



# KINSTEN

## EXPOSURE UNIT KVB-30

### INSTRUCTIONS

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## ASSEMBLY INSTRUCTIONS:

Power cable is located in top of exposure box, to release pull small brass knob. (fig.1-1)

## OPERATION INSTRUCTIONS:

1. Turn off all switches on the front panel (fig.1-2) and adjust the exposure time as:  
KVB-30A: Turn the small adjustable knob and an arrow on the knob point to a required seconds.  
KVB-30D: Push + or - to increase or decrease the presetting number. Common exposure time are 60-90 seconds for photographic film and 70-120 seconds for hand made lay-outs. (only available for KINSTEN presensitized circuit board, other brands of board should be longer).
2. Unlock the vacuum clamp by pushing the metal latches outward with your thumbs, and lift clamp. (fig.3)
3. Place the presensitized PCB on the vacuum clamp close to the entrance of air pipe with a distance of 1-3cm (see fig.2), then put artwork on top. If exposing double sided PCB's, attach two layers of artwork together and taping the edges after perfect alignment. Then insert the board between the artworks.
4. Close the vacuum clamp pushing the frame of clamp down until fully locked.
5. Start vacuum pump and wait for approximately 30 seconds until the air under vacuum clamp has been fully removed.
6. Close box and turn on UV light source, upper/lower or both as required.  
KVB-30A: LED bar graph shows the exposure progress. The exposure is complete when all red LED are extinguished and the yellow LED is illuminated.  
KVB-30D: Display panel indicates the counting of exposing seconds and at the end of exposing time, a buzzer will give a 2-3 seconds signal. Adjust the preset second during exposure may cause the interruption of the timer.
7. Turn off vacuum pump, open the box and wait a few seconds then unlock the vacuum clamp and open it slowly.
8. If you wish to expose multiple PCB's the RE-EXPOSE function will help speed up the operation. Turn off all switches and close the cover of box after use.

- CAUTION:**
1. Avoid exposure at a short distance for more than 5 seconds. If necessary, sunglasses are suggested.
  2. Unplug the power cable before replace the fuse, 3 Amp for 100-120V, 2 Amp for 220-240V.
  3. Do not use solvents on transparent plastic surface, use soft cloth with water/detergent or 50% water/alcohol.
  4. To achieve the best results when using hand made lay-out, arrange your lay-out and the board as fig.4.
  5. Normal artificial room light will not harm sensitive surface if exposed less than 5 minutes.
  6. Breaks and flaws in artwork may be touched up with a black text pen.

## SPECIFICATION:

Voltage	* 100,110,220,240
Frequency	50,60 HZ
Input	200w
Light Source	Chemical Lamp 15w x 6
Mask Area	22 x 37 cm
Dimension	51 x 41 x 15 cm
Weight	12 kgs

