

Installation Guide

Wendland 20° Lantern

V7 | April 2023

Thank you for choosing the Wendland Lantern product.

This guide is designed to make fitting as straight forward as possible and is written on the basis that the surveyor has undertaken correct checks for the capability / structural performance of any existing flat roof to verify it is fit for purpose. A timber kerb and weatherproofing materials for the deck/kerb interface are not provide. Any feedback - positive or negative - is welcome so we can make our systems even better.

You will need to follow the below specification in regards to glass U-value in order to pass building regulations. Please refer to the Thermal Design Guide in for a confirmed U-value of each product.

- If your lantern is less than 750mm (w) – 0.9 U-value or less glass is required.
- If your lantern is between 750mm to 1000mm (w) – At least 1.0 U-value glass is required.
- If your lantern is larger than 1000mm (w) – At least 1.2 U-value glass is required.

General points

Care should be taken when handling components that are seen by the homeowner, as surfaces may be scratched if not handled with care. Choose a suitable area for unpacking the components and always check them before fitting. Any claims for missing or damaged parts are only accepted in line with our standard terms and conditions of sale.

Health & safety

Site safety is paramount. The Construction (Design & Management) Regulations 2015 apply to the whole construction process, on all construction projects from concept through to completion. Compliance is required to ensure construction projects are carried out in a way that secures health and safety. The installation company shall be responsible for the safety of all of the fitting team, the customer and members of the public.

The Surveyor should have carried out a risk assessment to reduce risk on site and this should have been discussed with you prior to starting.

Please use safe working platforms and ladders that comply with BS EN 131. Always use equipment in line with manufacturers recommendations. Personal Protective

Equipment –such as goggles, mask and ear defenders – should be used when, for example, grinding out for the flashing.

Careful consideration should be given to the safe disposal of all packaging which can be readily recycled.

Sealing

It is important to use the correct sealant when sealing the roof. Always use MS Polymer sealant such as Rotabond 2000 on self cleaning glass.

The flat roof structure

Check the existing structure is sound and structurally fit for purpose. Check the opening is 'square' and the flat roof deck is level. A timber kerb of 150 x 70mm width should be used onto which is attached the lantern. The lantern is manufactured to suit external kerb sizes.

TOOLS REQUIRED



10mm Socket Spanner



Deadblow Hammer or White Rubber Mallet



No. 2 Pozidrive Bit



Drill/Screwdriver



Gasket Shears/Snips



Appropriate drill bit for kerb fixing (Not Supplied)



Spirit Level (magnetic useful for internals)



Tape Measure



Box cutter or Stanley knife



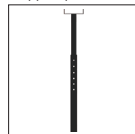
Sealant Gun



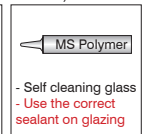
Hack Saw



8mm Hex Bit



Support Prop



MS Polymer

- Self cleaning glass
- Use the correct sealant on glazing

THERE ARE SOME MATERIALS YOU NEED TO SUPPLY: E.G.. PLASTERBOARD, 150 X 70MM TIMBER KERB, FIXINGS TO HOLD ALUMINIUM EAVES BEAM TO TIMBER KERB

PAINTED ALUMINIUM PRODUCTS - PLEASE NOTE

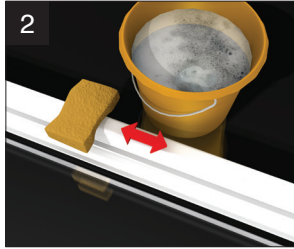
All paints will 'chalk' to some extent and there will be a reduction in gloss level over time. (See Cleaning and Maintenance guidelines see p7)

QUALITY EXPECTATIONS ON INSTALLATION.

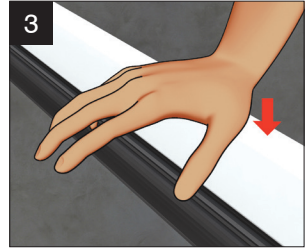
Appearance: This is assessed based on the selection of the 'significant' (primary) surface. From a distance of 3m, stand at an oblique angle of 60 degree and then defects such as blisters, runs, pin holes etc should NOT be seen. Colour and gloss: Viewed from 5m, the coating must be of even colour and gloss with good coverage.



If storing in warehouse racking or on rails/roof racks, take care to support the products and do not over tension straps and ropes. When opening sealed packs, use a special box knife opener.

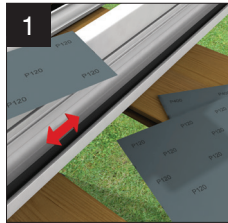


Grease marks, dirt and mastic spillage may be removed using soapy water.

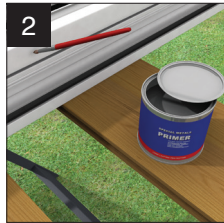


Take care when fitting aluminium products to not use excessive force.

CLEANING AND MAINTENANCE - ALUMINIUM EXTERNAL



If surface damage is encountered, use 120-360 grit paper to prepare the surface. Wipe clean with white spirit.



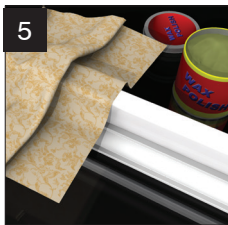
Ensure the surface is dry – apply a thin primer coat using a fine brush.



Finally, apply an air drying top coat with a fine brush.



General cleaning can be undertaken by a wash with warm soapy water.



For added protection, a wax polish can be applied up to twice per year – follow the polish manufacturer's instructions carefully.

PLEASE PASS THIS GUIDE TO THE HOMEOWNER

Wendland Brochures



Lantern Wallchart/
Component ID chart



Installation Guides

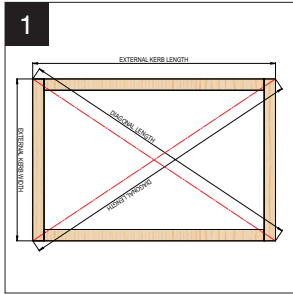


Lantern
Installation Video

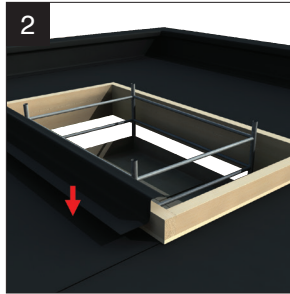


Lantern
Top Tips Flyer

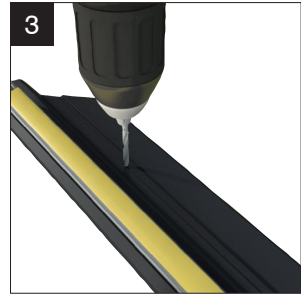
GENERAL INSTALLATION



Construct the up-stand to the flat roof with a minimum of 150mm tall kerb (minimum of 70mm wide). Check that kerb is square by measuring diagonals. Ensure the kerb is built to external kerb dimensions that match that specified for the lantern. The customer must ensure that the kerb and surrounding roof can adequately resist the horizontal spread of the lantern.

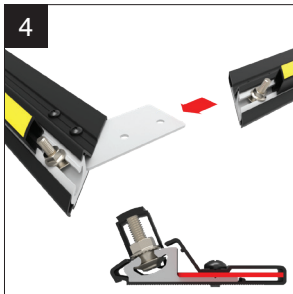


Apply membrane as per manufacturers guidelines. Wrap the membrane up side of the kerb and over the top of the kerb ensuring that a watertight finish is achieved.

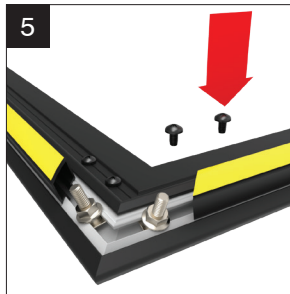


Drill the eaves beam at 100mm from each end and drill a minimum of 4 holes at a Max of 400mm centres using appropriate clearance drill. Now take the eaves beam and ensure correct number of bolts are slotted into eaves beam.

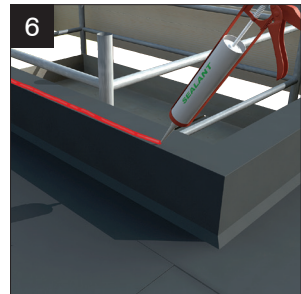
Minimum of at least 4 screws per eaves beam/rail length.



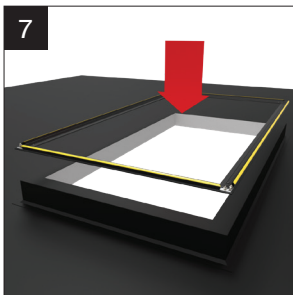
Insert the eaves cleats into the ends of the mitred eaves beam lengths. The cleat should sit inside the PVC sleeve and on top of the aluminium eaves beam as highlighted above in red.



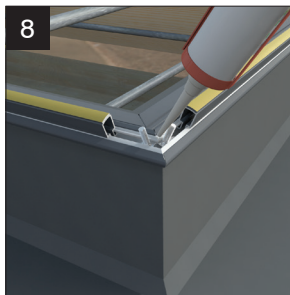
Ensure the mitred eaves ends are pressed up against each other now fix the cleats into the eaves beam using the M5 x 8mm fixings provided through the pre-drilled holes



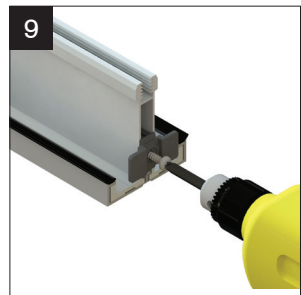
Apply a generous, continuous bead of sealant to the outer perimeter of the top surface of the kerb.



Position the assembled eaves beam frame on top of the kerb, centre this eaves frame over the opening ensuring it is square. Fix down to the kerb using appropriate fixings not supplied.



Once eaves beam is fitted, seal corner joints.



Attach the glazing rafter end cap brackets - as access restriction may prevent easy fixing later.

GENERAL INSTALLATION



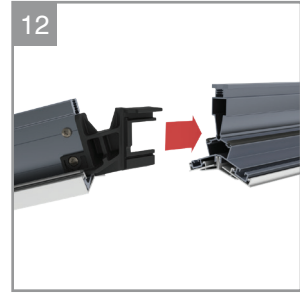
If fitting the aluminium internal lantern hip bars, ensure that the aluminium claddings are fit onto the hip bar over the bar under cladding with the gasket resting over the aluminium, these are aligned flush with the ridge end of the rafter, leaving the cladding offset from the eaves end of the bar by 160mm.

SQUARE LANTERN

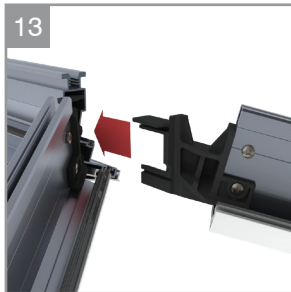


Ensure the assembled ridgeLOCK is propped throughout the assembly process. Fit each hip rafter to the tenons of the ridgeLOCK. Secure in place into pre drilled holes using M5 x 16mm screw in the upper hole and the M5 x 20mm screw in the lower hole.

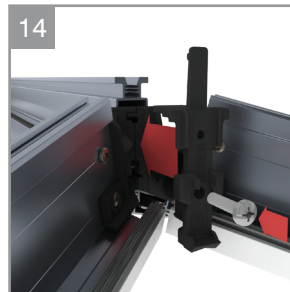
RECTANGULAR LANTERN



Prop the ridge body, now attach the left hand hip rafter by inserting the ridgeLOCK into the ridge body. The branding 'ridgeLOCK L20' indicates this is a left hand part.



Attach the right hand hip rafter by inserting the ridgeLOCK into the ridge body through the left hand ridgeLOCK. The branding 'ridgeLOCK R20' indicates this is a right hand part.



Secure in place using the ridgeLOCK fixing bracket over the left and right hand parts and bolt into the ridge. Repeat process at the opposite end of the ridge.



If the project contains central rafters between the hips. Tighten the central rafter bracket screw to ensure it is properly secured.



If the project contains central rafters between the hips. Position the rafter between the two hip rafters, secure using the 30mm hex bolt and flanged nut provided.



If the lantern is specified with a central bar and aluminium internal claddings. The hip rafter will have a notch applied to the cladding removing 52mm where the central rafter intersects the hip rafter. Once fitted the central rafter and the PVC rafter cladding will extend beyond the aluminium cladding of the hips while the central rafter aluminium cladding will terminate into the sides of the hip aluminium claddings.

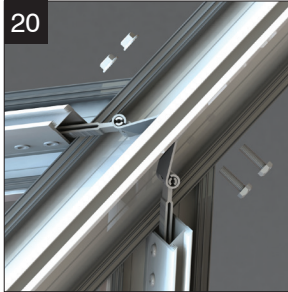


Remove nuts on eaves beam. Fit hip rafters onto bolts at eaves end and hand tighten nuts. Ensure the ridge is now level and using an angle finder check the pitch of the lantern is set at 20°.

GENERAL INSTALLATION



If aluminium internals have been specified on a lantern with a jack rafter. The aluminium cladding on the rafter will finish flush with the top end of the bar. The rafter will then terminate into the side of the aluminium cladding on the hip bar



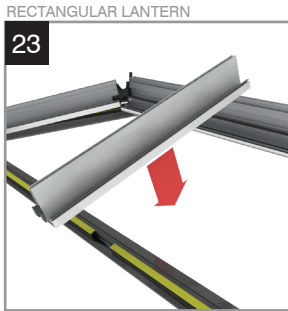
If the project contains jack rafters: Offer up the jack rafter to the hip at the pre drilled holes on the hip rafter, push the bolts through jack rafter bracket and secure with flanged nuts.



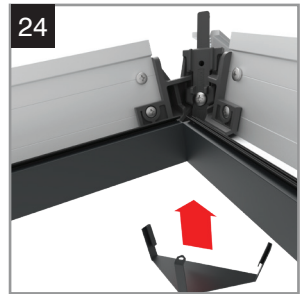
Seal the area where the hip rafter abuts the jack rafter as shown above



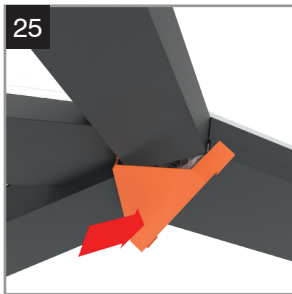
If aluminium internals are specified on a lantern with side rafters. The aluminium cladding on the ridge will be notched to allow the rafter to extend beyond the ridge cladding and rest on the bolts in the ridge. The rafter aluminium cladding will terminate into the side of the aluminium cladding of the ridge.



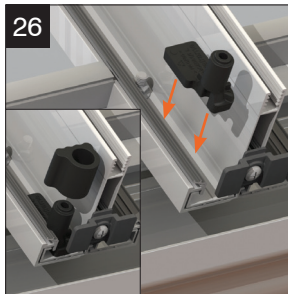
If the project contains side rafters: Locate the rafter on the bolts at the ridge and eaves, once in position secure with flanged nuts. Check the ridge is level.



If installing an aluminium internal lantern. Prior to glazing the lantern, fit the internal ridge end covers. These clip into place locating around the ridge cladding, with the front leg locating over the hip claddings.

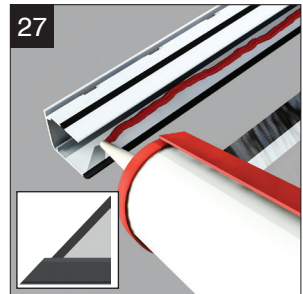


When fitting the central rafter internal cover on the aluminium internal lantern. The front leg is inserted between the aluminium cladding and PVC cladding on the central rafter. The cover is then pushed into place around the ridge cladding.



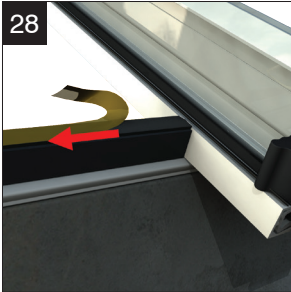
Snap off appropriate handed glazing stop. Place this onto the base of the glazing rafter. Snap off a grommet from the kit, this will slot over the up-stand on the glazing stop. Repeat this for all glazing rafters on the roof.

DO NOT screw in place until step 30.

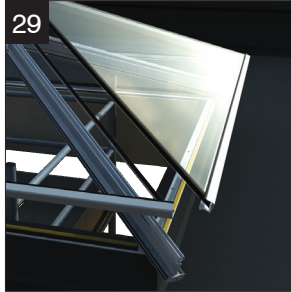


Using MS polymer seal underside of top face of glazing end profile as shown. Depending on the roof specification this can either be a PVCu or Aluminium profile. At hips these will be mitred and extend beyond the glazing. At transoms these will be square cut and extend beyond the glazing.

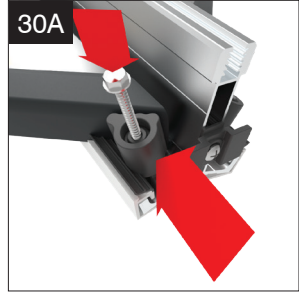
GENERAL INSTALLATION



28 Peel back a small tab of the protective film on the glazing support from the eaves.
DO NOT FULLY REMOVE UNTIL STEP 31.



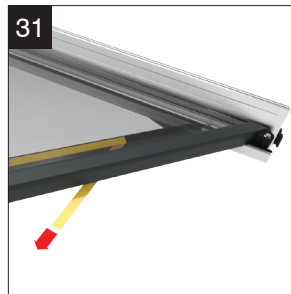
29 Lower the glass units into place onto the glazing support trim. Ensure that the glass contacts the gaskets on the glazing rafters and the ridge. The glass units should be pushed up towards the ridge as far as they will go.



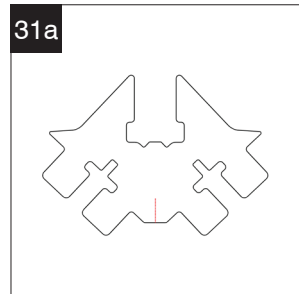
30A Ensure the glass units are pushed up towards the ridge and that the glass stops are pushed up firm against the glazing end profile. Now using the fixings provided, screw down into the rafters as shown.



30B If positioned correctly the glazing end profile will extend beyond the centre point of the glass stop.

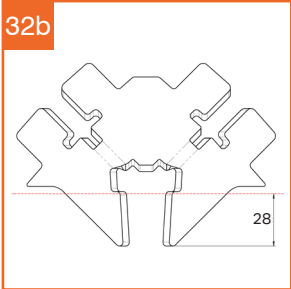


31 Now the glass is in position and held in place by the glass stops, peel back the remainder of the protective film from the glazing support.

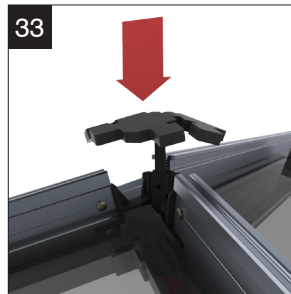


31a If the project contains central rafters between the hips, perform the cut detailed in the image above approximately 15mm in length.

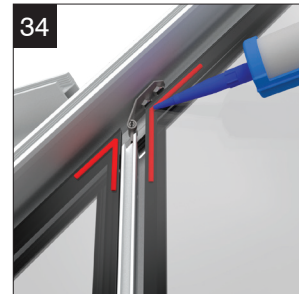
SQUARE LANTERN



32b Cut the ends off two weathering shields. Ensure glass is clean and dry before fitting. Peel back protective film from shields and position (adhesive face down) on glass, locating around the ridgeLOCK and hip rafters.

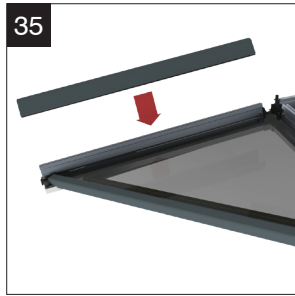


33 **ENSURE THE GLASS IS CLEAN AND DRY BEFORE FITTING.** Peel back protective film from weathering shield and position (adhesive face down) on glass, locating around the ridge and the hip rafters.

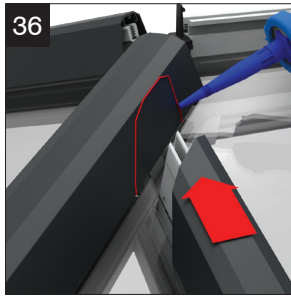


34 If the lantern has jack rafters. At the corners of the glazing that meet the jack rafter bracket, apply MS polymer to the surface of the glazing as shown above to create a barrier. This should be positioned towards the edge of the glazing as to be obscured by the top caps once they are installed.

GENERAL INSTALLATION

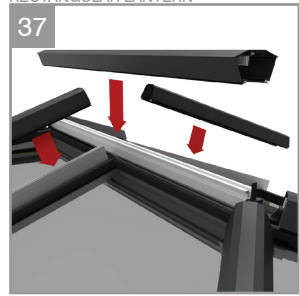


Work your way around the roof and fit the rafter top caps.
 Fitters tip: Suggested top cap installation order is, hip top caps followed by jack rafter top caps, then the ridge top cap and finally any remaining rafter top caps.

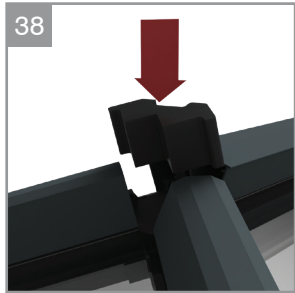


If the project contains jack rafters, apply MS polymer to the hip top cap where the jack rafter cap will abut. Push the rafter cap up against the hip and point any visible sealant that seeps out.

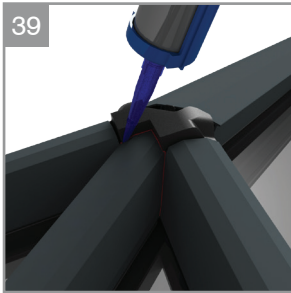
RECTANGULAR LANTERN



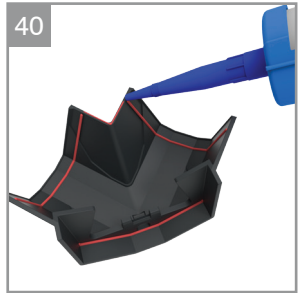
Ensure the weathering shield is in place then fit the ridge top cap, ensuring that the top cap clips are evenly spaced. Push down along the length to check the top cap is fully engaged. Now fit the rafter top caps using the same method, taking care not to damage the finish of the ridge top cap.



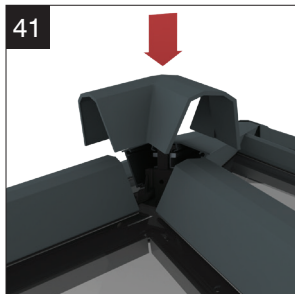
If the project contains central rafters between the hips. Position the weathering barrier on the previously installed weathering shield and tuck the tabs underneath the hip top caps.
Rectangle lantern only.



If the project contains central rafters between the hips. Apply a bead of MS polymer around the central bar top cap.

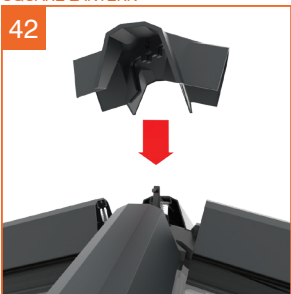


Apply a small bead of MS polymer to the inside of the external cover (as shown) around where the part meets the glazing rafter top caps and the ridge top cap.
If fitting a square lantern, see step 42.

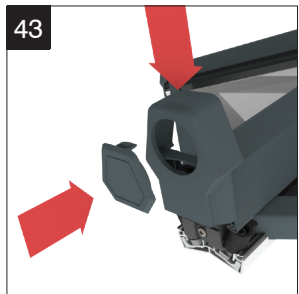


Fit the ridge end external cover and press down firmly clipping in place.

SQUARE LANTERN



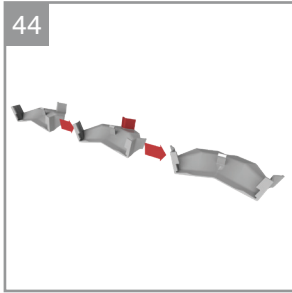
Clip the external cover on top of the ridgeLOCK and assembled bars. Ensure the clip hole in the cover is aligned with the corresponding ridgeLOCK clip feature.



Fit end caps to rafters and push in the end cap infill.

GENERAL INSTALLATION

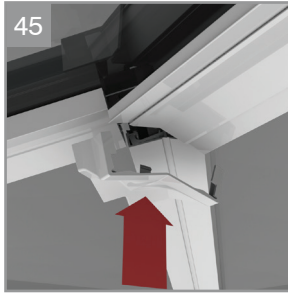
RECTANGULAR LANTERN



When central rafter is specified, the internal cover will need the highlighted section removing using a hacksaw. Tidy edges using a small file if required.

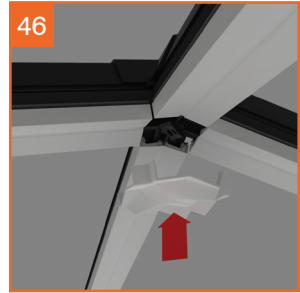
If fitting a square lantern, see step 46.

RECTANGULAR LANTERN



Fit the internal plastic cover by clipping in place.

SQUARE LANTERN



Clip the internal cover up into the ridgeLOCK from below. Ensure the clip feature meets the corresponding ridgeLOCK clip feature.



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