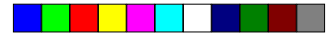


1. Important Precautions

- Never try to take the calculator apart.
 - Handle the calculator carefully, and avoid dropping it.
 - Do not operate the keys roughly. As you operate the keys, monitor your input by watching the display to make sure that values are being input correctly.
 - Avoid using the calculator in very hot or cold areas (below 32°F / 0°C, or above 104°F / 40°C). Also avoid heavy dust and moisture.
 - When using paper, be sure that you install it correctly.
 - To clean the calculator, wipe it off with a soft cloth. You can also clean the exterior by wiping it with a soft cloth that has been moistened with a weak solution of water and a neutral detergent.
 - Never use volatile fluids such as lacquer thinner or benzine, etc. when cleaning the calculator.
 - Be sure to switch the power off after you finish using the calculator or if you do not plan to use it for a long period. As with all electrical appliances, it is also a good idea to unplug the power cord from the AC outlet if you are not going to use the calculator for a long time.
-
- Power continues to be supplied to the calculator even when the Function Selector is in the OFF position. To totally cut power to the calculator off, unplug the power cord from the AC outlet.
 - Whenever you take the calculator to a retailer or dealer for servicing, we recommend that you remove the paper roll holders, the tape spools, and all other detachable accessories to keep them from getting lost.
 - Always make sure that roll paper is installed in the calculator before using any of the Function Selector settings that activates the printer.



- In no event will the manufacturer and its suppliers be liable to you or any other person for any damages, including any incidental or consequential expenses, lost profits, lost savings or any other damages arising out of use of this product.

About the input buffer

An input buffer is a place where key operations are temporarily collected until the calculator can finish the operation it is performing now and start on the next one. The input buffer of this calculator can hold up to 12 key operations(both number entries and function commands), so you can continue key input even while another operation is being processed.

2. About the Selectors

NP P PIC+



NP : Non-print mode

P : Print mode

PIC+ : Item count mode. Item counts up by the  or  key.

↑ 5/4 ↓

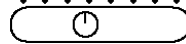


↑ : Round-up mode

5/4 : Round-off mode

↓ : Cut-off mode.

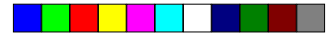
F 6 4 3 2 1 0 A



F : Floating mode

6 ~ 0 : Sets the specified decimal point.

A : Add mode.



3. Loading the Paper Roll

Switch ON the calculator, follow the procedure illustrated below.

- Always use the **FEED** key to advance the paper. Never pull on the paper by hand.
- We recommend dustless type paper (58mm wide X 80mm or less diameter).

Loading the Paper Roll

Fig.1

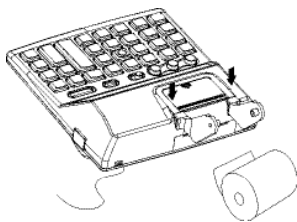


Fig.2

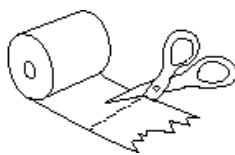
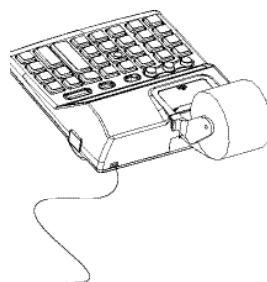


Fig.3



Fig.4



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4. Replacing the Ink Roller

The printer in this model uses a disposable ink roller (cartridge type). If impressions are too light or illegible, replace the ink roller with a new one.

- 1) Open the printer cover (Fig.A).
- 2) Remove the ink roller by pulling it up (Fig.B).
- 3) Install a new ink roller (Fig.C).
- 4) Make sure the ink roller is in place, and replace the cover.

Note : Never fill the ink roller with fluid ink as it may run or clog the printer. Use only compatible with IR-40T (Black and Red).

Replacing the Ink Roller

Fig.A



Fig.B

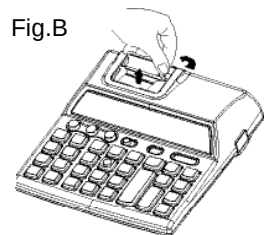
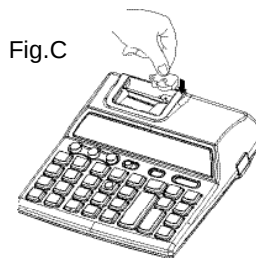


Fig.C



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5. Specifications

Capacity : 12 digits
Decimal point : Full floating, and fixed (0 ~ 6)
with round-up, round-off or cut-off.
ADD mode : Decimal point is fixed at 2 position.
Display : LED.
Ambient temperature range : 0°C
32°F

Power supply:AC

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.



6. Performing Addition and Subtraction

The following keys are used for addition and subtraction operations.

[+] Press this key after entering a value to specify that the value should be added to a total.

[-] Press this key after entering a value to specify that the value should be subtracted from a total.

[◇] Press this key after the **[+]** or **[-]** keys to print and display the subtotal up to that point and keep the result in the register.

[✱] Press this key after the **[+]** or **[-]** keys to print and display the result of addition / subtraction. The result will be cleared in the register.

[#/P] Press this key to print displayed contents, and does not affect calculation.

To calculate subtotals and totals with item counts

- With the Function Selector set to PIC, pressing **[◇]** or **[✱]** prints the total number of items added or subtracted, along with the applicable total.

Example	Operation	Printout	Display
	"PIC", "F"		
100	[C]	0 . c	0.
100			
300	1 [00] [+]	100 . +	100.
-200	[+]	100 . +	200.
(300) (Subtotal)	3 [00] [+]	300 . +	500.
600	2 [00] [-]	200 . -	300.
-900 (Total)	[◇]	004	
		300 . ◇	300.
	6 [00] [+]	600 . +	900.
	[✱]	005	
		900 . ✱	900.
500			
200			
-400	5 [00] [+]	500 . +	500.
(300) (Subtotal)	2 [00] [+]	200 . +	700.
700	4 [00] [-]	400 . -	300.
1000 (Total)	[◇]	003	
		300 . ◇	300.
	7 [00] [+]	700 . +	1'000.
	[✱]	004	
		1,000 . ✱	1'000.

Addition / Subtraction using the repeat operation

Example	Operation	Printout	Display
	"PIC", "F"		
	[C]	0 . c	0.
	3 [00] [+]	300 . +	300.
	[+]	300 . +	600.
	480 [+]	480 . +	1'080.
	250 [+]	250 . +	1'330.
	4 [00] [+]	400 . +	1'730.
	[+]	400 . +	2'130.
	[+]	400 . +	2'530.
	[✱]	007	2530.
Total quantity : 7		2,530 . ✱	
Total amount : \$ 2,530			



7. Performing Multiplication and Division

The following keys are used for multiplication and division operations.

[X] Press this key after entering a value to specify that the value should be multiplied by the next value entered.

[÷] Press this key after entering a value to specify that the value should be divided by the next value entered.

[=] Press this key following a multiplication or division operation to obtain the result.

To perform multiplication and division

Example	Operation	Printout	Display
	"P", "F"		
(100 + 400) X100 = 50000	[C]	0 . c	0.
	1 [00] [+]	100 . +	100.
	4 [00] [+]	400 . +	500.
	[X]	500 . x	500.
	1 [00] [=]	100 . =	50'000.
		50'000 . *	

"P", "0", "5/4"

39600 ÷1600 = 25	396 [00] [÷]	39,600 . ÷	39'600.
	16 [00] [=]	1,600 . =	25.
		25 . *	

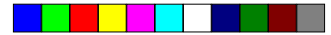
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To use constants in multiplication and division

- The value input before the **[X]** or **[÷]** keys will be registered as a constant in multiplication and division.
- Each press of **[=]** multiplies or divides the displayed value (whether it's a result or a newly entered value) by the constant.
- Pressing **[X]**, **[÷]**, **[*]** or **[C]** cancels the constant. Constants are also cancelled when you perform a normal (non-constant) multiplication or division operation.

Example	Operation	Printout	Display
	"P", "F"		
36 x 28.35=1020.6	28 [.] 35 [X]	28.35 x	28.35
25.4 x 28.35=720.09	36 [=]	36. =	1'020.6
		1,020.6 *	
	25 [.] 4 [=]	25.4 =	720.09
		720.09 *	



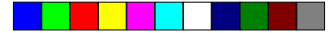
8. About "A" Mode Calculations

- 2 decimal places are assumed for entries and results of all addition and subtraction operations. Entering 2 only results in a value of 0.02 for the entry. If you use the $\square$ key during entry of a value, the decimal point is included at the place you specify. This mode has no effect on multiplication and division operations.

Example	Operation	Printout	Display
	"P", "A"		
\$ 23.25	$\square$	0 . c	0.
45.75			
- 12.50	2325 $\square$	23.25 +	23.25
96.25	4575 $\square$	45.75 +	69.00
\$152.75	12 $\square$ 50 $\square$	12.50 -	56.50
	9625 $\square$	96.25 +	152.75
	$\square$	152.75 *	152.75

9. Using the Independent Memory

- $\square$ Press this key in place of $\square$ at the end of a multiplication or division operation to add the result of the operation to memory contents. Pressing this key at any other time adds the displayed value to memory contents.
- $\square$ Press this key in place of $\square$ at the end of a multiplication or division operation to subtract the result of the operation from memory contents. Pressing this key at any other time subtracts the displayed value from memory contents.
- $\square$ Press this key to display memory contents.
- $\square$ Press this key to clear memory contents.



To store and recall values

Example	Operation	Printout	Display
	"P", "F"		
140	M+	0 . M +	0.
250	C	0 . c	0.
- 90	140 +	140 . +	140.
300 (Total)	250 +	250 . +	390.
	90 -	90 . -	300.
	*	300 . *	300.
950	M+	300. M +	M 300.
750	950 +	950 . +	M 950.
1700 (Total)	750 +	750 . +	M 1'700.
	*	1,700 . *	M 1'700.
550	M+	1,700 . M +	M 1'700.
650	550 +	550 . +	M 550.
(1200) (Subtotal)	650 +	650 . +	M 1'200.
300	-	1,200 . -	M 1'200.
1500 (Total)			
3500 (Accumulated total)	3 00 +	300 . +	M 1'500.
	*	1,500 . *	M 1'500.
	M+	1,500 . M +	M 1'500.
	M-	3,500 . M -	M 3'500.
	M*	3,500 . M *	M 3'500.

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11. Calculating Percentages

% Use this key for regular percentage, add-on, discount, ratio, and increase / decrease calculations.

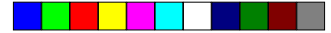
MU **MP** Use this key for mark-up and mark-down calculations.

Δ% Use this key to find the percent change between two values.

To calculate regular percentages, add-ons, and discounts

Example	Operation	Printout	Display
	"P", "2", "5/4"		
12% of 3574	3574 X	3,574 . x	3,574.
	12 %	12 . %	428.88
		428.88 *	
	"P", "2", "5/4"		
6% of 1590	6 X	6. x	6.
6% of 3698	1590 %	1,590. %	95.40
		95.40 *	
	3698 %	3,698. %	221.88
		221,88 *	
	"P", "F"		
15% add-on of 1500	15 00 X	1,500. x	1'500.
	15 %	15. %	225.
		225. *	
	+	1,725. + %	1,725.

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"P", "F"

25% discount of 1950 1950 $\boxed{\times}$ 1,950. $\times$ 1'950.
25 $\boxed{\%}$ 25. $\%$ 487.5
487.5 $\blacklozenge$
 $\boxed{-}$ 1,462.5 $- \%$ 1'462.5

To calculate ratios, increases, and decreases

Example	Operation	Printout	Display
"P", "2", "5/4"			
Percentage of 654	654 $\boxed{\div}$	654. $\div$	654.
against 852	852 $\boxed{\%}$	852. $\%$	76.76
		76.76 $\blacklozenge$	

"P", "2", "5/4"

If you earned \$110 last 1 $\boxed{00}$ $\boxed{\div}$ 100. $\div$ 100.
week and \$100 this week, 110 $\boxed{\%}$ 110. $\%$ 90.91
what percentage did your 90.91 $\blacklozenge$
income decrease ?

To calculate mark-ups and mark-downs

Example	Operation	Printout	Display
"P", "F"			
What will the selling price	480 $\boxed{\times}$	480. GM	480.
and profit be when the	40 $\boxed{\%}$	40. $\%$	800.
purchasing price of an item		320. $\triangle \blacklozenge$	(Selling price)
is \$480 and the profit rate		800. $\blacklozenge$	
of the selling price is 40% ?			

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"P", "F"

What will the selling price 130 $\boxed{\times}$ 130. GM 130.
and loss be when selling a 4 $\boxed{\div}$ $\boxed{\%}$ -4. $\%$ 125.
\$130 item at a 4% loss rate ? -5. $\triangle \blacklozenge$ (Selling price)
125. $\blacklozenge$

Note

Whenever you perform a regular percentage or ratio calculation, the result is automatically transferred to the total memory used for accumulation of totals.

Delta percent calculation

Example	Operation	Printout	Display
"P", "F"			
The profit for the previous	15 $\boxed{00}$ $\boxed{\triangle \%}$	1,500. $\triangle$	1'500.
year was \$1500. The profit	18 $\boxed{00}$ $\boxed{\%}$	1,800. =	20.
for this year is \$1800.		300. $\triangle \blacklozenge$	
What's the increased			
percentage?		20. $\triangle \%$	

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12. Making Corrections in Input

Use this key to delete digits from the right of the displayed value. Each press deletes 1 digit. Note that you can change a numeric entry with this key only if you have not yet input the incorrect value by pressing one of the calculation keys (such as , , etc.)

Use this key to delete a numeric entry with this key only if you have not yet input the incorrect value by pressing one of the calculation keys (such as , , etc.)

If you have already input the incorrect value by pressing one of the calculation keys (such as , , etc.), the entire operation will be deleted.

Example	Operation	Printout	Display
	"P", "F"		
123 x 456 x 78	123	123. x	123.
= 4374864	(Mistake) 447		447.
	(To correct)		0.
	456	456. x	56'088.
	(Mistake) 789		789.
	(To drop off "9")	78. =	78.
	4,374,864.	4'374'864.	

- If you find you made a wrong entry in the current operation but have not yet pressed , use or to clear the error or adjust it before pressing .

Example

If you enter : 2 + 3 + 5 + 5 + 6, and wish to change the first 5 to 4, enter – 5 followed by + 4 before pressing .

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13. About Calculation Capacity

Any of the following condition will cause the "E" indicator to appear on the display to indicate that the capacity of the calculator is exceeded. Note that independent memory contents are protected, and the total accumulated so far can be recalled by pressing after the error is cleared.

- Whenever you input a value that is longer than 12 digits. Clear the input value only by pressing or , or the entire calculation by pressing .
- Whenever the integer part of a result (whether intermediate or final) is longer than 12 digits.
In this case, the display shows the 12 most significant digits of the result. The true decimal point of the result is 12 places to the right of the decimal position shown in this display. Clear the entire calculation by pressing .
- Whenever the integer part of a total being accumulated in memory is longer than 12 digits. Clear the entire calculation by pressing .

IMPORTANT !

Please keep your manual and all information handy for future reference.

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