

\*NOTE:  
USE EITHER FIND NUMBER "3" OR "4", NOT BOTH.

TITLE	SIZE CODE	NUMBER	REV
RL8A/RL28A DISK CONTROLLER	B DD	RL8A-0	A
SHEET 2 OF 3			

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	MP00538	RL8A/RL28A FIELD MAINTENANCE PRINT SET (MP)	-				
	B-TC-RL8A-0-1	RL8A/RL28A FIELD MAINTENANCE PRINT SET (TC)	-				
	E-UA-RL8A-0-0	DISK CONTROLLER ASSY (RL8A)	E/M				
	A-SP-RL8A-0-4	FIELD SERVICE INSTALLATION AND ACCEPTANCE PROCEDURE	-				
	A-PL-RL8A-0-2	SOFTWARE LIST	-				
	D-IA-BC80J-0-0	CABLE CONTROLLER (RL8A)	E/M				
	D-IA-7012122-0-0	I/O CABLE ASSY	E/M				
	A-PL-7012938-0-0	UNIT SELECT PLUG KIT	M				
	D-IA-7012293-0-0	TERMINATOR ASSY	E/M				
	A-PL-RL8A-0	RL8A SHIPPING LIST	-				
	A-SP-RL8A-0-3	RL8A ENG. SPEC.	-				
	D-FD-RL8A-0-5	RL8A MICRO-SEQUENCER FLOW DIAGRAM	-				
2	B-DD-M8433-0	RL01 DISK CONTROLLER BOARD	E/M				
3	B-DD-RL01-AK	DISK DRIVE, MTG. KIT AND CARTRIDGE	E/M				
4	B-DD-RL02-AK	DISK DRIVE, MTG. KIT AND CARTRIDGE	E/M				

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



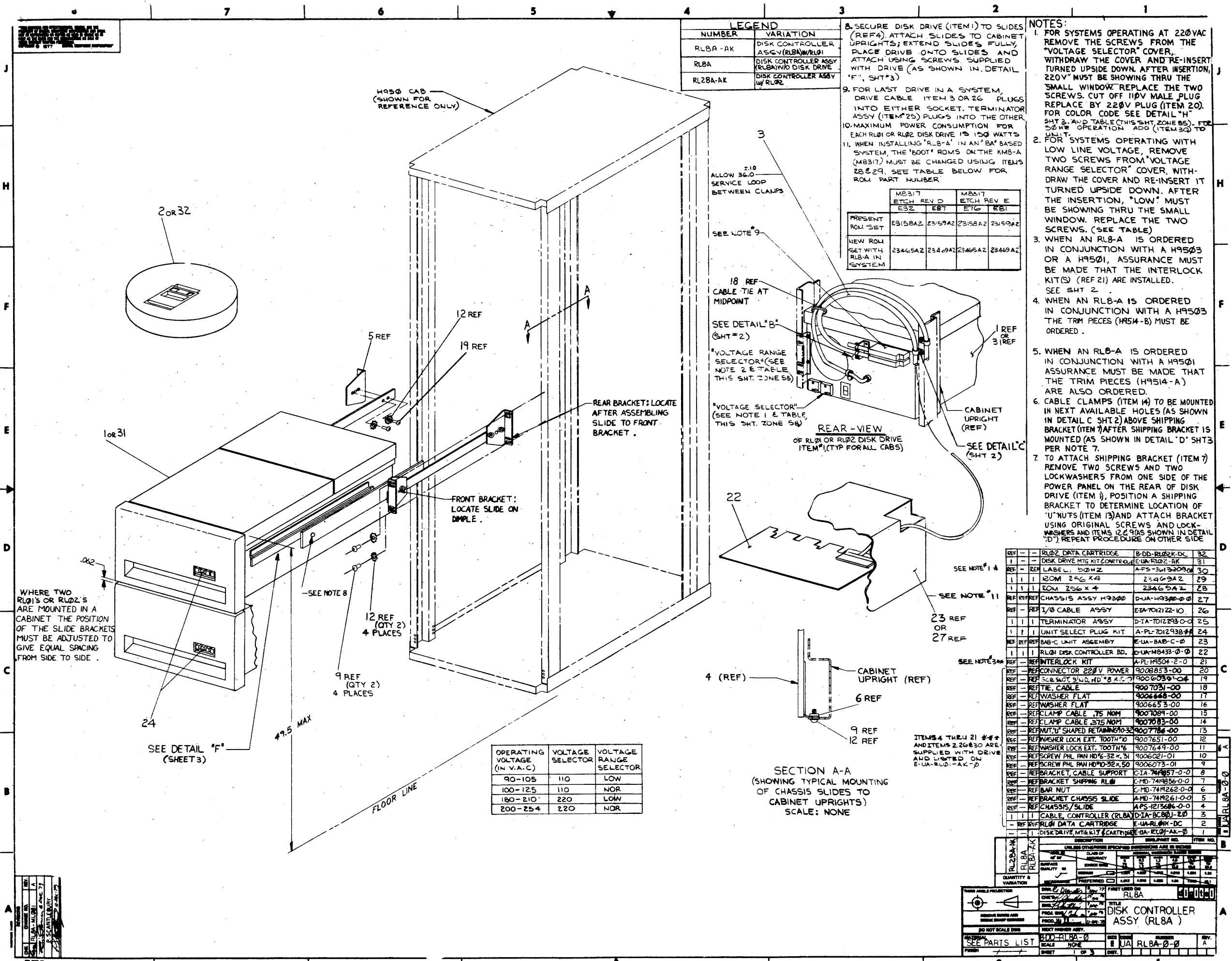
TITLE  
RL8A/RL28A DISK CONTROLLER

SHEET 3 OF 3

SIZE CODE  
**B DD**

NUMBER  
RL8A-0

REV  
A



**LEGEND**

NUMBER	VARIATION
RLBA-AK	DISK CONTROLLER ASSY (RLBA) W/RLD1
RLBA	DISK CONTROLLER ASSY (RLBA) W/DISK DRIVE
RL2BA-AK	DISK CONTROLLER ASSY W/RL02

8. SECURE DISK DRIVE (ITEM 1) TO SLIDES (REF 4). ATTACH SLIDES TO CABINET UPRIGHTS; EXTEND SLIDES FULLY. PLACE DRIVE ONTO SLIDES AND ATTACH USING SCREWS SUPPLIED WITH DRIVE (AS SHOWN IN DETAIL 'F', SHT #3)

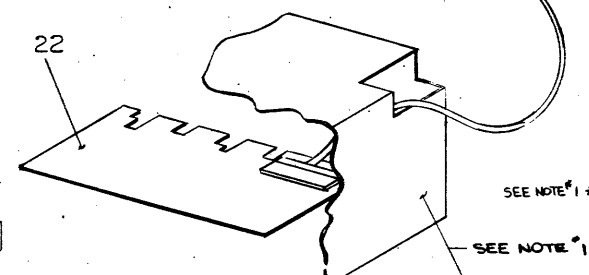
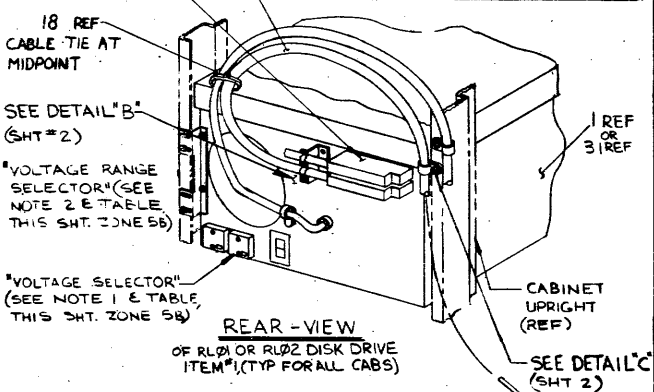
9. FOR LAST DRIVE IN A SYSTEM, DRIVE CABLE ITEM 3 OR 26 PLUGS INTO EITHER SOCKET. TERMINATOR ASSY (ITEM 25) PLUGS INTO THE OTHER

10. MAXIMUM POWER CONSUMPTION FOR EACH RL01 OR RL02 DISK DRIVE IS 150 WATTS

11. WHEN INSTALLING 'RLB-A' IN AN '8A' BASED SYSTEM, THE 'BOOT' ROMS ON THE KMS-A (M8317) MUST BE CHANGED USING ITEMS 28 & 29. SEE TABLE BELOW FOR ROM PART NUMBER

	M8317 ETCH REV D		M8317 ETCH REV E	
	E32	E87	ET6	E81
PRESENT ROM SET	23158A2	23159A2	23158A2	23159A2
NEW ROM SET WITH RLBA IN SYSTEM	23465A2	23469A2	23465A2	23469A2

- NOTES:**
- FOR SYSTEMS OPERATING AT 220VAC REMOVE THE SCREWS FROM THE "VOLTAGE SELECTOR" COVER. WITHDRAW THE COVER AND RE-INSERT IT TURNED UPSIDE DOWN. AFTER INSERTION, "220V" MUST BE SHOWING THRU THE SMALL WINDOW. REPLACE THE TWO SCREWS. CUT OFF 110V MALE PLUG REPLACE BY 220V PLUG (ITEM 20). FOR COLOR CODE SEE DETAIL "H" SHT 3. AND TABLE (THIS SHT. ZONE 55). FOR 50 Hz OPERATION ADD (ITEM 30) TO UNIT.
  - FOR SYSTEMS OPERATING WITH LOW LINE VOLTAGE, REMOVE TWO SCREWS FROM "VOLTAGE RANGE SELECTOR" COVER, WITHDRAW THE COVER AND RE-INSERT IT TURNED UPSIDE DOWN. AFTER THE INSERTION, "LOW" MUST BE SHOWING THRU THE SMALL WINDOW. REPLACE THE TWO SCREWS. (SEE TABLE)
  - WHEN AN RL8-A IS ORDERED IN CONJUNCTION WITH A H9503 OR A H9501, ASSURANCE MUST BE MADE THAT THE INTERLOCK KIT(S) (REF 21) ARE INSTALLED. SEE SHT 2
  - WHEN AN RL8-A IS ORDERED IN CONJUNCTION WITH A H9503 THE TRIM PIECES (H9514-B) MUST BE ORDERED.
  - WHEN AN RL8-A IS ORDERED IN CONJUNCTION WITH A H9501 ASSURANCE MUST BE MADE THAT THE TRIM PIECES (H9514-A) ARE ALSO ORDERED.
  - CABLE CLAMPS (ITEM 14) TO BE MOUNTED IN NEXT AVAILABLE HOLES (AS SHOWN IN DETAIL C SHT 2) ABOVE SHIPPING BRACKET (ITEM 7) AFTER SHIPPING BRACKET IS MOUNTED (AS SHOWN IN DETAIL 'D' SHT 3 PER NOTE 7).
  - TO ATTACH SHIPPING BRACKET (ITEM 7) REMOVE TWO SCREWS AND TWO LOCKWASHERS FROM ONE SIDE OF THE POWER PANEL ON THE REAR OF DISK DRIVE (ITEM 1), POSITION A SHIPPING BRACKET TO DETERMINE LOCATION OF "U" NUTS (ITEM 13) AND ATTACH BRACKET USING ORIGINAL SCREWS AND LOCK WASHERS AND SHIMS 12 & 13 (AS SHOWN IN DETAIL 'D') REPEAT PROCEDURE ON OTHER SIDE



OPERATING VOLTAGE (IN V.A.C.)	VOLTAGE SELECTOR	VOLTAGE RANGE SELECTOR
90-105	110	LOW
100-125	110	NOR
180-210	220	LOW
200-254	220	NOR

REF	DESCRIPTION	QTY	ITEM NO.
1	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
2	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
3	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
4	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
5	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
6	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
7	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
8	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
9	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
10	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
11	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
12	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
13	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
14	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
15	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
16	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
17	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
18	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
19	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
20	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
21	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
22	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
23	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
24	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
25	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
26	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
27	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
28	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
29	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
30	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
31	DISK DRIVE M76 KIT (CARTRIDGE)	1	31
32	DISK DRIVE M76 KIT (CARTRIDGE)	1	31

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES  
DIMENSIONS IN PARENTHESES ARE IN MILLIMETERS

REV	DATE	BY	CHKD	DESCRIPTION
1	10/1/77	JL	ML	ISSUED FOR PRODUCTION
2	10/1/77	JL	ML	REVISED TO ADD PART 20
3	10/1/77	JL	ML	REVISED TO ADD PART 21
4	10/1/77	JL	ML	REVISED TO ADD PART 22
5	10/1/77	JL	ML	REVISED TO ADD PART 23
6	10/1/77	JL	ML	REVISED TO ADD PART 24
7	10/1/77	JL	ML	REVISED TO ADD PART 25
8	10/1/77	JL	ML	REVISED TO ADD PART 26
9	10/1/77	JL	ML	REVISED TO ADD PART 27
10	10/1/77	JL	ML	REVISED TO ADD PART 28
11	10/1/77	JL	ML	REVISED TO ADD PART 29
12	10/1/77	JL	ML	REVISED TO ADD PART 30
13	10/1/77	JL	ML	REVISED TO ADD PART 31
14	10/1/77	JL	ML	REVISED TO ADD PART 32

**DISK CONTROLLER ASSY (RLBA)**

REV: 14  
EUA RLBA-0-0

DATE: 10/1/77

BY: JL

CHKD: ML

REVISED TO ADD PART 20

REVISED TO ADD PART 21

REVISED TO ADD PART 22

REVISED TO ADD PART 23

REVISED TO ADD PART 24

REVISED TO ADD PART 25

REVISED TO ADD PART 26

REVISED TO ADD PART 27

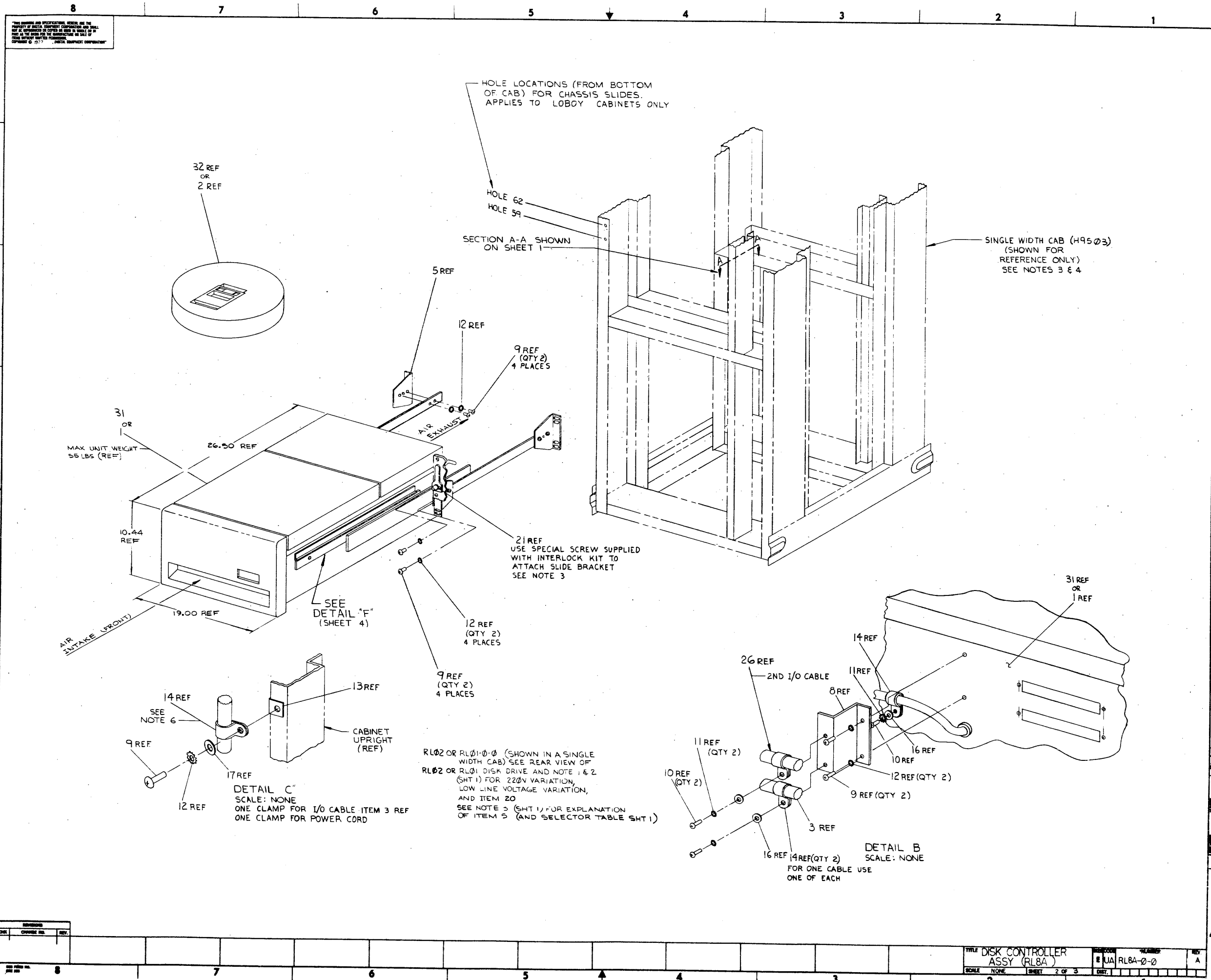
REVISED TO ADD PART 28

REVISED TO ADD PART 29

REVISED TO ADD PART 30

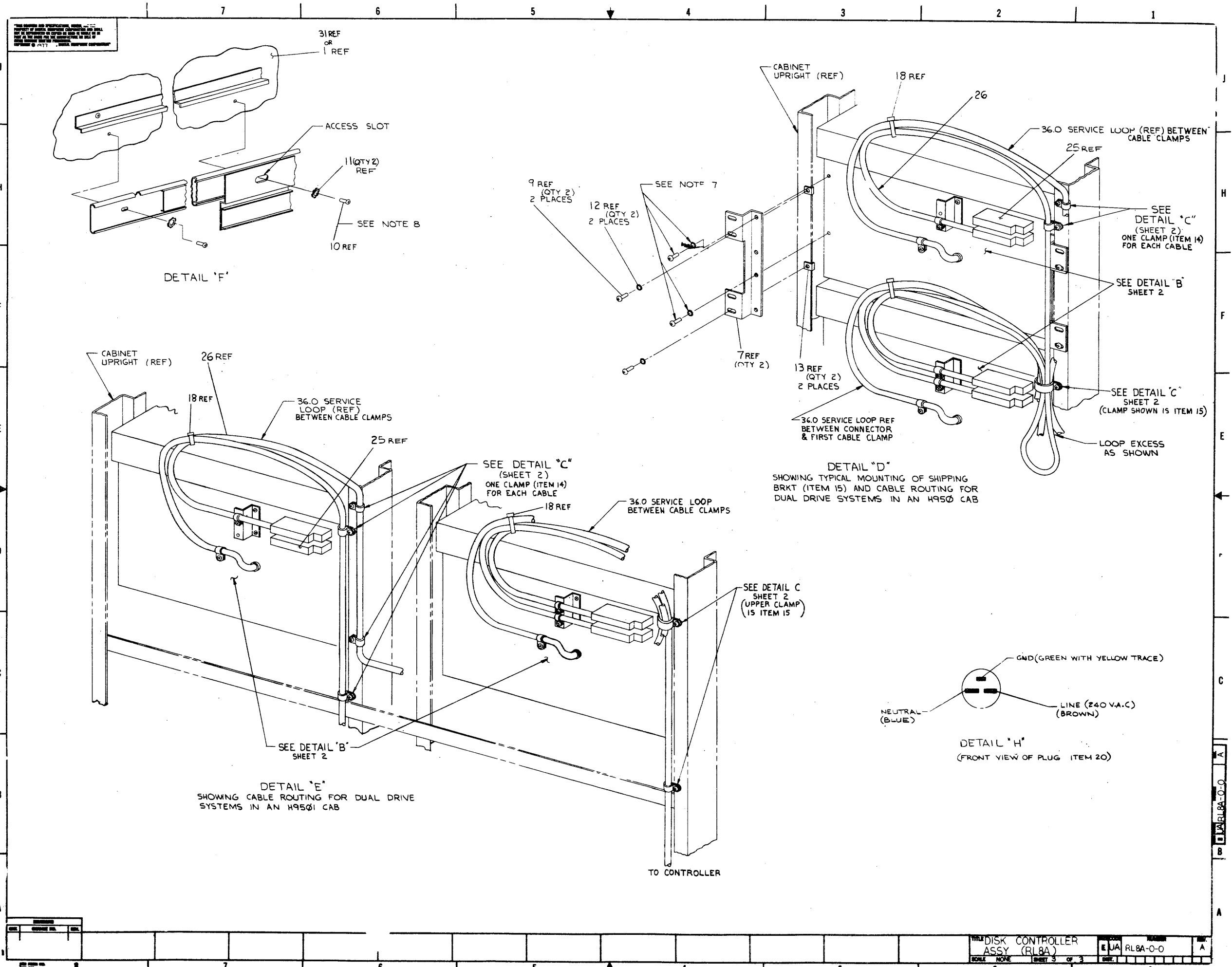
REVISED TO ADD PART 31

REVISED TO ADD PART 32



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REV.	CHG.	DATE



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DETAIL 'F'

DETAIL 'E'  
SHOWING CABLE ROUTING FOR DUAL DRIVE SYSTEMS IN AN H9501 CAB

DETAIL 'D'  
SHOWING TYPICAL MOUNTING OF SHIPPING BRKT (ITEM 15) AND CABLE ROUTING FOR DUAL DRIVE SYSTEMS IN AN H950 CAB

DETAIL 'H'  
(FRONT VIEW OF PLUG ITEM 20)

**DIGITAL EQUIPMENT CORPORATION**  
MAYNARD, MASSACHUSETTS

**ENGINEERING SPECIFICATION**

DATE 15 Nov 79

TITLE RL8A/RL28A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE
A	Incorporate RL02 info	ML001	P. Scantlebury	15 Nov 79	P. Mignosa	15 NOV 79

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ENG <i>P. Scantlebury</i>	APPD <i>P. Mignosa</i>	SIZE <b>A</b>	CODE SP	NUMBER RL8A-0-4	REV A
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DEC 16-(392)-1079-N97  
DRA 107

**ENGINEERING SPECIFICATION**

CONTINUATION SHEET

TITLE RL8A/RL28A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE

I. GENERAL

This procedure defines the criteria required for the installation and acceptance of an RL8A/RL28A using either RL01's or RL02 Disk Drives.

II. UNPACKING AND INSPECTION

1. Unpack and inspect the RL01/RL02(s) using the procedure outlined in the RL01/RL02 Disk Subsystem User's Guide.
2. Remove the RL8A/RL28A module (M8433) and interface cable from the shipping container and visually inspect for damage.
3. Inventory that all items as listed on the Hardware and Software lists are present.
4. Shipping Hardware - The following list represents the components required to add an RL8A/RL28A to a system.
  - A. RL8A/RL28A Controller Module (M8433)
  - B. Disk Drives (maximum of four per controller)
  - C. Interface cable (BC80J-20, or -10) controller to 1st drive
  - D. Daisy Chain cable (RL to RL, 7012122)
  - E. Terminator Module (last disk drive, 7012293)
5. Diagnostic Kits - the following list represents the available diagnostic kits to support the RL8A/RL28A system. Inventory diagnostics against what was ordered, depending upon Product Line the diagnostics may be a line item.
 

	RL01	RL02	
A.	ZF 233 - RB	ZF 241 - RB	Docements and Papertape
B.	ZF 233 - RZ	ZF 241 - RZ	Docements only
C.	ZF 233 - FR	ZF 241 - FR	Fiche documentation

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

SIZE <b>A</b>	CODE SP	NUMBER RL8A-0-4	REV A
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**ENGINEERING SPECIFICATION**

0191101

CONTINUATION SHEET

TITLE RL8A/RL28A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE

Diagnostic's are also available on the following media.

RL01 Media

- A. ZF 240 - PQ RL01 Media only
- B. ZF 240 - RQ Documents and RL01 Media
- C. ZF 240 - FR Fiche only
- D. ZF 240 - RZ Documents only

Floppy Media

- E. ZF 017 - RY Documents and Floppy - RL01/RL02 Diagnostics

This space reserved for future RL02 Media Diagnostic's

Kit Diagnostic Contents -

RL01

- 1. AJRLA-A Diskless Control Test
- 2. AJRLB-A Drive Test One
- 3. AJRLC-A Drive Test Two
- 4. AJRLD-A Compatability Verify
- 5. AJRLE-A Performance Exercisor
- 6. AXRLA-A DEC/X8 Module
- 7. AJRLG-A Pack Verify

RL02

- 1. AJRLA-C Diskless Controller Test
- 2. AJRLH-A Seek/function Diagnostic
- 3. AJRLI-A R/W Diagnostic
- 4. AJRLJ-A Drive Compatability Test
- 5. AJRLK-A Perf Exercisor
- 6. AJRLM-A Packverify
- 7. AXRLB-A DEC/X8

SIZE A	CODE SP	NUMBER RL8A-0-4	REV A
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**ENGINEERING SPECIFICATION**

0191101

CONTINUATION SHEET

TITLE RL8A/RL28A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE

III. Installation

- 1. Verify proper jumper configuration is installed. (refer TABLES 1, 2, 3, and 4). (Ref. CS-M8433, page 10)

NOTE: Standard Device Codes are 60/61 and Priority 0 as shipped from the factory.

TABLE 1

IOT DEV. CODE	JUMPERS INSTALLED	
	W1	W2
60/61	IN	OUT
62/63	IN	IN

TABLE 2

BREAK PRIORITY	JUMPERS INSTALLED		
	W3	W4	W5
0	IN	OUT	IN
1	OUT	IN	OUT

TABLE 3

FACTORY INST. JUMPERS	1	1--3	2--4	W6	W7
	ROM PN# 23012E2-00	IN	OUT	IN	IN
UV PROM PN# 23040B7-00	IN	IN	OUT	OUT	IN

TABLE 4

If the disk drive is an RL02 insure that W-8 is installed. (ref. CS M8433 page 10)

SIZE A	CODE SP	NUMBER RL8A-0-4	REV A
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**ENGINEERING SPECIFICATION**

CONTINUATION SHEET

TITLE RL8A/RL28A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE

2. Dress the BC80J-20 interface cable in the PDP-8 chassis and connect the Berg connector to the M8433 controller module.
3. Install the M8433 module into any unused slot in the OMNIBUS backplane. (cannot be inserted into a memory slot refer to PDP-8 Configuration Guide for further considerations)
4. Insert the free end of the BC80J-20 interface cable into the "cable in" connector at the rear of the first disk drive. (RL01 or RL02)
5. If this is a multi-drive installation, connect the daisy chain cable (7012122) from the "cable out" connector of the previous drive to the "cable in" connector on the next drive. Repeat this step for each drive in the system. (Ref.UA-RL8-A drawing)
6. Install drive terminator module (7012293) in the last drive's connector marked, "cable out".
7. Install proper unit select plug at the front of each drive.

Select Plug	Part Number
0	1212691-00
1	1212691-01
2	1212691-02
3	1212691-03

8. The installation is now complete and power may be applied to the system.

NOTE: DEC Software does not support an intermix of RL01's and RL02's.

IV. Acceptance Procedure

1. Hardware Requirements

- A. Teletype or equivalent
- B. Papertape reader
- C. Minimum of 8K of R/W memory (Diagnostics Only)

SIZE <b>A</b>	CODE SP	NUMBER RL8A-0-4	REV A
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**ENGINEERING SPECIFICATION**

CONTINUATION SHEET

TITLE RL8A/RL28A FIELD INSTALLATION AND ACCEPTANCE PROCEDURE

2. Run the appropriate RL01 or RL02 diagnostic programs listed. Each program should be run the minimum amount of passes indicated error free.

	RL01	RL02	
1.	AJRLA-A	AJRLA-C	5 passes
2.	AJRLB-A	AJRLH-A	2 passes per drive
3.	AJRLC-A	AJRLI-A	2 passes per drive
4.	AJRLD-A	AJRLJ-A	Run only on multi-drive systems.
5.	AJRLE-A	AJRLK-A	2 passes per drive
6.	AXRLA-A	AXRLB-A	30 minutes

3. Pack verify not required for acceptance, used only to update Bad Sector File. (RL01 - AJRLC-A) (RL02 - AJRLI-A)

4. Acceptance errors.

None

SIZE <b>A</b>	CODE SP	NUMBER RL8A-0-4	REV A
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**DIGITAL EQUIPMENT CORPORATION**  
MAYNARD, MASSACHUSETTS

**PARTS LIST**

MADE BY *Cl Dayton* CHECKED *P. Scantlebury* SECTION \_\_\_\_\_  
 DATE *2-11-77* DATE *7-APR-78* ISSUED SECT. \_\_\_\_\_  
 ENG *P. Scantlebury* PROD *R. Shortt*  
 DATE *7-APR-78* DATE *7-APR-78*

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	SIZE	CODE	NUMBER	REV	ECO NO.
1	AC-C656C-MA	AJRLACØ, RL8A DISKLESS CONTROL TEST (DOC)	A	PL	RL8A-Ø-2	A	RL8A- MLØØ1
2	AH-C657C-MA	AJRLACØ, RL8A DISKLESS CONTROL TEST (FICHE)					
3	AK-C658C-MA	AJRLACØ, RL8A DISKLESS CONTROL TEST (P. TAPE)					
4	AL-C659C-NA	AJRLACØ, RL8A DISKLESS CONTROL TEST (DEC TAPE)					
5	AC-C660A-MA	AJRLBAØ, RL8A/RLØ1 DRIVE TEST 1 (DOCUMENT)					
6	AH-C661A-MA	AJRLBAØ, RL8A/RLØ1 DRIVE TEST 1 (FICHE)					
7	AK-C662A-MA	AJRLBAØ, RL8A/RLØ1 DRIVE TEST 1 (P. TAPE)					
8	AL-C663A-NA	AJRLBAØ, RL8A/RLØ1 DRIVE TEST 1 (DEC TAPE)					
9	AC-C664A-MA	AJRLCAØ, RL8A/RLØ1 DRIVE TEST 2 (DOCUMENT)					
10	AH-C665A-MA	AJRLCAØ, RL8A/RLØ1 DRIVE TEST 2 (FICHE)					
11	AK-C666A-MA	AJRLCAØ, RL8A/RLØ1 DRIVE TEST 2 (P. TAPE)					
12	AL-C667A-NA	AJRLCAØ, RL8A/RLØ1 DRIVE TEST 2 (DEC TAPE)					
13	AC-C668A-MA	AJRLDAØ, RL8A/RLØ1 COMPAT. VERIFY (DOCUMENT)					
14	AH-C669A-MA	AJRLDAØ, RL8A/RLØ1 COMPAT. VERIFY (FICHE)					
15	AK-C67ØA-MA	AJRLDAØ, RL8A/RLØ1 COMPAT. VERIFY (P. TAPE)					
16	AL-C671A-NA	AJRLDAØ, RL8A/RLØ1 COMPAT. VERIFY (DECTAPE)					
17	AC-C672A-MA	AJRLCAØ, RL8A/RLØ1 PERF. EXER. (DOCUMENT)					
18	AH-C673A-MA	AJRLCAØ, RL8A/RLØ1 PERF. EXER. (FICHE)					
19	AK-C674A-MA	AJRLCAØ, RL8A/RLØ1 PERF. EXER. (P. TAPE)					
20	AL-C675A-NA	AJRLCAØ, RL8A/RLØ1 PERF. EXER. (DEC TAPE)					
21	AC-C676A-MA	AXRLAØ, 'RL8A' DECX8 MODULE (DOCUMENT)					
22	AH-C677A-MA	FXRLAØ, 'RL8A' DECX8 MODULE (FICHE)					

TITLE SOFTWARE LIST, RL8A/RL28A  
 ASSY NO. ~~1-1~~  
 SHEET 1 OF 3  
 DEC FORM DRA 110

**DIGITAL EQUIPMENT CORPORATION**  
MAYNARD, MASSACHUSETTS

**PARTS LIST**

MADE BY *Cl Dayton* CHECKED *P. Scantlebury* SECTION \_\_\_\_\_  
 DATE *2-11-77* DATE *7-APR-78* ISSUED SECT. \_\_\_\_\_  
 ENG *P. Scantlebury* PROD *R. Shortt*  
 DATE *7-APR-78* DATE *7-APR-78*

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	SIZE	CODE	NUMBER	REV	ECO NO.
23	AK-C678A-MA	AXRLAØ 'RL8A' DECX8 MODULE (P. TAPE)	A	PL	RL8A-Ø-2	A	RL8A- MLØØ1
24	AC-C682A-MA	AJRLGAØ RL8A/RLØ1 PACK VERIFY (DOCUMENT)					
25	AH-C683A-MA	AJRLGAØ RL8A/RLØ1 PACK VERIFY (FICHE)					
26	AK-C684A-MA	AJRLGAØ RL8A/RLØ1 PACK VERIFY (P. TAPE)					
27	AL-C685A-NA	AJRLGAØ RL8A/RLØ1 PACK VERIFY (DEC TAPE)					
		FOR RL28A					
24	AC-C656C-MA	AJRLAC, RL8A DISKLESS CONTROL TEST (DOC)					
25	AH-C657C-MA	AJRLAC, RL8A DISKLESS CONTROL TEST (FICHE)					
26	AK-C658C-MA	AJRLAC, RL8A DISKLESS CONTROL TEST (P. TAPE)					
27	AL-C659C-MA	AJRLAC, RL8A DISKLESS CONTROL TEST (D. TAPE)					
28	AC-F362A-MA	AJRLHA, RL8A/RLØ2 SEEK FUNCTION (DOC)					
29	AK-F363A-MA	AJRLHA, RL8A/RLØ2 SEEK FUNCTION (P. TAPE)					
30	AH-F364A-MA	AJRLHA, RL8A/RLØ2 SEEK FUNCTION (FICHE)					
31	AL-F365A-MA	AJRLHA, RL8A/RLØ2 SEEK FUNCTION (D. TAPE)					
32	AC-F366A-MA	AJRLIA, RL8A/RLØ2 READ/WRITE TEST (DOC)					
33	AK-F367A-MA	AJRLIA, RL8A/RLØ2 READ/WRITE TEST (P. TAPE)					
34	AH-F368A-MA	AJRLIA, RL8A/RLØ2 READ/WRITE TEST (FICHE)					
35	AL-F369A-MA	AJRLIA, RL8A/RLØ2 READ/WRITE TEST (D. TAPE)					
36	AC-F37ØA-MA	AJRLJA, RL8A/RLØ2 DRIVE COMPAT. (DOC)					
37	AK-F371A-MA	AJRLJA, RL8A/RLØ2 DRIVE COMPAT. (P. TAPE)					

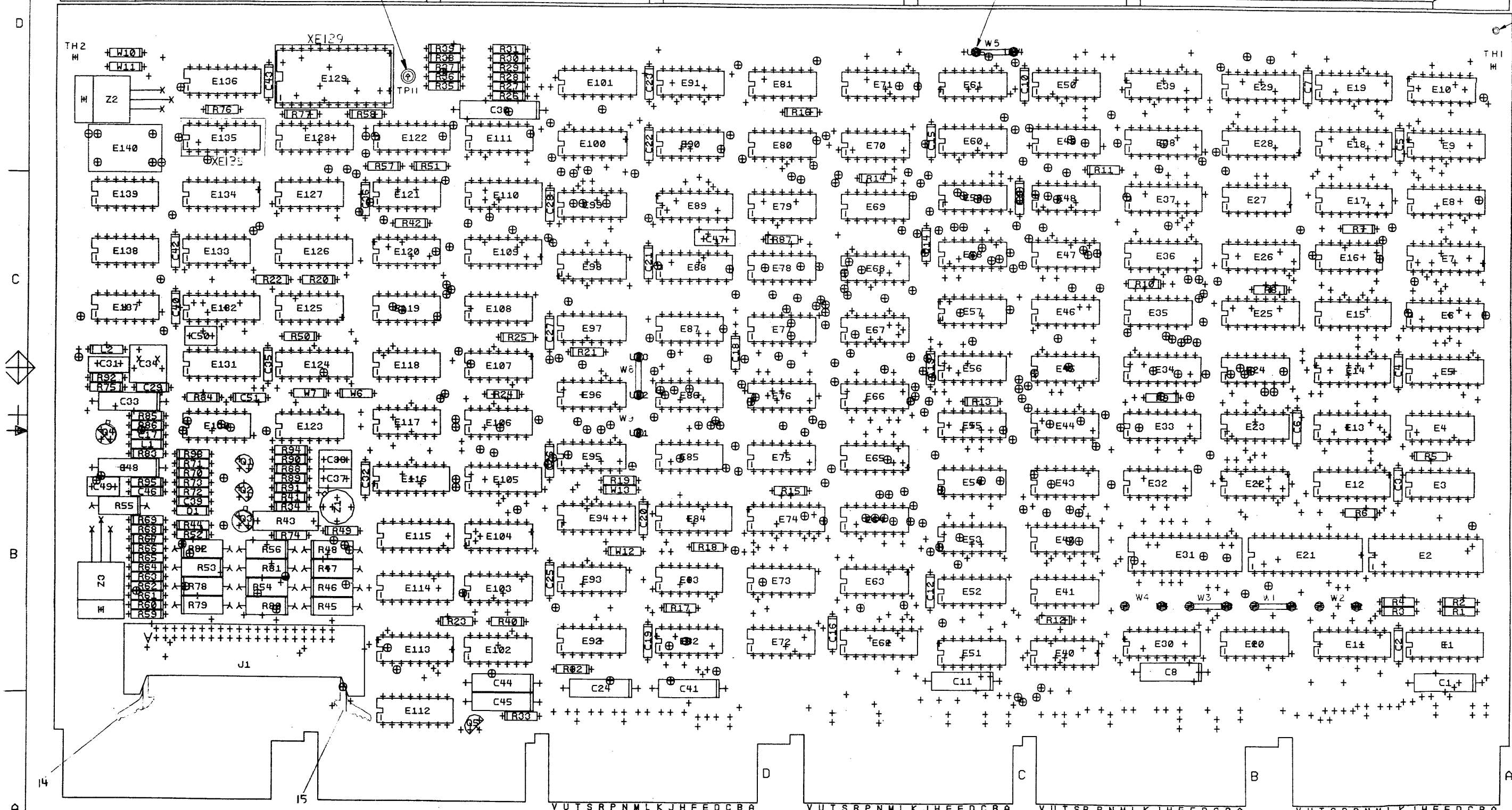
TITLE SOFTWARE LIST, RL8A/RL28A  
 ASSY NO. ~~1-1~~  
 SHEET 2 OF 3  
 DEC FORM

DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS PARTS LIST					QUANTITY VARIATION																	
MADE BY C DRAYTON DATE NOV. 78		CHECKED P. SCANTLEBURY DATE 7 APR. 78		SECTION 1	ZF223-RR (DOC & BIN P. TAPE)	ZF223-RZ (DOC ONLY)	ZF223-PB (BIN P. TAPE ONLY)	ZF223-FR (FICHE)	ZF241-RR (DOC & BIN P. TAPE)	ZF241-RZ (DOC ONLY)	ZF241-PB (BIN P. TAPE ONLY)	ZF241-FR (FICHE)										
ENG P SCANTLEBURY DATE 7 APR. 78		PROD R. STROTT DATE 7 APR. 78		ISSUED SECT. 1																		
ITEM NO.	DWG NO./PART NO.	DESCRIPTION																				
38	AH-F372A-MA	AJRLJA, RL8A/RL02 DRIVE COMPAT. (FICHE)			--	--	--	--	0	REF	REF	REF										
39	AL-F373A-MA	AJRLJA, RL8A/RL02 DRIVE COMPAT. (DECTAPE)			--	--	--	--	0	REF	REF	REF										
40	AC-F374A-MA	AJRLKA, RL8A/RL02 PERF. EXER. (DOC)			--	--	--	--	1	REF	REF	REF										
41	AK-F375A-MA	AJRLKA, RL8A/RL02 PERF. EXER. (P. TAPE)			--	--	--	--	1	REF	REF	REF										
42	AH-F376A-MA	AJRLKA, RL8A/RL02 PERF. EXER. (FICHE)			--	--	--	--	0	REF	REF	REF										
43	AL-F377A-MA	AJRLKA, RL8A/RL02 PERF. EXER. (DECTAPE)			--	--	--	--	0	REF	REF	REF										
44	AC-F378A-MA	AJRLLA, RL8A/RL02 PACK VERIFY (DOC)			--	--	--	--	1	REF	REF	REF										
45	AK-F379A-MA	AJRLLA, RL8A/RL02 PACK VERIFY (P. TAPE)			--	--	--	--	1	REF	REF	REF										
46	AH-F380A-MA	AJRLLA, RL8A/RL02 PACK VERIFY (FICHE)			--	--	--	--	0	REF	REF	REF										
47	AL-F381A-MA	AJRLLA, RL8A/RL02 PACK VERIFY (DECTAPE)			--	--	--	--	0	REF	REF	REF										
48	AC-F382A-MA	AXRLBA, DEC/X8 MOD RL02 (DOC)			--	--	--	--	1	REF	REF	REF										
49	AK-F383A-MA	AXRLBA, DEC/X8 MOD RL02 (P. TAPE)			--	--	--	--	1	REF	REF	REF										
50	AH-F384A-MA	AXRLBA, DEC/X8 MOD RL02 (FICHE)			--	--	--	--	0	REF	REF	REF										
51	AL-F385A-MA	AXRLBA, DEC/X8 MOD RL02 (DECTAPE)			--	--	--	--	0	REF	REF	REF										
NOTE: RL01 Diagnostics and RL02 Diagnostics are included on ZF016-RY and ZF017-RY, which contain general diagnostics for PDP 8 CPU's and options.																						
TITLE SOFTWARE LIST, RL8A/RL2&A					ASSY NO. <del>          </del>		SIZE <b>A</b>		CODE <b>PL</b>		NUMBER RL8A-0-2			REV <b>A</b>		ECO NO.						
					SHEET 3 OF 3		DIST															



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 1979 OPTICAL MANAGEMENT CORPORATION

COMPONENT SIDE VIEW



NOTES: CUSTOMER OPTION: W2, W4, W6, W9, W11, W13.

STEP	Y AXIS	NO	STEP	TIMES
REPRT	X AXIS	NO	STEP	TIMES

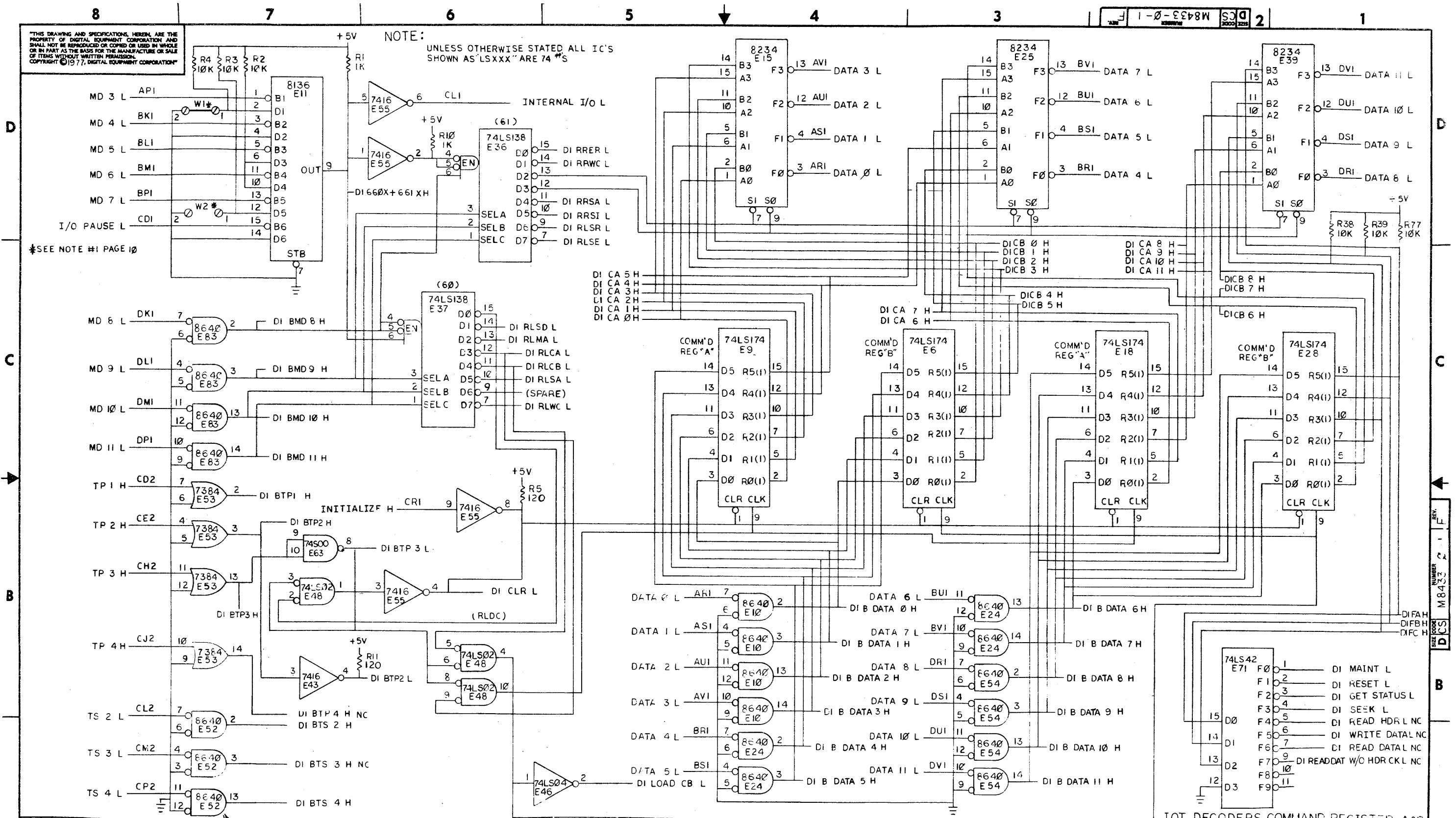
CHG	NO	REV
REVISION	ML	105
REWORK		

ETCH REV. C-P4
----------------

SIGNATURES	DATE	TITLE
DRN. [Signature]	12-15-79	digital
CHK'D.		
MECH. ENG.		
PROJ. ENG.		
PROD.		
SCALE 2:1	SIZE CODE	NUMBER
SHT. 1 OF 1	D/UA	M8433-7-7
NEXT HIGHER ASSY. B-D		

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NOTE: UNLESS OTHERWISE STATED ALL IC'S SHOWN AS 'LSXXX' ARE 74 #S



REV.	REV.	REV.
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8

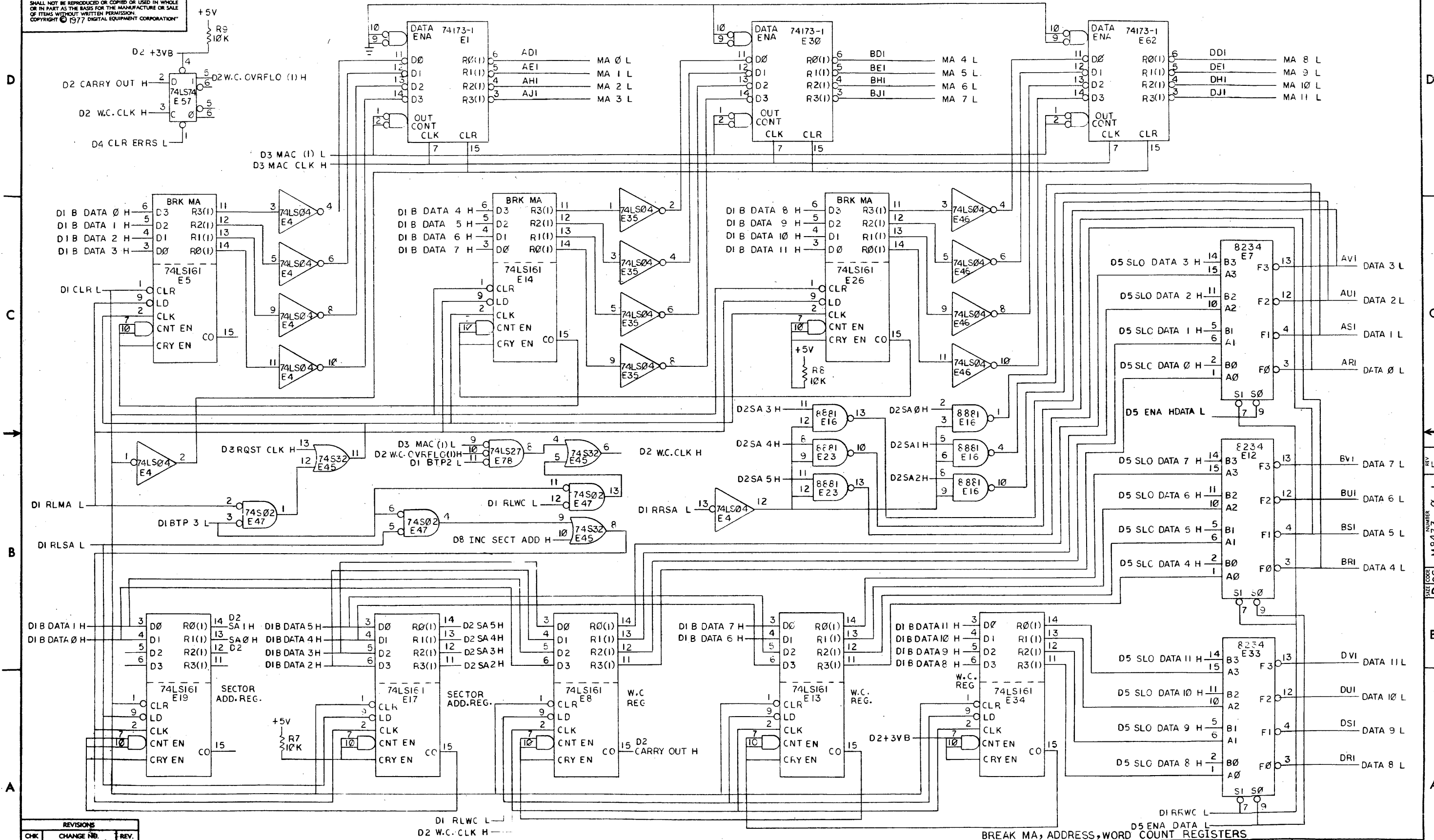
DRN	12/2/77	FIRST USED ON	RL01
CHK'D	1/10/78	TITLE	RL01/RL02 DISK CONTROLLER
ENG.	1/10/78	PROJ. ENG.	1/10/78
PROD.	1/10/78	NEXT HIGHER ASSY.	(DI)
D-0A-M8433-0-0	SIZE	CODE	NUMBER
SCALE	NONE	D	CS
SHEET	1	OF	10
DIST.		REV.	F

REVISIONS

REV. 1 F  
NUMBER M8433-0-1 F  
SIZE CODE D CS



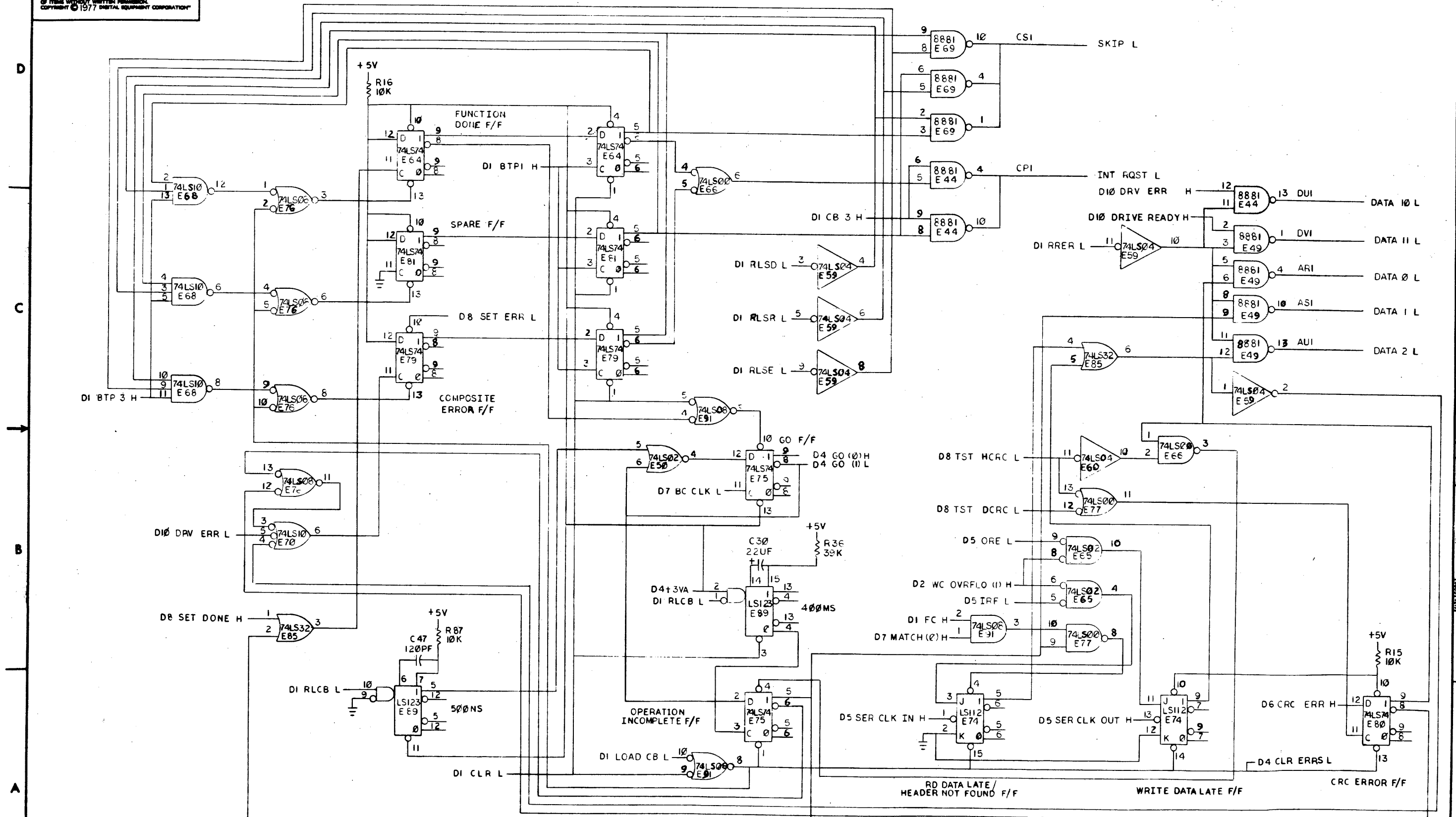
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REVISIONS		
CHK	CHANGE NO.	REV.



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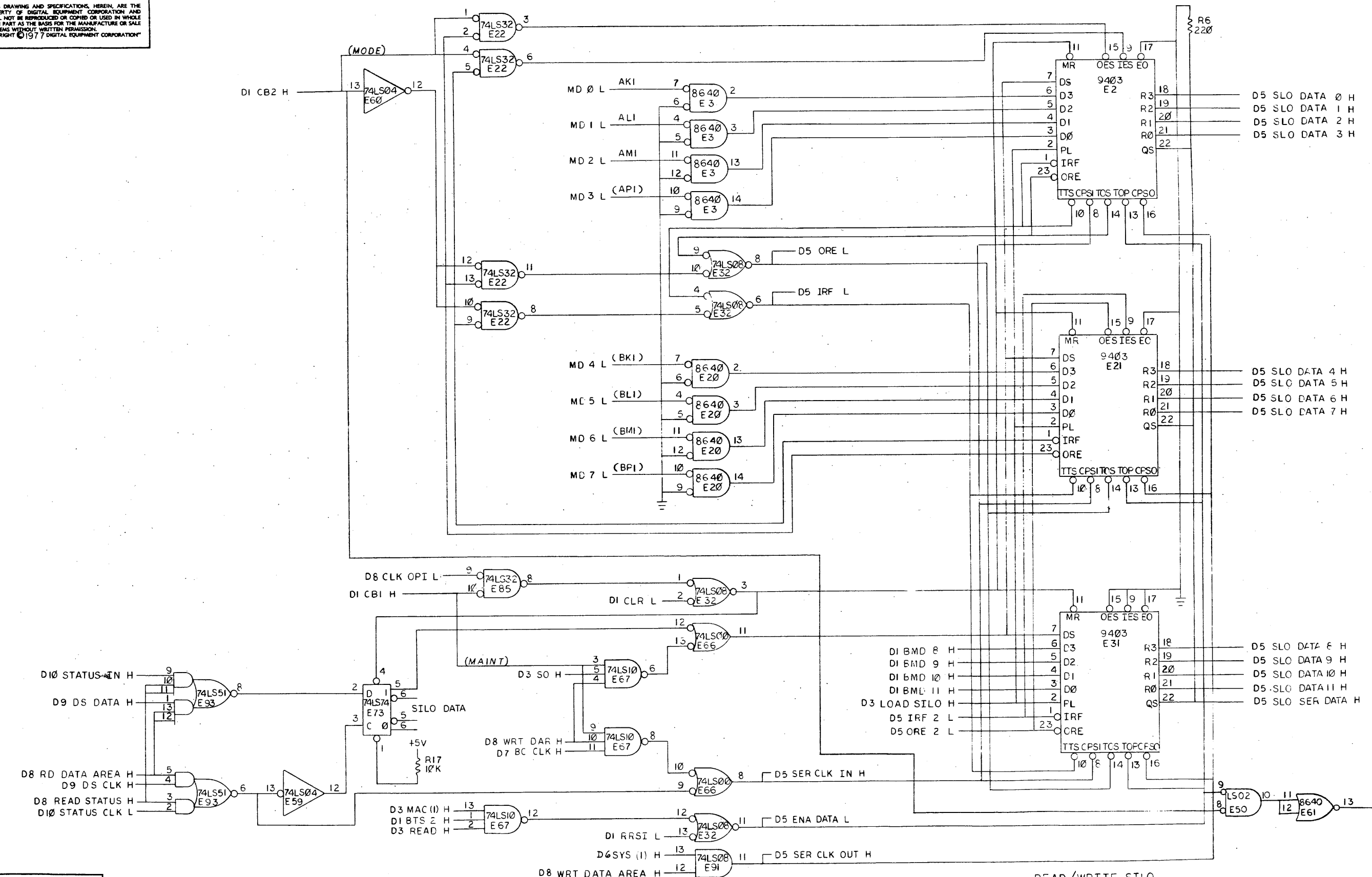
STATUS & ERROR FLAGS WITH SKIP & INTERRUPT GATES ERROR REGISTER

REVISIONS		
CHK	CHANGE NO.	REV.

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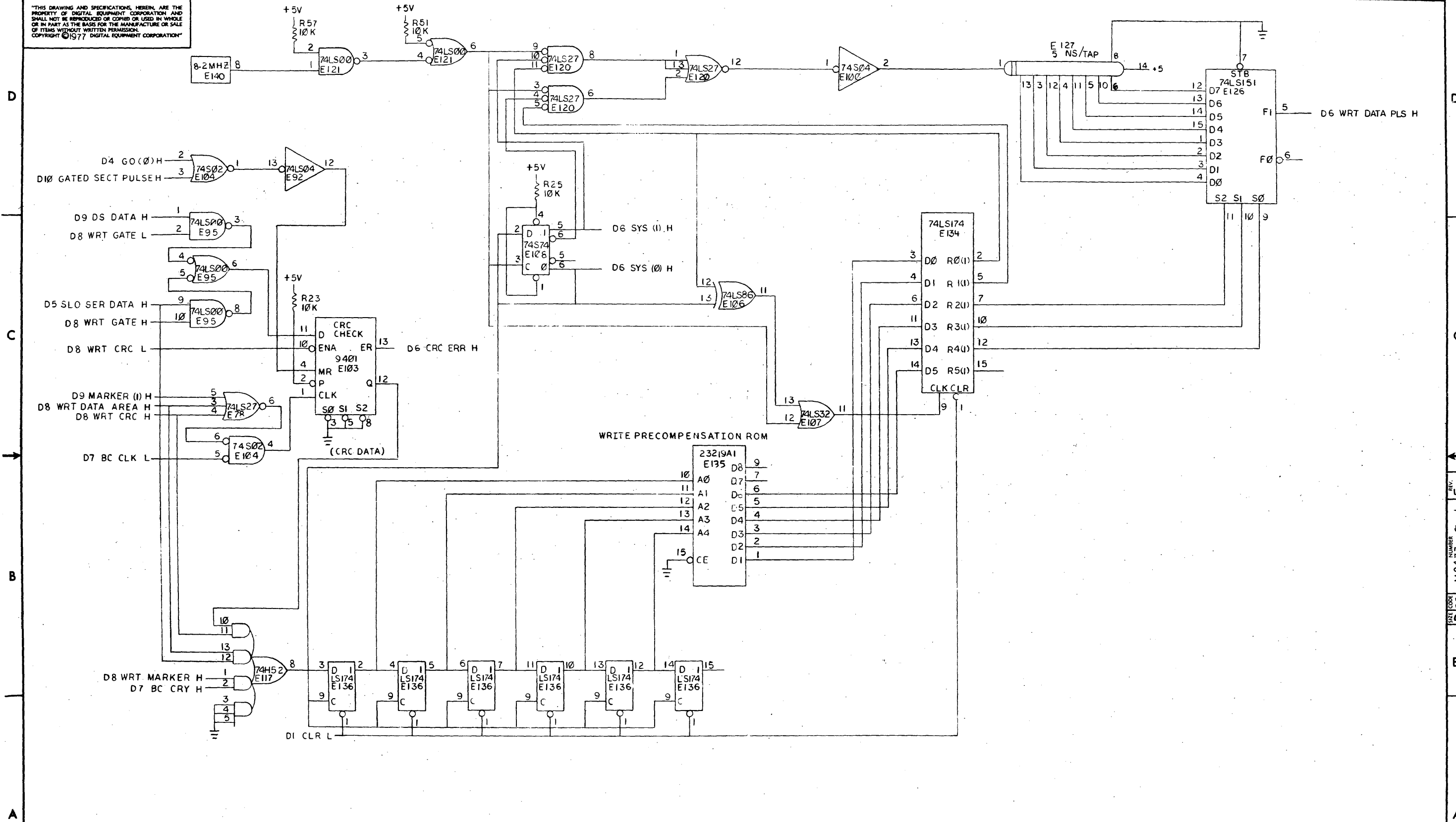
D  
 C  
 B  
 A

D  
 C  
 B  
 A



REVISIONS		
CHK	CHANGE NO.	REV.

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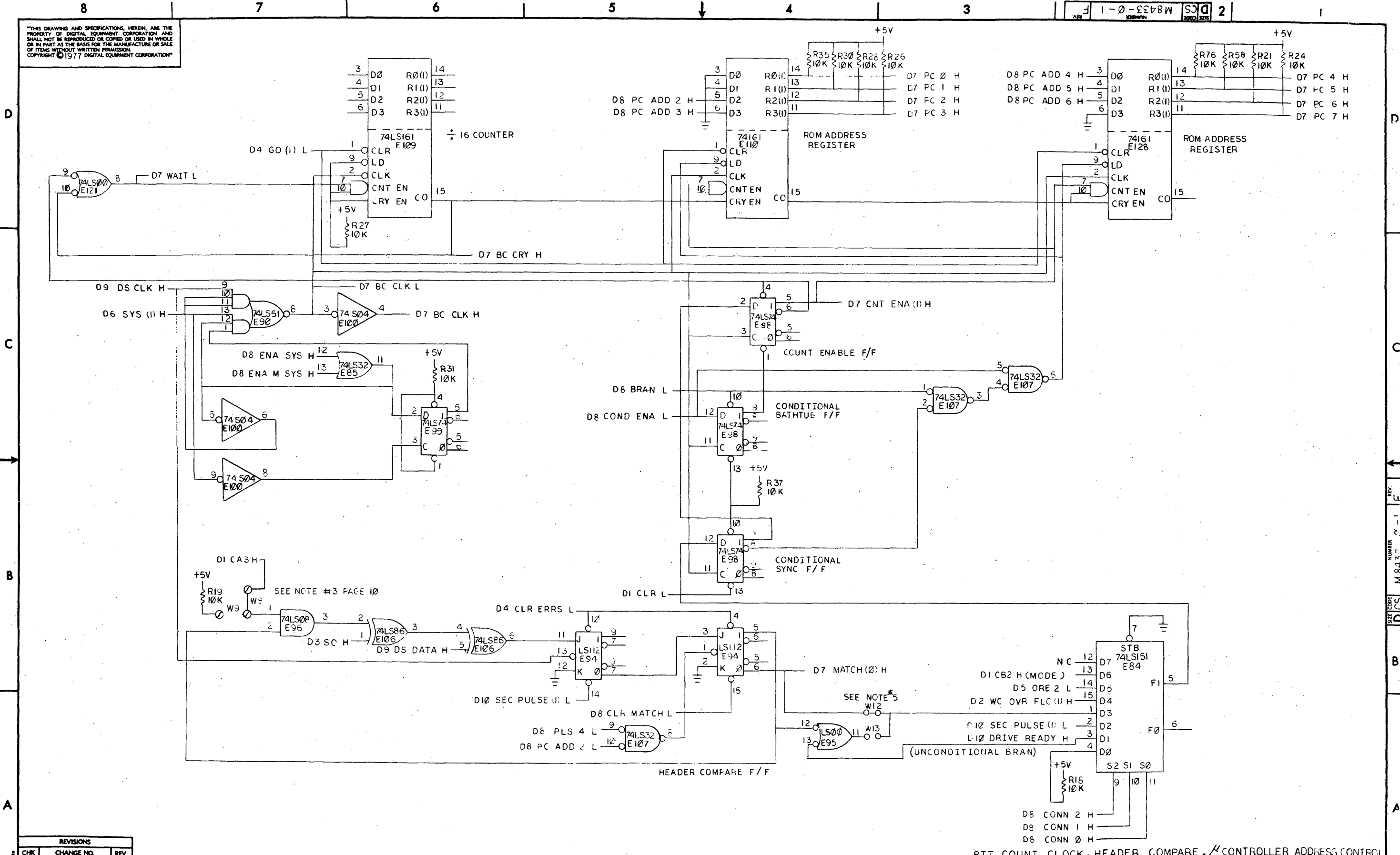
REVISIONS		
CHK	CHANGE NO.	REV.

CRC CHECK GENERATOR, SYSTEM CLOCK, WRITE PRECOMPENSATION

TITLE	RL01/RL02 DISK CONTROLLER	SIZE CODE	(D6) DCS	NUMBER	M8433-0-1	REV.	F
SCALE	NONE	SHEET	6	OF	10	DIST.	

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REV. 2 DCS M8433-0-1



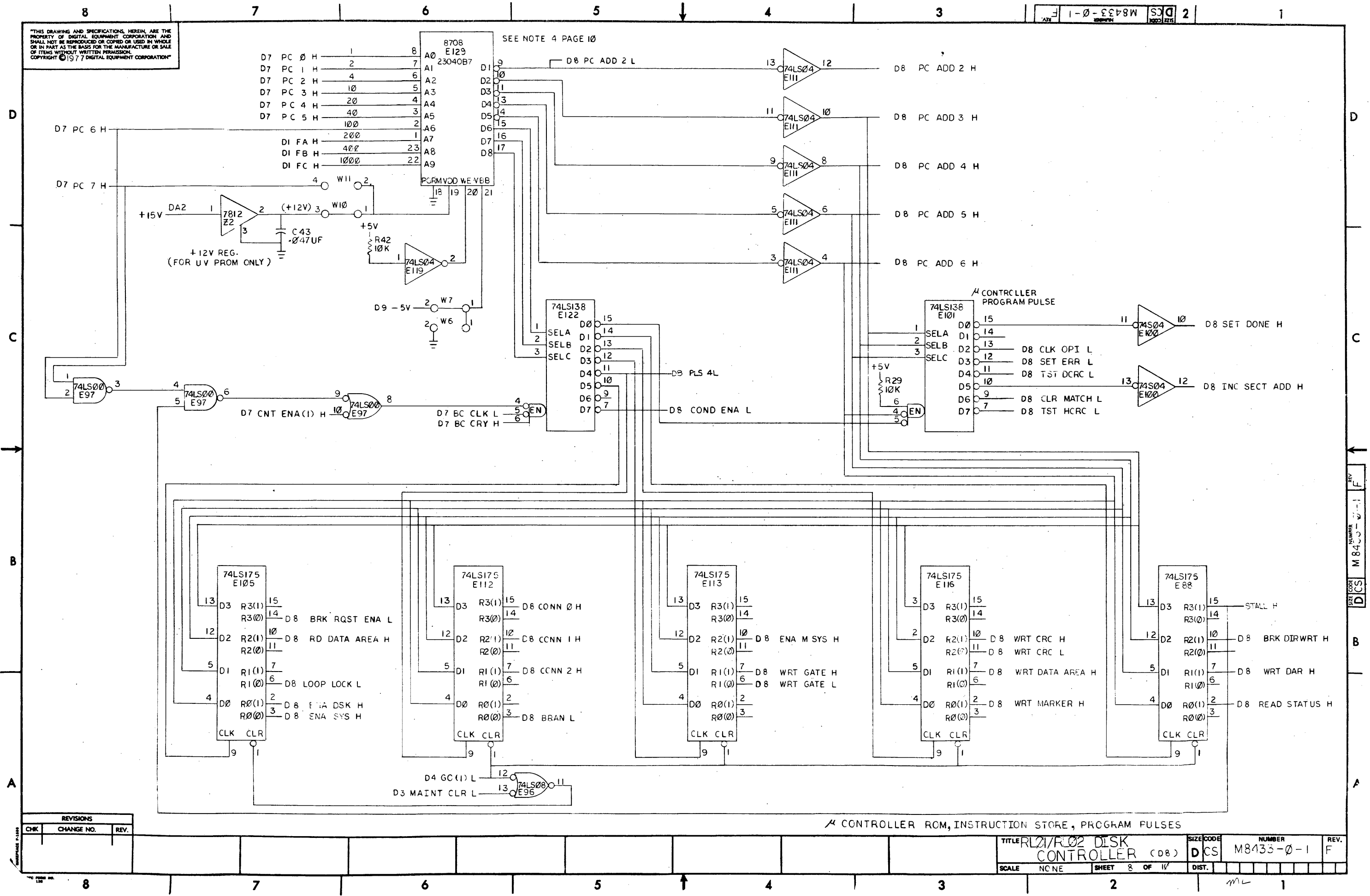
BIT COUNT CLOCK, HEADER COMPARE, CONTROLLER ADDRESS CONTROL

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	RLO/RLO2 DISK CONTROLLER (D7)	SIZE CODE	DCS	NUMBER	148433-0-1	REV.	F
SCALE	NC NE	SHEET	7	OF	10	DIST.	

REV. 2 DCS M8433-0-1 F

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REVISIONS		
CHK	CHANGE NO.	REV.

A CONTROLLER ROM, INSTRUCTION STORE, PROGRAM PULSES

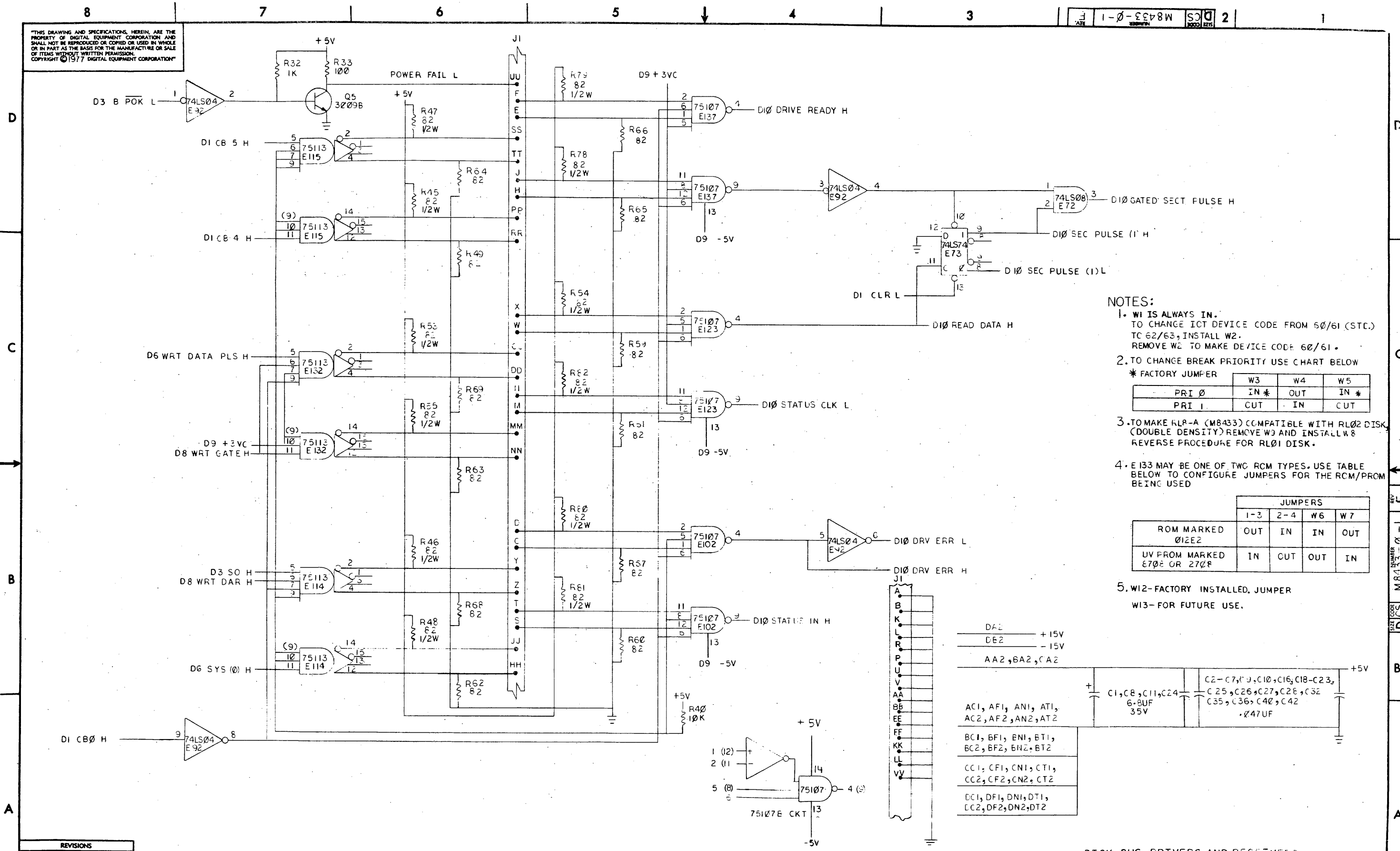
TITLE	RL01/RL02 DISK CONTROLLER (D8)	SIZE CODE	NUMBER	REV.
SCALE	NCNE	SHEET	8 OF 14	DCS M8433-0-1 F

REV. 1-1-77 M8433-0-1 DCS





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- NOTES:**
- W1 IS ALWAYS IN. TO CHANGE ICT DEVICE CODE FROM 50/61 (STC) TO 62/63, INSTALL W2. REMOVE W2 TO MAKE DEVICE CODE 60/61.
  - TO CHANGE BREAK PRIORITY USE CHART BELOW  
\* FACTORY JUMPER
  - TO MAKE RL0-A (M8433) COMPATIBLE WITH RL02 DISK (DOUBLE DENSITY) REMOVE W3 AND INSTALL W8. REVERSE PROCEDURE FOR RL01 DISK.
  - E133 MAY BE ONE OF TWO RCM TYPES. USE TABLE BELOW TO CONFIGURE JUMPERS FOR THE RCM/PROM BEING USED

	W3	W4	W5
PRI 0	IN *	OUT	IN *
PRI 1	CUT	IN	CUT

	JUMPERS			
	1-3	2-4	W6	W7
ROM MARKED 01ZE2	OUT	IN	IN	OUT
UV PROM MARKED E70E OR 270E	IN	CUT	OUT	IN

5. W2-FACTORY INSTALLED, JUMPER  
W3-FOR FUTURE USE.

DA2 +15V  
DE2 -15V  
AA2,BA2,CA2

	+5V
AC1, AF1, AN1, AT1, AC2, AF2, AN2, AT2	C1, C8, C11, C24 6-8UF 35V
BC1, BF1, EN1, BT1, BC2, BF2, EN2, BT2	C2-C7, C9, C10, C16, C18-C23, C25, C26, C27, C2E, C32, C35, C36, C40, C42 0.47UF
CC1, CF1, CN1, CT1, CC2, CF2, CN2, CT2	
DC1, DF1, DN1, DT1, DC2, DF2, DN2, DT2	

REVISIONS		
CHK	CHANGE NO.	REV.

DISK BUS DRIVERS AND RECEIVERS

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
1	D-MD-5013116-0-0	5013116-00	RL01 CONTROL	1	
2		1000010-00	*** THIS ITEM IS NOT USED ***	-	
3		1000016-00	*** THIS ITEM IS NOT USED ***	-	
4		1005306-00	6.8MFD 35V 10% S.TANT	8	C1,C8,C11,C24,C44,C45,C41,C48
5		1002433-00	22 MFD 35V 20% S.TANT	1	C30
6		1000050-00	*** THIS ITEM IS NOT USED ***	-	
7		1010274-00	.22 MFD 50V +80-20%Z5U CER	4	C37,C38,C49,C50
8		1012784-00	.047 MFD 50V +80-20% CER	32	C2-C7,C9,C10,C12-C16,C18-C23, C25-C28,C32,C35,C36,C40,C42,C43, CONT C39,C46,C51 CONT C47
9		1000018-00	120.0 MMF 100V 5%200PPM MICA	1	
10		1105873-00	*** THIS ITEM IS NOT USED ***	-	
11		1109991-01	*** THIS ITEM IS NOT USED ***	-	
12		1111577-00	1N 4454 TR= 4NS PIV= 50 S	1	D1
13		1209941-02	HEADER 100 40POS RT ANGLE	1	J1
14		1209941-03	HEADER RT ANGLE LEFT L	1	
15		1209941-04	HEADER RT ANGLE,RIGHT	1	
16		1210711-02	HANDLE,MODULE,HEX	1	
17		1300228-00	100.0 .50 W 5.0 % CC	1	R56
18		1300229-00	100.0 .25 W 5.0 % CC	1	R33
19		1300271-00	220.0 .25 W 5.0 % CC	1	R6
20		1300274-00	*** THIS ITEM IS NOT USED ***	-	
21		1300295-00	*** THIS ITEM IS NOT USED ***	-	
22		1300316-00	470.0 .25 W 5.0 % CC	2	R90,R91
23		1300365-00	1.0 K .25 W 5.0 % CC	3	R1,R10,R32
24		1300479-00	10.0 K .25 W 5.0 % CC	38	R2,R3,R4,R7,R8,R9,R12,R13, CONT R15-R31,R35,R37-R40,R42,R50,R51, CONT R57,R58,R76,R77,R87
25		1302858-00	100.0 .25 W 1.0 % RN55D-F10	3	R93-R95
26		1301477-00	82.0 .25 W 5.0 % CC	13	R14,R49,R59-R69

REVISION HISTORY		BASIC PART NO: M8433		DRN:	A. COLON	DATE:	02-AUG-78	DIGITAL			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	K. GLEASON	DATE:	02-AUG-78	TITLE	PARTS LIST		
ER	00002	C	SECTION VARIATION INDEX	CHK'D:	K. GLEASON	DATE:	02-AUG-78	RL01/RL02 DISK CNTLR BOARD			
L.N	M8433-ML003	D	[A] 00								
PS	M8433-ML004	E	[B]								
PS	M8433-ML005	F	[C]	DES.ENG:	P. SCANTLEBURY	DATE:	02-AUG-78	DOCUMENT NUMBER			
			[D]								
			[E]								
			[F]	RESP.ENG.:	P. SCANTLEBURY	DATE:	02-AUG-78	SIZE	CODE	NUMBER	REV
			[H]								
			[J]								
			[K]	MFG.ENG.:	P. KIRK	DATE:	02-AUG-78	K	PL	M8433-0-DBP	F
			[L]								
			[M]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:	EDIT #		
			[N]	D-UA-M8433-0-0		RL01		Z0198F.PLS	12		

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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
27	27		1301781-00	82.0 .50 W 5.0 % CC	12		R45-R48,R53,R54,R55,R78-R82
28	28		1302514-00	39.0 K .25 W 5.0 % CC	1		R36
29	29		1302612-00	1.78 K .25 W 1.0 % RN55D-F10	1		R86
30	30		1305114-00	*** THIS ITEM IS NOT USED ***	-		
31	31		1305125-00	*** THIS ITEM IS NOT USED ***	-		
32	32		1305127-00	*** THIS ITEM IS NOT USED ***	-		
33	33		1309143-09	*** THIS ITEM IS NOT USED ***	-		
34	34		1503100-00	DEC3009B NPN 200MW SI 20 25	1		Q5
35	35		1503121-00	*** THIS ITEM IS NOT USED ***	-		
36	36		1513490-00	2N 4403 PNP 350MW SI-40 30	1		Q1
37	37		1610033-00	*** THIS ITEM IS NOT USED ***	-		
38	38		1614159-00	*** THIS ITEM IS NOT USED ***	-		
39	39		1811660-12	OSCILLATOR, XTAL 8.200 MHZ	1		E140
40	40		1909061-00	DEC 74H52 AND-OR GATE,XPNDABLE	1		E117
41	41		1909705-00	DEC 8881 NAND GATE-QUAD 2IN 0	6		E16,E23,E40,E44,E49,E69
42	42		1909928-00	7416 INVERTER GATE-HEX 1I	3		E43,E55,E82
43	43		1910268-00	DEC 75107B RECEIVER,LINE,DUAL,	3		E102,E123,E137
44	44		1910393-00	DEC 7384 OR GATE-QUAD 2IN,UTI	2		E51,E53
45	45		1910532-00	74S00 NAND GATE-QUAD 2IN	2		E63,E125
46	46		1910536-00	*** THIS ITEM IS NOT USED ***	-		
47	47		1910537-00	74S11 AND GATE-TRIPLE 3INP	1		E42
48	48		1910545-00	74S112 FF-JK DUAL,EDGE TRIG	1		E124
49	49		1910650-00	74161 COUNTER,SYNCHR. UP	2		E110,E128
50	50		1910544-00	74S74 FF-D DUAL,EDGE TRIGG	5		E41,E86,E87,E108,E139
51	51		1911315-00	8234 MUX 1 OF 4	6		E7,E12,E15,E25,E33,E39
52	52		1911341-00	75113 DRIVER,LINE,DUAL,MA	3		E114,E115,E132
53	53		1911469-00	DEC 8640 RECEIVER,BUS,QUAD,U	8		E3,E10,E20,E24,E52,E54,E61,E83
54	54		1911330-01	74173N FF-D QUAD,TRI-STATE	3		E1,E30,E62
55	55		1911911-00	DEC 74S124 OSCILLATOR,DUAL VOLT	1		E131
56	56		1912799-00	LS00 NAND-GATE-QUAD 2IN,P	5		E66,E77,E95,E97,E121
57	57		1912346-00	74165 SHIFT REG.,8BIT PARA	2		E29,E38
58	58		1910534-00	74S04 INVERTER GATE-HEX 1I	2		E100,E118
59	59		1912395-00	DM 8136 COMPARATOR-6BIT UNIF	1		E11
60	60		1912541-00	79M05 VOLT REG,FIX -5V	1		Z1
61	61		1912697-00	LS174 FF-D HEX W/CLEAR	6		E6,E9,E18,E28,E134,E136
62	62		1912801-00	LS02 NOR-GATE-QUAD 2IN	2		E48,E50
63	63		1912803-00	LS04 INVERTER GATE-HEX 1I	7		E4,E35,E46,E59,E60,E92,E111
64	64		1912805-00	LS08 AND GATE-QUAD 2IN,PO	6		E32,E58,E72,E76,E91,E96
65	65		1912807-00	LS10 NAND GATE-TRIPLE 3IN	3		E67,E68,E70
66	66		1912813-00	LS27 NOR GATE-TRIPLE 3IN	2		E78,E120
67	67		1912816-00	LS32 OR GATE-QUAD 2IN,POS	4		E22,E27,E85,E107
68	68		1912819-00	LS42 DECODER,BCD-DECIMAL	1		E71
69	69		1912820-00	LS51 A-O-I GATE 2-WIDE 2I	2		E90,E93
70	70		1912824-00	LS74 FF-D DUAL,EDGE TRIGG	10		E56,E57,E64,E73,E75,E79,E80,E81, E98,E99
71	71		1912829-00	LS86 X-OR GATE-QUAD 2IN	1	CONT	E106
72	72		1912834-00	LS112 FF-JK DUAL,EDGE TRIG	2		E74,E94
73	73		1912842-00	LS138 DECODER-THREE INPUT,	4		E36,E37,E101,E122

! D ! I ! G ! I ! T ! A ! L !	! TITLE	! SECTION A OF A	! SIZE ! CODE !	! DOCUMENT NUMBER	! REV !
	RL01/RL02 DISK CNTLR BOARD		K ! PL !	M8433-0-DBP	F

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
74	74	1912844-00	LS151 MUX 1 OF 8 & DATA	2	E84,E126
75	75	1912849-00	LS161 COUNTER,SYNCHR,4BIT	9	E5,E8,E13,E14,E17,E19,E26,E34, CONT E109
76	76	1912853-00	LS175 FF-D QUAD	5	E88,E105,E112,E113,E116
77	77	1912837-00	LS123 ONE SHOT-DUAL,RETRIG	1	E89
78	78	1913474-00	9401 GENERATOR/CHECKER CR	1	E103
79	79	1913475-00	9403 BUFFER MEMORY(FIFO)	3	E2,E21,E31
80	80	23040E7-00	B7-01	1	E129
81	81	23219A1-00	A1-07	1	E135
82	82	1912048-05	7812 VOLT REG,FIX +12V	1	Z2
83	83	1912388-00	74S02 NOR GATE-QUAD 2IN,PO	3	E47,E65,E104
84	84	1913340-00	74S32 OR GATE-QUAD 2IN	1	E45
85	85	9000024-01	EYELET, ROLLED FLANGE, .121 OD X	12	
86	86	9006735-00	EYELET, FUNNEL FLANGE, .059 OD X	13	
87	87	9105740-55	*** THIS ITEM IS NOT USED ***	-	
88	88	9007791-00	TERM PCB 2POS SOLDER,TURRET	1	TP11
89	89	1215006-06	SOCKET 24PIN IC LOW PROFILE	1	XE129
90	90	1215006-02	SOCKET 16PIN IC LOW PROFILE	1	XE135
91	91	9009185-00	JUMPER, WIRE, INSULATED, BLACK B	7	W1,W3,W5,W7,W8,W10,W12
92	92	9007201-00	TRANSIPADS #10253	1	
93	93	9107256-09	*** THIS ITEM IS NOT USED ***	-	
94	94	1305143-00	*** THIS ITEM IS NOT USED ***	-	
95	95	1910645-00	*** THIS ITEM IS NOT USED ***	-	
96	96	1300247-00	120.0 .25 W 5.0 % CC	2	R5,R11
97	97	1013466-08	680.0 MMF 50V 10% X7R CER	1	C17
98	98	1013466-02	18.0 MMF 50V 5% CER	1	C29
99	99	1000022-00	270.0 MMF 100V 5%200PPM MICA	1	C31
100	100	1010646-00	.015 MFD 50V 2% M.POLYCARB	1	C33
101	101	1016628-00	7.0 MMF TO 30.0 MMF TRIMMER	1	C34
102	102	1302872-00	681.0 .25 W 1.0 % RN55D-F10	2	R34-R41
103	103	1302668-00	2.70 K .50 W 1.0 % RN60D-F10	1	R43
104	104	1302862-00	50.0 .25 W 1.0 % RN55D-F10	2	R44,R52
105	105	1302871-00	1.21 K .25 W 1.0 % RN55D-F10	2	R70,R71
106	106	1305126-00	619.0 .25 W 1.0 % RN55D-F10	2	R72,R73
107	107	1302956-00	196.0 .25 W 1.0 % RN55D-F10	1	R74
108	108	1302874-00	147.0 .25 W 1.0 % RN55D-F10	1	R75
109	109	1302941-00	14.70 K .25 W 1.0 % RN55D-F10	1	R83
110	110	1309413-00	3.83 K .25 W 1.0 % RN55D-F10	1	R84
111	111	1303312-00	10.0 K .25 W 1.0 % RN55D-F10	1	R85
112	112	1301320-00	1.20 K .25 W 5.0 % CC	1	R88
113	113	1300398-00	1.80 K .25 W 5.0 % CC	1	R89
114	114	1305890-00	4.70 .25 W 5.0 % CC	1	R92
115	115	1513489-00	2N 4401 NPN 350MW SI 40 20	1	Q2
116	116	1505795-00	2N 4034 PNP 360MW SI N	2	Q3,Q4
117	117	1603358-00	12.0 UH 10% 300MA #DD12.0	2	L1,L2
118	118	1616653-00	DELAY= 50NS,10TAPS WITH TTLBU	1	E127
119	119	1616653-01	DELAY= 100NS,10TAPS WITH TTLBU	1	E119
120	120	1912389-00	74S08 AND GATE-QUAD 2IN,PO	1	E138

D I G I T A L		TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
		RL01/RL02 DISK CNTLR BOARD		K	PL	M8433-0-DBP	F

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
121 121		1910542-00	74S64 A-0-I GATE 4-2-3-2	1	E133
122 122		1913017-00	3046 XSISTOR ARRAY,3 ISOL	1	E130
123 123		1912536-00	DEC 7805 VOLT REG, FIX +5V	1	Z3

124 NOTE: PART # 1912048-02 MAY BE SUBSTITUTED FOR 1912048-05.

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							RL01/RL02 DISK CNTRLR BOARD				M8433-0-DBP	F
									K	PL		

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0-0-10808 M10 2

LEGEND

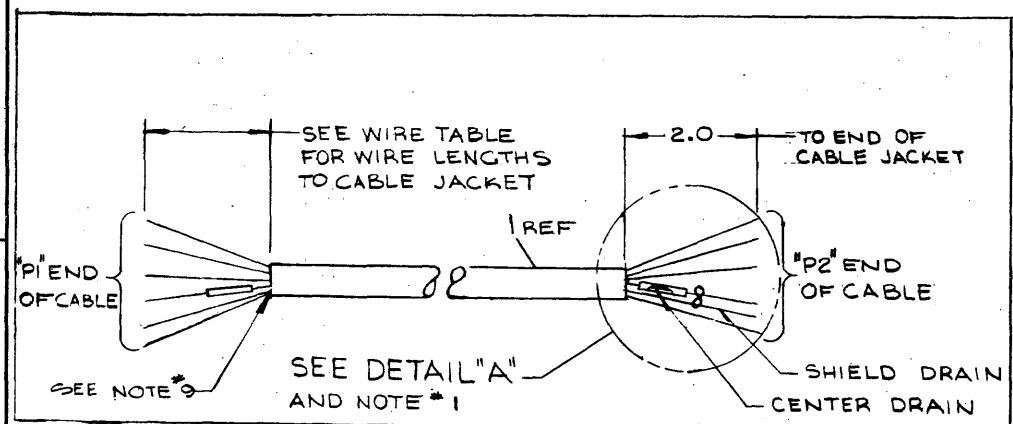
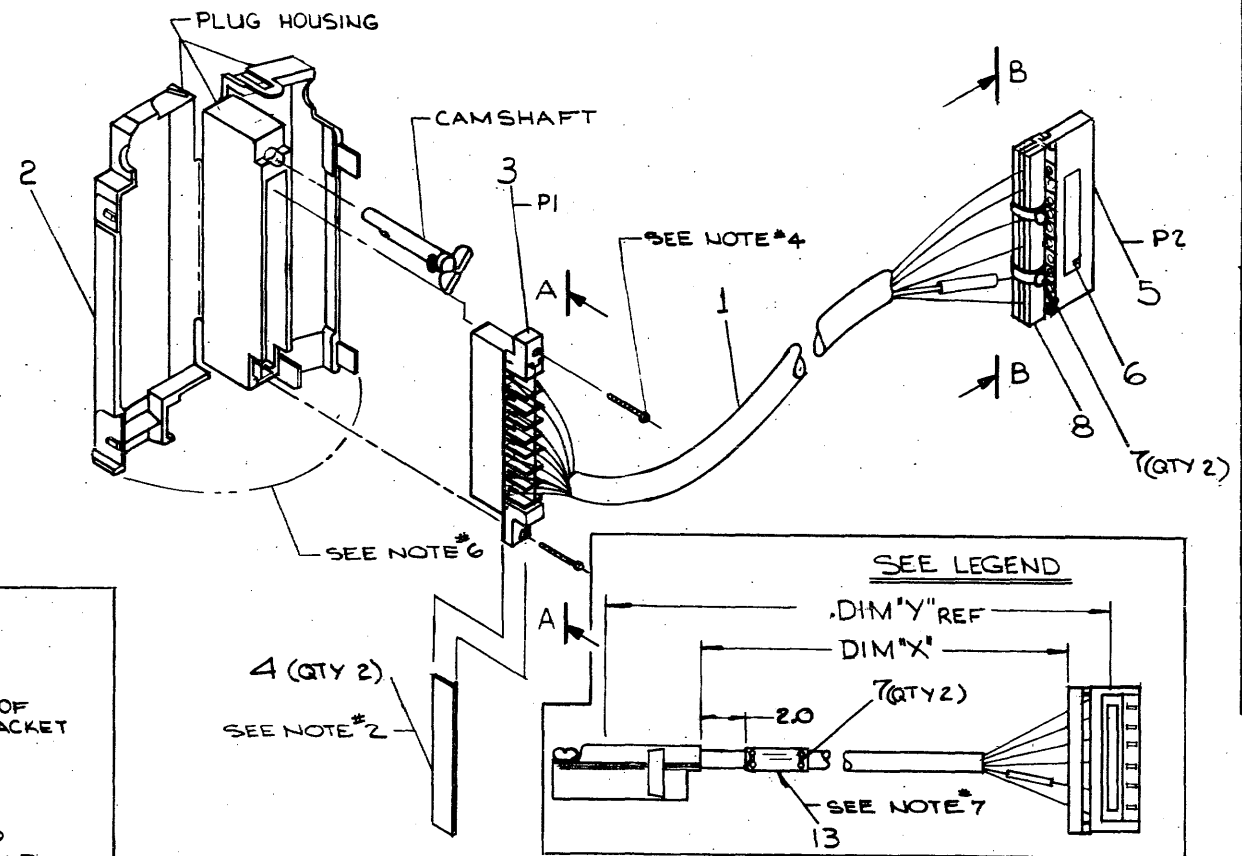
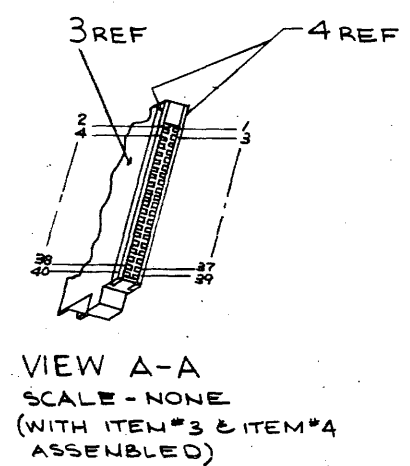
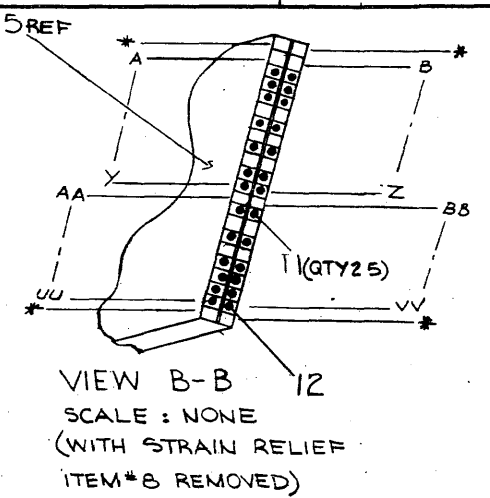
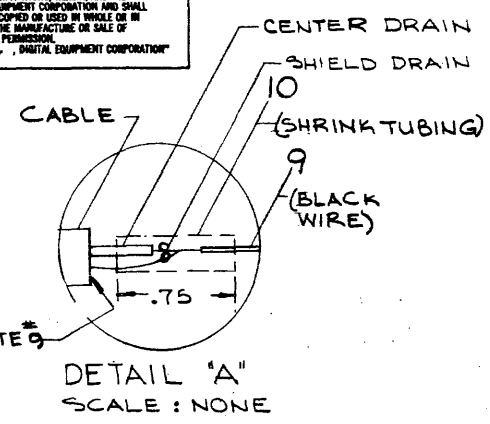
NUMBER	DIM"X" VARIATION	DIM"Y" (PRECUT) REF
BC80J-10	10FT-0IN. ± 2 IN.	10FT-4.50 IN.
BC80J-20	20FT-0IN. ± 3 IN.	20FT-4.50 IN.
BC80J-30	30FT-0IN. ± 6 IN.	30FT-4.50 IN.
BC80J-50	50FT-0IN. ± 1 FT.	50FT-4.50 IN.
BC80J-75	75FT-0IN. ± 1 FT. 6 IN.	75FT-4.50 IN.
BC80J-04	4 FT-0IN. ± 1 IN.	4 FT-4.50 IN.
BC80J-06	6 FT-0IN. ± 2 IN.	6 FT-4.50 IN.

NOTE:

- CUT CENTER & SHIELD DRAIN BACK TO 1.0 IN. FROM JACKET AND STRIP INSULATION OF CENTER DRAIN APPROXIMATELY .30 IN. THEN USING BLACK WIRE (ITEM 9) AND STRIPPING INSULATION ON ONE END APPROXIMATELY .30 IN. TWIST TOGETHER STRIPPED AREAS OF CENTER DRAIN AND BLACK WIRE ALONG WITH SHIELD DRAIN AND SOLDER CAREFULLY THEN APPLY SHRINK TUBING (ITEM 10) OVER SOLDERED AREA. (SEE DETAIL "A".)
- AFTER ASSEMBLING WIRES TO PLUG (PI) INSTALL CONTACT COVER (ITEM 4) OVER CONTACTS.
- CUT BACK WHT WIRE TO CABLE JACKET BOTH ENDS OF CABLE.
- SCREWS (#2 x .3 LG SELFTAPPING) ARE PART OF PLUG HOUSING AND CAMSHAFT KIT (ITEM #2)
- REF ONLY, CONTACT (DEC. PART # 1211591-27) FOR REPLACEMENT ONLY
- PRIOR TO SNAPPING SIDES OF PLUG HOUSING TOGETHER CARE SHOULD BE TAKEN TO ASSURE THAT ALL WIRES ARE SUFFICIENTLY WITHIN HOUSING TO PREVENT PINCHING OF INDIVIDUAL STRANDS
- CABLE TO BE MARKED WITH PART NUMBER BC80J & REV IN AREA SHOWN
- \* DENOTES CAVITIES NOT TO BE USED OR DESIGNATED BY LETTERS
- ALTERNATE PART NO. FOR ITEM #1 (1700051-01) IS 1700051-00. WHEN USING THIS ALTERNATE PART CUT OFF UNUSED CONDUCTORS AT BOTH ENDS OF CABLE JACKET.

FOR WIRE TABLE SEE SHEET # 2

FOR PARTS LIST SEE K-PL-BC80J-0-0



QUANTITY & VARIATION		DESCRIPTION		DWG./PART NO.		ITEM NO.	
THIRD ANGLE PROJECTION		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		CLASS OF ACCURACY		NOMINAL DIMENSION RANGE INCHES	
REMOVE BURRS AND BREAK SHARP CORNERS		DO NOT SCALE DWG.		NEXT HIGHER ASSY.		MATERIAL SEE PARTS LIST	
FINISH		SCALE		SHEET 1 OF 2		DIST.	

DRN: [Signature] 06/77  
CHK'D: [Signature]  
ENG: [Signature]  
PROL. ENG: [Signature]  
PROD: [Signature]

FIRST USED ON: RL8A  
TITLE: CABLE CONTROLLER (RL8A)  
SIZE: D  
CODE: UA  
NUMBER: BC80J-0-0  
REV.:

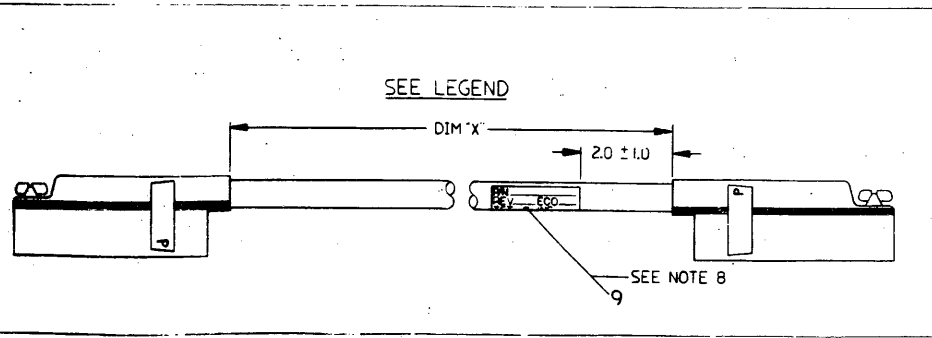
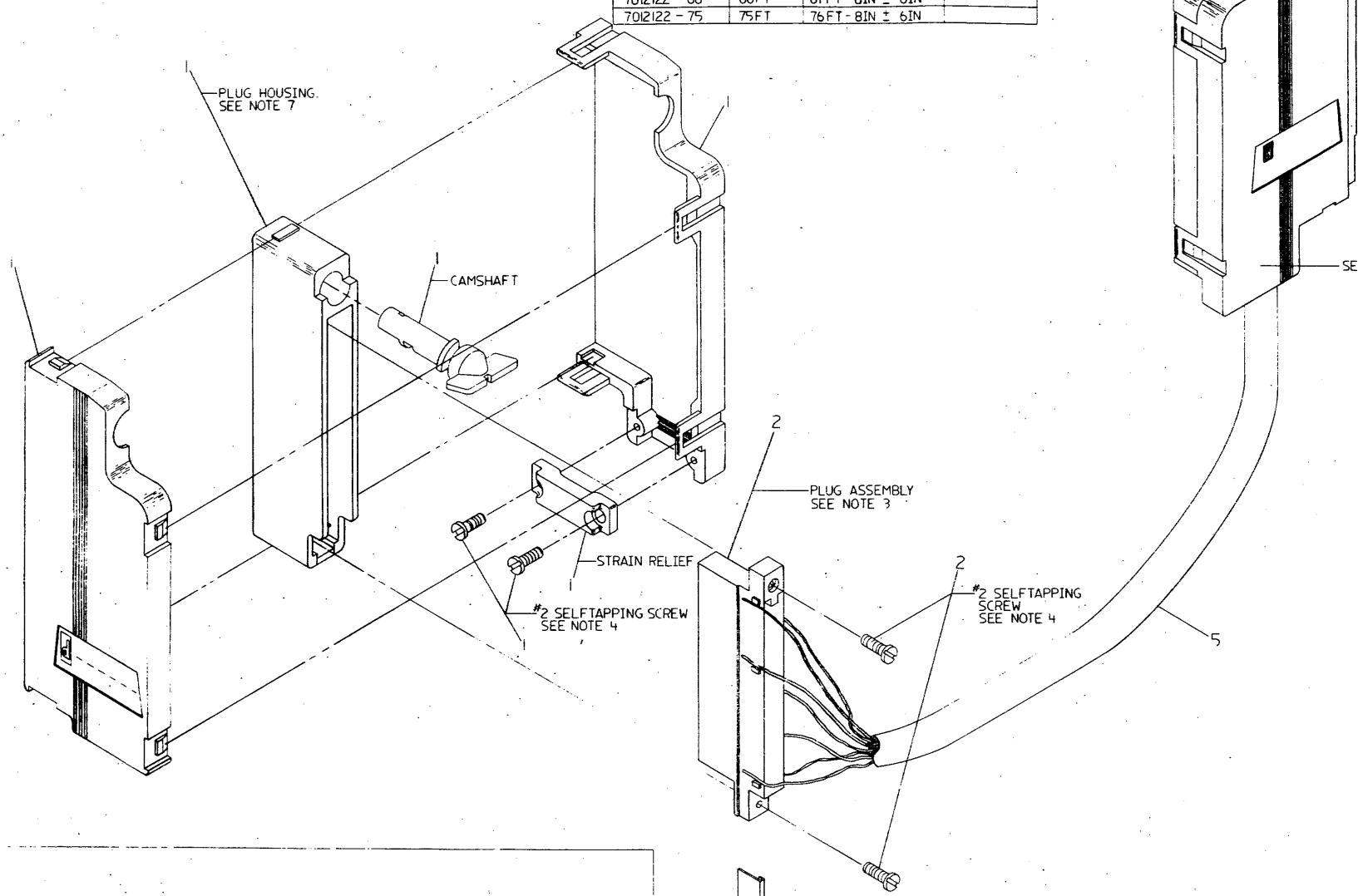
REV.	CHANGE NO.	DESCRIPTION



LEGEND			
NUMBER	DIM 'X'	PRE-CUT LENGTH	REMARKS
7012122-06	6 FT	7 FT-8 IN ± 2 IN	
7012122-08	8 FT	9 FT-8 IN ± 2 IN	
7012122-10	10 FT	11 FT-8 IN ± 2 IN	
7012122-12	12 FT	13 FT-8 IN ± 3 IN	
7012122-20	20 FT	21 FT-8 IN ± 3 IN	
7012122-25	25 FT	26 FT-8 IN ± 3 IN	
7012122-30	30 FT	31 FT-8 IN ± 6 IN	
7012122-40	40 FT	41 FT-8 IN ± 6 IN	
7012122-50	50 FT	51 FT-8 IN ± 6 IN	
7012122-60	60 FT	61 FT-8 IN ± 6 IN	
7012122-75	75 FT	76 FT-8 IN ± 6 IN	

NOTES:

- "CUT AND REMOVE  $9.0 \pm .5$  INCHES OF THE OUTER CABLE JACKET FROM BOTH ENDS OF CABLE. CAUTION: DO NOT CUT OR NICK DRAIN WIRE UNDER OUTER JACKET. REMOVE THE NYLON WRAP AND ALUMINUM SHIELD FLUSH TO JACKET."
- "AMP SEMI-AUTOMATIC INSERTION MACHINES (CHAMPOMATOR OR CHAMPOMATIC) MUST BE USED TO TERMINATE THE LEADS TO PLUG ASSEMBLIES ITEM 2. THE STANDARD CABLE CLAMP SUPPLIED WITH THE AMP MACHINES MAY REQUIRE MODIFYING TO POSITION CABLE, ITEM 5, TO PLUG ASSEMBLY, ITEM 2, PER DETAIL B. AFTER ASSEMBLY OF WIRES TO PLUG, INSTALL COVER, ITEM 3, TO EACH SIDE OF PLUG."
- "THE DRAIN WIRE AND INNER GND WIRE MUST BE PREPARED AS FOLLOWS BEFORE TERMINATING CABLE TO PLUG. THESE PROCEDURES ARE DESCRIBED IN DEC ASSEMBLY PROCESSES FOR THIS ASSEMBLY. A SIGNED DISCLOSURE STATEMENT IS REQUIRED TO OBTAIN COPIES OF ANY DEC PROCESS SPECIFICATION."
- "CUT BACK THE CENTER BLACK GND WIRE  $.4 \pm .1$  INCH ABOVE JACKET, STRIP END  $.25 \pm .06$  INCH."
- "FIND AND SEPARATE THE SOLID WHITE AND YELLOW PAIRED WIRES. CUT THE WHITE WIRE FLUSH WITH JACKET, STRIP END OF LOOSE WHITE WIRE  $.25 \pm .06$  INCH."
- "POSITION STRIPPED END OF WHITE WIRE PARALLEL TO THE STRIPPED END OF THE BLACK GND WIRE. WRAP THE DRAIN WIRE AROUND THE STRIPPED END OF THE BLACK AND WHITE WIRE 2-4 TIMES. SOLDER WIRE SPLICE AND CUT OFF END OF DRAIN FLUSH WITH SPLICE."
- "COVER SPLICE WITH  $0.5 \pm .06$  INCH OF SHRINK TUBING, ITEM 4. TWIST THE WHITE AND YELLOW WIRES (PREVIOUSLY SEPARATED) BACK TOGETHER FOR APPROXIMATELY (3) THREE INCHES."
- "SCREWS (2 X .31 S.T.) ARE PART OF ITEM 1. TORQUE SCREWS TO  $2.5 \pm .5$  IN/LBS CABLE CLAMP SHOULD BE CLAMPED IN POSITION BEFORE INSTALLING SCREWS. CABLE CLAMP MUST BE FLUSH TO HOUSING BOTH SIDES."
- "ACTIVE CONTACT (DEC 1211591-27) AND BLACK 28 AWG WIRE (DEC 910769-00) IS FOR PRODUCTION REPAIR ONLY. REF AMP CONTACT (66555-3 L.P.) HAND CRIMP TOOL (90209-1) EXTRACTION TOOL (91111-1)."
- "BAG, ITEM 8, TO BE INSTALLED OVER EACH CONNECTOR AND SECURED AFTER COMPLETION OF ASSEMBLY."
- "PRIOR TO SHAPPING SIDES OF HOUSING TOGETHER, ASSURE THAT ALL WIRES ARE WELL WITHIN HOUSING."
- "LABEL, ITEM 9, TO CONTAIN:  
ASSEMBLY P/N  
REVISION (LEVEL)  
PFG (PLACE OF BUILD) DATE (OF PFG)  
TEST (STAMP) INSP. (STAMP)"
- "DEC STANDARD 116 (WORKMANSHIP) APPLIED TO THIS ASSEMBLY."
- "MARK SHIPPING CONTAINER AS TO:  
ASSEMBLY NO.  
REVISION (LEVEL)  
PFG BY  
DATE  
QTY"



CAUTION: OFF SHEET PARTS LIST EXISTS. SEE K-PL-7012122-0-DBP (Z1758)

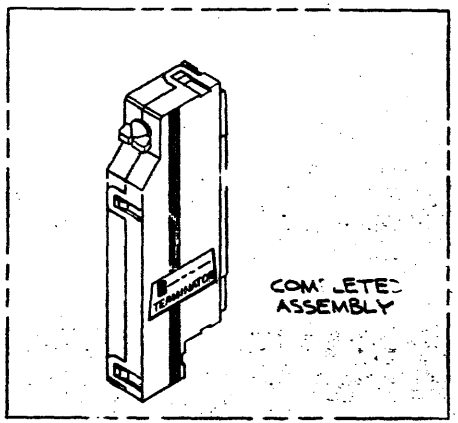
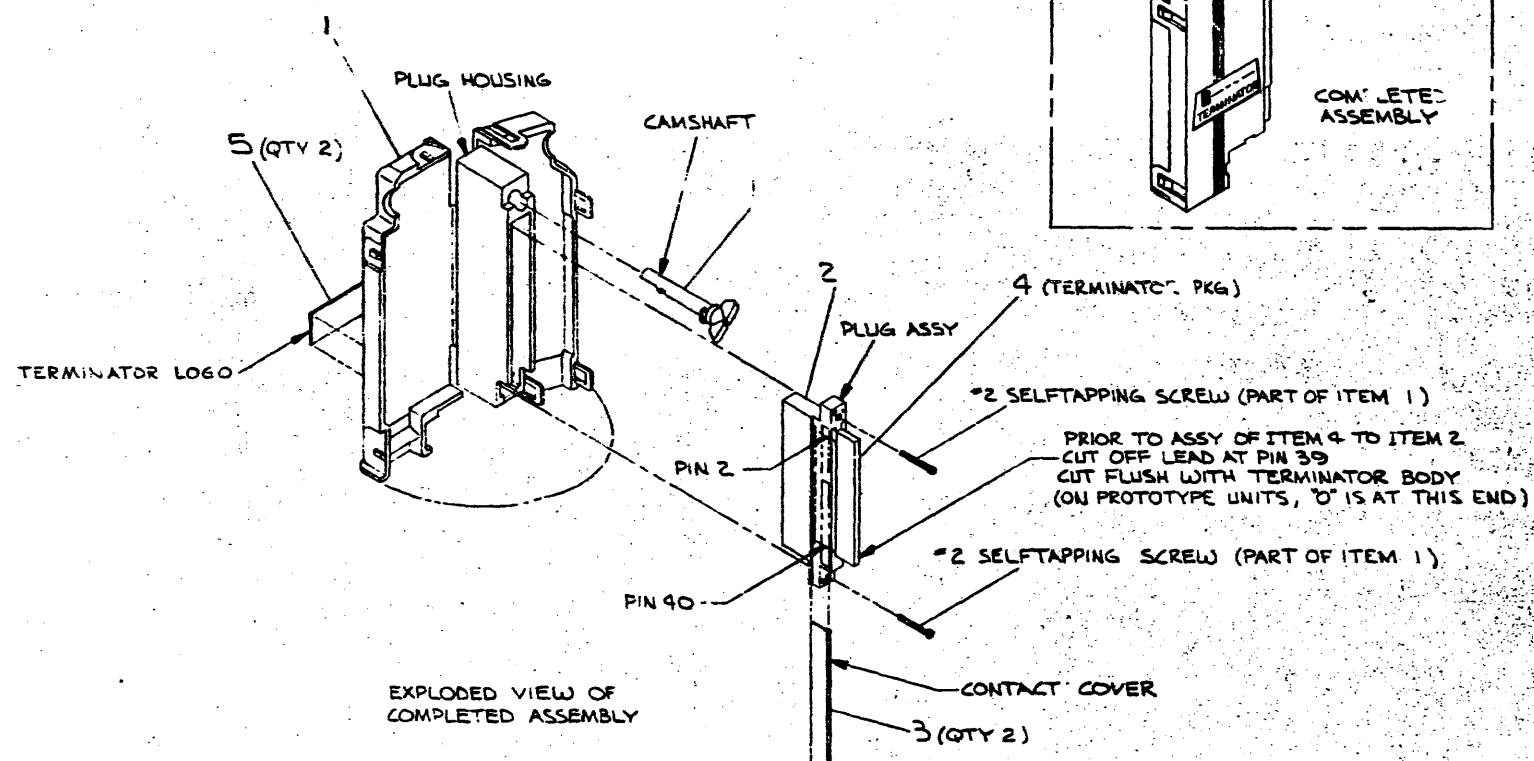
QUANTITY & VARIATION	DESCRIPTION	QUANTITY	UNIT
1	PLUG HOUSING		
1	CAMSHAFT		
1	PLUG ASSEMBLY		
1	STRAIN RELIEF		
1	CONTACT COVER		
1	SHRINK TUBING		
1	SCREWS		
1	BAG		
1	LABEL		

DATE: 8/1/68 BY: [Signature]





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QTY	DESCRIPTION	ORIG. PART NO.	ITEM NO.
2	LOGO, TERMINATOR	A-DC-7116676-0-0	5
1	TERMINATOR PKG	1313242-00	4
2	COVER, CONTACT	1211591-11	3
1	PLUG ASSY	1211591-07	2
1	CAM SHAFT W/SG & CONTACT KIT	1211591-34	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
FRAMES	CLASS OF ACCURACY
ASSEMBLY	CHECK ONE
PRECISION	PREFERRED

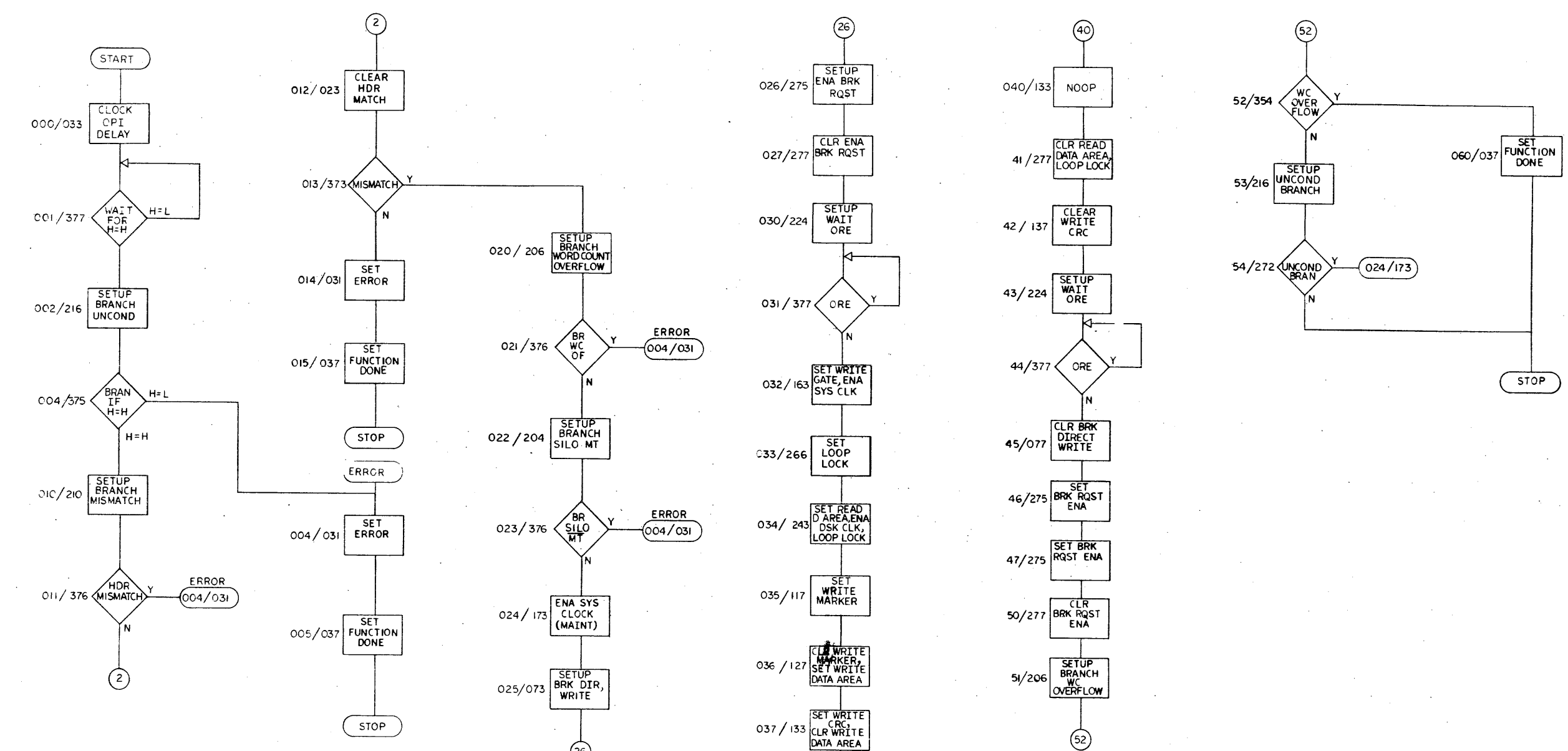
DESIGNED BY: *[Signature]* CHECKED BY: *[Signature]* FIRST USED ON: *EK06*  
 ENGINEERED BY: *[Signature]* TITLE: **TERMINATOR ASSY**  
 PROD. BY: *[Signature]* SCALE: NONE  
 MATERIAL: E-LA-RK611-0-0 SIZE CODE: NUMBER: DIST. DIST. DIST.  
 SEE PARTS LIST SCALE: NONE D IA7012293-0-0 A  
 SHEET 1 OF 1

REV.	CHANGE NO.	DATE	BY	APP.
A	00001			

W. DUNHAM

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MAINTENANCE (2)



DESCRIPTION	DWG. PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
ANGLES ±0° 30'	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES
SURFACE QUALITY IN	(CHECK ONE)	OVER 0.2 TO 0.4
QUANTITY & VARIATION	MEDIUM	OVER 0.4 TO 0.6
THIRD ANGLE PROJECTION	PREFERRED	OVER 0.6 TO 1.0
REMOVE BURRS AND BREAK SHARP CORNERS	±0.004	OVER 1.0 TO 3.0
DO NOT SCALE DWG	±0.008	OVER 3.0 TO 6.0
MATERIAL	±0.012	OVER 6.0 TO 12.0
FINISH	±0.016	OVER 12.0 TO 40.0
	±0.025	OVER 40.0 TO 80.0
	±0.04	OVER 80.0 TO 101
	±0.063	±0.1
DRN: [Signature]	CHK'D: [Signature]	ENG: [Signature]
PROJ. ENG: [Signature]	PROD: [Signature]	
FIRST USED ON RL8A		TITLE RL8A
NEXT HIGHER ASSY.		SCALE E-UA-RL8A-0-0
SIZE CODE D		NUMBER FD RL8A-0-5
SHEET 1 OF 6		REV.

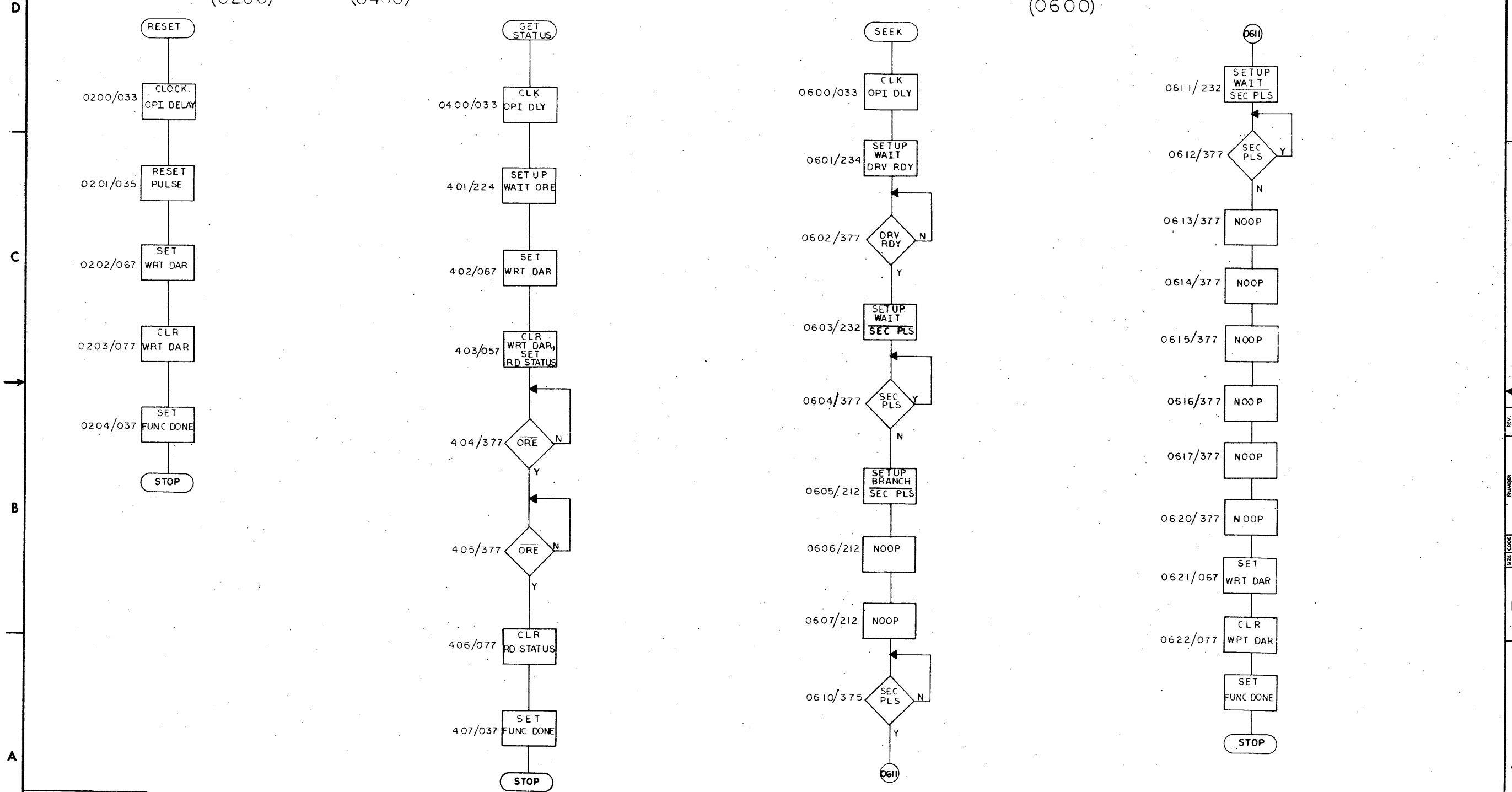
REV.	CHANGE NO.	REVISIONS

DRAWING NO. DFD RL8A-0-5

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RESET (1) & GET STATUS (2)  
(0200) (0400)

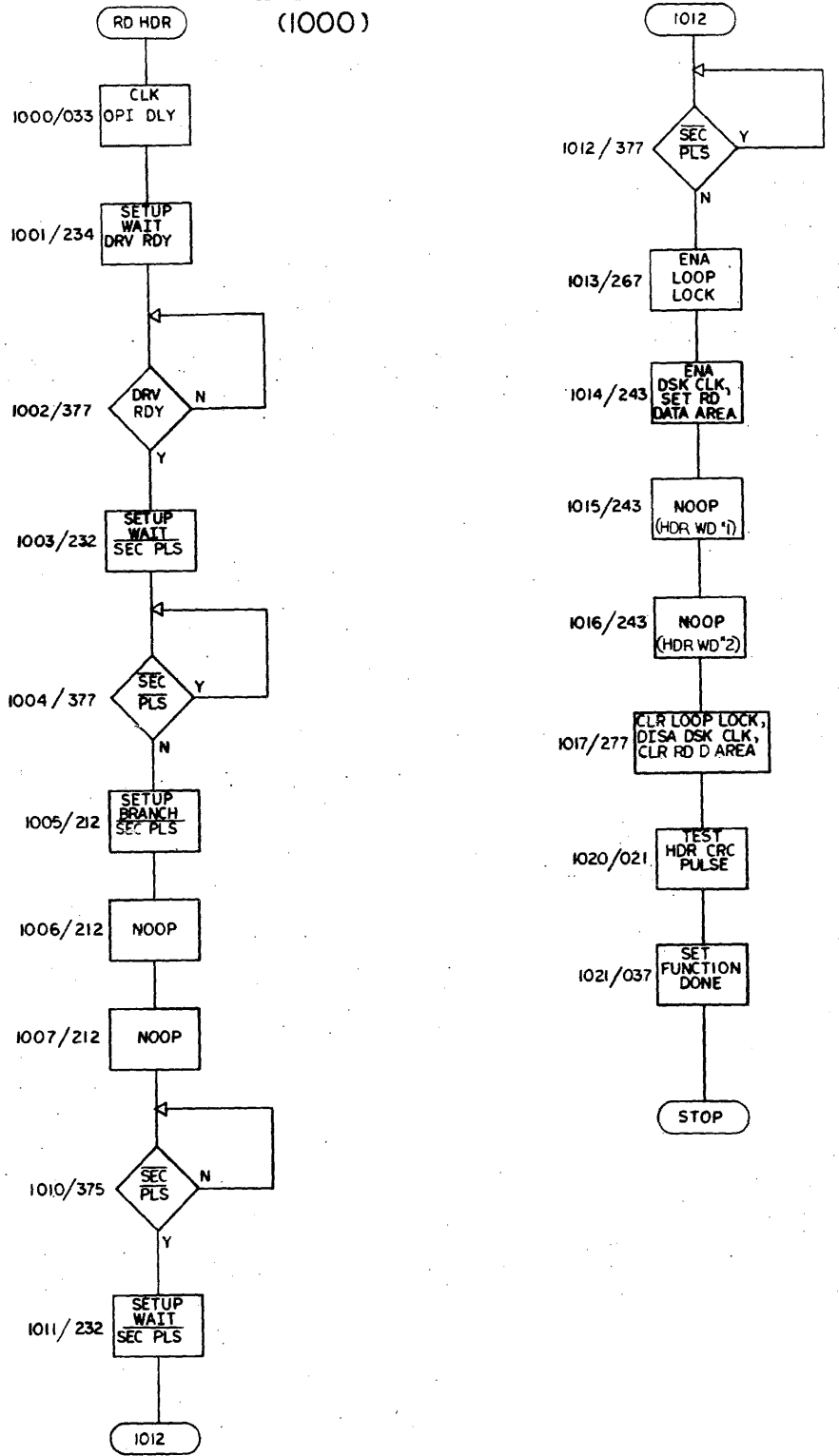
SEEK (3)  
(0600)



REVISIONS		
CHK	CHANGE NO.	REV.

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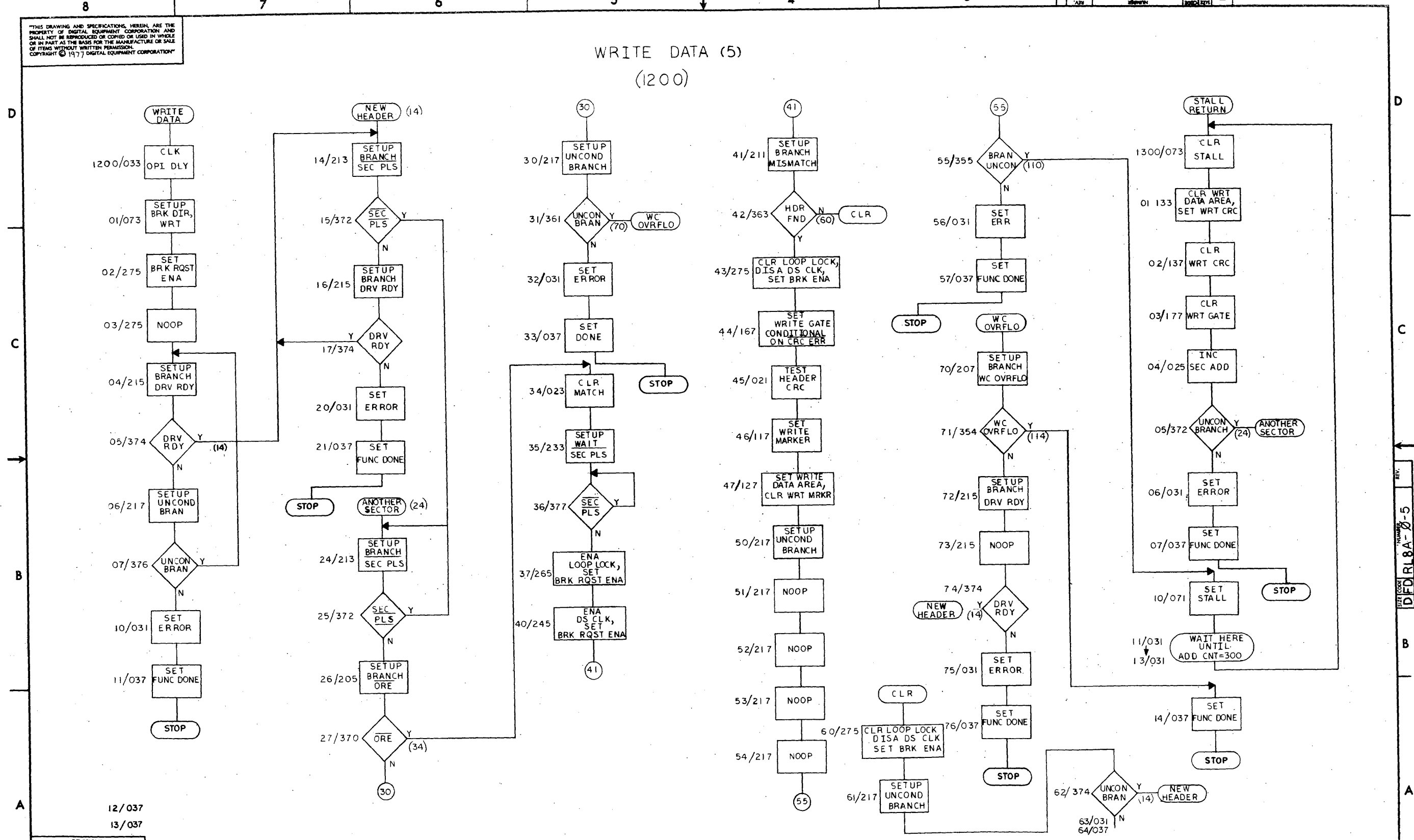
READ HEADER (4)  
(1000)



REVISIONS		
CHK	CHANGE NO.	REV.

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### WRITE DATA (5) (1200)

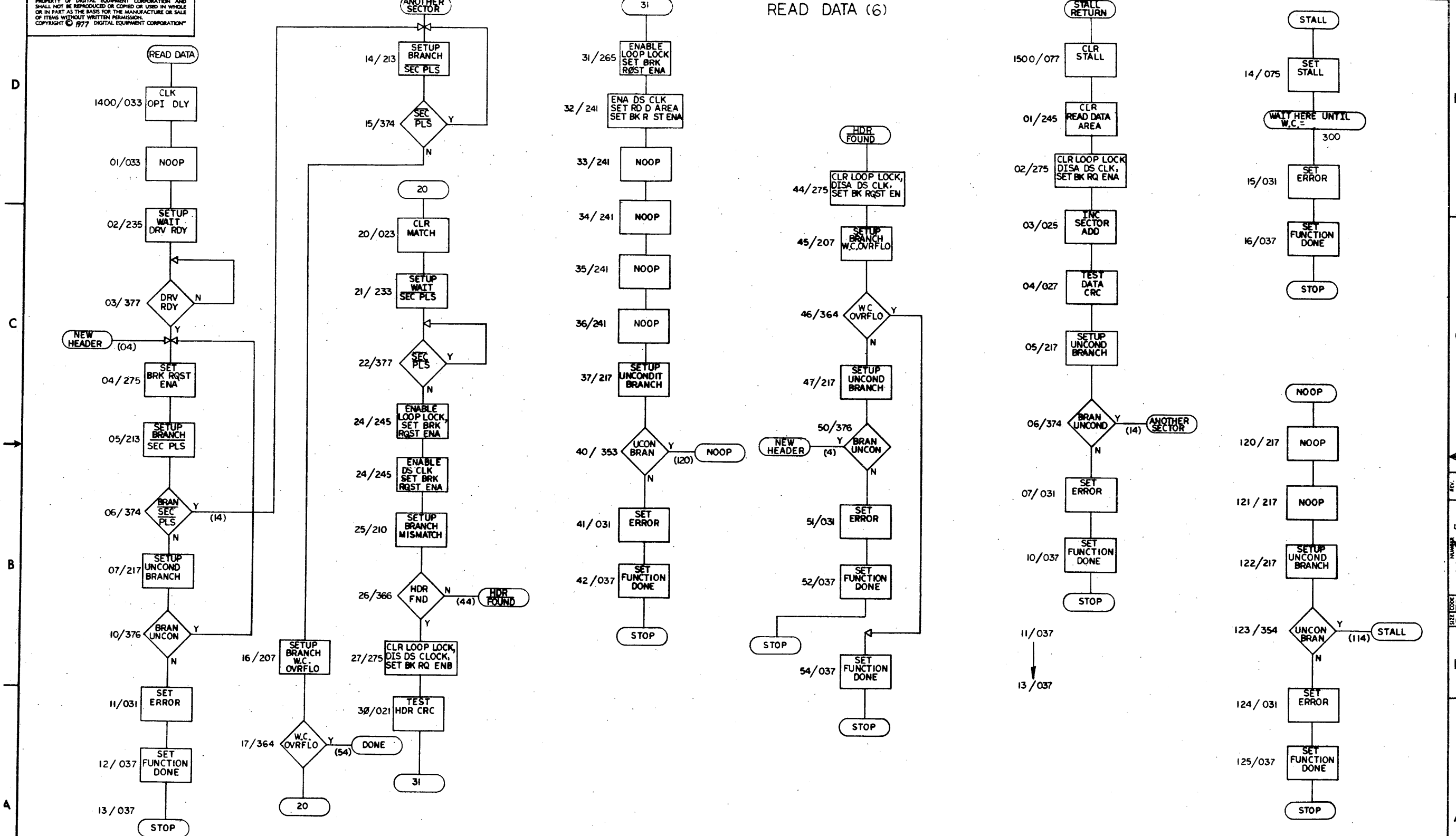


REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	RL8-A μ CONTROLLER	SIZE CODE	NUMBER	REV.
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SCALE	SHEET 4 OF 6	DIST.		

REV. NUMBER DFDRL8A-0-5

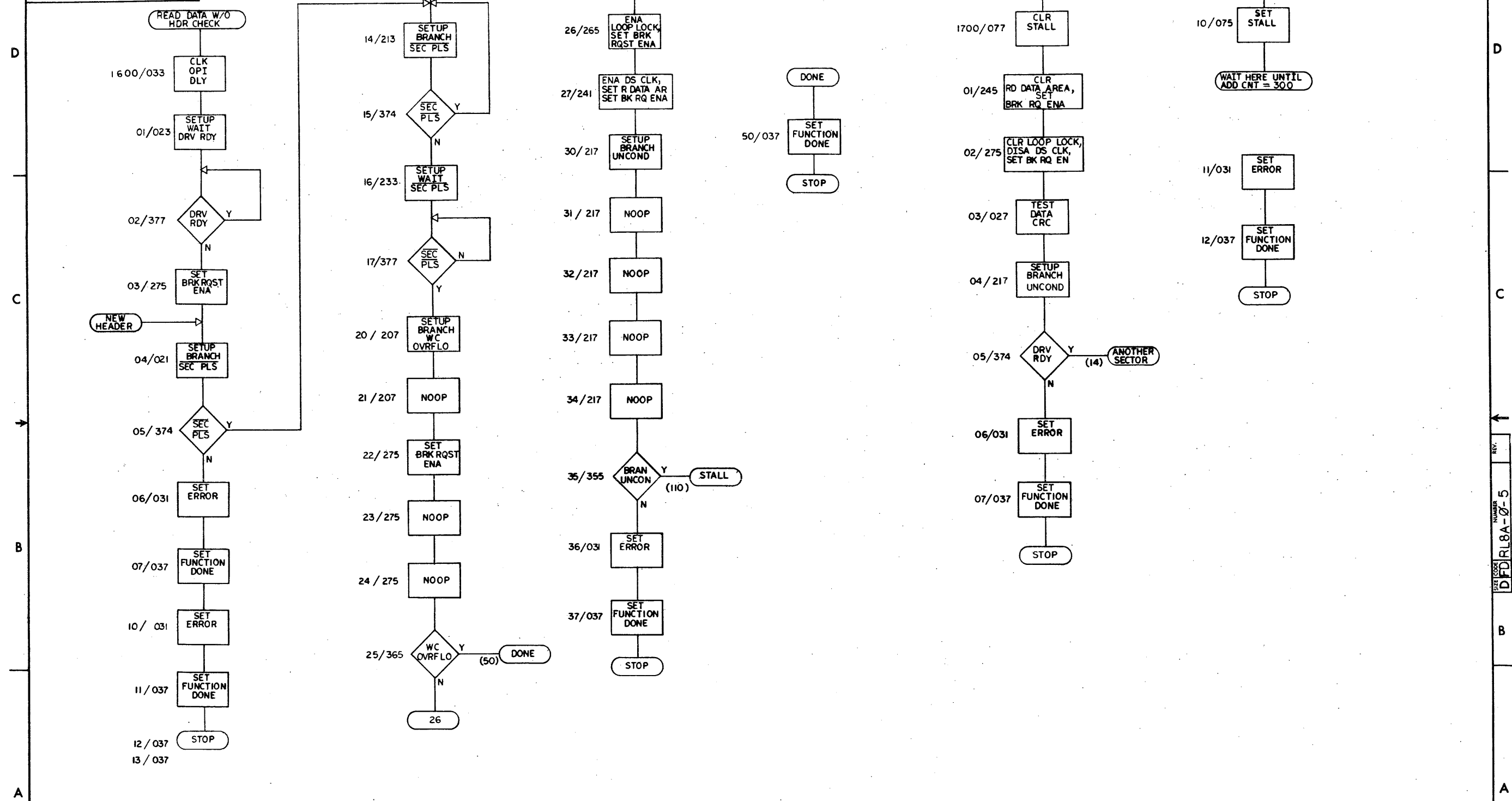
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REVISIONS		
CHK	CHANGE NO.	REV.

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READ DATA W/O HDR CK (7)  
 (1600)



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	RL8-A α CONTROLLER FLOW DIAGRAM	SIZE CODE	D	FD	NUMBER	RL8A-0-5	REV.	
SCALE		SHEET	6	OF	6	DIST.		

REV. NUMBER DFD RL8A-0-5