## Fix down of SwiftBox

**7.** During crane lifting, a crew member on roof should have applied butyl sealant, foam infills and Silicone as previously described,

**8.** Gently place into correct position lining the corrugate profiles, use the lifting key inserted into the side hollow sections to control its decent without having to crouch. Do not place boxes directly back-to-back without an approx. 10mm gap, use a spacer if required, the steel rod thickness of the lifting key should be 10mm

**9.** Screw down box into the supporting structure through the 6 designated holes; an EPDM aluminium bonded washer of a minimum 19mm should be used with 14g hex screws. The top sheet end lap will need to be lifted to expose the drill points.

**10.** Remove sling wire and reattach to boom for return.

**11.** Draw cables for servicing may be passed through during fix down.

**12.** During sling return proceed to fix down the side lap of the polycarbonate sheet, for fix down into supporting structure you may use the EPS panel screws provided that the polycarbonate sheet is predrilled with a 12mm hole and a min 25mm EPDM washer is joined into the screw assembly, for intermediate fixing points use standard polycarbonate stitching screws into 12mm predrilled holes centred as per engineering requirements for wind loads. Refer to Figure 3 fixing diagram.

**13.** Apply butyl sealant at top of panel 20mm from end of polycarb accordingly prior to the upstream panel installed.

**14.** If the underside is exposed to wind pressures, both underside laps should be stitch screwed using polycarbonate screws into a 12mm pre-drilled hole (ends of panel not required). Apply butyl sealant for corosive environments.

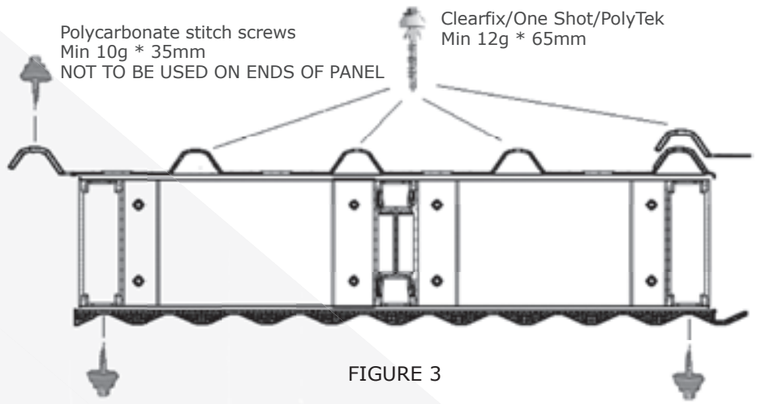


FIGURE 3

## NOTES

- The swiftbox can be supplied without the top sheet pre-installed to allow for a multi-span rooflight sheet to be installed after, typical sheet installation requirements apply.
- 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 "top skylight sheet".
- Electrical pass through should be done by licenced electrician within a secondary conduit clear from screws and with a warning sticker placed above hollow section on box.
- This guide should be read in conjunction with Swiftbox maintenance guide and third-party manufacturer guides. Information current at time of publication.



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# SWIFTBOX™ skylight

## ARC-LIGHT

# INSTALLATION GUIDE

SKYLUCENT CONSTRUCTS

## TRANSPORT & PACKAGING

- 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 1000mm 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 for lengths exceeding 5m
- Do not leave in rain, ensure complete cover when stored outside.
- Take care when snipping straps on pallet first ensuring pallet is level.
- 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 structure ends only.
- The Swiftbox should only be lifted by its hollow point ends with no pressure to polycarbonate.

## EQUIPMENT LIST

- Impact drill with Hex head bit to fix down box with hex extension & 12mm bit.
- SwiftBox lifting sling & fish tape feeder cable enough to the length of the Swiftbox + 1m
- Measuring tape & Utility knife
- 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 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
- Caulking gun and cotton rags.

Fish cable with snap hook

Wire Sling

SwiftBox Lifting Key

## ACCESSORIES

**Sealants:** Butly Tape for sheet overlaps, Foim infills (corrugated profile), neutral cure low modulus silicone (Recommended: Dow Corning 799 clear or Adheseal Allflex 101).

**Roof Screws:** Polycarbonate clearfix/one shot/polytek screws min 12g X 65mm, polycarbonate stitching screws 10g x 30mm, 25mm EPDM dome washer.

**Box fix down Screws:** 14g- 20 X 40mm class 4 tek screw (6 per box) with 19mm bonded washer.



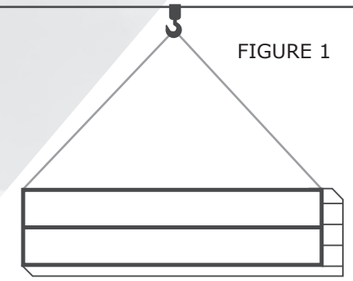
# INSTALLATION GUIDE

Allow 10min per box depending on requirements + underside fixing (if required).

## Preparation

1. Ensure the work environment is safe with clear access around the pallet and that boxes are clean from any sand or dirt contamination.
2. Prepare the Swiftbox for crane lifting by blowing off particles then removing the top polycarbonate protector plastic and wiping down with an acceptable ammonia-free spray or Isopropyl alcohol (70%) and clean microfibre cloth.
3. To crane lift from side feed the fish cable through the hollow section of the opposite connecting side so that the top sheet overlap hangs down as shown in figure 1, the cable can alternatively be fed through the center rafter if a top roof sheet isn't fitted. A yellow tongue cable joined using duct tape to the length needed would suffice; fix key ring to end with carabiner/snap hook used to feed through the Swiftbox lifting sling wire. The steel wire sling should be certified to at least the weight of the box and be PVC sleeved with both ends looped. Take care to not entangle the sling to the internal screws.

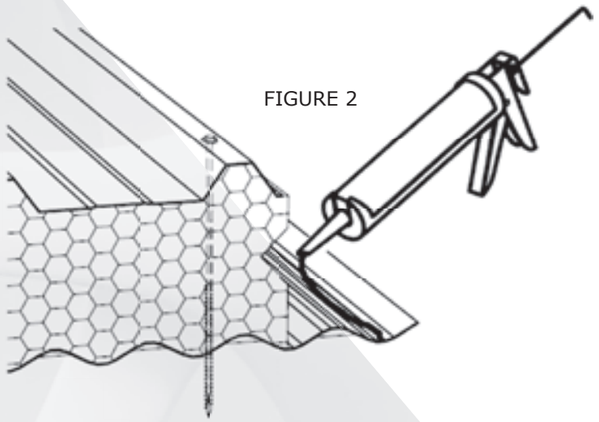
FIGURE 1



Top sheet overlap to connect first

4. Ensure that boom is positioned to center of length of box over sling side of box with sling upright 90º to prevent box dragging off pallet. Slowly lift box to reveal underside keeping the box at a height to then wipe down underside ensuring no particles or plastic remain. Steadily lift box to roof.

FIGURE 2



5. Apply approved neutral cure silicone to the preceding panel's underlap as illustrated in Figure 2 in preparation for placement of the Swiftbox. **Note**: Silicone bead should be 10mm and a maximum contact length of 2.5m from center in both directions, corrosive environments requiring full length seal greater than 5m are to use butyl sealant & screw fixing. Ensure the corrugated infill foam is applied on the supporting structure.
6. If the Swiftbox is overlapping a panel downstream then that panel should have butyl sealant applied at least 20mm from the edge of its top end. If roof pitch is under 5degree it is recommended that butyl tape be applied to the side overlaps also. End laps should be a minimum of 150mm.