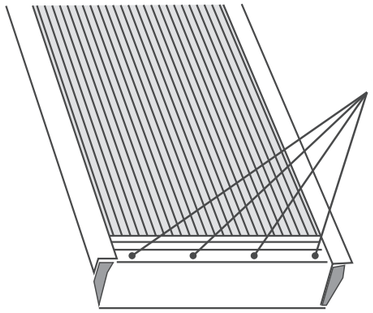
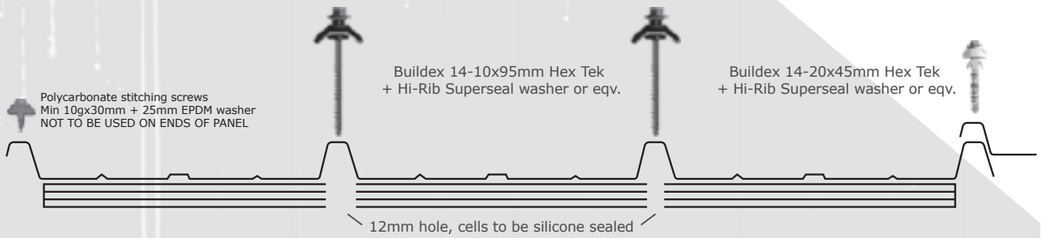
8. Remove sling wire and reattach to boom for return to ground.
9. For corrosive environments underside perimeter sealing should be done otherwise upper side sealing should be applied during install between edges of box and supporting structure.
10. Screw down the box to the support structure through the 4 pre-drilled holes on each end of the box. An EPDM aluminium bonded washer of a minimum 19mm should be used with 14g Class 4 hex screws as shown below



Fix to Support Structure with 14G Class 4 Tek Screw & 19mm Bonded Stainless Steel or Aluminium Washer Through 12mm Clearance Hole at Each Rafter End.

## Top sheet installation

11. If the Swiftbox M-span has been supplied with its top skylight sheet, then proceed to fix down through the factory pre-drilled 12mm holes as shown in below diagram. If the M-span is supplied 'Bare' (no profiled sheet) then ensure that prior to any fixing penetration a 12mm hole is pre-drilled through the plastic sheeting only using a drill-vac to avoid trapping swarfs. The top multi-wall panel should be wiped down using an ammonia-free 70-80% isopropyl alcohol spray prior to top sheet placement.
12. If screw penetrations are required to be made onsite to the top multi-wall panel, then ensure the swarfs are vacuumed and the inner perimeter of the hole is sealed with an external grade neutral cure silicone.
13. The overarching side overlap shall use polycarbonate stitching screws except for each end in which the PIR manufacturer screw is used in conjunction with a 25mm EPDM washer. Any penetrations into plastic requires a 12mm oversized hole
14. If the Swift box is overlapping a downstream panel, then ensure that panel has a butyl sealant strip placed across its top edge, 25mm from the top edge. The sheet should overlap by minimum 150mm
15. For cyclonic wind pressures pan fixing will be required on bottom end as well as along the overlapping side, please consult Skylucent constructs for further detail.




**NOTES**

- For Insitu installation on existing roofs, panels upstream from swiftbox need to be removed to overlap the swiftbox or laps cut back and dry paned. If skylight sheet is overlapping both sides a dry pan will need to run down overlapping the skylight sheet.
- Electrical pass through should be done by a licenced electrician with a warning sticker placed above hollow section on box.
- This guide should be read in conjunction with the Swiftbox maintenance guide and third-party manufacturer guides. Information current at time of publication.



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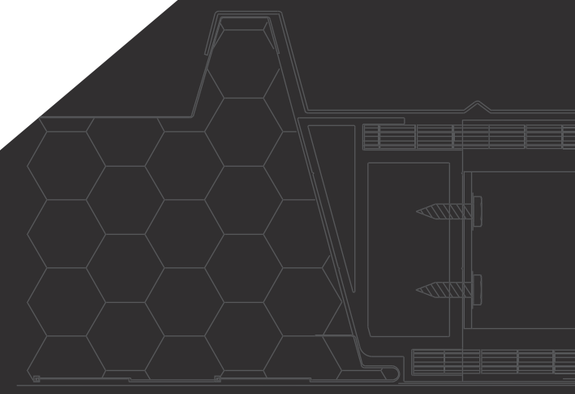
SKYLUCENT CONSTRUCTS
Enquiries: info@skylucent.com.au | www.skylucent.com.au
PO Box 7213, Loganholme QLD 4129 | ABN: 51931212968

AU Patent Appln No. 2021215111 AU Innovation Patent Appln No. 2021105142



# SWIFTBOX™ skylight

# m-SPAN

# INSTALLATION GUIDE

SKYLUCENT CONSTRUCTS

## TRANSPORT & HANDLING

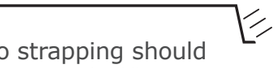
- Top loading not permitted, do not place objects on top of pallet. Cargo strapping should be spaced every 3m. Maximum pallet height is 1.2m, max weight is approx. 1500kg
- Ensure that pallet is placed on solid level ground with all legs of pallets fully grounded.
- Pallets are standard width 1165mm and with a length equal to the Swiftbox length
- Pallets should not be winch pulled or dragged. Craning pallet should be done under supervision of qualified personnel (i.e. Dogman) and be slung from underside.
- When using forklift ensure that forks fully engage into both sides before lifting, underside of box is fragile, fork spreader is recommended particularly for lengths exceeding 5m
- Do not leave in rain, ensure complete cover when stored outside.
- Take care when snipping steel straps on pallet first ensuring boxes are still orientated and stacked safely and taking care to avoid injury from straps springing back when cut.
- Ideally remove each box from pallet as needed during install, minimizing manual handling and careful not to disposition remaining skylight boxes.
- Multiple persons required for manual handling, apply safe handling practices, do not handle or apply pressure onto polycarbonate panels, carry by ends only.
- The Swiftbox should not be lifted or pulled from its centre nor be slung from underside.

## EQUIPMENT LIST

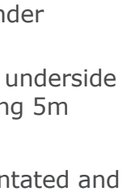
- Impact drill with Hex head bit to fix down box +12mm drill bit
- SwiftBox lifting sling & fish tape feeder cable enough to the length of the Swiftbox plus 1 mtr
- Hand tin snips- to cut metal strapping
- Measuring tape & Utility knife- to cut EPDM rubber tape
- General Personal Protective Equipment (PPE) including cut resistant gloves, safety harness with anchored static line
- Portable vacuum with Vacdrill attachment & handheld blower- for cleanout of swarf
- Wedge spacers 10/15mm- to maintain spacings between box ends
- Isopropyl Alcohol spray (70% max) or appropriate cleaner & microfibre cloths
- Timber boards and cotton fabric for trafficking across boxes
- Swiftbox lifting key or similar manhole key- minimum 2 to lift and adjust position of box
- Cloth covered timber or foam planks for suspending box in preparation for crane lifting



Fish cable with snap hook



Wire Sling



SwiftBox Lifting Key

## ACCESSORIES

Sealants: Butyl strip and foam tape to PIR panel, EPDM Rubber Tape 3/6mm (Max Duro 60).

Roof Screws: Buildex 14-10x95mm Hex Tek + Hi-Rib Superseal washer or eqv.
Buildex 14-20x45mm Hex Tek + Hi-Rib Superseal washer or eqv.
Polycarbonate stitching screws min 10gx30mm + 25mm EPDM Washer

Box fix down Screws: 14g class 4 tek screw minimum 125mm length (8 per box)

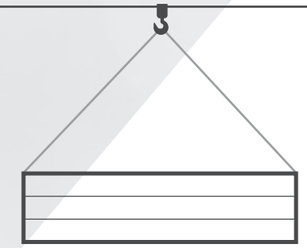


# INSTALLATION GUIDE

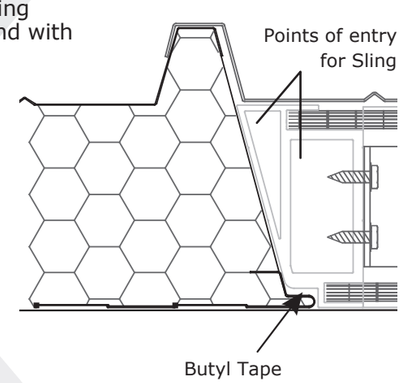
Allow 10-15min per box depending on requirements.

## Preparation

1. Ensure the work environment is safe with clear access around the pallet and that the boxes are clean from dirt contamination.
2. Apply butyl tape to the PIR box that precedes the Swiftbox as shown in figure below. Closed cell foam tape is recommended on the opposite side for optimum sealing as per PIR manufacturer requirements.
3. Prepare the Swiftbox for crane lifting by blowing off particles then removing the top polycarbonate protector plastic. If swiftboxes are flat stacked then suspend the box ready for crane lifting with a cloth lined plank or solid 100x100mm foam plank to prevent damage from sliding.
4. To crane lift from side, feed the fish cable through the female extrusion as shown below. A yellow tongue cable joined using duct tape to the length would be suitable; fix key ring to end with carabiner/snap hook, and feed through the Swiftbox lifting sling wire. The steel wire sling should be certified to at least the weight of the box and in a length 1 mt greater than the box with PVC sleeve and both ends looped. Take care to not entangle the sling to the internal screws.
5. Ensure that boom is positioned to the centre of length of box and directly above the sling side to prevent box dragging off pallet. Slowly lift box to reveal underside keeping the box at a height to then remove the underside protector plastic and wipe down accordingly ensuring no particles or plastic remain. Steadily lift box to roof.



Remove plastic on both sides




## Fix down of SwiftBox

6. During lifting, a crew member on roof should apply butyl tape to PIR, and EPDM Rubber or Foam tape to purlin. As gaps may vary depending on supporting structure and roof pitch, the gap should be determined as per below figure, for gaps 2mm and less use a weatherproof 2-3mm closed cell foam, for gaps greater use EPDM rubber tape 3mm-6mm accordingly in a Duro 40-60 strength. This should ensure a snug fit. If a packer is used for "Securelap", first fix the aluminium 38x25mm packer to the structure prior to applying foam/rubber on top.
7. Gently place SwiftBox onto purlins, insert the lifting key into the side hollow sections and pull to adjust the positioning of the box making sure it is pulled tightly against the PIR panel and that it is evenly centred between the purlins. Do not place boxes directly back to back without a minimum 10mm gap, use a spacer if required, the steel rod thickness of the lifting key should be 10mm. Take care not to displace foam/tape.