

ELECTRONIC PRINTING CALCULATOR OPERATION MANUAL

OPERATIONAL NOTES

- To insure trouble-free operation of your SHARP calculator, we recommend the following:
1. Keep the calculator away from extreme heat such as on a car dashboard or near a heater, and avoid exposing it to excessively humid or dusty environments.
 2. Clean with a soft, dry cloth. Do not use solvents or a wet cloth. Avoid using a rough cloth or anything else that may cause scratches.
 3. 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.
 4. If service should be required, use only a SHARP servicing dealer, a SHARP approved service facility or SHARP repair service.
 5. This product, including accessories, may change due to upgrading without prior notice.
 6. The optional AC adaptor (EA-28A) is not available in some regions. Please ask your SHARP dealer for details.
 7. If you pull out the power cord to cut electricity completely or replace the batteries, the presently stored tax rate (discount) / exchange rate and memory contents will be cleared.

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

ON
[C-CE]: **POWER ON KEY / CLEAR / CLEAR ENTRY KEY:**
"C": This key also serves as a clear key for the calculation register and resets an error condition.
"CE": When pressed after a number and before a function, clear the number.

OFF
[P]: **POWER OFF KEY**
PRINT KEY:
 Pressing **[P]** after the entry of a number will print the entry with the symbol "#" even in non-print mode.
 Pressing **[P]** will insert a separator into a number entry such as a code, date, etc. Separators are displayed as a period and dashes but printed as periods.

P/MP
[M+]: **MEMORY + KEY / PRINT ON/OFF KEY:**
 Pressing **[2nd]** **[M+]** selects print mode or non-print mode.
"P": Print mode.
"NP": Non-print mode.

DEC
[M-]: **MEMORY - KEY / DECIMAL SELECTION KEY:**
 Pressing **[2nd]** **[M-]** sets the number of decimal places in the result:
[F] → 3 → 2 → 1 → 0 → A

"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 **[.]** **[X]** and **[Y]** will automatically override the add mode and decimally correct answers will be printed.

TAX-
RATE SET
[TAX+]: **PRE-TAX KEY**
TAX-INCLUDING KEY / TAX RATE SET KEY:
 You can set the tax rate by pressing **[2nd]** **[RATE SET]**. (A maximum of 4 digits excluding the decimal point can be stored as the tax rate.)

[2nd]: **2nd FUNCTION KEY:**
 To use the functions shown above the keys, such as "DEC", press the **[2nd]** key first. (When the **[2nd]** key is pressed, "2nd" will appear at the top of the display.)
 Example: To change decimal place setting from F to 2
[2nd] **[DEC]** **[2nd]** **[DEC]**

[FR]: **PAPER FEED KEY**

DISPLAY SYMBOLS

- F**: Floating decimal mode
 - 3, 2, 1, 0**: Preset decimal mode
 - A**: Add mode
 - P**: Print mode
 - NP**: Non-print mode
 - 2nd**: 2nd functions are available
 - TAX+**: Appears when the total calculated includes tax.
 - TAX-**: Appears when the total calculated excludes tax.
 - TAX**: Appears when the tax rate is set.
 - M**: Appears when a number is in the memory.
 - : Appears when a number is negative.
 - E**: Appears when an overflow or other error is detected.
- Although all available symbols are shown here for instruction purposes, these symbols will not appear on the screen simultaneously.

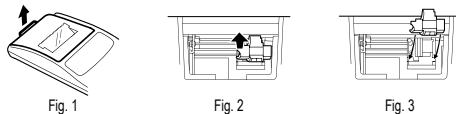
INK RIBBON REPLACEMENT

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

Ink roller: Type IR-40T (SHARP EA-772R)

WARNING
 APPLYING INK TO WORK INK ROLLER OR USE OF UNAPPROVED INK ROLLER MAY CAUSE SERIOUS DAMAGE TO PRINTER.

1. Set the power switch to OFF. Make sure that the print wheel has stopped.
2. Remove the printer cover. (Fig. 1)
3. Hold the top of the ink roller and remove the roller by pulling it toward you and then upward. (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.



Cleaning the printing mechanism

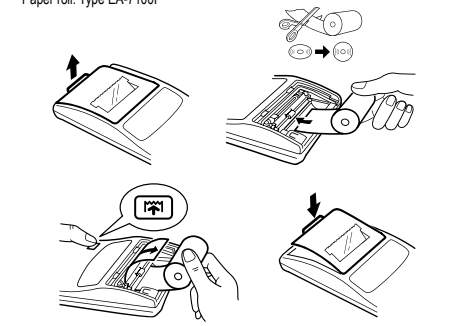
If the print becomes dull after long time usage, clean the printing wheel according to the following procedures:

1. Remove the printer cover and the ink roller.
 2. 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 **[FR]**.
 4. Put back the ink roller and the printer cover.
- Note: Do not rotate the printing mechanism manually, this may damage the printer.

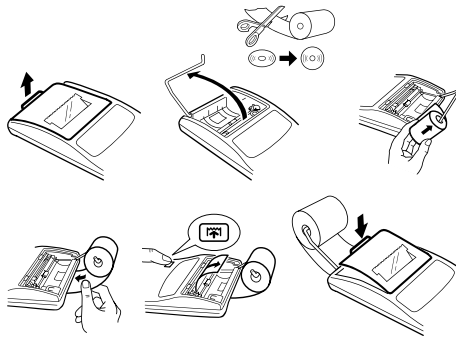
PAPER ROLL REPLACEMENT

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

A. When using the paper roll that is less than or equals to 25 mm (31/32") in outside diameter.
 Paper roll: Type EA-7100P



B. When using the paper roll that is 12mm (15/32") in inside diameter and up to 80mm (3-5/32") in outside diameter:



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

BATTERY REPLACEMENT

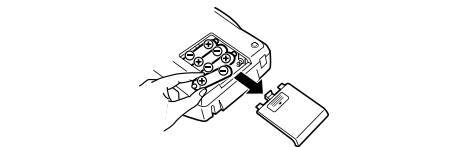
Time for battery replacement

Replace with a new battery once 2 year. When the battery power becomes weak, printing may be halted, and displayed images may disappear. If such symptoms are observed, replace the batteries with new ones.

Battery: Manganese dry battery, size AA (or R6) x 4

Note: When replacing the battery, the set tax / discount rate and conversion rate, the memory contents will be lost. You may want to write down the tax / discount rate and conversion rate, other important numbers on a sheet of paper.

1. Turn the power switch "OFF" and unplug the power supply plug from the outlet.
2. Remove the battery cover on the back of the unit.
3. Replace the batteries. Be sure that the "+" and "-" marks on the battery correspond to the "+" and "-" marks in the calculator. Always put back the 4 batteries at the same time.
4. Put back the battery cover.
5. Press the RESET switch on the back of the unit.



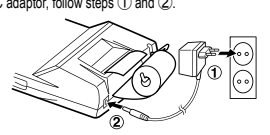
• Fluid from a leaking battery accidentally entering an eye could result in serious injury. Should this occur, wash with clean water and immediately consult a doctor.
 • Should fluid from a leaking battery come in contact with your skin or clothes, immediately wash with clean water.
 • If the product is not to be used for some time, to avoid damage to the unit from a leaking battery, remove it and store in a safe place
 • Do not leave an exhausted battery inside the product.
 • Always put back the 4 batteries at the same time.

HOW TO CONNECT THE AC ADAPTOR (OPTION)

This machine can also be operated on AC power by use of AC Adaptor. When the AC adaptor is connected to the calculator, the power source is automatically switched over from dry batteries to AC power source.

AC adaptor: Model EA-28A

Make sure that you turn the calculator's power off when connecting or disconnecting the AC adaptor.
 To connect the AC adaptor, follow steps ① and ②.



To disconnect the AC adaptor, simply reverse the procedure.

CAUTION
 USE OF OTHER THAN THE AC ADAPTOR EA-28A MAY APPLY IMPROPER VOLTAGE TO YOUR SHARP CALCULATOR AND WILL CAUSE DAMAGE.

ERRORS

There are several situations which will cause an overflow or an error condition. When this occurs, an error symbol "E" will be displayed and "-----" will be printed, and all keys will electronically lock except **[C-CE]**, **[FR]** and **[OFF]**. **[C-CE]** must be depressed to restart the calculation. The contents of the memory at the time of the error are retained.

1. When the integer portion of an answer exceeds 12 digits and does not exceed 24 digits.
 (Example: 888888888888 **[+]** 345678923456 **[=]** 1.23456781234E)
 2. When any number is divided by zero.
 (Example: 5 **[÷]** 0 **[=]**)
 3. When the contents of the memory exceed 12 integers.
 (Example: **[2nd]** **[999999999999]** **[M+]** 1 **[M+]**)
 4. When the integer portion of a quotient in percentage calculation is 25 digits.
 (Example: 10000000000 **[÷]** 0.0000000001 **[%]**)
- When the paper jams, the printer stops and the error symbol "P.E" appears. Turn off the calculator. Tear off the paper tape and then pull the remaining part of the paper forward and completely out of the printer.

SPECIFICATIONS

Operating capacity: 12 digits
 Power source: Operating: 6V --- (DC) Heavy-duty manganese battery, size AA (or R6) x 4
 AC: Local voltage with AC adaptor EA-28A (Option)

PRINTING SECTION

Printer: Mechanical printer
 Printing speed: Approx. 2 lines/sec.
 Printing paper: 57mm (2-1/4") - 58mm (2-9/32") wide
 80mm (3-5/32") in diameter (max.)
 Operating temperature: 0°C - 40°C (32°F - 104°F)
 Operation time: Approx. 5,000 hours (in non-print mode, displaying 555555 at 25°C (77°F) ambient temperature)
 Operating time depends on the type of battery and type of use.
 Dimensions: 99 x 191 x 42 mm
 Weight: Approx. 317 g (with batteries)
 Accessories: 4 heavy-duty manganese battery, 1 paper roll, 1 ink roller and operation manual

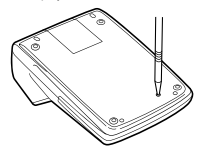
WARNING

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

RESETTING THE UNIT

Strong impacts, exposure to electrical fields, or other unusual conditions may render the unit inoperative, and pressing the keys will have no effect. If this occurs, you will have to press the RESET switch on the bottom of the unit. The RESET switch should be pressed only when:

- an abnormal event occurs and all keys are disabled.
 - you install or replace the batteries.
- Notes:
- Pressing the RESET switch will clear the stored tax rate and other data stored in the memory.
 - Use only a ballpoint pen to press the RESET switch. Do not use anything breakable or anything with a sharp tip, such as a needle.
 - After the RESET switch is pressed, connect the AC adaptor. Turn the power switch "ON" and check that "0." is displayed.



CALCULATION EXAMPLES

1. To insure that each calculation is performed correctly, press **[C-CE]** **[C-CE]** firmly before starting the calculation.
2. Press **[2nd]** **[P/NP]** to select print mode or non-print mode.
3. Unless otherwise stated, it is assumed the calculator is in print mode.

Operation	EXAMPLE	F, 3, 2, 1, 0, A	KEYS	DISPLAY	PRINT
NON-ADD PRINT	No. 123 5.1.2019	F	123 [P] 5 [.] 1 [.] 2019 [P]	123. 5.1-2019	#123·..... #5·1·2019·.....
ADDITION AND SUBTRACTION WITH ADD MODE	2.50 + 4.50 = 3.00 = Note: [=] was not used in the entries.	A	[C-CE] [C-CE] 250 [+] 450 [=] 300 [=]	4.00	4·00 *
MIXED CALCULATIONS	12 × 45 ÷ 4 =	0	12 [×] 45 [÷] 4 [=]	135.	135· *
POWER	2 ² = 2 × 2 = ① 2 ³ = 2 × 2 × 2 = ②	0	(Non-print mode) 2nd [P/NP] 2 [x] [=] 2 [x] 2 [x] 2 [=]	4. ① 8. ②	8· ②
CONSTANT	295 × 8 = 295 × 6 =	0	295 [×] 8 [=] 6 [=]	2'360. 1'770.	2·360· * 1·770· *
	18 ± 2 = 12 ± 2 =	0	18 [+] 2 [=] 12 [+] 2 [=]	9. 6.	9· * 6· *
ADD-ON AND DISCOUNT	5% add-on to 100.	2	100 [+] 5 [%] ----- 100 [×] 5 [%] [+] [=]	105.00 5.00 105.00	105·00 * 5·00 * 105·00 *
	10% discount on 100.	2	100 [−] 10 [%] ----- 100 [×] 10 [%] [−] [=]	90.00 10.00 90.00	90·00 * 10·00 * 90·00 *
RECIPROCAL	1/7 =	F	7 [+] [=] [=]	0.14285714285	0·14285714285 *
PERCENT	650 × 15% =	2	650 [×] 15 [%]	97.50	97·50 *
	123 ÷ 1368 = (%)	2	123 [÷] 1368 [%]	8.99	8·99 *
MEMORY	46 × 78 = ① +) 125 ÷ 5 = ② -) 72 × 8 = ③ Total = ④	0	• Press [CM] to clear the memory before starting a memory calculation. [CM] 046 [×] 78 [M+] 125 [÷] 05 [M+] 072 [×] 08 [M−] [RM]	3'588. M 25. M 576. M 3'037. M	3·588·+M ① 25·+M ② 576·−M ③ 3·037·0M ④
TAX RATE CALCULATIONS	Set a 5% tax rate.	F	5 [2nd] [RATE SET]	5. TAX 5.000	5· · · · 5·000 %
	Calculate the total amount for adding a 5% tax to \$800.	F	800 [TAX+]	TAX+ 840.	800· · · · 40· 840·
	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%)	F	840 [+] 525 [=] [TAX−]	840. 1'365. TAX− 1'300.	840· + 525· = 1·365· * 1·365· − · · · 65· 1·300·

FOR MORE INFORMATION ABOUT SHARP CALCULATORS VISIT:

<http://www.sharp-calculators.com>

ENGLISH

Information on the Disposal of this Equipment and its Batteries

1. In the European Union
Attention: If you want to dispose of this equipment, please do not use the ordinary dust bin!
 Used electrical and electronic equipment must be treated separately and in accordance with legislation that requires proper treatment, recovery and recycling of used electrical and electronic equipment. Following the implementation by member states, private households within the EU states may return their used electrical and electronic equipment to designated collection facilities free of charge*. In some countries* your local retailer may also take back your old product free of charge if you purchase a similar new one.
 *) Please contact your local authority for further details.
 If your used electrical or electronic equipment has batteries or accumulators, please dispose of these separately beforehand according to local requirements.
 By disposing of this product correctly you will help ensure that the waste undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health which could otherwise arise due to inappropriate waste handling.

2. In other Countries outside the EU
 If you wish to discard this product, please contact your local authorities and ask for the correct method of disposal.

SAFETY PRECAUTIONS

CAUTION! Power Outlet
 The socket outlet shall be installed near the equipment and shall be easily accessible.

CAUTION! Notes for handling Lithium batteries

- Danger of explosion if battery is incorrectly replaced.
- Replace only with the same or equivalent type recommended by the manufacturer.
- Dispose of used batteries according to the manufacturer's instructions.
- Do not leave an exhausted battery in the equipment.
- Do not expose the battery to water or flame, and do not take it apart.
- Do not ingest battery, Chemical Burn Hazard.
- This product contains coin cell battery. If the coin cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.
- Keep new and used batteries away from children.
- If the battery compartment does not close securely, stop using the product and keep it away from children.
- If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.
- This equipment is not suitable for use in locations where children are likely to be present.

Manufactured by:
SHARP CORPORATION
 1 Takumi-cho, Sakai-ku, Sakai City, Osaka 590-8522, Japan

For EU only:
 Imported into Europe by:
MORAVIA Consulting spol. s r.o.
 Olomoucká 83, 627 00 Brno,
 Czech Republic

For UK only:
 Imported into UK by:
MORAVIA Europe Ltd.
 Belmont House, Station Way, Crawley,
 West Sussex RH10 1JA, Great Britain