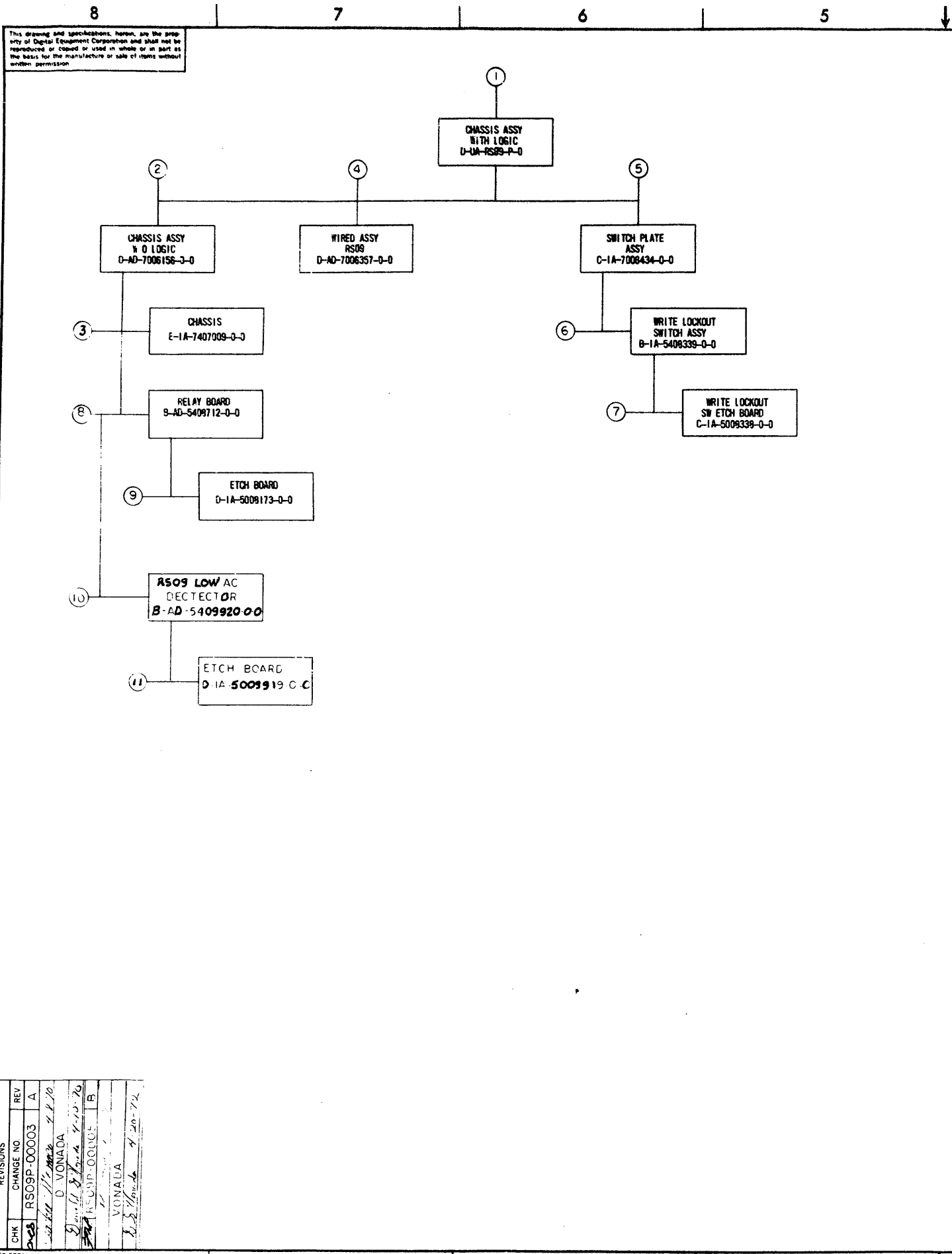
MADE BY G. FLANDERS	CHECKED D. HEALY	SECTION 1
DATE 5/22/69	DATE 5/23/69	
ENG <i>[Signature]</i>	PROD <i>[Signature]</i>	ISSUED SECT. 1
DATE 6/10/69	DATE 7-2-69	

QUANTITY / VARIATION

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	RS09-P																	
1	D-AD-7006156-0-0	CHASS-ASSY W/O LOGIC	1																	
2	D-AD-7006357-0-0	WIRED ASSY RS09	1																	
3	C-IA-7006434-0-0	SWITCH PLATE ASSY	1																	
4	D-IA-7407045-0-0	BAR, HOLD DOWN MODULES (RS08)	1																	
5	C-IA-7407010-0-0	STANDOFF, LOGIC	2																	
6	B-MD-7407011-0-0	COVER, LOGIC	1																	
7	9006020-1	SCR PHL HD PAN #6-32 x 1/4 SST	2																	
8	9006021-1	SCR PHL HD PAN #6-32 x 5/16 SST	8																	
9	9006039-1	SCR PHL HD PAN #8-32 x 1/2	2																	
10	9006560	NUT, KEPS #6-32 SST	8																	
11	9006707	WASHER, 3/8 O.D. x 5/32 I.D. x 1/32 THK NYLON	4																	

TITLE CHASSIS ASSY WITH LOGIC	ASSY NO. D-UA-RS09-P-0	SIZE CODE <b>A PL</b>	NUMBER RS09-P-0	REV A	ECONO NO
SHEET 1 OF 1		DIST. 6			

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MECHANICAL			DEPT USAGE			ELECTRICAL			DEPT USAGE		
FIND NO	DESCRIPTION	PART NO	PROD	CUST	F/C	FIND NO	DESCRIPTION	PART NO	PROD	CUST	F/C
1	CHASSIS ASSY WITH LOGIC CHASSIS ASSY WITH LOGIC (P.L.) BAR, HOLD DOWN MODULES RS09 STANDOFF, LOGIC COVER, LOGIC	D-1A-RS09-P-0 A-PL-RS09-P-0 D-1A-7407045-0-0 C-1A-7407010-0-0 B-MD-7407011-0-0				1	CHASSIS ASSY WITH LOGIC 262K 18 BIT DEC DISK WIRE LIST MODULE UTILIZATION MODULE UTILIZATION LIST WIRED ASSY WIRED ASSY (P.L.)	A-ML-RS09-P B-ML-RS09-0 K-WL-RS09-0-WL D-ML-RS09-0-9 A-PL-RS09-0-9 D-AD-7006357-0-0 A-PL-7006357-0-0			
2	CHASSIS ASSY W/O LOGIC CHASSIS ASSY (P.L.) FAN, SCREEN STOP, CHASSIS BRACKET, RELAY	D-AD-7006156-0-0 A-PL-7006156-0-0 C-MD-7404991-0-0 B-MD-7407336-0-0 C-MD-7407255-0-0				2	CHASSIS ASSY W/O LOGIC	D-AD-7006156-0-0			
3	CHASSIS SILK SCREEN	E-1A-7407009-0-0 C-SS-7407009-0-1				6	CIRCUIT SCHEMATIC	B-CS-5409339-0-1			
4	WIRED ASSY (RS09) (P.L.) WIRED ASSY (RS09) (PL) MTG BAR RS09 NOISE SUPPRESSOR	D-AD-7006357-0-0 A-PL-7006357-0-0 D-1A-7404012-0-0 C-1A-7408090-0-0				9	RELAY BOARD CIRCUIT SCHEMATIC	B-AD-5409172-0-0 B-CS-5409172-0-1			
5	SWITCH PLATE ASSY SWITCH PLATE	C-1A-7006434-0-0 C-1A-7407232-0-0				10	RS09 LOW AC DET. CIRCUIT SCHEMATIC	B-AD-5409920-0-0 B-CS-5409920-0-1			
6	WRITE LOCKOUT SW ASSY	B-1A-5409339-0-0									
7	WRITE LOCKOUT SW (ETCH BOARD) PRINTED CIRCUIT	C-1A-5009339-0-0 PC-5009339									
9	RELAY BOARD RELAY BOARD (PL)	B-AD-5409172-0-0 A-PL-5409172-0-0									
9	ETCH BOARD PRINTED CIRCUIT	D-1A-5009173-0-0 PC-5009173									
10	RS09 LOW AC DET RS09 LOW AC DET (PL)	B-AD-5409920-0-0 A-PL-5409920-0-0									
11	ETCH BOARD PRINTED CIRCUIT	D-1A-5009919-0-0 PC-5009919									

REV	CHANGE NO	REV
A	RS09P-00003	A
B	RS09P-00004	B

FIRST USED ON OPTION/MODEL  
RS09-P

DO NOT SCALE DRAWING  
UNLESS OTHERWISE SPECIFIED  
DIMENSION IN INCHES

TOLERANCES  
DECIMALS FRACTIONS ANGLES  
± .005 ± 1/64 ± 0°30'

FINAL SURFACE QUALITY  
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL  
FINISH

DRN: *[Signature]* DATE: 6/10/69  
CHK'D: *[Signature]* DATE: 7-28-69  
ENG: *[Signature]* DATE: 7/2/69  
PROJ. ENG: *[Signature]* DATE: 7-28-69  
PROD: *[Signature]* DATE: 7-28-69

NEXT HIGHER ASSY  
A-ML-RS09-P

SCALE: 1" = 1"

SHEET 1 OF 1

digital EQUIPMENT CORPORATION  
MILFORD, MASSACHUSETTS

TITLE  
DRAWING INDEX  
LIST RS09-P

SIZE CODE: D  
NUMBER: DIRS09-P-1  
REV: B

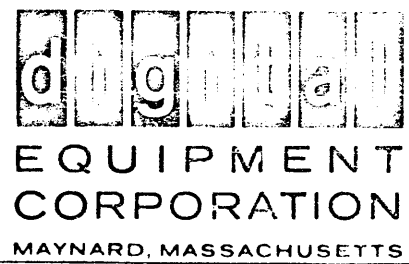
8 7 6 5 4 3 2 1  
 B  
 DIRS09-P-1  
 B  
 C  
 D

DRWG NO	REV LTR
K-WL-RS09-0-WL	C

REVISIONS			
REV LTR	ECO NO	DATE	ENG
A	RS09-00004	11-5-69	2897
B	00009	1-16-70	2897
C	RS09-00013	5-11-70	2897

FIRST USED ON OPTION/MODEL  
RS09

DRAWN	DATE
<i>H. Anderson</i>	7/21/69
CHECKED	DATE
<i>H. Anderson</i>	9/5/69
ENG	DATE
<i>C. King</i>	9-22-69
PROF. ENG.	DATE
<i>D. Bonade</i>	9-22-69
PROD	DATE
<i>C. King</i>	9-22-69



TITLE  
**WIRE LIST**

FOR TAPE # FILE #

ASSY NO	SIZE	CODE	DWG. NO.	REV LTR
A-ML-RS09-0	K	WL	RS09-0-WL	C
SCALE	SHEET	OF	DIST.	







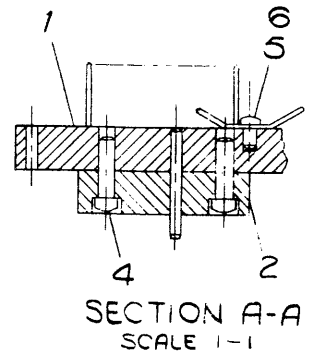
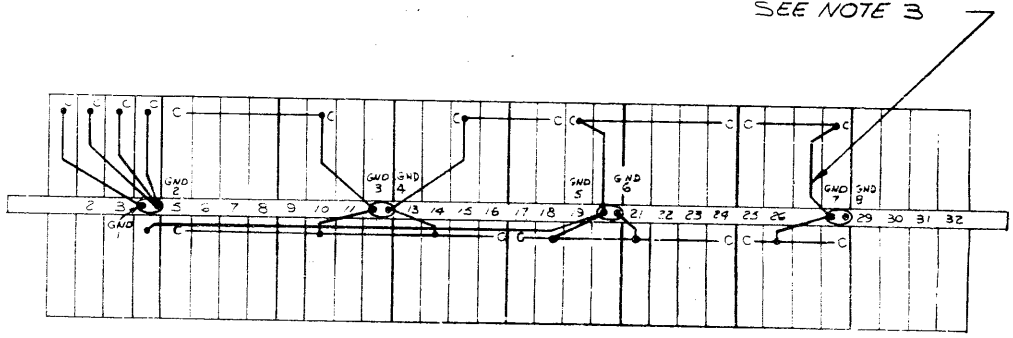
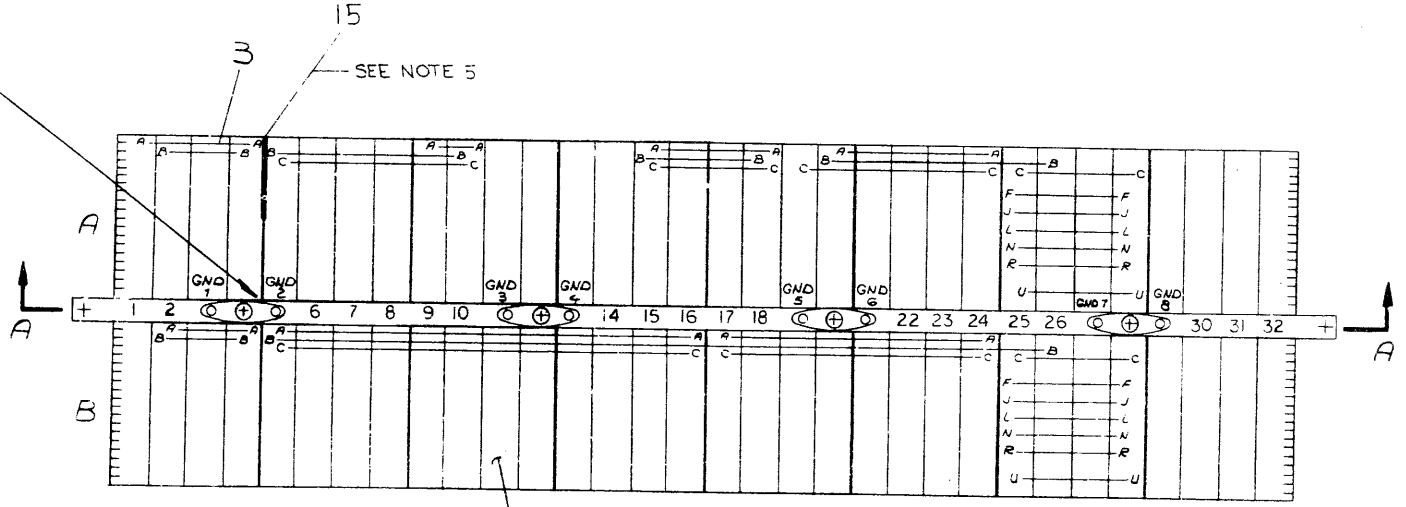
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EXTERNAL COMPONENT TABLE					
ITEM	COMP	POL	FROM	TO	REMARKS
11, 12	CAP	-	B23B	B26C	+
11, 12	CAP	-	B24B	B27C	+
SEE NOTE # 4					

WIRED TABLE						
SIGNAL NAME	ITEM NO	AWG	COLOR	CONNECTIONS		REMARKS
				FROM	TO	
+10	7	#18	RED	A24A	B24A	
+10	7		RED	A24A	A28A	
+10	7		RED	A28A	A26A	
+20	8		ORN	B24A	A24A	
	8		ORN	A24A	A10A	
	8		ORN	A10A	A15A	
+20	8		ORN	A10A	B29A	
-15	9		BLU	A24B	B24B	
			BLU	B24B	B24B	
			BLU	B24B	A24B	
			BLU	A10B	A15B	
-15	9		BLU	A18B	A22B	
GND	10		BLK	GND 7	A28C	
GND	10		BLK	GND 7	B26C	
GND	10	#18	BLK	GND 6	B21C	

WIRED TABLE						
SIGNAL NAME	ITEM NO	AWG	COLOR	CONNECTIONS		REMARKS
				FROM	TO	
GND	10	#18	BLK	GND 5	A19C	
				GND 5	B18C	
				GND 5	B24C	
				GND 7	B14C	
				GND 4	A15C	
				GND 3	B10C	
				GND 3	A10C	
				GND 2	A24C	
				GND 2	A23C	
				GND 2	A22C	
GND	10	#18	BLK	GND 1	A21C	

- NOTES:
1. ALL CONN. BLOCKS TO BE GROUNDED TO GND LUGS AS PER CHART & DET. B
  2. USE YEL WIRE (ITEM #13) FOR MACHINE WRAPPED, BLU WIRE (ITEM #14) FOR HAND WRAPPED WIRING.
  3. GND WIRES TO BE #18 AWG STRANDED BLK INS.
  4. DRESS CAPS IN MTG BAR CHANNEL.
  5. ADD NOISE SUPPRESSOR BETWEEN A24 & A25 MODULE BLOCKS. TIE GND WIRE TO A25C.



FIRST USED ON OPTION/MODEL RS09-0	QTY	DESCRIPTION	PART NO.	ITEM NO
UNLESS OTHERWISE SPECIFIED				
DRN Rootman	DATE 5-2-69	PARTS LIST		
UNLESS OTHERWISE SPECIFIED		digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS		
DIMENSION IN INCHES		TITLE		
TOLERANCES		WIRED ASSY		
DECIMALS FRACTIONS ANGLES		RS09		
= .006 = 1/64 = 0°30'		SIZE CODE NUMBER		
FINAL SURFACE QUALITY		DAD7006357-0-0 B		
REMOVE BURRS AND BREAK SHARP CORNERS		REV		
MATERIAL		SHEET 1 OF 1		
FINISH		DIST.		

REVISIONS	CHANGE NO	BY	DATE
1	RS09-00000	D. VONNA	5-2-69
2	RS09-00003	D. VONNA	5-10-69
3	RS09-00004	D. VONNA	6-10-69
4	RS09-00005	D. VONNA	7-2-69

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS <b>PARTS LIST</b>			QUANTITY / VARIATION																	
MADE BY ROBICHAUD		CHECKED D. HEALY	SECTION		7006357-0															
DATE 5/2/69		DATE 5/13/69	1																	
ENG <i>D. J. Vande</i>		PROD <i>R. M. [Signature]</i>	ISSUED SECT.																	
DATE 6-10-69		DATE 6/12/69	1																	
ITEM NO.	DWG NO. / PART NO.	DESCRIPTION																		
1	D-IA-7407012-0-0	MTG BAR			1															
2	1202244	144 PIN CONN BLOCK			8															
3	1202188	CHAIN VOLTAGE			A/R															
4	9006423	SCR. PHL HD FIL POSI DRIVE 8-32 X 3/4			16															
5	9006121	SCR PHL HD FIL POSI DRIVE 8-32 X 3/8			4															
6	9007597	TERMINAL #2116-08-0-0 SHAKEPROOF			4															
7	9107360-3	STRD #18 AWG TEF INS RED			A/R															
8	9107360-A	STRD #18 AWG TEF INS ORN			A/R															
9	9107360-7	STRD #18 AWG TEF INS BLU			A/R															
10	9107360-1	STRD #18 AWG TEF INS BLK			A/R															
11	9107267-2	TUBING TEF #20 BRN			A/R															
12	1004815	CAP 100 MFD 20V 10% TANTALUM			2															
13	9107470-5	#24 AWG SOLID KYNAR YEL			A/R															
14	9107470-7	#24 AWG SOLID KYNAR BLU			A/R															
15	C-IA-7408090-0-0	NOISE SUPPRESSOR			1															
TITLE			ASSY NO.	SIZE CODE	NUMBER					REV.	ECO NO.									
WIRED ASSY (RSØ9)			D-AD-7006357-0-0	A PL	7006357-0-0					B	RS09P 00003									
			SHEET 1 OF 1	DIST.																