

PDP-8L

TECHNICAL INFORMATION

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FICHE 1 OF 1

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This technical information sheet contains a grid of 100 small diagrams and charts, organized into several sections:

- PDP8L:** A small section in the top-left corner.
- D-O-L:** A section in the second row, first column.
- FCO's:** A section in the second row, third column.
- TECH. TIPS:** A section in the eighth row, tenth column.

The diagrams include various types of plots, such as timing diagrams, waveforms, and circuit diagrams, which are essential for understanding the internal operation and troubleshooting of the PDP-8L computer system.

PDAP81

D-O-L

Engineering Change Order Log

ECO SYNOPSIS pages are updated and published continuously in conjunction with the issuance of **ENGINEERING CHANGE ORDERS** for all DEC products and are available upon subscription from:

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ECO SYNOPSIS FOR LOGIC OR OPTION

PDP-8L PROCESSOR LOGIC

PDP-8L

PRODUCT LINE

PDP-8L

PUBLICATION DATE
OF THIS SYNOPSIS PAGE

JUNE 1978

PAGE
REVISION

0

R643

ECO NO.	LOGIC OR OPTION SERIAL NO.'S AFFECTED	FIELD CODE	SYNOPSIS
8L 00001	>8L	M	AUG 68 - CHANGES THE SILK SCREEN FOR THE CONTROL PANEL TO POSITION WORDING CORRECTLY.
8L 00002	>8L	M	AUG 68 - CHANGES THE SILK SCREEN FOR THE CONTROL PANEL TO POSITION WORDING CORRECTLY.
8L 00003	>8L	M	AUG 68 - CHANGES THE SILK SCREEN FOR THE CONTROL PANEL TO POSITION WORDING CORRECTLY.
8L 00004	>8L	M	AUG 68 - CHANGES THE SILK SCREEN ARTWORK FOR THE REAR SCREEN TO IMPROVE MECHANICAL ALIGNMENT.
8L 00005	>8L	M	SEP 68 - SPECIFIES THE USE OF A SMALLER INSERT FOR THE LIGHT BOARD SUPPORT.
8L 00006	N.A.	M	SEP 68 - ADDS A DIMENSION TO THE PRINT FOR THE PLEXIGLAS® SUPPORT

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PDP8L-DOL-1

BL 00007	>BL	M	SEP 68 - ADDS AN INSTRUCTION FOR PREPARATION OF THE SWITCH MOUNTING HOLE IN THE INDICATOR PANEL.
BL 00008	>BL	M	OCT 68 - ADDS RIVNUT CLEARANCE IN THE WIRING BLOCK.
BL 00009	BL 100-169>	D	OCT 68 - MAKES PP8L AND PR8L LOGIC COMPATIBLE WITH THE LATEST REVISION M705 AND M715. CHANGES IOP'S FROM 680 NSEC TO 580 NSEC.
BL 00010	>BL	M	OCT 68 - SPECIFIES TRIMMING OF THE INDICATOR PANEL SWITCH OPENING TO FACILITATE INSTALLATION.
BL 00011	BL 100-199>	P	OCT 68 - PROVIDES A DESIGN UPDATING OF THE BL PRINT SET.

LEGEND

FIELD CODE
P - Field action may be required
D - Design ECO
P - Print or Wire List change
M - Mechanical ECO

SYMBOL
> - ECO applicable to future production

ECO CHARGES
Changes are coded within the synopsis. (*BX,**BY,**BZ)
BX - Charge for space and updated prints only
BY - Charge for necessary parts only
BZ - Charge for on site labor only. Installation by DSC

NOTE: Charges are additive (BX+BY+BZ = Total on site charge for ECO installation by DSC)

MASTER DRAWING LIST REVISIONS	
REV	ECO NUMBER
A	BL-00009
B	BL-00011

WIRE LIST REVISIONS	
REV	ECO NUMBER
A	BL-00009
B	BL-00011

BL PAGE 1

ONLY FCO'S WRITTEN TO THE "PDP8L" OPTION ARE DOCUMENTED ON THIS FICHE.

FCO'S FOR BA08 ARE DOCUMENTED IN ITS APPROPRIATE PLACE IN THIS SECTION OF THE LIBRARY.

FCO'S FOR "G020", G021, G221, G624, & G793" ARE DOCUMENTED IN THE MODULE ASSEMBLY (BLUE) SECTION OF THE LIBRARY.

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PDP8L-DOL-2

DOC NO.	LOGIC OR OPTION SERIAL NO. S AFFECTED	FIELD CODE	SYNOPSIS
8L 00012	>8L	M	OCT 68 - CHANGES THE SUPER CHASSIS COVER MATERIAL FROM ENBOSSED STEEL TO PLAIN STEEL.
8L 00013	8L 100-199>	F	OCT 68 - CORRECTS AN IOP 4 RACE CONDITION CAUSED BY "I/O ON (1)" AND "IOP C (0)" BEING GENERATED SIMULTANEOUSLY BY I/O ROTATE.
G221 00001	ALL 8L	F	OCT 68 - SPECIFIES THAT ALL DEC 6534B TRANSISTORS ARE TO BE CHANGED TO DEC 2984 TO PROVIDE MORE DEPENDABLE OPERATION UNDER HIGH VOLTAGE CONDITIONS. G221 CIRCUIT SCHEMATIC REVISION C
8L 00014	N.A.	P	OCT 68 - CORRECTS MODULE BLOCK DESIGNATIONS ON THE WIRED ASSEMBLY DRAWING.
8L 00015	>8L	M	OCT 68 - INCREASES INSERT HOLE SIZE TO ELIMINATE SPLITTING OF THE CORNERS OF THE BENELEX®.
8L 00016	>8L	M	OCT 68 - CHANGES THE LIGHT PANEL EXTRUSION TO HOLD THE SWITCHES MORE FIRMLY.
8L 00017	8L 100-199>	P	OCT 68 - CORRECTS WIRE LIST ERRORS.
8L 00018	>8L	M	OCT 68 - CHANGES THE POSITION OF A HOLE IN THE CHASSIS TO PROVIDE CORRECT ALIGNMENT WITH AN INSERT IN THE POWER SUPPLY.

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PDP8L-DOL-3

G624 00001	ALL 8L FIELD RETROFIT AS REQUIRED	F	NOV 68 - CHANGES THE VALUE OF THE INHIBIT CURRENT LIMITING RESISTORS FROM 70 OHMS TO 56 OHMS. THIS INCREASES THE INHIBIT CURRENT AND IMPROVES THE OPERATION OF FERROX CUBE STACKS. G624 CIRCUIT SCHEMATIC REVISION D
8L 00019	>8L	M	NOV 68 - INCREASES CLEARANCE FOR THE SWITCHES ON THE INDICATOR PANEL.
8L 00020	8L 100-227>	P	NOV 68 - CORRECTS WIRE LIST ERRORS.
8L 00021	>8L	M	NOV 68 - CHANGES THE COLOR SCHEME FOR THE INDICATOR PANEL.
8L 00022	8L 101-325>	F	NOV 68 - CHANGES TIMING ON "KEY CL" AND "KEY LOAD" TO ALLOW SETTING OF THE EA LIGHT WITH LOAD ADDRESS WHEN THE SYSTEM INCLUDES EXTENDED MEMORY. ADDS A GATE TO ELIMINATE THE SR BEING LOADED INTO BOTH THE MA AND THE MB. PROVIDES "BEMA" TO THE MCBL INSTEAD OF "EMA"; THIS EXTENDS MEMORY PROTECTION TO INCLUDE THE LAST PAGE OF EXTENDED MEMORY. GATES "WORD COUNT 0" TO PROVIDE MEMORY PROTECT DURING A THREE-CYCLE BREAK.

LEGEND	
FIELD CODE	
F	Field action may be required
D	Design ECO
P	Print or Wire List change
M	Mechanical ECO
SYMBOL	
>	ECO applicable to future production
ECO CHARGES	
Charges are coded within the synopsis. (*SX,**SY,**SZ)	
SX	Charge for space and updated prints only
SY	Charge for necessary parts only
SZ	Charge for on site labor only. Installation by DEC
NOTE: Charges are additive (SX+SY+SZ = Total on site charge for ECO installation by DEC)	

MASTER DRAWING LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
C	8L-00013		
D	8L-00017		
E	8L-00020		
F	8L-00022		

WIRE LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
C	8L-00013		
D	8L-00017		
E	8L-00020		
F	8L-00022		

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PDP8L-DOL-4

Engineering Change Order Log

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 MAYNARD, MASSACHUSETTS

BCD SYNOPSIS FOR LOGIC OR OPTION

PDP-8L PROCESSOR LOGIC **PDP-8/L**

PRODUCT LINE	PUBLICATION DATE OF THIS SYNOPSIS PAGE	PAGE REVISION
PDP-8L	JUNE 1978	8

R643

BCD NO.	LOGIC OR OPTION SERIAL NO.'S AFFECTED	FIELD CODE	SYNOPSIS
BL 00023	N.A.	P	NOV 68 - MAKES AN INCIDENTAL CORRECTION TO AN 8L BLOCK SCHEMATIC PRINT.
BL 00024	>8L	M	DEC 68 - CHANGES INSERTS IN THE CHASSIS FRAME TO PROVIDE GREATER THREAD DEPTH.
BL 00025	N.A.	P	JAN 69 - CORRECTS PRINTS.
BL 00026	N.A.	P	JAN 69 - CORRECTS MODULE QUANTITIES ON THE PARTS LIST. ADDS SPECIFICATIONS AND ACCEPTANCE PROCEDURES TO THE 8L PRINT SET.
BL 00027	BL 100-200>	F	JAN 69 - SPECIFIES THE USE OF TWISTED PAIR SENSE AMP LINES TO ELIMINATE NOISE PICKUP. *\$5.00
BL 00028	AS ORDERED	M	JAN 69 - ADDS ART WORK TO PROVIDE A SPECIAL CONTROL PANEL VARIATION AT CUSTOMER REQUEST.
BL 00029	N.A.	M	FEB 69 - CHANGES THE DIMENSIONS OF AN ALUMINUM STRIP ON THE SHIPPING CRATE.

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PDP8L-DOL-5

8L 00030	8L 1-692> ALL WITH BA08	F	FEB 69 - ADDS A SIGNAL TO ELIMINATE FLOATING GATES IN THE BA08 DURING 8L POWER SHUTDOWN. NOTE: THE NET EFFECT OF ECO'S 8L-00030, 00031 AND 00038 IS TWO "ADDS", A28E1 TO B36T2 AND B27F2 TO B36S2. REFERENCE ECO BA08-00005. *35.00 (ERROR CORRECTED BY ECO 81-00031)
8L 00031	8L 1-692> ALL WITH BA08	F	FEB 69 - CORRECTS ECO 8L-00030; DELETES A36S2 TO B36S2. NOTE: THE NET EFFECT OF ECO'S 8L-00030, 00031 AND 00038 IS TWO ADDS, A28E1 TO B36T2 AND B27F2 TO B36S2. REFERENCE ECO BA08-00005. INCLUDED IN THE 8L-00030 KIT
8L 00032	>8L	M	FEB 69 - ADDS HOLE PUNCHING AND INSERT INSTALLATION INSTRUCTIONS TO THE SUPER COVER DRAWING.

LEGEND	
FIELD CODE	
F	Field action may be required
D	Design ECO
P	Print or Wire List change
M	Mechanical ECO
SYMBOL	
>	ECO applicable to future production
ECO CHARGES	
Charges are coded within the synopsis. (*SX,**SY,***SZ)	
SX	Charge for <u>prints</u> and updated <u>prints</u> only
SY	Charge for necessary <u>parts</u> only
SZ	Charge for or <u>site labor</u> only. Installation by DDC
NOTE: Charges are additive (SX+SY+SZ = Total) on site charge for ECO installation by DDC	

MASTER DRAWING LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
M	8L-00023		
J	8L-00023		
K	8L-00026		
L	8L-00027		
M	8L-00028		
N	8L-00030		

WIRE LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
M	8L-00027		
J	8L-00030		

8L PAGE 3

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PDP8L-DOL-6

ECO NO.	LOGIC OR OPTION SERIAL NO.'S AFFECTED	FIELD CODE	SYNOPSIS
SL 00033	>SL	M	FEB 69 - ADDS HOLE PUNCHING AND INSERT INSTALLATION INSTRUCTIONS TO THE CABLE RETAINER DRAWING.
SL 00034	>SL	M	FEB 69 - ADDS DIMENSIONS, HOLE PUNCHING AND INSERT INSTALLATION INSTRUCTIONS TO THE CHASSIS FRAME DRAWINGS.
SL 00035	>SL	M	FEB 69 - CHANGES DIMENSIONS ON THE CHASSIS SUPER COVER DRAWING.
SL 00036	>SL	M	FEB 69 - CORRECTS THE PARTS LIST TO INCLUDE A CORRECT PART NUMBER FOR FOAM BACKING.
SL 00037	>SL	M	FEB 69 - ADDS A WELDED CORNER BRACE TO PREVENT CHASSIS MOVEMENT.
SL 00038	SL 693> ALL WITH BAOB	F	FEB 69 - CHANGES LOGIC, POWER SUPPLY AND 0826 REGULATOR CONTROL TO ELIMINATE POWER ON-OFF PROBLEMS. NOTE: THE CHANGE NUMBER ON THE SPEC FACE SHEET IS 00036 IN ERROR. NOTE: THE NET EFFECT OF ECO'S SL-00030, 00031 AND 00038 IS TWO "ADDS" A28E1 TO B36T2 AND B27F2 TO B3652. *55.00
SL 00039	>SL	P	MAR 69 - CHANGES THE DRAWING FOR BRACKET #2 TO INCLUDE A PEM STUD RATHER THAN A WELDED STUD.
SL 00040	>SL	P	MAR 69 - CHANGES THE DRAWING FOR BRACKET #1 TO INDICATE PUNCHING AND INSERT INSTALLATION DIRECTIONS.

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PDP8L-DOL-7

SL 00041	>SL	M	MAR 69 - ADDS INSTRUCTIONS FOR THE BONDING OF THE DECORATIVE CASING TO THE CHASSIS.
SL 00042	>SL	F	MAR 69 - REVISES BEZEL DRAWING DIMENSIONS TO AGREE WITH THE MANUFACTURED BEZEL.
SL 00043	>SL	M	MAR 69 - ADDS A METAL BORDER TO THE HEX SCREEN FOR A STRONGER WELD.
SL 00044	SL 100-720 > ALL WITH MPBL	F	MAR 69 - CHANGES "MP SKIP" GATE INPUT FROM THE "1" SIDE OF THE PARITY ERROR FLIP-FLOP TO THE "0" SIDE. *\$5.00
SL 00045	SL 1000 >	F	APR 69 - CHANGES LOGIC TO ALLOW FAST FLAG TESTING IN PERIPHERALS. THIS IS A PRODUCT IMPROVEMENT MODIFICATION. (ERRORS CORRECTED BY ECO'S SL-00056, 00059 AND 00062) *\$5.00

LEGEND

FIELD CODE
 F - Field action may be required
 D - Design ECO
 P - Print or Wire List change
 M - Mechanical ECO

SYMBOL
 > - ECO applicable to future production

ECO CHARGES
 Changes are coded within the synopsis. (*\$X, **\$Y, ***\$Z)
 \$X - Charge for design and updated prints only
 \$Y - Charge for necessary parts only
 \$Z - Charge for on site labor only. Installation by DCC
 NOTE: Changes are added to \$X+\$Y+\$Z - Total on site charge for ECO installation by DCC

MASTER DRAWING LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
P	SL-00036		
R	SL-00038		
S	SL-00044		
T	SL-00045		

WIRE LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
K	SL-00038		
L	SL-00044		
M	SL-00045		

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PDP8L-DOL-8

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ECO SYNOPSIS FOR LOGIC OR OPTION
PDP-8L PROCESSOR LOGIC **PDP-8/L**

PRODUCT LINE	PUBLICATION DATE OF THIS SYNOPSIS PAGE	PAGE REVISION
PDP-8L	JUNE 1978	8

0170 R628

ECO NO.	LOGIC OR OPTION SERIAL NO.'S AFFECTED	FIELD CODE	SYNOPSIS
8L 00046	AS ORDERED	M	APR 69 - PROVIDES THE SPECIAL ARTWORK REQUIRED FOR A CUSTOMER REQUESTED VARIATION TO THE CONTROL PANEL.
8L 00047	>8L	M	APR 69 - STANDARDIZES CHASSIS SLIDE SPECIFICATIONS.
8L 00048	N.A.	P	MAY 69 - ADDS AN IN-PLANT TEST PROCEDURE TO THE 8L PRINT SET.
8L 00049	>8L	M	MAY 69 - ADDS A SHIPPING LOCK FEATURE TO THE CHASSIS SLIDES.
8L 00050	>8L	M	MAY 69 - REDUCES THE HEIGHT OF THE 1-3/4" FILLER PANEL.
8L 00051	N.A.	P	MAY 69 - CORRECTS A DRAFTING ERROR ON A PP8L PRINT.
8L 00052	>8L	M	MAY 69 - REPLACES AN ALUMINUM ANGLE ON THE SUPER BOX WITH A PLASTIC STRIP TO PREVENT THE MARRING OF TABLE SURFACES.

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PDP8L-DOL-9

8L 00053	N.A.	P	JUN 69 - ADDS DRAWINGS, ENGINEERING SPECIFICATIONS AND ACCEPTANCE PROCEDURE TO THE PC8L PRINT SET.
8L 00054	N.A.	P	JUN 69 - ADDS SEVERAL DRAWINGS TO THE PP8L PRINT SET.
8L 00055	N.A.	P	JUN 69 - ADDS PRINTS, ENGINEERING SPECIFICATIONS, AND ACCEPTANCE PROCEDURE TO THE PR8L PRINT SET.
8L 00056	8L 1000-1421 > ALL WITH ECO 8L-00045	F	JUN 69 - CORRECTS ERRORS IN ECO 8L-00045; ADDS AN M115 AND CORRECTS LOGIC TO ALLOW PROPER INTERRUPT OPERATION. INCLUDED IN THE 8L-00045 KIT) (ERROR CORRECTED BY ECO 8L-00092)
8L 00057	8L 0761 ONLY	D	JUN 69 - ADDS CUSTOMER-REQUESTED JMS/0000 SWITCH LOGIC AND "PAUSE" TIMING MODIFICATION.

LEGEND	
FIELD CODE	
F - Field action may be required	
D - Design ECO	
P - Print or Wire List change	
M - Mechanical ECO	
SYMBOL	
> - ECO applicable to future production	
ECO CHARGES	
Charges are coded within the synopsis. (*8X,**8Y,***8Z)	
8X - Charge for Space and updated prints only	
8Y - Charge for necessary parts only	
8Z - Charge for on site labor only, installation by DEC	
NOTE: Charges are additive (8X+8Y+8Z = Total) on site charge for ECO installation by DEC)	

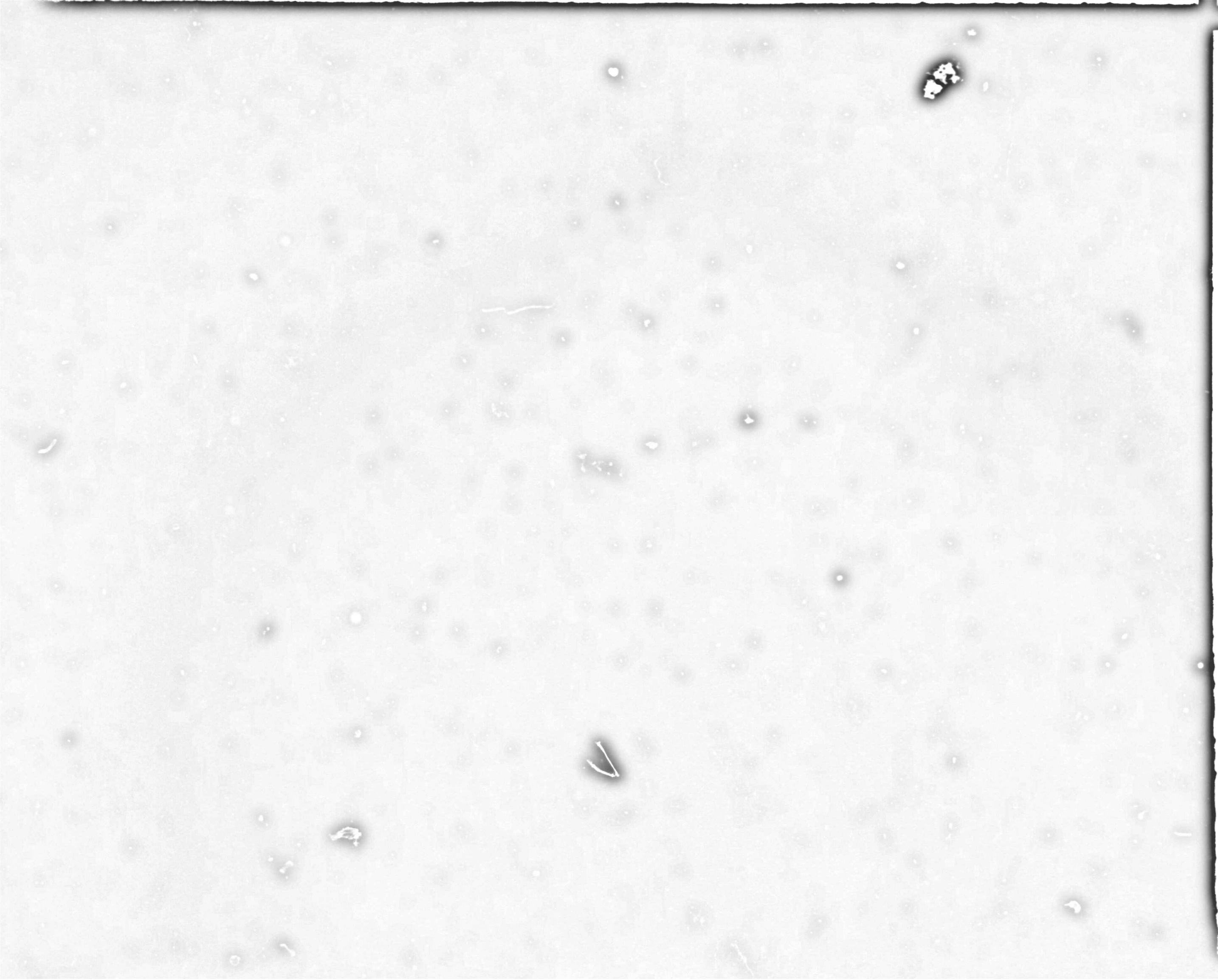
MASTER DRAWING LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
U	8L-00046		
V	8L-00047		
W	8L-00048		
Y	8L-00056		

WIRE LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
N	8L-00056		

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PDP8L-DOL-10



ECO NO.	LOGIC OR OPTION SERIAL NO.'S AFFECTED	FIELD CODE	SYNOPSIS
BL 00058	>BL	M	JUN 69 - CHANGES PLEXIGLAS [®] SUPPORT HOLE SPECIFICATION.
BL 00059	BL 1000-1471 > ALL WITH ECO BL-00045	F	JUN 69 - CORRECTS AN ERROR IN ECO BL-00045; ADDS "POWER CLEAR" TO THE PAUSE FLIP-FLOP TO ELIMINATE THE REQUIRED DOUBLE TOGGING OF THE LOAD ADDRESS SWITCH WHEN PAUSE COMES ON IN THE "1" STATE AT POWER UP AND DISABLES THE PC. ERROR CORRECTED BY ECO BL-00062
BL 00060	>BL	M	JUN 69 - INCREASES A WELD AREA FOR BETTER SUPPORT OF THE CHASSIS FRAME.
BL 00061	>BL	M	JUN 69 - MODIFIES THE CHASSIS SLIDES.
BL 00062	BL 1000-1511 > AND ALL WITH ECO BL-00059	F	JUL 69 - CORRECTS ECO BL-00059; ADDS A MISSING WIRE AND REVERSES THE B13P1 AND 713R1 INPUTS TO THE M113.
BL 00063	N.A.	P	JUL 69 - CORRECTS PIN NUMBER DESIGNATIONS FOR A LOGIC GATE.
BL 00064	>BL	M	JUL 69 - CHANGES THE DIRECTION OF INSERT INSTALLATION ON A 718 POWER SUPPLY BRACKET.

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PDP8L-DOL-11

BL 00065	>BL	M	JUL 69 - DELETES 90-DEGREE CORNERS ON THE PLEXIGLAS® SUPPORT.
BL 00066	N.A.	P	AUG 69 - ADDS ACCESSORY AND SOFTWARE LISTS TO THE BL PRINT SET.
BL 00067	N.A.	P	AUG 69 - ADDS ENGINEERING SPECIFICATION TEST PROCEDURE TO THE MP8L PRINT SET.
BL 00068	BL 1-1429>	F	AUG 69 - CHANGES THE POLARITY OF "INITIALIZE" ON THE BL BUS TO BE SI COMPATIBLE.
BL 00069	N.A.	M	AUG 69 - CHANGES DRILLING INSTRUCTIONS.
BL 00070	N.A.	M	SEP 69 - ADDS CHAD BOX GLUEING INSTRUCTIONS.

LEGEND

FIELD CODE
 F - Field action may be required
 D - Design ECO
 P - Print or Wire List change
 M - Mechanical ECO

SYMBOL
 > - ECO applicable to future production

ECO CHANGES
 Changes are noted within the system. (**X,**Y,**Z)
 X - Change for space and updated prints only
 Y - Change for necessary parts only
 Z - Change for on site labor only. Installation by DEC

NOTE: Changes are additive (X+Y+Z = Total) on the change for DEC installation by DEC)

MASTER DRAWING LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
Z	BL-00059		
AA	BL-00062		
AB	H9608-00001		
AC	BL-00063		
AD	BL-00066		
AE	BL-00068		

WIRE LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
P	BL-00059		
R	BL-00062		
S	BL-00068		

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ECO SYNOPSIS FOR LOGIC OR OPTION

PDP-8L PROCESSOR LOGIC

PDP-8L

PRODUCT LINE

PUBLICATION DATE
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REVISION

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JULY 1970

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199 R5349

ECO NO.	LOGIC OR OPTION SERIAL NO.'S AFFECTED	FIELD CODE	SYNOPSIS
BL 00071	BL 1-1911> 6826 REV F>	F	SEP 69 - SPECIFIES THE REMOVAL OF THE BUS BETWEEN B27B2 AND B28B2 TO ELIMINATE BOTH -15V SUPPLIES BEING SHORCIEED TOGETHER BY A JUMPER ON THE 6826 MODULE. *\$5.00
BL 00072	N.A.	M	SEP 69 - CHANGES THE FAN PART NUMBER AND ITS MOUNTING.
BL 00073	BL WITH 761 LOGIC ONLY	D	SEP 69 - MAKES CUSTOMER-REQUESTED CHANGES TO BL SYSTEM #754 ONLY. ALLOWS A SWITCH TO FORCE A JMS TO 0000 AND HOLDS THE PAUSE FLIP-FLUP ON FOR 1.5 USEC DURING AN IOT CYCLE.
BL 00074	BL 100-1912>	F	SEP 69 - SPECIFIES THE INSTALLATION OF ADDITIONAL GROUND WIRES TO ELIMINATE RANDOM MACHINE PROBLEMS. *\$5.00
BL 00075	>BL	M	OCT 69 - ELONGATES A HOLE IN THE FRAME TO FACILITATE MOUNTING OF THE 718 POWER SUPPLY WITHIN THE CHASSIS.

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PDP8L-DOL-13

BL 00076	>BL	M	OCT 69 - CORRECTS THE MOUNTING BAR ASSEMBLY DRAWING TO INDICATE THE REQUIRED QUANTITIES OF MECHANICAL HARDWARE.
BL 00077	N.A.	M	OCT 69 - CHANGES A HOLE DIMENSION IN THE SHIPPING CRATE.
BL 00078	BL 1800-2054> FIELD RETROFIT AS REQUIRED	F	OCT 69 - ADDS KEY LOGIC TO CLEAR THE INTERRUPT SYNC FLIP-FLOP TO RESOLVE AN INABILITY TO DEPOSIT OR EXAMINE IN UPPER MEMORY WHEN AN EXTERNAL DEVICE HAS GENERATED AN INTERRUPT FOLLOWING A CP HALT WITH THE INTERRUPT ON. AN M115 MODULE WAS ADDED IN SLOT C28 BY ECO BL-00056; THE INSTALLATION OF THAT MODULE IS NECESSARY FOR PROPER MACHINE OPERATION FOLLOWING IMPLEMENTATION OF THIS ECO. *\$5.00 (ERROR CORRECTED BY ECO BL-00083)

LEGEND

FIELD CODE
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 D - Design ECO
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SYMBOL
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 \$Z - Charge for on site labor only, installation by DEC

NOTE: Charges are additive (\$X+\$Y+\$Z = Total) on site charge for ECO installation by DEC)

MASTER DRAWING LIST REVISIONS	
REV	ECO NUMBER
AF	BL-00071
AN	MISC-00031
AJ	BL-00072
AK	BL-00074
AL	BL-00076
AM	BL-00078

WIRE LIST REVISIONS	
REV	ECO NUMBER
T	BL-00078

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PDP8L-DOL-1A

BL NO.	LOGIC OR OPTION SERIAL NO.'S AFFECTED	FIELD CODE	SYNOPSIS
BL 00079	>BL	M	OCT 69 - ADDS A MECHANICAL PERPENDICULARITY SPECIFICATION FOR THE BEZEL.
G020 00003	ALL G020 AFTER 11-1-69	F	SEP 69 - CHANGES THE VOLTAGE DIVIDER RESISTORS ON REVISION "E" ETCHED BOARDS TO INCREASE THE SLICE VOLTAGE FROM -3 VDC TO -4 VDC. THIS PROVIDES INCREASED STROBE MARGINS AND NOISE IMMUNITY. ERROR CORRECTED BY ECO G020-00006. *\$5.00 G020 CIRCUIT SCHEMATIC REVISION E
G021 00003	ALL G021	F	SEP 69 - CHANGES THE VOLTAGE DIVIDER RESISTORS ON ETCHED BOARDS EARLIER THAN "E" REVISION TO INCREASE THE SLICE VOLTAGE FROM -3 VDC TO -4 VDC. THIS PROVIDES INCREASED STROBE MARGINS AND NOISE IMMUNITY. ERROR CORRECTED BY ECO G021-00007. *\$5.00 G021 CIRCUIT SCHEMATIC REVISION E
BL 00000	>BL	M	NOV 69 - ENLARGES HOLES TO ALLOW SWITCHES TO OPERATE MORE FREELY.
BL 00001	>BL	M	NOV 69 - REMOVES CAPTIVE SCREWS FROM THE CHASSIS FRAME AND ADDS LOCK WASHERS INSTEAD.
BA08 00027	BA08 1-589> ALL BL	F	NOV 69 - RE-ROUTES THE "PWR ON" RUN AND SPECIFIES REVISED G785 AND G826 MODULES TO RESOLVE A POWER FAIL PROBLEM WITH EXTRA MEMORY. BOTH BA08 AND BL MUST HAVE G785 REVISION "E" OR LATER AND G826 REVISION "M" OR LATER.
BL 00002	BL SYSTEM #754 BL LOGIC #761	D	NOV 69 - MODIFIES IOP LOGIC AT CUSTOMER REQUEST.

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PDP8L-DOL-15

BL 00083	BL 1800-2054> ALL BL WITH ECO BL-00078	F	NOV 69 - CORRECTS AN ERROR IN ECO BL-00078; GATES "RUN (0)" WITH KEY FUNCTIONS SO THAT "KEY LA+EX+DP" IS DISABLED WHEN THE BL IS RUNNING.
BL 00084	N.A.	P	NOV 69 - CORRECTS THE WIRE LIST TO SHOW CURRENT LOOPS AND TWISTED PAIRS AS HAND WRAPS.
BL 00085	BL 100-2346>	F	DEC 69 - CORRECTS LOGIC AND SPECIFIES REVISIONS OF 0826 AND 0785 MODULES WHICH MUST BE USED TO PERMIT THE KP8L POWER FAIL OPTION TO OPERATE PROPERLY WITH MCBL. 0785 REVISION E OR LATER AND 0826 REVISION H ARE REQUIRED IN THE BL. 0785 REVISION E OR LATER IS REQUIRED IN THE BABB IF IT IS PRESENT.

LEGEND	
FIELD CODE	
F	Field action may be required
D	Design ECO
P	Print or Wire List change
M	Mechanical ECO
SYMBOL	
>	ECO applicable to future production
ECO CHARGES	
Charges are coded within the synopsis. (*BX,**BY,***BZ)	
BX	Charge for Space and updated prints only
BY	Charge for necessary parts only
BZ	Charge for on site labor only, installation by DEC
NOTE: Charges are additive (BX+BY+BZ = Total on site charge for ECO installation by DEC)	

MASTER DRAWING LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
AN	BL-00083		
AP	BL-00084		
AR	BL-00081		
AS	BL-00085		

WIRE LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
U	BL-00083		
V	BL-00084		
W	BL-00085		

PDP-8L PAGE 8

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FRAME ABOVE

PDP8L-DOL-10

Engineering Change Order Log

ECO SYNOPSIS pages are updated and published continuously in conjunction with the issuance of **ENGINEERING CHANGE ORDERS** for all DEC products and are available upon subscription request.

DIGITAL EQUIPMENT CORPORATION
FIELD SERVICE INFORMATION CENTER
WAYNARD, MASSACHUSETTS 01764

DIGITAL EQUIPMENT CORPORATION
WAYNARD, MASSACHUSETTS

ECO SYNOPSIS FOR LOGIC OR OPTION

PDP-8L PROCESSOR LOGIC **PDP-8/L**

PRODUCT LINE	PUBLICATION DATE OF THIS SYNOPSIS PAGE	PAGE REVISION
PDP-8L	JULY 1978	0

R4082

ECO NO.	LOGIC OR OPTION SERIAL NO.'S AFFECTED	FIELD CODE	SYNOPSIS
8L 00056	>8L	M	DEC 69 - CHANGES A DIMENSION AND WELDING INSTRUCTIONS FOR THE CHASSIS FRAME.
6793 00001	ALL 6793	F	JAN 78 - SPECIFIES A REDESIGN OF THE 6793 WHICH WILL SEPARATE THE RESISTORS FOR BETTER HEAT DISSIPATION. HOT SPOTS OCCUR ON 6793'S IN PDP-8I AND PDP-8L BECAUSE OF THEIR POSITION ABOVE THE INHIBIT RESISTORS. 6793 CIRCUIT SCHEMATIC REVISION A
8L 00057	AS ORDERED	D	JAN 78 - ADDS A CUSTOMER-REQUESTED VARIATION TO THE INDICATOR PANEL.
8L 00058	8L 1-2479> WITH MC8L	F	JAN 78 - CORRECTS FAILURE OF "RMF" TO RESTORE MEMORY FIELD IF AN INTERRUPT OCCURS DURING AN IOT CYCLE WHILE THE PROGRAM IS RUNNING IN UPPER MEMORY. (*\$5.00 **\$3.00 ***\$20.00)
8L 00059	8L 2636>	F	JAN 78 - ADDS GROUNDS TO THE I/O CONNECTOR SLOTS TO REDUCE I/O LINE NOISE. THIS IS A DESIGN ECO WHICH HAS NOT BEEN IDENTIFIED AS THE SOLUTION TO ANY SPECIFIC FAILURE. (*\$5.00, **\$3.00, ***\$15.00)

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PDP8L-DOL-17

BL 00090	BL 100-2516>	F	JAN 70 - TIES A FLOATING LEG OF THE M706 AT CD32 TO +3 VDC AND REMOVES -3 VDC FROM THE W076 CONNECTOR TO ELIMINATE RANDOM FAILURES WHICH OCCUR WHEN AN EXTRA CHARACTER IS ADVANCED. THE PROBLEM IS ESPECIALLY NOTICEABLE WITH TELETYPE TEST, PART 2, TEST 3.
BL 00091	BL 2597> RETROFIT IF POSITIVE BUS OPTIONS ARE INSTALLED	F	FEB 70 - ADDS A G717 PULSE TERMINATOR MODULE TO THE BL PARTS LIST SO THAT IT WILL BE AVAILABLE WHEN OPTIONS ARE ADDED TO THE BL I/O BUS. (*\$5.00, **\$4.00, ***10.00)

LEGEND	
FIELD CODE	
F	Field action may be required
D	Design ECO
P	Print or Wire List change
M	Manufactured ECO
SYMBOL	
>	ECO applicable to future production
ECO CHARGES	
Charges are added to the system. (*\$X,**\$Y,***\$Z)	
DL	Change for Design and updated prices only
SV	Change for inventory parts only
SE	Change for on the shelf parts, installation by DEC
SM	Change for on the shelf parts, installation by DEC

MASTER DRAWING LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
AT	SL-00088		
AU	SL-00089		
AV	SL-00090		
AW	SL-00091		

WIRE LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
Y	SL-00088		
Z	SL-00089		
AA	SL-00090		

PDP-8L PAGE 9

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PDP8L-DOL-18

SYNOPSIS

	ECO OR OPTION KIT'S NUMBER	FIELD CODE	SYNOPSIS
BL 0000	BL 1000-2756> ALL WITH ECO BL-00056	F	MAR 78 - CORRECTS AN ERROR IN ECO BL-00056; TIES "TS4 (B)" TO THE I/O PC ENABLE GATE. (FCO ONLY, INCLUDED IN THE BL-00056 KIT)
BL 0003	>BL	M	MAR 78 - CHANGES CASTING MATERIAL FROM ALUMINUM TO PLASTIC.
BL 0004	>BL	M	MAR 78 - CHANGES MOUNTING DEPTH OF THE SCREEN IN THE SUPER CHASSIS COVER.
BL 0005	>BL	M	MAR 78 - CORRECTS MECHANICAL DIMENSIONS FOR A MOUNTING BAR.
BL 0006	N.A.	M	MAR 78 - ADDS A CABINET CONFIGURATION DRAWING TO THE BL PRINT SET.
BL 0007	BL 100-2896>	P	APR 78 - ADDS MISSING RUNS TO THE WIRE LIST.
0020 0006	ALL BL	F	APR 78 - CORRECTS AN ERROR IN ECO 0020-00003; CHANGES "SERIAL NUMBERS AFFECTED" TO "RETROFIT ALL IN-PLANT AND IN THE FIELD AND ALL FUTURE". SOME REVISIONS OF THE 0020 HAVE +3 VDC SLICE AND OTHERS HAVE +4 VDC SLICE. BOTH ARE ACCEPTABLE; HOWEVER, THEY MUST NOT BE INTERMIXED. INCLUDED IN THE 0020-00003 KIT
0021 0007	ALL BL	F	APR 78 - CORRECTS AN ERROR IN ECO 0021-00003; CHANGES "SERIAL NUMBERS AFFECTED" TO "RETROFIT ALL IN-PLANT AND IN THE FIELD AND ALL FUTURE". SOME REVISIONS OF THE 0021 HAVE +3 VDC SLICE AND OTHERS HAVE +4 VDC SLICE. BOTH ARE ACCEPTABLE; HOWEVER, THEY MUST NOT BE INTERMIXED. INCLUDED IN THE 0021-00003 KIT

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PDP8L-DOL-19

SL 00098	SL 100-3120>	P	MAY 70 - CORRECTS A STATEMENT IN THE ENGINEERING SPECIFICATIONS TO READ "POWER CONSUMPTION IS LESS THAN 300 WATTS".
6020 00007	ALL SL	F	MAY 70 - SPECIFIES A REWORKING OF THE BOARD TO ELIMINATE EXCESSIVE NOISE WHICH IS ASSOCIATED WITH THE REVISION H EYELET BOARDS. PROVIDES INSTRUCTIONS FOR FIELD REWORKING OF THE BOARDS. 6020 CIRCUIT SCHEMATIC REVISION J
SL 00099	>SL	M	MAY 70 - CORRECTS MECHANICAL DIMENSION ERRORS ON THE SUPER COVER.
SL 00100	>CMBL	P	JUN 70 - CHANGES THE CMBL CARD READER SPECIFICATION FROM 80 COLUMN TO 40 COLUMN CARDS.

LEGEND

FIELD CODE

- F - Field action may be required
- D - Design ECO
- P - Print or Wire List change
- M - Mechanical ECO

SYMBOL

- > - ECO applicable to future production

ECO CHANGES

Changes are coded within the synopsis. (*SX,**SY,***SZ)

- SX - Change for Space and updated price only
- SY - Change for quantity price only
- SZ - Change for unit price only. Initiation by DEC

NOTE: Changes are coded SX-SY-SZ - Total on the change for ECO initiation by DEC

MASTER DRAWING LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
AY	SL-00092		
AZ	SL-00093		
BA	SL-00096		
BB	SL-00097		

WIRE LIST REVISIONS			
REV	ECO NUMBER	REV	ECO NUMBER
AB	SL-00092		
AC	SL-00097		

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PDP8L-DOL-20

Engineering Change Order Log

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DIGITAL EQUIPMENT CORPORATION
FIELD SERVICE INFORMATION CENTER
MAYNARD, MASSACHUSETTS 01754

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ECO SYNOPSIS FOR LOGIC OR OPTION

PDP-8/L PROCESSOR LOGIC **PDP-8/L**

PRODUCT LINE	PUBLICATION DATE OF THIS SYNOPSIS PAGE	PAGE REVISION
PDP-8/L	OCTOBER 1971	8

ECO NO.	LOGIC OR OPTION SERIAL NO.'S AFFECTED	FIELD CODE	SYNOPSIS
8L 88101	N.A.	P	AUG 70 - CORRECTS THE DRAWINGS FOR THE BEZEL AND THE BEZEL INDICATOR PANEL.
8L 88132	>8L	M	AUG 70 - SPECIFIES THE USE OF AN ALUMINUM CASTING BECAUSE OF THE EXCESSIVE FLEXIBILITY OF THE PLASTIC BEZEL.
8L 88103	>8L	M	SEP 70 - SPECIFIES THE USE OF VARIATIONS OF THE STANDARD BLANK PANEL FOR THE 8L.
8L 88104	>8L	M	OCT 70 - SPECIFIES THE USE OF SCOTCHWELD #2216 TO REPLACE MARBOND ADHESIVE WHICH IS NO LONGER AVAILABLE.
8L 88105	N.A.	P	OCT 70 - ADDS IN-PLANT TEST AND ACCEPTANCE PROCEDURES TO THE CM8L PRINT SET.
8L 88136	8L 100-3124 502-5051 RETROFIT 8L WITH DF32-D OR TC09	F	OCT 70 - ADDS TERMINATION FOR THE I/O BITS; AN M902YA FOR THE MB BITS AND AN M902YR FOR THE AC BITS. (*\$5.00, **\$25.00, ***\$5.00)

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PDP8L-DOL-21

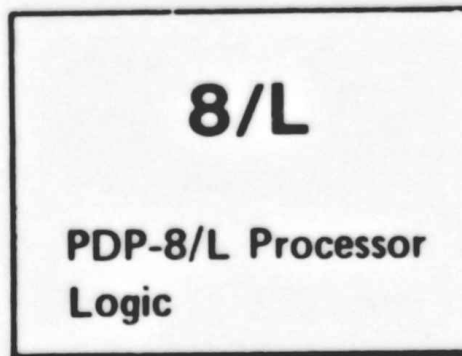
8L 00107	N.A.	F	DEC 70 - PROVIDES A MINOR ADDITIONAL PRINT CORRECTION TO ECO 9L-00062. (**S.00, **NONE, ***S.00 INCLUDED IN THE 9L-00059 KIT)
8L 00108	>8L	M	DEC 70 - SPECIFIES A CHANGE FROM SAND CASTING TO DIE CASTING OF THE 9L BEZEL.
9L 00109	>8L	D	JAN 71 - CHANGES THE WIRING OF 9I LOGIC PANELS TO ACCOMMODATE THE FEED HOLE STROBED PC04 WHEN IT BECOMES AVAILABLE. THIS ECO WILL NOT BE FIELD IMPLEMENTED; IDENTICAL FIELD MODIFICATION INSTRUCTIONS ARE INCLUDED IN THE KIT FOR ECO PC04-C0046.
9L 00110	N.A.	P	FEB 71 - ORDERS CHANGES IN THE 8I PRINT SET TO REFLECT THE WIRING CHANGES MADE TO ACCOMMODATE THE FEED HOLE STROBED PC04 (PC91, PR81). THIS ECO WILL NOT BE FIELD IMPLEMENTED; IDENTICAL INFORMATION IS INCLUDED IN THE KIT FOR ECO PC04-C0046.

<p align="center">LEGEND</p> <p>FIELD CODE</p> <p>F - Field action may be required D - Design ECO P - Print or Wire List change M - Mechanical ECO</p> <p>SYMBOL</p> <p>> - ECO applicable to future production</p> <p>ECO CHARGES</p> <p>Charges are coded within the synopsis. (**SX, **SY, ***SZ)</p> <p>SX - Charge for Space and updated prints <u>only</u> SY - Charge for necessary parts <u>only</u> SZ - Charge for on site labor <u>only</u>. Installation by DEC</p> <p>NOTE: Charges are additive (SX+SY+SZ = <u>Total</u> on site charge for ECO installation by DEC)</p>	MASTER DRAWING LIST REVISIONS		WIRE LIST REVISIONS				
	REV	ECO NUMBER	REV	ECO NUMBER	REV	ECO NUMBER	REV
	BC 4130- 064				AD 9L-00109		
	BD 9L-00102						
	BE 9L-00106						
	BF 9L-00107						
	BH 9L-00103						
	BJ 9L-00109						
	BK 9L-00110						

PDP-8/L PAGE 11

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FRAME ABOVE

PDP8L-00L-22



1343 R638

PROCESSOR TYPE PDP-8/L

8L-00111 CODE: P
APR-71 - CORRECTION 1: General operation specifications of the CM8L optical mark reader are being changed.
PROBLEM 2: Optical mark data card specifications must be added.
CORRECTION 2: Add card specification A-SP-CM8-L-7.
CORRECTION 3: Add Incoming Inspection Procedure to prints.
In-plant effectivity -06 documentation change only.

8L-E0112 CODE: F ML: DL
JUN-71 - PROBLEM: When clearing TTY KEYBOARD flag, READER RUN is set, causing tape to advance. This is undesirable in some programming situations.
CORRECTION: Clear the flag with IOP4 (read buffer) and set READER RUN with IOP2.
In-plant effectivity -01 phase-in
Field effectivity -Retrofit only at request and expense of customer.
(Time To Install And Test 5 Hour) Documentation \$ 5.00 , Parts None
(Kit Contents -FCO/Prints)

8L-C0113 CODE: F ML: BM WL: AE
JUN-71 - PROBLEM: Extended address bits "0 " and "1 " are open collector and have no pull-up resistors when a BM8-L is installed.
CORRECTION: Wire in clamp loads which are available in the PDP 8/L.

NOTE: Kit will be included with BM8-L add-on.
In-plant effectivity -03 rework immediately
Field effectivity -Only when a BM8-L memory expansion is installed.
(Time To Install And Test Varies With System Configuration)
(Kit Contents -FCO Only)

PAGE 12

PDP8L-DOL-23

FCCO'S

ADD/DELETE SHEET

SHEET 2 OF 3

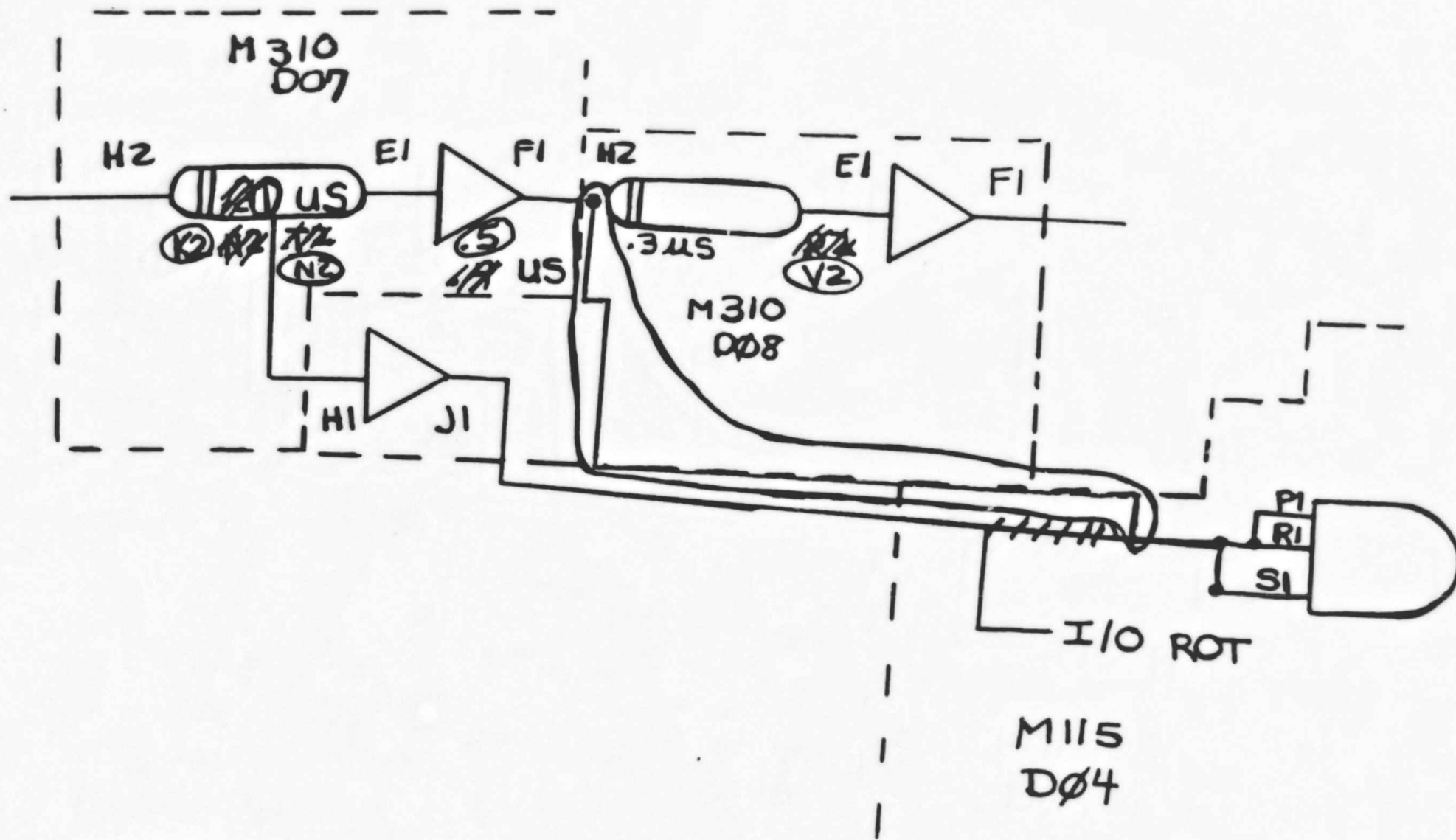
MAKE ALL DELETIONS FIRST

PAGE 1 OF 1

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	DØ7E1	DØ7E1	DØ7T2			X
		DØ7E1	DØ7N2		X	
	DØ7F1	DØ4P1	DØ4R1		X	
		DØ4R1	DØ4S1		X	
		DØ4S1	DØ7F1		X	
	DØ7N2	DØ7N2	DØ8H1			X
	DØ7K2	DØ7K2	DØ8H1		X	
	DØ8R2	DØ8E1	DØ8R2			X
	DØ8V2	DØ8E1	DØ8V2		X	
	I/O ROT	DØ8J1	DØ4P1			X
		DØ4P1	DØ4R1			X
		DØ4R1	DØ4S1			X

ECO NUMBER <u>8L-ØØØ13</u> MADE BY <u>BETTY VIDITO</u>		DRAWING NUMBER AFFECTED			
		CODE	SIZE	NUMBER	NEW REV LTR
		WL	IC 8L-Ø-19		C

PDP8L-FCO-2



ECO #8L-00013 D-BS-8L-0-2 - NEW REV. C

digital EQUIPMENT CORPORATION
ENGINEERING CHANGE ORDER

REC'D. BY INFO. SER. MO. DAY YR
 11 15 68
 SPEC'D. RELEASE 11 26 68

CHANGE NO. PL-00022

DOCUMENTATION PROJECT NUMBER

ACT. PROD. LINE TYPE OR DISCRETE NO.
 2 16 0 7 1 7 5

MANUFACTURING PROJECT NUMBER

ACT. PROD. LINE TYPE OR DISCRETE NO.

TYPE OF CHANGE

ELECTRICAL
 MECHANICAL
 MODULES

UNIT NAME PDP-8L MODEL NO. PDP-8L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. _____ BY _____
 ESTIMATED TIME TO INSTALL 1.5 HOURS
 PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)
 SHOP MODEL AFFECTED YES NO
 SYSTEMS PROGRAMS AFFECTED YES NO
 DIAGNOSTIC PROGRAMS AFFECTED YES NO
 TECHNICAL PUBLICATIONS AFFECTED YES NO

BREAK-IN POINT (DATE/SERIAL NOS)
 ALL PDP 8L. SN 101 THRU 325 AND FUTURE.

PROBLEM:

1. COULD NOT SET EA LIGHT WITH L.A. SWITCH WHEN EX. MEM. OPTION ADDED.
2. L.A. SWITCH WAS LOADING S.R. INTO M.B. & M.A.
3. COULD NOT PROTECT MEM. EX. LAST PAGE OF MEMORY WITH PROTECT SWITCH.
4. MEMORY WAS NOT PROTECTED DURING 3 CYCLE BREAK.
5. WIRE LIST ERRORS

CORRECTION:

1. CHANGED TIMING ON KEY CL. & KEY LOAD
2. ADDED GATE AT C15
3. CHANGED EMA TO BEMA. ADDED LOGIC TO MC8L LOGIC
4. ADDED WORD COUNT TO PROTECT GATE.
5. CORRECT WIRE LIST.

DRAWINGS AFFECTED

NUMBER	ISS. REV.	REV.
K-WL-PDP8-L-19	E	F
A-ML-PDP8-L	E	F
D-MU-PDP8-L-18	Ø	A
D-BS-PDP8-L-2	C	D
D-BS-PDP8-L-3	A	B
D-BS-PDP8-L-4	A	B
D-BS-PDP8-L-17	A	B
A-PL-PDP8-L-18	Ø	A

Field Service Code

ORIGINATOR M. ARSENAULT DATE 11/15/68
 PRODUCTION ENG. H. GODFREY DATE 11/15/68
 DESIGN ENG. DON WHITE DATE 11/15/68
 OTHER FRANK PURCELL DATE 11/15/68

PRODUCT LINES AFFECTED
PDP 8L

PDP8L-FCO-4

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	BEMA	B35T2	C1ØT2		X	
		C1ØT2	C26P2		X	
	CØ5N2	CØ5N2	DØ4V2			X
		CØ5N2	CØ6K1		X	
	C15F1	C15F1	B13E2		X	
	DØ4U1	DØ4U1	DØ4V2		X	
		DØ4U1	CØ6K1			X
	DØ7F1	DØ4P1	DØ4R1			X
		DØ4R1	DØ4S1			X
		DØ4S1	DØ7F1			X
		CØ5L2	CØ5M2		X	
		CØ5M2	DØ7F1		X	
	$\overline{\text{EMA}}$	B35V2	C26P2			X
		C26P2	C1ØT2			X
	+3V (1)	CØ2V1	CØ2J1			X
		CØ2V1	CØ2M1		X	
		CØ2M1	CØ2J1		X	
	KEY EX + DP	DØ2D1	DØ9H1			X

ECO NUMBER <u>8L-ØØØ22</u> MADE BY <u>ELAINE FROIAS</u>		DRAWING NUMBER AFFECTED			
		CODE	SIZE	NUMBER	NEW REV LTR
		WL	K	PDP8-L-19	F

PDP8L-FCU-5

ADD/DELETE SHEET

SHEET 3 OF 9

MAKE ALL DELETIONS FIRST

PAGE 2 OF 3

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	KEY EX + DP	D09H1	B10M2			X
		D02D1	B10M2		X	
	KEY LA+EX+DP	C02K2	D09H1		X	
	<u>KEY LA</u>	C02J2	C02M1			X
		C02M1	D02A1			X
		C02J2	D02A1		X	
	<u>MEM ALT 1</u>	C05L2	A10T2			X
		A10T2	D04P1		X	
	<u>MEM ALT 2</u>	C05M2	A12T2			X
		A12T2	D04R1		X	
	MFTP 0	C02T2	C15V2		X	
	MFTP 1	C05R2	C15V2			X
		C05R2	D17L2		X	
		D17L2	D17K2		X	
	MFTP 2	D17L2	D17K2			X
		D17K2	D12A1			X

DRAWING NUMBER AFFECTED

ECO NUMBER 8L-00022

MADE BY ELAINE FROIAS

CODE	SIZE	NUMBER	NEW REV LTR
WL	K	PDP8-L-19	F

PDP8L-FCO-6

ADD/DELETE SHEET

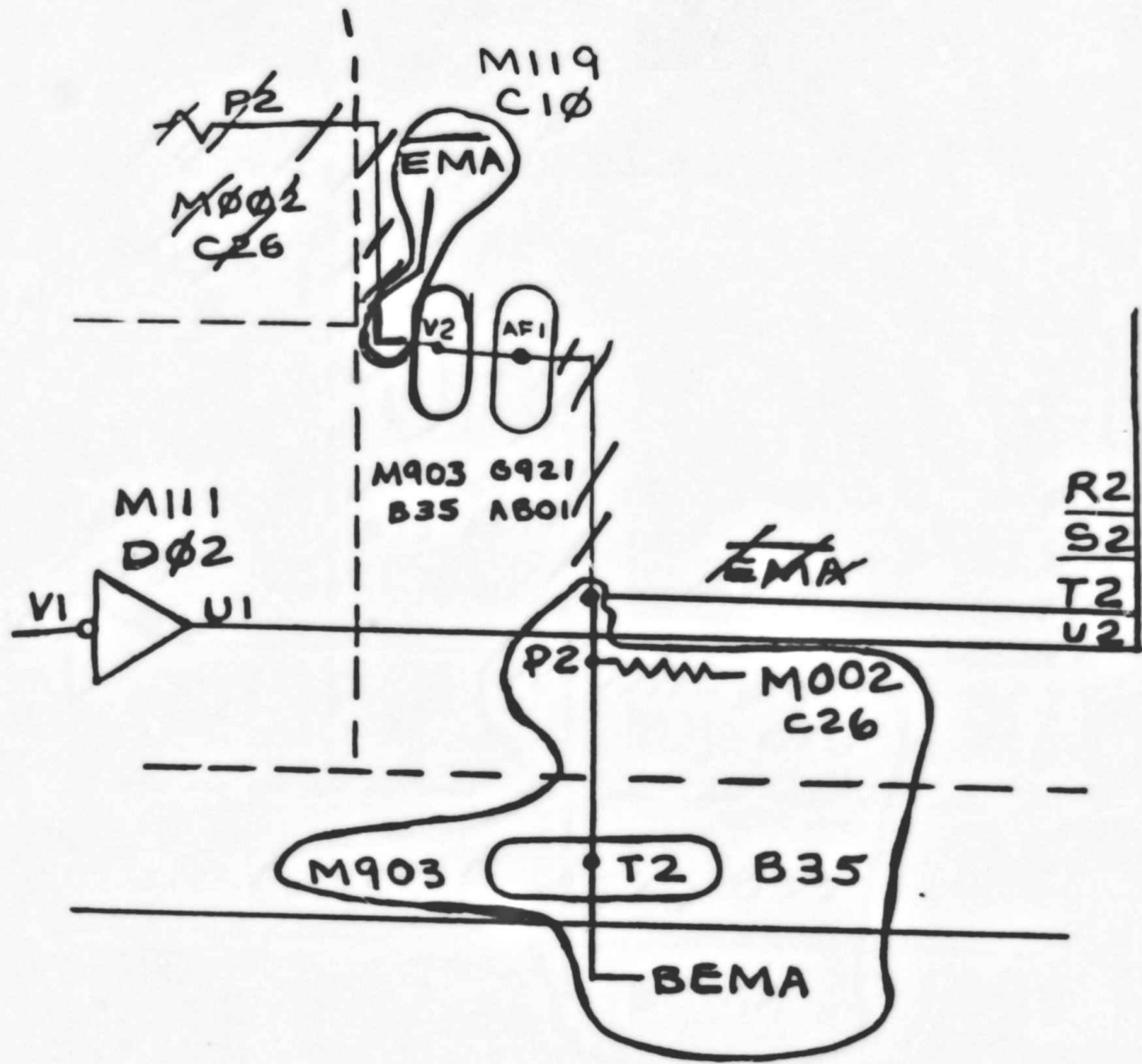
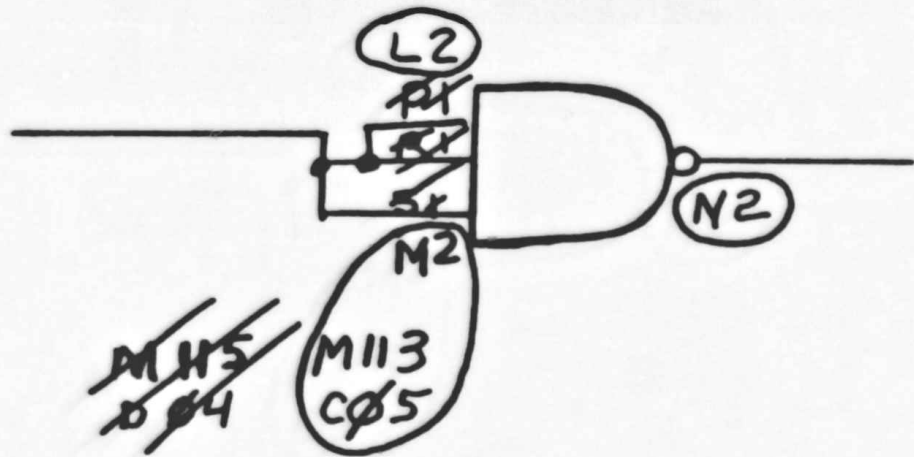
SHEET 4 OF 9

MAKE ALL DELETIONS FIRST

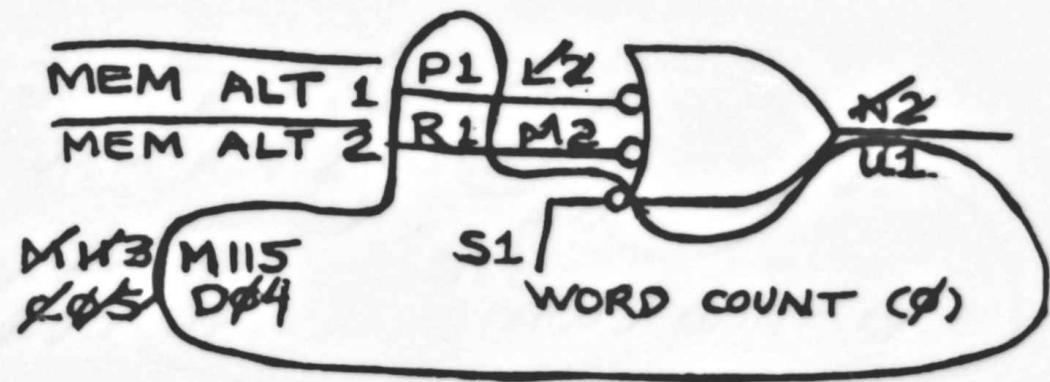
PAGE 3 OF 3

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	MFTS Ø	DØ9J1	B13E2			X
	MFTS 1 (Ø)	CØ3K2	DØ4F1			X
		CØ3K2	C15D1		X	
		C15D1	DØ4F1		X	
	MFTS 2 (Ø)	CØ3H2	DØ4H1			X
	MFTS 2 (Ø)	C15E1	CØ3H2		X	
		C15E1	DØ4H1		X	
	WORD COUNT (Ø)	DØ2S2	D1ØR2			X
		DØ2S2	DØ4S1		X	
		DØ4S1	D1ØR2		X	
ECO NUMBER <u>8L-ØØØ22</u> MADE BY <u>ELAINE FROIAS</u>			DRAWING NUMBER AFFECTED			
			CODE	SIZE	NUMBER	NEW REV LTR
			WL	K	PDP8-L-19	F

PDP8L-FCO-7

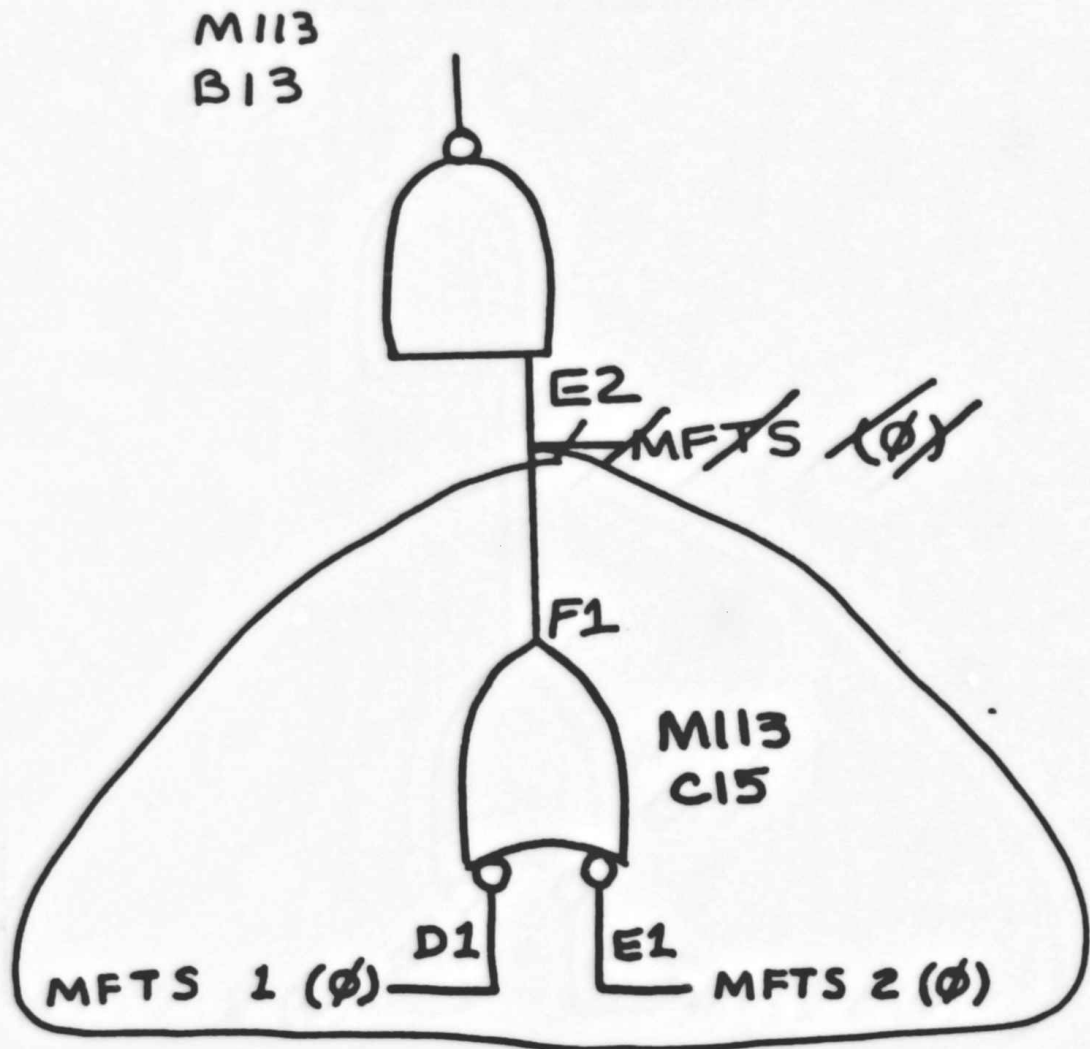


ECO#8L-00022 J-BS-PDP8-L-2 NEW REV D



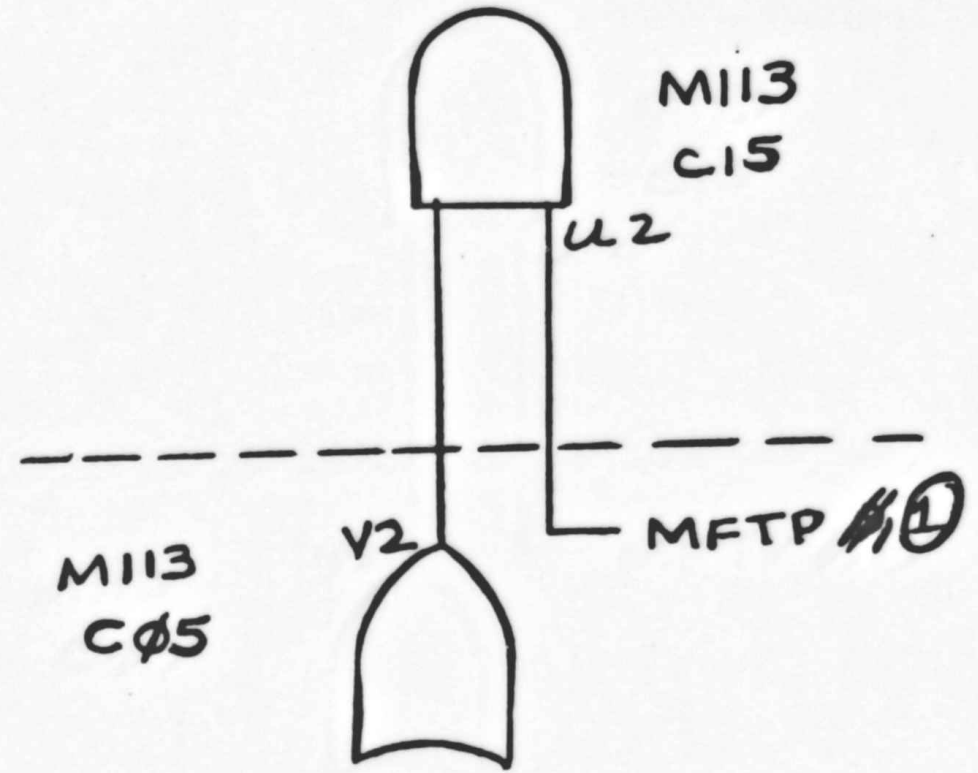
ECO#8L-00022 J-BS-PDP8-L-3 NEW REV. B

PDP8L-FCO-8



DWG LOC A-4

ECO #8L-00022 D-B5-PDP8-L-4 NEW REV. B



DWG. LOC. B5

M617 D17

K2, L2

M2, N2

DWG. LOC. C2

KEY LA



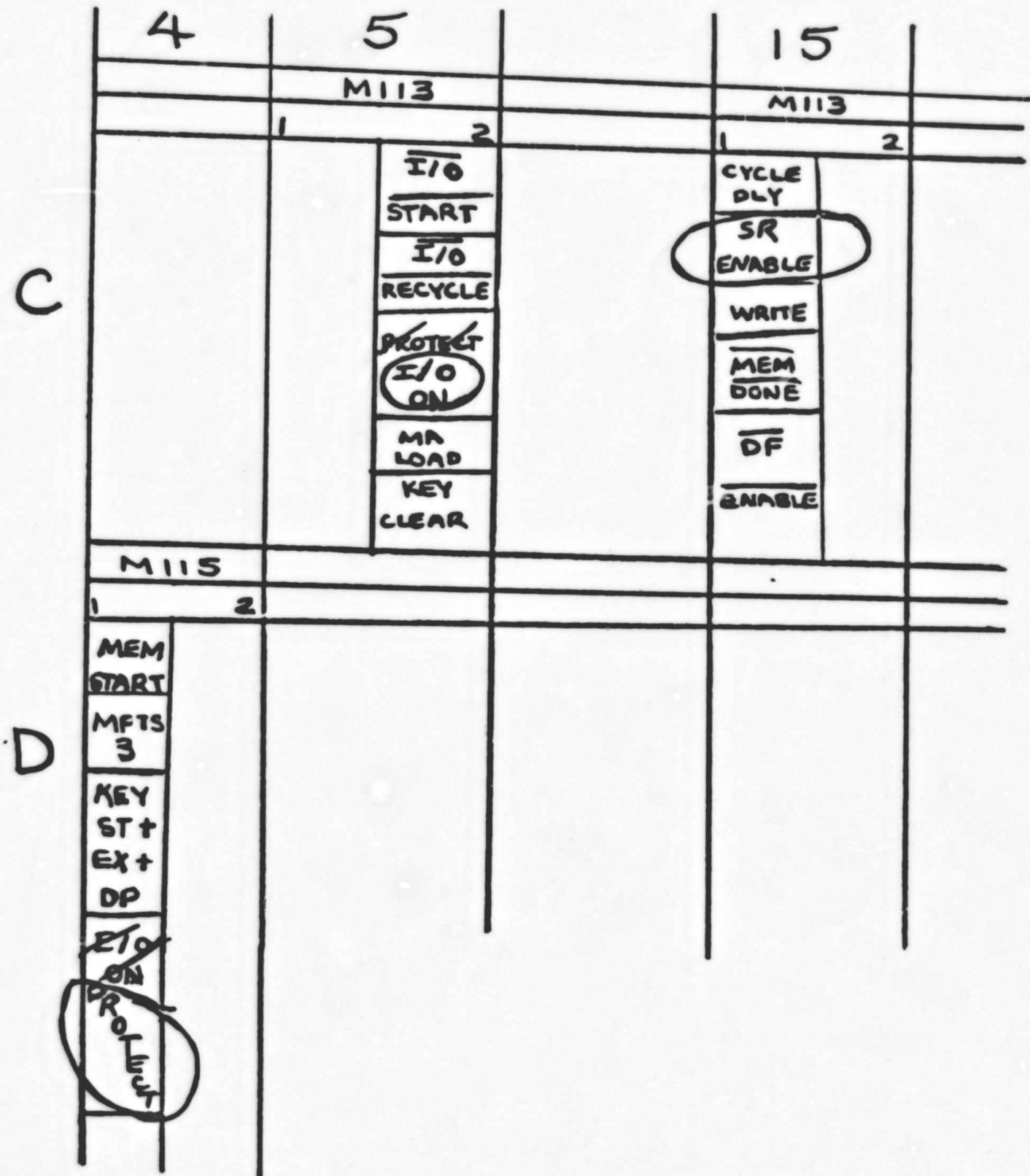
ECO #8L-00022

D-B5-PDP8-L-17

NEW

REV. B

PDP8L-FCO-9



digital EQUIPMENT CORPORATION
ENGINEERING CHANGE ORDER

REC'D. BY	INFO. SER.	MO.	DAY	YR.
		1	17	69
SPEC'D	RELEASE	1	21	69

CHANGE NO. 8L-00027

DOCUMENTATION PROJECT NUMBER

ACT	PRCD. LINE	TYPE OR DISCRETE NO.
	216	07175

MANUFACTURING PROJECT NUMBER

ACT	PRCD. LINE	TYPE OR DISCRETE NO.

TYPE OF CHANGE
 ELECTRICAL
 MECHANICAL
 MODULES

UNIT NAME 8L MODEL NO. 8L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. Various Machines BY Production

ESTIMATED TIME TO INSTALL 1.5 Hours

	YES	NO
PARTS ADDED OR DELETED IF YES REFER TO SEPARATE SHEET	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SHOP MODEL AFFECTED	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SYSTEMS PROGRAMS AFFECTED	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DIAGNOSTIC PROGRAMS AFFECTED	<input type="checkbox"/>	<input checked="" type="checkbox"/>
TECHNICAL PUBLICATIONS AFFECTED	<input type="checkbox"/>	<input checked="" type="checkbox"/>

BREAK-IN POINT
 (DATE/SERIAL NOS.)

All 8/L
 100-200 and future

PROBLEM:

Memory sense windings incur various amounts of noise due to variations in wire routing on panel.

DRAWINGS AFFECTED

NUMBER	OLD REV.	NEW REV.
A-MI-8L-0	K	L
K-WI-8L-19	F	H
D-DI-8L-0-20	A	B
A-WI-8L-0-24		0

CORRECTION:

Use twisted pair wiring on sense windings. This would remove affected runs from wire list ("deletes") and replace them with twisted pair wiring on general wire sheet ("adds")

Field Service Code

F

ORIGINATOR	<u>J. Catalano</u>	DATE	<u>1/14/69</u>
PRODUCTION ENG.	<u>H. Godfrey</u>	DATE	<u>1/14/69</u>
DESIGN ENG.	<u>M.E. Arsenault</u>	DATE	<u>1/15/69</u>
OTHER	<u>R.J. Purcell</u>	DATE	<u>1/15/69</u>

PRODUCT LINES AFFECTED

PDP 8L

PDP8L-ECO-11

ADD/DELETE SHEET

SHEET 2 OF 3

MAKE ALL DELETIONS FIRST

PAGE 1 OF 2

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	A21C2	A21C2	A18D2			X
	A21D2	A21D2	A18E2			X
	A21E2	A21E2	A18L1			X
	A21F2	A21F2	A18M1			X
	A21H2	A21H2	A19D2			X
	A21J2	A21J2	A19E2			X
	A21K2	A21K2	A19L1			X
	A21L2	A21L2	A19M1			X
	A21M2	A21M2	A20D2			X
	A21N2	A21N2	A20E2			X
	A21P2	A21P2	A20L1			X
	A21R2	A21R2	A20M1			X
	A21S2	A21S2	A17D2			X
	A21T2	A21T2	A17E2			X
	B21C2	B21C2	B18D2			X
	B21D1	B21D2	B18E2			X
	B21E2	B21E2	B18L1			X

ECO NUMBER <u>8L-00027</u> MADE BY <u>I. TOMPKINS</u>	DRAWING NUMBER AFFECTED			
	CODE	SIZE	NUMBER	NEW REV LTR
	WL	K	8L-0-19	H

PDP8L-FCO-12

ADD/DELETE SHEET

SHEET 3 OF 3

MAKE ALL DELETIONS FIRST

PAGE 2 OF 2

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	B21F2	B21F2	B18M1			X
	B21H2	B21H2	B19D2			X
	B21J2	B21J2	B19E2			X
	B21K2	B21K2	B19L1			X
	B21L2	B21L2	B19M1			X
	B21M2	B21M2	B20D2			X
	B21N2	B21N2	B20E2			X
	B21P2	B21P2	B20L1			X
	B21R2	B21R2	B20M1			X

ECO NUMBER <u>8L-00027</u> MADE BY <u>I. TOMPKINS</u>	DRAWING NUMBER AFFECTED		
	CODE	SIZE	NUMBER
	WL	K	8L-0-19

NEW REV
LTR

H

PDP8L-FCO-13

digital EQUIPMENT CORPORATION
ENGINEERING
CHANGE ORDER

REC'D. BY INFO. SER. NO. DAY YEAR
 SPEC'D. RELEASE 2 7 69
 2 12 69

CHANGE NO. 8L-00030
 DOCUMENTATION PROJECT NUMBER
 ACT. PROD. LINE TYPE OR DISCRETE NO. 2 1 6 0 7 1 6 0
 MANUFACTURING PROJECT NUMBER
 ACT. PROD. LINE TYPE OR DISCRETE NO.

TYPE OF CHANGE
 ELECTRICAL
 MECHANICAL
 MODULES

UNIT NAME PDP-8L MODEL NO. 8L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION
BA08	

CHANGE TESTED IN SERIAL NO. PROTO BY M. ARSENAULT
 ESTIMATED TIME TO INSTALL _____
 PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET) YES NO
 SHOP MODEL AFFECTED YES NO
 SYSTEMS PROGRAMS AFFECTED YES NO
 DIAGNOSTIC PROGRAMS AFFECTED YES NO
 TECHNICAL PUBLICATIONS AFFECTED YES NO

BREAK-IN POINT
 (DATE/SERIAL NO.)
 ALL 8L WITH BA08
 SERIAL NO. 1 THRU 692 AND FUTURE

PROBLEM:

WHEN THE POWER IS TURNED OFF IN 8L, IT CAUSES GATES TO FLOAT IN BA08, WHICH IN TURN CAUSES THE BA08 TO DROP BITS IN MEMORY.

CORRECTION:

GENERATED A SIGNAL IN THE 8/L TO HOLD GATES ON UNTIL POWER IN BA08 HAS DECAYED.

DRAWINGS AFFECTED

NUMBER	OLD REV.	NEW REV.
D-BS-8L-0-13	C	D
K-WI-8L-19	H	J
A-MI-8L-0	M	N

Field Service Code

F

ORIGINATOR M. ARSENAULT DATE 2/7/69
 PRODUCTION ENG. H. GODFREY DATE 2/7/69
 DESIGN ENG. M. ARSENAULT DATE 2/7/69
 OTHER F. PURCELL DATE 2/7/69

PRODUCT LINES AFFECTED

8L

PDP8L-FCO-14

ADD/DELETE SHEET

SHEET 2 OF 3

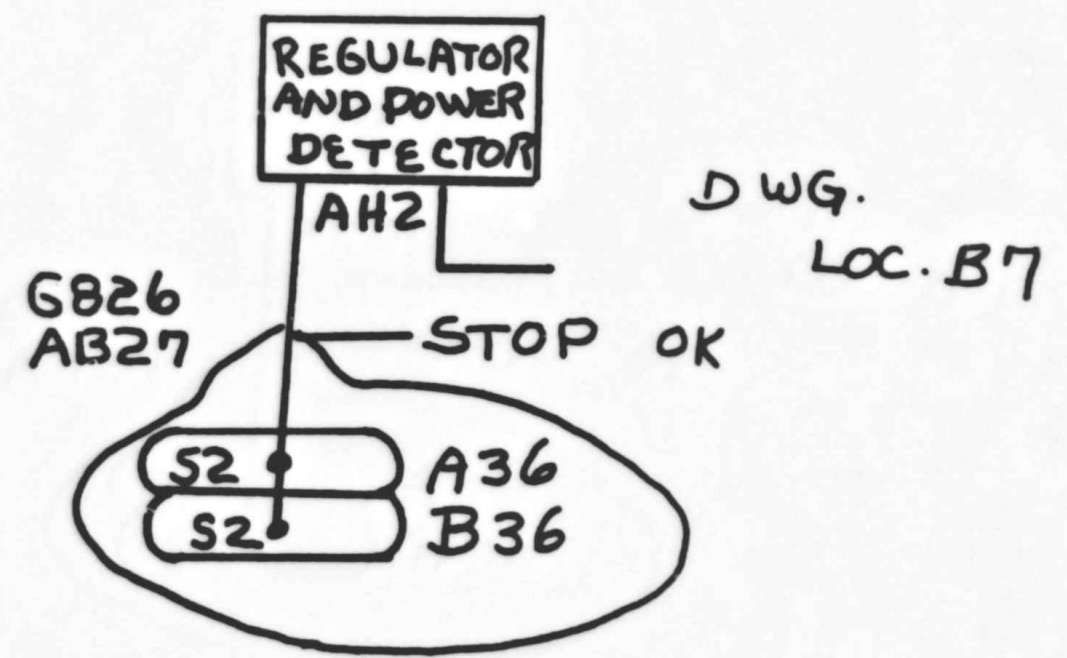
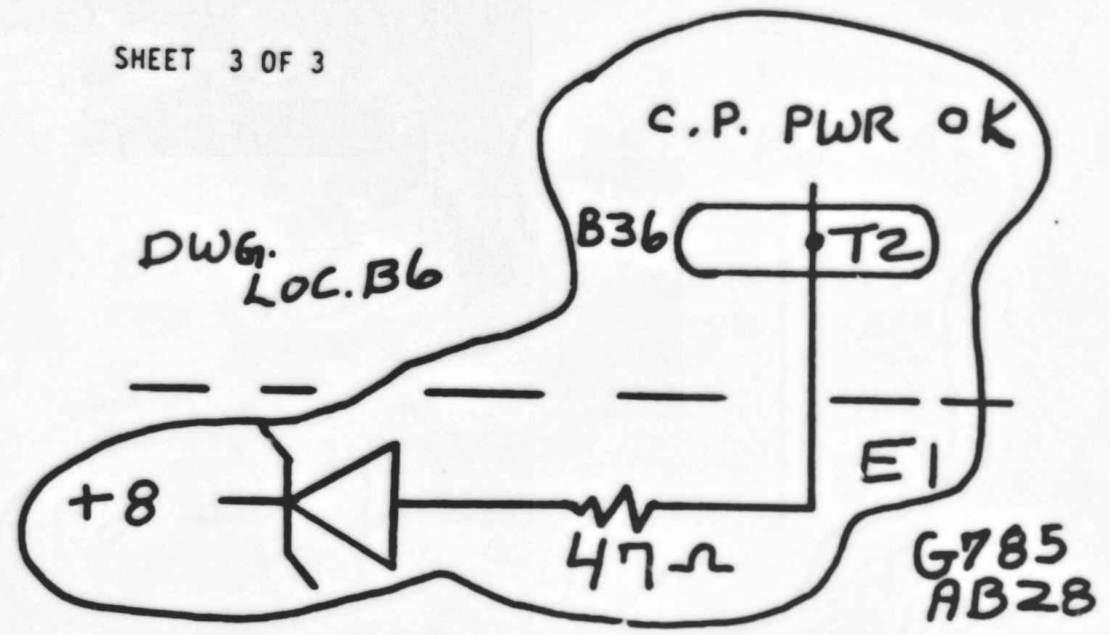
MAKE ALL DELETIONS FIRST

PAGE 1 OF 2

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	CP PWR OK	A28E1	B36T2		X	
	STOP OK	A36P2	D09K1			X
		A36P2	A36S2		X	
		A36S2	B36S2		X	
	↓	B36S2	D09K1		X	

ECO NUMBER <u>8L-00030</u> MADE BY <u>BV/AV</u>		DRAWING NUMBER AFFECTED			
		CODE	SIZE	NUMBER	NEW REV LTR
		WL	K	8L-0-19	J

PDP8L-FCO-15



digital EQUIPMENT CORPORATION
ENGINEERING CHANGE ORDER

RECD. BY	INFO. SER.	MO	DAY	YR	CHANGE NO. 8L-00031
SPEC. RELEASE		2	13	69	
TYPE OF CHANGE					ACT PROD. LINE TYPE OR DISCRETE NO.
ELECTRICAL					2 5 0 7 1 6 0
MECHANICAL					MANUFACTURING PROJECT NUMBER
MODULES					ACT PROD. LINE TYPE OR DISCRETE NO.

UNIT NAME PDP-8/L MODEL NO. 8L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. PROTO BY M. ARSENAULT

ESTIMATED TIME TO INSTALL _____

PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)

SHOP MODEL AFFECTED

SYSTEMS PROGRAMS AFFECTED

DIAGNOSTIC PROGRAMS AFFECTED

TECHNICAL PUBLICATIONS AFFECTED

YES	NO
	X
	X
	X
	X
	X

BREAK IN POINT

(DATE/SERIAL NOS.)

PDP-8L WITH BA08
SERIAL NO. 1 THRU 692
AND FUTURE

PROBLEM:

CORRECTION TO ECO 8L-00030
A36S2 SHOULDNOT BE WIRED TO B36S2

CORRECTION:

REMOVE A36S2 FROM RUN

DRAWINGS AFFECTED

NUMBER	REV.	REV.
		REV.
NONE		

Field Service Code

F

ORIGINATOR M. ARSENAULT DATE 2/13/69

PRODUCTION ENG. H. GODFREY DATE 2/13/69

DESIGN ENG. M. ARSENAULT DATE 2/13/69

OTHER FRANK PURCELL DATE 2/13/69

PRODUCT LINES AFFECTED

8L

PDP8L-FCO-17

ADD/DELETE SHEET

SHEET 2 OF 3

MAKE ALL DELETIONS FIRST

PAGE 1 OF 1

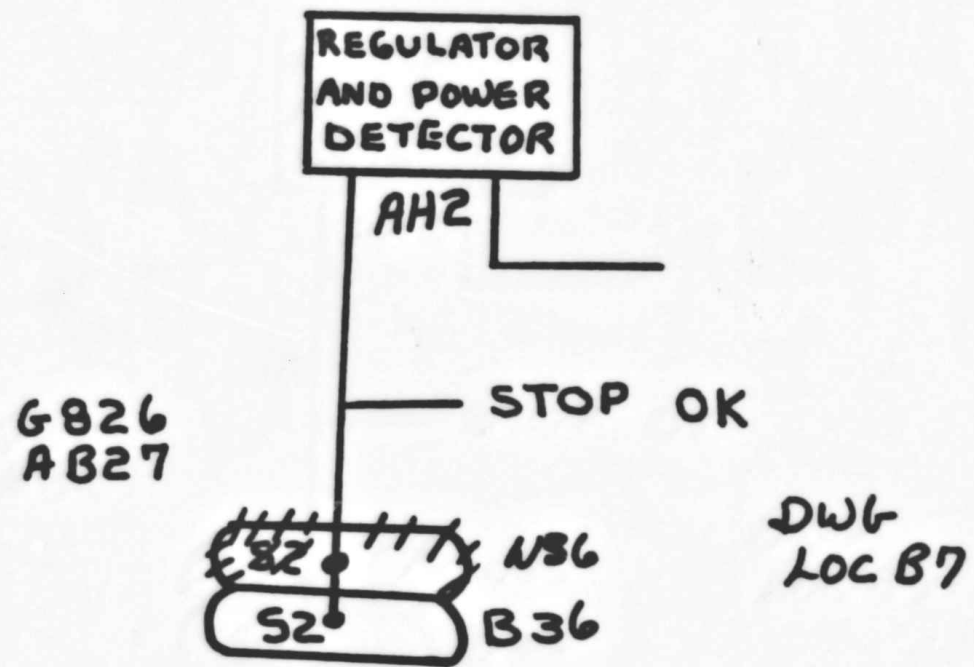
COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	STOP OK	A36P2	A36S2			X
		A36S2	B36S2			X
		A36P2	B36S2		X	

DRAWING NUMBER AFFECTED

ECO NUMBER 8L-00031
 MADE BY BETTY VIDITO

CODE	SIZE	NUMBER	NEW REV LTR
WL	K	8L-0-19	J

PDP8L-FCO-1A



ECO #8L-00031 D-35-8L-0-13 NEW
REV. D

PDP8L-FCO-19

digital EQUIPMENT CORPORATION
**ENGINEERING
CHANGE ORDER**

REC'D. BY INFO. SER.

MO.	DAY	YR
2	28	69

SPEC'D. RELEASE

CHANGE NO. 8L-00038

DOCUMENTATION PROJECT NUMBER

ACT PROJ. LINE TYPE OR DISCRETE NO.

TYPE OF CHANGE

ELECTRICAL
MECHANICAL
MODULES

MANUFACTURING PROJECT NUMBER

ACT PROJ. LINE TYPE OR DISCRETE NO.

UNIT NAME

PDP-12

MODEL NO.

8/L

PREWIRED OPTIONS
AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED
IN SERIAL NO. _____ BY _____

15 MINUTES

ESTIMATED TIME TO INSTALL

PARTS ADDED OR DELETED
(IF YES REFER TO SEPARATE SHEET)

SHOP MODEL AFFECTED

SYSTEMS PROGRAMS AFFECTED

DIAGNOSTIC PROGRAMS AFFECTED

TECHNICAL PUBLICATIONS AFFECTED

YES	NO
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

BREAK-IN POINT
(DATE/SERIAL NOS)

ALL 8/L WITH BA08

AND ALL FUTURE 8/L

STARTING WITH SERIAL

NUMBER 693

PROBLEM:

POWER (ON-OFF) TEST IN TROUBLE

DRAWINGS AFFECTED

NUMBER	OLD REV	NEW REV
D-BS-8L-0-13	D	E
A-MI-8L-0	P	R
K-WL-8L-0-19	J	K

CORRECTION:

CHANGES IN LOGIC, POWER SUPPLY AND REGULATOR
CONTROL G826

Field Service Code

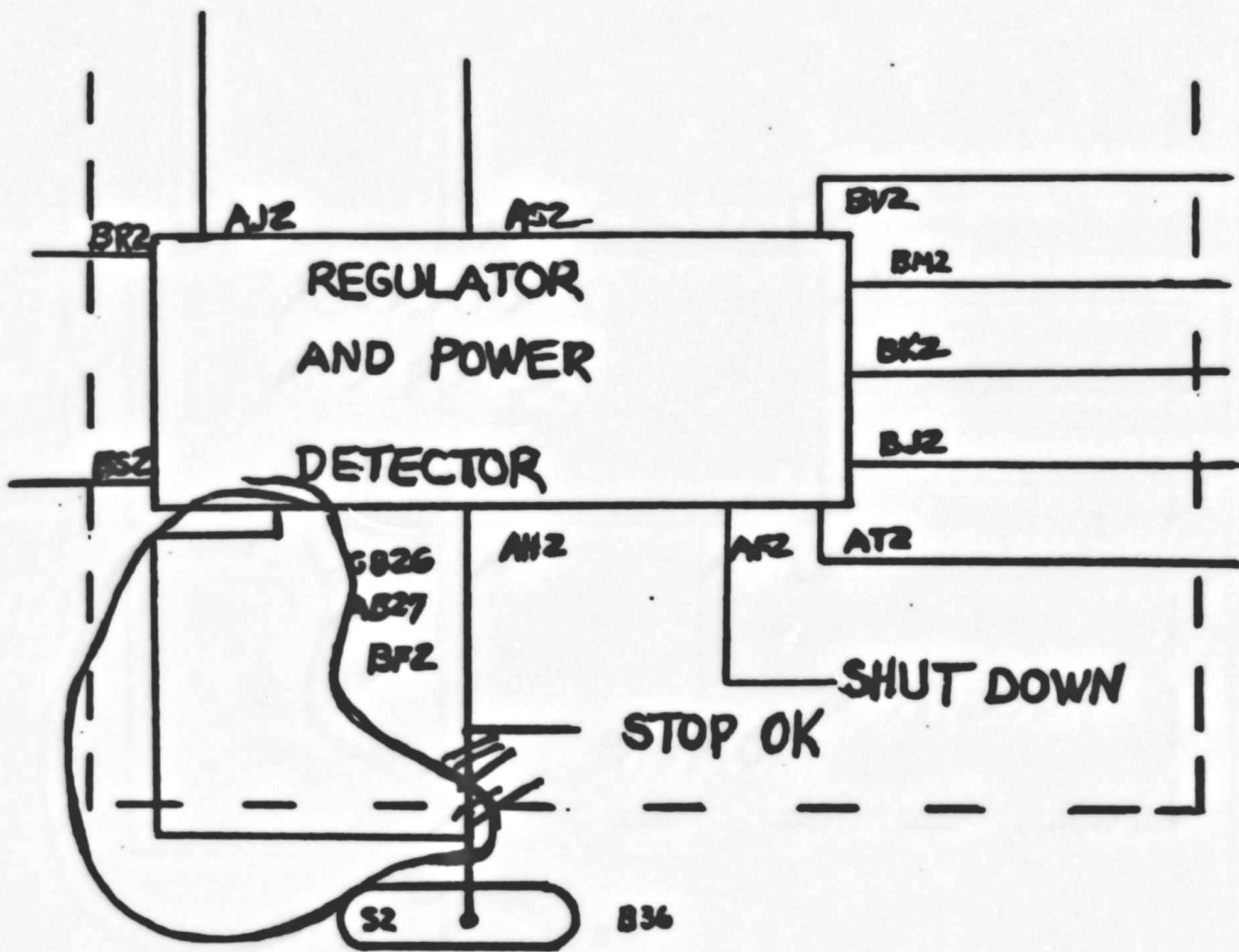
F

ORIGINATOR M. ARSENAULT DATE 2/27/69
PRODUCTION ENG. H. GODFREY DATE 2/27/69
DESIGN ENG. M. ARSENAULT DATE 2/27/69
OTHER F. PURCELL DATE 2/27/69

PRODUCT LINES AFFECTED

8/L

PDP8L-FCO-20



digital EQUIPMENT CORPORATION ENGINEERING CHANGE ORDER

REC'D. BY INFO. SER.	MO.	DAY	YR.
	3	17	69
SPECO RELEASE	3	19	69

TYPE OF CHANGE

ELECTRICAL X

MECHANICAL

MODULES

CHANGE NO. 8L-00044

DOCUMENTATION PROJECT NUMBER

ACT	PRED. LINE	TYPE OR DISCRETE NO.
	21607	1715

MANUFACTURING PROJECT NUMBER

ACT	PRED. LINE	TYPE OR DISCRETE NO.

UNIT NAME _____ PARITY OPTION _____ MODEL NO. 8L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION
MP8L	

CHANGE TESTED IN SERIAL NO. _____ BY _____

ESTIMATED TIME TO INSTALL 15 MINUTES

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)	<input type="checkbox"/>	<input checked="" type="checkbox"/> X
SHOP MODEL AFFECTED	<input type="checkbox"/>	<input checked="" type="checkbox"/> X
SYSTEMS PROGRAMS AFFECTED	<input type="checkbox"/>	<input checked="" type="checkbox"/> X
DIAGNOSTIC PROGRAMS AFFECTED	<input type="checkbox"/>	<input checked="" type="checkbox"/> X
TECHNICAL PUBLICATIONS AFFECTED	<input type="checkbox"/>	<input checked="" type="checkbox"/> X

BREAK-IN POINT
(DATE/SERIAL NOS.)

ALL, 100 THRU 720 AND FUTURE.

FOR THE PRESENT TIME, INSTALL ONLY IN 8/L'S GETTING MP8/L.

PROBLEM:

1. WIRE LIST ERRORS
2. MP SKIP GATE INPUT COMING FORM "1" SIDE OF PARITY ERROR F.F.

CORRECTION:

1. CORRECT WIRE LIST AND PRINTS.
2. CHANGE TO "0" SIDE OF F.F.

DRAWINGS AFFECTED

NUMBER	OLD REV.	NEW REV.
D-B5-MP8L-0-1	A	3
A-M1-MP8L-0	0	A
A-M1-8L-0	R	S
K-W1-8L-0-19	K	L

Field Service Code

F

ORIGINATOR MEL ARSENAULT DATE 3/14/69

PRODUCTION ENG. H. GODFREY DATE 3/17/69

DESIGN ENG. MEL ARSENAULT DATE 3/14/69

OTHER F. PURCELL DATE 3/17/69

PRODUCT LINES AFFECTED

8L

ADD/DELETE SHEET

SHEET 2 OF 4

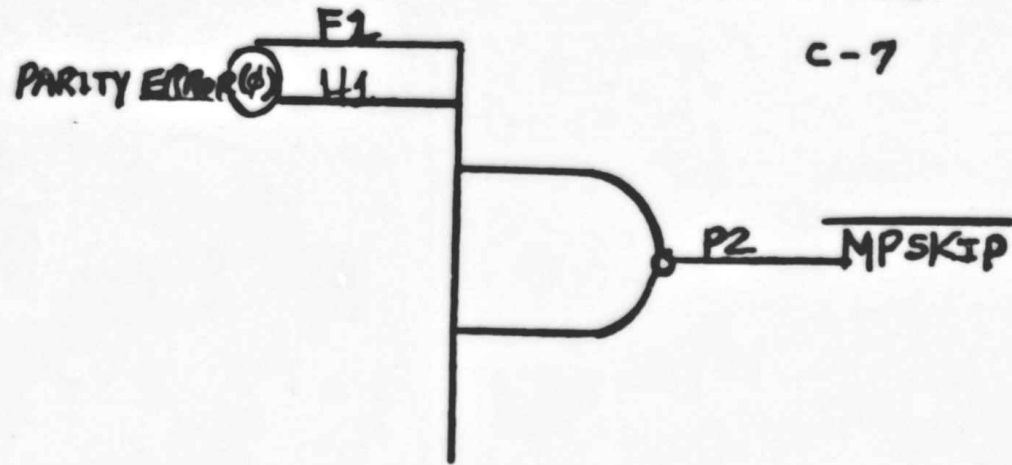
MAKE ALL DELETIONS FIRST

PAGE 1 OF 1

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL		
	PARITY ERROR	A14U1	B15H1			X		
	PARITY ERROR (Ø)	A14P1	B15H1		X			
	A16K2	A16K2	C16P2			X		
		A16K2	C16F2		X			
	MEM Ø6	A15S2	BØ4R1		X			
	MEM Ø7	A15T2	BØ4V2		X			
	PARITY ERROR (1)	A14U1	C16P2		X			
ECO NUMBER <u>8L-ØØØ44</u> MADE BY <u>J.W. PATE</u>				DRAWING NUMBER AFFECTED				
				CODE	SIZE	NUMBER	NEW REV	LTR
				K	WL-8L-Ø-19		L	

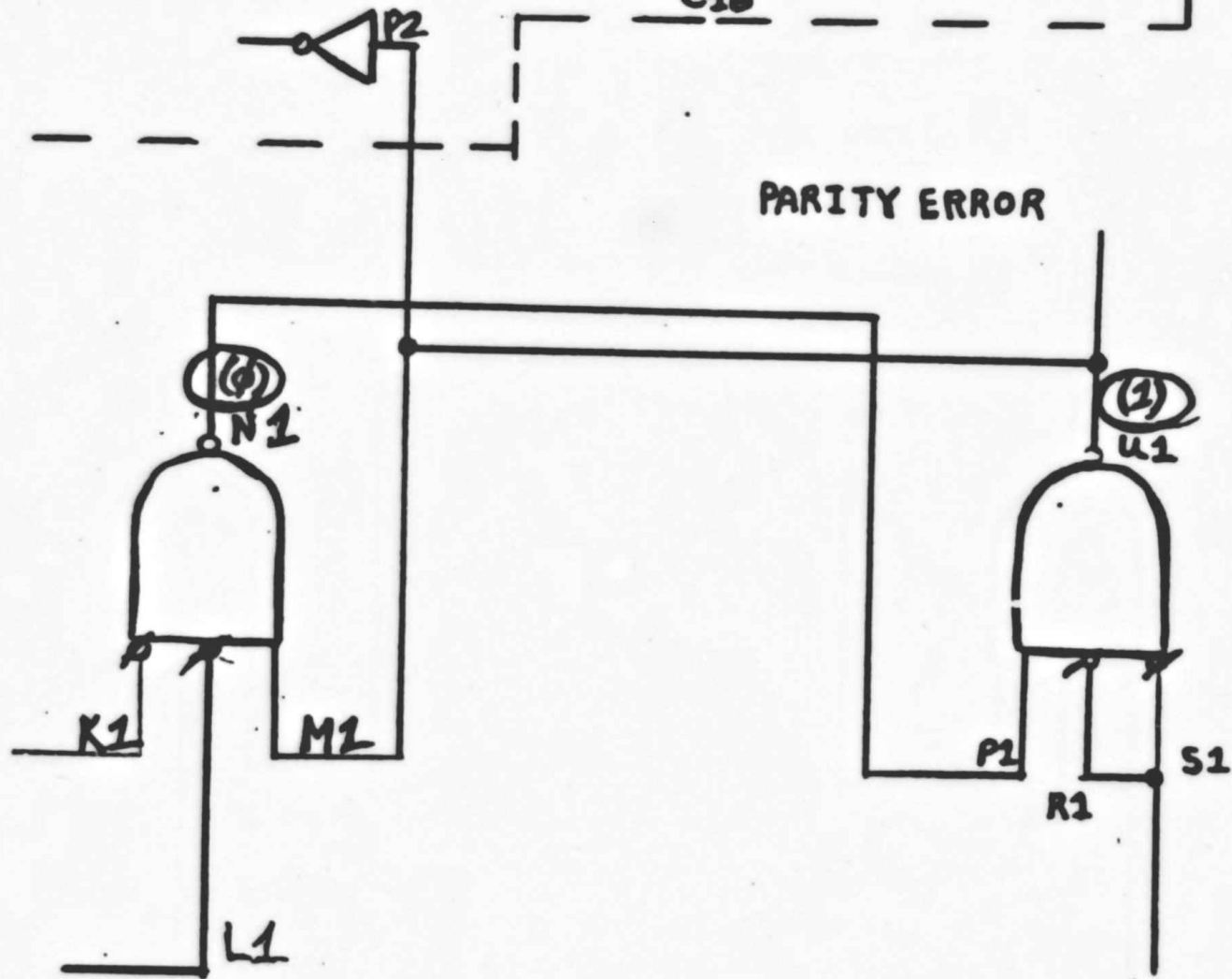
PDØ8L-FCO-23

M119
B15



M112
C16

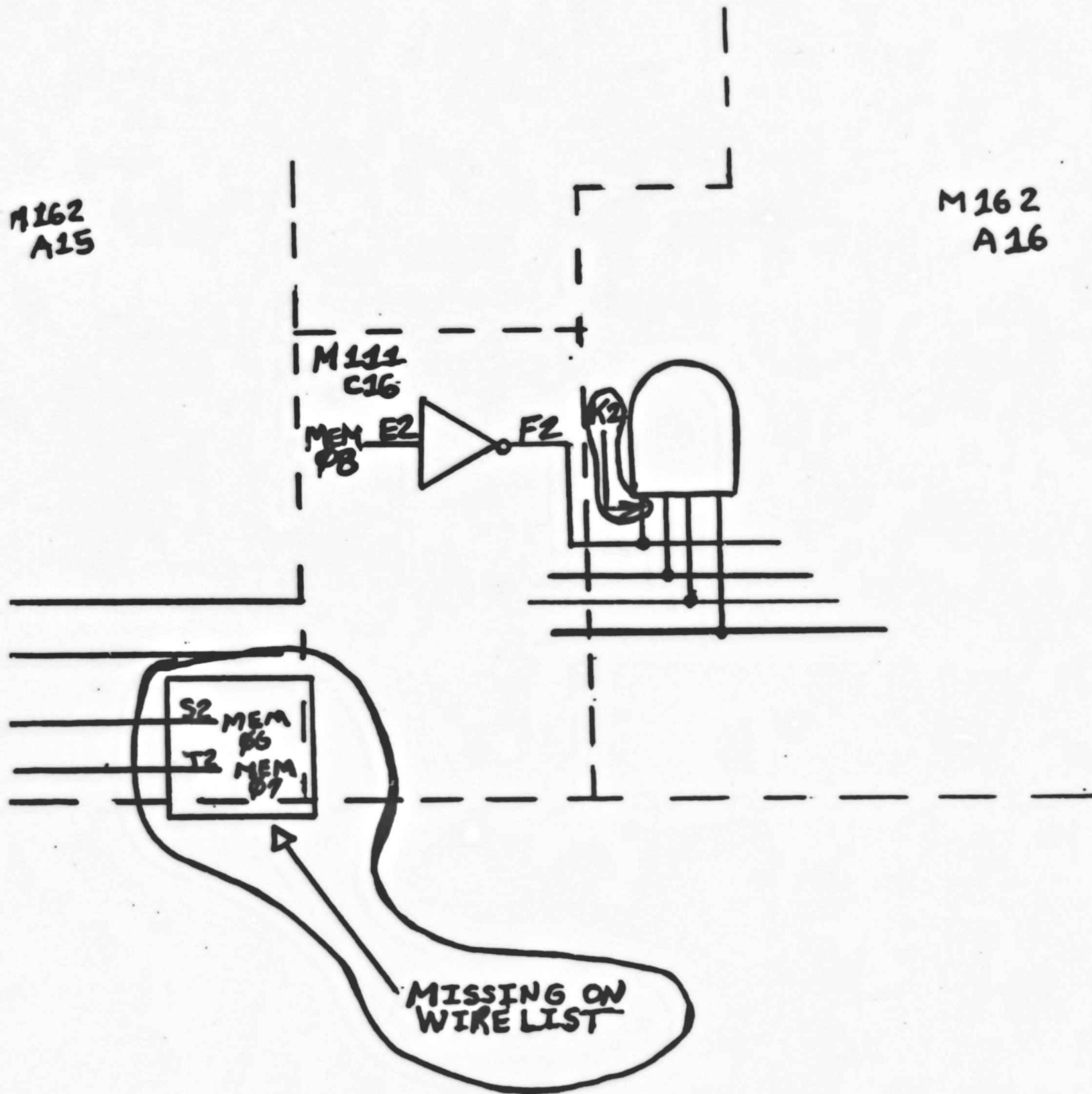
M115
A14



DWG. LOC. D-2

M162
A15

M162
A16



SHEET 2 OF 2

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

REC'D. BY INFO. SER.

MO.	DAY	YR.
4	1	69

 SPEC'D. RELEASE

4	8	69
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CHANGE NO. 8L-00045
 DOCUMENTATION PROJECT NUMBER
 ACT. PROJ. LINE TYPE OR DISCRETE NO. 2 16 0 7 1 7 5
 MANUFACTURING PROJECT NUMBER
 ALT. PROJ. LINE TYPE OR DISCRETE NO.

TYPE OF CHANGE
 ELECTRICAL
 MECHANICAL
 MODULES

UNIT NAME PDP-8L MODEL NO. 8L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. _____ BY M. ARSENAULT
 ESTIMATED TIME TO INSTALL 2 HOURS
 PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)
 SHOP MODEL AFFECTED

YES	NO
<input type="checkbox"/>	<input checked="" type="checkbox"/>

 SYSTEMS PROGRAMS AFFECTED

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

 DIAGNOSTIC PROGRAMS AFFECTED

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

 TECHNICAL PUBLICATIONS AFFECTED

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

BREAK-IN POINT
 (DATE/SERIAL NOS.)
 SERIAL 1000 AND FUTURE

PROBLEM:

THE PDP 8 (SALES NOTE BOOK) MEMO 0.2.10 FAST FLAG TESTING MA 7.65 ALL STATES THAT THE COMPUTER CAN DOMULTIPLE I/O SHIPS WITH SOME LOGIC DESIGN IN THE PERIPHEAL EQUIPMENT.
 THE 8L WOULD NOT ALLOW THIS.
 THIS IN NO WAY EFFECTS PROGRAMMING OR TIMING OF IOP'S.

DRAWINGS AFFECTED

NUMBER	ISS	REV
D-BS-8L-B-2	D	E
D-BS-8L-B-4	B	C
D-BS-8L-B-5	A	B
D-BS-8L-B-6	A	B
D-MI-8L-B-18	B	C
A-PI-8L-B-18	B	C
K-WI-8L-B-19	L	M
A-MI-8L-B	S	T

CORRECTION:

CHANGE AS PER LOGIC PRINTS TO ALLOW FAST FLAG TESTING IN PERIPHERALS.

Field Service Code
F

ORIGINATOR M. ARSENAULT DATE 3/24/69
 PRODUCTION ENG. H. GODFREY DATE _____
 DESIGN ENG. M. ARSENAULT DATE 3/24/69
 OTHER F.J. PURCELL DATE 3/24/69

PRODUCT LINES AFFECTED
8L

PDP8L-FCO-26

ADD/DELETE SHEET
MAKE ALL DELETIONS FIRST

SHEET 2 OF 8
PAGE 1 OF 2

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	A12K1	A12K1	B13S1			X
		A12K1	A14V1		X	
	A13R1	A13R1	B08H2			X
		B08H2	B08F2			X
		B08F2	A13R1		X	
	A35E1	A35E1	B13R1		X	
	B FETCH (1)	D12J1	C14R2			X
		C14R2	C14J1			X
		C14J1	C13C1			X
		C13C1	C14R2		X	
		C14R2	D12J1		X	
	<u>INT SKIP ENABLE</u>	A08S2	B13P1			X
		B13P1	C11V2			X
		A08S2	A14T2		X	
		A14T2	C11V2		X	
	<u>I/O ENABLE</u>	D09J2	A35D1		X	
	<u>I/O PC ENABLE</u>	A08U2	A14U2		X	
		A14U2	B13S1		X	

DRAWING NUMBER AFFECTED

ECO NUMBER 8L-00045

MADE BY I. TOMPKINS

CODE	SIZE	NUMBER	NEW REV LTR
WL	K	8L-0-19	M

PDP8L-FCO-27

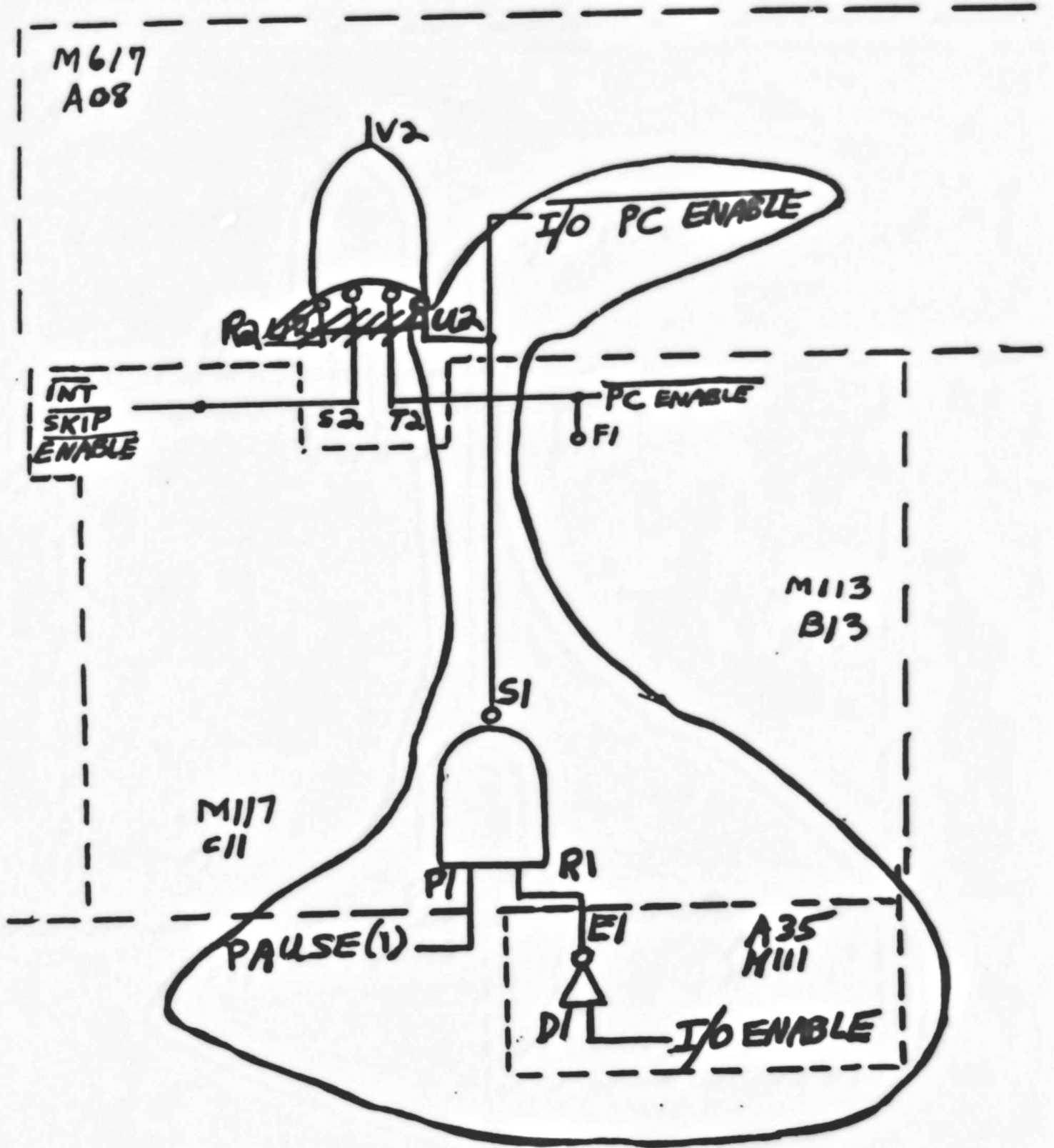
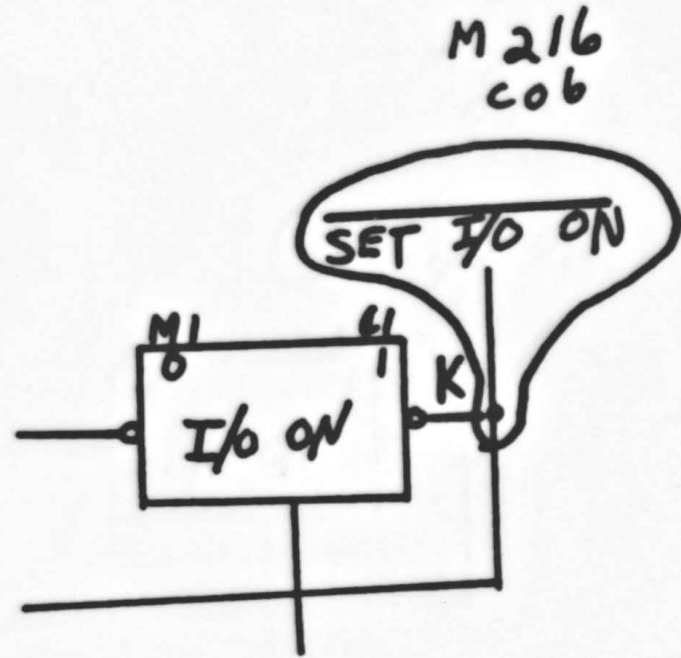
ADD/DELETE SHEET
MAKE ALL DELETIONS FIRST

SHEET 3 OF 8
PAGE 2 OF 2

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	C12N1	C12N1	A08U2			X
		A08U2	A08R2			X
		C12N1	A08R2		X	
	PAUSE (1)	B13P1	C04L1		X	
	$\overline{\text{PC ENABLE}}$	C13K1	B13R1			X
		B13R1	B13F1			X
		C13K1	A14V2		X	
		A14V2	B13F1		X	
	PC LOAD	B08J2	C14H1		X	
		C14H1	C14J1		X	
	$\overline{\text{SET IO ON}}$	B08H2	C06K1		X	
	TP1	D02M1	D06H2			X
		D06H2	C14H1			X
		C14H1	B13T2			X
		B13T2	D06H2		X	
		D06H2	D02M1		X	

ECO NUMBER <u>8L-00045</u> MADE BY <u>I.T.</u>		DRAWING NUMBER AFFECTED			
		CODE	SIZE	NUMBER	NEW REV LTR
		WL	K	8L-0-19	M

PDP8L-FCO-28



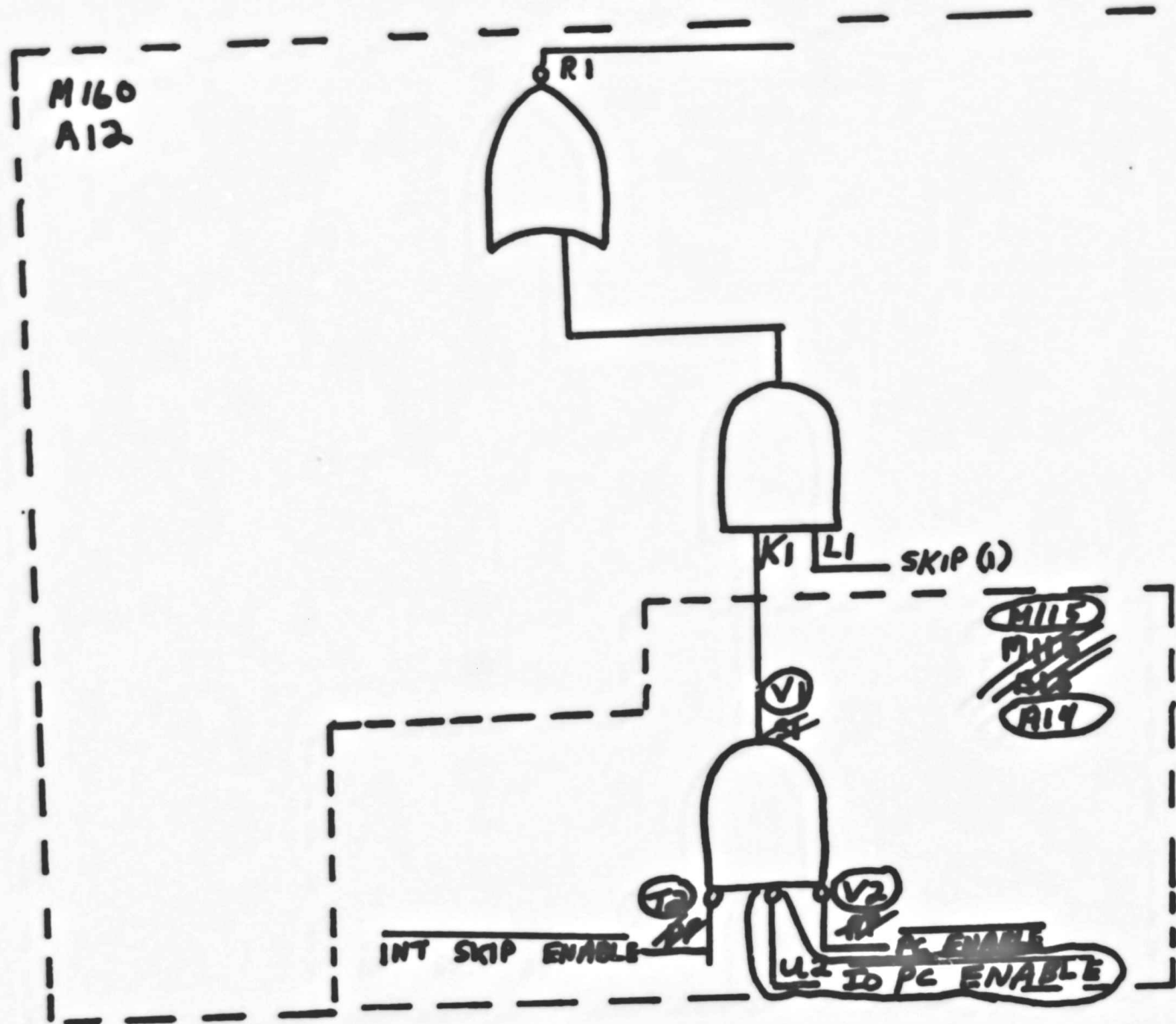
ECO-8L-00045 D-BS-8L-0-2 NEW REV E

ECO-8L-00045

D-BS-8L-0-4 C

PDP8L-FC0-29

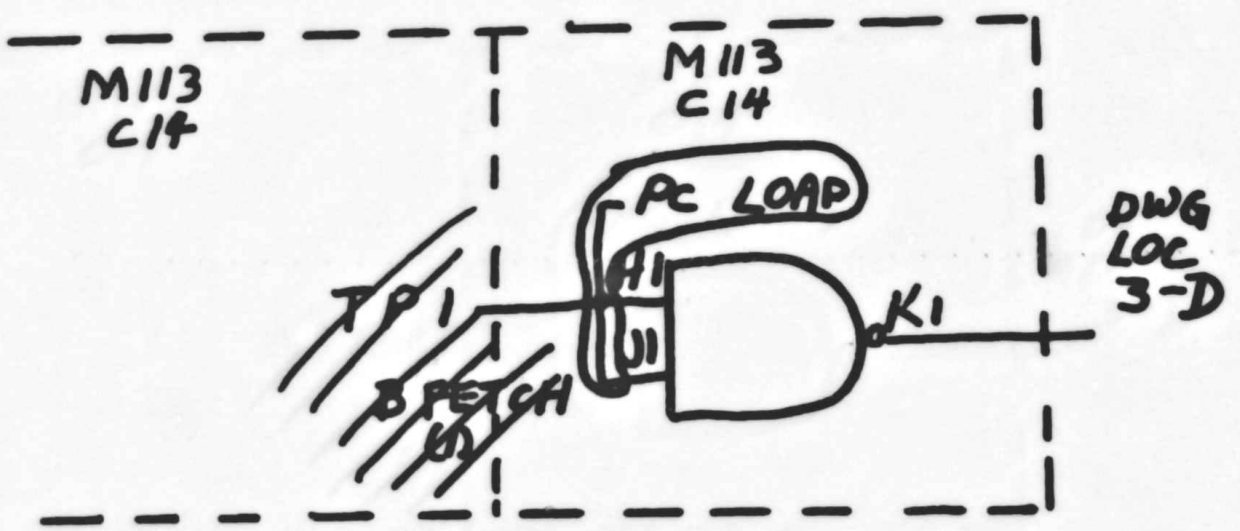
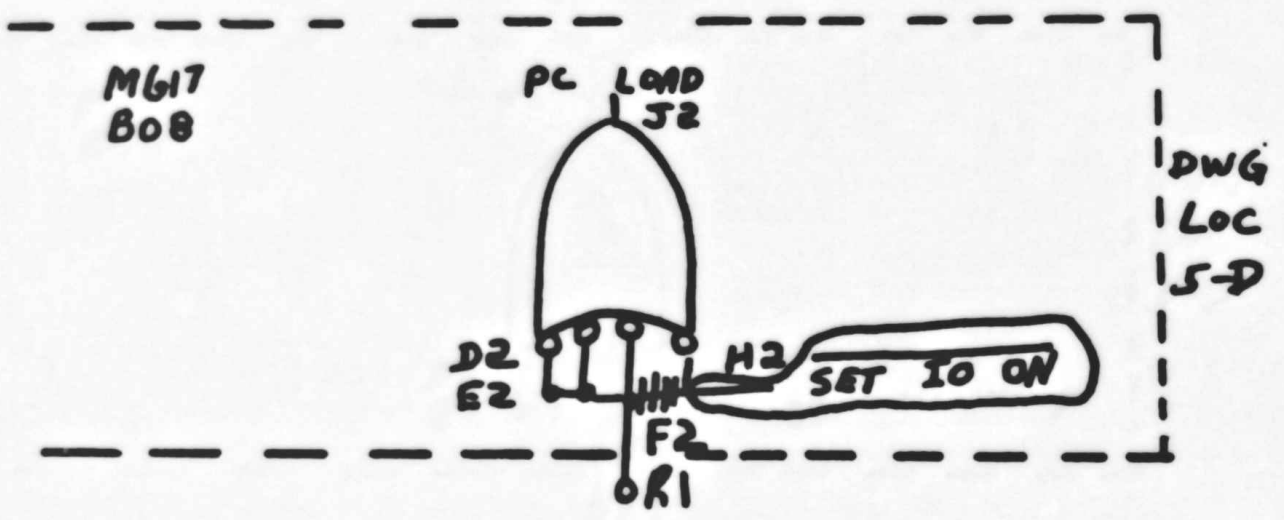
NEW
REV



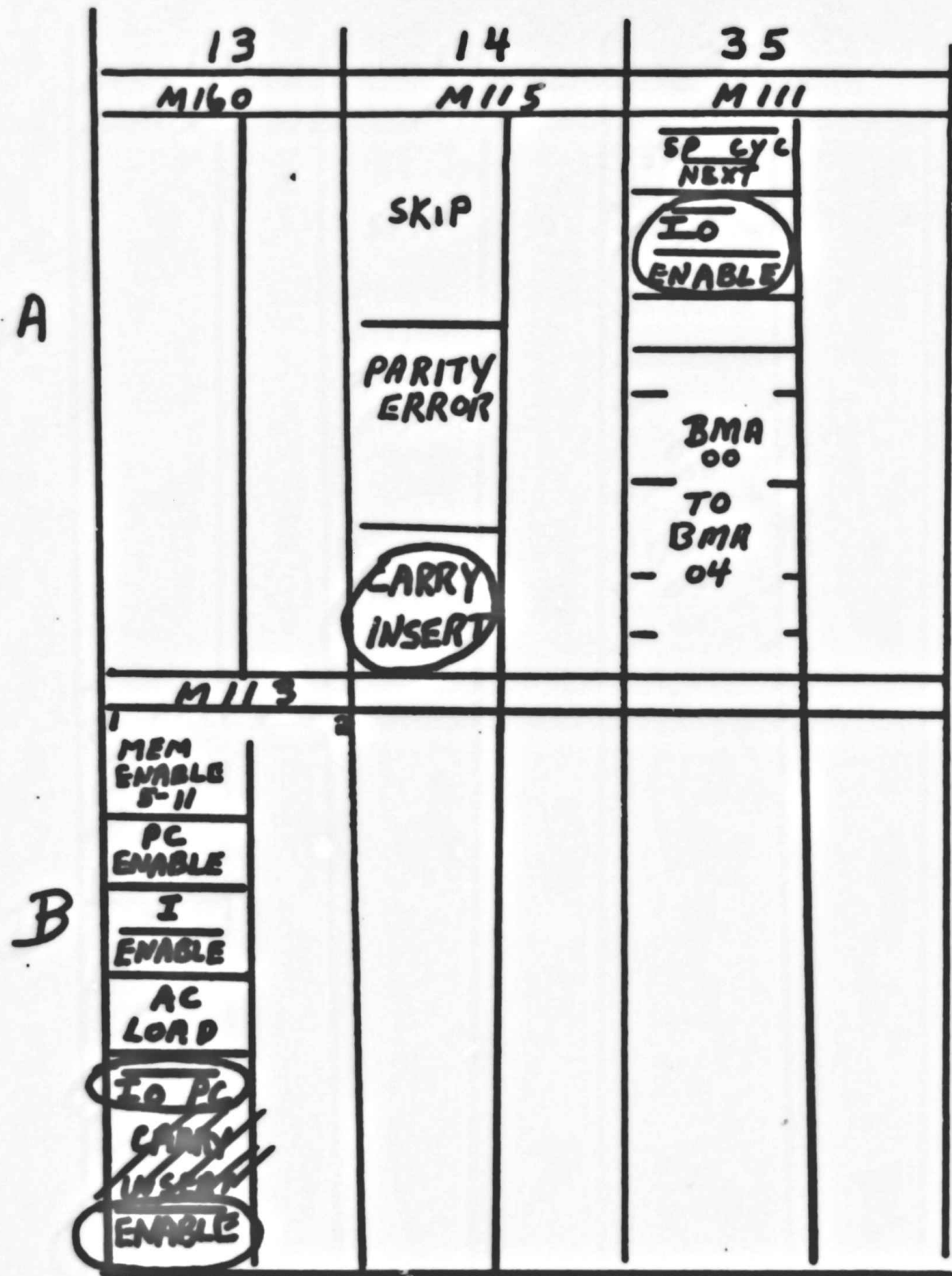
ECO-8L-00045

D-BS-8L-0-5 NEW REV. B

PDP8L-FCO-30



ECO-8L-00045 D-BS-8L-0-6 NEW REV. B



digital EQUIPMENT CORPORATION
ENGINEERING CHANGE ORDER

REC'D. BY INFO. SER.

MO.	DAY	YR.
6	10	69

SPECO RELEASE

MO.	DAY	YR.
6	18	69

CHANGE NO. 8L-00056

DOCUMENTATION PROJECT NUMBER

ACT	PRCD. LINE	TYPE OR DISCRETE NO.
	2 1 7 0 7	1 1 7 5

MANUFACTURING PROJECT NUMBER

TYPE OF CHANGE
ELECTRICAL
MECHANICAL
MODULES

UNIT NAME SMALL COMPUTER

MODEL NO. 8L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. _____ BY _____
ESTIMATED TIME TO INSTALL _____
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)
SHOP MODEL AFFECTED

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

SYSTEMS PROGRAMS AFFECTED

YES	NO
<input type="checkbox"/>	<input checked="" type="checkbox"/>

DIAGNOSTIC PROGRAMS AFFECTED

YES	NO
<input type="checkbox"/>	<input checked="" type="checkbox"/>

TECHNICAL PUBLICATIONS AFFECTED

YES	NO
<input type="checkbox"/>	<input checked="" type="checkbox"/>

BREAK-IN POINT
(DATE/SERIAL NOS.)
SERIAL #1000 TO #1421 AND FUTURE
ALL MACHINES WITH ECO #45

PROBLEM:
MULTIPLE SKIP (ECO 8L-00045) WOULD NOT WORK WITH INTERRUPTS. (CORRECTION TO ECO #45)

DRAWINGS AFFECTED

NUMBER	OLD REV.	NEW REV.
D-BS-8L-0-4	C	D
D-MI-8L-0-18	C	D
A-PL-8L-0-18	C	D
K-WL-8L-0-19	M	N
A-MI-8L-0	W	Y
D-BS-8L-0-5	B	C

CORRECTION:
CORRECTION AS PER MARKED UP PRINTS.

Field Service Code
F

ORIGINATOR M. ARSENAULT DATE 6/9/69
PRODUCTION ENG. H. GODFREY DATE 6/10/69
DESIGN ENG. M. ARSENAULT DATE 6/9/69
OTHER F.J. PURCELL DATE 6/8/69

PRODUCT LINES AFFECTED
8L

PDP8L-FCO-33

digital EQUIPMENT CORPORATION

PARTS LIST ENGINEERING CHANGE ORDER

CHANGE NO. 8L-00056						
DOCUMENTATION PROJECT NUMBER						
ACT	PROD.LINE	TYPE OR DISCRETE				
	2 7	0	7	1	7 5	
MANUFACTURING PROJECT NUMBER						
ACT	PROD.LINE	TYPE OR DISCRETE				

STOCK DISPOSITIONS CODE	ACTION TAKEN
SC=SCRAP RN=RETAIN	PARTS ADDED
RK=REWORK NC=NO CHANGE	NPO=NO PARTS ON ORDER
	POR=PARTS ON ORDER
	IS=PARTS IN STOCK

PRODUCTION ENGINEER H. GODFREY
 DESIGN ENGINEER M. ARSENAULT

PARTS DELETED

ITEM NO.	PART NO.	NO. DEL. PER UNIT	STOCK DISP.	DESCRIPTION

PARTS ADDED

ITEM NO	PART NO	NO REQD PER UNIT	DESCRIPTION	ACTION TAKEN
1	M115		8-3 INPUT NAND GATE	

PDP8L-FCO-34

ADD/DELETE SHEET

MAKE ALL DELETIONS FIRST

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	A35E1	A35E1	B13R1			X
		A35E1	C28C1		X	
	I/O PC ENABLE ~	A14U2	B13S1			X
		A14U2	C28D1		X	
	PAUSE (1)	B13P1	C04L1			X
		C04L1	C28A1		X	

ECO NUMBER <u>8L-00056</u> MADE BY <u>DAVE CHAMBERS</u>	DRAWING NUMBER AFFECTED			
	CODE	SIZE	NUMBER	NEW REV LTR
	WL	K-8L-0-19		N

digital EQUIPMENT CORPORATION
ENGINEERING CHANGE ORDER

REC'D. BY INFO. SER.	MO.	DAY	YR
SPICO RELEASE	6	18	69
	6	23	69

CHANGE NO. 8L-00059

DOCUMENTATION PROJECT NUMBER									
ACT	PROJ. LINE	TYPE OR DISCRETE NO.							
	2	6	0	7	1	7	5		
MANUFACTURING PROJECT NUMBER									
ACT	PROJ. LINE	TYPE OR DISCRETE NO.							

TYPE OF CHANGE
 ELECTRICAL
 MECHANICAL
 MODULES

UNIT NAME PDP-8L **MODEL NO.** 8L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. 1000 **BY** M. ARSENAULT
ESTIMATED TIME TO INSTALL 15 MINUTES
PARTS ADDED OR DELETED IF YES REFER TO SEPARATE SHEET
SHOP MODEL AFFECTED
SYSTEMS PROGRAMS AFFECTED
DIAGNOSTIC PROGRAMS AFFECTED
TECHNICAL PUBLICATIONS AFFECTED

YES	NO
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

BREAK-IN POINT (DATE/SERIAL NOS)
 ALL 8L WITH ECO #45 1000 THRU 1471 AND FUTURE

PROBLEM:
 THE PAUSE F.F. CAN COME ON IN EITHER STATE WHEN THE COMPUTER IS FIRST TURNED ON. IF IT COMES UP IN THE "1" STATE, LOAD ADD HAS TO BE HIT TWICE BECAUSE THE PAUSE INHIBITS PC ENABLE.

CORRECTION:
 ADD POWER CLEAR TO PAUSE F.F.

DRAWINGS AFFECTED

NUMBER	OLD REV	NEW REV
D-BS-8L-0-2	E	F
D-MU-8L-0-18	D	E
A-PL-8L-0-18	D	E
K-M-8L-0-19	N	P
A-ML-8L-0	Y	Z

Field Service Code
 F

ORIGINATOR R.M. ARSENAULT **DATE** 6/18/69
PRODUCTION ENG. N.R. **DATE** _____
DESIGN ENG. R.M. ARSENAULT **DATE** 6/18/69
OTHER F.J. PURCELL **DATE** _____

PRODUCT LINES AFFECTED
 SMALL COMPUTER 8L

PDP8L-FCO-36

ADD/DELETE SHEET

SHEET 2 OF 4

MAKE ALL DELETIONS FIRST

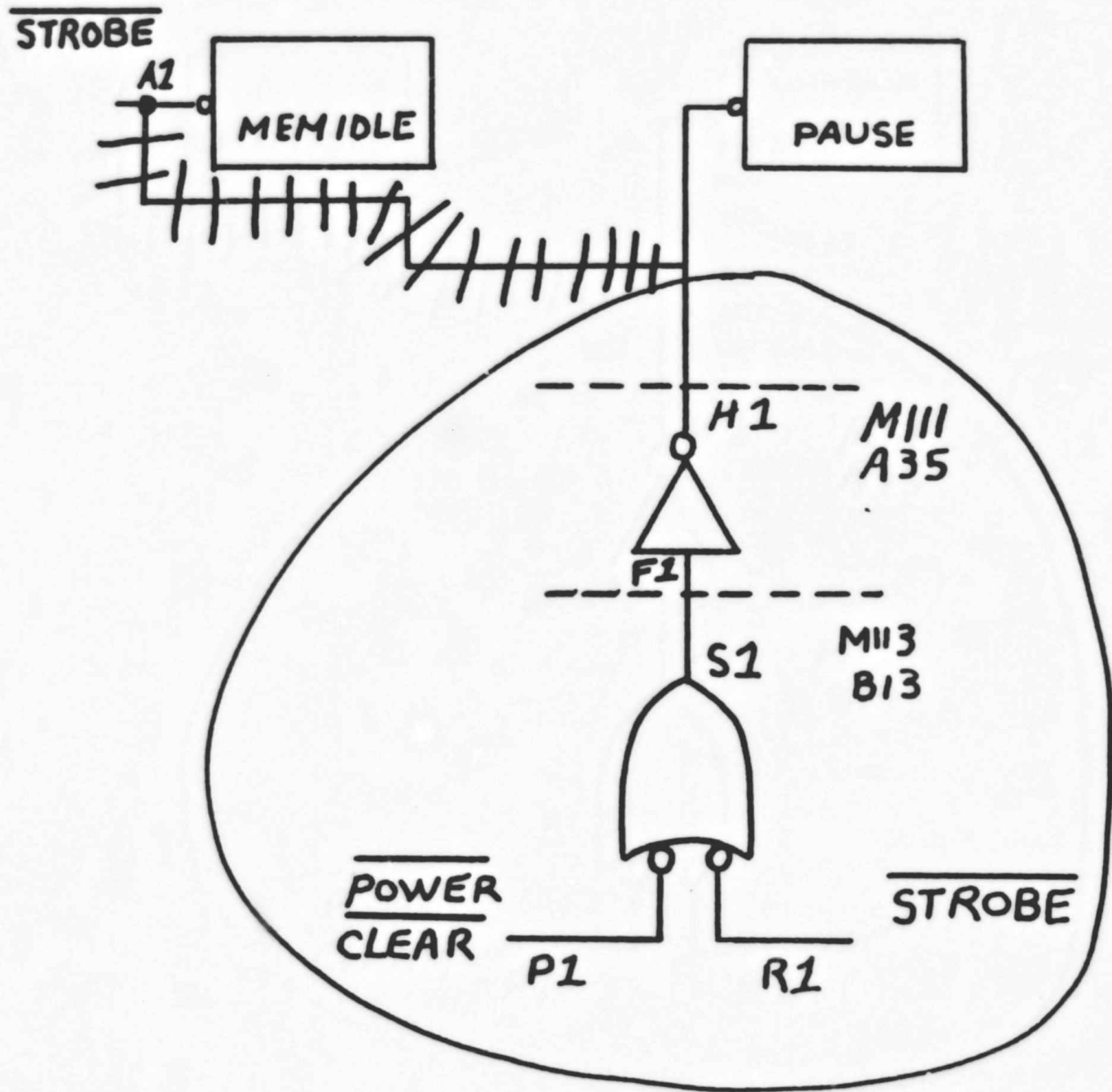
PAGE 1 OF 1

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	B13S1	A35F1	B13S1		X	
	POWER CLEAR (~)	A27S2	D16A1			X
		A27S2	B13P1		X	
		B13P1	D16A1		X	
	STROBE (~)	B13R1	B34S2		X	

ECO NUMBER <u>8L-00059</u> MADE BY <u>DAVE CHAMBERS</u>	DRAWING NUMBER AFFECTED		
	CODE	SIZE	NUMBER
	WL	K-8L-0-19	
			NEW REV LTR
			P

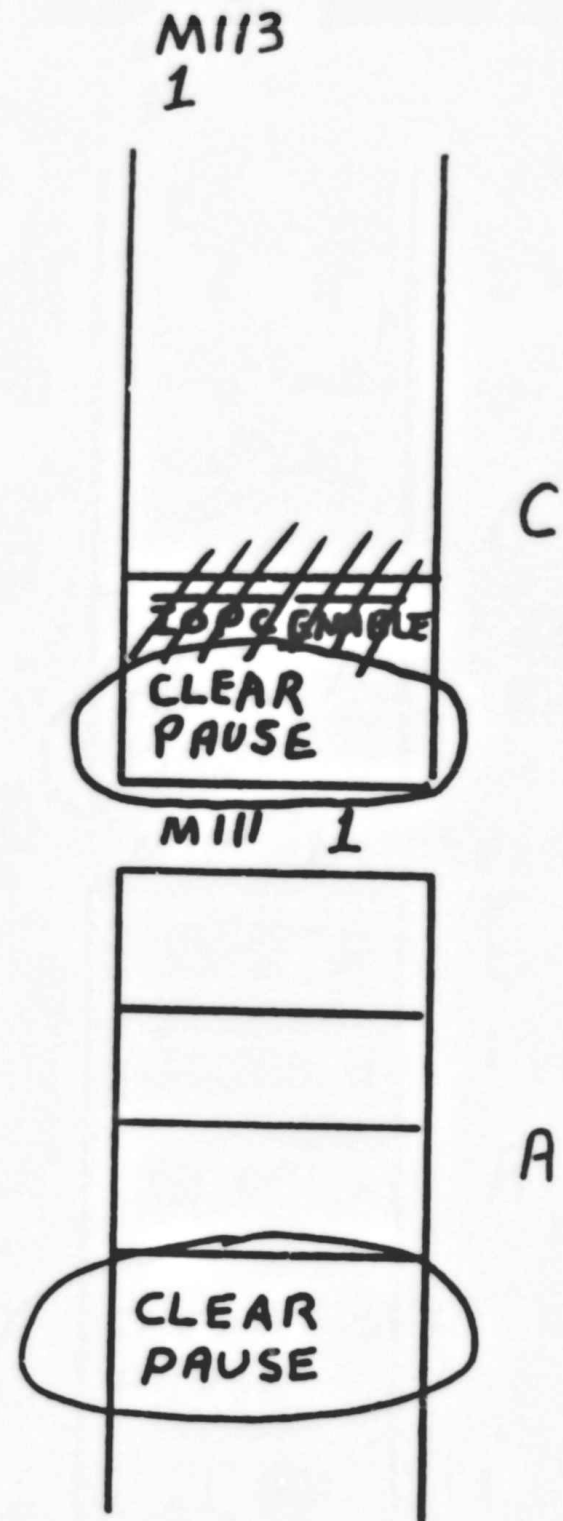
PDP8L-FCO-37

M216
CØ4



ECO 8L-00059 D-BS-8L-0-2 NEW REV. F

PDP8L-FCO-38



ADD/DELETE SHEET

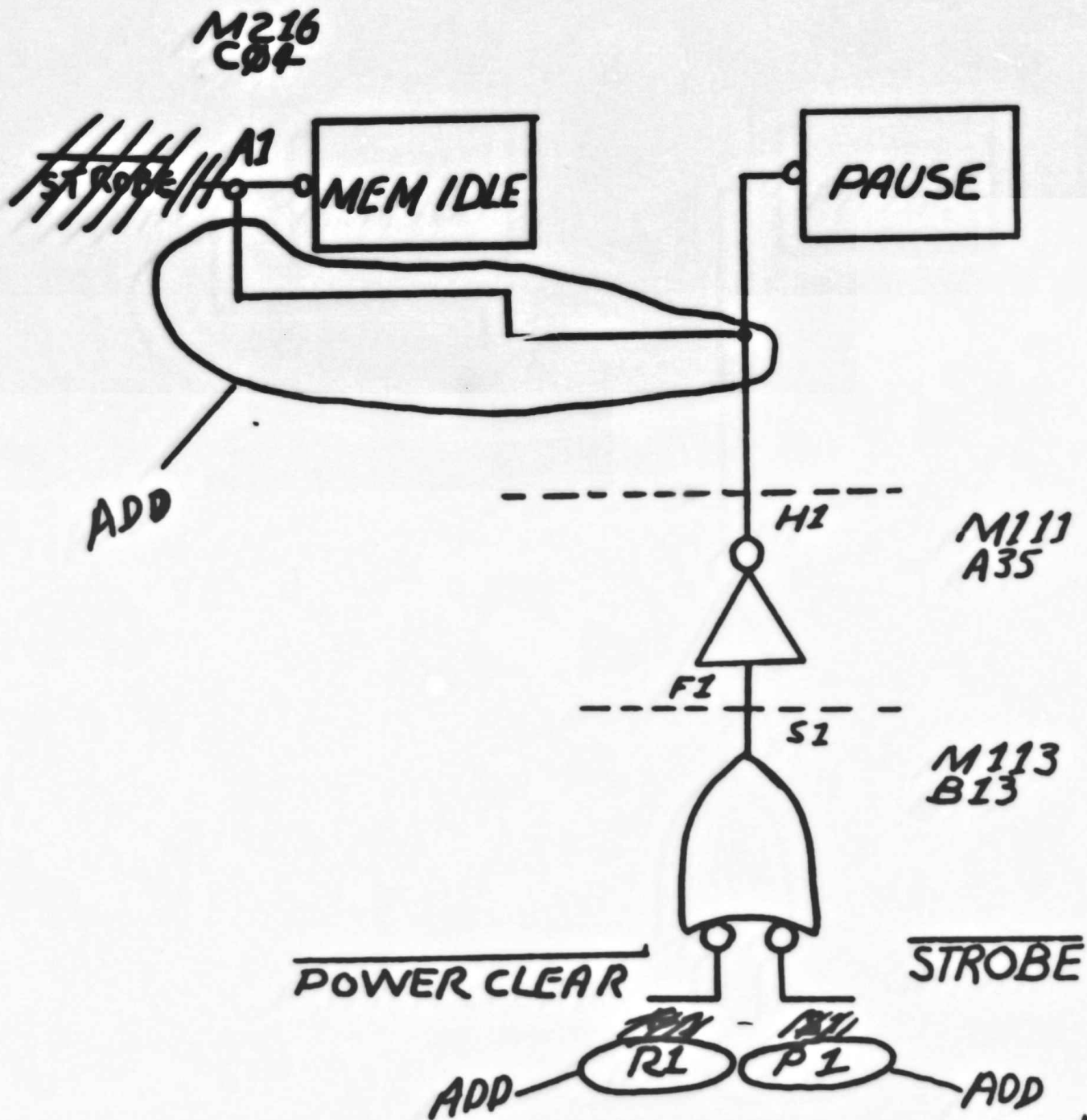
SHEET 2 OF 3

MAKE ALL DELETIONS FIRST

PAGE 1 OF 1

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	A35H1	C04A1	A35H1		X	
	STROBE ~	C04N2	C04A1			X
		B34S2	B13R1			X
		C04N2	B13P1		X	
	POWER CLEAR ~	A27S2	B13P1			X
		B13P1	D16A1			X
		A27S2	B13R1		X	
		B13R1	D16A1		X	
	B13S1	B13S1	A35F1		X	
ECO NUMBER 8L-00062		DRAWING NUMBER AFFECTED				
MADE BY DAVE CHAMBERS		CODE	SIZE	NUMBER	NEW REV LTR	
		WL	K-8L-0-19		R	

PDP8L-FCO-41



digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

REC'D. BY INFO. SER. MO DAY YR
8 5 69
SPECO RELEASE 8 8 69

CHANGE NO. 8L-00068

DOCUMENTATION PROJECT NUMBER

ACT. PROJ. LINE TYPE OR DISCRETE NO.

2 16 0 7 1 7 5

MANUFACTURING PROJECT NUMBER

ACT. PROJ. LINE TYPE OR DISCRETE NO.

TYPE OF CHANGE

ELECTRICAL
MECHANICAL
MODULES

UNIT NAME PDP-8L MODEL NO. 8L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. BY M. ARSENAULT

ESTIMATED TIME TO INSTALL 10 MINUTES

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		<input checked="" type="checkbox"/>
SHOP MODEL AFFECTED		<input checked="" type="checkbox"/>
SYSTEMS PROGRAMS AFFECTED		<input checked="" type="checkbox"/>
DIAGNOSTIC PROGRAMS AFFECTED		<input checked="" type="checkbox"/>
TECHNICAL PUBLICATIONS AFFECTED		<input checked="" type="checkbox"/>

BREAK-IN POINT

(DATE/SERIAL NOS)

ALL MACHINES
S.N.1 THRU 1429 AND FUTRE

PROBLEM:

- INITIALIZE ON THE BUS IS OF DIFFERENT POLARITY FROM 8I.
- OMMISION OF GATE ON MUL.

DRAWINGS AFFECTED

NUMBER	OLD REV	NEW REV
A-PL-8L-0	AD	AE
D-BS-8L-0-10	B	C
D-MI-8L-0-18	E	F
A-PL-8L-0-18	E	F
K-WL-8L-0-19	R	S

CORRECTION:

- CHANGE POLARITY OF BUS ON 8L TO KEEP BUS THE SAME.
- CORRECT MUL.

Field Service Code

F

ORIGINATOR M. ARSENAULT DATE 8-4-69

PRODUCTION ENG. B. VAILLANCOURT DATE 8-4-69

DESIGN ENG. M. ARSENAULT DATE 8-4-69

OTHER F.J. PURCELL DATE 8-4-69

PRODUCT LINES AFFECTED

SMALL COMPUTER 8L

ADD/DELETE SHEET

SHEET 2 OF 4

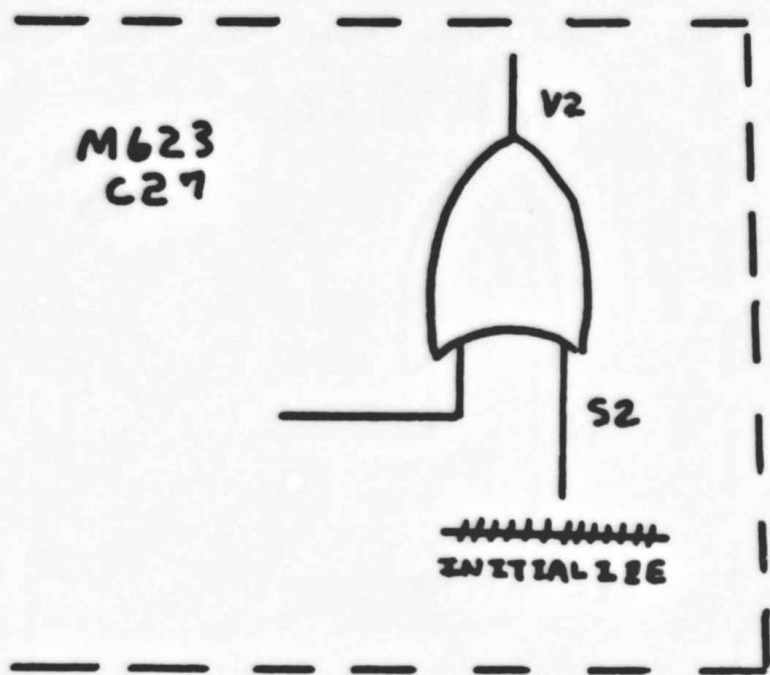
MAKE ALL DELETIONS FIRST

PAGE 1 OF 1

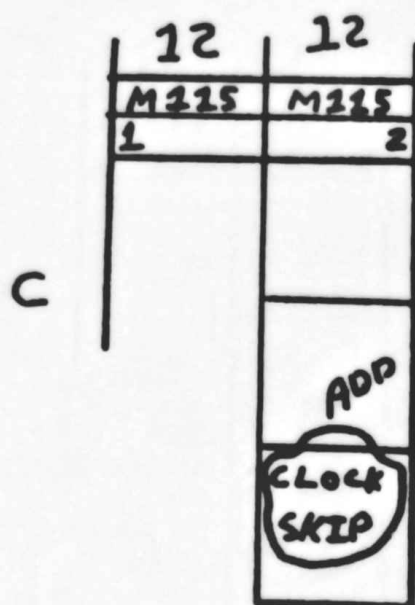
COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	INITIALIZE	C05N1	B29T2			X
		C05N1	C27S2		X	
		C27S2	B29T2		X	
	<u>INITIALIZE</u>	C30V2	C27S2			X
		C27S2	A14L1			X
		C30V2	A14L1		X	

ECO NUMBER <u>8L-00068</u> MADE BY <u>J.W. PATE</u>		DRAWING NUMBER AFFECTED		
		CODE	SIZE	NUMBER
		WL	K-8L-0-19	S

PDP8L-FCO-44

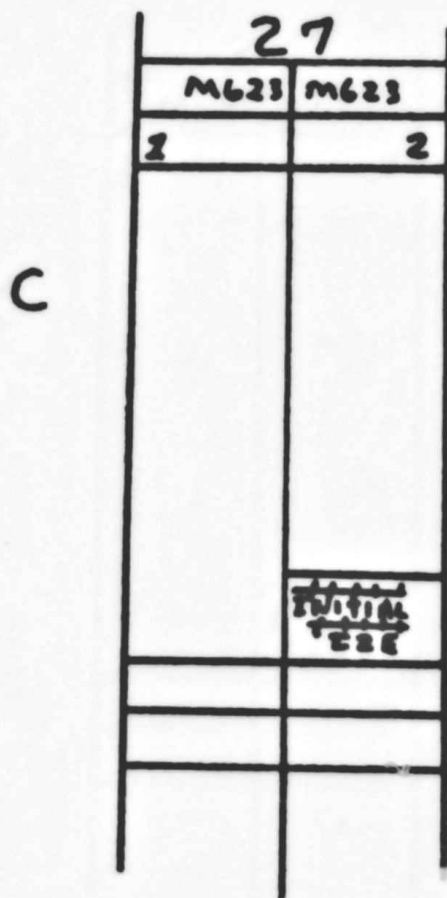


DWG LOC B-1



DWG LOC D-4

ECO 8L-00068 D-B5-BL-0-10 NEW REV C



DWG LOC B-7

ECO 8L-00068 D-MU-BL-0-18 NEW REV F

PDP8L-FCO-45

digital EQUIPMENT CORPORATION
ENGINEERING CHANGE ORDER

REC'D. BY INFO. SER.

MO.	DAY	YR.
9	4	69

 SPEC'D. RELEASE

MO.	DAY	YR.
9	8	69

CHANGE NO. 8L-00071

TYPE OF CHANGE
 ELECTRICAL
 MECHANICAL
 MODULES

DOCUMENTATION PROJECT NUMBER
 ACT | PRD. LINE | TYPE OR DISCRETE NO.
 2 | 16 | 0 | 7 | 1 | 16 | 0
 MANUFACTURING PROJECT NUMBER
 ACT | PRD. LINE | TYPE OR DISCRETE NO.

UNIT NAME PDP 8L **MODEL NO.**

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. _____ BY _____
ESTIMATED TIME TO INSTALL 5 MINUTES
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)
 YES NO
 SHOP MODEL AFFECTED
 SYSTEMS PROGRAMS AFFECTED
 DIAGNOSTIC PROGRAMS AFFECTED
 TECHNICAL PUBLICATIONS AFFECTED

BREAK-IN POINT
 (DATE/SERIAL NO.)
 ALL 8L'S
 SERIAL #1---19:11 AND
 FUTURE
 FIELD INSTALL ONLY IF
 G826 REV (F) OR ABOVE
 IS INSTALLED

PROBLEM:

THE BUSSING PRINT SHOWS PIN B27B2 TO B28B2. UP TO REV F ON THE G826 (B28B2) HAD NO ETCH ON IT, ABOVE REV D IT IS -15. B27V2 IS READER CLOCK POWER.

WITH THE NEW REV G826 THIS PARELLELS 2 (-15'S) AND CAUSES THE ETCH TO BURN ON THE G826 AND A DIODE TO BLOW IN THE POWER SUPPLY.

CORRECTION:

REMOVE THE BUSSING FROM B27B2 TO B28B2

DRAWINGS AFFECTED

NUMBER	REV.	DATE
A-MI-81-A	AE	AE
D-AD-7005906-A-A	0	A
A-PI-7005906-A-A	0	A

Field Service Code

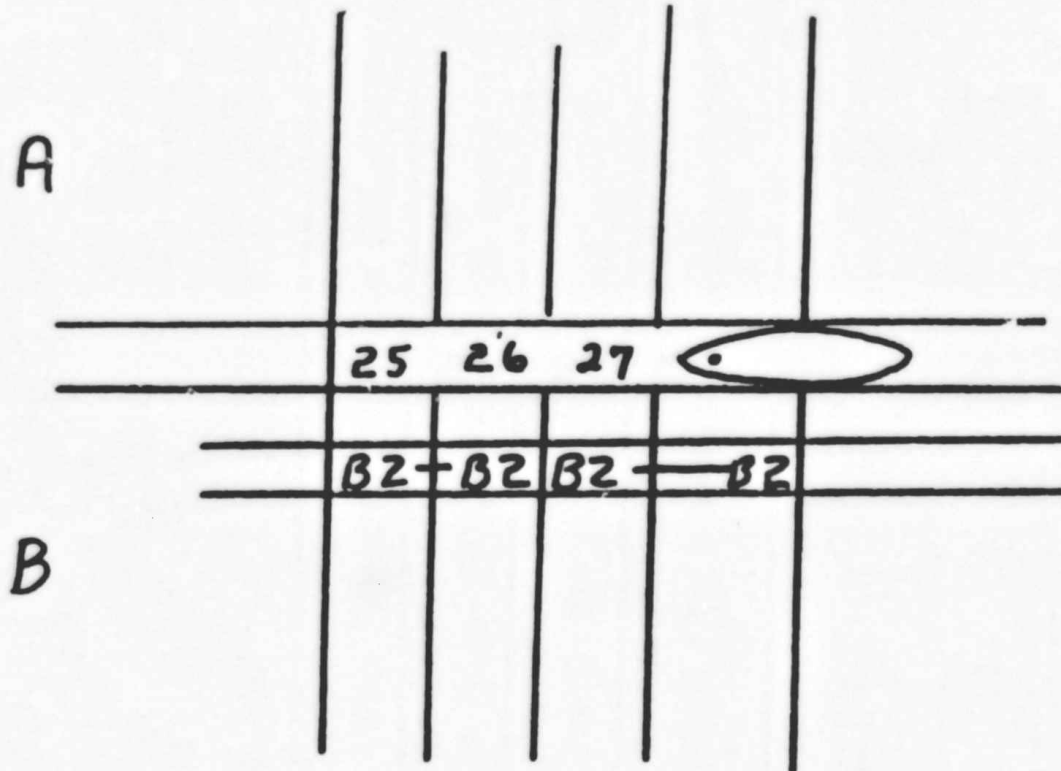
E

ORIGINATOR M. ARSENAULT **DATE** 9-2-69
PRODUCTION ENG. B. VAILLANCOURT **DATE** 9-2-69
DESIGN ENG. M. ARSENAULT **DATE** 9-2-69
OTHER F.J. PURCELL **DATE** 9-2-69

PRODUCT LINES AFFECTED

SMALL COMPUTER 8L

PDP8L-FCO-46



ECO 8L-00071 D-AD-7005906-0-0 NEW REV. B

PDP8L-FCO-47

NOTES:

ADD

6 SOLDER 22 GAUGE SOLID WIRE TO THE
FOLLOWING, AS CLOSE TO BASE OF PIN AS
POSSIBLE, AFTER PANEL IS BUSSED. USE
BROWN OR BLACK SLEEVING,
A20C2 TO A23C2
B20C2 TO B23C2
C19C2 TO C23C2
D19C2 TO D23C2

DWG LOC C-162

ECO 8L-00074 D-AD-7005906-0-0 NEW REV. B

PDP8L-FCO-49

digital EQUIPMENT CORPORATION
ENGINEERING
CHANGE ORDER

REC'D. BY	INFO. SER.	NO.	DAY	YR.
		10	13	69
SPECO RELEASE		10	22	69
TYPE OF CHANGE				
ELECTRICAL				<input checked="" type="checkbox"/>
MECHANICAL				
MODULES				

CHANGE NO. 8L-00078
 DOCUMENTATION PROJECT NUMBER
 ACT | PROJ. LINE | TYPE OR DISCRETE NO. |
 | 2 | 7 | 0 | 7 | 5 | 4 | 4 |
 MANUFACTURING PROJECT NUMBER
 ACT | PROJ. LINE | TYPE OR DISCRETE NO. |
 | | | | | | |

UNIT NAME PDP-8L MODEL NO. 8L

PREVIOUS OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED PROTO BY M. ARSENAULT
 IN SERIAL NO. _____
 ESTIMATED TIME TO INSTALL 30 MINUTES
 PARTS ADDED OR DELETED
 UP YES REFER TO SEPARATE SHEET
 SNOP MODEL AFFECTED
 SYSTEMS PROGRAMS AFFECTED
 DIAGNOSTIC PROGRAMS AFFECTED
 TECHNICAL PUBLICATIONS AFFECTED

YES	NO
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

BREAK-IN POINT
 (DATE/SERIAL NO.)
S.N. 1800 THRU 2054 AND FUTURE.
 FIELD MODIFY IF PROBLEMS EXISTS WITH EXTENDED MEMORY AND MANUAL FUNCTIONS

PROBLEM:

1. IF THE MACHINE HALTS WITH THE INTERRUPT ON, AND AN INTERRUPT COMES IN FROM AN EXTERNAL DEVICE ONE CAN NO LONGER DEPOSIT OR EXAMINE IN THE UPPER FIELD.

CORRECTION:

1. ADD KEY LA+EX+DP TO CLEAR INT SYNC, WHEN DOING A KEY FUNCTION.

DRAWINGS AFFECTED

NUMBER	OLD REV.	NEW REV.
A-ML-8L- 0	AL	AN
D-BS-8L- 0 -2	J	K
D-BS-8L- 0 -7	A	B
D-MU-8L- 0 -18	F	H
A-PL-8L- 0 -18	F	H
K-WL-8L- 0 -19	S	T

Field Service Code

F

ORIGINATOR M. ARSENAULT DATE 10/13/69
 PRODUCTION ENG. W.R. MILLER DATE 10/13/69
 DESIGN ENG. M. F. ARSENAULT DATE 10/13/69
 OTHER F.J. PURCELL DATE 10/13/69

PRODUCT LINES AFFECTED
SMALL COMPUTER 8L

PDP8L-FCO-50

ADD/DELETE SHEET
MAKE ALL DELETIONS FIRST

SHEET 2 OF 6

PAGE 1 OF 1

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	C14S1	B11J1	C14S1			X
	C28H2	B11J1	C28H2		X	
	F SET	B13E1	C14R1			X
		C14R1	CØ8M2			X
		B13E1	C28F2		X	
	↓	C28F2	CØ8M2		X	
	INT ROST	A33P2	C14P1			X
	↓	A33P2	C28D2		X	
	+3V (5)	C1ØV1	C14R1		X	
	KEY LA+EX+DP	CØ2K2	DØ9H1			X
		CØ2K2	C14P1		X	
	↓	C14P1	DØ9H1		X	
	KEY LA+EX+DP	C14S1	C28E2		X	

ECO NUMBER <u>8L-ØØØ78</u> MADE BY <u>J.W. PATE</u>		DRAWING NUMBER AFFECTED			
		CODE	SIZE	NUMBER	NEW REV LTR
		WL	K-8L-Ø-19		T

PDP8L-FCO-51

digital

A SPECIAL REVS

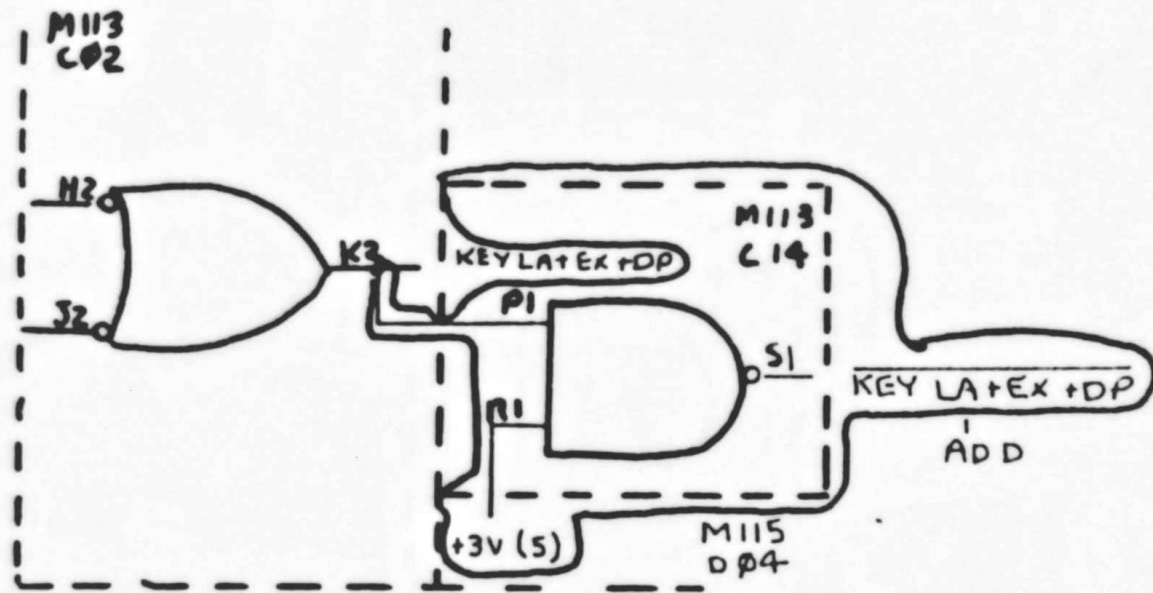
DATE: 10/17/69

ECO NO. 8L-00078

PAGE 1 OF 1

DRAWING NO	NEW REV	SERIAL NO.	OLD REV ADD CIP	SEPIA?
D-BS-8L-0-2	J	1000-1799	—	
↓	K	1800----▶	J	YES
D-BS-8L-0-7	A	1-760,762-1799	—	
↓	B	1800----▶	A	YES
D-MU-8L-0-18	F	1000-1799	—	
↓	H	1800----▶	F	YES
A-PL-8L-0-18	F	1000-1799	—	
↓	H	1800----▶	F	YES
K-WL-8L-0-19	S	1000-1799	—	
↓	T	1800----▶	S	YES

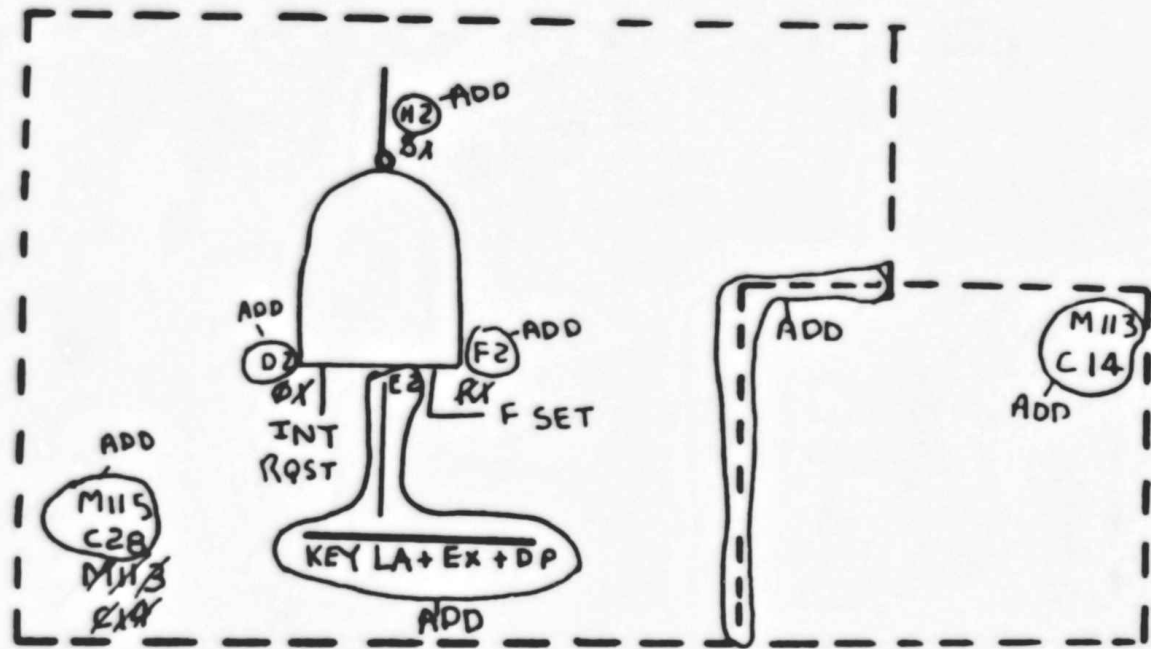
PDP8L-FCO-52



OWG LOC
B-4

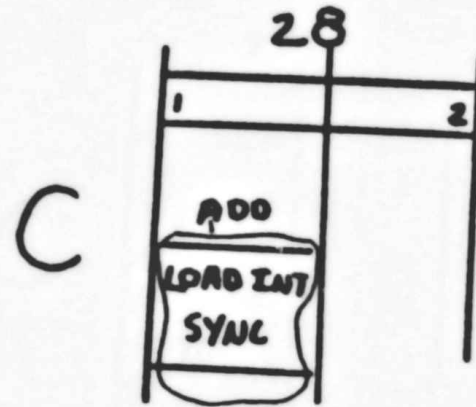
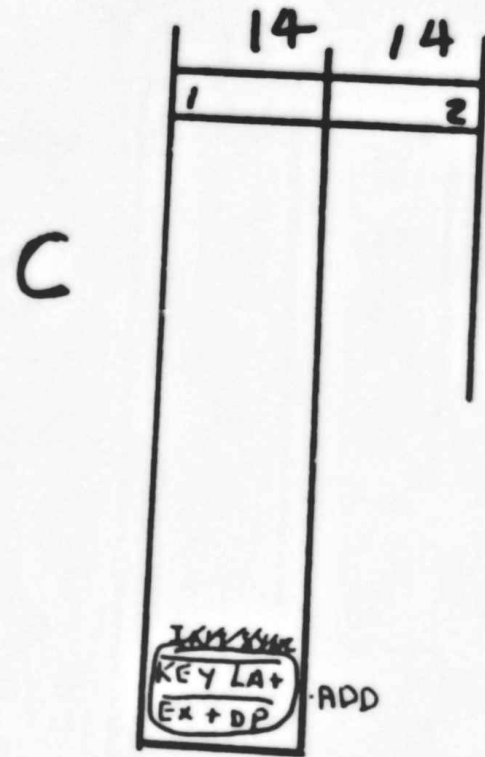
ECO 8L-00078 J-BS-8L-0-2 NEW REV K

PDP8L-FCO-53



DWG Loc
C-D-4-5

ECO 8L-00078 J-B5-8L-0-7 NEW REV. B



ECO 8L-00078 J-M4-8L-0-18 NEW REV. H

PDP8L-FCO-54

ADD/DELETE SHEET

SHEET 2 OF 3

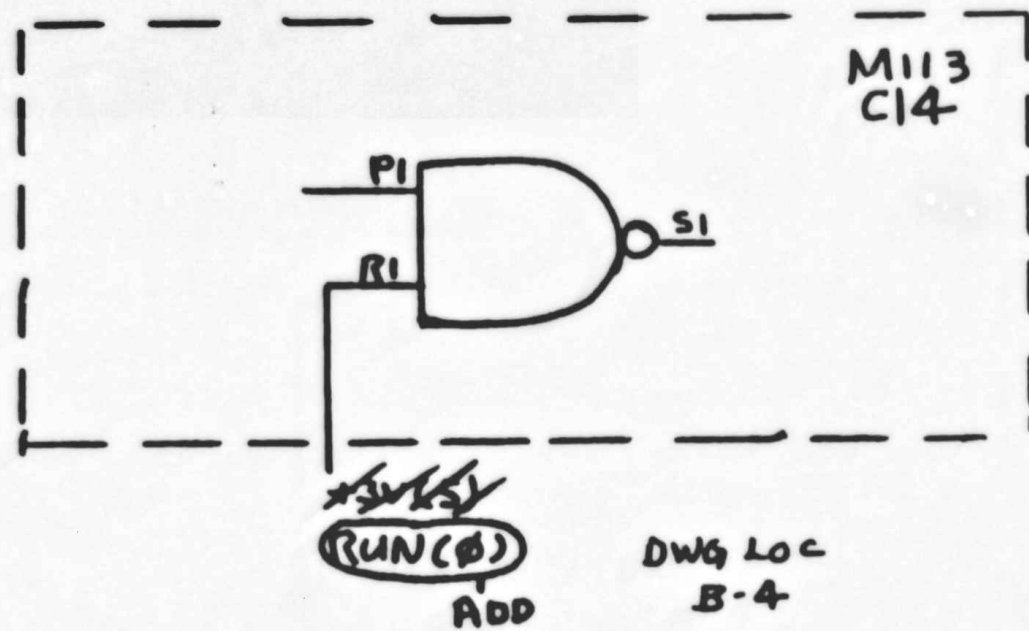
MAKE ALL DELETIONS FIRST

PAGE 1 OF 1

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	+3V (5)	C10V1	C14R1			X
	RUN (0)	C27D2	C06S1			X
		C27D2	C14R1		X	
	↓	C14R1	C06S1		X	

ECO NUMBER <u>8L-00083</u> MADE BY <u>J.W. PATE</u>		DRAWING NUMBER AFFECTED			
		CODE	SIZE	NUMBER	NEW REV LTR
		WL	K-8L-0-19		U

PDP8L-FCO-56



ECO 8L-00083 D-BS-8L-0-2 NEW REV L

PDP8L-FC0-57

digital EQUIPMENT CORPORATION
ENGINEERING CHANGE ORDER

REC'D. BY INFO. SER.

MO.	DAY	YR.
11	13	69

 SPECO RELEASE

MO.	DAY	YR.
12	9	69

CHANGE NO. 8L-00085

TYPE OF CHANGE
 ELECTRICAL
 MECHANICAL
 MODULES

DOCUMENTATION PROJECT NUMBER			
ACT	PREC. LINE	TYPE OR DISCRETE NO.	
	2170	7544	
MANUFACTURING PROJECT NUMBER			
ACT	PREC. LINE	TYPE OR DISCRETE NO.	

UNIT NAME MEM CONTROL MODEL NO. 8L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. PROTO BY A.L. C.Z.
 ESTIMATED TIME TO INSTALL _____
 PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET) YES NO
 SHOP MODEL AFFECTED
 SYSTEMS PROGRAMS AFFECTED
 DIAGNOSTIC PROGRAMS AFFECTED
 TECHNICAL PUBLICATIONS AFFECTED

BREAK-IN POINT
 (DATE/SERIAL NOS)
 S.N. 100 THRU 2346 AND FUTURE.
 WITH G785 REV E AND G826 REV H OR ABOVE. (IF INSTALLED WITH THE BA08 IT ALSO MUST HAVE E REV G785)

PROBLEM:

POWER FAIL WOULD NOT WORK PROPERLY WITH A MC8L.

CORRECTION:

CIRCUIT CHANGES ON THE G826 AND G785.

DRAWINGS AFFECTED

NUMBER	OLD REV	NEW REV
A-ML-8L-0	AR	AS
D-BS-8L-0-13	F	F
K-WL-8L-0-19	V	W

Field Service Code

ORIGINATOR M.E. ARSENAULT DATE 6/7/69
 PRODUCTION ENG. W.R. MILLER DATE 7/18/69
 DESIGN ENG. M. ARSENAULT DATE 6/7/69
 OTHER F. PURCELL DATE 7/17/69

PRODUCT LINES AFFECTED

SMALL COMPUTER 8L

ADD/DELETE SHEET
 MAKE ALL DELETIONS FIRST

SHEET 2 OF 4
 PAGE 1 OF 1

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	A27D2	A27D2	B28C1		X	
	STOP OK	D09K1	A36P2			X
	↓	D09K1	B28E1		X	
	↓	B28E1	A36P2		X	

ECO NUMBER <u>8L-00085</u> MADE BY <u>J.W. PATE</u>	DRAWING NUMBER AFFECTED			
	CODE	SIZE	NUMBER	NEW REV LTR
	WL	K-8L-0-19		W

PNP8L-PCO-59

digital

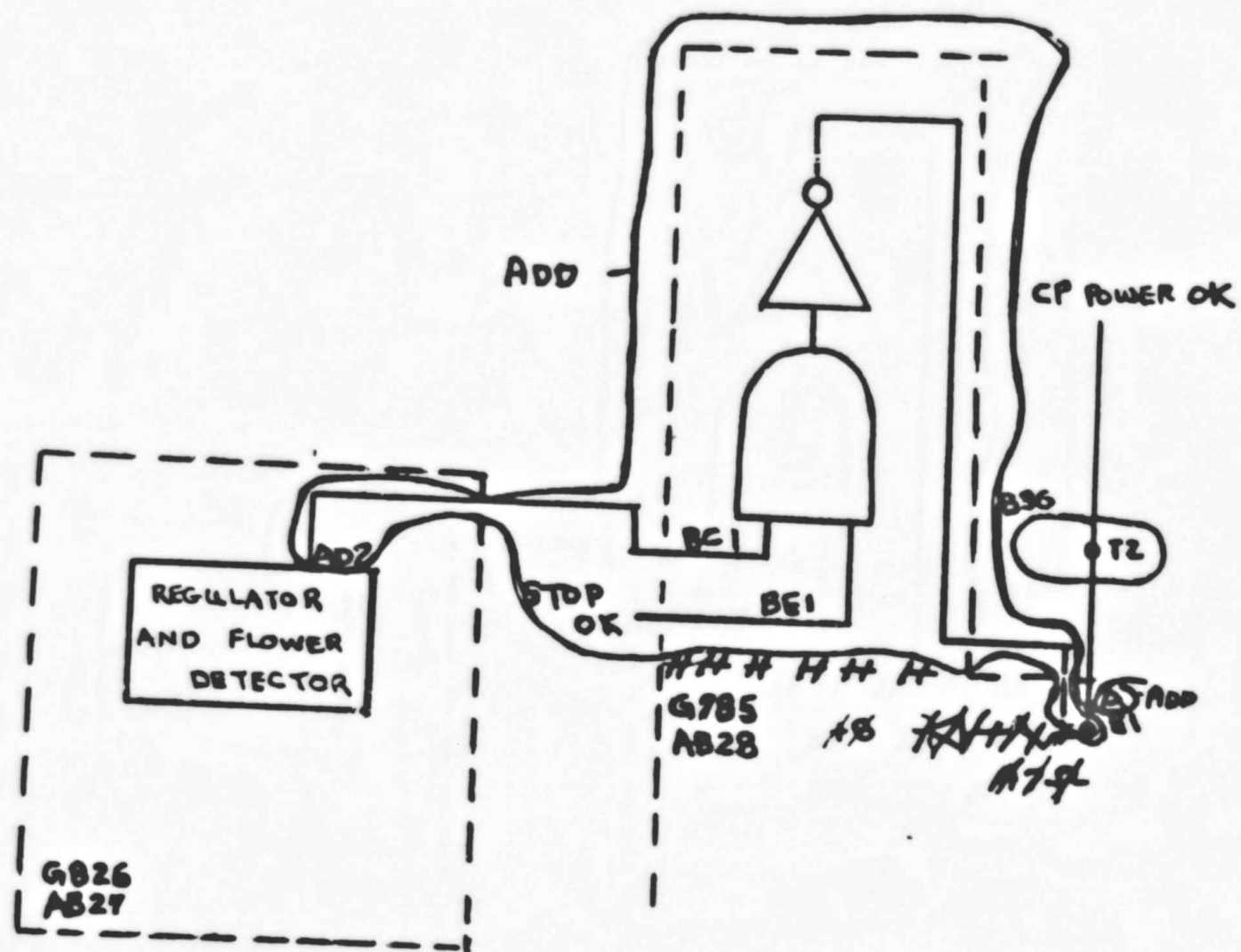
A SPECIAL REVS
DATE: 12/3/69

ECO NO. 8L-00085

PAGE 1 OF 1

DRAWING NO	NEW REV	SERIAL NO.	OLD REV ADD CIP	SEPIA?
D-BS-8L-0-13	F		E	
K-WL-8L-0-19	L2	1-760, 768-999	L1	
	S1	1000-1790	S	
	2A	761	2	
	W	1800--P	V	

PDP8L-FCO-60



DWG LOC
B-6+7

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

REC'D. BY INFO. SER.	MO.	DAY	YR.
	12	22	69
SPECO RELEASE	1	8	70

CHANGE NO. 8L-00088

DOCUMENTATION PROJECT NUMBER

ACT | PRCD. LINE | TYPE OR DISCRETE NO.

2 | 17 | 0 | 7 | 5 | 4 | 4

MANUFACTURING PROJECT NUMBER

ACT | PRCD. LINE | TYPE OR DISCRETE NO.

TYPE OF CHANGE

ELECTRICAL	<input checked="" type="checkbox"/>
MECHANICAL	<input type="checkbox"/>
MODULES	<input type="checkbox"/>

UNIT NAME PDP-8L

MODEL NO. 8L

PREVIOUS OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. _____ BY _____

ESTIMATED TIME TO INSTALL _____

PARTS ADDED OR DELETED
IF YES REFER TO SEPARATE SHEET

SHOP MODEL AFFECTED

SYSTEMS PROGRAMS AFFECTED

DIAGNOSTIC PROGRAMS AFFECTED

TECHNICAL PUBLICATIONS AFFECTED

YES	NO
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

BREAK-IN POINT (DATE/SERIAL NO.)

ALL PDP-8L'S
1 THRU 2479 & FUTURE
/FIELD INSTALL ONLY IF
MC8L IS INSTALLED

PROBLEM:

1. WHEN PROGRAM IS RUNNING IN UPPER MEMORY WITH THE INTERRUPT ON, AND AN INTERRUPT OCCURS DURING AN IOT THE PROGRAM NEVER GETS RESTORED TO UPPER MEMORY WITH AN RMF (LOAD SF CLEARS EACH FF DURING INTERRUPT)

2. WIRE LIST ERRORS - PRINTS ARE CORRECT

CORRECTION:

1. GATE INT STROBE TO THE LOAD SF GATE

2. CHANGE WIRE LIST TO AGREE WITH PRINTS-
REFERENCE D-BS-8L-0-6

DRAWINGS AFFECTED

NUMBER	OLD REV.	NEW REV.
D-BS-8L-0-2	L	M
D-BS-8L-0-17	B	C
D-MJ-8L-0-18	H	J
K-WL-8L-019	W	Y
A-PL-8L-0-18	H	J
A-ML-8L-0	ASAT	

Field Service Code

ORIGINATOR	<u>R.C. SUTHERLAND</u>	DATE	<u>12/19/69</u>
PRODUCTION ENG.	<u>W.R. MILLER</u>	DATE	<u>12/19/69</u>
DESIGN ENG.	<u>M. ARSENAULT</u>	DATE	<u>12/19/69</u>
OTHER	<u>F. PURCELL</u>	DATE	<u>12/19/69</u>

PRODUCT LINES AFFECTED

<u>8L</u>

PDP8L-FCO-62

ADD/DELETE SHEET
MAKE ALL DELETIONS FIRST

SHEET 2 OF 6
PAGE 1 OF 2

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
WIRING CHANGES	D02S1	C04U2	D02S1			X
	INT OK	B13U2	C15L2			X
	↓	C15L2	D12J2			X
	↓	B13U2	C28E1		X	
	↓	C28E1	D12J2		X	
	INT STROBE	C04U2	C28H1		X	
	↓	C28H1	D02S1		X	
	LOAD SF	B36M1	C15N2			X
	↓	B36M1	C28J1		X	
	TS 4 (1)	C13F1	C15M2			X
↓	C15M2	D11L1			X	
↓	C13F1	C28F1		X		
↓	C28F1	D11L1		X		
WIRE LIST CORRECTIONS ONLY (PRINTS AND MACHINES ARE CORRECT)						

ECO NUMBER <u>8L-00088</u> MADE BY <u>ms</u>	DRAWING NUMBER AFFECTED		
	CODE	SIZE	NUMBER
	WL	K-8L-0-19	
	NEW REV LTR		
			Y

PDP8L-FCO-63

ADD/DELETE SHEET

SHEET 3 OF 6

MAKE ALL DELETIONS FIRST

PAGE 2 OF 2

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	KEY COUNT	C02R2	C05P2			X
		C05P2	D02H1			X
		C02R2	D02H1		X	
	KEY COUNT	D01P2	C05P2		X	

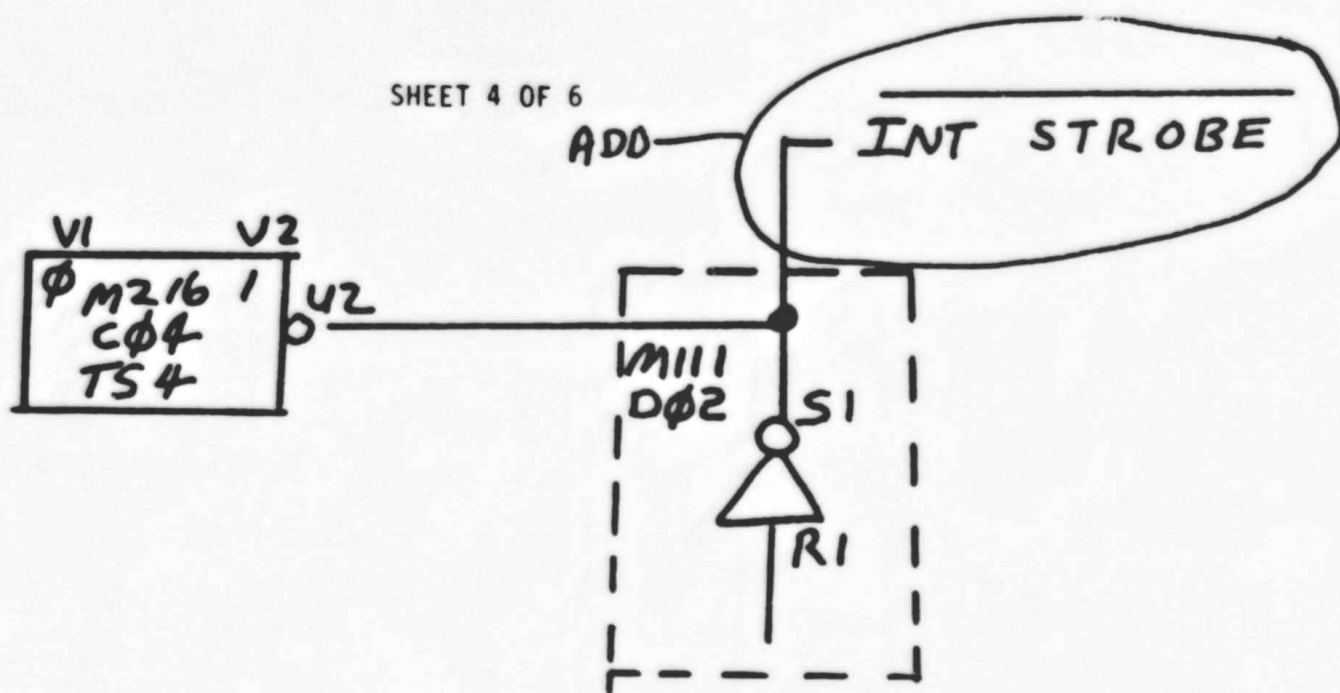
DRAWING NUMBER AFFECTED

ECO NUMBER 8L-00088

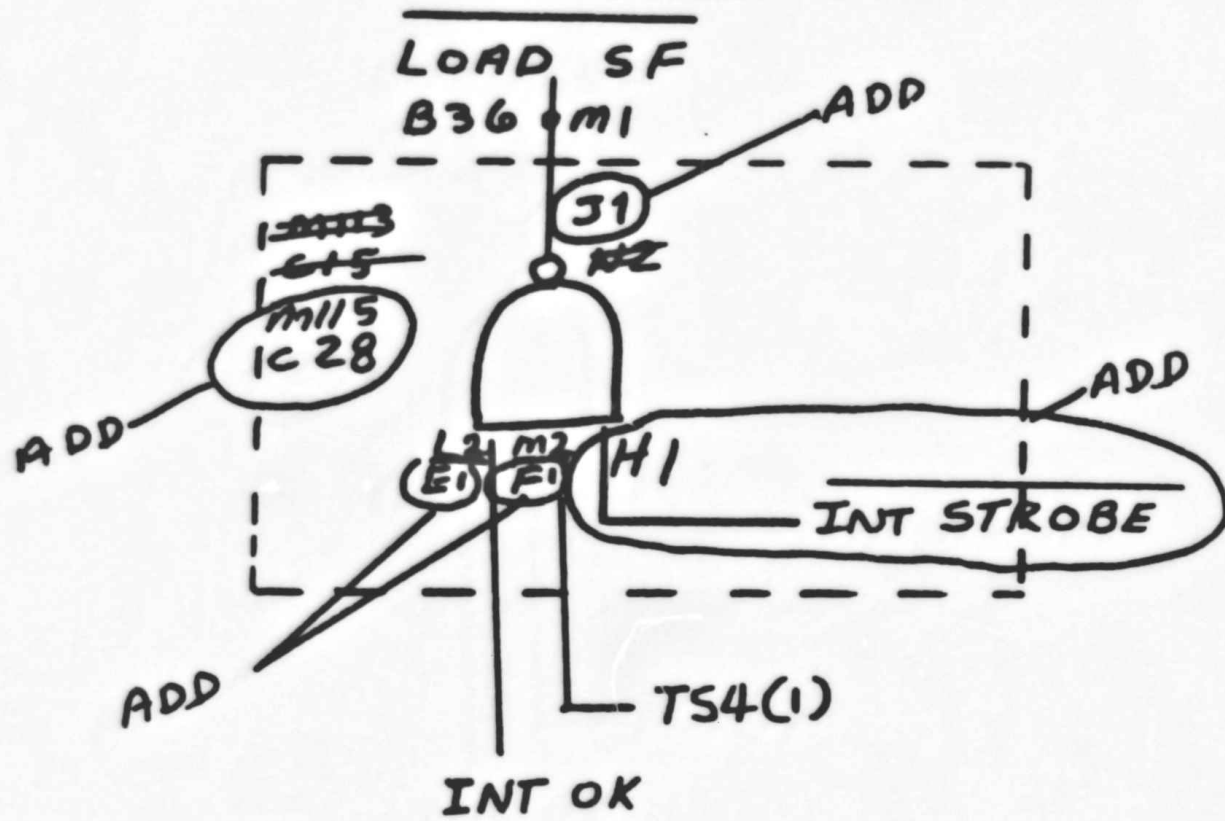
MADE BY ANC

CODE	SIZE	NUMBER	NEW REV LTR
WL	K-8L-0-19		Y

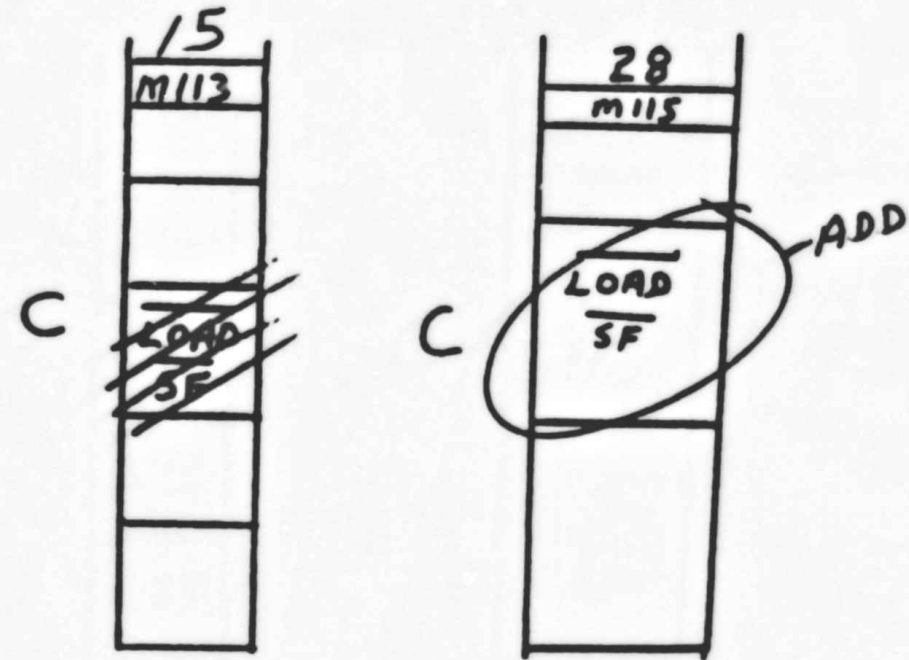
PDP8L-FCO-64



ECO # 8L-00088 D-BS-8L-0-2 NEW REV. M



ECO #8L-00088 D-BS-BL-0-17 NEW REV.C



ECO #8L-00088 D-MU-BL-0-18 NEW REV.J

PDP8L-PCD-66

ADD/DELETE SHEET
MAKE ALL DELETIONS FIRST

SHEET 2 OF 2
PAGE 1 OF 1

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	GND 36	B36C2	B36T1			X
		B36R2	B36L2		X	
		B36L2	B36J2		X	
		B36J2	B36F2		X	
		B36F2	B36C2		X	
		B36R2	B36T1		X	
		D36C2	D36C1			X
		D36R2	D36L2		X	
		D36L2	D36J2		X	
		D36J2	D36F2		X	
	↓	D36F2	D36C2		X	
	GND 36	D36R2	D36C1		X	

DRAWING NUMBER AFFECTED

ECO NUMBER 8L-00089

MADE BY OneB

CODE	SIZE	NUMBER	NEW REV LTR
WL	K-8L-0-19		Z

PDP8L-FCO-6A

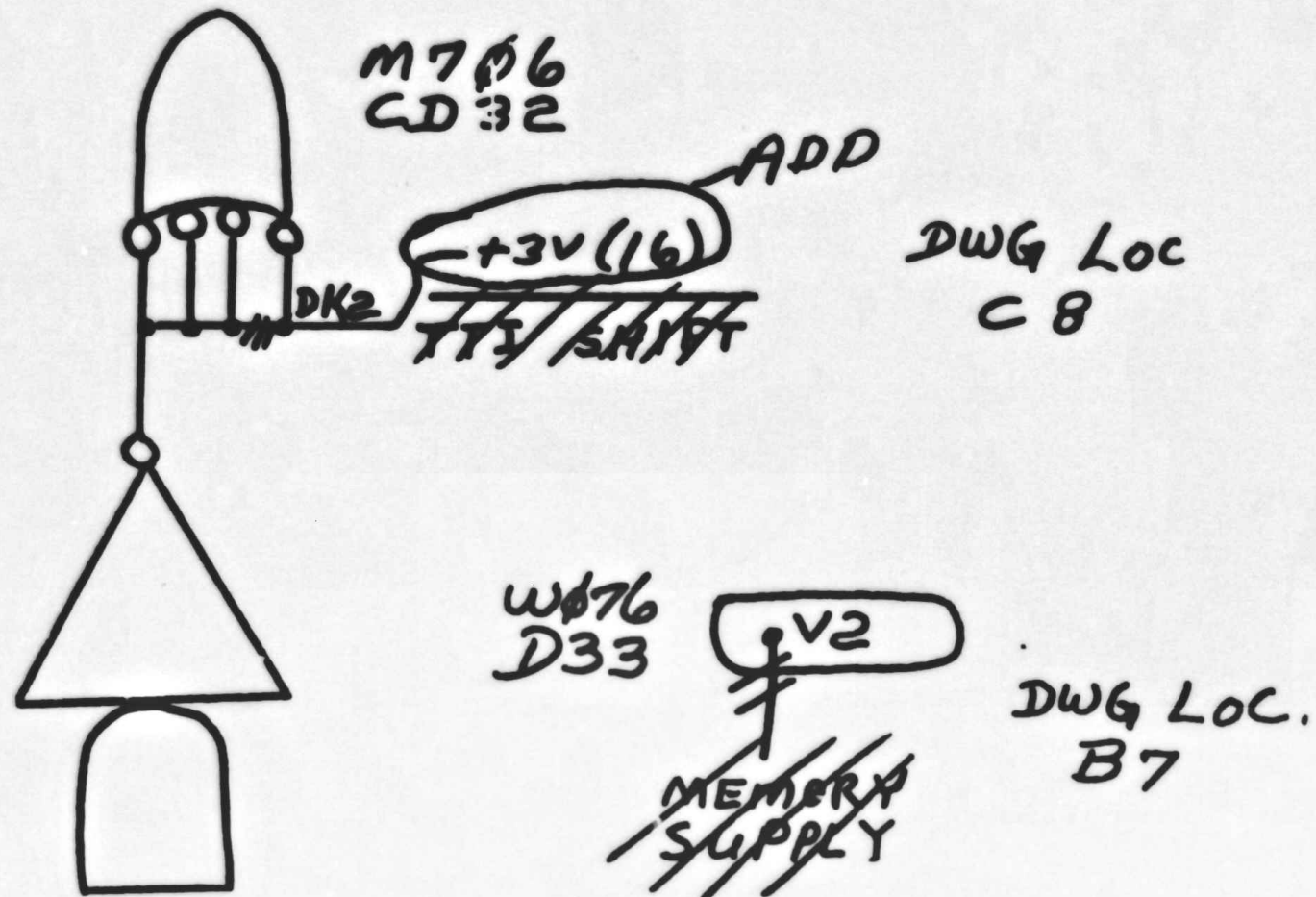
ADD/DELETE SHEET
MAKE ALL DELETIONS FIRST

SHEET 2 OF 3
PAGE 1 OF 1

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	+3V (16)	D32R1	D32K2		X	
	MEM SUPPLY -	B23V2	B24V2			X
	↓	B23V2	D33V2			X
		B23V2	B24V2		X	

ECO NUMBER <u>8L-00090</u>		DRAWING NUMBER AFFECTED		
MADE BY <u>ONB</u>	CODE	SIZE	NUMBER	NEW REV LTR
	WL	K-8L-0-19		AA

PDP8L-FCO-70



ECO # 8L-00090 D-BS-8L-0-11 NEW REV. B

digital EQUIPMENT CORPORATION ENGINEERING CHANGE ORDER

REC'D. BY INFO. SER.

MO.	DAY	YR.
1	23	70

 SPECO RELEASE

MO.	DAY	YR.
2	11	70

CHANGE NO. 8L-00091

TYPE OF CHANGE
 ELECTRICAL
 MECHANICAL
 MODULES

DOCUMENTATION PROJECT NUMBER

ACT | PRCS. LINE | TYPE OR DISCRETE NO.

2 | 17 | 0 | 7 | 5 | 4 | 4

MANUFACTURING PROJECT NUMBER

ACT | PRCS. LINE | TYPE OR DISCRETE NO.

| | | | | | |

UNIT NAME PDP-8L

MODEL NO. 8L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. _____ BY _____
 ESTIMATED TIME TO INSTALL _____
 PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

 SHOP MODEL AFFECTED

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

 SYSTEMS PROGRAMS AFFECTED

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

 DIAGNOSTIC PROGRAMS AFFECTED

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

 TECHNICAL PUBLICATIONS AFFECTED

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

BREAK-IN POINT (DATE/SERIAL NOS)

SERIAL NO. 2597 AND FUTURE
 IF POSITIVE BUS OPTIONS ARE FIELD INSTALLED

PROBLEM:

THE G717 (PULSE TERM INATOR MODULE.) IS USUALLY MISSING WHEN OPTIONS ARE INSTALLED ON THE 8L TO BUS.

CORRECTION:

INCLUDE THE G717 AS PART OF THE BASIC MACHINE.
 ADD IT TO THE 8L PARTS LIST AND MU.

DRAWINGS AFFECTED

NUMBER	OLD REV.	NEW REV.
A-PI-81-#-18	J	K
D-MU-81-#-18	J	K
A-MI-81-#	AV	AW

Field Service Code

F

ORIGINATOR _____ M. ARSENAULT _____ DATE 1/24/70
 PRODUCTION ENG. _____ W.R. MILLER _____ DATE 1/22/70
 DESIGN ENG. _____ M. ARSENAULT _____ DATE 1/21/70
 OTHER _____ F.J. PURCELL _____ DATE 1/21/70

PRODUCT LINES AFFECTED

digital EQUIPMENT CORPORATION

PARTS LIST ENGINEERING CHANGE ORDER

CHANGE NO. 8L-00091					
DOCUMENTATION PROJECT NUMBER					
ACT	PROD.LINE	TYPE		OR DISCRETE	
	2	7	0	7	5 4 4
MANUFACTURING PROJECT NUMBER					
ACT	PROD.LINE	TYPE		OR DISCRETE	

STOCK DISPOSITIONS CODE	ACTION TAKEN
SC=SCRAP RN=RETAIN	PARTS ADDED
RK=REWORK NC=NO CHANGE	NPO=NO PARTS ON ORDER
	POR=PARTS ON ORDER
	IS=PARTS IN STOCK

PRODUCTION ENGINEER W.R. MILLER

DESIGN ENGINEER M. ARSENAULT

PARTS DELETED

ITEM NO.	PART NO.	NO. DEL. PER UNIT	STOCK DISP.	DESCRIPTION

PARTS ADDED

ITEM NO	PART NO	NO REQD PER UNIT	DESCRIPTION	ACTION TAKEN
1	G717		RESISTOR TERMINATOR	

PDP8L-FCO-73

digital

A SPECIAL REVS

DATE: 2/4/70

ECCO NO. 8 L-00091

PAGE 1 OF 1

DRAWING NO	NEW REV	SERIAL NO.	OLD REV ADDCIP	SEPIA?
D-MU-8L-β-18	K	2597-----▶	J	YES
A-PL-8L-β-18	K	2597-----▶	J	YEW

PDP8L-FCO-74

SHEET 4 OF 4

SLOT D-36

ADDED

M903 *	
1 CABLE	2

* NOTE ADDED

ECO #BL-00091 DMU-BL-0-26 ^{NEW} REV K

PDP8L-FCO-75

digital EQUIPMENT CORPORATION
ENGINEERING CHANGE ORDER

REC'D. BY INFO. SER.	NO.	DAY	YR.	CHANGE NO. 8L-00106
SPECO RELEASE	10	14	70	
	10	20	70	ACT PRCD. LINE TYPE OR DISCRETE NO.
TYPE OF CHANGE				8 10 0 7 5 4 4
ELECTRICAL	<input checked="" type="checkbox"/>			MANUFACTURING PROJECT NUMBER
MECHANICAL	<input type="checkbox"/>			ACT PRCD. LINE TYPE OR DISCRETE NO.
MODULES	<input type="checkbox"/>			

UNIT NAME PDP-8L MODEL NO. _____

PREVIOUS OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. _____ BY _____

ESTIMATED TIME TO INSTALL 5 MINUTES

	YES	NO
PARTS ADDED OR DELETED IF YES REFER TO SEPARATE SHEET	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SHOP MODEL AFFECTED	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SYSTEMS PROGRAMS AFFECTED	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DIAGNOSTIC PROGRAMS AFFECTED	<input type="checkbox"/>	<input checked="" type="checkbox"/>
TECHNICAL PUBLICATIONS AFFECTED	<input type="checkbox"/>	<input checked="" type="checkbox"/>

BREAK-IN POINT
 (DATE/SERIAL NOS.)
 ALL 8L'S SER.#100 THRU 3124; 5000 THRU 5014 AND FUTURE. RETROFIT ALL SYSTEMS WITH DF32D OR TC08. PHASE IN ON ALL FUTURE 8L'S.

PROBLEM:

NO TERMINATION ON THE AC OR M.B. BITS ON THE IO BUS.

CORRECTION:

ADD TERMINATOR BOARDS M902-YA FOR THE MB BITS AND M902-YB FOR THE AC BITS.

DRAWINGS AFFECTED

NUMBER	OLD REV.	NEW REV.
A-PL-8L-1-18	K	L
D-MU-8L-1-18	K	L
A-MI-8L-1-18	BD	BE

Field Service Code

F

ORIGINATOR M. ARSENAULT DATE 10/2/70

PRODUCTION ENG. ALAN HIRSCH DATE 10/7/70

DESIGN ENG. M. ARSENAULT DATE 10/2/70

OTHER DAVE CHERTKOV; F.J.P.; A.G.K. DATE 10/2/70

PRODUCT LINES AFFECTED

8L

PDP8L-FCO-78

digital EQUIPMENT CORPORATION

PARTS LIST ENGINEERING CHANGE ORDER

CHANGE NO. 8L-00106					
DOCUMENTATION PROJECT NUMBER					
ACT	PROD.LINE	TYPE OR DISCRETE			
	8 10	0	1	5	4 6
MANUFACTURING PROJECT NUMBER					
ACT	PROD.LINE	TYPE OR DISCRETE			

STOCK DISPOSITIONS CODE	ACTION TAKEN
SC=SCRAP RN=RETAIN	PARTS ADDED
RK=PEWORK NC=NO CHANGE	NPO=NO PARTS ON ORDER
	POR=PARTS ON ORDER
	IS=PARTS IN STOCK

PRODUCTION ENGINEER	HIRSCH
DESIGN ENGINEER	M. ARSENAULT

PARTS DELETED

ITEM NO.	PART NO.	NO. DEL. PER UNIT	STOCK DISP.	DESCRIPTION
1	G717	1		RESISTOR TERMINATOR

PARTS ADDED

ITEM NO	PART NO	NO REQD PER UNIT	DESCRIPTION	ACTION TAKEN
1	M902-YA	1	RESISTOR TERMINATOR	
1	M902-YB	1	RESISTOR TERMINATOR	

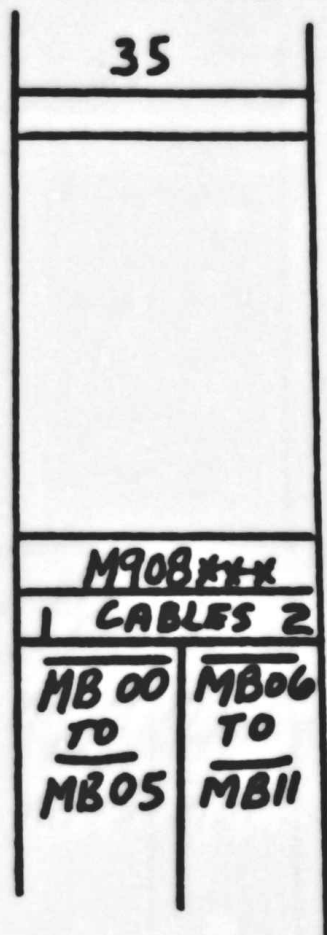
PDP8L-FCO-79

		QUANTITY VARIATION	
DWG NO./PART NO.	DESCRIPTION	PDP-8L	
GTM M902 YA	RESISTOR TERMINATOR	1	
M902 YB	RESISTOR TERMINATOR	1	

ADD SHEET 2 OF 2

ECO #8L-00106 A-PL-8L-0-18 NEW REV L

PDP8L-FCO-80



SHEET 2 OF 2

:::: THE ~~G11~~ ^{ADD} M902-YB (TERMINATOR) IS ALWAYS PLACED AT THE END
 OF THE IO BUS FOR IOP'S, ^{ADD} AC BITS AND ~~ADD~~ TIME STATES WHEN
^{ADD} 20 FEET OR MORE OF CABLE IS USED. WHEN THERE ARE NO
 OPTIONS THE ~~G11~~ ^{ADD} M902-YB IS PLACED IN LOCATION D36.

::::: THE M902-YA IS ALWAYS PLACED AT THE END OF THE IO BUS FOR ALL MB
 BITS WHEN 20 FEET OR MORE OF CABLE IS USED. WHEN THERE ARE NO
 OPTIONS THE M902-YA IS PLACED IN LOCATION D35.

ADD

digital**ENGINEERING CHANGE ORDER**ECO NO.
8L-00107

Sheet 1 of 2

ORIGINATOR ROBERT NUNLEY	RECEIVED CHG. DATE 12/14/70	ISSUED ECO DATE 12/28/70	FINAL RELEASE DATE 1/7/71	DISCRETE PROJECT NUMBER 80-05028
DATE 12/7/70	EXT. 2136			

EQUIPMENT AFFECTED

TYPE CHANGE	UNIT TO BE CHANGED	CHECKLIST	YES	NO
ELECTRICAL <input checked="" type="checkbox"/>	PDP-8L	SHOP MODEL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MECHANICAL <input type="checkbox"/>	PRODUCT LINES	SYSTEMS PROGRAMS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MODULE <input type="checkbox"/>		DIAGNOSTICS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SUBASSEMBLY <input type="checkbox"/>	PDP-8L	TECHNICAL PUB.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MFG/FIELD PROCEDURE <input type="checkbox"/>		TEST PROGRAMS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
TEST INFORMATION		TESTER	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SERIAL #		MFG/FIELD PROCEDURE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BY		PACKAGING INSTRUCTIONS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		TOOLING	<input type="checkbox"/>	<input checked="" type="checkbox"/>

BREAK IN POINT				SIGNIFICANCE	
SYSTEM	MODULE/OPTION	FIELD	RETROFIT	REWORK	CODE
	PDP-8L				06
					REQ. TO MEET SPECIFICATION <input type="checkbox"/>
					PROD. IMPROVEMENT <input type="checkbox"/>
					CUSTOMER/FIELD REQ. <input type="checkbox"/>
					FACILITATE MFG. <input type="checkbox"/>
					DRAWING CORRECTION <input checked="" type="checkbox"/>
					VENDOR <input type="checkbox"/>

PROBLEM ECO #8L-00062 DELETED PIN C04A1 FROM SIGNAL STROBE. THIS PIN IS SHOWN IN TWO PLACES ON DRAWING, AND SIGNAL NAME WAS ONLY CHANGE IN 1 PLACE.

FIELD SERVICE
CODED
F

CORRECTION REMOVE PIN C04A1 FROM STROBE AND ADD IT TO A35H1. PRINT CORRECTION ONLY.

APPROVAL

DESIGN ENGINEER	MEL ARSENAULT	ENG. MGR.	REMO VOGELSAK
PRODUCTION ENGINEER	ALAN HIRSCH	FIELD SERVICE (ADVISORY)	ROBERT NUNLEY
CHIEF ENGINEER			

PDP8L-FCO-82

digital

ENGINEERING CHANGE ORDER
DOCUMENT & MATERIAL
CHANGE

ECO NO.

8L-00107

SHEET 2 OF 2

	DOCUMENT/OR PART NUMBER	OLD REV	NEW REV	(PART NAME) DESCRIPTION OF CHANGE	DISP CODE
1	A-ML-8L-0	BE	BF	UPDATE REV FOR ITEM 2 OF THIS ECO	06
2	D-BS-8L-0-2	M	N	(TIMING, MANUAL FUNCTIONS AND RUN) DELETE PIN C04A1 FROM SIGNAL STROBE ZONE D-7	06

DISPOSITION CODES

USE UP PRESENT STOCK	01	RETROFIT TO BREAK-IN	05
USE PRESENT STOCK UNTIL NEW STOCK AVAILABLE	02	DOCUMENTATION CHANGE ONLY	06
REWORK ALL MATERIAL	03	NEW ITEM PURCHASE	07
REWORK UNTIL NEW STOCK AVAILABLE	04	NEW ITEM IN STOCK	09
		NEW ITEM ON ORDER	09
		RETAIN	00

PDP8L-FCO-83

digital**ENGINEERING CHANGE ORDER**ECO NO.
8L-00112

Sheet 1 of 3

ORIGINATOR LARRY NARHI	RECEIVED CHG. DATE	ISSUED ECO DATE	FINAL RELEASE DATE	DISCRETE PROJECT NUMBER
DATE EXT.				
5/27/71 3629	6/11/71	6/16/71	6/29/71	81 07160

EQUIPMENT AFFECTED

TYPE CHANGE	UNIT TO BE CHANGED	CHECKLIST	YES	NO
ELECTRICAL <input checked="" type="checkbox"/>	PDP-8L	SHOP MODEL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MECHANICAL <input type="checkbox"/>	PRODUCT LINES	SYSTEMS PROGRAMS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MODULE <input type="checkbox"/>		DIAGNOSTICS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SUBASSEMBLY <input type="checkbox"/>	PDP-8L	TECHNICAL PUB.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MFG/FIELD PROCEDURE <input type="checkbox"/>		TEST PROGRAMS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
TEST INFORMATION		TESTER	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SERIAL #		MFG/FIELD PROCEDURE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BY		PACKAGING INSTRUCTIONS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		TOOLING	<input type="checkbox"/>	<input checked="" type="checkbox"/>

BREAK IN POINT				SIGNIFICANCE	
SYSTEM	MODULE/OPTION	FIELD	RETROFIT	REWORK	CODE
	PDP-8L		RETROFIT <u>ONLY</u> AT REQUEST AND EXPENSE CUSTOMER.		01
					REQ. TO MEET SPECIFICATION <input type="checkbox"/>
					PROD. IMPROVEMENT <input type="checkbox"/>
					CUSTOMER/FIELD REQ. <input checked="" type="checkbox"/>
					FACILITATE MFG. <input type="checkbox"/>
					DRAWING CORRECTION <input type="checkbox"/>
					VENDOR <input type="checkbox"/>

PROBLEM WHEN CLEARING TTY KEYBOARD FLAG, READER RUN IS SET, CAUSING TYPE TO ADVANCE THIS IS UNDESIRABLE IN SOME PROGRAMMING SITUATIONS.

CORRECTION CLEAR FLAG WITH IOP4 (READ BUFFER) AND SET READER RUN WITH IOP2. THIS ECO TO BE INSTALLED ONLY AT CUSTOMER REQUEST.

APPROVAL

DESIGN ENGINEER	M. ARSENAULT	5/27/71	ENG. MGR.	R. VOGELSANG
PRODUCTION ENGINEER	T. MACDONALD		FIELD SERVICE (ADVISORY)	R. NUNLEY
CHIEF ENGINEER				

PDP8L-ECO-84

digital

ENGINEERING CHANGE ORDER
DOCUMENT & MATERIAL
CHANGE

ECO NO.

8L-00112

SHEET 2 OF 3

	DOCUMENT/OR PART NUMBER	OLD REV	NEW REV	(PART NAME) DESCRIPTION OF CHANGE	DISP CODE
1	D-BS-8L-0-11	B	C	ADD FOLLOWING NOTE: TO ALLOW IOP4 TO CLEAR KEYBOARD FLAG: DELETE D32D1 TO GND DELETE C32E2 TO C32V2 ADD D32D1 TO C32V1 ADD C32V2 TO D32E2	06
2	A-ML-8L-0	BK	BL	UPDATE REVS PER THIS ECO	06

DISPOSITION CODES

USE UP PRESENT STOCK	01	RETROFIT TO BREAK-IN	05
USE PRESENT STOCK UNTIL NEW STOCK AVAILABLE	02	DOCUMENTATION CHANGE ONLY	06
REWORK ALL MATERIAL	03	NEW ITEM PURCHASE	07
REWORK UNTIL NEW STOCK AVAILABLE	04	NEW ITEM IN STOCK	09
		NEW ITEM ON ORDER	09
		RETAIN	00

PDP8L-FCO-85

digital**ENGINEERING CHANGE ORDER**ECO NO.
8L-00113
Sheet 1 of 3

ORIGINATOR ED REED	RECEIVED CHG. DATE 6/18/71	ISSUED ECO DATE	FINAL RELEASE DATE 7/22/71	DISCRETE PROJECT NUMBER 99 06224
DATE 6/15/71	EXT. 2174			

EQUIPMENT AFFECTED

TYPE CHANGE	UNIT TO BE CHANGED	CHECKLIST	YES	NO
ELECTRICAL <input checked="" type="checkbox"/>	PDP-8L	SHOP MODEL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MECHANICAL <input type="checkbox"/>	PRODUCT LINES	SYSTEMS PROGRAMS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MODULE <input type="checkbox"/>		DIAGNOSTICS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SUBASSEMBLY <input type="checkbox"/>	TPL	TECHNICAL PUB.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MFG/FIELD PROCEDURE <input type="checkbox"/>		TEST PROGRAMS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
TEST INFORMATION		TESTER	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SERIAL # 2818		MFG/FIELD PROCEDURE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BY ED REED		PACKAGING INSTRUCTIONS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		TOOLING	<input type="checkbox"/>	<input checked="" type="checkbox"/>

BREAK IN POINT				SIGNIFICANCE	
SYSTEM	MODULE/OPTION	FIELD	RETROFIT	REWORK	CODE
	8L	ONLY WHEN A BM8-L MEMORY EXPANSION IS INSTALLED.		X	

PROBLEM

EXTENDED ADDRESS BITS "0" AND "1" ARE OPEN COLLECTOR AND HAVE NO PULLUP RESISTORS WHEN A BM8-L IS INSTALLED.

CORRECTION

WIRE IN CLAMP LOADS WHICH ARE AVAILABLE IN THE PDP-8L.

APPROVAL

DESIGN ENGINEER _____ J. MILTON _____ ENG. MGR. _____

PRODUCTION ENGINEER _____ R. REED _____ FIELD SERVICE (ADVISORY) _____

CHIEF ENGINEER _____ R. NUNLEY _____

PDP8L-FCO-87

digital

ENGINEERING CHANGE ORDER
DOCUMENT & MATERIAL
CHANGE

ECO NO.

8L-00113

SHEET 2 OF 3

	DOCUMENT/OR PART NUMBER	OLD REV	NEW REV	(PART NAME) DESCRIPTION OF CHANGE	DISP CODE
1	A-ML-8L-0	BL	BM	UPDATE PER ITEMS THROUGH 5	06
2	K-WL-8L-019	AD	AE	SEE MARKED PRINT	06
3	D-BS-8L-0-10	C	D	MAKE FOLLOWING ADDITIONS TO LOCATION B-2 ON THE PRINT: CLAMP -LOAD- M906, B33T2 TO CABLE-M903, C35T2; AND CLAMP- LOAD-M906, B33V2 TO CABLE- M903, C35V2.	06
4	D-MU-8L-0-18	M	N	UPDATE PER ITEM 3	06
5	A-PL-8L-0-18	M	N	UPDATE REV PER ITEM 4.	06

DISPOSITION CODES

USE UP PRESENT STOCK	01	RETROFIT TO BREAK-IN	05
USE PRESENT STOCK UNTIL NEW STOCK AVAILABLE	02	DOCUMENTATION CHANGE ONLY	06
REWORK ALL MATERIAL	03	NEW ITEM PURCHASE	07
REWORK UNTIL NEW STOCK AVAILABLE	04	NEW ITEM IN STOCK	09
		NEW ITEM ON ORDER	09
		RETAIN	00

PDP8L-FCO-88

TECH.
TRIPS.

digital	FIELD SERVICE TECHNICAL MANUAL				Option or Designator
	12 Bit <input checked="" type="checkbox"/>	16 Bit <input type="checkbox"/>	18 Bit <input type="checkbox"/>	36 Bit <input type="checkbox"/>	PDP-8L

Title <u>BUFFERING OF POWER CLEAR</u>				Tech Tip PDP-8L TT#1	
				Number	
Processor Applicability		Author Robert Nunley	Rev #	Cross Reference	
All		Approval W. Cummins	Date 7-31-72		

The Power Clear signal run, generated at A25S2 is overloaded beyond engineering specs. However, because we use the level rather than transition, this overload is acceptable in most machines. In the rest, due to component age and component individual characteristics, weird unexplainable things might happen with any or all of the following symptoms.

1. Intermittent halt when none was programmed (not to be confused with loss of timing where run is on but there is no control of the machine) where run is cleared as if the halt key was actuated.
2. Intermittent loss of data where one memory cell is changed to 0000.
3. Intermittent clearing of flags and/or buffers in I/O devices (not connected to a DM01).

If any of these symptoms occur it is possible that the cause is the power clear run.

If a glitch appears on power clear this is what can happen:

1. If the glitch appears before TP3 but after TP2 memory control flops will be cleared and as a result one memory location will be cleared, but the MB will have the correct data this time. TP3 will then set RUN and the program should resume normal flow (until the zero's are reached again).
2. If the glitch appears after TP3 the effect is as if the SS key is pressed.
3. Depending on where the glitch occurs between MEM start and strobe governs whether or not a read is done at all, or a strobe is generated.
4. If the glitch appears in the 8L of amplitude and duration enough to cause any of the above, it will be felt on the I/O bus and cause the same type intermittent problems.

To buffer Power Clear: break the Power Clear run at A27S2 but maintain the other end (could go to D16A1 or B13R1 depending on the vintage of the 8L).

Add A27S2 to C27E2
 Add C27J2 to other end of wire deleted in the first step.
 Add 220 ohm 1/4W pull up

C27J2 to +5V

This gives a drive of about 100 load units for the Power Clear run.

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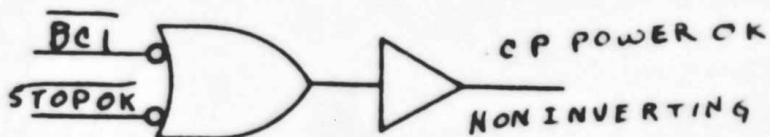
PDP8L-TT-1

Title PRINT CORRECTIONS IN 8L				Tech Tip Number PDP-8L TT #2		
All	Processor Applicability			Author Robert Nunley	Rev 0	Cross Reference
	8L			Approval W. Cummins	Date 7-31-72	

There are errors in the 8L print set not in Logic Gating but in signal names and generation. Two of these errors have been corrected by ECO's which will be coded "P" therefore will not be distributed to the field.

The corrections are:

1. Drawing No. D-BS-8L- β -2 coordinates D-7 direct clear of TS1 is not ~~strobe~~, but the "OR" function of ~~POWER CLEAR + STROBE~~. The signal comes from Inverter M11 at A35H1. (This gating was generated by ECO 8L-00045, ECO 8L-00059, ECO 8L-00062.) Direct Clear of TS1 should now be called "A35H1."
2. Drawing number D-BS-8L- β -13 coordinates B-6 generation of "CP Power OK." The logic works correctly but should be drawn like this.



Title 8L ECO 00045, 00056 ERROR				Tech Tip Number PDP8/L TT#3		
All	Processor Applicability			Author Art Newbury	Rev 0	Cross Reference
	8L			Approval W.E. Cummins	Date	

Another ECO will be generated to effect correction of an error which exists with respect to ECO's 8L #00045 and 00056. The schematic which is part of the Speco for 8L 00056, shows correctly that there are three inputs to the M15 which is added in slot C28. The Add/Delete sheet, however, fails to include the wiring of the TS4 (β) input to C28B1. The following Add will resolve the problem:

C28B1 to C~~2~~4V1

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PDP8L-TT-2

digital	FIELD SERVICE TECHNICAL MANUAL				Option or Designator
	12 Bit <input checked="" type="checkbox"/>	16 Bit <input type="checkbox"/>	18 Bit <input type="checkbox"/>	36 Bit <input type="checkbox"/>	PDP-8L

Title 3 CYCLE BREAK INTERMITTENT				Tech Tip Number PDP8L-TT-4		
All	Processor Applicability			Author S. Lamotte	Rev 0	Cross Reference
	8L			Approval W.E.Cummins	Date Aug 15	

PROBLEM: 3 Cycle break devices, with cables over 15ft. in length, have displayed a problem of intermittently not setting "Break". This is caused by "Ext 3 cycle L" being noisy at the processor. This condition brings up WC Set, when it shouldn't be there.

FIX: Ground "ext 3 cycle L" signal at processor, A34V2 B34C2

This Tech Tip apply's only to systems with 3 cycle break options, and no 1 cycle break devices.

Title 8L FUSE RATINGS				Tech Tip Number PDP8L-TT#5		
All	Processor Applicability			Author W. Freeman	Rev 0	Cross Reference
	8L			Approval W.Cummins	Date 12/1/73	

Because of the complaints about the 5 amp fuse in the +5 volt line (F-3) in the 718 power supply, an investigation was undertaken. The following facts have been revealed:

- 1) The PDP-8L draws six amps on the +5 volt line under full load conditions.
- 2) This load will occasionally blow the 5 amp fuse (F-3)
- 3) The other two fuse ratings were found to be correct.

It was found that the use of a 6 amp fuse for F-3 produced reliable operation. An ECO for changing this specification (#718-00007) is being prepared for distribution. This will be a permanent change for all 718 power supplies. The proper fuse ratings for the 718 power supply are:

F-1	15 amp slow blow
F-2	4 amp slow blow
F-3	6 amp common

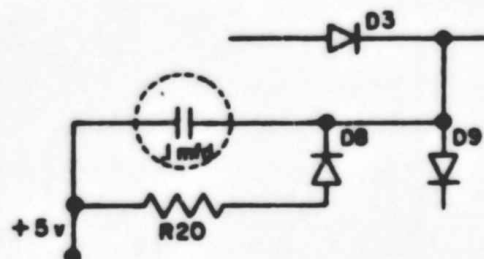
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PDP8L-TT-3

Title					Tech Tip				
8L AFFECTED BY EXTERNAL NOISE					Number PDP8L-TT-7				
Processor Applicability					Author W. Freeman				
All					Rev g				
8L					Approval W. E. Cummins				
					Date 11/14/73				
					Cross Reference				

TECH TIP NUMBER PDP8L-TT-6
WAS NEVER PUBLISHED.

If external noise from surrounding equipment is affecting an 8L, the installation of a .1 mfd. capacitor on the G785 module as shown in the schematic below will resolve the problem.



Mel Arsenault

March 1969

Approximately 150 8/L's have been shipped to the field with the capacitor connected to the base of Q1 rather than the junction of D3, D8, and D9. A symptom indicative of this condition is random stopping in the run state, all switch functions inoperative and inability to restart except following a power-down, power-up operation.

Title					Tech Tip				
B RUN NOISE					Number PDP8L-TT-8				
Processor Applicability					Author W. Freeman				
All					Rev g				
8L					Approval W. Cummins				
					Date 12/05/73				
					Cross Reference				

B RUN NOISE

It has been found that ground noise caused by the MB bits is causing B RUN to move. The noise can be eliminated by tying the emitters of all the transistors on the M623 together.

ECO's M623 - 00001 and 00002 implement this solution.

Title					Tech Tip				
DOUBLE SELECTION OF G221					Number PDP8L-TT -9				
Processor Applicability					Author W. Freeman				
All					Rev g				
8I 8L					Approval W. E. Cummins				
					Date 12/05/73				
					Cross Reference				
					G221-TT-1				

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PDP8L-TT-4

Title CONVERSION FROM TTY TO LA36, .20MA CURRENT LOOP		Tech Tip Number PDP8L-TT-10	
Author R. LANE/H. KESSELMAN	F.S. Office MAYNARD	Date 3.14.78	Revision 0
Processor Applicability		Mgr./Sup. R. ALVAREZ	Date 3.14.78
All		Approval:	Date
			LA36-TT-19

THIS TECH TIP IS FOR CROSS REFERENCE ONLY.

PDP8L-TT-5