

Sanyo
Mini Electronic Calculator
ICC-83
Instruction Manual



 **SANYO**

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Specifications

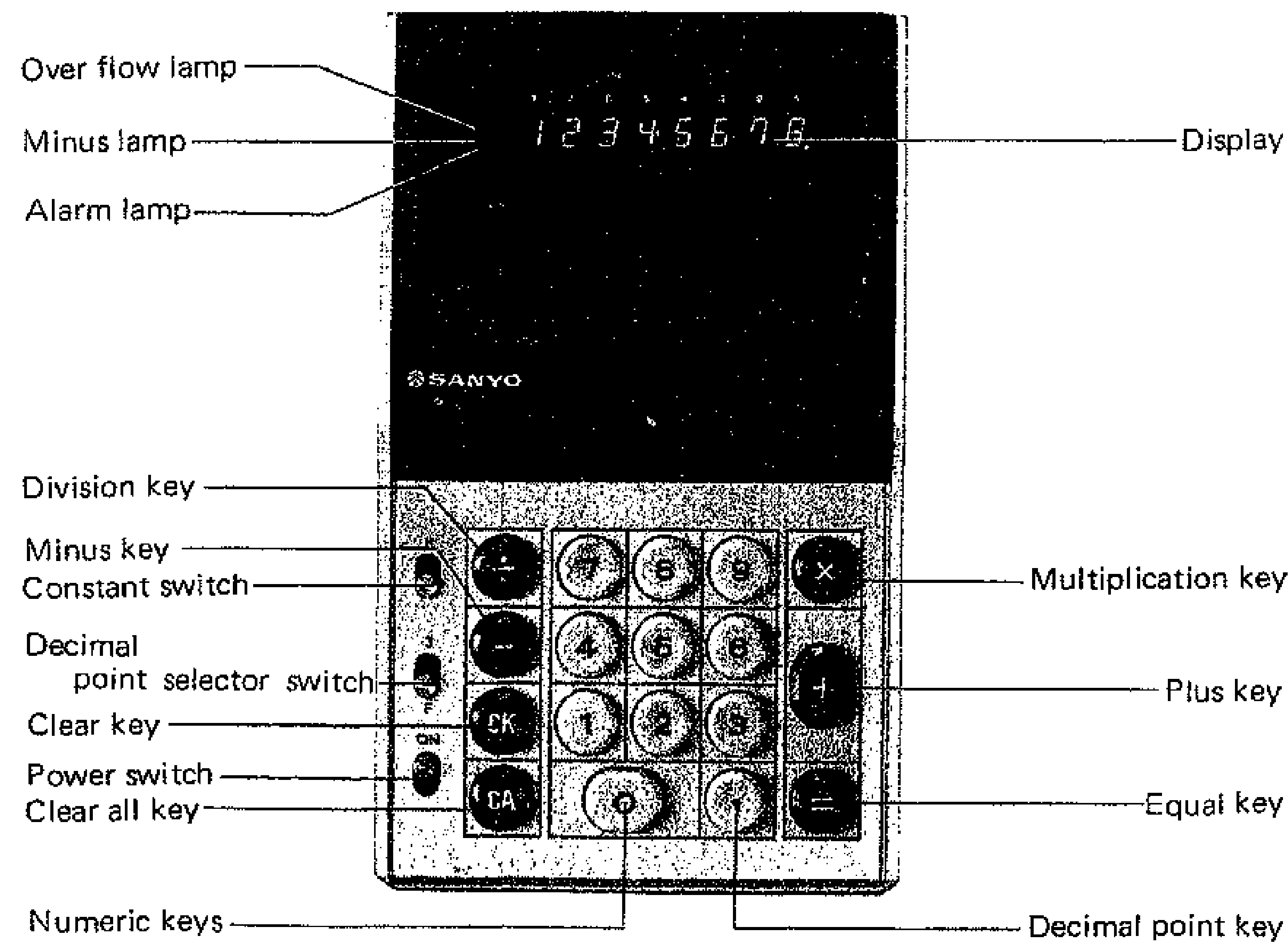
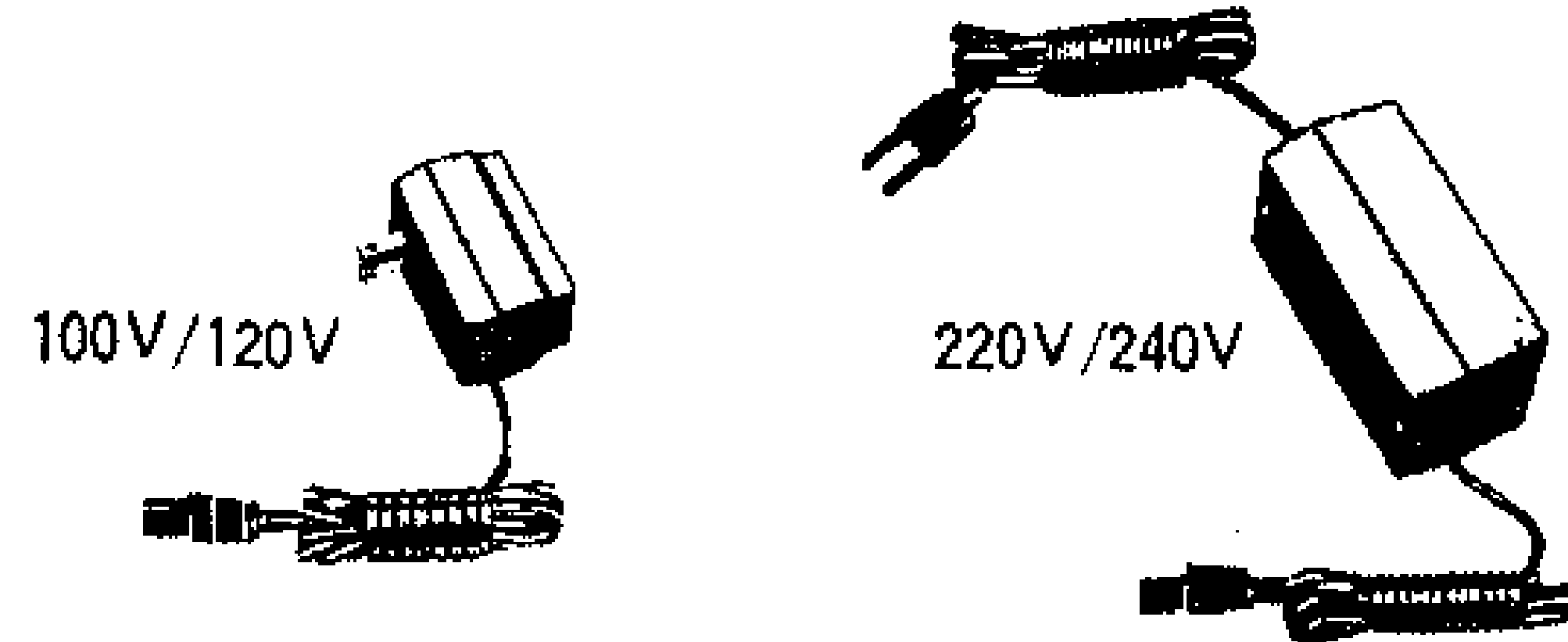
FEATURES

This compactly designed, high performance mini electronic calculator is equipped with single-chip LSI and has a number of outstanding features and functions:

- * Key operation follows the figure alignment of each arithmetic expression.
- * Three-register, underflow system (priority given to upper 8 digits).
- * Zero suppression makes reading the display easier.
- * Full calculating versatility with constant calculations, mixed calculations, power calculations, etc.
- * Handy fixed/floating decimal point selector switch.
- * Two convenient power sources: ordinary house current or dry cell batteries.
- * With automatic clear system.

NAME OF PARTS _____

AC adaptor (100V/120V or 220V/240V)



KEYS, SWITCHES AND LAMPS _____

0 9 Numeric Keys

Figures are registered by depressing these keys in the order in which they appear in the calculation.

◊ Decimal Point Key

Depress this key at the appropriate position when registering figure with a decimal point.

+ - × ÷ = Function Keys

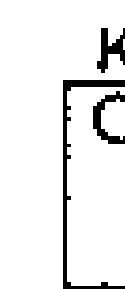
These keys are depressed in accordance with the given arithmetic expression.

CA Clear All Key

This key clears the entire machine. (The same effect is obtained when turning on the power switch.)

CK Clear Key

Depressing this key clears only the displayed figures.



Constant Switch

Switch to the "K" position before beginning the calculation with a constant multiplicand or divisor. In ordinary calculations, it must always be switched off.



Decimal point selector switch

The decimal point in the result of calculation can either be selected to floating or fixed by selector switch.
(Calculated result is drop off)

● Over-flow lamp

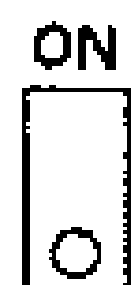
This lamp lights when the integer part in result exceeds 8 digits.

— Minus lamp

This lamp lights when the result of calculation is negative.

- Alarm lamp

This lamp lights when battery power is exhausted, and warn you to replace them.



Power switch

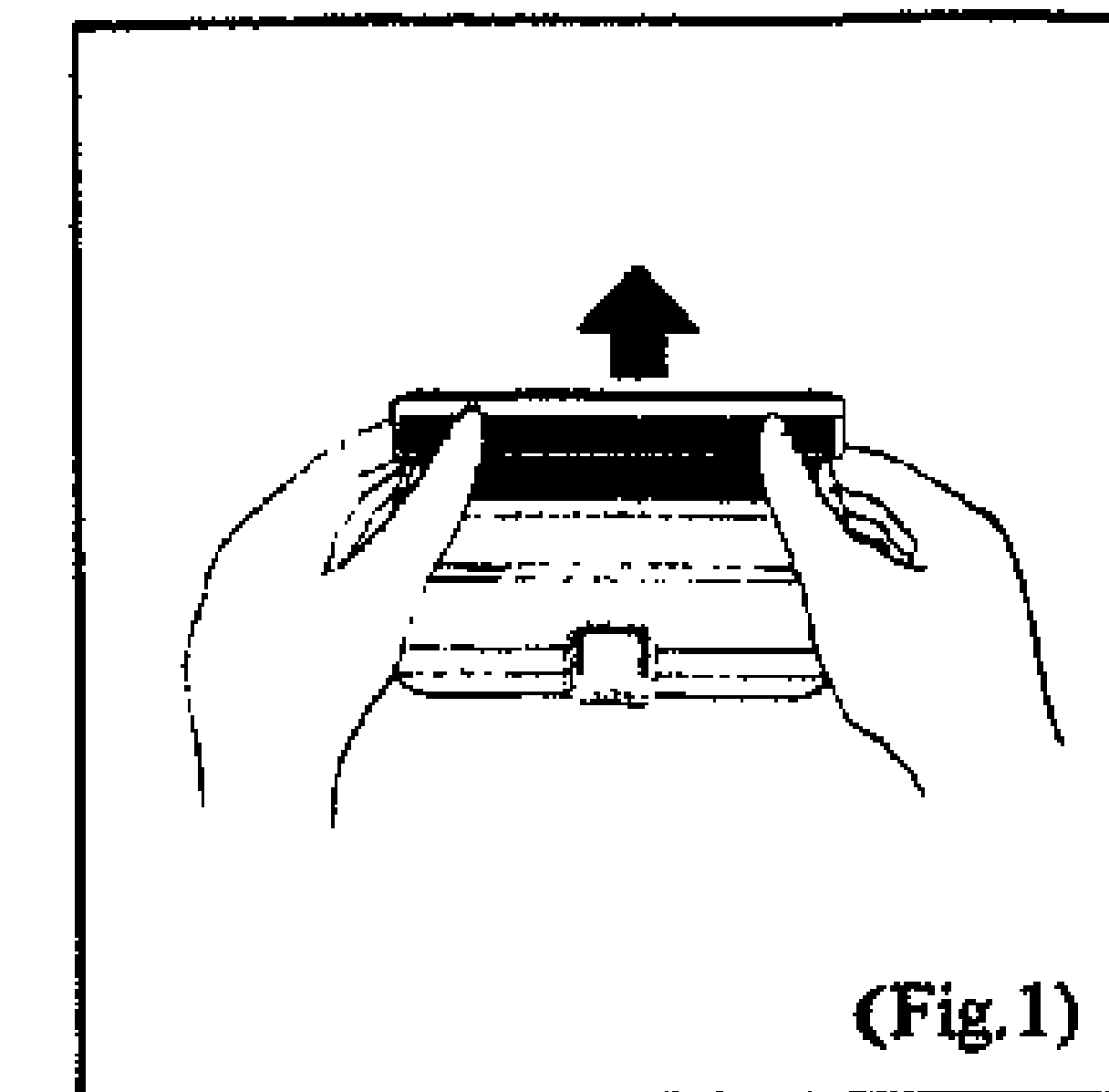
Turning on the power
* Slide the power switch ON.
Turning off the power
* Slide down the power switch.

PREPARATIONS BEFORE STARTING

1. The right-most digit lights zero (0) when turn the power switch on.
2. Make sure if alarm lamp is not lit in using dry cell battery.
3. Preselect the decimal point and constant switch, according to the calculation.

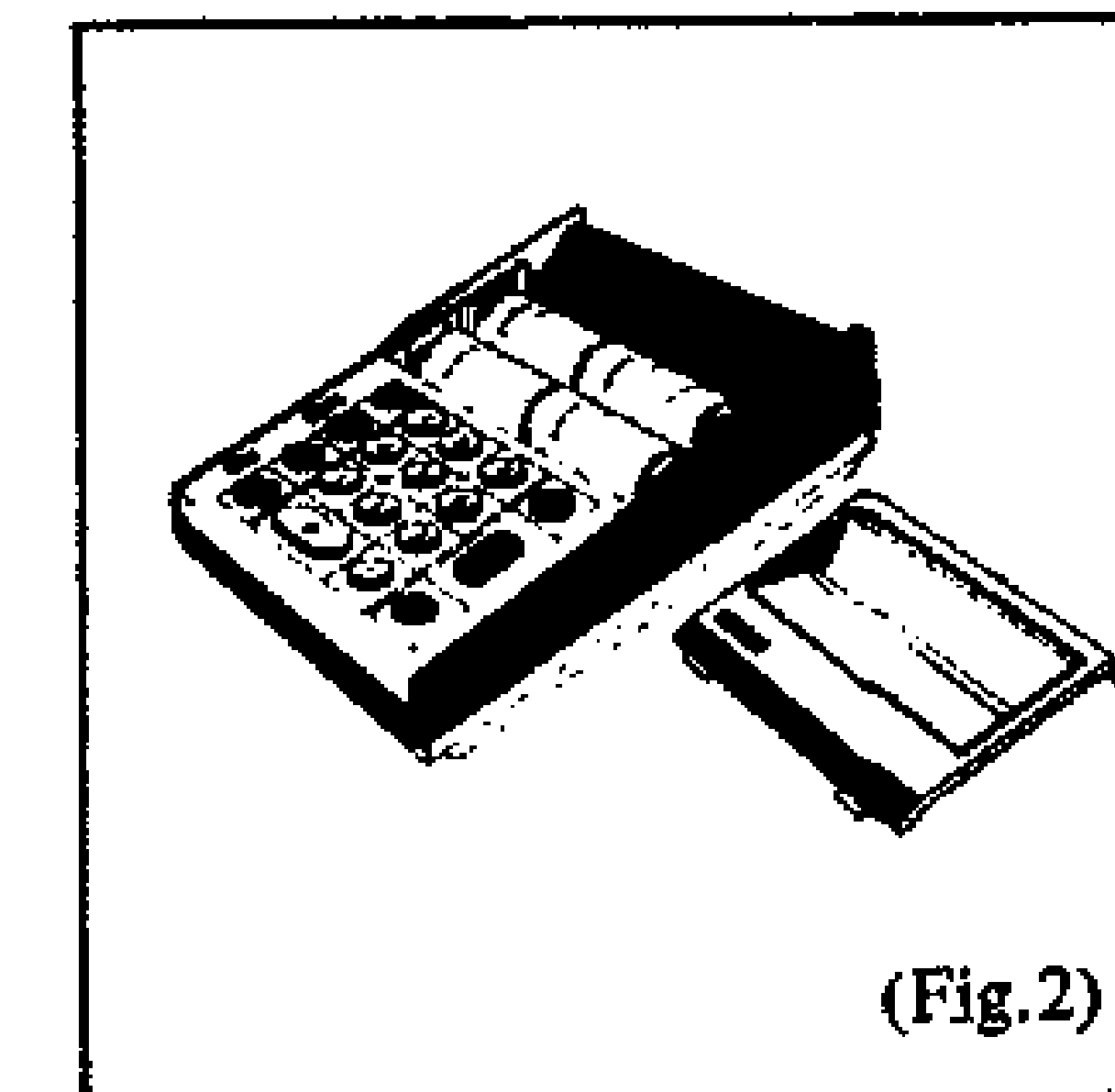
LOADING OF DRY CELL BATTERIES

1. To open the battery lid, lift the lid towards the direction of the arrow, pushing slightly inward. (Fig. 1)



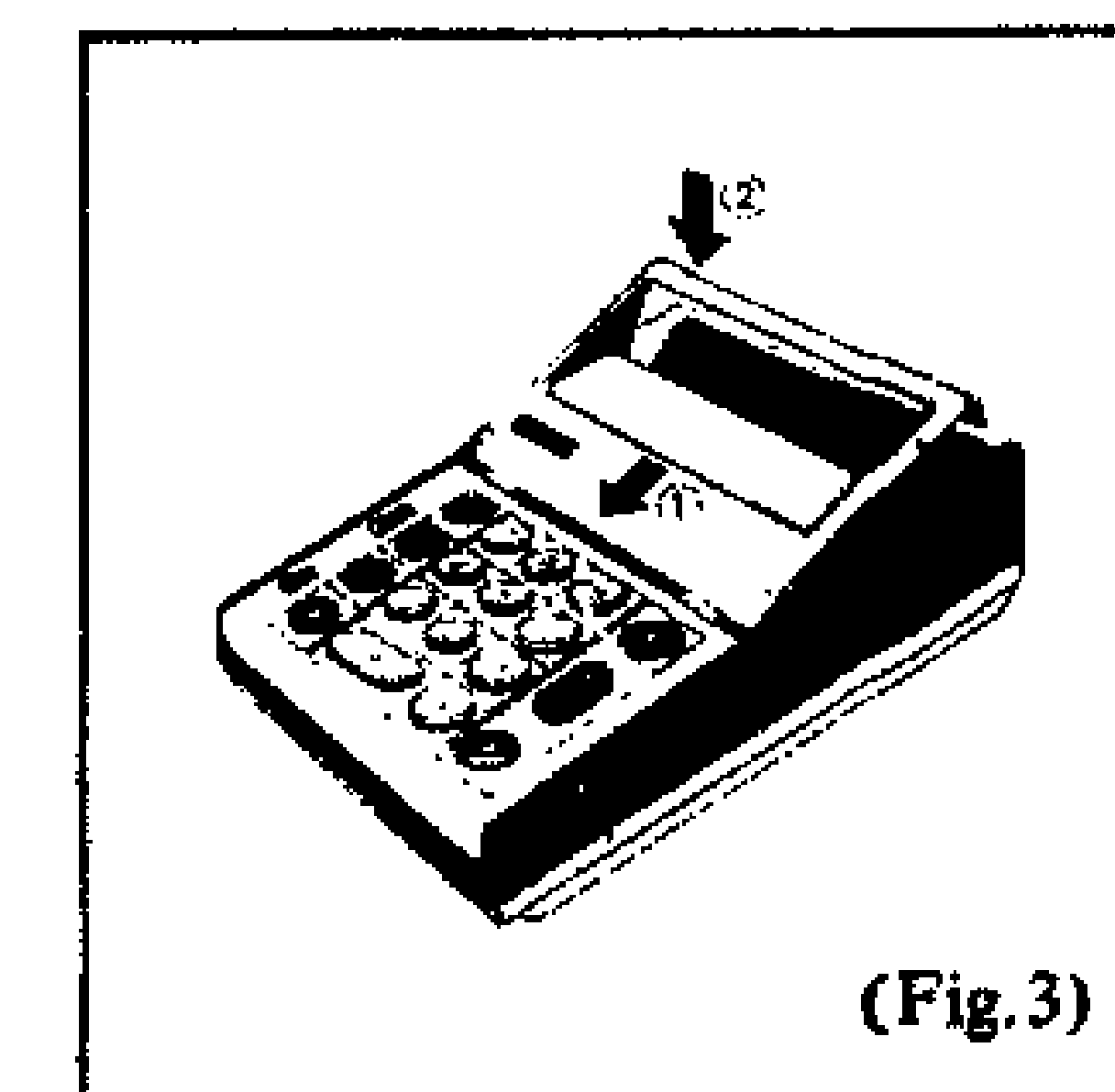
(Fig.1)

2. Load 4 C-size batteries into the battery container. When loading, insert negative pole of the battery first. (Fig. 2)



(Fig.2)

3. After loading the batteries,
①: insert the hook of lid into the calculator.
②: push the lid to downward. (Fig. 3)



(Fig.3)

NOTE: Replace batteries when an alarm lamp will lights.

CALCULATIONS

1. ADDITIONS AND SUBTRACTIONS

(Ex. 1) $456 + 789 - 496 = 749$

$\frac{3}{0} 456 \oplus 789 \ominus 496 \ominus$ 749.

(Ex. 2) $12.3 + 8.18 - 9.42 = 11.06$

$\frac{3}{0} 12 \oplus 8 \oplus 18 \ominus 9 \oplus 42 \ominus$ 11.06

(Ex. 3) $-456 + 320 = -136$

$\frac{3}{0} \text{MA} \ominus 456 \oplus 320 \ominus$ - 136.

2. MULTIPLICATIONS AND SUCCESSIVE MULTIPLICATIONS

(Ex. 1) $1.234 \times 9.876 = 12.186984$

(a) $\frac{3}{0} 1 \otimes 234 \otimes 9 \otimes 876 \ominus$ 12.186984

(b) $\frac{3}{0}$ Key operation is the same as in (a) 12.186

(Ex. 2) $-123 \times 789 = -97047$

$\frac{3}{0} \text{MA} \ominus 123 \otimes 789 \ominus$ - 97047.

(Ex. 3) $7.41 \times 8.52 \times 9.63 = 607.972716$

(a) $\frac{3}{0} 7 \otimes 41 \otimes 8 \otimes 52 \otimes 9 \otimes 63 \ominus$ 607.97271

(b) $\frac{3}{0}$ Key operation is the same as in (a) 607.972

3. DIVISIONS AND SUCCESSIVE DIVISIONS

(Ex. 1) $9.876 \div 8 = 1.2345$

(a) $\frac{3}{0} 9 \otimes 876 \ominus 8 \ominus$ 1.2345

(b) $\frac{3}{0}$ Key operation is the same as in (a) 1.234

(Ex. 2) $-625 \div 25 = -25$

$\frac{3}{0} \text{MA} \ominus 625 \ominus 25 \ominus$ - 25.

(Ex. 3) $625 \div 25 \div 0.5 = 50$

(a) $\frac{3}{0} 625 \ominus 25 \oplus \otimes 5 \ominus$ 50.

(b) $\frac{3}{0}$ Key operation is the same as in (a) 50.000

4. MULTIPLICATION WITH A CONSTANT

(Ex.) $3.14 \times 2 = 6.28$
 $3.14 \times 3 = 9.42$
 $3.14 \times 3.5 = 10.99$

$\frac{3}{0} \frac{3}{0} 3 \otimes 14 \otimes 2 \ominus$ 6.28
 $3 \ominus$ 9.42
 $3 \otimes 5 \ominus$ 10.99

(NOTE) Regard the constant as the multiplicand.

5. DIVISION BY A CONSTANT

(Ex.) $56 \div 2.8 = 20$
 $63 \div 2.8 = 22.5$
 $14.7 \div 2.8 = 5.25$

$\frac{3}{0} \frac{3}{0} 56 \ominus 2 \otimes 8 \ominus$ 20.
 $63 \ominus$ 22.5
 $14 \otimes 7 \ominus$ 5.25

(NOTE) Regard the constant as the divisor.

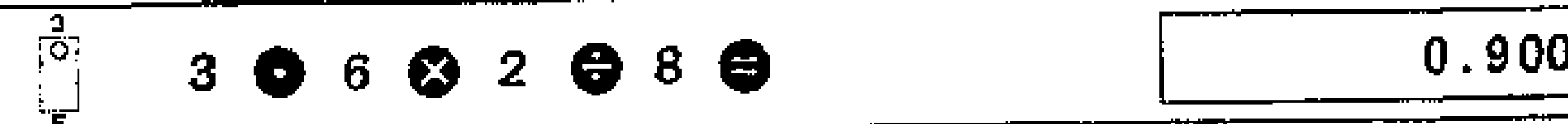
6. POWER CALCULATIONS

(Ex.) $2^2 = 4$
 $2^3 = 8$
 $2^4 = 16$



7. MIXED CALCULATIONS

(Ex. 1) $3.6 \times 2 \div 8 = 0.9$

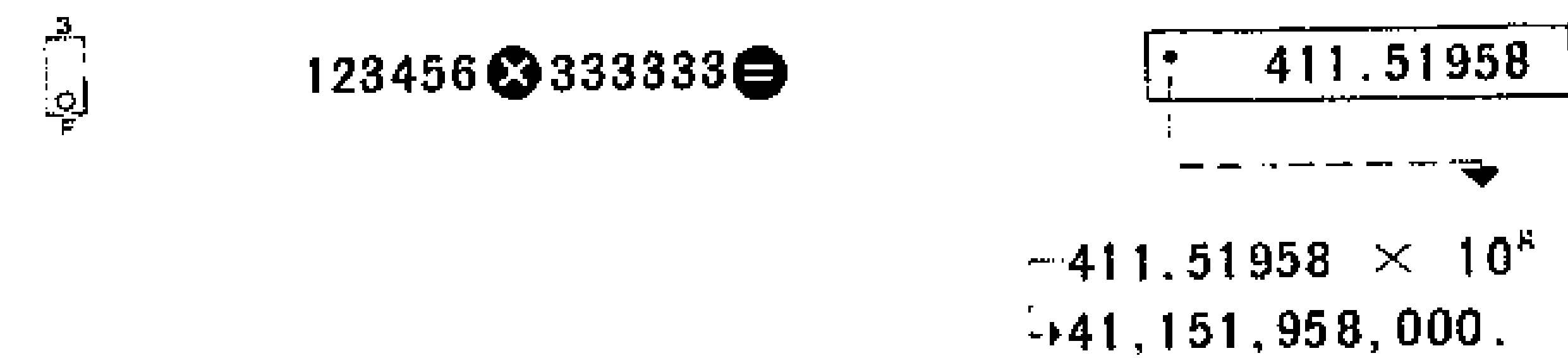


(Ex. 2) $\frac{(392 - 123) \times 8}{4} = 538$



8. OVERFLOW

(Ex.) $123456 \times 333333 = 41151958848$



NOTE: OVF indicator in results means $\times 10^8$

- (NOTE) CA Clear all key
 This key should always be depressed before operations below mentioned.
1. When the first operation is begun in the negative.
 2. When beginning the operation, after turning the constant switch off.
 3. When beginning the operation, after occurred overflow.

SPECIFICATIONS

Type	Mini Electronic Calculator
Model	ICC-83
Display	8-digit display with zero suppression
Decimal point	Input : Floating Output : Floating/Fixed (3)
Negative figure	True number with a minus sign
Calculating capacity	Addition/Subtraction: 8 digits \pm 8 digits Multiplication: (Max.) 8 digits \times 8 digits = 8 digits (product) Division: (Max.) 8 digits \div 8 digits = 8 digits (quotient)
Calculating speeds	Additions and subtractions Max. 0.03 sec. Multiplications Max. 0.05 sec. Divisions Max. 0.06 sec.
Semiconductor	LSI
Operating temperature	0°C ~ 40°C (32°F ~ 104°F)
Power consumption	2W
Power source	AC adaptor for ICC-83 or Dry cell batteries (UM-2x4)
Dimensions	53 (H) \times 113 (W) \times 187 (D) mm
Weight	0.7 kg, including dry cell batteries



Printed in Japan