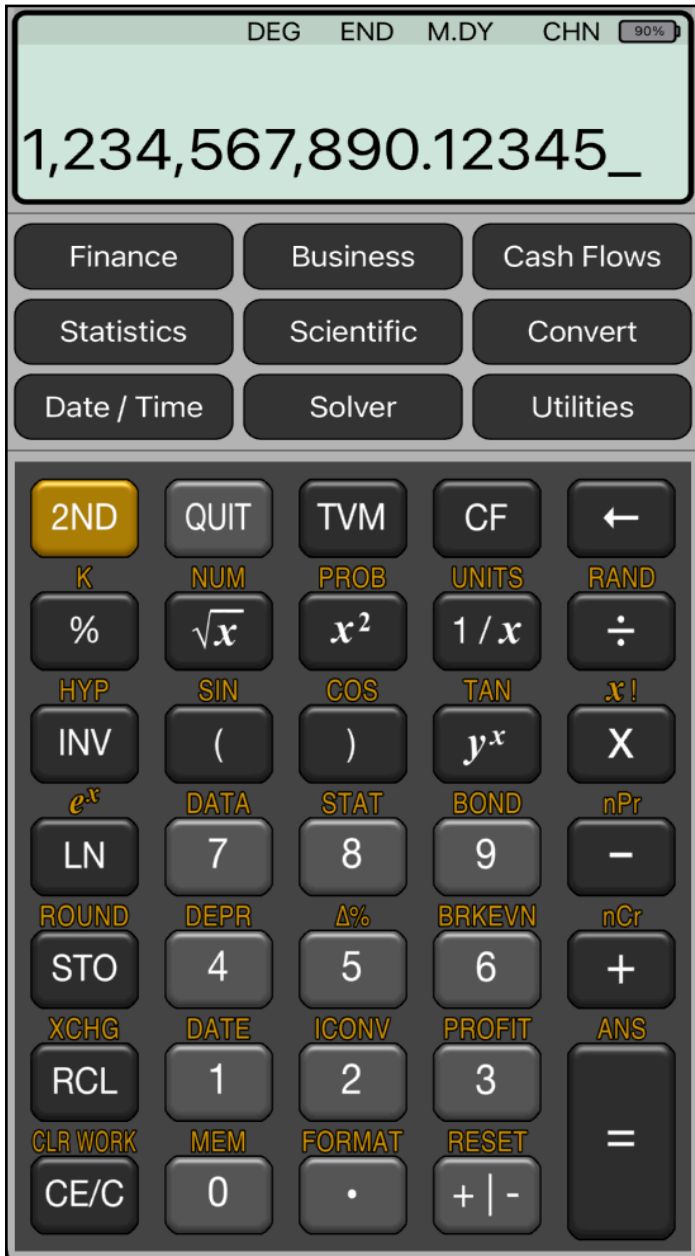


General Overview



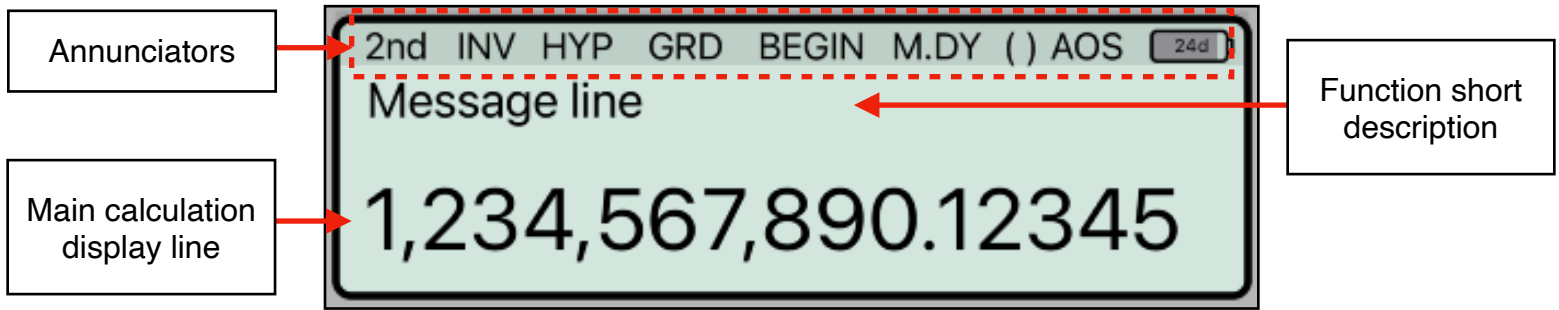
The **RLM-BA2** calculator application is an extensive set of tools and enhancements inspired in the real TI BAII Plus Professional calculator made by Texas Instruments.

The first “**BA II**” calculator was designed and introduced by Texas Instrument in 1976 and it was a pocket calculator designed specifically for financial use. In 1991 the “**BA II Plus**” was released with basic scientific functions added. In 2004, was updated to the latest “**BA II Plus Professional**” with some additional worksheet functions.

Basically, the **RLM-BA2** includes all the functionality of the latest BA II calculator model, but widely expanded with additional menus that rises the functionalities to the top professional level of financial and business calculators, keeping the easy to use and understand, with the best user experience in modern iOS devices.

Since the calculator is inspired in the real Texas Instrument’s BAII+Professional, we strongly recommend that you obtain the original calculator **Owner’s Manual** available in internet and review all the help topics from the top buttons of the HELP view.

Calculator Display




The RLM-BA” calculator’s display has three areas: the message line, the main calculation line and the annunciators line.

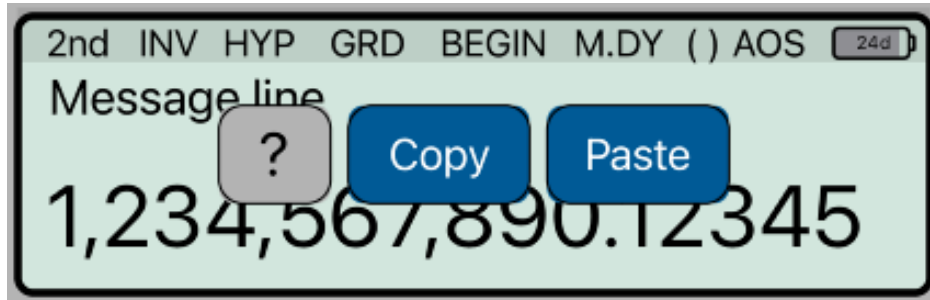
Message line: Shows a relevant message depending of the calculation performed.

Main Calculation line: Shows the current entered number, a calculation in progress or a calculation result.

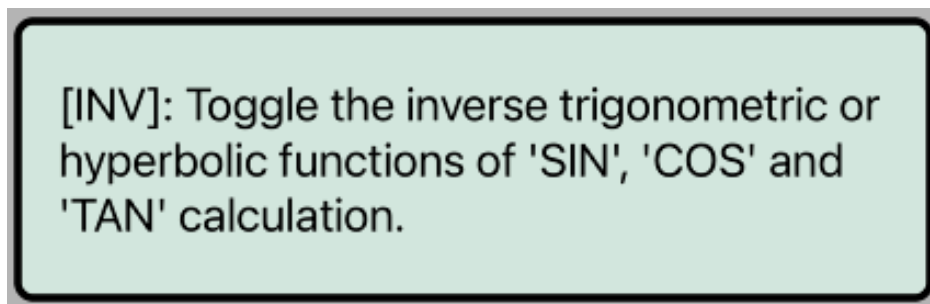
Annunciators: Show the current status of the calculators:

| | |
|--|--|
| 2nd | When shown, the 2ND (orange) functions are active in the keyboard. |
| INV | When shown, the inverse function is active for trigonometric and hyperbolic functions. |
| HYP | When shown, the hyperbolic function is active for SIN, COS and TAN. |
| DEG, RAD, GRD, DMS or $\sphericalangle\%$ | Shows current angular unit (Degrees, Radians, Gradians, Degree-Minute-Second. Or Slope Percent |
| BEG or END | Shows the current TVM worksheet’s payment mode. At the beginning or end of each period. |
| M.DY, D.MY, Y.MD | Shows the current date format. |
| () | When shown, a pending calculation is active. |
| AOS, CHN | Shows the current operating mode, Chain or Algebraic (in CHN mode, $1+2 \times 3$ is equal 9, in ALG mode is equal 7). |
|  | “Virtual Battery” status showing the remaining number of days. |

Touching the display at any time brings up the Help-Copy-Paste buttons to the front. There you can “**Copy**” the displayed number or “**Paste**” previously copied one.



The “?” button turn on the quick help hint for for a short description of any keyboard or worksheet button. As an example, in the following picture, the quick help for the “**INV**” key is shown. To get back to the normal display, simply touch the display again.



Main Menu

| | | |
|-------------|------------|------------|
| Finance | Business | Cash Flows |
| Statistics | Scientific | Convert |
| Date / Time | Solver | Utilities |

| Finance Menu | |
|---------------------------------|---|
| Account Balance | Calculates the balance of a credit line type account at any date based on cash transactions and interest rates applied. |
| Amortization | Calculates a loan Amortization Schedule from a single loan payment or from several payments at once. |
| Bond Price & Yield | Calculates annual or semi-annual coupons bonds with actual calendar or 360 days year in an easy way with all at sight. |
| Black-Scholes Options | Calculates the prices of a CALL option, PUT option and the Greeks values using the Black-Scholes European option valuation model. |
| Depreciation | Calculates the Depreciation Schedule of an asset with all the values at sight, using SL, SOYD, DB, DBX, SLF or BDF methods. |
| Interest Conversion | Calculates nominal and effective interest rates using either periodic or continuous compounding. |
| TVM: Time Value of Money | Calculates compound Interest problems involving money earning interest over a period of time. |
| Business Menu | |
| Bill-Tip-Split | Calculates the total and the amount to pay per person based on a bill amount, a number of persons and a tip percent or amount. |
| Break-Even | Analyze a break-even analysis based on the following equation: Profit = (Price - Var.Cost) • Units - Fix.Cost |
| Currency Exchange | Calculates a currency exchange between two selected world currencies and common crypto currencies. |
| Percents & Margins | Calculates percent change, percent total and business margins in a single worksheet with all values at sight. |

| Cash Flows Menu | |
|--------------------------------------|---|
| Equal Periods | Solve problems where different cash flows occur at regular time intervals. |
| Unequal Periods | Solve problems where different cash flows occur at different dates. |
| Statistics Menu | |
| > (X,N) List Statistics | Statistics calculations over one (X,N) List of data samples. |
| One List Statistics | Statistics calculations over one (X,N) List of data samples. |
| Two Lists Statistics | Statistics calculations over two (X,N) Lists of data samples. |
| Curve Fitting | Applies a regression model to fit a curve from two (X,N) Lists . |
| (X,N) List Editor | Opens an editor to create or edit a (X,N) List . |
| > (X,Y) List Statistics | Statistics calculations over one (X,Y) List of data samples. |
| Statistics | Statistic calculations over an (X,Y) List of data samples. |
| Curve Fitting | Applies a regression model to fit a curve from an (X,Y) List . |
| (X,Y) List Editor | Opens an editor to create or edit a (X,Y) List . |
| Probability | Calculates combinations, permutations and probability densities and lower-tail cumulative probability of selected distribution. |
| Scientific Menu | |
| Angles & Polar | Convert Angles units and Polar-Rectangular coordinates. |
| Logarithm | Applies Logarithmic functions to the displayed number. |
| Number Alteration | Applies common number alteration functions. |
| Trigonometry & Hyperbolic | Applies Trigonometric and Hyperbolic functions. |
| Convert Menu | |
| Currencies | Calculates a currency exchange between two selected world currencies and common crypto currencies. |
| Interest Rates | Calculates nominal and effective interest rates using either periodic or continuous compounding. |
| Units | Calculates physical units conversions. |

Date / Time Menu

Calculates Date and Time calculations with all values at sight.

Solver Menu

Solve arbitrary algebraic equations entered and saved in the equation editor and creates a menu with all the equation variables to solve any of them.

Utilities Menu

| | |
|--------------------------|--|
| General Settings | Shows a view to customize the calculator to your preference. |
| Memory Content | Shows a view to see all memory content and backup or restore it. |
| Storage Registers | Storage Registers content and operations. |
| Help Documents | Shows the help view to learn by example about all the calculator's worksheets. |
| > Editors | Shows a submenu to select one of the different data editors. |
| (Date, Trx) List | Opens an editor to create a list in the form "Date, Transaction". |
| (Date, CF) List | Opens an editor to create a list in the form "Date, Value". |
| (X,N) List | Opens an editor to create a list in the form "Value, Frequency". |
| (X,Y) List | Opens an editor to create a list in the form "X-value, Y-value". |
| Solver Equation | Opens an editor to create or edit equations used by the Solver. |
| Units Conversion | Opens an editor for the physical units database. |

For further information and support go to...

“www.rlmttools.com”

or send an email to...

“support@rlmttools.com”

DISCLAIMER: THIS IS NOT A TEXAS INSTRUMENT CALCULATOR, AND IS NOT SPONSORED, SUPPORTED OR UNDERWRITTEN IN ANYWAY BY TEXAS INSTRUMENT OR ANY OF ITS SUBSIDIARIES.

Calculator's Worksheets

Account Balance

List ▶ Help-Acc

Balance Date: Dic. 18, 2021

Balance

Dec. 20, 2018: Compound Interest
Rate: 10.00% (360 days)

Dec. 20, 2018: Cash Flow
Cash-Out: -10,000.00

Jun. 15, 2019: Cash Flow
Cash-In: 1,000.00

Amortization

PV: 65,000.00 | I/Y: 12.50 | PMT: -693.72

Amortization from Period 1 to 12

TVM | P1: 1 | P2: 12 | Table

Balance: 64,788.52 | Principal: -211.48 | Interest: -8,113.16

Bonds Price & Yield

Calendar: 30/360 | Settlement Date: 05/02/2023 Tue | CALL: 102.75

Coupon: 2 / Yr | Maturity Date: 03/03/2026 Tue | CPN: 6.00 %

Accrued Interest | YIELD: 5.58 % | PRICE: 103.43 | Effective Duration

Black-Scholes Options

STOCK: 50.00 | STRIKE: 60.00 | VOL%: 25.00% | CALL

R.F.%: 7.00% | DIV%: 0.00% | DAYS#: 180 | PUT

Delta | Gamma | Vega | Theta | Rho

Depreciation

SL | Life: 5.0 | M01: 1.25 | Table

Cost: 100,000.00 | Salvage: 500.00 | Year: 1.0

RBV: 80,514.58 | RDV: 80,014.58 | DEP: 19,485.42

Interest Conversion

1) Per Cont | C/Y: 4.00 | Nominal: 6.70% | Effective: 6.87%

2) Per Cont | C/Y: 12.00 | Nominal: 6.65% | Effective: 6.86%

3) Per Cont | C/Y: 12.00 | Nominal: 6.65% | Effective: 6.88%

Time Value of Money

P/Y: 12.0 | C/Y: 12.0 | BEG | END | AMORT

N: 300.00 | I/Y: 5.25 % | PV: 89,560.00

PMT: -536.69 | FV: 0.00

Bill-Tip-Split

N° Heads: 11 | Bill (\$): 576.25

Tip (%): 14.53 % | Total (\$): 660.00

Tip (\$): 83.75 | Split (\$/head): 60.00

Break-Even

Price: 300.00 | Var. Cost: 250.00 | Quantity: 3,200.00

Fix Cost: 150,000.00 | Profit: 10,000.00

Total Sales | Total Cost | Cost / Unit

Currency Exchange

United States, Dollar x Rate = European Union, Euro

USD ▶ Rate: 1,500.00 | EUR ▶ 1,456.80

(Rate for 2022/11/21 08:39:50)

Get Rate | Save | Load ▶

Percents & Margins

Percent Change | Percent Total | Business Margins

Old Value: 90,000.00 | Part Value: 23,457.00 | Price: 30.00

New Value: 95,000.00 | Total Value: 80,000.00 | Cost: 25.00

%Chg: 2.74% | #PD: 2.00 | %Total: 29.32% | M%P: 16.67% | M%C: 20.00%

Equal Periods Cash Flow

List ▶ Help-CF | r %: 5.00 % | NPV: 52,581.63

IRR% | NFV | NUS | ΣCFs | #CFs | MIRR

PB | DPB | SPPV | SPFV | USPV | USFV

Unequal Periods Cash Flow

List ▶ Example | r %: 5.00 % | NPV: 7,543.16

Interest Type: Compound | IRR% | NFV | TOTAL

Interest Base: Days: 360 | PV(-) | FV(+) | MIRR

One List Statistics

List ▶ Sales | Two-Variables Statistics | Curve Fitting

Σ Frq. | Size | Min. | Max. | Range

Total | Mean | s | σ | Median

Two Lists Statistics

X-List ▶ Minutes | Y-List ▶ Sales | Curve Fitting

N | Σx | Σy | Σx² | Σy² | Σx·y

Corr. | G.St.Dev. | W.Mean

Two Lists Curve Fitting

X-List ▶ Minutes | Y-List ▶ Sales | Model ▶ LIN | Y = M·X + B

M: 387.00 | B: 441.33 | R²: 0.94

X: Minutes: 6.61 | Y: Sales: 3,000.00

(X,Y) List Statistics

List ▶ Minutes-Sales | Σx | Σy | n | W.m

Curve Fitting | Σx² | Σy² | Σx·y | R²

Min. | Max. | Mean | s | σ | Median

(X,Y) List Curve Fitting

List ▶ Minutes-Sales | Model ▶ LIN | Y = M·X + B | R²: 0.94

M = 387.00 | B = 441.33

X = 6.61 | Y = 3,000.00

(X,Y) List Curve Fitting

List ▶ Minutes-Sales | Model ▶ LIN | Y = M·X + B | R²: 0.94

M = 387.00 | B = 441.33

X = 6.61 | Y = 3,000.00

Probability

n: 10 | r: 3 | nCr | nPr | RAN# | N!

Probability Distribution

Normal ▶ | μ: 7.35 | σ: 2.33

Probability Density | Lower-Tail Probability

p(x) | p(x)⁻¹ | P(x) | P(x)⁻¹

Angles & Polar

Current Unit: DEG | Convert To: DEG

Rectangular Coordinates: X: 10.00 | Y: 5.00

Polar Coordinates: Radius (R): 11.18 | Angle (θ): 26.57

π | π/2 | π/3 | π/4 | π/5

Logarithm

β: 16.00 | LOG_β | ALOG_β

LN | LOG₁₀ | LOG₂ | LOG₃

EXP | ALOG₁₀ | ALOG₂ | ALOG₃

Number Alteration

RND | INTG | FRAC | Y: 48.00

X! | ABS | FLOOR | X: 21.00

π | CEIL | TRUNC | MOD | IDIV

Trigonometry & Hyperbolic

DEG | Trigonometry | Hyperbolic | π

Sin | Sin⁻¹ | Sinh | Sinh⁻¹ | π/2

Cos | Cos⁻¹ | Cosh | Cosh⁻¹ | π/3

Tan | Tan⁻¹ | Tanh | Tanh⁻¹ | π/4

Calculator's Worksheets

Units Conversion

Select Category: Energy ▶

Units Editor

| | |
|--------------------------------|------------------|
| Oil Barrel | 1.00 |
| British Thermal Units | 5,800,000.00 |
| Calories | 1,461,596,360.22 |
| Cubic feet of Std. Natural Gas | |

+ -

Date / Time

| | | | |
|--------------------------|-------|--------------------|------|
| Date A 12/31/1999 Fri | Δ360 | Time A 10:21:13 | →HMS |
| Date B 05/18/2027 Tue | Δ365 | Time B 23:37:45 | →HR |
| Δ Days 10,000 | Today | ΔTime 13:16:32 | Now |

Solver

Equation ▶

ROE = (ASSET * %EARN - DEBT * %INT - TAX) ÷ EQTY

New Edit

Calculate

Equation Calculation

| | | |
|-------------------|---------------|------------------|
| ASSET 2,000.00 | %EARN 0.00 | DEBT 1,316.52 |
| %INT 8.00 | TAX 25.00 | EQTY 500.00 |
| ROE 16.00 | | |

Storage Registers

| | | |
|-----|------|-----------|
| X ÷ | M0 : | 45.00 |
| - ^ | M1 : | 23.24 |
| | M2 : | 10,235.78 |
| + | M3 : | 10.25 |

Display Format

| | | | |
|--------------|------|-------------------|-------|
| Logic Mode | | Decimal Separator | |
| CHN | AOS | Point | Comma |
| Dates Format | M.DY | Number Format | FIX |
| Angle Unit | DEG | N° of Decimals | 2 |