OPERATIONAL NOTES

To ensure 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 tough 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 the battery for memory protection is not installed, the tax rate / discount and conversion rate will be lost even if the tax power is supplied off. The tax rate / discount and conversion rate will be deleted even if the battery for memory protection is removed.
5. Do not bend the AC cord around the body or otherwise forcibly bend or twist it.
6. Place the product near an easily accessible socket. If it is service required, use only a SHARP servicing dealer, a SHARP approved service facility or SHARP repair service.
7. If the 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

POWER ON SWITCH:
When the “I” side of the power on switch is pressed, the calculator is turned on.

POWER OFF KEY:
When the power off key is pressed, the calculator is turned off.

PRINT / ITEM COUNT MODE SELECTOR:
Set to the non-print mode.
Set to the print mode.
Set to the print and item count mode.
1. The counter will count the number of times that the (C) key has been pressed in addition.
2. Each time the (C) key is used in subtraction, (1) will be subtracted from the count.
3. The (C) key is printed the calculated result is obtained.
4. Pressing the (C) key clears the counter.
5. When the grand total is setting mode selector is in the ON position (GT), the counter will print the number of times that the calculation results (OPERATING CONTROLS have been stored in the grand total memory. To print and clear the count, press the (C) key.
6. The memory item counter will count the number of times that the (C) key has been pressed in addition.

Note:
• Each time the (C) key is used in subtraction, (1) will be subtracted from the count.
• The counter is printed when the calculated result is obtained.
• Pressing of the (C) key clears the counter.

DISPLAY SYMBOLS
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.
•: Appears when a number in the grand total memory.

AVERAGE KEY

INK BIBBLE REPLACEMENT

1. Remove the paper roll from the calculator. (To remove the paper roll, refer to the instruction manual.)
2. Turn the paper on and feed paper with the paper mechanism using the X key.
3. Remove the printer cover. (Fig. 1)
4. Press the ink ribbon by pulling it up.
5. Insert the new ribbon.
6. With the black side of the ribbon facing upwards, place one of the ends on the reel shaft on the right. (Fig. 2)
7. Return the thread around the outside of the metal guides. (Fig. 3)
8. Take up any slack by manually turning one of the ends.
9. Replace the printer cover. (Fig. 4)
10. Replace the paper roll.

DECIMAL SELECTOR:

K: Presses the number of decimal places in the answer. In the “F” position, the answer is displayed in the floating decimal system.
K-1: Presses the number of decimal places in the answer. In the “F” position, the answer is displayed in the floating decimal system.

PAPER ROLL REPLACEMENT

1. Insert the leading edge of the paper roll into the opening. (Fig. 1)
2. Turn the paper on and feed paper with the paper mechanism using the X key. (Fig. 2)
3. Lift the attached metal paper holder up and insert the paper roll to the paper holder. (Fig. 3)

REPLACEMENT OF BATTERY FOR MEMORY PROTECTION

Time for battery replacement

Replace with a new battery once a 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:
Lithium battery, size CR2032 ≈ 1.55 V

After battery replacement

1. Connect the power supply plug to an outlet, then press the RESET switch on the back of the unit after pressing the power on switch.
2. Connect the power supply plug to an outlet, then press the RESET switch on the back of the unit after pressing the power on switch.
3. When the integer portion of the contents of the memory or grand total memory exceeds 12 digits, this error can be cleared with the (C) key.
4. When any number is divided by zero.

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 “E” is displayed at the time of the error, (Must be used to clear the calculator. If an “I” with any numerals except zero is displayed, the error may be cleared with (C) or (C) and the calculation can still be continued.

Error conditions:
1. Entry of more than 12 digits or 11 decimals. This error can be cleared with the (C) or (C) key.
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.
4. When any number is divided by zero.

Specifications

Operating temperature:
0°C ~ 40°C (32°F ~ 104°F)

Power consumption:
82 mA

Dimentions:
222 × 327 × 11 mm

Accessories:
1 lithium battery (installed), 1 paper roll, 1 ink ribbon (installed) and operation manual

Printing Section

Printer: Mechanical printer
Printing speed: Approx. 4.5 lines/sec.
Printing paper: 57mm (2-1/4") wide, 80mm (3-1/2") in diameter (max.)

Operating temperature:
0°C ~ 40°C (32°F ~ 104°F)

Power consumption: 82 mA

Dimensions: 222 × 327 × 11 mm

Accessories: 1 lithium battery (installed), 1 paper roll, 1 ink ribbon (installed) and operation manual

Do not pull paper backwards as this may cause damage to printing mechanism.
WARNING
THE VOLTAGE USED MUST BE THE SAME AS SPECIFIED ON THIS CALCUL-
ATOR. 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 OTHER THAN THE SPECIFIED VOLTAGE.

RESETTING THE UNIT
String 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. 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/rate setting 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 \( \text{C} \) or \( \text{CE} \) and enter the correct
number.
5. Negative values are printed with "–" symbol in red.
6. Example procedures are listed in following manner unless otherwise specified.

EXAMPLE:
\[ (123 + 456) \times 2 = \]

\[ \begin{array}{c}
123 \times 2 = 246 \\
456 \times 2 = 912 \\
(246 + 912) = 1158 \\
\end{array} \]

ADDITION AND SUBTRACTION WITH ADD MODE

\[ 12.45 + 16.24 + 19.35 - 5.21 = \]

\[ \begin{array}{c}
12.45 \\
16.24 \\
19.35 \\
-5.21 \\
\hline
32.83 \\
\end{array} \]

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.

Example:

\[ \begin{array}{c}
\text{Cost} \\
\text{Sell} \\
\text{Gross Profit} \\
\text{Profit Margin} \\
\hline
50.00 \\
200.00 \\
20\% \times \text{Cost} \\
20\% \text{ of } 50.00 \\
\hline
\end{array} \]

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

\[ \begin{array}{c}
\text{Grand total} \\
\text{Rate} \times \text{set} \times \text{F63210} \\
\hline
\text{Total} \\
\end{array} \]

ITEM COUNT CALCULATION

<table>
<thead>
<tr>
<th>Bill No.</th>
<th>Number of bills</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>$100.55</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>$201</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>$120.50</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>$241</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>$241</td>
</tr>
</tbody>
</table>

\[ \begin{array}{c}
\text{Total} \\
\\end{array} \]

**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/rate setting 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 \( \text{C} \) or \( \text{CE} \) and enter the correct
number.
5. Negative values are printed with “–” symbol in red.
6. Example procedures are listed in following manner unless otherwise specified.
**AVERAGING**

<table>
<thead>
<tr>
<th>Day</th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>$123.15</td>
</tr>
<tr>
<td>Tuesday</td>
<td>$118.00</td>
</tr>
<tr>
<td>Wednesday</td>
<td>$131.58</td>
</tr>
<tr>
<td>Thursday</td>
<td>$125.02</td>
</tr>
<tr>
<td>Friday</td>
<td>$158.25</td>
</tr>
</tbody>
</table>

Total Sales: $656.00 for 5 days

Average Sales: $131.20

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**TAX RATE CALCULATIONS**

A. Set a 5% tax rate. Calculate the total amount for adding a 5% tax to $800.

B. 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%)

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**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 one or more batteries. 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.