CAUTION:
Read Rules for Safe Operation and Instructions carefully. If AC Adapter is used, use only the one made specifically for this Calculator.
Sears Service is at Your Service wherever you live or move in the U.S.A.
The Model Number will be found stamped on the bottom of the Calculator. Always mention the Model Number when requesting service or repair for your Calculator.
All parts may be ordered through SEARS, ROEBUCK AND CO.
Your Sears merchandise takes on added value when you discover that Sears has over 2000 Service Units throughout the country. Each is staffed by Sears-trained, professional technicians using Sears approved parts and methods.

MODEL NO. 728.5825
SEARS, ROEBUCK AND CO.
CHICAGO, ILL. 60607 U.S.A.
INTRODUCTION
Your Sears Portable Electronic Calculator is light
enough and small enough to be used in one hand
yet it provides a standard keyboard and a light
emitting diode (LED) display that is easily read at
home or in the office.

The ten digit display and the full floating decimal
allow the calculation of most problems without
sacrificing accuracy, and the time-out feature
provides longer battery life between charges.

Your calculator has the ability to solve engineering
or budget problems, with such features as a
switch-selectable accumulative or fully accessible
memory, square root, reciprocal, percentage,
automatic constant, automatic squaring, and
change sign. The calculator operates in
"algebraic" mode, which allows you to perform
chain or mixed calculations in the order in which
they are written. The reciprocal and change sign
features are particularly helpful in solving complex
problems. We suggest that this programmed
Instruction Manual be read with the calculator in
hand. Performing the operations as you read them
will increase your familiarity with them. For a quick
reference, an outline of operations is on the back
of the calculator.

OPERATION:
Your calculator has rechargeable NiCd
batteries included in the unit. The following
procedure should be followed for A.C. and
battery operation:

AC Operation:
Connect the Charger unit to any standard
120 Volt electrical outlet and plug the
connector into the Calculator. After the
above connections, the power switch may
be turned on and operation started. (While
connected to AC, the internal batteries are
automatically charged whether the power
switch is "ON" or "OFF").

Battery Operation:
Disconnect the Charger cord and turn the
power switch "ON". With normal use a full
battery charge can be expected to supply
about 5 hours of working time.

NOTE: When the low battery indicator
(L) on the display is lighted, do not
continue battery operation. This indicates
need for a battery charge.

Battery Charging:
Simply follow the same procedure as in AC
operation. The calculator may be used
during the charge period if desired. In order
to fully charge a battery which has been
completely discharged, 7 hours is required.

NOTE: Although no damage will result
from prolonged periods with the Charger
connected, it is advisable to remove the
Charger cord when the Calculator is not
in use after a full recharge cycle.

CAUTION: To avoid possible damage, use
only the charger provided with the calculator.

ELECTRONIC CALCULATOR GUARANTEE
We guarantee this calculator to work
properly. If it does not, simply return it to our
nearest store and we will:
During the first year, repair it,
free of charge.
(whenever you live in the United States)
SEARS, ROEBUCK AND CO.
CONTROLS AND INDICATORS

“ON” Switch  Turns Calculator ON & OFF.

- Key  Enters a “subtract” command and performs any possible preceding operation.

+ Key  Enters a “divide” command and performs any possible preceding operation.

* Key  Enters a “multiply” command and performs any possible preceding operation.

+ Key  Enters an “add” command and performs any possible preceding operation.

= Key  Completes previous operation and retains appropriate function for a constant operation.

+/— Key  Changes the sign of the contents of the display.

* Key  Enters a decimal point.

0 - 9 Keys  Enter digits of a number.

m+ Key  Adds the displayed number to the Memory.

m— Key  Subtracts the displayed number from the Memory.

mr Key  Displays memory content without affecting the memory.

mc Key  Clears memory without altering the information on the display.
Completes a percent operation and conditions a markup or discount operation.

Automatically appears to the right of any number entered, unless inserted in another sequence by use of the Decimal key. With fractional numbers, it will be preceded by a zero, i.e. \( \frac{1}{3} \) will appear as 0.333333333.

Indicates a negative number and immediately precedes a number. Appears as

Appears on the Time-Out position, the results provided by using \( =, \sqrt{x}, \frac{1}{x}, \% \) keys are accumulated into the memory.

Displays square root of the entered number or completes the preceding operation and displays square root of the result.

Displays reciprocal of the entered number or completes the preceding operation and displays reciprocal of the result.

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>Completes a percent operation and conditions a markup or discount operation.</td>
</tr>
<tr>
<td>Decimal Point Indicator</td>
<td>Automatically appears to the right of any number entered, unless inserted in another sequence by use of the Decimal key. With fractional numbers, it will be preceded by a zero, i.e. ( \frac{1}{3} ) will appear as 0.333333333.</td>
</tr>
<tr>
<td>Minus Sign Indicator</td>
<td>Indicates a negative number and immediately precedes a number. Appears as -</td>
</tr>
<tr>
<td>Memory In Use Indicator</td>
<td>Indicates that data is stored in Memory Register. Appears as ( \bar{0} )</td>
</tr>
<tr>
<td>Time-Out Indicator</td>
<td>Indicates that while using the calculator the keyboard has been inactive for approximately 30 seconds. Appears in the center field as -</td>
</tr>
<tr>
<td>Low Battery Indicator</td>
<td>Warns of need for battery charging.</td>
</tr>
<tr>
<td>Switch</td>
<td>When on ( \Sigma ) position, the results provided by using ( =, \sqrt{x}, \frac{1}{x}, % ) keys are accumulated into the memory.</td>
</tr>
<tr>
<td>( \sqrt{x} ) Key</td>
<td>Displays square root of the entered number or completes the preceding operation and displays square root of the result.</td>
</tr>
<tr>
<td>( \frac{1}{x} ) Key</td>
<td>Displays reciprocal of the entered number or completes the preceding operation and displays reciprocal of the result.</td>
</tr>
</tbody>
</table>
Overflow indicator
Indicates a calculation result that contains more than ten digits.
Appears as

Note: A negative result of more than ten digits can indicate overflow as

Special Battery-Saver Feature
If you do not actuate the keyboard for approximately 30 seconds while performing a calculation, the display will turn off automatically, leaving only the "Time-Out Indicator", previously described, on. This feature decreases unnecessary power consumption, and extends battery life between charges. The displayed information can be recalled by touching the key once. The information or function mode will not be affected.

BATTERY NOTES
1. With normal use at room temperature, a full battery charge can be expected to supply about 5 hours of accumulated working time.
2. The Calculator may be used while its battery is charging.
3. Batteries that have been neither used nor charged for as long as 2 or 3 months will suffer substantial loss of operating time through a tendency to self-discharge. As a general rule, batteries lose about 1% charge per day due to self-discharge, at normal temperatures.
4. For optimum performance and long life:
   a. Alternate frequently between Battery and AC power.
   b. Operate at or near normal room temperatures.
   c. Charge as soon as possible upon appearance of the Low-Battery indicator.
5. Recharge time is 7 hours for a fully discharged battery, with the calculator off.
6. The Low-Battery indicator is designed to appear as soon as battery voltage drops to the lowest value that will support optimum performance of the Calculator. Should further discharge occur, through continued operations or self-discharge, the Low-Battery indicator may fail to appear. Do not continue to operate on batteries when this condition is noted, or a damaged battery may result.
7. As a general rule, if improper operation occurs, first try the Calculator with its charger connected. If operation is then normal, this indicates the batteries are low.
8. Do not store the unit in high temperature areas such as the top of radiators or the rear deck of automobiles exposed to the sun. The Calculator will operate satisfactorily over an ambient temperature range of 0° to 50°C (32° to 122°F) and relative humidity to 85%.
INSTRUCTIONS

1. To clear (erase) machine completely for new operation
   A. Touch the key twice.
   B. Cleared display will be: 

2. To enter (write a number)
   Example: enter 123.45
   A. First, clear by touching twice
   B. Then touch number and decimal keys for 123.45 one at a time. Always start with the left hand digit and progress from left to right.
   Display will then be: 

Note: 1. Enter or obtain answers — whole numbers up to ten digits:

2. Enter numbers less than one up to nine digits to right of decimal. (zero always appears to left of decimal if number is less than one.)

3. Enter decimal number up to ten digits.

3. To clear an incorrect entry
   Example: 48 + 12 is your calculation
   A. You have already entered 48
      Display is: 

   B. You now touch the key
      The display is: 

   C. Then you enter 13 by mistake
      The display is: 

   D. To clear 13, touch the key once.
      This erases only the last number entered (i.e. 13) and the previous entry is displayed.
      Display will be: 

   E. Then enter '12'
      Display will be: 

   F. Finally, touch the key for answer
      Display will be: 

Note: Use during or immediately after entry of a number to clear display. Use of key when a result is displayed without overflow clears the display.
CALCULATIONS

1. ADDITION
To calculate 16.39 + 9.83 + 16 = 42.22
Do these steps display will be

Touch \( C \) twice
Enter 16.39
Touch +
Enter 9.83
Touch + subtotal
Enter 16
Touch = Answer

2. SUBTRACTION
To calculate 23 - 6 - 5 = 12
Do these steps display will be

Touch \( C \) twice
Enter 23
Touch -
Enter 6
Touch - subtotal
Enter 5
Touch = Answer

Note: When adding or subtracting figures with a fixed decimal place, the calculator will hold that decimal place (decimal alignment).

3. MULTIPLICATION
To calculate 29.32 \( \times \) 56.5 = 1656.58
Do these steps display will be

Touch \( C \) twice
Enter 29.32
Touch \( \times \)
Enter 56.5
Touch = Answer

4. DIVISION
To calculate 6300 \( \div \) 14 = 450
Do these steps display will be

Touch \( C \) twice
Enter 6300
Touch +
Enter 14
Touch = Answer
5. MIXED ARITHMETIC
To calculate \( \frac{(9 + 6 - 5)}{20} \times 8 \) - 8 = - 4

Do these steps
display will be

Touch \( \boxed{\text{CE}} \) twice
Enter 9
Touch +
Enter 6
Touch -
Enter 5
Touch x
Enter 8
Touch +
Enter 20
Touch -
Enter 8
Touch =

Answer

6. PERCENTAGE
(a) Add 5% tax to $29.95

Do these steps
display will be

Touch \( \boxed{\text{CE}} \) twice
Enter 29.95
Touch +
Enter 5
Touch % tax
Touch =

Answer

(b) Take 30%, 6%, and 2% discounts from $179.95

Do these steps
display will be

Touch \( \boxed{\text{CE}} \) twice
Enter 179.95
Touch -
Enter 30
Touch % 30% discount

Answer
7. AUTOMATIC CONSTANT

(a) Addition $6 + 3 + 3 = 15$
Do these steps display will be

- Touch $\times$ twice display will be
- Enter 6
- Touch +
- Enter 3
- Touch =
- Touch = Answer

(b) Multiplication $6 \times 2 = 12$
$6 \times 5 = 30$
$6 \times 12 = 72$
Do these steps display will be

- Touch $\times$ twice display will be
- Enter 6
- Touch $\times$
- Enter 2
- Touch = Answer
- Enter 5
- Touch = Answer

(c) Mark $42$ up by 30%
Do these steps display will be

- Touch $\times$ twice display will be
- Enter 42
- Touch +
- Enter 30
- Touch %
- Touch = Answer
To calculate \((15 \times 6) - (12 + 11) = 67\)

Do these steps:

(c) Division
\[
\begin{align*}
36 \div 6 &= 6 \\
456 \div 6 &= 76
\end{align*}
\]

Touch \(\text{CE}\) twice
Touch \(\div\)
Enter 36
Touch \(\div\)
Enter 6
Touch \(=\)
Enter 456
Touch \(=\)

(d) Exponents
\(3^2 = 243\)

Do these steps:

Touch \(\text{CE}\) twice
Enter 3
Touch \(\times\)
Touch \(=\) \((3^2)\)
Touch \(=\) \((3^2)\)
Touch \(=\) \((3^2)\)
Touch \(=\) \((3^2)\) Answer

8. MEMORY

Display will be

Touch \(\text{CE}\) twice
Enter 15
Touch \(\times\)
Enter 6
Touch \(=\)
Enter 12
Touch \(\div\)
Enter 11
Touch \(=\)

Answer

Touch \(\text{CE}\) twice
Enter 36
Touch \(\times\)
Touch \(=\) \((3^2)\)
Touch \(=\) \((3^2)\)
Touch \(=\) \((3^2)\) Answer

Answer

Touch \(\text{CE}\) twice
Enter 15
Touch \(\times\)
Enter 6
Touch \(=\)
Enter 90.
Touch \(\div\)
Enter 12.
Touch \(=\)
Enter 11.
Touch \(=\)
Enter 23.
Touch \(=\) Answer

Answer

\(243.\)
9. **ACCUMULATING MEMORY (Σ)**

<table>
<thead>
<tr>
<th>QTY</th>
<th>UNIT PRICE</th>
<th>NET AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>$29.95</td>
<td>$149.75</td>
</tr>
<tr>
<td>12</td>
<td>.79</td>
<td>9.48</td>
</tr>
<tr>
<td>5</td>
<td>5.75</td>
<td>28.75</td>
</tr>
<tr>
<td>24</td>
<td>1.29</td>
<td>30.96</td>
</tr>
</tbody>
</table>

Sales Tax 3% 6.57

Total $225.51

▷ switch to left position

Do these steps display will be

- Touch **C.C.** twice 0.
- Enter 5 5.
- Touch **x** 5.
- Enter 29.95 29.95
- Touch **=** 149.75
- Enter 12 12.
- Touch **x** 12.
- Enter .79 0.79
- Touch **=** 9.48
- Enter 5 5.

10. **RECIPROCAL**

\[ \frac{1}{20} = .05 \]

Do these steps display will be

- Touch **C.C.** twice 0.
- Enter 20 20.
- Touch **1/x** Answer 0.05
11. SQUARE ROOT
$\sqrt{500 + 125} = 25$

Touch $\text{CE}$ twice
Enter 500
Touch +
Enter 125
Touch $\sqrt{x}$ Answer

12. CHANGE SIGN
$4 \times (-3) = -12$

Touch $\text{CE}$ twice
Enter 4
Touch $\times$
Enter 3
Touch $+/-$
Touch $=$ Answer

13. OVERFLOW INTERPRETATION
The overflow symbol will appear when the display capacity of the calculator is exceeded. For example, multiplication of $12,500,000 \times 1,000$ will give the following "E" display.

$E \text{1.25}$

The "E" indicates "overflow" or an answer of more than 10 digits. The digits other than 0 are displayed. To obtain the correct decimal location, simply record the displayed number and move the decimal point 10 places to the right. The answer will be:

12,500,000,000.

Overflow of a negative number is displayed in a similar manner, with the result preceded by the minus sign. In the case of a negative result of more than ten digits, where none of the trailing digits are zeros, the overflow is indicated as

$E 426.7629279$

This procedure applies to all operations: Addition, subtraction, multiplication, and division.

Use the $\text{CE}$ key to clear the overflow indicator. The displayed number can then be multiplied or divided by a subsequent entry, but ten decimal places must be added to the result. Operation of the $\text{CE}$ key the second time will clear the display.
Notes on your special calculation
# SPECIFICATIONS

**Decimal Point:** Full floating decimal point

**Capacity:** Addition, subtraction, multiplication, division, and omni-constant; percent, square root, reciprocal, Memory, change sign.

**Functions:** General add, subtract, multiply, divide and percentage. Chain multiplication and division. Constant multiplication, division, addition, subtraction, percentage, fractions, reciprocals, square root, change sign, Memory.

**Power:** Battery operation — NiCd batteries (3) 5 hour operation, 7 hour charge.

**Main Elements:** Large scale integrated circuit

**Supplementary Elements:** Bipolar ICs, Transistors, Diodes

**Dimensions:** Height 1 1/4”, Width 3”, Depth 5 3/4”.

**Weight:** 9 oz.

**Peripherals:** Vinyl Pouch, Instruction Book.

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**Notes on your special calculation:**

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