FAST COPY
Plus

Operating manual

D437174XA
vers. 6.0

EN

SILCA®

INDEX

GENERAL

This machine has been designed according to CE norms. The materials used in its manufacture are not dangerous and their use makes the machine comply to standards. The machine and all its parts are completely safe to use.

Instructions manual

The instructions manual provided with the machine is essential to its proper use and to carry out the necessary maintenance.

We therefore recommend protecting the manual from damage in a safe sheltered place, easily to hand for quick consultation.

Residual risks

There are no residual risks arising from use of the machine.

Protection and safety precautions for the operator

The operations for which the machine has been designed are easily carried out at no risk to the operator.

The machine is designed with features which make it completely safe in all its parts.

Safety

To operate in complete safety, before using the machine read and fully comprehend the concepts, instructions and regulations described in this user's manual.

- Periodically check the electric wiring. If the wires are frayed or worn, repair or replace immediately.
- Always work with dry hands, cleaning any grease or oil from them.
- Always disconnect the machine when it is not in use or when carrying out maintenance operations.
- Do not tug at the electric wiring and ensure that it does not come into contact with oil, sharp objects or heat. Never remove the earth wire from the plug.
- Ensure that the earth wire is always properly connected.
- Do not use the machine in dangerous environments (damp or wet).
- Always work in a well-illuminated location.
- Keep the working area clear and remove any tools from around the machine before turning it on.
- Any visitors, especially children, must stand at a safe distance from the machine and not be allowed to touch it or any of the wiring.
- Do not use the machine for purposes different from those described in this manual.
- Do not use the machine if the ON/OFF switch is not working properly.

Power supply

The machine is supplied through a 15 Vdc universal power provider, supplied with the machine.

Start-up

The machine is started up by means of the master switch (E).

Machine identification

The machine is provided with an identification label which shows the serial number (Fig. 1)
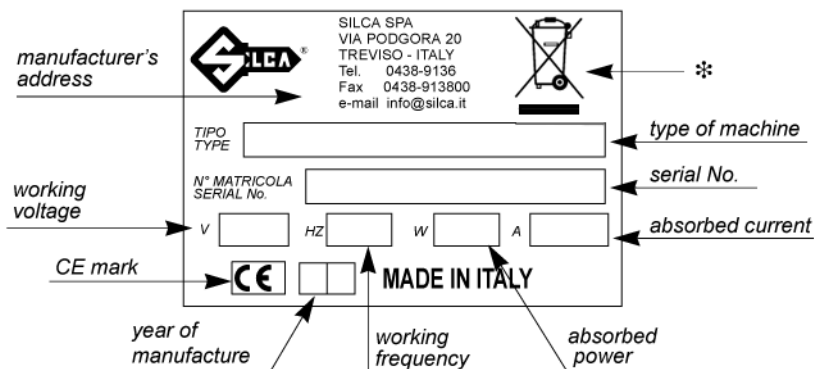
Fig. 1

(*) see chap. 10 WASTE DISPOSAL, page 45

1. MACHINE DESCRIPTION

The machine is used to easily duplicate many types of transponder keys for vehicles
(125 KHz.).

In particular, the machine is able to read and display the electronic code stored in the memory
of Philips*, Megamos* , Temic* e Texas* transponders used on the keys, and re-write it on a
blank transponder.

The machine works alone or connected to a personal computer. A functions menu is
incorporated to meet all the needs arising during operation.

For a list of car makes and models whose keys can be copied, consult the articles published in
the Silca catalogues and updates.

1.1. Main Features

Operation modes

– copier/detector - transponder reader/writer
– stand-alone

Special functions

– interface with HOLDEN - COMMODORE
– program in various languages

Software updating

– The machine can be updated by connection to a personal computer via RS232 or USB.

Power supply

– directly from the mains through an external universal power provider and special cable.

1.2. Technical data

Power supply

– Universal AC/DC power supply in compliance with directive 2006/95/CE;
  carries UL mark: 100/240 Vac - 50/60 Hz/15 Vdc - 3 A
– machine: 12-18Vdc - 10W

Antenna field frequencies

– 125 KHz

Dimensions

Width 245 mm
Length 160 mm
Depth 80 mm

Weight

– Kg. 0,60

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* Megamos, Philips, Temic, Texas are registered trade marks.

1.3.   Working parts

The structure of the machine is extremely simple.
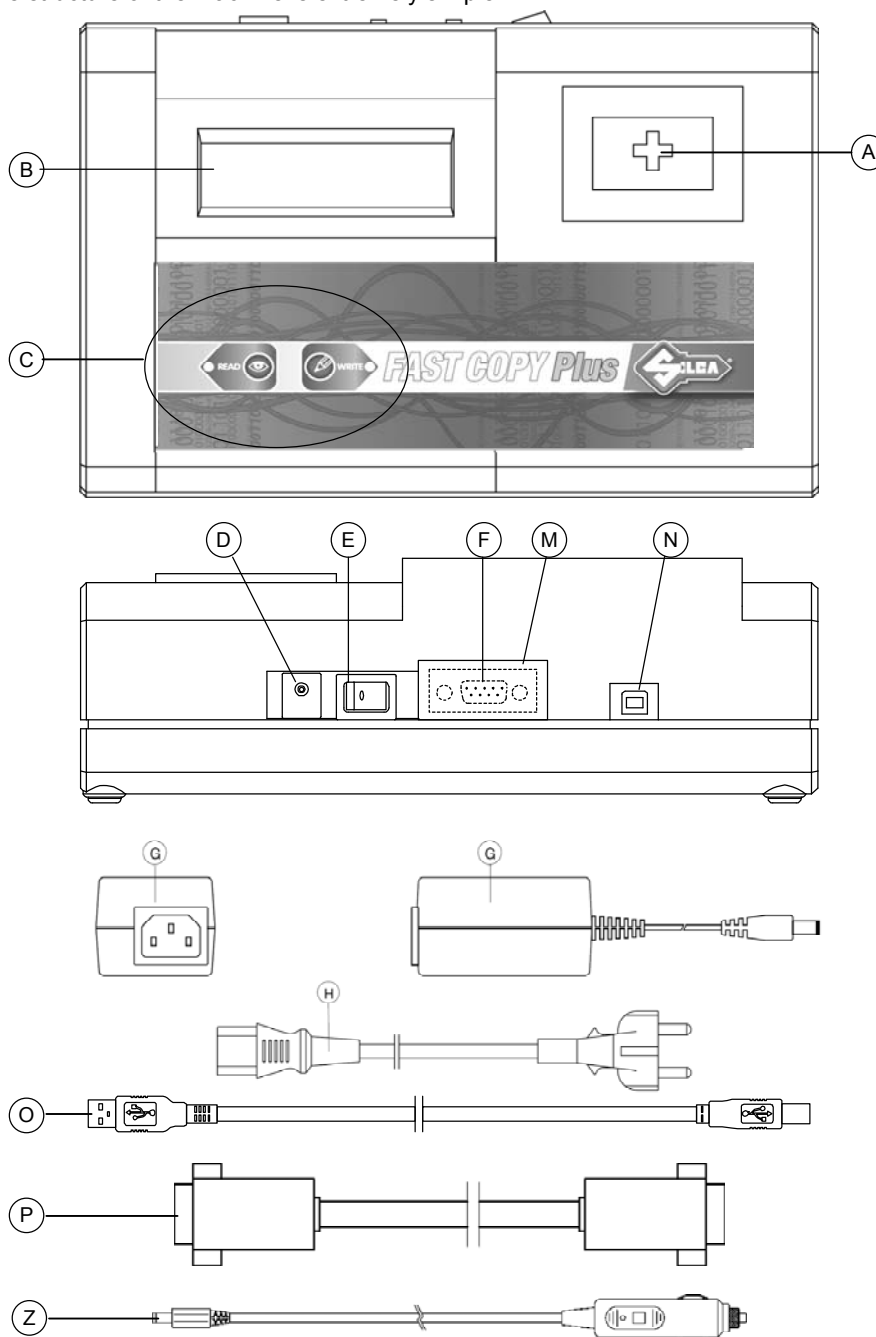
Fig. 2

A - reading/writing antenna

B - liquid crystal display for 20 + 20 characters (2 lines)

C - 2 key keyboard

D – 12-18 Vdc power supply socket

E - master switch (POWER ON)

F - RS232 connector (9-pole)

G - 15V D.C. power provider

H - power supply cable

M - cover

N - USB connector

O - USB cable

P - serial cable

Z - cigarette lighter power supply cable

1.4.   Special features

KEYBOARD

The incorporated keyboard (Fig. 2, page 7), allows the user to interact with the machine quickly and easily At any given time the keys are enabled only for the cycle in progress.

The illuminating LED next to each key guides the operator in using the key in the way described below:

LED off	key CANNOT BE USED
LED on	key CAN BE USED
LED flashing	key CAN BE USED for optional functions

Fig. 3

The following keys are available:

READ
the key starts the transponder reading procedure or is used to go back to the beginning of the operating flow in progress

WRITE
the key starts the transponder writing procedure or is used to go to the next stage in the operating flow in progress

LIQUID CRYSTAL DISPLAY

Alphanumeric display with 2 lines of 20 characters each, illuminated from behind.

1.5.   Symbols used on the display

The boxes are organized to supply information about what the operator can or must do by using the keys available.
The first line may be fixed or scrolling, according to the message to be shown.

	I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y		
◄	R	E	A	D																

The second line suggests the keys to use and the function associated to them:

◄	R	E	A	D									W	R	I	T	E	►		

◄	B	A	C	K							C	O	N	T	I	N	U	E	►	

1.5.1.   Transponder indications to use for making copies (KEY REFERENCES)

Identification mode

At the identification stage the key-cutting machine not only signals the type of transponder detected on the original key, but also indicates which Silca(*) transponder to use for making a copy, e.g. if a Philips fixed code transponder is identified, the display will show:

P	H	I	L	I	P	S		F	I	X	E	D			3	3			COPY ON T5
◄	B	A	C	K						C	O	N	T	I	N	U	E	►	

The message "COPY ON T5" means that the transponder detected on the original key can be copied onto a Silca T5 transponder.

Copy mode

In the copy mode, after reading the original key, the key-cutting machine indicates which Silca(*) transponder to use for writing, e.g. if a Philips Crypto code ID42 is being copied, the display will show:

	I	N	S	E	R	T		B	L	A	N	K		K	E	Y			T10
◄	B	A	C	K									W	R	I	T	E	►	

The message "INSERT T10 KEY BLANK" indicates that the transponder to use for making a copy is Silca (*) T10.

(*)   The key-cutting machine can be set up so that the indications about the transponders to be used are given according to Silca, Orion or Ilco references.
        More info in Ch. 7.6.1

NOTE: If a transponder that cannot be cut is detected on the original key, the key-cutting
        machine will indicate which type of transponder is on the key, with the message
         "CANNOT BE COPIED".

1.6.   Electrical/electronic circuit

MAIN PARTS

1. **PRINTED CIRCUIT BOARD:** contains the microprocessor which runs the key reading/writing operations, the supply circuits, interface with the keyboard and display and the connectors between the antennas and personal computer.

2. **DISPLAY** liquid crystal, retro-illuminated, 2 lines of 20 characters.

3. Control **KEYBOARD** with 2 keys.

4. **USB RECEPTACLE**

5. **MASTER SWITCH**

6. **MAINS SUPPLY SOCKET** 15V/350 mA

7. **ANTENNAS** for reading/writing tuned to 125 kHz

8. **RS232 9 pole RECEPTACLE**

9. **CBOX-MB expansion board**

OPERATIONAL ELECTRICAL BLOCK/CIRCUIT DIAGRAM
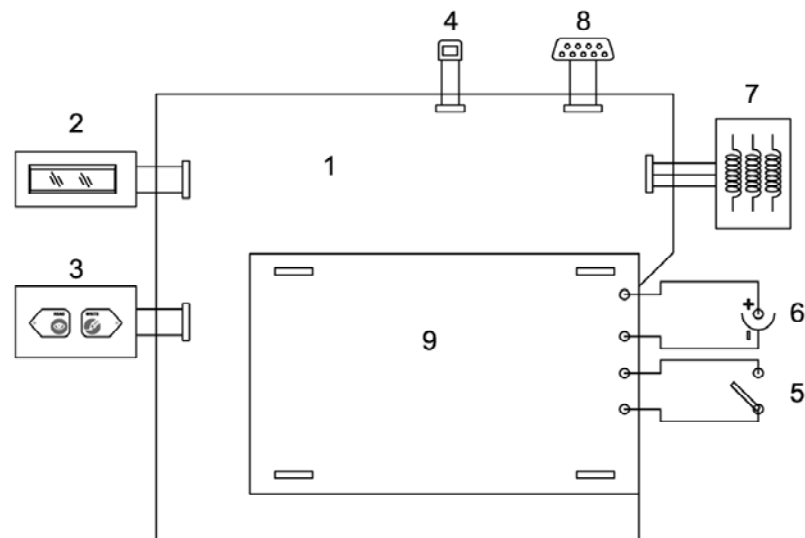
2.   TRANSPORT

The machine is easily transported and is not dangerous to handle. The packed machine can be carried by one person.

2.1.   Packing

The packing is designed to ensure safe transportation and protect the machine and all its parts.
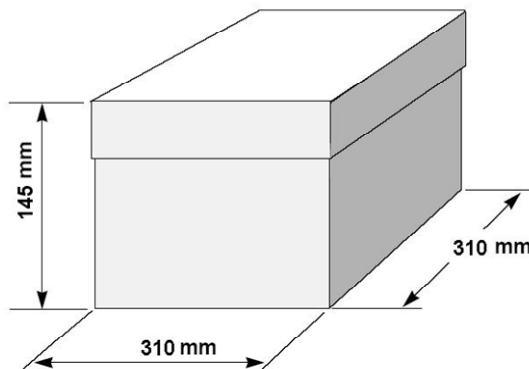
Fig. 4

2.2.   Transport

It is advisable to use the packing every time the machine is transported, as this will avoid knocks causing damage.

2.3.   Unpacking

To remove the machine from the packing box:

1.   it is advisable to open the box without damaging it so that it may be used again (removals, dispatch to manufacturers for repairs or servicing);

2.   check the contents of the box, which should comprise:
   –   1 machine
   –   1 universal power provider
   –   1 power cable
   –   1 serial cable
   –   1 USB cable
   –   1 set of documents, including: operating manual and spare parts list
   –   1 cd-rom
   –   1 cigarette lighter power supply cable

2.4.   Machine handling

When the machine has been unpacked, place it directly on its workbench.

3.   ACCESSORIES PROVIDED

– The machine is supplied complete with:
– universal power provider;
– power cable;
– serial cable;
– USB cable;
– user's manual;
– cd-rom for stand-alone operation (to be used only if the program installed on the machine is lost)
– cigarette lighter power supply cable

4.   MACHINE INSTALLATION AND PREPARATION

The machine can be installed by the purchaser and does not require any special skills; it is supplied ready for use. However, some checks and preparation for use need to be carried out by the operator.

4.1.   Preparation for use - preliminary operations

turn on and select local operation (stand-alone);
set up the language.

4.2.   Checking for damage

The machine is solid and compact and will not normally damage if transport, unpacking and installation have all been carried out according to the instructions in this manual.
However, it is always advisable to check that the machine has not suffered any damage.
Should faults be found which are not due to the above mentioned risks, contact the Silca After Sales Service.

4.3.   Environmental conditions

The machine working alone operates at an ambient temperature of -20 to +55°C.
To ensure that the best use is made of the machine and relative keys with transponders, the operating temperature should be restricted. **Given the characteristics of the transponder on the key blanks THE KEYS MUST BE CODED IN AN ENVIRONMENT WITH A TEMPERATURE OF 20°C OR OVER.**
The ideal conditions for the machine are therefore:
– temperature between 20 and 40°C;
– relative humidity approx. 60%.

4.4.   Positioning

The machine does not require a special location; simply place on a horizontal surface of suitable size.

ATTENTION: **the universal feeder provided with the machine and any electronic equipment should be placed at least 50 cm from the antenna to avoid their generating interference which could affect reading and/or writing of the transponder (see Fig. 5, page 13).**
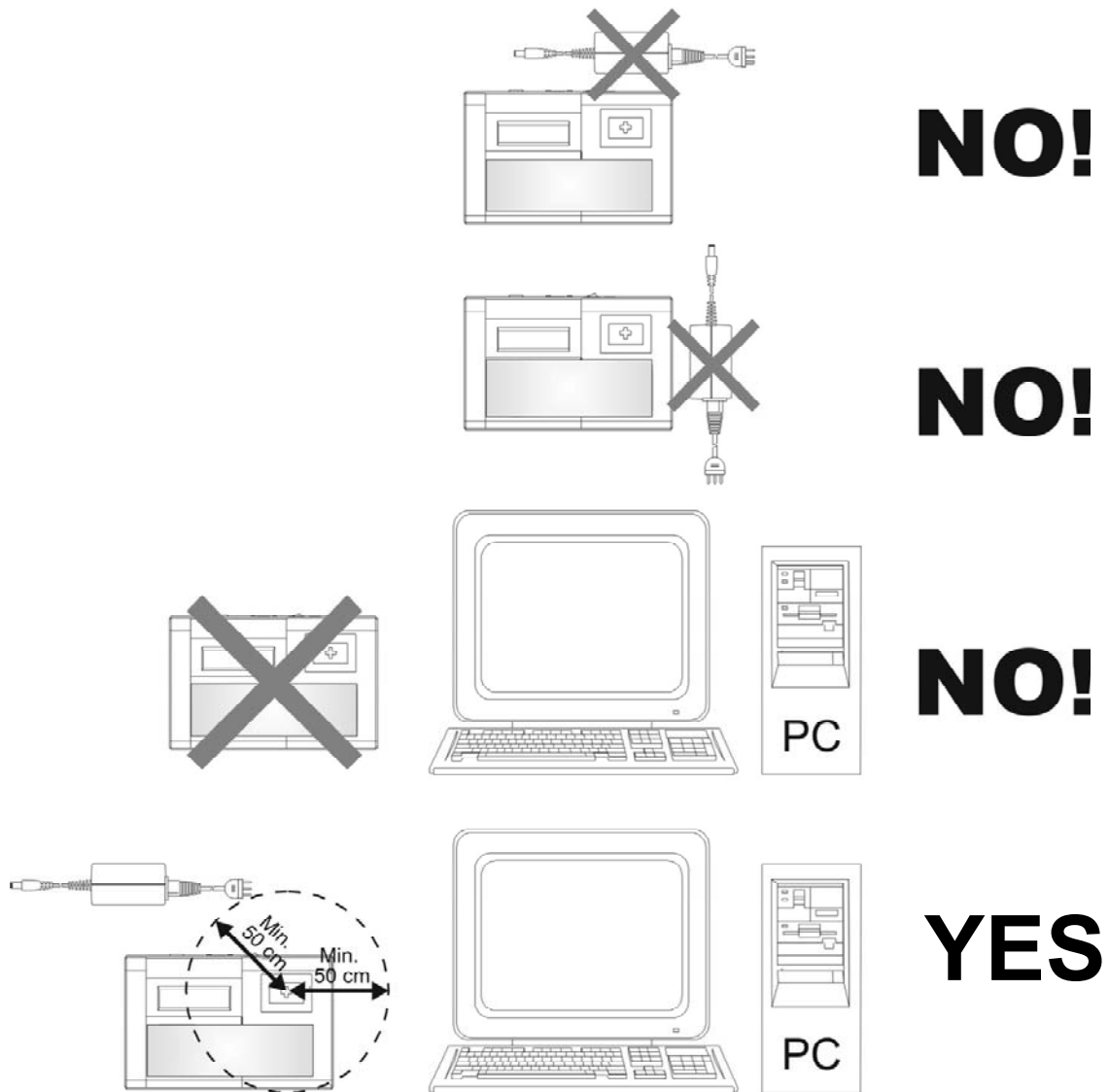
Fig. 5

4.5. Software update

The machine's on-board software can be updated (for future expansion) through a personal computer, USB port or RS232 serial port.

ATTENTION: **the USB and RS232 inputs necessary for connection to a personal computer is placed on the back of the machine.**

Use the USB or RS232 cable, and follow the instructions given on the update cd-rom.

5. REGULATION AND SETTING OF THE MACHINE

The machine does not need any setting or regulation.

6.   COM-CODE MODULE FOR CODING HOLDEN-COMMODORE KEYS (OPTIONAL)

6.1.   Operative parts

Q power cord (provided on the Com-Code module)
O serial cable (provided on the Com-Code module)
G universal input (provided on the machine)
P computer connection serial cable (provided on the machine)
N Com-Code
R power lead from vehicle cigarette lighter (provided with Com-Code module) (Fig. 7)

N1 module power input connector
N2 serial connector for PC connection
N3 machine power input connector
N4 serial connector for machine connection
N5 power supply warning light

6.2.   Installation

No special skill is required to connect the module to the machine; use the two cords 'Q – power input' and 'O – serial' provided on the Com-Code module.

6.3.   Use

The module does not interfere with machine connection to a PC.
Both the machine and the module can be powered through the vehicle cigarette lighter.
The two figures "Fig. 6" and "Fig. 7" show the various uses for the machine and module.

N.B: whatever power supply configuration is chosen, the module is active only if the red light (N5) is on.
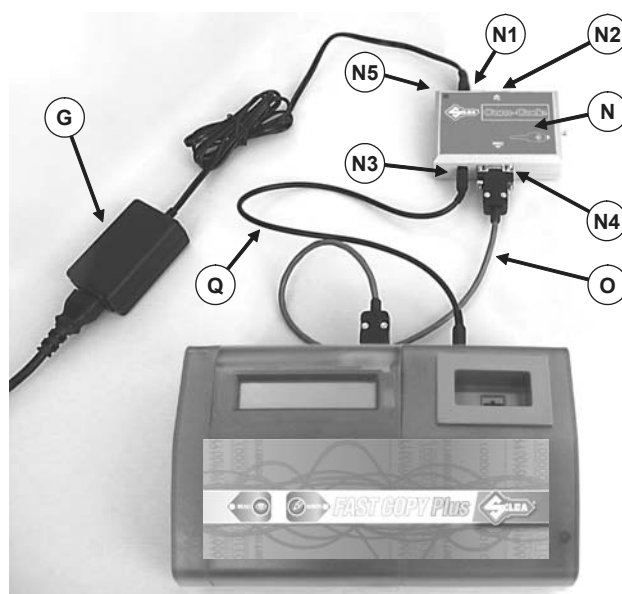
Fig. 6

Machine and module powered by the universal input (with or without connection to a PC).
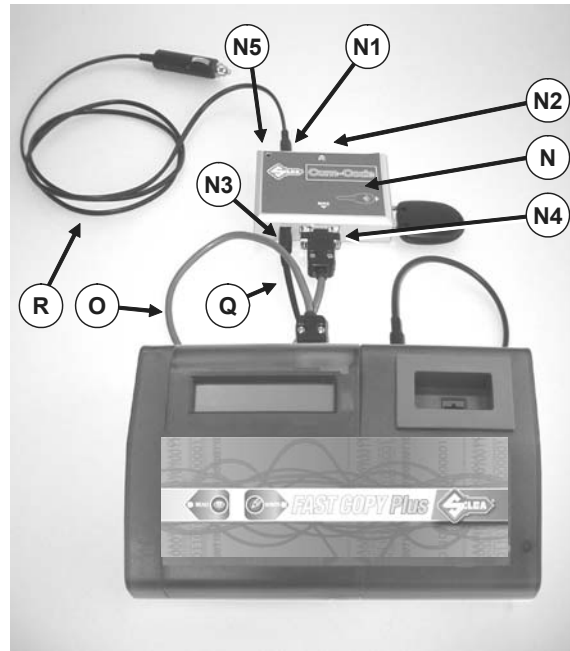
Fig. 7

Machine and module powered from cigarette lighter (with or without connection to personal computer).

6.4.   Software upgrade and use with PC

Software for both the machine and the module is upgraded separately and independently through the connections shown in Fig. 8. Use an RS 232 serial cable of less than 3 metres in length or an USB cable and follow the instructions provided with the upgrade cd-rom.
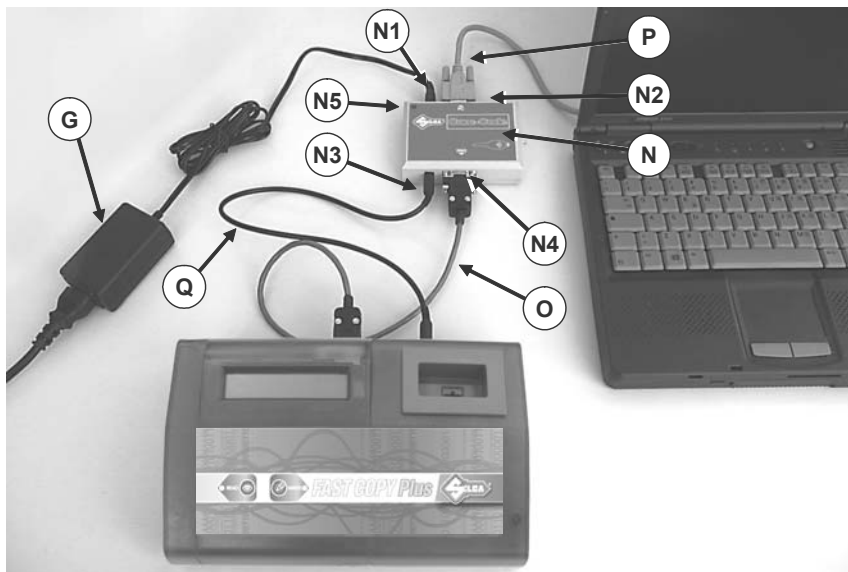
Fig. 8

7.   USE OF THE MACHINE

This chapter describes all the operations for copying, identifying, reading and writing a transponder key.

Also described is the use of the Com-Code module for coding Holden Commodore keys.

7.1.   Ignition

			V	E	R	.		X	X	.	Y	Y	.	z	z	z			

The general wording " VER. XX.YY.ZZZ" indicates the version of internal program on the FAST-COPY device.

If the HOLDEN MODULE is connected to the device the ignition screen on the display will show:

			V	E	R	.		X	X	.	Y	Y	.	z	z	z			
H	O	L	D	E	N		M	O	D		V	E	R		x	x	.	y	y

including the internal software version on the HOLDEN MODULE

After a few seconds (approx. 3):

	I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y			
◄	R	E	A	D																		

7.2.   Reading

Fit the key all the way into the special hole on the front of the machine (antenna), then confirm that the key must be read by pressing the **READ** button**.**

The reading operation will start. For a few seconds there appears:

	R	E	A	D	I	N	G		I	N		P	R	O	G	R	E	S	S	
				W	A	I	T	.	.	.										

If there are problems during transponder reading (no transponder, cannot be copied, crypto, reading error, etc) a warning message will appear.

Below are some examples:

	T	R	A	N	S	P	O	N	D	E	R		N	O	T				**DETECTED**	
◄	B	A	C	K																

P	H	-	C	R		V	A	G	-	F	O	R	D		4	W			**CANNOT DUPLICATE**	
◄	B	A	C	K						C	O	N	T	I	N	U	E	►		

If the electronic code is read successfully, there appears:

	R	E	A	D	I	N	G		S	U	C	C	E	S	S	F	U	L			
			R	E	M	O	V	E		K	E	Y								

7.2.1   Calculation for Texas Crypto transponder
(60,61,62,63,64,65,67,68,69,70,XX,6F,6A)

If a TEXAS crypto transponder is being copied, when the key is removed the display will show:

	K	E	Y		D	A	T	A		P	R	O	C	E	S	S	I	N	G	.	.	.	.	W	A	I	T			
◄	S	T	O	P				x	x	/	9	9		-																

To interrupt the operation hold the READ button down for 2 seconds.

The number shown from 00 to 99 indicates progression of the calculation. This operation may take up to 15 minutes.

If calculation is not successful, two error conditions may occur:

a)

T	R	A	N	S	P	.		C	R	Y	P	T	O						CANNOT DUPLICATE	
◄	B	A	C	K							T	Y	P	E	-	-				

In this case the original key cannot be copied as it CANNOT BE COPIED.

b)

I	N	T	E	R	N	A	L		C	B	O	X		E	R	R	O	R		COD=YY	
◄	B	A	C	K																	

In this case an internal error has occurred (COD = YY) in operation of the circuit board dedicated to calculating. Try again. If the problem persists contact the after-sales service, providing the error code shown.

If calculation is successful the device will proceed with the writing operation.

7.2.2   Special cases in reading

If the transponder is a PHILIPS CRYPTO (ID = 40,44) on which the ID part can be copied:

P	H	-	C	R								4	4			CANNOT DUPLICATE	
◄	B	A	C	K					C	O	N	T	I	N	U	E	►

When WRITE is pressed again the display will show THE FOLLOWING QUESTION:

			C	O	P	Y		O	N	L	Y		I	D		?		
◄	N	O													Y	E	S	►

Press the READ button to return to the beginning.
Press the WRITE button to go on to writing only the transponder ID code.

7.2.3   COPY Philips Crypto Transponder (42)

When copying a PHILIPS Crypto Transponder (42), the original key must be read for 5 to 10 seconds. Do not remove the original key from the reading antenna during the operation; wait for the message (REMOVE KEY) to appear before taking the key from the device.

7.2.4 COPY Philips Crypto Transponder (41)

When copying a PHILIPS Crypto Transponder (41), use only Silca keys with T25 transponders. Copies on keys with T11 transponders and original Nissan keys do not work.

Note 1: A copy of a PHILIPS Crypto Transponder (41) on a transponder by a manufacturer different from Silca may not work.

Note 2: It may not be possible to duplicate certain keys with PHILIPS Crypto Transponder (41) (see Ch. 8 - WARNING MESSAGES).

7.2.5 COPY Philips Crypto Transponder (40)

This function is used to see whether a key with Philips Crypto transponder (40) uses a fixed code immobilizer and can therefore be copied onto Silca keys with T5 transponders or uses a crypto code immobilizer and therefore cannot be copied.

From the initial box:

	I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y					
◄	R	E	A	D																				

Fit the original key into the special hole and **hold down the READ button for at least 2 seconds;** the IDENTIFICATION operation will start.

For a few seconds the display shows:

	R	E	A	D	I	N	G		I	N		P	R	O	G	R	E	S	S	
				W	A	I	T	.	.	.										

In the former case, when the key has been read, FAST COPY PLUS will show the following message:

P	H	-	C	R		O	P	E	L					4	0			**COPY ON T5**
◄	B	A	C	K						C	O	N	T	I	N	U	E	►

This means that the key can be used in fixed code mode and therefore be copied onto a Silca key with T5 transponder.

In the latter case, when the key has been read FAST COPY PLUS will show the following message:

P	H	-	C	R		O	P	E	L					4	0			**CANNOT DUPLICATE**
◄	B	A	C	K						C	O	N	T	I	N	U	E	►

Note: correct identification of keys that can be copied onto T5 or cannot be copied is guaranteed only if the keys read are originals or produced by Silca.

7.2.6 COPY Philips Crypto transponder (4W)

Some Volkswagen group models produced between 2000 and 2006 ca. use a Philips Crypto transponder that is identified by FAST COPY with ID=4W.

For some of these models (depends on the case) FAST COPY can be used to make an operational copy of the original key.

As it is not possible to know beforehand whether the key can be copied or not, you need to use the FAST COPY identification function:

From the initial display

	I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y					
◄	R	E	A	D																				

Fit the original key into the special hole and **hold down the READ key for at least 2 seconds;** the IDENTIFICATION operation starts. For a few seconds the following message appears:

	R	E	A	D	I	N	G		I	N		P	R	O	G	R	E	S	S
			W	A	I	T	.	.	.										

The machine display may show:

P	H	-	C	R		V	A	G	-	F	O	R	D		4	W			**CANNOT DUPLICATE**
◄	B	A	C	K						C	O	N	T	I	N	U	E	►	

or:

P	H	-	C	R		V	A	G	-	F	O	R	D		4	W			**COPY ON T28**
◄	B	A	C	K						C	O	N	T	I	N	U	E	►	

In the first case a non-copiable transponder (4W) has been read. In the second case a copiable transponder (4W) has been read and a copy can be made onto a Silca key with T28 transponder.

Note 1: copies of Philips Crypto transponders (4W) on keys with T15 transponders or on original keys do not work

Note 2: copies of Philips Crypto transponders (4W) on transponders by manufacturers different from Silca may not work.

7.2.7 COPY Philips Crypto transponder (45)

When making a copy of a PHILIPS* Crypto transponder (45) the original key reading operation may take several seconds. The machine display will show the following message:

D	O		N	O	T		R	E	M	O	V	E						
O	R	I	G	I	N	A	L		K	E	Y							ж

take care not to remove the original key from the reading antenna during this operation, always wait for the message (READING SUCCESSFUL, REMOVE THE KEY) before removal:

R	E	A	D	I	N	G		S	U	C	C	E	S	S	F	U	L		
	R	E	M	O	V	E		K	E	Y									

VERY IMPORTANT!

If the key is removed before the machine has finished all the operations, the following message will appear:

	R	E	A	D	I	N	G		E	R	R	O	R					
<	R	E	G	E	N	.		K	E	Y	B	L	A	N	K		4	5

at this point the key is momentarily unable to start the vehicle. In this situation **before carrying out any other operation REMOVE THE KEY FROM THE READING ANTENNA** and use the "Regenerate Key 45" function, see ch.7.3.

7.2.8 COPY Texas Crypto2 (6F) transponder

One of the features of second generation Texas* Crypto transponders is that they are retro-compatible with first generation Texas* Crypto transponders; this has made it possible for some vehicle manufacturers to use second generation Texas* Crypto transponders in vehicle control units with a first generation Texas* Crypto system that use only part of the electronic code to start the engine.

In this case only part of the potential of the second generation Texas* Crypto transponder is used, because the control unit on the vehicle uses it in retro-compatible mode. This allows vehicle makers to use only second generation Texas* Crypto transponder on original keys and original spares, whether they are used fully or partially.

It is therefore possible to copy a key with second generation Texas* Crypto transponder (type 6F) onto a Silca EH2 key.

If you are sure that the vehicle control unit works in compatible mode with a first generation Texas* Crypto transponder, part of the electronic code can be copied onto a Silca EH2 key to make a key that works. If this is not the case, the key will not work at all.

When trying to copy this type of key, the FAST COPY PLUS machine will show a warning message:

T	E	X	-	C	R	2							6	F	-	x	x	COPY ON EH2
◄	B	A	C	K					C	O	N	T	I	N	U	E	►	

indicating that a second generation 6F type Texas* Crypto transponder has been detected.

To continue, press "WRITE" and the message will appear:

E	X	E	C	U	T	E		C	O	P	Y	?					
◄	N	O									Y	E	S	◄			

Press "READ" to abandon the copying process and go back to the main menu. Press "WRITE" to continue with copying and start the calculation for Texas* Crypto transponders (see paragraph 7.2.1)

NOTE: A copy of a second generation Texas* Crypto transponder on a Silca EH2 key will be detected as a first generation Texas* Crypto key (see Ch. 7.5.1**B)**

7.2.9   COPY Philips Crypto2 (46) transponder

The main characteristic of Philips* Crypto second generation transponders is that they employ a mutual authentication method with the vehicle on which they are used. In other words, differently from most other transponders, not only the vehicle control unit checks the data on the transponder, but the transponder also checks the data required by the vehicle: only after having checked the requirement, it transmits the information needed by the immobilizer system to allow engine ignition.

To make a copy of a Philips* Crypto second generation transponder you need to read the data exchanged by the transponder and immobilizer control unit through the vehicle starter.
The operation can be easily performed (as described below) with the SNOOP (OPTIONAL) device applied to the original key.

Described below is the procedure for making a copy of a Philips* Crypto2 transponder:

STAGE 1: Reading the original key and initializing SNOOP.

From the machine main menu insert the key to be copied and press "READ":

	I	N	S	E	R	T			K	E	Y					ORIGINAL
<	R	E	A	D												

The machine reads the key and after a few seconds the display shows:

	R	E	M	O	V	E			K	E	Y				

When the key has been removed instructions are given to insert Snoop:

I	N	S	E	R	T			S	N	O	O	P			
												>	E	N	T

When "WRITE" is pressed the machine makes some operational checks on SNOOP. If it finds data from a previously copied key the display will show:

R	E	S	E	T		S	N	O	O	P	?				
<	N	O									Y	E	S	>	

If you do not want to overwrite the data from a previously used key, press "READ" and the machine will return to the main menu. To continue press "WRITE", the machine display will show:

P	L	E	A	S	E			W	A	I	T	.	.	.		

Then automatically:

R	E	M	O	V	E			S	N	O	O	P				

When SNOOP has been removed the display will show:

	W	A	I	T	I	N	G			S	N	O	O	P		D	A	T	A
<	B	A	C	K							C	O	N	T	I	N	U	E	>

SNOOP has now been initialized to read the data exchange between the vehicle and the original key (see Stage 2).
Note: When "READ" is pressed the machine will return to the main menu so that other operations can be carried out. The copying process for the current key can be resumed later (see STAGE 3 variant B).

STAGE 2: Reading data from vehicle

When SNOOP has been initialized, make two ignitions of the vehicle control panel with the key used in STAGE 1.
To perform this operation place the SNOOP antenna in position as shown in the figures below:

Placing the antenna in position on the key:

The SNOOP antenna must be attached to the head of the key to be copied, as shown in the illustration on the left.
Place the antenna in the middle of the key head and if necessary secure with the strip provided.

Use on the vehicle:
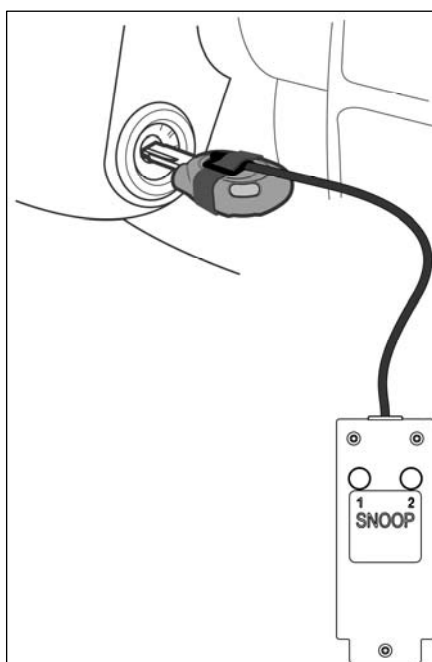
Insert the key into the vehicle starter.

Turn on the vehicle control panel. LED "1" on SNOOP will flash for a few seconds to indicate that the first data reading operation has been successful.

When LED "1" goes out, turn off the control panel and remove the key.

Wait 10-20 seconds or until the immobilizer warning light starts flashing, if applicable.

Insert the key into the vehicle starter.

Turn on the vehicle control panel. LED "1" on SNOOP will go on and LED "2" will flash for a few seconds to indicate that the second data reading operation has been successful.

SNOOP now has the necessary data to transmit to the machine for a copy of the original key. Turning on the vehicle control panel again will put the SNOOP LEDs on permanently, which indicates that all the necessary data has been downloaded.

If there are problems during data logging (LEDs do not go on) try:
- Place the Snoop antenna in such a position that when the key is inserted into the ignition unit the antenna can be moved away from or closer to the unit.
- Waiting 10-20 (or more) seconds between ignitions (in some cases the wait could be up to a couple of minutes).
- Closing and opening the vehicle doors using the key control.
- Starting the engine for a few seconds.

Note: On some vehicles data is downloaded by simply inserting the key into the starter. In such cases the SNOOP LEDs illuminate. In these circumstances just insert and remove the key in the starter twice.

STAGE 3: Checking data read from the vehicle with machine awaiting data

If the FAST COPY PLUS machine has not been used in the meantime for other operations, or has not been turned off, the display will show:

	W	A	I	T	I	N	G		S	N	O	O	O	P		D	A	T	A
<	B	A	C	K							C	O	N	T	I	N	U	E	>

When "WRITE" has been pressed you will be required to insert SNOOP:

	I	N	S	E	R	T			S	N	O	O	P						
										C	O	N	T	I	N	U	E	>	

Insert SNOOP and press "WRITE"; FAST COPY PLUS will read and check the data from SNOOP. If all is well you will be required to insert the original key used in STAGES 1 and 2:

	I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y
<	R	E	A	D															

Press "READ" to start STAGE 4, reading and copying the key.

(If problems occur an error message will be shown, see paragraph: "Special events that could occur when copying a Philips* CR2" transponder, or Chapter 8 – "WARNING MESSAGES").

STAGE 3, variant B: Checking data read from the vehicle with machine not awaiting data

If the FAST COPY PLUS machine has been used for other operations in the meantime, or has been turned off, when STAGE 2 is over from the main menu insert the original key used in STAGES 1 and 2 and press "READ":

	I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y
<	R	E	A	D															

The machine reads the key and after a few seconds the display shows:

	R	E	M	O	V	E			K	E	Y								

When the key has been removed instructions are given to insert SNOOP:

	I	N	S	E	R	T			S	N	O	O	P						
										C	O	N	T	I	N	U	E	>	

When "WRITE" is pressed the machine makes some operational checks on SNOOP and if the data is found to be congruent with the original key you are requested to insert the original key used in STAGES 1 and 2 again:

	I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y
<	R	E	A	D															

Press "READ" to start STAGE 4, reading and copying the original key.

(If problems occur an error message appears; see paragraph: "Special events which could occur when copying a Philips* CR2 transponder", or Chapter 8 – "WARNING MESSAGES")

STAGE 4: Reading and copying the original key

After inserting the original key and pressing "READ":

	I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y
<	R	E	A	D															

the calculating process for reading an original key begins:

K	E	Y		D	A	T	A		P	R	O	C	E	S	S	I	N	G	
W	A	I	T									X	X	/	9	9			

Press ESC to interrupt the operation.

The number shown from 00 to 99 indicates that calculation is taking place. The operation could take anything from a few seconds to 3 minutes.
During this operation leave the key in the machine.
At the end of the calculating process the machine will require the key to be removed:

	R	E	M	O	V	E			K	E	Y								

When the original key has been removed you will be required to insert an EHP key:

I	N	S	E	R	T			K	E	Y							EHP/MH	
											C	O	N	T	I	N	U	E ▶	

Insert the EHP or MH electronic key then confirm key writing by pressing "WRITE".
The key transponder is checked to see if it is compatible with the type of transponder read previously.

If problems occur when checking the electronic key (incompatible key, missing, wrong, unwritable transponder, etc) a warning message will appear; see paragraph: "Warning messages when copying a Philips* Crypto ID46 transponder", or Chapter 8 – "WARNING MESSAGES"

The writing operation begins. For a few seconds the display shows the message:

	W	R	I	T	I	N	G		I	N									
	P	R	O	G	R	E	S	S			W	A	I	T	.	.	.		

If writing is successful the following appears:

	O	P	E	R	A	T	I	O	N		C	O	M	P	L	E	T	E	D

If problems occur when writing the transponder (writing error) a warning message will appear, see paragraph: "Special events that could occur when copying a Philips* CR2 transponder", or Chapter 8 – "WARNING MESSAGES".

After a few seconds you will be asked if other copies are to be made of the key with the same code; the display shows:

	O	T	H	E	R		C	O	P	I	E	S	?					
<	N	O													Y	E	S	>

- press "READ" to continue without making other copies
- press "WRITE" to make another copy.

In this case the machine repeats the writing cycle (no need to insert the original key or re-calculate).

7.2.10. COPY Philips* Crypto2 transponder (46) turning on the instrument panel just once

Copies can be made of Philips* Crypto2 transponders, ID46, using data logging by SNOOP and turning on the instrument panel just once.
This function will be useful in certain circumstances where data logging causes difficulties when the vehicle instrument is turned on for the second time (the second LED on SNOOP does not illuminate). However, as this function cannot be applied to all vehicle models, whenever possible it is better to follow the standard copying procedure described in paragraph 7.2.9.
(For a list of the models for which the keys can be copied by turning on the instrument panel just once to load the data, see the catalogues and periodical newsletters published by Silca).

The procedure for copying Philips* Crypto2 transponders by turning on the vehicle instrument panel just once is as follows:

STAGE 1: Reading the original key and initializing SNOOP
Consult paragraph 7.2.9, Stage 1.

STAGE 2: Reading vehicle data
Follow the description of Stage 2 in paragraph 7.2.9. If after a number of attempts data is not successfully loaded on second ignition (the second LED on SNOOP does not illuminate), continue with Stage 3 described below.

STAGE 3: Checking vehicle data
If the FASTCOPY PLUS machine has not been used for other operations or has not been turned off, the display will show:

	W	A	I	T	I	N	G		S	N	O	O	P		D	A	T	A	
◄	B	A	C	K							C	O	N	T	I	N	U	E	►

When "WRITE" is pressed you will be required to insert SNOOP:

	I	N	S	E	R	T		S	N	O	O	P						
										C	O	N	T	I	N	U	E	►

Insert SNOOP and press "WRITE"; FASTCOPY PLUS will read and check the data on SNOOP.
If the data relate to one logging only, the display will show:

	I	N	C	O	M	P	L	E	T	E		S	N	O	O	P			DATA
									C	O	N	T	I	N	U	E	►		

This message indicates that data have not been loaded at Stage 2 when the vehicle instrument panel was turned on for the second time. Press "WRITE" to continue; the display will show:

	◄	R	E	P	E	A	T		S	N	I	F	F						
								C	O	N	T	I	N	U	E		C	O	P	Y	►

You are now required to repeat the data logging stage (Stage 2) in order to illuminate the second LED on SNOOP, or continue and try to copy the key using the data available.
Press "READ" in FASTCOPY PLUS to repeat Stage 2 and load the data from the second turning on of the vehicle instrument panel (second LED illuminates). Press "WRITE" to continue with copying; the display will show:

	I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y			
◄	R	E	A	D																		

Press "READ" to start STAGE 4, key reading and copying.

STAGE 4: Reading and copying an original key
Consult the description in Stage 4 of paragraph 7.2.9

Attention: As mentioned above, the function that copies by turning on the vehicle instrument panel just once cannot be applied to all vehicles. For this reason Stage 4 may not always be successfully concluded because the key-cutting machine is unable to calculate the original transponder code; in this case the display will show:

	C	O	D	E		N	O	T		F	O	U	N	D					
◄	B	A	C	K															

In these circumstances, repeat the whole procedure described in paragraph 7.2.9 and attempt to load data by turning on the instrument panel twice (illumination of both LEDs on SNOOP).

7.3.   Regenerating keys 42 and 45

If when copying key ID 42 or ID 45 the original key is removed before reading is finished, warning message 5 will appear if the key is ID 42, or message 7 if the key is ID 45 (see Ch. 8 "WARNING MESSAGES").
At this point the key may be momentarily unable to start the vehicle (check directly on the vehicle). In this situation use the key regeneration function to make the key operational.

A) Choosing the transponder to be regenerated

From the initial screen display:

	I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y				
◄	R	E	A	D																			

Hold down the WRITE button for a few seconds; the display will show:

	R	E	G	E	N	.		K	E	Y	B	L	A	N	K		4	2	
<	B	A	C	K						C	O	N	T	I	N	U	E	>

Press READ to go back to the beginning
Press WRITE to change the type of transponder to be regenerated:

	R	E	G	E	N	.		K	E	Y	B	L	A	N	K		4	5	
<	B	A	C	K						C	O	N	T	I	N	U	E	>

Press READ to go back to the beginning
Press WRITE to change the type of transponder to be regenerated:

	R	E	G	E	N	.		K	E	Y	B	L	A	N	K		4	2	
<	B	A	C	K						C	O	N	T	I	N	U	E	>

Press READ to go back to the beginning
Press WRITE to change the type of transponder to be regenerated:

B) Confirmation of transponder to be regenerated

From the screen for choosing the transponder to be regenerated:

	R	E	G	E	N	.		K	E	Y	B	L	A	N	K		4	X	
<	B	A	C	K						C	O	N	T	I	N	U	E	>

Press READ to go back to the beginning
Press WRITE for a few seconds to access the regeneration function for the chosen transponder:

	I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y
<	B	A	C	K									W	R	I	T	E	>	

C) Regenerating key 42

From the screen for choosing the regeneration function for key 42:

	I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y
<	B	A	C	K									W	R	I	T	E	>	

Insert the key to be regenerated all the way into the special hole on the front of the machine, then confirm.

Press **READ** to go back to the beginning
Press **WRITE** to proceed.
The regeneration operation starts; if there have been no errors during regeneration, the message appears:

K	E	Y	B	L	A	N	K		C	O	R	R	E	C	T	L	Y			R E G E N E R A T E D
<	B	A	C	K																

At this point the key has been reset and will work properly.

If there are problems during REGENERATION of the transponder (no transponder, cannot be copied, crypto, reading error, etc) a warning message appears (see ch. 8 "WARNING MESSAGES").
Press READ to go back to the beginning.

D) Regenerating key 45

From the screen for choosing the regeneration function for key 45:

	I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y	
<	B	A	C	K									W	R	I	T	E	>		

Insert the key to be regenerated all the way into the special hole on the front of the machine, then confirm.

Press READ to go back to the beginning
Press WRITE to proceed.

The regeneration operation starts:

	R	E	G	E	N	.		K	E	Y	B	L	A	N	K		4	5	
	W	A	I	T	.	.	.											ж	

The operation may last several seconds. The machine display shows the message "REGENERATE KEY 45, PLEASE WAIT …" with a small rotating animation. Take care not to remove the original key from the reading antenna during this operation, always wait for the operation to finish and FAST COPY to show the result:

K	E	Y	B	L	A	N	K		C	O	R	R	E	C	T	L	Y			R E G E N E R A T E D
<	B	A	C	K																

At this point the key has been reset and will work properly.

If there are problems during transponder REGENERATION (no transponder, cannot be copied, crypto, reading error, etc) a warning message will appear (see Ch. 8 "WARNING MESSAGES"). Press READ to go back to the beginning.

7.4. Writing

After removing the key, the display will show:

	I	N	S	E	R	T		B	L	A	N	K		K	E	Y			T**		
◄	B	A	C	K									W	R	I	T	E	►			

– Press the READ button to return to the beginning
– Press the WRITE button to write

Fit the key with the uncoded transponder T**, then confirm that the key must be written by pressing the **WRITE** button.
This starts the operation to check whether the transponder on the key is compatible with the type of transponder previously read.
The writing operation begins. For a few seconds the display shows:

	W	R	I	T	I	N	G		I	N		P	R	O	G	R	E	S	S
					W	A	I	T	.	.	.								

If writing is successful, the display will show:

	O	P	E	R	A	T	I	O	N		C	O	M	P	L	E	T	E	D
				R	E	M	O	V	E		K	E	Y						

After a few seconds the machine will ask if other copies must be made with the same code; the display shows:

				O	T	H	E	R		C	O	P	I	E	S	?			
◄	N	O														Y	E	S	►

– Press the **READ** button to return to the beginning.
– Press the **WRITE** button to make another copy.

If there are problems when checking the transponder on the key blank fitted (no transponder, wrong, not writable, crypto, etc) a warning message will appear (see Ch. 8.1of the Operating Manual).

	T	R	A	N	S	P	O	N	D	E	R		N	O	T		D	E	T	E	C	T	E	D	
◄	B	A	C	K																				

	I	N	C	O	M	P	A	T	I	B	L	E		K	E	Y						
◄	B	A	C	K						T	Y	P	E	-	-						

– Press **READ** to return to the beginning of the writing operation.

7.5. Transponder identification

Type of transponder

The number in brackets, e.g. (33), indicates the **type of transponder** read on the key and is a useful piece of information for the after-sales service in order to identify transponder anomalies or malfunctions.

TRANSPONDER	TYPE
SILCA blank	(21)
SILCA blank	(22)
SILCA blank	(23)
SILCA blank	(17)
TEMIC* (Fiat)	(11)
TEMIC* (Mazda)	(12)
MEGAMOS*	(13)
PHILIPS* (orig. or emul.)	(33)
PHILIPS* (orig.)	(73)
PHILIPS* emulates MEGAMOS* (Audi)	(53)
PHILIPS* emulates MEGAMOS* (VDO)	(93)
PHILIPS* Crypto	(44)
MEGAMOS* Crypto	(48)
MEGAMOS* Crypto compatibile Chevrolet – Daewoo	(48-A)
TEXAS*	(4C)
TEXAS* Crypto	(60)
TEXAS* Crypto MITSUBISHI 3	(61)
TEXAS* Crypto MITSUBISHI 2	(62)
TEXAS* Crypto FORD 2	(63)
TEXAS* Crypto (RENAULT < 2000, CHRYSLER, JEEP)	(64)
TEXAS* Crypto (SUZUKI)	(65)
TEXAS* Crypto (SUZUKI) 2 Type	(66)
TEXAS* Crypto (TOYOTA/LEXUS)	(67)
TEXAS* Crypto (TOYOTA/LEXUS2)	(68)
TEXAS* Crypto (YAMAHA)	(69)
TEXAS* Crypto (TOYOTA EU)	(70)
TEMIC* Crypto	(8C)
SAAB cannot be copied	(8D)
SOKYMAT* CRYPTO (HONDA - AUDI 2007)	(8E)
PHILIPS* Crypto OPEL	(40)
PHILIPS* Crypto NISSAN	(41)
PHILIPS* Crypto VAG	(42)
PHILIPS* Crypto VAG	(4W)
PHILIPS* Crypto MITSUBISHI-VOLVO	(4M)
PHILIPS* Crypto FIAT GRP	(4F)
PHILIPS* Crypto PEUGEOT	(45)
PHILIPS* Crypto 2	(46)
TEXAS* Crypto 2	(6F)
TEXAS* Crypto 3	(6A)
TEXAS* Mutual authentication (Ducati)	(6B)
TEXAS* Mutual authentication (Ford – Toyota 80 bit)	(6E)
MEGAMOS* Crypto VOLKSWAGEN	(A1)
MEGAMOS* Crypto AUDI	(A2)
MEGAMOS* Crypto SEAT	(A3)
MEGAMOS* Crypto SKODA	(A4)

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* Megamos, Philips, Temic, Texas, Sokymat are registered trade marks.

7.5.1. Transponder IDENTIFICATION procedure - electronic key

From the initial box:

	I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y					
◄	R	E	A	D																				

Fit the original key into the special hole and **hold down the READ button for at least 2 seconds;** the IDENTIFICATION operation will start.

For a few seconds the display shows:

	R	E	A	D	I	N	G		I	N		P	R	O	G	R	E	S	S
			W	A	I	T	.	.	.										

If the operation is successful, the following situations occur:

A) FIXED CODE TRANSPONDER

T	R	A	N	S	P	.		F	I	X	E	D			X	X			COPY ON T**
◄	B	A	C	K							C	O	N	T	I	N	U	E	►	

The **WRITE** button flashes to indicate that there are other data to view.
Press the **WRITE** button again to see:

C	C	C	C	C	C	C	C		C	C	C	C	C	C	C	C		X	X
C	C	C	C	C	C	C	C		C	C	C	C	C	C	C	C		◄	►

  − **CCC.... CCCC :** transponder electronic code
  − **XX :** type of transponder
  − **COPY ONTO T**:** indicates which transponder can be used for copying the key

Press the READ button to return to the beginning.
Press the WRITE button to go to writing.

B) TEXAS CRYPTO TRANSPONDER (TYPE 60-61-62-63-64-65-67-68-69)

T	E	X	-	C	R								X	X			**COPY ON EH2**
◄	B	A	C	K						C	O	N	T	I	N	U	E	►	

The **WRITE** button flashes to indicate that there are other data to view.
Press the **WRITE** button again to see:

P	W		*	*			I	D		*	*							X	X
M	C		*	*			*	*	*	*	*	*		*	*			◄	►

XX: type of transponder.
All other indications on the display give specific data for the transponder.

Note: if two asterisks are shown ""in the place of transponder ID, the transponder being read is a type not coded by SILCA.**

Press the READ button to return to the beginning.
Press the WRITE button to go to writing.

C) TEXAS CRYPTO2 TRANSPONDER (TYPE 6F)

T	E	X	-	C	R	2						6	F	-	x	x	COPY ON EH2
◄	B	A	C	K				C	O	N	T	I	N	U	E	►	

6F: primary ID number, 6F indicates a "Texas* Crypto2" transponder
XX: secondary ID number, indicates the type of application for the transponder may take values of 60, 61, 62, 63, 64, 65, 66, 67, 68, 69 (see Ch 7.5)

The **WRITE** key flashes to indicate that there are other data to view.
Press **WRITE** again to see:

P	W		*	*			I	D		*	*				6	F	-	x	x
M	C		*	*			*	*	*	*	*	*		*	*			◄	►

6F:primary ID number, 6F indicates a "Texas* Crypto2" transponder
XX:secondary ID number

> **N.B: if two asterisks "**" appear in the place of the secondary ID, the transponder being read by the machine is unknown.**

Press READ to go back to the beginning.
Press WRITE to go on to writing.

D) TEXAS CRYPTO 3 TRANSPONDER (TYPE 6A)

T	E	X	-	C	R	3						6	A	-	x	x	COPY ON EH2
◄	B	A	C	K				C	O	N	T	I	N	U	E	►	

6A：primary ID number, 6F indicates a "Texas* Crypto3" transponder
XX：secondary ID number, indicates the type of application for which the transponder will be used, can have the values 60, 61, 62, 63, 64, 65, 66, 67, 68, 69 (see Ch. 7.5)

The **WRITE** button flashes to indicate that there are other data to view.

Press **WRITE** again to see**:**

P	W		*	*			I	D		*	*				6	A	-	x	x
M	C		*	*			*	*	*	*	*	*		*	*			◄	►

6A：primary ID number
XX：secondary ID number
All the data on the display apply specifically to the transponder.

> **N.B: if two asterisks "**" appear in the place of the transponder ID, the transponder being read by the machine is a type not coded by SILCA.**

Press READ to go back to the beginning.
Press WRITE to go on to writing.

E) PHILIPS* CRYPTO TRANSPONDER (40-41-42-44-45-4F-4M-4W)

P	H	-	C	R		B	B	B	B	B				X	X		**DDDD**
◄	B	A	C	K					C	O	N	T	I	N	U	E	►

BBBBB: indicates the name or initials of the vehicle manufacturer
DDDD: indicates whether the transponder can be copied
XX: identification number of type of transponder (ID)

The **WRITE** button flashes to show that there are other data to be viewed.

Press the **WRITE** button again to see:

	I	D	E	:		*	*	*	*	*	*	*	*					
<	B	A	C	K							C	O	N	T	I	N	U	E	>

IDE is a code of eight characters that identifies Philips* Crypto transponders.
In some cases the code is hidden and the machine display shows the message:

	I	D	E	:		N	O		I	D	E							
◄	B	A	C	K						C	O	N	T	I	N	U	E	►

Press **READ** to go back to the beginning
The **WRITE** button is on to show that there are other data to be viewed.
Press the **WRITE** button again to see:

C	C	C	C	C	C	C	C		C	C	C	C	C	C	C	C		X	X
C	C	C	C	C	C	C	C		C	C	C	C	C	C	C	C		<	

XX: identification number of the type of transponder (ID)
CCC…CCC: transponder electronic code

Press **READ** to go back to the beginning
If the **WRITE** button LED is ON, press to go on to writing.

F) READING PINCODE ON PHILIPS* CRYPTO TRANSPONDER (45)

FAST COPY is able to read the PINCODE valid for programming new keys with the diagnostics device on PEUGEOT vehicles that use keys with PHILIPS* Crypto transponders (45).
This function is accessible from the "IDENTIFICATION" menu, after the transponder electronic code has been shown (see paragraph above):

C	C	C	C	C	C	C	C		C	C	C	C	C	C	C	C		X	X
C	C	C	C	C	C	C	C		C	C	C	C	C	C	C	C		<	

XX: identification number of the type of transponder (ID)
CCC…CCC: transponder electronic code

Press **READ** to go back to the beginning
If the **WRITE** button LED is ON, press to go on to writing:

P	R	E	S	S			>	W	R			T	O						
R	E	A	D	I	N	G		P	I	N		C	O	D	E			<	>

Press **READ** to go back to the beginning
The **WRITE** button is on to indicate that the PINCODE can be read.
      Press **WRITE** again to see:

D	O		N	O	T		R	E	M	O	V	E						
O	R	I	G	I	N	A	L		K	E	Y						ж	

This reading operation of the original key may last several seconds. The machine display shows the message "READING, PLEASE WAIT …" with a small rotating animation. Take care **not to remove the original key from the reading antenna during this operation**, always wait until the operation is finished and FAST COPY shows the result:

	P	I	N		C	O	D	E	:	P	P	P	P					
	<	B	A	C	K						C	O	N	T	I	N	U	E	>

PPPP: vehicle PINCODE

Press READ to go back to the beginning
If the **WRITE** button LED is ON, press to go on to writing.

VERY IMPORTANT!!

If the key is removed before the machine has finished all the operations, the following message will appear:

	R	E	A	D	I	N	G		E	R	R	O	R				
<	R	E	G	E	N	.		K	E	Y	B	L	A	N	K		4	5

at this point the key is momentarily unable to start the vehicle. In this situation **before carrying out any other operation REMOVE THE KEY FROM THE READING ANTENNA** and use the "Regenerate Key 45" function, see ch.7.3.

G) CRYPTO TRANSPONDER (TYPE 48)

M	E	G	-	C	R								4	8			**CANNOT DUPLICATE**
◄	B	A	C	K						C	O	N	T	I	N	U	E	►

The WRITE button flashes to indicate that there are other data to view.
Press the **WRITE** button to see**:**

I	D	:	C	C	C	C	C	C	C	C			X	X		
U	M	:	B	B	B	B	B	B	B	B					◄	

XX: type of transponder.
CCCCCCCC= transponder ID code.
BBBBBBBB = specific data for the transponder

H) CRYPTO 2 TRANSPONDER (TYPE 46)

P	H	-	C	R	2								4	6			**COPY INFO**
◄	B	A	C	K						C	O	N	T	I	N	U	E	►

Press the **READ** button to return to the beginning.
The WRITE button flashes to indicate that there are no other data to show.
Press **WRITE** again**:**

C	C	C	C	C	C	C	C						4	6		
															◄	

XX: type of transponder.
CCCCCCCC: transponder ID code.
INFO COPY: indicates which transponder to use for making a copy, or that it cannot be copied

I) HOLDEN COMMODORE KEY

If the HOLDEN module is connected the following message will appear:

I	D	:	X	X	X	X	X	X											
◄	B	A	C	K										W	R	I	T	E	►

XXXXXX = electronic code read from the original key.
Press the **READ** button to return to the beginning.
Press the **WRITE** button to go to writing.

L) EH2 ELECTRONIC KEY FIXED CODE TRANSPONDER EMULATION

F	I	X	E	D		C	O	D	E		T	R	A	N	S	P	O	N	D	E	R								
T	Y	P	E	-	-		Y	Y			C	O	N	T	I	N	U	E	►										

- **YY**: Version of the electronic key (for versions over 38 only).

The WRITE button flashes to indicate that there are other data to show.
Press the **WRITE** button again**:**

C	C	C	C	C	C	C	C		C	C	C	C	C			X	X
C	C	C	C	C	C	C	C		C	C	C	C	C	C	C	◄	►

- **CCC.... CCCC :** electronic transponder code
- **XX :** type of transponder
- **YY**: Version of electronic key (for versions over 38 only).

- Press the READ button to go back to the beginning.
- Press the WRITE button to go on to writing.

M) CRYPTO EH2 ELECTRONIC KEY EMULATION (TYPE 60-61-62-63-64-65-67….)

T	E	X	A	S		T	R	A	N	S	P	.		C	R	Y	P	T	O										
T	Y	P	E	-	-		Y	Y			C	O	N	T	I	N	U	E	►										

- **YY**: Version of the electronic key (for versions over 38 only).

The WRITE button flashes to indicate that there are other data to show.
Press the **WRITE** button again:

P	W		*	*			I	D		*	*			X	X		
M	C		*	*		*	*	*	*	*		*	*		◄	►	

XX: type of transponder.
YY: Version of the electronic key (for versions over 38 only).

All other indications on the display give specific data for the transponder.

Note: if two asterisks are shown "*"in the place of transponder ID, the transponder being read is a type not coded by SILCA.

- Press the READ button to return to the beginning.
- Press the WRITE button to go to writing.

N) EHP ELECTRONIC KEY FOR EMULATING CRYPTO TRANSPONDER (TYPE 46)

P	H	-	C	R	2			E	H	P		y	y		4	6			**COPY INFO**	
◄	B	A	C	K					C	O	N	T	I	N	U	E	►			

>   **INFO COPY**:   indicates which transponder to use for making a copy or that it
>   cannot be copied

The WRITE key flashes to indicate that there are other data to view
When the WRITE key is pressed:

C	C	C	C	C	C	C						4	6			
															◄	►

- **CCCCCCCC**: electronic code for transponder

The WRITE key flashes to indicate that there are other data to view
When the WRITE button is pressed:

E	H	P	:	A	A	A	A	A	A	A	A				v	.	y	y
0	0	0	0		0	0	0		0						◄			

- EHP: AAAAAAAA EHP ID number
- **v.yy**: electronic key version

Press READ to go back to the beginning.

O) MH ELECTRONIC KEY EMULATING PHILIPS-CR2, TEXAS-CR AND FIXED CODE TEXAS

>   According to the type of transponder the MH key is emulating, the following appears:

P	H	-	C	R	2			M	H			y	y		4	6			**COPY INFO**	
◄	B	A	C	K					C	O	N	T	I	N	U	E	►			

Or

T	E	X	-	C	R			M	H			y	y		6	x			**COPY INFO**	
◄	B	A	C	K					C	O	N	T	I	N	U	E	►			

Or

T	E	X	A	S				M	H			y	y		4	C			**COPY INFO**	
◄	B	A	C	K					C	O	N	T	I	N	U	E	►			

- PH-CR2 MH: Indicates that MH is in emulation mode for PHILIPS* crypto2 code
- TEXAS MH: Indicates that MH is in emulation mode for TEXAS* fixed code
- TEX-CR MH: Indicates that MH is in emulation mode for TEXAS* crypto code

INFO COPY: indicates which transponder to use for making a copy or that it
                     cannot be copied

The WRITE key flashes to indicate that there are other data to view
When the WRITE key is pressed:

C	C	C	C	C	C	C						4	6			
															◄	►

- **CCCCCCCC**: electronic code for transponder

Press READ to go back to the beginning.

7.6. TUNING MH Electronic Key (PHILIPS-CR2 ID46)

It has been observed that on rare applications that use keys with Philips Crypto2 (ID46) transponders the copy on MH electronic keys may not start the vehicle engine. The vehicle production processes may cause differences (even on vehicles of the same model) in the intensity of the signal emitted by the ignition unit. In such cases manual calibration of the MH key's sensitivity is performed to adapt to the individual situation.

Manual calibration of MH keys can be performed only on keys with SW version **117** or higher, starting from the SW version **03.02.061** of FastCopyPlus.

Attention:

The SW version of MH keys can be read using the ID function (see Ch. 7.5.1) and is shown on the key packaging.

Manual calibration method:

If the copy of a key with a Philips Crypto2 (ID46) transponder does not start the engine, there are two different methods for calibrating the MH key:

- A. DIRECTLY BY "**MH TUNING**" FUNCTION
- B. BY REPEATING THE ID46 COPY PROCEDURE, USING THE SAME ORIGINAL KEY USED FOR THE FIRST ATTEMPT AND THE SAME MH KEY

When calibration is complete, try starting the vehicle. If it does not start, calibrate again, selecting a different sensitivity.

Attention:

If the MH key does not work, between attempts to start the engine turn it on using the original key.

If the MH key does not work with either of these methods, contact your Silca dealer or the After-Sales Service.

A. DIRECTLY BY MH KEY TUNING FUNCTION

From the main menu:

		I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y
◄	R	E	A	D																

Press "WRITE"

		T	U	N	I	N	G		M	H										
◄	B	A	C	K						C	O	N	T	I	N	U	E	►		

Insert the MH key to be calibrated and press "WRITE"; the display will show:

		T	U	N	I	N	G		M	H										►
L	O	(		)			S	T	D	(	✱	)			H	I	(		)	

The position of the asterisk (✱) shows the setting for calibration of the MH key. Press "READ" or "WRITE" to modify MH key calibration at one of three levels:

LO   Sensitivity is set at a lower level
STD   is the default level of sensitivity
HI   Sensitivity is set at a higher level

For example, when the "READ" is pressed the asterisk (✿) goes from **STD** to **LO**, and until "WRITE" is pressed and held down the display will flash:

	T	U	N	I	N	G		M	H								►
L	O	(	✿	)			S	T	D	(		)			H	I	(	)

Press "WRITE" to confirm the setting.

	W	R	I	T	I	N	G		I	N		P	R	O	G	R	E	S	S
W	A	I	T	.	.	.													

	T	U	N	I	N	G		M	H		C	O	M	P	L	E	T	E	D
◄	B	A	C	K															

Press "READ" to go back to the main menu.

B. TUNING MH KEYS BY REPEATING THE COPY PROCEDURE USING THE SAME ORIGINAL KEY USED FOR THE FIRST ATTEMPT (and the same MH key).

If the MH key (containing a code with ID46) does not start the engine, it can be calibrated using "**MH TUNING**" by **repeating the copy procedure** [see Ch 7.2.9] **using the same original key used for the first attempt**.

When you are ready to write the HM key, after reading the original key:

	I	N	S	E	R	T			E	H	P	/	M	H		K	E	Y	
◄	B	A	C	K											W	R	I	T	E	►

Insert the copied MH key and press "WRITE".

After checking that the MH key being reprogrammed is the same one with the same data written previously, the device shows the following message:

E	X	E	C	U	T	E		T	U	N	I	N	G		M	H	?		
◄	N	O														Y	E	S	►

Press "WRITE" to perform calibration:

	T	U	N	I	N	G		M	H								►
L	O	(		)			S	T	D	(	✿	)			H	I	(	)

The position of the asterisk (✿) shows the setting for calibration of the MH key. Use the "READ" or "WRITE" buttons to change the calibration sensitivity of MH keys on one of the three levels:

LO   Sensitivity is set at a lower level
STD   is the default level of sensitivity
HI   Sensitivity is set at a higher level

For example, when the "WRITE" is pressed the asterisk (✿) goes from **STD** to **LO**, and until "WRITE" is pressed and held down the display will flash:

	T	U	N	I	N	G		M	H								►
L	O	(	✿	)			S	T	D	(		)			H	I	(	)

Press "WRITE" to confirm the setting:

	W	R	I	T	I	N	G		I	N		P	R	O	G	R	E	S	S
W	A	I	T	.	.	.													

	T	U	N	I	N	G		M	H		C	O	M	P	L	E	T	E	D
											C	O	N	T	I	N	U	E	►

Press "WRITE":

	O	T	H	E	R		C	O	P	I	E	S	?					
◄	N	O													Y	E	S	►

Press "WRITE" to make other copies of the same key with the newly set calibration.
Press "READ" to go back to the main menu.

7.7.   Options

7.7.1.   Changing language

- Turn off the device.
- Hold down the READ button and turn on the device.
      The display will show:

S	E	L	E	C	T		L	A	N	G	U	A	G	E	:			
E	N	G	L	I	S	H								S	A	V	E	►

Press READ to scroll the various languages.
Press the WRITE button to confirm selection of the language shown on the display; the setting will be saved.
The display will show:

	K	E	Y		R	E	F	E	R	E	N	C	E	S			
													S	A	V	E	►

Premere il tasto READ per scorrere i vari produttori (Silca, Orion, Ilco).
Press WRITE to confirm your selection of the manufacturer shown on the display; the setting will be saved.

7.7.2.   SNOOP MENU

Insert the antenna into the reading hole of the SNOOP and press the **READ** key to verify:
- SNOOP operating status
- battery status
- the SNOOP ID number
- SNOOP serial number
- SNOOP reset

7.7.3.   C-BOX MENU

- Turn off the device
- Hold down the WRITE button and turn on the device.

The following informations will appear:

    − C-BOX operating status
    − C-BOX software version (SW)
    − C-BOX firmware version (FW)
    − C-BOX ID number (IN)

Read the text on the machine display for further details.

7.7.4. Transponder code generation by personal computer

Use the PC program "TRP-SETTINGS" to generate transponders with Megamos*, Texas and Philips* Crypto codes, using Silca or blank transponders on sale in shops, for the following applications:

MEGAMOS Crypto compatible Chevrolet – Daewoo	(48-A)
TEXAS Crypto MITSUBISHI	(61)
TEXAS Crypto MITSUBISHI / SUBARU	(62)
TEXAS Crypto (SUZUKI)	(65)
TEXAS Crypto (SUZUKI Tipo 2)	(66)
TEXAS Crypto (YAMAHA)	(69)
PHILIPS Crypto OPEL	(40)
PHILIPS Crypto NISSAN	(41)
PHILIPS Crypto VAG	(42)
PHILIPS Crypto VAG	(4W)
PHILIPS Crypto MITSUBISHI-VOLVO	(4M)
PHILIPS Crypto PEUGEOT	(45)

Get more info from the instructions for the "TRP-SETTINGS" program.

7.8. Running the Holden Commodore MODULE

If the HOLDEN module is connected, the software version is also shown in the ignition box.

			V	E	R	.		X	X	.	Y	Y	.	z	z	z			
H	O	L	D	E	N		M	O	D		V	E	R		x	x	.	y	y

7.8.1. Copying a key with the HOLDEN module

	I	N	S	E	R	T		O	R	I	G	I	N	A	L		K	E	Y						
◄	R	E	A	D																					

ATTENTION: **Fit the original key to be copied into the module, taking care that contact takes place between the terminal on the key and the sprung contact on the module through which the code is communicated.**
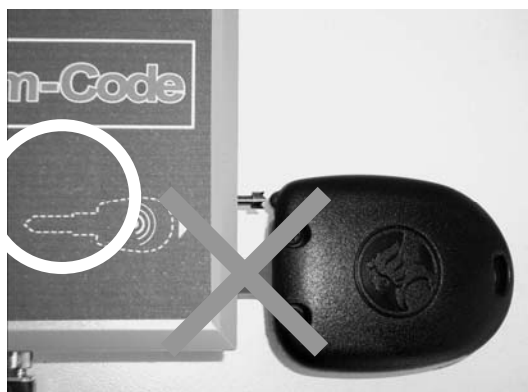
NO!

YES!

Fig. 9

If the device detects the key in the HOLDEN module the reading operation begins. For a few seconds the display will show:

	R	E	A	D	I	N	G		I	N		P	R	O	G	R	E	S	S
				W	A	I	T	.	.	.									

If there are problems when reading, a warning message appears (see ch. 8).

If the electronic code is read successfully, the display will show:

R	E	A	D	I	N	G		S	U	C	C	E	S	S	F	U	L		
			R	E	M	O	V	E		K	E	Y							

	E	N	T	E	R		K	E	Y		B	L	A	N	K		O	N		MODULE
◄	B	A	C	K												W	R	I	T	E	►

After fitting the key blank into the module and pressing the **WRITE** button, for a few seconds the display will show:

	W	R	I	T	I	N	G		I	N		P	R	O	G	R	E	S	S
					W	A	I	T	.	.	.								

If writing is successful, the display will show:

	O	P	E	R	A	T	I	O	N		C	O	M	P	L	E	T	E	D
				R	E	M	O	V	E		K	E	Y						

After a few seconds the machine will ask whether to make other copies of the key with the same code; the display shows:

				O	T	H	E	R		C	O	P	I	E	S	?			
◄	N	O													Y	E	S	►	

Press the **READ** button to return to the beginning.
Press the **WRITE** button to make another copy.

---

8. WARNING MESSAGES

During normal operation, when carrying out the reading and writing procedures the machine is predisposed to detect the problems and anomalies that may occur during these operations.

The paragraphs below show all the possible problems and the warning messages they generate for the operator.

8.1. Messages during key reading and writing

If there are problems in reading transponders, a warning message appears.

1

| | T | R | A | N | S | P | O | N | D | E | R | | N | O | T | | | | DETECTED |
| ◄ | B | A | C | K | | | | | | | | | | | | | | | |

2

| | V | E | R | I | F | Y | | O | R | I | G | I | N | A | L | | K | E | Y | | POSITION |
| ◄ | B | A | C | K | | | | | | | | | | | | | | | |

3

| | K | E | Y | | B | L | A | N | K | | N | O | T | | | | | CORRECT |
| ◄ | B | A | C | K | | | | | | | | | | | | | | |

4

| T | R | A | N | S | P | . | | C | R | Y | P | T | O | | | | | CANNOT DUPLICATE |
| ◄ | B | A | C | K | | | | | | T | Y | P | E | - | - | | | _ |

5

| | R | E | A | D | I | N | G | | E | R | R | O | R | | | |
| ◄ | B | A | C | K | | | | | | | | |

6

| | W | R | I | T | I | N | G | | E | R | R | O | R | | | |
| ◄ | B | A | C | K | | | | | | | | |

7

| | R | E | A | D | I | N | G | | E | R | R | O | R | | | |
| ◄ | R | E | G | E | N | . | | K | E | Y | B | L | A | N | K | | 4 | 5 | |

8

| E | X | E | C | U | T | E | | C | O | P | Y | ? | | | |
| ◄ | N | O | | | | | | | | Y | E | S | ► |

9

| | M | H | | K | E | Y | | N | O | T | | | | | COMPATIBLE |
| ◄ | I | N | I | Z | I | O | | | | | | | |

10

| | O | P | E | R | A | T | I | O | N | | N | O | T | | | | ALLOWED |
| ◄ | B | A | C | K | | | | | | | | | |

Message meanings

1) the key does not have a transponder, or it is badly positioned;
2) the key is not properly positioned in the device antenna;
3) the key blank used for the copy is incompatible with the original.
4) the key contains a CRYPTO not duplicated transponder of the type:
   40 -41 -44 -4F -4M -4W -45 -48 -8E -6B -6E
5) the key contains a faulty transponder or one which cannot be read or it has been badly positioned.
6) the writing operation was not carried out correctly by the device.
7) the reading operation was not carried out correctly; use the key regeneration function.
8) the key has a particular CRYPTO transponder (see page 7.2.8 and 7.5.1 C) .
9) You are trying to execute the "MH TUNING" function on a key that is not MH.
10) You are trying to execute the "MH TUNING" function on unsuitable MH keys (e.g. the SW version on the key is not the minimum required, or the key is set on Texas* mode and not Philips*).

Suggestions for solving the problem

Case 1, try reading after placing the key in different positions.

Case 2, try reading the key after raising it by a few millimetres.

Case 3, change the key blank using a compatible key indicated by the Transponder Guide.

Case 4, the key read CANNOT BE COPIED;

In case 5 use a new operational transponder key or try the key again.

Case 6, the key blank may contain a faulty transponder or one protected from writing. This fault may be caused by electro-magnetic waves generated by electronic equipment in the vicinity (see Ch. 4.4 "Positioning").

Case 7, remove the key from the reading antenna and use the key regeneration function (see ch. 7.3).

Case 8, see page 7.2.8 and 7.5.1C.

In cases 9 and 10, check that the MH key version is 117 or higher and that it is a copy of a Philips*Crypto ID46 key.

8.2. Special events that could occur when copying a Philips* CR2 transponder:

During the reading and copying stage for the original key, and during the Snoop initialization and test stages, the FAST COPY PLUS Plus machine makes checks to ensure that the calculation circuit board (C-BOX) and Snoop work properly; in the case of anomalies the display may show:

E	R	R	O	R			C	B	O	X		C	O	D	:	X	X	X	
<	B	A	C	K															

Anomaly: An error has occurred on the module, indicated by code COD=XXX
Solution: Turn off the FAST COPY PLUS machine and C-Box module for a few seconds, turn on again and repeat the operation. If the problem persists, contact Silca After-Sales Service and communicate the error code shown on the machine display.

C	H	E	C	K		P	O	S	I	T	I	O	N				**SNOOP**	
								C	O	N	T	I	N	U	E		>	

Anomaly: SNOOP has not been found by the FAST COPY PLUS antenna.
Solution: Check the position of SNOOP on the machine antenna, press "WRITE" to continue

R	E	P	L	A	C	E		S	N	O	O	P					**SNOOP**	
<	B	A	C	K														

Anomaly: The battery power is too low to guarantee proper operation of SNOOP.
Solution: Replace the SNOOP battery (consult the SNOOP instructions sheet).

E	R	R	O	R		S	N	O	O	P			C	O	D	:	X	X	X
<	B	A	C	K															

Anomaly: An error has occurred on SNOOP, indicated by code COD=XXX
Solution: Use the diagnostic functions from the FAST COPY SNOOP options, if necessary reset SNOOP. If the problem persists, contact Silca After-Sales Service and communicate the error code shown on the machine display.

I	N	C	O	M	P	L	E	T	E		S	N	O	O	P		**DATA**	
								C	O	N	T	I	N	U	E	►		

Anomaly: During STAGE 2, reading vehicle data by SNOOP, data has been loaded once only and it has not been possible to perform a second reading.
Solution: See paragraph 7.2.10 for further details.

S	N	O	O	P		D	A	T	A		M	I	S	S	I	N	G	S	REPEAT	
											C	O	N	T	I	N	U	E	►	

Anomaly: During STAGE 2, reading vehicle data by SNOOP, no data has been loaded (no LED has illuminated)
Solution: Repeat stage 2, making sure the LEDs on SNOOP illuminate.

S	N	O	O	P		D	A	T	A		W	R	O	N	G				REPEAT	
											C	O	N	T	I	N	U	E	>	

Anomaly: During STAGE 2 when SNOOP is reading data from the vehicle the data needed to make a copy has not been properly read, or in STAGE 4 the original key being used is different from that used in STAGE 2.
Solution: Repeat the whole copying process using the original key to be copied.

			K	E	Y		I	N	C	O	M	P	A	T	I	B	L	E		
												C	O	N	T	I	N	U	E	>

Anomaly: In STAGE 4 the original key being used is different from that used in STAGE 1, or you are trying to copy the original key onto a key that is not an EHP.
Solution: Insert the original key used in STAGE 1 and continue, or insert an EHP key and continue.

		L	A	S	T		W	R	I	T	I	N	G		F	O	R		E	H	P		
														C	O	N	T	I	N	U	E	>	

Cause: EHP keys can be re-programmed only 3 times. This message indicates that the current programming operation is the last one possible.

		L	A	S	T		W	R	I	T	I	N	G		F	O	R		M	H			
														C	O	N	T	I	N	U	E	>	

Cause: MH keys can be re-programmed for no more than three times. This message indicates that the programming operation taking place is the last one possible..
(Note: this message also appears when programming an MH key in TEXAS or TEXAS-CRYPTO mode).

	E	H	P		N	O	T		W	R	I	T	A	B	L	E			REPLACE	
									C	O	N	T	I	N	U	E	►			

Anomaly: EHP keys can be re-programmed only 3 times. This message indicates that the key is no longer programmable.
Solution: Insert a new EHP key.

		M	H		N	O	T		W	R	I	T	A	B	L	E			REPLACE	
									C	O	N	T	I	N	U	E	►			

Anomaly: MH keys can be re-programmed for no more than three times. This message indicates that the key is no longer programmable.
Solution: Insert a new MH key.
(Note: this message also appears when programming an MH key in TEXAS or TEXAS-CRYPTO mode).

	U	P	D	A	T	E		C	B	O	X								SEE MANUAL	
<	B	A	C	K																

Anomaly: The CBOX on-board software version is not compatible with FASTCOPY PLUS or is not updated.
Solution: Download the updated version of the CBOX on-board software. Use the WINTRANSFER
PROGRAM and/or SILCA REMOTE SERVICE to download the most recent versions available.

9.   MAINTENANCE

ATTENTION: **for repairs or replacement of parts for maintenance, the 'CE' mark is guaranteed only if original spare parts provided by the manufacturer are used.**

The machine does not need any special maintenance.

ATTENTION: **do not use compressed air**

ATTENTION: **do not open the machine for any reason whatsoever**

Before starting any type of maintenance (check-up or replacement of parts) read the following instructions:

never carry out any maintenance operation with the machine on;

always disconnect from the mains;

follow the instructions in the manual;

use original spare parts.

9.1.   Trouble shooting

FAULT	PROBABLE CAUSE
DISPLAY – WITH THE MACCHINE ON NOTHING APPEARS ON THE DISPLAY	A) CHECK CONNECTION WIRING B) REPLACE: – DISPLAY (AFTER-SALES SERIVCE) – ELECTRONIC CONTROL CIRCUIT BOARD (AFTER-SALES SERVICE)
KEY PAD – DOES NOT WORK LOCALLY (STAND-ALONE) – DOES NOT ACCEPT COMMANDS	A) CHECK CONNECTION WIRING – REPLACE KEY PAD (AFTER-SALES SERVICE)
ANTENNA – DOES NOT READ OR WRITE	A) CHECK WIRING – REPLACE ANTENNA (AFTER SALES SERVICE)
CBOX EXPANSION BOARD CBOX INTERNAL ERROR = XX (XX WITH VALUES 1 TO 20)	A) THE MESSAGE INDICATES THAT AN ERROR HAS OCCURRED ON CBOX. TURN THE DEVICE OFF, THEN ON AND TRY THE OPERATION AGAIN. B) REPLACE: ELECTRONIC CIRCUIT BOARD

The indications above relate to the probable causes of the faults described. They are to be considered indicative and not a comprehensive list of the likely causes of faulty operation.

In the event of any other problems of faulty operation, contact the After-Sales Service.

9.2.   Checking the wiring

When it becomes necessary to check the internal wiring on the machine proceed as follows:

– turn off the machine;

– disconnect the supply cable;

– remove the 4 plastic feet;

– remove the 4 screws inside the housing for the feet;

– remove the cover carefully, paying attention to the wiring.

Checking the wiring

Check that all the connectors are properly fitted.

10.   WASTE DISPOSAL

EU regulations establish special arrangements for the disposal of waste[*].

Waste deriving from the machine

The machine produces no waste during its use.

Machine

The machine is made of re-usable materials. Re-cycling is recommended ecological practice.

Packing

The machine is consigned in a cardboard packing box which can be re-used if undamaged. When it is to be thrown away it is classified as solid urban waste and it should be placed in the special paper collecting bins.
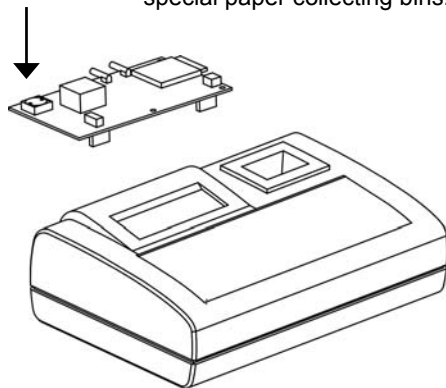
ATTENTION: the machine contains a non-rechargeable lithium battery that must be disposed of in the special collection bins.
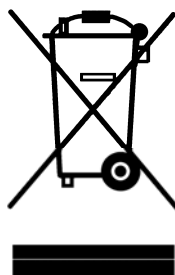
Information for Users

as per art. 10 of Directive 2002/96/CE of 27/01/2003
regarding waste from electric and electronic appliances (RAEE),

- The symbol illustrated above, also found on the machine, indicates that it has been placed on the market and must be included in separate rubbish collection when the user wishes to dispose of it (including all components, sub-assemblies and consumables that are integrated in the product).

- For information about the collection system for such appliances please contact **SILCA S.p.A.** or another subject registered in the various National Rolls for other countries in the European Union. Household waste (or of similar origin) can be included in the separate collection system for urban waste.

- On purchasing a new appliance of equivalent type, the old one can be consigned to the dealer. The dealer will then contact whoever is responsible for collecting the appliance.

- Suitable separate collection of the unused appliance and its dispatch for treatment, recovery and environmentally compatible disposal, makes it possible to avoid potential negative effects on the environment and human health, and aids recycling and the recovery of the materials used.

- Unauthorised disposal of the product by users involves the application of the sanctions provided for in received Directives 91/156/CE and 91/689/CE.

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[*] Waste is any substance or object deriving from human activity or natural cycles, thrown way or to be thrown way.

11. ASSISTANCE

Silca provides full assistance to purchasers of the machine. To ensure complete safety for the operator, any job not specified in this manual should be carried out by the manufacturer or in the special Service Centres recommended by Silca.

On the back cover of this manual there is a list of the Service Centres and relative addresses.

11.1. How to request service

The guarantee attached to the machine ensures free repairs or replacements of faulty parts within 24 months of purchase. All other service calls must be arranged by the customer with Silca or with a Silca service centre.

VITTORIO VENETO 02/04/2010

CE DECLARATION OF MACHINE COMPLIANCE

SILCA S.p.A. -   VIA PODGORA 20 (Z.I.)
31029 VITTORIO VENETO (TV) - (ITALY)
TEL.   0438 9136   -   FAX.   0438 913800

Declares under its own responsibility that the **Duplicating machine For Transponder Keys** (125 K Hz.) model

FAST COPY PLUS

complies with the requirements of the following European Directives:

European Union **DIRECTIVE 1999/5/CE**

and with the   EN 50371 (2002)
EN 60950 – 1 (2006)
EN 301 489 – 3 V 1.4.1 (2002 – 08)
EN 301 489 – 1 V 1.8.1 (2008 – 04)
EN 300 330 – 2 V 1.3.1 (2006 – 04)   Standards

General Manager Basic Production Center

Stefano Setti

SILCA®

COUNTRY	COMPANY	ADDRESS	CITY	AREA CODE	PHONE	FAX e-mail
Algeria	Sarl Maghreb Clés	Coopérative Ettadhamoune Local 21/A	Badjarah / Alger	16209	+213-21-264934	+213-21-264888 asmaghreb_cle@yahoo.fr
Argentina	Distribuidora Frappampino S.r.l.	La Rioja, 483	Cordoba	5000	+54-351-4216368	+54-351-4229003 frappampino@arnet.com.ar
Australia	Locksmiths' Supply Co. Pty Ltd.	140/158 Dryburgh St.	North Melbourne	VIC 3051	+61-39-3297222	+61-39-3281731 lsc@lsc.com.au
Austria	Erwe Gmbh	Feldgasse, 16	Feldkirchen	A-9560	+43-42762816	+43-42765054 firma@erwe.at
Belgium	Duitman Bvba	Zinkstraat 13	Halle	1500	+32-2-3831620	+32-2-3831622 info@duitman.be
Brazil	Kaba Do Brasil Ltda.	Rua Guilherme Asbahr Neto 510	São Paulo	04646-001	+55-11-5545-4510	+55-11-5545-4515 kaba@kabadobrasil.com.br
Bulgaria	Intesa S.r.l.	1, Kukush	Sofia	01309	+359-2-8211425	+359-2-8211347 info@intesa.bg
Burkina Faso	Diallo Mamoudou	Av.Houari Boumedienne Porte N. 1651	01BP / 2957 Ouagadougou 01		+226-710448	+226-710002 dialloebauchedecles@yahoo.fr
China	Silca China	Xinhua Industrial Zone	Guanghai County, Taishan, Canton		+86-750-5325698	+86-750-5315655 alan@tswahyat.com
Colombia	Flexon Llaves S.A.	Av.Carrera 70 No.99 - 55 Entrada 1	Bogotà		+571-2538300	+571-5331842
Croatia	Ferrotechna d.o.o.	Japodska, 66c	Pula	52100	+385-52-503-529 +385-52-502-609	+385-52-503-529 ferrotechna@pu.t-com.hr
Cyprus	G.H. Yacoubian Ltd.	74/B, Regaena Street	Nicosia		+357-22-663525	+357-22-669009 ghycy@spidernet.com.cy
Czech Republic	H&B Plus. s.r.o.	Zatecká, 8	Plzen	30148	+420-377-225903	+420-377-225904 plzen@klice-hb.cz
Denmark	Agenturcentret A.S	Brydehusvej 20	Ballerup	2750	+45-70111211	+45-70111221 agentur@agenturcentret.dk
Egypt	Gam Transworld	23 Omer Ibn El-Khatar Street	Heliopolis El Cairo		+20-2-22404705 +20-2-26441401	+20-2-22404705 gam@intouch.com
Finland	Hardware Group Finland Oy. (Hgf Ltd)	Luostarinportti 5	Kirkkonummi	02400	+358-9-2219490	+358-9-2962186 asiakaspalvelu@hgf.fi
France	SILCA S.A.S.	12, Rue de Rouen B.P.37	Z.I. Limay Porcheville	78440	+33-1-30983500	+33-1-30983501 info@silca.fr
Germany	SILCA GmbH	Siemensstrasse, 33	Velbert	42551	+49-2051-2710	+49-2051-271172 info@silca.de
Greece	Chrisikos K. Ioannhs	7 Pipsou St.	Thessalonik	TK 54627	+30-2310-510336	+30-2310-521651 info@keys.gr
Greece	F. Sotiropoulos & Son O.E.	Patission Str., 110	Athens	11257	+30-210-8234009	+30-210-8238480 roulasot@otenet.gr
Greece	GEMKA-Karidis G. & Sons OE	Lykoyrgoy St. 14-16	Athens	10552	+30-210-3243000	+30-210-3249571 g_karidis@yahoo.com
Greece	Fr.lli Raptakis	Pili Iisou 10	Iraklion - Crete		+30-2810-285000	+30-2810-280165 raptakis_keys@her.forthnet.gr
Guinea	Soguintec S.A.	Calle Abilio Baloboa	Malabo - Provincia del Bioko Norte		+240-556618	
Holland	Duitman B.V.	Aquamarijnstraat 5	7554 NM - Hengelo		+31-74-2452520	+31-74-2452522 info@duitman.nl
Holland	H. Cillekens & Zn. B.V.	Metaalweg, 4	JB Roermond	6045	+31-475-325147	+31-475-325148 info@hcillekens.nl
Holland	Steenhauer B.V.	Oude Raadhuisstraat 1	Ap Leidschendam	2266	+31-70-3177262	+31-70-3177333 info@steenhauer.nl
Hong Kong	Professional Lock Centre Co. Ltd.	Unit A-D, 9/F. Gemstar Tower, 23 Man Lock Street	Hunghom, Kowloon, Hong Kong		+852-23302268	+852-23302082 plc@plc.com.hk
Hungary	Kaba Elzett	Megyeri út 51	Budapest	1044	+36-1-3501011	+36-1-3290692 info@elzett.hu
India	Minda Silca Engineering Ltd.	Plot No. 37, Toy City	Greater Noida	201308	+91-987-397630 +91-987-397631	+91-120-2351301 info@mindasilca.in
Iran	Klidavarshayan Co.	No.73 Stakhr. St - Emam Khomaini Ave.	Tehran		+98-216-6702757	+98-216-735649 klidavar@yahoo.com
Israel	A.M.C.I. Locksmith Supply Ltd.	22 Efal Street Kiryat Aryeh P.O.Box 3667	Petah Tikva	49130	+972-3-9230331	+972-3-9230332 amci@bezeqint.net
Italy	SILCA S.p.A.	Via Podgora, 20 (Z.I.)	Vittorio Veneto - TV	31029	+39-0438-9136	+39-0438-913800 silca@silca.it
Japan	Clover Co. Ltd	1-2-40 Haradanaka, Toyonaka-shi	Osaka	561-0807	+81-6-6844-2111	+81-6-6844-1147 info@cloverkey.co.jp

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Kenya	MPPS Ltd.	P.O. Box 31347	Nairobi		+254-20-6532913 +254-20-6533370	+254-20-6533369 mpps@swiftkenya.com
Kuwait	Hasawi & Sabano Co. For Gen.Trad.	P.O. Box 42105	Kuwait City	70652	+965-24832505	+965-2622778 sabanokuwait@sabano.com
Latvia	Solo F Ltd.	Salaspils 12	Riga	1057	+371-7278359	+371-7876901 solo.f@apollo.lv
Lebanon	Mouawad Books & Stationary Sarl.	Mouawad Str. Mouawad Center, 60094 Jal el Dib	Beyrouth		+961-4-711202	+961-4-11206 hicham.mouawad@mouawadmbs.com
Macedonia	Panevski & Sinovi	Llidenska , 11	Kumanovo	1300	+389-31-411545	+389-31-412411 panevski@mt.net.mk
Malta	Unimark Ltd.	32, Zerafa Str.	Hmr 03 Marsa		+356-21-231540	+356-241319 pl@waldonet.net.mt
Mexico	Corporacion Cerrajera Alba Sa De Cv	Circuito Gustavo BAZ, 16 Atizapan de Zaragoza	Messico D.F.	52966	+52-55-53667200	+52-55-53667291 info@kaba-mexico.com
Mozambique	Davel Importacao Comercio e Servicos	Rua Do Carmo NR.54 - 3° Solat	Coimbra	3000	+351 239833858	+351 914506747
New Zealand	Baber LSC Limited	Unit 5, 6 Argus Place Auckland	Glenfield	1310	+649-444-5117	+649-444-5119 info@baberlsc.co.nz
Nigeria	Chilex Security Products Ltd.	12, Olowu Street P.O. Box 5153	Ikeja - Lagos		+234-1-4965005	+234-1-4965005 chilexproducts@yahoo.co.uk
Norway	Prodib Ab	Montorgat 16	Eskilstuna	632 29	+46-16-168000	+46-16-145590 prodib@prodib.se
Poland	Dar-Mar	ul. Napoleona, 17	Kobylka	05-230	+48-22-7710118	+48-22-7710118 dar-mar@dar-mar.pl
Poland	Z.P.U.H. Expres Wojcieck Kowalczyk	32-447 Siepraw 795	Siepraw		+48-1227-46365	+48-1227-46365 expres@expres.pl
Portugal	Casa Das Chaves Da Falagueira Ltda	Estrada Da Falagueira 5B	Amadora	2701	+351-214936430	+351-214912403 ch.falagueira@mail.telepac.pt
Portugal	Luso Chav'	Av. Rodrigues de Freitas, 199-A	Porto	4000-303	+351-22-5104702	+351-22-5361248 geral@lusochav.pt
Romania	M&C Business S.r.l.	36, Badea Cartan Street 2nd District	Bucharest	20064	+40-213118602	+40-212120155 main_office@mcbusiness.ro
Russia	Strazh	16/2, pt. Komsomolskiy	Moscow	119021	+7 495 7083440	+7-495-7083292
Russia	O.O.O. Peter Key	Mihaylovsky Pereulok, 7b	Saint Petersburg	198095	+7-812-2520241	+7-812-2523885 peterkey@peterkey.ru
Saudi Arabia	Fahd Omar Bamashmous Est.	P.O. Box 20919	Jeddah	21465	+966-2-6422588	+966-2-6447238 bamashmous_est@hotmail.com
Serbia	Silkon D.O.O.	29, Novembra 70	Belgrade	11000	+381-11-2080200	+381-11-3290017 silkon@ptt.yu
Singapore	Silca Soxxi Pte. Ltd.	21 Toh Guan Rd. East #01-12 Toh Guan Centre	Singapore	608609	+65-6316-8100	+65-6316-4470 info@silca.sg
Slovakia	H&B Slovakia s.r.o.	Ovsistske Nam. 1	Bratislava	85104	+421-2-6252-0032 +421-2-6252-0033	+421-2-6252-0034 hb.slovakia@kluce-hb.sk
South Africa	Sanlic International (Pty) Ltd.	46, Hulbert Street New Centre	Johannesburg		+27-11-4939717	+27-11-6831312 acoetzee@voltex.co.za
Spain	Silca Key Systems S.A.	C/Santander 73/A	Barcelona	08020	+34-93-4981400	+34-93-2788004 silca@silca.es
Sweden	Prodib Ab	Montorgat 16	Eskilstuna	632 29	+46-16-168000	+46-16-145590 prodib@prodib.se
Switzerland	Robert Rieffel Ag	Widenholzstrasse 8	Wallisellen	8304	+41-44-8773333	+41-44-8773322 info@rieffel.ch
Syria	Muheiddin Arabi Katbi	P.O. Box 1322	Damascus		+963-11-2212407 +963-11-2224588	+963-11-2224588 +963-11-3737001
Taiwan	Global Tecspro Ltd.	11F-2 N.42-2 Lian Sheng St.	Jhongho City Taipei		+886-2-22494028	+886-2-22425735 vincent@carkey.tw
Turkey	Kadiköy Anahtar San.Ve.Tic.Ltd.Sti.	Osmanaja Mah.Nüzhet Efendi Sk.No.56	Kadiköy - Istanbul		+90-216-4145254	+90-216-3475488 info@kadikoyanahtar.net
U.A.E.	Sabano Trading Co.Llc	P.O. Box 32075	Dubai		+971-4-2682400	+971-4-2622778 sabanodubai@sabano.com
Ukraine	Service-Centre Kopir	Segedskaya 12	Odessa	65009	+38-487-433196	+38-487-190777 v@key.odessa.ua
United Kingdom	SILCA Ltd.	6 Lloyds Court Manor Royal	Crawley	RH10 9QU	+44-1293-531134	+44-1293-531108 sales@silcaltd.co.uk
U.S.A.	Kaba Ilco Corp.	400 Jeffreys Road, P.O. Box 2627	Rocky Mount NC 27804		+1-252-446-3321	+1-252-446-4702 custsvc@irm.kaba.com
Venezuela	La Casa del Cerrajero C.A.	Av. Principal de Maripérez	Caracas		+58-212-793-0083	+58-212-781-8692 cerrajero@cantv.net
Yemen	Sabano Trading Co.Llc	P.O. Box 32075	Dubai U.A.E.		+971-4-2682400	+971-4-2622778 sabanodubai@sabano.com

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