FIELD MAINTENANCE PRINT SET

TABLE OF CONTENTS

B-DD-DMR11-Ø	DMR11 (DD)
B-TC-DMR11-Ø-1	FIELD MAINTENANCE PRINT SET
D-UA-DMR11-Ø-Ø	DMR11 UNIT ASSY.
K-PL-DMR11-Ø-Ø	DMR11 UNIT ASSY. (PL)
D-UA-M82Ø7-Ø-Ø	MICROCONTROLLER DMP11
K-PL-M82Ø7-Ø-DBP	MICROCONTROLLER DMP11 (PL)
D-CS-M82Ø7-Ø-1	MICROCONTROLLER DMP11
D-UA-M82Ø3-Ø-Ø	MULTI DROP LINE UNIT
K-PL-M82Ø3-Ø-DBP	MULTI DROP LINE UNIT (PL)
D-CS-M82Ø3-Ø-1	MULTI DROP LINE UNIT
D-UA-BC55A-Ø-Ø	BC55A PANEL ASSY.
K-PL-BC55A-Ø-DBP	BC55A PANEL ASSY. (PL)
D-UA-BC55B-Ø-Ø	BC55B PANEL ASSY.
K-PL-BC55B-Ø-DBP	BC55B PANEL ASSY. (PL)
D-CS-H8Ø55-B-1	BC55 CONNECTOR MODULE
D-UA-BC55C-Ø-Ø	BC55C PANEL ASSY.
D-IA-BCØ8S-Ø-Ø	I/O CABLE ASSY. (DIAG JUMPER)
D-UA-BCØ5Z-Ø-Ø	CABLE, V35/DDS DSU
C-IA- H325Ø-Ø-Ø	CONNECTOR TEST V.35/DDS
D-UA-H3251-Ø-Ø	RS422 TEST CONNECTOR
K-PL-H3251-Ø-DBP	RS422 TEST CONN (PL)

UNIT VARIATIONS COVERED BY THIS PRINT SET
DMR11-AA
DMR11-AB
DMR11-AC
DMR11-AD
DMR11-AE

DMR11-Ø
Field Maintenance Print Set

Digital Equipment Corporation

PRINT SET ORDER NO.
MPØØ911

REVISIONS		
REV.	A	
CHG. NO.	DMR11-MKØØ1	
DATE	11-3-80	

USED ON OPT ON/MODEL	
DMR11	

SHEET 1 OF 2

DRN. D Zuccia	DATE 9 JAN 80	digital
CHK'D K Washington	DATE 17 MAR 80	TITLE: FIELD MAINTENANCE PRINT SET (DMR11)
PROJ. ENG. R. Harrington	DATE 17 MAR 80	
FIELD SERV.	DATE 21 MAR 80	

SIZE	CODE	NUMBER	REV.
B	TC	DMR11-Ø-1	A

DIST.

MK

DRB 124

D-UA-H3254-Ø-Ø	M82Ø3 TEST CONN J1
K-PL-H3254-Ø-DBP	M82Ø3 TEST CONN J1 (PL)
D-UA-H3255-Ø-Ø	M82Ø3 TEST CONN J2
K-PL-H3255-Ø-DBP	M82Ø3 TEST CONN J2 (PL)
D-UA-BCØ5D-Ø-Ø	RS232 MALE TO RS232 FEMALE 25 COND. CABLE
D-UA-BC55M-Ø-Ø	INTEGRAL MODEM CABLE
D-UA-BC55N-Ø-Ø	INTEGRAL MODEM CABLE
B-PL-DMR11-Ø	SHIPPING LIST DMR11
K-PL-BC55C-Ø-DBP	BC55C PANEL ASSY.
D-CS-H8Ø55-C-1	BC55 CONN. MODULE
B-UA-H3257-Ø-Ø	TERMINATOR, INTEGRAL MODEM, MALE
B-UA-H3258-Ø-Ø	TERMINATOR, INTEGRAL MODEM, FEMALE

DRAWING DIRECTORY

FOR FIELD MAINTENANCE PRINT SET

REFER TO B-TC-DMR11-Ø-1

UNIT VARIATIONS

VAR	TITLE
DMR11-AA	uP, LU + CABLE FOR EIA RS232/RS42
DMR11-AB	uP, LU + CABLE FOR V.35
DMR11-AC	uP, LU + CABLE FOR INTEGRAL MODEM
DMR11-AD	uP, + LU
DMR11-AE	uP, LU + CABLE FOR EIA RS422

REVISIONS

REV.	CHAN. E NO.	CHK

USED ON OPTION/MODEL: DMR11

DRN: D. Gurdin	DATE: 9 JAN 80	
CHK'D: R. Harrington	DATE: 17 MAR 80	
PROJ. ENG.: R. Harrington	DATE: 17 MAR 80	
PROD.	DATE	

SHEET 1 OF 3

TITLE: DRAWING DIRECTORY (DMR11)

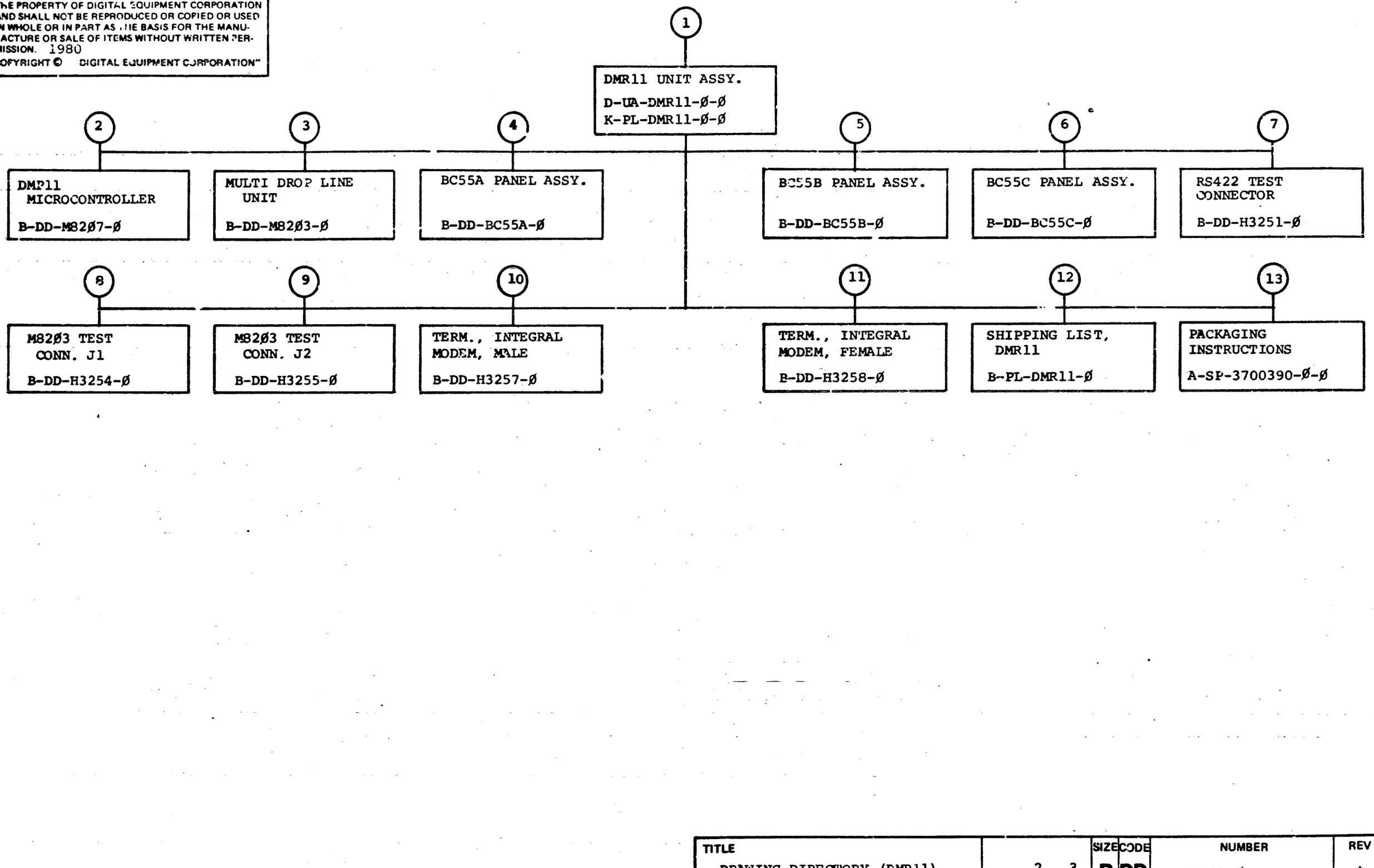
digital

SIZE	CODE	NUMBER	REV
B	DD	DMR11-Ø	*

DIST.

MK

DRR 104A



TITLE		SIZE	CODE	NUMBER	REV
DRAWING DIRECTORY (DMR11)	SHEET 2 OF 3	B	DD	DMR11-Ø	*

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	MPØØ911	PRINT SET ORDER NO. (MP)	-
	B-TC-DMR11-Ø-1	FIELD MAINTENANCE PRINT SET (TC)	-
	D-UA-DMR11-Ø-Ø	DMR11 UNIT ASSY	E/M
	K-PL-DMR11-Ø-Ø	DMR11 UNIT ASSY (PL)	-
	D-IA-BCØ8S-Ø-Ø	I/O CABLE ASSY	E/M
	C-IA-H325Ø-Ø-Ø	CONN., TEST V.35/DDS	E/M
	D-UA-BCØ5Z-Ø-Ø	CABLE, V35/DDS DSU	E/M
	D-UA-BCØ5D-Ø-Ø	ASYNC MODEM INTERF CABLE ECT	*
	D-UA-BC55M-Ø-Ø	CABLE, INTEGRAL MODEM	*
	D-UA-BC55N-Ø-Ø	CABLE, INTEGRAL MODEM	*
2	B-DD-M82Ø7-Ø	DMP11 MICROCONTROLLER (DD)	-
3	B-DD-M82Ø3-Ø	MULTIDROP LINE UNIT (DD)	-
4	B-DD-BC55A-Ø	BC55A PANEL ASSY (DD)	-
5	B-DD-BC55B-Ø	BC55B PANEL ASSY (DD)	-
6	B-DD-BC55C-Ø	BC55C PANEL ASSY (DD)	-
7	B-DD-H3251-Ø	RS422 TEST CONNECTOR (DD)	-
8	B-DD-H3254-Ø	M82Ø3 TEST CONN. J1 (DD)	-
9	B-DD-H3255-Ø	M82Ø3 TEST CONN. J2 (DD)	-
10	B-DD-H3257-Ø	TERM., INTEGRAL MODEM, MALE (DD)	-
11	B-DD-H3258-Ø	TERM. INTEGRAL MODEM, FEMALE (DD)	-
12	B-PL-DMR11-Ø	SHIPPING LIST, DMR11	-
13	A-SP-3700390-0-0	PACKAGING INSTRUCTIONS	-
	9905816-00	CARTON, FOLDING	M
	9906088-07	CARTON, REGULAR SLOTTED	M
	9906089-07	SHEET, DIE CUT	M
	9905012-05	ENVELOPE, BUBBLITE	M

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

Asterisk (*) denotes optional equipment

digital

TITLE	SHEET	SIZE	CODE	NUMBER	REV
DRAWING DIRECTORY (DMR11)	3 OF 3	B	DD	DMR11-Ø	*

DRB 108A

MK

WIRE TABLE

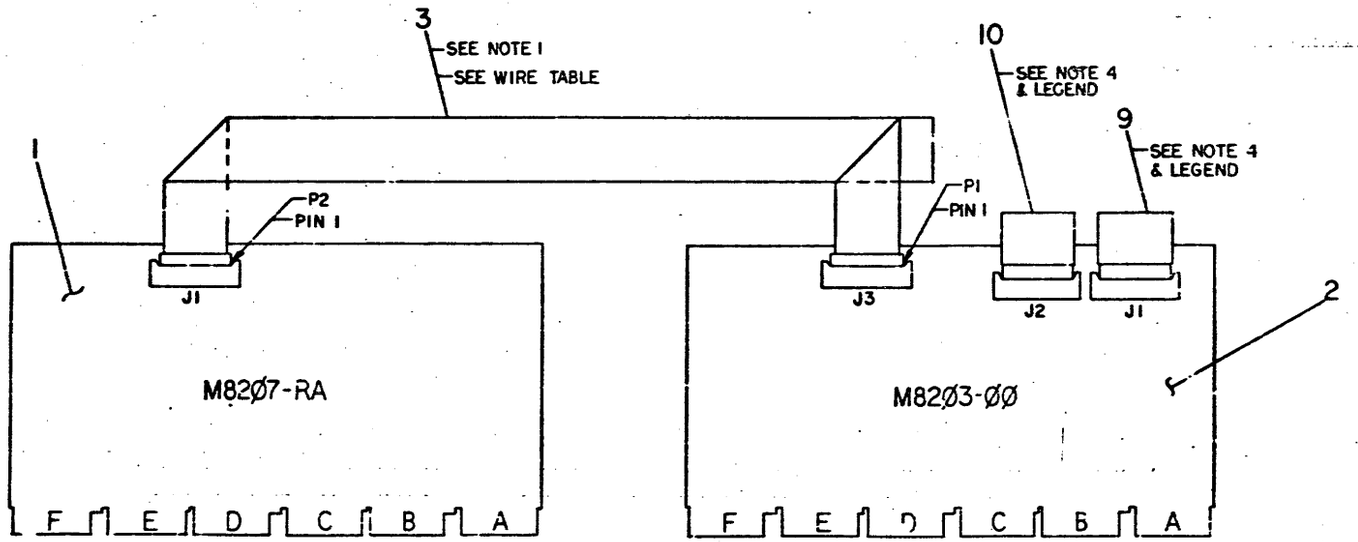
ITEM NO.	FROM		TO	
	CONN	WITH	CONN	WITH
3	J1 (ITEM 1)	P2	J3 (ITEM 2)	P1

LEGEND

VARIATION	M8203 CONN	CABLE	TEST CONN	OPTIONAL EXTENSION CABLE
DMRII-AA	J2	BC55C	H3251	BCØ5D/RS232 BC55D/RS423
DMRII-AB	J1	BCØ5Z	H325Ø	NONE
DMRII-AC	J1	BC55A	NONE	BC55M (HI SPEED) BC55N (56K)
DMRII-AD	—	—	—	—
DMRII-AE	J2	BC55B	H3251	BC55D/RS422

NOTES:

1. IF I/O CABLE ASSY, BCØ8S-ØI, (ITEM 3) IS NOT AVAILABLE, I/O CABLE ASSY, (D-UA-BCØ3R-Ø) MAY BE USED IN ITS PLACE.
2. POWER NOTE
   MULTIPLE UNITS IN A BACKPLANE MAY EXCEED REGULATOR CAPACITY. SPLIT LOADING BETWEEN REGULATORS TO BALANCE REGULATOR CAPACITY. +5V CURRENT IS 8.5 AMPS/DMRII.
3. INSTALLATION NOTE
   THE NPR GRANT JUMPER, (CAI TO CBI) MUST BE REMOVED BEFORE M82Ø7-RA, (ITEM 1) IS INSTALLED. THIS JUMPER MUST BE INSTALLED IF THE M82Ø7-RA IS REMOVED FROM THE SYSTEM.
4. ITEMS 9&10 FOR TEST PROCEDURE ONLY.



THIS CONFIGURATION
FOR DMRII-AD ONLY

CAUTION: OFF SHEET PARTS LIST EXIST, REFER TO K-PL-DMRII-Ø-Ø.

REVISIONS		
CHANGE NO.	REV.	
DMRII-HK0001	A	12-Dec-80

R. HARRINGTON

DESCRIPTION		DWG. PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			
ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES	
SURFACE QUALITY IN MICRO INCHES	MEDIUM ☐	±.004	±.008 ±.012 ±.016 ±.024 ±.04
	REFERRED ☐	±.012	±.016 ±.025 ±.04 ±.063 ±0.1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION:

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL: SEE PARTS LIST

FINISH

DRN
CHK'D
ENG
PROJ. ENG.
PROD

NEXT HIGHER ASSY.: BCD-DMPII-Ø

SCALE: NONE

SHEET: OF 8

FIRST USED ON: DMRII

digital

TITLE: DMRII UNIT ASSY.

SIZE: D | CODE: JA | NUMBER: DMRII-Ø-Ø | REV: A

DIST.

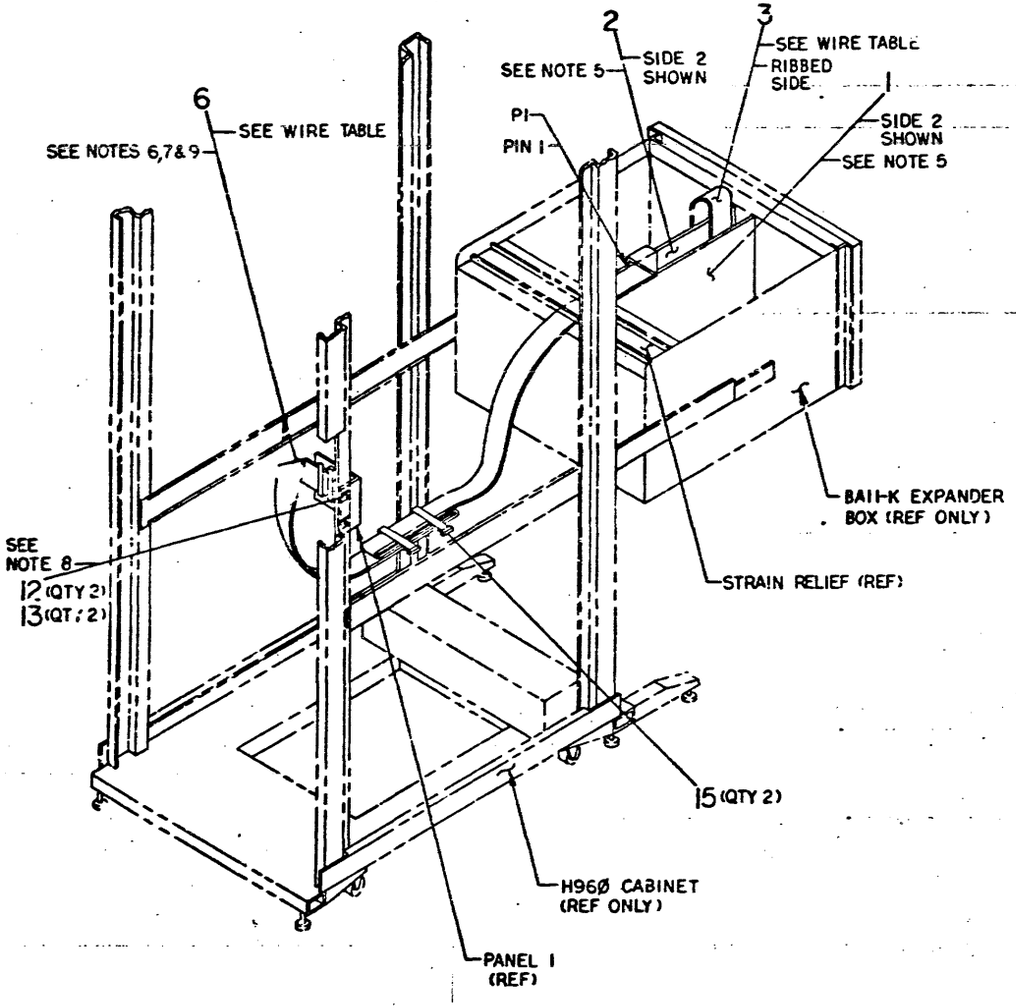
K

WIRE TABLE

ITEM NO.	FROM: CONN	FROM: WITH	TO: CONN	TO: WITH	REMARKS
3	J1 (ITEM 1)	P2	J3 (ITEM 2)	P1	TYP. BOTH INSTALL.
6	—	—	J2 (ITEM 2)	P1	

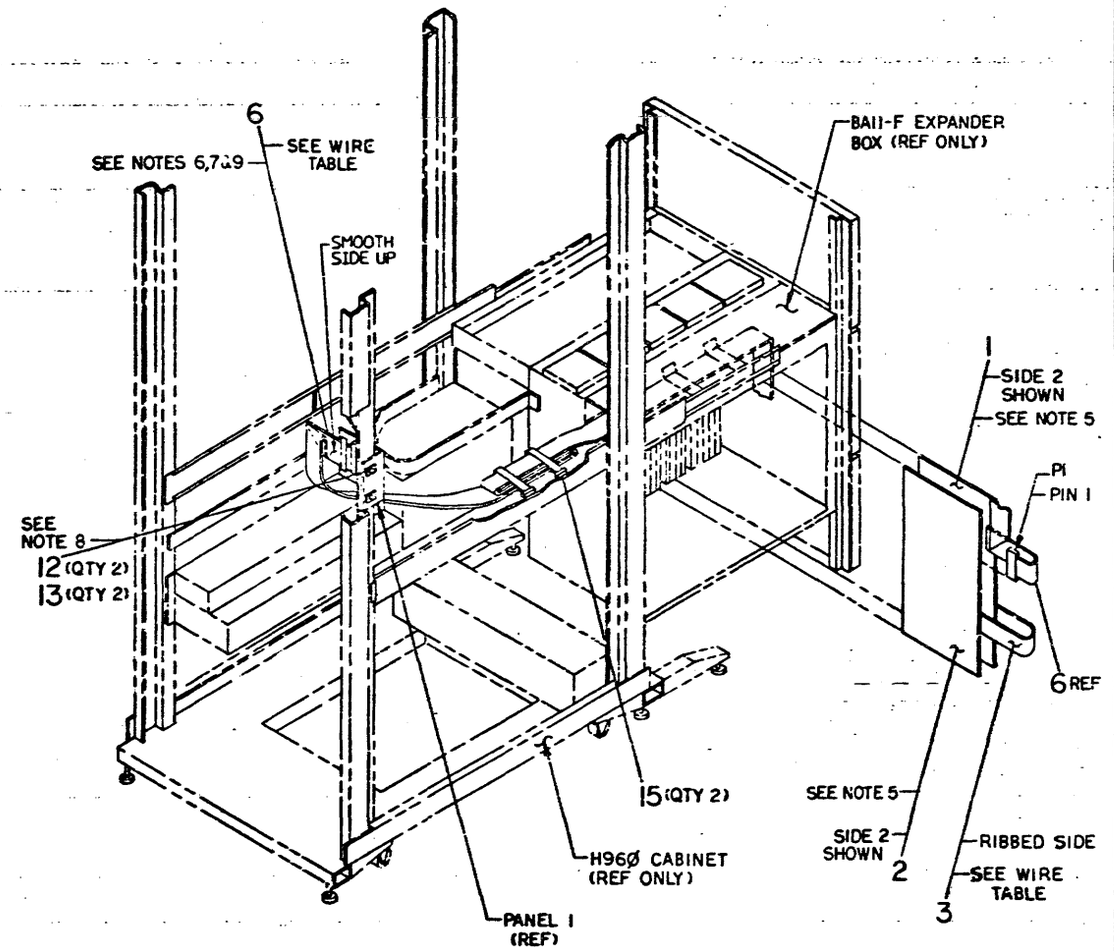
NOTES (CONTINUED):

5. THE ORDER OF MODULES IN BACKPLANE IS NOT FIXED.
6. SECURE CABLE ASSY, (ITEM 6) WITH STRAIN RELIEF WHICH IS INTEGRAL TO EACH BAII BOX.
7. EXCESS CABLE TO BE LOOPED AND SECURED WITH 2 CABLE TIES, (ITEM 15) AS SHOWN WHEN INSTALLED IN H960 SERIES CABS. REFER TO SHEET 6 FOR CABLE ROUTING WHEN OPTION IS INSTALLED IN H9602 SERIES CABS.
8. FOR MOUNTING HOLE LOCATIONS, REFER TO SHEET 6.
9. H3251 TEST CONNECTOR, (ITEM 8) TO BE CONNECTED TO J1 AT PANEL END OF BC55C CABLE ASSY, (ITEM 6) FOR TESTING PURPOSES ONLY.



TYP. INSTALLATION IN A BAII-K EXPANDER BOX

THIS CONFIGURATION FOR DMRII-AA ONLY



TYP. INSTALLATION IN A BAII-F EXPANDER BOX

REVISIONS		
ZONE	CHANGE NO	REV.

TITLE	SIZE	CODE	NUMBER	REV.
DMRII UNIT ASSY.	D	UA	DMRII-Ø-Ø	A
SCALE — SHEET 2 OF 8	DIST.			

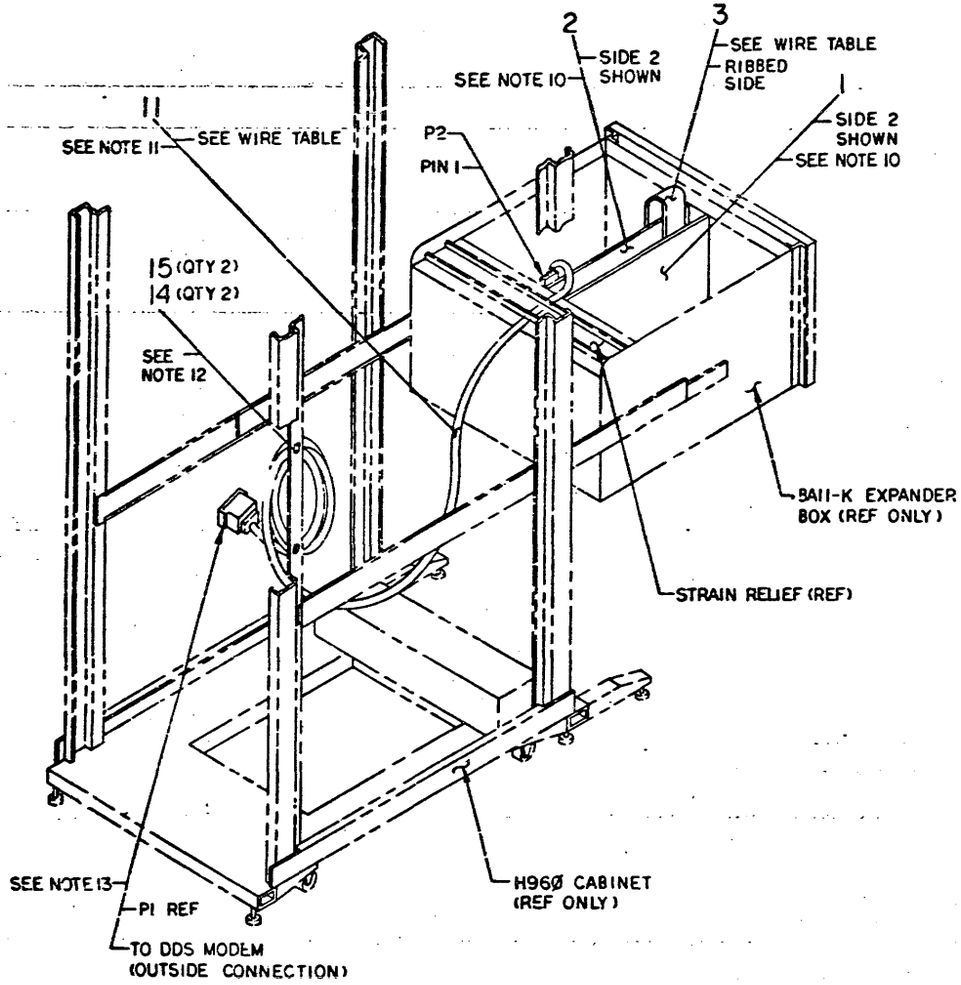
MK

WIRE TABLE

ITEM NO.	FROM		TO		REMARKS
	CONN	WITH	CONN	WITH	
3	J1 (ITEM #1)	P2	J3 (ITEM #2)	P1	TYP. BOTH INSTALL.
11	—	—	J1 (ITEM #2)	P2	

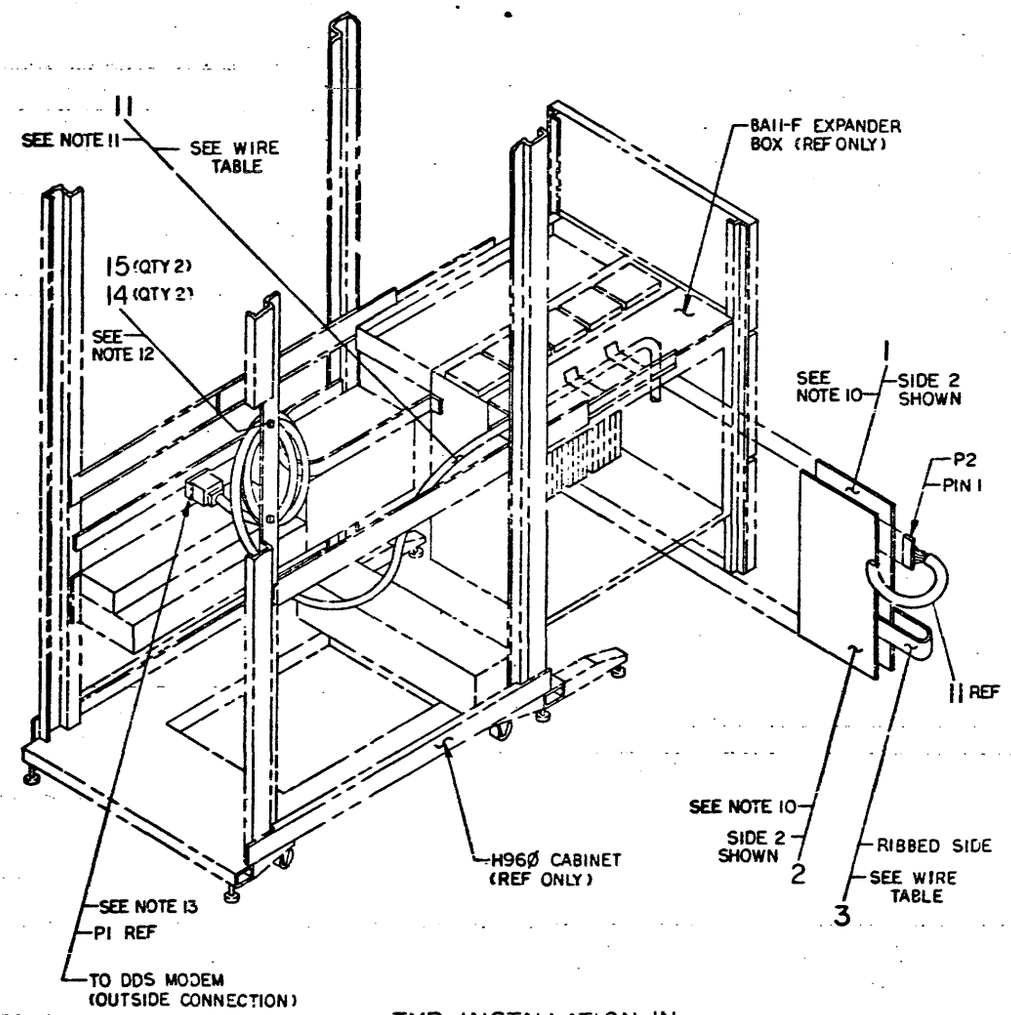
NOTES (CONTINUED):

10. THE ORDER OF MODULES IN BACKPLANE IS NOT FIXED.
11. SECURE CABLE ASSY, (ITEM #11) WITH STRAIN RELIEF WHICH IS INTEGRAL TO EACH BAII BOX.
12. EXCESS CABLE TO BE LOOPED AND SECURED WITH 2 TIE MOUNTS, (ITEM #14) AND 2 CABLE TIES, (ITEM #15) AS SHOWN. FOR SHIPPING PURPOSES ONLY. REFER TO SHEET 6 FOR CABLE ROUTING WHEN OPTION IS INSTALLED IN H96Ø2 SERIES CABS.
13. H325Ø TEST CONNECTOR, (ITEM #7) TO BE CONNECTED TO P1 OF 8CØ5Z CABLE ASSY, (ITEM #11) FOR TESTING PURPOSES ONLY.



TYP. INSTALLATION IN A BAII-K EXPANDER BOX

THIS CONFIGURATION FOR DMR11-AB ONLY



TYP. INSTALLATION IN A BAII-F EXPANDER BOX

REVISIONS		
CHK	CHANGE NO.	REV.

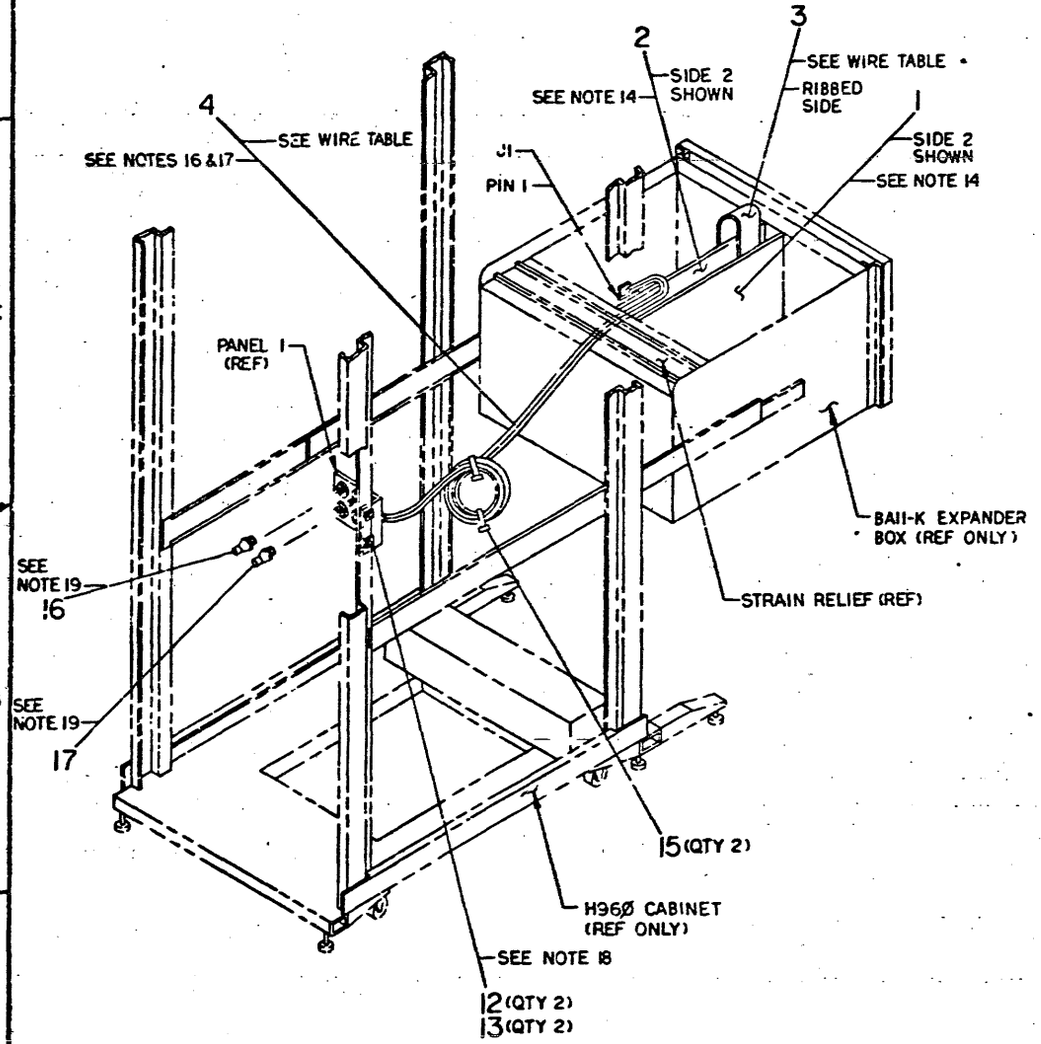
TITLE	SIZE	CODE	NUMBER	REV.
DMR11 UNIT ASSY.	D	UA	DMR11-Ø-Ø	A
SCALE	SHEET 3 OF 8	DIST.	MK	

WIRE TABLE

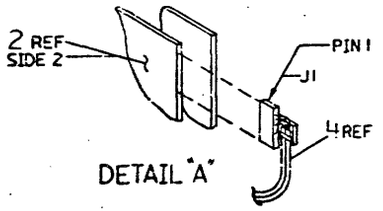
ITEM NO.	FROM		TO		REMARKS
	CONN	WITH	CONN	WITH	
3	J1 (ITEM 1)	P2	J3 (ITEM 2)	P1	TYP. BOTH INSTALL.
4	—	—	J1 (ITEM 2)	J1	

NOTES (CONTINUED):

14. THE ORDER OF MODULES IN BACKPLANE IS NOT FIXED.
15. CABLES (ITEM 4) TO BE ROUTED UNDER HANDLE OF MODULE (ITEM 2) THEN UP INTO CABLE TROUGH AT A CONVENIENT OPENING BETWEEN LOGIC BACKPLANES. THIS PROCEDURE APPLIES TO BA11-F BOX ONLY.
16. SECURE CABLE ASSY, (ITEM 4) WITH STRAIN RELIEF WHICH IS INTEGRAL TO EACH BA11 BOX.
17. EXCESS CABLE TO BE LOOPED AND SECURED WITH 2 CABLE TIES, (ITEM 15) AS SHOWN WHEN INSTALLED IN H960 SERIES CABS. REFER TO SHEET 6 FOR CABLE ROUTING WHEN OPTION IS INSTALLED IN H9602 SERIES CABS.
18. FOR MOUNTING HOLE LOCATIONS, REFER TO SHEET 6.
19. EITHER THE MALE TERMINATOR CONNECTOR, (ITEM 16) OR THE FEMALE TERMINATOR CONNECTOR, (ITEM 17) WILL BE USED ON THE PANEL. BETTER CLARIFICATION CAN BE OBTAINED FROM CHAPTER 2 OF THE DMR11 TECHNICAL MANUAL UNDER THE DMR11 INTEGRAL MODEM CABLING DIAGRAM.

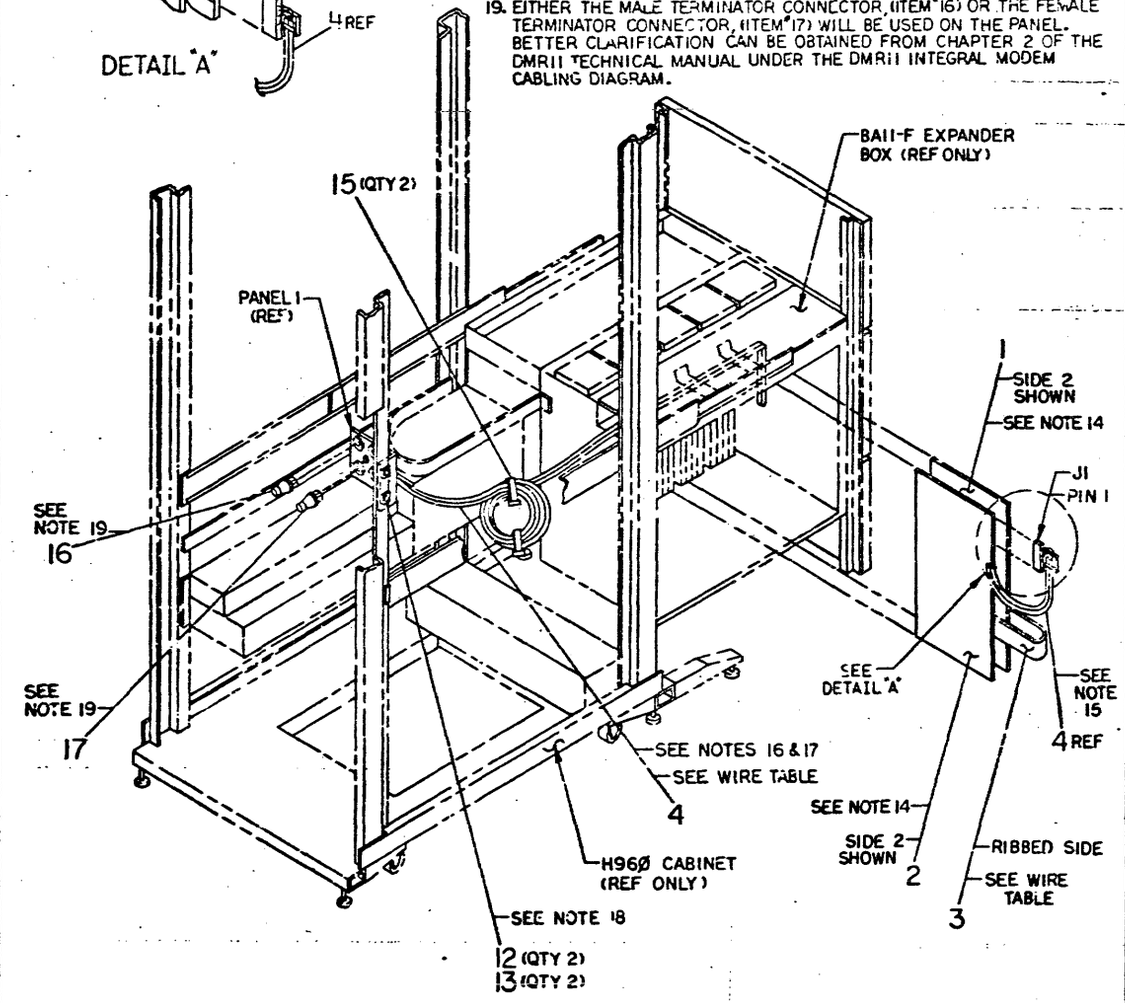


TYP. INSTALLATION IN A BA11-K EXPANDER BOX



DETAIL "A"

THIS CONFIGURATION FOR DMR11-AC ONLY



TYP. INSTALLATION IN A BA11-F EXPANDER BOX

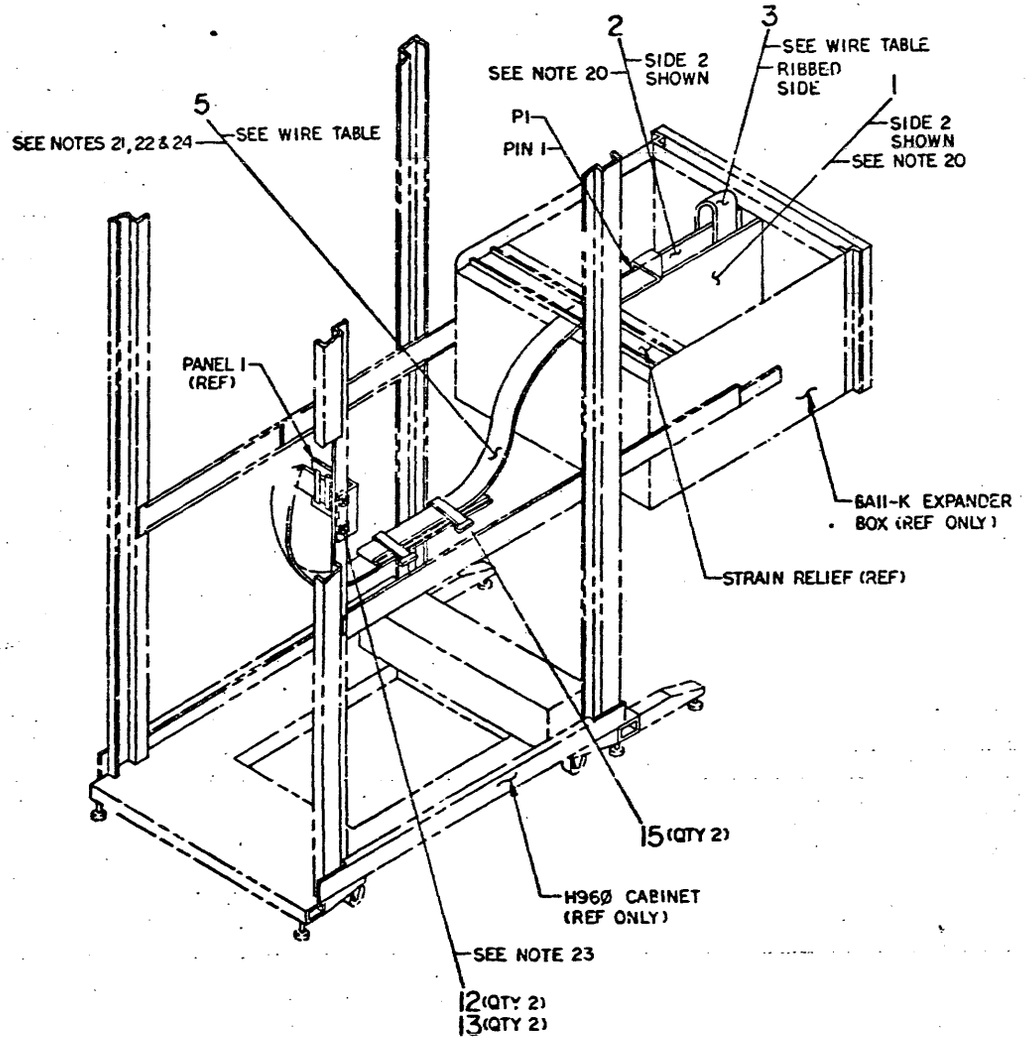
REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
DMR11 UNIT ASSY.	D	UA	DMR11-0-0	A
SCALE —	SHEET 4 OF 8	DIST.		

MK

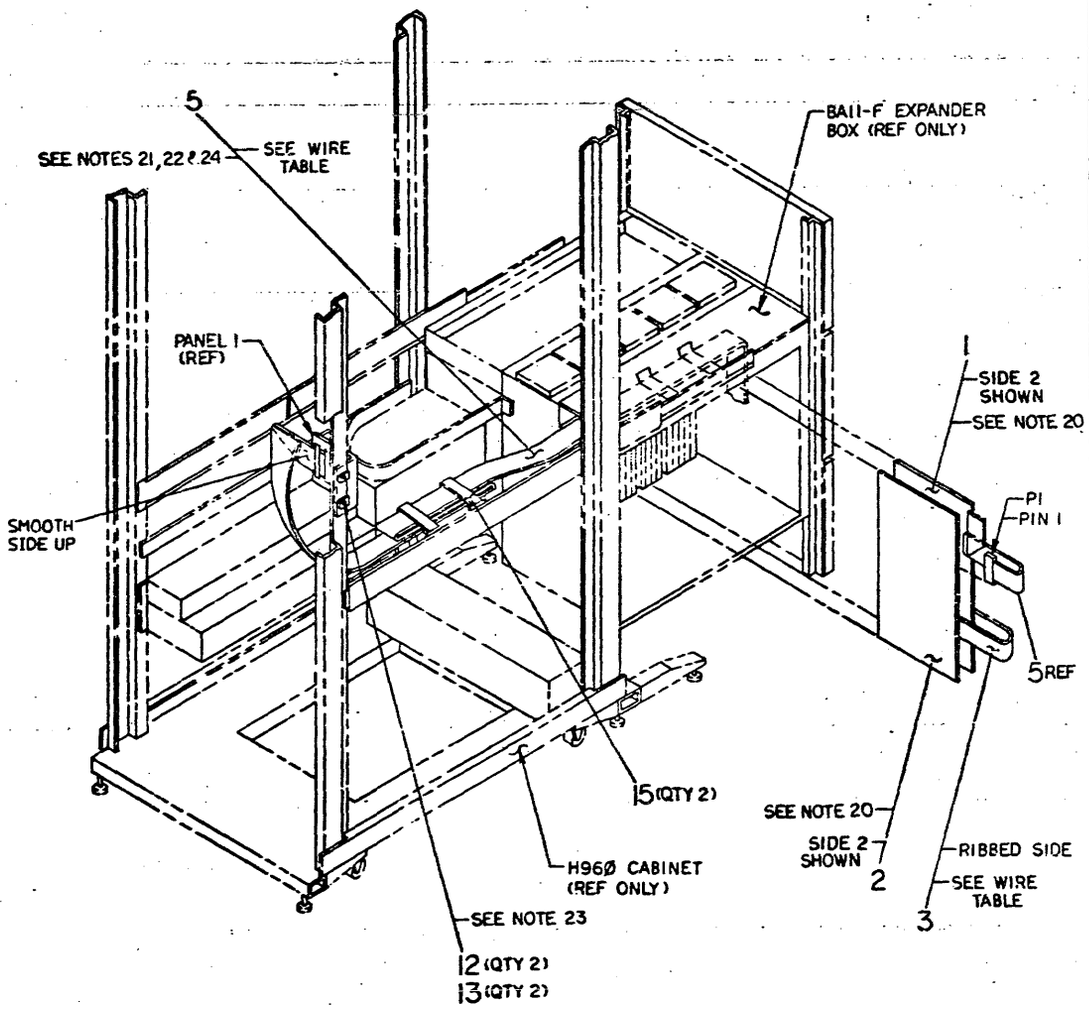
WIRE TABLE					
ITEM NO.	FROM		TO		REMARKS
	CONN	WITH	CONN	WITH	
3	J1 (ITEM 1)	P2	J3 (ITEM 2)	P1	TYP. BOTH INSTALL.
5	—	—	J2 (ITEM 2)	P1	

NOTES (CONTINUED):
20. THE ORDER OF MODULES IN BACKPLANE IS NOT FIXED.
21. SECURE CABLE ASSY. (ITEM 5) WITH STRAIN RELIEF WHICH IS INTEGRAL TO EACH BAII BOX.
22. EXCESS CABLE TO BE LOOPED AND SECURED WITH 2 CABLE TIES (ITEM 15) AS SHOWN WHEN INSTALLED IN H960 SERIES CABS. REFER TO SHEET 6 FOR CABLE ROUTING WHEN OPTION IS INSTALLED IN H9602 SERIES CABS.
23. FOR MOUNTING HOLE LOCATIONS, REFER TO SHEET 6.
24. H3251 TEST CONNECTOR, (ITEM 8) TO BE CONNECTED TO J2 AT PANEL END OF BC55B CABLE ASSY, (ITEM 5) FOR TESTING PURPOSES ONLY.



TYP. INSTALLATION IN A BAII-K EXPANDER BOX

THIS CONFIGURATION FOR DMRII-AE ONLY



TYP. INSTALLATION IN A BAII-F EXPANDER BOX

REVISIONS		
DIR	CHANGE NO	REV.

TITLE	SIZE	CODE	NUMBER	REV.
DMRII UNIT ASSY.	D	UA	DMRII-Ø-Ø	A
SCALE —	SHEET 5 OF 8	DIST.		

MK

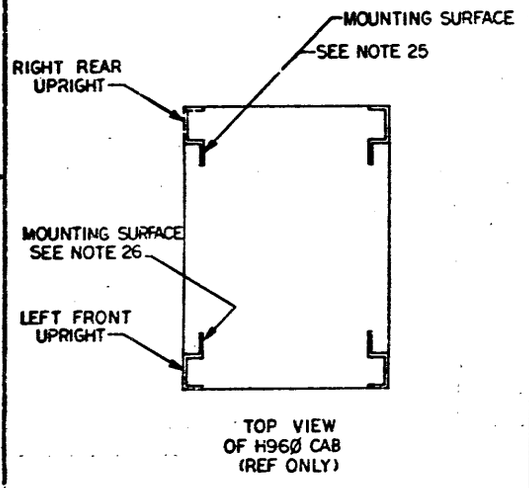
MTG. HOLE LOCATIONS FOR MULTIPLE BC55 SERIES CABLES IN H96Ø CABS. CHART APPLIES WHEN ONE (1) BAII BOX EXISTS, ONLY.

HOLE CHART – BC55A CABLE ASSY.

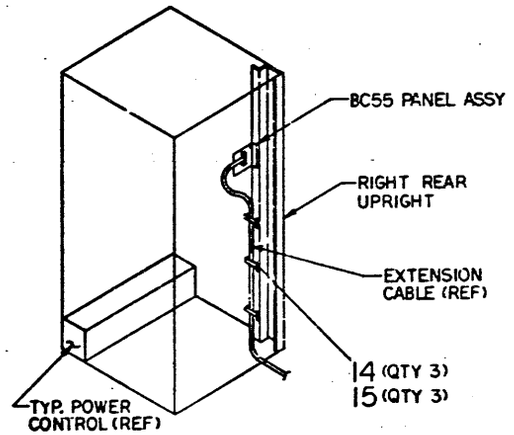
DESCRIPTION	MTG. HOLES	MTG. LOCATION	REMARKS
PANEL #1	93, 97	RIGHT REAR UPRIGHT	REAR MTG., FACING OUT
#2	84, 86		
#3	72, 76		
#4	63, 67	RIGHT REAR UPRIGHT	REAR MTG., FACING OUT
#5	93, 97	LEFT FRONT UPRIGHT	FRONT MTG., FACING REAR
#6	84, 88		
#7	72, 76		
PANEL #8	63, 67	LEFT FRONT UPRIGHT	FRONT MTG., FACING REAR

HOLE CHART – BC55B & BC55C CABLE ASSY'S.

DESCRIPTION	MTG. HOLES	MTG. LOCATION	REMARKS
PANEL #1	94, 99	RIGHT REAR UPRIGHT	REAR MTG., FACING OUT
#2	92, 87		
#3	73, 78		
#4	61, 66	RIGHT REAR UPRIGHT	REAR MTG., FACING OUT
#5	94, 99	LEFT FRONT UPRIGHT	FRONT MTG., FACING REAR
#6	82, 87		
#7	73, 78		
PANEL #8	61, 66	LEFT FRONT UPRIGHT	FRONT MTG., FACING REAR



TOP VIEW OF H96Ø CAB (REF ONLY)



REAR VIEW OF H96Ø CAB (REF)

EXTENSION CABLE ROUTING – FOR OPTIONAL EXT. CABLES –

NOTES (CONTINUED):

25. WHEN MULTIPLE OPTIONS ARE USED, PANELS #1 THRU #4 OF BC55 SERIES CABLES ARE INSTALLED ON RIGHT REAR UPRIGHT AS SHOWN. REFER TO HOLE CHART ABOVE FOR MTG. HOLE LOCATIONS.
26. PANELS #5 THRU #8 OF BC55 SERIES CABLES ARE INSTALLED ON LEFT FRONT UPPIGHT AS SHOWN. REFER TO HOLE CHART ABOVE FOR MTG. HOLE LOCATIONS.

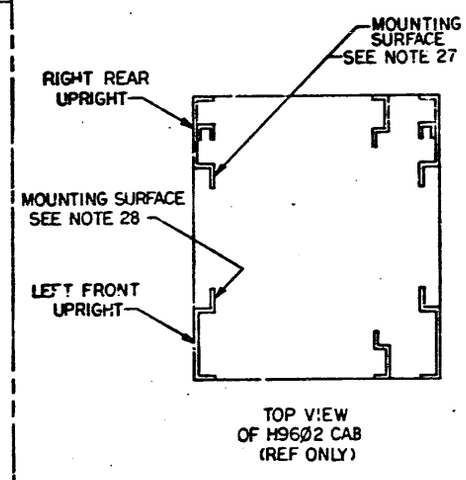
MTG. HOLE LOCATIONS FOR FOR MULTIPLE BC55 SERIES CABLES IN H96Ø2 CABS. CHART APPLIES WHEN ONE (1) BAII BOX EXISTS, ONLY.

HOLE CHART – BC55A CABLE ASSY.

DESCRIPTION	MTG. HOLES	MTG. LOCATION	REMARKS
PANEL #1	81, 85	RIGHT REAR UPRIGHT	REAR MTG., FACING OUT
#2	69, 73		
#3	60, 64		
#4	48, 52	RIGHT REAR UPRIGHT	REAR MTG., FACING OUT
#5	81, 85	LEFT FRONT UPRIGHT	FRONT MTG., FACING REAR
#6	69, 73		
#7	60, 64		
PANEL #8	42, 46	LEFT FRONT UPRIGHT	FRONT MTG., FACING REAR

HOLE CHART – BC55B & BC55C CABLE ASSY'S.

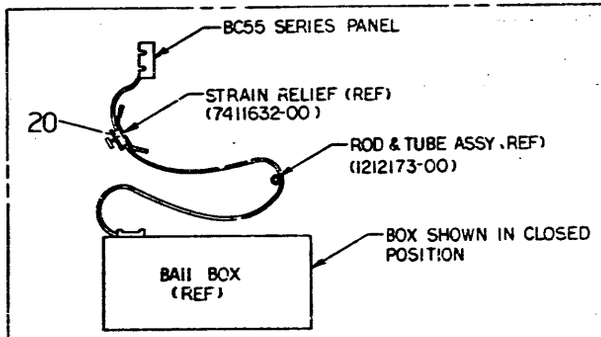
DESCRIPTION	MTG. HOLES	MTG. LOCATION	REMARKS
PANEL #1	79, 84	RIGHT REAR UPRIGHT	REAR MTG., FACING OUT
#2	70, 75		
#3	58, 63		
#4	49, 54	RIGHT REAR UPRIGHT	REAR MTG., FACING OUT
#5	79, 84	LEFT FRONT UPRIGHT	FRONT MTG., FACING REAR
#6	70, 75		
#7	58, 63		
PANEL #8	40, 45	LEFT FRONT UPRIGHT	FRONT MTG., FACING REAR



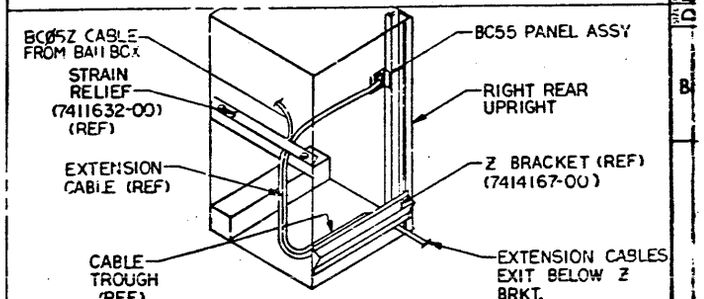
TOP VIEW OF H96Ø2 CAB (REF ONLY)

NOTES (CONTINUED):

27. WHEN MULTIPLE OPTIONS ARE USED, PANELS #1 THRU #4 OF BC55 SERIES CABLES ARE INSTALLED ON RIGHT REAR UPRIGHT AS SHOWN. REFER TO HOLE CHART ABOVE FOR MTG. HOLE LOCATIONS.
28. PANELS #5 THRU #8 OF BC55 SERIES CABLES ARE INSTALLED ON LEFT FRONT UPRIGHT AS SHOWN. REFER TO HOLE CHART ABOVE FOR MTG. HOLE LOCATIONS.



SIMPLIFIED SIDE VIEW WITHOUT CAB.
CABLE ROUTING OF BC55 SERIES PANEL ASSY. IN H96Ø2 CABS (TYP. ALL INSTALL.)



REAR VIEW OF H96Ø2 CAB (REF)

EXTENSION CABLE ROUTING – FOR OPTIONAL EXT. CABLES –

REVISIONS		
SYM.	CHANGE NO.	REV.
	1	

TITLE	SIZE	CODE	NUMBER	REV.
DMR11 UNIT ASSY.	D	UA	DMR11-Ø-Ø	A
SCALE	SHEET 6 OF 8		DIST.	

M82Ø7 SWITCHES

E127

1	2	3	4	5	6	7	8	9	10
OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON
A3	A4	A5	A6	A7	A8	A9	A10	A11	A12

CSR ADDRESS (760170)

E28

1	2	3	4	5	6	7	8
OFF	OFF	OFF	ON	ON	OFF	ON	OFF
V3	V4	V5	V6	V7	V8	RUN	DISABLE CSR

VECTOR ADDRESS (300)

SHOWS EXAMPLE
SEE FLOATING ADDRESS ASSIGNMENT FOR INSTALLATION

E85

1	2	3	4
ON	OFF	OFF	OFF
BSEL 1 LOCKOUT	SPARES		

M82Ø3 SWITCHES

E134 (SEE NOTE 29)

1	2	3	4	5	6	7	8	9	10
X	X	X	X	X	X	X	X	X	X
(LSB)	BOOT PASSWORD						(MSB)	NOT USED	MICRO-DIAG.

*(SEE CHART)

E121 (SEE NOTE 29)

1	2	3	4	5	6	7	8	9	10
X	X	X	X	X	X	X	X	X	X
(LSB)	BOOT-OFFSET						(MSB)	DMC LINE COMPATIBLE	HIGH SPEED SELECT

** (SEE CHART)

E39

1	2	3	4	5	6	7	8	9	10
OFF	OFF	OFF	OFF	X	OFF	X	X	X	X
SPARES				V.35	RES	RS422	DATA RATE		

(X) SYSTEM PROGRAMMERS MUST DEFINE SWITCH SETTINGS

DATA RATE FOR NULL CLK AND INTEGRAL MODEM

2.4K BPS	OFF	OFF	OFF
4.8K BPS	ON	OFF	OFF
9.6K BPS	OFF	ON	OFF
19.2K BPS	ON	ON	OFF
56K BPS	OFF	OFF	ON
250K BPS	ON	OFF	ON
500K BPS	OFF	ON	ON
1M BPS	ON	ON	ON

*

SEL Ø BIT 13 AT MASTER CLEAR TIME	SW 1Ø AT E134 ON M82Ø3	EXECUTION OF MICRODIAGNOSTICS
CLEAR	ON	NO MICRODIAGNOSTICS IS RUN
CLEAR	OFF	RUN MICRODIAGNOSTICS
SET	ON	RUN MICRODIAGNOSTICS
SET	OFF	NO MICRODIAGNOSTICS IS RUN

**

MODE OF OPERATION	DMC LINE COMPATIBLE SWITCH (SW9)	HIGH SPEED SWITCH (SW1Ø)
LINE SPEED LESS THAN 1 MBPS AND DDCMP V.4 PROTOCOL SELECTED (NOT CONNECTED TO DMC11)	ON	ON
LINE SPEED IS 1 MBPS AND DDCMP V.4 PROTOCOL SELECTED (NOT CONNECTED TO DMC11)	ON	OFF
CONNECTED TO DMC11-AR (M8200-YA)	OFF	ON
CONNECTED TO DMC11-AL (M8200-YB)	OFF	OFF

NOTES (CONTINUED):

29. WHEN SWITCHES E121 AND E134 ARE SELECTED IN OFF POSITION THEY CORRESPOND TO A LOGICAL "1".
SWITCH "OFF" = "1"
E.G. FOR BOOT PASSWORD OF "1" = SET E134 FOR SWITCH "1" = OFF
" "2-8" = ON
FOR BOOT OFFSET OF "356" = SET E121 FOR SWITCH 1&5 = ON
" 2,3,4 / 6,7,8 = OFF

REVISIONS		
DWR	CHANGE NO	REV.

TITLE	SIZE	CODE	NUMBER	REV.
DMR11 UNIT ASSY.	D	UA	DMR11-Ø-Ø	A
SCALE	SHEET 7 OF 8	DIST		

CONTROL AND STATUS REGISTERS

BITS 7	6	5	4	3	2	1	Ø	
RDI	IEI	RQI		INPUT COMMAND CODE				BSEL Ø
RUN	MCLR	MICRO-DIAG.	STEP LU	LU LOOP	ROM 0	ROM 1	STEP UP	1
RDY O	IEO				OUTPUT COMMAND CODE			2
MICRO-DIAGNOSTIC RESULTS								3
								4
INPUT/OUTPUT COMMANDS								5
DATA PORT								6
								7

BASE IN FORMAT

BIT 7	6	5	4	3	2	1	Ø	
BASE TABLE ADDRESS LOW BYTE								BSEL 4
BASE TABLE ADDRESS HIGH BYTE								BSEL 5
								BSEL 6
B/A 17	B/A 16		RESUME					BSEL 7

CONTROL IN FORMAT

BIT 7	6	5	4	3	2	1	Ø	
								BSEL 4
								BSEL 5
								BSEL 6
			START TIMER	HDX			DDCMP MAINT	BSEL 7

TRANSMIT/RECEIVE BA/CC IN AND OUT FORMAT

7	6	5	4	3	2	1	Ø	
BUS ADDRESS LOW BYTE								BSEL 4
BUS ADDRESS HIGH BYTE								BSEL 5
CHARACTER COUNT (BIT 7:Ø)								BSEL 6
B/A 17	B/A 16	CHARACTER COUNT (BIT 13:8)						BSEL 7

CONTROL OUT FORMAT

7	6	5	4	3	2	1	Ø	
								BSEL 4
								BSEL 5
START RECD	DISC		MSG TOO LONG	DUCMP MAINT RECD	NO BUF	TIME OUT	MAK THRES	BSEL 6
						HALT COMP	NXM	BSEL 7

INPUT COMMAND CODE BSEL Ø BIT				FUNCTION
3	2	1	Ø	
Ø	Ø	Ø	Ø	TRANSMIT BA/CC IN
Ø	Ø	Ø	1	CONTROL IN
Ø	Ø	1	Ø	HALT REQUEST
Ø	Ø	1	1	BASE IN
Ø	1	Ø	Ø	RECEIVE BA/CC IN

OUTPUT COMMAND CODE BSEL 2 BIT			FUNCTION
2	1	Ø	
0	0	0	TRANSMIT BA/CC OUT
0	0	1	CONTROL OUT
1	0	0	RECEIVE BA/CC OUT

MICRO-DIAGNOSTIC RESULTS

BIT 7	6		1	Ø	
TEST SUCCESS	TEST INHIBITED		LU FAILS	UP FAILS	BSEL 3

REVISIONS		
CHK	CHANGE NO.	REV.
	1	

TITLE	SIZE	CODE	NUMBER	REV.
DMR11 UNIT ASSY.	D	UA	DMR11-Ø-Ø	A
SCALE ⟷ SHEET 8 OF 9	DIST.			

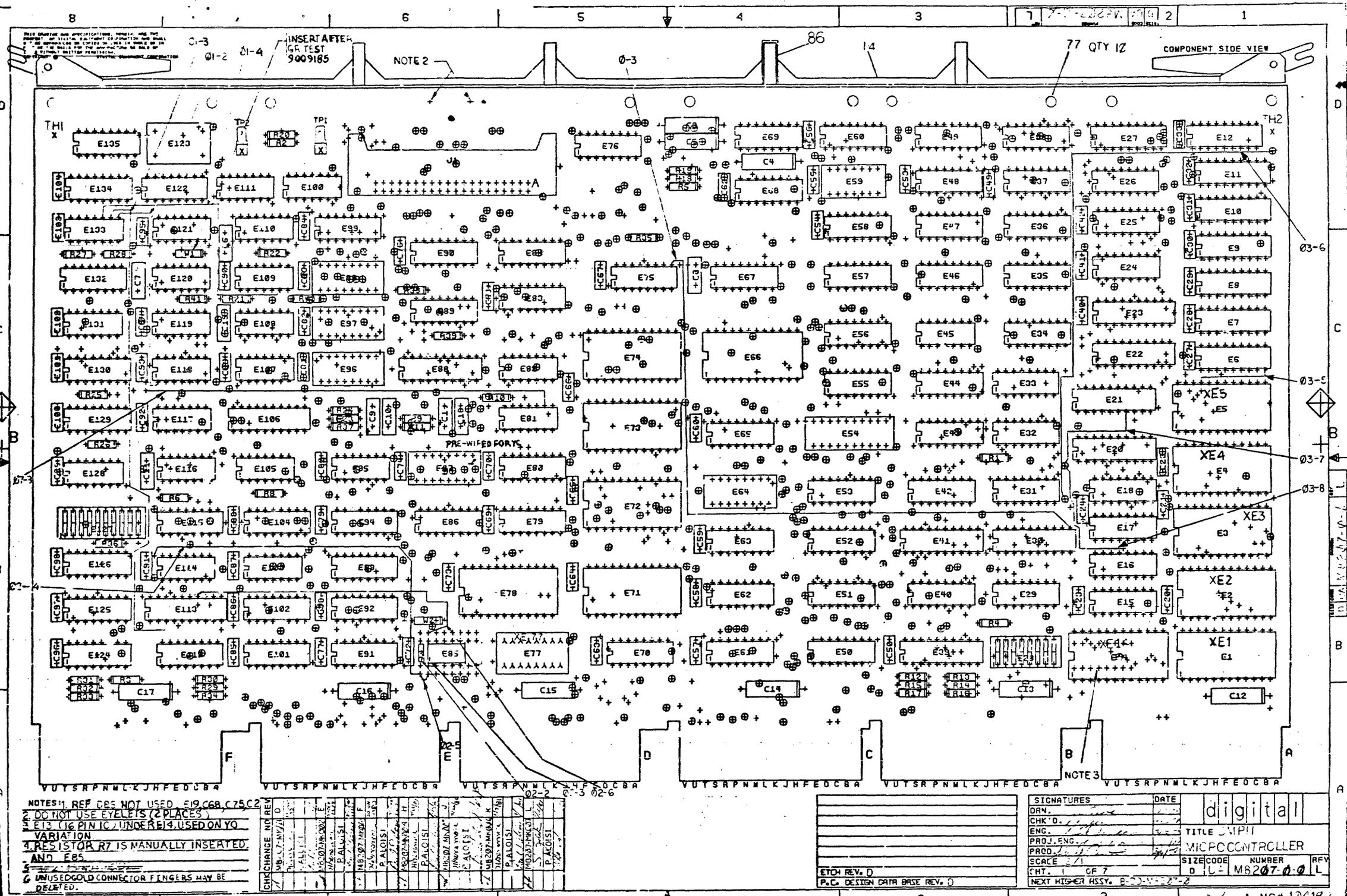
MK

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION AA	AB	AC	AD	AE
1	1	D-UA-M8207-0-0	M8207-RA	MICROPROCESSOR BASED SYNCHRONOUS	1	1	1	1	1
2	2	D-UA-M8203-0-0	M8203-00	DMP11 LINE UNIT,RS-449,INTEGRAL	1	1	1	1	1
3	3	D-IA-BC08S-0-0	BC08S-01	I/O CABLE ASSY 1FT	1	1	1	1	1
4	4	D-UA-BC55A-0-0	BC55A-10	CABLE INTERGRAL MODEM	-	-	1	-	-
5	5	D-UA-BC55B-0-0	BC55B-10	EIA RS422 CABLE	-	-	-	-	1
6	6	D-UA-BC55C-0-0	BC55C-10	EIA RS232/RS423 CABLE	1	-	-	-	-
7	7	C-IA-M3250-0-0	M3250-00	DDS TEST CONN	-	1	-	-	-
8	8	D-UA-M3251-0-0	M3251-00	TEST CONNECTOR RS422	1	-	-	-	1
9	9	D-UA-M3254-0-0	M3254-00	M8203 TEST CONNECTOR J1	1	1	1	1	1
10	10	D-UA-M3255-0-0	M3255-00	M8203 TEST CONNECTOR J2	1	1	1	1	1
11	11	D-UA-BC05Z-0-0	BC05Z-25	CABLE, H855 TO V35 - 25 FT	-	1	-	-	-
12	12		9007786-00	RETAINER, U-NUT, 10-32	2	-	2	-	2
13	13		9009700-00	SCREW, SEMS, PHILLIPS TRUSS HD 1	2	-	2	-	2
14	14		9007867-00	MOUNT, PUSH,CABLE TIE	3	5	3	-	3
15	15		9009617-00	TIE,CABLE BUNDL.EIA 0-3"TYPE=101	5	5	5	-	5
16	16	D-UA-M3257-0-0	M3257-00	MALE TERMINATOR FOR INTEGRAL MOD	-	-	1	-	-
17	17	D-UA-M3258-0-0	M3258-00	FEMALE TERMINATOR FOR INTEGRAL M	-	-	1	-	-
18	18	A-SP-3700390-0-0	3700390-07	PKG GENERAL PURPOSE SKIN PACKED	1	1	1	1	1
19	19	B-PL-DMR11-0		SHIPPING LIST, DMR11	1	1	1	1	1
20	20		9008214-00	FOAM, TAPE,ADHESIVE BACK-POLYURE	A/R	0	A/R	0	A/R
21	21	D-CS-M325-0-1	M325-00	CONN. MODEM TEST	1	0	0	0	0

22 NOTE: 1. OPTIONAL EQUIPMENT: D-UA-BC05D-25-0, D-UA-BC55M-98-0, D-UA-BC55N-98-0.

REVISION HISTORY			BASIC PART NO: DMR11										
ENG	ECO NUMBER	REV	SECTION A OF A	DRN: D. ZWICKER	DATE: 08-FEB-80	DBP	D	I	G	I	T	A	L
	INITIAL	*	SECTION. VARIATION INDEX	CHK'D: B. HOVEY	DATE: 08-FEB-80	TITLE	PARTS LIST						
SH	DMR11-MK001	A	[A] AA,AB,AC,AD,AE			DMR11 UNIT ASSY							
			[B]	DES.ENG.: H. YANG	DATE: 08-FEB-80								
			[C]	RESP.ENG.: R. HARRINGTON	DATE: 08-FEB-80	DOCUMENT NUMBER							
			[D]			SIZE	CODE	NUMBER		REV			
			[E]	MFG.ENG.: B. ARMBRUSTER	DATE: 08-FEB-80	K	PL	DMR11-0-0		A			
			[F]	ASSEMBLY NUMBER: D-UA-DMR11-0-0	TOP DOCUMENT NUMBER: *B-CD-DMR11-0			FILE NAME: MK0021.PLS		EDIT # 6			

MK



NOTES: 1. REF DES NOT USED E19, C68, C75, C2
2. DO NOT USE EYELETS (2 PLACES)
3. E13, C16 PIN IC, UNDER E14, USED ON YQ VARIATION
4. RESISTOR R7 IS MANUALLY INSERTED AND E85
5. [illegible]
6. UNUSED GOLD CONNECTOR FINGERS MAY BE DELETED.

CHK	CHANGE NO	REV
	M8207-MKO1	D
P.ALOISI	M8207-MKO2	E
P.ALOISI	M8207-MKO3	F
P.ALOISI	M8207-MKO4	H
P.ALOISI	M8207-MKO5	J
P.ALOISI	M8207-MKO6	K
P.ALOISI	M8207-MKO7	L

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

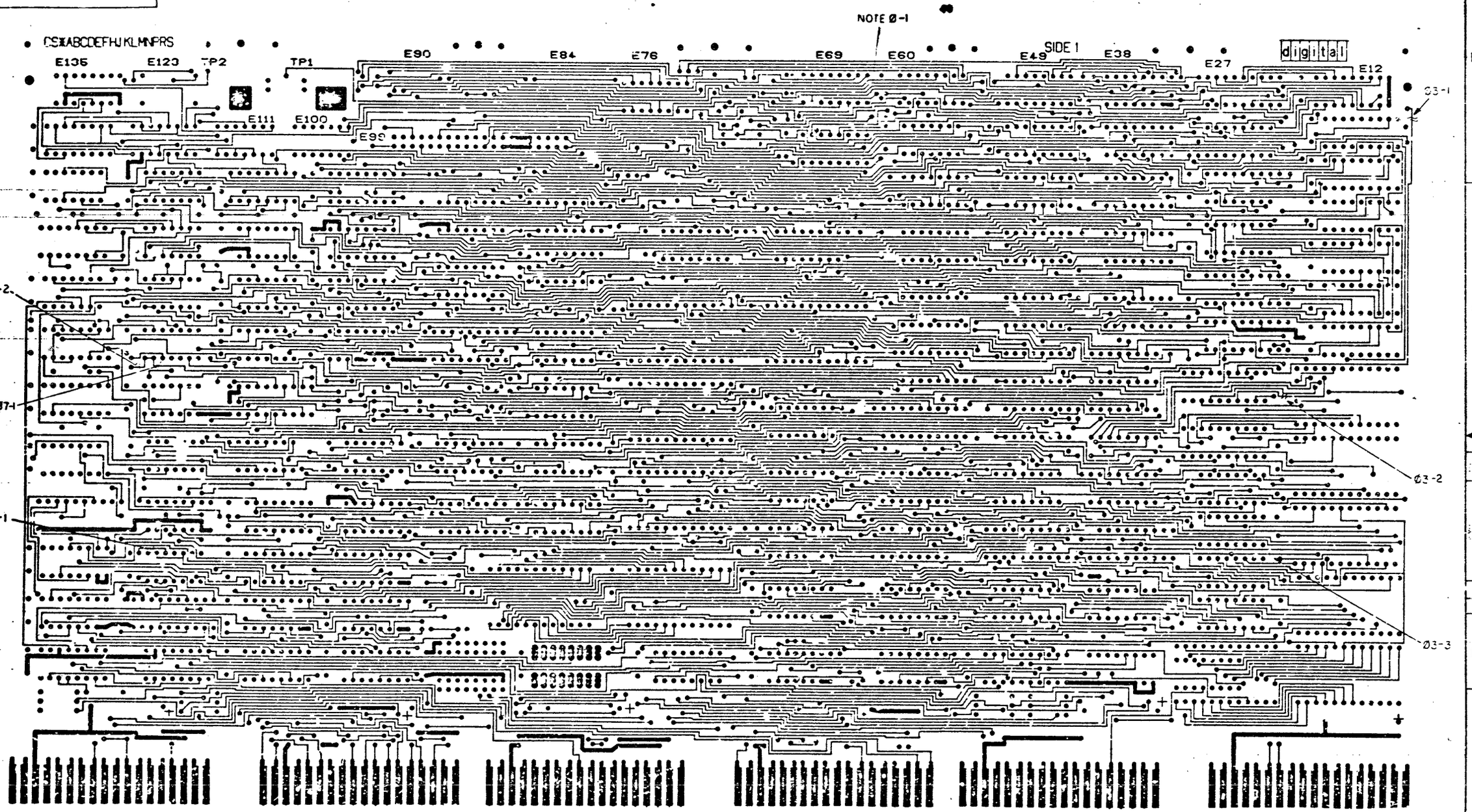
SIGNATURES	DATE
DRN.	
CHK'D.	
ENG.	
PROJ. ENG.	
PROD.	
SCALE 1/1	
SHT. 1 OF 7	
NEXT HIGHER ASSY. B-[illegible]	

digital

TITLE M7PII MICROCONTROLLER

SIZE	CODE	NUMBER	REV
D	[illegible]	M8207-0-0	L

MK 1 MS# 104192

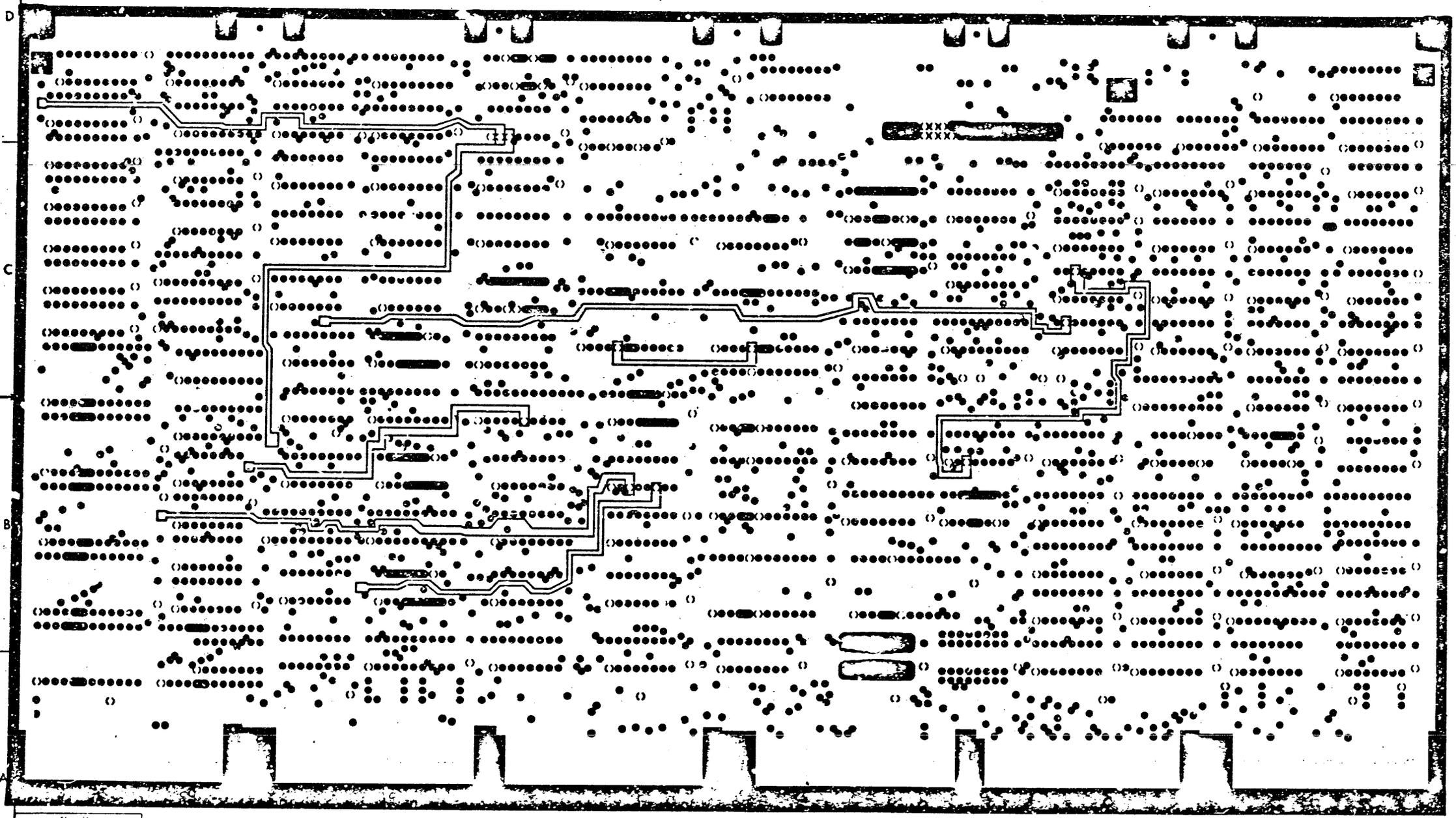


TITLE	SIZE	CODE	NUMBER	REV.
DMPII MICROCONTROLLER	D	UA	M8207-Ø-Ø	L
SCALE 2/1	SHEET 2 OF 7		DIST	

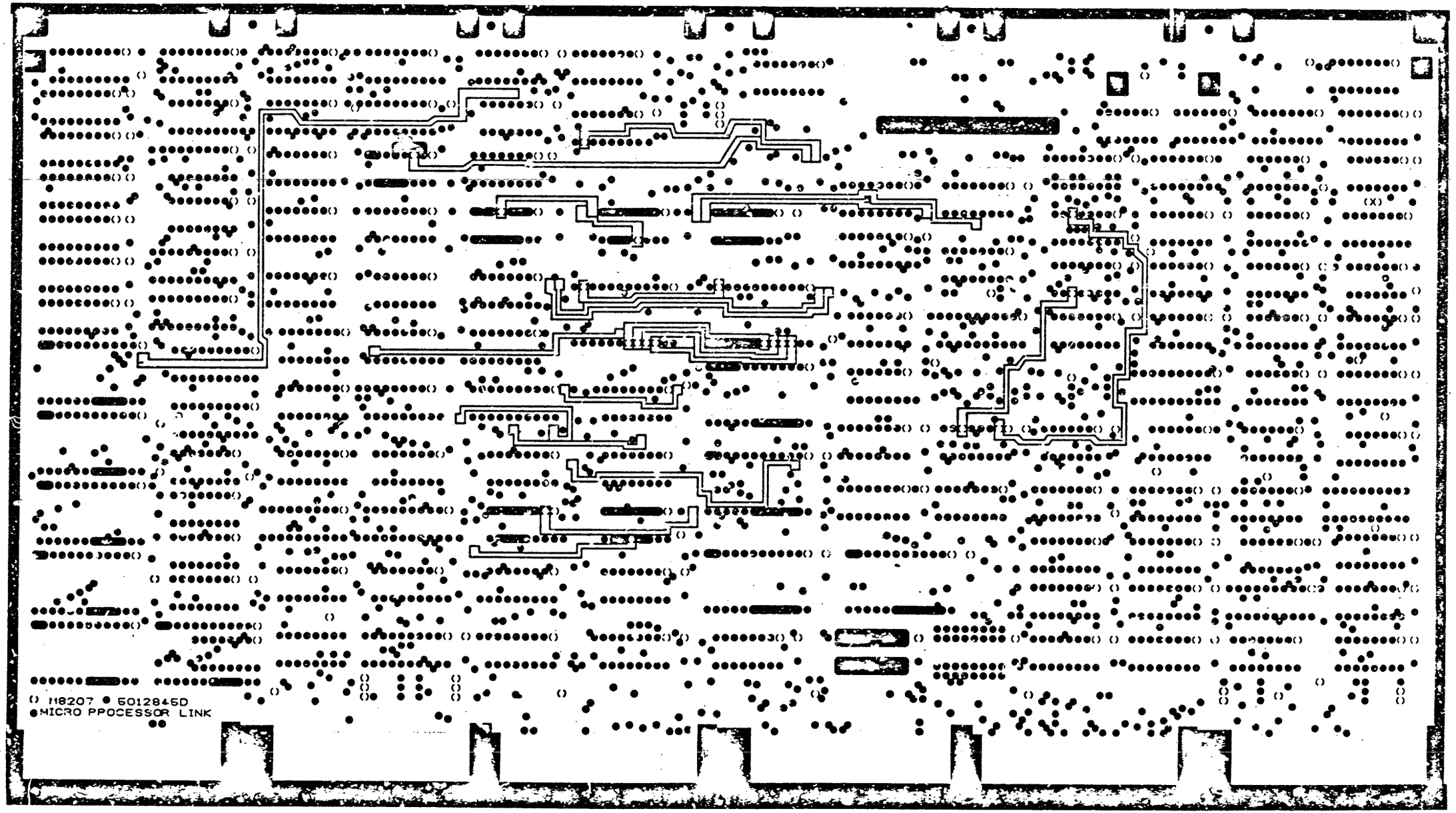
DWM8207-Ø-M

L2 ☐ 50'28450 M8207
MICROPROCESSOR LINK

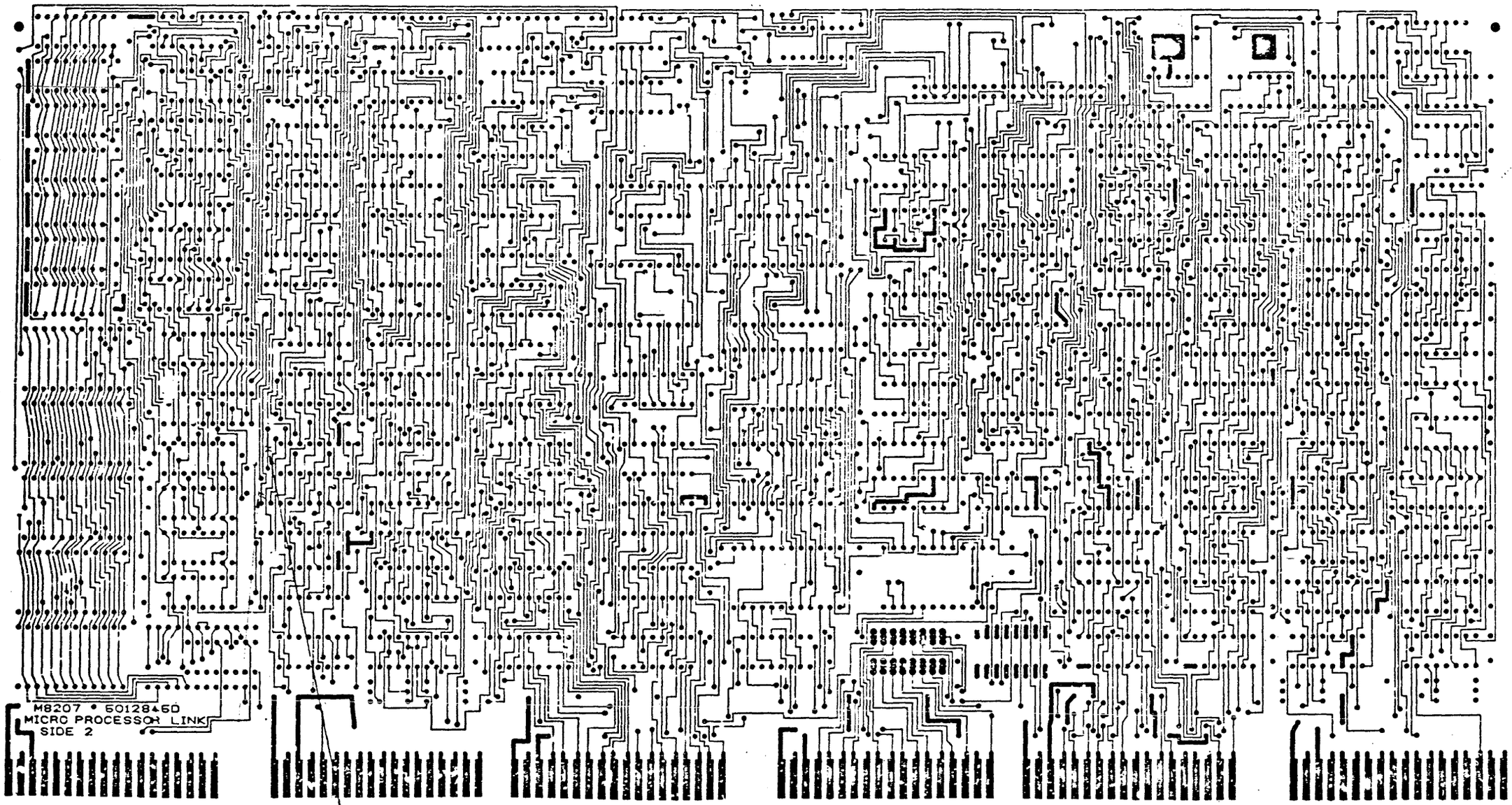
LAYER 2



TITLE	SIZE	CODE	NUMBER	REV
DMPII MICROCONTROLLER	D	UA	M8207-0-0	L
SCALE 2/1 SHEET 3 OF 7			DIST	



TITLE	DMPII MICROCONTROLLER	DUAL	M8207-0-0
SCALE		SHEET 4	



TITLE: DMPII MICRO CONTROLLER	SIZE: D	CODE: UA	NUMBER: M8207-Ø-Ø
SCALE: 2/1	SHEET 5 OF 7		REV: L

REWORK INSTRUCTIONS:

RETROFIT M8207 REV. C

ETCH CUT SIDE 1:

Ø-1. AT E67-9.

ETCH CUT SIDE 2:

Ø-2. AT E30-11.

WIRE ADDS:

Ø-3. FROM E30-11 TO E75-9.

RETROFIT M8207 REV. D.

~~ETCH CUT SIDE 1:~~

~~Ø1 1. AT E113-3.~~

WIRE ADDS:

Ø1-2. FROM E133-8 TO E118-1.
Ø1-3. FROM E133-9 TO E113-3.
Ø1-4. FROM E133-10 TO E109-6.

RETROFIT M8207 REV.E.

ETCH CUT SIDE 1

Ø2-1 AT E114-12.

COMPONENT ADDS

Ø2-2 1K RESISTOR 1300365-00
E85-1 TO E85-16 P.T.H.
Ø2-3 SW 1211164-00 OR 1211164-01.
SW1 IN E85-2

WIRE ADDS

Ø2-4 FROM P.T.H NEAR E114-14 TO E85-1.
Ø2-5 FROM E85-1 TO E85-2.
Ø2-6 FROM E85-15 TO E113-14.

M8207 REV L

ETCH CUTS SIDE 1

Ø7-1 AT E118-2
Ø7-2 AT E118-1

WIRE ADD

Ø7-3 E81-9 TO PTH BELOW LEFT OF E118-1

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: DMP11 MICROCONTROLLER			SIZE: D	CODE: UA
SCALE: —	SHEET 6 OF 7	DIST.	NUMBER: M8207-ØØ	REV: L

2 MK

"RA" ONLY

RETROFIT M8207 REV F. ECO M8207-MK003.

REWORK INSTRUCTIONS M8207-RA VARIATION, CS REV F.

ETCH CUT SIDE 1:

03-1 FROM E21 PIN 13 TO E59 PIN 12 NEAR E11 PIN 10.
03-2 FROM E21 PIN 7 TO E5 PIN 21 BETWEEN E21 AND E5.
03-3 FROM E21 PIN 21 TO E17 PIN 12 NEAR E16 PIN 9.

ETCH CUT SIDE 2:

03-4 AT P.T.H. ABOVE AND TO LEFT OF E31 PIN 8.

WIRE ADDS:

03-5 FROM E5 PIN 21 TO E6 PIN 9.
03-6 FROM VIA HOLE NEAR E12 PIN 9 TO VIA HOLE NEAR E31 PIN 8.
03-7 FROM VIA HOLE NEAR E20 PIN 1 TO E21 PIN 7.
03-8 FROM VIA HOLE NEAR E20 PIN 1 TO VIA HOLE NEAR E16 PIN 12.

M8207 REV L

ETCH CUTS SIDE 1

07-1 AT E118-2
07-2 AT E118-1

WIRE ADDS

07-3 E81-9 TO PTH BELOW LEFT OF E118-1

D DUA M8207-0-0 L

REVISIONS		
CHK	CHANGE NO	REV.

TITLE	SIZE	CODE	NUMBER	REV.
DMP11 MICROCONTROLLER	D	UA	M8207-0-0	L
SCALE NONE SHEET 7 OF 7	DIST.			

MK

AUTOMATED BY PRTLST.3L(37) **PARTS LIST** SHEET A1 OF A3

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	YA	RA	REFERENCE DESIGNATOR
1	1	D-MD-5012845-0-0	5012845-00	M8207	1	1	1	
2	2		1000042-00	1000.0 MMF 100V 5%200PPM MICA	3	3	3	C1,C7,C11
3	3		1010031-00	.15 MFD 50V 10% M.POLYCARB	1	1	1	C3
4	4		1000073-00	39 MFD 10V 10% S.TANT	1	1	1	C4
5	5	NOTE 1	1012084-01	8 MFD 25V +75-10% AL EL	7	7	7	C5,C12-C17
6	6		1000017-00	100.0 MMF 300V 5%200PPM MICA	2	2	2	C6,C8
7	7		1000026-00	580.0 MMF 100V 5%200PPM MICA	2	2	2	C9,C10
8	8		1000011-00	47.0 MMF 100V 5%200PPM MICA	1	1	1	C18
9	9		1002427-00	15.0 MMF 100V 5%200PPM MICA	1	1	1	C19
10	10		1010274-01	.22 MFD 50V +80-20% Z5U CER	25	25	25	C20-C24,C27-C33,C40-C42,C49,C50,
							CONT	C53-C60
11	11		1001610-01	.01 MFD50/100V +80-20% DISC	41	41	41	C62-C67,C69-C74,C76-C104
12	12		1209941-02	HEADER 100 40°DS RT ANGLE	1	1	1	J1
13	13		1212385-04	SKT,IC 24PIN DIP GOLD PLATE	6	6	6	XE1-XE5,XE14
14	14		1216983-02	HANDLE,MODULE,HEX TWO EJECTORS	1	1	1	
15	15		1209838-00	SKT,IC 16PIN DIP GOLD PLATE	1	1	1	XE77
16	16		1300229-00	100.0 .25 W 5.0 % CC	6	6	6	R1,R22,R23,R35,R37,R41
17	17		1300365-00	1.0 K .25 W 5.0 % CC	17	17	17	R2-R8,R12-R17,R24,R36,R39,R40
18	18		1300271-00	220.0 .25 W 5.0 % CC	1	1	1	R9
19	19		1301890-00	560.0 .25 W 5.0 % CC	1	1	1	R10
20	20		1301322-00	180.0 .25 W 5.0 % CC	5	5	5	R11,R29,R32-R34
21	21		1309419-00	19.60 K .25 W 1.0 % RN55D-F10	1	1	1	R18
22	22		1302514-00	39.0 K .25 W 5.0 % CC	1	1	1	R19
23	23		1301317-00	10.0 .25 W 5.0 % CC	3	3	3	R20,R21,R38
24	24	BLANK		*** THIS ITEM IS NOT USED ***	-	-	-	
25	25		1303179-00	8.20 K .25 W 5.0 % CC	2	2	2	R26,R27
26	26		1302177-00	47.0 K .25 W 5.0 % CC	2	2	2	R25,R28
27	27		1300309-00	390.0 .25 W 5.0 % CC	2	2	2	R30,R31
28	28		23027F4-00	F4-01	-	1	-	E1
29	29		2114523-00	4K MOS RAM 55NS 18PIN	8	8	8	E6-E12,E27

REVISION HISTORY			BASIC PART NO: M8207														
ENG	ECO NUMBER	REV	SECTION A OF A	DRN: J.PLANTE	DATE: 14-MAR-79	DEP	D	I	G	I	T	A	L
	MK002	D	SECTION.VARIATION INDEX	CHK'D: J.PELLETIER	DATE: 14-MAR-79	TITLE PARTS LIST							
PA	M8207-MK003	E	[A] 00,YA,RA			DAP11 MICROCONTROLLER							
PA	M8207-MK005	H	[B]	DES.ENG: P.ALOISI	DATE: 14-MAR-79								
PA	M8207-MK006	J	[C]										
RH	M8207-MK007	K	[D]	RESP.ENG.: P.ALOISI	DATE: 07-JAN-81	DOCUMENT NUMBER							
			[E]			SIZE	CODE	NUMBER	REV
			[F]	MFG.ENG.: W.KNAPP	DATE:	K	PL	M8207-0-0	K
			[H]						
			[J]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME:	EDIT #
			[K]	D-UA-M8207-0-0	SB-DD-M8207-0	MK0230.PLS	17
			[L]				
			[M]				
			[N]				

MK

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	YA	RA	REFERENCE DESIGNATOR
30	30		1911579-00	8641 TRANSCEIVER,BUS,QUA	10	10	10	E50,E51,E61,E62,E91-E93,E101,
							CONT	E102,E115
31	31		1913294-00	93S16 COUNTER,SYNCH UP BIN	7	7	7	E15-E18,E24-E26
32	32		1914214-00	LS374 FF-D OCTAL EDGE TRIG	4	4	4	E20-E23
33	33		1912847-00	LS157 MUX 1 OF 2(QUAD)	9	9	9	E29,E31,E40,E42,E52,E63,E70,E79,
							CONT	E94
34	34		1913671-00	74S374 FF-D OCTAL TRISTATE	3	3	3	E30,E41,E54
35	35		23202A1-00	A1-07	1	1	1	E32
36	36		1911675-00	74S138 DECODER/DEMUX 3-8 LIN	4	4	4	E33,E56,E80,E96
37	37		1912728-00	74S251 MUX 1 OF 8 TRI-STA	8	8	8	E34-E36,E46-E48,E57,E58
38	38		1912697-00	LS174 FF-D HEX W/CLEAR	3	3	3	E37,E43,E97
39	39		1912696-00	LS194A SHIFT REG.,4BIT BI-D	2	2	2	E38,E49
40	40		1913462-00	74S240 OCTAL BUFFER,INVERTI	4	4	4	E39,E88,E106,E113
41	41		23120A1-00	A1-07	1	1	1	E44
42	42		1910539-00	74S20 NAND GATE-DUAL 4INPU	1	1	1	E45
43	43		1912647-00	LS257 MUX 1 OF 2 (QUAD)	2	2	2	E53,E64
44	44		1910956-00	74S151 MUX 1 OF 8	1	1	1	E55
45	45		1910532-00	74S00 NAND GATE-QUAD 2IN	2	2	2	E59,E108
46	46		1910549-00	74S158 MUX 1 OF 2 (QUAD)	1	1	1	E60
47	47		23121A1-00	A1-07	1	1	1	E65
48	48		1910531-00	DEC 74S181 ALU-4BIT	2	2	2	E66,E74
49	49		1910957-00	74S175 FF-D QUAD COMMON CLO	4	4	4	E67,E75,E89,E99
50	50		1910548-00	74S157 MUX 1 OF 2 (QUAD)	3	3	3	E68,E83,E86
51	51		1912837-00	LS123 ONE SHOT-DUAL,RETRIG	3	3	3	E69,E129,E132
52	52		1912741-00	82S112 MEMORY READ/WRITE, 3	4	4	4	E71-E73,E78
53	53		1912853-00	LS175 FF-D QUAD	1	1	1	E76
54	54		1905580-00	DEC 7450 A-O-I XPNDBLE GATE-D	2	2	2	E81,E117
55	55	C-IA-5400778-0-0	5408778-00	PLUG PRICRITY	1	1	1	E77
56	56		1910544-00	74S74 FF-D DUAL,EDGE TRIGG	4	4	4	E82,E105,E109,E121
57	57		1912661-00	74S189 MEMORY READ/WRITE	2	2	2	E84,E90
58	58		1910537-00	74S11 AND GATE-TRIPLE 3INP	2	2	2	E95,E119
59	59		1912845-00	LS153 MUX 1 OF 4 (DUAL)	1	1	1	E98
60	60		1909705-00	DEC 8881 NAND GATE-QUAD 2IN C	2	2	2	E100,E114
61	61		1912842-00	LS138 DECODER-THREE INPUT,	1	1	1	E104
62	62		1912805-00	LS08 AND GATE-QUAD 2IN,PO	1	1	1	E103
63	63		1910536-00	74S10 NAND GATE-TRIPLE 3IN	1	1	1	E107
64	64		1911712-00	74S51 AND-OR GATE-INVERT D	2	2	2	E110,E118
65	65		1910542-00	74S64 A-O-I GATE 4-2-3-2	1	1	1	E111
66	66		1914438-00	DC 013 UNIBUS INTERRUPT-BIP	2	2	2	E112,E124
67	67		1912824-00	LS74 FF-D DUAL,EDGE TRIGG	2	2	2	E116,E120
68	68		1910545-00	74S112 FF-JK DUAL,EDGE TRIG	3	3	3	E122,E134,E135
69	69		1912395-00	DM 8136 COMPARATOR-6BIT UNIF	2	2	2	E125,E126
70	70		1811660-05	OSCILLATOR, XTAL 33.330 MHZ	1	1	1	E123
71	71		1912834-00	LS112 FF-JK DUAL,EDGE TRIG	1	1	1	E130
72	72		1909004-00	DEC 7402 NOR GATE-QUAD 2IN	1	1	1	E131
73	73		1912389-00	74S08 AND GATE-QUAD 2IN,PO	1	1	1	E133
74	74		1211164-04	SW,DIP 1P 1A 8POS	1	1	1	E28
75	75		1211164-06	SW,DIP 1P 1A 10POS	1	1	1	E127

B	I	G	I	T	A	L	TITLE	SIZE	CODE	DOCUMENT NUMBER	REV
							DMP11 MICROCONTROLLER	K	PL	M8207-0-0	K
							SECTION A OF A				

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	YA	RA	REFERENCE DESIGNATOR
76	76		1300005-03	R NETWORK 13-10K 5.0 % 14PIN	1	1	1	E128
77	77		9000024-01	EYELET,ROLL FLANGE .120DX .192	10	10	10	
78	78		9007112-00	TERM QUICK 1POS ADAPTER	2	2	2	TP1,TP2
79	79		9009000-00	EYELET,ROLL FLANGE .1210DX .156	2	2	2	
80	80		9009185-00	JUMPER, WIRE, INSULATED, BLACK B	1	1	1	W2
81	81		23002F4-00	F4-01	-	1	-	E2
82	82		23028F4-00	F4-01	-	1	-	E3
83	83		23029F4-00	F4-01	-	1	-	E4
84	84		23030F4-00	F4-01	-	1	-	E5
85	85		23006F4-00	F4-01	-	1	-	E14
86	86	C-M0-74219[illegible]-0-0	7421915-00	CKIP MODULE VARIATION I.D. "YA"	-	1	-	
87	87	NOTE 2	1211164-00	SW,DIP 1P 1A 4POS	1	1	1	E85
88	88		7421915-01	CLIP MODULE VARIATION I.D. "RA"	-	-	1	
89	89		23127F3-00	F3-03	-	-	1	E1
90	90		23100F3-00	F3-03	-	-	1	E2
91	91		23101F3-00	F3-03	-	-	1	E3
92	92		23128F3-00	F3-03	-	-	1	E4
93	93		23103F3-00	F3-03	-	-	1	E5
94	94		23104F3-00	F3-03	-	-	1	E14
95	95		9105740-55	WIRE(WRAP)30AWG UL1423	A/R	A/R	A/R	

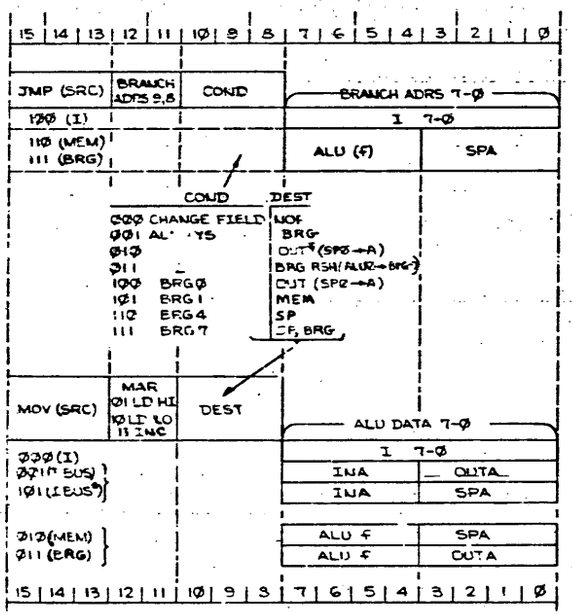
96 NOTE: NOTE 1. 1004813-00 MAY BE USED INSTEAD OF 1012084-01.
97 NOTE: NOTE 2. 1211164-01 MAY BE USED INSTEAD OF 1211164-00

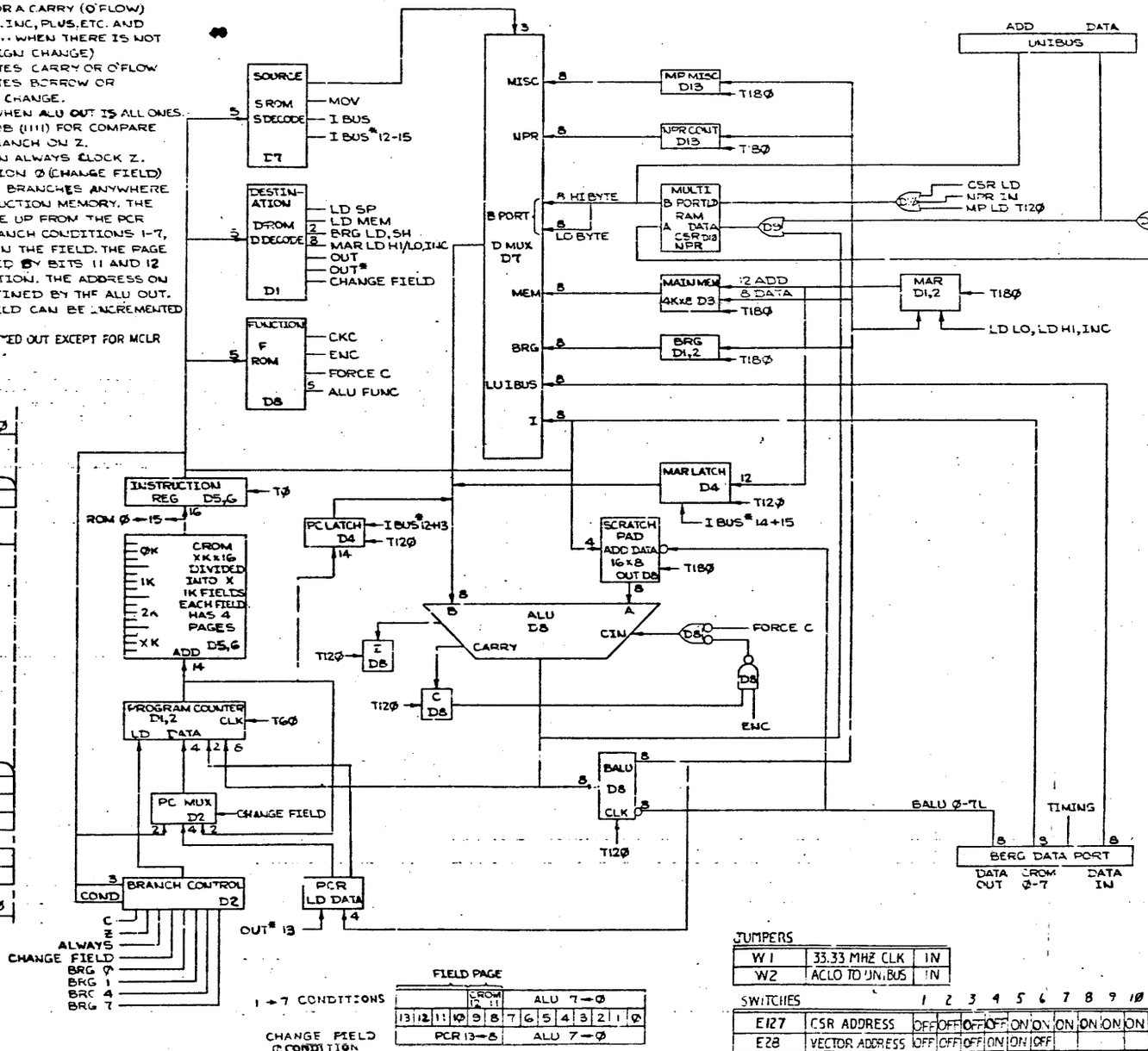
DIGITAL	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
	DMP11 MICROCONTROLLER		K	PL	M8207-0-0	K

ALU f	CODE	
25 COMP SUB	(A-B)	1110
IS COMP SUB	(A-B-1)	1111
ADD	(A,B)	0000
ADD W/C	(A,B,C)	0001
SUB W/C	(A-B-C)	0010
INC A	(A+1)	0011
A PLUS C	(A,C)	0100
2A	(A,A)	0101
2A W/C	(A,A,C)	0110
DEC A	(A-1)	0111
SEL A	(A)	1000
SEL B	(B)	1001
A OR $\overline{B}$	(A+B)	1010
A AND B	(AB)	1011
A OR B	(A+B)	1100
A XOR B	A⊕B	1101

MOV INST CLOCK C

NOTES
1. C WILL ASSERT FOR A CARRY (O'FLOW) DURING ANY ADD.INC, PLUS.ETC. AND FOR A SUB.DEC.... WHEN THERE IS NOT A BORROW OR (SIGN CHANGE)
   ADD: C↑ INDICATES CARRY OR O'FLOW
   SUB: C↑ INDICATES BORROW OR SIGN CHANGE.
2. Z WILL ASSERT WHEN ALU OUT IS ALL ONES.
3. USE 1 IS COMP SUB (1111) FOR COMPARE FOLLOWED BY BRANCH ON Z.
4. MOV INSTRUCTION ALWAYS CLOCK Z.
5. BRANCH CONDITION Ø (CHANGE FIELD) UNCONDITIONALLY BRANCHES ANYWHERE IN THE XK INSTRUCTION MEMORY. THE ADDRESS IS MADE UP FROM THE PCR AND THE ALU. BRANCH CONDITIONS 1-7, BRANCHES WITHIN THE FIELD. THE PAGE BITS ARE DEFINED BY BITS 11 AND 12 OF THE INSTRUCTION. THE ADDRESS ON THE PAGE IS DEFINED BY THE ALU OUT.
6. ANY PAGE OR FIELD CAN BE INCREMENTED INTO.
7. CSR BYTE ONE IS LOADED OUT EXCEPT FOR MCLR WHEN SWITCH IS Ø.





FIELD PAGE

	CROM 12 11	ALU 7→Ø							
13 12 11	10	9	8	7	6	5	4	3	2	1	Ø
PCR 13→8		ALU 7→Ø							

1→7 CONDITIONS

CHANGE FIELD Ø CONDITION

JUMPERS

W1	33.33 MHZ CLK	IN
W2	ACLO TO UNIBUS	IN

SWITCHES

		1	2	3	4	5	6	7	8	9	10	
E127	CSR ADDRESS	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	(760010)
E28	VECTOR ADDRESS	OFF	OFF	OFF	ON	ON	OFF					(300)
	RUN								ON			
	CSR DISABLE								OFF			
E85	CSR1 LOCK	ON	NOTE 7									

REV	CHK	CHANGE NO.	DIVISIONS
D		M8207-MK001	P. ALOISI
E		M8207-MK002	P. ALOISI
F		M8207-MK003	P. ALOISI
H		M8207-MK004	P. ALOISI
K		M8207-MK006	P. ALOISI
L		M8207-MK007	P. ALOISI

DRN.	
CHK'D	
ENG.	
PROJ. ENG.	
PROD.	
NEXT HIGHER ASSY.	
SCALE	
SHEET	OF 2

FIRST USED ON: DMP11-AD

TITLE: DMP11 MICROCONTROLLER

SIZE D | CODE CS | NUMBER M8207-Ø-1 | REV. L | DIST.

digital

UNIBUS CONTROL & STATUS REGISTERS

(SEE NOTE-1)

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	CSR ADDRESS
RUN	MCLR		STEP LU	LU LOOP	ROM 0	ROM 1	STEP UP	CSR BYTE 0								76XXX0
CSR BYTE 3								CSR BYTE 2								76XXX2
CSR BYTE 5								CSR BYTE 4								76XXX4
CSR BYTE 7								CSR BYTE 6								76XXX6

ROM I/O

				CRAM ADDRESS (M8206 ONLY)												4
ROM 0=0 ROM 1=0 CSR 7+6(W/R) ROMC=1 ROM 1=0 CROM DATA ROM 0=1 ROM 1=1 MAINTENANCE INSTRUCTION(W/R) M8207(R) M8206(WR)																6

CRAM WRITE (M8206 ONLY) (ROM 0=1 ROM 1=0)

				(M8206 ONLY) CRAM ADDRESS (ROM 0=1)												4
← CRAM DATA ⊕ CRAM WRITE →																6

UP & LU CONTROL & STATUS REGISTERS

UNIBUS CSR'S

OUT*/IBUS* 7	6	5	4	3	2	1	0		OUT/IBUS 7	6	5	4	3	2	1	0	UP DEVICE ADDRESS (OCTAL)
CSR BYTE 0								0	IN DATA LB								0
RUN	MCLR			STEP LU	LU LOOP	ROM 0	ROM 1	STEP UP	1	IN DATA HB								1
CSR BYTE 2								2	OUT DATA LB								2
CSR BYTE 3								3	OUT DATA HB								3
CSR BYTE 4								4	IN BA 7:0								4
CSR BYTE 5								5	IN BA 15:8								5
CSR BYTE 6								6	OUT BA 7:0								6
CSR BYTE 7								7	OUT BA 15:8								7

UP NPR DATA & BA REGISTER (SEE NOTE-3)

UP NPR CONTROL

BYTE XFER (EO)	MAR 16	MAR 8	OUT NPR (C1)	IN BA 17	IN BA 16	NOT LAST XFER	NPR RQ
							10

UP MISC

EJS RQ	VECTOR XX4	R/W	PGM CLK	OUT BA 17	OUT BA 16	AC LO	NOU EX MEM
							11

PROGRAM COUNTER

PC 7→0	12
Z C PC 13→8	13

(SEE NOTE 2)

MEMORY ADDRESS REGISTER

MAR 7→0	14
LURDY MAR 12→8	15

UNDEFINED

	16
YC EXTENDED UNIBUS ADDRESS	17

LU DEVICE REGISTERS (SEE NOTE-4)

											W/R	Ø
TRANSMIT DATA SILO											W	
RECEIVER DATA SILO											R	
DC	CACT	SW	ORDY			FGAINTABORT SW		TECOM SW	TSOM SW	LLDR		11
IC	RACT	LULP	IRDY	OVRR		RABT	EBLK	SCC				12
POLL	DTR	SELFR	HDX	MAINT		MAINT		SELSEL				13
RING	DTR	RTS	HDX			CS		STBY	CARR			
READY	TXENA	DISSI	RDAT			WAX	EUAX	AX2	AX1			14
SW PACK/EXTENDED LOW BYTE												15
SW PACK/EXTENDED HIGH BYTE												16
CRC		IDLE	SECA	STRI								17
SIGQ	SIGR	S1										
RECEIVER DATA USYRT												AX0-15 (READ ONLY)
RERR	BITS ASSEMBLED				ROR	RAB	RSOM	RSOM				AX0-16 (READ ONLY)
TRANSMIT DATA USYRT												AX1-15
TERR	NOT USED				TUGA	TXAB	TECOM	TSOM				AX1-16
BCP SYNC CHARACTER/BOP SCC ADDRESS												AX2-15
APA	DDCMP	STRIP	SECA	IDLE	CRC TYPE							AX2-16 (READ ONLY)
422	XYZ	ENCLA	V35	INT			0	TEST				AX3-15
TX CHARACTER LGTH			EXA	EXCC	REC CHARACTER LGTH							AX3-16

NOTES

1. UNIBUS CSR'S ARE IN THE MULTIPORT RAM. BYTE 1 HAS A HARDWARE STATUS REGISTER THAT IS ADDRESSABLE ONLY FROM THE UNIBUS. IF THE UP ADDRESSES BYTE 1, IT WILL ONLY WRITE INTO THE RAM. ALL THE OTHER CSR BYTES ARE DEFINED BY THE MICROCODE EXCEPT IN MAINTENANCE MODE.
2. IBUS* 12-15 REFLECT THE PROGRAM COUNTER FOR THE INSTRUCTION BEING EXECUTED AND THE MEMORY ADDRESS REGISTER FOR THE PREVIOUS INSTRUCTION.

   OUT* 13 IS THE PCR WHICH IS A SHADOW REGISTER. THE CONTENTS OF THE PCR WILL BE TRANSFERED TO THE PC ONLY ON A BRANCH (CHANGE FIELD).
3. NPR DATA AND BA REGISTER ARE RAM, HOWEVER ADDRESS ASSIGNMENTS ARE HARDWIRED AND CANNOT BE REDEFINED.
4. OPTIONAL : THE BIT ASSIGNMENTS ARE ONLY VALID WITH THE M8203 LINE UNIT.

REVISIONS		
DNI	CHANGE NO.	REV.

DRN.			
CHK'D			
ENG.			
PROJ. ENG.			
PROG.			
NEXT HIGHER ASSY.			
SCALE			
SHEET	2	OF	2

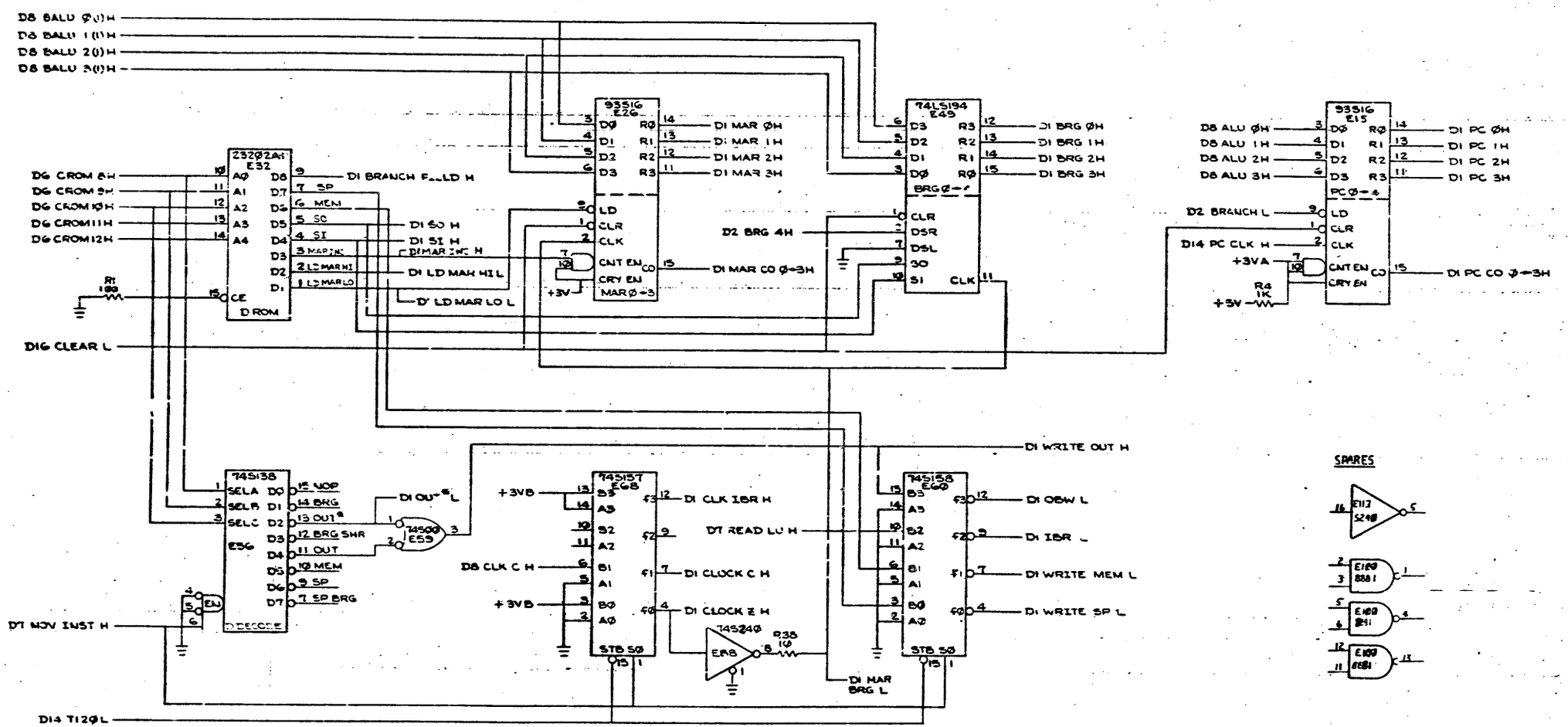
FIRST USED ON: DMP11-AD digital

TITLE: DMP11 MICROCONTROLLER

SIZE	CODE	NUMBER	REV.
D	CS	M8207-0-1	L

DIST.

M8207-0-1 REV L
CODE CS SIZE D

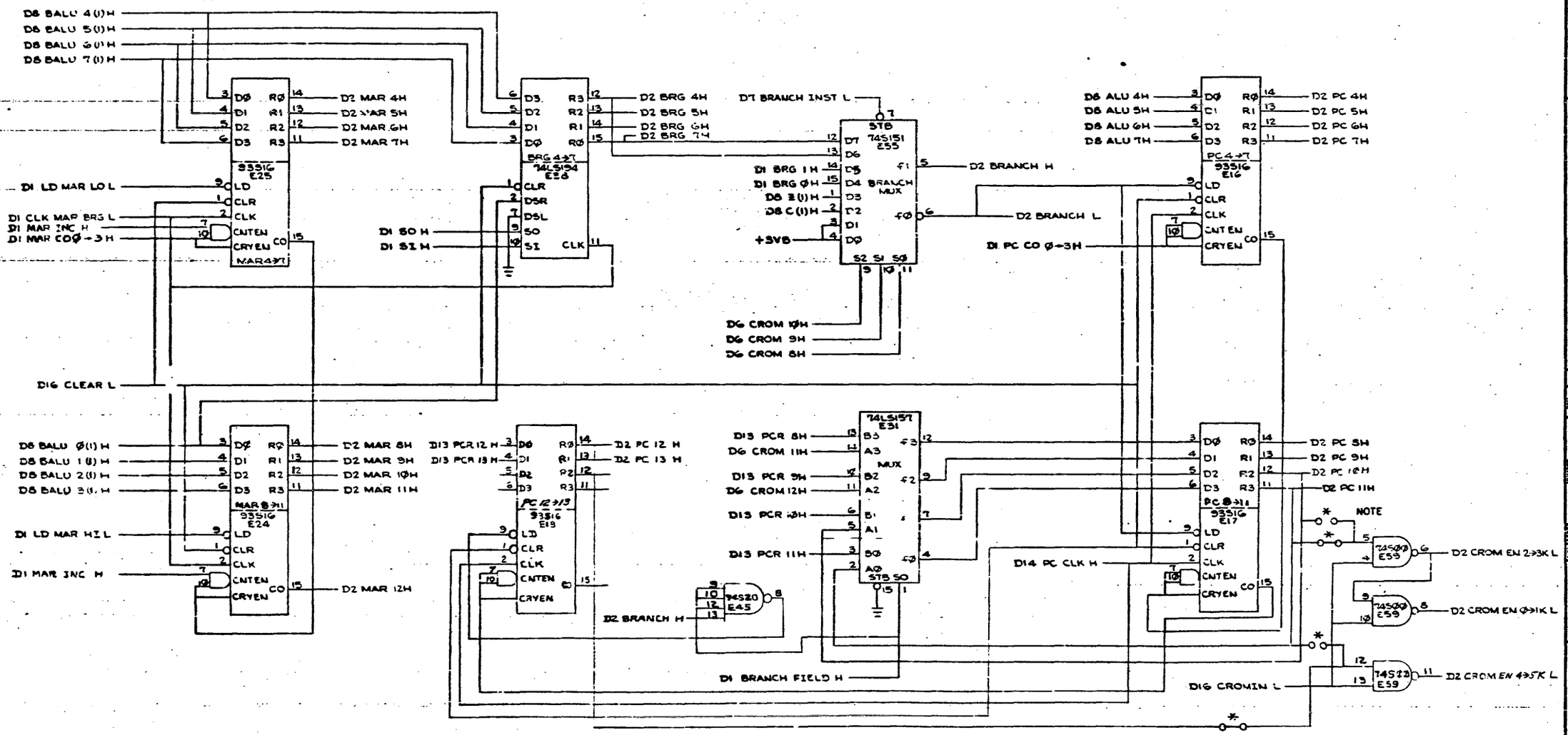


BRG Ø-3, MAR Ø-3, PC Ø-3, D ROM REG CLKS

DRN'S		FIRST USED ON	digital
CHK'D		TITLE	DMP11 MICROCONTROLLER (D1)
ENG			
PROJ. ENG.			
PROD.			
NEXT HIGHER ASSY.			
SCALE		SIZE D	CODE CS
SHEET 3 OF 21		NUMBER M8207-Ø-1	REV. L
		DIST.	

M8207-Ø-1 REV L

*NOTE: OPTIONAL WIRING.
CIRCLES SHOWN CONNECTED ARE FOR M8207-YA ONLY.
CIRCLES NOT CONNECTED WOULD BE FOR M8207-RA ONLY.



BRG 4→7, MAR 4→11, PC 4→13

DRN		FIRST USED ON	
CHK'D			DIGITAL
ENG.		TITLE	DMP11 MICROCONTROLLER (D2)
PROJ. ENG.			
PROD.			
NEXT HIGHER ASSY.			
E-DIS-MTS-207-A		SIZE D	CODE CS
SCALE		NUMBER M8207-Ø-1	REV. L
SHEET 4 OF 21		D'ST.	

REVISIONS: REV. | CHANGE NO. | CHK

D1 MAR ØH
D1 MAR 1H
D1 MAR 2H
D1 MAR 3H
D2 MAR 4H
D2 MAR 5H
D2 MAR 6H
D2 MAR 7H
D2 MAR 8H
D2 MAR 9H
D2 MAR 10H
D2 MAR 11H

D1 WRITE MEM –

2147-3 E6 MEM 0 — A0–A11 — OUT 7 — D3 MEM ØH — DIN WE CS — D8 BALU Ø(1)H –
2147-3 E7 MEM 1 — A0–A11 — OUT 7 — D3 MEM 1H — DIN WE CS — D8 BALU 1(1) H
2147-3 E8 MEM 2 — A0–A11 — OUT 7 — D3 MEM 2H — DIN WE CS — D8 BALU 2(1) H
2147-3 E9 MEM 3 — A0–A11 — OUT 7 — D3 MEM 3H — DIN WE CS — D8 BALU 3(1) H

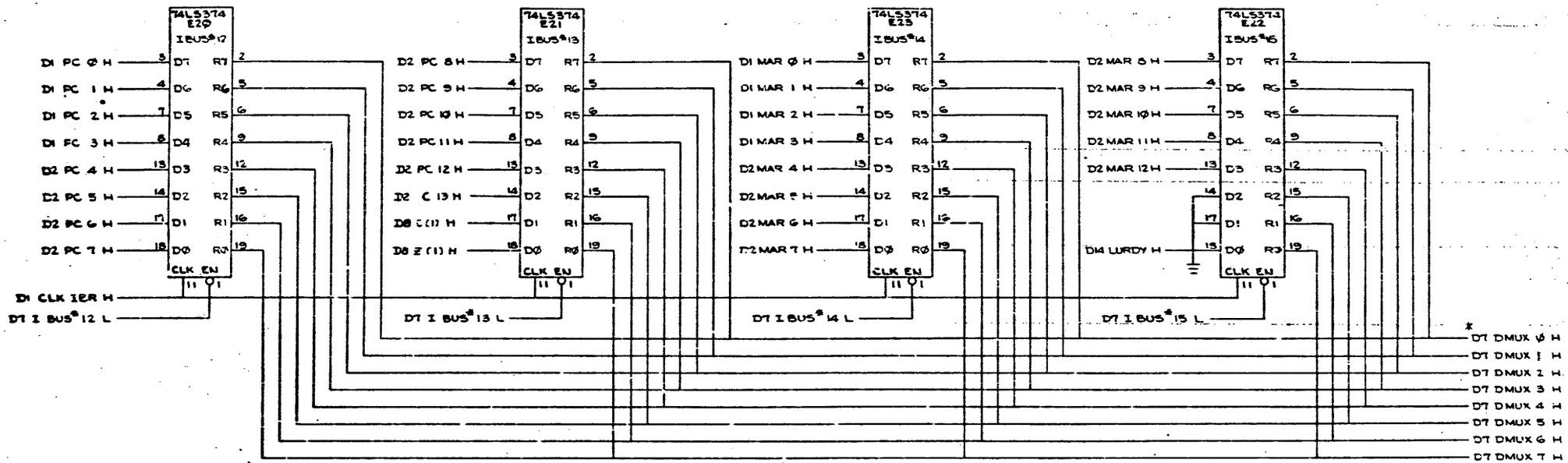
2147-3 E10 MEM 4 — A0–A11 — OUT 7 — D3 MEM 4H — DIN WE CS — D8 BALU 4(1) H
2147-3 E11 MEM 5 — A0–A11 — OUT 7 — D3 MEM 5H — DIN WE CS — D8 BALU 5(1) H
2147-3 E12 MEM 6 — A0–A11 — OUT 7 — D3 MEM 6H — DIN WE CS — D8 BALU 6(1) H
2147-3 E27 MEM 7 — A0–A11 — OUT 7 — D3 MEM 7H — DIN WE CS — D8 BALU 7(1) H

MAIN MEMORY 3-7

DRN		FIRST USED ON	DIGITAL
CHK'D		TITLE	CMPII MICROCONTROLLER (D3)
ENG.			
PROJ. ENG.			
PROD.			
NEXT HIGHER ASSY.			
SCALE		SIZE D	CODE CS
SHEET 5 OF 21		NUMBER M8227-0-1	REV. L
		DIST.	

REVISIONS — REV. — CHK — CHANGE NO.

DCS M8227-0-1 L

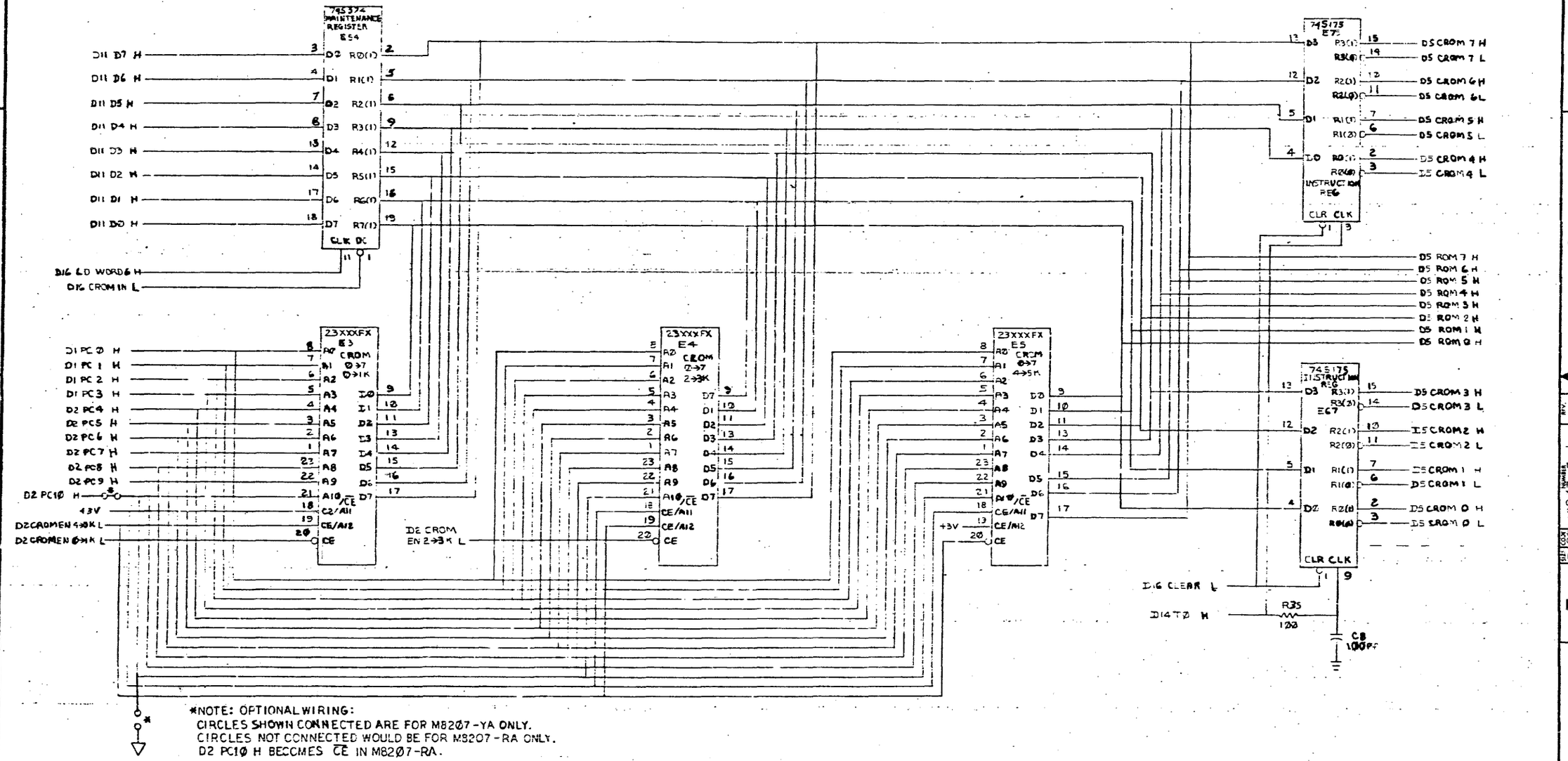


* DMUX SIGNALS ARE TRI STATE

IBUS* REGISTER 12-15

DRN		FIRST USED ON	digital
CHK'D			
ENG		TITLE	DMP11 MICROCONTROLLER (D4)
PROJ. ENG.			
PROD			
NEXT HIGHER ASSY.			
B-DD-M8207-7		SIZE D	CODE CS
SCALE		NUMBER M8207-0-1	REV. L
SHEET 6 OF 21		DIST.	

REVISIONS — CHANGE NO. — REV.



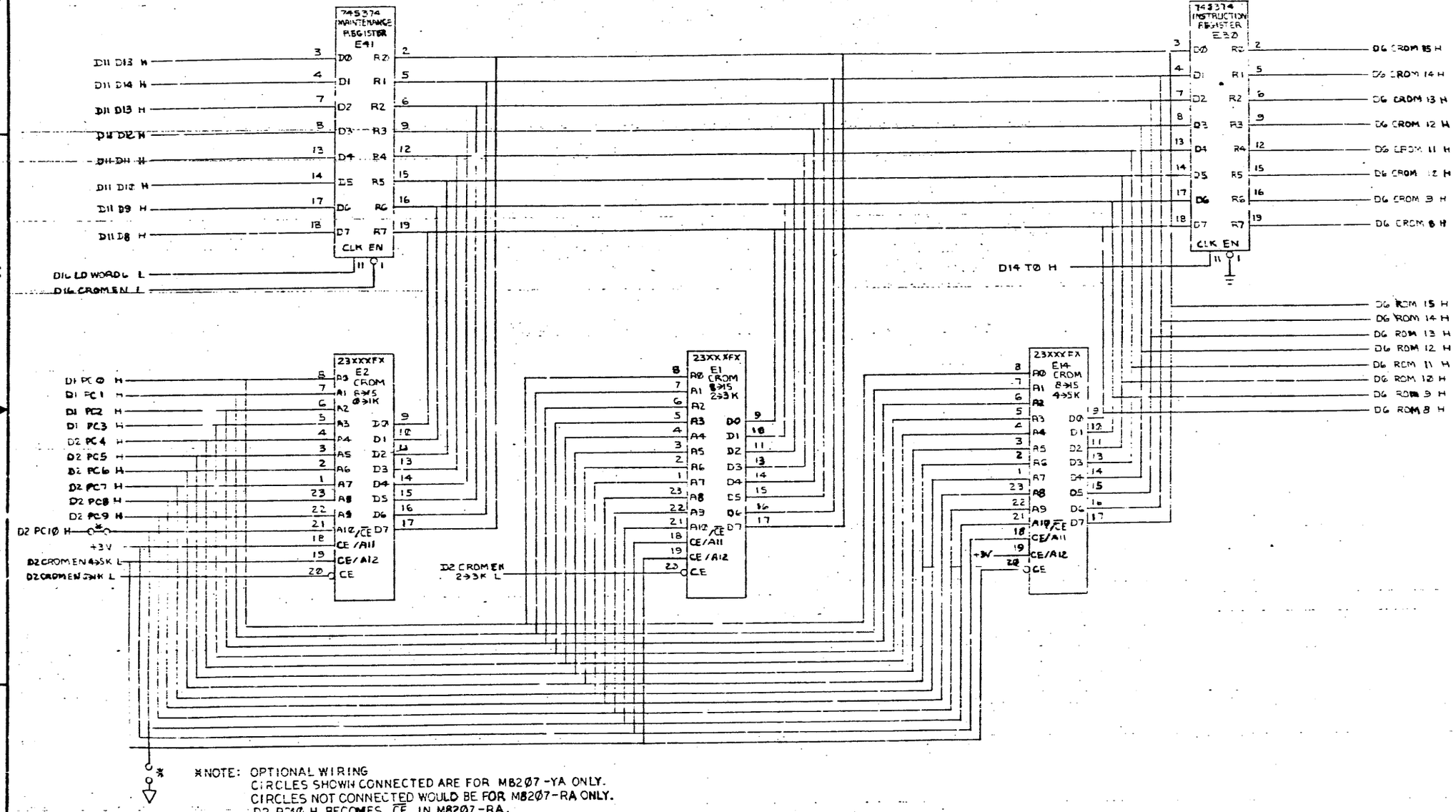
*NOTE: OPTIONAL WIRING:
CIRCLES SHOWN CONNECTED ARE FOR M8207-YA ONLY.
CIRCLES NOT CONNECTED WOULD BE FOR M8207-RA ONLY.
D2 PC10 H BECOMES $\overline{CE}$ IN M8207-RA.

(CROM + IR + MAINTENANCE @→7)

REVISIONS		
CHK	CHANGE NO	REV.

TITLE DMPH MICROCONTROLLER			SIZE D	CODE CS	NUMBER M8207-0-1	REV. L
SCALE	SHEET 7 OF 21		DIST.			

DCS M8207-0-1 REV. L



*NOTE: OPTIONAL WIRING
CIRCLES SHOWN CONNECTED ARE FOR M8207-YA ONLY.
CIRCLES NOT CONNECTED WOULD BE FOR M8207-RA ONLY.
D2 PC10 H BECOMES $\overline{CE}$ IN M8207-RA.

(CROM + IR + MAINTENANCE 8-15)

REVISIONS		
CHK	CHANGE NO	REV.

TITLE DMP11 MICROCONTROLLER		SIZE D	CODE CS	NUMBER M8207-0-1
SCALE	SHEET 5 OF 21	DIST.		REV. L

MK

74S251

S	I0	I1	
H	H	H	UF MISC
H	H	L	NPR CNTL
H	L	H	B PORT ODD
H	L	L	B PORT EVEN
L	H	H	BRG
L	H	L	MEM
L	L	H	LUIBUS
L	L	L	I

745251 E47 DMUX0
D13 NON EX MEM H
D13 NPR RQ H
DIØ B PORT 8 H
DIØ B PORT Ø H
DI BRG Ø H
D3 MEM Ø H
DI6 LUIBUS Ø H
D5 CROM Ø H
→ D7 DMUX Ø H

745251 E37 DMUX1
D13 OAC H
D13 NOT LAST XFER H
DIØ B PORT 9 H
DIØ B PORT 1 H
DI BRG 1 H
D3 MEM 1 H
DI6 LUIBUS 1 H
D5 CROM 1 H
→ D7 DMUX 1 H

745251 E35 DMUX2
D13 OUT A16 H
D13 IN A16 H
DIØ B PORT 10 H
DIØ B PORT 2 H
DI BRG 2 H
D3 MEM 2 H
DI6 LUIBUS 2 H
D5 CROM 2 H
→ D7 DMUX 2 H

745251 E34 DMUX3
D13 OUT A17 H
D13 IN A17 H
DIØ B PORT 11 H
DIØ B PORT 3 H
DI BRG 3 H
D3 MEM 3 H
DI6 LUIBUS 3 H
D5 CROM 3 H
→ D7 DMUX 3 H

745251 E46 DMUX4
D13 TIMER L
D13 OUT MPR (C1) H
DIØ B PORT 12 H
DIØ B PORT 4 H
D2 BRG 4 H
D3 MEM 4 H
DI6 LUIBUS 4 H
D5 CROM 4 H
→ D7 DMUX 4 H

745251 E45 DMUX5
D13 R/W H
D2 MAR Ø H
DIØ B PORT 13 H
DIØ B PORT 5 H
D2 BRG 5 H
D3 MEM 5 H
DI6 LUIBUS 5 H
D5 CROM 5 H
→ D7 DMUX 5 H

745251 E36 DMUX6
D13 VECTOR XX 4 H
D2 MAR 10 H
DIØ B PORT 14 H
DIØ B PORT 6 H
D2 BRG 6 H
D3 MEM 6 H
DI6 LUIBUS 6 H
D5 CROM 6 H
→ D7 DMUX 6 H

745251 E36 DMUX7
D13 BR RQ H
D13 BYTE (CØ) H
DIØ B PORT 15 H
DIØ B PORT 7 H
D2 BRG 7 H
D3 MEM 7 H
DI6 LUIBUS 7 H
D5 CROM 7 H
→ D7 DMUX 7 H

D6 CROM 15 H
D6 CROM 14 H
D6 CROM 13 H
D5 CROM 7 H
D5 CROM 4 H

25120A1 E44 5ROM
A4 A3 A2 A1 AØ CE
D8 D7 D6 D5 D4 D3 D2 D1
→ D7 MOV INST H
→ D7 READ LU H

74S138 E56
SELA SELB SELC
DØ D1 D2 D3 D4 D5 D6 D7
15 MOV I
14 MOV I BUS L
13 MOV MEM
12 MOV BRG
11 JMP I
10 MOV I BUS
9 JMP MEM
7 JMP BRG

+3VC

74S138 E55
D5 CROM 5 H
D5 CROM 6 H
→ D7 I BUS* 12 L
→ D7 I BUS* 13 L
→ D7 I BUS* 14 L
→ D7 I BUS* 15 L

74S20 E45

D7 MOV I BUS L
74S51 E110
→ D7 MP READ H

74S11 E95
→ D7 BRANCH INST L

* DMUX SIGNALS ARE TRISTATE

DMUX, SROM, S DECODE

DRWN		FIRST USED ON
CHK'D		DMP11-AD
ENG		TITLE DMP11 MICROCONTROLLER (D7)
PROJ ENG		
PROD		
NEXT HIGHER ASSY.		
SCALE		SIZE D CODE CS NUMBER M8207-0-1 REV. L
SHEET 9 OF 21		DIST.

digital

REVISIONS — CHANGE NO. REV. CHK

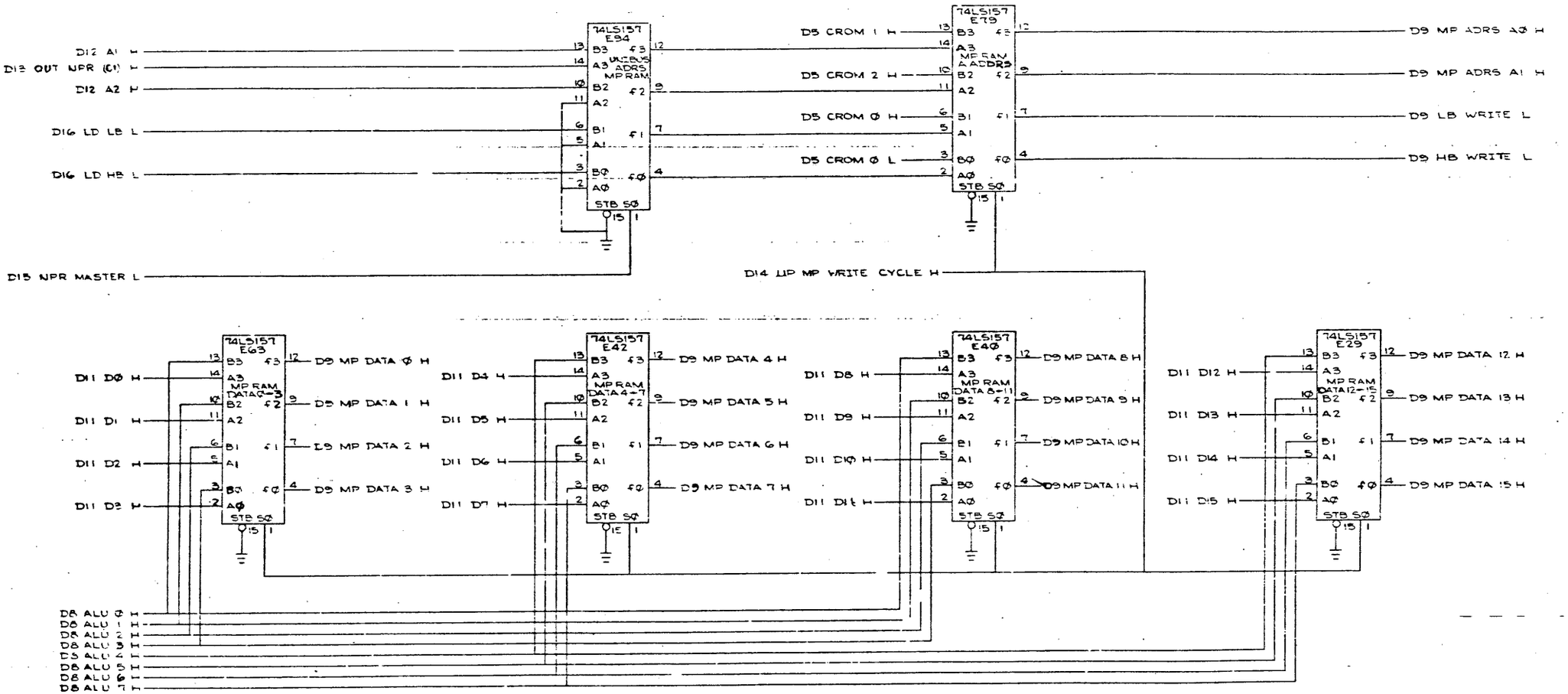
D1 WRITE SP L
D8 BALU 7 (1) L
D8 BALU 6 (1) L
D8 BALU 5 (1) L
D8 BALU 4 (1) L
D7 DMUX 7 H
D7 DMUX 6 H
D7 DMUX 5 H
D7 DMUX 4 H
D8 BALU 3 (1) L
D8 BALU 2 (1) L
D8 BALU 1 (1) L
D8 BALU Ø (1) L
D7 DMUX 3 H
D7 DMUX 2 H
D7 DMUX 1 H
D7 DMUX Ø H
D5 CROM Ø H
D5 CROM 1 H
D5 CROM 2 H
D5 CROM 3 H
D1 WRITE OUT H
SP ADRS
D5 CROM 4 H
D5 CROM 5 H
D5 CROM 6 H
D5 CROM 7 H
D6 CROM 14 H
D8 CLK C H
D1 CLOCK E H
D1 CLOCK C H
D16 CLEAR L
+3VB
+5V
R10 560Ω
D8 E (1) H
D8 C (1) H
D8 ALU 7 H
D8 ALU 6 H
D8 ALU 5 H
D8 ALU 4 H
D8 ALU 3 H
D8 ALU 2 H
D8 ALU 1 H
D8 ALU Ø H
D14 T12Ø H
D8 BALU 7 (1) H
D8 BALU 7 (1) L
D8 BALU 6 (1) H
D8 BALU 6 (1) L
D8 BALU 5 (1) H
D8 BALU 5 (1) L
D8 BALU 4 (1) H
D8 BALU 4 (1) L
D8 BALU 3 (1) H
D8 BALU 3 (1) L
D8 BALU 2 (1) H
D8 BALU 2 (1) L
D8 BALU 1 (1) H
D8 BALU 1 (1) L
D8 BALU Ø (1) H
D8 BALU Ø (1) L

74S74 E82
74S189 E90 SP4-7
74S181 E66 ALU4-7
74S175 E89 BALU4-7
74S189 E84 SPØ-3
74S181 E74 ALUØ-3
74S175 E99 BALUØ-3
74S157 E83 ST3 SØ
2532 (4K) E65 F PROM
74S04 E81

ALU BALL SP CLK FROM

DRN.		FIRST USED ON	DIGITAL
CHK'D			
ENG.		TITLE	CMPII MICROCONTROLLER (D8)
PROJ. ENG.			
PROD.			
NEXT HIGHER ASSY.			
SCALE		SIZE D	CODE CS
SHEET 1 OF 21		DIST.	NUMBER M8207-Ø-1 REV L

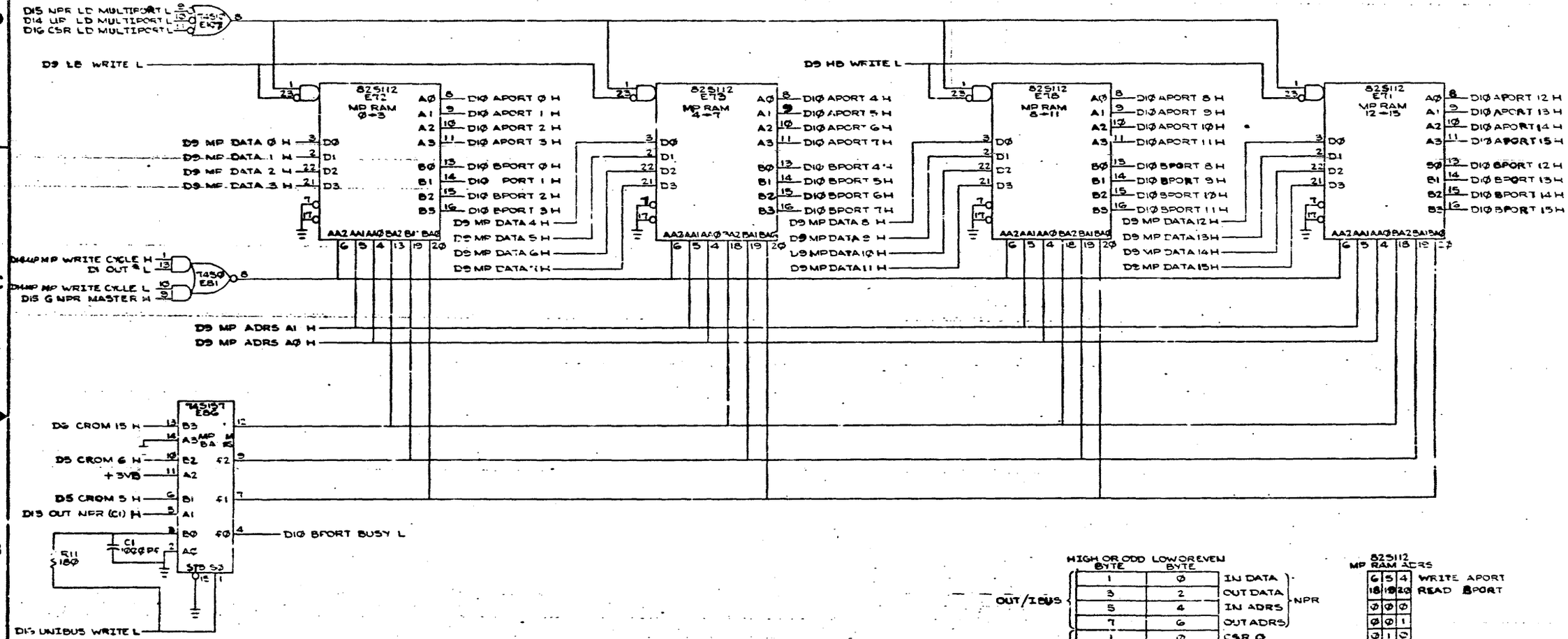
REVISIONS: REV. | CHANGE NO. | CHK



MP RAM ADRS + DATA

DRN		FIRST USED ON	DMP11-AD	digital	
CHK'D					
ENG.		TITLE	DMP11 MICROCONTROLLER (D9)		
PROJ. ENG.					
PROD.					
NEXT HIGHER ASSY					
B-DM11-AD-Ø-Ø		SIZE	CODE	NUMBER	REV.
SCALE		D	CS	M8207-Ø-1	L
SHEET 1 OF 2		DIST.			

REVISIONS: REV. | CHANGE NO. | CHK



HIGH OR ODD BYTE	LOW OR EVEN BYTE	
1	Ø	IN DATA
3	2	OUT DATA
5	4	IN ADRS
7	6	OUT ADRS
1	Ø	CSR Ø
3	2	CSR 2
5	4	CSR 4
7	6	CSR 6

OUT/IBUS
OUT*/IBUS*
NPR

825112 MP RAM ADRS

6	5	4	WRITE APORT
18	19	20	READ BPORT
Ø	Ø	Ø	
Ø	Ø	1	
Ø	1	Ø	
Ø	1	1	
1	Ø	Ø	
1	Ø	1	
1	1	Ø	
1	1	1	

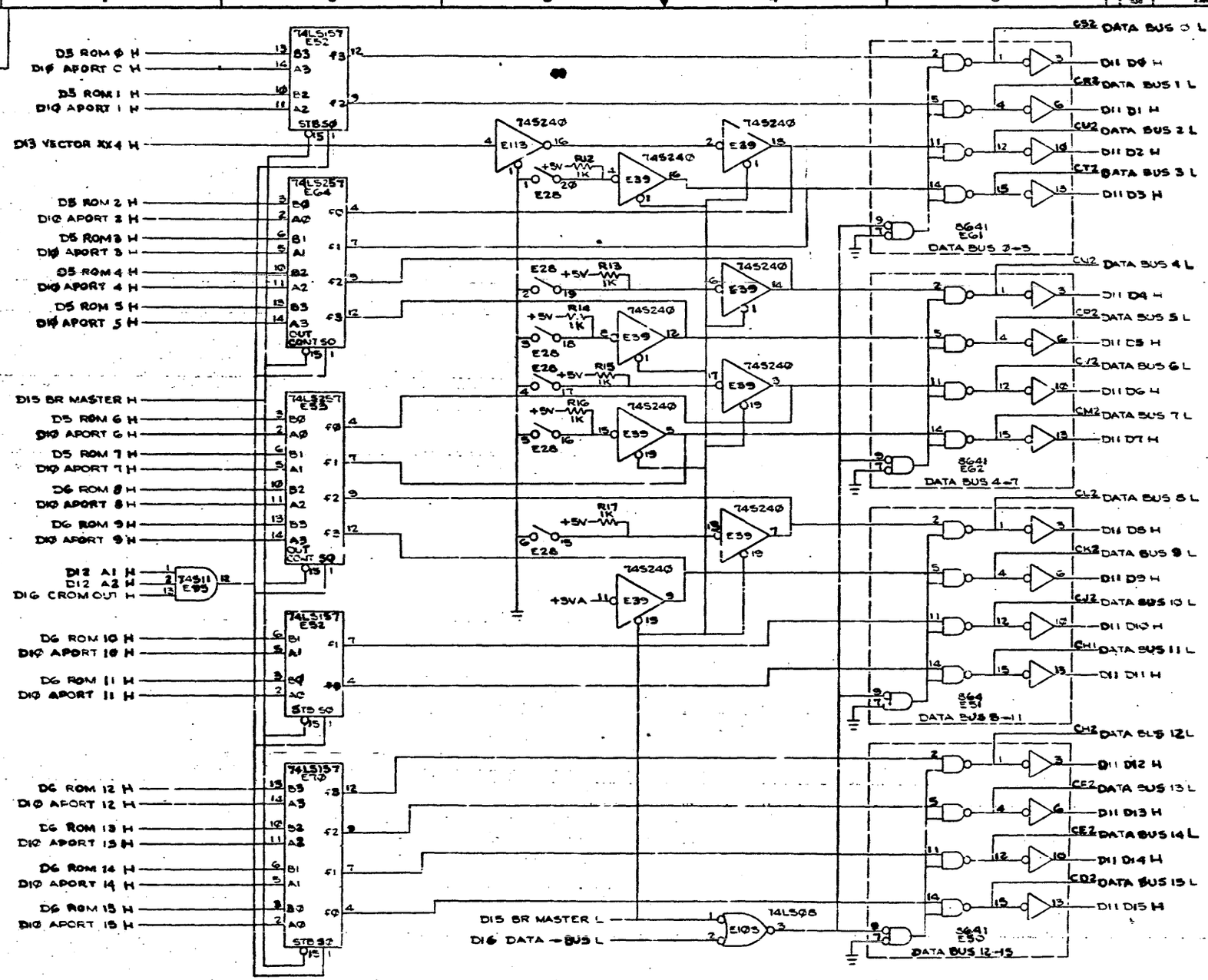
Ø,2,4,6 WORD SELECT
Ø = OUT/IBUS
1 = OUT*/IBUS*

MULTIPORT RAM

DRN	Sue Gentry		FIRST USED ON DMP11-AD
CHK'D			digital
ENG.			TITLE DMP11 MICROCONTROLLER (DIØ)
PROJ. ENG.			
PROD.			
NEXT HIGHER ASSY.			
B-DD-DMP11-Ø			SIZE D CODE 03 NUMBER M8207-0-1 REV. L
SCALE			
SHEET 12 OF 21			DIST

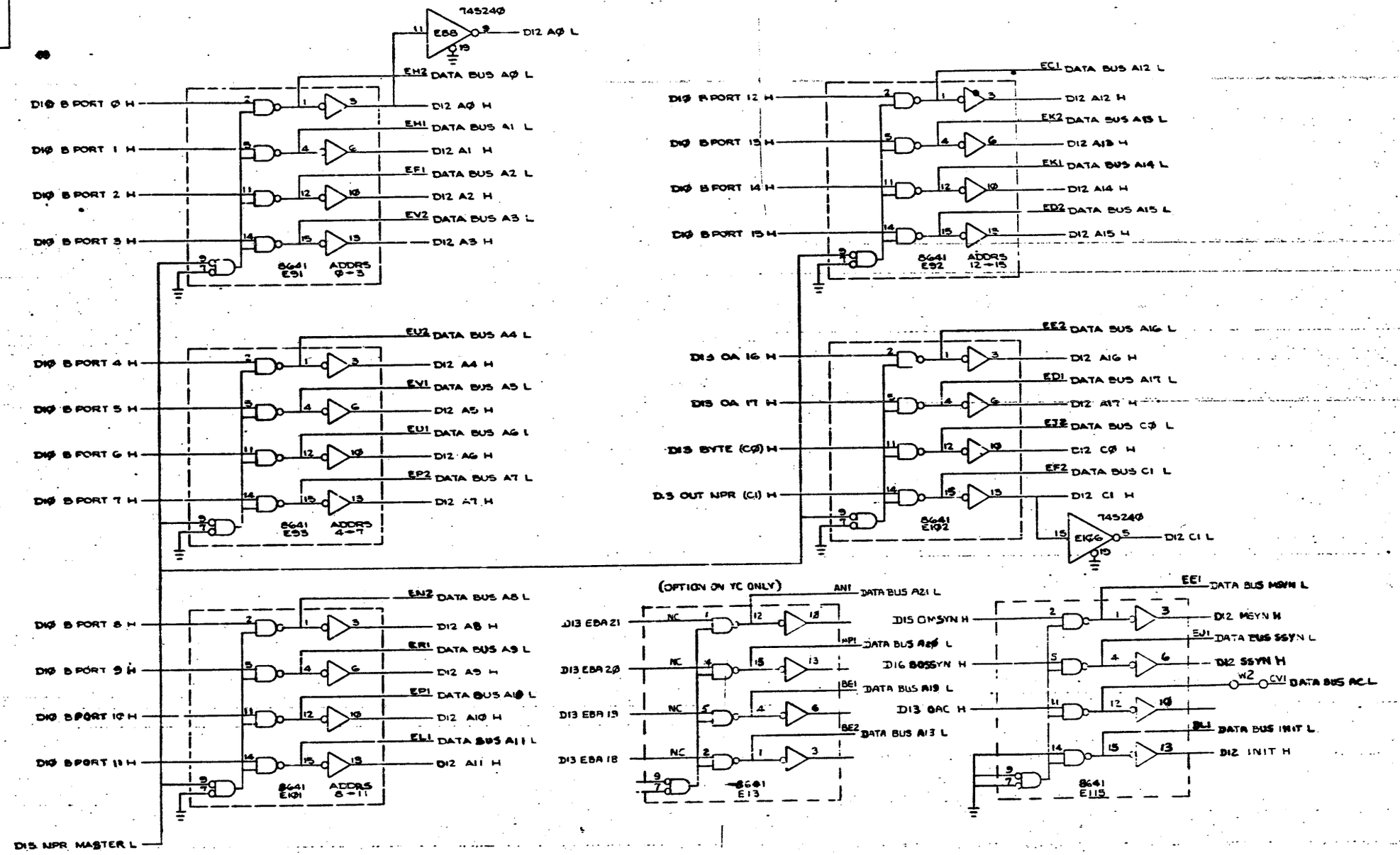
REVISIONS: REV. | CHANGE NO. | CHK

M8207-0-1 REV L



UNIBUS DATA INTERFACE

DRWN	FIRST USED ON
CHK'D	DMP11 AD digital
ENG	TITLE DMP11 MICROCONTROLLER (D11)
PROJ ENG	
PROD	
NEXT HIGHER ASSY.	
B-DD-M8207-0-1	SIZE D CODE 05 NUMBER M8207-0-1 REV. L
SCALE	
SHEET 13 OF 21	DIST.

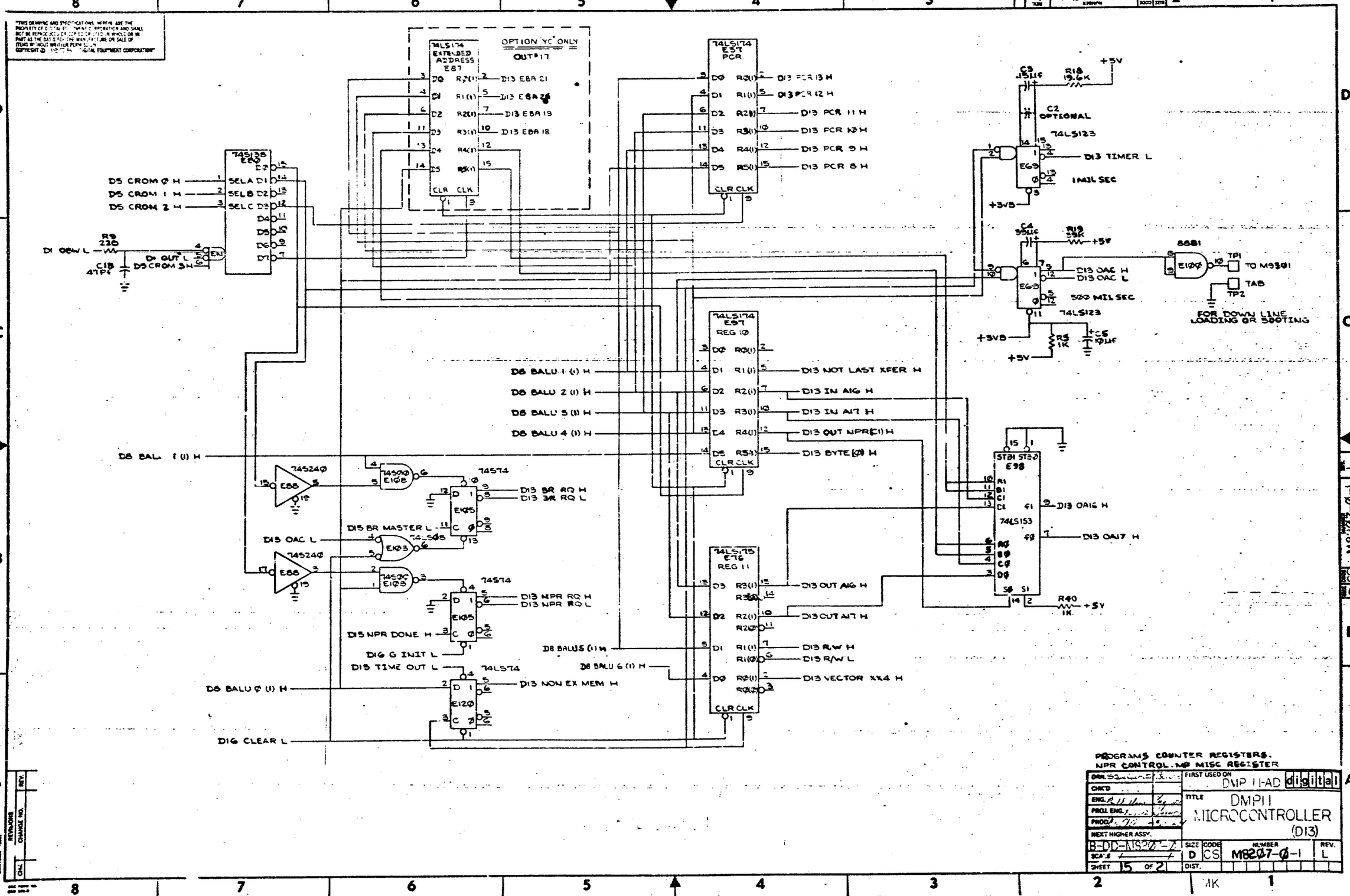


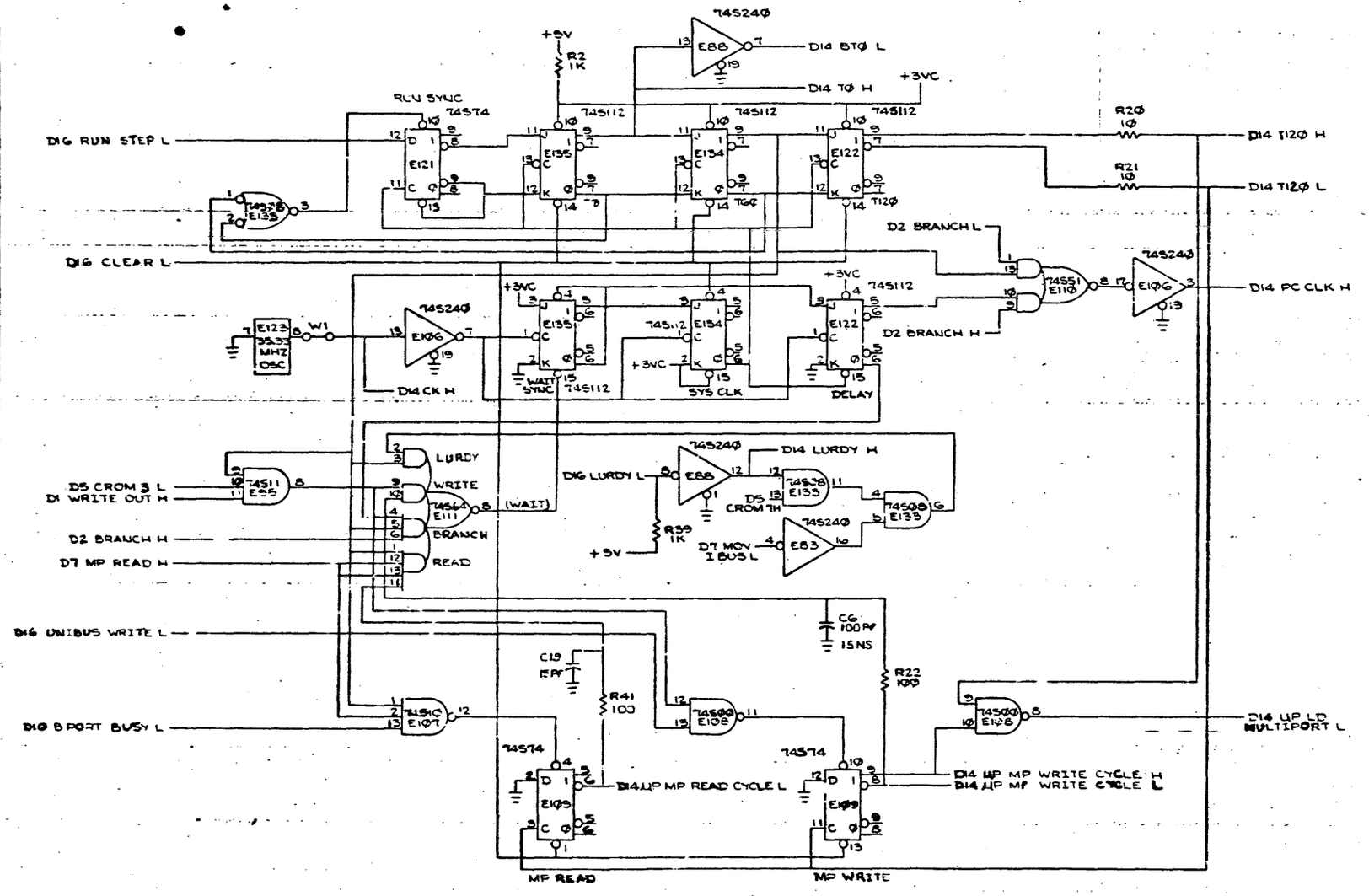
UNIBUS ADRS INTERFACE

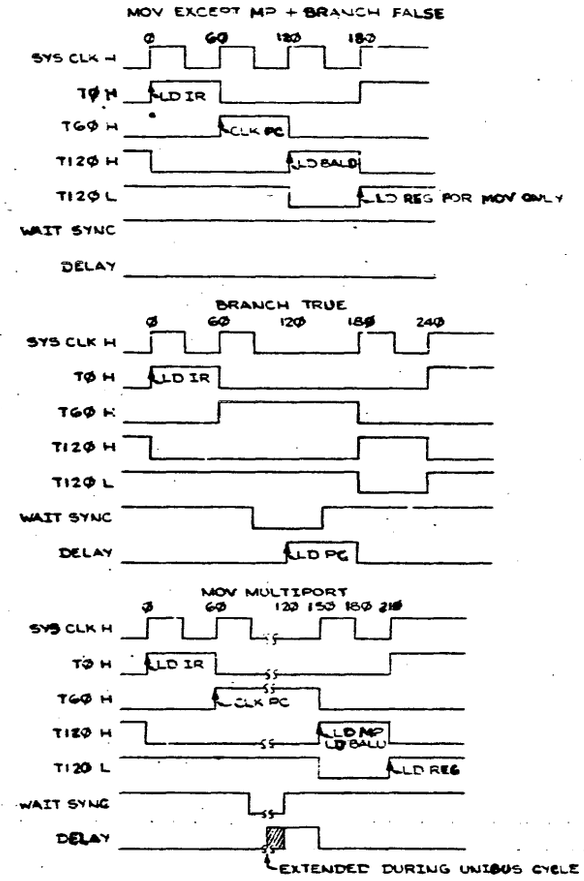
DRAWN		FIRST USED ON	DMP11-AD
CHK'D		TITLE	DMP11 MICROCONTROLLER (D12)
ENG.			
PROJ. ENG.			
PROD.			
NEXT HIGHER ASSY.	B-DC-M8207-0		
SCALE		SIZE D	CODE CS
SHEET	4 OF 21	NUMBER M8207-0-1	REV. L
		DIST.	

REVISIONS: REV. | CHANGE NO. | DWN

MK

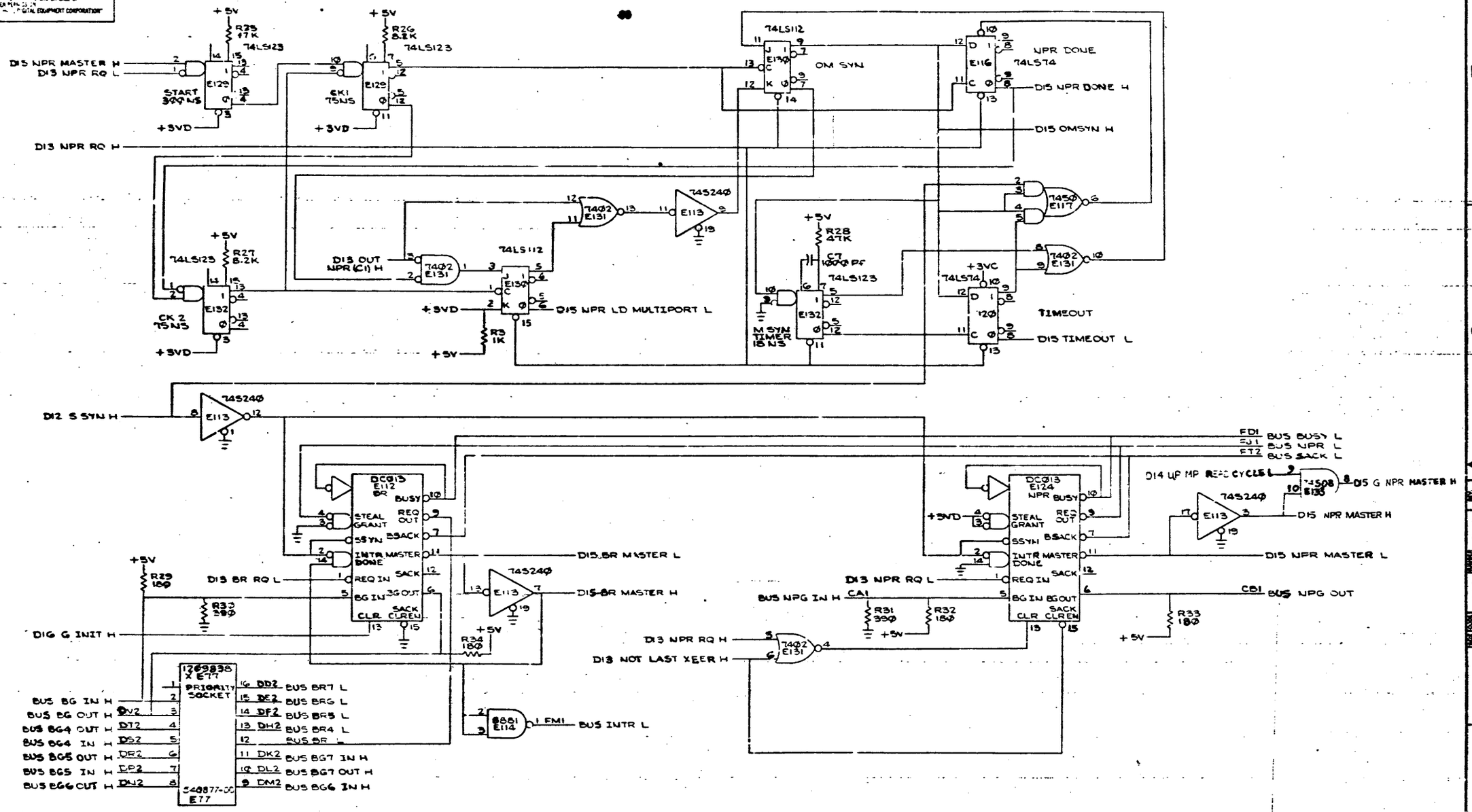

OPTION 'YC' ONLY
OUT # 17
74LS174 EXTENDED ADDRESS E87
D13 EBA 21
D13 EBA 20
D13 EBA 19
D13 EBA 18
74LS174 E37 PCR
D13 PCR 13 H
D13 PCR 12 H
D13 PCR 11 H
D13 PCR 10 H
D13 PCR 9 H
D13 PCR 8 H
74LS138 E69
D5 CROM Ø H
D5 CROM 1 H
D5 CROM 2 H
D5 CROM 3 H
D1 OBW L
D5 OUT L
C18 47PF
R9 220
C3 .15UF
R18 19.6K
+5V
C2 OPTIONAL
74LS123
D13 TIMER L
1 MIL SEC
+3VB
C4 .15UF
R19 33K
8881
TP1
TO M9301
TAB
TP2
FOR DOWN LINE LOADING OR SPOTING
D13 OAC H
D13 OAC L
500 MIL SEC
C5 10UF
R5 1K
74LS174 E57 REG 10
D8 BALU 1 (1) H
D8 BALU 2 (1) H
D8 BALU 3 (1) H
D8 BALU 4 (1) H
D8 BALU 5 (1) H
D13 NOT LAST XFER H
D13 IN AIG H
D13 IN AIT H
D13 OUT NPR(1) H
D13 BYTE (Ø) H
ST3Ø ST2Ø E98
74LS153
D13 OAIG H
D13 OAIT H
R40 1K
74S240 E88
74S04 E10Ø8
74S74 E105
D13 BR RQ H
D13 BR RQ L
D15 BR MASTER L
D13 OAC L
74S08 E103
D13 NPR RQ H
D13 NPR RQ L
D15 NPR DONE H
DIG G INIT L
D15 TIME OUT L
74LS174 E12Ø
D13 NON EX MEM H
DIG CLEAR L
74LS175 E76 REG 11
D8 BALU 6 (1) H
D13 OUT AIG H
D13 OUT AIT H
D13 R/W H
D13 R/W L
D13 VECTOR XX4 H
PROGRAMS COUNTER REGISTERS, NPR CONTROL MP MISC REGISTER
FIRST USED ON DMP 11-AD
TITLE DMP11 MICROCONTROLLER (D13)
NEXT HIGHER ASSY. B-DD-MS207-2
SIZE D CODE CS NUMBER M8207-Ø-1 REV. L
SCALE
SHEET 15 OF 21
DIST.
M8207-Ø-1 L





DRAWN		FIRST USED ON	DMPII-AD digital
CHK'D		TITLE	DMPII MICROCONTROLLER (DI4)
ENG.			
PROJ. ENG.			
PROD.			
NEXT HIGHER ASSY.	B-DD-MS227-2		
SCALE		SIZE D	CODE MS
SHEET 15 OF 21		DIST.	NUMBER M8207-0-1 REV. L

REVISIONS: REV. | CHANGE NO. | DIR.

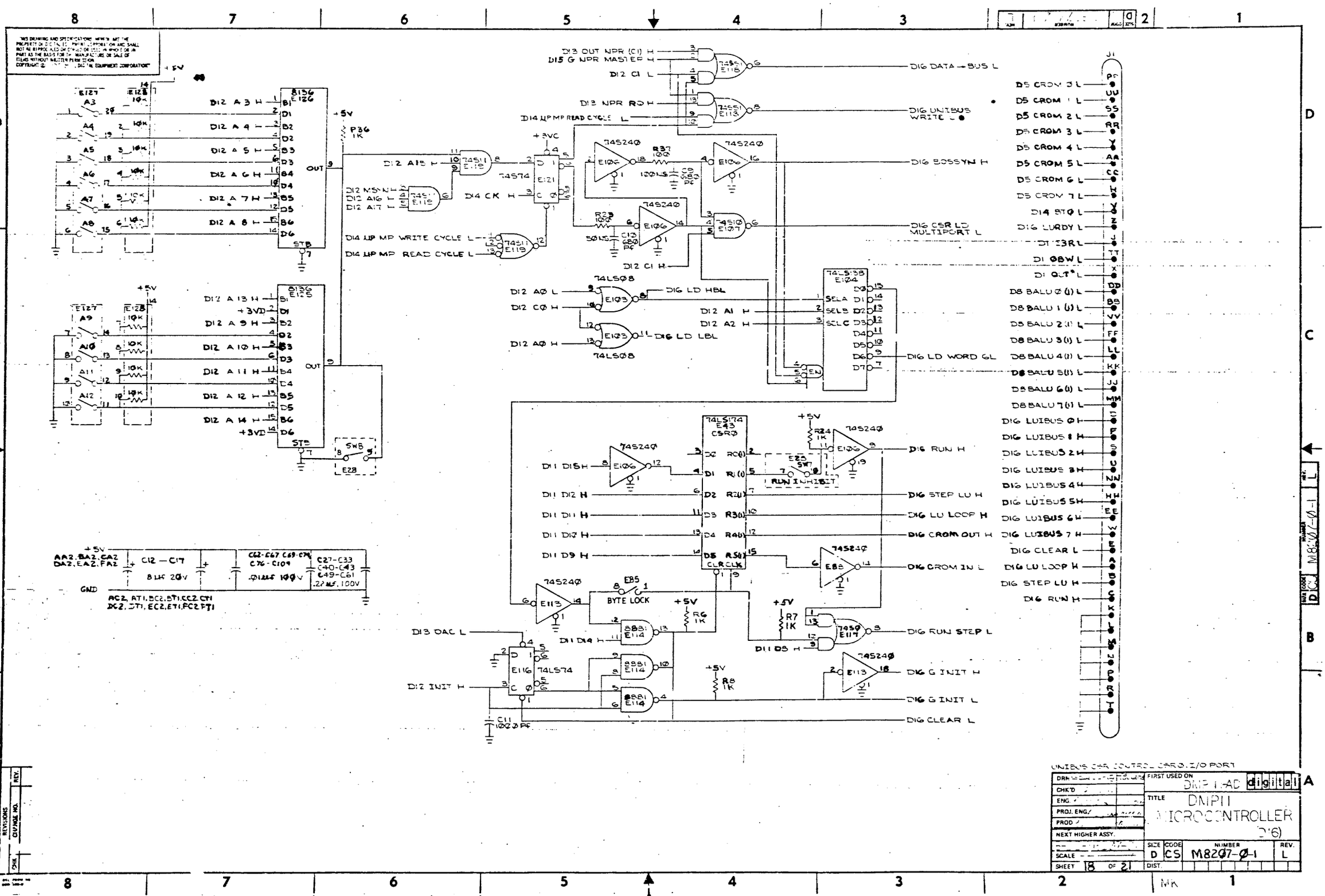


INTERRUPT + NPR CONTROL

DRN		FIRST USED ON	DMP11-AD
CHK'D		TITLE	DMP11 MICROCONTROLLER (DI5)
ENG.			
PROJ. ENG.			
PROD.			
NEXT HIGHER ASSY.			
B-DD-	222-2	SIZE	D
SCALE		CODE	CS
SHEET	1 OF 2	NUMBER	M8207-0-1
		REV.	L
		DIST.	

digital

REVISIONS: REV. | CHANGE NO. | CHK



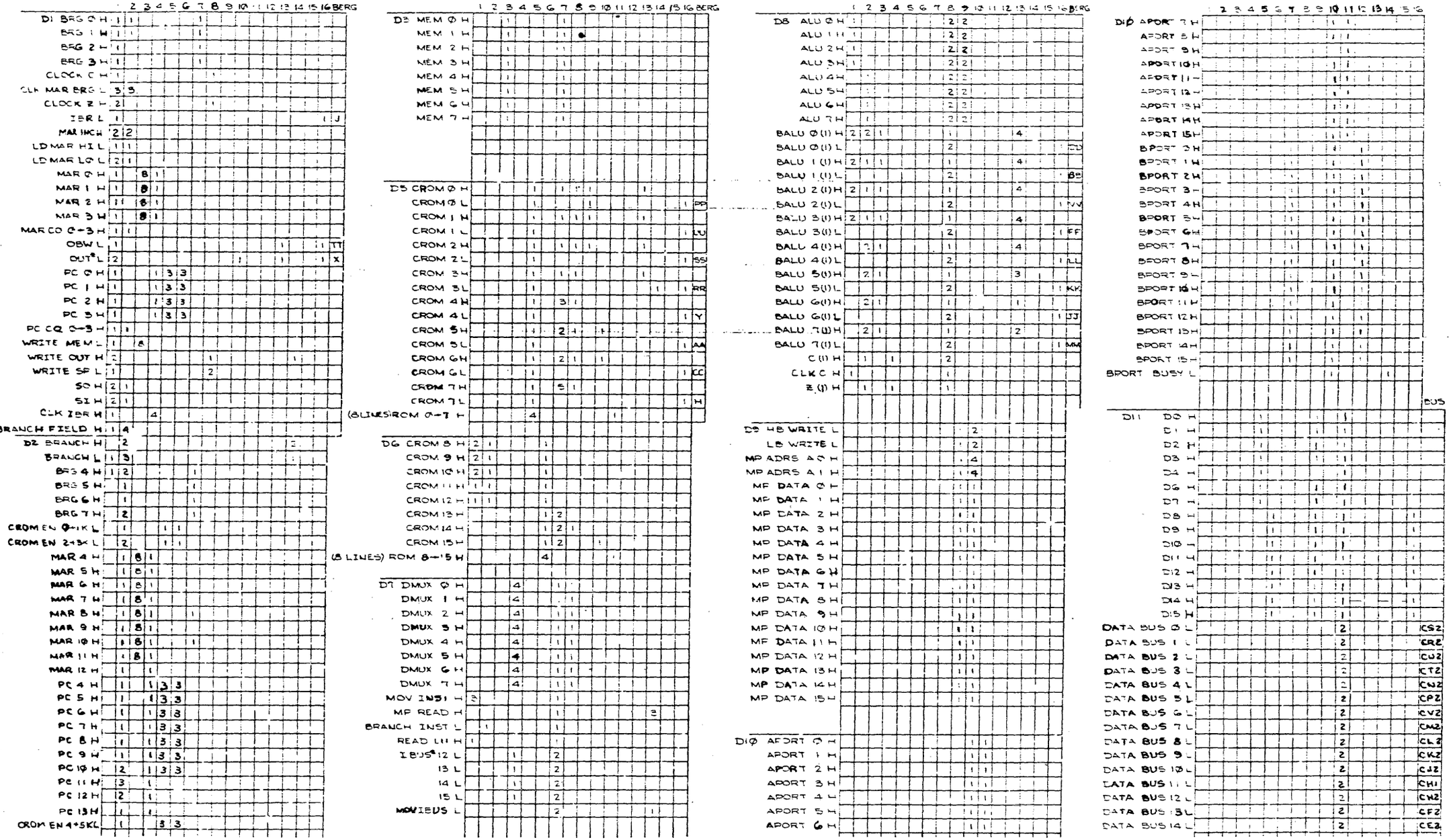
UNIBUS CSR CONTROL CSR'S I/O PORT

DRAWN		FIRST USED ON			
CHK'D		TITLE	DMP11 MICROCONTROLLER (1'6)		
ENG.					
PROJ. ENG.					
PROD					
NEXT HIGHER ASSY.		SIZE	CODE	NUMBER	REV.
SCALE		D	CS	M8207-0-1	L
SHEET 18 OF 21		DIST.			

digital

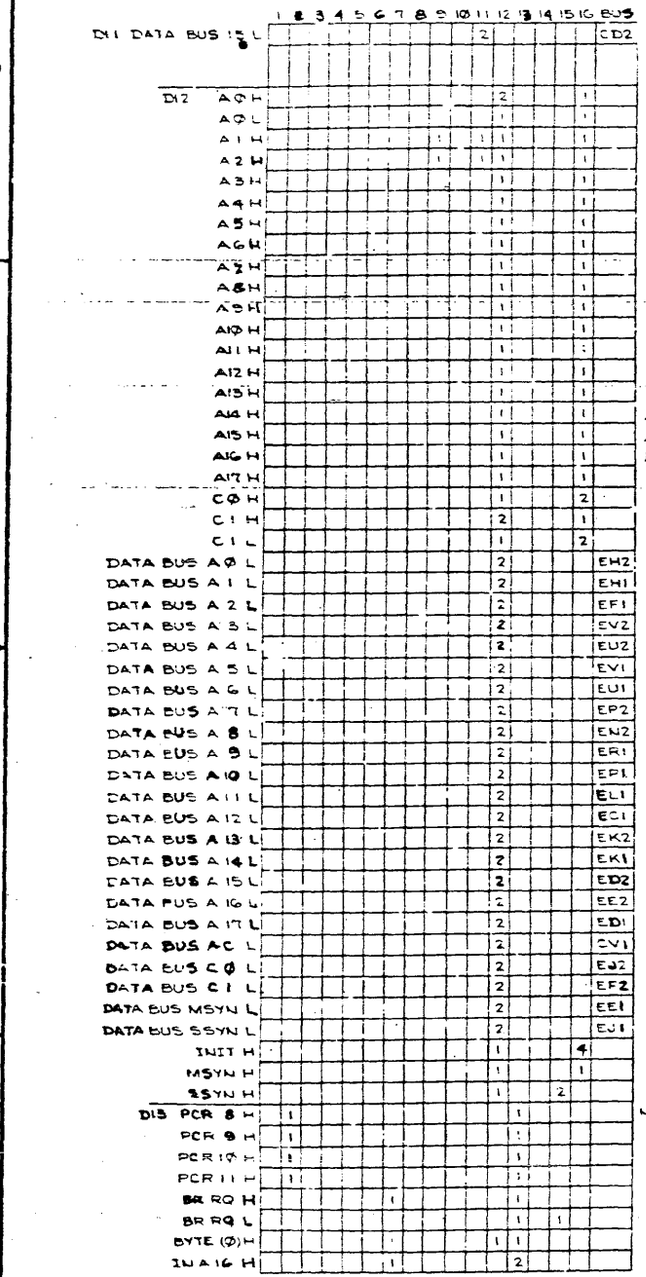
REVISIONS | REV. | CHK | CUSTOMER NO.

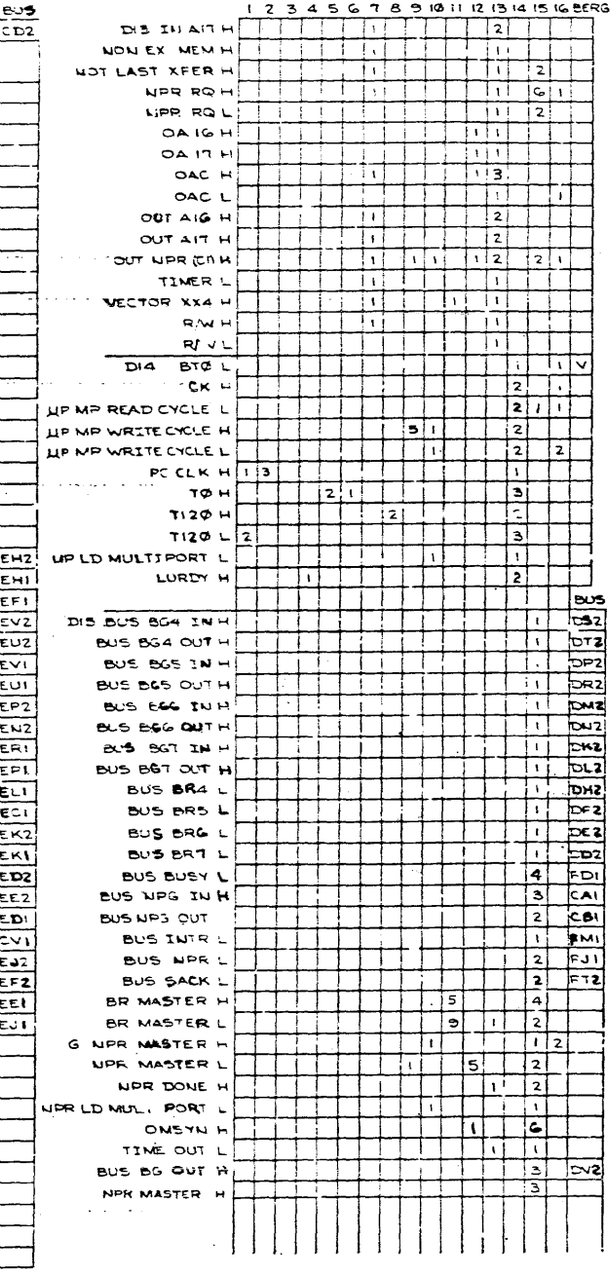
M8207-0-1 L

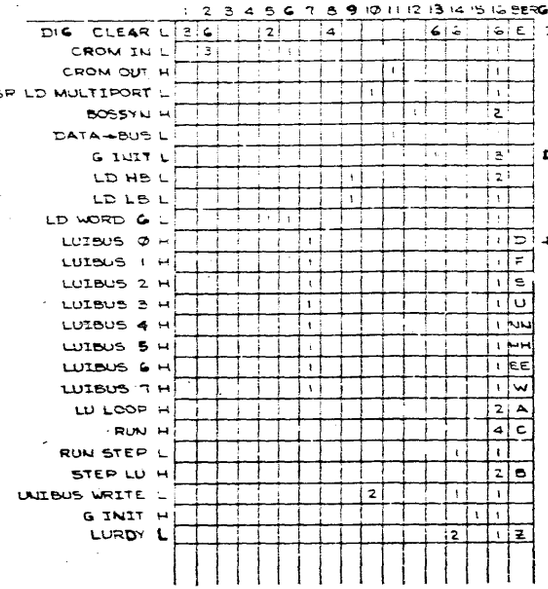


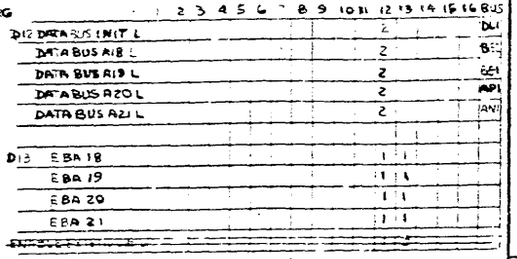
REVISIONS		
CHK	CHANGE NO	REV

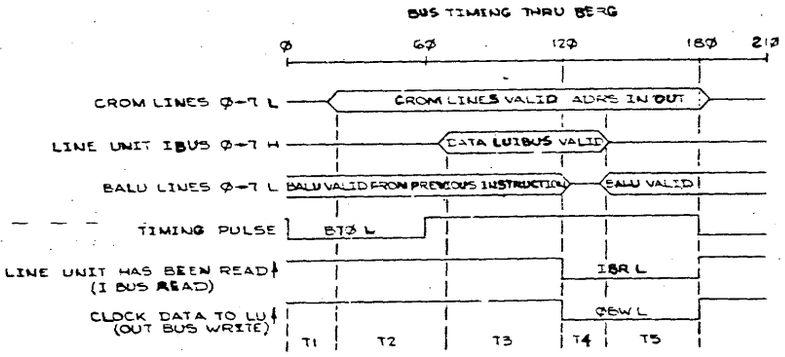
TITLE	SIZE	CODE	NUMBER	REV.
DMPII MICROCONTROLLER	D	CS	M8207-Ø-1	L
SCALE	SHEET 19 OF 21	DIST		











T1=2ØNS MAX
T2=5ØNS MAX
T3=5ØNS MIN FROM TI2Ø
T4=2ØNS MIN FROM TI2Ø FOR LUIBUS LINES
T5=4ØNS MIN FROM TIØØ FOR BALU LINES

REVISIONS		
CHK	CHANGE NO	REV

TITLE	SIZE	CODE	NUMBER	REV.
DMP11 MICROCONTROLLER	D	CS	M8207-Ø-1	L
SCALE —	SHEET 20 OF 21		DIST	

DCS M8207-Ø-1 REV L

DEC PCRM No. DMD 1.00

MK

PROM/ROM ADRS INPUT PINS

	14	13	12	11	10
0	0	0	0	0	0
1	0	0	0	0	1
2	0	0	0	1	0
3	0	0	0	1	1
4	0	0	1	0	0
5	0	0	1	0	1
6	0	0	1	1	0
7	0	0	1	1	1
8	0	1	0	0	0
9	0	1	0	0	1
10	0	1	0	1	0
11	0	1	0	1	1
12	0	1	1	0	0
13	0	1	1	0	1
14	0	1	1	1	0
15	0	1	1	1	1
16	1	0	0	0	0
17	1	0	0	0	1
18	1	0	0	1	0
19	1	0	0	1	1
20	1	0	1	0	0
21	1	0	1	0	1
22	1	0	1	1	0
23	1	0	1	1	1
24	1	1	0	0	0
25	1	1	0	0	1
26	1	1	0	1	0
27	1	1	0	1	1
28	1	1	1	0	0
29	1	1	1	0	1
30	1	1	1	1	0
31	1	1	1	1	1

CROM BITS					
D ROM	12	11	10	9	8
S ROM	15	14	13	7	4
F ROM	14	7	6	5	4

D ROM

	9	7	6	5	4	3	2	1
0	1	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	1
2	0	0	0	0	0	0	1	0
3	0	0	0	0	0	0	1	1
4	0	0	0	0	0	1	0	0
5	0	0	0	0	0	1	0	1
6	0	0	0	0	0	1	1	0
7	0	0	0	0	0	1	1	1
8	0	0	0	0	1	0	0	0
9	0	0	0	0	1	0	0	1
10	0	0	0	0	1	0	1	0
11	0	0	0	0	1	0	1	1
12	0	0	0	0	1	1	0	0
13	0	0	0	0	1	1	0	1
14	0	0	0	0	1	1	1	0
15	0	0	0	0	1	1	1	1
16	0	0	0	1	0	0	0	0
17	0	0	0	1	0	0	0	1
18	0	0	0	1	0	0	1	0
19	0	0	0	1	0	0	1	1
20	0	0	0	1	0	1	0	0
21	0	0	0	1	0	1	0	1
22	0	0	0	1	0	1	1	0
23	0	0	0	1	0	1	1	1
24	0	0	0	1	1	0	0	0
25	0	0	0	1	1	0	0	1
26	0	0	0	1	1	0	1	0
27	0	0	0	1	1	0	1	1
28	0	0	0	1	1	1	0	0
29	0	0	0	1	1	1	0	1
30	0	0	0	1	1	1	1	0
31	0	0	0	1	1	1	1	1

LD SP H
LD MEM H
BRG { S0, S1
INC MAR H
LD MAR H L
LD MAR L O L

S0	S1	
1	1	LOAD BRG
2	1	SHIFT BRG 7-0
1	0	NOT PROGRAMMED
2	2	HOLD

S ROM

	9	7	6	5	4	3	2	1
0	0	0	0	1	0	0	0	0
1	0	0	0	1	0	0	0	1
2	0	0	0	1	0	0	1	0
3	0	0	0	1	0	0	1	1
4	0	0	0	1	0	1	0	0
5	0	0	0	1	0	1	0	1
6	0	0	0	1	0	1	1	0
7	0	0	0	1	0	1	1	1
8	0	0	0	1	1	0	0	0
9	0	0	0	1	1	0	0	1
10	0	0	0	1	1	0	1	0
11	0	0	0	1	1	0	1	1
12	0	0	0	1	1	1	0	0
13	0	0	0	1	1	1	0	1
14	0	0	0	1	1	1	1	0
15	0	0	0	1	1	1	1	1
16	0	0	1	0	0	0	0	0
17	0	0	1	0	0	0	0	1
18	0	0	1	0	0	0	1	0
19	0	0	1	0	0	0	1	1
20	0	0	1	0	0	1	0	0
21	0	0	1	0	0	1	0	1
22	0	0	1	0	0	1	1	0
23	0	0	1	0	0	1	1	1
24	0	0	1	0	1	0	0	0
25	0	0	1	0	1	0	0	1
26	0	0	1	0	1	0	1	0
27	0	0	1	0	1	0	1	1
28	0	0	1	0	1	1	0	0
29	0	0	1	0	1	1	0	1
30	0	0	1	0	1	1	1	0
31	0	0	1	0	1	1	1	1

DMUX SRC
READ H
READ L O H

PINS	9	10	11	DMUX SRC
0	0	0	0	I
1	0	0	1	LU BUS
2	0	1	0	MEM
3	0	1	1	BRG
4	1	0	0	B PORT EVEN BYTE
5	1	0	1	B PORT ODD BYTE
6	1	1	0	NPR CNTL
7	1	1	1	MP MISC.

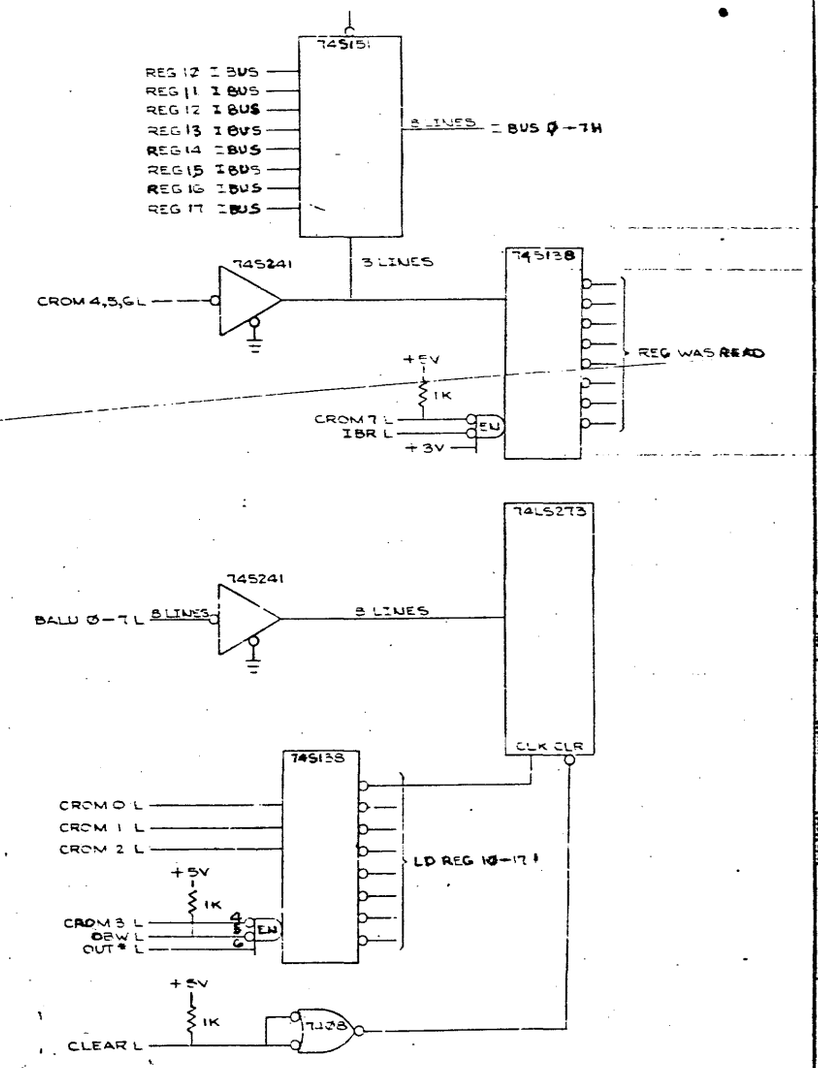
F ROM

	9	7	6	5	4	3	2	1	
0	0	0	0	0	0	0	0	0	SEL B (B)
1	0	0	0	0	0	0	0	1	
2	0	0	0	0	0	0	1	0	
3	0	0	0	0	0	0	1	1	
4	0	0	0	0	0	1	0	0	
5	0	0	0	0	0	1	0	1	
6	0	0	0	0	0	1	1	0	
7	0	0	0	0	0	1	1	1	
8	0	0	0	0	1	0	0	0	
9	0	0	0	0	1	0	0	1	
10	0	0	0	0	1	0	1	0	
11	0	0	0	0	1	0	1	1	
12	0	0	0	0	1	1	0	0	
13	0	0	0	0	1	1	0	1	
14	0	0	0	0	1	1	1	0	
15	0	0	0	0	1	1	1	1	
16	0	0	0	1	0	0	0	0	
17	0	0	0	1	0	0	0	1	
18	0	0	0	1	0	0	1	0	
19	0	0	0	1	0	0	1	1	
20	0	0	0	1	0	1	0	0	
21	0	0	0	1	0	1	0	1	
22	0	0	0	1	0	1	1	0	
23	0	0	0	1	0	1	1	1	
24	0	0	0	1	1	0	0	0	
25	0	0	0	1	1	0	0	1	
26	0	0	0	1	1	0	1	0	
27	0	0	0	1	1	0	1	1	
28	0	0	0	1	1	1	0	0	
29	0	0	0	1	1	1	0	1	
30	0	0	0	1	1	1	1	0	
31	0	0	0	1	1	1	1	1	

0	ADD (A,B)
1	ADD W/C (A,B,C)
2	SUB W/C (A-B-C)
3	INC A (A+1)
4	A PLUS C (A,C)
5	2A (A,A)
6	2A W/C (A,A,C)
7	DEC A (A-1)
8	SEL A (A)
9	SEL B (B)
10	A OR $\overline{B}$ (A+$\overline{B}$)
11	A AND B (A,B)
12	A OR B (A+B)
13	A XOR B (A⊕B)
14	2'S COMP SUB (A-B)
15	1'S COMP SUB (A-B-1)

CK C H
EN C L
FORCE C H
S0 L
S1 L
S2 L
S3 L
M

RECOMMENDED BERG INTERFACE



DO NOT USE LS CHIPS FOR RECEIVERS.

REVISIONS			
REV.	CHANGE NO.	DATE	APPROVED

DRN.		FIRST USED ON	digital
CHK'D			
ENG		TITLE	EMPI MICROCONTROLLER
PROJ. ENG.			
PROD.			
NEXT HIGHER ASSY.			
SCALE		SIZE D	CODE CS
SHEET 2 OF 2		DIST	NUMBER M8207-Ø-1 REV. L

MK

15.688 / 398.47MM F.B.S. REF

COMPONENT SIDE VIEW

SEE NOTE 4 — SEE NOTE 5 — SEE NOTE 4

112 10 PLACES SEE NOTE 2

24 — 128

TH2 — TH1

118 — 117 — 118 — 117

J3 — J2 — J1

T1 — T2

Ø8-4 — Ø8-2 Ø8-8 — MOUNT D23 D24 ON TOP OF R91 OBS. POL. Ø8-10

8.41 213.61MM F.B.S.

Ø8-3 Ø8-9 — Ø8-1 Ø8-7 — Ø8-5 — Ø7-1 Ø7-2 — Ø8-6 Ø8-11

XE111 — E111 — PIN 1 — E5

SPARE SEE NOTE 1 — SEE NOTE 3

26

F E D C B A

V U T S R P N M L K J H F E D C B A

NOTES:

1. E40,E45,E124 & E127 ARE SPARE IC LOCATIONS.
2. DO NOT INSERT EYELETS OVER J3.
3. INSERT W13 (P/N 9009185-00) AFTER GR TEST.
4. W1-W6, W11, W14-W16 & C36 ARE OPTIONAL LOCATIONS.
5. INSERT ITEM 122 UNDER Q1, Q2, Q6-Q11 (QTY 8).

STEP ∈	↑ Y AXIS ____ STEP ____ TIMES		
REPEAT	→ X AXIS ____ STEP ____ TIMES		

CHK	CHANGE NO	REV
	ORIGINATED	L
	M8203-MKJ/S	M
	M8203-MKJ/S	N
	M8203-MKJ/S	P

ETCH REV. F-P2

SIGNATURES	DATE
DRN.	
CHK'D.	
MECH. ENG.	
PROJ. ENG.	
PROD.	

digital

TITLE: MULTIDROP LINE UNIT

SCALE 2/1 | SIZE D | CODE UA | NUMBER M8203-Ø-Ø | REV !!

SHT. 1 OF 2

NEXT HIGHER ASSY. B-DD-M8203-Ø

REWORK INSTRUCTIONS

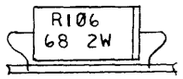
ECO#M8203-MK007 ETCH REV. F:

COMPONENT DELETE:

07-1 REMOVE R106 (P/N 1302382-00, 200, 1W)

COMPONENT ADD:

07-2 ADD R106 (P/N 1302308-00, 68, 2W). SEE DWG:



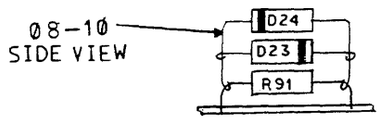
ECO*M8203-MK008,ETCH REV. F

COMPONENT REMOVAL:

08-1 REMOVE E3 (P/N 1914477-00, LF357, OP. AMP.).
08-2 REMOVE R89 & R90 (P/N 1313598-00, 32.4K, 1%).
08-3 REMOVE R150 (P/N 1300479-00, 10.0K, .25W).
08-4 REMOVE C101 (P/N 1002425-00, 5MMF, 5%).
08-5 REMOVE R99 & R102 (P/N 1300365-00, 1.0K, .25W).
08-6 REMOVE R100 & R101 (P/N 1302124-00, 18.0, .25W).

COMPONENT ADD:

08-7 ADD E3 (P/N 1910375-02, LM318, OP. AMP.).
08-8 ADD R89 & R90 (P/N 1302886-00, 10K, 1%).
08-9 ADD W18 IN PLACE OF R150 (P/N 9009185-00, JUMPER, INSULATED).
08-10 ADD D23 & D24 ON TOP OF R91 (P/N 1100114-00 D664).
08-11 ADD R100 & R101 (P/N 1300250-00, 150.0, .25W).



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTIDROP LINE UNIT	D	UA	M8203-0-0	N
SCALE NONE	SHEET 2 OF 2	DIST.		

MK

AUTOMATED BY PRTLST.3L(36) P A R T S L I S T SHEET A1 OF A3

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1	D-MD-5013292-0-0	5013292-00	DRILL AND ETCH BOARD	1	
2	2		1013466-06	100.0 MMF 50V 5% CER	2	C1,C37
3	3		1013466-18	330.0 MMF 50V 5% CER	1	C2
4	4		1000042-00	1000.0 MMF 100V 5%200PPM MICA	1	C3
5	5		1013466-30	560.0 MMF 50V 5% CER	1	C4
6	6		1013466-05	56.0 MMF 50V 5% CER	11	C11-C21
7	7		1012784-00	.047 MFD 50V +80-20% CER	41	C22,C26,C63-C100,C108
8	8		1010274-00	.22 MFD 50V +80-20% Z5U CER	18	C23-C25,C27-C29,C43,C46-C56
9	9		1012084-01	8 MFD 25V +75-10% AL EL	15	C30,C31,C57-C62,C102-C107,C109
10	10		1002424-00	1200.0 MMF 100V 5%200PPM MICA	3	C32,C33,C34
11	11		1013466-01	10.0 MMF 50V 5% CER	2	C35,C39
12	12	BLANK		*** THIS ITEM IS NOT USED ***	-	
13	13		1013466-07	220.0 MMF 50V 5% CER	1	C38
14	14		1013466-24	47.0 MMF 50V 5% CER	2	C40,C41
15	15		1000075-00	25 MFD 25V +75-10% AL EL	1	C45
16	16		1013466-12	2200.0 MMF 50V 10% X7R CER	5	C6-C10
17	17		1100114-00	D 664 QS\75PCB PIV= 25V SP	10	D5-D8,D18-D21,D23,D24
18	18		1109943-00	1N 4733A VZ= 5.1 5% 1W Y	1	D3
19	19		1109502-00	1N 4742 VZ= 12.0 10% 1W Y	1	D4
20	20		1104860-00	1N 746A VZ= 3.3 5%	1	D9
21	21		1114136-00	LED 16MA 5V	6	D10-D15
22	22		1102421-00	1N 753A VZ= 6.2 5% .40W P	2	D16,D17
23	23		1209941-02	HEADER 100 40POS RT ANGLE	3	J1-J3
24	24		1216988-02	HANDLE,MODULE,HEX TWO EJECTORS	1	
25	25		1211164-06	SW,DIP 1P 1A 10POS	3	E39,E121,E134
26	26		1215006-08	SKT,IC 40PIN RIP TIN PLATE	1	XE111
27	27		1300365-00	1.0 K .25 W 5.0 % CC	51	R1-R23,R27-R36,R92,R98,R103,
					CONT	R132-R143,R146-R148
28	28		1300271-00	220.0 .25 W 5.0 % CC	10	R24-R26,R37,R39-R44
29	29		1303179-00	*** THIS ITEM IS NOT USED ***	-	

REVISION HISTORY		
ENG	ECO NUMBER	REV
PA	M8203-MK003A/3B	H
RH	M8203-MK004	J
RH	M8203-MK005	K
RH	M8203-MK006	L
FB	M8203-MK007	M
FB	M8203--MK008	N

BASIC PART NO: M8203

SECTION A OF A

SECTION.VARIATION INDEX
[A] 00
[B]
[C]
[D]
[E]
[F]
[H]
[J]
[K]
[L]
[M]
[N]

DRN: DON MACKINNON DATE: 31-AUG-79

CHK'D: NORM LANDRY DATE: 31-AUG-79

DES.ENG: PAUL ALGISI DATE: 15-JAN-80

RESP.ENG.: F.BACKES DATE: 19-JAN-82

MFG..NG.: AL DERICK DATE: 19-JAN-82

ASSEMBLY NUMBER: D-UA-M8203-0-0

TOP DOCUMENT NUMBER: $B-DD-M8203-0

DBP D I G I T A L

TITLE PARTS LIST

MULTIDROP LINE UNIT

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV
K	PL	M8203-0-0	N

FILE NAME: MK0480.PLS EDIT #: 29

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
30	30		1300447-00	4.70 K .25 W 5.0 % CC	9	R56-R61,R87,R104,R105
31	31	BLANK		*** THIS ITEM IS NOT USED ***	-	
32	32		1300432-00	3.0 K .25 W 5.0 % CC	3	R68,R69,R114
33	33		1300247-00	120.0 .25 W 5.0 % CC	6	R70-R72,R144,R145,R149
34	34		1300228-00	100.0 .50 W 5.0 % CC	1	R73
35	35		1300255-00	150.0 1.0 W 5.0 % CC	2	R75,R76
36	36		1313598-00	32.40 K .25 W 1.0 % RN55D-F10	4	R88,R91,R110,R111
37	37		1300347-00	680.0 .50 W 5.0 % CC	1	R151
38	38		1313842-00	48.70 K .25 W 1.0 % RN55D-F10	2	R93,R94
39	39		1302886-00	10.0 K .25 W 1.0 % RN55C-F 5	7	R95,R96,R108,R113,R117,R89,R90
40	40		1309418-00	24.30 K .25 W 1.0 % RN55D-F10	1	R97
41	41		1300250-00	150.0 .25 W 5.0 % CC	2	R100,R101
42	42		1302308-00	68.0 2.0 W 5.0 % CC	1	R106
43	43		1302378-00	51.0 .50 W 5.0 % CC	1	R107
44	44		1313077-00	12.80 K .25 W .10% RN55E-B 2	2	R109,R112
45	45		1300426-00	2.70 K .25 W 5.0 % CC	1	R116
46	46		1300479-00	10.0 K .25 W 5.0 % CC	2	R125,R130
47	47		1302389-00	4.30 K .25 W 5.0 % CC	2	R119,R124
48	48		1305653-00	22.0 1.0 W10.0 % CC	2	R120,R123
49	49		1300168-00	10.0 .50 W 5.0 % CC	2	R121,R122
50	50		1300444-00	3.90 K .25 W 5.0 % CC	1	R126
51	51		1300496-00	15.0 K .25 W 5.0 % CC	2	R127,R129
52	52		1300391-00	1.50 K .25 W 5.0 % CC	1	R128
53	53		1302466-00	100.0 K .25 W 5.0 % CC	1	R131
54	54		1515018-00	2N 2905A PNP 600MW SI 40 100	1	Q2
55	55		1501881-00	DEC2219 NPN 3WC SI 30100	1	Q1
56	56		1509338-00	DEL6531B NPN 310MW SI 40 90 P	2	Q3,Q4
57	57		1503409-00	DEC6534D PNP 310MW SI 40 90	1	Q5
58	58		1516150-00	VN 35AK FET 50MW	6	Q6-Q11
59	59		1602723-00	1000 UH 10% 125MA	2	L1,L2
60	60		1612946-01	33 UH 10% 260MA	2	L3,L4
61	61		1616045-00	XFMR,PULSE,RATIO 1:1,1500PV	1	T2
62	62		1616303-00	PULSE XFMR,RATIO 1:1:1	1	T1
63	63		1811660-00	OSCILLATOR, XTAL 20.000 MHZ	1	E5
64	64		1914214-00	LS374 FF-D OCTAL EDGE TRIG	13	E86,E88,E109,E122,E123,E125,
					CONT	E126,E128-E133
65	65		1913462-00	74S240 OCTAL BUFFER,INVERTI	2	E74-E97
66	66		1911675-00	74S138 DECODER/DEMUX 3-8 LIN	3	E59,E108,E119
67	67		1912863-00	LS273 FF-D OCTAL W/CLEAR	6	E58,E66,E87,E90,E91,E94
68	68		1912697-00	LS174 FF-D HEX W/CLEAR	2	E92,E96
69	69		1910534-00	74S04 INVERTER GATE-HEX 1I	1	E17
70	70		1912824-00	LS74 FF-D DUAL,EDGE TRIGG	7	E4,E62,E63,E68,E80,E84,E118
71	71		1912849-00	LS161 COUNTER,SYNCHR,4 BIT	1	E27
72	72		1913294-00	93S16 COUNTER,SYNCH UP BIN	4	E7,E8,E16,E56
73	73		1910956-00	74S151 MUX 1 OF 8	1	E26
74	74		1912847-00	LS157 MUX 1 OF 2(QUAD)	2	E46,E95
75	75		1910548-00	74S157 MUX 1 OF 2 (QUAD)	1	E120
76	76		1915193-00	LS244 DRIVER,LINE,OCTAL,T	9	E64,E65,E89,E98,E99,E101,E110,

D	I	G	I	T	A	L	TITLE	SECTION A OF A
							MULTIDROP LINE UNIT	

SIZE	CODE	DOCUMENT NUMBER	REV
K	PL	M8203-0-0	N

MK

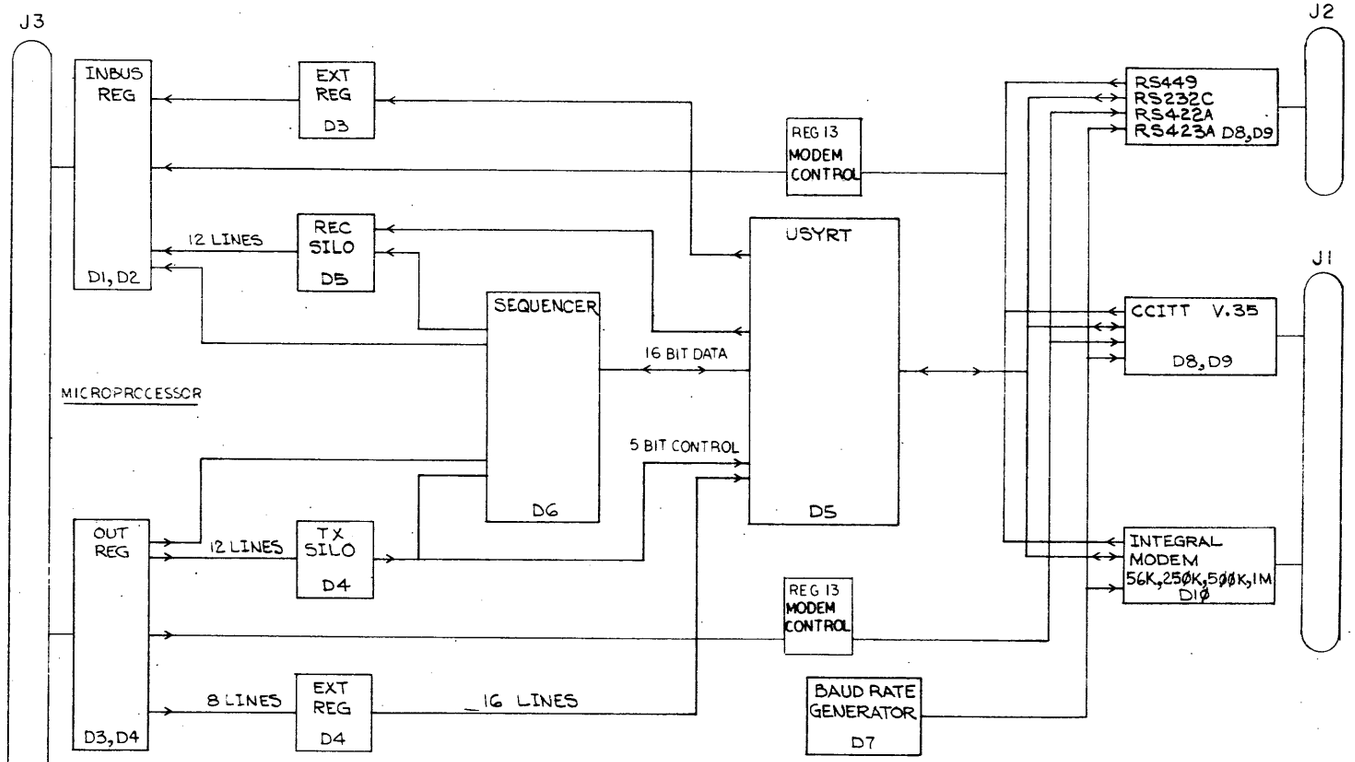
LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
						CONT E112,E113
77	77		1912816-00	LS32 OR GATE-QUAD 2IN,POS	4	E20,E51,E81,E83
78	78		1913777-00	LS240 DRIVER,LINE,OCTAL,T	4	E28,E50,E52,E93
79	79		1915125-00	3691 DRIVER,QUAD,EIA RS-	2	E37,E53
80	90		1912742-00	75112 DRIVER,DUAL LINE	1	E13
81	81		1915851-00	26LS31 DRIVER,QUAD,EIA RS	1	E23
82	82		1915694-00	3692 DRIVER,QUAD,EIA RS-4	1	E24
83	83		1915123-02	26LS32-2 RECEIVER,LINE,12K T	3	E38,E54,E55
84	84		1914091-00	3603 RECEIVER,LINE,DUAL	3	E1,E14,E15
85	85		1910550-00	74S174 FF-D HEX	2	E77,E78
86	86		1910544-00	74S74 FF-D DUAL,EDGE TRIGG	7	E9,E10,E18,E35,E47,E61,E11
87	87		1910741-00	7406 INVERTER GATE-HEX 1I	1	E67
88	88		1912805-00	LS08 AND GATE-QUAD 2IN,PO	6	E31,E33,E60,E72,E79,E82
89	89		1912808-00	LS11 AND GATE-TRIPLE 3IN	3	E6[illegible],E105,E117
90	90		1912821-00	LS54 A-O-I GATE,3-2-2-3IN	1	E85
91	91		1910536-00	74S10 NAND GATE-TRIPLE 3IN	2	E48,E106
92	92		1912801-00	LS02 NOR-GATE-QUAD 2IN	1	E73
93	93		1910537-00	74S11 AND GATE-TRIPLE 3INP	1	E49
94	94		1910011-00	DEC 7486 X-OR GATE-QUAD 2INPU	1	E43
95	95		1911712-00	74S51 AND-OR GATE-INVERT D	2	E32,E44
96	96	BLANK		*** THIS ITEM IS NOT USED ***	-	
97	97		1912850-00	LS164 SHIFT REG. 8BIT SERI	3	E21,E30,E42
98	98		1910735-02	318 OP AMP	3	E2,E6,E3
99	99		1910532-00	74S00 NAND GATE-QUAD 2IN	2	E12,E34
100	100		1910545-00	74S112 FF-JK DUAL,EDGE TRIG	2	E19,E25
101	101		1912803-00	74LS04 INVERTER GATE,HEX	1	E22
102	102		1912853-00	LS175 FF-D QUAD	1	E29
103	103		1912799-00	LS00 NAND-GATE-QUAD 2IN,P	2	E70,E71
104	104		2111188-01	3341-01 64X4 FIFO MEMORY	6	E102-E104,E114-E116
105	105		2112517-01	RECIEVER/TRANSMITTER	1	E111
106	106		23043B1-00	B1-01	1	F41
107	107		23032B1-00	B1-01	1	E100
108	108		23036F1-00	F1-01	1	E76
109	109		23037F1-00	F1-01	1	E75
110	110		23042B1-00	B1-01	1	E57
111	111		9009185-00	JUMPER, WIRE, INSULATED, BLACK B	8	W7-W10,W12,W13,W17,W18
112	112		9000024-01	EYELET,ROLL FLANGE .1210DX .192	10	
113	113		1013466-31	15.0 MMF 50V 5% CER	1	C42
114	114		1301890-00	560.0 .25 W 5.0 % CC	2	R85,R86
115	115		1101938-00	1N 4370A VZ= 2.4 5% .40W	1	D22
116	116		1301422-00	7.50 K .25 W 5.0 % CC	11	R45-R55
117	117		1209941-03	HEADER RT ANGLE LEFT L	2	
118	113		1209941-04	HEADER RT ANGLE,RIGHT	2	
119	119		1316115-00	35.70 .25 W 1.0 % RN55D-F10	4	R81-R84
120	120		1316736-00	374.0 .25 W 1.0 % RN55D-F10	4	R77-R80
121	121		1312928-00	51.0 .25 W 5.0 % CC	6	R62-R67
122	122		9007201-00	TRANSIPADS #10253	8	

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							MULTIDROP LINE UNIT		K	PL	M8203-0-0	N

MK

WRITE OUT REG	7	6	5	4	3	2	1	Ø
1Ø	TRANSMIT DATA SILO							
11	OC				GOAH	ABORT	EOM	SOM
12	IC	BPCLL	LULP					
13	POLL	DTR	SEL REQ	HDX	MAINT 1	MAINT 2	SEL STBY	
14		TX ENA ***	DISSI	RDAX	WAX	ENAX	AX2	AX1
15	LOW BYTE EXT REG							
16	HI BYTE EXT REG							
17	CRC TYPE	IDLE	SECA	STRIP	RDALL	IERR	DDCMP	
AXØ-15	NOT USED							
AXØ-16	NOT USED							
AX1-15	TRANSMIT DATA USYRT							
AX1-16				TXGA	TXAB	TEOM	TSOM	
AX2-15	SYNC CHARACTER							
AX2-16	NOT USED							
AX3-15	422	XYZ		V.35	INT	CR32 ** EN	Ø	TEST
AX3-16	TX CH LENGTH			*	*	REC CH LENGTH		

READ IBUS REG	7	6	5	4	3	2	1	Ø
	RECEIVER DATA SILO							
	OC	OACT	SW	ORDY	SW	SW	SW	UNDR
	IC	IACT	LULP	IRDY	OVRR	RAB	EBLK	BCC
	RING	DTR	RS	HDX	MODR	CS	STBY	CARR
	RDY	TXU ENA ***	DISSI	RDAX	WAX	ENAX	AX2	AX1
	SWITCH PACK (X) / LOW BYTE EXT							
	SWITCH PACK (Y) / HI BYTE EXT							
	SIG Q	SIG R	SI	OCOR	ICIR	TEST MODE	ECS	DDCMP
	RECEIVER DATA USYRT							
	RERR	BITS ASSEMB		ROR	RAB	REOM	RSOM	
	TRANSMIT DATA USYRT							
	TERR			TXGA	TXAB	TEOM	TSOM	
	SYNC CHARACTER							
	APA	DDCMP	STRIP	SECA	IDLE	CRC TYPE		
	422	XYZ	CR32 ** BCC	V.35	INT	CR32 ** EN	Ø	TEST
	TX CH LENGTH			*	*	REC CH LENGTH		



NOTES:

1. AX REGISTERS ARE INDIRECTLY ADDRESSED BY USING AX1+AX2 FOR ADDRESS, WAX FOR WRITE, RDAX FOR READ, REGISTERS 15 + 16 FOR DATA, ENAX GOING TO A ONE TO START THE OPERATION AND RDY TO TELL WHEN THE OPERATION IS COMPLETE.
2. BIT MAP AS SEEN BY THE KMC11 AND DMC11 MICRO PROCESSORS.
3. * DEFINED DIFFERENT WITH EACH USYRT VENDOR, CHARACTER LENGTH ENABLE WITH STANDARD USYRT
4. ** OPTIONAL WHEN CRC32 CHIP IS INSTALLED.
5. *** BIT 6 OF REG 14 IS DEFINED DIFFERENTLY DEPENDING ON THE STATE OF BITS:
   BIT 5 = Ø BIT 6 WILL LOCK RTS ON
   BIT 5 = 1 BIT 6 WITH ENABLE USYRT TRANSMITTER.

REVISIONS	CHG	CHANGE NO.	REV.
H. Bonanno 14-JAN-80	M	M8203-MK001	E
P. ALOISI			
H. Bonanno 09-JUN-80	M	M8203-MK002	F
P. ALOISI			
H. Bonanno 21-JUL-81	M	M8203-MK003	H
P. ALOISI 11-Sept-81	M	M8203-MK004	J
R. HARRINGTON	M	M8203-MK005	K
H. Bonanno 24-AUG-81	M	M8203-MK006	L
R. HARRINGTON	M	M8203-MK007	M
H. Bonanno 29-OCT-81	M	M8203-MK008	N
F. BACKES 29-JAN-82			

DRN. S. Singer	12-8-78	FIRST USED ON DMPII-AD
CHK'D	18 SEP 79	digital
ENG.	17 SEP 79	TITLE MULTI DROP LINE UNIT
PROJ. ENG.	13 SEP 79	
PROD	13 SEP 79	
NEXT HIGHER ASSY.		
B-DD-M8203-Ø		SIZE D · CODE CS · NUMBER M82Ø3-Ø-1 · REV. N
SCALE NONE		
SHEET 1 OF 15		DIST.

M8203 OPTIONS:

SWITCHES:

REGISTER 15 BITS Ø-7 E134 1-8.
REGISTER 16 BITS Ø-7 E121 1-8.
REGISTER 11
REGISTER 11 BIT 1 E121 1Ø
BIT 2 E121 9
BIT 3 E134 9
BIT 5 E134 1Ø

E39 SELECTS THE DATA RATE WITH SWITCHES 8,9,1Ø.

SW 8	9	10	DATA RATE
ON	ON	ON	1MBPS
OFF	ON	ON	500 KBPS
ON	OFF	ON	250 KBPS
OFF	OFF	ON	56 KBPS
ON	ON	OFF	19.2 KBPS
OFF	ON	OFF	9.6 KBPS
ON	OFF	OFF	4.8 KBPS
OFF	OFF	OFF	2.4 KBPS

E39 SWITCH 5 SELECTS V.35 INTERFACE.
E39 SWITCH 6 SELECTS THE OPTICS, IF AVAILABLE.
E39 SWITCH 7 SELECTS RS422.
* CRC 32 CHIP CAN BE INSTALLED IN E124.

JUMPERS:

W1 CAN BE USED FOR A RESISTOR OR CAPACITOR FOR THE "CLEAR TO SEND" RECEIVER.
W2 CAN BE USED FOR A RESISTOR OR CAPACITOR FOR THE "DATA MODE" RECEIVER.
W3 CAN BE USED FOR A RESISTOR OR CAPACITOR FOR THE "RECEIVER DATA" RECEIVER.
W4 CAN BE USED AS A RESISTOR OR CAPACITOR FOR THE "RECEIVER CLOCK" RECEIVER.
W5 CAN BE USED FOR A RESISTOR OR CAPACIOR FOR THE "RECEIVER READY" READY.
W6 CAN BE USED FOR RESISTOR OR CAPACITOR FOR THE "TRANSMITTER CLOCK" RECEIVER.
W7 BCØ5O ONLY, PIN 9, BERG Y — IS NORMALLY IN BUT CAN BE REMOVED TO DISABLE 'SIGNAL RATE' ON SOME MODEMS THAT USE THIS SIGNAL AS A TEST CLOCK.
W8 BCØ5C ONLY, PIN 18, BERG U — 'DATA MODE' – JUMPER 'NORMALLY IN" CAN BE USED WHEN PROBLEMS OCCUR WITH SOME MODEMS.
W9 'NULL CLK' MAY CAUSE PROBLEMS WITH SOME MODEMS. REMOVE JUMPER FOR THESE APPLICATIONS.
W1Ø BCØ5 ONLY, PIN 1Ø, BERG W — 'TERMINAL READY' – IS CONNECTED TO A TEST VOLTAGE ON SOME MODEMS.
W11 INSTALL THIS JUMPER WHEN THE MODEM USED DOES NOT PROVIDE THE 'CARRIER SIGNAL'. THE CLOCKING OUT CIRCUIT WILL NOT WORK. THIS MAY CAUSE PROBLEMS WITH THE MICROCODE.

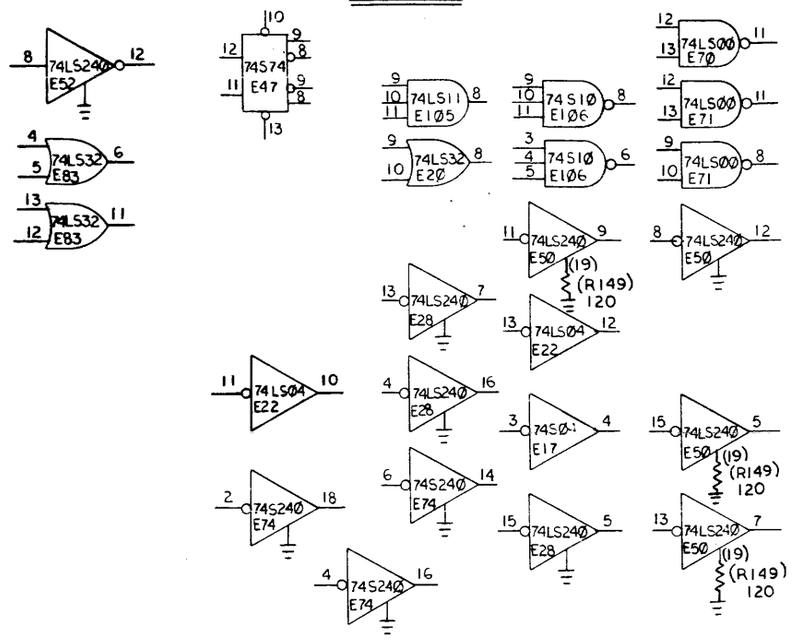
JUMPERS: (CONT'D).

W12 BCØ5C ONLY, PIN 25, BERG C — 'TERMINAL IN SERVICE', THIS MAY CAUSE PROBLEMS WITH SOME MODEMS.
W14 & W15 THESE JUMPERS ARE USED TO REDUCE THE BANDPASS OF THE RECEIVER FILTER ON THE INTEGRAL MODEM. (USE FOR 56 KBPS ONLY).
W13 INSTALL AFTER GR TEST.
W16 THIS JUMPER IS USED ONLY IF THE MODEM HAS A DELAY LONGER THAN FOUR BIT TIMES FOR NEGATING CLEAR TO SEND AFTER REQUEST TO SEND IS NEGATED. IF THE JUMPER IS NOT CHANGED A LOSS OF THE FIRST SYNC CHARACTER IS POSSIBLE CAUSING RANDOM LOSS OF MESSAGES, WHICH WILL CAUSE MORE RETRANSMISSIONS AND SOFT ERRORS.
W17 THIS JUMPER IS USED FOR MODEMS HAVING CONTINUOUS CARRIER, (NOT CONTROLLED BY REQUEST TO SEND FROM THE OTHER END).
W18 NOT TO BE REMOVED.

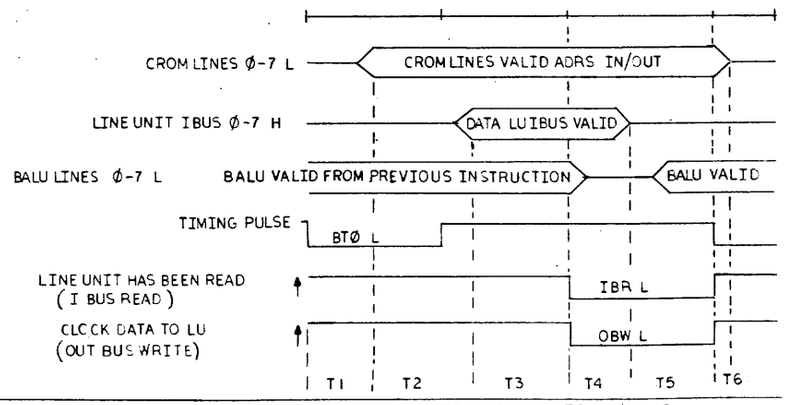
LEDS:

THERE ARE 6 LEDS ON THE M8203 TO AID THE FIELD MAINTENANCE OF THE M8203. THESE LEDS INDICATE STATUS OF THE MODEM THAT IS BEING USED WITH THE M8203 OR THE INTEGRAL MODEM IF IT IS SELECTED.
D1Ø SIGNAL QUALITY (NOT USED WITH THE INTEGRAL MODEM).
D11 CARRIER (INDICATE THE RECEIVER IS IN SYNC).
D12 RECEIVER DATA.
D13 TRANSMIT DATA.
D14 REQUEST TO SEND.
D15 BEEN POLLED. (THIS IS FROM THE MICROPROCESSOR AND IS DEFINED BY THE OPTION MANUAL).

SPARES:



J3 MICRO CONTROLLER TIMING



T1 + T2 = 6ØNS MAXIMUM — BTØL ↓ TO DATA VALID LUIBUS
T2 = 5ØNS MAXIMUM — CROM LINES VALID TO DATA VALID LUIBUS
T3 = NA
T4 = NA
T5 = 25NS MAXIMUM — BALU VALID TO OBW L ↑
T6 = 16NS MAXIMUM — OBW L ↑ TO CROMLINES INVALID

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE: MULTI DROP LINE UNIT
SIZE D | CODE CS | NUMBER M8203-Ø-1 | REV. N
SCALE — | SHEET 2 OF 15 | DIST.
MK

J3

W, EE, HH, NN, U, S, F, D, PP, UU, SS, RR, Y, AA, CC, H, TT, X, V, A, B, E, T, C, J, MM, JJ, KK, LL, FF, VV, BB, DD, K, L, M, N, P, R, Z

DI CROM Ø L
DI CROM 1 L
DI CROM 2 L
DI CROM 3 L
DI CROM 4 L
DI CROM 5 L
DI CROM 6 L
DI CROM 7 L
DI OBW L
DI OUT *L
DI LU LOOP H
DI STEP LU H
DI CLEAR L
NOT USED
DI RUN H
DI IBR L
DI BALU 7 L
DI BALU 6 L
DI BALU 5 L
DI BALU 4 L
DI BALU 3 L
DI BALU 2 L
DI BALU 1 L
DI BALU Ø L
N.C.

74S138 E119 — IBUS DECODE
SELA, SELB, SELC, EN
DØ, D1, D2, D3, D4, D5, D6, D7
DI ENI 6 L
DI ENI 15 L
DI ENI 11 L
+3V_A

74S24Ø E74
DI BTØ L
DI BCLEAR H
DI BCLEAR L
DI RUN L
DI IBR H
R2 1K
R1 1K
+5V

+5V
R29 1K
+3V_A

UNIBUS JUMPERS
DK2 DL2 DM2 DN2 DP2 DR2 DS2 DT2
BR

CA1 CB1
NPG

I REGISTER AX3-15 — 74LS374
D7 422 H, D7 EIA H, D5 CRC 32 BCC, D7 V.35 H, D7 INT H, D4 EN CRC 32 H, D7 O H, D4 MM H
D4 R4(1), D3 R3(1), D5 R5(1), D2 R2(1), D6 R6(1), D1 R1(1), D7 R7(1), DØ RØ(1), CLK, OC
D2 SEL 15 –

I REGISTER 17 — 74LS374 — E123
D8 SIG R H, D8 SIG Q H, D5 TX DATA H, D3 OCOR H, D5 ICIR H, D8 TEST MODE H, D7 MAINT CLK, D4 DDCMP H

I REGISTER 14 — 74LS374 — E126
D6 READY, D4 TXU ENA H, D4 DISSI H, D4 RDAX H, D4 WAX H, D4 EN AX H, D4 AX 2 H, D4 AX 1 H

I REGISTER 13 — 74LS374 — E131
D8 RING H, D9 DTR H, D5 RTS H, D9 HDX H, D8 MOD RDY H, D8 CS H, D8 STBYI H, D8 CARRIER H

I REGISTER 12 — 74LS374 — E130
D4 IC H, D5 INACT H, D4 LULP H, D3 IN RDY H, D5 OVER RUN H, D5 ABORT H, D5 END BLK H, D5 BCC H

I REGISTER 10 — 74LS374 — E128
D5 SILO 7 H, D5 SILO 6 H, D5 SILO 5 H, D5 SILO 4 H, D5 SILO 3 H, D5 SILO 2 H, D5 SILO 1 H, D5 SILO Ø H

DI LUIBUS 7 H
DI LUIBUS 6 H
DI LUIBUS 5 H
DI LUIBUS 4 H
DI LUIBUS 3 H
DI LUIBUS 2 H
DI LUIBUS 1 H
DI LUIBUS Ø H

DI BTØ H
DI SELØ L

MAINTENANCE LEDS

D8 SIG Q H — 74Ø6 E67 — DIØ — SIGNAL QUALITY
D8 CARRIER H — 74Ø6 E67 — DI1 — REC CARRIER
D8 RC DATA H — 74Ø6 E67 — DI2 — REC DATA
D5 TX DATA H — 74Ø6 E67 — DI3 — TXDATA
D5 RTS H — 74Ø6 E67 — DI4 — REQ.TO SEND
D4 B POLL — 74Ø6 E67 — DI5 — BEEN POLLED
+5V

◇ TRISTATE BUS

(INBUS REGISTERS)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT DI	D	CS	M8203-Ø-1	N
SCALE — //	SHEET 3 OF 15	DIST.		

MAKEPAGE P-1888
DEC FORM NO. DRD 130

DI LUIBUS 7 H
DI LUIBUS 6 H
DI LUIBUS 5 H
DI LUIBUS 4 H
DI LUIBUS 3 H
DI LUIBUS 2 H
DI LUIBUS 1 H
DI LUIBUS Ø H

+5V
R3 1K
R4 1K
R5 1K
R6 1K
R7 1K
R8 1K
R9 1K
R1Ø 1K
R11 1K
R12 1K
R13 1K
R14 1K
R15 1K
R16 1K
R17 1K
R18 1K
R19 1K
R2Ø 1K
R21 1K
R22 1K

SW Y E121
SW X E134
SW Y E121
SW X E134

I REGISTER 16
74LS374 E1Ø8
I REGISTER 15
74LS374 E133
I REGISTER 11
74LS374 E132
I REGISTER AX16
74LS374 E122
I REGISTER AX15
74LS374 EI25

D3 OC H
D5 OUT ACT H
D3 OUT RDY H
D5 UNDERRUN H
D5 DOP 15 H
D5 DOP 14 H
D5 DOP 13 H
D5 DOP 12 H
D5 DOP 11 H
D5 DOP 1Ø H
D5 DOP 9 H
D5 DOP 8 H
D5 DOP 7 H
D5 DOP 6 H
D5 DOP 5 H
D5 DOP 4 H
D5 DOP 3 H
D5 DOP 2 H
D5 DOP 1 H
D5 DOP Ø H

DI BTØ H
DI ENI 11 L
DI ENI 16 L
+3V$_A$
DI ENI 15 L
D4 EN AX H

74S157 E12Ø
74LSØ8 E79
74LS24Ø E93
74LS32 E81
74LS32 E81
74LS32 E81

D4 AX 2 H
D4 AX 1 H
D3 LD 15
D2 LDX L
D2 SEL 15 L
D6 LD AX

+5V
8µf C1Ø2-C1Ø7
.Ø47 µf C1Ø3-C1Ø7
C47 µf
C128 .Ø47µf

AA2, BA2
CA2, DA2
EA2, FA2
AC2, AT1
BC2, BT1
CC2, CT1
DC2, DT1
EC2, ET1
FC2, FT1

(INBUS REGISTERS)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT D2	D	CS	M8203-Ø-1	N
SCALE	SHEET 4 OF 15	DIST.	MK	

MARKFORCE P/1888
DEC FORM NO. DRD 138

74S138 E10B
DI CROM 0 L
DI CROM 1 L
DI CROM 2 L
+5V
R23 1K
DI OBW L
DI CROM 3 L
DI OUT* L
SEL A
SEL B
SEL C
EN
OUT REGISTER SELECT
D0 D1 D2 D3 D4 D5 D6 D7
D3 LD 17
D3 LD 16
D3 LD 15
D3 LD 14
D3 LD 13
D3 LD 12

74S240 E97
DI BALU 7 L
DI BALU 6 L
DI BALU 5 L
DI BALU 4 L
DI BALU 3 L
DI BALU 2 L
DI BALU 1 L
DI BALU 0 L

D3 BALU 7 H
D3 BALU 6 H
D3 BALU 5 H
D3 BALU 4 H
D3 BALU 3 H
D3 BALU 2 H
D3 BALU 1 H
D3 BALU 0 H

O REGISTER 11
74LS174 E92
D5 D4 D3 D2 D1 D0
R5(1) R4(1) R3(1) R2(1) R1(1) R0(1)
CLK CLR
D3 OC H

O REGISTER 10
74LS273 E94
D8 D7 D6 D5 D4 D3 D2 D1
R8 R7 R6 R5 R4 R3 R2 R1
CLK CLR

+3VD
R24 220
C1 100PF
E80 74LS74
SHIFT IN

D6 OCP L
74LS08 E79

D6 CLTXENA H
74LS240 E93

D3 SOM H
74LS08 E79

D3 OCOR H
E80
KRTS 74LS74

D5 OUT ACT L
74LS00 E71
D6 OCP L
74LS08 E79
D3 KRTS H

TRANSMIT SILO

3341-1 SILO STATUS E102
INR SHI D3 D2 C1 D0 MR
OUTR SHO Q3 Q2 Q1 Q0
-12VSILO

3341-1 SILO 4-7 E104
-12VSILO

3341-1 SILO 0-3 E103
-12V SILO

D3 EOM H
D3 SOM H

74LS11 E105
D3 OCOR H

74LS11 E69
D5 TXBMT H
D8 HDX RD

74LS74 E68
D6 TXBUF L
D4 DISSI L
SHIFT OUT

74LS11 E69
D3 LOAD H

D3 CTX ENA H

74LS00 E71
D3 LOAD H

74LS157 E95
D5 TX BMT H
D5 O RDY H
D5 SIN RDY H
D4 TXU ENA L
D4 TXU ENA H
D4 DISSI L
f0 f1 f2 f3
D3 OUT RDY H
D3 IN RDY H
D3 TXENA L
D3 RTS LOCK H
S0 STB
DISSI MUX

DATA/STATUS TO THE USYRT

74LS244 E89
1A1 2A4 1A2 2A3 1A3 2A2 1A4 2A1 1G 2G
1Y1 2Y4 1Y2 2Y3 1Y3 2Y2 1Y4 2Y1
D3 DIP 15 H
D3 DIP 14 H
D3 DIP 13 H
D3 DIP 12 H
D3 DIP 11 H
D3 DIP 10 H
D3 DIP 9 H
D3 DIP 8 H

74LS244 E101
D3 DIP 7 H
D3 DIP 6 H
D3 DIP 5 H
D3 DIP 4 H
D3 DIP 3 H
D3 DIP 2 H
D3 DIP 1 H
D3 DIP 0 H

(TRANSMIT SILO)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT D3	D	CS	M8203-0-1	N
SCALE	SHEET 5 OF 15	DIST.	MK	

O REGISTER 12
74LS174 E96
D5 R5(1) 15 — D4 IC H
D4 R4(1) 12 — D4 LULP H
D3 R3(1) 10 — D4 B POLL
D2 R2(1) 7
D1 R1(1) 5
DØ RØ(1) 2
CLR CLK
D6 ICP L
D3 LD 12

O REGISTER 17
74LS273 E91
D2 R2 5
D8 R8 19
D1 R1 2
D3 R3 6
D4 R4 9
D6 R6 15
D7 R7 16 — D4 IERR H
D5 R5 12
CLR CLK
D6 CLR L
74LSØ8 E6Ø
D3 LD 17
D6 INIT L
74LS24Ø E93 (19)
74LS24Ø E93 (1) — D4 DDCMP H

MODE ROM 23ØØ881 E1ØØ
D6 INIT L
A4 A3 A5 A2 A6 A1 A7 AØ
D4 D3 D5 D2 D6 D1 D7 DØ
CE CE
74LS374 E68
D4 LD MODE H
D6 EN MODE L
D6 CLR L
74LSØ8 E6Ø

D3 BALU 7 H
D3 BALU 6 H
D3 BALU 5 H
D3 BALU 4 H
D3 BALU 3 H
D3 BALU 2 H
D3 BALU 1 H
D3 BALU Ø H

O REGISTER AX 16
74LS374 E86
D1 R1(1) 5 — D3 DIP 15 H
D7 R7(1) 19 — D3 DIP 14 H
DØ RØ(1) 2 — D3 DIP 13 H
D2 R2(1) 6 — D3 DIP 12 H
D3 R3(1) 9 — D3 DIP 11 H
D5 R5(1) 15 — D3 DIP 10 H
D6 R6(1) 16 — D3 DIP 9 H
D4 R4(1) 12 — D3 DIP 8 H
CLK EN
D3 LD 16

74LS24Ø E93 — D4 TXUENA L
74LS24Ø E93 — D4 DISSI L

O REGISTER AX 3-15
74LS273 E87
D7 R7 16 — D4 M422 H
D1 R1 2 — D4 MXYZ H
D8 R8 19
D6 R6 15 — D4 MV.35 H
D5 R5 12 — D4 MINT H
D3 R3 6 — D4 EN CRC 32 H
D2 R2 5 — D4 MO H
D4 R4 9 — D4 MM H
CLR CLK
D6 CLR L
D2 LDX L

O REGISTER 14
74LS273 E9Ø
D7 R7 16
D1 R1 2 — D4 TXUENA H
D8 R8 19 — D4 DISSI H
D6 R6 15 — D4 RDAX H
D5 R5 12 — D4 WAX H
D3 R3 6 — D4 ENAX H
D2 R2 5 — D4 AX 2 H
D4 R4 9 — D4 AX 1 H
CLR CLK
D3 LD 14

O REGISTER AX 15
74LS374 E88
D1 R1(1) 5 — D3 DIP 7 H
D7 R7(1) 19 — D3 DIP 6 H
DØ RØ(1) 2 — D3 DIP 5 H
D2 R2(1) 6 — D3 DIP 4 H
D3 R3(1) 9 — D3 DIP 3 H
D5 R5(1) 15 — D3 DIP 2 H
D6 R6(1) 16 — D3 DIP 1 H
D4 R4(1) 12 — D3 DIP Ø H
EN CLK
D6 EN AX L
D3 LD 15

(EXTENDED REG AND MODE)

REVISIONS		
CHK	CHANGE NO.	REV.
	-	

TITLE: MULTI DROP LINE UNIT D4
SIZE D CODE CS NUMBER M8203-Ø-1 REV. N
SCALE — 11 — SHEET 6 OF 15 DIST.

+5V
R133
1K
+3V_D

D3 TXENA L — 74LS74 E62 — TXENA
D3 OCOR H
D3 CTX ENA H
D6 OCP L
D3 OC H — E73 — 74LS02
D6 CL TXENA H
E69 — 74LS11

USYRT TRANSMITTER ENABLE
D5 TX BMT H — 74LS240 E50 — (1)
74LS32 E51

USYRT 2652 E111
+5V — 37 TXENA
D6 ICP L — 8 RXNA
D6 CLR H — 33 RESET
D4 LULP H — 40 MAINT
D6 DPNE H — 23 DPNE
D6 W/R H — 18 W/R
D6 A2 H — 19 ADR 2
D6 A1 H — 20 ADR 1
D6 A0 H — 21 ADR 0
D6 BYTE H — 22 BYTE OP
38 TSD
39 TCP
34 TX ACT
35 TBMTY
36 TSA
3 RSI
2 RCP
5 RX ACT
6 RDATRY
7 RSA
4 CMP
17 DP 15
16 DP 14
15 DP 13
14 DP 12
13 DP 11
12 DP 10
11 DP 9
10 DP 8
24 DP 7
25 DP 6
26 DP 5
27 DP 4
28 DP 3
29 DP 2
30 DP 1
31 DP 0
32 +5V
9

74LS244 E113
2A1 1Y1 — D5 TX DATA H
2A4 1Y4 — D5 OUT ACT H
1A3 1Y3 — D5 TX BMT H
2A2 1Y2 — D5 UNDER RUN H
2A3 1Y3 — D5 IN ACT H
1A2 1Y2
1A1 1Y1
1A4 1Y4
74LS32 E81 — D5 ORDY H

D4 EN CRC 32 H
D6 ICP H — CRC 32 E124 — D5 CRC 32 BCC
D8 RC DATA
D8 RC CLK
D6 OCP H
+3V_B
2Ø +5V

USYRT DATA IN BUFFER
74LS244 E98
(BI DIRECTIONAL TRI-STATE BUS)
D3 DIP 15 H — 1A4 1Y4
D3 DIP 14 H — 2A1 2Y1
D3 DIP 13 H — 1A3 1Y3
D3 DIP 12 H — 2A2 2Y2
D3 DIP 11 H — 1A2 1Y2
D3 DIP 10 H — 2A3 2Y3
D3 DIP 9 H — 1A1 1Y1
D3 DIP 8 H — 2A4 2Y4
1G 2G
D6 W/R L

D8 MOD RDY H
D5 OUT ACT H
74S10 E106

D5 CTS L
74LS240 E93 — (1)
74LS74 E84 — D5 RTS H — REQUEST TO SEND
CLEAR TO SEND
+3V_C
D8 CS H — 74LS74 E84
D8 TX CLK
D6 OCP L
D7 INT L — 74LS08 E82 — 74LS32 E83
D3 RTS LOCK H
D3 KRTS H — 74LS08 E82
D5 OUT ACT L
R25 220Ø
C2 330pf
DI RUN L
DI LULOOP H
DI STEP LU H
D7 1.25 M
D3 OC H
+5V
74LS54 E85
74LS240 E93 — (19)
R142 1K
USYRT TX CLK
D5 RTS H — W16

USYRT DATA IN BUFFER
74LS244 E99
D3 DIP 7 H — 2A1 2Y1
D3 DIP 6 H — 1A4 1Y4
D3 DIP 5 H — 2A2 2Y2
D3 DIP 4 H — 1A3 1Y3
D3 DIP 3 H — 2A3 2Y3
D3 DIP 2 H — 1A2 1Y2
D3 DIP 1 H — 2A4 2Y4
D3 DIP 0 H — 1A1 1Y1
1G 2G

USYRT DATA OUT BUFFER
74LS244 E112
1A1 1Y1 — D5 DOP 7 H
2A4 2Y4 — D5 DOP 6 H
1A2 1Y2 — D5 DOP 5 H
2A3 1Y3 — D5 DOP 4 H
1A3 1Y3 — D5 DOP 3 H
2A2 2Y2 — D5 DOP 2 H
1A4 1Y4 — D5 DOP 1 H
2A1 2Y1 — D5 DOP 0 H
1G 2G

RECEIVER SILO DATA
3341-1 E115
D3 — Q3 — D5 SILO 7 H
D2 — Q2 — D5 SILO 6 H
D1 — Q1 — D5 SILO 5 H
D0 — Q0 — D5 SILO 4 H
SHFT IN RDY — SHFT OUT RDY
MR
-12V SILO

USYRT DATA OUT BUFFER
74LS244 E110
1A4 1Y4 — D5 DOP 15 H
2A1 2Y1 — D5 DOP 14 H
1A3 1Y3 — D5 DOP 13 H
2A2 2Y2 — D5 DOP 12 H
1A2 1Y2 — D5 DOP 11 H
2A3 2Y3 — D5 DOP 10 H
1A1 1Y1 — D5 DOP 9 H
2A4 2Y4 — D5 DOP 8 H
1G 2G

74LS11 E117 — D5 ICIR H

3341-1 E114
IN RDY — OUT RDY
SHFT IN — SHFT OUT
D3 — Q3 — D5 SILO 3 H
D2 — Q2 — D5 SILO 2 H
D1 — Q1 — D5 SILO 1 H
D0 — Q0 — D5 SILO 0 H
MR
-12V SILO

+5V
R132 1K
+3V_C
D4 DISSI L — 74LS74 E62
+3V_D
D6 LD SILO
D5 ORDY H — SHIFT IN — 74LS11 E117 — D5 READ H

+5V
R27 1K
+3VB

74LS08 E82
D6 ICP L

RECEIVER SILO STATUS
3341-1 E116
D0 — Q0 — D5 END BLK H
D1 — Q1 — D5 ABORT H
D2 — Q2 — D5 BCC H
D3 — Q3 — D5 OVERRUN H
IN RDY — OUT RDY
SHFT IN — SHFT OUT
MR
-12V SILO

74LS00 E70
D6 L DOVR
74LS08 E118 — OVERRUN
74LS74

74LS11 E117
74LS08 E72 — I55 IN RDY H
DI SEL 0 L
74LS74 E118 — SHIFT OUT
DI IBR H

74LS32 E83

USYRT AND REC SILO

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT D5	D	CS	M8203-0-1	N
SCALE	SHEET 7 OF 15	DIST.		

MK

FUNCTION LATCH

74S174 E78
D4 WAX H
D4 RDAX H
D4 AX 2 H
D4 AX 1 H
D7 MSTR CLK
74LSØØ E7Ø
+3V$_D$
D3 BALU 2 H
74LS74 E63
D3 LD .4
R26 22Ø
C3 1ØØØPF
DG LAX L
DG ENAX L
DG CLR L
74S11 E49
74LS74 E63
DG READY

PRIORITY CONTROL

23Ø36F1 E76
DG BYTE H
R144 12Ø
74LSØ8 E6Ø
74S1Ø E48
+3V$_G$

74S138 E59
DG EN MODE L
DG LAX L
DG INIT L
DG TX BUF L
DG EN AX L

SEQUENCER PRIORITY
DONE ON CLEAR
1. INIT
2. O/I C
3. LD MODE
4. READ DATA
5. LOAD EDM
6. LOAD XMIT DATA
7. READ EXTENDED REGISTER
8. WRITE EXTENDED REGISTER

74LS24Ø E5Ø
DG W/R L

TIMING CONTROL
23Ø4281 E57

LOAD CLOCKS
74LS273 E58
DG CLTXENA H
DI BCLEAR H
74LS32 E2Ø
DG LDOVR
DG DPNE H
DG LD SILO
DG LD AX
74LS24Ø
R149 12Ø

SEQUENCER COUNTER
E56
93S16
DI B CLEAR L
R143 1K
74LS24Ø

+3V$_G$
74S74 E47
CLEAR
DG CLR L
DG CLR H
DI BCLEAR L

FUNCTION LATCH
74S174 E77 FUNC
D3 LOAD H
D5 READ H
D3 EOM H
D4 LD MODE H

23Ø37F1 E75
DG W/R H
DG A2 H
DG A1 H
DG AØ H

D7 MSTR CLK
74S11 E49

74LSØ2 E73
DG CLR H
74LSØ6 E32

D5 OUT ACT L
74LSØ8 E72
74LS32 E51
7486 E43
D4 IC H
D3 OC H
E61 74S74
DG OCP H
DG OCP L
OUT CLEAR
DG ICP H
DG ICP L
IN CLEAR
+3V$_D$

+5V R135 1K +3V$_F$
+5V R136 1K +3V$_G$
+5V R137 1K +3V$_H$
+5V R138 1K +3V$_I$

REVISIONS		
CHK	CHANGE NO.	REV.

(SEQUENCER)

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT D6	D	CS	M8203-Ø-1	N
SCALE	SHEET 8 OF 15	DIST.		

REV. N M-1 SIZE CODE D CS M8203-Ø-1

DEC FORM NO. DDD 1ØØ

MK

+5V
R141
1K
+3V L

+5V
R140
1K
+3VK

TRANSMITTER CLOCK DIVIDER

E8 93S16
P0 P1 P2 P3 Q0 Q1 Q2 Q3
D7 10X CLR H
D7 XMITCLK (2X)
+3VK
D7 20X CLK H
20X BAUD RATE
DI BCLEAR L
CLK CLR CNTENP CNTENT LD CO

E28 74LS240 (1)
+3VK

STB
E26 DATA RATE SELECTOR
D0 D1 D2 D3 D4 D5 D6 D7
f0 f1
74S151
S0 S1 S2

50NS 1M
100NS 500K
200NS 250K
900NS 56K
2.6 µS 19.2K
5.2 µS 9.6K
10.4 µS 4.8K
20.8 µS 2.4K

D7 RTS CLK
56K (28.8 µS)
250K-1M (25.6 µS)

D7 LO BAUD
74LS240
E28 (19)

74S11 E49
D7 C56K H

E7 93S16
P0 P1 P2 P3 Q0 Q1 Q2 Q3
D7 LC BAUD
D7 1.25M
CLR CNTENP CNTENT CLK LD CO
HI DATA RATE COUNTER

74S00 E34
74S86 E43
10 MHZ E5
GR TEST W13
74S04 E17
+5V
+3VK
R146 1K
DI BCLEAR L
D7 C56K H
74LS74 E4

E27 74LS161
D0 D1 D2 D3 R0(1) R1(1) R2(1) R3(1)
CLR CLK LD CO CNT EN CRY EN
LOW DATA RATE COUNTER
+3VL

74LS74 E4
+3VK

R28 1K
74S112 E25
D7 MSTR CLK
10 MHZ

MODEM INTERFACE SELECTION

SWZ E39
SELECT 422
SELECT V.35
SELECT FIBEROPTICS
*NOTE
R31 1K
R30 1K
R33 1K
R32 1K

74LS157 E46
A0 A1 A2 A3 B0 B1 B2 B3 E3 S0 STB f0 f1 f2 f3
D4 M422 H
D4 MV.35 H
D4 MINT H
D4 MO H
D4 MM H

23-043B1 E41
A7 A6 A5 A4 A3 A2 A1 A0 D7 D6 D5 D4 D3 D2 D1 D0 CE CE
D8 LPBK L
D4 MXYZ H
D7 422 H
D7 V.35 H
D7 V.35+EIA H
D7 EIA H
D7 INT H
D7 423 L
D7 CABLE H
D7 0 H

74LS240 E28
D7 V.35 L
D7 INT L
D7 CABLE L

J1 VV INT Y

*NOTE: CONNECTION TO MALE WITH BC08A CONNECTOR.

R36 1K
R35 1K
R34 1K
+5V
SWZ E39

74LS164 E42
R7(1) R6(1) R5(1) R4(1) R3(1) R2(1) R1(1) R0(1)
D7 DISABLE REC
D7 TURN OFF 1.25 M
D7 TURN ON 1.25 M
D7 TURN OFF RC H
DSO IN CLK CLR

74LS32 E51
D8 CARRIER L
74S00 E34
D8 CARRIER H

74LS240 E52
D7 TURN OFF RCL

74LS08 E31
D6 CLR L

74LS08 E72
DI RUN H
DI RUN L
DI STEP CU H
7486 E43
D7 MAINT CLK

DATA RATE GENERATOR

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT D7	D	CS	M8203-0-1	N
SCALE —	SHEET 9 OF 15	DIST.		

DEC FORM NO. DRG 1.08
MAKEPEACE P-2134
MK

D7 TURN OFF 1.25 M
D7 TURN ON 1.25 M
D9 HDX H
D5 CTS L
D4 IERR H
D5 TX DATA H
D7 MAINTCLK
D5 RTS H
+3V$_E$
D4 LU LP H
D1 LU LOOP H
D8 LPBK L
D8 HDX RD
D8 CARRIER L
D7 TURN OFF RC L
D7 TURN OFF RC H
D10 TX HDX
D7 1.25 M
D8 RC CLK
D7 TURN OFF RC H
D8 RC DATA
D8 CARRIER H
D8 CARRIER L
D8 TX CLK
D8 CS H
D8 TEST MODE H
D8 RING H
D8 MOD RDY H
D10 RI DATA
D10 RI CLK
D10 I CARRIER
D10 IT CLK
D11 ICS
D7 INT L
D7 V.35 + EIA H
D7 EIA H
D7 V.35 L
R DATA
R CLK
REC RDY
T CLK
CS
TM
RING
DATA MODE
(REC COMMON)
STBY I
SIG Q
SIG R
STBY I H
SIG Q H
SIG R H
(MODEM INTERFACE RECEIVERS)

REVISIONS

CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT D8	D	CS	M8203-0-1	N
SCALE	SHEET 10 OF 15	DIST.	MK	

EIA TRANSMITTERS

26LS30 E37 — D7 422 H — +3V_H — 26LS30 E37 — C11 56Pf — SRTS — J2 P
26LS30 E37 — C12 56Pf — DI RUN H — TER IN SER — WI2 — J2 C
26LS30 E53 — C13 56Pf — SEL FREQ — J2 RR

EIA TRANSMITTERS

D7 422 H — +3V_I — 26LS31 E23 — Q8 VN35AK — SEND DATA — J2 F, KK
26LS31 E23 — Q9 VN35AK — NULL CLK — J2 L, EE
26LS31 E23 — Q10 VN35AK — RTS — J2 V, AA
26LS31 E23 — Q11 VN35AK — TER RDY — WI0 — J2 DD, W

NOTE:
1. 26LS30 AND 26LS29 USE ±6V
   26LS29 AND 26LS30
   +6V PIN 1
   -6V PIN 8
   GND PIN 5
2. PINS F, L, V, AND DD OF J2 ARE SHOWN TWICE ON THIS PAGE

26LS30 = 3691
26LS29 = 3692

O REGISTER 13

74LS273 E66
D3 BALU 7 H — D8 — R8 — D9 DTR H
D3 BALU 6 H — D7 — R7
D3 BALU 5 H — D6 — R6
D3 BALU 4 H — D5 — R5 — D9 HDX H
D3 BALU 3 H — D4 — R4
D3 BALU 2 H — D3 — R3
D3 BALU 1 H — D2 — R2
D3 BALU 0 H — D1 — R1
CLK CLR
D3 LD 13

D18 DG64 — R148 1K — +5V — C109 8µf

26LS30 E53 — C14 56Pf — POLL — J2 HH
26LS30 E37 — C15 56Pf — MAINT 1 — J2 K
26LS30 E53 — C16 56Pf — MAINT 2 — J2 FF
26LS30 E53 — C17 56Pf — SEL STBY — J2 CC, A
+3V_H, +3V_F

74S240 E52 — D5 TX DATA H — D9 TX DATA L

V.35 TRANSMITTER

+5V, -5V
J1
75112 E13
R77 374 1% — SEND DATA — J1 AA, KK
R78 374 1%, R81 35.7 1%, R82 35.7 1%, R85 560
R79 374 1% — NULL CLK — J1 PP, EE
R80 374 1%, R83 35.7 1%, R84 35.7 1%, R86 560
+3V_I
D7 V.35 H
D11 NULL CLK

D5 RTS H — D7 423 L

26LS29 E24
C18 56Pf — SEND DATA — J1 F
C19 56Pf — W9 — R87 4.7K — NULL CLK — J1 L
C20 56Pf — RTS — J1 V
C21 56Pf — TER RDY — J1 DD
J1 V, DD, A, B

R75 150Ω 1W — CB2 — -15V — -6V
C30 8µf, D16 IN753A, C22 .047µf, C23 .22µf, C24 .22µf, C25 .22µf

R76 150Ω 1W — CU1 — +15V — +6V
C31 8µf, D17 IN753A, C26 .047µf, C27 .22µf, C28 .22µf, C29 .22µf

(MODEM INTERFACE DRIVERS)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT D9	D	CS	M8203-0-1	N
SCALE	SHEET 11 OF 15	DIST.	MK	

J1 NN MM

T1

D19 DG64 D2Ø DG64 W18

R88 32.4K 1%

R89 1ØK 1%

C32 12ØØPF

C33 12ØØPF

C34 12ØØPF

R95 1ØK 1%

R96 1ØK 1%

C39 1ØPF

R97 24.3K 1%

+15VR

318 E3

318 E2

-15VR

R98 1K

+5V

R1Ø5 4.7K

C41 47PF

R1ØØ 150

D7 CABLE L

-5V

R1Ø4 4.7K

C4Ø 47P

R1Ø1 150

R1Ø3 1K

R94 48.7K 1%

R93 48.7K 1%

C35 1ØPF

C38 22ØPF

W15 OPT.

C36

C37 1ØØPF

W14 OPT.

R9Ø 1ØK 1%

R91 32.4K 1%

D23 DG64

D24 DG64

36Ø3 E1

+3V J

74SØØ E12

74S74 E9 TRANS

D7 2ØX CLK H

74S74 E10 UP

74S74 E10 DOWN

74SØØ E12

D6 CLR L

T = TRANSMIT ONLY
R = RECEIVER ONLY

L1 1ØØØMH +15V CU1 +15V R

C61 8uf C46 .22uf C47 .22uf

L2 1ØØØMH -15V CB2 -15V R

C57 8uf C48 .22uf C49 .22uf

R1Ø6 68, 2W -5V (36Ø3)

C58 8uf D3 IN4733 C5Ø .22uf C51 .22uf C52 .22uf C53 .22uf

+5V R139 1K +3VJ

+3VJ

74S74 E11 OVER

E16 93S16

D1 D2 D3 D4 Q1 Q2 Q3 Q4 DIØ RCLK

CLR LD CLK REC COUNTER CNT CO

DG CLR L

D7 2ØX CLK H

74SØØ E34

74S74 E11 75%

74LSØ2 E73

74LSØ8 E33

D5 RTS H

D9 HDX H

DIØ TX HDX

74S74 E18 3/4T

74LS175 SYNC UP & DATA E29

74LSØ8 E33

74LS32 E2Ø

DIØ RI DATA

DIØ I CARRIER

DIØ RCLK

74S74 E18

DIØ RICLK

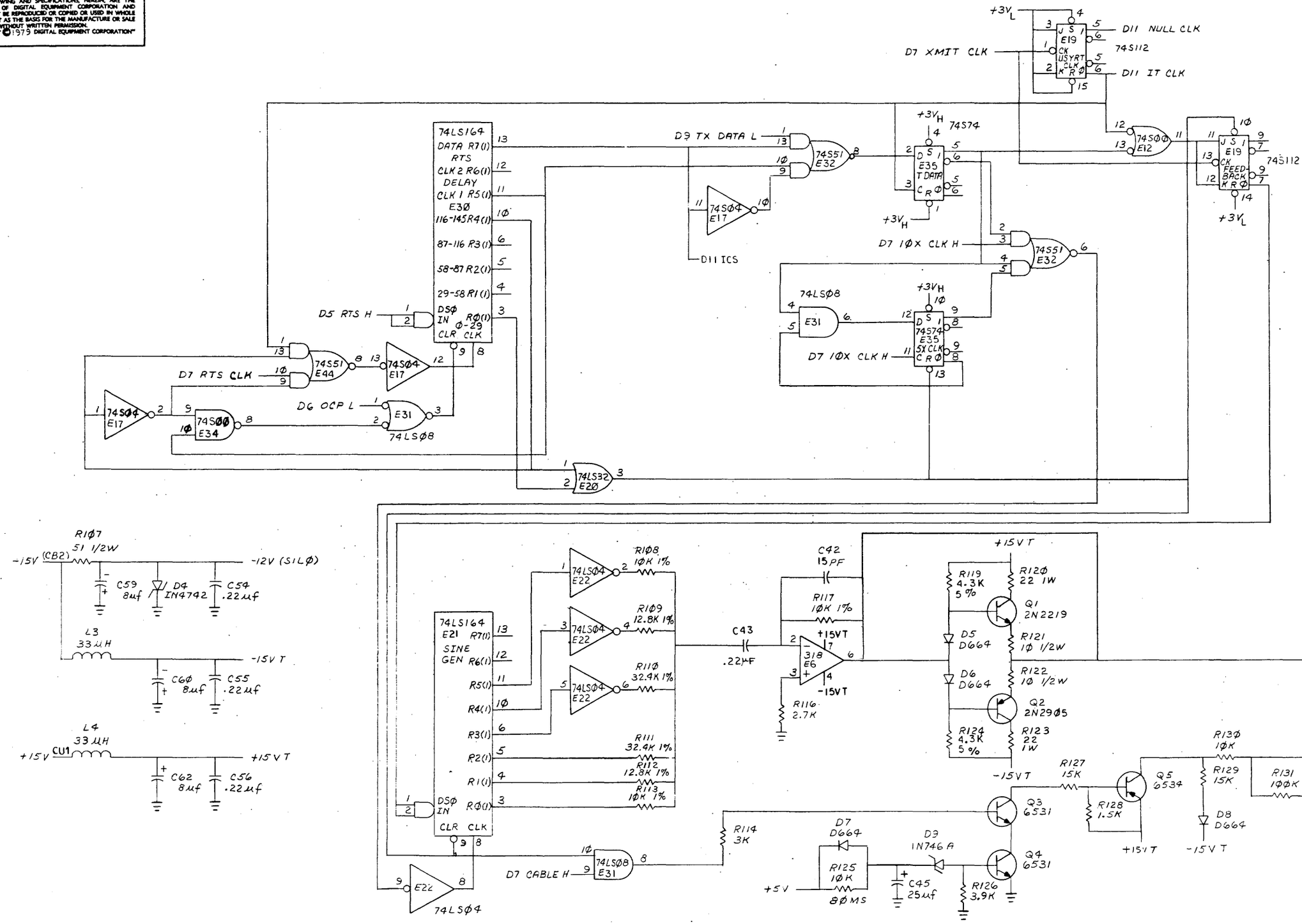
D6 CLR L

(INTEGRAL MODEM RECEIVER)

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT DIØ	D	CS	M82Ø3-Ø-1	N
SCALE —11—	SHEET 12 OF 15	DIST.		

MK



INTEGRAL MODEM TRANSMITTER

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT DII	D	CS	M82Ø3-Ø-1	N
SCALE —	SHEET 13 OF 15	DIST.		

MK

D1	D1	D2	D3	D4	D5	D6	D7	D8	D9	DIØ	DI1
BALU Ø L	1		1								
BALU 1 L	1		1								
BALU 2 L	1		1								
BALU 3 L	1		1								
BALU 4 L	1		1								
BALU 5 L	1		1								
BALU 6 L	1		1								
BALU 7 L	1		1								
B CLEAR L	1					2	5				
BTØ H	7	3									
BTØ L	2										
CROM Ø L	1		1								
CROM 1 L	1		1								
CROM 2 L	1		1								
CROM 3 L	1		1								
CROM 4 L	2										
CROM 5 L	2										
CROM 6 L	2										
CROM 7 L	2										
CLEAR L	3										
ENI 11 L	1	1									
ENI 15 L	1	2									
ENI 16 L	1	2									
IBR H	1				1						
IBR L	1										
LU LOOP H	1				1			1			
LUIBUS Ø H	7	5									
LUIBUS 1 H	7	5									
LUIBUS 2 H	7	5									
LUIBUS 3 H	7	5									
LUIBUS 4 H	7	5									
LUIBUS 5 H	7	5									
LUIBUS 6 H	7	5									
LUIBUS 7 H	7	5									
OBW L	1		2								
OUT * L	1		1								
RUN H	2						1		1		
RUN L	1				1		1				
SEL Ø L	2				1						
STEP LU H	1				1		1				
+3VA	2	4									
B CLEAR H	2					1					

D2	D1	D2	D3	D4	D5	D6	D7	D8	D9	DIØ	DI1
LDX L		1		1							
SEL 15 L	1	1									
D3											
BALU Ø H			3	5					1		
BALU 1 H			3	5					1		
BALU 2 H			3	5		1			1		
BALU 3 H			3	5					1		
BALU 4 H			2	5					1		
BALU 5 H			2	6					1		
BALU 6 H			2	6					1		
BALU 7 H			3	6					1		
CTX ENA H			3		1						
DIP Ø H			1	1	1						
DIP 1 H			1	1	1						
DIP 2 H			1	1	1						
DIP 3 H			1	1	1						
DIP 4 H			1	1	1						
DIP 5 H			1	1	1						
DIP 6 H			1	1	1						
DIP 7 H			1	1	1						
DIP 8 H			1	2	1						
DIP 9 H			1	2	1						
DIP 1Ø H			1	2	1						
DIP 11 H			1	2	1						
DIP 12 H			1	2	1						
DIP 13 H			1	2	1						
DIP 14 H			1	2	1						
DIP 15 H			1	2	1						
EOM H			2			1					
IN RDY H	1		1								
KRTS H			3		1						
LD 12			1	1							
LD 13			1						1		
LD 14			1	1		1					
LD 15		1	1	1							
LD 16			1	1							
LD 17			1	2							
LOAD H			2			1					
OC H		1	1		2	2					
OCOR H	1		4		2						
OUT RDY H		1	1								
RTS LOCK H			1		1						
SOM H			3								
TX ENA L			1		1						

D4	D1	D2	D3	D4	D5	D6	D7	D8	D9	DIØ	DI1
AX 1 H	1	1		1		1					
AX 2 H	1	1		1		1					
B POLL	1			1							
DDCMP H	1			2							
DISSI H	1			2							
DISSI L			2	1	1						
EN AX H	1	1		1							
EN CRC 32 H	1			1	2						
IC H	1			1		2					
IERR H				1				1			
LD MODE H				1		1					
LU LP H	1			1	1			1			
M422 H				1			1				
MINT H				1			1				
MM H	1			1			1				
MO H				1			1				
MV.35 H				1			1				
MXYZ H				1			1				
RDAX H	1			1		1					
WAX H	1			1		1					
TX UENA H	1		1	2							
TX UENA L			1	1							
D5											
ABORT H	1				1						
BCC H	1				1						
CRC 32 BCC	1				1						
DOP Ø H		1		2							
DOP 1 H		1		2							
DOP 2 H		1		2							
DOP 3 H		1		2							
DOP 4 H		1		2							
DOP 5 H		1		2							
DOP 6 H		1		2							
DOP 7 H		1		2							
DOP 8 H		1		1							
DOP 9 H		1		2							
DOP 1Ø H		1		2							
DOP 11 H		1		2							
DOP 12 H		1		1							
DOP 13 H		1		1							
DOP 14 H		1		1							
DOP 15 H		1		2							
CTS L				2				1			
END BLK H	1			1							
ICIR H	1			3							
+3VD			3	3	2						
+3VB				2							

D5 CONT.	D1	D2	D3	D4	D5	D6	D7	D8	D9	DIØ	DI1
IN ACT H	1				1						
ORDY H			1		2						
OUTACT H		1			3						
OUTACT L			1		3	1					
OVERRUN	1				1						
READ H					1	1					
RTS H	2				2			2	2	1	2
SILO Ø H	1				1						
SILO 1 H	1				1						
SILO 2 H	1				1						
SILO 3 H	1				1						
SILO 4 H	1				1						
SILO 5 H	1				1						
SILO 6 H	1				1						
SILO 7 H	1				1						
SIN RDY H			1		1						
TX DATA H	2				1			1	2		
TX BMT H			2		2						
UNDERRUN H		1			1						
D6 +3VC					2						
AØ H					1	1					
A1 H					1	1					
A2 H					1	1					
BYTE H					1	1					
CLR H					1	3					
CLR L				4		5	1			5	
DPNE H					1	1					
ENAX L				2		2					
EN MODE L				2		1					
ICP H					1	2					
ICP L				1	7	1					
INIT L				3		1					
LAX L						2					
LDAX		2				1					
LDOVR					1	1					
LD SILO					1	1					
OCP H					1	1					
OCP L			6		3	1					1
READY	1					1					
TX BUF L			5			1					
W/R H					1	4					
W/R L					4	1					
CLTX ENA H			1		1	1					
+3VH						1		1	1		3
+3VI						1		4	5		
+3VG						6					
+3VF						1		2	1		

REVISIONS		
CHK	CHANGE NO.	REV.

TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT	D	CS	M8203-Ø-1	N
SCALE —	SHEET 14 OF 15	DIST.		

MARGPRACE P-8574 | DEC FORM NO. 5800 126 | MK

D7	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
1.25M					1		4	1			
422 H	1						1		2		
423 L							1		1		
CABLE H							2				1
CABLE L							1			1	
C56K H							2				
DISABLE REC							2				
EIA H	1						1	1			
+3VK							7				
INT H	1						2				
INT L					1		1	2			
LO BAUD							6				
MAINT CLK	1						1	2			
MSTR CLK						4	1				
							4				
20X CLK H							2			3	
ATS CLK							3				1
TURN OFF 1.25M							1	1			
TURN OFF RC L							1	1			
TURN OFF RC H							3	1			
TURN ON 1.25M							1	1			
V.35 H	1						2		1		
V.35 L							1	2			
V.35 + EIA H							1	1			
XMIT CLK							1				2
0 H	1						1				
+3VL							4				5
10X CLK H							1				2
D8											
CARRIER H	2						1	6			
CARRIER L							1	2			
CE H	1				1			3			
HDX RD			1					1			
LP BE L							1	3			
MOD RDY H	1				1			3			
RC CLK					3			1			
RC DATA	1				3			1			
RING H	1							3			
SIG Q H	2							1			
SIG R H	1							1			
STBY I H	1							1			
TEST MODE H	1							3			
TX CLK					3			4			
+3VE								7			
+7/10V								4			
-24/10V								11			

D9	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
DTR H	1								3		
HDX H	1							1	1	1	
TX DATA L									3		1
D10											
I CARRIER								1		3	
+3VJ										7	
RI CLK								1		1	
RI DATA								1		1	
TX HDX								1		2	
R CLK										2	
D11											
ICS								1			3
IT CLK								1			4
NULL CLK									3		1

REVISIONS		
CHK	CHANGE NO.	REV.

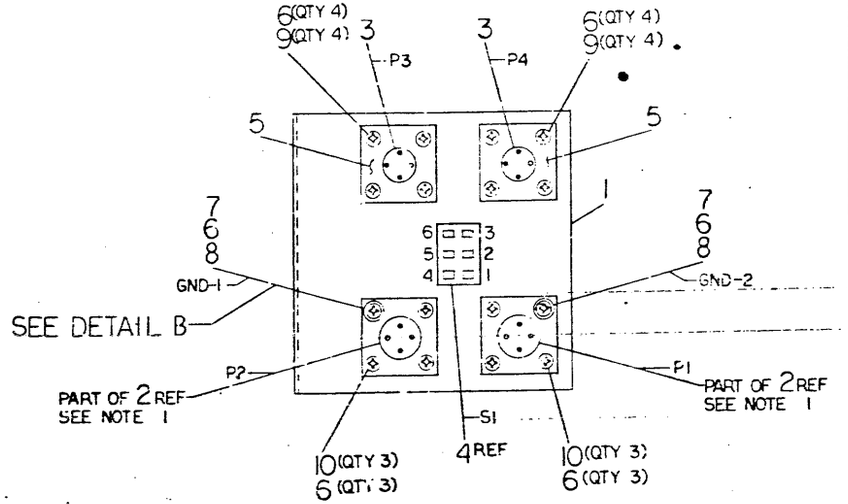
TITLE	SIZE	CODE	NUMBER	REV.
MULTI DROP LINE UNIT	D	CS	M8203-0-1	N
SCALE	SHEET 15 OF 15	DIST.	MK	

WIRE TABLE

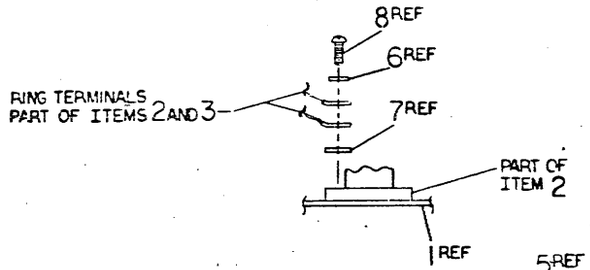
ITEM NO	DESCRIPTION AWG	COLOR	FROM CONN	FROM WITH	TO CONN	TO WITH	REMARKS
2	20	BLU	P2		SI-2	SLDR	
3		BLU	P3				
2		WHT	P2		SI-5	SLDR	
3		WHT	P3				
2		BLK	P2		GND-1	6,7,8	
3		BLK	P3				
2		BLU	P1		SI-1	SLDR	
3		BLU	P4				
2		WHT	P1		SI-4	SLDR	
3		WHT	P4				
2		BLK	P1		GND-2	6,7,8	
3	20	BLK	P4				

NOTES:

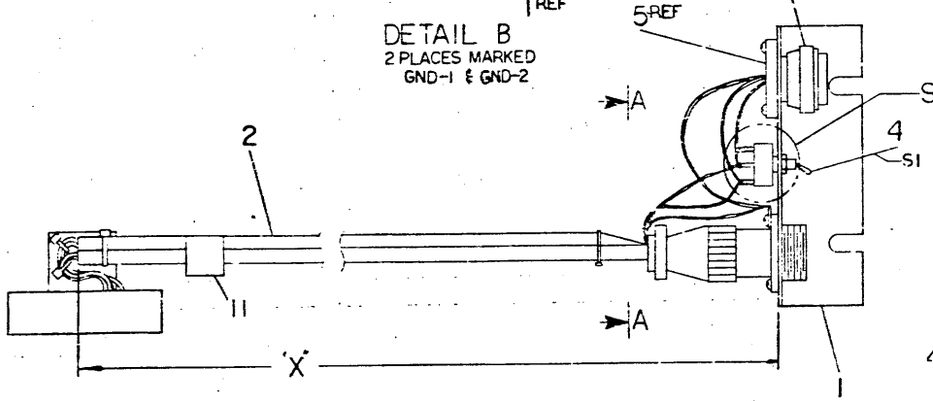
1. INSTALL P1 END OF MALE HARNESS(ITEM 2) INTO HOLE MARKED P1 ON PANEL (ITEM 1) LIKEWISE INSTALL P2 END OF HARNESS INTO HOLE MARKED P2 ON PANEL.

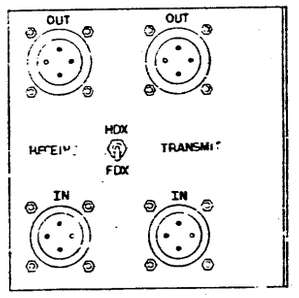


VIEW A-A

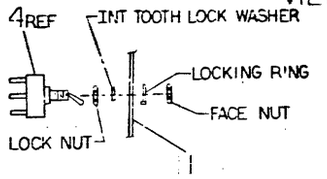


DETAIL B
2 PLACES MARKED
GND-1 & GND-2





VIEW B-B



DETAIL A
HARDWARE SUPPLIED WITH ITEM 4

LEGEND		
NUMBER	DIM X VARIATION	METRIC
BC55A-10	9 FT 10 IN ± 6 IN	3 METERS

CAUTION: OFF SHEET PARTS LIST REFER TO K-PL-BC55A-0-Ø

REVISIONS			
CNG	CHANGE NO.	REV.	
-	BC55A MK001	A	

DRAFTING DATA: R. COLLETTE 11/11/76

QUANTITY & VARIATION	DESCRIPTION	DWG. PART NO.	ITEM NO.
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
	ANGLES ±0° 30' / CLASS OF ACCURACY (CHECK ONE) / NOMINAL DIMENSION RANGE INCHES: OVER 0 TO 0.2; OVER 0.2 TO 1.2; OVER 1.2 TO 4.0; OVER 4.0 TO 12.0; OVER 12.0 TO 40.0; OVER 40.0 TO 80.0		
	SURFACE QUALITY IN MICROINCHES / MEDIUM ☐ ±.004 ±.008 ±.012 ±.016 ±.024 ±.04		
	PREFERRED ☐ ±.012 ±.015 ±.025 ±.04 ±.063 ±0.1		

THIRD ANGLE PROJECTION

...REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG.

MATERIAL SEE PARTS LIST

FINISH

DRA. CHK'D ENG. PROJ. ENG. PROD.

NEXT HIGHER ASSY. B-DD-BC55A-Ø

SCALE 1/1 SHEET OF

FIRST USED ON DMPII-AC

digital

TITLE: BC55A PANEL ASSY

SIZE D | CODE UA | NUMBER BC55A-Ø-Ø | REV. A | DIST.

MK

AUTOMATED BY PRTLST.3L(37) P A R T S L I S T SHEET A1 OF A1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION 10
1	1	D-IA-7421935-0-0	7421935-0	BC55A PANEL	1
2	2	D-IA-7017241-0-0	7017241-00	MALE HARNESS FOR BC55A-10	1
3	3	C-IA-7017242-0-0	7017242-00	FEMALE HARNESS FOR BC55A-10	2
4	4		1209592-00	SW,TOG 2P 5A ON/NONE/ON	1
5	5		1216949-00	CONN,PLUG MOUNT FOR 12-1	2
6	6		9006632-00	WASHER,LOCK,INT,.260OD X .120ID	16
7	7		9006655-00	WASHER, FLAT, .312 O.D. X .125 I	2
8	8		9006010-01	SCREW,PAN,PHIL 4-40X 5/16 SS	2
9	9		9008301-01	SCREW,PAN,PHIL 4-40X 1/4 SS	8
10	10		9008032-01	SCREW,PAN,PHIL 4-40X 3/16 SS	6
11	11		3616073-00	LABEL,CABLE IDENTIFICATION	1

REVISION HISTORY			BASIC PART NO: BC55A															
ENG	ECO NUMBER	REV	SECTION A OF A	DRN: M DUGGAN	DATE: 25-SEP-79	DBP	D	I	G	I	T	A	L					
	INITIAL	*	SECTION. VARIATION INDEX	CHK'D: J FALKOWSKI	DATE: 25-SEP-79	TITLE: PARTS LIST												
PC	BC55A-MK001	A	[A] 10			BC55A PANEL ASSY												
			[B]	DES.ENG.: P ALOISI	DATE: 25-SEP-79													
			[C]	RESP.ENG.: P ALOISI	DATE: 25-SEP-79	DOCUMENT NUMBER												
			[D]			SIZE	CODE	NUMBER								REV		
			[E]	MFG.ENG.: G ARMBRUSTER	DATE: 25-SEP-79	K	PL	BC55A-0-0								A		
			[F]	ASSEMBLY NUMBER: D-UA-BC55A-0-0	TOP DOCUMENT NUMBER: B-DD-BC55A-0-0	FILE NAME: MK0261.PLS										EDIT #: 5		

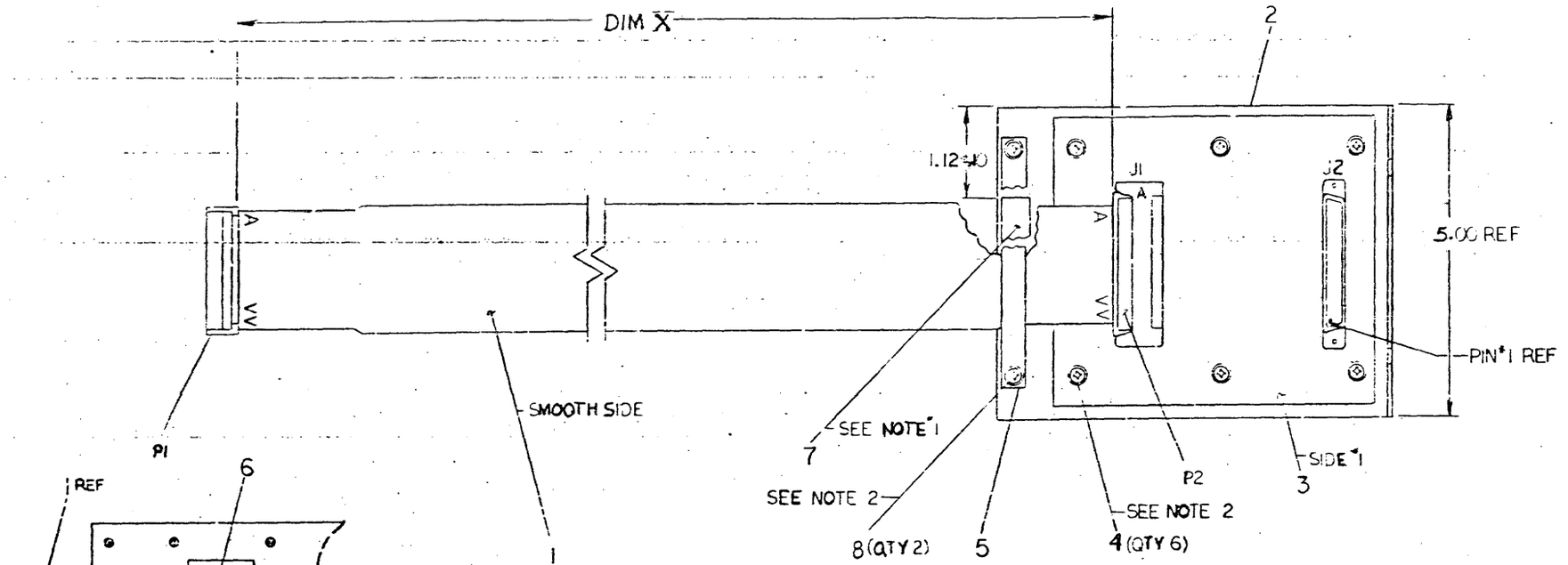
MK

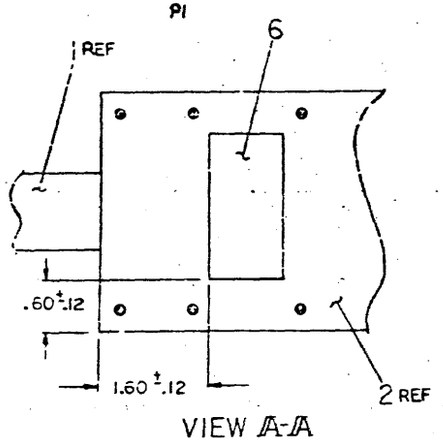
WIRE TABLE				
ITEM NO.	DESCRIPTION AWG	COLOR	FROM CONNECTION	TO CONNECTION
1	—	—	P2	J1 ITEM 3

LEGEND	
NUMBER	VARIATION (DIM X)
BC55B-10	10 FT CABLE

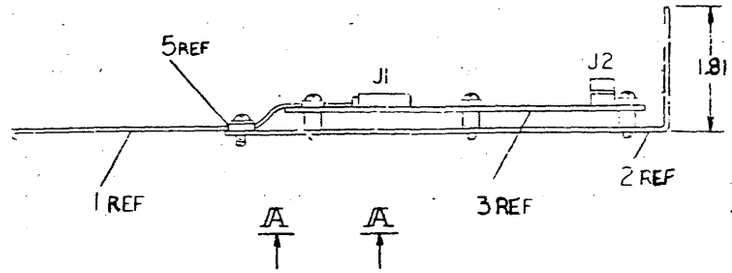
NOTES:

1. INSTALL TAPE (ITEM 7) TO PANEL (ITEM 2) BEFORE ASSEMBLING CABLE (ITEM 1) AND STRAIN RELIEF (ITEM 5). TAPE TO BE CUT APPROX 2.25 IN LONG TO ACT AS CUSHION FOR CABLE.
2. TORQUE VALUE OF SCREW (ITEM 4) TO BE 10 IN LBS.





VIEW A-A



CAUTION: OFF SHEET PARTS LIST, REFER TO K-PL-BC55B-Ø-Ø

REVISIONS		
DR	CHANGE NO	REV
	BC55B-MKØ-Ø	A

DESCRIPTION							DWG./PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES								
ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES						
		OVER 0 TO 0.7	OVER 0.7 TO 1.2	OVER 1.2 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 80.0
SURFACE QUALITY IN MICROINCHES	MEDIUM ☐	±.004	±.008	±.012	±.016	±.024	±.04
	PREFERRED ☐	±.012	±.016	±.025	±.04	±.063	±0.1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL SEE LIST

FINISH

DRN

CHK'D

ENG.

PROJ. ENG.

PROD.

NEXT HIGHER ASSY

SCALE

SHEET OF

FIRST USED ON

11-AO

digital

TITLE

PANEL ASSY
BC55B

SIZE	CODE	NUMBER	REV
D	UA	BC55B-Ø Ø	A

DIST

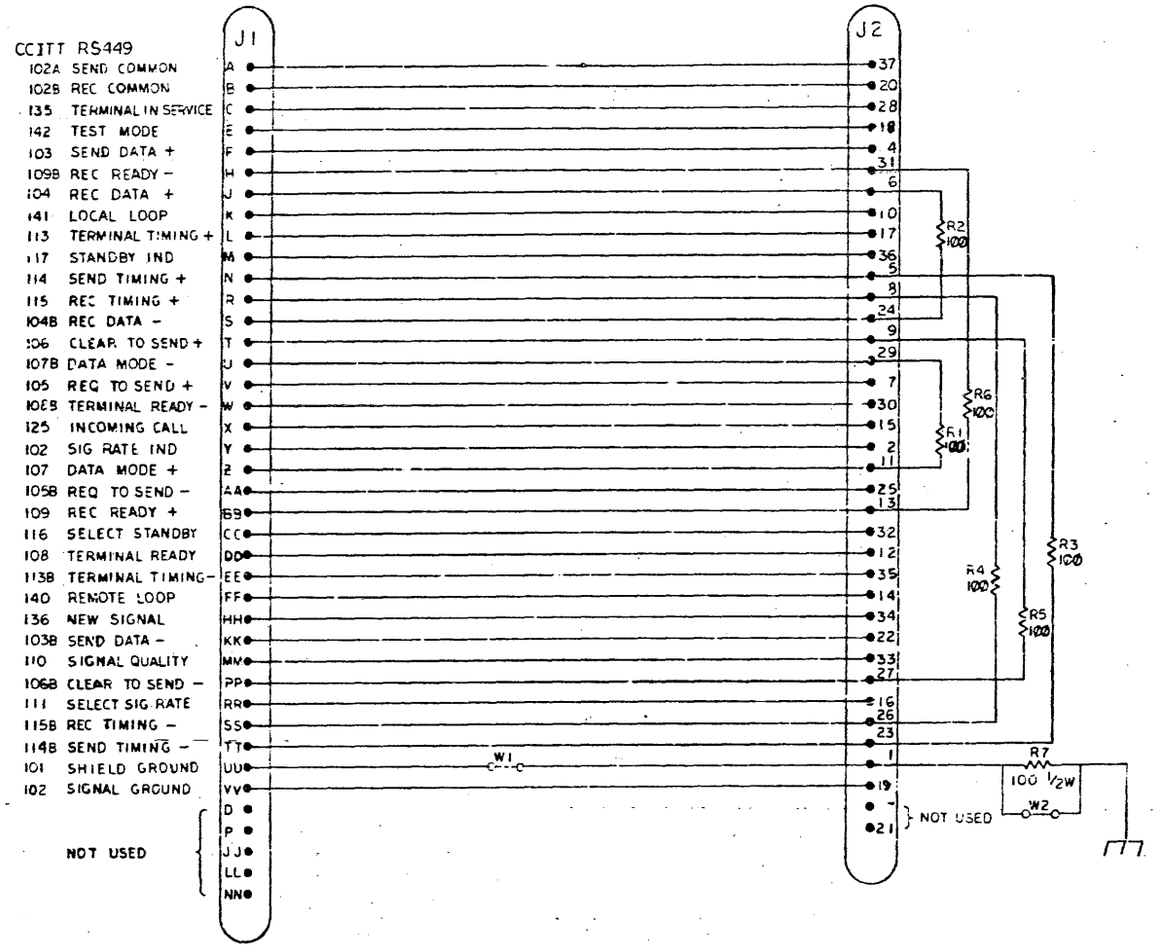
AUTOMATED BY PRTLST.3L(36) P A R T S L I S T SHEET A1 OF A1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION 10
1	1	D-IA-BC08S-0-0	BC08S-10	CABLE 10" DC76	1
2	2	D-IA-7421940-0-0	7421940-00	PANEL BC55	1
3	3	D-UA-H8B55-0-0	H8B55-00	JUMPER BOARD + RS422 CONNECTOR F	1
4	4		9006453-00	SCREW, SEMS, SLOTTED HEX HEAD 6-	6
5	5	C-MD-7421941-0-0	7421941-00	STRAIN RELIEF BC55	1
6	6		3616073-00	LABEL,CABLE IDENTIFICATION	1
7	7		9007834-00	TAPE, DOUBLE COATED, 1/2" WIDE,	A/R
8	8		9010174-00	SCREW, SEMS, PHILLIPS PAN HD 6-3	2

REVISION HISTORY			BASIC PART NO: BC55B										
ENG	ECO NUMBER	REV	SECTION A OF A	DRN: G HOVEY	DATE: 21-SEP-79		D	I	G	I	T	A	L
PA	INITIAL	*	SECTION. VARIATION INDEX	CHK'D: J FALKOWSKI	DATE: 21-SEP-79	TITLE PARTS LIST							
PA	BC55B-MK001	A	[A] 10			PANEL ASSY,BC55B							
			[B]	DES.ENG.: P ALOISI	DATE: 21-SEP-79								
			[C]	RESP.ENG.: P ALOISI	DATE: 21-SEP-79	DOCUMENT NUMBER							
			[D]			SIZE	CODE	NUMBER				REV	
			[E]	MFG.ENG.: G ARMBRUSTER	DATE: 21-SEP-79	K	PL	BC55B-0-0				A	
			[F]	ASSEMBLY NUMBER: D-UA-BC55B-0-0	TOP DOCUMENT NUMBER: B-DD-BC55B-0-0			FILE NAME: BC55B.PLS				EDIT # 9	

MK

NOTE:
W1 NORMALLY OUT, W2 NORMALLY IN



DRN			FIRST USED ON: DMP11-AD
CHK'D			digital
ENG.			TITLE: BC55B CONNECTOR MODULE
PROJ. ENG.			
PROD.			
NEXT HIGHER ASSY.			
8DD-H8B55-0			SIZE D / CODE CS / NUMBER H8B55-Ø-1 / REV. *
SCALE			
SHEET 1 OF 1			DIST.

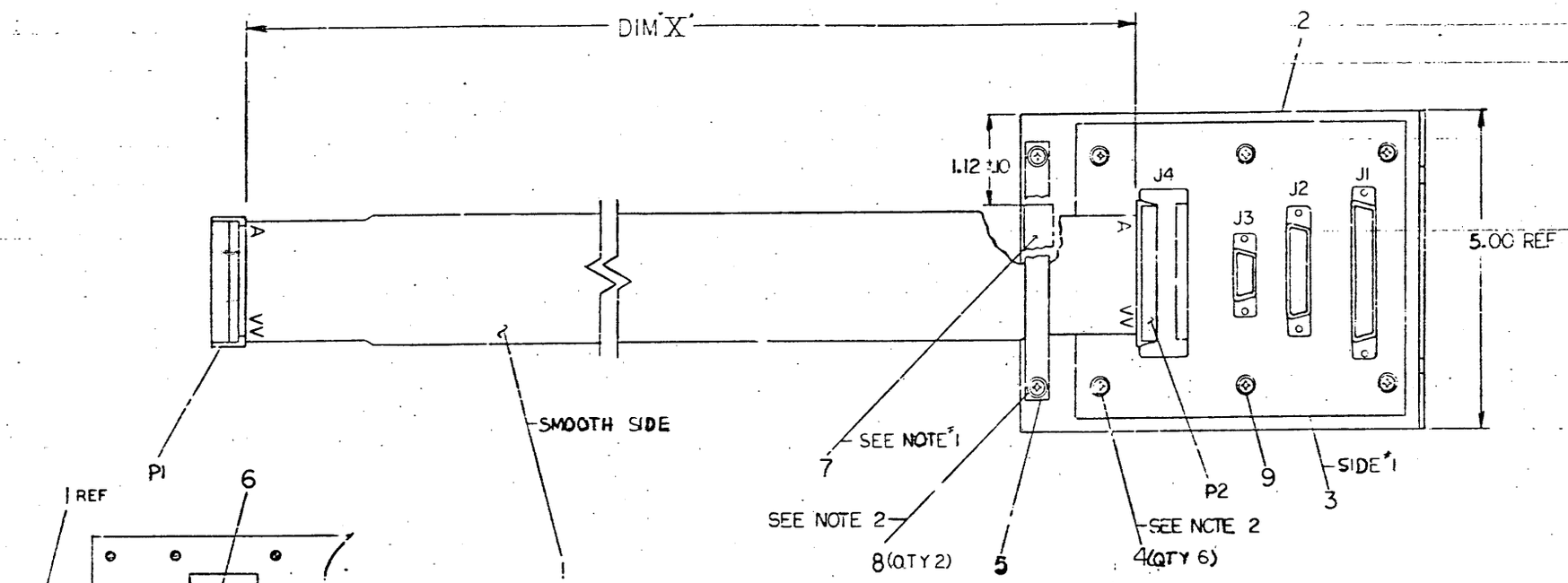
MK 1

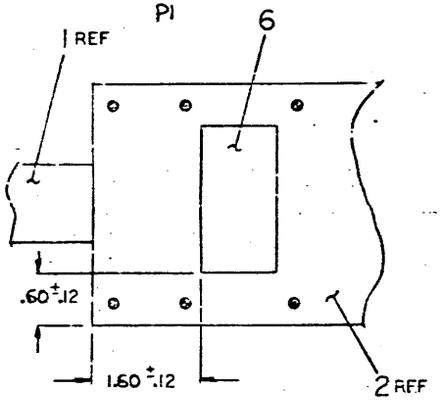
WIRE TABLE				
ITEM No.	DESCRIPTION AWG	COLOR	FROM CONNECTION	TO CONNECTION
1	——	——	P2	J4 (ITEM #3)

LEGEND	
NUMBER	VARIATION (DIM 'X')
BC55C-12	12 FT CABLE

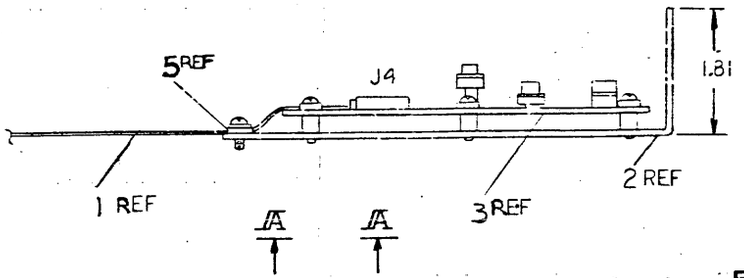
NOTES:

1. INSTALL TAPE (ITEM #7) TO PANEL (ITEM #2) BEFORE ASSEMBLING CABLE (ITEM #1) AND STRAIN RELIEF (ITEM #5). TAPE TO BE CUT APPROX. 2.25 IN LONG TO ACT AS CUSHION FOR CABLE.
2. TORQUE VALUE OF SCREW (ITEM 4) TO BE 10 IN LBS.





VIEW A-A



CAUTION: OFF SHEET PARTS LIST REFER TO K-PL-BC55C-2-Ø

DESCRIPTION	DWG./PART NO	ITEM NO
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		

ANGLES ±0° 30'	CLASS OF ACCURACY	NOMINAL DIMENSION RANGE INCHES					
		OVER 0 TO 0.2	OVER 0.2 TO 1.2	OVER 1.2 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 120.0
SURFACE QUALITY IN MICROINCHES (CHECK ONE)	MEDIUM ☐	±.004	±.008	±.012	±.016	±.024	±.04
	PREFERRED ☐	±.012	±.016	±.025	±.04	±.063	±0.1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL SEE PARTS LIST

FINISH ——

DRN

CHK'D

ENG

PROJ. ENG.

MOD.

NEXT HIGHER ASSY.

SCALE

SHEET OF

FIRST USED ON

TITLE

PANEL ASSY, BC55C

SIZE	CODE	NUMBER	REV.
D	UA	BC55C-Ø Ø	A

DIST.

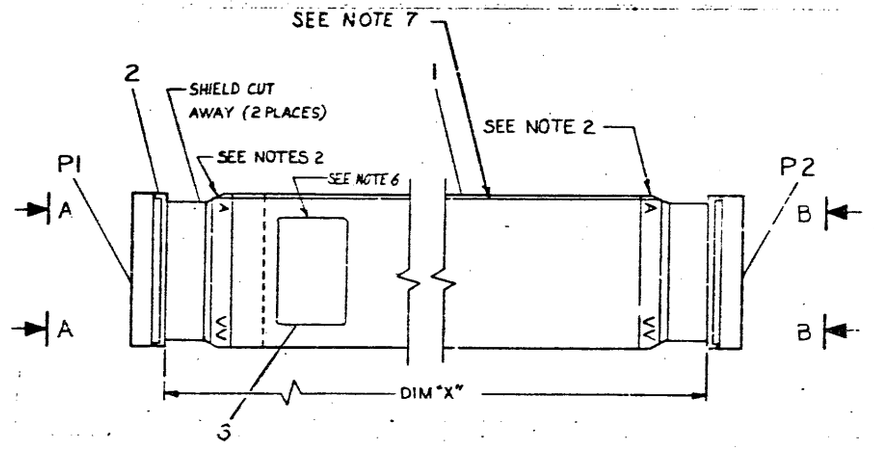
STATUS	ORIG	REV.
	BC55C-MKØØ1	A
	T. ALOISI	

LEGEND

NUMBER	DIM "X" VAR	DIM "Y" REF
BCØ8S-ØL	10.ØIN ± Ø.5 IN	11.ØIN ± Ø.5 IN
BCØ8S-Ø1	12.ØIN ± 1.Ø IN	13.ØIN ± 1.Ø IN
BCØ8S-1B	14.ØIN ± 1.Ø IN	15.ØIN ± 1.Ø IN
BCØ8S-1K	21.ØIN ± 1.Ø IN	22.ØIN ± 1.Ø IN
BCØ8S-Ø2	24.ØIN ± 1.Ø IN	25.ØIN ± 1.Ø IN
BCØ8S-2K	33.ØIN ± 1.Ø IN	34.ØIN ± 1.Ø IN
BCØ8S-5L	70.ØIN ± 2.Ø IN	71.ØIN ± 2.Ø IN
BCØ8S-Ø7	7.ØFT ± 2.ØIN	7.ØFT 1.ØIN ± 2.ØIN
BCØ8S-Ø8	8.ØFT ± 2.ØIN	8.ØFT 1.ØIN ± 2.ØIN
BCØ8S-Ø9	9.ØFT ± 2.ØIN	9.ØFT 1.ØIN ± 2.ØIN
BCØ8S-1Ø	12.ØFT ± 3.ØIN	12.ØFT 1.ØIN ± 3.ØIN
BCØ8S-11	11.ØFT ± 3.ØIN	11.ØFT 1.ØIN ± 3.ØIN
BCØ8S-12	12.ØFT ± 3.ØIN	12.ØFT 1.ØIN ± 3.ØIN
BCØ8S-13	13.ØFT ± 3.ØIN	13.ØFT 1.ØIN ± 3.ØIN
BCØ8S-14	14.ØFT ± 3.ØIN	14.ØFT 1.ØIN ± 3.ØIN
BCØ8S-15	15.ØFT ± 3.ØIN	15.ØFT 1.ØIN ± 3.ØIN
BCØ8S-16	16.ØFT ± 3.ØIN	16.ØFT 1.ØIN ± 3.ØIN
BCØ8S-17	17.ØFT ± 3.ØIN	17.ØFT 1.ØIN ± 3.ØIN
BCØ8S-18	18.ØFT ± 3.ØIN	18.ØFT 1.ØIN ± 3.ØIN
BCØ8S-19	19.ØFT ± 3.ØIN	19.ØFT 1.ØIN ± 3.ØIN
BCØ8S-2Ø	20.ØFT ± 3.ØIN	20.ØFT 1.ØIN ± 3.ØIN
BCØ8S-25	25.ØFT ± 3.ØIN	25.ØFT 1.ØIN ± 3.ØIN
BCØ8S-3Ø	30.ØFT ± 7.2 IN	30.ØFT 1.ØIN ± 7.2 IN
BCØ8S-35	35.ØFT ± 8.4 IN	35.ØFT 1.ØIN ± 8.4 IN
BCØ8S-5Ø	50.ØFT ± 12.ØIN	50.ØFT 1.ØIN ± 12.ØIN

NOTES:

1. CONNECTORS P1 AND P2, ARE TO BE WIRED POINT TO POINT.
2. CONNECTOR LEGEND IDENTIFICATION TO BE PLACED ON SHIELD SIDE AT EACH END OF CABLE ASSEMBLY.
3. MUST BE ASSEMBLED TO PROCESS SPECIFICATION 7606485-0-0.
4. ~~INSPECTION AND ESS STAMPS TO BE PLACED AT EACH END OF THE CABLE ASSEMBLY.~~
5. ~~THE NUMBER BCØ8S MUST BE ON THE CABLE IN CONJUNCTION WITH CONNECTOR LEGEND IDENTIFICATION.~~
6. ADD ITEM 3 APPROX 4 IN FROM CONNECTOR P1. EITHER I.D. LABLE 3616989-00 OR 3616073-00 MAY BE USED. PLACE ON SMOOTH SIDE OF CABLE.
7. IF MARKER STRIPE APPERS ON CABLE, ITEM 1, IT IS TO BE POSITIONED BETWEEN A-A.

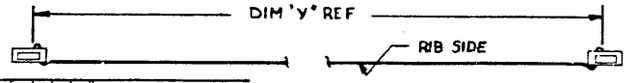


B	A
D	C
F	E
J	H
L	K
N	M
R	P
T	S
V	U
X	W
Z	Y
BB	AA
DD	CC
FF	EE
JJ	HH
LL	KK
NN	MM
RR	PP
TT	SS
VV	UU

VIEW A-A
CONN LEGEND REF

B	A
D	C
F	E
J	H
L	K
N	M
R	P
T	S
V	U
X	W
Z	Y
BB	AA
DD	CC
FF	EE
JJ	HH
LL	KK
NN	MM
RR	PP
TT	SS
VV	UU

VIEW B-B
CONN. LEGEND REF



CAUTION OFF SHEET PARTS LIST
SEE A-PL-BCØ8S-Ø-Ø

ITEM NO.	DESCRIPTION	DWG./PART NO.	
1	LABEL, CABLE I.D.	3616989-00	4
~~1~~	~~LABEL, PRODUCT ID~~	~~4009253~~	~~3~~
2	CONNECTOR, 40 SOCKET	12112Ø6-00	2
AR	CABLE, FLAT 40 COND	1700004-00	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES: OVER 0 TO 0.2	OVER 0.2 TO 1.2	OVER 1.2 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 80.0
SURFACE QUALITY IN MICROINCHES	MEDIUM ☐	±.004	±.008	±.012	±.016	±.024	±.04
	PREFERRED ☐	±.012	±.016	±.025	±.04	±.063	±0.1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL SEE PARTS LIST

FINISH

DRN J. FERGUSEN 5-12-71 FIRST USED ON LAB8-E digital
CHK'D K. CRABBE 5-13-71
ENG'D K. CRABBE 5-13-71
PROJ. ENG. SUPV. 5-21-71
PROD. P. FAZIO 15 21 71
NEXT HIGHER ASSY.
A-PL-DRB-EA-Ø
SCALE NONE
SHEET 1 OF 1

TITLE
I/O CABLE ASS'Y
(DIAG. JUMPER)

SIZE D | CODE IA | NUMBER BCØ8S-Ø-Ø | REV. U
DIST.

CHK	REVISIONS	CHANGE NO.	REV.
LC	BCØ8S-ØØØ1Ø		M
W FISHER 14 JUN 76	REVISED AND REDRAWN		
S HOLMES 23 JUN 76	BCØ8S-2ØØ11		N
D CHIASSON 19 JULY 76	E.J. NEUMYER A		
E.J. NEUMYER 30 JULY 76	BCØ8S-MRØ12		P
ARTHUR FILZ	BCØ8S-MRØ13		R
A FILZ 20 Nov 78	BCØ8S-PNØ15		T
BCØ8S-PNØ16			U
L. NG 15 DEC 81			

WIRE TABLE

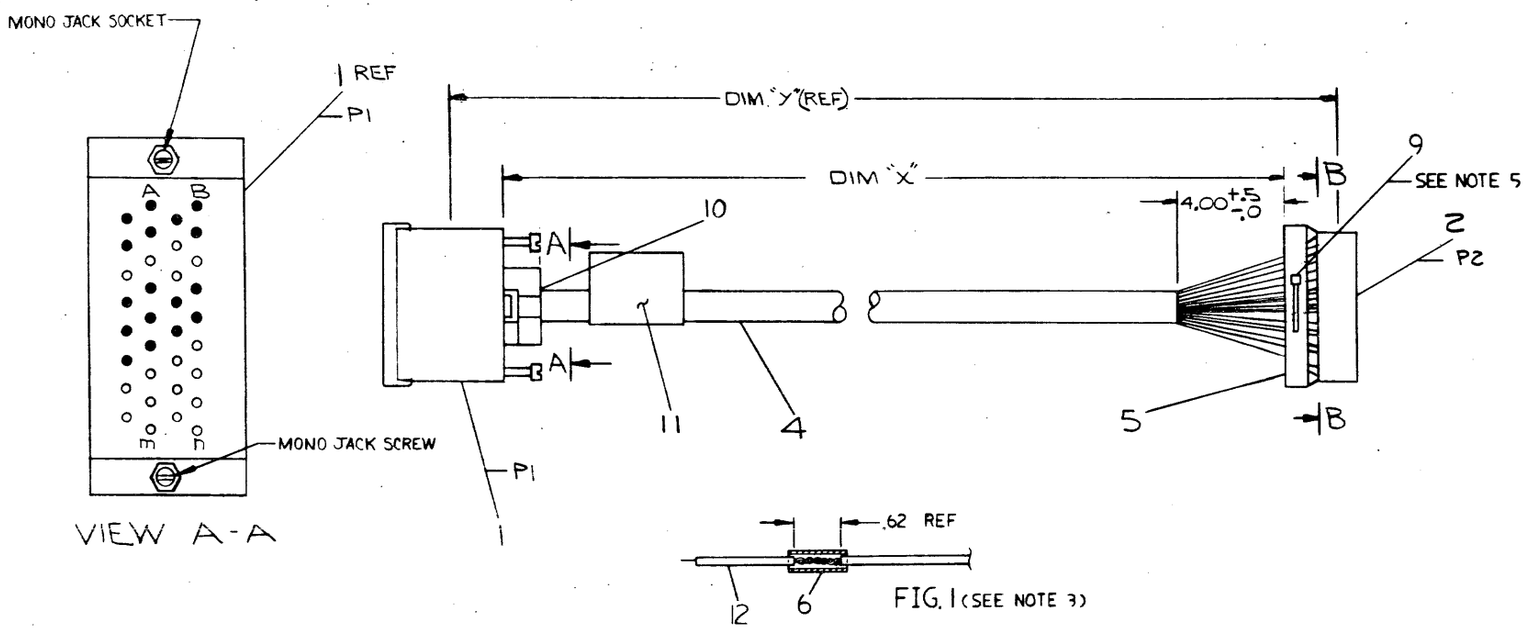
ITEM NO	DESCRIPTION AWG	DESCRIPTION COLOR	FROM CONN	FROM WITH	TO CONN	TO WITH	REMARKS (SIGNAL NAME)	SHIELD COLOR
4	#22 TWP	RED	P1-P	1 & 3	P2-KK	2 & 7	TX DATA DIFF +	RED
		BLK	P1-S		P2-AA		TX DATA DIFF −	
		WHT	P1-R		P2-K		RX DATA DIFF +	RED
		BLK	P1-T		P2-S		RX DATA DIFF −	
		GRN	P1-Y		P2-CC		TX CLOCK DIFF +	GRN
		BLK	P1-a		P2-TT		TX CLOCK DIFF −	
		BLU	P1-V		P2-HH		RX CLOCK DIFF +	BLU
		BLK	P1-X		P2-SS		RX CLOCK DIFF −	
		YEL	P1-U		P2-PP		AUX CLOCK DIFF +	BLU
		BLK	P1-W		P2-EE		AUX CLOCK DIFF −	
		BRN	P1-C		P2-V		RTS	BLU
		BLK			P2-UU		GND	
		ORN	P1-E		P2-Z		DSR	BLU
		BLK	P1-A		P2-A		GND	
		WHT	P1-H		P2-DD		DTR	BLU
		RED	P1-F		P2-BB		CDET	
	#22 TWP	GRN	P1-D		P2-T		CTS	BLU
		RED			P2-VV	2 & 7	GND	
	ALL DRAIN WIRES		P1-B	1 & 3	SEE NOTE #3		GND	

LEGEND

NUMBER	DIM "X" VARIATION	DIM "Y" (PRECUT) REF
BCØ5Z-25	25 FT Ø IN ± 3 IN	25 FT 2 IN ± 3IN
BCØ5Z-5Ø	5Ø FT ±2%	5Ø FT 2IN ±2%

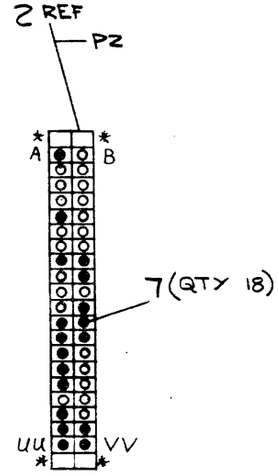
NOTES:

1. STRIP BACK OUTER JACKET TO ALLOW SEPARATION OF WIRES.
2. STRIP BACK FOIL TAPE.
3. ON P1 END OF CABLE, TWIST DRAIN WIRES FROM ALL PAIRS TOGETHER AND CUT .62 LONG. SOLDER TO .50 IN. EXPOSED LEAD FROM ITEM #12 REF FIG.1. COVER SOLDERED CONNECTION WITH SHRINK TUBING (ITEM #6). CONNECT OTHER END OF ITEM #12 TO ITEM #3.
4. ALL UNUSED WIRES (NOT CONNECTED TO P1 OR P2) TO BE CUT FLUSH WITH OUTER INSULATION OF CABLE.
5. ASSEMBLE ITEM #9 THRU CENTER HOLES OF ITEM #5 AND POSITION AS SHOWN.



VIEW A-A

FIG. 1 (SEE NOTE 3)



VIEW B-B

CAUTION: OFF SHEET PARTS LIST EXISTS. REFER TO K-PL-BCØ5Z-Ø-Ø.

QTY	DESCRIPTION	DWG./PART NO.	ITEM NO.
1	LABEL, CABLE IDENTIFICATION	3616073-00	11
A/R	TAPE, DOUBLE SIDED	9007834	10
~~2~~	~~WRAP, TIE~~	~~9007031~~	~~9~~
~~1~~	~~LABEL, CABLE~~	~~9009852~~	~~8~~
18	SOCKET, CRIMP	12100089-07	7
A/R	TUBING, SHRINK	9107255-00	6
1	RELIEF STRAIN	1211166-00	5
A/R	CABLE, #22 AWG (9 TWP)	9107687-00	4
17	CONN, PIN #22-#26 AWG	12090029-00	3
1	CONN, 44 POS HSG	1210918-15	2
1	CONN ASSY (34 POS)	1212109-00	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES: OVER 0 TO 6	OVER 6 TO 12	OVER 12 TO 48	OVER 48 TO 120
SURFACE QUALITY IN MICROINCHES	MEDIUM ☐	±.005	±.008	±.012	±.016
	PREFERRED ☐	±.012	±.016	±.025	±.04

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL SEE PARTS LIST

FINISH

DRAWN 12-28-77
CHK'D 12-28-77
ENG. 12-28-77
PROJ. ENG. 12-28-77
PROD. 12-24-77
NEXT HIGHER ASSY.
SCALE
SHEET 1 OF 1

FIRST USED ON DMC11-FA

TITLE: CABLE, V35/DDS DSU

SIZE D | CODE UA | NUMBER BCØ5Z-Ø-Ø | REV. F

DIST.

REV.	CHANGE NO.		
A	BCØ5Z-00001	26 May 77	B SMITH
B	BCØ5Z-00002	15 July 77	P ALOISI
C	BCØ52-00003	14 Feb 78	R. HARRINGTON
D	BCØ5Z-MK004	16 July 80	R. HARRINGTON
E	BCØ5Z-MK005		W. SMITH
F	BCØ5Z-MK006	27 Dec 81	R. HARRINGTON

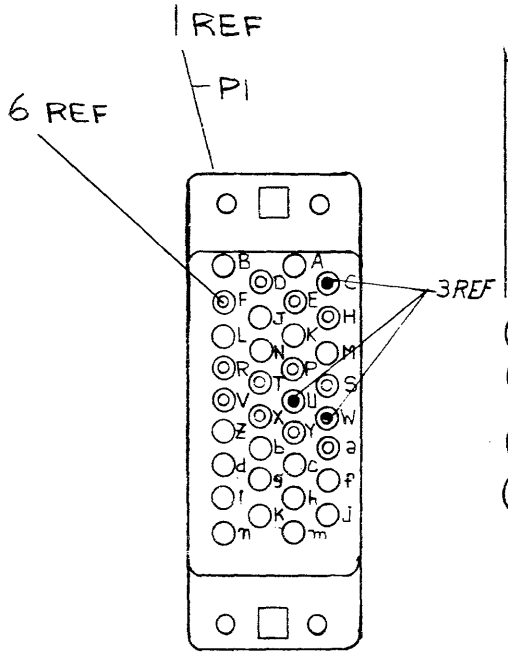
MK

WIRE TABLE

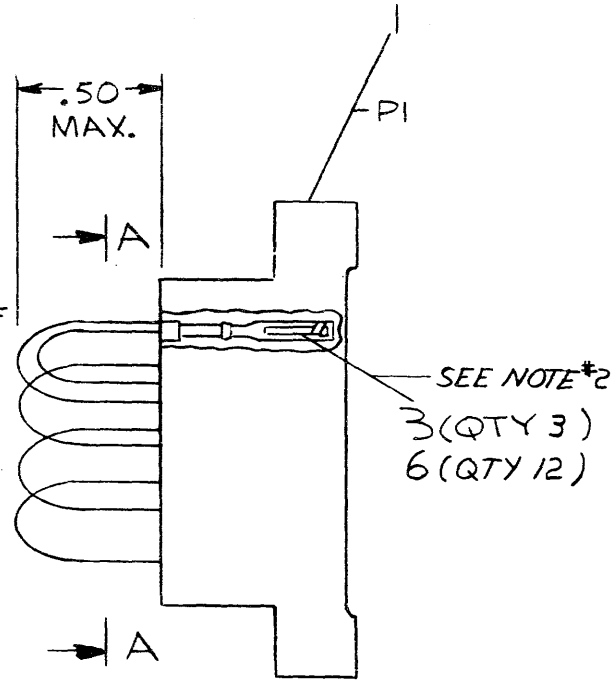
ITEM NO	DESCRIPTION AWG	DESCRIPTION COLOR	FROM POINT	FROM DESCRIPTION	FROM WITH	TO POINT	TO DESCRIPTION	TO WITH
2	20	BLK	P1-U	AUX CLK +	3	P1-Y	TX CLK DIFF +	6
			P1-U			P1-V	RX CLK DIFF +	6
			P1-W	AUX CLK -	3	P1-a	TX CLK DIFF -	6
			P1-W			P1-X	RX CLK DIFF -	6
			P1-P	TX DATA DIFF +	6	P1-R	RX DATA DIFF +	6
			P1-S	TX DATA DIFF -	6	P1-T	RX DATA DIFF -	6
			P1-C	RTS	3	P1-D	CTS	6
			P1-C			P1-F	CDET	6
	20	BLK	P1-H	DTR	6	P1-E	DSR	6

NOTES:

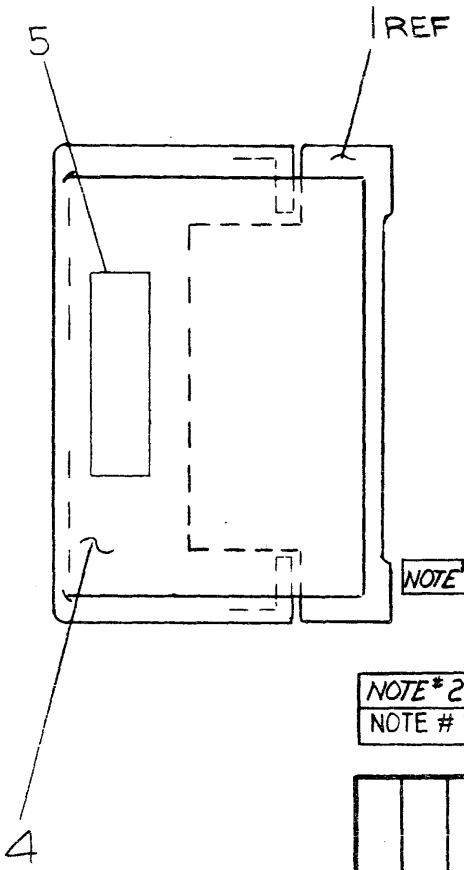
1. EACH PLANT MAY USE THE VARIATION OF (ITEM # 2) THAT IS OF HIGHEST AVAILABILITY. (I.E. USE THE COLOR YOU HAVE THE MOST OF – AWG IS IMPORTANT, NOT COLOR).
2. *CONTACT P.N. 1210290-01 IS TO BE USED WHERE ONLY ONE WIRE IS INSERTED IN THE CONNECTOR. CONTACT P.N. 1210290-00 IS TO BE USED WHERE TWO WIRES ARE INSERTED (I.E. AT P1-C, P1-U, AND P1-W)*



VIEW A-A
REAR VIEW
HOOD (ITEM #4)
REMOVED



SIDE VIEW
HOOD (ITEM #4)
REMOVED



NOTE #2	12	SOCKET, CONTACT (20 AWG)	1210290-01	6
	1	LABEL	9008473	5
	1	HOOD	1213032-0-0	4
NOTE #2	3	SOCKET, CONTACT (14 AWG)	1210290-00	3
NOTE #1	A/R	WIRE #20 AWG, BLK	9107460-00	2
	1	CONNECTOR BODY 34 PIN	1213033-0-0	1
		DESCRIPTION	DWG./PART NO.	ITEM NO.

QUANTITY & VARIATION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30' / CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES OVER 0 TO 0.2	OVER 0.2 TO 1.2	OVER 1.2 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 80.0
SURFACE QUALITY IN MICROINCHES — MEDIUM ☐	±.004	±.008	±.012	±.016	±.024	±.04
PREFERRED ☐	±.012	±.016	±.025	±.04	±.063	±0.1

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL SEE PARTS LIST

FINISH

DRN	A Lowe	1-21-77
CHK'D	R Talbot	3-22-77
ENG.	R Bell	3-22-77
PROJ. ENG.	B Chester	3-22-77
PROD	[illegible]	3-30-77

NEXT HIGHER ASSY.

SCALE NONE

SHEET 1 OF 1

FIRST USED ON DMC11-FA

digital

TITLE
CONNECTOR, TEST V.35/DDS

SIZE	CODE	NUMBER	REV.
C	IA	H3250-0-0	B

DIST.

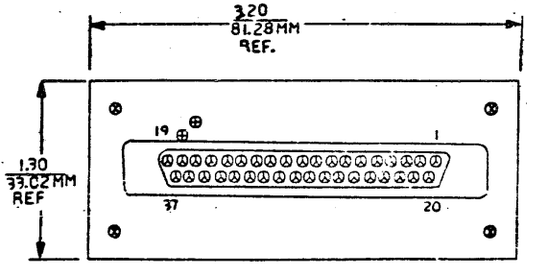
REVISIONS	CHK	CHANGE NO.	REV.
	J. H3250-00001		A
	B Chester 15 July 77		
	P. ALOISI		
	Rudi Glover 26 Jul-77		
	H3250-00002		B
	B Chester 13 Feb 78		
	R. HARRINGTON		
	R Harrington 15 FEB 78		

MAKEPEACE P-1085

DEC FORM NO. DRC 100-C

H3250-0-0 REV. B
SIZE C CODE IA

COMPONENT SIDE VIEW



NOTES:

CHK	CHANGES NO	REV
	REVISED R	
	REDRAWN	
	H3251-MKOM	A

STEP E	+ Y AXIS 1.3	STEP 7	TIMES
REPEAT	→ X AXIS 3.2	STEP 4	TIMES

ETCH REV. B · P1

SIGNATURES	DATE
DRN. H. Brummer	5-25-79
CHK. D.J. Vadnais	5-29-79
MECH. ENG. R.J. Hoi	6-6-79
PROJ. ENG. Rudy Hand	6-6-79
PROD. W. Smith	6-13-79

digital

TITLE
RS422 TEST CONNECTOR

SCALE 2:1
SIZE D | CODE UA | NUMBER H3251-0-0 | REV A
SHT. 1 OF 1
NEXT HIGHER ASSY. G-DD-H3251-0

MK WO# 30i424

DUAH3251-0-0 A

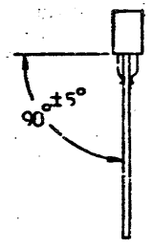
AUTOMATED BY PRTLST.3P(44) — P A R T S L I S T — SHEET A1 OF A1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1	D-MD-5013909-0-0	5013909-00	ETCH BRD FOR H3251	1	
2	2		1216296-00	CONN,D SUB 37PIN SOCKET,CRIMP	1	J1

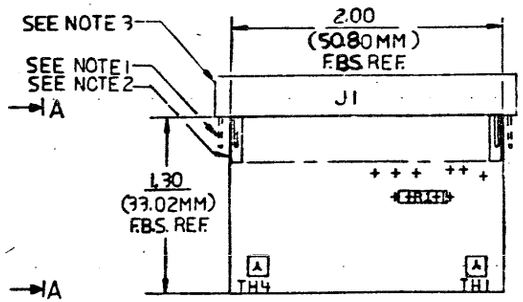
REVISION HISTORY			BASIC PART NO: H3251										
ENG	ECO NUMBER	REV	SECTION A OF A	DRN: B.FRASER	DATE: 21-MAR-79		D	I	G	I	T	A	L
PA	MK001	A	SECTION.VARIATION INDEX [A] 00 [B] [C] [D] [E] [F] [H] [J] [K] [L] [M] [N]	CHK'D: J.FALKOWSKI	DATE: 21-MAR-79	TITLE: PARTS LIST — RS422 TEST CONNECTOR							
				DES.ENG: P.ALOISI	DATE: 21-MAR-79								
				RESP.ENG.: P.ALOISI	DATE: 16-JUN-80	DOCUMENT NUMBER							
				MFG.ENG.: BOB MULLIN	DATE: 16-JUN-80	SIZE: K / CODE: PL / NUMBER: H3251-0-0 / REV: A							
				ASSEMBLY NUMBER: D-UA-H3251-0-0	TOP DOCUMENT NUMBER: B-DD-H3251-0-0	FILE NAME: MK0111.PLS / EDIT #: 1							

MK

COMPONENT SIDE VIEW



VIEW A-A



NOTES:
1. REWORK CONNECTOR TO REMOVE FOUR (4) PINS - TWO (2) AT EACH END OF THE CONNECTOR PRIOR TO ASSEMBLY TO THE BOARD.
2. OUTER FINGERS MAY BE CUT IN SHEARING PROCESS.

STEP E	+ Y AXIS 1.3	STEP 7 TIMES
REPEAT	→ X AXIS 2.0	STEP 7 TIMES

CHG	CHANGE NO	REV
	ORIGINATED	A
	H3254-MA1	

NOTES CONT:
3. SOLDER J1 TO PC BOARD

ETCH REV. B-P2

SIGNATURES	DATE
DRN	
CHK'D.	
MECH. ENG.	
PROJ. ENG.	
PROD. BILL BUCKLEY	

digital

TITLE M8203
TEST CONNECTOR J1

SCALE 2/1	SIZE D	CODE UA	NUMBER H3254-0-0	REV A
SHT. 1 OF 1				

NEXT HIGHER ASSY. P-CO-H3254-0

M.K 1 WO# 3015

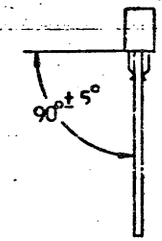
DUA H3254-0-0 A

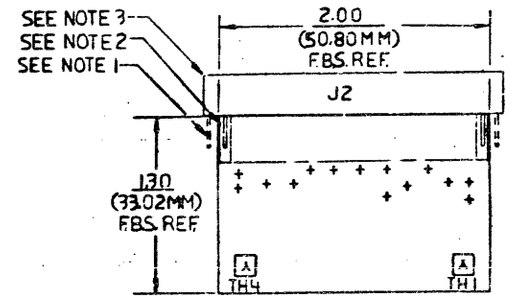
AUTOMATED BY PRTLST.3P(44) P A R T S L I S T SHEET A1 OF A1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1	D-MD-5013900-0-0	5013900-00	M8203 TEST CONNECTOR	1	
2	2		1215563-00	RECEPTACLE,PC BOARD EDGE MOUNT,4	1	J1
3	3		1302379-00	75.0 .25 W 5.0 % CC	1	R1

REVISION HISTORY			BASIC PART NO: H3254											
ENG	ECO NUMBER	REV	SECTION A OF A	DFN: J. WHITNEY	DATE: 21-MAR-79		D	I	G	I	T	A	L	
PA	H3254-MK001A	A	SECTION.VARIATION INDEX [A] 00	CHK'D: B.KOPPENAL	DATE: 21-MAR-79	TITLE PARTS LIST M8203 TEST CONNECTOR J1								
			[B]											
			[C]	DES.ENG: PAUL ALOISI	DATE: 21-MAR-79									
			[D]											
			[E]			DOCUMENT NUMBER								
			[F]	RESP.ENG.: PAUL ALOISI PVC	DATE: 12-SEP-80									
			[H]			SIZE	CODE	NUMBER					REV	
			[J]											
			[K]	MFG.ENG.: BOB O ONNEL BILL BROOK BOC	DATE: 12-SEP-80	K	PL	H3254-0-0					A	
			[L]											
			[M]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME:							EDIT #	
			[N]	D-UA-H3254-0-0	$B-DD-H3254-0	MK0201.PLS							4	

COMPONENT SIDE VIEW





2AC20

NOTES:
1. REWORK CONNECTOR TO REMOVE FOUR (4) PINS - TWO (2) AT EACH END OF CONNECTOR PRIOR TO ASSEMBLY TO BOARD.
2. OUTER FINGERS MAY BE CUT IN SHEARING PROCESS.

STEP E	↑ Y AXIS 1.30	STEP .1 TIMES
REPEAT	→ Y AXIS .2	STEP .1 TIMES

CHG	CHANGE NO	REV
	ECO-H3255-MK1	B

NOTES CONT
3. SOLDER J2 TO PC BOARD

ETCH REV. C-P1

SIGNATURES	DATE
DAN.	
CHK D.	
MECH. ENG.	
PROJ. ENG.	
PROD.	

digital

TITLE M8203
TEST CONNECTOR J2

SCALE 2/1
SIZE CODE D | NUMBER UA H3255-0-0 | REV B
SHT. 1 OF 1
NEXT HIGHER ASSY. G.DD-H3255-0

MK 1 WO#

DUA H3255-0-0 B

AUTOMATED BY PRTLST.SP(44) P A R T S L I S T SHEET A1 OF A1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1	D-MD-5013901-0-0	5013901-00	M8203 TEST CONNECTOR	1	
2	2		1215563-00	RECEPTACLE,PC BOARD EDGE MOUNT,4	1	J2

REVISION HISTORY		
ENG	ECO NUMBER	REV
PA	INITAL	A
PA	H3255-MK001	B

BASIC PART NO: H3255

SECTION A OF A

SECTION.VARIATION INDEX
[A] 00
[B]
[C]
[D]
[E]
[F]
[H]
[J]
[K]
[L]
[M]
[N]

DRN: J. WHITNEY DATE: 21-MAR-79

CHK'D: D. KOPPENAL DATE: 21-MAR-79

DES.ENG: P. ALOISI DATE: 12-SEP-80

RESP.ENG.: P. ALOISI DATE: 09-FEB-81

MFG.ENG.: B. O CONNELL DATE: 12-SEP-80

ASSEMBLY NUMBER: D-UA-H3255-0-0

TOP DOCUMENT NUMBER: *B-DD-H3255-0

D	I	G	I	T	A	L

TITLE: PARTS LIST
M8203 TEST CONNECTOR J2

DOCUMENT NUMBER

SIZE	CODE	NUMBER	REV
K	PL	H3255-0-0	B

FILE NAME: MK0348.PLS

EDIT #: 3

MK

WIRE TABLE

ITEM NO.	DESCRIPTION AWG	COLOR	FROM CONN	FROM WITH	TO CONN	TO WITH	REMARKS
5	26	BLU/WHT	P1 -1	3	P2-1	9	SEE NOTE 1
		BARE	-1	3	-1	9	
		BARE	-1	3	-1	9	
		GRAY	-2	2	-2	8	
		GRY/GRN	-3		-3		
		WHT/BLU	-4		-4		
		GRN/WHT	-5		-5		
		WHT/ORN	-6		-6		
		GRN/WHT	-7		-7		
		WHT/GRN	8		-8		
		BRN/WHT	-9		-9		
		WHT/BRN	-10		-10		
		GRY/WHT	-11		-11		
		WHT/GRY	-12		-12		
5	26	BLU/RED	P1 -13	2	P2-13	8	

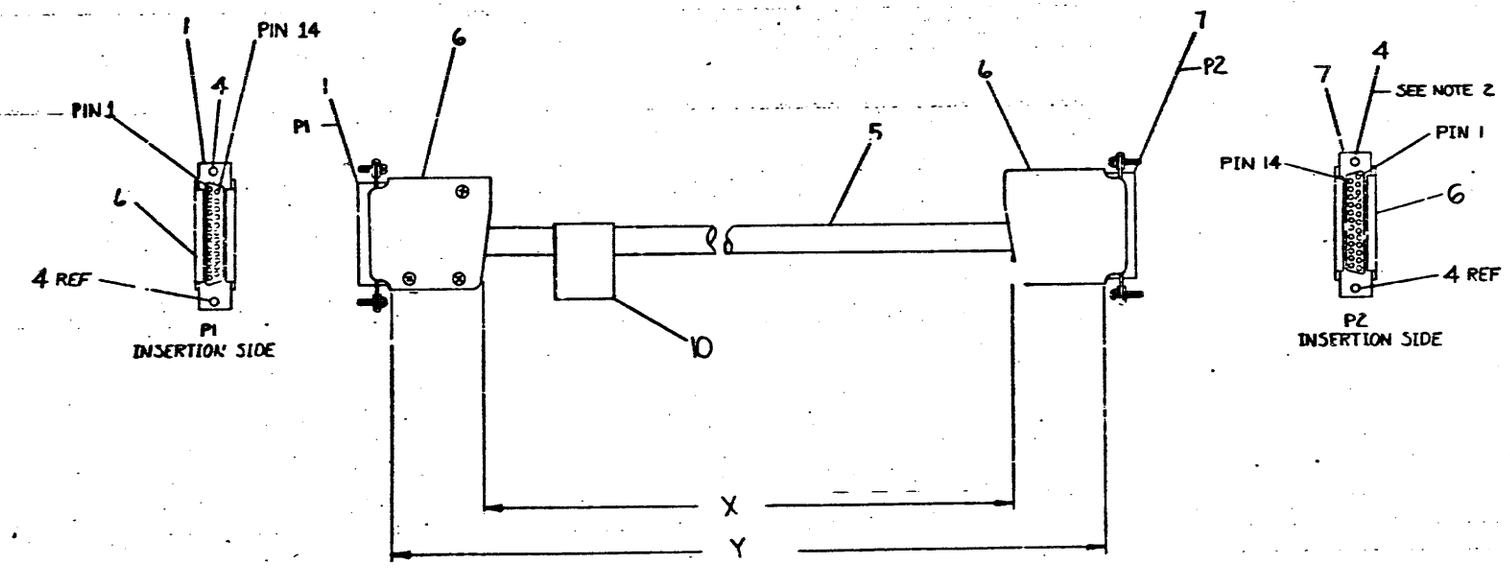
WIRE TABLE

ITEM NO.	DESCRIPTION AWG	COLOR	FROM CONN.	FROM WITH	TO CONN	TO WITH	REMARKS
5	26	RED/BLU	P1-14	2	P2-14	8	
		ORG/RED	-15		-15		
		RED/ORG	-16		-16		
		BRN/RED	-17		-17		
		RED/BRN	-18		-18		
		GRY/RED	-19		-19		
		RED/GRY	-20		-20		
		BLU/BLK	-21		-21		
		BLK/BLU	-22		-22		
		ORG/BLK	-23		-23		
		BLK/ORN	-24		-24		
5	26	GRN/BLK	P1 -25	2	P2-25	8	

LEGEND

NUMBER	"X" DIM	"Y" (PRECUT) REF
BCØ5D-1Ø	1ØFT±2IN	1ØFT 3IN
BCØ5D-25	25FT±3IN	25FT 3IN
BCØ5D-5Ø	5ØFT±2IN	5ØFT 3IN
BCØ5D-Ø6	6FT±2 IN	3FT. 3IN
BCØ5D-15	15FT±3IN	15FT 3IN
BCØ5D-2Ø	2ØFT±3IN	2ØFT 3IN
BCØ5D-7Ø	7ØFT±2%	7ØFT 3IN
BCØ5D-75	75FT±2%	75FT 3IN
BCØ5D-9Ø	9ØFT±2%	9ØFT 3IN
BCØ5D-A0	1ØØFT±2%	13ØFT 3IN
BCØ5D-A7	17ØFT±2%	17ØFT 3IN

NOTES:
1. ITEM "3 AND ITEM "9 REQUIRE THAT 3 WIRES BE SOLDERED INTO EACH OF THE CONTACTS.
2. MALE SCREW RETAINER MOUNTED HERE.



CAUTION: OFF SHEET PARTS LIST EXISTS. REFER TO K-PL-BCØ5D-Ø-Ø.

QTY	DESCRIPTION	DWG/PART NO.	ITEM NO
~~AR~~	~~TIE WRAP~~	~~200703-00~~	
1	CABLE LABEL	3GIG073-00	10
1	SOCKET CONTACT	1215743-00	9
24	SOCKET 24-28 AWG	1210493-45	8
1	SHELL & INSERT, FEMALE	1210493-32	7
2	HOOD	1210493-50	6
AR	CABLE, MOHAWK 25 COND	9107736-00	5
2	MALE SCREW RETAINER	1210493-51	4
1	PIN CONTACT	1215241-00	3
24	PIN 24-28 AWG	1210493-43	2
1	SHELL & INSERT, MALE	1210493-31	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)		NOMINAL DIMENSION RANGE IN INCHES					
			OVER 0 TO .12	OVER .12 TO .40	OVER .40 TO 1.20	OVER 1.20 TO 4.0	OVER 4.0 TO 10.0	OVER 10.0 TO 40.0
SURFACE QUALITY IN MICROINCHES	MEDIUM ☐		±.004	±.008	±.012	±.018	±.064	±.04
	PREFERRED ☑		±.002	±.004	±.005	±.01	±.01	±.01

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL

FINISH

DRN	W. MAJOR	11-6-79
CHKD	D. SIREEN	12-3-79
ENG.	D. ANDELLA	12-3-79
PROJ. ENG.	D. ANDELLA	12-3-79
PROD.	J. SPILA	12-3-79

NEXT ASSEMBLY

SCALE

SHEET 1 OF 1

FIRST ASSIGN R1Ø

digi-log

TITLE ASYNC MODEM INTERF CABLE EXT

SIZE	CODE	NUMBER	REV
D	UA	BCØ5D-Ø-Ø	F

DIST.

REVISIONS				
LTR	CHANGE NO.			
C	MCØ5D-ML003	REVISED/REDRAWN	10-29-79	W. DUNHAM
D	MCØ5D-ML004	Changed figure 2	11-29-79	W. DUNHAM
E			12-10-79	W. DUNHAM
F			2-6-80	W. DUNHAM

BCØ5D-Ø-Ø-F

1K

WIRE TABLE

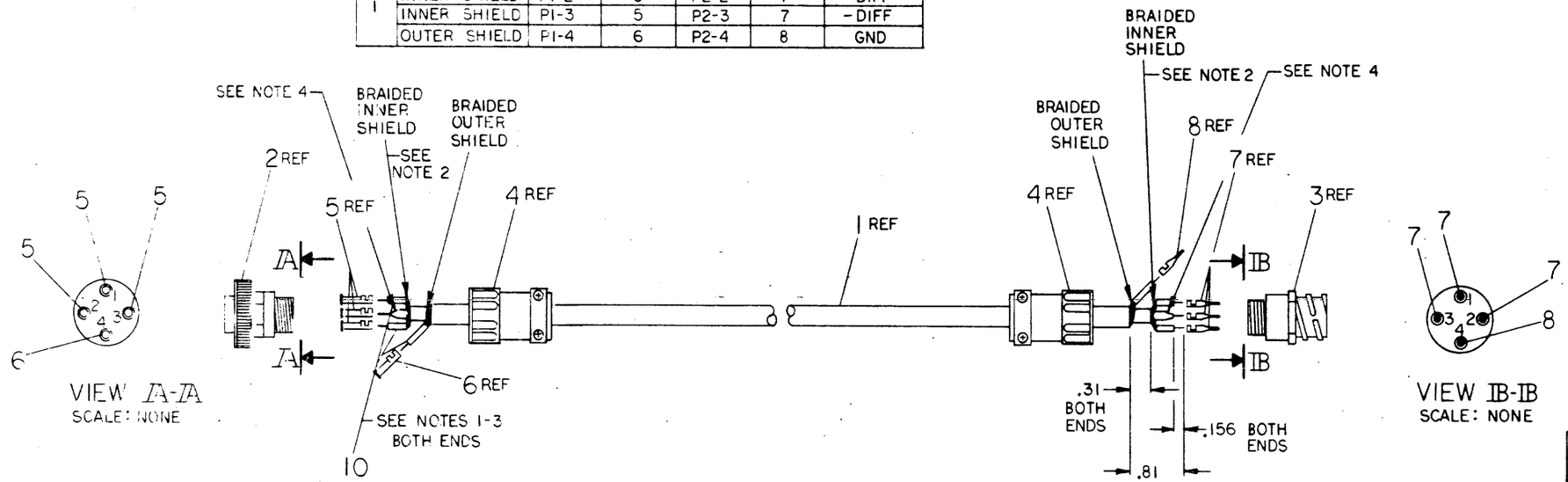
ITEM NO.	CONDUCTOR	FROM CONN	FROM WITH	TO CONN	TO WITH	SIGNAL
1	CENTER	P1-1	5	P2-1	7	+ DIFF
	INNER SHIELD	P1-2	5	P2-2	7	- DIFF
	INNER SHIELD	P1-3	5	P2-3	7	- DIFF
	OUTER SHIELD	P1-4	6	P2-4	8	GND

LEGEND

NUMBER	DIM "X" VARIATION	DIM "Y" (PRECUT) REF	METRIC(REF)
BC55M-98	98FT. ± 2FT.	98FT. 6IN.	30 METERS

NOTES:

1. MAKE OUTER SHIELD ONE WINDING.
2. SPLIT INNER SHIELD INTO TWO SEPARATE WINDINGS AT BOTH ENDS OF CABLE.
3. PUT SHRINK TUBING, (ITEM*10) OVER THE TWO INNER SHIELDS AND ONE OUTER SHIELD. LEAVE .156 OF SHIELDS EXPOSED FOR CRIMPING.
4. STRIP BACK CENTER CONDUCTOR .156, TRIM BACK .38 OF REMAINING INSULATION TO A SUITABLE DIA. TO FIT INTO CONTACT AND CONNECTOR.
5. USE CLAMPING INSERT *2 SUPPLIED WITH CLAMP ASSY., (ITEM*4).
6. FOR CRIMPING TOOL USE AMP* 90277-01 FOR ITEMS 5 & 7. USE CRIMPING TOOL AMP *90310-1 FOR ITEMS 6 & 8.
7. FOR EXTRACTION TOOL USE AMP* 305183.
8. FOR INSERTION TOOL USE AMP* 91002-1.
9. APPLY LABEL, (ITEM*9) APPROX. AS SHOWN.

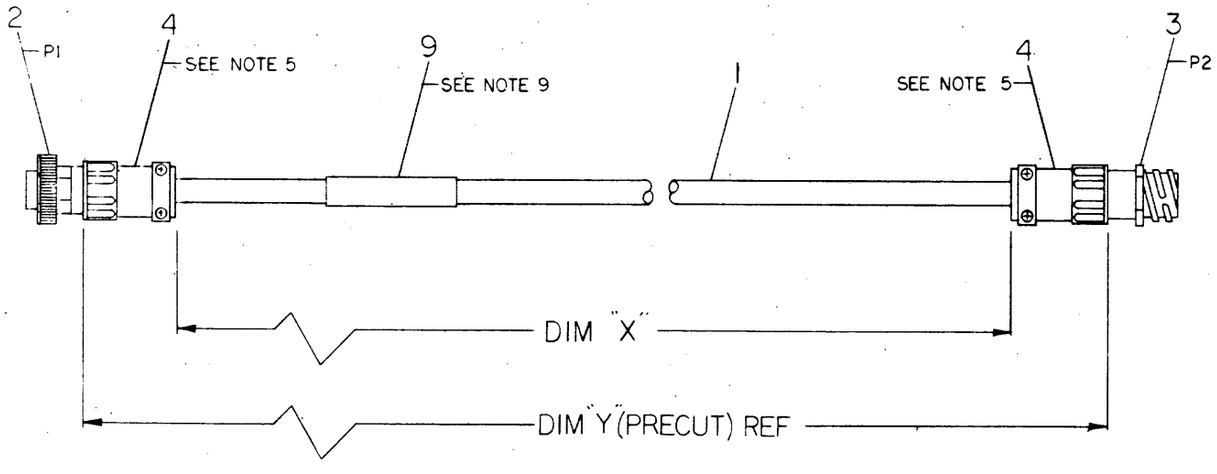


VIEW A-A
SCALE: NONE

VIEW IB-IB
SCALE: NONE

LEGEND CONT.

NUMBER	DIM "X"	DIM "Y" (PRECUT) REF	METRIC
BC55M-50	50 FT ± 2%	50 FT 6 IN ± 2%	—
BC55M-A5	150 FT ± 2%	150 FT 6 IN ± 2%	—
BC55M-B0	200 FT ± 2%	200 FT 6 IN ± 2%	—
BC55M-C0	300 FT ± 2%	300 FT 6 IN ± 2%	—
BC55M-E0	500 FT ± 2%	500 FT 6 IN ± 2%	—
BC55M-L0	1000 FT ± 2%	1000 FT 6 IN ± 2%	—
BC55M-Y0	2000 FT ± 2%	2000 FT 6 IN ± 2%	—
BC55M-YA	3500 FT ± 2%	3500 FT 6 IN ± 2%	—



CAUTION: OFF SHEET PARTS LIST EXISTS.
REFER TO K-PL-BC55M-0-0.

	DESCRIPTION	DWG./PART NO.	ITEM NO.
A/R	TUBING SHRINK .125 I.D.	9107255-00	10
1	LABEL, CABLE IDENT.	3616073-00	9
1	CONTACT, MALE 14 AWG.	1212001-06	8
3	CONTACT, MALE 16-18 AWG.	1212001-00	7
1	CONTACT, FEMALE 14 AWG.	1212000-04	6
3	CONTACT, FEMALE 16-18 AWG	1212000-00	5
2	CLAMP ASSY., CABLE	1211430-01	4
1	CONN., RECEPT., 4 PIN CIRC.	1212527-00	3
1	CONN., PLUG, 4 PIN CIRC.	1212526-00	2
A/R	CABLE, TRIAX DOUBLE SHLD.	1700185-00	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES: OVER 0 TO 0.2	OVER 0.2 TO 1.2	OVER 1.2 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 48.0	OVER 48.0 TO 80.0
SURFACE QUALITY IN ✓ MICROINCHES	MEDIUM ☐	±.004	±.008	±.012	±.016	±.024	±.04
	PREFERRED ☐	±.012	±.016	±.035	±.04	±.063	±0.1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL: SEE PARTS LIST

FINISH

DRN: D. Bracken 15 May 79
CHK'D: [illegible] 5 Jan 79
ENG: [illegible]
PROJ. ENG.: [illegible]
PROD: [illegible]
NEXT HIGHER ASSY.

SCALE: 1/1
SHEET: OF

FIRST USED ON: DMP11-AD

digital

TITLE: CABLE, INTEGRAL MODEM

SIZE: D | CODE: UA | NUMBER: BC55M-0-0 | REV.: C
DIST.

REVISIONS			
CHK	CHANGE NO.		REV.
[illegible]	BC55M-MK0001	R. BLANCHETTE 6 NOV 79	A
[illegible]	BC55M-MK0002	D. Rawson 24 JULY 80	B
[illegible]	BC55M-MK0003	R. HARRINGTON	C

MK

WIRE TABLE

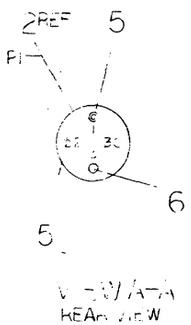
ITEM NO	DESCRIPTION		FROM		TO		SIGNAL NAME
	AWG	COLOR	CONN	WITH	CONN	WITH	
1	20	BLU	P1-1	5	P2-1	7	+DIFF
	20	CLEAR	P1-2	5	P2-2	7	-DIFF
	SHIELD		P1 4	6	P2 4	8	SHIELD

LEGEND

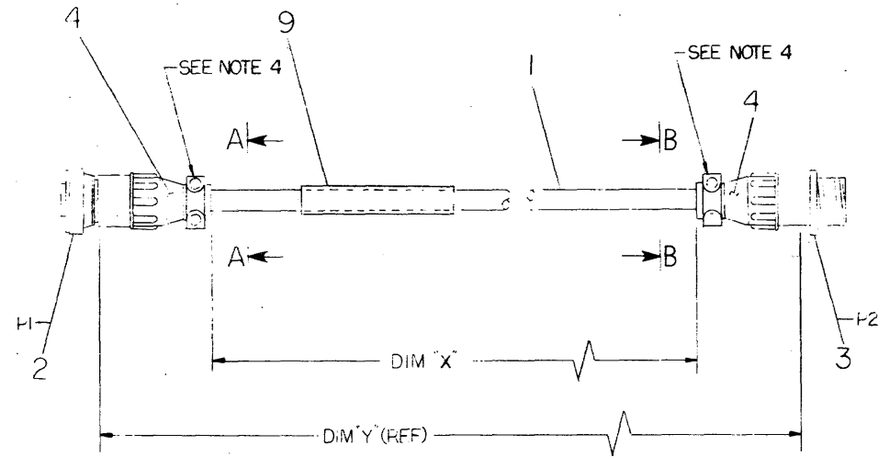
NUMBER	DIM "X" VARIATION	DIM "Y" (PRECUT) REF	METRIC LENGTH (REF)
BC55N-98	98 FT ± 2 FT	98 FT 6 IN	30 METERS
BC55N-5Ø	50 FT ±2%	50 FT 6IN ±2%	15 METERS
BC55N-AØ	100 FT ±2%	100 FT 6IN ±2%	30 METERS
BC55N-A5	150 FT ±2%	150 FT 6IN ±2%	46 METERS
BC55N-BØ	200 FT ±2%	200 FT 6IN ±2%	61 METERS
BC55N-CØ	300 FT ±2%	300 FT 6IN ±2%	91 METERS
BC55N-EØ	500 FT ±2%	500 FT 6IN ±2%	152 METERS
BC55N-LØ	1000 FT ±2%	1000 FT 6IN ±2%	305 METERS
BC55N-YØ	2000 FT ±2%	2000 FT 6IN ±2%	610 METERS
BC55N-YA	3500 FT ±2%	3500 FT 6IN ±2%	1067 METERS

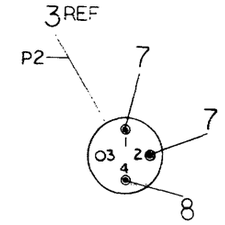
NOTES:

1. FOR CRIMPING TOOL USE AMP #90277-01 ON ITEMS 5 & 7 AND AMP #90310-01 ON ITEMS 6 & 8.
2. FOR EXTRACTION TOOL USE AMP # 305183.
3. FOR INSERTION TOOL USE AMP # 91002 - 1.
4. USE "CLAMPING INSERT #3" SUPPLIED WITH "CLAMP ASSY" (ITEM 4).

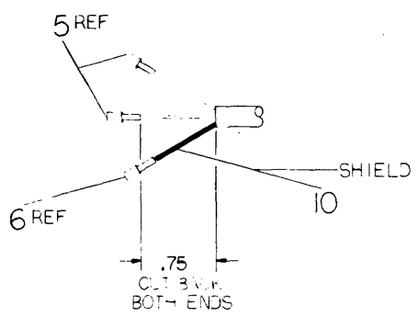


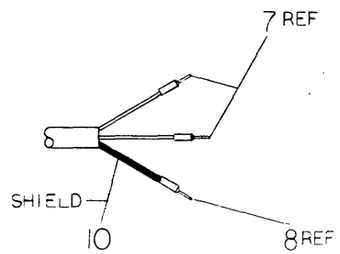
VIEW A-A
REAR VIEW





VIEW B-B
REAR VIEW





CAUTION: OFF SHEET PARTS LIST EXISTS.
REFER TO K-PL-BC55N-Ø-Ø.

A/R	TUBING THIN WALL .106 ID (NAT)	9107302-11	10
1	LABEL, CABLE ID	3616073-00	9
1	CONTACT, MALE (14 AWG)	1212001-06	8
2	CONTACT, MALE (24-20 AWG)	1212001-03	7
1	CONTACT, FEMALE (14 AWG)	1212000-04	6
2	CONTACT, FEMALE (24-20 AWG)	1212000-02	5
2	CLAMP ASSY, CABLE	12H430-00	4
1	CONN, RECEPTACLE (4 PIN CIRCULAR)	1212527-00	3
1	CONN, PLUG 4 PIN CIRCULAR	1212526-00	2
A/R	CABLE TWIN AX 2 COND 20 AWG	1700164-00	
	DESCRIPTION	DWG./PART NO.	ITEM NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

QUANTITY & VARIATION	ANGLES ±0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES OVER 0 TO 0.2	OVER 0.2 TO 1.2	OVER 1.2 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 40.0	OVER 40.0 TO 80.0
	SURFACE QUALITY IN ✓ MICROINCHES	MEDIUM ☐	±.004	±.008	±.012	±.016	±.024	±.04
		PREFERRED ☐	±.012	±.016	±.025	±.04	±.063	±0.1

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL: SEE PARTS LIST

FINISH: //

DRN. T. Rea 4 APR 79
CHK'D
ENG.
PROJ. ENG.
PROD.
NEXT HIGHER ASSY.

FIRST USED ON: DMP11-AD

digital

TITLE: CABLE, INTEGRAL MODEM

SIZE D | CODE UA | NUMBER BC55N-Ø-Ø | REV. C

SCALE NONE | SHEET OF | DIST.

REVISIONS			
CHK	CHANGE NO.	REV.	
	BCFII-INIT	A	
	BC55N-MK005	C	

F. ALLISI
B. ALCOSS
F. BACKES

MK

DIGITAL EQUIPMENT CORPORATION
PARTS LIST

MADE BY D. Surcan	CHECKED R. Harrington	SECTION 1
DATE 9 JAN 80	DATE 17 MAR 80	
ENG Henry Yuen	PROD R. Soules	ISSUED SECTION 1
DATE 17 MAR 80	DATE 17 MAR 80	

ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION	QUANTITY / VARIATION DMR11-AA	DMR11-AB	DMR11-AC	DMR11-AD	DMR11-AE	NOTES: / REF DESIGNATION
1	B-TC-DMR11-Ø-1	MPØ3911	CUSTOMER PRINT SET	1	1	1	1	1	
2		EK-DMR11-UG-001	DMR11 USERS GUIDE	1	1	1	1	1	
3		ZJ3Ø6-RB	DMR11 SOFTWARE LIBKIT	1	1	1	1	1	

E.C.O. NO.

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.
SHIPPING LIST, DMR11	D-UA-DMR11-Ø-Ø	B	PL	DMR11-Ø	*
	SHEET 1 OF 1	INSERTION PARTS LIST DATA BASE REV			

AUTOMATED BY PRTLST.3L(36) P A R T S L I S T SHEET A1 OF A1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION 10
1	1	D-IA-BC08S-0-0	BC08S-10	CABLE 10' DC76	1
2	2	D-IA-7421940-0-0	7421940-00	PANEL BC55	1
3	3	D-UA-H8C55-0-0	H8C55-00	JUMPER BOARD + RS423/RS232C CONN	1
4	4		9006453-00	SCREW, SEMS, SLOTTED HEX HEAD 6-	6
5	5	C-MD-7421941-0-0	7421941-00	STRAIN RELIEF BC55	1
6	6		3616073-00	LABEL,CABLE IDENTIFICATION	1
7	7		9007834-00	TAPE, DOUBLE COATED, 1/2" WIDE,	A/R
8	8		9010174-00	SCREW, SEMS, PHILLIPS PAN HD 6-3	2
9	9		9008992-00	WASHER, FLAT, WHITE NYLON, 375 X	1

REVISION HISTORY			BASIC PART NO: BC55C
ENG:	ECO NUMBER	REV	SECTION A OF A
PA	INITIAL	*	SECTION, VARIATION INDEX
PA	BC55C-MK001	A	[A] 10
			[B]
			[C]
			[D]
			[E]
			[F]

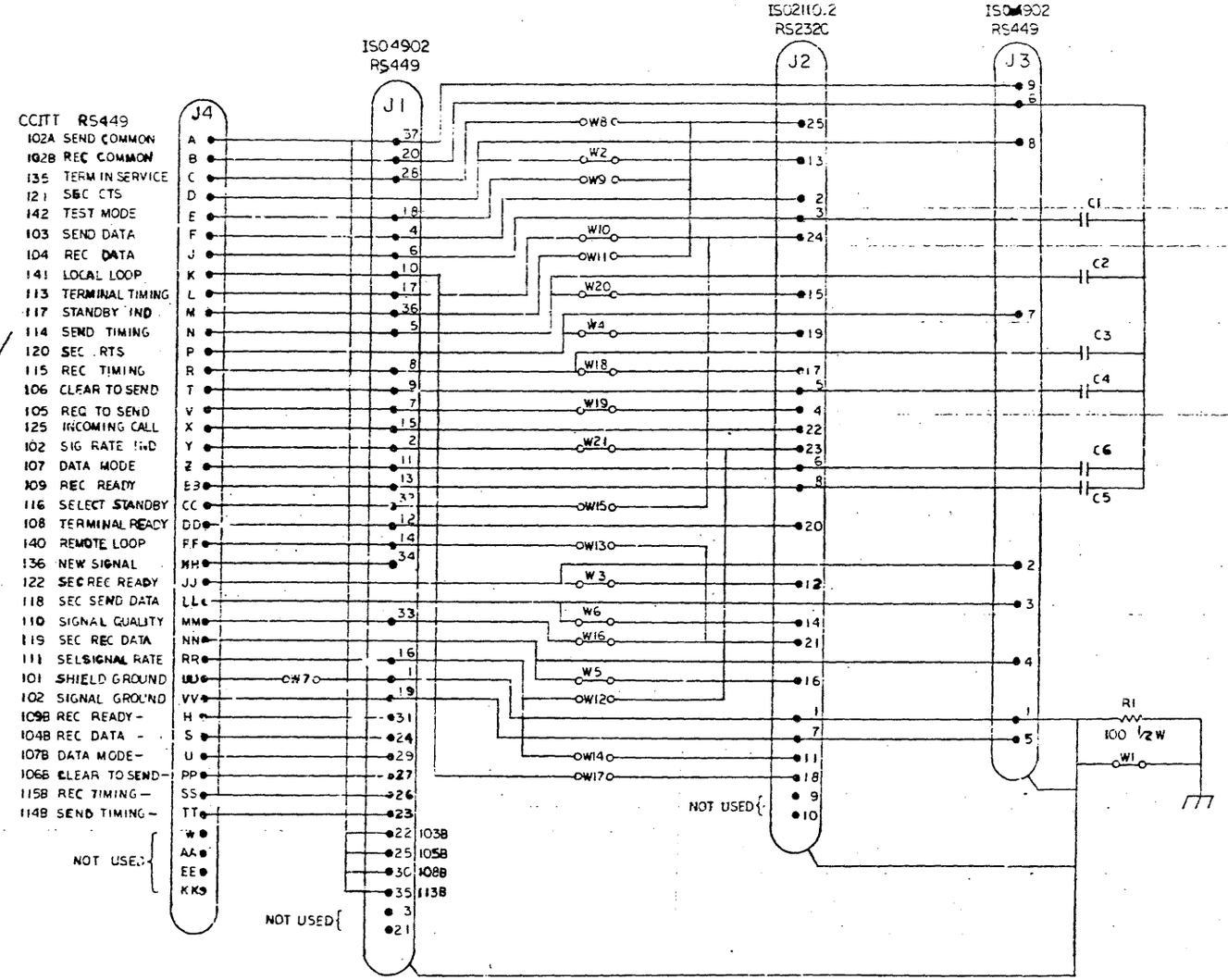
DRN: G HOVEY	DATE: 21-SEP-79		D I G I T A L
CHK'D: J FALKOWSKI	DATE: 21-SEP-79	TITLE PARTS LIST	
		PANEL ASSY,BC55C	
DES.ENG.: P ALOISI	DATE: 21-SEP-79		
RESP.ENG.: P ALOISI	DATE: 21-SEP-79	DOCUMENT NUMBER	
		SIZE: K / CODE: PL / NUMBER: BC55C-0-0 / REV: A	
MFG.ENG.: G ARMBRUSTER	DATE: 21-SEP-79		
ASSEMBLY NUMBER: D-UA-BC55C-0-0	TOP DOCUMENT NUMBER: B-DD-BC55C-0-0	FILE NAME: BC55C.PLS	EDIT #: 3

mlc

NOTES

1. UNLESS OTHERWISE SPECIFIED ALL CAPACITORS 2200pf 100VDC 20%
2. W7 NEVER NORMALLY INSTALLED
3. ASSEMBLED FOR RS232C IN MANUFACTURING

J2 PIN	JUMPER	RS232C	BELL 103J	BELL 208B	BELL 209	DATEL 200	DATEL 600	DATEL 2400	DATEL 4800	CCITT V.21	CCITT V.23	CCITT V.26B	CCITT V.27T	ISO 2110-1972	ISO 2110.2	ISO 2110.2	EIA RS232C	EIA RS449	CCITT V.24
														FUTURED	X.21 BIS	X.20 BIS			
1	W1	IN	IN	IN	IN	IN	IN	IN					IN				AA		101
13	W2	IN				IN	IN	IN		IN	IN	IN	IN	IN	IN		SCB	SCS	121
12	W3	IN				IN	IN	IN		IN	IN	IN	IN	IN	IN		SCF	SRS	122
19	W4	IN				IN	IN	IN		IN	IN	IN	IN	IN	IN		SCA	SRS	120
16	W5	IN				IN	IN	IN		IN	IN	IN	IN	IN	IN		SBB	SRD	119
14	W6	IN				IN	IN	IN		IN	IN	IN	IN	IN	IN		SBA	SSD	118
NOTE 2	W7																		
25	W8																MAKE BUSY		
25	W9								IN					IN	IN			TM	142
24	W10	IN		IN	IN			IN			IN	IN		IN	IN		DA	TT	113
25	W11						IN											SB	117
23	W12																CI	SF	112
21	W13								IN					IN	IN			RL	140
11	W14					IN			IN			IN						SF	126
24	W15						IN											SS	116
21	W16	IN			IN												CG	SQ	110
18	W17								IN					IN	IN			LL	141
17	W18	IN		IN	IN		IN	IN		IN	IN	IN	IN	IN	IN		CD	RT	115
4	W19	IN		IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN		CA	RS	105
15	W20	IN		IN	IN		IN	IN		IN	IN	IN	IN	IN			DB	ST	114
23	W21	IN				IN	IN	IN		IN	IN	IN	IN	IN			CH	SR	111
2																	BA	SD	103
3																	BB	RD	104
5																	CB	CS	106
6																	CC	DM	107
7																	AB	SG	102
8																	CF	RR	109
20																	CD	TR	108
22																	CE	IC	125



REVISIONS			
REV.	CHANGE NO.	CHK	
	ORIGINATED FROM C-MKOO1		

DRN.		FIRST USED ON	digital
CHK'D		DM-PII-AD	
ENG.		TITLE	BC55C
PROJ. ENG.			CONNECTOR MODULE
PROD.		NEXT HIGHER ASSY.	
B-DD H0055		SIZE D	CODE CS
SCALE		NUMBER	H8C55-Z-1
SHEET 1 OF 1		REV.	*
		DIST.	

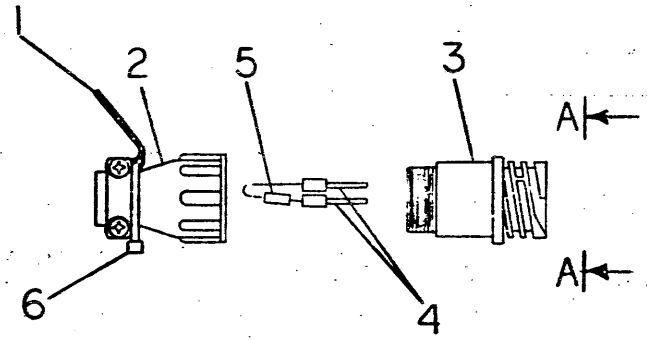
REV * | SIZE B | CODE UA | NUMBER H3257-0-0

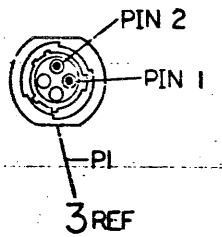
WIRE TABLE

ITEM NO	DESCRIPTION AWG	REF-DES	FROM CONN	FROM WITH	TO CONN	TO WITH
5	22	P1	P1-1	4	P1-2	3,4

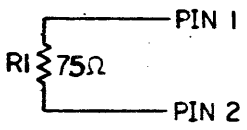
NOTES:

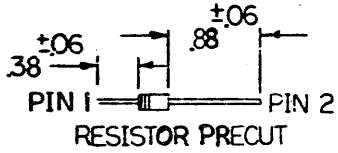
1. USE CLAMPING INSERT *1 SUPPLIED WITH CLAMP ASSY (ITEM 2).
2. FOR CRIMPING TOOL USE AMP*90277-01
3. FOR EXTRACTION TOOL USE AMP*305183
4. FOR INSERTION TOOL USE AMP*91002-1
5. FOLD LABEL (ITEM 1) IN HALF. CUT OFF UNUSED AREA OF LABEL AND WRAP AROUND CABLE TIE (ITEM 6) LENGTHWISE. SECURE CABLE TIE AT NECK OF SHELL.





VIEW A-A
FRONT VIEW





RESISTOR PRECUT

	DESCRIPTION	DWG./PART NO.	ITEM NO.
1	TIE, CABLE, SSTI M	9007031-00	6
1	RES, 75 1/4W 5%	1302379-00	5
2	CONN, PIN 28-26 AWG	1212001-02	4
1	CONN, RCPT 4 PIN CIRC FOR 1212526-00	1212527-00	3
1	CONN, RCPT CLAMP CABLE CIRC SHELL SZ-11	1211430-00	2
1	LABEL, CABLE IDENTIFICATION	3616073-00	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ANGLES ±0°30'

SURFACE QUALITY IN MICROINCHES

CLASS OF ACCURACY (CHECK ONE): MEDIUM ☐ PREFERRED ☐

NOMINAL DIMENSION RANGE INCHES

	OVER 0 TO 3	OVER 3 TO 6	OVER 6 TO 30	OVER 30 TO 120	OVER 120 TO 315	OVER 315 TO 1000
MEDIUM	±.004	±.008	±.012	±.016	±.024	±.04
PREFERRED	±.012	±.016	±.025	±.04	±.063	±0.1

QUANTITY & VARIATION

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL SEE PARTS LIST

FINISH

DRN. H. Masson 12/18/79

CHK'D Carl Holmes

ENG. Ron Oldfield

PROJ. ENG. Fred Glover

PROD. Jim Hollister

NEXT HIGHER ASSY. B-DD-H3257-0

FIRST USED ON DMP11-AC

TITLE TERM, INTEGRAL MODEM MALE

SIZE B | CODE UA | NUMBER H3257-0-0 | REV. *

SCALE 1/1

SHEET 1 OF 1

DIST.

MK

REVISIONS: REV. | CHANGE NO. | CHK

DRB 100A

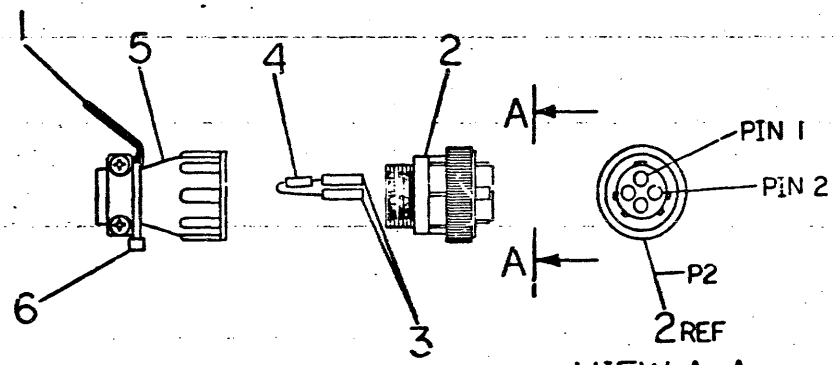
REV.	NUMBER	CODE	SIZE
A	H3258-Ø-Ø	UA	B

WIRE TABLE

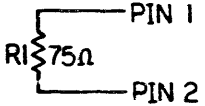
ITEM NO	DESCRIPTION AWG	REF-DES	FROM CONN	FROM WITH	TO CONN	TO WITH
4	22	R1	P2-1	3	P2-2	2,3

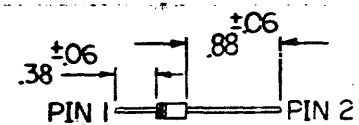
NOTES:

1. USE CLAMPING INSERT *1 SUPPLIED WITH CLAMP ASSY (ITEM *5).
2. FOR CRIMPING TOOL USE AMP *90277-01.
3. FOR EXTRACTION TOOL USE AMP *305183.
4. FOR INSERTION TOOL USE AMP *91002-1.
5. FOLD LABEL (ITEM 1) IN HALF. CUT OFF UNUSED AREA OF LABEL AND WRAP AROUND CABLE TIE (ITEM 6) LENGTHWISE. SECURE CABLE TIE AT NECK OF SHELL.



VIEW A-A
FRONT VIEW





RESISTOR PRECUT

CAUTION: OFF SHEET PARTS LIST SEE K-PL-H3258-Ø-Ø

QUANTITY & VARIATION	DESCRIPTION	DWG./PART NO.	ITEM NO.
1	TIE, CABLE, SSTI M	9007031-00	5
1	CONN, RCPT CLAMP, CABLE CIRC SHELL SZ-11	1211430-00	5
1	RES, 75 1/4W 5%	1302379-00	4
2	CONN, SKT 28-26 AWG CRIMP	1212000-03	3
1	CONN, PLUG 4 PIN CIRC FOR 1212527-00	1212526-00	2
1	LABEL, CABLE IDENTIFICATION	3616073-00	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

SURFACE QUALITY IN MICROINCHES	CLASS OF ACCURACY (CHECK ONE)	ANGLES ±0° 30'	NOMINAL DIMENSION RANGE INCHES: OVER 0 TO 3	OVER 3 TO 6	OVER 6 TO 30	OVER 30 TO 120	OVER 120 TO 480	OVER 480 TO 1000
✓	MEDIUM ☐		±.005	±.008	±.012	±.016	±.024	±.04
	PRECISION ☐		±.012	±.016	±.025	±.04	±.063	±.1

THIRD ANGLE PROJECTION

REMOVE BURRS AND BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL: SEE PARTS LIST

FINISH: + +

DRN. J. Quisser 12/13/78
CHK'D Walter L. Zumwalt
ENG. Paul Ulicki
PROJ. ENG. Paul Ulicki
PROD. D. Hunnicutt
NEXT HIGHER ASSY. B-DD-H3258-Ø

FIRST USED ON: DMPII-AC digital

TITLE: TERM, INTEGRAL MODEM, FEMALE

SIZE B | CODE UA | NUMBER H3258-Ø-Ø | REV. A

SCALE 1/1 | SHEET 1 OF 1 | DIST.

REVISIONS CHK	CHANGE NO.	REV.
R	H3258-MKØØ1	A

R. Quisser 13 July 81
R. HARRINGTON
A. Zumwalt 3 Aug 81

DRB 100A

MK