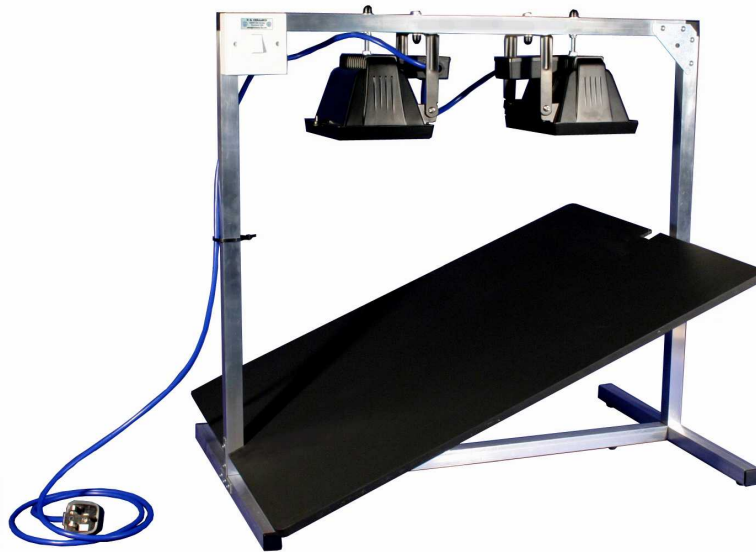


ASSEL500X2 *MkII*
1000w Halogen / Tungsten
Silk Screen Exposure Lamp

INSTRUCTIONS & GUARANTEE

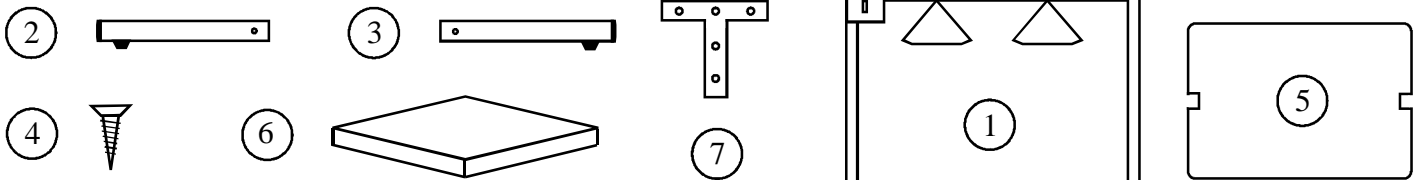


ASSEL500X2 - SILK SCREEN EXPOSURE LAMP UNIT 1000W

Read all instructions before starting assembly.

Packed contents list: *

- 1) Exposure unit frame with 2 lamps fitted
- 2) Left legs x 2
- 3) Right legs x 2
- 4) 5/8" Self tapping screws x 10
- 5) Base board (31" x 24") x 1
- 6) Foam block (2" x 18.5" x 23") x 1
- 7) Tee-plate x 2

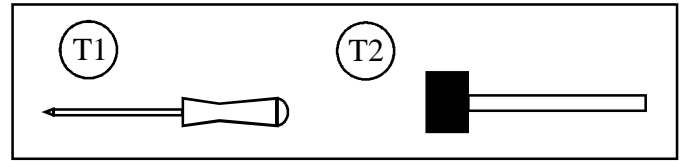


* **MkII** version now also includes

- a) Sheet A2 black backing paper x 1.
- b) Spare 500w bulbs x 2

Tools needed for assembly (not supplied):

- T1) Posi-drive (or Phillips) screwdriver
T2) Small rubber mallet



Assembly.

Attach the legs (2)+(3) to the frame (1) using a rubber headed mallet to gently knock them onto the plastic inserts. Make absolutely certain that the legs are put on the correct way round before hammering them on - as they are virtually impossible to remove once hammered into position. The rubber feet should be underneath and the screw hole should be facing outwards. Use 1 right leg and 1 left leg on each end of frame. (See Fig. A).

DO NOT use a metal hammer to knock the legs into position as this will damage the plastic caps on end of legs.

During this operation it is advisable to protect the lamps from knocks by laying the frame on its side and resting the lamps on the foam block (6).

Once the legs are in place attach the Tee-plates (7) to the frame and legs using a screwdriver and the screws provided (4). (See Fig. B).

Make sure the Tee-plates are attached with the counter-sunk side of the holes on the outside. The pre-drilled holes on the frame and legs are tight to allow the self-tapping screws to cut their own thread. It is important that you use a well fitting screwdriver to avoid stripping the heads of the screws.

Insert all the screws half-way first, when all screws are in place then begin tightening them. Be careful not to over-tighten any as this may strip the thread in the holes. Pay special attention when tightening the lower middle screws which go into plastic only, which are easily over-tightened.

Now place the base board (5) into the frame with the matt-black coated side face-up. It should be a comfortable fit and should not be forced. (See Fig. C). The foam block (6) simply rests on the base board.

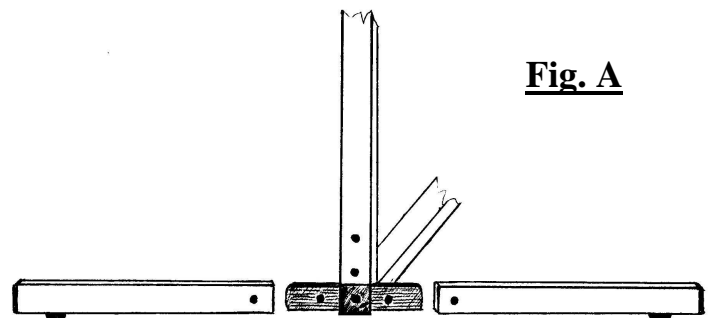


Fig. A

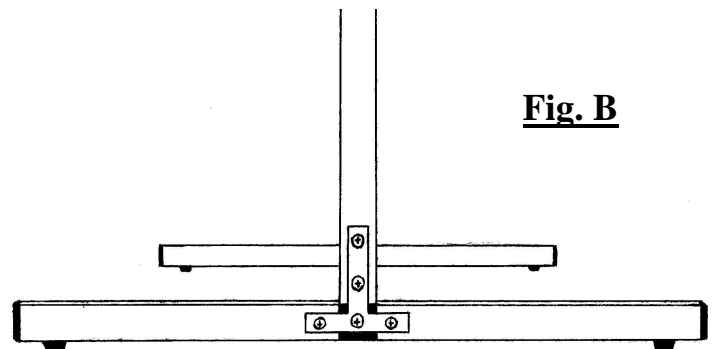


Fig. B

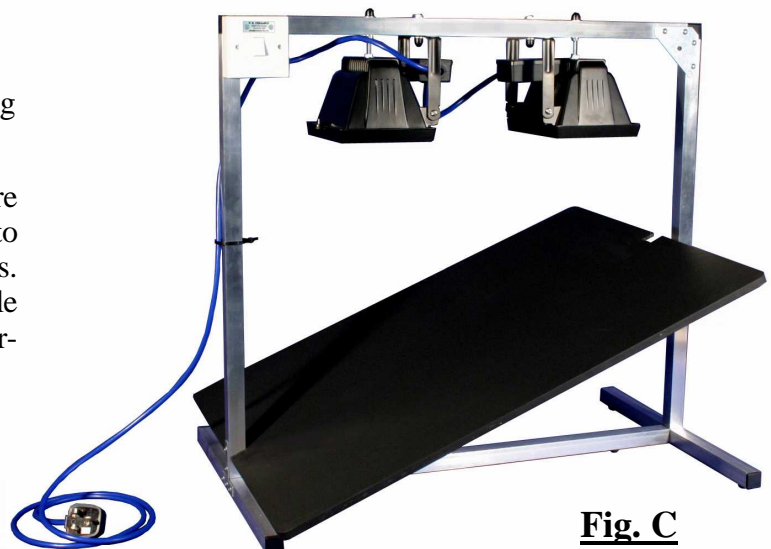


Fig. C

The unit is supplied complete with a fitted 5 Amp 3 pin plug and is ready for use once assembled.

Replacing Bulbs

You may never need to replace a bulb - they have an average life-span of around 1500 to 2000 hours. If you do need to replace a bulb then spares are available from the manufacturer or may be bought from a good hardware store. The bulbs are 500W Halogen / Tungsten 118 mm long, do not use anything except 500W bulbs .

Replace bulbs by removing the retaining bolt on the edge of the glass face plate so that the face swings open. The old bulb is removed by pushing it to one side and then gently pulling it out. The replacement bulb is inserted in the same way - in reverse order. **IMPORTANT - DO NOT TOUCH** the new bulb with your bare hands as any dirt or grease on the bulbs will significantly reduce their life. Use a clean cotton cloth to hold the bulb during fitting.

WARNING.

a) Do not use this unit for any purpose other than that for which it was intended.

b) The unit is strong and self-supporting but it will not stand up to abuse from hard knocks or heavy weights being placed on it or leaned against it.

c) Do not try and disassemble the unit. It is not meant to be taken apart (the base board can be safely removed at any time to aid storage).

d) The only user replaceable parts are the bulbs and the 5 Amp fuse in the plug.

e) The best way to move or carry the unit is to hold the top cross bar in the middle.

Instructions For Use.

This is not a guide to silk screen printing. If you are not already familiar with the silk screen printing process then you are advised to purchase a book on the subject (try amazon.co.uk or ebay.co.uk).

Silk screen printing is simple and ideally suited to the independent small scale user such as artists, T-shirt printers, potters (ceramic decal printing) and small publishers etc. The process is also used by large industry but the principles employed are the same.

Silk screen printing is versatile, easy and cheap in comparison with other printing methods. Very little equipment is needed, the screen frames can be self-built and now the process of producing 'positive' artwork on clear acetate sheets has become vastly simplified and much cheaper through the utilisation of home computers and laser or inkjet printers. These are able to print directly onto the clear acetate sheets used for OHP's (over-head projectors) like the ones commonly found in schools or lecture halls. Make sure you select the correct type of sheet for your printer (i.e. laser or inkjet).

You can also use black ink or paint to draw your artwork directly onto the sheets if greater detail is not required.

The PBC Silk Screen Exposure Unit now makes the process of exposing artwork onto screens easier, safer and more affordable than ever.

1) Coat your screen with a 'photo-emulsion' - this is a light sensitive emulsion, usually supplied in a two part mixture which is activated when mixed. Emulsions of all kinds are available from silk screen printers supplies, they all come with instructions for mixing and use.

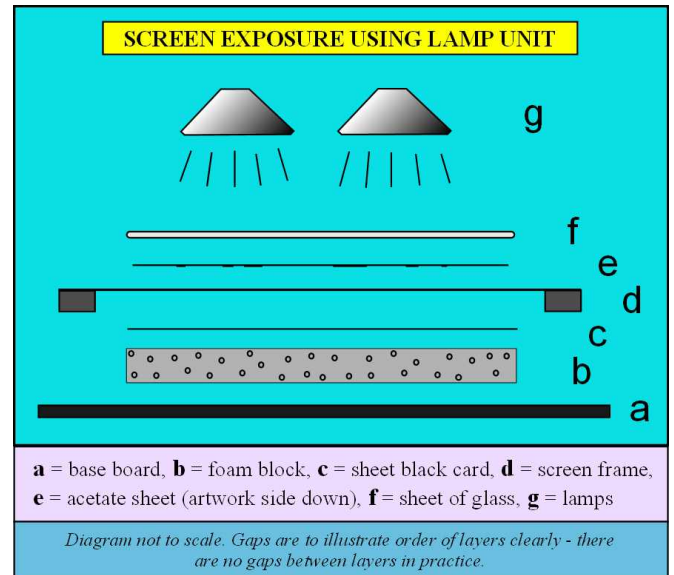
2) Leave your screen in a dark place until perfectly dry.

3) Place the screen silk side up, frame side down, over the foam block. The foam block will be on the base board. You may improve results by placing a sheet of black paper, card or felt between the foam and the screen. You may need to cut the foam block down to a smaller size to fit within your screen (leave at least 1 inch of space between inside edge of frame and the foam block. Smaller size foam blocks are available from the manufacturer. **DO NOT** use foam which is any thicker than the piece supplied (2 inches).

4) Place the acetate sheet, artwork side face down on top of the sensitized screen.

5) Place a sheet of clear glass over the acetate sheet. This should be at least 6 mm thick and no more than 9 mm, to provide sufficient weight to press the acetate sheet flat against the screen. The glass should have rounded corners and smooth edges to avoid damaging the screen. It may help if small weights are placed on the corners (**See Fig. D**).

Fig. D



6) Now switch on the unit and leave the screen to be exposed. The length of exposure time required will depend on several factors, the speed of the emulsion, thickness of emulsion coat, complexity and density of the artwork etc. The only sure way of finding the correct exposure time is to experiment with test exposures. Use a test screen and a sheet of black card to mask say 3/4 of the screen for first exposure step, then reveal more screen so that say 1/2 is revealed for next exposure step then 3/4 and continue until full screen is exposed. The first part will have had 4 times as much exposure as the last strip. The results will narrow down the most

appropriate exposure time. Further exposure steps with shorter exposure gaps can then be done to pinpoint the best exposure time.

7) Once exposure is complete, switch off the unit and immediately wash out the screen with a gentle spray of warm water. This will remove the parts of the screen which were masked by your artwork. Leave to dry. The screen is now ready for use.

Some emulsions are much faster than others. It is advisable to use a faster emulsion because Halogen lamps take slightly longer to expose screens than alternatives such as UV, Mercury vapour etc. Halogen lamps also give off a lot of heat, this means that extremely prolonged exposures (of over 10 minutes) may result in heat build up which in extreme cases may damage the acetate sheet or possibly even the screen. This can easily be avoided by taking the following precautions:

1] Carry out long exposures in steps. e.g. expose the screen for say half the required time then switch off the lamps and cover the screen with black card (be careful not to disturb the artwork). Leave the lamps to cool down

for a few minutes before removing the card and then carrying out the second half of the exposure.

2] Use a small desk fan placed to one side of the unit to gently blow cool air across the screen. This will eliminate over-heating.

3] The acetate sheets made for laser printing are more heat resistant than those designed for inkjet printing and so may be better for longer exposures.

4] The sheet of glass performs a secondary function of absorbing some of the heat generated so make sure the glass sheet is always in place before operating the unit.

Feedback from customers has indicated that exposure times are usually around 3 to 5 minutes on average for most common emulsions. Therefore overheating is not an issue for most users of normal emulsions.

CAUTION! ~ Do Not Touch the lamps during use or soon afterwards as they get very HOT.

If used in accordance with these instructions you will achieve excellent results with this unit which should give many years of trouble-free, safe use.



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1 YEAR GUARANTEE

This product is covered by a **1 Year** manufacturers guarantee against defective materials or defective workmanship. This does not include bulbs or fuses or fair wear and tear. Mis-use of this product, failure to use in accordance with the instructions included, abuse or use for any purpose other than that for which the product was intended, or attempts to service or dismantle the product (other than to replace bulbs or fuses) will void this guarantee. The manufacturer reserves the right to replace, repair or refund at the manufacturers sole discretion. Your statutory rights are not affected. The customer will be responsible for returning the item to the manufacturer in the event of a return. Please contact the manufacturer before returning any item. Please retain receipt / invoice as proof of purchase. Your Guarantee No: can be found on your invoice/receipt.

Guarantee No:

Date of Purchase:

Price Paid:

Your Address:

Manufactured in the UK by:

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