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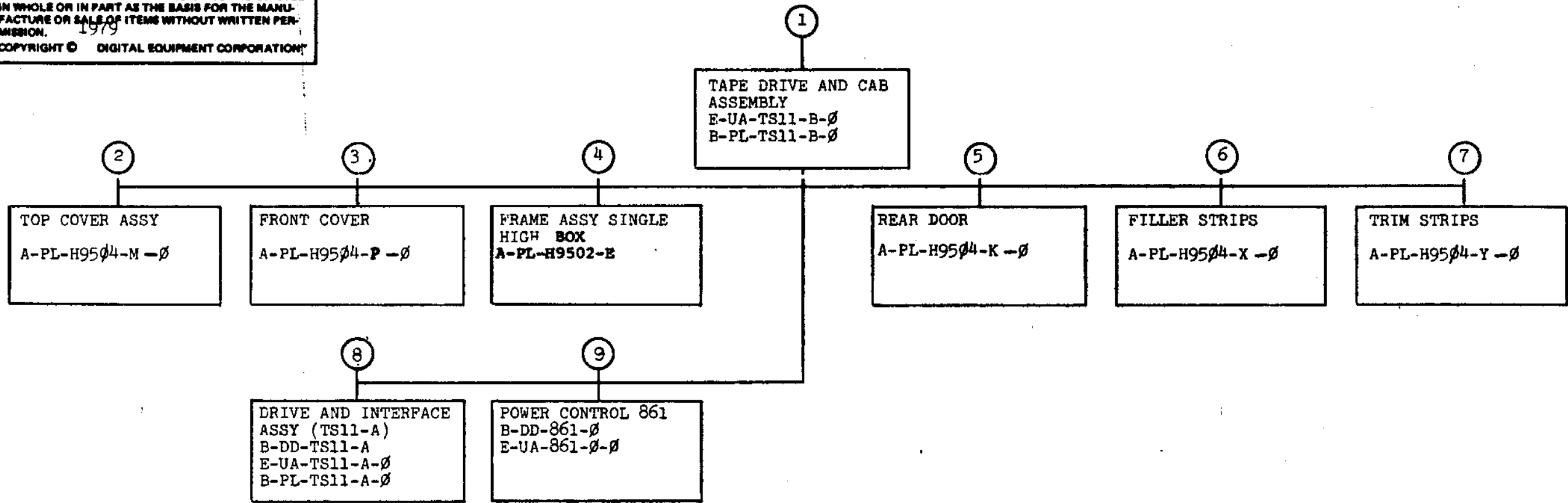
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FOR TABLE OF CONTENTS LISTING REFER TO DRAWING NO. B-TC-TS11-B-01

UNIT VARIATIONS	
VAR	TITLE
TS11-BA	TAPE DRIVE AND CAB ASSY (12ØV)
TS11-BB	TAPE DRIVE AND CAB ASSY (24ØV)

REVISIONS	REV. A	USED ON OPTION/MODEL TS11	DRN. G. MARINI	DATE 3/20/79	TITLE  TAPE DRIVE AND CAB ASSEMBLY (TS11-B)	SIZE CODE B DD	NUMBER TS11-B	REV A
	CHANGE NO.		CHK'D. <i>[Signature]</i>	DATE 9/12/79				
			PROJ. ENG. <i>[Signature]</i>	DATE 9/14/79				
			PROD. <i>[Signature]</i>	DATE 9/17/79				
	CHK 228		SHEET 1 OF 3	DIST.				

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1979
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TITLE TAPE DRIVE AND CAB ASSEMBLY (TS11-B)	SHEET 2 OF 3	SIZE CODE B DD	NUMBER TS11-B	REV A
---	--------------	-------------------	------------------	----------

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	E-UA-TS11-B-Ø	TAPE DRIVE AND CAB ASSEMBLY	E/M				
	K-PL-TS11-B-DBP	TAPE DRIVE AND CAB ASSEMBLY (PL)	E/M				
	C-MD-7422939-Ø-Ø	BRACKET, TOP	M				
	D-MD-7422564-Ø-Ø	PANEL, VERT. BLANK	M				
	C-MD-7422939-Ø-Ø	BRACKET, TOP COVER	M				
	A-DC-7416197-Ø-Ø	LABEL, U.L.	E/M				
	S-IA-7008288-Ø-Ø	CABLE ASSY (P.C.)	E/M				
	B-MD-7415711-Ø-Ø	PIN, PILOT	M				
	A-SP-3700340-Ø-Ø	PACKAGING INSTRUCTIONS	M				
	D-MD-7422059-Ø-Ø	FRAME SUPPORT	M				
	C-MD-7422083-Ø-Ø	SPACER	M				
2	A-PL-H95Ø4-M-Ø	TOP COVER ASSY	M				
3	A-PL-H95Ø4-P-Ø	FRONT COVER	M				
4	A-PL-H95Ø4-Ø-Ø	FRAME ASSY SINGLE HIGHBOY	M				
5	A-PL-H95Ø4-K-Ø	REAR DOOR	M				
6	A-PL-H95Ø4-X-Ø	FILLER STRIPS	M				
7	A-PL-H95Ø4-Y-Ø	TRIM STRIPS	M				
8	B-DD-TS11-A	DRAWING DIRECTORY TS11-A	-				
	E-UA-TS11-A-Ø	DRIVE AND INTERFACE ASSY TS11-A	E/M				
	B-PL-TS11-A-Ø	DRIVE AND INTERFACE ASSY TS11-A (PL)	E/M				
9	B-DD-861-Ø	DRAWING DIRECTORY 861	-				
	E-UA-861-Ø-Ø	POWER CONTROL 861	E/M				

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

digital

TITLE
TAPE DRIVE AND CAB ASSY (TS11-B)

SHEET 3 OF 3

SIZE CODE
B DD

NUMBER
TS11-B

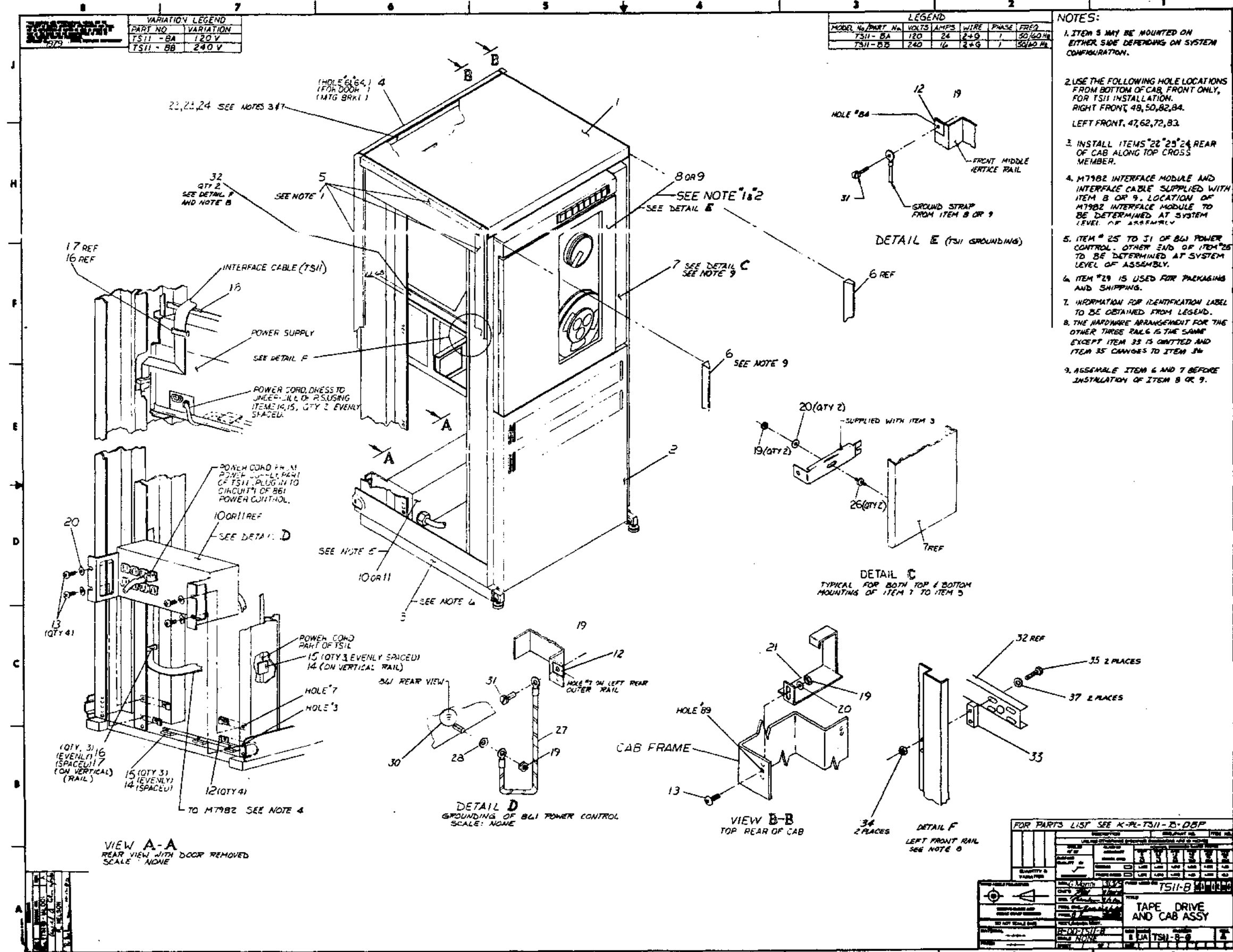
REV
A

VARIATION LEGEND	
PART NO.	VARIATION
TS11 - BA	120 V
TS11 - BB	240 V

LEGEND					
MODEL NO./PART NO.	VOLTS	AMPS	WIRE	PHASE	FREQ
TS11 - BA	120	24	2+G	1	50/60 Hz
TS11 - BB	240	16	2+G	1	50/60 Hz

NOTES:

- ITEM 5 MAY BE MOUNTED ON EITHER SIDE DEPENDING ON SYSTEM CONFIGURATION.
- USE THE FOLLOWING HOLE LOCATIONS FROM BOTTOM OF CAB, FRONT ONLY, FOR TS11 INSTALLATION:
RIGHT FRONT, 48, 50, 82, 84.
LEFT FRONT, 47, 62, 72, 83.
- INSTALL ITEMS *22 *23 *24 REAR OF CAB ALONG TOP CROSS MEMBER.
- M7982 INTERFACE MODULE AND INTERFACE CABLE SUPPLIED WITH ITEM 8 OR 9. LOCATION OF M7982 INTERFACE MODULE TO BE DETERMINED AT SYSTEM LEVEL OF ASSEMBLY.
- ITEM # 25 TO 31 OF B61 POWER CONTROL. OTHER END OF ITEM #25 TO BE DETERMINED AT SYSTEM LEVEL OF ASSEMBLY.
- ITEM #29 IS USED FOR PACKAGING AND SHIPPING.
- INFORMATION FOR IDENTIFICATION LABEL TO BE OBTAINED FROM LEGEND.
- THE HARDWARE ARRANGEMENT FOR THE OTHER THREE RAILS IS THE SAME EXCEPT ITEM 33 IS OMITTED AND ITEM 35 CHANGES TO ITEM 34.
- ASSEMBLE ITEM 6 AND 7 BEFORE INSTALLATION OF ITEM 8 OR 9.



VIEW A-A
REAR VIEW WITH DOOR REMOVED
SCALE: NONE

DETAIL D
GROUNDING OF B61 POWER CONTROL
SCALE: NONE

DETAIL C
TYPICAL FOR BOTH TOP & BOTTOM MOUNTING OF ITEM 1 TO ITEM 3

DETAIL E (TS11 GROUNDING)

FOR PARTS LIST SEE K-PL-TS11-B-D8P

ITEM NO.	DESCRIPTION	QTY	UNIT
1	TS11-B	1	DRIVE AND CAB ASSY
2	TS11-B-6	1	TS11-B-6

LINE ITEM DOCUMENT NUMBER PART NUMBER DESCRIPTION QUANTITY PER VARIATION

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
1-00	H9504-M-0	H9504-M9	TOE COVER SINGLE	1
1-01	H9504-P-0	H9504-P9	DARK GRAY H9504-PA	1
1-02	H9502-E-0	H9502-E	CAB SING HB	1
1-03	H9504-K-0	H9504-K9	REAR DOOR SINGLE HIBOY FULLY SLO	1
1-04	H9504-X-0	H9504-X9	FILLER STRIP (INTERCAB)	1
1-05	H9504-Y-0	H9504-Y9	TRIM STRIP MOLDING	1
1-06	H9504-Z-0	H9504-Z9	PANEL VERTICAL 25.19+/- .09 23.23	1
1-07	H9504-AA-0	H9504-AA9	TS04-PA & TS11 45IPS NR21 MAGTAP	1
1-08	H9504-AB-0	H9504-AB9	TS04-AB 25FT. SERIAL CABLE M7982	1
1-09	H9504-AC-0	H9504-AC9	120VAC 24A POWER CONTROL 19"W. 5.	1
1-10	H9504-AD-0	H9504-AD9	240VAC 16A POWER CONTROL 19"W. 5.	1
1-11	H9504-AE-0	H9504-AE9	RETAINER U-NUT 10-32	5
1-12	H9504-AF-0	H9504-AF9	SCREW TRUS, PHIL, SEMSID-32X 1/2	5
1-13	H9504-AG-0	H9504-AG9	TIE CABLE BUNDL. DIA 0-1-3/4"=101	5
1-14	H9504-AH-0	H9504-AH9	MOUNT, CABLE TIE, ADHESIVE BRCKE	5
1-15	H9504-AI-0	H9504-AI9	CLIP FLAT CABLE W/ADHESIVE BK	5
1-16	H9504-AJ-0	H9504-AJ9	SPACER, FOAM FOR FLAT WIRE CABLE	5
1-17	H9504-AK-0	H9504-AK9	GROMMET, EXTRUDED 2-3/4 LONG	5
1-18	H9504-AL-0	H9504-AL9	NUT KEEP 10-32X 3/8 AF	5
1-19	H9504-AM-0	H9504-AM9	WASHER, FLAT .437 OD X .218 ID	5
1-20	H9504-AN-0	H9504-AN9	BRKT TOP COVER	1
1-21	H9504-AO-0	H9504-AO9	DECAL CLEAR PREPRINTED CSA 1-1/4	1
1-22	H9504-AP-0	H9504-AP9	LABEL, SERIAL TAG FOR TYPEWRITER	1
1-23	H9504-AQ-0	H9504-AQ9	CABLE ASSY PDP-11	1
1-24	H9504-AR-0	H9504-AR9	PIN PILOT	1
1-25	H9504-AS-0	H9504-AS9	GROUND STRAP	1
1-26	H9504-AT-0	H9504-AT9	WASHER, LOCK, EXTERNAL TOOTH #10	1
1-27	H9504-AU-0	H9504-AU9	PKG CABINET TUZZ MAGTAP	1
1-28	H9504-AV-0	H9504-AV9	DECAL, GROUND SIGN PER 366	1
1-29	H9504-AW-0	H9504-AW9		1
1-30	H9504-AX-0	H9504-AX9		1
1-31	H9504-AY-0	H9504-AY9		1
1-32	H9504-AZ-0	H9504-AZ9		1
1-33	H9504-BA-0	H9504-BA9		1
1-34	H9504-BB-0	H9504-BB9		1
1-35	H9504-BC-0	H9504-BC9		1
1-36	H9504-BD-0	H9504-BD9		1
1-37	H9504-BE-0	H9504-BE9		1
1-38	H9504-BF-0	H9504-BF9		1
1-39	H9504-BG-0	H9504-BG9		1
1-40	H9504-BH-0	H9504-BH9		1
1-41	H9504-BI-0	H9504-BI9		1
1-42	H9504-BJ-0	H9504-BJ9		1
1-43	H9504-BK-0	H9504-BK9		1
1-44	H9504-BL-0	H9504-BL9		1
1-45	H9504-BM-0	H9504-BM9		1
1-46	H9504-BN-0	H9504-BN9		1
1-47	H9504-BO-0	H9504-BO9		1
1-48	H9504-BP-0	H9504-BP9		1
1-49	H9504-BQ-0	H9504-BQ9		1
1-50	H9504-BR-0	H9504-BR9		1
1-51	H9504-BS-0	H9504-BS9		1
1-52	H9504-BT-0	H9504-BT9		1
1-53	H9504-BU-0	H9504-BU9		1
1-54	H9504-BV-0	H9504-BV9		1
1-55	H9504-BW-0	H9504-BW9		1
1-56	H9504-BX-0	H9504-BX9		1
1-57	H9504-BY-0	H9504-BY9		1
1-58	H9504-BZ-0	H9504-BZ9		1
1-59	H9504-CA-0	H9504-CA9		1
1-60	H9504-CB-0	H9504-CB9		1
1-61	H9504-CC-0	H9504-CC9		1
1-62	H9504-CD-0	H9504-CD9		1
1-63	H9504-CE-0	H9504-CE9		1
1-64	H9504-CD-0	H9504-CD9		1
1-65	H9504-CE-0	H9504-CE9		1
1-66	H9504-CE-0	H9504-CE9		1
1-67	H9504-CE-0	H9504-CE9		1
1-68	H9504-CE-0	H9504-CE9		1
1-69	H9504-CE-0	H9504-CE9		1
1-70	H9504-CE-0	H9504-CE9		1
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1-72	H9504-CE-0	H9504-CE9		1
1-73	H9504-CE-0	H9504-CE9		1
1-74	H9504-CE-0	H9504-CE9		1
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1-79	H9504-CE-0	H9504-CE9		1
1-80	H9504-CE-0	H9504-CE9		1
1-81	H9504-CE-0	H9504-CE9		1
1-82	H9504-CE-0	H9504-CE9		1
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1-96	H9504-CE-0	H9504-CE9		1
1-97	H9504-CE-0	H9504-CE9		1
1-98	H9504-CE-0	H9504-CE9		1
1-99	H9504-CE-0	H9504-CE9		1
1-100	H9504-CE-0	H9504-CE9		1

REVISION HISTORY

ECO NUMBER REV SECTION A OF A

TS-18-MLO01 A SECTION VARIATION INDEX:CHK'D: G.MARINI DATE: 20-OCT-80

DES. ENG.: R.U.NELSON DATE: 20-OCT-80

RESP. ENG.: R.U.NELSON DATE: 20-OCT-80

MFG. ENG.: JOHN SOUZA DATE: 20-OCT-80

ASSEMBLY NUMBER: TOP DOCUMENT NUMBER

E-0A-TS11-B-0

FILE NAME: Z1821A.PLS

EDIT #

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D I G I T A L
P A R T S L I S T
T A P E D R I V E A N D C A S A S S E M B L Y

REVISIONS BY DATE

DATE

QUANTITY PER SECTION

SHEET NO. OF NO.

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER SECTION
01	0-110-7722053-0-0	9010156-00	SCREW, HEX, SLOT, 3/8X1.0	1
02	0-110-7722053-0-0	7422053-00	FRAME, SUPPLY	1
03	0-110-7722053-0-0	9008203-00	SPACER	1
04	0-110-7722053-0-0	9008203-02	NUT, KEYP	1
05	0-110-7722053-0-0	9008203-02	SCREW, HEX	1
06	0-110-7722053-0-0	9008203-09	SCREW, HEX	1
07	0-110-7722053-0-0	9007792-00	WASHER, FLAT 1/4", .625 O.D. X .2	1

D I G I T A L TITLE TAPE DRIVE AND CAB ASSEMBLY SECTION A OF A
 SIZE CODE: K PL
 DOCUMENT NUMBER TS11-B-08P
 REV A

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FIELD MAINTENANCE PRINT SET

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TABLE OF CONTENTS

B-TC-TS11-A-01
 B-DD-TS11-A
 B-PL-TS11-A-0
 B-DD-M7982-0
 D-UA-M7982-0-0*
 D-CS-M7982-0-1
 K-PL-M7982-0-DBP
 MP848

UNIT VARIATIONS COVERED BY THIS PRINT SET
TS11-AA
TS11-AB

TS11-A
Field Maintenance
Print Set

Digital Equipment
Corporation
 PRINT SET ORDER
 NO. MP00849

REVISIONS	REV.	
	CHG. NO.	
	DATE	

USED ON OPTION/MODEL		DRN.	DATE
TS11		G. Marini	3/20/79
		CHK'D	DATE
		<i>R. ...</i>	7/28/79
		PROJ. ENG.	DATE
		<i>M. Lucini</i>	7/19/79
		FIELD SERV.	DATE
		<i>S. Lockins</i>	7/19/79

digital				
TITLE: FIELD MAINTENANCE PRINT SET (TS11-A)				
SIZE	CODE	NUMBER	REV.	
B	TC	TS11-A-01		
DIST.				

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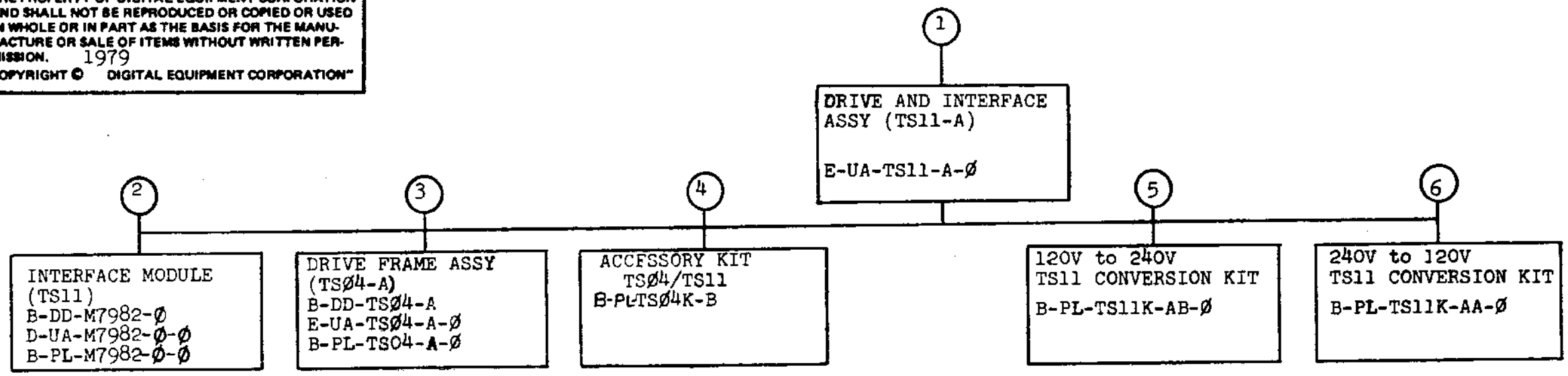
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FOR TABLE OF CONTENTS LISTING REFER TO DRAWING NO. B-TC-TS11-A-01

UNIT VARIATIONS	
VAR	TITLE
TS11-AA	DRIVE AND INTERFACE ASSY (TS11-A) 120V
TS11-AB	DRIVE AND INTERFACE ASSY (TS11-A) 240V

REVISIONS	REV.		USED ON OPTION/MODEL	DRN.	DATE	TITLE	digital											
	CHANGE NO.			TS11-B	G. Marini							3/20/79	DRAWING DIRECTORY (TS11-A)					
	CHK			TS11-D	CHK'D.							DATE						
				<i>Robert Kennedy</i>	9/18/79	SIZE CODE NUMBER REV												
				PROJ. ENG.	DATE		B DD TS11-A											
				<i>M. Cucina</i>	7/19/79	DIST.												
				PROD.	DATE													
				<i>T. King</i>	7/18/79													
				SHEET	1 OF 3													

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DIGITAL EQUIPMENT CORPORATION PARTS LIST				QUANTITY / VARIATION										NOTES: INSTALL CABLE (ITEM #3) TO CONN- J4MB FOUND ON MOTHER BD (PART OF TS04-A) AND TO CONN FOUND ON M7982-0 INTERFACE MODULE (ITEM #4)				
MADE BY G. Marini DATE 3-12-79		CHECKED <i>Trumbly</i> DATE 7/18/79		SECTION														
ENG <i>M. Cucin</i> DATE 7/19/79		PROD <i>T. Wright</i> DATE 7/18/79		ISSUED SECTION														
ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	TS11-AA (120V)	TS11-AB (240V)													REF DESIGNATION
1	E-UA-TS04-A-0	TS04-AA	DRIVE AND FRAME ASSY	1	---													
2	E-UA-TS04-A-0	TS04-AB	DRIVE AND FRAME ASSY	---	1													
3	D-IA-7014094-0-0	7014094-ME	CABLE 25' (INTERFACE CABLE)	1	1													
4	E-UA-M7982-0-0	M7982-0	INTERFACE MODULE (TS11)	1	1													
5	B-PL-TS11K-AA-0	TS11K-AA	240V to 120V TS11 CONVERSION KIT	---	REF													
6	B-PL-TS11K-AB-0	TS11K-AB	120V to 240V TS11 CONVERSION KIT	REF	---													
7	B-PL-TS04K-B-0	TS04K-B	ACCESSORY KIT TS04/TS11	1	1													
8	A-PS-3612063-0-0	3612063-00	TAG..UL (RECOGNIZED)	1	1													
9	A-PS-3613210-0-0	3613210-00	LABEL (IDENTIFICATION)	1	1													
10	A-PS-3616410-0-0	3616410-00	DIGITAL TS-11 LOGO	1	1													

E.C.O. NO.
ML001

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TITLE DRIVE AND INTERFACE ASSY (TS11-A)

ASSY NO. NEXT HIGHER ASSY B-DD-TS11-A

SIZE B

CODE PL

NUMBER TS11-A-0

REV. A

SHEET 1 OF 1

INSERTION PARTS LIST DATA BASE REV

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS	
E-DD-M7982-0	1		M7982 DRAWING DIRECTORY	*	A
D-UA-M7982-0-0	6		M7982 UNIT ASSEMBLY	C	D
K-PL-M7982-0-DBP	-		M7982 PARTS LIST DATA BASE	C	D
D-CS-M7982-0-1	12		UNIBUS TO SERIAL BUS CONTROLLER	C	D
D-FD-M7982-0-2	3		M7982 CONTROL FLOWS	*	*
D-TD-M7982-0-3	3		M7982 TIMING DIAGRAMS	*	*
A-SP-M7982-0-4	18		M7982 ENGINEERING SPEC.	*	*
D-BD-M7982-0-5	1		M7982 BLOCK DIAGRAM	*	*
D-MD-5012174-0/0	6		M7982 DRILL & ETCH DWG.	C	C
K-PC-M7982-0-DBC	-		M7982 P.C. DESIGN DATA BASE	A	A
		5012174	M7982 ETCHED CIRCUIT BOARD	D	D

NOTES:

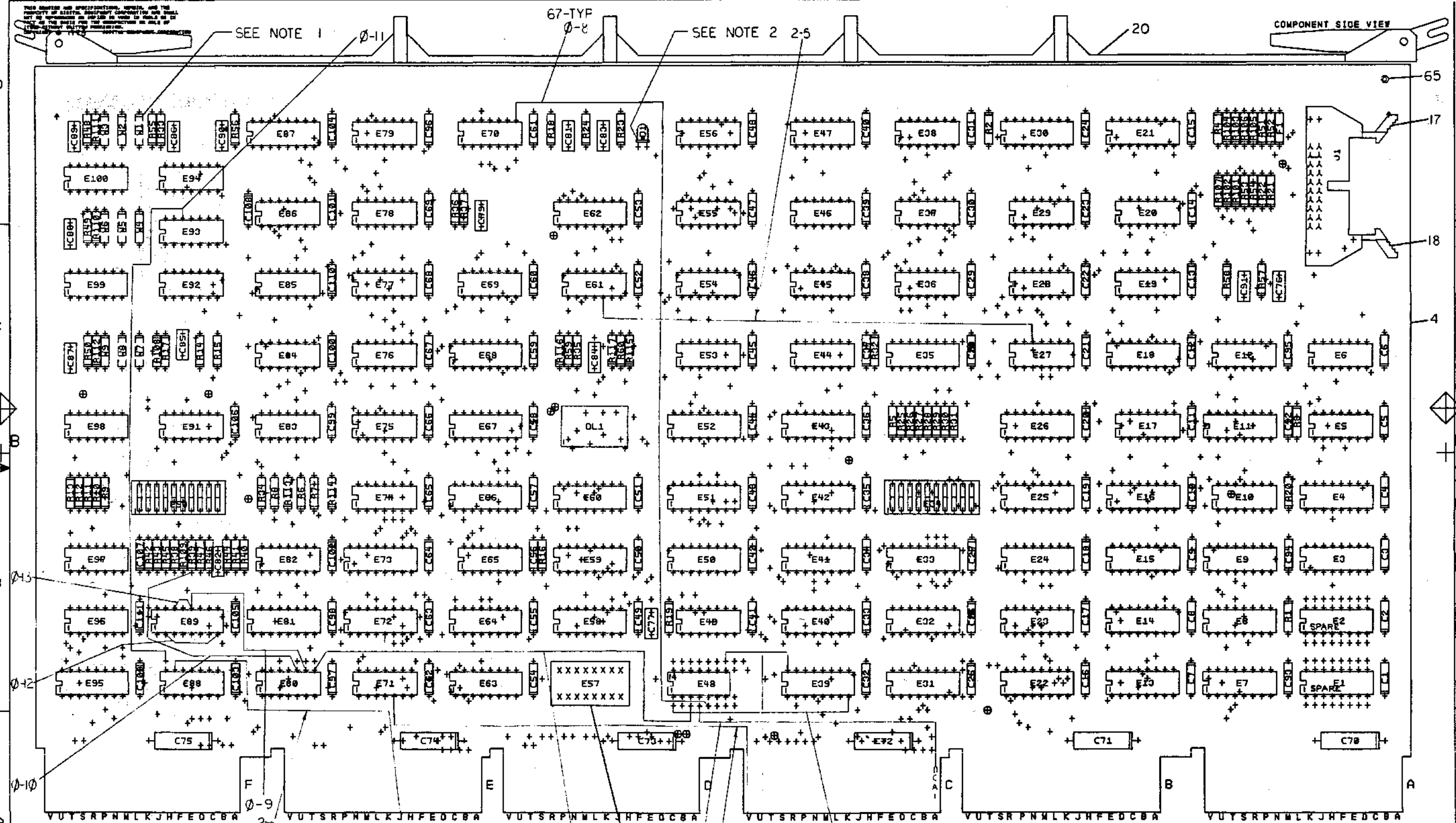
DATE	CHG NO.	REV.	REVISIONS	
11-79	ML002	A		

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USED ON OPTION/MODEL	DRN.	R. TREMBLAY	2/21/78	TITLE
TS11	CHK'D	R. TREMBLAY	2/22/78	UNIBUS TO SERIAL BUS CONTROLLER
	ENG	<i>Paul King</i>	1/8/79	SIZE CODE
	PROD	<i>John Baker</i>	1-17-79	B DD
				NUMBER
				M7982-0
				REV.
				A
				SHEET 1 OF 1



NOTES: 1. RI01 THRU RI09 AND RI10 THRU RI17 ARE OPTIONAL. DO NOT INSTALL. W1, W3, W5 THRU W8 & F1 ALSO.
2. THIS IS FLAT SIDE OF LED.
3. FOR REWORK, SEE SHEETS 1, 2, 5 & 6 OF THIS DWG.

CHANGE NO	REV	DATE	BY	CHK'D

16,64	φ-6	φ-7	φ-5	φ-4
-------	-----	-----	-----	-----

ETCH REV. 0-P2
P.C. DESIGN DATA BRD REV. DL2 & DM2

SIGNATURES		DATE
DRN.	<i>[Signature]</i>	6/20/77
CHK'D.	<i>[Signature]</i>	7/1/77
ENG.	<i>[Signature]</i>	10/1/77
PROJ. ENG.	<i>[Signature]</i>	11/1/77
PROD.	<i>[Signature]</i>	11/1/77

SCALE 2/1
SHT. 1 OF 6
NEXT HIGHER ASSY. B-DD-M7982-0

digital	TITLE UNIBUS TO SERIAL BUS CONTROLLER
SIZE CODE	NUMBER
D UA M7982-0-0	D

L1

7

6

5

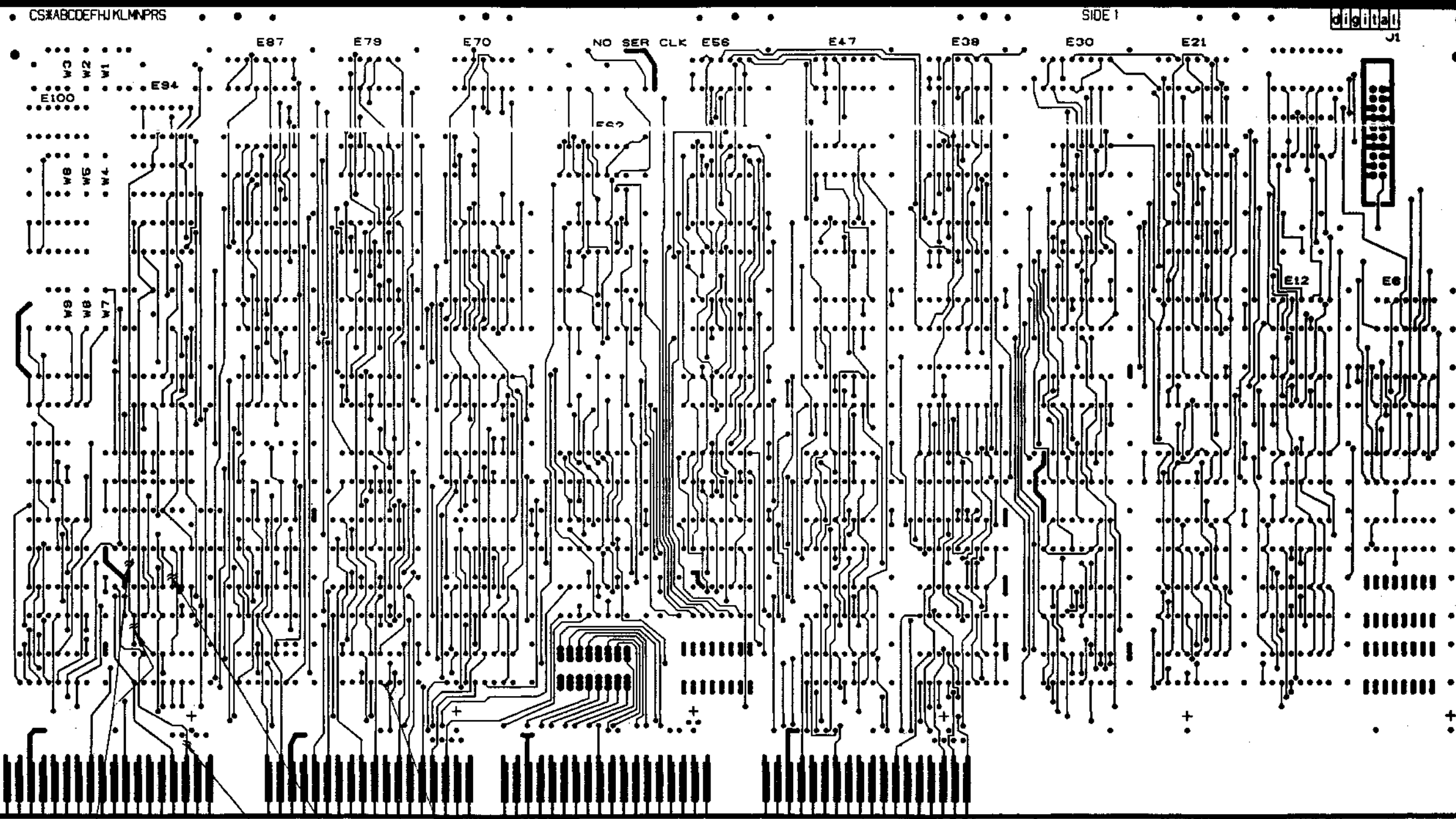
4

3

D 0-0-2862/M 2

1

M7982 60121740-P2 LAYER 1



CSXABCDEFGHIJKLMNPRS

SIDE 1

digital

J1

W3
W2
W1
E100
W6
W5
W4
W9
W8
W7

A
0-1
2-2
2-1

UNIBUS TO SERIAL BUS CONTROLLER		SIZE	NUMBER	REV.
DUA		M7982-0-0	D	
DATE	SHEET	OF	DATE	
2/1	2	6		

8

7

6

5

4

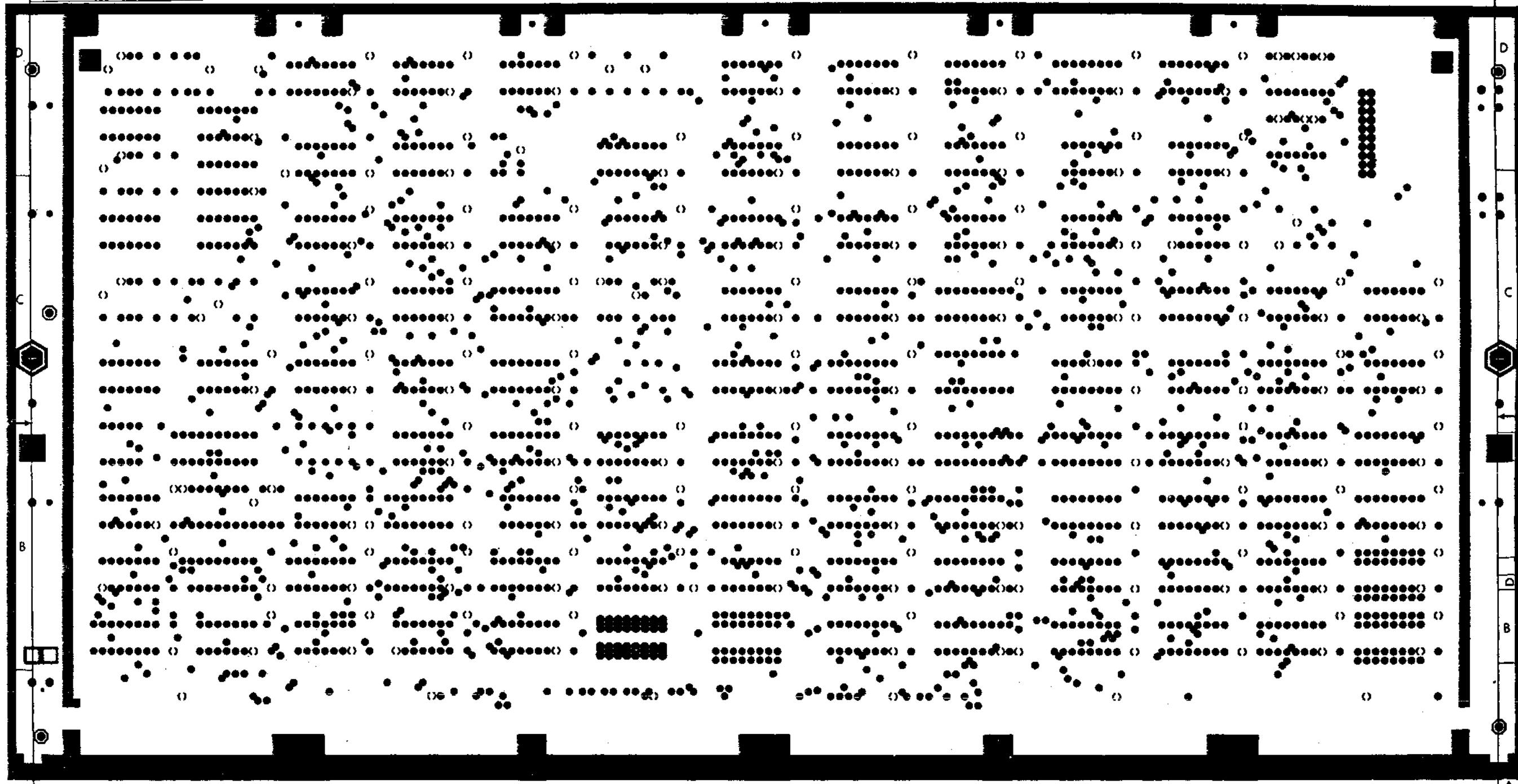
3

2

1

M7982 50121740-P **LAYER 12**

01978



							UNIBUS TO SERIAL BUS CONTROLLER		SIZE CODE D UA	NUMBER M7982-0-0	REV D
							SCALE 2/1	SHEET 3 OF 6			
8	7	6	5	4	3	2	1				

8

7

6

5

4

3

D U A M7982-0-0 2

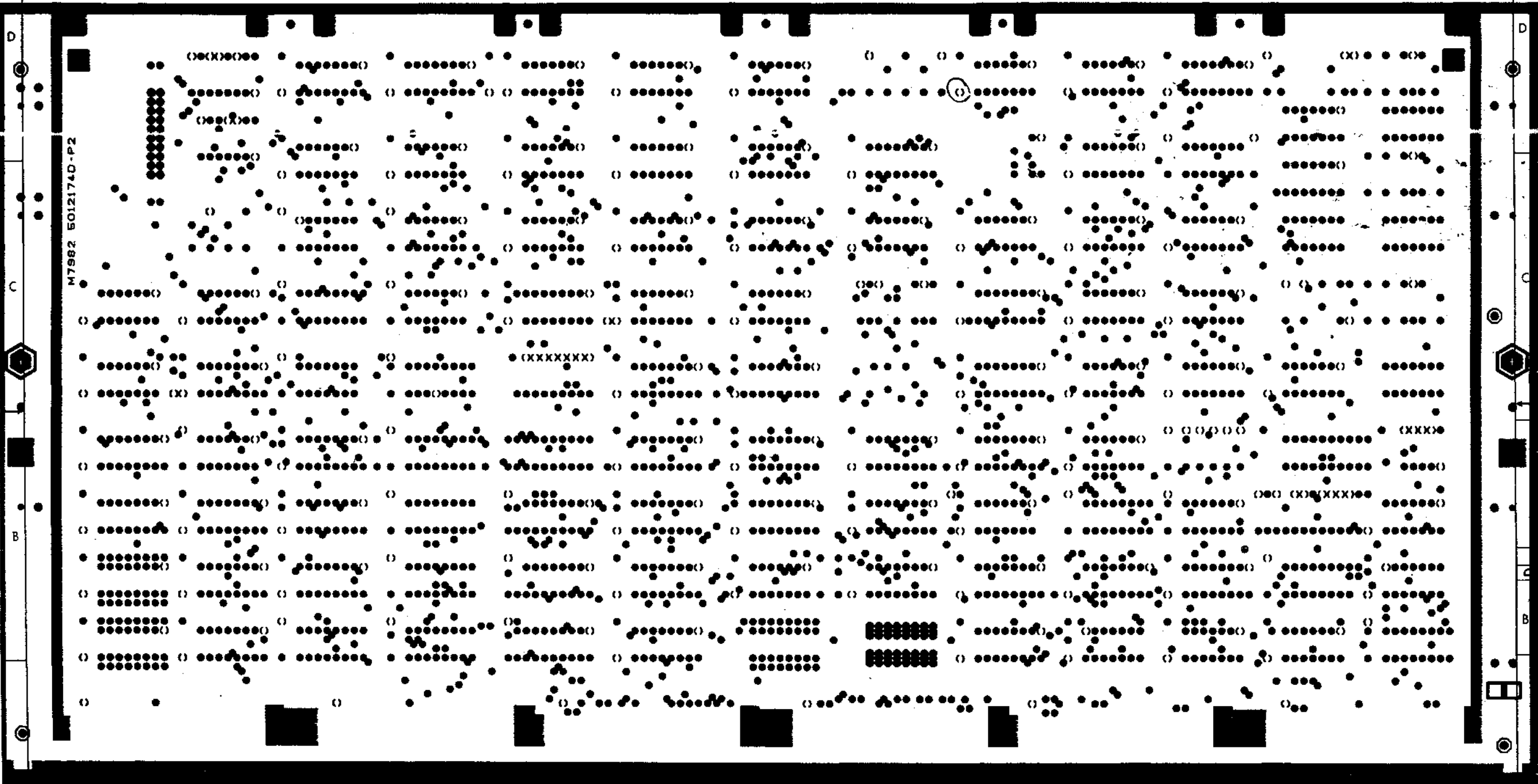
1

L3

E 834AJ

0.978

M7982 5012174D-P2



UNIBUS TO SERIAL BUS CONTROLLER				D U A	M7982-0-0	D
2/1	4	6				

8

7

6

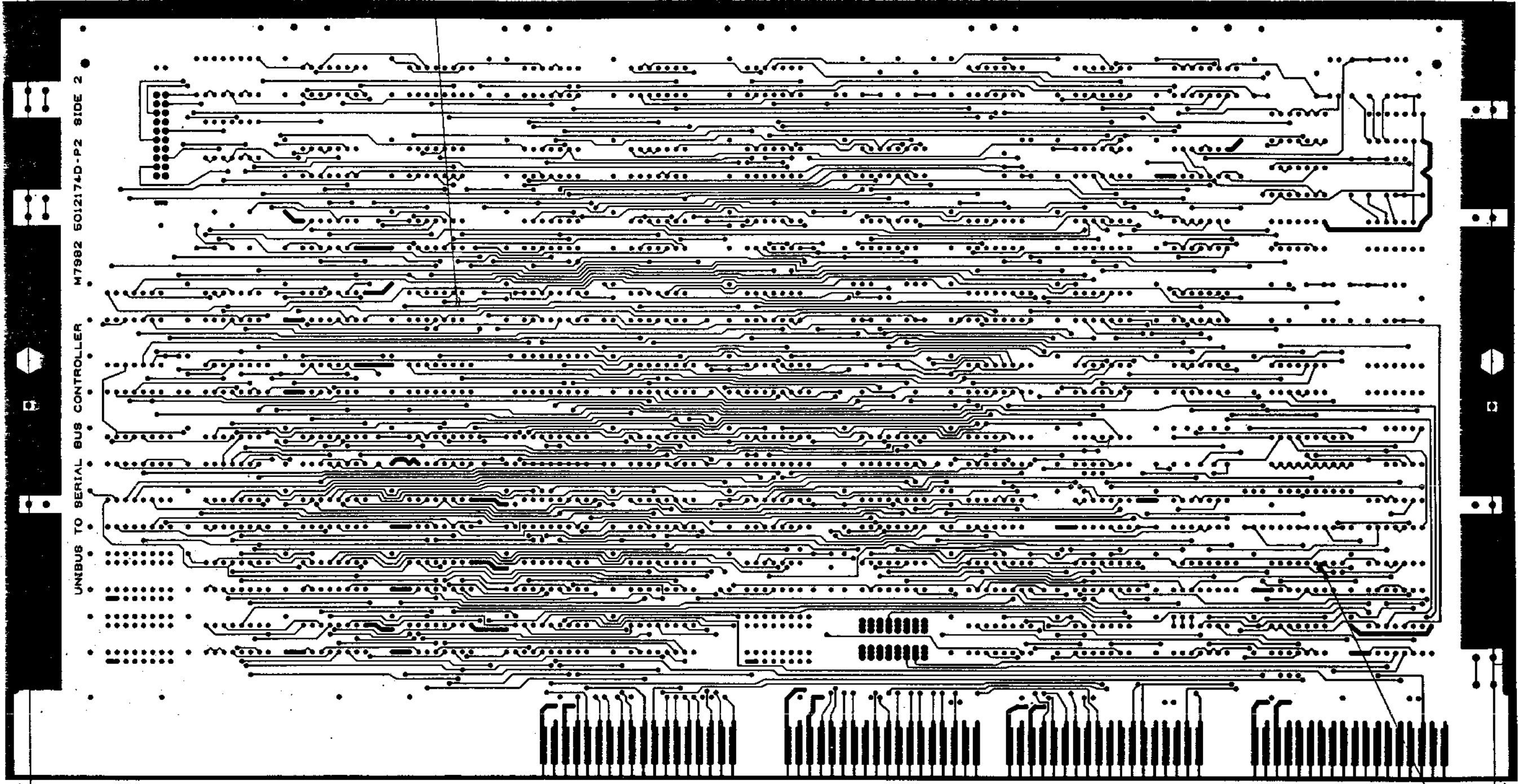
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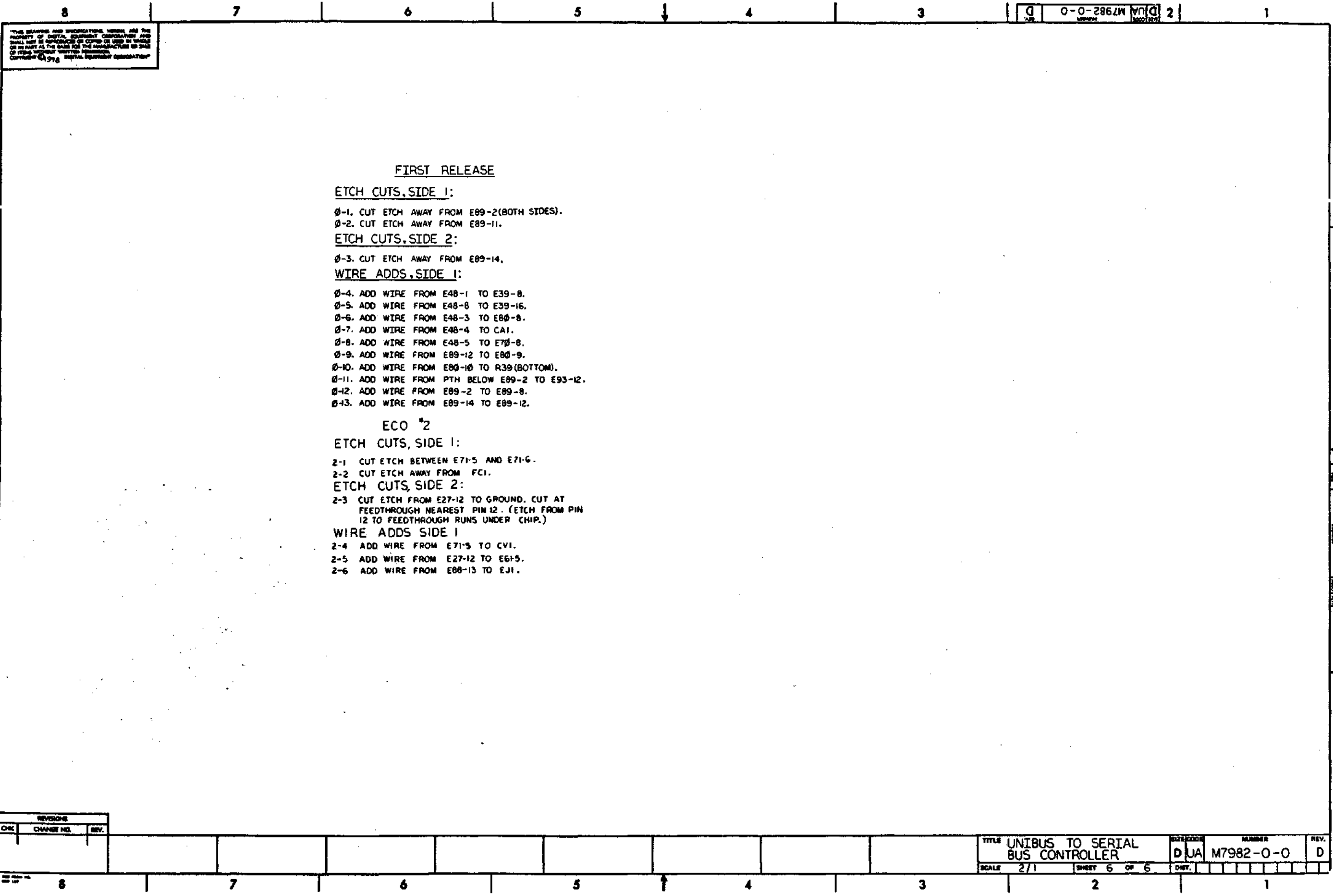
4

3

2

1





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D 0-0-2862W v1 D 2
 0-0-2862W v1 D 2

FIRST RELEASE

ETCH CUTS, SIDE 1:

- Ø-1. CUT ETCH AWAY FROM E89-2 (BOTH SIDES).
- Ø-2. CUT ETCH AWAY FROM E89-11.

ETCH CUTS, SIDE 2:

- Ø-3. CUT ETCH AWAY FROM E89-14.

WIRE ADDS, SIDE 1:

- Ø-4. ADD WIRE FROM E48-1 TO E39-8.
- Ø-5. ADD WIRE FROM E48-8 TO E39-16.
- Ø-6. ADD WIRE FROM E48-3 TO E88-8.
- Ø-7. ADD WIRE FROM E48-4 TO CA1.
- Ø-8. ADD WIRE FROM E48-5 TO E78-8.
- Ø-9. ADD WIRE FROM E89-12 TO E88-9.
- Ø-10. ADD WIRE FROM E88-18 TO R39 (BOTTOM).
- Ø-11. ADD WIRE FROM PTH BELOW E89-2 TO E93-12.
- Ø-12. ADD WIRE FROM E89-2 TO E89-8.
- Ø-13. ADD WIRE FROM E89-14 TO E89-12.

ECO *2

ETCH CUTS, SIDE 1:

- 2-1 CUT ETCH BETWEEN E71-5 AND E71-6.
- 2-2 CUT ETCH AWAY FROM FC1.

ETCH CUTS, SIDE 2:

- 2-3 CUT ETCH FROM E27-12 TO GROUND. CUT AT FEEDTHROUGH NEAREST PIN 12. (ETCH FROM PIN 12 TO FEEDTHROUGH RUNS UNDER CHIP.)

WIRE ADDS SIDE 1

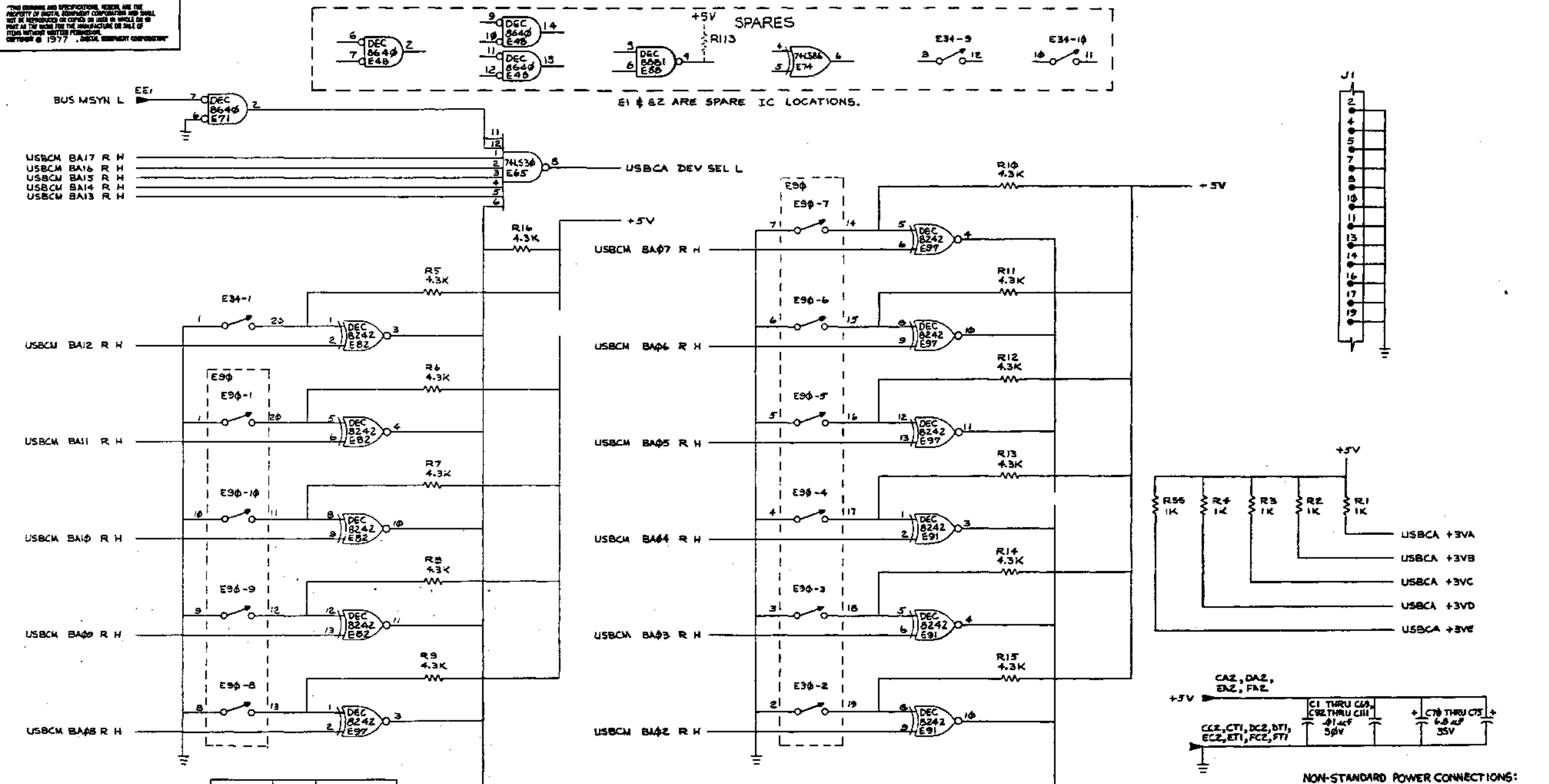
- 2-4 ADD WIRE FROM E71-5 TO CV1.
- 2-5 ADD WIRE FROM E27-12 TO E61-5.
- 2-6 ADD WIRE FROM E88-13 TO EJ1.

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	UNIBUS TO SERIAL BUS CONTROLLER	SIZE/CODE	D JA	NUMBER	M7982-0-0	REV.	D
SCALE	2/1	SHEET	6	OF	6	DWT.	

D 0-0-2862W v1 D 2
 D JA M7982-0-0

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SWITCH	BAXX	8242 OUT
ON	L	H
ON	H	L
OFF	L	L
OFF	H	H

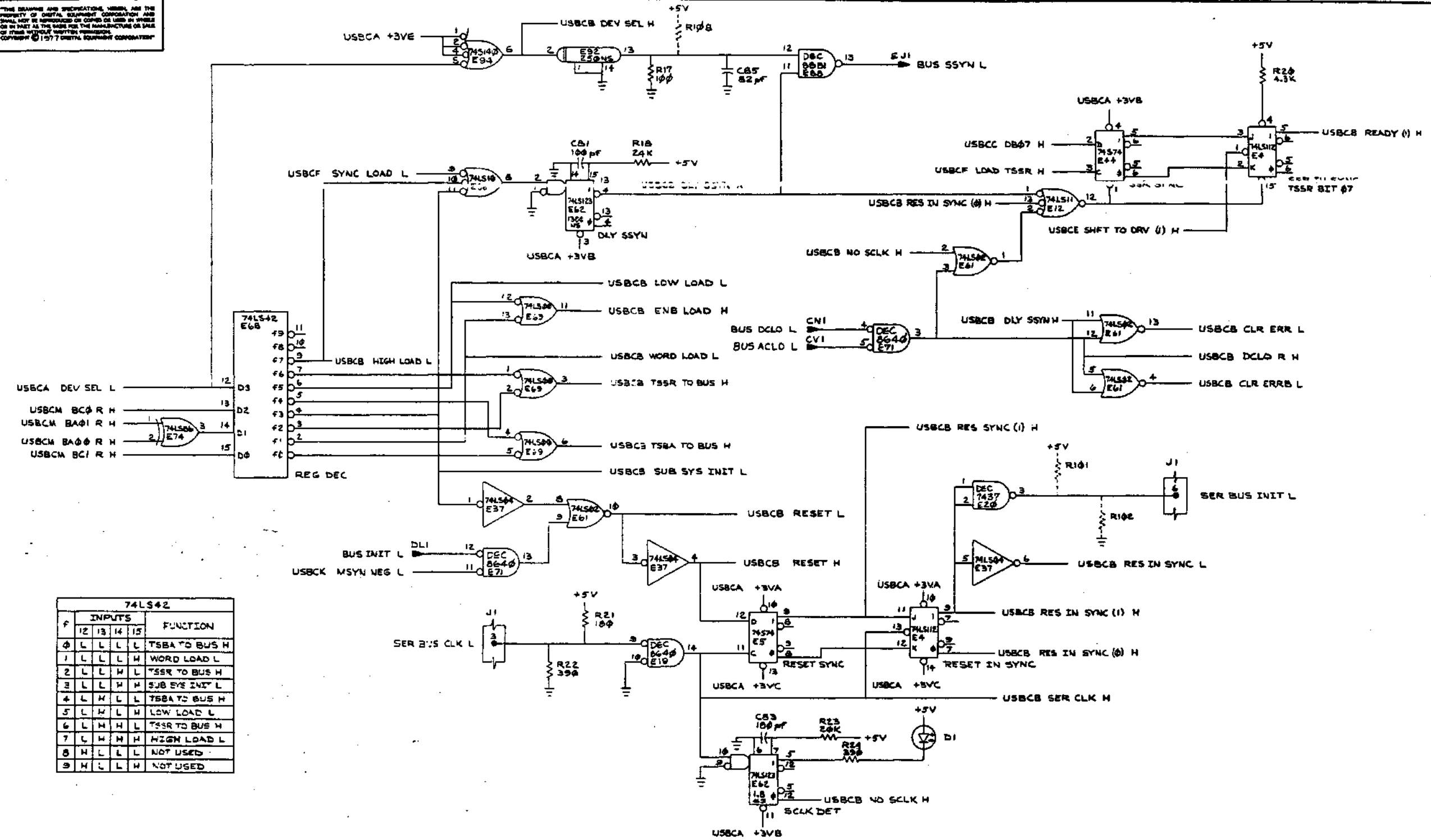
NON-STANDARD POWER CONNECTIONS:

IC TYPE	+5V	GND
DEC8640	8	1
74LS75	5	12

REV. 1	DATE	BY
REV. 2	DATE	BY
REV. 3	DATE	BY
REV. 4	DATE	BY
REV. 5	DATE	BY

ADDRESS DECODE		SPC SLOT	
DRN. R. H.	REV. 1	FIRST USED ON	TS11
CHG'D.	DATE	TITLE	(USBCA)
ENGR.	DATE	UNIBUS TO SERIAL BUS CONTROLLER	
PROG. ENGR.	DATE	SCALE	TS11
PROG. ENGR.	DATE	SIZE CODE	D CS
NEXT HIGHER ASSY.		NUMBER	M7982-0-1
		REV.	D
		SHEET	1 OF 2

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74LS42					
F	12	13	14	15	FUNCTION
0	L	L	L	L	TSBA TO BUS H
1	L	L	L	H	WORD LOAD L
2	L	L	H	L	TSSR TO BUS H
3	L	L	H	H	SUB SYS INIT L
4	L	H	L	L	TSBA TO BUS H
5	L	H	L	H	LOW LOAD L
6	L	H	H	L	TSSR TO BUS H
7	L	H	H	H	HIGH LOAD L
8	H	L	L	L	NOT USED
9	H	L	L	H	NOT USED

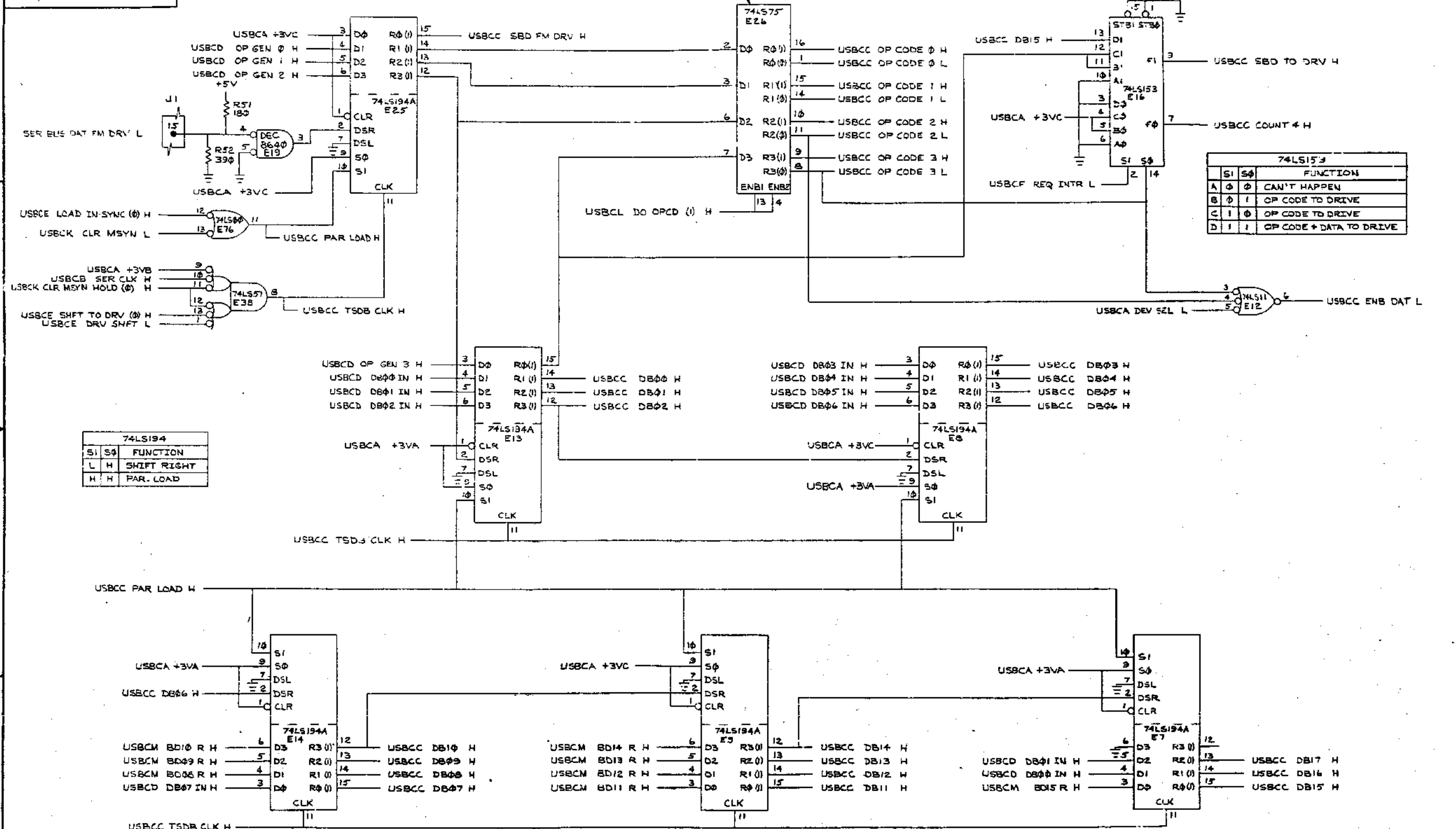
REVISIONS		
CHK	CHANGE NO.	REV.

ADDRESS DECODE, INIT, SER CLK, RDY, SSYN

SFC SLOT

DCS M7982-0-1

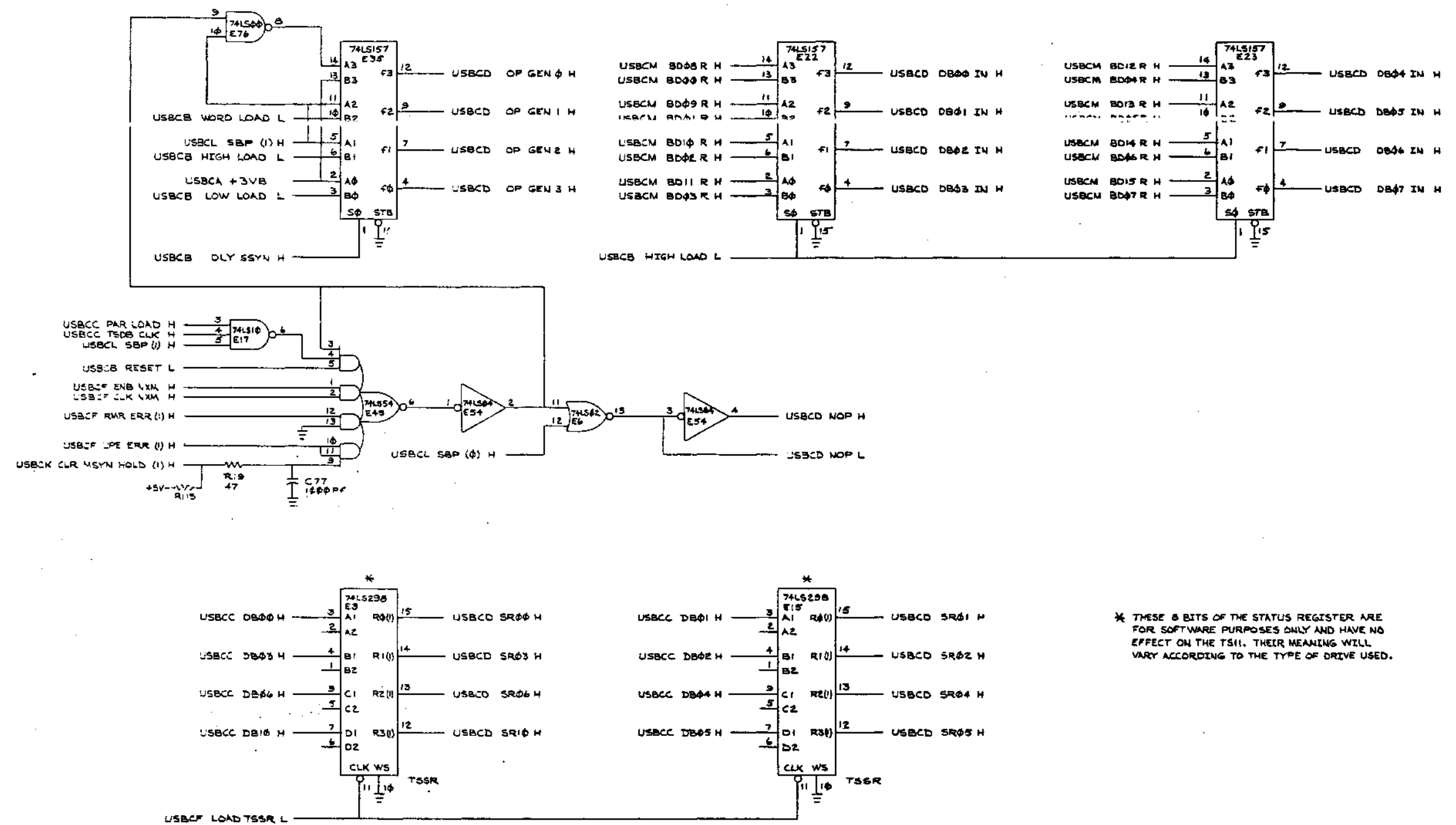
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74LS194		
S1	S0	FUNCTION
L	H	SHIFT RIGHT
H	H	PAR. LOAD

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DCS M7982-0-1 2



* THESE 6 BITS OF THE STATUS REGISTER ARE FOR SOFTWARE PURPOSES ONLY AND HAVE NO EFFECT ON THE TS11. THEIR MEANING WILL VARY ACCORDING TO THE TYPE OF DRIVE USED.

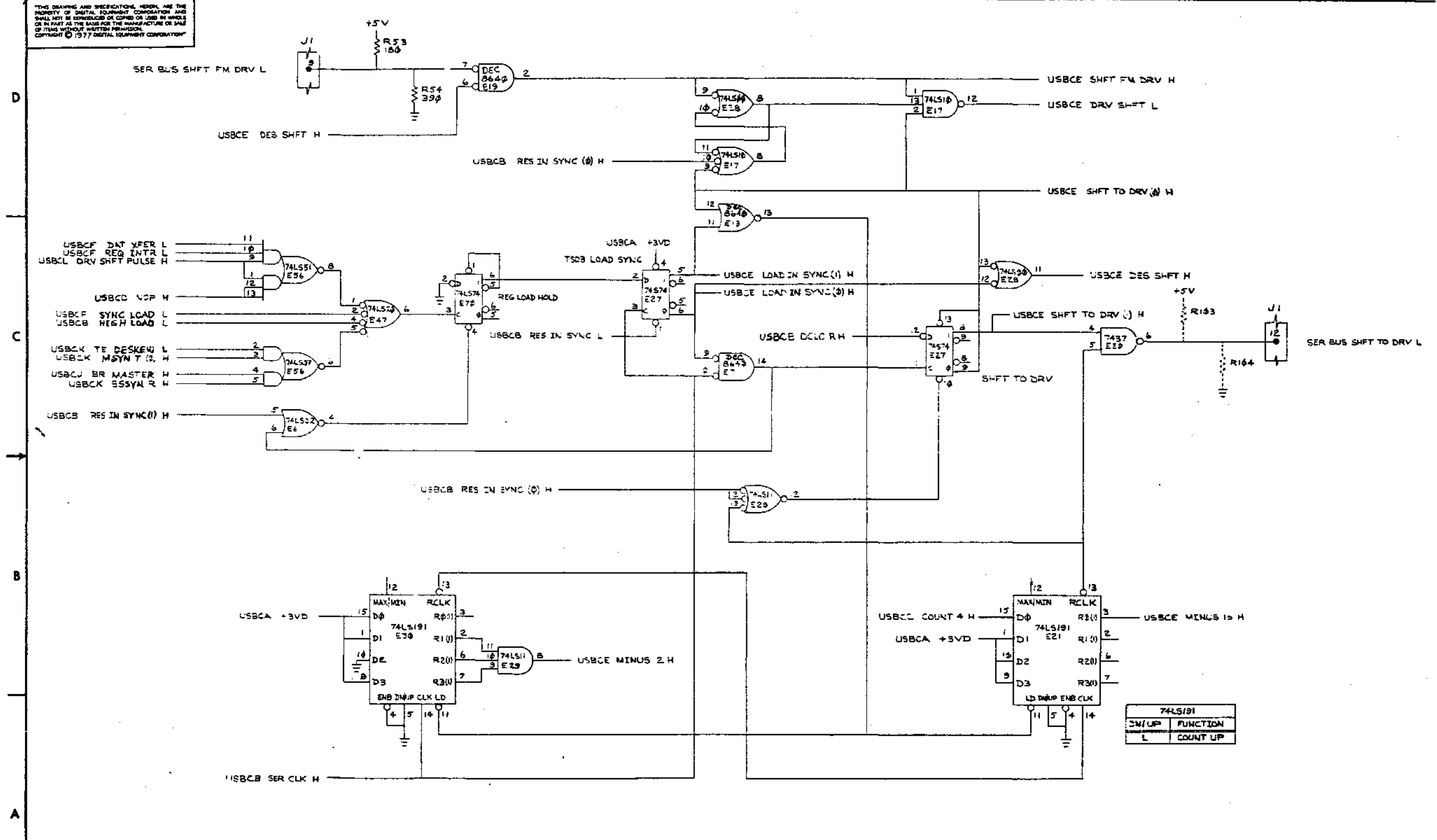
OP CODE GEN, TSOB NUX, TSSR <00:04,10> SPC SLOT

REVISIONS		
OK	CHANGE NO.	REV.

TITLE	SIZE CODE	NUMBER	REV.
UNIBUS TO SERIAL BUS CONTROLLER (USBCD)	DCS	M7982-0-1	D
SCALE	SHEET	4 OF 12	DEF.

DCS M7982-0-1

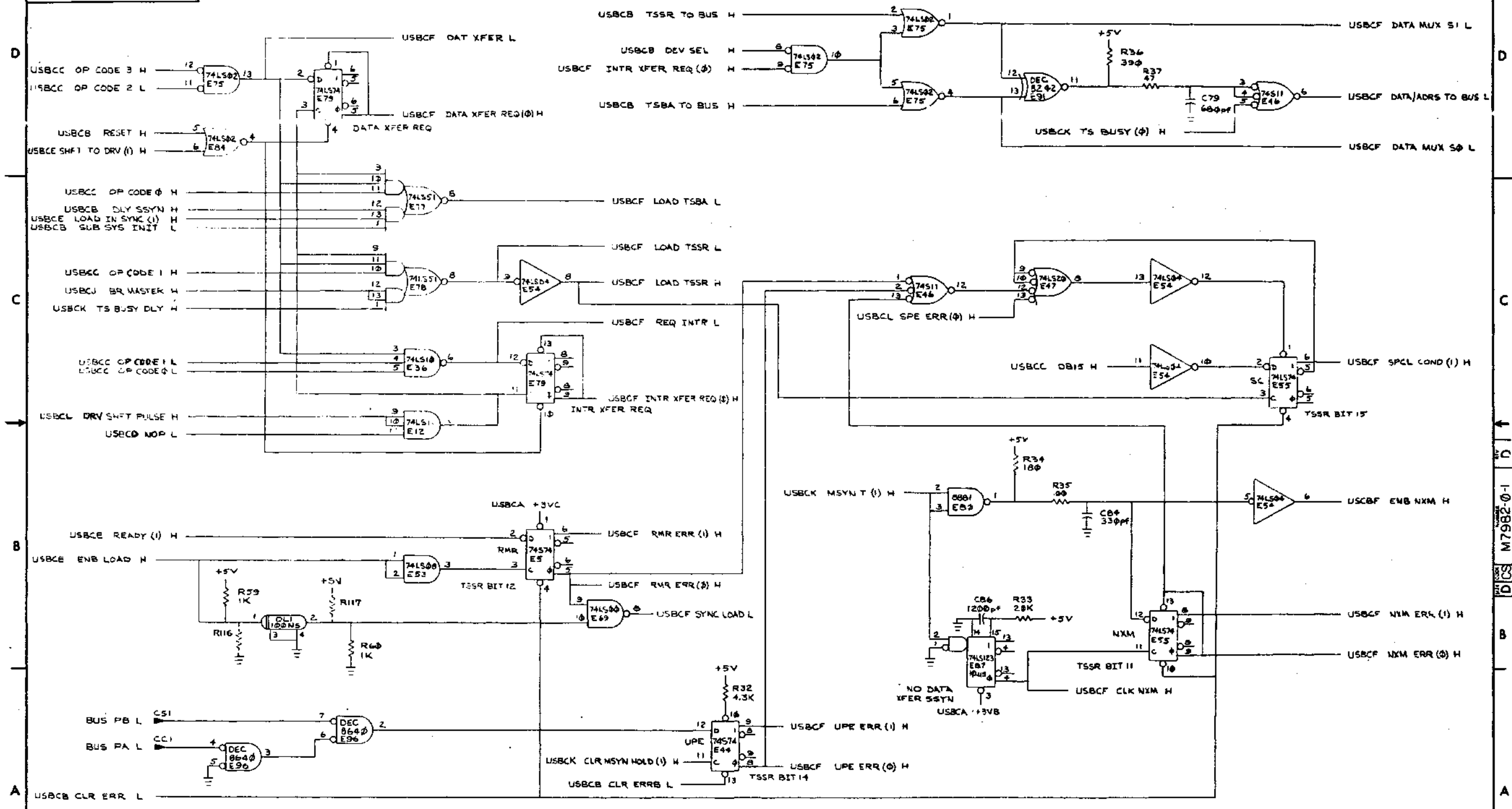
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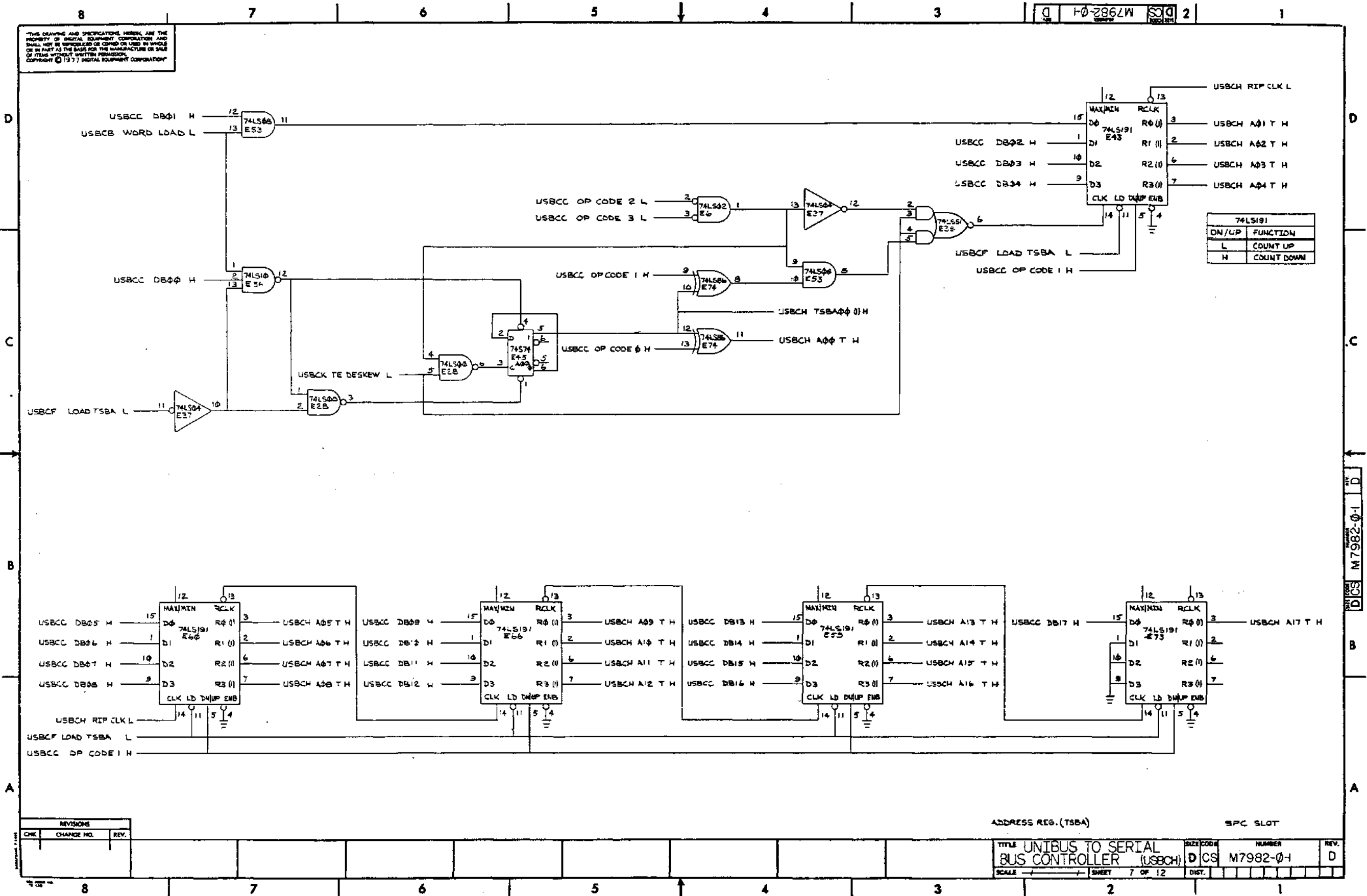
74LS191	
DN/UP	FUNCTION
L	COUNT UP

REVISIONS		
CHK	CHANGE NO.	REV.

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REVISIONS		
CHR	CHANGE NO.	REV.



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DCS M7982-0-1 2

74LS191	
DN/UP	FUNCTION
L	COUNT UP
H	COUNT DOWN

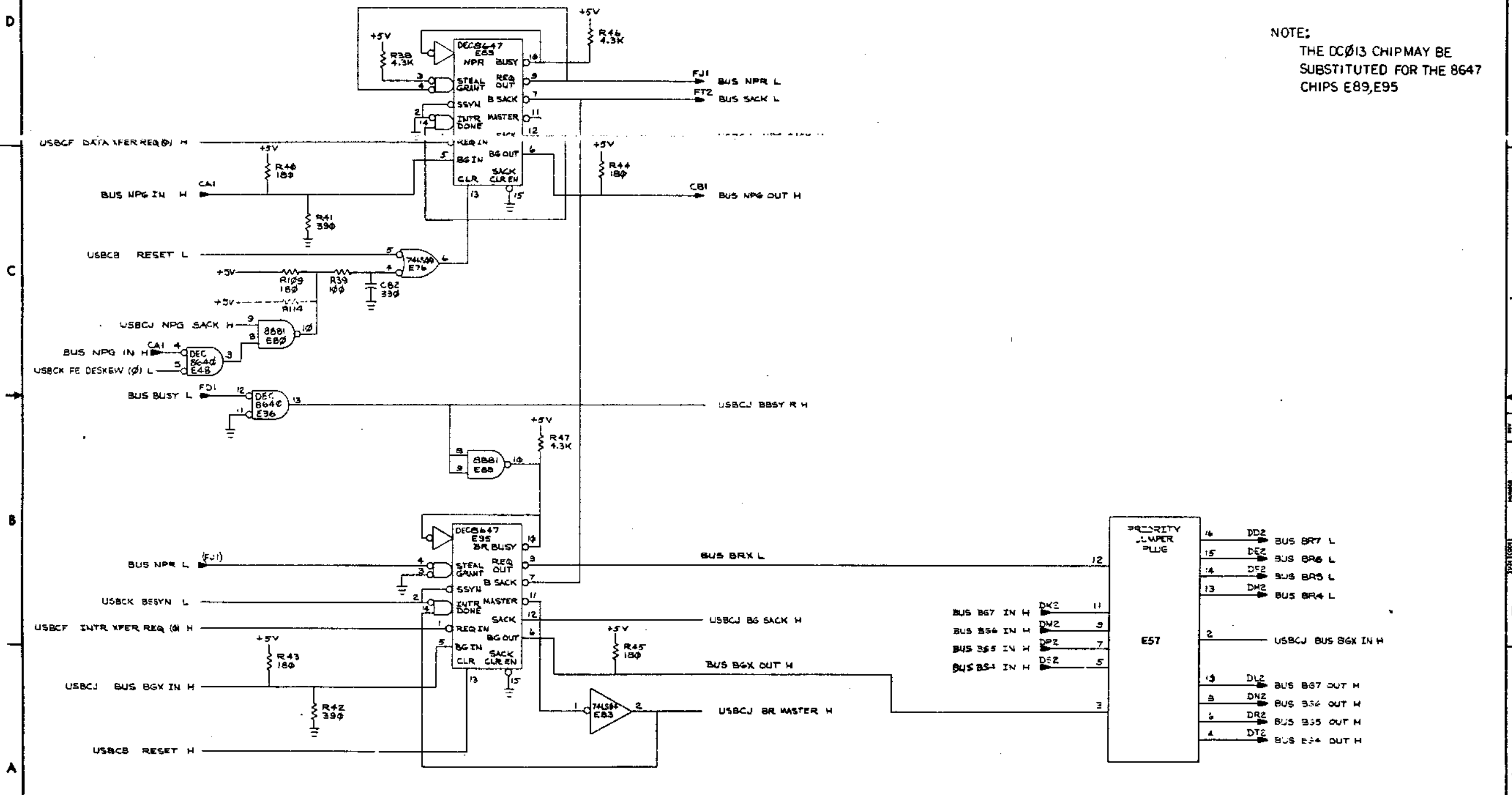
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE UNIBUS TO SERIAL BUS CONTROLLER (USBCH) ADDRESS REG. (TSBA) SPC SLOT																			
DCS M7982-0-1												NUMBER		REV. D					
SHEET 7 OF 12												SCALE		DIST.					

DCS M7982-0-1 D

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NOTE:
THE DC013 CHIP MAY BE
SUBSTITUTED FOR THE 8647
CHIPS E89,E95



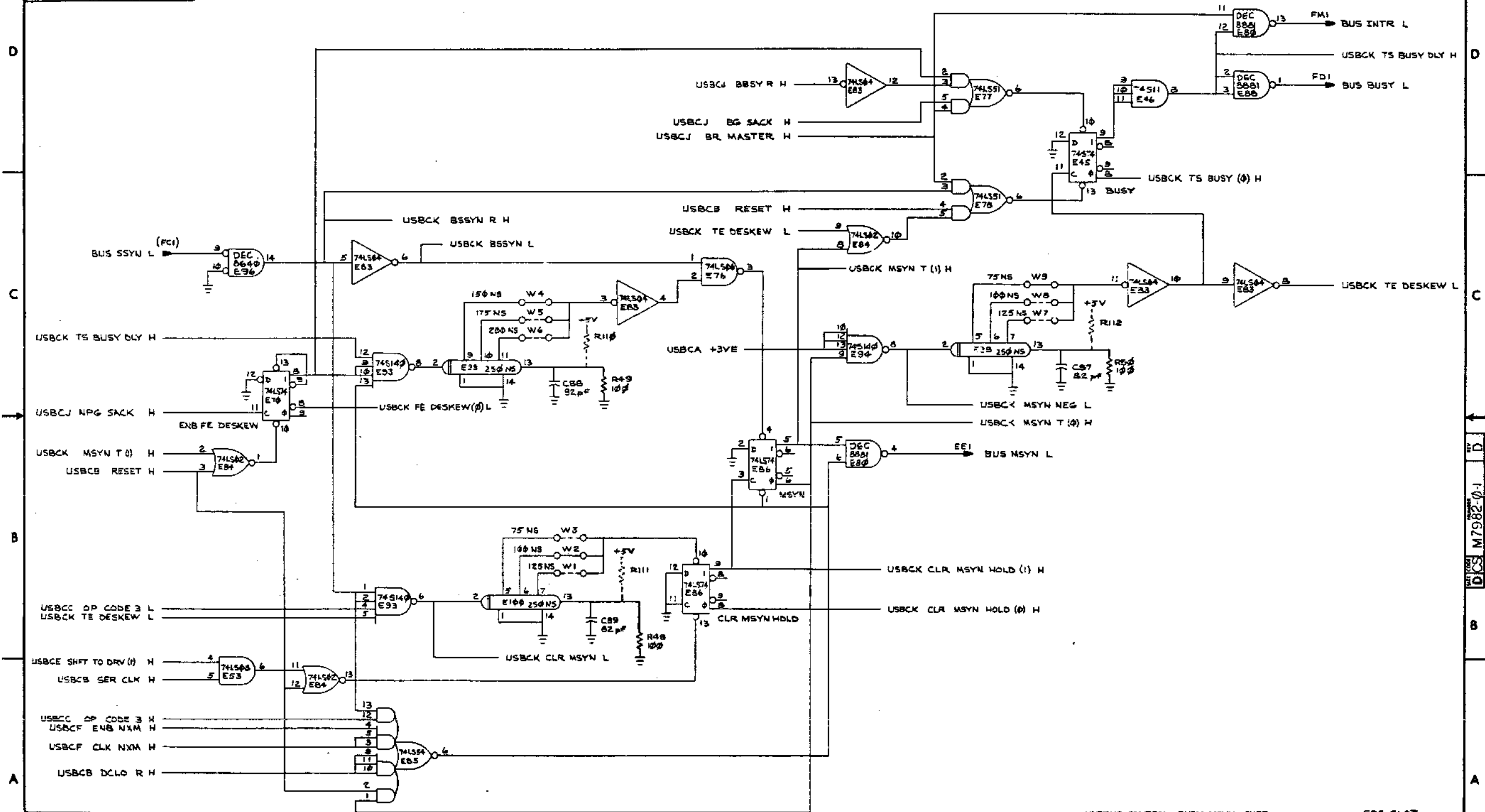
REVISIONS		
CHK	CHANGE NO.	REV.

UNIBUS CONTROL, SACK, GRANTS, REQUESTS SPC SLOT

TITLE	UNIBUS TO SERIAL BUS CONTROLLER (USBCJ)	SIZE/COO	DCS	NUMBER	M7982-0-1	REV.	D
SCALE		SHEET	8 OF 12	DIST.			

DCS M7982-0-1

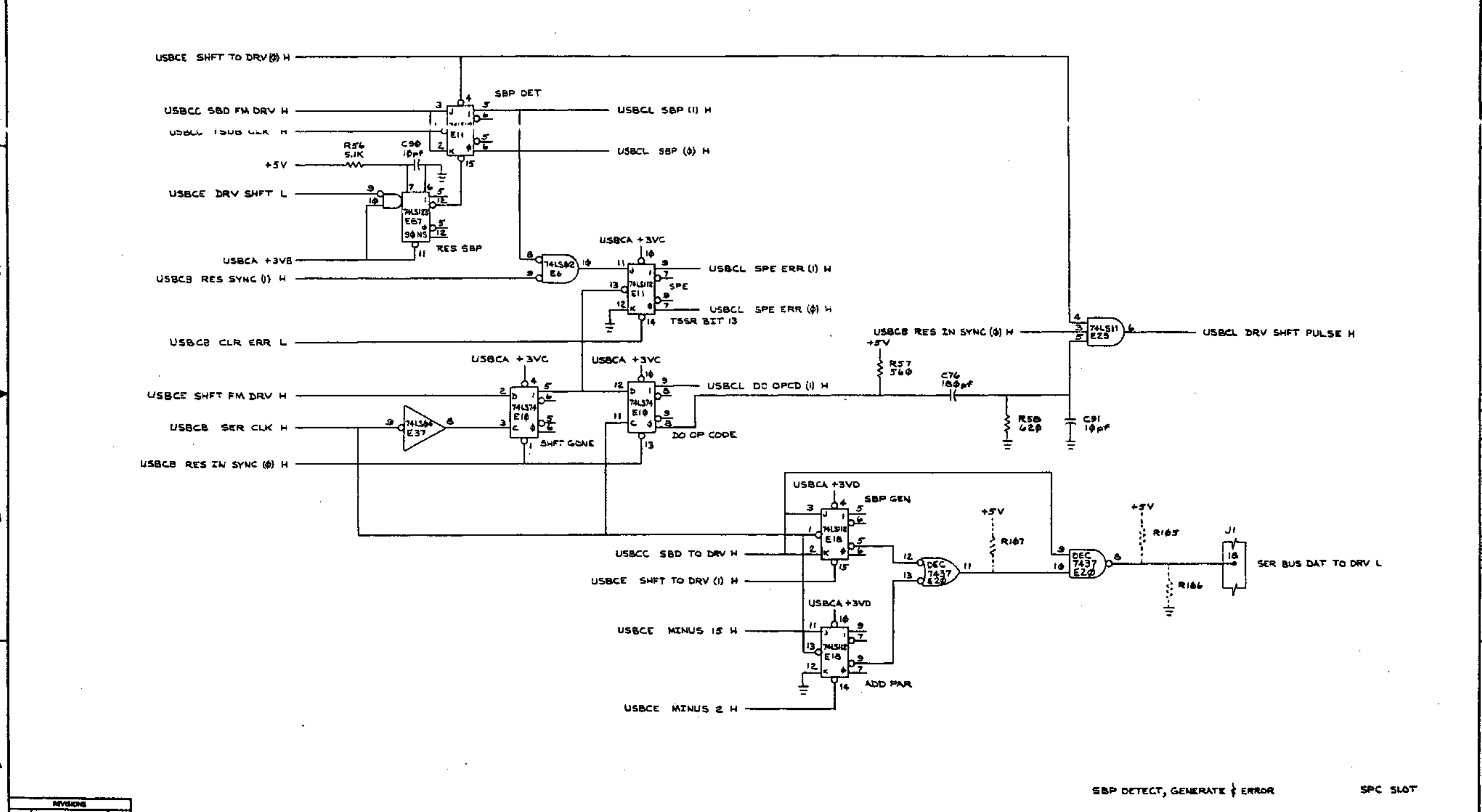
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CHK	CHANGE NO.	REV.

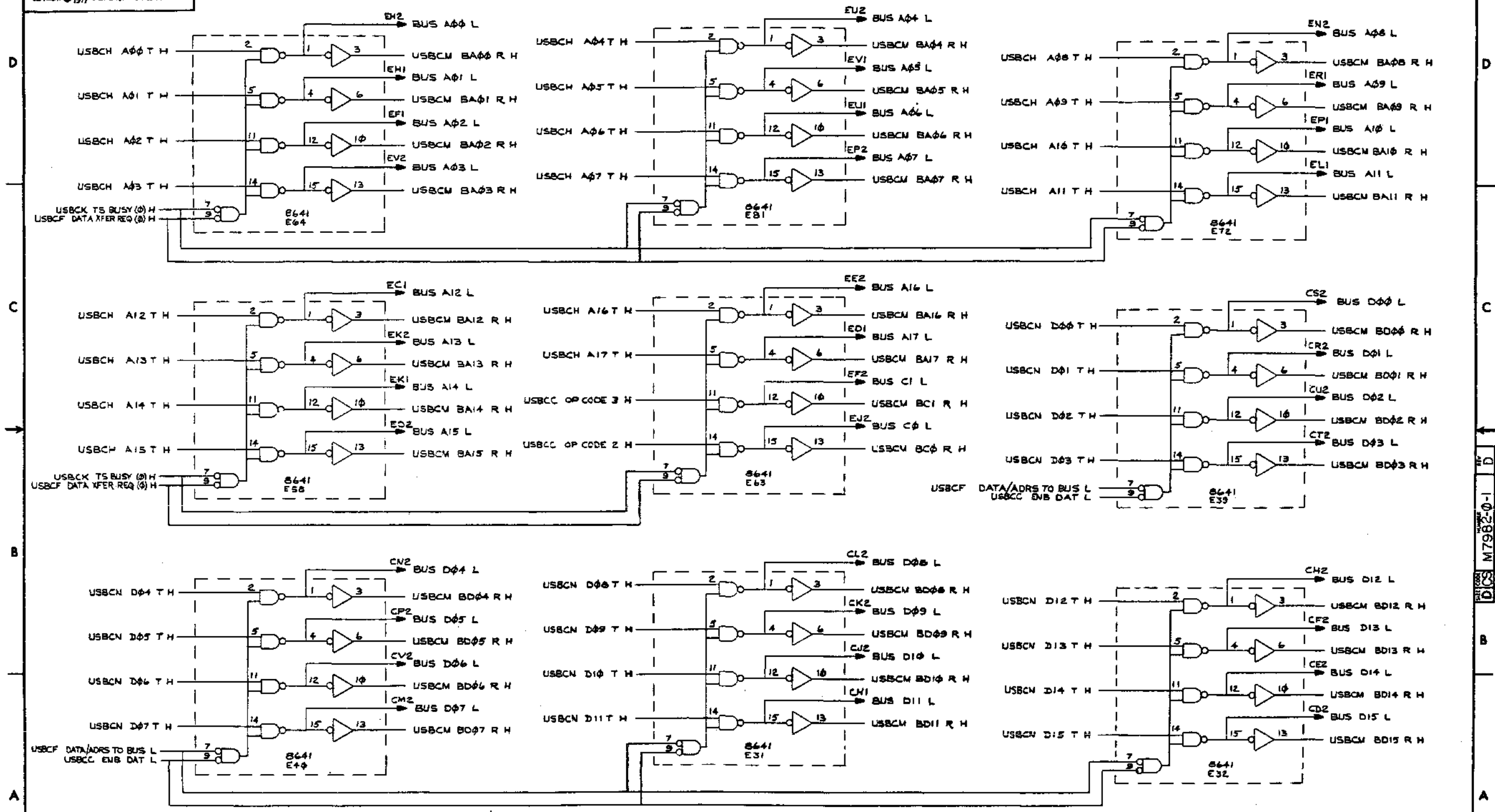
UNIBUS CONTROL, BUSY, MSYN, INTR SPC SLOT

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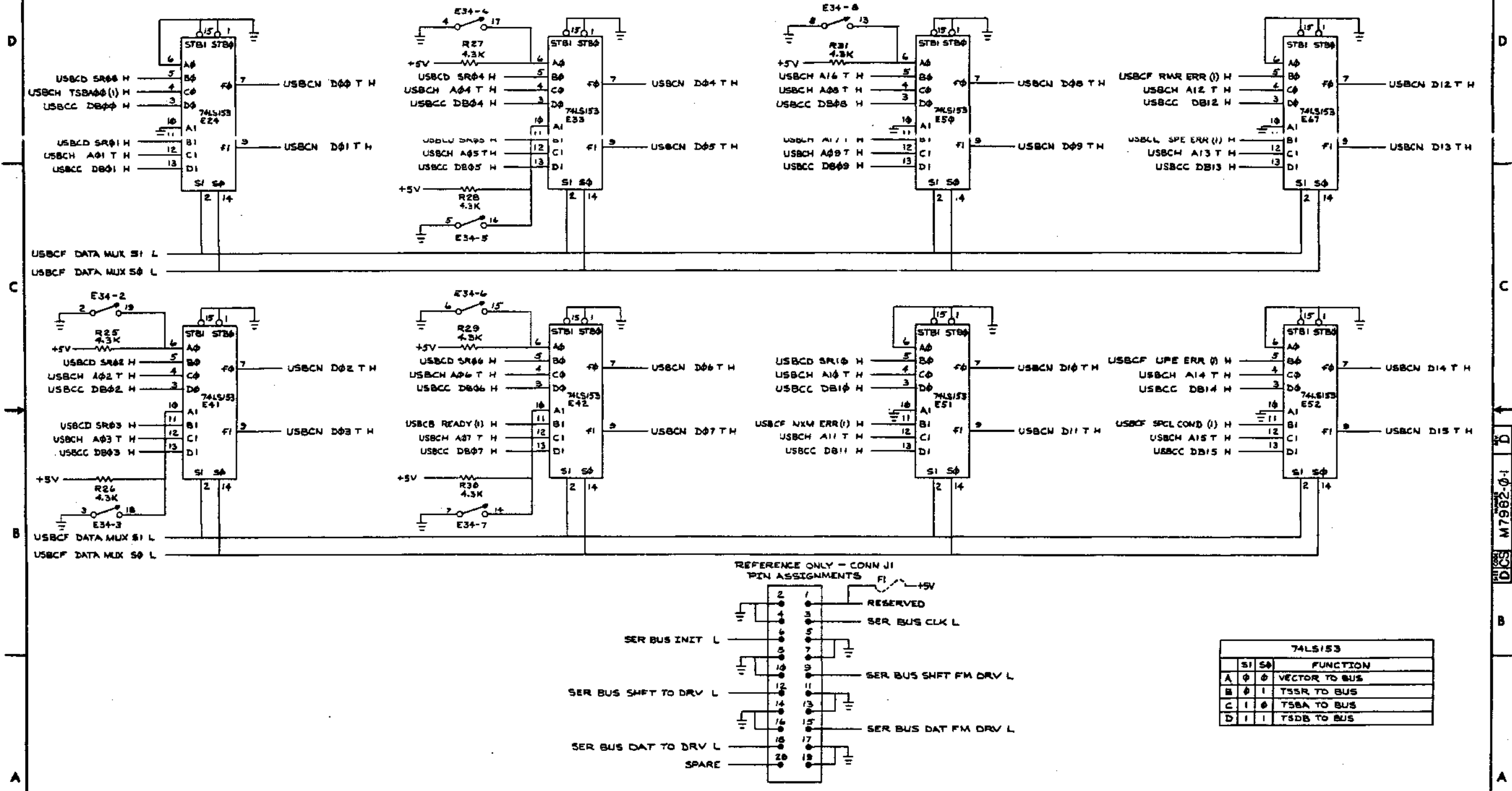
REVISIONS		
CHK	CHANGE NO.	REV.

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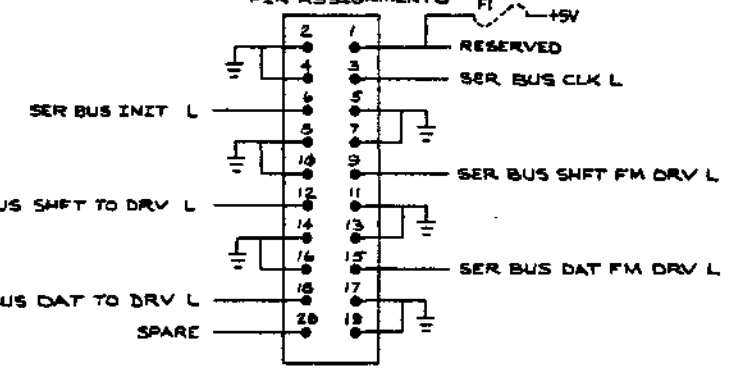


REVISIONS		
CHK	CHANGE NO.	REV.

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REFERENCE ONLY - CONN J1
PIN ASSIGNMENTS



74LS153		FUNCTION
A	0 0	VECTOR TO BUS
B	0 1	TSSR TO BUS
C	1 0	TSBA TO BUS
D	1 1	TSDB TO BUS

REF. DATA MUX., VECTOR GEN. SPC SLOT

REVISIONS		
CHK	CHANGE NO.	REV.

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
1	1	D-CS-M7982-0-1		CIRCUIT SCHEMATIC			REF
2	2	D-UA-M7982-0-0		UNIT ASSEMBLY			REF
3	3	B-00-M7982-0-0		DWG DIRECTORY			REF
4	4	D-MD-5012174-0-0	5012174-00	M7982			1
5	5		1000006-00	10.0 MMF 100V 5%200PPM MICA	2		C90,C91
6	6		1000015-00	82.0 MMF 100V 5%200PPM MICA	4		C87,C85,C88,C89
7	7		1000016-00	100.0 MMF 100V 5%200PPM MICA	1		C81
8	8		1000020-00	180.0 MMF 100V 5%200PPM MICA	2		C76,C83
9	9		1000023-00	330.0 MMF 100V 5%200PPM MICA	2		C82,C84
10	10		1000026-00	580.0 MMF 100V 5%200PPM MICA	1		C79
11	11		1000042-00	1000.0 MMF 100V 5%200PPM MICA	1		C77
12	12		1001610-00	.01 MFD 50V +80-20% ZSU CER	89		C1-C69,C92-C111
13	13		1002424-00	1200.0 MMF 100V 5%200PPM MICA	1		C85
14	14		1005306-00	6.8MFD 35V 10% S.TANT	6		C70-C75
15	15		1110864-00	LED 2MCD310MA	1		D1
16	16	USED FOR E57.	1209838-00	SKT IC 16PIN DIP GOLD PLATE	1		
17	17		1209941-03	HEADER RT ANGLE LEFT L	1		
18	18		1209941-04	HEADER RT ANGLE RIGHT	1		
19	19		1209941-06	HEADER.100 20POS RT ANGLE	1		J1
20	20		1210711-02	/REPLACED BY 12-16989-02	1		
21	21		1211164-06	SW DIP 1P 1A 10POS	2		E34,E90
22	22		1300202-00	47.0 .25 W 5.0 % CC	2		R37,R19
23	23		1300229-00	100.0 .25 W 5.0 % CC	6		R17,R35,R39,R48-R50
24	24		1300309-00	390.0 .25 W 5.0 % CC	7		R22,R24,R41,R42,R52,R54,R36
25	25		1300365-00	1.0 K .25 W 5.0 % CC	7		R1-R4,R55,R59,R60
26	26		1301322-00	180.0 .25 W 5.0 % CC	9		R21,R34,R40,R43-R45,R51,R53,R109
27	27		1301890-00	560.0 .25 W 5.0 % CC	1		R57
28	28		1302389-00	4.30 K .25 W 5.0 % CC	24		R5-R16,R20,R25-R31,R38,R46,R47, R32
29	29		1302391-00	20.0 K .25 W 5.0 % CC	2	CONT	R23,R33

REVISION HISTORY		BASIC PART NO: M7982		DRN: FRED MAY		DATE: 06-DEC-77		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	C.CAMPBELL	DATE:	06-DEC-77	TITLE	PARTS LIST
---	INIT	C	SECTION VARIATION INDEX						
PK	M7982-MLO02	D	(A) 00						UNIBUS SERIAL BUS CONTROLLER
			(B)						
			(C)						
			(D)						
			(E)						
			(F)						
			(H)						
			(J)						
			(K)						
			(L)						
			(M)						
			(N)						
				MFG.ENG.:	P.BARTON	DATE:	17-JUL-78	SIZE:CODE: NUMBER	REV
				ASSEMBLY NUMBER:	D-UA-M7982-0-0	TOP DOCUMENT NUMBER:	T511	K PL M7982-0-DBP	D
						FILE NAME:	Z10790.PLS		EDIT #
									20

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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
30	30		1303178-00	620.0 .25 W 5.0 % CC	1		R58
31	31		1312930-00	5.10 K .25 W 5.0 % CC	1		R56
32	32		1609559-00	DELAY= 100NS,OTAPS 010100	1		DL1
33	33		1611243-00	DELAY=25-250NS,10TAPS RCL#L-183	4		E98,E99,E100,E92
34	34		1909705-00	DEC 8881 NAND GATE-QUAD 2IN 0	2		E80,E88
35	35		1909712-00	DEC 8242 COMPARATOR-4BIT N	3		E97,E82,E91
36	36		1910091-00	DEC 7437 AND GATE-QUAD 2IN,8U	1		E20
37	37		1910537-00	74511 AND GATE-TRIPLE 3INP	1		E48
38	38		1910546-00	745140 NAND GATE-DUAL 4INPU	2		E93,E94
39	39		1910544-00	74574 FF-D DUAL EDGE TRIGG	4		E5,E27,E45,E44
40	40		1911469-00	DEC 8540 RECEIVER,BUS,QUAD,U	4		E19,E48,E71,E96
41	41		1911579-00	8641 TRANSCEIVER,BUS,QUA	9		E31,E32,E39,E40,E58,E63,E64,E72, E81
						CONT	E89,E95
42	42		1912083-00	/REPLACED BY 19-14438-00	2		E26
43	43		1912649-00	LS75 LATCH 4BIT,BISTABLE	1		E7-E9,E13,E14,E25
44	44		1912696-00	LS194A SHIFT REG.,4BIT BI-D	6		E28,E69,E76
45	45		1912799-00	LS00 NAND-GATE-QUAD 2IN,P	3		E6,E61,E75,E84
46	46		1912801-00	LS02 NOR-GATE-QUAD 2IN	4		E37,E54,E93
47	47		1912803-00	74LS04 INVERTER GATE,HEX	3		E53
48	48		1912805-00	LS08 AND GATE-QUAD 2IN,PO	1		E17,E36
49	49		1912807-00	LS10 NAND GATE-TRIPLE 3IN	2		E12,E29
50	50		1912808-00	LS11 AND GATE-TRIPLE 3IN	2		E47
51	51		1912810-00	LS20 NAND GATE-DUAL 4IN	1		E65
52	52		1912815-00	LS30 NAND GATE-SINGLE 8IN	1		E68
53	53		1912819-00	LS42 DECODER,BCD-DECIMAL	1		E38,E56,E77,E78
54	54		1912820-00	LS51 A-0-1 GATE 2-WIDE 2I	4		E85,E49
55	55		1912821-00	LS54 A-0-1 GATE 3-2-2-3IN	2		E10,E55,E70,E79,E86
56	56		1912824-00	LS74 FF-D DUAL EDGE TRIGG	5		E74
57	57		1912829-00	LS86 X-OR GATE-QUAD 2IN	1		E4,E11,E18
58	58		1912834-00	LS112 FF-JK DUAL EDGE TRIG	3		E62,E97
59	59		1912837-00	LS123 ONE SHOT-DUAL,RETRIG	2		E16,E67,E52,E50,E51,E33,E42,E24, E41
60	60		1912845-00	LS153 MUX 1 OF 4 (DUAL)	9		E22,E23,E35
						CONT	E3,E15
61	61		1912847-00	LS157 MUX 1 OF 2(QUAD)	3		E21,E30,E73,E59,E60,E43,E66
62	62		1912867-00	LS299 MUX 1 OF 4,2IN W/S	2		E57
63	63		1913939-00	LS191 COUNTER,SYNCHR. UP/D	7		
64	64		5408778-00	PLUG PRIORITY	1		
65	65		9000024-01	EYELET,ROLL FLANGE .1210DX .192	12		
66	66		9009185-00	JUMPER, WIRE, INSULATED, BLACK B	3		W2,W4,W9
67	67		9105740-55	WIRE(WRAP)30AWG ULI423	A/R		
68	68		1304837-00	24.0 K .25 W 5.0 % CC	1		R18

D	I	G	I	T	A	L	TITLE	UNIBUS SERIAL BUS CONTROLLER	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M7982-D-DBP	D

"THE MATERIAL HEREIN IS FOR INFORMATION PURPOSES ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE. DIGITAL EQUIPMENT CORPORATION ASSUMES NO RESPONSIBILITY FOR ANY ERRORS WHICH MAY APPEAR HEREIN."

DRAWING DIRECTORY

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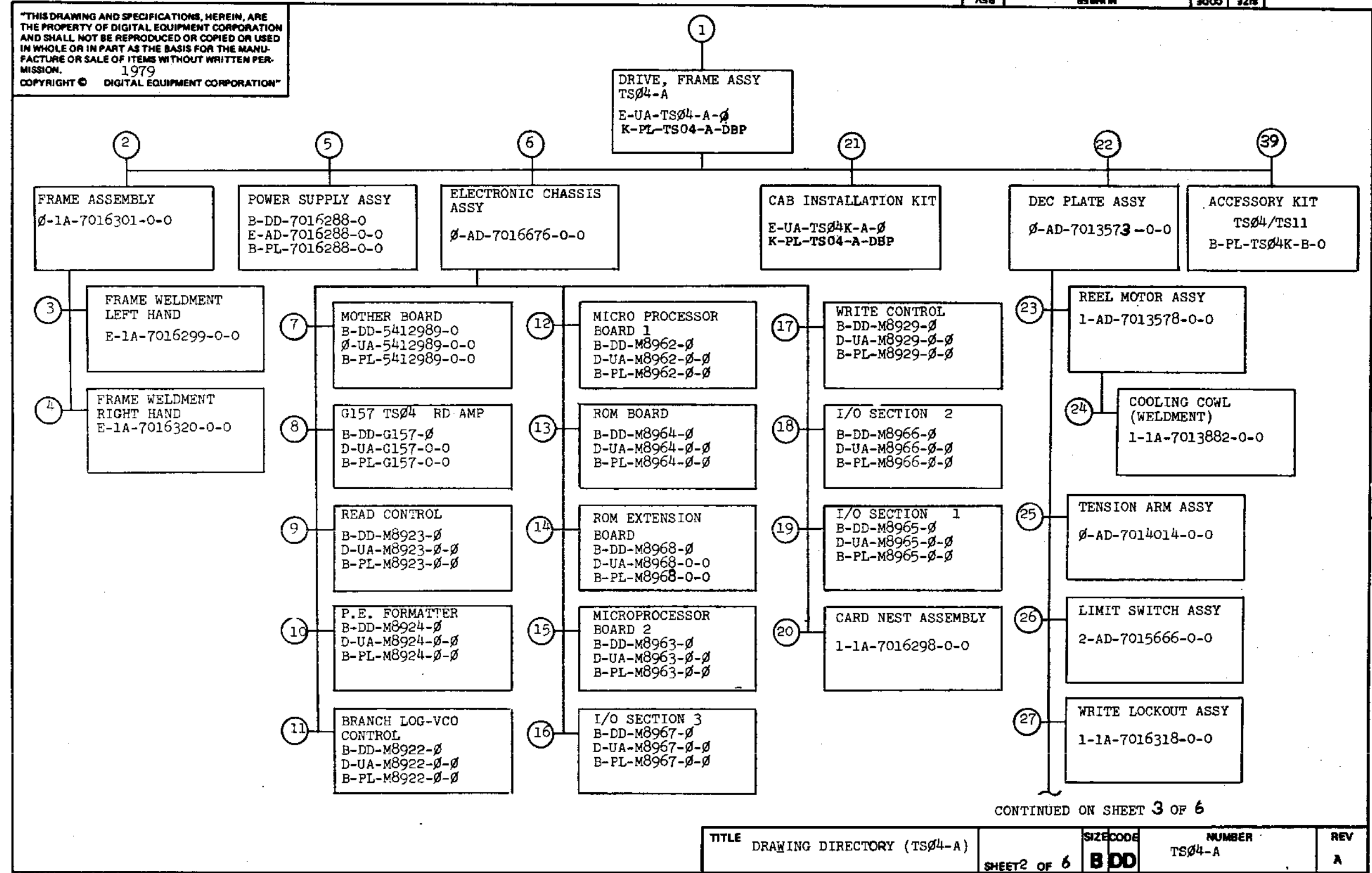
FOR TABLE OF CONTENTS LISTING REFER TO DRAWING NO. B-TC-TS04-A-01 (FIELD MAIN PRINT SET)
 B-TC-TS04-A-D2 (CUSTOMER PRINT SET)

UNIT VARIATIONS	
VAR	TITLE
TS04-AA	DRIVE. FRAME ASSY (TS04-A) 120V
TS04-AB	DRIVE. FRAME ASSY (TS04-A) 240V

REVISIONS	REV.	A
	CHANGE NO.	TS 04A-ME.003
CHK	MS	

USED ON OPTION/MODEL	DRN.	DATE	TITLE			
TS11-A	G. Marini	3/12/79	DRAWING DIRECTORY (TS04-A) digital			
	CHK'D.	DATE				
	<i>[Signature]</i>	7/18/79				
	PROJ. ENG.	DATE	SIZE	CODE	NUMBER	REV
	<i>[Signature]</i>	2/13/78	B	DD	TS04-A	A
	PROD.	DATE	DIST.			
SHEET - 1 OF 6	<i>[Signature]</i>	7/18/79				

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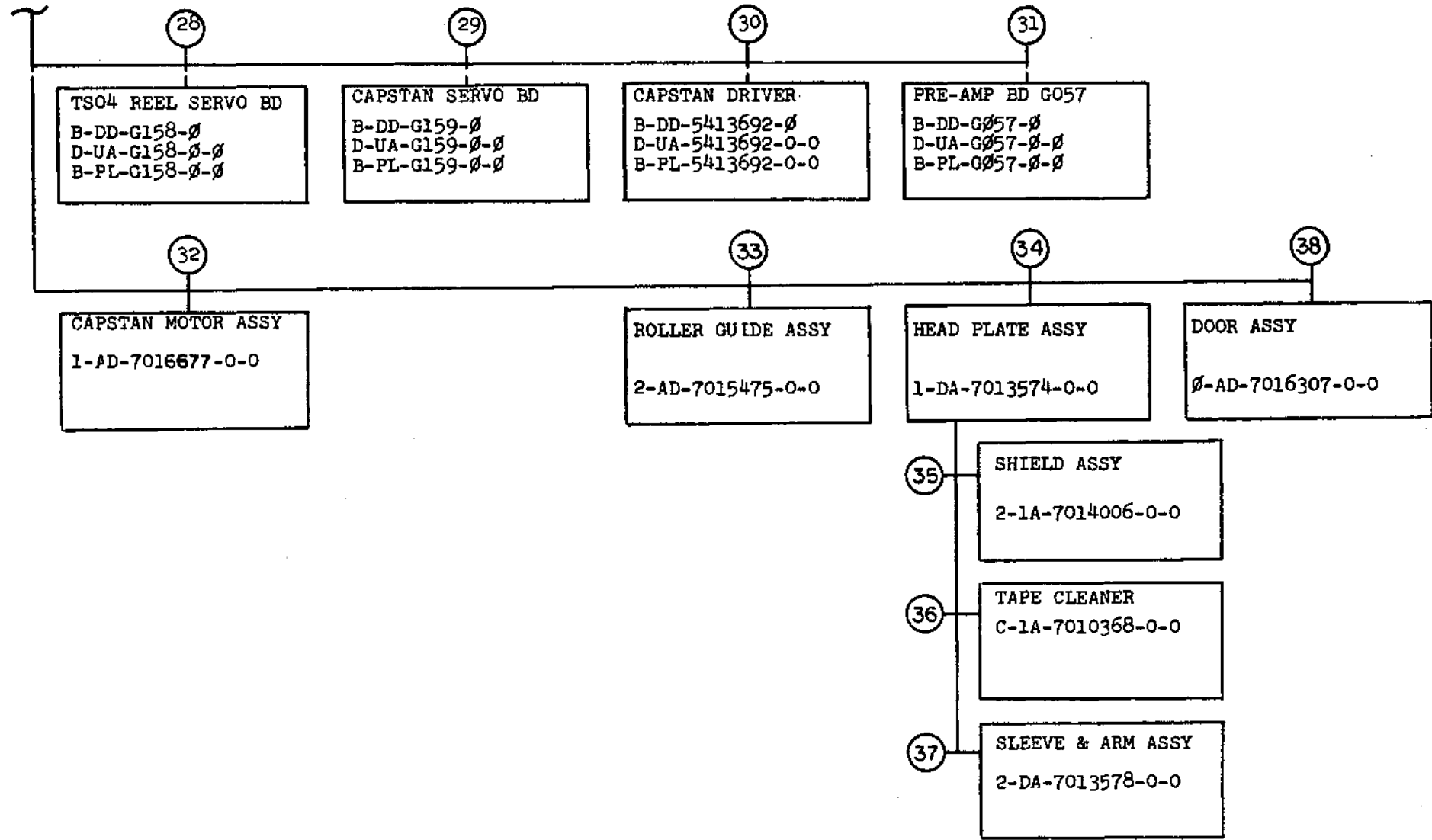


CONTINUED ON SHEET 3 OF 6

TITLE	DRAWING DIRECTORY (TS04-A)	SIZE CODE	DD	NUMBER	TS04-A	REV	A
SHEET 2 OF 6							

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FROM SHEET 2 OF 7



TITLE	SIZE CODE	NUMBER	REV
DRAWING DIRECTORY	B DD	TS04-A	A
SHEET 3 OF 6			

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	E-UA-TS04-A-0	DRIVE, FRAME ASSY (TS04-A)	E/M	9	B-DD-M8923-0	DRAWING DIRECTORY	--
	K-PL-TS04-A-DBP	PARTS LIST	E/M		D-UA-M8923-0-0	READ CONTROL	E/M
	B-TC-TS04-A-01	TABLE OF CONTENTS (TS04-A)	---		B-PL-M8923-0-0	READ CONTROL (PL)	E/M
	2-1A-7422626-0-0	STRAP GROUND	M				
	EKOTSII-UG	USER GUIDE	REF				
	EKOTSII-TM	TECH MANUAL	REF	10	B-DD-M8924-0	DRAWING DIRECTORY	--
	EKOTSII-SV	POCKET SERVICE GUIDE	REF		D-UA-M8924-0-0	P.E. FORMATTER	E/M
					B-PL-M8924-0-0	P.E. FORMATTER (PL)	E/M
2	0-1A-7016301-0-0	FRAME ASSY	M	11	B-DD-M8922-0	DRAWING DIRECTORY	--
	1-MD-7422062-0-0	SPACER FRONT	M		D-UA-M8922-0-0	BRANCH LOG-VCO CONTROL	E/M
	1-MD-7422061-0-0	BRACE, CENTER	M		B-PL-M8922-0-0	BRANCH LOG-BCO CONTROL (PL)	E/M
	1-MD-7422060-0-0	SUPPORT, POWER SUPPLY	M				
	1-MD-7422064-0-0	SPACER, REAR	M	12	B-DD-M8962-0	DRAWING DIRECTORY	--
	E-1A-7422058-0-0	SPACER, MIDDLE	M		D-UA-M8962-0-0	MICROPROCESSOR BOARD 1	E/M
					B-PL-M8962-0-0	MICROPROCESSOR BOARD 1 (PL)	E/M
3	E-1A-7016299-0-0	FRAME WELDMENT LEFT HAND	M	13	B-DD-M8964-0	DRAWING DIRECTORY	--
	1-MD-7422067-0-0	SUPPORT L.H.	M		D-UA-M8964-0-0	ROM BOARD	E/M
	1-MD-7422084-0-0	FRAME SIDE L.H.	M		B-PL-M8964-0-0	ROM BOARD (PL)	E/M
4	E-1A-7016320-0-0	FRAME WELDMENT RIGHT HAND	M	14	B-DD-M8968-0	DRAWING DIRECTORY	--
	1-MD-7422066-0-0	SUPPORT R.H.	M		D-UA-M8968-0-0	ROM EXTENSION BOARD	E/M
	1-MD-7422084-0-0	FRAME SIDE R.H.	M		B-PL-M8968-0-0	ROM EXTENSION BOARD (PL)	E/M
5	B-DD-7016288-0	DRAWING DIRECTORY POWER SUPPLY ASSY	---	15	B-DD-M8963-0	DRAWING DIRECTORY	--
	E-AD-7016288-0-0	POWER SUPPLY ASSY	E/M		D-UA-M8963-0-0	MICROPROCESSOR BOARD 2	E/M
	B-PL-7016288-0-0	POWER SUPPLY ASSY (PL)	E/M		B-PL-M8963-0-0	MICROPROCESSOR BOARD 2 (PL)	E/M
6	0-1A-7016676-0-0	ELECTRONIC CHASSIS ASSY	E/M	16	B-DD-M8967-0	DRAWING DIRECTORY	--
	2-MD-7419785-0-0	ANGLE MOTHER BD	M		D-UA-M8967-0-0	I/O SECTION 3	E/M
	2-MD-7419784-0-0	INSULATOR CARD GUIDE	M		B-PL-M8967-0-0	I/O SECTION 3 (PL)	E/M
	2-MD-7418050-0-0	BAR RETAINER	M	17	B-DD-M8929-0	DRAWING DIRECTORY	--
	1-1A-7016285-0-0	CABLE, FAN LOGIC	E/M		D-UA-M8929-0-0	WRITE CONTROL	E/M
					B-PL-M8929-0-0	WRITE CONTROL (PL)	E/M
7	B-DD-5412989-0	DRAWING DIRECTORY	---				
	0-UA-5412989-0-0	MOTHER BOARD	E/M				
	B-PL-5412989-0-0	MOTHER BOARD (PL)	E/M				
8	B-DD-G157-0	DRAWING DIRECTORY	---				
	0-UA-G157-0-0	G157 TS04 RD AMP	E/M				
	B-PL-G157-0-0	G157 TS04 RD AMP (PL)	E/M				

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

digital

TITLE
DRAWING DIRECTORY TS04-A

SHEET 4 OF 6

SIZE CODE
B DD

NUMBER
TS04-A

REV
A

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
18	B-DD-M8966-0	DRAWING DIRECTORY	---		A-PS-1214813-0-0	COVER HEAD RIGHT	M
	D-UA-M8966-0-0	I/O SECTION 2	E/M		A-PS-1214812-0-0	COVER HEAD LEFT	M
	B-PL-M8966-0-0	I/O SECTION 2 (PL)	E/M		A-PS-1215655-0-0	SWITCH INTERLOCK	M
					A-PS-1214815-0-0	COVER HUB	M
					A/1-PS-1214816-0-0	RING CENTER	M
19	B-DD-M8965-0	DRAWING DIRECTORY	---		A-PS-1214946-0-0	RING RUBBER	M
	D-UA-M8965-0-0	I/O SECTION 1	E/M		D-PS-1213119-0-0	HUB QUICK RELEASE	M
	B-PL-M8965-0-0	I/O SECTION 1 (PL)	E/M		A-PS-1214843-0-0	LATCH	M
					A-PS-1215235-0-0	LID SUPPORT	M
					2-MD-7422583-0-0	INSULATOR G057	M
20	1-1A-7016298-0-0	CARD NEST ASSY	M		A-PS-1214955-0-0	HINGE DEC PLATE	M
	1-1A-7422065-0-0	SUPPORT CARD GUIDE	M		2-MD-7418032-0-0	INSULATOR G158	M
	1-1A-7422081-0-0	PANEL CHASSIS	M		A-PS-1214609-0-0	LATCH GRIP	M
	1-MD-7422063-0-0	BRACKET FAN	M		1-IA-7014149-0-0	CABLE WRITE HEAD	E/M
					1-IA-7013582-0-0	CABLE READ HEAD	E/M
					1-IA-7016284-0-0	CABLE POWER R/W	E/M
					1-IA-7016259-0-0	HARNESS C/P	E/M
21	E-UA-TS04K-A-0	CAB INSTALLATION KIT	M		2-IA-7016528-0-0	CABLE INTERCONNECT	E/M
	K-PL-TS04-A-DBP	PARTS LIST	M		D-IA-7013577-0-0	HARNESS DRIVE	E/M
					1-IA-7016258-0-0	HARNESS W/L/L	E/M
					1-IA-7014186-0-0	CABLE ASSY/FOLDED	E/M
					A-PS-1215031-0-0	LID SUPPORT D/S	M
22	0-AD-7013573-0-0	DECK PLATE ASSY	E/M		1-IA-7013581-0-0	CABLE ASSY FOLDED	E/M
	0-MD-7417657-0-0	DECK PLATE	M		1-IA-7014136-0-0	TRANSDUCER AND CONNECTOR ASSY	E/M
	2-MD-7418013-0-0	SPACER MOTOR MTG	M		2-MD-7418507-0-0	BRACKET INTERLOCK	M
	2-MD-7418016-0-0	PLATE CABLE	M				
	2-MD-7418008-0-0	BLOCK TRANSDUCER	M				
	2-MD-7418048-0-0	BLOCK BASE	M				
	2-MD-7418049-0-0	BLOCK SPRING ADJ	M				
	2-MD-7418012-0-0	PIN RAMP	M				
	1-MD-7418009-0-0	BRACKET GUSSET L.H.	M	23	1-AD-7013578-0-0	REEL MOTOR ASSY	E/M
	1-IA-7418004-0-0	BRACKET GUSSET R.H.	M		A-PS-1214528-0-0	REEL MOTOR	E/M
	1-IA-7418022-0-0	BLOCK HINGE	M		A/C-PS-1214606-0-0	BRAKE MOTOR	E/M
	1-MD-7418014-0-0	HOLDER PRE-AMP	M		1-IA-7014362-0-0	HARNESS CAPACITOR FAN	E/M
	1-MD-7418015-0-0	COVER PRE-AMP	M				
	2-MD-7417985-0-0	BLOCK CAPSTAN ADJ	M				
	2-MD-7418036-0-0	STOP RUBBER	M	24	1-IA-7013882-0-0	COOLING COWL WELDMENT	M
	2-MD-7422071-0-0	SPACER	M		2-MD-7418506-0-0	SLEEVE COWL	M
	2-MD-7421766-0-0	COVER G158	M		2-1A-7418505-0-0	FLANGE COWL	M
	2-MD-7418010-0-0	CAPSTAN	M		2-MD-7418006-0-0	BRACKET COWLMTG	M
	2-MD-7418021-0-0	CLAMP CAPSTAN	M				
	0-MD-7418878-0-0	HUB INNER	M				
	D-MD-7417902-0-0	FLANGE	M	25	0-AD-7014014-0-0	TENSION ARM ASSY	E/M
	2-MD-7418507-0-0	BRACKET SWITCH	M		2-MD-7417982-0-0	SHAFT PIVOT	M
	1-MD-7422508-0-0	BRACKET DOOR STAY	M		2-MD-7417989-0-0	ARM TENSION	M
	D-DA-7418005-0-0	BEZEL	M		2-MD-7417983-0-0	HOUSING TENSION ARM	M
	A-PS-1214839-0-0	CLIP TUBULAR	M		A/C-PS-1216060-0-0	ROLLER ASSY	M

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

digital

TITLE DRAWING DIRECTORY TS04

SHEET 5 of 6

SIZE CODE
B DD

NUMBER
TS04-A

REV
A

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
25	A-PS-121416A-0-0	BEARING	M	34	2-MD-7418265-0-0	GUIDE, TAPE PIN	M
26	2-AD-7015666-0-0	LIMIT SWITCH ASSY	E/M		A/C-PS-1216060-0-0	ROLLER ASSY	M
	2-MD-7418035-0-0	BRACKET SWITCH	M		A-PS-1209877-0-0	WASHER CERAMIC	M
	2-MD-7418035-0-0	SWITCH REWORK	E/M		2-MD-7417900-0-0	WASHER CLAMP	M
					2-MD-7420621-0-0	WASHER	M
					2-IA-7016662-0-0	EOT/BOT ASSY	M
27	1-IA-7016318-0-0	WRITE LOCKOUT ASSY	E/M		B-MD-7422992-0-0	SHAFT BUFFER	M
	2-IA-7422069-0-0	BRACKET W.L.O.	M		R-MD-7422993-0-0	WASHER	M
	2-MD-7422070-0-0	ARM W.L.O.	M				
	A-PS-1214548-0-0	SOLENOID	E/M	35	2-IA-7014006-0-0	SHIELD ASSY	M
	2-IA-7016317-0-0	HARNESS WRITE LOCK	E/M		2-MD-7418667-0-0	SHIELD MAGNETIC FLUX	M
	2-MD-7422082-0-0	HOLDER ARM	M		2-MD-7418666-0-0	HOLDER	M
					2-MD-7422487-0-0	SHIELD COPPER	M
					A-PS-1614497-0-0	FIRRITE	M
28	B-DD-G158-0	DRAWING DIRECTORY	---	36	C-IA-7010368-0-0	TAPE CLEANER	M
	D-UA-G158-0-0	TS04 REEL SERVO BD	E/M		C-MD-7414126-0-0	SUPPORT SCRAPER	M
	B-PL-G158-0-0	TS04 REEL SERVO BD (PL)	E/M		C-MD-7414127-0-0	SCRAPER, TAPE	M
29	B-DD-G159-0	DRAWING DIRECTORY	---				
	D-UA-G159-0-0	CAPSTAN SERVO BD	E/M	37	2-DA-7013578-0-0	SLEEVE ARM ASSY	M
	B-PL-G159-0-0	CAPSTAN SERVO BD (PL)	E/M		2-MD-7420619-0-0	ARM DAMPER	M
					A-PS-1215236-0-0	SLEEVE BEARING	M
30	B-DD-5413692-0	DRAWING DIRECTORY	---	38	2-AD-7016307-0-0	DOOR ASSY	M
	D-UA-5413692-0-0	CAPSTAN DRIVER	E/M		0-MD-7418027-0-0	DOOR	M
	B-PL-5413692-0-0	CAPSTAN DRIVER (PL)	E/M		2-MD-7419698-0-0	WINDOW	M
					2-IA-7419911-0-0	BRACKET LATCH	M
31	B-DD-G057-0	DRAWING DIRECTORY	---		A-PS-1214956-0-0	HINGE	M
	D-UA-G057-0-0	PRE-AMP BOARD	E/M		A-PS-1214838-0-0	CLIP	M
	B-PL-G057-0-0	PRE-AMP BOARD (PL)	E/M	39	B-PL-TS04K-B-0	ACCESSORY KIT TS04/TS11	---
32	1-AD-7016677-0-0	CAPSTAN MOTOR ASSY	E/M				
	1-PS-1214529-0-0	MOTOR CAPSTAN	M				
	2-MD-7417984-0-0	PLATE CAPSTAN MOTOR	M				
33	2-AD-7015475-0-0	ROLLER GUIDE ASSY	M				
	A/C-PS-1216060-0-0	ROLLER ASSY	M				
	2-MD-7418011-0-0	CLAMP ROLLER GUIDE	M				
	1-MD-7418520-0-0	BASE ROLLER GUIDE	M				
34	1-DA-7013574-0-0	HEAD PLATE ASSY	E/M				
	D-MD-7418034-0-0	HEAD PLATE	M				
	A-SP-7412561-0-0	HEAD, MAG. QTRK	---				
	B-MD-7418000-0-0	BLOCK AZIMUTH ADJ	M				
	2-MD-1218010-0-0	SPRING GUIDE	M				

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

digital

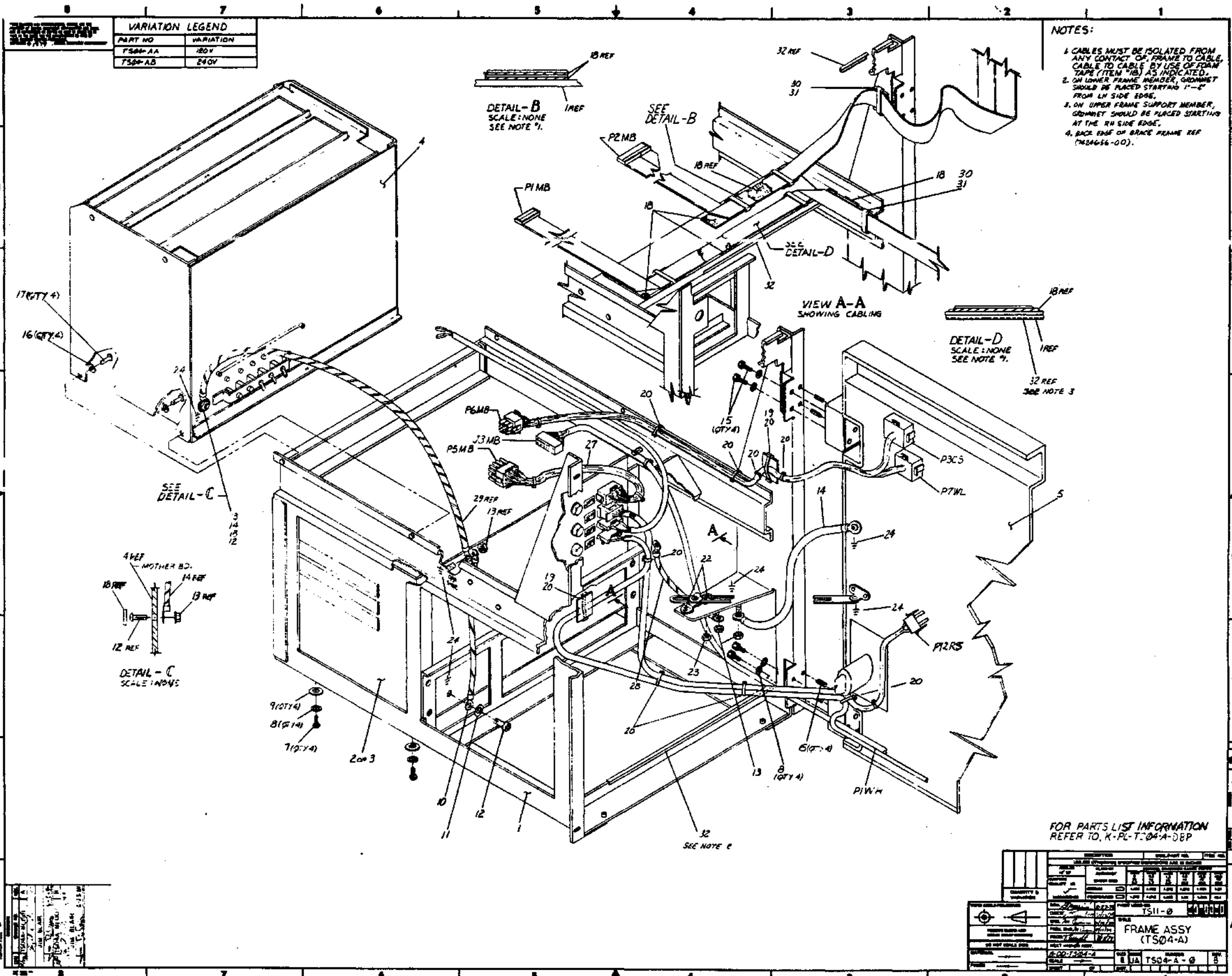
TITLE
DRAWING DIRECTORY

SHEET 6 OF 6

SIZE CODE
B DD

NUMBER
TS04-A

REV
A



VARIATION LEGEND	
PART NO	VARIATION
TS04-AA	180V
TS04-AB	240V

NOTES:

1. CABLES MUST BE ISOLATED FROM ANY CONTACT OF FRAME TO CABLE, CABLE TO CABLE BY USE OF FOAM TAPE (ITEM "18") AS INDICATED.
2. ON LOWER FRAME MEMBER, GROUNDING SHOULD BE PLACED STARTING 1"-2" FROM LH SIDE EDGE.
3. ON UPPER FRAME SUPPORT MEMBER, GROUNDING SHOULD BE PLACED STARTING AT THE RH SIDE EDGE.
4. BACK END OF BRACE FRAME REF (TS0466-00).

DETAIL-B
SCALE: NONE
SEE NOTE 1.

VIEW A-A
SHOWING CABLING

DETAIL-D
SCALE: NONE
SEE NOTE 3

DETAIL-C
SCALE: NONE

FOR PARTS LIST INFORMATION
REFER TO, K-PL-T-04-A-08P

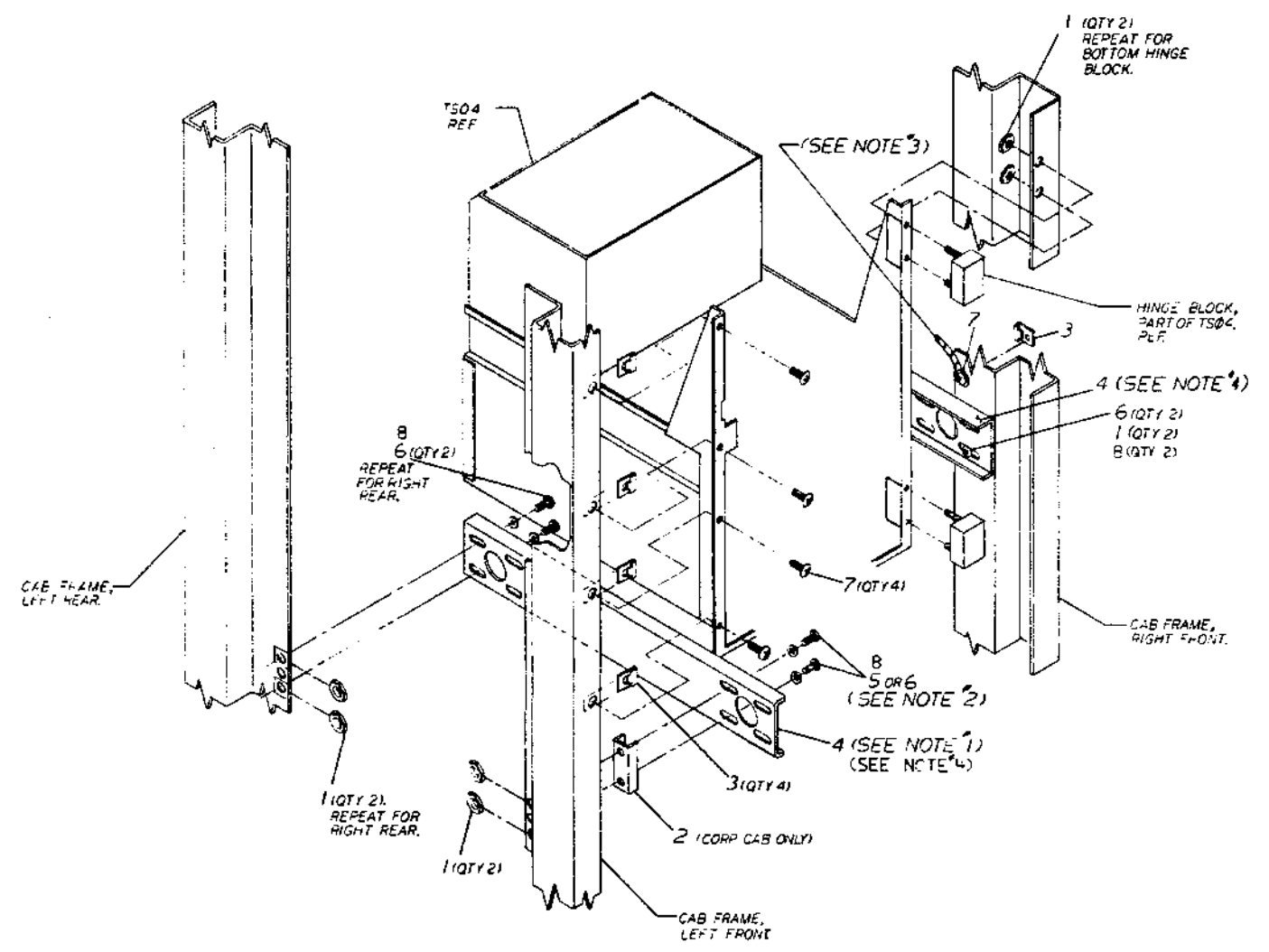
REVISIONS		DATE	BY	CHKD	APP'D
1	INITIAL DESIGN				
2	REVISED FOR MANUFACTURING				
3	REVISED FOR TESTING				
4	REVISED FOR PRODUCTION				

TS11-0	40-0000
FRAME ASSY (TS04-A)	
TS04-A-0	0

1	17 (QTY 4)	17 (QTY 4)
2	16 (QTY 4)	16 (QTY 4)
3	15 (QTY 4)	15 (QTY 4)
4	14 (QTY 4)	14 (QTY 4)
5	13 (QTY 4)	13 (QTY 4)
6	12 (QTY 4)	12 (QTY 4)
7	11 (QTY 4)	11 (QTY 4)
8	10 (QTY 4)	10 (QTY 4)
9	9 (QTY 4)	9 (QTY 4)
10	8 (QTY 4)	8 (QTY 4)
11	7 (QTY 4)	7 (QTY 4)
12	6 (QTY 4)	6 (QTY 4)
13	5 (QTY 4)	5 (QTY 4)
14	4 (QTY 4)	4 (QTY 4)
15	3 (QTY 4)	3 (QTY 4)
16	2 (QTY 4)	2 (QTY 4)
17	1 (QTY 4)	1 (QTY 4)

TS04 REF

- NOTES:**
1. INSTALL ITEM 4 (FRAME SUPPORT) USING SECOND SET OF FRONT SLOTS AS SHOWN FOR CORP CAB INST. USE FIRST SET OF FRONT SLOTS ON ALL OTHER CABS.
 2. USE ITEM 5 (SCR 1/4-20 X.75L) AND ITEM 2 (SPACER) TOGETHER FOR CORP CAB INST. USE ITEM 6 (SCR 1/4-20 X.50) ON ALL OTHER CABS.
 3. SECURE GROUND STRAP (PART OF TS04) TO CAB FRAME.
 4. WIDER EDGE DENOTES TOP OF "U" CHANNEL FRAME SUPPORT.



FOR PARTS LIST REFER TO, K-PL-TS04K-A-DBP

<p>TS04</p> <p>CAB INSTALLATION KIT</p>	
<p>QTY</p> <p>DESCRIPTION</p> <p>UNIT</p>	<p>QTY</p> <p>DESCRIPTION</p> <p>UNIT</p>
<p>1</p> <p>ITEM 4</p> <p>FRAME SUPPORT</p>	<p>1</p> <p>ITEM 4</p> <p>FRAME SUPPORT</p>
<p>6</p> <p>ITEM 6</p> <p>SCR 1/4-20 X.50</p>	<p>6</p> <p>ITEM 6</p> <p>SCR 1/4-20 X.50</p>
<p>1</p> <p>ITEM 5</p> <p>SCR 1/4-20 X.75L</p>	<p>1</p> <p>ITEM 5</p> <p>SCR 1/4-20 X.75L</p>
<p>2</p> <p>ITEM 2</p> <p>SPACER</p>	<p>2</p> <p>ITEM 2</p> <p>SPACER</p>
<p>1</p> <p>ITEM 3</p> <p>HINGE BLOCK</p>	<p>1</p> <p>ITEM 3</p> <p>HINGE BLOCK</p>
<p>1</p> <p>ITEM 1</p> <p>TS04 REF</p>	<p>1</p> <p>ITEM 1</p> <p>TS04 REF</p>

DIGITAL EQUIPMENT CORPORATION PARTS LIST				QUANTITY / VARIATION										NOTES:			
MADE BY G. Marini DATE 2/27/79		CHECKED R. Tremblay DATE 7/18/79															
ENG M. Cucini DATE 7/19/79		PROD T. Wright DATE 7/18/79															
SECTION	ISSUED SECTION																
ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	TS11K-AA (120V)													REF DESIGNATION
1	D-AD-7016287-0-0	7016287-0	A.C. INPUT ASSY (120V)	1													
2	D-1A-1700083-0-0	1700083-00	POWER CORD ASSY (120V)	1													
3		9107253-0	TUBING SHRINK	A/R													
4	A-PS-3613210-0-0	3613210-00	LABEL (IDENTIFICATION)	1													
5		9905136-00	BOX	1													
6		9906200-01	PACKING BUBBLE PACK	A/R													
7		9009357-00	2" MASKING TAPE	A/R													

E.C.O. NO.
ML001
ML002

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TITLE
240V to 120V TS11 CONVERSION KIT

ASSY NO.
NONE

SHEET 1 OF 1

SIZE B CODE PL NUMBER TS11K-AA-β

INSERTION PARTS LIST DATA BASE REV

REV.
B

DIGITAL EQUIPMENT CORPORATION PARTS LIST				QUANTITY / VARIATION										NOTES:				
MADE BY G. Marini DATE 2/27/79		CHECKED Robert Tremblay DATE 7/18/79		SECTION														
ENG M. Cucina DATE 7/19/79		PROD T. Wright DATE 7/18/79		ISSUED SECTION														
ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	TS11K-AB (240V)														REF DESIGNATION
1	D-AD-7016287-0-0	7016287-01	A.C. INPUT ASSY (240V)	1														
2	D-1A-1700083-0	17-00083-17	POWER CORD ASSY (240V)	1														
3		9107253-0	TUBING SHRINK	A/R														
4	A-PS-3613210-0-0	3613210-00	LABEL (IDENTIFICATION)	1														
5		9905136-00	BOX	1														
6		9906200-01	PACKING BUBBLE PACK	A/R														
7		9009357-00	2" MASKING TAPE	A/R														

E.C.O. NO.
ML001
ML002

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TITLE
120V to 240V TS11 CONVERSION KIT

ASSY NO.
NONE
SHEET 1 OF 1

SIZE B	CODE PL	NUMBER TS11K-AB-0	REV. B
INSERTION PARTS LIST DATA BASE REV			

ML2

DRAWING NO.	NO. OF SHTS	PART NO.	DESCRIPTION	REVISIONS																									
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
B-DD-5412989-0	1		MOTHER BOARD TS04	*	A	B																							
E-UA-5412989-0-0	4		MOTHER BOARD TS04	D	E	F																							
D-CS-5412989-0-1	8		MOTHER BOARD TS04	D	E	F																							
E-MD-5012988-0-0	5		DRILL & ETCH DRAWING	D	E	E																							
		5012988	ETCHED BOARD	E	E	E																							
K-PL-5412989-0-DBP			PARTS LIST DATA PAGE (5412989)	D	E	F																							
K-PC-5412989-0-DBG	-		P.C. DESIGN DATA PAGE (5412989)	A	A	A																							

NOTES:

REVISIONS	
DATE	CHG NO. REV.
	ORIG
3-79	ML001 A
3-80	ML002 B

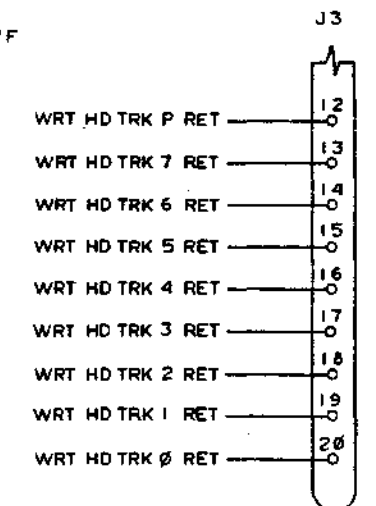
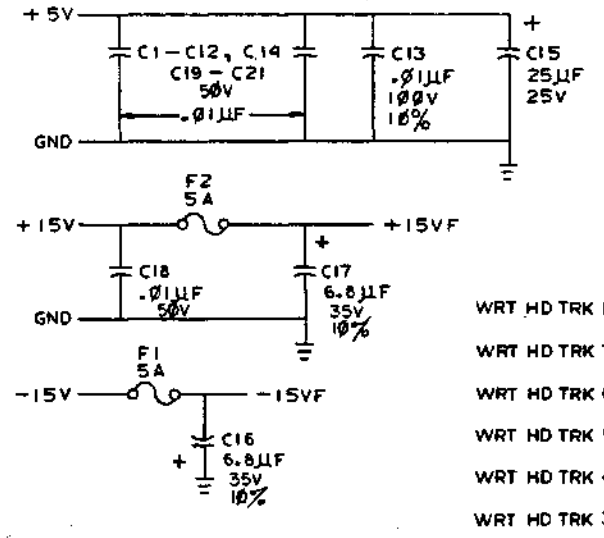
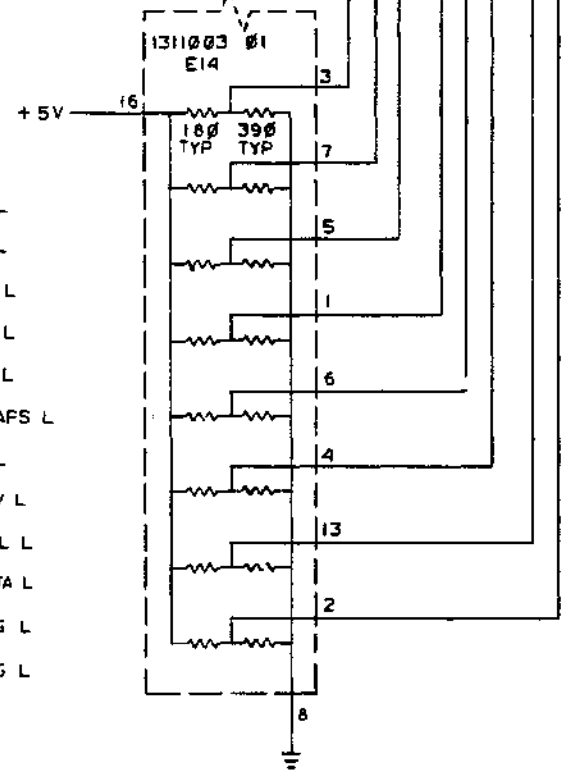
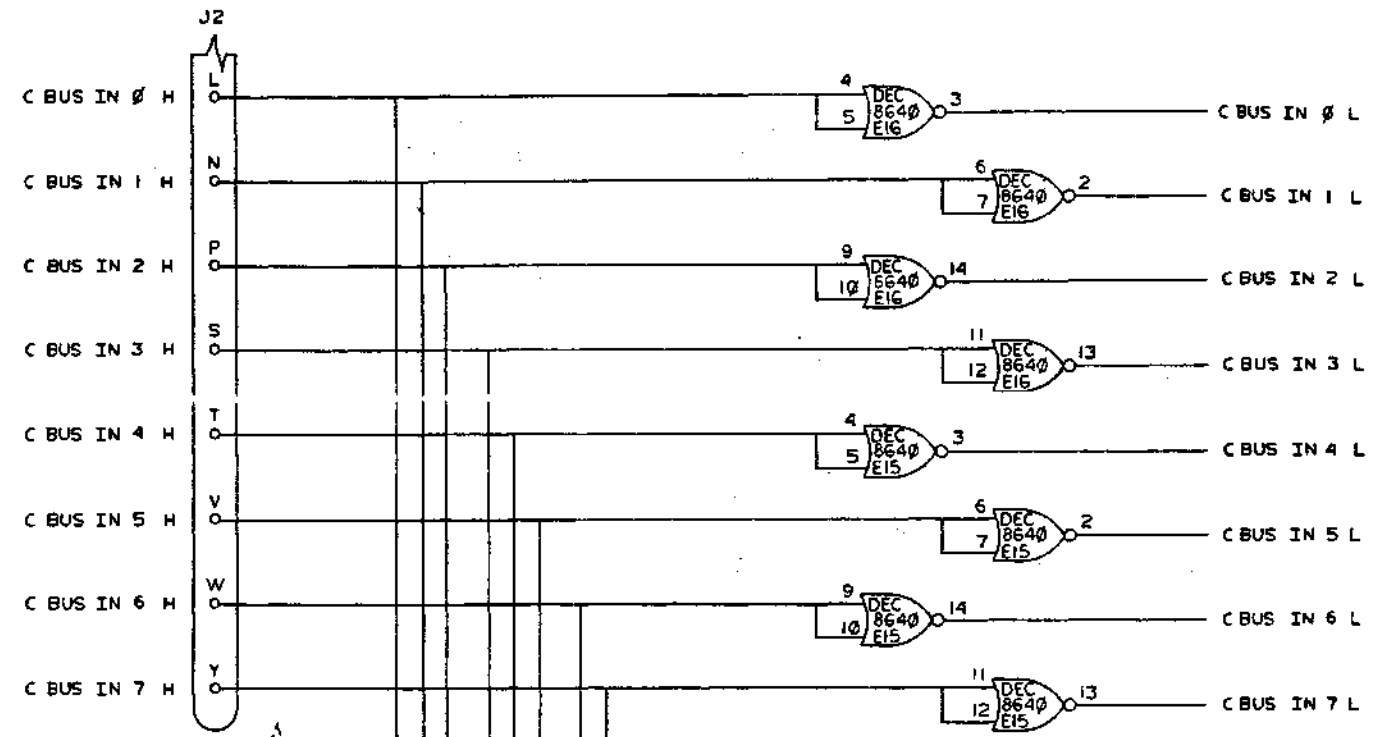
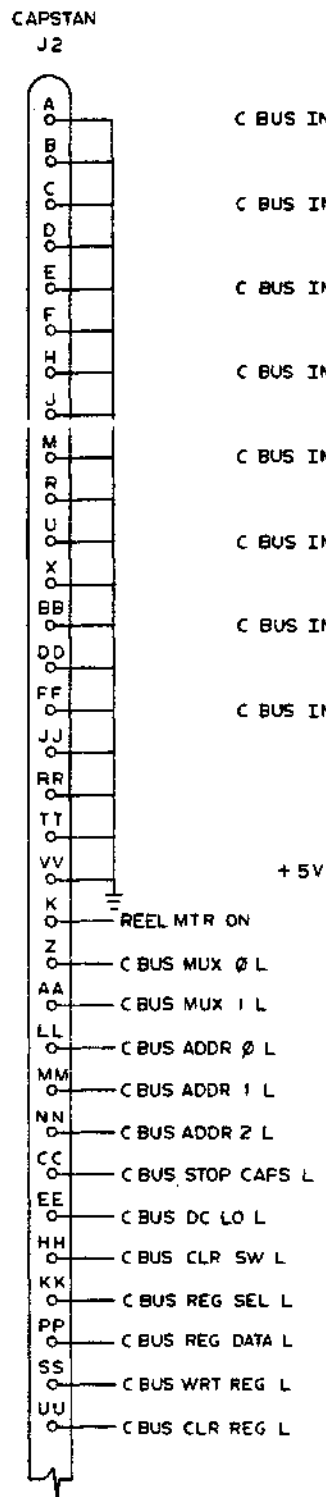
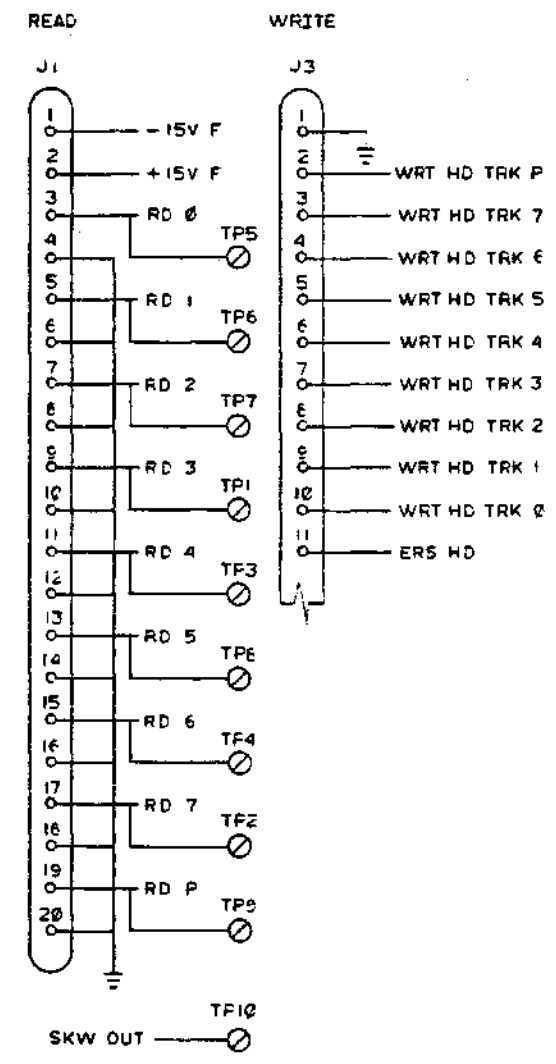
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USED ON OPTION/MODEL		
DRN	ANGEL A. COLON	12-7-78
CHK'D	PHIL BOSSMAN	2-12-78
ENG	J.R. Collins	2-1-79
PROD.	John Barton	2-1-79

TITLE			
MOTHER BOARD TS04			
SIZE CODE	BDD	NUMBER	5412989-0
REV.	B		

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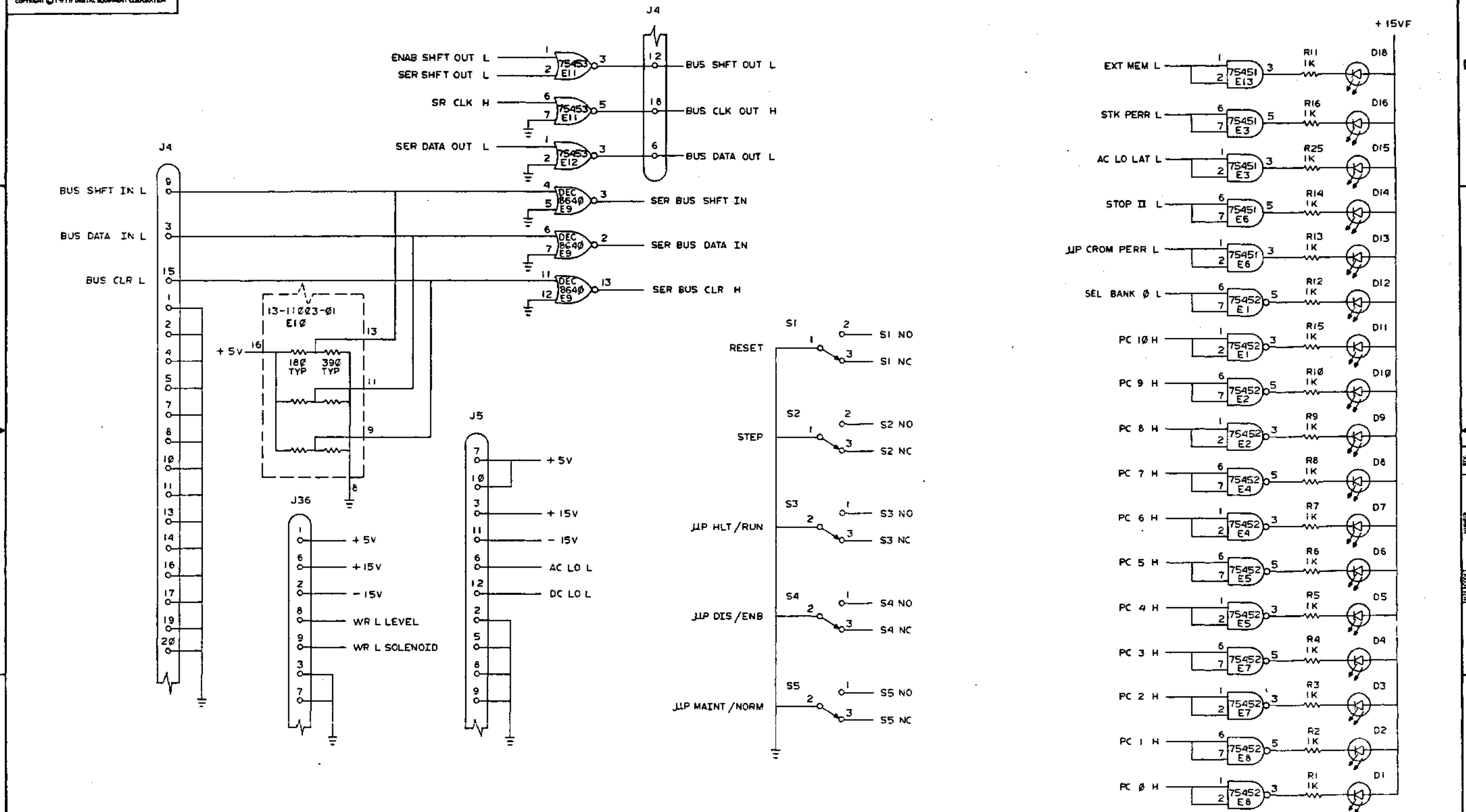


REV.	REV.
1	E
2	F
3	G
4	H
5	I
6	J
7	K
8	L

DRN. J. J. J. 11/7/78	FIRST USED ON	digital
CHKD. J. J. J. 11/7/78	TSII	
ENG. J. J. J. 11/7/78	TITLE	
PROJ. ENG. J. J. J. 11/7/78	MOTHER BOARD	
PROD. J. J. J. 11/7/78	TS04	
NEXT HIGHER ASSY.		
B-DD-5412989-0	SIZE	NUMBER
SCALE NONE	D	CS 5412989-0-1
SHEET 1 OF 8	DIST.	REV. F

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1-0-6862145 DCS 5412989-0-1

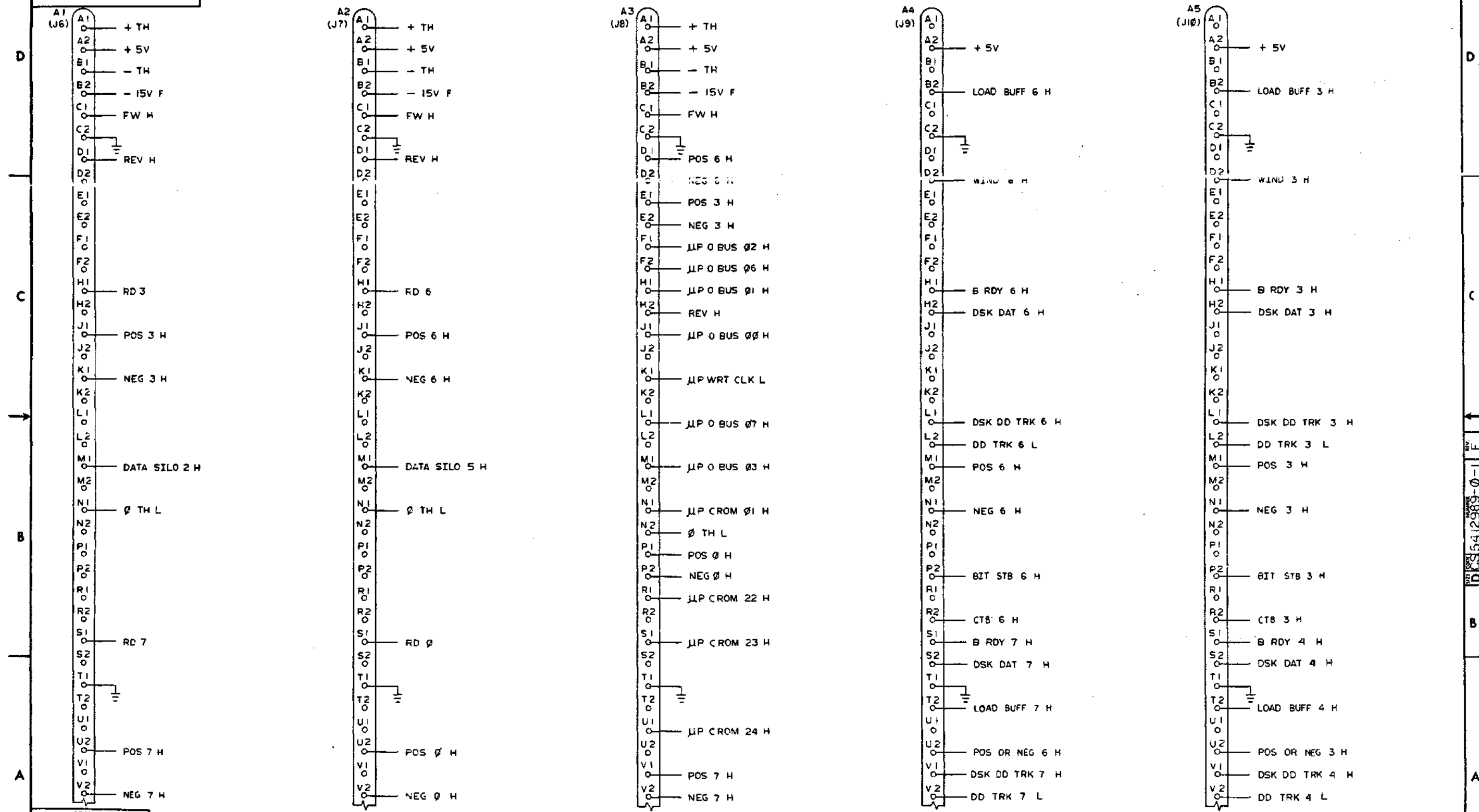


REVISIONS		
CHK	CHANGE NO	REV.

TITLE	MOTHER BOARD TS04	SIZE CODE	DCS	NUMBER	5412989-0-1	REV.	F
SCALE	NONE	SHEET	2 OF 8	DIST.			

DCS 5412989-0-1 F

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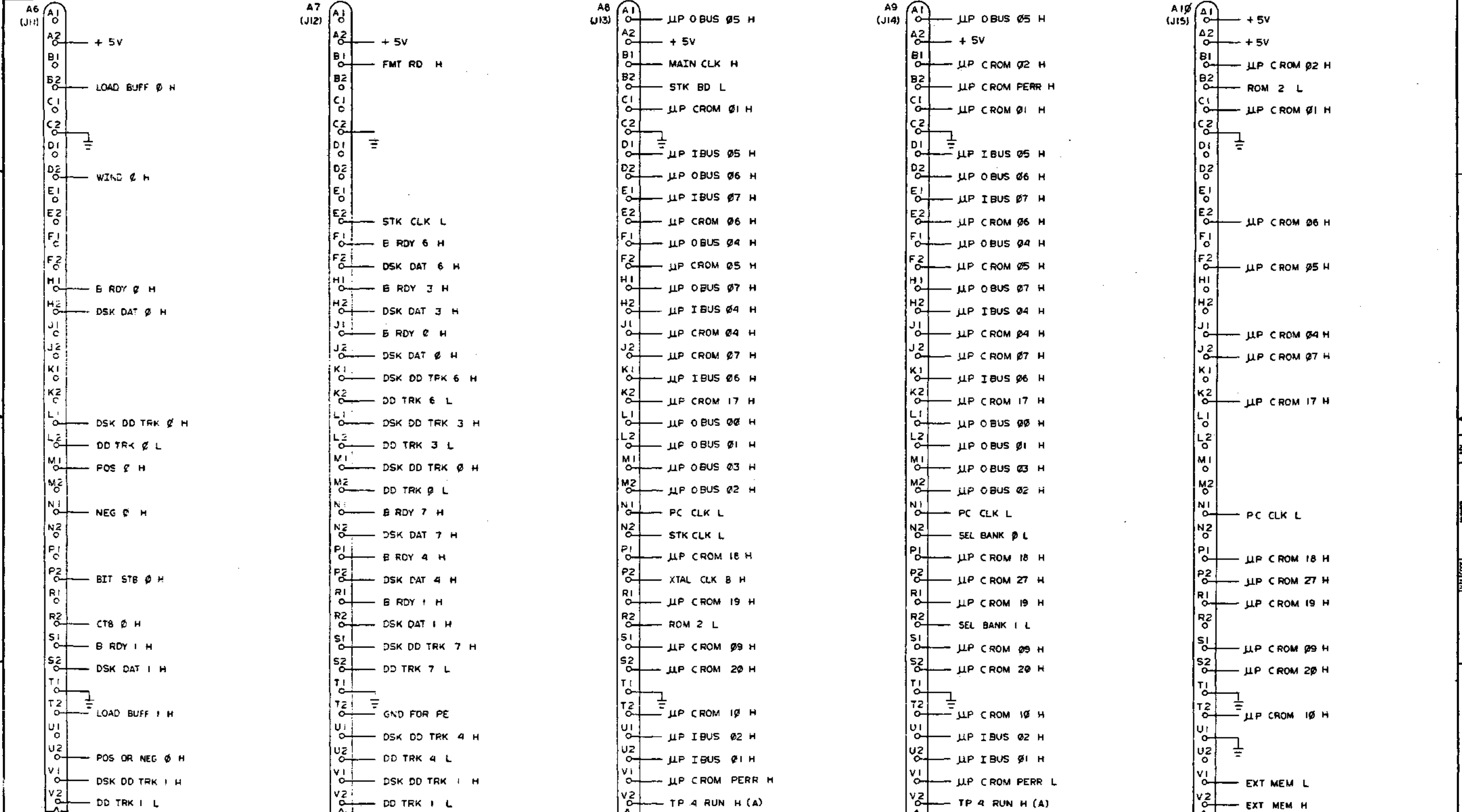


REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	MOTHER BOARD TSØ4	SIZE CODE	D CS	NUMBER	5412989-0-1	REV.	F
SCALE	NONE	SHEET	3	OF	8	DIST.	

DCS 5412989-0-1 F

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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	MOTHER BOARD TS04	SIZE CODE	D CS 5412989-0-1	NUMBER		REV.	F
SCALE	NONE	SHEET	4 OF 8	DIST.			

8

7

6

5

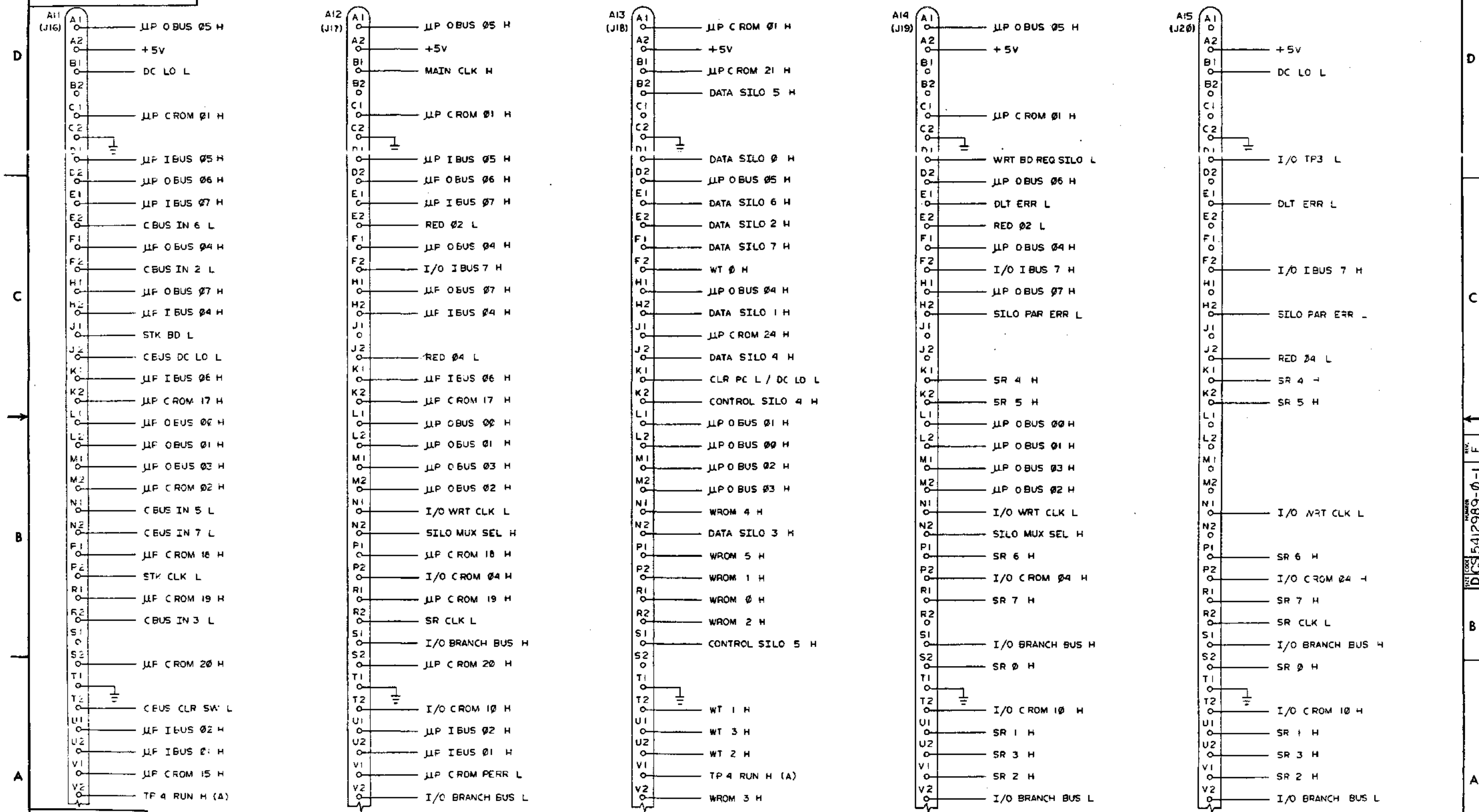
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3

DCS 5412989-0-1

1

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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	MOTHER BOARD TS04	SIZE CODE	D	NUMBER	CS 5412989-0-1	REV.	F
SCALE	NONE	SHEET	5	OF	8	DIST.	

8

7

6

5

4

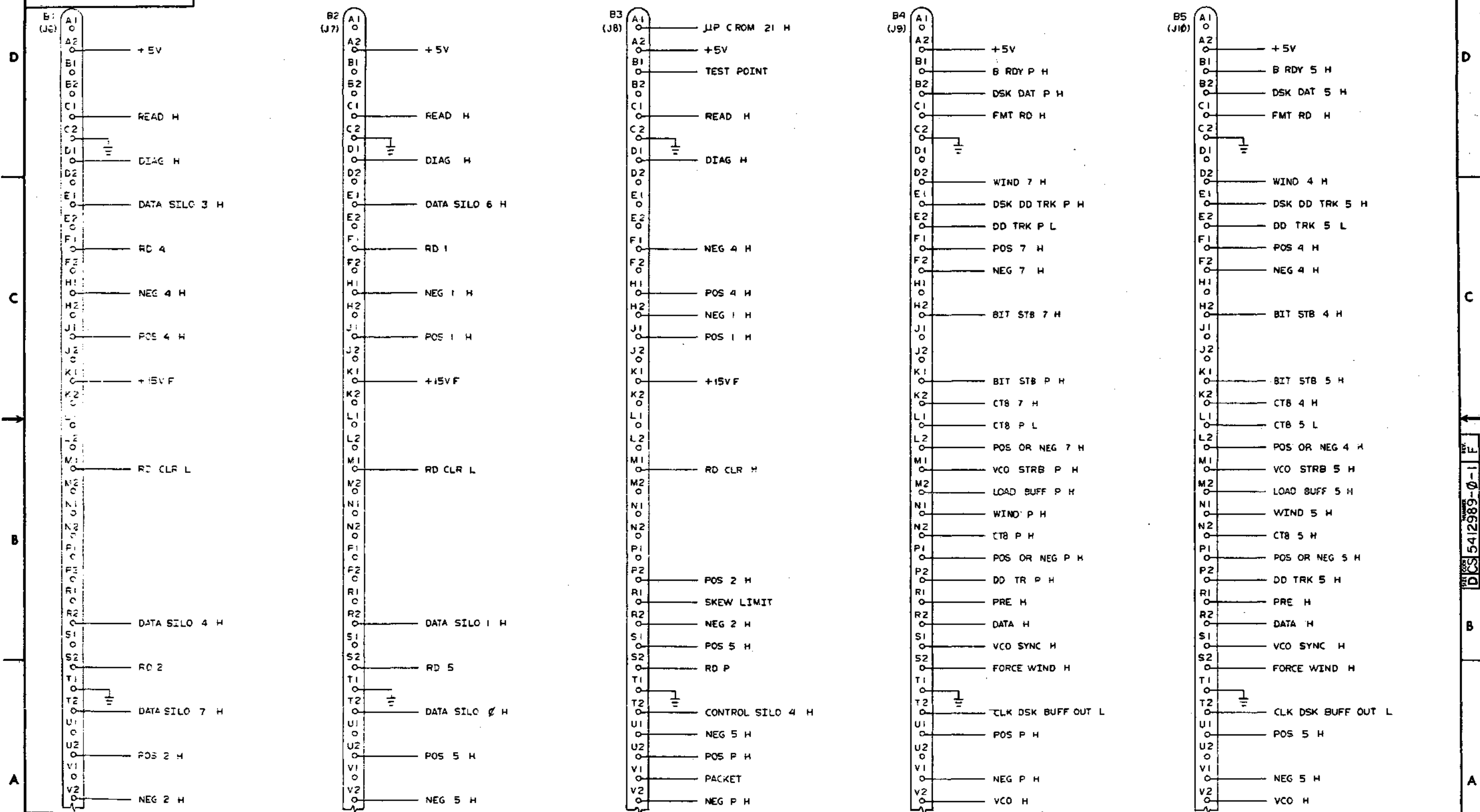
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2

1

DCS 5412989-0-1 F
 NUMBER
 REV.

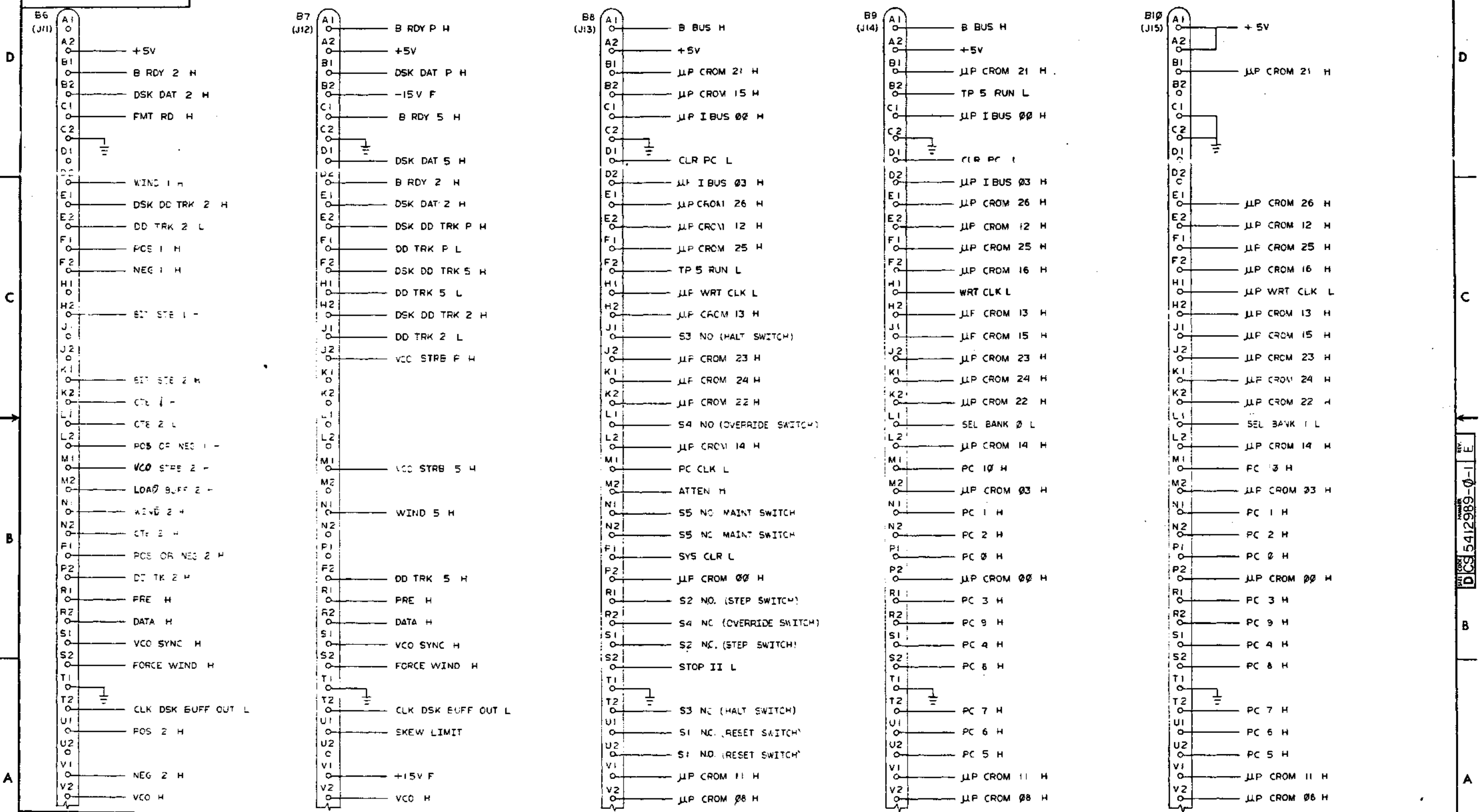
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REVISIONS		
CHK	CHANGE NO.	REV.

DCS 5412989-0-1 F

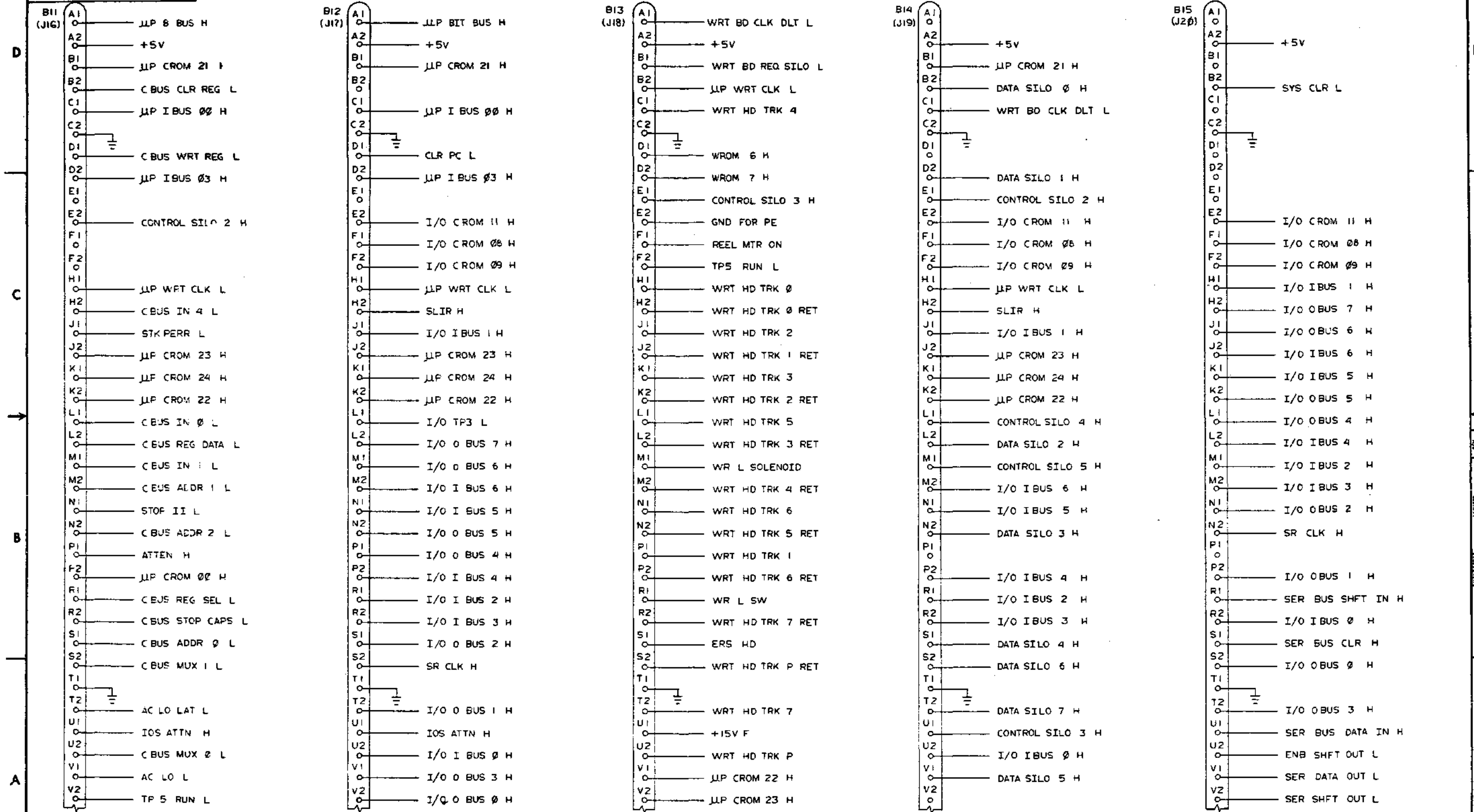
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REVISIONS		
CHK	CHANGE NO.	REV.

DCS 5412989-0-1

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REVISIONS		
CHK	CHANGE NO.	REV.

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
					00	
1	1		5012988-00	TS04 LOGIC BACKPLANE	1	
2	2		1000075-00	25 MFD 25V 6% 30D AL EL	1	C15
3	3		1001610-00	.01 MFD 50V +80-20% Z5UCER	17	C1-C12,C14,C18-C20,C21
4	4		1005306-00	6.8MFD 35V 10% S.TANT	2	C16,C17
5	5		1005784-00	.01 MFD 100V 10% 6630W MYLR	1	C13
6	6		1110324-00	LED 1MCD@10MA FIV=3	17	D1-D16,D18
7	7		1209590-00	SW,TOC 1P 5A ON/NONE/ON	3	S3 C5
8	8		1209941-02	HEADER 100 40POS RT ANGLE	1	J2
9	9	USED ON J1,J2,J4.	1209941-03	HEADER RT ANGLE LEFT L	3	
10	10	USED ON J1,J2,J4.	1209941-04	HEADER RT ANGLE,RIGHT	3	
11	11		1209941-06	HEADER,100 20POS RT ANGLE	2	J1,J4
12	12		1203747-00	FUSE, SUB-MINI, 5.000A, 125V, A	2	F1,F2
13	13		1211079-00	SW,PB 1P 1A	2	S1,S2
14	14		1211425-00	CONN,CARD 72PIN SLOTTED DOUBLE	15	J6-J20
15	15		1212297-02	MATE-N-LOK 9PIN UNIV HEADER	1	J36
16	16		1212297-06	MATE-N-LOK 12PIN UNIV HEADER	1	J5
17	17		1213335-00	HEADER 20POS RT ANGLE FOR 12	1	J3
18	18		1300365-00	1.0 K .25 W 5.0 % CC	17	R1-R16,R25
19	19		1311003-01	R NETWORK 14-180 14-390 16PIN	2	E10,E14
20	20		1910406-00	75451 DRIVER,PERIPH,DUAL,	3	E3,E6,E13
21	21		1910645-00	75452 DRIVER,PERIPH,DUAL,	6	E1,E2,E4,E5,E7,E8
22	22		1911036-00	75453 DRIVER,PERIPH,DUAL,	2	E11,E12
23	23		1911469-00	DEC 8640 RECEIVER,BUS,QUAD,U	3	E9,E15,E16
24	24		7418023-00	BRACKET SWITCH	1	
25	25		9006735-00	EYELET, FUNNEL FLANGE, .059 OD X	14	
26	26	USED ON S1-S5.	9008437-00	*** THIS ITEM IS NOT USED ***	-	
27	27		9006021-01	SCREW,PAN,PHIL 6-32X 5/16 SS	2	
28	28		9006709-00	*** THIS ITEM IS NOT USED ***	-	
29	29		9006560-00	NUT,KEP , 6-32 X5/16AF	2	
30	30	SEE NOTE.	1210495-00	WASHER MOUNT LIGHT EMIT DIODE	17	

REVISION HISTORY			BASIC PART NO: 5412989			DRN: S. TUTTLE			DATE: 7-27-78			DIGITAL		
ENG	ECO NUMBER	REV	SECTION A	OF A	CHK'D:	P. BOSSMAN	DATE:	10-23-78	TITLE	PARTS LIST				
---	INIT	D	SECTION	VARIATION INDEX	CHK'D:	P. BOSSMAN	DATE:	10-23-78	TITLE	PARTS LIST				
J.R.	5412989-ML001	E	[A]	00					MOTHER BOARD TS04					
RN	5412989-ML002	F	[B]											
			[C]		DES.ENG:	J. ROLLINS	DATE:	10-23-78						
			[D]											
			[E]											
			[F]		RESP.ENG.:	J. ROLLINS	DATE:	10-23-78						
			[H]											
			[J]											
			[K]		MFG.ENG.:	P. BARTON	DATE:	10-23-778	K	PL	5412989-0-DBP	F		
			[L]											
			[M]		ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:		EDIT #:			
			[N]		E-UA-5412989-0-0		TS04		Z0301F.PLS		14			

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AUTOMATED BY PRTLST.2E(2)

PARTS LIST

SHEET A2 OF A2

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
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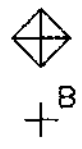
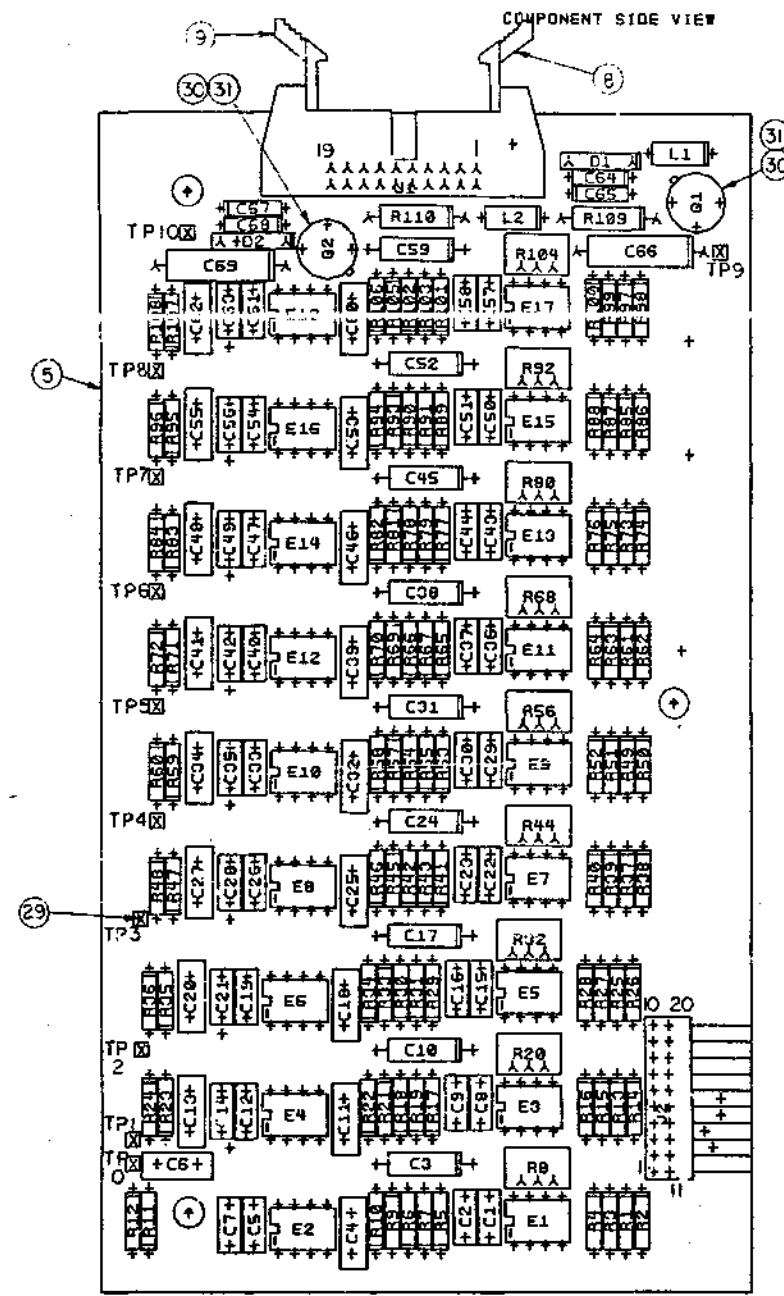
31	31	9107370-00	WIRE,STRND,14AWG,IPVC	UL1534	A/R
----	----	------------	-----------------------	--------	-----

32 NOTE: ITEM #30 USED UNDER D1-D16,D18.

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							MOTHER BOARD TS04		K	PL	5412989-0-DBP	F

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0-0-2570 0-0-2570 2 1



NOTES:
 1. NO GR TEST REQUIRED.
 2. SPECIAL TESTER G057 REQUIRED.

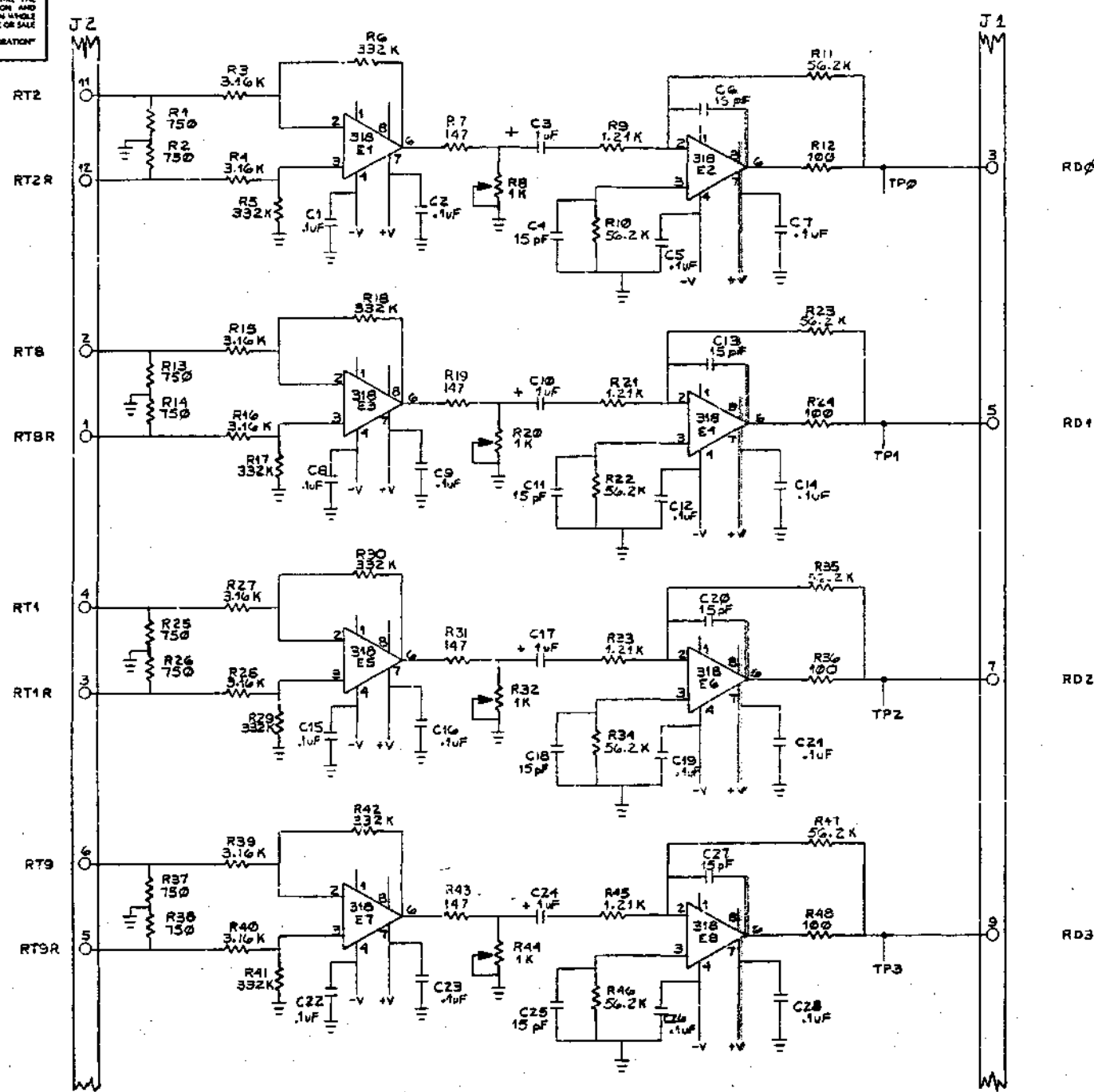
CHK	CHANGE NO	REV	REVISION	DATE
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			REWORKED	
			REWORKED	
			REWORKED	
			REWORKED	
			REWORKED	
			REWORKED	
			REWORKED	
			REWORKED	
			REWORKED	

ETCH REV. 0
P.C. DESIGN DATA BASE REV. D-PI

SIGNATURES	DATE	TITLE
DRN. P. NICHOLLS	7-18-78	digital TS04 PRE-AMP
CHK'D. <i>[Signature]</i>	7-23-78	
ENG. <i>[Signature]</i>	7-28-78	
PROJ. ENG. <i>[Signature]</i>	7-28-78	
PROD. <i>[Signature]</i>		
SCALE 2:1		SIZE CODE
SHT. 1 OF 3		NUMBER
NEXT HIGHER ASSY. B-DD-G057-0-0		REV

MS#80808

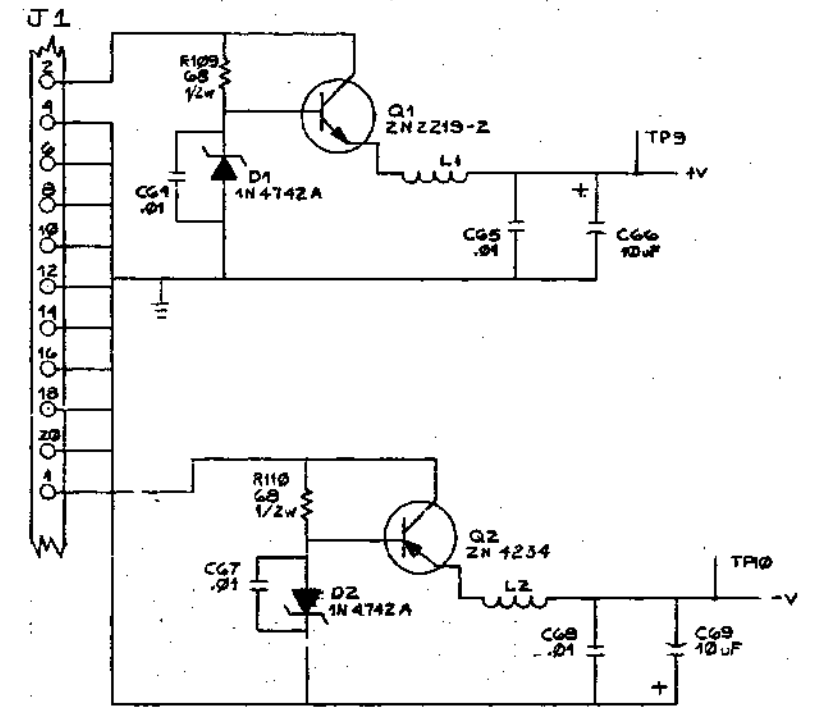
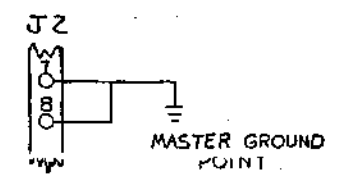
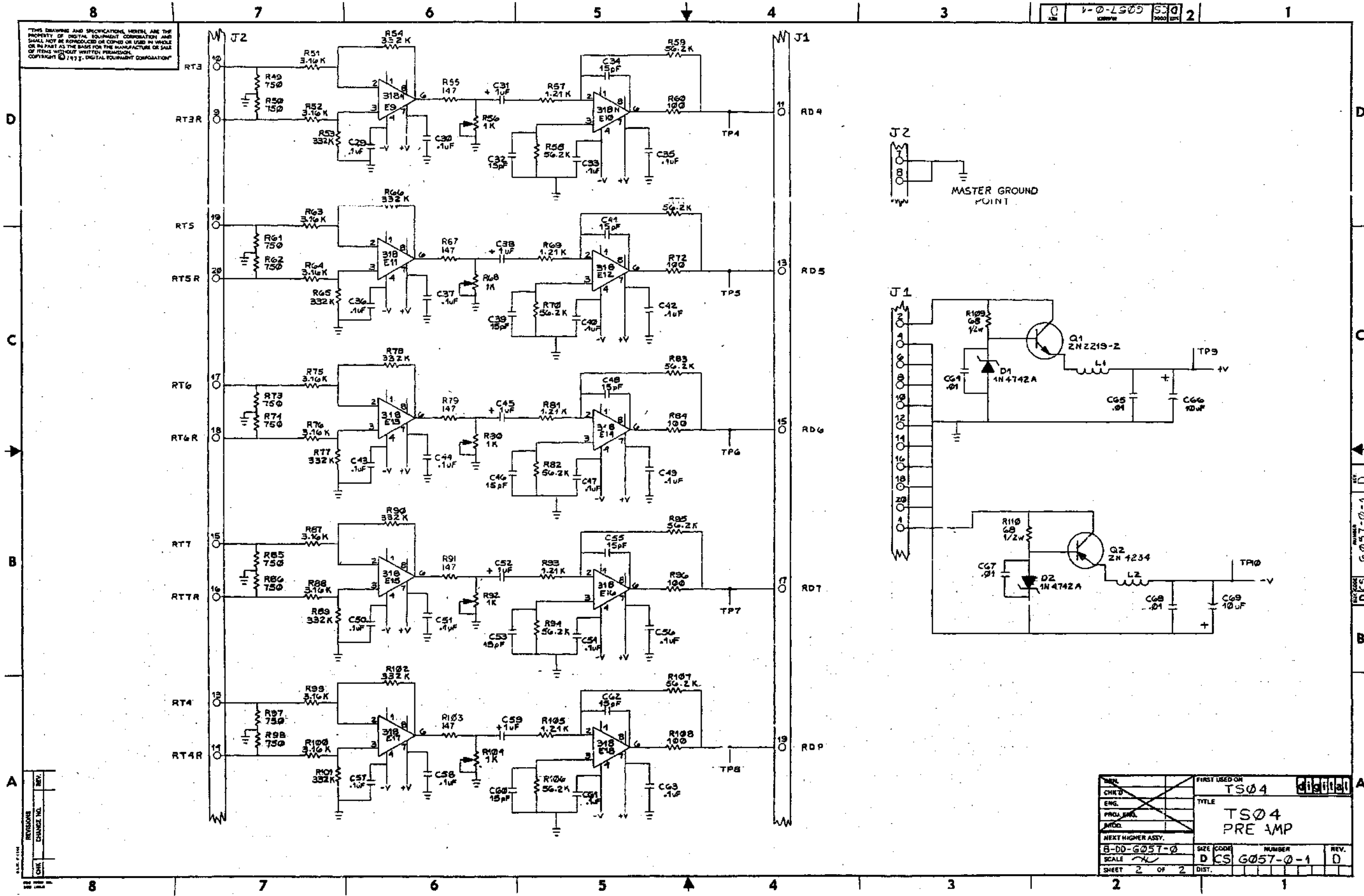
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REV.	DATE	BY	CHK'D	REVISIONS
1				REVISED AND REDRAWN
2				REVISED AND REDRAWN
3				REVISED AND REDRAWN
4				REVISED AND REDRAWN
5				REVISED AND REDRAWN
6				REVISED AND REDRAWN
7				REVISED AND REDRAWN
8				REVISED AND REDRAWN

DRN. S. EVANS	6-29-76	FIRST USED ON	TS04	digital
CHK'D	8-24-76	TITLE	TS04	
ENG. J. ROBINSON	8-23-76			
PROJ. ENG. J. ROBINSON	9-25-76			
NEXT HIGHER ASSY.				
B-DD-G057-0		SIZE	D	CODE
SCALE		D	CS	NUMBER
SHEET 1 OF 2		DIST.	G057-0-1	REV.
				D

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REV.	
CHANGE NO.	
REVISION	

CHK'D		FIRST USED ON	TS04
ENG.		TITLE	TS04 PRE AMP
PROJ. ENG.			
W/C			
NEXT HIGHER ASSY.		SIZE CODE	NUMBER
B-D0-G057-0		D CS	G057-0-1
SCALE		DIST.	
SHEET 2 OF 2			

AUTOMATED BY PRTLST.2E(3)

PARTS LIST

SHEET A1 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
1	1	D-CS-G057-0-1		CIRCUIT SCHEMATIC			REF
2	2	D-UA-G057-0-0		UNIT ASSEMBLY			REF
3	3	B-DD-G057-0-0		DRAWING DIRECTORY			REF
4	4	D-MD-5011944-0-0		DRILL & ETCH DRAWING			REF
5	5		5011944-00	G057	1		
6	6		1002427-00	15.0 MMF 100V 5%200PPM MICA	18		C4, C6, C11, C13, C18, C20, C25, C27, C32, C34, C39, C41, C46, C48, C53, C55, C60, C62
7	7		121348E-02	CONN 20POS HOUSING, STRAIGH	1		J2
8	8		1209941-03	HEADER RT ANGLE LEFT L	1		
9	9		1209941-04	HEADER RT ANGLE RIGHT	1		
10	10		1209941-06	HEADER.100 20POS RT ANGLE	1		J1
11	11		1910735-02	318 OP AMP	18		E1-E18
12	12		1001610-00	.01 MFD 50V +80-20% 25U CER	4		C64, C65, C67, C68
13	13		1010978-36	.1 MFD 50V 10% CER	36		C1, C2, C5, C7, C8, C9, C12, C14, C15, C16, C19, C21, C22, C23, C26, C28, C29, C30, C33, C35, C36, C37, C40, C42, C43, C44, C47, C49, C50, C51, C54, C56, C57, C58, C61, C63
14	14		1001776-00	1 MFD 35V 10% S.TANT	9		C3, C10, C17, C24, C31, C38, C45, C52, C59
15	15		1004813-00	10 MFD 20V 10% S.TANT	2		C66, C69
16	16		1109502-02	1N 4742A VZ= 12.0 5% 1W	2		D1, D2
17	17		1302874-00	147.0 .25 W 1.0 % RN55D-F10	9		R7, R19, R31, R43, R55, R67, R79, R91, R103
18	18		1309405-00	68.0 .50 W 5.0 % CC	2		R109, R110
19	19		1302858-00	100.0 .25 W 1.0 % RN55D-F10	9		R12, R24, R36, R48, R60, R72, R84, R96, R108
20	20		1302955-00	750.0 .25 W 1.0 % RN55D-F10	18		R1, R2, R13, R14, R25, R26, R37, R38, R49, R50, R61, R62, R73, R74, R85, R86

REVISION HISTORY		BASIC PART NO: OG057		DRN: J. FITZGERALD		DATE: 19-SEP-78		D I G I T A L			
ENG:	ECO NUMBER	REV	SECTION A OF A	CHK'D:	P. KENDRICK	DATE:	19-SEP-78	TITLE PARTS LIST			
CL	INIT	C	SECTION VARIATION INDEX					DOCUMENT NUMBER			
J.R.	G057-ML002	D	(A) 00					SIZE: CODE: NUMBER REV			
			(B)	DES. ENG: J. ROLLINS		DATE: 19-SEP-78					
			(C)	RESP. ENG.: M. F.		DATE: 19-SEP-78					
			(D)	MFG. ENG.: G. DILLARD		DATE: 19-SEP-78		K PL G057-0-DBP D			
			(E)	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #			
			(F)	D-UA-G057-0-0		TS04		Z02000.PLS 8			
			(G)	<p>THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.</p> <p>COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION</p>							
			(H)								
			(I)								
			(J)								

AUTOMATED BY PRTLST.2E(3)

PARTS LIST

SHEET A2 OF A2

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
21	21	1302871-00	1.21 K .25 W 1.0 % RN55D-F10	9	CONT R97, R98 R9, R21, R33, R45, R57, R69, R81, R93, R105
22	22	1303045-00	3.16 K .25 W 1.0 % RN55D-F10	18	CONT R3, R4, R15, R16, R27, R28, R39, R40, R61, R62, R63, R64, R75, R76, R87, R88, R99, R100
23	23	1312747-00	56.20 K .25 W 1.0 % RN55D-F10	18	CONT R10, R11, R22, R23, R34, R35, R46, R47, R58, R59, R70, R71, R82, R83, R94, R95, R106, R107
24	24	1312985-00	332.0 K .25 W 1.0 % RN55D-F10	18	CONT R5, R6, R17, R18, R29, R30, R41, R42, R53, R54, R65, R66, R77, R78, R89, R90, R101, R102
25	25	1315900-00	1.0 K .50 W 10.0 % POT	9	CONT R8, R20, R32, R44, R56, R68, R80, R92, R104
26	26	1501883-00	DEC2219-2 NPN 3WC SI 30100 M	1	Q1
27	27	1504809-00	2N 4234 PNP 5W TO-5	1	Q2
28	28	1611257-01	CHOKE (CERAMIC BEAD) AXIAL LEAD, ON	2	L1, L2
29	29	1210385-01	PIN 1POS WIRE WRAP	11	TP0-TP10
30	30	1210001-00	HEAT SINK BLACK	2	
31	31	9007201-00	TRANSIPADS #10253	2	

32 NOTE: USED ON: OPTION/MODEL TSD4

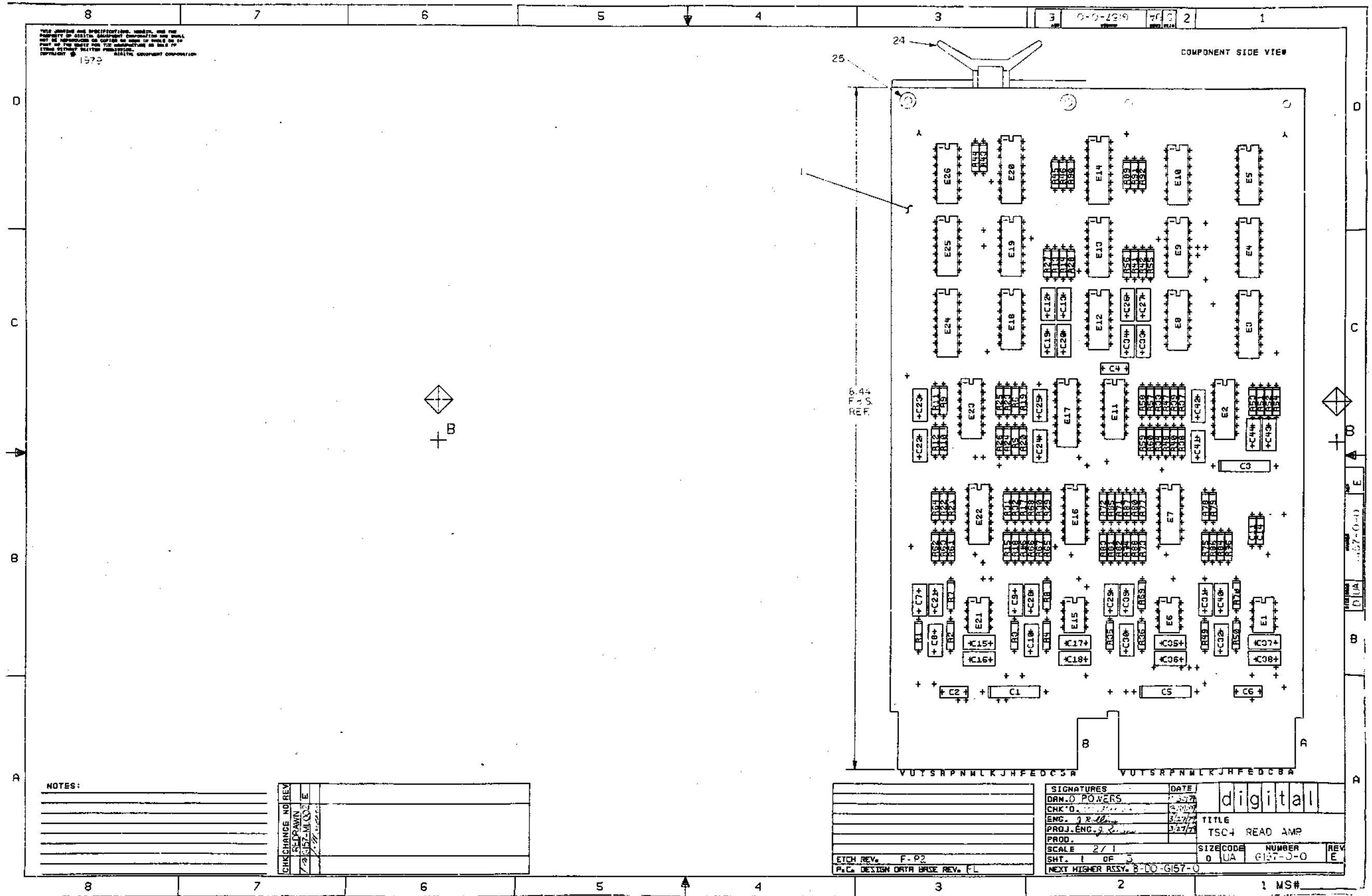
D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							TSD4 PRE-AMP		K	PL	G057-0-DBP	0

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1579

9-9-72 1/2 2

COMPONENT SIDE VIEW



NOTES:

CHANGE NO	REV

ETCH REV.	F-P2
DESIGN ORTR	BASE REV. FL

SIGNATURES	DATE	digital
DRN. D. POWERS	3/27/72	
CHK'D.	3/27/72	TITLE
ENG. J. R. ...	3/27/72	TSC4 READ AMP
PROJ. ENG. J. ...	3/27/72	SIZE CODE
		NUMBER
		REV
		E

8

7

6

5

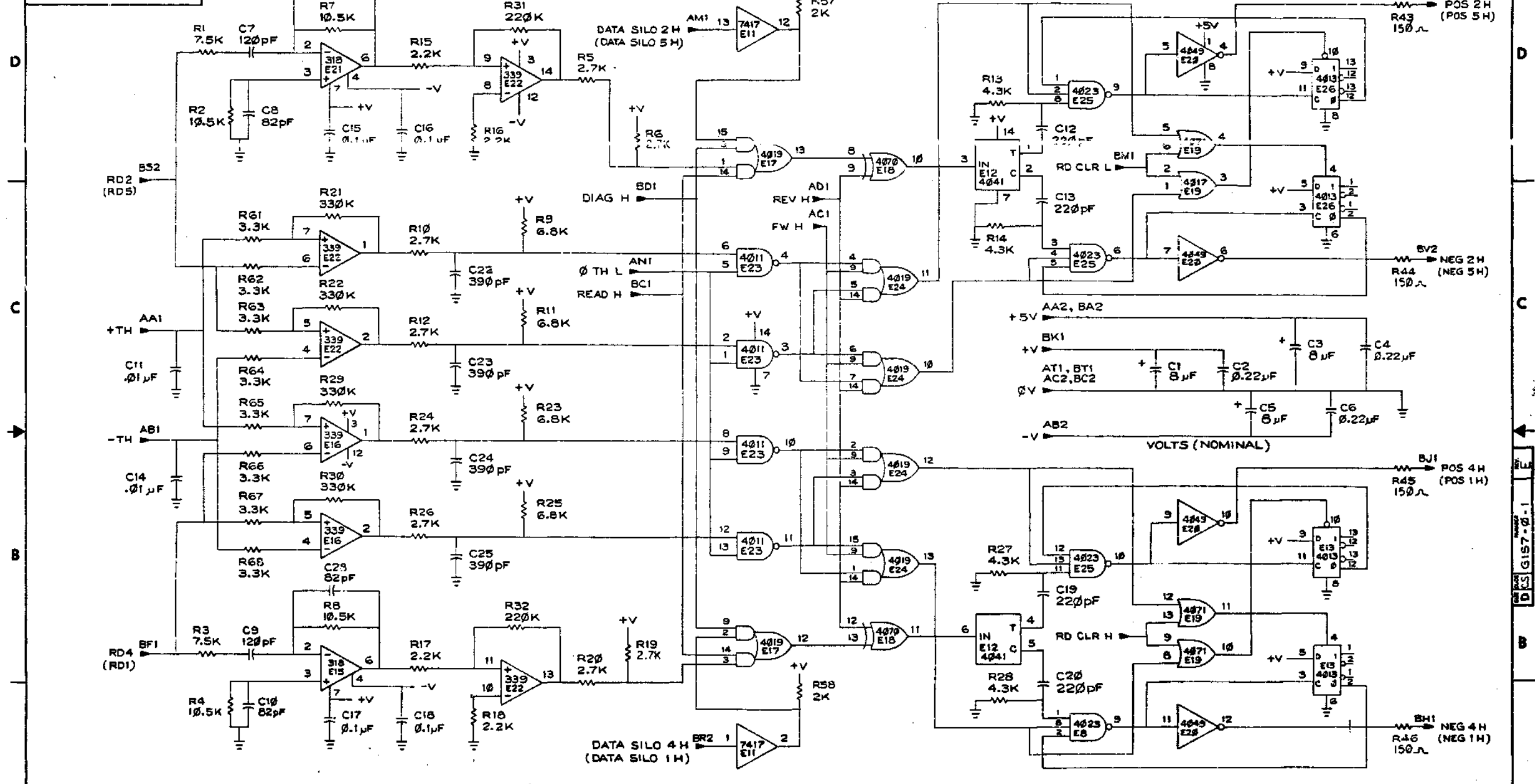
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3

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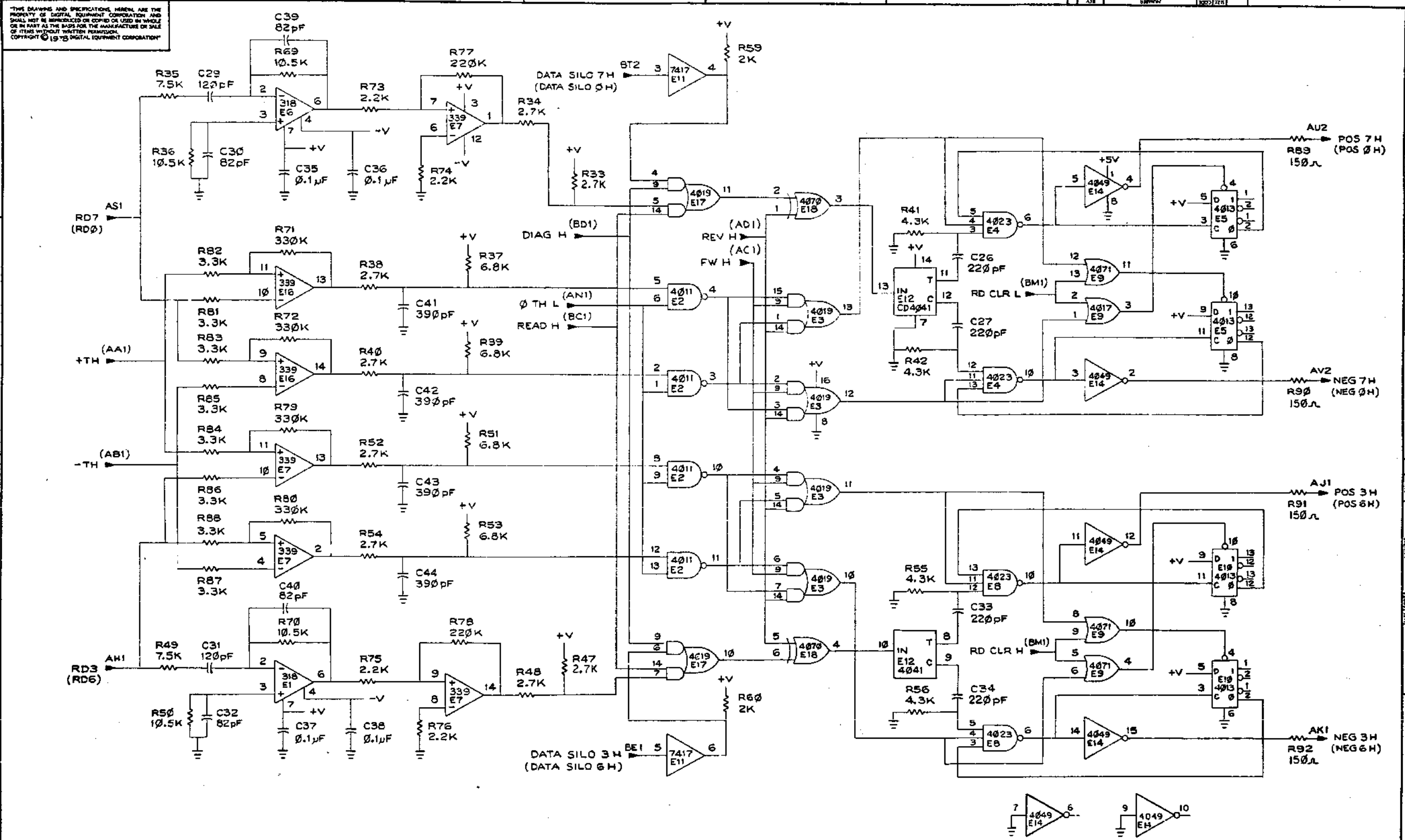
1 MS#

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REV.	REV.
CHANGE NO.	REVISED BY
DATE	DATE
BY	BY
BY	BY
BY	BY

DRN. J. CARTER	6-97	FIRST USED ON	TS04
CHK'D. <i>[Signature]</i>	10-2-78	TITLE	TS04
ENGR. <i>[Signature]</i>	10-10-78	TITLE	TS04
PROJ. ENG. <i>[Signature]</i>	10-10-78	TITLE	TS04
PROB. <i>[Signature]</i>	10-10-78	TITLE	TS04
NEXT HIGHER ASSY.			
B-00-G157-0	SIZE	CODE	NUMBER
SCALE	D	CS	G157-0-1
SHEET 1	OF 2	DIST.	
			REV. E



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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	TS04 READ AMP	SIZE/COO	D CS	NUMBER	G157-0-1	REV.	E
SCALE		SHEET	2 OF 2	DIST.			

NO. 26 3323 ET

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
				00	
1	1	D-MD-5011898-0-0	5011898-00 G157	1	
2	2		1013292-00 *** THIS ITEM IS NOT USED ***	-	
3	3		1010274-01 .22 MFD 50V -20+80 ZSU CER	3	C2,C4,C6
4	4		1004813-00 *** THIS ITEM IS NOT USED ***	-	
5	5		1000016-00 *** THIS ITEM IS NOT USED ***	-	
6	6		1000006-00 *** THIS ITEM IS NOT USED ***	-	
7	7		1100114-00 *** THIS ITEM IS NOT USED ***	-	
8	8		1300271-00 *** THIS ITEM IS NOT USED ***	-	
9	9		1300365-00 *** THIS ITEM IS NOT USED ***	-	
10	10		1301423-00 6.8 K 1/4W 5% CC	8	R9,R11,R23,R25,R37,R39,R51,R53
11	11		1300426-00 2.7 K 1/4W 5% CC	16	R5,R10,R12,R20,R24,R26,R34,R38, CONT R40,R48,R52,R54,R6,R19,R33,R47
12	12		1302466-00 *** THIS ITEM IS NOT USED ***	-	
13	13		1300479-00 *** THIS ITEM IS NOT USED ***	-	
14	14		1302398-00 *** THIS ITEM IS NOT USED ***	-	
15	15		1302389-00 4.3 K 1/4W 5% CC	8	R13,R14,R27,R28,R41,R42,R55,R56
16	16		1910735-02 318 OP AMP	4	E1,E6,E15,E21
17	17		1912108-00 33V VOLT CMPRTR,QUAD	3	E7,E16,E22
18	18		2113612-00 4019B AND-OR SELECT GATE-Q	3	E3,E17,E24
19	19		2113634-00 4070B X-OR GATE-QUAD CMOS	1	E18
20	20		2113607-00 4011UBNAND GATE-QUAD 2IN C	2	E2,E23
21	21		2113621-00 4041B BUFFER GATE-QUAD TRU	1	E12
22	22		2113627-00 4049UBINVERTER-HEX BUFFER-	2	E14,E20
23	23		2113635-00 4071B OR GATE-QUAD 2IN CMO	2	E9,E19
24	24		9008337-01 HANDLE, FLIP CHIP, GREEN	2	
25	25		9006732-00 EYELET, ROLLED FLANGE, .121 OD X	4	
26	26		1302388-00 2 K 1/4W 5% CC	4	R57-R60
27	27		1909929-00 7417 BUFFER GATE-HEX 1INP	1	E11
28	28		2113609-00 4013B FF-D DUAL W/SET/RESE	4	E5,E10,E13,E26

REVISION HISTORY		BASIC PART NO: 0G157		DRN: P. KENDRICK		DATE: 16-SEP-78		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	P. BOSSMAN	DATE:	16-SEP-78	TITLE	PARTS LIST
C.L.	G157-ML001	D	SECTION VARIATION INDEX	CHK'D:	P. BOSSMAN	DATE:	16-SEP-78	TITLE	PARTS LIST
	G157-ML002	E	[A] 00					TS04 READ AMP	
			[B]	DES.ENG:	H. FINDEISEN	DATE:	16-SEP-78		
			[C]						
			[D]	RESP.ENG.:	H. FINDEISEN	DATE:	16-SEP-78	DOCUMENT NUMBER	
			[E]						
			[F]						
			[G]						
			[H]						
			[I]	MFG.ENG.:	G. DILLARD	DATE:	16-SEP-78	SIZE!CODE! NUMBER	REV
			[J]					K ! PL ! G157-0-DBP	E
			[K]	ASSEMBLY NUMBER:				FILE NAME:	EDIT #
			[L]	D-UA-G157-0-0				Z0476E.PLS	7

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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
29	29		2113613-00	4023B NAND GATE-TRIPLE 3IN	3	E4,E8,E25
30	30		9105740-55	*** THIS ITEM IS NOT USED ***	-	
31	31	B-DD-G157-0-0		DRAWING DIRECTORY	REF	
32	32	D-CS-G157-0-1		CIRCUIT SCHEMATIC	REF	
33	33		1305322-00	7.5 K 1/4W 1% RN55D-F 100PPM	4	R1,R3,R35,R49
34	34		1300417-00	2.2 K 1/4W 5% CC	8	R15-R18,R73-R76
35	35		1312987-00	10.5 K 1/4W 1% RN55D-1052F	8	R2,R4,R7,R8,R36,R50,R69,R70
36	36		1300439-00	3.3 K 1/4W 5% CC	16	R61-R68,R81-R88
37	37		1302092-00	220 K 1/4W 5% CC	4	R31,R32,R77,R78
38	38		1000018-00	120.0 MMF 100V 5%200PPM DM15S	4	C7,C9,C29,C31
39	39		1000015-00	82.0 MMF 100V 5%200PPM DM15S	8	C8,C10,C21,C28,C30,C32,C39,C40
40	40		1001610-00	.01 MFD 50V -20+80 Z5U AXIAL	2	C11,C14
41	41		1010978-36	.1 MFD 50V 10% 2C067 CER	8	C15-C18,C35-C38
42	42		1001631-00	390.0 MMF 100V 5%200PPM DM15S	8	C22-C25,C41-C44
43	43		1302091-00	330 K 1/4W 5% CC	8	R21,R22,R29,R30,R71,R72,R79,R80
44	44		1300250-00	150 1/4W 5% CC	8	R43-R46,R89-R92
45	45		1012084-01	8 MFD 25V 6% 30D AL EL	3	C1,C3,C5
46	46		1000021-00	220.0 MMF 100V 5%200PPM DM15S	8	C12,C13,C19,C20,C26,C27,C33,C34
*****				RELEASABLE	*****	

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							TS04 READ AMP		K	PL	G157-0-DBP	E

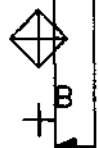
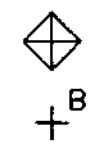
This drawing and specifications, when used in conjunction with the contract, shall constitute the entire agreement between the parties. Any change in the contract or specifications shall be made in writing and signed by the parties. This drawing shall be used for the manufacture of the product. © 1978

COMPONENT SIDE VIEW

4.50 REF.

8.54 REF.

58, 59, 61
60
57
5



- NOTES:
1. THIS BOARD MUST MEET U.L. REQUIREMENTS.
 2. ECO-ML004 REWORK INSTRUCTIONS NOT REQUIRED PER ENGINEER BOB NUTE.

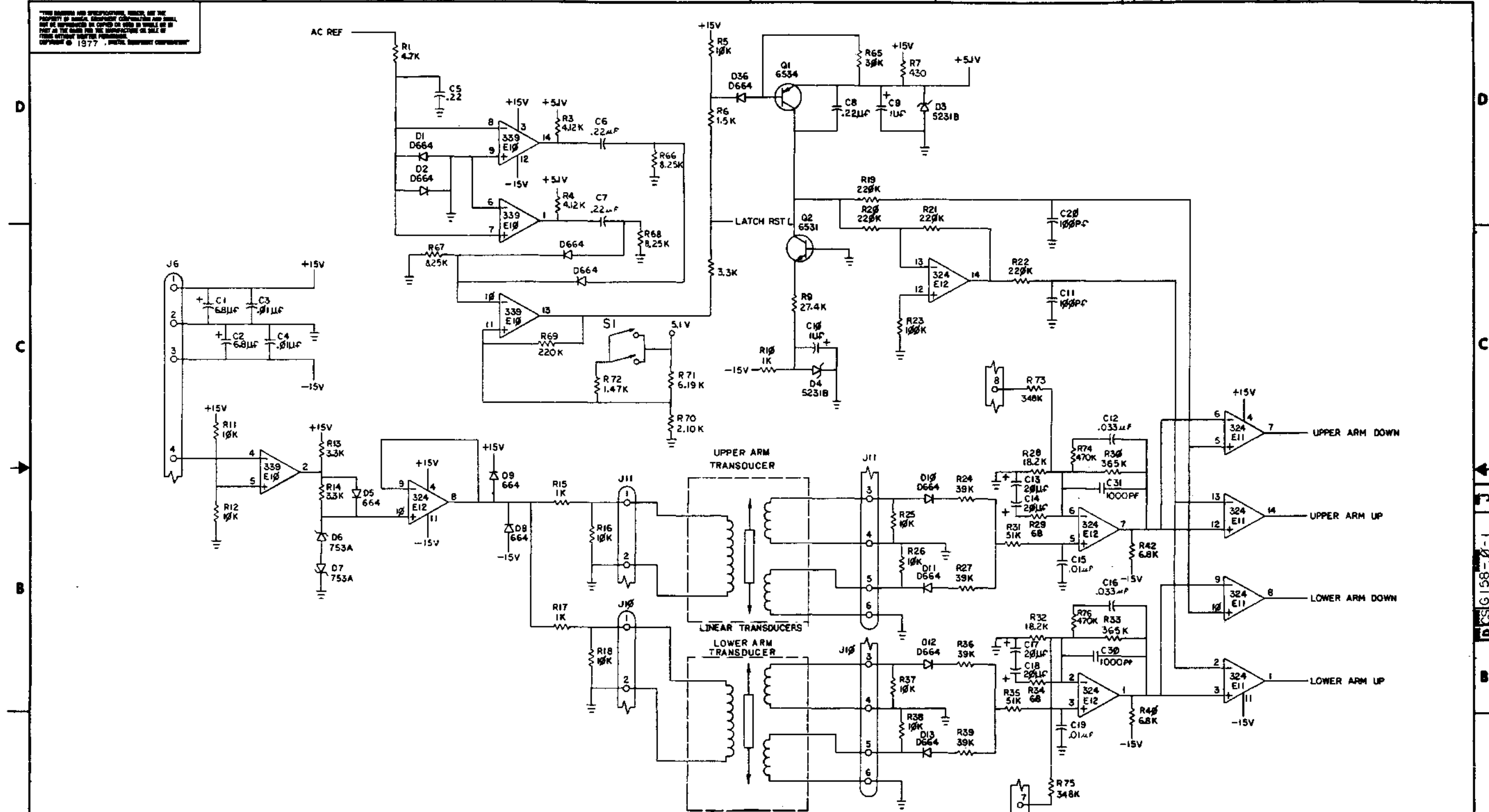
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0158-PL002	F	05/09/78	M. LUCINA		
0158-PL003	H	05/09/78	M. LUCINA		
0158-PL004	J	05/09/78	M. LUCINA		
0158-PL005	K	05/09/78	M. LUCINA		
0158-PL006	L	05/09/78	M. LUCINA		

ETON REV. F - P1
P.C. DESIGN DATA BRSE REV. F

SIGNATURES	DATE	TITLE
DRN: D. Dingleton	05/09/78	digital
CHK'D: [Signature]	05/09/78	
ENG. [Signature]	05/09/78	
PRG. ENG. [Signature]	05/09/78	
PROD. [Signature]	05/09/78	
SCALE 2X		
SHT. 1 OF 3		
NEXT HIGHER ASSY.		
SIZE CODE	NUMBER	REV
D UA G158-0-0	J	

ML2 1 MS#

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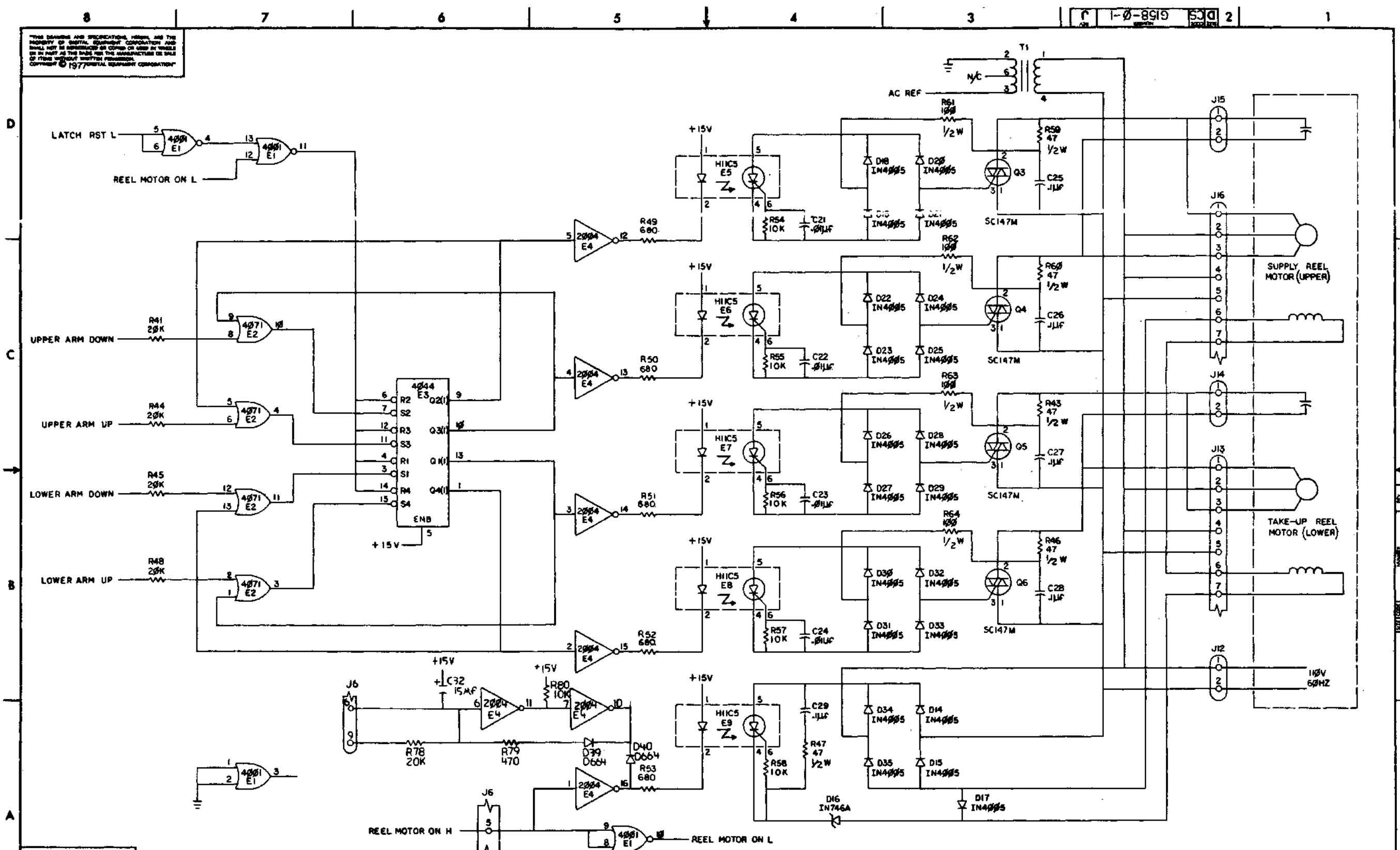


REV.	DATE	BY	CHKD.
1	11/14/77	B. NUTE	
2	12/14/77	B. NUTE	
3	1/12/78	B. NUTE	
4	2/1/78	B. NUTE	
5	2/1/78	B. NUTE	
6	2/1/78	B. NUTE	
7	2/1/78	B. NUTE	
8	2/1/78	B. NUTE	

DRW. SIZE	11-4-77	FIRST USED ON	TS04
CHKD.	12/14/77	TITLE	TS04 REEL SERVO
ENG.	12/7/77	SCALE	1/1
PROJ. ENG.	12/7/77	SIZE	CS
PROD. BY		NUMBER	G158-0-1
NEXT HIGHER ASSY.		REV.	J
B-00-G158-0		SHEET	1 OF 2
ML2			

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1-0-8919 SCID 2



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: TS04 REEL SERVO
 SIZE CODE: DCS
 NUMBER: G158-0-1
 REV: J
 SCALE: 1/1
 SHEET 2 OF 2
 DIST. ML 2

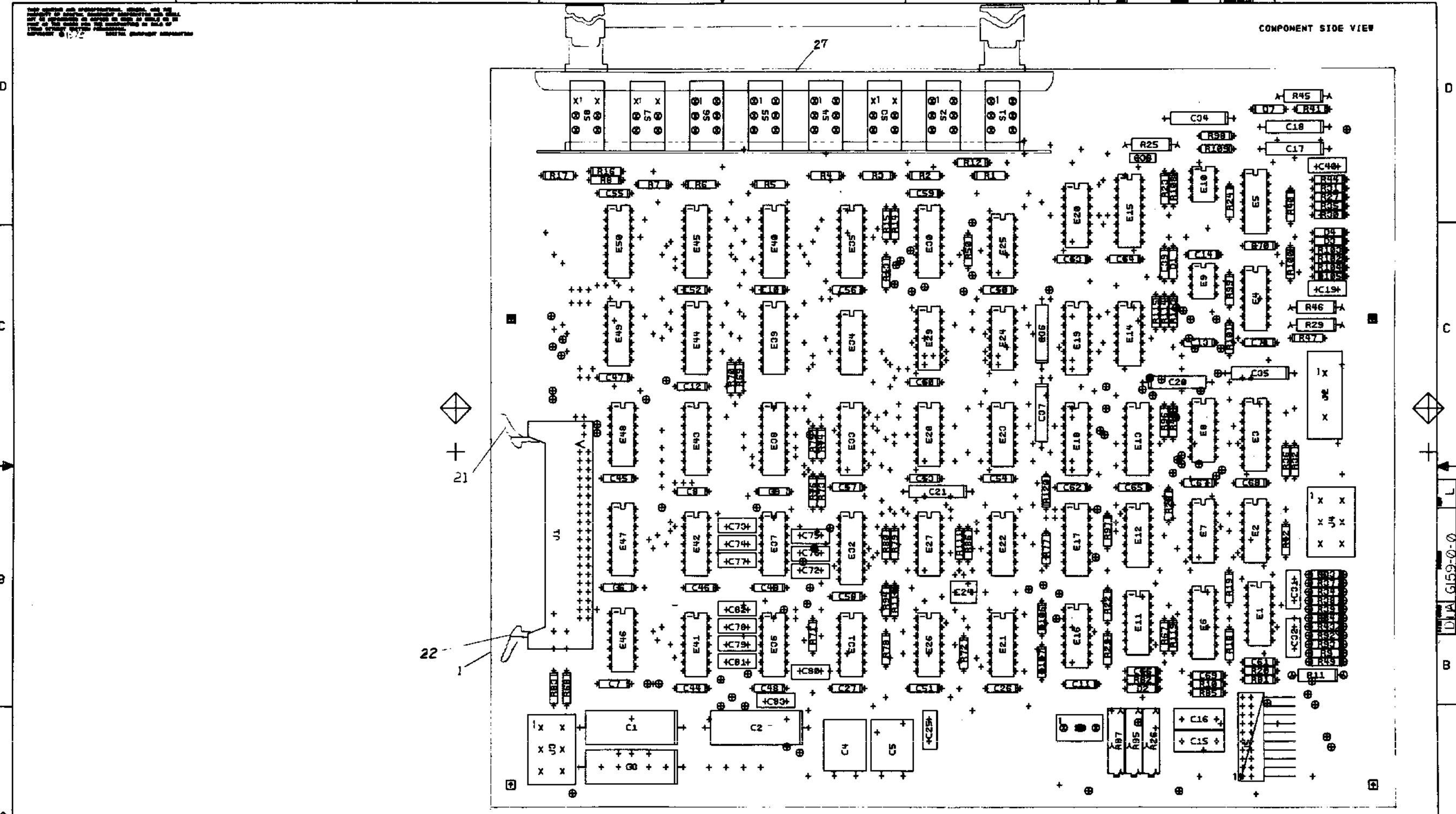
DCS G158-0-1 J

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
1	1	D-CS-G158-0-1		CIRCUIT SCHEMATIC			
2	2	D-UA-G158-0-0		UNIT ASSY			
3	3	B-DD-G158-0-0		DWG DIRECTORY			
4	4	D-MD-5011917-0-0		DRILL & ETCH DWG			
5	5		5011917-00	G158			
6	6		1000002-01	20 MFD 50V 5% S.TANT	4		C13,C14,C17,C18
7	7		1000016-00	100.0 MMF 100V 5%200PPM NICA	2		C11,C20
8	8		1000050-00	.033 MFD 100V 10% MYLR	2		C12,C16
9	9		1001610-00	.01 MFD 50V +80-20% 25U CER	6		C3,C4,C21-C24
10	10		1001776-00	1 MFD 35V 10% S.TANT	2		C9,C10
11	11		1002630-00	*** THIS ITEM IS NOT USED ***	1		
12	12		1005306-00	6.8MFD 35V 10% S.TANT	2		C1,C2
13	13		1005784-00	.01 MFD 100V 10% MYLR	2		C15,C19
14	14		1010031-03	.22 MFD 50V 10% M.POLYCARB	4		C8,C5,C7,C5
15	15		1010075-00	.1 MFD 400V 20% MYLR	5		C25-C29
16	16		1100114-00	D 664 Q5\75PCB PIV= 25V SP	12		D1,D2,D5,D8-D13,D36,D37,D39
17	17		1102421-00	1N 753A VZ= 6.2 5% .40W P	2		D6,D7
18	18		1104860-00	1N 746A VZ= 3.3 5%	1		D16
19	19		1109443-00	1N 5231B VZ= 5.1 5% .50W Y	2		D3,D4
20	20		1110967-00	1N 4005 PIV=600 I= 1A 0041 SI	2		D14,D15,D17-D35
21	21		1114344-00	H11C5 SCR2400V I=10A	5		E5-E9
22	22		1212297-00	MATE-N-LOK 2PIN UNIV HEADER	3		J12,J14,J15
23	23		1212297-02	MATE-N-LOK 9PIN UNIV HEADER	3		J13,J16,J6
24	24		1212297-05	*** THIS ITEM IS NOT USED ***	1		
25	25		1213488-01	CONN 6PIN HOUSING STRAIGH	2		J10,J11
26	26		1300219-00	68.0 .25 W 5.0 % CC	2		R29,R34
27	27		1300229-00	100.0 .50 W 5.0 % CC	4		R61-R64
28	28		1300365-00	1.0 K .25 W 5.0 % CC	3		R10,R15,R17
29	29		1300391-00	1.50 K .25 W 5.0 % CC	1		R5
30	30		1300439-00	3.30 K .25 W 5.0 % CC	3		R13,R14,R77

REVISION HISTORY		BASIC PART NO: 0G158		DRN: P.KENDRICK	DATE: 19-DEC-77	DIGITAL	
ENG:	ECO NUMBER	REV	SECTION A OF A	CHK'D: R.A.M.	DATE: 19-DEC-77	TITLE PARTS LIST	
	INIT	D	SECTION VARIATION INDEX			TS04 REEL SERVO	
J.R.	G158-M1001	E	(A) 00				
M.C.	G158-M1002	F	(B)				
BN	G158-M1003	H	(C)				
				DES.ENG: H.FINDEISEN	DATE: 02-MAR-78	DOCUMENT NUMBER	
				RESP.ENG.: H.FINDEISEN	DATE: 02-MAR-78	SIZE: K	PL: PL
				MFG.ENG.: P.BARTON	DATE: 02-MAR-78	NUMBER: G158-0-DBP	REV: H
				ASSEMBLY NUMBER: D-UA-G158-0-0	TOP DOCUMENT NUMBER: TS04	FILE NAME: 20464H.PLS	EDIT #: 21
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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
31	31		1300447-00	4.70 K .25 W 5.0 % CC	1		R1
32	32		1300479-00	10.0 K .25 W 5.0 % CC	14		R5, R11, R12, R16, R18, R25, R26, R37, R38, R54-R58
				*** THIS ITEM IS NOT USED ***	-	CONT	
33	33		1313349-00	6.80 K .25 W 5.0 % CC	2		R40, R42
34	34		1301423-00	17.0 K .25 W 5.0 % CC	2		R59, R60, R43, R46, R47
35	35		1301695-00	17.0 K .25 W 5.0 % CC	5		R19-R22, R69
36	36		1302092-00	220.0 K .25 W 5.0 % CC	1		
37	37		1302177-00	*** THIS ITEM IS NOT USED ***	-		
38	38		1302391-00	20.0 K .25 W 5.0 % CC	4		R41, R44, R45, R48
39	39		1302394-00	30.0 K .25 W 5.0 % CC	1		R65
40	40		1302465-00	*** THIS ITEM IS NOT USED ***	-		
41	41		1302466-00	100.0 K .25 W 5.0 % CC	1		R23
42	42		1302514-00	39.0 K .25 W 5.0 % CC	4		R24, R27, R36, R39
43	43		1304839-00	51.0 K .25 W 5.0 % CC	2		R31, R35
44	44		1305130-00	*** THIS ITEM IS NOT USED ***	-		
45	45		1309417-00	27.40 K .25 W 1.0 % RN55D-F10	1		R9
46	46		1312933-00	*** THIS ITEM IS NOT USED ***	-		
47	47		1503409-01	DEC65348 PNP 310MW SI 40 90 P	1		Q1
48	48		1509338-00	DEC65318 NPN 310MW SI 40 90 P	1		Q2
49	49		1514341-00	ULN2004A NPN 1W SI ARRAY	1		E4
50	50		1514342-00	*** THIS ITEM IS NOT USED ***	-		
51	51		1609844-00	XFMR P=A S= 12.6310HA	1		T1
52	52		1912107-01	324ANOP ANP, QUAD	2		E11, E12
53	53		1912108-00	339 VOLT CAPTR, QUAD	1		E10
54	54		2113603-00	4001UBNOR GATE-QUAD 2IN CH	1		E1
55	55		2113624-00	4044B NAND R/S LATCH, QUAD	1		E3
56	56		2113635-00	4071B OR GATE-QUAD 2IN CH	1		E2
57	57		7418017-00	HEAT SINK	1		HS1
58	58		9006011-04	SCREW BIND, SLOT 4-40X 3/8 SS	4		
59	59		9006557-00	NUT KEP 4-40X 1/4 AF	4		
60	60		9009268-00	COMPOUND, THERMAL JOINT	A/R		
61	61		9009769-00	WASHER, RECTANGULAR .405X.225X.0	4		
62	62		1312992-00	*** THIS ITEM IS NOT USED ***	-		
63	63		1313150-00	430.0 .25 W 5.0 % CC	1		R7
64	64		1302398-00	470.0 K .25 W 5.0 % CC	2		R74, R76
65	65		1305325-00	8.25 K .25 W 1.0 % RN55D-F10	3		R66, R67, R68
66	66		1312923-00	2.10 K .25 W 1.0 % RN55D-F10	1		R70
67	67		1305108-00	1.47 K .25 W 1.0 % RN55D-F10	1		R72
68	68		1314187-00	6.19 K .25 W 1.0 % RN55D-F10	1		R71
69	69		1211164-07	SW, DIP 1P 1A 2POS	1		S1
70	70		1000042-00	1000.0 MMF 100V 5%200PPM MICA	2		C30, C31
71	71		1314763-00	4.12 K .25 W 1.0 % RN55D-F10	2		R3, R4
72	72		1316576-00	348.0 K .25 W 1.0 % RN55D-F10	2		R73, R75
73	73		1305266-00	365.0 K .25 W 1.0 % RN55D-F10	2		R30, R33
74	74		1309412-00	18.20 K .25 W 1.0 % RN55D-F10	2		R28, R32
75	75		1514342-01	TRIAC 600V 10A	4		Q3-Q6
76	76		1301424-00	680.0 .25 W 5.0 % CC	5		R49-R53

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							TS04 REEL SERVO		K	PL	G158-0-DBP	H



COMPONENT SIDE VIEW

NOTES:

STEP 1	+ Y AXIS	STEP 1	TIMES
REPORT	+ X AXIS	STEP 1	TIMES

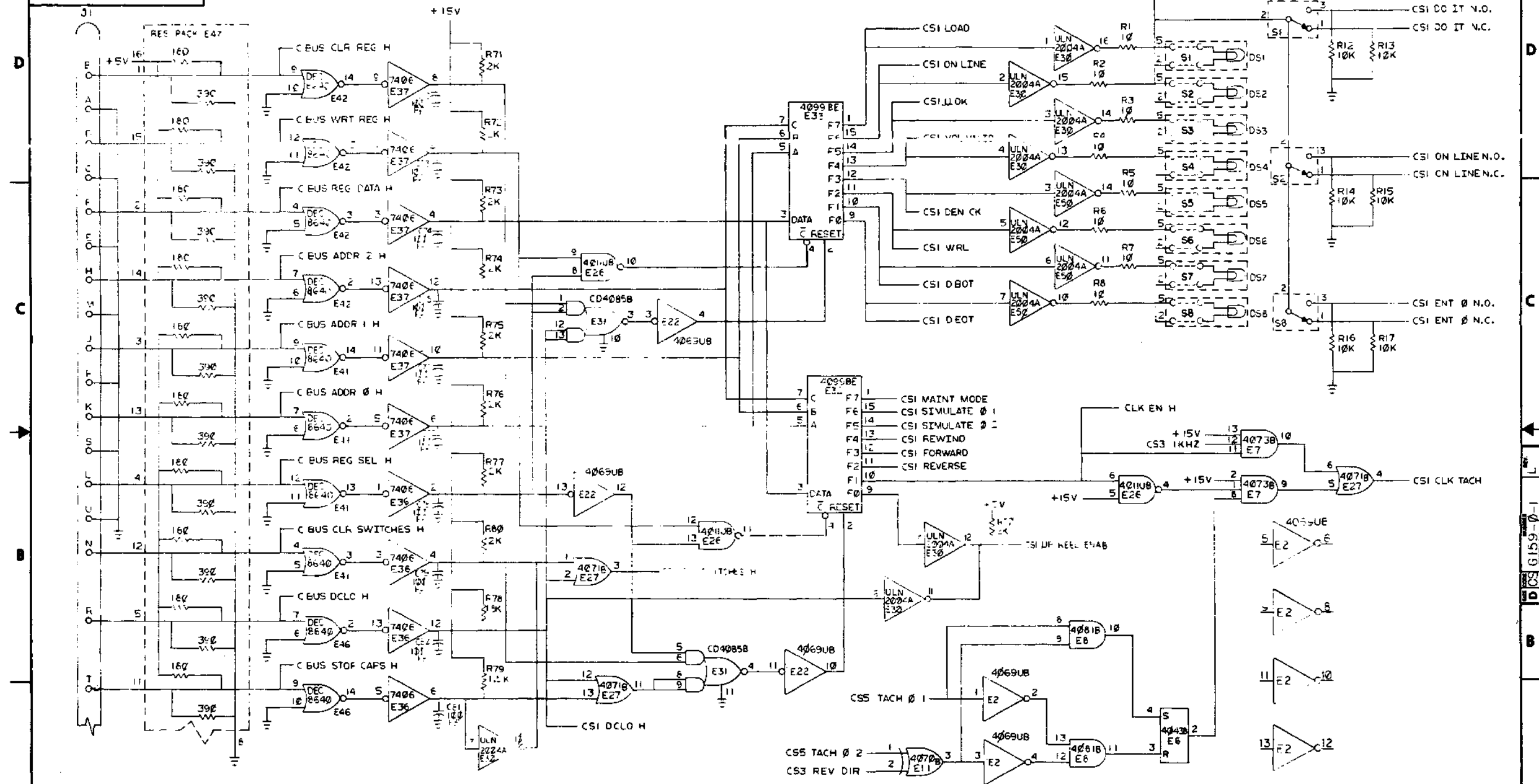
CHANGE NO	REV	DATE	BY	CHK'D	REASON
1	J				
2	K				
3	L				
4	M				
5	N				
6	O				
7	P				
8	Q				
9	R				
10	S				
11	T				
12	U				
13	V				
14	W				
15	X				
16	Y				
17	Z				
18	AA				
19	AB				
20	AC				
21	AD				
22	AE				
23	AF				
24	AG				
25	AH				
26	AI				
27	AJ				
28	AK				
29	AL				
30	AM				
31	AN				
32	AO				
33	AP				
34	AQ				
35	AR				
36	AS				
37	AT				
38	AU				
39	AV				
40	AW				
41	AX				
42	AY				
43	AZ				
44	BA				
45	BB				
46	BC				
47	BD				
48	BE				
49	BF				
50	BG				
51	BH				
52	BI				
53	BJ				
54	BK				
55	BL				
56	BM				
57	BN				
58	BO				
59	BP				
60	BQ				
61	BR				
62	BS				
63	BT				
64	BU				
65	BV				
66	BW				
67	BX				
68	BY				
69	BZ				
70	CA				
71	CB				
72	CC				
73	CD				
74	CE				
75	CF				
76	CG				
77	CH				
78	CI				
79	CJ				
80	CK				
81	CL				
82	CM				
83	CN				
84	CO				
85	CP				
86	CQ				
87	CR				
88	CS				
89	CT				
90	CU				
91	CV				
92	CW				
93	CX				
94	CY				
95	CZ				
96	DA				
97	DB				
98	DC				
99	DD				
100	DE				

ETCH REV. F-P

SIGNATURES	DATE	digital
DRN. <i>[Signature]</i>	<i>[Date]</i>	
CHK'D.		TITLE CAPSTAN SERVO
MECH. ENG.		SIZE CODE NUMBER REV
PROJ. ENG.		D UA 6159-0-0
SCALE 2X1		
SHT. OF 3		
NEXT HIGHER REV. B-DD-6159-0		

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1-0-691950 2

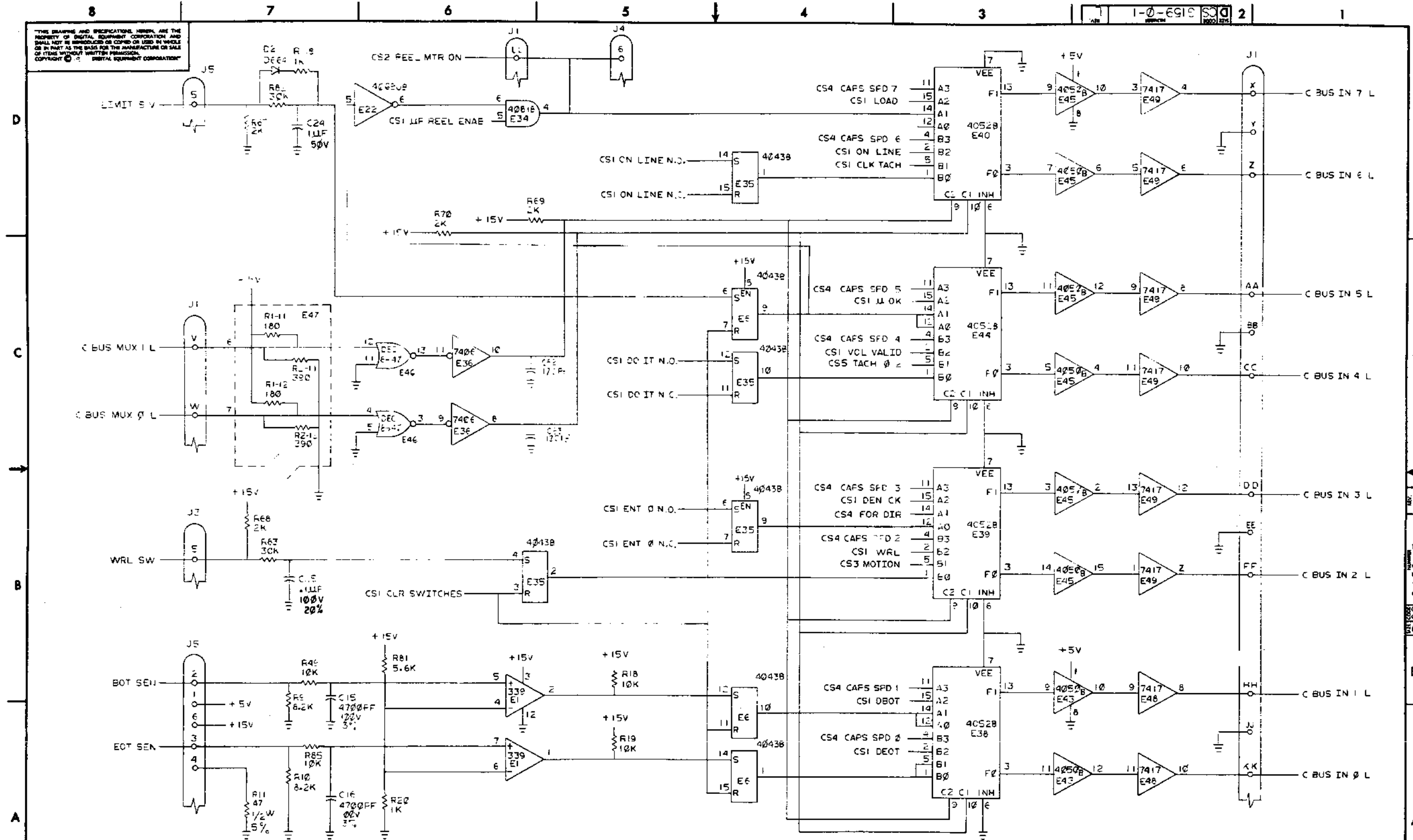


REV.	DATE	BY	CHKD.	APP'D.
1	11/17/77	B. KRASNICK	B. KRASNICK	B. KRASNICK
2	11/17/77	B. KRASNICK	B. KRASNICK	B. KRASNICK
3	11/17/77	B. KRASNICK	B. KRASNICK	B. KRASNICK
4	11/17/77	B. KRASNICK	B. KRASNICK	B. KRASNICK
5	11/17/77	B. KRASNICK	B. KRASNICK	B. KRASNICK
6	11/17/77	B. KRASNICK	B. KRASNICK	B. KRASNICK
7	11/17/77	B. KRASNICK	B. KRASNICK	B. KRASNICK
8	11/17/77	B. KRASNICK	B. KRASNICK	B. KRASNICK

DATE	BY	CHKD.	APP'D.	TITLE
11/17/77	B. KRASNICK	B. KRASNICK	B. KRASNICK	CAPSTAN SERVO (CSI)
11/17/77	B. KRASNICK	B. KRASNICK	B. KRASNICK	CAPSTAN SERVO (CSI)
11/17/77	B. KRASNICK	B. KRASNICK	B. KRASNICK	CAPSTAN SERVO (CSI)
11/17/77	B. KRASNICK	B. KRASNICK	B. KRASNICK	CAPSTAN SERVO (CSI)

SIZE: D
 SCALE: NONE
 SHEET: 1 OF 5
 NUMBER: 691950-1
 REV: L

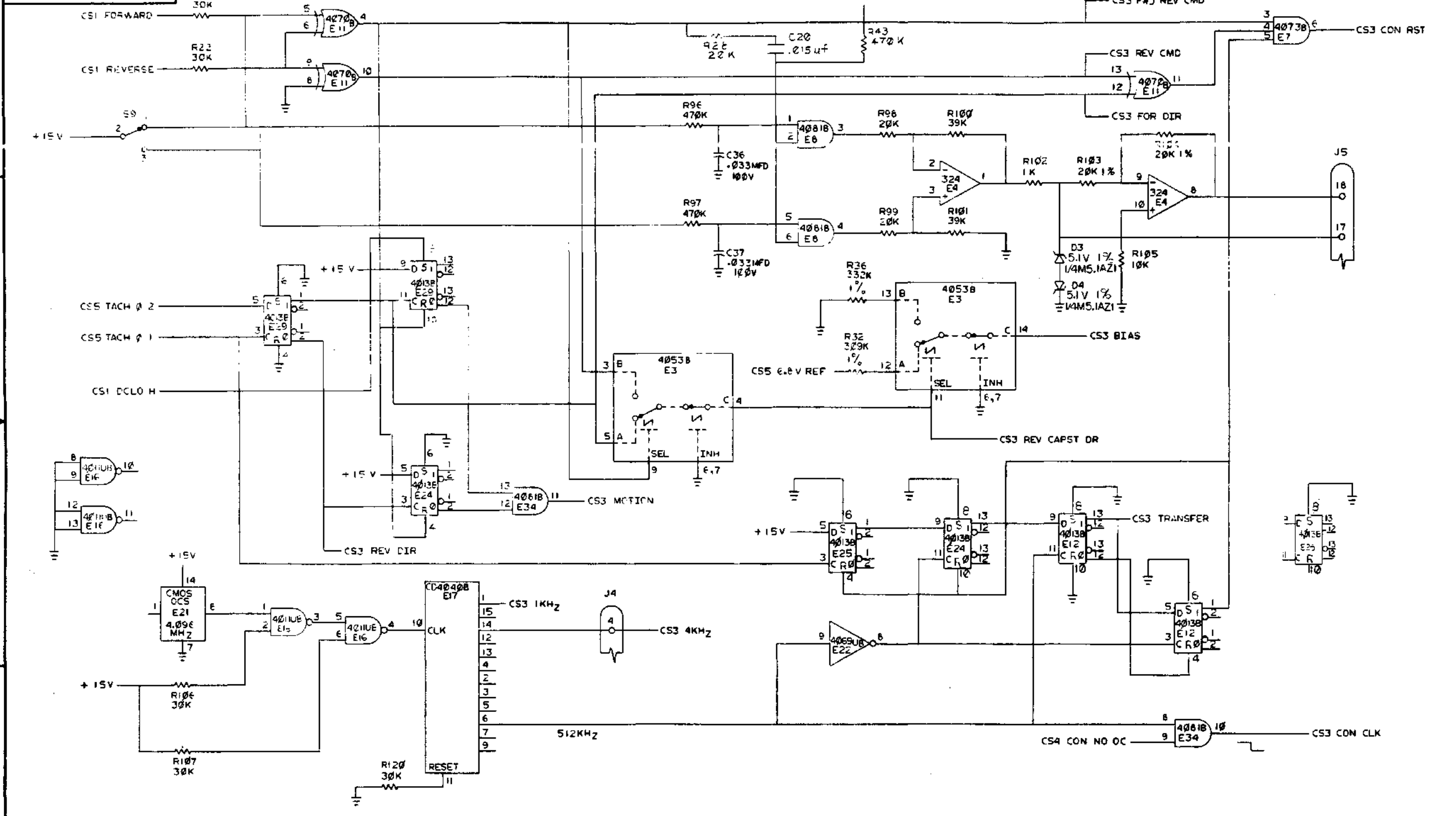
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REVISIONS		
CHK	CHANGE NO.	REV.

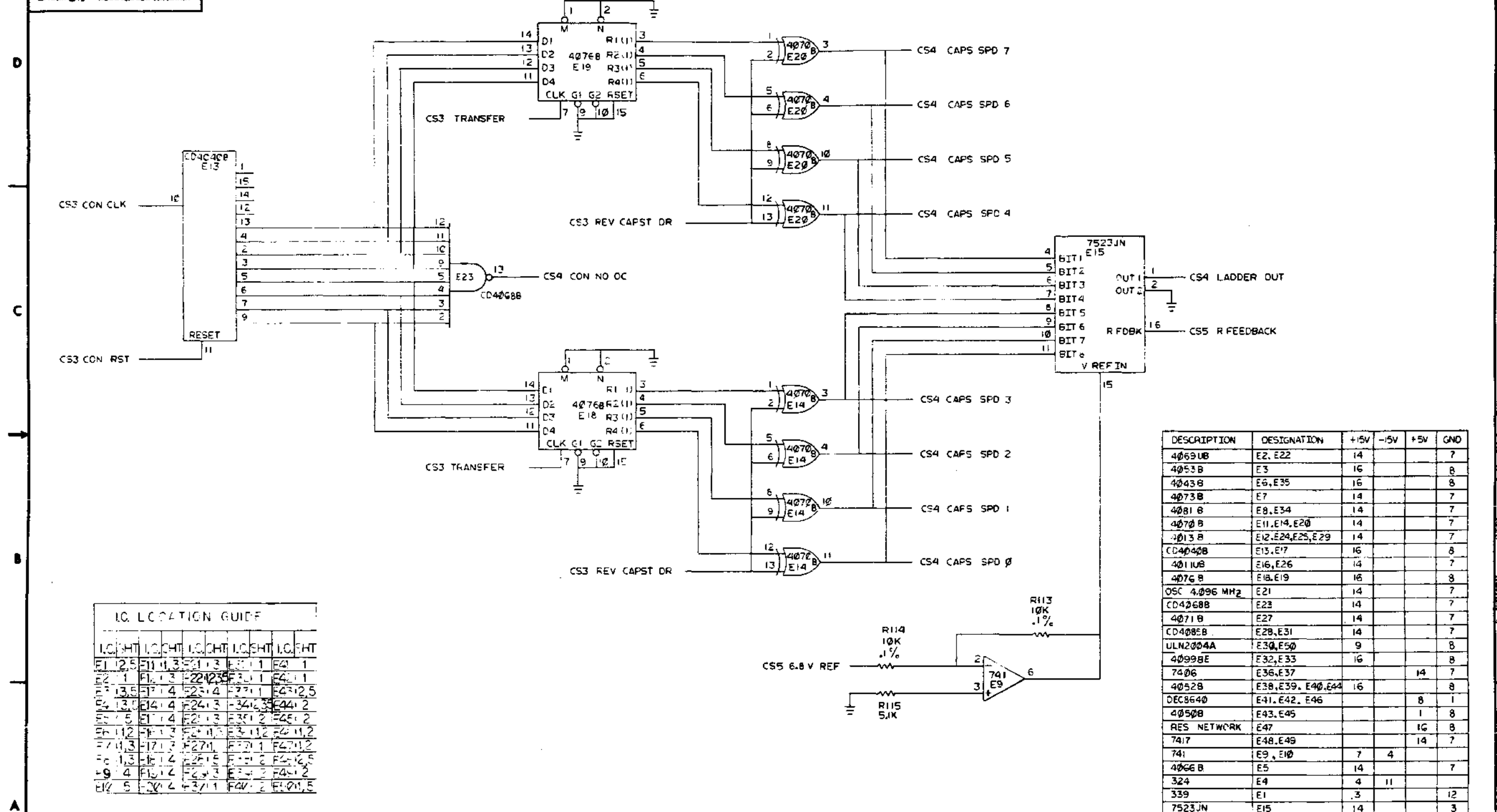
TITLE: CAPSTAN SERVO (CS2) NUMBER: DCS G159-0-1
 SCALE: NONE SHEET: 2 OF 5
 DIST.:

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REVISIONS		
CHK	CHANGE NO.	REV.

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IC LOCATION GUIDE

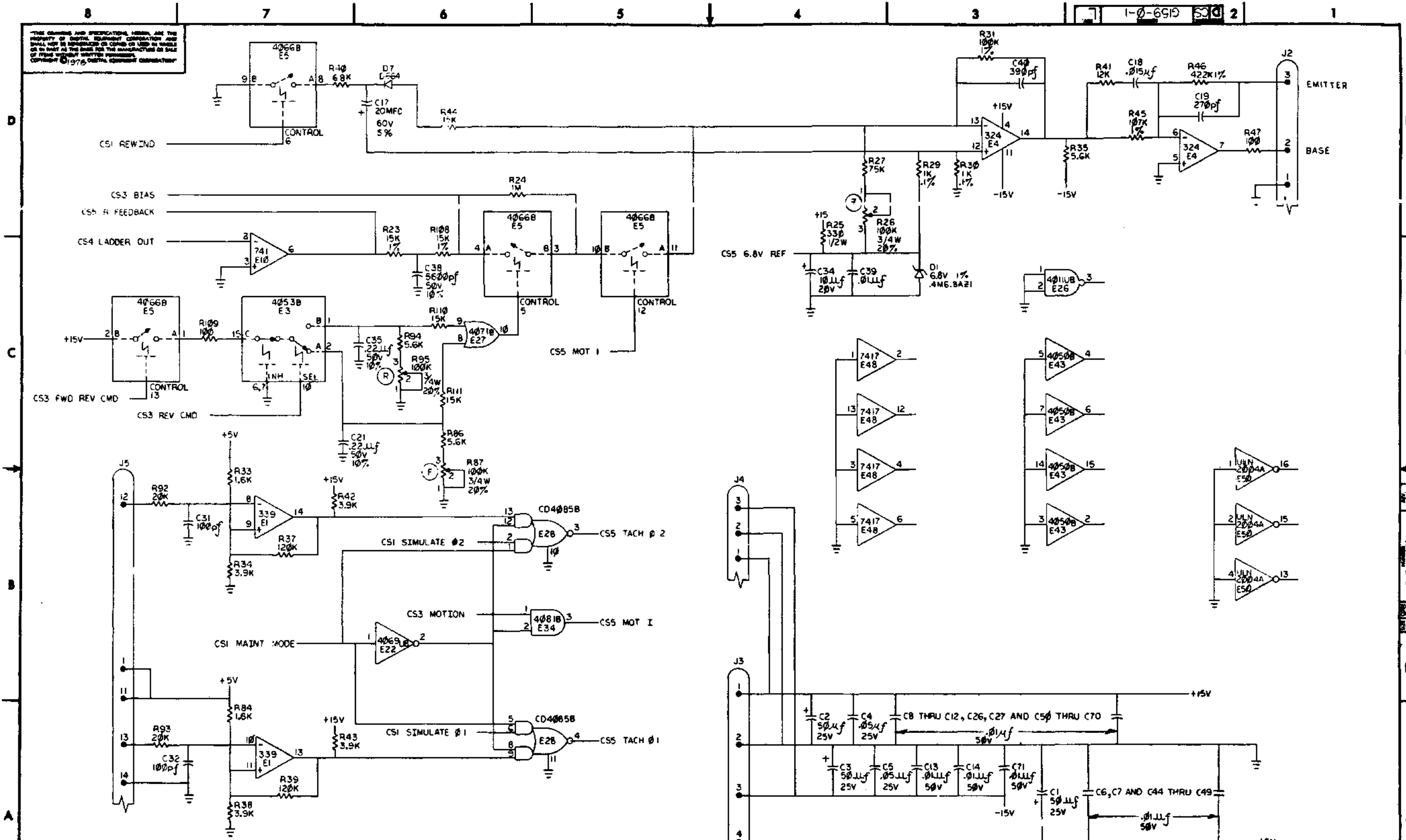
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E2 1	E11 1,3	E21 1,3	E3 1,1	E4 1,1	
E3 1,3,5	E11 1,4	E21 1,4	E3 1,1	E4 1,2,5	
E4 1,3,5	E11 1,4	E21 1,4	E3 1,1	E4 1,2	
E5 1,5	E11 1,4	E21 1,3	E3 1,2	E4 1,2	
E6 1,2	E11 1,3	E21 1,3	E3 1,1,2	E4 1,2	
E7 1,3	E11 1,3	E21 1,1	E3 1,1	E4 1,2	
E8 1,3	E11 1,4	E21 1,5	E3 1,2	E4 1,2,5	
E9 1,4	E11 1,2	E21 1,3	E3 1,2	E4 1,2	
E10 5	E11 1,4	E21 1,1	E3 1,2	E4 1,5	

DESCRIPTION	DESIGNATION	+5V	-5V	+5V	GND
4069UB	E2, E22	14			7
4053B	E3	16			8
4043B	E6, E35	16			8
4073B	E7	14			7
4081B	E8, E34	14			7
4070B	E11, E14, E20	14			7
4013B	E12, E24, E25, E29	14			7
CD4040B	E13, E17	16			8
40110B	E16, E26	14			7
4076B	E18, E19	16			8
OSC 4.096 MHz	E21	14			7
CD4068B	E23	14			7
4071B	E27	14			7
CD4085B	E28, E31	14			7
ULN2004A	E30, E50	9			8
4099BE	E32, E33	16			8
7406	E36, E37			14	7
4052B	E38, E39, E40, E44	16			8
DEC8640	E41, E42, E46			8	1
4050B	E43, E45			1	8
RES NETWORK	E47			16	8
7417	E48, E49			14	7
741	E9, E10	7	4		
4066B	E5	14			7
324	E4	4	11		
339	E1	3			12
7523JN	E15	14			3

REVISIONS

CHK	CHANGE NO.	REV.

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REVISIONS		
CHK	CHANGE NO.	REV.

DCS G159-0-1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
1	1		5012399-00	G159	1		
2	2		1000016-00	100.0 MMF 100V 5%200PPM MICA	14		C31,C32,C72-C83
3	3		1000022-00	270.0 MMF 100V 5%200PPM MICA	1		C19
4	4		1010978-36	.1 MFD 50V 10% CER	1		C25
5	5		1001383-00	4700.0 MMF 100V 3%200PPM MICA	2		C15,C16
6	6		1001610-00	.01 MFD 50V +80-20% Z5U CER	40		C6-C14,C26,C27,C39,C44-C71
7	7		1001631-00	390.0 MMF 100V 5%200PPM MICA	1		C40
8	8		1001774-00	.05 MFD 25V 10% Y5U DISC	2		C4,C5
9	9		1001796-00	50 MFD 25V +75-10% AL EL	3		C1-C3
10	10		1010716-00	20 MFD 60V 5% W.TANT	1		C17
11	11		1004813-00	10 MFD 20V 10% S.TANT	1		C34
12	12		1010031-03	.22 MFD 50V 10% M.POLYCARB	2		C21,C35
13	13		1010274-02	1 MFD 50V +80-20% CER	1		C24
14	14		1010646-00	.015 MFD 50V 2% M.POLYCARB	1		C18
15	15		1011740-00	5600.0 MMF 50V 10% CER	1		C38
16	16		1000050-00	.033 MFD 100V 80V 10% MYL	2		C36,C37
17	17		1100114-00	D 664 QS\75PCB PIV= 25V SP	2		D2,D7
18	18		1109991-01	4M6.8AZ1 VZ= 6.8 1% .40W	1		D1
19	19		1105871-00	1/4M5.1AZ1 = 5.1 1% .25W N	2		D3,D4
20	20		1209941-02	PCB,HEADER 40PIN(2X20).100CC 90D	1		J1
21	21	USED ON J1	1209941-03	PCB,HEADER LATCH	1		
22	22	USED ON J1	1209941-04	PCB,HEADER LATCH	1		
23	23		1211180-00	SW,TOG 1PDT ON-OFF-ON 5A	1		S9
24	24		1212297-03	MATE-N-LOK 03PIN(1X03).250CC HDR	1		J2
25	25		1212297-05	MATE-N-LOK 06PIN(2X03).250CC HDR	2		J3,J4
26	26		1213335-00	PCB,HEADER 20POS(2X10).100CC 90D	1		J5
27	27	USED FOR S1-S8	1214343-02	SW,PB LT 2PDT 8SEC W/BUTTONS 1A	1		
28	28		1300229-00	100.0 .25 W 5.0 % CC	2		R47,R109
29	29		1300296-00	330.0 .50 W 5.0 % CC	1		R25
30	30		1300365-00	1.0 K .25 W 5.0 % CC	3		R20,R102,R119

REVISION HISTORY		BASIC PART NO: 0G159		DRN:	MILT RIPLEY	DATE: 17-OCT-78	D I G I T A L				
ENG	ECO NUMBER	REV	SECTION A OF A	CHN'D:	P. BOSSMAN	DATE: 09-NOV-78	TITLE	PARTS LIST			
---	INIT	D	SECTION VARIATION INDEX	CHN'D:	P. BOSSMAN <td>DATE: 09-NOV-78</td> <td>CAPSTAN SERVO</td> <td colspan="4"></td>	DATE: 09-NOV-78	CAPSTAN SERVO				
B.K	G159-ML002	E	[A] 00	DES.ENG:	B. KRASNICK <td>DATE: 09-NOV-78</td> <td></td> <td colspan="4"></td>	DATE: 09-NOV-78					
B.K	G159-ML003	F	[B]	RESP.ENG.:	B. KRASNICK <td>DATE: 09-NOV-78</td> <td></td> <td colspan="4"></td>	DATE: 09-NOV-78					
BK	G159-ML004	H	[C]	MFG.ENG.:	P. BARTON <td>DATE: 09-NOV-78</td> <td>K</td> <td>PL</td> <td>G159-0-DRP</td> <td>L</td>	DATE: 09-NOV-78	K	PL	G159-0-DRP	L	
RN	G159-ML007	K	[D]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:	FILE NAME:	EDIT #			
RN	G159-ML009	L	[E]	D-UA-G159-0-0		DD-G159-0-0	Z0517L PLS	28			
			[F]								
			[G]								
			[H]								
			[I]								
			[J]								
			[K]								
			[L]								
			[M]								
			[N]								

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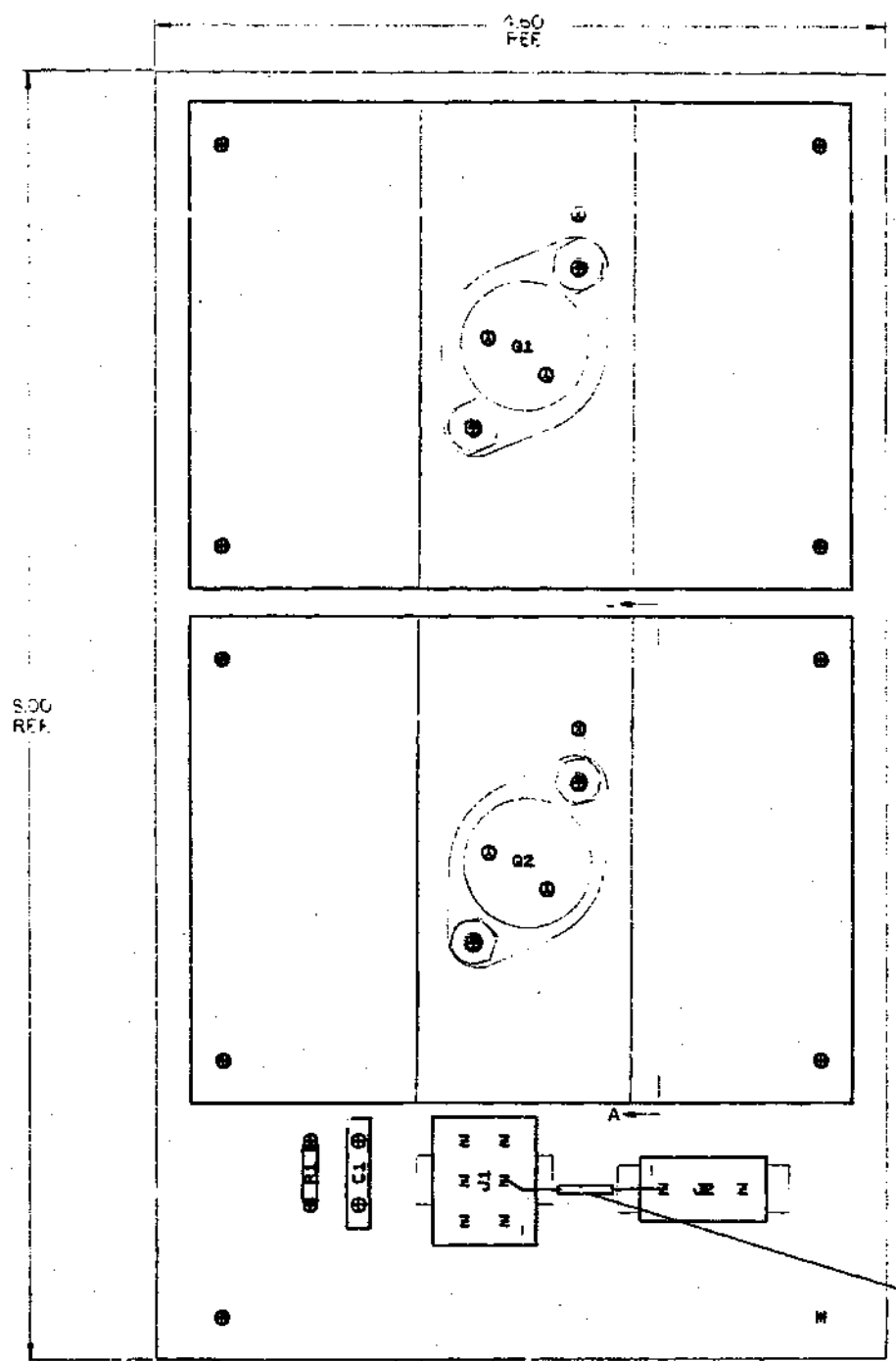
LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
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31	31		1300444-00	3.90 K .25 W 5.0 % CC	4	R34,R38,R42,R43
32	32		1300479-00	10.0 K .25 W 5.0 % CC	11	R12-R19,R49,R85,R105
33	33		1300488-00	12.0 K .25 W 5.0 % CC	1	R41
34	34		1313752-00	15.0 K .25 W 1.0 % RN55D-F10	2	R23,R108
35	35		1300539-00	120.0 K .25 W 5.0 % CC	2	R37,R39
36	36		1301317-00	10.0 .25 W 5.0 % CC	8	R1-R8
37	37		1301695-00	47.0 .50 W 5.0 % CC	1	R11
38	38		1301808-00	*** THIS ITEM IS NOT USED ***	-	
39	39		1301874-00	5.60 K .25 W 5.0 % CC	4	R35,R81,R86,R94
40	40		1300496-00	15.0 K .25 W 5.0 % CC	3	R110,R111,R44
41	41		1302388-00	2.0 K .25 W 5.0 % CC	13	R67-R77,R80,R50
42	42		1302391-00	20.0 K .25 W 5.0 % CC	5	R28,R92,R93,R98,R99
43	43		1302394-00	30.0 K .25 W 5.0 % CC	7	R21,R22,R82,R83,R106,R107,R120
44	44		1302398-00	470.0 K .25 W 5.0 % CC	3	R48,R96,R97
45	45		1302514-00	39.0 K .25 W 5.0 % CC	2	R100,R101
46	46		1303044-00	100.0 K .25 W 1.0 % RN55D-F10	1	R31
47	47		1303176-00	1.60 K .25 W 5.0 % CC	2	R33,R84
48	48		1303179-00	8.20 K .25 W 5.0 % CC	2	R9,R10
49	49		1301327-00	68.0 K .25 W 5.0 % CC	1	R40
50	50		1304841-00	75.0 K .25 W 5.0 % CC	1	R27
51	51		1304865-00	1.0 K .25 W .10% RN55E-B 2	2	R29,R30
52	52		1305425-00	309.0 K .25 W 1.0 % RN55D-F10	1	R32
53	53		1305431-00	10.0 K .25 W .10% RN55E-B 2	2	R113,R114
54	54		1309143-14	100.0 K .75 W 10.0 % POT	3	R26,R87,R95
55	55		1309595-00	1.0 M .25 W 5.0 % CC	1	R24
56	56		1310607-00	422.0 K .25 W 1.0 % RN55C-F 5	1	R46
57	57		1311003-01	R NETWORK 14-180 14-390 16PIN	1	E47
58	58		1312930-00	5.10 K .25 W 5.0 % CC	1	R115
59	59		1313843-00	107.0 K .25 W 1.0 % RN55D-F10	1	R45
60	60		1514341-00	ULN2004A NPN 1W SI ARRAY	2	E30,E50
61	61		1814249-00	OSCILLATOR, XTAL 4.096 MHZ	1	E21
62	62		1909929-00	7417 BUFFER GATE-HEX 1INP	2	E48,E49
63	63		1910298-00	741 OP AMP GEN PURP. COM	2	E10,E9
64	64		1910741-00	7406 INVERTER GATE-HEX 1I	2	E36,E37
65	65		1911469-00	DEC 8640 RECEIVER,BUS,QUAD,U	3	E41,E42,E46
66	66		1912107-00	324 OP AMP,QUAD	1	E4
67	67		1912108-00	339 VOLT CMPRTR,QUAD	1	E1
68	68		2113607-00	4011UBNAND GATE-QUAD 2IN C	2	E16,E26
69	69		2113609-00	4013B FF-D DUAL W/SET/RESE	4	E12,E24,E25,E29
70	70		2113623-00	4043B NOR R/S LATCH,QUAD	2	E6,E35
71	71		2113628-00	4050B BUFFER/CONVERTER GAT	2	E43,E45
72	72		2113630-00	4052B MULTIPLEXER 4CHAN DI	4	E38-E40,E44
73	73		2113632-00	4066B BILATERAL SWITCH-QUA	1	E5
74	74		2113633-00	4069UBINVERTER GATE-HEX	2	E22,E2
75	75		2113634-00	4070B X-OR GATE-QUAD CMOS	3	E11,E14,E20
76	76		2113635-00	4071B OR GATE-QUAD 2IN CMO	1	E27
77	77		2113637-00	4073B AND GATE-TRIPLE 3IN	1	E7
78	78		2113639-00	4076B REGISTER 4BIT D-TYPE	2	E18,E19

D	I	G	I	T	A	L	TITLE	SECTION A	OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							CAPSTAN SERVO			K	PL	G159-0-DBP	L

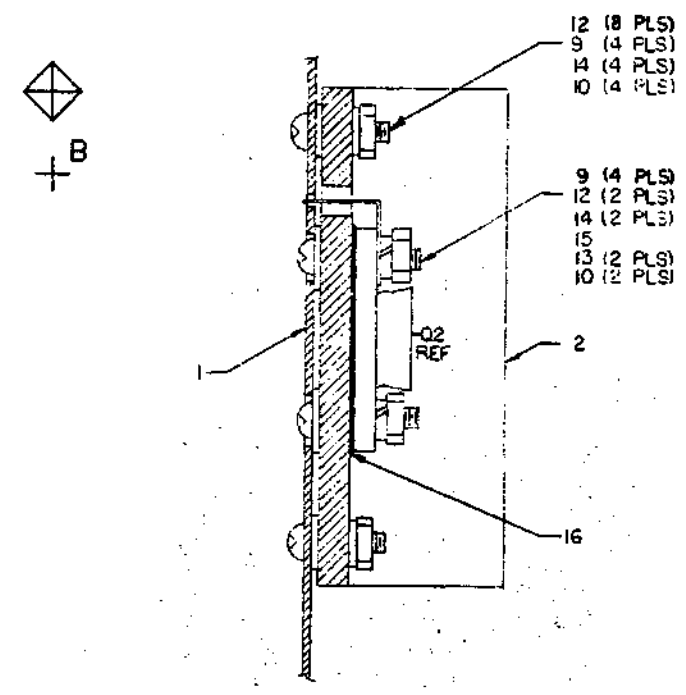
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79	79		2113642-00	4081B AND GATE-QUAD 2IN CM	2	E34,E8
80	80		2113946-00	4053B MULTIPLEXER 2CHAN CM	1	E3
81	81		2114462-00	4040B COUNTER/DIVIDER,BINA	2	E13,E17
82	82		2114463-00	4068B NAND GATE,BIN	1	E23
83	83		2114464-00	4085B AND-OR GATE,DUAL,2IN	2	E28,E31
84	84		2114465-00	4099BELATCH-ADDRESSABLE 8BIT	2	E32,E33
85	85		2116019-00	7523JND/A CONVERTER,MULT,8	1	E15
86	86		1312985-00	332.0 K .25 W 1.0 % RN55D-F10	1	R36
87	87		9105740-55	*** THIS ITEM IS NOT USED ***	-	
88	88		1313596-00	20.0 K .25 W 1.0 % RN55D-F10	2	R103,R104
89	89		9107256-11	*** THIS ITEM IS NOT USED ***	-	
90	90		1300391-00	1.50 K .25 W 5.0 % CC	2	R78,R79
91	91		1002630-00	.015 MFD 100V 10% MYLR	1	C20
92	92	D-UA-G159-0-0		UNIT ASS'Y	REF	
93	93	D-CS-G159-0-1		CIRCUIT SCHEMATIC	REF	
94	94	D-MD-5012399-0-0		DRILL AND ETCH DRAWING	REF	

D	I	G	I	T	A	L	TITLE	CAPSTAN SERVO	SECTION A	OF A	SIZE	CODE	DOCUMENT NUMBER	REV
											K	FL	G159-0-DBP	L

COMPONENT SIDE VIEW



SECTION 'A-A' 2 PLACES



NOTES: THIS BOARD MUST BE U.L. APPROVED

CHK	CHANGE NO	REV
B	5413692-0-1	B
B	5413692-0-1	B
B	5413692-0-1	B
B	5413692-0-1	B
B	5413692-0-1	B
B	5413692-0-1	B

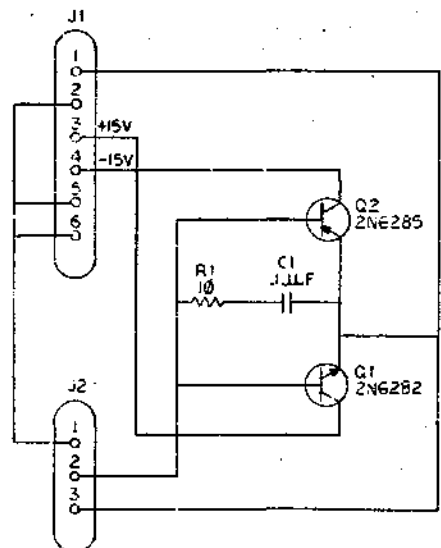
ETCH REV. 8	P.C. DESIGN DATA BASE REV. 6A
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SIGNATURES	DATE
DRN. J. FRIEDLAND	1/1/77
CHK'D. C. B. BROWN	2/1/77
ENG. S. K. BROWN	2/1/77
PROJ. ENG. S. K. BROWN	2/1/77

digital	
TITLE	
CAPSTAN DRIVER ED.	
SCALE 2/1	SIZE CODE
SHT. 1 OF 4	NUMBER
NEXT HIGHER ASSY: B-00-5413692-0	5413692-0-0

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D 5413692-0-1 2



REV	DATE	BY	CHKD
1	11/17/73	B. W. SHIRK	
2	1/17/74	B. W. SHIRK	
3	1/17/74	B. W. SHIRK	
4	1/17/74	B. W. SHIRK	

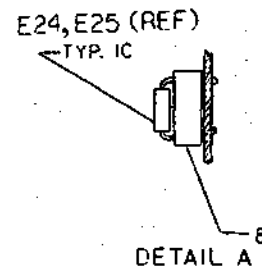
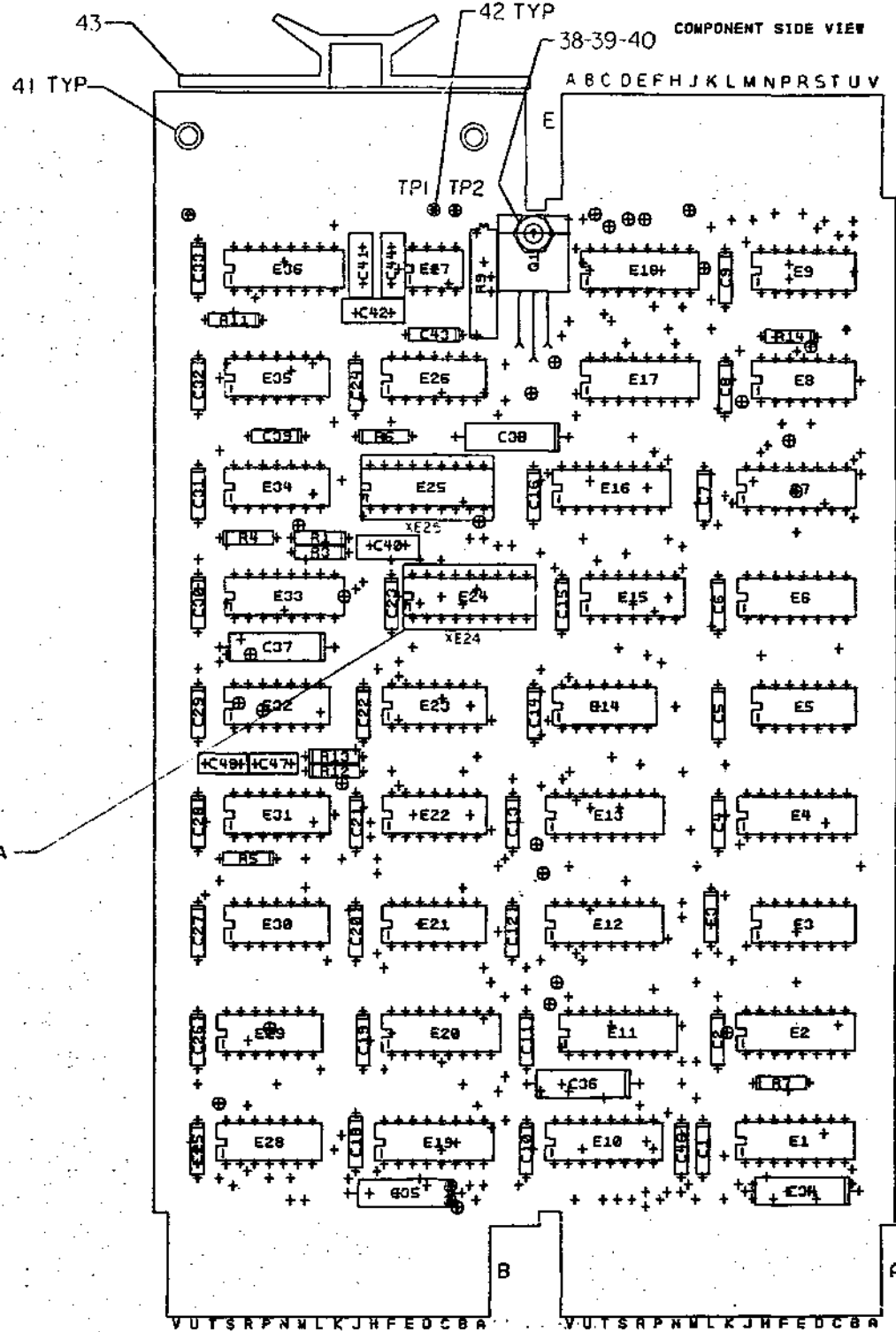
DRW. <i>[Signature]</i>	DATE <i>11/17/73</i>	FIRST USED ON	<i>TS11</i>
CHKD. <i>[Signature]</i>	DATE <i>1/17/74</i>	TITLE	CAPSTAN DRIVER BOARD
ENGR. <i>[Signature]</i>	DATE <i>1/17/74</i>	NUMBER	5413692-0-1
PRCL. ENGR. <i>[Signature]</i>	DATE <i>1/17/74</i>	REV.	B
PRCT. <i>[Signature]</i>	DATE <i>1-17-74</i>	SIZE CODE	D CS
NEXT NUMBER ASSY.		SHEET	1
R.D.D. 5413692-0-1		OF	1
SCALE		DEST.	

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1		5013691-00	DRILL & ETCH BD	1	
2		1216232-00	HEAT SINK 3 X 4-1/8	2	
3		1516120-01	PNP 160W SI 60 750 DA	1	Q2
4		1516120-00	PNP 160W SI 60 750 DA	1	Q1
5		1000030-00	.1 MFD 100V 20% Z5U DISC	1	C1
6		1212297-03	MATE-N-LOK 3PIN UNIV HEADER	1	J2
7		1212297-05	MATE-N-LOK 6PIN UNIV.	1	J1
9		1301317-00	10 1/4W 5% CC	1	R1
9		9007793-01	SCREW,PAN,PHIL, 6-32X 9/16	4	
10		9006558-00	NUT,HEX, 6-32X5/16AF X 7/	12	
11		9006656-00	*** THIS ITEM IS NOT USED ***	-	
12		9006022-01	SCREW,PAN,PHIL, 6-32X 3/8	0	
13		9007801-00	WASHER, LOCK, S.S. #6	4	
14		9008992-00	WASHER, FLAT, WHITE NYLON, 375 X	20	
15		9009676-00	TERM LUG 1POS SOLDER	2	
16		9008260-00	COMPOUND, THERMAL JOINT	8 A/R	
17		9107636-55	WIRE,STRND,26AWG,IPVC UL1429	A/R	

REVISION HISTORY		BASIC PART NO: 5413692		DRN:	J,FITZGERALD	DATE:	25-SEP-78	D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	P,BOSSMAN	DATE:	08-NOV-78	TITLE	PARTS LIST		
---	INIT	A	SECTION VARIATION INDEX	CHK'D:	P,BOSSMAN	DATE:	08-NOV-78	CAPSTAN DRIVER RD			
B,K	5413692-#L221	B	[A] 00	DES.ENG:	B,KRASNICK	DATE:	08-NOV-78	DOCUMENT NUMBER			
			[B]	RESP.ENG.:	B,KRASNICK	DATE:	25-SEP-78	SIZE CODE NUMBER			
			[C]	MFG.ENG.:	P,BARTON	DATE:	08-NOV-78	K PL 5413692-0-DBP	REV B		
			[D]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:	EDIT #		
			[E]	D-UA-5413692-0-0		TS11		Z0300B,PLS	9		

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SEE DETAIL A

NOTES:

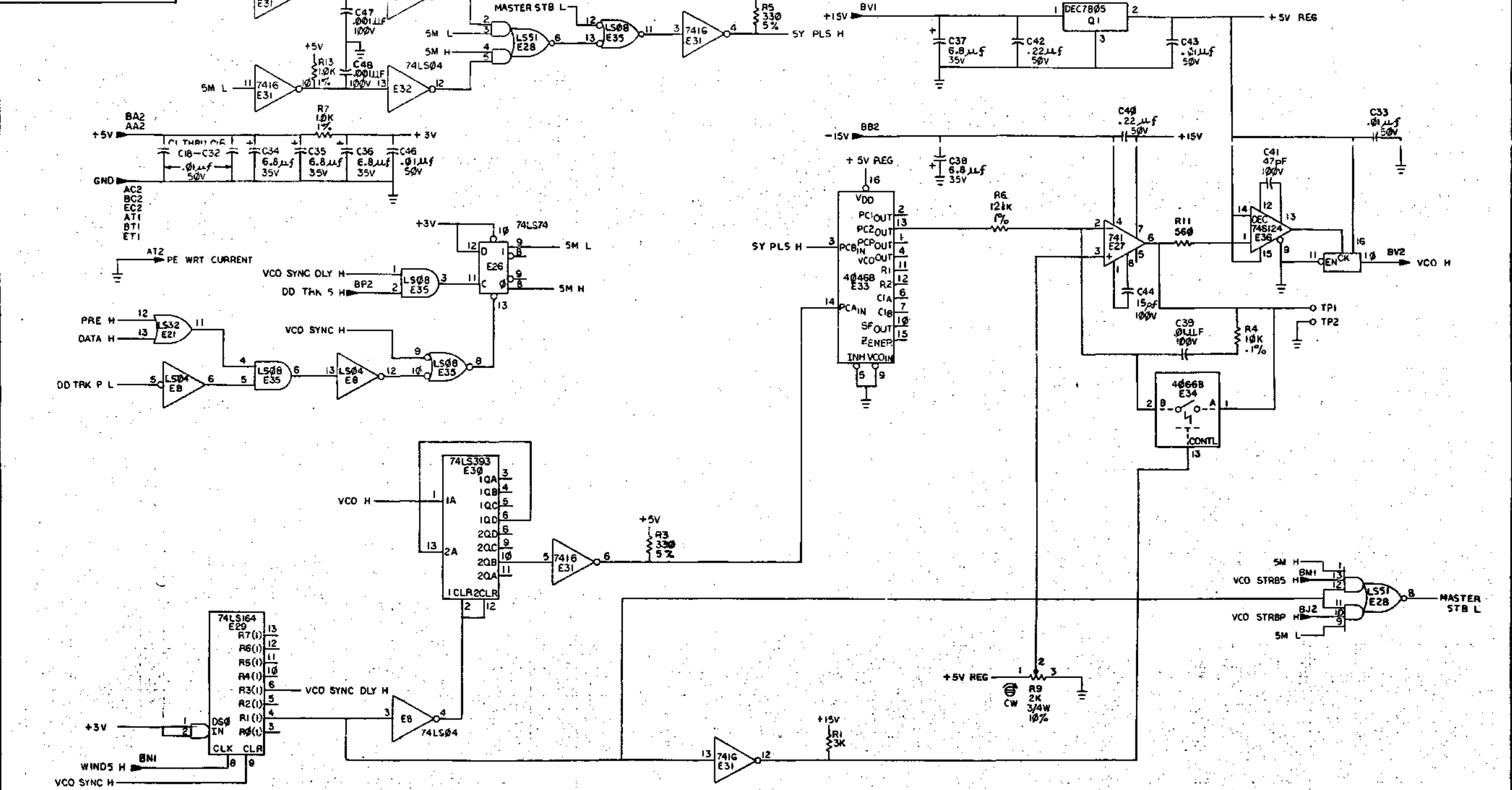
CHK	CHANGE NO	REV	DATE	BY

SIGNATURES	DATE	
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CHK'D: <i>[Signature]</i>	9/27/78	
ENG. <i>[Signature]</i>	9/27/78	TITLE BRANCH LOGIC AND VCO CONTROL
PROJ. ENG. <i>[Signature]</i>	9/27/78	
PROD. <i>[Signature]</i>	9/27/78	
SCALE 2/1		
SMT. 1 OF 5		
NEXT HIGHER ASSY. B-DD-M8922-0		

ETCH REV. E
P.C. DESIGN DATA BRSE REV. EL & EM

SIZE CODE 0
NUMBER 0
REV E

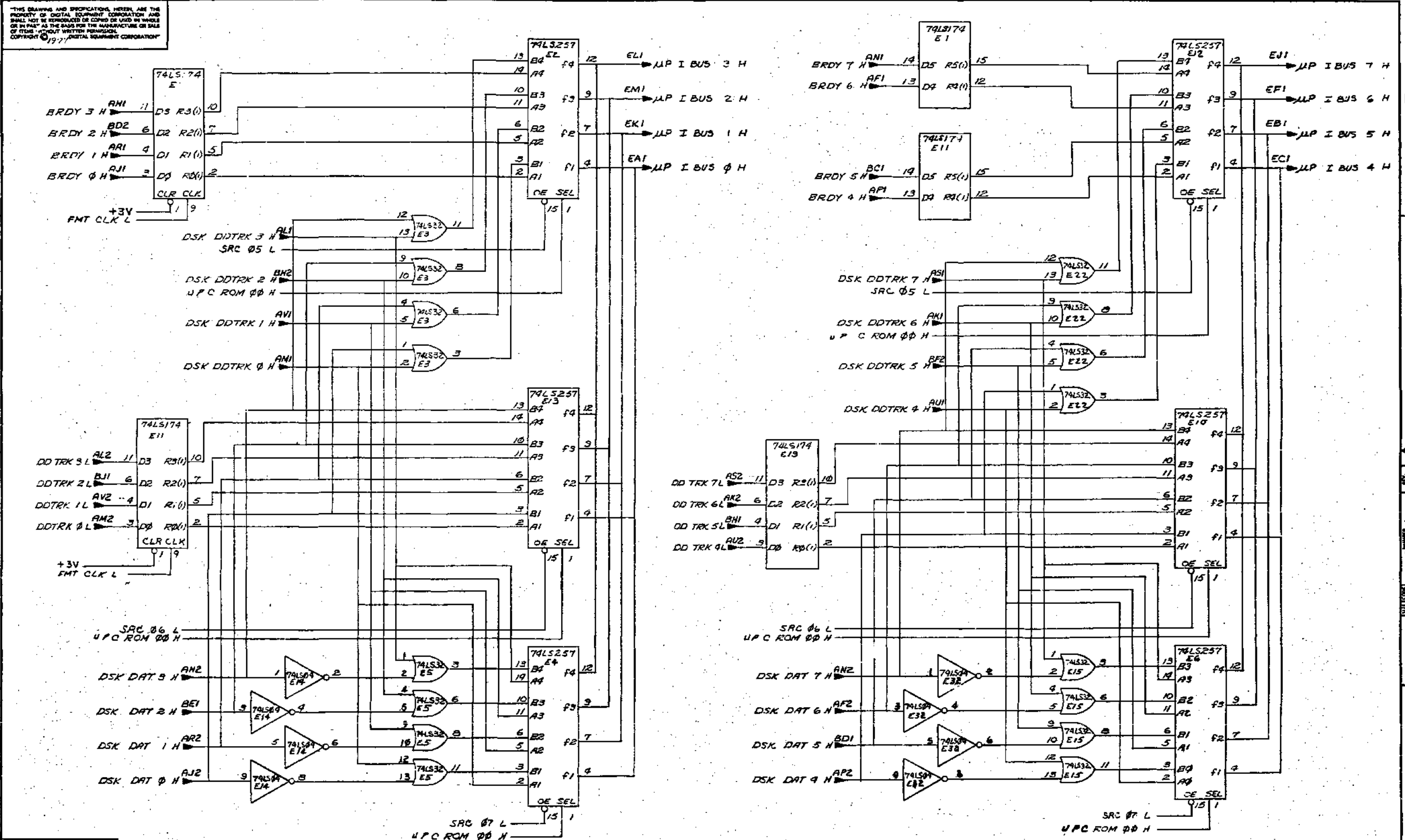
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REV.	1	11 MAY 79
CHK	MLB	
ENGR	R. CORNEAU	

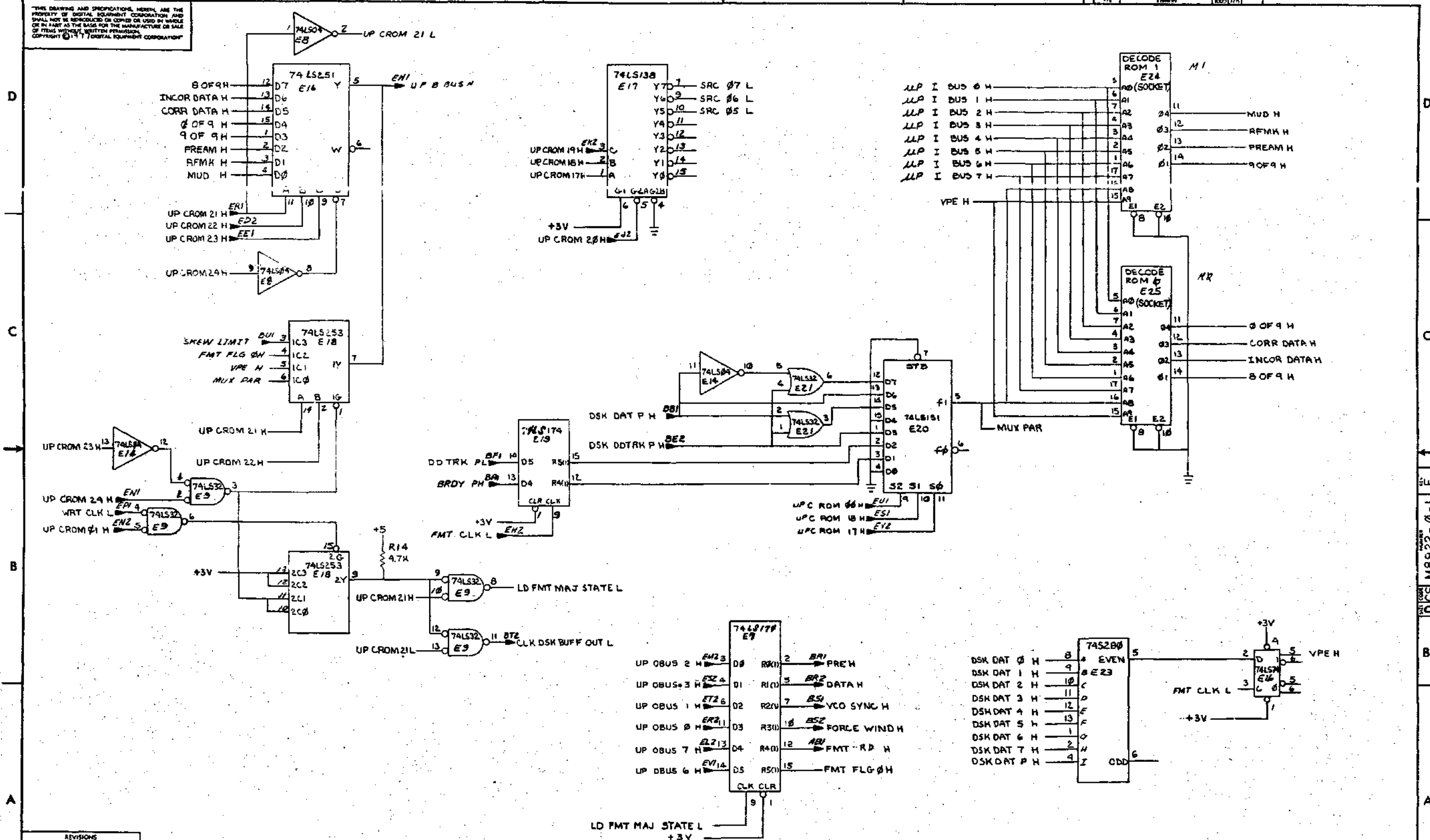
ORIG. DATE	4/20/78	FIRST USED ON	TS11
CHK'D BY	MLB	TITLE	BRANCH LOGIC & VCO CONTROL
ENGR	R. CORNEAU	SIZE	D CS
PRD. ENGR		NUMBER	M8922-0-1
PRD. P.		REV.	E
NEXT HIGHER ASSY.		SHEET	1 OF 3

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REVISIONS		
CHK	CHANGE NO.	REV.

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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	BRANCH LOGIC & VCO CONT.	SIZE CODE	DCS	NUMBER	M8922-0-1	REV.	E
SCALE	NONE	SHEET	3 OF 3	DIST.			

DCS M8922-0-1
 DCS M8922-0-1

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
37		5012776-00	M8922	1	
		1000011-00	47.0 MMF 100V 5X200PPM MICA	1	C41
		1000042-00	1000.0 MMF 100V 5X200PPM MICA	2	C47, C48
		1001610-00	.01 MFD 50V +80-20% Z5U CER	34	C1-C16, C18-C33, C46, C43
		1002427-00	15.0 MMF 100V 5X200PPM MICA	1	C44
		1005306-00	6.8MFD 35V 10% S. TANT	5	C34-C38
		1005784-00	.01 MFD 100V 10% MYLR	1	C39
		1010274-00	.22 MFD 50V +80-20% Z5U CER	2	C40, C42
		1211666-00	SKT, IC 18PIN DIP GOLD PLATE	2	XE24, XE25
		1300432-00	3.0 K .25 W 5.0 % CC	1	R1
		1300447-00	4.70 K .25 W 5.0 % CC	1	R14
		1301890-00	560.0 .25 W 5.0 % CC	1	R11
		1302748-00	1.0 K .25 W 1.0 % RN55C-F 5	3	R7, R12, R13
		1303438-00	121.0 K .25 W 1.0 % RN55D-F10	1	R6
		1305431-00	10.0 K .25 W .10% RN55E-B 2	1	R4
		1309143-08	2.0 K .75 W10.0 % POT	1	R9
		1909928-00	7416 INVERTER GATE-HEX 11	1	E31
		1910298-00	741 OP AMP GEN PURP. COM	1	E27
		1911573-00	745280 PARITY GEN/CHKR, 9BIT	1	E23
		1911911-08	DEC 745124 OSCILLATOR, DUAL VOLT	1	E36
		1912536-00	DEC 7805 VOLT REG FIX +5V	1	Q1
		1912646-00	LS253 MUX 1 OF 4 (DUAL)	1	E18
		1912647-00	LS257 MUX 1 OF 2 (QUAD)	6	E2, E4, E6, E10, E12, E13
		1912648-00	LS251 MUX 8 INPUT, TRI-STA	1	E15
		1912697-00	LS174 FF-D HEX W/CLEAR	4	E1, E7, E11, E19
		1912803-00	74LS04 INVERTER GATE, HEX	3	E8, E14, E32
		1912805-00	LS08 AND GATE-QUAD 2IN, PO	1	E35
		1912816-00	LS32 OR GATE-QUAD 2IN, POS	6	E3, E5, E9, E15, E21, E22
		1912820-00	LS51 A-0-1 GATE 2-W'DE 2I	1	E28
		1912824-00	LS74 FF-D DUAL, EDGE TRIGG	1	E26

REVISION HISTORY		BASIC PART NO: M8922		DRN: H. RICHER		DATE: 20-FEB-78		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: P. BOSSMAN		DATE: 21-JUN-78		TITLE PARTS LIST	
	INIT	D	SECTION VARIATION INDEX	DES. ENG: R. ODOM		DATE: 10 NOV 78		BRANCH LOGIC & VCO CONTROL	
	P.C. M8922-ML001	E	(A) 00	RESP. ENG.: R. ODOM		DATE: 10 NOV 78		DOCUMENT NUMBER	
			(B)	MFG. ENG.: P. BARTON		DATE: 10 NOV 78		SIZE: CODE: NUMBER REV	
			(C)	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		K PL M8922-0-DBP E	
			(D)	D-UA-M8922-0-0		TS04		FILE NAME: EDIT	
			(E)					Z0564E.PLS 23	
			(F)						
			(H)						
			(J)						
			(K)						
			(L)						
			(M)						
			(N)						

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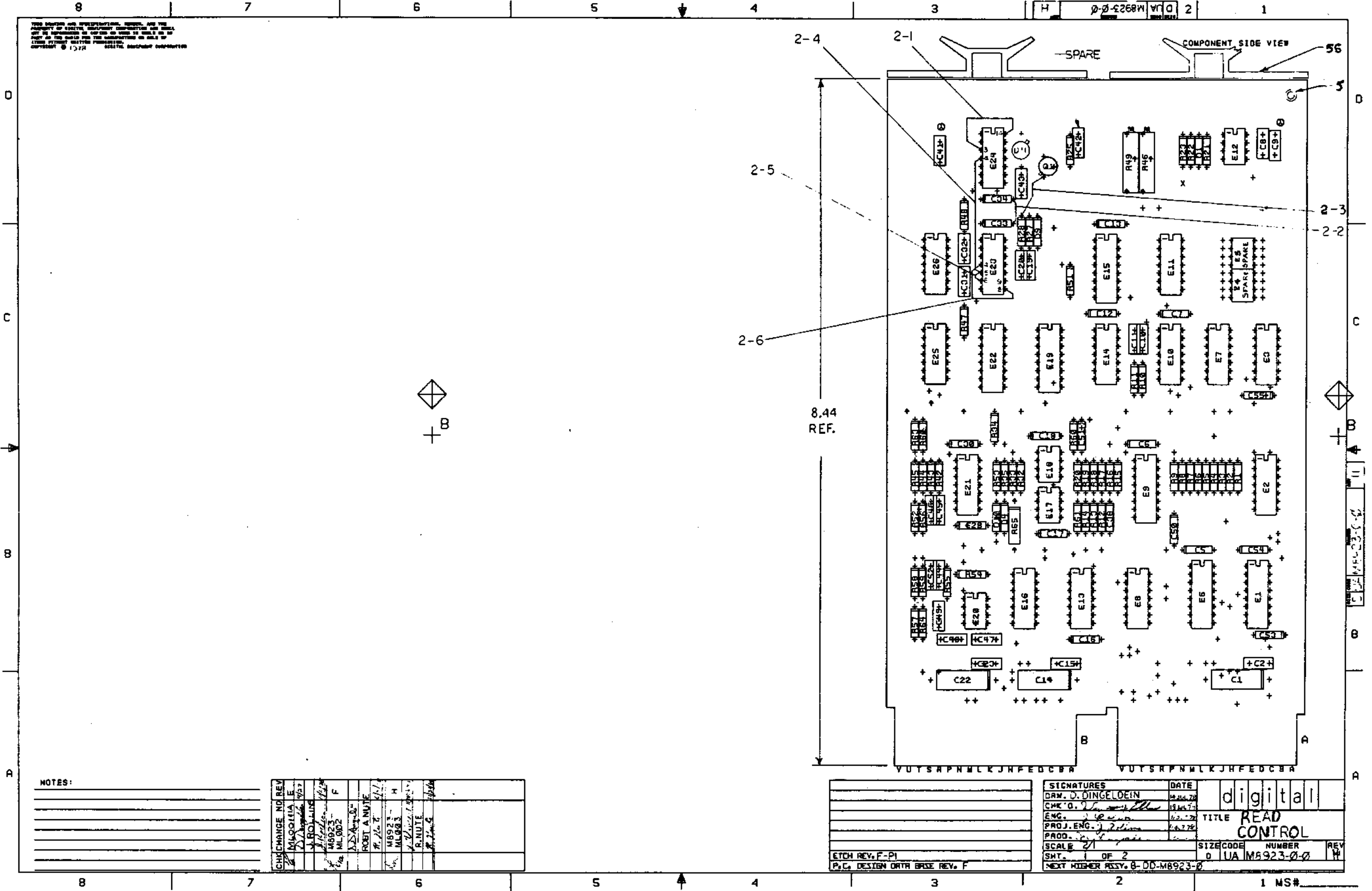
PARTS LIST

SHEET A2 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
31	30		1912842-00	LS138 DECODER-THREE INPUT,	1	E17
32	31		1912844-00	LS151 MUX 1 OF 8 & DATA	1	E20
33	32		1912850-00	LS164 SHIFT REG. 8BIT SERI	1	E29
34	33		1914451-00	7416393 COUNTER.BINARY.4BIT	1	E30
35	34		2113625-00	4046B PHASE-LOCKED LOOP	1	E33
36	35		2113632-00	4066B BILATERAL SWITCH-QUA	1	E34
37	36		23383F1-00	F1-01	1	E25
38	37		23384F1-00	F1-01	1	E24
39	38		9006009-04	SCREW,BIND,SLOT 4-40X 1/4 SS	1	
40	39		9006556-00	NUT,HEX 4-40X1/4 AF X 3/	1	
41	40		9006682-00	WASHER, LOCK, S.S. #4	1	
42	41		9006732-00	EYELET,ROLL FLANGE .1210DX .219	2	TP1,TP2
43	42		9006735-00	EYELET,FUNNEL FLANGE .059 OD X	2	
44	43		9008337-06	HANDLE, FLIP CHIP, MAGENTA	1	
45	44		1300295-00	330.0 .25 W 5.0 % CC	2	R3,R5

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							BRANCH LOGIC & VCO CONTROL		K	PL	M8922-0-DBP	E

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NOTES:

CHG	NO	REV	BY	DATE
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2				
3				
4				
5				
6				

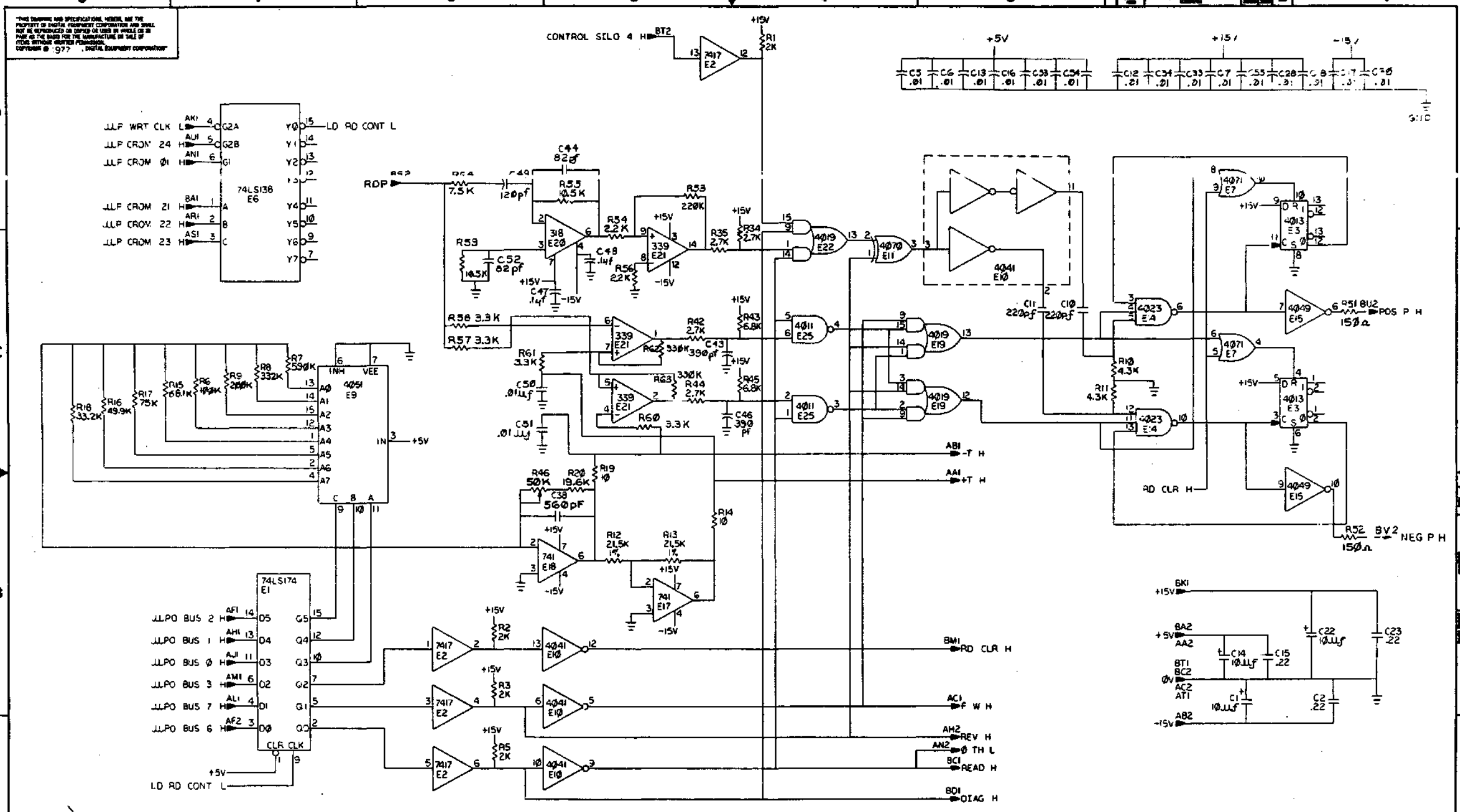
ETCH REV. F-P1
P.C. DESIGN ORTH BASE REV. F

SIGNATURES	DATE	digital
DRW. D. DINGELDEIN	12 AUG 78	
CHK'D. [Signature]	19 JUL 78	TITLE READ CONTROL
ENG. [Signature]	12 JUL 78	
PROJ. ENG. [Signature]	26 JUL 78	
SCALE 2/1	SIZE CODE	NUMBER
SMT. 1 OF 2	0 UA M8923-0-0	REV W
NEXT HIGHER ASSY. 8-DD-M8923-0		

8 7 6 5 4 3 2 1 MS#

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H 1-0-2260N 2

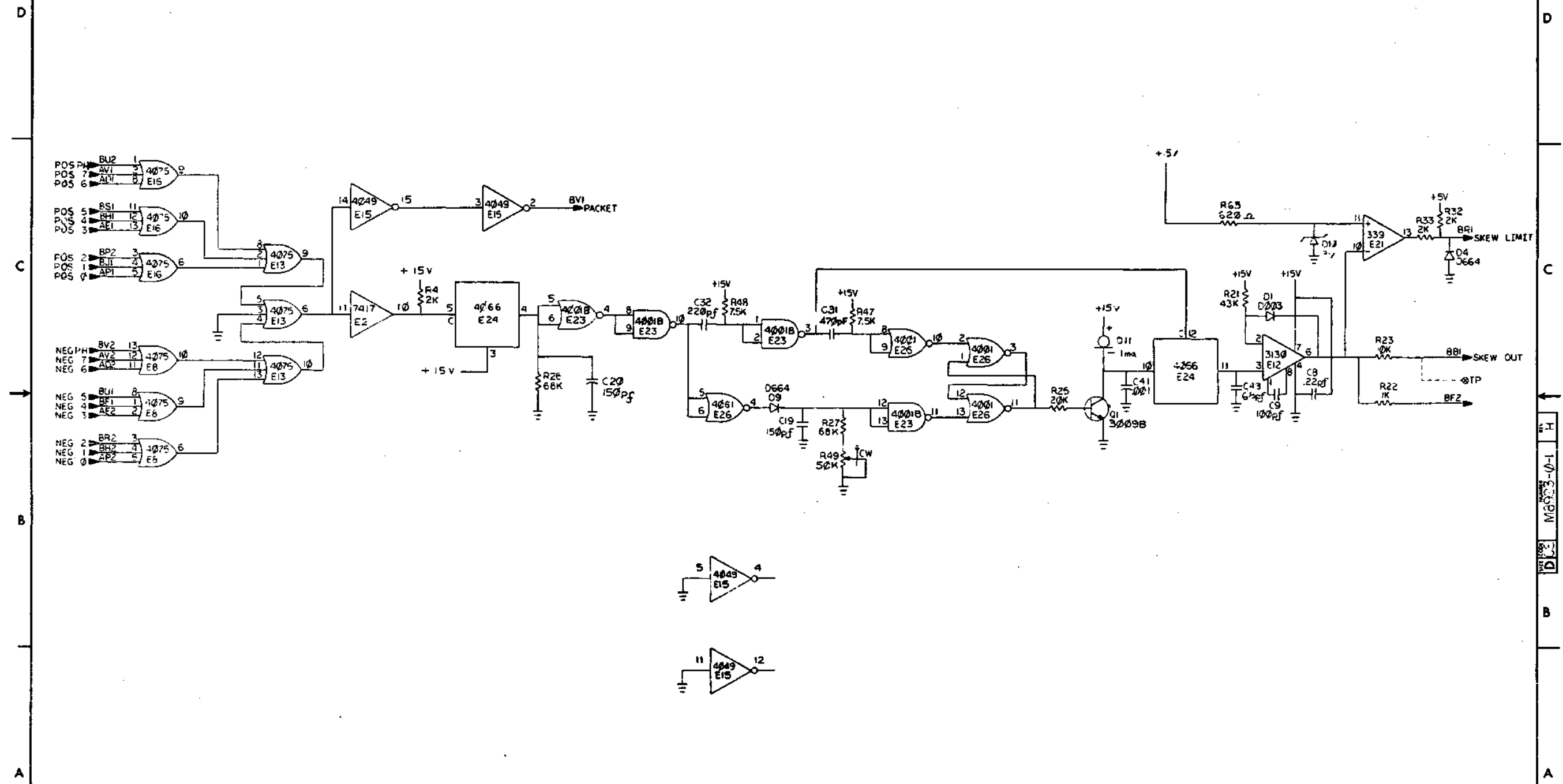


REV.	DATE	BY	CHK'D
1	11/10/77	J. POLLINE	M. G. MITCHELL
2	11/10/77	R. NUTE	J. POLLINE
3	11/10/77	R. NUTE	J. POLLINE
4	11/10/77	R. NUTE	J. POLLINE
5	11/10/77	R. NUTE	J. POLLINE
6	11/10/77	R. NUTE	J. POLLINE
7	11/10/77	R. NUTE	J. POLLINE
8	11/10/77	R. NUTE	J. POLLINE

CHK'D	DATE	BY	CHK'D
ENG. N. F. ...	11/10/77	J. POLLINE	M. G. MITCHELL
PROJ. ENGR. ...	11/10/77	J. POLLINE	M. G. MITCHELL
NEXT HIGHER ASSY.			
B-00-18923-0	SIZE	DOOR	NUMBER
SCALE	D	CS	M8923-0-1
SHEET	1	OF 2	DIST.

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M8923-0-1 DCS 2



REVISIONS		
CHK	CHANGE NO	REV

DEC FORM NO. 080 L&E 8

TITLE	TS04	SIZE CODE	NUMBER	REV.
READ CONTROL		DCS	M8923-0-1	11
SCALE		SHEET	OF 2	
		DIST.		

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
1	1	D-CS-M8923-0-1		READ CONTROL		REF	
2	2	D-UA-M8923-0-0		READ CONTROL		REF	
3	3	B-DD-M8923-0-0		READ CONTROL		REF	
4	4	D-MD-5012847-0-0		DRILL & ETCH DRAWING		REF	
5	5		5012847-00	M8923	1		
6	6		1000016-00	100.0 MMF 100V 5%200PPM MICA	1		C9
7	7		1000019-00	150.0 MMF 100V 5%200PPM MICA	2		C19, C20
8	8		1001610-00	.01 MFD 50V +80-20% Z5U CER	17	CONT	C5, C6, C7, C12, C13, C16-C18, C28, C30, C33, C34, C50, C51, C53-C55
10	10		1004813-00	10 MFD 20V 10% S.TANT	3		C1, C14, C22
11	11		1010274-00	.22 MFD 50V +80-20% Z5U CER	4		C2, C8, C15, C23
12	12		1100100-00	D 003 TR= 50NS PIV= 25V GN	1		D1
13	13		1100114-00	D 664 QS-75PCB PIV= 25V SP	2		D4, D9
14	14		1300365-00	1.0 K .25 W 5.0 % CC	1		R22
15	15		1300426-00	2.70 K .25 W 5.0 % CC	3		R35, R42, R44
16	16		1300479-00	10.0 K .25 W 5.0 % CC	1		R23
17	17		1301317-00	10.0 .25 W 5.0 % CC	2		R14, R19
18	18		1301327-00	68.0 K .25 W 5.0 % CC	2		R27, R28
19	19		1301422-00	7.50 K .25 W 5.0 % CC	2		R48, R47
20	20		1301423-00	6.80 K .25 W 5.0 % CC	3		R34, R43, R45
21	21		1302388-00	2.0 K .25 W 5.0 % CC	7		R1-R5, R32, R33
22	22		1302391-00	20.0 K .25 W 5.0 % CC	1		R25
23	23		1305336-00	200.0 K .25 W 1.0 % RN550-F10	1		R9
24	24		1303155-00	21.50 K .25 W 1.0 % RN550-F10	2		R12, R13
25	25		1313344-00	75.0 K .25 W 1.0 % RN550-F10	1		R17
26	26		1305252-00	68.10 K .25 W 1.0 % RN550-F10	1		R15
27	27		1303044-00	100.0 K .25 W 1.0 % RN550-F10	1		R6
28	28		1309143-09	*** THIS ITEM IS NOT USED ***	-		
29	29		1309143-13	50.0 K .75 W10.0 % POT	2		R49, R46

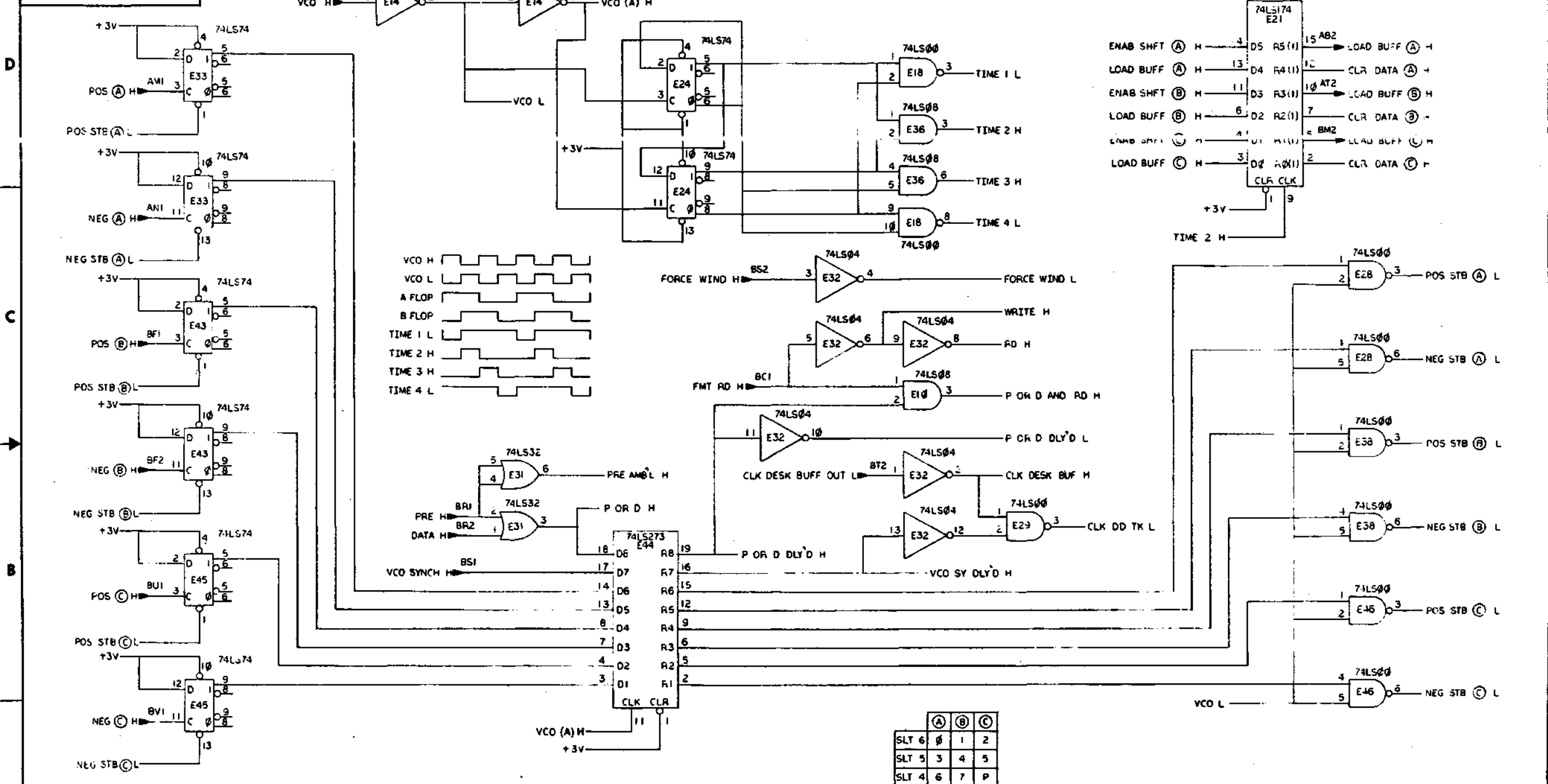
REVISION HISTORY		BASIC PART NO: M8923		DGN: P.KENDRICH		DATE: 20-SEP-78		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	T.QUILLIN	DATE:	20-SEP-78	TITLE	PARTS LIST
M.F.	M8923-ML001	E	SECTION VARIATION INDEX	DES.ENG:	J.ROLLINS	DATE:	20-SEP-78	READ CONTROL	
RN	M8923-ML002	F	[A] 00	RESP.ENG.:	J.ROLLINS	DATE:	20-SEP-78	DOCUMENT NUMBER	
DJ	M8923-ML003	H	[B]	MFG.ENG.:	P.BARTON	DATE:	20-SEP-78	SIZE: CODE: NUMBER	REV
			[C]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		K PL M8923-0-DBP	H
			[D]	0-UA-M8923-0-0		TS04		FILE NAME:	EDIT #
			[E]					Z1482H.PLS	12
			[F]						
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			[J]						
			[K]						
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			[N]						

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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
					00	
30	30		1305420-00	33.20 K .25 W 1.0 % RN550-F10	1	R19
31	31		1301732-00	620.0 .50 W 5.0 % CC	1	R65
32	32		1305427-00	590.0 K .25 W 1.0 % RN550-F10	1	R7
33	33		1312985-00	332.0 K .25 W 1.0 % RN550-F10	1	R8
34	34		1312988-00	49.90 K .25 W 1.0 % RN550-F10	1	R16
35	35		1503100-00	DEC30098 NPN 200MW SI 20 25	1	Q1
36	36		1909929-00	7417 BUFFER GATE-HEX 1INP	1	E2
37	37		1910298-00	741 OP AMP GEN PURP. COM	2	E17,E18
38	38		1910735-02	318 OP AMP	1	E20
39	39		1912108-00	339 VOLT CMPRTR, QUAD	1	E21
40	40		1912697-00	LS174 FF-D HEX W/CLEAR	1	E1
41	41		1912842-00	LS138 DECODER-THREE INPUT	1	E6
42	42		2113603-00	4001UBNOR GATE-QUAD 2IN CM	1	E26
43	43		2113607-00	4011UBNAND GATE-QUAD 2IN C	1	E25
44	44		2113609-00	40138 FF-D DUAL W/SET/RESE	1	E3
45	45		2113612-00	40198 AND-OR SELECT GATE-Q	2	E19,E22
46	46		2113613-00	4023UBNAND GATE, TRIPLE, 3IN	1	E14
47	47		2113621-00	4041UB BUFFER GATE, QUAD TR	1	E10
48	48		2113627-00	4049UBINVERTER-HEX BUFFER-	1	E15
49	49		2113629-00	4051B MULTIPLEXER 8CHAN CM	1	E9
50	50		2113632-00	4066B BILATERAL SWITCH-QUA	1	E24
51	51		2113634-00	4070B X-OR GATE-QUAD CMOS	1	E11
52	52		2113638-00	4075B OR GATE-TRIPLE 3IN C	3	E8,E13,E16
53	53		2113644-00	*** THIS ITEM IS NOT USED ***	-	
54	54		1914466-00	3130E OP AMP MOS/FET IN, CM	1	E12
55	55		9006732-00	EYELET, ROLL FLANGE .1210DX .219	4	
56	56		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
57	57		2113635-00	4071B OR GATE-QUAD 2IN CMO	1	E7
58	58		1302389-00	4.30 K .25 W 5.0 % CC	2	R10,R11
59	59		1304838-00	43.0 K .25 W 5.0 % CC	1	R21
60	60		1001739-00	*** THIS ITEM IS NOT USED ***	-	
61	61		1118180-00	CR 100 POV=100V IMA	1	D11
62	62		1113295-00	IN 4372A VZ= 3.0 5% .40W	1	D10
63	63		1300250-00	150.0 .25 W 5.0 % CC	2	R51,R52
64	64		1300417-00	2.20 K .25 W 5.0 % CC	2	R54,R55
65	65		1300439-00	3.30 K .25 W 5.0 % CC	4	R57,R58,R60,R61
66	66		1305322-00	7.50 K .25 W 1.0 % RN550-F10	1	R64
67	67		1312987-00	10.50 K .25 W 1.0 % RN550-F10	2	R55,R59
68	68		1302092-00	220.0 K .25 W 5.0 % CC	1	R53
69	69		1302091-00	330.0 K .25 W 5.0 % CC	2	R62,R63
70	70		1014169-00	1000.0 MMF 100V 1%200PPM MICA	1	C41
71	71		1000018-00	120.0 MMF 100V 5%200PPM MICA	1	C49
72	72		1000015-00	82.0 MMF 100V 5%200PPM MICA	2	C44,C52
73	73		1001631-00	390.0 MMF 100V 5%200PPM MICA	2	C45,C46
74	74		1010978-36	.1 MFD 50V 10% CER	2	C47,C48
75	75		1000021-00	220.0 MMF 100V 5%200PPM MICA	3	C10,C11,C32
76	76		1309419-00	19.60 K .25 W 1.0 % RN550-F10	1	R20
77	77		1305265-00	*** THIS ITEM IS NOT USED ***	-	

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							READ CONTROL		K	PL	M8923-0-DBP	H

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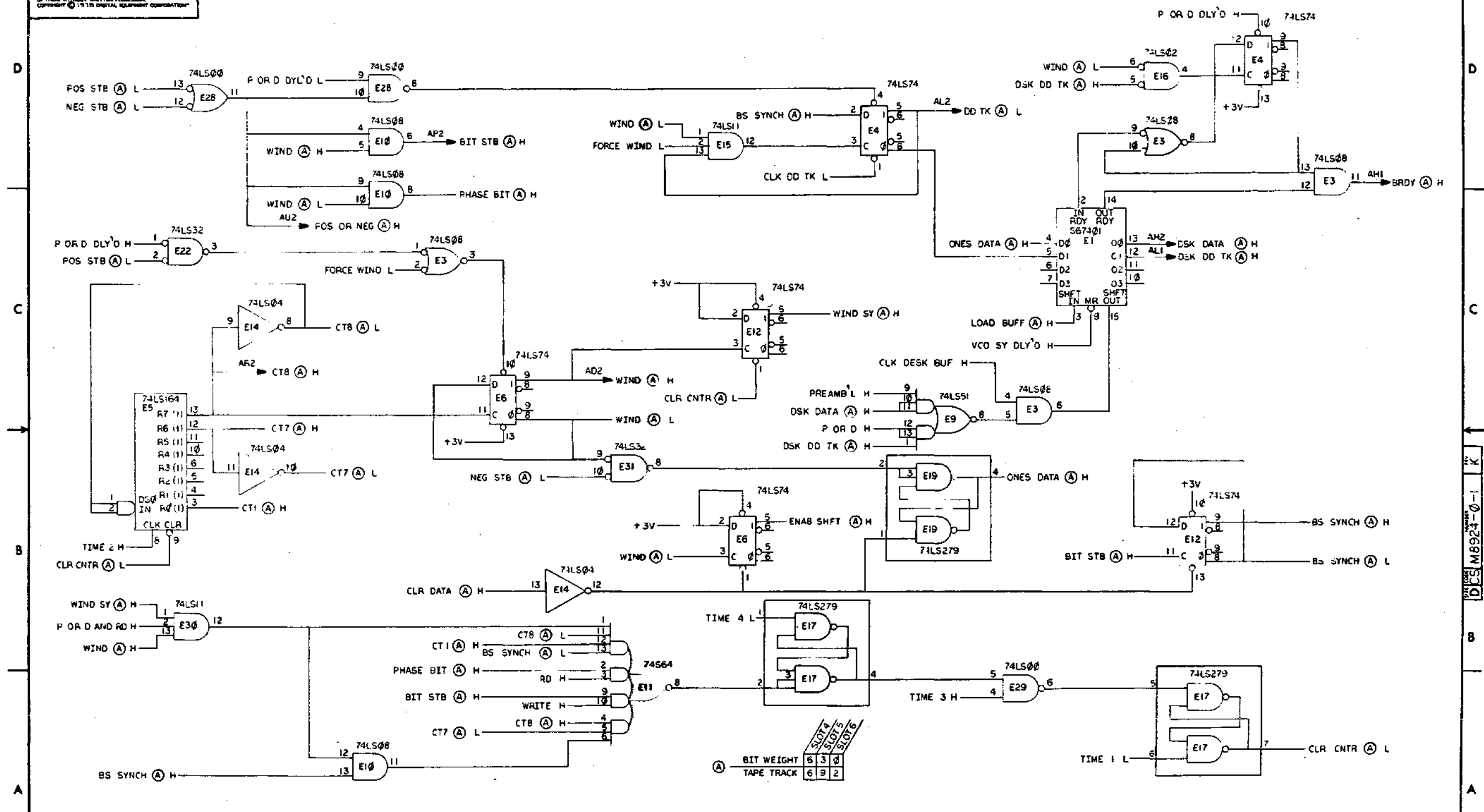


REV. 1	DATE 11/17/74	BY J. R. D.
REV. 2	DATE 12/11/74	BY J. R. D.
REV. 3	DATE 1/10/75	BY J. R. D.
REV. 4	DATE 1/10/75	BY J. R. D.
REV. 5	DATE 1/10/75	BY J. R. D.
REV. 6	DATE 1/10/75	BY J. R. D.
REV. 7	DATE 1/10/75	BY J. R. D.
REV. 8	DATE 1/10/75	BY J. R. D.
REV. 9	DATE 1/10/75	BY J. R. D.
REV. 10	DATE 1/10/75	BY J. R. D.
REV. 11	DATE 1/10/75	BY J. R. D.
REV. 12	DATE 1/10/75	BY J. R. D.
REV. 13	DATE 1/10/75	BY J. R. D.
REV. 14	DATE 1/10/75	BY J. R. D.
REV. 15	DATE 1/10/75	BY J. R. D.
REV. 16	DATE 1/10/75	BY J. R. D.
REV. 17	DATE 1/10/75	BY J. R. D.
REV. 18	DATE 1/10/75	BY J. R. D.
REV. 19	DATE 1/10/75	BY J. R. D.
REV. 20	DATE 1/10/75	BY J. R. D.
REV. 21	DATE 1/10/75	BY J. R. D.
REV. 22	DATE 1/10/75	BY J. R. D.
REV. 23	DATE 1/10/75	BY J. R. D.
REV. 24	DATE 1/10/75	BY J. R. D.
REV. 25	DATE 1/10/75	BY J. R. D.
REV. 26	DATE 1/10/75	BY J. R. D.
REV. 27	DATE 1/10/75	BY J. R. D.
REV. 28	DATE 1/10/75	BY J. R. D.
REV. 29	DATE 1/10/75	BY J. R. D.
REV. 30	DATE 1/10/75	BY J. R. D.
REV. 31	DATE 1/10/75	BY J. R. D.
REV. 32	DATE 1/10/75	BY J. R. D.
REV. 33	DATE 1/10/75	BY J. R. D.
REV. 34	DATE 1/10/75	BY J. R. D.
REV. 35	DATE 1/10/75	BY J. R. D.
REV. 36	DATE 1/10/75	BY J. R. D.
REV. 37	DATE 1/10/75	BY J. R. D.
REV. 38	DATE 1/10/75	BY J. R. D.
REV. 39	DATE 1/10/75	BY J. R. D.
REV. 40	DATE 1/10/75	BY J. R. D.
REV. 41	DATE 1/10/75	BY J. R. D.
REV. 42	DATE 1/10/75	BY J. R. D.
REV. 43	DATE 1/10/75	BY J. R. D.
REV. 44	DATE 1/10/75	BY J. R. D.
REV. 45	DATE 1/10/75	BY J. R. D.
REV. 46	DATE 1/10/75	BY J. R. D.
REV. 47	DATE 1/10/75	BY J. R. D.
REV. 48	DATE 1/10/75	BY J. R. D.
REV. 49	DATE 1/10/75	BY J. R. D.
REV. 50	DATE 1/10/75	BY J. R. D.

SLT 6	0	1	2
SLT 5	3	4	5
SLT 4	6	7	P

DRW. 10/10/74	1-24-74	FIRST USED ON	TS04 Digital
CHK'D		TITLE	P. E. FORMATTER
ENGR.		SCALE	NONE
PROJ. ENGR.		SHEET	1 OF 4
PROJ. MGR.		DIST.	
NEXT HIGHER ASSY.		SIZE CODE	D CS
B-DD-M8924-0		NUMBER	M8924-0-1
		REV.	K

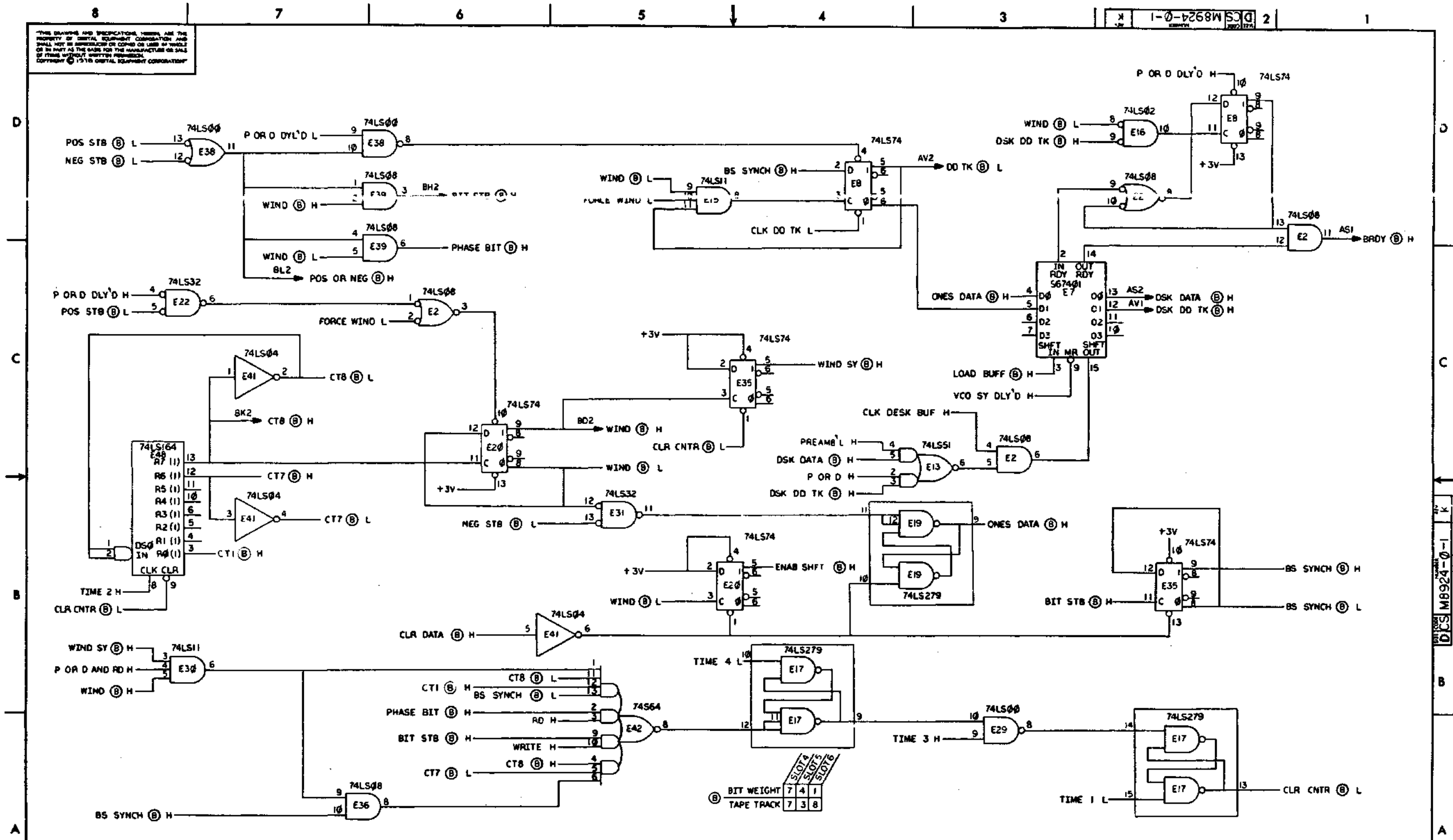
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REVISIONS			TITLE	SIZE/SCALE	NUMBER	REV.
CHK	CHANGE NO.	REV.				
			P. E. FORMATTER	DCS	M8924-0-1	K
			SCALE: NONE	SHEET: 2 OF 4		

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DCS M8924-0-1 2

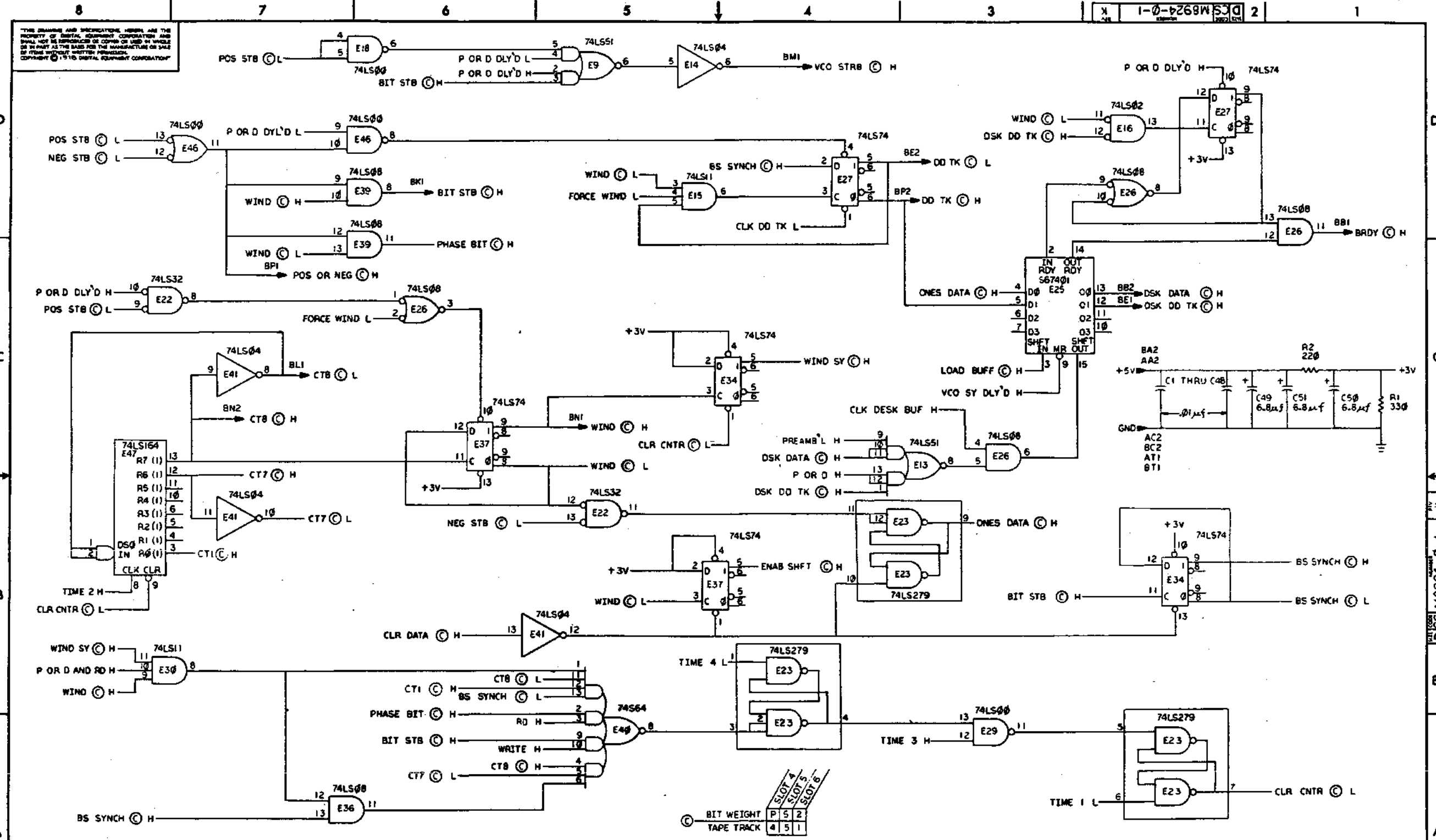


DCS M8924-0-1

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE		SIZE CODE		NUMBER		REV.	
P.E. FORMATTER		DCS		M8924-0-1			
SCALE	NONE	SHEET	3	OF	4	DIST.	

8 7 6 5 4 3 2 1



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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	P.E. FORMATTER	INTERCOM	NUMBER	REV.
SCALE	NONE	SHEET	4 OF 4	
DCS M8924-0-1				

DCS M8924-0-1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
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1	1	D-CS-M8924-0-1		CIRCUIT SCHEMATIC		REF
2	2	D-UA-M8924-0-0		UNIT ASSY		REF
3	3	B-DD-M8924-0-0		DWG DIRECTORY		REF
4	4	D-MD-5011956-0-0		DRILL & ETCH DWG		REF
5	5		5011956-00	M8924	1	
6	6		1001610-00	.01 MFD 50V +80-20% 25U CER	48	C1-C48
7	7		1005306-00	6.8MFD 35V 10% S.TANT	3	C49-C51
8	8		1300271-00	220.0 .25 W 5.0 % CC	1	R2
9	9		1300273-00	330.0 .25 W 5.0 % CC	1	R1
10	10		1910542-00	74S64 A-0-I GATE 4-2-3-2	3	E11,E40,E42
11	11		1912697-00	LS174 FF-D HEX W/CLEAR	1	E21
12	12		1912799-00	LS00 NAND-GATE-QUAD 2IN,P	5	E18,E28,E29,E38,E46
13	13		1912801-00	LS02 NOR-GATE-QUAD 2IN	1	E16
14	14		1912803-00	774LS04 INVERTER GATE, HEX	3	E14,E32,E41
15	15		1912805-00	LS08 AND GATE-QUAD 2IN,PO	6	E2,E3,E10,E26,E36,E39
16	16		1912808-00	LS11 AND GATE-TRIPLE 3IN	2	E15,E30
17	17		1912816-00	LS32 OR GATE-QUAD 2IN,POS	2	E22,E31
18	18		1912820-00	LS51 A-0-I GATE 2-WIDE 2I	2	E9,E13
19	19		1912824-00	LS74 FF-D DUAL,EDGE TRIGG	13	E4,E6,E8,E12,E20,E24,E27, E33-E35,E37,E43,E45
20	20		1912850-00	LS164 SHIFT REG. 8BIT SERI	3	E5,E47,E48
21	21		1912863-00	LS273 FF-D OCTAL W/CLEAR	1	E44
22	22		1912864-00	LS279 LATCH,QUAD-S-R	3	E17,E19,E23
23	23		1914768-01	FIFO, SLOW (67401)	3	E1,E7,E25
24	24		9006732-00	EYELET, ROLLED FLANGE, .121 OD X	4	
25	25		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
26	26		9105740-55	*** THIS ITEM IS NOT USED ***	-	
27	27		1000023-00	330.0 MMF 100V 5%200PPM MICA	6	C52-C57
28	28	D-EC-5011956-0-0		ETCH CUT DRAWING		REF

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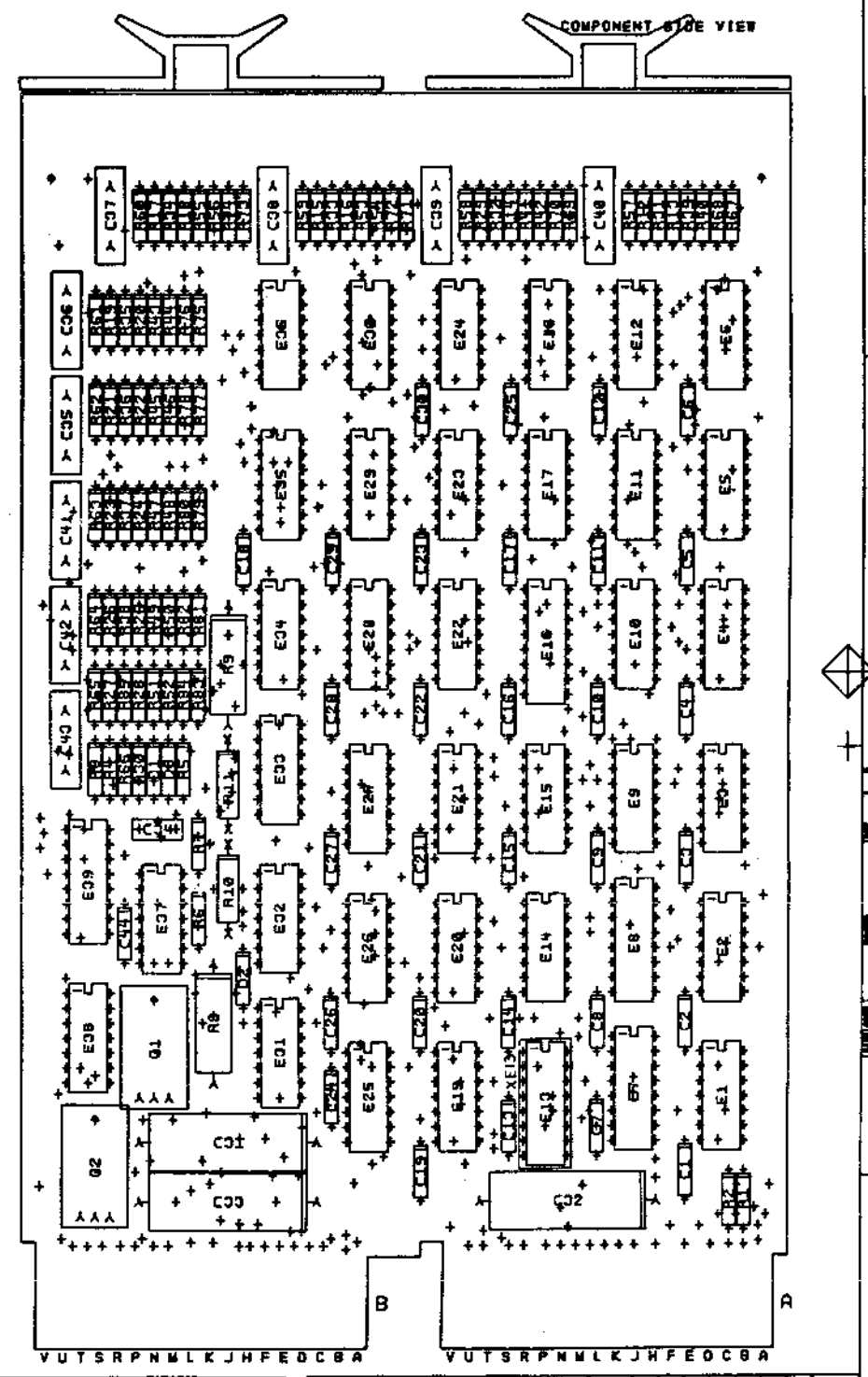
REVISION HISTORY		BASIC PART NO: M8924		DRN:	J.ROGERS	DATE:	30-DEC-77	D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	H.RICHER	DATE:	13-JUL-78	TITLE PARTS LIST			
---	INIT	E	SECTION VARIATION INDEX	DES.ENG:	R.CORNEAU <td>DATE:</td> <td>13-JUL-78</td> <td colspan="4">DOCUMENT NUMBER</td>	DATE:	13-JUL-78	DOCUMENT NUMBER			
J.R	M8924-ML001	F	[A] 00	MFG.ENG.:	P.BARTON <td>DATE:</td> <td>13-JUL-78</td> <td>SIZE</td> <td>CODE</td> <td>NUMBER</td> <td>REV</td>	DATE:	13-JUL-78	SIZE	CODE	NUMBER	REV
BK	M8924-ML003	J	[B]	ASSEMBLY NUMBER:	D-UA-M8924-0-0 <td>TOP DOCUMENT NUMBER:</td> <td>#B-DD-M8924-0</td> <td>K</td> <td>PL</td> <td>M8924-0-DBP</td> <td>K</td>	TOP DOCUMENT NUMBER:	#B-DD-M8924-0	K	PL	M8924-0-DBP	K
R.N	M8924-ML004	K	[C]	FILE NAME:	Z0288K.PLS	EDIT #:	22				
			[D]								
			[E]								
			[F]								
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			[I]								
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			[M]								
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8 7 6 5 4 3 2 1

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D
C
B
A



D
C
B
A

NOTES:

 STEP 1 → Y AXIS 0 STEP 0 TIMES
 REPEAT → X AXIS 0.250 STEP 1 TIMES

CHANGE NO	REV	REVISION	BY	DATE
1	F	REWORKED PROGRAM	ML092A	

ETCH REV. D

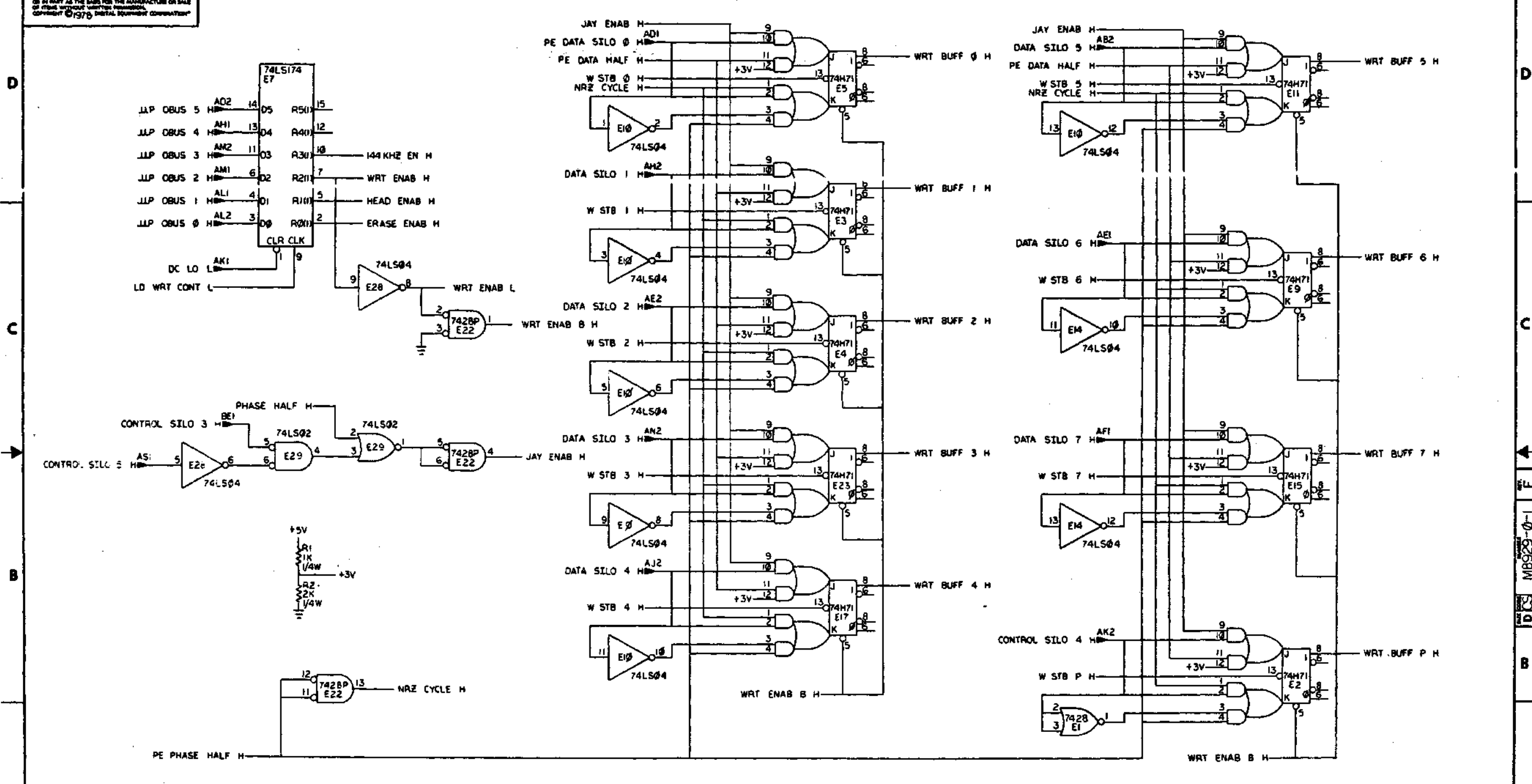
SIGNATURES	DATE	TITLE
DRN. J. RICHARD	5-2-79	
CHK. D. [Signature]	6-1-79	
MECH. ENG. [Signature]	6-2-79	
PROJ. ENG. [Signature]	6-2-79	
PROG. [Signature]	6-2-79	

SCALE 2/1
 SHT. 1 OF 3
 NEXT HIGHER REV. B-00-M8929-0

8 7 6 5 4 3 2 1 MS#

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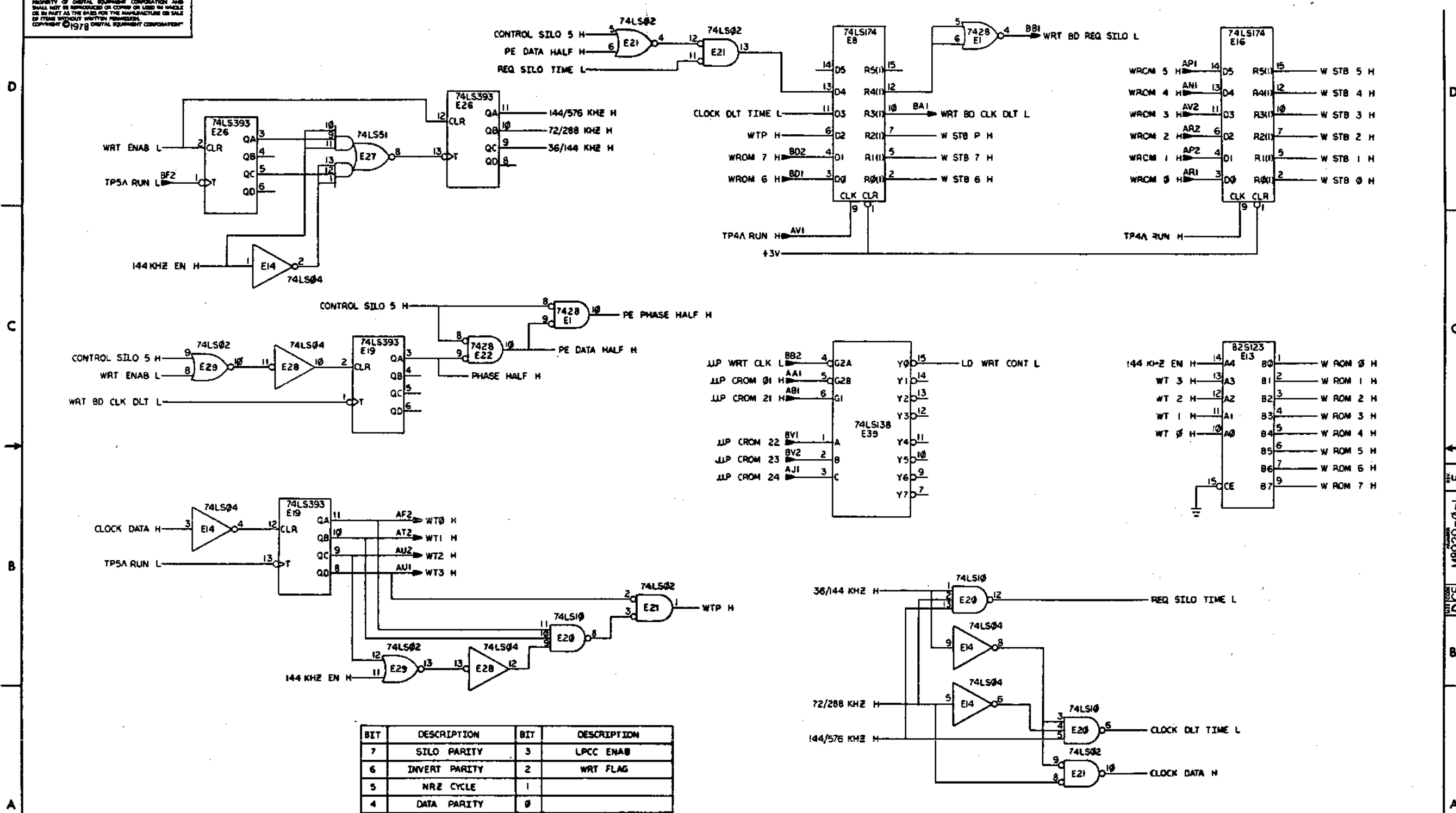
1-0-6268M 2



REV	DATE	BY	CHKD
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2	1/15/77	R. CORNEAU	R. CORNEAU
3	1/15/77	R. CORNEAU	R. CORNEAU
4	1/15/77	R. CORNEAU	R. CORNEAU
5	1/15/77	R. CORNEAU	R. CORNEAU
6	1/15/77	R. CORNEAU	R. CORNEAU
7	1/15/77	R. CORNEAU	R. CORNEAU
8	1/15/77	R. CORNEAU	R. CORNEAU

DATE	11/17/76	FIRST USED ON	TS04
CHKD	R. CORNEAU	BY	R. CORNEAU
ENG	R. CORNEAU	TITLE	WRITE CONTROL
PROD. DES.	1/15/77	SCALE	D
PROD. P.D.	1/15/77	NUMBER	M8929-0-1
NEXT HIGHER ASSY.		SIZE	CS
B-00-M8929-0		REV.	F
SHEET 1 OF 5		DIST.	

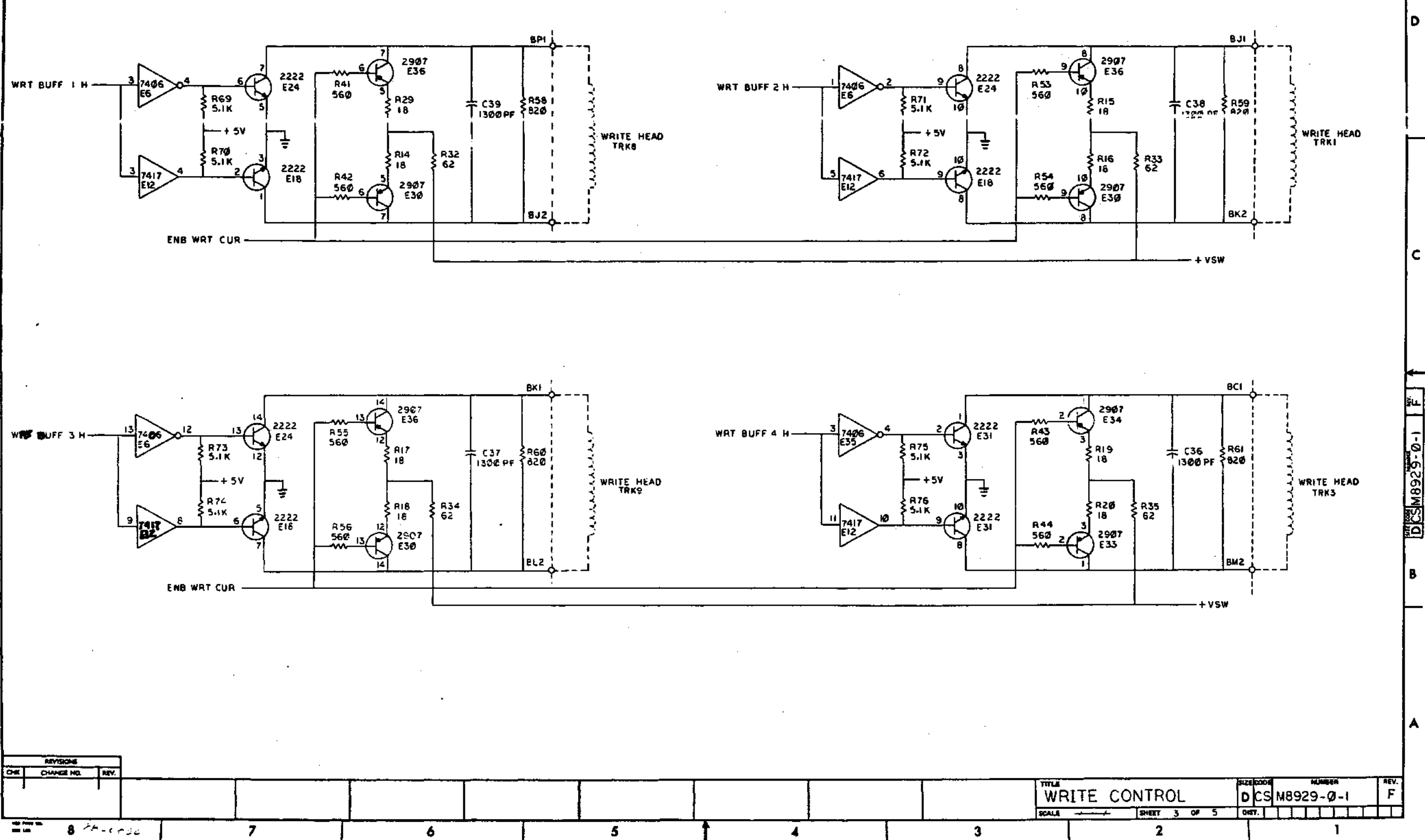
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REVISIONS		
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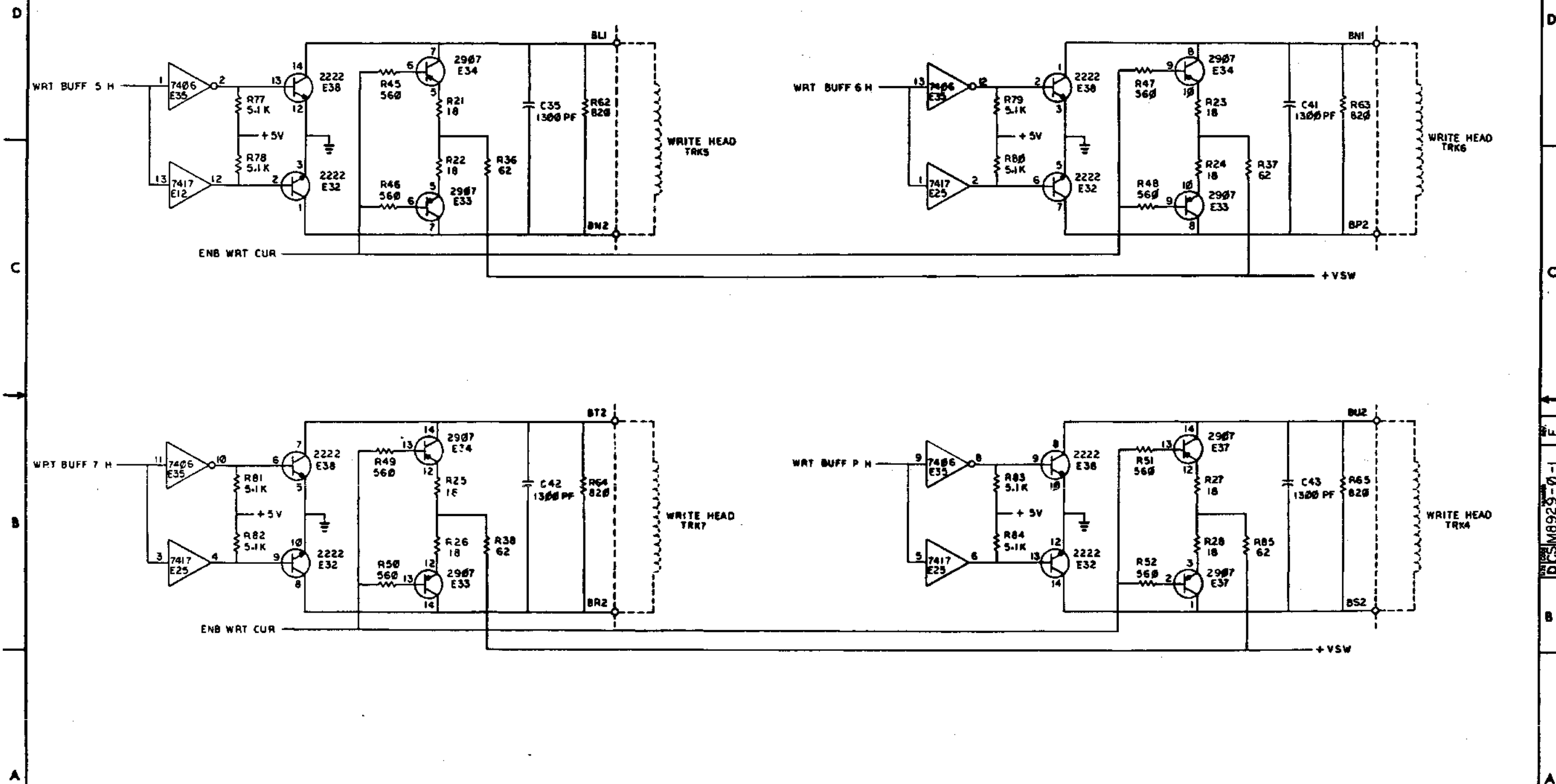
D
C
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REVISIONS		
CHK	CHANGE NO.	REV.

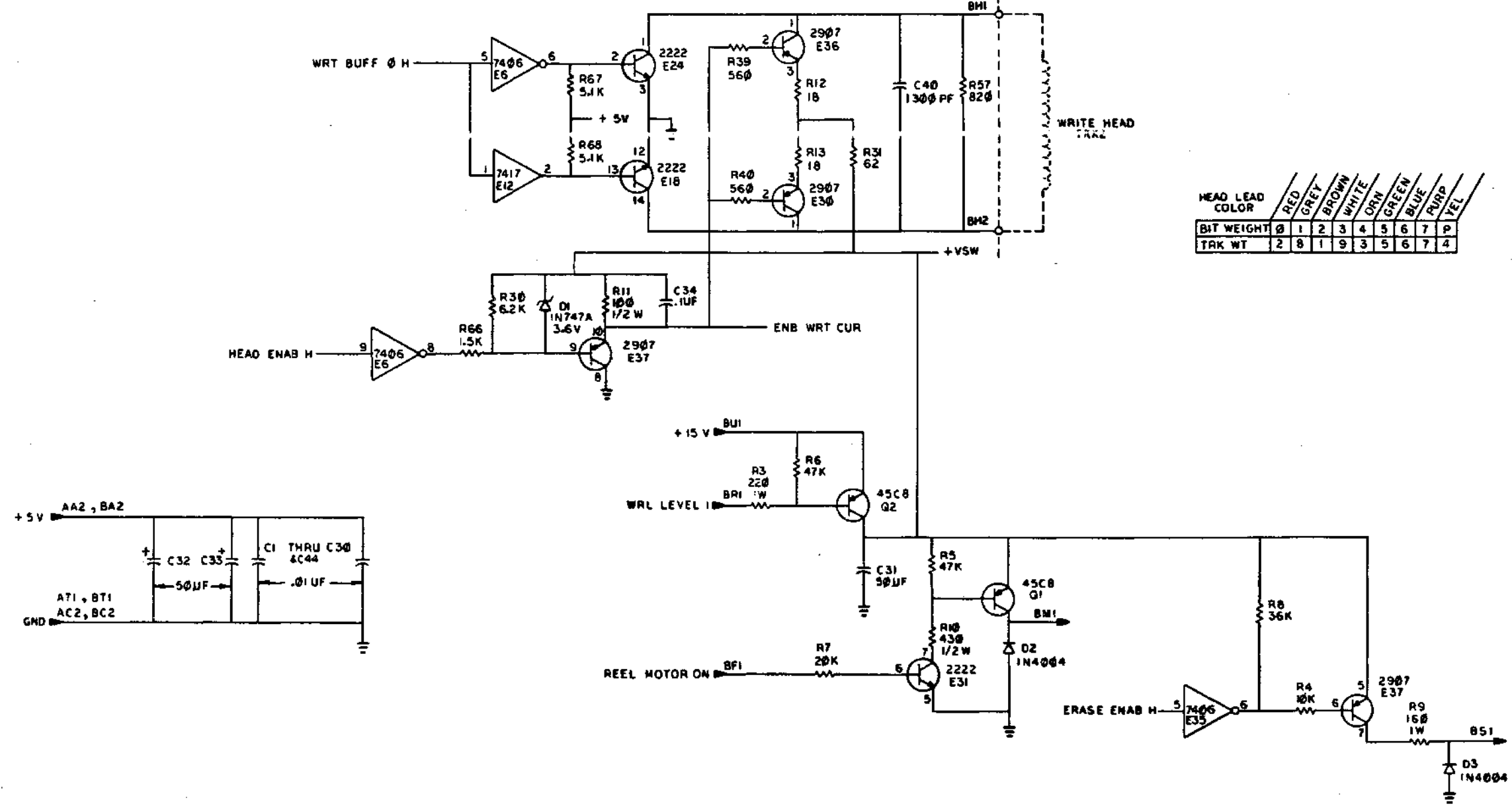
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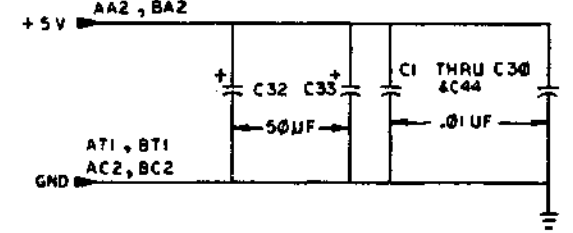
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CHK	CHANGE NO.	REV.

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1-0-6268W 2



HEAD LEAD COLOR	RED	GREY	BROWN	WHITE	ORN	GREEN	BLUE	PURP	YEL
BIT WEIGHT	0	1	2	3	4	5	6	7	8
TRK WT	2	8	1	9	3	5	6	7	4



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: WRITE CONTROL
 NUMBER: DCS M8929-0-1
 SHEET: 5 OF 5
 DATE:

DCS M8929-0-1 F

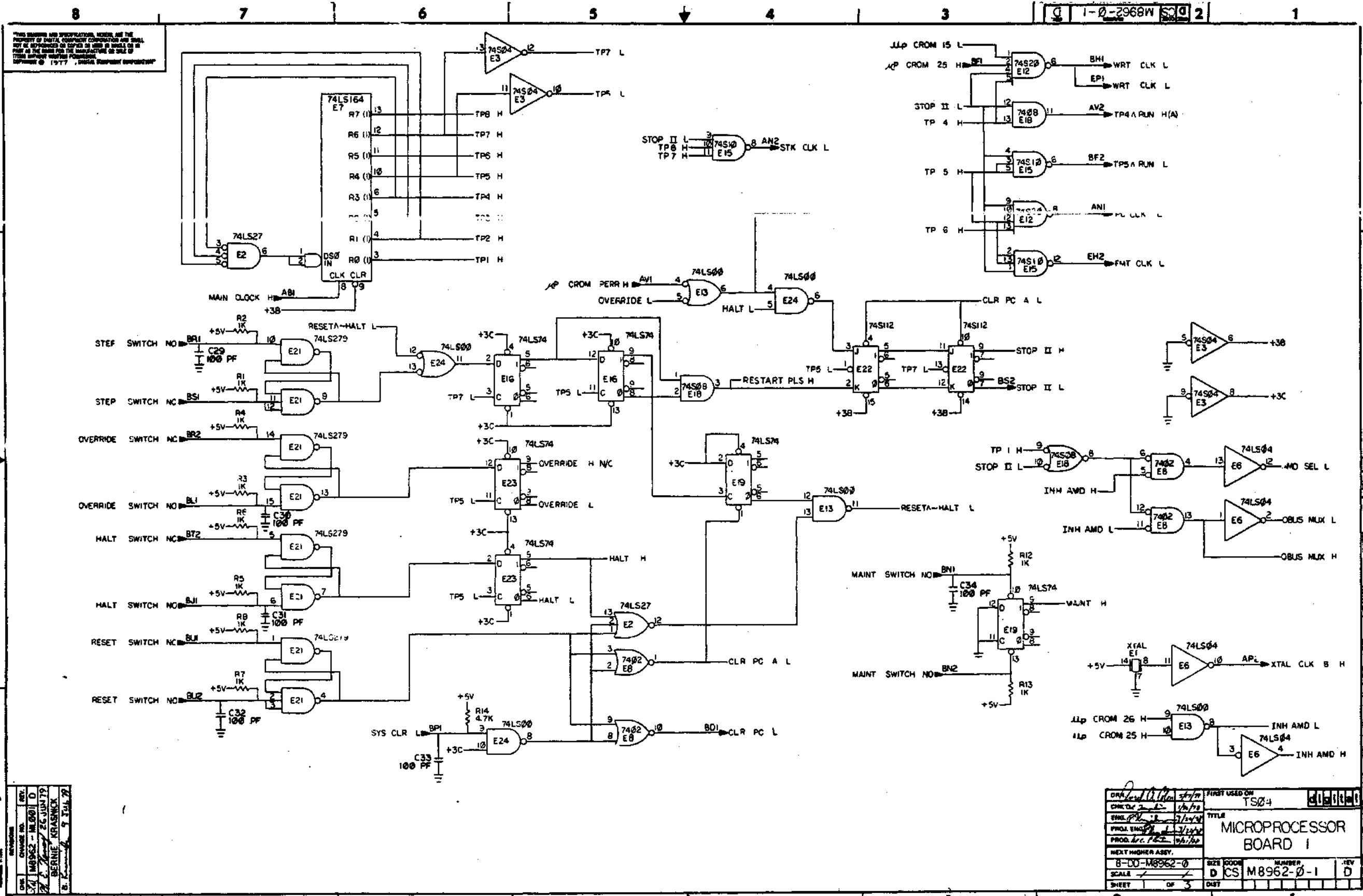
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1	1	D-C5-M8929-0-1		CIRCUIT SCHEMATIC	REF	
2	2	D-UA-M8929-0-0		UNIT ASSY	REF	
3	3	B-DD-M8929-0-0		DWG DIRECTORY	REF	
4	4	D-MD-S012937-0-0		DRILL & ETCH DWG	REF	
5	5		M8929		1	
6	6		5012937-00	*** THIS ITEM IS NOT USED ***	-	
7	7		1000061-00	50 MFD 50V +75-10% AL EL	3	C31-C33
8	8		1000080-00	.01 MFD 50V +80-20% 25U CER	31	C1-C30,C44
9	9		1001739-00	*** THIS ITEM IS NOT USED ***	-	
10	10		1005306-80	*** THIS ITEM IS NOT USED ***	-	
11	11		1100124-00	*** THIS ITEM IS NOT USED ***	-	
12	12		1101938-00	*** THIS ITEM IS NOT USED ***	-	
13	13		1109991-01	*** THIS ITEM IS NOT USED ***	-	
14	14		1105796-00	1N 4004 PIV=400 I= 1A 0041 SP	2	D2,D3
15	15		1211813-02	SOCKET 16PIN IC LOW PROFILE.	1	XE13
16	16		1300229-00	*** THIS ITEM IS NOT USED ***	-	
17	17		1300277-00	220.0 1.0 W10.0% CC	1	R3
18	18		1300365-00	1.0 K .25 W 5.0% CC	1	R1
19	19		1300479-00	10.0 K .25 W 5.0% CC	1	R4
20	20		1301322-00	*** THIS ITEM IS NOT USED ***	-	
21	21		1301401-00	*** THIS ITEM IS NOT USED ***	-	
22	22		1302177-00	47.0 K .25 W 5.0% CC	2	R5,R6
23	23		1302388-00	2.0 K .25 W 5.0% CC	1	R2
24	24		1302391-00	20.0 K .25 W 5.0% CC	1	R7
25	25		1302466-00	*** THIS ITEM IS NOT USED ***	-	
26	26		1302602-00	*** THIS ITEM IS NOT USED ***	-	
27	27		1312932-00	36.0 K .25 W 5.0% CC	1	R8
28	28		1314953-00	160.0 1.0 W 5.0% CC	1	R9
29	29		1314954-00	430.0 .50 W 5.0% CC	1	R10
30	30		1510421-00	*** THIS ITEM IS NOT USED ***	-	

REVISION HISTORY		BASIC PART NO: M8929		DRN: H.WEINBRENNER	DATE: 02-FEB-78	D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: R.ODON	DATE: 02-FEB-78	TITLE PARTS LIST	
	INIT	B	SECTION VARIATION INDEX			WRITE CONTROL	
BHF	MLO01	C	[A] 00				
R.C	M8929-MLO02	D	[B]	DES.ENG: H.FINDEISEN	DATE: 04-APR-78		
P.K	M8929-MLO03	E	[C]			DOCUMENT NUMBER	
R.C	M8929-MLO04	F	[D]	RESP.ENG.: H.FINDEISEN	DATE: 04-APR-78	SIZE CODE NUMBER REV	
			[E]			K	PL M8929-0-DBP F
			[F]	ASSEMBLY NUMBER: D-UA-M8929-0-0	TOP DOCUMENT NUMBER: B-DD-M8929-0-0	FILE NAME: 20214F.PLS EDIT # 21	
			[G]				
			[H]				
			[I]				
			[J]				
			[K]				
			[L]				
			[M]				
			[N]				

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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
					00	
31	31		1510598-00	DEC45C8 PNP 27WT SI 60 20 Y	2	Q1, Q2
32	32		1514961-00	TPQ2222 NPN 500MW SI 40 100	2	E24, E18, E38, E32, E31
33	33		1514962-00	TPQ2907 PNP 500MW SI 40 100	5	E37, E36, E30, E34, E33
34	34		1909067-00	74H71 FF-JK MASTER SLAVE 2	2	E2, E5, E9, E11, E15, E17, E23
35	35		1910741-00	7406 INVERTER GATE-HEX 11	2	E6, E35
36	36		1912697-00	LS174 FF-D HEX W/CLEAR	2	E7, E8, E16
37	37		1912801-00	LS02 NOR-6HIE-QUAD 2IN	2	E21, E29
38	38		1912803-00	74LS04 INVERTER GATE, HEX	2	E10, E14, E28
39	39		1912807-00	LS10 NAND GATE-TRIPLE 3IN	1	E20
40	40		1912820-00	LS51 A-0-1 GATE 2-WIDE 2I	1	E27
41	41		1912842-00	LS138 DECODER-THREE INPUT	1	E39
42	42		1913312-00	7428P NOR GATE-QUAD 2IN POS	1	E1, E22
43	43		1914451-00	74LS393 COUNTER, BINARY, 4BIT	2	E19, E26
44	44		1914466-00	*** THIS ITEM IS NOT USED ***	-	
45	45		2113646-00	*** THIS ITEM IS NOT USED ***	-	
46	46		9006732-00	EYELET, ROLL FLANGE .1210DX .219	4	
47	47		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
48	48		23251A1-00	A1-07	1	E13
49	49		1909929-00	7417 BUFFER GATE-HEX 1INP	2	E12, E25
50	50		1110672-00	1N 747A VZ= 3.6 5%	1	D1
51	51		1300228-00	100.0 .50 W 5.0 % CC	1	R11
52	52		1302124-00	18.0 .25 W 5.0 % CC	18	R12-R29
53	53		1312929-00	62.0 .25 W 5.0 % CC	9	R31-R38, R85
54	54		1301890-00	560.0 .25 W 5.0 % CC	18	R39-R56
55	55		1301775-00	820.0 .25 W 5.0 % CC	9	R57-R65
56	56		1300391-00	1.50 K .25 W 5.0 % CC	1	R66
57	57		1312930-00	5.10 K .25 W 5.0 % CC	18	R67-R84
58	58		1312931-00	6.20 K .25 W 5.0 % CC	1	R30
59	59		1010978-36	.1 MFD 50V 10% CER	1	C34
60	60		1001633-00	1300.0 MMF 100V 5%200PPM NICA	9	C35-C43
61	61		9008301-01	SCREW, PAN, PHIL 4-40X 1/4 SS	2	
62	62		9006557-00	NUT, KEP , 4-40X 1/4 AF	2	

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							WRITE CONTROL		K	PL	N8929-0-D8P	F

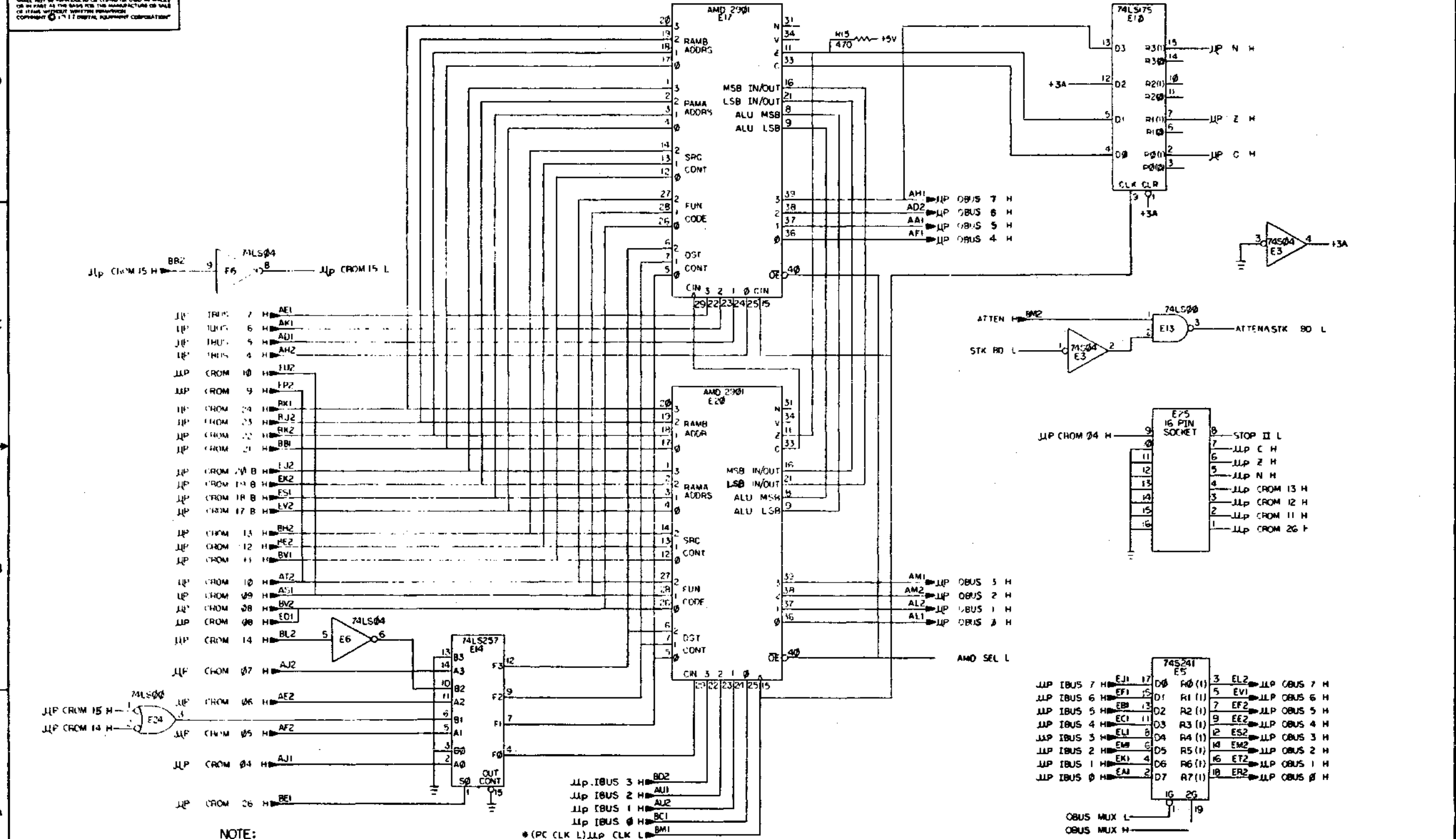


REV	D
CHANGE NO.	1
DATE	7/26/79
BY	B. KRASNICK
CHKD	B. KRASNICK
APP'D	
DATE	

DESIGNED BY	DATE	FIRST USED ON	
CHKD BY	DATE	TS04	
ENG. PROJ.	DATE	TITLE	MICROPROCESSOR BOARD 1
PROJ. ENG.	DATE	NUMBER	
PROJ. MGR.	DATE	SCALE	D CS M8962-0-1 D
NEXT HIGHER ASSEMBLY		SIZE	1000
		SCALE	
		SHEET	OF 3
		DIST	

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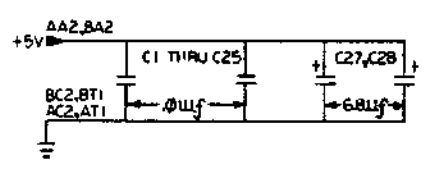
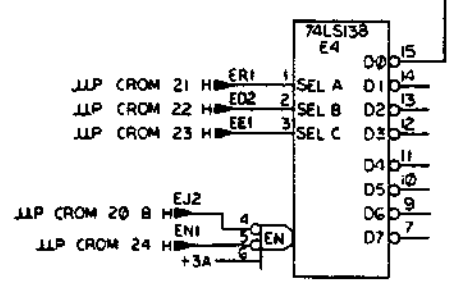
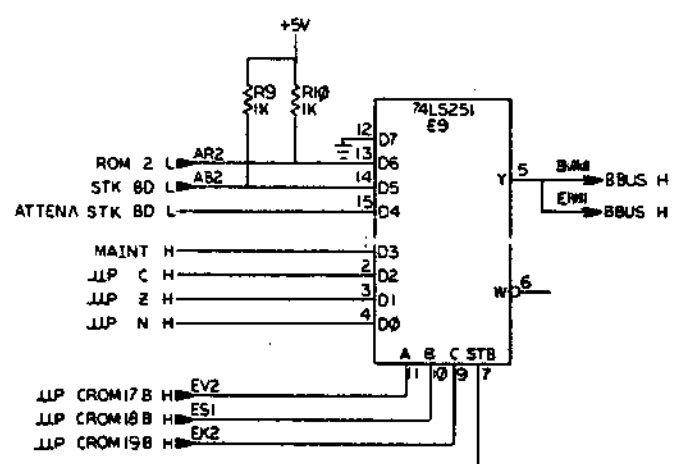
D
C
B
A



CHR	CHANGE NO.	REV.

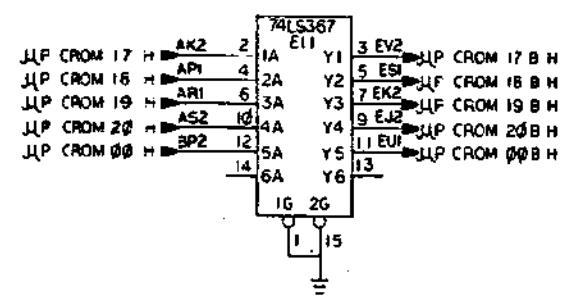
NOTE:
* PC CLK L WIRED TO J1P CLK L ON BACK PANEL.

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AC1 → EN2 → JLP CROM 00 H

OVER TOP CONNECTOR	
SIGNAL	PIN
JLP CROM 00 B H	EU1
JLP CROM 01 H (AC1)	EN2
JLP CROM 17 B H	EV2
JLP CROM 18 B H	ES1
JLP CROM 19 B H	EK2
JLP CROM 20 B H	EJ2
JLP CROM 21 H	ER1
JLP CROM 22 H	ED2
JLP CROM 23 H	EE1
JLP CROM 24 H	EN1
JLP OBUS 0 H	ER2
JLP OBUS 1 H	ET2
JLP OBUS 2 H	EM2
JLP OBUS 3 H	ES2
JLP OBUS 4 H	EE2
JLP OBUS 6 H	EVI
JLP OBUS 7 H	EL2
JLP IBUS 0 H	EA1
JLP IBUS 1 H	EK1
JLP IBUS 2 H	EM1
JLP IBUS 3 H	EL1
JLP IBUS 4 H	EB1
JLP IBUS 5 H	EF1
JLP IBUS 6 H	EJ1
JLP IBUS 7 H	EI1
BBUS H	ENH
FMT CLK L	EH2
WRT CLK L	EP1
JLP OBUS 5 H	EF2
JLP CROM 8 H	ED1
JLP CROM 9 H	EP2
JLP CROM 10 H	EU2



REVISIONS		
CHK	CHANGE NO.	REV.

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
1		D-CS-M8962-0-1		CIRCUIT SCHEMATIC	REF	
2		D-UA-M8962-0-0		UNIT ASSY	REF	
3		B-DD-M8962-0-0		DWG DIRECTORY	REF	
4		D-MD-5012863-0-0		DRILL & ETCH DWG	REF	
5			5012863-00	M8962	1	
6			1001610-00	.01 MFD 50V +80-20% 25U CER	25	C1-C25
7			1005306-00	6.8MFD 35V 10% 5. TANT	2	C27,C28
8			1300316-00	470.0 .25 W 5.0 % CC	1	R15
9			1300365-00	1.0 K .25 W 5.0 % CC	12	R1-R10,R12,R13
10			1300447-00	4.70 K .25 W 5.0 % CC	1	R14
11			1913471-00	LS367 DRIVER,BUS,HEX,TRI-	1	E11
12			1912850-00	LS164 SHIFT REG. 8BIT SERI	1	E7
13			1910534-00	74504 INVERTER GATE-HEX 1I	1	E3
14			1910539-00	74520 NAND GATE-DUAL 4INPU	1	E12
15			1910545-00	745112 FF-JK DUAL,EDGE TRIG	1	E22
16			1911641-00	SN 745257 MUX,QUAD 2 TO 1	1	E14
17			1912389-00	74508 AND GATE-QUAD 2IN,PO	1	E18
18			1912648-00	LS251 MUX 8 INPUT,TRI-STA	1	E9
19			1912799-00	LS00 NAND-GATE-QUAD 2IN,P	2	E13,E24
20			1912813-00	LS27 NOR GATE-TRIPLE 3IN	1	E2
21			1912824-00	LS74 FF-D DUAL,EDGE TRIGG	3	E16,E19,E23
22			1912853-00	LS175 FF-D QUAD	1	E10
23			1912864-00	LS279 LATCH,QUAD-S-R	1	E21
24			1913245-00	2901 BIPOLAR MICROPROCESSO	2	E17,E20
25			1909004-00	DEC 7402 NOR GATE-QUAD 2IN	1	E8
26			1910536-00	74510 NAND GATE-TRIPLE 3IN	1	E15
27			1912842-00	LS138 DECODER-THREE INPUT	1	E4
28			1913493-00	745241 OCTAL BUFFER,TRI-STA	1	E5
29			1211813-02	SKT,IC 16PIN DIP GOLD PLATE	1	E25
30			1812131-00	OSCILLATOR, XTAL 13.824 MHZ	1	E1

REVISION HISTORY		BASIC PART NO: M8962		DRN: J. ROGERS		DATE: 21-NOV-77		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	R. WALDIE	DATE:	21-NOV-77	TITLE	PARTS LIST
	INIT	C	SECTION VARIATION INDEX	DES.ENG:	P. KINZELMAN	DATE:	05-JUL-78	DOCUMENT NUMBER	
	B.K!M8962-ML001	D	(A) 00	RESP.ENG.:	P. KINZELMAN	DATE:	05-JUL-78	SIZE:CODE: NUMBER	REV
			(B)	MFG.ENG.:	P. BARTON	DATE:	05-JUL-78	K PL M8962-0-DBP	D
			(C)	ASSEMBLY NUMBER:	D-UA-M8962-0-0	TOP DOCUMENT NUMBER:	TS04	FILE NAME:	Z0611D.PLS
			(D)					EDIT #	22
			(E)						
			(F)						
			(G)						
			(H)						
			(I)						
			(J)						
			(K)						
			(L)						
			(M)						
			(N)						

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AUTOMATED BY PRTLST.IC(S)

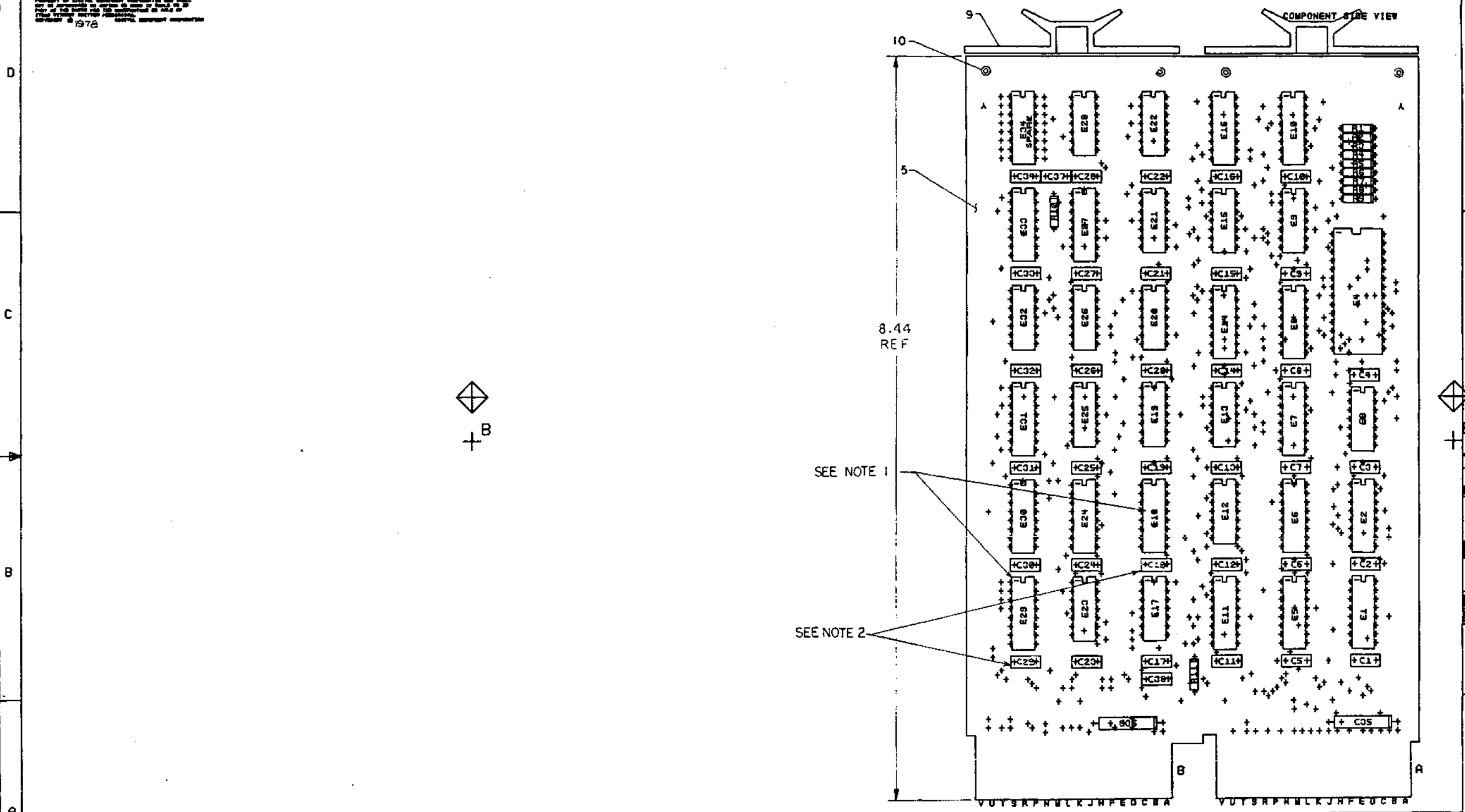
PARTS LIST

SHEET A2 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
31	31		9008337-06	HANDLE, FLIP CHIP, MAGENTA	1	
32	32		9006732-00	EYELET, ROLL FLANGE .12100X .219	2	
33	33		1912803-00	74LS04 INVERTER GATE, HEX	1	E6
34	34		1000016-00	100.0 MMF 100V 5x200PPM MICA	6	C29-C34
35	35		9107256-11	TUBING, THIN WALL, .027ID UL	A/R	

D	I	G	I	T	A	L	TITLE	MICRO PROCESSOR BOARD 1	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M8962-0-DBP	D

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SEE NOTE 1

SEE NOTE 2

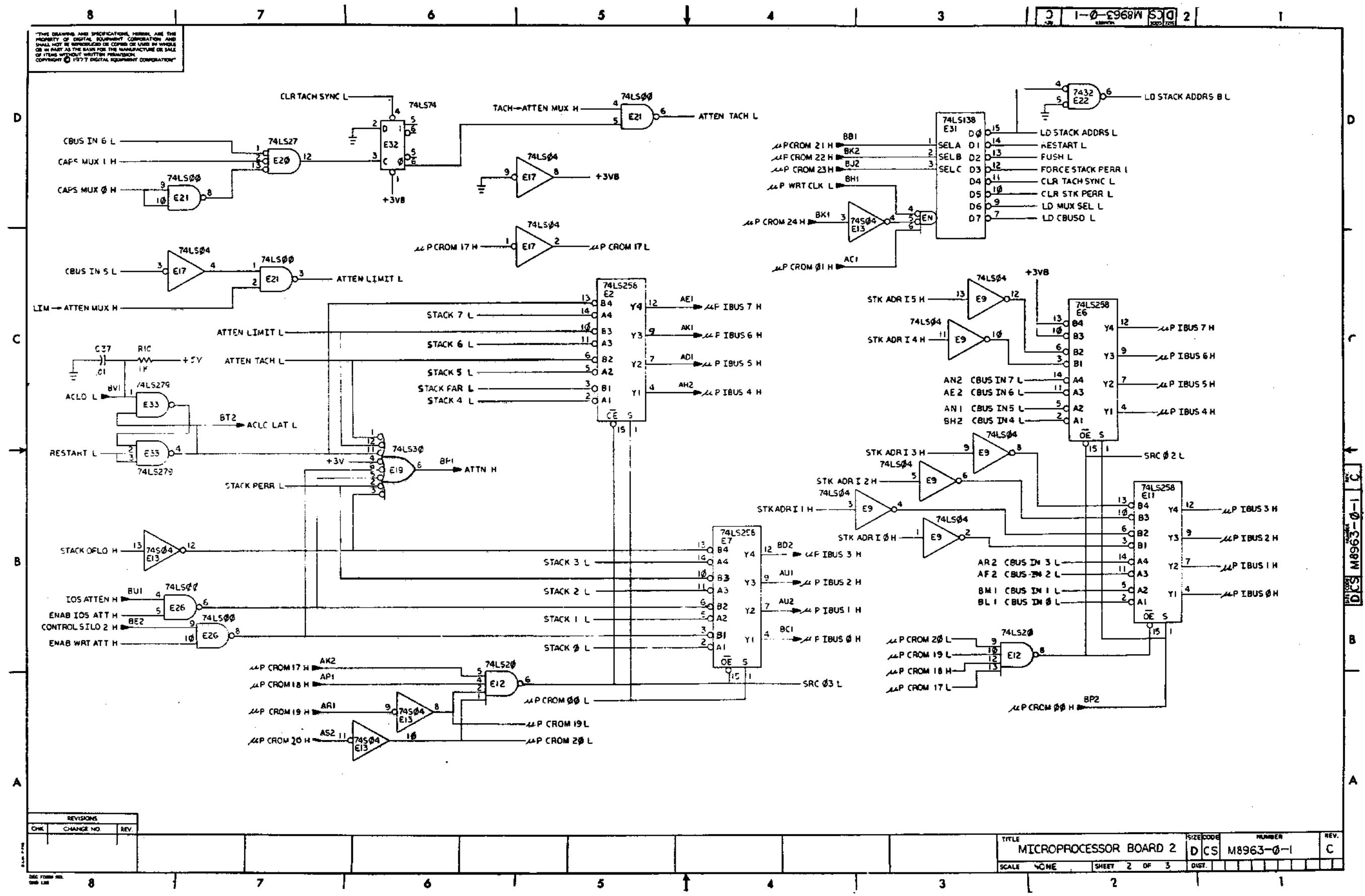
NOTES: 1. DO NOT INSERT I.C. IN E18 AND E29 LOCATIONS.
2. C18 & C29 ARE SPARE

CHK	CHANGE NO	REV	DATE	BY

ETCH REV. C-P2
P.C. DESIGN DATA BASE REV. C

SIGNATURES	DATE	digital
DRG. STU EVANS	6-23-78	
CHK'D.		TITLE MICROPROCESSOR BOARD
ENG.		
PROJ. ENG.		SIZE CODE NUMBER REV 0 UA Mc963-0-21C
PROD.		
SCALE 2/1		
SHT. 1 OF 3		
NEXT HIGHOR ASSY. 8-00-M8963-0		

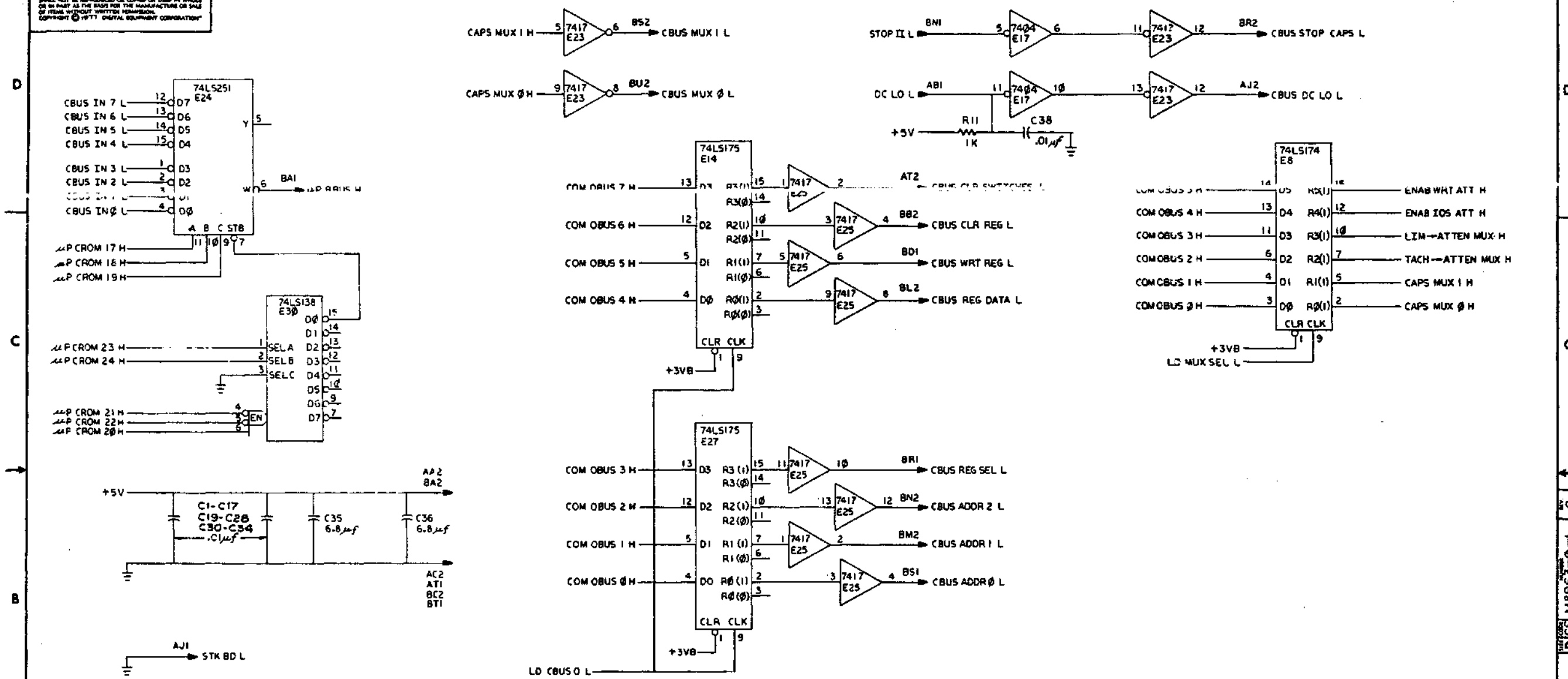
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REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE CODE	NUMBER	REV.
MICROPROCESSOR BOARD 2	D CS	M8963-0-1	C
SCALE	WONE	SHEET 2 OF 3	DIST.

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CBUS IN

CBUS MUX 1	CBUS MUX 0	7	6	5	4	3	2	1	0
0	0	RL MTRON	ONLSWIT	LIMIT	DO ITSWIT	ENTER ZERO	WLK SWIT	BOT	EOT
0	1	RL MTRON	TACH 1	LIMIT	TACH 2	FWD DIR	MOVING	BOT	EOT
1	0	LOAD LT	ONL LT	UOK LT	VV LT	IDB LT	WLK LT	BOT LT	EOT LT
1	1	CS7	CS6	CS5	CS4	CS3	CS2	CS1	CS0

REVISIONS

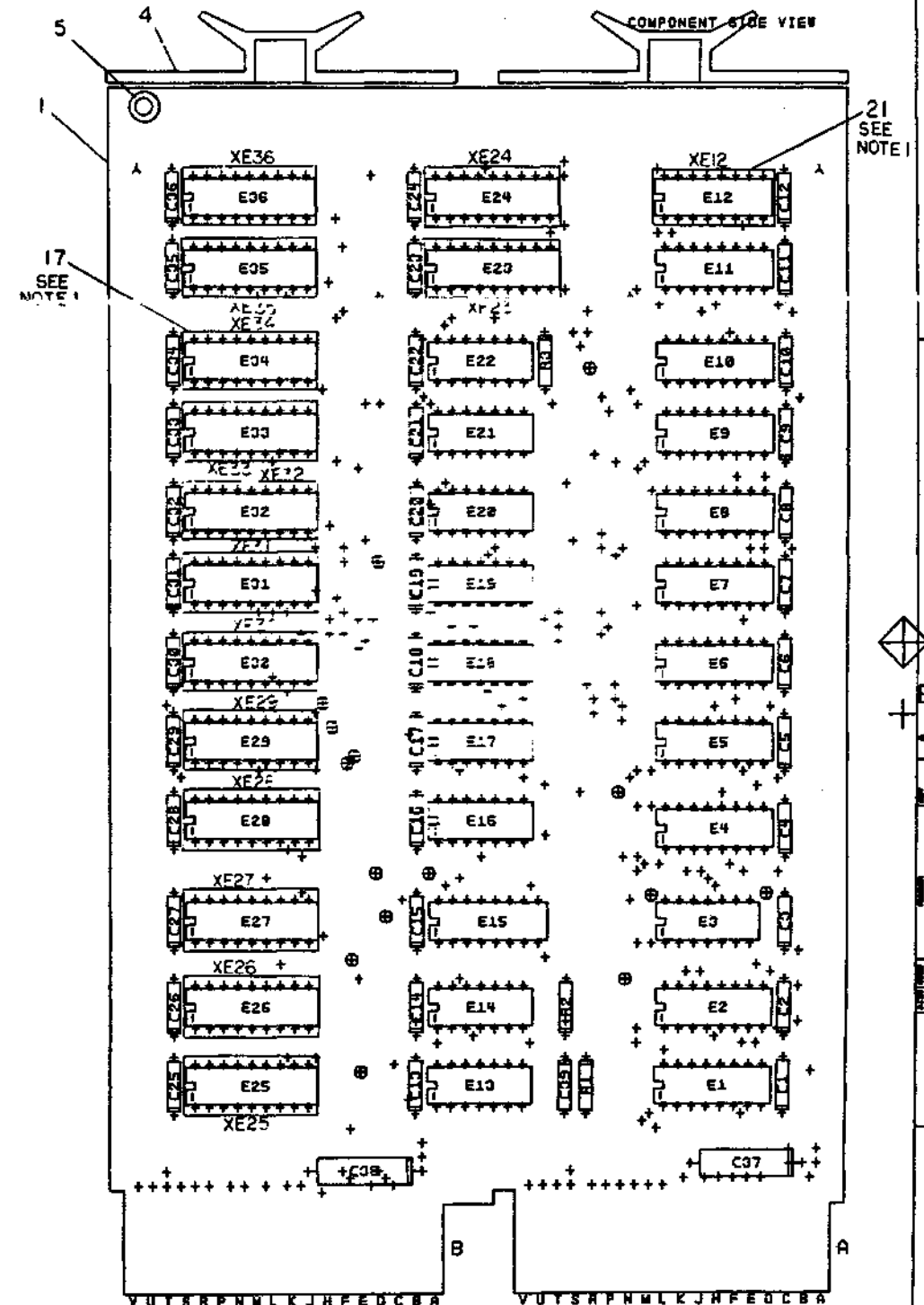
CHK	CHANGE NO.	REV.

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
					00	
1	1	D-CS-M8963-0-1		CIRCUIT SCHEMATIC	REF	
2	2	D-UA-M8963-0-0		UNIT ASSEMBLY	REF	
3	3	B-DU-M8963-0-0		DWG. DIRECTORY	REF	
4	4	D-MD-M8963-0-0		DRILL & ETCH DWG.	REF	
5	5		5012890-00	M8963	1	
6	6		1001610-00	.01 MFD 50V +80-20% Z5UCER	34	C1-C17,C19-C28,C30-C34,C37,C38
7	7		1005306-00	6.8MFD 35V 10% S.TANT	2	C35,C36
8	8		1300365-00	1.0 K .25 W 5.0 % CC	11	R1-R11
9	9		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
10	10		9006732-00	EYELET, ROLLED FLANGE, .121 OD X	4	
11	11		1912859-00	LS258 MUX 1 OF 2 (DUAL),	4	E2,E6,E11,E7
12	12		1912810-00	LS20 NAND GATE-DUAL 4IN	1	E12
13	13		1912648-00	LS251 MUX 8 INPUT,TRI-STA	1	E24
14	14		1912799-00	LS00 NAND-GATE-QUAD 2IN,P	2	E21,E26
15	15		1912803-00	LS04 INVERTER GATE-HEX 1I	2	E9,E17
16	16		1912853-00	LS175 FF-D QUAD	2	E14,E27
17	17		1909929-00	7417 BUFFER GATE-HEX 1INP	2	E23,E25
18	18		1912824-00	LS74 FF-D DUAL,EDGE TRIGG	1	E32
19	19		1909050-00	7475 LATCH 4BIT	2	E1,E5
20	20		1910534-00	74S04 INVERTER GATE-HEX 1I	1	E13
21	21		1912864-00	LS279 LATCH,QUAD-S-R	1	E33
22	22		1912813-00	LS27 NOR GATE-TRIPLE 3IN	1	E20
23	23		1910544-00	74S74 FF-D DUAL,EDGE TRIGG	1	E28
24	24		1911521-00	7432 OR GATE-QUAD 2IN, PO	1	E22
25	25		1911573-00	74S280 PARITY GEN/CHKR,9BIT	2	E3,E15
26	26		1912854-00	LS193 COUNTER,SYNCHR,4BIT,	2	E10,E16
27	27		1912697-00	LS174 FF-D HEX W/CLEAR	1	E8
28	28		1912842-00	LS138 DECODER-THREE INPUT,	2	E30,E31
29	29		1912815-00	LS30 NAND GATE-SINGLE BIN	1	E19
30	30		1913663-00	93419DC RAM 64X9 28PIN TT	1	E4

REVISION HISTORY			BASIC PART NO: M8963		DRN: H. WEINBRENNER DATE: 17-JUL-78		DIGITAL				
ENG	ECD NUMBER	REV	SECTION A OF A		CHK'D:	DATE:	TITLE	PARTS LIST			
WE	00001	B	SECTION.VARIATION INDEX		C. CAMPBELL	17-JUL-78	MICROPROCESSOR BOARD 2				
BK	M8963-ML002	C	[A] 00								
			[B]								
			[C]		DES.ENG:	N. FINDEAN	17-JUL-78				
			[D]								
			[E]								
			[F]		RESP.ENG.:	N. FINDEAN	17-JUL-78	DOCUMENT NUMBER			
			[H]					SIZE	CODE	NUMBER	REV
			[J]					K	PL	M8963-0-DBP	C
			[K]		MFG.ENG.:	G. DILLARD	17-JUL-78				
			[L]								
			[M]		ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:	FILE NAME:	EDIT #		
			[N]		D-UA-M8963-0-0		TS04	Z1472C.PLS	4		

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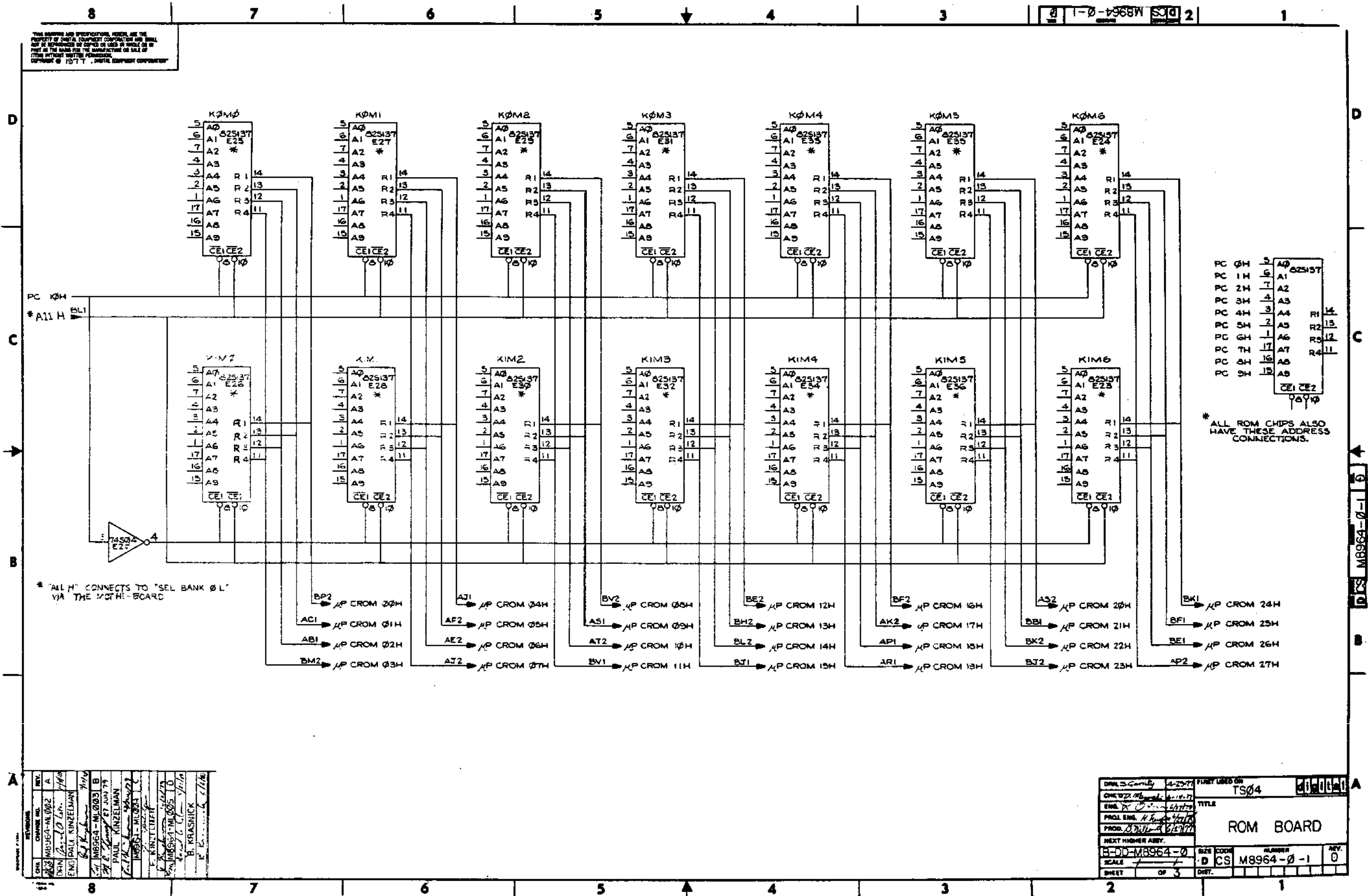
NOTES: INSTALL SOCKETS, ITEMS 17 & 21 BEFORE INSTALLING IC'S.

CHECK	CHANGE	NO	REV
✓	1	1	A
✓	2	1	B
✓	3	1	C
✓	4	1	D
✓	5	1	E
✓	6	1	F
✓	7	1	G
✓	8	1	H

ETCH REV. CP2
P.C. DESIGN DATA BRD REV. CL2 & CM2

SIGNATURES	DATE	TITLE
DRM. <i>[Signature]</i>	7-18-78	digital
CHE. D. <i>[Signature]</i>	2-2-78	
ENC. <i>[Signature]</i>	4-2-78	ROM BOARD
PROJ. ENG. <i>[Signature]</i>	4-1-78	
PROD. <i>[Signature]</i>	10/1/78	
SCALE 2/1		SIZE CODE NUMBER
SHT. 1 OF 5		0 UA M8964-0-0 D
NEXT HIGHER ASSY. B-DD-M8964-0		

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PC 0H	5	A0	25137	
PC 1H	6	A1	25137	
PC 2H	7	A2	*	
PC 3H	4	A3	*	
PC 4H	3	A4	R1	14
PC 5H	2	A5	R2	13
PC 6H	1	A6	R3	12
PC 7H	17	A7	R4	11
PC 8H	16	A8		
PC 9H	15	A9		

* ALL "H" CONNECTS TO "SEL BANK 0 L" VIA THE MOTHER BOARD

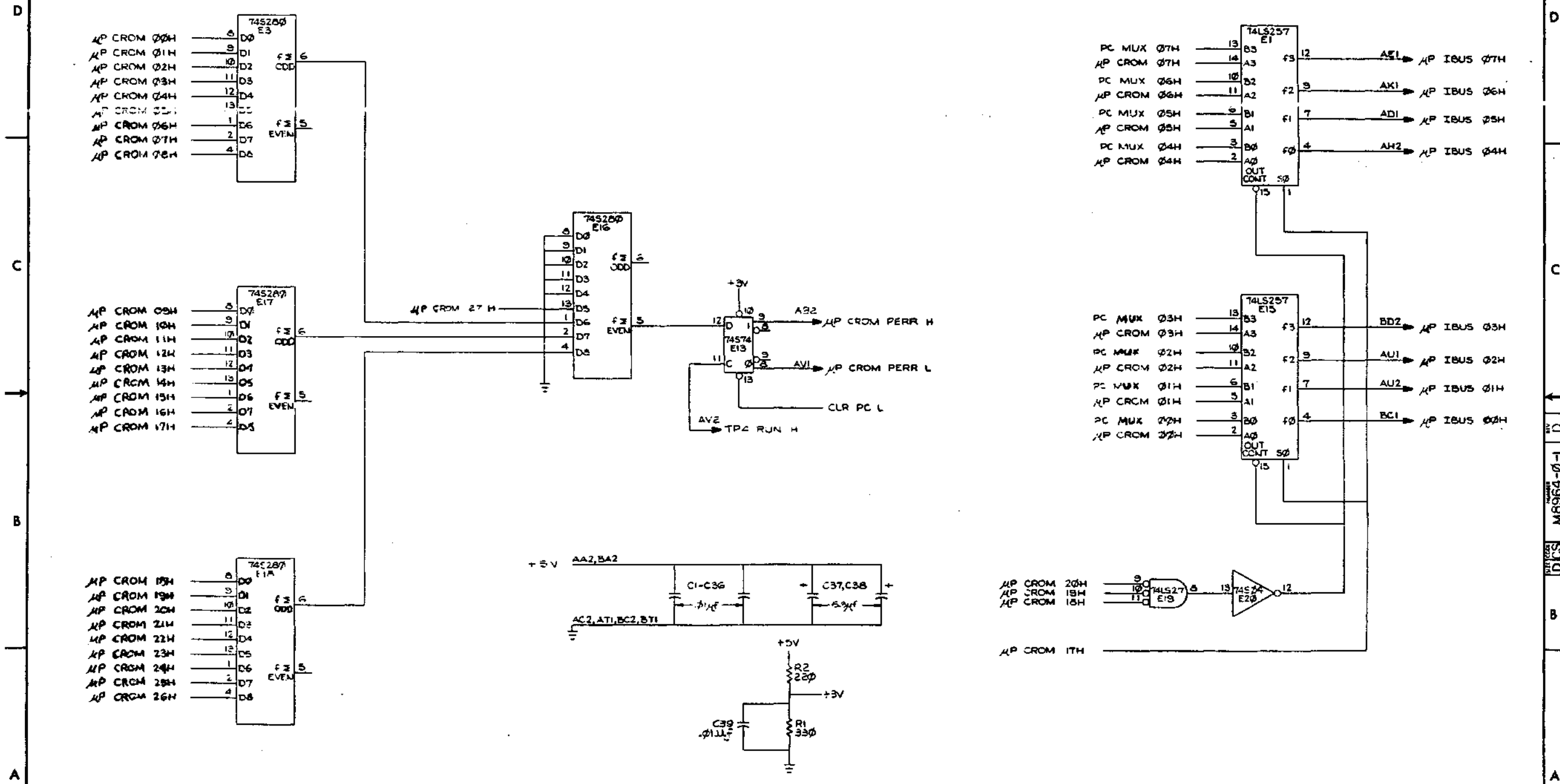
* ALL ROM CHIPS ALSO HAVE THESE ADDRESS CONNECTIONS.

REV.	DATE	BY	CHKD.
1			
2			
3			
4			
5			
6			
7			
8			

DATE	4-25-77	FILED IN	TS04
CHKD.	4-10-77	TITLE	
ENG.	4-10-77	PROJ. ENG.	H. KINZELMAN
PROD.	4-10-77	PROD. BY	A. B. [unclear]
NEXT HIGHER ASSY.			
B-D-M8964-0			
SCALE	1	NUMBER	M8964-0-1
SHEET	OF 3	DIST.	

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DCS M8964-0-1 2

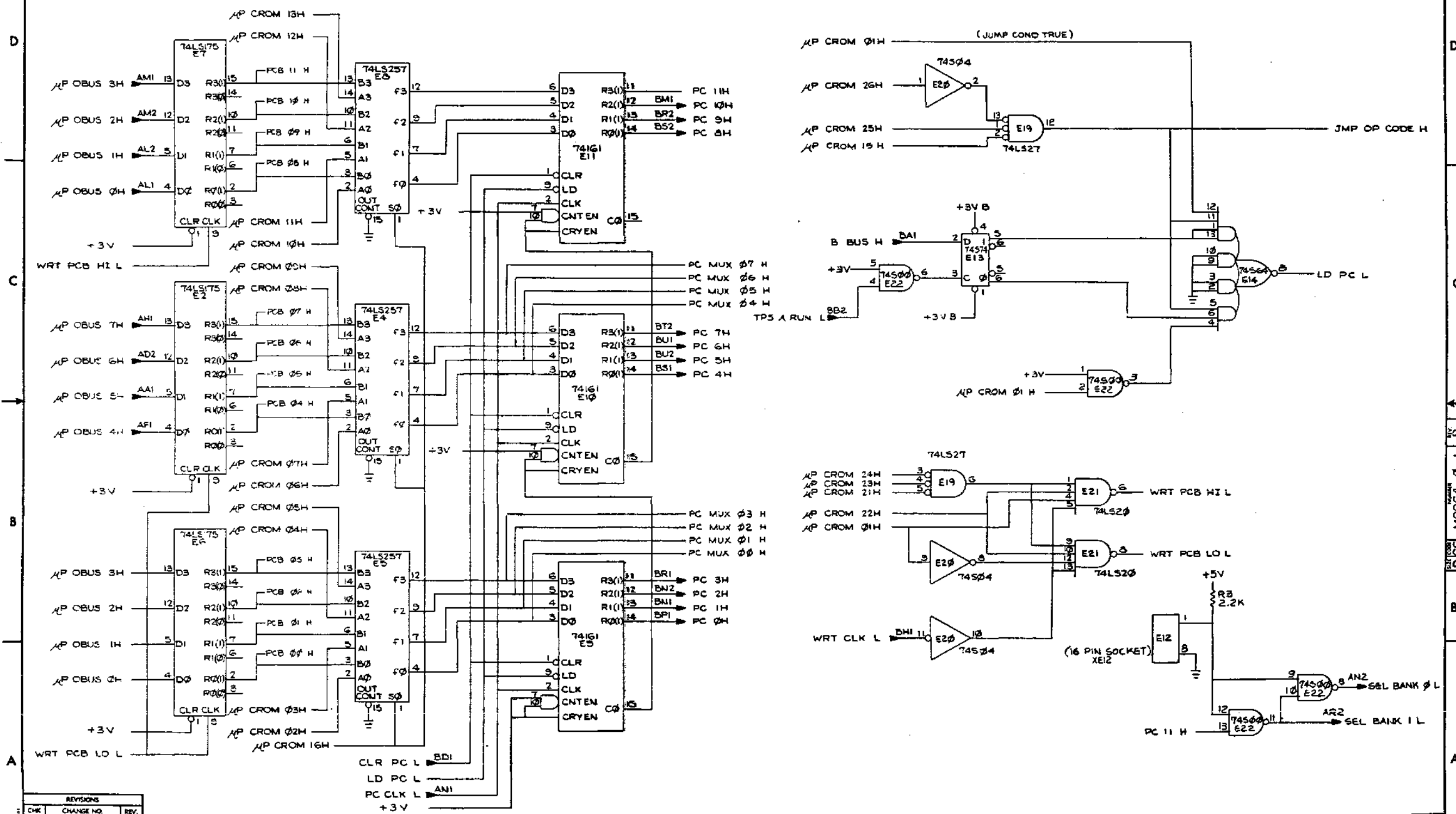


DCS M8964-0-1

REVISIONS		
CHK	CHANGE NO.	REV.
ENT	PAUL KINZELMAN	

TITLE ROM BOARD
 SHEET 2 OF 3
 DCS M8964-0-1
 REV. D

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REVISIONS		
CHK	CHANGE NO.	REV.
DRN	M8964-ML002	A
ENG	PAUL KINZELMAN	

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
1			5012817-00	M8964	1	
2			1001610-00	.01 MFD 50V +80-20% 25U CER	37	C1-C36, C39
3			1005306-00	5.8MFD 35V 10% S.TANT	2	C37, C38
4			7008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
5			9006732-00	EYELET, ROLL FLANGE .1210DX .219	4	
6			1910534-00	74504 INVERTER GATE-HEX 11	1	E20
7			1912810-00	LS20 NAND GATE-DUAL 4IN	1	E21
8			1910535-00	74500 NAND GATE-4000 2IN	1	E22
9			1910650-00	74161 COUNTER SYNCHR. UP	3	E9-E11
10			1910950-00	74574 FF-D DUAL (-45 VERSI	1	E13
11			1912813-00	LS27 NOR GATE-TRIPLE 3IN	1	E19
12			1910542-00	74564 A-0-1 GATE 4-2-3-2	1	E14
13			1911573-00	745280 PARITY GEN/CHKR. 9BIT	4	E3, E16-E18
14			1912647-00	LS257 MUX 1 OF 2 (QUAD)	5	E1, E4, E5, E8, E15
15			1912853-00	LS175 FF-D QUAD	3	E2, E6, E7
16			23000F1-01	*** THIS ITEM IS NOT USED ***	-	
17			1211666-00	SKT, IC 18PIN DIP GOLD PLATE	14	XE23-XE36
18			1300271-00	220.0 .25 W 5.0 % CC	1	R2
19			1300295-00	330.0 .25 W 5.0 % CC	1	R1
20			1300417-00	2.20 K .25 W 5.0 % CC	1	R3
21			1211813-00	/REPLACED BY 12-15006-02	1	XE12
22			23622F1-00	F1-01	1	E25
23			23623F1-00	F1-01	1	E27
24			23624F1-00	F1-01	1	E29
25			23625F1-00	F1-01	1	E31
26			23626F1-00	F1-01	1	E33
27			23627F1-00	F1-01	1	E35
28			23628F1-00	F1-01	1	E24
29			23620F1-00	F1-01	1	E26
30			23397F1-00	F1-01	1	E28

REVISION HISTORY		BASIC PART NO: M8964		DRN:	L.METZGER	DATE:	18-JUL-78	D I G I T A L		
ENG:	ECO NUMBER	REV	SECTION A OF A	CHK'D:	S.TUTTLE	DATE:	18-JUL-78	TITLE PARTS LIST		
	INIT	*	SECTION VARIATION INDEX	DES.ENG:	P.KINZELMAN	DATE:	12-SEP-78	DOCUMENT NUMBER		
PB	MLO02	A	[A] 00	RESP.ENG.:	P.KINZELMAN	DATE:	12-SEP-78	SIZE:	CODE:	NUMBER
P.K	M8964-MLO03	B	[B]	MFG.ENG.:	P.BARTON	DATE:	18-JUL-78	K	PL	M8964-0-08P
PK	M8964-MLO04	C	[C]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:				FILE NAME:
BK	M8964-MLO05	D	[D]							Z0609D.PLS
			[E]							EDIT #
			[F]							8
			[H]							
			[J]							
			[K]							
			[L]							
			[M]							
			[N]							

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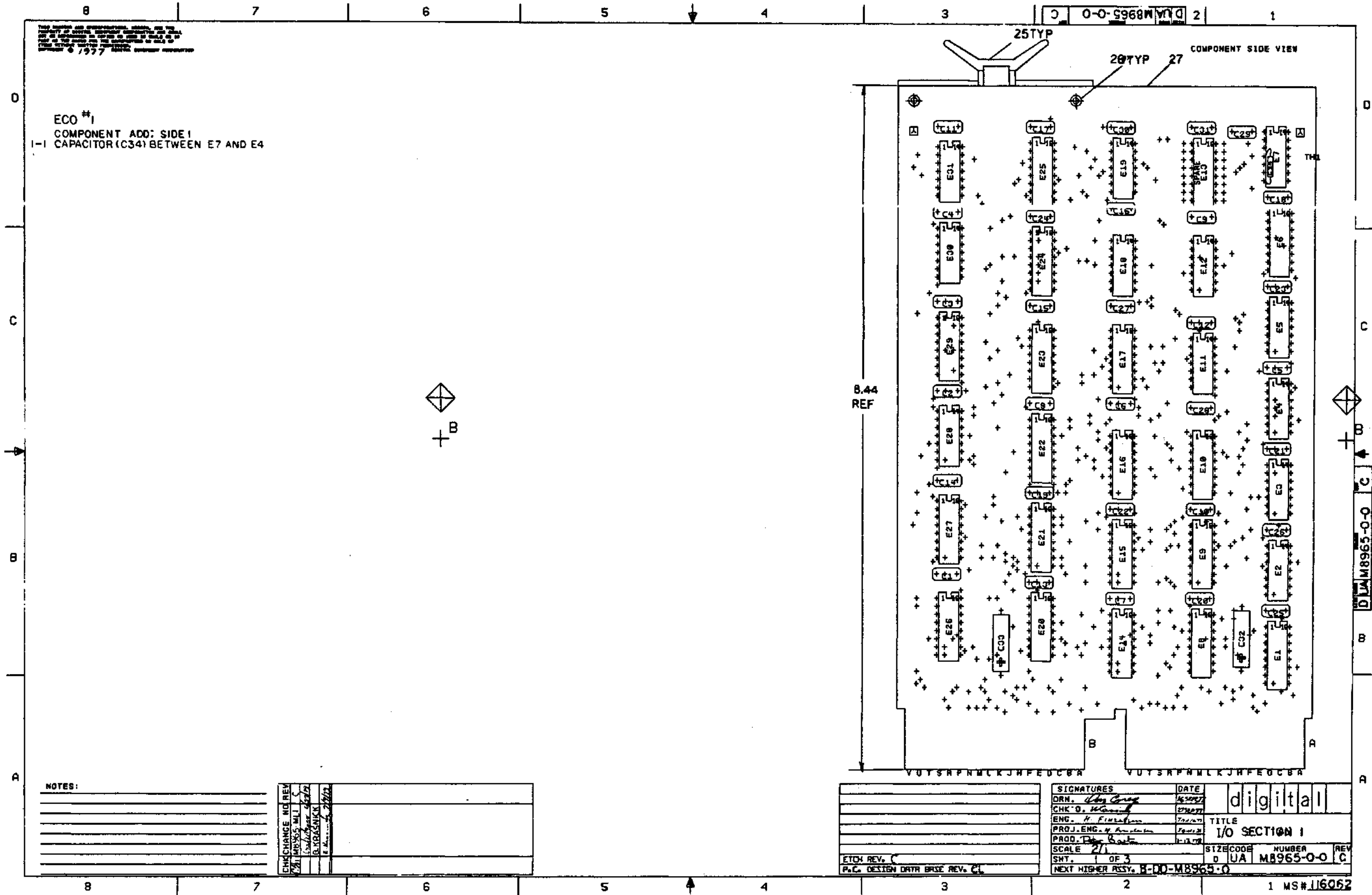
AUTOMATED BY PRTLST.2E(3)

PARTS LIST

SHEET A2 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
31	31		23398F1-00	F1-01	1	E30
32	32		23399F1-00	F1-01	1	E32
33	33		23400F1-00	F1-01	1	E34
34	34		23401F1-00	F1-01	1	E36
35	35		23621F1-00	F1-01	1	E23

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							ROM BOARD		K	PL	M8964-D-DBP	D



ECO #1
 COMPONENT ADD: SIDE 1
 1-1 CAPACITOR (C34) BETWEEN E7 AND E4



NOTES:

CHANGE NO	REV	DATE	BY	CHK'D
1				
2				
3				
4				
5				
6				
7				
8				

ETCH REV. C	
P.C. DESIGN DATA BASE REV. CL	

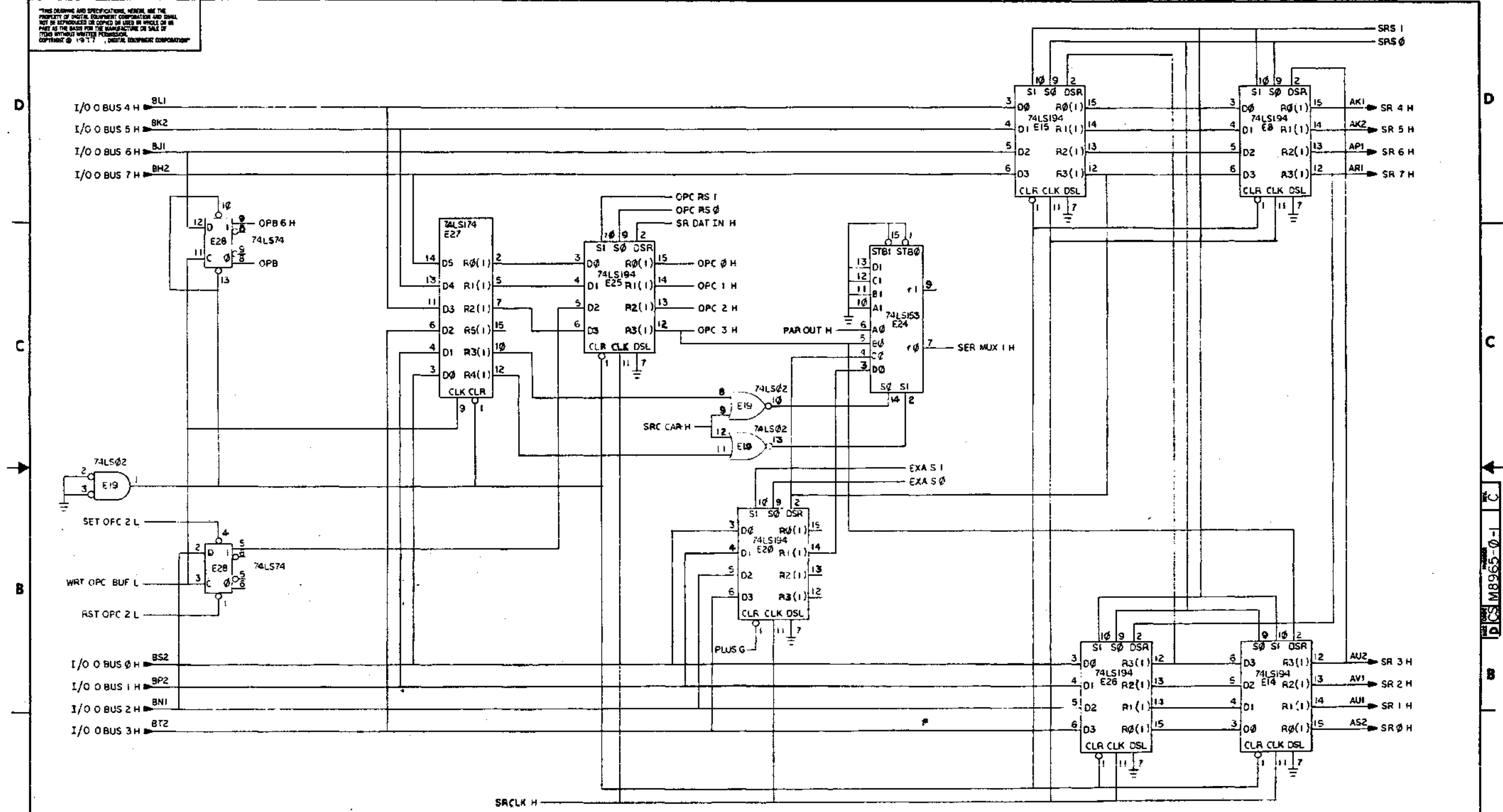
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CHK'D. <i>[Signature]</i>	12/10/72	
ENG. <i>[Signature]</i>	12/10/72	
PROJ. ENG. <i>[Signature]</i>	12/10/72	
PROD. <i>[Signature]</i>	12/10/72	
SCALE 2/1		
SHT. 1 OF 3		
NEXT HIGHER ASSY. E-00-M8965-0		

SIZE	CODE	NUMBER	REV
D	UA	MA965-0-0	C

1 MS#116062

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1-0-9968W S30 2



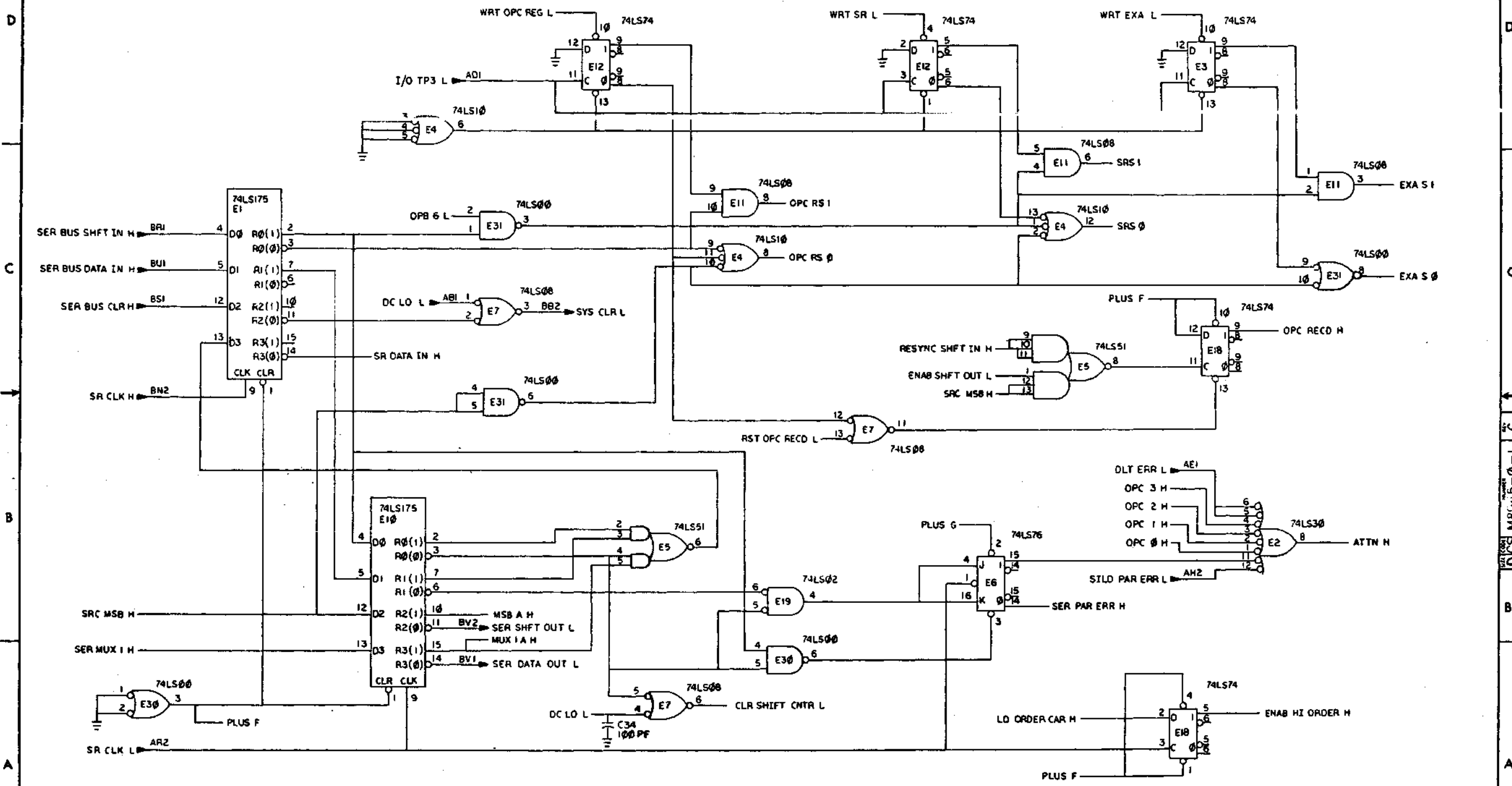
REV.	REV.
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8

DRN	14 OCT 77	FIRST USED ON	TS04 digital
CHKD		TITLE	I/O SECTION 1
ENG		SCALE	NONE
PROL		SIZE	D CS
PROD		NUMBER	M8965-0-1
NEXT HIGHER ASSY.		REV.	C
B-D0-M8965-0		SHEET	1 OF 3

D CS M8965-0-1

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1-0-9968W 50 2



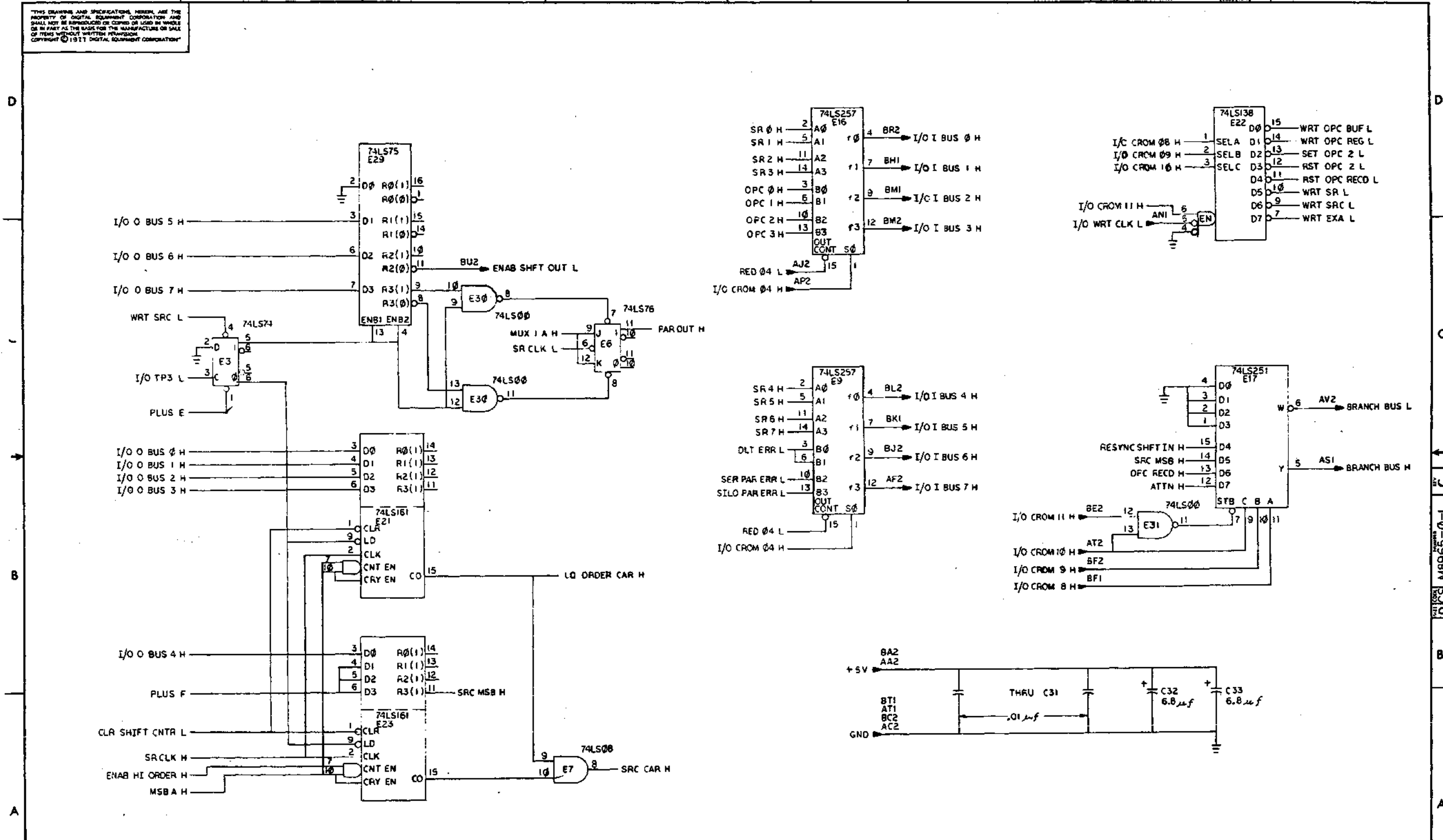
REVISIONS		
CHK	CHANGE NO	REV

TITLE	I/O SECTION 1	SIZE/DOOR	D CS	NUMBER	M8965-0-1	REV.	C
SCALE	NONE	SHEET	2	OF	3	DIST.	

REV. 05-0-1 C
D CS M8965-0-1

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1-0-9968W DCS 2



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: I/O SECTION 1
 SCALE: NONE
 SHEET: 3 OF 3
 SIZE CODE: DCS
 NUMBER: M8965-0-1
 REV: C

AUTOMATED BY PRTLST.1C(4)

PARTS LIST

SHEET A1 OF A1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
1	1	D-CS-M8965-0-1		CIRCUIT SCHEMATIC	REF	
2	2	D-UA-M8965-0-0		UNIT ASSY	REF	
3	3	B-DD-M8965-0-0		DWG DIRECTORY	REF	
4	4	D-MD-S012885-0-0		DRILL & ETCH DWG	REF	
5	5		1001610-00	.01 MFD 50V +80-20% 25U CER	31	C1-C31
6	6		1005306-00	6.8MFD 35V 10% S.TANT	2	C32,C33
7	7		1912647-00	LS257 MUX 1 OF 2 (QUAD)	2	E9,E16
8	8		1912648-00	LS251 MUX 8 INPUT TRI-STA	1	E17
9	9		1912649-00	LS75 LATCH 4BIT BISTABLE	1	E29
10	10		1912696-00	LS194A SHIFT REG. 4BIT BI-D	6	E8,E14,E15,E20,E25,E26
11	11		1912697-00	LS174 FF-D HEX W/CLEAR	1	E27
12	12		1912799-00	LS00 NAND-GATE-QUAD 2IN,P	2	E20,E31
13	13		1912801-00	LS02 NOR-GATE-QUAD 2IN	1	E19
14	14		1912805-00	LS08 AND GATE-QUAD 2IN,PO	2	E7,E11
15	15		1912807-00	LS10 NAND GATE-TRIPLE 3IN	1	E4
16	16		1912815-00	LS30 NAND GATE-SINGLE 8IN	1	E2
17	17		1912820-00	LS51 A-0-1 GATE 2-WIDE 2I	1	E5
18	18		1912824-00	LS74 FF-D DUAL,EDGE TRIGG	4	E3,E12,E18,E28
19	19		1912825-00	LS76 FF-JK DUAL W/PRESET	1	E6
20	20		1912842-00	LS138 DECODER-THREE INPUT	1	E22
21	21		1912845-00	LS153 MUX 1 OF 4 (DUAL)	1	E24
22	22		1912849-00	LS161 COUNTER, SYNCHR, 4BIT	2	E21,E23
23	23		1912853-00	LS175 FF-D QUAD	2	E1,E10
24	24	SPARE LOCATION		IC SPARE	1	E13
25	25		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
26	26		9006732-00	EYELET, ROLL FLANGE .1210DX .219	4	
27	27		S012885-00	M8965	1	
28	28		1000016-00	100.0 MMF 100V 5X200PPM MICA	1	C34

REVISION HISTORY		BASIC PART NO: M8965		DRN: DON COREY		DATE: 07-NOV-77		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	DON COREY	DATE:	07-NOV-77	TITLE	PARTS LIST
---	INIT	B	SECTION VARIATION INDEX	DES.ENG:	R.ODOM	DATE:	11-JAN-78	I/O SECTION 1	
B.K.	ML001	C	(A) 00	RESP.ENG.:	H.FINDEISEN	DATE:	11-JAN-78	DOCUMENT NUMBER	
			(B)	MFG.ENG.:	P.BARTON	DATE:	11-JAN-78	SIZE: CODE: NUMBER	REV
			(C)	ASSEMBLY NUMBER:	D-UA-M8965-0-0	TOP DOCUMENT NUMBER:		K PL M8965-0-DBP	C
			(D)					FILE NAME:	EDIT #
			(E)					Z0610C.PLS	23
			(F)						
			(G)						
			(H)						
			(I)						
			(J)						
			(K)						
			(L)						
			(M)						
			(N)						

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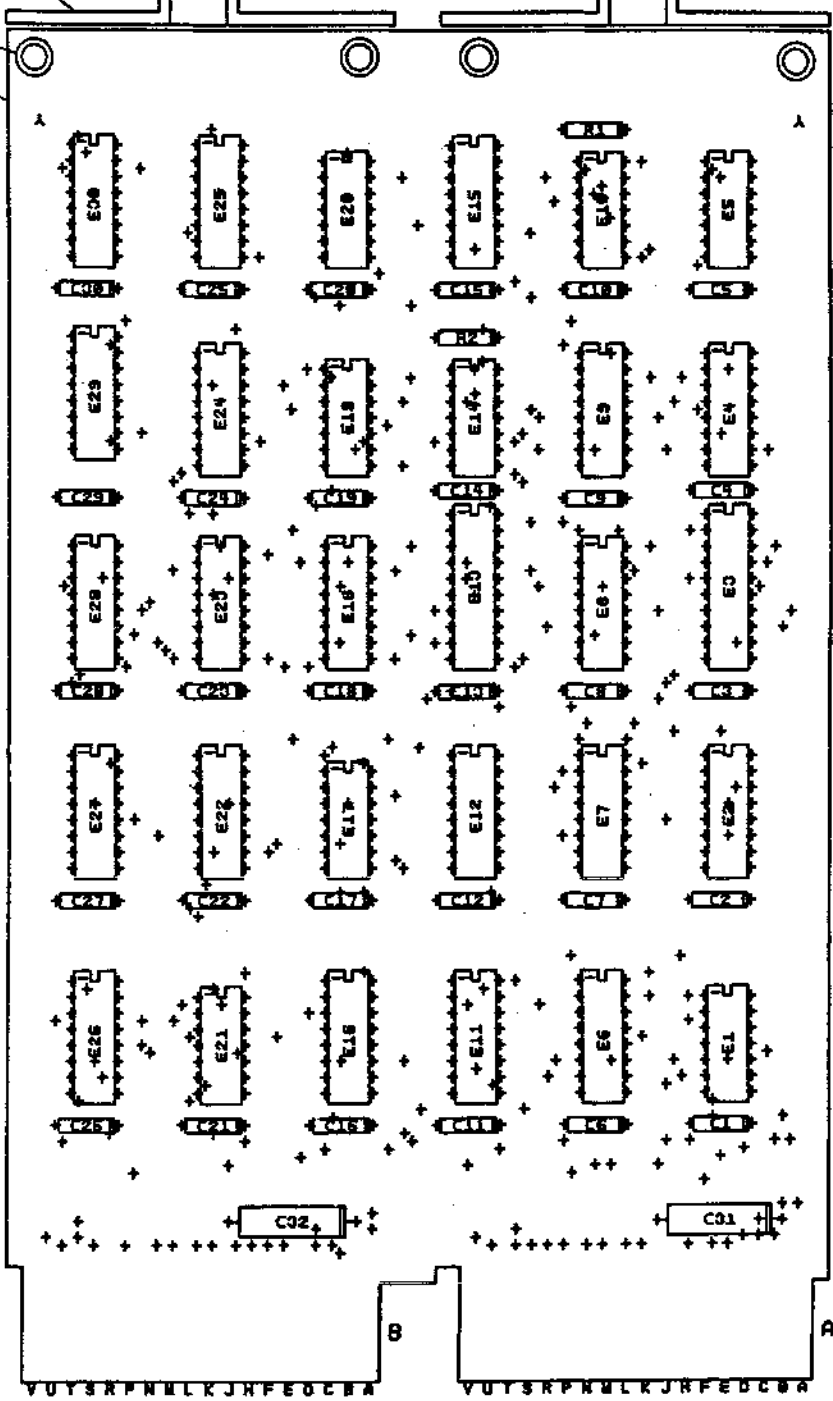
1978

9 0-0-9968W V11 0 2

20 TYP
19 TYP
COMPONENT SIDE VIEW

D
C
B
A

D
C
B
A



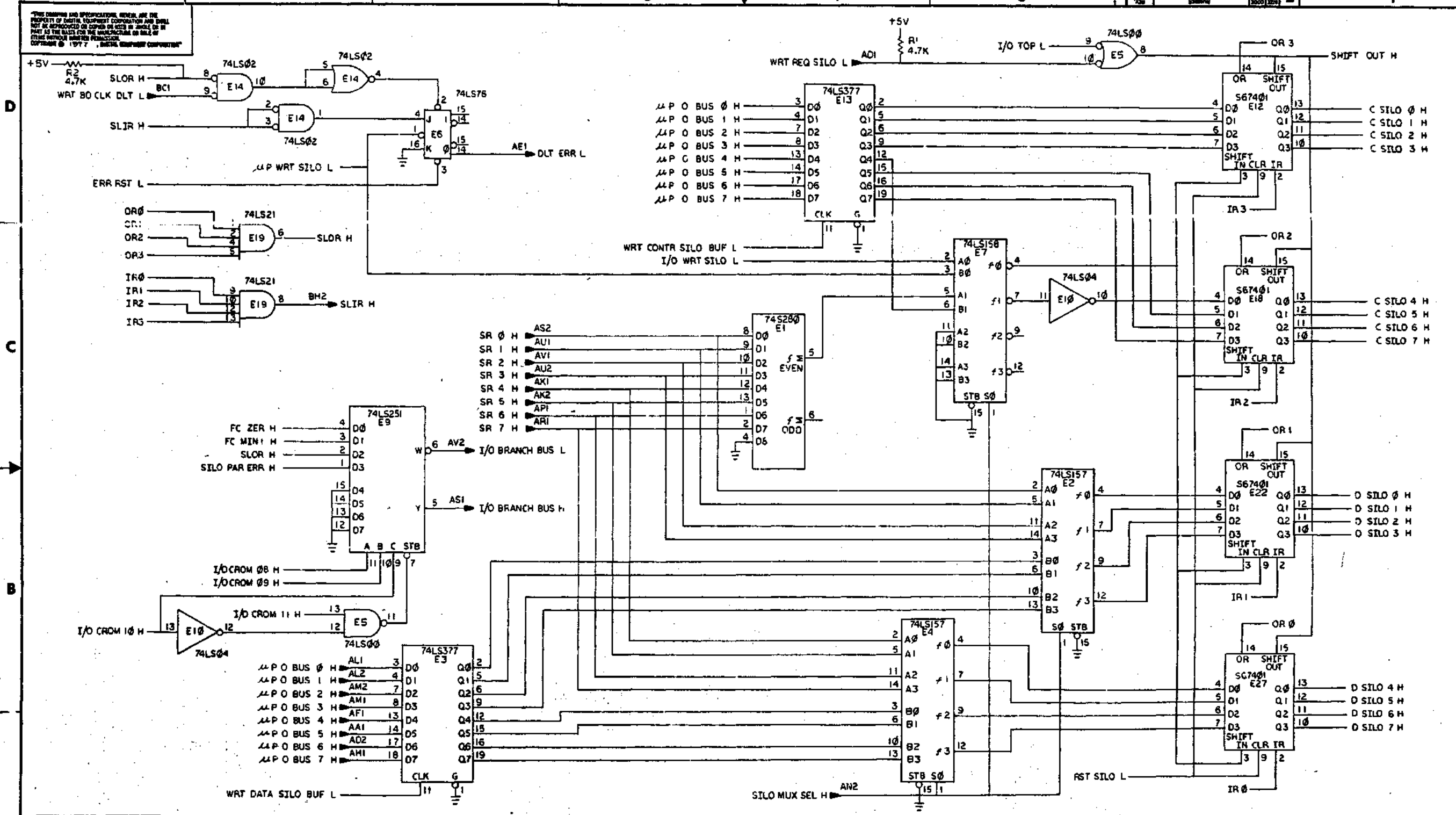
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CHANGE NO	REV	DATE	BY	CHK'D

ETCH REV.	C-2
P.C.	DEXTER ORTR BRSE REV. CL2 & CM2

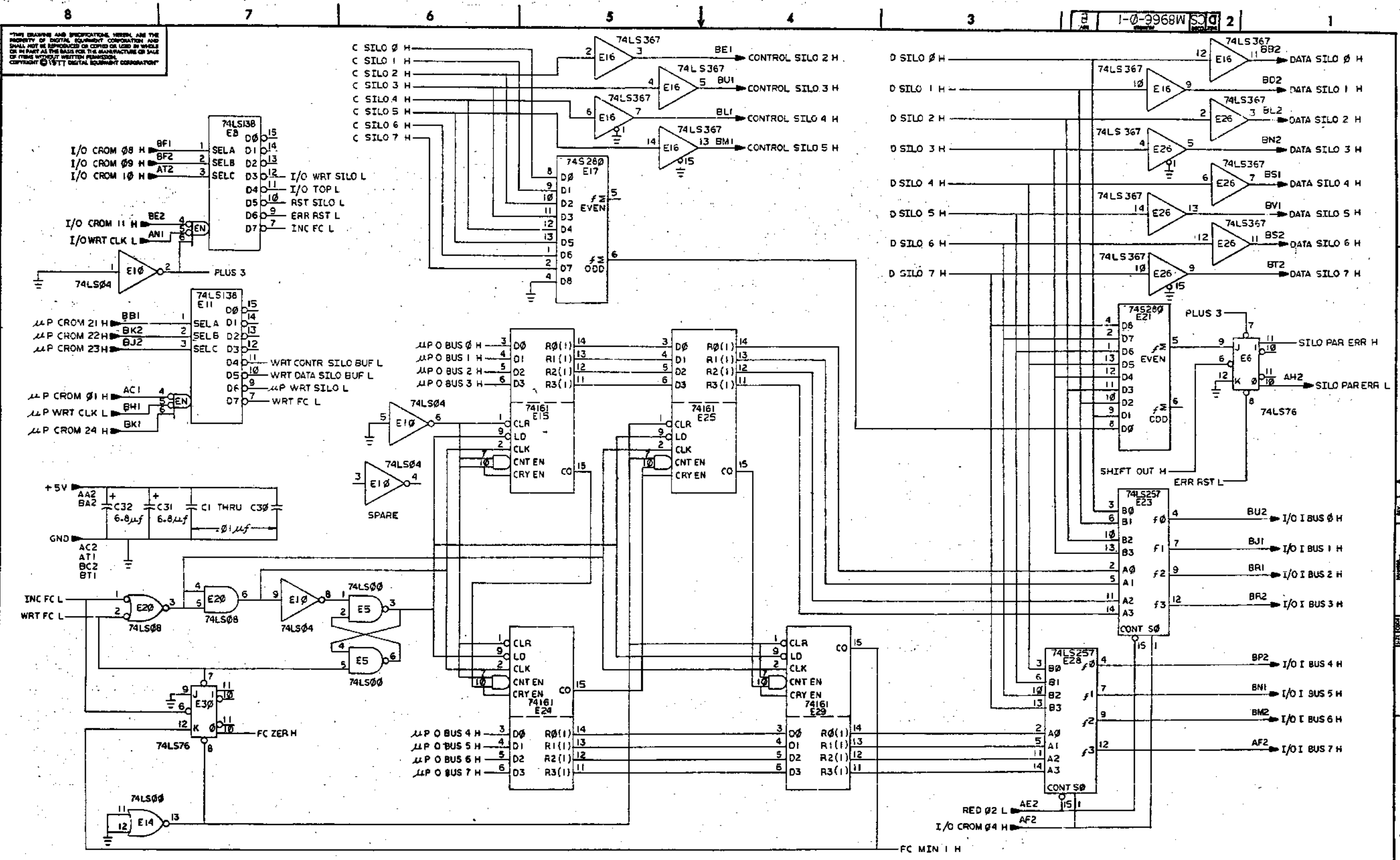
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CHK'D.	<i>[Signature]</i>	0-2-78	TITLE
ENG.	<i>[Signature]</i>	1-13-78	
PROJ. ENG.	<i>[Signature]</i>	1-13-78	I/O SECTION 2
PROD. MGR.	<i>[Signature]</i>	1-13-78	
SCALE	2/1	SIZE	CODE
SHT.	1 OF 5	D	UA
NEXT HIGHER ASSY.	8-00-M8966-0	NUMBER	M8966-0-0
		REV	6

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REV	CHANGED BY	DATE
1	PAUL KINZELMAN	12/27/77
2	B. KRASNICK	12/27/77

DRN. J. M. [unclear]	DATE 11/11/77	FIRST USE ON	Digital
CHKD. [unclear]	DATE 12/27/77	TITLE	I/O SECTION 2
ENG. [unclear]	DATE 12/27/77	PROJ. ENG. [unclear]	
PROD. [unclear]	DATE 12/27/77	NEXT HIGHER ASSY.	
B-DD-M8966-0	SIZE CODE D	NUMBER M8966-0-1	REV. C
SCALE NONE	DIST.		
SHEET 1 OF 2			



REVISIONS		
CHK	CHANGE NO.	REV.
DR2	M8966 ML001	B
DR2	1-1-78	01/01/78
ENG PAUL KINZELMAN		

TITLE	I/O SECTION 2	SIZE CODE	D CS	NUMBER	M8966-0-1	REV.	C
SCALE	NOY.E	SHEET	2	OF 2	DIST.		

AUTOMATED BY PRTLST.2E(3)

PARTS LIST

SHEET A1 OF A1

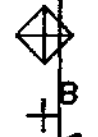
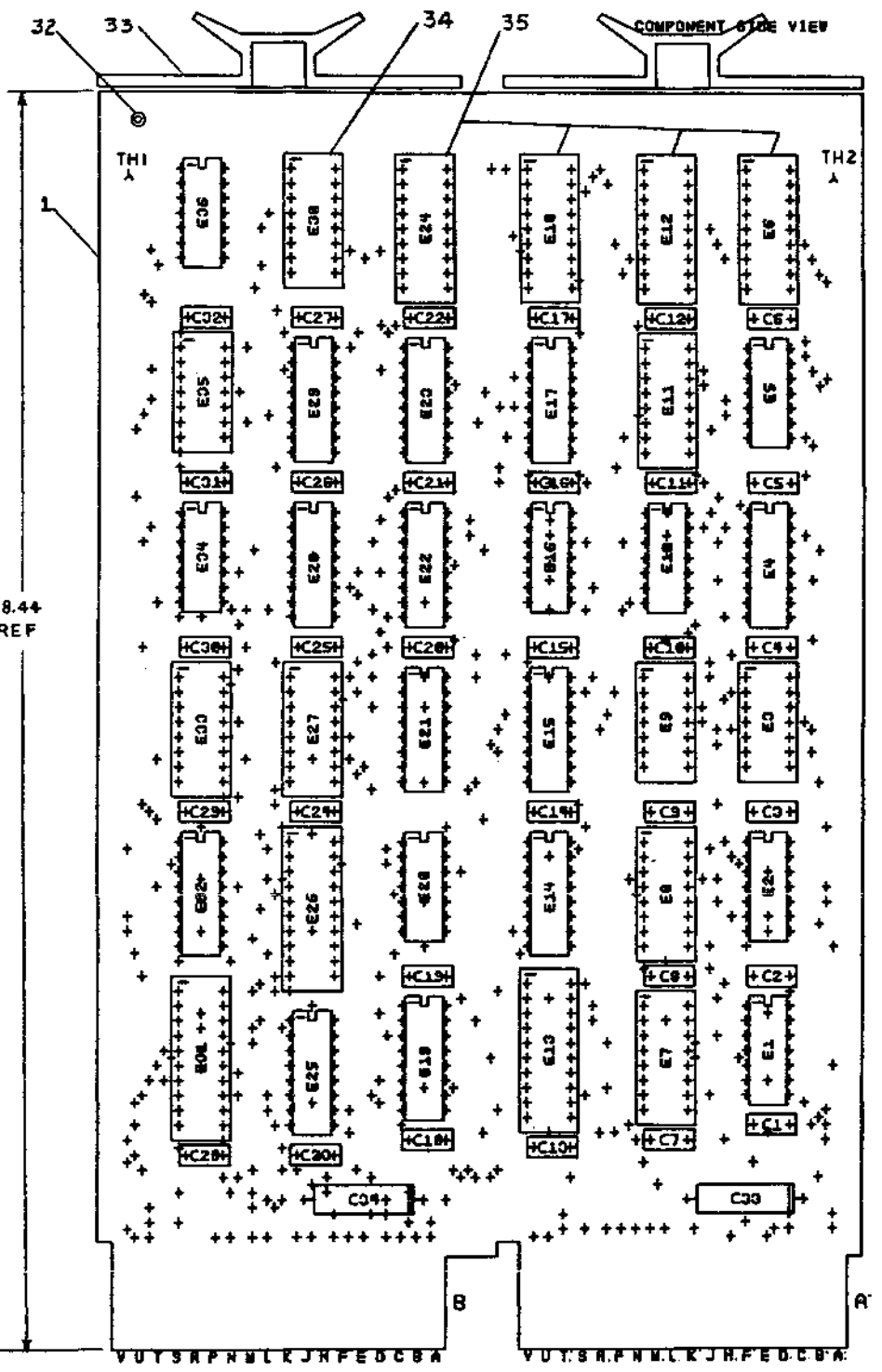
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2	2		1001610-00	.01 MFD 50V +80-20% Z5U CER	30	C1-C30
3	3		1005306-00	6.8MFD 35V 10% S.TANT	2	C31,C32
4	4		1910650-00	74161 COUNTER SYNCHR. UP	4	E15,E24,E25,E29
5	5		1912547-00	LS257 MUX 1 OF 2 (QUAD)	1	E20,E22
6	6		1912648-00	LS251 MUX 8 INPUT TRI-STA	1	E9
7	7		1912801-00	LS02 NOR-GATE-QUAD 2IN	1	E14
8	8		1912825-00	LS76 FF-JK DUAL W/PRESET	2	E6,E30
9	9		1912847-00	LS157 MUX 1 OF 2 (QUAD)	2	E2,E4
10	10		1912872-00	LS377 FF-D 8BIT W/ENABLE	2	E3,E13
11	11		1914768-01	FIFO, SLOW (67401)	4	E12,E18,E22,E27
12	12		1911573-00	74S280 PARITY GEN/CHKR 9BIT	3	E1,E17,E21
13	13		1912799-00	LS00 NAND-GATE-QUAD 2IN,P	1	E5
14	14		1912803-00	74LS04 INVERTER GATE,HEX	1	E10
15	15		1912805-00	LS08 AND GATE-QUAD 2IN,PO	1	E20
16	16		1912842-00	LS138 DECODER-THREE INPUT,	2	E8,E11
17	17		1912848-00	LS158 MUX 1 OF 2 (QUAD)	1	E7
18	18		1912811-00	LS21 AND GATE-DUAL 4IN,PO	1	E19
19	19		9006732-00	EYELET,ROLL FLANGE .121ODX .219	4	
20	20		9008337-06	HANDLE,FLIP CHIP,MAGENTA	2	
21	21		1300447-00	4.70 K .25 W 5.0% CC	2	R1,R2
22	22		1913471-00	LS367 DRIVER,BUS,HEX,TRI-	2	E16,E26

REVISION HISTORY			BASIC PART NO: M8966			DRN: H.WEINBRENNER			DATE: 29-AUG-78			D I G I T A L		
ENG:	ECO NUMBER	REV	SECTION A OF A			CHK'D: W.CASSIDY			DATE: 29-AUG-78			TITLE PARTS LIST		
---	INIT	A	SECTION VARIATION INDEX			DES.ENG: B.KRASNICK			DATE: 29-AUG-78			I/O SECTION 2		
ER	MLO01	B	(A)	00	RESP.ENG.: B.KRASNICK			DATE: 29-AUG-78			DOCUMENT NUMBER			
BK	M8966-MLO02	C	(B)		MFG.ENG.: P.BARTON			DATE: 29-AUG-78			SIZE: CODE: NUMBER REV			
			(C)		ASSEMBLY NUMBER:			TOP DOCUMENT NUMBER:			FILE NAME: EDIT #			
			(D)		D-UA-M8966-0-0			T504			20950C.PLS 9			
			(E)		<p>*THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION*</p>									

1978

D
C
B
A

D
C
B
A



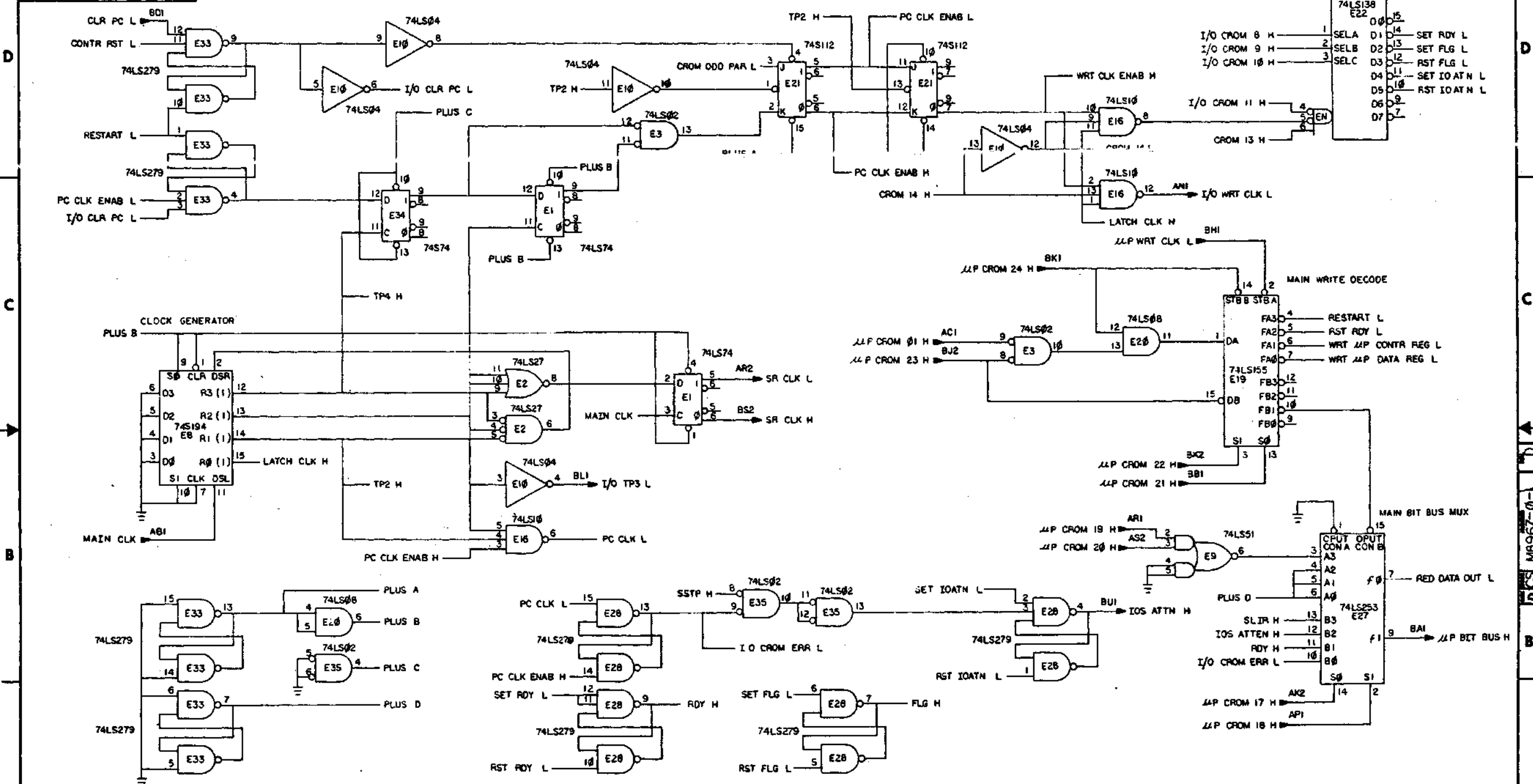
NOTES:

CHANGE NO.	REV.	DATE	BY	CHK'D.
1	A	12/1/78	P. Kinzelman	P. Kinzelman
2	B	12/1/78	P. Kinzelman	P. Kinzelman
3	C	12/1/78	P. Kinzelman	P. Kinzelman
4	D	12/1/78	P. Kinzelman	P. Kinzelman

ETCH REV. C-71
P.C. DESIGN DATA SHEET REV. C

SIGNATURES	DATE	TITLE
DAN. [Signature]	12/1/78	digital
CHK'D. [Signature]	12/1/78	
PROJ. ENG. [Signature]	12/1/78	I/O SECTION
PROD. [Signature]	12/1/78	
SCM [Signature]	12/1/78	
SMT. [Signature]	12/1/78	
NEXT HIGHER ASSY. 6-00-M8967-0		

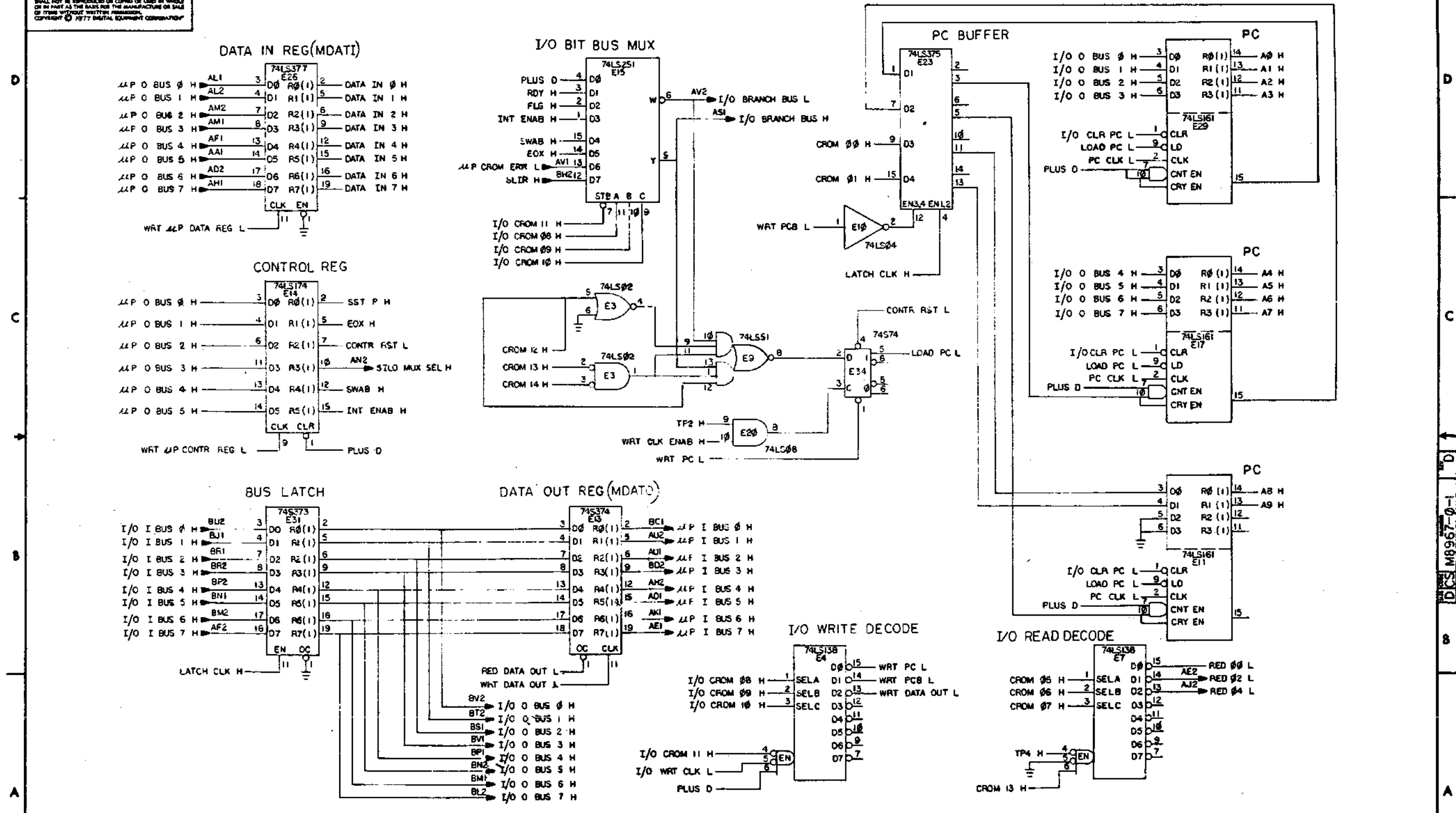
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REV	REV	REV	REV	REV	REV
1	2	3	4	5	6
DATE	DATE	DATE	DATE	DATE	DATE
BY	BY	BY	BY	BY	BY
CHKD	CHKD	CHKD	CHKD	CHKD	CHKD
APP'D	APP'D	APP'D	APP'D	APP'D	APP'D
DESIGNER	DESIGNER	DESIGNER	DESIGNER	DESIGNER	DESIGNER
DRG. NO.	DRG. NO.	DRG. NO.	DRG. NO.	DRG. NO.	DRG. NO.
REV. NO.	REV. NO.	REV. NO.	REV. NO.	REV. NO.	REV. NO.
REV. DATE	REV. DATE	REV. DATE	REV. DATE	REV. DATE	REV. DATE
REV. BY	REV. BY	REV. BY	REV. BY	REV. BY	REV. BY
REV. CHKD	REV. CHKD	REV. CHKD	REV. CHKD	REV. CHKD	REV. CHKD
REV. APP'D	REV. APP'D	REV. APP'D	REV. APP'D	REV. APP'D	REV. APP'D
REV. DESIGNED	REV. DESIGNED	REV. DESIGNED	REV. DESIGNED	REV. DESIGNED	REV. DESIGNED
REV. CHECKED	REV. CHECKED	REV. CHECKED	REV. CHECKED	REV. CHECKED	REV. CHECKED
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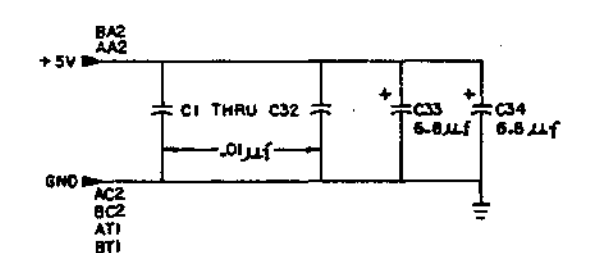
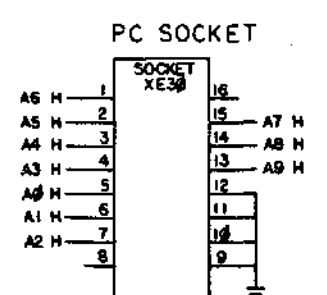
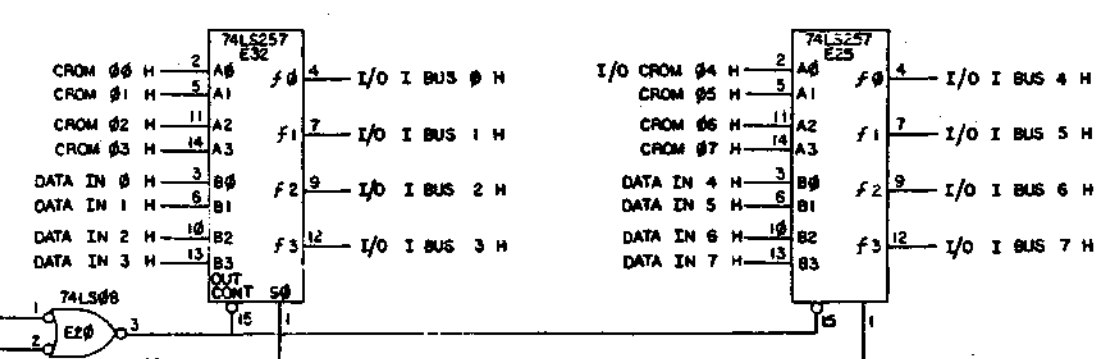
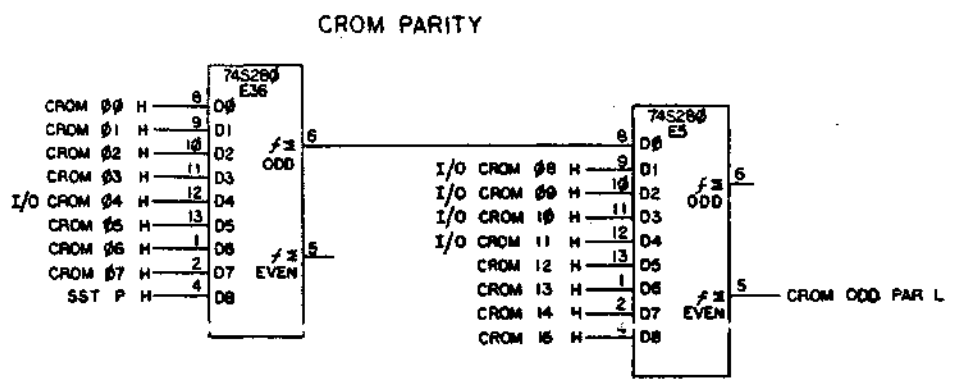
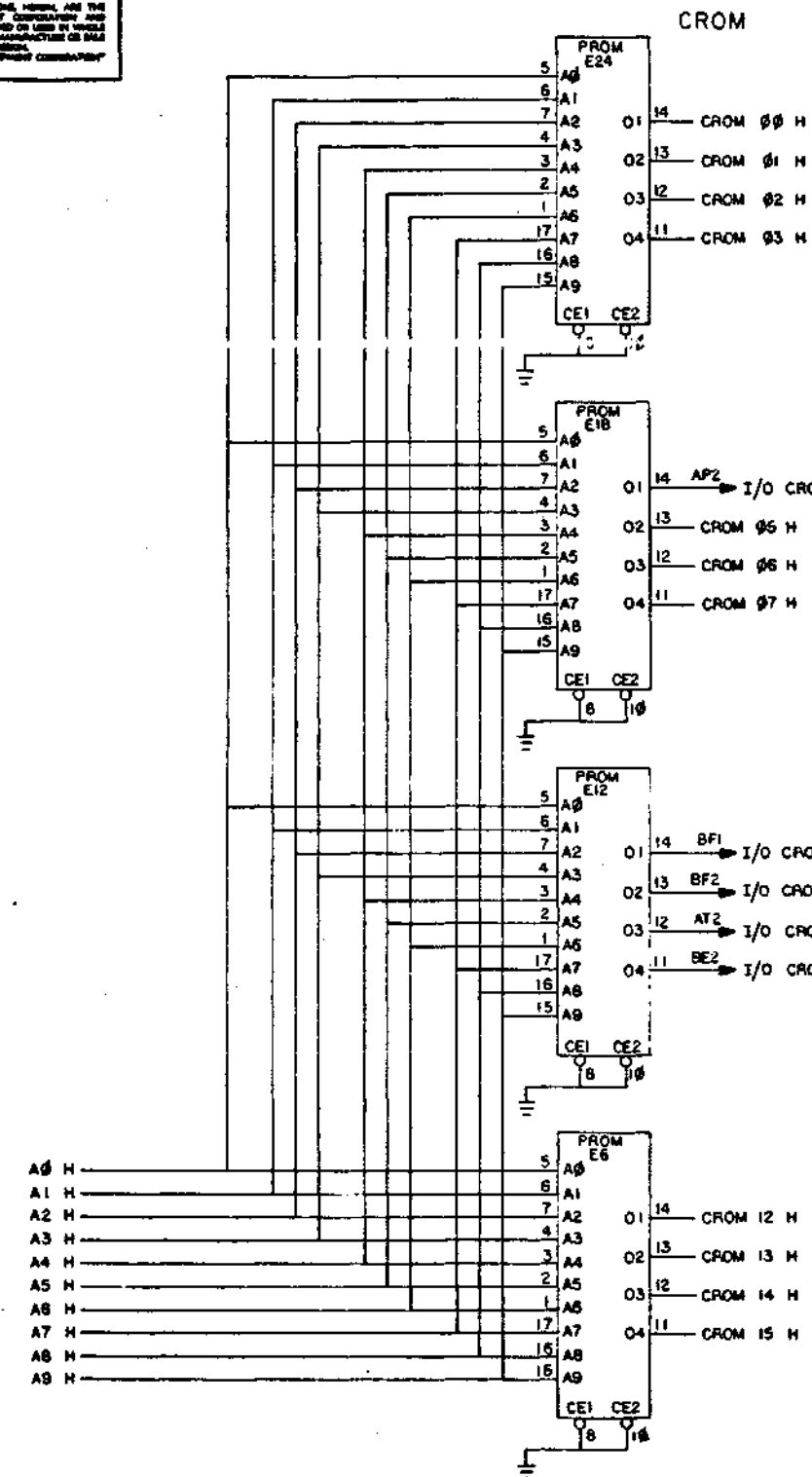
DRG. NO.	REV. NO.	FIRST USED ON	TS04
CHKD. DATE	REV. DATE	TITLE	I/O SECTION 3
ENGR. & DATE	REV. DATE	SIZE	D
PROJ. ENGR. & DATE	REV. DATE	CODE	CS M8967-0-1
PROD. ENGR. & DATE	REV. DATE	NUMBER	0
NEXT HIGHER ASSY.	REV. DATE	SCALE	NONE
B-00-M8967-0	REV. DATE	DRG.	1 of 3
SCALE	REV. DATE	REV.	0
SHEET	REV. DATE	REV.	1 of 3

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REVISIONS			TITLE		NUMBER		REV.
CHK	CHANGE NO.	REV.	I/O SECTION 3		D CS M8967-0-1		D
			SCALE	NONE	SHEET	2 OF 3	

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REVISIONS		
CHK	CHANGE NO.	REV.

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
1	1	D-CS-M8967-0-1		CIRCUIT SCHEMATIC	REF	
2	2	B-DD-M8967-0-0		DRAWING DIRECTORY	REF	
3	3	D-UA-M8967-0-0		UNIT ASSEMBLY	REF	
4	4	D-MD-5012887-0-0		DRILL & ETCH DRAWING	REF	
5	5		5012867-00	M8967	1	
6	6		1001610-00	.01 MFD 50V +80-20% 25U CER	32	C1-C32
7	7		1005306-00	6.8MFD 35V 10% S.TANT	2	C33,C34
8	8		1912801-00	LS02 NOR-GATE-QUAD 2IN	2	E3, E35
9	9		1912803-00	74LS04 INVERTER GATE, HEX	1	E10
10	10		1912805-00	LS08 AND GATE-QUAD 2IN, PO	1	E20
11	11		1912807-00	LS10 NAND GATE-TRIPLE 3IN	1	E16
12	12		1912813-00	LS27 NOR GATE-TRIPLE 3IN	1	E2
13	13		1912820-00	LS51 A-0-1 GATE 2-WIDE 2I	1	E9
14	14		1912824-00	LS74 FF-D DUAL, EDGE TRIGG	1	E1
15	15		1912842-00	LS138 DECODER-THREE INPUT	3	E4, E7, E22
16	16		1912846-00	LS155 DECODER, 2 OF 4 (DUAL)	1	E19
17	17		1912849-00	LS161 COUNTER, SYNCHR, 4BIT	3	E11, E17, E29
18	18		1912697-00	LS174 FF-D HEX W/CLEAR	1	E14
19	19		1912648-00	LS251 MUX 8 INPUT, TRI-STA	1	E15
20	20		1912646-00	LS253 MUX 1 OF 4 (DUAL)	1	E27
21	21		1912647-00	LS257 MUX 1 OF 2 (QUAD)	2	E25, E32
22	22		1912864-00	LS279 LATCH, QUAD-S-R	2	E28, E33
23	23		1912871-00	LS375 LATCH	1	E23
24	24		1912872-00	LS377 FF-D 8BIT W/ENABLE	1	E26
25	25		1910950-00	74S74 FF-D DUAL (-45 VERSI	1	E34
26	26		1910545-00	74S112 FF-JK DUAL, EDGE TRIG	1	E21
27	27		1910552-00	74S194 SHIFT REG, 4BIT RIGH	1	E8
28	28		1911573-00	74S280 PARITY GEN/CHKR, 8BIT	2	E5, E36
29	29		1913670-00	74S373 LATCH 8BIT TRASP TR	1	E31
30	30		1913671-00	74S374 FF-D OCTAL TRISTATE	1	E13

REVISION HISTORY		BASIC PART NO: M8967		DRN: WEINBRENNER	DATE: 22-AUG-78	DIGITAL	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: W. CASSIDY	DATE: 22-AUG-78	PARTS LIST	
	00000	A	SECTION VARIATION INDEX			I/O SECTION 3	
CL	MLO01	B	[A] 00				
	P.K:M8967-MLO02	C	[B]	DES.ENG: H. FINDEISEN	DATE: 22-AUG-78		
	P.K:M8967-MLO03	D	[C]				
			[D]	RESP.ENG.: H. FINDEISEN	DATE: 22-AUG-78	DOCUMENT NUMBER	
			[E]				
			[F]			SIZE CODE NUMBER REV	
			[G]				
			[H]	MFG.ENG.: E. PINA	DATE: 22-AUG-78	K	PL M8967-0-DBP D
			[I]				
			[J]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME: EDIT #	
			[K]	D-UA-M8967-0-0	T504	203220.PLS 8	
			[L]				
			[M]				
			[N]				

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AUTOMATED BY PRTLST.2E(3)

PARTS LIST

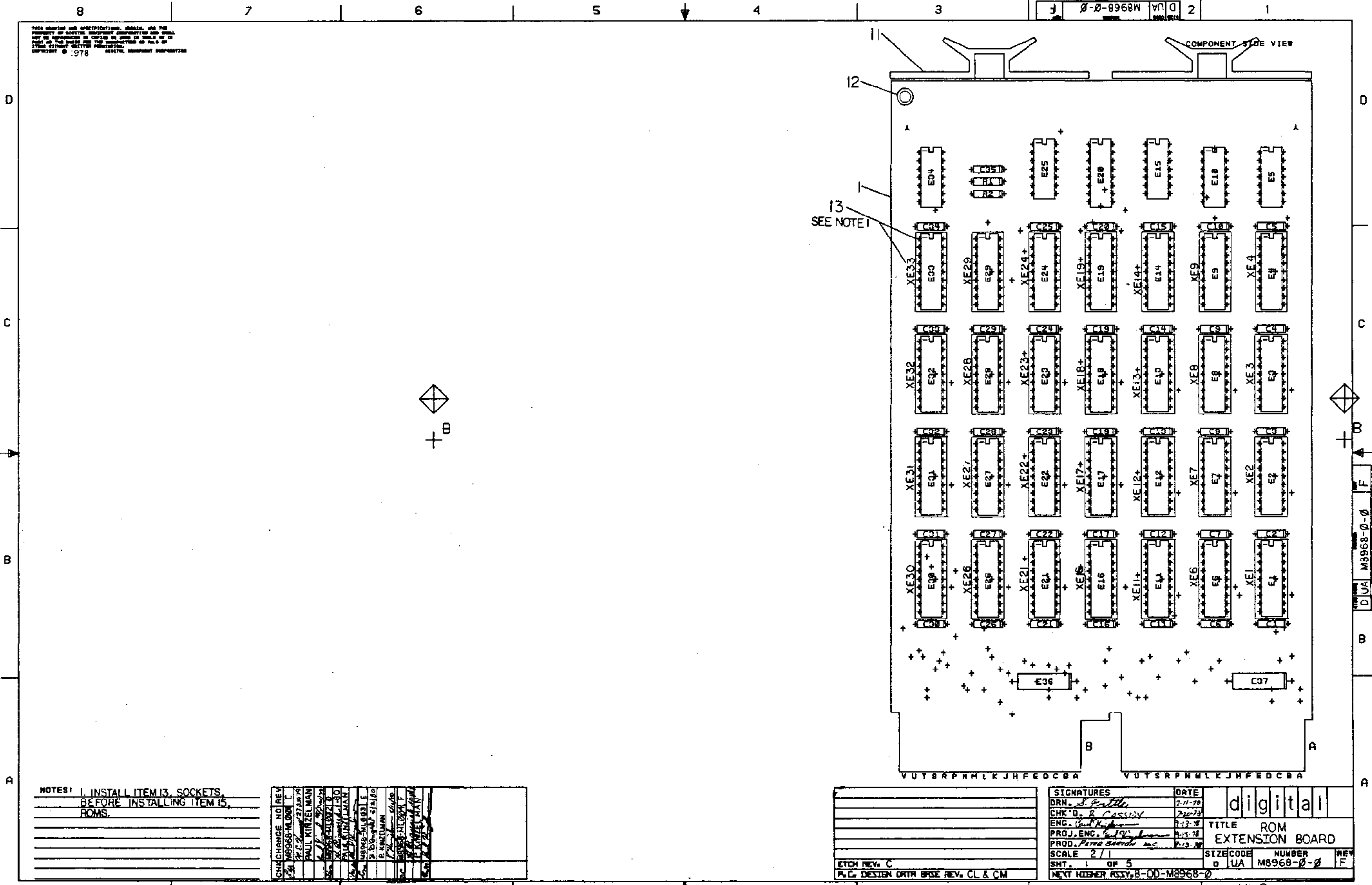
SHEET A2 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
31	31		23000F1-01	*** THIS ITEM IS NOT USED ***	-	
32	32		9006732-00	EYELET, ROLL FLANGE .1210DX .219	4	
33	33		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
34	34		1211813-02	SOCKET 16PIN IC LOW PROFILE	1	E30
35	35		1211666-00	SOCKET 18PIN IC LOW PROFILE	4	XE6, XE12, XE18, XE24
36	36		23476F1-00	F1-01	1	E24
37	37		23477F1-00	F1-01	1	E18
38	38		23478F1-00	F1-01	1	E12
39	39		23479F1-00	F1-01	1	E6

D	I	G	I	T	A	L	TITLE	I/O SECTION 3	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M8967-0-DBP	D

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2 DUA M8968-0-0



NOTES: 1. INSTALL ITEM 13, SOCKETS, BEFORE INSTALLING ITEM 15, ROMS.

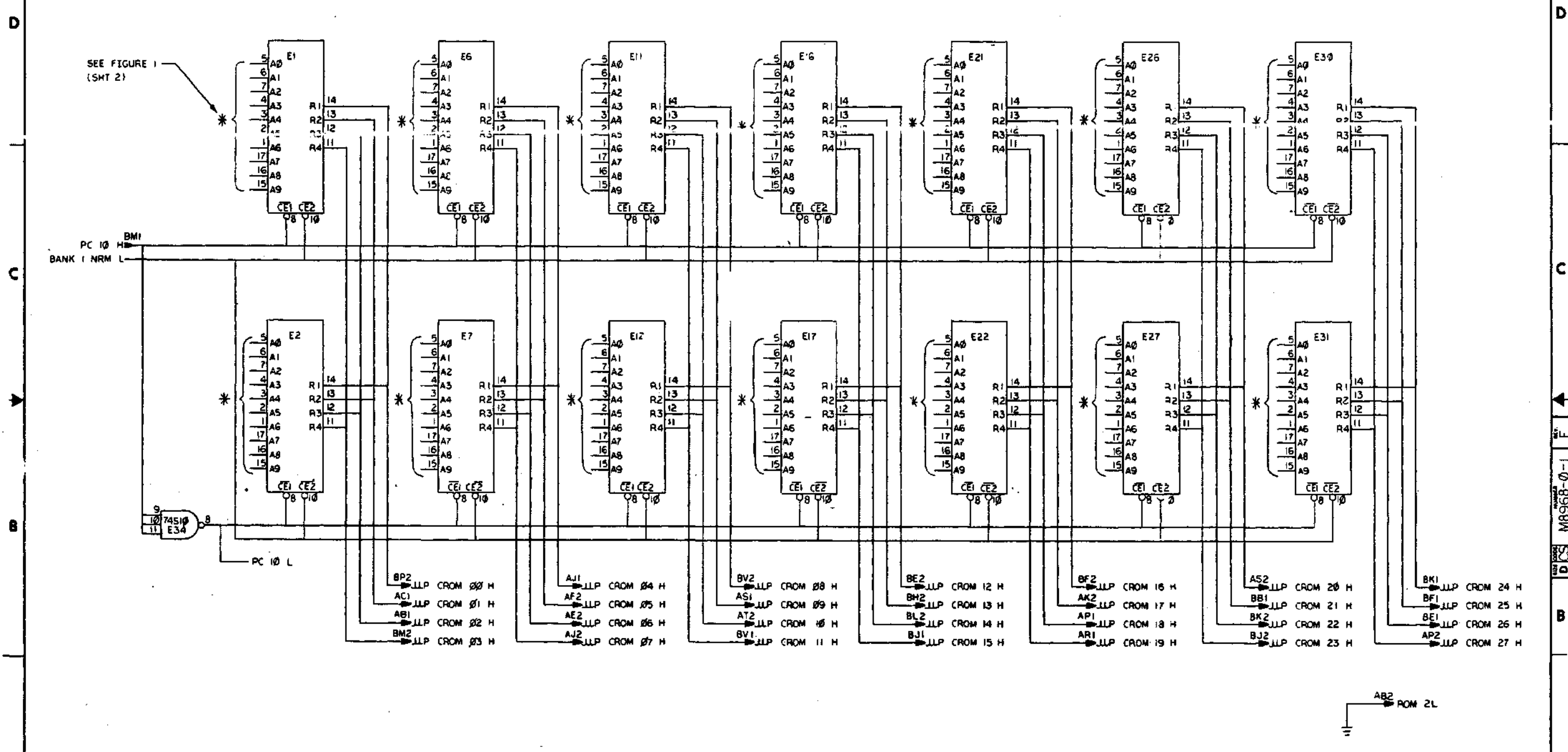
CHANGE NO	REV	DATE	BY	CHK'D
M8968-ML004	C	7/11/78	PAUL KINZELMAN	
M8968-ML004	B	7/11/78	PAUL KINZELMAN	
M8968-ML004	A	7/11/78	PAUL KINZELMAN	

ETCH REV. C	PLC DESIGN DATA BRD REV. CL & CM
-------------	----------------------------------

SIGNATURES		DATE	digital
DRN. <i>S. G. Little</i>		7-11-78	
CHK'D. <i>R. Cassidy</i>		7-11-78	TITLE ROM EXTENSION BOARD
ENG. <i>Paul Kinzelman</i>		7-11-78	
PROJ. ENG. <i>Paul Kinzelman</i>		7-11-78	
PROD. <i>Perce Boerds</i>		7-11-78	
SCALE 2/1	SIZE CODE	NUMBER	REV
SHT. 1 OF 5	D U A	M8968-0-0	F
NEXT NUMBER REV. B-00-M8968-0			

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1-0-8968W 2



REV	DATE	BY	CHKD	DESCRIPTION
1	27 JUN 79	P. KINZELMAN		INITIAL RELEASE
2	27 JUN 79	P. KINZELMAN		REVISION
3	27 JUN 79	P. KINZELMAN		REVISION
4	27 JUN 79	P. KINZELMAN		REVISION
5	27 JUN 79	P. KINZELMAN		REVISION
6	27 JUN 79	P. KINZELMAN		REVISION
7	27 JUN 79	P. KINZELMAN		REVISION
8	27 JUN 79	P. KINZELMAN		REVISION

DRN	2/20/79	FIRST USED ON	TS04
CHKD	2/20/79	TITLE	ROM EXTENSION BOARD
ENG	2/20/79	SIZE CODE	D CS
PROJ ENGR	2/20/79	NUMBER	M8968-0-1
PROD. DATE	2/20/79	REV.	F
NEXT HIGHER ASSY.		SCALE	1 OF 2
B-00-M8968-0		SHEET	1 OF 2
		DIST.	

ML2 1

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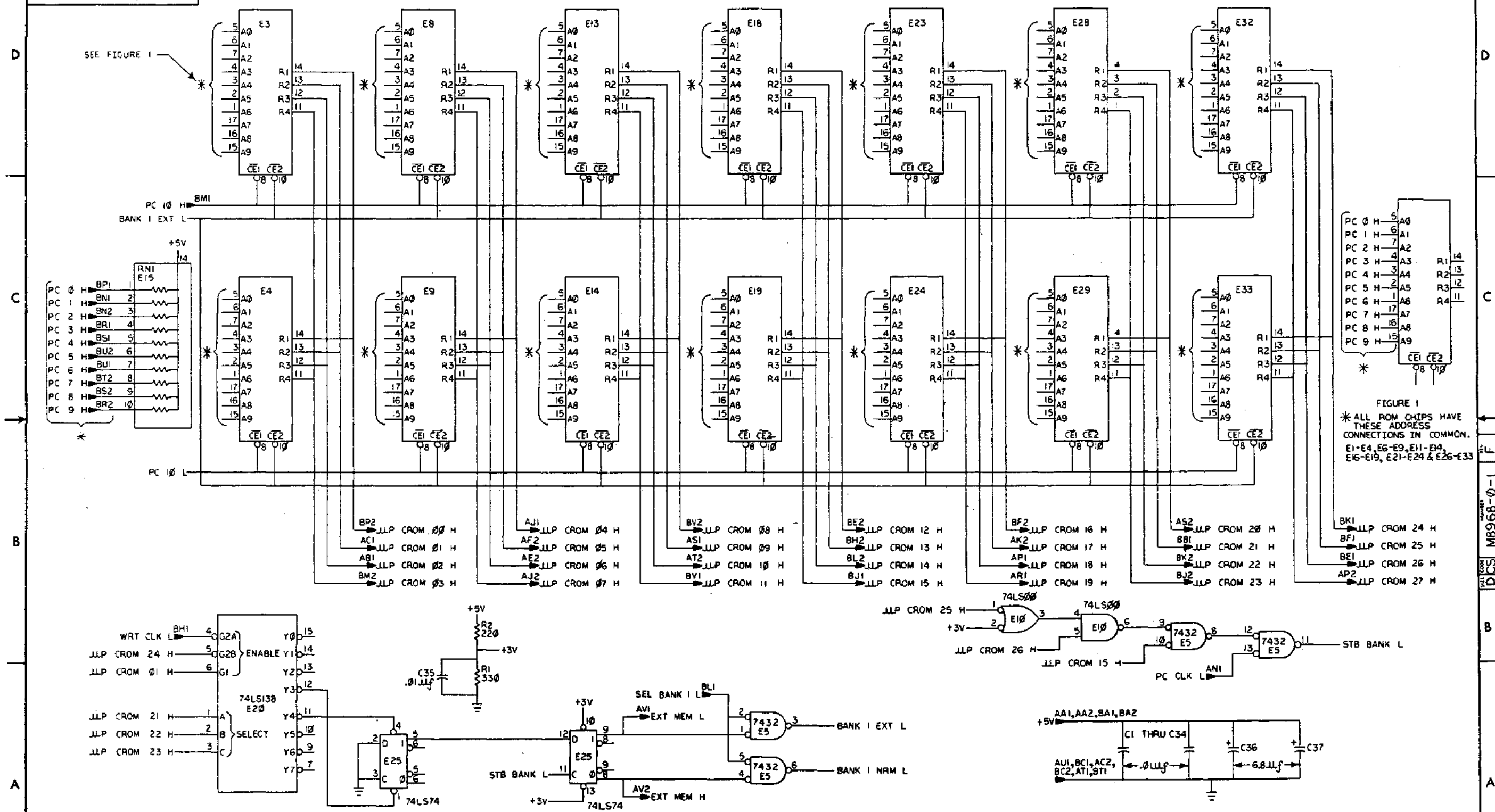


FIGURE 1
* ALL ROM CHIPS HAVE THESE ADDRESS CONNECTIONS IN COMMON. E1-E4, E6-E9, E11-E14, E16-E19, E21-E24 & E26-E33

REV. 1
D CS M8968-0-1

REVISIONS			TITLE	SIZE CODE	NUMBER	REV.
CHK	CHANGE NO.	REV.	RCM EXTENSION BOARD	D CS	M8968-0-1	F
			SCALE	SHEET 2 OF 2	DIST.	ML21

AUTOMATED BY PRTLST.10(10)

PARTS LIST

SHEET A1 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
1	1		5013277-00	M8968	1	
2	2		1001610-00	.01 MFD 50V +80-20% ZSU CER	35	C1-C35
3	3		1005306-00	6.8MFD 35V 10% S.TANT	2	C36, C37
4	4		1300271-00	220.0 .25 W 5.0 % CC	1	R2
5	5		1300295-00	330.0 .25 W 5.0 % CC	1	R1
6	6		1300005-01	R NETWORK 13-1K 5.0 X 14PIN	1	E15
7	7		1911521-00	7432 OR GATE-QUAD 2IN, PO	1	E5
8	8		1912824-00	LS74 FF-D DUAL, EDGE TRIGG	1	E25
9	9		1912799-00	LS00 NAND-GATE-QUAD 2IN, P	1	E10
10	10		1912842-00	LS138 DECODER-THREE INPUT,	1	E20
11	11		9008337-06	HANDLE, FLIP CHIP, MAGENTA	2	
12	12		9006732-00	EYELET, ROLL FLANGE .1210DX .219	4	
13	13	SEE NOTE	1211666-00	SKT, IC 18PIN DIP GOLD PLATE	28	CONT XE1-XE4, XE6-XE9, XE11-XE14, XE16-XE19, XE21-XE24, XE26-XE33
14	14		1910536-00	74510 NAND GATE-TRIPLE 3IN	1	E34
15	15		23403F1-00	F1-01	1	E1
16	16		23404F1-00	F1-01	1	E6
17	17		23405F1-00	F1-01	1	E11
18	18		23406F1-00	F1-01	1	E16
19	19		23407F1-00	F1-01	1	E21
20	20		23408F1-00	F1-01	1	E26
21	21		23409F1-00	F1-01	1	E30
22	22		23813F1-00	F1-01	1	E2
23	23		23658F1-00	F1-01	1	E7
24	24		23659F1-00	F1-01	1	E12
25	25		23660F1-00	F1-01	1	E17
26	26		23661F1-00	F1-01	1	E22
27	27		23662F1-00	F1-01	1	E27
28	28		23814F1-00	F1-01	1	E31
29	29		23417F1-00	F1-01	1	E3

REVISION HISTORY		BASIC PART NO: M8968		DRN:	R.WALDIE	DATE:	01-MAR-78	D I G I T A L			
ENG:	ECO NUMBER	REV	SECTION A OF A	CHK'D:	R.ODOM	DATE:	01-MAR-78	TITLE PARTS LIST			
	INIT	B	SECTION VARIATION INDEX	DES.ENG:	R.ODOM	DATE:	01-MAR-78	ROM EXTENSION 8D			
P.K.	M8968-ML001	C	(A) 00	RESP.ENG.:	R.ODOM	DATE:	01-MAR-78	DOCUMENT NUMBER			
PK	M8968-ML002	D	(B)	MFG.ENG.:	P.BARTON	DATE:	01-MAR-78	SIZE:	CODE:	NUMBER	REV
PK	M8968-ML003	E	(C)	ASSEMBLY NUMBER:	D-UR-M8968-0-0	TOP DOCUMENT NUMBER:	TS04	K	PL	M8968-0-DBP	F
PK	M8968-ML004	F	(D)			FILE NAME:	Z0597F.PLS			EDIT #	21
			(E)								
			(F)								
			(H)								
			(J)								
			(K)								
			(L)								
			(M)								
			(N)								

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AUTOMATED BY PRTLST.1D(10)

PARTS LIST

SHEET A2 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
30	30		23611F1-00	F1-01	1	F8
31	31		23419F1-00	F1-01	1	F13
32	32		23420F1-00	F1-01	1	F18
33	33		23421F1-00	F1-01	1	F23
34	34		23422F1-00	F1-01	1	F28
35	35		23612F1-00	F1-01	1	F32
36	36		23424F1-00	F1-01	1	F4
37	37		23613F1-00	F1-01	1	F9
38	38		23426F1-00	F1-01	1	F14
39	39		23427F1-00	F1-01	1	F19
40	40		23428F1-00	F1-01	1	F24
41	41		23429F1-00	F1-01	1	F29
42	42		23614F1-00	F1-01	1	F33

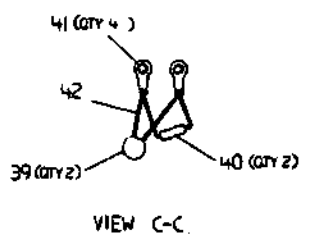
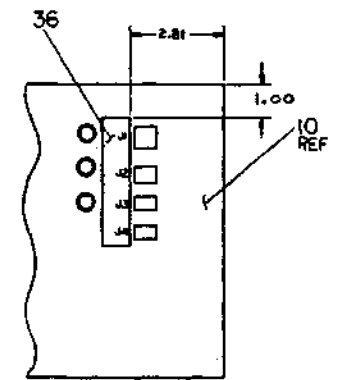
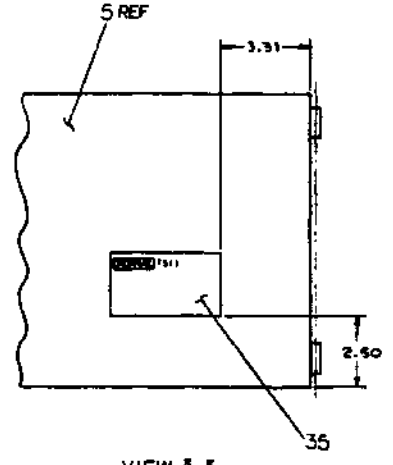
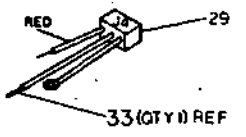
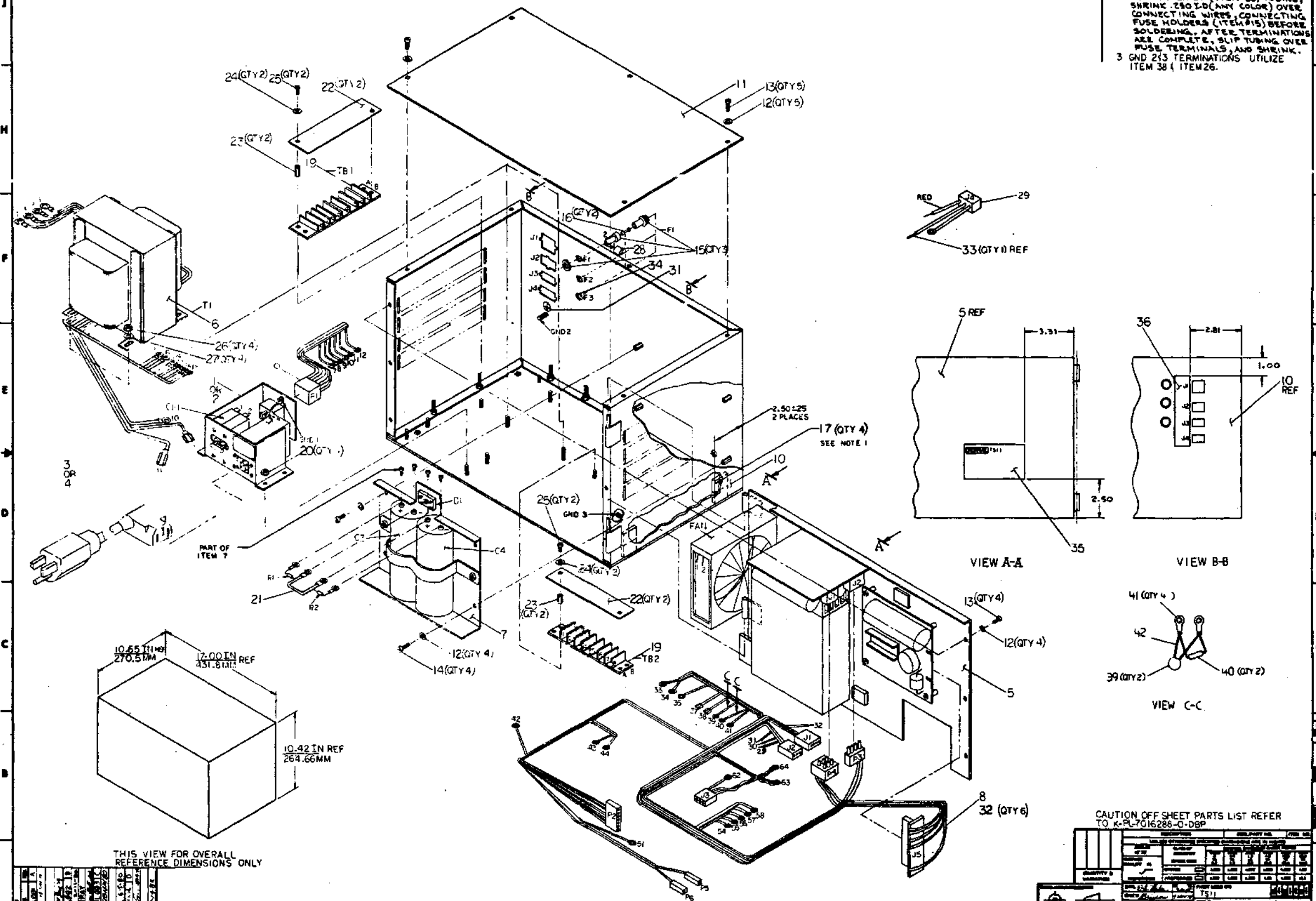
D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							ROM EXTENSION BD		K	PL	M8968-0-DBP	F

1978

LEGEND	
PART NO.	VARIATION
7016288-00	1.25V
7016288-01	2.50V

NOTES:

1. ADHERE ITEM 17 TO CHASSIS WHERE SHOWN
2. SLIP 1 INCH OF (ITEM 25) TUBING, SHRINK .250 I.D. (ANY COLOR) OVER CONNECTING WIRES, CONNECTING FUSE HOLDERS (ITEM 15) BEFORE SOLDERING. AFTER TERMINATIONS ARE COMPLETE, SLIP TUBING OVER FUSE TERMINALS, AND SHRINK.
3. GND 2(3) TERMINATIONS UTILIZE ITEM 38 (ITEM 26).



THIS VIEW FOR OVERALL REFERENCE DIMENSIONS ONLY

1	10.55 IN REF	270.51 MM
2	17.00 IN REF	431.81 MM
3	10.42 IN REF	264.66 MM

CAUTION OFF SHEET PARTS LIST REFER TO X-PL-7016288-0-D8P

PARTS LIST	
QTY	PART NO.
1	7016288-00
1	7016288-01
1	7016288-02
1	7016288-03
1	7016288-04
1	7016288-05
1	7016288-06
1	7016288-07
1	7016288-08
1	7016288-09
1	7016288-10
1	7016288-11
1	7016288-12
1	7016288-13
1	7016288-14
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1	7016288-40
1	7016288-41
1	7016288-42

POWER SUPPLY ASSEMBLY

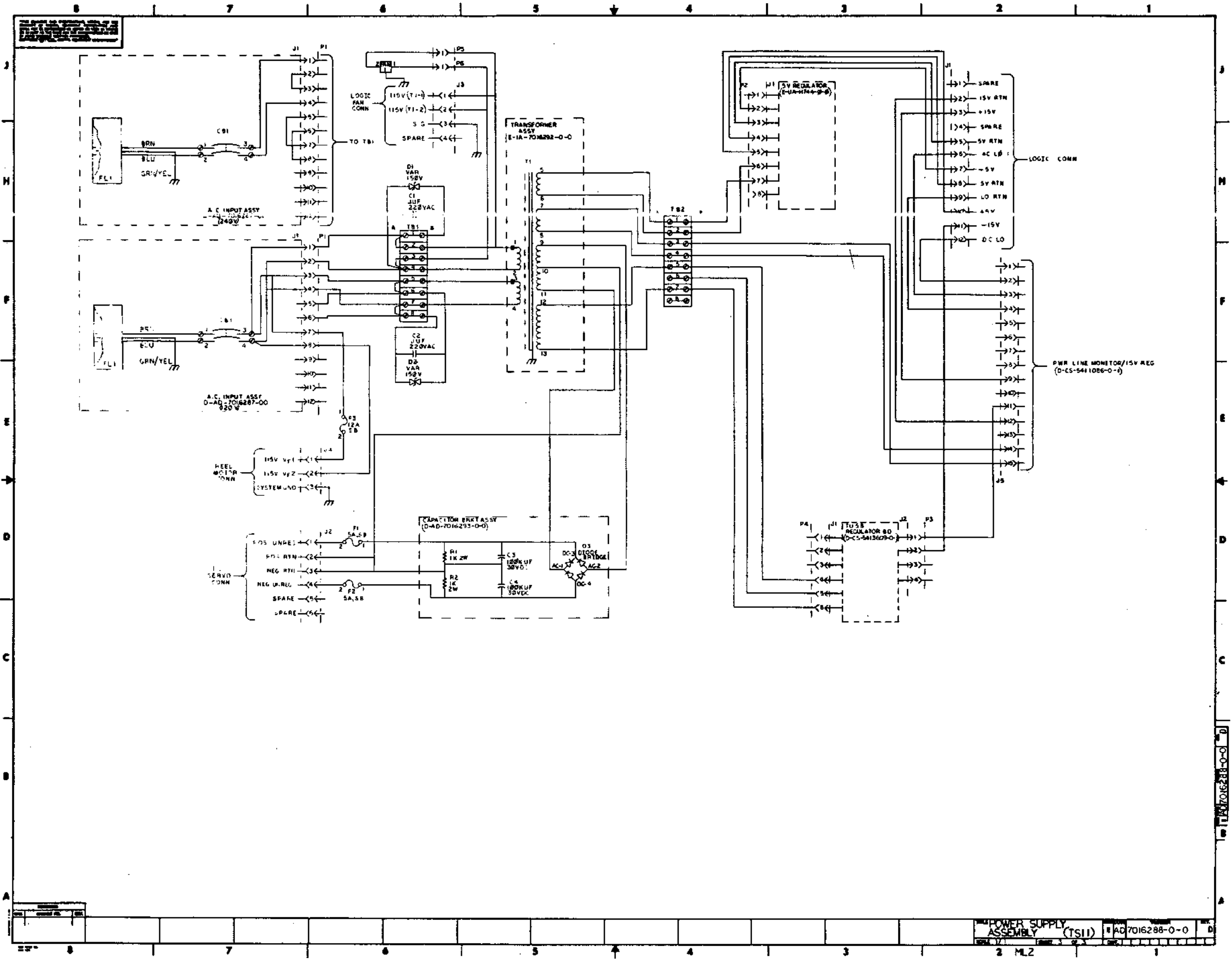
ML2

WIRE TABLE 7016288-00													WIRE TABLE 7016288-01												
ITEM NO	DESCRIPTION	AWG	COLOR	POINT	CONNECTION	WITH	POINT	CONNECTION	WITH	REMARKS	ITEM NO	DESCRIPTION	AWG	COLOR	POINT	CONNECTION	WITH	POINT	CONNECTION	WITH	REMARKS				
8	14	BLACK	50	P2-7			43	TB2-1A			2	14	BLACK		CB1-3			J1-1			A.C. INPUT ASSEMBLY				
8	14	BLACK	49	P2-E			44	TB2-2A			2	14	BLACK		CB1-4			J1-2			D-1A-7016287-01				
8	14	GRN/YEL	57	FAN-GND			42	GND-3	26,38		2	14	BLACK		J1-2			J1-3			240V WIRING (ONLY)				
8	18	RED	P8	FAN-1			64	TB1-3B			2	14	BLACK		J1-5			J1-7							
8	TWP	WHITE	P8	FAN-2			63	TB1-2B			2	14	BLACK		J1-6			J1-8							
8	18	RED	60	J3-2			64	TB1-3B			2		BROWN		FL1-1			CB1-1							
8	TWP	WHITE	59	J3-1			63	TB1-2B			2		BLUE		FL1-2			CB1-2							
8	14	GRN/YEL	61	J3-3			62	GND-2	26		2	14	GRN/YEL		FL1-GND			GND 1							
8	18	BLACK	1	F4-5			54	TB2-7B																	
8	18	BLACK	2	F4-5			55	TB2-6B																	
8	18	BLACK	3	F4-3			56	TB2-5B																	
8	18	BLACK	5	J5-15			58	TB2-3B																	
8	18	BLACK	7	J5-14			57	TB2-4B																	
8	14	BLACK	7	J5-14			56	CB1-2																	
8	14	BLUE	33	C4-1			37	C3-4																	
8	14	BLUE	34	C4-2			31	F2-1	28																
8	14	BLACK	25	J2-3			35	C4-5*																	
8	14	ORANGE	38	D3-3			41	C3-4*																	
8	14	BLACK	26	J2-2			39	C3-3*																	
8	14	ORANGE	40	C3-4*			32	F1-1	28																
8	14	BLUE	28	J2-4			30	F2-2	28																
8	14	ORANGE	27	J2-1			29	F1-2	28																
9	14	BLACK	1	P1-1			2	TB1-2A																	
9	14	BLACK	2	P1-2			11	TB1-4A																	
9	14	BLACK	3	P1-3			10	TB1-5A																	
9	14	BLACK	4	P1-4			8	TB1-7A																	
9	14	BLACK	5	P1-5			9	TB1-6A																	
9	14	BLACK	6	P1-6			7	TB1-8A																	
19				TB1-2A				TB1-1A	30																
19				TB1-4A				TB1-3A	30																
19				TB1-6A				TB1-5A	30																
19				TB1-8A				TB1-7A	30																
19				TB1-1A				D1																	
19				TB1-4A				C1																	
19				TB1-2B				D1																	
19				TB1-2B				C1																	
19				TB1-8				D2																	
19				TB1-5B				C2																	
19				TB1-6A				D2																	
19				TB1-7A				C2																	
29	12	BROWN		F3-1				P1-7	33,28																
29	12	BLUE		J4-2				P1-8	33																
29	14	REC		J4-1				F3-2	28																
29	14	GRN/YEL		J4-3				GND-2	26,38																
5	14	BLACK		T1-1				TB1-2B																	
5	14	BLACK		T1-2				TB1-4B																	
5	14	BLACK		T1-3				TB1-5B																	
5	14	BLACK		T1-4				TB1-7B																	
5	14	BLACK		T1-5				TB2-1A																	
5	14	BLACK		T1-6				TB2-2A																	
5	14	BLACK		T1-7				TB2-3A																	
5	14	BLACK		T1-8				TB2-4A																	
5	14	BLACK		T1-9				D3-2																	
5	14	BLACK		T1-10				J2-3																	
5	14	BLACK		T1-11				D3-1																	
5	14	BLACK		T1-12				TB2-5A																	
5	14	BLACK		T1-13				TB2-7A																	
1	14	BLACK		J1-1				CB1-3																	
1	14	BLACK		J1-2				CB1-4																	
1	14	BLACK		J1-3				CB1-3																	
1	14	BLACK		J1-4				CB1-4																	
1	14	BLACK		J1-7				CB1-3																	
1	14	BLACK		J1-8				CB1-4																	
1	14	BLACK		J1-2				CB1-4																	
1		BROWN		FL1-1				CB1-1																	
1		BLUE		FL1-2				CB1-2																	
1	14	GRN/YEL		FL1-GND				GND 1																	

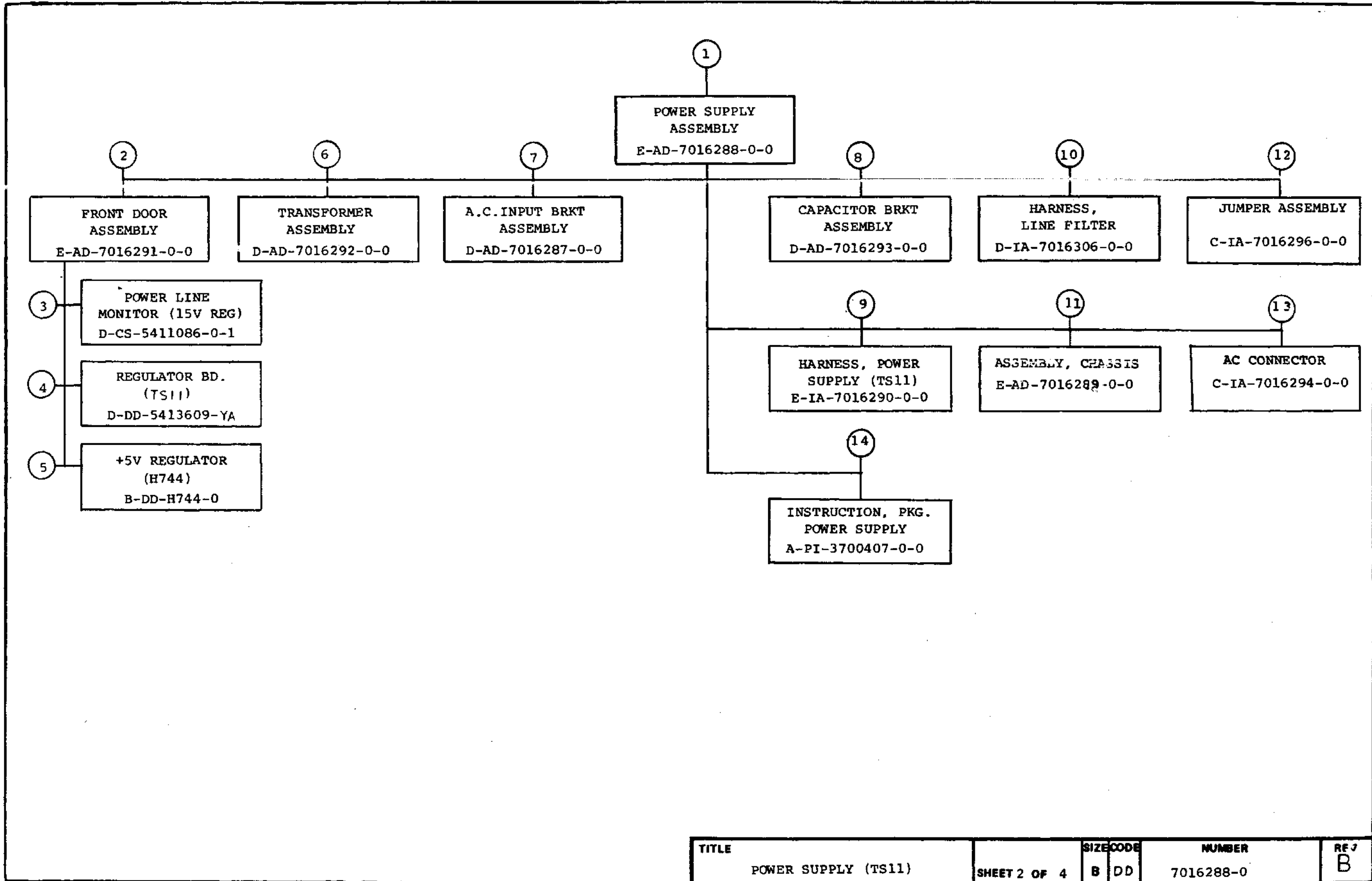
WIRING TABLE FOR BOTH 7016288-00 AND 7016288-01

WIRING FOR 7016288-00 (ONLY)

WIRING FOR 7016288-01 (ONLY)



POWER SUPPLY ASSEMBLY (TS11) AC 7016288-0-0
 2 M.L.2



TITLE	POWER SUPPLY (TS11)	SHEET 2 OF 4	SIZE CODE	B DD	NUMBER	7016288-0	REV	B
-------	---------------------	--------------	-----------	------	--------	-----------	-----	---

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	MP00699	FIELD MAINTENANCE PRINT SET (MP)	REF	5	B-DD-H744-0	+5V REGULATOR (H744)	E/M
	E-AD-7016288-0-0	POWER SUPPLY (TS11)	E/M				
	K-PL-7016288-0-DBP	POWER SUPPLY (TS11)	E/M				
	D-MD-7421771-0-0	COVER, TOP	M				
	B-MD-7422499-0-0	PLEXI COVER	M				
				6	D-AD-7016292-0-0	TRANSFORMER ASSY	E/M
					B-PL-7016292-0-0	TRANSFORMER ASSY	E/M
				7	D-AD-7016287-0-0	A.C. INPUT BRKT ASSEMBLY	E/M
					B-PL-7016287-0-0	A.C. INPUT BRKT ASSEMBLY	E/M
					D-IA-7422052-0-0	BRACKET, A.C. INPUT	M
2	E-AD-7016291-0-0	FRONT DOOR ASSEMBLY	E/M				
	B-PL-7016291-0-0	FRONT DOOR ASSEMBLY	E/M				
	D-IA-7421772-0-0	DOOR, FRONT	M				
	C-IA-7421770-0-0	BRACKET, FAN	M	8	D-AD-7016293-0-0	CAPACITOR BRKT ASSEMBLY	E/M
					B-PL-7016293-0-0	CAPACITOR BRKT ASSEMBLY	E/M
					D-IA-7421773-0-0	BRACKET, CAPACITOR	M
					C-IA-7418370-0-0	RETAINER CAPACITOR	M
3	D-CS-5411086-0-1	POWER LINE MONITOR/15V REG	E/M				
	K-CO-5411086-0-4	X-Y COORDINATE HOLE LOCATION	M				
	D-AH-5411086-0-5	ASSY/DRILLING HOLE LAYOUT	M				
	B-MH-5411086-0-6	MODULE E.C.O. HISTORY	REF	9	E-IA-7016290-0-0	HARNESS, POWER SUPPLY (TS11)	E/M
	5011085	ETCHED CIRCUIT BOARD	M		B-PL-7016290-0-0	HARNESS, POWER SUPPLY (TS11)	E/M
	A-SP-11/45-TA-2	MODULE TEST PROCEDURE	REF				
	A-SP-5411086-0-3	ENG. SPEC-AND TEST PROC.	REF				
	7413721-0-0	.010 INCH SHIM	M				
				10	D-IA-7016206-0-0	HARNESS, LINE FILTER	E/M
					B-PL-7016306-0-0	HARNESS, LINE FILTER	E/M
4	B-DD-5413609-YA	REGULATOR BD. (TS11)	E/M				

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

digital

TITLE

POWER SUPPLY (TS11)

SHEET 3 OF 4

SIZE CODE
B DD

NUMBER
7016288-0

REV
B

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION	
					00	01
1		D-AD-7016287-0-0	7016287-00	A.C. INPUT ASSY 120V	1	1
		D-AD-7016287-0-0	7016287-01	A.C. INPUT ASSY 240V	1	1
		A-PS-1700083-0-0	1700083-00	PWR CORD, TERM. 75IN, 14-3, 125V 15	1	1
		A-PS-1700083-0-0	1700083-17	PWR CORD, TERM. 75IN, 16-3, 250V 6	1	1
		F-AD-7016291-0-0	7016291-00	FRONT DOOR ASSY	1	1
		F-IA-7016292-0-0	7016292-00	TRANSFORMER ASSY	1	1
		D-AD-7016293-0-0	7016293-00	CAPACITOR BRKT. ASSY	1	1
		F-IA-7016290-0-0	7016290-00	HARNESS, POWER SUPPLY	1	1
		C-IA-7016306-0-0	7016306-00	HARNESS, LINE FILTER	1	1
		D-AD-7016289-0-0	7016289-00	CHASSIS WELDMENT ASSY	1	1
		D-MD-7421771-0-0	7421771-00	TOP COVER	1	1
			9006634-00	WASHER, LOCK INT, .2300 X .172 ID	13	13
			9006035-01	SCREW, PAN, PHIL 8-32X 1/4 SS	9	9
			9006037-01	SCREW, PAN, PHIL 8-32X 3/8 SS	4	4
		A-PS-1212893-0-0	1212893-00	FUSE HOLDER, 20A, 300V, PNL MNT	1	1
			9007222-00	FUSE SLO BLO 5 A, 250V GLASS	1	1
			9008254-00	MOUNT, CABLE TIE, ADHESIVE BACKE	A/R	A/R
			9008509-00	*** THIS ITEM IS NOT USED ***		
			9006910-00	TERM BLOCK 8POS 7/16 SPACING CL	2	2
			9006560-00	NUT KEP 6-32X 5/16AF	4	4
		C-IA-7016296-0-0	7016296-00	JUMPER ASSY	1	1
		B-MD-7422499-0-0	7422499-00	PLEXI-COVER	1	1
			9006957-00	SPACER, HEX THD'D, ALUM 6-32X 5	4	4
			9006659-00	WASHER, FLAT .375 O.D. X .156 I	4	4
			9006020-01	SCREW, PAN, PHIL 6-32X 1/4 SS	4	4
			9006565-00	NUT KEP 10-32X 3/8 AF	4	4
			9006664-00	WASHER, FLAT, .437 OD X .218 ID	4	4
			9107253-00	TUBING, SHRINK 1/4 DIA. EXP UL	A/R	A/R
		C-IA-7016294-0-0	7016294-00	LINE FILTER ASSY	1	1
			9009003-00	JUMPER FOR TERM BLOCK	4	4

REVISION HISTORY		BASIC PART NO: 7016288		DRN:	DATE:	DIGITAL			
ENG:	ECC NUMBER	REV	SECTION A OF A	W. J. MAHER	28-AUG-78	PARTS LIST			
J. B.	7016288-MLD04	D	SECTION. VARIATION INDEX	CHK'D: D. BRIGHAM	09-NOV-78	POWER SUPPLY ASSEMBLY			
			(A) 00,01	DES. ENG.: M. QUADRI	10-NOV-78	DOCUMENT NUMBER			
			(B)	RESP. ENG.: M. QUADRI	10-NOV-78	SIZE	CODE	NUMBER	REV
			(C)	MFG. ENG.: P. BARTON	10 NOV 78	K	PL	7016288-0-DBP	D
			(D)	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME:		EDIT #	
			(E)	E-AD-7016289-0-0		Z30680.PLS		20	
			(F)						

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AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET 02 OF 02

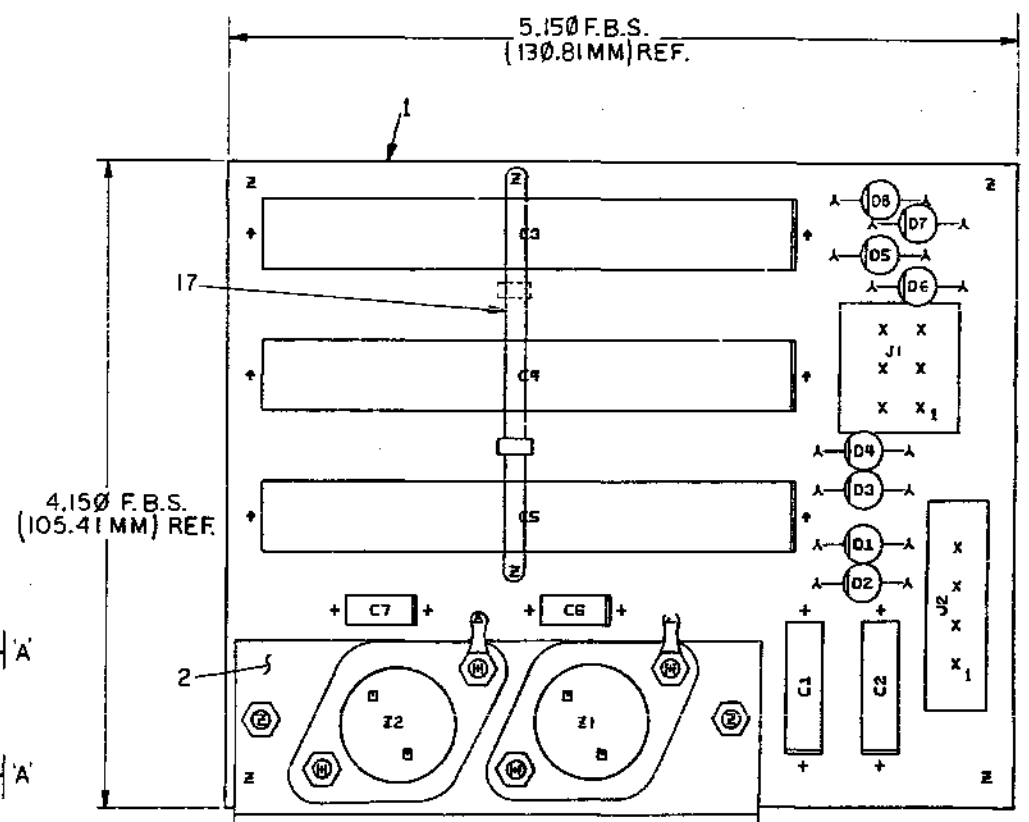
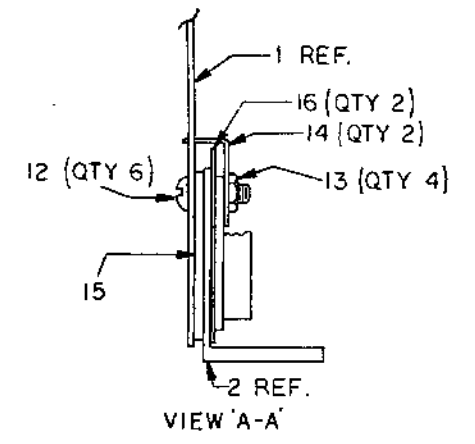
LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION	
					00	01
40	40	A-PS-3612680-0-0	3612680-00	DECAL, GROUND SIGN PER 3E6 *	2	2
40	40	A-PS-1212170-0-0	9007880-00	TIE, CABLE BUNDL DIA 0-1.14"=101	2	2
40	40	A-PS-1212170-0-0	1212170-00	MATE-N-LOK SKT UNIV 20-14AWG REE	2	2
40	40	A-SP-3616126-0-0	9008290-01	FUSE, SLO BLO 12 A 250V CER.	1	1
40	40	A-SP-3616126-0-0	3616126-00	LABEL, VOLTAGE & FREQUENCY CONFIG	1	1
40	40	A-SP-3616128-0-0	3616128-00	LABEL, 1511 PWR SUPPLY FUSE RATIN	1	1
40	40	A-PS-1311996-0-0	9007651-00	WASHER, LOCK, EXTERNAL TOOTH #10	1	1
40	40	A-PS-1311996-0-0	1311996-00	VARISTOR 150VAC VOLT TRANS SUP	1	1
40	40	A-PS-1012210-0-0	1012210-00	1 MFD 220V 10% MET. MYLR	4	4
40	40	A-PS-1012210-0-0	9006762-00	TERM. LUG #6STUD LOCKING 30	4	4
40	40	A-PS-1012210-0-0	9107278-11	TUBING, THIN WALL, .042ID UL	A/R	A/R

D	I	G	I	T	A	L	TITLE	POWER SUPPLY ASSEMBLY	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	7016288-0-DBP	D

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D UA 5413609-0-0 2

COMPONENT SIDE VIEW



NOTES:

STEP E	→ Y AXIS	STEP	TIMES
REPORT	→ X AXIS	STEP	TIMES

CHANGE NO	REV	DATE	BY	CHK'D
3	B			
2	A			
1	A			

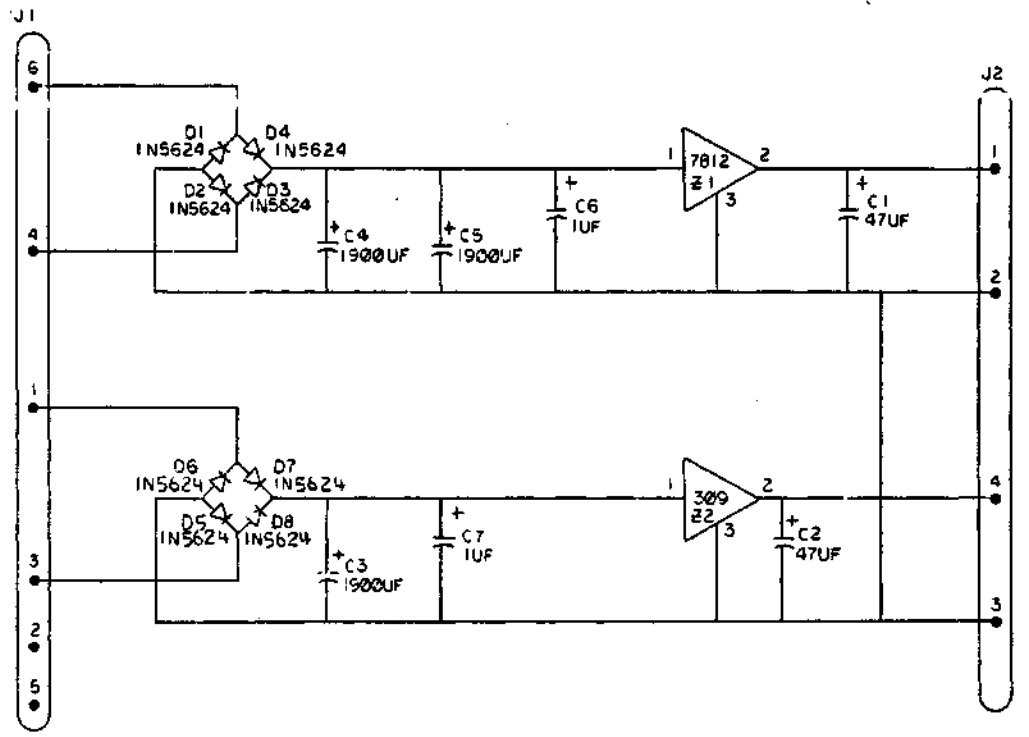
ETCH REV. C-P1

SIGNATURES		DATE	digital
DRW. <i>A. E. Nichols</i>		2-28-79	
CHK'D. <i>J. Brown</i>		1-7-79	
TECH. ENG. <i>A. Brown</i>		2-28-79	
PROJ. ENG. <i>J. Brown</i>		2-28-79	
SCALE 2/1			
SHT. 1 OF 1			
NEXT HIGHER REV. B-00-5413609-0			

TITLE		
TU 58 REGULATOR BD		
SIZE	CODE	NUMBER
D	UA	5413609-0-0
REV		C

ML2

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REV.	CHANGE NO.	BY	DATE
1	5413609-ML1	B	10/11/78
2		L. J. ZEPHERO	
3		A. BARON	
4		A. BARON	
5		A. BARON	
6		A. BARON	
7		A. BARON	
8		A. BARON	

DRAWN BY: DAN L. GUNN 8/23/78	FIRST USED ON: digital
CHECKED BY: [Signature]	
ENG. LONG BORN 10/11/78	TITLE: TU58 REGULATOR BOARD
PROD. ENG. V. BURN 10/11/78	
PROD. V. BURN 10/11/78	
NEXT HIGHER ASSY:	
B-00-5413609-0	SIZE CODE: D CS
SCALE: 1/1	NUMBER: 5413609-0-1
SHEET: 1 OF 1	REV. C

ML2 1

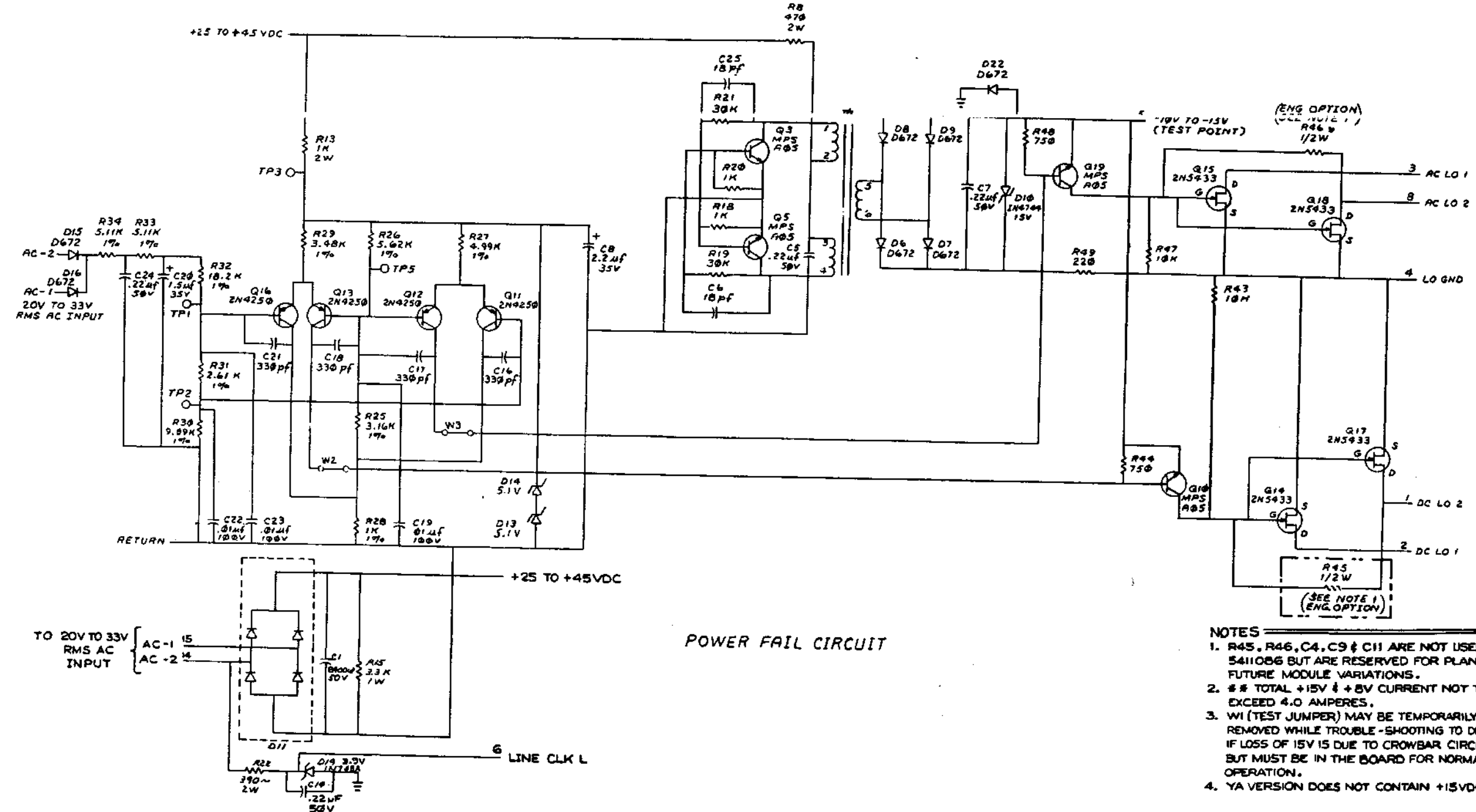
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					00	
1	1	D-MD-5013608-0-0	5013608-00	DRILL & ETCH BD	1	
2	2		1215894-00	HEAT SINK, 2-3, ALUM	1	
3	3		1912048-04	DEC 7812 VOLT REG, FIX +12V	1	Z1
4	4		1910460-00	DEC 309 VOLT REG, FIX +15V	1	Z2
5	5		1110420-00	IN 5624 PIV=200 I= 5A	8	D1-08
6	6		1105795-00	*** THIS ITEM IS NOT USED ***	1	
7	7		1011607-00	1900 MFD 40V +75-10% AL EL	3	C3-C5
8	8		1001775-00	1 MFD 35V 10% S.TANT	2	C6, C7
9	9		1000079-00	47 MFD 20V 20% S.TANT	2	C1, C2
10	10		1212297-01	MATE-N-LOK 4PIN UNIV HEADER	1	J2
11	11		1212297-05	MATE-N-LOK 6PIN UNIV HEADER	1	J1
12	12		9006022-01	SCREW, PAN, PHIL 6-32X 3/8 SS	6	
13	13		9008185-00	NUT, KEP 6-32X1/4 AF	4	
14	14		9009676-00	TERM LUG 1POS SOLDER	2	
15	15		1215580-00	INSULATOR, MOLDED	2	
16	16		1213071-02	INSULATOR, RUBBER SILICONE 5M	2	
17	17		9007680-03	TIE, CABLE BUNDL DIA 0-1.14"-101	2	
18	18	D-EC-5013608-0-0		ETCH CUT DRAWING	REF	
19	19	D-UA-5413609-0-0		UNIT ASSEMBLY	REF	
20	20	D-CS-5413609-0-1		CIRCUIT SCHEMATIC	REF	

REVISION HISTORY			BASIC PART NO: 5413609		DRN: J.WHITNEY		DATE: 10-JUN-80		DIGITAL	
ENG.	ECO NUMBER	REV	SECTION A OF A	CHK'D:	DATE:	TITLE	PARTS LIST			
---	INITIAL	A	SECTION VARIATION INDEX	LARRY DOIRON	10-JUN-80	TU58 REGULATOR BD				
AB	5413609-ML001	B	[A] 00	LARRY DOIRON	10-JUN-80					
			[B]	DES. ENG: LARRY DOIRON	10-JUN-80					
			[C]	RESP. ENG.: LARRY DOIRON	10-JUN-80					
			[D]			DOCUMENT NUMBER				
			[E]			SIZE CODE NUMBER	REV			
			[F]	MFG. ENG.: PETER BARTON	10-JUN-80	K PL 5413609-0-DBP	B			
			[G]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME:	EDIT #			
			[H]	D-UA-5413609-0-0	#B-00-5413609-0	214838.PLS	4			
			[I]							
			[J]							
			[K]							
			[L]							
			[M]							
			[N]							

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D CS 5411086-0 2



- NOTES**
1. R45, R46, C4, C9 & C11 ARE NOT USED ON BASIC 5411086 BUT ARE RESERVED FOR PLANNED FUTURE MODULE VARIATIONS.
 2. ** TOTAL +15V & +5V CURRENT NOT TO EXCEED 4.0 AMPERES.
 3. W1 (TEST JUMPER) MAY BE TEMPORARILY REMOVED WHILE TROUBLE-SHOOTING TO DETERMINE IF LOSS OF 15V IS DUE TO CROWBAR CIRCUITRY. BUT MUST BE IN THE BOARD FOR NORMAL OPERATION.
 4. YA VERSION DOES NOT CONTAIN +15VDC REG.

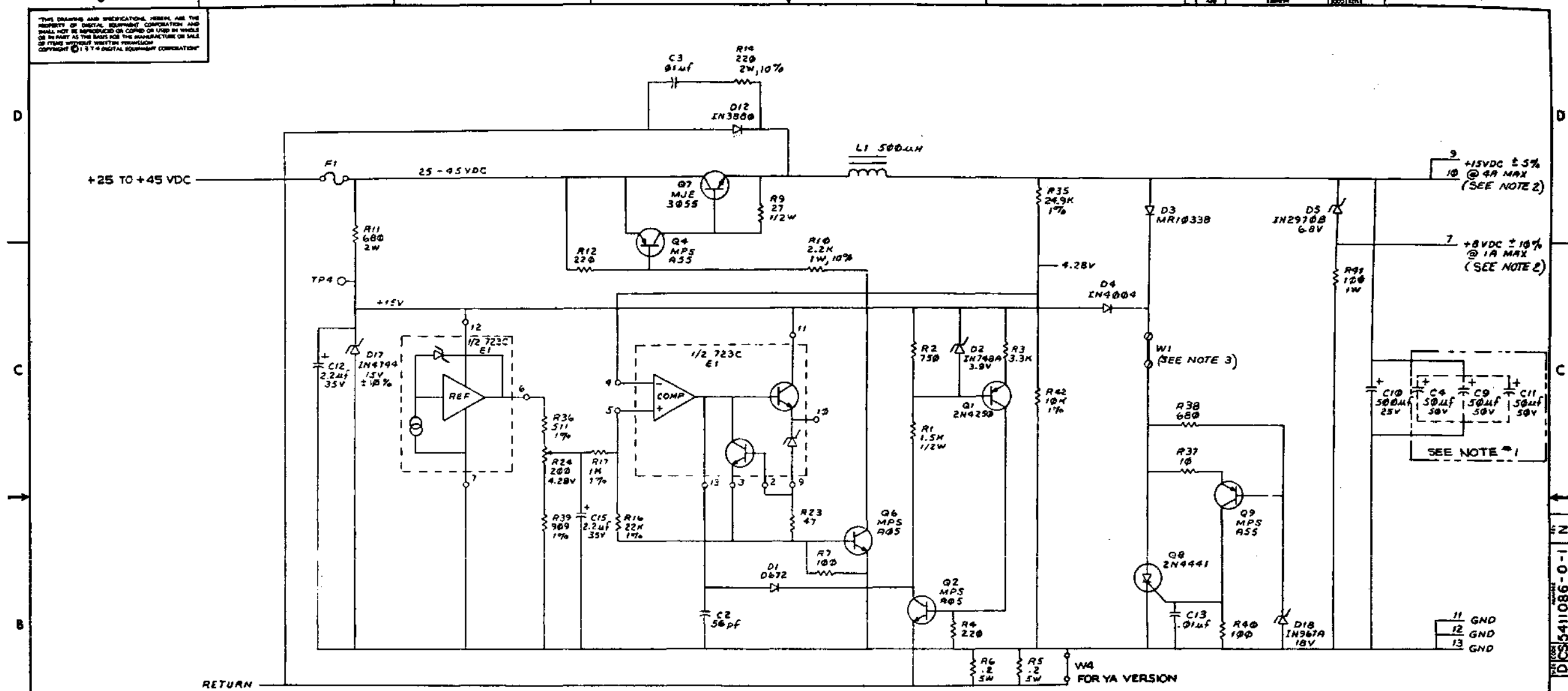
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2		M	
3		M	
4		M	
5		M	
6		M	
7		M	
8		M	

ORIGINATORS	1-17-79	FIRST USED ON	
CHKD	2-13-79		
ENG. d. G.	2-5-79	TITLE	POWER LINE MONITOR 15V REG
PROJ. ENG. d. G.	2-5-79	SCALE	NONE
PROD. d. G.	2-15-79	SIZE CODE	D CS 5411086-0-1
NEXT HIGHER ASSY.		NUMBER	
B-DU-5411086-0		REV	N
SHEET 1	OF 2	DIST.	

D CS 5411086-0 2

TW 1

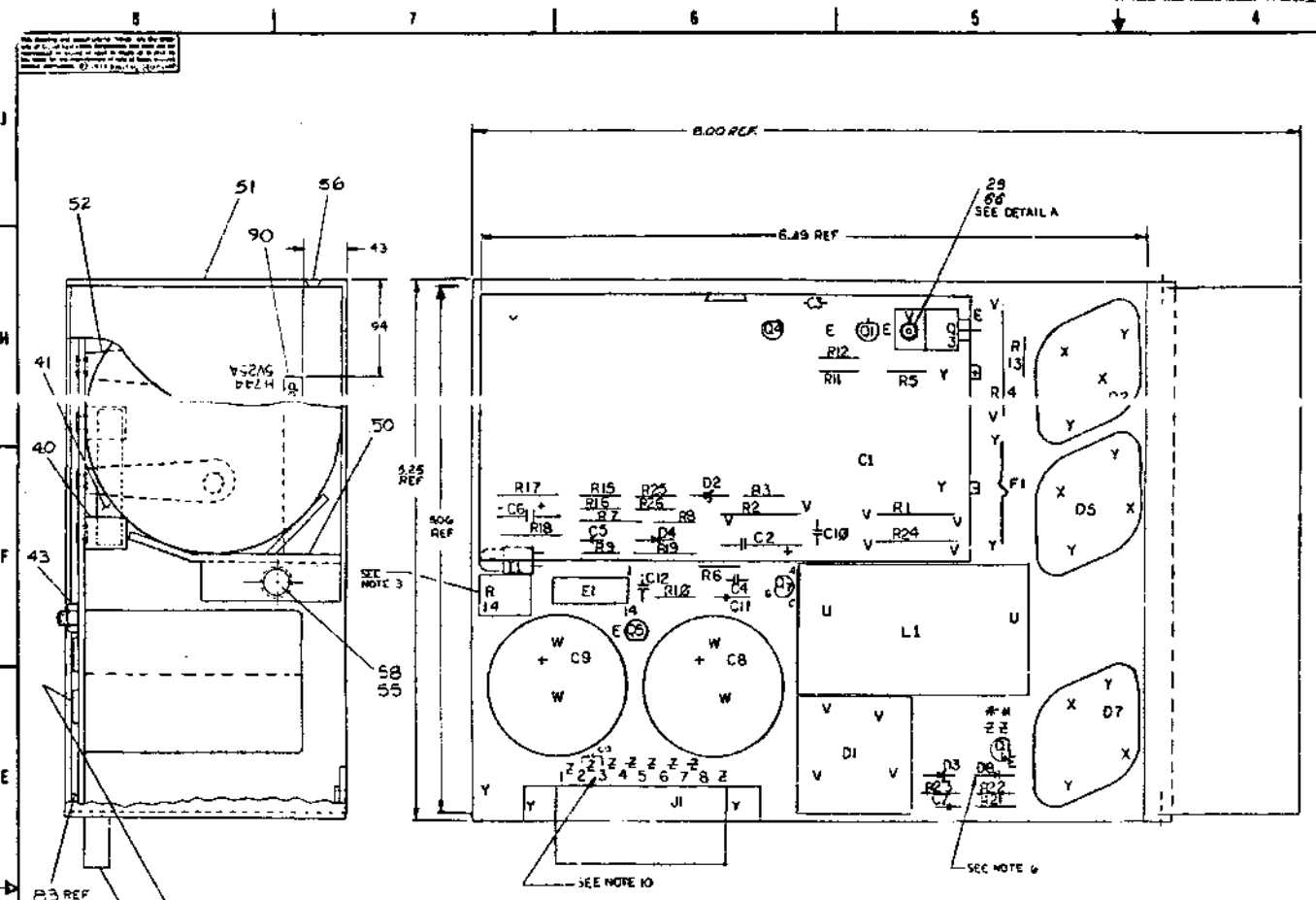
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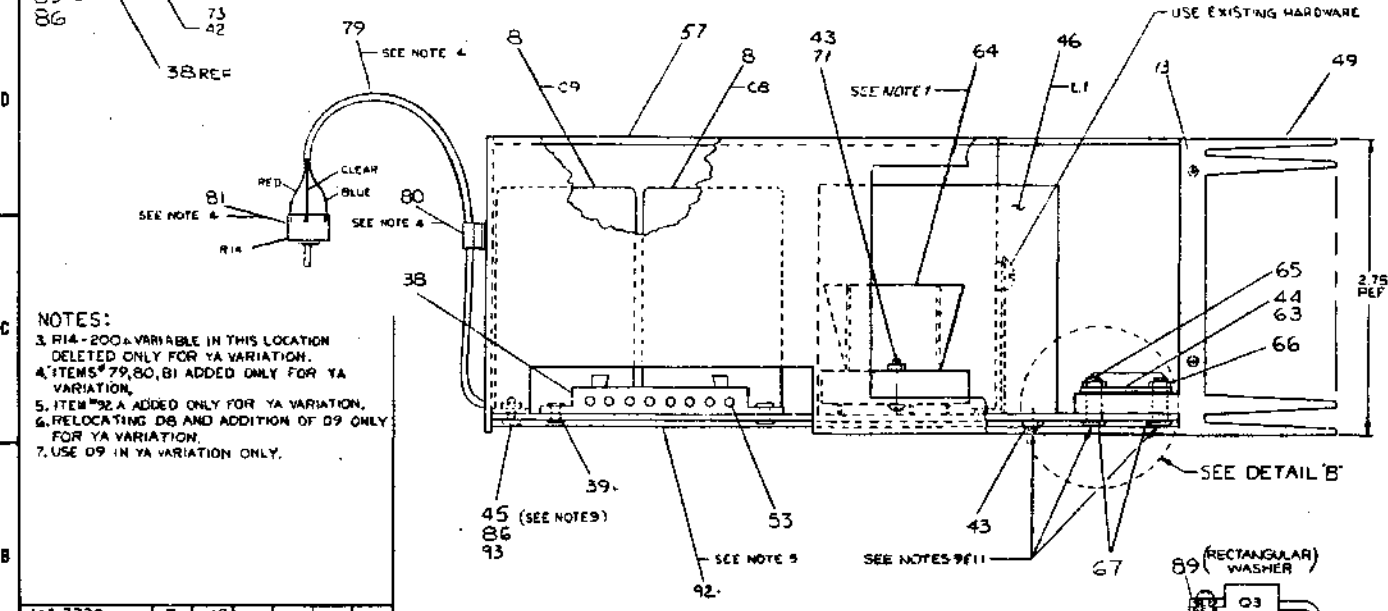
15V REGULATOR
(SEE NOTE #4)

REVISIONS		
CHK	CHANGE NO	REV

TITLE	PWR. LINE MONITOR/15V REG.	SIZE/CODE	NUMBER	REV.
SCALE	SHEET 2 OF 2	DIST.	DCS5411086-0-1	N



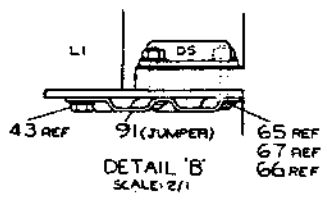
NOTES:
 1. APPLY ITEM #63 (COMPOUND) BETWEEN TRANSISTOR (Q3), DIODES (D5, D7) AND ITEM #44 (WASHER) ALSO BETWEEN ITEM #44 (WASHER) AND HEAT SINK (ITEM #43). ALSO APPLY ITEM #63 (COMPOUND) BETWEEN ITEM #9 (DIODE BRIDGE) AND ITEM #64 (HEAT SINK BRIDGE).



NOTES:
 3. R14 - 200Ω VARIABLE IN THIS LOCATION DELETED ONLY FOR YA VARIATION.
 4. ITEMS #79, 80, 81 ADDED ONLY FOR YA VARIATION.
 5. ITEM #92A ADDED ONLY FOR YA VARIATION.
 6. RELOCATING D6 AND ADDITION OF D9 ONLY FOR YA VARIATION.
 7. USE D9 IN YA VARIATION ONLY.

NOTES CONT:

- NOTE 8:
 (1) Q3 SCREW HEAD SHOULD BE ON TOP OF FLAT RECTANGULAR WASHER AS SHOWN. APPLY 6 INCH LBS. OF TORQUE WHEN SECURING Q3 TO CAT BOARD BEFORE SOLDERING.
- NOTE 9: TORQUE APPLICATION
 (1) APPLY 12 INCH LBS OF TORQUE TO THE SCREW HEAD OF #4 HARDWARE EXCEPT Q3.
 (2) APPLY 12 INCH LBS OF TORQUE TO #6 HARDWARE ON L1.
 (3) APPLY 16 INCH LBS OF TORQUE TO ALL #6 AND #10 HARDWARE EXCEPT ON L1.
 (4) ALL HARDWARE TO BE TORQUED BEFORE SOLDERING.
- NOTE 10:
 INSERT C13 INTO ETCH PAD HOLES CONNECTED TO J1 TERMINALS, 2-3.
- NOTE 11:
 MIN TORQUE REQUIRED FOR INSPECTION:
 8 INCH LBS FOR #4 HARDWARE;
 12 INCH LBS FOR #6 AND #10 HARDWARE
 *SEE NOTE 7



CAUTION:
 OFF SHEET PARTS LIST REF TO K-PL-H744-0-DBF

REV	DATE	DESCRIPTION	BY	CHKD
1				
2				
3				
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6				
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9				
10				

ITEM NO	QTY	DESCRIPTION	UNIT	REVISION
1	1	PCB	PCB	
2	1	TRANSISTOR	TRANSISTOR	
3	1	DIODE	DIODE	
4	1	DIODE	DIODE	
5	1	DIODE	DIODE	
6	1	DIODE	DIODE	
7	1	DIODE	DIODE	
8	1	DIODE	DIODE	
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97	1	DIODE	DIODE	
98	1	DIODE	DIODE	
99	1	DIODE	DIODE	
100	1	DIODE	DIODE	

REV	DATE	DESCRIPTION	BY	CHKD
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8				
9				
10				

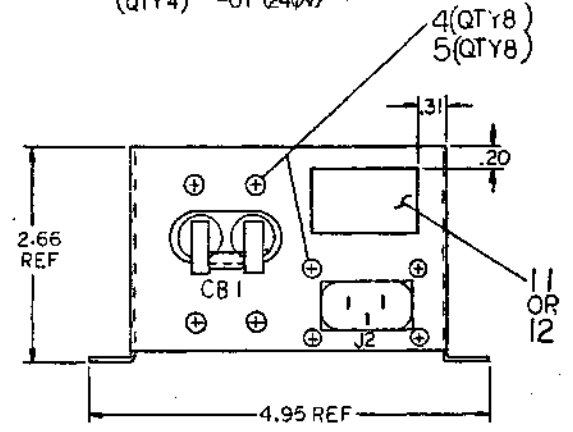
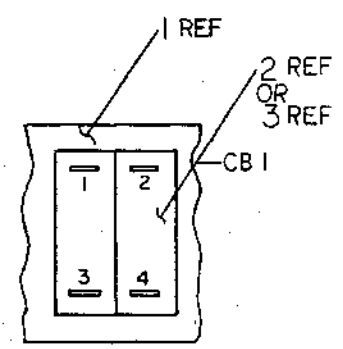
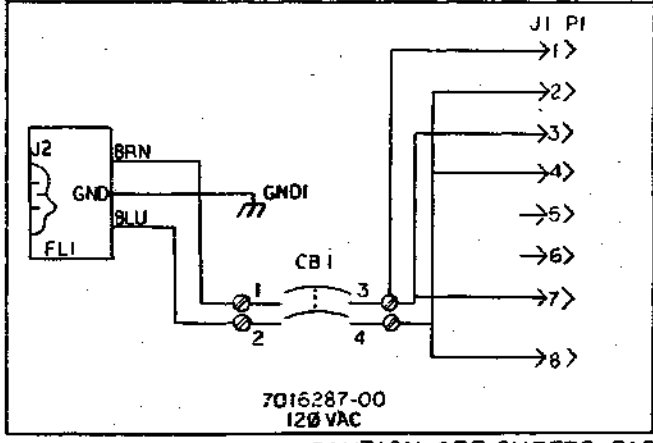
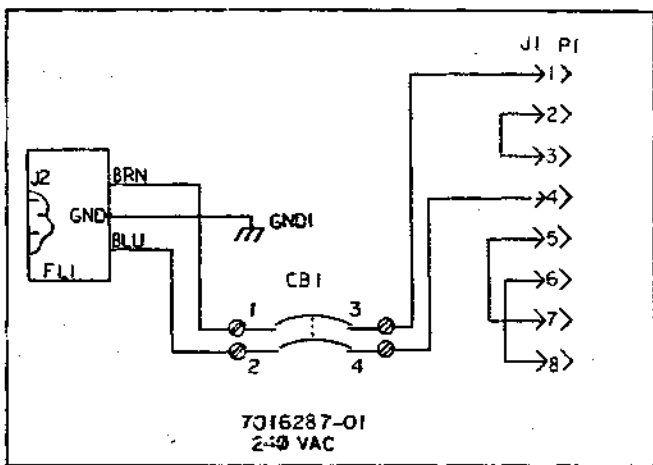
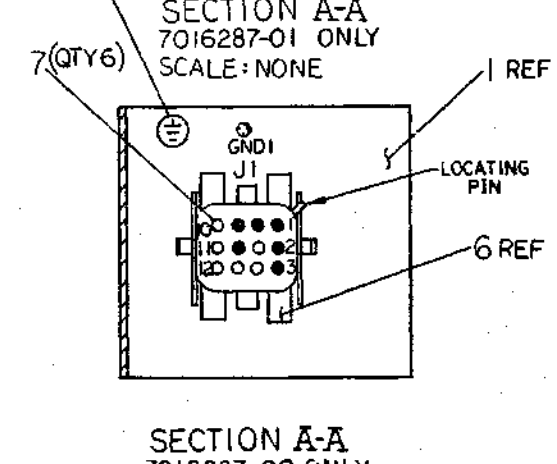
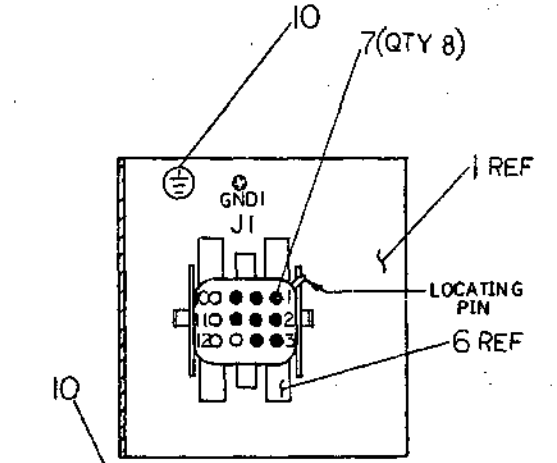
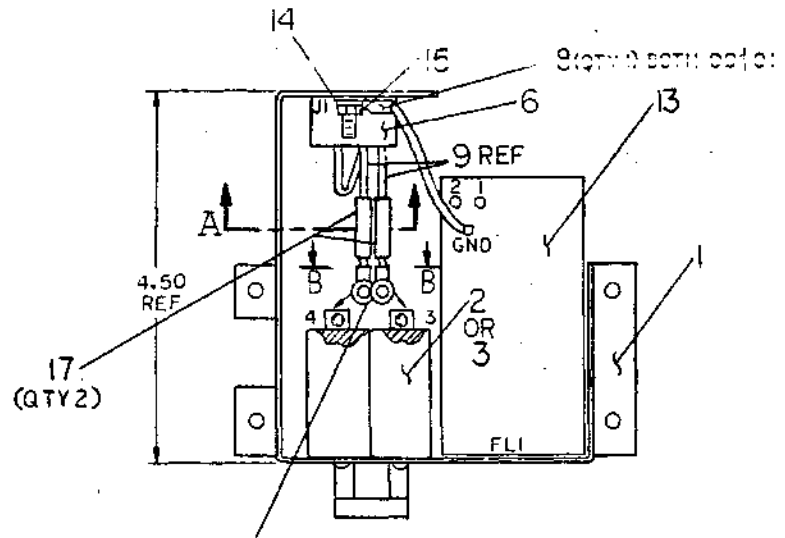
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ITEM NO	DESCRIPTION	FROM	TO	REMARKS
9	14 BLACK	J1-1	CBI-3	8
		J1-2	CBI-4	
		J1-3	CBI-3	
		J1-4	CBI-4	
		J1-7	CBI-3	
9	14 BLACK	J1-8	CBI-4	8
13	BROWN	FLI-1	CBI-1	8
13	BLUE	FLI-2	CBI-2	8
16	14 GRN/YEL	FLI-GND	SOLDER GND-1	8

ITEM NO	DESCRIPTION	FROM	TO	REMARKS
9	14 BLACK	J1-1	CBI-3	8
		J1-2	CBI-4	7
		J1-4	CBI-4	8
		J1-5	J1-7	7
9	14 BLACK	J1-6	J1-8	7
13	BROWN	FLI-1	CBI-1	8
13	BLUE	FLI-2	CBI-2	8
16	14 GRN/YEL	FLI-GND	SOLDER GND-1	8

PART NO	VARIATION
7016287-00	120V
7016287-01	240V

NOTES:



CAUTION OFF SHEETS PARTS LIST REFER TO K-PL-7016287-0-DBP (Z3784)

REV.	DATE	BY	CHKD	APP'D	DESCRIPTION
1	10/15/78	M. QUADRI			REVISED TO 120V
2	10/15/78	M. QUADRI			REVISED TO 240V
3	10/15/78	M. QUADRI			REVISED TO 120V
4	10/15/78	M. QUADRI			REVISED TO 240V
5	10/15/78	M. QUADRI			REVISED TO 120V
6	10/15/78	M. QUADRI			REVISED TO 240V
7	10/15/78	M. QUADRI			REVISED TO 120V
8	10/15/78	M. QUADRI			REVISED TO 240V

DESCRIPTION		ENDL. PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			
ANGLES UP TO 30°	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES	
SURFACE QUALITY	CHECK ONE	UNDER 1.0	OVER 1.0
QUANTITY & VARIATION	MEDIUM	1.00	1.00
	PREFERRED	1.00	1.00
THIRD ANGLE PROJECTION	DRN: M. QUADRI	FIRST USED ON TSH	
REMOVE BURRS AND BREAK SHARP CORNERS	CHKD: M. QUADRI	TITLE	
DO NOT SCALE DIMS	PROJ. ENG. M. QUADRI	A.C. INPUT ASSEMBLY	
MATERIAL SEE B-PL-7016287-0-0	PROJ. P.L. QUADRI	SIZE CODE	NUMBER
FINISH		D AD 7016287-0-0	REV C
		SCALE 1/1	
		SHEET OF	

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
				DD 01
1	D-1A-7422051-0-0	7422051-00	BRKT AC INPUT	1
1	A-PS-3616127-0-0	1212124-03	CKT BKR 10.0 A 240V 2P SERIES TR	1
1	A-PS-3616127-0-0	1212124-05	CKT BKR 20.0 A 240V 2P SERIES TR	1
1	A-PS-3616127-0-0	9006020-01	SCREEN PART PHIL 6-32X 1/4	8
1	A-PS-3616127-0-0	9006633-00	WASHER LOCK INT. 2800D X. 14610	8
1	A-PS-3616127-0-0	1212168-03	MATE-N-LOK 12POS UNIV HSG, PIN OR	1
1	A-PS-3616127-0-0	1212169-00	MATE-N-LOK PIN 14-20PAG	6
1	A-PS-3616127-0-0	9007928-00	TERM. RING #10STUD CRIMP 14-1	9
1	A-PS-3616127-0-0	9107370-00	WIRE STRND 14AWG TPVC UL1534	1
1	A-PS-3616127-0-0	3612689-00	DECAL, GROUND SIGN PER 3E6	1
1	A-PS-3616127-0-0	3616127-00	LABEL INPUT POWER 120V	1
1	A-PS-3616127-0-0	1216195-01	LABEL INPUT POWER 240V	1
1	A-PS-3616127-0-0	9007651-00	FILTER LINE 115W 47-47-63H2 89	1
1	A-PS-3616127-0-0	9006555-00	WASHER LOCK, EXTERNAL TOOTH #10	1
1	A-PS-3616127-0-0	9107777-54	NUT KEP 10-32X 3/8 AF	1
1	A-PS-3616127-0-0	1605147-00	WIRE STRND 14AWG IPVC UL3317 GR	2
1	A-PS-3616127-0-0		56-261-30-38 FERRITE TUBE	2

REVISION HISTORY

ENG	ECD NUMBER	REV	SECTION A OF A	SECTION VARIATION INDEX	DATE	BY	TITLE
M.G.	7016287-ML002	C		(A) 00, 01	10 NOV 78	GRIGHAM	A.C. INPUT BRACKET ASSY

BASIC PART NO: 7016287

DRN: M.J. MAHER DATE: 28 AUG 78

DES. ENG.: M. QUADRI DATE: 10 NOV 78

RESP. ENG.: M. QUADRI DATE: 11-JAN-82

MFG. ENG.: P. BARLION DATE: 10 NOV 78

ASSEMBLY NUMBER: D-AD-7016287-0-0

TOP DOCUMENT NUMBER: K PL 7016287-0-0BP

FILE NAME: 237840.PLS

EDIT # 6

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LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION	
					AA	AB
1		Q-1A-7016301-0-0	7016301-00	FRAME ASSY	1	1
2		E-AD-7016288-0-0	7016288-00	POWER SUPPLY ASSY 120V	1	1
3		E-AD-7016288-01-0	7016288-01	POWER SUPPLY ASSY 240V	1	1
4		Q-1A-7016676-0-0	7016676-00	ELECTRONIC CHASSIS ASSY	1	1
5		Q-AD-7013573-0-0	7013573-00	TAPE DRIVE ASSY TS04	1	1
6			1216608-00	SCREW, SET ,SKT, 1/4-20X 1-1/4	4	4
7			9006241-09	SCREW, HEX 1/4-20X 1/2	4	4
8			9007797-00	WASHER, LOCK, S.S. 1/4	4	4
9			9008071-00	WASHER, FLAT .500 O.D. X .291 ID	4	4
10		A-PS-1213756-0-0	1213756-16	GROUND STRAP	1	1
11			9007651-00	WASHER, LOCK, EXTERNAL TOOTH #10	1	1
12			9005071-01	SCREW, PAN, PHIL 10-32X 3/8 SS	2	2
13			9006565-00	NUT, KEP 10-32X 3/8 AF	4	4
14		A-PS-1213756-0-0	1213756-12	GROUND STRAP	1	1
15			9006243-09	SCREW, HEX 1/4-20X 3/4	4	4
16			9006633-00	WASHER, LOCK, INT., 2800D X .146ID	4	4
17			9005021-01	SCREW, PAN, PHIL 6-32X 5/16 SS	4	4
18			9008228-00	FOAM TAPE, SINGLE COATED VINYL 1	A/R	A/R
19			9009311-00	MOUNT, CABLE TIE, SCREW OR ADHESI	2	2
20			9007032-00	TIE, CABLE BUNDL. DIA 0-1-3/4"=101	11	11
21		E-UA-TS04K-A-0	TS11K-AA	CONVERT TS11 TO 120V(LINE CORD), F	REF	REF
22			9006022-02	SCREW, FLAT, PHIL, 5-32X 3/8	2	2
23			9009030-00	/REPLACED BY 90-06560-00	1	1
24			3512680-00	DECAL, GROUND SIGN PER 3E6 *	5	5
25		A-PS-3512063-0-0	3512063-00	LABEL, ADHESIVE I.O. FOR UL C	1	1
26		A-PS-3513210-0-0	3513210-00	LABEL, ELECTRICAL DATA	1	1
27		C-1A-7013603-0-0	7013603-00	POWER SUPPLY HARNESS	1	1
28		A-PS-1213756-0-0	1213756-20	GROUND STRAP	1	1
29		A-PS-1213756-0-0	1213756-07	GROUND STRAP	1	1
30		A-PS-1215843-0-0	1215843-00	CLIP, FLAT CABLE W/ADHESIVE BK	5	5

REVISION HISTORY		BASIC PART NO: DTS04		DRN: G. MARINI		DATE: 22-JUN-81		DIGITAL	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	B. TREMBLY	DATE:	22-JUN-81	TITLE	PARTS LIST
JB	TS04-A-M1003	B	SECTION. VARIATION INDEX	DES. ENG.:	M. CUCINA	DATE:	22-JUN-81	DRIVE, FRAME ASSY 9TS04-A)	(TS04-A)
			(A) AA, AB	RESP. ENG.:	M. CUCINA	DATE:	22-JUN-81	DOCUMENT NUMBER	
			(B)	MFG. ENG.:	T. WRIGHT	DATE:	22-JUN-81	SIZE: CODE: NUMBER	REV
			(C)	ASSEMBLY NUMBER:	E-UA-TS04-A-0	TOP DOCUMENT NUMBER:	B-DD-TS04-A-0	FILE NAME:	EDIT #
			(D)					227456.PLS	7
			(E)						
			(F)						

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AUTOMATED BY PRTLST.3P(44)

P A R T S L I S T

SHEET A2 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION	
					AA	AB
31	31	A-PS-1213716-G-0	1213716-01	SPACER, FOAM FOR FLAT WIRE CLIP	5	5
32	32		9009718-00	GROMMET, STRIP, 14"	3	3

D	I	G	I	T	A	L	TITLE	DRIVE, FRAME ASSY 9TS04-A)	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							(TS04-A)			X	PL	TS04-A-DBP	B

