HANDLING INSTRUCTIONS FOR CALCULATOR

1) Push-button explanation

Ⓒ Clear button

Will clear all content (operation value, calculation orders) of the calculator. Error corrections can be done only with this button.

⓪ – ⑨ Storage button

Button to store values necessary for calculations.

⊙ Decimal point button

Button to secure decimal point indication. To store a value less than 1 (examaple 0.12) it will not be necessary to press ⓪ button.

Example 1.23 – ①⊙②③

0.12 – ⊙①②

⊜ Equal button

A button to secure the final operation result

⊕ Plus button
⊖ Minus button
⊗ Multiplication button
⊘ Divison button

} When any of these buttons are pressed repeatedly, only the final press will become set.

√ Square root button – to secure extraction of a square root.

ON – OFF Button

It is a button that switches the electric power on or off. When ON is pressed, the zero (0), will appear on the display and the calculator will be ready for use. When OFF is pressed, the calculator display will disappear. (The electric power of the calculator will be cut off).

2) Symbol explanation

E . . . . . Error — display

- When divider is Zero

							0.	E

Example ⑤⊘⓪

- When operation result exceeds 8 figures (above decimal point)
- Minus square root

Example ②⊖⑤⊜√

– . . . . . Minus symbol — display

When operation result is minus

							3.	–

Example ②⊖⑤⊜

3) Before starting calculation

- Press ON button until zero appears on the display panel. The button will remain in pushed-in.
  Proceed with the calculation after confirming the zero on the display.
- Any pressing mistake of the 4 buttons ⊕⊖⊗⊘ will be corrected by merely re-pressing the correct button. Example when ⊗ is pressed instead of ⊕ for 123 ⊕ 4

  123 ⊗ ⊕ 4 ⊜ 127.
- When you wish to continue the calculation, be sure to pres Ⓒ button before proceeding to your next calculation. Press the button, wait for the zero to appear on the display and then start with your calculation.
- Press buttons with a light touch
  Please press the button lightly. Take care not to press too hard.
- Upon completing the calculation press the OFF button
  When OFF button is pressed, the ON buttton will return to its original up-right position from the pressed-in position and all of the display on the calculator side will disappear.

4) Operation example

Calculation formula		Button operation	Display (Answer)
Additions & Subtraction (per calculation formula)	123 + 456 =	123 ⊕ 456 ⊜	579.
	123 – 456 =	123 ⊖ 456 ⊜	333.– minus display
	987 + 654 – 321 =	987 ⊕ 654 ⊖ 321 ⊜	1320.
Multiplication & Division (per culculation formula)	123 × 456 =	123 ⊗ 456 ⊜	56088.
	456 ÷ 123 =	456 ⊘ 123 ⊜	3.707317
	123 × 456 ÷ 789 =	123 ⊗ 456 ⊘ 789 ⊜	71.087452
Constant multipication and constant division	51 × 26 =	51 ⊗ 26 ⊜	1326.
	51 × 19 =	19 ⊜	969.
	1015 ÷ 57 =	1015 ⊘ 57 ⊜	17.807017
	85.5 ÷ 57 =	85.5 ⊜	1.5
Root calculation	$\sqrt{2}$ =	2 √	1.4142135
	$2+\sqrt{2}$ =	2 √ ⊕ 2 ⊜	3.4142135
	$2\times\sqrt{2}$ =	2 √ ⊗ 2 ⊜	2.828427
	note:	2 ⊗ 2 √ ⊜	1.4142135
Power Calculation	2^2 =	2 ⊗ ⊜	4.
	2^3 =	2 ⊗ ⊜ ⊜	8.
	2^n =	2 ⊗ ⊜ (n – 1) round ⊜	2^n.
	3^2 =	3 ⊗ ⊜	9.
	3^4 =	3 ⊗ ⊜ ⊗ ⊜	81.
	3^8 =	3 ⊗ ⊜ ⊗ ⊜ ⊗ ⊜	6561.
	3^{2^n} =	3 ⊗ ⊜ n round ⊗ ⊜	3^{2^n} (⊗ ⊜ Makes 1 round)
continuous calculation	$\frac{(12+34)\times 56}{78}$ =	12 ⊕ 34 ⊗ 56 ⊘ 78 ⊜	33.025641
Reciprocal calculation (This is an application of the constant division using ⊘⊜)	$\frac{5}{2\times 3+4}$ =	2 ⊗ 3 ⊕ 4 ⊘ ⊜ 5 ⊜	0.5

SPECIFICATIONS

Model	Citizen Quartz Crystron LC with Calculator
Caliber No.	9090A
Type	Digital (liquid crystal) display
Movement	Diameter: 38.6mmφ Thickness: 9.0mm
Oscillation	32.768Hz
Accuracy	±10 sec./month under normal temperature
Display system	FE twist-type nematic LC display
Display factors	Constant digital display of "hour", "minute" and "second" "Date" and "month" display by push-button operation Operation result display up to 8-digits
Display correction	Independent correction of each digit by push-button operation (watch)
Effective temperature range	+5°C (41°F) ~ +50°C (122°F)
Integrated circuit	C/MOS-LSI: 3 units (1 for watch: 2 for calculator)
Additional mechanisms	Calculator (addition, subtraction, multiplication & division plus root, etc., calculations including decimal point) Automatic month-end calendar correction Built-in illumination lamp
Power cells	Small-size silver oxide power cell: 3 pieces (1 for watch, 2 for calculator) Parts No. : 280–21 Voltage : 1.5V Capacity : 120mAH Size : 11.6mmφ × 4.2mm Life : Watch: 2 years or more Calculator: 330 hours or more