

Memorandum M-2148

Page 1 of 2

Digital Computer Laboratory  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

SUBJECT: MEMORY TEST COMPUTER START-STOP PANEL

To: MTC Engineers

From: Robert vonBuelow

Date: May 11, 1953

Abstract: The MTC Start-Stop panel in the console contains controls for the computer and its power. The function of each component is described here.

General

Attached are the panel marking (SA-54878) and schematic (SC-54151) diagrams of the Start-Stop Panel.

Computer Control

START-OVER

The START-OVER button actuates a pushbutton pulse generator which causes the computer to start performing whatever instructions have been set into it. This button is parallel with a similar button on the auxiliary start-stop panel.

RESTART

The RESTART button actuates a pushbutton pulse generator which cause the computer to continue on a program which has been interrupted for any reason.

STOP

The STOP button stops the program in the computer by preventing the end carry pulse from starting a new operation or program cycle. The STOP button is in series with a similar button on the auxiliary start-stop panel. These STOP buttons are in series with the HALF-INSTRUCTION switch.

Lights

Four toggle switches in a vertical line control the lights in the computer room. The top switch controls the lights behind the control, and the bottom switch controls the lights behind the console.

Power Control

The components in this section will not be in operation until the Power Supply Control panels have been installed.

The pushbutton marked COMPUTER POWER ON when pushed turns the COMPUTER POWER OFF light off and the COMPUTER POWER ON light on. This button also starts the filaments cycling on. When the filaments are completely on the FILAMENTS OFF light goes off and the FILAMENTS ON light goes on. After the filaments have come on, the DC voltages are applied in sequenced groups: the -450, -300, and -150 volt supplies first, -30 and -15 volt supplies a few milliseconds later, +90 volt supply next, and +150 volt and +250 volt supplies last. As each group of supplies goes on, the appropriate light on the panel goes on. The DC OFF lamp goes off when all DC is applied.

When the COMPUTER POWER OFF button is operated, all DC VOLTAGE ON lights go off and the DC OFF light goes on. The COMPUTER POWER OFF lamp goes on and the COMPUTER POWER ON lamp goes off. The filaments start to cycle down, the FILAMENTS ON lamp goes off, and the FILAMENTS OFF lamp goes on.

If the computer is off when the STAND BY button is pushed, the filaments cycle on but DC voltages are not applied. If the computer is on when the STAND BY button is pushed, the DC voltages are turned off but the filaments remain on.

The EMERGENCY STOP button turns off all AC and DC in the computer. The filaments are not cycled down.

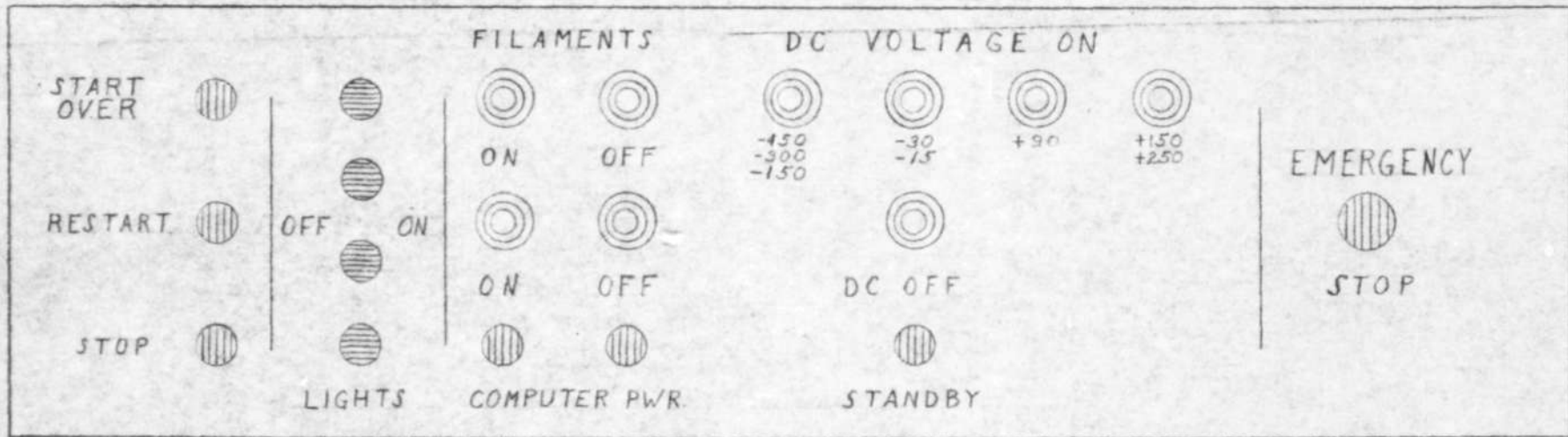
Signed R. von Buelow  
R. vonBuelow




Approved K H Olsen  
K. H. Olsen

RvB:jrt

Attached drawings: SA-54878  
SC-54151

SA-54878



-  Light
-  Toggle Switch
-  Push Button

MTC  
START-STOP  
PANEL MARKING

RB 5-5-53

SA-54878 ✓

C-4151



CNSL. CHG. DATE		APPD.	
		MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
		DIGITAL COMPUTER LABORATORY	
		DEPT. OF ELECTRICAL ENGINEERING - D. I. C. PROJECT NO.	
		SYMBOLIC START STOP PANEL	
SCALE		OR	
ENG. <i>RF 11</i>		CK	APPD.
		SC-5-18	