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:

Triggers the mechanical actions for register clearing (I, II and III) as well as Back Transfer.
When S5 is closed the relay R1 comes in and contacts R1-C5C6 immediately remove power of M2.
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.