

**Texas Instruments**  
electronic calculator  
TI-2500



**Datamath**  
electronic calculator



Fully Portable

Weights less than 12 ounces and fits neatly in a pocket, briefcase or purse.

Versatile

Performs addition, subtraction, multiplication and division including credit balance, chain and mixed calculations, and utilization of a stored constant for multiplication or division. Full-floating point decimal.

Easy to Operate

Just touch the numbers and functions as you would write them on paper. Automatic clearing — no need to touch clear key between problems.

Long Life

Solid-State components, integrated circuits, and a display using light emitting diodes, provide dependable operation and long life.

Built-In  
Rechargeable Batteries

Your calculator will operate 4-6 hours in normal use. Overnight recharging (14 to 16 hours) will restore full power to the internal battery pack.

AC Adapter  
Charger

Recharge or direct operation from standard outlets is easily accomplished with the AC Adapter/Charger (model AC9100) included with your DATAMATH calculator. Just plug the AC Adapter/Charger into a convenient outlet and the attached cord into the calculator. The calculator will charge with power switch on or off. You can operate your calculator indefinitely while connected to your AC Adapter/Charger as your batteries cannot be overcharged.

Battery Saver  
Circuit

To save battery power your light emitting diode display turns off automatically approximately 15 seconds after the last key-

## **in case of difficulty**

- 1) Check to be sure ON-OFF switch is in the ON position. A "0" should appear in right hand position of display.
- 2) If all decimals appear on display, batteries should be recharged.
- 3) Review operating instructions to be certain calculations are performed correctly.

If none of these corrects the difficulty, return unit for repair to your nearest Texas Instruments Consumer Service Facility.

**CAUTION:** Use of other than the AC9100 AC Converter Charger may apply improper voltage to your DATAMATH calculator and cause damage.

## specifications

Type	DATAMATH TI-2500 electronic calculator.
Display	8-digit light emitting diode display.
Decimal Point	Complete floating decimal on input and output.
Types of Calculations	Addition, subtraction, multiplication, and division. Credit balance. Chain multiplication and division. Multiplication and division by a constant, and mixed calculations.
Overflow	£ sign on display indicates a positive <i>entry</i> overflow. $\perp$ indicates a positive calculation overflow. The minus sign also appears if either overflow is negative.
Negative Sign	True value indication with minus sign on display.
Calculation Components	One MOS/LSI Integrated Circuit.
Power Source	The built-in rechargeable battery pack provides six hours of service between recharges.
AC Adapter Charger — Included	Allows operation from 110/128 V, 60 HZ AC source.

## Low Battery Indication

When the rechargeable battery pack of your calculator is low all the decimal points on the display will be lighted. Rechargeable battery packs do lose some strength through non-use and after two or three months will require recharge before portable operation.

It is recommended that you recharge the battery pack periodically and that you refrain from running the power source to zero, as this type of operation may reduce the life of the battery pack.

## operational examples

### Before Operation

The built-in rechargeable battery pack is shipped *fresh and ready* for its *initial charge*.

You can operate your calculator while it's getting its initial charge. Just plug the charger cord (three plug connector) into the calculator and the charger into a convenient outlet. You can now calculate while you charge — a full charge requires 14-16 hours.

### Calculator Operation

Place switch in ON position. A zero will appear on the display. If all decimals appear on the display after a keyboard entry, the batteries are low and should be charged. If there is no signal on the display, the batteries are completely discharged.

Performing calculations with the DATAMATH calculator is easy. Numbers and functions are entered in the same sequence as the mathematical expression is normally written. The following examples will help you.

## Addition and Subtraction

EXAMPLE:  $4.23 + 4 = 8.23$

OPERATION:

**4 ▢ 23 ▢ 4 ▢ 8.23**

EXAMPLE:  $6 - 1.854 = 4.146$

OPERATION:

**6 ▢ 1 ▢ 854 ▢ 4.146**

EXAMPLE:  $12.32 - 7 + 1.6 = 6.92$

OPERATION:

**12 ▢ 32 ▢ 7 ▢ 1 ▢ 6 ▢ 6.92**

## Multiplication and Division

EXAMPLE:  $27.2 \times 18 = 489.6$

OPERATION:

**27 ▢ 2 ▢ 18 ▢ 489.6**

EXAMPLE:  $12 \div 5.2 = 2.3076923$

OPERATION:

**12 ▢ 5 ▢ 2 ▢ 2.3076923**

EXAMPLE:  $(4 \times 7.3) \div 2 = 14.6$

OPERATION:

**4 ▢ 7 ▢ 3 ▢ 2 ▢ 14.6**

## Mixed Calculations— Chain Mode

With the chain constant switch in the CHAIN position, mathematical operations can be performed with combinations of addition, subtraction, multiplication and division.

When in chain operation, the calculator is automatically cleared when a *number* key is pressed immediately after the  $\square$  key. It is not necessary to press the  $\square$  key before each calculation. If a *function* key  $\oplus$ ,  $\ominus$ ,  $\otimes$  or  $\oslash$ , is pressed immediately after  $\square$ , the calculation is continued with the displayed answer used as the last entry.

EXAMPLE:  $\frac{(8.3 + 2)}{4} - 6.8 = -4.225$

OPERATION:

**8 ▢ 3 ▢ 2 ▢ 4 ▢ 6 ▢ 8 ▢ -4.225**

## Multiplication and Division by a Constant

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Datamath Calculators

## Exponentials

EXAMPLE:  $6 \times 3 = 18$  (automatic clearing)  
 $3 \div 8 = 0.375$

OPERATION:

**6**  $\times$  **3**  $=$  **18** (automatic clearing) **3**  $\div$  **8**  $=$  **0.375**

EXAMPLE:  $4 \times 5 = 20$  and  $20 \div 8 = 2.5$   
(continuation of problem)

OPERATION:

**4**  $\times$  **5**  $=$  **20**  $\div$  **8**  $=$  **2.5**

EXAMPLE:  $8 + 7 + 43 = 58$

OPERATION:

**8**  $+$  **7**  $+$  **43**  $=$  **58** or **8**  $+$  **7**  $=$  **15**,  $+$  **43**  $=$  **58**

This convenience feature increases the flexibility of the DATAMATH calculator by allowing the user to multiply or divide a series of numbers by a constant number. When the chain-constant switch is in the CONST position a number entered after a  $\times$  or  $\div$  function *and* directly before the  $=$  key is retained as a constant multiplier or divisor. This constant is erased by subsequent entry of another constant or by pressing the  $\text{C}$  key.

EXAMPLE:  $5 \times 4 = 20$ ,  $6 \times 4 = 24$ ,  $7 \times 4 = 28$

OPERATION:

**C** **5**  $\times$  **4**  $=$  **20**, **6**  $\times$  **24**, **7**  $=$  **28**

EXAMPLE:  $12 \div 2 = 6$ ,  $20 \div 2 = 10$ ,  $44 \div 2 = 22$

OPERATION:

**C** **12**  $\div$  **2**  $=$  **6**, **20**  $\div$  **10**, **44**  $=$  **22**

Exponentials (numbers to a power) can be calculated — when the exponent is a whole number — by using the constant calculation mode and pressing the equal key the same number of times as the power, less one.

EXAMPLE:  $3^4 = 3 \times 3 \times 3 \times 3 = 81$

OPERATION:

**C** **3**  $\times$  **3**  $=$  **9**,  $=$  **27**,  $=$  **81**



## Calculations With Positive and Negative Numbers

When performing multiplication or division (either chain or constant mode), a negative value is assigned to a number by pressing the  $\pm$  key before entering the number.

EXAMPLE:  $(\frac{-125}{5} + 3) \times (-4) = 88$

OPERATION:

$\text{C} \pm 125 \div 5 + 3 \times \pm 4 = 88$

NOTE: When the first number of a calculation is a negative number, the previous problem must be cleared manually by pressing the  $\text{C}$  key (The  $\pm$  is a function key and will not automatically clear the calculator).

## Entry Overflow

The calculator will accept any number up to eight digits. If an entry exceeds eight digits, the error signal  $\text{E}$  can be removed by pressing the  $\text{C}$  key.

## Calculation Overflow

If a calculation result is more than eight digits before the decimal, the signal  $\text{E}$  will be displayed with the answer. To determine the correct answer, mentally move the decimal eight digits to the right.

EXAMPLE:  $13,635 \times 10,000 = 136,350,000$

OPERATION:

$\text{C} 13635 \times 10000 = \text{E} 1.3635000$

After a calculation overflow, the calculator must be cleared with  $\text{C}$  key before additional operations can be performed.

## Calculation Round Off

Excess digits to the *right* of the decimal in a calculation result (only eight digits can be displayed) are dropped, *not* rounded.

EXAMPLE:  $148623 \div 11 = 13511.1818$


OPERATION:

$148623 \div 11 = 13511.181$



## operational functions

### On Switch

board entry, except for the first digit. If the display turns off while entering a problem, the display turns on automatically with the first keyboard entry. To bring back the last calculated result to the display, depress the  Clear Entry/Display key.

The number in the first digit on the display is a double reminder—that you have an entry or calculation waiting in your calculator or that your calculator is in a power ON position.

Located on left side of calculator. Turns calculator OFF and ON.








### Chain/Constant Switch

Located on keyboard. Selects CHAIN mode for normal calculations or CONSTANT mode for convenient multiplication or division by a constant.

### Key

Clears (erases) information in calculator and display and sets calculator to zero for start of new problem.

### Key

The  key has a dual purpose: ONE—to clear the last number entered manually in the keyboard. TWO—to display the last calculated result when the battery saver circuit has gone into action. The  key will not clear a calculated result, i.e., it will not clear the calculator after the  ,  ,  or  . The  key must be used to clear a calculated result.

### Key

Instructs the calculator to ADD the previous number or result to the following number.

 Key

Instructs the calculator to SUBTRACT the following number from the previous number or result — or assigns a NEGATIVE sign to the following number.

 Key

Instructs the calculator to MULTIPLY the previous number or result by the following number.

 Key

Instructs the calculator to DIVIDE the previous number or result by the following number.

 Key

Instructs the calculator to complete the previously entered operations to provide the desired calculation result.

 Key

Enters a DECIMAL point.

 Keys

Enters NUMBERS (limit 8 digits).


Power On Indication

A zero appears at the right of the display when power switch is on and no other numbers are displayed.

Minus Sign

Appears on display to indicate negative numbers.

Decimal Point

Automatically appears to the right of any number entered unless positioned in another sequence by use of  KEY. A zero will precede the decimal for fractional numbers.

Overflow

 appears on display to indicate a result with more than eight digits before the decimal point.  indicates entry overflow condition.

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# Warranty

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Datamath Calc

This electronic calculator from Texas Instruments is warranted to the original purchaser for a period of one year from the original purchase date — under normal use and service against defective materials or workmanship.

Defective parts will be repaired, adjusted, and/or replaced at no charge when the calculator is returned prepaid to a Texas Instruments Consumer Service Facility listed in the Owner's Manual.

The warranty is void if the calculator has been visibly damaged by accident, misuse, or if the calculator has been serviced or modified by any person other than a Texas Instruments Consumer Service Facility.

This warranty contains the entire obligation of Texas Instruments Incorporated and no other warranties expressed, implied, or statutory are given.

The warranty is void unless the Purchase Registration Card has been properly completed and mailed to Texas Instruments Incorporated within 10 days of purchase.

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## Texas Instruments consumer service facilities

For warranty or out of warranty service send your calculator to the nearest service facility.

**Texas Instruments Service Facility**  
P. O. Box 477  
Springfield, New Jersey 07081

**Texas Instruments Service Facility**  
P. O. Box 1967  
Orange, California 92668

**Texas Instruments Service Facility**  
P. O. Box 970  
Arlington Heights, Illinois 60006

**Texas Instruments Service Facility**  
P. O. Box 5012 M/S 10  
Dallas, Texas 75222

Suggested uses  
for your new  
Datamath TI-2500  
calculator...

**HOME USES:**

- ☐ balance your checkbook
- ☐ prepare tax statements
- ☐ calculate interest rates
- ☐ plan household budgets
- ☐ compare unit costs at the store
- ☐ verify grocery bills
- ☐ student homework
- ☐ keep score in family games  
(bridge, etc.)
- ☐ calculate material requirements for workshop projects

**BUSINESS USES:**

- ☐ budget planning
- ☐ purchasing
- ☐ expense accounts
- ☐ accounts receivable
- ☐ accounts payable

**CLASSROOM USES:**

- ☐ accounting
- ☐ mathematics
- ☐ statistics

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