

Disclaimer:

The diagrams were made by reverse engineering of my Brunsviga 16E. Although drawn with care there may be mistakes.

Functions:

S1:

Main switch for motor and electronics.

S2:

Motor switch activated by any of the keys requesting an operation.

S3:

A microswitch which is opened by the large plastic wheel on the main axis. If open it deactivates M3 thereby disabling any key input during operation.

S4:

Triggers digit entry followed by a one-step left shift.

When S4 is closed by a number key the following happens:

1. Solenoid M1 comes in and activates the mechanical parts which enter the digit into the input register.
2. Relay R1 comes in as well after a short delay caused by the 5uF capacitor K4.
3. When R1 is on contact R1-C7C8 opens thereby removing power of M1
However, at the end of step-1 M1 has opened SW1 giving the opportunity to K3 (200uF) to be charged causing a delay in M1 falling back.

S5:

S5 is activated by the buttons for clearing the registers as well as by the Back Transfer button. It triggers solenoid M2 which initiates the mechanical actions for register clearing (I, II and III) as well as Back Transfer.

When S5 is closed the relay R1 comes in after a short delay and contacts R1-C5C6 immediately remove power of M2. As a result M2 is only shortly activated. K3 (200uF) now has no influence because SW1 is closed.

Remark:

I guess that the resistors W1 and W7 are different to realize a different delay for relay R1.