

TEXAS INSTRUMENTS

B U S I N E S S

BA-35

QUICK
REFERENCE
GUIDE



Reminder—In Case of Difficulty

If the calculator does not respond as you expect, it may be in a special mode. Press either **2nd** [FIN] or **2nd** [STAT] to select the mode you want.

Key Index

This index provides a quick page reference to the description of each key.

description of each key.

					ON/C 4,6
2nd 9	CPT 17	DUE 17	+/- 5	OFF 4	
[FIN] 17	[BAL] 17, 24	[INT] 17, 24	[APR►] 17, 22	[◄EFF] 17, 23	
N 17, 18, 20	%i 17, 18, 20	PMT 17, 20	PV 17, 18, 20	FV 17, 18, 20	
[STAT] 26	[Σ-] 26				
FRQ 26	Σ+ 26	\bar{x} 26	σn 26	σn-1 26	
[Δ%] 10	[lnx] 16	[e ^x] 16	[x ²] 14	[x!] 16	
% 10	1/x 14	y ^x 14	√x 14	+ 5	
[Decimal] 8					
STO 12	7 5	8 5	9 5	× 5	
RCL 12	4 5	5 5	6 5	- 5	
SUM 12	1 5	2 5	3 5	+	
EXC 12	0 5	• 5	= 5		

Multiple-Function Keys

Alternate functions are printed above some calculator keys. To access these, press the **2nd** key just prior to the function key. Each key is described in the appropriate section of this manual.

The BA-35 Calculator

The BA-35 calculator offers you a wide range of financial and statistical capabilities. This manual is designed to help you learn about these capabilities and how to use them effectively.

Features

- ▶ Preprogrammed calculator functions assist you in performing a wide range of financial, statistical, arithmetic, and algebraic computations.
- ▶ An eight-digit display lets you work with large or small numbers and provides helpful indicators.
- ▶ The Constant Memory™ feature holds a number in memory even when the calculator is turned off.
- ▶ The APD™ Automatic Power Down is a power-saving feature that turns the calculator off automatically after 5 to 15 minutes of inactivity.

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BA-35 Quick Reference Guide

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Turning the Calculator On and Off

The **[ON/C]** and **[OFF]** keys turn the calculator on and off. If you don't turn the calculator off, the APD™ Automatic Power Down feature turns it off for you.

Turning the Calculator On

To turn the calculator on, press the **[ON/C]** key. After you press **[ON/C]**, 0 should appear in the display. Other display indicators may also appear, depending on the operating mode of the calculator when you turned it off.

To clear the calculator, press **[OFF]**, **[ON/C]**, and **[STO]**. Then press either **[2nd] [FIN]** or **[2nd] [STAT]** to select the mode you want and to clear the registers. The calculator is then ready for you to begin your calculations.

Turning the Calculator Off

To turn the calculator off, press **[OFF]**. The display and any pending operation are cleared when you turn the calculator off.

The operating mode, memory contents, and financial or statistical registers are not cleared.

The APD™ Feature

To conserve power, the Automatic Power Down (APD) feature automatically turns the calculator off after 5 to 15 minutes of inactivity. The effect is the same as if you had pressed **[OFF]**.

Basic Operations

Any pending (uncompleted) operation is completed as soon as you press the next operation key ($\boxed{+}$, $\boxed{-}$, $\boxed{\times}$, $\boxed{\div}$, $\boxed{=}$, $\boxed{y^x}$, or $\boxed{2nd} \boxed{[\Delta\%]}$).

An immediate function is completed as soon as you press the immediate function key ($\boxed{\%}$, $\boxed{1/x}$, $\boxed{\sqrt{x}}$, $\boxed{2nd} \boxed{[\ln x]}$, $\boxed{2nd} \boxed{[e^x]}$, $\boxed{2nd} \boxed{[x^2]}$, or $\boxed{2nd} \boxed{[x!]}$).

Keys	Functions
$\boxed{0} - \boxed{9}$	Enter digits in the display. You can enter a maximum of eight digits and a decimal point.
$\boxed{\cdot}$	Enters a decimal point.
$\boxed{+/-}$	Changes the sign of the number in the display. To enter a negative number, first enter the number as a positive value, and then press $\boxed{+/-}$.
$\boxed{+}$, $\boxed{-}$, $\boxed{\times}$, $\boxed{\div}$	Perform the arithmetic operations of addition, subtraction, multiplication, and division.
$\boxed{=}$	Completes any pending operation and displays the result.

Example: $-4 \times 7.3 \div 2 = -14.6$

If **DEC 2** is displayed, press $\boxed{2nd} \boxed{[Decimal]}$ to select the floating-decimal format.

Enter	Press	Display
4	$\boxed{+/-} \boxed{\times}$	- 4
7.3	$\boxed{\div}$	- 29.2
2	$\boxed{=}$	- 14.6

Clearing and Correcting Entries

Clearing the Display and Correcting Entries

The **[ON/C]** key clears incorrect entries, error conditions, the display, and any pending operation. Pressing **[ON/C]** does not affect the memory, the financial or statistical registers, the operating mode, or the display format.

- ▶ To clear the display and any pending operation, press **[ON/C]** twice.
- ▶ To clear an incorrect numerical entry, press **[ON/C]** once.
- ▶ To clear an error condition, indicated by **Error** in the display, press **[ON/C]** once.

Clearing the Memory and Registers

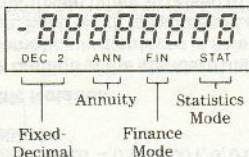
- ▶ To clear the memory, press **[STO]** when a zero is in the display.
- ▶ To clear the statistical registers, press **[2nd]** **[STAT]**.
- ▶ To clear the financial registers, press **[2nd]** **[FIN]**.

Correcting a Pending Operation

If you press an incorrect pending operation key (**[+]**, **[-]**, **[×]**, **[÷]**, **[y^x]**, or **[2nd]** **[Δ%]**), you can press the correct operation key immediately after the incorrect one and continue with the calculation.

The Display

The display shows entries and results with a maximum of eight significant digits. To present additional information, special indicators may also appear in the display.



Indicator	Meaning
Error	An error condition has occurred. To clear the error, press ON/C .
DEC 2	The calculator is in fixed-decimal format (two decimal places).
ANN	The calculator is performing an annuity calculation.
FIN	The calculator is in the financial mode.
STAT	The calculator is in the statistics mode.

Rounding and Accuracy

Even though a calculation can produce an 11-digit result, the display can show only 8 digits. Results are, therefore, rounded to an 8-digit standard display or to a 5-digit mantissa and 2-digit exponent for scientific notation. Most calculations are accurate to ± 1 in the last displayed digit.

Display Formats

After you select a display format, all results are displayed in this format until you select another.

[2nd] [Decimal]—Decimal-Format Key Sequence

To alternate between fixed-decimal and floating-decimal notation, press

[2nd] [Decimal].

- ▶ In fixed-decimal notation, **DEC 2** appears in the display, and results are displayed with two decimal places. If a result has more than two decimal places, the displayed result is rounded. If a result has less than two decimal places, trailing zeros are inserted.

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Note: Results less than 0.005 are displayed in floating-decimal format even though **DEC 2** is still displayed.

- ▶ In floating-decimal notation, results are displayed in the following range:
 - 99999999 to – 0.0000001, 0, 0.0000001 to 99999999

Scientific Notation

Results outside of the standard display range are automatically displayed in scientific notation. Each result is expressed as a base value (mantissa) times 10 raised to some power (exponent).

In scientific notation, the calculator always displays “normalized” results. (That is, the result has a single digit to the left of the decimal point.)

Second Functions

Many keys can perform more than one function. These “second” functions are marked above certain keys.

For example, x^2 is the second function of the \sqrt{x} key.



2nd — Second Function Key

The **2nd** key gives you access to the second functions.

To perform a second function, press **2nd** and then press the appropriate function key.

Note: If you press **2nd** and then a key with no second function, the key performs its normal function. If you accidentally press **2nd**, press **2nd** again to cancel its effect.

Percentage Calculations

% —Percent Key

This key allows you to perform calculations involving percentages, such as add-ons and discounts.

In the chart below, the “principal amount” is the number in the display immediately after you press **×**, **+**, **−**, or **÷**.

Operation	Key Sequence	Function
Percentage	× n % =	Calculates n% of principal amount.
Add-On	+ n % =	Adds n% to principal amount.
Discount	− n % =	Subtracts n% from principal amount.
Percentage Ratio	÷ n % =	Divides principal amount by n%.

2nd [**Δ%**] —Percent Change Key Sequence

This key sequence calculates the percentage change between two values. It also completes any pending operation.

1. Enter the new value and press **2nd** [**Δ%**].
2. Enter the old value and press **=**.

If the result is positive, there is a percentage increase. If the result is negative, there is a percentage decrease.

Percentage Examples

If **DEC 2** is displayed, press **[2nd]** **[Decimal]** to select floating-decimal format before you begin these examples.

What is 2.5% of 15?

Enter	Press	Display
15	[×]	15
2.5	[%] [=]	0.375

What is the total cost of a \$16 item with an 8% sales tax?

Enter	Press	Display
16	[+]	16
8	[%] [=]	17.28

If a \$25 item is discounted 15%, how much does it cost?

Enter	Press	Display
25	[-]	25
15	[%] [=]	21.25

What is the percentage increase from 18.9 miles per gallon to 22.3 mpg?

Enter	Press	Display
22.3	[2nd] [Δ%]	22.3
18.9	[=]	17.989418

Memory Operations

Four keys are used in memory operations.

Key	Function
STO	Stores the displayed number in memory, replacing the previous memory contents. To clear the memory, press STO when 0 is displayed.
RCL	Displays (recalls) the number stored in memory, without affecting the memory contents.
EXC	Exchanges the number in the display with the number in memory.
SUM	Adds the number in the display to the number in memory.

Datamath Calculator Museum

Memory Examples

If **DEC 2** is displayed, press **2nd** [Decimal] to select the floating-decimal format before you begin these examples.

Store and recall 45.68.

Enter	Press	Display
45.68	STO	45.68
	OFF ON/C	0
	RCL	45.68

Memory Examples (Continued)

Store 55.4 in memory and use **[EXC]** to exchange a displayed value with the stored value.

Enter	Press	Display
55.4	[STO]	55.4
67	[EXC]	55.4
	[EXC]	67

Add the results of the following equations.

$$28.3 \times 7 = 198.1$$

$$173 + 16 = 189$$

$$312 - 42 + 7.8 = 277.8$$

$$664.9$$

Enter/Press	Display	Memory
28.3 [×] 7 [=] [STO]	198.1	198.1
173 [+] 16 [=] [SUM]	189	387.1
312 [-] 42 [+] 7.8 [=] [SUM]	277.8	664.9
[RCL]	664.9	664.9

Note: If you want to add to the current contents of memory, use **[SUM]**. However, if you are beginning a new problem, be sure to use **[STO]** to store the first number in memory. (This clears the previous contents.) Then use **[SUM]** to add subsequent numbers.

Reciprocals, Powers, and Roots

The $\boxed{1/x}$, $\boxed{2nd} \boxed{[x^2]}$, and $\boxed{\sqrt{x}}$ keys calculate the reciprocal, square, and square root of the displayed number. These are immediate functions that operate only on the displayed number.

Example: Calculate $\sqrt{3^2 + 4^2}$.

If **DEC 2** is displayed, press $\boxed{2nd} \boxed{[Decimal]}$ to select the floating-decimal format.

Enter	Press	Display
3	$\boxed{2nd} \boxed{[x^2]} \boxed{+}$	9
4	$\boxed{2nd} \boxed{[x^2]}$	16
	$\boxed{=}$	25
	$\boxed{\sqrt{x}}$	5

$\boxed{y^x}$ — Universal Power and Root Key

This key raises any positive number to any power (within the range of the calculator). With the help of the $\boxed{1/x}$ key, you can also find any root of a positive number in the range of the calculator.

Note: The $\boxed{y^x}$ key completes any pending operation. To include the result of a $\boxed{y^x}$ operation in other calculations, calculate the power or root first and store the result in memory. You can then recall it in your calculation as needed.

To raise a positive number to a power:

1. Enter the number (y) that you want to raise to a power, and then press $\boxed{y^x}$.
2. Enter the power (x) and press $\boxed{=}$.

y^x — Universal Power and Root Key (Cont.)

Example: $2.86^{-.42} = 0.6431707$

If **DEC 2** is displayed, press $\boxed{2nd}$ [Decimal] to select the floating-decimal format.

Enter	Press	Display
2.86	$\boxed{y^x}$	2.86
.42	$\boxed{+/-}$	- 0.42
	$\boxed{=}$	0.6431707

To calculate any root of any positive number in the range of the calculator:

1. Enter the number (y) whose root you want to find and press $\boxed{y^x}$.
2. Enter the root (x).
3. Press $\boxed{1/x}$.
4. Press $\boxed{=}$.

Example: $1460^{3.12} = 10.332744$

If **DEC 2** is displayed, press $\boxed{2nd}$ [Decimal] to select the floating-decimal format.

Enter	Press	Display
1460	$\boxed{y^x}$	1460
3.12	$\boxed{1/x} \boxed{=}$	10.332744

Logarithm and Factorial Functions

The logarithm key sequences perform natural logarithms and antilogarithms. The factorial key sequence calculates the factorial of the displayed number.

$\boxed{2\text{nd}} [\ln x]$, $\boxed{2\text{nd}} [e^x]$ —Natural Logarithm and Antilogarithm Key Sequences

Key Sequence	Function
$\boxed{2\text{nd}} [\ln x]$	Calculates the natural logarithm (base e) of the number in the display. (The value of e is 2.7182818.)
$\boxed{2\text{nd}} [e^x]$	Calculates the natural antilogarithm of the number in the display (e raised to the power of the number).

Examples: Calculate $\ln 203.451$ and $e^{-.69315}$.

If **DEC 2** is displayed, press $\boxed{2\text{nd}} [\text{Decimal}]$ to select the floating-decimal format.

Enter	Press	Display
203.451	$\boxed{2\text{nd}} [\ln x]$	5.3154252
.69315	$\boxed{+/-} \boxed{2\text{nd}} [e^x]$	0.4999986

$\boxed{2\text{nd}} [x!]$ —Factorial Key Sequence

This key sequence calculates the factorial of the displayed number. The displayed number must be a positive integer ≤ 69 . By definition, $0! = 1$.

Finance Keys

The finance keys operate only when the calculator is in the financial mode, indicated by **FIN** in the display.

Key Sequence	Function
2nd [FIN]	Selects the financial mode and clears the financial registers.
N , %i , PV , and FV	Enter the number of payments or periods, periodic interest rate, present value, and future value for time-value-of-money calculations.
PMT	Enters the payment amount for annuity calculations.
CPT	Computes the unknown value for compound interest problems and ordinary annuities.
DUE	Computes the unknown value for annuities due.
2nd [APR►]	Converts annual percentage rates to annual effective rates.
2nd [◀EFF]	Converts annual effective rates to annual percentage rates.
2nd [BAL]	Calculates the balance after a given payment in an annuity.
2nd [INT]	Calculates the interest portion for a given payment in an annuity.

Compound Interest Calculations

In compound interest calculations, interest is earned on the amount invested and on the interest that is earned and not withdrawn.

[N], [%i], [PV], [FV]—Compound Interest Keys

These keys are used to enter or calculate the values in compound interest calculations.

Key	Function
[N]	The total number of compounding periods.
[%i]	The percent interest rate per compounding period.
[PV]	The present value.
[FV]	The future value.

Performing a Compound Interest Calculation

To perform a compound interest calculation:

1. Press **[2nd] [FIN]** to enter the financial mode and clear the registers.
2. Enter three of the values shown above.

Note: For compound interest calculations, the payment (PMT) **must** be zero. If the **ANN** indicator is displayed, enter a zero as payment to turn off the indicator.

3. Press **[CPT]** and then the key for the unknown value.

Compound Interest Example

You invest \$10,000 in a project that earns an annual interest rate of 10% compounded quarterly. If you allow the interest to compound, what is the value of the investment at the end of five years?

If **DEC 2** is not displayed, press **[2nd]** **[Decimal]** to select the fixed-decimal format.

Enter/Press	Display	Comments
[ON/C] [ON/C] [2nd] [FIN]	0	Clear
5 [x] 4 [=] [N]	20.00	Compounding periods
10 [÷] 4 [=] [%i]	2.50	Periodic rate
10000 [PV]	10000.00	Present value
[CPT] [FV]	16386.16	Future value

Recalling a Financial Value

To recall a value from a financial register:

1. Press **[2nd]** **[RCL]**.
2. Press the key for the value you want to recall: **[N]**, **[%i]**, **[PMT]**, **[PV]**, or **[FV]**.

Annuity Calculations

An annuity is a series of consecutive equal payments occurring for N equal time periods, with interest calculated at the end of each period.

N , $\%i$, PMT , PV , FV — Annuity Keys

These keys are used to enter or calculate the values in annuity calculations.

Key	Function
N	The total number of payment periods.
$\%i$	The percent interest rate per payment period.
PMT	The amount of the regular payment.
PV	The present value of a series of payments plus the value of FV .
FV	The future value of a series of payments plus the value of PV .

Performing an Annuity Calculation

To perform an annuity calculation:

1. Press 2^{nd} [FIN] to enter the financial mode and clear the registers.
2. Enter four of the values shown above.
 - For most investment and loan calculations, enter PMT as a positive value.
 - For savings calculations with periodic deposits, enter PMT as a negative value.

Performing an Annuity Calculation (Cont.)

3. Compute the unknown value.

- ▶ For ordinary annuities (end-of-period payments), press **CPT** and then the key for the unknown value.
- ▶ For annuities due (beginning-of-period payments), press **DUE** and then the key for the unknown value.

Annuity Example

A company is depositing \$5000 quarterly in a fund paying 16% annually with quarterly compounding. Calculate the value at the end of three years for an ordinary annuity and for an annuity due.

If **DEC 2** is not displayed, press **2nd** [Decimal] to select the fixed-decimal format.

Enter/Press	Display	Comments
ON/C ON/C 2nd [FIN]	0	Clear
3 × 4 = N	12.00	Number of payments
16 ÷ 4 = %I	4.00	Periodic rate
5000 +/- PMT	- 5000.00	Payment
CPT FV	75129.03	FV for ordinary annuity
DUE FV	78134.19	FV for annuity due

Interest Rate Conversions

The annual percentage rate (APR) is the interest rate per compounding period multiplied by the number of compounding periods per year.

The annual effective rate (EFF) is the compound annual interest rate that you actually earn for the period of time stated.

[2nd] [APR►]—APR to EFF Key Sequence

To convert an annual percentage rate (APR) to an annual effective rate (EFF):

1. Enter the number of compounding periods per year for the APR.
2. Press **[2nd] [APR►]**.
3. Enter the APR.
4. Press **[=]** to calculate the EFF.

Example: A bank is offering a certificate that pays an APR of 15% with monthly compounding. What is the EFF?

If **DEC 2** is not displayed, press **[2nd] [Decimal]** to select the fixed-decimal format.

Enter	Press	Display
	[ON/C] [ON/C] [2nd] [FIN]	0.00
12	[2nd] [APR►]	12.00
15	[=]	16.08

[2nd] [◀EFF]—EFF to APR Key Sequence

To convert an annual effective rate (EFF) to an annual percentage rate (APR):

1. Enter the number of compounding periods per year for the APR.
2. Press **[2nd] [◀EFF]**.
3. Enter the EFF.
4. Press **[=]** to calculate the APR.

Example: You are considering an investment that earns an annual effective rate of 18%. What is the equivalent APR with weekly compounding?

If **DEC 2** is not displayed, press **[2nd] [Decimal]** to select the fixed-decimal format.

Enter	Press	Display
	[ON/C] [ON/C] [2nd] [FIN]	0.00
52	[2nd] [◀EFF]	52.00
18	[=]	16.58

Amortization Calculations

2nd [INT]—Interest Key Sequence

This key sequence calculates the interest portion of a given payment in an annuity.

To find the interest portion of a payment:

1. Enter the appropriate values with the **[N]**, **[%i]**, **[PMT]**, **[PV]**, and **[FV]** keys.
2. Enter the payment number.
3. Compute the interest amount.
 - ▶ For ordinary annuities (end-of-period payments), press **2nd [INT]**.
 - ▶ For annuities due (beginning-of-period payments), press **[DUE] 2nd [INT]**.

2nd [BAL]—Balance Key Sequence

This key sequence calculates the amount of principal that remains (the balance) after a given payment in an annuity.

To find the balance:

1. Enter the appropriate values with the **[N]**, **[%i]**, **[PMT]**, **[PV]**, and **[FV]** keys.
2. Enter the payment number.
3. Compute the balance.
 - ▶ For ordinary annuities (end-of-period payments), press **2nd [BAL]**.
 - ▶ For annuities due (beginning-of-period payments), press **[DUE] 2nd [BAL]**.

Amortization Example

A company has a 20-year \$300,000 mortgage with an annual interest rate of 15% compounded monthly. Compute the monthly payment. Then compute the interest and principal in the first payment and the accumulated principal and interest for the first year.

If **DEC 2** is not displayed, press **[2nd] [Decimal]** to select the fixed-decimal format.

Enter/Press	Display	Comments
[ON/C] [ON/C] [2nd] [FIN]	0	Clear
12 [X] 20 [=] [N]	240.00	Number of payments
15 [+] 12 [=] [%i]	1.25	Periodic rate
300000 [PV]	300000.00	Loan amount
[CPT] [PMT]	3950.37	Payment
1 [2nd] [INT] [STO]	3750.00	Interest in 1st payment
[2nd] [RCL] [PMT] [−] [RCL] [=]	200.37	Principal in 1st payment
12 [2nd] [BAL] [STO]	297423.18	Balance after 1 year
[2nd] [RCL] [PV] [−] [RCL] [=] [STO]	2576.82	1st year's principal
12 [X] [2nd] [RCL] [PMT] [−] [RCL] [=]	44827.61	1st year's interest

Statistics Keys

The statistics keys operate only when the calculator is in the statistics mode, indicated by **STAT** in the display.

Key Sequence	Function
$\boxed{2\text{nd}} \boxed{[\text{STAT}]}$	Selects the statistics mode and clears the statistical registers.
$\boxed{\Sigma+}$	Enters the displayed number as a data value. Each time you press $\boxed{\Sigma+}$, the display shows the number of data values currently in the statistical registers.
$\boxed{2\text{nd}} \boxed{[\Sigma-]}$	Removes the displayed data value from the statistical registers. The display then shows the number of data values currently in the statistical registers.
$\boxed{\text{FRQ}}$	Enters or removes a specified number of identical data values at the same time.
$\boxed{\bar{x}}$	Calculates the mean.
$\boxed{\sigma_n}$	Calculates the "n weighted" population standard deviation.
$\boxed{\sigma_{n-1}}$	Calculates the "n - 1 weighted" sample standard deviation.
$\boxed{\sigma_n} \boxed{2\text{nd}} \boxed{[x^2]}$	Calculates the variance of the population standard deviation.
$\boxed{\sigma_{n-1}} \boxed{2\text{nd}} \boxed{[x^2]}$	Calculates the variance of the sample standard deviation.

Statistics Calculations

Analyze the following test scores: 96, 87, 87, 70, 93, and 77, assuming that the six students are the entire population.

If **DEC 2** is displayed, press **[2nd]** **[Decimal]** to select the floating-decimal format.

Enter/Press	Display	Comments
[ON/C] [ON/C]		
[2nd] [STAT]	0	Clear
96 [Σ+]	1	1st entry
87 [FRQ] 2 [Σ+]	3	2nd and 3rd entries
80 [Σ+]	4	4th entry (incorrect)
80 [2nd] [Σ-]	3	4th entry removed
70 [Σ+]	4	4th entry (correct)
93 [Σ+]	5	5th entry
77 [Σ+]	6	6th entry
[x̄]	85	Mean (class average)
[σn]	8.9628864	Standard deviation
[2nd] [x²]	80.333333	Varlance

Error Conditions

When an error condition occurs, **Error** appears in the display. The calculator will not accept a keyboard entry until you press **ON/C** to clear the error condition.

General Error Conditions

The error conditions listed in this section can occur in any calculator mode.

- ▶ Calculating a result outside of the range -9.99995×10^{99} to 9.99995×10^{99}
- ▶ Dividing a number by zero; calculating a log or reciprocal of zero; raising zero to the 0th power; or calculating the 0th root of any number.
- ▶ Calculating the log or square root of a negative number.
- ▶ Calculating the factorial of a number that is not a positive integer ≤ 69 .
- ▶ Calculating a percentage change when the old value = 0.
- ▶ Finding the log where $1 \times 10^{-99} \leq x < 1 \times 10^{100}$; or finding the antilog where $-227.95592 \leq x \leq 230.25850$.

Financial Error Conditions

The error conditions listed in this section occur only in the financial mode.

- ▶ Pressing a statistics key.
- ▶ Calculating a financial unknown before enough known variables are entered or when no solution exists.

Financial Error Conditions (Continued)

- ▶ Calculating a financial value (other than N) $\geq \pm 1 \times 10^8$.
- ▶ Computing the balance or interest for a payment number < 1 .
- ▶ Converting an interest rate when $N = 0$ or is very large, or when $\%i$ is small.
- ▶ Computing a $\%i \leq -100\%$.
- ▶ Calculating N when $PMT \leq PV \times \%i$.

Statistical Error Conditions

The error conditions listed in this section occur only in the statistics mode.

- ▶ Pressing a financial key.
- ▶ Entering a data value (x) such that $|x| > 1 \times 10^{50}$.
- ▶ Removing a data value when there are no data values in the statistical registers or when there is only one data value entered.
- ▶ Calculating standard deviation when there are no data values in the registers.
- ▶ Calculating sample standard deviation with only one data value.
- ▶ Entering a series of data values such that the sum of their squares exceeds the upper or lower limit of the calculator.
- ▶ Entering more than 99,999 data values.

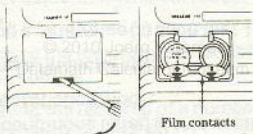
Battery Replacement

Note: Your calculator cannot hold data in memory when the batteries are removed or become discharged.

The BA-35 uses two batteries. For up to 1000 hours of operation use: Panasonic LR-44, Ray-O-Vac RW-82, Union Carbide (Eveready) A-76, or the equivalent. For up to 2500 hours of operation use: Mallory 10L14, Union Carbide (Eveready) S-76, Panasonic WL-14, Ray-O-Vac RW-42, or the equivalent.

To replace the batteries:

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



2. Remove the discharged batteries and install new ones as shown.
 - ▶ Be careful not to crease the film contacts while installing the new batteries.
 - ▶ Be sure the film contacts lie on top of the new batteries after they are installed.
3. Replace the cover, top edge first, and then gently press until the bottom of the cover snaps into place.
4. Press **OFF**, **ON/C**, and **STO** to clear the calculator.

Caution: Dispose of old batteries properly. Do not incinerate the batteries or leave them where a child can find them.

In Case of Difficulty

Observation	Action
Digits fail to appear in the display or appear dimly.	Check for improperly inserted or discharged batteries.
Calculator does not respond as expected.	<ul style="list-style-type: none">▶ Press OFF. Then press ON/C and try the calculation again. Review the instructions to be sure you entered the calculation properly.▶ The calculator may be in the wrong mode. Press either 2nd [STAT] or 2nd [FIN] to enter the mode you require.

Service Information

If you have questions about service or the general use of your calculator, please call Consumer Relations at:

1-806-747-1882

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

You may also write to the following address:

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

For general information about using the calculator, please contact Consumer Relations before returning the calculator for service.

For Technical Information

If you have technical questions about operating the calculator, call 1-806-741-2663. We regret that we cannot accept collect calls at this number. You can also write to 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. Be sure to enclose the following items with your calculator: your full return address; any accessories related to the problem; a note describing the problem you experienced; 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.)

Texas Instruments Service Facilities

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

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

U.S. Residents (other carriers)

Texas Instruments
2305 N. University
Lubbock, Texas 79408

Canadian Residents Only

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

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, your 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.



Printed in Italy

1109215-0003