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You can read the recommendations in the user guide, the technical guide or the installation guide for CASIO FC-200V. You'll find the answers to all your questions on the CASIO FC-200V in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual CASIO FC-200V  
User guide CASIO FC-200V  
Operating instructions CASIO FC-200V  
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**Manual abstract:**

, LTD. @@@@Operations apply to both models, except in cases indicated by the text "FC-200V only". · Keycap markings indicate what a key inputs or what function it performs. Example: 1, 2, +, -, A, etc. · Pressing the SHIFT or ALPHA key followed by a second key performs the alternate function of the second key. The alternate function is indicated by the text printed above the key. Alternate function VARS Keycap function Y} t It means this: SHIFT · The following shows what the different colors of the alternate function key text mean. @@@@Note that this is not part of the actual key operation you perform. @@@@Note that this is not part of the actual key operation you perform. · The cursor key is marked with four arrows, indicating direction, as shown in the illustration nearby.

In this User's Guide, cursor key operation is indicated as f, c, d, and e. REPLAY Some examples in this manual start out assuming that the calculator is set to a particular angle unit. This is indicated by the following marks. z : Degrees Z : Radians · The displays and illustrations (such as key markings) shown in this User's Guide are for illustrative purposes only, and may differ somewhat from the actual items they represent. · The contents of this manual are subject to change without notice.

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shall not be liable for any claim of any kind whatsoever by any other party arising out of the use of this product and the items that come with it. E-2 Initializing the Calculator Perform the following procedure when you want to initialize the calculator and return the calculation mode and setup to their initial default settings. Note that this operation also clears all data currently in calculator memory. 1. O19(CLR) 2. "All:EXE" (cf), then E. 3. E(Yes) 4. A · To cancel initialization without doing anything, press E(Cancel) instead of E(Yes). This setting: Calculation Mode This setting: Payment Date Mode dn Periods/Y Bond Date Date Input PRF/Ratio B-Even Digit Sep.

Angle Display Digits STAT Is initialized to this: COMP Is initialized to this: End 365 CI Annual (FC-200V only) Date (FC-200V only) MDY PRF (FC-200V only) Quantity (FC-200V only) Off Deg Norm1 Off · For information about memory, see "Using Calculator Memory" on page E-35. · For information about shortcut keys settings, see "Shortcuts" on page E-94. E-3 Safety Precautions Be sure to read the following safety precautions before using this calculator.

Keep this manual handy for later reference. Caution This symbol is used to indicate information that can result in personal injury or material damage if ignored. Battery · After removing the battery from the calculator, put it in a safe place where it will not get into the hands of small children and accidentally swallowed. · Keep batteries out of the reach of small children. If accidentally swallowed, consult with a physician immediately. · Never charge the battery, try to take the battery apart, or allow the battery to become shorted. Never expose the battery to direct heat or dispose of it by incineration.

· Improperly using a battery can cause it to leak and damage nearby items, and can create the risk of fire and personal injury. · Always make sure that the battery's positive k and negative l ends are facing correctly when you load it into the calculator. · Remove the battery if you do not plan to use the calculator for a long time. · Use only the type of battery specified for this calculator in this manual. Disposing of the Calculator · Never dispose of the calculator by burning it.

Doing so can cause certain components to suddenly burst, creating the risk of fire and personal injury. E-4 Handling Precautions · Be sure to press the O key before using the calculator for the first time. · Even if the calculator is operating normally, replace the battery at least once every three years (FC-200V) or two years (FC-100V). A dead battery can leak, causing damage to and malfunction of the calculator. Never leave a dead battery in the calculator.

· The battery that comes with this unit discharges slightly during shipment and storage. Because of this, it may require replacement sooner than the normal expected battery life. · Low battery power can cause memory contents to become corrupted or lost completely. Always keep written records of all important data. · Avoid use and storage of the calculator in areas subjected to temperature extremes. Very low temperatures can cause slow display response, total failure of the display, and shortening of battery life. Also avoid leaving the calculator in direct sunlight, near a window, near a heater or anywhere else it might be exposed to very high temperatures. Heat can cause discoloration or deformation of the calculator's case, and damage to internal circuitry. · Avoid use and storage of the calculator in areas subjected to large amounts of humidity and dust. Take care never to leave the calculator where it might be splashed by water or exposed to large amounts of humidity or dust.

Such conditions can damage internal circuitry. · Never drop the calculator or otherwise subject it to strong impact. · Never twist or bend the calculator. Avoid carrying the calculator in the pocket of your trousers or other tight-fitting clothing where it might be subjected to twisting or bending. · Never try to take the calculator apart. E-5 · Never press the keys of the calculator with a ballpoint pen or other pointed object. · Use a soft, dry cloth to clean the exterior of the calculator. If the calculator becomes very dirty, wipe it off with a cloth moistened in a weak solution of water and a mild neutral household detergent. Wring out all excess liquid before wiping the calculator. Never use thinner, benzene or other volatile agents to clean the calculator.

Doing so can remove printed markings and can damage the case. E-6 Contents About this Manual ....

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1. Use  $\text{fc}$  to select "CONTRAST", and then press E. 2. Use  $d$  and  $e$  to adjust display contrast. 3.

Press E. Note · On a setting screen, the cursor mark displayed on the upper right of a screen cannot be used. A Initializing the Setup Screen Settings 1. O19(CLR) 2. "Setup:EXE" ( $\text{fc}$ ), then E.

3. E(Yes) 4. A · To cancel initialization without doing anything, press E(Cancel) instead of E(Yes). · The calculator will automatically enter the COMP Mode after you initialize the setup screen settings. E-22 Inputting Expressions and Values k Inputting a Calculation Expression Using Standard Format Your calculator lets you input calculation expressions just as they are written.

Then simply press the E key to execute it. The calculator automatically judges the calculation priority sequence for addition, subtraction, multiplication, and division, functions, and parentheses. Example:  $2(5 + 4) 2 \times (3) = 2(5+4)2*y3E$  A Inputting a Function with Parenthesis When you input any of the functions shown below, it is automatically input with the open parenthesis ( ) character. Next, you need to input the argument and the closing parenthesis ( ).  $\sin(, \cos(, \tan(, \sin I(, \cos I(, \tan I(, \sinh(, \cosh(, \tanh(, \sinh I(, \cosh I(, \tanh I(, \log(, \ln(, e^{\wedge}, 10^{\wedge}, \wedge, ', 3', x', \text{Abs}(, \text{Pol}(, \text{Rec}(, \text{Rnd}($  Example:  $\sin 30 = z 1. t 2. " \sin(" (\text{fc}),$  then E. 3. 30)E · Some commonly used functions can also be input using a direct key operation. Example:  $\sin 30 = 1.$

11(sin) 2. 30)E E-23 A Omitting the Multiplication Sign You can omit the multiplication sign ( $\times$ ) in any of the following cases. · Before an open parentheses ( ):  $2 \times (5 + 4)$ , etc. · Before a function with parenthesis:  $2 \times \sin(30)$ ,  $2 \times '(3)$ , etc. · Before a variable name, constant, or random number:  $20 \times A$ ,  $2 \times ,$  etc. A Final Closed Parenthesis You can omit one or more closed parentheses that come at the end of a calculation, immediately before the E key is pressed. For details, see "Omitting a Final Closed Parenthesis" on page E-29. A Displaying a Long Expression The display can show up to 14 characters at a time. Inputting the 15th character causes the expression to shift to the left. At this time, the J indicator appears to the left of the expression, indicating that it runs off the left side of the screen.

Input expression:  $1111 + 2222 + 3333 + 444$  Displayed portion: Cursor · When the J indicator is displayed, you can scroll left and view the hidden part by pressing the  $d$  key. This will cause the ' indicator to appear to the right of the expression. At this time, you can use the  $e$  key to scroll back. A Number of Input Characters (Bytes) · You can input up to 99 bytes of data for a single expression. Basically, each key operation uses up one byte.

A function that requires two key operations to input (like  $11(\sin)$ ) also uses only one byte. E-24 · Normally the input cursor appears as a straight vertical (I) or horizontal ( ) flashing line on the display screen. When there are 10 or fewer bytes of input remaining in the current expression, the cursor changes shape to I to let you know. k Correcting an Expression This section explains how to correct an expression as you are inputting it. The procedure you should use depends on whether you have insert or overwrite selected as the input mode.

A About the Insert and Overwrite Input Modes With the insert mode, the displayed characters shift to the left to make room when you input a new character. With the overwrite mode, any new character you input replaces the character at the current cursor position. · The cursor is a vertical flashing line (I) when the insert mode is selected. The cursor is a horizontal flashing line ( ) when the overwrite mode is selected. · The initial default is the insert mode. You can switch between the insert mode and the overwrite mode by pressing  $1Y(\text{INS})$ . A Changing the Character or Function You Just Input Example: To correct the expression  $369 \times 13$  so it becomes  $369 \times 12$   $369*13 Y 2 E-25$  A Deleting a Character or Function Example: To correct the expression  $369 \times 12$  so it becomes  $369 \times 12$  Insert Mode:  $369**12 dd Y$  Overwrite Mode:  $369**12 ddd Y$  A Correcting a Calculation Example: To correct  $\cos(60)$  so it becomes  $\sin(60)$  Insert Mode:  $12(\cos)60) ddd Y 11(\sin)$  Overwrite Mode:  $12(\cos)60) dddd 11(\sin)$  E-26 A Inserting input into a Calculation Always use the insert mode for this operation. Use  $d$  or  $e$  to move the cursor to the location where you want to insert new input, and then input what you want. k Displaying the Location of an Error If an error message (like "Math ERROR" or "Syntax ERROR") appears when you press E, press  $d$  or  $e$ . This will display the part of the calculation where the error occurred, with the cursor positioned at the error location.

You can then make necessary corrections. Example: When you input  $14 \div 0 \times 2 =$  by mistake instead of  $14 \div 10 \times 2 =$  Insert Mode:  $14/0*2E$  Press  $e$  or  $d$ . This is causing the error.  $d1 E$  You can also exit the error screen by pressing A, which clears the calculation. E-27 Basic Calculations This section explains how to perform arithmetic and percent calculations. All calculations in this section are performed in the COMP Mode (g). k Arithmetic Calculations Use the  $+, -, *,$  and  $/$  keys to perform arithmetic calculations. Example:  $7 \times 8 4 \times 5 = 36 7*8-4*5E$  · The calculator automatically judges the calculation priority sequence. For more information, see "Calculation Priority Sequence" on page E-134. A Number of Decimal Places and Number of Significant Digits You can specify a fixed number of decimal places and significant digits for the calculation result.

Example:  $1 \div 6 =$  Initial default setting (Norm1) FIX 3 decimal places (Fix3) SCI 3 significant digits (Sci3) · For more information, see "Configuring Settings" on page E-16. E-28 A Omitting a Final Closed Parenthesis You can omit any closed parenthesis ( ) immediately preceding operation of the E key at the end of a calculation. Example:  $(2 + 3) \times (4 - 1) = 15 (2+3)*(4-1E k$  Percent Calculations Example 1:  $2\% = 0.02 21((%)E$  Example 2:  $150 \times 20\% = 30 150*20 1((%)E$  Example 3: To calculate what percentage of 880 is 660.  $660/880 1((%)E$  Example 4: To increase 2500 by 15%.  $2500+ 2500* 151((%)E$  E-29 Example 5: To discount 3500 by 25%.  $35003500* 251((%)E$  Example 6: To discount the sum of 168, 98, and 734 by 20%.  $168+98+ 734E -G*201((%)E$  Example 7: If 300 grams are added to a test sample originally weighing 500 grams, what is the percentage increase in weight?  $300+500 1.(A%)$  Example 8: What is the percentage change when a value is increased from 40 to 46? How about to 48? Insert Mode:  $46-40 1.$



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(A%)  $480 \times 1.25 = 600$  Example 9: To calculate the selling price and profit when the purchase price is \$480 and the profit rate to the selling price is 25%.  
 130/4 1.(A%) Example 10: To calculate the bargain price and loss when the purchase price is \$130 and the loss rate is 4%.  $130 \times 0.96 = 124.8$   
 E-31 Using Multi-statements in Calculations You can use the colon character (:) to connect two or more expressions and execute them in sequence from left to right when you press E. Example: To create a multi-statement that performs the following two calculations:  $3 + 3$  and  $3 \times 3$  Insert Mode: 1.  $3+3$  2.  $\downarrow$  3.  $:"$  (fc), then E.

4.  $3 \times 3$  Disp E "Disp" indicates this is an intermediate result of a multi-statement. E E-32 Using Calculation History Memory and Replay Calculation history memory maintains a record of each calculation expression you input and execute, and its result. You can use calculation history memory in the COMP Mode (g) only. A Recalling Calculation History Memory Contents Press f to back-step through calculation history memory contents. Calculation history memory shows both calculation expressions and results. Example:  $1+1E 2+2E 3+3E f f$  · Note that calculation history memory contents are cleared whenever you turn off the calculator, press the O key, change to another mode, or perform the operation under "Initializing the Calculator" (page E-3) or "Initializing the Setup Screen Settings" (page E-22). · Calculation history memory is limited. When the calculation you are performing causes calculation history memory to become full, the oldest calculation is deleted automatically to make room for the new calculation. E-33 A Replay Function While a calculation result is on the display, you can press d or e to edit the expression you used for the previous calculation.

Example:  $4 \times 3 + 2.5 = 14.5$   $4 \times 3 7.1 = 4.9$   $4 \times 3 + 2$ .

5E A d YYYY -7.1E E-34 Using Calculator Memory Memory Name Answer Memory Independent Memory Description Stores the last calculation result obtained. Calculation results can be added to or subtracted from independent memory. The "M" display indicator indicates data in independent memory. Six variables named A, B, C, D, X, and Y can be used for storage of individual values.

The following are the names of the financial calculation variables: n, I, PV, PMT, FV, P/Y, C/Y, PMI, PM2, Dys. Variables VARS This section uses the COMP Mode (g) to demonstrate how you can use memory. k Answer Memory (Ans) A Answer Memory Overview · Answer Memory contents are updated whenever you execute a calculation using any one of the following keys: E, 9, m, 1m(M), t, or 1t(STO). Answer Memory can hold up to 15 digits. · Answer Memory contents do not change if an error occurs during the current calculation. · Answer Memory contents are maintained even if you press the A key, change the calculation mode, or turn off the calculator. · When multiple results are obtained (in polar coordinate calculations, when "ALL:Solve" is selected in the Simple Interest Mode, etc.), the result that is displayed at the top of the screen is the one stored in Answer Memory. E-35 A Using Answer Memory to Perform a Series of Calculations Example: To divide the result of  $3 \times 4$  by 30  $3 \times 4E$  (Continuing)/30E Pressing / automatically inputs "Ans" command. · With the above procedure, you need to perform the second calculation immediately after the first one.

If you need to recall Answer Memory contents after pressing A, press the G key. A Inputting Answer Memory Contents into an Expression Example: To perform the calculations shown below:  $123 + 456 = 579$   $789 - 579 = 210$   $123 + 456E 789 - GE$  E-36 k Independent Memory (M) You can add calculation results to or subtract results from independent memory. The "M" appears on the display when independent memory contains a value. A Independent Memory Overview · The following is a summary of the different operations you can perform using independent memory. To do this: Add the displayed value or result of the expression to independent memory Subtract the displayed value or result of the expression from independent memory Recall current independent memory contents Assign a specific value or result of the expression to independent memory Perform this key operation: m 1m(M) Sm(M) 1.  $3+5$ (for example) 2. 1t(STO) 3. "M:"(fc), then E. 4. E(Yes) · You can also store financial calculation value in independent memory.

Example: In the SMPL Mode, store the value of SI in independent memory (M) 1. Enter the SMPL Mode for calculation of simple interest (SI). See pages E-42 and E-43 for more information. 2. 1t(STO) 3.

"SI"(fc), then E. 4. "M:"(fc), then E. 5. E(Yes) · A number sign (#) next to the independent memory variable name indicates that it already contains data. Performing the following steps will replace any existing data with the new data. E-37 · The "M" indicator appears in the upper left of the display when there is any value other than zero stored in independent memory. · Independent memory contents are maintained even if you press the A key, change the calculation mode, or turn off the calculator. A Calculation Examples Using Independent Memory · If the "M" indicator is on the display, perform the procedure under "Clearing Independent Memory" before performing this example. Example:  $23 + 9 = 32$   $32 - 6 = 26$   $26 \times 2 = 52$   $52 \div 3 = 17.33$  (Total)  $32 47 90 33 22 23+9m 53-6m 45 \times 2 1m(M) 99/3m Sm(M)E$  A Clearing Independent Memory 1. 0 2. 1t(STO) 3. "M:"(fc), then E. 4. E(Yes) · This clears independent memory and causes the "M" indicator to disappear from the display.

k Variables (A, B, C, D, X, Y) A Variable Overview · You can assign a specific value or a calculation result to a variable. Example: To assign the result of  $3 + 5$  to variable A. 1.  $3+5$  2. 1t(STO) 3. "A:"(fc), then E. 4. E(Yes) E-38 · Use the following procedure when you want to check the contents of a variable.

Example: To recall the contents of variable A Sn(A) · The following shows how you can include variables inside of an expression. Example: To multiply the contents of variable A by the contents of variable B Sn(A)\*So(B)E · You can also assign a financial calculation value to a variable. Example: In the CMPD Mode, assign the value of PMT to variable "A". 1. CMPD mode: "PMT" (fc). 2. 1t(STO) 3.

"A:"(fc), then E. 4. E(Yes) · A number sign (#) next to a variable name indicates that there is already data assigned to the variable. Performing the following steps will replace any existing data with the new data. · Variable contents are maintained even if you press the A key, change the calculation mode, or turn off the calculator.



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9×6+3 Example: = 1.425 5×8 I. 9\*6+3 2. It(STO) 3. "B:" (fc), then E. 4. E(Yes) 5. 5\*8 6. It(STO) 7. "C:" (fc), then E.

8. E(Yes) E-39 9. So(B)/SD(C) E k Financial Calculation Variables (VARS) · The following are the names of the financial calculation variables (VARS): n, I, PV, PMT, FV, P/Y, C/Y, PMI, PM2, Dys. · Financial calculation variables are used in financial calculations to store values. See the sections that describe the various modes for information about which variables are used in each mode. · In the COMP Mode, the above variables are used as arithmetic variables, and are referred to as such in the section explaining the COMP Mode. A To select an financial calculation variable in the COMP mode 1. Press It(VARS). 2. On the menu screen that appears, use fc to move the highlighting to the variable you want to select, and then press E.

A Clearing the Contents of VARS Memories Only 1. O19(CLR) 2. "VARS:EXE" (fc), then E. 3. E(Yes) 4.

A · To cancel the clear operation without doing anything, press E(Cancel) instead of E(Yes). · VARS Memory Initial Default Values P/Y, C/Y ....

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..... I n, I, PV, PMT, FV, PMI, PM2, Dys ...

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... 0 E-40 k Clearing Memory Contents Use the following procedure to clear the contents of Answer Memory, independent memory, and all of the variables.

This procedure does not clear VARS memory contents. See "Clearing the Contents of VARS Memories Only" for more information. 1. O19(CLR) 2.

"Memory:EXE" (fc), then E. 3.

E(Yes) 4. A · To cancel the clear operation without doing anything, press E(Cancel) instead of E(Yes). E-41 Financial Calculation k Simple Interest Mode · The Simple Interest (SMPL) Mode lets you calculate the interest amount and/or simple future value (principal and interest amount). A Entering the SMPL Mode · Press S to enter the SMPL Mode. Value Input Screen A Setting Values No. Display 1 Set\* 2 Dys 3I 4 PV Name Days in Year (Date Mode) Number of Interest Periods (Number of Days) Interest Rate (Annual) Principal (Present Value) Values Used in Examples 365 120 5% \$10,000 \* For information about specifying the Date Mode, see the "Date Mode" item under "Configuring Settings" on page E-16. A Basic SMPL Mode Procedure Example 1: To calculate the interest amount (SI), and the simple future value (SFV) 1. Input the values for 1, 2, 3, and 4 from the Setting Values table above. E-42 · Press 2 to select "365". · Use fc to select 2 "Dys", input 120, and then press E.

· Use fc to select 3 "I", input 5, and then press E. · Use fc to select 4 "PV", input 10000, and then press E. 2. Select the value you want to calculate. · For this example, use fc to select "ALL: Solve".

3. Press 9 to perform the calculation. · Pressing the E key returns to the value input screen. · To solve for the items that have "Solve" specified (such as "ALL:Solve"), you can press E instead of 9. A Other SMPL Mode Calculations Example 2: To calculate the simple interest (SI) amount only · In step 2 of the basic procedure (Example 1), select "SI:Solve".

Example 3: To calculate the simple future value (SFV) only · In step 2 of the basic procedure (Example 1), select "SFV:Solve". E-43 A SMPL Mode Financial Calculation Variables (VARS) · Variables Dys, I, and PV are used in the SMPL Mode. · The values of SMPL Mode variables are retained even if you change to another mode. Note, however, that SMPL Mode variables are also used by other modes, so performing an input or calculation operation may change the values assigned to them. · Though SMPL Mode variables are financial calculation variables, they are also used by arithmetic and function operations in the COMP Mode. A Calculation Formulas 365-day Mode 360-day Mode  $SI = SI' = \text{Dys} \times \text{Dys} \times PV \times i = i = 1\% \ 100 \ 1\% \ 100 \times PV \times i$  360  $SI = SI' \ SFV = - (PV + SI) \ SI : \text{Dys} : PV : 1\% : SFV : \text{simple interest number of interest periods principal interest rate (annual) principal plus interest k Compound Interest Mode} · The Compound Interest (CMPD) Mode lets you calculate any one of the following values, by inputting values for the other four: number of compound periods, interest rate, principal, payment amount, and future value (principal and interest, or final payment amount). A Entering the CMPD Mode · Press c to enter the CMPD Mode. Value Input Screen E-44 A Setting Values No. Display 1 Set*1 2n 3I 4 PV 5 PMT 6 FV 7 P/Y 8 C/Y*2 Name Payment Period (Payment) Number of Compound Periods Interest Rate Present Value (Principal) Payment Amount Future Value (Principal and Interest, or Final Payment Amount) Number of Annual Payments (PMT) Number of Annual Compoundings Values Used in Examples End 48 4% $1,000 $300 $16,760 12 12 *1 · For information about specifying the payment period, see the "Payment" item under "Configuring Settings" on page E-16. · In the case of compound interest calculations, you can also use the compound interest mode (dn) setting on the setup screen for interest calculations of odd (partial) months.$

See the explanation of the compound interest mode (dn) setting (page E-16) for more information. 2 \* Specify 2 for semiannual compound interest, or 12 for monthly compound interest. Note · After specifying the 1 Payment Period (Payment) and inputting values for 7 Number of Annual Payments (P/Y) and 8 Number of Annual Compoundings, you can calculate any one of the following by inputting values for the other four: Number of Compound Periods, Interest Rate, Principal, Payment Amount, Future Value (principal and interest, or final payment amount). · Input money paid out as a negative value, using the y key to input the minus sign. E-45 A Basic CMPD Mode Procedure Example 1: To calculate the future value (FV) of an investment vehicle that pays an annual interest rate of 4%, when the initial deposit is \$1,000 and additional deposits of \$300 are made each month 1. Input the required values from the Setting Values table (page E-45). @@ · Press 2 to select "End". · Use fc to select 2 "n", input 48, and then press E. · Use fc to select 3 "I", input 4, and then press E. · Use fc to select 4 "PV", input 1000, and then press E.

· Use fc to select 5 "PMT", input 300, and then press E. · Use fc to select 7 "P/Y", input 12, and then press E. · Use fc to select 8 "C/Y", input 12, and then press E. Input Precautions · Before specifying the number of months when there is a partial month, see "Calculating the Number of Months when a Partial Month is Included" (page E-47).

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· Input money paid out as a negative value, using the y key to input the minus sign.

2. Select the value you want to calculate. · For this example, use fc to select "FV". E-46 3. Press l to perform the calculation.

A Calculating the Number of Compound Periods (n), Interest Rate (I%), Present Value (Principal: PV), and Payment Amount (PMT) · Use the same procedure as shown under "Example 1" (page E-46), substituting the required values. A Calculating the Number of Months when a Partial Month is Included The following example shows how to calculate the number of months (number of days/total days in the month) for the number of compound periods (n) when a partial month is include. Example 1: When the payment period is 16 months and 20 days 1. Use fc to select "n". 2. Input the division operation that divides the number of days in the partial month (20 in this example) by the total number of days in the month. · This example assumes that there are 30 days in the month. 3. Add the number of full months (16 in this example). 4.

Press E. Note · This calculator always performs calculations assuming that the partial month comes at the beginning of the compound periods (n). E-47 A Selecting Interest Calculation for a Period with a Partial Month · You can select compound interest or simple interest to calculate interest for a period with a partial month. Before performing each type of calculation, first use Configuring Settings (page E-16) to select either compound interest or simple interest for the dn setting. A CMPD Mode Financial Calculation Variables (VARS) · Variables n, I, PV, PMT, FV, P/Y, and C/Y are used in the CMPD Mode. · The values of CMPD Mode variables are retained even if you change to another mode. Note, however, that CMPD Mode variables are also used by other modes, so performing an input or calculation operation may change the values assigned to them. · Though CMPD Mode variables are financial calculation variables, they are also used by arithmetic and function operations in the COMP Mode. A Calculation Formulas u PV, PMT, FV, n I% G 0 × PMT × FV × PV × FV PMT = × PV × PMT FV = PV = log n= { (1 + iS) × PMT FV × i (1 + iS) × PMT PV × i log (1 + i) } E-48 I% = 0 PV = (PMT × n + FV) PMT = PV + FV n FV = (PMT × n + PV) n= PV + FV PMT = (1 + i × S) × = 1 (Intg(n)), = (1 + i) i { (1 + i) Frac (n) ..

.....  
.... dn : CI (Setup Screen) 1 + i × Frac (n) .  
..... dn : SI (Setup Screen) S= { 0 .....

.....  
.....  
.....  
.... Payment : End (Setup Screen) I .....

.....  
.....  
.....  
.. Payment : Begin (Setup Screen) I% .....

.....  
.....  
.....  
... (P/Y = C/Y = 1) 100 (1 + P/Y I%) 1 ..... (Other than 100 × [C/Y] those above) C/Y i= { u I% i (effective interest rate) i (effective interest rate) is calculated using Newton's Method. × PV + × PMT + × FV = 0 To 1 % from i (effective interest rate) I% = { i × 100 .

.....  
.....  
.....  
.....  
..(P/Y = C/Y = 1) (1 + i) P/Y C/Y 1 × C/Y × 100 ... (Other than those above) } E-49 n I% PV PMT FV Number of Compound Periods Interest Rate Present Value (Principal) Payment Amount Future Value (Principal and Interest, or Final Payment Amount) P/Y : Number of Annual Payments (PMT) C/Y : Number of Annual Compoundings : : : : Note · This calculator performs interest (I) calculations using Newton's Method, which produces approximate values whose precision can be affected by various calculation conditions. Because of this, interest calculation results produced by this calculator should be used keeping the above limitation in mind, or the results should be verified. · When you use f and c to select an item that can be calculated, the "=" changes to "7". You can perform a calculation by inputting the required values for the other items, and then pressing the l key. Performing the calculation causes the "7" to change back to "=".

k Cash Flow Mode · The Cash Flow (CASH) mode calculates the total of income and expenses over a fixed period, and then uses the discounted cash flow (DCF) method to perform investment appraisal. The following four items are appraised. NPV IRR PBP NFV : : : : Net Present Value Internal Rate of Return Payback Period\* Net Future Value \* The payback period (PBP) can also be called the "discounted payback period" (DPP). When the annual interest rate (I) is zero, the PBP is called the "simple payback period" (SPP). E-50 A Entering the CASH Mode · Press C to enter the CASH Mode.

Value Input Screen A cash flow diagram like the one shown below helps to visualize the movement of funds. CF2 CF3 CF4 CF5 CF7 CF6 CF1 CF0 With this graph, the initial investment amount is represented by CF0. The cash flow one year later is shown by CF1, two years later by CF2, and so on. A Setting Values No. Display II Name Annual Interest Values Used in Examples 3% A Receipt and Payment Summary Period CF0 CF1 CF2 CF3 CF4 Receipt/Payment Payment Payment Receipt Receipt Values Used in Examples \$10,000 \$1,000 \$4,500 \$5,000 \$4,000 · Input money paid out as a negative value, using the y key to input the minus sign.

E-51 A Basic CASH Mode Procedure Example 1: To calculate net present value (NPV) 1. Input the annual interest (I), and then receipt and payment values provided on page E-51. · Use fc to select 1 "I", input 3, and then press E. · Use fc to select "Csh =D.Editor x", and then press E. This displays the DataEditor. Only the x-column is used for calculation. Any values in the y-column and FREQcolumn are not used. Note · The STAT editor and the D.Editor x of the CASH Mode use the same memory area to store data.

· 10000 E(CF0) Input money paid out as a negative value, using the y key to input the minus sign. · 1000 E(CF1) · 4500 E(CF2) · 5000 E(CF3) · 4000 E(CF4) 2. Press E to return to the value input screen. 3. Select the value you want to calculate. · For this example, use fc to select "NPV: Solve". 4. Press l to perform the calculation. · Pressing the E key returns to the value input screen. E-52 A Other CASH Mode Calculations Example 2: To calculate the internal rate of

return (IRR) · In step 3 of the basic procedure (Example 1), select "IRR:Solve".

· The IRR calculation result is assigned to financial variable (VARS) I. Example 3: To calculate the payback period (PBP) · In step 3 of the basic procedure (Example 1), select "PBP:Solve". Example 4: To calculate net future value (NFV) · In step 3 of the basic procedure (Example 1), select "NFV: Solve". A Maximum Number of DataEditor Items Maximum Number of Data Items 80 40 26 DataEditor Screen X X, Y or X, FREQ X, Y, FREQ · Only the x-column is used for calculation.



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Any values in the y-column and FREQ-column are not used.

Normally, you will be able to input up to 80 data items in the DataEditor. To maximize the number of data items you can input, enter the STAT Mode, select "I-VAR", and then use the setup screen to select "Off" for the "STAT" setting (page E-21). Values you input while "I-VAR" is selected are cleared when "2-VAR" is selected in the STAT Mode. Conversely, values you input while "2-VAR" is selected are cleared when "I-VAR" is selected in the STAT Mode. A

CASH Mode Financial Calculation Variables (VARS) Variable I is used in the CASH Mode.

The value of the CASH Mode variable is retained even if you change to another mode. Note, however, that I is also used by other modes, so performing an input or calculation operation may change the value assigned to it. E-53 Though I is a financial calculation variable, it is also used by arithmetic and function operations in the COMP Mode. A Calculation Formulas u NPV  $NPV = CF_0 + CF_2 CF_3 CF_1 + + + (1+i) (1+i)^2 (1+i)^3 I\% CF_n \dots + i = (1+i)^n$  100 n: natural number up to 79 u NFV  $NFV = NPV \times (1+i)^n$  u IRR IRR is calculated using Newton's Method.  $0 = CF_0 + CF_2 CF_3 CF_n CF_1 + + + \dots$

$+ (1+i) (1+i)^2 (1+i)^3 (1+i)^n$  In this formula,  $NPV = 0$ , and the value of IRR is equivalent to  $i \times 100$ . It should be noted, however, that minute fractional values tend to accumulate during the subsequent calculations performed automatically by the calculator, so NPV never actually reaches exactly zero. IRR becomes more accurate the closer that NPV approaches to zero. u PBP  $PBP = NPV_n = \{ 0 \dots$

.....  
.....  
.....

..... (CF0 > 0) n n NPVn (Other than ...

NPVn+1 NPVn those above) CFk k=0 (1+i)k n: Smallest positive integer that satisfies the conditions  $NPV_n < 0$ ,  $NPV_{n+1} > 0$ , or 0. E-54 k Amortization Mode The Amortization (AMRT) Mode lets you calculate the principal balance, and the interest portion and principal portion of monthly payments, as well as interest and principal amounts paid to date. BAL: Principal balance upon completion of payment PM2 INT: Interest portion of payment PM1 PRN: Principal portion of payment PM1 INT: Total interest paid from payment PM1 to payment PM2 PRN: Total principal paid from payment PM1 to payment PM2 A Entering the AMRT Mode Press A to enter the AMRT Mode. Value Input Screen a 1 payment c b 1 ..

.....  
..... PM1 ...  
.....  
.....  
... PM2 ..  
.....

Last Number of Payments a: Interest portion of payment PM1 (INT) b: Principal portion of payment PM1 (PRN) c: Principal balance upon completion of payment PM2 (BAL) E-55 e 1 payment d 1 .....

.....  
PM1 .....  
.....  
... PM2 .....

... Last Number of Payments d: Total principal paid from payment PM1 to payment PM2 (PRN) e: Total interest paid from payment PM1 to payment PM2 (INT) A Setting Values No. Display 1 Set\*1 2 PM1 3 PM2\*2 4 n\* 3 Name Payment Period (Payment) Payment PM1 (Number of Payments) Payment PM2 (Number of Payments) Number of Compound Periods (Number of Months) Interest Rate (Annual) Principal Payment Amount Ending Balance after Last Payment (Future Value) Number of Annual Payments (PMT) Number of Annual Compoundings Values Used in Examples End 15 28 -- 2% \$100,000 \$920 -- 12 12 51 6 PV 7 PMT 8 FV\* 9 P/Y 0 C/Y\*4 3 E-56 \*1 For information about specifying the payment period, see the "Payment" item under "Configuring Settings" on page E-16.

2 \* Make sure the payment you specify for PM2 comes after the payment you specify for PM1. \*3 This variable is used by other modes. The value that initially appears may be a value that was input or calculated in another mode. \*4 Specify 2 for semiannual compound interest, or 12 for monthly compound interest. Input money paid out as a negative value, using the y key to input the minus sign. A Basic AMRT Mode Procedure Example 1: To calculate the principal balance (BAL) after payment 28 1. Input the values for 1, 2, 3, 5, 6, 7, 9, and 0 from the Setting Values table (page E-56). @@ Press 2 to select "End". Use fc to select 2 "PM1", input 15, and then press E. Use fc to select 3 "PM2", input 28, and then press E.

Use fc to select 5 "I", input 2, and then press E. Use fc to select 6 "PV", input 100000, and then press E. Use fc to select 7 "PMT", input 920, and then press E. Use fc to select 9 "P/Y", input 12, and then press E. Use fc to select 0 "C/Y", input 12, and then press E. E-57 2. Select the value you want to calculate. For this example, use fc to select "BAL: Solve". 3. Press I to perform the calculation.

Pressing the E key returns to the value input screen. A Other AMRT Mode Calculations Example 2: To calculate the interest amount (INT) included in payment 15 (PM1) In step 2 of the basic procedure (Example 1), select "INT:Solve". Example 3: To calculate the principal amount (PRN) included in payment 15 (PM1) In step 2 of the basic procedure (Example 1), select "PRN:Solve". Example 4: To calculate total interest paid (INT) from payment 15 (PM1) to payment 28 (PM2) In step 2 of the basic procedure (Example 1), select "INT:Solve". Example 5: To calculate total principal paid (PRN) from payment 15 (PM1) to payment 28 (PM2) In step 2 of the basic procedure (Example 1), select "PRN:Solve".

A AMRT Mode Financial Calculation Variables (VARS) Variables PM1, PM2, n, I, PV, PMT, FV, P/Y, and C/Y are used in the AMRT Mode. The values of AMRT Mode variables are retained even if you change to another mode. Note, however, that AMRT Mode variables are also used by other modes, so performing an input or calculation operation may change the values assigned to them. Though AMRT Mode variables are financial calculation variables, they are also used by arithmetic and function operations in the COMP Mode. E-58 A Calculation Formulas a: Interest portion of payment PM1 (INT)  $INT_{PM1} = I \text{ BAL}_{PM1} \times i \times (\text{PMT sign})$  b: Principal portion of payment PM1 (PRN)  $PRN_{PM1} = \text{PMT} + \text{BAL}_{PM1} \times i$  c: Principal balance upon completion of payment PM2 (BAL)  $\text{BAL}_{PM2} = \text{BAL}_{PM21} + \text{PRN}_{PM2}$  d: Total principal paid from payment PM1 to payment PM2 (PRN)  $\text{PRN} = \text{PRN}_{PM1} + \text{PRN}_{PM1+1} + \dots$

.. + PRN<sub>PM2</sub> PM2 PM1 e: Total interest paid from payment PM1 to payment PM2 (INT) a + b = one repayment (PMT) PM2 PM1 INT = INT<sub>PM1</sub> +

$$INTPM1+1 + \dots + INTPM2 \text{ (Setup Screen) } BAL0 = PV \dots$$

.....

.....

... Payment: End  $INT1 = 0$ ,  $PRN1 = PMT$  ..

. Payment: Begin (Setup Screen) Converting between the Nominal Interest Rate and Effective Interest Rate The nominal interest rate (I % value input by user) is converted to an effective interest rate (I %') for installment loans where the number of annual payments is different from the number of annual compoundings calculation periods.



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$I\% = (1 + \frac{I}{100})^n - 1$  The following calculation is performed after conversion from the nominal interest rate to the effective interest rate, and the result is used for all subsequent calculations.  $\{ [P/Y] I\% \} 1 \times 100 \times [C/Y] [C/Y] i = I\% \div 100$  k Conversion Mode · The Conversion (CNVR) Mode lets you convert between the nominal interest rate (APR) and effective interest rate (EFF). E-59 A Entering the CNVR Mode · Press n to enter the CNVR Mode. Value Input Screen A Setting Values No. Display In 21 Name Number of Annual Compoundings Interest Rate (Annual) Values Used in Examples 6 3% A Basic CNVR Mode Procedure Example 1: To convert a nominal interest rate (APR) to an effective interest rate (EFF) 1. Input the number of annual compoundings (n) and interest rate (I) values from the Setting Values table above. @@ · Use fc to select 2 "I", input 3, and then press E. 2.

Select the value you want to calculate. · For this example, use fc to select "EFF: Solve". 3. Press 1 to perform the calculation. · Pressing the E key returns to the value input screen. E-60 A Other CNVR Mode Calculations Example 2: To convert an effective interest rate (EFF) to a nominal interest rate (APR) · In step 2 of the basic procedure (Example 1), select "APR: Solve". A CNVR Mode Financial Calculation Variables (VARS) · Variables n and I are used in the CNVR Mode. · A value is assigned to I whenever you perform an EFF or APR calculation in the CNVR Mode. · The values of CNVR Mode variables are retained even if you change to another mode. Note, however, that CNVR Mode variables are also used by other modes, so performing an input or calculation operation may change the values assigned to them.

· Though CNVR Mode variables are financial calculation variables, they are also used by arithmetic and function operations in the COMP Mode. A Calculation Formulas  $n \text{ APR}/100 \text{ EFF} = 1 + \frac{I}{100} \times n$   $1 \text{ APR} = 1 + \text{EFF} \times n$   $1 \times n \times 100 \text{ APR} : \text{nominal interest rate (\%)} \text{ EFF} : \text{effective interest rate (\%)} n : \text{number of annual compoundings}$  k Cost/Sell/Margin Mode · The Cost/Sell/Margin (COST) Mode lets you calculate cost, selling price, or margin after inputting the other two values. @@ Value Input Screen A Setting Values No. @@@@ @@@@2. Select the value you want to calculate.

· For this example, use fc to select 3 "MRG". 3. @@@@2. Select 1 "CST" in step 2. @@@@2.

@@@ · Starting date (d1) and ending date (d2) calculations are possible within the range of January 1, 1901 through December 31, 2099. A Entering the DAYS Mode · Press D to enter the DAYS Mode. Value Input Screen A Setting Values No. Display 1 Set\*1 2 d1\*2 3 d2\*2 4 Dys Name Days in Year (Date Mode) Starting Date (Month, Day, Year) Ending Date (Month, Day, Year) Number of Days (Duration) Values Used in Examples 365 11052004 (November 5, 2004) 04272005 (April 27, 2005) 173 \*1 · For information about specifying the Date Mode, see the "Date Mode" item under "Configuring Settings" on page E-16. · The following rules apply when a 360-day year is specified. When the starting date (d1) is the 31st of a month, the calculation is performed using the 30th of the same month. @@E-64 \*2 · You must input two digits for the month and day. @@(etc.). @@@@ @@@@ Input the required values from the Setting Values table (page E-64).

@@ · Press 2 to select "365". @@@@2. Select the value you want to calculate. · For this example, use fc to select "Dys". 3. @@@@ @@@@2. In step 2, select "d2". @@@@2. @@@@ @@@@ Value Input Screen A Setting Values No. @@@@ @@@@ Note that you need to input 2 "I" only when you are using the fixed percent (FP) or declining balance (DB) method.

· Use fc to select 3 "PV", input 150000, and then press E. · Use fc to select 4 "FV", input 0, and then press E. · Use fc to select 5 "j", input 3, and then press E. · Use fc to select 6 "YR1", input 2, and then press E. 2.

Select the value you want to calculate. · For this example, use fc to select "SL:Solve". 3. Press 1 to perform the calculation. · Pressing the E key returns to the value input screen.

A Other DEPR Mode Calculations Example 2: To use the fixed percent method with a depreciation ratio is 25% · In step 2 of the basic procedure (Example 1), select "FP: Solve". Example 3: To use the sum-of-the-year's digits method · In step 2 of basic procedure (Example 1), select "SYD:Solve". Example 4: To use the double declining balance method 1. In step 1 of the basic procedure (Example 1), input 200 for "I". 2. In step 2, select "DB:Solve". E-68 A DEPR Mode Financial Calculation Variables (VARS) · Variables n, I, PV, and FV are used in the DEPR Mode. · The values of DEPR Mode variables are retained even if you change to another mode. Note, however, that DEPR Mode variables are also used by other modes, so performing an input or calculation operation may change the values assigned to them. · Though DEPR Mode variables are financial calculation variables, they are also used by arithmetic and function operations in the COMP Mode.

A Calculation Formulas Depreciation for an item acquired part way through a year can be calculated by month. u Straight-Line Method The straight-line method calculates depreciation for a given period.  $SLI = (PV - FV) \div YR1$  u  $SLj = n - (j - 1) \times \frac{PV - FV}{YR1}$  u  $SLn+1 = n - (n - j + 1) \times \frac{PV - FV}{YR1}$  u  $SLj : \text{depreciation charge for the } j\text{th year } n : \text{useful life } PV : \text{original cost (basis)} FV : \text{residual book value } j : \text{year for calculation of depreciation cost } YR1 : \text{number of months in the first year of depreciation}$  E-69 u Fixed Percentage Method Fixed percentage method can be used to calculate depreciation for a given period, or to calculate the depreciation rate.  $FP1 = PV \times I\%$   $YR1 \times 100$   $12 FPj = (RDVj1 + FV) \times I\%$   $100 FPn+1 = RDVn$   $(YR1 \div 12) RDV1 = PV - FV$   $FP1 RDVj = RDVj1 - FPj$   $RDVn+1 = 0$   $(YR1 \div 12) FPj : \text{depreciation charge for the } j\text{th year } RDVj : \text{remaining depreciable value at the end of } j\text{th } I\% \text{ year } : \text{depreciation ratio}$  u Sum-of-the-Year's Digits Method The sum-of-the-year's-digits method calculates depreciation for a given period.  $n(n+1) \div 2$   $YR1 n' = n - 12$   $(\text{Int}(n') + 1) (\text{Int}(n') + 2 \times \text{Frac}(n')) Z' = 2n$   $YR1 SYD1 = (PV - FV) \div Z$   $12 n' + 2 SYDj = ((j - 1) \times YR1 + 1) (PV - FV) \div SYD1$   $Z' n' (n+1) + 2 SYDn+1 = ((n - j + 1) \times YR1 + 1) (PV - FV) \div SYD1$   $\times Z' 12 YR1 (YR1 \div 12) 12 RDV1 = PV - FV$   $SYD1 RDVj = RDVj1 - SYDj Z = SYDj$   $Z : \text{depreciation charge for the } j\text{th year } RDVj : \text{remaining depreciable value at the end of } j\text{th year}$  E-70 u Declining Balance Method The declining balance method calculates depreciation for a given period.



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$I\% YR1 \times 100n \ 12 \ RDV1 = PV \ FV \ DB1 \ DB1 = PV \times DBj = (RDVj1 + FV) \times I\% \ 100n \ RDVj = RDVj1 \ DBj \ DBn + 1 = RDVn \ (YR1G12) \ RDVn+1 = 0$   
 $(YR1G12) \ DBj$  : depreciation charge for the  $j$ th year  $RDVj$  : remaining depreciable value at the end of  $j$ th  $I\%$  year : factor  $k$  Bond Mode (FC-200V only) ·  
 The Bond (BOND) Mode lets you calculate purchase price and annual yield. A Entering the BOND Mode · Press  $b$  to enter the BOND Mode. Value Input  
 Screen A Setting Values No. Display 1 Set\*1 2  $d1$ \*2 3  $d2$ \*2\*3 Name Periods/Y Bond Date Purchase Date (Month, Day, Year) Redemption Date (Month, Day,  
 Year) Values Used in Examples Annual Date 06012004 (June 1, 2004) 12152006 (December 15, 2006) E-71 No. Display 8n 5 RDV\*4 6 CPN\* 5 Name  
 Number of Coupon Payments Until Maturity Redemption Price per \$100 of face value Coupon Rate Values Used in Examples 3 \$100 3% 7 PRC\*6 Price per  
 \$100 of face value 97.

61645734 8 YLD Annual Yield 4% \*1 · You can specify a date (Date) or a number of coupon payments (Term) as the term for bond calculations. See the  
 "Bond Date" setting under "Configuring Settings" (page E-16). · You can specify once a year (Annual) or once every six months (Semi-Annual) as the number  
 of coupon payments per year. See the "Periods/Y" setting under "Configuring Settings" (page E-16). 2 \* · You must input two digits for the month and day.  
 @@etc.) @@@@3 \* When calculating the yield on call, input the call date for  $d2$ . \*4 When calculating the yield of maturity, input 100 for RDV. \*5 In the  
 case of a zero coupon, input 0 for CPN. \*6 · When calculating the redemption price per \$100 of face value (PRC), you can also calculate accrued interest  
 (INT) and purchase price including accrued interest (CST).  
 · Input money paid out as a negative value, using the  $y$  key to input the minus sign. E-72 Note · You can specify a starting date ( $d1$ ) in the range of January  
 1, 1902 through December 30, 2097. @@@@ @@@@ @@@@ @@@@ @@@@ @@@@ · Use  $fc$  to select "Periods/Y", and then press  $E$ . · Press 1 to select "Annual". · Use  $fc$   
 to select 1 "Set:", and then press  $E$ . @@@@ @@@@ · Use  $fc$  to select 6 "CPN", input 3, and then press  $E$ . · Use  $fc$  to select 8 "YLD", input 4, and then press  
 $E$ . 2. Select the value you want to calculate. · For this example, use  $fc$  to select "PRC".

3. Press  $l$  to perform the calculation. · Pressing the  $E$  key returns to the value input screen. A Other BOND Mode Calculations · Before performing a  
 calculation based on a specific number of payments (Term), be sure to specify "360" for "Date Mode", and "Annual" for "Periods/Y" (number of coupon  
 payments per year). Example 2: To calculate the annual yield (YLD) based on a specific date (Date) 1. In step 1 of the basic procedure (Example 1), input -  
 97.61645734 for PRC and do not input anything for YLD. 2. In step 2, select "YLD". · Input money paid out as a negative value, using the  $y$  key to input the  
 minus sign.

E-74 Example 3: To calculate a bond purchase price (PRC) based on a specific number of payments (Term) 1. In step 1 of the basic procedure (Example 1),  
 select 2(Term) for "Bond Date". · This replaces input items  $d1$  and  $d2$  with input item  $n$ . 2. Input 3 for item  $n$ .

Example 4: To calculate the annual yield (YLD) based on a specific number of payments (Term) 1. In step 1 of the basic procedure (Example 1), select  
 2(Term) for "Bond Date". · This replaces input items  $d1$  and  $d2$  with input item  $n$ . 2. Use  $fc$  to select 4 "n", input 3, and then press  $E$ .

3. Input 97.61645734 for PRC, without inputting anything for YLD. 4. In step 2, select "YLD". A BOND Mode Financial Calculation Variables (VARS) · The  
 values of the following BOND Mode variables are retained even if you change to another mode:  $n$ ,  $d1$ ,  $d2$ . · Note, however, that  $n$ ,  $d1$ , and  $d2$  are also used by  
 other modes, so performing an input or calculation operation may change the values assigned to them. · Though  $n$  is a financial calculation variable, its  
 contents can also be recalled in the COMP Mode. · The following variables are used in the BOND Mode. Their values are not retained if you change to  
 another mode: RDV, CPN, PRC, YLD.

E-75 A Calculation Formulas  $D \ A \ B$  Redemption date ( $d2$ ) Issue date Purchase date ( $d1$ ) Coupon Payment dates PRC : CPN : YLD : A : M : N : RDV : D : B :  
 INT : CST : price per \$100 of face value coupon rate (%) annual yield (%) accrued days number of coupon payments per year (1 = Annual, 2 = Semi-Annual)  
 number of coupon payments until maturity ( $n$  is used when "Term" is specified for "Bond Date" on the setup screen.) redemption price per \$100 of face value  
 number of days in coupon period where settlement occurs number of days from purchase date until next coupon payment date =  $D$  A accrued interest price  
 including interest  $u$  Price per \$100 of face value (PRC) Date (Using the Setup Screen: Bond Date) · For one or fewer coupon period to redemption  $RDV +$   
 $PRC = 1 + (B \ D \times CPN \ M \ M) + (A \ D \times CPN \ M)$  YLD/100 E-76 · For more than one coupon period to redemption  $PRC = (1 + RDV \ YLD/100 \ M \ CPN \ M$   
 $(1 + \times YLD/100 \ M)) (N1+B/D) k=1 \ A \ D \ N + (k1+B/D) \ A \ D \times CPN \ M$  INT =  $CPN \ M \ CST = PRC + INT$  Term (Using the Setup Screen: Bond Date) RDV  
 $PRC = (1 + INT = 0 \ CST = PRC \ u \ Annual \ Yield \ (YLD) \ CPN \ n \ M (1 + YLD/100 \ M) \ k \ YLD/100 \ M) \ n \ k=1$  YLD is calculated using Newton's Method. Note ·  
 This calculator performs annual yield (YLD) calculations using Newton's Method, which produces approximate values whose precision can be affected by  
 various calculation conditions. Because of this, annual yield calculation results produced by this calculator should be used keeping the above limitation in  
 mind, or the results should be verified. E-77  $k$  Break-Even Mode (FC-200V only) · The Break-Even (BEVN) Mode has six sub-modes that you can use to  
 perform various break-even point calculations. A Entering the BEVN Mode · Press  $B$  to enter the BEVN Mode. A BEVN Mode Sub-modes BEV: Break-even  
 point sales quantity and sales amount, sales quantity and sales amount that attains a profit target, sales quantity and sales amount that attains a profit ratio  
 MOS: Margin of Safety DOL: Degree of Operating Leverage DFL: Degree of Financial Leverage DCL: Degree of Combined Leverage QTY CONV.  
 (Quantity Conversion): Sales quantity and related values · Use  $fc$  to select the sub-mode you want, and then press  $E$  to enter it.  $k$  BEV Sub-mode (Break-Even  
 Mode 1) · Use the BEV sub-mode to calculate the break-even point sales quantity and sales amount, sales quantity and sales amount that attains a profit  
 target, and sales quantity and sales amount that attains a profit ratio.



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