



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: \_\_\_\_\_

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APPROVED BY: \_\_\_\_\_

PX-14-104

**CONTROL CIRCUIT DEVICES**

A. CLOSE & HOLD RELAY for B ENIAC HEATERS CONTACTOR  
 B. ENIAC HEATERS CONTACTOR  
 C. THERMOSTAT RELAY  
 D. POWER SUPPLIED HEATERS CONTACTOR  
 E. FANS CONTACTOR  
 F. 60 SECOND (TUBE HEATING) TIMER  
 G. POWER SUPPLY CONTACTOR  
 H. INITIAL CLEAR RELAY  
 J. 10 SECOND (INITIAL CLEAR) TIMER  
 K. AUXILIARY RELAY for INITIAL CLEAR  
 L. POWER SUPPLY CUT-OFF RELAY (DC FUSE FAILURE)  
 M. UNDER-VOLTAGE RELEASE PACK RELAYS (14)  
 N. DC OFF RELAY  
 P. DELAY ENIAC TRIP TIMER

Q. POWER SUPPLY CUT-OFF RELAY (PS HEATERS FUSE FAILURE)  
 R. SERVICE CONTROL SWITCH (GANGED - 7 NC & NO CONTACTS)  
 T. POWER SUPPLIED HEATERS DC FUSE RELAY  
 U. DC FUSE RELAY  
 V. POWER SUPPLY'S HEATERS FUSE RELAY  
 W. UNDER-VOLTAGE RELEASES ENIAC HEATERS' BREAKER  
 X. ENIAC HEATERS' BREAKER CIRCUIT BREAKER FAILURE RELAY  
 Y. START RELAY  
 Z. DOOR SWITCH RELAY  
 AA. SHUNTING RELAY  
 BB. DC OFF DELAY TIMER  
 CC. ALARM TIMER  
 DD. DISCONNECT SW.

**LEGEND**

□ REMOTE CONTACTS OPERATED BY COIL A etc.  
 ○ NORMALLY OPEN CONTACT  
 ⊕ NORMALLY CLOSED CONTACT  
 ⊖ OPERATING COIL  
 ⊕ NORMALLY OPEN PUSH BUTTON  
 ⊖ NORMALLY CLOSED PUSH BUTTON  
 ⊕ SERVICE CONTROL SWITCH  
 ⊖ TIMER RELAY  
 ○ INDICATING LIGHTS  
 B-BLUE, G-GREEN, R-RED, A-AMBER, OP-OPALESCENT

**PUSH BUTTON CONTROL STATIONS**  
 ENIAC START  
 ENIAC STOP  
 D.C. OFF  
 A. DISTRIBUTION CENTER  
 B. INITIATING UNIT  
 C. REMOTE CONTROL PANEL  
 D. PORTABLE CONTROL STATION

**REVISIONS**

1	5 FEB 47	FF & GG ADDED
2	25 MAR 47	REVISIONS

AA TO EE ADDED FOR DOOR SWITCH SHUNTING FEATURE