
Tri-Code H.S.



QUICK START GUIDE



Please read all instructions carefully before operating your Triax-e.code Key Machine. A detailed step-by-step demonstration of initial set-up and key cutting procedures is contained on the DVD video included with your Tri-Code H. S. You should view the video prior to machine operation.

1. Preparation

- A. First remove the Tri-Code H.S. machine from its cardboard box and pallet. The machine is attached to the pallet with (4) four 13mm screws, which hold down the metal brackets. These brackets hold the Tri-Code H.S. in place during transport, helping to avoid damage to the machine. A 13mm spanner wrench can be found in the black tool kit. This wrench should be used for removing the four screws from the pallet. It is advisable to save the box, pallet, metal brackets, screws and packing material for future transportation. Use the 10mm spanner wrench from the tool kit to loosen the (4) four nuts on the machine feet. Once the four nuts have been loosened, the metal brackets can be removed easily. After removing the brackets, re-tighten the nuts on the feet. After removing the Tri-Code H.S. machine from the packing box, check the contents of the box, which should include the following:

- 1 Tri-Code H.S. key cutting machine
- 1 set of documents including an operating manual, a spare parts list and a warranty card*
- 1 Tri-Code H.S.Quick Start Guide
- 1 power supply cable
- 1 tool kit

*The warranty card should be filled out and returned to Kaba Ilco as soon as possible.



INCORRECT!



CORRECT!

- B. When the Tri-Code H.S. has been unpacked, place it directly on its workbench; this operation should be performed by at least two people. Carefully lift the machine, firmly holding the base and no other part. Never lift the machine by holding the keyboard stand.

- C. Place the machine on a horizontal surface, solid enough to support the weight of 93 lbs (45kg). The dimensions of the Tri-Code H.S. are 17" (43.2 cm)L X 20" (50.8 cm)W X 20" (50.8 cm)H.



It is strongly suggested to have 12-inch clearance around the top and back of the machine and a 24-inch clearance on the bottom right side of the machine. This will allow easy access to the serial port; Y-axis connection port and the emergency stop button. Ensure that the main power supply is the same as the machine, 110V/AC. This supply should be properly grounded and the machine connected to a surge protected power strip. **NOTE:** The following step was performed at the factory prior to shipment.



- D. **NOTE: The following step was performed at the factory prior to shipment.** The serial cable on the right hand side of the machine must be plugged into the uncovered serial (Y) port, also located on the right hand side of the machine. This allows the X, Y and Z-axis to function properly. **NOTE:** It is essential the Y axis cable be plugged into its designated serial port **BEFORE** the machine’s power switches are activated. If this is not done, the machine’s motherboard could be damaged resulting in expensive repairs and down time.

- E. Attach the power cord to the Tri-Code H.S. and plug it into an 110V/AC circuit. The on/off main rocker switch is located on the back left hand side of the machine. Make sure that the red emergency stop button, located on the right hand side of the machine, is disengaged. To make sure that the emergency stop button is disengaged, push the button in towards the machine to activate it and then rotate the button 45° clockwise, to deactivate it. The button should “pop” out away from the machine.



- F. Turn the Tri-Code H.S. machine ON.
- G. Push the SHIFT and STOP buttons simultaneously to bring the carriage to the starting position. Once the carriage has come to a complete stop, the operator may remove the styrofoam behind the X and Y-axis, then proceed with setting up the Tri-Code H.S. machine.

2. Tri-Code H. S. Clamp Installation

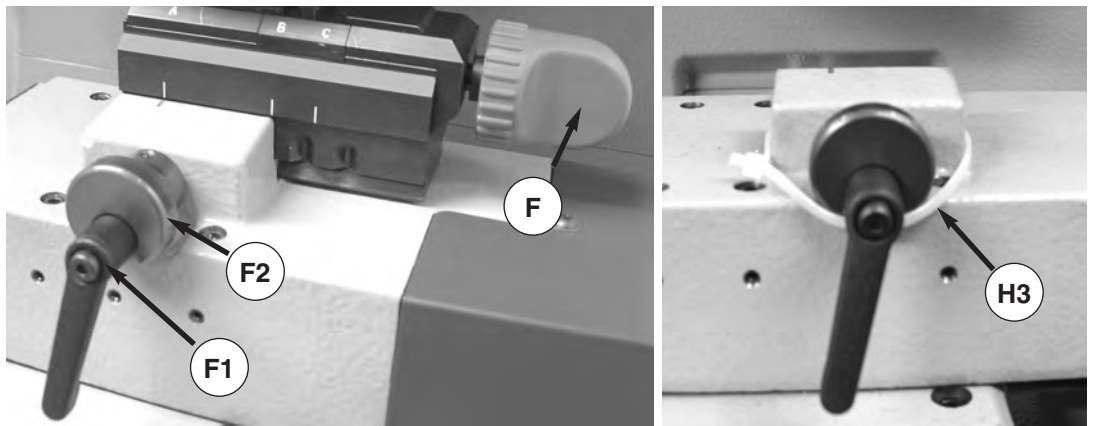
NOTE: At initial start-up DO NOT CONTINUE. Zero out the axes and remove the tie wrap.

- A. Press both the SHIFT and STOP buttons to continue with the zero positioning. The axes are automatically zeroed out. First the display shows.

POSITIONING
IN PROGRESS!

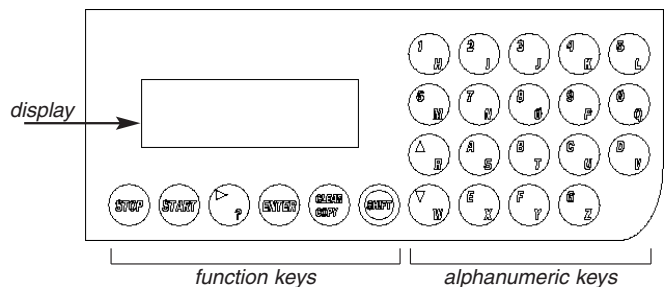
- B. Then it returns to the initial menu. You can then fit the clamp to the machine. (see below)
- C. Loosen the (F1) handle by at least one turn and pull the anatomic grip (F2) towards the front of the machine to be able to slide the clamp into the dovetail groove. The clamp has 3 positioning notches that correspond to the 3 cutting positions on the clamp (Jaw A, B, or C).
- D. When the ergonomic grip is released and the clamp is manually moved (to the right or left) the positioning device in the groove will lock the clamp into the first notch it finds. When the clamp is in the required position (Jaw A, B, or C), tighten the (F1) handle.

NOTE: These instructions refer exclusively to the clamp provided.



3. Initial Operations

- A. When the machine has been turned on, the display will show the machine model and the internal software version for a few seconds.
- B. After a few seconds, the Tri-Code H.S. main menu will appear on the screen.



Use the ▼▲ buttons to move the cursor to the required option and press the ENTER button or directly press the numbered button corresponding to the option number.

4. Cutting Keys

When the Tri-Code H.S. is initially powered on, the initial screen will display the software version number presently installed. The screen that follows lets you select between three modes of key cutting:

- Decoding and Copy (duplicating an existing key)
- Insert the cuts (cutting by using a specific key biting number, as from a code book)
- List of Codes (cutting by indirect key code)

For most users, “Decoding and Copy” and “List of Codes” will be the most commonly used functions.


Decoding and Copy - 0

IMPORTANT: Keys in anodized aluminum, plastic or any other material that has no electrical conductivity CANNOT BE DECODED. For keys of this type use only the “key cutting” function.



Below is a description of all the different stages for decoding and cutting a key. Choose the function from the main menu by placing the cursor on 0-DECODE AND COPY. Press (Enter), the display will show:

```
0-DECODE AND COPY
1-INSERT THE CUTS
2-LIST OF CODES
3-CALIBRATIONS    >>
```

Make a search by **SSN** or **MFG**.
Example: Honda

A. Press the key  (right hand arrow) to place the cursor next to the MFG field. *It is not necessary to enter the entire name, the first letters are sufficient; the name of the MAKE closest in alphabetical order appears automatically.*

```
SSN=                (DECODE)
MFG=
=>
```


B. The arrow keys   (up/down) can be used to scroll the successive makes in alphabetical order.

```
SSN=                (DECODE)
MFG= H
=> HONDA
(02)    LIST = ENTER
```

C. Use the (CLEAR) key to delete the text entered.

D. The last line in the window give the results of the search: - (02) List =ENTER: means that 2 Silca Serial Numbers (SSN) have been found. Press (ENTER) to see the list.

```
HONDA                (02)
1: MASTER (ACURA)
2: VALET   (ACURA)
```

E. To view further information on the SSNs found, hold down the  (right hand arrow) with the pointer in position 1. Press (Enter) to continue.

```
SILCA NS. 582
MASTER
1. ACURA
2. HONDA
```

F. Raise the safety shield, loosen the handle (N) and turn the depth regulating (O) dial so that the number 5 is aligned with the spindle support reference red notch (you should feel a click). Lock the handle (N). Loosen the (F1) handle by one turn and pull the (F2) anatomic grip towards the operator. This releases the clamp so that it can slide to the right or left. Release the anatomic grip and move the clamp manually. The position device will lock the clamp in the clamp reference notch. When the clamp is in position (Clamp A) tighten the (F1) handle.

```
          DECODE
CLAMP:A      POS: 2
TRACER       DIAL: 5
              (START)
```

G. Pull the shield down and press START to begin decoding. If the protective shield is not closed, the following message appears.

```
          CLOSE
          SHIELD!
```

H. When the shield is lowered, the following message appears.

```
          CONTINUE?
NO=STOP      YES=START
```

I. Press START to continue; first the display will show th message:

```
DECODING IN PROGRESS
SIDE: A
AXIS: 1
```

- then:

```
DECODING IN PROGRESS
SIDE: A
AXIS: 2
```

- at the end of the procedure the display will show the message (example):

```
AXIS: 1 OF 2
SIDES: A B
133642
(123456)                (6)
```

- J. Press the key (DOWN ARROW) and the display will indicate the cuts corresponding to the second axis (example):

```
AXIS:  2  OF  2
SIDES:  A   B
234242
(123456)                (6)
```

NOTE:

- Press the key (ARROW RIGHT) to move the pointer on the same axis) into the various cutting positions.
- Press the key (ARROW UP) to eliminate the cuts indicated by the pointer (An empty space is created); the cutting positions remain unaltered (6)
- Press the (CLEAR/COPY) to eliminate some cuts (the machine considers consecutive cuts and not empty spaces) and reduce the cutting positions (5)

- K. Press ENTER to proceed with the cutting operations. The display will show:

```
CLAMP:  A      POS.:  2
CUTTER: H101  DIAL:  5
        KEY ON SIDE A
PC=1/1                (START)
```

- L. Raise the safety shield, loosen the (F) knob and remove the original key. Fit the key blank into the clamp (clamp A and Stop 2) and lock the (F) knob.

- M. Lower the safety shield. If the number of keys to be cut is different from 1, use the alphanumerical keys on the keyboard to enter the number of keys required (pieces) (1-255)

NOTE: The operator is responsible for installing the right cutter as there is no electronic device to warn of an error!

- N. Press START to begin cutting.

- During the cutting operation the following message appears:

```
CLAMP: A    POS.: 2
CUTTER: H101 DIAL: 5
        KEY ON SIDE A
PC=1/1      (START)
```

- The value 'Axis: 1' appears during cutting of the 1st axis.

```
CLAMP: A    POS.: 2
CUTTER: H101 DIAL: 5
        KEY ON SIDE A
PC=1/1      (START)
```

- Going on to cut axis 2, the following message appears

```
CLAMP: A    POS.: 2
CUTTER: H101 DIAL: 5
        KEY ON SIDE A
PC=1/1      (START)
```

- When side 1 has been cut the following message appears:

```
CLAMP: A    POS.: 2
CUTTER: H101 DIAL: 5
        KEY ON SIDE A
PC=1/1      (START)
```

- O. Raise the safety shield, loosen the (F knob remove the key, turn it 180°, replace on the clamp (clamp A and STop 2) and lock the (F) knob. Lower the safety shield and press START. The value 'AXIS: 1' appears during cutting of the 1st axis.


```
CLAMP: A    POS.: 2
CUTTER: H101 DIAL: 5
        KEY ON SIDE A
PC=1/1      (START)
```


- Going on to cut axis 2, the following message appears:

```
CLAMP: A    POS.: 2
CUTTER: H101 DIAL: 5
        KEY ON SIDE A
PC=1/1      (START)
```

- When the cutting operation is complete, the following message appears:

```
CLAMP: A    POS.: 2
CUTTER: H101 DIAL: 5
        KEY ON SIDE A
PC=1/1      (START)
```

- P. Press  (ENTER) to proceed with another copy.

- Q. Press  (STOP) to end the operation.


B. Insert the Cuts - 1

Below is a description of all the different stages for cutting a key when the SSN is known, or the make associated to the Lock System. Choose the function from the main menu by placing the cursor on "1-Insert the Cuts"


```
0-DECODE AND COPY
1-INSERT THE CUTS
2-LIST OF CODES
3-CALIBRATION      >>
```

NOTE: Make a search by **SSN** or **Make**



Example: Honda

A. Press the key  (right hand arrow) to place the cursor next to "MFG". *It is not necessary to enter the entire name, the first letters are sufficient; the name of the MAKE closest in alphabetical order appears automatically.*

```
SSN= (CUT)
MFG= H
=> HONDA
(02) LIST = ENTER
```

- The arrow keys  (up-down) can be used to scroll the successive MAKES in alphabetical order.
- Use the (CLEAR) key to delete the text entered.
- The last line in the window shows the result of the search:
 - "(02) List=ENTER": means that 2 SSNs have been found; press (ENTER) to see the list.



```
HONDA (02)
1: MASTER (ACURA)
2: VALET (ACURA)
```


B. To view further information on the SSNs found, hold down the key  (right-hand arrow). Use  (down arrow key) to go on to Axis 2.

```
AXIS: 1 OF 2
SIDES: A B
.....
(123456) (1)
```

C. Use the alphanumeric keys to enter only the symbols indicated in brackets (1, 2, 3, 4, 5, 6) which correspond to the cutting depths admitted for the chosen key.


```
AXIS: 2 OF 2
SIDES: A B
.....
(123456) (1)
```

- If a different symbol is entered, a long warning 'beep' will sound.
- To skip cuts (empty cuts or gaps between cuts) press  (up arrow key).
- The figure in square brackets [1] corresponds to the cutting position (pitch).
- To move the cursor horizontally press  (right-hand arrow).

(When the end of the line is reached the cursor automatically returns to its starting position). To view or enter cuts for the various key axes, press  (down arrow key).

D. Enter the cuts, e.g:

```
AXIS: 1 OF 2
SIDES: A B
123243
(123456) (6)
```

E. Use  (down arrow key) to go on to Axis 2.

```
AXIS: 2 OF 2
SIDES: A B
245464
(123456) (6)
```

F Press ENTER to continue with the cutting operation. The display will show:

```
CLAMP:A POS: 2
CUTTER: H101 DIAL: 5
KEY ON SIDE 1
PC=1/1 (START)
```

G. Raise the safety shield, loosen the handle (N) and turn the depth regulating (O) dial so that the number 5 is aligned with the reference notch on the spindle support (you should hear a click).

H. Lock the lever (N).

I. Loosen the handle (N) by one turn and pull the anatomic grip (F2) towards the operator. This releases the lamp, which should be slid to the right.

J. Release the anatomic grip, move the clamp manually, and the positioning device will lock the clamp into the clamp reference notch. When the clamp is in position (Clamp A) tighten the handle (N).

K. Turn the (F) knob to the left. Fit the key to be cut into jaw A so that it lies flat on the clamp with the tip up against Stop 2 (to do this turn the Stop 1 plate left and downward).

L. Secure the key by turning the (F) knob to the right. Lower the safety shield. If the number of keys to be cut is different from 1, use the alphanumeric keys on the keyboard to enter the number of keys required (pieces) (1-255). Cutter H101 is standard on the machine. If the cutter is replaced, gauge it before proceeding.

NOTE: If the U111 tracer point is used, the operator must make sure the cutter has been installed because there is no electronic device to signal any errors!

If the protective shield is not closed, the following message appears:

```
CLOSE  
SHIELD!
```

When the shield is lowered, the following message appears.

Press START to continue.

```
CONTINUE?  
  
NO=STOP      YES=START
```

- The value "Axis 1" appears during the cutting of the 1st axis.

```
CUTTING IN PROGRESS  
COPY: 1 OF 1  
SIDE: A  
AXIS: 1
```

- Going on to cut axis 2, the following message appears.

```
CUTTING IN PROGRESS  
COPY: 1 OF 1  
SIDE: A  
AXIS: 2
```

- When side A has been cut, the following message appears:

```
CLAMP: A      POS.: 2  
CUTTER: H101  DIAL: 5  
KEY ON SIDE B  
                (START)
```

P. Raise the safety shield, loosen the (F) knob, remove the key, turn it 180°, replace on the clamp (clamp A and Stop 2) and lock the (F) knob. Lower the safety shield and press START.

- The value “Axis 1” appears during cutting of the 1st axis.


```
CUTTING IN PROGRESS
COPY: 1 OF 1
SIDE: B
AXIS: 1
```


- Going on to cut axis 2, the following message appears:

```
CUTTING IN PROGRESS
COPY: 1 OF 1
SIDE: B
AXIS: 2
```

- When the operation is complete, the following message appears:

```
COPY: 1 OF 2
FINISHED!
MORE COPIES?
NO=STOP      YES=ENTER
```

P. Press  (ENTER) to proceed with another copy.

Q. Press  (STOP) to end the operation.

List of Codes - 2

Use the items “Original Code” or key MAKE-USE from the “List of Codes” menu to identify the SSNs that have a code table associated. When the SSN has been found, the key can be cut in the way described.

Example by Code: K001

A. Press the key  (right-hand arrow) to place the cursor next to the field “Code=”


B. Enter the code “HA30055”

C. The search finds only one series for HONDA with codes between K001 and N718. The display will show:

```
CODE = K001
MFG =
=> HONDA
[2] LIST=ENTER
```

C. Searches for the code entered is made in all the series relating to the NAMES enabled. With standard settings the machine makes searches in all the series of codes. If the code entered belongs to a series but not the group of makes selected, the message “Code not found” appears and the last line of the window shows the words “SHIFT + ?”. Press the keys [SHIFT] and [?] to temporarily exclude the filter and extend the search to all makes so that the result can be viewed without having to alter the setting for “Preselect Makes”. Press ENTER, the display will show:

```
CODE = K001      [02]
1:K101-N718 MASTER
2:K001-N718 VALET
```

D. To view further information about the SSNs found, hold down the key  (right-hand arrow). Example with cursor on 1:K001-N718 Master.

```
SILCA NR:582
MASTER
1-ACURA
2-HONDA
```

E. There are now two possible choices:

1. Proceed with [SHIFT+ENTER] in order to follow the complete flow and see the cutting data associated with the code entered. The cutting data is already entered and correspond to the code K001.
2. Proceed with [ENTER] in order to skip some of the data and get to the window preceding start of the cutting operation.

Press ENTER, the display will show:

```
CLAMP:A      POS.:2
CUTTER:H101  DIAL:5
      KEY ON SIDE A
PCS=1/1      [START]
```

F. Lower the safety shield and press START. The display will show:

```
CUTTING IN PROGRESS
COPY: 1 OF 1
SIDE A
AXIS:1
```



and then:

```
CUTTING IN PROGRESS
COPY: 1 OF 1
SIDE A
AXIS:2
```

When the axis has been cut, the display will show:

```
CLAMP:A    POS.:2
CUTTER:H101 DIAL:5
KEY ON SIDE
[START]
```

- G. Raise the safety shield, loosen the (F) knob, remove the key, turn it 180°, replace on the clamp (clamp B and Stop 2) and lock the (F) knob. Lower the safety shield and press START. The display will show:



```
CUTTING IN PROGRESS
COPY: 1 OF 1
SIDE B
AXIS:1
```

and then:

```
CUTTING IN PROGRESS
COPY: 1 OF 1
SIDE B
AXIS:2
```


When the operation is complete the following message appears.


```
COPY: 1 OF 1
FINISHED!
MORE COPIES?
NO=STOP    YES=ENTER
```

- H. Press  [ENTER] to continue with a new code.
- I. Press  [STOP] to end the operation.
- J. After terminating the cutting operation and pressing [STOP], a new window appears to ask whether the user wishes to cut a new key from the same series but with a code different from the previous one without repeating the search from the beginning.
- K. Press (CLEAR) to delete the existing code. Enter the new code to be cut.


```
NEW CODE?
=K001
(K001-N718)
[ENTER]
```

```
NEW CODE?
=K001
(K001-N718)
[ENTER]
```

L. Press  (ENTER) to continue and cut a new code.

M. Press  (STOP) to end the operation.


Example for HONDA

A. Press the key  (right-hand arrow) to place the cursor next to the "Code=" field. *It is not necessary to enter the full name, the first few letters are enough, the screen will automatically show the name of the MAKE closest in alphabetical order.*

```
CODE =  
MFG =  
=>
```

- Use the arrows (up/down) to scroll the sequence of MAKES in alphabetical order.
- Use the (CLEAR) key to delete the text entered.
- Press (ENTER) to continue; the display will show the message:

```
CODE = K001  
MFG = H  
=> HONDA  
[C] LIST=ENTER
```

B. To view further information about the SSNs found, hold down the  (right-hand arrow). Press ENTER to continue; the display will show this message:

```
MAR.: HONDA [02]  
1: K001-N718 MASTER  
2: K001-N718 VALET
```

C. Enter the new code to be cut.


```
INSERT THE CODE  
=  
(K001-N718)  
[ENTER]
```

D. There are now two possible choices:

1. Proceed with [SHIFT+ENTER] to follow the complete flow and see the cutting data associated with the code entered. The cutting data is already entered and corresponds to the code K001.

```
INSERT THE CODE  
= K001  
(K001-N718)  
[ENTER]
```

```
AXIS: 1 OF 2  
SIDES: A B  
232131  
(123456) [6]
```

Use  (down arrow key) to go on to Axis 2. Press ENTER to continue: the display will show the message:

```
AXIS: 2 OF 2
SIDES: A B
32111
(123456) [6]
```

2. Proceed with (ENTER) to skip some of the data and get to the window preceding the start of the cutting operation.

E. Press ENTER to continue, the display will show the message.

```
CLAMP:A POS: 2
CUTTER: H101 DIAL: 5
KEY ON SIDE 1
PC=1/1 (START)
```

F. Press START to continue. The value “Axis 1” appears during cutting of the 1st axis.

```
CUTTING IN PROGRESS
COPY: 1 OF 1
SIDE: A
AXIS: 1
```

G. Going on to cut axis 2, the following message appears.

```
CUTTING IN PROGRESS
COPY: 1 OF 1
SIDE: A
AXIS: 2
```

H. When side A has been cut, the following message appears.

```
CLAMP: A POS.: 2
CUTTER: H101 DIAL: 5
KEY ON SIDE B
(START)
```

I. Raise the safety shield, loosen the (F) knob, remove the key, turn it 180°, replace on the clamp (clamp A and Stop 2) and lock the (F) knob. Lower the safety shield and press START. The value “Axis 1” appears during cutting of the 1st axis.

```
CUTTING IN PROGRESS
COPY: 1 OF 1
SIDE: B
AXIS: 1
```


The value “Axis 1” appears during cutting of the 1st axis.


J. Going on to cut axis 2, the following message appears:

```
CUTTING IN PROGRESS
COPY: 1 OF 1
SIDE: B
AXIS: 2
```

K. When the operation is complete, the following message appears:

```
COPY: 1 OF 2
FINISHED!
MORE COPIES?
NO=STOP      YES=ENTER
```

L. Press  (ENTER) to proceed with another copy.

M. Press  (STOP) to end the operation.

N. After terminating the cutting operation and pressing [STOP], a new window appears to ask whether the user wishes to cut a new key with a different code without repeating the search from the beginning.

```
NEW CODE?
=K001
(K001-N718)
[ENTER]
```

O. Press (CLEAR) to delete the existing code.

5. Changing the Cutter

After approximately 100 keys, you may notice that keys produced on your Tri-Code H.S. exhibit a rougher than normal edge. This "burring" indicates the cutter has dulled and should be replaced. The machine will display a warning message when the anticipated cutter life is reached. Details concerning changing the cutter are found on pages 19 and 47 of the Operating Manual. **There is also a step-by-step demonstration of this process on the DVD video included with your machine!**

It is our hope that this Quick Start Guide and DVD video will enable you to quickly and efficiently set up and begin using your new Tri-Code H.S. key machine. For more detailed information, troubleshooting practices, common maintenance tips, and useful photos, please refer to your Tri-Code H.S. Owner's Manual. We strongly advise you to keep both of these documents safe and readily available. They will prove very useful in the future. Should you require additional assistance or support, please feel free to contact the Ilco Technical Assistance Department

