

## Flat Pack Light Box Assembly Tips

- 1) Remove top face cover of shipping box first to access contents.
- 2) Unpack all Flat Pack components - minimum contents should include ...
- 3)
  - 4 x light box sides
  - 2 x end trims for corner angle brackets
  - 4 x corner angle brackets
  - 4 x white ACM internal strips
  - Maxi Modules fitted to 1-4 of the ACM strips (depending on size of box)
  - Driver(s) for Maxi modules,
  - 3 pin 240v plug for driver
  - Screws for end trims
- 4) Take the 4 x main extrusions and 4 x angle holding brackets
- 5) Fit the angle brackets into each end of the 2 x 'longest' box extrusions (see photo A)  
NOTE - make sure the bracket is tight into the extrusion. Place adhesive tape over frame extrusion & bracket to hold in place for 'smash' fix. Use a heavy metal mallet. (see photo B)
- 6) Using a heavy cold chisel (see photo C), 'smash' the overlapping extrusion flange into the slot of the angle bracket. Do this to all slots.
- 7) Fit the both the shorter lengths to one long extrusion then cap off with the other long extrusion.
- 8) Repeat "smashing" fixings to secure the 4 x light box extrusions.
- 9) Separate the trims and screws
- 10) You are now ready to paint or powder coat the box frame, trims and screws.  
NOTE - do not fit the white ACM sections until the painting is complete.
- 11) Fit the long sections of ACM first using short pop rivets from ACM to the internal extrusion
  - as an alternative you could use VHB double sided acrylic foam tape or 'Sikaflex'
  - I prefer a mechanical (pop or screw) fixing. No need for any external fixings to show!
- 12) If your box requires Maxi Modules to be either top or bottom only, I suggest the bottom as this will give you more room for fixing if an under-awning fix requires bracketing or direct fix by Tek screws.
- 13) Single sided boxes need a backing panel. I use 3mm ACP. Make sure you pop rivet this backing panel through the aluminium trim extrusion at least every 300mm. I use 3.2 x 8.2mm blind rivets.

**When installing your Driver, make sure it is 'outside the box'.** I suggest this for two main reasons and it applies to EVERY LED light box installation.

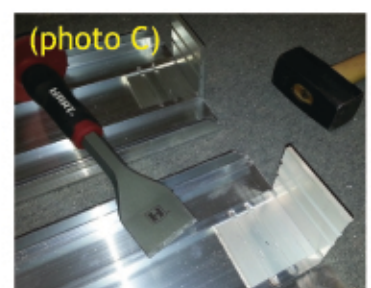
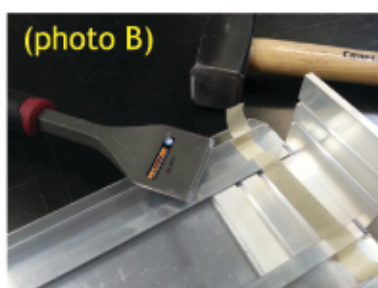
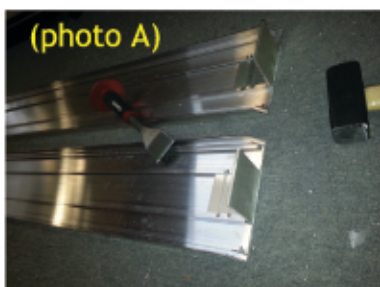
1) As the Driver is the most vulnerable component to fail, you want easy access without the need to remove sign panels..... And possible access hire costs if in a pylon sign

2) Whilst inside the box, there is little ventilation and the possibility of added heat being generated. If the Driver is exposed to too much heat it can reduce its efficiency and makes it prone to premature failure. I do not provide a warranty for Drivers installed in light boxes.

Install your Driver(s) in a handy accessible location with some ventilation and protection from direct sunlight' - Do not fit further than 5m from sign. If so, you need to account for voltage drop and upgrade your cabling. If stuck call me!

Make sure the sign is connected to a timer and set to run for no more than 12 hours per day.

My experience with PE cells is not good. They tend to fail sooner than they should! Most good timers have a built in battery clock to compensate for any loss of power so re-setting is not needed.



# DIY Illuminated "Flat Pack" Lightbox System

## CUSTOM MADE ALUMINIUM EXTRUDED 'FLAT PACK' LIGHTBOX

Order the exact size box you need – single sided or double sided

Specify your mounting needs - wall mount, pylon, cantilever or hanging support fixed.

NOTE – confirmation of mounting needs is required prior to manufacture.

### What you get.....

- Aluminium mill finish lightbox components. (150 or 200mm width)
- Top, bottom and sides mitre cut to suit external measurements.
- Patent pending secure corner assembly.
- Side trims for one end panel inserts.
- Pre-spaced and fitted LED edge lighting "Maxi" modules.
- 12v wiring connection diagram.
- Mounting fixings as per agreement.
- ..... and more !



- Each illuminated light box is custom made to your needs.
- Arrives to your shop in a 'flat pack' ready for easy assemble with minimum tools required.
- Box widths available 150mm & 200mm – based on size and configuration (single or double sided)
- LED lighting supplied pre-mounted on ACM satin white strips for easy insert into aluminium surrounds.
- Lighting is 'edge' lighting only using Maxi Modules
- Correct sized 240v >12v Driver supplied.
- No exposed fixings on outside of box
- All assembly components supplied
- You supply the 3mm white satin finish backing panel and / or 4.5mm opal decorated face(s)



**SAVE TIME  
AND MONEY**

Some sizes and fixings require special consideration – please check before ordering.

### PLEASE NOTE

- **Single Sided Boxes** can be 150mm wide depth up to & including max length or height no greater than 1200mm.  
- If either length or height measurement more than 1200mm, then box is to be made from 200mm wide extrusion.
- All **Double Sided Boxes** are made from 200mm wide extrusion.
- **Powdercoating** - available in standard colours upon request.

### PLEASE COMPLETE THE FOLLOWING TO CONFIRM YOUR PRICE

- |                                 |    |              |                          |                     |
|---------------------------------|----|--------------|--------------------------|---------------------|
| • Box length (horizontal) ..... | mm | Single Sided | <input type="checkbox"/> | Tick applicable box |
| • Box height (vertical) .....   | mm | Double Sided | <input type="checkbox"/> |                     |

### FIXING / SUPPORT / BRACKETING NEEDS – DESCRIBE BELOW

Best also to attach plans and / or photo of proposed location and substrate box is mounted to.

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CUSTOM MADE ALUMINIUM EXTRUDED 'FLAT PACK' LIGHTBOX

## FIXING / SUPPORT / BRACKETING

### Double sided Under Awning Hanger Kit

(This is in addition to the standard DIY Flat Pack Price)

#### Components include ...

- 2 x lengths of internal box strengthener plates 150 x 75 x 6mm
- 2 x 50mm diam tube cut to length required – NOTE – Max 600mm
- 2 x M12 galvanized 'all-thread' lengths cut to lengths of nominated tube length PLUS 150mm
- 6 x M12 nuts & washers

**NOTE:** 1. Wiring and awning bracing to be worked on site as required.  
2. Boxes over total frame length of 7+m and / or hanger greater than 600mm subject to awning structure detail and / or Engineer structural calculations confirmation.

### Cantilever Bracing Kit

(This is in addition to the standard DIY Flat Pack Price - applies to 200mm wide frames only)

- The kit is basically a system that enables one end of the box to be direct fixed to a wall using nylon or masonry anchors.
  - The internal bracing system works on a stainless steel and adjustable shackle configuration that prevents the box from sagging or distorting out of shape.
- Once assembled, the box has a diagonal wire inserted and adjusted to suit.

#### Components include ...

- 1 x pre-made diagonal stainless steel tension wire
- 2 x adjustable shackles
- 2 x adapted corner brackets with eyebolt fixings to shackles.

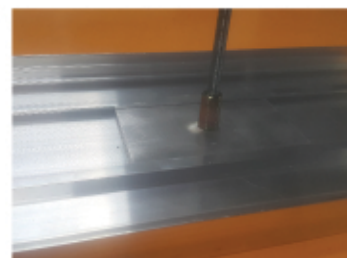
**NOTE:** 1. Suitable for boxes where the box length is no greater than the box height.  
2. Suitability of the box mounting structure needs to be confirmed. (wall fabric & structure)

### Additional Internal Support

Oversized boxes are supplied with additional internal support. M8 "allthread" rod(s) need to be connected to the frame using the coupling nuts.

Position the M8 rod to each of the top and bottom protruding M8 bolts and screw the coupling nut tight at both ends.

This will add extra support to the bottom trim and help to minimise sagging.



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