PDP-8L

TECHNICAL INFORMATION

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EP-PDP8L-TI-C

FICHE 1 OF 1

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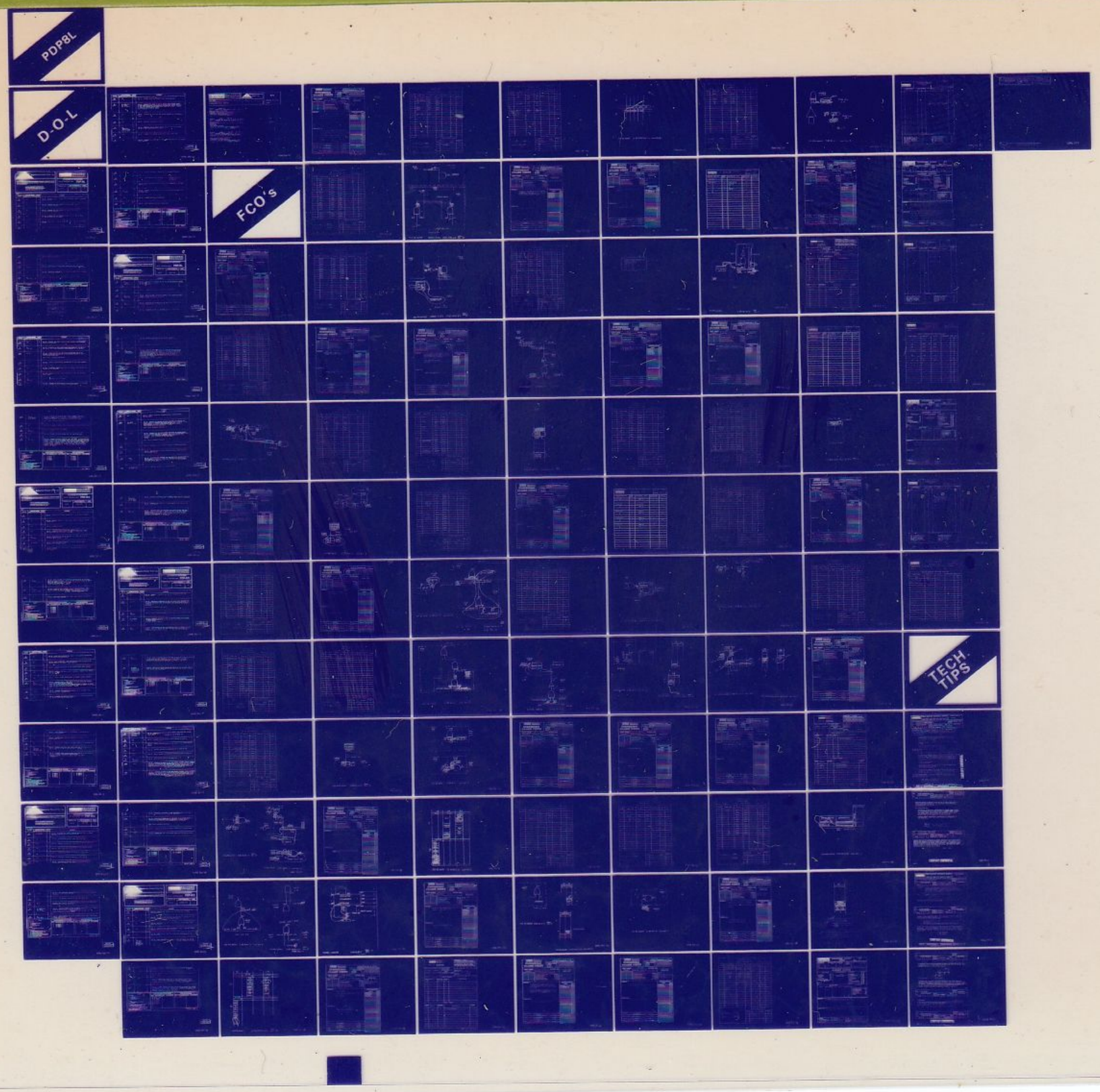

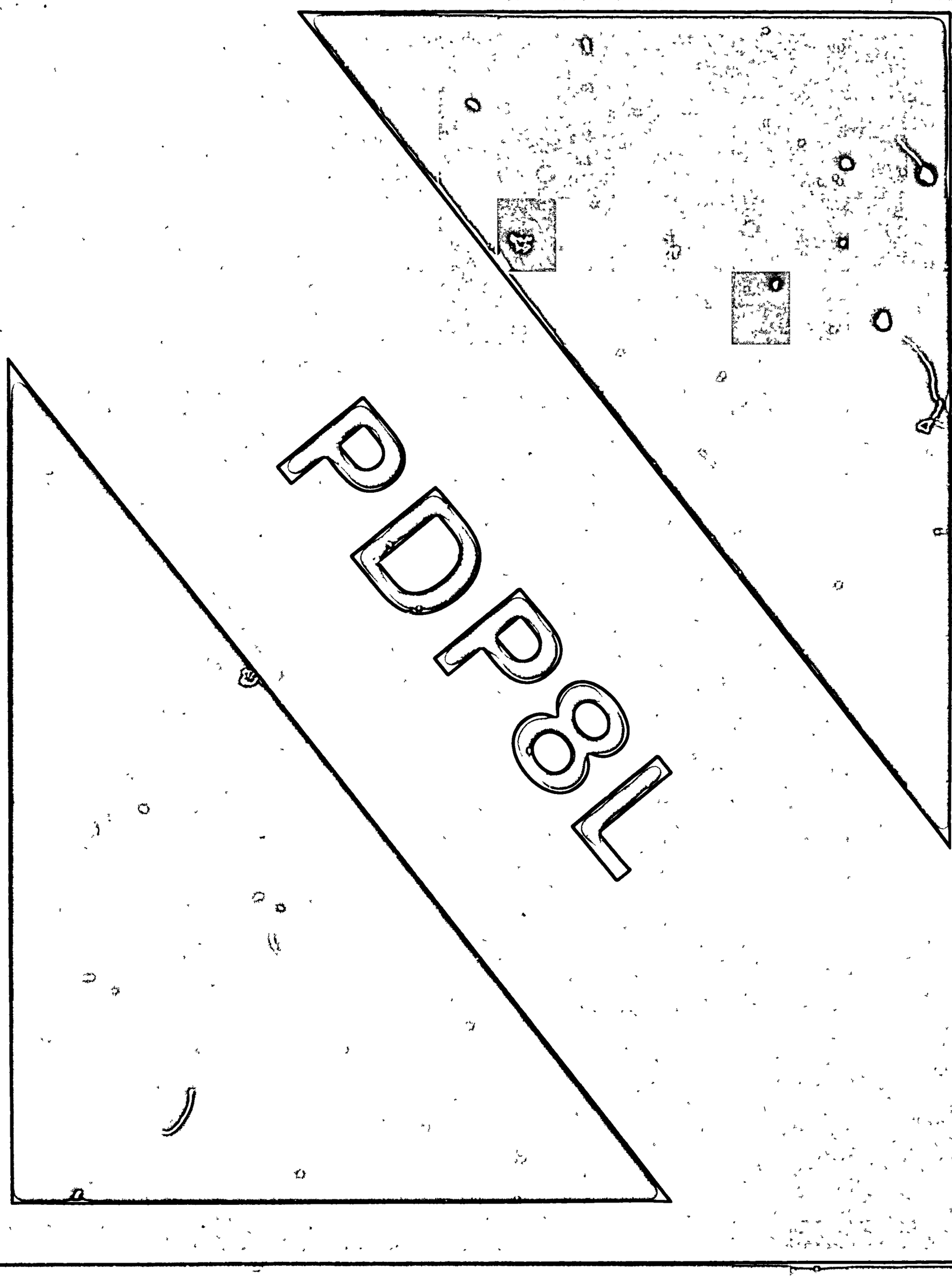
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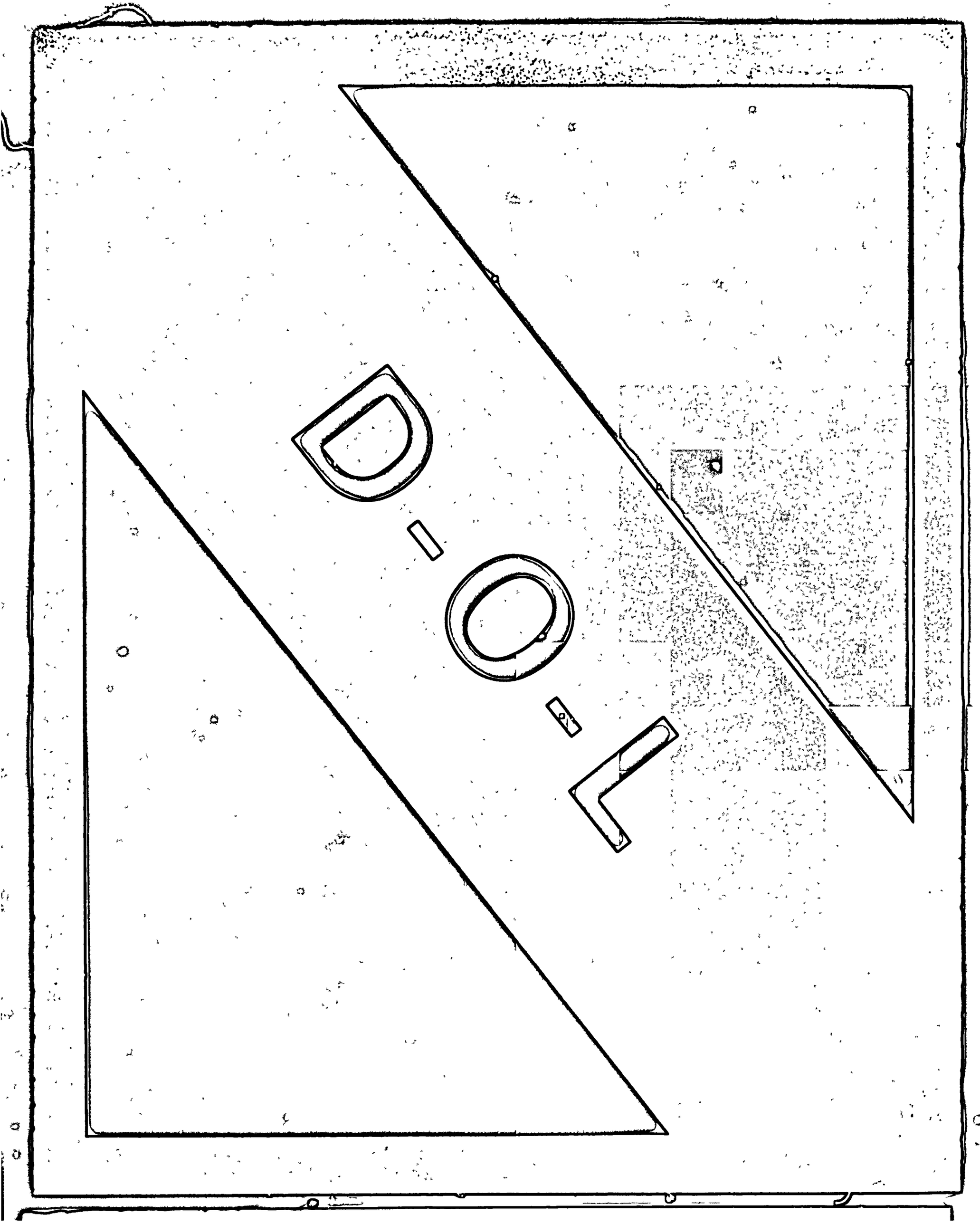

Engineering Change Order Log

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EQUIPMENT CORPORATION
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ECO SYNOPSES FOR LOGIC OR OPTION

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

PRODUCT LINE	PUBLICATION DATE OF THIS SYNOPSIS PAGE	PAGE REVISION
PDP-8L	JUNE 1970	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

THIS PAGE CONTINUED AND OR ENLARGED BELOW

8L 00007	>8L	M	SEP 68 - ADDS AN INSTRUCTION FOR PREPARATION OF THE SWITCH MOUNTING HOLE IN THE INDICATOR PANEL.
8L 00008	>8L	M	OCT 68 - ADDS RIVNUT CLEARANCE IN THE WIRING BLOCK.
8L 00009	8L 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.
8L 00010	>8L	M	OCT 68 - SPECIFIES TRIMMING OF THE INDICATOR PANEL SWITCH OPENING TO FACILITATE INSTALLATION.
8L 00011	8L 100-199>	P	OCT 68 - PROVIDES A DESIGN UPDATING OF THE 8L 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

Charges are coded within the synopsis. (*SX,**SV,***SZ)
SX = Charge for labor and updated prints only
SV = Charge for necessary parts only
SZ = Charge for on site labor only. Installation by DEC

NOTE: Charges are additive (SX+SV+SZ = Total) on the change for ECO installation by DEC)

MASTER DRAWING LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
A	8L-00009		
B	8L-00011		

WIRE LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
A	8L-00009		
B	8L-00011		

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.

THIS PAGE CONTINUED FROM FRAME ABOVE

ECO NO.	LEVEL AFFECTED	FIELD CODE	SYNOPSIS
8L 00012	>8L	M	OCT 68 - CHANGES THE SUPER CHASSIS COVER MATERIAL FROM EMBOSSED STEEL TO PLAIN STEEL.
8L 00013	8L 100-199>	F	OCT 68 - CORRECTS AN IOP 4 RACE CONDITION CAUSED BY "I/O GN (1)" AND "IOP C (8)" BEING GENERATED SIMULTANEOUSLY BY I/O ROTATE.
8221 00001	ALL 8L	F	OCT 68 - SPECIFIES THAT ALL DEC 65348 TRANSISTORS ARE TO BE CHANGED TO DEC 2984 TO PROVIDE MORE DEPENDABLE OPERATION UNDER HIGH VOLTAGE CONDITIONS. 8221 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.

THIS PAGE CONTINUED AND OR ENLARGED BELOW

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

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SYMBOL

>= ECO applicable to future production

ECO CHARGES

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SX = Charge for Spares and updated prints only
SY = Charge for necessary parts only
SZ = Charge for on site labor only, installation by DEC
NOTE: Charges are statistics SX+SY+SZ = Total on one change 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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EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ECO SYNOPSIS FOR LOGIC OR OPTION

PDP-8L PROCESSON LOGIC **PDP-8/L**

PRODUCT LINE	PUBLICATION DATE OF THIS SYNOPSIS PAGE	PAGE REVISION
PDP-8L	JUNE 1970	8

R643

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

THIS PAGE CONTINUED AND OR ENLARGED BELOW

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. *$5.00 (ERROR CORRECTED BY ECO 8I-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

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M = Mechanical ECO

SYMBOL

>= ECO applicable to future production

ECO CHANGES

Changes are coded within the synopsis. (*8X,**8Y,***8Z)
8X = Change for Issue and updated prints only
8Y = Change for necessary parts only
8Z = Change for or ship label only, installation by DSC
NOTE: Changes are additive (8X+8Y+8Z = 1 req) on the change for ECO verification by DSC)

MASTER DRAWING LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
H	8L-00023		
J	8L-00025		
K	8L-00026		
L	8L-00027		
M	8L-00028		
N	8L-00030		

WIRE LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
H	8L-00027		
J	8L-00030		

THIS PAGE CONTINUED FROM FRAME ABOVE

ECO NO.	[illegible] AFFECTED	FIELD CODE	SYNOPSIS
8L 00033	>8L	M	FEB 69 - ADDS HOLE PUNCHING AND INSERT INSTALLATION INSTRUCTIONS TO THE CABLE RETAINER DRAWING.
8L 00034	>8L	M	FEB 69 - ADDS DIMENSIONS, HOLE PUNCHING AND INSERT INSTALLATION INSTRUCTIONS TO THE CHASSIS FRAME DRAWINGS.
8L 0035	>8L	M	FEB 69 - CHANGES DIMENSIONS ON THE CHASSIS SUPER COVER DRAWING.
8L 00036	>8L	M	FEB 69 - CORRECTS THE PARTS LIST TO INCLUDE A CORRECT PART NUMBER FOR FOAM BACK. 46.
8L 00037	>8L	M	FEB 69 - ADDS A WELDED CORNER BRACE TO PREVENT CHASSIS MOVEMENT.
8L 00038	8L 693> ALL WITH BA08	F	FEB 69 - CHANGES LOGIC, POWER SUPPLY AND 0826 REGULATOR CONTROL TO ELIMINATE POWER ON-OFF PROBLEMS. NOTE: THE CHANGE NUMBER ON THE SPECO FACE SHEET IS 00036 IN ERROR. NOTE: THE NET EFFECT OF ECO'S 8L-00030, 00031 AND 00038 IS TWO "ADDS" A28E1 TO B36T2 AND B27F2 TO B36S2. •85.00
8L 00039	>8L	P	MAR 69 - CHANGES THE DRAWING FOR BRACKET #2 TO INCLUDE A PEM STUD RATHER THAN A WELDED STUD.
8L 00040	>8L	P	MAR 69 - CHANGES THE DRAWING FOR BRACKET #1 TO INDICATE PUNCHING AND INSERT INSTALLATION DIRECTIONS.

THIS PAGE CONTINUED AND OR ENLARGED BELOW

8L 00041	>8L	M	MAR 69 - ADDS INSTRUCTIONS FOR THE BONDING OF THE DECORATIVE CASING TO THE CHASSIS.
8L 00042	>8L	M	MAR 69 - REVISES BEZEL DRAWING DIMENSIONS TO AGREE WITH THE MANUFACTURED BEZEL.
8L 00043	>8L	M	MAR 69 - ADDS A METAL BORDER TO THE HEX SCREEN FOR A STRONGER WELD.
8L 00044	8L 100-720> ALL WITH MP8L	F	MAR 69 - CHANGES "MP SKIP" GATE INPUT FROM THE "1" SIDE OF THE PARITY ERROR FLIP-FLOP TO THE "0" SIDE. $5.00
8L 00045	8L 1000>	F	APR 69 - CHANGES LOGIC TO ALLOW FAST FLAG TESTING IN PERIPHERALS. THIS IS A PRODUCT IMPROVEMENT MODIFICATION. (ERRORS CORRECTED BY ECO'S 8L-00056, 00059 AND 00060) $5.00

LEGEND

FIELD CODE

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D = Design ECO
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M = Mechanical ECO

SYMBOL

>= ECO applicable to future production

ECO CHARGES

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$Z = Charge for on site labor only, installation by DEC
NOTE: Charges are additive ($X+$Y+$Z = Total) on the charge for ECO installation by DEC

MASTER DRAWING LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
P	8L-00036		
R	8L-00038		
S	8L-00044		
T	8L-00045		

WIRE LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
K	8L-00038		
L	8L-00044		
M	8L-00045		

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

PRODUCT LINE	PUBLICATION DATE OF THIS SYNOPSIS PAGE	PAGE REVISION
PDP-8L	JUNE 1970	0

0170 R628

ECO NO.	LOGIC OR OPTION SERIAL NO.'S AFFECTED	FIELD CODE	SYNOPSIS
8L 00846	AS ORDERED	M	APR 69 - PROVIDES THE SPECIAL ARTWORK REQUIRED FOR A CUSTOMER REQUESTED VARIATION TO THE CONTROL PANEL.
8L 00847	>8L	M	APR 69 - STANDARDIZES CHASSIS SLIDE SPECIFICATIONS.
8L 00848	N.A.	P	MAY 69 - ADDS AN IN-PLANT TEST PROCEDURE TO THE 8L PRINT SET.
8L 00849	>8L	M	MAY 69 - ADDS A SHIPPING LOCK FEATURE TO THE CHASSIS SLIDES.
8L 00850	>8L	M	MAY 69 - REDUCES THE HEIGHT OF THE 1-3/4" FILLER PANEL.
8L 00851	N.A.	P	MAY 69 - CORRECTS A DRAFTING ERROR ON A PP8L PRINT.
8L 00852	>8L	M	MAY 69 - REPLACES AN ALUMINUM ANGLE ON THE SUPER BOX WITH A PLASTIC STRIP TO PREVENT THE MARRING OF TABLE SURFACES.

THIS PAGE CONTINUED AND OR ENLARGED BELOW

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 #761 ONLY	D	JUN 69 - ADDS CUSTOMER-REQUESTED JMS/0000 SWITCH LOGIC AND "PAUSE" TIMING MODIFICATION.

LEGEND

FIELD CODE

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M = Mushroomed ECO

SYMBOL

> = ECO applicable to future production

ECO CHARGES

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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
U	8L-00046		
V	8L-00047		
W	8L-00048		
Y	8L-00056		

WIRE LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
N	8L-00056		

THIS PAGE CONTINUED FROM FRAME ABOVE

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 TOGGLING 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 B13R1 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.

THIS PAGE CONTINUED AND OR ENLARGED BELOW

8L 00065	>8L	M	JUL 69 - DELETES 90-DEGREE CORNERS ON THE PLEXIGLAS® SUPPORT.
8L 00066	N.A.	P	AUG 69 - ADDS ACCESSORY AND SOFTWARE LISTS TO THE 8L PRINT SET.
8L 00067	N.A.	P	AUG 69 - ADDS ENGINEERING SPECIFICATION TEST PROCEDURE TO THE MP8L PRINT SET.
8L 00068	8L 1-1429>	F	AUG 69 - CHANGES THE POLARITY OF "INITIALIZE" ON THE 8L BUS TO BE 8I COMPATIBLE.
8L 00069	N.A.	M	AUG 69 - CHANGES DRILLING INSTRUCTIONS.
8L 00070	N.A.	M	SEP 69 - ADDS CHAD BOX GLUEING INSTRUCTIONS.

LEGEND

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MASTER DRAWING LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
Z	8L-00059		
AA	8L-00062		
AB	M9608-00001		
AC	8L-00063		
AD	8L-00066		
AE	8L-00068		

WIRE LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
P	8L-00059		
R	8L-00062		
S	8L-00068		

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ECO SYNOPSES FOR LOGIC OR OPTION

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

PRODUCT LINE	PUBLICATION DATE OF THIS SYNOPSIS PAGE	PAGE REVISION
PDP-8L	JULY 1970	0

199 R5349

ECO NO.	LOGIC OR OPTION SERIAL NO.'S AFFECTED	FIELD CODE	SYNOPSIS
8L 00071	8L 1-1911> G826 REV F>	F	SEP 69 - SPECIFIES THE REMOVAL OF THE BUS BETWEEN B2782 AND B2882 TO ELIMINATE BOTH -15V SUPPLIES BEING SHORTED TOGETHER BY A JUMPER ON THE G826 MODULE. •$5.00
8L 00072	N.A.	M	SEP 69 - CHANGES THE FAN PART NUMBER AND ITS MOUNTING.
8L 00073	8L WITH 761 LOGIC ONLY	D	SEP 69 - MAKES CUSTOMER-REQUESTED CHANGES TO 8L SYSTEM #754 ONLY. ALLOWS A SWITCH TO FORCE A JMS TO 0000 AND HOLDS THE PAUSE FLIP-FLOP ON FOR 1.5 USEC DURING AN IOT CYCLE.
8L 00074	8L 100-1912>	F	SEP 69 - SPECIFIES THE INSTALLATION OF ADDITIONAL GROUND WIRES TO ELIMINATE RANDOM MACHINE PROBLEMS. •$5.00
8L 00075	>8L	M	OCT 69 - ELONGATES A HOLE IN THE FRAME TO FACILITATE MOUNTING OF THE 718 POWER SUPPLY WITHIN THE CHASSIS.

THIS PAGE CONTINUED AND OR ENLARGED BELOW

8L 00076	>8L	M	OCT 69 - CORRECTS THE MOUNTING BAR ASSEMBLY DRAWING TO INDICATE THE REQUIRED QUANTITIES OF MECHANICAL HARDWARE.
8L 00077	N.A.	M	OCT 69 - CHANGES A HOLE DIMENSION IN THE SHIPPING CRATE.
8L 00078	8L 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 8L-00056; THE INSTALLATION OF THAT MODULE IS NECESSARY FOR PROPER MACHINE OPERATION FOLLOWING IMPLEMENTATION OF THIS ECO. *$5.00 (ERROR CORRECTED BY ECO 8L-00083)

LEGEND

FIELD CODE

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SYMBOL

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MASTER DRAWING LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
AF	8L-00071		
AH	MISC-00031		
AJ	8L-00072		
AK	8L-00074		
AL	8L-00076		
AM	8L-00078		

WIRE LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
T	8L-00078		

THIS PAGE CONTINUED FROM FRAME ABOVE

	OR OPTION IS AFFECTED	FIELD CODE	SYNOPSIS
8L 00079	>8L	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
8L 00080	>8L	M	NOV 69 - ENLARGES HOLES TO ALLOW SWITCHES TO OPERATE MORE FREELY.
8L 00081	>8L	M	NOV 69 - REMOVES CAPTIVE SCREWS FROM THE CHASSIS FRAME AND ADDS LOCK WASHERS INSTEAD.
BA08 00027	BA08 1-589> ALL 8L	F	NOV 69 - RE-ROUTES THE "PWR OK" RUN AND SPECIFIES REVISED G785 AND G826 MODULES TO RESOLVE A POWER FAIL PROBLEM WITH EXTRA MEMORY. BOTH BA08 AND 8L MUST HAVE G785 REVISION "E" OR LATER AND G826 REVISION "H" OR LATER.
8L 00082	8L SYSTEM #754 8L LOGIC #761	D	NOV 69 - MDIFIES IOP LOGIC AT CUSTOMER REQUEST.

THIS PAGE CONTINUED AND OR ENLARGED BELOW

8L 00083	8L 1000-2054> ALL 8L WITH ECO 8L-00078	F	NOV 69 - CORRECTS AN ERROR IN ECO 8L-00078; GATES "RUN (0)" WITH KEY FUNCTIONS SO THAT "KEY LA+EX+DP" IS DISABLED WHEN THE 8L IS RUNNING.
8L 00084	N.A.	P	NOV 69 - CORRECTS THE WIRE LIST TO SHOW CURRENT LOOPS AND TWISTED PAIRS AS HAND WRAPS.
8L 00085	8L 100-2346>	F	DEC 69 - CORRECTS LOGIC AND SPECIFIES REVISIONS OF G826 AND G785 MODULES WHICH MUST BE USED TO PERMIT THE KP8L POWER FAIL OPTION TO OPERATE PROPERLY WITH MC8L. G785 REVISION E OR LATER AND G826 REVISION H ARE REQUIRED IN THE 8L. G785 REVISION E OR LATER IS REQUIRED IN THE BA88 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. (*$X,**$Y,***$Z)
$X = Charge for Spares and updated prints only
$Y = Charge for necessary parts only
$Z = Charge for on site labor only, installation by DEC
NOTE: Charges are additive ($X+$Y+$Z = Total on site charge for ECO installation by DEC)

MASTER DRAWING LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
AN	8L-00083		
AP	8L-00084		
AR	8L-00081		
AS	8L-00085		

WIRE LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
U	8L-00083		
V	8L-00084		
W	8L-00085		

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Engineering Change Order Log

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FIELD SERVICE INFORMATION CENTER
MAYNARD, MASSACHUSETTS 01754

EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ECO SYNOPSES FOR LOGIC OR OPTION

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

PRODUCT LINE	PUBLICATION DATE OF THIS SYNOPSIS PAGE	PAGE REVISION
PDP-8L	JULY 1970	0

R6082

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.
G793 00001	ALL G793	F	JAN 70 - SPECIFIES A REDESIGN OF THE G793 WHICH WILL SEPARATE THE RESISTORS FOR BETTER HEAT DISSIPATION. HOT SPOTS OCCUR ON G793'S IN PDP-8I AND PDP-8L BECAUSE OF THEIR POSITION ABOVE THE INHIBIT RESISTORS. G793 CIRCUIT SCHEMATIC REVISION A
8L 00057	AS ORDERED	D	JAN 70 - ADDS A CUSTOMER-REQUESTED VARIATION TO THE INDICATOR PANEL.
8L 00058	8L 1-2479> WITH MC8L	F	JAN 70 - CORRECTS FAILURE OF "RMF" TO RESTORE MEMORY FIELD IF AN INTERRUPT OCCURS DURING AN IOT CYCLE WHILE THE PROGRAM IS RUNNING IN UPPER MEMORY. (*$5.00 **$.00 ***$20.00)
8L 00059	8L 2636>	F	JAN 70 - 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. (*$5.00, **$.00, ***$15.00)

THIS PAGE CONTINUED AND OR ENLARGED BELOW

8L 00090	8L 100-2516>	F	JAN 70 - TIES A FLOATING LEG OF THE M706 AT CD32 TO +3 VDC AND REMOVES -3 VDC FROM THE W876 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.
8L 00091	8L 2597> RETROFIT IF POSITIVE BUS OPTIONS ARE INSTALLED	F	FEB 70 - ADDS A G717 PULSE TERMINATOR MODULE TO THE 8L PARTS LIST SO THAT IT WILL BE AVAILABLE WHEN OPTIONS ARE ADDED TO THE 8L I/O BUS. (*$5.00, **$4.00, ***10.00)

LEGEND

FIELD CODE

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

SYMBOL

>= ECO applicable to future production

ECO CHANGES

Changes are coded within the symbols. (*SX,**SY,***SZ)
SX = Change for Spares and updated prints only
SY = Change for new-way parts only
SZ = Change for on site Mfgr's & Installation by DEC

NOTE: [illegible] = Items on the [illegible] by DEC)

MASTER DRAWING LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
AT	8L-00088		
AU	8L-00089		
AV	8L-00090		
AW	8L-00091		

WIRE LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
Y	8L-00088		
Z	8L-00089		
AA	8L-00090		

THIS PAGE CONTINUED FROM FRAME ABOVE

			SYNOPSIS
	SL 1630-8756> ALL WITH ECO 8L-00056	F	MAR 78 - CORRECTS AN ERROR IN ECO 8L-00056; TIES "TS4 (8)" TO THE I/O PC ENABLE GATE. (FCO ONLY, INCLUDED IN THE 8L-00056 KIT)
[illegible]	>8L	M	MAR 78 - CHANGES CASTING MATERIAL FROM ALUMINUM TO PLASTIC.
8L [illegible]	>8L	M	MAR 78 - CHANGES MOUNTING DEPTH OF THE SCREEN IN THE SUPER CHASSIS COVER.
8L 00095	>8L	M	MAR 78 - CORRECTS MECHANICAL DIMENSIONS FOR A MOUNTING BAR.
8L 00096	N.A.	M	MAR 78 - ADDS A CABINET CONFIGURATION DRAWING TO THE 8L PRINT SET.
8L 00097	8L 100-2896>	P	APR 78 - ADDS MISSING RUNS TO THE WIRE LIST.
6020 00006	ALL 8L	F	APR 78 - CORRECTS AN ERROR IN ECO 6020-00003; CHANGES "SERIAL NUMBERS AFFECTED" TO "RETROFIT ALL IN-PLANT AND IN THE FIELD AND ALL FUTURE". SOME REVISIONS OF THE 6020 HAVE +3 VDC SLICE AND OTHERS HAVE +4 VDC SLICE. BOTH ARE ACCEPTABLE; HOWEVER, THEY MUST NOT BE INTERMIXED. INCLUDED IN THE 6020-00003 KIT
6021 00007	ALL 8L	F	APR 78 - CORRECTS AN ERROR IN ECO 6021-00003; CHANGES "SERIAL NUMBERS AFFECTED" TO "RETROFIT ALL IN-PLANT AND IN THE FIELD AND ALL FUTURE". SOME REVISIONS OF THE 6021 HAVE +3 VDC SLICE AND OTHERS HAVE +4 VDC SLICE. BOTH ARE ACCEPTABLE; HOWEVER, THEY MUST NOT BE INTERMIXED. INCLUDED IN THE 6021-00003 KIT

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8L 00098	8L 100-3128>	P	MAY 78 - CORRECTS A STATEMENT IN THE ENGINEERING SPECIFICATIONS TO READ "POWER CONSUMPTION IS LESS THAN 300 WATTS".
6020 00097	ALL 8L	F	MAY 78 - 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
8L 00099	>8L	M	MAY 78 - CORRECTS MECHANICAL DIMENSION ERRORS ON THE SUPER COVER.
8L 00100	>CM8L	P	JUN 78 - CHANGES THE CM8L 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,**SV,***SZ)
SX = Change for Spare and optional prints only
SV = Change for necessary parts only
SZ = Change forces the latest only. Installation by DEC
NOTE: Changes are additive (SX+SV+SZ = Test on the change for ECO installation by DEC)

MASTER DRAWING LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
AY	8L-00092		
AZ	8L-00093		
BA	8L-00096		
BB	8L-00097		

WIRE LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
AB	8L-00092		
AC	8L-00097		

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[illegible] 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	B

ECO NO.	LOGIC OR OPTION SERIAL NO.'S AFFECTED	FIELD CODE	SYNOPSIS
8L 00101	N.A.	P	AUG 70 - CORRECTS THE DRAWINGS FOR THE BEZEL AND THE BEZEL INDICATOR PANEL.
8L 00102	>8L	M	AUG 70 - SPECIFIES THE USE OF AN ALUMINUM CASTING BECAUSE OF THE EXCESSIVE FLEXIBILITY OF THE PLASTIC BEZEL.
8L 00103	>8L	M	SEP 70 - SPECIFIES THE USE OF VARIATIONS OF THE STANDARD BLANK PANEL FOR THE 8L.
8L 00104	>8L	M	OCT 70 - SPECIFIES THE USE OF SCOTCHWELD #2216 TO REPLACE MARBOND ADHESIVE WHICH IS NO LONGER AVAILABLE.
8L 00105	N.A.	P	OCT 70 - ADDS IN-PLANT TEST AND ACCEPTANCE PROCEDURES TO THE CM8L PRINT SET.
8L 00106	8L 100-3124 500-5051> RETROFIT 8L WITH DF32-D OR TC05	F	OCT 70 - ADDS TERMINATION FOR THE I/O BUS; AN M902YA FOR THE MB BITS AND AN M902YA FOR THE AC BITS. (*$5.00, **$25.00, ***$5.00)

THIS PAGE CONTINUED AND OR ENLARGED BELOW

PDP8L-D0L-21

8L D8107	N.A.	F	DEC 70 - PROVIDES A MINOR ADDITIONAL PRINT CORRECTION TO ECO 8L-00062. (*$.00, **NONE, ***$.00 INCLUDED IN THE 8L-00059 KIT)
8L 00108	>8L	M	DEC 70 - SPECIFIES A CHANGE FROM SAND CASTING TO DIE CASTING OF THE 8L BEZEL.
8L 00109	>8L	D	JAN 71 - CHANGES THE WIRING OF 8I LOGIC PANELS TO ACCOMODATE 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-C0044.
8L 00110	N.A.	P	FEB 71 - ORDERS CHANGES IN THE 8I PRINT SET TO REFLECT THE WIRING CHANGES MADE TO ACCOMODATE THE FEED HOLE STROBED PC04 (PC9I, PR8I). THIS ECO WILL NOT BE FIELD IMPLEMENTED; IDENTICAL INFORMATION IS INCLUDED IN THE KIT FOR ECO PC04-C0046.

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 symbols (*$X **$Y ***$Z)

- $X = Charge for Spares and updated prints only
- $Y = Charge for necessary parts only
- $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	REV	ECO NUMBER
BC	8L-00-0064		
BD	8L-00102		
BE	8L-00106		
BF	8L-00127		
BH	8L-00133		
BJ	8L-00139		
BK	8L-00119		

WIRE LIST REVISIONS

REV	ECO NUMBER	REV	ECO NUMBER
AD	8L-00109		

THIS PAGE CONTINUED FROM FRAME ABOVE

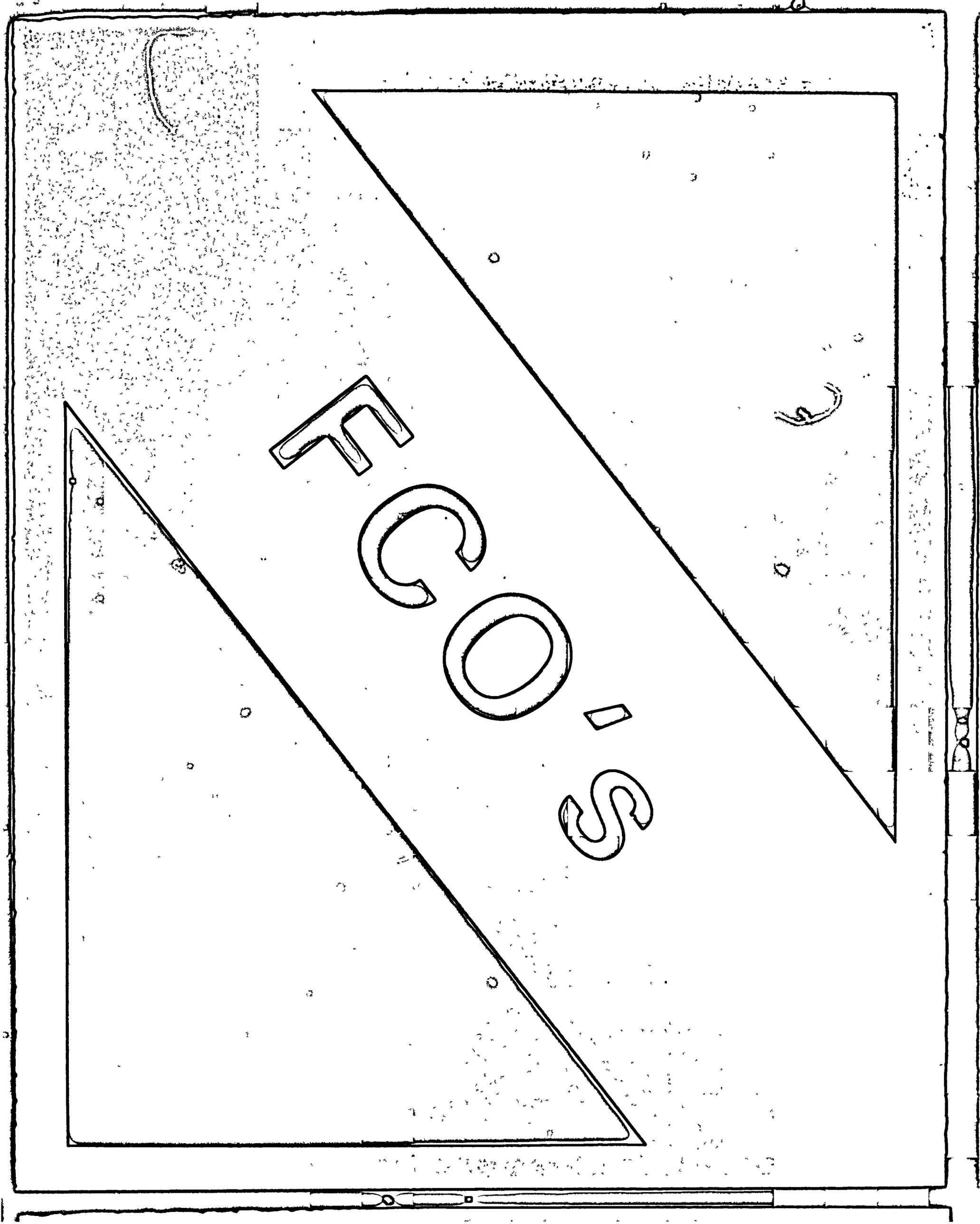
PDP8L-D0L-22

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)


FOSSIL

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

RECD BY INFO SER: MO 10 DAY 11 YR 68
SPECO RELEASE: MO 10 DAY 16 YR 68

TYPE OF CHANGE
ELECTRICAL X
MECHANICAL
MODULES

CHANGE NO. EL-ØØØ13
DOCUMENTATION PROJECT NUMBER
ACCT | PROD LINE | TYPE OR DISCRETE NO
2 6 0 7 1 7 5
MANUFACTURING PROJECT NUMBER
ACCT | PROD LINE | TYPE OR DISCRETE NO

UNIT NAME 8L MODEL NO.

PREVIOUSLY AFFECTED OPTIONS

MODEL NO	VARIATION

CHANGE TESTED IN SERIAL NO _____ BY _____

ESTIMATED TIME TO INSTALL 1 HOUR

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

BREAK IN POINT (WATS/SERIAL NUMS)

ALL MACHINES

SERIAL NO. 1ØØ 199

AND FUTURE

PROBLEM:

1. RACE CONDITION AT IOP4 CAUSED BY I/O ON (1) AND IOP C 'Ø' BEING GENERATED AT SAME TIME BY I/O ROTATE

CORRECTION:

CORRECTED I/O TIMING

DRAWINGS AFFECTED

NUMBER	DSD DEV	MO DEV
D BS 8L Ø2	B	C
K WL 8L Ø 19	B	C

Field Service Code

F

PRODUCT LINES AFFECTED

SMALL COMPUTERS 8L

ORIGINATOR M.E. ARSENAULT DATE 10/12/68

PRODUCTION ENG H. GODFREY DATE 10/12/68

DESIGN ENG. D.A. WHITE DATE 10/12/68

OTHER _____ DATE _____

SHEET 1 OF 3

PDP8L-F:01

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

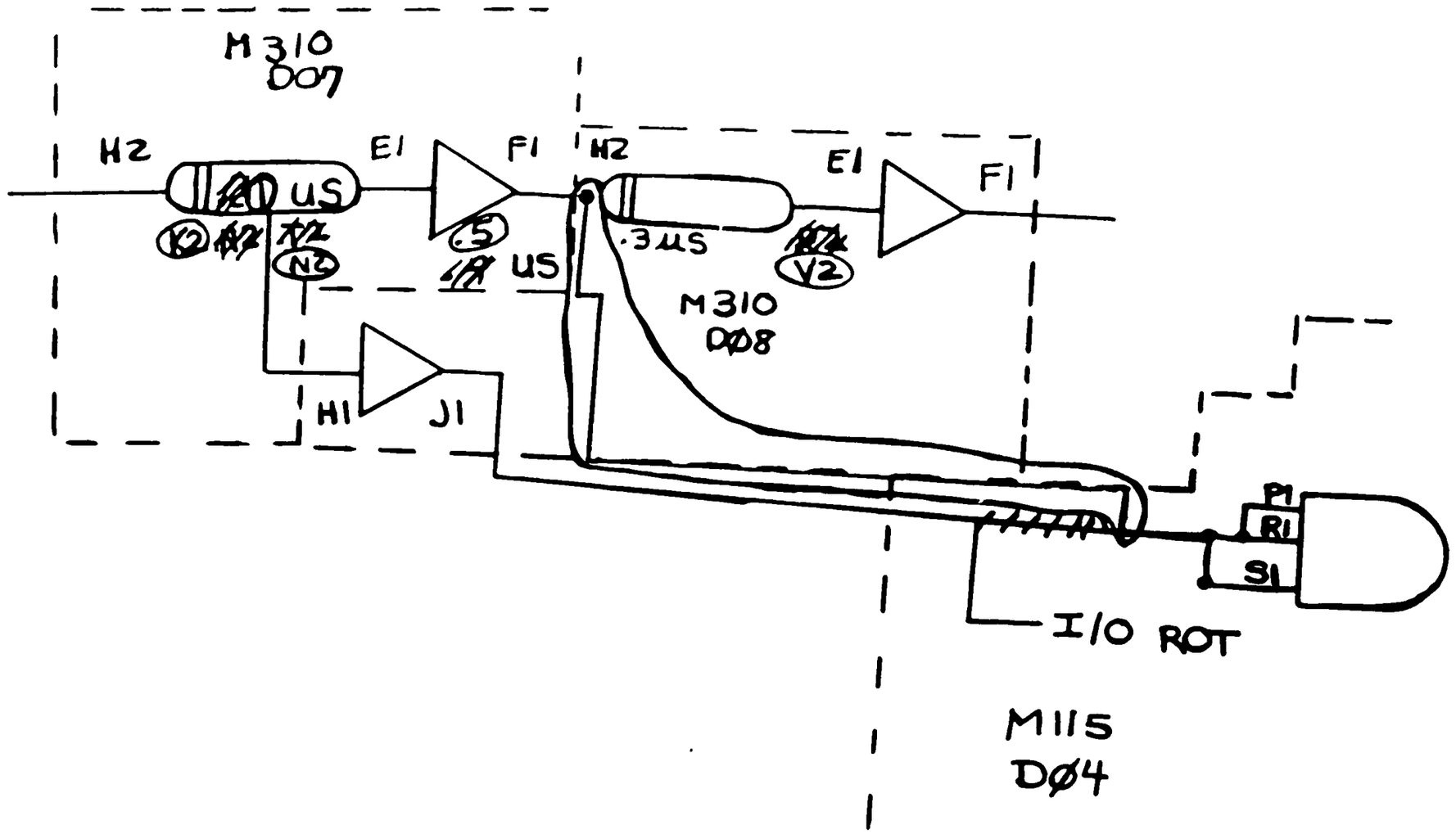
ECO NUMBER 8L-ØØØ13

MADE BY BETTY VIDITO

DRAWING NUMBER AFFECTED

CODE	SIZE NUMBER	NEW REV LTR
WL	IC 8L Ø 19	C

PDP8L-FCO-2



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

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

	MO	DAY	YR
RECD BY INFO SER	11	5	68
SPECO RELEASE	11	26	68

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

CHANGE NO. PL-ØØØ22

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

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

PREVIOUSLY RELEASED OPTIONS AFFECTED

MODEL NO	VARIATION

CHANGE TESTED IN SERIAL NO _____ BY _____

ESTIMATED TIME TO INSTALL 1.5 HOURS

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED	X	

BREAK IN POINT (WAIT/SERIAL NOS)

ALL PDP 8L. SN 1Ø1 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 $\overline{\text{KEY CL.}}$ & $\overline{\text{KEY LOAD}}$
2. ADDED GATE AT C15
3. CHANGED $\overline{\text{EMA}}$ TO BEMA. ADDED LOGIC TO MC8L LOGIC
4. ADDFD WORD COUNT TO PROTECT GATF.
5. CORRECT WIRE LIST.

DRAWINGS AFFECTED

NUMBER	OLD DEV	NEW DEV
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-L17	A	B
A-PL-PDP8-L-18	Ø	A

Field Service Code

PRODUCT LINES AFFECTED

PDP 8L

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	11/1568

PDP8L-FCO-4

ADD/DELETE SHEET SHEET 2 OF 9

MAKE ALL DELETIONS FIRST PAGE 1 OF 3

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 8L ØØØ22

MADE BY ELAINE FROIAS

DRAWING NUMBER AFFECTED

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

PDP8L-FC-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	DØ9H1	B1ØM2			X
		DØ2D1	B1ØM2		X	
	KEY LA+EX+DP	CØ2K2	DØ9H1		X	
	$\overline{\text{KEY LA}}$	CØ2J2	CØ2M1			X
		CØ2M1	DØ2A1			X
		CØ2J2	DØ2A1		X	
	$\overline{\text{MEM ALT 1}}$	CØ5L2	A1ØT2			X
		A1ØT2	DØ4P1		X	
	$\overline{\text{MEM ALT 2}}$	CØ5M2	A12T2			X
		A12T2	DØ4R1		X	
	MFTP Ø	CØ2T2	C15V2		X	
	MFTP 1	CØ5R2	C15V2			X
		CØ5R2	D17L2		X	
		D17L2	D17K2		X	
	MFTP 2	D17L2	D17K2			X
		D17K2	D12A1			X

ECO NUMBER 8L ØØØ22

MADE BY ELAINE FROIAS

DRAWING NUMBER AFFECTED

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

PDP8L-FCO-6

ADD/DELETE SHEET

MAKE ALL DELETIONS FIRST

SHEET 4 OF 9

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	

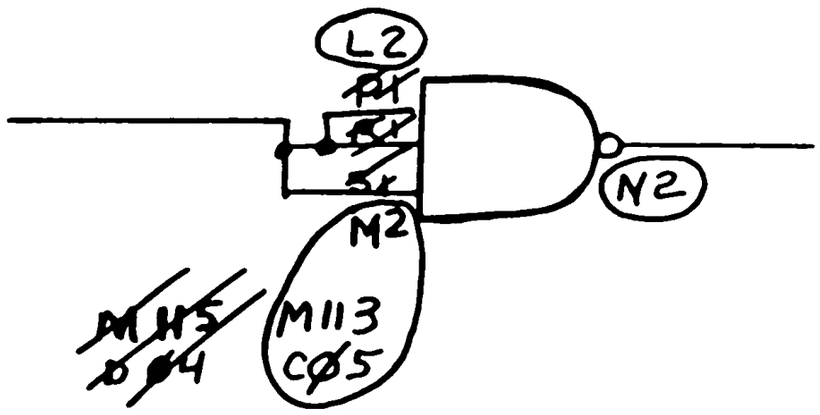
ECO NUMBER 8L-ØØØ22

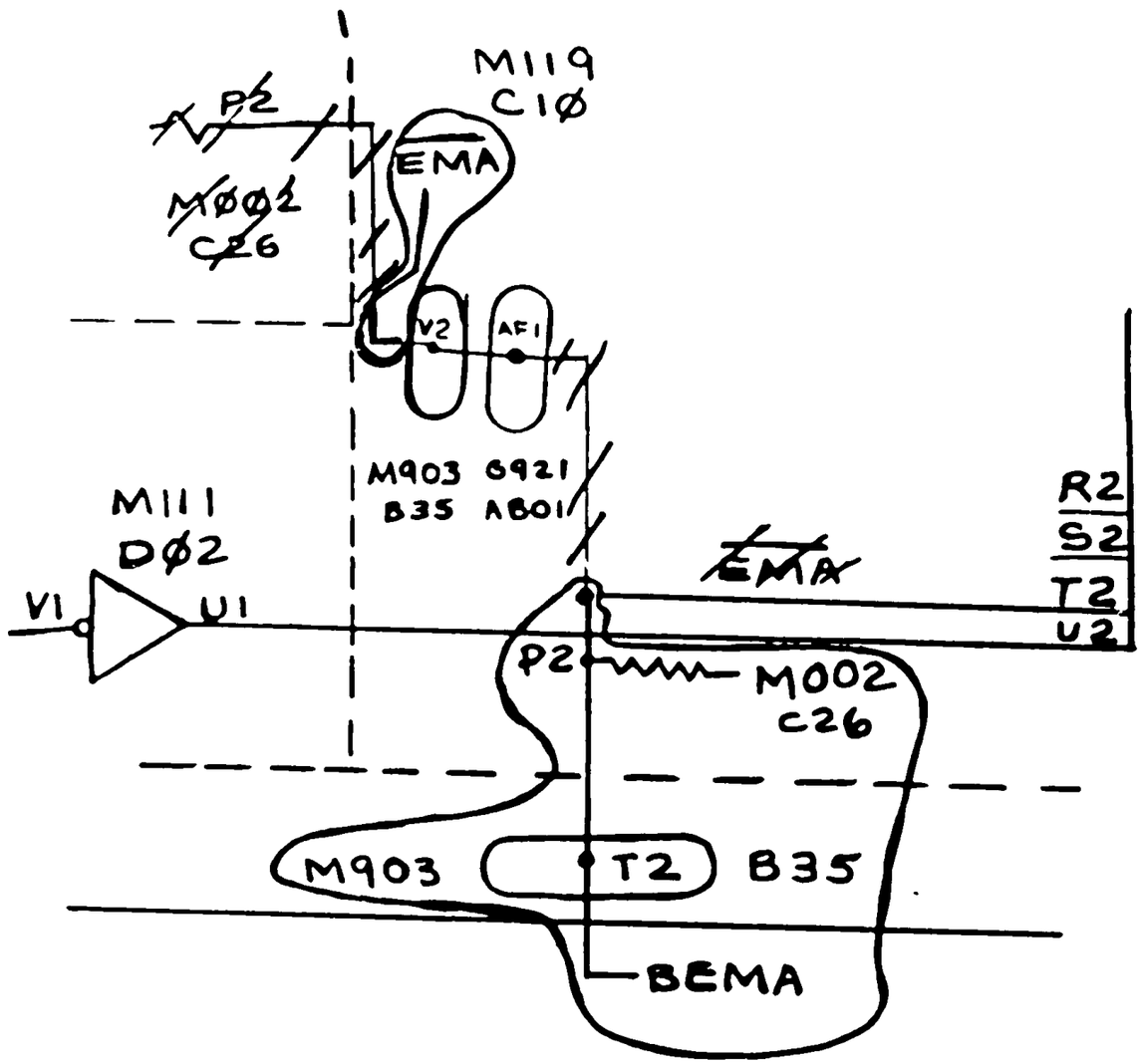
MADE BY ELAINE FROIAS

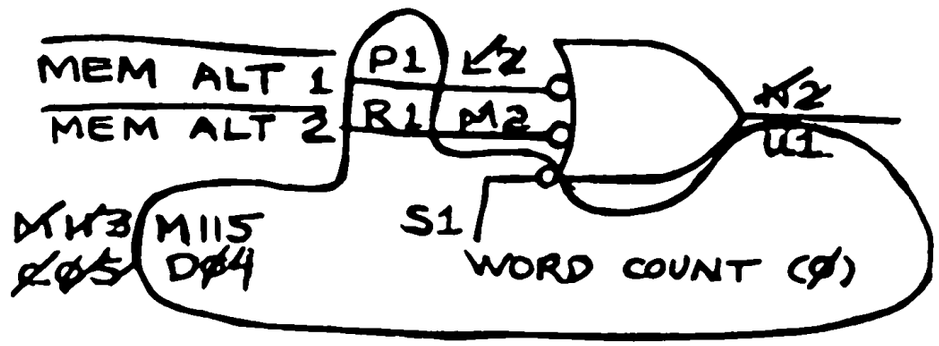
DRAWING NUMBER AFFECTED

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

PDP8L-FCO-7



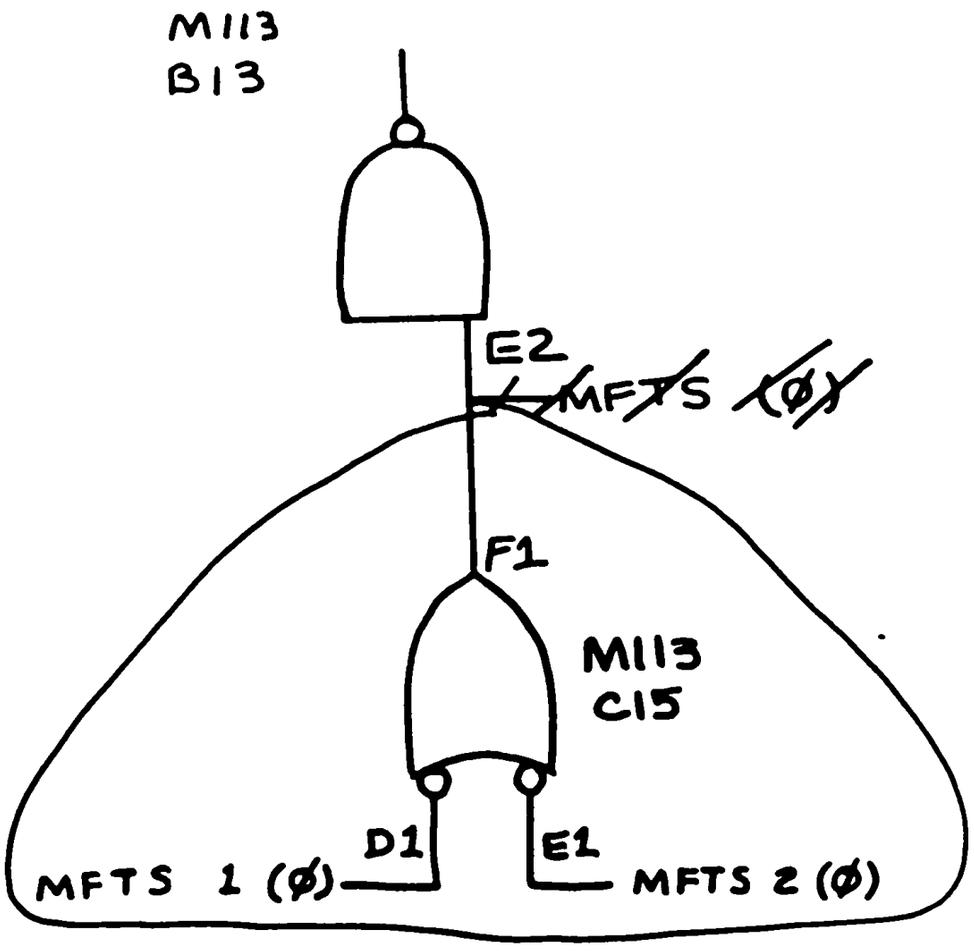




ECO #8L-00022 D-BS-PDP8-L-2 NEW REV D

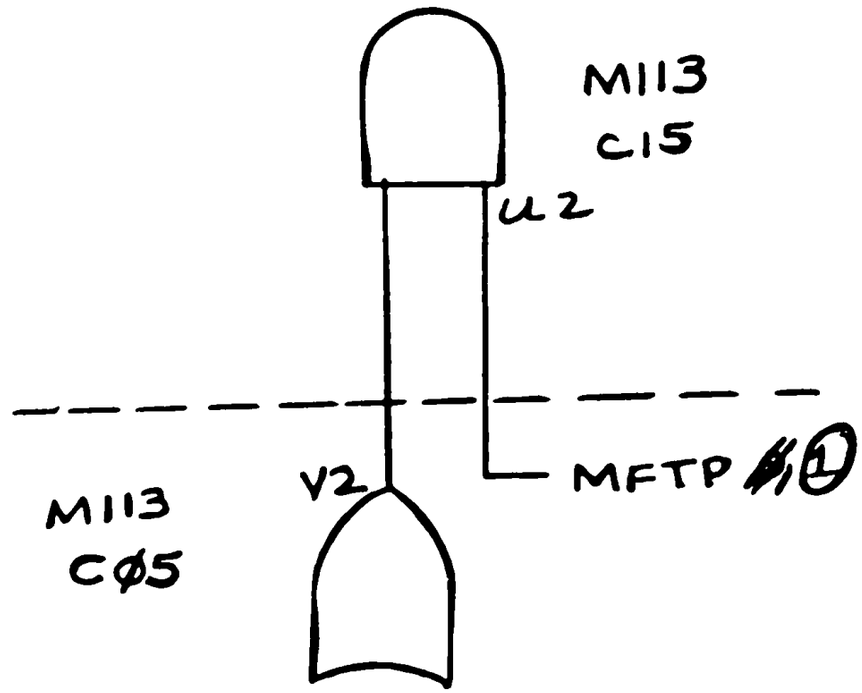
ECO#8L-00022 D-BS-PDP8-L-3 NEW REV B

PDP8L-FCO-8



DWG LOC A-4

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



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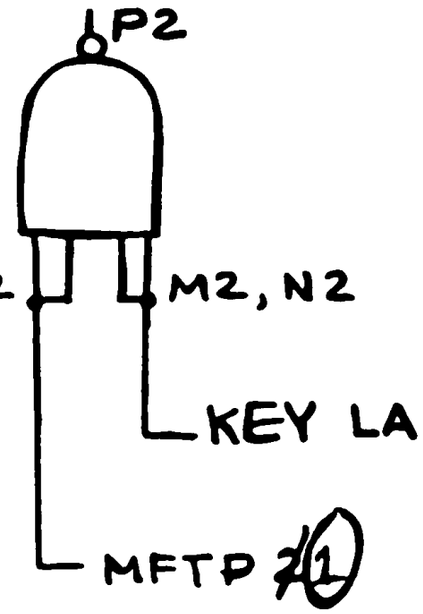
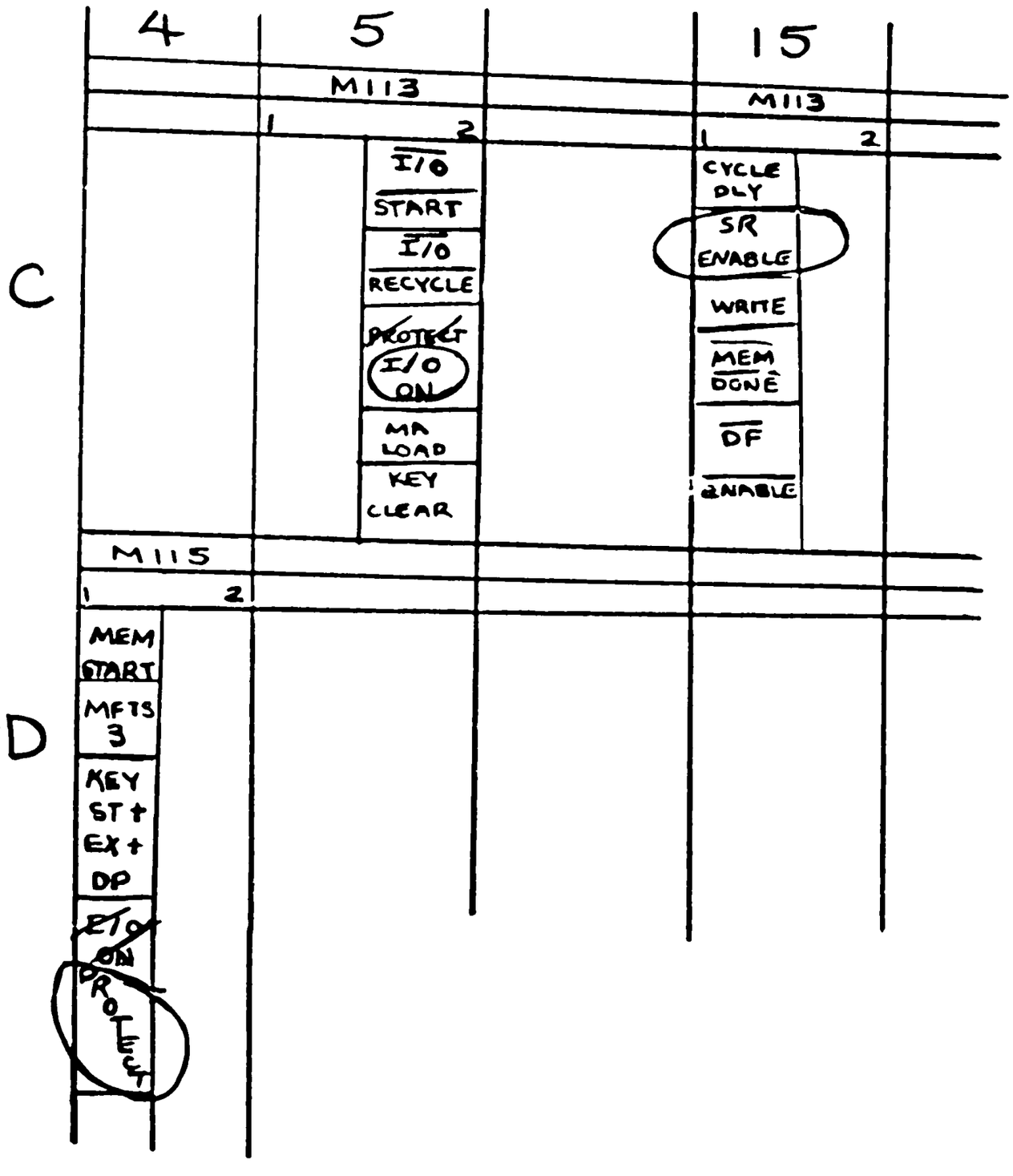


DWG. LOC. C2

ECO #8L-00022 D-BS-PDP8-L-17 NEW REV. B

PDP8L-FCO-9



ECO #8L-00022 D-MU-PDP8-L-18 NEW REV. A PDP8L-FCC-1Φ

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

	MO.	DAY	YR
RECD. BY INFO. SER.	1	17	69
SPECS RELEASE	1	21	69

CHANGE NO. 8L-ØØØ27

DOCUMENTATION PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO
	2 6 0	7 1 7 5

MANUFACTURING PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

UNIT NAME 8L MODEL NO. 8L

PREWIRED OPTIONS AFFECTED

MODEL NO	VARIATION

CHANGE TESTED IN SER AL NO Various Machines BY Production

ESTIMATED TIME TO INSTALL 1.5 Hours

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

BREAK IN POINT (DATE/SER AL NOS.)

All 8/L

1ØØ-2ØØ and future

PROBLEM:

Memory sense w indings imcur various amounts of noise due to variations in wire routing on panel.

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")

DRAWINGS AFFECTED

NUMBER	OLD DEV	NEW DEV
A-ML-8L-Ø	K	L
K-WL-8L-19	F	H
D DI-8L-Ø-2Ø	A	B
A-WL-8L-Ø-24		A

Field Service Code

F

PRODUCT LINES AFFECTED

PDP 8L

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

PDP8L-FCO-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 8L-00027

MADE BY I. TOMPKINS

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 8L-00027

MADE BY I. TOMPKINS

DRAWING NUMBER AFFECTED

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

PDP8L-FCO-13

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

RECD BY INFO SCR: MO 2 DAY 7 YR 69
SPEC'D RELEASE: MO 2 DAY 12 YR 69

TYPE OF CHANGE
ELECTRICAL X
MECHANICAL
MODULES

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

UNIT NAME PDP-8L MODEL NO. 8L

PREVIOUSLY REQUIRED OPTIONS AFFECTED

MODEL NO	VARIATION
BA08	

CHANGE TESTED IN DEC AL NO PROTO BY M. ARSENAULT

ESTIMATED TIME TO INSTALL

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

BREAK IN POINT
(WATERSEAL NOS.)
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 DEV	NEW DEV
D BS-8L-0 15	C	D
K-WL 8L-19	H	J
A-ML-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 2

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	

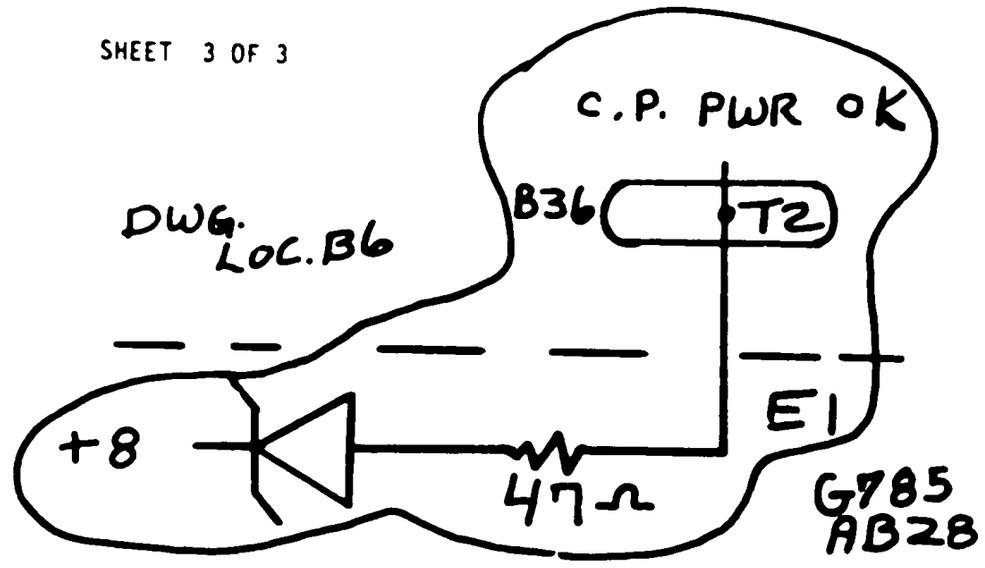
ECO NUMBER PL 00030

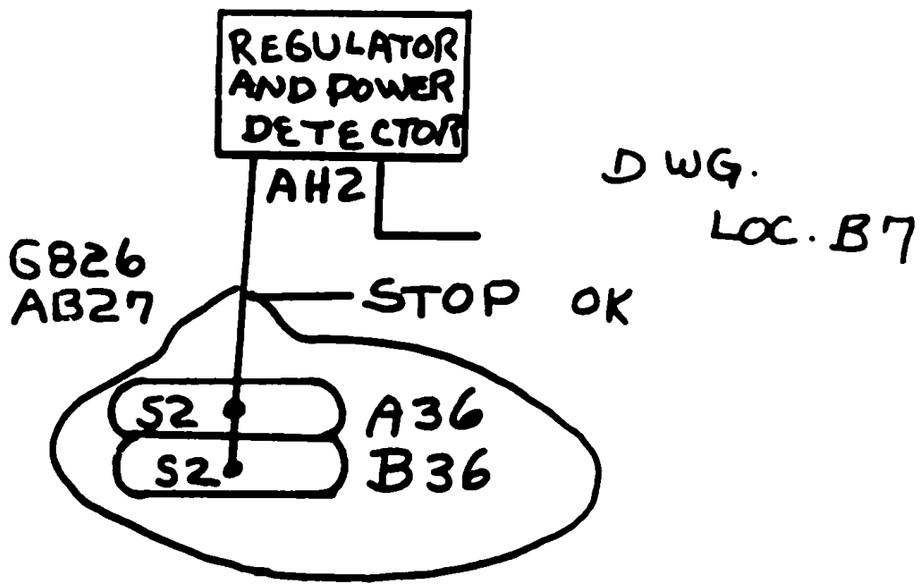
MADE BY BV/AV

DRAWING NUMBER AFFECTED

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

PDP8L-FCO-15





ECO #8L-00030 D-BS-8I-0-13 NEW REV. D

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

RECD BY INFO SEC: MO 2, DAY 13, YR 69
SPEED RELEASE:

CHANGE NO. 8L-00031
C.E. IMPLEMENTATION PROJECT NUMBER
APPROVAL LINE | TYPE LAB OR SUBSITE NO
2 1 5 | 0 7 | 1 6 0
MANUFACTURING PROJECT NUMBER
ACCT | PROD LINE | TYPE OR DISCRETE NO

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

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

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

BREAK IN POINT
(DATE/SERIAL NO.)

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	OLD DEV	NEW DEV
NONE		

Field Service Code

F

PRODUCT LINES AFFECTED

8L

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

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			v
		A36S2	B36S2			X
		A36P2	B36S2		X	

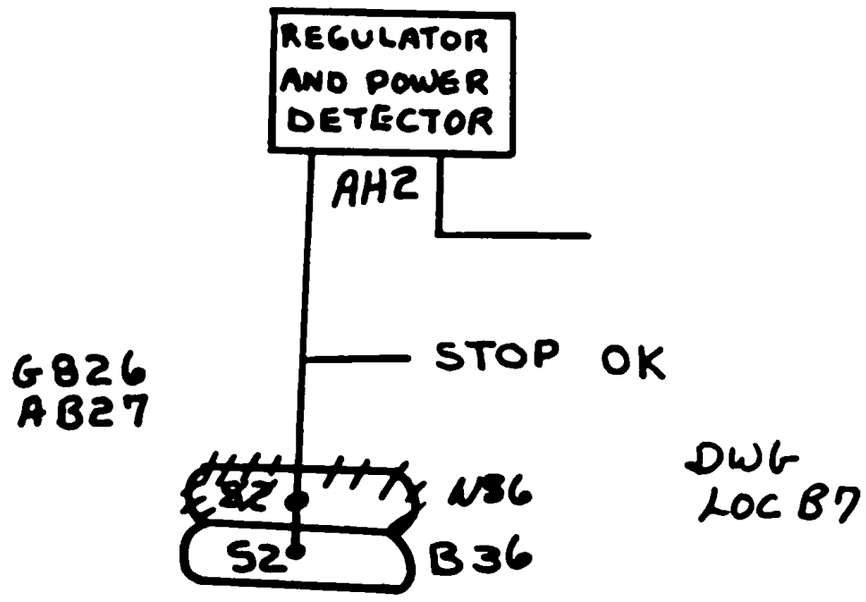
ECO NUMBER 8L-00031

MADE BY BETTY VIDITO

DRAWING NUMBER AFFECTED

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

PDP8L-FCO-19



ECO #BL-00031 D-BS-BL-0-13 NEW REV. D

PDP8L-FCO-19

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

RECD. BY INFO SER / SPECO RELEASE: MO 2, DAY 28, YR 69

CHANGE NO. 8L-00038

DOCUMENTATION PROJECT NUMBER

ACT	PROD. LINE	TYPE OR DISCRETE NO

MANUFACTURING PROJECT NUMBER

ACT	PROD. LINE	TYPE OR DISCRETE NO

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

UNIT NAME PDP-12 MODEL NO. 8/L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO _____ BY _____

ESTIMATED TIME TO INSTALL 15 MINUTES

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

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

CORRECTION:

CHANGES IN LOGIC, POWER SUPPLY AND REGULATOR CONTROL G826

DRAWINGS AFFECTED

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

Field Service Code

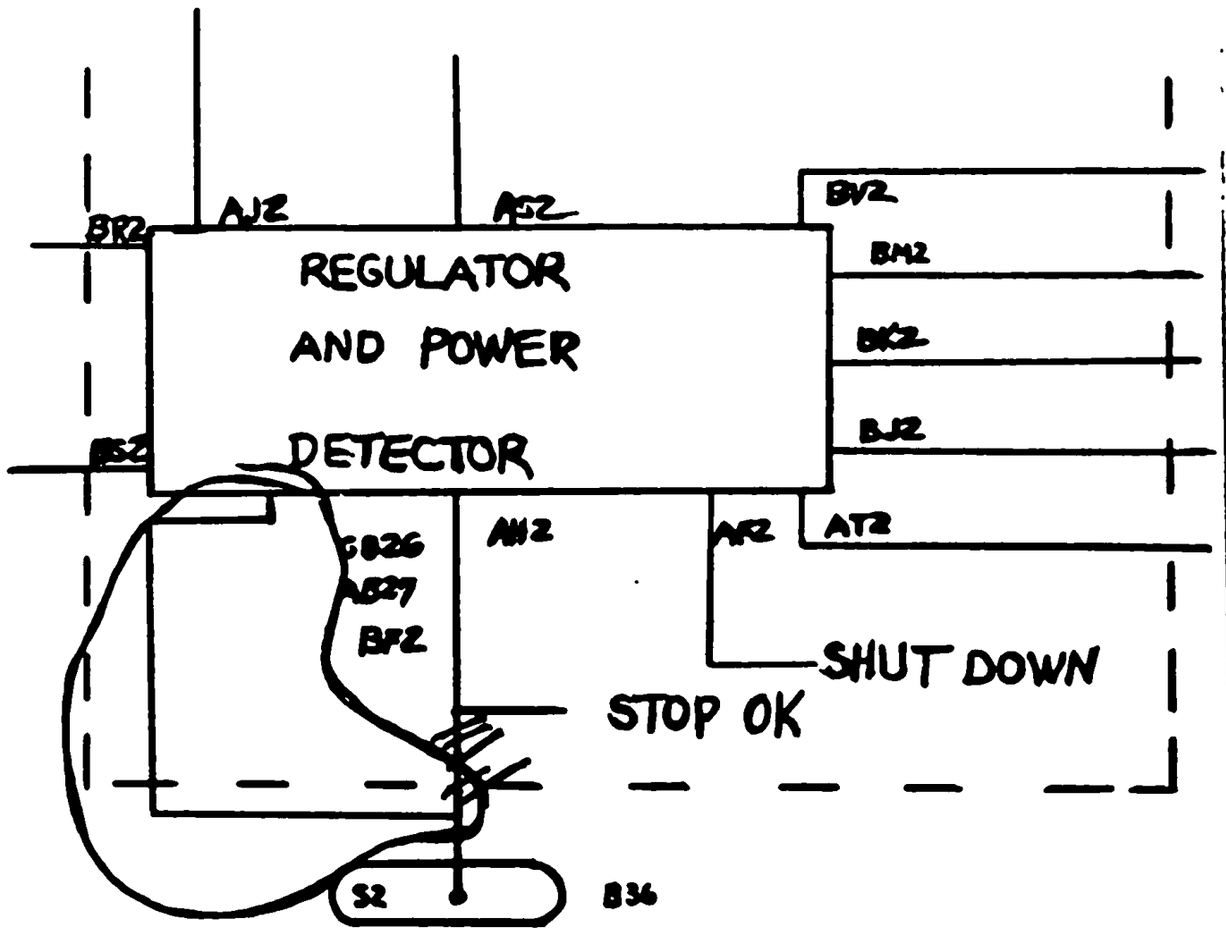
F

PRODUCT LINES AFFECTED

8/L

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

PDP8L-FCO-20



ECO8L—00038

D-BS-8L-Ø-13 NEW REV E

PDP8L-FCO-21

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

	MO	DAY	YR
RECD. BY INFO. SER	3	17	69
SPECO RELEASE	3	19	69

CHANGE NO. 8L-00044

DOCUMENTATION PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO
	2	6 0 7 1 7 5

MANUFACTURING PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

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)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		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 DEV	NEW DEV
D-BS-MP8L-0-1	A	B
A-ML-MP8L-0	[illegible]	A
A-ML-8L-0	R	S
K WL-8L 0-19	K	L

Field Service Code
F

PRODUCT LINES AFFECTED
8L

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

SHEET 1 OF 4

F8P8L FCO-22

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
	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	

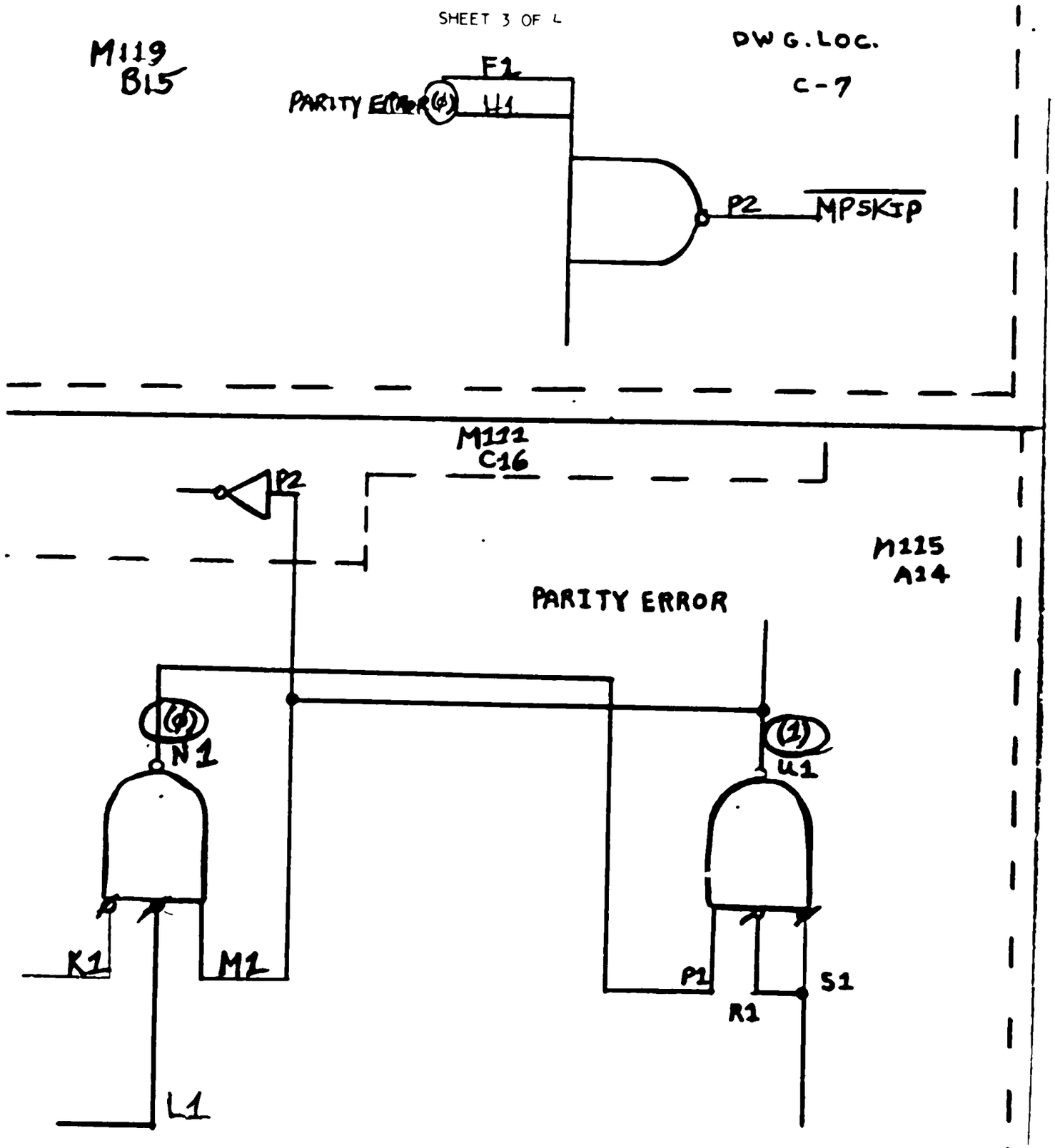
ECO NUMBER 8L-ØØØ44

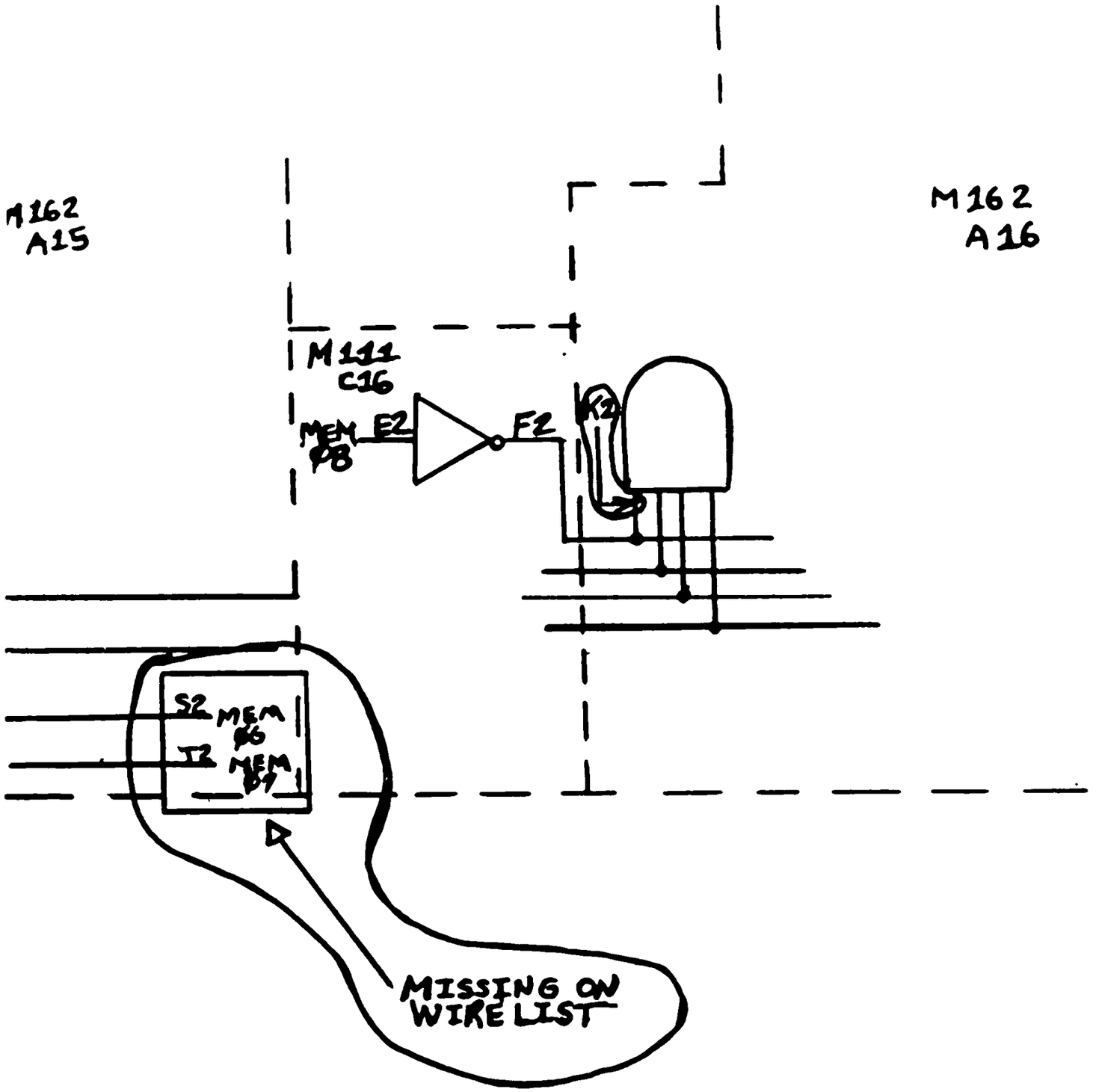
MADE BY J.W. PATE

DRAWING NUMBER AFFECTED

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

PDP8L-FCO-23


M119
B15
F2
PARITY ERROR (0)
H1
DWG. LOC.
C-7
P2
MPSKIP
M111
C16
P2
M115
A14
PARITY ERROR
(0)
N1
(1)
U1
K1
M1
P1
S1
R1
L1
DWG. LOC. D-2


M162
A15
M162
A16
M111
C16
MEM
E2
F2
K2
MEM
P8
S2
MEM
B6
I2
MEM
B7
MISSING ON
WIRE LIST

SHEET 2 OF 2

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

	MO	DAY	YR
RECD BY INFO SER	4	1	69
SPECO RELEASE	4	8	69

CHANGE NO. 8L-00045

DOCUMENTATION PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO
	26	07175

MANUFACTURING PROJECT NUMBER

LT	PROD LINE	TYPE OR DISCRETE NO

TYPE OF CHANGE

ELECTRICAL	X
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

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

BREAK IN POINT (DATE/SERIAL NO.)

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.

CORRECTION:

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

DRAWINGS AFFECTED

NUMBER	OLD DEV	NEW DEV
D-BS-8L-C-2	D	E
D-BS-8L-C-5	B	C
D-BS-8L-C-5	A	B
D-BS-8L-C-5	A	B
D-ML-8L-C-18	B	C
A-BL-8L-C-18	B	C
K-ML-8L-C-19	L	M
A-ML-8L-C	S	T
Field Service Code		
F		

PRODUCT LINES AFFECTED

8L

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

SHEET 1 OF 8

INDEX- FCO-26

ADD/DELETE SHEET — SHEET 2 OF 8

MAKE ALL DELETIONS FIRST — PAGE 1 OF ?

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	A12K1	A12K1	B13S1			x
		A12K1	A14V1		x	
	A13R1	A13R1	B@8H2			x
		B@8H2	B@8F2			x
		B@8F2	A13R1		x	
	A35E1	A35E1	B13R1		x	
	B FETCH (1)	D12J1	C14P2			x
		C14R2	C14J1			x
		C14J1	C13C1			x
		C13C1	C14R2		x	
		C13C1	C14R2		x	
		C14R2	D12J1		x	
	$\overline{\text{INT SKIP ENABLE=}}$	A@8S2	B13P1			x
		B13P1	C11V2			x
		A@8S2	A14T2		x	
		A14T2	C11V2		x	
	I/O ENABLE	D@9J2	A35D1		x	
	$\overline{\text{I/O PC ENABLE-}}$	A@8U2	A14U2		x	
		A14U2	B13S1		x	

ECO NUMBER 8L @@@45

MADE BY I. TOMPKINS

DRAWING NUMBER AFFECTED

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

P/N 8L-FCO-27

ADD/DELETE SHEET

SHEET 3 OF 7

MAKE ALL DELETIONS FIRST

PAGE 2 OF 2

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	C12N1	C12N1	A∅8L2			X
		A∅8U2	A∅8R2			X
		C12N1	A∅8R2		X	
	PAUSE (1)	B13P1	C∅4L1		X	
	$\overline{\text{PC ENABLE}}$	C13K1	B13R1			X
		B13R1	B13F1			X
		C13K1	A14V2		X	
		A14V2	B13F1		X	
	PC LOAD	B∅8J2	C14H1		X	
		C14H1	C14J1		X	
	$\overline{\text{SET IO ON}}$	B∅8H2	C∅6K1		X	
	TP1	D∅2M1	D∅6H2			X
		D∅6H2	C14H1			X
		C14H1	B13T2			X
		B13T2	D∅6H2		X	
		D∅6H2	D∅2M1		X	

ECO NUMBER 8L-∅∅45

MADE BY I.T.

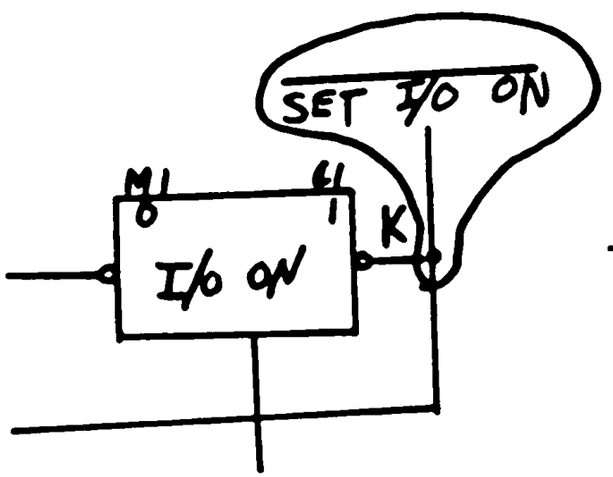
DRAWING NUMBER AFFECTED

CODE	SIZE	NUMBER	NEW REV LTR
W1	K	8L-∅ 19	M

PDP8L-FCO-28

SHEET 4 OF 8

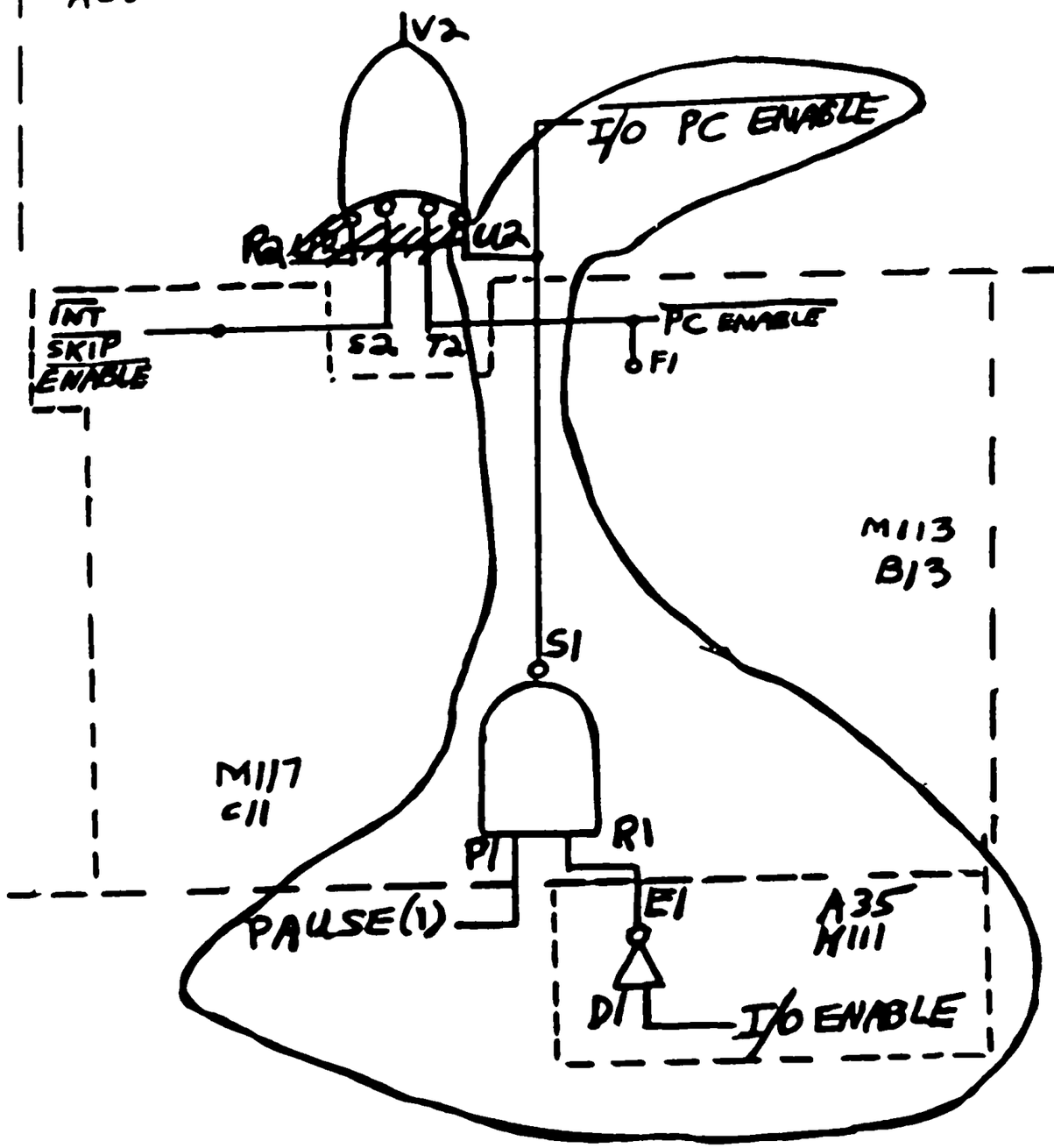
M216
C06



DWG LOC C1

SHEET 5 OF 8

M617
A08



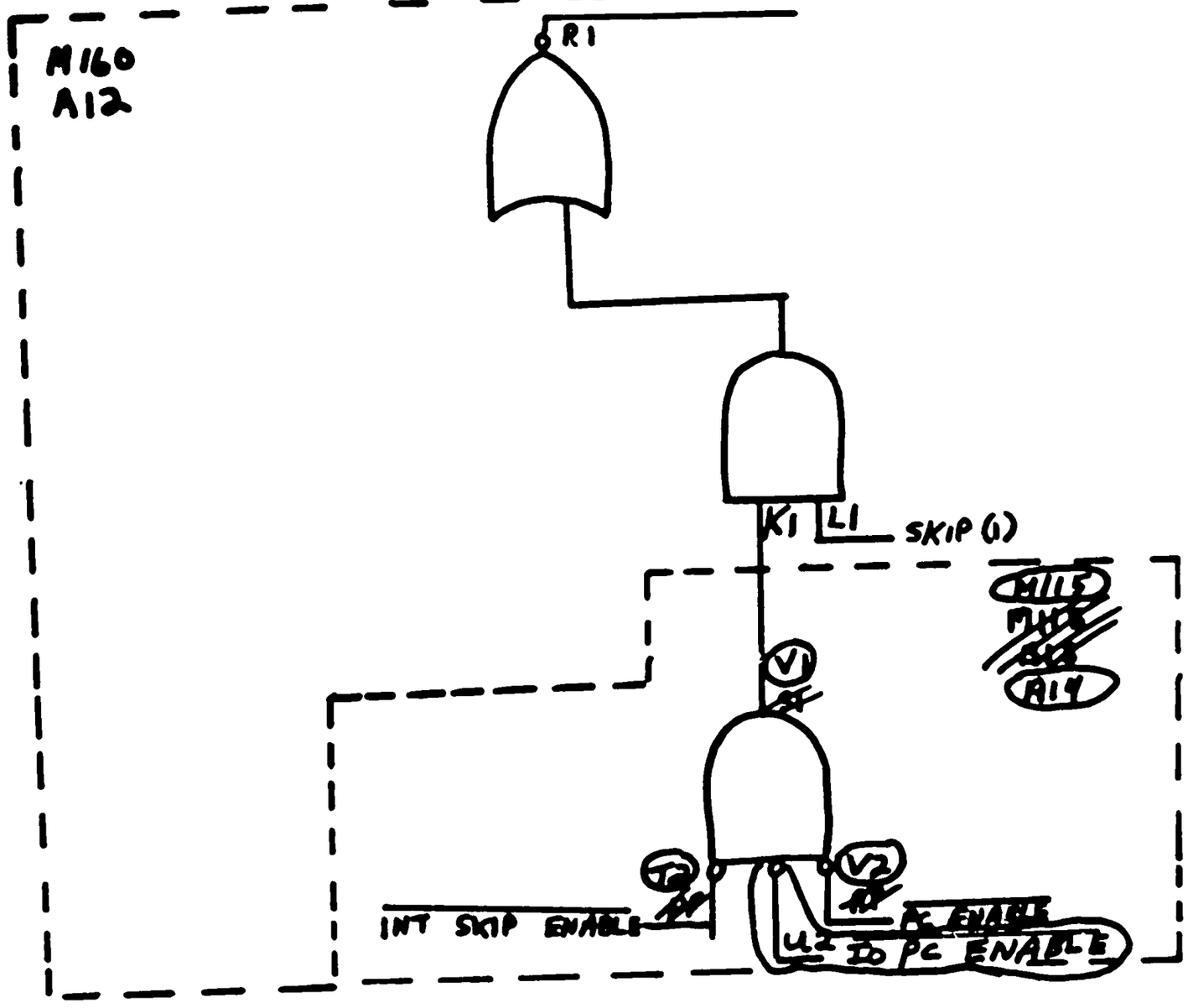
ECO-8L-00045 D-BS-8L-0-2 NEW REV E

ECO-8L-00045

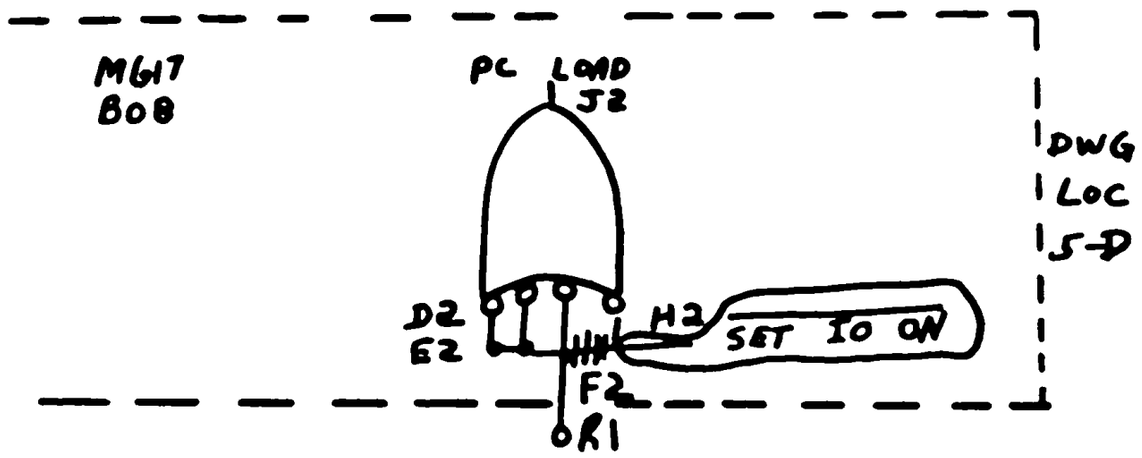
NEW REV C

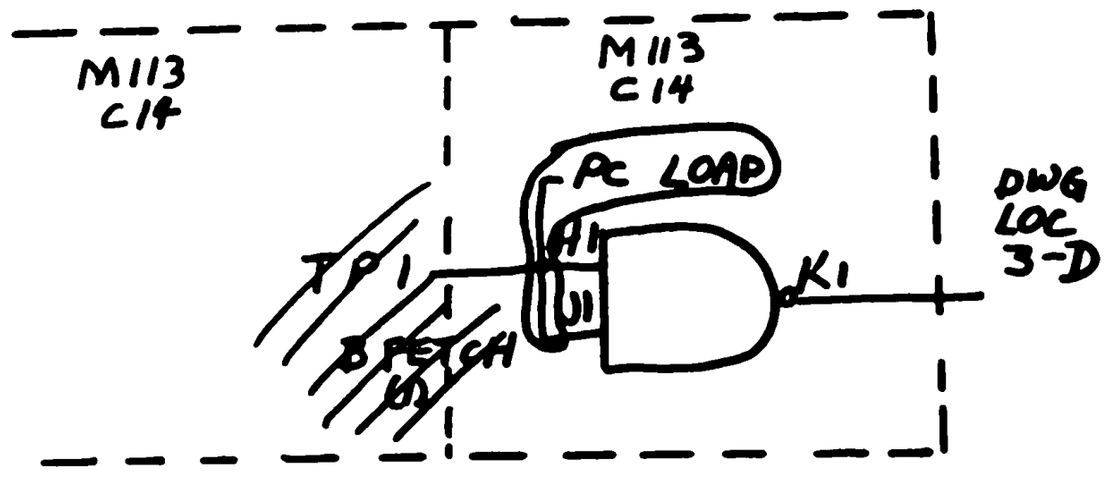
D-BS-8L-0-4

PDP8L-FCO-29

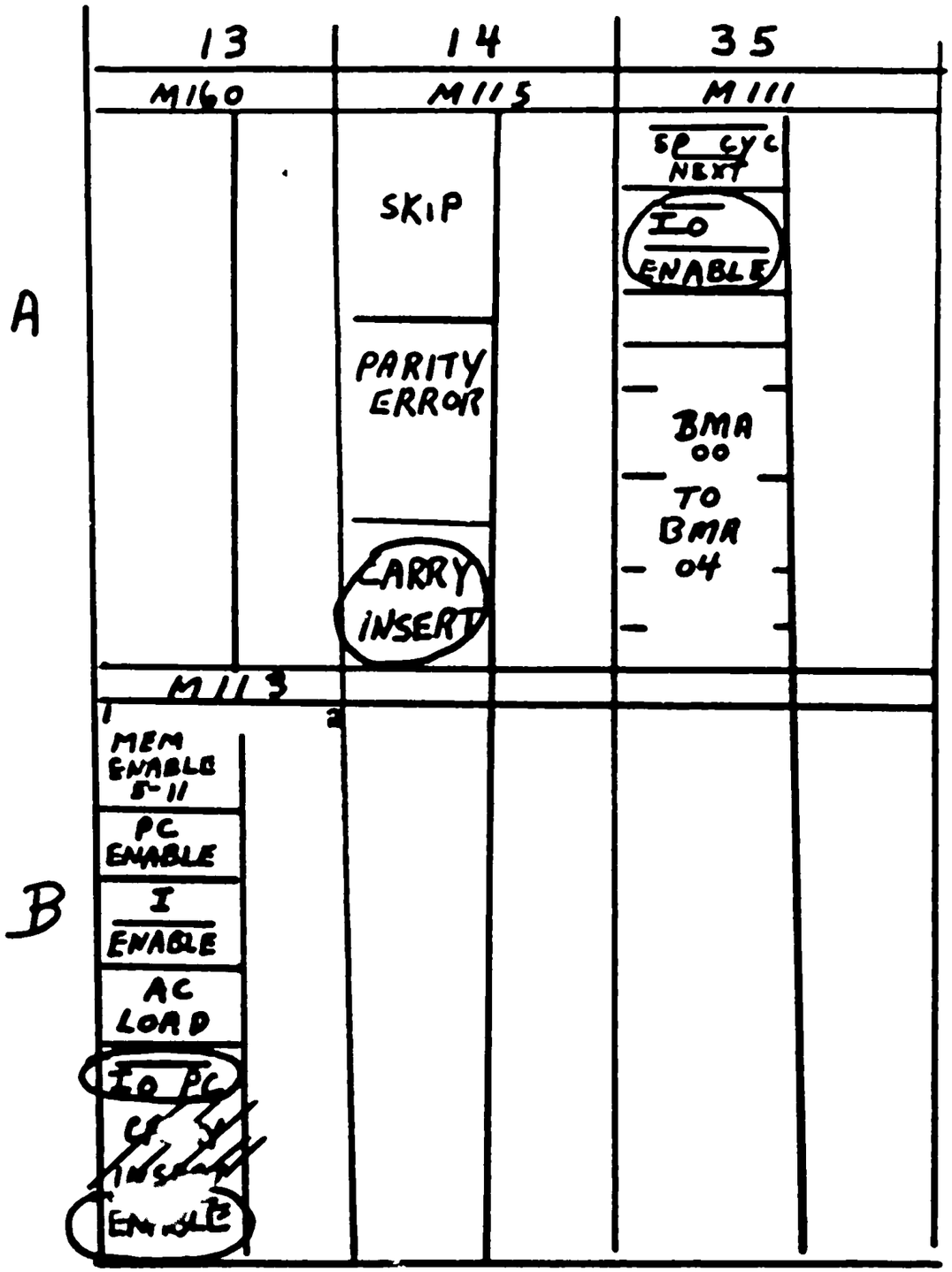


ECO-8L-00045 D-BS-8L-0-5 NEW REV.B





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



ECO-8L-00045 D-MU-8L-0-18 NEW REV.C

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

	MO	DAY	YR
RECD BY INFO. SER	6	10	69
SPECO RELEASE	6	18	69

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

CHANGE NO. 8L-00056

DOCUMENTATION PROJECT NUMBER

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

MANUFACTURING PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO

UNIT NAME SMALL COMPUTER **MODEL NO.** :::: 8L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO _____ BY _____

ESTIMATED TIME TO INSTALL _____

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)	X	
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

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 DEV	NEW DEV
D-BS-8L-0 4	C	D
D-MU-8L-0-18	C	D
A PL-8L-0 18	C	D
K WL 8L-0 19	M	N
A-ML 8L-0	W	Y
D-BS-8L-0-5	B	C

Field Service Code
F

CORRECTION:

CORRECTION AS PER MARKED UP PRINTS.

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
	27	07175

MANUFACTURING PROJECT NUMBER

ACT	PROD.LINE	TYPE OR DISCRETE

STOCK DISPOSITIONS CODE	ACTION TAKEN
SC=SCRAP RN=RETAIN RK=REWORK NC=NO CHANGE	PARTS ADDED 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

SHEET 3 OF 3

ADD/DELETE SHEET

MAKE ALL DELETIONS FIRST PAGE 1 OF 1

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 8L-0056

MADE BY DAVE CHAMBERS

DRAWING NUMBER AFFECTED

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

PDP8L-FCO-35

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

	MO	DAY	YR
RECD BY INFO SER	6	18	69
SPCO RELEASE	6	23	69

CHANGE NO. 8L-00059

DOCUMENTATION PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO
	2	6 0 7 1 7 5

MANUFACTURING PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO

TYPE OF CHANGE

ELECTRICAL	X
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

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

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	DEC DEV	MFG DEV
D-BS-8L-0-2	E	F
D-MU-8L-0-18	D	E
A-PL-8L-0-18	D	E
K-WL-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 E.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	D16J1			X
	↓	A27S2	B13P1		X	
	↓	B13P1	D16A1		X	
	STROBE (~)	B13R1	B34S2		X	

ECO NUMBER 8L 00059

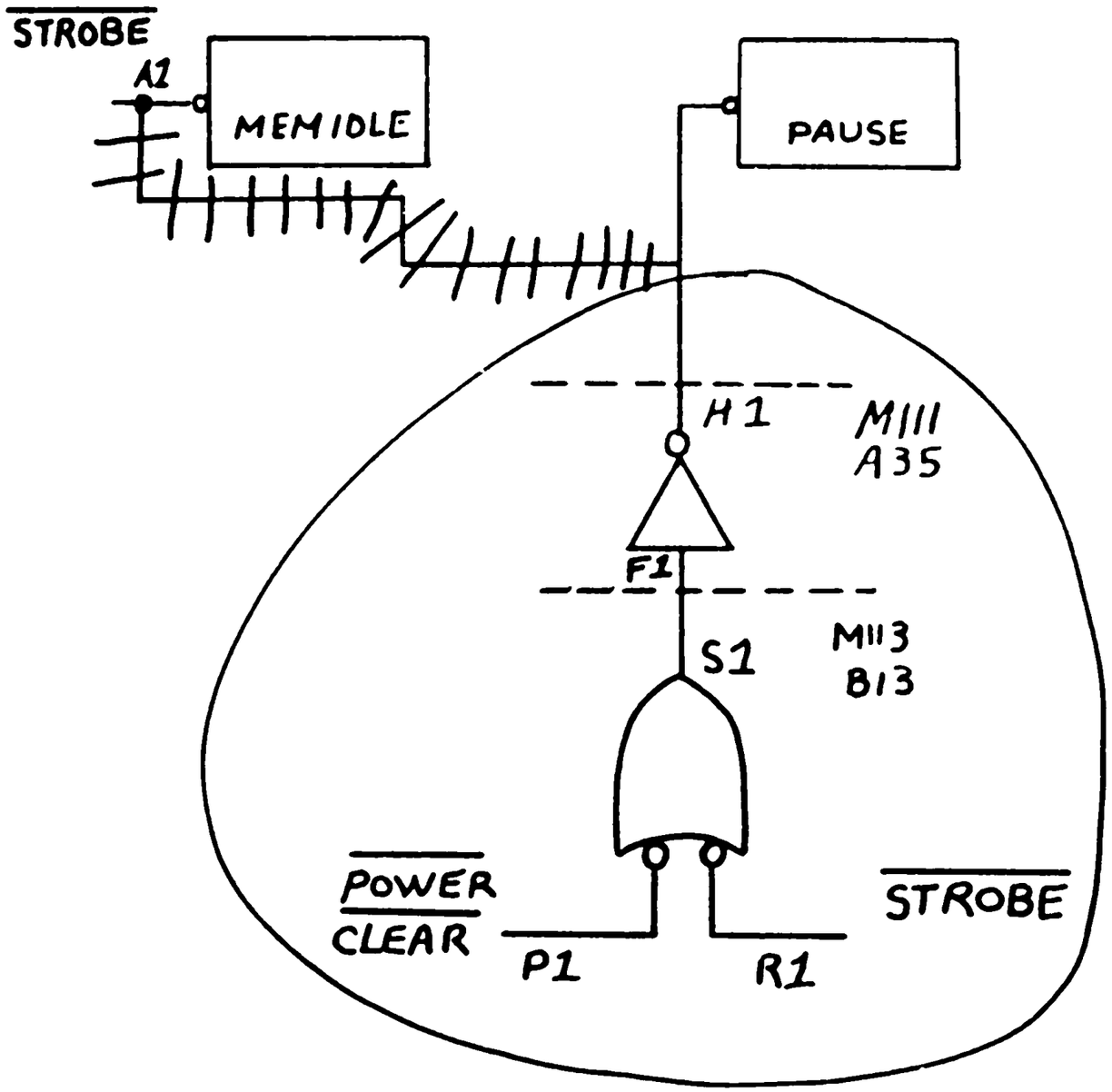
MADE BY DAVE CHAMBERS

DRAWING NUMBER AFFECTED

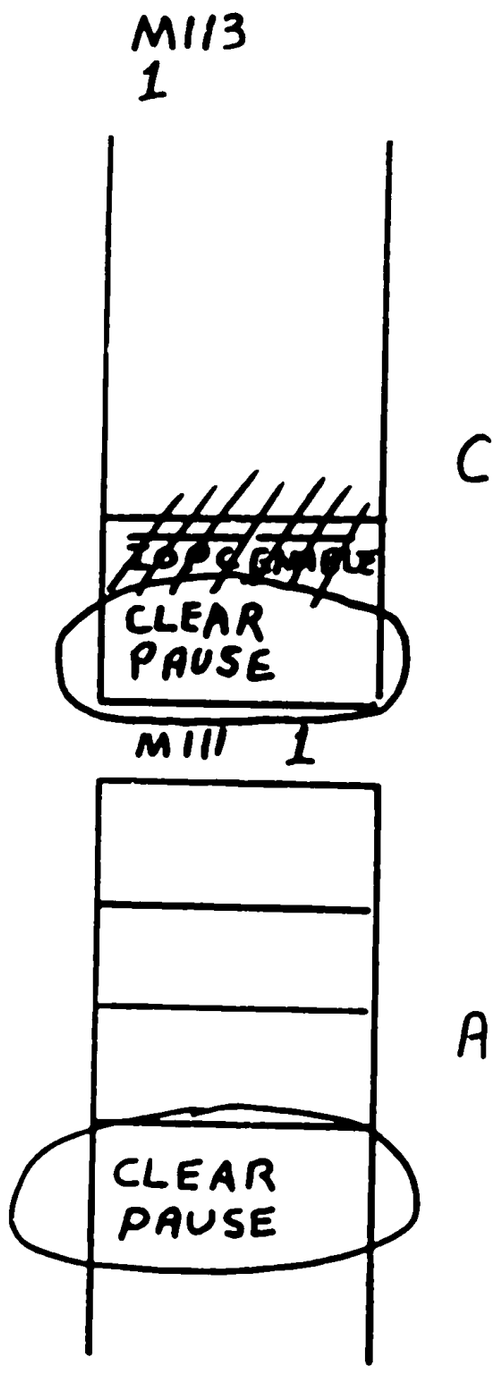
CODE	SIZE	NUMBER	NEW REV LTR
WL	K-8L-0-19		P

PDP8L-FCO-37

M216
C04



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



ECO 8I-00059 D-MU-8L-0-18 NEW REV. E

PDP8L-FCO-39

DIGITAL EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

RECD BY MFG SCP	MO	DAY	YR
SPECO RELEASE	6	25	69
	7	1	69

CHANGE NO. 8L-00062

DOCUMENTATION PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO
	2 6 0	7 1 7 5

MANUFACTURING PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

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

PREWIRED OPTIONS AFFECTED

MODEL NO	VARIATION

CHANGE TESTED IN SERIAL NO _____ BY _____

ESTIMATED TIME TO INSTALL _____

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

BREAK IN POINT
(SERIAL NO.)

ALL 8L WITH ECO #00059 SN. 1000- ➤ 1511 AND FUTURE

PROBLEM:

1. PINS REVERSED ON M113
2. MISSING WIRE

CORRECTION:

1. REVERSE PINS
2. ADD MISSING WIRE

DRAWINGS AFFECTED

NUMBER	ENG DEV	MFG DEV
D-BS-8L-0-2	F	H
K-WI-8L-0119	P	R
A-ML-8L-0	Z	AA

Field Service Code

F

ORIGINATOR	M. ARSENAULT	DATE	6 24 69
PRODUCTION ENG.	H. GODFREY	DATE	6 25 69
DESIGN ENG.	M. ARSENAULT	DATE	6-24-69
OTHER	F. PURCELL	DATE	6-24-69

PRODUCT LINES AFFECTED

SMALL COMPUTER 8L

PDP8L-FCO-40

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
	A35H1	C⌀4A1	A35H1		X	
	STROBE ~	C⌀4N2	C⌀4A1			X
		B34S2	B13R1			X
		C⌀4N2	B13P1		X	
	POWER CLEAR ~	A27S2	B13P1			X
		B13P1	D16A1			X
		A27S2	B13R1		X	
		B13R1	D16A1		X	
	B13S1	B13S1	A35F1		X	

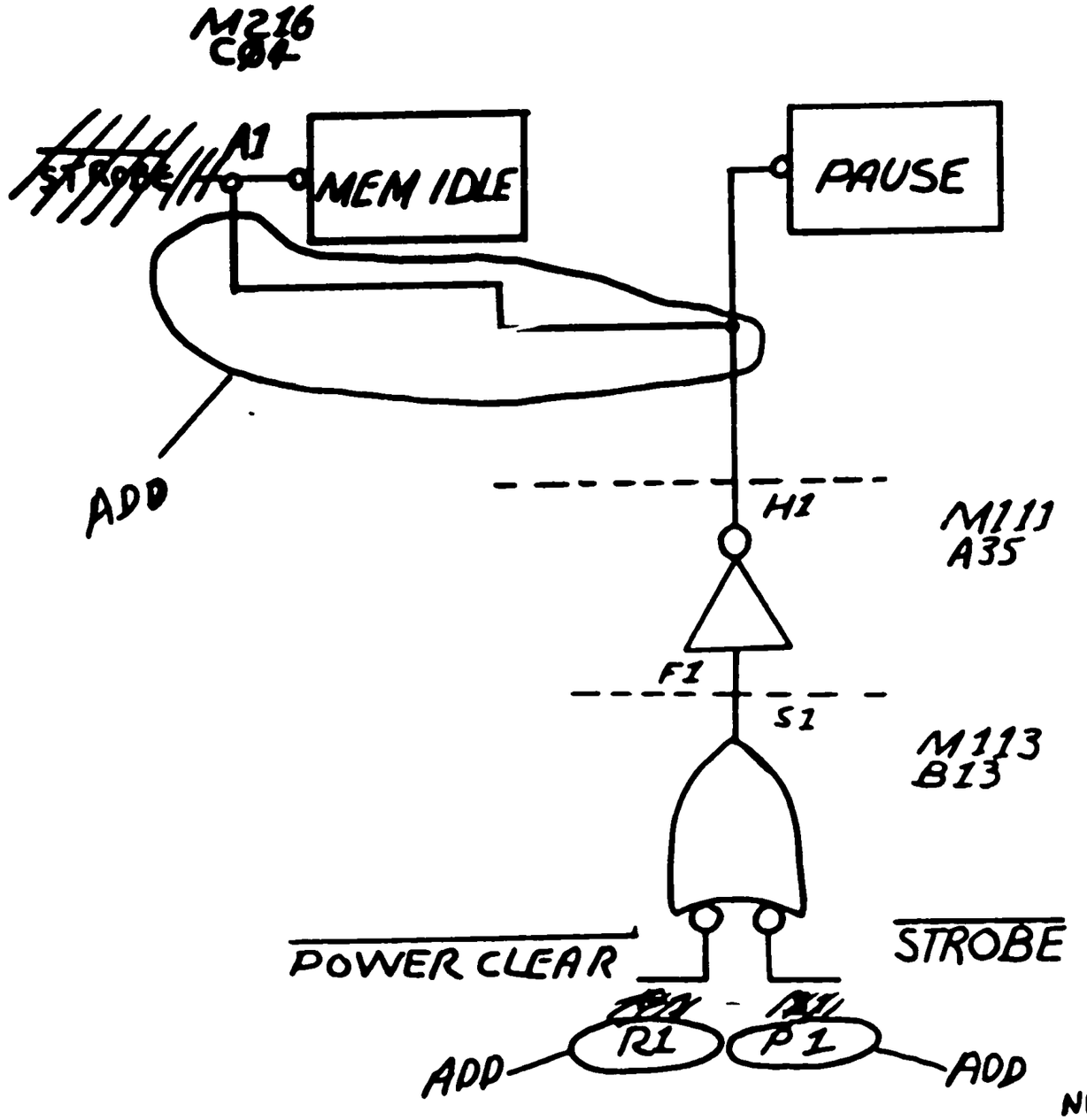
ECO NUMBER 8L-⌀⌀62

MADE BY DAVE CHAMBERS

DRAWING NUMBER AFFECTED

CODE	SIZE NUMBER	NEW REV LTR
WL	K-8L ⌀-19	R

PDP8L-FCO-41



NEW REV

ECO 8L-00062 D-BS-8L-0-2 H PDP8L-FCO-42

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ENGINEERING CHANGE ORDER

	MO	DAY	YR
RECD BY INFO SER	8	5	69
SPECO RELEASE	8	8	69

CHANGE NO. 8L-00068

CONSUMER/AT CUST PROJECT NUMBER

ACT	PR. S. NO.	TYPE OR DISCRETE NO
	2 16	8 7 1 7 5

MANUFACTURING PROJECT NUMBER

ACT	PR. S. LINE	TYPE OR DISCRETE NO

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

UNIT NAME PDP 8L MODEL NO. 8L

PREWIRED OPTIONS AFFECTED

MODEL NO	VARIATION

CHANGE TESTED IN SERIAL NO PROTO BY M. ARSENAULT

ESTIMATED TIME TO INSTALL 10 MINUTES

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

BREAK IN POINT
(DATE/SERIAL NOS)

ALL MACHINES
S.N.1 THRU 1429 AND FUUTRE

PROBLEM:

1. INITIALIZE ON THE BUS IS OF DIFFERENT POLARITY FROM 8I.

2. OMMISION OF GATE ON MUL.

CORRECTION:

1. CHANGE POLARITY OF BUS ON 8L TO KEEP BUS THE SAME.

2 .CORRECT MUL.

DRAWINGS AFFECTED

NUMBER	OLD DEV	NEW DEV
A-ML-8L-0	AD	AE
D-BS-8L-0-16	B	C
D-MU-8L-0-18	E	F
A-PL-8L-0-18	E	F
K-WL-8L-0-19	R	S

Field Service Code

F

PRODUCT LINES AFFECTED

SMALL COMPUTER 8L

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

SHEET 1 OF 4

PDP8L-FCO-43

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	
	$\overline{\text{INITIALIZE}}$	C30V2	C27S2			X
		C27S2	A14L1			X
		C30V2	A14L1		X	

ECO NUMBER 8L 00068

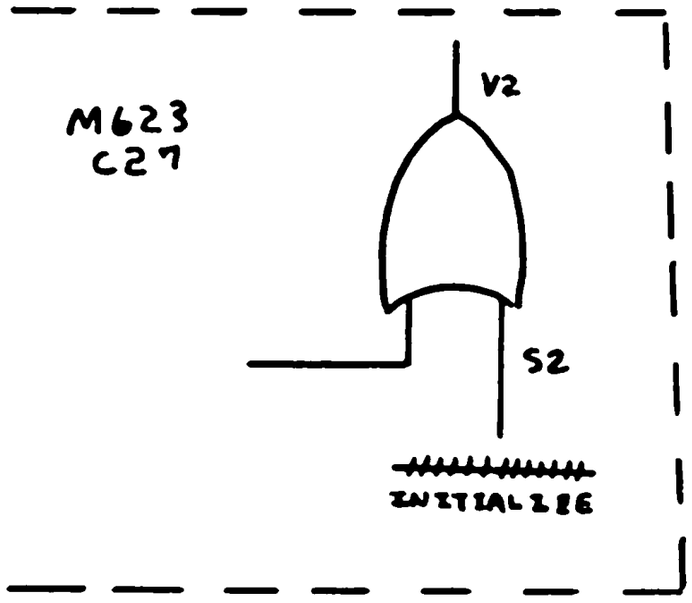
MADE BY J.W. PATE

DRAWING NUMBER AFFECTED

CODE	SIZE NUMBER	NEW REV LTR
WL	K 8L 0 19	5

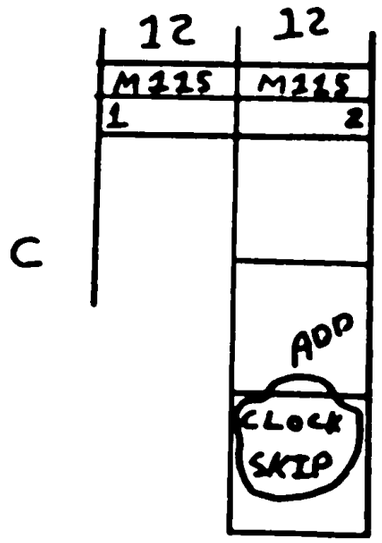
PDP8L-FCO—44

SHEET 3 OF 4

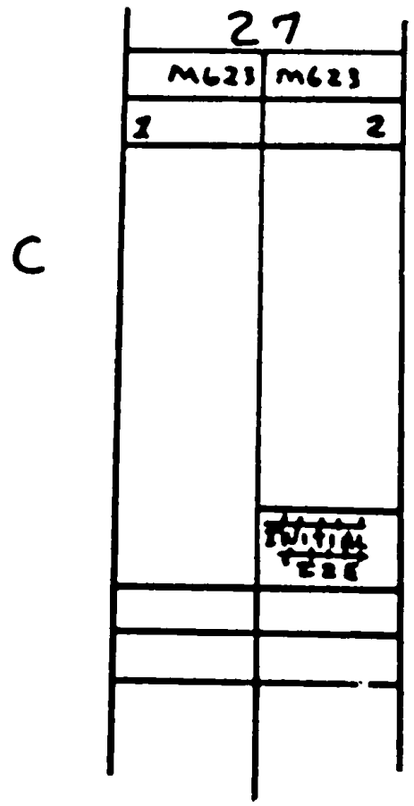


DWG LOC B-1

SHEET 4 OF 4



DWG LOC D-4



DWG LOC B-7

ECO 8L-00068 D-BS-8L-0-10 NEW REV C

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

PDP8L-FCO-45

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ENGINEERING CHANGE ORDER

	MO.	DAY	YR
RECD. BY INFO. SCR.	9	4	69
SPECO RELEASE	9	8	69

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

CHANGE NO. 8L-00071

DOCUMENTATION PROJECT NUMBER

ACT	PROD. LINE	TYPE OR DISCRETE NO
	2 16	0 7 1 6 0

MANUFACTURING PROJECT NUMBER

ACT	PROD 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

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

BREAK-IN POINT (DATE/SERIAL NOS.)

ALL 8L'S
SERIAL #1---1911 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 B2 32

DRAWINGS AFFECTED

NUMBER	G&O REV.	SPEC. REV.
A-ML-8L-0	AE	AE
D-AD-7005986-0-0	0	A
A-PL-7005986-0-0	0	A

Field Service Code

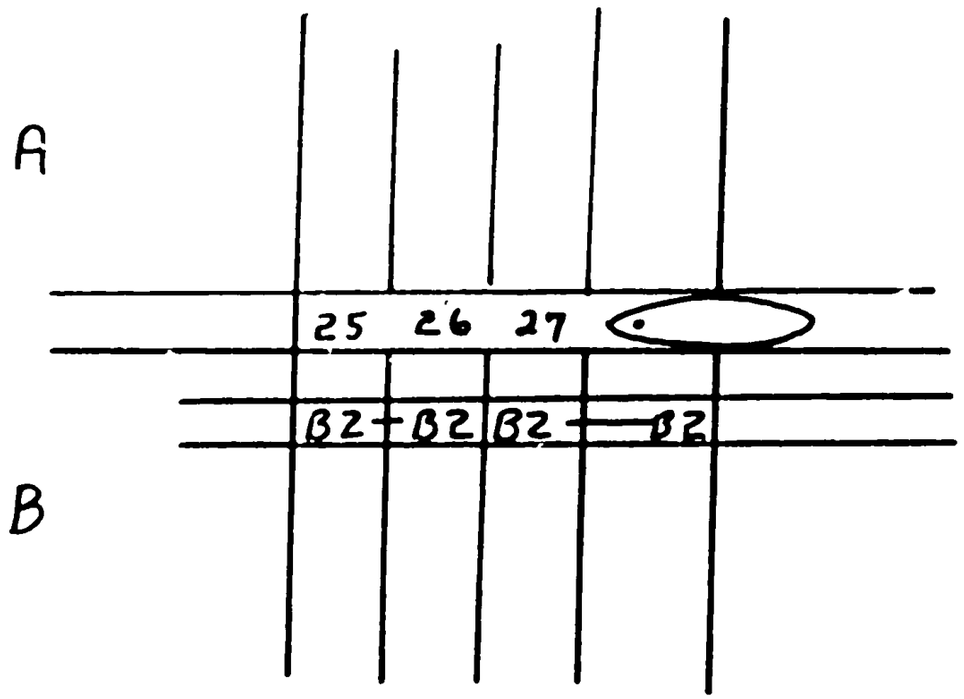
F

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

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ENGINEERING CHANGE ORDER

	MO.	DAY	YR
RECD. BY INFO. SER	9	17	69
SPECO RELEASE	9	25	69

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

CHANGE NO. 8L-00074

DOCUMENTATION PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO
	2 1 7	0 1 7 5 4 4

MANUFACTURING PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO

UNIT NAME PDP 8L MODEL NO. 8L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. PROTO BY M. ARSENAULT

ESTIMATED TIME TO INSTALL 10 MINUTES

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

BREAK-IN POINT (DATE/SERIAL NOS.)

ALL 8L
SN 100 THRU 1912 AND
FUTURE.

(FIELD INSTALL WHERE NEEDED

PROBLEM:

POSSIBLE MACHINE PROBLEMS BECAUSE OF POOR GROUNDING.

CORRECTION:

ADD GROUND WIRES WHERE NEEDED.

DRAWINGS AFFECTED

NUMBER	ORIG DEV	REV DEV
A-D-8L-0	AJ	AK
A-PL-7005986-0-0	A	B
D-AD-7005986-0-0	A	B

FIELD SERVICE CODE

F

PRODUCT LINES AFFECTED

SMALL COMPUTER 8L

ORIGINATOR	M.E. ARSENAULT	DATE	9/17/69
PRODUCTION ENG.	W.R. MILLER	DATE	9/18/69
DESIGN ENG.	M.E. ARSENAULT	DATE	9/17/69
OTHER	D. DUBAY	DATE	

SHEET 1 OF 2

PDP8L-FCO-48

NOTES:

ADD

6 SOLDER 22 GAUGE SOLID WIRE TO THF FOLLOWING, AS CLOSE TO BASE OF PIN AS POSSIBLE, AFTER PANEL IS BUSSED. USE BROWN OR BLACK SLEEVING,

A2ØC2 TO A23C2

B2ØC2 TO B23C2

C19C2 TO C23C2

D19C2 TO D23C2

DWG LOC C-1&2

ECO 8L-ØØØ74 D-AD-7ØØ5906-Ø-Ø NEW REV. B

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

	MO	DAY	YR
RECD. BY INFO. SER	10	13	69
SPECO RELEASE	10	22	69

CHANGE NO. 8L 00078

DOCUMENTATION PROJECT NUMBER

ACT | PROD LINE | TYPE OR DISCRETE NO

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

MANUFACTURING PROJECT NUMBER

ACT | PROD LINE | TYPE OR DISCRETE NO

TYPE OF CHANGE

ELECTRICAL [X]
MECHANICAL [ ]
MODULES [ ]

UNIT NAME PDP 8L MODEL NO. 8L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. PROTO BY M. ARSENAULT

ESTIMATED TIME TO INSTALL 30 MINUTES

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

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 $\overline{\text{LA+EX+DP}}$ TO CLEAR INT SYNC, WHEN DOING A KEY FUNCTION

DRAWINGS AFFECTED

NUMBER	OLD REV.	NEW REV.
A-ML-8L-[illegible]	AL	AM
D-BS-8L-[illegible]-2	J	K
D-BS-8L-[illegible]-7	A	B
D-MU-8L-[illegible]-18	F	H
A-PL-8L-[illegible]-18	F	H
K-ML-8L-[illegible]-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

SHEET 2 OF 6

MAKE ALL DELETIONS FIRST

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	C∅8M2			X
	↓	B13E1	C28F2		X	
	↓	C28F2	C∅8M2		X	
	INT ROST	A33P2	C14P1			X
	↓	A33P2	C28D2		X	
	+3V (5)	C1∅V1	C14R1		X	
	KEY LA+EX+DP	C∅2K2	D∅9H1			X
	↓	C∅2K2	C14P1		X	
	↓	C14P1	D∅9H1		X	
	$\overline{\text{KEY LA+EX+DP}}$	C14S1	C28E2		X	

ECO NUMBER 8L-∅∅∅78

MADE BY J.W. PATE

DRAWING NUMBER AFFECTED

CODE	SIZE NUMBER	NEW REV LTR
WL	K-8L-∅-19	T

PDP8L-FCO-51

digital

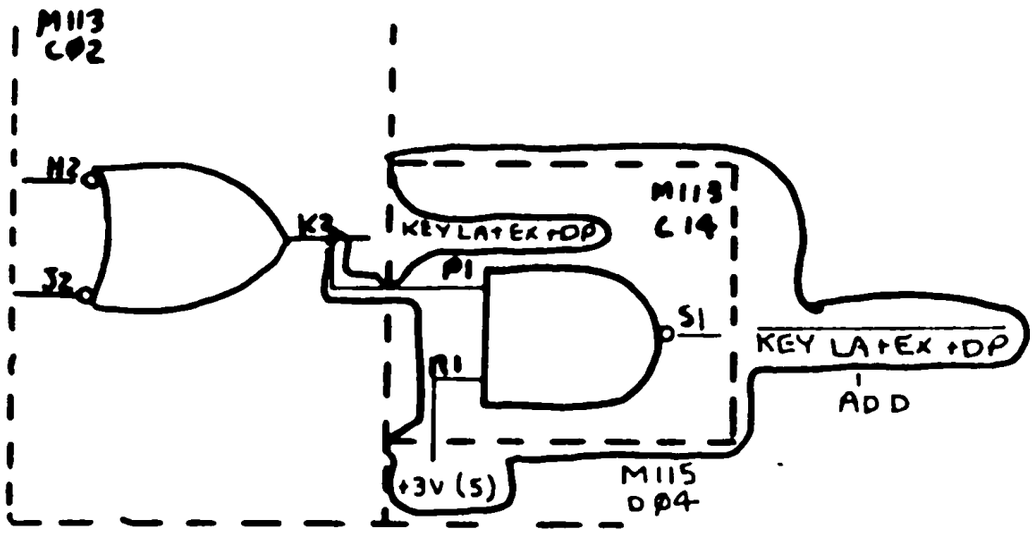
A SPECIAL REVS

DATE: 10/17/69

ECO NO. -L AA07-

DRAWING NO	NEW REV	SERIAL NO.	OLD REV ADDGIP	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

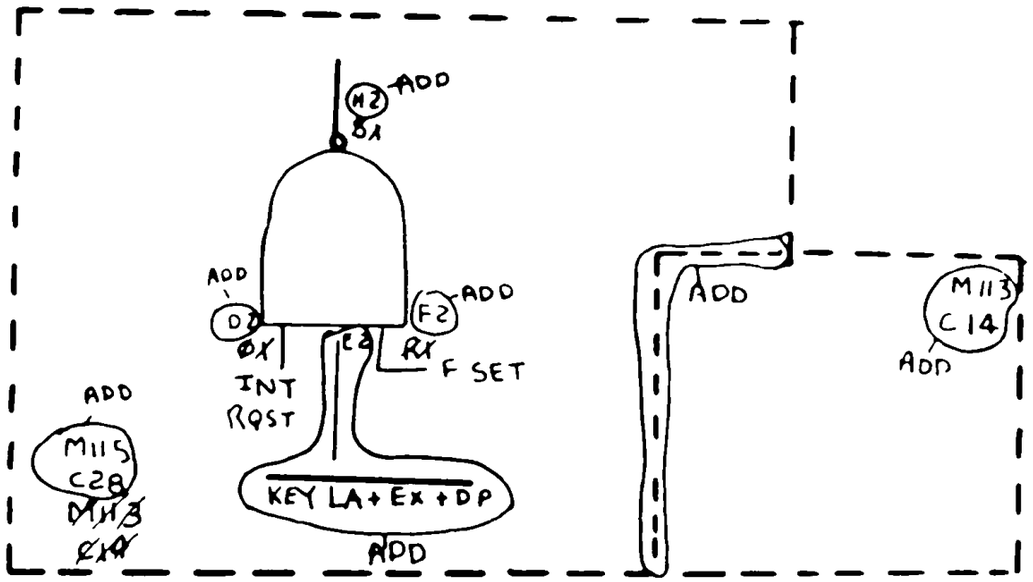
PDP8L-FCO-52



OWG LOC
B-4

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

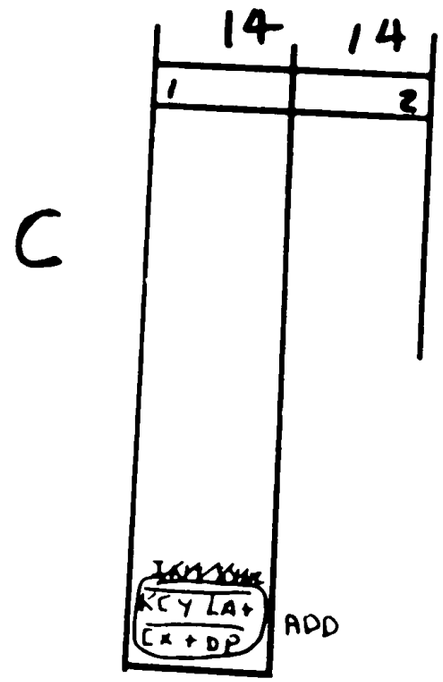
SHEET 5 OF 6

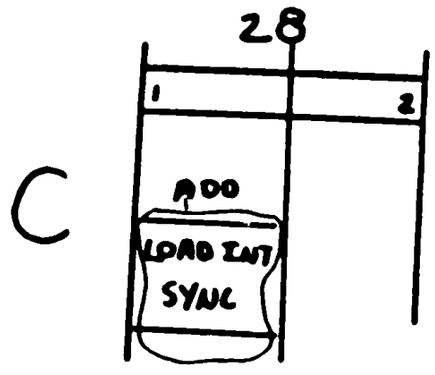


DWG LOC
C-D-4-5

ECO 8L-00078 D-BS-8L-0-7 NEW REV. B

SHEET 6 OF 6





ECO 8L-00078 D-MU-8L-Ø-18 NEW REV. H

PDP8L-FCO-54

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

	MO	DAY	YR
RECD BY INFO. SER	11	5	69
SPECO RELEASE	11	20	69

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

CHANGE NO. 8L-00083

DOCUMENTATION PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO
	2 7 0 7 5 4 4	

MANUFACTURING PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO

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

PREWIRED OPTIONS AFFECTED

MODEL NO	VARIATION

CHANGE TESTED IN SERIAL NO PROTO BY

ESTIMATED TIME TO INSTALL 5 MINUTES

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

BREAK IN POINT (DATE/SERIAL NOS.)

ALL 8L WITH ECO #78

1800 THRU 2054 AND FUTURE

PROBLEM:

WITH MACHINE RUNNING KEY LA + EX + DP IS NOT

DISABLED WHENECO #78 INSTALLED

CORRECTION:

CORRECTION TO ECO #78 GATF KEY LA + EX + DP

WITH RUN (0)

DRAWINGS AFFECTED

NUMBER	DEC DEV	DEC DEV
D-IS-8L-0-2	K	L
K-MI-8L-0-19	T	U
A-MI-8L-0	AM	AN

Field Service Code

F

ORIGINATOR	M. ARSENAULT	DATE	11/11/69
PRODUCTION ENG	B. VAILLANCOURT	DATE	11/5/69
DESIGN ENG.	M. ARSENAULT	DATE	11/4/69
OTHER	F. PURCELL	DATE	

PRODUCT LINES AFFECTED

8L

PDP8L-FCO-55

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)	C1ØV1	C14R1			X
	RUN (Ø)	C27D2	CØ6S1			X
		C27D2	C14R1		X	
		C14R1	CØ6S1		X	

ECO NUMBER 8L ØØØ83

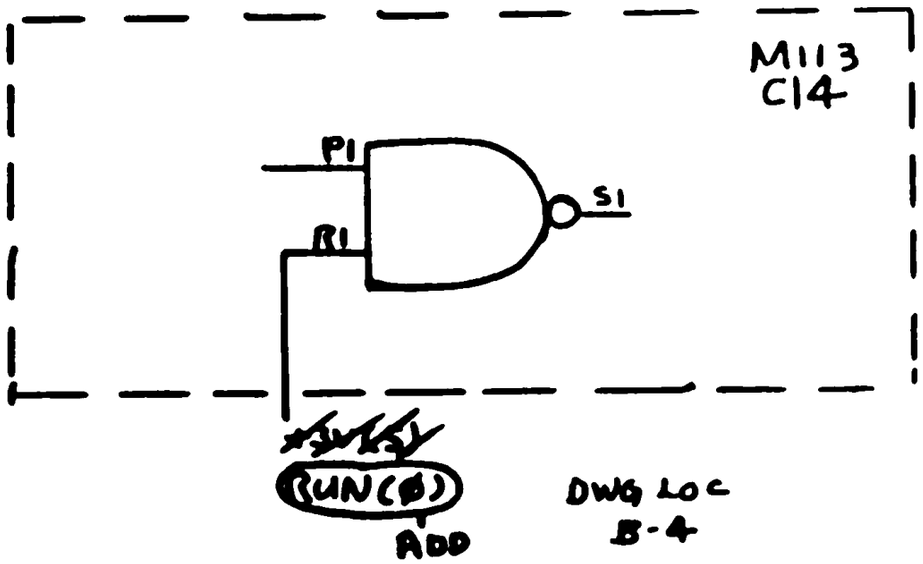
MADE BY J.W. PATE

DRAWING NUMBER AFFECTED

CODE	SIZE	NUMBER	NEW REV LTR
WL	F	8L Ø 19	U

PDP8L-FCO-56

SHEET 3 OF 3



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

digital EQUIPMENT CORPORATION
ENGINEERING CHANGE ORDER

RECD. BY INFO. SCP: MO 11 DAY 13 YR 69
SPECO RELEASE: MO 12 DAY 9 YR 69

CHANGE NO. 8L- 00085

DOCUMENTATION PROJECT NUMBER

ACT	PROD. LINE	TYPE OR DISCRETE NO.
2	7	0 7 5 4 4

MANUFACTURING PROJECT NUMBER

ACT	PROD. LINE	TYPE OR DISCRETE NO.

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

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

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

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 WITHTHE 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 DEV	NEW DEV
A-ML-8L-[illegible]	AR	AS
D-BS-8L-0-13	E	F
K-WL-8L 0-19	V	W

Field Service Code

F

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

SHEET 1 OF 1

PDP8L-FCO-58

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
	A27D2	A27D2	B28C1		X	
	STOP OK	D09K1	A36P2			X
		D09K1	B28E1		X	
		B28E1	A36P2		X	

ECO NUMBER 8L 0085

MADE BY J.W. PATE

DRAWING NUMBER AFFECTED

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

P0P8L-FCO-59

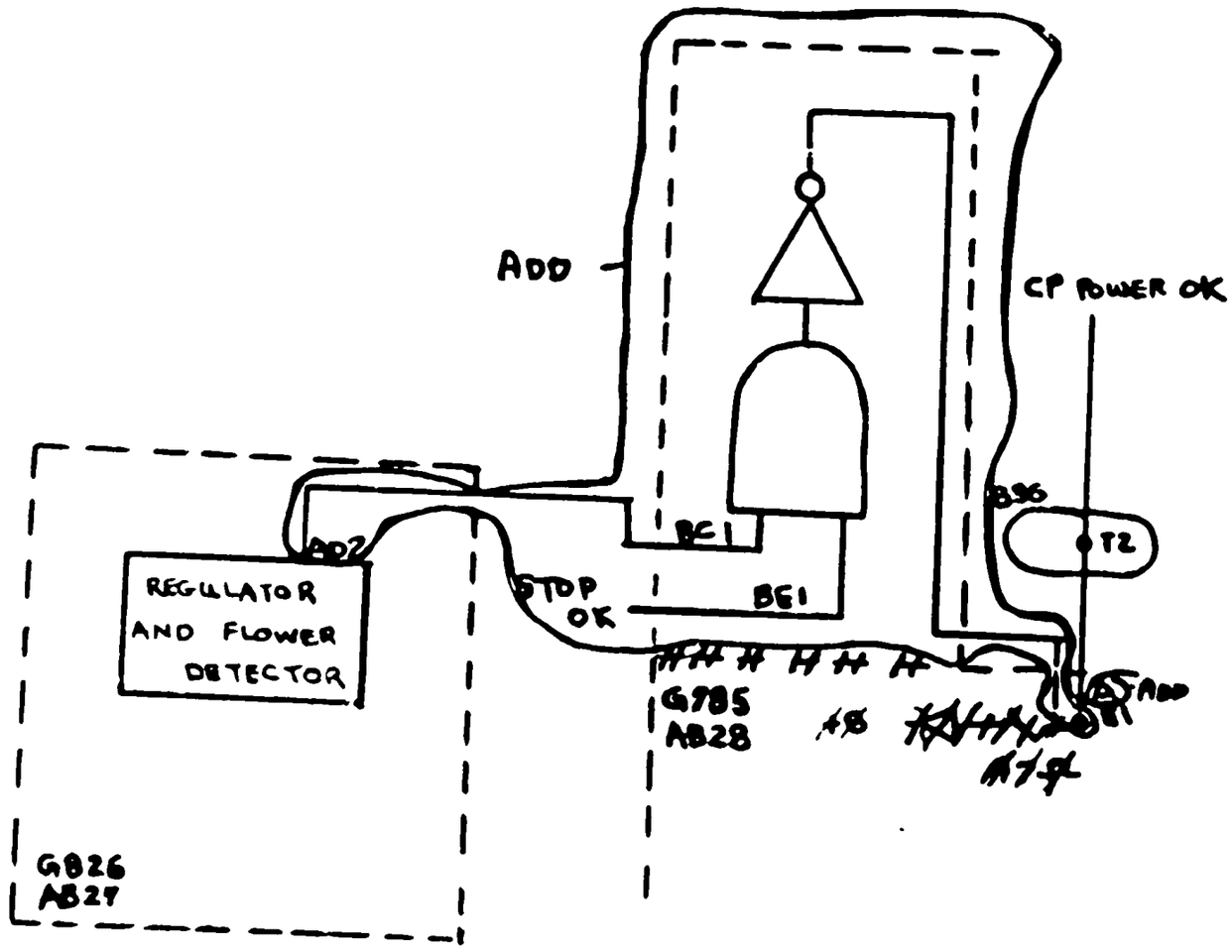
digital A SPECIAL REVS
DATE: 12/3/69

ECO NO. 8L 00085
PAGE 1 OF 1

DRAWING NO	NEW REV	SERIAL NO.	OLD REV ADDCIP	SEPIA?
D-BS-8L-Ø-13	F		E	
K-WL-8L-Ø-19	L2	1-76Ø, 768-999	L1	
↓	S1	1ØØØ-1799	S	
↓	2A	761	2	
↓	W	18ØØ--Ø	V	

SHEET 3 OF 4

PDP8L-FCO-6Ø



DWG LOC
B-6+7

ECO BL-00085

D-BS-8L-Ø-13 NEW REV P

PDP8L-FCO-61

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

	MO	DAY	YR
RECD. BY INFO. SER	12	22	69
SPECO RELEASE	1	8	70

CHANGE NO. 8L 00088

DOCUMENTATION PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO
	2 7	0 7 5 4 4

MANUFACTURING PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

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

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. _____ BY _____

ESTIMATED TIME TO INSTALL _____

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

BREAK IN POINT (DATE/SERIAL NOS.)

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 DEV	NEW DEV
D-BS-8L-0-2	L	M
D-BS-8L-0-17	B	C
D-MU-8L-0-18	H	J
K-WL-8L-0-19	W	Y
A-PL-8L-0-18	H	J
A-ML-8L-0	AS	AT

Field Service Code

F

PRODUCT LINES AFFECTED

8L

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

SHEET 1 OF 1

PDP8L-FCO-62

ADD/DELETE SHEET — SHEET 2 OF 6

MAKE ALL DELETIONS FIRST — PAGE 1 OF 2

WIRING CHANGES

COLOR	SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
	D@2S1	C@4U2	D@2S1			X
	INT OK	B13U2	C15L2			X
		C15L2	D12J2			X
		B13U2	C28E1		X	
		C28E1	D12J2		X	
	$\overline{\text{INT STROBE}}$	C@4U2	C28H1		X	
		C28H1	D@2S1		X	
	$\overline{\text{LOAD SF}}$	B36M1	C15N2			X
		B36M1	C28J1		X	
	IS 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 8L-@@@88

MADE BY GMS

DRAWING NUMBER AFFECTED

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

PDP8L-FCO-G3

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	C∅2R2	C∅5P2			X
		C∅5P2	D∅2H1			X
		C∅2R2	D∅2H1		X	
	$\overline{\text{KEY COUNT}}$	D∅1P2	C∅5P2		X	

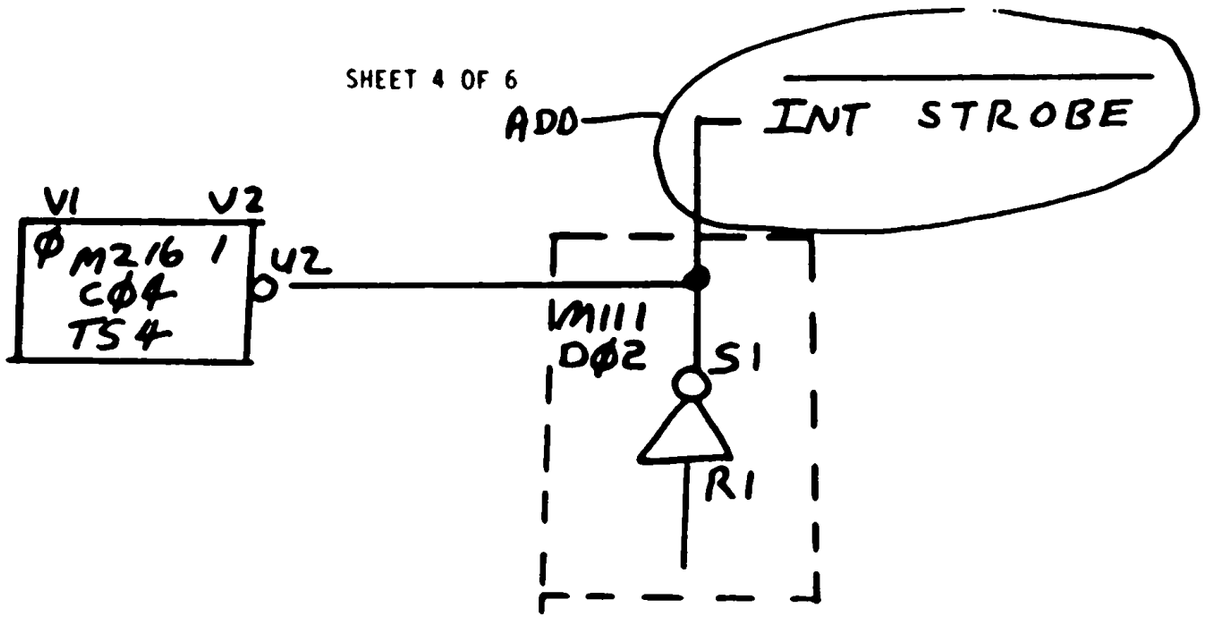
ECO NUMBER 8L ∅∅∅88

MADE BY Arc8

DRAWING NUMBER AFFECTED

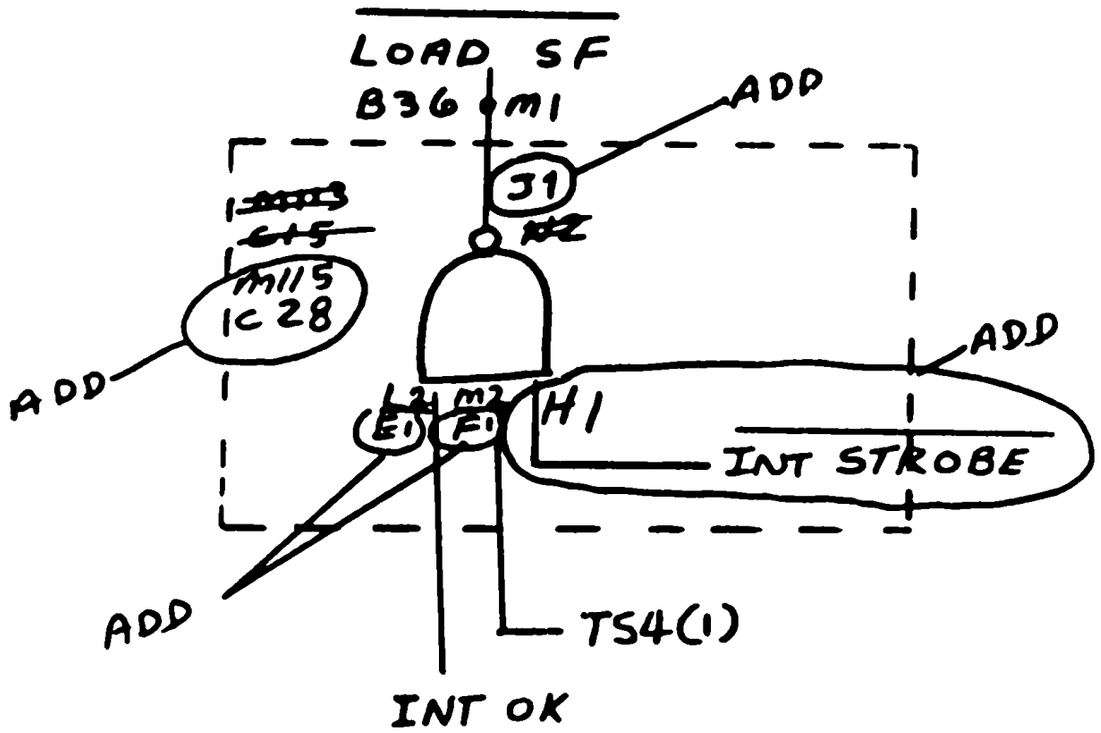
CODE	SIZE NUMBER	NEW REV LTR
WL	F-8L ∅-19	Y

PDP8L-FCO-64



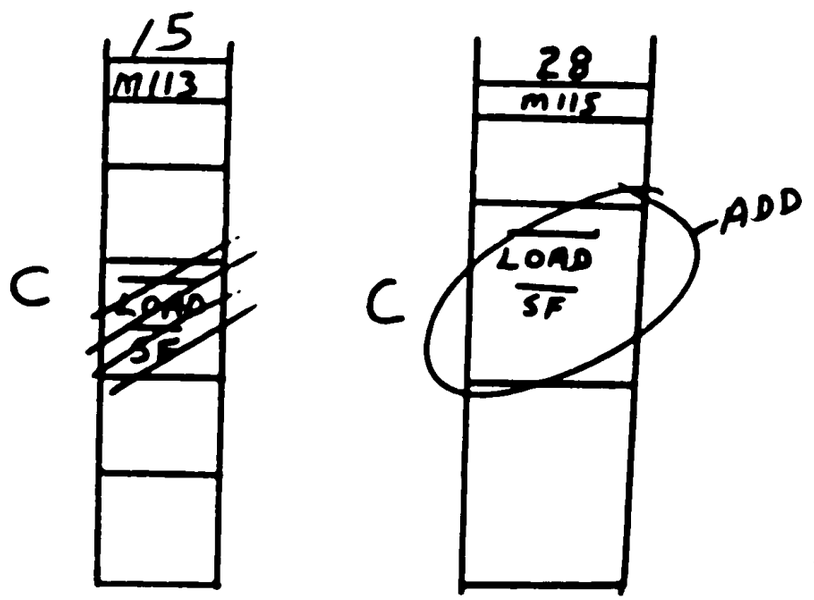
ECO # 8L-00088 D-BS-8L-0-2 NEW REV. M

SHEET 5 OF 6



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

SHEET 6 OF 6



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

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

RECD BY MFG SCP: MO 1 DAY 7 YR 69
SPECO RELEASE: MO 1 DAY 16 YR 69

CHANGE NO. 8L 00089

COMPLEMENTARY PROJECT NUMBER
ACT | PROD LINE | TYPE OR D SCRETE NO
2 | Z | 0 | 7 | 5 | 4 | 4

MANUFACTURING PROJECT NUMBER
ACT | PROD LINE | TYPE OR D SCRETE NO

TYPE OF CHANGE
ELECTRICAL X
MECHANICAL
MODULES

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

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO 1911 BY F. PURCELL

ESTIMATED TIME TO INSTALL

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

BREAK IN POINT
(BY SERIAL NO)

SERIAL NO. 2636 AND
FUTURE

PROBLEM:

IMPROPER GROUNDINGS ON I/O CONNECTOR SLOTS
ALLOWS PICKING UP OF NOISE. NO SPECIFIC FAILURE
IS KNOWN TO RESULT FROM THIS.

CORRECTION:

DRAWINGS AFFECTED

NUMBER	OLD DEV	NEW DEV
K-WL-8L-0 19	Y	Z
A-ML-8L 0	AT	AU

Field Service Code
F

PRODUCT LINES AFFECTED

ORIGINATOR	R. NUNLEY	DATE	1/6/70
PRODUCTION ENG	W.R.MILLER	DATE	1/6/70
DESIGN ENG.	M. ARSENAULT	DATE	1/6/70
OTHER	FRAMK PURCELL	DATE	1/6/70

PDP8L-FCO-67

ADD/DELETE SHEET SHEET 2 OF 2

MAKE ALL DELETIONS FIRST 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	

ECO NUMBER 8L-00089

MADE BY DCS

DRAWING NUMBER AFFECTED

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

PDP8L-FCO-68

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

	MO	DAY	YR
RECD. BY INFO. SER	1	8	70
SPECO RELEASE	1	19	70

CHANGE NO. 8L-00090

DOCUMENTATION PROJECT NUMBER

ACT | PROD LINE | TYPE OR DISCRETE NO

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

MANUFACTURING PROJECT NUMBER

ACT | PROD LINE | TYPE OR DISCRETE NO

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

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

HARDWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO 680 BY B. DUNGEY

ESTIMATED TIME TO INSTALL

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

BREAK IN POINT (DATE/SERIAL NOS.)

ALL 8/L'S
SERIAL NO. 100 THRU
?516 AND FUTURE

PROBLEM:

DURING TELETYPE TEST PART 2, TEST 3 RANDOM FAILURES OCCUR DUE TO INCORRECT ADVANCING EXTRA CHARACTER

CORRECTION:

TIE FLOATING LEG OF FATE TO +3V

REMOVE -30V TO W076 CONNECTOR

DRAWINGS AFFECTED

NUMBER	OLD REV	NEW REV
A-ML 8L 0	AO	AV
K-WL 8L 0 19	Z	M
D-BS-8L-0 11	A	B

Field Service Code

F

PRODUCT LINES AFFECTED

8I

ORIGINATOR	R. NUNLEY	DATE	1/6/70
PRODUCTION ENG.	W.R. MILLER	DATE	1/6/70
DESIGN ENG.	M. ARSENAULT	DATE	1/6/70
OTHER	F. PURCELL	DATE	1/6/70

PDP8L-FCO-69

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 (16)	D32R1	D32K2		X	
	MEM SUPPLY -	B23V2	B24V2			X
	↓	B23V2	D33V2			X
	↓	B23V2	B24V2		X	

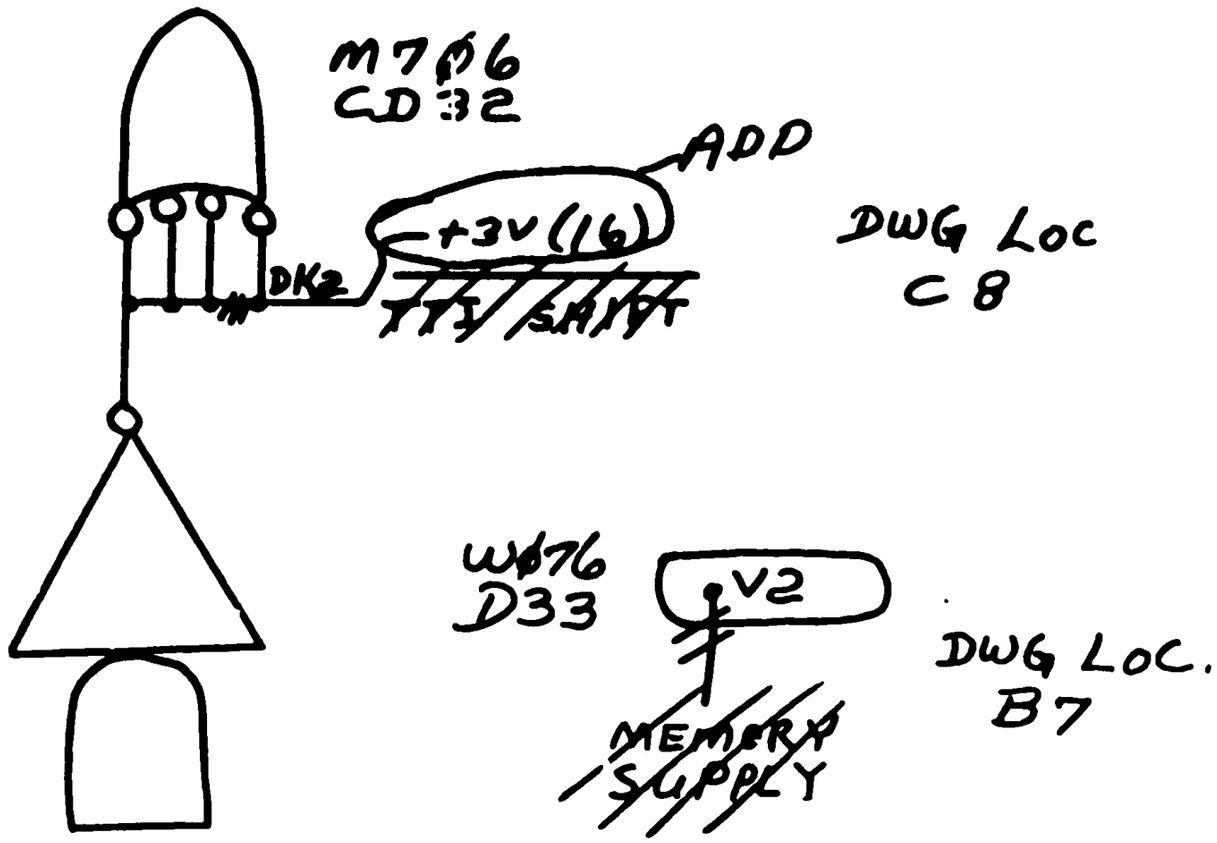
ECO NUMBER 8L 00000

MADE BY ONCS

DRAWING NUMBER AFFECTED

CODE	SIZE NUMBER	NEW REV LTR
WL	K-8L-0-10	M

PDP8L-FCO-70



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

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

	MO.	DAY	YR
RECD. BY INFO. SER	1	23	70
SPECO RELEASE	2	00	70

CHANGE NO. 8L-00091

DOCUMENTATION PROJECT NUMBER

ACT	PROD. LINE	TYPE OR DISCRETE NO
2	17	0754

MANUFACTURING PROJECT NUMBER

ACT	PROD. LINE	TYPE OR DISCRETE NO

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

UNIT NAME PDP-8L MODEL NO. 8L

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. _____ BY _____

ESTIMATED TIME TO INSTALL _____

	YES	NO
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)	X	
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

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-PL-8L-[illegible]-18	J	K
D-MU-8L-[illegible]-18	J	K
A-ML-8L-[illegible]	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

PDP8L-FCO-72

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

SC=SCRAP RN=RETAIN

RK=REWORK NC=NO CHANGE

ACTION TAKEN

PARTS ADDED

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

ECO NO. & L-00091

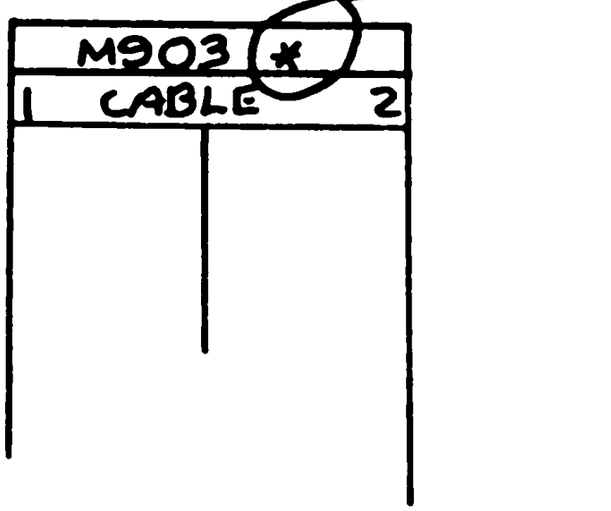
PAGE 1 OF 1

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

SHEET 3 OF 4

PDP8L-FCO-74

SLOT D-36



* NOTE ADDED

ECO #BL-00091 DMU-BL-0-16 NEW REV K

digital EQUIPMENT CORPORATION

ENGINEERING CHANGE ORDER

	MO	DAY	YR
RECD. BY INFO SER.	2	25	70
SPECS RELEASE	3	2	70

CHANGE NO. 8L-00092

DOCUMENTATION PROJECT NUMBER

ACT	PROD. LINE	TYPE OR DISCRETE NO
12	07	5144

MANUFACTURING PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

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

PREWIRED OPTIONS AFFECTED

MODEL NO.	VARIATION

CHANGE TESTED IN SERIAL NO. _____ BY _____

ESTIMATED TIME TO INSTALL 5 MINUTES

	YES	ADD
PARTS ADDED OR DELETED (IF YES REFER TO SEPARATE SHEET)		X
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

BREAK-IN POINT (DATE/SERIAL NO.)

S.N. 1000 THRU 2756 AND ALL FUTURE.
(ALL MACHINES WITH ECO #56)

PROBLEM:

CORRECTIONS TO ECO 8L-00056

TS 4 (0) MISSING ON IO PC ENABLE GATE.

PRINTS ARE CORRECT. WIRE LIST ERROR ONLY.

CORRECTION:

CORRECT THE WIRE LIST.

DRAWINGS AFFECTED

NUMBER	OLD REV.	NEW REV.
A-ML-8L-	AK	AY
K-ML-8L-0-19	AA	AB

Field Service Code

F

ORIGINATOR	M. ARSENAULT	DATE	2-25-70
PRODUCTION ENG	W.R.MILLER	DATE	2-25-70
DESIGN ENG.	M. ARSENAULT	DATE	2/25/70
OTHER	D. DUBAY AGK	DATE	

PRODUCT LINES AFFECTED

PDP-8L

PDP8L-FCO-76

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
	TS 4 (Ø)	CØ4V1	C2ØB1		X	

ECO NUMBER 8L-ØØØ92

MADE BY J.P.

DRAWING NUMBER AFFECTED

CODE	SIZE NUMBER	NEW REV LTR
WL	K-8L Ø-19	AB

PDP8L-FCO-77

digital EQUIPMENT CORPORATION
ENGINEERING CHANGE ORDER

	MO.	DAY	YR
RECD. BY INFO. SEC	10	4	70
SPECO RELEASE	10	20	70

CHANGE NO. 8L-0106

DOCUMENTATION PROJECT NUMBER

ACT	PROD. LINE	TYPE OR DISCRETE NO
8 10	0	7 5 4 4

MANUFACTURING PROJECT NUMBER

ACT	PROD LINE	TYPE OR DISCRETE NO

TYPE OF CHANGE

ELECTRICAL	X
MECHANICAL	
MODULES	

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

PREWIRED 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)	X	
SHOP MODEL AFFECTED		X
SYSTEMS PROGRAMS AFFECTED		X
DIAGNOSTIC PROGRAMS AFFECTED		X
TECHNICAL PUBLICATIONS AFFECTED		X

BREAK-IN POINT (DATE/SERIAL NOS.)

ALL 8L'S SER.#100 THRU 3124;5000 THRU5014 AND FUTURE.RETROFIT ALL SYSTEMS WITH DF32D OR TC08. PHASE IN ON ALL FUTURE 8L'S.

PROBLEM:

NO TERNINATION 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	ORIG DEV.	NEW DEV.
A-PL-8L-0-16	K	L
D-MU-8L-0-18	K	L
A-MI-8L-0	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

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

CHANGE NO. 8L-00106

DOCUMENTATION PROJECT NUMBER

ACT	PROD.LINE	TYPE OR DISCRETE
	8 0	0 1 5 4 6

MANUFACTURING PROJECT NUMBER

ACT	PROD.LINE	TYPE OR DISCRETE

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	M982-YA	1	RESISTOR TERMINATOR	
1	M982-YB	1	RESISTOR TERMINATOR	

PDP8L-FCO-79

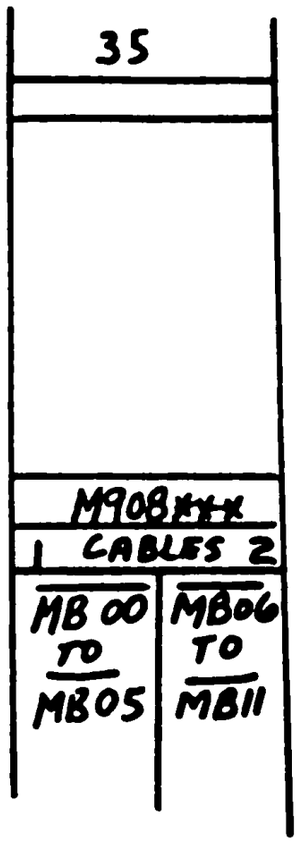
DWG NO./PART NO.	DESCRIPTION	QUANTITY VARIATION PDP-8L	
G7MT M902 YA	RESISTOR TERMINATOR	1	
M902 YB	RESISTOR TERMINATOR	1	

ADD

Sheet 2 of 2

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

SHEET 4 OF 4



SHEET 2 OF 2

ADD

::: THE GXXX (M902-YB) (TERMINATOR) IS ALWAYS PLACED AT THE END OF THE IO BUS FOR IOP'S, (AC BITS AND) ADD TIME STATES WHEN 20 ADD (5) FEET OR MORE OFCABLE IS USED. WHEN THERE ARE NO OPTIONS THE GXXX (M902-YB) ADD IS PLACED INLOCATION 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

ECO #8L-00106 D-MU 8L-0 :8 NEW REV. L

PDP8L-FCO-81

DIGITAL — ENGINEERING CHANGE ORDER

ECO NO. 8L 00107

Sheet 1 of 2

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

EQUIPMENT AFFECTED

TYPE CHANGE

- ELECTRICAL ☑
- MECHANICAL ☐
- MODULE ☑
- SUBASSEMBLY ☐
- MFG/FIELD PROCEDURE ☐

TEST INFORMATION

SERIAL #

BY

UNIT TO BE CHANGED

PDP 8L

PRODUCT LINES

PDP 8L

CHECKLIST

	YES	NO
SHOP MODEL	☐	☒
SYSTEMS PROGRAMS	☐	☒
DIAGNOSTICS	☐	☒
TECHNICAL PUB.	☐	☒
TEST PROGRAMS	☐	☒
TESTER	☐	☒
MFG/FIELD PROCEDURE	☐	☒
PACKAGING INSTRUCTIONS	☐	☒
TOOLING	☐	☒

BREAK IN POINT

SYSTEM	MODULE/OPTION	FIELD	RETROFIT	REWORK	CODE
	PDP-8L				F

SIGNIFICANCE

- REQ TO MEET SPECIFICATION ☐
- PROD IMPROVEMENT ☐
- CUSTOMER/FIELD REQ. ☐
- FACILITATE MFG. ☐
- DRAWING CORRECTION ☒
- VENDOR ☐

PROBLEM

ECO #8L 00062 DELETED PIN C04A1 FROM SIGNAL $\overline{\text{STROBE}}$. 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 $\overline{\text{STROBE}}$ AND ADD IT TO A35H1. PRINT CORRECTION ONLY.

APPROVAL

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

PDP8L-FCO—82

digital

ENGINEERING CHANGE ORDER
DOCUMENT & MATERIAL
CHANGE

ECO NO.
8L-ØØ1Ø7

SHEET 2 OF 2

	DOCUMENT/OR PART NUMBER	OLD REV	NEW REV	(PART NAME) DESCRIPTION OF CHANGE	DISP
1	A-ML 8L-Ø	BE	BF	UPDATE REV FOR ITEM 2 OF THIS ECO	Ø6
2	D BS-8L-Ø 2	M	N	(TIMING, MANUAL FUNCTIONS AND RUN) DELETE PIN C04A1 FROM SIGNAL STROBE ZONE D-7	Ø6

DISPOSITION CODES

USE UP PRESENT STOCK	Ø1	RETROFIT TO BREAK-IN	Ø5
USE PRESENT STOCK UNTIL NEW STOCK AVAILABLE	Ø2	DOCUMENTATION CHANGE ONLY	Ø6
REWORK ALL MATERIAL	Ø3	NEW ITEM PURCHASE	Ø7
REWORK UNTIL NEW STOCK AVAILABLE	Ø4	NEW ITEM IN STOCK	Ø9
		NEW ITEM ON ORDER	Ø9
		RETAIN	ØØ

PDP8L-FCO-83

ENGINEERING CHANGE ORDER

ECO NO. 8L-ØØ112

Sheet 1 of 3

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

EQUIPMENT AFFECTED

TYPE CHANGE

ELECTRICAL	☒
MECHANICAL	☐
MODULE	☐
SUBASSEMBLY	☐
MFG/FIELD PROCEDURE	☐

TEST INFORMATION

SERIAL #

BY

UNIT TO BE CHANGED

PDP-8L

PRODUCT LINES

PDP-8L

CHECKLIST

	YES	NO
SHOP MODEL	☐	☒
SYSTEMS PROGRAMS	☐	☒
DIAGNOSTICS	☐	☒
TECHNICAL PUB.	☐	☒
TEST PROGRAMS	☐	☒
TESTER	☐	☒
MFG/FIELD PROCEDURE	☐	☒
PACKAGING INSTRUCTIONS	☐	☒
TOOLING	☐	☒

BREAK IN POINT

SYSTEM	MODULE/OPTION	FIELD RETROFIT	REWORK	CODE
	PDP-8L	RETROFIT ONLY AT REQUEST AND EXPENSE CUSTOMER.		Ø1

SIGNIFICANCE

REQ TO MEET SPECIFICATION	☐
PROD IMPROVEMENT	☐
CUSTOMER/FIELD REQ.	☒
FACILITATE MFG.	☐
DRAWING CORRECTION	☐
VENDOR	☐

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

PRODUCTION ENGINEER T. MACDONALD

CHIEF ENGINEER

ENG MGR R. VOGELSANG

FIELD SERVICE (ADVISORY) R. NUNLEY

PDP8L-FCO-84

digital

ENGINEERING CHANGE ORDER
DOCUMENT & MATERIAL
CHANGE

ECO NO.
8L-ØØ112
SHEET 2 OF 3

	DOCUMENT/OR PART NUMBER	OLD REV	NEW REV	(PART NAME) DESCRIPTION OF CHANGE	DISP CODE
1	D-BS-8L-Ø-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	Ø6
2	A-ML 8L-Ø	BK	BL	UPDATE REVS PER THIS ECO	Ø6

DISPOSITION CODES

USE UP PRESENT STOCK	Ø1	RETROFIT TO BREAK-IN	Ø5
USE PRESENT STOCK UNTIL NEW STOCK AVAILABLE	Ø2	DOCUMENTATION CHANGE ONLY	Ø6
REWORK ALL MATERIAL	Ø3	NEW ITEM PURCHASE	Ø7
REWORK UNTIL NEW STOCK AVAILABLE	Ø4	NEW ITEM IN STOCK	Ø9
		NEW ITEM ON ORDER	Ø9
		RETAIN	ØØ

PDP8L-FCO-85

digital

ENGINEERING CHANGE ORDER

ADD/DELETE SHEET

ECO NO. 8L ØØ112

SHEET 3 OF 3

WIRE LIST NO. D 8S-8L Ø 11

TITLE

MAKE ALL DELETIONS FIRST WHEN INSTALLING

SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
KCC	C32V2	C32E2			X
GND	D32D1	D32C2			X
GND	D32D1	D32T1			X
TTAC CLEAR	D32E2	C32V2		X	
KRB	D32D1	C32V1		X	
GND	D32T1	D32C2		X	

PDP8L-FCO-86

ENGINEERING CHANGE ORDER

ECO NO. -L 00113

Sheet 1 of 3

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

EQUIPMENT AFFECTED

TYPE CHANGE

- ELECTRICAL [X]
- MECHANICAL [ ]
- MODULE [ ]
- SUBASSEMBLY [ ]
- MFG/FIELD PROCEDURE [ ]

TEST INFORMATION

SERIAL # 2818
BY ED REED

UNIT TO BE CHANGED

PDP 8L

PRODUCT LINES

TPL

CHECKLIST

	YES	NO
SHOP MODEL	[ ]	[X]
SYSTEMS PROGRAMS	[ ]	[X]
DIAGNOSTICS	[ ]	[X]
TECHNICAL PUB.	[ ]	[X]
TEST PROGRAMS	[ ]	[X]
TESTER	[ ]	[X]
MFG/FIELD PROCEDURE	[ ]	[X]
PACKAGING INSTRUCTIONS	[ ]	[X]
TOOLING	[ ]	[X]

BREAK IN POINT

SYSTEM	MODULE/OPTION	FIELD RETROFIT	REWORK	CODE
	8L	ONLY WHEN A BM8-L MEMORY EXPANSION IS INSTALLED.	Y	

SIGNIFICANCE

- REQ TO MEET SPECIFICATION [ ]
- PROD IMPROVEMENT [ ]
- CUSTOMER/FIELD REQ. [X]
- FACILITATE MFG. [ ]
- DRAWING CORRECTION [ ]
- VENDOR [ ]

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
PRODUCTION ENGINEER R. REED
CHIEF ENGINEER
ENG MGR
FIELD SERVICE (ADVISORY) R. NUNLEY

PDP8L-FCO-87

digital

ENGINEERING CHANGE ORDER
DOCUMENT & MATERIAL
CHANGE

ECO NO.
- 0011[illegible]
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	01
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.	01
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

digital

ENGINEERING CHANGE ORDER

ADD/DELETE SHEET

ECO NO.
8L 00113
SHEET 3 OF 3

WIRE LIST NO. K WL 8L Ø 19

TITLE

8L REV AE

MAKE ALL DELETIONS FIRST WHEN INSTALLING

SIGNAL NAME	FROM PIN	TO PIN	COMPONENTS	ADD	DEL
B33T2	B33T2	C35T2		X	
B33V2	B33V2	C35V2		X	

PDP8L-FCO-89

TECH TIPS

	FIELD SERVICE TECHNICAL MANUAL				Option or Designator
	12 Bit [X]	16 Bit [ ]	18 Bit [ ]	36 Bit [ ]	PDP-8L

Title BUFFERING OF POWER CLEAR		Tech Tip Number PDP-8L TT#1
All Processor Applicability 8I	Author Robert Nunley Rev 0	Cross Reference
	Approval M. 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 as 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 syptoms 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.

COMPANY CONFIDENTIAL

PDP8L-TT-1

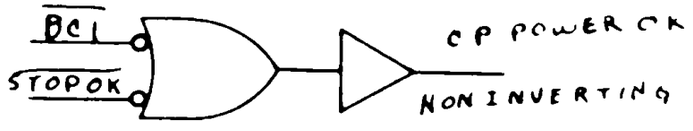
Title	PRINT CORRECTIONS IN 8L		Tech Tip Number	PDP-8L TT #2
Processor Applicability: All / 8L	Author: Robert Nunley	Rev: 0	Cross Reference	
	Approved: W. Cummins	Date: 7-31-72		

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-∅-2 coordinates D-7 direct clear of TS1 is not ~~strobe~~, but the "OR" function of ~~Power Clear~~ + ~~Strobe~~. The signal comes from Inverter M111 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-∅-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
Processor Applicability: All / 8L	Author: Art Newbury	Rev: 0	Cross Reference	
	Approved: 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 M115 which is added in slot C28. The Add/Delete sheet, however, fails to include the wiring of the TS4 (∅) input to C28B1. The following Add will resolve the problem:

C28B1 to C∅4V1

FIELD SERVICE TECHNICAL MANUAL				Option or Designator
12 Bit ☒	16 Bit ☐	18 Bit ☐	36 Bit ☐	PDP-8L

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

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 aaply'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
Processor Applicability: All / 8L	Author W. Freeman Rev 0 Approval W.Cummins Date 12/1/73	Cross Reference

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.

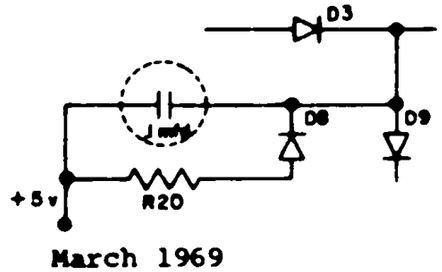
It was found that the use of a 6 amp fuse for F-3 produced reliable operation. An ECO for changing this specification (#718-00007) is being prepared for distribution. This will be a permanent change for all 718 power supplies. The proper fuse ratings for the 718 power supply are:

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

Title	Tech Tip Number
8L AFFECTED BY EXTERNAL NOISE	PDP8L TT47
Processor Applicability: All / 8L	Author: W. Freeman — Rev: g
	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 indictitive 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 Number
B RUN NOISE	PDP8L-TT-8
Processor Applicability: All / 8L	Author: W. Freeman — Rev: g
	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.

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

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

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	A	Mgr /Sup	R. ALVAREZ	Date 3.14.78	Cross Reference
		Approval		Date	LA36 TT 19

THIS TECH TIP IS FOR CROSS REFERENCE ONLY.