

141 Series

**Electronic
Printing
Calculators**

**Operating
Instructions**

Unicom

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FOREWORD

UNICOM series 141 Electronic Printing Calculators are efficient, reliable, and easy to use. The highly versatile UNICOM

141 handles a wide range of applications at electronic speed, and provides a printed record with complete identification of each entry.

It includes such features as: high speed printer, 14 digit capacity, input buffer, sub total accumulator, main total accumulator, one memory, automatic constant calculation, automatic round-off, protective keyboard interlocks, and up to eight decimal places.

The simplicity of operation enables anyone to master the UNICOM 141 in a few minutes. To add, subtract, multiply, or divide, you simply enter the amounts on the keyboard, and depress the function keys (+, -, x, ÷, *, √) in the same sequence as in manual calculations. Be sure calculator is properly grounded. Use an adapter plug if needed. Air vents at the back of the machine should not be covered while the calculator is on. UNICOM 141 should not be placed in intense direct sun light or near heating devices. When turned off, all figures are cleared, including those in memory. UNICOM 141 Printing calculators are guaranteed for one full year.

* Square root model only.



SPECIFICATIONS

Read Out	Printer Capacity	14 digits plus decimal point and symbols
Operation speed	Addition (Subtraction)	0.45 sec
	Multiplication	1.1 sec
	Division	1.2 sec
Capacity of Input Buffer		8 words
Main Element	MOS-LSI	
Operating Temperature Guaranteed	(+32°F) to (+104°F)	
Paper	Width 2-1/4", Diameter 2-3/4"	
Power Source	AC 115V $\pm 10\%$	
Power Requirement	20 watt	
Dimension	8.3" (W) x 13.2" (D) x 5.1" (H)	
Weight	13 pounds	

UNICOM 141 contains 5 working registers and 1 memory.

5 working registers;

1 Entry register.

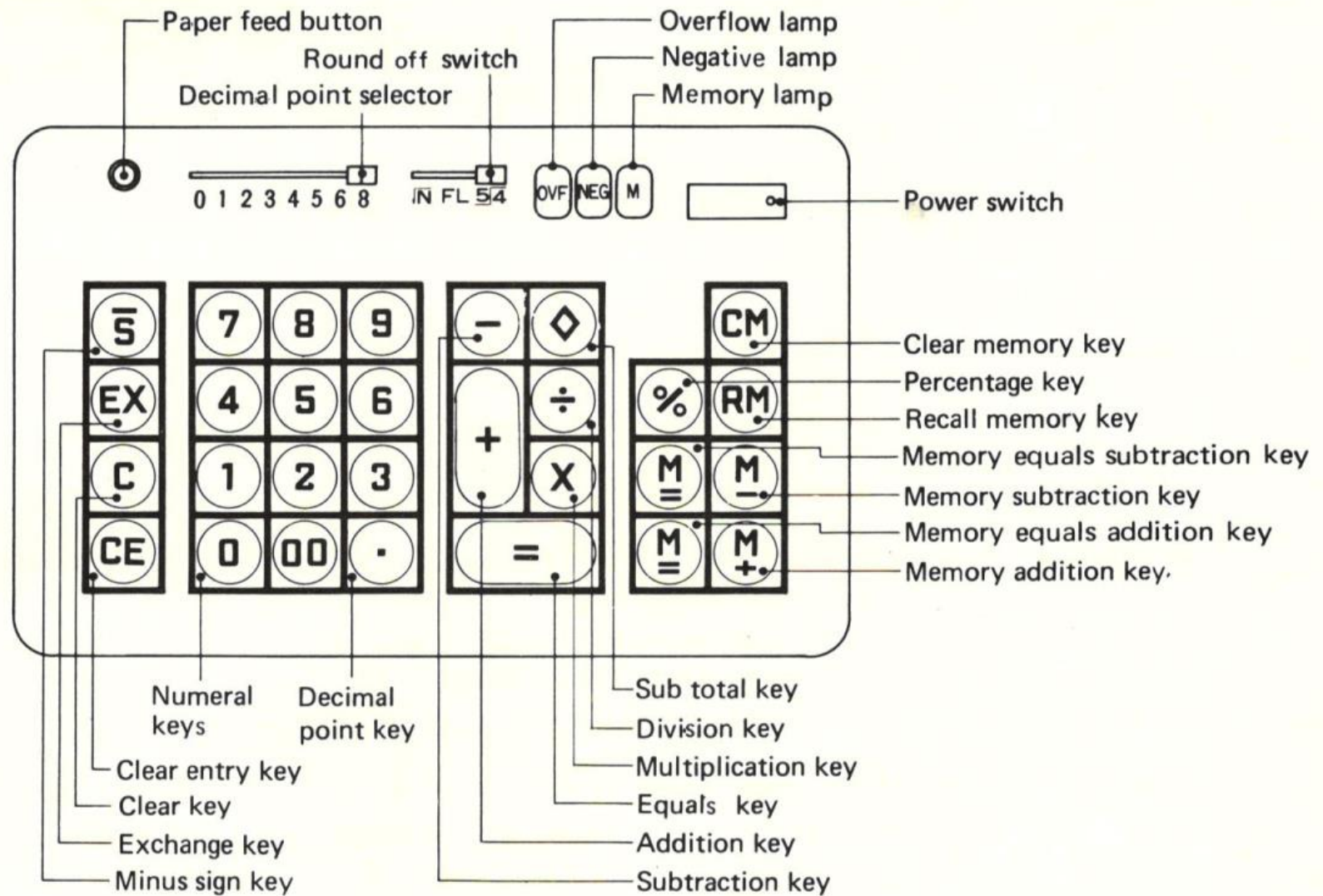
1 Sub total register.

1 Main total register.













2 Multiplication-division registers.












In multiplication (also division), the product (also quotient) is produced in the entry register and the both accumulators are unaffected.


KEYBOARD



OPERATING KEY FUNCTIONS

Key	Name	Explanation	Print Symbol
	Clear key	For clearing out working registers and overflow.	C
	Clear entry key	For clearing out incorrect entry and overflow.	
 ~  	Numeral keys		
	Decimal point key		
	Minus sign key	For entering negative factors.	
	Subtraction key	To subtract from sub/main total accumulators.	—
	Addition key	To add to sub/main total accumulators.	+
	Division key	To set divide mode, perform chain division and establish 2nd factor as constant divisor.	÷
	Multiplication key	To set multiply mode, perform chain multiplication and establish 1st factor as constant multiplicand.	×
	Equals key	For printing and clearing main total accumulator after the touch of addition or subtraction key.	=
		For calculating and printing product or quotient in multiplication or division.	✖

Key	Name	Explanation	Print Symbol
	Sub total key	For printing and clearing sub total accumulator after the touch of addition or subtraction key. For printing dates or reference numbers after the touch of numeral key. For printing intermediate results in chain calculations.	 # 
	Exchange key	For exchanging contents of multiplier and multiplicand (divisor and dividend)	Ex
	Percentage key	For percentage calculations.	%
	Clear memory key	For printing and clearing memory.	 CM
	Recall memory key	To recall and print (but not clear) memory.	RM
	Memory subtraction key	To subtract from memory.	<u>M</u>
	Memory addition key	To add to memory.	<u>M</u> +
	Memory equals subtraction key	For calculating and printing product or quotient and automatically subtracting from memory.	= <u>M</u>

Key	Name	Explanation	Print Symbol
	Memory equals addition key	For calculating and printing product or quotient and automatically adding to memory.	= M +

Decimal point selector: For setting position of decimal point (0, 1, 2, 3, 4, 5, 6, 8)
 Round switch : For floating, rounding or truncating.
 Overflow lamp : Turns on when the results exceed the capacity.
 Negative lamp : Turns on when the entry or result is negative.
 Memory lamp : Turns on when amount is registered in memory.
 Paper feed button : For advancing the paper tape.
 Power switch : For power on/off.

CHANGING RECORDING PAPER ROLL

Appearance of a red paper section indicates the paper supply is running short. Standard tape 2-1/4" in width (2-3/4" in diameter) should be used as replacement.

Method of changing :

1. Remove the printing section cover by lifting the back of the cover. (Fig. 1)
2. Lift paper guide and feed paper tape between chrome plate and paper guide, depressing the paper feed button.
3. Insert paper into the paper guide slit, depressing the paper feed button. (Fig. 2)
4. Press down on paper guide until it clicks into place, tear off excess paper, and replace printing section cover. (Fig. 3)



Fig. 1

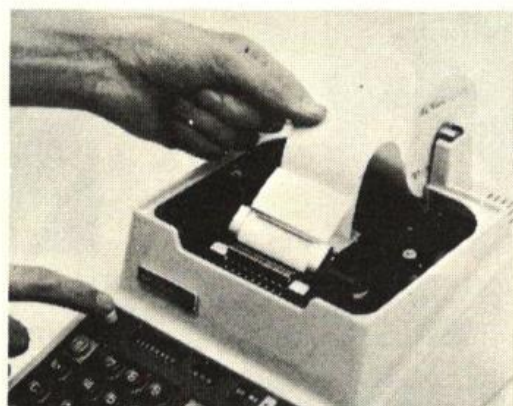


Fig. 2



Fig. 3

CHANGING PRINT RIBBON

The ribbon should be replaced after use of 5 ~ 6 rolls of tape. We recommend the following nylon ribbon.

Width 0,5" , length 24"

Changing the ribbon is performed as follows.

- 1) Remove the printing section cover by lifting the back of the cover. (Fig.1)
- 2) Press the check lever on the back side of each spool, and pull the spools upwards. (Fig.2)
- 3) Insert new ribbon supply and take-up spools with black half up, making sure both spools are snapped onto advance mechanism catches. Check levers should be held against ribbon by spring tension. (Fig. 3)
- 4) Replace the cover. (Fig. 4)



Fig. 1

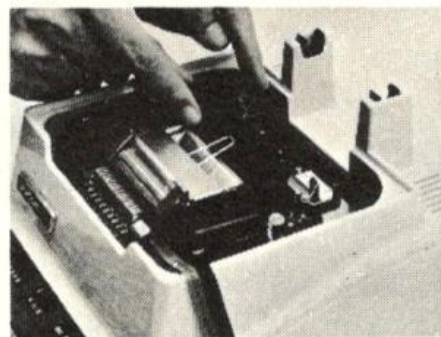


Fig. 2

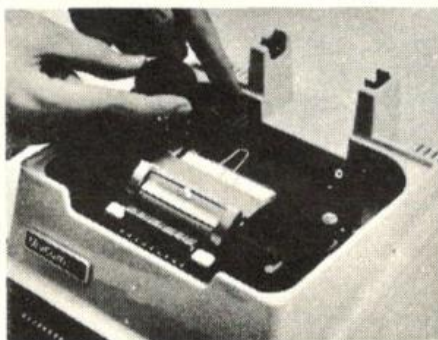


Fig. 3



Fig. 4

OPERATION EXAMPLES

1. ADDITION / SUBTRACTION

I - I

$$12.34 - 34.56 + 56.789 + 56.789 + 0.123 \\ = 91.481$$

Determine the maximum number of decimals to be entered and set decimal point selector to that position.

To add, enter the amount on the keyboard and press the \oplus key. The adjustment of the decimal point is automatically processed according to D.P. Selector. Addition and Subtraction are independent from Round off switch.

To subtract, enter the amount on the key board and press the \ominus key.

※ To repeat, simply depress the previous key without re-entering it on the keyboard.

When the problem is completed, press the \equiv key to print answer on the tape. Pressing \equiv key clears the sub/main total accumulators.

I - I

Operation	Printed tape
DP=3 \sqrt{N}	
12.34 \oplus	12.340 +
34.56 \ominus	34.560 -
56.789 \oplus	56.789 +
※ \oplus	56.789 +
.123 \oplus	0.123 +
\equiv	91.481 ※

1-2

$$1.23 + 4.56 = 5.79$$

When necessary to obtain a result rounded to 1 decimal, at first, set the decimal point selector at more than 1 (for example DP=2). After the touch of last subtraction or addition key, re-set the decimal point selector to "1" and depress the \square key.

※ When the result is rounded, the following symbol will be printed out: "↗".

Credit Balance

1-3

$$15.3 - 56.789 + 3.456 = -38.033$$

Negative answers print in red.

1-2

1-3

Operation	Printed tape
DP=2 $\overline{54}$	
1.23 \oplus	1.23 +
4.56 \oplus	4.56 +
DP=1 $\overline{54}$	
※ \square	5.8 ↗ ※
DP=3 \overline{IN}	
15.3 \oplus	15.300 +
56.789 \ominus	56.789 -
3.456 \oplus	3.456 +
\square	38.033 ※ red

Sub/main total accumulator and non-add printing

1-4 DP=2 \sqrt{N}

$$1+2+3=6$$

$$4+5+6=15$$

$$7+8+9=24$$

45

The UNICOM 141 contains two accumulators. The one is used as the sub total accumulator, the other is used as the main total accumulator.

When the problem is completed, press the \square key to print the sub total accumulator on the tape. Pressing the \square key clears out the sub total accumulator. The main total accumulator is unaffected.

※ Pressing the \square key after the touch of numeral key prints the dates or reference numbers on the tape.

1-4

Operation	Printed tape
DP=2 \sqrt{N}	
※ 1 \square	1 #
1 $+$	1.00 +
2 $+$	2.00 +
3 $+$	3.00 +
\square	6.00 \square
※ 2 \square	2 #
4 $+$	4.00 +
5 $+$	5.00 +
6 $+$	6.00 +
\square	15.00 \square
※ 3 \square	3 #
7 $+$	7.00 +
8 $+$	8.00 +
9 $+$	9.00 +
	24.00 \square
\square	45.00 ※

2. MULTIPLICATION

2-1 FL

$$12.3 \times 4.56 = 56.088$$

2-2 DP=2 $\overline{54}$

$$12.3 \times 4.56 = 56.09$$

2-3 DP=2 \overline{N}

$$12.3 \times 4.56 = 56.08$$

D.P. of product (also quotient) is set at the place designated by D.P. Selector if Round Switch is $\overline{54}$ or \overline{N} , otherwise, D.P. is automatically set at the arithmetic position.

When the product quotient is rounded, the following symbol will be printed: "↑".

Chain multiplication

2-4 FL

$$12.3 \times 4.56 \times 0.789 = 44.253432$$

In multiplication (also division), D.P. of intermediate product (also quotient) is automatically set when in float position regardless of the setting of D.P. selector. In continuous multiplication, simply enter the problem as it is written.

*The intermediate product (also quotient) can be printed on the tape by depressing the \boxtimes key.

2-1

2-2

2-3

2-4

Operation	Printed tape
FL	
12.3 \boxtimes	12.3 \times
4.56 $\overline{=}$	4.56 $=$
	56.088 \times
DP=2 $\overline{54}$	
12.3 \boxtimes	12.3 \times
4.56 $\overline{=}$	4.56 $=$
	56.09 $\nearrow \times$
DP=2 \overline{N}	
12.3 \boxtimes	12.3 \times
4.56 $\overline{=}$	4.56 $=$
	56.08 \times
FL	
12.3 \boxtimes	12.3 \times
4.56 \boxtimes	4.56 \times
\boxtimes \boxtimes	56.088 \diamond
.789 $\overline{=}$	0.789 $=$
	44.253432 \times

Multiplication with constant multiplicand

2-5

FL

$$361.52 \times 120 = 43382.40$$

$$361.52 \times 118.6 = 42876.272$$

$$361.52 \times 98.4 = 35573.568$$

After completion of the first multiplication, the constant multiplicand (361.52) is retained in the multiplication-division register. Thereafter, simply enter the variable multipliers and depress the $\boxed{=}$ key.

Multiplication with constant multiplier

2-6

FL

$$1.25 \times 12 = 15.00$$

$$3.50 \times 12 = 42.00$$

$$1.99 \times 12 = 23.88$$

Before completion of the first multiplication, the multiplicand and multiplier must be exchanged by using the \boxed{EX} key.

2-5

Operation

Printed tape

FL

361.52 $\boxed{\times}$

120 $\boxed{=}$

118.6 $\boxed{=}$

98.4 $\boxed{=}$

FL

1.25 $\boxed{\times}$

12 \boxed{EX}

$\boxed{=}$

3.50 $\boxed{=}$

1.99 $\boxed{=}$

361.52 \times

120 $=$

43382.40 \times

118.6 $=$

42876.272 \times

98.4 $=$

35573.568 \times

1.25 \times

12 EX

1.25 $=$

15.00 \times

3.50 $=$

42.00 \times

1.99 $=$

23.88 \times

Raising to power

2-7 FL

$$5^4 = 625$$

Following the entry, depress the \times key. Then, depress the $=$ key once and the second power product is produced. The constant multiplicand (5) is still retained in the multiplication - division register. Thereafter, depress the $=$ key again and third power is produced, and so forth.

2-7

Correction of function order

2-8 FL

$$12.3 \times 4.56 = 56.088$$

After the touch of division (also multiplication) key, the mode of operation can be corrected by depressing the multiplication (also division) key.

2-8

Operation	Printed tape
FL	
5 \times	5 \times
$=$	5 $=$
	25 \times
$=$	25 $=$
	125 \times
$=$	125 $=$
	625 \times
FL	
12.3 \div	12.3 \div
\times	\times
\div	\div
\times	\times
4.56 $=$	4.56 $=$
	56.088 \times

3. DIVISION

3-1

Division with full floating decimal quotient.

3-2

Division with quotient rounded off.

3-3

Division with quotient truncated.

Chain division

3-4

FL

$$123 \div 6 \div 0.789 = 25.98225602027$$

In continuous division, simply enter the problem the same way it is written.

3-1

Operation	Printed tape
FL 40 \div 6 $=$	40 \div $=$ 6.666666666666666 \times
3-2 DP=2 $\overline{54}$ 40 \div 6 $=$	40 \div 6 $=$ 6.67 $\nearrow \times$
3-3 DP=2 \overline{N} 40 \div 6 $=$	40 \div 6 $=$ 6.66 \times
3-4 FL 123 \div 6 \div .789 $=$	123 \div 6 \div 0.789 $=$ 25.98225602027 \times

Division by constant divisor

3-5 DP=2 5/4

$$4578 \div 360 = 12.72$$

$$2902 \div 360 = 8.06$$

$$8716 \div 360 = 24.21$$

After completion of the first division, the divisor (360) is retained in the multiplication - division register. Thereafter, simply enter the variable dividend and depress the $\boxed{=}$ key.

Division by constant dividend

3-6 DP=2 5/4

$$123.45 \div 36.9 = 3.35$$

$$123.45 \div 28.4 = 4.35$$

$$123.45 \div 31.55 = 3.91$$

The constant is retained in the memory and is recalled as a dividend by pressing the \boxed{RM} and $\boxed{\div}$ keys as indicated.

Note: The memory indicator lights up when there are figures in the memory. To clear the memory, press the \boxed{CM} key.

3-5

3-6

Operation	Printed tape
DP=2 5/4	
4578 $\boxed{\div}$	4578 \div
360 $\boxed{=}$	360 =
	12.72 $\nearrow \times$
2902 $\boxed{=}$	2902 =
	8.06 \times
8716 $\boxed{=}$	8716 =
	24.21 \times
DP=2 5/4	
123.45 \boxed{M}	123.45
$\boxed{\div}$	123.45 \div
36.9 $\boxed{=}$	36.9 =
	3.35 $\nearrow \times$
\boxed{RM}	123.45 RM
$\boxed{\div}$	123.45 \div
28.4 $\boxed{=}$	28.4 =
	4.35 $\nearrow \times$
\boxed{RM}	123.45 RM
$\boxed{\div}$	123.45 \div
31.55 $\boxed{=}$	31.55 =
	3.91 \times

4. PERCENTAGE CALCULATION

Percentage multiplication

4-1 FL

$$12345 \times 2 (\%) = 246.90$$

After completion of the multiplication, D.P. in product is placed as if .02 (2%) had been entered. The $\boxed{\%}$ key speeds up entry of percentage factors.

4-1

Operation	Printed tape
FL	
12345 $\boxed{\times}$	12345 \times
2 $\boxed{\%}$	2 $\%$
	246.90 \times
2 $\boxed{\div}$	2 \div
3 $\boxed{\%}$	3 $\%$
	66.6666666666 \times

Percentage division

4-2 FL

$$2 \div 3 = 0.666666666666$$



$$66.6666666666 \%$$

After completion of the division, D.P. in quotient is placed to be read as a percentage rather than a decimal.

4-2

5. MIXED CALCULATION

5-1

$$\frac{(1.5 + 129.05 - 11.08) \times 12.4 \div 0.55}{(12.96 - 3.56) \times 0.87} = 329.36 \quad 5-1$$

After completion of addition or subtraction, a touch of the \boxtimes (also \div) key reads and clears the main total accumulator, at the same time, orders multiplication or division.

Operation	Printed tape
DP=2 $\overline{54}$	
C	0 C
1.5 \oplus	1.50 +
129.05 \oplus	129.05 +
11.08 \ominus	11.08 -
\boxtimes \boxtimes	119.47 \times
12.4 \div	12.4 \div
.55 \div	0.55 \div
$\boxtimes \boxtimes$ { 12.96 \oplus	12.96 +
3.56 \ominus	3.56 -
=	9.40 \times
\div	9.40 \div
0.87 =	0.87 =
	329.36 \times

6. PERCENTAGE DISTRIBUTION

6-1 DP=2 $\overline{54}$

123	=	8.99 %
456	=	33.33 %
789	=	57.68 %
<hr/>		
1368		100.00 %

※ A 100% proof may be obtained by adding individual percentage distributions into the accumulator without use of memory.

6-1

Operation	Printed tape
DP=2 $\overline{54}$	
C	0 C
123 \div	123 \div
123 $+$	123.00 $+$
456 $+$	456.00 $+$
789 $+$	789.00 $+$
$=$	1368.00 \times
$\%$	1368.00 %
	8.99 \times
※ $+$	8.99 $+$
456 $\%$	456 %
	33.33 \times
※ $+$	33.33 $+$
789 $\%$	789 %
	57.68 $\nearrow \times$
※ $+$	57.68 $+$
※ $=$	100.00 \times

REVERSED CALCULATION

6-2

$$\frac{3}{(1.23 \times 4) + (5.67 \times 8)} = 0.05$$

Individual products may be accumulated to a grand total in the accumulator without use of memory.

6-2

Operation	Printed tape
DP=2 \sqrt{N}	
C	0 C
1.23 \times	1.23 \times
4 $=$	4 $=$
	4.92 \times
$+$	4.92 $+$
5.67 \times	5.67 \times
8 $=$	8 $=$
	45.36 \times
$+$	45.36 $+$
\div	50.28 \div
3 EX	3 EX
$=$	50.28 $=$
	0.05 \times

7. MULTIPLICATION BY CONSTANT WITH ACCUMULATION

7-1

$$123.45 \times 23.4 = 2888.73$$

$$123.45 \times 42.6 = -5258.97$$

$$123.45 \times 51 = 6295.95$$

$$3925.71$$

The individual products accumulate in the memory by using the \boxed{M} and \boxed{M} keys.

\boxed{M} : Memory equals addition key

\boxed{M} : Memory equals subtraction key

Division by constant with accumulation

7-2

$$4578 \div 360 = 12.72$$

$$2902 \div 360 = 8.06$$

$$8716 \div 360 = -24.21$$

$$- 3.43$$

The individual quotients accumulate in the memory by using the \boxed{M} and \boxed{M} keys.

7-1

7-2

Operation	Printed tape
DP=2 $\overline{54}$ \boxed{CM}	0 \boxed{CM}
123.45 $\boxed{\times}$	123.45 \times
23.4 \boxed{M}	23.4 = \boxed{M}
	2888.73 $+$
42.6 \boxed{M}	42.6 = \boxed{M}
	5258.97 $-$
51 \boxed{M}	51 = \boxed{M}
	6295.95 $+$
	3925.71 \boxed{CM}
DP=2 $\overline{54}$ \boxed{CM}	0 \boxed{CM}
4578 $\boxed{\div}$	4578 \div
360 \boxed{M}	360 = \boxed{M}
	12.72 \nearrow $+$
2902 \boxed{M}	2902 = \boxed{M}
	8.06 $+$
8716 \boxed{M}	8716 = \boxed{M}
	24.21 $-$
\boxed{CM}	3.43 \boxed{CM} red

8. DIVIDE PRORATION

8-1

$$\begin{array}{r}
 123456789 \\
 \hline
 123+456+789
 \end{array}
 \times 123 = 11100281$$

$$\begin{array}{r}
 123456789 \\
 \hline
 123+456+789
 \end{array}
 \times 456 = 41152263$$

$$\begin{array}{r}
 123456789 \\
 \hline
 123+456+789
 \end{array}
 \times 789 = \begin{array}{r} 71204245 \\ 123456789 \end{array}$$

※ This intermediate quotient is the constant multiplicand. Thereafter, simply enter the variable multipliers and depress the \boxed{M} key.

Pressing the \boxed{M} key is used to compare the sum with the initial value which is divided proportionately.

8-1

Operation	Printed tape
DP=0 $\overline{54}$	
\boxed{CM}	0 CM
\boxed{C}	0 C
123456789 $\boxed{\div}$	123456789 \div
123 $\boxed{+}$	123 +
456 $\boxed{+}$	456 +
789 $\boxed{+}$	789 +
$\boxed{=}$	1368 \times
※ $\boxed{\times}$	1368 \times
123 \boxed{M}	123 =
	11100281 $\nearrow \boxed{M}$ +
456 \boxed{M}	456 =
	41152263 $\nearrow \boxed{M}$ +
789 \boxed{M}	789 =
	71204245 $\nearrow \boxed{M}$ +
\boxed{CM}	123456789 CM

9. INVOICE CALCULATION

9-1

Quantity	Unit Price	Price
11	1.23	13.53
12	4.11	49.32
3	2.03	6.09
		<u>68.94</u> ◇
Discount 10%		6.89 -
		62.05 ◇
Sales Tax 5%		3.10 +
Cost of Transportation		2.50 +
		<u>67.65</u> ✕

9-1

Operation	Printed tape
DP=2 54	
CM	0 CM
11 X	11 X
1.23 M	1.23 =
	13.53 M+
12 X	12 X
4.11 M	4.11 =
	49.32 M+
3 X	3 X
2.03 M	2.03 =
	6.09 M+
RM	68.94 RM
X	68.94 X
10 %	10 %
	6.89 ✕
M	6.89 M
RM	62.05 RM
X	62.05 X
5 %	5 %
	3.10 ✕
M	3.10 M
2.50 M	2.50 M
CM	67.65 CM

10. APPLICATION OF MEMORY AND ACCUMULATOR

The amount sold and average price.

10-1	Quantity	Unit Price	Price
	10	2.38	23.80
	20	1.38	27.60
	15	3.65	54.75
	45		106.15

$$\text{Average price: } \frac{106.15}{45} = 2.35$$

10-1

Operation	Printed tape
DP=2 \overline{N}	
\boxed{CM}	0 CM
\boxed{C}	0 C
10 \boxed{M}	10.00 M
$\boxed{\times}$	10.00 \times
2.38 $\boxed{=}$	2.38 =
	23.80 \times
$\boxed{+}$	23.80 +
20 \boxed{M}	20.00 M
$\boxed{\times}$	20.00 \times
1.38 $\boxed{=}$	1.38 =
	27.60 \times
$\boxed{+}$	27.60 +
15 \boxed{M}	15.00 M
$\boxed{\times}$	15.00 \times
3.65 $\boxed{=}$	3.65 =
	54.75 \times
$\boxed{+}$	54.75 +
$\boxed{\div}$	106.15 \div
\boxed{CM}	45.00 CM
$\boxed{=}$	45.00 =
	2.35 \times

11. SQUARE ROOT Note: SQUARE ROOT MODEL ONLY

11-1 $\sqrt{152417543.0625} = 12345.73$

STANDARD DEVIATION

11-2 DP=6 $\sqrt{4}$

$$\sigma = \sqrt{\frac{n(\sum x^2) - (\sum x)^2}{n^2}}$$

VALUES OF x : 2. 3. 4. 5. 6

$n = 5$

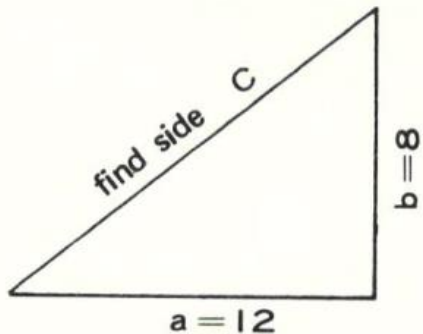
$\sigma = 1.414214$

Operation	Printed tape
DP=2 FL 152417543.0625 $\sqrt{}$	152417543.0625 $\sqrt{}$ 12345.73 *
DP=6 $\sqrt{4}$	
2 M	2.000000 M
\times	2.000000 \times
$=$	2.000000 $=$
	4.000000 *
$+$	4.000000 $+$
3 M	3.000000 M
\times	3.000000 \times
$=$	3.000000 $=$
	9.000000 *
$+$	9.000000 $+$
4 M	4.000000 M
\times	4.000000 \times
$=$	4.000000 $=$
	16.000000 *
$+$	16.000000 $+$
5 M	5.000000 M
\times	5.000000 \times
$=$	5.000000 $=$
	25.000000 *

Operation		Printed tape	
	$\boxed{+}$	25.000000	+
6	\boxed{M}	6.000000	M
	$\boxed{\times}$	6.000000	\times
	$\boxed{=}$	6.000000	=
		36.000000	\times
	$\boxed{+}$	36.000000	+
	$\boxed{\times}$	90.000000	\times
5	$\boxed{=}$	5	=
		450.000000	\times
	$\boxed{+}$	450.000000	+
	\boxed{CM}	20.000000	CM
	$\boxed{\times}$	20.000000	\times
	$\boxed{=}$	20.000000	=
		400.000000	\times
	$\boxed{-}$	400.000000	-
	$\boxed{\div}$	50.000000	\div
5	$\boxed{=}$	5	=
		10.000000	\times
	$\boxed{=}$	10.000000	=
		2.000000	\times
	$\boxed{\sqrt{}}$	2.000000	$\sqrt{}$
		1.414214	\times

PYTHAGOREAN THEOREM

11-3



Hypotenuse
(Side C) $= \sqrt{\text{Side } a^2 + \text{Side } b^2}$

$$C = \sqrt{a^2 + b^2}$$

$$C = \sqrt{208}$$

$$C = 14.422205$$

11-3

Operation	Printed tape
DP=6 5/4	
<input type="checkbox"/> C	0 C
<input type="checkbox"/> CM	0 CM
12 <input type="checkbox"/> X	12 X
<input type="checkbox"/> M	144.000000 M
	+
8 <input type="checkbox"/> X	8 X
<input type="checkbox"/> M	8 =
	64.000000 M
<input type="checkbox"/> CM	+
<input type="checkbox"/> $\sqrt{}$	208.000000 CM
	208.000000 $\sqrt{}$
	14.422205 *

12. CAPACITY OF INPUT BUFFER

The UNICOM 141 contains a powerful 8 word input buffer. It scans the keyboard 40 times per second regardless of calculating or printing.

Therefore, the information on the keyboard, automatically, can be read into the input buffer. After completion of the preceding calculation, the function read in the input buffer, sequentially, will be executed.

13. CAPACITY OF NUMBER ENTRY

The number entry capacity of the UNICOM 141 electronic calculator is 14 digits, plus decimal point and sign.

14. CAPACITY IN ADDITION/SUBTRACTION

The capacity of accumulators and memory is 14 digits, plus decimal point and sign.

14-1 DP=6 \sqrt{N}
12345678 \oplus

14-2 DP=6 \sqrt{N}
123456789 \oplus

Before addition (also subtraction), the contents of entry register, automatically, is adjusted to the decimal places designated by D.P. Selector.

14-3 DP=8 \sqrt{N}
 $900000 + 100000 = 1000000.00000000$
(15 digits overflow)

The contents of both accumulators (also memory), automatically, can be set to the old figures.

To get the previous figure, depress the \odot key, the \oplus key and the \equiv key in regular sequence.

14-1

14-2

14-3

Operation	Printed tape
DP=6 \sqrt{N} 12345678 \oplus	12345678.000000 +
DP=6 \sqrt{N} 123456789 \oplus
DP=8 \sqrt{N} 900000 \oplus 100000 \oplus	900000.00000000 + 100000.00000000 +
\odot \oplus \equiv	0.00000000 + 900000.00000000 ✕

15. CAPACITY IN MULTIPLICATION

15-1 FL

$$123456789 \times 100000 = 12345678900000$$

15-2 FL

$$123456789 \times 1000000 = 123456789000000$$

(15 digits overflow)

In FLOATING mode (also intermediate product in FIXED mode), the number of integers in the product of a multiplication cannot exceed 14.

The constant multiplicand is still retained in the multiplication-division register.

15-3 DP=8 $\overline{54}$

$$123456 \times 1 = 123456.00000000$$

(14 digits)

15-4 DP=8 $\overline{54}$

$$1234567 \times 1 = 1234567.00000000$$

(15 digits overflow)

In FIXED mode, the number of integers in the product of a multiplication with the \equiv key cannot exceed the difference of the DP setting and 14.

15-1

15-2

15-3

15-4

Operation	Printed tape
FL	
123456789 \times	123456789 \times
100000 \equiv	100000 $=$
	12345678900000 \times
FL	
123456789 \times	123456789 \times
1000000 \equiv	1000000 $=$
\times
DP=8 $\overline{54}$	
123456 \times	123456 \times
1 \equiv	1 $=$
	123456.00000000 \times
DP=8 $\overline{54}$	
1234567 \times	1234567 \times
1 \equiv	1 $=$

16. CAPACITY IN DIVISION

16-1 FL

$$4000000 \div 0.0000003 = 13333333333333$$

(14 digits)

16-2 FL

$$40000000 \div 0.0000003 = 133333333333333$$

(15 digits overflow)

In FLOATING mode (also intermediate quotient), the number of integers in the quotient of division cannot exceed 14.

*The constant divisor is still retained in the multiplication-division register.

16-3 DP=8 \sqrt{N}

$$400000 \div 3 = 133333.33333333$$

(14 digits)

16-4 DP=8 \sqrt{N}

$$4000000 \div 3 = 1333333.33333333$$

(15 digits overflow)

In FIXED mode, the number of integers in the quotient of division with the $\boxed{=}$ key cannot exceed the difference of the DP setting and 14.

16-1

16-2

16-3

16-4

Operation	Printed tape
FL	
4000000 $\boxed{\div}$	4000000 \div
0.0000003 $\boxed{=}$	0.0000003 $=$
	13333333333333 \times
FL	
40000000 $\boxed{\div}$	40000000 \div
0.0000003 $\boxed{=}$	0.0000003 $=$

DP=8 \sqrt{N}	
400000 $\boxed{\div}$	400000 \div
3 $\boxed{=}$	3 $=$
	133333.33333333 \times
DP=8 \sqrt{N}	
4000000 $\boxed{\div}$	4000000 \div
3 $\boxed{=}$	3 $=$

MEMO

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