
Triax A/T



QUICK START GUIDE

ILCO

Please read all instructions carefully before operating your Triax A/T Key Machine.

1. Preparation

- A. First remove the Triax A/T 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 Triax A/T 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 Triax A/T machine from the packing box, check the contents of the box, which should include the following:

- 1 Triax A/T key cutting machine
- 1 set of documents including an operating manual, a spare parts list and a warranty card*
- 1 Triax A/T internal card list
- 1 Triax A/T 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!

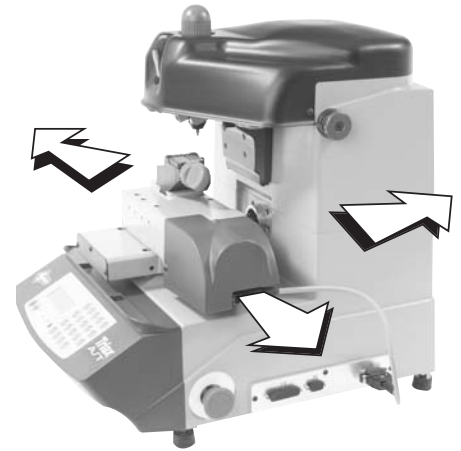


CORRECT!

- B. When the Triax A/T 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 Triax A/T 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.



- D. **VERY IMPORTANT:** 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 Triax A/T 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.

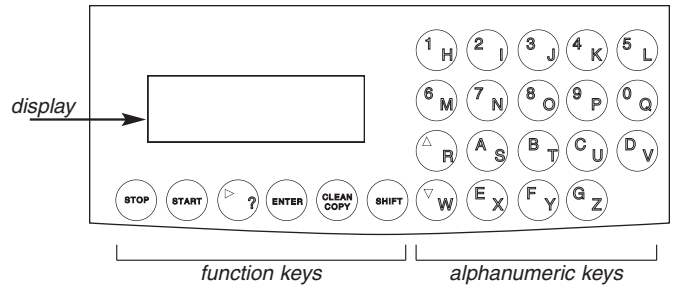


- F. Turn the Triax A/T machine ON.
- G. Push the SHIFT and STOP buttons simultaneously to bring the carriage to the starting position. Once the carriage has come to a complete stop, the operator may remove the styrofoam behind the X and Y-axis, then proceed with setting up the Triax A/T machine.

2. 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. This version should be 036 or higher. If not, please contact Ilco Technical Assistance.

- B. After a few seconds, the Triax A/T 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.



- C. In order to successfully cut keys on the Triax A/T machine, it is recommended the Triax A/T be calibrated before attempting to advance with any other functions.

3. Calibration of R1 Clamp*

NOTE: R1 Jaw is pre-calibrated prior to shipment.

- A. Use the ▼▲ buttons to move the cursor to the CALIBRATIONS options, then press the ENTER button, or directly push the #4 button. This will open the CALIBRATIONS menu.

- B. Select the CLAMPS option and press the ENTER button or directly push the #1 button.

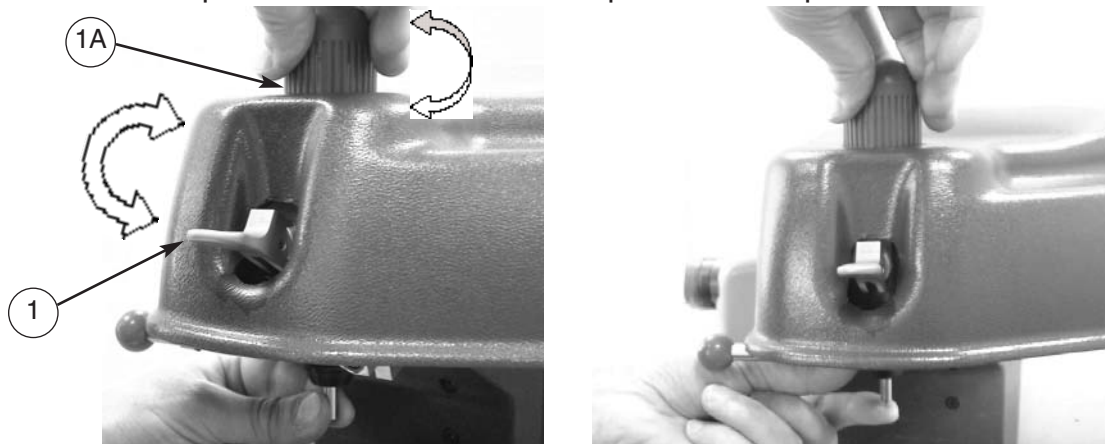
- C. Select the R1 standard clamp from the menu screen and press the ENTER button. Before starting the vise CLAMP calibration, make sure that there are no keys and /or adapters fitted in the R1 clamp.



- D. The screen will show that the R1 clamp is ready to be calibrated. Press the START button.

- E. The screen will show the message:
"Install tracer U103 See operating manual"

- F. At this point remove the calibration pin from the spindle.



* Optional clamps are available for certain key cutting applications. The calibration procedure is identical except for step "C". Instead of "selecting R1", select the clamp # you intend to install. Refer to the instruction sheet supplied with the optional jaws or more details if needed.

-
- G. To remove the calibration pin from the spindle:
- Lock the spindle rotation by lowering the lever (1).
 - Hold the calibration pin in one hand.
 - Turn the knob (1A) counter clockwise until the calibration pin is released.
 - Then remove the calibration pin.
- H. To install a decoder in the spindle:
- Lock the spindle rotation by lowering the lever (1).
 - Insert the decoder all the way into the spindle (Push until the decoder bottoms out).
 - With one hand hold the decoder in place and with the other hand turn the knob (1A) clockwise. (Do not use excessive force when tightening the knob).
 - Release spindle rotation by raising the lever (1).
- I. Once the decoder U103 is installed, close the protective shield and press the START button.
- J. By pressing the START button, the Triax A/T will automatically start the calibration of the R1 clamp.
- K. Once the operation is complete, the screen will show the differences from the X, Y, and Z theoretical values. These can be different from previous calibrations. To save the data, press the ENTER button. If the STOP button is pressed, the new settings will not be saved, and the previous settings will remain valid.
- L. The settings will be accepted by the Triax A/T if the tolerances remain within a range of ± 0.0012 thousandths of an inch.
- M. After calibrating the R1 Clamp, remove the decoder from the spindle and replace it with the H101 cutter. (To remove the spindle, see section 3G.)
- N. To install a cutter in spindle:
- Lock spindle rotation by means of the lever (1).
 - Insert the cutter all the way into the spindle, turning until it clicks into place in the groove on the cutter.
 - With one hand hold the cutter in place and with the other hand turn the knob (1A) clockwise.
 - Release spindle rotation by raising the lever (1).
- O. After the cutter has been installed, press the STOP button once. The screen will once again display the CALIBRATIONS menu.

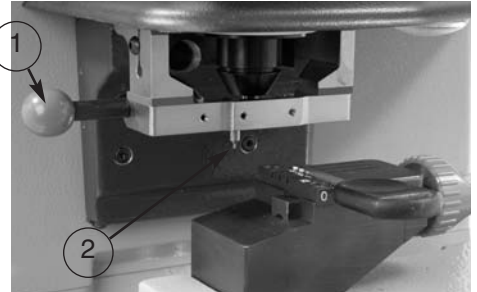
4. Calibrating the Tracer Tower

- A. Use the \blacktriangledown \blacktriangle buttons to move the cursor to the CALIBRATIONS options, then press the ENTER button, or directly push the #4 button. This will open the CALIBRATIONS menu.

B. Select the TRACER TOWER option and press the ENTER button or directly push the #2 button.

C. The data shown in this box are the adjustments that have been read during previous calibrations. Before starting the TRACER TOWER calibration, make sure that there are no keys and/or adapters fitted in the R1 clamp. At this point press the START button.

D. The screen will display "INSTALL R1 CLAMP AND LOWER TRACER". Lower the TRACER TOWER using the red ball handle (1) located on the left side of the Z-axis. The Z-axis is the vertical axis with the cutter or decoder loaded into it. (Press START to begin the automatic procedure for reading the position of the U103TT (2) tracer point.



E. By pressing the START button, the Triax A/T will automatically start the calibration of the TRACER TOWER.

F. Once the operation is complete, the screen will show the differences from the theoretical values. To save the data, press the ENTER button. If the STOP button is pressed, the new settings will not be saved, and the previous settings will remain valid.

G. After the calibration is complete, raise the TRACER TOWER by the red ball handle to the idle position (up).

H. Press the STOP button twice to return to the Triax A/T main menu.

5. Cutting Keys By Duplication

A. Use the ▼▲ buttons to move the cursor to the DECODE AND COPY option, and press ENTER, or directly push the #0 button. This will open the DECODE AND COPY function. There are (2) two different options to DECODE AND COPY:

- To search by SSN (Silca Serial Number) use the Triax A/T internal card list to select the appropriate card number. Use the number and letter buttons, to type this card number onto the appropriate line, then press ENTER.
- To search by MFG (Manufacturer), it is not necessary to enter the entire name; the first letters are sufficient. Use the

```
SSN = (Decode)
MFG = Lex
=> Lexus (Toyota)
(2) List = enter
```



```
Lexus (Toyota) (2)
1: T0Y40P (4T-8W)
2: T0Y48P (4T-5W)
```

number and letter buttons, to type the MFG name onto the appropriate line, the manufacturer closest in alphabetical order will appear. Use the arrow keys to scroll through the different manufacturers until the correct one appears, then press the ENTER button. At this point you should pick your desired key blank.



```
Decode      SSN:24
Side:  0
Clamp:  R1   POS:3
Tracer                (start)
```

B. The screen will now display the decode mode, which SSN or MFG to be used and which side of the key is to be cut. The screen will also display which clamp to use, which tip stop position to use, and the tracer mode.



```
Decoding in Progress
Side:  0
Axis:  1
```

C. Insert the original key into the R1 clamp using the information from step (B). Once all this information has been viewed, lower the TRACER TOWER, and press the START button.

```
Decoding in Progress
Side:  0
Axis:  2
```

D. The screen will now display the message "DECODING IN PROGRESS". Once the detection has taken place, raise the TRACER TOWER to the up position. The Triax A/T will display the cutting depths as well as the possible depths for that key. The screen will also display the SSN number. Once all this information has been viewed, press the ENTER button.

```
Axis 1 of 2   SSN:24
Side:  0° 180°
4333424
(54321)      (8)
```



E. The screen will display which side of the key is to be cut and which clamp is being used. The screen will also display which tip stop position to use, which cutter to use, and how many pieces are to be cut.

```
Side:  0°   Axis: 1
Clamp: R1   Pos: 3
Cutter: W101
Pieces = 1   (start)
```

F. Insert the key blank to be duplicated into the R1 clamp by using the information from step (E). Once all this information has been viewed, press the START button. The key will then be cut.



G. The screen will display the message "CUTTING IN PROGRESS". The screen will also

display how many pieces are to be cut, which side of the key is being cut, and which axis is being used.

- H. Once the first side of the key has been cut, turn the key over and place it in the clamp. Push the START button.
- I. When the cutting operation is complete there will be an option to proceed with another copy by pressing ENTER button or to end the operation by pressing STOP button.
- J. To return to the Triax A/T's main menu, push the STOP button until the menu screen appears.

```

Cutting in Progress
Copy:  1 of 1
Side:  0°
Axis:  1
    
```

```

Cutting in Progress
Copy:  1 of 1
Side:  0°
Axis:  2
    
```

```

Side: 180° Axis: 1
Clamp: R1 Pos: 3
Cutter: W101 (start)
    
```



```

Cutting in Progress
Copy:  1 of 1
Side: 180°
Axis:  1
    
```

```

Cutting in Progress
Copy:  1 of 1
Side: 180°
Axis:  2
    
```

```

Copy 1 of 1
Finished
More Copies?
No= STOP  Yes= Enter
    
```

.....

6. Insert the Cuts

- A. Use the ▼▲ buttons to move the cursor to the INSERT THE CUTS option and press ENTER, or directly push the #1 button. This will open the INSERT THE CUTS menu.
- B. There are (2) two different options to INSERT THE CUTS:

```

SSN  =
MFG  = Lexus (Toyota)
=> Lexus (Toyota)
(02) List = enter
    
```



- To search by SSN (Silca Serial Number) use the Triax A/T) internal card list to select the appropriate card number. Use the number and letter buttons, to type this card number onto the appropriate line, then press ENTER.
- To search by MFG (Manufacturer), it is not necessary to enter the entire name; the first letters are sufficient. Use the number and letter buttons, to type the MFG name onto the appropriate line, the manufacturer closest in alphabetical order will appear, then press ENTER.

```
Lexus   (Toyota) (2)
1:  T0Y40P (4T-8W)
2:  T0Y48P (4T-5W)
```



- C. The screen will also display how many code series are found under the SSN or MFG. Use the ▼▲ to scroll down to the required code series. Once the required code series is found press the ENTER button.

```
Axis: 1 of 2  SSN:24
Side: 0°    180°
. . . . .
(54321)    (8)
```

- D. The screen will now display the possible depths for that particular system. Using the number and letter buttons, enter the actual cut depths that are required for the key. Press the ENTER button.

```
Axis: 1 of 2  SSN:24
Side: 0°    180°
43233423
(54321)    (8)
```

- E. The screen will display which side of the key is to be cut, which clamp is being used as well as which axis is being used. The screen will also display which tip stop position to use, which cutter to use, and how many pieces are to be cut.

```
Axis: 2 of 2  SSN:24
Side: 0°    180°
. . . . .
(54321)    (8)
```

- F. Insert the key blank to be cut into the R1 clamp by using the information from step (e). Once all this information has been viewed, press the START button. The key will then be cut.



- G. The screen will display the message “CUTTING IN PROGRESS”. The screen will also display how many pieces are to be cut, which side of the key is being cut, and which axis is being used.

```
Axis 2 of 2  SSN:24
Side: 0°    180°
4333424
(54321)    (8)
```

```
Side: 0°    Axis: 1
Clamp: R1   Pos: 3
Cutter: W101
Pieces = 1   (start)
```



- H. Once the first side of the key has been cut, turn the key over and place it in the clamp. Push the START button.

I. When the cutting operation is complete there will be an option to proceed with another copy by pressing the ENTER button or to end the operation by pressing the STOP button.

```
Cutting in Progress
Copy: 1 of 1
Side: 0°
Axis: 1
```

J. To return to the Triax A/T main menu, push the STOP button until the menu screen appears.

```
Cutting in Progress
Copy: 1 of 1
Side: 0°
Axis: 2
```

```
Side: 180° Axis: 1
Clamp: R1 Pos: 3
Cutter: W101
(start)
```



```
Cutting in Progress
Copy: 1 of 1
Side: 180°
Axis: 1
```

```
Cutting in Progress
Copy: 1 of 1
Side: 180°
Axis: 2
```

```
Copy 1 of 1
Finished
More Copies?
No= STOP Yes= Enter
```

.....

7. List of Codes (Cut by Code)

A. Use the ▼▲ buttons to move the cursor to the LIST OF CODES option and press ENTER, or directly push the #2 button. This will open the LIST OF CODES menu.

```
Code = 3229
MFG =
=>
(4) List = Enter
```

B. There are (2) two different options to LIST OF CODES:

- To search by Indirect Codes, use the



number and letter buttons, to type this code number onto the appropriate line, then press ENTER.

- To search by MFG (Manufacturer), it is not necessary to enter the entire name; the first letters are sufficient. Use the number and letter buttons to type the MFG name onto the appropriate line. The manufacturer closest in alphabetical order will appear, then press ENTER.

C. The screen will display all the available code series listed under the required code. Use the ▼▲ to scroll down to the required code series. Once the required code series is found press ENTER.

D. The screen will display which side of the key is to be cut, which clamp is being used as well as which axis is being used. The screen will also display which tip stop position to use, which cutter to use, and how many pieces are to be cut.

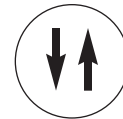
E. Insert the key blank to be cut into the R1 clamp by using step (D). Once all this information has been viewed, press the START button. The key will then be cut.

F. The screen will display the message “CUTTING IN PROGRESS”. The screen will also display how many pieces are to be cut, which side of the key is being cut, and which axis is being used.

G. Once the first side of the key has been cut, turn the key over and place it in the clamp. Once the key is back in the clamp, push the START button.

H. When the cutting operation is complete there will be an option to proceed with another copy by pressing the ENTER button or to end the operation by pressing the STOP button.

```
Code: 3229      (4)
1: 1-6700 HUB4P '93(
2: 1-7735 Lancia K(
3: 0001-5000 T0Y40P >
```



```
Code: 3229      (4)
2: 1-7735 Lancia K(
3: 0001-5000 T0Y40P(
4: 0001-5000 T0Y40P(
```



```
Side: 0°      Axis: 1
Clamp: R1     Pos: 3
Cutter: W101
Pieces = 1    (start)
```



```
Cutting in Progress
Copy: 1 of 1
Side: 0°
Axis: 1
```

```
Cutting in Progress
Copy: 1 of 1
Side: 0°
Axis: 2
```

```
Side: 180° Axis: 1
Clamp: R1 Pos: 3
Cutter: W101
(start)
```



- I. To return to the Triax A/T main menu, push the STOP button until the menu screen appears.

```
Cutting in Progress
Copy: 1 of 1
Side: 180°
Axis: 1
```

```
Cutting in Progress
Copy: 1 of 1
Side: 180°
Axis: 2
```

```
Copy 1 of 1
Finished
More Copies?
No= STOP   Yes= Enter
```

It is our hope that this Quick Start Guide will enable you to quickly and efficiently set up, and begin using your new Triax A/T key machine. For more detailed information, trouble shooting practices, common maintenance tips, and useful photos, please refer to your Triax A/T 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 addition assistance or support, please feel free to contact the Ilco Technical Assistance Dept.

Ilco Technical Assistance Dept.
400 Jeffreys Road
Rocky Mount, NC 27804
USA

Tel:(800) ILCO-USA
(800) 452-6872
Ext: 200, 384, 356

Fax: (252) 446-4702