

# TEXAS INSTRUMENTS

## QUICK REFERENCE GUIDE

FLIGHT 747  
730 - 1045

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Data Bank for Museum  
555-238



**MINI  
DATA  
BANK**

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## Introduction

The Mini Data Bank is a miniature data management system and calculator combined.

The unit has two modes of operation: a data-bank mode and a calculator mode. A sliding faceplate reveals and conceals the numeric and calculator functions of the keys. This feature enables you to conceal the calculator function of the keys when you are searching for data already stored in your data bank. The position of the faceplate does not affect the operation of the unit.

- ▶ The data-bank mode stores names and related numeric data. Each screen holds up to six alphanumeric characters, a set of four digits, and another set of eight digits. If you wish, you can use a secret code to protect some or all of the information in your data bank.
- ▶ The calculator mode provides a calculator with four memory functions, a percent key, and a margin up/down key.

### Turning the Unit On and Off

To turn the unit on, press **[ON]**. The unit will be in the same mode as when it was turned off. In the calculator mode, a 0 . appears in the display. In the data-bank mode, the last entry or an empty data screen appears in the display.

To turn the unit off, press **[OFF]**. If you do not press any of the keys for approximately 8 minutes, the unit turns off automatically.

**Note:** If nothing appears in the display the first time you turn the unit on, the unit may need to be initialized. Refer to "Initializing the Unit" on page 17.

## Using the Data-Bank Mode

To change to the data-bank mode, press **DATA**. **MEMO** appears briefly in the display.

If you have made entries to the data bank, the last screen of information displayed before you left the data-bank mode appears in the display.

If there is no information stored in your data bank or if you displayed a blank screen before leaving the data-bank mode, a blank screen appears.

### The Data-Bank Display








The data-bank display consists of two lines. The top line has room for six alphanumeric characters and four small numbers. The bottom line has room for eight numbers, dashes, or spaces.



This format gives you space to identify an individual or group, list the area code (or perhaps an office extension or a birthday), and enter a telephone number.

You can also use the data bank to identify and store other types of numbers; checking account numbers, savings account numbers, social security numbers, dates, meetings, etc.

## Entering Data

1. Enter the data-bank mode. If the screen that appears is not blank, press  or  until a blank screen is displayed.
2. Press . A cursor, or flashing square, appears at the top left corner of the screen.
3. Enter the information you wish to store in the data bank.
  - ▶ In the alphanumeric portion of the display, press a key once to display the alphabetical character written on the key; press the key a second time to display the numeral, dash, or space associated with the key. You must advance the cursor after each entry by pressing .
  - ▶ In the numeric portion of the screen, press a key once to display the numeric character, dash, or space. The cursor advances automatically after each entry.
4. When the information you want to store is properly displayed, press .
5. If you want to make another entry in your data bank, press  or  until a blank screen is displayed and repeat steps 2 through 4.




**Example:** To enter the word SAMPLE and the number 000-123-4567:

Enter the data-bank mode, then press   
S  A  M  P  L  E  000-123-45  
67 .

## Using the Data-Bank Mode (Cont.)

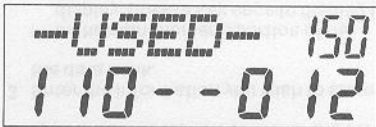
### Recalling Data

Information is sorted and stored in alphanumeric order. This feature makes recalling information an easy task.

1. Enter the data-bank mode.
2. Press  and  to search through the data until you reach the entry you want, or use one of the following methods to identify the entry you want to recall:
  - ▶ Type the first character of the name you want to recall and press **ENTER**. The display shows the first entry in your data bank with that initial character. If necessary, use  to search through the data until you reach the entry you want.
  - ▶ Type the entire name and press **ENTER**; the display goes immediately to that entry.

### Checking the Capacity

The data bank can store up to 150 entries. To check the capacity of your data bank, press and hold **CHECK**. The display that appears looks similar to the one below.



The display indicates that, out of 150 possible entries, there are currently 110 in the main portion of the data bank and 12 in the protected (secret) portion.

When you have 150 entries in the data bank, the screen displays the word FULL.

## Revising an Entry

To update information in your data bank:

1. Display the entry you want to change and press **ENTER**. The cursor, or flashing square, appears at the top left corner of the screen.
2. Position the cursor on the part of the entry you want to change and type over the original information. Use **□** to replace characters with blank spaces. (Press this key twice if the cursor is in the alphanumeric portion of the screen; press once when in the numeric portion.)
3. Check your entry for accuracy. If you change your mind about revising the data, press **ESCAPE** to display the original data screen.
4. Press **ENTER**.


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## Deleting an Entry

To delete an entry from your data bank:

1. Display the entry you want to delete and press **ENTER**.
2. Press **CE/C** twice if the cursor is in the alphanumeric portion of the screen. Press **CE/C** once if the cursor is in the numeric portion of the screen.
3. Verify that you do want to delete that information. If you change your mind, press **ESCAPE** to display the original data screen.
4. If you want to delete that information, press **ENTER**.

## Using a Secret Code to Protect Information

You can protect some or all of the data in your data bank from casual access. Once you establish your secret code, information entered in the protected area of your data base can only be accessed by someone who knows your code numbers. Protected data is identified with a  in the upper-left corner of the screen.

### Establishing Your Secret Code

1. Press **[DATA]** to be sure you are in the data-bank mode.
2. Press **[SECRET]**. The screen displays one of the two messages.
  - ▶ If the message SET ? is displayed, establish your secret code by entering four numbers that will be easy for you to remember, and pressing **[ENTER]**.
  - ▶ If the message CODE ? is displayed, a secret code has been established for your data bank. If you know the code, refer to the information below. If you do not know the code, you can create a new code using the "Changing the Code" procedure discussed on the next page.

### Accessing Your Secret Data Bank

1. Enter the data-bank mode (press **[DATA]**). Then press **[SECRET]**. The screen displays the message CODE ? and provides spaces for you to enter your secret code.
2. Enter your code and press **[ENTER]**.

**Note:** If you enter an incorrect code, the screen displays the message WRONG!. Press **[CE/C]** to clear the screen and begin again.

## Working in Your Secret Data Bank

Once you have accessed the protected portion of your data bank, the procedures for entering, recalling, revising, and deleting data are the same for protected data as for regular data-bank operations.

## Leaving Your Secret Data Bank

To return to the unprotected portion of the data bank, press **[ESCAPE]**.

## Changing the Code

To change your secret code **without** erasing the information in the protected data bank:

1. Enter the protected portion of your data bank (press **[DATA]**; then press **[SECRET]**).
2. When the message CODE ? appears, enter your **original** secret code and press **[ENTER]**.
3. Press **[SECRET]** again. The message  
↓ CHANGE appears in the display.
4. Enter your new code numbers and press **[ENTER]**.

To change your secret code **and** erase all the entries in the protected data bank:

1. Enter the protected portion of your data bank (press **[DATA]**; then press **[SECRET]**).
2. When the message CODE ? appears, press **[ENTER]**. The message ERASE ? appears in the display.
3. Enter your new code numbers and press **[ENTER]**.

**Note:** If you should decide not to change the code before you press **[ENTER]**, press **[CE/C]** to clear the screen.

## Using the Calculator Mode

To enter the calculator mode, press **[CALC]**. **CAL** appears briefly in the display. Then **0.** appears and remains in the display until you press a key.

### The Calculator Display



The calculator display has two lines. The bottom line of the display shows entries and results with up to 8 digits. Negative numbers are displayed with a minus sign at the far left of the top line. An **M** appears in this line when any value other than zero is stored in memory. An **E** appears when an error or overflow condition occurs. An operations symbol appears at the right of this line when you press the corresponding key.

### Clearing the Calculator

In the calculator mode, pressing **[CE/C]** once clears the displayed entry. Pressing **[CE/C]** twice clears the calculator without affecting memory. Pressing **[ON]** clears both the calculator and the memory so that you may begin your calculation again.

# Arithmetic Calculations

The calculator completes all arithmetic operations in the order they are entered.

To display the result of a calculation, press [=]. The calculator is then ready for you to enter a new calculation.

## Addition and Subtraction

Example:  $7.921 + 1.6 - 12.321 = ?$

7.921 [+/-] 1.6 [-] 12.321 [=]

- 2.8

## Multiplication and Division

Example:  $\frac{12 \times 13}{6} = ?$

12 [x] 13 [=] 6 [=]

26.

**Note:** Pressing the [+/-] key changes the sign of the displayed number. This key can be used to enter a negative number in a calculation.

## Calculations with a Constant

An automatic-constant register enables you to multiply or divide by a given number without re-entering that number with each calculation.

The automatic constant register is set when you enter the first calculation in a series. When you enter another number and press  $\boxed{=}$ , the calculator completes the problem using the number and function in the constant register.

For multiplication, the constant register uses the **first** number entered (the number in the display when you press the  $\boxed{\times}$  key).

For division, the constant register uses the **second** number entered (the number you enter following the  $\boxed{\div}$  key).

Example:  $3 \times 8 = ?$ ;  $3 \times 15 = ?$

$3 \boxed{\times} 8 \boxed{=}$

$15 \boxed{=}$

24.

45.

Example:  $27 \div 3 = ?$ ;  $15 \div 3 = ?$

$27 \boxed{\div} 3 \boxed{=}$

$15 \boxed{=}$

9.

5.

## Percentage Calculations

Percentages are calculated immediately when you press  $\boxed{\%}$ . You do not need to press  $\boxed{=}$ . (If you do press  $\boxed{=}$ , the calculator may display incorrect results.)

**Percentages:** 5% of \$250 = ?

250  $\boxed{\times}$  5  $\boxed{\%}$

$\boxed{12.5}$

**Add-ons:** \$250 plus 5% tax = ?

250  $\boxed{+}$  5  $\boxed{\%}$

$\boxed{262.5}$

**Discounts:** \$250 less 5% discount = ?

250  $\boxed{-}$  5  $\boxed{\%}$

$\boxed{237.5}$

**Combinations:** \$129 less 25% discount plus 4% tax = ?

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

$\boxed{100.62}$

If you want to see the intermediate percentage when calculating add-ons and discounts, use the key sequences shown below.

**Add-ons:** \$250 plus 5% tax = ?

250  $\boxed{\times}$  5  $\boxed{\%}$

$\boxed{12.5}$

$\boxed{+}$   $\boxed{=}$

$\boxed{262.5}$

**Discounts:** \$250 less 5% discount = ?

250  $\boxed{\times}$  5  $\boxed{\%}$

$\boxed{12.5}$

$\boxed{-}$   $\boxed{=}$

$\boxed{237.5}$

## Margin Calculations

The  $\boxed{M_D^U}$  key calculates the selling price of an item when the cost and the profit or loss margin (based on the selling price) are known.

The selling price is calculated according to the following formulas.

$$\text{Margin Up: Selling Price} = \frac{A}{1 - (B \div 100)}$$

$$\text{Margin Down: Selling Price} = \frac{A}{1 + (B \div 100)}$$

where A = the original cost

B = the profit or loss margin

To calculate margin problems:

1. Enter the cost and press  $\boxed{M_D^U}$ .
2. Enter the profit or loss margin (be sure to enter the loss margin as a negative number) and press  $\boxed{\%}$ .

**Margin up:** An item costs you \$65.00, and you would like to earn a 35% profit. Calculate the selling price of the item.

65  $\boxed{M_D^U}$  35  $\boxed{\%}$

$\boxed{100.}$

**Margin down:** An item costs you \$125. The dealer uses a 25% markup. Calculate the dealer's cost.

125  $\boxed{M_D^U}$  25  $\boxed{+/-}$   $\boxed{\%}$

$\boxed{100.}$

## Memory Operations

The **[M+]** key completes any operation (acts like the **[=]** key) and adds the result to memory. The **[M-]** key completes any operation and subtracts the result from memory.

To display (recall) the number in memory, press **[MR]**. To clear the memory, press **[MC]**.

**Note:** Because **[M+]** and **[M-]** add or subtract from the current number in memory, press **[MC]** before you begin a problem that uses the memory.

The letter M appears in the upper left corner of the display when the memory contains a number other than zero.

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

**[MC]** 4 **[×]** 11.99 **[M+]**  
12 **[×]** .98 **[M+]** **[MR]** M 59.72

**Example:**  $\frac{7.9 + 8.1}{-(5.2 + 2.8)} = ?$

**[MC]** 5.2 **[+]** 2.8 **[M-]**  
7.9 **[+]** 8.1 **[÷]** **[MR]** **[=]** -M 2.

## Error/Overflow Conditions

An error/overflow condition is indicated by the letter E in the top line of the display. Press **[CE/E]** to clear the overflow condition and twice to clear the calculator.

An error/overflow condition occurs when:

- ▶ The result of a calculation has more than 8 digits to the left of the decimal point. The display shows the 8 most significant digits of the correct result, with the decimal point appearing 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, inserting zeros as required.
- ▶ The result in memory has more than 8 digits to the left of the decimal point. When you press **[CE/C]**, the memory retains the number stored prior to the overflow.
- ▶ You attempt to divide a number by zero.
- ▶ You attempt to calculate **[M<sup>U</sup>D]** of 100%.

## In Case of Difficulty

If you have difficulty operating the calculator, use the following procedures.

- ▶ Press **[ON]** to clear the calculator and memory. Then repeat your calculation.
- ▶ If the numbers in the display are dim, erratic, or change very slowly, replace the batteries.
- ▶ Review the instructions in this manual to be sure that your calculations are entered correctly.
- ▶ If nothing appears in the display the first time you turn the unit on, refer to "Initializing the Unit" on page 17.

If these solutions do not correct the problem, refer to "Service Information" on page 18.

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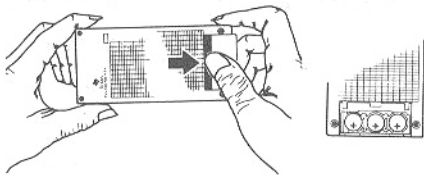
## Replacing the Batteries

If the display becomes dim, the batteries may need to be replaced. It is possible to change the batteries without losing the data stored in the Mini Data Bank. However, you do need to change batteries before the old ones become completely discharged, and you need to minimize the length of time that the unit is without battery power.

The Mini Data Bank uses three of the following types of batteries: Union Carbide (Eveready) 186, Varta V12GA, Toshiba LR43, or the equivalent.

Use the following procedure to replace the batteries. **Be careful not to touch any of the unit's keys during this procedure.** Pressing a key could cause the stored data to be lost.

1. Turn the unit off.
2. Open the battery compartment on the back of the unit by pressing down and back on the cover.



3. Remove the old batteries and install new ones. Be sure the + symbol on each battery is facing upward (toward the back of the unit).
4. Replace the cover. Gently press until the cover snaps into place.

**Caution:** Do not incinerate old batteries or leave them within reach of small children.

## Initializing the Unit

Because of the data-bank feature, this unit needs to be initialized. Generally, this is done at the factory. However, if nothing appears in the display when you turn the unit on, you can initialize it yourself using the following procedure.

**Note:** The following steps will clear all the memory contents. Do not use this procedure if there is data in the memory.

1. Hold down the **[SECRET]** key while you insert the battery as illustrated on the previous page.
2. Wait until all segments of the display are on.
3. Release the **[SECRET]** key.
4. Press the **[ON]** key to turn on the unit.

## **Service Information.**

If the suggestions in "In Case of Difficulty" do not correct the problem, call Consumer Relations at:

**1-806-747-1882**

Please note that this is a toll number, and collect calls are not accepted.

You may write to:

Texas Instruments Incorporated  
Consumer Relations  
P.O. Box 53  
Lubbock, Texas 79408

Please contact Consumer Relations:

- ▶ Before returning the calculator for service.
- ▶ For general information about using the calculator.

## **For Technical Information**

If you have technical questions about the operation of the calculator or its applications, call 1-806-741-2663. We regret that we cannot accept collect calls at this number. As an alternative, you can write Consumer Relations at the address given above.

## **Express Service**

Texas Instruments offers an express service option for fast return delivery. Please call Consumer Relations for information.

## **Returning Your Calculator for Service**

A defective calculator will be either repaired or replaced with the same or comparable reconditioned model (at TI's option) when it is returned, postage prepaid, to a Texas Instruments Service Facility.

Texas Instruments cannot assume responsibility for loss or damage during incoming shipment. For your protection, carefully package the calculator for shipment and insure it with the carrier. Enclose your full return address, any accessories related to the problem, and a note describing the problem you experienced with the calculator. Also, please enclose a copy of your sales receipt or other proof of purchase to determine warranty status.

Please ship the calculator postage prepaid; COD shipments cannot be accepted.

## **In-Warranty Service**

For a calculator covered under the warranty period, no charge is made for service.

## **Out-of-Warranty Service**

A flat-rate charge by model is made for out-of-warranty service. To obtain the service charge for a particular model, call Consumer Relations **before** returning the product for service. (We cannot hold products in the Service Facility while providing charge information.)

## Service Information (Continued)

### Texas Instruments Service Facilities

#### U.S. Residents (U.S. Postal Service)

Texas Instruments  
P.O. Box 2500  
Lubbock, TX 79408

#### U.S. Residents (other carriers)

Texas Instruments  
2305 N. University  
Lubbock, TX 79408

#### Canadian Residents Only

Texas Instruments  
41 Shelley Road  
Richmond Hill, Ontario L4C 5G4

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## One-Year Limited Warranty

This Texas Instruments electronic calculator warranty extends to the original consumer purchaser of the product.

**Warranty Duration:** This calculator is warranted to the original consumer purchaser for a period of one (1) year from the original purchase date.

**Warranty Coverage:** This calculator is warranted against defective materials or workmanship. **This warranty is void if the product has been damaged by accident, unreasonable use, neglect, improper service, or other causes not arising out of defects in material or workmanship.**

**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-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 consumer or any other user.

Some states do not allow the exclusion or limitations 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.

**Warranty Performance:** During the above one-year warranty period, a defective TI calculator will be either repaired or replaced with a reconditioned comparable model (at TI's option) when the product is returned, postage prepaid, to a Texas Instruments Service Facility. The repaired or replacement calculator will be in warranty for the remainder of the original warranty period or for six months, whichever is longer. Other than the postage requirement, no charge will be made for such repair or replacement. Texas Instruments strongly recommends that you insure the product for value, prior to mailing.

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