Dividing, by repeated subtraction, with Rocking Segment calculators

The Rocking Segment technology is at first instance an adding and subtracting technology. But, as written in previous chapters, the 10 key keyboard machines are exceptions to this rule. They have a possibility to "shift numbers", like the carriage does of the primary multiplier and dividing machines with the Stepped Drum- or Pin Wheel technology. In this case the internal Pin Box, which holds the keyboard entry, is the shifting part.

The dividing calculation can be after all performed by repeated subtraction of the dividend by the divisor, where the number of subtractions are counted each time and the divisor is shifted after the subtraction sequences. In more detail how this happen in the machines:

First we have to input the dividend for instance 555555555 an put that in the result register by performing an add action. Then the divisor, for instance 45 has to be inputted and stored. In this case we do not perform an function, but leave the key board entry in the pin box. But it is not ready yet. Be aware that this pin box divisor should shifted forward, with zero's, to start at the most significant digit of the dividend, for the first subtraction. So we have the following situation

555555555
450000000

We may now start the first subtraction and count the number of subtractions. This stops when the result goes negative. When that result is negative the register is add with the dividend one time to get a positive result register again. The counting is normally not stored in a register but printed only. The pin box in shifted one figure backwards, so that we have the next situation below.

105555555   the first subtraction was one times possible. The first result figure
045000000

015555555   the second subtraction two times possible, so the first two digits of the result 12
004500000

002055555   the third subtraction three times possible, so 123 as the three digits result
000450000

Finally the situation will be

000000000   The result of the division is 12345679
000000045

This whole process is running automatically at some machines like the Olivetti Divisumma 14 and up.