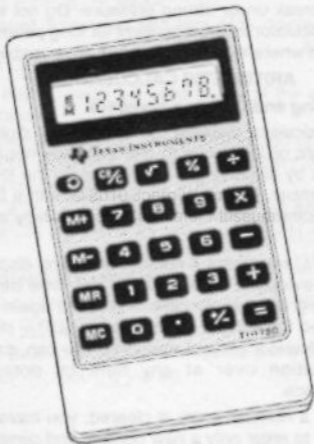# Texas Instruments
electronic calculator
TI-1750

THINGS TO KNOW

Your pocket electronic calculator has a liquid crystal display (LCD) which provides good readability even in direct sunlight. The calculator typically will operate 2000 hours (depending upon age of batteries) on a set of batteries, making an AC adapter/charger unnecessary. Please note that the display panel is made of glass and may break under strong pressure. Do not leave the calculator in direct sunlight for long periods or store it where high temperatures are possible.

ARITHMETIC CALCULATIONS

Entering and Clearing Numbers

The calculator displays up to 8 digits (7 digits to the right of the decimal) and indicates negative values by displaying a minus sign to the left of the number. The calculator operates with a floating decimal point for maximum accuracy at all times.

The $\boxed{\text{CE/c}}$ key clears a number entry and displays the previous entry if pressed one time before pressing any function key. If pressed again or if pressed following a non-number key, $\boxed{\text{CE/c}}$ clears the calculator (except memory). You can start a calculation over at any time by pressing $\boxed{\text{CE/c}}$ twice.

When a number entry is cleared, you have the option to enter only a new number and complete the calculation, or to enter both a new operation and a number.

Addition and Subtraction

The algebraic entry system of the calculator allows a problem to be entered in the same order it is written. The $\Rightarrow$ symbol indicates the result displayed after the key sequence preceding the symbol has been pressed.

Example: $7.921 + 1.6 - 12.321 = -2.8$

7.921 [+] 1.6 [−] 12.321 [=] $\Rightarrow -2.8$

Multiplication and Division

Note that using [CL/C] is not necessary when the previous problem is completed with [=].

Example: $\dfrac{12 \times 13}{6} = 26$

12 [X] 13 [÷] 6 [=] $\Rightarrow$ 26.

Negative numbers can be entered by pressing [+/−] after entering the number.

Example: $\dfrac{3 - 9.5}{-10} = 0.65$

3 [−] 9.5 [÷] 10 [+/−] [=] $\Rightarrow$ 0.65

Multiplication or Division by a Constant

The FIRST number entered in multiplication is the constant and the SECOND number entered in division is the constant.

Example: $3 \times 8 = 24$; $3 \times 15 = 45$

3 [X] 8 [=] $\Rightarrow$ 24.; 15 [=] $\Rightarrow$ 45.

Example: $-27 \div 3 = -9$; $15 \div 3 = 5$

27 [+/−] [÷] 3 [=] $\Rightarrow -9$.; 15 [=] $\Rightarrow$ 5.

The sequence $\boxed{X}$ $\boxed{=}$ will square a number and $\boxed{÷}$ $\boxed{=}$ will divide a number into 1.

Example:
$$\frac{1}{(1.6 \times 2.5)^2} = 0.0625$$

1.6 $\boxed{X}$ 2.5 $\boxed{X}$ $\boxed{=}$ $\boxed{÷}$ $\boxed{=}$ ⇒ 0.0625

Square Root Calculations

The $\boxed{\sqrt{}}$ key calculates the square root of the displayed number (that is, finds the number which when multiplied by itself, equals the number displayed).

Example: $\sqrt{144} = 12$

144 $\boxed{\sqrt{}}$ ⇒ 12.

Example: $\sqrt{16^2 + 33} = 17$

16 $\boxed{X}$ $\boxed{=}$ $\boxed{+}$ 33 $\boxed{=}$ $\boxed{\sqrt{}}$ ⇒ 17.

Powers and Roots

A displayed number may be raised to an integer power by pressing the $\boxed{X}$ key, then pressing the $\boxed{=}$ key one less time than the integer power.

Example: $5^6 = 15625$

5 $\boxed{X}$ $\boxed{=}$ $\boxed{=}$ $\boxed{=}$ $\boxed{=}$ $\boxed{=}$ ⇒ 15625.

The $\boxed{\sqrt{}}$ key may be used to solve for roots which are a power of two.

To find $\sqrt{N}$: enter N, press $\boxed{\sqrt{}}$ $\boxed{\sqrt{}}$
To find $\sqrt[4]{N}$: enter N, press $\boxed{\sqrt{}}$ $\boxed{\sqrt{}}$ $\boxed{\sqrt{}}$
To find $\sqrt[8]{N}$: enter N, press $\boxed{\sqrt{}}$ $\boxed{\sqrt{}}$ $\boxed{\sqrt{}}$ $\boxed{\sqrt{}}$

Example: $\sqrt[8]{6561} = 3$

6561 $\boxed{\sqrt{}}$ $\boxed{\sqrt{}}$ $\boxed{\sqrt{}}$ ⇒ 3.

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PERCENTAGE CALCULATIONS

The $\boxed{\%}$ key automatically performs an equals operation. Note that the use of $\boxed{=}$ immediately following $\boxed{\%}$ may produce unwanted results.

Percentage Example: 6% of $1250 = $75

1250 $\boxed{\times}$ 6 $\boxed{\%}$ ⇒ 75.

Add-On Example: $65 plus 5% tax = $68.25

65 $\boxed{+}$ 5 $\boxed{\%}$ ⇒ 68.25

Discount Example: $65 less 15% discount = $55.25

65 $\boxed{-}$ 15 $\boxed{\%}$ ⇒ 55.25

Note that $\boxed{=}$ was not used in any of the above calculations.

An alternate method of calculating add-on and discount problems to display the intermediate percentage values may be used.

65 $\boxed{\times}$ 5 $\boxed{\%}$ ⇒ 3.25 (tax) $\boxed{+}$ $\boxed{=}$ ⇒ 68.25

65 $\boxed{\times}$ 15 $\boxed{\%}$ ⇒ 9.75 (discount) $\boxed{-}$ $\boxed{=}$ ⇒ 55.25

Combination Example:

$129 less 25% discount plus 4% tax = $100.62

129 $\boxed{-}$ 25 $\boxed{\%}$ $\boxed{+}$ 4 $\boxed{\%}$ ⇒ 100.62

Ratio Example: $600 is what percent of $1500?

600 $\boxed{\div}$ 1500 $\boxed{\%}$ ⇒ 40.

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Your calculator has a "live" memory which means the M+ key will complete any operation (perform an equals) and sum the result to memory. The M- key operates the same way except it subtracts the result from memory. Since M+ and M- only add to or subtract from memory, MC (memory clear) should be used at the beginning of each problem. Notice that the letter "M" appears on the left side of the display when the memory contains a number other than zero.

Example: $(4 \times 11.99) + (12 \times 0.98) = 59.72$

MC 4 X 11.99 M+ 12 X .98 M+ MR ⇒
M 59.72

Example: $\dfrac{7.9 + 8.1}{-(5.2 + 2.8)} = -2$

MC 5.2 + 2.8 M- 7.9 + 8.1 ÷ MR =
⇒ ʚ 2.

Example: $\dfrac{1.98}{4} - \dfrac{4.98}{8} = -.1275$

MC 1.98 ÷ 4 M+ 4.98 ÷ 8 M- MR
⇒ ʚ 0.1275

Example: $\sqrt{3^2 + 4^2} = 5$

MC 3 X M+ 4 X M+ MR √ ⇒ M 5.

The display shows the actual value summed to or subtracted from memory. If the memory contains 12345678, and you enter 1.55 and press M+, the display will show 1 as the actual value summed to memory since .55 is outside the 8-digit memory capacity.

OVERFLOW/ERROR INDICATIONS

An overflow or error condition is indicated by the letter "E" in the upper left corner of the display and is caused by:

1. The result of a calculation having more than 8 digits to the left of the decimal point. The display will show the 8 most significant digits of the correct result and the decimal point will appear 8 places to the left of its correct position. To determine the correct position of the decimal point, mentally move it 8 places to the right, adding zeros as required. Press the $\boxed{\text{CE/C}}$ key to clear overflow and calculator.

2. The result in memory attempting to exceed 8 digits to the left of the decimal point. When memory overflow attempts to occur, the display shows "E" and the memory content before the operation causing the overflow is retained in memory. Press $\boxed{\text{CE/C}}$ to clear overflow indication and resume calculations.

3. Dividing a number by zero. Press the $\boxed{\text{CE/C}}$ key to enter another problem.

4. Pressing the $\boxed{\sqrt{}}$ key when a negative number is displayed. The square root of the number is displayed ignoring the negative sign but $\boxed{\text{CE/C}}$ must be pressed to enter another problem.

Note that the memory content is not affected or lost as a result of any overflow/error condition.

SERVICE INFORMATION

In Case of Difficulty

1. Check that the calculator is turned ON.
2. Press [CE/C] twice and [CM] and try calculation again.
3. If the numbers in the display change very slowly, replace the batteries.
4. Review instructions in this booklet to be certain calculations are being entered correctly.

If none of the above procedures corrects the difficulty, return the calculator PREPAID and INSURED to the applicable SERVICE FACILITY listed on the next page.

For your protection, the calculator must be sent insured; Texas Instruments cannot assume any responsibility for loss or damage to an uninsured shipment.

Please describe the difficulty experienced with the calculator with return address information including name, address, city, state, and zip code. The shipment should be carefully packaged and adequately protected against shock and rough handling.

Battery Replacement

Your calculator uses 2 or 3 (depending on model) of any of the following silver-oxide batteries: Eveready S-76, Mallory 10-L14, Ray-O-Vac RW42 or Toshiba G-13. Replace only the number of batteries originally supplied with your calculator.

1. Turn the calculator off. Remove the battery compartment lid on the back of the calculator by either loosening two screws holding the lid or, if no screws are visible, slide the lid away from the bottom edge of the calculator.

2. Remove the discharged batteries and install new ones. Be sure the smooth side (+) of all batteries is showing when installed.

3. Replace the lid and turn on the calculator.

smooth side

CAUTION:

Do not incinerate old batteries.

For Assistance with Your Calculator

Write the Consumer Relations Dept., P. O. Box 53, Lubbock, Texas 79408. Or, call 800-858-1802 (toll-free within all contiguous states except Texas) or 800-692-1353 (toll-free within Texas). If outside the contiguous United States, call 806-747-3841. (We regret that we cannot accept collect calls at this number.)

ONE-YEAR LIMITED WARRANTY

WARRANTEE: This Texas Instruments electronic clacultor warranty extends to the original purchaser of the calculator.

WARRANTY DURATION: This Texas Instruments electronic calculator is warranted to the original purchaser for a period of one (1) year from the original purchase date.

WARRANTY COVERAGE: This Texas Instruments electronic calculator is warranted against defective materials or workmanship. THIS WARRANTY DOES NOT COVER BATTERIES AND IS VOID IF: (i) THE CALCULATOR HAS BEEN DAMAGED BY ACCIDENT OR UNREASONABLE USE, NEGLECT, IMPROPER SERVICE OR OTHER CAUSES NOT ARISING OUT OF DEFECTS IN MATERIAL OR WORKMANSHIP. (ii) THE SERIAL NUMBER HAS BEEN ALTERED OR DEFACED.

WARRANTY PERFORMANCE: During the above one (1) year warranty period your calculator will either be repaired or replaced with a reconditioned model of an equivalent quality (at TI's option) when the calculator is returned, postage prepaid and insured, to a Texas Instruments Service facility listed on the previous page. In the event of replacement with a reconditioned model, the replacement unit will continue the warranty of the original calculator or 90 days, whichever is longer. Other than the postage and insurance requirement, no charge will be made for such repair, adjustment, and/or replacement.

WARRANTY DISCLAIMERS: ANY IMPLIED WARRANTIES ARISING OUT OF THIS SALE, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE ABOVE ONE (1) YEAR PERIOD. TEXAS INSTRUMENTS SHALL NOT BE LIABLE FOR LOSS OF USE OF THE CALCULATOR OR OTHER INCIDENTAL OR CONSEQUENTIAL COSTS, EXPENSES, OR DAMAGES INCURRED BY THE PURCHASER.

Some states do not allow the exclusion or limitation of implied warranties or consequential damages, so the above limitations or exclusions may not apply to you.

LEGAL REMEDIES: This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

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