IBM®

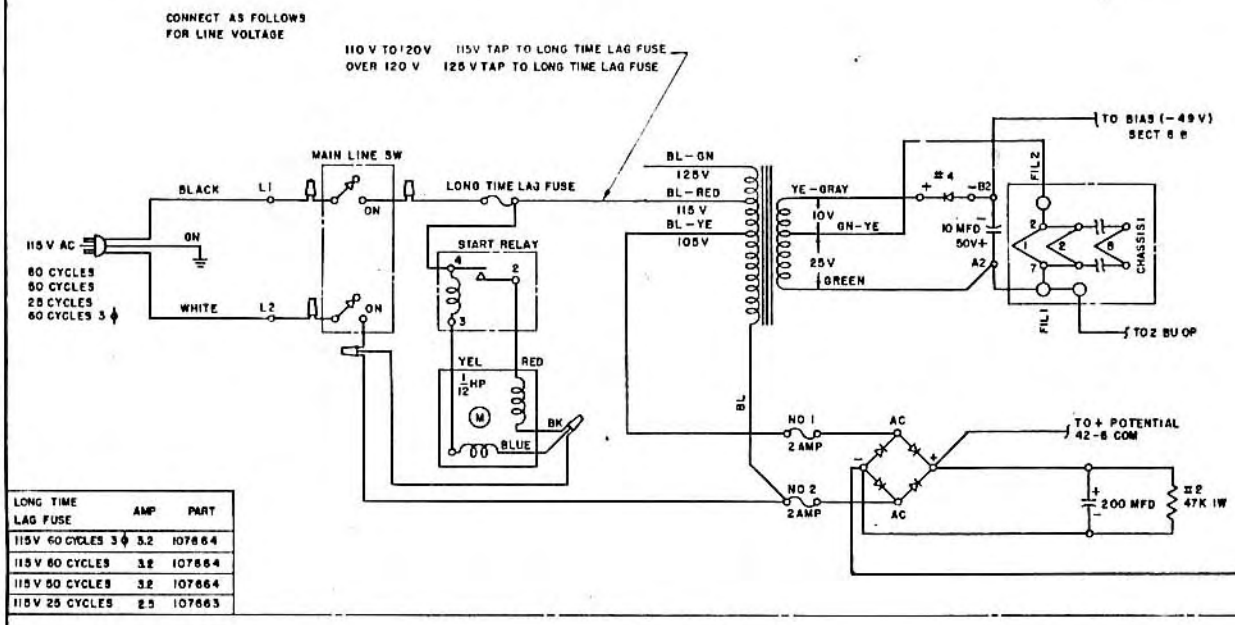
Wiring Diagram

DIAGRAM NO.- 228005P
E.C. #200560-D

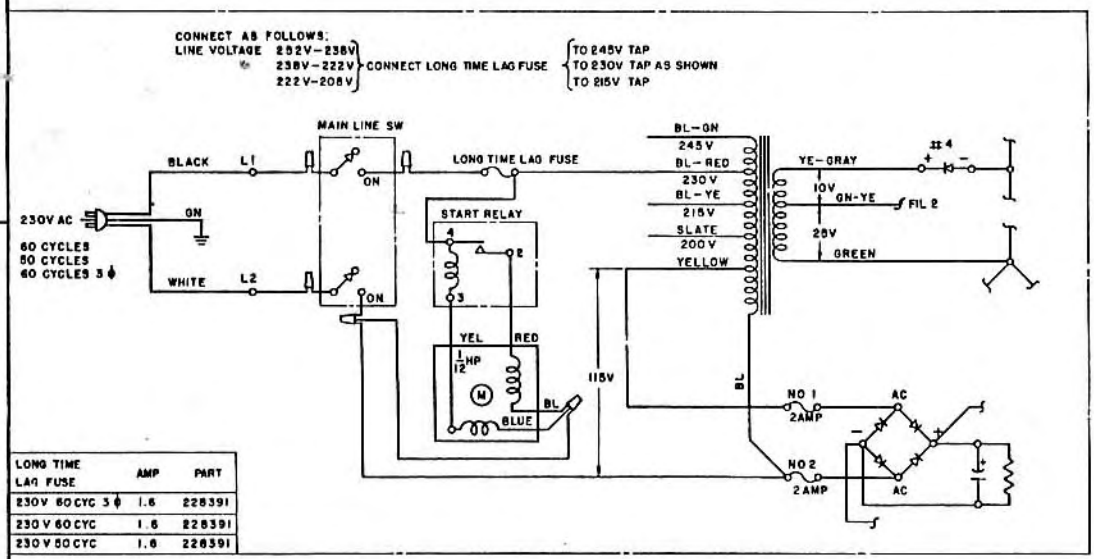
TYPE - 026 CARD PUNCH

MACHINE SERIAL NO. -

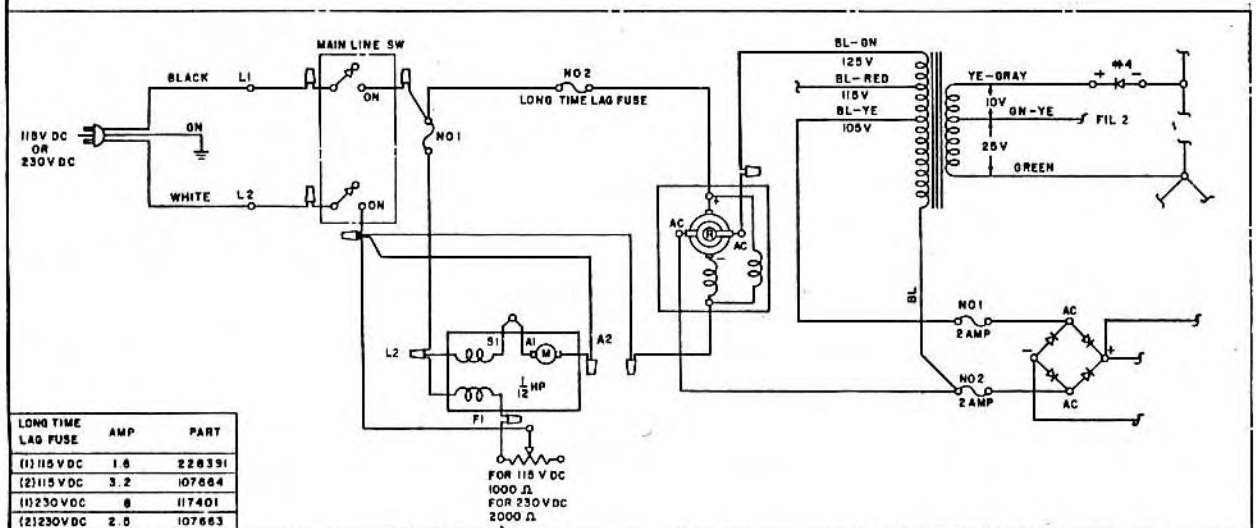
INTERNATIONAL BUSINESS MACHINES CORPORATION



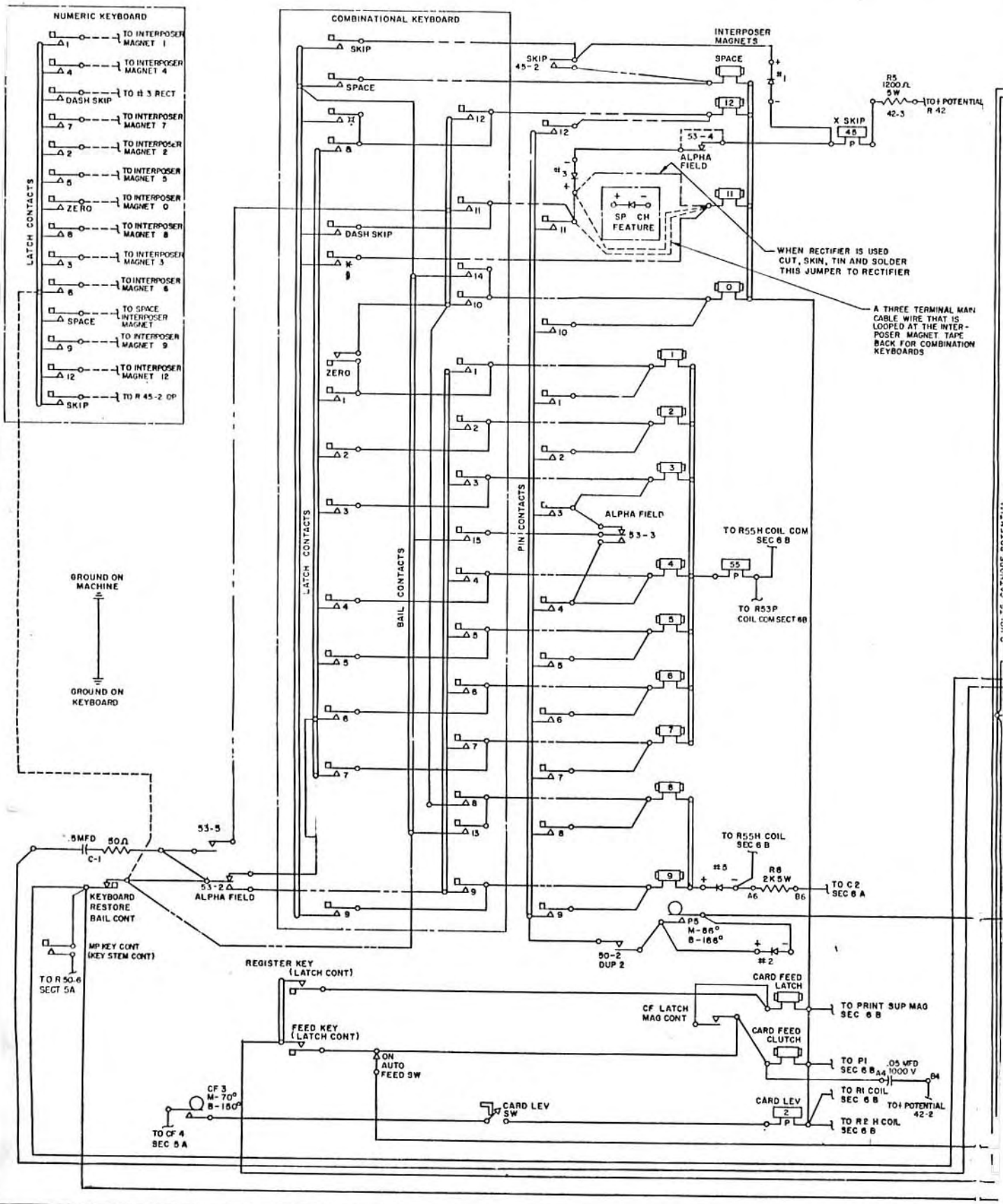
LONG TIME LAG FUSE	AMP	PART
115V 60 CYCLES 3 ϕ	3.2	107664
115 V 60 CYCLES	3.2	107664
115 V 50 CYCLES	3.2	107664
115 V 25 CYCLES	2.5	107663

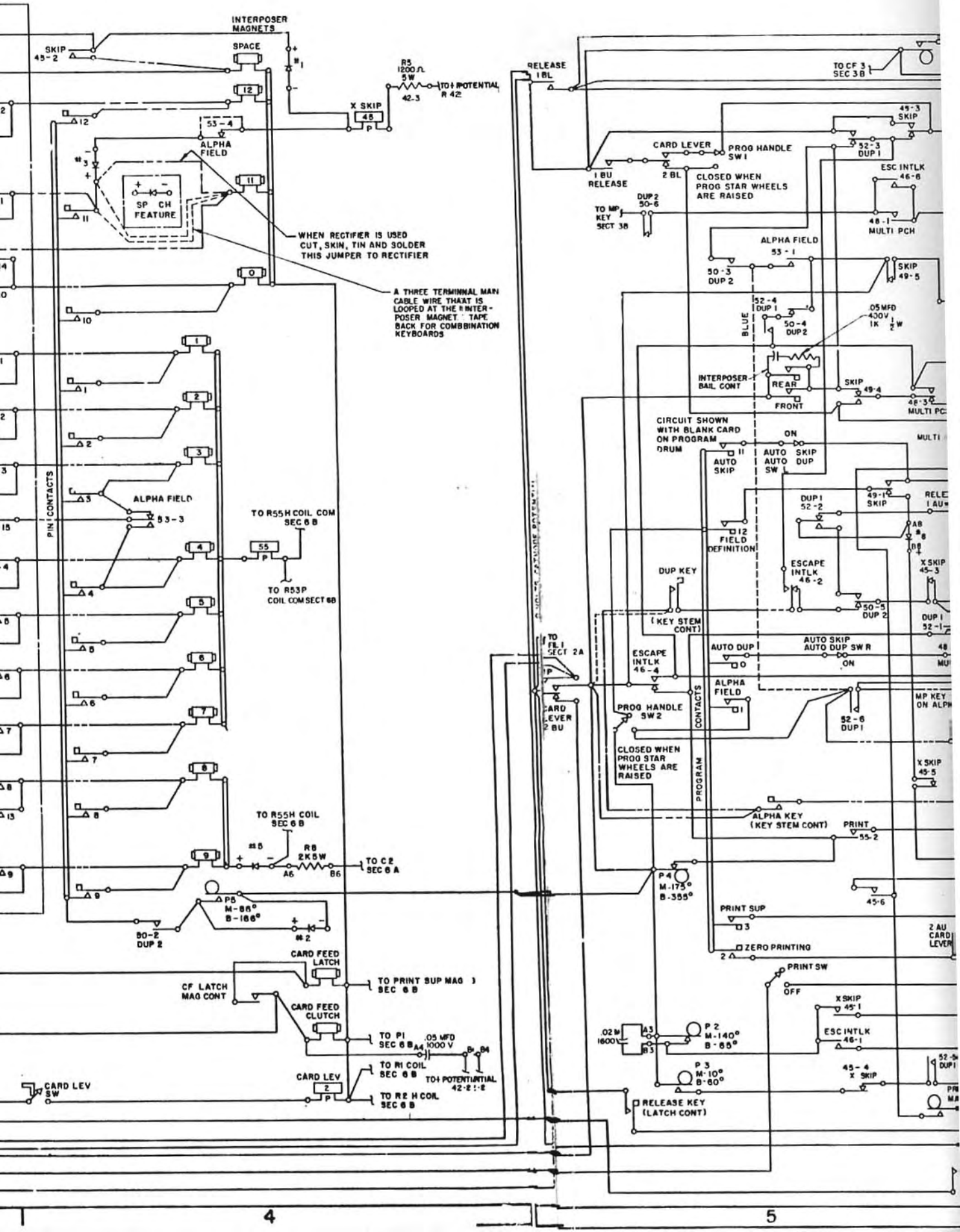


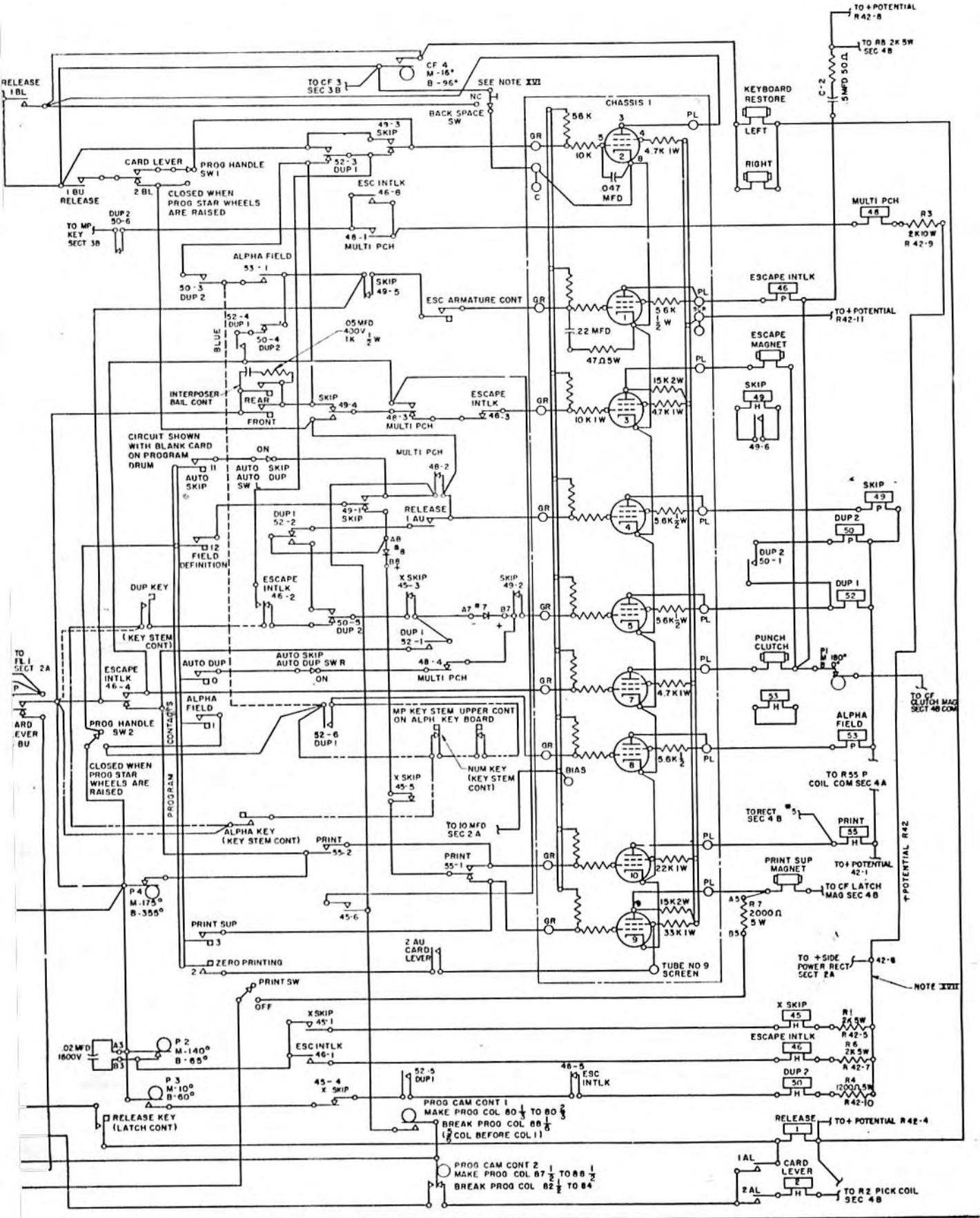
LONG TIME LAG FUSE	AMP	PART
230V 60 CYC 3 ϕ	1.6	228391
230 V 60 CYC	1.6	228391
230 V 50 CYC	1.6	228391



LONG TIME LAG FUSE	AMP	PART
(1) 115 V DC	1.6	228391
(2) 115 V DC	3.2	107664
(1) 230 V DC	8	117401
(2) 230 V DC	2.5	107663


NUMERIC KEYBOARD
TO INTERPOSER MAGNET 1
TO INTERPOSER MAGNET 4
DASH SKIP
TO #3 RECT
TO INTERPOSER MAGNET 7
TO INTERPOSER MAGNET 2
TO INTERPOSER MAGNET 5
ZERO
TO INTERPOSER MAGNET 0
TO INTERPOSER MAGNET 8
TO INTERPOSER MAGNET 3
TO INTERPOSER MAGNET 6
SPACE
TO SPACE INTERPOSER MAGNET
TO INTERPOSER MAGNET 9
TO INTERPOSER MAGNET 12
SKIP
TO R 45-2 OP
LATCH CONTACTS
COMBINATIONAL KEYBOARD
SKIP
SPACE
DASH SKIP
ZERO
LATCH CONTACTS
BAIL CONTACTS
PIN CONTACTS
INTERPOSER MAGNETS
SKIP 45-2
SPACE
X SKIP
ALPHA FIELD
SP CH FEATURE
R5 1200Ω 5W
42-3
TO + POTENTIAL R 42
WHEN RECTIFIER IS USED CUT, SKIN, TIN AND SOLDER THIS JUMPER TO RECTIFIER
A THREE TERMINAL MAN CABLE WIRE THAT IS LOOPED AT THE INTERPOSER MAGNET TAPE BACK FOR COMBINATION KEYBOARDS
ALPHA FIELD
TO R55H COIL COM SEC 6B
TO R53P COIL COM SECT 6B
GROUND ON MACHINE
GROUND ON KEYBOARD
.5MFD
50Ω
C-1
53-5
53-2
ALPHA FIELD
KEYBOARD RESTORE BAIL CONT
MP KEY CONT (KEY STEM CONT)
TO R 50-6 SECT 5A
TO R55H COIL SEC 6B
R6 2K5W
A6
B6
TO C2 SEC 6A
P5 M-86° B-166°
50-2 DUP 2
REGISTER KEY (LATCH CONT)
CARD FEED LATCH
CF LATCH MAG CONT
TO PRINT SUP MAG SEC 6B
FEED KEY (LATCH CONT)
CARD FEED CLUTCH
ON AUTO FEED SW
TO PI SEC 6B
.05 MFD 1000 V
TO RI COIL SEC 6B
TO + POTENTIAL 42-2
CF 3 M-70° B-150°
TO CF 4 SEC 5A
CARD LEV SW
CARD LEV
TO RE H COIL SEC 6B


INTERPOSER MAGNETS
SKIP 45-2
SPACE
X SKIP 45 P
R5 1200Ω 5W 42-3
TO + POTENTIAL R 42
ALPHA FIELD 53-4
SP CH FEATURE
WHEN RECTIFIER IS USED CUT, SKIN, TIN AND SOLDER THIS JUMPER TO RECTIFIER
A THREE TERMINNAL MAIN CABLE WIRE THAAT IS LOOPED AT THE INTER-POSER MAGNET TAPE BACK FOR COMBBINATION KEYBOARDS
PIN I CONTACTS
ALPHA FIELD 53-3
TO R55H COIL COM SEC 6B
55 P
TO R53P COIL COM SECT 6B
TO R55H COIL SEC 6B
R8 2K 5W
A6 B6
TO C2 SEC 6A
P5 M-86° B-166°
50-2 DUP 2
CARD FEED LATCH
CF LATCH MAG CONT
TO PRINT SUP MAG SEC 6B
CARD FEED CLUTCH
TO P1 SEC 6B
.05 MFD 1000 V
A4 B4
TO R1 COIL SEC 6B
TO + POTENTIAL 42-2
CARD LEV
CARD LEV SW
TO R2 H COIL SEC 6B
RELEASE 1 BL
TO CF 3 SEC 3B
CARD LEVER PROG HANDLE SW 1
1 BU RELEASE
2 BL
CLOSED WHEN PROG STAR WHEELS ARE RAISED
DUP 2 50-6
TO MP KEY SECT 3B
49-3 SKIP
52-3 DUP 1
ESC INTLK 46-6
48-1 MULTI PCH
ALPHA FIELD 53-1
50-3 DUP 2
SKIP 49-5
52-4 DUP 1
50-4 DUP 2
BLUE
.05 MFD 400V 1K 1/2 W
INTERPOSER BAIL CONT
REAR
FRONT
SKIP 49-4
48-3 MULTI PC
CIRCUIT SHOWN WITH BLANK CARD ON PROGRAM DRUM
AUTO SKIP
ON
AUTO SKIP SW
AUTO SKIP DUP
49-1 SKIP
DUP I 52-2
12 FIELD DEFINITION
ESCAPE INTLK 46-2
X SKIP 45-3
DUP KEY
(KEY STEM CONT)
50-5 DUP 2
DUP I 52-1
TO FL I SECT 2A
AUTO DUP
AUTO SKIP AUTO DUP SW R
ON
ESCAPE INTLK 46-4
ALPHA FIELD 1
PROG HANDLE SW 2
CLOSED WHEN PROG STAR WHEELS ARE RAISED
CONTACTS
PROGRAM
52-6 DUP I
MP KEY ON ALPH
X SKIP 45-5
ALPHA KEY (KEY STEM CONT)
PRINT 55-2
P4 M-175° B-355°
45-6
PRINT SUP 3
ZERO PRINTING 2
2 AU CARD LEVER
PRINT SW
OFF
X SKIP 45-1
ESC INTLK 46-1
.02 M 1600 V
A3 B3
P2 M-140° B-85°
P3 M-10° B-60°
45-4 X SKIP
RELEASE KEY (LATCH CONT)


TO + POTENTIAL R42-8
TO R8 2K 5W SEC 4B
C-2 .5MFD 50Ω
CF 4 M-16° B-96°
TO CF 3 SEC 3B
SEE NOTE XVI
NC
BACK SPACE SW
CHASSIS 1
KEYBOARD RESTORE
LEFT
RIGHT
RELEASE 1BL
1 BU RELEASE
2 BL
CARD LEVER
PROG HANDLE SW 1
CLOSED WHEN PROG STAR WHEELS ARE RAISED
49-3 SKIP
52-3 DUP 1
ESC INTLK 46-6
46-1 MULTI PCH
DUP 2 50-6
TO MP KEY SECT 3B
MULTI PCH 48
R3 2K 10W R 42-9
ALPHA FIELD 53-1
50-3 DUP 2
SKIP 49-5
ESC ARMATURE CONT
ESCAPE INTLK 46 P
TO + POTENTIAL R42-11
52-4 DUP 1
50-4 DUP 2
.05 MFD 400V 1K 1/2 W
BLUE
.22 MFD
47Ω 5W
ESCAPE MAGNET
INTERPOSER BAIL CONT
REAR
FRONT
SKIP 49-4
ESCAPE INTLK 46-3
MULTI PCH
15K 2W
47K 1W
10K 1W
SKIP 49 H
49-6
CIRCUIT SHOWN WITH BLANK CARD ON PROGRAM DRUM
AUTO SKIP
ON
AUTO SKIP SW
SKIP DUP
MULTI PCH 48-2
SKIP 49 P
49-1 SKIP
RELEASE 1 AU
DUP 2 50 P
DUP 2 50-1
DUP 1 52-2
12 FIELD DEFINITION
DUP KEY
ESCAPE INTLK 46-2
X SKIP 45-3
SKIP 49-2
DUP 1 52
50-5 DUP 2
DUP 1 52-1
(KEY STEM CONT)
PUNCH CLUTCH
TO FL 1 SECT 2A
AUTO DUP
AUTO SKIP AUTO DUP SW R
ON
48-4 MULTI PCH
ESCAPE INTLK 46-4
ALPHA FIELD 1
PROG HANDLE SW 2
CONTACTS
PROGRAM
MP KEY STEM UPPER CONT ON ALPH KEY BOARD
52-6 DUP 1
NUM KEY (KEY STEM CONT)
BIAS
TO R55 P COIL COM SEC 4A
X SKIP 45-5
TO 10 MFD SEC 2A
TORECT SEC 4B
PRINT 55 H
ALPHA KEY (KEY STEM CONT)
PRINT 55-2
PRINT 55-1
PRINT SUP MAGNET
TO + POTENTIAL 42-1
TO CF LATCH MAG SEC 4B
22K 1W
15K 2W
33K 1W
R7 2000Ω 5W
P4 M-175° B-355°
45-6
PRINT SUP 3
ZERO PRINTING 2
2 AU CARD LEVER
TUBE NO 9 SCREEN
TO + SIDE POWER RECT SECT 2A
42-6
NOTE XVII
PRINT SW
OFF
X SKIP 45-1
.02 MFD 1600V
P2 M-140° B-85°
ESC INTLK 46-1
P3 M-10° B-60°
45-4 X SKIP
52-5 DUP 1
46-5 ESC INTLK
PROG CAM CONT 1
MAKE PROG COL 80 1/2 TO 80 2/3
BREAK PROG COL 88 1/2 (2/3 COL BEFORE COL 1)
RELEASE KEY (LATCH CONT)
RELEASE 1 TO + POTENTIAL R42-4
1AL
CARD LEVER 2 H
2AL
TO R2 PICK COIL SEC 4B
PROG CAM CONT 2
MAKE PROG COL 87 1/2 TO 88 1/2
BREAK PROG COL 82 1/2 TO 84
X SKIP 45 H
R1 2K 5W R 42-5
ESCAPE INTLK 46 H
R6 2K 5W R 42-7
DUP 2 50 H
R4 1200Ω 5W R42-10
+POTENTIAL R42

DUO RELAYS

RELAY NO	P COIL	H COIL	AL PT	AU PT	BL PT	BU PT	PART NO
1	6B		6B	5A	5A	5A	206872
2	4B	6B	6B	5B	5A	5B	228210

RESISTORS

RESISTOR NO	SEC	RESISTANCE	WATTS	PART NO
1	6B	2000	5	310914
2	2A	47000	1	180646
3	6A	2000	10	310915
4	6B	1200	5	310913
5	4A	1200	5	310913
6	6B	2000	5	310914
7	6B	2000	5	310914
8	4B	2000	5	310914
TOLERANCE OF ALL RESISTORS ± 10%				

TERMINAL & RESISTOR BLOCK RELAY GATE

RES BLOCK	1	2	3	4	5	6	7	8	9	10	11	12	13
42	6B	4B	4A	6B	6B	6B	6B	6A	6A	6B	6A		

RECTIFIERS

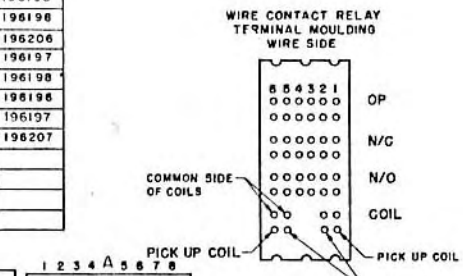
RECT NO	SEC	MILLIAMPERE RATING	PART NO
DC SUPPLY	2A	620	310890
1	4A	100	76162
2	4B	100	76162
3	4A	100	76162
4	2A	75	225618
5	4B	100	76162
6			
7	6B	3	301917
8	5A	3	301917

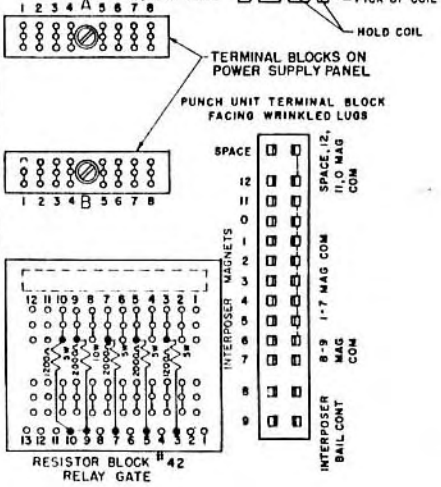
WIRE CONTACT RELAYS

RELAY NO	P COIL	H COIL	1	2	3	4	5	6	PART NO
45	4A	6B	5B	4A	5B	5B	5B	5B	196198
46	6A	6B	5B	5B	6A	5B	6B	5A	196198
48	6A		5A	5A	5A	5B			196206
49	6A	6A	5A	6B	5A	5A	5A	6A	196197
50	6A	6B	6A	4B	5A	5A	5B	5A	196198
52	6B		5B	5A	5A	5A	5B	5B	196198
53	6B	6B	5A	3B	4A	4A	3B		196197
55	4A	6B	5B	5B					196207

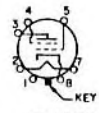
CAPACITORS

NAME	SEC	CAPACITANCE	SERIES RESISTANCE	WVDC	PART NO
DC SUPPLY	2A	200 MFD		200	167726
C-1 CAN TYPE	3B	.5 MFD	50 Ω	400	173706
C-2 CAN TYPE	6A	.5 MFD	50 Ω	400	173706
BAIL CONTACTS	5A	.05 MFD	1000 Ω	400	310893
TERM A3 & B3	5B	.02 MFD		1600	310920
TERM A4 & B4	4B	.05 MFD		1000	310918
TERM A2 & B2	2A	10 MFD		50	310919

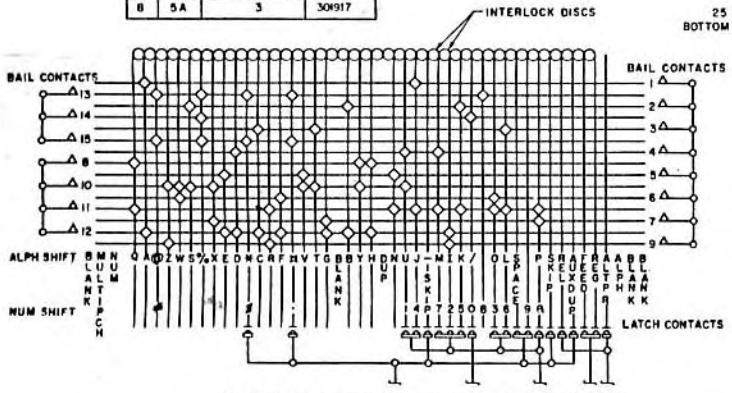




RESISTOR BLOCK # 42
RELAY GATE



25 L6 TUBE
BOTTOM VIEW OF SOCKET



COMBINATION KEYBOARD PERMUTATION AND LOCATION CHART
(FRONT VIEW)

NOTES

X ALL TUBES ARE 25L6'S

XI ALL BIAS RESISTORS ARE 56K, .5W, PART NO 301149
ALL SCREEN RESISTORS 4.7K, 1W, PART NO 169129 UNLESS OTHERWISE NOTED
ALL GRID PROTECTION RESISTORS ARE 10K, 1W, PART NO 184093

XII TUBE #8 AND RELAY 53 USED ONLY ON MACHINES WITH COMB. KEYBOARDS

XIII ——— - - - - ——— INDICATES WIRING WHEN COMB. KEYBOARD USED
——— — — — INDICATES WIRING WHEN NUM. KEYBOARD USED

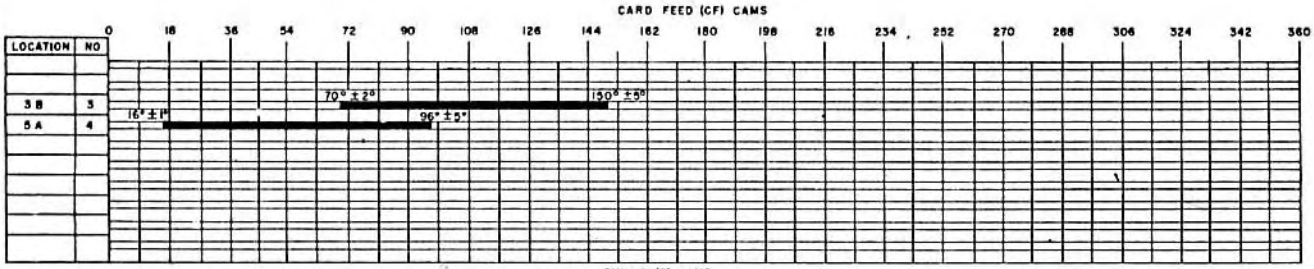
XIV SPECIAL CHARACTER KEYS ARE MECHANICALLY INOPERATIVE ON STANDARD MACHINES

XV ═══ INDICATES SOLID BAR COMMON

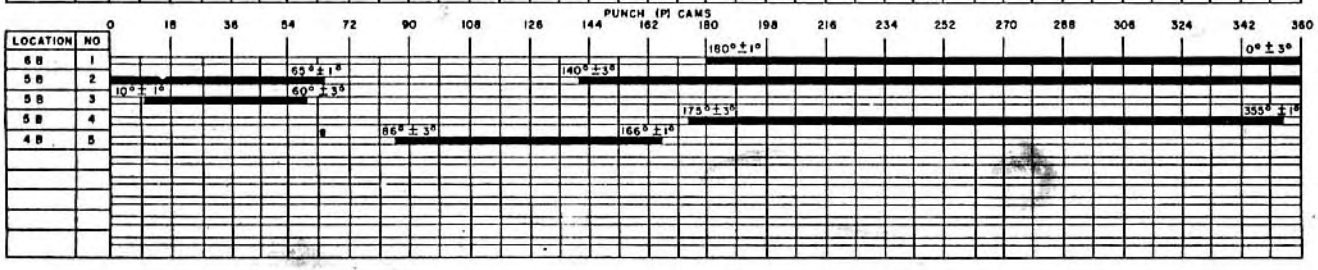
XVI THE MARKED NC TERMINAL ON THE SWITCH IS THE TERMINAL WIRED AS SHOWN

XVII RESISTOR COMMON NOT WIRED AS SHOWN

CARD FEED (CF) CAMS



PUNCH (P) CAMS

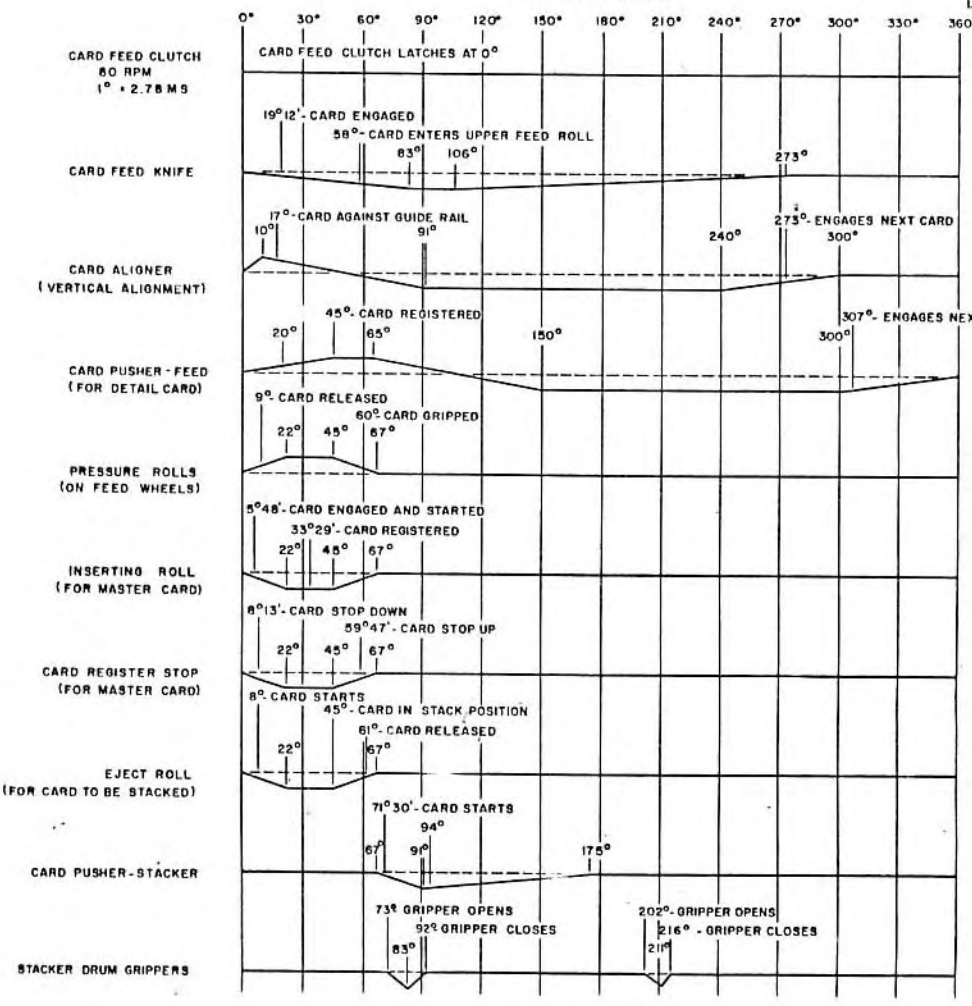


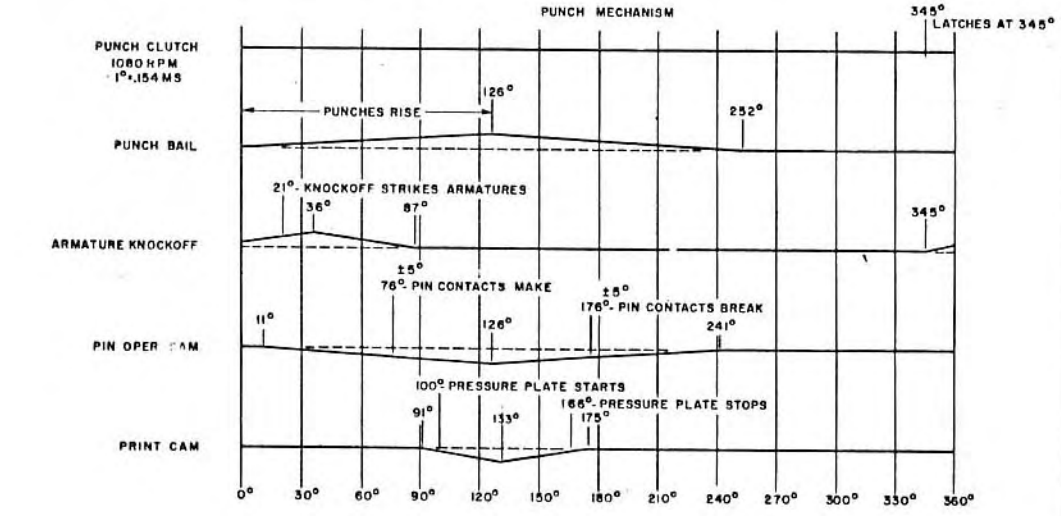
STANDARDS CODE	RELEASED FOR ASSEM	QTY
NONE		

228005P

DATE	CHANGE NO
SEE INDEX CARD	
4-24-53	52455
1-11-54	52427
6-7-55	54600-A
8-15-56	200560-A
11-28-56	200560 C
2-4-57	2005600

MECHANICAL TIME CHART
CARD FEED MECHANISM





INTERNATIONAL BUSINESS MACHINES CORP					
MACH	PRINTING CARD PUNCH				
		MODEL	026		
NAME	WIRING DIAGRAM				
DRAW	LTB	9-29-49	SCALE	NONE	
CHECK	LTB	9-29-49	TRAC	EJS	12-3-53
APPRO	ABC	10-31-49	CHECK		