SHARP®

ELECTRONIC PRINTING CALCULATOR

OPERATION MANUAL

EL-1607P

For Australia / New Zealand only :
For warranty information please see www.sharp.net.au

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.
2. A soft, dry cloth should be used to clean the calculator. Do not use solvents or a wet cloth.
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. Do not wind the AC cord around the body or otherwise forcibly bend or twist it.
6. Unplug the calculator by pulling on the plug portion, not the cord.
7. Do not place objects on the AC cord. Do not run the AC cord under rugs, mats, or other such objects.
8. This product, including accessories, may change due to upgrading without prior notice.

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
OFF • P P-IC

POWER SWITCH; PRINT / ITEM COUNT MODE SELECTOR:

"OFF": Power off.
"•": Power ON. Set to the non-print mode.
"P": Power ON. Set to the print mode.
"P•IC": Power ON. Set to the print and item count mode.
For addition or subtraction, each time [±=] 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 [∗], [×], [÷] or [MU] 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.

F 6 3 2 1 0

DECIMAL SELECTOR:

Presets the number of decimal places in the answer. In the "F" position, the answer is displayed in the floating decimal system.

K • A

CONSTANT/ADD MODE SELECTOR:

"K": The following constant functions will be performed:

Multiplication:
The calculator will automatically remember the first number entered (the multiplicand) and [×] instruction.

Division:
The calculator will automatically remember the second number entered (the divisor) and [÷] instruction.

"•": Neutral
"A": Use of the Add mode permits addition and subtraction of numbers without an entry of the decimal point. When the Add mode is activated, the decimal point is automatically positioned according to the decimal selector setting. Use of [·], [×] and [÷] will automatically override the Add mode and decimally correct answers will be printed at the preset decimal position.

↑ 5/4 ↓

ROUNDING SELECTOR:

"↑": An answer is rounded up.
"5/4": An answer is rounded off.
"↓": An answer is rounded down.
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 (↓).

GT •

GRAND TOTAL MODE SELECTOR:

"GT": Grand Total
"•": Neutral

STR STORE KEY:

This key is used to store the conversion rate or the tax/discount rate.

Conversion rate:
- Enter the conversion rate, then press [STR] [×RATE].
- A maximum of 6 digits can be stored (decimal point is not counted as a digit).

Tax/discount rate:
- Enter the adding tax rate, then press [STR] [TAX+].
- To store a discount rate, press [+/−] before pressing [STR] [TAX+].
- A maximum of 4 digits can be stored (decimal point is not counted as a digit).

Note:
- For the conversion rate and the tax/discount rate, a single value can be stored for each. If you enter a new rate, the previous rate will be cleared.
- The stored values for the conversion rate and the tax/discount rate will be cleared if the power cable is disconnected.

PAPER FEED KEY

LAST DIGIT CORRECTION KEY

GT GRAND TOTAL KEY

CE CLEAR ENTRY KEY

∗ TOTAL KEY

× MULTIPLICATION KEY

÷ DIVISION KEY

−= MINUS EQUAL KEY

±= PLUS EQUAL KEY

+/− CHANGE SIGN KEY

MU MARKUP KEY

∗M MEMORY TOTAL CLEAR KEY

◊M MEMORY SUBTOTAL RECALL KEY

TAX+ TAX-INCLUDING KEY

TAX− PRE-TAX KEY

% PERCENT KEY

#/◊ NON-ADD/SUBTOTAL KEY:

Non-add –When this key is pressed right after an entry of a number in the Print mode, the entry is printed on the left-hand side with the symbol "#".
This key is used to print out numbers not subjects to calculation such as code, date, etc.

Subtotal –Used to get subtotal(s) of additions and/or subtractions. When pressed following the [±=] or [−=] key, the subtotal is printed with the symbol "◊" and the calculation may be continued.

By pressing this key even in the Non-print mode, the displayed number is printed without any symbol.

×RATE CONVERSION KEY:

This key is used:
- to store the conversion rate.
- obtains a value by multiplying a given number with a specified conversion rate.
- to recall the presently stored rate for check. Press [∗] [∗] first to clear the calculation register and reset an error condition, then press [×RATE]. The conversion rate is printed with the symbol "Δ".

÷RATE CONVERSION KEY:

This key is used to obtain a value by dividing a given number with a specified conversion rate.

DISPLAY SYMBOLS:

M : A number has been stored in memory.
– : The display value is negative.
E : Error or overflow of capacity.
• : Appears when a number is in the grand total memory.

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

1) Set the power switch to OFF.
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.

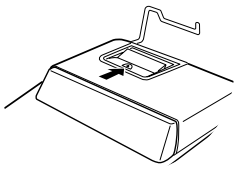

Fig. 1

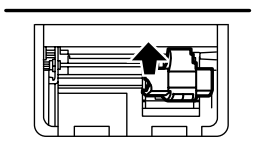

Fig. 2

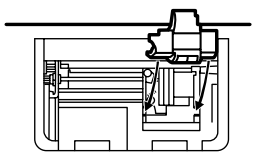

Fig. 3

Cleaning the printing mechanism

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

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

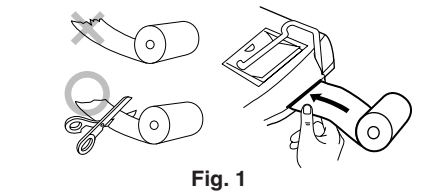

Fig. 1

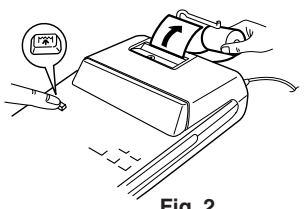

Fig. 2

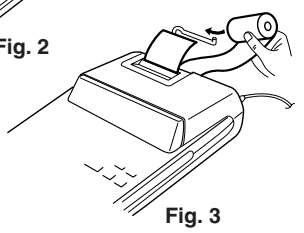

Fig. 3

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, [∗] must be used to clear the calculator. If an "E" with any numerals except zero is displayed, the error may be cleared with [CE] or [→] and the calculation can still be continued.

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 [∗] key and then repeat the calculation from the beginning.

Error conditions:

1. Entry of more than 12 digits or 11 decimals. This error can be cleared with [CE] or [→].
2. When the integer portion of an answer exceeds 12 digits.
3. When the integer portion of the contents of the memory or grand total memory exceeds 12 digits.
   (Ex. [∗M] 999999999999 [M+] 1 [M+])
4. When any number is divided by zero.
   (Ex. 5 [÷] 0 [±=])

SPECIFICATIONS

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

PRINTING SECTION
Printer: Mechanical printer
Printing speed: Approx. 2.5 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.)
Printing paper:
57 mm(2-1/4") - 58 mm(2-9/32") wide
80 mm(3-5/32") in diameter (max.)
Operating temperature:
0°C – 40°C (32°F – 104°F)
Power consumption: 59 mA
Dimensions:
220 mm (W) × 303 mm (D) × 71.5 mm (H)
(8-21/32" (W) × 11-15/16" (D) × 2-13/16" (H))
Weight: Approx. 1.2 kg (2.65 lb.)
Accessories:
1 paper roll, 1 ink roller (installed), and operation manual

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 DANGEROUS 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.

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 occasions, all keys - including the power key and the [CE] 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.

CALCULATION EXAMPLES

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 constant/add mode selector and grand total set mode selector should be in the "•" position (off) unless otherwise specified.
3. The print/item count mode selector should be in the "P" position unless otherwise specified.
4. If an error is made while entering a number, press [CE] or [→] and enter the correct number.

MIXED CALCULATION

(240 + 180 + 180 – 75) × 8 =

F 6 3 2 1 0

Operation	Display	Print
240 [±]	240.	240• +
180 [±]	420.	180• +
[±]	600.	180• +
75 [–=]	525.	75• –
[×]		525• ◊
	525.	525• ×
8 [±]		8• =
		4,200• ✱
	4,200.	

ADDITION AND SUBTRACTION WITH ADD MODE

12.45 + 16.24 + 19.35 – 5.21 =

K • A F 6 3 2 1 0

Operation	Display	Print
1245 [±]	12.45	12•45 +
1624 [±]	28.69	16•24 +
1935 [±]	48.04	19•35 +
521 [–=]	42.83	5•21 –
[✱]		42•83 ✱
	42.83	

* : [•] was not used in the entries.

CONSTANT

62.35 × 11.11 =
62.35 × 22.22 =

K • A F 6 3 2 1 0

62.35 [×]	62.35	62•35 ×
11.11 [±]		11•11 =
		692•71 ✱
	692.71	
22.22 [±]		22•22 =
		1,385•42 ✱
	1,385.42	

11.11 ÷ 77.77 =
22.22 ÷ 77.77 =

K • A F 6 3 2 1 0

11.11 [÷]	11.11	11•11 ÷
77.77 [±]		77•77 =
		0•143 ✱
	0.143	
22.22 [±]		22•22 =
		0•286 ✱
	0.286	

PERCENT

100 × 25% =

K • A F 6 3 2 1 0

100 [×]	100.	100• ×
25 [%]		25• %
		25•00 ✱
	25.00	

(123 ÷ 1368) × 100 =

F 6 3 2 1 0

123 [÷]	123.	123• ÷
1368 [%]		1,368• %
		8•99 ✱
	8.99	

CORRECTION OF ERRORS

123 + 556 → 123 + 456

K • A F 6 3 2 1 0

123 [±]	123.	123• +
556 [CE]	0.	
456 [±]	579.	456• +
[✱]		579• ✱
	579.	

1234567 → 1234578

F 6 3 2 1 0

1234567	1,234,567.	
[→]	123,456.	
[→]	12,345.	
78	1,234,578.	

ADD-ON AND DISCOUNT

A 5% add-on to 100.

F 6 3 2 1 0

100 [×]	100.	100• ×
5 [MU]		5• %
		5•00 Increase
		105•00 ✱ New amount
	105.00	

A 10% discount on 100.

F 6 3 2 1 0

100 [×]	100.	100• ×
10 [+/–] [MU]		–10• %
		–10•00
		90•00 ✱
	90.00	

MARKUP AND MARGIN

Markup and Profit Margin are both ways of calculating percent profit.
– Profit margin is percent profit vs. selling price.
– Markup is percent profit vs. cost.
– Cost is the cost.
– Sell is the selling price.
– GP is the gross profit.
– Mkup is the percent profit based on cost.
– Mrgn is the percent profit based on selling price.

To find	Knowing	Operation
Mrgn	Sell, Cost	Cost [–=] Sell [±] [MU]
Mkup	Sell, Cost	Sell [±] Cost [–=] [MU]
Sell	Cost, Mrgn	Cost [÷] Mrgn [MU]
Cost	Sell, Mrgn	Sell [×] Mrgn [+/–] [MU]
Sell	Cost, Mkup	Cost [×] Mkup [MU]
Cost	Sell, Mkup	Sell [÷] Mkup [+/–] [MU]

Ex.

Cost	$200
Sell	$250
GP	$50
Mkup	25%
Mrgn	20%

F 6 3 2 1 0

Operation	Display	Print
200 [÷]	200.	200• ÷ Cost
20 [MU]		20• %M Mrgn
		250•00 ✱ Sell
		50•00 GP
	50.00	

PERCENT CHANGE

• Calculate the dollar difference (a) and the percent change (b) between two yearly sales figures $1,500 in one year and $1,300 in the previous year.

F 6 3 2 1 0

1500 [±]	1,500.00	1,500•00 +
1300 [–=]	200.00	1,300•00 –
[MU]		200•00 ✱ (a)
		15•38 % (b)
	15.38	

GRAND TOTAL

100 + 200 + 300 =
+) 500 – 600 + 700 =
Grand total

OFF • P P•IC

GT • F 6 3 2 1 0

[GT] [✱]		
100 [±]	100.	100• +
200 [±]	300.	200• +
300 [±]	600.	300• +
[✱]		003 ••••••••••••
		600• ✱+
	600.•	
500 [±]	500.•	500• +
600 [–=]	100.•	600• –
700 [±]	600.•	700• +
[✱]		001 ••••••••••••
		600• ✱+
	600.•	
[GT]		1,200• ✱✱
	1,200.	

MEMORY

46 × 78 = ①
+) 125 ÷ 5 = ②
–) 72 × 8 = ③
Total ④

OFF • P P•IC

GT • F 6 3 2 1 0

[✱M] *		
46 [×]	46.	46• ×
78 [M+]		78• =
	3,588.M	3,588• +M ①
125 [÷]	125.M	125• ÷
5 [M+]		5• =
	25.M	25• +M ②
72 [×]	72.M	72• ×
8 [M–]		8• =
	576.M	576• –M ③
[◊M]		3,037• ◊M ④
	3,037.M	

*: Press [✱M] to clear the memory before starting a memory calculation.

TAX RATE CALCULATIONS

EXAMPLE 1: Set a 5% tax rate.
Calculate the tax on $800 and calculate the total including tax.

GT • F 6 3 2 1 0

5 [STR] [TAX+]	5.	
		•••5•000 %
	5.000	
800 [TAX+]		800•
		•••40•
		840•
	840.	

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%)

F 6 3 2 1 0

840 [±]	840.	840• +
525 [±]	1,365.	525• +
[TAX–]		1,365• ✱
		•••65• –
		1,300•
	1,300.	

ITEM COUNT CALCULATION

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

OFF • P P•IC F 6 3 2 1 0

[✱]		
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 ✱ (b)
	1,401.75	

CONVERSION CALCULATION EXAMPLES

EXAMPLE 1: Set the conversion rate ($1 = ¥123.45).

F 6 3 2 1 0 GT • F 6 3 2 1 0

[✱] 123.45 [STR] [×RATE]		Δ
		123•450 =
	123.450	

EXAMPLE 2: Convert $120 to yen ($1 = ¥123.45).

F 6 3 2 1 0 GT • F 6 3 2 1 0

120 [×RATE]		120•
		14,814• Δ
	14,814.	

EXAMPLE 3: Set the conversion rate (1 meter = 39.3701 inches).

[✱] 39.3701 [STR] [×RATE]		Δ
		39•3701 =
	39.3701	

EXAMPLE 4: Convert 472.4412 inches to meters (1 meter = 39.3701 inches).

F 6 3 2 1 0 GT • F 6 3 2 1 0

472.4412 [÷RATE]		472•4412
		12• ΔΔ
	12.	

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