

Type	EP	Test Voltage * (E_{SG} except in case of 6J5) (Volts)	Cutoff Voltages **		Minimum I_p (Milliamperes)	Minimum I_{SG}^{***} (Milliamperes)	Maximum Allowable Voltage		Maximum allowable steady duty plate current (milliamperes) (These ratings may be exceeded by 25% when the tube is new)
			Grid 1 (volts)	Grid 3 (volts)			Plate (volts)	Screen (volts)	
6Y6	150	40	-9.5	--	15	0.485	75	75	25
6L6	150	75	-11	--	28	1.0	250	225	20
6V6	150	75	-10	--	19.5	0.9	180	180	15
807	NOTE 1	NOTE 2	-100	--	50	3	600	250	20
6L7	150	75	-12	-8	5	6	150	75	2.5
6SA7	"	75	-7	-14	5	7.5	150	75	2.5
6SJ7	"	75	-5.5	-50	5	1.25	150	90	2.5
6AC7	"	21	-1	--	0.3	0.05	150	100	4.0
6J5 (6SN7)	75	--	-4.5	--	5.0	---	150		2.5

* Linear interpolation is to be used only in the range between 66% and 150% of the stated plate voltage (E_p) or screen grid voltage (E_{SG}). If a tube is to be used outside of this range, tests should be made.

** Bias in volts applied to the first (second) control grid, the second (first) control grid being connected to the cathode. If the applied bias does not reduce the plate current to less than 1/7 of the minimum plate current stated in the fifth column, the tube is rejected, except the case of 807, I_p at grid 1 cut-off should be less than 20 μA .

*** The minimum value of plate current (I_p) or screen grid current (I_{SG}) for an acceptable tube under the condition of control grids being connected to the cathode.

Note 1- $E_p=190$ v. for emission test. $E_p=640$ v for cut-off test.

Note 2- 190v through 20K resistor. To test screen grid cut-off $E_{SG}=50$. $I_p < 3.5 \mu A$

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

TEST STANDARDS FOR ENIAC TUBES

Drawn by:

C. SHEARMAN
SEPT. 10, 1945

Checked by:

A. T. Lu
9-10-45

Approved by:

PX-1-10

Notes 1 & 2
6Y6 I_p WAS 24
 I_{SG} WAS 0.8
807 I_p WAS 70
R. W. Moore
3-11-48

H ₁	-555v.
H ₂	-450v.
H ₃	-295v.
H ₄	-130v.
H ₅	-85v.
H ₆	0v.
H ₇	-320v.
H ₈	-345v.
H ₉	-245v.
H ₁₀	-180v.

H ₁₁	-150v.
H ₁₂	+280v.
H ₁₃	-385v.
H ₁₄	+75v.
H ₁₅	+150v.
H ₁₆	-200v.
H ₁₇	+220v.
H ₁₈	+285v.
H ₁₉	+95v.
H ₂₀	+20v.

H ₂₁	-475v.
H ₂₂	-300v.
H ₂₃	+500v.
H ₂₄	-700v.
H ₂₅	-175v.
H ₂₆	-640v.
H ₂₇	-90v.
H ₂₈	-920v.
H ₂₉	-815v.
H ₃₀	+325v.

H ₃₁	-360v.
H ₃₂	-235v.
H ₃₃	-125v.
H ₃₄	+110v.
H ₃₅	-470v.

H₁ -555, H₂ -450, H₃ -295, H₄ -130, H₅ -85, H₆ 0, H₇ -320, H₈ -345, H₉ -245, H₁₀ -180
 H₁₁ -150, H₁₂ +280, H₁₃ -385, H₁₄ +75, H₁₅ +150, H₁₆ -200, H₁₇ +220, H₁₈ +285, H₁₉ +95, H₂₀ +20
 H₂₁ -475, H₂₂ -300, H₂₃ +500, H₂₄ -700, H₂₅ -175, H₂₆ -640, H₂₇ -90, H₂₈ -920, H₂₉ -815, H₃₀ +325
 H₃₁ -360, H₃₂ -235, H₃₃ -125, H₃₄ +110, H₃₅ -470
 H₃₅ -470V ADDED
 R. M. ... 9-17-45

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

EN172 HEATER LEVELS

MATERIAL	FINISH	SCALE
Drawn by: J. CUMMINGS 7-9-45	Checked by: <i>[Signature]</i> aub	Approved by:
PX-1-102		

Type	EP	Test Voltage * (E_{SG} except in case of 6J5) (Volts)	Cutoff Voltages **		Minimum I_p *** (Milliamperes)	Minimum I_{SG} *** (Milliamperes)	Maximum Allowable Voltage		Maximum allowable steady duty plate current (milliamperes) (These ratings may be exceeded by 25% when the tube is new)
			Grid 1 (volts)	Grid 3 (volts)			Plate (volts)	Screen (volts)	
6Y6	150	40	-9.5	--	15	0.485	75	75	25
6L6	150	75	-11	--	28	1.0	250	225	20
6V6	150	75	-10	--	19.5	0.9	180	180	15
807	NOTE 1	NOTE 2	-100	--	50	3	600	250	20
6L7	150	75	-12	-8	5	6	150	75	2.5
6SA7	"	75	-7	-14	5	7.5	150	75	2.5
6SJ7	"	75	-5.5	-50	5	1.25	150	90	2.5
6AC7	"	21	-1	--	0.3	0.05	150	100	4.0
6J5 (6SN7)	75	--	-4.5	--	5.0	---	150		2.5

* Linear interpolation is to be used only in the range between 66% and 150% of the stated plate voltage (E_p) or screen grid voltage (E_{SG}). If a tube is to be used outside of this range, tests should be made.

** Bias in volts applied to the first (second) control grid, the second (first) control grid being connected to the cathode. If the applied bias does not reduce the plate current to less than 1/7 of the minimum plate current stated in the fifth column, the tube is rejected, except the case of 807, I_p at grid 1 cut-off should be less than 20 μ A.

*** The minimum value of plate current (I_p) or screen grid current (I_{SG}) for an acceptable tube under the condition of both control grids being connected to the cathode.

Note 1- $E_p=190$ v. for emission test. $E_p=640$ v for cut-off test.

Note 2- 190v through 20K resistor. To test screen grid cut-off $E_{SG}=50$. $I_p < 3.5\mu$ A

MOORE SCHOOL OF ELECTRICAL ENGINEERING UNIVERSITY OF PENNSYLVANIA		TEST STANDARDS FOR ENIAC TUBES	

1
 2
 3-11-48
 6Y6 I_p WAS 24
 6L6 I_{SG} WAS 0.8
 807 I_p WAS 70
 R. M. ...

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

CIRCUIT No. 1

INITIATING UNIT	
CYCLING UNIT	
MASTER PROGRAMMER	PANEL 1
"	PANEL 2
ACCUMULATOR No. 1	
"	2
"	3
"	4
DIVIDER	
ACCUMULATOR No. 5	
"	6
"	7
"	8

NUMBER OF TRANSFORMERS		
PHASE		
A	B	C
*	*	*
5	5	
4*	4#	
3	3	Calculator
3	3	
3	3	Calculator
3	3	Calculator
3	3	Calculator
3	3	Calculator

PHASE CONNECTION
IN POWER TROUGH

TERMINAL OF A.C.
INPUT PLUG
(13) (15) (16)

WIRE COLOR**
R W B

A	NEUTRAL	B
A		B
B		C
B		C
B		C
B		C
B		C
B		C
B		C
A		C

2 P.A.[⊙] OUTLETS ON PH. A

CIRCUIT No. 2

ACCUMULATOR No. 9	
" No. 10	
CONVERTER No. 1	
ACCUMULATOR No. 11	
" 12	
H.S. MULTIPLIER PANEL 1	
" PANEL 2	
" PANEL 3	
ACCUMULATOR No. 13	
" 14	
" 15	
" 16	

3	3	3
3	3	3
3	3	3 1/2
3	3	3
2	3	3
3	3	3
3	3	3
3	3	3
3	3	3
3	3	3
3	3	3

A	NEUTRAL	B
B		C
A		B
A		C
A		C
A		C
A		C
A		C
A		C
A		C

2 P.A.[⊙] OUT. - 1 on PH. B, 1 on PH. C.

2 P.A.[⊙] OUT. - 1 on PH. A - 1 on PH. C

CIRCUIT No. 3

REGISTER	
ACCUMULATOR No. 17	
" 18	
" 19	
" 20	
FUNCTION TABLE No. 1	PANEL 1
" " " 1	" 2
" " " 2	" 1
" " " 2	" 2
" " " 3	" 1
" " " 3	" 2
CONSTANT TRANSMITTER	PANEL 1
"	2
"	3
PRINTER	PANEL 1
"	2
"	3

3	3	3
3	3	3
3	3	3
3	3	3
2	3	3
3	3	3
3	3	3
2	3	3
2	3	3
2	1	3
—	—	—
—	—	—
3	—	3

B	NEUTRAL	C
A		B
B		C
A		C
A		B
B		C
A		B
A		C
B		A
A		C
A	C	

2 P.A.[⊙] OUTLETS ON PH. B

- * FED THRU CYCLING UNIT
- # INCLUDES 1 IN CYCLING UNIT
- ** IN 3 CONDUCTOR CABLE TO UNIT'S INPUT PLUG
- ⊙ P.A. = PULSE AMPLIFIER

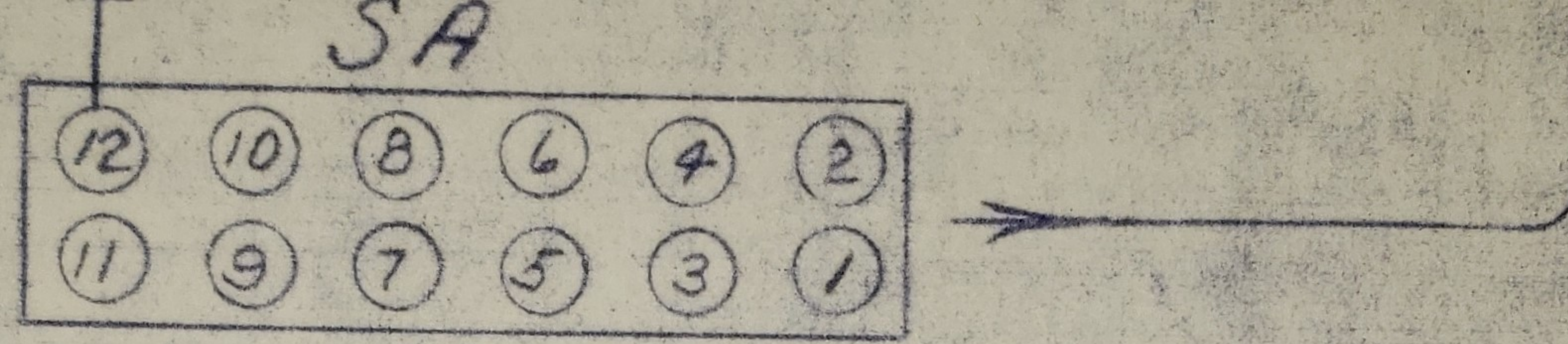
NEW PANELS AND P.A. OUT LETS SHOWN	1
CONVERTER ADDED.	2
R. Merwin 30 SEPT 47	2
REVISIONS	3
R. Merwin 3-11-48	3

DRAWN BY	H.M.W. 1-27-47
CHECKED BY	J.A.C. 2-5-47
APPROVED BY	

LOADING CHART FOR ENIAC
120-208 V. HEATER CIRCUITS

SCALE
PX-1-113

INPUT



**MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA**

PULSE AMPLIFIER

MATERIAL	PIN	QTY
—	—	—

DRAWN BY:

CHECKED BY:

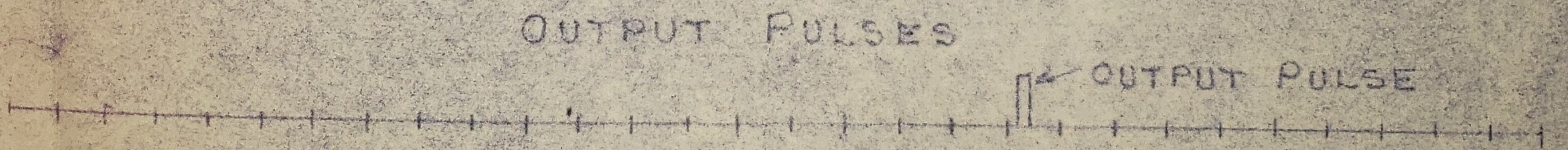
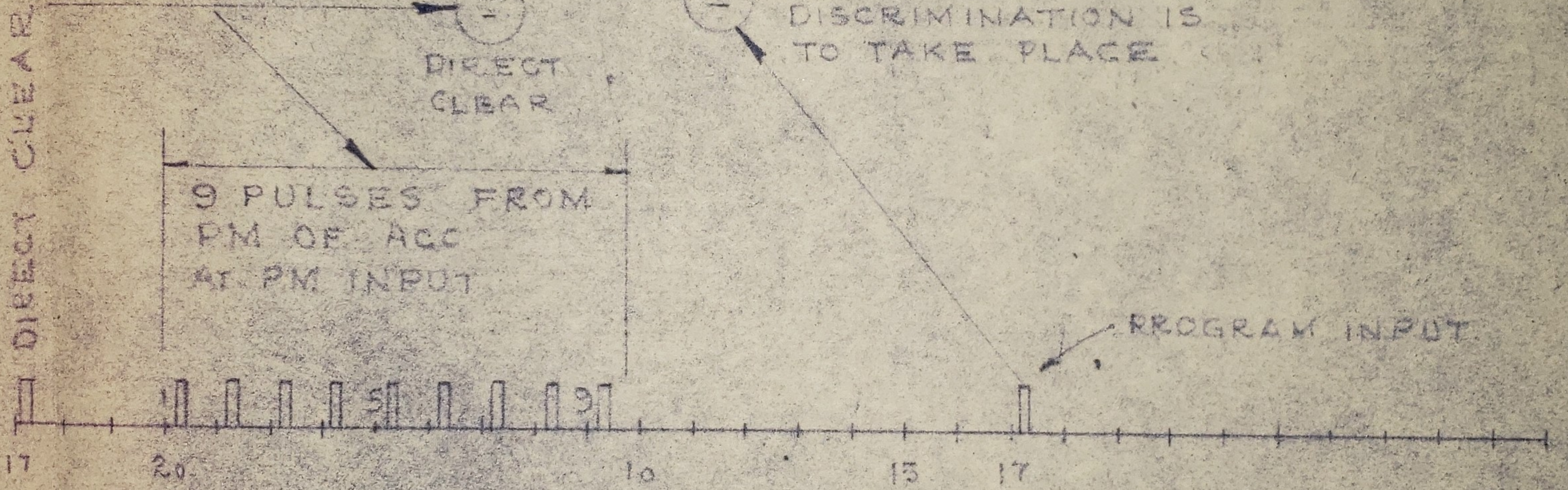
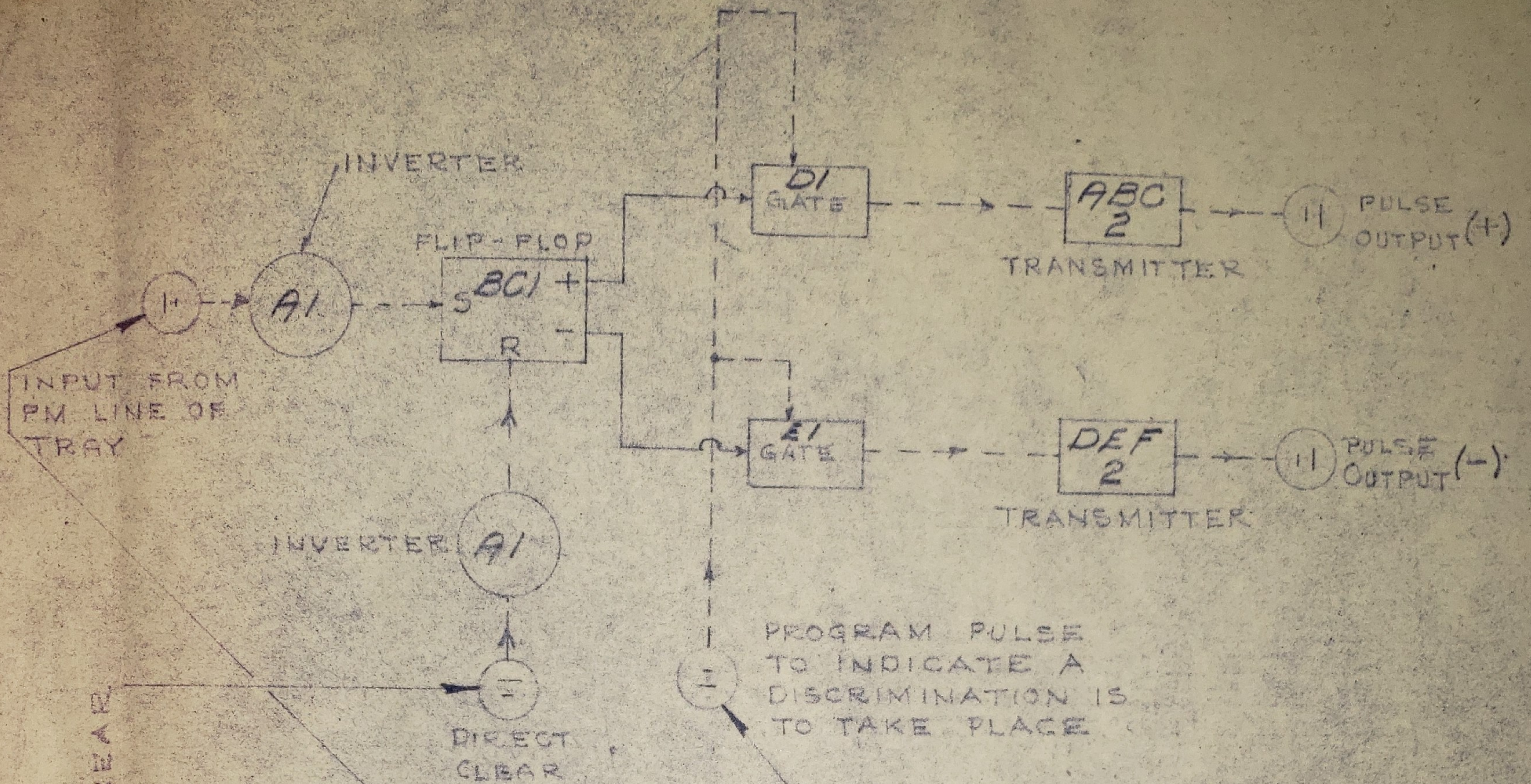
APPROVED BY:

CJM=C

OCT. 24, 1945

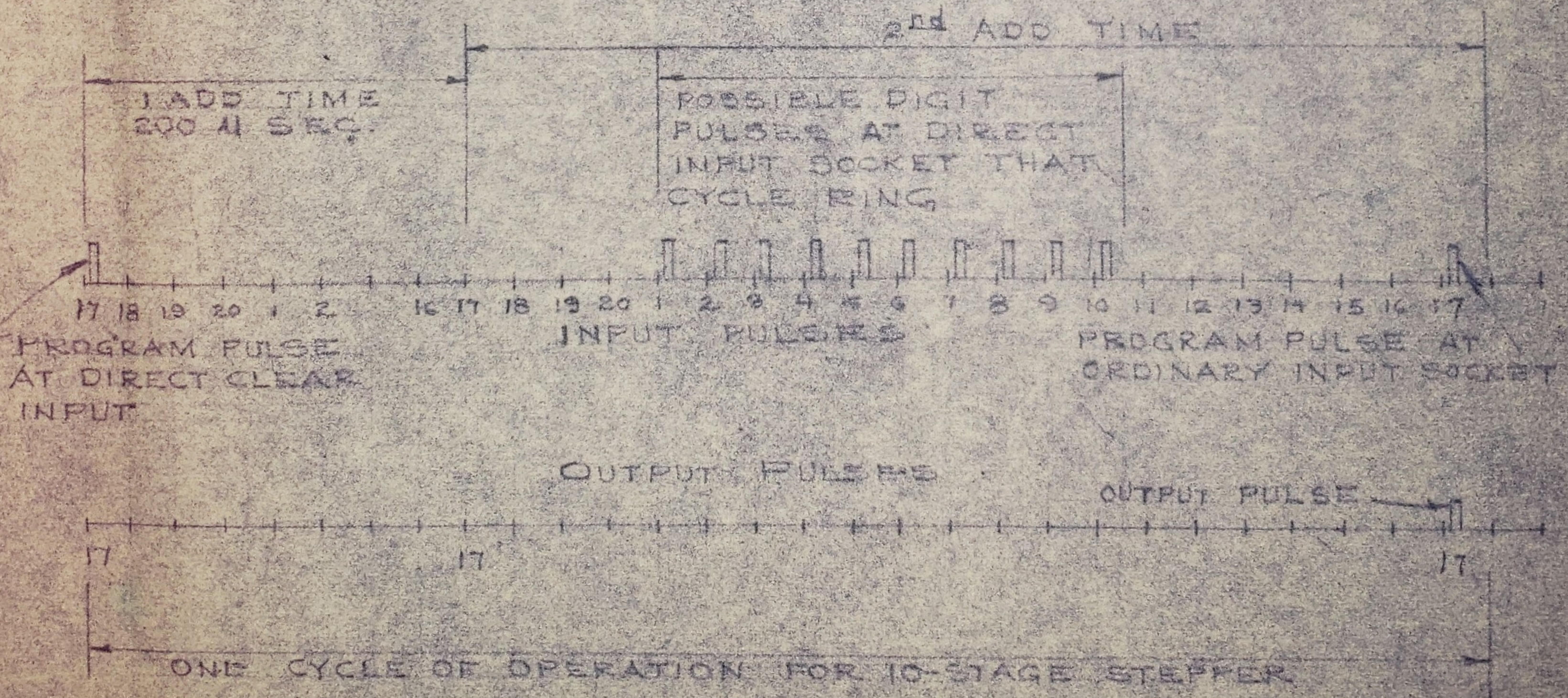
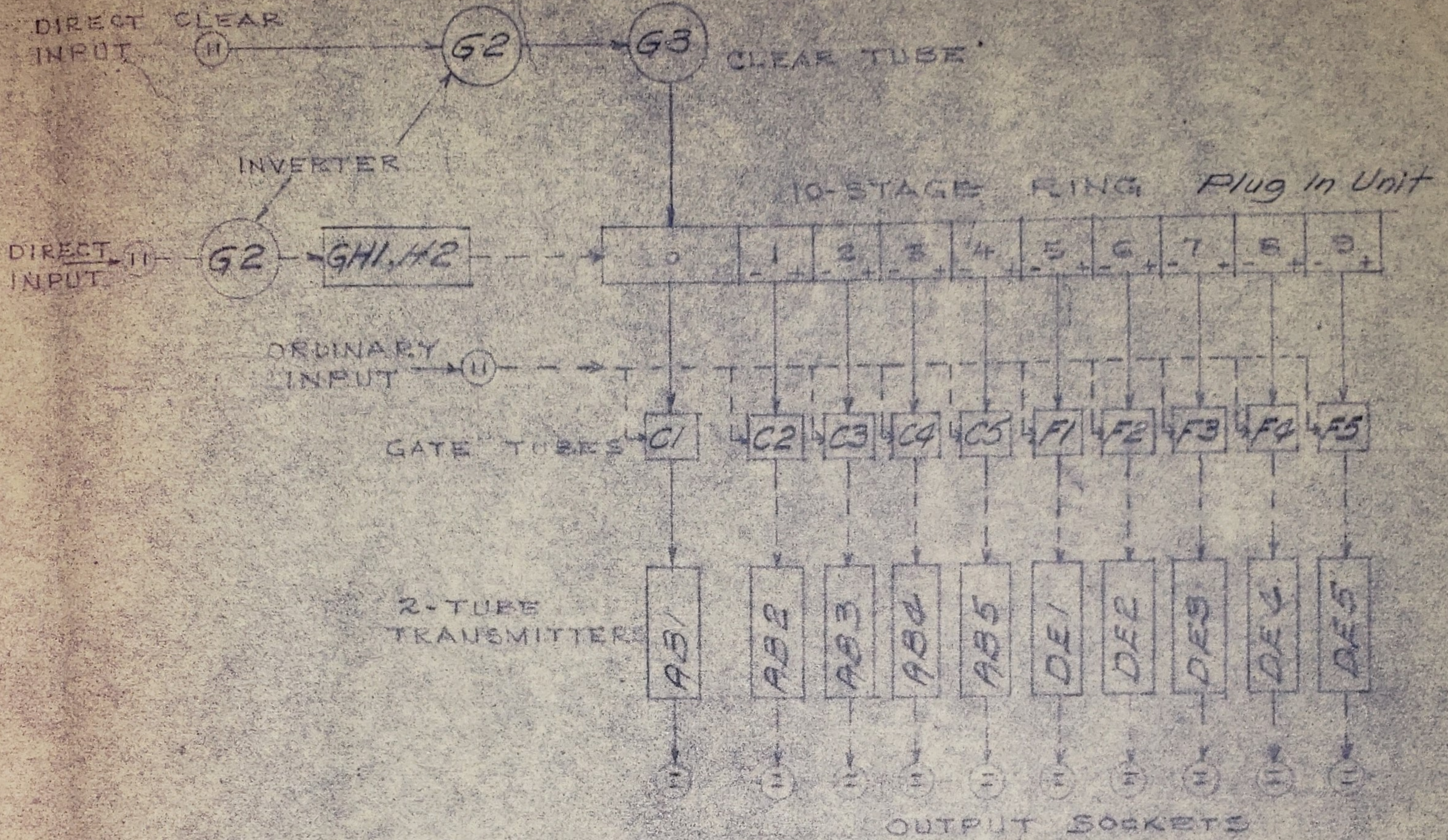
J. P. E. Jr.

PX-4-116



P.M. DISCRIMINATOR
TIMING CHART

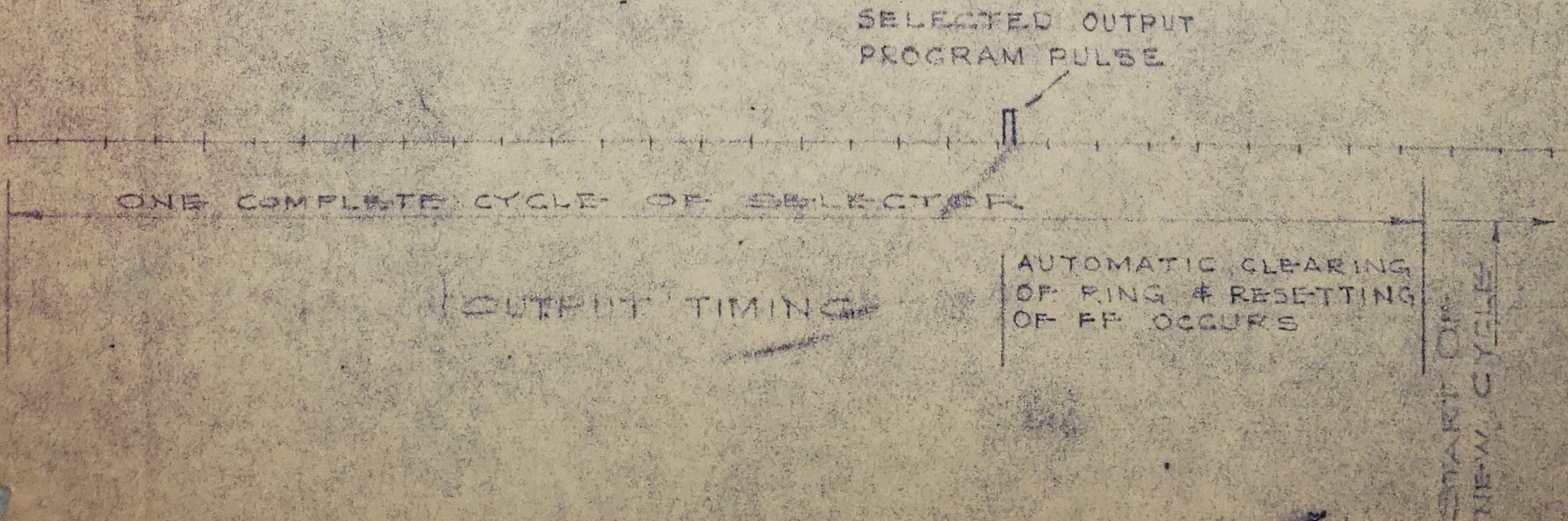
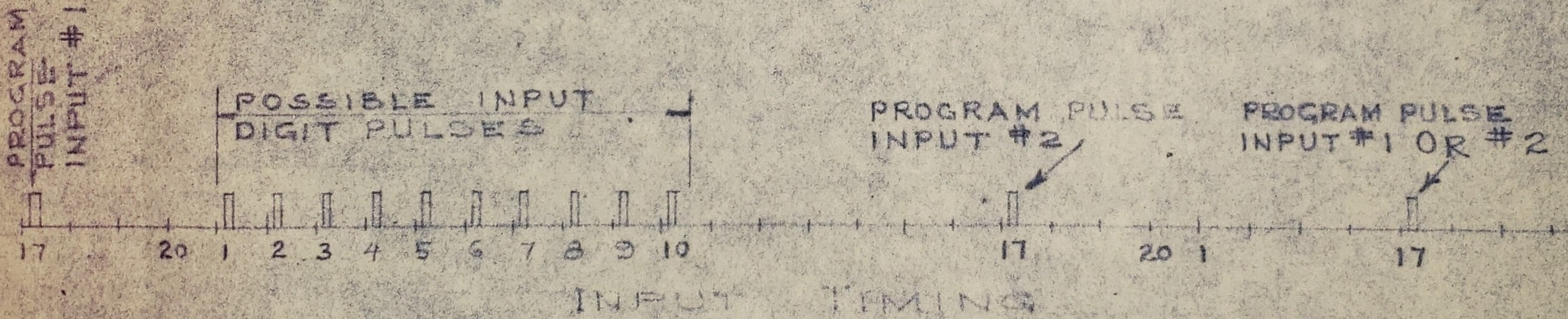
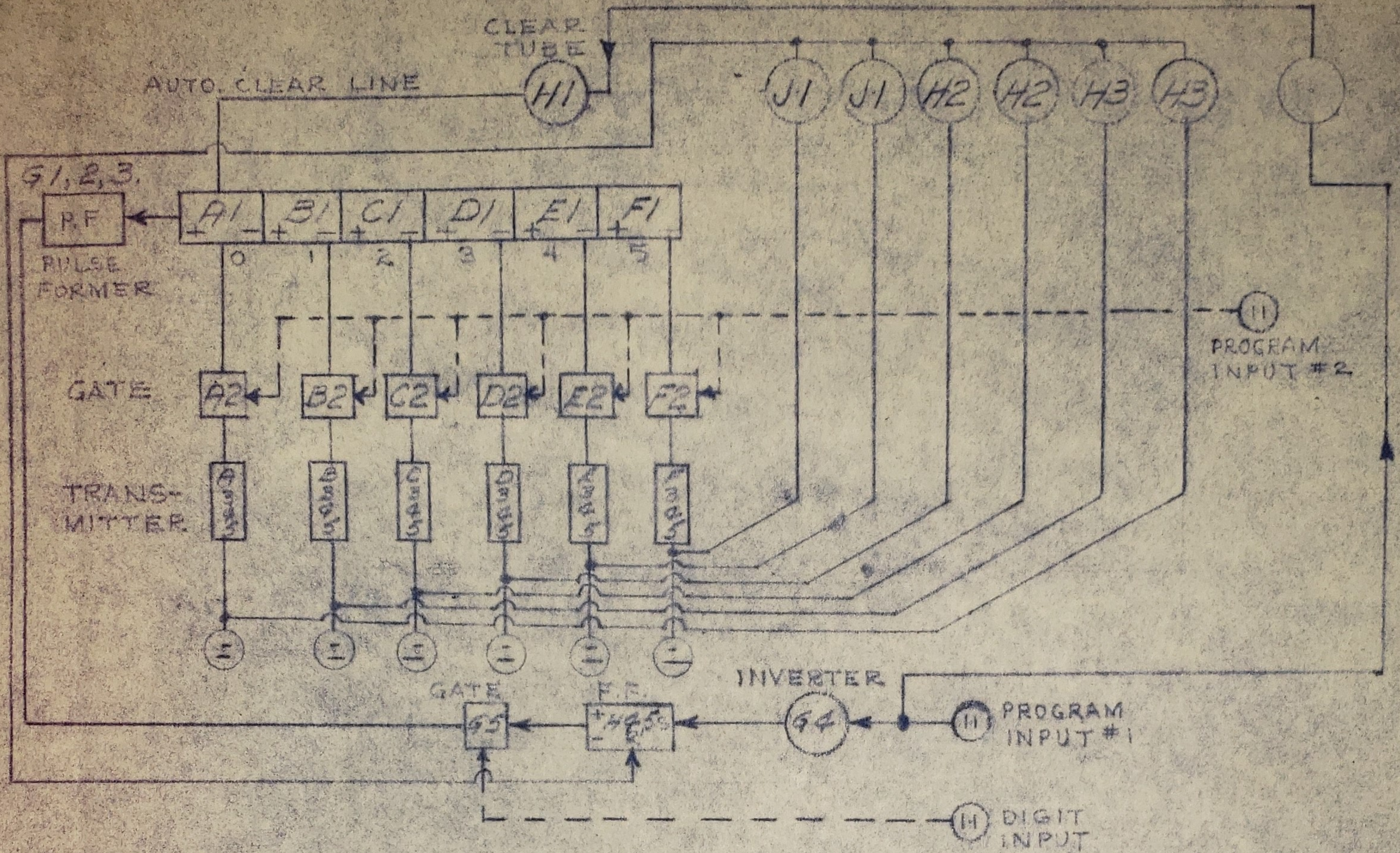
PX-4-303



TEN-STAGE STEPPER
TIMING CHART

PX 4-304

FUNCTION TABLE SELECTOR



FUNCTION TABLE SELECTOR TIMING

PX 4-305

ENIAC 6-13-47

1

PROGRAM
STEP TO FIN
OF RING

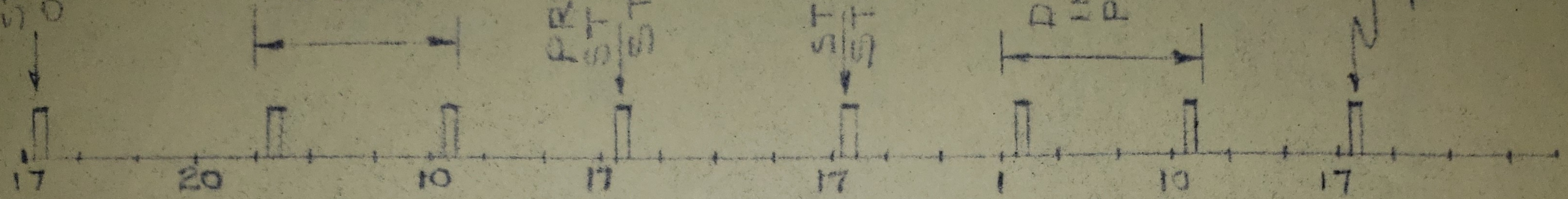
POSSIBLE
INPUT PULSES

PROGRAM P
STEPS TO 2
STAGE

STEPS TO 5
STAGE 5

DIGIT
INPUT
PULSES

FED PER
TO CYCLE
0 STAGE



1 ADD TIME

3 ADD TIMES

1 ADD TIME

REPEAT STAGE 1 UNTIL
STAGE 5 IS REACHED

OUTPUT PULSE
SIGNIFYING 5th STAGE
HAS BEEN COMPLETED



POSSIBLE OUTPUT
DIGIT PULSES

POSSIBLE OUTPUT
DIGIT PULSES

TIMING CHART

ORDER SELECTOR

PX-4-306

ENIAC

6-13-47

12)

H ₅	2.1
H ₄	0.45
H ₃	1.8
H ₂	1.5
H ₁	1.2

6. (H₁) ← HEATER CONNECTION

7. HEATER CURRENTS GIVEN PER UNIT IN DIMENSIONS

8. X INDICATES SWITCHING OR OTHER INTERCONNECTING FEATURES

9. ▲ SEE NOTE ON DRAWG. PX-5-113

10. (||) NEON TUBES

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

ACCUMULATOR CROSS SECTION

Drawn by

MSM

MAR. 29, 1944

Checked by

Approved by

PX-5-113

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

ACCUMULATOR PROGRAM TRANSCIEIVER PLUG-IN UNIT

Drawn by:

Checked by:

Approved by:

PX-5-147

Dec 18, 1943

1

1

1

ENG. 11/15/43

1

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

ACCUMULATOR BLOCK DIAGRAM

MATERIAL

FINISH

SCALE

Drawn by

J. M. Edelsack

June 6, 1945

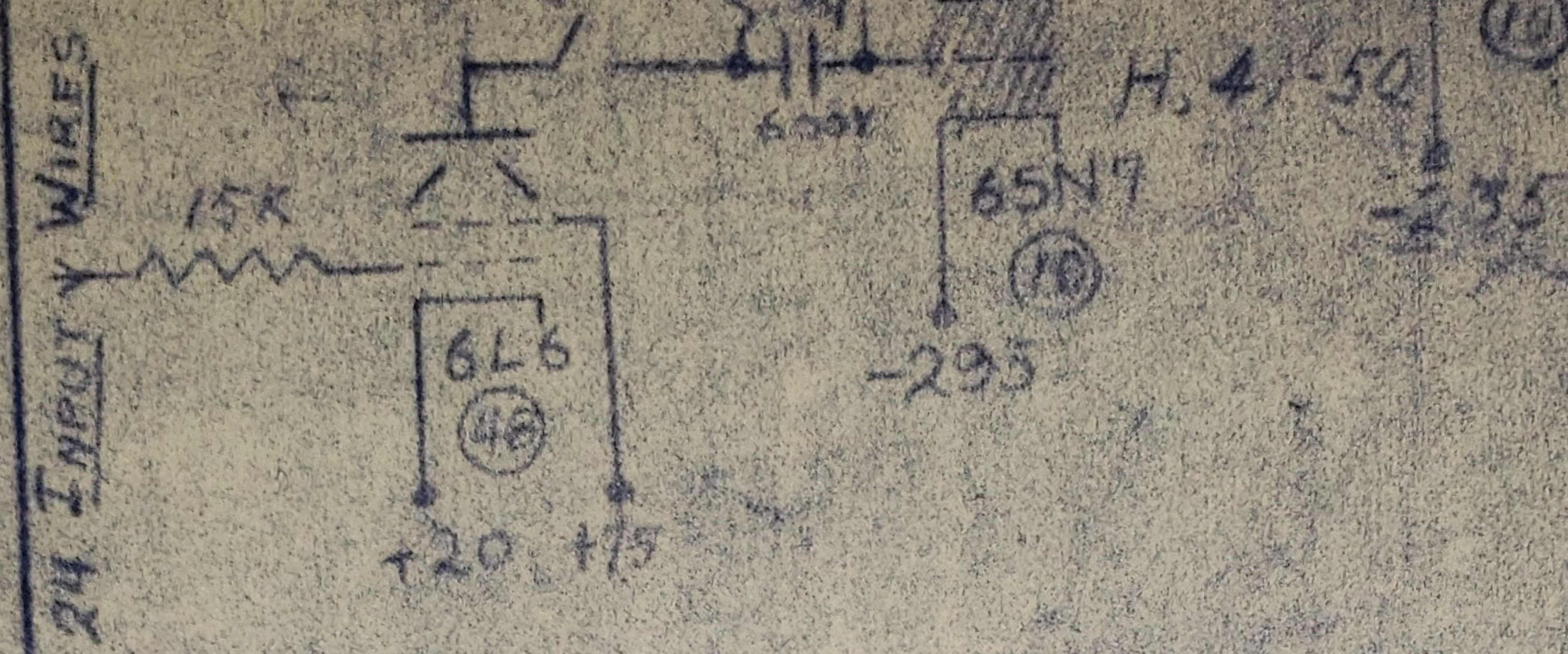
Checked by

H. D. Huskey

Aug. 6, 1945

Approved by

PX-5304



Plug In Chassis * L.H. Multiplication Table Unit

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

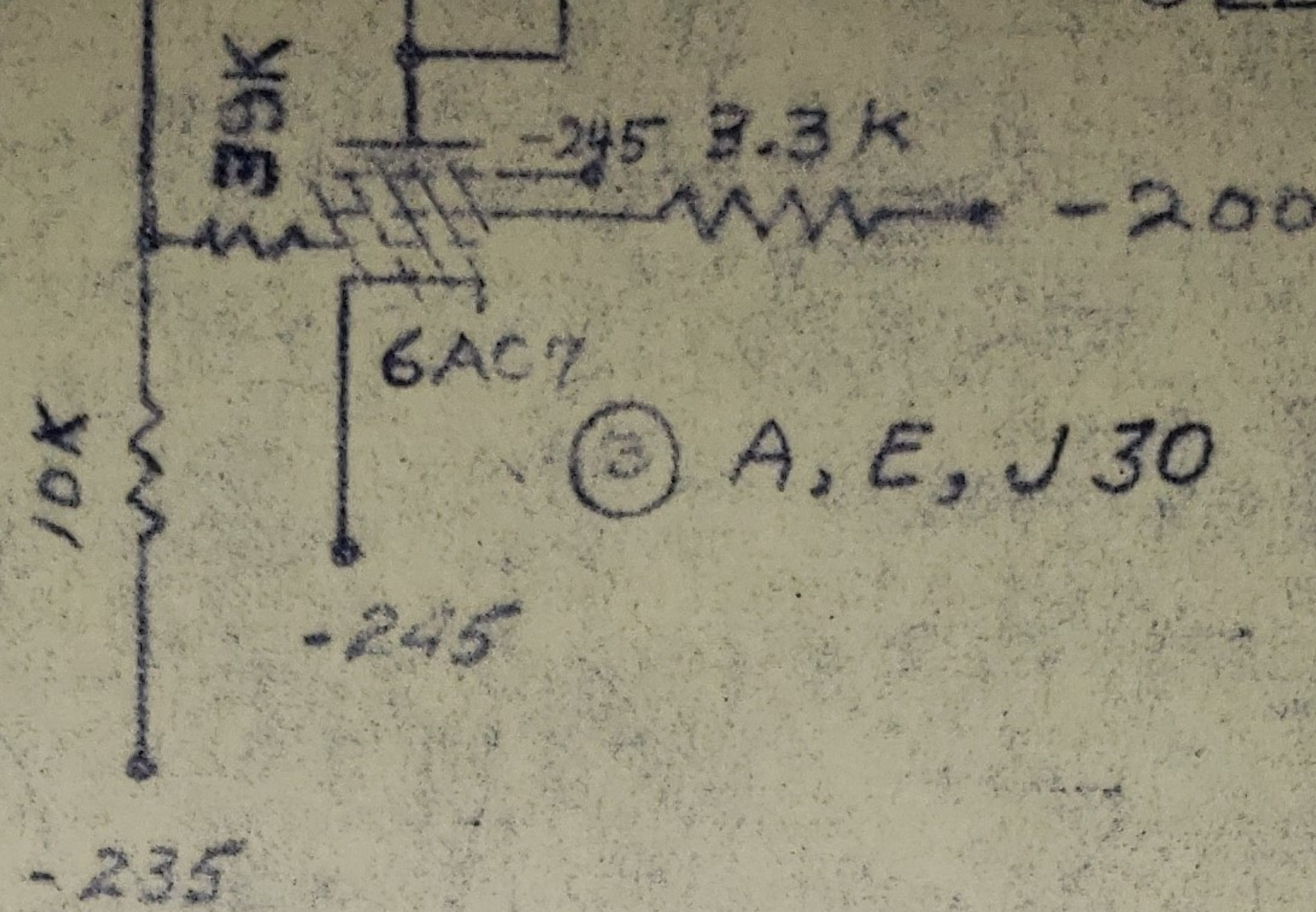
MULT. CROSS SECTION

Drawn by:
F. Robt. Michael
Nov. 27, 1944

Checked by:
T.M.S.
Nov 15 - 44

Approved by:
A.W.S.
12/15/44

PX-6-112(A)

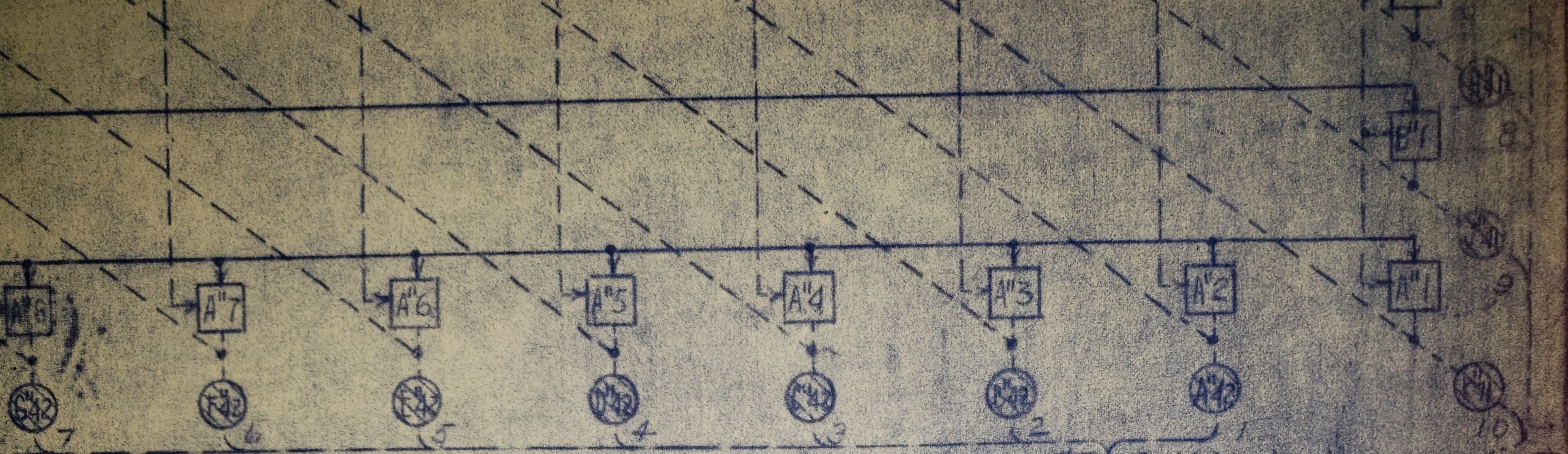


MULTIPLIER TABLE UNIT
PX-6-102

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

MULT. CROSS SECTION, CONT'D.

MATERIAL	FITTING	REMARKS
/	/	/
Drawn by: MSM Nov. 1944	Checked by: YKS 12-15-44	Approved by: AWB 1/15/45
PX-6-112(B)		



I Right hand partial product
 SV₂ digit output plugs

MOORE SCHOOL OF ELECTRICAL ENGINEERING
 UNIVERSITY OF PENNSYLVANIA

MULTIPLIER BLOCK DIAGRAM

MATERIAL	FINISH	SCALE
Drawn by: J.M. Edelsack May 31, 1945	Checked by: <i>[Signature]</i> 8-7-45	Approved by:
<h1>PX-6-308</h1>		

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

F.T. CROSS SECTION - PANEL 1

Drawn by:

MSM

Nov, 8, 1914

Checked by:

RFS

11 Nov 14

Approved by:

RFS

20 Jan 15

PX-7-115

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

F.T. CROSS SECTION - PANEL 2

Drawn by:

MSM

Nov 11, 1944

Checked by:

RFS

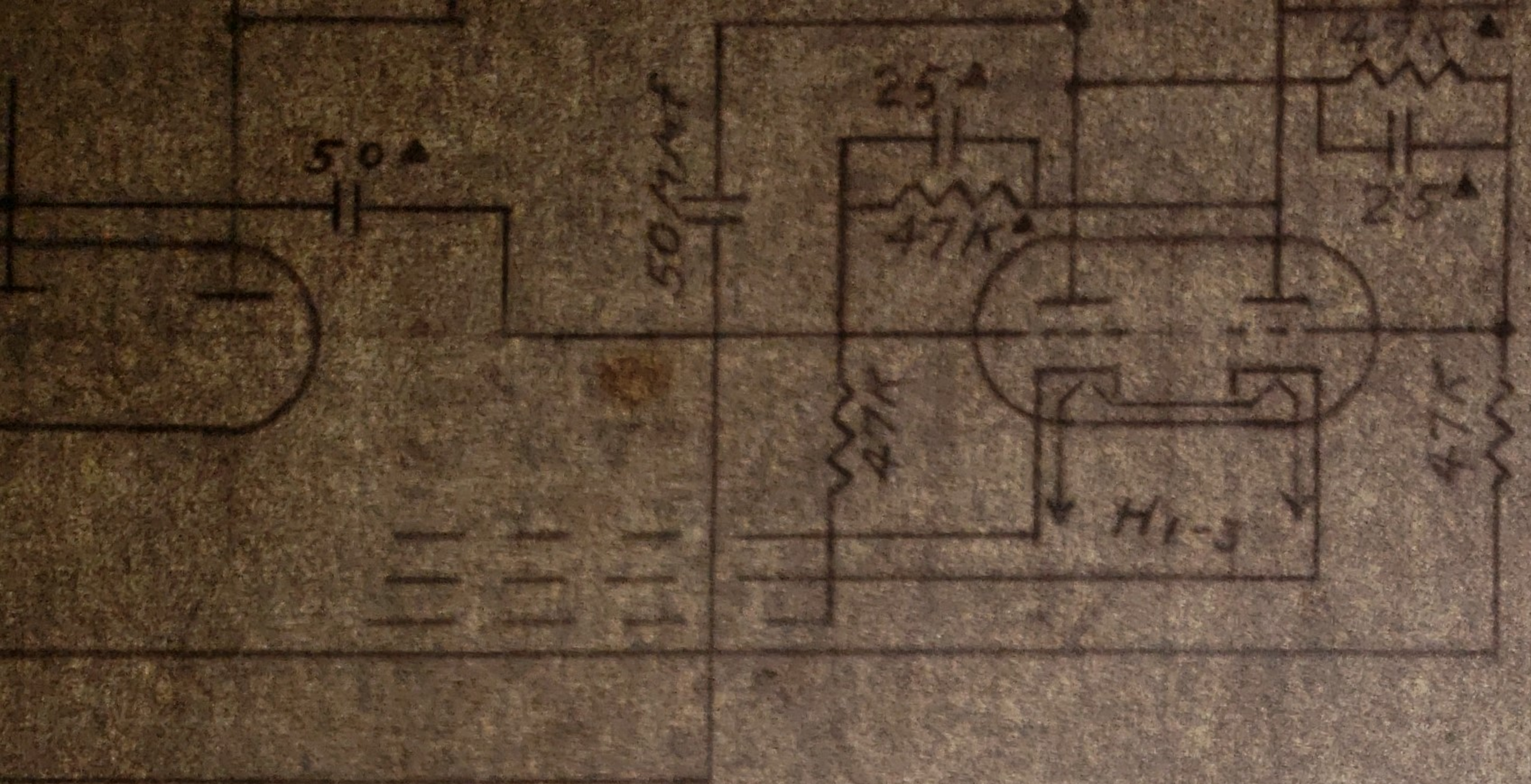
13 Nov 44

Approved by:

RFS

20 Jan 45

PX-7-115



50

12	- 450V
13	- 315V
14	- 360V
15	- 235V
16	- 240V
17	- 395V
18	- 415V

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF MISSOURI

F. T. GATE CHASSIS - PANEL I

gls
Nov 21, 1944

ST
1944

RF
1944

AX-7-123

NOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

FUNCTION TABLE PROGRAM SOCKET PANEL

MATERIAL

FINISH

SCALE

/

/

/

Drawn by:

CJM-C

Nov. 14, 1944

Checked by:

RFD
14 Nov 44

Approved by:

RFD
1 Feb 45

PX-7-1 23

SWITCH ON FRONT
PANEL
PX-7-133

**MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA**

FUNCTION TABLE TRANSFORMER PANEL - PANEL 2

MATERIAL

FINISH

SCALE

/

/

/

Drawn by:

Checked by:

Approved by:

CJM-C

RFD

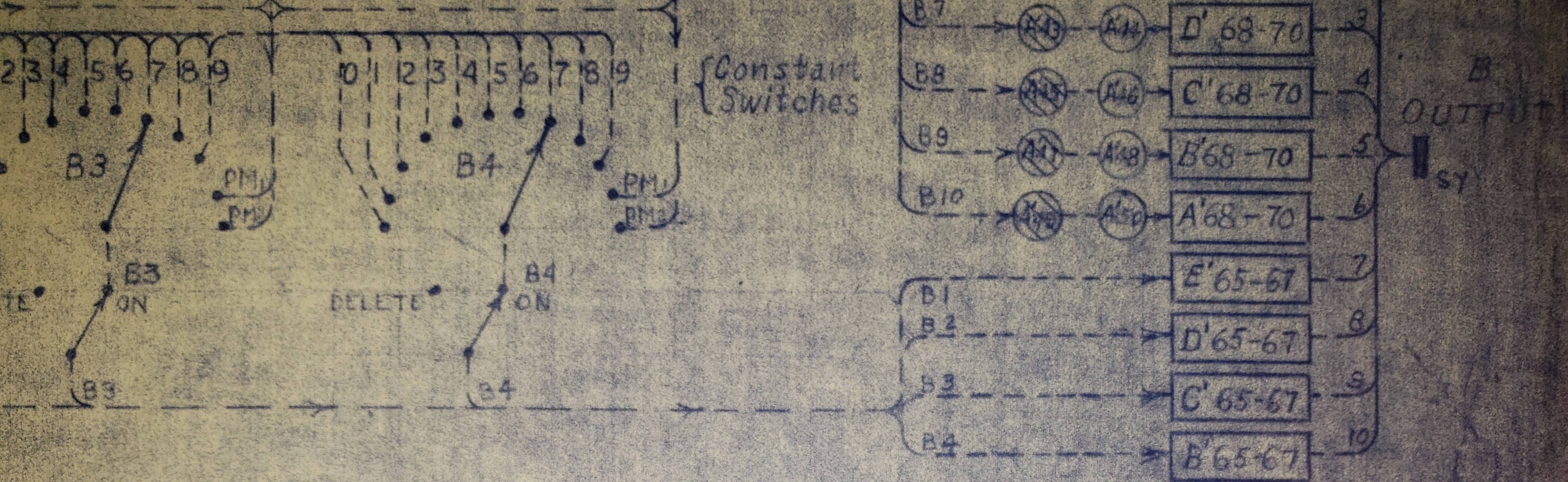
RFD

DEC. 7, 1944

7 Dec 44

3 Feb 45

PX-7-131



4 12-9-46	MOORE SCHOOL OF ELECTRICAL ENGINEERING UNIVERSITY OF PENNSYLVANIA		
3 9-13-46	FUNCTION TABLE BLOCK DIAGRAM		
2 1-15-46	MATERIAL	FINISH	SCALE
1 12-20-45	Drawn by: J. EDELSACK 12-13-45	Checked by: <i>[Signature]</i>	Approved by: <i>[Signature]</i>
			PX-7-304

----- To PA -----

9

7	7TH	"	"	"
8	8TH	"	"	"
9	9TH	"	"	"
10	10TH	"	"	"
11	CL. INPUT			
12	PULSE INPUT			

3.

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

M. P. DECADE PLUG-IN UNIT

MATERIAL

FINISH

SCALE

/

/

/

Drawn by:

CJMCC

SEPT. 13, 1944

Checked by:

KFS

14 Sept. 44

Approved by:

J. J. Moore

9-11-44

PX-8-101

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

MASTER PROGRAMMER CROSS SECTION

MATERIAL

FINISH

SCALE

Drawn by:

CJM=C

DEC 15, 1944

CHECKED BY:

RFB

29 Nov 44

APPROVED BY:

RFB

15 Dec 44

PX-8-102

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

M. P. PULSE FORMER & CARRY OVER PLUS-IN UNIT

MATERIAL

FINISH

SCALE

Drawn by:

C J M^c C

SEPT. 12, 1944

Checked by:

14 Sept 44

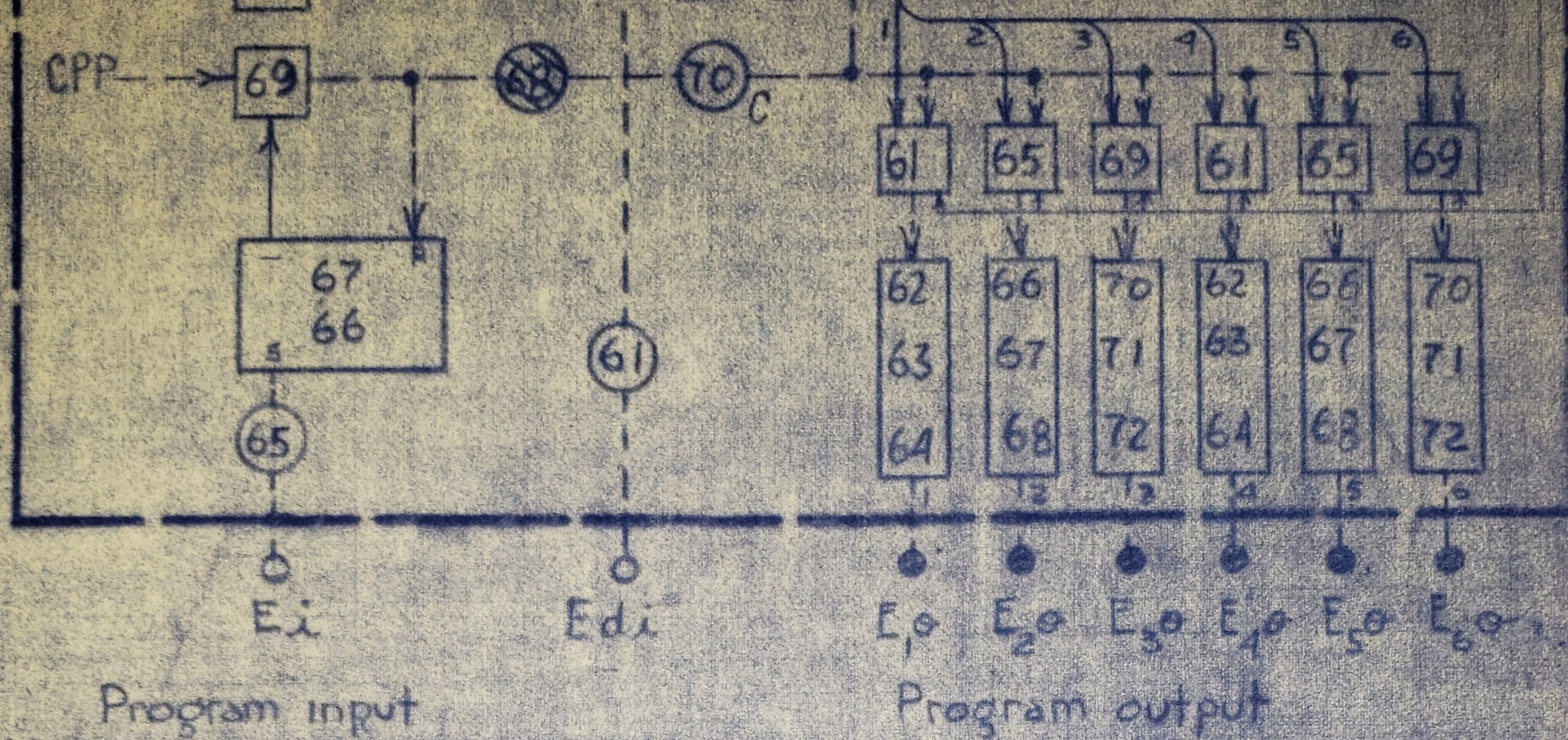
RJA

Approved by:

W J

9-21-44

PX-8-104



MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

MASTER PROGRAMMER BLOCK DIAGRAM

MATERIAL	FINISH	SCALE
Drawn by J. H. Edelsack 12-13-45	Checked by H. D. Paskey Aug. 6, 1945	APPROVED BY
		PX-8-304

1

TRIP 4/10/45

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

CYCLING UNIT GATE CHASSIS A

MATERIAL

FINISH

SCALE

Drawn by:

A. GIARDINA
8/11/45

Checked by:

P.A. [Signature]
8-17-45

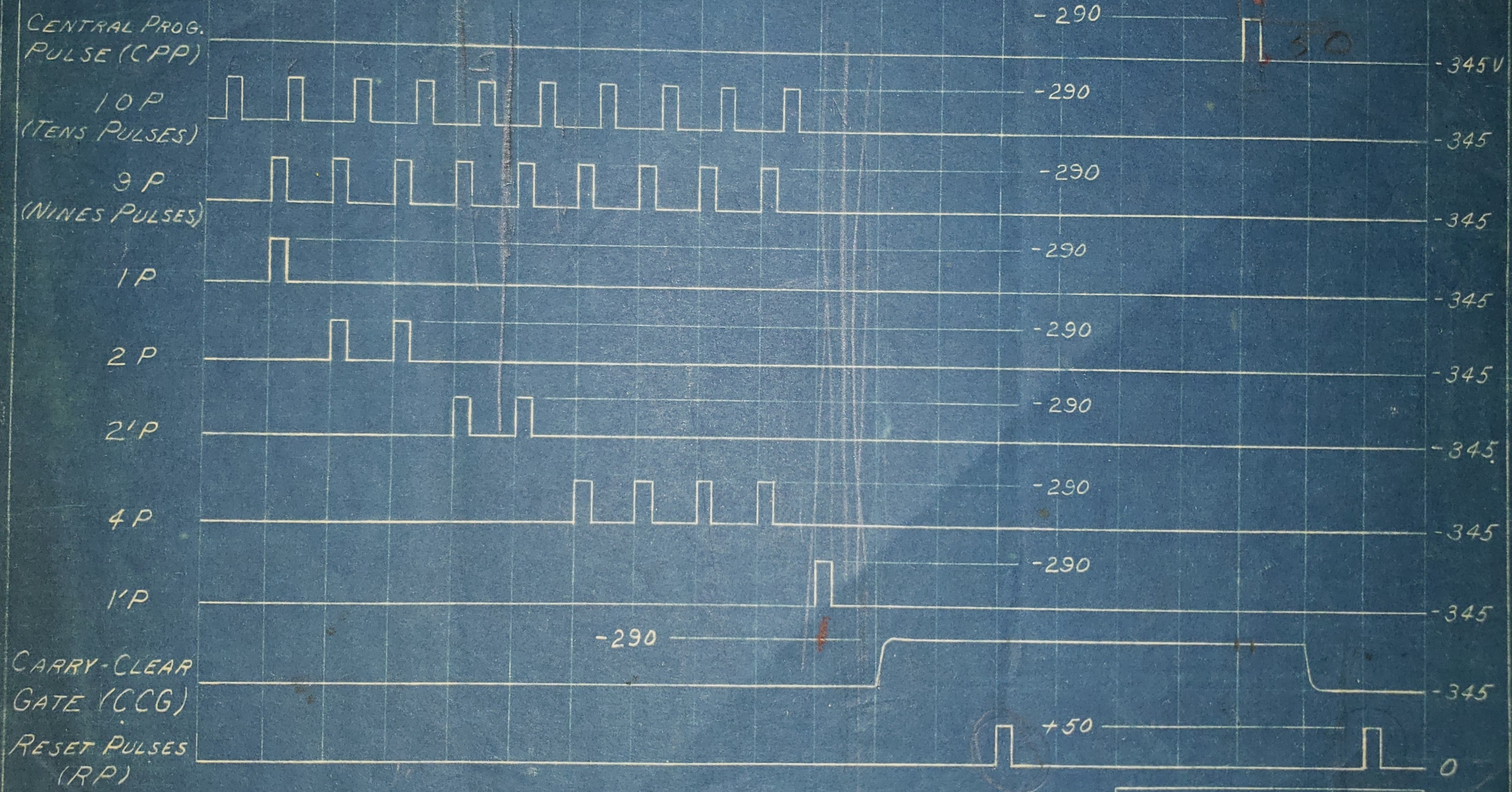
Approved by:

[Signature]

PX-9-134

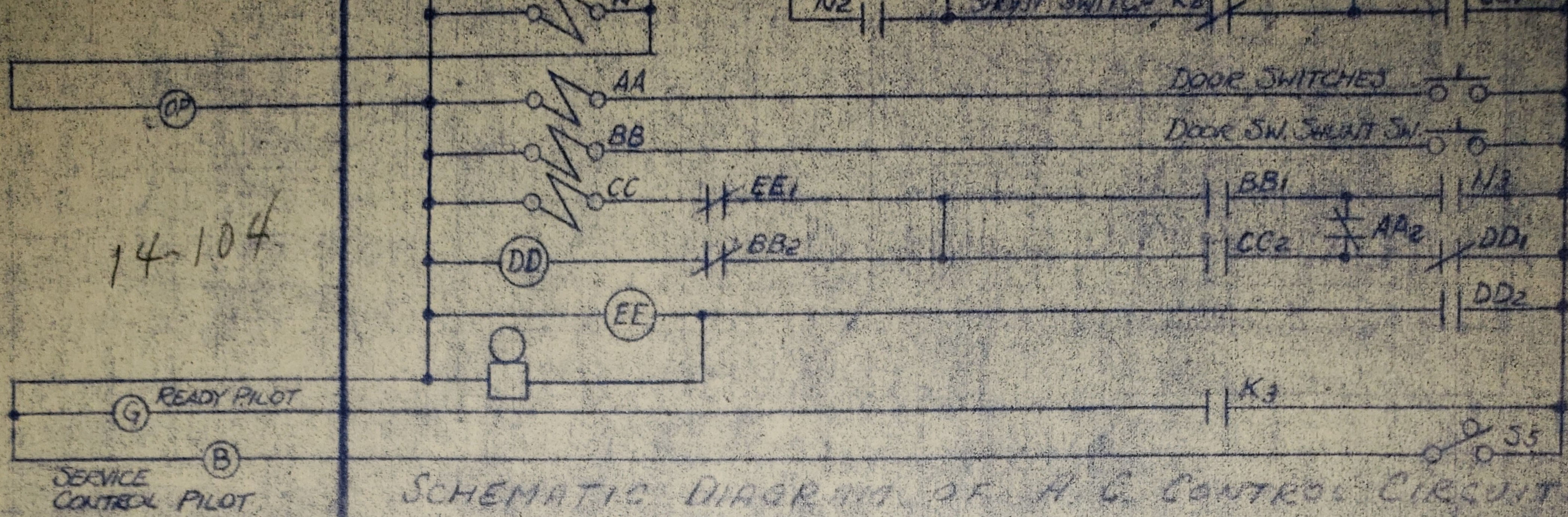
← ONE ADDITION TIME (200μs) →

PULSE TIMES 20-0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20-0
(10μs EACH)



MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

CYCLING UNIT
PULSES & GATES
PX-9-306



SCHMATIC DIAGRAM OF A.C. CONTROL CIRCUITS

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

CYCLING UNIT & INITIATING UNIT BLOCK DIAGRAM

SERIAL

Drawn by
CJM-C

Nov. 28, 1945

PX-9-307

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

DIVIDER & SQUARE ROOTER TIMING CHART

MATERIAL

Drawn by:

CJ McC

Nov. 5, 1945

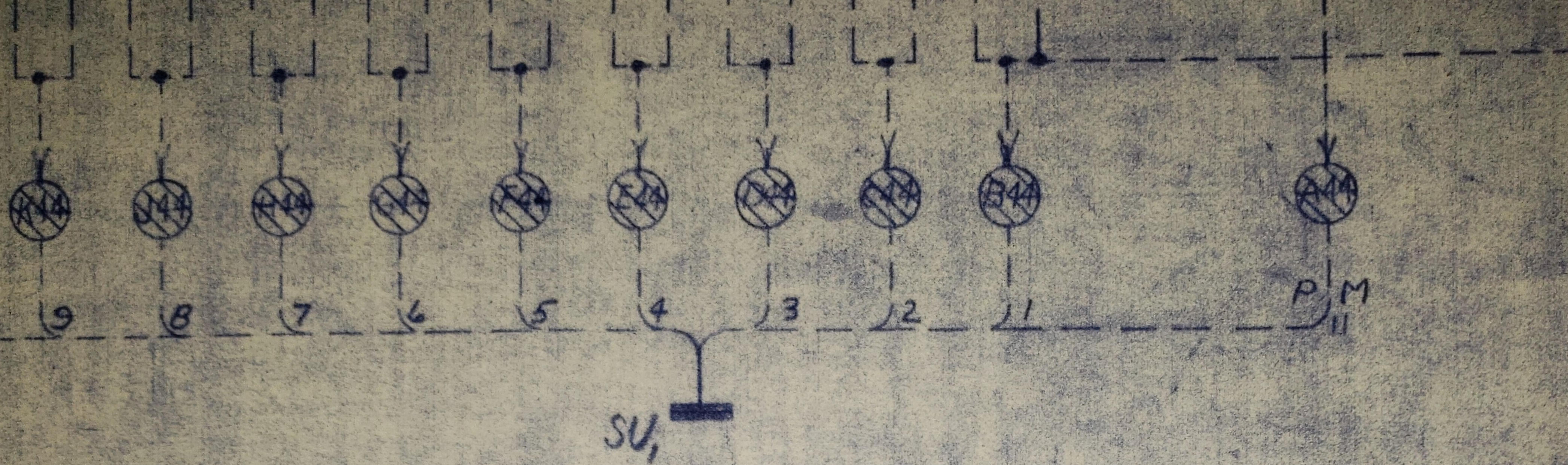
Checked by:

A. Ste

Approved by:

C. Ste

PX-10-111



4
3
2

MOORE SCHOOL OF ELECTRICAL ENGINEERING
 UNIVERSITY OF PENNSYLVANIA

DIVIDER BLOCK DIAGRAM

MATERIAL

Drawn by:

CJM-C

DEC. 12, 1945

Checked by:

W. V. Fushner

12-20-45

Approved by:

PX-10-304

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

CONSTANT TRANSMITTER CROSS SECTION

MATERIAL

FINISH

SCALE

Drawn by:

Checked by:

Approved by:

J. CUMMINGS
DEC. 29, 1944

RFS
29 Dec 45

RFS
1 Feb 45

PX-11-116

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

CONSTANT TRANSMITTER INTERCONNECTION WIRING

MATERIAL

FINISH

SCALE

Drawn by:

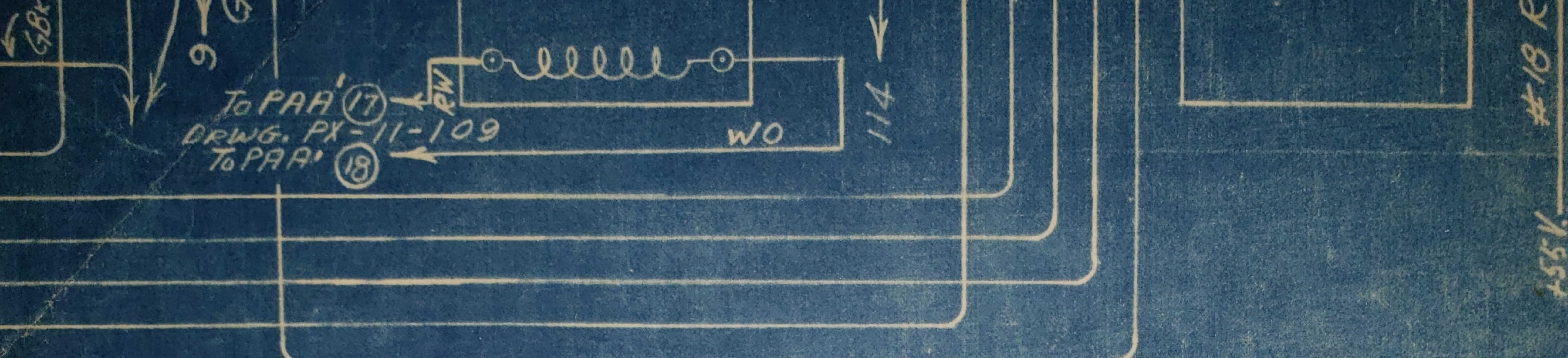
Checked by:

Approved by:

J. CUMMINGS
Nov. 27, 1944.

RFD
29 Jan 45

PX-11-117



MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

CONSTANT TRANSMITTER RELAY STRIP WIRING

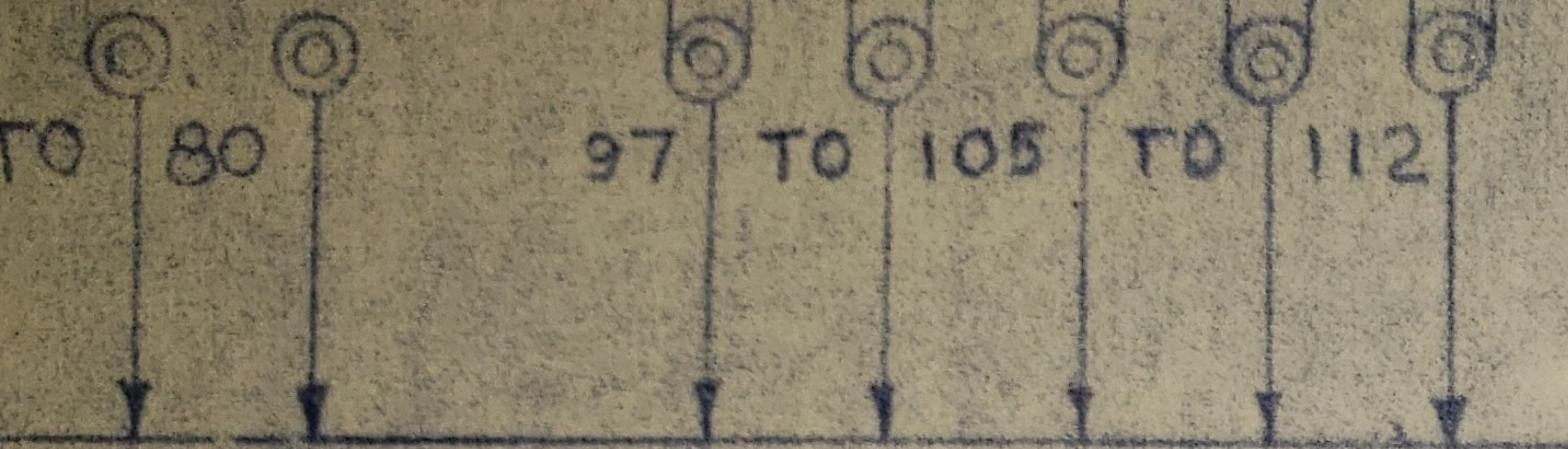
MATERIAL	FINISH	SCALE

<p>Drawn by: J. CUMMINGS JAN. 13, 1945</p>	<p>Checked by: R.F.A. 29 Jan 45</p>	<p>Approved by:</p>	<p>PX-11-118</p>
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TO READING BRUSHES

MINUS CONTROL

RELAYS



7

MOORE SCHOOL OF ELECTRICAL ENGINEERING
 UNIVERSITY OF PENNSYLVANIA

IBM READER WIRING

MATERIAL

FINISH

SCALE

Drawn by:
 H. ECKERT

Checked by:
 H. Eckert
 20 Sept '45

Approved by:
 [Signature]
 12-7-45

P-1119

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

IBM READER TIMING CHART

MATERIAL

FINISH

SCALE

Drawn by:

C J McC

JUNE 6, 1945

Checked by

H. Caldwell / Schott

20 Sept. '45

APPROVED BY:

PX-11-120

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

CONSTANT TRANSMITTER BLOCK DIAGRAM

Drawn By

J. Edelsack

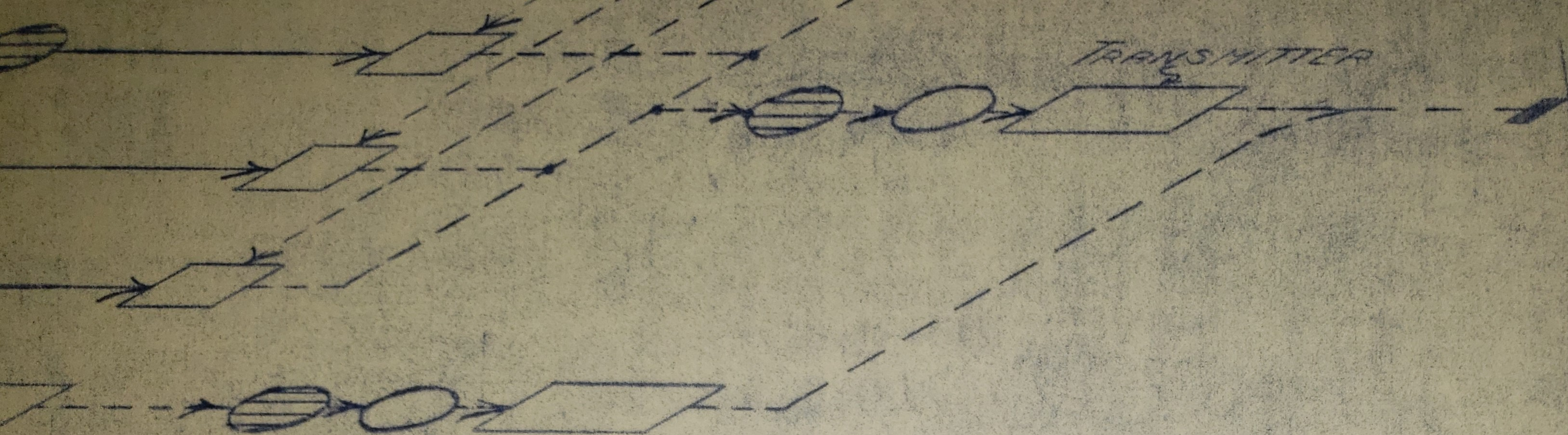
7-5-45

Checked By

J. D. [unclear]
13-7-45

Approved By

PX-11307



FROM 11 TOWARD 0

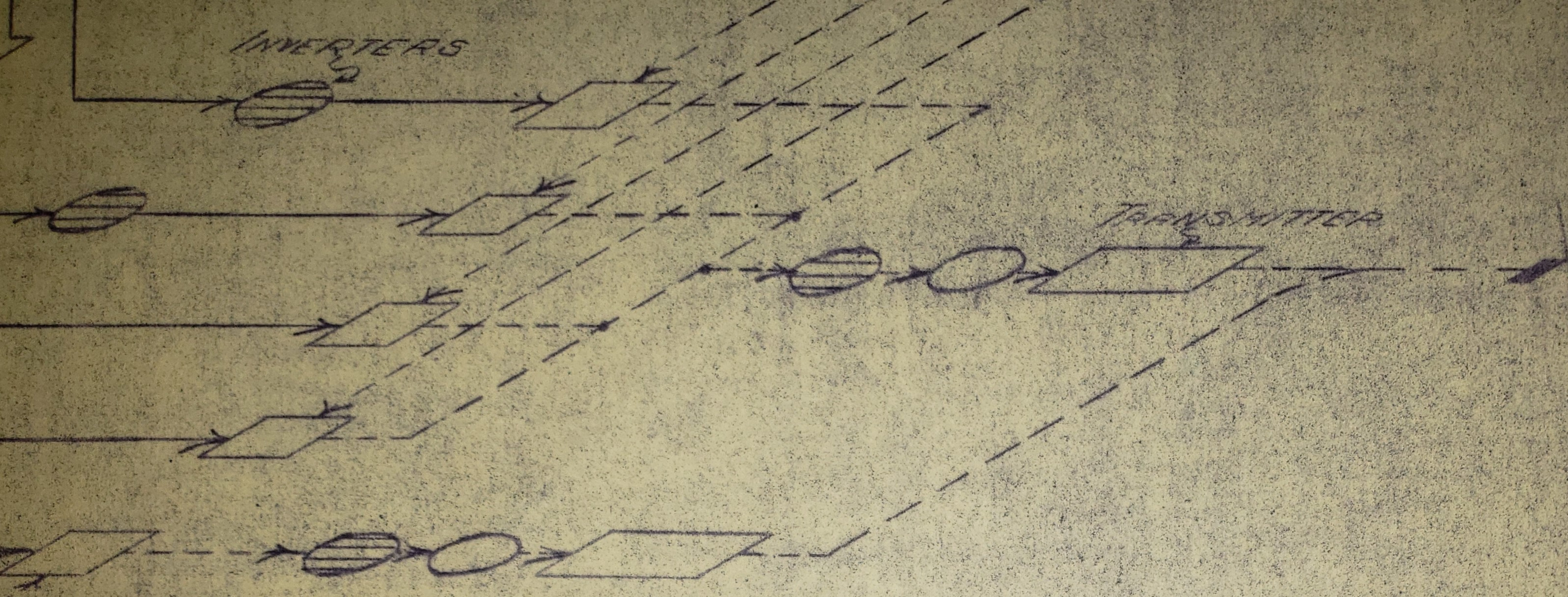
5	4	3	2	1
R. Marwin 3-16-48	CONNECTIONS TO C5 & C7 REVERSED.			
				Summings 5-30-46

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

CONSTANT TRANSMITTER & READER CROSS SECTION

MATERIAL	FINISH	SCALE
/	/	/
Drawn by H. CALDWELL ECKERT	Checked by <i>[Signature]</i>	RECEIVED BY
Nov. 29, 1945	12-7-45	PX-11-309

TRIM LINE →



P2 WAS $\frac{2}{10}$ DISTANCE FROM 11 TOWARD 0

5 R. Marwin 3-16-41

CONNECTIONS TO C5 & C7 REVERSED.

✓ Sammings 5-30-46

4 3 2 1

MOORE SCHOOL OF ELECTRICAL ENGINEERING UNIVERSITY OF PENNSYLVANIA			
CONSTANT TRANSMITTER & READER CROSS SECTION			
MATERIAL		FINISH	
✓		✓	
Drawn by H. CALDWELL ECKERT	Checked by <i>[Signature]</i>	Approved by <i>[Signature]</i>	PX-11-309
Nov. 29, 1945	12-7-45		

TRIM LINE ↗

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

PRINTER INTERCONNECTION WIRING

MATERIAL

FINISH

SCALE

/

/

/

Drawn by:

Checked by:

Approved by:

J. [unclear]
Dec. 26, 1944

PX-12-102

R-174L
R-175W
R-176L
R-177W
R-178L
R-179W
R-180L

TERMINALS
ON PLUG
BOARD

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

IBM CARD PUNCH

MATERIAL

FINISH

SCALE

Drawn by

CHECKED by

APPROVED by:

H. SCHEIT

N. Calder

PX-12-112

JUN 5 1954

20 Sept '54

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

PRINTER CROSS-SECTION

MATERIAL	FINISH	SCALE
Drawn by: H. ECKERT AUG. 7, 1945	Checked by: <i>[Signature]</i> 12-7-45	Approved by: <i>[Signature]</i> PX-12-115

4 3 2 1

TRIM LINE

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

PRINTER BLOCK DIAGRAM

MATERIAL

FINISH

SCALE

Drawn by:

H. ECKERT

AUGUST 11, 1945

Checked by:

F. A. [unclear]
12-7-45

Approved by:

P. B. [unclear]

3 2 1

# 8	# 6	4B25	1953	1956	1945	1952	5.0	20
# 10	# 14	4B24	1965	1951	1946	1984	1.0	65
# 10	# 16	4B25	1965	1951	2006	1985	3.0	195
# 10	# 16	4B25	1965	1951	2006	1985	1.5	195

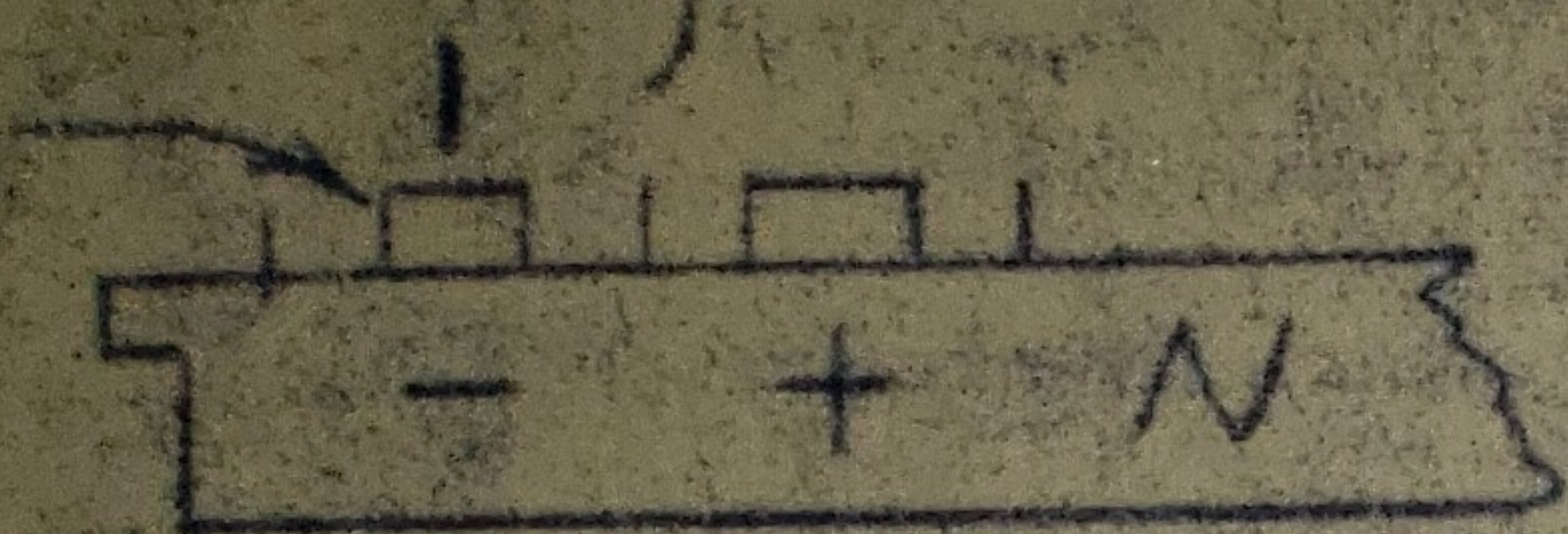
5V4G

5 MILLS 30

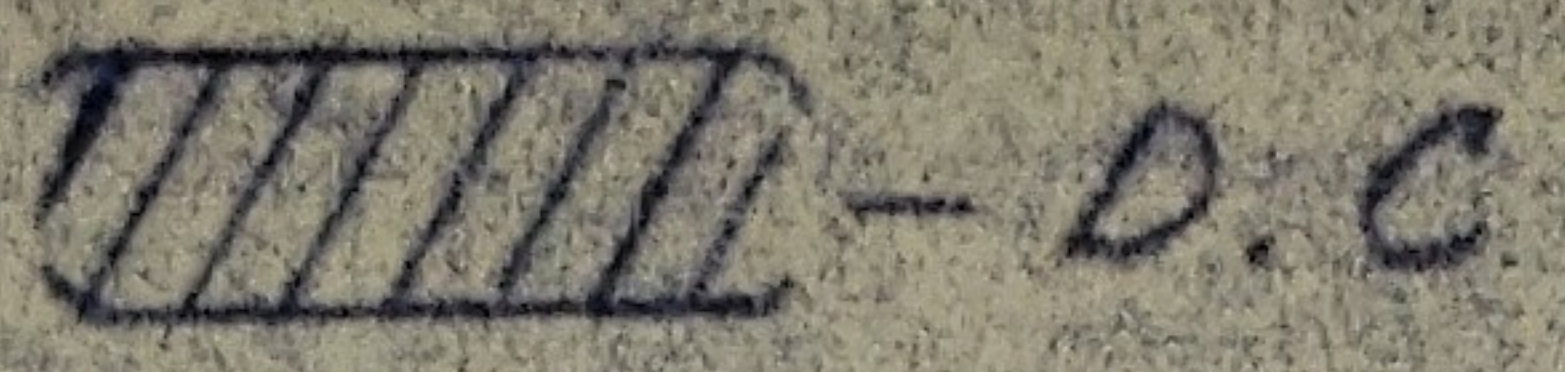
MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

STANDARD POWER SUPPLY WIRING DIAGRAM

MATERIAL	FINISH	SCALE
Drawn by: J. EDELSACK	Checked by: awB	APPROVED BY:
MARCH 6, 1945		
PX-13-104		



POWER SUPPLY TRAY



- D.C



- A.C

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UNIVERSITY OF PENNSYLVANIA

POWER SUPPLY TO BLEEDER INTERCONNECTIONS

MATERIAL	FINISH	SCALE
/	/	/
Drawn by: CJM-C APRIL 18, 1945	Checked by: AWB 6/4/45	Approved by:
<p>PX-13-106</p>		

18	1250	—	—	—	1965	125	—	24x125	CC	1.3	1.6 FUSE.	4B25	73
----	------	---	---	---	------	-----	---	--------	----	-----	-----------	------	----

6 amperes.
 below 12 amperes.

4B24's WERE USED.
 ON THESE TRANS-
 WITH 4B25's WAS 25°C.

** SURGE RATINGS PER TUBE
 C6J - 77 AMPERES
 4B25 - 25.6 AMPERES
 4B24 - 10 AMPERES
 † NON - NO-TIME-DELAY TYPE
 FUSE. - BUSS FUSETRON
 REN. - RENEWABLE SUPERLAG

MOORE SCHOOL OF ELECTRICAL ENGINEERING
 UNIVERSITY OF PENNSYLVANIA

POWER SUPPLY DATA CHART

MATERIAL	FINISH	SCALE
/	/	/
Drawn by Jlp 5/12/45	Checked by H.P. Gail	Approved by GWB
PX-13-111		

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UNIVERSITY OF PENNSYLVANIA

BLEEDER WIRING DIAGRAM

MATERIAL

FINISH

SCALE

Drawn by

flp

5/16/45

Checked by

AWB

6/4/45

Approved by

AWB

6/8/45

PX-13-112

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UNIVERSITY OF PENNSYLVANIA

D.C. SUPPLIES UNDER-VOLTAGE RELEASE RELAY WIRING

MATERIAL

QUANTITY

SCALE

—

—

—

DRAWN BY

H. ECKERT

CHECKED BY

D. J.

APPROVED BY:

PX-13-113

JUNE 28, 1945

7/12/45

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

D. C. WIRING IN POWER TROUGH

MATERIAL

FEET

SCALE

Drawn by:

Checked by:

Approved by:

E. G.
10-10-45

C. MCC
10-15-45

PX-13-115 A

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA.

D.C. DISCONNECT SWITCH
CONNECTION CHART

SCALE

DRAWN BY

CHECKED BY

APPROVED BY

S. PAUL

R. E. M.
4-1-48

R. E. M.
4-1-48

PX-13-117

ENIAC INSTALLATION
COMPUTING ANNEX - THIRD FLOOR
BALLISTIC RESEARCH LABORATORY
ABERDEEN PROVING GROUND

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

ONE LINE WIRING DIAGRAM
POWER CIRCUITS

SCALE _____

DRAWN BY

D. J. DUGAN

9 SEP 1946

CHECKED BY

J. A. C.

5 FEB 47

APPROVED BY

PX-14-103

ENIAC INSTALLATION
COMPUTING ANNEX - THIRD FLOOR
BALLISTIC RESEARCH LABORATORY
ABERDEEN PROVING GROUND

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

ELEMENTARY DIAGRAM of
CONTROL CIRCUIT

SCALE _____

DRAWN BY

E.H.C.

CHECKED BY

J. A. C.

APPROVED BY

PX-14-104

8 OCT 46

28 OCT 46

ENIAC INSTALLATION

COMPUTING ANNEX - THIRD FLOOR
BALLISTIC RESEARCH LABORATORY
ABERDEEN PROVING GROUND

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

COMPLETE POWER & CONTROL WIRING

SCALE

DRAWN BY

J. E. GRAVEL
11-12-46

CHECKED BY

J. A. C.
5 FEB 47

APPROVED BY

PX-14-106

1 | J. Hummings 25 JUN 47

FF RELAY ADDED

REVISIONS

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

RELAY, TIMER & CONTACTOR SCHEDULE
for ENIAC POWER CONTROL

SCALE —

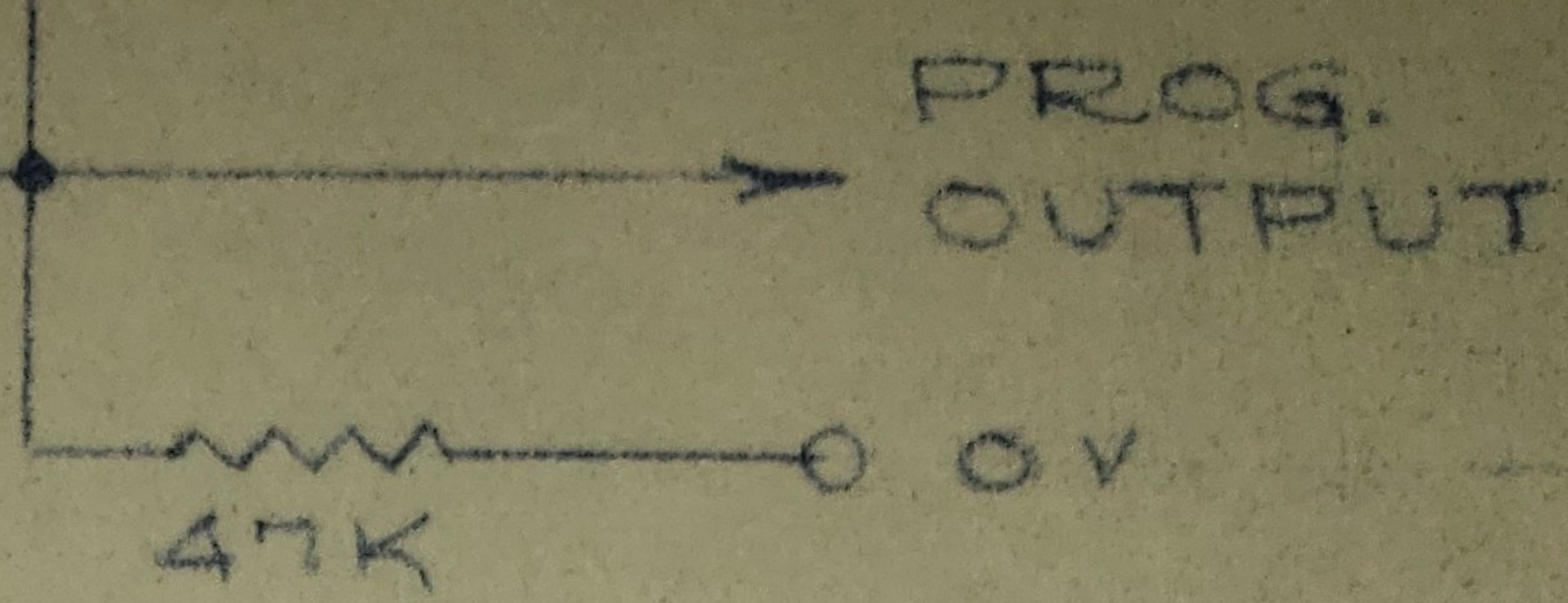
DRAWN BY
E.H.C.
10 OCT 46

CHECKED BY
J.A.C.
5 FEB 47

APPROVED BY

PX-14-107

0-130V



PROG. OUTPUT XMTR.

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

CONVERTER
CROSS SECTION

SCALE

DRAWN BY
S. PAUL
10-24-47

CHECKED BY
R. Morrison
4-13-48

APPROVED BY
R. Morrison
4-13-48

PX-16-108

MOORE SCHOOL OF ELECTRICAL ENGINEERING
UNIVERSITY OF PENNSYLVANIA

CONVERTER BLOCK DIAGRAM

SCALE

DRAWN BY

SHEARMAN
H-13-47

CHECKED BY

R. J. ...
3-19-47

APPROVED BY

L. P. ...
9/30/47

PX-16-301