

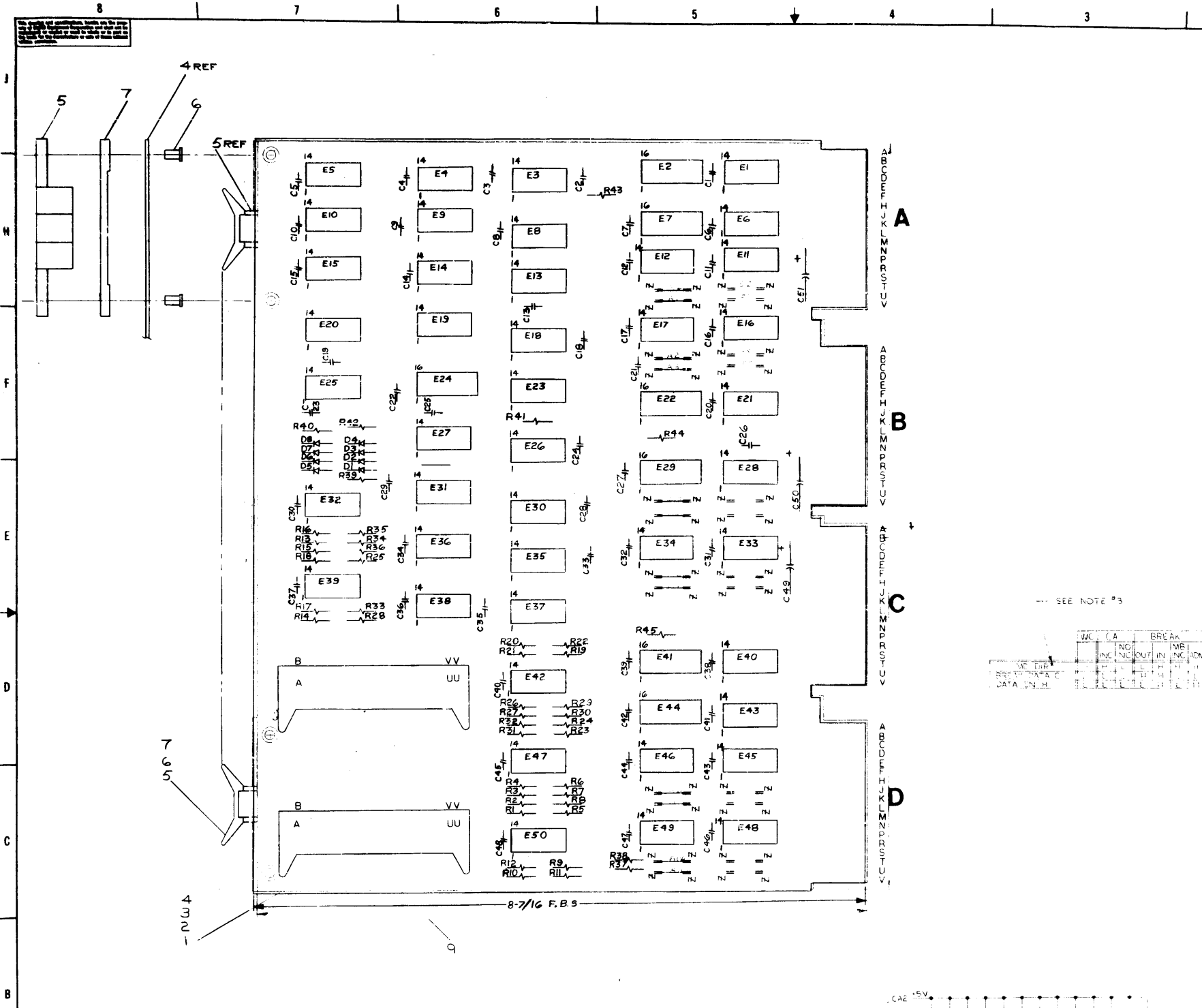
**KD8-E**  
**data break interface**  
**engineering drawings**

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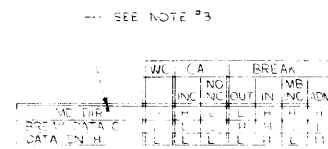
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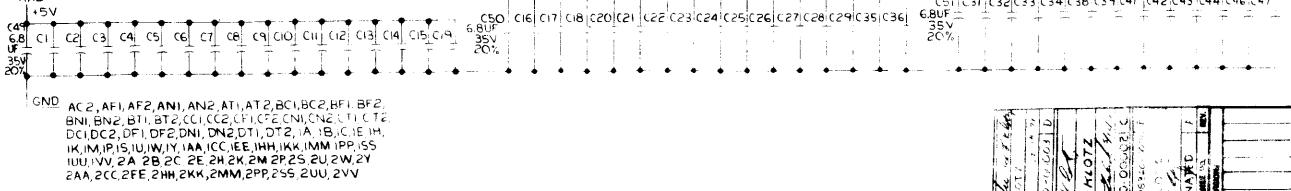


NOTES:  
 1. UNLESS OTHERWISE NOTED:  
 CAPACITORS ARE .01UF, 100V, 20%  
 DIODES ARE D6G2  
 RESISTORS ARE 220, 1/4W, 5%  
 I.C.'S ARE DEC 97401  
 2. ALL 'A' JUMPERS ARE INSTALLED AT MANUFACTURING TO ESTABLISH HIGHER PRIORITIES. REMOVE AN 'A' JUMPER AND INSTALL A 'B' JUMPER IF HIGHEST PRIORITY WHILE 'B' IS LOWEST PRIORITY.  
 3. MD DIR IS LOW FOR EVERY MEMORY READ. THIS LEVEL IS TRUE DURING WRITE.



QTY	REF DESIGNATION	DESCRIPTION	PART NO.	REV
4	E1, E2, E3, E40	I.C. DEC 8881	1409705	3
1	AR	WIRE #22 ANG SOLID BUS	1407560-01	30
1	E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13, E14, E15, E16, E17, E18, E19, E20, E21, E22, E23, E24, E25, E26, E27, E28, E29, E30, E31, E32, E33, E34, E35, E36, E37, E38, E39, E41, E42, E43, E44, E45, E46, E47, E48, E49, E50	DIODE PACK	1409455	28
1	E7, E29, E44	I.C.	1409934	27
1	E25, E27	I.C.	1409928	26
4	E16, E48, E27, E33	I.C. DEC 97401	1409473	25
1	E3, E40	I.C. DEC 6314	1409472	24
1	E11, E46	I.C.	1409686	23
1	E4, E5, E6, E9, E10, E11, E12, E13, E14, E15, E16, E17, E18, E19, E20, E21, E22, E23, E24, E25, E26, E27, E28, E29, E30, E31, E32, E33, E34, E35, E36, E37, E38, E39, E41, E42, E43, E44, E45, E46, E47, E48, E49, E50	I.C.	1409667	22
1	E30	I.C.	1409465	21
1	E30	I.C.	1409486	20
7	E6, E7, E8, E9, E10, E11, E12, E13, E14, E15, E16, E17, E18, E19, E20, E21, E22, E23, E24, E25, E26, E27, E28, E29, E30, E31, E32, E33, E34, E35, E36, E37, E38, E39, E41, E42, E43, E44, E45, E46, E47, E48, E49, E50	I.C. DEC 6380	1409471	19
1	E3	I.C.	1409327	18
1	E11	I.C.	1409327	17
3	E10, E20, E26	I.C.	1409004	16
1	E5	I.C.	1409074	15
2	E19, E18	I.C.	1409575	14
4	E1, E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13, E14, E15, E16, E17, E18, E19, E20, E21, E22, E23, E24, E25, E26, E27, E28, E29, E30, E31, E32, E33, E34, E35, E36, E37, E38, E39, E41, E42, E43, E44, E45, E46, E47, E48, E49, E50	I.C. DEC 8881	1409271	13
1	E1	I.C.	1409113	12
2	E1, E2	I.C.	1409110	11
2	E1, E2	I.C.	1409067	10
1	E1	I.C.	1409441	9
1	E1	I.C.	1409075	8
1	E1	I.C.	1409074	7
1	E1	I.C.	1409070	6
1	E1	I.C.	1409337-06	5
1	E1	I.C.	1409441	4
1	E1	I.C.	1409441	3
1	E1	I.C.	1409441	2
1	E1	I.C.	1409441	1

IC TYPE	QTY	REF	DESCRIPTION	REV
DEC 2501	14	NONE		
DEC 6314	1	8		
IC 304	1	8		
DEC 6380	1	8		
IC TYPE	QTY	REF	DESCRIPTION	REV
			SEE NOTE #2	



ETCH BOARD REV B

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

DATE 2/71

SCALE 2/1

DESIGNER: LOUIS KOTZ

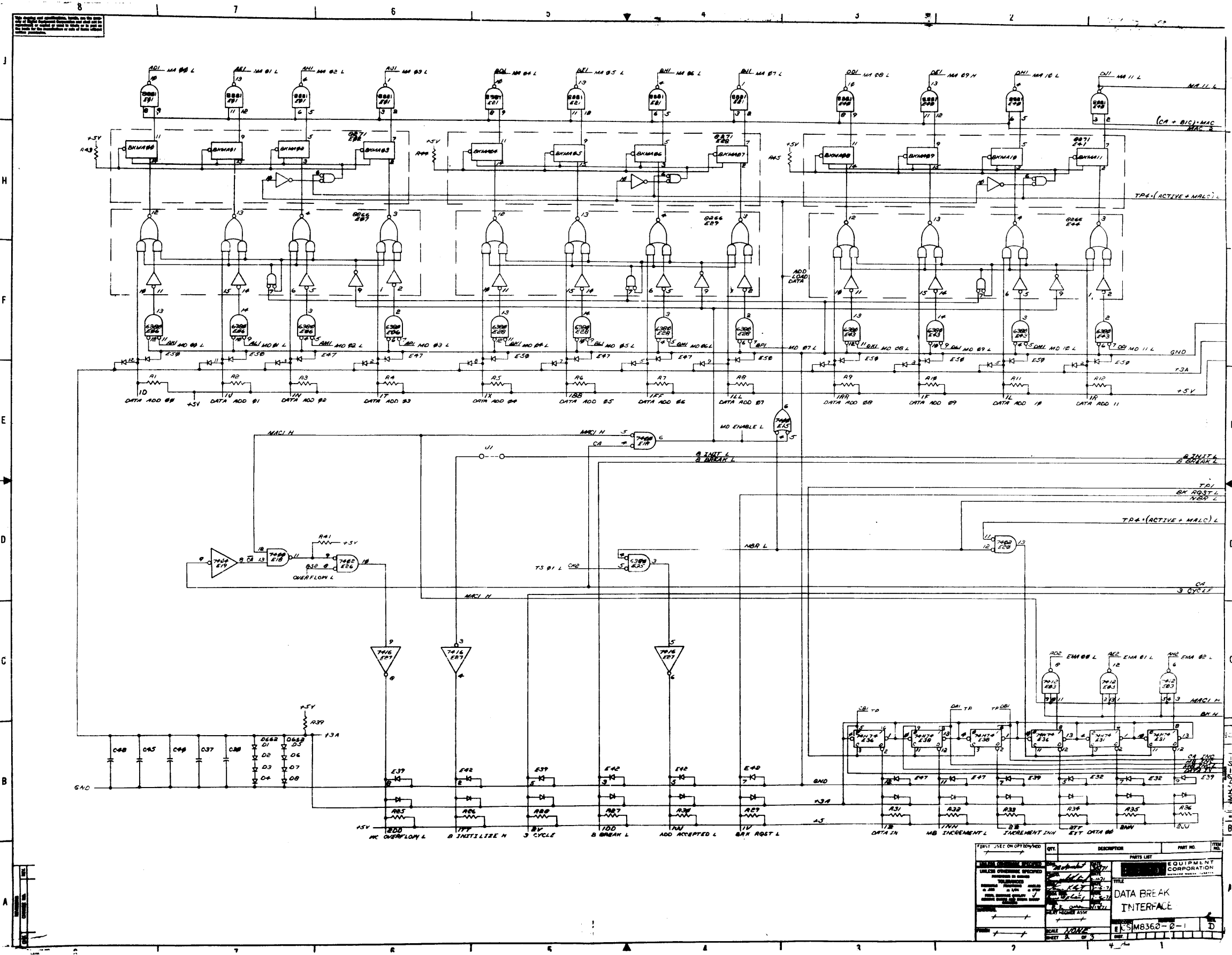
DATE: 1/27/71

PROJECT: DATA INTERFACE

EQUIPMENT CORPORATION

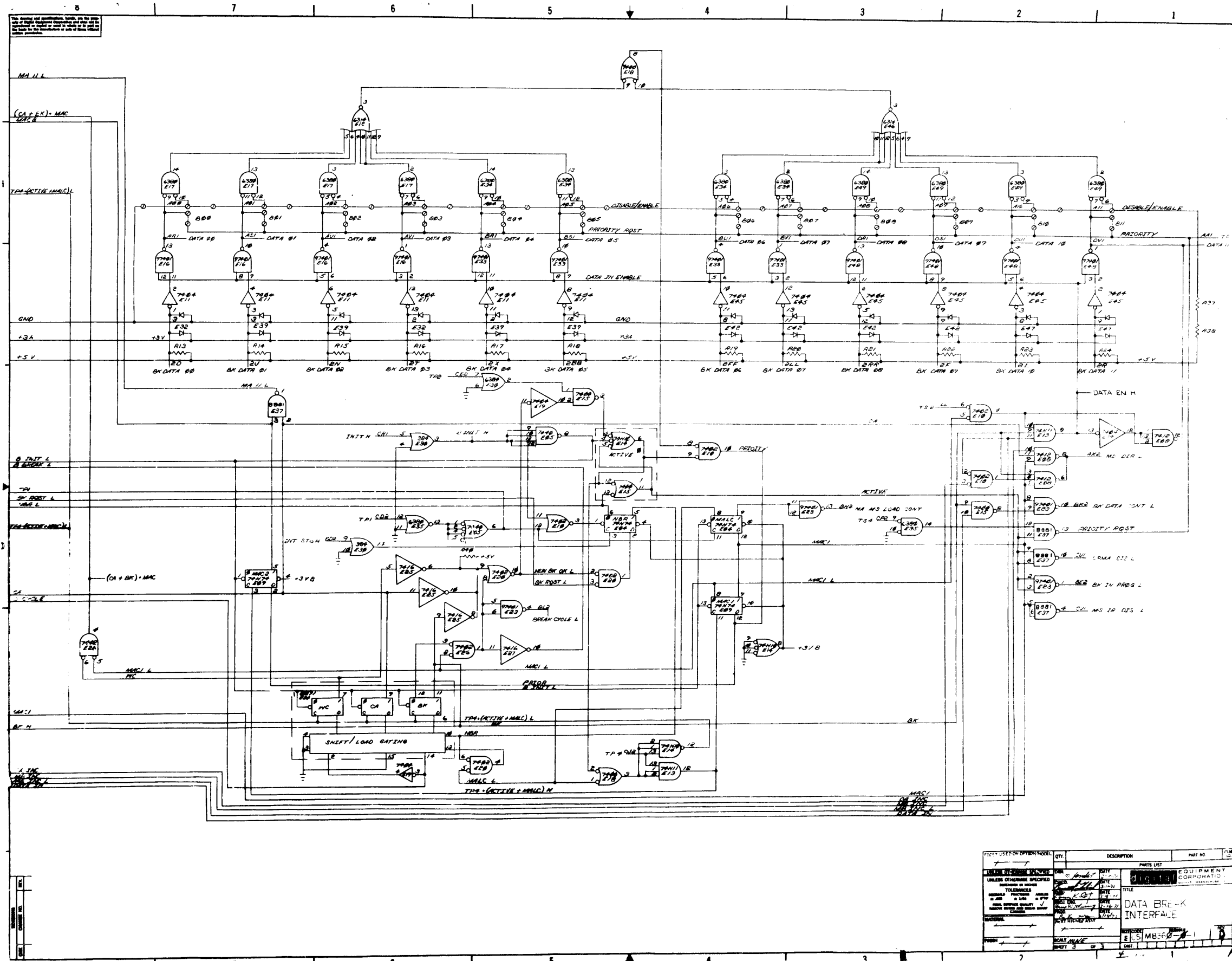
DATA INTERFACE

EC S MB300 01



QTY.	DESCRIPTION	PART NO.	ITEM NO.
1	7416	7416	1
1	7400	7400	2
1	7401	7401	3
1	7402	7402	4
1	7403	7403	5
1	7404	7404	6
1	7405	7405	7
1	7406	7406	8
1	7407	7407	9
1	7408	7408	10
1	7409	7409	11
1	7410	7410	12
1	7411	7411	13
1	7412	7412	14
1	7413	7413	15
1	7414	7414	16
1	7415	7415	17
1	7416	7416	18
1	7417	7417	19
1	7418	7418	20
1	7419	7419	21
1	7420	7420	22
1	7421	7421	23
1	7422	7422	24
1	7423	7423	25
1	7424	7424	26
1	7425	7425	27
1	7426	7426	28
1	7427	7427	29
1	7428	7428	30
1	7429	7429	31
1	7430	7430	32
1	7431	7431	33
1	7432	7432	34
1	7433	7433	35
1	7434	7434	36
1	7435	7435	37
1	7436	7436	38
1	7437	7437	39
1	7438	7438	40
1	7439	7439	41
1	7440	7440	42
1	7441	7441	43
1	7442	7442	44
1	7443	7443	45
1	7444	7444	46
1	7445	7445	47
1	7446	7446	48
1	7447	7447	49
1	7448	7448	50
1	7449	7449	51
1	7450	7450	52
1	7451	7451	53
1	7452	7452	54
1	7453	7453	55
1	7454	7454	56
1	7455	7455	57
1	7456	7456	58
1	7457	7457	59
1	7458	7458	60
1	7459	7459	61
1	7460	7460	62
1	7461	7461	63
1	7462	7462	64
1	7463	7463	65
1	7464	7464	66
1	7465	7465	67
1	7466	7466	68
1	7467	7467	69
1	7468	7468	70
1	7469	7469	71
1	7470	7470	72
1	7471	7471	73
1	7472	7472	74
1	7473	7473	75
1	7474	7474	76
1	7475	7475	77
1	7476	7476	78
1	7477	7477	79
1	7478	7478	80
1	7479	7479	81
1	7480	7480	82
1	7481	7481	83
1	7482	7482	84
1	7483	7483	85
1	7484	7484	86
1	7485	7485	87
1	7486	7486	88
1	7487	7487	89
1	7488	7488	90
1	7489	7489	91
1	7490	7490	92
1	7491	7491	93
1	7492	7492	94
1	7493	7493	95
1	7494	7494	96
1	7495	7495	97
1	7496	7496	98
1	7497	7497	99
1	7498	7498	100

PARTS LIST  
 EQUIPMENT CORPORATION  
**DATA BREAK INTERFACE**  
 E151M8360-0-1  
 SHEET 2 OF 3



QTY	DESCRIPTION	PART NO.
1	6300 E17	6300 E17
1	7400 E16	7400 E16
1	7404 E11	7404 E11
1	7402 E10	7402 E10
1	7401 E9	7401 E9
1	7403 E8	7403 E8
1	7405 E7	7405 E7
1	7406 E6	7406 E6
1	7407 E5	7407 E5
1	7408 E4	7408 E4
1	7409 E3	7409 E3
1	7410 E2	7410 E2
1	7411 E1	7411 E1
1	7412 E0	7412 E0
1	7413 E0	7413 E0
1	7414 E0	7414 E0
1	7415 E0	7415 E0
1	7416 E0	7416 E0
1	7417 E0	7417 E0
1	7418 E0	7418 E0
1	7419 E0	7419 E0
1	7420 E0	7420 E0
1	7421 E0	7421 E0
1	7422 E0	7422 E0
1	7423 E0	7423 E0
1	7424 E0	7424 E0
1	7425 E0	7425 E0
1	7426 E0	7426 E0
1	7427 E0	7427 E0
1	7428 E0	7428 E0
1	7429 E0	7429 E0
1	7430 E0	7430 E0
1	7431 E0	7431 E0
1	7432 E0	7432 E0
1	7433 E0	7433 E0
1	7434 E0	7434 E0
1	7435 E0	7435 E0
1	7436 E0	7436 E0
1	7437 E0	7437 E0
1	7438 E0	7438 E0
1	7439 E0	7439 E0
1	7440 E0	7440 E0
1	7441 E0	7441 E0
1	7442 E0	7442 E0
1	7443 E0	7443 E0
1	7444 E0	7444 E0
1	7445 E0	7445 E0
1	7446 E0	7446 E0
1	7447 E0	7447 E0
1	7448 E0	7448 E0
1	7449 E0	7449 E0
1	7450 E0	7450 E0
1	7451 E0	7451 E0
1	7452 E0	7452 E0
1	7453 E0	7453 E0
1	7454 E0	7454 E0
1	7455 E0	7455 E0
1	7456 E0	7456 E0
1	7457 E0	7457 E0
1	7458 E0	7458 E0
1	7459 E0	7459 E0
1	7460 E0	7460 E0
1	7461 E0	7461 E0
1	7462 E0	7462 E0
1	7463 E0	7463 E0
1	7464 E0	7464 E0
1	7465 E0	7465 E0
1	7466 E0	7466 E0
1	7467 E0	7467 E0
1	7468 E0	7468 E0
1	7469 E0	7469 E0
1	7470 E0	7470 E0
1	7471 E0	7471 E0
1	7472 E0	7472 E0
1	7473 E0	7473 E0
1	7474 E0	7474 E0
1	7475 E0	7475 E0
1	7476 E0	7476 E0
1	7477 E0	7477 E0
1	7478 E0	7478 E0
1	7479 E0	7479 E0
1	7480 E0	7480 E0
1	7481 E0	7481 E0
1	7482 E0	7482 E0
1	7483 E0	7483 E0
1	7484 E0	7484 E0
1	7485 E0	7485 E0
1	7486 E0	7486 E0
1	7487 E0	7487 E0
1	7488 E0	7488 E0
1	7489 E0	7489 E0
1	7490 E0	7490 E0
1	7491 E0	7491 E0
1	7492 E0	7492 E0
1	7493 E0	7493 E0
1	7494 E0	7494 E0
1	7495 E0	7495 E0
1	7496 E0	7496 E0
1	7497 E0	7497 E0
1	7498 E0	7498 E0
1	7499 E0	7499 E0
1	7500 E0	7500 E0

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**DIGITAL EQUIPMENT CORPORATION**  
MAYNARD, MASSACHUSETTS

**ENGINEERING SPECIFICATION**

DATE 4/21/71

TITLE KD8-E DATA BREAK MULTIPLEXER

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

ENG Louis Klotz	APPD <i>Lucas Vogelsang</i>	SIZE A	CODE SP	NUMBER KD8-E-1	REV
-----------------	-----------------------------	--------	---------	----------------	-----

**ENGINEERING SPECIFICATION**

CONTINUATION SHEET

TITLE KD8-E DATA BREAK MULTIPLEXER

1.Ø Overall Description

The KD8-E option is used with the KA8-E and converts the "Omnibus" to a PDP8/I or 8/L Positive Data Break Bus either three cycle or single cycle break. It also provides for multiplexing of up to twelve (12) KD8-E options in a single PDP8/E; therefore, removing the need for External Multiplexers such as the DMØ1 or DMØ4.

Due to timing considerations in the PDP8/E, the DMØ1 or DMØ4 Break Multiplexers may not be used with the KD8/E.

The 1971 edition of the Small Computer Handbook represents part of this specification and should be referred to.

2.Ø General Description

2.1 Definition of Basic System

- A. One M836Ø Data Break Board
- B. Two BCØ8J Cables

2.2 List of Included Options

2.3 Mechanical Packaging

- A. 8½" by 10½" quad board
- B. Two cable connectors

2.4 Environmental Specification

- A. Temperature: 32° to 130°F (Ø° to 55°C)
- B. Humidity: Maximum 90% Rel. No condensation
- C. Power: +5 @ 1.43 amp.

2.5 General Performance Specification

Refer to 1971 Small Computer Handbook.

3.Ø Specification of Vendor Supplied Equipment

Refer to Purchase Specification for component in question.

	SIZE A	CODE SP	NUMBER KD8-E-1	REV
--	--------	---------	----------------	-----

TITLE KD8-E DATA BREAK MULTIPLEXER

4.Ø Programming

A. Non-programmable.

5.Ø Interface Specifications

Refer to 1971 Small Computer Handbook.

SIZE	CODE	NUMBER	REV
A	SP	KD8-E-1	

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DIGITAL EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS						
ENGINEERING SPECIFICATION				DATE 10/13/71		
TITLE KD8-E TEST PROCEDURE						
REVISIONS						
REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE
A	ECO CHANGE	00005	KLOTZ	4-72	<i>RK</i>	4-25-72

ENG <i>Long</i>	APPD <i>RK</i>	SIZE <b>A</b>	CODE SP	NUMBER KD8-E-2	REV <b>A</b>
-----------------	----------------	------------------	------------	-------------------	-----------------

ENGINEERING SPECIFICATION		CONTINUATION SHEET						
TITLE	KD8-E TEST PROCEDURE							
1.0 EQUIPMENT	1.1 PDP8E 1.2 Daughter station on PDP8E test line 1.3 453 Scope/voltage probes							
2.0 TEST STATION SET UP	2.1 Check paperwork in envelop making sure it is complete as required by DEC Standard # 101. <ul style="list-style-type: none"> <li>2.1.1 Test and inspection record</li> <li>2.1.2 Key sheet and ECO status sheet will contain both CS and etch revision.</li> <li>2.1.3 Quality control inspection report.</li> <li>2.1.4 PDP8E progress report</li> </ul> 2.2 Insert the M8360 to be tested in the Omnibus per "Recommended Module Assignment List" (A-SP-PDP8E-0-4) 2.3 Cable connections <table style="margin-left: 40px; border: none;"> <tr> <td style="text-align: center;"><u>M8360</u></td> <td style="text-align: center;"><u>Daughter Station</u></td> </tr> <tr> <td style="text-align: center;">Conn 1</td> <td style="text-align: center;">C8 - D8</td> </tr> <tr> <td style="text-align: center;">Conn 2</td> <td style="text-align: center;">C7 - D7</td> </tr> </table>		<u>M8360</u>	<u>Daughter Station</u>	Conn 1	C8 - D8	Conn 2	C7 - D7
<u>M8360</u>	<u>Daughter Station</u>							
Conn 1	C8 - D8							
Conn 2	C7 - D7							
.0 TESTING	3.1 Run a quick verify off daughter station.							
4.0 FINAL OPERATION AND INSPECTION	4.1 Remove M8360 4.2 Disconnect cables 4.3 Check that the following paperwork has been completed <ul style="list-style-type: none"> <li>ECO status sheet</li> <li>QC sheet</li> <li>8/E progress report</li> </ul>							
5.0 EXCEPTIONS	5.1 If daughter station is not available, but KD8E tester is, the above steps 1.0 to 3.0 will not be performed. Instead the KD8E will be hooked up and 3 passes of the latest KD8E diagnostic will be run (Refer to D-CS-KD8E-T-1).							

**DIGITAL EQUIPMENT CORPORATION**  
MAYNARD, MASSACHUSETTS

**ENGINEERING SPECIFICATION**

DATE 10/8/71

TITLE KD8E ACCEPTANCE PROCEDURE

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE
A	ECO CHANGE	KD8E-00004	KLOTZ	3/72	Z/K	3/72

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ENG	APPD	SIZE	CODE	NUMBER	REV
	<i>[Signature]</i>	A	SP	KD8-E-3	A

**ENGINEERING SPECIFICATION**

CONTINUATION SHEET

TITLE KD8E ACCEPTANCE PROCEDURE

- 1.0 EQUIPMENT REQUIRED FOR ACCEPTANCE
  - 1.1 PDP8E
  - 1.2 Daughter station on PDP8E test line
- 2.0 PROCEDURE
  - 2.1 Make sure all ECO's have been installed
  - 2.2 Perform Q.C. inspection
  - 2.3 Insert the M8360 to be accepted in the 8E Omnibus per "Recommended Module Assignment List" (A-SP-PDP8/E-0-4)
  - 2.4 Cable connections
 

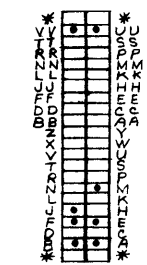
<u>M8360</u>	<u>Daughter Station</u>
Conn 1	C8 - D8
Conn 2	C7 - D7
- 3.0 ACCEPTANCE TESTING
  - 3.1 Run quick verify off daughter station
- 4.0 SHIPPING SOFTWARE
  - 4.1 KD8-E print set
  - 4.2 Maintenance manual or Engineering specification
- 5.0 SHIPPING HARDWARE
  - 5.1 M8360 module (1 each)
  - 5.2 BC08J-10 cable (2 each) 10 feet length will be shipped unless otherwise specified on construction requisition
- 6.0 EXCEPTIONS
  - 6.1 If KD8-E is installed in a system (i.e. with an RF08 etc.) the system acceptance will be used as the KD8-E acceptance and the above steps 1.0 - 5.0 will not be performed.
  - 6.2 If KD8-E is not in a system, but the KD8E tester is available the above steps 1.0-3.0 will not be performed. The KD tester will be hooked up and 3 passes of the latest KD8E tester diagnostic will be run.



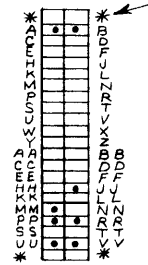
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WIRE TABLE								LEGEND	
ITEM NO.	DESCRIPTION	FROM		TO		REMARKS	NUMBER	VARIATION	
		AWG	COLOR	CONNECTION	WITH		CONNECTION	WITH	DIM "X"
2	BLU			P1-A	3	P2-VV	3	CRIMP	
	ORN			P1-B	3	P2-UU			
	BRN			P1-E	3	P2-RR			
	RED			P1-F	3	P2-PP			
	VIO			P1-J	3	P2-MM			
	BLK			P1-M	3	P2-JJ			
	GRY			P1-UU	3	P2-B			
2	GRN			P1-VV	3	P2-A	3	CRIMP	

- NOTES:
1. MANUFACTURING SHOULD USE KEYSTONE TOOL FOR THE ASSY OF PINS. (ITEM #3)
  2. WIRE SHOULD BE CRIMPED USING HARD TOOL (067515-01) OR THE EQUIVALENT.
  3. \* ASTERISKS INDICATES CAVITIES NOT USED OR DESIGNATED BY LETTERS.
  4. BERG CONNECTORS WILL BE LABELLED BC08T P1 AND BC08T P2 ON THE BACK SIDE OF THE RESPECTIVE CONNECTOR.

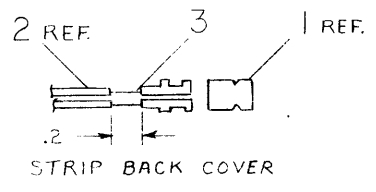
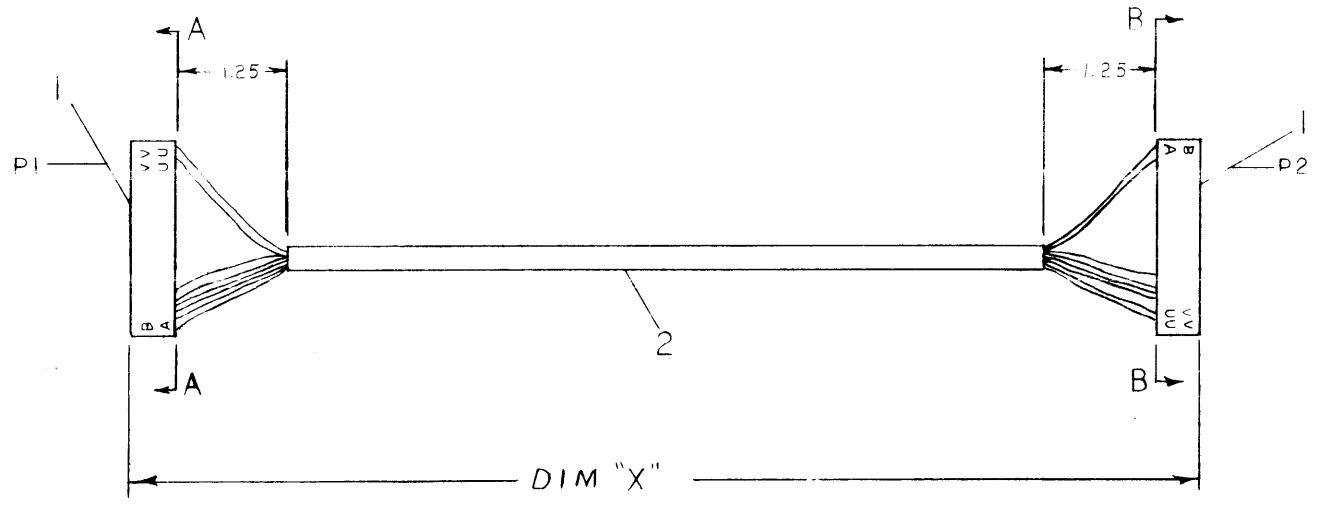


VIEW A-A (P1)



VIEW B-B (P2)

SEE NOTE # 3



REV.	CHANGE NO.	DATE	BY
A	BC08T-00001	4/18/72	B. SMITH

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PDP-8E		16 SOCKET PIN 48015 BERG	1210089-6	3
		A/R 10 COND. CABLE	917623	2
		2 HOUSING BERG #20383	1210090-0	1

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES. TOLERANCES		DATE		digital CORPORATION MAYNARD MASSACHUSETTS
DRN	3/27/72	DATE	3/30/72	
ENGR	3/27/72	DATE	3/27/72	
PRG. ENGR	3/27/72	DATE	3/27/72	
PROD.	3/30/72	DATE	3/30/72	

MATERIAL	NEXT HIGHER ASSY	SIZE CODE	NUMBER	REV.
	KL8M	D	UA/BC08T-0-0	A