User's Guide 623N LoanMaker® PROM Software, Inc.



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# Description

The 623N LoanMaker computes and discloses installment loans with monthly payments. Either the payment or available loan amount can be computed. It also computes residual-value (balloon) loans, dealer reserve, single-payment loans, premium refunds, and the A.P.Y. for Truth-in-Savings disclosures.

Credit-insurance premiums for installment loans are computed using a singlepremium method appropriate for the particular credit insurance plan.

For loans with insurance that exceed one or more maximum insurance benefit(s), the premium(s) are computed by the appropriate method. For life insurance, the level-excess or pro-rate method is used (depending upon the particular plan); for disability insurance, the pro-rate method is used. For loans that exceed the maximum insurance term, partial insurance is provided for the maximum term in some plans.

All monthly payments are considered due on the same day of each month and the monthly interest earned is computed by applying 1/12th of the annual interest rate to the outstanding balance for 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. Odd-day interest calculations are made using the U.S. Escrow Rule.

The payment routine finds the payment. The loan amount routine reverses the process and computes the available loan amount from the payment.

The [Backup] function key 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. Routines can be started again using the [Rework] or [#] function key--this does not clear the previous loan and displays the values previously used while allowing any of them to be changed.

In response to a prompt, enter a value and push [ENTER]. Incorrect entries may be cleared by pressing the red [C·CE] key unless you have already pushed [ENTER], in which case you should use the [Backup] function key or the [Rework] or [#] function key to start over.

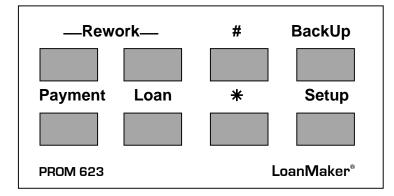
Credit-life insurance premium refunds are calculated by the actuarial method and disability refunds by the Rule of 78's.

The residual-value (balloon) loan routine calculates the monthly payment for loans with a fixed-final payment. This type of loan is commonly used to finance vehicles. It is a conventional balloon loan where the final payment is due at the end of the term after a series of smaller monthly payments.

The dealer reserve amount can be calculated by three different methods for installment and residual-value (balloon) loans.

## **Function Key Template**

The Star [**\***] function key shows a menu of routines: Refunds, Single Payment Loan, Truth-in-Savings, and Residual Value (Balloon) Loan.



# Installment Loan Routine -- [Payment] & [Loan] Function Keys

<u>Prompt</u>	User Response
	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 desired loan amount.
PMT xxxxx.xx?_	(Appears if computing the loan amount.) Enter the payment amount.
FEES xxx.xx?_	Enter the desired amount for financed fees.
TERM xxx?_	Enter the desired term in months (3 or more).
RATE xx.xxx%?_	Enter the interest rate. <sup>1</sup>
LDATE XXXXXX?_	Enter the correct loan date. Enter the date in the mmddyy format, e.g., November 3, 2001, as 110301.
FD/DYS xxxxxx?_	Enter the date of first payment or the number of days to the first payment. To compute a loan without odd days, enter a 0.
LIFE 1?_	Enter the desired life insurance code. <sup>2</sup>

<sup>&</sup>lt;sup>1</sup> Loans with a 0% interest rate can be computed.

A&H 1?\_ Enter the desired A&H insurance code.<sup>2</sup>

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.

XXX 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.

## Calculation Notes

If the loan amount exceeds the maximum amount of life insurance, the premium is based on either level-excess or prorate coverage:<sup>3</sup> Level coverage provides the maximum amount until the balance of the loan decreases below that level. Prorate coverage covers a proportional amount of the loan.

If the total of payments exceeds the maximum amount of A&H (disability) insurance, partial coverage is provided for the maximum amount.

Some plans provide truncated insurance on loans that are too long to be fully insured (the life and A&H term will be reported).

Interest is calculated by the U. S. Escrow Rule. The calculated monthly payment can be rounded or truncated to the whole cent.<sup>4</sup>

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<sup>&</sup>lt;sup>2</sup> Use "1" for single coverage, "2" for joint coverage, or "0" for no coverage. Joint A&H (disability) is available in some plans. Also, for some plans, an additional INS TERM? prompt will appear.

<sup>&</sup>lt;sup>3</sup> The method to be used is determined by the insurance plan. To determine which method is being used, push the [Setup] key and enter "222" in response to the "CODE?" prompt. Press enter to read down the list of items until you see "CAP-X 55000". If the "X" is an "F", level-excess capping is in use, if it is an "P", prorate capping is in use.

<sup>&</sup>lt;sup>4</sup> To change whether the resulting payment is rounded or truncated, push the [Setup] key and enter "55". Press [Yes] to either the "ROUND PMT?" or "TRUNCATE PMT?" prompt. It is typical in consumer lending to truncate the payment to make sure the finance charge is always equal to or just slightly less than the maximum amount at a certain interest rate.

## Sample Loan Output

APRXX.XX%FIN CGXXXXXX.XXAMT FXXXXXX.XXTOT PXXXXXX.XX	Fed Box.
XXX PT@ XXXXX.XX	Payment schedule. <sup>5</sup>
LOAN ON mm/dd/yy	Loan date.
1ST DUE mm/dd/yy	First payment due date.
DAYS TO 1ST ddd	# of days to first payment.
LAST ON mm/dd/yy	Maturity date.
NOTE XXXXX.XX	Note amount (initial loan amount)
RATE XX.XXX%	Interest rate
PRCDS XXXXX.XX	Proceeds to borrower.
FEES XXX.XX	Fees.
LIFE X XXXX.XX	Life code & premium.
A&H X XXXX.XX	A&H code & premium.
L BEN XXXXXX.XX	Original amount of life insurance. <sup>6</sup>
H BEN XXXX.XX	Monthly A&H benefit.
PLAN: (plan name)	Insurance plan name.
623N M07.1.14 COPR 2001 PROM	

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.

## **Printing the Disclosure**

If you wish to use a printer, see the section Enabling the Printer on page 20.

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<sup>&</sup>lt;sup>5</sup> If the interest rate is 0%, the payment schedule may show an adjusted final payment, i.e., for a 48-month loan, it may show 47 payments at one amount and 1 final payment at a slightly different amount.

<sup>&</sup>lt;sup>6</sup> If the term of insurance is less than the loan term ("truncated" insurance), the insurance term is shown. If there is an underscore ("\_") in the word "L\_BEN", the insurance plan uses the level-excess method of capping life insurance; if there is no underscore, the pro-rata method is used.

## Star [\*] Function Key

Four routines can be accessed through the Star [\*] function key. The names of the routines appear in a menu – push [Yes] to select the displayed item, or [No] to scroll to the next one. Once a routine has been started, it can be run again and again by pushing the [#] function key.

#### Credit-Insurance Premium Refunds

This routine computes the refund amount of unearned credit-insurance (both life and A&H) for installment loans.<sup>7</sup>

Prompt	User Response
	Push the Star [ <b>*</b> ] function key and select "REFUNDS" by pushing the [YES] key to start this routine. (Push [NO] to scroll past other menu items.)
ORIG TERM?_	Enter the original loan term in months.
ORIG DATE?_	Enter the original loan date in the format <i>mmddyy</i> , e.g. enter August 1, 2001 as 080101.
PAYOFF DATE?_	Enter the payoff date in the format mmddyy.
ELAPSED TERM XX REMAIN TERM XX	# of months the loan has run. <sup>8</sup> Remaining insurance term. <sup>9</sup>
RATE xx.xx%?_ Er	nter the original loan interest rate.

L REF:	x.xxxxx
H REF:	x.xxxxx

Life refund factor per \$1 of original premium. A&H refund factor per \$1 of original premium.

Multiply the original premium amount by the appropriate refund factor to compute the refund. If the refund amount is less than \$1.00, no refund is made. Refunds are dependent upon the master credit-insurance plan, and the refund amounts may vary from one plan to another. For some examples, see Sample Refund Calculations on page 18.

<sup>&</sup>lt;sup>7</sup> Do not use this routine to calculate premium refunds on balloon loans.

<sup>&</sup>lt;sup>8</sup> On some plans, an additional INS TERM? prompt will appear. Enter the original insurance term.

<sup>&</sup>lt;sup>9</sup> If the original loan was not eligible for insurance, "REFUND N/A" will appear in place of the remaining term.

## **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	<u>User Response</u>
	Push the Star [ <b>*</b> ] function key and select "S PAY" by pushing the [YES] key to start this routine. (Push the [NO] key to scroll past other menu items.)
LOAN 12500.00?_	Enter the loan amount.
PPD CHG?_ 0	Enter the prepaid charge <sup>10</sup> . If the entry is preceded with a "-" sign, e.g., "-25", the prepaid charge is financed.
RATE 11.25%?_	Enter the interest rate. <sup>11</sup> (To use a discount rate, enter the rate with a leading "-" sign, e.g., enter "-6" to use a 6% discount rate.)
LDATE 030801?_	Enter the loan date. Enter the date in the format mmddyy, e.g., "030801" for March 8, 2001.
FD/DAYS?_ 060101	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] or [#] key.

APR	11.25%
FIN CG	327.48
AMT F	12500.00
ΤΟΤ Ρ	12827.48
LOAN ON	3/08/01
DUE	6/01/01
DAYS TO	РМТ 85
NOTE	12500.00
PPD CHG	xxxxx.xx

Fed Box

(Only appears if enabled.)

<sup>&</sup>lt;sup>10</sup> This feature may need to be enabled. See the Setup Routine.

 $<sup>^{11}\,</sup>$  The interest rate can be 0%.

# Residual Value (Balloon) Loan Routine

<u>Prompt</u>	<u>User Response</u>
	Push the Star [ <b>*</b> ] function key and select "RV LOAN" by pushing the [YES] key to start this routine. (Push the [NO] key to scroll past other menu items.)
LOAN xxxxxx.xx?_	Enter the desired loan amount.
FEES xxx.xx?_	Enter the desired amount for financed fees.
RESID xxxxx.xx?_	Enter the residual value (balloon) amount. <sup>12</sup>
TERM XXX?_	Enter the desired term in months (3 or more).
RATE xx.xxx%?_	Enter the interest rate. <sup>13</sup>
LDATE XXXXXX?_	Enter the correct loan date. Enter the date in the mmddyy format, e.g., November 3, 1998, as 110398.
FD/DYS xxxxxx?_	Enter the date of first payment or the number of days to the first payment.
	To compute a loan without odd days, make no entry here (or enter a 0) and push [ENTER].
LIFE 1?_	Enter the desired life insurance code (1: single; 2: joint; and 0: none). (This prompt only appears if insurance is available for the full term of the loan.)
A&H 1?_	Enter the desired A&H insurance code (1: single, 2: joint; and 0: none). (This prompt only appears if insurance is available for the full term of the loan.)

The monthly payment 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 [#] function key.

<sup>&</sup>lt;sup>12</sup> This is the final payment due at the end of the loan.

<sup>&</sup>lt;sup>13</sup> The interest rate cannot be 0% for this type of loan.

#### Sample Residual (Balloon) Loan

XXX PT@ XXXXX.XX 1 PT@ XXXXXX.XX INS \$/DAY X.XX	Number and amount of regular payment. Final payment.
LIFE X XXXX.XX A&H X XXXX.XX	Life code & premium. A&H code & premium.
APRXX.XX%FIN CGXXXXXX.XXAMT FXXXXXX.XXTOT PXXXXXX.XX	Fed Box.
LOAN ON mm/dd/yy 1ST DUE mm/dd/yy DAYS TO 1ST ddd	Loan date. First payment due date.
LAST ON mm/dd/yy	Maturity date.
NOTE XXXXXX.XX RATE XX.XXX%	Note (initial loan amount) Interest rate
PRCDS XXXXX.XX FEES XXX.XX	Proceeds to borrower.
LIFE PREM XXX.XX A&H PREM XXX.XX	Life insurance premium. A&H insurance premium.
L BEN XXXXXX.XX H BEN XXXX.XX PLAN: (plan name)	Original amount of life insurance. Monthly A&H benefit.

#### **Calculation Notes**

A residual-value loan is a conventional balloon loan, e.g., a 48-month loan has 47 regular monthly payments and one final payment (the residual amount) that is due one month after the last regular monthly payment.

This calculator computes single-premium net-pay-off life and accident-&-health insurance on residual-value loans. The maximum term for single-premium insurance on residual loans cannot exceed 120 months. If level-excess capping is used, the maximum term is 84 months. Truncated insurance is not available on these loans.

If the loan amount exceeds the maximum amount of life insurance, no insurance is provided. Partial accident-&-health insurance is provided on loans that exceed the maximum benefits. No A&H coverage is provided on the balloon payment.

Interest is calculated by the U. S. Escrow Rule.

## Truth-in-Savings Routine

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

<u>Prompt</u>	User Response
	Push the Star [ <b>*</b> ] 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 a "1" to convert rates, or a "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 A.P.Y. 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 A.P.Y., enter a 0.
APY XX.XX%_	Enter the A.P.Y.
COMP FREQ 365?_	Enter the compounding frequency. <sup>14</sup>

APY	xx.xx%
RATE	xx.xx%

Computed annual percentage yield.<sup>15</sup> 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%).

<sup>15</sup> See Changing the Annual Percentage Yield Precision on page 13.

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<sup>&</sup>lt;sup>14</sup> Allowed compounding frequencies are 1, 2, 4, 6, 12, 13, 24, 26, 52, 365 & 366 times a year.

#### 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?_	If the number of days shown is correct, push [ENTER], otherwise enter the correct number of days the amount is on deposit.
RATE xx.xx%?_	If the interest rate displayed is correct, push [ENTER], otherwise enter the correct interest rate.
	To compute the A.P.Y. from an interest amount paid, enter a 0 at this prompt.
COMP FREQ 365?_	(Appears only if an interest rate was entered.) Enter the compounding frequency. <sup>16</sup>
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 A.P.Y.<sup>17</sup>

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%).

<sup>&</sup>lt;sup>16</sup> Allowed compounding frequencies are 1, 2, 4, 6, 12, 13, 24, 26, 52, 365 & 366 times a year. To calculate interest without any compounding, enter a frequency of 0.

<sup>&</sup>lt;sup>17</sup> See Changing the Annual Percentage Yield Precision on page 13.

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%).

### 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 623N LoanMaker will calculate the dealer reserve for installment and residual (balloon) 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 or Residual Value 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].

<u>Prompt</u>	<u>User Response</u>
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. <sup>18</sup>

CHG DIF	xxxxx.xx
P VALUE	xxxxx.xx
PRORATE	xxxxx.xx

Difference in charges reserve Present value reserve Pro-rate reserve

<sup>&</sup>lt;sup>18</sup> The buy interest rate cannot be 0%.

### **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 calculate<sup>19</sup> this buy-down amount, compute the loan first using the artificially low interest rate.<sup>20</sup> Then compute the Present Value (Code 184) dealer reserve method 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 buydown amount, e.g., if the amount financed on the contract is \$14,300 and the buydown amount is \$350, the lender would advance \$13,950 to the dealer.

#### **Description of Dealer Reserve Methods**

<u>Difference in Finance Charges (Code 181)</u> - 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.<sup>21</sup>

<sup>&</sup>lt;sup>19</sup> 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.

<sup>&</sup>lt;sup>20</sup> The interest rate can be as low as 0% on the original installment loan.

<sup>&</sup>lt;sup>21</sup> 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).<sup>22</sup>

<u>Present Value Reserve (Code 184)</u> - 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.

<u>Pro-rate Reserve (Code 185)</u> - 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.

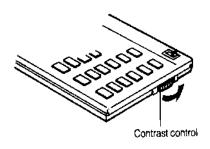
Some lenders charge the dealer back for unearned portions of the dealer reserve due to early terminations. The dealer may be required to leave a portion of the accumulated dealer reserve amounts on deposit with the lender as security against future charge-backs.

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.

<sup>&</sup>lt;sup>22</sup> In the second calculation, the finance charge is determined without adjusting the payment to a whole cent.

# **Battery Replacement & Maintenance**

# Adjusting the Display Contrast



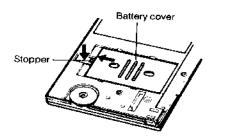
The calculator is equipped with a control to adjust the contrast of the LCD (liquid crystal display). While looking at the display from a position about 70 degrees above the keyboard, first increase the contrast until black squares are clearly visible behind the characters and then decrease the contrast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

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

# **Battery Replacement**

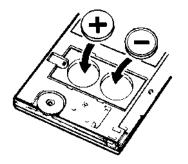
To replace the batteries, you should first have replacement batteries at hand. Two lithium type CR2032 batteries and a small screwdriver are required.

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.
- 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.



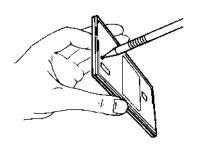
5) Install the new batteries, making sure the polarity (+ and -) is correct, and replace the battery compartment cover. (Make sure to replace the battery compartment cover--the batteries are not connected unless the battery compartment cover is in place.) Replace the back of the calculator by first hooking 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 [Code] key. You should see "CONFIGURING..." appear for a moment and then, after several seconds, the calculator will start the routine on page 20, Changing the Insurance Rates and Options to enter the life insurance rates and A&H deviation.

#### Year 2000 Compliant

The date routines in this program will correctly calculate dates for the year 2000 and beyond. Dates are entered in a 'mmddyy' format using 6 digits, with the last two 2 digits reserved for the year. The span of dates that can be entered is from 1/1/1980 through 12/31/2079. Thus a date entry of 010102 represents January 1, 2002. Calculated dates are displayed in the same 'mmddyy' format with the last two digits representing the last two digits of the year.

# Sample Refund Calculations

# Plan 84T (070101)

Orig Term	84	120	120	180	180
Orig Date	7/1/2001	7/1/2001	6/30/2001	7/1/2001	7/1/2001
Payoff Date	7/1/2002	7/1/2002	7/1/2002	7/16/2005	7/17/2010
Elapsed Loan Term	12	12	12	48	109
Remain Ins Term <sup>23</sup>	72	72	108 <sup>24</sup>	36	0
Truncated insurance?	No	Yes	No	Yes	Yes
Interest Rate	11.00%	11.00%	11.00%	11.00%	11.00%
Life factor	0.76035	0.81462	0.83595	0.39009	0.00000
A&H factor	0.76035	0.76035	0.83595	0.21312	0.00000

#### Plan 120T (070101)

Orig Term	120	144	144	180	180
Orig Date	7/1/2001	7/1/2001	6/30/2001	7/1/2001	7/1/2001
Payoff Date	7/1/2002	7/1/2002	7/1/2002	7/16/2005	7/17/2010
Elapsed Loan Term	12	12	12	48	109
Remain Ins Term <sup>23</sup>	108	108	<b>132</b> <sup>24</sup>	72	11
Truncated insurance?	No	Yes	No	Yes	Yes
Interest Rate	11.25%	11.25%	11.25%	11·25%	11.25%
Life factor	0.83642	0.86089	0.86644	0.53435	0.06403
A&H factor	0.83642	0.83642	0.86644	0.41156	0.01235

#### Plan 120

Orig Term	120	144	144	180	180
Orig Date	8/1/2001	8/1/2001	7/31/2001	8/1/2001	8/1/2001
Payoff Date	8/1/2002	8/1/2002	8/1/2002	8/16/2005	8/17/2010
Elapsed Loan Term	12	12	12	48	109
Remain Ins Term <sup>25</sup>	108	N/A	132	N/A	N/A
Truncated insurance?	No		No		
Interest Rate	11.50%		11.50%		
Life factor	0.83690		0.86689		
A&H factor	0.83690		0.86689		

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<sup>&</sup>lt;sup>23</sup> For these plans, the truncated-insurance start date is July 1<sup>st</sup>, 2001. A loan originated on or after this date can have an original insurance term that is less than the original loan term ("truncated" insurance). If it does, the calculated remaining insurance term will be less than the remaining loan term. (Loans originated prior to this date were not eligible for truncated insurance and were either fully insured or not insured at all.)

<sup>&</sup>lt;sup>24</sup> This sample loan is fully insured (note it was originated prior to the availability of truncated insurance).

<sup>&</sup>lt;sup>25</sup> N/A indicates no refund is calculated because the loan was too long for insurance in the first place.

#### 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 [Backup] 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.

A B C	1 2 3	P Q R	16 17 18	1 2 3	31 32 33	( ) +	46 47 48
D E F	4 5 6	S T U	19 20 21	4 5 6	34 35 36	/	49 50 51
G H I	7 8 9	V W X	22 23 24	7 8 9	37 38 39	: ; <	52 53 54
J K L	10 11 12	Y Z (space)	25 26 27	! '' #	40 41 42	= > ?	55 56 57
M N O	13 14 15	- * 0	28 29 30	\$ % &	43 44 45	@	58

#### Character Code Table

# Setup Routine - [Setup] Function Key

#### **Changing the Insurance Rates and Options**

CODE?_	Enter the code number 97249.
SGL LR x.xx?_	If the single life rate 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 insurance parameters and other options

CODE?\_ Enter 222 and push the [ENTER] key. The calculator will display (or print if connected to a printer) the values of the insurance rates and other parameters.<sup>26</sup>

Continue to press [ENTER] to display all the parameters.

## Enabling the Single-Payment-Loan Prepaid Charge

CODE?_	Press 51 and push the [ENTER] key.
SP PPD CHG N?_	Push [YES] to enable the prepaid charge on single- payment loans, or [NO] to disable it.

#### Enabling the Printer

Push the [Setup] key and enter a code of 9911 at the "CODE?\_" prompt, and push [YES].

<sup>&</sup>lt;sup>26</sup> You can also use a code of 221 to view the undeviated table of A&H rates.