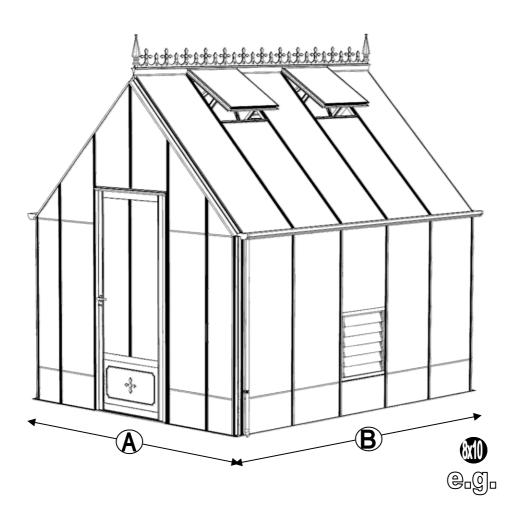


# Victorian 'RATCLIFFE' 8 Assembly Instructions



NOMINAL SIZE	A (mm)	B (mm)
8 x 6		2012
8 x 8	2602	2632
8 x 10	2002	3252
8 x 12		3872



Thank you for purchasing your new Robinsons greenhouse. We recommend you familiarise yourself with the instructions and read all safety information before you commence assembly. This instruction manual is also available online at www.robinsonsgreenhouses.co.uk in our technical help section should you need to reprint it. Should you require any additional advice you can always call us on 01782 385409.

These instructions are divided into sections highlighted by a white number/letter on a black background at the bottom corner of most pages (see opposite page for details); part lists, B-base, P-preparation, 1-sides, 2-front gable, 3-rear, 4-joining the four sides together, 5-louvre, 6-roof, 7-vent, 8-glazing, 9vent attachment, 10-door attachment, 11 anchoring down, 12 finishing touches, 13 optional shelf, 14 optional staging. If you need to contact us for assistance please refer to the relevant section/s. If your building is longer than 12', i.e. has an extension then please also refer the separate extension manual.

### **Safety Warning**

- Glass and aluminium can potentially cause injury. Please ensure you wear protective goggles, gloves, headgear and suitable footwear when assembling and glazing the building.
- Please remember that glass is fragile and should be handled with extreme care. Always clear up and dispose of any breakages immediately.
- Do not assemble the greenhouse in high winds.
- For safety reasons and ease of assembly, we recommend that this greenhouse is assembled by a minimum of two people.
- Please clear all lying snow from the greenhouse roof as it can cause the roof to buckle or collapse.

#### Site Preparation

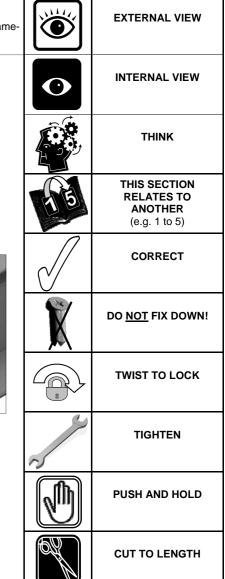
- When selecting a site for your greenhouse, it is vital that you choose as flat and level an area as possible.
- A concrete or slabbed base will provide the most solid foundation for your greenhouse.
- IMPORTANT: Do not fix your building down until the building is fully assembled, including glazing.
- Avoid placing your greenhouse under trees or in other vulnerable locations.
- To minimise the risk of wind damage, try to select as sheltered a site as possible, e.g. beside a hedgerow or garden fence.

#### **Additional Considerations**

- Please bear in mind that assembling your greenhouse can be time consuming. You may need to spread the construction over two or more days. We recommend that you avoid leaving the building partially glazed. If you ever have to leave your greenhouse half assembled and not anchored down, weigh it down with slabs or bags of sand to stop the wind moving it.
- You will find it helpful to prepare a large, clean and clear area in which to work in. A garage floor or flat lawn area is ideal.
- If you have arranged for someone to install your greenhouse for you, please check that all components are included. Some parts are numbered and can be identified by a stamped or hand written number (without the 'D'). Alternatively, the components can be identified by their distinctive profiles, lengths and quantities detailed in the parts list (see next page).
- Anchoring down your greenhouse should be the final stage of construction (including glazing).
- Once installed your greenhouse requires little maintenance, but to maintain the smooth running of your door(s) WD40 or similar can be applied to the door pivot pins / lock etc...

#### Guarantee

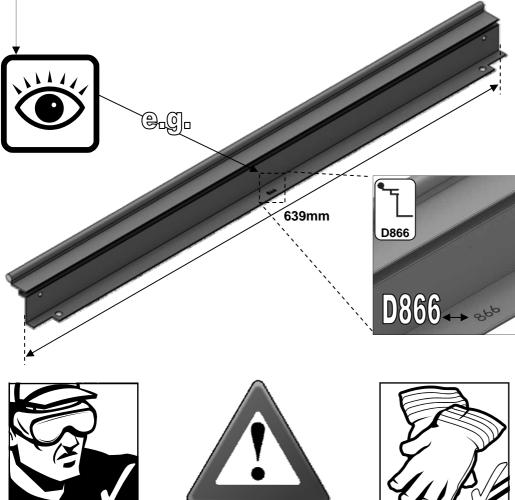
Your new Robinsons greenhouse is guaranteed for 10 years against faulty manufacture of the framework. This does not include glazing, moving parts, accidental damage or wind damage.



**KEY DESCRIPTION** 

KEY

SYMBOL







SECTION NO	TITLE	ASSEMBLY SYNOPSIS: IMPORTANT INFORMATION / CONSIDERATIONS
	PARTS LIST	Most components should have a 'D' code punched into their metal surface. Identify and separate all like for like components prior to assembly. The 'parts list' also separates parts into the various sections 1 - 12 shown below. Parts can also be identified by their profile pictures and stated lengths etc
В	BASE	Base dimensions and recommendations. Ensure that your base is level as this will make assembly of the building, especially the glazing of the roof much more straight forward. Please be aware that the hinge door on your greenhouse opens inwards, make sure that there will be no interference between the door and the foundations.
Р	PREPARATION	Tools required. <u>IMPORTANT</u> : Use WD40 or similar in the glazing bar channels and insert the black glazing rubber prior to frame assembly.
1	SIDES	Take the side glazing bars 'D066' with the rubber inserted and the diagonal braces 'D103', use 10mm bolts to join them to the gutter and 15mm bolts to the cills (note how the head of the bolt slides into each glazing bar during construction). Please also remember to slide in your 22mm bolts for attaching the decorative eave spandrels 'DV100' in section 5.
2	FRONT	Again ensuring that the gable framework is rubbered-up follow the diagrams to assemble each end of the building. Make sure that you have inserted the extra bolts utilised in sections 4 and 5. On the roof and side corner bars not every rubber channel will require rubber unless it is to be utilised in a partition (see separate manual and section P).
3	REAR	coordinates and coordinates are coordinates and coordinates and coordinates are coordinates and coordinates and coordinates are coordinates and coordinates are coordinates and coordinates and coordinates are coordinates and coordinates and coordinates are coordinates are coordinates are coordinates and coordinates are coordinates are coordinates and coordinates are coordinates are coordinates are coordinates ar
4	JOINING THE FOUR SIDES	Take the two sides (1) and both gables (2 & 3) and join them together on your base. It is a good idea to tie some ladders to the sides to support them if you do not have anyone to hold them for you.
5	LOUVRE	They attach to the building during the glazing process (8) like a piece of glass with a black separator above and below them. If you are fitting an optional auto-louvre then you need to carefully drill (3mm bit) out the rivets which mount the handle to the frame. You can then either utilise those holes or create more to mount the unit.
6	ROOF	Attach the ridge and then the rubbered-up roof bars ensuring that they are fully butted up to the ridge and down onto the gutter. Attach your cresting before you glaze the building to give yourself more room to work. Utilise the 22mm bolts slid into the side (section 1) and roof bars to attach your DV100 and DV101 spandrels. On longer models you may need to carefully prop up the roof and tie the sides together to keep the ridge and gutters straight (i.e. not sagging or bowed) until the building is fully glazed.
7a	VENT	Once the vent is glazed add silicone to the vent sides and top. Stand the vent/s on their hinge (vent top) and then leave the silicone to set.
7b	VENT SLAM	The slam bar 'D079' can be moved up and down between the roof glazing bars so that it can be butted down onto the pane of glass beneath, the autovent will be attached to it later on (9).
8	GLAZING	Layout the bar cappings and covers around the building like a sundial checking that all is present and correct. You can also place the roof cappings in the gutters so they are closer to hand. The glass in the sides has to bevel on the black separator strip which is on top of the 305mm high glass base panels. This bevelling action allows the glass to tuck underneath the gutter canopy. Use the capping and the self tapping screws to then hold the glass in place. The covers then enclose the screw heads giving a neat finish. It is a good idea to glaze two roof sections first to ensure the building is square followed by two side sections to ensure the building isn't leaning.  IMPORTANT: On the roof sections please make sure that you place a screw around 25mm / 1" from the bottom of each capping strip (create a hole in the plastic if required) and that the screws are nice and tight to avoid any glass slippage.
9	VENT ATTACHMENT	Take the assembled vent and slide the vent hinge 'D866' into the end of the ridge allowing the vent the pivot open and closed. Vent stops go either side of the vent to stop any lateral movement (so insert stop / vent / stop). Attach the Bayliss XL autovents.
10	DOOR ATTACHMENT	Your door comes pre-constructed and locked minus the handles and their pivot pin but now it needs to be mounted to the front end of your building. Utilise the 'DV522' plates and twist in crop headed bolts to join the door and its frame to the building (pinch the door frame against your long front verticals whilst tightening your 'DV522' plates to ensure that there is no gap). If you are struggling to eradicate the gap between the door frame and verticals then some silicone can be carefully applied to the area to create a vertical seal. Be careful not to lock yourself in the building and to avoid damage do not open the door until it is attached to the front gable. Getting the door to swing perfectly without dropping or rubbing on the ground may require some small but vital adjustments. You may also need to insert a packer underneath the door frame hinge to increase ground clearance. Part 'DV275' canopies the door frame top hiding the clearance space at the top of the door. The door can only be made to swing inwards.
		IMPORTANT: Please do NOT let the door slam open or closed as it is likely to cause damage to the door and the frame. Please twist the handle to open and close. Please also be aware that your door KEYS (3 provided) are unique to the building so they should not be stored together.
11	ANCHORING DOWN	Now that the greenhouse is finished and the door and vent/s are operating without interference then you need to anchor the building down using 2" rawl plugs and screws. Use a 7mm masonry bit in a hammer drill to create the holes.
12	FINISHING TOUCHES	Now that the main body of the structure is complete you can add; downpipe fittings, eave bungs, gutter stop ends. It is also important to carefully apply some silicone to the internal eaves corners and external and internal ridge corners to minimise the chance of water entering the structure.
13 14	OPTIONAL SHELVING OPTIONAL STAGING	Robinsons integral cantilever staging and shelving attaches to the inside of the greenhouse frame using either square head bolts (insert four into each side glazing bar 'D066' during construction of the sides (1)) or rectangular 'crop head' bolts which can be fitted retrospectively (both sets of bolts accompany the shelving/staging). This system allows the height of either the staging or the shelf to be set at an operator specific height. Commonly the staging brackets are set 900mm from the cills though you can alter this to suit the end user/s. The aluminium shelf / staging slats come in two lengths; (4'):1240mm 'D2002' and (6'):1860mm 'D2003'. These slats can combine to create any length of staging re-
		quired, i.e. 4'+6' = 10' etc

Section <b>Ref</b>	Part No.	Section	Size (mm)	8	8	8 10	8 12
	D. 10		4004				
	D043		1894	2			
	D021	1	2514		2		
	D022	<del></del>	3134			2	
	D023		3754				2
	DV213		1897	2			
	DV210	[ \$/	2517		2		
	DV211		3137			2	
Ш	DV212		3757				2
	D103		1787			4	1
	D066	<u>.</u>	1676	4	6	8	10
	RUBBER	Q	1000 (1m)	14	21	27	34
	D174	6	N/A	4	4	8	8

DV231	لصا	2614	1
DV225L	1		1
DV225R		855	1
D048	**************************************	1676	4
DV235L	17 P		2
DV235R	ليا	2021	2
DV237L	Lyn		2
DV237R	لما	2489	2
DV261		2925	1
DV270L	1		1
DV270R		782	1
DV273		2468	1
DV292		1794	4
DV251L	<u> </u>	1700	2
DV251R	' '	1790	2
DV263		930	1
DV275		904	1
	DV225L DV225R  D048  DV235L DV235R DV237L DV237R  DV261  DV270L DV270R  DV273  DV292 DV251L  DV251R  DV263	DV225L DV225R  D048  DV235L DV235R DV237L DV237R  DV261  DV270L DV270R  DV273  DV273  DV292 DV251L  DV263	DV225L       855         DV225R       1676         DV235L       2021         DV237L       2489         DV237R       2925         DV270L       782         DV273       2468         DV292       1794         DV251R       1790         DV263       930

Section Ref	Part No.	Section	Size (mm)				
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	D163	000	90	2
2	DV104		N/A	4
<del></del>	DV105		N/A	2
3	RUBBER	Q	1000 (1m)	70
	D174		N/A	9

	DV204	4 F	1897	1			
	DV201	V	2517		1		
	DV202		3137			1	
5	DV203	$\times$	3757				1
	DV254		1790	4	6	8	10
	RUBBER	Q	1000 (1m)	15	22	30	36

	D866		639	2	2	4	4
	D863L	الم	613	2	2	4	4
	D863R		613	2	2	4	4
6	D862	4	593	2	2	4	4
	D079 PLUS FLUFF	ПТ	590	2	2	4	4
	D114	0	N/A	4	4	8	8
	D220 PLUS FS6060 SCREW		N/A	4	4	8	8
	D205	-	N/A	4	4	8	8

									1 —						1	1	,
	Section Ref	Part No.	Section	Size (mm)	8 6	8	8 10	8 12					Size (mm)	8 6	8	8 10	8 12
				()									(11111)			10	
	10	DV479		1384			1						SYBOLM6X11				
	2/3	DV635L/R		2021			+ 2			တ္တ		Minn	10mm	74	80	86	92
	2/3	DV637L/R		2489	_	1	+ 2	40			ERATI						
	3	DV654 DV661	工	1821 2925	4	6	8	10	$+$ $(\bigcirc)$	IAN	SEPE		SYBOLM6X15	28	30	32	34
	2/10	DV663		905			1		<del>                                     </del>	20	S etc		15mm			-	
	1	D812		1660	4	6	8	10	25	AME	000R		SYBOLM6X22				
										MAIN FRAME QUANTITIES	VENTS / DOORS etc SEPERATE		22mm	24	36	48	60
	2/3	D813	H	1675			4			MAI	VEN		SYNUTM6				
18	5	D834 DV651	7	1660 1790			4		$\parallel \gg$				M6 NUT	126	146	166	186
	<b>-</b>	DV031		1730			<del>-</del>										
	1	D825		1660	8	10	12	14	D					1			
	2/3	D826		1677			4							1			
	2/3	DV636L/R		2021			+ 2								10	S.	
	2/3	DV638L/R		2489		2	+ 2			10m	nm	5	Til S		1	(0	
	10 5	DV480 DV657		1384 1821	8	10	1 12	14								-	W.S.
	3	DV667		2925	0		1	14									
	2/10	DV669		905			1						_				
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	D84	1	N/A		2				9								
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	D20	7	N/A		2												
	D21	1	N/A		2						1						
	ושעו		IN/A		2												
		. •			_							•					
	D20	1	N/A		2										_		
	D20	8	N/A		2									H	9		
	520		IN/A		_							600		16			
	DV2	19	N/A		2											Ч	
			and the same														
	DV2	18	N/A		2											4	7
		1								<b>&gt;</b>							

# THE DIMENSIONS BELOW ARE THE EXACT EXTERNAL BASE DIMENSIONS FOR THE ROBINSONS RANGE.

We cannot emphasis how important it is to have a proper base for your Robinsons Greenhouse to be erected upon.

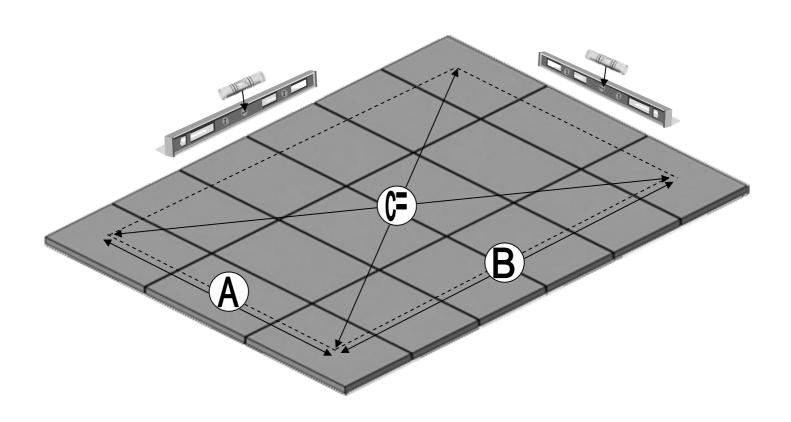
It is essential that the BASE IS FLAT, LEVEL AND SQUARE AS WELL AS BEING SUBSTANTIAL enough to take the weight of the greenhouse including its 4mm glass.

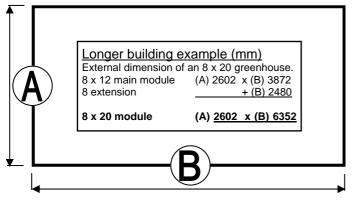
Give yourself enough room around your base to allow for fitting the glass and any on-going maintenance / cleaning. A slab base which is larger than the greenhouse is the ideal solution and is our preferred foundation.

A brick perimeter base is equally suitable providing there is a concrete foundation beneath it. We suggest using a solid brick with no frogs or holes (quality stock bricks or semi-engineering bricks).

IMPORTANT: Do not anchor your greenhouse down until it is fully assembled including glazing unless you are 100% sure your base is square and level. If not your glass will not fit properly.

IMPORTANT: If you have anything overhanging the ridge on a lean-to building then please make sure it does not interfere with the motion of the roof vents.





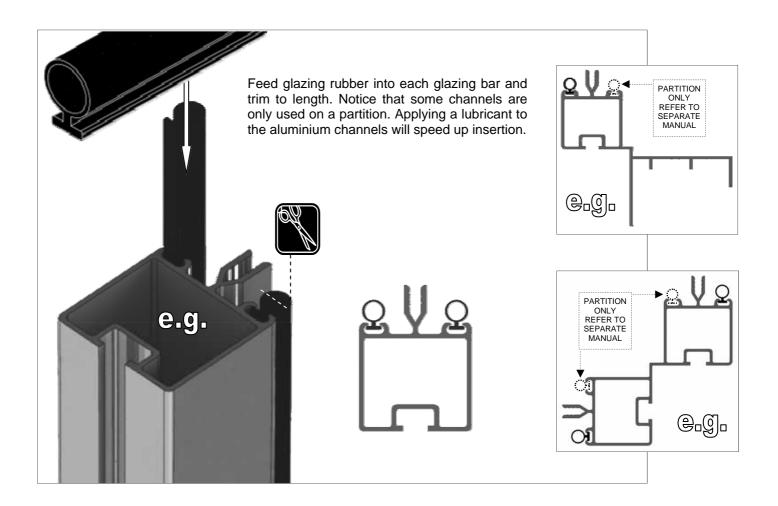
# **EXTERNAL DIMENSIONS (mm)**

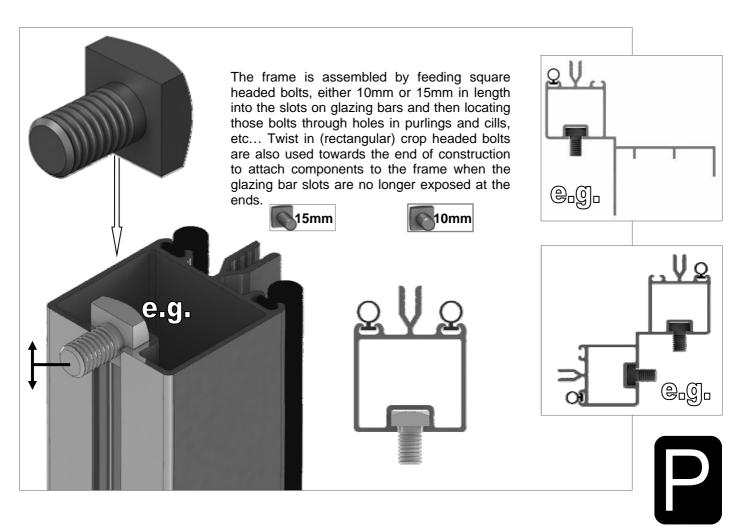
Model sizes listed are nominal, use 'mm' measurements.

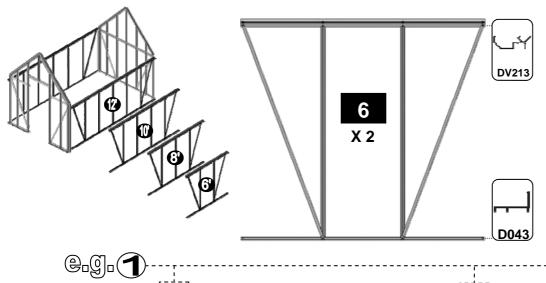
i.e.: an 8 x 10 is the model 8'7" x 10'8"

MODE	MODEL A (mm) WIDTH		B (mm) LENGTH	C (mm) DIAGONAL
	8 x 6		2012	3289
8 RATCLIFFE	8 x 8		2632	3701
VICTORIAN	8 x 10	2602	3252	4165
VICTORIAN	8 x 12		3872	4665
	6ft ext.	-	1860	-
EXTENSIONS	8ft ext.	-	2480	-
	10ft ext 12ft ext		3100	-
			3720	-
		•		

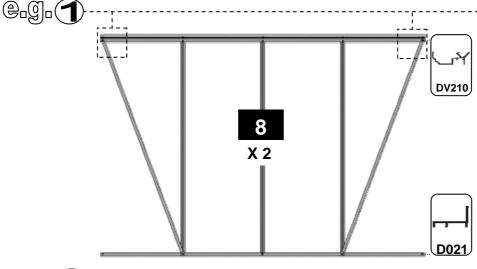




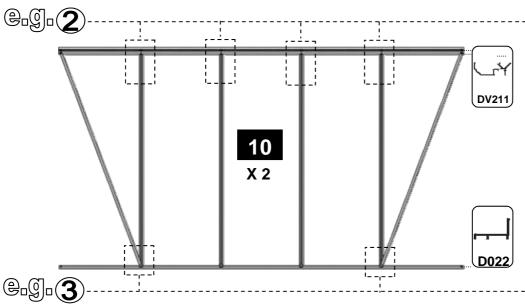




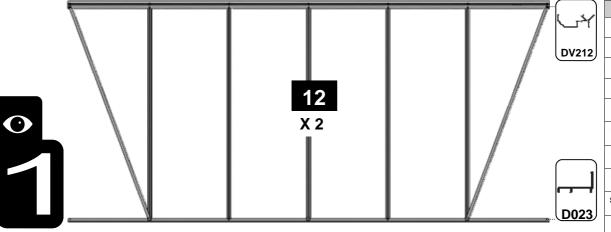
	6 X 2	
Part No	mm	Quantity
DV213	1897	2
D043	1894	2
D066	1676	4
D103	1787	4
D174	6	4
SYBOLM6X11		4
SYBOLM6X15		8
SYBOLM6X22		8
SYNUTM6		12
Rubber	1000	14
		_



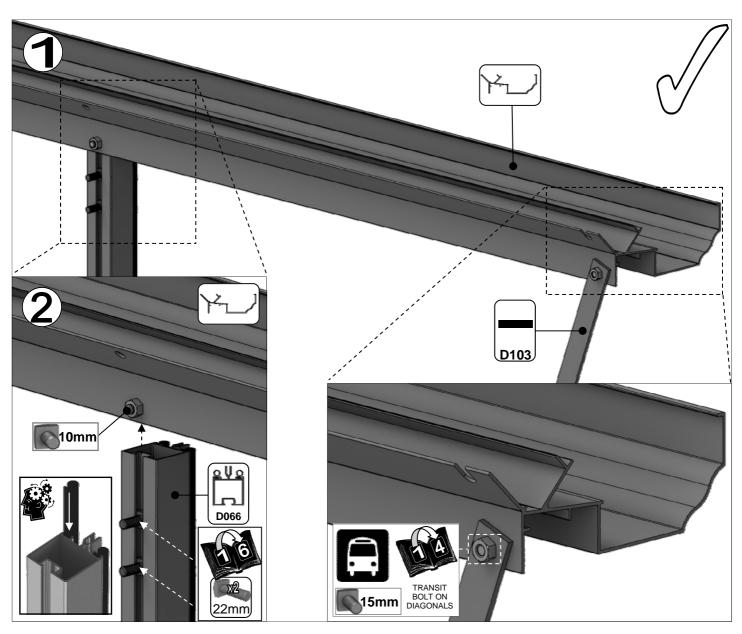
-			· <b>&gt;</b>
		8 X 2	
	Part No	mm	Quantity
	DV210	2517	2
	D021	2514	2
	D066	1676	6
	D103	1787	4
	D174	6	4
	SYBOLM6X11		6
	SYBOLM6X15		10
	SYBOLM6X22		12
	SYNUTM6	6	16
	Rubber	1000	21

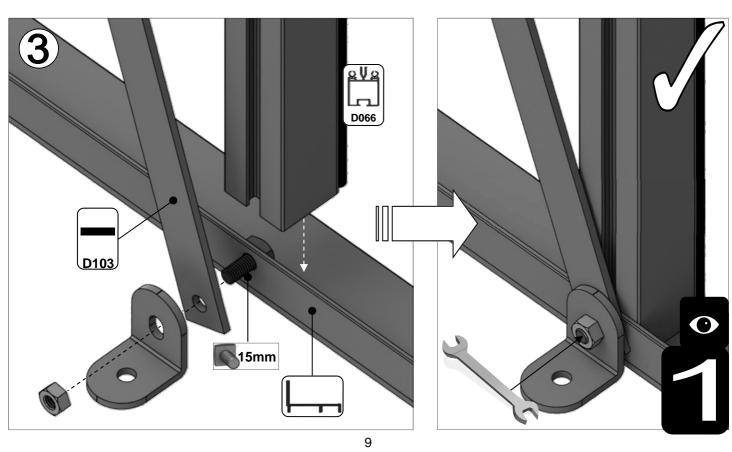


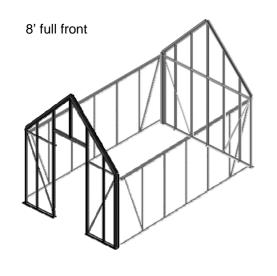
10 X 2				
Part No	mm	Quantity		
DV211	3137	2		
D022	3134	2		
D066	1676	8		
D103	1787	4		
D174	6	8		
SYBOLM6X11		8		
SYBOLM6X15	1	12		
SYBOLM6X22		16		
SYNUTM6	6	20		
Rubber	1000	27		



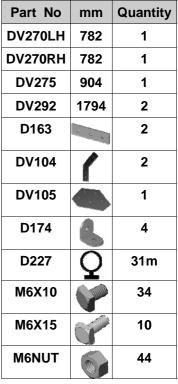
12 X 2				
Part No	mm	Quantity		
DV212	3757	2		
D023	3754	2		
D066	1676	10		
D103	1787	4		
D174	6	8		
SYBOLM6X11	Con .	10		
SYBOLM6X15	1	14		
SYBOLM6X22		20		
SYNUTM6		24		
Rubber	1000	2/		

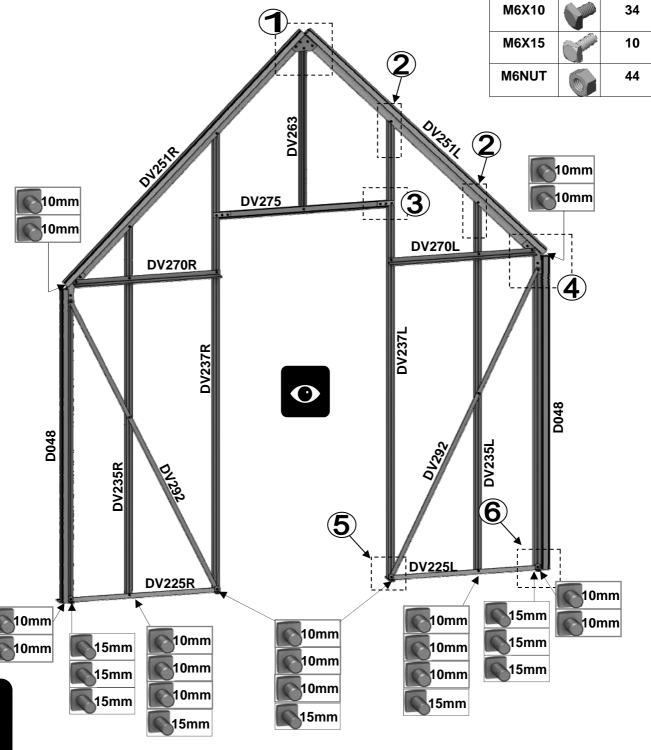


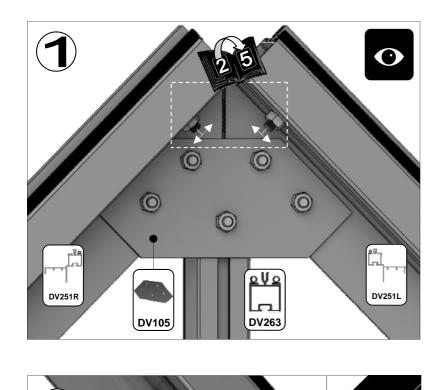


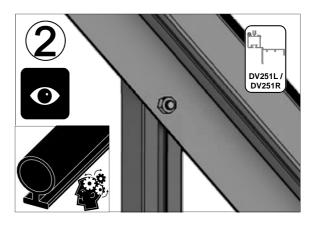


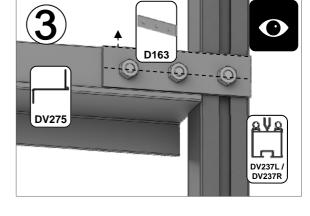
Part No	mm	Quantity
D048	1676	2
DV225L	855	1
DV225R	855	1
DV235L	2021	1
DV235R	2021	1
DV237L	2489	1
DV237R	2489	1
DV251L	1790	1
DV251R	1790	1
DV263	930	1

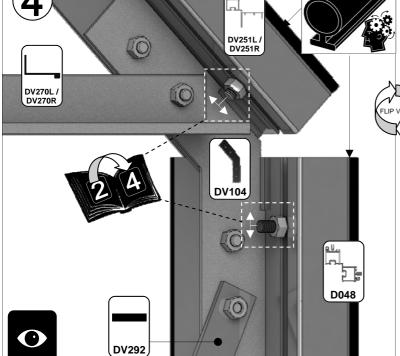


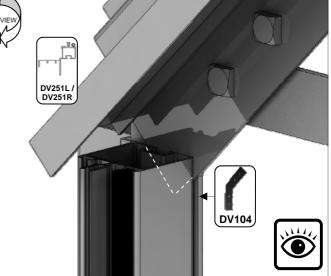


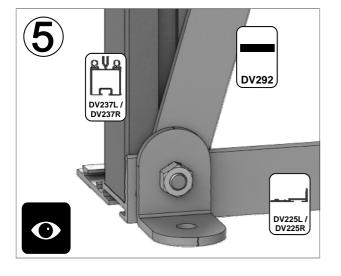


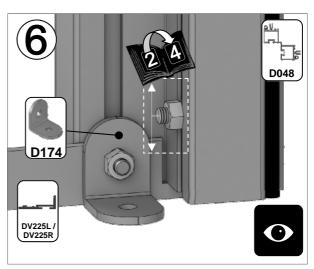




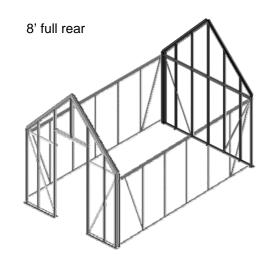






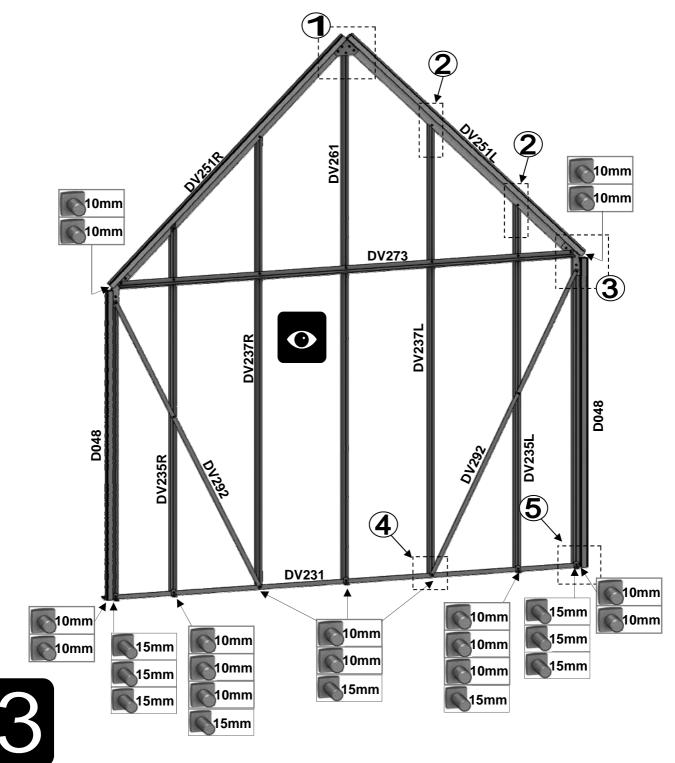


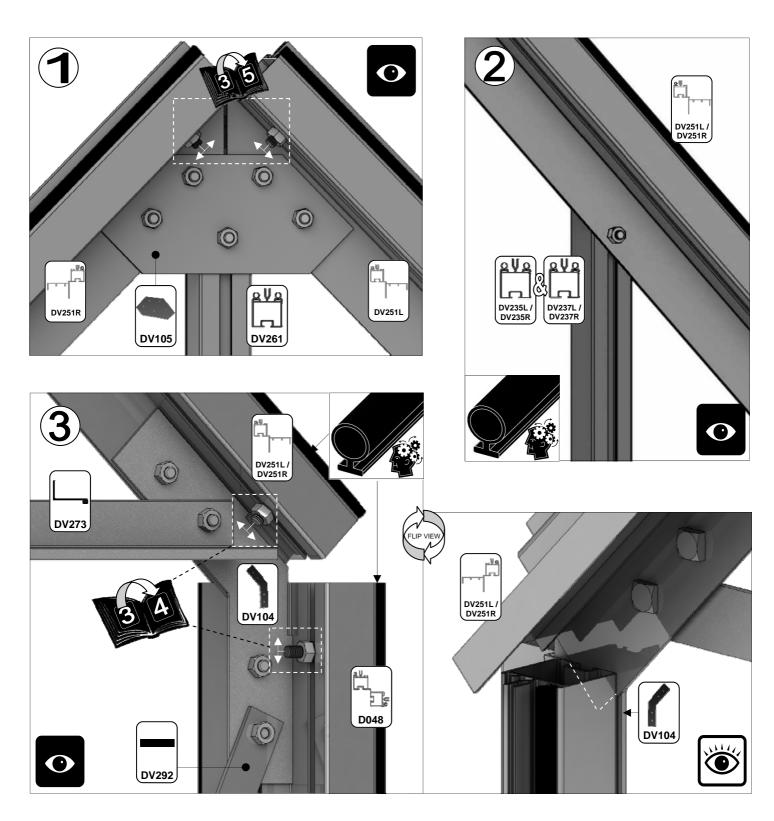


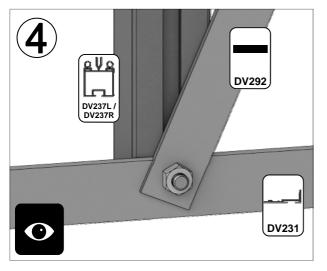


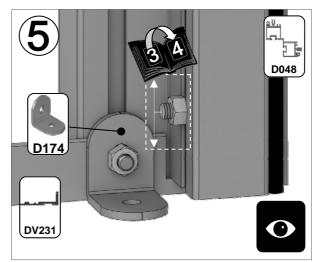
Part No	mm	Quantity
D048	1676	2
DV231	2614	1
DV235L	2021	1
DV235R	2021	1
DV237L	2489	1
DV237R	2489	1
DV251L	1790	1
DV251R	1790	1
DV261	2925	1
DV273	2468	1
DV292	1794	2

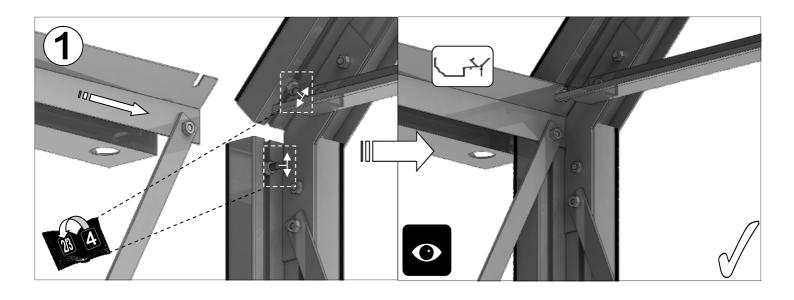
Part No	mm	Quantity
DV104	1	2
DV105		1
D174		5
D227	Q	39m
M6X10		28
M6X15	GPP .	11
M6NUT		39

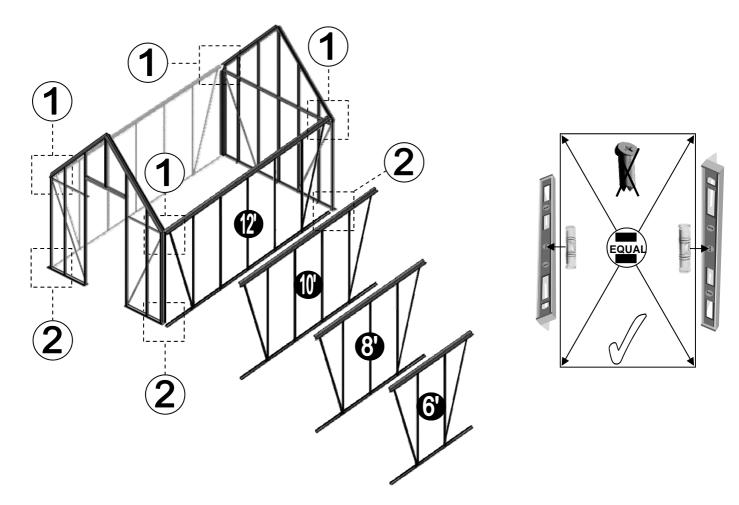


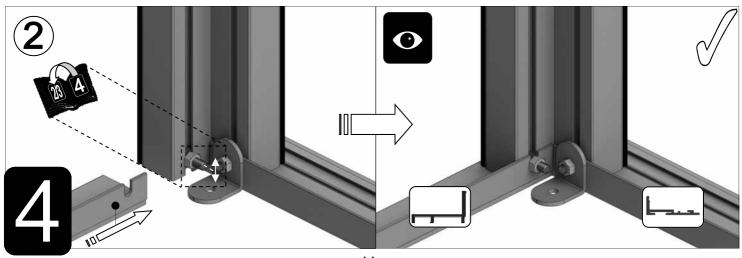


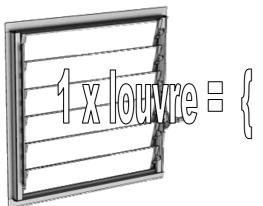






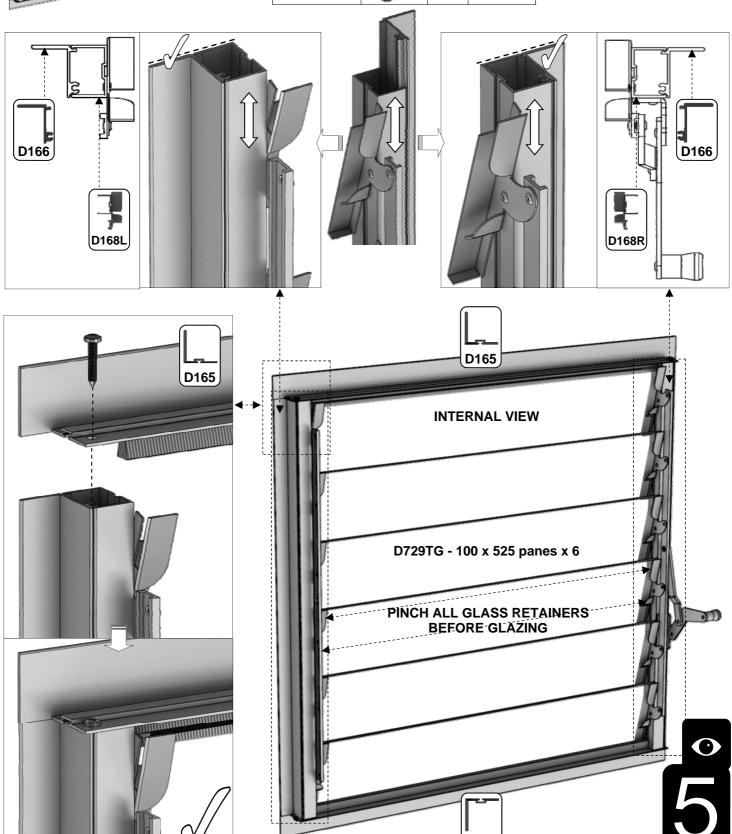






Part No		mm	Quantity
D168L	7 5	552	1
D168R (handle)	声丰	552	1
D165	<u></u>	612	2
D166		552	2
FS6013	6	12	4





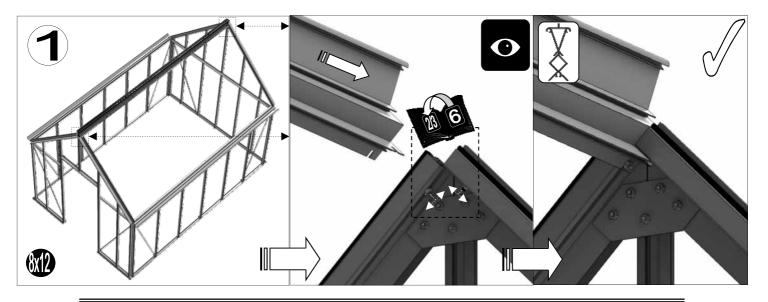
D165

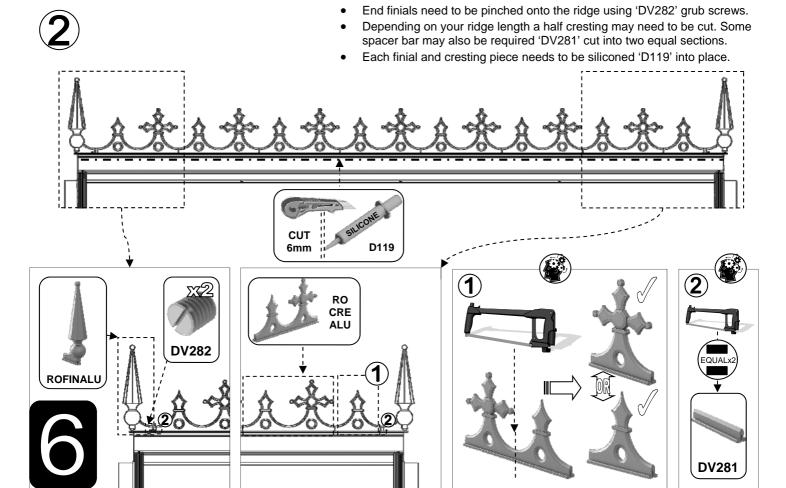
	6'	
Part No	mm	Quantity
DV204	1897	1
DV254	1790	4
DV100	n/a	4
DV101	n/a	2
RUBBER	1000	15
SYBOLM6X11	P	8
SYBOLM6X22		16
SYNUTM6	0	32

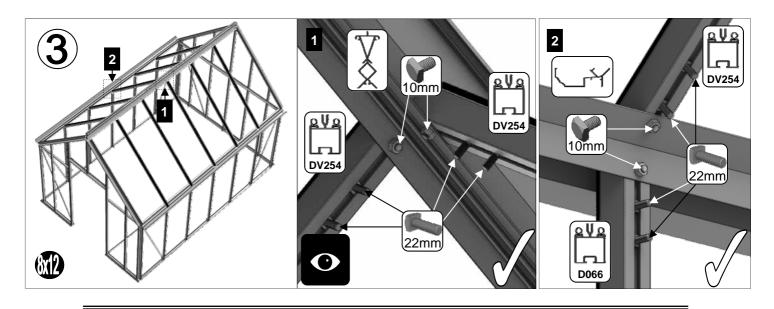
	8'	
Part No	mm	Quantity
DV201	2517	1
DV254	1790	6
DV100	n/a	6
DV101	n/a	3
RUBBER	1000	22
SYBOLM6X11	6	12
SYBOLM6X22		24
SYNUTM6	0	48

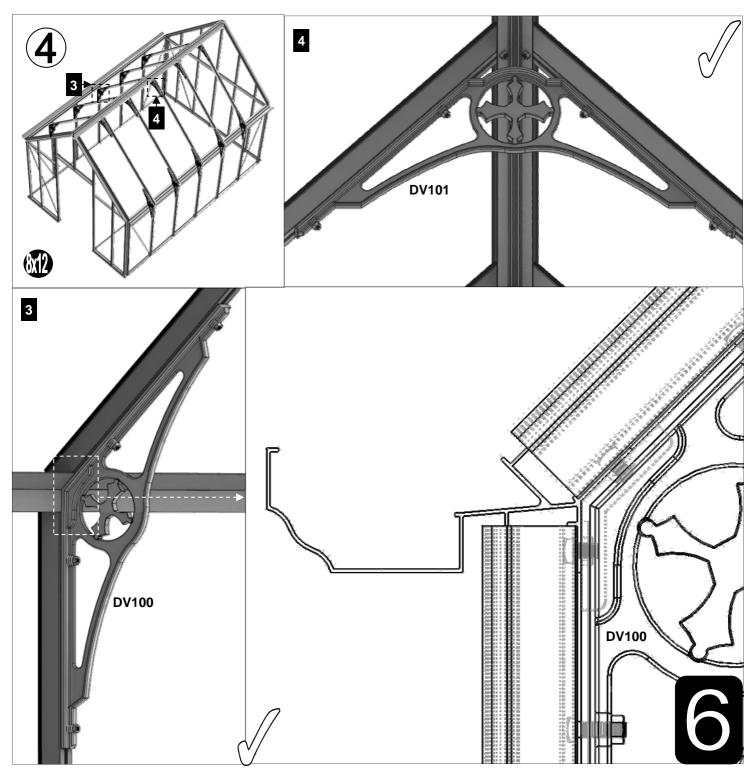
	10'	
Part No	mm	Quantity
DV202	3137	1
DV254	1790	8
DV100	n/a	8
DV101	n/a	4
RUBBER	1000	30
SYBOLM6X11		16
SYBOLM6X22		32
SYNUTM6		64

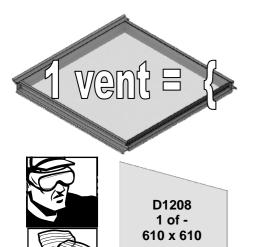
	12'	
Part No	mm	Quantity
DV203	3757	1
DV254	1790	10
DV100	n/a	10
DV101	n/a	5
RUBBER	1000	36
SYBOLM6X11	6	20
SYBOLM6X22		40
SYNUTM6	6	80







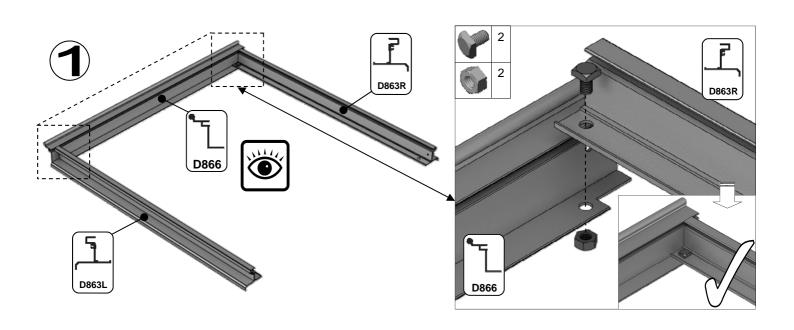


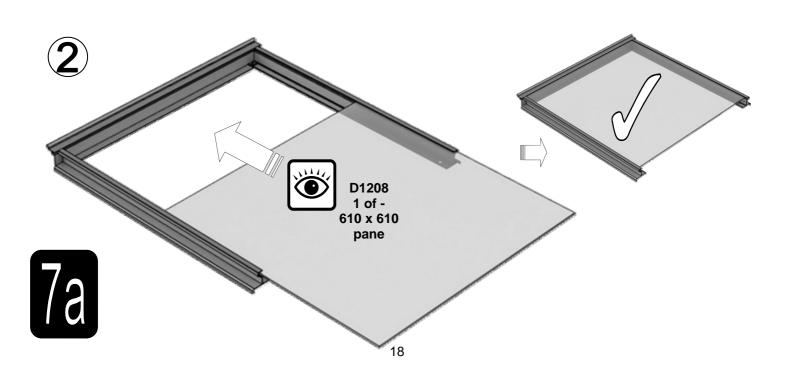


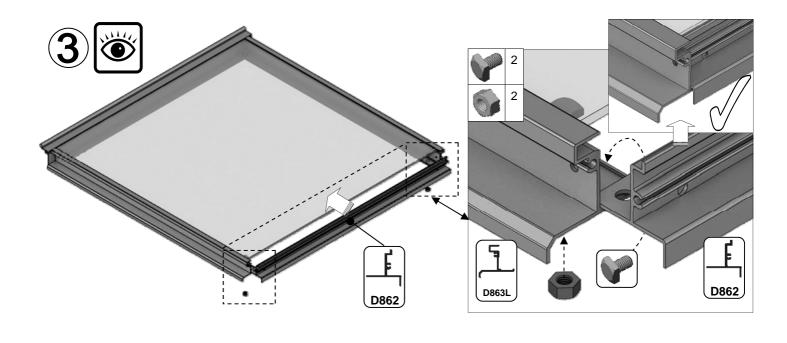
pane

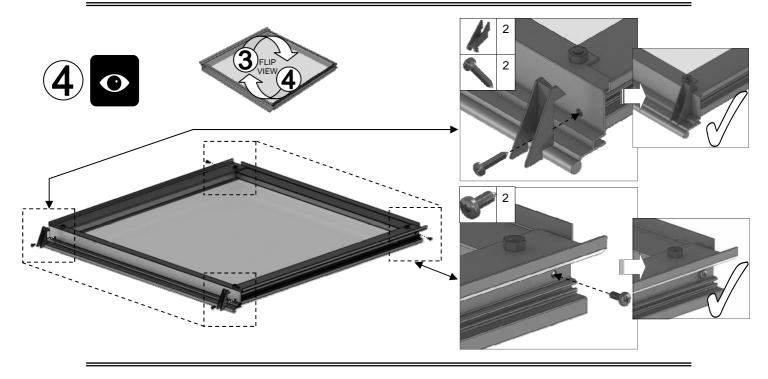
Part No		mm	Quantity
D866	<b>~</b> _	639	1
D863L	<u>_</u>	613	1
D863R	工	613	1
D862	<u></u>	593	1

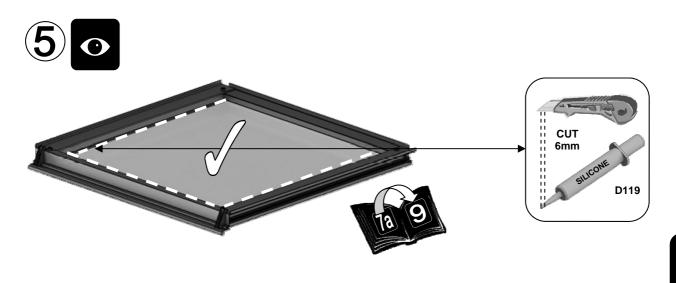
Part No		mm	Quantity
D220 PLUS SCREW		N/A	2
D205	-	N/A	2
SY- BOLM6X11		10	4
SYNUTM6		M6	4
8 X 12 S/T FS6017	6	10	2
8 x 19 S/T FS6018	1	19	2







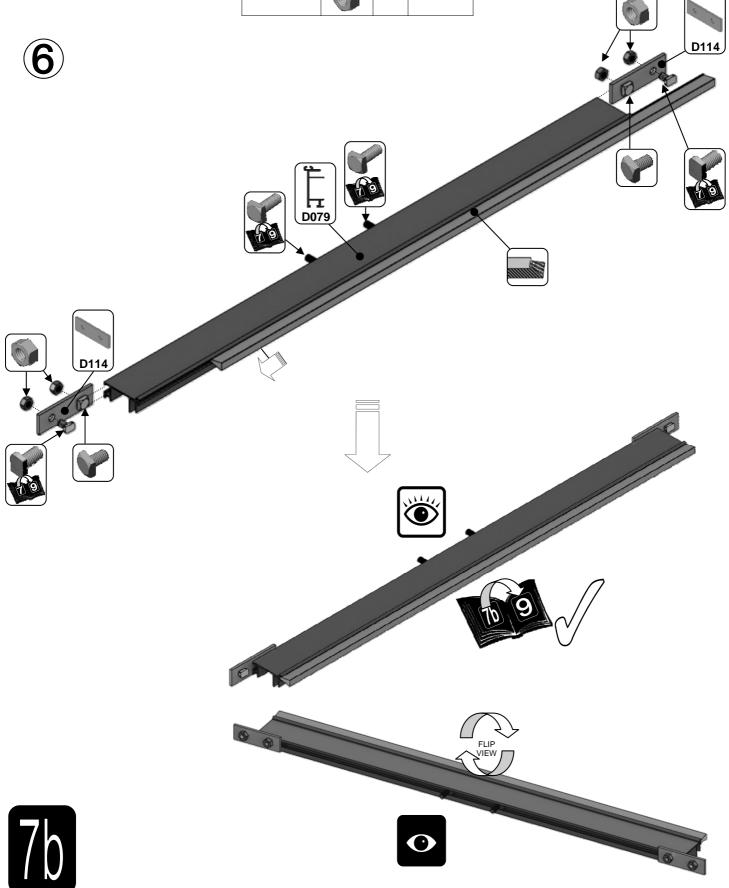


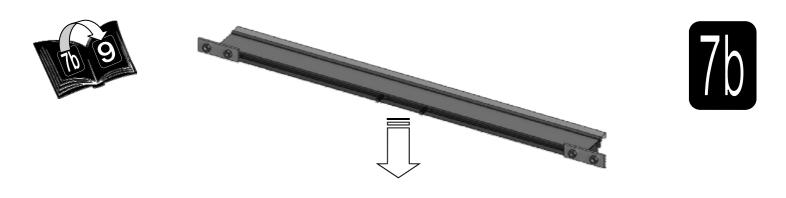


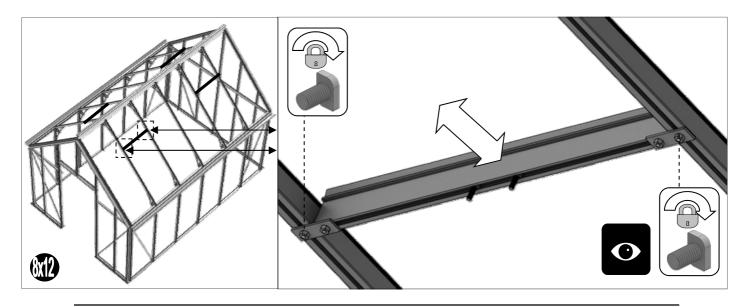


Part No		mm	Quantity
SY- BOLM6X11		10	2
SY- BOLM6X15	P	15	2
SYBOLM6 X11CROP		10	2
SYNUTM6		N/A	4

Part No		mm	Quantity
D079 PLUS FLUFF	ПŢ	590	1
D114	6	N/A	2







# GLAZING (plans pto):

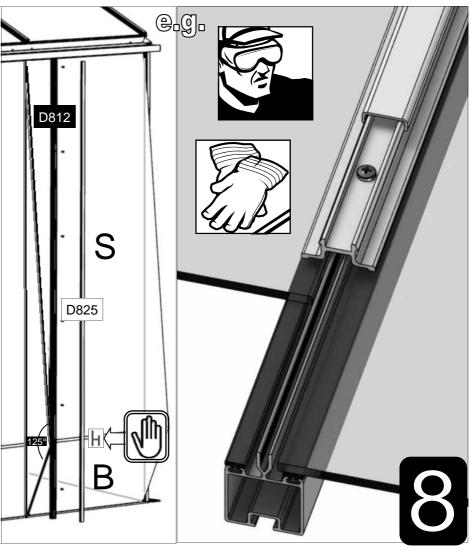
Glass and aluminium can potentially cause injury. Please ensure you wear protective goggles, gloves, headgear and suitable footwear when assembling and glazing the building.

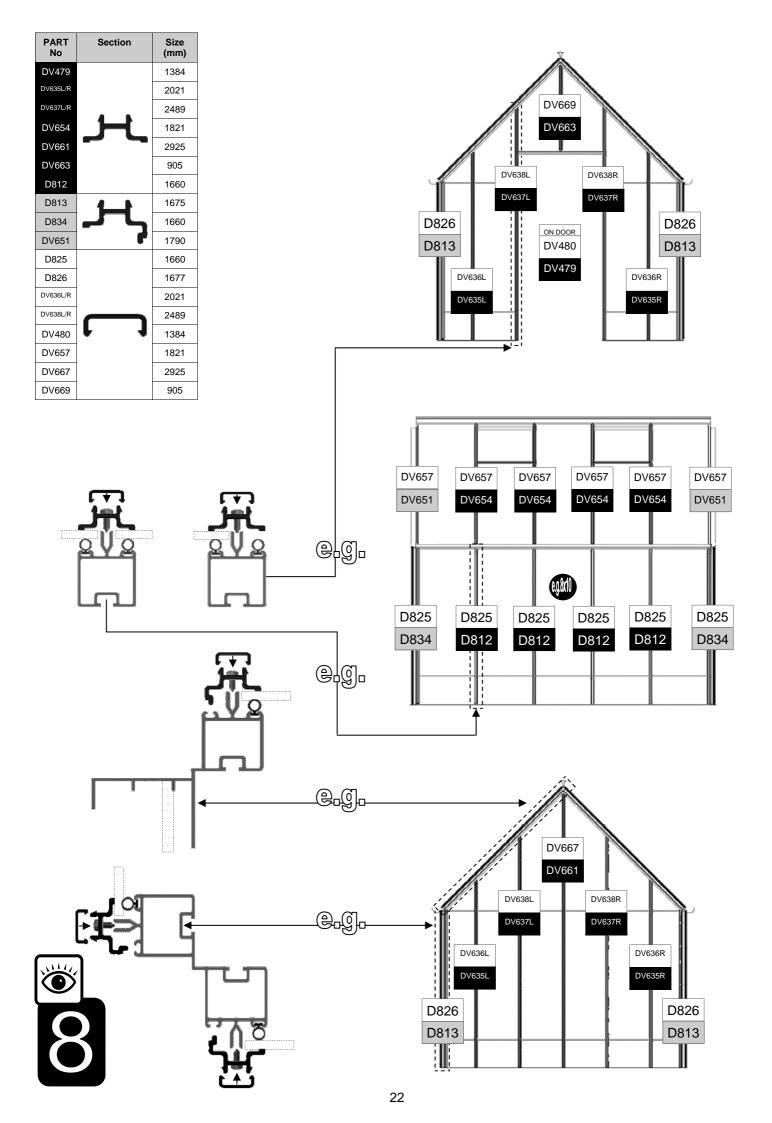
Please remember that glass is fragile and should be handled with extreme care. Always clear up and dispose of any breakages immediately.

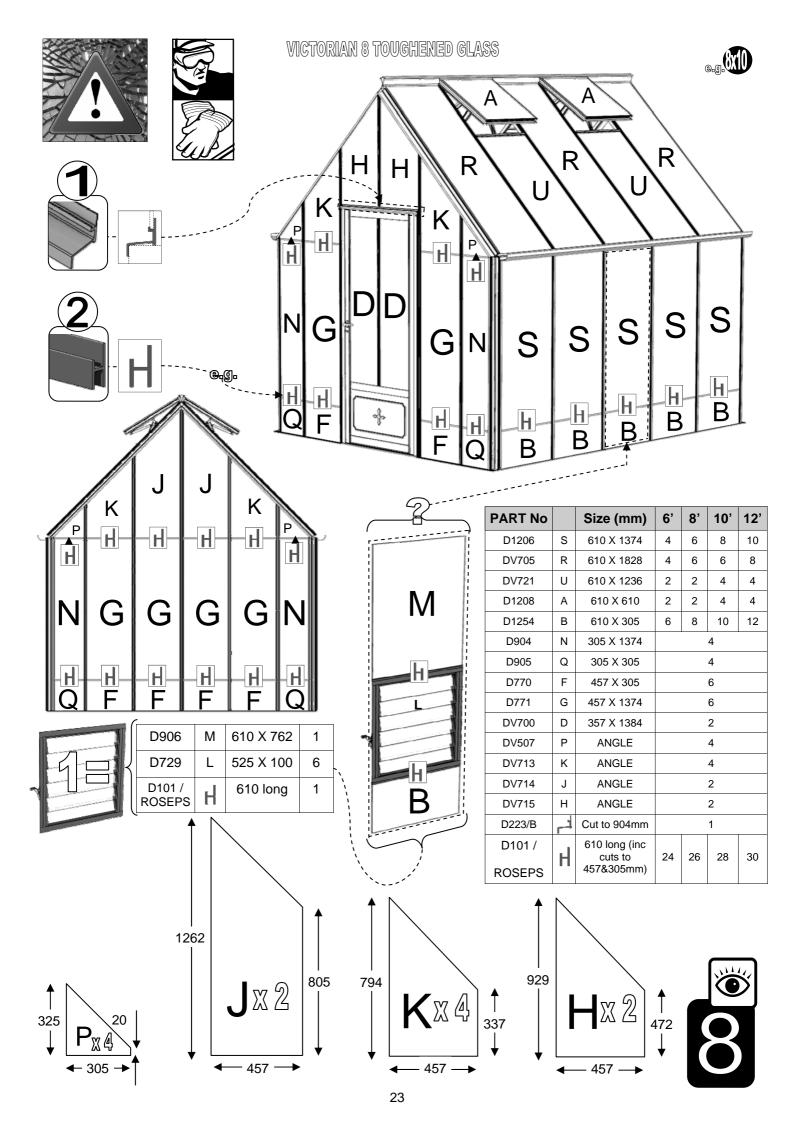
Layout the plastic bar cappings e.g. D812 and covers e.g. D825 around the building like a sundial checking that all is present and correct, see right and pto. You can also place the roof cappings in the gutters so they are closer to hand.

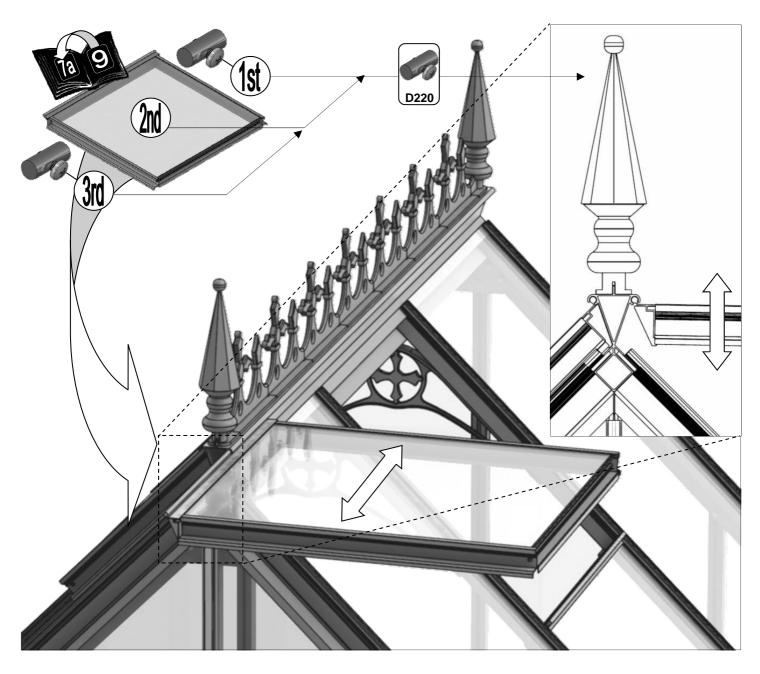
The glass in the sides has to bevel on the black / white separator strip (see right) which is on top of the 305mm high glass base panels. This bevelling action allows the glass to tuck underneath the gutter and roof corner canopy. Use the capping e.g. D812 and the self tapping screws to then hold the glass in place. The covers then enclose the screw heads giving a neat finish e.g. D825.

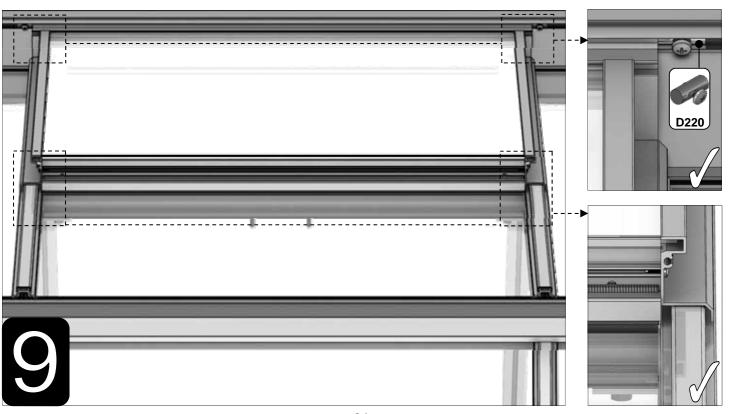
<u>IMPORTANT</u>: On the roof sections please make sure that you place a screw around 25mm / 1" from the bottom of each capping strip (create a hole in the plastic if required) and that the screws are nice and tight to avoid any glass slippage.

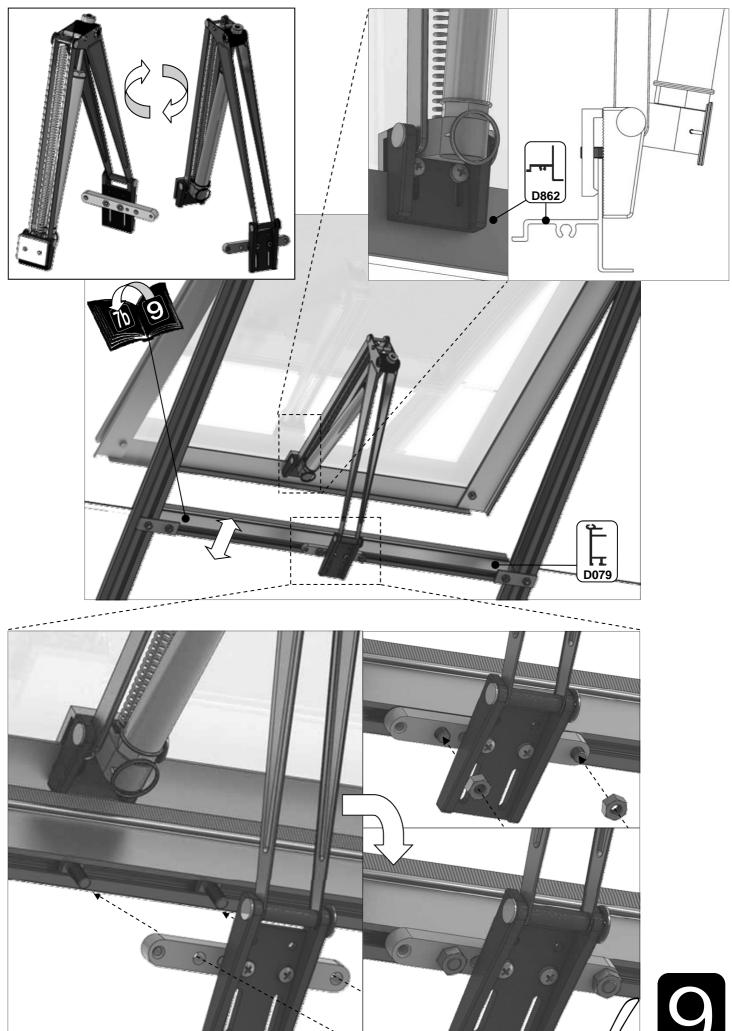


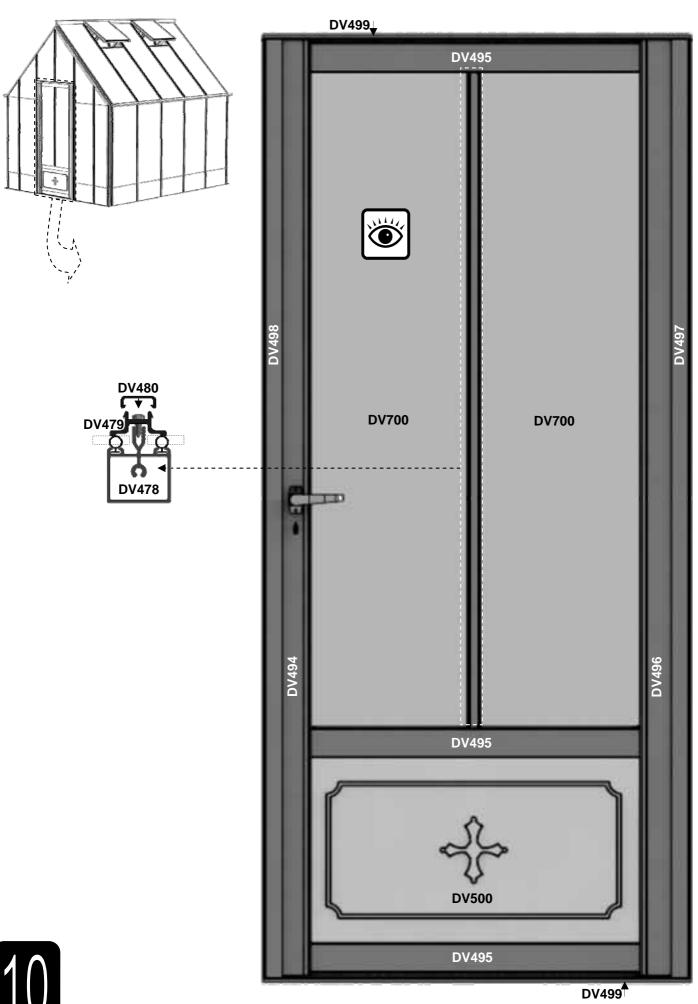


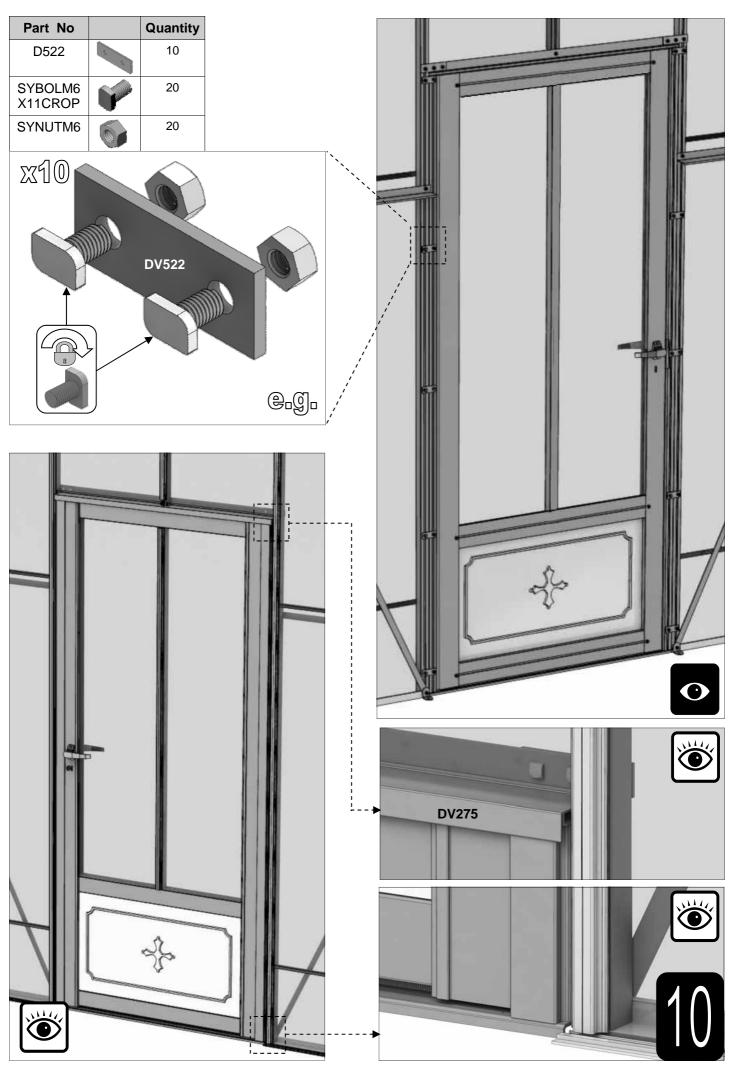




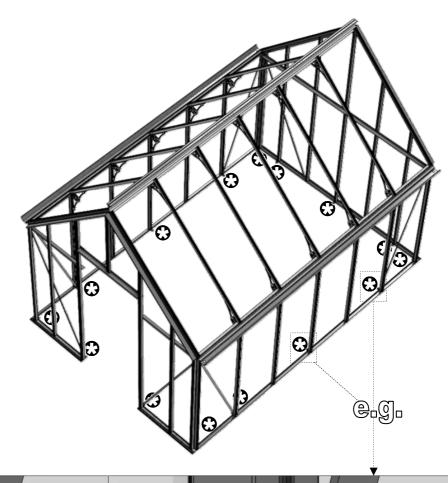


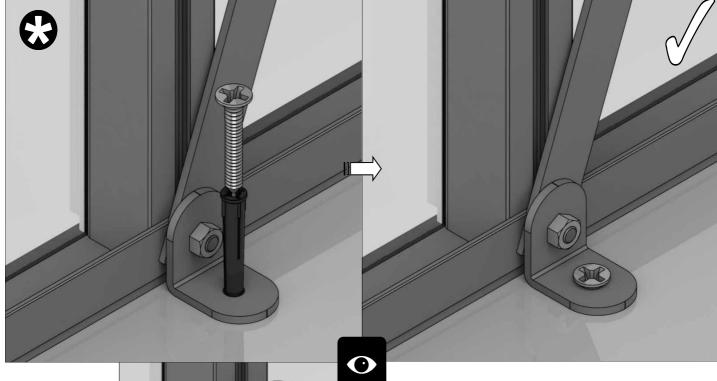


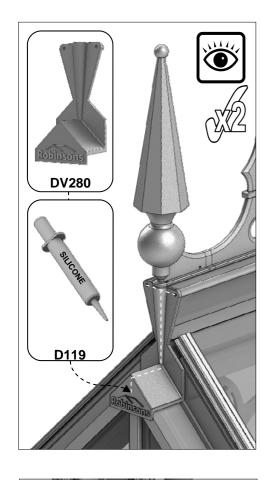


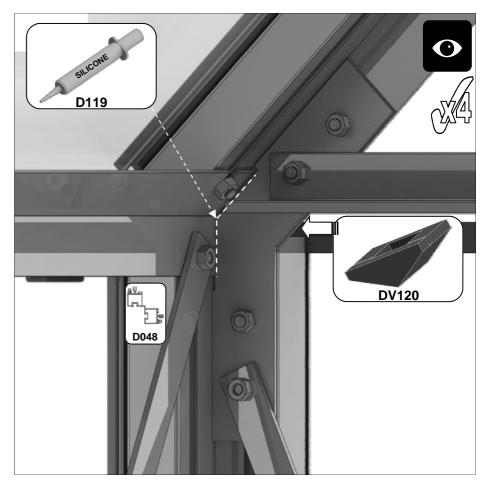


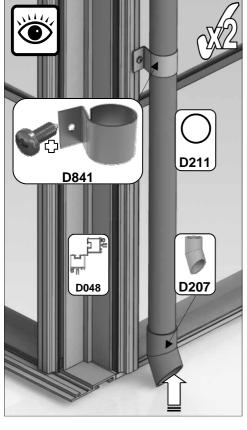




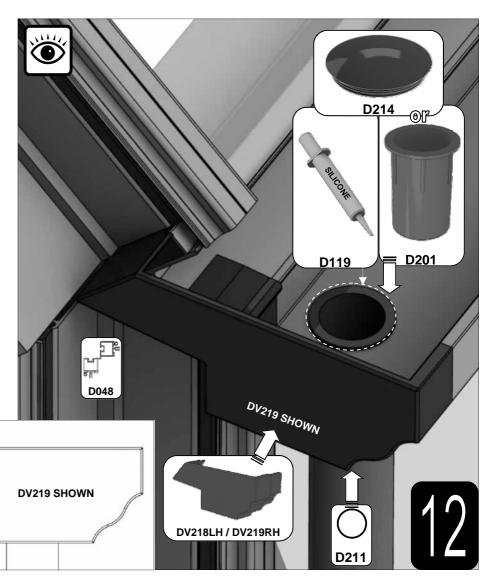


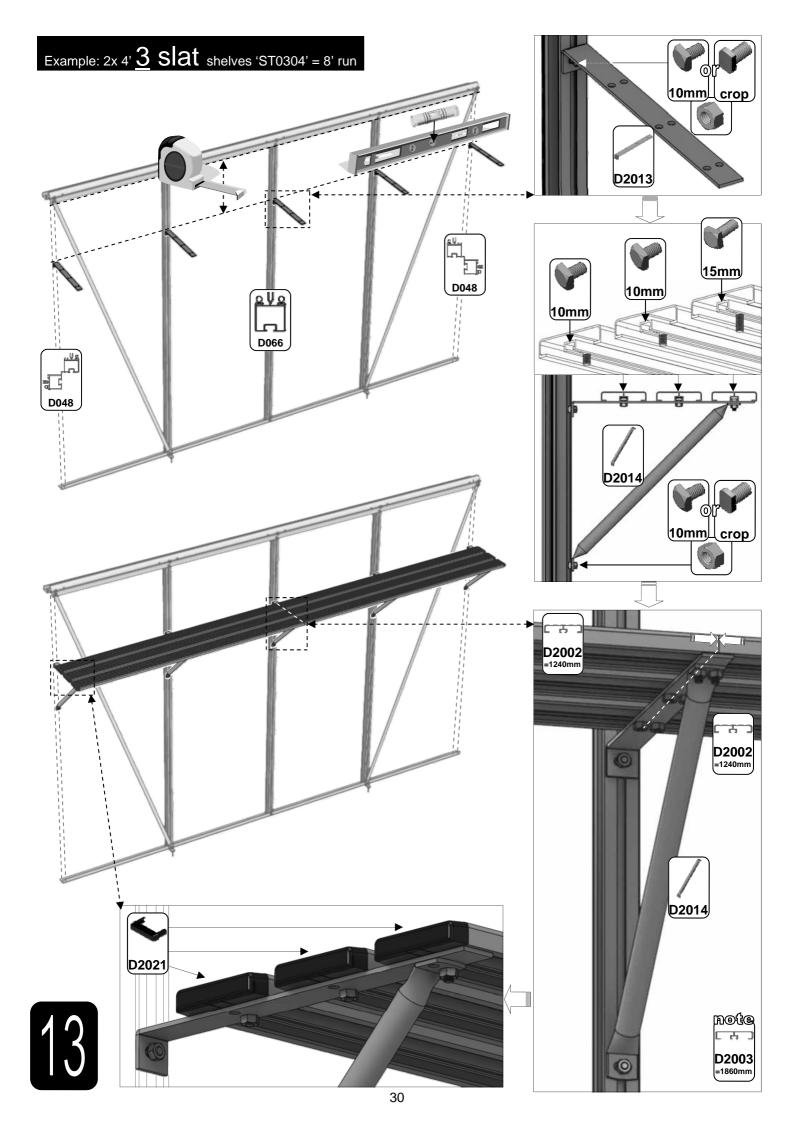


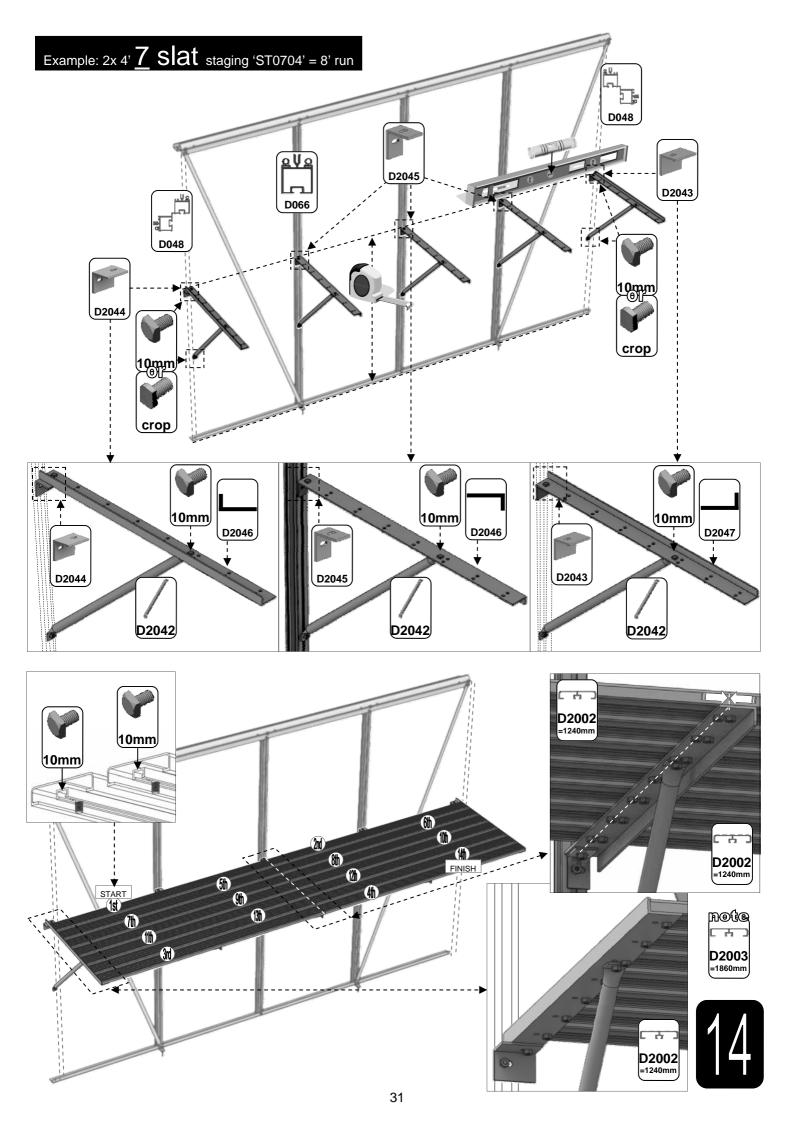




CUT







Please be aware that this is a new multi-national manual. If you spot any errors or have any constructive comments regarding the manual please email james.spooner@greenhousepeople.co.uk and I will make the necessary amendments. In addition any photographs of completed buildings would be most appreciated to add to our portfolio.

THIS GREENHOUSE BOX WAS PACKED BY:	DATE:



www.robinsonsgreenhouses.co.uk

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