# INSTRUCTIONS FOR OPERATING



## Eliminating Errors in ADDITION MULTIPLICATION SUBTRACTION

A LL arithmetic is a combination (in whole numbers) of only nine digits and a zero. Each "slide" is equipped with all these digits. The face of machine is divided into black, bronze and black sections, to assist in finding correct columns. Machine is operated with "stylus" (no chains, gears or cogs to break or jump). Insert stylus in slot at right of figure required and push the movable slide either up or down as indicated. Large figures only are used in Addition and Multiplication. Small figures only are used in Subtraction. ALWAYS operator reaching

plication. Small figures only are used in Subtraction. ALWAYS operate machine from LEFT to RIGHT, whether adding or subtracting: i. e., when placing such a figure as 96 in machine take the 9 first then the 6.

The first two columns at right are for cents (up to 99c) the next three to the left are for \$'s up to \$999.99, the next four to the left are for thousands and millions up to \$9,999,999.99. CAUTION: Always "clear" machine before operating by pulling lever at top of machine UP till all zeros (0,000,000.00) appear, then shove lever down full length. If you make a mistake clear the machine and start over. Speed and accuracy will be acquired with a little practice, like shifting gears in your automobile.

#### ADDITION

The little red dots are guides, which indicate whether you push up or down with the stylus. Place the stylus in slot opposite the number to be added. If it does not fall between two RED DOTS the movement is downward as far as possible, but WHENEVER the stylus falls between two Red dots, the movement is UP as far as WHENEVER the stylus ialls between two ked dots, the movement is of as lar as possible, then over to left as far as it will go, then DOWN which automatically carries 1 over to the column to the left. EXAMPLE: Add 645, and 523, and 346. Place stylus opposite 6 in 3rd column from right and push DOWNWARD (it is NOT between red dots) then place stylus opposite 4 in next column to rt., and push down again, then opposite 5 in last column to right and push down. Now the push down again, then opposite 5 in last column to right and push down. Now the number 645 appears in RED at top of machine just below name plate. Now add 523 by placing stylus opposite 5 in 3rd column (this time it falls between Red dots) push UP then over to the left and then down to the stop. You will note that it changed the former 6 into a 1 and carried 1 over into the 4th column (6 and 5 equal 11), then get opposite the 2 in 2nd column and push DOWN (you were below red dots again) then opposite the 3 in last column and push DOWN. The total above now reads 1168. Add 346. Place Stylus opposite 3 in 3rd column (it is NOT between Red Dots, which means that the movement MUST be DOWN). Next place STYLUS opposite 4 in 2nd column and push UP OVER AND DOWN, because Stylus WAS between Red Dots. Then get opposite 6 in last column and go up over and down. The correct total now appears in the machine and is 1514. down. The correct total now appears in the machine and is 1514.

THE RULE IS: When stylus falls below red dots the movement is always down and when it falls between red dots it is always UP, OVER AND DOWN, with the following exception. and you will find that it becomes entirely automatic, as with any other oft repeated action.

Here is the EXCEPTION: When going UP and finding it impossible to go OVER AND DOWN, because the stylus is blocked, there is something else which must be done, because the figure 9 appears in the total colmn at the left and when you add anything to 9 it becomes necessary to carry over still another 1 into the next left column. Therefore whenever blocked with a 9, take the stylus out from the top where it is blocked place it opposite the large 1 in the next left column and push UP OVER AND DOWN to the stop, which carries 1 over into the next

left column and gives you the correct total EVERY TIME.

EXAMPLE OF EXCEPTION: Add 99 and 6. Place 99 in machine in regular way. Then get opposite 6 in 1st right hand column, it is between Red dots so go UP, but there is a block and it is impossible to go OVER AND DOWN, therefore take stylus out, place it opposite 1 (large 1) in next column to left and push UP OVER AND DOWN and the correct total of 105 will appear in the machine. Now add 999 and 6. Place 999 in machine than get opposite 6 in 1st column and push UP (you are blocked from going over) take stylus out and place opposite 1 in 2nd column and go up (you are again blocked by a 9 in your way) take stylus out and place opposite 1 in next left column and go UP OVER AND DOWN. This time it clears and you have the correct total of 1005 in machine. Master these examples, which are really very simple, then you can add quickly and easily any column of figrues, no matter how large. column of figrues, no matter how large.

#### SUBTRACTION

Place number from which you wish to subtract in machine, using large figures. Use SMALL figures for the number which is to be subtracted. Red dots are heeded same as in addition. Go UP when between Red dots, BUT NOT OVER AND DOWN. Go DOWN when below Red dots, and whenever going DOWN in subtraction ALWAYS DEDUCT 1 (borrow) from the column to the left, that is using the small 1 push UP, unless a O (Zero) appears at the top: when a O (Zero) is in the red at top then, using the small 1, PUSH DOWN and complete the operation by still DEDUCTING 1 from the NEXT left column.

EXAMPLE: Subtract 68 from 929. Place 929 in machine using large figures. Then get opposite the SMALL 6 in the 2nd column. The stylus falls below Red dots, therefore the movement is DOWNWARD and then you must DEDUCT 1 (borrow 1) from the column to the left—use the SMALL 1 and push up as far as possible. Then place stylus opposite 8 (small 8) in last column. It is between Red dots, so the movement is UP, (but NOT over and down). The correct answer 861 now appears in the machine. REMEMBER TO OPERATE FROM LEFT TO RIGHT.

WHENEVER PUSHING DOWN WITH THE STYLUS IN SUBTRACTION,

DEDUCT ONE FROM THE COLUMN TO THE LEFT. A L W A Y S.

### MULTIPLICATION

Keep the fundamentals of multiplication in mind and operate the machine same as in addition. Multiplication with the FINGERTIP is computed the same as on paper. Simply remember positions and move one column to the left when starting each new figuring.

EXAMPLE: Multiply 27x27. Have table handy or know your multiplication tables.

FINGERTIP METHOD 27 7x7 equals 49 Place 49 in machine. If on paper you would 7x2 equals 14 Place 14 in machine moving 1 place left. 49 14 2x7 equals 14 do it thus: 14 Place 14 in machine watch position. 2x2 equals 4 Place 4 in machine watch position. 4 Total appears 729 in machine automatically. 729

Multiplication with FINGERTIP is much faster than when pencil and paper are used and accuracy is always assured. If a 0 is on the end of the multiplier a column is skipped at the start, which is exactly the same process as that followed when multiplying mentally.

FOLLOW THESE INSTRUCTIONS CAREFULLY until the operations become GUARANTEED against any flaw in workmanship or material and will be repaired or replaced by us FREE OF CHARGE if it fails to work perfectly, unless the trouble is caused by misuse or abuse. Do not attempt to take machine apart.

If anything goes wrong send it to us for repair or replacement.

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