

ultraframe

Transforming light and space



Living LIGHT
by ultraframe

Configurable, Insulated Electrical Housing System for Lighting

Installation Guide

Version 1 | Feb 2014

PLEASE READ THESE NOTES BEFORE INSTALLATION AND PASS TO THE HOMEOWNER FOR FUTURE REFERENCE



Dear Customer,

Thank you for choosing the Ultraframe Classic system and its unique, configurable, insulating electrical housing system for lighting. This guide is designed to make fitting as safe and simple as possible.

Any feedback - positive or negative - is welcomed so we can make the Classic roof even better. Please contact the Tech Support Team on 0843 208 6953 or email techsupport@ultraframe.co.uk



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 particularly important. 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.

FITTERS TIP - It may be advisable to leave the final fitment of the electrical housing system until after the host wall is plastered

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 eyewear and gloves due to metal sharps – should be used. Careful consideration should be given to the safe disposal of all packaging – Ultraframe packaging is predominantly made from recycled materials and can be readily recycled. **If lights are set into the mounting board they MUST be fire rated.**

The Superstructure

Always ensure that the frames and roof are vertically plumb and level which will allow perfect alignment of the mounting board.

Technical Support

Tel 0843 208 6953 Email techsupport@ultraframe.co.uk

Tools required



Long nose pliers



Tin Snips



No. 2 Phillips drive Bit



Drill/Screwdriver



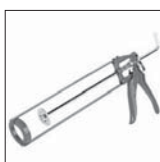
Tape Measure



Hack Saw



10mm Drill Bit



Sealant Gun



Anglefinder



Spirit Level (magnetic)

Components List



Each order comes with one or more fixing packs



Full Ridge

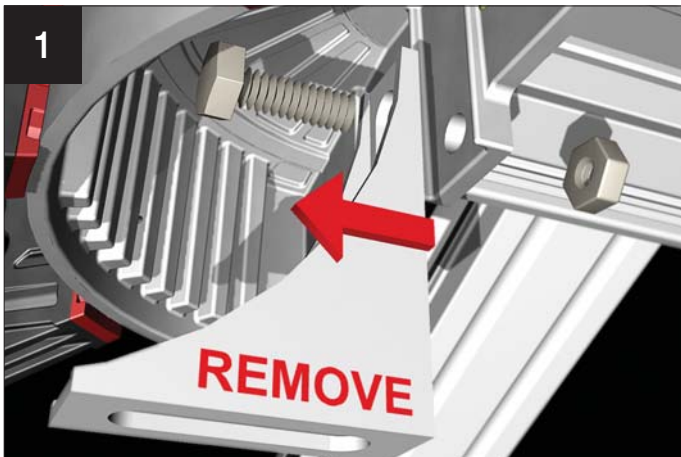


Half ridge

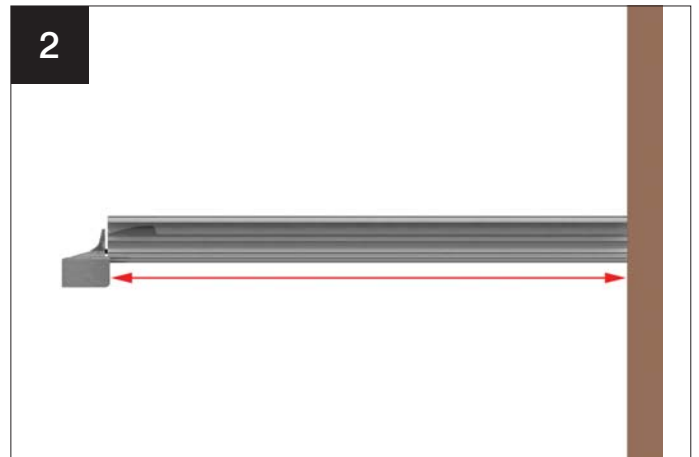
FITTING OF ANY LIGHTS RIGGED TO THE ELECTRICAL HOUSING SYSTEM MUST BE CARRIED OUT BY A QUALIFIED ELECTRICIAN IN STRICT ACCORDANCE WITH THE CURRENT IEE REGULATIONS

GEORGIAN/VICTORIAN DUO PITCH ROOF (NO TIE BAR)

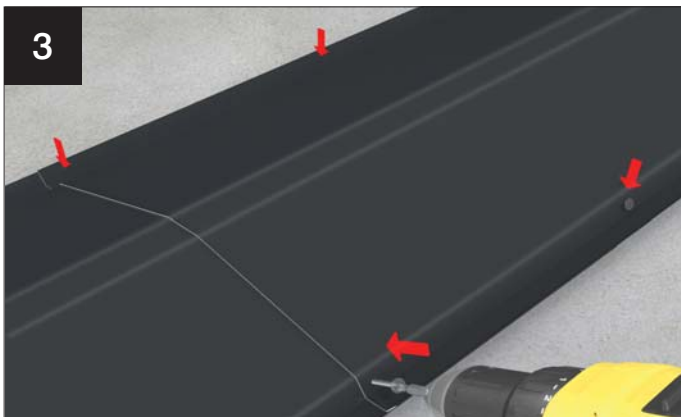
The Ultraframe Classic Roof should be fully assembled except for the ridge undercladding. See step 1 below.



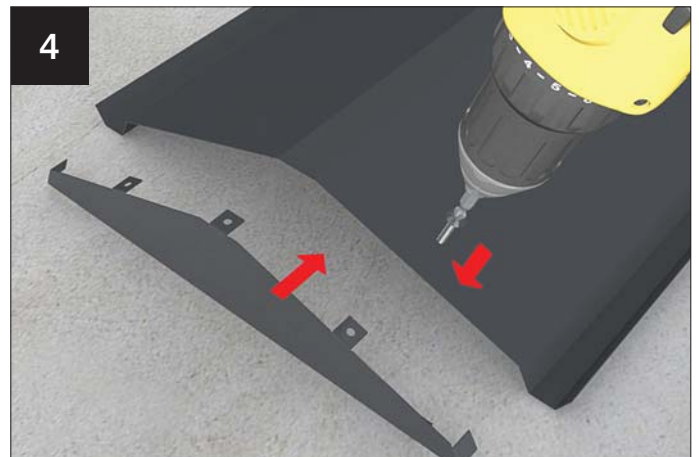
Any ridge cladding that has been fitted must be removed along with the 'L' shaped PVC bracket that attaches to the die cast end.



Next measure the length from the host wall to the back edge of the die cast end.



Take the black powder coated 'back box' which is supplied in 1250mm modular lengths. Sufficient back boxes are supplied for your project – when joining two (or more) lengths of back box, always allow a minimum of 50mm overlap. It's your choice if you trim any excessive length with a fine toothed jigsaw or simply overlap by more than 50mm. Use four 3.5mm x 25mm black Phillips screws from the pack provided.



Now, attach the back box end plate using the 3.5mm x 25mm black Phillips screws provided – five are necessary to complete this operation. The back box with the end plate is fitted at the ridge end (not host wall end).



Next turn the back box over and then seal the joint all round the end plate to eliminate light bleed.

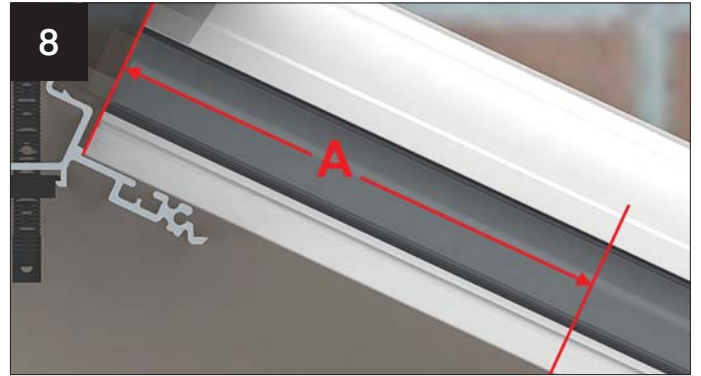


Take the self adhesive insulation strip and stick to the aluminium ridge body – better adhesion is achieved if the extrusion is cleaned first with frame cleaner.

GEORGIAN/VICTORIAN DUO PITCH ROOF (NO TIE BAR)



Push insulation tightly round the ridge 'T' bolt and fixing wedge. To mechanically restrain the insulation to prevent any possible slumping, find thin dowel material and insert into holes in 't' bolts.



Now fix the brackets to the glazing bars – measure down from the ridge end of the glazing bar – use dimension 'A' from table.

FULL RIDGE BRACKET POSITIONS

Pitch	21°	22°	23°	24°	25°	26°	27°	28°	29°	30°	31°
Dimension A	165	168	171	173	175	176	179	182	185	188	189
Pitch	32°	33°	34°	35°	36°	37°	38°	39°	40°	41°	
Dimension A	192	196	200	203	206	210	215	219	224	229	



Mark the position of the bracket and then drill and fix using two 4.2mm x 19mm self drilling screws. Brackets are supplied in varying quantities depending upon roof size – there are always brackets for starter bars and the last bar on the ridge end plus alternate intermediate bars. If the host wall has been plastered, it may be necessary to re-drill the holes in the bracket on the starter bar to ensure the fixings are in the correct part of the aluminium bar



A final fixing bracket is attached to the die cast ridge end using the nut and bolt supplied.



Offer up the assembled back box – this is likely to be a two person job, remembering to use appropriate access equipment. If necessary, 'open up' the bracket before clipping in the back box.



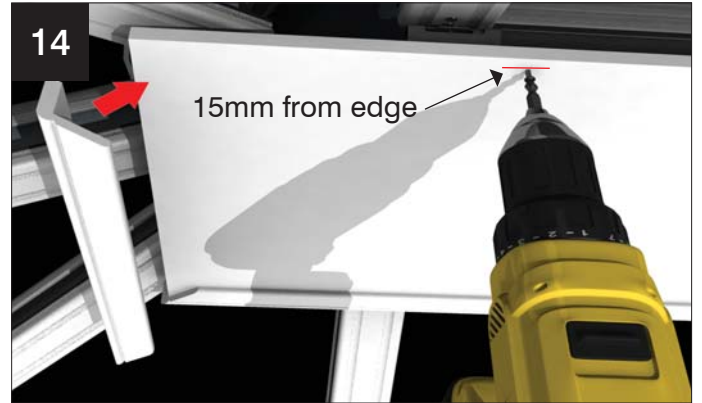
Fasten the black powder coated back box to each bracket using two 4.2mm x 19mm self drilling screws.

GEORGIAN/VICTORIAN DUO PITCH ROOF (NO TIE BAR)



Fasten the back box end plate to its bracket using two 4.2mm x 19mm self drilling screws.

ENSURE ANY ELECTRICAL CABLES ARE RUN INTO THE BACK BOX AT THIS STAGE

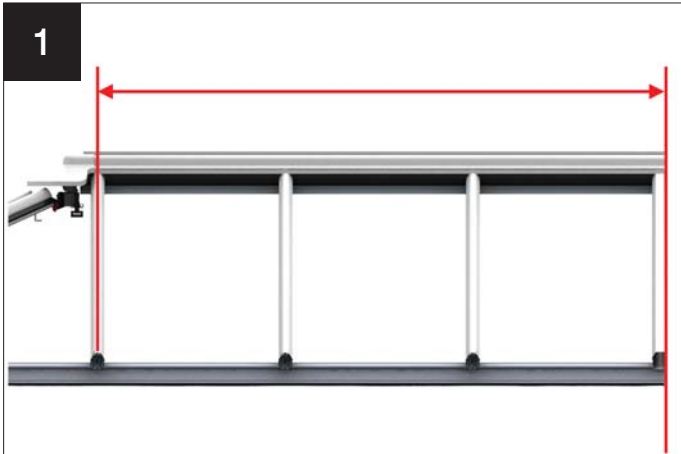


Now measure and cut to length the pre-primed decorative finishing board on the ground, cut holes and pull through any wires. Now offer up. At 300mm centres using the 3.5mm x 25mm black Phillips screws, attach the decorative finishing board to the back box – ensure the heads are inset into the mdf. Now using high grab adhesive attach the pre-primed/primed timber finishing beads, trimming to length at the host wall (or option to mitre at host wall). Finally complete paint finishing in a colour/finish of the customers choice and then attach light fittings (not supplied).

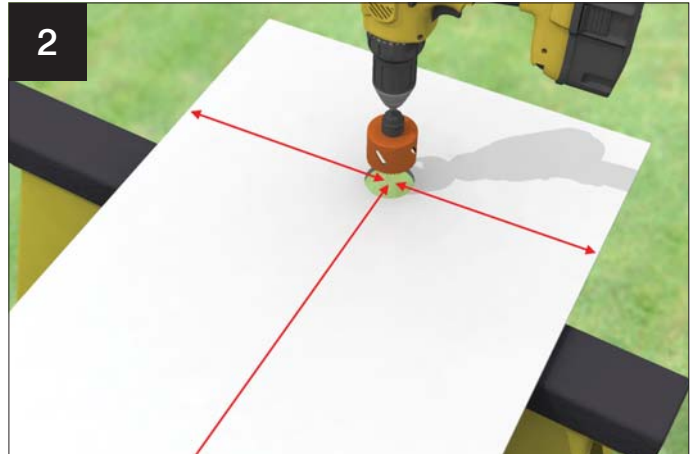


GEORGIAN/VICTORIAN DUO PITCH ROOF (TIE BAR)

The roof should be assembled at this stage and follow steps 1-13 in this guide before starting with these steps.



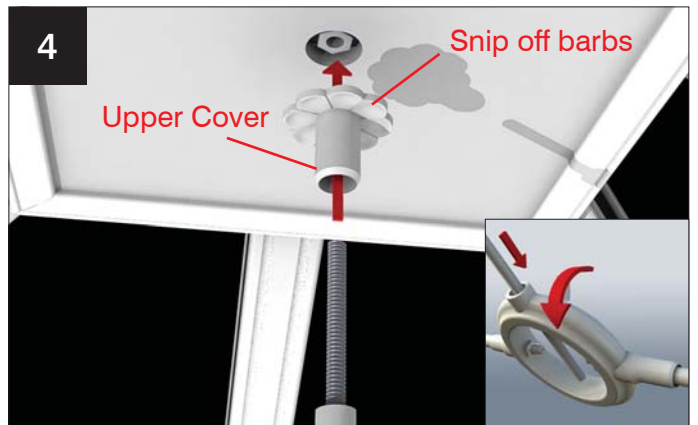
Contrary to the usual tie bar assembly procedure, ignore the drop rod and get the two horizontal threaded tie rods/conduit connected to the glazing bar brackets and have them connected to the boss ring (no boss covers at this stage). Measure from the centre of the glazing bar that has the tie bar bracket back to the host wall.



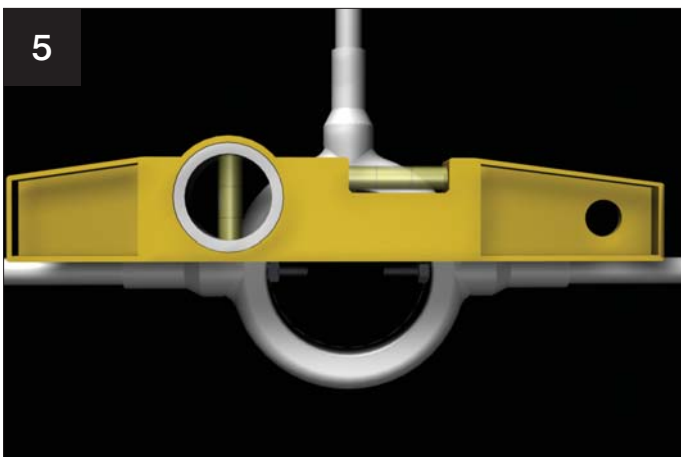
Using the dimension from step 1, at the board centreline drill a 20mm diameter hole



Into the 20mm hole, fit the nut plate and fix with two 2.9mm x 9.5mm self tapping screws



Now fix the pre-primed decorative finishing board to the black powder coated back box – see step 14 on page 4. Measure and cut the vertical threaded bar. Now slide over threaded bar the upper cover and the pvc conduit – screw the threaded bar in to the nut plate about six turns. Once all in position, hand tighten the nyloc nut inside the boss ring. The upper cover is attached with silicone

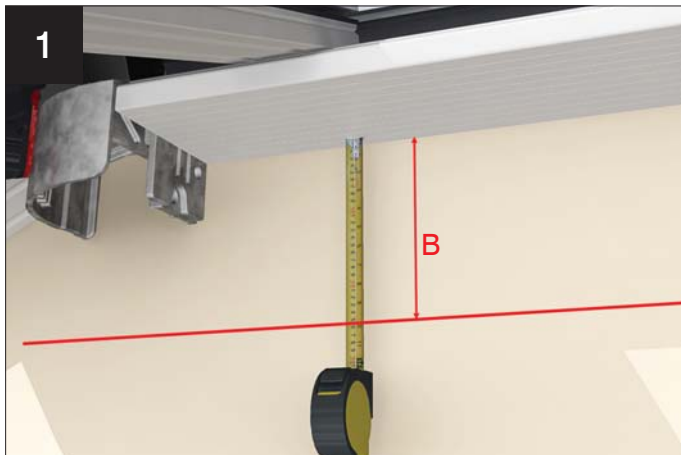


Now, finally check that the horizontal elements are level and the vertical element is plumb. CHECK THAT THE SIDE FRAMES ARE STILL PLUMB. Spanner tighten the boss nyloc nuts. Attach rose covers and tie bar bracket cover plates to hide the bolts.

FOR FURTHER GUIDANCE ON FITTING/FINISHING TIE BAR ROOFS SEE SECTION 6 OF THE MAIN INSTALLATION GUIDE THAT COMES WITH A CLASSIC ROOF.

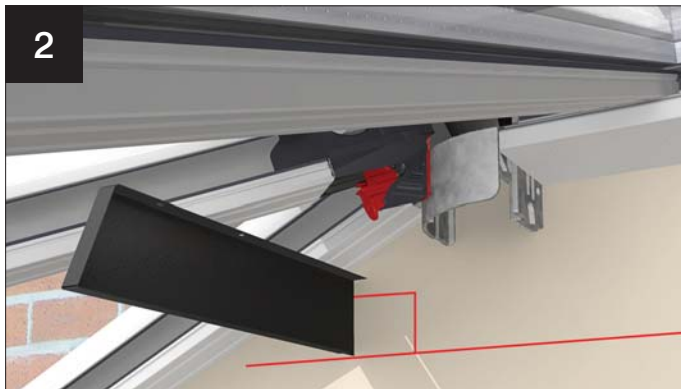
HALF RIDGE INSTALLATION (MK5) - see p10 for details on other wall plate variations

Roof should be fully assembled, wall plate undercladding fitted but not the die cast end cover.

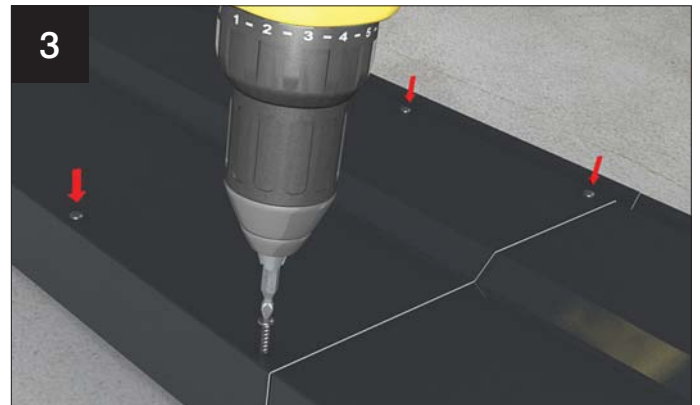


In this step we are setting out for the 'back box'. Using dimension 'B' from the table above, measure down and then strike a pencil mark on the host wall to run just past the hub end

HALF RIDGE BRACKET POSITIONS										
Pitch	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°
Dimension A	253	254	256	258	259	261	263	266	268	269
Dimension B	73	74	79	84	89	94	96	101	106	112
Pitch	15°	16°	17°	18°	19°	20°	21°	22°	23°	24°
Dimension A	272	273	274	279	282	285	286	289	293	296
Dimension B	117	118	124	130	135	141	142	148	154	160
Pitch	25°	26°	27°	28°	29°	30°				
Dimension A	300	302	306	310	315	319				
Dimension B	167	169	175	182	189	196				

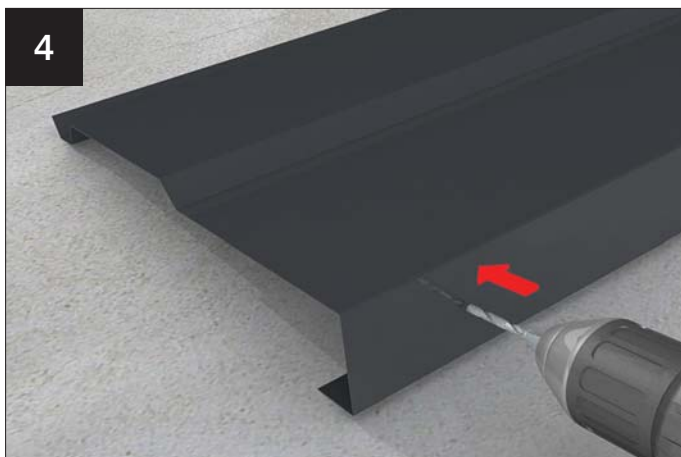


To determine the length of the back box, offer up the powder coated back box end plate so it sits on the pencil line whilst abutting the undercladding of the starter bar and the hip bar – now measure from this position across to the corresponding opposite end plate (if hipped end). If the other end is a gable frame, measure across to the gable frame.

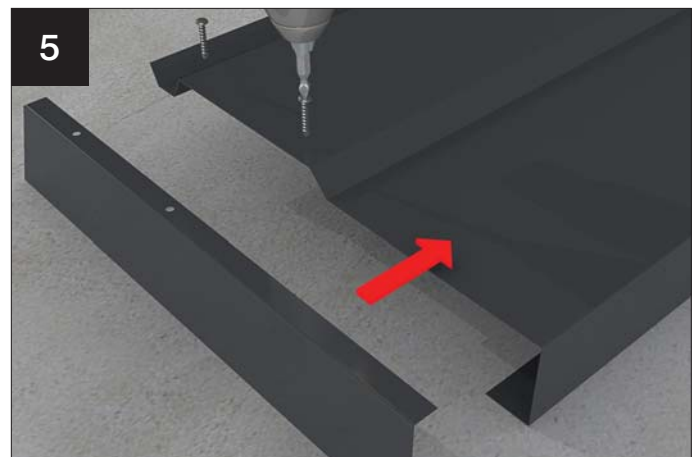


N.B. BACK BOX CONSISTS OF 2 PROFILES, A LARGE AND A SMALL TO FACILITATE NESTING.

With the length now determined for the back box, start assembly. Take the black powder coated 'back box' which is supplied in 1250mm modular lengths. Sufficient back boxes are supplied for your project – when joining two (or more) lengths of back box, always allow a minimum of 50mm overlap. It's your choice if you trim any excessive length with a fine toothed jigsaw or simply overlap by more than 50mm. Use four 3.5mm x 25mm black Phillips screws from the pack provided.

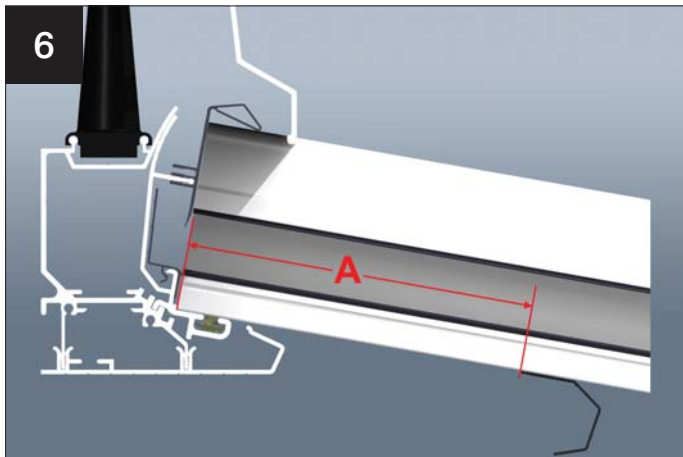


Now drill 4.5mm clearance holes in the back edge of the tray at max 400mm centres

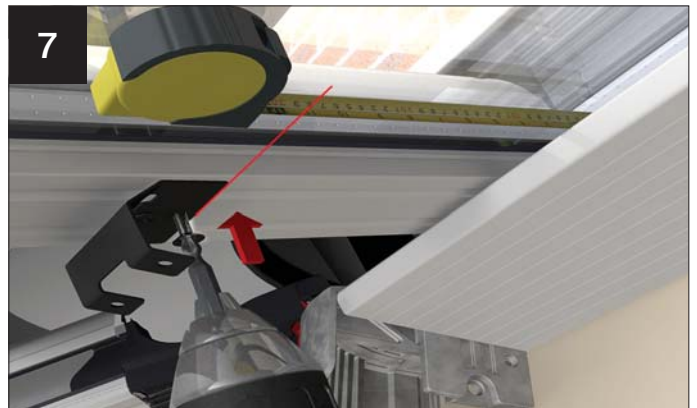


Attach the back box end plate using the 3.5mm x 25mm black Phillips screws provided – five are necessary to complete this operation.

HALF RIDGE INSTALLATION (MK5) - see p10 for details on other wall plate variations



Now fix the brackets to the glazing bars – use dimension 'A' from the table at the top of p7.



Mark the position of the bracket and then drill and fix using two 4.2mm x 19mm self drilling screws. Brackets are supplied in varying quantities depending upon roof size – there are always brackets for starter bars and the last bar on the wallplate/hub end plus alternate intermediate bars. If the host wall has been plastered, it may be necessary to re-drill the holes in the bracket to ensure it centrally seats on the bar undercladding.



Offer up the assembled back box – this is likely to be a two person job, remembering to use appropriate access equipment. If necessary, fold over and 'close' bracket around back box.



Check level and then drill host wall and fit back edge of back box to host wall



Fasten the black powder coated back box to each bracket using two 4.2mm x 19mm self drilling screws.



Now prepare the front closure plate for the back box – drill 4.5mm clearance holes at 400mm centres.

HALF RIDGE INSTALLATION (MK5) - see p10 for details on other wall plate variations



Attach the front closure plate using the fixings provided



If the design features a gable infill frame, the back box end plate will need to be fastened into the gable frame for additional support. Check it's level



Check backbox is level and then using two 4.2 x 19mm self drilling screws, attach the back box to the gable frame – this provides extra support.

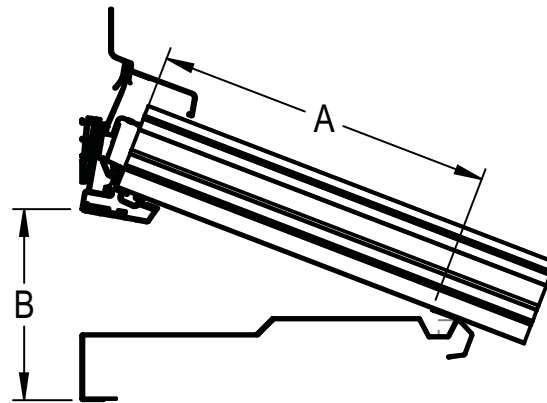
ON GABLE RAKED FRAMES, BACK BOX END PLATE MAYBE VIEWABLE BELOW FRAME LINE.



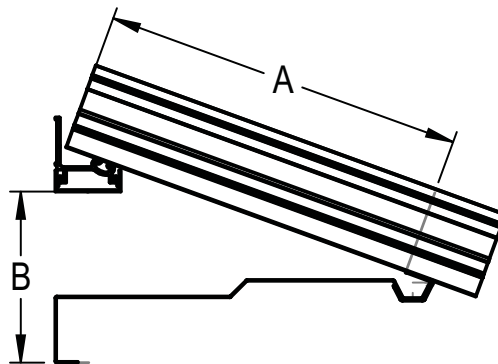
Now measure the pre-primed decorative finishing board on the ground, cut holes and pull through any wires. At 300mm centres using the 3.5mm x 25mm black Phillips screws, attach the decorative finishing board to the back box – ensure the heads are inset into the mdf. Now using high grab adhesive attach the pre- mitred/primed timber finishing beads, trimming to length as necessary. Finally complete paint finishing in a colour/finish of the customers choice and attach or insert light fittings (not supplied).

Ensure any electrical cables are run into the back box at this stage

SET OUT DETAILS FOR OTHER WALLPLATE VARIATIONS



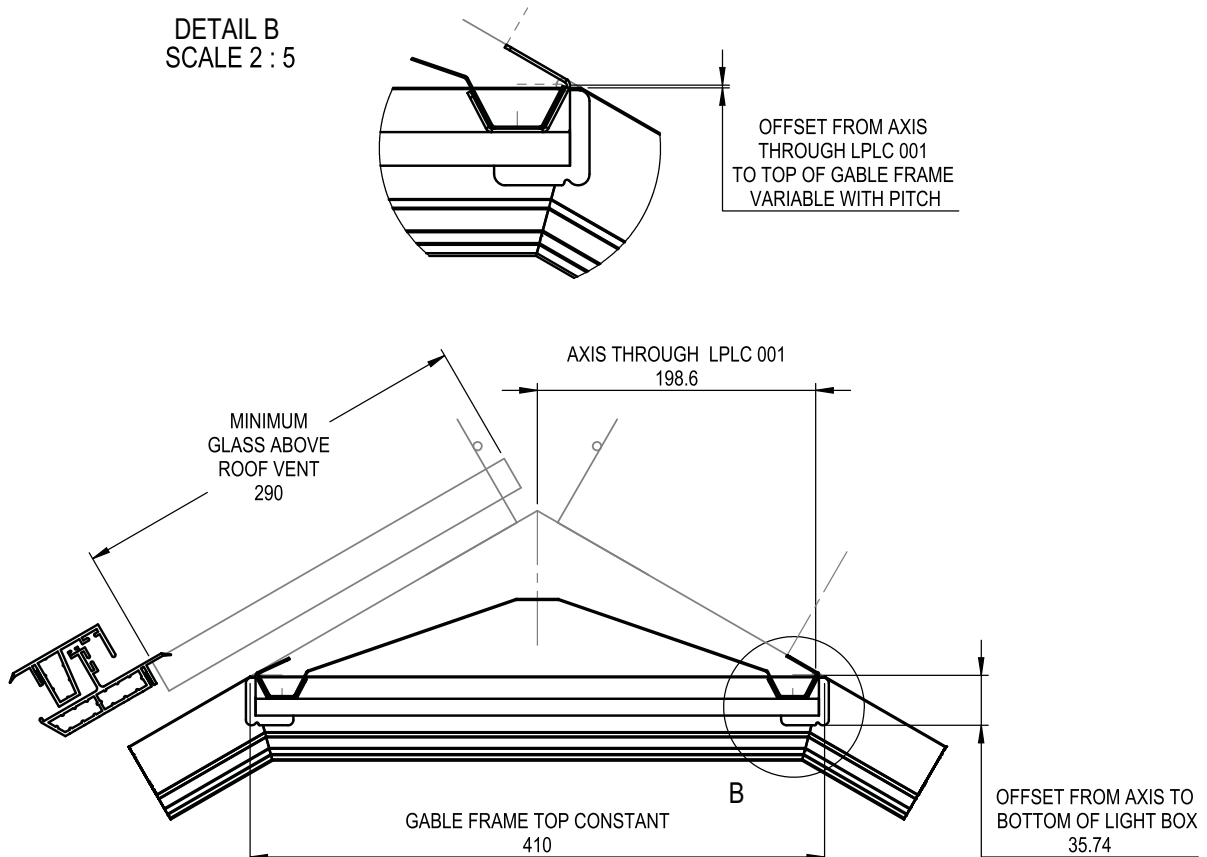
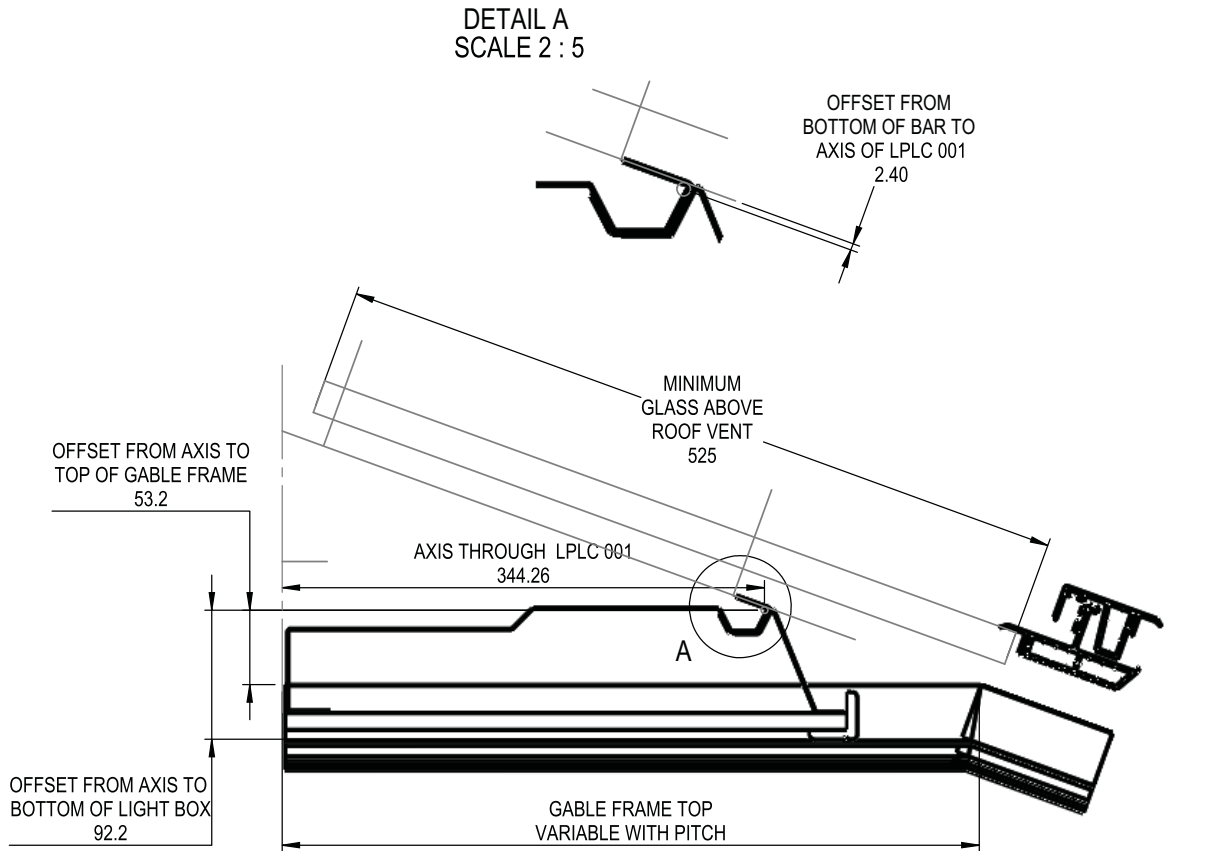
VENTILATED WALLPLATE BRACKET POSITIONS (WMB)													
Pitch	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°
Dimension A	287	289	290	292	293	295	296	299	301	303	304	302	304
Dimension B	80	86	91	97	103	108	110	116	122	128	134	141	147
Pitch	18°	19°	20°	21°	22°	23°	24°	25°	26°	27°	28°	29°	30°
Dimension A	307	309	311	310	313	316	319	322	321	325	329	333	337
Dimension B	153	159	166	173	180	186	193	199	207	214	221	229	236



PARABOLIC WALLPLATE BRACKET POSITIONS (PWLA)																
Pitch		5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°		
Dimension A		314	314	315	316	317	317	318	319	321	322	323	325	327		
Dimension B		77	82	87	93	98	104	109	115	121	126	132	138	139		
Pitch		18°	19°	20°	21°	22°	23°	24°	25°	26°	27°	28°	29°	30°		
Dimension A		328	330	332	334	336	339	341	344	347	349	353	356	359		
Dimension B		145	151	157	163	169	175	182	188	194	201	207	214	221		
Pitch		31°	32°	33°	34°	35°	36°	37°	38°	39°	40°	41°	42°	43°	44°	45°
Dimension A		363	366	370	374	379	383	388	393	398	403	409	415	421	428	435
Dimension B		228	235	242	250	257	265	273	281	290	298	307	316	326	335	345

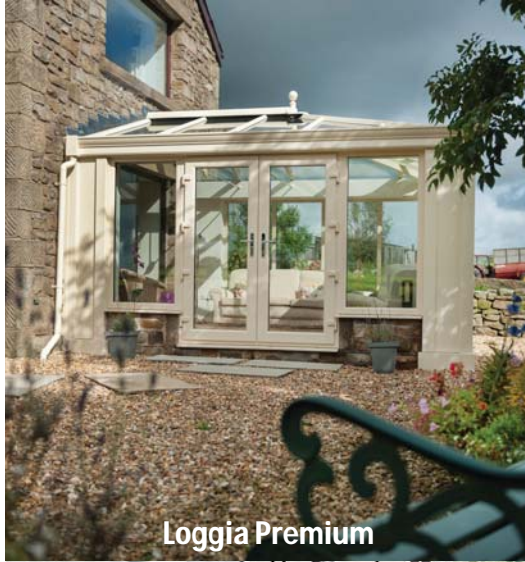
GABLE FRAME DESIGN / CONSIDERATIONS

Special extended flat top gable frames MAY have been ordered to ensure back box end plate isn't viewable below frame line

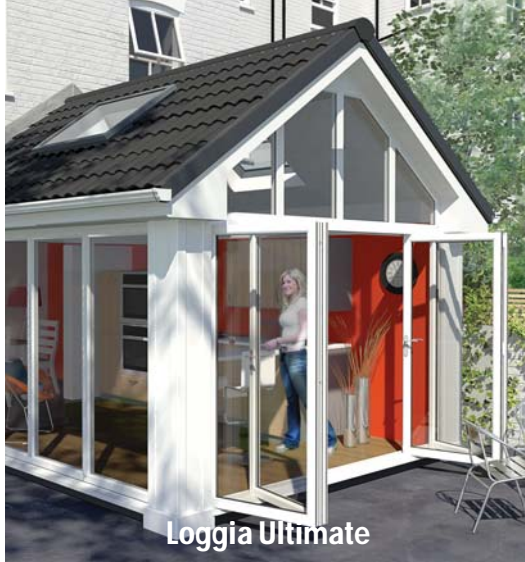




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