

#### **ELECTRONIC PRINTING CALCULATOR**

OPERATION MANUAL



SHARP CORPORATION

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# **OPERATIONAL NOTES**

To insure trouble-free operation of your SHARP calculator, we recommend the following:

1. The calculator should be kept in areas free from extreme temperature changes, moisture, and dust

- A soft, dry cloth should be used to clean the calculator. Do not use solvents or a wet cloth,
- Since this product is not waterproof, do not use it or store it where fluids, for example water, can splash onto
  it. Raindrops, water spray, juice, coffee, steam, perspiration, etc. will also cause malfunction.
   If service should be required, use only a SHARP servicing dealer, a SHARP approved service facility or
- SHARP repair service
- If you pull out the power cord to cut electricity completely, the presently stored tax rate will be cleared.
- 6. Do not wind the AC cord around the body or otherwise forcibly bend or twist it.

SHARP will not be liable nor responsible for any incidental or consequential economic or property damage caused by misuse and/or malfunctions of this product and its peripherals, unless such liability is acknowledged by law

# **OPERATING CONTROLS**

POWER SWITCH: PRINT / ITEM COUNT MODE SELECTOR

OFF • P P•IC ON

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"OFF": Power OFF

Power ON. Set to the non print mode.

"P•IC"

Power ON. Set to the print mode.

Power ON. Set to the print mode.

Power ON. Set to the print and item count mode.

For addition or subtraction, each time it is pressed, 1 is added to the item counter, and each time is pressed. 1 is subtracted.

The count is printed when the calculated result is obtained.
Pressing of \*, %E %E clears the counter.

Note: The counter has a maximum capacity of 3 digits (up to ±999). If the count exceeds the maximum, the

counter will recount from zero

**↑** 5/4 ↓

ROUNDING SELECTOR:

Example: Set Decimal Selector to 2.  $4 \div 9 = 0.444$ ..., 5 ÷ 9 = 0.555

	4 ÷ 9 =	5 ÷ 9 =
1	0.45	0.56
5/4	0.44	0.56
1	0.44	0.55

Note: The decimal point floats during successive calculation by the use of ▼ or ÷. If the decimal selector is set to "F" then the answer is always rounded down (1)

RATE
GT • SET
GRAND TOTAL / RATE SETTING MODE SELECTOR:

"GT": Grand Total

"•": Neutral

"RATE SET": Rate setting

- Enter the adding tax rate, then press TAAF.
   A maximum of 4 digits can be stored (decimal point is not counted as a digit).
- Only one rate can be stored. If you enter a new rate, the previous rate will be cleared.

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DECIMAL / ADD MODE SELECTOR:

- "6 3 2 1 0": Presets the number of decimal places in the answer
- "F": The answer is displayed in the floating decimal system.

  "A": The decimal point in addition and subtraction entries is automatically positioned to the 2nd digit from the lowest digit of entry number. Use of the add mode permits addition and subtraction of numbers without entry of the decimal point. Use of □, ⋈ and ⊕ will automatically override the add mode and decimally correct answers will be printed.
- PAPER FEED KEY
- MON-ADD / SUBTOTAL KEY
- % CLEAR / CLEAR ENTRY KEY
- \* TOTAL KEY
- = EQUAL KEY

Change SIGN KEY: Changes the algebraic sign of a number (i.e., positive to negative or negative to positive).

- \*M RECALL AND CLEAR MEMORY KEY
- M RECALL MEMORY KEY
- TAX+ TAX-INCLUDING KEY
- PRE-TAX KEY TAX-
- GT **GRAND TOTAL KEY**
- COST PRICE ENTRY KEY: Press this key to enter the cost price.

SELL SELLING PRICE ENTRY KEY:

Press this key to enter the selling price

MGN MARGIN ENTRY KEY:

Press this key to enter the margin.

#### DISPLAY SYMBOLS:

М : Appears when a number is in the memory.

: Appears when a number is negative

: Appears when a number is in the grand total memory. : Appears when an overflow or other error is detected.

#### INK ROLLER REPLACEMENT

If printing is blurry even when the ink roller is in the proper position, replace the roller.

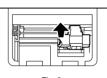
Ink roller: Type EA-772R

#### WARNING

PLYING INK TO WORN INK ROLLER OR USE OF UNAPPROVED INK ROLLER MAY CAUSE SERIOUS DAMAGE TO PRINTER.

- 2) Remove the printer cover. (Fig. 1)
- 3) Hold the top of the ink roller and remove the roller by <u>pulling it toward you and then upward.</u> (Fig. 2) 4) Install the new ink roller in the correct position. Make sure that the roller is securely in place. (Fig. 3)
- 5) Put back the printer cover





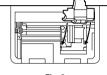


Fig. 2

Fig. 3

### Cleaning the printing mechanism

If the print becomes dull after long time usage, clean the printing wheel according to the following

- 1) Remove the printer cover and the ink roller.
- Install the paper roll and feed it until it comes out of the front of the printing mechanism
- 3) Put a small brush (like a tooth brush) lightly to the printing wheel and clean it by pressing (4) Put back the ink roller and the printer cover.

Note: • Do not rotate the printing mechanism manually, this may damage the printer

## PAPER ROLL REPLACEMENT

Never insert paper roll if torn. Doing so will cause paper to jam Always cut leading edge with scissors first.

- Insert the leading edge of the paper roll into the opening. (Fig. 1)
- 2) Turn the power on and feed the paper by pressing (a). (Fig. 2)
  3) Lift the attached metal paper holder up and insert the paper roll to the paper holder. (Fig. 3)







Fig. 3 Fig. 2

DO NOT PULL PAPER BACKWARDS AS THIS MAY CAUSE DAMAGE TO PRINTING MECHANISM

## **ERRORS**

There are several situations which will cause an overflow or an error condition. When this occurs, "E" will be displayed. The contents of the memory at the time of the error are retained.

If an "0-E" is displayed at the time of the error, "-----" will be printed in red and 🚾 must be used to

clear the calculator.

Also, in rare cases, printing may stop midway and the indication "E" appear on the display. This is not a malfunction but is caused when the calculator is exposed to strong electromagnetic noise or static electricity from an external source. Should this occur, press the field key and then repeat the calculation from the

### Error conditions:

- 1. When the integer portion of an answer exceeds 12 digits.
  2. When the integer portion of the contents of the memory exceeds 12 digits.

  (Ex. My 9999999999 My 1 My)

  1 My)
- 3. When any number is divided by zero. (Ex. 5 ÷ 0 = )

# **SPECIFICATIONS**

Operating capacity: Power source: AC: 12 digits 230V-240V, 50Hz

PRINTING SECTION

Printing paper:

Mechanical printer Printing speed:

Approx. 2.1 lines/sec.
(At temperature 25°C (77°F), when "741.9 + " is printed. The printing speed will vary with the number of rows and the figure types to be printed.)

57 mm(2-1/4") - 58 mm(2-9/32") wide 80 mm(3-5/32") in diameter (max.) 0°C - 40°C (32°F - 104°F)

Operating temperature: Power consu 41 mA 193 mm (W) × 256 mm (D) × 62.5 mm (H)

(7-19/32" (W) × 10-3/32" (D) × 2-15/32" (H)) Approx. 1.0 kg (2.20 lb.) 1 paper roll, 1 ink roller (installed), and operation manual Weight: Accessories

## WARNING

THE VOLTAGE USED MUST BE THE SAME AS SPECIFIED ON THIS CALCULATOR. USING THIS CALCULATOR WITH A HIGHER VOLTAGE THAN THAT WHICH IS SPECIFIED IS DANGERGUS AND MAY RESULT IN A FIRE OR OTHER TYPE OF ACCIDENT CAUSING DAMAGE. WE ARE NOT RESPONSIBLE FOR ANY DAMAGE RESULTING FROM USE OF THIS CALCULATOR WITH A VOLTAGE OTHER THAN THAT WHICH IS SPECIFIED.

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# CALCULATION EXAMPLE

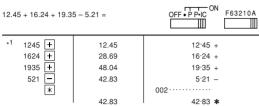
- 1. Set the decimal selector as specified in each example
- The rounding selector should be in the "5/4" position unless otherwise specified.

  2. The grand total/rate set mode selector should be in the "\*" position (off) unless otherwise specified.

- mode.
- 7. Example procedures are listed in following manner unless otherwise specified.

Operation	Display	Print	

#### ADDITION AND SUBTRACTION WITH ADD MODE



<sup>\*1 : •</sup> was not used in the entries.

#### MIXED CALCUL ATIONS

MIXED CALCULATIONS						
A. 5 × 2 + 12	2 =	OFF • P P•IC F63210A	B. (10 + 2) ×	5 =	OFF • P P•IC	F63210A
5 ×	5.	5· ×	10 🛨	10.		10. +
2 =		2· =	2 🛨	12.		2· +
_	10.	10⋅ *	×	12.		12. ×
			5 =			5 =
+	10.	10. +		60.		60∙ 🛊
12 +	22.	12. +			'	
*		002 · · · · · · · · · ·				
_	22.	22· <b>*</b>				
		•				

CONSTANT	Г				
A. <u>62.35 × 11.1</u> <u>62.35 × 22.2</u>	_	F63210A	B. 11.11 <u>÷ 7</u> 22.22 <u>÷ 7</u>	$\frac{77.77}{77.77} = 1$	F63210A
62.35 × 11.11 =	62.35 692.7085	62:35 × 11:11 = 692:7085 <b>*</b> ①	11.11 ÷ 77.77 =	11.11 0.14285714285	11·11 ÷ 77·77 = 0·14285714285 <b>*</b> ①
22.22 =	1,385.417	22·22 = 1·385·417 <b>*</b> ②	22.22 =	0.28571428571	22·22 = 0·28571428571 <b>*</b> ②

### PERCENT

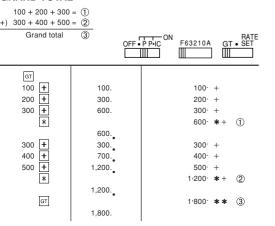
A. 100 × 25% =		F63210A	B. 123 ÷ 1368	F63210A	
100 × 25 %	100.	100· × 25· %	123 ÷	123.	123· ÷ 1,368· %
	25.00	25.00 *		8.99	8.99 *

### ITEM COUNT CALCULATION

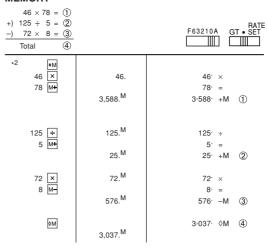
Bill No.	Number of bills	Amount
1 2 3 4 5	1 1 1 1	\$100.55 \$200.00 \$200.00 \$400.55 \$500.65
Total	(a)	(b)

		OFF • P P•IC F63210A
%E %E		
100.55 🛨	100.55	100.55 +
200 🛨	300.55	200.00 +
+	500.55	200.00 +
400.55 🛨	901.10	400:55 +
500.65 🛨	1,401.75	500.65 +
*		005 · · · · (a)
	1.401.75	1,401.75 <b>*</b> (b)

# **GRAND TOTAL**



#### **MEMORY**



\*2 : Press \*M to clear the memory before starting a memory calculation.

# **COST / SELL / MARGIN CALCULATION**

EXAMPLE 1: Determine the cost price for 30% margin when the selling price is set at

- \$500.

  ① Selling Price ② Margin
- 3 Cost Price

		F63210A
500 SELL	500.	500 ★△ ①
30	30.	
MGN		30 *% ②
	350.	350· <b>★</b> C ③

 Entries in the order of "30 MGN 500 SELL" are also valid

EXAMPLE 2: Determine the selling price for 30% margin when the cost price is set at \$350.

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3 Selling Price

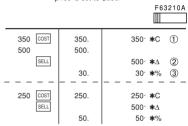
350 COST	350.	350· <b>★</b> C ①
30	30.	
MGN		30⋅ ★% ②
	500.	500⋅ ★△ ③
	•	

• Entries in the order of "30 MGN 350 COST" are also valid.

- EXAMPLE 3: Determine the margin when the cost price is set at \$350, and the selling
  - price at \$500.

    ① Cost Price ② Selling Price
  - ③ Margin

Also, obtain the margin when the cost price is set to \$250.

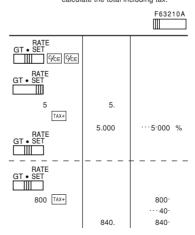


- Entries in the order of "500 SELL 350 COST" are also valid
- The entered value (enter value, then press COST), SELL, or MGN) will be kept in the buffer; the re-entry will not be necessary when recalculatina.
- The buffer contents will be cleared upon new entry, or when the power switch is turned off/on, or when "E" is displayed.

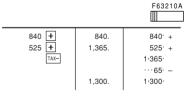
# TAX RATE CALCULATIONS

EXAMPLE 1: Set a 5% tax rate.

Calculate the tax on \$800 and calculate the total including tax.



EXAMPLE 2: Perform two calculations using \$840 and \$525, both of which already include tax. Calculate the tax on the total and the total without tax. (tax rate: 5%)



### In case of abnormal conditions

When this unit is exposed to strong RF noise and/or extreme physical shock during the operation, or when the power cord is plugged into the AC outlet, the unit may start functioning abnormally which, in some rare occasion all keys - including the power key and the  $\frac{|\phi_{\rm CE}|}{|\phi_{\rm E}|}$  key - cease to respond. If such abnormal conditions are observed, unplug the

AC cord from the socket. Keep the unit unplugged for about 5 seconds, reconnect the AC plug, then turn on the power.

### Caution!

The socket outlet shall be installed near the equipment and shall be easily accessible