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Press Review



The Camillo Bianchi Reader

Proper key blank identification is now easier than ever.

What key blank do you need? The Camillo Bianchi Reader can answer that question for you. Keyline USA recently introduced the new, widely anticipated Camillo Bianchi Reader. Used in Europe for over two years and with over 600 units in operation, it has now been developed to include an extensive US and Canadian database of over 700 profiles which helps identify well over a thousand different key blanks.

The reader uses a simple recognition system displaying results on a 7" color display, using the Liger software platform designed exclusively by Keyline. It identifies both single sided and double sided edge cut keys and is stand-alone, requires no computer, and no buttons to push.

Simply insert the original key in the slot on the front of the machine and the best results will display for the key reference to be duplicated. The profile recognition system checks the compatibility of the sample in the database and displays the sample image on the screen showing first the best possible match plus other very similar profiles listed below. It also displays other manufacturer's key numbers along with the original lock manufacturer. Other key numbers shown are Ilco, EZ, Keyline USA, Jet, JMA, Strattec, and the Original number plus many others.

A user will still need to examine the customer's original key



The Camillo Bianchi Reader

length of blade, tip, etc. You can also touch the screen showing a suggested blank and it will even compare the suggestion to the sample image against the original loaded profile and show differences. Overall, it is a real time saver in the process of identifying the correct blank to cut for the customer.

The North American machines will be the full, advanced versions which allow a user



The Camillo Bianchi Reader identifying the key.



Key inserted.

and compare to suggested blanks as to determine shoulder and

the innovative self-acquisition feature. This feature makes it possible to create a custom database containing new blank profiles received from a customer by simply inserting the key and assigning it a number and hook location that corresponds to a specific location in your shop.

Keyline will also be periodically updating the database to include keys suggested by users or when new keys are added. Software updates can be easily done by downloading the updated software version to the

included USB flash drive, inserting it in the machine, then turning it on. Updates begin automatically and in approximately 5 minutes, the database is up to date.

When the key expert is on a service call, the Camillo Bianchi Reader will save time for the person left in the shop to ascertain what blank the customer needs to be duplicated. Considering Neuter Bow keys, new manufacturer head shapes and imports, finding the right blank can be a time consuming and almost impossible task.

The Camillo Bianchi Reader is a compact, light tool, weighing just 9.9 pounds that will easily fit on shop counters. It is supplied with an 110V transformer supplying 12 volt, 24 watt power to the machine. There are external LAN and USB connections supplied. The reader also comes with a two year warranty.

The North American database will be completed and machines ready for delivery by July 1st, beta machines are in some distributor locations now.

Time is money and everyone knows a satisfied customer is paramount to a continued successful business. Keyline is proud to offer the Camillo Bianchi Reader to help a dealer reach those goals.

For more information or product videos, please visit www.keyline-usa.com or contact your preferred distributor to order.



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by **Richard Dickey**

The automotive sector is the quickest changing marketplace there is for the Locksmith. It seems like there is always something different to deal with. Now there is a very nice small cloning machine to help you in the shop or in the field. Let me give you an overview and then we will get into a few details of how it works.

Car key cloning is made easy, with extreme calculation power and an very low price of \$450 plus updates if desired.

The 884 Decryptor Mini is easy, fast and mobile, (see photo 1). It allows the car keys cloning with Philips® fixed code and Philips® Crypto (ID46), Texas® fixed code and Texas® Crypto (4D), Megamos® fixed code and Megamos® Crypto (ID48) as well as the Toyota 80 bit transponders. This covers 2000 car models, up to 95% of cars, motorbikes and trucks from the past 20 years still in operation.

884 Decryptor Mini is simple to use: just connect it to your Android smartphone or tablet,



1. Here is the new 884 Decryptor Mini. Small, lightweight and powerful.



2. You must log in before using the 884.

with USB-OTG capability or to a PC with WINDOWS 7 or subsequent versions with an Internet connection. Download the Keyline Cloning Tool mobile App or the PC Software and start the transponder equipped car key cloning procedure without having to press any buttons and

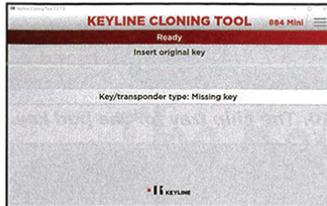
also without connecting to a power outlet.

The LED lights on the 884 Decryptor Mini inform the user of the various phases of the cloning procedure, while the interface displayed on the screen of the smartphone, tablet or PC takes the user through the whole procedure. An easy system that can be used with extreme simplicity everywhere. There is also an easy and quick updating procedure. This makes it the ideal choice for automotive professionals.

When you get your new 884 Decryptor Mini you will need to install the software that makes it work. Since it will work with a smart phone, a tablet or a PC you have a wide range of platforms to choose from. I chose a small PC running Windows 10.

The first thing to do is download the software from www.keyline-usa.com. After downloading, run the program to install the software. When installed, an icon will appear on your screen. Double click the icon to start the registration process.

You will need to click on "register" to go to the registration page, (see photo 2).



3. Here is a prompt to insert an original key.

Just enter all the information required and when finished you will be able to start cloning.

The simplest cloning process that I did was with a 2004 Mercury Grand Marquis. It was so simple I was shocked. The first screen will ask you to insert an original key, (see photo 3). After inserting the original key, the 884 will read the key and begin some calculations. Next you will be asked to insert the key to be cloned. The copy phase begins and you have a cloned key. Wow. This process was so fast that I thought I had missed a step. I had to go try the key to convince myself that it worked.

The next key I cloned was a 2011 Jeep. This process had a few more steps involved but it worked great too. First insert the original key. It will be read by the 884, (see photo 4). You will then be asked to insert the new key. The 884 will write information to the new key.

After the writing process you will be asked to take the new key to the vehicle for the “sniffing” process. What happens here is you insert the key into the ignition and turn it to the “on” position for 5 seconds and “off” for 2 seconds. Repeat this process a total of three times. What is happening is the car is sending information to the new key looking for a response. That information will be used by the 884 to perform calculations.

Now reinsert the new key into the 884. The information will be read and then you will be prompted to reinsert the original

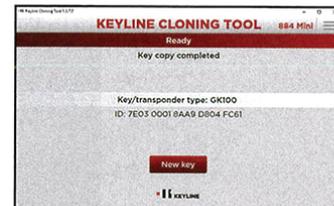


4. The results after the original key has been read.

key into the 884. No data will be written to the original key, it is just checking for different information this time. The calculation phase will begin now.

Once the calculation phase is complete, you will be prompted to reinsert the new key into the 884 for the writing process. When the writing process is complete the display will tell you, (see photo 5). The key is ready to use. Even though this process had a few more steps, it was very easy and you are prompted every step of the way.

For vehicles that use “Megamos” encryption, the 884



5. An indication that the cloning process is complete.

will also handle them with a software upgrade. You will need to purchase the TKM.EXTREME kit. After installing the software, you will be able to go through the MEGAMOS cloning process. It is very similar to the process used for the “Philips” chip used with the 2011 Jeep with of the exception of how many times the new key needs to sniff the ignition. With the MEGAMOS cloning process, the ignition will need to be sniffed 8 times instead of 3 times. Why 8 times? That’s just the way it is.

Software updates are very easy to do. With an internet

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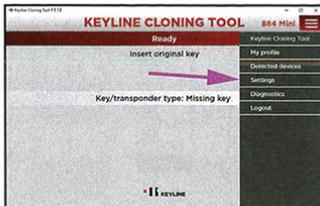
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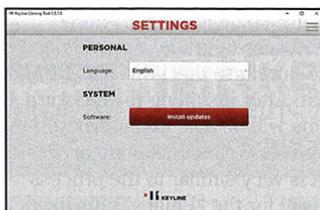
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6. Getting ready for a software upgrade.



7. Starting the update process.

connection, launch the 884 software and click on "settings", (see photo 6). From there, click on "install updates", (see photo 7). The updates will install automatically.

Along with the machine I was provided several key blanks and several transponder chips to use



8. Here are the two different transponder chips.



9. An assortment of POD keys.

for testing. The transponders are glass tubes with a microchip and antenna inside, (see photo 8). These chips hold information and talk to the ignition of the car when prompted.

The blanks are called "POD" keys. They have a compartment inside that holds the transponder chip, (see photo 9). The tray in the pod key slides out, (see photo 10). The chip fits inside



10. The chip tray for the pod key.



11. The chip installed.



12. Sliding the tray with chip back into place.

the tray, (see photo 11). The tray slides back inside the key, (see photo 12). It is as simple as that.

Keyline supplies many different keyblanks as well as transponder chips. POD keys as well as horseshoe blanks are available. They also have several different key machines for everything you need.

The 884 Decryptor Mini worked great for me. It was fast and simple to use.

Here are some features of the 884 Decryptor Mini.

Transponder* cloning capability:

- Texas® fixed code
- Texas® Crypto
- Philips® fixed code
- First generation Philips® Crypto
- Second generation Philips® Crypto
- Megamos® fixed code
- Megamos® Crypto
- Keyline Keyless Kit
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Keyline Micro Series Transponders

The Micro Series of rewritable transponders from Keyline (formerly Bianchi) currently consists of three different transponders: the GKM, GK100 and the GK50. The GKM and the GK100 are both glass encapsulated transponders, (Photo 20) while the GK50 is a carbon chip (Photo 21). The GKM will allow you to clone keys equipped with the Megamos® Crypto (ID48) and Megamos® fixed code transponders. The GK100 can be used to clone keys equipped with the Philips® Crypto (ID46), Texas® Crypto (4D) and Texas® Fixed code (4C) transponders. The GK50 can be used for cloning keys equipped with the first generation Philips® Crypto transponders (PH1B, PH1C, PH1D, & PH1E). Keyline offers an extensive line of "Pod Keys" that perfectly fit the Micro Series transponders so you can produce a good looking clone key for these sophisticated systems quickly and easily.

One of the more irritating things for me as I built my new business was that I was all but locked out of the VW, Audi, and Porsche markets. But thanks to the new Micro Series transponders from Keyline, and my 884 Decryptor, (Photo 22) I am now able to produce duplicate keys for those vehicles at a very competitive price. When I first learned of the GKM glass encapsulated transponders for the VW / Audi Group, (VAG) I was excited because I had recently dealt with a series of vehicles that I either struggled with or had to turn



» Photo 19. Keyline's GKM and the GK100 glass encapsulated transponders

down. Now, I can use a pod key to produce a VAG clone key, or I can buy the relatively inexpensive VW flip-keys and then swap out the included transponder for a GKM transponder and easily clone VW switch-blade keys.

The TKM Extreme software update that was needed for my 884 Decryptor to be able to use the new transponders was easy to install and came on a TK100 electronic head that I could then use as a normal clone key. The only problem that I had with the software installation was that I had apparently failed to update my machine for a while and I was informed that before I could install the TKM Extreme software, I would have to update my operating software to the most recent version. After the update process was finished, installing the TKM Extreme software went very fast.

In order to use the TKM Extreme features, you must be connected to the Keyline website via the internet, so at first I thought I would only be able to use the system at my shop. However, I recently discovered that Verizon offers a mobile hotspot that plugs into my vehicle's OBD II port, and I can now use the system anywhere I have an adequate phone signal. Many people also use the system with a tablet that has a cellular internet connection in place of a laptop, but I'm still using a laptop for now.

The first vehicle that I used the system



» Photo 20. GK50 carbon chip

on was a 2004 Audi TT. The process went very well and I had a working key in short order. It actually took longer to program the remote than it did to make the cloned key. (I eventually found an on-board programming procedure online that allowed me to program the remote.) Since then, I've done several VWs and each one has gone well. The basic procedure is outlined below.

Begin by logging in to the Keyline website and connecting either the 884 Decryptor Ultegra or the 884 Decryptor Mini. Once you are connected, you insert the original key into the cloner until you are prompted to insert the key with the GKM transponder. Once the GKM has been prepared for the "Sniffs," you will take the GKM key to the car and sniff it four times. Each sniff consists of inserting the key into the ignition and turning it on for at least 5 seconds, (I give it 10 seconds) then turning the ignition off and removing the key. I normally wait at least 5 seconds between sniffs. Take your time with this



» Photo 21. Micro Series transponders and 884 Decryptor

Cover Focus: Best of 2016 – Automotive

step; if you rush, you will only make the job harder than it needs to be.

During the sniffing process, the GKM records information from the vehicle's attempts to communicate with the transponder. This information will be processed when you bring the GKM key back to the cloner and added to the information from the original key in order to determine the encryption algorithm needed to produce a working key. If everything works correctly, the next step should produce a working key.

When you return the GKM key to the cloner, it will check the sniffs and then begin the calculations necessary to produce the clone key. (If the sniffs were not done correctly, or the sniffs did not get enough data, you may be prompted to repeat the sniff procedure.) The calculation phase may take up to 10 minutes, so be prepared. If the system is too busy at the time you attempt to run the calculation, you may be put into a "queue" and given an estimated time until the calculations will be done. There are procedures for you to use your cloner for other jobs while you are waiting for the calculations to be completed and even procedures for you to be alerted by email when the calculations are finished. So far, I have never been placed in the queue, and have always been able to get the key done in 10 minutes or less. The other members of the Micro Series allow you to do basically the same for other sophisticated systems.

Transponder Island

Transponder Island is one of the very few places that can supply locksmiths with keys, remotes, fobs and programming for a variety of high end vehicles such as BMW, Volvo, Jaguar, and Land Rover. As I mentioned earlier, I hate telling a customer that I can't do something. It irritates me to have to send customers to the dealership. With the help of Transponder Island, I can now capture some of those sales that I previously sent to the dealer.

I personally have decided that I'm not going to jump into the EEPROM market at

this time, but for those of us who do work in that line Transponder Island also provides a lot of tools, equipment and education for EEPROM work.

One of the reasons I'm not doing EEPROM work is that I'm hoping to retire from active locksmith work in a couple of years. In my opinion EEPROM work is a young man's game; if I were 20 years younger, I'd be on it like white on rice. In addition to that, my market here on the Florida Gulf Coast is more oriented to domestic vehicles than to the high end imports.

One of the main things that I love about Transponder Island is the ability to purchase OEM Volvo keys, fobs and remotes. Of course until recently, I couldn't

use any of those items because I couldn't program the vehicles. But now, with the tools and education that Transponder Island has brought to the market, I can program OEM Volvo keys just like the dealer does. As far as the programming goes, all I had to invest in was a "J2534 Pass-Through" device and the keys themselves. I don't even need to be a member of NASTAF if I'm willing to generate my keys from scratch.

Transponder Island even stocks Fiat keys and remotes, and supports you as you work to program them. With the increasing number of Fiats on the streets, as well as a number of Fiat derived Chrysler vehicles, such as the Jeep Renegade and Chrysler 200, this is becoming more important every day.

I also like the fact that Transponder Island has several entire seminars posted on their website. I've always believed that a distributor should support the products they sell, and Transponder Island is doing just that. ■■



» Photo
22. Transponder Island's extensive inventory includes high-end keys

KEYLINE ON KEY DUPLICATION AND THE AUTOMOTIVE SECTOR

By Massimo Bianchi, Keyline Strategic Planner

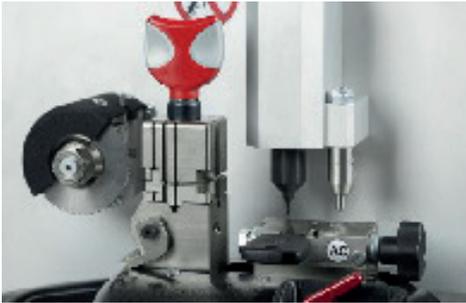
Knowledge, innovation and technology

When you think of any specialist within the automotive sector, it's hard not to think of the speed and precision that goes into their work – with car key duplication being no exception.

Every Keyline solution to car key duplication has been developed with this in mind; from the cutting machines themselves, to their software, the graphics and each and every fixture.

Precision mechanics, sturdiness and ease of use characterise the Ninja Laser, an electronic machine developed around the real needs of the professional, and capable of guiding the user through each part of the duplication process.





The Ninja Laser: the perfect solution for the professional locksmith

The Ninja Laser is capable of cutting automotive edge cut keys, laser keys and Tibbe keys by code, decode or depths. It combines two different technologies: a variable speed prismatic cutter and an end milling cutter.

The machine has been designed for all auto locksmith work places; from the shop floor or trade counter to the van when work onsite is required.

It's simple to use and intuitive thanks to the integrated Liger software, completely developed by Keyline, which is distinguished by its ability to process every cutting system and receive online updates using just the console – which is equipped with a touch screen system.



The duplication process: step by step

The sequence for duplicating a car key using the machine is simple and can be done in just a few steps.

Once the machine has been connected to the display, you need to press the main power button at the top of the appliance. You'll first see the welcome screen, followed by the user screen.

Login with your user account and access the MAIN MENU page.

There are three main stages to cut a car key:



1. Key search by car MAKE and MODEL

From the MAIN MENU screen click on CARS and search for the MAKE of the car the key belongs to. After having selected the car MAKE, click on NEXT to get to the MODEL screen. Select the model and click on NEXT – select the year and click on NEXT.

2. Bitting entry

If you have the key code, click on CODES, enter the code and click on NEXT. A preview of the key is displayed.

Alternately, if you have the original key, it is possible to proceed with the decoding process. Click on DECODE and follow the on-screen instructions to position the original key into the jaw, click on NEXT and follow the instructions through a series of messages.

Once finished the original key is displayed. The Ninja Laser decoding process is accurate and in addition to using the information entered on the car model, it is executed by detecting the real depth of the key cuts.

3. Cutting

With the key code ready, click NEXT to get to the cutting screen. The machine will ask you to enter the key blank as shown on the display. Click on CUT - the cutting process will start.

When the first side has been cut you will then be asked to turn the key 180 degrees to cut the other side.

Other Features

INTERCHANGABLE AC JAW

To make things even quicker for the user, we have also made it so that the majority of laser keys available on the market can be cut using just one single clamping system. The AC jaw works in 2 positions; one for decoding and one for cutting and these can be easily interchanged using just a handle.





To decode using the AC jaw you simply follow the steps we have provided. To go to the cutting phase all you need to do is change the position of the jaw by turning the locking handle – it's quick and simple.

Easy to change cutters

Something else that cannot be overlooked is the how fast and easy we have made it to change the side-milling cutter. We have created a rapid cutter changing process so you don't lose any time. All you have to do is push the tubular tool (included with the Ninja Laser) down from the upper park of the spindle in order to remove the fixing screw and extract the cutter.

Rapid software updates

It is both quick and easy to update the machines software as it can be done directly using the machine with the console. This is one feature we have paid particular attention to when developing the Liger software.

Complete independence for the user

Last but not least, we cannot ignore the ordinary workings of the machine and the fact every professional can use it with complete autonomy. That is because it comes with a full maintenance kit as well as all the necessary instruments for complete and independent use.



THE NINJA LASER FROM KEYLINE



Keyline is an Italian company, part of the Bianchi 1770 Group, which manufactures exclusively in Italy. Keyline products are officially distributed by four companies, in their respective countries: Keyline Italia (for Italy), Keyline Germany (for Germany), Keyline USA (for North America) and Keyline Shanghai (for the People's Republic of China) and are controlled by the Bianchi 1770 Group parent company.



by
**Richard
Allen
Dickey**

With the purchase of Keyline in 2002, the Bianchi family continued in its centuries-old traditional "key business" activity. Started in 1770 by master locksmith Prospero Bianchi, the business has been handed down from father to son to the present day.

Keyline also operates through two representative offices, Keyline UK and Keyline Japan, that coordinate sales and technical assistance of direct distributors present in their respective markets. Keyline distributes its products in over 50 countries in the world through a network of over 60 local distributors.

The Ninja Laser combines the mechanical and electronic precision to guarantee unique key



1. The Ninja Laser from Keyline.



2. There are three connectors on the back of the key machine.

cutting performances and quality through two different technologies: A variable speed prismatic cutter and an end milling cutter, (see photo 1). With the Ninja Laser you can cut door and automotive edge cut keys, laser keys and Tibbe keys by code, decode or depths.

Ninja Laser is designed to better meet the requirements of the professional thanks to the

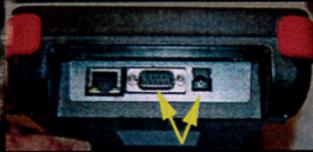
mixture of these two technologies, which allows the combination of maximum cutting precision together with exceptional performance.

One of the highlights of the Ninja Laser is the AC jaw that combines in one unique solution one clamping system to cut most of the laser keys in the market. This innovation expands the wide range of jaws from the four sided functional one for door and automotive edge cut keys to the Tibbe systems. This makes Ninja Laser the standard key cutting machine to duplicate every model of automotive keys, as well as edge cut door keys, present in the market.

The Liger software developed by Keyline stands out for its capacity to process every cutting system and easily receive software updates. Complex operations are made extremely simple and intuitive thanks to the modern color interface, which is simple and easy to learn.

I am going to tell you a little about the Ninja Laser key machine and go through making a couple of keys. One with the wheel cutter and one with the end mill cutter. The steps are not much different with the exception of which vise you use.

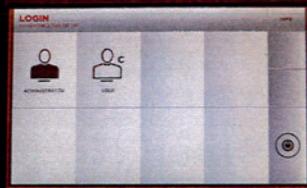
To start with the computer needs to be connected to the key machine. This is easy to do. Just plug the main power cable into



3. A 9 pin "D" connector and a power connector are on the side of the computer.



4. The hello screen.



5. The user screen.



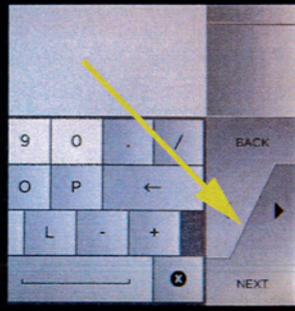
6. The password screen.

the back of the key machine. (see photo 2). You can also plug the 9 pin "D" connector and the small power cord in the back of the key machine. Now connect the other end of the 9 pin "D" connector and the small power cord into the computer, (see photo 3).

Pressing the main power button on the top of the key machine will power the key machine and computer. After a minute or so the computer will come to life with what amounts to a hello screen, (see photo 4). Next it will move on to a user screen, (see photo 5). On this screen you will pick "administrator" and it will take you to a password screen,

(see photo 6).

There is no password from the factory so you only need to click "next" to continue, (see photo 7). Now we have the option of selecting different things we can do, (see photo 8). If you have a code, you can go to the "code" section



7. Tapping "next" will advance you to the next section.



8. Eight options are available from here.



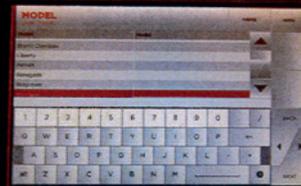
9. We are going with "cars".

to enter it from there. Today we are going to make a copy of a Jeep key. In this case tap "cars", (see photo 9).

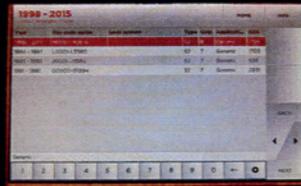
When the car screen comes up, type a "J" and you will go immediately to the cars that start with a "J", (see photo 10). Click



10. Manufacturer selection screen.



11. Model selection screen.



12. Year selection screen.

The National Locksmith

DIGITAL ARCHIVES

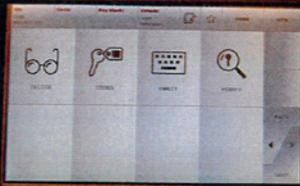
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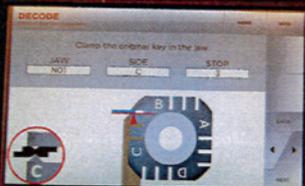
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"next" and you will be taken to the model window, (see photo



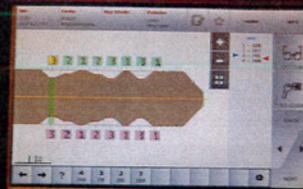
13. Four options here. We will choose decode.



14. How to place the key for reading.



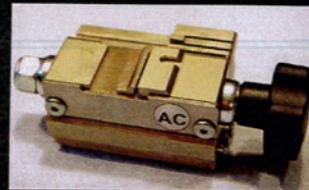
17. Key against the key stop and tightened down.



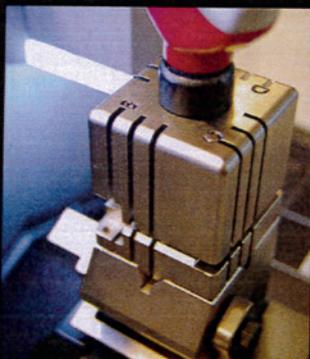
20. Results from decoding.



21. Key placement for cutting.



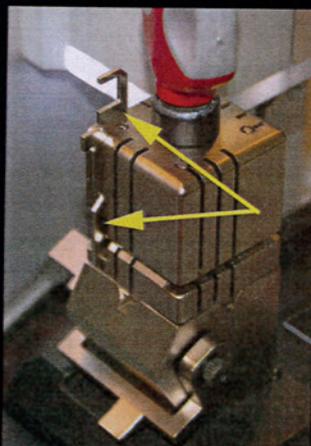
22. The AC vise.



15. The key vise.



18. The cutter.



16. Key stop in place.



19. Tracer flipped out for decoding.

11). In this case we will choose "Wrangler" and click "next". Now you pick the year and click "next", (see photo 12).

Now we are taken to a screen that has a few options, (see photo 13). The Ninja Laser is going to

decode the original key and create a new original. To do this tap "decode". A new screen will pop up with instructions about what vise to use and what key stop is used etc., (see photo 14).

We are going to use side "C" of the first vise, (see photo 15). Side "C" of the first vise is designed for a key with a groove in it. Now insert the key stop where indicated, (see photo 16). Now insert the original key, (see photo 17). The next thing to do is flip out the tracer so the system can read the key, (see photo 18-19).

Now we are ready to read the key. Simply tap "next" to start the process. You will be given a couple of warning screens before you can continue. One is to make sure the cover is closed and another to make sure you removed the key stop. After the reading process is finished, you will see the cuts of the key displayed on the computer, (see photo 20).

Continued from page 10



23. The AC key stop.



24. The vise in the decode position.



25. The vise in the cut position.



26. Tip stop in place.

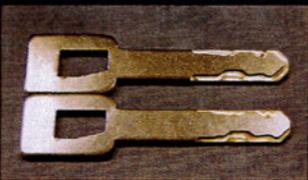
The way the key is decoded is very interesting. Because we have entered the key information earlier, the computer knows what the depth and space limitations are. The computer moves the key to each individual space and tests the depth of the cut in



27. Original key in place.



28. Key blank in place for cutting.



29. The finished product.



30. Tool kit.

each space by moving the key in the direction of the tracer until it touches. Very cool.

Tapping "next" will take you to the next screen that will cut a new key, (see photo 21). You have to insert the new key blank and remember to use the proper key stop. When you tap "cut" the process will begin. After the first side is cut it will ask you to flip the key over and cut side two. This will create a perfect original key.

To create a Laser Key or side-winder as some call it, there is



31. Removal guide for end mill replacement.



32. USB thumb drive for software upgrades.

another vise involved. It is called the "AC" jaw, (see photo 22). With it there is a magnetic key stop, (see photo 23).

The vise when installed has two lockable positions. The first is used to decode a key, (see photo 24). The second position is to actually cut a key, (see photo 25). There is a red locking handle to secure the vise in the proper position.

To decode a key you have to go through the same process as we did earlier with the first key. Once you make it to the proper screen you will be shown how to load the key for decoding. The key stop should be put into position first, (see photo 26). Now the key can be locked into position, (see photo 27).

Like before, when you tap "next" you will be asked the safety questions about the cover being closed, the key stop being removed and the jaw in the proper position. After decoding an image of the key is displayed.

To cut a key the vise has to be moved to the "cut" position and a key blank inserted, (see photo 28). Now follow the directions to cut a key. When finished we

have a perfect copy, (see photo 29).

For the little bit of maintenance you may have there is a tool kit provided, (see photo 30). It included a brush, wrench, Allen wrenches etc.. Everything you need to do low level maintenance is included.

To change the end mill cutter is a breeze. There is a red tool that slides down a tube to eventually snap onto the top of the end mill, (see photo 31). With the red tool snapped into place, remove the set screw two full turns and lift out the end mill with the red tool. Reverse the procedure to replace the new cutter.

To upgrade software you will need to go to the Keyline web site and follow directions. A USB thumb drive is included to transfer software from your computer to the Ninja Laser computer, (see photo 32). It is all very easy to do.

Now lets take a look at some

of the features of the Ninja Laser key machine.

Features

- Power supply. 90-130V 50-60Hz / 220-240V 50-60Hz
- Electronic Equipment. Main-board with ARM Cortex A8 CPU, 256 MB RAM, NAND 1 GB memory, high resolution axes control
- External connections. 2 USB 2.0 ports; 2 RS232 serial ports; 1 LAN port
- Key Reading/Decoding System. Electric contact
- Lighting. LED - lighted cutting bay
- Movements/Axes. 2 stepper motor-operated axes
- Jaws. FLAT KEY SIDE: 4 faces (more jaws are available for specific markets) LASER KEY SIDE: Jaw AC (jaws A, B, C, D, H are available)
- Gauge. FLAT KEY SIDE: Automatic gauge unlock through the movement of the axes

- Motor. FLAT KEY SIDE: Asynchronous, 0.18 KW LASER KEY SIDE: DC electronic motor
 - Cutter. FLAT KEY SIDE: In Widia ø 63 mm LASER KEY SIDE: In Widia ø 2,5 mm
 - Cutter Speed. FLAT KEY SIDE: 1500-3000 rpm (variable speed according to the programs) LASER KEY SIDE: 6000 rpm
 - Absorption. 250W (35W in stand-by)
 - Dimensions. Width: 340mm / Depth: 415mm / Height: 300mm
 - Weight. 20 kg
- Keyline USA
31336 Industrial Parkway,
Suites 3 & 4
North Olmsted, OH 44070
T +1 440 716 8006
F +1 216 803 0202
TF +1 800 891 2118
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Medeco - P/N 408-Medeco-finish
Corbin Russwin - P/N 408-Corbin Russwin-finish
Yale - P/N 408-Yale-finish
KSP - P/N 408-KSP-finish—compatible with Best/Arrow/Falcon



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Tackling Locks for Peugeot and Citroen Vehicles > Part I

By Martin Pink



Key Cutting:

Decoding and Copying an SX9 Key on a Ninja Laser Electronic Cutting Machine using the SX9 Adaptor

For many years now decoding SX9 keys has been problematic and cutting them has been tricky.

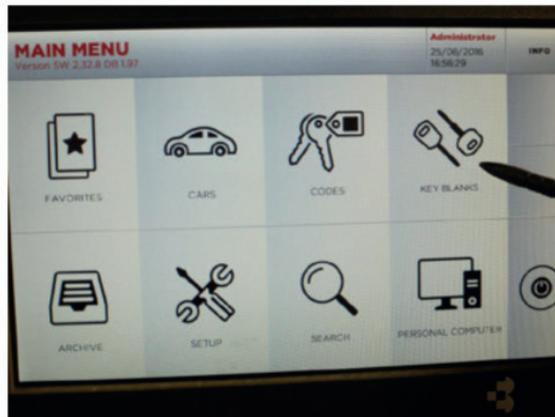
The SX9 adaptor for the Ninja Laser has simplified decoding and cutting these keys massively, making the process much more accurate.



Decoding the SX9 Key on the Ninja Laser:

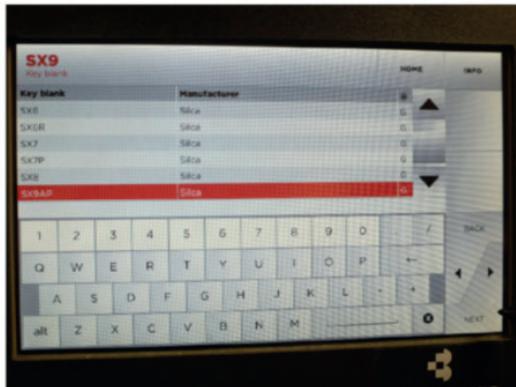
What will you need for the process?

- The key to decode from
- A Ninja Laser cutting machine
- The Keyline SX9 adaptor



Firstly, select 'key blanks' from the Ninja Laser menu.





Select SX9 from the menu.



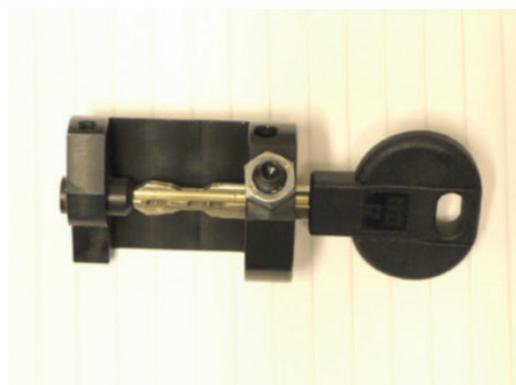
Select the series.



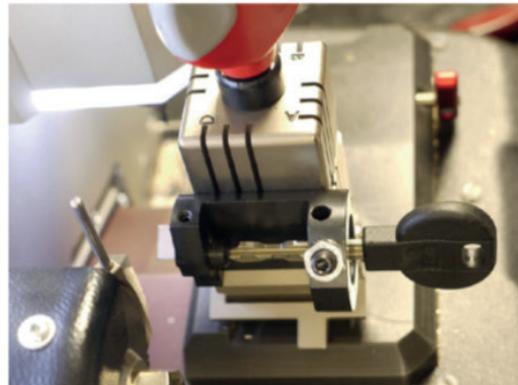
Select the decode option.



The Ninja then tells you it is jaw A and that the SX9 clamp is required.



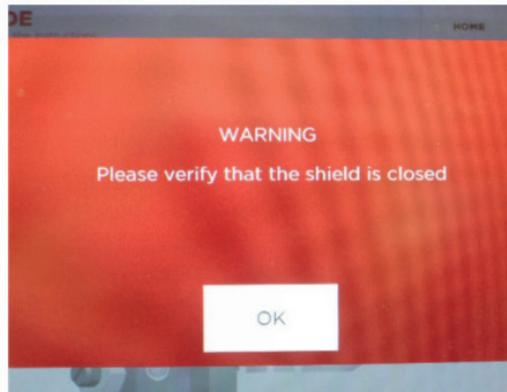
Put the key to read in the SX9 clamp and secure it in place.



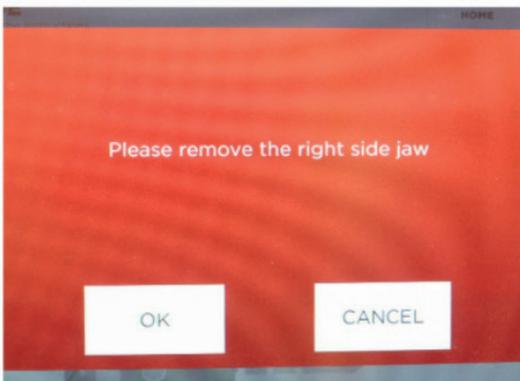
Select jaw A as instructed and fit the clamp and the key to the jaw.



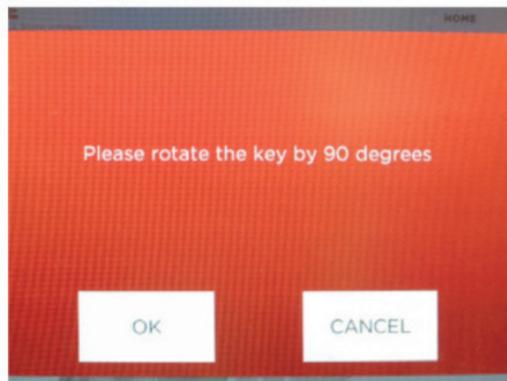
Set the decode attachment in front of the blade for the decode.



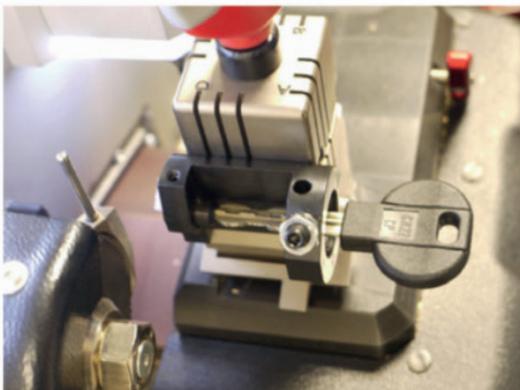
Close the protective shield on the machine and then click ok.



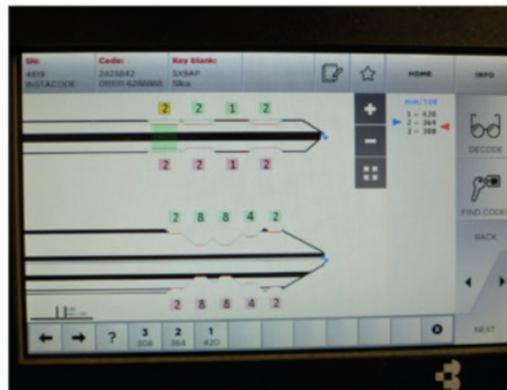
Ensure any laser jaws are removed and then click ok - the machine will decode the side cuts.



Once the side cuts are decoded you will be told to rotate the clamp 90 degrees - do so and click ok.



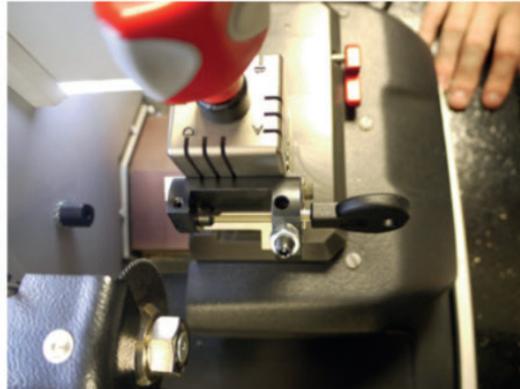
The Ninja will now decode the side cuts.



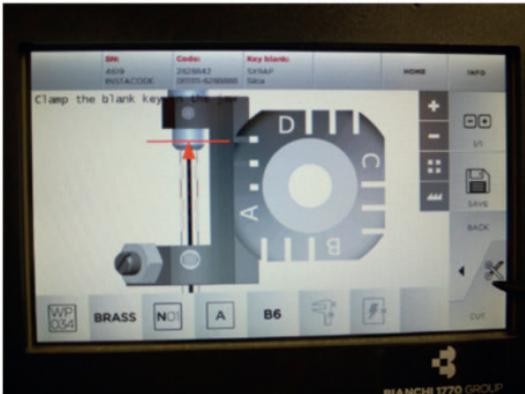
The decoded key data will now appear on the screen ready for cutting - to do so select next on the bottom right of the screen.



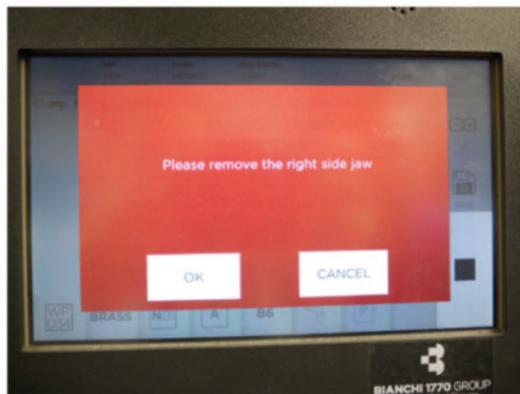
The new screen will appear confirming the jaw position and the key position.



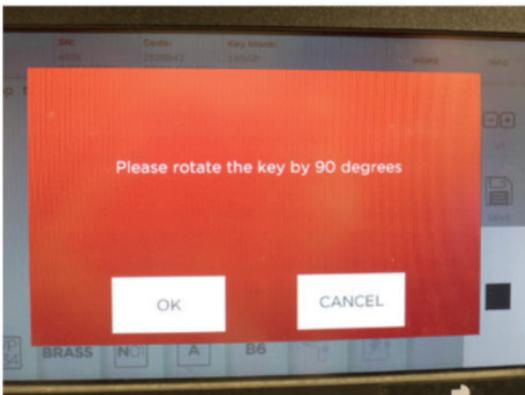
Ensure the blank key is in the jaw and the decode reader is turned away so that the blade is ready to cut.



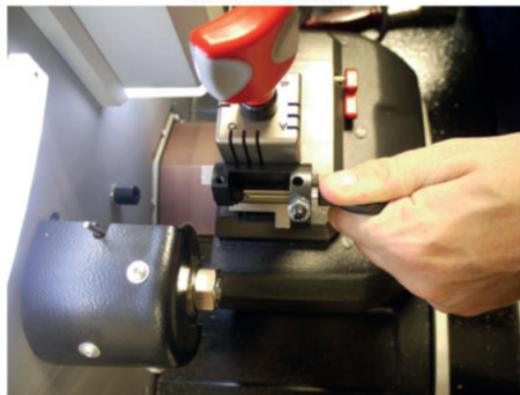
Click on cut.



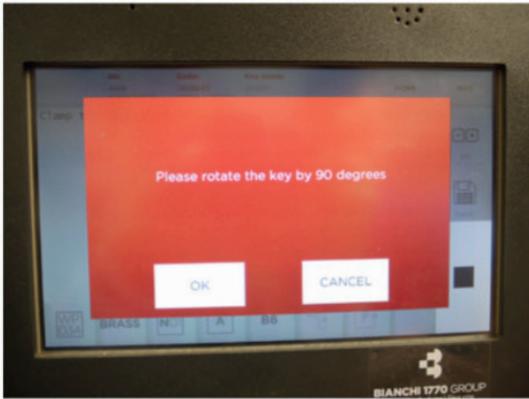
You will be asked to ensure all laser jaws are removed. Side 1 will then be cut.



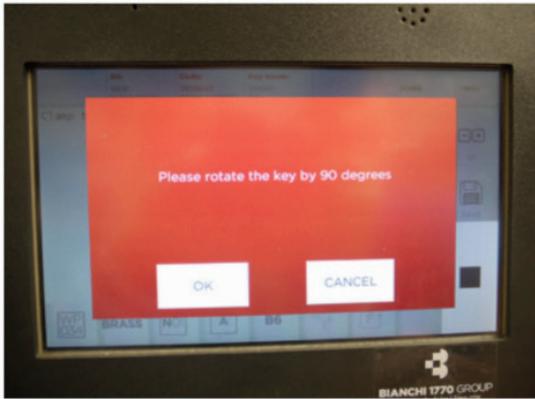
Once side 1 is cut you will be asked to rotate the key 90 degrees.



Lift the shield and rotate the key 90 degrees – close the shield and then click ok – side 2 will now be cut.



You will again be asked to rotate the key 90 degrees and click ok
- side 3 will now be cut.



You will be asked to rotate the key 90 degrees again and click ok.



Remove the key as it has now been copied perfectly.

The Strength of a Lion, the Beauty of a Tiger...

Liger Software and the Ninja Laser

By Massimo Bianchi, Keyline Strategic Planner

When it comes to key cutting and cloning within the automotive sector; calculation, speed as well as key cutting precision is all very important. The mechanics have particular importance, but it doesn't hurt to have attractively designed software with graphics that appease the eye.

The need for a high-precision, electronic machine for the automotive sector has grown over the years, as more and more specialists have started to consider key duplicating in order to offer customers a more complete service.



With this, the idea of having a compact electronic key cutting machine for car keys was born. It needed to be easily transportable, and combine both the mechanics and the software needed to give results that weren't commonly seen on the market. What we wanted to create was a machine that could cut a key, simply, by code and within a few seconds.

The Ninja concept represents the base of the Ninja series – a family of key cutting

machines made for success. This is where the project started, the result - the electronic key cutting machine known as Ninja Laser. To get the most efficiency, flexibility of use and precision we put a variable speed, circular blade and an end mill for the laser (track) keys. As a result, the Ninja Laser has become a powerful station to cut standard keys, laser keys, Tibbe keys by code and decode.

We also introduced a clamp (model AC) that can hold a wide range of laser keys currently on the market – all with just the one accessory. It meant there was no need to remove the clamp – making it even simpler to use.

We then added a pioneering electronic component, which was made possible as a result of the extensive research we carry out. Our designers and developers created software that is dedicated to the key cutting process and that gets the best performance from our machines. We call it Liger, in honor of the biggest existing feline.

Liger Keyline combines the strength of the lion and the beauty of the tiger, because it can manage complex procedures through a graphic interface, which makes everything easier and more likeable from an aesthetical point of view. But today speed is also needed; Liger software is fast without compromising its elegance.

The lion and the tiger were born for this.



Corporate Profiles

A Family Owned Business with a Global Presence

Many people in this industry still know and refer to us as Bianchi, which doesn't come as a concern, but a sense of pride. Bianchi USA officially transitioned to the Keyline USA name in 2013, but the Bianchi family's 240-year tradition in the key business carries on with a state of the art production facility in Northern Italy, a global distribution channel and constant investment in quality and innovative products for the security market.

The US distribution, Keyline USA, is based out of Cleveland, Ohio, where we supply the best distributors in the North American locksmith market with our line of key machines, transponder cloning equipment and Keyline branded keys so we can service the locksmiths and security dealers who use our products every day.

THINK NEW

Keyline branded products have been synonymous with quality and innovation since their North American introduction in 2003. Our internal motto is "Think New" as we are continuously working to enhance our existing product line and bring new, innovative products to the market, while offering the best technical and customer support available in the industry. Several revolutionary new products have been released recently, including cloning equipment, software and key machines.

KEY MACHINES

The staples of our mechanical key machine duplicators include the heavy duty Meta 106 Semi-Automatic, 303 High Security, Punto High Security and the Easy machine. Keyline also offers some specialty key machines including the Falcon for Tibbe keys



and the Arcadia for Tubular keys.

Keyline's electronic key machine line is considered the one of the best performing in the industry and has seen several exciting additions. 2015 saw the introduction of the Ninja Laser, a dual machine for high security and edge cut keys and the Ninja Vortex, for high security and dimple keys and key head engraving. The 994 Laser continues to be a popular code cutting machine for automotive locksmiths that need a reliable machine for high security automotive keys.

CLONING INNOVATION

The 884 Mini was introduced in 2015 as a lower cost entry into cloning and offers a portable and very affordable cloning solution. The 884 Decryptor Ultegra is also available for those that prefer a stand-alone option. Both the 884 Mini and the 884 Decryptor



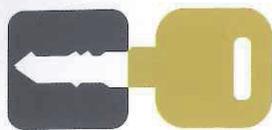
Ultegra are now capable of using not only our traditional 2-piece modular clonable keys, but also with our GK100 and GKM clonable glass chips and Pod Keys for a more OEM looking key.

The biggest innovations in Keyline cloning came in February 2016 with the release of the Megamos® cloning software upgrade for ID48 chips. With over 1600 active users, this is the first and only Megamos® cloning software in the market and is available for both the 884 Mini and the 884 Decryptor Ultegra cloning tools.

For more information about Keyline USA and our products, see our contact information below.

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CARS, KEYS & LOCKS

Bio's of this months contributors



Martin Pink

The highly respected locksmith Martin Pick has been at the forefront of the development of tools and techniques for picking, decoding and opening many of today's toughest locks. Martin has been instrumental in the development of the Genuine Lishi Brand and he wrote the definitive guide to opening car locks called the Genuine Lishi Training Kit. Martin is known around the globe for his knowledge of car lock technology and is highly sought after at locksmith exhibitions and training events around the world.



Massimo Bianchi

Massimo Bianchi is the Keyline Strategic Planner and he works tirelessly to advance the reputation of the Keyline brand worldwide. Massimo is highly respected throughout the industry for his passion for locks and his in depth knowledge of keys, key cloning and cutting machines. This knowledge and passion is built on nearly 350 years of the Bianchi family being at the centre of key development and advancement and they have pioneered many developments in the world of key cutting and car key related technology.



Chris Belcher

Everyone in the locksmith world knows and respects Chris Belcher and his huge knowledge and understanding of locks and how to defeat them. Chris's development of the RPCP tools to overcome British Standard Mortice Locks revolutionised the industry, and his genius is seen in the Multi Gauge Mortice Pick - the production of which bamboozled even the best engineers in the UK. Of course to Chris this is just business as usual and comes from his skill as a Submarine Engineer in the Royal Navy for over 30 years, as Chris says, "you can't nip to B&Q when something goes wrong and you are 1000 feet below the surface".



Richard Bunn

Having previously worked as an IT professional Richard went on to train with SAVTA (Safe and Vault Technicians) in the USA. On his return to the UK he went in search for as many locksmiths, safe and automotive training courses he possibly could to refine his skills further.

Fifteen years of successful locksmithing later, Richard has specialised as an automotive locksmith and completes over a 1000 'lost keys' jobs per year for customers such as the RAC.

THE MEGAMOS[®] CRYPTO ENIGMA

By Massimo Bianchi – Keyline Strategic Planner



Our passion for keys has always travelled at the same speed as our passion for cars. My father, Camillo, cultivated this passion over the years and then it was passed to me.

Every car model has its own evolutionary story – from the first drawings to the moment it comes out from its assembly line – and with the car there comes its key.

We have seen how the key has evolved, parallel to the development of car models produced worldwide – and we studied every aspect and innovation. We have seen that there has been unstoppable technological change and constant advancement – not only to the car key, but to every aspect of the vehicle.

Our knowledge of keys, passed from father to son since 1770 to present day, has allowed us to look at the car with a careful and critical eye. However, knowledge alone is sometimes not enough and when faced with a technological challenge like this one, the most important thing is curiosity and perseverance:

The beginning

The desire to understand more and constantly make improvements has pushed us to achieve many goals; from the duplication of keys to their head cloning – made by circuits and codes which at first glance look unfathomable.

The first important result we had was to make Crypto transponder cloning possible.

The transponder type was generally believed to be most difficult to decipher, due to its complexity. However, with our knowledge of the automotive world, more precisely our knowledge of car technology and every key that allows ignition, we were able to do what was thought to be impossible – cloning the Texas[®] and Phillips[®] Crypto.

The challenge with transponder cloning was delivered and, in part, won. But we hadn't finished there, there was still a piece missing – Megamos[®] Crypto transponder cloning.



The biggest challenge

For years, the development of this technology has been a prestigious achievement as it faced the biggest challenge in cloning car keys with a transponder.

Every company that worked in the key business had been working on this for a long time - without any results. The market had been waiting anxiously for someone to announce that they had succeeded and cloned this complex system - it was the key that was still missing.

And Keyline, as one of the industry's biggest and oldest companies decided to take on this challenge. There is a quote by Lao Tzu that says: A journey of thousand miles begins always with the first step - and so it was for Keyline.

Finding the solution to the most complex enigma in the transponder world lasted for more than three years and led us to all continents - from Europe to Asia, America to Oceania.

The teams working in Europe, America and Asia, coordinated by our company in Italy made progress and periodically presented new solutions - always more refined and more efficient. The closer we got to the solution the greater commitment and dedication we put into the project.

Incessant research and analysis, always supported with several tests made by several groups of technicians and experts of the automotive world, became a routine. Within the 24 hours of a day we gathered and exchanged information, day after day, from every corner of the world.

The code complexity meant a sophisticated computer center with extensive use of cloud computing technology was needed. In addition, it was necessary to create an accessible system to manage all requests for calculation and cloning dynamically. Even now we are extremely proud to be the only ones to set up a system capable of carrying out these operations.

Another element we are constantly improving is the memory management of our servers. Today they are not only capable of recovering a key cloned weeks before, but they can also attach the key correctly as it is entered with the previously collected sniffs, combined with the original key.

We were sure the next thing to be deciphered was the enigma of transponder cloning and with the first crack of a key with transponder Megamos® Crypto being fully executed - the finish line was in sight.

Test and test again

It is difficult to say with certainty how many tests have been performed, but it must be noted that no brand of car manufacturers has been left out - everyone was tested. Our engineering worked to make the most complex key "easy and simple" to clone. It was necessary to allow our super computers to communicate in a simple and clear way with anyone who wanted to clone a key transponder Megamos®. So we released the software that allows your PC, smartphone or tablet to communicate with your device - both the 884 Decryptor Ultegra and 884 Decryptor Mini.

The first concrete result arrived with the worldwide presentation of the TKM Starter Kit, the update that allows you to clone keys with transponders Megamos® Crypto mainly used by VAG models produced between 1998 and 2003. The TKM Starter Kit was a first major breakthrough in the world of cloning and opened the door to the only and most complete solution available on the market - TKM Xtreme kit. The Xtreme allows you to clone keys with transponders Megamos Crypto® of car models produced until 2014.

TKM Xtreme made it possible to clone over 200 car keys, the most complex in the world.

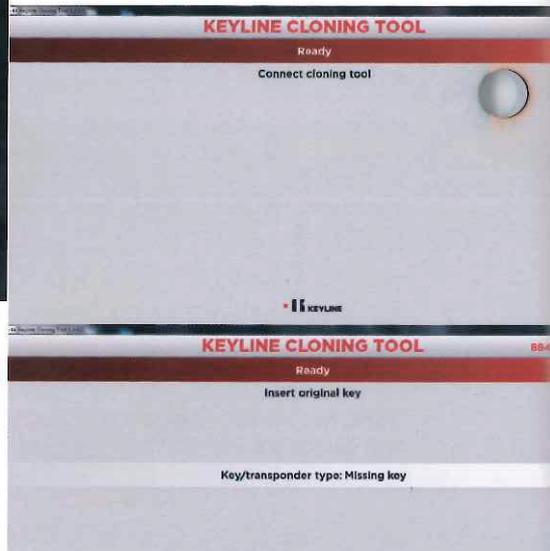
**APPENDIX- How to:
TKM Xtreme
Watchword: simplicity**

At no stage of the cloning is any interaction from the user with the software expected. The only actions required are the insertion and extraction of the original key and the electronic head, TKM from its 884, as well as the sniffs on board of the vehicle.

One of the major features of cloning any key- Philips®, Texas® or Megamos® with Keyline tools is the complete absence of user intervention. In fact, you simply follow the instructions that appear on the screen of your PC or smartphone/ tablet to successfully clone a key.

The activation of the cloning tool is also extremely simple as well as very safe:

To activate your cloning tool (884 Decryptor Ultegra/884 Decryptor Mini) just enter the electronic head TKM, found in the kit provided to you. The cloning tool starts to communicate with the cloud server that verifies the correctness of the application and is enabled to clone the transponder Megamos® Crypto. It is an option designed for the customer who needs reassurance that every operation carried out by Keyline's equipment, including the most complex, is always safe to do.



The Cloning process

The procedures that guide the cloning process are indicated in detail by the Software or by the App 'Keyline Cloning Tool' that act as assistants during the whole cloning process of the key. In fact, we paid particular attention to make sure it was easy to use, using our experiences with the 884 Decryptor Ultegra and its straightforwardness.

First you have to prepare the key copy following the standard procedures: cutting the metal stem of the specific car model of the key you want to duplicate.

The original key is inserted in the 884 and the cloning process starts. The system will immediately recognise the type of transponder to be cloned and begins to provide indications about what actions need to be carried out, which is alternating the original key with the electronic head to be copied.

Then, the car switchboard has to be turned on eight times with the copied key, making sure it has been completely removed from the ignition lock between a sniff and the other. This way the electronic head can record the data sent from the car control unit.

The cloning process will be completed following the instructions provided by the Software or the App. 884 Decryptor Ultegra or 884 Decryptor Mini use the stored data of the electronic head to calculate the secret key of the original key.

Finally, simply check the correct cloning of the key by turning on the vehicle with the copied key just made.

All types of transponders Megamos® Crypto are duplicable using TKM (for the copy), the electronic head dedicated to this type of transponder.

CONNECTING THE 884 DECRYPTOR MINI

You just need to connect it to your tablet with a USB port, or you can connect it to a PC Windows (version 7 and subsequent versions) with Internet connection.

Don't have an android smartphone or no internet connection on your laptop? No need to worry! It is possible to turn your other smartphones i.e. iPhones, into personal internet hotspots. If you are out on the road at a job you can then connect your laptop to the Internet using your personal hotspot:

Alternatively you can download the Keyline Cloning Tool mobile app on an Android smartphone and start the process of transponder-equipped car key cloning without the need to press any buttons or without connecting to a power outlet.



- 1. Click on 'Settings'**
This is located in the main menu
- 2. Click on 'Personal Hotspot'**
- 3. Turn on 'Personal Hotspot'**
Do this by sliding the button shown so it turns green
- 4. Find Hotspot Name**
This will be shown underneath for you to connect to

Once you have your hotspot name, connect your laptop to wifi as you would normally, selecting the hotspot name to connect to.



Fairweather looked forlornly out of the window of the Cutting Edge office as the rain lashed against it.

"What's the matter old chap?" asked the Editor. **"You haven't seemed quite your usual self for a while now..."**

"Good of you to ask, Boss..." said Fairweather cautiously - sure that there must be an ulterior motive behind the Editor's apparent concern.

"Remember last issue when you said you weren't prepared to do a long haul to interview someone for the Spotlight feature...?"

"Here we go!" thought Fairweather **"Er, yes Boss..."**

"Would it make a difference if I was to ask you to go to chat to a young lady?..."

"No Boss."

"...in Italy."

"What did you say?... Oh, very funny Boss. The last time you talked me into doing a long trip it meant 2 & 1/2 hours on the motorway to see a bloke in Leicester... nice enough fella, but there's no way I'm going to be going to Italy is there!?"

"Well, alright Fairweather... if your mind's made up, I'll go to meet the delightful Elena Bianchi at Keyline in Northern Italy myself. I'm sure it will be very pleasant and the Keyline set-up is very impressive. I could do with a bit of sunshine, a nice glass or two of prosecco... maybe even a day in Venice before flying back from Marco Polo airport." The Editor replied with a mischievous smile. **"Are you quite sure you don't want to go?"**

"Are you serious Boss?"

"Never more so, old chap. We could both do with a break. Here's your ticket. We're off to the Veneto region of Italy ... Merry Christmas Fairweather!"



Elena Bianchi

So later that week, just as the rain turned to snow in Leeds the pair found themselves sitting in the Italian sunshine chatting to Elena about her life and work in the family business that supplies the latest in key cutting technology to the world.

Fairweather seemed tongue-tied for once so the Editor asked:

An easy question first... what was your favourite subject at school and has it helped you since you left?

Favourite subject? Definitely languages. They have been my favourites since Middle School. They helped me a lot because when you have the passion for a foreign language you are much more likely communicate better, and to learn foreign cultures more easily. It first helped me interact with people, and now with customers. Beside English and Spanish, I studied Chinese at Universities in China for one year, in Hangzhou and Beijing.

... and what was your first paid job?

Actually my very first paid job was while working in a bar in Shepherd's Bush, in London, age 19. That was before I started University.

How and when did you become involved with the shoe repair / key & key cutting trade?

I became involved with the key cutting trade when I first joined my family business in 2011, being appointed as Area Manager for the UK market and other European countries. I still remember the first time that Matt Davenport of Davenport-Burgess took me around to visit the key cutters and shoe

repairers shops in a few places, to help me how they all varied from one another. This was my very first introduction to the trade!

How would you like to earn a living if you were not in the job you are in at the moment?

I always see myself in sales. It does not matter the product you are selling, but you need the passion for what you do, regardless of the size or nature of the company.



Where is your favourite place

My absolute favourite place is the mountains in Winter, with a lot of snow! Snowboarding is what I love to do.

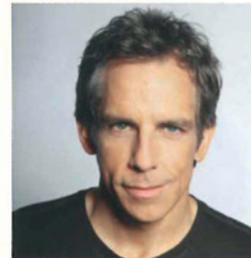


What makes your ideal day away from work?

Spending a day in Venice, walking around the mysterious "calle" (Alleys) and visiting museums, preferably on a sunny day!

Do you have a favourite piece of music, film or TV programme?

I love crime stories - both on TV and in books. Joe Lansdale is my type of an author, but I don't have a particular favourite one though.



If you were to get stuck in a lift who would you want in there with you, and why?

With Ben Stiller, he is my favourite actor and makes me laugh.

What in your opinion is the best thing a shoe repairer can do to improve their business?

In my opinion it would be expand the range, and be involved with car business, I mean the transponder key cloning activity. It is easy to start, it is not a massive investment, and the payback is definitely worth it!

How do you see the future for the Shoe Repair/Key trade?

Hopefully increasing, I speak for the key cutting side only of course, but I can see that the business is growing.

What I also see is the upgrade from the very basic popular keys, to a wide range of house and car keys.

...and finally, what are your ambitions for the future?

Honestly, my ambitions for the future are focusing on work, building my skills and learning everyday from my customers and also from mistakes - but also try to enjoy life because that is the most important thing to me. I suppose to sum it up... Building my own life of happiness. Which includes KEYS of course!



TOOLS & EQUIPMENT

Key Features of a Keyline 994

This advanced key cutting machine for automotive laser keys, edge cut keys and now Tibbe keys can simplify the workload for every automotive locksmith.



Keyline 994 machine

BY GALE JOHNSON

Code machines have come a long way in the last 50 years. The 994 Laser machine by Keyline USA is an excellent example. The 994 Laser can either automatically originate automotive keys by code or decode existing automotive key cuts and originate duplicates with the decoding feature. Key types which can be cut on the 994 machine include external 4-track keys, internal 4-track keys, internal 2-track keys and Tibbe keys such as for Jaguar and the Ford Transit Connect. A new jaw has been developed which can now be used to originate double-bitted flat automotive keys such as 8-cut key types used by Chrysler or Ford.

Vise Jaws

Key blanks come in many sizes and shapes and no single vise jaw can accurately retain every type of blank. Vise jaws for the 994 Laser machine are each works of art and especially designed to retain specific key blanks. A Keyline USA jaw application chart lists the correct vise jaw to use for all popular vehicles by year, make and model. One of four separate Keyline vise jaws marked A, B, C & D is required for originating sidwinder keys depending on the exact vehicle model and year.

One feature of the Keyline 994 Laser sidwinder vise jaws is the enclosed bridge area at the front of the vise jaw. Key blanks are inserted through the bridge area before being tightened into place. The bridge serves as an additional positive holding point for key blanks.

Vise jaw 'G' is designed for cutting automotive double-sided flat keys such as for Chrysler, Ford or GM. Double-sided key blanks are securely

994 Laser, A New Cutting Experience

994 Laser, Keyline's advanced key cutting machine for automotive laser keys, edge cut keys and now Tibbe keys will soon bring an innovative new console.

New features of the 994 Laser include:

- Innovative, compact color touch screen console with integrated stand to hold jaws, tools and cutters;
- 2 new jaws; G Jaw Kit for edge-cut keys and H Jaw for 6-cut Tibbe keys;
- Universal tracer for high security and edge-cut keys;
- Dynamic graphic representation displays key cuts and additional key information;
- Easy updates via USB memory stick or Internet;
- Three-year warranty
- Current 994 Laser owners can upgrade to the new console for a reduced cost.



Flat key vise

held by the sides of the blank near the bow and by a spring-loaded bridge which presses against the wide top surface of the key blank. A raised area supports flat key blanks above the vise jaw surface so the cutter can remove key blank material as needed without coming in contact with the vise jaw surface.



Vise jaw 'G' for cutting automotive double-sided flat keys



'A' Vise for originating sidewinder keys



Installing Vise

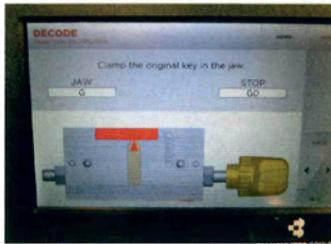
Vise jaw 'H' is used to originate Tibbe keys. Merkur Scorpio vehicles sold by Mercury dealers in 1988 first used a Tibbe key system. This system uses six disc tumblers and four possible depths. The identical key system has been used on Ford Transit Connect vehicles starting in 2010. The 'H' vise jaw has four depth angle positions, each with a spring detent. After each cut is automatically made, the machine pauses while the operator turns the Tibbe key to the proper depth detent for the next space cut. Jaguar Tibbe keys are longer and have eight cuts and three depth positions. The 'H' jaw will not originate Jaguar keys.

Console

At the heart of the Keyline 994 system is the console. The 994 console program can be password protected to prevent unauthorized persons from operating the machine. The console screen contains eight initial sections. These include bookmarks, search by car model, search by code series, search code series by key blanks, search archived information, set operating parameters, search code database and search additional code information from an optional key code program loaded on a remote PC.

In order to simplify the normal machine search procedures,

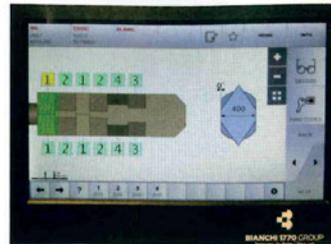
TOOLS & EQUIPMENT



Jaw G screen



Screen 2



Tibbe screen



Keyboard



Shavings tray



Tibbe Vise

locksmiths may add keys/systems most often used for later retrieval.

Car Model Search

A selection of car, cycle and truck model names is included. A keypad on the screen can be used to type in a vehicle name. As example, when GMC is entered, 17 different GMC model names are displayed. When a model such as GMC Suburban is chosen, key codes for every model year which have used either double-sided flat key or sidewinder key codes are displayed.

Code Series Search

An inventory of key codes for double-sided flat keys, sidewinder keys and Tibbe keys is included in the 994 Laser machine memory. When the code series function is chosen, locksmiths can enter any desired key code. As example, when T123 is input on the touchscreen, six different code series are displayed. A 'manufacturer' section provides secondary information such as Buick, Dodge, Toyota or Ford (Australia). Once a choice is made by touching one of the

listed code series with a stylus, a picture of the cut key plus the key cuts are displayed. The next screen shows how the key should be installed in the vise jaw. Key cutting is started by touching the 'cut' designation on the screen.

Code Search By Key Blank Number

A comprehensive list of automotive key blank numbers for domestic and European key blank manufacturers is included. Once a key blank number is input, a list of possible key code series for that blank is displayed. Screen choices then include either a listing of comparative key blanks from over 20 different key blank manufacturers or a specific key code can be input and the screen changes to display key cuts and a finished key. A touch of the stylus on the 'cut' choice sends cutting information to the 994 Laser for key originating.

Key Decoding

In order to decode a key, the 994 Laser must know the depth and space measurements. Depth/space specifications can be sourced either by searching the

'codes' file, the 'cars' file or the 'key blanks' file. Which file is used depends upon the known information.

As example, if the key is known to be for a Cadillac CTS, then use the cars file. Press 'cars', 'Cadillac' and 'CTS'. A new screen will appear and one of the choices is 'decode'. When 'decode' is pressed, a new screen will display a drawing of the correct vise jaw to use and the correct tip stop position to use. When the correct vise jaw and the key to be decoded are installed, pressing 'next' will start the automatic reading of the key cuts. Key cuts can either be saved for future reference or the cuts can be immediately used to originate additional keys.

The 994 Laser code machine can simplify the workload for every automotive locksmith. Instructions are easy to follow, all possible procedures for originating a key are included and the machine is manufactured by a company with a long record of serving the needs of the locksmith industry. For more information, contact your local distributor or Keyline-USA: 800-891-2118 or www.keyline-USA.com. 

THE NINJA



by Robert Sieveking

The Ninja key machine, a stand-alone digital automatic digital decoder duplicator and originator of flat single sided, double sided or cruciform (cross and Y-shaped) keys, is the newest machine of its type to reach North America's shores.

Brought to you by the Bianchi 1770 Group, the machine is marketed under the Keyline label and the rebranded North American marketing company, Keyline USA. Keyline USA is the new name of Bianchi USA, and all North American products going forward will be branded Keyline.

The Ninja's processor and control monitor are part of the complete package. The Ninja is also delivered with a one-year subscription to InstaCode™, the premier code and key resource.

Photo 1, Shows the Ninja key cutting machine and Control Console. The key machine operates on 110VAC (60HZ) standard USA voltage, and weighs in at a little over 44 lbs. The Control console is connected to the key machine by two cables, a serial cable and a power cable. The power cable supplies 24 volts to the control console. The serial cable communicates with the digital positioning of the key cutter. The Ninja is completely self-contained and requires no other computer interface.



18 | THE NATIONAL LOCKSMITH | Since 1929

The control console has a touch screen, which regulates the key cutting operations. The touch screen uses a plastic stylus found in the rear of the console.

The Ninja machine has a safety shield which encloses the moving components of the key cutter. The safety shield is hinged up to allow access to the key vises and cutter. This protects the operator from key chips during operation. Photo 2, shows the safety shield in the open position. The key vises and cutter are illuminated by an LED light bar, above the key vises.

The Ninja machine is accompanied by an accessory tool kit, shown in Photo 3. There is an assortment of metric hex wrenches, an open end wrench (for the cutter nut), shim pins (for clamping irregular key profiles), key gauges (for tip gauging and adjusting the machine) and a chip brush. Everything is included to allow the operator to adjust and maintain the machine.

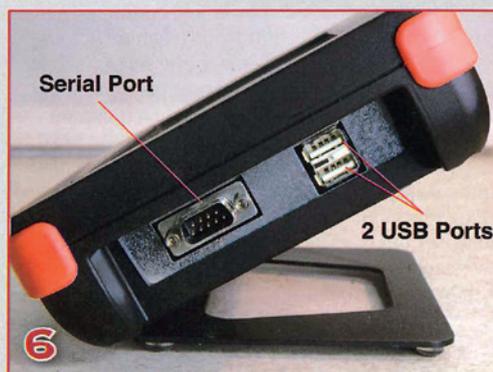
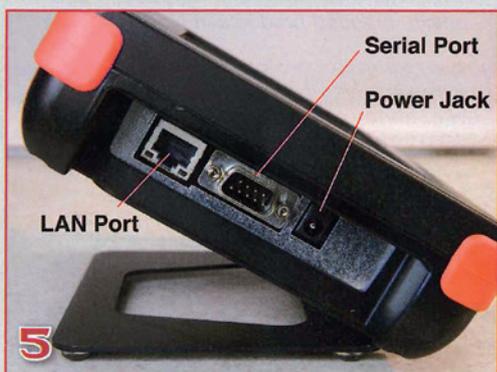
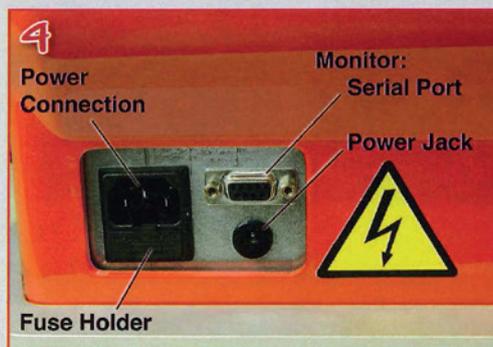
Photo 4, shows the electrical connections at the rear of the key machine. The power connection is

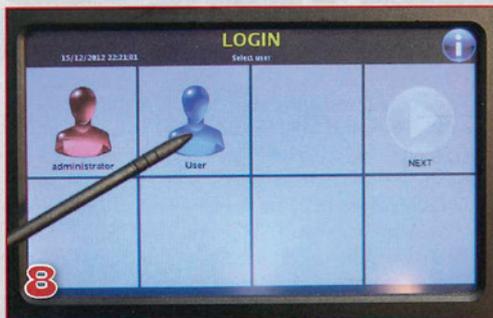


KEY MACHINE

fused. A small drawer type fuse holder below the power connection contains the main power fuse. The drawer has two fuses. One is used to protect the Ninja from overload, and the other is a spare. The control console or “monitor” is connected to the main key machine by two cables, a serial communication cable and a power cable. The serial port and power jack are shown in the photo.

The control console connections are shown in *Photo 5*. The left side of the console has a LAN port, a serial port and the power jack. The power jack supplies 24 volts to the console. The right side of the console is shown in *Photo 6*. Here we find the serial port repeated and two USB ports. The USB ports allow the console to communicate to a flash drive or computer to import updates or export archived data for backup. Import and export commands are found in the “User Menu.”





When the connected (power and communicating cables properly connected) Ninja machine is “powered up,” the console will display the screen shown in *Photo 7*. A “progress bar,” across the bottom of the screen indicates the loading status. It takes a few minutes for the program to load, but the next screen will be the “login” screen you see in *Photo 8*. Login is required if you are password protecting use of the machine. Note that there is an Administrator and User option. The administrator can add or delete users and limit access of the users. The plastic stylus is shown, selecting user. The next screen requires a password, to continue. Once entered, the screen will display the main menu, as you see in *Photo 9*.

Bianchi Name Change

Keyline USA is Bianchi's new name. The Keyline USA name may be new, but the company has been around since 1770.

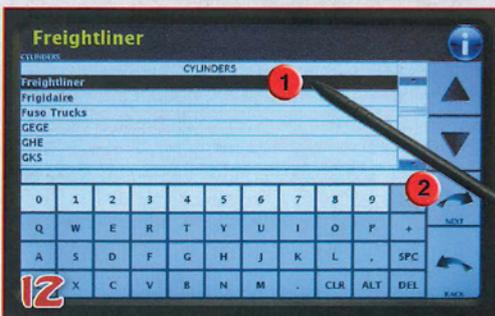
Effective immediately, Keyline USA is the new name of the North American division of the Bianchi 1770 Group. Keyline is the brand name utilized worldwide by the Bianchi 1770 Group companies, and the new Keyline USA branding is designed to unify marketing efforts under the one label. Existing Bianchi machines do not change, and technical support, North American specific automotive guides and customer service will continue through Keyline USA's Ohio headquarters.

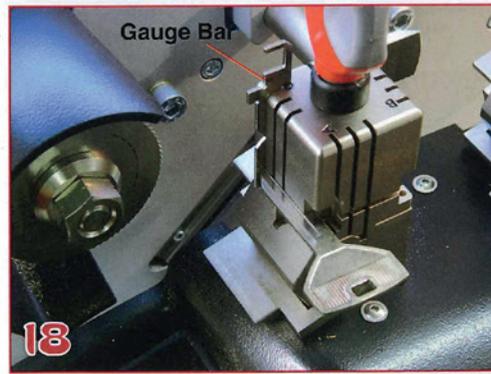
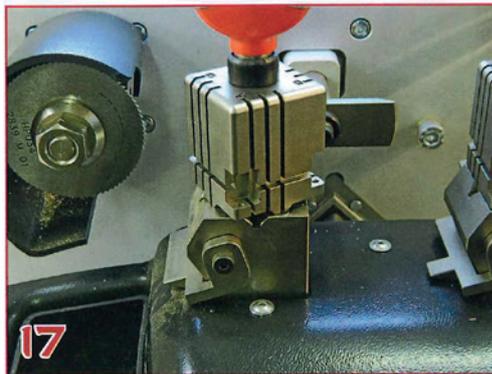
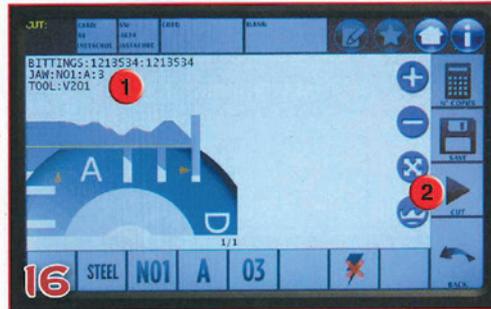
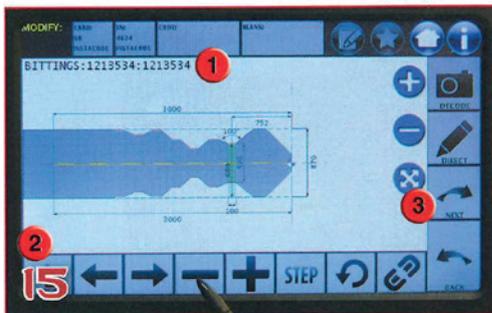
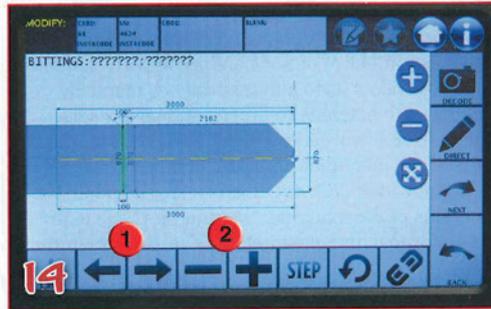
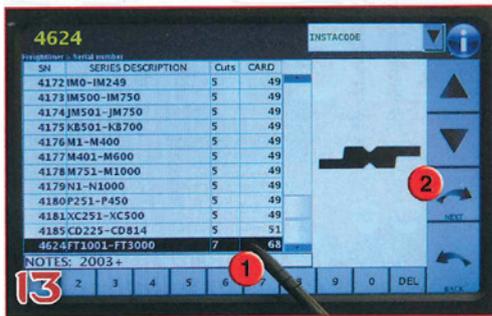


The Bianchi family has been manufacturing keys, key machines and more recently transponder servicing tools, for over 230 years. In 1770 Prospero Bianchi founded a wrought iron key artisan factory in northeastern Italy. In 2001 following two mergers of the original family company, Massimo Bianchi, creator of the first electronic key-cutting machine, acquired Key Line, an Italian manufacturer of keys and key cutting machines as well as several other small manufacturing companies to form the Bianchi 1770 Group. Subsequently in 2003 Bianchi USA was created to sell both Bianchi and private branded products in North America.

Keyline USA retains Bianchi USA's telephone (440-716-8006 or 800-891-2118) and fax (216-803-0202) numbers, but the web address changes to www.keyline-usa.com and email address changes to info@keyline-usa.com. All of the current product, support and download information on the current Bianchi USA website will transfer to the new location.

If we select "Setup" (#1) from the main menu, the setup menu is displayed in *Photo 10*. From this menu, a number of options are presented. "Calibrations" will allow us to automatically or manually calibrate the machine to other optional jaw sets. "Diagnostics" will access the status check menus of the main machine. "Updates" gives access to the communication software that is used to update the functions of the machine. "Parameters" opens the set-up for machine parameters. The "Utility" button gives access to the date and time settings, restart and reboot functions. We will not be calibrating or changing any of the presets of this machine. Click on the "Back" button (#1) to return to the Main Menu, then select "Database" (#2).





The Search Menu is displayed, as you see in *Photo 11*. Here we are presented with a number of ways to search for the key cutting parameters. "ISN/ SN" search will search the database by the Keyline Record Number for each key profile, series and card. "Code" search will search by the key code. "Card Search" will search by the Keyline or Silca code card number. "Cylinder" search searches by the cylinder manufacturers' brand name. "Cars" search searches by the car brand and model. "Motorbike" searches by the motorcycle brand and model. "Key Blanks" will search by the key number supplied by Keyline or other key blank manufacturers.

For this demonstration, we will search by the car brand and model. Select "Cars" (#1) from the menu. *Photo 12*, shows the manufacturer selection window. A number of Freightliner door cylinders, left over from ignition replacement jobs, did not have working keys. They will make good practice cylinders for our exercise. From the scrolling menu, we have selected Freightliner. The keyboard at the bottom of the screen could be used to indicate the manufacturer. The UP and DOWN arrows of the navigation commands at the right of the screen will also navigate to the manufacturers name. When it is located and selected, the "Next" button will take us to the next screen.



Photo 13, shows the scrolling menu for Freightliner. As each of the selections is selected, the key profile for the indicated code series is displayed at the right of the list. The correct code series for these cylinders is FT1001-FT3000. Select the correct code series (#1). Select the "Next" command (#2) from the navigation bar at the right, to advance to the next screen.

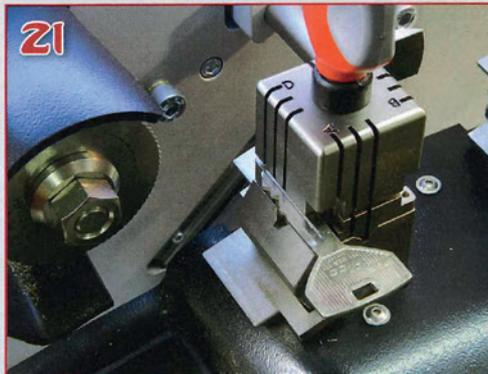
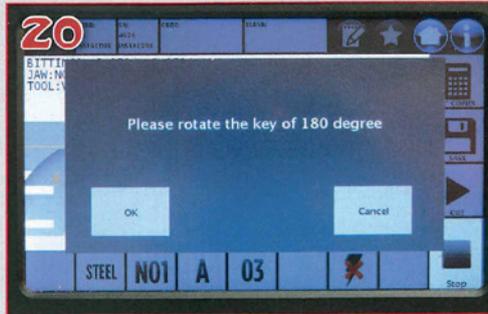
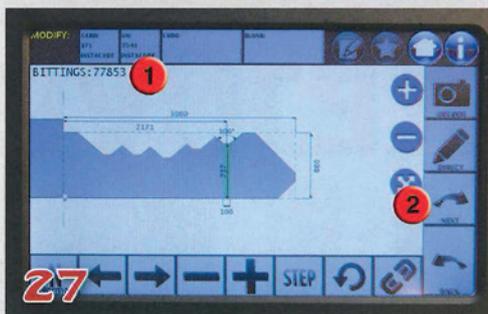
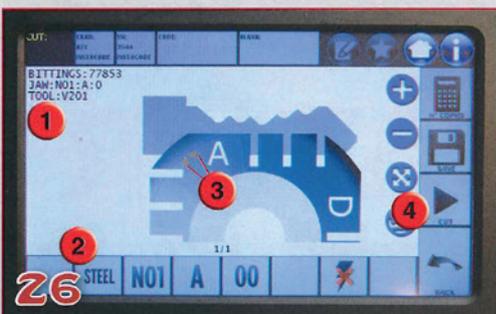
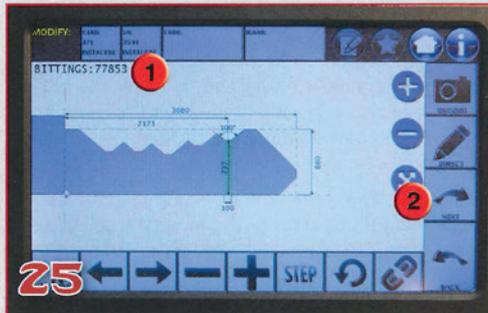
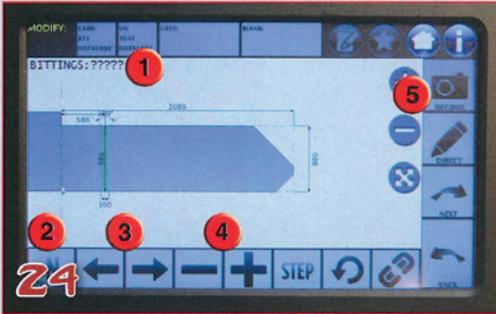
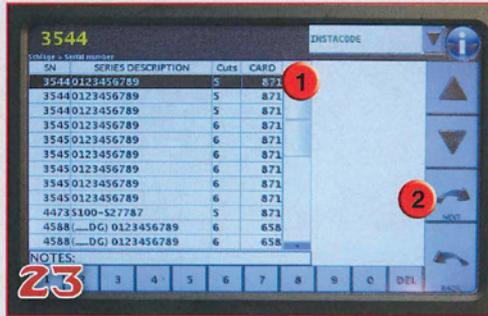


Photo 14, shows the bitting selection commands. The Left and Right arrows (#1) move the selection cursor over the key blade, to select the cut position. The "-" and "+" buttons (#2) change the cut depth of the selected position. No codes were found on the cylinders, so they were "sight-read," through the drain hole. The first cylinder bitting was read;



1213534. Using the screen controls, the bitting was entered onto the screen. *Photo 15*, shows the desired key bitting (#1) and a graphic of the desired key cut pattern. We have selected "Laser," (#2) as the desired cut type. Other options are; Normal and Plane. Select "Next," (#3) from the navigation bar, to advance to the next screen.

Photo 16, shows the Key-cutting screen. The Bitting and the jaw set-up are shown at #1. The machine calls for Key Vise set #N01, Jaw #A using Tip Stop position #3 and cutter (tool) #V201. Rotate the key vise, as you see in *Photo 17*, to properly position Key Jaw "A."

The Ninja key vises have four positions: A, B, C, and D, as you see in Illustration A. The "A" jaws are for cutting keys to a minimum depth of 3.8mm. The "B" jaws are for cutting keys to a minimum depth of

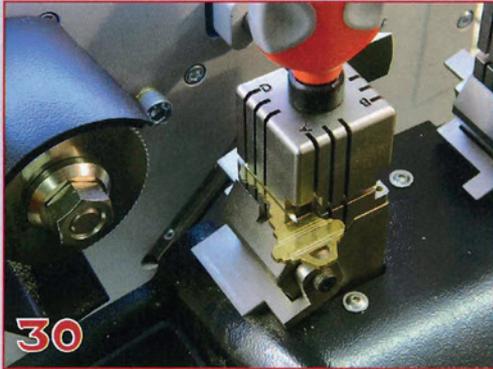
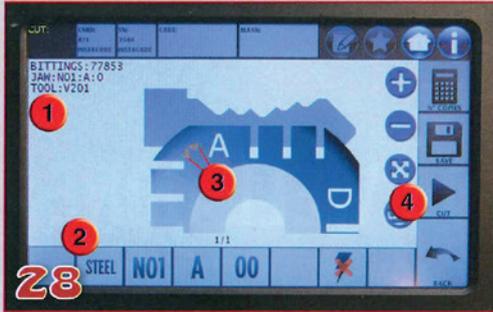
2.8mm. The "C" and "D" jaws have a rib, to clamp right and left handed double sided keys, using the key milling as the clamping guide. The "C" jaw has the rib in the lower jaw. The "D" jaw has the rib in the upper jaw.

A "Gauge Bar," from the tool kit, is used to position the tip gauged key, as you see in *Photo 18*. The gauge bar is removed after positioning the key blade.

Select "CUT" (#2) from the Key-cutting screen (*Photo 16*) to start the cutting sequence. If the Safety shield is not in the down position, you will be presented with the safety warning, shown in *Photo 19*. The Ninja will not begin the key-cutting sequence until the safety shield is in place. Bring down the

Continued on page 26

Continued from page 24



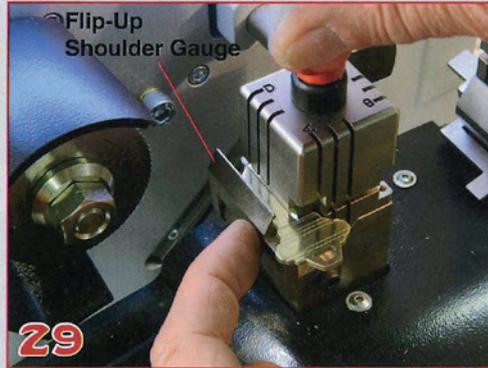
safety shield and select "OK" from the screen to begin cutting the key.

When the first side of the key is cut, the screen will change to "Please Rotate the key of 180 degrees," *Photo 20*. Reverse and tip gauge the key to cut the opposite side. Bring down the safety shield and select "OK" from this screen. The second side of the key will be cut. The completed key is shown in *Photo 21*. *Photo 22* shows the cut key "laser profile." Keys were made to each of the four test cylinders shown in *Photo 23*. All keys were checked for dimension and smooth operation. The Ninja performed perfectly in all cases.

A second test of the Ninja will be to make keys to code for a Schlage cylinder. The bitting, or code number, found on the blade of the original key will be used to cut the key.

From the "Search" menu, select "Cylinders" search to locate the cylinder manufacturers' name, as you see in *Photo 24*. Select the manufacturer (#1), then advance to the next screen by selecting the "Next" arrow (#2).

Photo 25, shows a scrolling list of all listed Schlage key specifications and code series. Our code is "direct digit," which means that the code is the actual bitting. The "Series Description" is "0123456789." We also know that the key is a 5-pin key. From the "Se-



ries Description" list we have selected a "direct digit" code series with 5 "Cuts." (#1) Select the "Next" arrow (#2) to advance to the next screen.

The uncut blank representation of the key appears in the selection *Photo*, as you see in *Photo 26*. The bitting is shown as: "?????" (#1) As we enter the bitting, this will change to represent our desired cut pattern. We have selected "N" (normal) as the desired cut type (#2). The option would be "L" laser, for a laser cut style. The Left and Right arrows (#3) move the selection cursor over the key blade, to select the cut position. The "-" and "+" buttons (#4) change the cut depth of the selected position. These commands can be used to enter the bitting pattern. Cuts (bitting) can also be entered directly, by using the "Direct" command. If we did not have the bitting, the Ninja could "Decode" the cut key (#5) for us. This is handy, for finding the bitting of a worn or poorly duplicated key. The Ninja can decode a customer's key and cut a new key to factory specs.

After the bitting has been entered, the key graphic will change to match the desired bitting, as you see in *Photo 27*. The "Bittings" (#1) are shown to be: 77853. If you are satisfied with the bitting selec-

tion, select the "Next" arrow (#2), to advance to the "Cut" screen.

The "Cut" screen is shown in *Photo 28*. The "Cut" screen displays the cutting instructions (#1). The bittings are 77853. The "vise jaw set" is #N01. The correct "vise jaw" is "A," and the key is gauged at "0" (the key shoulder). The key clamping specs are repeated across the bottom of the screen (#2). (Vise jaw-set "N01," Vise jaw "A" and Gauge Points "00") The "Gauge Points" are also indicated on the graphic of the key in the key vise (#3) by two yellow arrow points. The key is gauged at the bottom of the key vise and by the shoulder of the blank. The Schlage key blank has a bottom shoulder that can be used to gauge the key in the vise.

The bottom legend bar (#2) also contains a block that is labeled "STEEL." This is used to indicate the material of the key blade being cut. Options for this box are: brass, aluminum, steel, nickel silver and Custom. The default setting is steel. Each material has a dedicated set of parameters for table movement and cutter speed that optimize the quality of the cut. The "custom" setting can be changed in the "Parameters Panel" of the "Set-Up" menu.

To illustrate the use of the flip-up shoulder gauge, *Photo 29* shows the shoulder gauge being

used to gauge the Schlage key using the top shoulder. Lower the key gauge before beginning the cut. Close the safety shield and select "Cut" from the "Cut Screen" (#4).

Photo 30, shows the completed cut-key. A number of keys were made, to check the "repeatability" of the machine. All keys were produced within a tolerance of $\pm .001$ of an inch. All keys were tested in the test cylinder, and found to operate the cylinder smoothly. Keys produced on the Ninja machine were as good as or better than the factory produced keys. *Photo 31*, shows the Schlage keys and test cylinder.

I have to give the Ninja machine "two thumbs-up," for ease of use, surface quality of the key-cuts and accuracy. The key vises are easy to access and well lighted by the LED light bar. It duplicates keys with similar ease and accuracy, though the duplication process was not covered in this article. Safety is a special concern in any key shop, and the Ninja is well designed to prevent accidental injury.

For more information on the Ninja contact:

Keyline USA

Phone: 440-716-8006 or 800-891-2118

Fax: 216-803-0202

Email: info@keyline-usa.com

Web: www.keyline-usa.com



KEYLINE: THINK NEW

HISTORY, TRADITION, INNOVATION

The history of Keyline goes back almost 250 years and has always been closely associated with the Bianchi family.

Since 1770, when Prospero Bianchi founded his first workshop to manufacture wrought iron keys, the tradition of excellence and innovation in the development of keys, first in Italy and now across the World, has been handed down for eight generations to the present day with the Keyline company operating under the guidance of Massimo Bianchi.

Today Keyline is an integral part of the Bianchi 1770 Group – and is the strategic and technological centre for the production of every type of key and for the design, development and manufacture of the latest innovative key cutting machines.

WORLDWIDE PARTNERS

Keyline works in partnership with leading key specialists and police forces around the World using its acclaimed expertise to supply machinery for the duplication of any kind of key.

Several major European and American automobile manufacturers have also adopted the technology developed by Keyline to offer their own customers a fast and perfect copy of vehicle keys, offering total security to the owner of the original.

HIGH LEVEL DESIGN

The high-level design of the Keyline brand products is also expressed by the new generation of key cutting machines equipped with artificial vision systems, capable of detecting a key's encryption in less than a second. The touch screen interface offers fast operation and an intuitive interface. Duplicating a key requires great precision of execution and therefore state of the art machinery is needed to avoid disruptions to customers.

NEW MACHINES

Keyline's electronic key cutting machines allow perfect execution in every situation of use, reducing the possibility of errors to zero.

For example, Ninja, Sigma Pro, Falcon and Arcadia, the four key cutting machines launched in 2012 by the Keyline R&D office are the result of an endeavour that goes beyond the mere assembly of electronic components and becomes a full-blown passion.

UNLIMITED POTENTIAL

But Keyline technology is not limited to keys and key cutting machines. The Keyless System Kits, compatible with the Keyline 884 Decryptor Ultra cloning device, are based on TK100 consolidated technology, the first and only universal electronic head, therefore making it possible for Keyline clients to duplicate not only BMW and Volvo keyless systems, but also Toyota, Kia and Hyundai devices.

The UNIVERSAL100KIT is devised for universal use as entrance control systems in the home environment, for example, so that the end user can enjoy a remarkable degree of flexibility.

Keyline is also proud of its partnership with WH Software, a company with over 20 years of experience in the key industry that offers advanced software applications. Thanks to this agreement, Keyline offers to its clients, inside the Instacode Token Box, a full free one-year license for Instacode software. At the end of the trial period, customers can choose whether to purchase a license renewal and keep using the program.

EFFICIENT COMMUNICATION

In 2012 Keyline launched a new website for the global market. It is available in eight languages, and was designed to renew the Company's public image in the 50 countries in which it operates with over 60 importers. The web content design was inspired by contemporaneity, simplicity, and visual streamlining and is characterised by an intuitive graphic layout. The application was developed with business in mind and is based on innovation and the latest communication techniques.

Along with its website, Keyline also launched a communication channel



aimed at the entire key business industry. Keyline TV, together with all of the company's social pages (Facebook, Twitter, Google+, YouTube and Pinterest), keeps the public updated on the company's activities and products.

NEW BRANDING

The new website and TV channel is part of the rebranding process that involves all of the companies in the Bianchi 1770 Group. The goal of the entire rebranding operation was to beat the competition in an increasingly global market, which is going to reward those companies and those groups that demonstrate their innovative drive and readiness to face the challenges of the new millennium.

The rebranding operation was accompanied by a worldwide campaign with the catchphrase "THINK NEW". The campaign has gone viral, both in traditional and new media, in more than 20 countries throughout the world.

WORLD DISTRIBUTION

Keyline can ensure the distribution of its products thanks to four direct line companies controlled by the parent company Bianchi 1770

Group: Keyline Distribuzione (for Italy), Keyline Germany (for Germany), Keyline USA (for North America) and Bianchi Shanghai (for The People's Republic of China). Besides these four companies, Keyline distributes its products in over 50 countries in the world through a network of over 60 local distributors.

UK SUPPLIERS

In the UK market, the 2013 Keyline distribution network involves two companies: Davenport Burgess and NW Keys.

In July 2012, in the county of Cheshire, the new KEYLINE UK exhibition area was opened. It was designed to offer Keyline's UK distributors a dedicated space for tests in front of customers and for the presentation of the innovative features of the Company's products.

Keyline has also recruited a new resource, whose specific responsibility is providing and assuring added value to Keyline's technical support in the UK for the distributors, before and after the sale.

www.keyline.it

UK DISTRIBUTORS:

DAVENPORT BURGESS
tel: 01902 366448
email: sales@davenport-burgess.com

NW KEYS
tel: 0151 944 1187 / 0151 922 1325
email: sales@nwkeys.co.uk

884 DECRYPTOR ULTEGRA

The 884 Decryptor Ultegra device is the solution for the cloning of electronic keys and remote controls. Its advanced computing power, ease of use and versatility, guaranteed by easy and quick updates, make this the ideal choice for operators in the automotive technology sector.



Its benefits include:

- Compact design
- Advanced computing power
- Versatile and simple to use
- Quick and easy updates

994 LASER

THE 994 LASER IS AN ELECTRONIC CUTTING MACHINE FOR AUTOMOTIVE FLAT AND LASER KEYS

The 994 Laser can be used with five different easily replaceable jaws. Its compact and functional design is a true innovation and its precision and reliability guarantee consistently excellent results.



Its benefits include:

- Cut keys by decode or code
- Exclusive Keyline patent key tilting prevention system
- Instant self-calibration
- Convenient console with wide touch screen display and intuitive software

NINJA

THE FIRST & ONLY COMPACT, HIGH PRECISION CUTTING MACHINE FOR SINGLE & DOUBLE SIDED FLAT KEYS

The Ninja's next generation software includes several useful functions including the management of multiple users, the saving of cut keys, importing customised data and the ability to download updates from the internet.



Its benefits include:

- Compact and attractive design
- Huge key database already installed
- Unparalleled speed
- Maximum precision and reliability
- Stand alone mode offers operation without a console or PC connection
- Update the machine via Smart Media, LAN or USB port

VERSA

THE FIRST SPECIALISED MACHINE FOR SEQUENTIAL DECRYPTION, CODE ENCRYPTION OF HIGH SECURITY DIMPLE AND LASER KEYS

This is a computer-guided machine equipped with an up-to-date database containing the codes and technical parameters for optimal key cutting.



Its benefits include:

- Stand alone operation or InstaCode connected mode
- Encoding of one side of a key in seconds thanks to its innovative 28,000 RPM spindle
- High quality dimple key cutting with a 3D cut jaw for cylinder keys
- 4 standard jaws for all types of vehicle keys plus a master
- Automatic calibration and key recognition system
- USB, LAN & serial ports for easy connection to multimedia systems and networks

INSTACODE PROMOTION

Fully featured, dynamic one year free licence, Instacode is the Number 1 software, compatible with all our electronic duplicating machines. From today, the technology is just a turnkey away!



Exhibition Area:
 KEYLINE UK, 18 Beeston Court, Stuart Road,
 Manor Park, Runcorn, Cheshire, WA7 1SS.

TEST DRIVE: *Bianchi 106*

Casey Camper,
CML, CPS, goes
hands-on with Bianchi's
flagship key machine.



Introduced in 2006, the Model 106 is Bianchi's flagship semi-automatic duplicator.

INTRODUCED IN 2006, THE MODEL 106 IS A SEMI-AUTOMATIC duplicator and the flagship in an extensive line of commercial-grade key machines. If you're not familiar with Bianchi machines, you'll recognize features on the 106 that build on the strengths of previous generations of excellent machines, including the ONE from HPC, the Silca Bravo and ILCO's Bravo II.

Key Features

The 106 is built on a cast-iron base to dampen vibration. At nearly 60 pounds, it's not going to move around on the bench by itself. No provision has been made for bolting it to a bench, which can be a consideration if you're planning to mount it in a service vehicle. If that's the case, Bianchi tech support suggests using longer bolts through the rubber feet.

The listed operating temperature range on this machine is 32F to 104F. I have not personally tested this claim, but it appears reasonable for mobile environments. The machine comes standard with a high-speed steel cutter with a modified V profile. This allows a primary cutting sweep from bow to

“Useful features include the built-in tool tray on top of the machine, and a chip drawer, which can only be removed when the carriage is lifted, preventing accidental spilling.”

tip, and a “clean-up” pass from tip to bow. The profile also allows it to cut keys with a deep cut next to the shoulder, such as Titan. An optional carbide cutter kit is available, as is a slotter kit for flat keys.

The carriage is mounted on bearings, and left and right travel is smooth but slightly restrained to help minimize slamming the key into the cutter and the resulting damage that can occur to the cutter teeth. The four-sided key vise jaws allow clamping of most keys and are positively locked in place by a lever at the bottom of each jaw assembly. Several keys that might provide a challenge on other machines, such as the GM Z groove (B106) and various Best key sections, clamped with no adapters. As expected, a Chicago K2W key required using the shim wires provided to hold it flat in the vise.

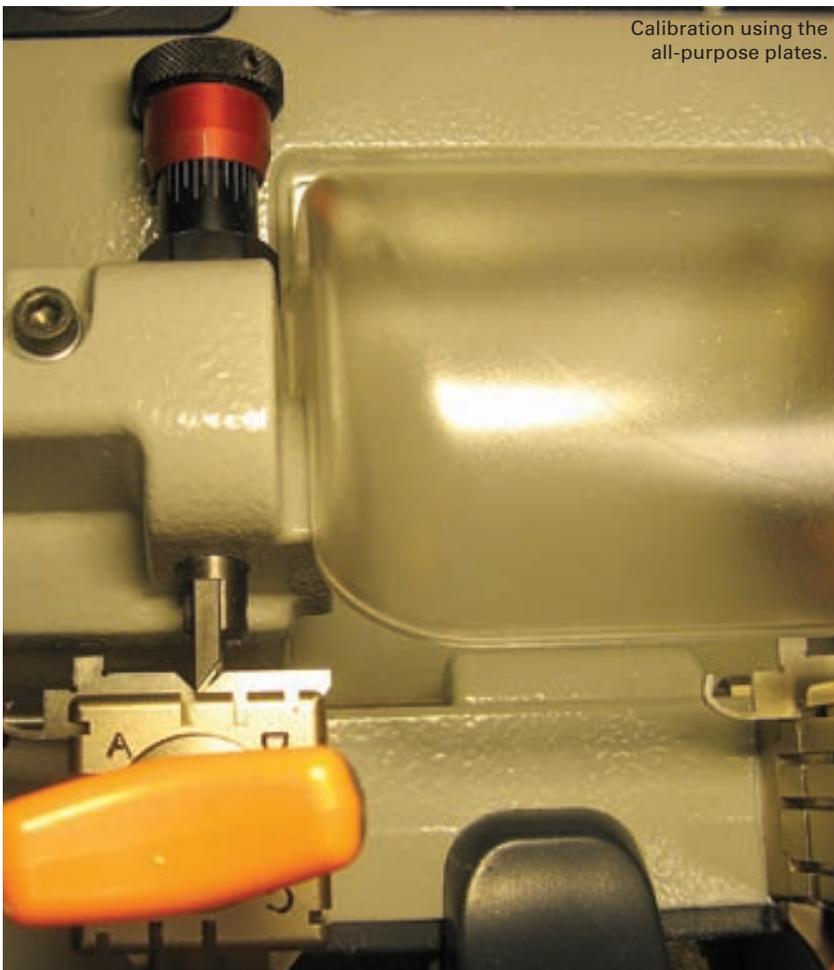
The flip-down key gauge locks the carriage release trigger. The motor is not powered until the carriage is raised to the cutting position, preventing accidental damage to the cutter or gauge. The machine has two buttons on the face — one for power, the other for operating the brush to deburr keys.

Other useful features include the built-in tool tray on top of the machine, and a chip drawer, which can only be removed when the carriage is lifted, preventing accidental spilling. A fluorescent lamp is provided for additional light with a handy flip-down magnifying glass attached to the underside of the lamp neck. Unfortunately, the lamp is on full time when the machine is powered, and only turned off by the master power switch on the back of the machine.

The 106 supplied for this review came with a foam-lined case housing a number of tools, including a small paint brush for cleaning, a wrench and locking rod for cutter removal, six hex wrenches for adjustment, and two all-purpose plates for cutting and adjustment.

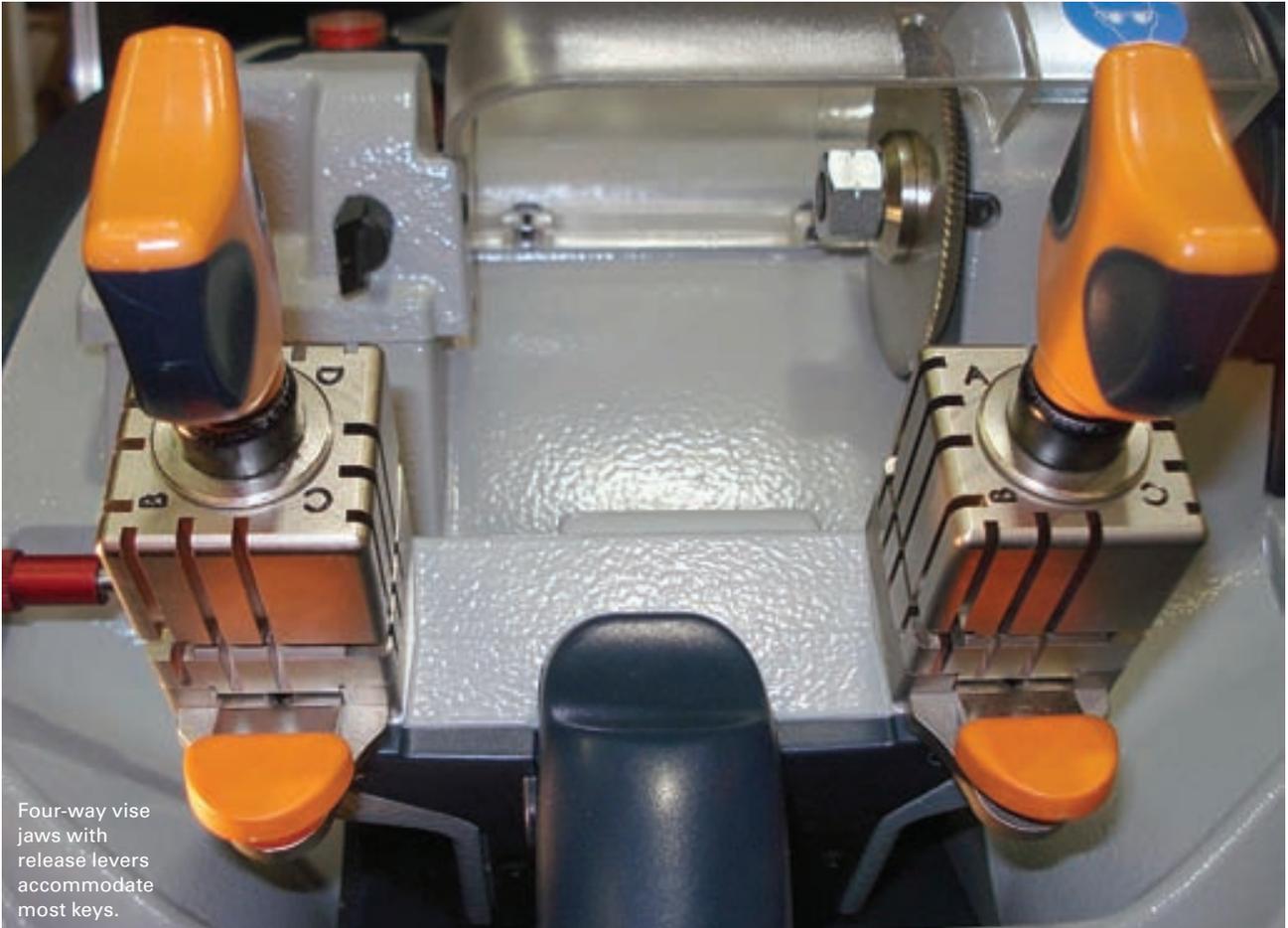
Calibration

The all-purpose plates are used to reference tip stop keys and accomplish machine adjustment. To adjust spacing, power is turned off and a plate is inserted into each

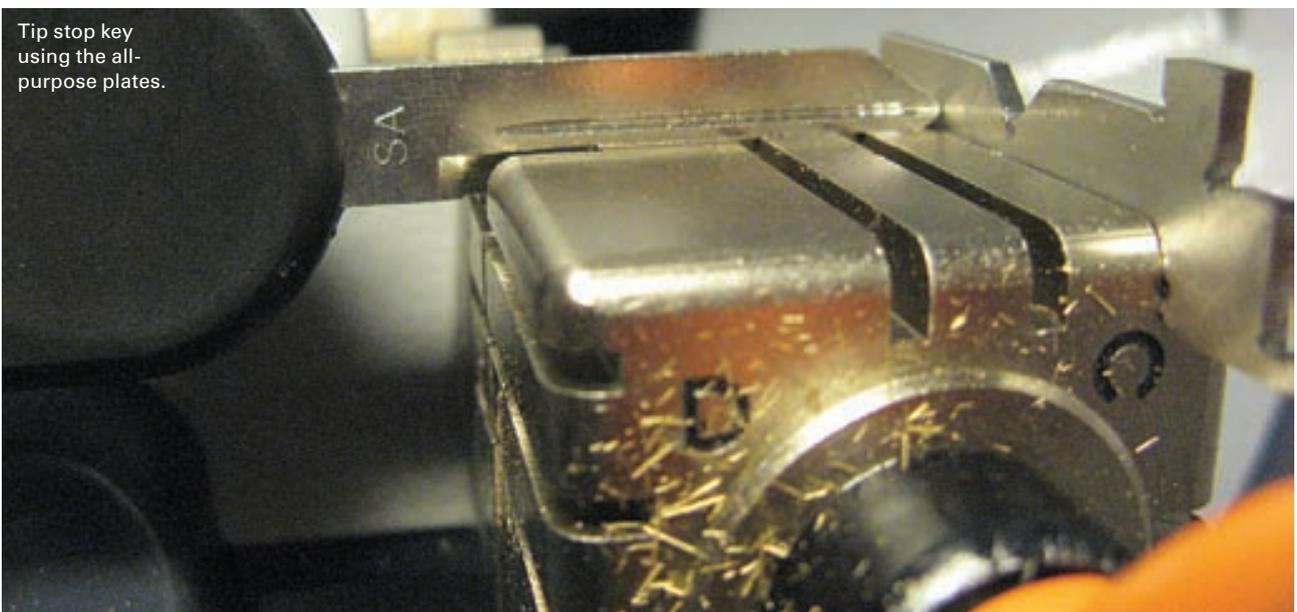


PRESS REVIEW

Magazine Keynotes
Release July-August 2012
Page 3/4



Four-way vise jaws with release levers accommodate most keys.



Tip stop key using the all-purpose plates.

wise. The shoulder stops on each plate are placed against the flip-down key gauge. With the stylus centered in the left plate's V notch, the cutter wheel should be centered in the right plate's notch. A screw allows adjustment if necessary. Depth is adjusted by turning the knob at the rear of the stylus, which is also held in position by a set screw.

While turning the cutter by hand, the depth is adjusted until the cutter teeth stop against the plate and then backed off until the teeth just clear, allowing the cutter to turn. This process was quick and easy, and yielded reasonably accurate results.

Accuracy

Accuracy is subject to wide interpretation. How accurate is "good enough"? A duplicate key cut on site can be tested in the cylinder and adjusted, if need be, to operate smoothly. That luxury doesn't exist on keys that are brought to the shop. A higher degree of accuracy is required to ensure that the duplicate will work at least as well as the key presented for copying. This becomes less likely for each duplicate of a previous duplicate, because each generation of key is likely to be further from the original manufacturer's specification.

The 106 was tested to see how many generations of keys could be copied before the keys might be considered bad. Obviously, this is a subjective standard, since locksmiths are far less tolerant of a poorly working key than the average customer. To maintain consistency, commercial-grade cylinders with factory-cut keys and original key blanks were used. Duplicate generations were then made until a key was deemed bad. It was decided that to be considered bad, the key would be difficult to turn, not turn, or require additional manipulation to operate the cylinder.

A good working key through four generations was typical, and with several keys, 10 generations could be achieved before a



Wire shim adapters are provided for irregular keys.

significant difference in the feel of a key occurred. Using one Schlage cylinder, the 20th generation was reached before the key would not turn at all.

Summary

The 106 should meet or exceed all expectations for a duplicator. It is well-designed, heavy duty and accurate. It successfully copied keys that can be challenging to duplicate and, with the exception of the light switch arrangement, its feature set is excellent. Current dealer price is around \$1,700, comparable to other machines of this caliber. While not inexpensive, factor-

ing in the increasing costs of key blanks and business reputation, it is an investment worth considering. ☺



Casey Camper, CML, CPS, began locksmithing in 1974. His career includes service as a factory representative for a major lock manufacturer as well as more than 20 years owning and operating two full-service locksmith and security companies. He is an ALOA certified instructor who has taught at the ALOA national convention and is currently a consultant providing advice, training and custom installation assistance to locksmiths, security companies and commercial clients. He was the 2005 recipient of the ALOA Continuing Education (ACE) Instructor of the Year award.

COMPANY PROFILE – KEYLINE S.P.A.



What comes to mind when you think of Italian passion?

A powerful red Ferrari certainly raises most men's heart rates... or how about Casanova? Nobody can deny Giacomo's reputation as a passionate womaniser, despite the fact that he spent his later years as a librarian. Then for the slightly older of us guys there is of course Sophia Loren, the gorgeous Italian film star who still looks fabulous at 76. However, the one thing that I'm confident you wouldn't come up with quickly is a key!



Yes, the humble door key really does unlock the passion in at least one man.

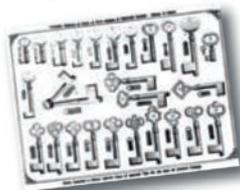
That man is Massimo Bianchi, the sixth generation of a family based in the Veneto region of northern Italy. His company, Keyline, whose headquarters are just outside his home town of Treviso designs and produces keys, mechanical and electronic key duplicating machines, and is a world leader in the technology of car keys equipped with transponders.

“I think brass and steel runs through my veins”

admitted Massimo when I spoke to him during my visit to his company headquarters last Summer.

He is a surprisingly unassuming man considering his achievements since he invented the first electronic key

cutting machine back in 1988 when he was then general manager of his father's business. So much so that, when I passed by the man in specs, blue jeans and an open necked shirt in the corridor I just assumed that he might be one of the technicians. Then I was shown into the company board room and that same man was waiting for me to interview him!



Quietly spoken Massimo explained the way his family ties with locks and keys have led to the world renowned Bianchi 1770 Group, of which Keyline is just a part. Last year, as its name implies, Bianchi

1770 celebrated the two hundred and fortieth anniversary of when Prospero Bianchi started to make wrought iron keys in his blacksmith's workshop in Cibiana di Cadore, a small mountain village in the Dolomites about 70 miles north of Venice.

THE TRADITION BEGINS

Apparently old Prospero was just as much an entrepreneur as his present day counterpart Massimo. From his little craftsman's workshop, Prospero became something of a pioneer in his trade and by the late 18th Century he had founded the Bianchi 'dynasty' and started a tradition which has since been handed down from father to son for six generations to the present day. Over the years that little workshop has grown into a fully-fledged industry, always with an eye on the latest technological developments in the sector.

By the late 19th Century Prospero's grandson, also called Prospero, had created the first key catalogue which was printed and distributed throughout Europe. The start of the 20th Century was a period of great upheaval throughout the world, not least in the key manufacturing industry. New technology was still just around the corner and then in the 1950s Prospero II's son, Camillo began working in his father's workshop as an apprentice. He was a locksmith just like his father and

also excelled at what he did.

Soon he had invented a key duplicating service which allowed for the cutting of duplicate keys immediately, without first having to contact the lock manufacturer, which had previously been the usual time-consuming method.

OUT OF THE VILLAGE, INTO THE WORLD

This revolutionary idea transformed the Bianchi family's trade from a craft to an industry and led to the company moving from the village that had been its base for almost two hundred years to the industrialised city of San Vendemiano in the Treviso region. From then on the Bianchi family company's development has been phenomenal.

In 1974 Camillo founded his own company, SILCA ('Società italiana lavorazione chiavi ed affini' which translates into 'Italian Company for making Keys and Similar Devices'). The Eighties saw a rapid growth in the technological development of the family business as key cutting improved to meet the ever-changing needs of the motor industry. Massimo's creation of the first electronic key-cutting machine opened up an even more opportunities for market and product development because now it wasn't necessary to have the original key to copy – a key code was all that was needed.

COMPANY PROFILE... COMPANY PROFILE... COMPANY PROFILE... COMPANY PROFILE...



KEYLINE TODAY

So this brings us back up to the present – or at least a couple of months ago - as I was shown around Keyline’s impressive headquarters and factory, where incidentally all key and machine production is still done.

“After more than 140 years we are still proud to be an Italian company”

explained Andrea De Faveri, Keyline’s Sales Manager as he guided me through the production processes of both the mundane brass door keys that are still at the heart of the company and the latest machines that now duplicate even the most complicated of auto transponders.



FUTURE PLANS

Despite this obvious success Massimo Bianchi still remains faithful to his first love, keys. Although, as you will no doubt expect, he isn’t just thinking about your ordinary door key. Later that evening outside a little restaurant high in the hills overlooking Keyline’s headquarters over a glass or three of Prosecco, the famous sparkling white wine that is produced by the vineyards in the Veneto region, (a great end to a great visit by the way) Massimo couldn’t resist telling me that he was already planning for the near future.

“We are moving away from metal keys and have completely incorporated the technology for products designed for the automotive sector” he explained. His eyes then lit up as he went on to tell me “This technology will soon be transferred to residential keys and Keyline aims to be ahead of the competition in that area too.”

Prospero would be proud !

To find out more about what Keyline has to offer you go to www.keyline.it ...and if you ever get the chance to visit Massimo & Co. in person you really shouldn’t miss out on a great opportunity to go ‘through the keyhole’ to take a look behind the scenes of this world leading company with a real sense of ‘family’.

In 1997 Massimo, who was by then the Chairman of Silca, agreed the merger of the company with the Canadian Unican Group, making it a multinational company with Massimo as Vice Chairman. A further merger in 2001 with the Swiss Kaba Group subsequently took the family to the top of the world in the key market.

BACK TO BASICS

However, it seems that Massimo Bianchi is more an inventor and entrepreneur than an executive behind a company desk. So it was perhaps not such a big surprise when he very soon decided to leave Silca and in 2002 acquired Keyline, which became another part of the Bianchi 1770 Group.

The Bianchi 1770 Group now has companies in the USA and China selling keys, key cutting machines and transponder servicing tools, as

well as one in Italy making moulded plastic products for kitchens and bathrooms and another in Germany producing metal parts for furniture manufacturers. In fact shortly after I spoke to Massimo I received an update from him that the Bianchi 1770 Group had just successfully completed negotiations on a major contract to supply Ikea with hinges and fittings.

Under Massimo’s leadership Bianchi 1770 has grown in less than ten years from a relatively small company which was little more than just a workshop in the early days, with a turnover of 4 million euros and around 500 products in their catalogue to a world-renowned company with a turnover of 40 million euros and over 7000 products available and plans to increase both turnover and products by up to 25% in 2012.



The final stop after a fascinating tour was the company showroom where along with various promotional displays I was able to see the latest cabinets, etc., in the distinctive Keyline livery that are available for ‘key’ retailers to help them add a touch of Italian flair to their shops back in Britain and elsewhere throughout the world.



The key business



For some centuries, the Bianchi family from Conegliano in Italy has been dealing with a universally known product that is hard to miss in many environments. Its key business is literally the design and production of keys, as well as mechanical and electronic key cutting machines. Nevertheless, time has not stood still in the past decades. The mere production of keys has been playing an ever decreasing role while transponder key duplication has moved to the limelight, paving the way for modern technology as produced by Keyline S.p.A. The company was acquired by the Bianchi family in 2002.

Back at the end of the 18th century, an ancestor of Massimo Bianchi, who now owns and manages Keyline, started a business of his own making wrought iron keys. "Prospero Bianchi was the founder of our dynasty that has been involved in the production of keys for six genera-

tions. However, today, a new technological element has emerged and electronic solutions have clearly taken over. This development becomes visible when looking at the latest generation of key cutting machines, which have made life much easier for locksmiths and for lock and key

Keyline is one of the leading manufacturers of mechanical key duplication systems



Modern electronic duplication machines are equipped with a touchscreen

services," stresses CEO Massimo Bianchi. "No doubt we still sell simple mechanical key duplicating equipment, but there is a strong trend towards electronic duplicating machines."

Technology is approaching at a rapid pace, and Keyline has become one of the leading brands in the key market. "We have always taken a vanguard position in the market. For instance, my father Camillo Bianchi invented an instant key duplication system in the 1950s that has been sold the world over," points out Mr. Bianchi. "I, myself, have been equally active. In 1988, I launched the first electronic duplicator capable of applying the latest information technology and numerical control."

So against the backdrop of family tradition, Mr. Bianchi was well prepared to acquire Keyline, which is now part of the Bianchi 1770 Group. Keyline applies the latest technology and has at hand inventive designers and engineers to produce state-of-the-art duplication machines. Its catalogue includes about 4,000 key models.

"From mechanical to electronic key duplication machines equipped with a touchscreen – we have them all. Currently, the demand for duplication machines for electronic car keys has been rocketing," states Elena Bianchi, Massimo Bianchi's daughter and responsible for Keyline's PR and marketing activities. "Constant innovation and new

EUROPEAN BUSINESSJOURNAL ANZEIGE Security services & products



Keyline is now focusing on transponder key duplication for the car industry

product developments are essential to keeping our pioneering role in the key market."

The latest development focuses on transponder key duplication, which can be applied to more than 80% of all existing cars. "As we supply the complete range of computerised key duplication machines, we make a great difference to locksmiths. We have been successful in setting up a vast distribution network with an international orientation," says Ms. Bianchi.

"Within the past three years, we have experienced strong growth. In particular, the figures of our international expansion are fantastic," stresses Mr. Bianchi. "Currently, we export 72% of the entire production, 39% of which goes to markets outside Europe. The US market accounts for 20% alone, followed by Europe and Australia and Asia. The Asian market is the fastest-growing

market at the moment. Likewise, we are doing extremely well in South America, Russia, Dubai and the Middle East."

Keyline has understood to position itself in a true niche segment, with a clear focus on electronic key duplication. "We are moving away from simple key production and clearly target key technology as applied in the automotive industry. This has been a wise decision, anticipating future trends. The double-digit increase in turnover over the past years reflects the effects of our business strategy," adds Ms. Bianchi. "I am convinced that growth will remain a constant companion in the years to come. There is still a huge potential hidden in modern key-related technology."

No doubt Keyline will benefit from this development. Keys are still essentials but traditional keys do not play the main role anymore. ■

Keyline S.p.A.

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Keyline duplicates the keys of success

A centuries-old tradition meets technology. That is what Massimo Bianchi, the sixth generation of a family based in the Veneto Region, has done with locks. Now his Keyline has become a world leader and aims to...

From wrought iron to a microchip, the gap is not so great. Especially in the Veneto Region, where tradition and technology often go hand in hand. A good example is Keyline, a company based in Conegliano (Treviso) which designs and produces keys, mechanical and electronic key duplicating machines, and is a world leader in the technology of car keys equipped with transponder.

It started out as a simple craftsman's workshop for making wrought iron keys, founded at Cibiana di Cadore by **Prospero Bianchi** at the end of the 18th century. A pioneer in his business, the founder of the Bianchi dynasty started a tradition handed down from father to son for six generations to our own time, and the little workshop grew over the years into a full-fledged industry, with an eye on the technological developments in the sector. For example, **Camillo Bianchi**, the fifth generation, created a system in the Fifties for instant duplication of keys that spread all over the world and led him in 1974 to found a large company in the sector, called Silca, Società italiana lavorazione chiavi ed affini (Italian Company for Keys and Similar Devices). Three decades later, the business came down to his son **Massimo**, 51, who in 1988 invented the first electronic duplicator capable of applying the enormous potentials of information technology and numerical control to the sector of keys and their production. This invention, following the development of mechatronics, gave Silca access to the international market, also thanks to its merger

with the Canadian group Unican, of which Massimo Bianchi became vice-president, and the subsequent merger in 2001 of this company with the Swiss group Kaba.

Then the Third Millennium began and the sixth heir of the Bianchi family, after leaving the multinational company where he sat on the executive board, went back to being an entrepreneur and in 2002 acquired Keyline, which became part of Gruppo Bianchi 1770 (with a turnover of 35 million euros in 2010, expected to grow to 40 million in 2011). It is the strategic and technological fulcrum in the production of any type of key and the design and production of duplicating machines (4,000 key models in the catalogue), without abandoning the centuries-old tradition of a business linked to a universally known and (still) irreplaceable product.

From a small company, little more than a workshop, with a turnover of 4 million euros in 2005, Keyline has grown, in just three years, by double-digit leaps, into a medium-sized business employing 80 workers – the entire group employs 200, including two other companies, one for molding plastic and one in Germany producing parts for furniture – capable of building a brand that is now known everywhere in the world. «We are moving away from metal keys and have completely incorporated the high technology for products designed for the automobile sector, which will soon be transferred to residential keys as well» Massimo Bianchi, chairman and managing director of Keyline, explains to *Panorama Economy*. The company ended 2010 with turnover up 10% compared with 2009, at 13.5 million euros, and the EBITDA up by 12%.

These are large figures, and the figure for exports is even larger: 72% of the entire production, of which 39% is going to markets outside of Europe, from the U.S. (where the company has initiated important partnerships with the main groups in the sector of automobile parts), to South East Asia and the Far East. It's still full speed ahead for Keyline: the company ended the first quarter of 2011 with an increase of 20% in its business compared to last year and, although April showed a slight reduction in the number of orders, in May the portfolio was already full.

The growth plan foresees investments in the electronic sector, with joint ventures or small acquisitions, mainly in Italy. Another strong point is the activity of research and development, which employs six electronic and mechanical engineers and in which Keyline invests over 5% of its turnover every year. The goal is to continue to increase the turnover, especially abroad. «The Italian market is a little backward in the security sector, while they are more active abroad. There has been a big drop in the U.S. in the last three years as a consequence of the elimination of many concessionaires by General Motors, but the survivors are also working for the ones that have been closed. And we are concentrating our business on fewer clients but with a stronger orientation toward investment, willing to spend to provide themselves with the best equipment on the market. We are developing a new product and we are the company that has adapted best to the particular needs of that market. We also have a potential new contract that we hope to close in a short time, and that will bring us new production volumes».

The company also has South America and China in its sights, and it recently opened a sales branch in Shanghai. «But we will keep production in Italy where we have the high technology at hand. In Veneto, Lombardy and Piedmont we have everything we need» concludes Bianchi.

Massimo Morici