

# Genericode™

## Instruction Manual



Instructions for use with FRA-2001 Code Machine begins on page 15.  
Instructions for use with Laser Key Products machines begin on page 12.  
Instructions for use with ITL key machines see page 11.

Software installation instructions begin on page 3.

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## DISCLAIMER

The Genericode™ Computerized Code System consists of all available key codes for pin-tumbler, lever and wafer type locks used on automobiles (both foreign and domestic), file cabinets, drawer locks, desk locks, vending machines, night latches and many other types of locks used for commercial and residential applications.

We do not claim that this program is 100% complete or without error, nor do we represent these codes as original factory codes. Where the names Yale, Corbin, Briggs & Stratton, etc. appear, we merely list these names to indicate the type of lock on which we have found certain key code series used.

The sale of this program is restricted to security professionals and automotive dealers who guarantee to make proper use of it in their regular profession. We reserve the right at any time to refuse the sale of this software program to any person, firm or corporation whose use of this program we might question.

## COPYRIGHT STATEMENT/LICENSING

All rights reserved. No part of this program may be reproduced or transmitted in any form or by any means, electronic or mechanical, or any information storage and retrieval system now known or to be invented, without permission in writing from the publisher. Use of the Genericode™ program is restricted to **ONE REGISTRANT and ONE LOCATION**. You may install the program on any computers owned or leased by your company operating out of one location. If your shop has multiple storefronts, you must purchase additional copies of the program for the additional locations. Any duplicating will be prosecuted. Problems arising from unauthorized duplication on additional computers are the sole responsibility of the purchaser.

## RETURN POLICY

All opened software is non-returnable.

## UPDATE INFORMATION

As with any software program, there will be errors and bugs in the program that we have not located as of yet. Visit our website at [www.framon.com/gcodenews](http://www.framon.com/gcodenews) for any updates to the program or mid-year corrections. Mid year updates are free to owners of the current version. We will send out postcards yearly to notify you when a code update is ready. Check the support site occasionally for program updates. Your version number will be displayed in the top bar of the screen.

## **OUR THANKS!**

Thanks for purchasing Genericode! We are confident you will find the program a valuable asset to your business.

Genericode is made up of sixteen different “programs within a program”. Each will be briefly described below.

## **SUPPORT SERVICES**

Support for Genericode can be attained by contacting Framon Manufacturing Company at (989) 354-5623. We are open from 8:00 am until 4:30 pm Eastern time, Monday through Friday. We will need to know what version of the program you are running, what operating system, and exactly what was done to cause the problem. You should be in front of the program on your computer when calling. If you are reporting an error, it is useless to report it unless you can give us the information above in detail. Please be sure when calling that the computer is turned on, and you are at either the desktop or main screen of the program. We **DO NOT** support the program via e-mail!

## **INSTALLING GENERICODE**

To install the program, place the enclosed CD-ROM in your drive. If autorun is enabled on your computer, the installation should start automatically. If not, click on the Start button and select “Run...” In the dialog box, type “D:SETUP” (no quotes, assuming “D” is your CD-drive). The install wizard will begin. Click through the menus to install the program and click “Finish” when done. We suggest you accept all default directories for proper program operation. The install program will place an icon on your desktop to “Gcode”. Double click the icon to start the program.

## **GENERICODE COMPUTERIZED CODES**

This code search program can access thousands of code series. Due to security precautions undertaken by hundreds of lock companies, code series have few standard conventions. Numbering systems for code series can be quite involved. For example: Ford 10 cut codes requires combining cuts from two code series. Code series may also have identical code numbers and key blanks, but different key cuts.

To reduce duplicate code occurrences as much as possible, the code index for this program has been divided into sections: Utility Locks, Vehicle Locks, Padlocks, Illinois/Chicago Double-Sided Keys, and Pre-'60s Autos. Code number and lock usage (i.e.: utility or vehicle) should be known before using this program. A search by all types can be chosen if lock type is unknown.

Once key code and lock usage information have been entered, the code system will display all code series on file that meet the criteria. In a majority of cases, less than a full screen of code series choices will be displayed. If there are more code series than will fit on your screen, use the scroll bar on the right side of the list to show the other possibilities.

## ERROR REPORTING

We would appreciate hearing of any suspected errors in the program. There are over 8,000 code series that have been checked in one form or another, but no program is ever 100% complete. The easiest way to report an error is to send us e-mail to [gcode@framon.com](mailto:gcode@framon.com). Indicate which version of the program you are using and what you did to determine the error. We will attempt to validate your findings and put a correction in an update or the following years' program. Please note that this e-mail address is to report an error only. If you need help with Genericode, please contact us by phone.



A recent feature that assists us in correcting errors in the program is the “Mail” icon you will find on most screens in the bottom right corner. Click on this icon and a screen shot will be saved to your desktop. Attach the picture and e-mail it to [gcode@framon.com](mailto:gcode@framon.com) with a short explanation of the problem and we will review the issue.

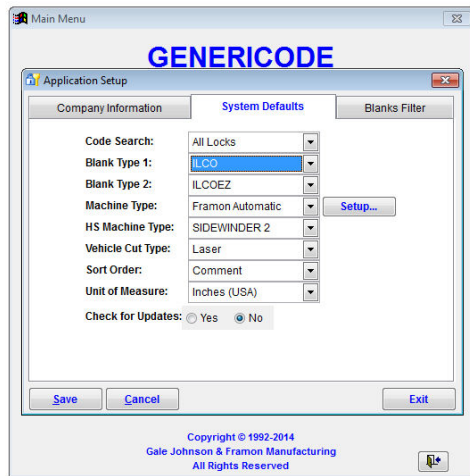
## CODE PRINTOUT UNIFORMITY

Genericode™ key codes have been collected over a period of 80+ years. Many code series are used as frequently today as they were decades ago. It is not always a simple process to decide which depth numbering system the manufacturer originally intended. In some cases code series using common key blanks have appeared in codebooks with varying depth-numbering systems. Some code series have also been printed with cuts reading tip to bow. In an effort to standardize the majority of Genericode™ computerized key codes, **all series have been changed to bow to tip print-outs and almost all have depth numbering systems of lowest number being highest cut. Some Sidewinder series use a 1 for deep cut, these have been left alone.** Depth numbering systems have also been changed in some instances to conform to factory standards. Genericode™ computerized code numbers may vary occasionally with numbers appearing in printed code books, but the resulting key cut by code should be identical in both cases.

## HOW CODE NUMBERS CAN BE ENTERED

A key code can be entered exactly as it appears. Examples: 1A23, 142A, 132 or A145. Any combination of numbers or letters and numbers will be accepted for searching. Letters can be entered in upper case or lower case. Code numbers containing zeros as a prefix to the actual number should be entered with the zeros for most accurate retrieval. If you are looking up a General Motors code of 2A02, you should type it in exactly as it appears on the lock. The computerized code search is only as good as the information entered. A code such as SS809 could also be read upside down as 608SS. Some automotive code series are printed on the original invoice with letter prefix omitted. Example: Nissan code X5678 may be on an invoice as 5678. In all known cases, the Genericode™ index contains dual references for these codes. Note: Due to variations in ward cut locations, some flat key codes do not display ward cut locations.

## APPLICATION SETUP SCREEN



The first time the program is used you should enter the Application Setup screen and enter your company information on the first tab. You can also choose whether to have your company information shown on the top of the printouts in the program.

The next tab will allow you to choose your default key blanks, code machine, high security code machine, how you would like searches ordered and whether to display measurements in inches or millimeters. If you have the program connected to a Framon FRA-2001 Code Machine, you can select whether to have the

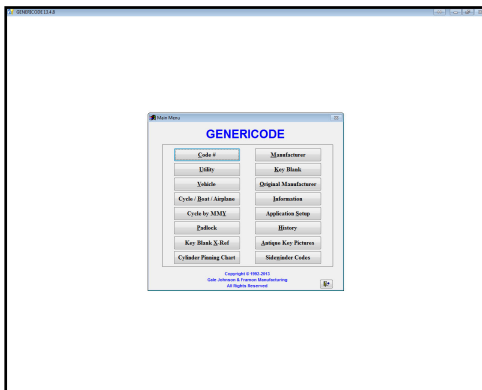
program default to “plunge” or “laser” cut for automotive keys.

*LKP: See Laser Key Products section for additional options at this screen*

Be sure to click the “Save” button on the bottom of the window to retain your information.

**Note:** If you have Genericode connected to our FRA-2001 Code Machine, you will have an additional Setup button next to “Framon Automatic”. See page 15 for details.

## OPENING SCREEN



The opening screen of the program allows you to choose which area of Genericode you wish to use. You can either use the mouse and click on a button or use the “Alt” key by holding it down and pressing the underlined letter of the section you wish to access. To exit from Genericode, click on the bottom right icon. The exit button will appear on all screens and will always take you back one screen; from the main menu it serves as the exit button to exit from the program.

A brief explanation of each section of the program will follow.

## START MENU SEARCHES

**CODE #** - Input a known code and select the type of lock; utility, vehicle, padlock, antique auto or Ill/Chg double-sided, and click “Search”. Selecting the type of lock will narrow the search down. Once you have clicked on the desired series, click on “View Key Data”. The key cutting information will be shown. You can exit back one screen to the previous list & select another series if you chose the wrong series.

**UTILITY** - Finds list of code series for each OEM manufacturer (i.e. HON, Steelcase). Choose from a list of over fifty popular OEM manufacturers or type in an unlisted name.

**VEHICLE** - Search for key codes, model and year. Includes information for every popular car sold in North America from 1980 to present.

**CYCLE/BOAT/AIRPLANE** - Search for key codes by name of cycle manufacturer. You can also select “FULL” from the cycle listing, enter the manufacturer’s name, and see a listing of models and their normal code series by year.

**CYCLE BY MMY** – This section contains a listing of all known motorcycles by make, model and year. Please understand that motorcycles had little continuity in their lock selections until the 1990’s. The section is a representation of our findings on various cycles over the last 30 years.

**PADLOCK** - Lists all individual code and combination series available for popular foreign and domestic padlock manufacturers.

**KEY BLANK X-REF** – This section allows you to cross reference key blank numbers to the various companies. Key blank numbers must be entered exactly as they are printed on the key or in a catalog – include dashes without spaces.

**CYLINDER PINNING CHART** – Allows you to enter a change key, master key and/or a control key and view the proper cylinder pinning. This is NOT a masterkey program.

**DEPTH / SPACE (or MANUFACTURERS if Framon Automatic or Framon Manual are specified in Application Setup)** - A Depth/Space program is integrated into Genericode™. Searches can be made by card numbers used by major key machine manufacturers or by lock types such as commercial, domestic auto, utility lock, flat key, etc. There are fourteen categories containing over 1000 separate depth/space charts. If you are using the program with a Framon FRA-2001 Code Machine, this button will read “Manufacturers” and the Framon Depth & Space Manual will be accessed. See “Manufacturers” section below.

**KEY BLANK** - Search for all code series used by a given key blank. Numbers from most popular key blank manufacturers can be input for searching.

**ORIGINAL MANUFACTURER** - Displays lists of code series for each lock manufacturer. Choose from a list of over fifty popular domestic and international companies or type in an unlisted name.

**INFORMATION** – The information section contains a complete database of industry manufacturers, distributors, schools, as well as editorial index for the Locksmith Ledger.

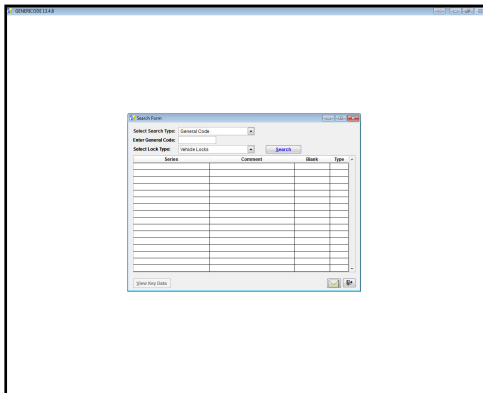
**APPLICATION SETUP** – Setup your company name to appear (or not appear) on printouts, input your preferred code machine, type of code search, key blank manufacturer, unit of measure. See page five for more information.

**HISTORY** – Genericode allows you to save code number and manufacturer lookups in a database for later retrieval.

**ANTIQUE KEY PICTURES** – Majestic key pictures are stored in pdf form in the program and can be retrieved by entering the appropriate code number.

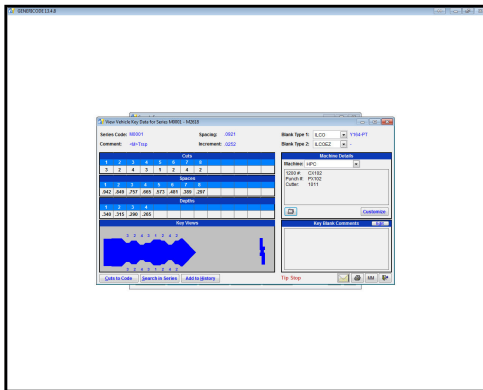
**SIDEWINDER CODES** – All high security automotive codes are indexed in this section of the program.

## CODE # SEARCH

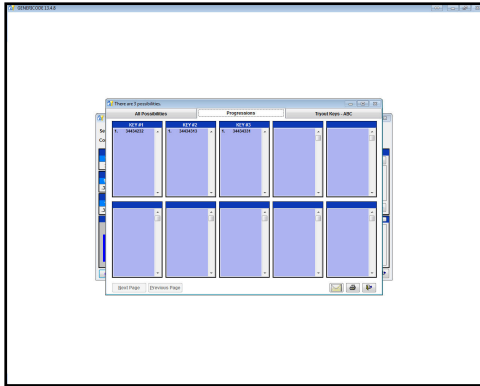


The search screen allows you to enter a code number and retrieve possible matches. At this screen you can also choose a different type of search (utility lock, vehicle, etc.) by using the top drop-down menu. To search for a code, simply type in the code, choose what type of lock you are looking for, and click on the “Search” button. The program will return any matches it finds. Highlight the proper series with your mouse and select “View Key Data”. You will be taken to the Key Data Screen shown below.

## KEY DATA SCREEN



The key data screen will normally be the final screen you reach through one of the sections of the program. This screen shows all of the key cutting information needed to generate a key. From this screen, several other options are available:



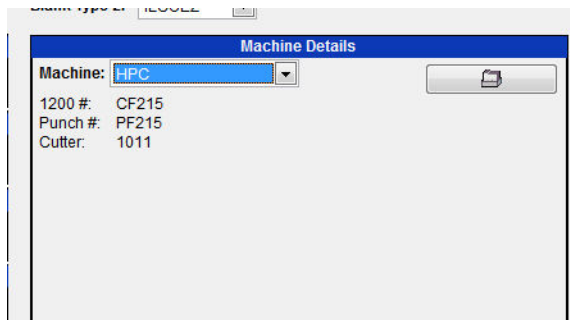
**Cuts to Code:** If you know cuts for a key in this series, enter the cuts, along with dashes for the unknown cuts or an equal sign for unneeded cuts and the program will scan the series for all possibilities. After the search, the program will list any keys (with code numbers) that match what you entered. You can also view a progression chart by clicking the adjacent tab on the top of the screen. The progression chart can be printed out for your convenience.

The other adjacent tabs (Tryout Keys) will show a chart for cutting tryout keys for the known cuts. Click the tab to view these keys. For series with many possible progressions, tryout keys will frequently limit how many keys need to be cut.

**Search in Series:** If you would like to search for another code in this series, click this button and enter the next code number. The program will display the code for the number you entered.

**Add To History:** Click this button to add information about the key to the History database for later retrieval.

**Change Key Blank Displayed or Key Machine:** Drop down lists are shown for the key blank number as well as the key machine section. Change the displayed information by clicking on the arrow next to the list and selecting your desired option.



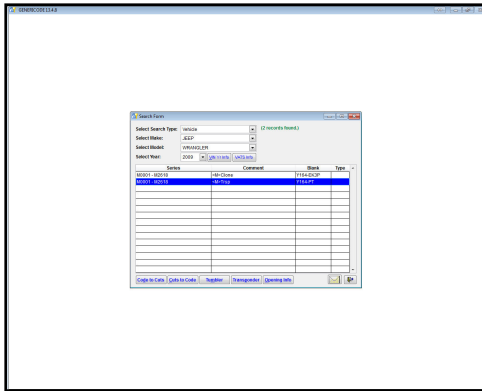
**Create A Card For The 1200:** Click on this icon to create a card for the HPC 1200CM/CMB machine if you do not have a card available. This icon will not be available unless you have "HPC" selected in the Machine listing.

**Enter Cuts:** Automatic code machine owners only; click this button to enter cuts for a key using the current depths & spacings.

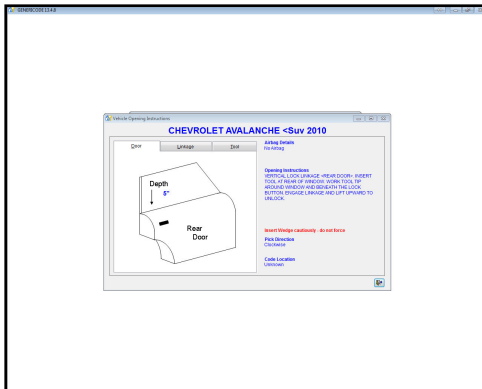
At this screen you may also print out the information by clicking on the printer icon, or exit the screen by clicking on the door icon in the bottom right corner. If you wish to change the key blank shown or information for a different key machine, you may do so by dropping down the selection menu and changing the entry.



## VEHICLE SEARCH SCREEN



You can search for a code series for a vehicle by entering the make, model and year from the menus shown. Once selected, click “Search” to display the possible code series. Select the series you wish to do your search for (occasionally there is more than one code series possible for a particular model) and select “Cuts to Code” if you know the cuts for the key (or partial cuts) and wish to determine the code for the lock, or if you need to progress cuts. Select “Code to Cuts” if you know the code and wish to display the cutting information.



Transponder and tumbler information can be attained by clicking on the respective button. A small text box will open up and display the information. You can also open up a VIN to year model conversion box that will tell you what year a vehicle is by looking at the 10<sup>th</sup> digit in the VIN number. VATS pellet information can also be attained by clicking on the “VATS” button.

Click on the “Opening Info” button to display a three-tiered page showing door illustration, linkage type, and tool description. Opening information is gathered from the major tool manufacturers and the most popular method is illustrated. We do not guarantee success in the information; it is to be used as a guide only. You should consult your tool manufacturers’ instruction manual before opening any vehicle.

The **Utility**, **Cycle/Boat/Airplane**, **Padlock**, and **Original Manufacturer** searches work in the same way as the Vehicle search shown above.

Please note that currently auto manufacturers release new vehicles all during the year, and a 2007 vehicle may be released in early 2006. If the code series displayed does not seem to be correct for the code you are given, try searching one year ahead and one year behind.

## KEY BLANK SEARCH

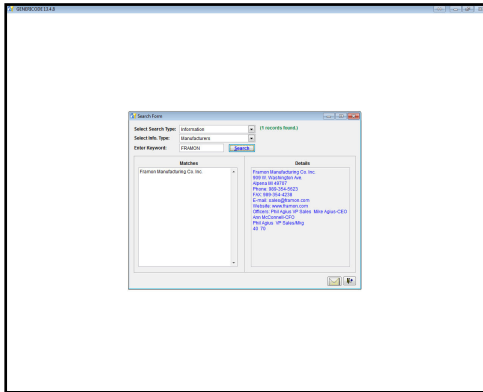
The key blank search allows you to enter a key blank and blank manufacturer and determine which code series the blank is used with. Please remember, there are thousands of key blanks that do not have any code series associated with them, such as high security locks, commercial keys, etc.

## DEPTH & SPACE SEARCH

Depth & Space information can be easily obtained. Select a category and sub-category from the menu and click “Search”. All possibilities will be shown in order of blank

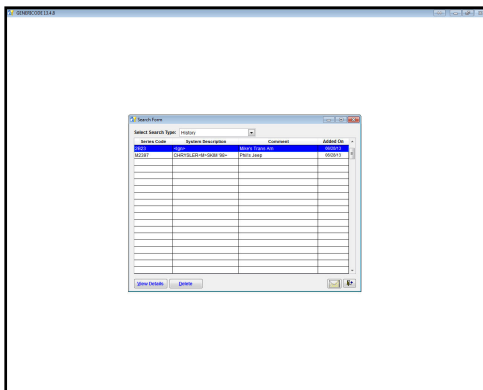
number. Select a series and click “View Details” to show the cutting information. If you have Framon Automatic or Framon Manual selected in the setup screen, this button will read “Manufacturers” and is data derived from our Depth & Space Manual. You can add and edit records if you need to as well by clicking the “Add” or “Edit” button.

## INFORMATION SCREEN



If you need to find an industry-related company, Genericode has a built-in directory of manufacturers, distributors, associations, schools, and editorial. Simply enter the information type you are looking for (manufacturer, distributor, etc.) and type a few letters of the name. All matching possibilities will be shown to the left. Selecting one of the possibilities will display the full company information on the right.

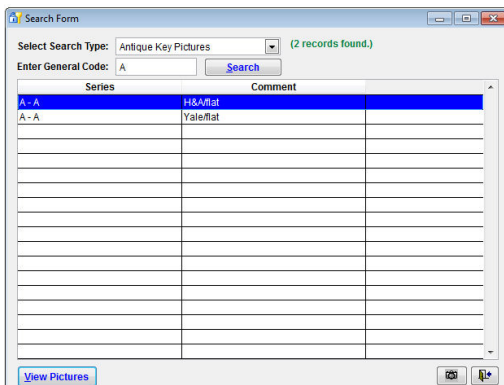
## HISTORY



Use the History button to access your history database. After looking up cuts for keys in the code searches, you can save your customers’ information in the database for later recall. Simply click on the “Add to History” button and add a comment to the record. It will be accessible by going to the “History” section of the program, where you will see a sorted list of previously saved records. If you decide to utilize the history database, we urge you to make a regular copy of the three files named “History” in the “Data”

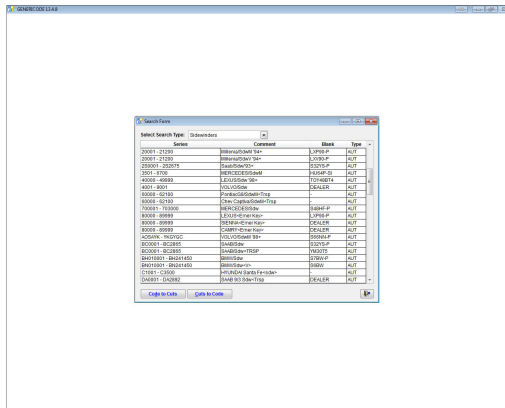
folder of the program.

## ANTIQUE KEY PICTURES



The Antique Key Pictures button will access hundreds of old Ilco and Majestic key illustrations. These illustrations are provided with thanks to Kaba Ilco and Majestic. Similar to other searches, enter the key number and click Search – available illustrations will be shown.

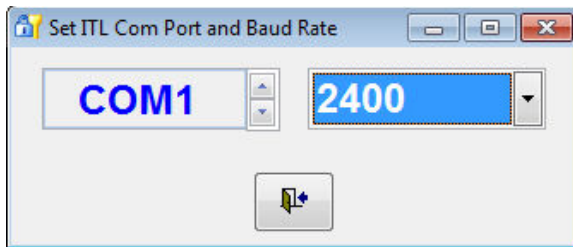
## SIDEWINDER CODES



Use the History button to access your history database. After looking up cuts for keys in the code searches, you can save your customers' information in the database for later recall. Simply click on the "Add to History" button and add a comment to the record. It will be accessible by going to the "History" section of the program, where you will see a sorted list of previously saved records. If you decide to utilize the history database, we urge you to make a regular copy of the three files named "History"

in the "Data" folder of the program.

## USING GENERICODE™ WITH AN ITL MACHINE



You may access individual codes using the same procedures required for the standard screen printout format. When code cuts and depth/space information are displayed on screen, "Cut Key" will appear at the right of the screen. Click on the button to send remote table data to an ITL machine. Remember, you must set "ITL" as the

default code machine and set the correct COM port for proper machine operation. If you have difficulties in cutting a key on the ITL (Serial Data Error) change the baud rate to a different setting. Available baud rates are 2400, 4800, and 9600.

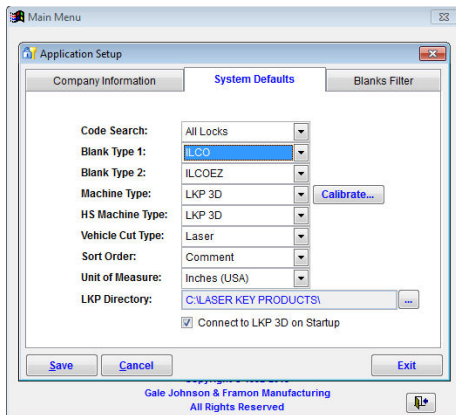
Information is sent by the Genericode-Me™ Computerized Codes program using the remote table data format. Depths, spaces, flat width, and key cuts plus all other necessary data are automatically sent. Correct jaw insert number will be displayed. Install proper insert and tighten key blank in ITL vise jaw. Press "Cut Key" on ITL machine to start key cutting procedure. If you need to contact ITL for any problems, their contact information is:

ITL Tools Ltd.  
Phone: (604) 852-8904  
Fax: (604) 852-8938

## Using Genericode With Your 3D Pro or Xtreme

Genericode now adds extra functionality to the 3D Pro or Xtreme with the ability to trace and originate standard single and double sided keys as well as high security keys.

### Setting Up Genericode

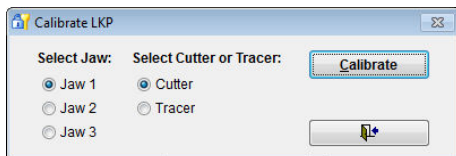


To set up Genericode to send information to the Xtreme, click on “Application Setup” from the main menu. In the Application Setup screen you should select set “Machine Type” to “LKP XTREME” as well as “HS Machine Type”. This will default the program to send information to the Xtreme for both standard and high security keys. If you have a 3D Pro select “LKP 3D PRO” instead.

If you prefer to have Genericode connect to the Xtreme each time the program is started, place a checkmark in the “Connect to LKP 3D on Startup”.

When you start the program Genericode will attempt to connect to the Xtreme and be ready to cut keys as you look them up in the program. If you plan on using Genericode to look up codes regularly and will be in & out of the program but not cutting keys each time, uncheck the box. Genericode will then connect to the Xtreme only when you click the “Cut Key” button in the View Key Data screen (covered below).

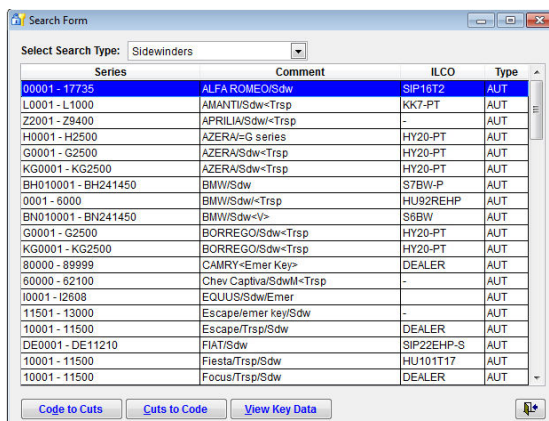
### Calibrating the Xtreme



You can calibrate your Xtreme by clicking the “Calibrate” button next to the Machine Type field. Once at the Calibrate screen, simply select which Jaw you wish to calibrate and either the Tracer or Cutter. Click “Calibrate” and the machine will run

through the calibration sequence.

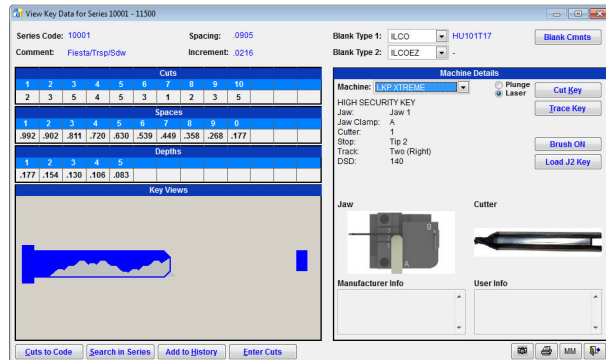
### Search Screen



Whether you use the Code #, Vehicle or Sidewinder Codes section (or many others in the program) you will access a screen similar to that on the left. Highlight the appropriate series, then select either “Code To Cuts” or “Cuts To Code”. If you know your code number, select Code To Cuts and enter the code number. If you know the cuts and need to progress or retrieve the code number, select “Cuts To Code”. If you want to access the key data page to trace a key or enter your own known cuts simply click

“View Key Data”. You will then be taken to the View Key Data screen where you can cut the key.

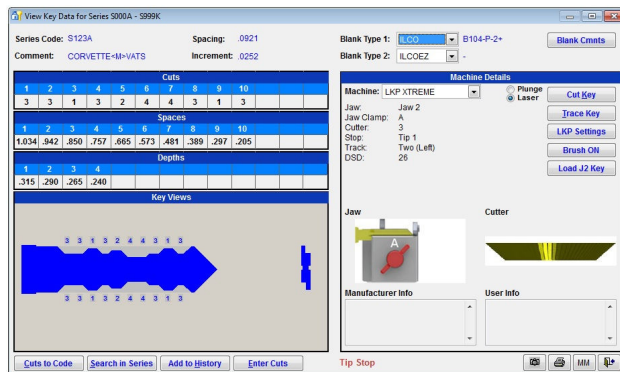
### View Key Data Screen – High Security Keys (cut from LKP DSD information)



Once you have selected a series and entered a code number you will see the View Key Data screen. The top right hand box should indicate your selected Laser Key Products machine if the program is set up properly. To the right of the machine type is the toggle for turning the brush on and off. If you are cutting a high security key you will see several lines of information in the box including Jaw number, Stop

information, DSD number and track of the key. You have the option of cutting a key (Cut Key), tracing/decoding the key (Trace Key) or several other options based on which key has been selected. A picture of the proper loading procedure and cutter will be on the screen along with any notes contained in the LKP program. At the bottom of the screen there are several other choices including “Cuts To Code” (entering known cuts / progressions), “Search in Series” (search for another code in this series), “Add to History” (saves key data in the History database, accessible from the main menu) or “Enter Cuts” where you can enter your own cuts for the key.

### View Key Data Screen – Standard Keys (depth/spaces sent from Framon data)



Standard single and double sided keys can be cut from the View Key data screen in a similar manner as high security keys. In the Machine Details box you will see either information similar to what is shown with high security keys. All keys are inserted into whichever side of the vise holds the blank in the most suitable manner with Ford double sided keys being the exception. All Ford keys are held by

the milling. Special calculations when cutting Ford keys are implemented. These include old Ford five cut (FA/FB codes), Ford ten cut (101A501, B, C, D, and E codes) and the newer eight cut (0001X-1706X series). When cutting these keys you can select either Plunge or Laser. Also controllable by the user is the flat width of the cut and angle – simply click on the “LKP Settings” button and change the value up or down as needed. Most pin tumbler locks will use .045”, wafer locks tend to use .040”. Each key will default to recommended values which can then be changed by the user.

## Manufacturer Section

Manufacturer	Series	ILCO
Abus	#41 Series, 24ST/70 Padlocks	AA2
Abus	36/55 & 27/50 Padlocks	AB18
Abus	42/24 Padlocks - 3 Pin	
Abus	42/24 Padlocks - 4 Pin	
Abus	42/24 Padlocks - 5 Pin	
Abus	55/25 Padlocks	AB17
Abus	55/30 Padlocks	AB16
Abus	55/40, 55/45 Padlocks	AB15
Abus	55/50 Padlocks	AB16
Abus	A0001-1321	
Acura	3001-4481	HD92
Acura	5001-8442	X193
Acura	N5001-7000	B65
Adtec	5 Lever	
Adtec	6 Lever	
Adtec	Mogul Cylinder Series AR, YR **5 Cut**	AA2

the “Add” button.

The Manufacturer section will give Xtreme owners new flexibility in key generation. Over 400 depth & space charts are already included in the Manufacturer section. To cut a Schlage key for instance, type the first few letters in the search box and press Enter. You will be taken to the closest match. To originate a key for this manufacturer, click “View” and you will see the screen below. This section also allows you to enter your own key cutting information in terms of depths & spaces via

Cuts: 5

Spaces: 1. 0.2310, 2. 0.2670, 3. 0.5430, 4. 0.6990, 5. 0.8550

Depths: 1. 0.320, 2. 0.305, 3. 0.290, 4. 0.275, 5. 0.260, 6. 0.245, 7. 0.230, 8. 0.215, 9. 0.200, 0. 0.335

Manufacturer: Schlage

Key Series: Pin Tumbler - 5 Pin

Blank: 1145

Bitting: Single Sided

Spacing: 0.1580

Increment: 0.0150

Comments: WEAR SAFETY GLASSES AT ALL TIMES

Loading: Shoulder Stop

Enter your cuts in the white box (if you would like the program to generate a random key, click the calculator button next to the box). Click “Cut Key” and the Xtreme will originate the key. Similar to other sections of the program, you can click “LKP Settings” to adjust cutter flat and width if necessary.

Tibbe keys can also be cut on the Xtreme through the Gcode software. About 90% of the keys in our database can now be cut on the Xtreme machine. As our software progresses and Laser Key Products add new key types we will continually update the program with features and new abilities.

For Genericode tech support, contact Framon Manufacturing Company at 989-354-5623. We are not able to offer tech support through e-mail. Please contact us via phone and be in front of your computer and machine with the software running prior to calling. As with Laser Key Products, we utilize Team Viewer for assisting with tech support routinely; if you have it installed have it up & running when calling.



## **FRA-2001 COMPATABILITY**

Genericode Me has the ability send key cutting information to the Framon FRA-2001 code machine.

Be sure when you order updates that you indicate that you have the FRA-2001 code machine, as each disk must be custom burned with your X & Y settings for your machine. You should indicate your serial number when purchasing future updates.

Be sure to set “Framon Automatic” as the default key machine in the Application setup section. Clicking on the “Cut Key” button at the key view page will send information to the FRA-2001 to cut the key shown on the screen.

You can access the settings page directly from the key view page or from the Manufacturers page by clicking on the “Settings” button. The setup page is also accessible through the Application Setup page, where you can click “Setup”.

Please note that you have the ability to generate keys from the progression screen. If you are doing automotive locksmithing and need to progress a key, select the proper code series, enter the known cuts using the “Cuts To Code” button, and view your progression. Double click on any key to generate the next key in the progression. The machine will then cut the key, you can try it in the lock, and if need be, cut the next key in the progression.

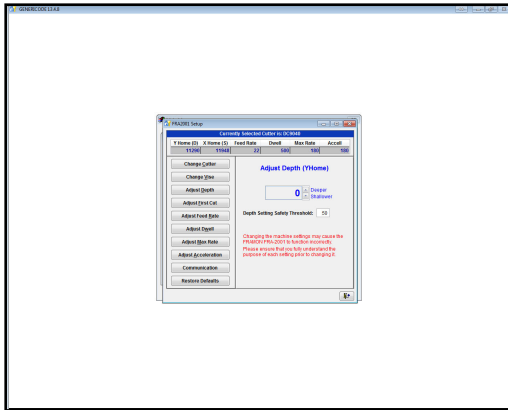
You can also enter cuts through the Key Details screen if you know the proper code series and want to enter particular cuts for a lock. If you are viewing a code (such as S123A General Motors) and would like to generate a key with different cuts, you can simply click the “Enter Cuts” button and input the desired cuts. This prevents you from needing to back out of the code screen and go to the Manufacturers section.

## **INITIAL MACHINE SETUP**

Setting up the FRA-2001 is simple; connect the enclosed 9 pin serial cable to both the machine and your computer (most manufacturers suggest that your computer is turned off before connecting any Com cable). Make sure both switches are in the off position on the key machine, and then plug the FRA-2001 into a quality surge protector. The machine carries no warranty if a surge protector is not used. You should also know that the control box contains a dedicated circuit to detect spikes; if a control box is damaged from a surge caused by a lack of protection, our control box manufacturer will easily be able to determine that.

The settings below are suggested settings. Stepper motors that control the machines’ movement can be affected by temperature, humidity, and other factors. If your machine ever has movement problems such as the cutter head not reaching the key or the vise not going far enough to the left, you may need to turn down the Max Rate and Accel settings. These are easily adjustable in the Setup section of the program.

## SETUP SCREEN FOR THE FRA-2001



Setting changes to the FRA-2001 can be made at the Setup Screen.

Here you can change cutter, change machine travel speeds, adjust depth & spacing, and check communications.

All machine adjustments are made through the Machine section. Your machine has been preset with the following settings:

Y HOME: \_\_\_\_\_ X HOME: \_\_\_\_\_

FEED RATE: 22 DWELL: 500

MAX RATE: 180 ACCELL: 180

These settings should be shown in the status bar near the middle-top of the screen. When you loaded your software, these numbers settings were written to your computer system. You may change them at your discretion, but we have found these numbers to provide best overall performance and cutter life.

### *Changing the Cutter*

**NOTE:** Framon has a simple convention regarding cutter specifications. All of our standard cylinder cutters begin with the letters “FC”, our carbide slotters begin with “DBC1”, and our high-speed steel slotters begin with “FFS1”. For cylinder cutters, the first two numbers identify the angle (in a five digit number, the first three numbers are the angle), and the last two numbers identify the flat width. For example, our Schlage cutter is an FC10031 – 100-degree angle, .031” flat. For carbide & high-speed steel slotters, the last three numbers identify the width of the cutter. For example, FFS1045 and DBC1045 are both .045” flat slotters.

To change the cutter, click on the “Change Cutter” button. The cutter change window will appear. Select the cutter you wish to use by scrolling up or down the list and highlighting it. Click “Select” at the bottom of the screen when you have the proper cutter selected. When you click “Select” a second screen will appear. Follow the on-screen instructions to advance the spindle and turn off the spindle switch. Remove the red cutter guard by removing the two 1/8” button head allen screws once the cutter head is forward. Use the provided allen wrench to remove the cutter and install the desired cutter. Reinstall the red cutter guard. Retract the spindle and turn the spindle switch back on.

**NOTE:** The FRA-2001 software keeps a separate profile for each cutter. Also, the machine utilizes the same cutters as our #2 Code Machine. When you change to a different cutter for the first time, test cut a key to determine if the spacing and depth are



correct. If they are not, use the Adjust Depth and Adjust First Cut (detailed below) to make changes to the cutter settings. Once done, the machine will switch settings for each cutter as you install it on the machine. For example, if the machine cuts properly for the FC8445 cutter and you switch to the Schlage cutter, test cut a key. Measure the key with dial calipers – if the key is .002” shallow, adjust the settings until it cuts properly. When you switch back to the FC8445 cutter, the program will change the settings back to those for that cutter. When you reinstall the Schlage cutter, the machine will again automatically change the settings to reflect to .002” difference.

The program will also track the number of keys cut with each cutter. In the right column, “Keys Cut” is displayed. If you replace or re-sharpen the cutter, you can reset the number of keys cut to zero by clicking on “Clear Keys Cut” at the bottom of the window.

#### *Adjusting Depth & First Cut*

If you ever need to adjust the machine with regards to depth or spacing, click on the “Adjust Depth” or “Adjust First Cut” buttons. The right panel will switch to a counter with up & down arrows. Click the up arrow on Adjust Depth to cut deeper or on Adjust First Cut to cut more towards the bow of the key. Use the down arrow to cut shallower or more towards the tip. Each click of the mouse adjusts the machine .001”. All changes are instant – you do not need to save the changes to set the machine.

At the “Adjust Depth” setting screen, you will also see a “Depth Setting Safety Threshold”. The threshold is a safety level that will alert you if the machine is not within a specified number of thousandths prior to your cutting a key. You can set this level anywhere from 1 to 100. If something happens where the depth is adjusted improperly, the program will compare your setting to the machines’ original setting and alert you to the difference prior to the key being cut.

#### *Adjusting the Feed Rate*

Click on the Adjust Feed Rate button to change the speed at which the cutter feeds into the key. You will notice in cutting a key that the cutter head moves out and momentarily stops, switches speeds, and begins making the cut. The speed at which it makes the cut is the feed rate. Changing the feed rate is similar to adjusting the depth & first cut. Click on the Adjust Feed Rate button and use the up & down arrows on the screen to change the speed.

#### *Adjusting the Dwell*

Dwell is the amount of time the cutter stays at the root of the cut before moving to the next cut. We suggest that you leave the dwell at the pre-set number in your program.

#### *Adjusting the Max Rate*

Max Rate is the fastest speed that the machine travels to and from the cutting position. Again, we suggest leaving the max rate at the original setting.

### *Adjusting the Acceleration*

Acceleration is the speed at which the machine goes from dead zero to the max rate. Since the travel of the machine is so short (only about four inches), no appreciable difference will be noted in changing the acceleration.

### *The Communication Section*

The Communication section is rarely used once the machine is in place and operating. Communication is a diagnostic tool to determine if the machine is “talking” to the computer. To check communications, click on the Communication button, select the COM port you are using on your computer, and click on the “Test Communications” button. A small window will appear letting you know the program is trying to talk to the machine. If it is not, cycle the machine’s Main power switch to off for five seconds, turn the machine back on, and retry the “Test Communications” button (you will need to press the Escape key to clear the window). If the machine will not respond, it is typically an incorrect COM port selection. The program has an automatic port validation tool that checks your available ports during program startup. If you have more than one port available, it will be shown in the drop down list.

If the machine ever begins making a “thumping” sound when you are trying to cut a key, it is usually due to the machine traveling beyond its’ home position. This can be remedied by turning the main power switch off on the machine for 10 seconds, then clicking on the “Reset Machine” button and following the instructions. The vise will move to the left a small distance and the cutter will come forward a small distance. The machine will then reset itself. After the machine is done moving, it should be ready to cut keys.

The “Restore Defaults” button will reset the machine to its original settings. Use this cautiously, as it will reset ALL of the cutting wheels back to original.

### *The FRA-2001 Key Vise*

The FRA-2001 has a reversible vise for cutting different types of keys. You will notice that one side of the vise has a pair of “dots” on the top. This is referred to in the program as the DOT side of the vise. The program will prompt you to use it when very deep cuts are to be made on the key (typically in single sided keys). To reverse the vise, loosen the T-knob and lift the vise straight up. Rotate the entire vise 180° until the vise snaps into place. The wide side of the vise is to be used for most double-sided keys. If a key tips in the vise, use a brass shim or paper clip to hold the key straight.

### *Replacement Parts & Machine Maintenance*

Your FRA-2001 Code Machine requires very little in the way of replacement parts or machine maintenance. The only replacement parts are the key stop, which aligns the top shoulder of the key, used for most keys that have a top shoulder. Occasionally, you will forget to flip the stop back and the cutter will come in contact with the stop. The part number for the stop is F2MS551.

The key vise may need to be changed over time due to contact with the cutter from using the wrong side of the vise. The part number is CNCMS050.

We do offer a second vise for the machine if you do a high volume of interchangeable core or Medeco KeyMark keys. The vise is milled out specifically to hold the various keyways without tipping, as well as Kaba Peaks keys. The part number is CNCMS060.

The only maintenance needed for the machine is a good cleaning. Chips can enter into the cutter cavity and will drop underneath the machine. Move the machine to the side and vacuum up the chips regularly.

If you own an older style machine that does not have an open undercarriage, you will see an opening on the back of the machine about eight inches wide. A chip tray inside the machine will collect chips, and by tipping the machine on its' back occasionally; the chips will be removed from the machine. The sealed version of the machine does require an occasional cleaning inside. Unplug the machine before removing the guards! You will need to remove the top guard (on machines that have a black top & red bottom) or the sides (on machines that have black or white side panels). Give the machine a thorough vacuuming and be sure there is no chip buildup on the drive screws.

The FRA-2001 has only two switches, Main and Spindle. The Main power switch controls all power to the machine; the Spindle switch controls power to the cutting wheel. If you need to change cutters, turn the Spindle switch off to prevent cutter rotation.

Your machine is covered by a one-year, parts, labor and freight warranty. This covers the entire machine except the cutting wheel. In addition, the control box carries a lifetime warranty based on surge protection usage and a two-year warranty on the stepper motors. In the first year, Framon will pick up at our expense any machine found to have a problem, repair or replace the machine at our option, and return the machine to the customer freight pre-paid. After the first year, the customer will pay freight costs on the control box or stepper motors both ways. Contact Framon Manufacturing before returning any key machine!

If you have any questions on your key machine or Genericode Me, feel free to contact us.