

623A/III User's Guide
LoanMaker®

www.promsoft.com

Table of Contents

Description	3
Installment Loan Routine – [Payment] & [Loan] Function Keys	4
Calculation Notes	6
Year 2000 Compliant	6
Star [*] Function Key	6
Credit-Insurance Premium Refunds	6
Single Payment Loan	8
Truth-in-Savings Routine	9
Dealer Reserve and Interest Rate Buy Down Calculations	11
Advanced Configuration Options	14
Battery Replacement & Maintenance	17
Adjusting the Display Contrast	17
Battery Replacement	17
Initializing the Software Cartridge	18
Setup Routine - [Setup] Function Key	19
Enabling a Prepaid Charge	19
Enabling the Printer	19
Changing the Insurance Rates	19
Viewing the Configuration	19
Installing Your Name in the LoanMaker	20

User's Guide and Software

Copyright © 1992-2017 PROM Software, Inc. ♦ www.promsoft.com
PROM[®], PROMSOFT[®] and LoanMaker[®] are registered trademarks

ORDERING NEW CALCULATORS: To order calculators please visit our website or email us at info @promsoft.com.

WARNING: Reproduction and/or distribution of copies of the copyrighted work embodied in this calculator without the prior written permission of PROM Software, Inc. is expressly prohibited.

LIMITED WARRANTY: This program uses information provided by the purchaser and/or other sources. Although it is believed to be accurate, PROM Software, Inc. does not warrant the accuracy of the information, and assumes no liability to any person or persons in connection with the use of, or the inability to use this program or calculator. The calculator will be repaired or replaced, at our option, if defective in manufacture and returned to us within the warranty period. Except for such repair or replacement, the sale, programming, or other handling of the calculator is without warranty or liability.

Description

The 623A/III LoanMaker computes and discloses installment loans with monthly payments and credit insurance. It also computes single-payment loans, single-premium credit insurance refunds, and Truth-in-Savings disclosures.

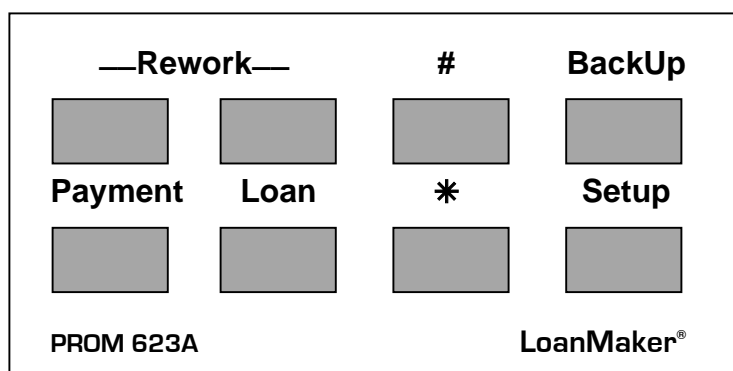
Installment loan insurance premiums are computed using a single-premium method and are financed. A variety of gross and net premium calculations are available. Both the total life benefit and monthly accident-&-health benefit can be limited.

All monthly payments are considered due on the same day of each month. If desired, the loan date and first payment date, or the number of days between the loan date and the first payment date, may be entered. Three calendar options are provided.

The payment routine finds the payment. The loan amount routine reverses the process and computes the available loan amount from an entered payment. Starting either routine clears the previous input items except for interest rate, prepaid finance charge (if enabled), and loan date.

The calculator features a [Backup] function key that allows you to back up in the prompting routine to correct an entry, and to back up in the disclosure section to review an item. Both the Payment and Loan routines can be started with a [Rework] function key -- this saves the previous loan data and displays the previously entered data.

In response to a prompt, you can accept the value displayed by just pressing [ENTER] or you can enter a new value. Incorrect entries may be cleared by pressing the red [C-CE] key unless you have already pushed [ENTER], in which case you can use the [Backup] function key or the [Rework] function key to start over.



The Star [*] Function displays a menu of the single-payment, Truth-in-Savings, and premium refund routines.

The [#] key is a clear key and pushing it will clear all variables.

Installment Loan Routine – [Payment] & [Loan] Function Keys

<u>Prompt</u>	<u>User Response</u>
	Push [Payment] to compute a payment, [Loan] to compute the loan amount, or [Rework] to review the previously computed loan.
LOAN xxxxxx.xx?_	(Appears if computing the payment.) Enter the loan amount.
PMT xxxxx.xx?_	(Appears if computing the loan amount.) Enter the desired payment.
PPD CHG xxx.xx?_	Enter the prepaid charge. ¹
FEES xxx.xx?_	Enter any financed fees.
TERM xxx?_	Enter the term in months (3 or more).
RATE xx.xxx%?_	Enter the interest rate as a percentage.
LDATE xxxxxx?_	Enter the correct loan date. Enter the date in the mmddy format, e.g., November 3, 2001, as 110301.
FD/DYS xxxxxx?_	Enter the date of the first payment or the number of days to the first payment. ²
LIFE 1?_	Enter the life insurance code (1: single, 2: joint, and 0: none).
A&H 1?_	Enter the A&H insurance code (1: single, 2: joint ³ , and 0: none).
INS TERM?_ LIFE TERM?_ A&H TERM?_	Enter the term of insurance coverage if it is less than the term of the loan. ⁴

¹ This feature may need to be enabled. See Enabling a Prepaid Charge on page 19. To finance the prepaid charge, enter it with a leading "-" sign, e.g., enter "-50" to finance a \$50 prepaid charge.

² To compute a loan with exactly one unit period to the first payment, enter a 0 here.

³ Joint A&H (disability) is not available in all states or plans. See your insurance company or agent.

⁴ Truncated insurance needs to be enabled in order for these prompts appear. See Enabling Truncated Credit Insurance on page 16.

The monthly payment or available loan amount will appear in the display. To disclose the loan, continue to press [ENTER]. To change any of the loan parameters push either the [Backup] or [Rework] function key. To start the routine again (or another routine), press the appropriate key.

XX PT @	xxxxx.xx
INS \$/DAY	x.xx
LIFE x	xxx.xx
A&H x	xxx.xx

and amount of payment.
Insurance cost per day.
Life coverage and premium.
A&H coverage and premium.

APR	xx.xx%
FIN CG	xxxxxx.xx
AMT F	xxxxxx.xx
TOT P	xxxxxx.xx
PPD CHG	xxxx.xx
xxx PT@	xxxxx.xx
LOAN ON	mm/dd/yy
1ST ON	mm/dd/yy
LAST ON	mm/dd/yy
(abc) DAYS	xx
PRCDS	xxxxxx.xx
FEES	xxx.xx
LIFE x	xxxx.xx
A&H x	xxxx.xx
RATE	xx.xxx%
NOTE	xxxxxx.xx
L BEN	xxxxx.xx
L TERM	xxx
H BEN	xxxx.xx
H TERM	xxx

Fed Box.

Appears if enabled.
Payment schedule.
Loan date.
First payment due date.
Last payment due date.
Status flags⁵ & # of days to first payment.
Amount given to borrower.
Filing fees, etc.
Credit-life code & premium.
A&H code & premium.
("C" indicates capped premiums)
Appears if Prepaid Charge is enabled.
Appears if Prepaid Charge is enabled.
Original amount of life insurance.
Term of life insurance.
Monthly A&H benefit.
Term of A&H insurance.

Continue to press [ENTER] to review the disclosure; press the [Backup] key to back up in the disclosure; press the appropriate key to start a routine. If you wish to use a printer, see the section on "LoanMaker Printer Systems."

⁵ Calendar ("A" for Actual, "E" for Exact, or "F" for Federal), life type (a number), and A&H interpolated ("I") or bracketed ("B"). See Changing the Installment-Loan Calendar on page 15.

Calculation Notes

In the find payment routine, the payment can be truncated or rounded to the whole cent. Use Setup code 55 to select whether the payment is rounded or truncated. Use Setup code 222 to view the current setting as well as the current credit insurance plan.

For loans with odd days in the first period, interest is calculated by the U.S. Escrow Rule if the actual or exact calendar is selected, or by the actuarial method if the Federal calendar is selected.

Year 2000 Compliant

The date routines in this program will correctly calculate dates for the Year 2000 and beyond. Dates are entered in a 'mmddy' format using 6 digits, with the last two 2 digits reserved for the year. The span of dates that can be entered is from '010180' through '123179' (January 1st, 1980 through December 31st, 2079). Thus a date entry of 010100 represents January 1, 2000.⁶

Calculated dates are displayed in the same 'mmddy' format with the last two digits representing the last two digits of the year.

Star [*] Function Key

Three routines can be accessed through the Star [*] function key. The names of the routines appear in a menu – push [YES] to select the routine shown, or [NO] to proceed to the next routine.

Credit-Insurance Premium Refunds

This routine⁷ computes refund factors to determine the refund amount of unearned credit-insurance. A decimal refund factor is computed which you should multiply by the original premium to determine the refund amount(s).

⁶ Versions prior to M05.1.3 have a span of 1/1/1950 through 12/31/2049.

⁷ The refund method(s) need to be setup. See Enabling Premium Refund Calculations on page 17

Prompt

User Response

Push the Star [*] function key and select "REFUNDS" by pushing the [YES] key to start this routine. (Push the [NO] key to scroll past other menu items.)

ORIG TERM?_

Enter the original insurance term in months.

ORIG DATE?_

Enter the original loan date in the format *mmdyy*, e.g., enter May 15, 2001 as 051501.

PAYOFF DATE?_

Enter the payoff date in the format *mmdyy*.

ELAPSED TERM xx

The # of months the insurance has run.

INS TERM?_

If the term of insurance on the original loan was truncated, i.e., less than the full term of the loan, enter the truncated term in months.⁸

RATE xx%?_

Enter the original loan interest rate.

ACTUAR:	x.xxxxx ⁹
RULE 78:	x.xxxxx ¹⁰
L ANTIC:	x.xxxxx ¹¹
H ANTIC:	x.xxxxx ¹¹
PRORATE:	x.xxxxx ¹²
PR-78:	x.xxxxx ¹³

Refund factors per \$1 of original premium.

⁸ If the loan has both life and A&H and they were of different original terms, you need to run this routine twice (once for life and once for A&H) to compute the correct refund factors.

⁹ Actuarial refund method, used primarily for life.

¹⁰ Rule of 78's, commonly used for A&H (disability) and life.

¹¹ Rule-of-Anticipation refunds are based on the current credit insurance setup for computing installment loans. When computing Rule-of-Anticipation refund factors, make sure the life insurance type is the same that was used to calculate the original loan, and that the A&H table is also the same as the original. It is not necessary to have the same life rates and A&H deviation percentage.

¹² Prorate refund, used primarily for level life insurance.

¹³ The average of the prorate and Rule of 78's refund, used for level life insurance in some states.

Single Payment Loan

In a single-payment loan, all interest and principal is repaid in a single payment at some specified time in the future.

Prompt

User Response

	Push the Star [*] function key and select "SINGLE PAY" by pushing the [YES] key to start this routine. (Push the [NO] key to scroll past other menu items.)
LOAN xxxxxx.xx?_	Enter the loan amount.
PPD CHG?_	Enter the prepaid charge ¹⁴ . If the entry is preceded with a "-" sign, e.g., "-25", the prepaid charge is financed.
RATE xx.xxx%?_	Enter the interest rate. (To use a discount rate, enter the rate with a leading "-" sign, e.g., enter "-6" to use a 6% discount rate.)
LDATE mmddyy?_	Enter the loan date. Enter the date in the format mmddyy, e.g., 030801 for March 8, 2001.
FD/DAYS?_	Enter either the date the payment is due or the number of days between the loan date and the payment due date.

To disclose the loan, continue to push [ENTER]. To change an entry, push the [Backup] key.

APR	xx.xx%
FIN CG	xxxxxx.xx
AMT F	xxxxxx.xx
TOT P	xxxxxx.xx
LOAN ON	mm/dd/yy
DUE	mm/dd/yy
NOTE	xxxxxx.xx
PPD CHG	xxxxxx.xx
DAYS TO PMT	xxx

Fed Box

¹⁴ This feature may need to be enabled. See the Setup Routine.

Truth-in-Savings Routine

These routines perform two Truth-in-Savings functions. The first converts interest rates to an APR (Annual Percentage Yield) and vice versa, and the second computes the interest amount and APY.

Prompt

User Response

Push the Star [*] function key and select "TIS" by pushing the [YES] key to start this routine. (Push the [NO] key to scroll past other menu items.)

APY/INT 1/2?_ Enter "1" to convert rates, or "2" to compute the interest earned.

Converting Interest Rates

Use this routine to convert from an interest rate to the equivalent annual percentage yield or vice versa. To compute the APR from the interest earned, see Find APY and Interest Paid below.

APY/RATE

RATE xx.xx%?_ Enter the interest rate percentage. To compute the interest rate from the APY, enter a 0.

APY xx.xx%_ Enter the APY.

COMP FREQ 365?_ Enter the correct compounding frequency.¹⁵

APY	xx.xx%	Computed annual percentage yield. ¹⁶
RATE	xx.xx%	Computed interest rate.

For example, an interest rate of 5.25% compounded daily (365 times a year) converts to an annual percentage yield of 5.39% (5.3899%). If the interest rate is compounded weekly (52 times a year) instead of daily, the equivalent annual percentage yield is 5.39% (5.3875%).

If an annual percentage yield is advertised as 5.80% with monthly compounding (12 times a year), the equivalent interest rate is 5.65% (5.6513%).

¹⁵ Allowed compounding frequencies are 1, 2, 4, 6, 12, 13, 24, 26, 52, 365 & 366.

¹⁶ See Changing the Annual Percentage Yield Precision on page 11.

Find APY and Interest Paid

This routine computes the annual percentage yield for a deposit based on the amount of interest earned over a specified period and the interest to be paid based on the interest rate or annual percentage yield. For account disclosures, this routine can be used to compute the annual percentage yield.

<u>Prompt</u>	<u>User Response</u>
APY/INT PAID	
PRIN?_	Enter the deposit amount. (Minimum is \$25.00 -- it is suggested that you use 10,000 for account disclosures.)
# DAYS?_	Enter the number of days the amount is on deposit.
RATE xx.xx%?_	Enter the interest rate percentage. To compute the APR from an interest amount paid, enter a 0.
COMP FREQ 365?_	(Appears only if an interest rate was entered.) Enter the compounding frequency. ¹⁷
INT PD xxxxx.xx?_	(Appears only if a 0 was entered at the RATE prompt above.) If the amount of interest paid is correct, push [ENTER], otherwise enter the correct amount of interest paid.

INT \$ xxxxx.xx ddddD APY xxx.xx%	Computed or known interest amount Number of days and APY ¹⁸
--	---

For example, if an institution pays an interest rate of 5.77% compounded monthly (12 times per year) on a \$6500.00 deposit over a period of 91 days, the interest that should be paid is \$93.95 and the annual percentage yield is 5.92% (5.9248%).

As another example, if an institution pays an interest rate of 5.00% which is not compounded (use a compounding frequency of 0) on a \$10,000 deposit over a period of 181 days, the interest to be paid is \$247.95 and the annual percentage yield 5.06% (5.0631%).

¹⁷ Allowed compounding frequencies are 1, 2, 4, 6, 12, 13, 24, 26, 52, 365 & 366. To calculate interest without any compounding, enter a 0.

¹⁸ See Changing the Annual Percentage Yield Precision on page 11.

Changing the Annual Percentage Yield Precision

If you wish to compute the Annual Percentage Yield to four decimal places, push the [Setup] function key and enter a "4". To change the precision back to two places, push the [Setup] function key and enter a "2".

Dealer Reserve and Interest Rate Buy Down Calculations

The 623A/III LoanMaker will calculate the dealer reserve for installment loans by three different methods. The routine can also be used to "buy down" the interest rate.

To calculate the dealer reserve, first enter or rework the loan in the Loan routine and find the payment. Then push the [Setup] function key and enter one of the following code numbers (depending upon the method you wish to use to calculate the dealer reserve) and push [ENTER].

Prompt

User Response

Code = 181

Enter this code and push [ENTER] to calculate the dealer reserve by the difference in finance charges (also called the actuarial) method.

Code = 184

Enter this code and push [ENTER] to calculate the dealer reserve by the present value method.

Code = 185

Enter this code and push [ENTER] to calculate the dealer reserve by the pro-rate method.

BUY RATE xx.xx%?_

Enter the correct buy rate.

CHG DIF	xxxxx.xx	Difference in charges reserve
P VALUE	xxxxx.xx	Present value reserve
PRORATE	xxxxx.xx	Pro-rate reserve

Buying Down the Interest Rate

A common method of promoting automobile and other product sales is to offer the buyers very low interest rates. These rates are usually well below the true cost of money. To induce a lender to accept the loans, the dealer "buys down" the interest rate by making an additional payment to the lender.

To calculate¹⁹ this buy-down amount, compute the loan first using the artificially low interest rate. Then compute the Present Value (Code 184) dealer reserve and enter the lender's required interest rate as the Buy Rate. The resulting dealer reserve amount will appear as a negative amount (indicating the payment is from the dealer to the lender).

In practice, the lender simply reduces the advance to the dealer by the buy-down amount, e.g., if the amount financed on the contract is \$14,300 and the buy-down amount is \$350, the lender would advance \$13,950 to the dealer.

Description of Dealer Reserve Methods

Difference in Finance Charges (Code 181) - The entered simple buy rate is applied (using the actuarial method of compounding interest) to the amount financed over the term of the loan to find a finance charge at the buy rate. This amount is subtracted from the contract finance charge to compute the dealer reserve.²⁰

¹⁹ The calculation is much like pricing a bond. The loan as cast by the dealer represents a stream of payments to be made to the lender. This stream of payments is discounted at the lender's required rate (Buy Rate) to find the present value. This present value (which is less than the amount financed because of the discounted loan interest rate) is subtracted from the amount financed to find the additional amount the dealer must advance to the lender in order for the lender to realize the required rate.

As an example, consider a \$15,000, 36-month loan at 3.9%. Loan is made on 5/1/98 with the first payment due 6/1/98 (31 days later). The monthly payment is \$442.22. The lender will accept the loan at 8%, and using a rate of 8%, the present-value buy-down amount is calculated at \$889.76. Thus, the stream of 36 payments discounted at 8% has a present value of \$14,110.24 to the lender, some \$889.76 less than the amount financed of \$15,000.

²⁰ This method is the most common (it is used by virtually all captive-finance companies). The lender's yield on the loan is slightly below the entered Buy Rate because the lender advances the dealer reserve amount at the start of the loan and yet must wait for the stream of payments to be repaid. Thus the dealer reserve amount becomes a no-interest loan that reduces the lender's overall yield on the loan slightly. The present value method takes this timing into account and computes a slightly smaller dealer-reserve amount that maintains the lender's yield.

For interest-rate buy downs, the reverse error occurs and the buy-down amount is too high when the difference-in-charges method is used. Again, the present value method will produce the accurate amount.

This method is basically just calculating the loan twice, once at the rate the borrower is to pay, and again at the lender's buy rate (the rate at which he is willing to buy the contract from the dealer).²¹

Present Value Reserve (Code 184) - This method discounts the stream of payments at the simple buy rate (using the actuarial method of compounding interest) to find the present value. The amount financed is subtracted from this present value to find the dealer reserve. This method can also be used to allow the dealer to "buy down" the rate, i.e., the dealer can advertise a lower interest rate than the bank is willing to accept. In this case, the reserve appears as a negative number and is the additional amount the dealer must give to the bank in order for the bank to realize the buy rate.

Pro-rate Reserve (Code 185) - This method is designed to compute the total reserve the dealer will receive when the reserve is paid over the life of the loan. Using this system, the dealer receives a portion of the interest in each payment. This system was used by some banks in conjunction with a simple-interest accounting system.

Early Terminations

With both the Difference in Charges and Present Value methods, a problem can arise if the borrower pays the loan off early. In this case, the lender has advanced an amount to the dealer that is based on the loan running to maturity. If the loan does not run to maturity, the lender will not realize the interest income that was expected.

Some lenders charge the dealer back for unearned portions of the dealer reserve due to early terminations. The dealer may be required to leave a portion of the accumulated dealer reserve amounts on deposit with the lender as security against future charge-backs.

Another common method is to only advance the dealer a percentage of the calculated reserve amount (typically 65%-75%) and then not bother to charge the dealer back for early terminations.

²¹ In the second calculation, the finance charge is determined without adjusting the payment to a whole cent.

Advanced Configuration Options

Changing the Maximum Insurance Benefit Limits (Caps)

Check with your credit insurance company or agent before making changes to the caps. If you enter incorrect information here, the premium calculations will not be correct.

- CODE?_ Enter the code number 197249.
- I&M x.xxx%>_ (Appears only in some states.) Enter the correct I&M discount annual percentage.
- L CAP xxxxx?_ Enter the maximum life benefit. If you want loans over the maximum to be partially insured, enter a positive number. If you don't want loans over the maximum to be insured at all, enter a negative number, e.g., "-50000".
- MAX L TERM xxx?_ Enter the maximum term for life insurance. Loans longer than this will not be insured. (See Truncated Credit Insurance to provide partial insurance on these loans.)
- A&H CAP/M xxxx?_ Enter the monthly A&H cap. If there is no monthly cap, enter a 0. If you want loans over this amount to be partially insured, enter a positive number. If you don't want any insurance on loans over this maximum, enter a negative number, for example, "-1000".
- A&H CAP xxxxx?_ (Appears only if you start this routine with the code number 297249.) Enter the TOTAL A&H cap. If there is no total cap, enter a 0. If you want loans over this maximum to be partially insured, enter a positive number. If you don't want any insurance on loans over this maximum, enter a negative number, e.g., "-30000".
- MAX H TERM xxx?_ Enter the maximum term for A&H insurance. Loans longer than this will not be insured. (See Truncated Credit Insurance to provide partial insurance on these loans.)

Changing the Installment-Loan Calendar

Three calendar systems are supported in this calculator.

CODE?_

Enter the code number 52.

ACTUAL CAL N?_

FED CAL N?_

EXACT CAL N?_

Push [YES] to select the displayed calendar, or [NO] to proceed to the next choice.

Actual Calendar (to First Payment)

The number of days in the first period are counted using an actual calendar and 1 day's interest ($1/365^{\text{th}}$ of a year) is charged for each day. The subsequent periods are all assumed to be of the same length ($1/12^{\text{th}}$ of a year) and $1/12^{\text{th}}$ of the annual rate is charged for each period. This is the most common method used for simple-interest²² loans.

Federal Calendar

The length of the first period and all subsequent periods are measured according to the method in Appendix J²³ of the Federal Reserve Board Regulation Z. This is commonly called the 360-year method, although that is not an accurate description. If the first payment due date is on the same day of the month following the loan date, the first period is treated as $1/12^{\text{th}}$ of a year. This method can be used to match payment tables or factors that have no provision for odd days in the first period.

Exact Calendar (Actual/365)

The number of days between the loan date and the first due date, and between each payment and the next, are counted using an actual calendar and 1 day's interest ($1/365^{\text{th}}$ of the annual rate) is charged for each day. This method is slightly more precise than the Actual Calendar for simple-interest loans²² but takes more calculation time (especially for longer loans).

²² In a simple-interest loan, the borrower is charged one day's interest for each day the principal balance is outstanding. If payments are made early, the finance charge will be less than the disclosed amount. The disclosed finance charge is an estimate that assumes the borrower will make every payment exactly on its due date. This, of course, is not possible because some due dates will fall on holidays or weekends. Thus the finance charge calculated by the Exact Calendar is no more accurate an estimate than that calculated using the Actual Calendar.

²³ Appendix J (b)(5)(i) & (ii)

Enabling Truncated Credit Insurance

For longer loans, it is often desirable to provide credit life and/or disability insurance for some initial portion of the loan. For example, on a 180-month loan, one can buy, say, 84 months of insurance. This insurance would be in force for the first 84 months of the loan and then stop, thus the name "truncated".

In many cases, the credit insurance company is only willing to provide insurance for some shorter time, or the maximum term may be limited by state regulation. Also, truncated insurance is less expensive than full term insurance, and often the insurance is only needed for some initial portion of the loan.

As with other matters relating to the credit insurance plan, always check with your insurance company or agent before enabling truncated insurance. Some states do not allow its use.

CODE?_ = 97250 Enter the code number 97250.

TRUN INS 0-3?_ Enter "1" to cause the prompt "INS TERM?" to appear in the loan routine. Both life and A&H insurance are truncated at the term entered at this prompt.

Enter "2" to cause separate prompts ("LIFE TERM" and "A&H TERM") to appear in the main routine. The terms for life insurance and A&H insurance can be different with this option.

Enter "3" to automatically truncate credit insurance at the maximum life and A&H terms (see Viewing the Configuration on page 19 to determine the maximum terms).

Enter "0" to disable truncation.

Enabling 365/360 Interest Calculations

It is common in commercial loans to use this 365/360 method (also called "Actual/360") of inflating the interest charge. The method divides the annual interest rate by 360 to obtain a daily rate that assumes a year has only 360 days. However, 365 days are counted for a year, "making" an extra 5 days' interest for the lender. If this method is used, the APR is slightly higher than the interest rate. Use of this method for consumer loans is not recommended as it may be contrary to state and/or federal lending regulations.

CODE?_ Enter the code number 152.

ASK 365/360 N?_ Push [YES] to have the Loan routine ask the question "365/360 N?_" in the Installment Loan routine.

Enabling Premium Refund Calculations

CODE?_ Enter the code number 61.

REFUNDS ##?_ Enter the refund code number, or enter 0 if you do not want to compute refunds.

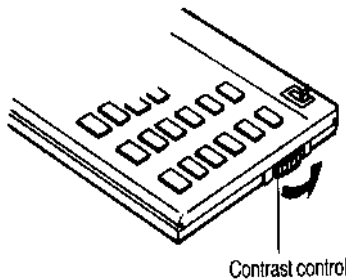
Use the following code numbers:

1	A&H Rule of Anticipation. ²⁴
2	Life Rule of Anticipation. ²⁴
4	Rule-of-78's.
8	Actuarial.
16	Prorate.
32	Average of Prorate and Rule-of-78's.

To get factors for more than one refund method, add the code numbers, e.g., to use the Actuarial and Rule-of-78's methods, enter a 12 as the refund code number ($8 + 4 = 12$).

Battery Replacement & Maintenance

Adjusting the Display Contrast



The calculator is equipped with a control to adjust the contrast of the LCD (liquid crystal display). While looking at the display from a position about 70 degrees above the keyboard, first increase the contrast until black squares are clearly visible behind the characters and then decrease the contrast slowly until the squares just disappear.

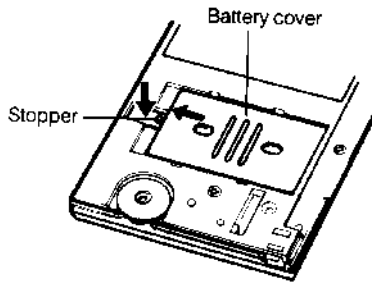
If the display contrast becomes too dim, the batteries should be replaced.

Battery Replacement

To replace the batteries, you should first have replacement batteries at hand. Two lithium type CR2032 batteries and a small screwdriver are required.

²⁴ For both life and accident-&-health Rule of Anticipation refunds, the calculator should have the same life type and A&H table of rates installed that were used to calculate the original loan. The life rates and A&H deviation do not have to be the same.

1) Make sure the calculator is turned off. Place the calculator face down on a table with the contrast control in the upper left-hand corner (the writing on the back of the calculator will be right side up).

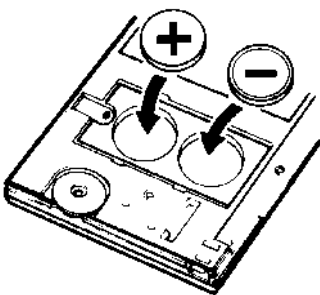


2) Remove the Software Cartridge from the calculator.

3) Using a small screwdriver, remove the two screws holding the back. While lifting the edge of the calculator's back cover closest to you, slide it up to remove it.

4) Slide the silver-colored battery compartment cover upwards to open the compartment; remove the cover.

The batteries are now disconnected; remove and discard them.

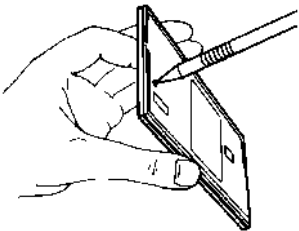


5) Install the new batteries, making sure the polarity (+ and -) is correct, and replace the battery compartment cover. (Make sure to replace the battery compartment cover--the batteries are not connected unless the battery compartment cover is in place.) Replace the back of the calculator by first hooking the 3 tabs on the top and then lowering the edge closest to you so you can replace the 2 screws.

6) Replace the Software Cartridge in the calculator. If it has been out of the calculator for more than about 5 minutes, you will have to initialize it. See below.

Initializing the Software Cartridge

After replacing the batteries or if you remove the Software Cartridge from the calculator, you may need to initialize the Software Cartridge with the following steps. Software Cartridges have a label on the back side (the side that faces the calculator) which has instructions similar to the following.)



1) Install the Software Cartridge in the calculator. With a pencil or straightened paper clip and the calculator ON, push the "ALL RESET" button on the left side of the back of the calculator. You should see 4 stars in the display (2 on the left, 2 on the right). (On some calculators, there may be a white label over the "ALL RESET" button. If so, gently lift up the lower left corner to reveal it)

2) Push [ENTER]. You should now see a single star at the right edge of the display.

3) Turn the calculator off, wait a few seconds, and then turn it back on. You should see "0." in the display. The calculator is now ready to be configured.

4) Push the [Setup] key. You should see "CONFIGURING. . ." appear for a moment and then, after several seconds, the calculator will go to the Changing the Insurance Rates routine below.

Setup Routine - [Setup] Function Key

The [Setup] function key accesses several setup routines to configure the calculator. All are started by pushing the [Setup] key and then entering the appropriate code number, e.g., a code number of 97249 allows you to change the insurance rates and other options.

Enabling a Prepaid Charge

CODE?_	Enter the code number 51.
PPD CHG N?_	Push [YES] to enable the prepaid charge, or [NO] to disable it.

Enabling the Printer

CODE?_	Enter the code number 9911.
PRINTER Y	The current printer status is shown. Push [Yes] to enable the printer, or [No] to disable it. (If no printer is attached to the calculator, the printer should be disabled.)

Changing the Insurance Rates

CODE?_	Enter the code number 97249.
SGL LR x.xx?_ (LIFE DEV xxx%)	If the single life rate or deviation shown is correct, push [ENTER], otherwise enter the desired rate.
JNT LR x.xx?_	If the joint life rate is shown is correct, push [ENTER], otherwise enter the desired rate.
A&H DEV xx.xx%?_	If the A&H (disability) deviation percentage shown is correct, push [ENTER], otherwise enter the desired percentage.

Viewing the Configuration

CODE?_	Enter the code number 222. Continue to push [ENTER] to view all of the parameters.
--------	--

Installing Your Name in the LoanMaker

You can install your name (or an identification number, telephone number, or other message) in the LoanMaker Calculator. Once installed, your name will appear briefly each time you start a routine.

To install your name, push the [Setup] key and enter a code of 726 in response to the "CODE?_" prompt. The message "INSTALL NAME" will appear briefly, followed by a single question mark, "?_".

To enter a character (letter, number, or symbol), enter the appropriate code number from the table below and push [ENTER]. The character will appear in the display followed by a question mark. Enter the code number for the next character and push [ENTER] again. Continue entering code numbers for all the characters you wish to enter, and then push [ENTER] when you're done. If you make a mistake, push the [Backsp] key to erase the last character.

You can enter up to 16 characters. The first character must not be a space (code 27), however, spaces can be used in any other position.

For example, to enter the name "LARRY 555-1234", enter the code numbers 12, 1, 18, 18, 25, 27, 35, 35, 35, 28, 31, 32, 33, 34.

To remove a name without installing a new one, start the Install Name routine and just push [ENTER] when the "?_" prompt appears.

Character Code Table

A	1	P	16	1	31	(46
B	2	Q	17	2	32)	47
C	3	R	18	3	33	+	48
D	4	S	19	4	34	,	49
E	5	T	20	5	35	.	50
F	6	U	21	6	36	/	51
G	7	V	22	7	37	:	52
H	8	W	23	8	38	;	53
I	9	X	24	9	39	<	54
J	10	Y	25	!	40	=	55
K	11	Z	26	"	41	>	56
L	12	(space)	27	#	42	?	57
M	13	-	28	\$	43	@	58
N	14	*	29	%	44		
O	15	0	30	&	45		