

K7000 PCB Separator

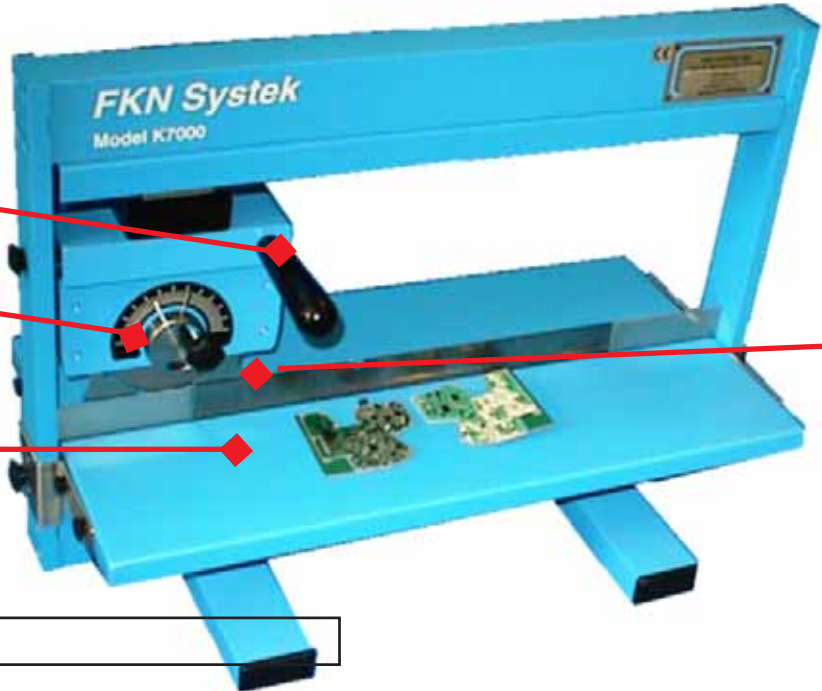
Edition 1 Rev 0

Users Guide



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K7000 Users Guide



Adjustable right and left blade guards

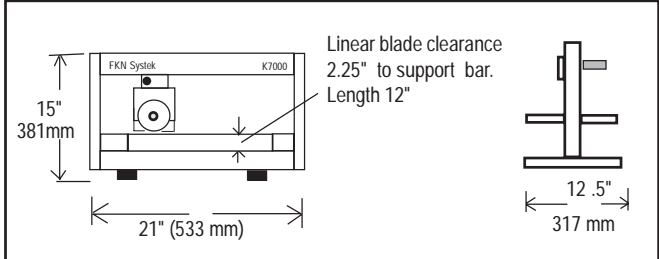
1. Introduction

The K7000 is a circular blade on linear blade PCB depanelizer. By placing a prescored PCB onto the linear blade, and pulling the circular blade across the scoreline, the panels are cleanly and easily separated without dust or scrap. Wear resistant blades made of hardened tool steel and blade guides assure a long working life without need for adjustments. The blades of the K7000 are designed to singulate PCBs with component spacing of .030" (.762mm) or greater



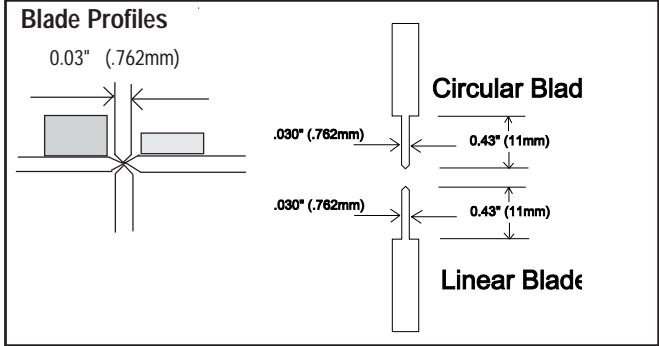
2. Contents of Package

- K3000
- Users Guide
- Front and back table.



3. Technical Specifications

Weight.	: 30 Lbs.
Dimensions : H L W	: 17" x 27" x 12.5 "
	: 431x685 x304 mm
Maxi length of PCB to be separated	: 12" (305mm)
Scoreline depth, (Remainder material)	: >.012" <.027" (0.3-0.7mm)
Spacing between componenes	: .030" (0.762mm)
Angle of Score line	: 25° Min.



4. Setup

To put the K7000 into operation, prepare a clean and level working surface and place the machine onto this surface. Remove the transport hold down screw on the right of the circular blade mechanism.

The gap between the top and bottom blades is set at the factory so that a piece of standard copy paper will freely rotate the circular blade as it passes over the linear blade and the paper.

Make sure the gap between the top and bottom blade is set so that a piece of standard typing or copy paper will rotate the circular blade as it is passed across the linear blade and the paper.

When using the K7000 for the first time it is recommended that a soft cloth be used to wipe away any film or oil on the blades.

5. Operation

Place the scoreline of the PCB onto the linear blade and pull the circular blade across the scoreline. Adjust the blade guards so that the PCB can pass between the blade guards and the linear blade.

6 Blade Replacement

To replace or sharpen blades: **Circular blade**- remove the front blade cover cap by removing the screw holding it into place. Pull off the old blade and replace it with a new one. Replace the blade holder cover plate when this is done. **The linear blade** can be replaced by removing the 4 mounting screws holding onto the lower support bar.

7 Blade Adjustment

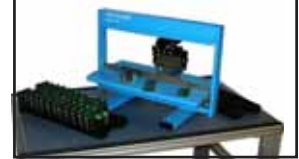
When the linear blade is replaced by removing the 4 mounting screws holding onto the lower support bar, the blade must be leveled so that the blade gap between circular and linear blade remains the same for the right and left side of the blade. The linear blade can be tilted up and down by turning the offset screw on the right below the blade. Check the blade gap by moving the circular blade alternately to the left and right side of the machine.

Circular blade gap is adjusted by bringing the blade holder carriage up or down so that the circular blade will move when a piece of ordinary copy or typing paper is placed between the upper and lower blades. Follow instructions in illustration at right. (For blade replacement see section 9)

7. Safety Precautions.

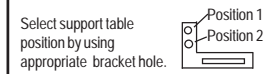
The K7000 is to be used only for separating prescored printed circuit cards. Use of the equipment for any other purpose may cause damage to the machine and create a safety hazard for the operator. Be sure to follow all safety precautions. When separating panelized PCBs using the K7000. It is recommended that protective gloves be worn by the operator to prevent injury from the sharpened blades. Any repairs or adjustment other than changing the blades or setting the blade and PCB guard gaps as described in this manual, should be made by trained authorize personnel. When operating the machine, be sure that any loose items such as jewelry clothing or hair are kept clear of the rotating blades.

4.1 Set on Clean Workplace



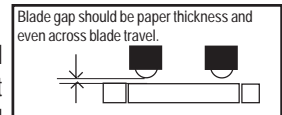
4.2 Adjust support tables

Support tables can be brought to two positions by using the desired hole in the table holder bracket.



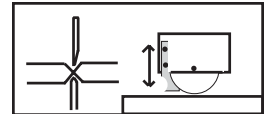
4.3 Check blade alignment.

Move Circular blade carriage right and left to see that gap remains constant and that circular blade edge is centered over linear blade all the way across.



4.4 Check blade guards.

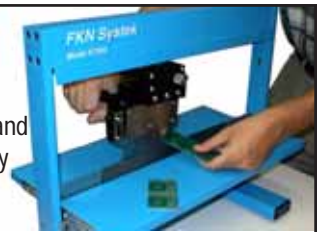
Place PCB Scoreline on linear blade and bring blade guard down so that PCB slides freely underneath blade guard.



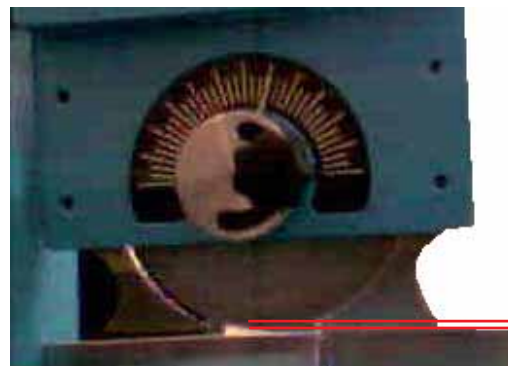
5 Operation

Singulate PCB Panels

Place scoreline onto linear blade and pull circular blade across to cleanly separate the panels.



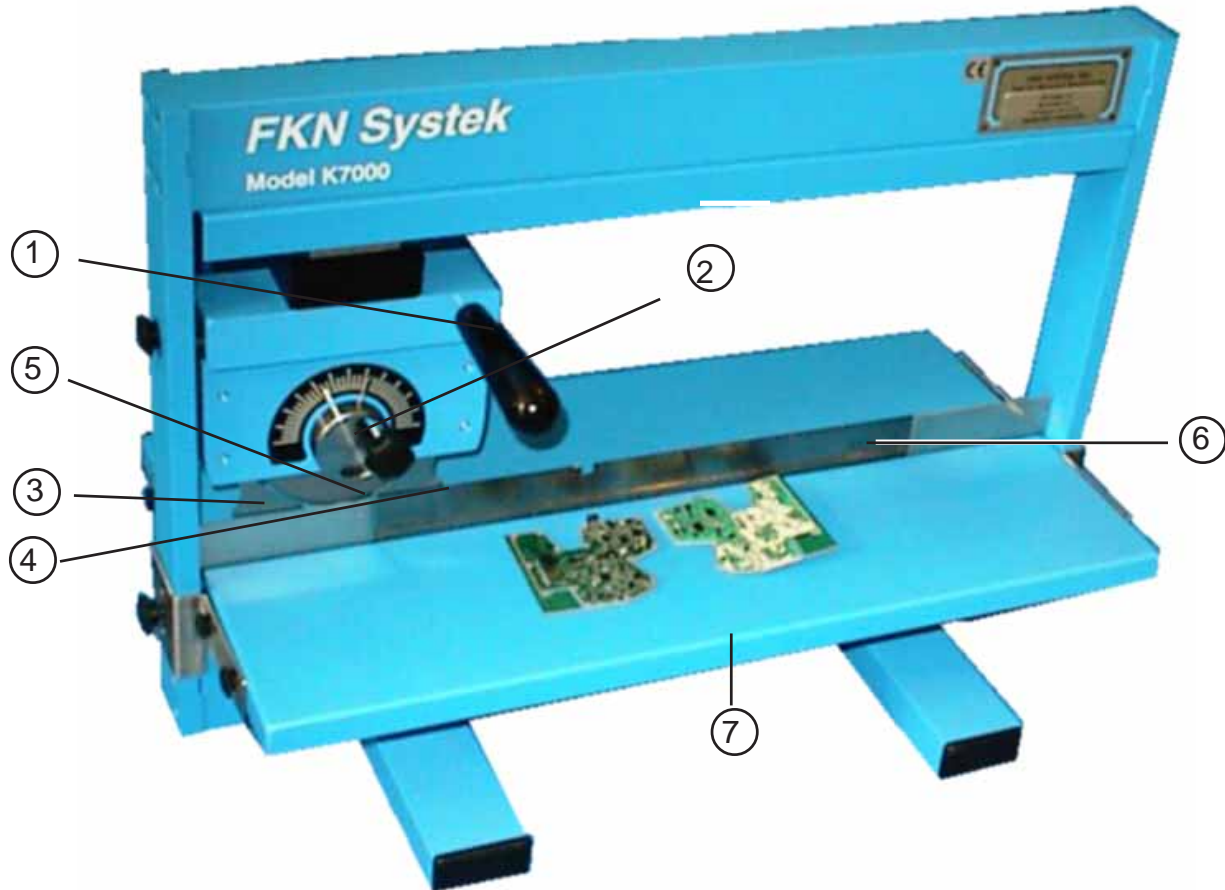
6 Blade Replacement and Adjustment



Gap between circular blade and linear blade should be such that circular blade turns when a piece of paper is placed between the two blades.

8. Replacement Parts List

In order to keep your K7000 up and running, it is recommended that a set of circular and linear blades be kept in stock, as well as an extra set of blade guards.



1 Carriage Handle	: 57455K61
2 Blade Holder Shaft.	:
3 Left Blade Guard	: B K7000-04R
4 Right Blade Guard	: B K7000-04L
5 Circular Blade	: B-K7000-02
6 Linear Blade	: C-K7000-01
7 Support Table	: D K7000-16

8. Changing Blades

The K7000 blade is designed to fit onto the eccentric shaft with a .003" gap between the blade holder cap and the blade. The blade holder cap presses the inner race of the bearing onto the eccentric shaft. The gap between the cap and the blade means that there is a slight friction fit between the cap and the blade. This assures that there is minimal side to side movement of the blade during the cutting operation.

The gap according to drawings should be .003". Tolerance build up in the real world makes it likely that the fit may in fact be too tight in some cases. If the blade holder cap is holding the blade too tight, (i.e the blade will not turn when passing over the scoreline of the pcb panel), it may be necessary to place a spacer between the inner race and the blade holder cap.

