



Key Cutting Machine Initial operation manual

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ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience.



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Initial Installation

1. Requirements:

- The machine should be installed in a working area that provides adequate space for operation and maintenance.
- Leave 200 mm (8") of free space for ventilation around machine, especially on the right-hand side.
- The machine needs one electric outlet. An accessible Internet connection is also recommended.
- To connect a computer and additional light, if required, two more electric outlets are needed.
- Please obtain appropriate plug adaptor (if required) for your country (The cable is a standard 10Am cable).

2. Unpacking:

- Remove cardboard cover (open 3 plastic straps).
- Remove foamed plastic plates and nylon cover. Open 4 brackets attaching the machine legs to the wooden bench.
- Position the machine, taking into account the requirements from paragraph 1 above.
- Open safety door and release X- Y- Z axis jig.
- Check that the package contains:
 - KC5 key cutting machine
 - Machine and software operation manuals
 - CD kit containing 2 CDs: software installation and manuals
 - 2 keys for machine ON/OFF switch
 - Key duplicating card for the machine's keys
 - External cutter
 - Internal cutter
 - Milled groove cutter
 - USB cable
 - Metal chip drawer
 - Declaration of Conformity (CE)

Depth Measurements for Key Combination Cut

Classic / Interactive® Platform				
External cut	Internal cut	Min	Basic	Max
A	1	2.34	2.40	2.40
B	2	1.89	1.95	1.95
C	3	1.39	1.45	1.45
D	4	0.89	0.95	0.95
-	5	0.39	0.45	0.45

7x7® / Integrator® Platform				
Combination Cut		Min	Basic	Max
1		2.33	2.37	2.41
2		1.93	1.97	2.01
3		1.53	1.57	1.61
4		1.13	1.17	1.21
5		0.73	0.77	0.81
6		0.33	0.37	0.41

MT5® Platform				
External cut	Internal cut	Min	Basic	Max
A	1	2.36	2.40	2.42
B	2	1.91	1.95	1.97
C	3	1.46	1.50	1.52
D	4	1.01	1.05	1.07
-	5	0.56	0.60	0.62

Profile Table

0	0	6	C
<p>0 - Classic or 7x7 profile</p> <p>1 - Interactive or Integrator chamber in first location</p> <p>2 - Interactive or Integrator chamber in second location</p> <p>3-7 - Integrator chamber on location 3 to 7</p>	<p>Two middle digits indicates the profile.</p> <p>Even number - right profile</p> <p>Odd number - left profile</p>	<p>C - Classic</p> <p>S - Silver (Z0)</p> <p>B - Black (Z1)</p> <p>G - Gold (A0)</p> <p>M,E,P - Type of integrator chamber</p>	

Initial Operation

WARNING:

Before operating the machine, operators must be trained by official personnel from their company, and certified to operate this machine.

Recommended training should include reference to the mushroom-shaped, red & yellow EMERGENCY STOP button. The operator must be familiar with this button and its location before operating the machine.

3. Preliminary steps:

- Before starting to operate the machine check around and inside the machine, and make sure that machine is ready:

 - The electric cable is connected to the machine and to the electric outlet.
 - The main switch at the rear of the machine is ON.
 - All cutters are assembled in the machine.
 - There is no key blank in the key clamp.
 - Safety door is closed.
- Press Emergency Stop button and release it by a quarter turn.

 - Check that no unauthorized personnel are near the machine.
 - Turn the key switch to ON.
 - Watch the LCD and follow the instructions shown on the display.

Cutting Procedure - Classic/Interactive® Platform

<div style="border: 1px solid black; padding: 2px; display: inline-block;"> 1.Auto 2.Manual 3.Service 4.Etc </div>	
1	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> ENTER PROFILE ---- <ENTER> </div> Type the profile (keyway) of the key blank - Classic or Interactive. See profiles table.
2	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> External pins (5): ---- </div> Type external pins combination.
3	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> Internal pins (5): ---- </div> Type internal pins combination.
4	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> Side pins (5): ---- </div> No side pin definitions - press ENTER. Side pin in specified position - type 1. No side pin in specified position - type 0.
5	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> Back pins (5): ---- </div> No back pins definitions press ENTER. Back pin in specified position - type 1. No back pin in specified position - type 0.
6	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> ATTACH KEY BLANK TYPE:006C <ENTER> </div> If side pins are not specified attach key blank.
6	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> ATTACH KEY 90 deg TYPE:006C<ENTER> </div> If side pins are specified insert key blank 90° to cut side pins first.
7	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> IN PROCESS </div> Cutting first side of key.
8	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> ROTATE KEY CW 180 DEG <ENTER> </div> Rotate key blank 180° CW to cut second side.
9	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> CUT ANOTHER COPY 1.YES 2.NO </div> Option for cutting another copy.

Troubleshooting - Software

Problem	Cause	Solution
Software error display board not found appears after entering password.	Power management in the USB port is not turned off (portable computer).	Refer to pages 13-15 in the "Software user operation manual".
Software error display: wrong password.	Wrong password was entered.	Enter initial password "xtrol" in small letters.
	The software is running under network computer.	Ask your IT administrator to give you the needed authorization.
Software error display: Failed to open the USB port	USB cable is unplugged.	Check USB connection from the computer to the machine. Run application again. (See 5.16)
Software error display Too much motions appears in the process of marking an icon.	The icon is complicated. Requiring too many moves.	Use simple icon. (Future software version will support more motion capabilities).

Troubleshooting - Machine Operation

Problem	Cause	Solution
Combination cuts on second side of the key are too deep.	Metal chip left from cutting first side does not allow the key blank to attach accurately to the key clamp.	Replace cutting tool if worn out.
	Marking groove is too deep, groove edges pushing key blank out.	Calibrate marking tool depth to engrave shallow marking.
Combination cuts are too deep on both sides of the key.	Tools are not calibrated.	Perform tool calibration.
Machine stopped, no display, fans working.	Short circuit on Z axis sensor cable.	Call Technical Support. (See 5.19)
Machine stopped, no display, fans are not working.	Fuse is damaged.	Replace fuse (6.3Am/220V or 10Am/110V). (See 5.14)
	Relay switch jumped to OFF	Turn relay switch ON. Notify Technical Support.
Machine is working, no display.	Keypad cable disconnected or damaged.	Call Technical Support. (See 5.2)
HOMING appears on display during operation.	Door switch released during operation.	Adjust door switch. (See 5.11)
Duplicating card does not work.	Invalid card.	Try different card. Advise Technical Support.
	Card reader is Malfunctioning.	Call Technical Support.
OVER HEAT appears on display.	Fans are not working.	Check fans' wiring. Advise Technical Support.
	Not enough space for fans ventilation.	Verify at least 20 cm space at machine fans' side.
	Motor/Bearing problem.	Call Technical Support.
Key blank moving inside the key clamp when cutting side pins on a left profile blank.	Key clamp pin penetrating combination cut (Usually on D cut).	Cut side pins before cutting telescopic combination cuts.

Cutting Procedure - 7X7®/Integrator®

	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> 1.Auto <u>2.Manual</u> 3.Service 4.Etc </div>	
1	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> ENTER PROFILE ----- <ENTER> </div>	Type the profile (keyway) of the key blank - 7x7 or integrator. See Profiles Table.
2	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> Plug Pins (7): </div>	Type plug pins combination.
3	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> ATTACH KEY BLANK TYPE:0767 <ENTER> </div>	Attach key blank.
4	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> IN PROCESS </div>	Cutting first side of key.
5	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> ROTATE KEY CW 180 DEG <ENTER> </div>	Rotate key blank 180° CW to cut second side.
6	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> CUT ANOTHER COPY 1.YES 2.NO </div>	Option for cutting another copy.

Cutting Procedure - MT5® Platform

		<div style="border: 1px solid black; padding: 2px; display: inline-block;"> 1.Auto 2.Manual 3.Service 4.Etc </div>
1	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> SLIDE THE MAGNETIC CARD </div>	Swipe magnetic card through card reader.
2	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> ATTACH KEY BLANK TYPE:938B<ENTER> </div>	Attach suitable key blank and press ENTER.

Troubleshooting - Machine Startup

Problem	Cause	Solution
Machine does not turn on after turning the key switch.	Electric cable is unplugged.	Plug in electric cable. (See 5.13)
	Main switch (at the back of the machine) is in OFF position.	Turn main switch to ON. (See 5.13)
	Fuse is damaged.	Replace fuse (6.3Am/220V or 10Am/110V). (See 5.14)
	Relay switch is in OFF position.	Turn relay switch to ON. Consult Technical Support. (See 5.2)
POWER IS OFF appears on display after turning the machine ON.	Emergency Stop button is pressed.	Release Emergency Stop button. (See 6.2)
During initial homing process the Z axis probe is not calibrated with the Z sensor.	Uncontrolled movement of the Z axis.	Consult Technical Support. (See 5.3)
During homing process Z axis vibrates and making abnormal sound.	Calibration pin is stuck and therefore applying constant pressure on Z axis sensor.	Try to release by pressing the calibration pin located in the key stopper. Consult Technical Support.
MUL-T-LOCK TECHNOLOGY appears on display after turning the machine ON.	Controller failure.	Call Technical Support.
FLASH FAILURE appears on display.	Machine data was erased.	Call Technical Support.