PC8-E
HSPT reader/punch
engineering drawings

digital equipment corporation · maynard massachusetts

1st Printing July 1971
2nd Printing December 1971

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DEC	PDP
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DIGITAL	COMPUTER LAB

MASTER DRAWING LIST

MAINTENANCE MANUALS NO.	TITLE	UNIT VARIATIONS PC8-E	PC8-EA	PC8-EB	PC8-EC
PC8-E	HIGH SPEED RDR/PUN	X	X	X	X

USED ON OPTIONS
PDP6/E

REVISIONS				
REV.	DATE	CHG. NO.	APP'D.	
A	5/71	PC8E-2	L.N.	
B	1/72	PC8E-3		
C	4/72	PC8E-4		
D	6/72	PC8E-5		
E	10/72	PC8E-6		

DRN. L. NARHI	DATE 1/71	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHK'D K. GULICK	DATE 3/71	
ENG. L. NARHI	DATE 3/71	TITLE HIGH SPEED READER AND PUN (50 - 3)
PROJ ENG L. NARHI	DATE 3/71	
PROD L. TAYLOR	DATE 3/91	
USED ON PDP8-E		SIZE A / CODE ML / NUMBER PC8-E / REV. E
SCALE NONE		
SHEET 1 OF 2		DIST

DRA 131

Dec 16-(325)-1048 N471

PRINT SET PC8-E	DWG. NO.	REV. LET.	NO. OF SHEETS	TITLE	OPTION NO.
C	A-ML-PC04-0	#	1	HIGH SPEED PUNCH	PC04
X	E-CS-M840-0-1	#	3	READER PUNCH CONTROL	
X	D-UA BC08K-0-0	#	1	CABLE ASSEMBLY	BC08K
X	A-SP-PC8-EA-1		3	ENGINEERING SPECS	
X	A-SP-PC8-E-2		3	TEST PROCEDURE	
	A-SP-7665129-0-0		2	ACCEPTANCE PROCEDURE	
X	A-SP-7665138-0-0		2	PC8-E ACCEPTANCE PROCEDURE (FIELD)	
	LIBKIT-8E-PC8E	REF		SOFTWARE KIT	
X	A-PL-PC8E-0-0		1	HIGH SPEED READER & PUNCH (PARTS LIST)	
X	A-AL-PC8-E-3	B	1	ACCESSORY LIST	

TITLE	SHEET	SIZE	CODE	NUMBER	REV
HIGH SPEED READER & PUNCH (50 - 60 HZ)	2 OF 2	A	ML	PC8-E	E

DRA 132

DEC 16-(325)-1048-1-N471

MASTER DRAWING LIST

MAINTENANCE MANUALS NO.	TITLE	UNIT VARIATIONS: PCØ4-B	PCØ4-BA	PCØ4-BB	PCØ4-BC	PCØ4-BL	PCØ4-BM	PCØ4-C	PCØ4-CA	PCØ4-P	PCØ4-PA	PCØ4-PL	PCØ4-PM	PCØ4-R	PCØ4-RB	PCØ4-CL	PCØ4-CM	PCØ4-RL
PCØ4-Ø	BASIC PCØ4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

USED ON OPTIONS	
PR8E	PR8L
PP8-E	PP8I
PC8-E	PP8I
PC8I	PCØ8
PR8I	PCØ9
PR8I	

REVISIONS REV.	DATE	CHG. NO.	APP'D.
ORIG	8/71	MISC-86	—
A	12/71	00053	MK.
B	2/72	00054	ML
C	4/72	00055	L.Y.
D	5/72	00056	CY.
E	3/73	00057	dwl
F	9/73	00058	DRB
H	5/74	PC04-00059	

		DATE
DRN.	P. MARCOTTE	6/69
CHK'D.	R. CARVELLI	6/69
ENG.	G. BECKNER	6/69
PROJ. ENG.	G. BECKNER	6/69
PROD.	G BECKNER	6/69

FIRST USED ON: PC04

SCALE: 1/1

SHEET 1 OF 2

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: PAPER TAPE READER

SIZE	CODE	NUMBER	REV
A	ML	PCØ4-Ø	H

DIST

DRA 131

Dec 16 (325) 1048 -N471

PRINT SET PCØ4-Ø	DWG. NO.	REV. LET.	NO. OF SHEETS	TITLE	OPTION NO.
X	D-DI-PCØ4-Ø-1	Z	2	DRAWING INDEX	
X	D-BS-PCØ4-Ø-2	J	3	POWER + CONTROL SCHEMATIC DIAGRAM (REFERENCE)	
X	B-CS-M113-Ø-1	#	1	1Ø-2 INPUT NAND GATES	
	B-CS-5408308-0-1	#	1	POWER REGULATOR CIRCUIT SCHEMATIC	
X	B-CS-5408385-0-1	#	1	SCR DRIVER CIRCUIT SCHEMATIC	
X	B-CS-MØ44-0-1	#	1	SOLENOID DRIVERS	
X	D-CS-M71Ø-Ø-1	#	1	PUNCH CONTROL M71Ø	
X	B-CS-MØ4Ø-0-1	#	1	SOLENOID DRIVERS	
X	D-CS-M7Ø5Ø-Ø-1	#	1	READER CONTROL M7Ø5Ø	
X	D-CS-M715-Ø-1	#	1	READER CLOCK M715	
X	D-CC-G918-Ø-1	#	1	PHOTO TRANSISTOR AMPLIFIER G918	
X	E-CS-M84Ø-Ø-1	#	3	READER PUNCH CONTROL	
X	D-MU-PCØ4-Ø-3	D	1	MODULE UTILIZATION	
X	A-PL-PCØ4-Ø-3	D	2	MODULE UTILIZATION (PARTS LIST)	
X	B-CS-5408918-0-1	#	1	POWER REGULATOR CIRCUIT SCHEMATIC	
X	A-SP-PCØ4-Ø-4	A	7	PCØ4 ENGINEERING SPECS	
X	B-CS-5408310-0-1	#	1	POWER REGULATOR CIRCUIT SCHEMATIC	
X	D-UA-PCØ4-Ø-Ø	P	4	READER + PUNCH	
X	C-PL-PCØ4-Ø-Ø	P	2	READER + PUNCH (PARTS LIST)	
X	E-AD-7006268-0-0	H	1	WIRED ASSY	
X	A-PL-7006268-0-0	H	1	WIRED ASSY	
X	D-BS-PCØ4-CL-PNCH		1	PUNCH	
X	D-BS-PCØ4-CL-RD		1	READER & POWER SUPPLY	
X	K-WL-PCØ4-Ø-5	H		WIRE LIST PCØ4-B, BA, BB, BC, C, CA, P, PA, R, RB	
X	K-WL-PCØ4-Ø-6	H		WIRE LIST PCØ4-BL, BM, PL, PM, RL	
X	K-WL-PCØ4-Ø-7	H		WIRE LIST PCØ4-CL, CM	
X	A-AL-PC04-0-08		1	ACCESSORY LIST	

TITLE: PAPER TAPE READER

SHEET 2 OF 2

SIZE	CODE	NUMBER	REV
A	ML	PCØ4-Ø	H

DRA 132

DEC 16 (325) 1048 1 N471

MODEL	DESCRIPTION	CY.	COMPOSITION: FIND NUMBER 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
PC08-B,B&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-PA&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 (90CT) D-AD-7006248-1-0
PUNCH ASSY (90CY) D-AD-7006248-2-0

(3) READER ASSY D-AD-7006247-0-0
(4) PHOTO-TRANSISTOR ASSY C-AD-7006287-0-0
(5) PHOTO TRANSISTOR BOARD ASSY D-IA-5409227-0-0

(7) CHASSIS & POWER SUPPLY ASSY D-AD-7006246-0-0
(8) POWER REGULATOR ASSY C-AD-3006598-0-0
(9) POWER REGULATOR BD ASSY C-IA-5406916-0-0
(10) ETCH BD D-IA-5008919-0-0

(11) SCR DRIVER ASSY C-AD-5406305-0-0
(12) TERMINAL BOARD ASSY B-IA-5403776-0-0
(13) TERMINAL BOARD C-IA-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-IA-7407134-1-0
BEZEL SWITCH C-IA-7407134-2-0
BEZEL SWITCH C-IA-7407134-3-0
BEZEL SWITCH C-IA-7407134-4-0
BEZEL SWITCH C-IA-7407134-5-0
BEZEL SWITCH C-IA-7407134-6-0

(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-IA-5008309-0-0
(19) ETCH BOARD D-IA-5008934-0-0

(18) PCØ4 BUS BAR E-AD-706268-0-0
PCØ4 BUS BAR E-AD-706268-1-0

(20) A-PI-3700024-0-0 PACKAGING INSTRUCTION (CUST. PACK)

(21) A-PI-3700123-0-0 PACKAGING INSTRUCTION (INTER PLANT)

UNIT ASSY. DWG. NO. D-UA-PCØ4-Ø-Ø

REVISIONS CHK	CHANGE NO	REV
	PCØ4-00006	A
	PC04-00009	B
	PC04-00013	D
	TU55-00014	E
	POD-00002	F
	PC04-00019	H
	PC04-00021	J
	PC04-00022	K
	PC04-00044	R
	PC04-00046	S
	PC04-00054	V
	PC04-00057	W
	MISC-00086	U
	PC04-00032	M
	PC04-00036	N
	PC04-00041	P
	PC04-00051	T

DEC FORM NO DPD 100

FIRST USED ON OPTION/MODEL: PCØ4

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.	ITEM NO.

PARTS LIST

DRN.	DATE 6/16/69	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
CHKD.	DATE 6/16/69	
ENGR.	DATE 6/16/69	TITLE: DRAWING INDEX LIST, PCØ4
APPD.	DATE 6/16/69	
NEXT HIGHER ASSY: A-ML-PCØ4		SIZE/CODE D DI; NUMBER PCØ4-Ø-1; REV. Z
SCALE —		
SHEET 1 OF 2		DIST.

REV Z
SIZE/CODE D DI
NUMBER PCØ4-Ø-1

MECHANICAL

FIND NO	DESCRIPTION	PART NO	PROD	CUST	F/C
	PC04 READER & PUNCH	D-UA-PC04-0-0			
	PC04- READER & PUNCH (PL)	A-PL-PC04-0-0			
	CHAD BOX	B-MD-7405300-0-0			
	TAPE CONTAINER	D-MD-7407131-0-0			
	I/O CABLE ASSY	C-IA-7006281-0-0			
	PC04 PA PUNCH	D-UA-PC04-PA-0			
	BRKT RESISTOR	C-MD-7408091-0-0			
	SCR MODULE RETAINER	C-IA-7405642-0-0			
	HOLD DOWN BAR	C-IA-7408339-7-0			
	PACKAGING INSTRUCTIONS PCO READER & PUNCH	A-PI 3700024-0-0			
2	PUNCH ASSY (60CY)	D-AD-7006248-1-0			
	PUNCH ASSY (50CY)	D-AD-7006248-2-0			
	PUNCH ASSY (PL)	A-PL-7006248-0-0			
	CHAD TUBE	B-MD-7407306-0-0			
	PUNCH MTG CHASSIS	D-IA-7407071-0-0			
	HINGE	B-MD-7407083-0-0			
	BRKT FEED	D-MD-7408088-0-0			
	TAPE CHUTE	D-IA-7408171-0-0			
	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			
	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-7407078-0-0			
	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-7407684-0-0			
	SHIM	B-MD-7407800-0-0			
	LENS	B-MD-7404969-0-0			

MECHANICAL

FIND NO	DESCRIPTION	PART NO	PROD	CUST	F/C
4	PHOTO TRANSISTOR ASSY	C-IA-7006267-0-0			
	TEST SCHEMATIC	D-CS-7406267-T-1			
	TEST PROCEDURE	A-SP-7406267-T-[illegible]			
5	PHOTO TRANSISTOR BD ASSY	D-IA-5409227-0-0			
6					
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-IA-7407065-1-0			
	BRKT, MTG BAR LEFT HAND	C-IA-7407065-2-0			
	CHASSIS	E-IA-7407074-0-0			
	COVER, JONES STRIP	C-MD-5309640-0			
	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 (PC04)	A-DC-7407476-0-0			
8	PWR REGULATOR ASSY	C-AD-7006912-0-0			
	PWR REGULATOR (PL)	A-PL-7006912-0-0			
	HEATSINK, PWR REGULATOR	C-MD-7407089-0-0			
9	PWR REGULATOR BOARD ASSY	C-IA-5408918-0-0			
10	ETCH BOARD	D-IA-5008919-0-0			
11	SCR DRIVER ASSY	C-AD-5408385-0-0			
	SCR DRIVER CHASSIS	C-IA-7407070-0-0			
12	TERMINAL BD ASSY	B-IA-5403770-0-0			
13	TERMINAL BOARD	C-IA-5003717-0-0			
14	COVER ASSEMBLY	D-AD-7006252-1-0			
	COVER ASSEMBLY	D-AD-7006252-2-0			
	COVER ASSEMBLY	D-AD-7006252-3-0			
	COVER ASSEMBLY	D-AD-7006252-4-0			
	COVER ASSEMBLY (PL)	A-PL-7006252-0-0			
	COVER, PCO (BASIC & COMB.)	E-SC-1209396-1-0			
	COVER, PCO (PUNCH)	E-SC-1209396-3-0			
	COVER, PCO (READER)	E-SC-1209396-5-0			
	~~SHIM, BEZEL~~	~~C-MD-7407849-0-0~~			
	BEZEL	E-SC-1209225-0-0			
15	BEZEL SWITCH	C-IA-7407134-1-0			
	SILK SCREEN	A-SS-7407134-1-1			
	BEZEL SWITCH	C-IA-7407134-2-0			
	SILK SCREEN	A-SS-7407134-2-1			
	BEZEL SWITCH	C-IA-7407134-3-0			
	SILK SCREEN	A-SS-7407134-3-1			
	BEZEL SWITCH	C-IA-7407134-4-0			
	SILK SCREEN	A-SS-7407134-4-1			

MECHANICAL

FIND NO	DESCRIPTION	PART NO	PROD	CUST	F/C
16	SWITCH ASSY	C-AD-5409985-0-0			
	SWITCH ASSY	C-AD-5408310-3-0			
	SWITCH ASSY	C-AD-5408310-4-0			
	SWITCH ASSY (PL)	A-PL-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			
19	PR SWITCH BOARD	D-IA-5008934-0-0			
18	PC04 BUS BAR	E-AD-7006269-0-0			
	MTG. BAR (6 IN.)	B-IA-7407077-0-0			
20	PACKAGING INSTRUCTION	A-PI-3700024-0-0			
	OUTER SHIPPING CARTON	A-PS-9905046-0-0			
	INNER SHIPPING CARTON	A-PS-9905047-0-0			
	BOTTOM PAD	A-PS-9905053-0-0			
	FRONT SPACER	A-PS-9905054-0-0			
	SIDE SPACER	A-PS-9905055-0-0			
	REAR SUPPORT	A-PS-9905032-0-0			
	TOP SPACER	A-PS-9905056-0-0			
	TORO PAD	A-PS-9905044-1-0			
	POLY BAG	A-PS-9905129-7-0			
21	PACKAGING INSTRUCTION	A-PI-3700123-0-0			
	TAPELESS CARTON	A-PS-9905348-00-0			
	SPECIAL DIE CUT	A-PS-9905348-01-0			
	ONE PIECE FOLDER	A-PS-9905348-02-0			
	QUAD MODUAL BOOK PACK	A-PS-9905072-0-0			
	POLY BAG	A-PS-9905129-7-0			

ELECTRICAL

FIND NO	DESCRIPTION	PART NO	PROD	CUST	F/C
1	PAPER TAPE READER	A-ML-PC04-0			
	~~PC04 RA READER & PUNCH~~	~~A-WL-PC04-RA~~			
	~~PC04-C READER & PUNCH & DRIVER~~	~~A-WL-PC04-C~~			
	~~PC04-CA READER & PUNCH & DRIVER~~	~~A-WL-PC04-CA~~			
	~~PC04-P PUNCH~~	~~A-WL-PC04-P~~			
	~~PC04-PA PUNCH~~	~~A-WL-PC04-PA~~			
	POWER AND CONTROL SCHEMATIC DIAGRAM	D-BS-PC04-0-2			
	MODULE UTILIZATION	[illegible]-MU-PC04-[illegible]-3			
	MODULE UTILIZATION (PL)	A-PL-PC04-0-3			
	ENGINEERING SPECS	A-SP-PC04-0-4			
	WIRELIST	K-WL-PC04-[illegible]-5			
	WIRELIST	K-WL-PC04-[illegible]-6			
	WIRELIST	K-WL-PC04-[illegible]-7			
7	CHASSIS & POWER SUPPLY ASSY	D-AD-7006246-0-[illegible]			
9	POWER REG. BD C.S.	B-CS-5408308-0-[illegible]			
11	SCR DRIVER ASSY	C-AD-5408385-0-[illegible]			
12	PRINTED CIRCUIT BDS	PC-[illegible]403770-0-[illegible]			
18	BUS BAR (PC04)	E-AD-7006269-0-0			
	BUS BAR [illegible]	[illegible]			
[illegible]	[illegible]	A-A[illegible]			

QTY	DESCRIPTION	PART NO.	ITEM NO
	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

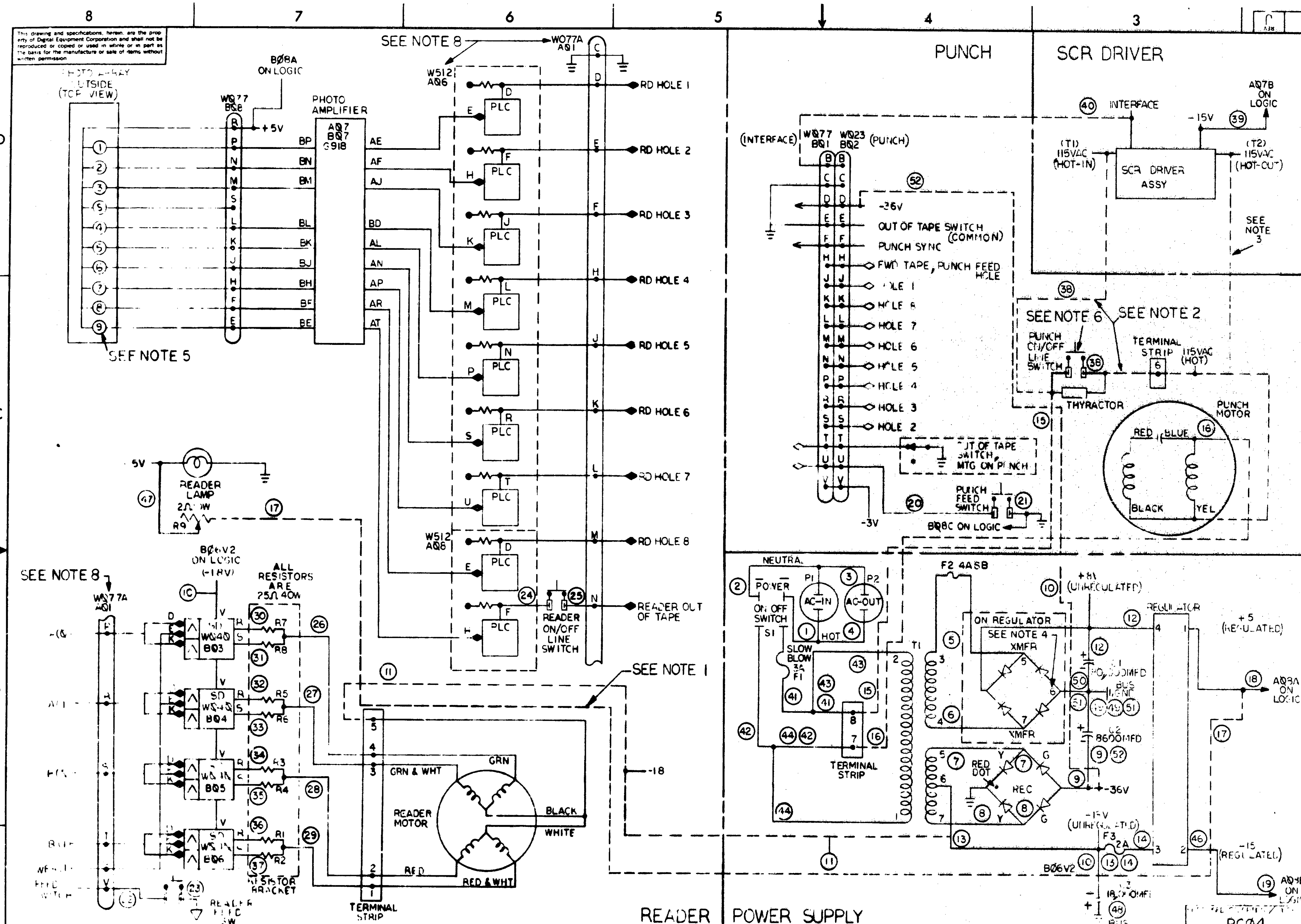
DRN — DATE
CHK'D — DATE
ENG — DATE 6/4/69
PROD ENG — DATE 6/6/69
PROD — DATE

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE: DRAWING INDEX LIST PC04

SIZE D | CODE DI | NUMBER PC04-0-1 | REV
SCALE
SHEET 2 OF 2
DIST G

D DI PC04-0-1 Z



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

REFERENCE: 7006268-0-0 LOGIC BLOCK

PC04-0-2

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, EM, 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
43 THRU 51	BLACK	47	GRAY-[illegible]
52	BLUE		

LEGEND

CONNECTIONS	MODEL PC04 B / PC04 BA	PC04 C / PC04 CA	PC04 [illegible] / PC04 [illegible]	PC04 [illegible]
PWR SUP TO READER	+5V TO READER LAMP [illegible] -18 TO T.S.5.	SAME AS PC04-B PC04-BA		SAME AS PC04 B PC04 BA
PWR SUP TO PUNCH	30 TO PUNCH CABLE B[illegible] 115V(HOT) TO PUNCH [illegible] 13 (NEUTRAL) TO PUNCH MOTOR	[illegible]	[illegible]	
PWR SUP TO SCR DRVR		[illegible]		
SCR DRVR TO PUNCH		INTERFACE [illegible]		

QTY.	DESCRIPTION	PART NO	ITEM NO.

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 [illegible] DATE 2/4/69
CHK'D [illegible] DATE 6/5/69
ENG [illegible] DATE [illegible]
PROD [illegible] DATE [illegible]

NEXT HIGHER ASSY A-ML-PC04

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

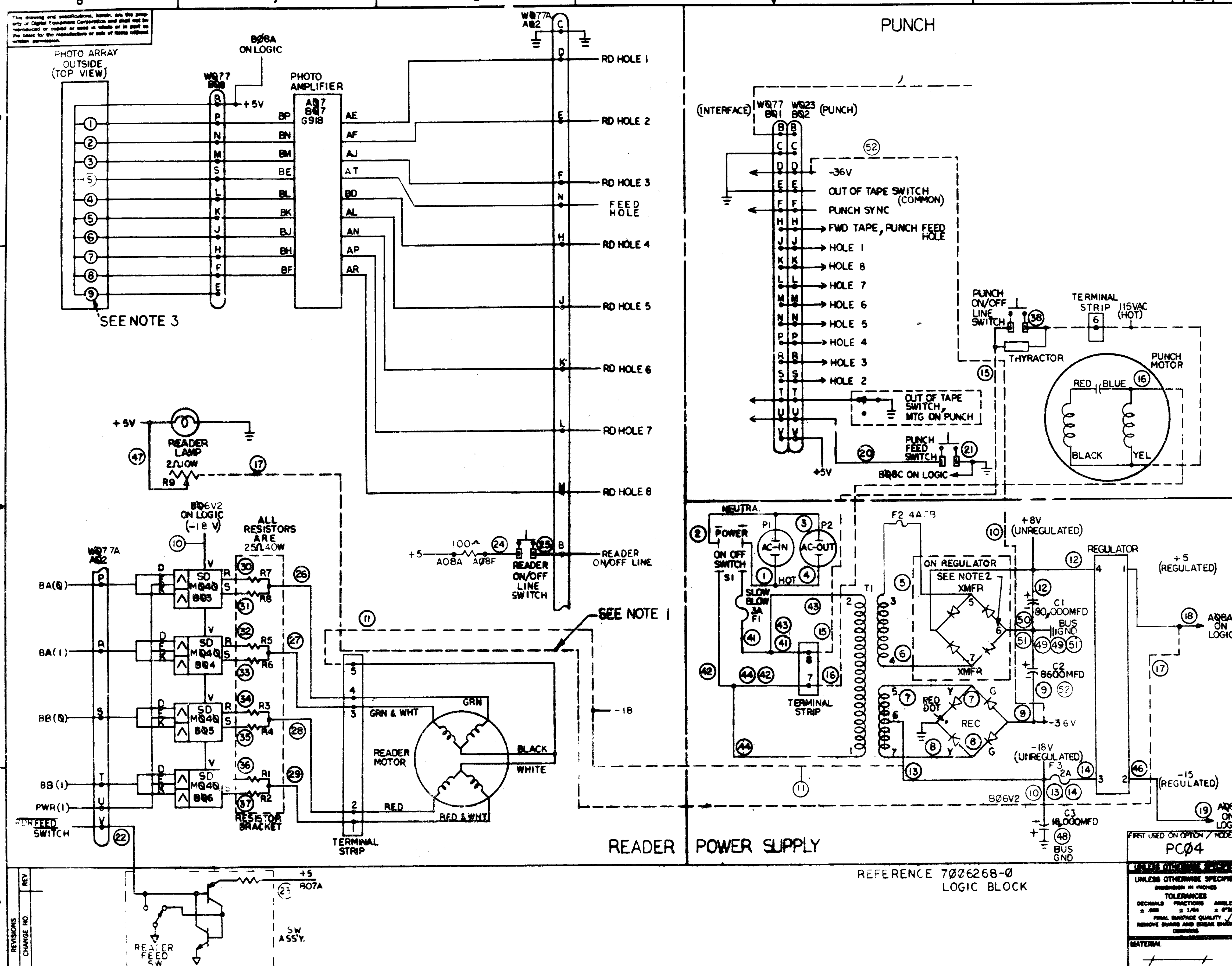
TITLE PC04 [illegible] CONTROL SCHEMATIC DIAGRAM

SIZE D CODE B[illegible] NUMBER [illegible]-PC04-0-2 REV J

SCALE NONE SHEET 1 OF 3

REVISIONS (REV / CHANGE NO / CHK): A, B, C, D, E, F, H, J — [illegible handwritten entries]

DEC FORM NO DRD 102A



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			
	PC04 BB PC04 BC		PC04 P PC04 PA	PC04 RB
PWR SUP TO READER	+5V TO READER LAMP POT -18 TO T.S.5		X	SAME AS PC04-B PC04-BC
PWR SUP TO PUNCH	30 TO PUNCH CABLE B0ID 115V (HOT) TO PUNCH SW 115 (NEUTRAL) TO PUNCH MOTOR		SAME AS PC04 BB PC04 BC	X

FIRST USED ON OPTION / MODEL: PC04

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

MATERIAL
FINISH

NEXT HIGHER ASSY: A-ML-PC04
SCALE: NONE
SHEET 2 OF 3

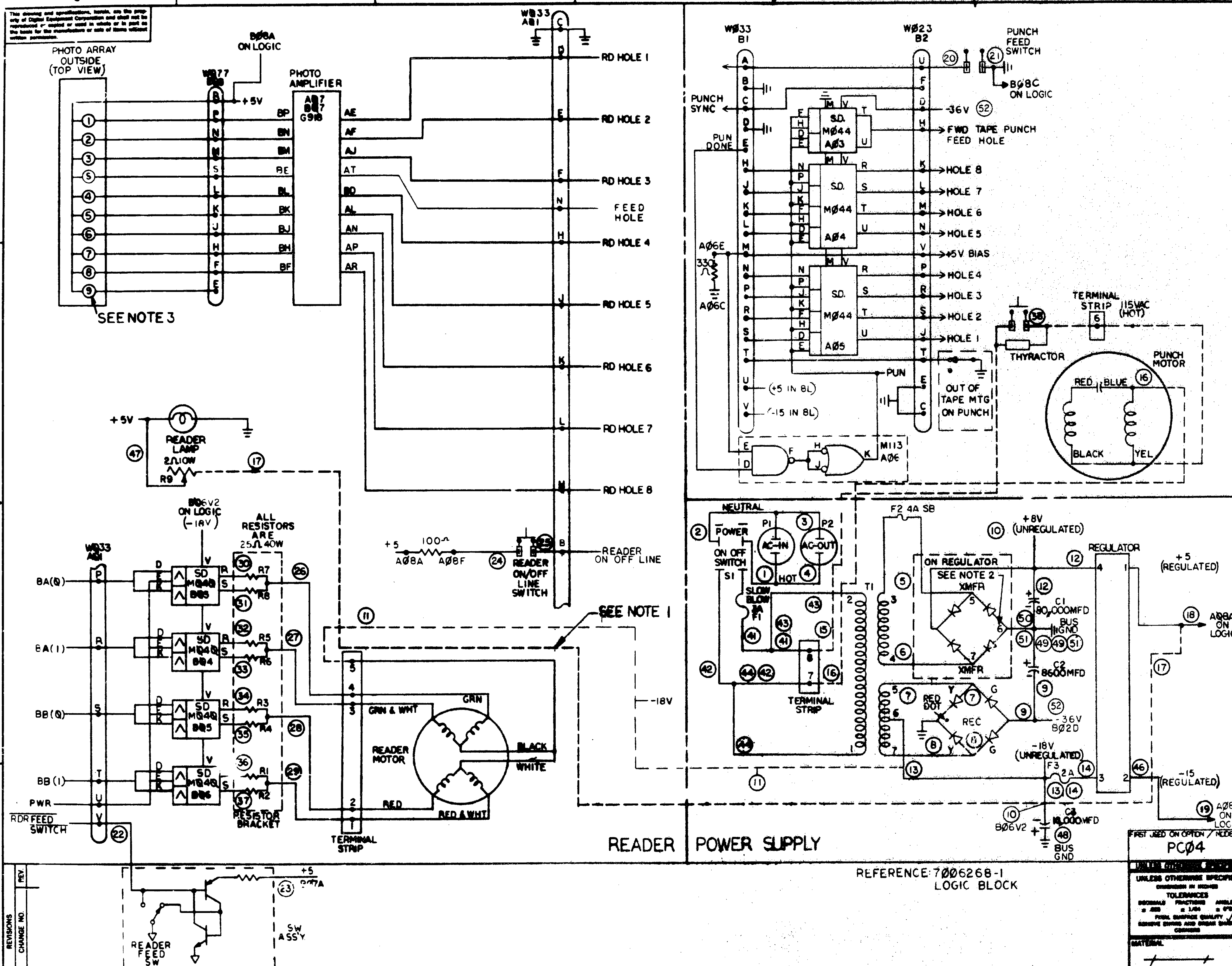
QTY. | DESCRIPTION | PART NO. | ITEM NO.
PARTS LIST

DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS

TITLE: POWER AND CONTROL SCHEMATIC DIAGRAM (8I)

SIZE: D CODE: BS NUMBER: PC04-0-2 REV: J

PCØ4-O-2



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 3L, PCØ4 BM		PCØ4 PL, PCØ4 PM	FCØ4 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 DIMENSIONS IN INCHES TOLERANCES

NEXT HIGHER ASSY. A-ML-PCØ4

SCALE NONE SHEET 3 OF 3

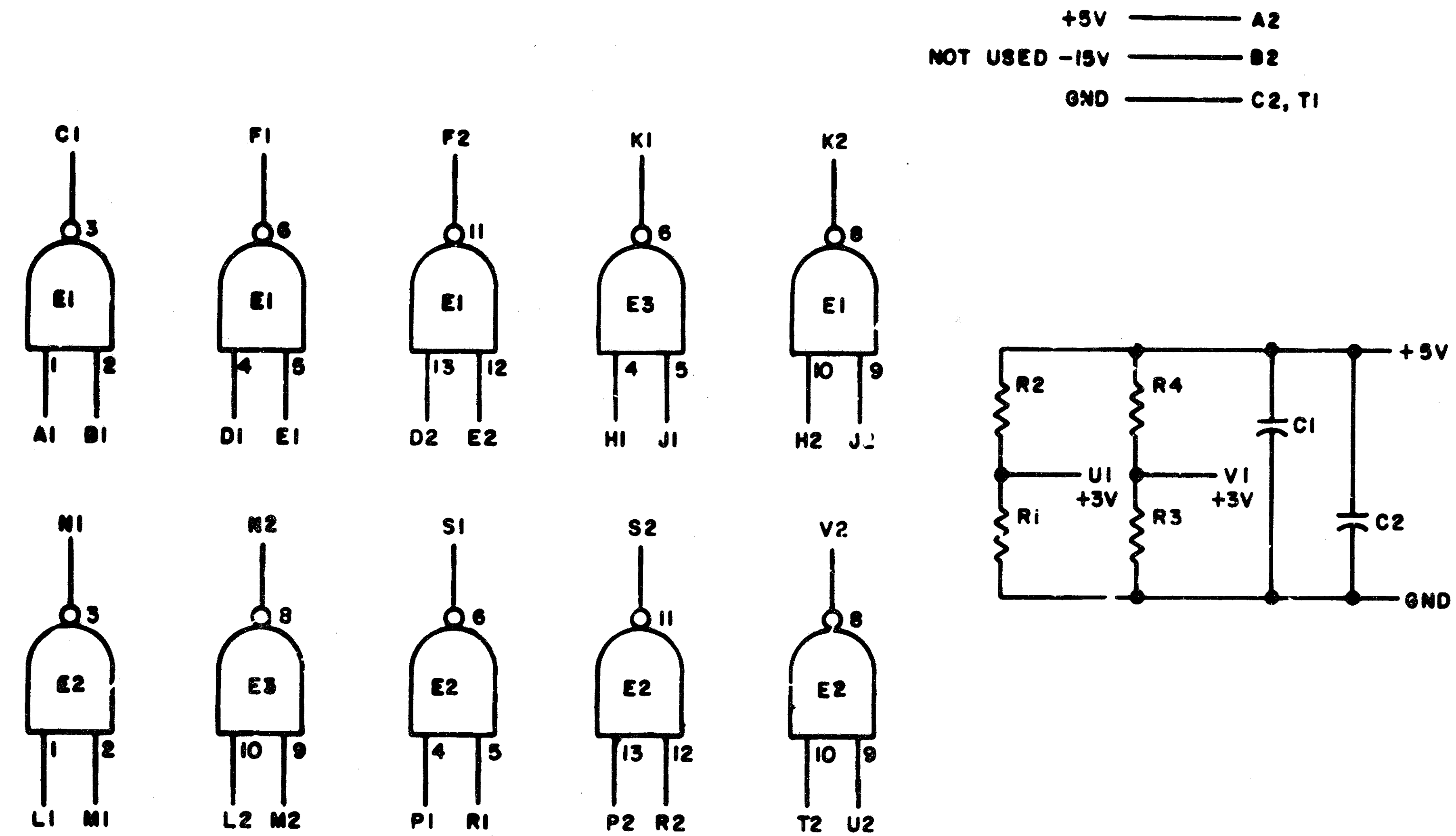
EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

TITLE: POWER AND CONTROL SCHEMATIC DIAGRAM (8L, 8E, 8M, 8F)

SIZE D CODE BS NUMBER PCØ4-0-2 REV. J

DEC FORM NO. DRD 102A

SIZE	CODE	NUMBER	REV.
B	CS	M113-0-1	C



NOTES:
PIN 7 ON EACH IC = GND
PIN 14 ON EACH IC = +5V

REFERENCE DESIGNATION	DESCRIPTION	PART NO.
E1 THRU E3	INTEGRATED CKT. DEC7400N	1905575
R1 AND R3	RES. 750 1/4W 5% CC	1301401
R2 AND R4	RES. 330 1/4W 10% CC	1300293
C1 AND C2	CAP. .01MFD 100V 20% DISC	1001610
	PARTS LIST	A-PL-M113-0-0

PARTS LIST

REV	CHG NO.	CHK
A	0425	
B	0581	
C	0690	

REVISIONS

		DATE
DRN.		8-15-67
CHK'D.		9-21-67
ENG.		9-11-67
PROD.		

TRANSISTOR & DIODE CONVERSION CHART

DEC	EIA	DEC	EIA

[redacted] EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE 10-2 INPUT NAND GATES M113

SIZE	CODE	NUMBER	REV.
B	CS	M113-0-1	C

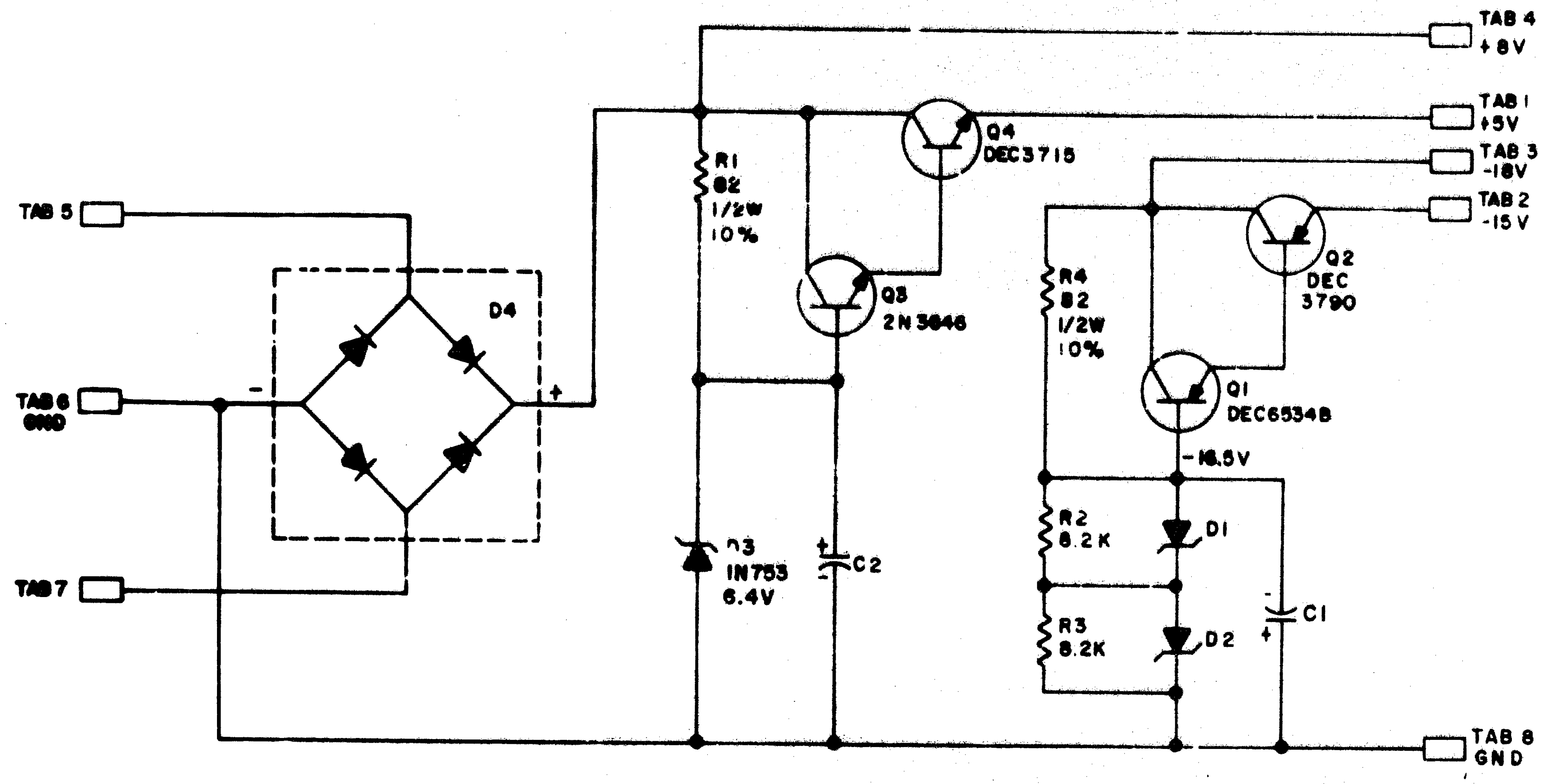
PRINTED CIRCUIT REV D

DEC FORM NO DRG 102

PINK

DIST.

SIZE	CODE	NUMBER	REV
B	CS	5408308-0-1	C



UNLESS OTHERWISE INDICATED:
CAPACITORS ARE 6.8MFD 35V 20%
DIODES ARE 1N756A, 8.2V
D4 IS MDA960-3
RESISTORS ARE 1/4W 5%
TABS ARE AMP 41290

TRANSISTOR & DIODE CONVERSION CHART

DEC	EIA	DEC	EIA
1N753	SAME	[illegible]	[illegible]
1N756A	SAME		
[illegible]	[illegible]		
[illegible]	[illegible]		
DEC3715	NONE		

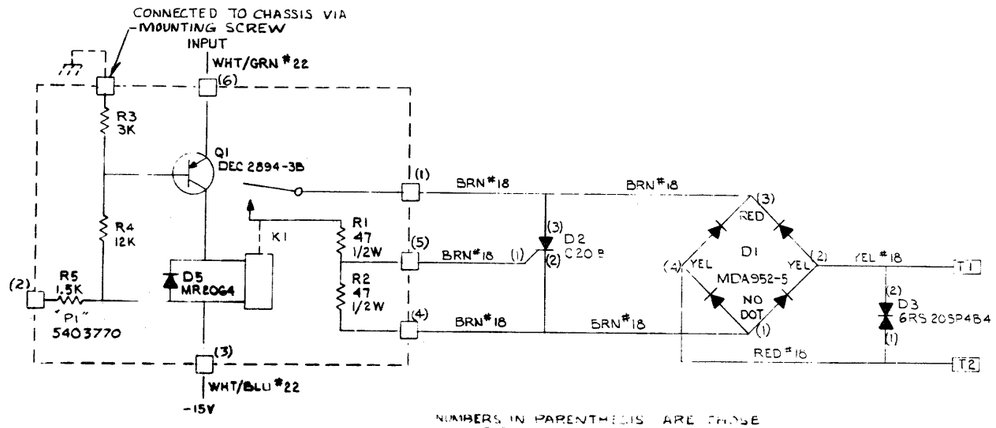
EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE PCO POWER SUPPLY REGULATOR 5408308

SIZE	CODE	NUMBER	REV
B	CS	5408308-0-1	C

PRINTED CIRCUIT REV D

REV A | NUMBER 5408385-0-1 | SIZE D | CODE DCS | 2



NUMBERS IN PARENTHESIS ARE FROM SCHEMATIC AND MAY NOT BE FOUND NOT MARKED ON COMPONENT

UNLESS OTHERWISE INDICATED:
RESISTORS = 1/4W, 5%
'T' INDICATES MALE AMP FASTON TAB
ETCH LAND FOR SOLDERING WIRES
K1 IS WHEELOCK 2GS-2A

QTY	REF DESIGNATION	DESCRIPTION	PART NO	ITEM NO

PARTS LIST

ETCH BOARD REV

CHK	REV	CHANGE NO	REVISIONS	DEC NO.	EIA NO.	DEC NO.	EIA NO.

SEMICONDUCTOR CONVERSION CHART

DRN		DATE 2-22-71
CHK'D		DATE 2-[illegible]-7[illegible]
ENG. Allen Kent		DATE 12-30-72
PROJ. ENG. Allen Kent		DATE 12-30-72
PROD. [illegible]		DATE 1-2-73
NEXT HIGHER ASSY		
SCALE		
SHEET	OF	

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

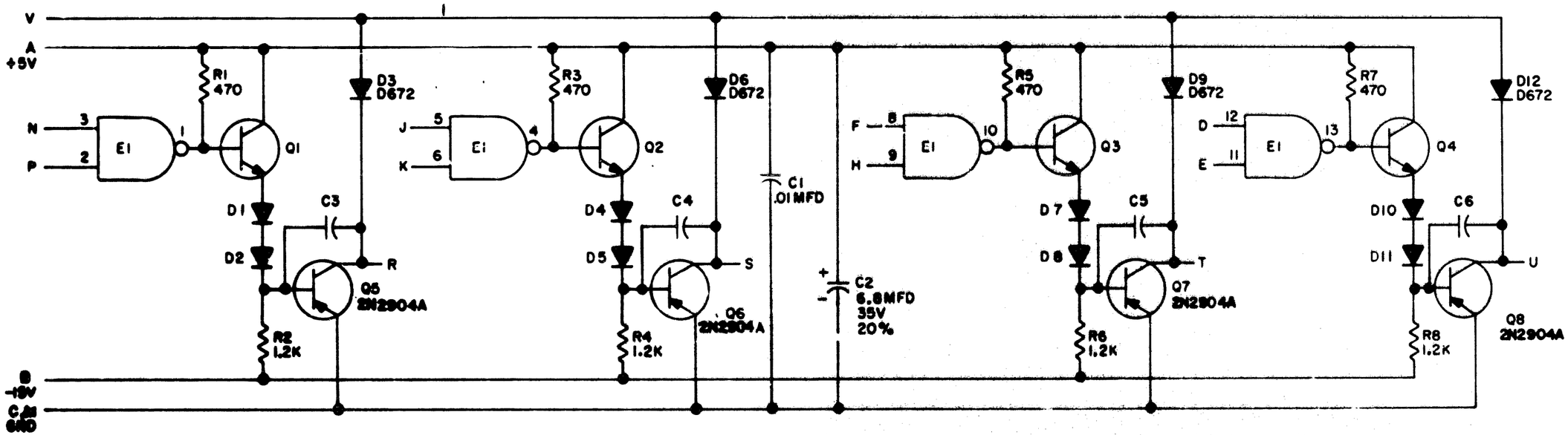
TITLE: SCR DRIVER ASSY

SIZE D | CODE DCS | NUMBER 5408385-0-1 | REV. A

DIST.

8 7 6 5 4 3 2 1

SIZE	CODE	NUMBER	REV
B	CS	M044-0-1	C



UNLESS OTHERWISE INDICATED.
RESISTORS ARE 1/4W, 10%
DIODES ARE D664
E1 IS DEC74O1N
TRANSISTORS ARE DEC30098
PIN 7 ON EACH IC = GND
PIN 14 ON EACH IC = +5V
CAPACITORS ARE 100pf, 100V, 5%

REVISIONS			
DASH	CHG NO		REV
[illegible]	[illegible]	[illegible]	C

DRN. Butler	DATE 6/23/69	
CHKD. C.W. [illegible]	DATE [illegible]	
ENG. [illegible]	DATE [illegible]	
PROD.	DATE	

TRANSISTOR & DIODE CONVERSION CHART

DEC	EIA	DEC	EIA
D664	IN3606		
[illegible]	2N5894		
DEC30098	2N3009		

[redacted] EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE 4-100MA SOLENOID DRIVER M044

SIZE	CODE	NUMBER	REV
B	CS	M044-0-1	C

PRINTED CIRCUIT REV B

DEC FORM NO
DRB 102

5

DIST 324, 434, 435 ?

MB3 BF2 2
MB4 BD1 11 12
MB5 BD2 4
MB6 BE1 6
MB7 BE2 3
MB8 BF1 5
E11 E14

IOP4 AP2
IOP1 AR2
IOP2 AR1
INITIALIZE AS2
E8 E9 E6

E12 BS2 I/O IN INT
E12 BM2 I/O IN SKIP

AS1 IOP 02 (T.P.)
AJ1 CLEAR (T.P.)

+5V R15
FEED SW AT2
E14 E13
BU1 FEED (T.P.)

E9 FLAG
AU2 PUN ACT (T.P.)

"0" E9 ACTIVE

SYNC BIAS BU2
R14 100
R12 56
R13 6.8K
+5V
SYNC PUN AV2
R11 3K
Q2 Q1
C26
R10 3K
R9 150

E14 E14 E15 PUN
+5V R5
BV1 SYNC PUN 0 (T.P.)
AU1 DEL PUN 1

R3 15K +5V
R4 50K BJ2 4.5MS
C22 2.2UF 35V 10%
D1
E10 (10/4.5MS)
E12 E12
+5V R2
BH2 PUN DONE
+5V AA2, BA2

BM1 4 SEC
R6 75K
R7 51K
R8 5K +5V
C25 180 15V
C24 180 15V
D3
C23 180 6V
D2
E5 MOTOR (5 SEC)
E15 1ST REVAL (.4/3 SEC.)
E16
BL1 DEL PUN 2
E13
BK1 SCR ACTIVE (0)

UNLESS OTHERWISE INDICATED:
CAPACITORS ARE .01UF, 100V, 20%
RESISTORS ARE 1K, 1/4W, 5%
DIODES ARE D884
TRANSISTORS ARE DEC5834D
DEC7474 = E1, E2, E4, E7, E9, E16
DEC9601 = E5, E10, E15
DEC7404 = E3, E6
DEC7400 = E8, E14
DEC 7440 = E13
DEC 7401 = E12
DEC7430 = E11
PIN 7 = GND
PIN 14 = +5V ON ALL IC'S

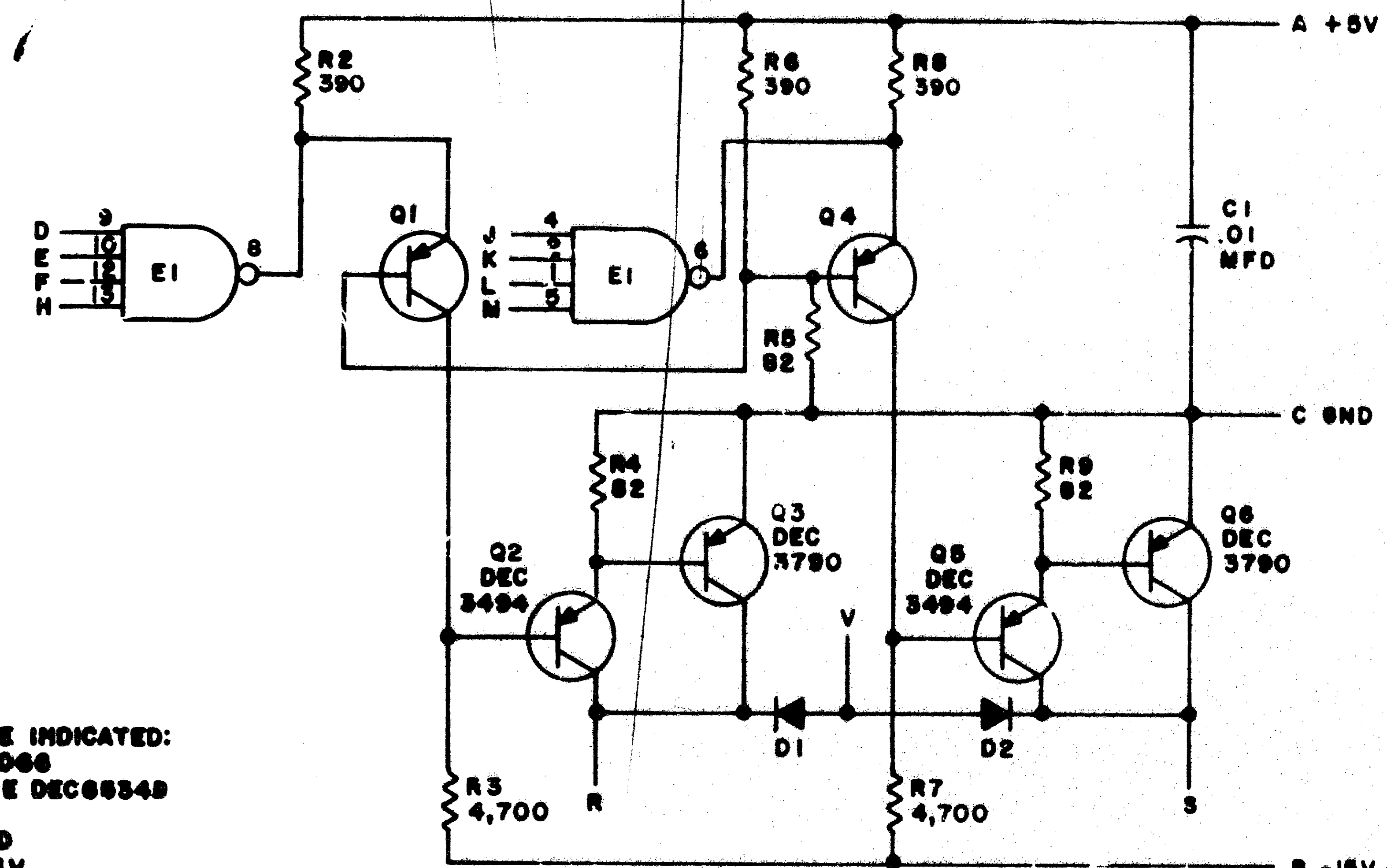
E6 E4 E3 AK1 PB0
AC4 AH1
AC8 AE1 E2 E3 AK2 PB4
AC5 AH2 E4 E3 AL1 PB1
AC9 AE2 E2 E3 AL2 PB5
AC6 AF1 E7 E6 AM1 PB2
AC10 AD1 E1 E3 AM2 PB6
AC7 AF2 E7 E6 AN1 PB3
AC11 AD2 E1 E3 AN2 PB7
API CLOCK B (T.P.)
AJ2 CLOCK A (T.P.)

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
GND AC2, AT1, BC2, BT1

TRANSISTOR & DIODE CONVERSION CHART
DEC | EIA | DEC | EIA

EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS
TITLE PUNCH CONTROL M710
SIZE D | CODE CS | NUMBER M710-0-1 | REV K
PRINTED CIRCUIT REV. H

DIST. 324,431,435
5 - Pink



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

REVISIONS		
CHG NO.	REV	CHK
00001	E	
00002		

DRN. [signature]	DATE 9-14-67
CHK'D [signature]	DATE 9/22/67
ENG [signature]	DATE 9/19/67
PROD	DATE

TRANSISTOR & DIODE CONVERSION CHART

DEC	EIA	DEC	EIA
DEC3494	SAME		
DEC3790	2N3790		
DEC6534D	MPS6534		
D662	1N645		
MR2066	1N4003		

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

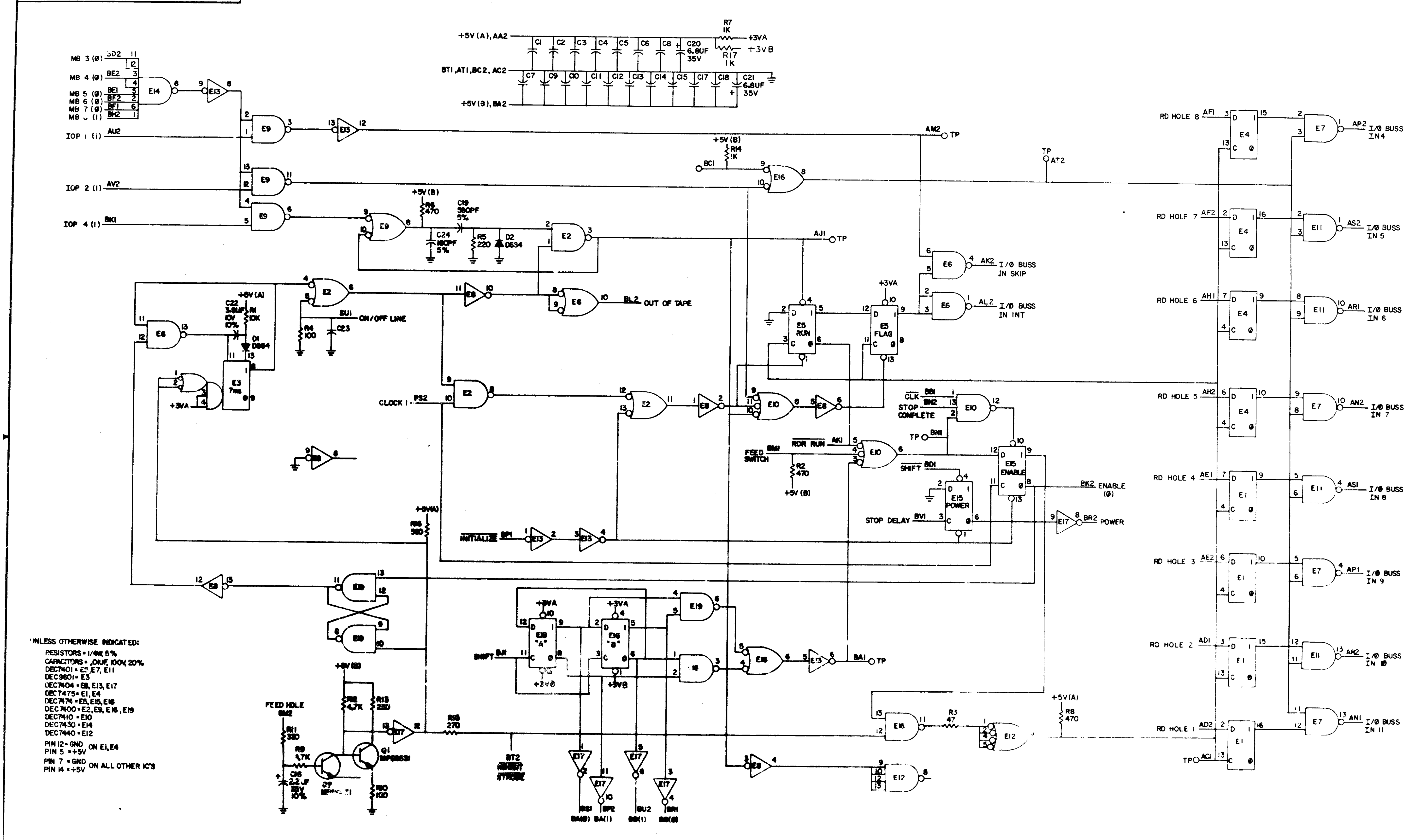
TITLE
SOLENOID DRIVER M040

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

PRINTED CIRCUIT REV. E

DEC FORM NO
DRB 102

5 DIST 3/24/68 ... PINK



UNLESS OTHERWISE INDICATED:
RESISTORS = 1/4W, 5%
CAPACITORS = .01UF, 100V, 20%
DEC7401 = E5, E7, E11
DEC960 = E3
DEC7404 = E8, E13, E17
DEC7475 = E1, E4
DEC7474 = E5, E15, E18
DEC7400 = E2, E9, E16, E19
DEC7410 = E10
DEC7430 = E14
DEC7440 = E12
PIN 12 = GND, PIN 5 = +5V ON E1, E4
PIN 7 = GND, PIN 14 = +5V ON ALL OTHER IC'S

TRANSISTOR & DIODE CONVERSION CHART			
DEC	EIA	DEC	EIA
MPS6531	MPS6531	D664	1N3606

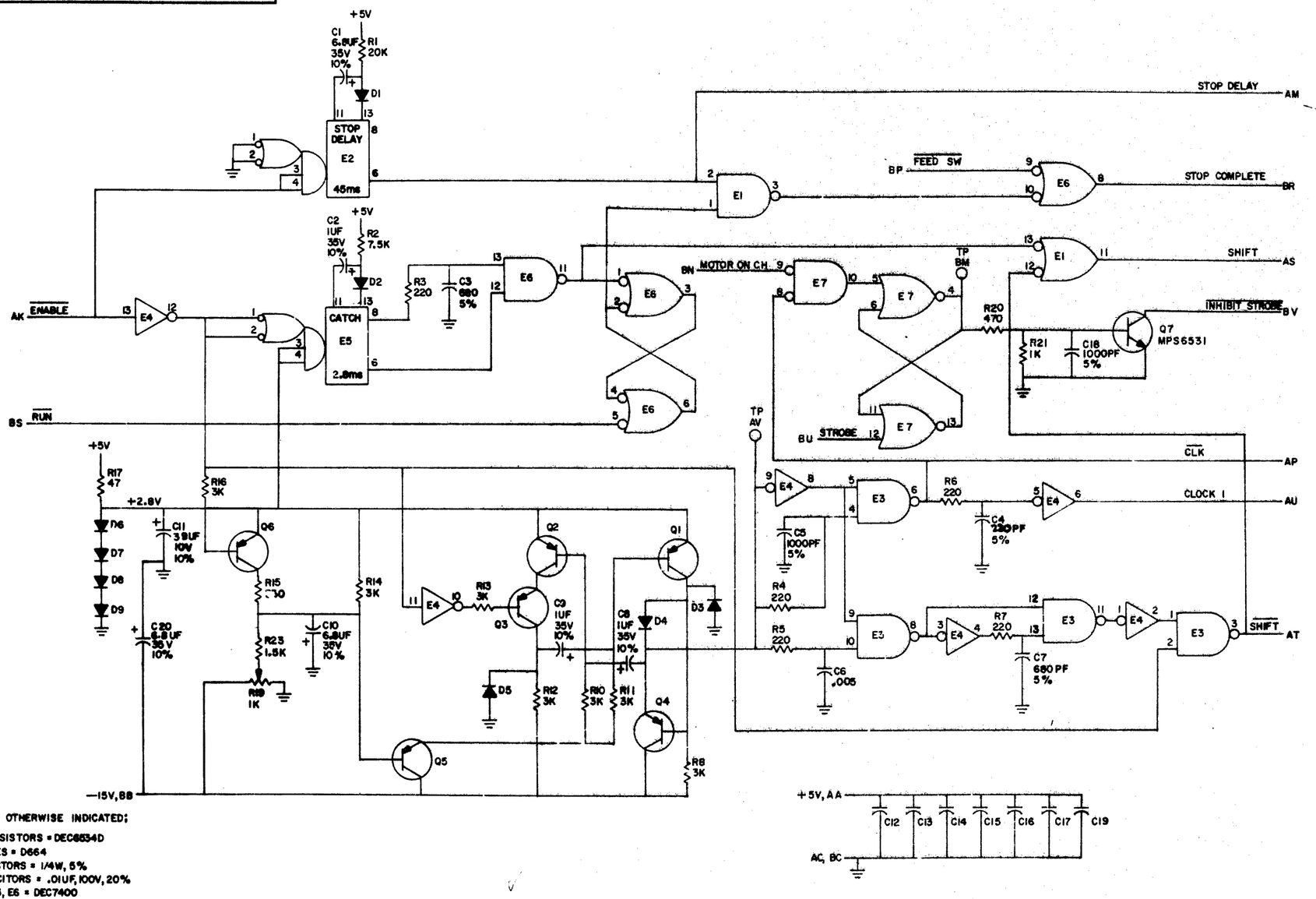
DATE 2/2/71
DATE 2-24-71
DATE 4-1-71

EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

TITLE: READER CONTROL

SIZE	CODE	NUMBER	REV
D	CS	M7050-0-1	E

PRINTED CIRCUIT REV D E



UNLESS OTHERWISE INDICATED:

TRANSISTORS = DEC8534D
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

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

DRN	B. MALLER	DATE 10/16/67
CHK'D	R. SILVERMAN	DATE 11/2/67
ENG.	R. G. SOGGE	DATE 11/2/67
PROD.		DATE

TRANSISTOR & DIODE CONVERSION CHART

DEC	EIA	DEC	EIA
DEC8534D	MPS8534	IN758	SAME
D664	IN3606		
DEC8531	MPS8531		

EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE: READER CLOCK M715

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

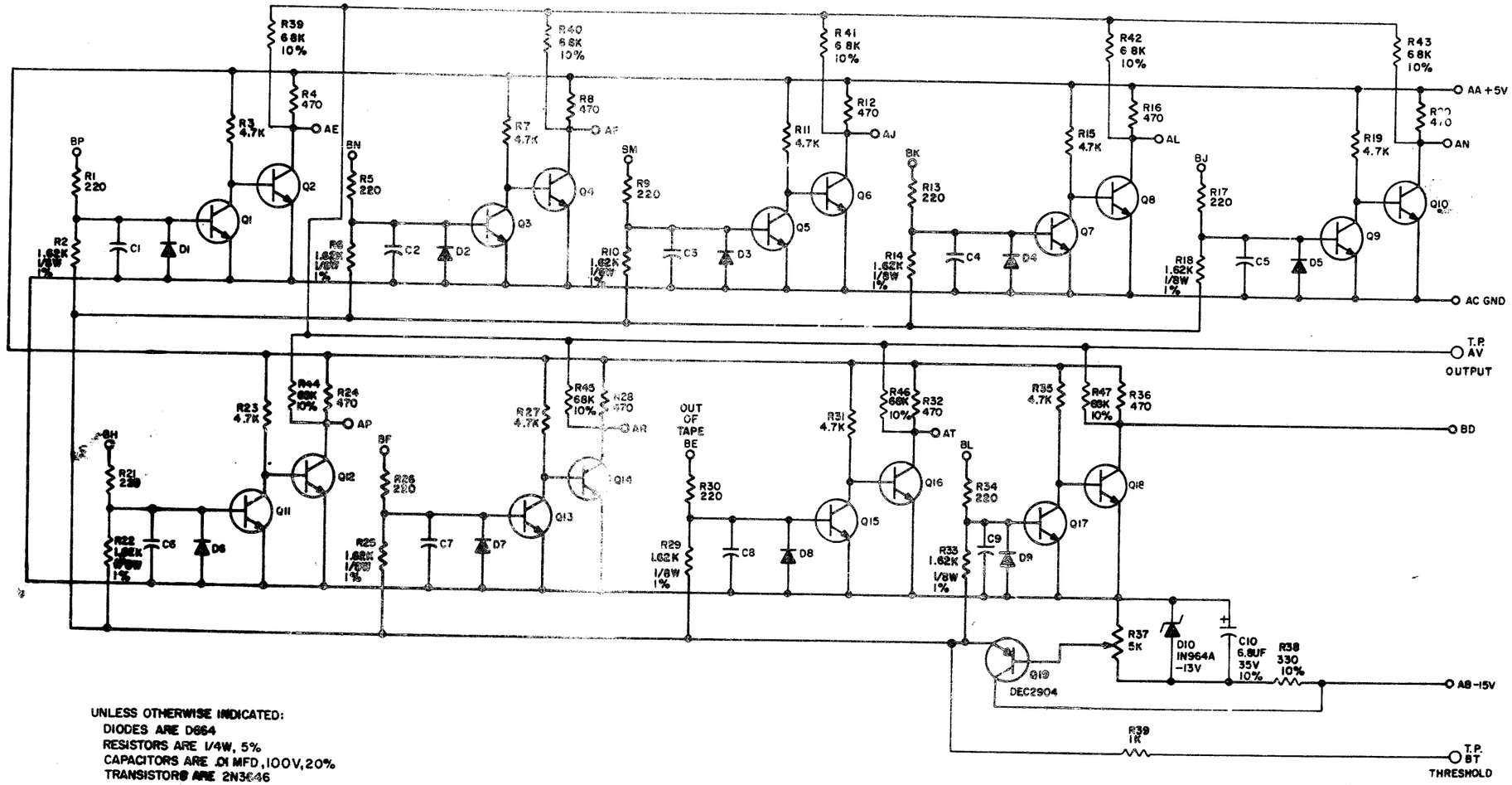
PRINTED CIRCUIT REV. F

DEC FORM NO. DEC 102

DIST. 314, 434, 435 2

4 PINK

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



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

○ INDICATES TEST POINT

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

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

DEC FORM NO. DRC 102

TRANSISTOR & DIODE CONVERSION CHART

DEC	EIA	DEC	EIA
2N3646	2N3009	IN964A -13V	SAME
D664	IN3306	DEC2904	2N1132

EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

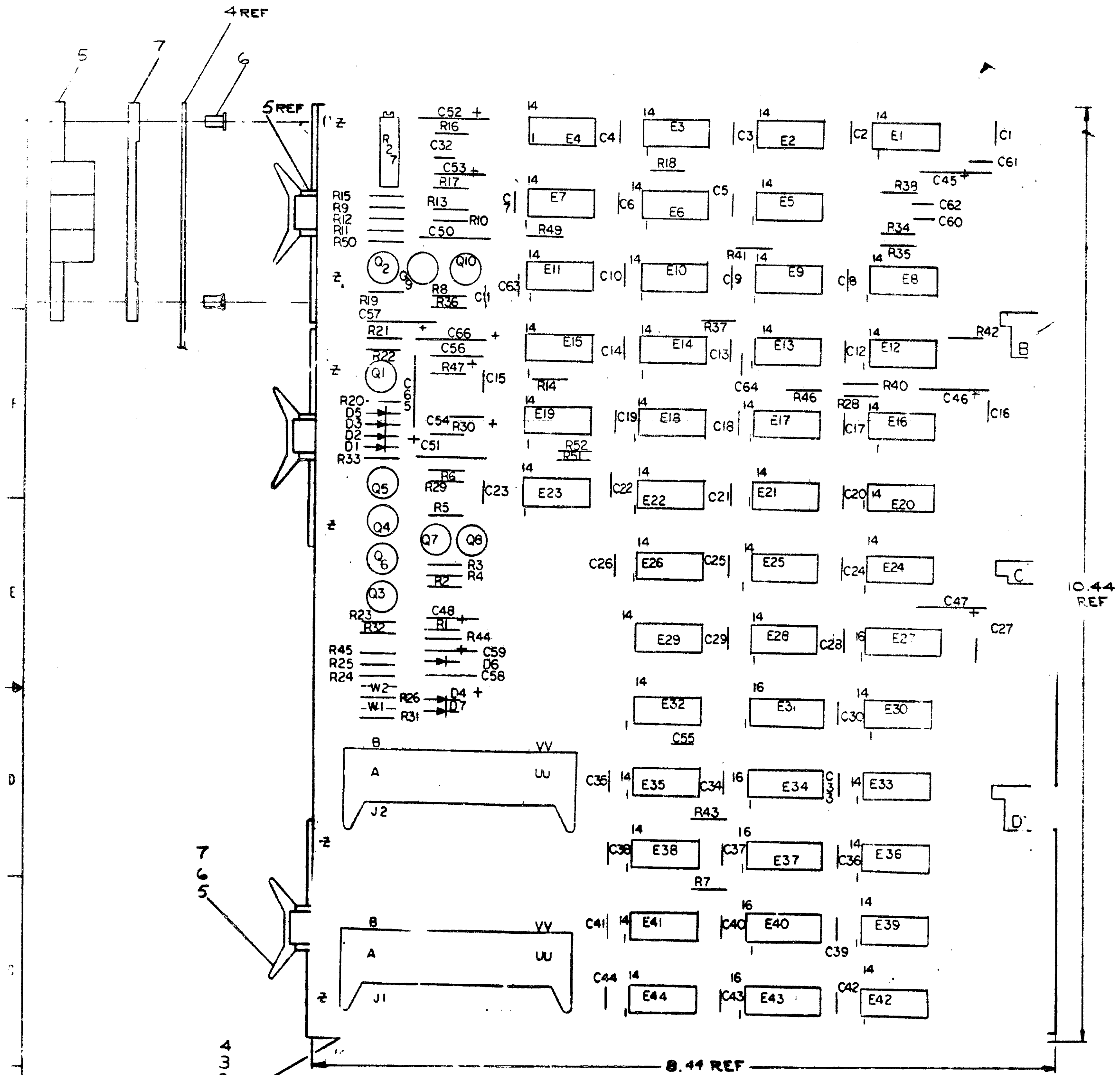
TITLE PHOTO TRANSISTOR AMPLIFIER G918

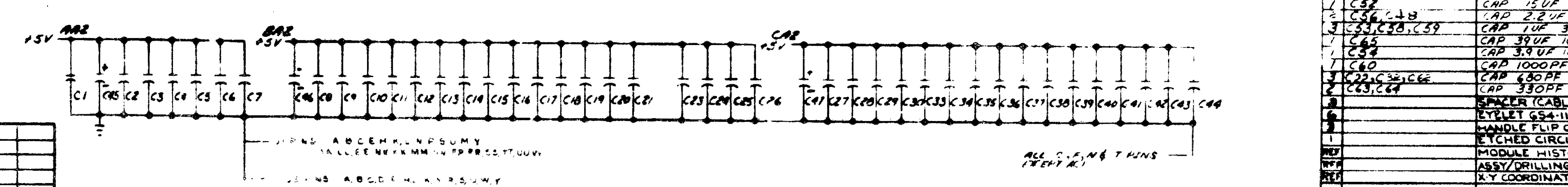
SIZE	CODE	NUMBER	REV.
C	CS	G918-0-1	B

PRINTED CIRCUIT REV. D

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

5. DIST. 324,434 +2.3 PINK





QTY.	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	CAP [illegible] 50V 10% DEC	[illegible]	62
[illegible]	R44	RES [illegible] 1/4W 5%	[illegible]	[illegible]
A/R	W1, W2	WIRE 22 AWG SOLID BUS	9107560-01	60
1	E35	IC DEC 7420	1905577	59
	R49	RES 270 1/4W 5%	1301972	58
1	R9	RES 5.6K 1/4W 5%	1301874	57
1	R13	RES 150 1/4W 5%	1300250	56
1	R2	RES 56 1/4W 5%	1302602	55
	R21	RES 680 1/4W 5%	1301424	54
	R47	RES 18K 1/4W 10%	1300498	53
	J1, J2	CONN 40 PIN RT ANGLE HEADER	1209941	52
4	E34, E37, E40, E43	IC DEC 8271	1909615	51
[illegible]	[illegible]	[illegible]	[illegible]	50
2	E27, E31	IC DEC 8251	[illegible]	49
4	E17, E18, E33, E39	IC DEC [illegible]	1904705	48
2	E21, E25	IC DEC 6314	1907972	47
5	E20, E24, E30, E36, E42	IC DEC [illegible]80	[illegible]	46
7	E3, E5, E26, E29, E38, E41, E44	IC DEC 7404	19[illegible]686	45
4	E4, E7, E15, E19	IC DEC 9601	1909373	44
1	E6	IC DEC 384	1909486	43
2	E1, E11	IC DEC 7410	1905576	42
7	E5, E6, E13, E22, E23, E28, E32	IC DEC 7400	1905575	41
[illegible]	E2, E9, E10, E12, E14	IC DEC 7474	1905547	40
[illegible]	Q7, Q8	TRANSISTOR DEC 6531	1509338	39
[illegible]	Q1-Q6, Q9, Q10	TRANSISTOR DEC 6534D	1503409-00	38
7	R1, R4, R6, R18, R34, R38, R51	RES 220 1/4W 5%	1300271	37
	R7, [illegible] R12, R14, [illegible] R19, R20, R23, R24-R26 R31, R32, R37 R40-R43, R45, R22 R52	RES 3K 1/4W 5%	1300432	36
1	R27	RES 1K 3/4W 10% 76PR	1309143-01	35
[illegible]	[illegible]	[illegible]	[illegible]	34
[illegible]	[illegible]	[illegible]	[illegible]	33
1	R17	RES 7.5K 1/4W 5%	1301422	32
[illegible]	[illegible]	[illegible]	[illegible]	31
1	R16	RES 15K 1/4W 5%	1300496	30
[illegible]	[illegible]	[illegible]	[illegible]	29
3	R30, R36, R46	RES 10K 1/4W 5%	1300479	28
2	R2, R3	RES 4.7K 1/4W 5%	1300447	27
1	R40	RES 1.5K 1/4W 5%	1300391	26
1	R35	RES 330 1/4W 5%	1300295	25
3	R5, R10, R29	RES 100 1/4W 5%	1300229	24
1	R33	RES 47 1/4W 5%	1300202	23
[illegible]	[illegible]	[illegible]	[illegible]	22
3	D4, [illegible]	DIODE D664	1100114	21
4	D1, [illegible]	DIODE D662	1100113	20
41	C1-C21, C33-44, C28-C30	CAP .01UF 100V 20% DISC	1001610	19
5	C45, C46, C47, C57, C66	CAP 6.8UF 35V 10% TANT	1005306	18
2	C50, C51	CAP .01UF 100V 10% [illegible]	1005784	17
				16
1	C52	CAP 15UF 20V 10% TANT	100[illegible]	15
2	C56, C48	CAP 2.2UF 35V 10% TANT	100[illegible]	14
3	C53, C58, C59	CAP 1UF 35V 10% TANT	1001776	13
1	C65	CAP 39UF 10V 10% TANT	1000076	12
1	C54	CAP 3.9UF 10V 10% TANT	1000064	11
1	C60	CAP 1000PF 100V 5% MICA	1000042	10
3	C22, C32, C62	CAP 680PF 100V 5% [illegible]	1000026	9
2	C63, C64	CAP 330PF 100V 5% [illegible]	1000023	8
3		SPACER (CABLE CLAMP)	1202704	7
6		EYELET GS4-11 STIMPSON	9006750	6
3		HANDLE FLIP CHIP-MAGENTA	9008337-06	5
1		ETCHED CIRCUIT BOARD	5008848	4
REF		MODULE HISTORY LIST	B-MH-M840-0-6	3
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-M840-0-5	2
REF		X-Y COORDINATE HOLE LOC.	K-CO-M840-0-4	1

PARTS LIST

ETCH BOARD REV K

DEC NO.	EIA NO.	DEC NO.	EIA NO.
DEC 6531	MPS6531		
DEC 6534D	MPS6534		
D664	1N3606		
D662	1N645		

SEMICONDUCTOR CONVERSION CHART

IC TYPE	GND	+5V
7404	7	8
6314	7	8
8271	8	16
380	7	8

GND AND +5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY. EXCEPTIONS ARE STATED ABOVE.

IC PWR. LOCATIONS

ITEM NO.	AWG	FROM PT	TO PT
59	22	M8-A	M2-B
59	22	M1-A	M1-B

JUMPER LIST

EQUIPMENT CORPORATION

TITLE: READER/PUNCH CONTROL

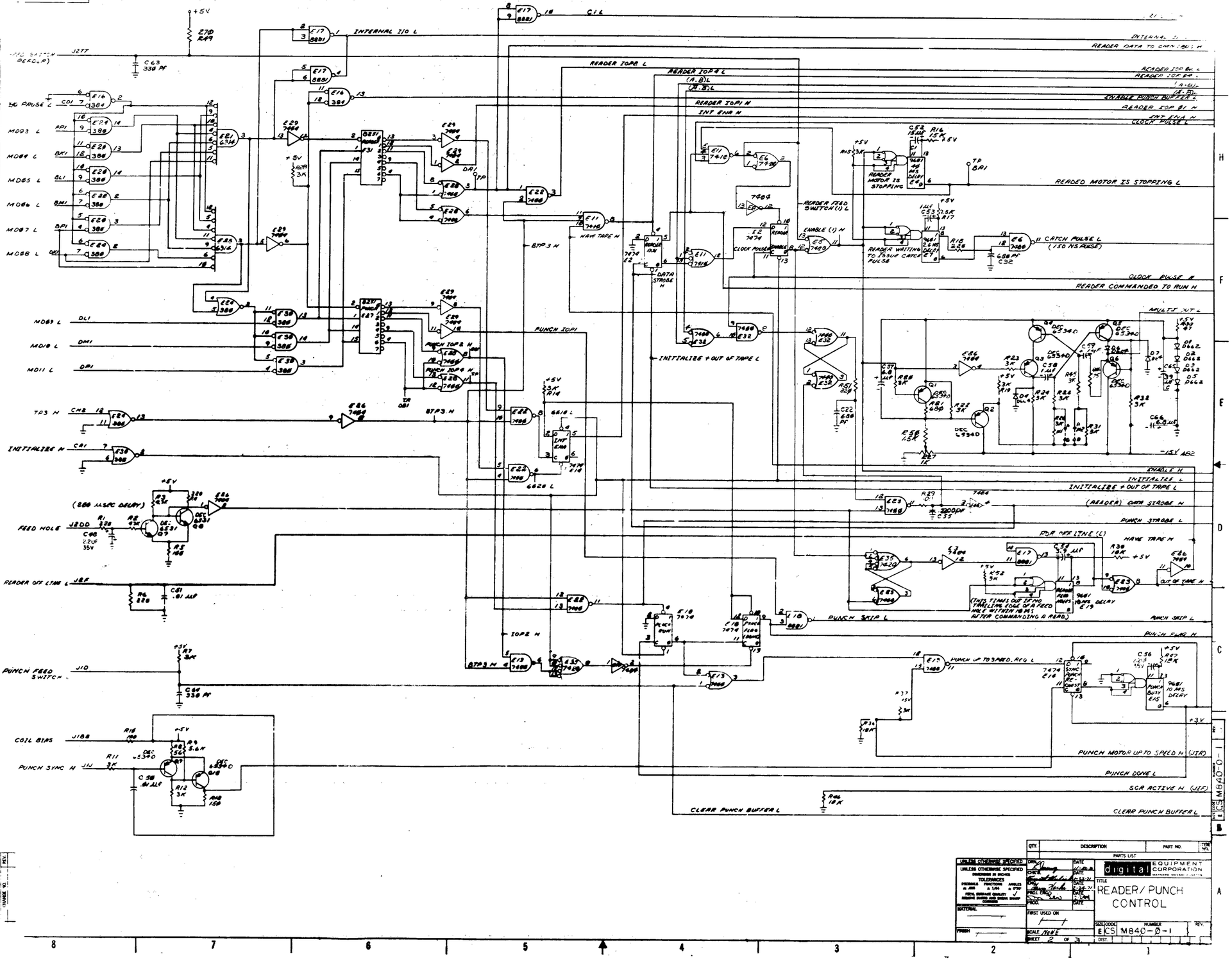
DRN: 2-18-71

NEXT USED ON: A-ML-PC8-E

SCALE 2/1 SHEET 1 OF 3

E CS M840-0-1

M840-0-1



QTY.	DESCRIPTION	PART NO.	ITEM NO.
	PARTS LIST		

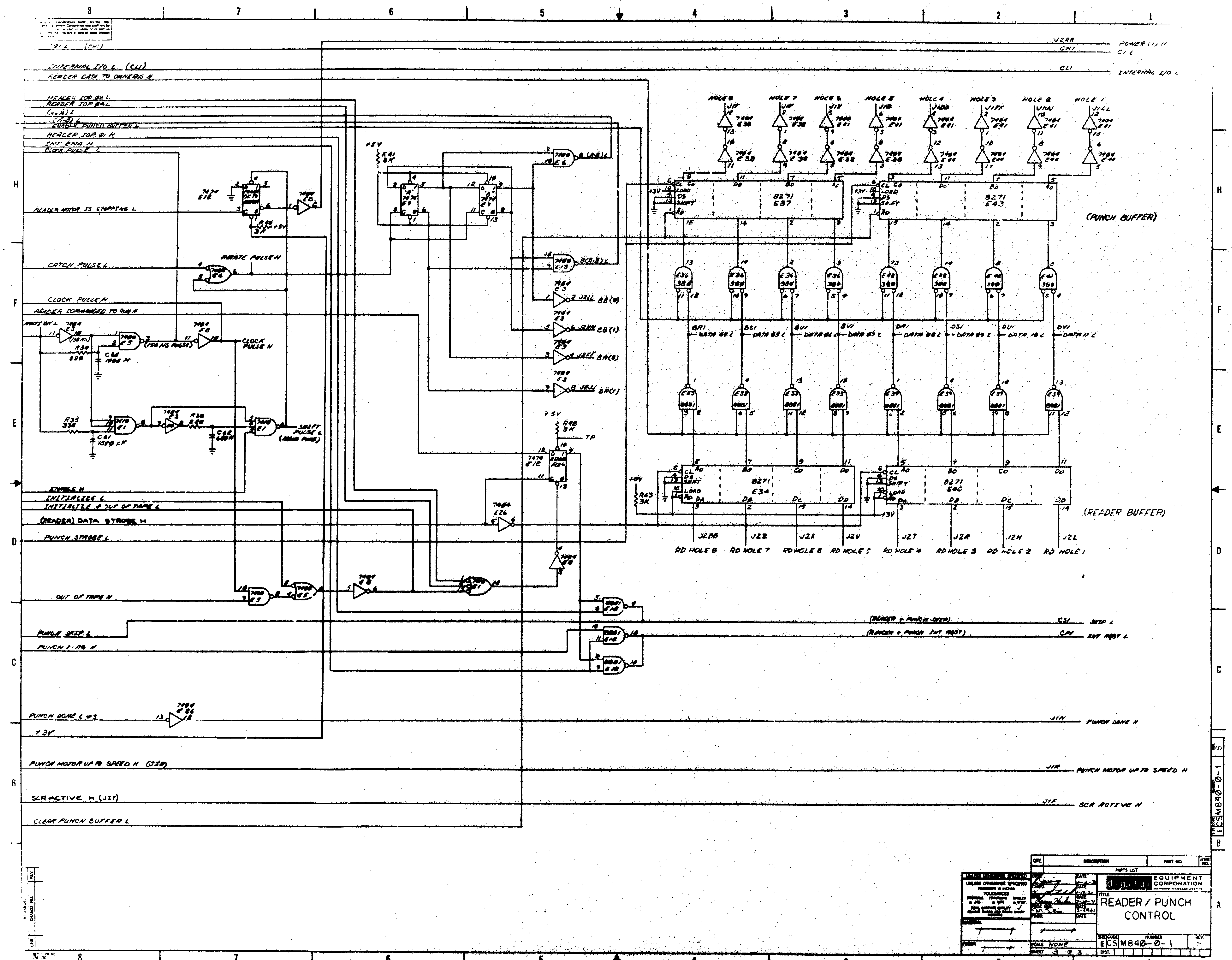
UNLESS OTHERWISE SPECIFIED
DIMENSIONS IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY ✓
REMOVE BURRS AND BREAK SHARP CORNERS
MATERIAL
FINISH

DRN. DATE 11-20-70
CHK'D. DATE 2-22-71
ENG. DATE 2-24-71
PROJ. ENGR. DATE 2-24-71
PROD. DATE
FIRST USED ON
SCALE NONE
SHEET 2 OF 3

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
READER/ PUNCH
CONTROL

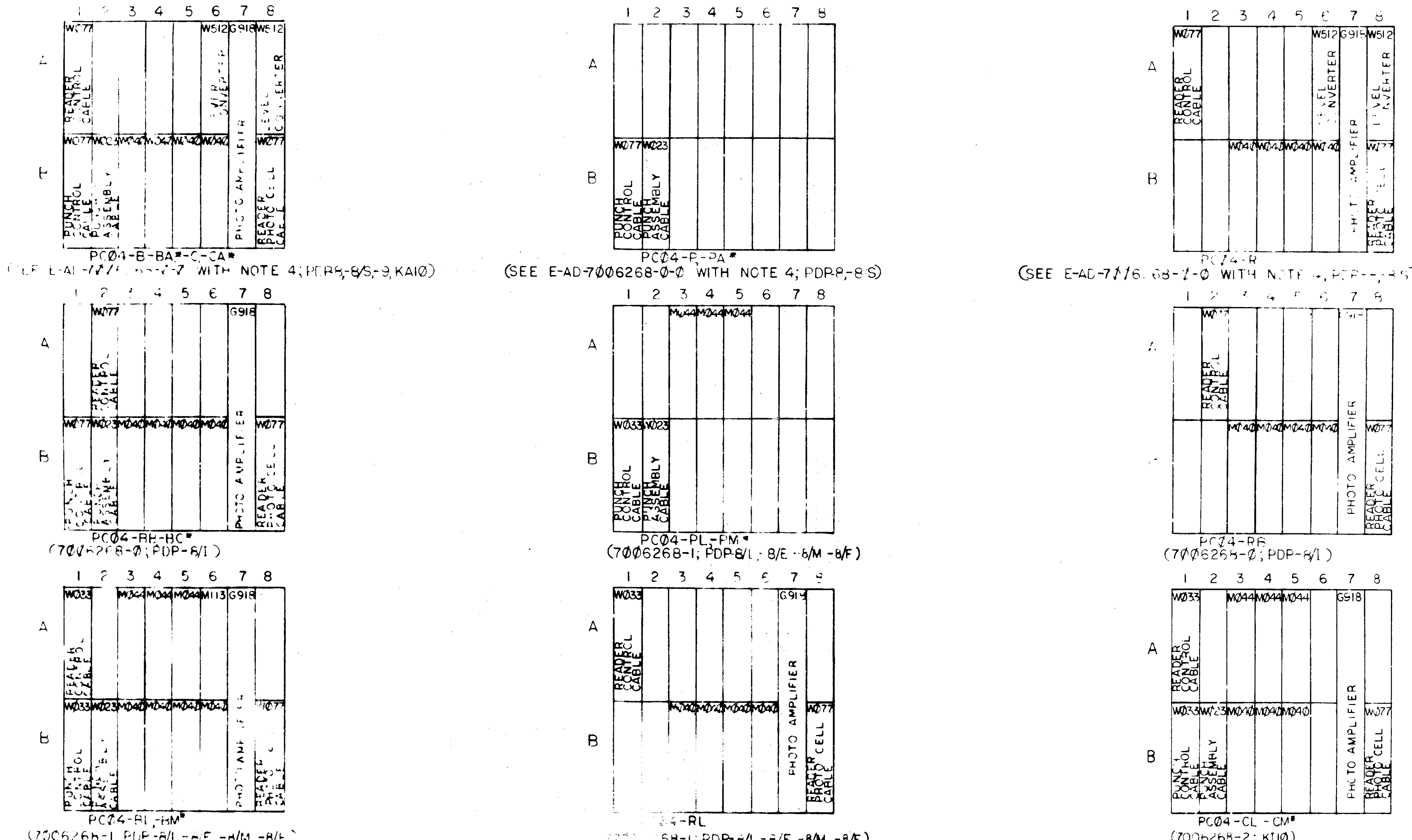
SIZE E CODE CS NUMBER M840-0-1 REV.
DIST.



INTERNAL I/O L (CLI)
READER DATA TO OMNIBUS H
READER IOP 01 H
INT ENA H
CLOCK PULSE L
READER MOTOR IS STOPPING L
CATCH PULSE L
ROTATE PULSE H
CLOCK PULSE H
READER COMMANDED TO RUN H
CLOCK PULSE H
SHIFT PULSE L
ENABLE H
INITIALIZE L
INITIALIZE & OUT OF TAPE L
(READER) DATA STROBE H
PUNCH STROBE L
OUT OF TAPE H
PUNCH SKIP L
PUNCH INTRQ H
PUNCH DONE L
+3V
PUNCH MOTOR UP TO SPEED H (J1R)
SCR ACTIVE H (J1F)
CLEAR PUNCH BUFFER L
POWER (1) H
C1 L
INTERNAL I/O L
HOLE 8
HOLE 7
HOLE 6
HOLE 5
HOLE 4
HOLE 3
HOLE 2
HOLE 1
8271
E37
E43
(PUNCH BUFFER)
E34
E40
(READER BUFFER)
RD HOLE 8
RD HOLE 7
RD HOLE 6
RD HOLE 5
RD HOLE 4
RD HOLE 3
RD HOLE 2
RD HOLE 1
(READER + PUNCH SKIP)
(READER + PUNCH INT RQST)
SKIP L
INT RQST L
PUNCH DONE H
PUNCH MOTOR UP TO SPEED H
SCR ACTIVE H
digital EQUIPMENT CORPORATION
READER / PUNCH CONTROL
CS M840-0-1
SCALE NONE
SHEET 3 OF 3

NOTES :

1. G918 REVISION MUST BE "B" CIRCUIT SCHEMATIC, "D" ETCHED BOARD OF HIGHER.
2. ★ [illegible] ARATION



FIRST USED ON OPTION/MODEL	QTY	DESCRIPTION	PART NO	ITEM NO
PC04		PARTS LIST		

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES
DECIMALS: XXX ±.005, XX ±.01, X ±.1 — ANGLES: ±0° 30'
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓
MATERIAL — FINISH —

DRN: MARLOTT
CHK'D: CLARKE
ENG: G. BECKNER
PROJ ENG: G. BECKNER
PROD: CANTONJOLLO
NEXT HIGHER ASSY: A-ML-PC04
SCALE — SHEET 1 OF 1

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: MODULE UTILIZATION LIST PC04

SIZE D CODE MU NUMBER PC04-0-3 REV D

REVISIONS: CHANGE NO PC04-C0053, PC04-00055 — KENT — C. YOUSE

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY: L. MARCOTTE | CHECKED R. Carvelli | SECTION 1
DATE | DATE 6/5/69
ENG | PROD | ISSUED SECT. 1
DATE 6/6/69 | DATE 6/6/69

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~~	~~W512~~	~~NEGATIVE INPUT CONVERTER~~	~~1~~	~~1~~	~~1~~	~~1~~	~~-~~	~~-~~	~~1~~			
3	WØ4Ø	SOLENOID DRIVER	4	4	4	4	-	-	4	-	-	-
4	W512	POSITIVE LEVEL CONVERTER	~~2~~	2	2	2	-	-	2	-	-	-
5	MØ4Ø	SOLENOID DRIVER (+ 8I)	-	-	-	-	-	-	-	4	4	4
6	MØ44	SOLENOID DRIVER (+8L)										
-	M113	1Ø-2 INPUT NAND GATE	-	-	-	-	-	-	-	-	-	-

* NOTE: G918 MUST BE D BOARD REV OR HIGHER

TITLE: MODULE UTILIZATION | ASSY NO. D-MU-PCØ4-Ø-3 | SHEET 1 OF 2 | SIZE A | CODE PL | NUMBER PCØ4-Ø-3 | REV D | ECO NO. PCØ4-QC055 | DIST

DEC FORM NO
DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

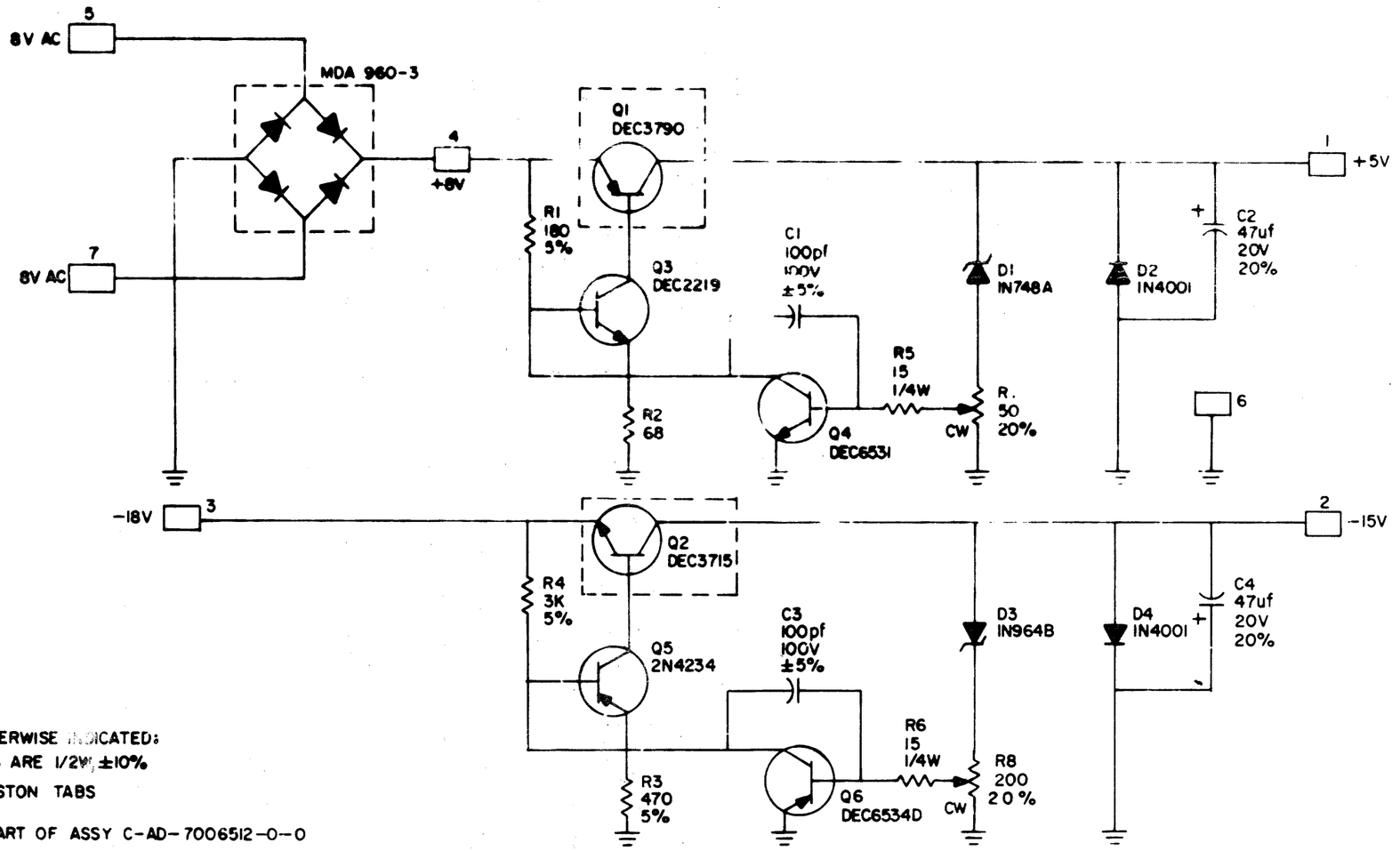
MADE BY L. MARCOTTE | CHECKED R. CARVELLI | SECTION 1
DATE | DATE 6/5/69
ENG | PROD ANTONNUCIO | ISSUED SECT. 1
DATE 6/6/69 | DATE 6/6/69

ITEM NO	DWG NO PART NO.	DESCRIPTION	QUANTITY/VARIATION PCØ4-BL-Ø	PCØ4-BM-Ø	PCØ4-CL-Ø	PCØ4-M-Ø	PCØ4-CL-CM	PCØ4-RL
1	G918 *	PHOTO AMPLIFIER	1	-	-	-	1	1
2								
3	WØ4Ø	SOLENOID DRIVER (-)	-	-	-	-	-	-
4	W512	POSITIVE LEVEL CONVERTER	-	-	-	-	-	-
5	MØ4Ø	SOLENOID DRIVER (+)	4	4	-	-	4	4
6	MØ44	SOLENOID DRIVER (+ 8L)	3	3	3	3	3	-
-	M113	1Ø-2 INPUT NAND GATE	1	1	1	1	-	-

* NOTE: G918 MUST BE D REV BOARD OR HIGHER

TITLE | ASSY NO. D-MU-PCØ4-Ø-3 | SHEET 2 OF 2 | SIZE A | CODE PL | NUMBER PCØ4-Ø-3 | REV D | ECO NO. | DIST

SIZE	CODE	NUMBER	REV
B	CS	5408918-0-1	A



UNLESS OTHERWISE INDICATED:
RESISTORS ARE 1/2W, ±10%
□ = FASTON TABS
[ ] PART OF ASSY C-AD-7006512-0-0

REVISIONS	REV	CHG NO	CHK

DRN	MARY MOORE	DATE 7/8/70
CHK'D		DATE 10/9/70
ENG		DATE 10/12/70
PROD		DATE

TRANSISTOR & DIODE CONVERSION CHART

DEC	EIA	DEC	EIA
DEC3790-2	2N3790	DEC6531	MPS6531
DEC2219	2N2219	IN748A	SAME
DEC3715	2N3715	IN964B	SAME
2N4234	2N4234	IN4001	SAME
DEC6534D	MPS6534		

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE: PCO REGULATOR 5408918

SIZE	CODE	NUMBER	REV
B	CS	5408918-0-1	A

DEC FORM NO

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION

DATE 11/11/69

TITLE PC⌀4 Engineering Specification

REVISIONS

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

General Information:

The PC⌀4 comes in eight (8) configurations. They are the PC⌀4P, PL (basic punch), PC⌀4R, RB (basic reader), PC⌀4B, BB, BL, (punch and reader), and PC⌀4C (punch, SCR, and reader). The 50 cycle variations are PC⌀4PA, PM; PC⌀4BA, BC, [illegible], and PC⌀4CA with no variation in PC⌀4R 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

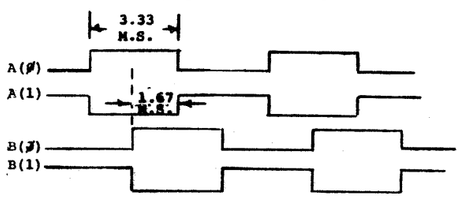
	Outputs	Inputs
Logic 1 is	>+2.4v	>+2.0v
Logic 0	<+0.4v	<+0.8v

Reader Signals:

Reference drawing BS-D-PC⌀4-0-2

(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:



ENG	APPD	SIZE	CODE	NUMBER	REV
[redacted]	[redacted]	A	SP	PC⌀4-0-4	A

DEC FORM NO. DRA 107

SHEET 1 OF 7

[redacted] CONTINUATION SHEET

TITLE PC⌀4 Engineering Specification

(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	⌀ volts
Positive Systems	+2.4 volts	0 volts

Punch Signals:

Refer to drawing BS-D-PC⌀4-0-2

(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 PC⌀4PL and BL when the solenoid drivers are activated by a >+2.0v signal.

SIZE	CODE	NUMBER	REV
A	SP	PC04-0-4	A

DEC FORM NO DRA 108A

SHEET 2 OF 7

[redacted] CONTINUATION SHEET

TITLE PC04 Engineering Specification

(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.

SIZE	CODE	NUMBER	REV
A	SP	PC04-0-4	A

DEC FORM NO DRA 108A

SHEET 3 OF 7

[redacted] CONTINUATION SHEET

TITLE PC⌀4 Engineering Specification

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 ±[illegible]%

SIZE	CODE	NUMBER	REV
A	SP	PC04-0-4	A

DEC FORM NO DRA 108A

SHEET 4 OF 7

CONTINUATION SHEET

TITLE PCØ4 Engineering Specification

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	1-G918 4-W040 2-W512	PDP9; PDP1Ø

CONTINUATION SHEET

TITLE PCØ4 Engineering Specification - Test Procedure for reader

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)	AØ6B	*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 AØ8F and BØ8A (+5 volts ±.25 volts).

ENGINEERING SPECIFICATION

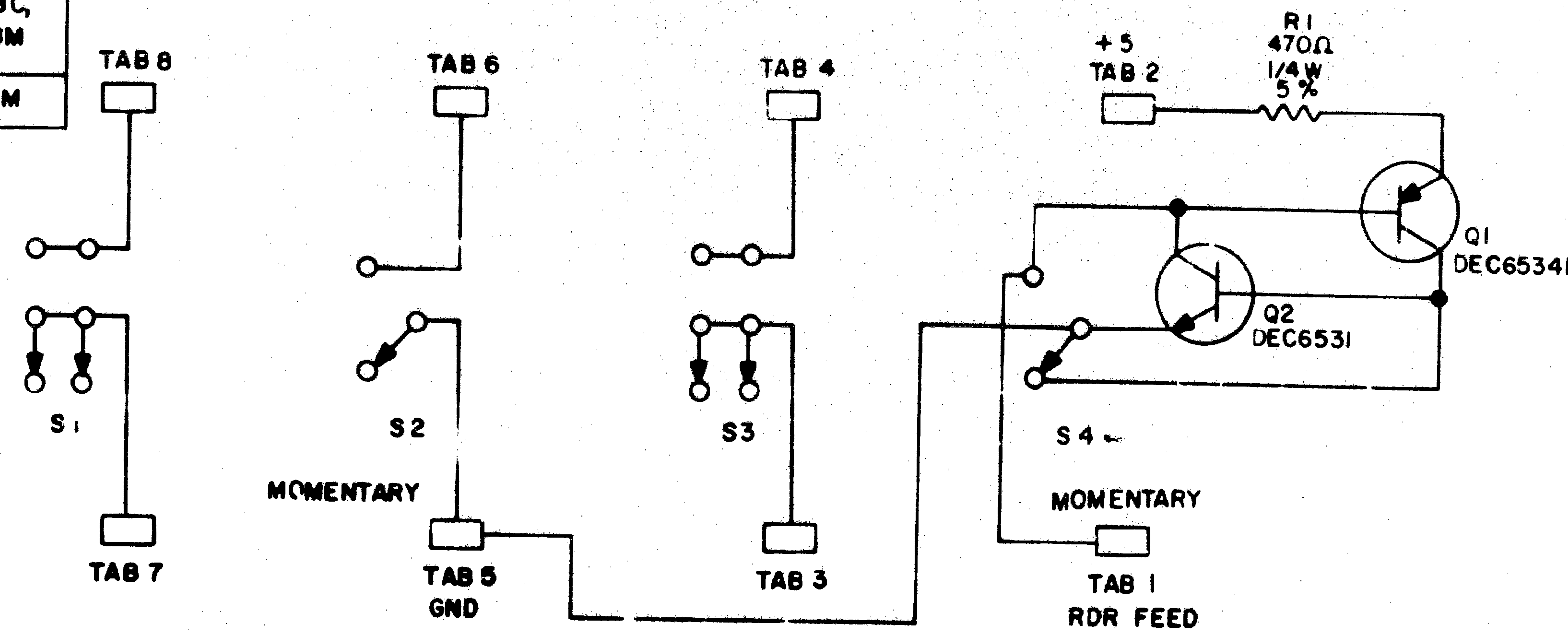
CONTINUATION SHEET

TITLE PCØ4 Engineering Specification - Test Procedure for Reader

   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
5. Put cap. (6.8uf, 10-5306) between pins AØ3A (+) and AØ3C (-) and between pins BØ3C (+) and DØ3B (-).

SIZE	CODE	NUMBER	REV
B	CS	5408310-0-1	F

PART NUMBER	SWITCHES INSTALLED	USAGE
5408310-1	S2	PCØ5-P-PA
5408310-3	S2, S3, S4	PCØ4-C-CA PCØ5-C-CA
5408310-4	S1, S2, S3, S4	PCØ4-B-BA BB, BC, BL, BM
5408310-5	S2, S4	PCØ4-CL-CM



UNLESS OTHERWISE INDICATED:
S1, S3 ARE ROCKERS 1205641
S2, S4 ARE ROCKERS 1205375
TABS ARE FASTON TAB 41290 AMP

REVISIONS			
REV	C	D	E	F

DRN	DATE
CHK'D M. Novak	DATE
ENG	DATE
PROD	DATE

TRANSISTOR & DIODE CONVERSION CHART			
DEC	EIA	DEC	EIA
DEC6531	NONE		
DEC6534D	MPS6534		

DIGITAL EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE PCO SWITCH BOARD 5408310

SIZE	CODE	NUMBER	REV
B	CS	5408310-0-1	F

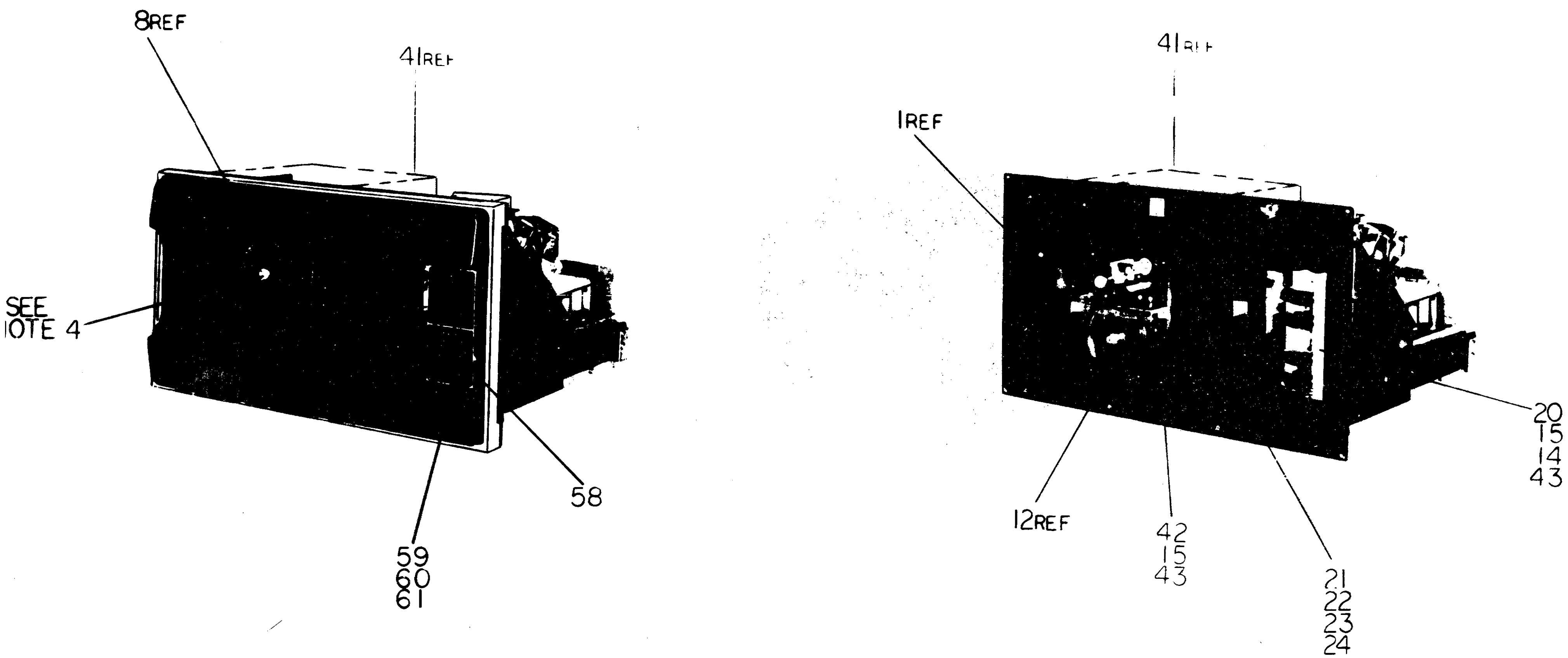
PRINTED CIRCUIT REV D

DEC FORM NO DRB 102

MODEL	CY	COMPOSITION
LEGEND		
	VARIATION	
PCØ4 B, BB, & BL	60	READER & PUNCH
PCØ4 BA, BC BM	50	READER & PUNCH
PCØ4 - C	60	READER, PUNCH & SCR
PCØ4 CA	50	READER, PUNCH & SCR
PCØ4 - P, & PL	60	PUNCH
PCØ4 PA & PV	50	PUNCH
PCØ4 - R & RB	50/60	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... 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. DOUBLE HOLD DOWN BAR TO BE INSTALLED BEFORE SHIPPING MACHINE.



FIRST USED ON OPTION / MODEL	QTY	DESCRIPTION	PART NO.	ITEM NO.
PCØ4		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 / DATE · CHK'D / DATE · ENG / DATE 6/6/67 · PROJ ENG / DATE 6/6/67 · PROD / DATE
NEXT HIGHER ASSY
SCALE
SHEET 1 OF

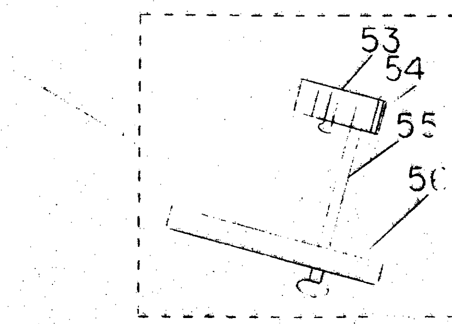
digital EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

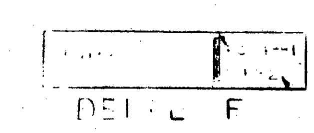
TITLE PCØ4 READER AND PUNCH

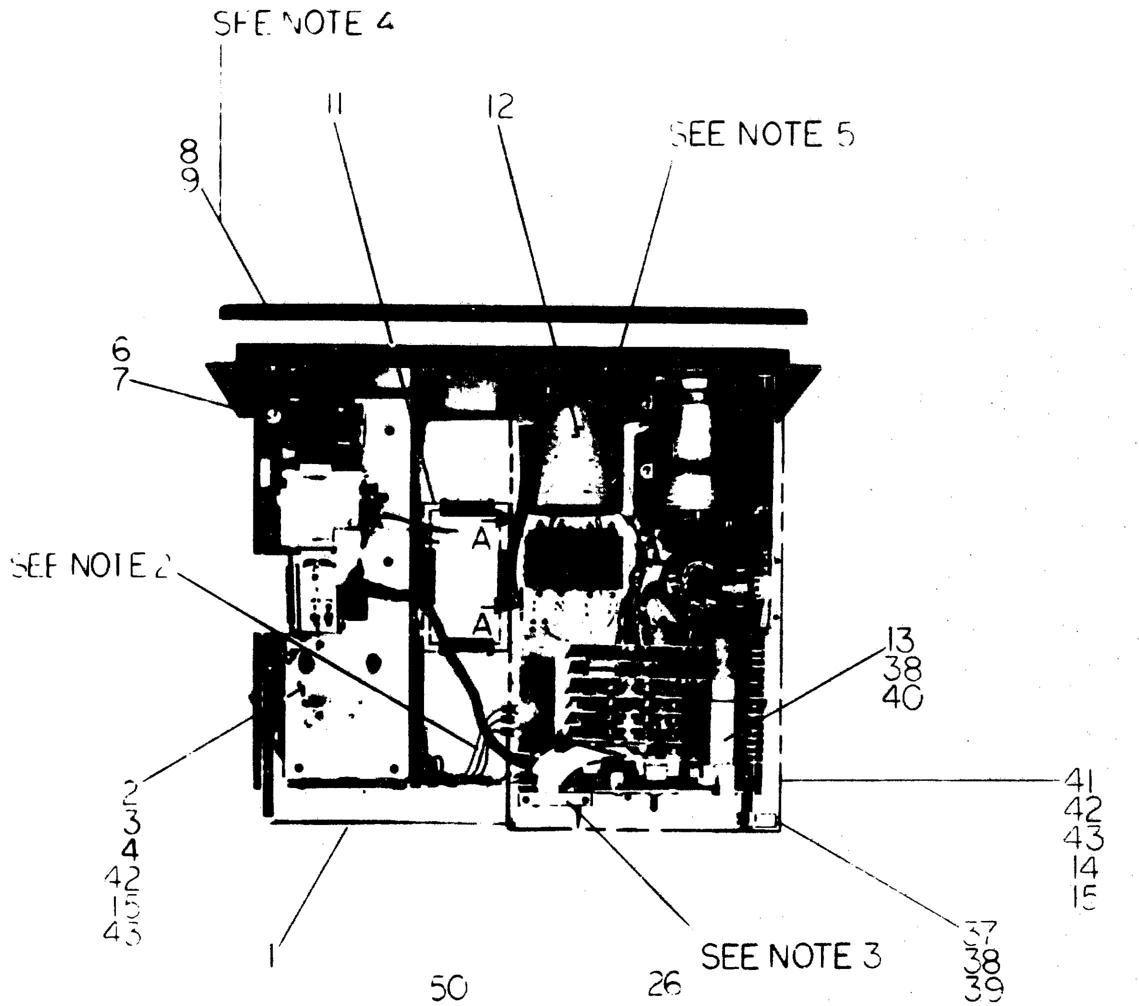
SIZE	CODE	NUMBER	REV.
D	UA	PCØ4-Ø-Ø	F

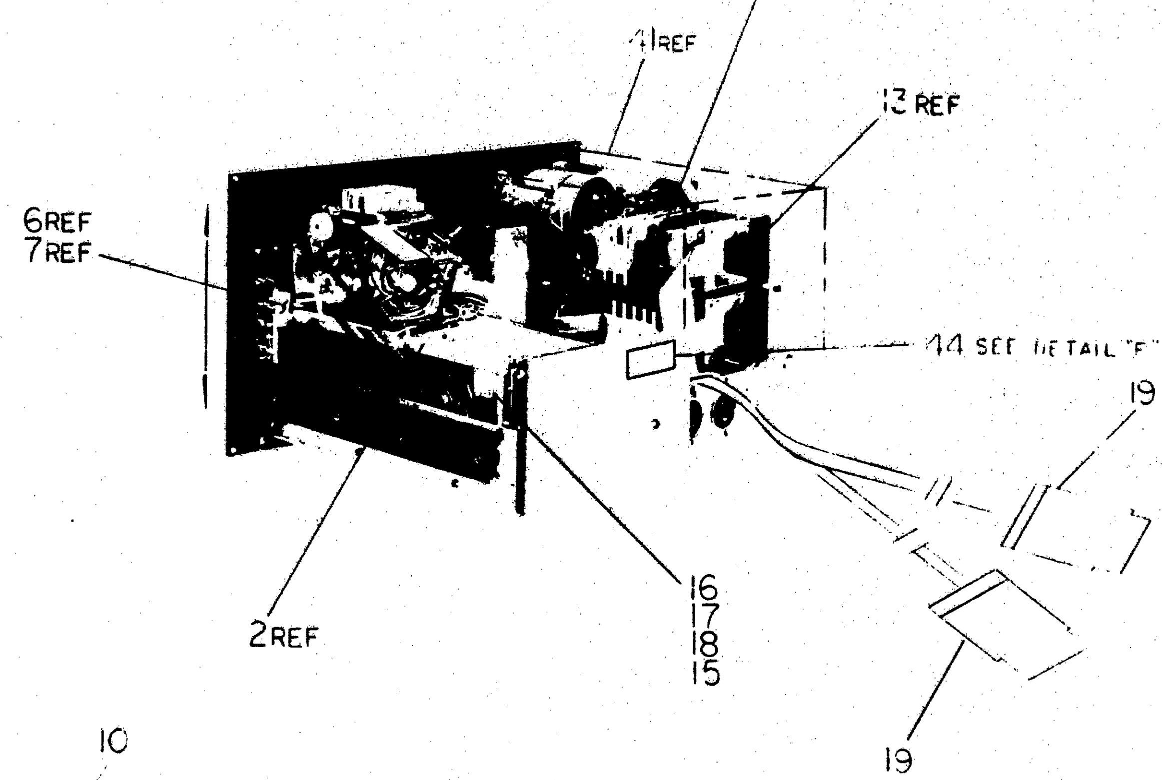
DIST.

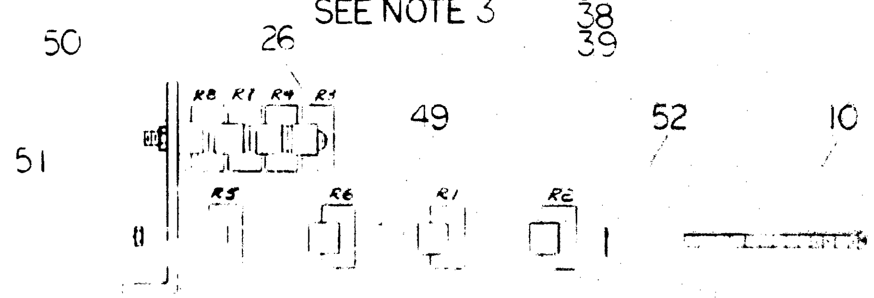
SEE NOTE 7











VIEW A-A

QTY	DESCRIPTION	PART NO.

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

NEXT HIGHER ASSY: A-ML-PC04-0
SCALE: NONE
SHEET OF 4

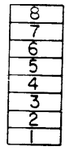
digital EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS

TITLE: PC04 READER AND PUNCH

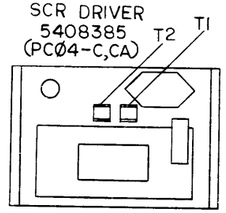
SIZE: D CODE: UA NUMBER: PC04-0-0

REVISIONS: REV. / CHANGE NO. / CHK

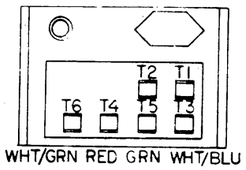
TS
(TOP VIEW)



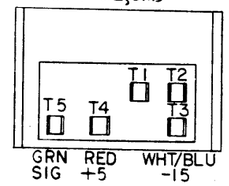
SCR DRIVER
5408385
(PCØ4-C,CA)



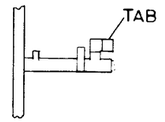
SCR DRIVER
7006720 (W/ 5408384 REV A)
(PCØ4-CL,CM)



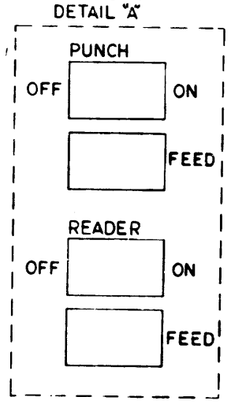
SCR DRIVER
7006720 (W/5408384 REV B)
(PCØ4-CL,CM)



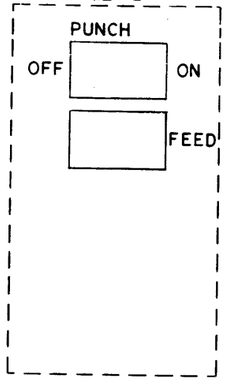
R9



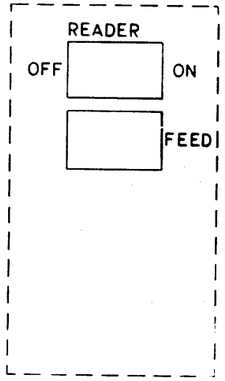
PCØ4-B,BA,BB,BC,BL,BM
5408310-4
DETAIL "A"



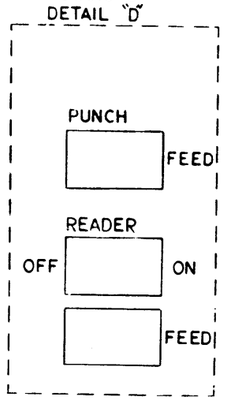
PCØ4-P,PA,PL,PM
5408935-0
DETAIL "B"



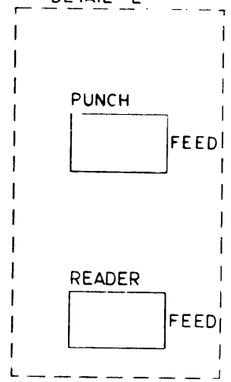
PCØ4-R,RB,RL
5408935-0
DETAIL "C"



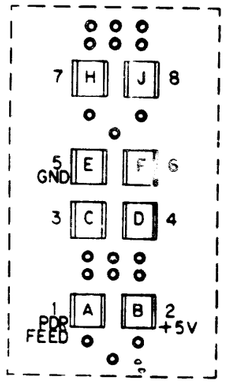
PCØ4-C,CA
5408310-3
DETAIL "D"



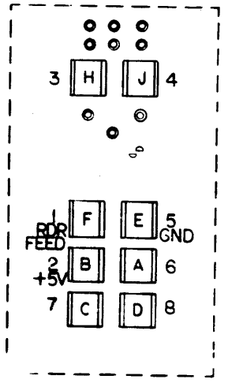
PCØ4-CL,CM
5408310-5
DETAIL "E"

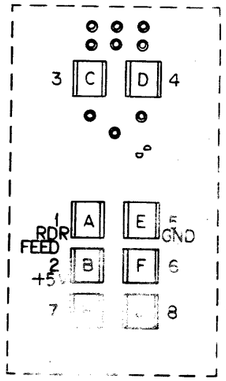


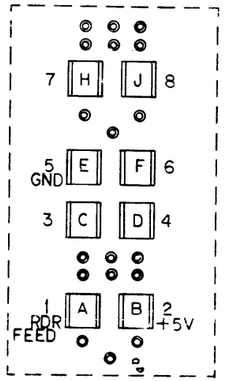
RONT
IEW

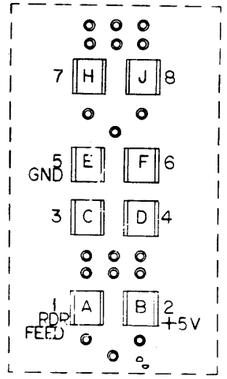


EAR
IEW









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

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES
TOLERANCES
DECIMALS: XXX - .005, XX - .02, X - .1
ANGLES: ±0° 30'
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓
MATERIAL —
FINISH —

DRN	B. HUTNAK	DATE 4-10-69
CHK'D	R. CAPUCELLI	DATE 6-5-69
ENG.	G. BECKNER	DATE 6-6-69
PROJ ENG.	G. BECKNER	DATE 6-6-69
PROD.	A. ANTONUCCIO	DATE 6-6-69

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE: PCØ4
READER PUNCH
(SW & TERM LOCATIONS)

NEXT HIGHER ASSY: A-ML-PCØ4-Ø
SCALE —
SHEET 3 OF 4

SIZE	CODE	NUMBER	REV.
D	UA	PCØ4-Ø-Ø	F

DIST

REV P
SIZE D CODE UA NUMBER PCØ4-Ø-Ø

CONNECTIONS IF NO SCR DRIVER ASSY

COLOR/AWG	WIRE	CONNECTION	REMARKS
RED #18	#9	TS — 6	
BLK & YEL OR BLK & WHT	PUNCH MOTOR	TS — 6	IF PUNCH PRESENT
RED #18	#7	SW BOARD-"H"	SEE DETAIL "A" OR "B" OR "C"

CONNECTIONS FOR 5408385 SCR DRIVER ASSY

COLOR/AWG	WIRE	CONNECTION	REMARKS
RED #18	#9	SCR — T1	
BLK & YEL OR BLK & WHT	PUNCH MOTOR	SCR — T2	
RED #18	#7	SW BOARD-"J"	SEE DETAIL "D"
WHT/BLU #22	SCR LEAD	A07B	
WHT/BRN #22	SCR LEAD	B01B	

CONNECTIONS FOR 7006520 SCR DRIVER ASSY

COLOR/AWG	WIRE	CONNECTION	REMARKS
RED #18	#9	SCR T1	
BLK & YEL OR BLK & WHT	PUNCH MOTOR	SCR T2	
RED #18	#7	SW BOARD-"J"	SEE DETAIL "E"
WHT/BLU #22	SCR LEAD	A07B	
WHT/GRN #22	SCR LEAD	A07C	NOT USED ON 5408384 REV
RED #22	SCR LEAD	A07A	
GRN #22	SCR LEAD	B01F	

PUNCH CONNECTIONS

COLOR	WIRE	CONNECTION	REMARKS
WHT #22	PUNCH CAB	TS — 7	

PLUG PUNCH DATA CABLE (W023) INTO SLOT B02

NOTE: SEE SHEET 3 FOR TERMINAL IDENTFICATION DIAGRAMS.

CONNECTIONS IF NO READER

COLOR/AWG	WIRE	CONNECTION	REMARKS
GRY/RED #18	#7	—	SLEEVE WITH ITEM #45 & TIE BACK

READER CONNECTIONS

COLOR/AWG	WIRE	CONNECTION	REMARKS
GRY/RED #18	#7	R9 TAB	LAMP RESISTOR
WHT/RED	READER MOTOR	TS - 1	
RED	READER MOTOR	TS - 2	
WHT/GRN	READER MOTOR	TS - 3	
GRN	READER MOTOR	TS - 4	
WHT & BLK	READER MOTOR	TS - 5	

PLUG READER PHOTOCELL CABLE (W077) INTO SLOT B08

READER WIRING

ITEM NO	COLOR/AWG	FROM	USING ITEM NO.	TO	USING ITEM NO.
29	WHT/VIO #22	R1 & R2	—	TS - 1	28
30	WHT/YEL #22	R3 & R4	—	TS - 2	28
31	WHT/ORN #22	R5 & R6	—	TS - 3	28
32	WHT/BRN #22	R7 & R8	—	TS - 4	28
33	VIO #22	R1	—	B06R	—
33	VIO #22	R2	—	B06S	—
34	YEL #22	R3	—	B05R	—
34	YEL #22	R4	—	B05S	—
35	ORN #22	R5	—	B04R	—
35	ORN #22	R6	—	B04S	—
36	BRN #22	R7	—	B03R	—
36	BRN #22	R8	—	B03S	—

SEE VIEW "A"-"A" ON SHEET 2 FOR IDENTIFICATION OF R1 THRU R8

WIRING ON PC04-BB, -BC, AND -RB ONLY

ITEM NO	COLOR/AWG	FROM		TO	
57	GRN #24	A08H		A08F	

COMMON CONNECTIONS

COLOR/AWG	WIRE	CONNECTION	REMARK
BLK #18	#27	GND LUG	LOGIC GND
GRY/YEL #18	#29	A08B	-15V
BLU #18	#31	B02D	-30V
BLK #18	#28	GND LUG	LOGIC GND
GRY/RED #18	#30	A08A	+5V
GRN #18	#32	B06V	-18V
YEL #22	#1	SW BOARD-"A"	SEE DETAILS "A" THRU "E" FOR LOCATION.
WHT/BLK #22	#2	SW BOARD-"B"	
WHT/YEL #22	#3	SW BOARD-"C"	
BRN #22	#4	SW BOARD-"D"	
BLK #22	#5	SW BOARD-"E"	
WHT #22	#6	SW BOARD-"F"	
RED #18	#8	SW BOARD-"J"	
YEL #22	#11	A01V	
WHT/BLK #22	#12	B07A	+5V
WHT/YEL #22	#13	A08F	
BLK #22	#15	B08C	
WHT #22	#16	B02U	

CONNECTION ON 7006268-0 LOGIC BLOCK (PC04-B, -BA, -BB, BC, -C, -CA, -P, -PA, -R -RB)

COLOR/AWG	WIRE	CONNECTION	
BRN #22	#14	A02B	

CONNECTION ON 7006268-1 AND -2 LOGIC BLOCK (PC04 - BL, -BM, -CL, -CM, -PL, -PM, -RL)

COLOR/AWG	WIRE	CONNECTION	
BRN #22	#14	A01B	

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PC04-0		PARTS LIST		

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES

DECIMALS	ANGLES
.XXX = .006 .XX = .02 .X = 1	±0° 30'

REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY ✓

MATERIAL —/—/—

FINISH —/—/—

DRN.	B. HUTNAK	DATE 4-10-69
CHK'D	R. CARVELLI	DATE 6-5-69
ENG.	GEO. BECKNER	DATE 6-6-69
PROJ. ENG.	GEO. BECKNER	DATE 6-6-69
PROD.	B. ANTONUCCIO	DATE 6-6-69

NEXT HIGHER ASSY. A-ML-PC04

SCALE —/—/—

SHEET 4 OF 4

DIGITAL EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE PC04 READER & PUNCH (WIRING)

SIZE	CODE	NUMBER	REV.
D	UA	PC04-0-0	P

DIST.

QUANTITY/VARIATION

ITEM NO.	DWG. NO. /PART NO.	DESCRIPTION	PCØ4-B,BB	PCØ4-BA,BC	PCØ4-BL	PCØ4-BM	PCØ4-C	PCØ4-CA	PCØ4-CL	PCØ4-CM	PCØ4-P	PCØ4-PA	PCØ4-PL	PCØ4-PM	PCØ4-R,RB	PCØ4-RL
1	D-AD-7006246-0-0	CHASSIS AND POWER SUPPLY ASSY	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	D-AD-7006248-1-0	PUNCH ASSY (60 HZ)	1	–	1	–	1	–	1	–	1	–	1	–	–	–
2	D-AD-7006248-2-0	PUNCH ASSY (50 HZ)	–	1	–	1	–	1	–	1	–	1	–	1	–	–
3	9006021-1	SRC. PHL PAN HD 6-32 X 5/16 LG SST	6	6	6	6	6	6	6	6	6	6	6	6	6	6
4	9006560	NUT, KEPS 6-32 X 5/16 X 5/32	2	2	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	THYRECTOR 6RS20SP4B4	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 (PUNCH & READER)	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	1
8	D-AD-7006252-4-0	COVER ASSY (PUNCH, READER & SCR)	–	–	–	–	1	1	–	–	–	–	–	–	–	–
8	D-AD-7006252-6-0	COVER ASSY (READER, PUNCH & SCR)	–	–	–	–	–	–	1	1	–	–	–	–	–	–
9	9006042-2	SCR, PHL FLAT HD 8-32 X 1 [illegible] LG SST	4	4	4	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	4	–	–	–	–	4	4
11	C-MD-745300-0-0	CHAD BOX	1	1	1	1	1	1	1	1	1	1	1	1	–	–
12	D-AD-7006247-0-0	READER ASSY	1	1	1	1	1	1	1	1	–	–	–	–	1	1
13	E-AD-7006268-0-0	WIRED ASSY, PCØ4	1	1	–	–	1	1	–	–	1	1	–	–	1	–
13	E-AD-7006268-1-0	WIRED ASSY, PCØ4	–	–	1	1	–	–	–	–	–	–	1	1	–	1
13	E-AD-7006268-2-0	WIRED ASSY, PCØ4	–	–	–	–	–	–	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	3	3	3
15	9006033	WASHER, INT TOOTH #6	15	15	15	15	17	17	17	17	11	11	11	11	13	13
16	C-AD-5408385-0-0	SCR DRIVER ASSY	–	–	–	–	1	1	–	–	–	–	–	–	–	–
16	C-AD-7006520-0-0	SCR DRIVER ASSY	–	–	–	–	–	–	1	1	–	–	–	–	–	–
17	9006026-1	SCR, PHL PAN HD 6-32 X 3/4 LG SST	–	–	–	–	2	2	2	2	–	–	–	–	–	–
18	9006801	HEX SPACER, ¼AF X 3/8 LG #6 HOLE	–	–	–	–	2	2	2	2	–	–	–	–	–	–
19	C-IA-7006281-0-0	I/O CABLE, PCØ4 (WØ33 TO WØ77)	2	2	–	–	2	2	2	2	1	1	–	–	1	1
19	D-IA-7407[illegible]	CABLE CONNECTOR M926 TO WØ33 S	–	–	1	1	–	–	–	–	–	–	–	–	–	–
19	D-IA-7006145-1-0	CABLE CONN (PUNCH) M926 TO WØ33	–	–	–	–	–	–	–	–	–	–	1	1	–	–
19	D-IA-7407[illegible]	CABLE CONNECTOR M926 TO WØ33 S	–	–	–	–	–	–	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	1
20	C-AD-5408310-3-0	SWITCH ASSY	–	–	–	–	1	1	–	–	–	–	–	–	–	–
20	C-AD-5408310-5-0	SWITCH ASSY	–	–	–	–	–	–	1	1	–	–	–	–	–	–
21	[illegible]-MD-7407131-0-0	TAPE CONTAINER	1	1	1	1	1	1	1	1	1	1	1	1	–	–
22	9006011-2	SCR, PHL FLAT HD 4-40 X 3/8 LG SST	2	2	2	2	2	2	2	2	2	2	2	2	–	–
23	[illegible]006556	NUT, HEX 4-40 X ¼ X 1/16 SST	2	2	2	2	2	2	2	2	2	2	2	2	–	–
24	9006632	WASHER, INT TOOTH #4	2	2	2	2	2	2	2	2	2	2	2	2	–	–
~~25~~	~~[illegible]~~	~~[illegible]~~	~~2~~	~~2~~	~~2~~	~~2~~	~~2~~	~~2~~			~~2~~	~~2~~	~~2~~	~~2~~		
26	1309896	RES, 25 OHM ±5% 40 W	8	8	8	8	8	8	8	8	–	–	–	–	8	8
~~27~~	~~[illegible]~~	~~18 AWG STRD TEFLON WHT~~	~~A/R~~	[illegible]	~~A/R~~	~~A/R~~	~~A/R~~	[illegible]			~~A/R~~	~~A/R~~	~~A/R~~	~~A/R~~		
28	9007917	SOLDERLESS CONN 18-22 AWG .250 TAB	4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	4	–	–	–	–	4	4
29	9107400-97	WIRE, 22 AWG STRD TEFLON WHT/VIO TRACER	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	A/R	A/R	–	–	–	–	A/R	A/R

REVISIONS

REV.	CHANGE NO.		CHK
M	PCO4-00053 REVISED REDRAWN	M-Govier 12-13-71 / A-KENT	Allan Kent 4 Jan 72
N	PCØ4-0057	[illegible] 3-19-73 / A. WILLIAMS	[illegible] 2/7/73
P	PCO4-00059	[illegible] 5-28-74 / A. WILLIAMS	J.R. [illegible] 6/4/74

FIRST USED ON OPTION/MODEL: PCØ4 (ALL)

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. HUTNAK DATE 4-10-69
CHK'D. R. CARVELLI DATE 6-5-69
ENG. GEO. BECKNER DATE 6-6-69
PROJ. ENG. GEO. BECKNER DATE 6-6-69
PROD. R. ANTONUCCIO DATE 6-6-69
NEXT HIGHER ASSY D-UA-PCØ4-Ø-Ø
SCALE —
SHEET 1 OF 2

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE PCØ4 READER AND PUNCH

SIZE C CODE PL NUMBER PCØ4-Ø-Ø REV. P

DIST.

D. C. FORM NO.

ITEM NO.	DWG. NO./PART NO.	DESCRIPTION	PCØ4-B,BB	PCØ4-BA,BC	PCØ4-BL	PCØ4-BM	PCØ4-C	PCØ4-CA	PCØ4-CL	PCØ4-CM	PCØ4-P	PCØ4-PA	PCØ4-PL	PCØ4-PM	PCØ4-R,RB	PCØ4-RL
30	9107400-94	WIRE, 22 AWG STRD TEFLON WHT/YEL TRACER	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	-	-	-	-	A/R	A/R
31	9107400-93	WIRE, 22 AWG STRD TEFLON WHT/ORN TRACER	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	-	-	-	-	A/R	A/R
32	9107400-91	WIRE, 22 AWG STRD TEFLON WHT/BRN TRACER	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	-	-	-	-	A/R	A/R
3	9107350-77	WIRE, 22 AWG STRD TEFLON VIO	A/R	A/R	A/R	A/R	A/R	/R	A/R	A/R	-	-	-	-	A/R	A/R
34	9107350-44	WIRE, 22 AWG STRD TEFLON YEL	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	-	-	-	-	A/R	A/R
35	9107350-33	WIRE, 22 AWG STRD TEFLON ORN	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	-	-	-	-	A/R	A/R
36	9107350-11	WIRE, 22 AWG STRD TEFLON BRN	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	-	-	-	-	A/R	A/R
37	9006043-1	SCR, PHL PAN HD 8-32 X 1 LG SST	1	1	1	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	2	2	2
39	9006823	HEX SPACER 3/8 X 3/4 LG #8	1	1	1	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	1	1	1
41	E-IA-7407438-0-0	POWER SUPPLY COVER	1	1	1	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	4	4	4
43	9006653	WASHER, FLAT #6 SST	14	14	14	14	14	14	14	14	10	10	10	10	12	12
44	9008141	DEC NAME PLATE	1	1	1	1	1	1	1	1	1	1	1	1	1	1
45	9107275	SHRINKABLE TUBING WHITE	-	-	-	-	-	-	-	-	A/R	A/R	A/R	A/R	-	-
~~46~~	~~[illegible]~~	~~[illegible] (OL)~~	-	-	1	1	-	-	-	-	-	-	1	1	-	-
~~47~~	~~D-IA-7407067-1-0~~	~~I/O CABLE ASSY. (OL)~~	-	-	1	1	-	-	-	-	-	-	-	-	-	-
~~48~~	~~7006145-1~~	~~I/O CABLE ASSY. (OL)~~	-	-	-	-	-	-	-	-	-	-	1	1	-	-
49	9006664	WASHER, FLAT #10	24	24	24	24	24	24	24	24	-	-	-	-	24	24
50	C-MD-7408091-0-0	BRK'T RESISTOR	1	1	1	1	1	1	1	1	-	-	-	-	1	1
51	9006565	NUT, KEPS 10-32 X 3/8 X 3/16	4	4	4	4	4	4	4	4	-	-	-	-	4	4
52	9006635	WASHER, INT TOOTH #10	4	4	4	4	4	4	4	4	-	-	-	-	4	4
53	9007799-6	SCR, PHL FILLISTER HD 8-32 X 1.5	1	1	1	1	1	1	1	1	1	1	1	1	1	1
54	1209850	UNIVERSAL MODULE RETAINER	1	1	1	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	1
56	C-IA-7408339-7-0	HOLD DOWN BAR (6")	1	1	1	1	1	1	1	1	-	-	1	1	1	1
57	9107470-55	WIRE, 24 AWG SOLID TEFLON GREEN	N/R	N/R	-	-	-	-	-	-	-	-	-	-	N/R	-
58	C-IA-7407134-1-0	BEZEL SWITCH	1	1	1	1	-	-	-	-	-	-	-	-	-	-
58	C-IA-7407134-2-0	BEZEL SWITCH	-	-	-	-	-	-	-	-	1	1	1	1	-	-
58	C-IA-7407134-3-0	BEZEL SWITCH	-	-	-	-	-	-	-	-	-	-	-	-	1	1
58	C-IA-7407134-4-0	BEZEL SWITCH	-	-	-	-	1	1	-	-	-	-	-	-	-	-
58	C-IA-7407134-5-0	BEZEL SWITCH	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	C-IA-7407134-6-0	BEZEL SWITCH	-	-	-	-	-	-	1	1	-	-	-	-	-	-
59	9006558	NUT HEX #6-32 SST	2	2	2	2	2	2	2	2	2	2	2	2	2	2
60	9006633	WASHER INT TOOTH LOCK #6	2	2	2	2	2	2	2	2	2	2	2	2	2	2
61	9006656	WASHER FLAT	2	2	2	2	2	2	2	2	2	2	2	2	2	2
62	A-PI-3700024-0-0	PACKAGING INSTRUCTIONS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
63	A-PI-3700123-0-0	PACKAGING INSTRUCTIONS	1	1	1	1	1	1	1	1	1	1	1	1	1	1

REVISIONS: REV. | CHANGE NO. | CHK.

FIRST USED ON OPTION/MODEL: PCØ4 (ALL)

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. HUTNAK	DATE 4-10-69
CHK'D. R. CARVELLI	DATE 6-5-69
ENG. GEO. BECKNER	DATE 6-6-69
PROJ. ENG. GEO. BECKNER	DATE 6-6-69
PROD. R. ANTONUCCIO	DATE 6-6-69

NEXT HIGHER ASSY. D-UA-PCØ4-Ø-Ø

SCALE —

SHEET 2 OF 2

digital EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS

TITLE: PCØ4 READER AND PUNCH

SIZE C | CODE PL | NUMBER PCØ4-Ø-Ø | REV. P

DIST.

DEC FORM NO. DRC 110

LEGEND

PART #	MODEL USED ON	WIRELIST
7006268-0	PC04-B, BA, BB, BC, C, CA, P, PA, R, RB	K-WL-PC04-0-5
7006268-1	PC04-BL, BM, PL, PM, RL	K-WL-PC04-0-6
7006268-2	PC04-CL, CM	K-WL-PC04-0-7

NOTES:

1. CONNECTIONS ON ITEM 3 & … SOLDERED AND LOCATED AT M… PRACTICAL HEIGHT ABOVE …
2. CONNECTOR BLOCKS TO BE … TO GND LUG AS SHOWN.
3. USE BLUE WIRE (ITEM …) FOR HAND WRAPPED WIRING.
4. PDP8/8S/9/KA10
   TO CONVERT 7006268-0 BLOCK BACK TO NEG LOGIC MACHINES, DO FOLLOWING.
   A. REMOVE TRANSISTORS IN READER FEED SWITCH ASS'Y
   B. WIRE CHANGES
      DELETE — BØ8S-BØ7E
      ADD — AØ2N-AØ8H, BØ8E BØ7E, AØ2B AØIN
   C. DELETE 100Ω RESISTOR FROM AØ8A-AØ8F

EXTERNAL COMPONENT TABLE

ITEM	COMP	POL	FROM	TO	POL	REMARKS
10	CAP	+	AØ3A	AØ3C	-	6.8µF
10	CAP	-	BØ3B	BØ3C	+	6.8µF

7006268-2

EXTERNAL COMPONENT TABLE

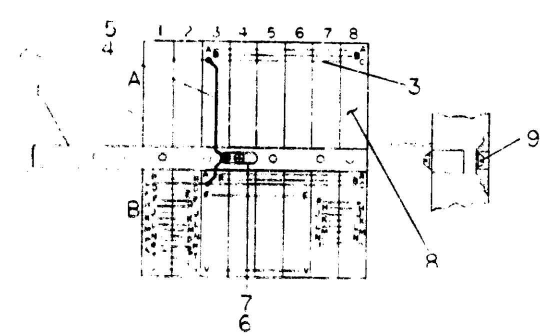
ITEM	COMP	POL	FROM	TO	POL	REMARKS
10	CAP	+	AØ3A	AØ3C	-	
10	CAP	-	BØ3B	BØ3C	+	
12	RES		AØ8A	AØ8F		100Ω
13	RES		AØ6E	AØ6C		330Ω

7006268-1

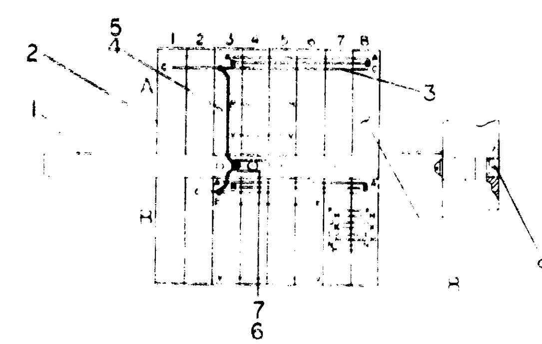
EXTERNAL COMPONENT TABLE

ITEM	COMP	POL	FROM	TO	POL	REMARKS
10	CAP	+	AØ3A	AØ3C	-	
10	CAP	-	BØ3B	BØ3C	+	
12	RES		AØ8A	AØ8F		100Ω

7006268-0



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



7006268-1
(8L, 8F, 8M, 8F)
7006268-…
(KI10)

FIRST USE ON OPTION/MOD.	PCØ4
DRN.	R. HUTNAK 3-13-69
CHK'D.	R. CARVELLI 5-12-69
ENG.	G. BECKNER
PROJ. ENG.	G. BECKNER
PROD.	R. ANTONELLIO
NEXT HIGHER ASSY	D-UA-PCØ4-Ø-Ø
TITLE	(PC04) WIRED ASSY
SIZE	D
CODE	AD
NUMBER	7006268-0-C
SHEET	1 OF 1

UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES

EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS
PARTS LIST

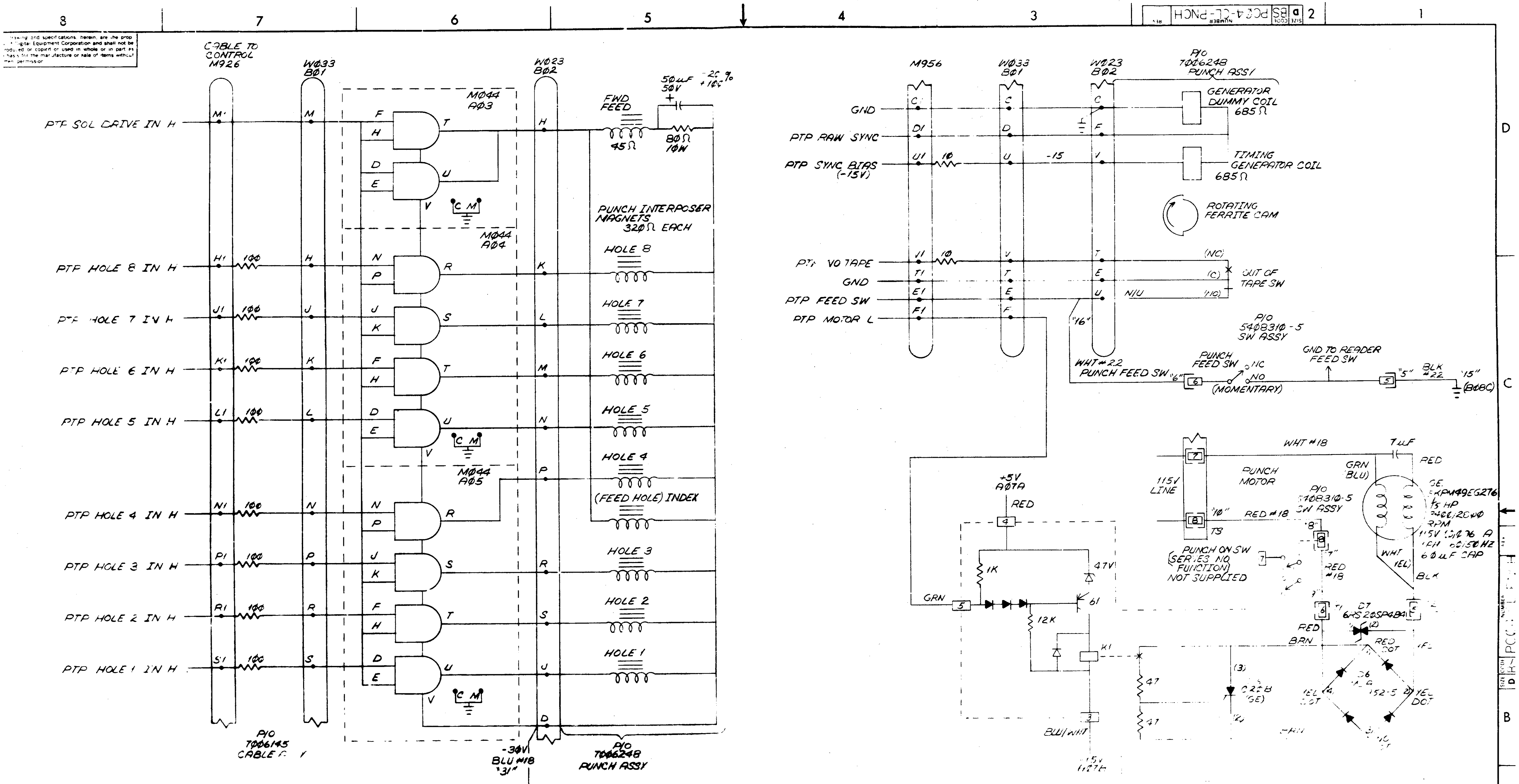
MADE BY: ROBERT HUTNAK	CHECKED: G. Carvell	SECTION: 1	
DATE: 2/20/69	DATE: 5/5/69		
ENG: Lechner 4/4/69	PROD	ISSUED SECT.: 1	
DATE	DATE		

ITEM NO.	DWG NO./PART NO.	DESCRIPTION		7006268-1	7006268-2
1	-IA-7407077-0-0	MTG BAR 6 IN.	1	1	1
2	202244	144 PIN CONN BLOCK WRAPTYPE	2	2	2
3	202188	BUS BAR BERG NO.3584-032	A/R	A/R	A/R
4	107560-1	#22 AWG BUS WIRE	A/R	A/R	A/R
5	107265	#22 TUBING, TEFLON,WHITE	A/R	A/R	A/R
6	007597	TERMINAL SHAKEPROOF #2116-08-00		1	1
7	006034	SCR PHL PAN HD #8-32 x .19 LG SST	1	1	1
8	107470-10	#24 AWG SOLID KYNAR BLUE	A/R	A/R	A/R
9	007641	SCR PHL FIL HD #8-32 x 1/2 LG SST	4	4	4
10	005306	CAP 6.8 MFD 35V 10%	2	2	2
~~11~~	~~000086~~	~~CAP, 100 MFD 6V 10%~~	~~1~~		
12	13-00231	RES 100ohm ¼W 5%	1	1	-
13	13-00295	RES 330 OHM ¼W 5%	-	1	-
REF	K-WL-PC04-0-5	WIRE LIST	1	-	-
REF	K-WL-PC04-0-6	WIRE LIST	-	1	-
REF	K-WL-PC04-0-7	WIRE LIST	-	-	1

QUANTITY VARIATION

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV	ECO NO
PC04 WIRED ASSY	E-AD-7006268-0-0	A	PL	7006268-0-0	H	PC04-00056
	SHEET 1 OF 1	DIST				

DEC FORM NO.
DRA


CABLE TO CONTROL M926
W033 B01
W023 B02
M044 A03
M044 A04
M044 A05
PTP SOL DRIVE IN H
PTP HOLE 8 IN H
PTP HOLE 7 IN H
PTP HOLE 6 IN H
PTP HOLE 5 IN H
PTP HOLE 4 IN H
PTP HOLE 3 IN H
PTP HOLE 2 IN H
PTP HOLE 1 IN H
FWD FEED
45Ω
50μF 50V
80Ω 10W
PUNCH INTERPOSER MAGNETS 320Ω EACH
HOLE 8
HOLE 7
HOLE 6
HOLE 5
HOLE 4
(FEED HOLE) INDEX
HOLE 3
HOLE 2
HOLE 1
P/O 7006145 CABLE
-30V BLU #18 "31"
P/O 7006248 PUNCH ASSY
M956
W033 B01
W023 B02
P/O 7006248 PUNCH ASSY
GND
PTP RAW SYNC
PTP SYNC BIAS (-15V)
GENERATOR DUMMY COIL 685Ω
TIMING GENERATOR COIL 685Ω
ROTATING FERRITE CAM
GND
PTP FEED SW
PTP MOTOR L
OUT OF TAPE SW
P/O 5408310-5 SW ASSY
WHT #22 PUNCH FEED SW
PUNCH FEED SW
(MOMENTARY)
GND TO READER FEED SW
BLK #22
+5V A07A
RED
GRN
12K
47V
K1
BLU/WHT
WHT #18
PUNCH MOTOR
115V LINE
RED #18
PUNCH ON SW (SERIES NO FUNCTION) NOT SUPPLIED
GRN (BLU)
RED
BLK
BRN

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

UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES

REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY

MATERIAL

FINISH

DRN / CHKD / ENG / PROJ ENG / PROD

NEXT HIGHER ASSY: A-ML-PC04-C

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

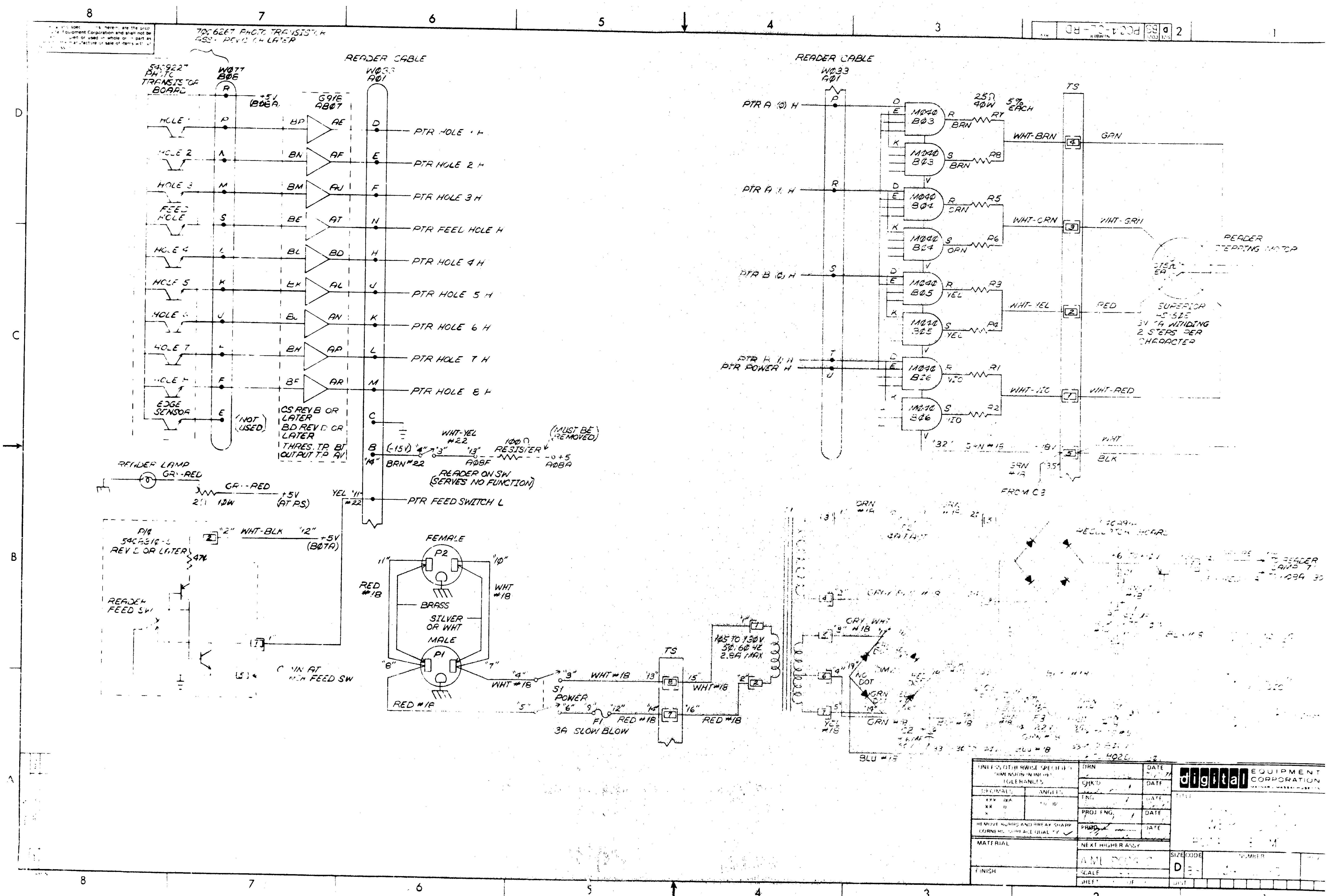
TITLE: PUNCH

PC04 - CL (PNCH)

SIZE: D CODE: BS NUMBER: PC04-CL-PNCH REV

SCALE

SHEET 1 OF 1


READER CABLE
W033 A01
PHOTO TRANSISTOR BOARD
W077 B06
+5V (B06A)
G918 AB07
PTR HOLE 1 H
PTR HOLE 2 H
PTR HOLE 3 H
PTR FEED HOLE H
PTR HOLE 4 H
PTR HOLE 5 H
PTR HOLE 6 H
PTR HOLE 7 H
PTR HOLE 8 H
HOLE 2
HOLE 3
FEED HOLE
HOLE 5
HOLE 7
EDGE SENSOR
(NOT USED)
CS REV B OR LATER
BD REV D OR LATER
THRES. TP. BT
OUTPUT TP AV
WHT-YEL #22
BRN #22
100Ω RESISTER
(MUST BE REMOVED)
A08F
A08A
READER ON SW
(SERVES NO FUNCTION)
READER LAMP
GRY-RED
+5V (AT PS)
PTR FEED SWITCH L
WHT-BLK
+5V (B07A)
REV D OR LATER
READER FEED SW
FEED SW
FEMALE
P2
MALE
P1
RED #18
WHT #18
BRASS
SILVER OR WHT
WHT #18
S1 POWER
F1
3A SLOW BLOW
TS
105 TO 130V
50/60 HZ
2.8A MAX
RED #18
GRN
BLU #18
PTR A (0) H
PTR A (1) H
PTR B (0) H
PTR POWER H
M040 B03
M040 B04
M040 B05
M040 B06
25Ω 40W
5% EACH
BRN
ORN
YEL
VIO
R7
R8
R5
R6
R3
R4
R1
R2
WHT-BRN
WHT-GRN
WHT-YEL
WHT-VIO
WHT-RED
RED
WHT
BLK
FROM C3
READER STEPPING MOTOR
SUPERIOR
2 STEPS PER CHARACTER
TS
REGULATOR BOARD
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES
DECIMALS
ANGLES
REMOVE BURRS AND BREAK SHARP CORNERS
MATERIAL
FINISH
DRN
CHKD
ENG
PROJ ENG
PROD
DATE
NEXT HIGHER ASSY
SIZE
CODE
D
NUMBER
SCALE
SHEET
digital EQUIPMENT CORPORATION

FIRST USED ON OPTION MODEL
PC04

QTY.	DESCRIPTION	PART NO.	ITEM NO.
	PARTS LIST		

REVISIONS

REV	CHANGE NO.
1	ORIGINATED PC04

DRN | DATE
CHK'D | DATE 2-7-72
ENG | DATE
PROD ENG | DATE
PROD | DATE

digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS

TITLE WIRELIST PC04 ,BA,BB,BC,C,CA, R,PA,R AND RB

SIZE	CODE	NUMBER	REV
K	WL	PC04-0-5	H

REV	NUMBER	CODE	SIZE
H	PC04-0-6	WL	K

FIRST USED ON OPTION MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO
PC04		PARTS LIST		

DRN.		DATE
CHK'D		DATE 2-7-72
ENG.		DATE 2-9-72
PROJ. ENG.		DATE
PROD.		DATE
NEXT HIGHER ASSEMBLY		
SCALE		

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
WIRELIST
PC04-BL,BM,PL,
PM AND RL

SIZE	CODE	NUMBER	REV
K	WL	04-0	H

REVISIONS

HK	CHANGE NO	REV
	INITIATED PC04-0	-
	PC04- 55 4-9-72	A
	YOUSE	
	PCC4-0056	H
	YOUSE 5-22-72	

FIRST USED ON OPTION MODEL
PCØ4

QTY.	DESCRIPTION	PART NO.	ITEM NO.
	PARTS LIST		

DRN.	DATE
CHK'D	DATE 2-7-72
ENG.	DATE
PROJ. ENGR.	DATE
PROD.	DATE
NEXT HIGHER ASSEMBLY	

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
WIRELIST
PCØ4 - CL AND CM

SIZE	CODE	NUMBER	REV
K	WL	PCØ4 - Ø - 7	

REVISIONS

REV	CHANGE NO
	ORIGINATED

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ACCESSORY LIST

MADE BY [illegible] DATE 10/5/73	CHECKED [illegible] DATE 10/5/73	SECTION
ENG A. WILLIAMS DATE 10-5-73	PROD A. WILLIAMS DATE 10-5-73	ISSUED SECT.

LEGEND

D DOCUMENT
DN DOCUMENT CHANGE NOTICE
PA PAPER TAPE ASCII
PB PAPER TAPE BINARY
PM PAPER TAPE READ-IN-MODE

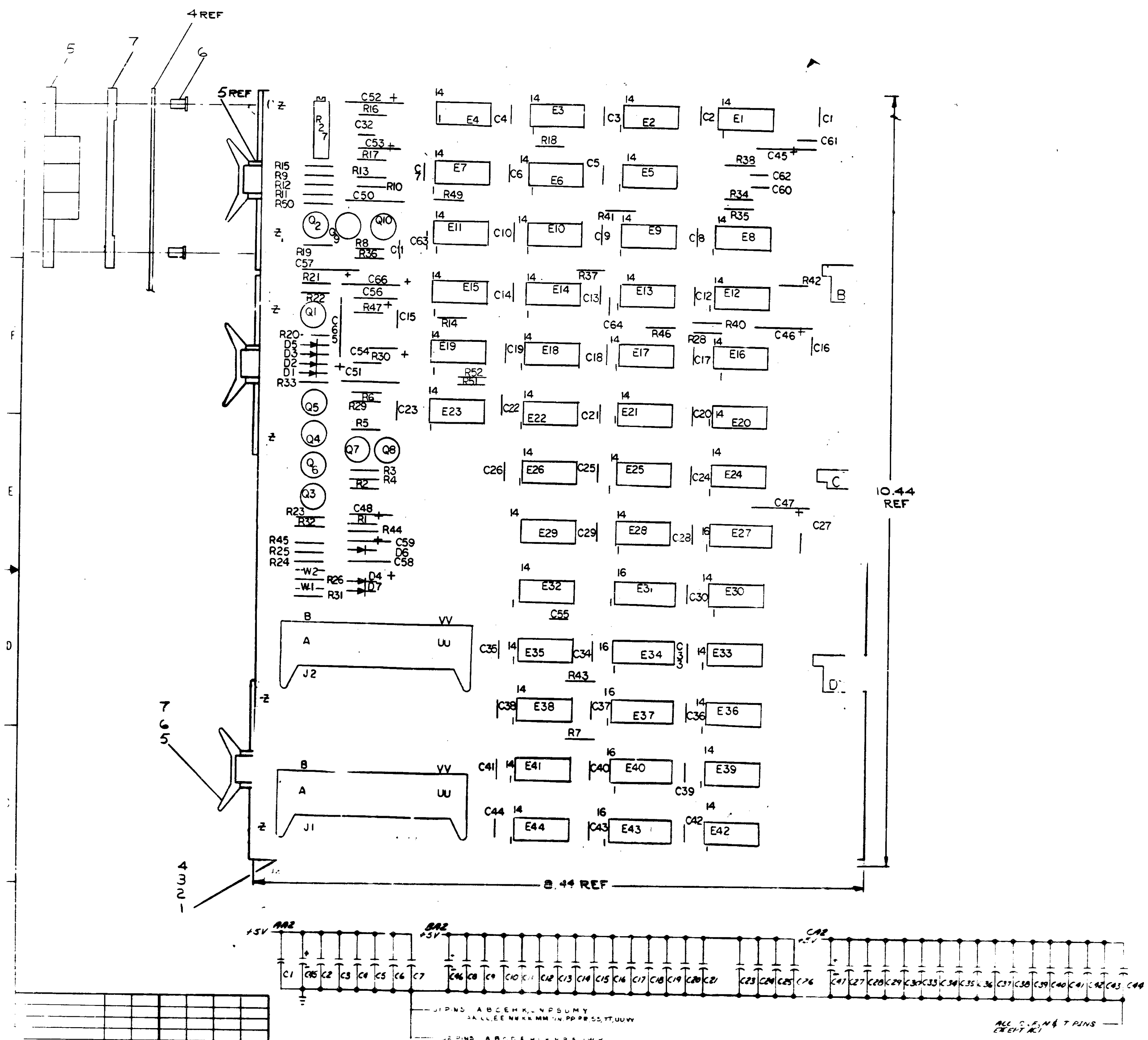
ITEM NO	DWG NO. / PART NO.	DESCRIPTION	QUANTITY VARIATION	KIT CHECK BY ____ DATE ____	INSTALLATION CHECK BY ____ DATE ____
1	DEC-PC04-IPB	PC04 ILLUSTRATED PARTS BREAKDOWN	1		

TITLE [illegible]

ASSY. NO. [illegible]

SIZE A CODE AL NUMBER [illegible] REV [illegible] ECO NO [illegible]

SHEET [illegible] OF [illegible]



QTY.	REF DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
1	[illegible]	CAP [illegible] PF 250 [illegible] 10% [illegible]	[illegible]	[illegible]
1	[illegible]	CAP 2200PF 50V 10% DISC	[illegible]0055	62
1	R44	RES 75 1/4W 5%	[illegible]	[illegible]
A/R	W1, W2	WIRE 22 AWG SOLID BUS	9107560-01	60
1	E35	IC DEC 7420	1905577	59
1	R49	RES 270 1/4W 5%	1301972	58
1	R9	RES 5.6K 1/4W 5%	1301874	57
1	R13	RES 150 1/4W 5%	1300250	56
1	R8	RES 56 1/4W 5%	1302602	55
1	R21	RES 680 1/4W 5%	1301424	54
1	R47	RES 18K 1/4W 10%	1300498	53
2	J1, J2	CONN 40 PIN RT ANGLE HEADER	1209941	52
4	E34, E37, E40, E43	IC DEC 8271	1909615	51
~~1~~	~~E31~~	~~IC DEC [illegible]~~	~~[illegible]~~	~~50~~
2	E27, E31	IC DEC 8251	1909[illegible]	49
4	E17, E18, E33, E39	IC DEC [illegible]	1909705	48
2	E21, E25	IC DEC 6314	1909972	47
3	E20, E24, E30, E36, E42	IC DEC 380	190948[illegible]	46
7	E3, E8, E26, E29, E38, E41, E44	IC DEC 7404	1909686	45
4	E4, E7, E15, E19	IC DEC 9601	1909373	44
1	E16	IC DEC 384	1909486	43
2	E1, E11	IC DEC 7410	1905576	42
7	E5, E6, E13, E22, E23, E28, E32	IC DEC 7400	1905575	41
5	E2, E9, E10, E12, E14	IC DEC 7474	1905547	40
2	Q7, Q8	TRANSISTOR DEC 6531	1509338	39
8	Q1-Q6, Q9, Q10	TRANSISTOR DEC 6534D	1503409-00	38
7	R1, R4, R6, R18, R34, R38, R51	RES 220 1/4W 5%	1300271	37
	R7, R[illegible], R11, R12, R14, R15, R19, R20, R23, R24-R26, R31, R32, R37, R40-R43, R45, R22, R52	RES 3K 1/4W 5%	1300432	36
1	R27	RES 1K 3/4W 10% 76PR	1309143-01	35
~~2~~	~~[illegible]~~	~~RES [illegible] 1/4W 5%~~	~~[illegible]~~	~~34~~
~~1~~	~~[illegible]~~	~~RES 82 1/4W 5%~~	~~[illegible]~~	~~33~~
1	R17	RES 7.5K 1/4W 5%	1301422	32
~~1~~	~~[illegible]~~	~~RES [illegible] 1/4W 5%~~	~~[illegible]~~	~~31~~
1	R16	RES 15K 1/4W 5%	1300496	30
~~1~~	~~[illegible]~~	~~RES 12K 1/4W 5%~~	~~[illegible]~~	~~29~~
3	R30, R36, R46	RES 10K 1/4W 5%	1300479	28
2	R2, R3	RES 4.7K 1/4W 5%	1300447	27
1	R50	RES 1.5K 1/4W 5%	1300391	26
1	R35	RES 330 1/4W 5%	1300295	25
3	R5, R10, R29	RES 100 1/4W 5%	1300229	24
1	R33	RES 47 1/4W 5%	1300202	23
~~1~~	~~D3~~	~~DIODE [illegible] ZENER~~	~~1100125~~	~~22~~
3	D4 [illegible]	DIODE D664	1100114	21
4	D1, D2, D3, D5	DIODE D662	1100113	20
41	C1-C21, C33-44, C39-C40	CAP .01UF 100V 20% DISC	1001610	19
5	C45, C46, C47, C57, C66	CAP 6.8UF 35V 10% TANT	1005306	18
2	C50, C51	CAP .01UF 100V 10% MYLAR	1005784	17
				16
1	C52	CAP 15UF 20V 10% TANT	100[illegible]312	15
2	C56, C48	CAP 2.2UF 35V 10% TANT	100[illegible]431	14
3	C53, C58, C59	CAP 1UF 35V 10% TANT	1001776	13
1	C65	CAP 39UF 10V 10% TANT	1000076	12
1	C54	CAP 3.9UF 10V 10% TANT	1000064	11
1	C60	CAP 1000PF 100V 5% MICA	1000042	10
3	C22, C32, C62	CAP 680PF 100V 5% MICA	1000026	9
2	C63, C64	CAP 330PF 100V 5% MICA	1000023	8
2		SPACER (CABLE CLAMP)	1202704	7
6		EYELET 6S4-11 STIMPSON	9006750	6
2		HANDLE FLIP CHIP-MAGENTA	9008337-06	5
1		ETCHED CIRCUIT BOARD	5008848	4
REF		MODULE HISTORY LIST	B-MH-M840-0-6	3
REF		ASSY/DRILLING HOLE LAYOUT	D-AH-M840-0-5	2
REF		X-Y COORDINATE HOLE LOC.	K-CO-M840-0-4	1

PARTS LIST

ETCH BOARD REV K

IC TYPE	GND	+5V
DEC 384	1	8
6314	1	8
8271	8	16
380	1	8

GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTFULLY. EXCEPTIONS ARE STATED ABOVE

IC PWR LOCATIONS

ITEM NO	AWG	FROM PT	TO PT
59	22	W2-A	W2-B
59	22	W1-A	W1-B

JUMPER LIST

DEC NO.	EIA NO.	DEC NO.	EIA NO.
DEC 6531	MPS6531		
DEC 6534D	MPS6534		
D664	1N3606		
D662	1N645		

SEMICONDUCTOR CONVERSION CHART

EQUIPMENT CORPORATION

DATE 2-18-71

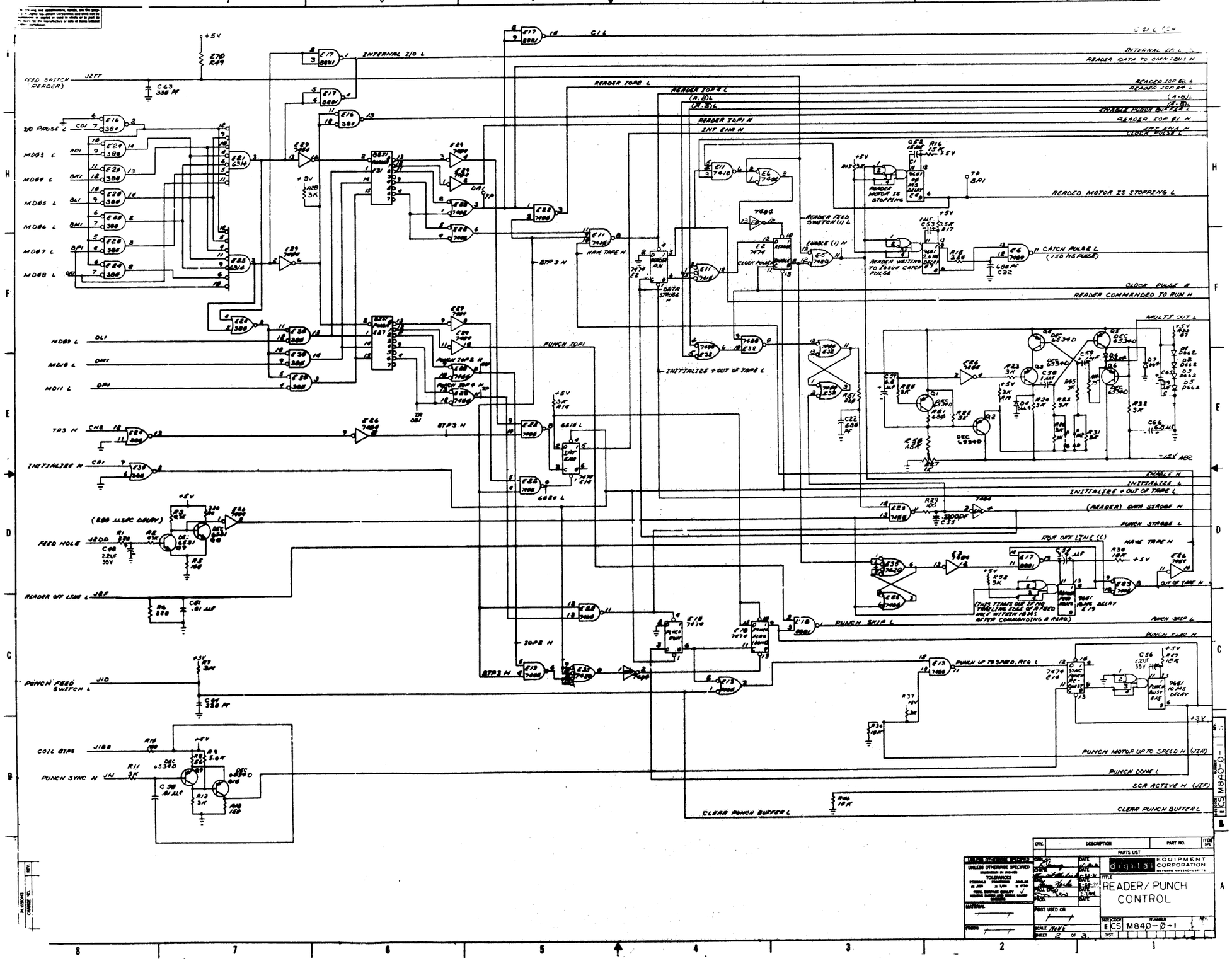
FIRST USED ON A-ML-PC8-E

SCALE 2/1

SHEET 1 OF 3

TITLE READER/PUNCH CONTROL

E CS M840-0-1



QTY.	DESCRIPTION	PART NO.	ITEM NO.
	PARTS LIST		

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

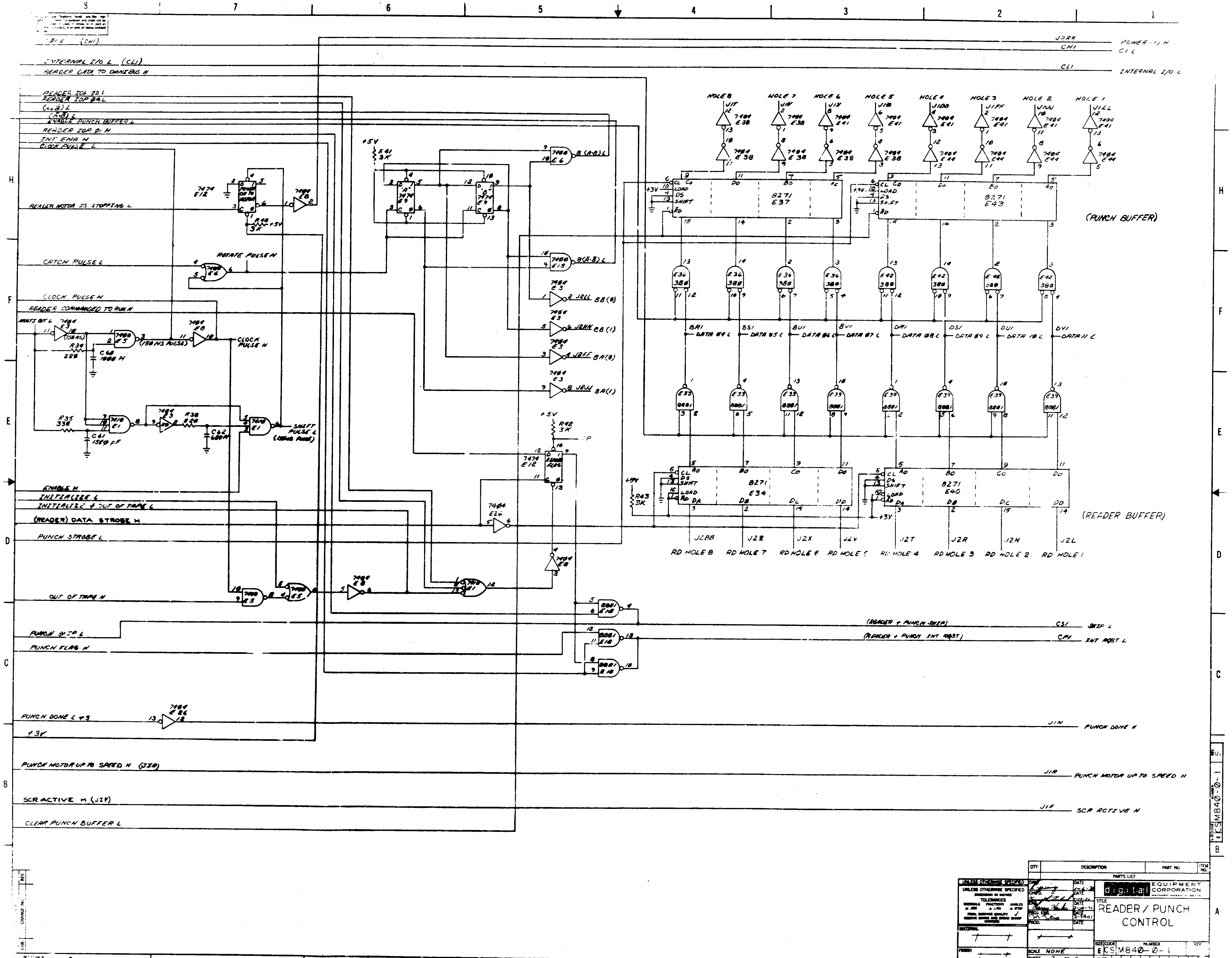
DATE 11-20-...
CHK'D DATE 6-22-71
ENG. DATE 6-24-71
PROJ. ENG. DATE 7-2-71
PROD. DATE
FIRST USED ON
SCALE NONE
SHEET 2 OF 3

digital EQUIPMENT CORPORATION
MAYNARD MASSACHUSETTS

TITLE
READER/ PUNCH CONTROL

SIZE E CODE CS NUMBER M840-0-1 REV.
DIST.

E CS M840-0-1



POWER OK H
CI L
INTERNAL I/O L
READER DATA TO OMNIBUS H
READER IOP 24 L
ENABLE PUNCH BUFFER L
READER IOP 01 H
INT ENA H
CLOCK PULSE L
READER MOTOR IS STOPPING L
CATCH PULSE L
ROTATE PULSE H
CLOCK PULSE H
READER COMMANDED TO RUN H
CLOCK PULSE H
SHIFT PULSE L
ENABLE H
INITIALIZE L
(READER) DATA STROBE H
PUNCH STROBE L
OUT OF TAPE H
PUNCH SKIP L
PUNCH FLAG H
(READER + PUNCH SKIP)
SKIP L
(READER + PUNCH INT RQST)
INT RQST L
PUNCH DONE L
PUNCH DONE H
+3V
PUNCH MOTOR UP TO SPEED H (J1R)
PUNCH MOTOR UP TO SPEED H
SCR ACTIVE H (J1F)
SCR ACTIVE H
CLEAR PUNCH BUFFER L
HOLE 8
HOLE 7
HOLE 6
HOLE 5
HOLE 4
HOLE 3
HOLE 2
HOLE 1
8271 E37
8271 E43
(PUNCH BUFFER)
8271 E34
8271 E40
(READER BUFFER)
RD HOLE 8
RD HOLE 7
RD HOLE 6
RD HOLE 5
RD HOLE 4
RD HOLE 3
RD HOLE 2
RD HOLE 1
digital EQUIPMENT CORPORATION
READER / PUNCH CONTROL
SCALE NONE
SHEET 3 OF 3
CS M840-0-1

WIRE TABLE

ITEM NO.	DESCRIPTION AWG	COLOR	FROM CONNECTION	TO CONNECTION	REMARKS
1	30	GREY	P1 — D	P2 — A2	
			F	B2	
			J	C2	
			L	D2	
			N	E2	
			R	F2	
			T	H2	
			V	J2	
			X	K2	
			Z	L2	
			BB	M2	
			DD	N2	
			FF	P2	
			JJ	R2	
			LL	S2	
			NN	T2	
			RR	U2	
1	30	GREY	P1 — TT	P2 — V2	

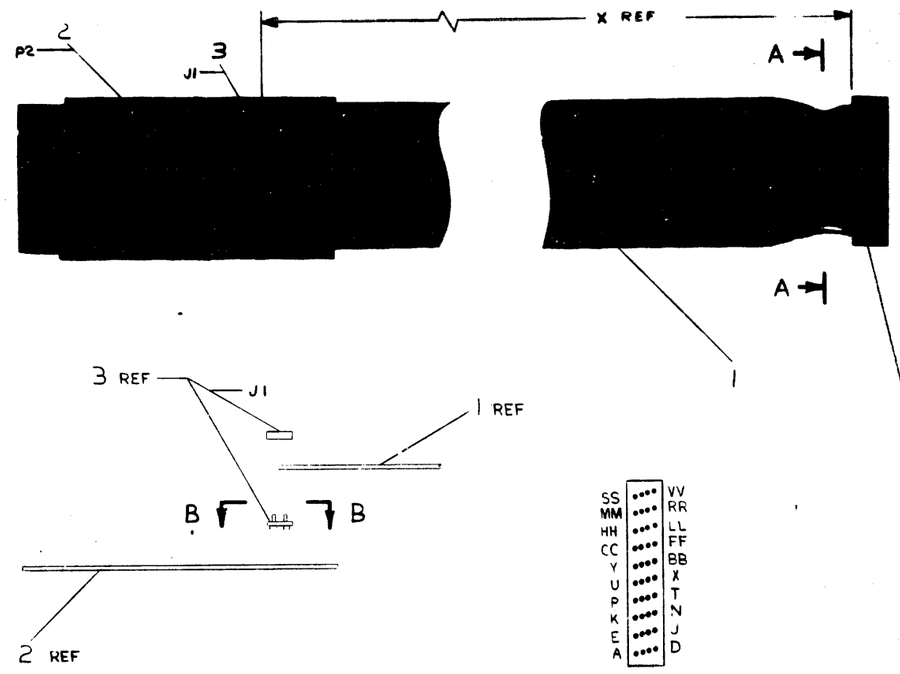
SEE NOTE #3

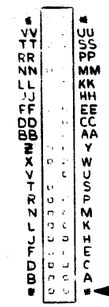
LEGEND

CABLE NO.	PART NO.	DIM X
BC08K-06	7007036-06	6FT ± 2IN
BC08K-10	7007036-10	10FT ± 2IN
BC08K-15	7007036-15	15FT ± 3IN
BC08K-25	7007036-25	25FT ± 3IN
BC08K-50	7007036-50	50FT ± 12IN

NOTES:

1. CONNECTORS P1 AND J1 ARE TO BE WIRED POINT TO POINT P1-A TO J1-A THRU P1-VV TO J1-VV.
2. ASTERISKS INDICATE CAVITIES NOT USE OF DESIGNATED BY LETTERS.
3. ALL P1 CONNECTIONS NOT LISTED ON THE WIRE TABLE ARE GROUND.





VIEW A-A
(FOR REFERENCE ONLY)

VIEW B-B
(J1 REF)

REVISIONS		
CHK	CHANGE NO.	REV.
[illegible]	BC08K-00001	A
GARDNER	BC08K-00002	B
TM Glenn 5-14-71		
GARDNER 5-25-71		

1	ETCH BOARD CONNECTOR	1210073-0
1	M955 CABLE CONNECTOR	M955
1	I/O CABLE	SEE LEGEND
QTY.	DESCRIPTION	PART NO.

PARTS LIST

FIRST USED ON OPTION / MODEL: PC8/E

TOLERANCES DECIMAL
.XXX = ± .005
.XX = ± .02
.X = ± .1

UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES
TOLERANCES
FINISH SURFACE QUALITY
REMOVE BURRS AND BREAK SHARP EDGES

MATERIAL: SEE PARTS LIST

FINISH

NEXT HIGHER ASSY

SCALE: NONE

SHEET OF 1

EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE: I/O CABLE (BC08K)

SIZE D | CODE UA | NUMBER BC08K-0-0 | REV B

DIST.

DEC FORM NO. - 100

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION

DATE 8/13/70

TITLE PC8-E READER PUNCH CONTROL

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

ENG	APPD	SIZE	CODE	NUMBER	REV
Larry Narhi		A	SP	PC8-EA-1	

DEC FORM NO. DRA 107

SHEET 1 OF 3

[redacted] CONTINUATION SHEET

TITLE PC8-E READER PUNCH CONTROL

1. Overall Description

The PC8-E is the reader/punch control for the PDP-8/E computer. The PC8/E is designed to control the reader/punch type PC04.

2. General Specification

2.1 The interface, entirely TTL, is designed around the constraints of the PDP-8/E bus. All connections to the reader/punch is via shielded flex-print connected to edge-type connectors.

2.2 Punch Done Timing may be either 4.5 milliseconds or 10 milliseconds, jumper selectable on the board. Reader timing may be slowed by removing two jumpers, for use with the PR8-ES Reader.

2.3 The entire interface is contained on one 8½" by 11" quad board.

2.4 The temperature limits are 32F to 120F and relative humidity 10% to 90%, non-condensing. The power requirements are:

+ 5 volts at 1.25 amps.
-15 volts at 75 milliamps.

2.5 The control is completely compatable with all software that is PC8/L oriented.

3. Specification of Vendor-Supplied Equipment

3.1 See applicable purchase specification for board components.

4. Programming

4.1 Reader IOT's

RPE	6010	Set interrupt enable for reader and punch
RSF	6011	Skip if reader flag = 1
RRB	6012	Read reader buffer, clr flag
RFC	6014	Clr flag , fetch character
	6016	Same as 12 and 14

NOTE: Initialize sets program Interrupt Enable Flag

SIZE	CODE	NUMBER	REV
A	SP	PC8-EA-1	

DEC FORM NO DRA 108A

SHEET 2 OF 3

[redacted] CONTINUATION SHEET

TITLE PC8-E READER PUNCH CONTROL

4.1 Continued - Punch IOT's

PCE	6020	Clr Interrupt Enable
PSF	6021	Skip if Punch Flag = 1
PCF	6022	Clr Flag
PPC	6024	Load Buffer & Punch Character
PLS	6026	Clr Flag, Load & Punch

4.2 There are no maintenance instructions.

4.3 Data format is parallel for both reader and punch. For the reader 8 bits are loaded from photo-cell into the reader buffer then onto the Data Bus. Then at the appropriate time the data is strobed into AC bits 4 thru 11. AC 11 being the least significant bit. The punch buffer is loaded from Data Bus bits 4 thru 11 then the contents of the punch buffer select or de-select solenoid drivers which punch the data.

4.4 There are no timing diagrams.

4.5 There are no operator controls except for one potentiometer that sets the clock circuit for a reader speed of 300 char/sec. This control is used during initial reader adjustment.

5. Interface Specifications

5.1 All bus signals conform to the bus rules of the PDP-8/E. All signals between the reader and punch appear on pins of the 2 connectors that are pin compatible with the PC8/L.

5.2 The following is a list of reader, punch variations for the 8/E.

PC04-BL Reader Punch,60 cycle
PC04-BM Reader Punch, 50 cycle
PC04-PL Punch only, 60 cycle
PC04-PM Punch only, 50 cycle
PC04-RB Reader only
or
PR8-ES 110 CPS Paper Tape Reader, 110V 50/60 cycles

SIZE	CODE	NUMBER	REV
A	SP	PC8-EA-1	

DEC FORM NO DRA 108A

SHEET 3 OF 3

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION

DATE 1/22/71

TITLE PC8-E TEST PROCEDURE

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

ENG [signature] APPD [signature] SIZE A CODE SP NUMBER PC8-E-2 REV

ENGINEERING SPECIFICATION — CONTINUATION SHEET

TITLE PC8-E TEST PROCEDURE

1.0 EQUIPMENT

- 1.1 PDP8/E standard
- 1.2 Heat box
- 1.3 453 scope and voltage probes
- 1.4 Teletype
- 1.5 PR8-E paper tape reader
- 1.6 Binary loader tape
- 1.7 M840 module and following options
  - 1.7.1 PR8-E - PC04-R and 1 BC08-K cable
  - 1.7.2 PP8-E - PC04-PM/PL and 1 BC08-K cable
  - 1.7.3 PC8-E - PC04-BM/BL and 2 BC08-K cables
- 1.8 The following test tapes are also required:
  - 1.8.1 Test PRG0 (zeros) MAINDEC-00-D2G1-PT
  - 1.8.2 Test PRG2 (binary count) MAINDEC-00-D2G3-PT
  - 1.8.3 Teradyne copy routine tape
- 1.9 Box of paper tape

2.0 TEST STATION SET UP

- 2.1 Check paperwork in the envelope making sure it is complete as required by DEC standard # 101.
  - 2.1.1 Test and inspection record.
  - 2.1.2 Key sheet and ECO status sheet will contain both CS and etch revision.
  - 2.1.3 Quality Control inspection report.
  - 2.1.4 PDP8/E progress report (inserted at this time).
- 2.2 Plug the PC04 power cord into the bench outlet.
- 2.3 Insert the M840 module in the Omnibus per "Recommended Module Assignment List (ASP-PDP8-E-0-4)".
- 2.4 Insert the BC03K-6 cables as follows:

Cable	From	To
Reader	A1	J2 (M840)
Punch	B1	J1 (M840)

NOTE: If a PC04-RB (Reader) or PC04-PM (Punch) are ordered separately, only one BC08K cable is required.

3.0 LOADING PROCEDURE

- 3.1 Deposit Rim Loader (high speed) in PDP8-E per PDP8-E instruction card.
- 3.2 Load Binary Loader using starting address of 7756.
- 3.3 Load diagnostic MAINDEC-8E-D2CA using starting address of 7777.

4.0 PC8-E CHECKOUT

4.1 The following test programs to be run are:

TEST NO		USED ON
PRG0	Basic reader and reader control logic test	PC04-BM/BL, PC04-R
PRG1	Basic punch and punch control logic test	PC04-BM/BL, PC04-PM/PL
PRG2	Reader test, special binary count pattern	PC04-BM/BL, PC04-R
PRG3	Punch test, special binary count pattern	PC04-BM/BL, PC04-PM/PL
PRG4	Punch verify, special binary count pattern	PC04-BM/BL, PC04-PM/PL

SIZE A CODE SP NUMBER PC8-E-2 REV

ENGINEERING SPECIFICATION — CONTINUATION SHEET

TITLE PC8-E TEST PROCEDURE

TEST NO		USED ON
PRG5	Punch test, random characters	PC04-BM/BL, PC04-PM/PL
PRG6	Punch verify random characters	PC04-BM/BL, PC04-PM PL
PRG7	Combined reader and punch test, special binary count routine	PC04-BM/BL
PRG13	Reader speed print loop	PC04-RB

- 4.2 Consult the diagnostic write up for starting addresses and setup procedures.
- 4.3 Execution times for the above test are as follows:

TEST	RUN TIME
PRG0	1 pass
PRG13	
PRG1	3 passes
PRG2-6	3 minutes each
PRG7	10 minutes Alternate between variable stall and high speed punch probes

- 4.4 After a required sections of PC8E diagnostic have been run, do the Teradyne copy routine as follows:
- 4.5 Load tape in reader with Teradyne loader and test tape.
  - 4.5.1 Load in Teradyne loader in binary format.
  - 4.5.2 Turn punch on.
  - 4.5.3 Load and start 6101 for test tape
  - 4.5.4 After test tape has read through and a punch copy has been made.
  - 4.5.5 Load Marco 8 tape (in binary format)
  - 4.5.6 Load in punched copy into reader, and turn punch on.
  - 4.5.7 Load 200 Start 4002 - copies new tape.
  - 4.5.8 Take new copy load in reader.
  - 4.5.9 Load 200 Start 2002 prints out on TTY information on tape. Run for ten minutes.

  NOTE: Teradyne Loader tape is on front of test tape.
- 4.6 Adjustment failures may occur during testing. All adjustments are preset, but should a minor adjustment be necessary use the new procedure as described in the PC04 manual.

5.0 HEAT TEST

- 5.1 Heat test is to be run after successful completion of all previously indicated tests.
- 5.2 Run the combined reader-punch test (PRG7) for 5 minutes with the heat box down, ports closed and heat off. Load per loading procedure step 3.0.
- 5.3 Raise the heat switch on the test station panel and once the indicator light goes off, run the combined reader-punch test (PRG7) test for 10 minutes.
- 5.4 Turn the heat switch off and open the two ports on the left side of the heat box.
- 5.5 Allow 15 minutes for the machine to cool before removing the heat box.
- 5.6 Terminate the test once the machine has run for 5 minutes at room temperature.

SIZE A CODE SP NUMBER PC8-E-2 REV

ENGINEERING SPECIFICATION — CONTINUATION SHEET

TITLE PC8-E TEST PROCEDURE

6.0 FINAL OPERATION AND INSPECTION

- 6.1 Disconnect the M840 module from the PDP8-E and the cables from the reader and/or punch.
- 6.2 Check that the following paperwork has been completed :
  - Envelope
  - ECO Status Sheet
  - QC Sheet
  - 8/E Progress Report

SIZE A CODE SP NUMBER PC8-E-2 REV

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION DATE 5/18/71

TITLE PC8-E ACCEPTANCE PROCEDURE (Field)

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

ENG	APPD	SIZE	CODE	NUMBER	REV
Larry Narhi	Dave Chertkow	A	SP	7665138-0-0	

DEC FORM NO. DRA 107

ENGINEERING SPECIFICATION [redacted] CONTINUATION SHEET

TITLE PC8-E ACCEPTANCE PROCEDURE (Field)

1. Check Key Sheet and Construction Requisition to see which of the following is required.

   A. PR8-E
   B. PP8-E
   C. PC8-E
   D. MB4Ø

2. Check MB4Ø module for proper revision (circuit schematic and etch). Also check for date coding.

3. Make sure MB4Ø module has been heat tested.

4. Check G918 module for correct revisions.

5. Check mechanical workings of reader and punch (nothing is binding).

6. Insure MB4Ø is in proper module assignment list along with all other modules.

7. Load in diagnostic Maindec-8E-D2CA.

8. A. Run Test 7, fifteen minutes on each speed.
   Punch blank leader. Load reader with blank leader.
   Load 2ØØ. Start ØØØ7. S.R. 6 varies speed.
   While running Test 7, move cable connections slightly.

   B. Test 13 reader speed test.
   Install a loop tape in reader.
   Load 2ØØ. Start ØØ13. Time reader for 30 seconds.
   Stop reader by putting bit Ø on a one and then back to a zero. It will type out; it must be over 3ØØ cps.

   C. Test 14 punch speed test
   Turn punch on. Load 2ØØ. Start ØØ14. After 6Ø seconds, set bit Ø to a 1 and then back to Ø. TTY types out punch speed. Must be over 50 cps.

10. Module assignment list and physical order of modules must match each other before shipping.

11. Any PC8-E which while performing Acceptance Test halts, generates error print outs, garble, or run- other than

SIZE	CODE	NUMBER	REV
A	SP	7665138-0-0	

DEC FORM NO 16-1022

ENGINEERING SPECIFICATION [redacted] CONTINUATION SHEET

TITLE PC8-E ACCEPTANCE PROCEDURE

continuous or as specified in the diagnostic write-up will be classified defective and returned to Production for repair.

SIZE	CODE	NUMBER	REV
A	SP	7665138-0-0	

DEC FORM NO 16-1022

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY DATE Ken GULICK 3/2/71	CHECKED DATE KEN GULICK 3/2/71	SECTION 1
ENG Larry Starkis DATE 3-5-71	PROD CK Tompkins DATE 3/17/71	ISSUED SECT. 1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION PC8-E	PC8-EA
1	D-UA-PCØ4-Ø-Ø	PCØ4-BL PUNCH AND READER	1	-
2	D-UA-BCØ8K-Ø-Ø	BCØ8K-6 CABLE ASSEMBLY	2	2
3	E-CS-M84Ø-Ø-1	READER PUNCH	1	1
4	D-UA-PCØ4-Ø-Ø	PCØ4-BM PUNCH AND READER	-	1
5	B-MD-74Ø8955-Ø-Ø	BRACKET	1	1
6	B-MD-74Ø8956-Ø-Ø	CLAMP	1	1
7	9006557	KEPS NUT #4-40	2	2
8	9006012-1	SCR FL HD PAN #4-40 X 7/16 LG	2	2
9	9008864	TAPE DBL COATED PRESS SEN. 3/8	A/R	A/R

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV	ECO NO
[illegible] SPEED PUNCH AND READER	NONE	A	PL	PC8-E-Ø		
	SHEET 1 OF 1	DIST.				

DEC FORM NO
DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ENGINEERING SPECIFICATION DATE 5/18/71

TITLE PC8-E ACCEPTANCE PROCEDURE (Field)

REVISIONS

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY	DATE

ENG	APPD	SIZE	CODE	NUMBER	REV
Larry Narhi	Dave Chertkow	A	SP	7665138-0-0	

DEC FORM NO. DRA 107

ENGINEERING SPECIFICATION [redacted] CONTINUATION SHEET

TITLE PC8-E ACCEPTANCE PROCEDURE (Field)

1. Check Key Sheet and Construction Requisition to see which of the following is required.

   A. PR8-E
   B. PP8-E
   C. PC8-E
   D. M84Ø

2. Check M84Ø module for proper revision (circuit schematic and etch). Also check for date coding.

3. Make sure M84Ø module has been heat tested.

4. Check G918 module for correct revisions.

5. Check mechanical workings of reader and punch (nothing is binding).

6. Insure M84Ø is in proper module assignment list along with all other modules.

7. Load in diagnostic Maindec-8E-D2CA.

8. A. Run Test 7, fifteen minutes on each speed.
   Punch blank leader. Load reader with blank leader.
   Load 2ØØ. Start ØØØ7. S.R. 6 varies speed.
   While running Test 7, move cable connections slightly.

   B. Test 13 reader speed test.
   Install a loop tape in reader.
   Load 2ØØ. Start ØØ13. Time reader for 30 seconds.
   Stop reader by putting bit Ø on a one and then back to a zero. It will type out; it must be over 3ØØ cps.

   C. Test 14 punch speed test
   Turn punch on. Load 2ØØ. Start ØØ14. After 6Ø seconds, set bit Ø to a 1 and then back to Ø. TTY types out punch speed. Must be over 50 cps.

10. Module assignment list and physical order of modules must match each other before shipping.

11. Any PC8-E which while performing Acceptance Test halts, generates error print outs, garble, or run- other than

SIZE	CODE	NUMBER	REV
A	SP	7665138-0-0	

DEC FORM NO 16-1022

ENGINEERING SPECIFICATION [redacted] CONTINUATION SHEET

TITLE PC8-E ACCEPTANCE PROCEDURE

continuous or as specified in the diagnostic write-up will be classified defective and returned to Production for repair.

SIZE	CODE	NUMBER	REV
A	SP	7665138-0-0	

DEC FORM NO 16-1022

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

PARTS LIST

MADE BY / DATE Ken GULICK 3/2/71	CHECKED / DATE KEN GULICK 3/2/71	SECTION 1
ENG / DATE Larry Martin 3-5-71	PROD CR Tompkins / DATE 3/7/71	ISSUED SECT. 1

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	QUANTITY / VARIATION PC8-E	PC8-EA
1	D-UA-PCØ4-Ø-Ø	PCØ4-BL PUNCH AND READER	1	-
2	D-UA-BCØ8K-Ø-Ø	BCØ8K-6 CABLE ASSEMBLY	2	2
3	E-CS-M84Ø-Ø-1	READER PUNCH	1	1
4	D-UA-PCØ4-Ø-Ø	PCØ4-BM PUNCH AND READER	-	1
5	B-MD-74Ø8955-Ø-Ø	BRACKET	1	1
6	B-MD-74Ø8956-Ø-Ø	CLAMP	1	1
7	9006557	KEPS NUT #4-40	2	2
8	9006012-1	SCR FL HD PAN #4-40 X 7/16 LG	2	2
9	9008864	TAPE DBL COATED PRESS SEN. 3/8	A/R	A/R

TITLE	ASSY NO.	SIZE	CODE	NUMBER	REV	ECO NO
[illegible] SPEED PUNCH AND READER	NONE	A	PL	PC8-E-Ø		
	SHEET 1 OF 1	DIST				

DEC FORM NO
DRA 110

DIGITAL EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

ACCESSORY LIST

MADE BY J. Mc Cluskey	CHECKED	SECTION
DATE 4/10/72	DATE 4/11/72	
ENG L. Narhi	PROD	ISSUED SECT.
DATE 4/10/72	DATE 4/11/72	

LEGEND

- D DOCUMENT
- DN DOCUMENT CHANGE NOTICE
- PA PAPER TAPE ASCII
- PB PAPER TAPE BINARY
- PM PAPER TAPE READ-IN-MODE

ITEM NO.	DWG NO./PART NO.	DESCRIPTION	QUANTITY/VARIATION PC8-E	PC8-EA	PC8-EB	PC8-EC				KIT CHECK BY ____ DATE ____	INSTALLATION CHECK BY ____ DATE ____
1	PC04-BL	High Speed Reader and Punch 60 HZ	1	0	0	0					
2	PC04-BM	High Speed Reader and Punch 50 HZ	0	1	0	0					
3	PC04-BL-TABLETOP	High Speed Reader And Punch 60 HZ Tabletop	0	0	1	0					
		Version with P.C. Cover									
4	PC04-BM-TABLETOP	High Speed Reader and Punch 50 HZ Tabletop	0	0	0	1					
		Version with P.C. Cover									
5	M840	High Speed Reader and Punch Control		1	1	1					
6	BC08-K	Control Cables	2	2	2	2					
7	LIBKIT-8E-PC8E-01	Maindecs for the High Speed Reader and Punch	1	1	1	1					
8	DEC-00-PC0A-DC1	PC04/PC05 Paper tape Reader Punch Manual	1	1	1	1					
9	ROYAL MC BEE	High Speed Punch Maintenance Manual	1	1	1	1					
~~10~~	~~DEC-8E-MR3B-D-PC8E~~	~~PC8/E Maintenance Manual~~									
11	A-ML-PL8-E	PC8/E Print set	1	1	1	1					
12	DEC-00-PC04/5-DWG	PC04/PC05 Paper Tape Reader Punch Engineering Drawings	1	1	1	1					
13	36-5383	Box of Fanfold tape	1	1	1	1					
NOTE: THE FOLLOWING ITEMS MUST BE ADDED FOR FIELD ADD-ON'S ONLY											
14	90-8851	Mounting hardware Bag	1	1	0	0					
15	91-7673-06	AC Line Cord 6 Ft.	1	1	1	1					

TITLE Accessory List For PC8-E	ASSY. NO.	SIZE A	CODE AL	NUMBER PC8-E-B	REV B
	SHEET OF	DIST.			ECO NO CODE