## Pockty Ran Fstate Master Model 3400 USER'S GUIDE



ــرّل CALCULATED INDUSTRIES*
oducts Online at:
Table of Contents
Key Definitions ..... 3
Mortgage/TVM Keys ..... 4
Amortization Keys ..... 5
Date Key ..... 6
Payments Per Year ..... 6
Delta Percent ..... 6
Percentage Calculations ..... 7
Memory ..... 7
Decimal Place Selection ..... 8
Clear All ..... 8
Loan Examples ..... 8
Monthly Payment ..... 8
Term ..... 9
Interest Rate ..... 9
Loan Amount. ..... 10
Interest-Only Payment (Calculation)... ..... 10
Interest-Only Payment (Entry) ..... 11
Quarterly Payment ..... 11
Amortization - Total Interest and
Principal Paid ..... 11
Total Interest and Principal - for Range of Payments ..... 12
Total Interest, Principal and RemainingBalance - for Range of Years13
Balloon Payment/Remaining Balance ..... 14
Trust Deed/Purchase Price of a Note -
Fully Amortized ..... 14
Future Value ..... 15
Date Examples ..... 15
Delta \% - Rate of Appreciation ..... 16
Accuracy and Auto Shut-Off ..... 16
Repair and Return ..... 17
Warranty ..... 18
Key Definitions
Basic Function KeysOn/C On/Clear Key - Turns power on.Pressing once clears the display.Pressing twice clears all tempo-raryvalues.

Shiil On/c Off - turns all power off, clearing all non-permanent registers.
$\underset{\boldsymbol{x} \boldsymbol{\otimes} \boldsymbol{P} \boldsymbol{P}}{ }$ Arithmetic operation keys.
(0) - 9 Digits used for keying in numand $\cdot$ bers.
\% Percent (\%) - four-function (+, -, x, $\div$ ) percent.

## Mortgage/TVM <br> (Time Value of Money) Keys

Loan Amount or Present Value

- Enters or solves for the initial loan amount or present value of a financial problem.

Pmt Payment - Enters or solves for the periodic principal and interest (P\&I) payment.

Shiii Pmt Interest-Only Payment Enters or solves for the periodic interestonly payment. A term does not need to be entered to solve interest-only payments.

Term of Loan - Enters or solves for the number of years. A second press will display the number of periods.
lnt Interest - Enters or solves the annual interest rate. A second press will display the periodic (monthly) interest rate.

Shiin [xin T Future Value - Enters or solves for the future value of a financial problem.

Shiif + Periodic - Used with other function keys to designate a value as periodic rather than annual (e.g., 3) 60 Shili $\Psi$ Tem ).

Note: Interest and Term are stored permanently, until they are changed. This means, when you turn the calculator off, the values will stay in memory.

## Amortization Keys

Amort Amortization - Displays the range of payments, total interest, total principal, total payments and remaining balance, for an entered number of years or periods. For example, to amortize year 1 enter (1) Amort to display the total P\&I reduction for payments 1-12.

Shiii Amotr Remaining Balance - Displays the remaining balance of the loan, for an entered number of years or periods (e.g., 1 shiin Amotldisplays the remaining balance after payment 12).

## Date Key

- Date Entry Key - Used to separate the month, day, and year when entering dates
(e.g., 5 - $2 \bullet(0)(7$ to enter 05-02-07).This allows you to add or subtract a number of days from a date to find a second date, and subtract one date from another date to find the number of days in between.


## Payments Per Year

The calculator is set to monthly loans, or 12 payments per year (Pmts/Yr). To change to other than 12 payments per year, use the shiif and keys (e.g., to set a loan to 6 payments per year, press: (6) shiif ${ }^{2}$ ).

Note: Remember to change back to 12 by either resetting (1) 2) shim or performing a Clear All/Reset Shili $\mathbf{X}$.

## Delta Percent

Delta Percent Key ( $\Delta \%$ ) -
Finds the percent change between two values.

## Percentage Calculations

The percent \% key can be used for finding a given percent of a number or for working add-on, discount or division \% calculations.

For example:

| (8)0ヤ2 0 \% | 200.00 |
| :---: | :---: |
| (2) 5 (1) $0 \%$ - | 275.00 |
| (2) 5 - 5 \% | 23.75 |
| (1)0 0 - $0 \%$ \% | 200.00 |
| Memory |  |

m $+\quad$ Store value in semi-permanent memory (e.g., (1) 5 (M+).

Shiif M + Recall memory value (e.g., if (1) 0 has been stored in Memory, pressing shiim $M+$ will display

Shift
M+ M+
Clears memory value.
Note: Semi-permanent means the value is not cleared by pressing ${ }^{0} \mathbf{0}$ twice. Value is also cleared when the calculator is turned off.

## Decimal Place Selection

Press sand the number of decimal places desired, up to six (e.g., shiii (1), shiif (2), etc.). Pressing shim 7 will set the calculator to floating decimal point mode. Note: When you turn the calculator off (shiii $\mathrm{O}^{\mathrm{onc}}$ ), the number of decimal places is restored to two places.

## Clear All

To clear/reset calculator to its default values, press shiii and $\boldsymbol{X}$ (Clear All).
CAUTION: Use this only when you wish to return the calculator to its default values.

## LOAN EXAMPLES

Monthly Payment
Find the monthly payment on a 30 -year loan of $\$ 220,000$ at $7.5 \%$ annual interest rate.
KEYSTROKE
DISPLAY

0.00

220,000.00
7.50
30.00
emt
1,538.27

## Term

How long does it take to pay off a loan of $\$ 275,000$ at $6.5 \%$ interest if you make payments of $\$ 1,700$ each month?

| KEYSTROKE | DISPLAY |
| :---: | :---: |
| On/C on/c | 0.00 |
| (2) 70000 | 275,000.00 |
| (6) 5 mim | 6.50 |
| (1) 700 Pm | 1,700.00 |
| Term | 32.23 |

How long does it take to pay off a loan of $\$ 275,000$ at $6.5 \%$ interest if you make payments of $\$ 1,700$ each month?
KEYSTROKE
DISPLAY
Term 386.76

Interest Rate
Find the interest rate on a mortgage where the loan amount is $\$ 155,000$, term is 30 years and the monthly payment is $\$ 1,100$.
KEYSTROKE
DISPLAY
on/C On/C 0.00 155,000.00 30.00

1,100.00
7.65
(cont'd)

## Loan Amount

How much can you borrow if the interest rate is $7.75 \%$ on a 30 -year mortgage and you can afford to pay $\$ 1,200$ each month?

| On/C On/c |
| :---: |
| (7) $\cdot 7$ ( 5 nt |
| (3) (Tem |
| 2 (0) 0 | Loan

0.00 7.75
30.00

1,200.00 167,501.32

Interest-Only Payment (Calculation)
Find the interest-only payment on a loan of $\$ 15,000$ at $9 \%$ interest.

| KEYSTROKE |
| :---: |
|  |  |
|  |
| (9) mt |
| Shili Pmt |

DISPLAY
0.00

15,000.00
9.00
112.50

## Interest-Only Payment (Entry)

How much can you borrow if the interest rate is $7 \%$ on a 30 -year interest-only mortgage and you can afford to pay $\$ 1,000$ each month?

| KEYSTROKE | DISPLAY |
| :---: | :---: |
| On/ O O/C | 0.00 |
| (7) ll | 7.00 |
| (1) (0) 0 Shim Pm | 1000.00 |
| \% | 171,428.57 |

## Quarterly Payment

Find the quarterly payment on a 10-year loan of \$15,000 at 10\% annual interest rate.
KEYSTROKE
DISPLAY
 0.00
4.00
10.00
597.54
12.00

Amortization-Total Interest and Principal Paid
How much interest, principal and total payments will you pay on a 30 -year, \$180,000 loan at 7\% interest?

| KEYSTROKE | DISPLAY |
| :---: | :---: |
| On/C On/c | 0.00 |
| (1) 80000 | 180,000.00 |
| (7) ll | 7.00 |
| 3 ( 0 Tem | 30.00 |
| Pmt | 1,197.54 |
| Amott (range of payments) | 1-360 |
| Amort (total interest) | 251,116.02 |
| Amont (total principal) | 180,000.00 |
| Amort (total payments) | 431,116.02 |
| Total Interest and Principal - for Range of Payments |  |

How much total interest and principal will you pay in payments 1-5 on a 30-year, \$100,000 loan at 7\% interest?

KEYSTROKE DISPLAY
on/c on/c
(1) 0 (0) (0)

7 lim
(3) 0 Tem

Pmt
(5) shiin $\oplus$ Amort (range of payments)

Amont (total interest)
Amort (total principal)
Amont (total payments)
0.00

100,000.00
7.00
30.00
665.30

1-5
2,911.86
414.66

3,326.51

## Total Interest, Principal and Remaining Balance - for Range of Years

How much total interest and principal will you pay in years 1-5 on a 30-year, $\$ 100,000$ loan at $7 \%$ interest? What is the remaining balance after payments 1-36?


7 Int
(3) Term

Pmt
(5) Amort (range of payments)

Amort (total interest)
Amort (total principal)
Amot (total payments)
Amort (remaining balance)

DISPLAY
0.00

100,000.00
7.00 30.00
665.30

1-60
34,049.74
5,868.41
39,918.15
94,131.59

Note: Any number entered into ammon that is higher than the term will be considered periodic rather than annual.

## Balloon Payment/Remaining Balance

Find remaining balance after 10 years on a 30 -year, $\$ 300,000$ loan at $7.5 \%$ interest.

| KEYSTROKE |
| :---: |
| On/C On/ |
| (3) 00000 |
| (7) 5 ( mit |
| (3) 0 Tem |
| Pmt |
| (1) (0) shifin amort |

## Trust Deed/Purchase Price of a Note - Fully Amortized

You'd like to buy a mortgage with 15 years remaining, \$100 per month in incoming payments and you desire a $25 \%$ return. What will you pay for the mortgage? What if you desire a $20 \%$ yield?
KEYSTROKE
DISPLAY

| On/ On/c | 0.00 |
| :---: | :---: |
| (2) 5 ) mt | 25.00 |
| (1) 5 Tom | 15.00 |
| (1) 0 Pmm | 100.000 |
| (omin | 4,682.68 |
| (2) 0 Im | 20.00 |
| (new price) | 5,693.80 |

## Future Value

What will a $\$ 200,000$ house be worth after 3 years, if you figure an inflation or appreciation rate of $8.5 \%$ ?

Note: Set periods to one per year.
KEYSTROKE

DISPLAY
on/c on/c 0.00
(1) Shili 9
(2) 00000 1.00

200,000.00
3.00
8.50

255,457.83
(1) 2) Shiif (return to $12 \mathrm{pmts} / \mathrm{yr}$ )

## Date Examples

If a 45-day escrow begins April 26, 2007, what is the closing date?
KEYSTRO
DISPLAY
(4) $\cdot \mathbf{2} \cdot 6 \cdot(7$
(4) 5

4-26-07
45.
-
06-10-07
Your escrow closing date is June 10, 2007. If today's date is April 26, 2007, how many days until it closes? Subtract today's date from the closing date.
(cont'd)

| On/C On/c |
| :--- |
| 6 <br> -4 <br> 4 0606 |

0.00

6-10-07
4-26-07.
45.

Delta \% - Rate of Appreciation
A home originally purchased for \$150,000 sold a year later for $\$ 185,000$. What is the rate of appreciation?
KEYSTROKE
DISPLAY
(1) 50 (0) 0 Shil \%
(1) 800010

150,000.00
23.33

## ACCURACY AND AUTO SHUT-OFF

## Reset

If your calculator should ever "lock up," press Reset - a small hole located above the Amotl key/upper right - using the end of a paper clip.

## Accuracy

The normal display is nine (9) digits. Each calculation is carried out internally to 12 digits.

## Auto Shut-Off

After 8 to 12 minutes of non-use.

## Battery

Battery Included: One CR-1620 battery. Battery Life: 575 hours of actual use.

To replace the battery, use a small Phillip's head screwdriver and unscrew the single screw in the center of the battery door, located on the back of the calculator.


Carefully remove the battery door, remove the old battery from the clips, and replace it with one new CR-1620 battery. Make sure the positive side (+) is facing up. Replace the battery door and reattach the screw.

## Repair and Return

## Repair and Return Information

Return Guidelines:

1. Please read the warranty in this User's Guide to determine if your Calculated Industries product remains under warranty before calling or returning any device for evaluation or repairs.
2. If your product won't turn on, check the batteries as outlined in the User's Guide.
3. If you need more assistance, please go to the following Web site: www.calculated.com/warranty.
4. If you believe you need to return your product, please call a Calculated Industries representative between the hours of 7:00 a.m. and 4:30 p.m. Pacific Time for additional information and a Return Merchandise Authorization (RMA).
Call toll free: 1-800-854-8075
Outside U.S.A.: 1-775-885-4900

## Warranty

## Warranty Repair Service: U.S.A.

Calculated Industries (CI) warrants this product against defects in materials and workmanship for a period of one (1) year from the date of original consumer purchase in the U.S. If a defect exists during the warranty period, Cl , at its discretion, will either repair (using new or remanufactured parts) or replace (with a new or remanufactured unit) the product at no charge.
THE WARRANTY WILL NOT APPLY TO THE PRODUCT IF IT HAS BEEN DAMAGED BY MISUSE, ALTERATION, ACCIDENT, IMPROPER HANDLING OR OPERATION, OR IF UNAUTHORIZED REPAIRS ARE ATTEMPTED OR MADE. SOME EXAMPLES OF DAMAGES NOT COVERED BY WARRANTY INCLUDE, BUT ARE NOT LIMITED TO, BATTERY LEAKAGE, BENDING, A "BLACK INK SPOT" OR VISIBLE CRACKING OF THE LCD, WHICH ARE PRESUMED TO BE DAMAGES RESULTING FROM MISUSE OR ABUSE.

To obtain warranty service in the U.S., please visit www.calculated.com/warranty.
A repaired or replacement product assumes the remaining warranty of the original product or 90 days, whichever is longer.

## Non-Warranty Repair Service:

 U.S.A.Non-warranty repair covers service beyond the warranty period or service requested due to damage resulting from misuse or abuse. Contact Calculated Industries to obtain current product repair information and charges. Repairs are guaranteed for 90 days.

## Call toll free: 1-800-854-8075 <br> Outside USA: 1-775-885-4900

## Repair Service - Outside the U.S.A.

To obtain warranty or non-warranty repair service for goods purchased outside the U.S., contact the dealer through which you initially purchased the product. If you cannot reasonably have the product repaired in your area, you may contact Cl to obtain current product repair information and charges, including freight and duties.

## Disclaimer

CI MAKES NO WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE PRODUCT'S QUALITY, PERFORMANCE, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. AS A RESULT, THIS PRODUCT, INCLUDING BUT NOT LIMITED TO, KEYSTROKE PROCEDURES, MATHEMATICAL ACCURACY, AND PREPROGRAMMED MATERIAL, IS SOLD "AS IS," AND YOU THE PURCHASER ASSUME THE ENTIRE RISK AS TO ITS QUALITY AND PERFORMANCE.

IN NO EVENT WILL CI BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY DEFECT IN THE PRODUCT OR ITS DOCUMENTATION.

The warranty, disclaimer, and remedies set forth above are exclusive and replace all others, oral or written, expressed or implied. $\mathrm{No} \mathrm{Cl} \mathrm{dealer}, \mathrm{agent}$, is authorized to make any modification, extension, or addition to this warranty.

Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific rights, and you may also have other rights, which vary from state to state.

## FCC Class B

This equipment has been certified to comply with the limits for a Class B computing device, pursuant to Subpart J of Part 15 of FCC rules.

## Looking for New Ideas

Calculated Industries, a leading manufacturer of special-function calculators and digital measuring instruments, is always looking for new product ideas in these areas.

If you have a new product idea, please visit
improving this product or other products,
under "Contact Us." Thank you.

# J. CALCULATED. 

Printed in China<br>1/11

## PRG8509E-B

## Quick Reference Guide

## Basic Examples Unit keys: Yds Feet Inch m

## Press $\mathbf{O n / C}$ after each example.

For length, press unit key once:
(6) Feet (3) Inch 5 ( 8 FEET 3-5/8 INCH

For area, press unit key twice:
(7) Feet Feet
7. SQ FEET

For volume, press unit key three times:

## (2) (5) Feet Feet Feet <br> 25. CU FEET

## Key Definitions

Paint - Enter the area of the wall to be painted, then press Point to calculate gallons, quarts, or pints needed.
Wallpaper - Enter the area of the wall to be covered, then press हwact to calculate number of rolls needed.
Tile - Enter the area of the floor to be covered, then press $\boldsymbol{\text { Tile }}$ to calculate $18^{\prime \prime}, 16^{\prime \prime}, 13$ ", 12 ", $10^{\prime \prime}, 8^{\prime \prime}, 6^{\prime \prime}, 4^{\prime \prime}, 2^{\prime \prime}, 1^{\prime \prime}$ or $24^{\prime \prime}$ tiles needed.
Carpet - Enter the area of the floor to be covered, then press caped to calculate the length of 12 ', 13 ' and 15 ' rolls needed.
Concrete - Enter the volume to be filled, then press concodel to calculate the number of bags needed.

