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Casio

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ELECTRONIC CALCULATOR

CASIO-MINI

OPERATOR'S INSTRUCTION MANUAL

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OPERATIONS

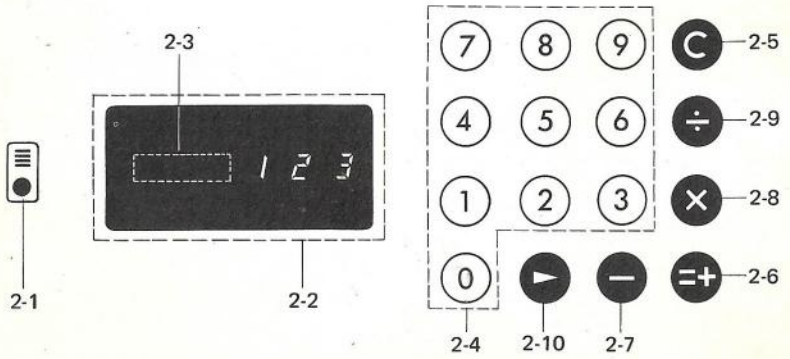
Addition, subtraction, multiplication, division, square, chain multiplication(up to 6 digits intermediate product), mixed calculation.

CAPACITY

Entry	6 digits
Add/Subtract	6 digits
Product	12 digits
Divisor/Dividend	6 digits
Quotient	12 digits

2 THE CALCULATOR KEYBOARD

This calculator is simple to operate and speedy to calculate for everyone.
We invite you to spend a few moments reviewing this instruction guide so that you may become familiar, and in a short time, proficient in its use.



2-1. ON-OFF SWITCH

To switch on, move the left-hand switch up ; a red dot will appear to show the power is on. "0" is displayed in the read-out ; you can start operation immediately without depressing the C key.

2-2. READ-OUT 123456

The 6 digit capacity, single plane Digitron tube panel brightly displays each keyboard entry and each result final or intermediate.

2-3. ZERO SUPRESSION

Unnecessary 0's (ZEROS) are not displayed.

2-4. NUMERAL KEYS FROM 0 TO 9

This is a standard 10-key keyboard. By touching the numeral keys, figures are entered into a working register and are displayed in the read-out. For example, if you would like to enter 123456, depress the numeral keys as follows ①②③④⑤⑥ then 123456 is displayed in the read-out.

2-5. CLEAR KEY C

This key clears the entire machine, including read-out, working register and locked register caused by overflow indication.

2-6. ADDITION AND EQUAL KEY ⊜

For addition key and equal key for multiplication and division. For example, addition is obtained by Entry ⊕ Entry ⊕ . In multiplication and division, product and quotient are obtained by depresseing ⊕ key after multiplier and divisor are entered.

2-7. SUBTRACTION KEY ⊖

Subtraction is obtained by Entry ⊕ Entry ⊖ . For example, problem calls for 15 − 6 =, the answer 9 is obtained by depressing the following keys; ①⑤⊕ (the ⊕ key should be depressed always after the number to be subtracted is entered) ⑥⊖ .

2-8. MULTIPLICATION KEY ⊗

For entering a multiplicand.

2-9. DIVISION KEY ÷

For entering a dividend.

2-10. FULL REGISTER VIEWING KEY ⊡

If the product exceeds 6 digits, the first six significant digits are displayed by depressing ⊕ key, and the remaining digits are obtained by depressing this ⊡ key.
In division, integral part of quotient is displayed by depressing the ⊕ key and the decimal part of quotient is obtained by depressing this ⊡ key. Once the ⊡ key has been released the first six significant digits will appear on the display.

3-1. ADDITION

Before starting operation depress the Ⓒ key to clear the previous answer.
Addition is obtained by Entry ⊕ Entry ⊕ .
You can enter a number up to 6 digits and no further entry can be made.

EXAMPLE 1.	OPERATION	READ-OUT
5	Ⓒ⑤⊕	5
+ 3	③⊕	8 . . answer
8		

EXAMPLE 2.	OPERATION	READ-OUT
18	Ⓒ①⑧⊕	18
+ 43	④③⊕	61 . . answer
61		

EXAMPLE 3.	OPERATION	READ-OUT
5	Ⓒ ⑤⊕	5
13	①③⊕	18
+ 163	①⑥③⊕	181 . . answer
181		

3-2. SUBTRACTION

Before starting operation depress the Ⓒ key to clear the previous answer. Subtraction is obtained by Entry ⊕ Entry ⊖ .

EXAMPLE 4.	OPERATION	READ-OUT
5	ⓒ⑤⊕	5
− 3	③⊖	2 . . answer
2		

N.B. Make sure you have the same operation steps in subtraction as above mentioned, by following operation steps ⓒ⑤⊖③⊕, you will have a wrong answer (−2).

EXAMPLE 5.	OPERATION	READ-OUT
295	ⓒ②⑨⑤⊕	295
− 163	①⑥③⊖	132
− 213	②①③⊖	− 81 . . answer
− 81		

N.B If the number to subtract is bigger than that on the display, the answer will be shown with a minus sign.

3-3. CONTINOUS ADDITION AND SUBTRACTION

EXAMPLE 6.	OPERATION	READ-OUT
4	ⓒ④⊕	4
5	⑤⊕	9
− 24	②④⊖	−15
38	③⑧⊕	23 . . answer
23		

N.B. Carry on subsequent Add/Sub entries as the intermediate answer is shown with a minus sign ; true value is obtained after final entry.

3-4. MULTIPLICATION

For multiplication the operating steps are equivalent to the formula. Before starting operation depress the ⓒ key to clear the previous answer. The product of single multiplication is obtained by Entry ⊗ Entry ⊕ . You can enter a number up to 6 digits.

Maximum capacity of product is 12 digits.

EXAMPLE 7.	OPERATION	READ-OUT
18	ⓒ①⑧⊗	18
x 34	③④⊕	612 . . answer
612		

EXAMPLE 8. (EXAMPLE OF PRODUCTS EXCEEDING 6 DIGITS – DOUBLE LENGTH CALCULATION)

	OPERATION	READ-OUT	
123456	ⓒ①②③④⑤⑥⊗	123456	
789012	⑦⑧⑨⓪①②⊕	974082	. . first 6 digits of product
97408265472	⊖	65472	. . the remaining 5 digits of product
		97408265472	. . true answer is read

N.B. When product exceeds 6 digits as above, by depressing the ⊕ key the first 6 digits are first displayed, and the remaining 5 digits are obtained by depressing the ⊖ key. While the ⊖ key is depressed, the digits after the first six are displayed, and when the ⊖ key is released the first six digits reappear.

3-5. CHAIN MULTIPLICATION

For chain multiplication the operating steps are equivalent to the formula. It is unnecessary to depress the ⊜ key to get the intermediate result.

EXAMPLE 9. (EXAMPLE OF PRODUCT NOT EXCEEDING 6 DIGITS)

	OPERATION	READ-OUT	
12 x 29 x 41	©①②⊗	12	
= 14268	②⑨⊗	348	. . intermediate answer
	④①⊜	14268	.... answer

EXAMPLE 10. (EXAMPLE OF PRODUCT EXCEEDING 6 DIGITS)

	OPERATION	READ-OUT	
123 x 456 x 789	©①②③⊗	123	
= 44253432	④⑤⑥⊗	56088	. . intermediate answer
	⑦⑧⑨⊜	442534	. . first 6 digits of product
	⊖	32	. . the remaining 2 digits of product

N.B. When an intermediate product exceeds 6 digits in chain multiplication, further multiplication is performed with only the first 6 digits as the new multiplicand. Please note that the answer will be an approximate figure.

3-6. DIVISION

For division the operating steps are equivalent to the formula. Before starting operation depress the © key to clear the previous answer. The quotient of single division is obtained by Entry ⊕ Entry ⊜

By depressing the ⊜ key the whole number part of quotient is first displayed; the decimal part of quotient is obtained by depressing the ⊖ key.
The maximum capacity of entry is 6 digits.
Both maximum capacity of whole number part of quotient and decimal part of quotient are 6 digits.

EXAMPLE 11.

	OPERATION	READ-OUT	
5 ÷ 3	©⑤⊕	5	
= 1.666666	③⊜	1	. . whole number part of quotient
	⊖	666666	. . decimal part of quotient
		1.666666	. . true answer is read

EXAMPLE 12.

	OPERATION	READ-OUT	
3 ÷ 125	© ③⊕	3	
= 0.024	①②⑤⊜	0	. . whole number part of quotient
	⊖	024000	. . decimal part of quotient
		0.024000	. . true answer is read

N.B. Chain division is not available on this calculator. Only when the intermediate quotient is to be the dividend of the final division in chain division, and has only whole numbers can the true answer be obtained. Decimal places will automatically be cut off and only an approximate answer with whole numbers will result unless the ture intermediate quotient is used as the dividend.

3-7. SQUARE

Before starting operation depress the ⓒ key to clear the previous answer.
Square is obtained by Entry ⊗⊜
4th power calculation is obtained by Entry ⊗⊜⊗⊜

EXAMPLE 13.	OPERATION	READ-OUT
$12^2 = 144$	ⓒ①②⊗	12
	⊜	144 . . 12^2
$12^4 = 20736$	⊗	144
	⊜	20736 . . 12^4

3-8. CALCULATIONS INVOLVING DECIMAL FRACTIONS

This calculator is not provided with a decimal point key, but calculations involving decimal fractions are performed in the following straightforward way. By following simple rules, you will find that calculating with decimals on this calculator is surprisingly easy.

1) In Addition and Subtraction

Rule 1. Always make sure you have the same number of decimal places in both the number to be added (subtracted) and the number to add to (subtract from), just add zeros to the number which has fewer decimal places.

Rule 2. Decimal place of the answer is the same as the entry with the most decimal places.

EXAMPLE 14.

```
  12.
   1.56
 - 8.5
 ----
   5.06
```

OPERATION: In this example 1.56 has the most decimal places, to have the same number of decimal places stated in Rule 1, add 2 zeros to 12 and 1 zero to 8.5 then enter the adjusted number ignoring decimal places in the following steps.

```
  12.00        ⓒ①②⓪⓪⊜      1200
   1.56          added zeros
 - 8.50          ①⑤⑥⊜      1356
 ----           ⑧⑤⓪⊖       506 . . true answer is read; 5.06 as stated in Rule
   5.06            added zero      2.
```

2) In Multiplication

Rule 1. Ignore decimal places of entry in multiplication.

Rule 2. Decimal place of the answer is the same as the total decimal places of entries.

EXAMPLE 15.	OPERATION	READ-OUT
15.97 x 9.4	ⓒ①⑤⑨⑦⊗	1597
= 150.118	⑨④⊜	150118 . . as stated in Rule 2, the total decimal places of entries are 3
		150.118 . . true answer is read

3) In Division

Rule 1. Always make sure you have the same number of decimal places in both the number to be divided and the number to divide by; just add zeros to the number which has fewer decimal places.

Rule 2. To read your answer after depressing the ⊜ key is the same as mentioned in 3-6. DIVISION (page 8).

EXAMPLE 16. 1475 ÷ 3.6 = 409.722222

OPERATION	READ-OUT	
C 1 4 7 5 0 ⊜	14750	
added zero		
3 6 ⊜	409	. . whole number part of quotient
⊖	722222	. . decimal part of quotient
	409.722222	. . true answer is read

EXAMPLE 17. 3.45 ÷ 6.3 = 0.547619

OPERATION	READ-OUT	
C 3 4 5 ⊜	345	
6 3 0 ⊜	0	. . whole number part of quotient
added zero		
⊖	547619	. . **decimal part of quotient**
	0.547619	. . true answer is read

3-9. MIXED CALCULATION

EXAMPLE 19. 89 x 37 ÷ 19 = 173.315789

OPERATION	READ-OUT	
C 8 9 ⊗	89	
3 7 ⊜	3293	
1 9 ⊜	173	. . whole number part of answer
⊖	315789	. . decimal part of quotient
	173.315789	. . true anawer is read

EXAMPLE 20. (456 + 123) x 85 / 63 = 781.190476

OPERATION	READ-OUT	
C 4 5 6 ⊜	456	
1 2 3 ⊜	579	
⊗	579	
8 5 ⊜	49215	
6 3 ⊜	781	. . whole number part of answer
⊖	190476	. . decimal part of answer
	781.190476	. . true answer is read

3-10. ANSWER EXCEEDING 7 DIGITS IN ADDITION

The sum of the entries may become 7 digits in which case the first digit (always 1) will not appear but must be taken into account in the answer. The display will show the last six digits of the seven number figure. At this point no further entry can be made. In this case the calculator always provides an accurate answer to one step before which the entry cannot be made.

EXAMPLE 20.

	OPERATION	READ-OUT	
850000	C 8 5 0 0 0 0 0	850000	
+ 340000	3 4 0 0 0 0 0	190000	. . the first digit doesn't appear on the display
1190000			
	no further entry can be made		
		1190000	. . true answer is read

When the answer exceeds 6 digits in addition as above and no further entry can be made, please read the answer as follows,

READ-OUT	
0	the answer should be read as; 1000000
50	the answer should be read as; 1000050
5678	the answer should be read as; 1005678

Please depress the C key to clear the locked register caused by overflow indication as above.

This calculator is operated on dry cells.
On 4 common Alkaline dry cells, it operates continuously for 10 hours approx.
When the battery becomes weak, replace with new ones. It performs accurate calculation even when the batteries become weak, but the display becomes difficult to read.

1) Switch off the power.
2) Slide the cover attached to the bottom of the calculator in the direction of arrow.
3) Pull the ribbon to eject the dry cells.
4) Replace batteris.

5 CARE OF YOUR NEW ELECTRONIC CALCULATOR

This calculator is a durable, precision-made instrument which will provide you with many years of trouble-free service.

To help insure this we recommend not touching the inside of calculator. And we suggest that you refrain from using your calculator during periods of extreme cold (below 32°F) extreme heat and humidity (above 140°F). Please make sure you switch off the power when you intend to open the cover to change batteries.

PHYSICAL CHARACTERISTICS 6

COMPONENT
LSI
ELECTRIC SOURCE AND CONSUMPTION
1.5V AM-3 DRY CELL x 4 (pieces). 0.85 W.
DIMENSIONS
1-3/4"H x 3"W x 5-3/4"D (41.5 m/m x 77 m/m x 146.6 m/m)
WEIGHT (including carrying case and dry cells)
12.3 ozs. (350 gr.) .