



LoanMaker 23a iPhone App Guide for Credit Insurance

Overview

The LoanMaker 23a is a Loan Calculator for the Apple iPhone and iPad. It calculates loan payments and provides a full, Regulation Z disclosure. The generated disclosure can be emailed or sent by message.

It includes capabilities for long or short days to the first payment, a selection of calendars to calculate the interest, prepaid finance charges, and credit insurance.

The default plan is 'STD' for Standard. This is the plan that is used when the App first starts. It contains no credit insurance but sets other options so the App will calculate installment loans.

To compute premiums, you have to install a plan. A plan contains the insurance specifications, life and A&H (disability) rates, and other underwriting methods and limits. After a plan is installed, you can modify the single and joint life insurance rates, and the A&H (Disability) deviation using the fields on the Setup page. (The Setup must be unlocked before any changes can be made.)

The plans are stored in a database that is delivered with the App when purchased from the Apple App Store. The App is updated from time to time, and a new database is provided with each update. Users are notified by Apple when an update is available thru the App Store.

Locking and Unlocking the Setup Page

The entire Setup page can be locked into a read-only mode to prevent users from accidentally making unwanted changes. In this mode, users can read the page but cannot make any changes. Pressing the Lock Setup button on the Setup Page will lock the setup and the button will disappear (changes happen after you leave and reenter the page).

To unlock the Setup page, go to Settings and then scroll down the page to LoanMaker 23a. To unlock the page, move the Disable Setup Changes switch to the 'OFF' position.

When the App is first installed, the Setup Page is unlocked.

Using the Setup Page

To open the Setup page, tap the gear symbol on the main page.

To close the Setup page and return to the main page, tap the "<Back" button at the upper left corner.

The Setup page must be unlocked¹ before you can make any changes to it. To change the life rates, make the appropriate entries in the Single and Joint Life fields. To change the A&H deviation, make the appropriate entry in the A&H Dev % field. (Contact your insurance company or agent to determine the required values.) When finished, tap the "Done" button at the upper right corner to remove the popup keyboard. Then close the Setup page.

Install Plan

This [Install Plan] field and button are used to install a Plan. Contact your credit insurance company or agent to determine the name of the plan. See more details below on Installing Plans

Reset to Standard Plan

To restore the App to its original Standard Plan, tap [Reset to Standard Plan]. This removes any installed plan and returns the App to its initial configuration.

Select Interest Calendar

Federal Calendar: This is the calendar described in Federal Regulation Z for the counting of days in the first period of an installment loan.

Actual-to-1st: This hybrid method was used for years in the preparation of payment books. It counts the actual number of days between the loan date and the first payment due date and charges 1/365th of the annual interest rate for each day in the first period. Thereafter every payment is assumed to be one month apart and 1/12th of the annual interest rate is charged.

Actual/365: This method is more precise than the Actual-to-1st method and counts the actual number of days between each payment and the next, charging 1/365th of the annual interest rate for each day.

U.S. Rule: All calendar options accrue interest by the United States Escrow Rule.

Enable Dealer Reserve

The Dealer Reserve (Dealer Participation) option enables the entry of a second interest rate which is used to discount the stream of loan payments. This is commonly used for indirect loans initiated by a dealer (commonly an automobile dealer but it can be any type of originator). If the option is enabled and a "Buy Rate" is entered, the App computes the "Bank Retention" (the discounted value of the loan) and the "Dealer Reserve" (the portion of the interest charge earned by the dealer).

The Buy Rate can be higher than the loan contract rate, in which case the dealer will pay an extra amount (a negative Dealer Reserve), to supplement the Bank Retention.

¹ To unlock the Setup Page, go to Settings | LoanMaker 23a and then turn off the Disable Setup Changes option.

The Dealer Advance is the net amount paid to the dealer for the contract.

Enable SCRA Rate Calculation.

For loans made to active military personnel, the SCRA (Servicemembers Civil Relief Act) requires lenders to calculate an SCRA Interest Rate. There are limits to the maximum SCRA Interest Rate that a lender can charge (6% in 2019). See [details here](#).

(The SCRA Interest Rate is calculated similarly to the Reg. Z A.P.R. except that credit life & disability premiums, as well as certain types of fees (to be entered in the Fees2 field on the input page) that are insurance-like products (extended warranties, for example) are included as part of the finance charge.)

Enable Prepaid Charge

Enabling this allows the entry of a prepaid finance charge. The amount entered is deducted from the Loan amount and is treated as a prepaid finance charge. It is added to the Finance Charge and affects both the Reg. Z A.P.R. and SCRA Interest Rate.

For mortgage calculations, you can enter the number of points (up to 4.000%) and the origination fee will be calculated.

Show Plan Details

Turn this switch on to have detailed plan information appear in the loan disclosure. (You have to calculate a loan after you have turned this on to see this extra information.) If the loan has credit insurance, the App will show the Life Rate and A&H Rate used to calculate the premiums in the Insurance Details section. And under the Plan Details section a brief summary of the plan currently in effect will be shown.

(The Show Plan Details will always be off when you enter the Setup page. If you turn it on it will show the extra insurance details for the next five loan calculations and then turn itself off. You will have to return to the Setup page and turn it back on again to do more detailed loan calculations.)

Installing Plans

Plans are designed to meet the requirements of your insurance company and the various state regulations that apply to the calculation of credit life and A&H (disability) premiums. To install a plan, place the plan name into the field and then tap "Install Plan". Confirm that you want to install the plan.

A plan has dozens of parameters including the rates and methods to be used. You can remove a plan by simply installing another plan. Or you can tap "Reset to Standard Plan" to remove all but the basic plan which provides no insurance.

Viewing All Plan Parameters

To view all the details in a plan, first install the plan. Then type "SHOWPLAN" in the plan field and tap Install Plan. A page will appear that lists all the plan parameters.²

The A&H table of rates is presented for each 6-month step within the allowed A&H term for the plan. The rates are presented per \$100, and are rounded to the specified number of decimal places. If the A&H Deviation field has an entry other than 100%, the displayed rates are adjusted by it. All adjustments are done prior to rounding the final rate.

For joint A&H, the App applies the Joint Factor to the stored table of rates -- the joint rates are not shown in this display. However by using the Show Plan Details option above, you can inspect the actual single-premium rate used for a loan with joint A&H insurance. You can also inspect intermediate-term loans (loans with terms that do not fall on a 6-month step) with the Show Plan Details option.

Alternative Ways to View Plans Available

If your organization has a PROM Group Number³, you can enter that number in the plan field to see the plans available to it. The plans appear in a list and you can tap the one you wish to install.

If you wish to view all the plans that are available in a certain state, you can enter the two-letter state abbreviation in the plan field to get a list of the plans available in that state.⁴ (WARNING: Do not use a plan to compute credit insurance premiums that has not been approved by your insurance company or agent.)

Updating the Plans Database

The Plans Database is updated whenever the App is updated and you'll automatically get an updated copy when you update the App through the App Store. For more urgent situations there is also a method to update the database over the internet in a nearly instantaneous manner. For example, if you're an insurance actuary or rep trying to validate a new plan and need prompt results, we can make a new plan and deliver it to your App very promptly.⁵ Contact us for details.

² Keep in mind that the life rates and A&H deviation can be changed on the Setup Page. The SHOWPLAN listing will show those current values; the values in the plan could be different.

³ The group number is the account number assigned to a billing entity and appears on invoices.

⁴ For example, enter "MA" to see the plans available in the database for Massachusetts.

⁵ This is accomplished by downloading an updated database OTA. You can use the command 'UPDATE' in the Plan Name field to download the most current version. Once downloaded, the App will use that database instead of the one provided with the App. To return to the database provided with the App, use the command 'DELETE' in the Plan Name field to delete the downloaded copy. A small down arrow (↓) will appear next to the database version on the Setup Page.

Credit Life Insurance Details

The LoanMaker App has extensive provisions for single-premium credit life insurance calculations. There are many methods available, both for net and gross coverage. Single and Joint coverage is available. (See your credit insurance company or agent for the types available to you.) (The single and joint life rates can be edited directly on the Setup page making simple rate changes easy.) Underwriting limits can be specified for both a maximum benefit and a maximum term. If a loan exceeds the maximum benefit allowed, a premium for pro-rate coverage can be calculated.

Credit A&H (Disability) Insurance Details

The LoanMaker App has full provisions for single premium credit A&H (disability) insurance calculations. Tables of rates can be stored for terms up to 180 months. Joint coverage is available by applying a joint factor to the table. The table can be deviated by a percentage up and down (this setting is directly available on the Setup page so a change in deviation does not require a new table).⁶

Full underwriting limits are available for total maximum benefit, monthly maximum benefit, and maximum term. Intermediate-term rates can be interpolated or bracketed.

⁶ In calculating the final single-premium-rate for A&H, all intermediate calculations (interpolation, deviation, and joint factor if applicable) are applied without any rounding, and the final result is then rounded to the specified number of decimal places. The parameter AhTab is the number of decimal places the final rate is rounded to per \$1 of total benefit. Thus a value of 4 means the final result will be rounded to .xxxx.

Credit Life Formulas available⁷

Type⁸ Description

1	Gross, life rates per \$100 per year
11	Same as type 1 except for an adjustment for long first period
2	Gross, life rates per \$1000 per month with optional I&M discount
19	Similar to type 2 except for use in West Virginia
41	Net, life rates per \$1000 per month with an exact I&M discount, e.g., New York
43	Same as type 41 except benefit is Net plus 2 payments
55	Simplified Net based on life rate per \$100 / year
58	Same as type 55 except benefit is Net plus 3 payments
5	Net, life rates per \$100 per year $((n + 1) / 2$ conversion)
51	Same as type 5 except benefit is net plus 1/2 month's interest
6	Same as type 5 except benefit is net plus 1 month's interest
62	Same as type 5 except benefit is net plus 2 months' interest
66	Same as type 5 except benefit is net plus 1 payment
67	Same as type 5 except benefit is net plus 2 payments
68	Same as type 5 except benefit is net plus 3 payments
681	Same as type 68 except for an adjustment in the rate conversion for odd first periods
7	Net, life rates per \$1000 per month with optional I&M discount
71	Same as type 7 except benefit is net plus 1/2 month's interest
8	Same as type 7 except benefit is net plus 1 month's interest
82	Same as type 7 except benefit is net plus 2 months' interest
86	Same as type 7 except benefit is net plus 1 payment
87	Same as type 7 except benefit is net plus 2 payments
88	Same as type 7 except benefit is net plus 3 payments
70	Same as type 7 except rate converted with nominal term (ignores odd first period)
705	Same as type 70 except benefit is net plus 1/2 month's interest

⁷ **Note to Actuaries:** For net payoff insurance formulas that require the computation of a-angle-n, the App will use the Calendar Method specified by the plan/user. It will also escrow accrued but unpaid interest (if any) in the leading periods of the loan (U.S. Rule). To match conventional calculations (e.g., using an HP12C) use of the FedUS Calendar is recommended.

⁸ The Life Type is stored in a plan and cannot be changed without making a new plan. However, for testing purposes only, one can temporarily change the Life Type by entering the command 'LTYPE nnn ' in the Install Plan field where nnn is the number, e.g., to change the Life Type to 82, enter the command 'LTYPE82'. To reset the Life Type enter the command 'LTYPE' or just reinstall the desired plan. If the Life Type has been changed, a warning appears in the disclosure and the Plan Details are always displayed.

Life parameters available

LifeType	Determines the formula to be used for life premiums
LifeSR	Single life rate (either /\$100/year or /\$1000/month (see LifeType)
LifeJR	Joint life rate
Life OAI	If set, show actual life benefit (incl. extra interest or payments) ⁹
LifeCap	The maximum amount of life insurance. (If preceded with a '-' sign, drop insurance if over the cap.)
LifeTermCap	Maximum term in months for life insurance
LifeTab	Number of decimal places for the final life rate

A&H (Disability) parameters available

AhDev	The deviation of the A&H Table of rates, 1.0 = 100%
AhJntFtr	The factor for Joint A&H, or 0 if not available
AhCap	The maximum A&H Benefit, or 0 if none
AhCapOnAf	If set, AhCap applies to the Note Amount; otherwise to total of payments ¹⁰
AhCapMo	The maximum A&H Benefit per month, or 0 if none
AhTermCap	The maximum term in months for A&H insurance
AhTab	The number of decimals places for the fully adjusted rate per \$1
AhMethodB	Do not disclose the equivalent monthly cap ¹¹
AhTableName	The name of the table of A&H rates to be used
AhBracket	If set, bracket rates for intermediate terms, default is to interpolate

General parameters available

IICalType	Specifies calendar to use for interest calculations (FedUS, Act1, or Act365)
IIRndPmt	If set, round payment to nearest cent, otherwise truncate payment
IIPpdChg	If set, show the Prepaid Finance Charge field on the main page
LimitDays	If set, limit the number of days in the first payment (default is 75)
ScraRate	If set, calculate and disclose the SCRA Interest Rate ¹²
ResType	If set, show the Dealer Reserve Buy Rate on the main page
ResCalSame	If set, use the interest calendar to compute the dealer reserve (default is to use the Fed Actuarial calendar.)

⁹ Some formulas generate a premium based on a benefit higher than the Note amount (by adding some interest or payments). If this flag is set, the actual Original Amount of Insurance is disclosed (which is the basis of the premium); if not set, the nominal Note amount is shown.

¹⁰ Some states express the maximum A&H benefit as a Note amount. The actual benefit will be the payments including interest charges.

¹¹ For example on plans with no monthly benefit limit but a total benefit limit, do not show the equivalent monthly benefit. Some plans will pay a higher monthly benefit until the total benefit limit is reached.

¹² See the Servicemembers Civil Relief Act which limits the SCRA interest rate on loans to active members.

Sample Plan Details using the SHOWPLAN option

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Current Plan Details

PlanName:	MA30E
IICalType:	Act1
RndPmt:	false
PpdChg:	false
LimitDays:	100
MilAPR:	true
ResType:	chgDiff
ResCalSame:	false

Life Plan Details

LifeType:	7
LifeSR:	0.4500
LifeJR:	0.7200
LifeIM:	0.0000
LifeCap:	40000
LifeOAI:	false
LifeTermCap:	180
LifeTab:	6

A&H Plan Details

AhDev:	1.0000
AhJntFtr:	0.0000
AhCap:	40000
AhCapOnAf:	true
AhCapMo:	0
AhTermCap:	180
AhTab:	6
AhMethodB:	false
AhTableName:	MA30E
AhBracket:	false

Rates per \$100

0-months	0.0000
6-months	0.2100
12-months	0.4200

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Rates per \$100

0-months	0.0000
6-months	0.2100
12-months	0.4200
18-months	0.6300
24-months	0.8400
30-months	1.0500
36-months	1.2600
42-months	1.4700
48-months	1.6800
54-months	1.8300
60-months	1.9800
66-months	2.1300
72-months	2.2800
78-months	2.4300
84-months	2.5800
90-months	2.6550
96-months	2.7300
102-months	2.8050
108-months	2.8800
114-months	2.9550
120-months	3.0300
126-months	3.1050
132-months	3.1800
138-months	3.2550
144-months	3.3300
150-months	3.4050
156-months	3.4800
162-months	3.5550
168-months	3.6300
174-months	3.7050
180-months	3.7800

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