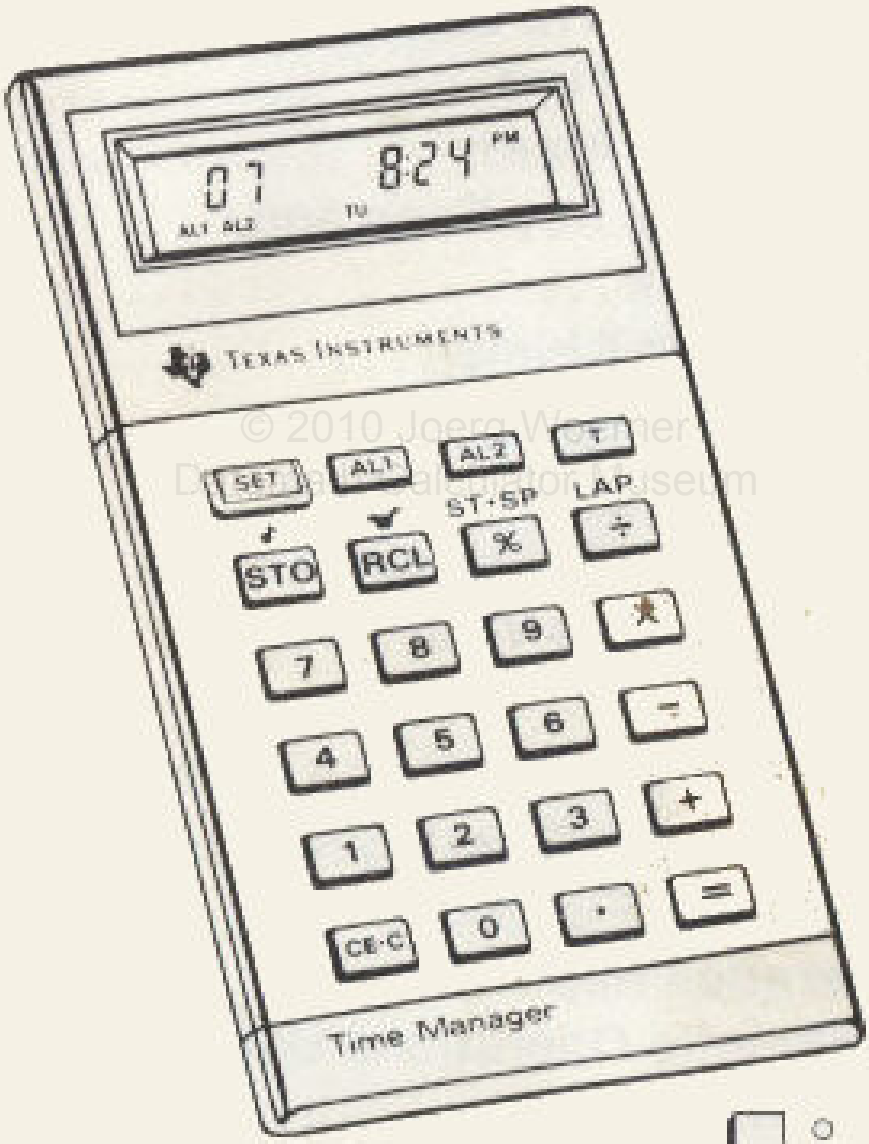
Texas Instruments

TIME MANAGER™

clock/calculator



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INTRODUCTION

Your slimline *Time Manager*™ calculator/clock is designed to provide years of reliable service in solving mathematical problems and in telling time accurately. Here are a few of its functions and features.

Features

- Time returns to the display automatically after 10 minutes of non-use in the calculator mode or set mode.
- Prompting assists in setting the time and alarms.
- Constant memory saves the data stored even when the time returns to the display.
- Optional beep can be sounded whenever a key is pressed.
- Large LCD display shows up to eight digits, alarm indicators, a PM indicator, a cuckoo chime indicator, a memory indicator, and the day of the week.

• Up to 8000 hours of operation can be obtained from a fresh battery.

Mathematic Functions

• Arithmetic functions (+, −, ×, ÷) display intermediate results.
• Percent calculations include an automatic add-on or a discount when used with the addition or subtraction function.
• Calculations with a constant are automatically done using the second number you enter as the constant.

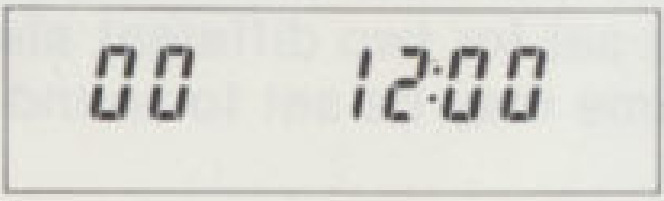
Time Functions

• Date and the day are continuously displayed when the time is in the display.
• Twenty-four hour alarm feature may be set for two different alarms.
• A chime may be set to sound every hour.
• Optional ticking sound may be produced when time is being displayed.
• Stopwatch has one tenth of a second accuracy and can time laps.

Turning the Calculator/Clock On

The *Time Manager* calculator/clock does not have an OFF/ON switch because the clock operates continuously. If digits are in the display, the *Time Manager* calculator/clock is already turned on. You may proceed to the section of this manual which is of interest to you.

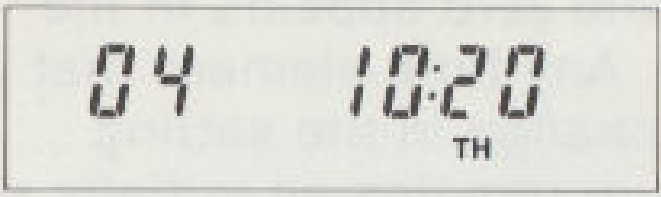
If the display is blank, you can turn your calculator/ clock on by pulling out the plastic tab from the right edge of the unit. Press [CE/C] [T] . The display should appear as shown below and the colon should be flashing in one-second intervals.



OPERATING THE CLOCK

Your calculator/clock runs continuously and is accurate to within 90 seconds per month when the temperature remains between 20 °C (68 °F) and 25 °C (77 °F). Ambient temperatures outside of this range may adversely affect the accuracy of the clock.

If the time is not in the display, press [T] to bring the time to the display. The display for 10:20 AM, Thursday, the 4th of the month, is shown below. The month is not displayed except in the set mode.



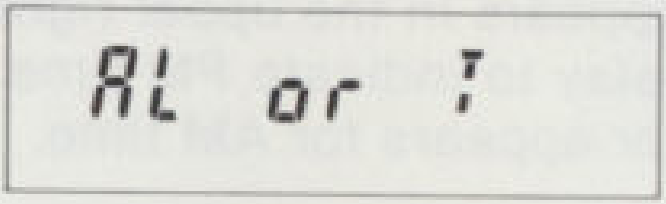
"PM" appears in the upper right of the display to indicate PM time. No indicator appears for AM time.

Setting the Time

To set the time on your calculator/ clock, follow these steps:

1. Press [SET] and the following display appears. The indicators — "AL" or "T" — show that you may choose to set either alarm ("AL") or the time ("T").

NOTE: If at any time you wish to stop the setting process, press [CE/C]. A zero appears in the display and you may begin calculations. If you have entered a number, press [CE/C] and the display that you are responding to returns. Press it again, and zero appears in the display. Any time element that you do not change in the setting procedure remains as initially set.

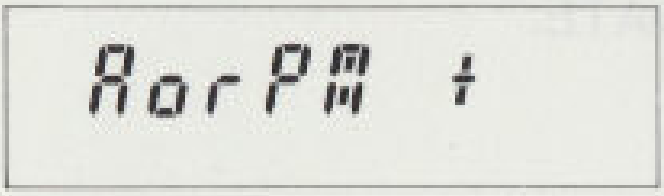


2. Press [T] to set the time. The current time and the word "TIME" are displayed. If the time has never been set, the calculator/clock automatically sets itself to midnight and begins keeping time. That time and the word "TIME" appear in the display.

NOTE: If you press [=] without entering a number or pressing [+] on any of the steps, that time element remains set as it currently is, and you move to the next step in the setting procedure.

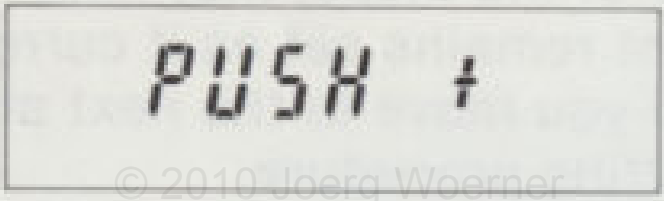
3. Key in the hour and minute as a number from 100 (1:00) to 1259 (12:59) and press [=]. For example, if you wish to set the clock to 6:08, key 608 and press [=]. The timekeeping begins as soon as [=] is pressed.

4. The following display appears.



Press [+] to switch from AM to PM and PM to AM. The PM indicator appears in the upper right corner of the display. No indicator appears for AM. Once you have chosen either AM or PM, press [=].

5. The display shown below appears if the day has never been set. If the day has been set, that day appears at the bottom of the display.

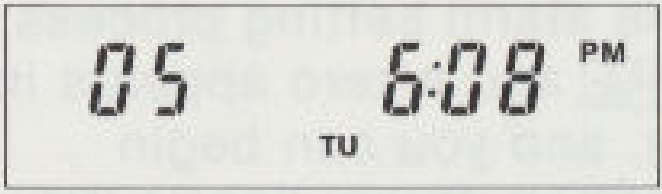


To set the day of the week, press [+] until the correct day is displayed. Then, press [=].

6. The display shows the month and day of the week for which the clock is currently set and the word "DATE," or if the clock has never been set before, the display shows "000 DATE."

To enter the correct date, enter the month and the day and press [=] . The day must be two digits. For example, to enter January 5, key in 105 and press [=] .

The display should now have the correct day of the week at the bottom of the display, the day of the month in the left side of the display, and the time of day and perhaps the PM indicator on the right side with the colon blinking. The display for 6:08 PM, Tuesday, January 5 is shown below. The month is not displayed except in the set mode.

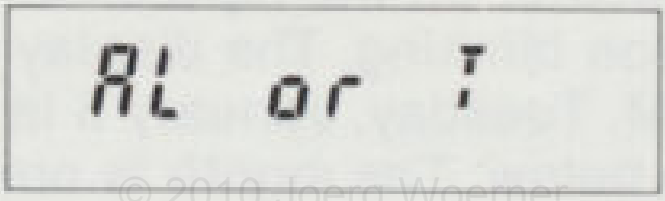


If the display is not correct, return to Step 1. You can press [=] to skip a step in the setting process.

Setting the Alarm

Your calculator/clock has two alarms that can be set to any hour and minute. The duration of the alarm can be set from 1-99 seconds. When the alarm is sounding, pressing any key stops the alarm. To set the alarms, follow these steps:

1. Press [SET], and the following display appears.



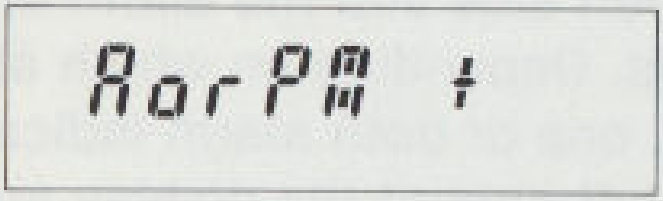
NOTE: If at any time you wish to stop the alarm setting process, press [CE/C] and a zero appears in the display, and you can begin calculations. If you have entered a number, press [CE/C] and the display that you are responding to returns. Press it again, and a zero appears in the display. Any element that you do not change in the setting procedure remains as initially set.

2. Press [AL1] or [AL2], and the time for which the alarm is currently set and the word "TIME" appear in the display. If the alarm has never been set, "12:00 TIME" appears in the display.

NOTE: If you press [=] without entering a number or pressing [+] on any of the steps, that time element remains at the current setting.

3. Key in the hour and minute that you wish the alarm to sound as a number from 100 (1:00) to 1259 (12:59), and press [=].

4. The following display appears.



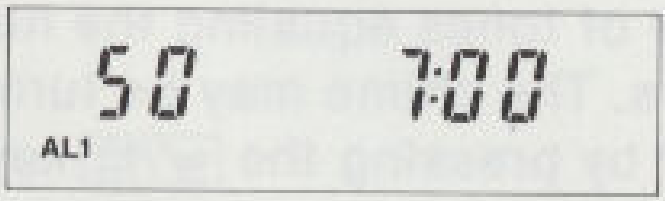
Press [+] to switch from AM to PM and PM to AM. The PM indicator appears in the upper right corner of the display. No indicator appears for AM. Once you have chosen either AM or PM, press [=].

5. Then the duration of the alarm in seconds for which it is currently set and the word "dur" are displayed. If the alarm is not currently set, "00 dur" is displayed. Key in the number of seconds up to 99 that you want the alarm to sound and press [=]. If you key in a zero for the duration of the alarm, the alarm is canceled, and the "AL1" or "AL2" alarm indicator is not displayed.

NOTE: If the two alarms are set for the same time, Alarm 1 controls the duration of the alarm.

After you have keyed in the duration of the alarm, the duration is displayed on the left side and the alarm time on the right. Depending on which alarms are set, one or both alarm indicators on the left side of the display are displayed and remain displayed until the alarm duration is changed to zero.

The alarm shown in the display below sounds at 7:00 AM for 50 seconds.



To return time to the display, press [T].

NOTE: To cancel an alarm, change the alarm duration to zero, using the setting sequence described above. The time and duration of the alarm can be displayed by pressing [AL1] or [AL2].

Setting the Key Tone and Clock Tick

The calculator/clock can sound a beep when a key is pressed while it is in the calculator mode and produce a ticking sound whenever time is being displayed. This option can be turned on and off by pressing the [♪/STO] key in any non-calculator mode.

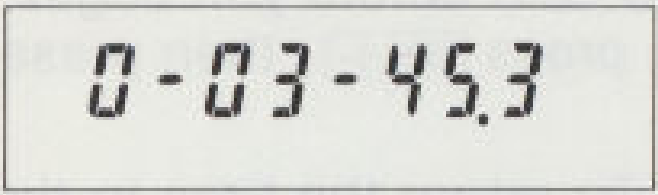
Setting the Chime

The chime sounds every hour with the number of tones equaling the number of hours. The chime may be turned on and off by pressing the [🐦/RCL] key in any non-calculator mode. After you have set the chime, press [CE/C] to leave the setting mode.

When the chime is turned on, the outline of a bird blinks in the right side of the display. When the chime is sounding, the calculator/clock does not respond to any keystroke.

OPERATING THE STOPWATCH

Your calculator/clock can function as a stopwatch. Lap times and total times are displayed in hours, minutes, seconds, and tenths of seconds. You can measure up to 9 hours, 59 minutes, and 59.9 seconds; at that point the timer begins at zero again. The dash between the minutes and seconds blinks and a rapid ticking sound occurs when the stopwatch is running. The calculator and clock functions cannot be displayed while using the stopwatch function. A stopwatch display for 3 minutes and 45.3 seconds is shown below:

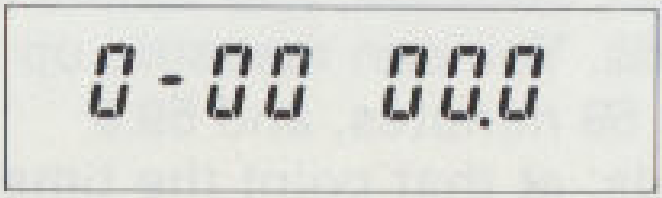


You can obtain the stopwatch display by pressing ST•SP/% whenever any time function is in the display.

Total Time Measurement

To use the stopwatch, follow the steps listed below:

1. Press [T] and [ST•SP/%], and the stopwatch display shown below appears.



2. Press [ST•SP/%] again to start the stopwatch.

3. Press [ST•SP/%] again to stop the stopwatch. The display shows the total elapsed time.

4. Press [ST•SP/%] to start the timing beginning from the time shown in the display. If you wish to reset the timer to zero before you begin timing, press [LAP/÷]; then press [ST•SP/%].

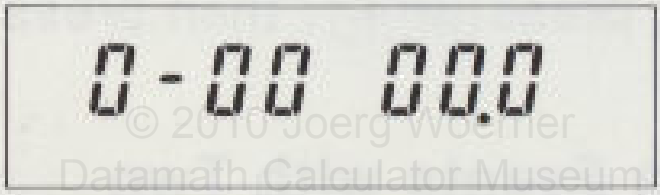
NOTE: To return the time to the display, press [T]. To do calculations, press [CE/C]. The stopwatch does not function when

the time is in the display or when calculations are being made.

Lap (Split) Time Measurement

If you would like to take lap-time measurements, without stopping the stopwatch, follow the steps listed below:

1. Press [T] and [ST•SP/%], and the stopwatch display shown below appears.



2. Press [ST•SP/%] to start the stopwatch.

3. Press [LAP/÷], and the lap time is recorded in the display while the stopwatch continues timing. The blinking dash between the minutes and seconds and a ticking sound indicate that the stopwatch is still running. To bring the running time to the display, press [LAP/÷] again. Each subsequent use of the [LAP/÷] key

displays total elapsed time, not individual lap times.

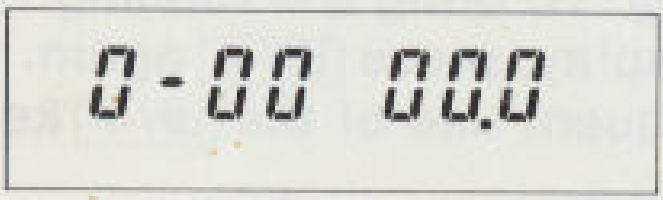
4. Press [ST•SP/%] to stop the timing. If the lap time is in the display when the timing is stopped, press [LAP/÷] to get the total elapsed time in the display.

5. Press [ST•SP/%] to continue timing beginning with the time in the display. If you wish to reset the stopwatch to zero before you begin timing, press [LAP/÷] ; then press [ST•SP/%] .

Timing Events with Two Participants

If you would like to time two participants who begin an event simultaneously, follow the steps listed below:

1. Press [T] and [ST•SP/%] , and the stopwatch display shown below appears.



2. Press [ST•SP/%] to start the stopwatch when the participants begin the event.

3. When the first participant finishes the event, press [LAP/÷]. Then when the second participant finishes the race, press [ST•SP/%]. The first participant's time is displayed. Record it. Press [LAP/÷] and the second participant's time is displayed. Record it.

4. Press [LAP/÷] to reset the stopwatch to zero so that you may time another event.

OPERATING THE CALCULATOR

To perform calculations, press [CE/C] . A zero appears in the display. You may then enter the problem. If the calculator is not used for approximately 10 minutes, the time returns to the display.

NOTE: Any operations pending in the calculator are completely cleared when the clock or stopwatch functions are used. However, the clock function is not affected by using the calculator or stopwatch functions, nor is the memory affected by the clock or stopwatch functions.

Entering and Clearing Numbers

The calculator displays up to 8 digits (7 digits to the right of the decimal) and indicates negative numbers by displaying a minus sign to the left of the number. To enter a negative number, press [−] and key in the number. The negative sign

appears when the number is displayed if you press [−] immediately following an operations key, or the negative sign appears after the number is displayed when the next operation or [=] key is pressed. The calculator operates with a floating decimal point for maximum accuracy at all times.

If [CE/C] is pressed once after a number entry, the number entered is cleared, and a zero is displayed without affecting previous entries. Enter the new number and complete the calculation. If [CE/C] is pressed after the entry of an operation or pressed twice, the calculator is cleared, except the memory, so that a new problem may be entered. It is not necessary to press [CE/C] twice if the previous problem was completed by pressing [=]. To clear the memory, enter zero into the display and press [M+/STO].

Arithmetic Functions

A problem is calculated in the order in which it is written. The calculator displays an intermediate result when used in multiple calculations.

Addition and Subtraction

Example:

$3.61 + 18.045 - 10.6 - (-5.87) = 16.925$

Enter	Press	Display
3.61	[+]	3.61
18.045	[−]	21.655
10.6	[−]	11.055
	[−]	11.055
5.87	[=]	16.925

Multiplication and Division

Example: $\frac{3.25 \times 4}{-7.3} = -1.7808219$

Enter	Press	Display
3.25	[×]	3.25
4	[÷]	13
	[−]	13
7.3	[=]	−1.7808219

Operation Replacement

If an operation has been entered erroneously, enter any operation except [−] to replace the incorrect operation. If the desired operation is subtraction, clear the calculator by pressing [CE/C] and reenter the problem.

Example: 63 × 48 = 3024

Enter	Press	Display
63	[−]	63
	[×]	63
48	[=]	3024

Example: 111 − 54 = 57

Enter	Press	Display
111	[×]	111
	[CE/C]	0
111	[−]	111
54	[=]	57

Arithmetic Operations Using a Constant

The second number entered in all arithmetic operations is the constant.

Example: 8 × 3 = 24; 15 × 3 = 45

Enter	Press	Display
8	[X]	8
3	[=]	24
15	[=]	45

Example: 4 + 2 = 6; 9 + 2 = 11

Enter	Press	Display
4	[+]	4
2	[=]	6
9	[=]	11

Percentage Calculations

Percentage Example: 6% of 1500 = 90

Enter	Press	Display
1500	[X]	1500
6	[%]	0.06
	[=]	90

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

Enter	Press	Display
65	[+]	65
5	[%]	3.25
	[=]	68.25

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

Enter	Press	Display
65	[−]	65
15	[%]	9.75
	[=]	55.25

Combination Example: $129 less 25% discount plus 4% tax = $100.62

Enter	Press	Display
129	[−]	129
25	[%]	32.25
	[+]	96.75
4	[%]	3.87
	[=]	100.62

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

Enter	Press	Display
600	÷	600
1500	%	15
	=	40

Memory Operations

Your calculator/clock has a constant memory which is accessed by two keys [♪/STO] and [⌣/RCL]. These two keys allow data to be stored and retrieved whenever necessary. The data stored in the memory can be changed only by storing a new value in the memory. To enter a number to the constant memory, press [♪/STO] while the number is displayed. To display the number stored in memory, press [⌣/RCL]. To clear the memory, enter a zero in the display and press [♪/STO]. An "M" appears on the left side of the display when the memory contains a number other than zero.

Example: (4.31 + 11.99) × (12.16 + 0.98) = 214.182

Enter	Press	Display
4.31	[+]	4.31
11.99	[=]	16.3
	[♪/STO]	M 16.3
12.16	[+]	M 12.16
.98	[=]	M 13.14
	[×]	M 13.14
	[✓/RCL]	M 16.3
	[=]	M 214.182

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

Enter	Press	Display
	[CE/C]	M 0
	[♪/STO]	0
5.2	[+]	5.2
2.8	[×]	8
	[−]	8
1	[=]	−8
	[♪/STO]	M −8
7.9	[+]	M 7.9
8.1	[÷]	M 16
	[✓/RCL]	M −8
	[=]	M −2

Truncation

Truncation of the least significant digits of a fraction occurs if the results of an operation has more than eight digits. For example, enter 16789321, press [+], and enter 1.55. Then press [=]. The number displayed is 16789322. The fractional portion, .55, has been truncated because it is beyond the capacity of the eight-digit display.

Error Indication

The word "Error" appears in the display when the result of a calculation has more than eight digits to the left of the decimal point or when a number is divided by zero. To eliminate the error condition, press [CE/C] and a zero is displayed. When the result of a calculation is too small to be displayed, the number is truncated to zero.

SERVICE INFORMATION

In Case of Difficulty

1. If the display is blank, check that the plastic shipping tab has been removed as described on page 2. If the tab is not present, replace the batteries.

2. If the numbers in the display are dim, hard to read or change very slowly, replace the batteries.

3. Review the appropriate calculator, clock, or stopwatch operation instructions in this booklet to be sure you are making entries correctly.

If none of the above procedures corrects the difficulty, return the unit PREPAID to the applicable SERVICE FACILITY listed immediately following the warranty information.

NOTE: The P.O. box number listed for the Lubbock Service facility is for United States parcel post shipments only. If you desire to use another carrier, the street address is:

Texas Instruments Incorporated
2305 N. University Ave.
Lubbock, Texas 79415

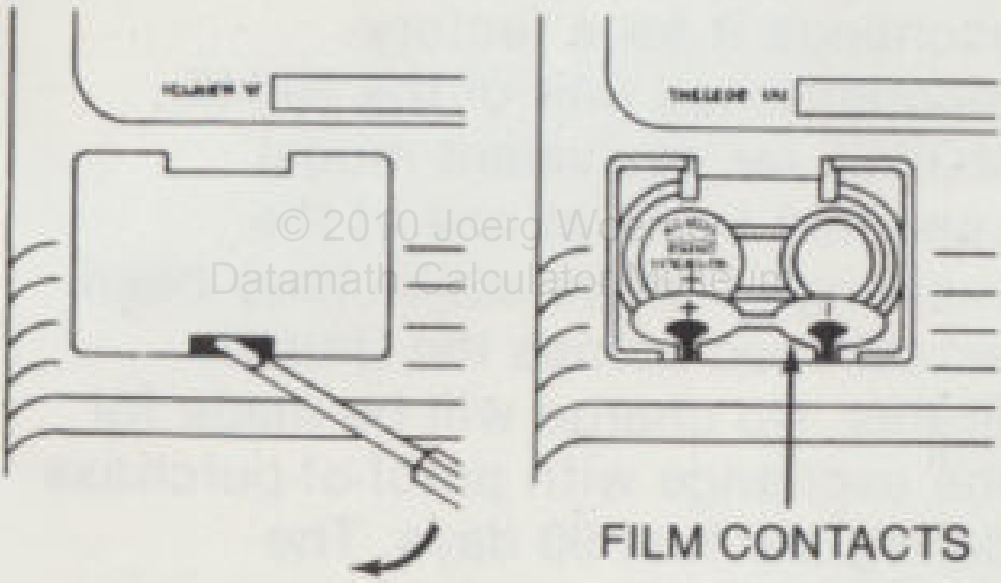
For your protection, the unit should be sent insured; Texas Instruments cannot assume any responsibility for loss or damage to an uninsured shipment.

Please describe the difficulty experienced with the unit and include return address information — 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 of any of the following batteries: Eveready 354, Ray-O-Vac RW54, Mallory 10-R11, Duracell D286 and 10R124, Union Carbide 286 and Panasonic H-11.

1. Turn the calculator off. Place a small screwdriver or similar instrument into the slot and lift battery cover.



2. Remove the discharged batteries and install new ones as shown. **Be sure the film contacts are positioned to lay on top of the batteries after the batteries are installed.**

3. Replace the cover, top edge first, then gently press until cover snaps into place.

CAUTION: Do not incinerate old batteries.

Calculator Exchange Centers

If your clock/calculator requires service, instead of returning the unit to your dealer or to a service facility for repair, you may elect to exchange it for a factory-reconditioned unit of the SAME MODEL (or equivalent model specified by TI) at one of the exchange centers which have been established across the United States. No charge will be made for the exchange with proof-of-purchase during the first 90 days. The exchanged unit will be in warranty for the remainder of the original warranty period or for 6 months,

whichever is longer. A HANDLING FEE WILL BE CHARGED FOR EXCHANGE AFTER 90 DAYS FROM THE DATE OF PURCHASE.

Out-of-warranty exchanges will be charged at the rates in effect at the time of the exchange. To determine if there is an exchange center in your locale, look for Texas Instruments Incorporated Exchange Center in the white pages of your telephone directory or look under the Calculator and Adding Machine heading in the yellow pages. Please call the exchange center for availability of your model. Write the Consumer Relations Department for further details and location of the nearest exchange center.

For Assistance With Your Calculator

Write the Consumer Relations Dept., P.O. Box 53, Lubbock, Texas 79408.

ONE-YEAR LIMITED WARRANTY

THIS TEXAS INSTRUMENTS CONSUMER WARRANTY EXTENDS TO THE ORIGINAL CONSUMER PURCHASER OF THE PRODUCT.

WARRANTY DURATION: This Texas Instruments consumer product is warranted to the original consumer purchaser for a period of one year from the original purchase date.

WARRANTY COVERAGE: This Texas Instruments consumer product is warranted against defective materials or workmanship. **THIS WARRANTY DOES NOT COVER THE BATTERIES AND 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 PRODUCT 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 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.

WARRANTY PERFORMANCE: During the above one year warranty period, your TI consumer product will either be 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 as listed on the following page.

The repaired or replacement unit will continue the warranty of the original unit or six months, whichever is longer. Other than the postage requirement, no charge will be made for such repair or replacement of in-warranty calculators.

TI strongly recommends that you insure the product for value, prior to mailing.

Texas Instruments Consumer Service Facilities

U.S. Residents:

Texas Instruments Service Facility
P.O. Box 2500
Lubbock, Texas 79408

Canadian Residents:

Geophysical Services Incorporated
41 Shelley Road
Richmond Hill, Ontario, Canada
L4C5G4

Consumers in California and Oregon may contact the following Texas Instruments offices for additional assistance or information.

Texas Instruments Consumer Service
6700 Southwest 105th
Kristin Square, Suite 110
Beaverton, Oregon 97005
(503) 643-6758

Texas Instruments Consumer Service
831 South Douglas Street
El Segundo, California 90245
(213) 973-1803

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