Digital Equipment Corporation
Maynard, Massachusetts

digital

Engineering Drawings

PC04/PC05
PAPER-TAPE READER/PUNCH
(FEED-HOLE STROBED MODELS)

DEC-00-PC0A-D (II)

PC04/PC05
PAPER-TAPE READER/PUNCH
(FEED-HOLE STROBED MODELS)

ENGINEERING DRAWINGS

DIGITAL EQUIPMENT CORPORATION • MAYNARD, MASSACHUSETTS

1st Edition June 1971

ENGINEERING DRAWINGS

PC04 Engineering Drawings

Number	Title
D-DI-PC04-0-1	Drawing Index
D-UA-PC04-0-0	Unit Assembly
A-PL-PC04-0-0	Unit Assembly Parts List
D-BS-PC04-0-2	Power and Control Schematic Diagram
C-MU-PC04-0-3	Module Utilization List
A-PL-PC04-0-3	Parts List, Modules
E-AD-7006268-0-0	Bus Bar
A-PL-7006268-0-0	Bus Bar, Parts List
A-SP-PC04-0-4	PC04 Engineering Specification

PC05 Engineering Drawings

Number	Title
D-DI-PC05-0-1	Drawing Index
D-UA-PC05-0-0	Unit Assembly
A-PL-PC05-0-0	Unit Assembly, Parts List
D-BS-PC05-0-4	Power and Control Schematic
C-MU-PC05-0-3	Module Utilization List
A-PL-PC05-0-3	Parts List, Modules
C-AD-7006253-0-0	Bus Bar
A-PL-7006253-0-0	Bus Bar, Parts List

PC04/PC05 Module Circuit Schematics

Module	Number	Title
G918	C-CS-G918-0-1	Photo Transistor Amplifier
M040	B-CS-M040-0-1	Solenoid Driver
M044	B-CS-M710-0-1	Solenoid Driver
M710	C-CS-M710-0-1	Punch Control
M715	C-CS-M715-0-1	Ready Clock
M840	E-CS-M840-0-1	Reader/Punch Control
M7050	D-CS-M7050-0-1	Reader Control

MODEL	DESCRIPTION	CY.	COMPOSITION FIND NUMBER 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
PC04-B, BB & BL	PUNCH & READER	60	-1	X	X	X		X	X	X	X				-1	-1	-4	X	X	
PC04-BA, BC & BM	PUNCH & READER	50	-2	X	X	X		X	X	X	X				-1	-1	-4	X	X	
PC04-C	PUNCH, READER, DRIVER	60	-1	X	X	X		X	X	X	X	X	X	X	-4	-4	-3	X	X	
PC04-CA	PUNCH READER DRIVER	50	-2	X	X	X		X	X	X	X	X	X	X	-4	-4	-3	X	X	
PC04-P & PL	PUNCH	60	-1					X	X	X	X				-2	-2	-2	X	X	
PC04-PA & PM	PUNCH	50	-2					X	X	X	X				-2	-2	-2	X	X	
PC04-R & RB	READER			X	X	X		X	X	X	X				-3	-3	-0		X	X

NOTES:
1 THE KEY TO SYMBOLS IN THE FIND NO. COLUMNS IN FIND BLOCK 1 IS:
AN "X" MEANS THE ASSY IS USED.
A BLANK SPACE MEANS THE ASSY. IS NOT USED.
A DASH AND NUMBER (-1,-2 ETC) MEANS THE ASSY. IS USED AND THAT VARIATION OF THE ASSY. HAVING THAT PARTICULAR DASH NUMBER AS PART OF ITS DWG. NUMBER IS USED.
EXAMPLE:
A PUNCH MODEL FROM FIND COLUMN 14 USES A (-2) OR A D-AD-7006252-2-0 COVER ASSY

(2) PUNCH ASSY (60CY) D-AD-7006249-1-0
PUNCH ASSY (50CY) D-AD-7006249-2-0

(3) READER ASSY D-AD-7006247-0-0
(4) PHOTO-TRANSISTOR ASSY C-AD-7006267-0-0
(5) PHOTO TRANSISTOR BOARD ASSY D-1A-5409227-0-0

(7) CHASSIS & POWER SUPPLY ASSY D-AD-7006246-0-0
(8) POWER REGULATOR ASSY C-AD-7006512-0=0
(9) POWER REGULATOR BD ASSY C-1A-5408918-0-0
(10) ETCH BD D-1A-5008919-0-0

(11) SCR DRIVER ASSY C-AD-5408385-0-0
(12) TERMINAL BOARD ASSY B-1A-5403770-0-0
(13) TERMINAL BOARD C-1A-5003717-0-0

(14) COVER ASSY D-AD-7006252-1-0
COVER ASSY D-AD-7006252-2-0
COVER ASSY D-AD-7006252-3-0
COVER ASSY D-AD-7006252-4-0
(15) BEZEL SWITCH C-1A-7407134-1-0
BEZEL SWITCH C-1A-7407134-2-0
BEZEL SWITCH C-1A-7407134-3-0
BEZEL SWITCH C-1A-7407131-4-0

(16) SWITCH ASSY C-AD-5408935-0-0
SWITCH ASSY C-AD-5408310-3-0
SWITCH ASSY C-AD-5408310-4-0
(17) ETCH BOARD D-1A-5009309-0-0
(19) ETCH BOARD D-1A-5008934-0-0

(18) PC04 BUS BAR E-AD-706268-0-0
PC04 BUS BAR E-AD-706268-1-0

UNIT ASSY. DWG. NO. D-UA-PC04-0-0

REVISIONS CHK	CHANGE NO	REV
2nd	PC04- 0006	A
	T. Quillen 7-7-69	
	BECKNER	
2nd	PC04-00009	B
	T. Quillen 11-3-69	
2nd	PC04-00011	C
	G. BECKNER	
2nd	PC04-00013	D
	G BECKNER	
2nd	TU55-00014	E
	I. MORRIS	
2nd	PCO -00002	F
	T Quillen 3-10 70	
	CORELL	
2nd	PC04-00019	H
	T. Quillen 3-20-70	
	CORELL	
2nd	PC04-00021	J
	T. Quillen 4-21-70	
	ADLEMAN	
2nd	PC04-00022	K
	C. YOUSE	
2nd	PC04-00024	L
	ADLEMAN	
2nd	PC04-00032	M
	T. Quillen 6-24-70	
	CORELL	
2nd	PC04-00036	N
	M LEIS 12/2/70	
2nd	PC04-00041	P
	M LEIS 12/9/70	
2nd	PC04-00044	R
	M LEIS 1-26-71	
2nd	PC04-00046	S
	J. W. Lawrence 2-24-71	
2nd	PC04-00051	T
	M LEIS 3-30-71	
	M. Quinn 6-11-71	
	E. LUTTIG 6/21/71	

DEC FORM NO DRD 100

FIRST USED ON OPTION/MODEL: PC04

DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES
TOLERANCES DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY √
REMOVE BURRS AND BREAK SHARP CORNERS
MATERIAL —
FINISH —

QTY.	DESCRIPTION	PART NO.

PARTS LIST

DRN. M. Mancetti DATE 6/6/69
CHK'D. A Carvelli DATE 6/6/69
ENG. G. Beckner DATE 6/6/69
GU. ENG. G. Beckner DATE 6/6/69
PROD. — DATE 6/6/69

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: DRAWING INDEX LIST, PC04

NEXT HIGHER ASSY: A-ML-PC04
SCALE —
SHEET 1 OF 2

SIZE D | CODE DI | NUMBER PC04-0-1 | REV T
DIST.

MECHANICAL

FIND NO	DESCRIPTION	PART NO	DEPT USAGE PROD	CUST	F/C
1	PCØ4- READER & PUNCH	D-UA-PCØ4-Ø-Ø			
	PCØ4- READER & PUNCH (PL)	A-PL-PCØ4-Ø-Ø			
	CHAD BOX	B-MD-7405ØC-Ø-Ø			
	TAPE CONTAINER	D-MD-7407131-Ø-Ø			
	I/O CABLE ASSY	C-IA-7006281-Ø-Ø			
	PCØ4-PA PUNCH	D-UA-PCØ4-PA-Ø			
	BRKT RESISTOR	C-MD-7408091-Ø-Ø			
	SCR MODULE RETAINER	C-IA-7405642-ØØ			
	HOLD DOWN BAR	C-IA-7408339-7-Ø			
	PACKAGING INSTRUCTIONS	A PI 3700024.ØØ			
	PCØ READER & PUNCH				
2	PUNCH ASSY (60CY)	D-AD-7006248-1-Ø			
	PUNCH ASSY (50CY)	D-AD-7006248-2-Ø			
	PUNCH ASSY (PL)	A-PL-7006248-Ø-Ø			
	CHAD TUBE	B-MD-7407386-Ø-Ø			
	PUNCH MTG CHASSIS	D-IA-7407071-Ø-Ø			
	HINGE	B-MD-7407063-Ø-Ø			
	BRKT FEED	D-MD-7408038-Ø-Ø			
	TAPE CHUTE	D-IA-7408171-Ø-Ø			
	TAPE DEPRESSOR	D-SC-1209915-Ø-Ø			
	PIN	B-MD-7408172-Ø-Ø			
	PULLY (60CY)	B-MD-7406089-1-Ø			
	PULLY (50CY)	B-MD-7406089-2-Ø			
	TORSION SPRING	C-SC-1209924-Ø-Ø			
3	READER ASSY	D-AD-7006247-Ø-Ø			
	READER ASSY (PL)	A-PL-7006247-Ø-Ø			
	TAPE PATH GUIDE	D-MD-7407076-Ø-Ø			
	READER PLATE	D-MD-7407085-Ø-Ø			
	BLOCK READER	B-MD-7407119-Ø-Ø			
	SHAFT READER PLATE	B-MD-7407120-Ø-Ø			
	ARM,SPRING	B-MD-7407118-Ø-Ø			
	SPRING,BULB	A-MD-7407116-Ø-Ø			
	DEPRESSOR TAPE	C-MD-7407121-Ø-Ø			
	BRKT TAPE HOLD DOWN	C-MD-7407144-Ø-Ø			
	SLO SYN MOTOR REWORK	B-IA-7407684-Ø-Ø			
	SHIM	B-MD-7407800-ØØ			
	LENS	B-MD-7404989-Ø-Ø			

MECHANICAL

FIND NO	DESCRIPTION	PART NO	DEPT USAGE PROD	CUST	F/C
4	PHOTO TRANSISTOR ASSY	C-IA-7006267-Ø-Ø			
5	PHOTO TRANSISTOR BD ASSY	D-IA-5409227-Ø-Ø			
6					
7	CHASSIS & POWER SUPPLY ASSY	D-AD-7006246-Ø-Ø			
	CHASSIS & POWER SUPPLY (PL)	A-PL-7006246-Ø-Ø			
	PANEL FRONT	D-IA-7407075-Ø-Ø			
	BRKT MTG BAR RIGHT HAND	C-IA-7407065-1-Ø			
	BRKT,MTG BAR LEFT HAND	C-IA-7407065-2-Ø			
	CHASSIS	E-IA-7407074-Ø-Ø			
	COVER , JONES STRIP	C-MD-5309641-Ø-Ø			
	HARNESS, CONTROL	D-IA-7006311-Ø-Ø			
	HARNESS I/B 110 VAC	D-IA-7006310-Ø-Ø			
	HARNESS POWER SUPPLY	D-IA-7006309-Ø-Ø			
	DECAL (PCØ4)	A-DC-7407476-Ø-Ø			
8	PWR REGULATOR ASSY	C-AD-7006012-Ø-Ø			
	PWR REGULATOR (PL)	A-PL-7006512-Ø-Ø			
	HEATSINK,PWR REGULATOR	C-MD-7407069-Ø-Ø			
9	PWR REGULATOR BOARD ASSY	C-IA-5408918-Ø-Ø			
10	ETCH BOARD	D-IA-5008919-Ø-Ø			
11	SCR DRIVER ASSY	C-AD-5408385-Ø-Ø			
	SCR DRIVER CHASSIS	C-IA-7407070-Ø-Ø			
12	TERMINAL BD ASSY	B-IA-5403770-Ø-Ø			
13	TERMINAL BOARD	C-IA-5003717-Ø-Ø			
14	COVER ASSEMBLY	D-AD-7006252-1-Ø			
	COVER ASSEMBLY	D-AD-7006252-2-Ø			
	COVER ASSEMBLY	D-AD-7006252-3-Ø			
	COVER ASSEMBLY	D-AD-7006252-4-Ø			
	COVER ASSEMBLY (PL)	A-PL-7006252-Ø-Ø			
	COVER, PCØ (BASIC & COMB.)	E-SC-1209396-2-Ø			
	COVER, PCØ (PUNCH)	E-SC-1209396-4-Ø			
	COVER, PCØ (READER)	E-SC-1209396-6-Ø			
	SHIM, BEZEL	C-MD-7407849-Ø-Ø			
15	BEZEL SWITCH	C-IA-7407134-1-Ø			
	SILK SCREEN	A-SS-7407134-1-1			
	BEZEL SWITCH	C-IA-7407134-2-Ø			
	SILK SCREEN	A-SS-7407134-2-1			
	BEZEL SWITCH	C-IA-7407134-3-Ø			
	SILK SCREEN	A-SS-7407134-3-1			
	BEZEL SWITCH	C-IA-7407134-4-Ø			
	SILK SCREEN	A-SS-7407134-4-1			

MECHANICAL

FIND NO	DESCRIPTION	PART NO	DEPT USAGE PROD	CUST	F/C
16	SWITCH ASSY	C-AD-5408935-Ø-Ø			
	SWITCH ASSY	C-AD-5408310-3-Ø			
	SWITCH ASSY	C-AD-5408310-4-Ø			
	SWITCH ASSY (PL)	A-PL-5408310-Ø-Ø			
	BAR SPACER SW. BD.	B-MD-7407175-Ø-Ø			
17	PCØ SWITCH BOARD	D-IA-5008309-Ø-Ø			
	FLIP CHIP MODULE	D-MD-1402230-Ø-Ø			
19	PR SWITCH BOARD	D-IA-5008934-Ø-Ø			
18	PCØ4 BUS BAR	E-AD-7006268-Ø-Ø			
	MTG. BAR (6 IN.)	B-IA-7407077-Ø-Ø			

ELECTRICAL

FIND NO	DESCRIPTION	PART NO	DEPT USAGE PROD	CUST	F/C
1	PCØ4-B READER & PUNCH	A-ML-PCØ4-B			
	PCØ4-BA READER & PUNCH	A-ML-PCØ4-BA			
	PCØ4-C READER & PUNCH & DRIVER	A-ML-PCØ4-C			
	PCØ4-CA READER & PUNCH & DRIVER	A-ML-PCØ4-CA			
	PCØ4-P PUNCH	A-ML-PCØ4-P			
	PCØ4-PA PUNCH	A-ML-PCØ4-PA			
	POWER AND CONTROL SCHEMATIC DIAGRAM	D-BS-PCØ4-Ø-2			
	MODULE UTILIZATION	C-MU-PCØ4-Ø-3			
	MODULE UTILIZATION (PL)	A-PL-PCØ4-Ø-3			
	ENGINEERING SPECS	A-SP-PCØ4-Ø-4			
7	CHASSIS & POWER SUPPLY ASSY	D-AD-7006246-Ø-Ø			
9	POWER REG BD C.S	B-CS-5408308-Ø-Ø			
11	SCREW DRIVER ASSY	C-AD-5409385-Ø-Ø			
12	PRINTED CIRCUIT 823	PC-5403770-Ø-1			
18	BUS BAR (PCØ4)	E-AD-7006268-Ø-Ø			
	BUS BAR (PCØ4)	E-AD-7006268-1-Ø			

FIRST USED ON OPTION/MODEL: PCØ4

QTY.	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 | FRACTIONS ± 1/64 | ANGLES ± 0°30'
FINAL SURFACE QUALITY √
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

		DATE
DRN	G Marcotte	6/6/69
CHK'D	G Carvelli	6/6/69
ENGR		6/6/69
PROJ ENG		6/6/69
MOD		6/6/69

NEXT HIGHER ASSY: A ML PCØ4

SCALE

SHEET 2 OF 2

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: DRAWING INDEX LIST PCØ4

SIZE	CODE	NUMBER	REV.
D	DI	PCØ4-Ø-1	T

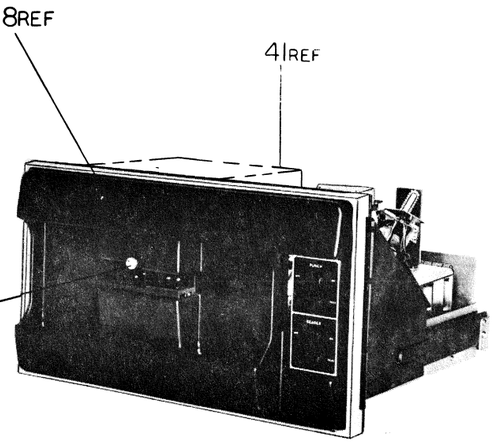
DIST. G

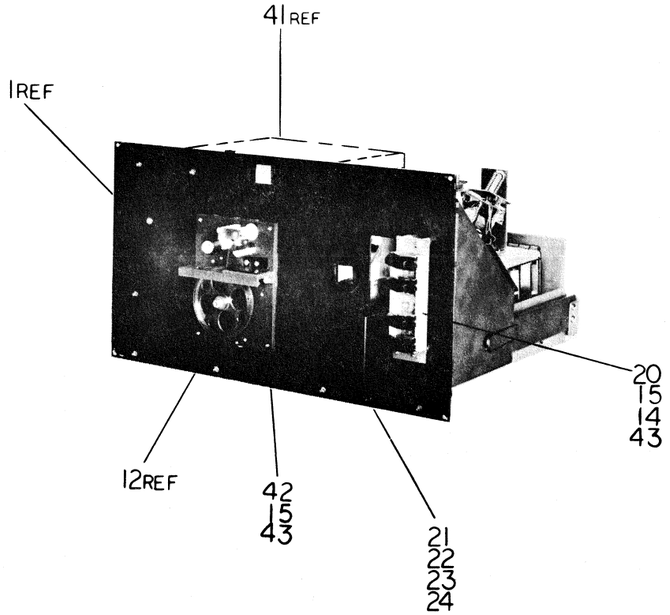
REVISIONS	CHANGE NO	CHK	REV

DEC FORM NO DRD 100

LEGEND		
MODEL	VARIATION	
	CY	COMPOSITION
PCØ4 - B, BB & BL	60	READER & PUNCH
PCØ4 - BA, BC BM	50	READER & PUNCH
PCØ4 - C	60	READER, PUNCH & DRIVER
PCØ4 - CA	50	READER, PUNCH & DRIVER
PCØ4 - P & PL	60	PUNCH
PCØ4 - PA & PM	50	PUNCH
PCØ4 - R & RB	X	READER

NOTES:
1. WIRING OF SWITCHES VARIES DEPENDING ON UNIT MODEL BEING BUILT. FOR SWITCH CONFIGURATION, FOR WIRING PURPOSES SEE: DETAIL "A" FOR MODEL B, BA BB BC, BL & BM, DETAIL "B" FOR MODEL "P" & PA DETAIL "C" FOR MODEL "R" & "RB" AND DETAIL "D" FOR MODEL "C" AND "CA". 50/60 CY HAS NO EFFECT.
2. IF THE SCR DRIVER UNIT IS USED, THIS WIRE WILL CONNECT TO SCR DRIVER T1, NOT TS-6. FOR CORRECT WIRING WHEN UNIT IS USED, SEE SCR DRIVER WIRE LIST. (SHEET 3)
3. REMOVE CLAMP FROM CHASSIS, PLACE CABLE IN POSITION, THEN REINSTALL CLAMP IN POSITION OVER CABLE.
4. COVER ASSY TO BE ATTACHED TO CHASSIS ASSY AFTER ALL OTHER INSTALLATIONS ARE COMPLETE. TO DO SO, READER KNOB MUST BE REMOVED, COVER INSTALLED, THEN KNOB REPLACED ON READER SHAFT.
5. ON MODELS P AND PA THIS WIRE WILL BE TIED BACK AND WHITE SHRINKABLE TUBING (ITEM 45) REQ'D.
6. ON ALL MODELS ALL UNUSED WIRES SHOULD BE CONNECTED TO THEIR APPROPRIATE TABS.
7. MODULE HOLD DOWN BAR TO BE INSTALLED BEFORE SHIPPING MACHINE.





REVISIONS		
CHK	CHANGE NO.	REV.
[illegible]	PCØ4-00006	A
T Cuddy 7-1-69		
BECKNER		
[illegible]	PCØ4-0C011	B
G. BECKLER		
[illegible]	PC05-00037	C
T Cuddy 12-18-69		
BECKNER		
[illegible]	PC04-00021	D
T Cuddy 4-22-70		
ADLEMAN		
[illegible]	PC04-0CC22	E
C. YOUSE		
[illegible]	PC04-00025	F
G. ADLEMAN		
[illegible]	PC04-00027	H
T.Cuddy 12270		
ADLEMAN		
[illegible]	PC01-00036	J
M LEIS 12/8/70		
[illegible]	PC04-0CC41	K
M LEIS 12671		
[illegible]	PC04-00046	L
M LEIS 3-12-71		

DEC FORM NO.

FIRST USED ON OPTION / MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PCØ4		PARTS LIST		

UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY √
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

DRN.	[illegible]	DATE 4/6/69
CHK'D.	[illegible]	DATE 6/5/69
ENGR.	[illegible]	DATE 6/5/69
PROJ. ENG.	[illegible]	DATE 6/6/69
PROD.	[illegible]	DATE 7/1/69

NEXT HIGHER ASSY: A-M-L-PCØ4-Ø

SCALE: NONE

SHEET 1 OF 3

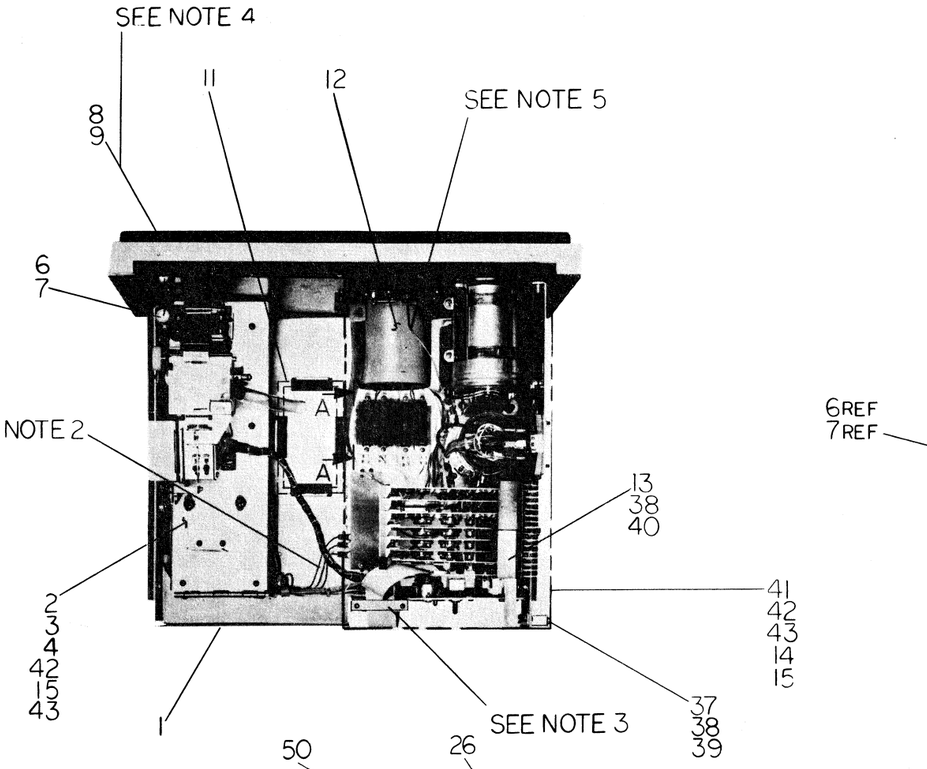
digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

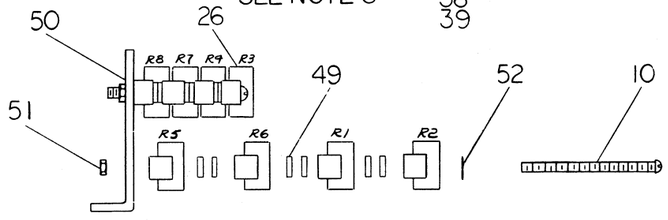
TITLE: PCØ4 READER AND PUNCH

SIZE	CODE	NUMBER	REV.
D	UA	PCØ4-Ø-Ø	L

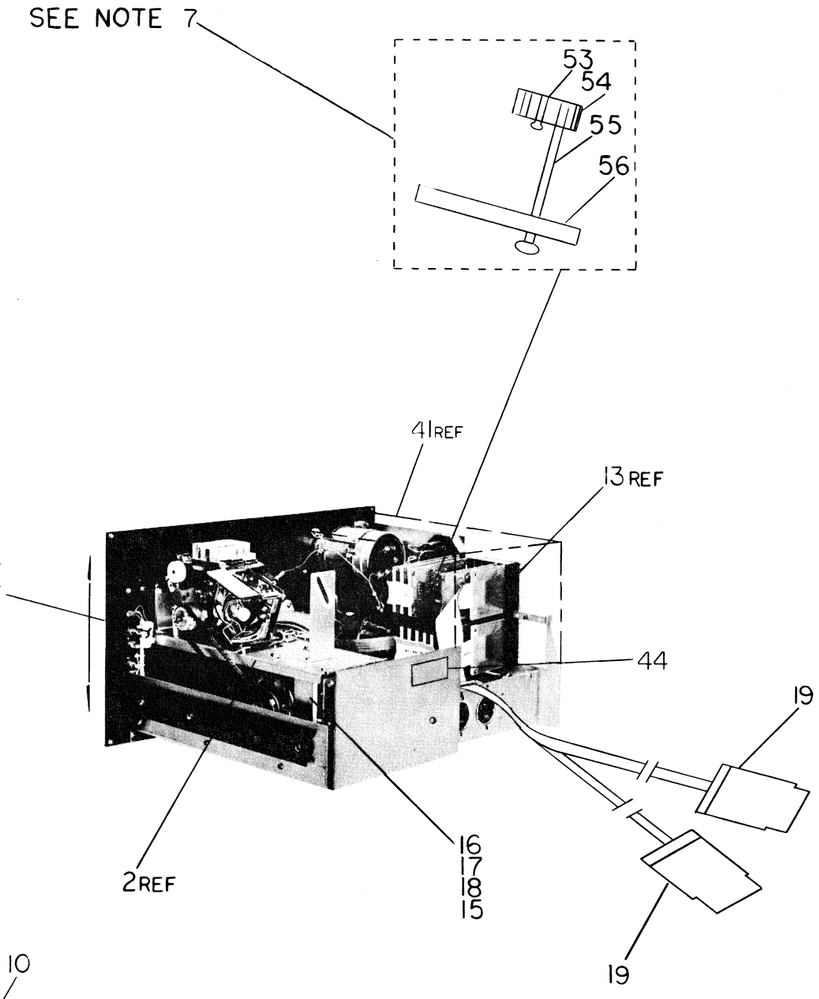
DIST.

SIZE D CODE UA NUMBER PCØ4-Ø-Ø REV. L





VIEW A-A



FIRST USED ON OPTION / MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PCØ4		PARTS LIST		

UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY √
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

DRN. Robert S. Hartnett	DATE	4/4/67
CHK'D. R Connell	DATE	6/15/67
ENG. Jim Beckmann	DATE	6/16/67
PROJ. ENGR. Jim Beckmann	DATE	6/16/67
PROD. Mike Lane	DATE	6/16/67

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE
PCØ4
READER AND PUNCH

NEXT HIGHER ASSY
A-ML-PCØ4-Ø

SCALE NONE
SHEET 2 OF 3

SIZE	CODE	NUMBER	REV.
D	UA	PCØ4-Ø-Ø	L

DIST.

REVISIONS		
CHK	CHANGE NO.	REV.

FORM NO.

SCR DRIVER WIRE LIST

JUMPER CONNECTIONS

WIRE	COLOR	CONNECTION	REMARKS
HARN WIRE *9	RED	SCR T1	SEE NOTE 2
PUNCH MOT LEAD	BLK/YEL	SCR T2	
SCR	WHT/BLU	AØ7B	
SCR	WHT/GRN	BØ1B	

PUNCH WIRE LIST

HARNESS CONNECTIONS

COLOR	WIRE NO.	LOCATION	REMARKS
BLK	5	PNCH SW2 TAB 5	SEE NOTE 1 SHEET 1
WHT	6	PNCH SW2 TAB 6	
RED	7	PNCH SW1 TAB 7	
RED	8	PNCH SW1 TAB 8	
RED	9	TS6	SEE NOTE 2 SHEET 1
GY/RED	8	DO NOT CONNECT	SEE NOTE 5
BLK	15	BØ8C (GND)	
WHT	16	[illegible]	

JUMPER CONNECTIONS

WIRE		CONNECTIONS			
ITEM NO.	COLOR	TYPE ITEM	FROM	TO	TYPE ITEM
27	WHT	28	SEE BELOW*	TS-7	28

*THIS END CONNECTS TO CAPACITOR ON PUNCH CHASSIS, ON TERMINAL WITH BLUE WIRE ATTACHED

AØ8H TO AØ8F ON MODELS BB, BC, RB ONLY REF SHEET #2 DBS-PC04 0-2

READER WIRE LIST

HARNESS CONNECTIONS

COLOR	WIRE NO.	LOCATION	REMARKS
YEL	1	RDR SW2 TAB 1	SEE NOTE 1 SHEET 1
WHT/BLK	2	RDR SW2 TAB 2	
WHT/YEL	3	RDR SW1 TAB 3	
BRN	4	RDR SW1 TAB 4	
YEL	11	AØ1V	
WHT/BLK	12	BØ7A (+5)	
WHT/YEL	13	AØ8F	
BRN	14	AØ2B (ON 7ØØ6286-Ø) AØ1B (ON 7ØØ6286-1)	
GY/RED	8	R9	

JUMPER CONNECTIONS

WIRE		CONNECTIONS			
ITEM NO.	COLOR	TYPE ITEM	FROM *	TO	TYPE ITEM
29	WHT/VIO	NONE	R1 & R2	TS-1	28
30	WHT/YEL		R3 & R4	TS-2	28
31	WHT/ORN		R5 & R6	TS-3	28
32	WHT/BRN		R7 & R8	TS-4	28
33	VIO		R1	BØ6R	NONE
33	VIO		R2	BØ6S	
34	YEL		R3	BØ5R	
34	YEL		R4	BØ5S	
35	ORN		R5	BØ4R	
35	ORN		R6	BØ4S	
36	BRN		R7	BØ3R	
36	BRN	NONE	R8	BØ3S	NONE

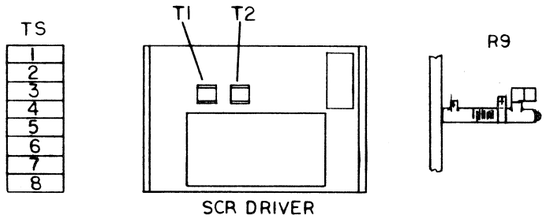
* FOR RESISTOR CONFIGURATION SEE VIEW A-A SHEET 2

READER MOTOR CONNECTIONS

COLOR	FROM	TO	REMARKS
WHT/RED	RDR MOTOR	TS-1	
RED		TS-2	
WHT/GRN		TS-3	
GRN		TS-4	
WHT & BLK	RDR MOTOR	TS-5	

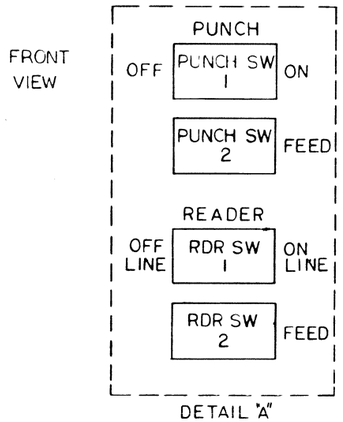
HARNESS CONNECTIONS

COLOR	WIRE NO.	LOCATION	REMARKS
BLK	27	GND LUG	LOGIC GND
GY/YEL	29	AØ8B	
BLU	31	BØ2D	
BLK	28	GND LUG	LOGIC GND
GY/RED	30	AØ8A	
GRN	32	BØ6V	

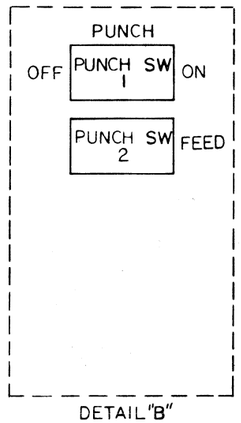


SCR DRIVER

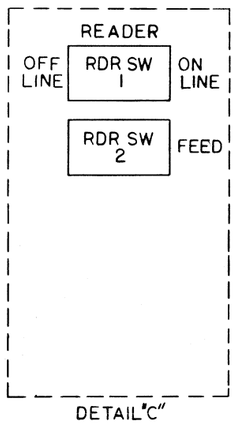
PCØ4-B,BA,BB,BC,BL,BM
54Ø831Ø-4



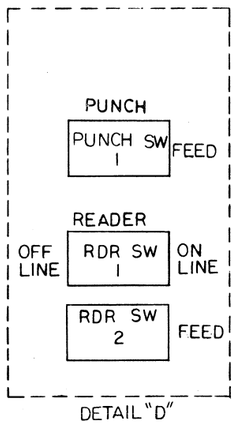
PCØ4-P, PA, PL, PM
54Ø831Ø-2



PCØ4-R, RB
54Ø8935-Ø



PCØ4-C, CA
54Ø831Ø-3



REVISIONS	REV	CHANGE NO	CHK

FIRST USED ON OPTION / MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PCØ4		PARTS LIST		

UNLESS OTHERWISE SPECIFIED
UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

DRN.	Robert Fontenault	DATE 4/14/69
CHK'D	G P Carvelli	DATE 6/15/69
ENG.	[illegible]	DATE 6/16/69
PROJ. ENG.	[illegible]	DATE 6/16/69
PROD.	[illegible]	DATE 6/16/69

NEXT HIGHER ASSY
4-ML-PCØ4-Ø

SCALE NONE
SHEET 3 OF 3

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE
PCØ4
READER AND PUNCH

SIZE	CODE	NUMBER	REV.
D	UA	PCØ4-Ø-Ø	L

DIST. F

DEC FORM NO DIRD 100

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY R. HUTNAK	CHECKED R Carnelli	SECTION
DATE 4/10/69	DATE 6/5/69	1
ENG Geo Beckman 6/4/69	PROD [illegible]	ISSUED SECT.
DATE	DATE 6/6/69	1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION											
			PCØ4-B,BB	PCØ4-BA,BC	PCØ4-C	PCØ4-CA	PCØ4-P	PCØ4-PA	PCØ4-R, RB	PCO4-BL	PCO4-BM	PCO4-PL	PCO4-PM	
1	D-AD-7006246-0-0	CHASSIS AND POWER SUPPLY ASSY	1	1	1	1	1	1	1	1	1	1	1	
2	D-AD-7006248-1-0	PUNCH ASSY (60 CY)	1		1		1			1		1		
2	D-AD-7006248-2-0	PUNCH ASSY (50 CY)		1		1		1			1		1	
3	9006021-1	SCR, PHL PAN HD 6-32 x 5/16 LG SST	6	6	6	6	6	6	6	6	6	6	6	
4	9006560	NUT, KEPS 6-32	2	2	2	2	2	2		2	2	2	2	
~~5~~	~~9006070-1~~	~~SCR, PHL PAN HD 10-32 x 5/16 LG SST~~	~~2~~	~~2~~	~~2~~	~~2~~	~~2~~	~~2~~		~~2~~	~~2~~	~~2~~	~~2~~	
6	1100106	THYRACTOR, PUNCH SW	1	1			1	1		1	1	1	1	
7	9107278-3	18 AWG TEF TUBING RED	A/R	A/R			A/R	A/R		A/R	A/R	A/R	A/R	
8	D-AD-7006252-1-0	COVER ASSY (BASIC)	1	1						1	1			
8	D-AD-7006252-2-0	COVER ASSY (PUNCH)					1	1				1	1	
8	D-AD-7006252-3-0	COVER ASSY (READER)							1					
8	D-AD-7006252-4-0	COVER ASSY (COMB)			1	1								
9	9006021-2	SCR, PHL FH 6-32 x 5/16 LG SST	4	4	4	4	4	4	4	4	4	4	4	
10	9006083-1	SCR, PHL PAN HD 10-32 x 2½ LG SST	4	4	4	4			4	4	4			
11	C-MD-7405300-0-0	CHAD BOX	1	1	1	1	1	1		1	1	1	1	
12	D-UA-7006247-0-0	READER ASSY	1	1	1	1			1	1	1			
13	E-AD-7006268-0-0	BUS BAR PCØ4 (8,9,10,81)	1	1	1	1	1	1	1					
14	9006022-1	SCR, PHL PAN HD 6-32 x 3/8 LG SST	3	3	3	3	3	3	3	3	3	3	3	
15	9006633	WASHER, INT TOOTH #6	15	15	17	17	11	11	13	15	15	11	11	
16	C-AD-5408385-0-0	SCR DRIVER ASSY			1	1								
17	9006026-1	SCR, PHL PAN HD 6/32 x 3/4 LG SST			2	2								
18	9006801	SPACER, 1/4 AF x 3/8 LG #6 HOLE			2	2								

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
PCØ4 READER AND PUNCH	D-UA-PCØ4-Ø-Ø	A	PL	PCØ4-Ø-Ø	K	PCO4-00058 46
	SHEET 1 OF 3	DIST.	C			

(10) DEC FORM NO. DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY R. HUTNAK	CHECKED R Cornelli	SECTION
DATE 4/10/69	DATE 6/5/69	1
ENG Geo Beckner 6/4/69	PROD	ISSUED SECT.
DATE	DATE	1

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QUANTITY/VARIATION										
			PCØ4-B, BB	PCØ4-BA BC	PCØ4-C	PCØ4-CA	PCØ4-P	PCØ4-PA	PCØ4-R, RB	PCO4-BL	PCO4-BM	PCO4-PL	PCO4-PM
19	C-IA-7006281-0-0	I/O CABLE ASSY	2	2	2	2	1	1	1				
20	C-AD-5408310-4-0	SWITCH ASSY	1	1						1	1		
20	C-AD-5408935-0-0	SWITCH ASSY					1	1	1			1	1
20	C-AD-5408310-3-0	SWITCH ASSY			1	1							
21	D-MD-7407131-0-0	TAPE CONTAINER	1	1	1	1	1	1		1	1	1	1
22	9006011-2	SCR, PH FH 4-40 x 3/8 LG SST	2	2	2	2	2	2		2	2	2	2
23	9006556	NUT, HEX 4-40	2	2	2	2	2	2	8	2	2	2	2
24	9006632	WASHER, INT TOOTH #4	2	2	2	2	2	2	8	2	2	2	2
~~25~~	~~9006635~~	~~WASHER, INT TOOTH #10~~	~~2~~	~~2~~	~~2~~	~~2~~	~~2~~	~~2~~		~~2~~	~~2~~	~~2~~	~~2~~
26	1309896	RES, 25 OHM 40W ± 5%	8	8	8	8			8	8	8		
27	9107360-10	18 AWG STRD TEFLON WHT	A/R	A/R	A/R	A/R	A/R	A/R		A/R	A/R	A/R	A/R
28	9007917	SOLDERLESS CONN	6	6	6	6	6	6	4	6	6	6	6
29	9107400-9	22 AWG STRD TEFLON TRACER WHT/VIO	A/R	A/R	A/R	A/R			A/R	A/R	A/R	A/R	A/R
30	9107400-5	22 AWG STRD TEFLON TRACER WHT/YEL	A/R	A/R	A/R	A/R			A/R	A/R	A/R	A/R	A/R
31	9107400-4	22 AWG STRD TEFLON TRACER WHT/ORN	A/R	A/R	A/R	A/R			A/R	A/R	A/R	A/R	A/R
32	9107400-2	22 AWG STRD TEFLON TRACER WHT/BRN	A/R	A/R	A/R	A/R			A/R	A/R	A/R	A/R	A/R
33	9107470-9	24 AWG SOLID KYNAR VIO	A/R	A/R	A/R	A/R			A/R	A/R	A/R	A/R	A/R
34	9107470-5	24 AWG SOLID KYNAR YEL	A/R	A/R	A/R	A/R			A/R	A/R	A/R	A/R	A/R
35	9107470-3	24 AWG SOLID KYNAR ORN	A/R	A/R	A/R	A/R			A/R	A/R	A/R	A/R	A/R
36	9107470-6	24 AWG SOLID KYNAR BRN	A/R	A/R	A/R	A/R			A/R	A/R	A/R	A/R	A/R
37	9006043-1	SCR, FHL PAN HD 8-32 x 1"LG SST	1	1	1	1	1	1	1	1	1	1	1
38	9006634	WASHER INT TOOTH #8	2	2	2	2	2	2	2	2	2	2	2

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
PCØ4 READER AND PUNCH	D-UA-PCØ4-Ø-Ø	A	PL	PCØ4-Ø-Ø	K	
	SHEET 2 OF 3	DIST.				

(11)

DEC FORM NO.
DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

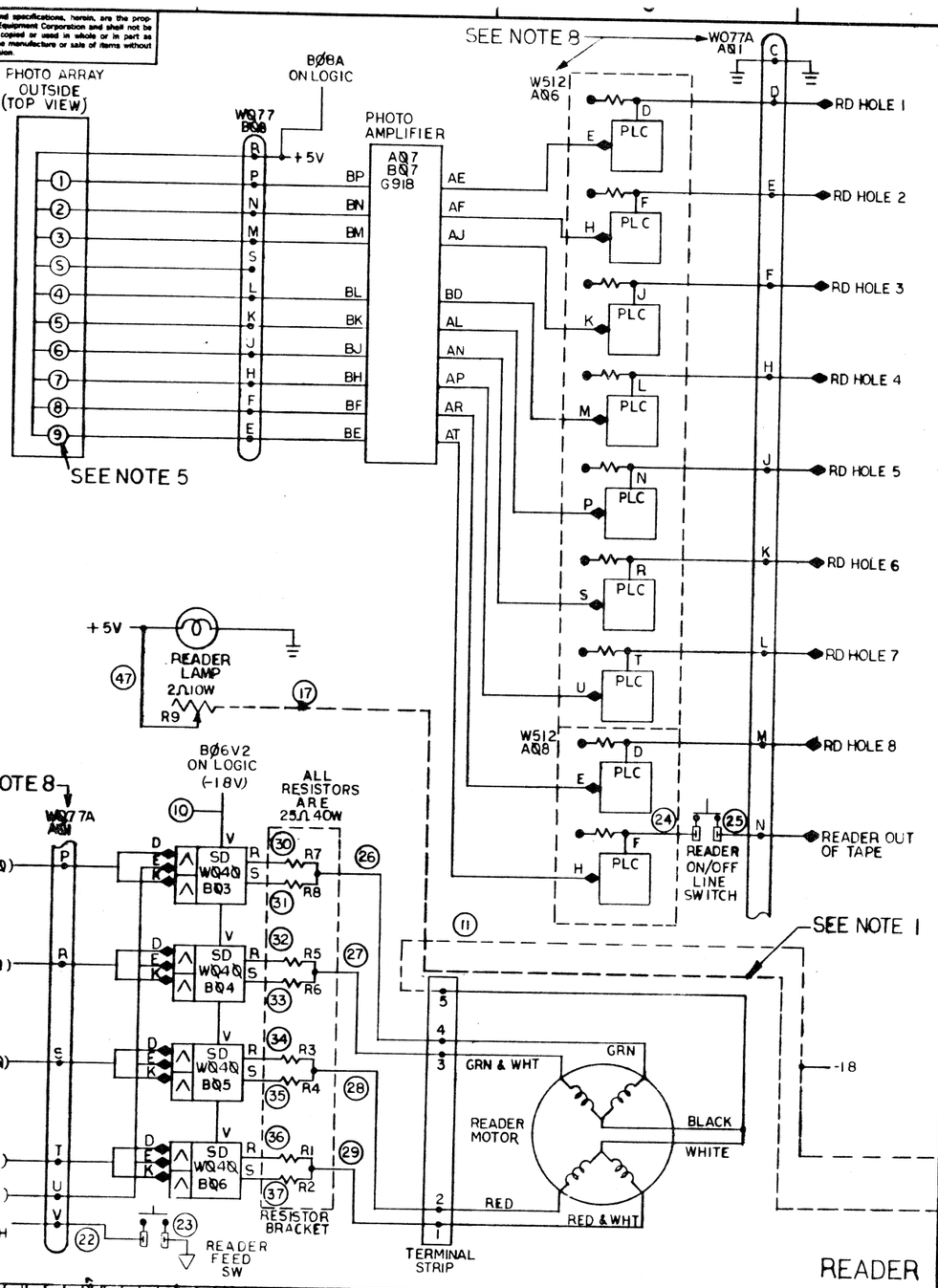
PARTS LIST

MADE BY R. HUTNAK	CHECKED R Carvell	SECTION
DATE 4/10/69	DATE 6/5/69	1
ENG DATE Geo Kenton 6/4/69	PROD DATE	ISSUED SECT. 1

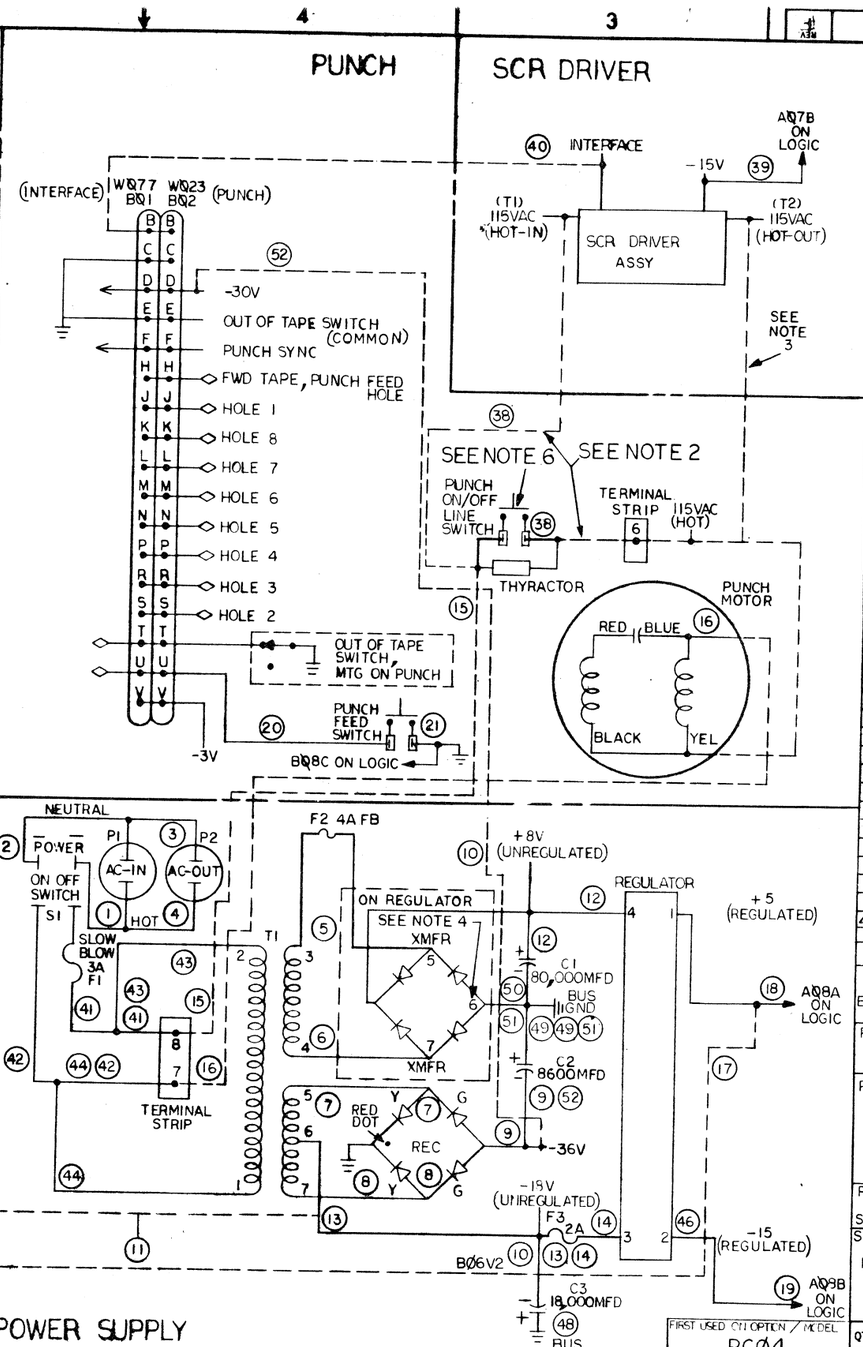
ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QUANTITY/VARIATION											
			PCØ4-B, BB	PCØ4-BA, BC	PCØ4-C	PCØ4-CA	PCØ4-P	PCØ4-PA	PCØ4-R, RB	PCO4-BL	PCC4-BM	PCO4-PL	PCO4-PM	
39	9006823	SPACER 3/8AF x 3/4 LG #8-32	1	1	1	1	1	1	1	1	1	1	1	
40	9006037-1	SCR, PHL, PAN HD 8-32 x 3/8 LG SST	1	1	1	1	1	1	1	1	1	1	1	
41	E-IA-7407438-0-0	POWER SUPPLY COVER	1	1	1	1	1	1	1	1	1	1	1	
42	9006024-1	SCR, PHL PAN HD 6-32 x ½ LG SST	4	4	4	4	4	4	4	4	4	4	4	
43	9006653	WASHER, FLAT #6 SST	14	14	14	14	10	10	12	14	14	10	10	
44	9008141	DECK NAME TAG	1	1	1	1	1	1	1	1	1	1	1	
45	9107252	WHITE SHRINKABLE TUBING					A/R	A/R				A/R	A/R	
46	E-AD-7006268-1-0	BUS BAR PCO4 (8L)								1	1	1	1	
47	DIA-7407067-1-0	I/O CABLE ASSY (8L)								1	1			
48	7006145-1	I/O CABLE ASSY (8L)										1	1	
49	9006664	WASHER #10 SST	24	24	24	24			24	24	24			
50	C-MD-7408091-0-0	BRK'T RESISTOR	1	1	1	1			1	1	1			
51	9006565	NUT KEP 10-32 SST	4	4	4	4			4	4	4			
52	9006635	INT TOOTH WASHER #10	4	4	4	4			4	4	4			
53	9007799-6	SCR, PHL, FILLISTER HEAD 8-32 x 1½	1	1	1	1	1	1	1	1	1	1	1	
54	1209850	UNIVERSAL RETAINER	1	1	1	1	1	1	1	1	1	1	1	
55	C-IA-7405642-0-0	SCR MODULE RETAINER	1	1	1	1	1	1	1	1	1	1	1	
56	C-IA-7408339-7-0	HOLD DOWN BAR(6")	1	1	1	1	1	1	1	1	1	1	1	

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
PCØ4READER AND PUNCH	D-UA-PCØ4-Ø-Ø	A	PL	PCØ4-Ø-Ø	K	
	SHEET 3 OF 3	DIST.				

(12) DEC FORM NO. DRA 110



READER



POWER SUPPLY

NOTES:

1. DOTTED LINES INDICATE POSSIBLE CONNECTIONS BETWEEN POWER SUPPLY, READER, PUNCH AND SCR DRIVER. SEE LEGEND.
2. WIRE NO. 38 HAS TWO POSSIBLE ROUTES DEPENDING ON THE SCR DRIVER OPTION WITH THE OPTION IT GOES TO THE SCR BOARD. WITHOUT THE OPTION IT GOES TO THE TERMINAL STRIP
3. WITH SCR DRIVER THE BLACK-YEL COMBINATION FROM THE PUNCH MOTOR GOES TO THE SCR BD. WITHOUT DRIVER IT GOES TO THE TERMINAL STRIP.
4. THE UNCIRCLED NUMBERS 1 THRU 7 REFER TO CONNECTIONS ON REGULATOR BOARD
5. THIS PHOTO TRANSISTOR USED TO DETECT OUT OF TAPE
6. WITH SCR OPTION SWITCHED AC WILL BE WIRED TO COMMON TERMINAL, THYRACTOR NOT REQD.
7. CIRCLED NUMBERS 1 THRU 46 ARE WIRE NUMBERS. SEE TABLE.
8. SEE PAGE 2 FOR MODELS BB, BC & RB
   SEE PAGE 3 FOR MODELS BL, BM, PL & PM

WIRE NO	COLOR	WIRE NO	COLOR
1	RED	24	WHITE-YELLOW
2	WHITE	25	BROWN
3	WHITE	26	WHITE-BROWN
4	RED	27	WHITE-ORANGE
5	ORANGE	28	WHITE-YELLOW
6	GRAY-BLUE	29	WHITE-VIOLET
7	GRAY-WHITE	30	BROWN
8	YELLOW	31	BROWN
9	BLUE	32	ORANGE
10	GRN	33	ORANGE
11	GRN	34	YELLOW
12	GRAY-VIOLET	35	YELLOW
13	GREEN	36	VIOLET
14	GREEN	37	VIOLET
15	RED	38	RED
16	WHITE	39	WHITE-BLUE
17	GRAY-RED	40	WHITE-GREEN
18	GRAY-RED	41	RED
19	GRAY-YELLOW	42	WHITE
20	WHITE	43	RED
21	BLACK	44	WHITE
22	YELLOW	45	
23	WHITE-BLACK	46	GRAY-YELLOW
48 THRU 51	BLACK	47	GRAY-RED
52	BLUE		

LEGEND

CONNECTIONS	MODEL PCØ4 B PCØ4 BA	PCØ4 C PCØ4 CA	PCØ4 P PCØ4 PA	PCØ4 R
PWR SUP TO READER	+5V TO READER LAMP POT - 18 TO T.S.5.	SAME AS PCØ4-B PCØ4-BA	X	SAME AS PCØ4-B PCØ4-BA
PWR SUP TO PUNCH	30 TO PUNCH CABLE BØ1B 115V (HOT) TO PUNCH SW 115 (NEUTRAL) TO PUNCH MOTOR	SAME AS PCØ4 B PCØ4 BA	SAME AS PCØ4 B PCØ4 BA	X
PWR SUP TO SCR DRVR	X	AØ7B TO -15 INPUT	X	X
SCR DRVR TO PUNCH	X	INTERFACE LINE TO BØ1B 115V (HOT-OUT) TO PUNCH MOTOR	X	X

QTY.	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

NOTE 9: SEE NOTE 4 ON AD-7006268-0-0

REFERENCE: 7006268-Ø-Ø LOGIC BLOCK

FIRST USED ON OPTION / MODEL: PCØ4

UNLESS OTHERWISE SPECIFIED
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY / REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

		DATE
DRN	Robert Hitchcock	2/14/69
CHKD	G Connelly	2/5/69
ENG	Jim Dietz	2/6/69
PROJ. ENG	Jim Dietz	2/6/69
PROD		

NEXT HIGHER ASSY: A-ML-PCØ4-

SCALE: NONE

SHEET 1 OF 3

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: POWER AND CONTROL SCHEMATIC DIAGRAM

SIZE D | CODE BS | NUMBER PCØ4-0-2 | REV. F | DIST.

REVISIONS	CHANGE NO	CHK	REV.
	PCØ4-00006		A
	PCØ5-00003		B
	PCØ4-00022		C
	PCØ4-00023		D
	PCØ4-00025		E
	PCØ4-00026		F

BECKNER 7-7-69
E LUTTIG 7-8-69
C LOUISE 7-9-69
ADLEMAN 7-10-69
G ADLEMAN 7-10-69
H LEIS 7-10-69
4-12-71

DEC FORM NO. DMD 1468 A

PHOTO ARRAY OUTSIDE (TOP VIEW)

SEE NOTE 3

WQ77 BQ8 — BØ8A ON LOGIC — +5V

PHOTO AMPLIFIER A07 B07 G918

BP	AE	RD HOLE 1
BN	AF	RD HOLE 2
BM	AJ	RD HOLE 3
BE	AT	FEED HOLE
BL	BD	RD HOLE 4
BK	AL	RD HOLE 5
BJ	AN	RD HOLE 6
BH	AP	RD HOLE 7
BF	AR	RD HOLE 8

WQ77A AQ2

+5V — READER LAMP 2W 10W — R9 — (47) — (17)

BØ6V2 ON LOGIC (-18 V) — (10)

ALL RESISTORS ARE 25W 40W

BA(Q)	SD MQ40Q BQ3	R7	R8
BA(I)	SD MQ40Q BQ4	R5	R6
BB(Q)	SD MQ40Q BQ5	R3	R4
BB(I)	SD MQ40Q BQ6	R1	R2

(30) (31) (32) (33) (34) (35) (36) (37) (26) (27) (28) (29)

PWR(I) — RDR FEED SWITCH — (22)

RESISTOR BRACKET

+5 — 100Ω — A08A — A08F — (24) — (25) B — READER ON/OFF LINE SWITCH — READER ON/OFF LINE

SEE NOTE 1 — (11) — -18

TERMINAL STRIP — GRN & WHT — RED — READER MOTOR — GRN — BLACK — WHITE — RED & WHT

READER

PUNCH

(INTERFACE) WQ77 BQ1 — WQ23 BQ2 (PUNCH) — (52)

-30V	
OUT OF TAPE SWITCH (COMMON)	
PUNCH SYNC	
FWD TAPE, PUNCH FEED HOLE	
HOLE 1	
HOLE 8	
HOLE 7	
HOLE 6	
HOLE 5	
HOLE 4	
HOLE 3	
HOLE 2	

OUT OF TAPE SWITCH, MTG ON PUNCH

PUNCH FEED SWITCH — (20) — (21) — BØ8C ON LOGIC — +5V

PUNCH ON/OFF LINE SWITCH — (38) — (15)

TERMINAL STRIP 6 — 115VAC (HOT)

THYRACTOR

PUNCH MOTOR — RED — BLUE — (16) — BLACK — YEL

POWER SUPPLY

NEUTRAL — (2) — POWER ON OFF SWITCH S1 — P1 AC-IN — P2 AC-OUT — (3) — (1) HOT — (4)

SLOW BLOW 3A F1 — (43) — (41) — (15) — (42) — (44) (42) — TERMINAL STRIP — (16) — T1

F2 4AFB

ON REGULATOR SEE NOTE 2 XMFR — XMFR

RED DOT — REC

+8V (UNREGULATED) — (10)

C1 80,000MFD — BUS GND — (50) (51) (49) (49) (51)

C2 8600MFD — (9) (52) — -36V

-18V (UNREGULATED) — F3 2A — (14) — BØ6V2 (10) (13) (14)

C3 16,000MFD — (48) — BUS GND

REGULATOR — (12) — +5 (REGULATED) — A08A ON LOGIC — (18) — (17)

-15 (REGULATED) — (46) — A08B ON LOGIC — (19)

NOTES:

1. DOTTED LINES INDICATE POSSIBLE CONNECTIONS BETWEEN POWER SUPPLY, READER AND PUNCH.
2. THE UNCIRCLED NUMBERS 1 THRU 7 REFER TO CONNECTIONS ON REGULATOR BOARD.
3. THIS PHOTO TRANSISTOR IS NOT USED.
4. CIRCLED NUMBERS 1 THRU 46 ARE WIRE NUMBERS. SEE TABLE.

WIRE TABLE

WIRE NO	COLOR	WIRE NO	COLOR
1	RED	24	WHITE-YELLOW
2	WHITE	25	BROWN
3	WHITE	26	WHITE-BROWN
4	RED	27	WHITE-ORANGE
5	ORANGE	28	WHITE-YELLOW
6	GRAY-BLUE	29	WHITE-VIOLET
7	GRAY-WHITE	30	BROWN
8	YELLOW	31	BROWN
9	BLUE	32	ORANGE
10	GRN	33	ORANGE
11	GRN	34	YELLOW
12	GRAY-VIOLET	35	YELLOW
13	GREEN	36	VIOLET
14	GREEN	37	VIOLET
15	RED	38	RED
16	WHITE		
17	GRAY-RED		
18	GRAY-RED	41	RED
19	GRAY-YELLOW	42	WHITE
20	WHITE	43	RED
21	BLACK	44	WHITE
22	YELLOW		
23	WHITE-BLACK	46	GRAY-YELLOW
48 THRU 51	BLACK	47	GRAY-RED
52	BLUE		

LEGEND

CONNECTIONS	MODEL PCØ4 BB, PCØ4 BC		PCØ4 P, PCØ4 PA	PCØ4 R8
PWR SUP TO READER	+5V TO READER LAMP POT 18 TO T.S.5			SAME AS PCØ4-B, PCØ4-BC
PWR SUP TO PUNCH	30 TO PUNCH CABLE BOID 115V (HOT) TO PUNCH SW 115 (NEUTRAL) TO PUNCH MOTOR		SAME AS PCØ4 BB, PCØ4 BC	

REFERENCE: 7006268-Ø LOGIC BLOCK

(23) — 15 — BØ7A — READER FEED SW — SW ASSY.

REVISIONS: REV. | CHANGE NO. | DWR.

FIRST USED ON OPTION / MODEL: PCØ4

PARTS LIST: QTY. | DESCRIPTION | PART NO. | ITEM NO.

UNLESS OTHERWISE SPECIFIED: DIMENSION IN INCHES; TOLERANCES: DECIMALS ± .005, FRACTIONS ± 1/64, ANGLES ± 0°30'; FINAL SURFACE QUALITY: REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

DRN	DATE 2/6/69
CHKD	DATE 2/5/69
ENGR	DATE 2/6/69
PROJ. ENGR	DATE 2/6/69
PROD. ENGR	DATE 2/6/69
NEXT HIGHER ASSY.	A-ML-PCØ4
SCALE	NONE
SHEET	2 OF 3

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: POWER AND CONTROL SCHEMATIC DIAGRAM (81)

SIZE D | CODE BS | NUMBER PCØ4-0-2 | REV. F | DIST.

D PCØ4-0-2 F

PHOTO ARRAY OUTSIDE (TOP VIEW)

SEE NOTE 3

BØ8A ON LOGIC

+5V

PHOTO AMPLIFIER A07 B07 G918

RD HOLE 1
RD HOLE 2
RD HOLE 3
FEED HOLE
RD HOLE 4
RD HOLE 5
RD HOLE 6
RD HOLE 7
RD HOLE 8

+5V
47 ~ READER LAMP 2Ω 10W R9
17
BØ6V2 ON LOGIC (-18V)

ALL RESISTORS ARE 25Ω 40W

BA(Ø)
BA(1)
BB(Ø)
BB(1)
PWR
RDR FEED SWITCH
22

R7 R8 R5 R6 R3 R4 R1 R2
RESISTOR BRACKET

GRN & WHT
GRN
READER MOTOR
BLACK
WHITE
RED
RED & WHT
TERMINAL STRIP

+5 100Ω AØ8A AØ8F 24 25 READER ON/OFF LINE SWITCH
READER ON OFF LINE

SEE NOTE 1
-18V

15 BØ1A 23
READER FEED SW
SW ASSY

PUNCH SYNC
PUN DONE

S.D. MØ44 AØ3
S.D. MØ44 AØ4
S.D. MØ44 AØ5

(+5 IN 8L)
(-15 IN 8L)

-30V 52
FWD TAPE PUNCH FEED HOLE
HOLE 8
HOLE 7
HOLE 6
HOLE 5
+5V BIAS
HOLE 4
HOLE 3
HOLE 2
HOLE 1

PUNCH FEED SWITCH
20 21
BØ8C ON LOGIC

OUT OF TAPE MTG ON PUNCH

TERMINAL STRIP 6
115VAC (HOT)
38
THYRACTOR
PUNCH MOTOR
RED BLUE 16
BLACK YEL

NEUTRAL
2 POWER ON OFF SWITCH S1
P1 AC-IN
P2 AC-OUT
1 HOT
SLOW BLOW 3A F1
TERMINAL STRIP
T1

F2 4A FB
ON REGULATOR
SEE NOTE 2
XMFR
RED DOT
REC

+8V (UNREGULATED)
C1 80,000MFD
BUS GND
C2 8600MFD
-36V BØ2D
-18V (UNREGULATED)
F3 2A
C3 16,000MFD
BØ6V2
REGULATOR
+5 (REGULATED)
18 AØ8A ON LOGIC
-15 (REGULATED)
19 AØ8B ON LOGIC

READER | POWER SUPPLY

REFERENCE: 7ØØ6268-1
LOGIC BLOCK

NOTES:
1. DOTTED LINES INDICATE POSSIBLE CONNECTIONS BETWEEN POWER SUPPLY, READER AND PUNCH.
2. THE UNCIRCLED NUMBERS 1 THRU 7 REFER TO CONNECTIONS ON REGULATOR BOARD.
3. THIS PHOTO TRANSISTOR IS NOT USED.
4. CIRCLED NUMBERS 1 THRU 46 ARE WIRE NUMBERS. SEE TABLE.

WIRE TABLE

WIRE NO	COLOR	WIRE NO	COLOR
1	RED	24	WHITE-YELLOW
2	WHITE	25	BROWN
3	WHITE	26	WHITE-BROWN
4	RED	27	WHITE-ORANGE
5	ORANGE	28	WHITE-YELLOW
6	GRAY-BLUE	29	WHITE-VIOLET
7	GRAY-WHITE	30	BROWN
8	YELLOW	31	BROWN
9	BLUE	32	ORANGE
10	GRN	33	ORANGE
11	GRN	34	YELLOW
12	GRAY-VIOLET	35	YELLOW
13	GREEN	36	VIOLET
14	GREEN	37	VIOLET
15	RED	38	RED
16	WHITE	39	
17	GRAY-RED	40	
18	GRAY-RED	41	RED
19	GRAY-YELLOW	42	WHITE
20	WHITE	43	RED
21	BLACK	44	WHITE
22	YELLOW		
23	WHITE-BLACK	46	GRAY-YELLOW
48 THRU 51	BLACK	47	GRAY-RED
52	BLUE		

LEGEND

CONNECTIONS	MODEL PCØ4 BL PCØ4 BM		MODEL PCØ4 PL PCØ4 PM	MODEL PCØ4 RB
PWR SUP TO READER	+5V TO READER LAMP POT -18 TO T.S.5			SAME AS PCØ4-BL PCØ4-BM
PWR SUP TO PUNCH	30 TO PUNCH CABLE BØ2D 115V (HOT) TO PUNCH SW 115 (NEUTRAL) TO PUNCH MOTOR		SAME AS PCØ4 BL PCØ4 BM	

QTY.	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

FIRST USED ON OPTION / MODEL: PCØ4

UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

		DATE
DWN	Robert Hartman	2/6/69
CHKD	G Carroll	2/5/69
ENGR	Jim Dickson	2/5/69
PROJ. ENGR	Jim Dickson	2/5/69
APPD		
DATE		2/6/69

NEXT HIGHER ASSY: A-ML-PCØ4

SCALE: NONE
SHEET 3 OF 3

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: POWER AND CONTROL SCHEMATIC DIAGRAM (8L/8E)

SIZE	CODE	NUMBER	REV.
D	BS	PCØ4-0-2	F

DIST.

PCØ4-0-2

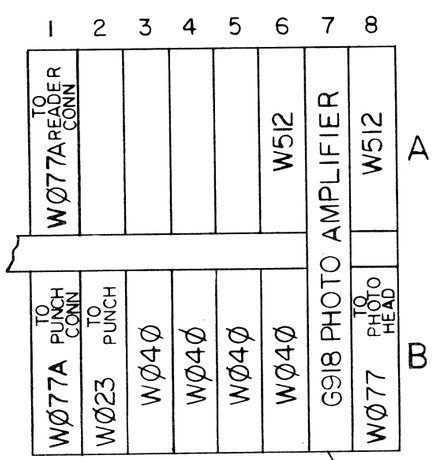
REVISIONS: REV. | CHANGE NO. | DWR

DEC FORM NO. 6060 3/68A

MODEL	MODULE LIST	FIG
PCØ4-B, BA, C, CA	A1, ,A6,A7, A8, B1-B6,B8	1
PCØ4-P, PA	B1,B2	
PCØ4-R	A1, ,A6,A7, A8, B3-B6,B8	
PCØ4-BB & BC	A2,A7,B1 THROUGH, B8	2
PCØ4-RB	A2,A7, B3 THROUGH B8	
PCØ4-BL & BM	A1, A3-A5, A7, B1-B8	3
PCØ4-PL & PM	A3,A5, B1, B2	

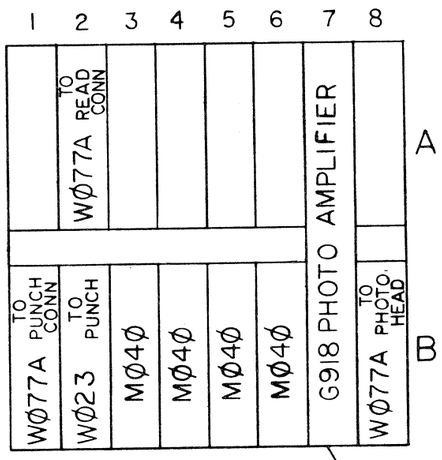
NOTE 1. G918 REVISION MUST BE "B" CIRCUIT, "D" ETCH OR HIGHER.

FIG 1



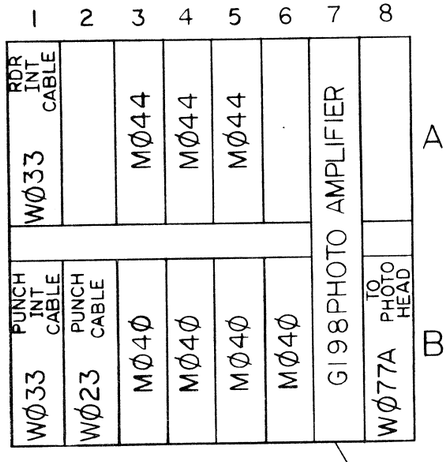
(PDP 8,8S 7ØØ6268-Ø)

FIG 2



(PDP 8I 7ØØ6268-Ø)

FIG 3



(PDP 8L, 8E 7ØØ6268-1)

REVISIONS	CHK	CHANGE NO.	REV.
	DMS	PCØ4-00006	A
	GSP	PCØ4-00046	B

T. Quillen 7-7-69
BECKNER
G. Beckner 9-17-69
G. Beckner 3-11-71
M. LEIS
M. Leis 3-17-71

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PCØ4		PARTS LIST		

UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY ✓
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

DRN.	P. Marratt	DATE 4/18/69
CHK'D.	L.P. Carnell	DATE 6/5/69
ENG.	Geo. Beckner	DATE 6/2/69
PROJ. ENG.	Geo. Beckner	DATE 6/2/69
PROD.	[illegible]	DATE 6/6/69

NEXT HIGHER ASSY.
A-ML-PCØ4-Ø

SCALE

SHEET 1 OF 1

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
MODULE UTILIZATION LIST PCØ4

SIZE	CODE	NUMBER	REV.
C	MU	PCØ4-Ø-3	B

DIST.

DEC FORM NO. DRC 100

SIZE C CODE MU NUMBER PCØ4-Ø-3 REV. B

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY P. MARCOTTE DATE	CHECKED [illegible] DATE 5/5/73	SECTION 1
ENG DATE P. Marcotte 6/6/73	PROD DATE [illegible]	ISSUED SECT. 1

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QUANTITY/VARIATION											
			PCØ4-B-Ø	PCØ4-BA-Ø	PCØ4-C-Ø	PCØ4-CA-Ø	PCØ4-P-Ø	PCØ4-PA-Ø	PCØ4-R-Ø	PCØ4-BB-Ø	PCØ4-BC-Ø	PCØ4-RB-Ø		
1	G918 *	PHOTO AMPLIFIER	1	1	1	1	-	-	1	1	1	1		
~~2~~	~~M5Ø2~~	~~NEGATIVE INPUT CONVERTER~~	~~1~~	~~1~~	~~1~~	~~1~~	~~-~~	~~-~~	~~1~~					
3	WØ40	SOLENOID DRIVER	4	4	4	4	-	-	4	-	-	-		
4	W512	POSITIVE LEVEL CONVERTER	~~2~~	2	2	2	-	-	2	-	-	-		
5	M040	SOLENOID DRIVER (+ 8I)	-	-	-	-	-	-	-	4	4	4		
6	M044	SOLENOID DRIVER(+8L)												

* NOTE: G918 MUST BE D BOARD REV OR HIGHER

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV	ECO NO.
MODULE UTILIZATION	C-MU-PCØ4-Ø-3	A	PL	PCØ4-Ø-3	A	PCO4-CCC[illegible]
	SHEET 1 OF 2	DIST.				

(17)

DEC FORM NO.
DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY	P. MARCOTTE	CHECKED	R. CARVELLI	SECTION	
DATE		DATE	6/5/69		1
ENG	G. BECKNER	PROD	ANTONNUCIO	ISSUED SECT.	
DATE	6/6/69	DATE	6/6/69		1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION PCO4-BL-0	PCO4-BM-0	PCO4-PL-0	PCO4-PM-0
1	G918 *	PHOTO AMPLIFIER	1	1	-	-
2						
3	W040	SOLENOID DRIVER (-)	-	-	-	-
4	W512	POSITIVE LEVEL CONVERTER	-	-	-	-
5	M040	SOLENOID DRIVER (+)	4	4	-	-
6	M044	SOLENOID DRIVER (+ 8L)	3	3	3	3

* NOTE: G918 MUST BE D REV BOARD OR HIGHER

(18)

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
MODULE UTILIZATION	C-MU-PCO4-0-3	A	PL	PCO4-0-3	A	
	SHEET 2 OF 2	DIST.				

DEC FORM NO.
DRA 110

WIRE TABLE

ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	CONNECTIONS FROM	CONNECTIONS TO	REMARKS
8	24	BLU	B@8A	B@8R	
			A@1U	B@3E	
			A@1P	B@3D	
			B@3D	B@3K	
			A@1R	B@4D	
			B@4D	B@4K	
			A@1S	B@5D	
			B@5D	B@5K	
			A@1T	B@6D	
			B@6D	B@6K	
			A@7E	A@6E	
			A@7F	A@6H	
			A@7J	A@6K	
			A@5A	B@5A	
			A@7A	B@7A	
8	24	BLU			

WIRE TABLE

ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	CONNECTIONS FROM	CONNECTIONS TO	REMARKS
8	24	BLU	B@7D	A@6M	
			A@7L	A@6P	
			A@7N	A@6S	
			A@7P	A@6U	
			A@7R	A@6E	
			A@6D	A@1D	
			A@6F	A@1E	
			A@6J	A@1F	
			A@6L	A@1H	
			A@6N	A@1J	
			A@6R	A@1K	
			A@6T	A@1L	
			A@8D	A@1M	
			B@1C	B@1E	
			A@7B	B@7B	
			A@5B	B@5B	
			A@8B	B@8B	
8	24	BLU	A@1C	B@1C	

WIRE TABLE

ITEM NO.	DESCRIPTION AWG	DESCRIPTION COLOR	CONNECTIONS FROM	CONNECTIONS TO	REMARKS
8	24	BLU	A@7E	A@2D	
			A@7F	A@2E	
			A@7J	A@2F	
			B@7D	A@2H	
			A@7L	A@2J	
			A@7N	A@2K	
			A@7P	A@2L	
			A@7R	A@2M	
			A@1P	A@2P	
			A@1R	A@2R	
			A@1S	A@2S	
			A@1T	A@2T	
			A@1U	A@2U	
8	24	BLU	A@1V	A@2V	
			B@8S	B@7E	
			A@7T	A@2N	

7006268-0
(SEE NOTE 4)

EXTERNAL COMPONENT TABLE

ITEM	COMP	POL	FROM	TO	POL	REMARKS
10	CAP	+	A@3A	A@3C	−	
10	CAP	−	B@3B	B@3C	+	
12	RES		A@8A	A@8F		100^

7006268-0 & 7006268-1

WIRE TABLE

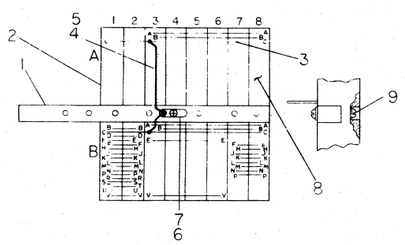
NAME	CONNECTIONS FROM	CONNECTIONS TO	NAME	CONNECTIONS FROM	CONNECTIONS TO
B@8R	B@8R	B@8A	+5V BIAS	B@1M	B@2V
A@7E	A@7E	A@1D	B@1N	B@1N	A@5N
A@7F	A@7F	A@1E	B@1P	B@1F	A@5J
A@7J	A@7J	A@1F	B@1R	B@1R	A@5F
B@7D	B@7D	A@1H	B@1S	B@1S	A@5D
A@7L	A@7L	A@1J	B@1T	B@1T	B@2T
A@7N	A@7N	A@1K	GND D1	B@2C	B@1B
A@7P	A@7P	A@1L	GND D1	B@1B	B@1Q
A@7R	A@7R	A@1M	GND D2	A@3M	A@3C
BA@@	A@1P	B@3D	FWDTAPE	A@3T	A@3U
BA@@	B@3D	B@3K	FWDTAPE	A@3U	B@2H
BA((	A@1R	B@4D	HOLE8	A@4R	B@2K
BA((	B@4D	B@4K	HOLE7	A@4S	B@2L
B@@@	A@1S	B@5D	HOLE6	A@4T	B@2M
B@@@	B@5D	B@5K	HOLE5	A@4U	B@2N
BB((	A@1T	B@6D	HOLE4	A@5R	B@2P
BB((	B@6D	B@6K	HOLE3	A@5S	B@2R
PWR	A@1U	B@3E	HOLE2	A@5T	B@2S
			HOLE1	A@5U	B@2J
-30V	B@2D	A@3V	GND D3	B@2C	B@2E
RES.	B@1A	B@2U	+5 D1	A@4A	B@4A
PUN SYNC	B@1C	B@2F	+5 D2	A@5A	B@5A
PUN DONE	B@1E	A@3D	-15 D1	A@5B	B@5B
	A@3D	A@3E	-15 D2	A@4B	B@4B
	A@3E	A@3F	GND D4	A@4C	B@4C
	A@3F	A@3H	A@7T	A@7T	A@1N
	A@3H	A@4E	SPKT	B@8S	B@7E
	A@4E	A@4H			
	A@4H	A@4K			
	A@4K	A@4P			
	A@4P	A@5E			
	A@5E	A@5H			
	A@5H	A@5K			
	A@5K	A@5P			
B@1H	B@1H	A@4N			
B@1J	B@1J	A@4J			
B@1K	B@1K	A@4F			
B@1L	B@1L	A@3D			

7006268-1

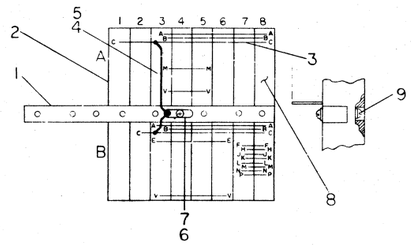
PART #	MODEL USED ON
7006268-0	PC04-B, BA, BB, & BC C, & CA P, PA R, & RB
7006268-1	PC04 BL, & BM PL, & PM

NOTES:

1. CONNECTIONS ON ITEM 3 & 4 TO BE SOLDERED AND LOCATED AT MINIMUM PRACTICAL HEIGHT ABOVE BLOCKS.
2. CONNECTOR BLOCKS TO BE GROUNDED TO GND LUG AS SHOWN.
3. USE BLUE WIRE (ITEM 8) FOR HAND WRAPPED WIRING.
4. PDP8/8S:
   TO CONVERT 7006268-0 BLOCK BACK TO NEG. LOGIC MACHINES, DO FOLLOWING:
   A. REMOVE TRANSISTORS IN READER FEED SWITCH ASSY.
   B. WIRE CHANGES:
      DELETE: — B@8S-B@7E
      ADD: — A@2N-A@8H, B@8E B@7E, A@2B A@1N
   C. DELETE: 100^ RESISTOR FROM A@8A-A@8F



7006268-0
(8, 8S, 8I)



7006268-1
(8L, 8E)

(19)

REVISIONS			
DSN	PCN#	REV	
	4000 6	A	
REVISED & REDRAWN BECKNER			
	4000 21	B	
	4000 22	C	
	4000 23	D	

DRAWN	G. BECKNER
PROJ. ENG.	C. YOUSE
ENG. APPR.	
MFG. APPR.	
QUAL. APPR.	
CONTR. APPR.	
CUST. APPR.	
MGR. APPR.	LEIS

FIRST USE ON OPTION/MOD.	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PC04		PARTS LIST		

UNLESS OTHERWISE SPECIFIED
DIMENSIONS IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 1°30'
FINISH SURFACE QUALITY √
REMOVE BURRS AND BREAK SHARP EDGES
MATERIAL
FINISH

DSN.	R. HUTNAK	DATE 5-13-69
CHK'D.	R. CARVELLI	DATE 5-17-69
ENG.	G. BECKNER	DATE 6/6/69
PROJ. ENG.	G. BECKNER	DATE 6/6/69
MFG.		DATE
QUAL.	R. ANTONELLIO	DATE 6/6/69

NEXT HIGHER ASSY
D-UA-PC04-0-0
SCALE
SHEET 1 OF 1

EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

TITLE
(PC04)
BUS BAR

SIZE D | CODE | NUMBER EAD 7006268-0-0 | REV. C
DIST

DEC FORM NO. 366 180

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY ROBERT HUTNAK	CHECKED G. Carvell	SECTION
DATE 2/20/69	DATE 5/5/69	1
ENG DATE J. Beckman 6/4/69	PROD DATE 6/6/69	ISSUED SECT. 1

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QUANTITY/VARIATION
1	B-IA-7407077-0-0	MTG BAR 6 IN.	1
2	1202244	144 PIN CONN BLOCK WRAPTYPE	2
3	1202188	BUS BAR BERG NO.3584-032	A/R
4	9107560-1	#22 AWG BUS WIRE	A/R
5	9107265	#22 TUBING, TEFLON, WHITE	A/R
6	9007597	TERMINAL SHAKEPROOF #2116-08-00	1
7	9006034	SCR PHL PAN HD #8-32 x .19 LG SST	1
8	9107470-10	#24 AWG SOLID KYNAR BLUE	A/R
9	9007641	SCR PHL FIL HD #8-32 x 1/2 LG SST	4
10	1005306	CAP 6.8 MFD 35V 10%	2
~~11~~	~~1000086~~	~~CAP, 180 MFD 6V 10%~~	~~1~~
12	13-00231	RES 100ohm ¼W 5%	1

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
PCØ4 BUS BAR	E-AD-7006268-0-0	A	PL	7006268-0-0	D	PC04-00046
	SHEET 1 OF 1	DIST. G				

(20) DEC FORM NO. DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION

DATE 11/11/69

TITLE PCØ4 Engineering Specification

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE
A		PC04-00046	M. LEIS		MK	3-17-71

General Information:

The PCØ4 comes in eight (8) configurations. They are the PCØ4P, PL (basic punch), PCØ4R, RB (basic reader), PCØ4B, BB, BL, (punch and reader), and PCØ4C (punch, SCR, and reader). The 50 cycle variations are PCØ4PA, PM; PCØ4BA, BC, BM, and PCØ4CA with no variation in PCØ4R and RB. Table 1-1 gives the block schematic references, UML, interface cables, and the applicable computers.

Logic Levels: Negative Logic Systems
Logic 1 is -3.2v to -3.9 volts
Logic 0 is 0v to -0.3 volts

Logic Levels: Positive Logic Systems

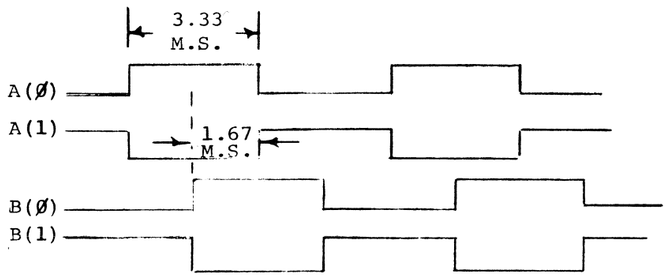
	Outputs	Inputs
Logic 1 is	>+2.4v	>+2.0v
Logic 0	<+0.4v	<+0.8v

Reader Signals:

Reference drawing BS-D-PCØ4-0-2

(1) A(0), A(1), B(0), and B(1) are the signals used to drive the stepping motors via the four solenoid drivers.

The timing chart and graph for these signals would be:



(21)

ENG	APPD	SIZE	CODE	NUMBER	REV
Charles A Yost		A	SP	PCØ4-0-4	A

DEC FORM NO. DRA 107

(2) Power (1) serves the function of supplying only half current to the stepping motor when the motor is stopped. This signal is 0 volts when the motor is stopped and -3 volts when the motor is active for negative logic systems and >+2.0 volts when motor is active and <+0.8 v when the motor is stopped for positive logic systems.

(3) The reader feed switch is simply an off line means of moving tape through the reader. A ground level performs this function.

(4) The reader on/off line switch allows the operator to disable the unit from reading by putting the switch in the off-line position.

(5) The reader on/off line switch is open whenever the reader is off line, and is >2.4V when the reader is on line.

(6) Data Output Lines:

	Hole	No Hole
Negative Systems	-3 volts	Ø volts
Positive Systems	+2.4 volts	0 volts

Punch Signals:

Refer to drawing BS-D-PCØ4-0-2

(1) The interface signal used to turn on the punch motor with an SCR driver option is Gnd when active and open or -3v when inactive.

(2) The -36 volt is supplied to the solenoid coils on the punch motor and also to the solenoid drivers at the external control.

(3) Punch sync is the signal generated from the sync timing wheel on the punch. Equally spaced (in time) positive and negative pulses (one each) for each shaft revolution is generated on this line.

(4) Forward tape and punch feed hole: A ground level for 10 msec. ±10% will punch feed hole and then advance the tape forward in preparation for another cycle for all configurations except PCØ4PL and BL when the solenoid drivers are activated by a >+2.0v signal.

SIZE	CODE	NUMBER	REV
A	SP	PCO4-0-4	A

DEC FORM NO DRA 108A

(5) The eight data holes also require a 10 msec. level to activate the punches.

(6) Out-of-tape signal is generated from a micro-switch on the punch. It is at ground when the punch is out-of-tape.

(7) Punch feed switch is used to manually feed tape through the punch.

(8) The -3 volt or +5v supply is a bias on the punch sync coil.

(9) The punch on/off power switch is used in the options not using the SCR driver. It simply supplies 115 volts to the punch motor.

Power Supply

(1) Regulated +5 volts ±.25 volts

(2) Regulated -15 volts ±1.0 volt

(3) -36 volts ± 4 volts

Power Requirements

Unit will run at 50 or 60 cycles, 115 volts ±10%. 2.5 AMPS run
4 AMPS surge

Reader

(a) Temperature

(1) 55° - 110°F operating, 10° - 150°F non-operating

(b) Humidity

(1) 20% - 95% w/o condensation operating; 5% - 95% w/o condensation non-operating.

(c) Speed

(1) 300 - 310 characters/second full speed.

(2) 20 - 26 character/second single character rate.

(d) Type of tape

(1) non-oil (less than 12% transmissivity)

(e) Tape Life: Acceleration de-accelerate type operation = 30,000 cycles.

(22)

Punch

(a) Temperature

(1) 55° - 110°F operating; 10° - 150°F non-operating

(b) Humidity

(1) 20% - 95% w/o condensation - operating

(2) 5% - 95% w/o condensation - non-operating

(c) Tension of tape supply

(1) Not to exceed 6 ounches

(d) Speed

(1) 50 characters/second ±5%

Margins

+5v is +5v ±.5v

-15v is -15v ±20%

-30v is -36v ±15%

TABLE 1-1
PCØ4 Configuration

CONFIGURATION	REFERENCE BLOCK SCHEMATICS	PUNCH MODULES	INTERFACE CABLES	READER MODULES	APPLICABLE COMPUTERS
PCØ4P	D/BS/PCØ4-0-2 Page 1 of 3	None	1-W077A	N/A	PDP8; PDP8/S; PDP8/I
PCØ4PL	D/BS/PCØ4-0-2 Page 3 of 3	3-M044	1-W033A	N/A	PDP8/L; PDP8E
PCØ4R	D/BS/PCØ4-0-2 Page 1 of 3	N/A	1-W077A	1-G918 4-W040 2-W512	PDP8; PDP8/S
PCØ4RB	D/BS/PCØ4-0-2 Pages 2 and 3 of 3	N/A	1-W077A	1-G918 4-M040	PDP8/I; PDP8/L PDP8/E
PCØ4B	D/BS/PCØ4-0-2 Page 1 of 3	None	2-W077A	1-G918 4-W040 2-W512	PDP8; PDP8/S
PCØ4BB	D/BS/PCØ4-0-2 Page 2 of 3	None	2-W077A	1-G918 4-M040	PDP8/I
PCØ4BL	D/BS/PCØ4-0-2 Page 3 of 3	3-M044	2-W033C	1-G918 4-M040	PDP8/L PDP8/E
PCØ4C	D/BS/PCØ4-0-2 Page 1 of 3	None	2-W077A 4-W040 2-W512	1-G918	PDP9; PDP1Ø

1. Do not apply power until the following checks are made.
   a. Logic block empty.
   b. AØ1A, AØ2A, AØ1B, AØ2B, BØ1A, and BØ2A are bare (no wiring or bussing).
   c. BØ1B and BØ2B should be bussed together without any wires on them except for the PCØ4C configuration when a white/green wire will be on BØ1B.
   d. Remove reader lamp.
   e. Check caps for proper polarity in wiring.
   f. Put ohmmeter on X100 scale and check regulator board tabs 1 thru 5 and 7 for lack of short to ground. Tabs 6 and 8 should indicate a short to ground.
   g. Check fuses for proper rating. Also, should be slo/blo.
   h. Check for continuity between reader lamp ground slot and chassis ground.
   i. Check the following wires for proper connection.

Color	Location	Color	Location
+black (str)	BØ8C	*wh/blue	AØ7B
#wh/black (str)	BØ7C	*wh/green	BØ1B
#brown (str)	AØ2B AØ1B	#brown (solid)	BØ3R, S
#yellow (str)	AØ1V	#orange (solid)	BØ4R, S
#wh/yellow (str)	AØ8F	#yellow (solid)	BØ5R, S
+white (str)	BØ1U	#violet (solid)	BØ6R, S
grey/red (str)	AØ8A	+punch configurations	
grey/yellow (str)	AØ8B	*only on PCØ4C configuration	
blue (str)	BØ6V	#reader configurations	

   j. Put reader lamp back in position making sure that the tension on the lamp is sufficient for good contact.
2. Apply AC power to the unit and check.
   a. +5 volts on AØ8A and BØ8A (+5 volts ±.25 volts).

B. -15 volts on AØ8B and BØ8B (±1 volts).

C. -30 volts on BØ6V and BØ2D (-32 to -40 volts).

3. Shut power off and insert modules for PCØ4.

4. Apply power and make same check as in 2 [illegible].

5. Put cap. (6.8uf, 10-5306) between pins AØ3A (+) and AØ3C (-) and between pins BØ3C (+) and BØ3B (-).

MODEL	DESCRIPTION	CY	FIND NUMBER 2	3	4	5	7	8	9	10	11	12	13	14	15	16	17	18	19
PCØ5-C	PUNCH, READER, DRIVER	60	-1	X	X	X	X	X	X	X	X	X	X	-4	-4	-3	X	X	
PCØ5-CA	PUNCH, READER, DRIVER	50	-2	X	X	X	X	X	X	X	X	X	X	-4	-4	-3	X	X	
PCØ5-P	PUNCH, DRIVER	60	-1				X	X	X	X	X	X	X	-5	-5	-1	X	X	
PCØ5-PA	PUNCH, DRIVER	50	-2				X	X	X	X	X	X	X	-5	-5	-1	X	X	
PCØ5-R	READER			X	X	X	X	X	X	X				-3	-3	-0		X	X

NOTES:
1 THE KEY TO SYMBOLS IN THE FIND NO. COLUMNS IN FIND BLOCK 1 IS:
AN "X" MEANS THE ASSY IS USED.
A BLANK SPACE MEANS THE ASSY. IS NOT USED.
A DASH AND NUMBER (-1-2 ETC) MEANS THE ASSY. IS USED AND THAT VARIATION OF THE ASSY. HAVING THAT PARTICULAR DASH NUMBER AS PART OF ITS DWG. NUMBER IS USED
EXAMPLE:
A READER MODEL FROM FIND COLUMN 14 USES A (-3) OR A D-AD-7006252-3-0 COVER ASSY.

(2) PUNCH ASSY (60CY) D-AD-7006248-1-0
PUNCH ASSY (50CY) D-AD-7006248-2-0

(3) READER ASSY D-AD-7006247-0-0
(4) PHOTO-TRANSISTOR ASSY C-AD-7006267-0-0
(5) PHOTO-TRANSISTOR BOARD ASSY B-1A-5409227-0-0

(7) CHASSIS & POWER SUPPLY ASSY D-AD-7006248-0-0
(8) POWER REGULATOR ASSY C-AD-7006512-0-0
(9) POWER REGULATOR BD ASSY C-1A-5408918-0-0
(10) ETCH BD D-1A-5008919-0-0

(11) SCR DRIVER ASSY C-AD-7006520-0-0
(12) TERMINAL BOARD ASSY B-1A-5408384-0-0
(13) TERMINAL BOARD C-1A-5008383-0-0

(14) COVER ASSY D-AD-7006252-5-0
COVER ASSY D-AD-7006252-3-0
COVER ASSY D-AD-7006252-4-0
(15) BEZEL SWITCH C-1A-7407134-5-0
BEZEL SWITCH C-1A-7407134-3-0
BEZEL SWITCH C-1A-7407131-4-0

(16) SWITCH ASSY C-AD-5408310-1-0
(17) ETCH BOARD D-1A-5008309-0-0
(16) SWITCH ASSY C-AD-5408935-0-0
(19) ETCH BOARD C-1A-5008934-0-0
(16) SWITCH ASSY C-AD-5408310-3-0
(17) ETCH BOARD D-1A-5008309-0-0

(18) PCØ5 BUS BAR C-AD-7006253-0-0

UNIT ASSY. DWG. NO. D-UA-PCØ5-Ø-Ø

REV	CHANGE NO	CHK	
A	PC05-00001		G. BECKNER 2/9/70
B	PC05-00002		G. BECKNER 2-18-70
C	PC05-00004		BECKNER 3-9-70
D	PC05-00013		ENGINEERING 4-23-70
E	PC05-00002		COHELL 5-10-70
F	PC05-00014		COHELL 6-30-70
H	PC05-00015		G. BECKNER 7-6-70
K	PC05-00016		YOUSE 5-8-70
L	PC04-00020A		YOUSE 6-30-70
M	PC04-00032		CORELL 8-28-70
N	PC05-00018		M. LEIS 9-31-70 12/7/70
P	PC05-00019		M. LEIS 12/8/70
R	PC05-00020		M. LEIS 1-26-71 3/1/71
S	PC05-00021		LAWRENCE 3-3-71 3/16/71
T	PC05-00051		LEIS 2/24/71
U	MISC-00086		LUTTIG 6/21/71
			VARTANIAN 7-12-71
			E.V. FOX A. VARTANIAN

FIRST USED ON OPTION/MODEL: PCØ5

DO NOT SCALE DRAWING
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES
TOLERANCES: DECIMALS ± .005, FRACTIONS ± 1/64, ANGLES ± 0°30'
FINAL SURFACE QUALITY √
REMOVE BURRS AND BREAK SHARP CORNERS
MATERIAL
FINISH

PARTS LIST

QTY.	DESCRIPTION	PART NO.	ITEM NO.

DRN	G Beckner	DATE 6/29/69
CHK'D	G Connelly	DATE 6/29/69
ENG		DATE 7/1/69
PROJ. ENG		DATE 7/1/69
PROD		DATE 7/26/69

NEXT HIGHER ASSY: A-ML-PCØ5-Ø
SCALE
SHEET 1 OF 2

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: DRAWING INDEX LIST PCØ5

SIZE	CODE	NUMBER	REV
D	DI	PCØ5-Ø-1	U

DIST.

DEC FORM NO DEC 1969

MECHANICAL

FIND NO.	DESCRIPTION	PART NO.	DEPT USAGE PROD	CUST	F/C
1	PC85- READER PUNCH.	D-UA-PC85-0-0			
	PC85 READER & PUNCH (PL)	A-PL-PC85-0-0			
	CHAD BOX	B-MD-7405300-0-0			
	TAPE CONTAINER	B-MD-7407131-0-0			
	BRKT, RESISTOR	C-MD-7408091-0-0			
	POWER SUPPLY COVER	E-IA-7407438-0-0			
	SCR MODULE RETAINER	C-IA-7405642-0-0			
	HOLD DOWN BAR	C-IA-7408334-7-0			
	PACKAGING INSTUCTION	A-PI-3700024-0-0			
	ECO READER & PUNCH				
2	PUNCH ASSY (60 CY)	D-AD-7006248-1-0			
	PUNCH ASSY (50 CY)	D-AD-7006248-2-0			
	PUNCH ASSY (PL)	A-PL-7006248-0-0			
	CHAD TUBE	B-MD-7407386-0-0			
	PUNCH MTG CHASSIS	D-IA-7407071-0-0			
	HINGE	B-MD-7407063-0-0			
	SHIELD PUNCH CONTACTS	B-MD-7407132-0-0			
	TAPE DEPRESSOR	D-SC-1209915-0-0			
	PIN	B-MD-7408172-0-0			
	PULLY (60CY)	B-MD-7406089-1-0			
	PULLY (50CY)	B-MD-7406089-2-0			
	PAPER TAPE PUNCH FEED BRKT	D-MD-7408088-0-0			
	TAPE CHUTE	D-IA-7408171-0-0			
	TORSION SPRING	C-SC-1209924-0-0			
3	READER ASSY	D-AD-7006247-0-0			
	READER ASSY (PL)	A-PL-7006247-0-0			
	TAPE PATH GUIDE	D-MD-7407076-0-0			
	READER PLATE	D-MD-7407085-0-0			
	BLOCK READER	B-MD-7407119-0-0			
	SHAFT READER PLATE	B-MD-7407120-0-0			
	ARM, SPRING	B-MD-7407118-0-0			
	SPRING, BULB	A-MD-7407116-0-0			
	DEPRESSOR TAPE	C-MD-7407121-0-0			
	BRKT TAPE HOLD DOWN	C-MD-7407144-0-0			
	SLO SYN MOTOR REWORK	B-IA-7407584-0-0			
	SHIM	B-MD-7407800-0-0			
	LENS	B-MD-7404989-0-0			

MECHANICAL

FIND NO.	DESCRIPTION	PART NO.	DEPT USAGE PROD	CUST	F/C
4	PHOTO TRANSISTOR ASSY	C-IA-7006267-0-0			
5	PHOTO TRANSISTOR BD ASSY	B-IA-5409227-0-0			
7	CHASSIS & POWER SUPPLY ASSY	D-AD-7006246-0-0			
	CHASSIS & POWER SUPPLY (PL)	A-PL-7006246-0-0			
	PANEL FRONT	D-IA-7407075-0-0			
	BRKT MTG BAR RIGHT HAND	C-MD-7407065-1-0			
	BRKT MTG BAR LEFT HAND	C-MD-7407065-2-0			
	CHASSIS	E-IA-7407074-0-0			
	COVER, JONES STRIP	C-MD-5309641-0-0			
	HARNESS, CONTROL	D-IA-7006311-0-0			
	HARNESS I/O 110 VAC	D-IA-7006310-0-0			
	HARNESS POWER SUPPLY	D-IA-7006309-0-0			
	DECAL (PC84)	A-DC -7407476-0-0			
8	PWR REGULATOR ASSY	C-AD-7006512-0-0			
	PWR REGULATOR (PL)	A-PL-7006512-0-0			
	HEATSINK, PWR REGULATOR	C-MD-7407069-0-0			
	CIRCUIT SCHEMATIC	B-CS-5408308-0-1			
9	PWR REGULATOR BOARD ASSY	C-IA-5408918-0-0			
10	ETCH BOARD	D-IA-5008919-0-0			
11	SCR DRIVER ASSY	C-AD-7006520-0-0			
	SCR DRIVER ASSY (PL)	A-PL-7006520-0-0			
	SCR DRIVER CHASSIS	C-IA-7407070-0-0			
12	TERMINAL BD ASSY	B-IA-5408384-0-0			
13	TERMINAL BOARD	C-IA-5008383-0-0			
14	COVER ASSEMBLY	D-AD-7006252-3-0			
	COVER ASSEMBLY	D-AD-7006252-4-0			
	COVER ASSEMBLY	D-AD-7006252-5-0			
	COVER ASSEMBLY (PL)	A-PL-7006252-0-0			
	COVER, PCO (BASIC & COMB)	E-SC-1209396-2-0			
	COVER, PCO (PUNCH)	E-SC-1209396-4-0			
	COVER, PCO (READER)	E-SC-1209396-6-0			
	BEZEL PCO	D-MD-7407099-0-0			
	SHIM, BEZEL	C-MD-7407849-0-0			
15	BEZEL SWITCH	C-IA-7407134-5-0			
	SILK SCREEN	A-SS-7407134-5-1			
	BEZEL SWITCH	C-IA-7407134-3-0			
	SILK SCREEN	A-SS-7407134-2-0			
	BEZEL SWITCH	C-IA-7407134-4-0			
	SILK SCREEN	A-SS-7407134-4-1			

MECHANICAL

FIND NO.	DESCRIPTION	PART NO.	DEPT USAGE PROD	CUST	F/C
16	SWITCH ASSY	C-AD-5408310-1-0			
	SWITCH ASSY	C-AD-5408975-0-0			
	SWITCH ASSY	C-AD-5408310-3-0			
	SWITCH ASSY (PL)	A-PI-5408310-0-0			
	BAR SPACER SW.BD.	B-MD-7407175-0-0			
17	PCO SWITCH BOARD	D-IA-5008309-0-0			
	FLIP CHIP MODULE	D-MD-1402230-0-0			
18	PC85 BUS BAR	C-AD-7006253-0-0			
	MTG. BAR (6 IN.)	B-IA-7407077-0-0			
19	PR SWITCH BOARD	D-IA-5008934-0-0			

ELECTRICAL

FIND NO	DESCRIPTION	PART NO.	DEPT USAGE PROD	CUST	F/C
1	PAPER TAPE PUNCH, READER SCR	A-ML-PC85-0			
	PC85-CA READER & PUNCH & DRIVER	A-ML-PC85-CA			
	PC85-P PUNCH	A-ML-PC85-P			
	PC85-PA PUNCH	A-ML-PC85-PA			
	PC85-R	A-ML-PC85-R			
	POWER & CONTROL SCHEMATIC DIAGRAM	D-BS-PC85-0-4			
	MODULE UTILIZATION	C-MU-PC85-3			
	MODULE UTILIZATION (PL)	A-PL-PC85-3			
	SET UP PROCEDURE	A-SP-PC05 0-0			
7	CHASSIS & POWER SUPPLY ASSY	D-AD-7006246-0-0			
11	SCREW DRIVER ASSY	C-AD-7006520-0-0			
	CIRCUIT SCHEMATIC	B-CS-7006520-0-1			
16	BUS BAR (PC85)	C-AD-7006253-0-0			
8	PWR REGULATOR ASSY	C-AD-7006512-0-0			
	CIRCUIT SCHEMATIC	B-CS-5408918-0-1			

FIRST USED ON OPTION/MODEL: PCØ5

DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY √
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

		DATE
DRN	Ted Morseth	4/3/69
CHK'D	E. Carvelli	4/24/69
ENG		5/1/69
PROJ. ENG.		5/1/69
PROD.		4/24/69

NEXT HIGHER ASSY: A-ML-PCØ5-Ø

SCALE

SHEET 2 OF 2

QTY.	DESCRIPTION	PART NO.	ITEM NO.
	PARTS LIST		

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE: DRAWING INDEX LIST PCØ5

SIZE D | CODE DI | NUMBER PCØ5-Ø-1 | REV. U

DIST.

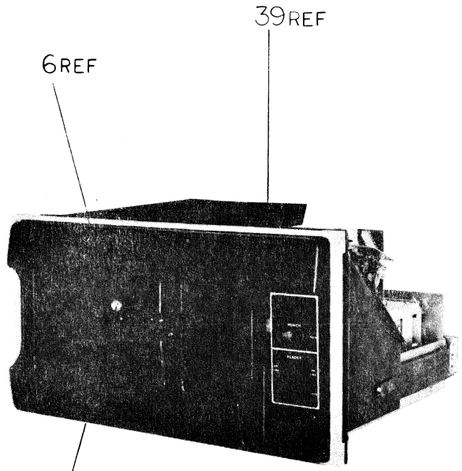
REVISIONS

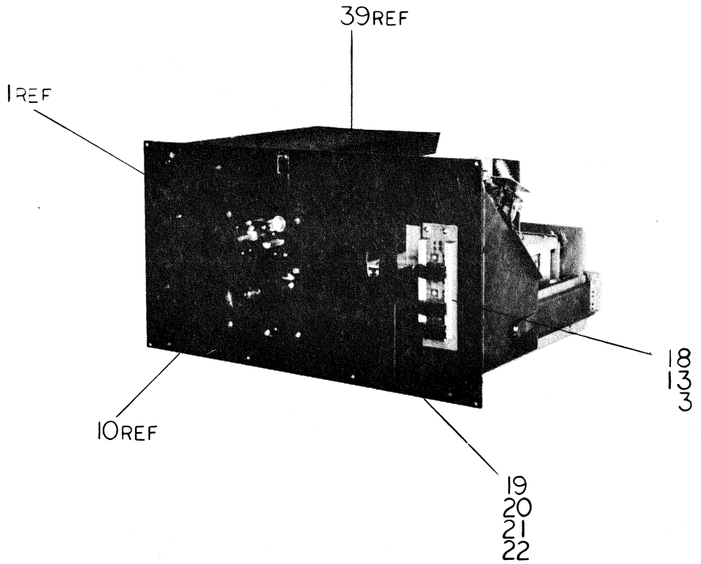
REV	CHANGE NO	CHK

DEC FORM NO 6RD 10C

LEGEND		
MODEL	VARIATION	
	CY	COMPOSITION
PCØ5-C	60	READER PUNCH & DRIVER
PCØ5-CA	50	READER PUNCH & DRIVER
PCØ5-P	60	PUNCH
PCØ5-PA	50	PUNCH
PCØ5-R	X	READER

NOTES:
1. WIRING OF SWITCHES VARIES DEPENDING ON UNIT MODEL BEING BUILT. FOR SWITCH CONFIGURATION, FOR WIRING PURPOSES SEE DETAIL "A" FOR MODEL "C" AND "CA", DETAIL B FOR MODEL "P" AND "PA", AND DETAIL "C" FOR MODEL "R". 50 60 CY HAS NO EFFECT.
2. IF THE SCR DRIVER UNIT IS USED, THIS WIRE WILL CONNECT TO SCR DRIVER TERMINAL T1. IF THE UNIT IS NOT USED, THIS WIRE WILL CONNECT TO TS-6 AND END. FOR CORRECT WIRING WHEN THE UNIT IS USED, SEE SCR DRIVER WIRE LIST. (SHEET 3).
3. ~~REMOVE CLAMP FROM CHASSIS, PLACE CABLE IN POSITION, THEN REINSTALL CLAMP IN POSITION OVER CABLE~~.
4. COVER ASSY TO BE ATTACHED TO CHASSIS ASSY AFTER ALL OTHER INSTALLATIONS ARE COMPLETE. TO DO SO, READER KNOB MUST BE REMOVED, COVER INSTALLED, THEN KNOB REPLACED ON READER SHAFT.
5. ON MODELS "P" AND "PA" THIS WIRE WILL BE TIED BACK AND WHITE SHRINKABLE TUBING (ITEM 43) ADDED AS REQD.
6. FOR REFERENCE SEE DRAWING INDEX D-DI-PCØ5-Ø-1
7. ON MODELS PCØ5-C, CA, P, & PA THESE WIRES WILL BE BUSSED TOGETHER AT COMMON TERMINAL ON SWITCH PANEL. ON "R" MODEL THESE WIRES WILL BE CONNECTED AS USUAL TO THEIR APPROPRIATE TERMINALS.
8. MODULE HOLD DOWN BAR TO BE INSTALLED BEFORE SHIPPING MACHINE.





REVISIONS				
CHK	CHANGE NO.	REV.		
	PCØ5-00002	A		
	G. BECKNER			
	PCØ5-00004	B		
	G. BECKNER			
	PCØ5-00007	C		
	ECKNER			
	PCØ5-00014	D		
	PCØ4-00021	E		
	ADLEMAN			
	PCØ5-00016	F		
	PCØ4-00025	H		
	G. ADLEMAN			
	PCØ4-00027	J		
	ADLEMAN			
	PCØ5-00018	K		
	M. LEIS			
	PCØ5-00019	L		
	LEIS			
	PCØ5-00021	M		
	LEIS			

FIRST USED ON OPTION / MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PCØ5		PARTS LIST		

UNLESS OTHERWISE SPECIFIED
UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY √
REMOVE BURRS AND BREAK SHARP CORNERS
MATERIAL
FINISH

DRN.	DATE	6/14/67
CHK'D.	DATE	6/23/67
ENG.	DATE	7/1/67
PROD. ENGR.	DATE	7/1/67
PROD.	DATE	7/1/67

NEXT HIGHER ASSY
A-ML-PCØ5-Ø
SCALE NONE
SHEET 1 OF 3

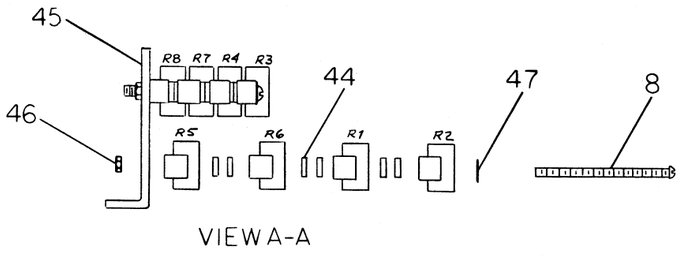
digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE
PCØ5
PEADER AND PUNCH

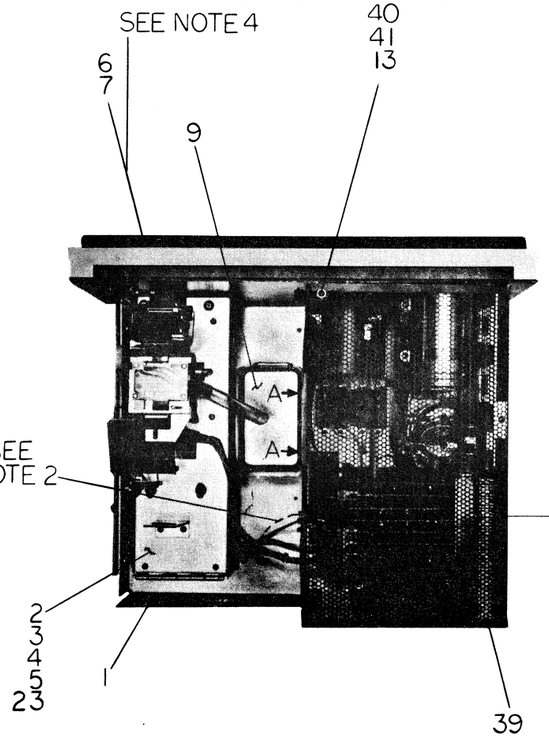
SIZE	CODE	NUMBER	REV.
D	UA	PCØ5-Ø-Ø	M

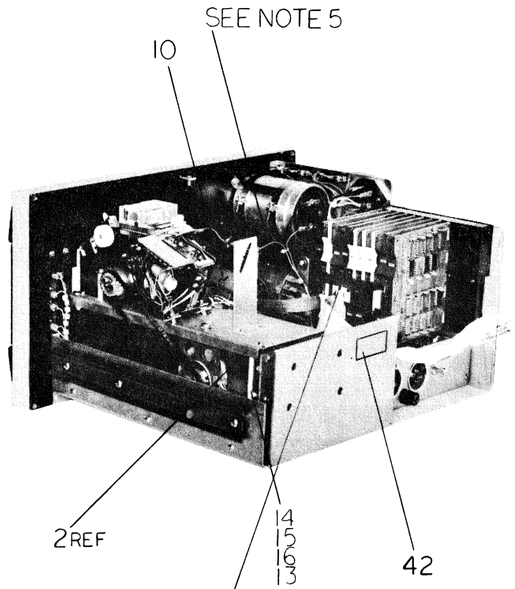
DIST.

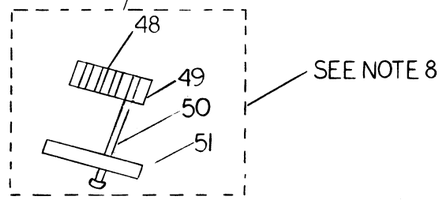
SIZE D CODE UA NUMBER PCØ5-Ø-Ø REV. M

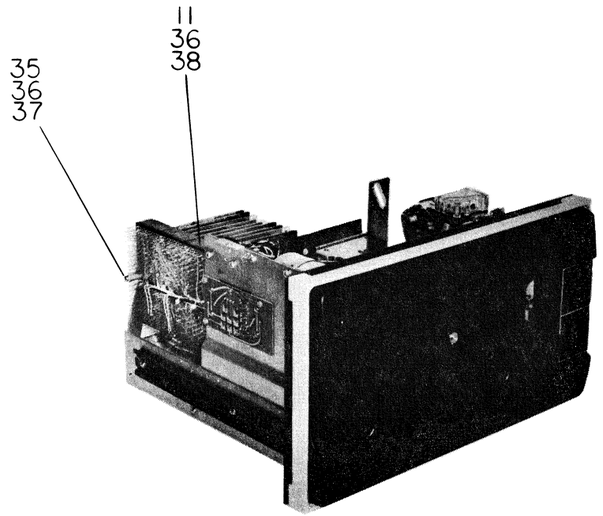


VIEW A-A









REVISIONS		
CHANGE NO.		REV.

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PCØ5		PARTS LIST		

UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 | FRACTIONS ± 1/64 | ANGLES ± 0°30'
FINAL SURFACE QUALITY ✓
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

DRN.	S.P. Marcotte	DATE 6/12/64
CHK'D.	S.P. Marcotte	DATE 6/17/64
ENG.	[illegible]	DATE 9/1/67
PROJ. ENG.	[illegible]	DATE 9/1/67
PROD.	[illegible]	DATE 7/2/64

NEXT HIGHER ASSY
A-ML-PCØ5-Ø

SCALE NONE
SHEET 2 OF 3

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
PCØ5
READER AND PUNCH

SIZE	CODE	NUMBER	REV.
D	UA	PCØ5-Ø-Ø	A1

DIST.

SIZE D | CODE UA | NUMBER PCØ5-Ø-Ø | REV. A1

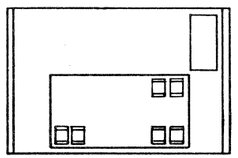
SCR DRIVER WIRE LIST

JUMPER CONNECTIONS

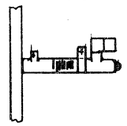
WIRE	COLOR	CONNECTION	REMARKS
HARN WIRE #9	RED	SCR T1	SEE NOTE 2
PUNCH MOT. LEAD	BLK/YEL	SCR T2	
T3	WHT/BLU	A11B2	
T6	WHT/GRN	A12C2	
T4	RED	A11A2	
T5	GRN	A12N2	

TS

1
2
3
4
5
6
7
8



SCR DRIVER



R9

PUNCH WIRE LIST

HARNESS CONNECTIONS

COLOR	WIRE NO.	LOCATION	REMARKS
BLK	5	PNCH SW1 TAB 5	SEE NOTE 1 SHEET 1
WHT	6	PNCH SW1 TAB 6	
RED	7	SWITCH PANEL TAB 7	SEE NOTE 7 SHEET 1
RED	8	SWITCH PANEL TAB 8	
RED	9	TS6	SEE NOTE 2 SHEET 1
GY/RED	8	DO NOT CONNECT	SEE NOTE 5
BLK	15	B12C2 (GND)	
WHT	16	A05T2	

JUMPER CONNECTIONS

WIRE		CONNECTIONS			
ITEM NO.	COLOR	TYPE ITEM	FROM	TO	TYPE ITEM
25	WHT	26	SEE BELOW*	TS-7	26

*THIS END CONNECTS TO CAPACITOR ON PUNCH CHASSIS, ON TERMINAL WITH BLUE WIRE ATTACHED

READER WIRE LIST

HARNESS CONNECTIONS

COLOR	WIRE NO.	LOCATION	REMARKS
YEL	1	RDR SW2 TAB 1	SEE NOTE 1 SHEET 1
WHT/BLK	2	RDR SW2 TAB 2	
WHT/YEL	3	RDR SW1 TAB 3	
BRN	4	RDR SW1 TAB 4	
YEL	11	B04M1	
WHT/BLK	12	B11A2 (+5)	
WHT/YEL	13	A11T1	
BRN	14	B04U1	
GY/RED	8	R9	

JUMPER CONNECTIONS

WIRE		CONNECTIONS			
ITEM NO.	COLOR	TYPE ITEM	FROM *	TO	TYPE ITEM
27	WHT/VIO	NONE	R1 & R2	TS-1	26
28	WHT/YEL	↑	R3 & R4	TS-2	26
29	WHT/ORN		R5 & R6	TS-3	26
30	WHT/BRN		R7 & R8	TS-4	26
31	VIO		R1	B08R2	NONE
31	VIO		R2	B08S2	↑
32	YEL		R3	B07R2	
32	YEL		R4	B07S2	
33	ORN		R5	A10R2	
33	ORN		R6	A10S2	
34	BRN		R7	A09R2	
34	BRN	NONE	R8	A09S2	NONE

* FOR RESISTOR CONFIGURATION SEE VIEW A-A SHEET 2

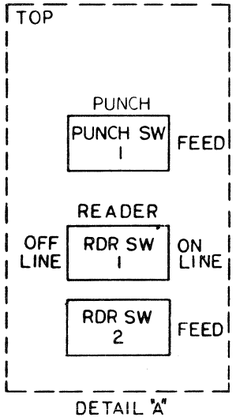
READER MOTOR CONNECTIONS

COLOR	FROM	TO	REMARKS
WHT/RED	RDR MOTOR	TS-1	
RED	↑	TS-2	
WHT/GRN		TS-3	
GRN	↓	TS-4	
WHT & BLK	RDR MOTOR	TS-5	

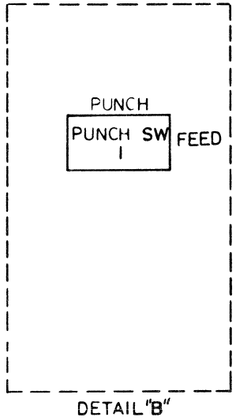
HARNESS CONNECTIONS

COLOR	WIRE NO.	LOCATION	REMARKS
BLK	27	GND LUG	LOGIC GND
GY/YEL	29	A12B2	
GRN	31	A05V2	
BLK	28	GND LUG	LOGIC GND
GY/RED	30	A12A2	
GRN	32	A10 V2	

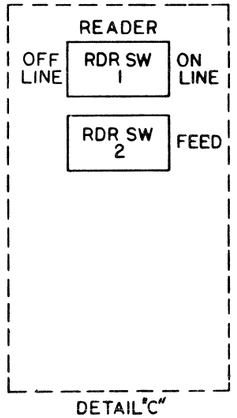
5408310-3



5408310-1



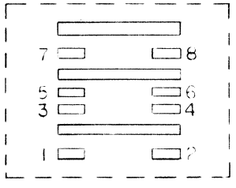
5408935-0



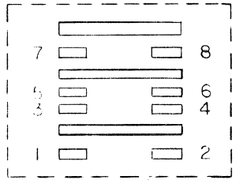
FRONT VIEW

REAR VIEW

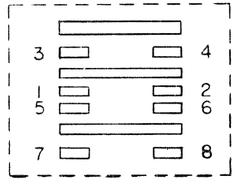
DETAIL "A"



DETAIL "B"



DETAIL "C"



REVISIONS	REV.	CHANGE NO.	CHK
	M		

FIRST USED ON OPTION / MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PC05		PARTS LIST		

UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY √
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

		DATE
DRN	S. Moretti	6/26/69
CHK'D	G. Carroll	6/27/69
ENGR	[illegible]	7/1/69
PROJ. ENGR	[illegible]	7/1/69
PROD	[illegible]	7/3/69

NEXT HIGHER ASSY: A-ML-PC05-0

SCALE: NONE

SHEET 3 OF 3

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: PC05 READER AND PUNCH

SIZE	CODE	NUMBER	REV
D	UA	PC05-0-0	M

DIST.

DEC FORM NO DRD 100

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY P. MARCOTTE DATE 6/19/69	CHECKED R Parnell DATE 6/24/69	SECTION 1
ENG DATE Jas. Brathen 7/1/69	PROD DATE 7/2/69	ISSUED SECT. 1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION PCØ5-C	PCØ5-CA	PCØ5-P	PCØ5-PA	PCØ5-R
1	D-AD-7006246-0-0	CHASSIS AND POWER SUPPLY ASSY	1	1	1	1	1
2	D-AD-7006248-1-0	PUNCH ASSY (60 CY)	1		1		
2	D-AD-7006248-2-0	PUNCH ASSY (50 CY)		1		1	
3	9006021-1	SCR, PHL PAN HD 6-32 x 5/16 LG SST	6	6	6	6	4
4	9006560	NUT, KEPS 6-32	2	2	2	2	
5	9006070-1	SCR PHL, PAN HD 10-32 x 5/16 LG SST	2	2	2	2	
6	D-AD-7006252-5-0	COVER ASSY (PUNCH)			1	1	
6	D-AD-7006252-3-0	COVER ASSY (READER)					1
6	D-AD-7006252-4-0	COVER ASSY (COMB)	1	1			
7	9006021-2	SCR, PHL FH 6-32 x 5/16 LG SST	4	4	4	4	4
8	9006083-1	SCR, PHL PAN HD 10-32 x 2-1/2 LG SST	4	4			4
9	C-MD-7405300-0-0	CHAD BOX	1	1	1	1	
10	D-UA-7006247-0-0	READER ASSY	1	1			1
11	C-AD-7006253-0-0	BUS BAR PCØ5	1	1	1	1	1
12	9006022-1	SCR, PHL PAN HD 6-32 x 3/8 LG SST	3	3	3	3	3
13	9006633	WASHER, INT TOOTH #6	15	15	9	9	13
14	C-AD-7006520-0-0	SCR DRIVER ASSY	1	1	1	1	
15	9006026-1	SCR, PHL PAN HD 6/32 x 3/4 LG SST	2	2			
16	9006801	SPACER ¼ AF x 3/8 LG #6 HOLE	2	2			
~~17~~	~~D-UA-BCØ5A-0-0~~	~~BCØ5A CABLE~~	~~2~~	~~2~~	~~1~~	~~1~~	~~1~~
18	C-AD-5408310-1-0	SWITCH ASSY			1	1	
18	C-AD-5408935-0-0	SWITCH ASSY					1

TITLE PCØ5 READER, PUNCH, DRIVER	ASSY NO. D-UA-PCØ5-Ø-Ø	SIZE A	CODE PL	NUMBER PCØ5-Ø-Ø
	SHEET 1 OF 3	DIST. G		

REV. M

ECO NO. PCØ5 00021

(30)

DEC FORM NO.
DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY P. MARCOTTE	CHECKED R Carvelle	SECTION
DATE 6/19/69	DATE 6/24/69	1
ENG Jan. Beckom 7/1/69	PROD Phillips	ISSUED SECT.
DATE	DATE 7/2/69	1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION											
			PCØ5-C	PCØ5-CA	PCØ5-P	PCØ5-PA	PCØ5-R							
18	C-AD-5408310-3-0	SWITCH ASSY	1	1										
19	D-MD-7407131-0-0	TAPE CONTAINER	1	1	1	1								
20	9006011-2	SCR, PHL FH 4-40 x 3/8 LG SST	2	2	2	2								
21	9006556	NUT, HEX 4-40	2	2	2	2	8							
22	9006632	WASHER, INT TOOTH #4	2	2	2	2	8							
23	9006635	WASHER, INT TOOTH #10	2	2	2	2								
24	1309896	RES, 25 OHM 40 W ± 5%	8	8			8							
25	9107360-99	18 AWG STRD TEFLON WHT	A/R	A/R	A/R	A/R								
26	9007917	SOLDERLESS CONN	6	6	6	6	4							
27	9107400-97	22 AWG STRD TEFLON TRACER WHT/VIO	A/R	A/R			A/R							
28	9107400-94	22 AWG STRD TEFLON TRACER WHT/YEL	A/R	A/R			A/R							
29	9107400-93	22 AWG STRD TEFLON TRACER WHT/ORN	A/R	A/R			A/R							
30	9107400-91	22 AWG STRD TEFLON TRACER WHT/BRN	A/R	A/R			A/R							
31	9107470-77	24 AWG SOLID KYNAR VIO	A/R	A/R			A/R							
32	9107470-44	24 AWG SOLID KYNAR YEL	A/R	A/R			A/R							
33	9107470-33	24 AWG SOLID KYNAR ORN	A/R	A/R			A/R							
34	9107470-11	24 AWG SOLID KYNAR BRN	A/R	A/R			A/R							
35	9006043-1	SCR, PHL PAN HD 8-32 x 1" LG SST	1	1	1	1	1							
36	9006634	WASHER INT TOOTH #8	2	2	2	2	2							
37	9006823	SPACER 3/8 AF x 3/4 LG	1	1	1	1	1							
38	9006040-1	SCR, PHL PAN HD 8-32 x 5/8 LG SST	1	1	1	1	1							
39	E-IA-7407438-0-0	POWER SUPPLY COVER	1	1	1	1	1							

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
PCØ5 READER, PUNCH, DRIVER	D-UA-PCØ5-Ø-Ø	A	PL	PCØ5-Ø-Ø	M	
	SHEET 2 OF 3	DIST.				

(31)

DEC FORM NO.
DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY P. MARCOTTE	CHECKED RCarrell	SECTION
DATE 6/19/68	DATE 6/24/69	1
ENG DATE Jm. Rieken 7/1/69	PROD Products DATE 7/2/69	ISSUED SECT. 1

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QUANTITY/VARIATION											
			PCØ5-C	PCØ5-CA	PCØ5-P	PCØ5-PA	PCØ5-R							
40	9006024-1	SCR, PHL PAN HD 6-32 x ½ LG SST	6	6	2	2	6							
41	9006653	WASHER, FLAT #6 SST	5	5	5	5	5							
42	9008141	DEC NAME TAG	1	1	1	1	1							
43	9107252-09	WHITE SHRINKABLE TUBING			A/R	A/R								
44	9006664	WASHER #10 SST	24	24			24							
45	C-MD-7408091-0-0	BRKT, RESISTOR	1	1			1							
46	9006565	NUT, KEP 10-32 SST	4	4			4							
47	9006635	WASHER INT. TOOTH #10	4	4			4							
48	9007799-6	SCR, PHL, FILLISTER HD 8-32X 1½	1	1	1	1	1							
49	1209850	UNIVERSAL RETAINER	1	1	1	1	1							
50	C-IA-7405642-0-0	SCR MODULE RETAINER	1	1	1	1	1							
51	C-IA-7408339-7-0	HOLD DOWN BAR 6"	1	1	1	1	1							

(32)

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
PCØ5 READER, PUNCH, DRIVER	D-UA-PCØ5-Ø-Ø	A	PL	PCØ5-Ø-Ø	M	
	SHEET 3 OF 3	DIST. G				

DEC FORM NO.
DRA 110

NOTES:

1. DOTTED LINES INDICATE POSSIBLE CONNECTIONS BETWEEN P.S. AND SUPPLY, READER, PUNCH AND SCR DRIVER. SEE LEGEND.
2. THE UNCIRCLED NUMBERS 1 THRU 7 REFER TO CONNECTIONS ON REGULATOR BOARD.
3. THIS PHOTO-TRANSISTOR USED TO DETECT OUT OF TAPE.
4. CIRCLED NUMBERS 1 THRU 53 ARE WIRE NUMBERS. SEE TABLE.
5. WIRE #15 AND #38 ARE BUSSED TOGETHER ON SWITCH PANEL. ON "C", "CA", "P" & "PA" MODELS ONLY. ON "R" MODEL THESE WIRES WILL BE CONNECTED AS USUAL TO THEIR APPROPRIATE TABS.
6. WHEN M71Ø CKT REV H & HIGHER IS USED, DELETE K303 MODULE.

WIRE TABLE

WIRE NO.	COLOR	WIRE NO.	COLOR
1	RED	24	WHITE-YELLOW
2	WHITE	25	BROWN
3	WHITE	26	WHITE-BROWN
4	RED	27	WHITE-ORANGE
5	ORANGE	28	WHITE-YELLOW
6	GRAY-BLUE	29	WHITE-VIOLET
7	GRAY-WHITE	30	BROWN
8	YELLOW	31	BROWN
9	BLUE	32	ORANGE
10	GREEN	33	ORANGE
11	GREEN	34	YELLOW
12	GRAY-VIOLET	35	YELLOW
13	GREEN	36	VIOLET
14	GREEN	37	VIOLET
15	RED	38	RED
16	WHITE	39	WHITE-BLUE
17	GRAY-RED	40	WHITE-GREEN
18	GRAY-RED	41	RED
19	GRAY-YELLOW	42	WHITE
20	WHITE	43	RED
21	BLACK	44	WHITE
22	YELLOW		
23	WHITE-BLACK	46	GREEN
48 THRU 51	BLACK	47	GRAY-RED
52	GREEN	53	RED
54	BLUE		

LEGEND

CONNECTIONS	MODEL PCØ5-C, PCØ5-CA	MODEL PCØ5-P, PCØ5-PA	MODEL PCØ5-R
PWR SUP TO READER	+5 TO READER LAMP POT -18V T.S.S.		SAME AS PCØ5-C PCØ5-CA
PWR SUP TO PUNCH	-3Ø V TO AIØV2 ON LOGIC 115V(HOT) TO SCR DRIVER 115V(NEUTRAL) TO PUNCH MOTOR	SAME AS PCØ5-C PCØ5 CA	
SCR DRVR TO PUNCH	115 V HOT (OUT) TO PUNCH MOTOR	SAME AS PCØ5-C PCØ5-CA	
PWR SUP TO SCR DRIVER	AIIB2 TO -15 V INPUT AI2C2 TO GND INPUT AIIA2 TO +5V INPUT	SAME AS PCØ5-C PCØ5-CA	

ITEM NO.	QTY.	DESCRIPTION	PART NO.

PARTS LIST

FIRST USED ON OPTION/MODEL: PCØ5

UNLESS OTHERWISE SPECIFIED
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

		DATE
DRN	E. LUTTIG	6/24/69
CHK'D	M. CONNELLY	6/24/69
ENG		7/1/69
PROJ. ENG.		7/1/69
PROD		7/2/69

NEXT HIGHER ASSY: A-ML-PCØ5

SCALE NONE

SHEET 1 OF 3

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: POWER AND CONTROL SCHEMATIC

SIZE D | CODE BS | NUMBER PCØ5-Ø-4 | REV. F

DIST.

REVISIONS	CHANGE NO.	REV
CHK	PCØ5-00002	A
CHK	PCØ5-00005	B
CHK	PCØ5-3001n	C
CHK	PCØ4-00025	E
CHK	PCØ5-0006	F

DEC FORM NO DRD 102A

+5V BIAS

BU2

+5

-30V

I/O BUS IN SKIP

BN2

I/O BUS IN INT

BS2

IOT 021

+3

PUN FLAG

PUN ACT Ø

TP AU2

PUN ACTIVE

PUN DONE

MØ44 AØ8

MØ44 AØ7

MØ44 AØ6

U2 T2 S2 R2

V2

SD

E2 D2 H2 F2 K2 J2 P2 N2

PUNCH FEED

PB Ø AK1

PB 1 AL1

PB 2 AM1

PB 3 AN1

PB 4 AK2

PB 5 AL2

PB 6 AM2

PB 7 AN2

AH1 AC4(1)

AH2 AC5(1)

AF1 AC6(1)

AF2 AC7(1)

AE1 AC8(1)

AE2 AC9(1)

AD1 AC1Ø(1)

AD2 AC11(1)

NOTE:

(1) SIGNAL NAMES INDICATE ASSERTED STATES FOR HIGH(H) LEVELS PER DEC STD 054

M71Ø A,B5

QUALIFY BD2

IOP4(1) AP2

AJ2

+3

API

ARI

IOP2(1)

INITIALIZE AS2

AJI CLEAR

PUNCH FEED SWITCH

IOP1(1) AR2

ASI IOT 021

PUN DONE

PUN ACTIVE(Ø)

PUNCH

10MS ONE SHOT

BH2 PUN DONE

5 SEC ONE SHOT

0.4 SEC ONE SHOT

PUN PERMIT

PUN SYNC AV2

EV1

TP SYNC PULSE

BK1 SCR ACTIVE

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PCØ5		PARTS LIST		

UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

DRN. R. T. Hellen	DATE 6/18/69	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS
CHK'D W. Connelly	DATE 6/23/69	
ENG.	DATE 7/1/69	
PROJ ENG.	DATE 7/1/69	
PROD	DATE 7/2/69	

NEXT HIGHER ASSY. A ML PCØ5

SCALE NONE

SHEET 2 OF 3

TITLE: POWER AND CONTROL SCHEMATIC (PUNCH).

SIZE D | CODE BS | NUMBER PCØ5-Ø-4 | REV F

DIST.

REVISIONS	REV	CHANGE NO	CHK

DEC FORM NO DRD 102A

QUALIFY BD2

IOP 1 BU2

IOP 2 BV2

IOP 4 BK1

ONE SHOT 150NS OOT

FLAG

RUN

AM2 TP

AK2

AT2 TP

AL2

AJ1 TP

STROBE

AK1

H1
D1 INITIALIZE
E2 QUALIFY
D2 IOP 1
K2 IOP 2
H2 IOP 4
J1 SKIP
E1 INT
B1 RUN

OUT OF TAPE

INITIALIZE BP1

CLOCK 1

M7050 A,B4

M715 A,B3

BS2 AU2

ACI BU2

MOTOR ON CHAR

BM2

3 µs

AV2 BT2

AP2 BB1

CLOCK

AV2 TP

CLOCK ACCEL

ENABLE

ONE SHOT 2.8MS

150NS

ONE SHOT 40MS

SHIFT AT2 BD1

AS2 SHIFT

RUN BS2

AM2

STOP DELAY

BR2 BM2

STOP COMPLETE

BP2 BM1

AK2 BK2

M715 A,B3

M7050 A,B4

A
B
RA BS1
BA BP2
BB BR1
BB BU2
AB+$\overline{AB}$ BAL MOTOR ON CHAR

SHIFT JJ1

ENABLE

OUT OF TAPE LOGIC

OUT OF TAPE ONE SHOT 10MS

JJ1 ON LINE

OUT OF TAPE BL2

OOT

INHIBIT STROBE

SCHMITT TRIGGER

ACI STROBE

BM2 FEED HOLE

POWER

STOP DELAY BV1

JR2 POWER

CLR

MOTOR ON CHAR RUN

BN1 TP

CLOCK 1 BS2

INITIALIZE BP1

ENABLE

BK2 ENABLE

FEED SW

AFI RH8 BIT8 AP2 M2 BIT8

AF2 RH7 BIT7 AS2 D2 BIT7

AH1 RH6 BIT6 AR1 S2 BIT6

AH2 RH5 BIT5 AN1 T2 BIT5

AE1 RH4 BIT4 AS1 V2 BIT4

AE2 RH3 BIT3 AP1 S1 BIT3

AD1 RH2 BIT2 AR2 P1 BIT2

AD2 RH1 BIT1 AH1 M1 BIT1

M903 B03

PC05-0-4

REVISIONS	REV	CHANGE NO.	CHK

DEC PDP11 SHD 102A

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PC05		PARTS LIST		

UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL —

FINISH —

DRN. R THELLEN	DATE 2-19-71	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS
CHK'D. P CARVELLY	DATE	
ENG. G BECKNER	DATE	
PROJ. ENG. G BECKNER	DATE	
PROD. ANTONUCCIO	DATE	
NEXT HIGHER ASSY A-ML-PC05-0		
SCALE NONE		
SHEET 3 OF 3		

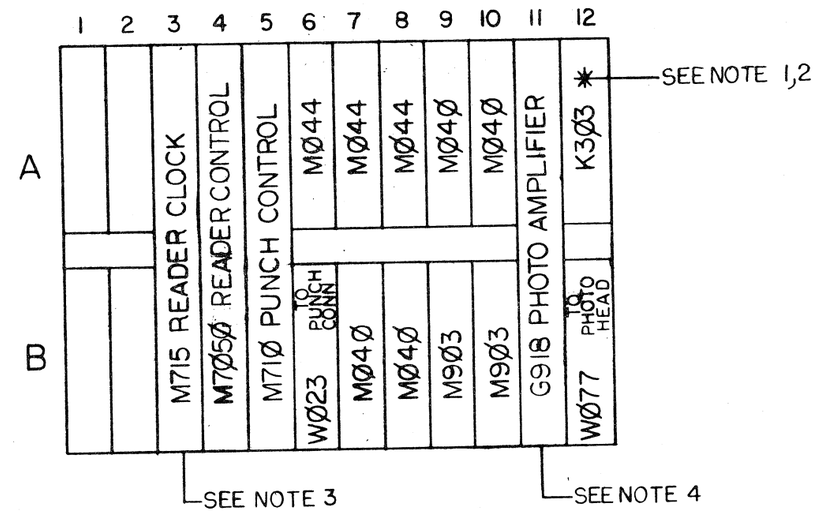
TITLE: CONTROL AND POWER SCHEMATIC (READER)

SIZE	CODE	NUMBER	REV.
D	BS	PC05-0-4	F

DIST.

MODEL	MODULE LIST
PCØ5-C, PCØ5-CA	A3-A12, B6-B12
PCØ5-P, PCØ5-PA	A5, A6, A7, A8, A12, B6, B10
PCØ5-R	A3, A4, A9, A10, A11, B7, B8, B9, B12

NOTES:
1. REF. G-AD-5408231-0-0
2. DELETE THIS MODULE WHEN CKT REV H AND UP OF M710 IS USED. (ETCH F)
3. M715 MUST BE OF REVISION (K CIRCUIT LE ETCH OR HIGHER.
4. G918 MUST BE OF REVISION (B CIRCUIT D ETCH OR HIGHER.



REVISIONS	CHANGE NO.	REV.
CHK	PC05-00001	A
	PC05-00021	B

G. BECKNER 9-3-69
LEIS 3/24/71

FIRST USED ON OPTION/MODEL: PCØ5

UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY ✓
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

QTY.	DESCRIPTION	PART NO.	ITEM NO.

PARTS LIST

DRN G. Morcotte DATE 6/18/69
CHK'D L. Connelly DATE 6/20/69
ENGR DATE 7/1/69
PROJ. ENG DATE 7/1/69
DATE 12/69
NEXT HIGHER ASSY. A-ML-PCØ5-Ø
SCALE
SHEET 1 OF 1

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: MODULE UTILIZATION LIST PCØ5

SIZE C CODE MU NUMBER PCØ5-Ø-3 REV. B
DIST.

DEC FORM NO. DRC 169

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DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY P. MARCOTTE DATE 6/18/69	CHECKED R Carvelli DATE 6/20/69	SECTION 1
ENG DATE Jas. Cochran 7/1/67	PROD DATE 7/2/69	ISSUED SECT. 1

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QUANTITY/VARIATION PCØ5-C	PCØ5-CA	PCØ5-P	PCØ5-PA	PCØ5-R
1	G918	PHOTO AMPLIFIER	1	1			1
2	C-AD-5408231-0-0	TIMER, (K303 WITH K374, K376 & K378)	1	1	1	1	
3	MØ4Ø	SOLENOID DRIVER	4	4			4
4	MØ44	SOLENOID DRIVER	3	3	3	3	
~~5~~	~~M7Ø5~~	~~READER CONTROL~~	~~1~~	~~1~~			~~1~~
6	M71Ø	PUNCH CONTROL	1	1	1	1	
7	M715	READER CLOCK	1	1			1
8	M7050	READER CONTROL	1	1			1

NOTE 1: DELETE 5408231 MODULE WHEN CKT REV H AND HIGHER OF M710 MODULE IS USED

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
MODULE UTILIZATION	C-MU-PCØ5-Ø-3	A	PL	PCØ5-Ø-3	B	PCØ5-000021
	SHEET 1 OF 1	DIS				

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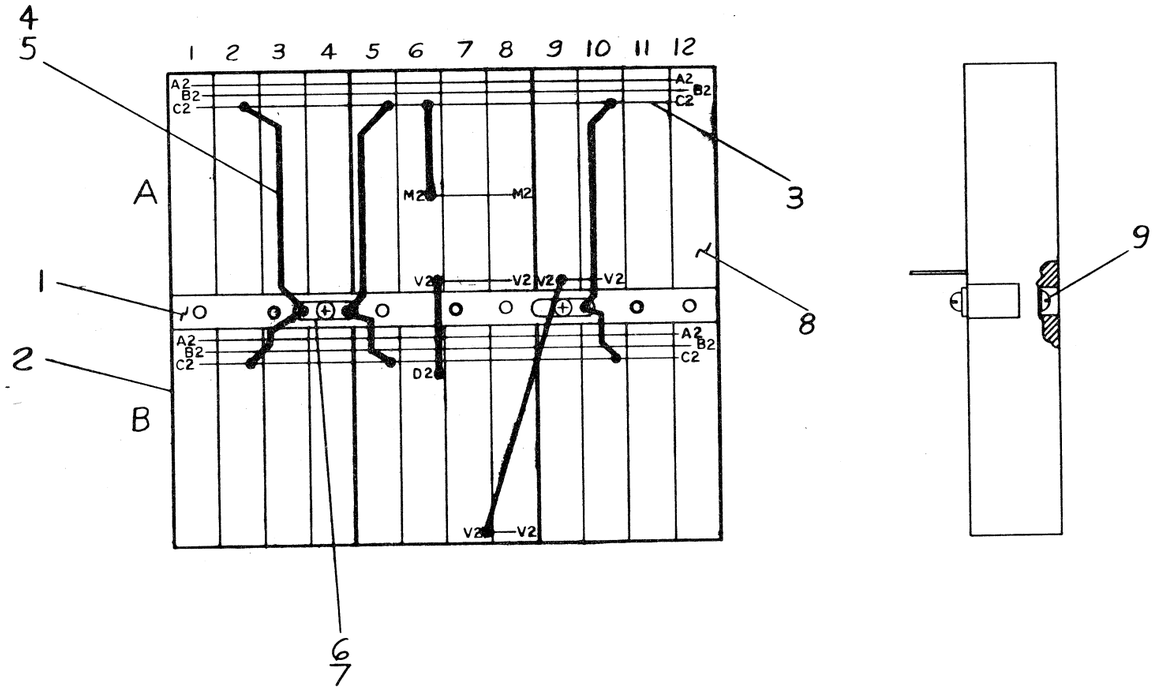
DEC FORM NO.
DRA 110

EXTERNAL COMPONENT TABLE

ITEM	COMP.	POL	FROM	TO	POL	REMARKS
10	CAP	+	AØ3A2	AØ1C2	−	
10	CAP	+	BØ1C2	BØ3B2	−	
11	CAP	+	AØ5J1	AØ5C2	−	
13	RES		BØ9H1	BØ9A2		
13	RES		B1ØD1	B1ØA2		
14	RES		A11J1	A11A2		

NOTES:

1. CONNECTIONS ON ITEM 3 & 4 TO B SOLDERED AND LOCATED AT MINIMUM PRACTICAL HEIGHT ABOVE BLOCKS.
2. CONNECTOR BLOCKS TO BE GROUNDED TO GND. LUG AS SHOWN.



REVISIONS		
CHK	CHANGE NO.	REV.
2nd	PCØ5-00003	A
3rd	PCØ5-00016	B
	PCØ5-00021	C

Yoshu Moraes 12-2-69
E. LUTTIG
E. Luttig
T. Gulli 5-8-70
YOUSE
C. Charles 6/1/71
M. Leis 6/24/71
LEIS

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PCØ5		PARTS LIST		

UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY ✓
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

DRN.	P. Moretti	DATE 6/3/69
CHK'D.	R. Carnelli	DATE 6/19/69
ENG.	Jim Berlyn	DATE 7/1/69
PROJ. ENG.	Dan Dearborn	DATE 7/1/69
PROD.	Phil Hanna	DATE 7/2/69

NEXT HIGHER ASSY
D-UA-PCØ5-Ø-Ø

SCALE

SHEET 1 OF 1

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
BUS BAR
(PCØ5)

SIZE	CODE	NUMBER	REV.
C	AD	7006253-0-0	C

DIST.

SIZE	CODE	NUMBER	REV.
C	AD	7006253-0-0	C

DEC FORM NO. DRC 1459

38

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

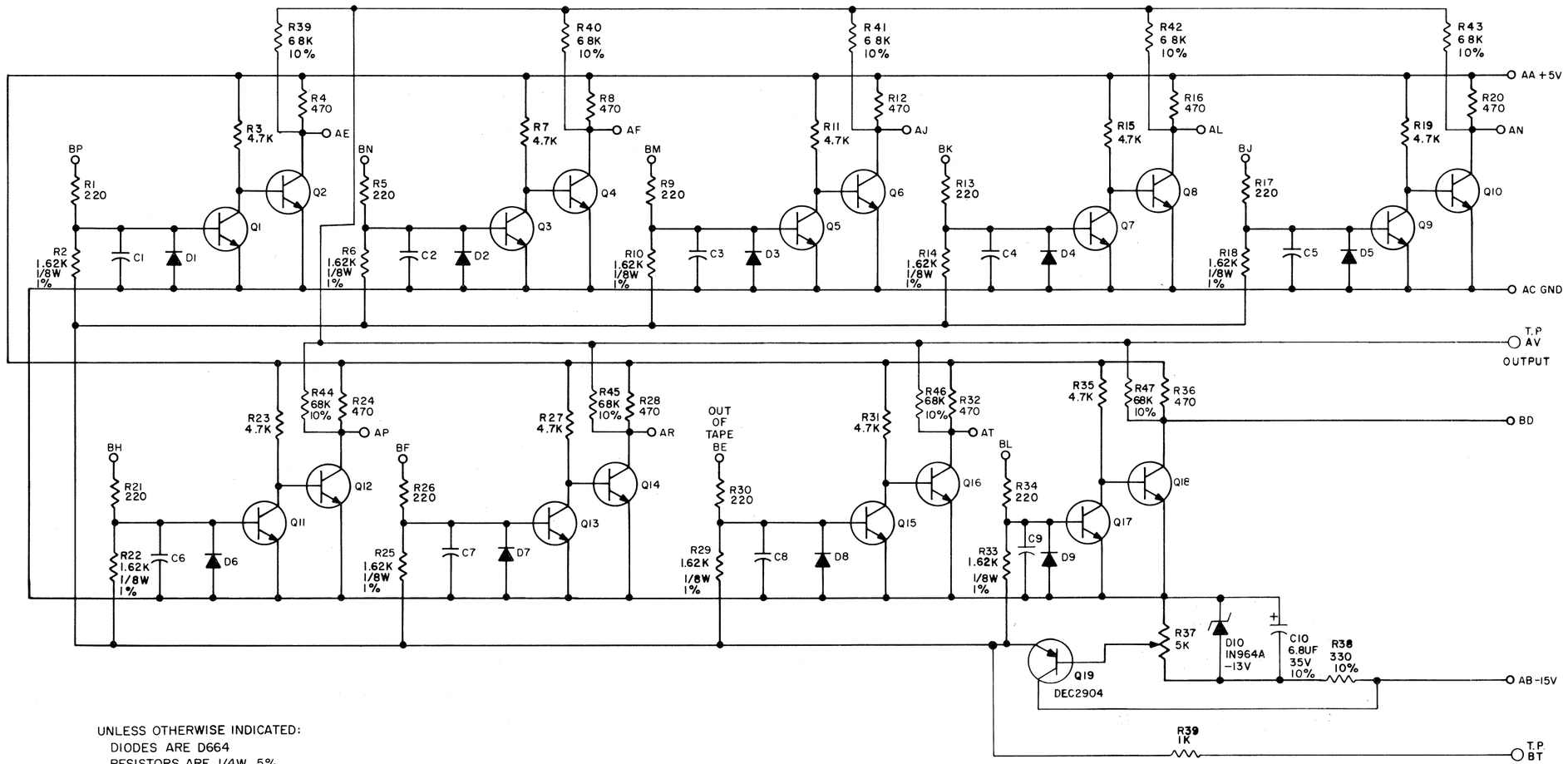
MADE BY F. MARCOTTE DATE 6/10/69	CHECKED R Cornell DATE 6/18/69	SECTION 1
ENG DATE Geo. Lechner 7/1/69	PROD DATE 7/2/69	ISSUED SECT. 1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION
1	B-IA-7407077-0-0	MTG. BAR 6IN.	1
2	1205348	288 PIN CONN. BLOCK WRAPTYPE	3
3	1205541	BUS STRIP - 44 HOLE	A/R
4	9107560-03	#18 AWG BUS WIRE	A/R
5	9107278-09	#18 TUBING TEFLON, WHITE	A/R
6	9007597	TERMINAL, SHAKEPROOF #2116-08-00	2
7	9006034	SCR PHL PAN HD #8-32 x.19 LG SST	2
8	9105740-44	30 AWG SOLID TEF INS. WIRE, YELLOW	A/R
9	9006120	SCR PHL FIL HD #8-32 x .62 LG SST	6
10	1005306	CAP 6.8 MFD 35V 10%	2
11	1001610	CAP .01 MFD 100V 20%	1
~~12~~	~~1002627~~	~~CAP 2.2 MFD 20V 10%~~	~~1~~
REF	K-WL-PCØ5-Ø-2	WIRE LIST	1
13	1300317	RES 470 OHM 1/4 W 10%	2
14	1300231	RES 100 ohm ¼W 5%	1

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV.	ECO NO.
BUS BAR (PCØ5)	C-AD-7006253-0-0	A	PL	7006253-0-0	C	PCO5-00021
	SHEET 1 OF 1	DIST. G				

(39)

DEC FORM NO.
DRA 110



UNLESS OTHERWISE INDICATED:
DIODES ARE D664
RESISTORS ARE 1/4W, 5%
CAPACITORS ARE .01 MFD, 100V, 20%
TRANSISTORS ARE 2N3646

○ INDICATES TEST POINT

41

REVISIONS			
CHK	CHG NO.	REV.	
	00001	A	
	00002		
	00003	B	

DRN. RBUTLER	DATE	4/11/69
CHK'D G. Yunga	DATE	4/14/69
ENG. R. Abril	DATE	6/11/69
PROD.	DATE	

TRANSISTOR & DIODE CONVERSION CHART

DEC	EIA	DEC	EIA
2N3646	2N3009	IN964A-13V	SAME
D664	IN3606	DEC2904	2N1132

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: PHOTO TRANSISTOR AMPLIFIER G918

SIZE	CODE	NUMBER	REV.
C	CS	G918-0-1	B

PRINTED CIRCUIT REV. D

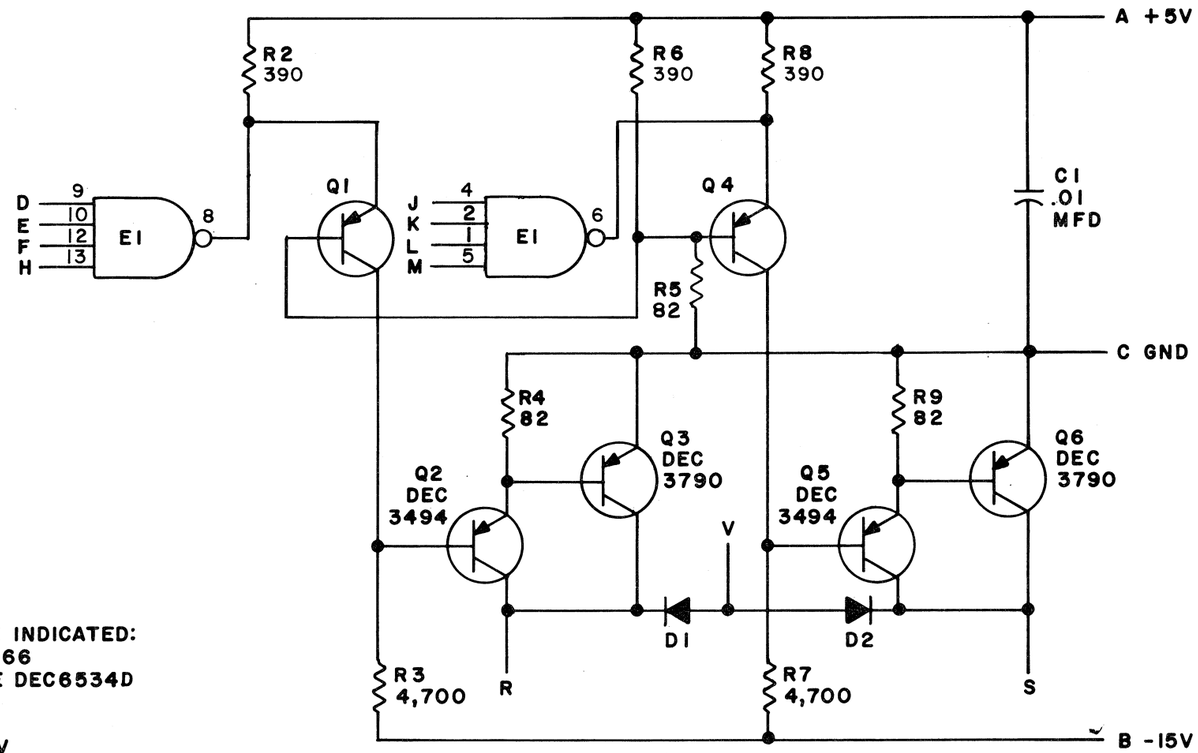
DEC FORM NO. DRC 102

5

DIST. 324,434,435

PINK

SIZE	CODE	NUMBER	REV.
B	CS	M040-0-1	E



UNLESS OTHERWISE INDICATED:
DIODES ARE MR2066
TRANSISTORS ARE DEC6534D
E1 IS DEC7420N
PIN 7 ON IC = GND
PIN 14 ON IC = +5V
RESISTORS ARE 1/4W, 10%

PARTS LIST A-PL-M040-0-0

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REVISIONS			
REV.	CHG NO.	CHK	
E	00001		
	00002		

DRN. M. Keller	DATE 9-14-67	
CHK'D	DATE 9/22/67	
ENG	DATE 9/19/67	
PROD. 4	DATE	

TRANSISTOR & DIODE CONVERSION CHART

DEC	EIA	DEC	EIA
DEC3494	SAME		
DEC3790	2N3790		
DEC6534D	MPS6534		
D662	IN645		
MR2066	IN4003		

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
SOLENOID DRIVER M040

SIZE	CODE	NUMBER	REV.
B	CS	M040-0-1	E

PRINTED CIRCUIT REV. E

DEC FORM NO.
DRB 102

5 DIST. 324, 434, 436[3] PINK

MB3 BF2
MB4 BD1
MB5 BD2
MB6 BE1
MB7 BE2
MB8 BF1
E11
E14
E8
IOP4 AP2
IOP1 AR2
IOP2 AR1
INITIALIZE AS2
E12
BS2 I/O IN INT
BN2 I/O IN SKIP
ASI IOP 02 (T.P.)
AJI CLEAR (T.P.)
+5V
R15
FEED SW AT2
E13
BUI FEED (T.P.)
AU2 PUN ACT (T.P.)
E9 FLAG
E9 ACTIVE
"0"
R14 100
SYNC BIAS BU2
R12 56
R13 5.6K
R11 3K
SYNC PUN AV2
Q2
Q1
C26
R10 3K
R9 150
E16 PUN
R3 15K
R4 50K
BJ2 4.5MS
C22 2.2UF 35V 10%
D1
E10
(10/4.5MS)
R2
BH2 PUN DONE
+5V AA2, BA2
GND AC2, ATI, BC2, BTI
R1
C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12 C13 C14 C15 C16 C17 C18 6.8UF 35V C19 6.8UF 35V C20 6.8UF 35V C21 6.8UF 35V
API CLOCK B (T.P.)
AJ2 CLOCK A (T.P.)
AC4 AH1 AK1 PB0
AC5 AH2 AL1 PB1
AC6 AF1 AM1 PB2
AC7 AF2 AN1 PB3
AC8 AE1 AK2 PB4
AC9 AE2 AL2 PB5
AC10 AD1 AM2 PB6
AC11 AD2 AN2 PB7
BVI SYNC PUN 0 (T.P.)
AUI DEL PUN 1
BMI 4 SEC
R6 7.5K
R7 51K
R8 51K
C25 150 15V
C24 150 15V
C23 180 6V
D3
D2
E5 MOTOR
(5 SEC)
E15 1st DELAY
(.4/3 SEC)
E16
BL1 DEL PUN 2
E13
BKI SCR ACTIVE (0)

UNLESS OTHERWISE INDICATED:
CAPACITORS ARE .01UF, 100V, 20%
RESISTORS ARE 1K, 1/4W, 5%
DIODES ARE D664
TRANSISTORS ARE DEC6534D
DEC7474 = E1, E2, E4, E7, E9, E16
DEC9601 = E5, E10, E15
DEC7404 = E3, E6
DEC7400 = E8, E14
DEC 7440 = E13
DEC7401 = E12
DEC7430 = E11
PIN 7 = GND ON ALL IC'S
PIN 14 = +5V

REVISIONS	CHG NO	REV
	00005	J
	00006	K
	00007	M

DRN. Lucas Wall DATE 1-4-71
CHK. D. Wall DATE 1-7-71
ENG. M. Lee DATE 2-11-71
PROD. M. Lee DATE 2-11-71

TRANSISTOR & DIODE CONVERSION CHART

DEC	EIA	DEC	EIA
D664	IN3606		
DEC6534D	NONE		

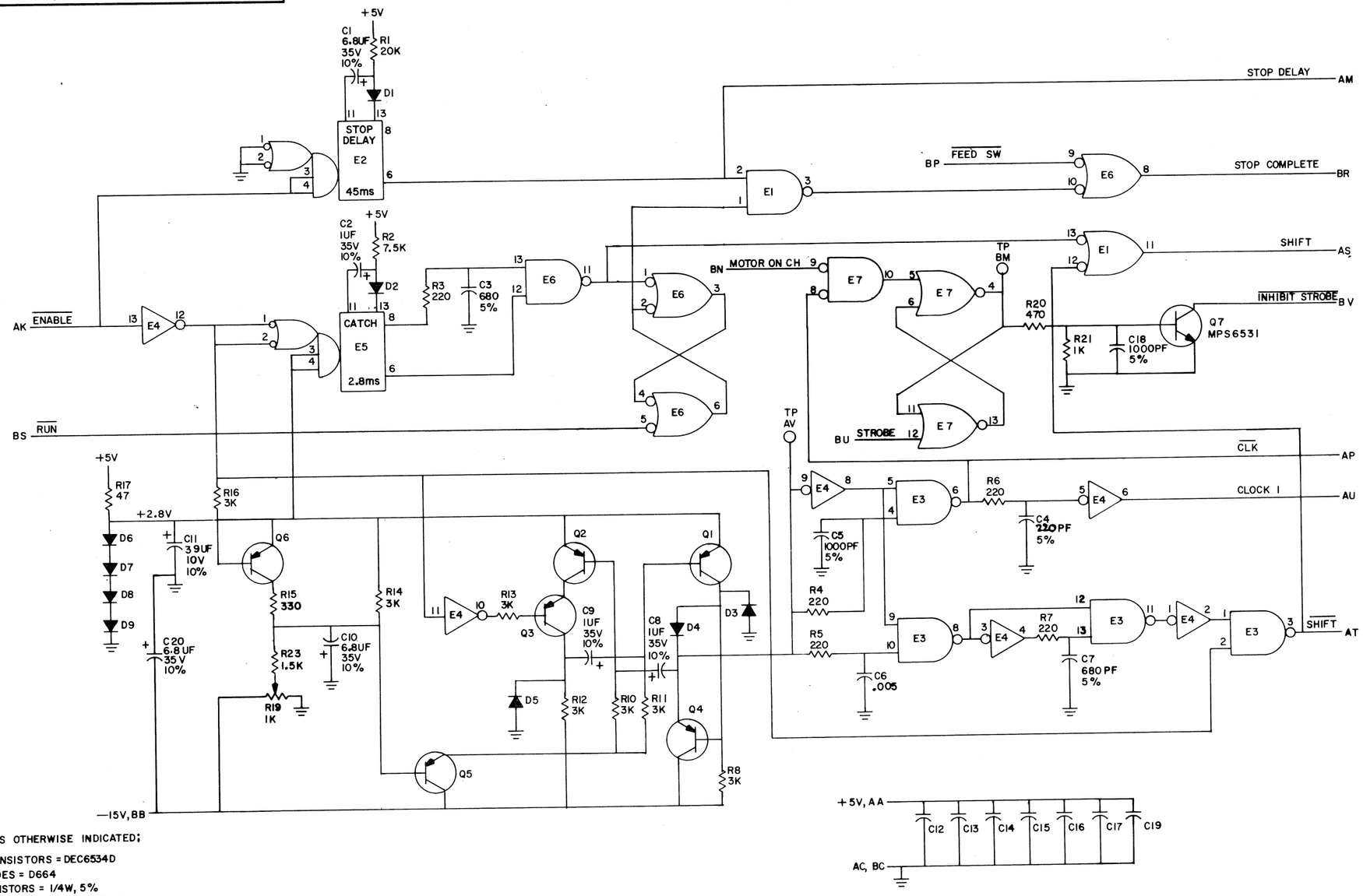
digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: PUNCH CONTROL M710

SIZE	CODE	NUMBER	REV.
D	CS	M710-0-1	K
PRINTED CIRCUIT REV.		H	

DST: 324, 434, 435

4 PINK



UNLESS OTHERWISE INDICATED;

TRANSISTORS = DEC6534D
DIODES = D664
RESISTORS = 1/4W, 5%
CAPACITORS = .01UF, 100V, 20%
E1, E3, E6 = DEC7400
E4 = DEC7404
E2, E5 = DEC9601
PIN 7 = GND
PIN 14 = +5V ON ALL IC'S
E7 = DEC7402

TRANSISTOR & DIODE CONVERSION CHART			
DEC	EIA	DEC	EIA
DEC6534D	MPS6534	IN758	SAME
D664	IN3606		
DEC6531	MPS6531		

REVISIONS	CHK	CHG NO.	REV
	AY	00002	E
REV. B REDR		00006	K
B CANCELS ECO 00005		00007	L
		00008	

DRN. M. HALLER — DATE 10/16/67
CHK'D R. SILVERMAN — DATE 11/2/67
ENG. R. G. SOGGE — DATE 11/2/67
PROD. — DATE

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE: READER CLOCK M715

SIZE	CODE	NUMBER	REV.
C	CS	M715-0-1	L

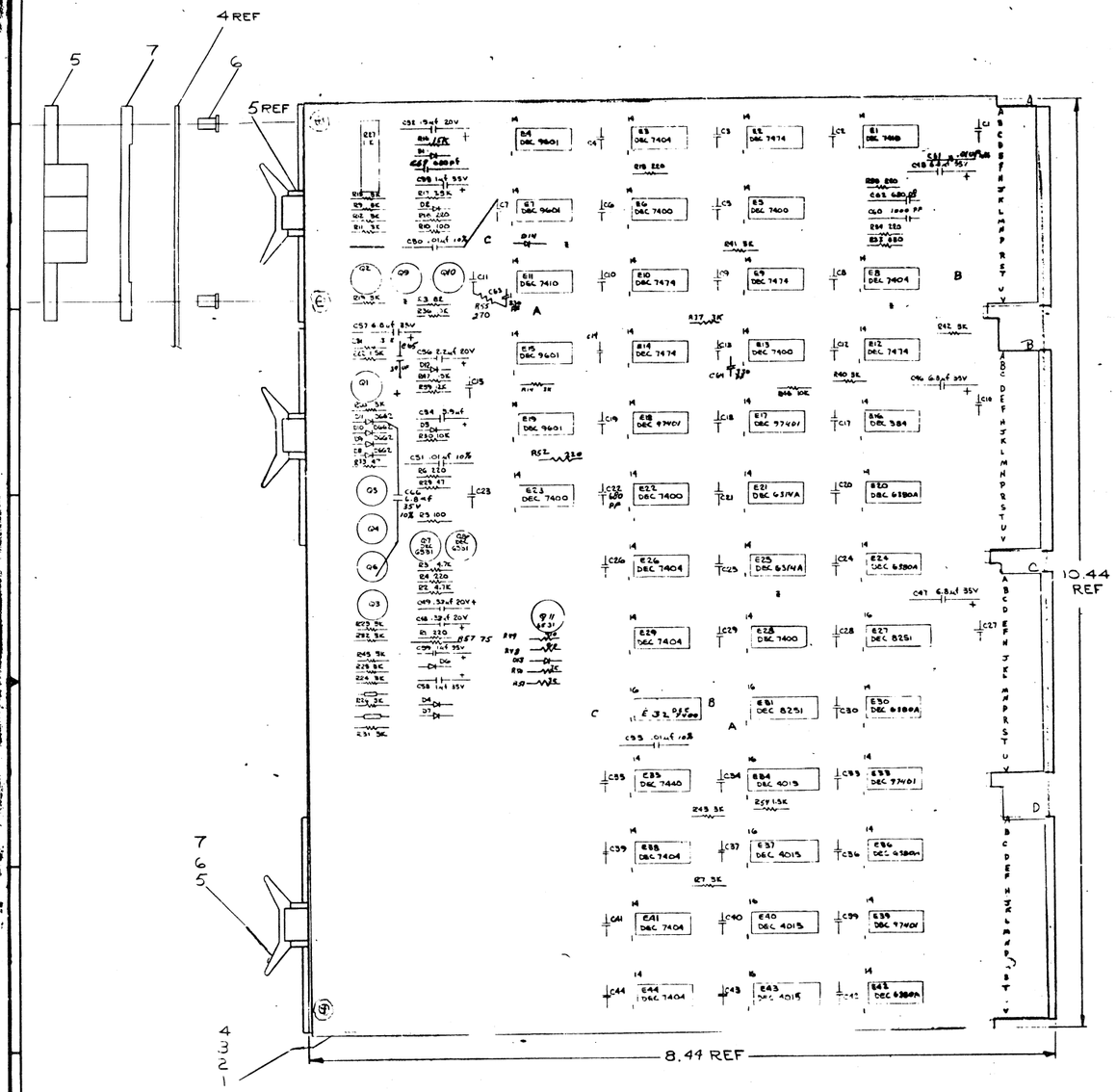
PRINTED CIRCUIT REV. F

DIST. 314, 434, 435 2

4 PINK

DEC FORM NO. DRC 102

REV. L
NUMBER M715-0-1
SIZE C CODE CS



NOTES:
1. UNLESS OTHERWISE NOTED:
   CAPACITORS = .01 UF 100V 20%.
   TRANSISTORS = 6534 D.

QTY	REF DESIGNATION	DESCRIPTION	PART NO	ITEM NO
		PARTS LIST		
1	R57	RES 75 1/4W 5%	1302379	60
A/R		WIRE #22 AWG SOLID BUS	710-360-01	59
1	R55	RES 270 1/4W 5%	1302470	58
1	E9	CES 5.1K 1W 1%	1331974	57
1	R13	RES 20 1/4W 5%	1302022	56
1	R8	RES 36 1/4W 5%	1302602	55
1	R21	RES 680 1/4W 5%	1301424	54
1	R47	RES 18K 1/4W 5%	1302479	53
2		CONN 40 PIN RT ANGLE HDR PC	1200941	52
2	E36,E37,E40,E43	IC DEC 9601SF	1905287	51
1	E38	IC DEC 7440	1905579	50
2	E21, E31	IC DEC 8251	1971594	49
4	E7,E18,E33,E39	IC DEC 97401	1905973	48
2	E20, E35	IC DEC 6314	1907972	47
5	E30,E34,E36,E42	IC DEC 6380	1979971	46
7	E5,E6,E22,E29, E35,E41,E44	IC DEC 7404	1907596	45
4	E4,E7,E15,E19	IC DEC 9601	1905487	44
1	E16	IC DEC 384	1907486	43
2	E1,E11	IC DEC 7410	1905576	42
7	E5,E6,E13,E22, E23,E28,E32	IC DEC 7400	1905575	41
6	E2,E9,E10,E12,E14	IC DEC 7474	1905574	40
2	Q7, Q8, Q11	TRANSISTOR PNP 6531	1903998	39
8	Q1-Q6,Q9,Q10	TRANSISTOR 6534D	1903409	38
7	R1,R4,R6, R18, R34,R38,R52	RES 220 1/4W 5%	1300271	37
20	R7, R11,R12,R14, R15,R19,R20,R21, R24-R26,R31,R32, R37,R40-R43,R45, R50,R51,R22	RES 3K 1/4W 5%	1300432	36
1	R27	RES 1K 3/4W 10% TCPP	1309143-07	35
2	R48,R49	RES 910 1/4W 5%	1305374	34
1	R5	RES 82 1/4W 5%	1301477	33
1	R17	RES 75K 1/4W 5%	1301922	32
1	R28	RES 2K 1/4W 5%	1301431	31
1	R16	RES 15K 1/4W 5%	1300492	30
1	R39	RES 10K 1/4W 5%	1300468	29
3	R30,R36,R46	RES 10K 1/4W 5%	1300479	28
2	R2, R3	RES 4.7K 1/4W 5%	1300447	27
1	C54, C56	RES 1.5K 1/4W 5%	1300397	26
1	R35	RES 330 1/4W 5%	1300335	25
2	R23, R10	RES 100 1/4W 5%	1300331	24
2	R29, R33	RES 47 1/4W 5%	1300223	23
1	D3	DIODE IN5520 SPECIAL	1100126	22
3	D1, D2, D4-D7 D8-D10	DIODE D664	1100114	21
4	D8-D11	DIODE D662	1100113	
41	C1-C21, C23-C30, C33-C49	CHIP .01UF 100V 20% D15C	1601610	19
3	C45, C47, C57, C66	CHIP 6.8 UF 35V 10%	1905306	18
4	C50, C51, C61, C55	CHIP .01UF 100V 10%	1601538	17
2	C53, C48	CHIP .033UF 200V 10%	1601525	16
1	C52	CHIP .1 UF 25V 10%	1601512	15
1	C58	CHIP 2.2 UF 20V 10%	1601627	14
3	C59, C62, C69	CHIP 1UF 35V 10%	1601526	13
1	C65	CHIP .33UF 15V 10%	1601506	12
1	C64	CHIP 330PF 100V 5%	1601546	11
1	C60	CHIP 10000PF 100V 10%	1601542	10
3	C63, C67	CHIP 680PF 100V 5%	1601526	9
2	C68, C44	CHIP 3300PF 100V 5%	1601621	8
3		SPACER CABLE CLAMP	1205704	7
6		EYELET 554-11 STIMPSON	2004750	6
3		HANDLE FLIP CHIP-MINIATA	6[illegible]-56	5
1		ETCHED CIRCUIT BOARD	500[illegible]-B	4
REF		MODULE HISTORY LIST	EMM[illegible]-0	3
REF		ASSY/DRILLING HOLE LAYOUT	SAM[illegible]-C	2
REF		X Y COORDINATE HOLE LOC	K-CO-[illegible]-3	1

IC TYPE	GND	+5V	ITEM NO	AWG	FROM PT	TO PT
IC 7404	1	0				
IC 6314	1	16				
IC 9015	8	16	59	22	JC-1	JC-2
IC 6380	1	5	57	22	JB-1	JB-2
			59	22	JA-1	JA-2

GND AND 5V ARE NORMALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

JUMPER LIST

SEMICONDUCTOR CONVERSION CHART			
PNS 6531	NONE		
6534D	NONE		
D664	13606		
D662	11645		
DEC NO.	EIA NO	DEC NO	EIA NO

ETCH BOARD REV F

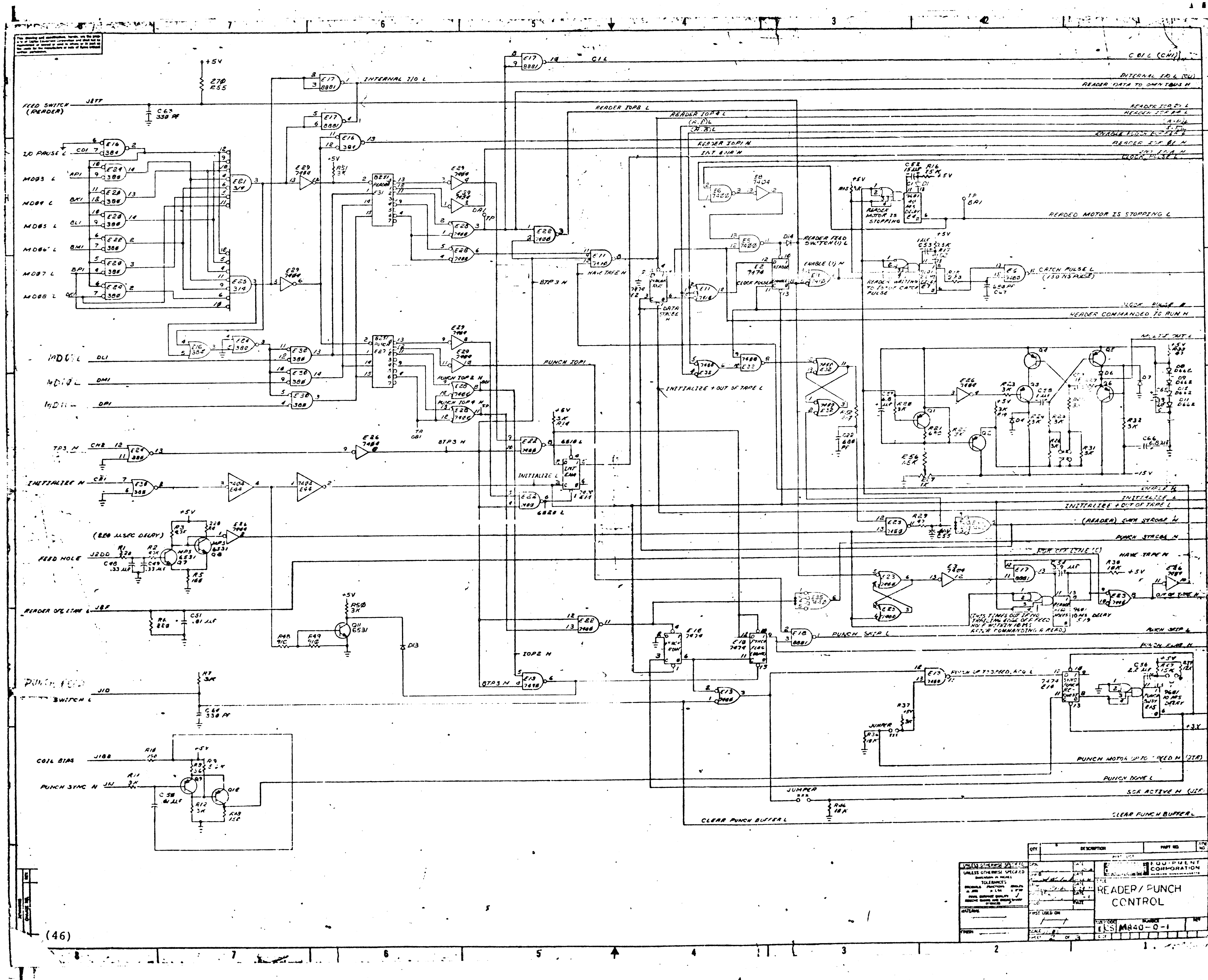
DRN		DATE
CHK'D		DATE
APP'D		DATE
PROD		DATE
SHEET USED ON		
SCALE	2/1	
SHEET	1 OF 3	

EQUIPMENT CORPORATION

TITLE

ECS M840-0-1 REV H

(45)


FEED SWITCH (READER)
I/O PAUSE L
MD03 L
MD04 L
MD05 L
MD06 L
MD07 L
MD08 L
TP3 H
INITIALIZE H
(220 µSEC DELAY)
FEED HOLE
READER OFF LINE L
PUNCH FEED SWITCH L
COIL BIAS
PUNCH SYNC H
INTERNAL I/O L
READER IOP8 L
READER IOP4 L
READER IOP1 H
INT ENA H
C01 L (CH1)
READER DATA TO OMNIBUS H
READER MOTOR IS STOPPING
READER MOTOR IS STOPPING L
READER FEED SWITCH (1) L
ENABLE (1) H
CATCH PULSE L
(130 NS PULSE)
CLOCK PULSE H
READER COMMANDED TO RUN H
DATA STROBE H
HAVE TAPE H
BTP3 H
PUNCH IOP1
PUNCH IOP2 H
PUNCH IOP4 H
INITIALIZE L
INITIALIZE + OUT OF TAPE L
IOP2 H
(READER) DATA STROBE H
PUNCH STROBE H
OUT OF TAPE H
(THIS TIMES OUT IF NO TRAILING EDGE OF FEED HOLE WITHIN 10 MS AFTER COMMANDING A READ)
PUNCH SKIP L
PUNCH FLAG H
PUNCH MOTOR UP TO SPEED H
PUNCH DONE L
CLEAR PUNCH BUFFER L
JUMPER
EQUIPMENT CORPORATION
READER / PUNCH CONTROL
M840-0-1

CBIL (CNI)

INTERNAL I/O L (CLI)

READER DATA TO OWNERS N

READER IOP B2 L

READER IOP B4 L

(G.O.) L

(CA) L

READER PUNCH BUFFER L

READER IOP B1 N

INT ENA N

CLOCK PULSE L

READER MOTOR TO STOPPING L

CATCH PULSE L

CLOCK PULSE H

READER COMMANDS TO RMN

WAIT OUT L

(150NS)

R34 220Ω

C68 1000 pf

(150NS PULSE)

CLOCK PULSE H

R35 332Ω

C61 .01 Mf

R38 200Ω

C62 .001M

SHIFT PULSE L (150NS PULSE)

ENABLE H

INITIALIZE L

INITIALIZE & OUT OF TAPE L

(READER) DATA STROBE H

PUNCH STROBE N

OUT OF TAPE N

PUNCH SKIP L

PUNCH FLAG N

PUNCH DONE L #3

#3V

PUNCH MOTOR UP TO SPEED H (JIA)

SCR ACTIVE H (JIF)

CLEAR PUNCH BUFFER L

+5V R41 3K

+5V R42 3K TP

+5V R43 3K

+5V R39 1.5K

ROTATE PULSE N

B (A:B) L

B (E:B) L

E J8LL BB (0)

E J8NN BB (1)

J8FF BA (0)

B J8JJ BA (1)

HOLE 8 J1T

HOLE 7 J1W

HOLE 6 J1X

HOLE 5 J1B

HOLE 4 J1D3

HOLE 3 J1FF

HOLE 2 J1NN

HOLE 1 J1LL

(PUNCH BUFFER)

BAI DATA 05 L

BBI DATA 05 L

BUI DATA 06 L

BVI DATA 07 L

DAI DATA 08 L

DBI DATA 09 L

DUI DATA 10 L

DVI DATA 11 L

RD HOLE 8 J88B

RD HOLE 7 J2Z

RD HOLE 6 J2X

RD HOLE 5 J2V

RD HOLE 4 J2T

RD HOLE 3 J2R

RD HOLE 2 J2N

RD HOLE 1 J2L

(READER BUFFER)

J2RR POWER (1) N

CNI CI L

CLI INTERNAL I/O L

(READER + PUNCH SKIP) CSI SKIP L

(READER + PUNCH INT RQST) CPI INT RQST L

J1N PUNCH DONE N

J1R PUNCH MOTOR UP TO SPEED N

J1F SCR ACTIVE N

QTY	DESCRIPTION	PART NO.	REV NO.

PARTS LIST

UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30' FINISH SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

ORIG. DATE

CHKD. DATE

ENG. DATE

PROJ. ENG. DATE

PROD. DATE

digital EQUIPMENT CORPORATION

TITLE READER / PUNCH CONTROL

SIZE E CODE IDENT ES M C NUMBER 2-0-1 REV -1

SCALE

SHEET 3 OF 3

REVISIONS LTR CHANGE NO. DATE

(47)

UNLESS OTHERWISE INDICATED:

RESISTORS = 1/4W, 5%
CAPACITORS = ,01UF, 100V, 20%
DEC7401 = E6, E7, E11
DEC9601 = E3
DEC7404 = E8, E13, E17
DEC4015P = E1, E4
DEC7474 = E5, E15, E18
DEC7400 = E2, E9, E16, E19
DEC7410 = E10
DEC7430 = E14
DEC7440 = E12

PIN 8 = GND ON E1, E4
PIN 16 = +5V
PIN 7 = GND ON ALL OTHER IC'S
PIN 14 = +5V

REVISIONS	REV
CHR CHG NO	

DSN MARY MOORE 2/2/71
CHK [signature] DATE 2-24-71
PROG DATE 4-2-71
DATE

TRANSISTOR & DIODE CONVERSION CHART

DEC	E1A	DEC	E1A
MPS6531	MPS6531	D664	IN3606

EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: READER CONTROL

SIZE D | CODE CS | NUMBER M7050-0-1 | REV B
PRINTED CIRCUIT REV C

DEC PRINT NO. BMD 1-15