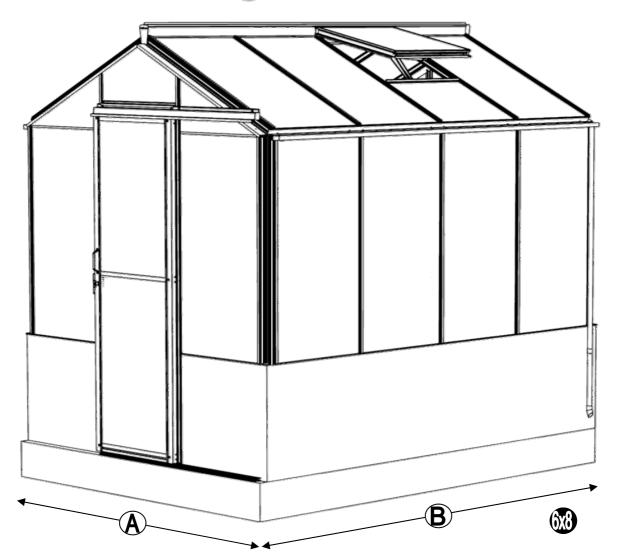


# Regent DWARF Assembly Instructions



NOMINAL SIZE	A (mm)	B (mm)
6 x 6		1990
6 x 8	1960	2610
6 x 10		3230
6 x 12		3850

NOMINAL SIZE	A (mm)	B (mm)
6ft extension		1860
8ft extension		2480
10ft extension	-	3100
12ft extension		3720

GB

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-roof, 6-vent, 7-door, 8-glazing, 9-vent attachment, 10-door attachment, 11 anchoring down, 12 optional louvre, 13 optional shelf, 14 optional staging, 15 finishing touches. 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

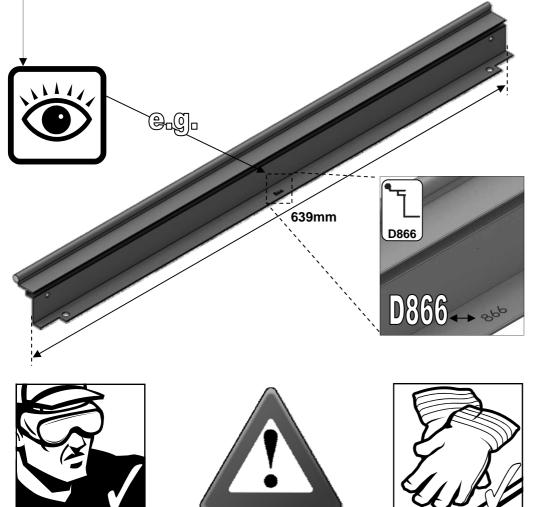
- When selecting a site for your greenhouse, it is vital that you choose as flat and level an area as possible.
- A concrete or slabbed base will provide the most solid foundation for your greenhouse.
- IMPORTANT: Do not fix your building down until the building is fully assembled, including glazing.
- 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.

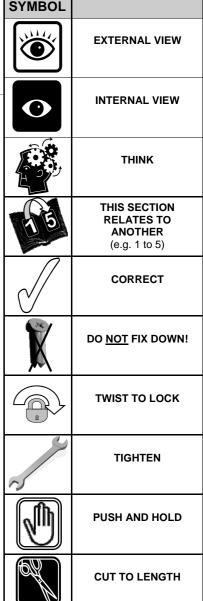
# **Additional Considerations**

- 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 wheels and lower door guides.

## 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

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 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.
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 'D609' with the rubber inserted and the diagonal braces 'D604', use 10mm bolts to join them to the gutter and 15mm bolts to the cills (note how the head of the bolts slide into each glazing bar during construction).
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
3	REAR	4, 5 and 10. 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).
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	ROOF	Attach ridge and then the rubbered-up roof bars ensuring that they are fully butted up to the ridge and down onto the gutter. If you have <u>cresting</u> then it is a good idea to fit it before glazing, see section (15).
6a	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.
6b	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).
7	DOOR	Construct the door using the diagrams and then leave to one side ready for attachment in section (10).
8	GLAZING	Layout the bar capping and covers around the building like a sundial checking that all is present and correct. You can also place the roof capping in the gutters so they are closer to hand. The glass in the ends has to bevel on the black separator strip which this bevelling action allows the glass to tuck underneath the roof corner 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. A top tip is to not attach the door post capping (D814/D836) until you have fitted the door runner and threshold (10) to give you more room to manoeuvre. 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.
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). Attachment of the Bayliss XL autovents.
10	DOOR ATTACHMENT	Use the bolts inserted in section (2) to attach the upper door track. The lower door runner 'D860' and ramp threshold 'D087' push down and lock 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	OPTIONAL LOUVRE	They attach to the building during the glazing process (8) like a piece of glass with a black separator above and below them.
13 14	OPTIONAL SHELVING	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 'D609' 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 alumin-
<del>     </del>	OPTIONAL STAGING	ium shelf / staging slats come in two lengths; (4'):1240mm 'D2002' and (6'):1860mm 'D2003'. These slats can combine to create any length of staging required, i.e. 4'+6' = 10' etc
15	FINISHING TOUCHES	Now that the main body of the structure is complete you can add; ridge caps, downpipe fittings, eave bungs. Images showing cresting and finial attachment, this is often easiest to do after section (5) rather than using the vent apertures later on (i.e. before glazing).

Section <b>Ref</b>	Part No.	Section	Size (mm)	6 6	6 8	6 10	6 12
	D043		1894	2			
	D021	1	2514		2		
	D022		3134			2	
	D023		3754				2
	D042		1897	2			
	D014	7_	2517		2		
	D015		3137			2	
	D016		3757				2
	D604		1316		4	4	
	D609		1160	4	6	8	10
	RUBBER	Q	1000 (1m)	10	14	19	24
	D174		N/A	4	4	8	8

	Section Ref	Part No.	Section	Size (mm)	6 6	6 8	6 10	6 12
] ] [								
) )	2	RUBBER	Э	1000 (1m)		2	8	
)	<b>公</b> 6	D174	20	N/A	8			
)	3	D628	لعب	650		,	1	
) } _					1			
		D044	4	1897	1			
$\emptyset$		D001		2517		1		
)		D002	<b>*</b>	3137			1	
1		D003	人	3757				1
)	5	D063	r <del>Y</del> 4	1052	4	6	8	10

1000 (1m)

9

13 17

22

RUBBER

		T		T
	D605R(RH)	ı	689	1
	D606L(LH)		689	1
	D036A	لص	1976	1
2	D601		1460	2
2 中 3	D607		2060	2
J	D608	<b>₹</b>	1160	4
	D604		1316	4
	D111		N/A	2
	D850L	لگر	1052	2
	D850R		1052	2

	D866	•	639	1	2	3	4
	D863L		613	1	2	3	4
	D863R		613	1	2	3	4
6	D862		593	1	2	3	4
	D079 PLUS FLUFF	H TÊ	590	1	2	3	4
	D114	00	N/A	2	4	6	8
	D220 PLUS FS6060 SCREW		N/A	2	4	6	8
	D205	-	N/A	2	4	6	8

Section <b>Ref</b>	Part No.	Section	Size (mm)	6 6	6 8	6 10	6 12
	D090 + D347 lock = D301	<u></u>	1824		,	1	
	D094	<u></u>	1824		,	1	
	D096 + D217 wheel = D307	#	611			1	
	D095		611			1	
7	D097		611			1	
	D232	_	905			2	
	D233	<u> </u>	797		- :	2	
	P053		N/A		,	1	
	D225	0	610			1	
	D840B		4000		•	1	
	D263		N/A		-	7	
	pack		N/A		-	7	
	D260 pack	S January	N/A		1	2	
U H H	EPERATE		10mm	30	36	42	48
MAIN ERAME OLIANTITIES	VENTS / DOORS etc SEPERATE		15mm	32	34	36	38
	VENTS /		m6	62	70	78	86

	Section Ref	Part No.	Section	Size (mm)	6 6	6 8	6 10	6 12
	3	D611		1460			2	
	1	D618		1144	4	6	8	10
	2	D689	7	245			2	
	5	D878	-	1062	4	6	8	10
	2/3	D610		1160			4	
	1	D620	H	1144			4	
Q	2	D814	7	1883			2	
	5	D879		1062			4	
	2/3	D614		1162			4	
	3	D615		1462			2	
	1	D619		1144	8	10	12	14
	2	D690	1	245			2	
	5	D809		1063	8	10	12	14
	2	D836		1883			2	
		D864		590			1	
		D860 D087	<u>~</u> √	1240 587			1	
		D084	۲	1270			1	
	10	D083	]	1270			1	
		D627	0	114			1	
		D163	000	90			2	
		D154	1	N/A			1	
		D222/B		590			1	

D112

D845

D842

1

2

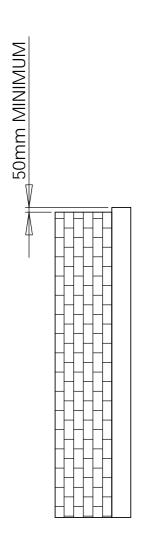
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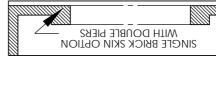
650

N/A

N/A

# GREENHOUSES END ONE H DOORS A HIS PLAN APPI





.X. DIWENSION DIMENSION X. DONBFE = 1780mm SINCFE = 990mm RETURN BBICKMOBK DOORWAY OPENING **BBICKMOBK DOUBLE BRICK SKIN OPTION** 

OVER ALL WIDTH 'W'

LL LENGTH 'L' = BASIC GREENHOUSE LENGTH 1860mm 3100mm 3720mm 2480mm LENGTH 10ft EXT LONG 12ft EXT LONG 8ft EXT LONG IF REQUIRED GREENHOUSE 6ft EXT LONG **EXTENSION** + EXTENSION 1990mm 3230mm 3850mm 2610mm LENGTH S N <u>U</u> <u>U</u>

GUIDANCE NOTE FOR ROBINSONS DWARF WALL GREENHOUSES. FOOTINGS
CONCRETE STRIP FOOTINGS SHOULD BE A MINIMUM OF 400mm WIDE X 200mm DEEP. IF THE SITE IS ON MADE UP GROUND IT IS IMPORTANT THAT THE FOOTINGS ARE CUT INTO THE COMPACTED GROUND BELOW.

WHERE THE GROUND IS LIABLE TO MOVEMENT SUCH AS HEAVY CLAY OR LOOSE SANDY SOIL REINFORCING SHOULD BE ADDED TO THE CONCRETE FOOTINGS.

IT IS MOST IMPORTANT THAT THE BRICKWORK IS IN ACCORDANCE WITH THE DIMENSIONS PROVIDED AND IS SQUARE, LEVEL AND UPRIGHT, THE DIAGONAL MEASUREMENTS SHOULD BE EQUAL.

WALLS CAN BE EITHER DOUBLE OR SINGLE SKIN

THE TOP COURSE OF BRICKS SHOULD BE LAID FROG DOWN. IF ENGINEERING BRICKS ARE USED FOR THE TOP COURSE PLEASE ENSURE THEY ARE SOLID NOT CELLULAR (WITH HOLES THROUGH THEM) OR FIXING DOWN OF THE GREENHOUSE WILL BE A PROBLEM. BRICKS SHOULD BE A GOOD QUALITY STOCK BRICK, SAND FACED FLETTON TYPE BRICKS ARE NOT SUITABLE.

OVER ALL LENGTH 'L

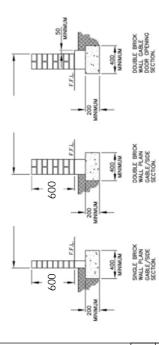
GABLE DOOR OPENING
THE DOOR THRESHOLD REQUIRES BRICK WORK ACROSS THE
OPENING WHICH SHOULD BE LEVEL WITH THE FINISHED FLOOR
LEVEL (F.F.L) OF THE GREENHOUSE.

THE OPENING FOR THE DOORWAY AND THE HEIGHT TO THE TOP OF THE WALL FROM THE THRESHOLD LEVEL REQUIRE THE HIGHEST ACCURACY AND ARE MOST IMPORTANT SO THAT THE DOOR FITS THE APERTURE CORRECTLY. IT IS ADVISABLE TO MAKE A WOODEN TEMPLATE TO CHECK THE DOOR APERTURE DIMS.

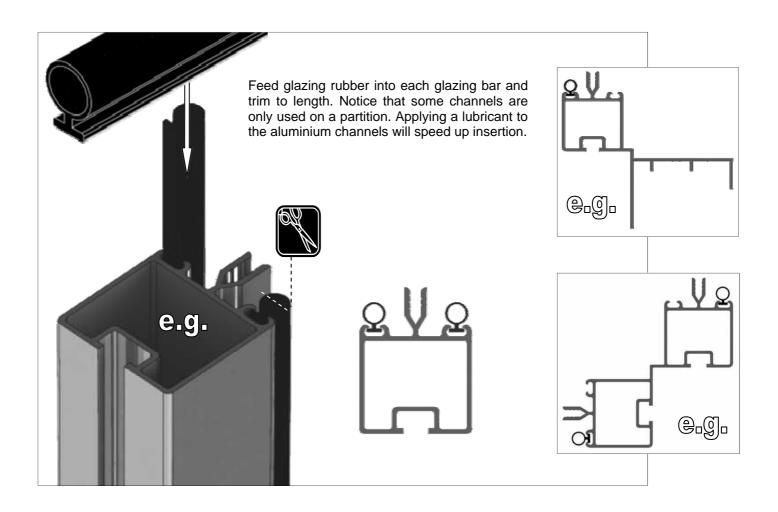
IF SINGLE SKIN WALLS ARE USED THEN PIERS SHOULD BE FORMED AT THE DOOR OPENING.

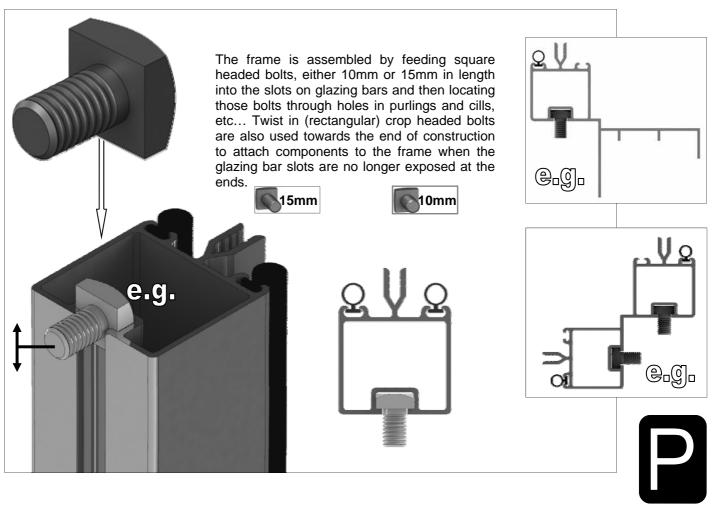
THRESHOLD THERE MUST BE A PROJECTION OF BRICKWORK / CONCRETE INFRONT OF THE DOOR END WALLWITH A MINIMUM WIDTH OF 50mm. THIS NEEDS TO BE LEVEL WITH ORDER TO SUPPORT THE OUTER EDGE OF THE DOOR

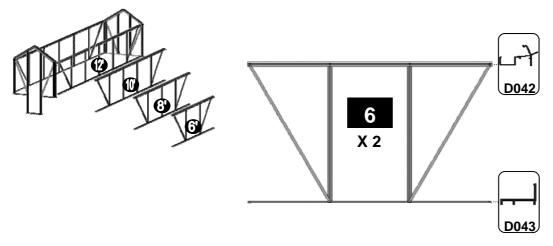
Property of 'Robinsons Greenhouses' @ 2015 THE DOOR THRESHOLD OPENING



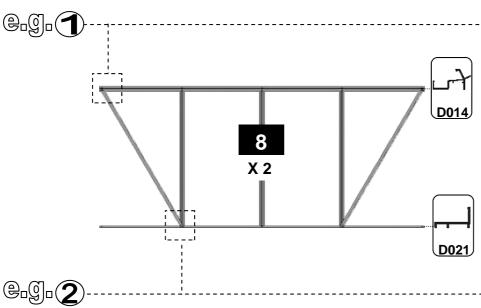
# DWARF WA GREENH TITLE:







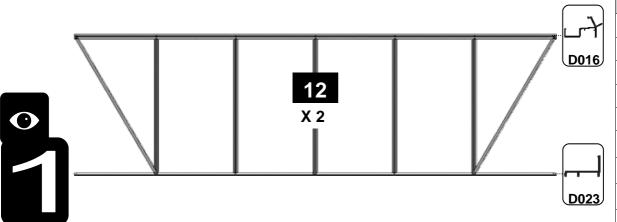
6 X 2 DWARF						
Part No	mm	Quantity				
D042	1897	2				
D043	1894	2				
D609	1160	4				
D604	1316	4				
D174	6	4				
M6- 10mm		4				
M6- 15mm	Common Co	8				
M6- NUT		12				
Rubber	1000	10				



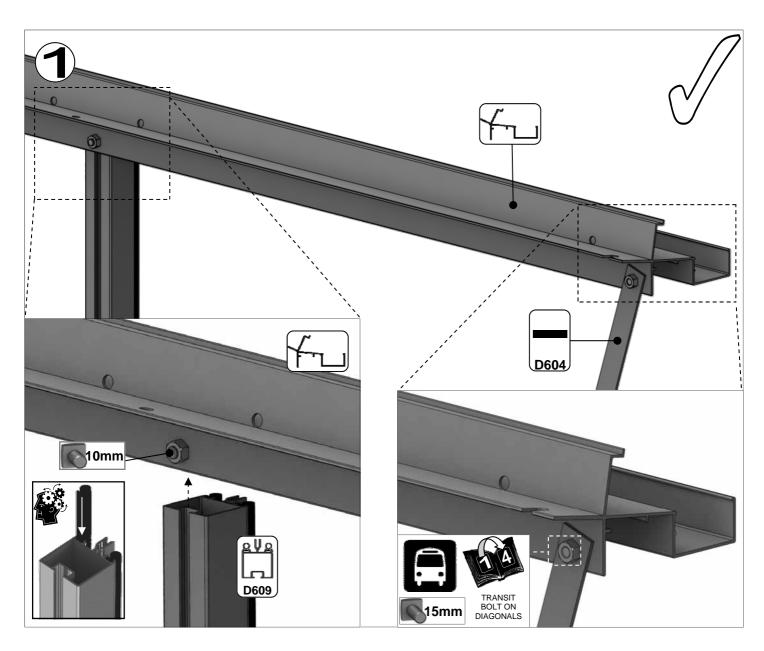
8 X 2 DWARF								
Part No	mm	Quantity						
D014	2517	2						
D021	2514	2						
D609	1160	6						
D604	1316	4						
D174	1	4						
M6- 10mm	Change Contract of the Contrac	6						
M6- 15mm	Carried States	10						
M6- NUT	6	16						
Rubber	1000	14						
		_						

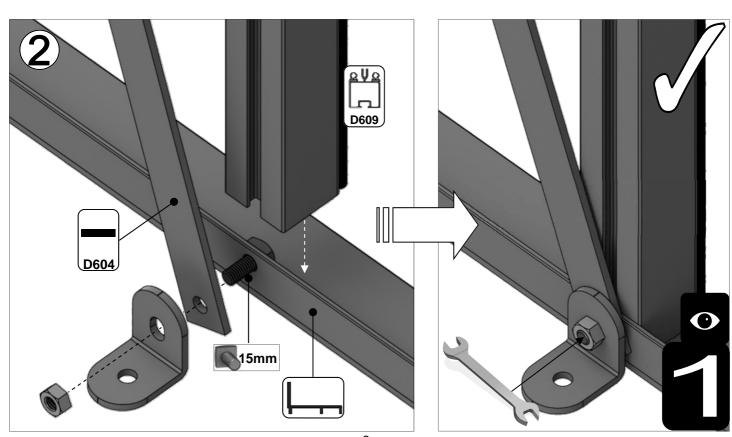
		F-1
\	l	D015
\	10	
\	X 2	
		D022

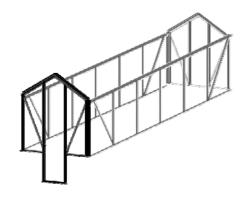
10 X 2 DWARF			
Part No	mm	Quantity	
D015	3137	2	
D022	3134	2	
D609	1160	8	
D604	1316	4	
D174	9	8	
M6- 10mm		8	
M6- 15mm	4	12	
M6- NUT		20	
Rubber	1000	19	



12 X 2 DWARF			
Part No	mm	Quantity	
D016	3757	2	
D023	3754	2	
D609	1160	10	
D604	1316	4	
D174	4	8	
M6- 10mm		10	
M6- 15mm	CP.	14	
M6- NUT		24	
Rubber	1000	24	

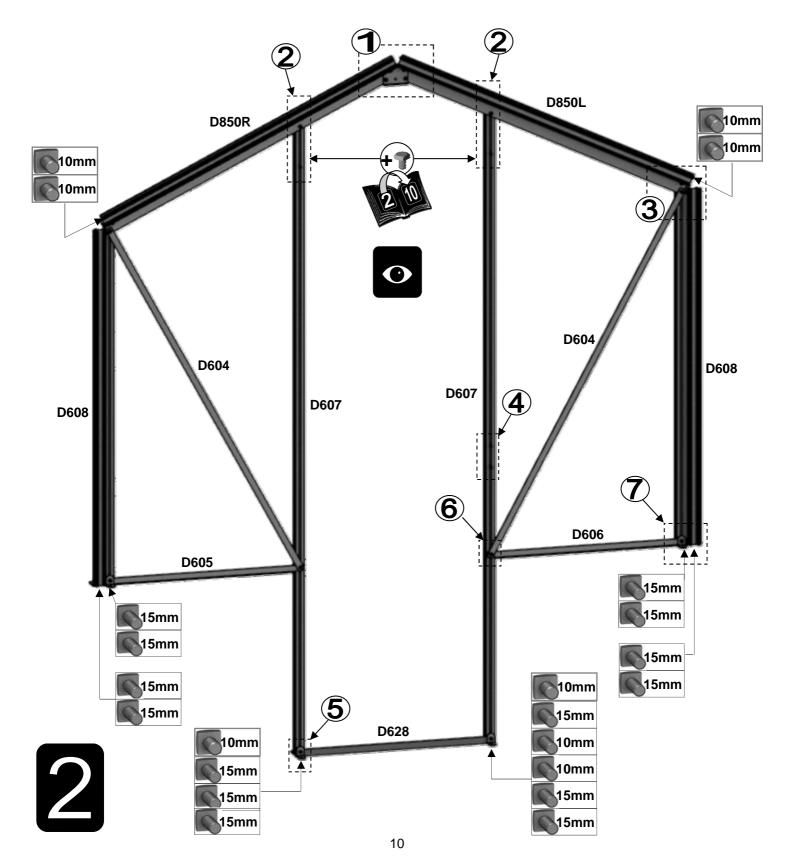


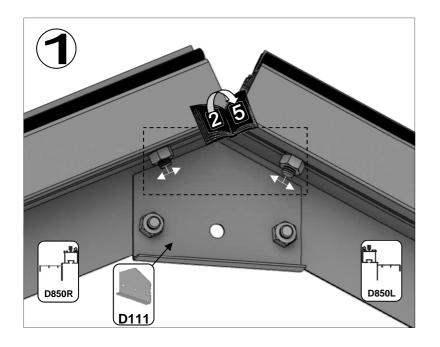


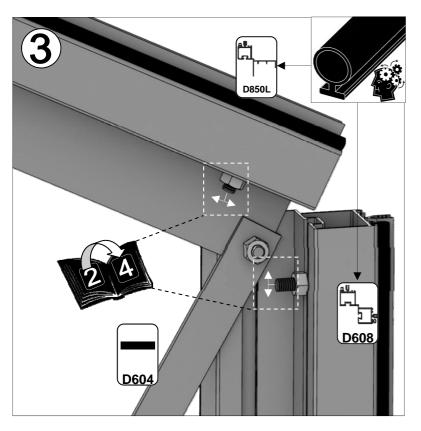


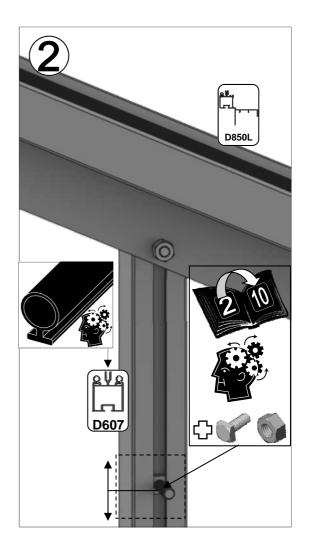
Part No	mm	Quantity
D604	1316	2
D605	689	1
D606	689	1
D607	2060	2
D608	1160	2
D628	650	1
D850L	1052	1
D850R	1052	1

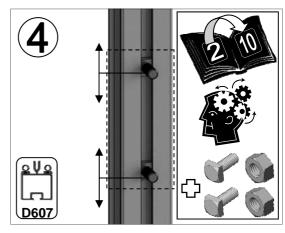
Part No	mm	Quantity
D111		1
D174	3	4
D227	Q	15m
M6X10		10
M6X15	Charles of the second	14
M6NUT		24



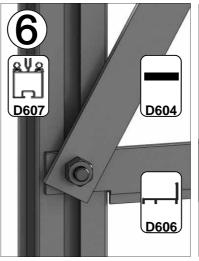


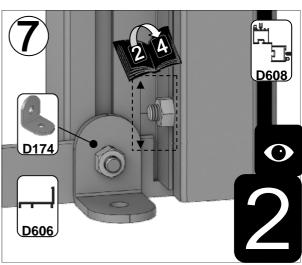


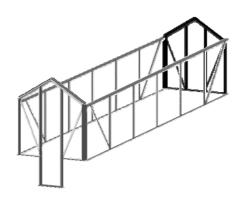






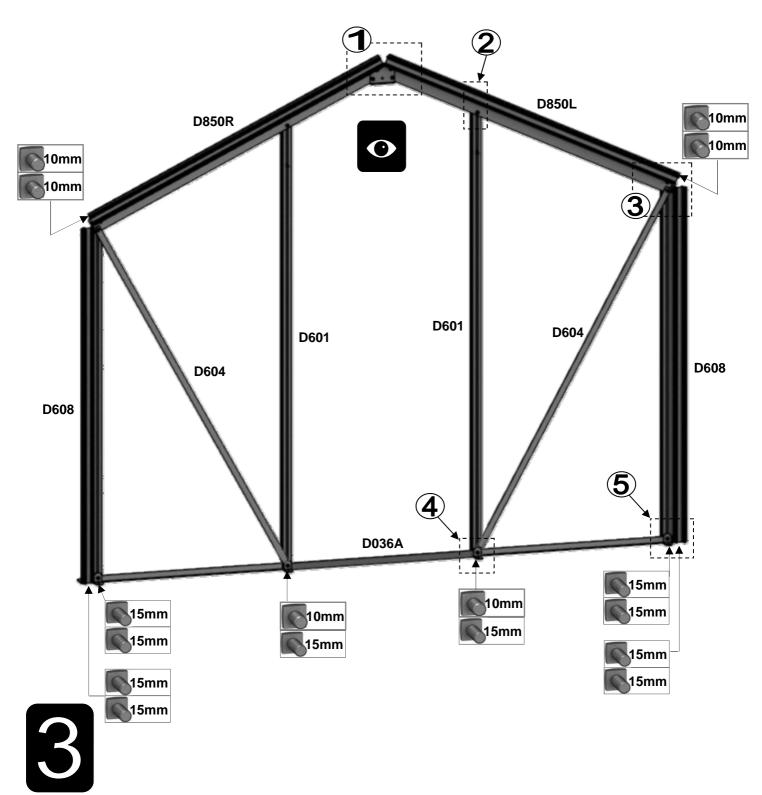


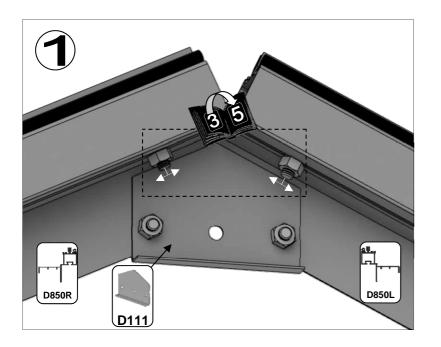




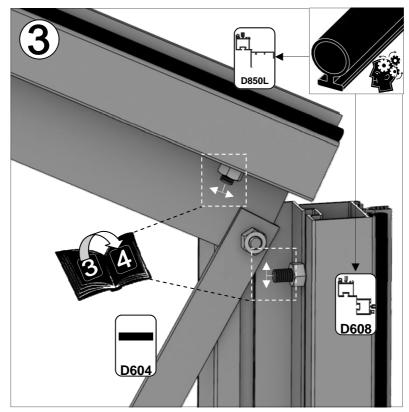
Part No	mm	Quantity
D036A	1976	1
D601	1460	2
D604	1316	2
D608	1160	2
D850L	1052	1
D850R	1052	1

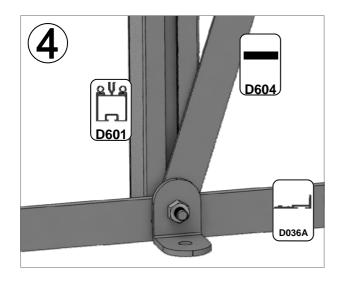
Part No	mm	Quantity
D111		1
D174		4
D227	Ю	13m
M6X10		8
M6X15	Grant Contract Contra	10
M6NUT		18

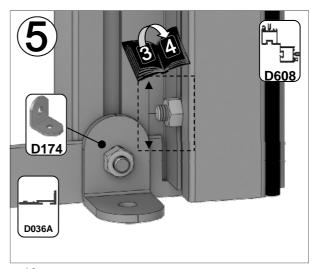




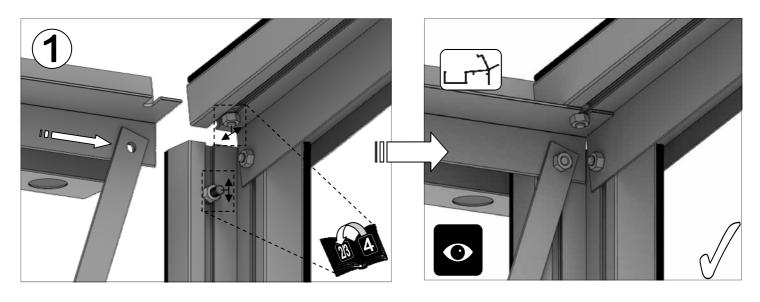


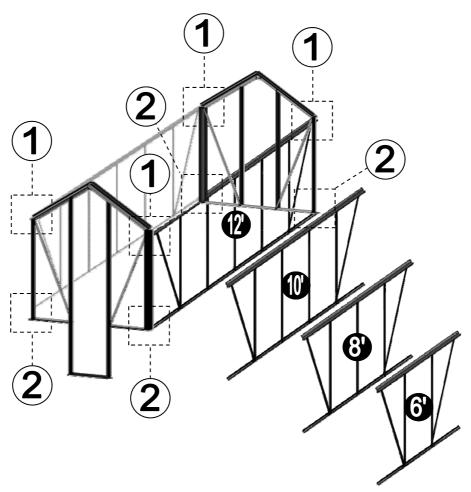


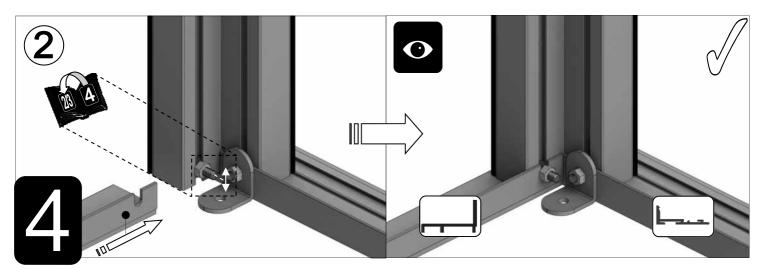










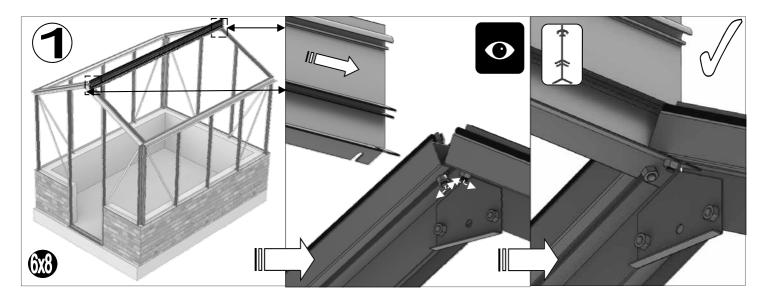


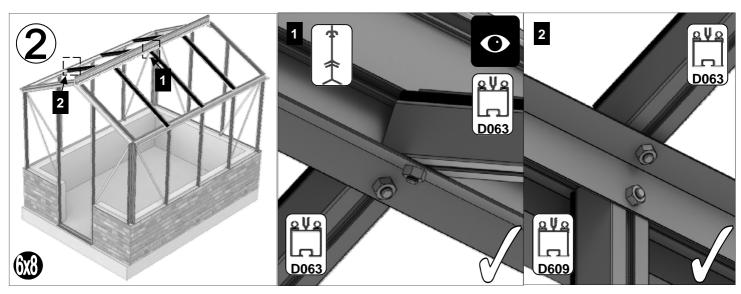
6'			8
Part No	mm	Qι	ıantity
D044	1897		1
D063	1052		4
RUBBER	1000		8.5

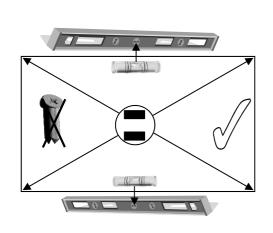
mm	Quantity	
2517	1	
052	6	
000	13	
	2517 1052	

10'		16	
Part No	mm	Quantity	
D002	3137	1	
D063	1052	8	
RUBBER	1000	17	

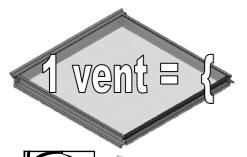
12'			20
Part No	mm	Qı	antity
D003	3757	7	1
D063	1052	2	10
RUBBER	1000	)	22









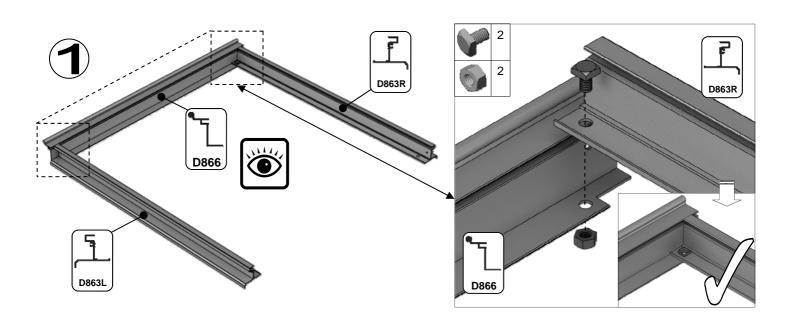


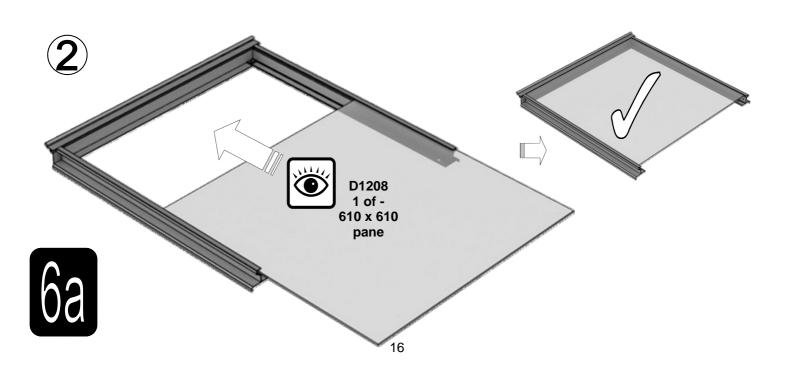


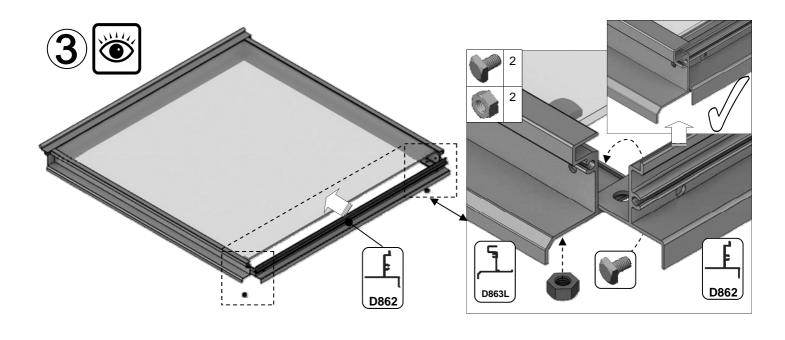
D1208 1 of -610 x 610 pane

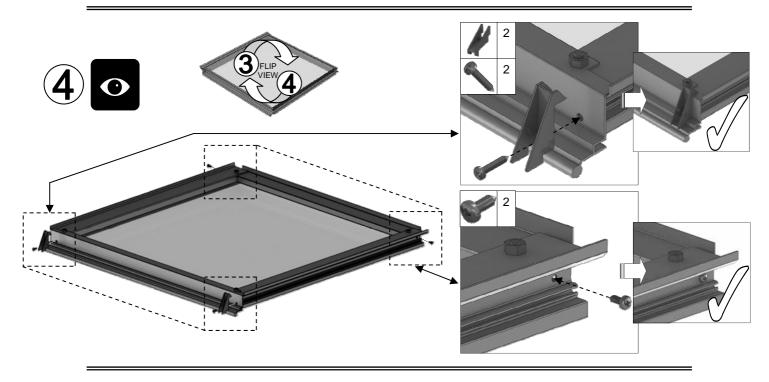
Part No		mm	Quantity
D866	1	639	1
D863L		613	1
D863R	<u> </u>	613	1
D862	<u></u>	593	1

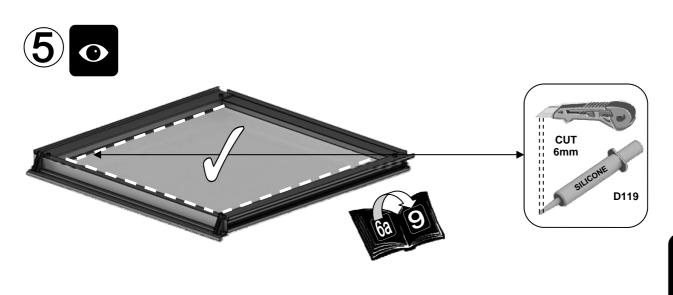
Part No		mm	Quantity
D220 PLUS FS6060 SCREW		N/A	2
D205		N/A	2
SY- BOLM6X11		10	4
SYNUTM6		M6	4
8 X 12 S/T FS6017	6	10	2
8 x 19 S/T FS6018		19	2







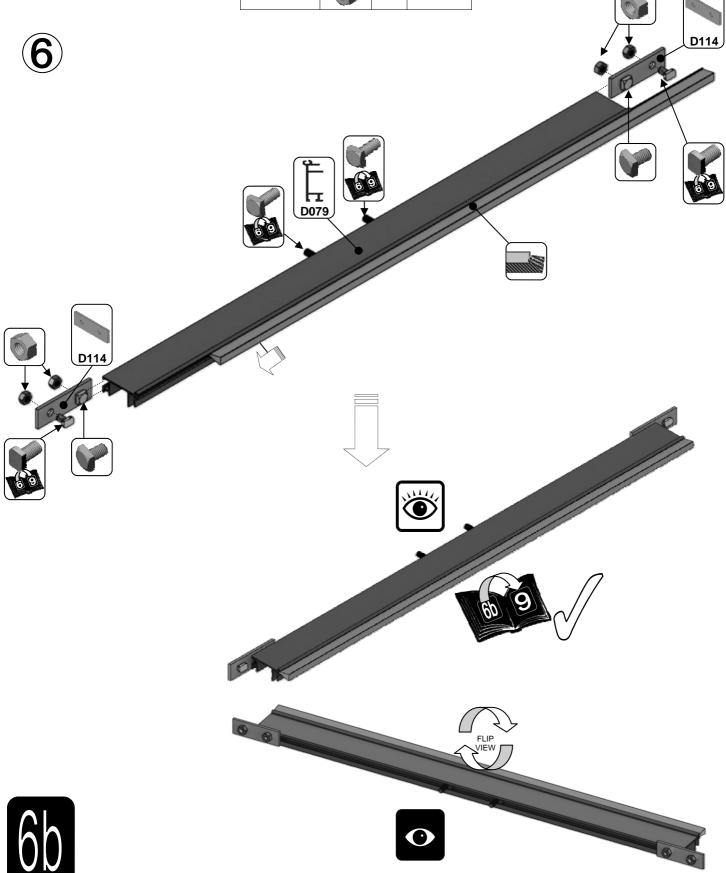


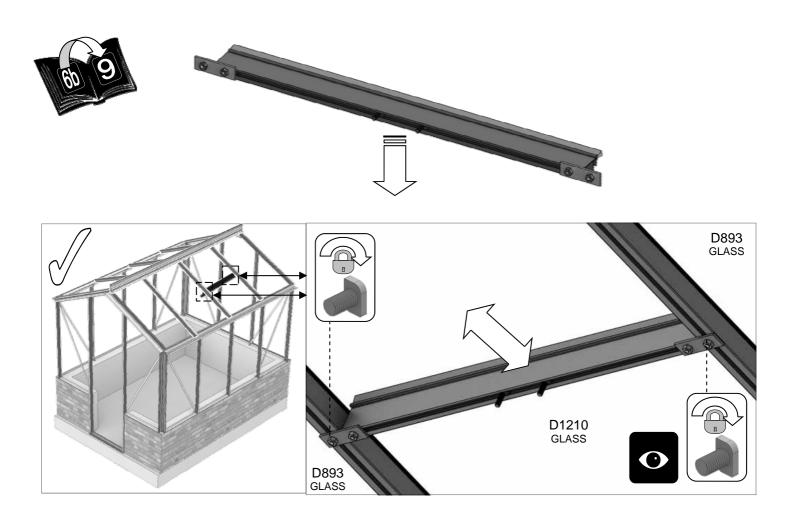




Part No		mm	Quantity
SY- BOLM6X11		10	2
SY- BOLM6X15	GP .	15	2
SYBOLM6 X11CROP		10	2
SYNUTM6		N/A	4

Part No		mm	Quantity
D079 PLUS FLUFF	дTf	590	1
D114	0	N/A	2



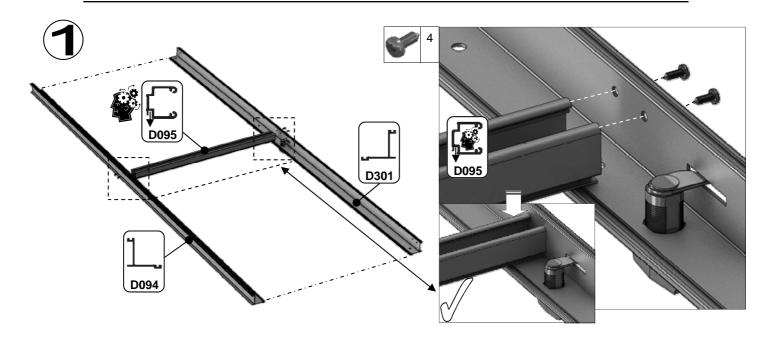


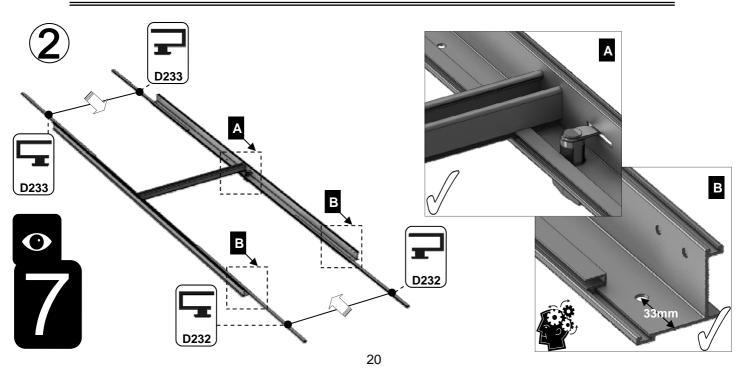


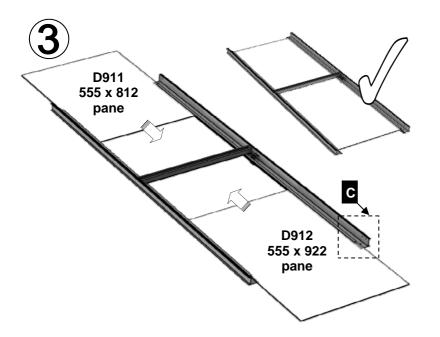


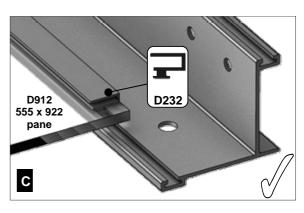
Part No		mm	Q
D090 + D347 lock = D301		1824	1
D094		1824	1
D096 + D217 wheel =	AR.		
D307	<b>, "</b>	611	1
D095	T.	611	1
D097	Ę	611	1
	Ì		

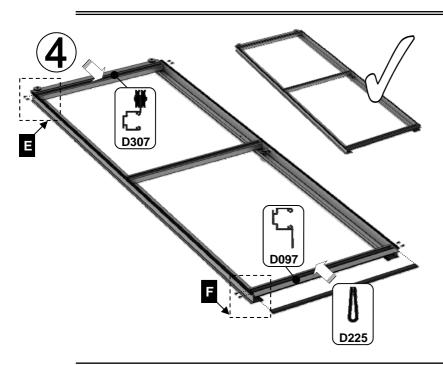
Part No		mm	Q
D232		905	2
D233	T	797	2
P053		N/A	1
D225	0	610	1
D840B		4000	1
D263		N/A	7
PACK		N/A	7
D260 PACK	O Samuel	N/A	12

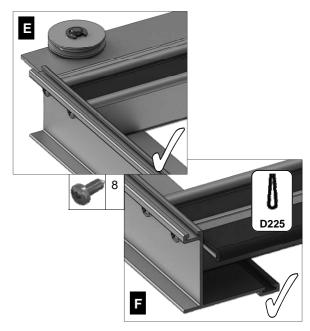


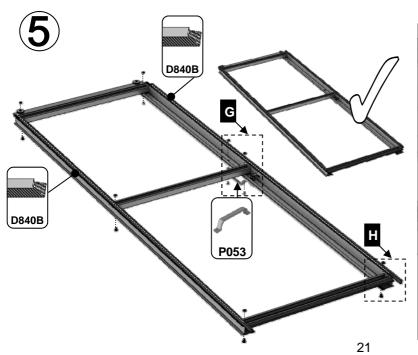






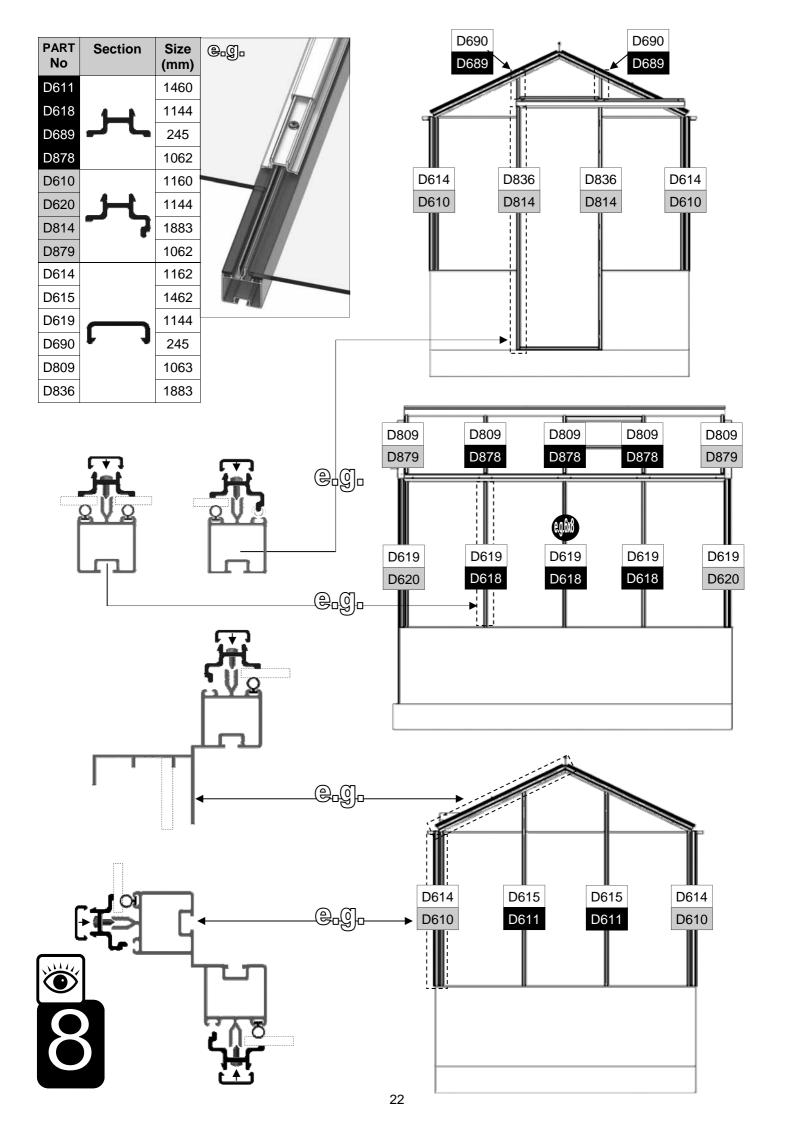


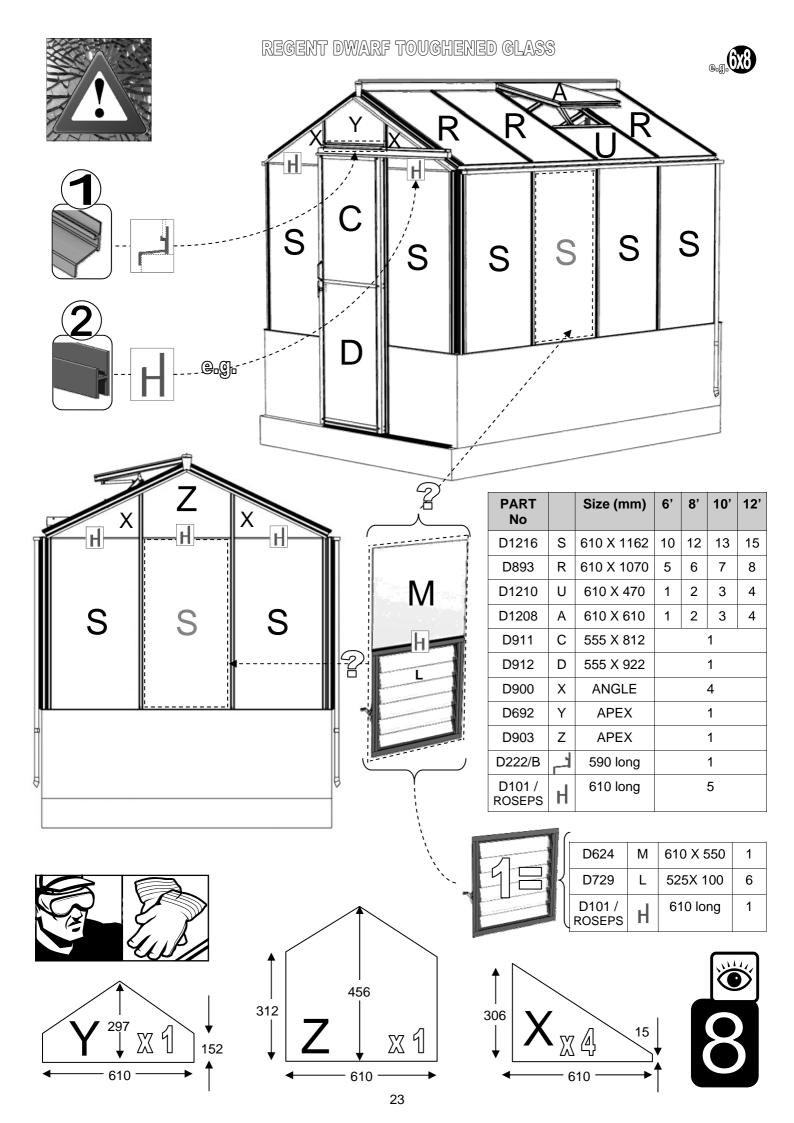


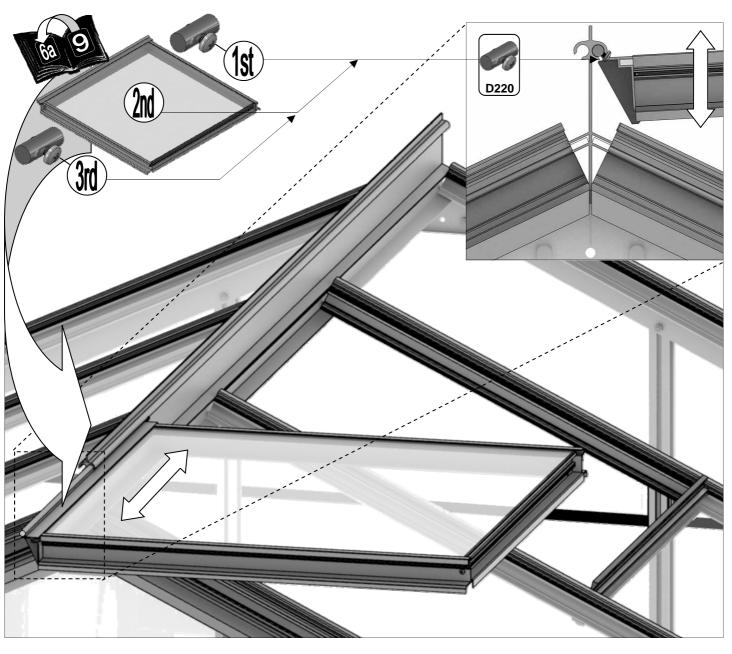


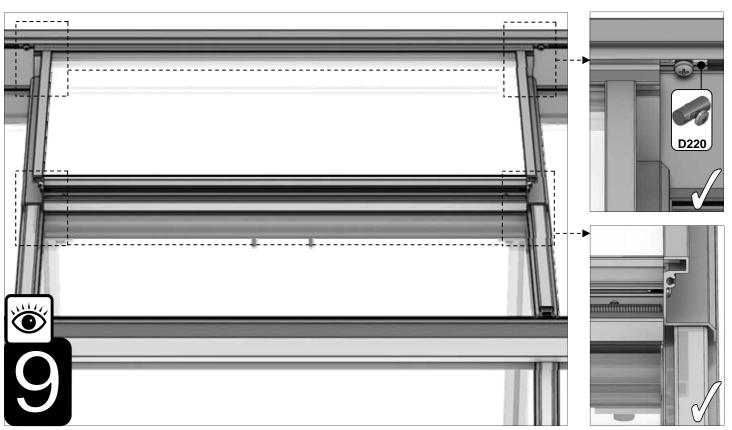


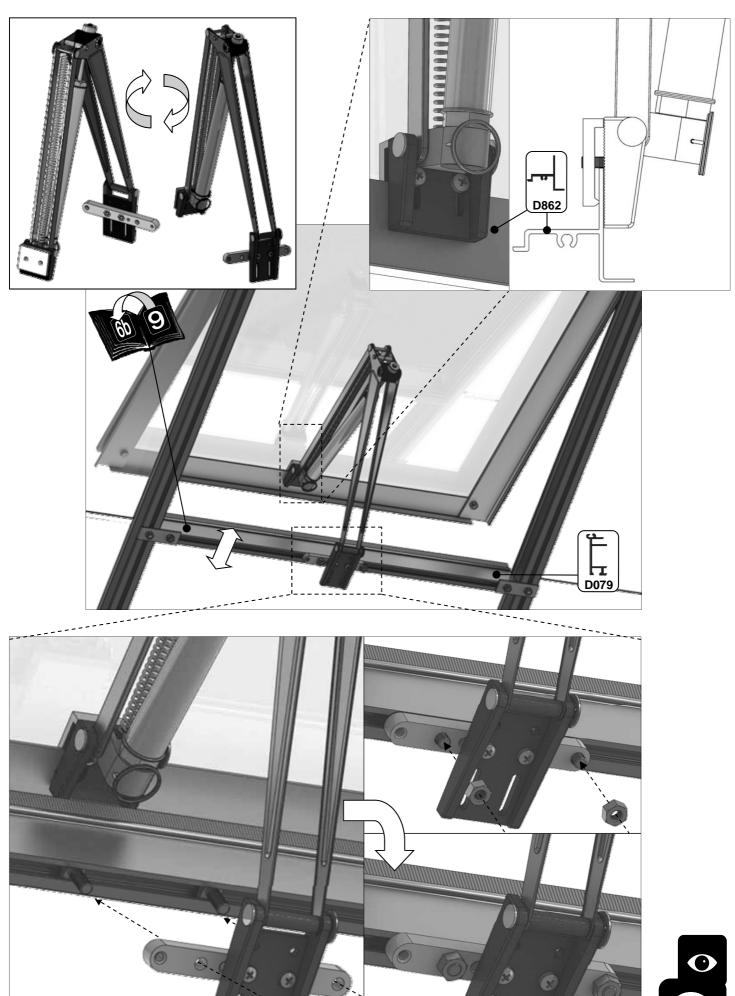








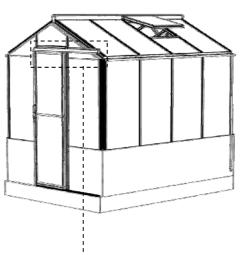


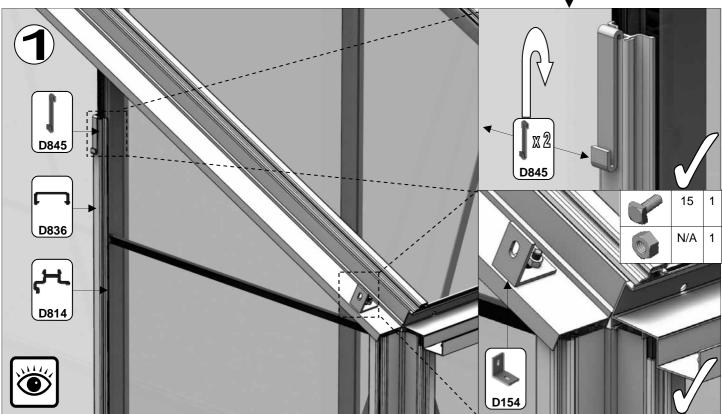


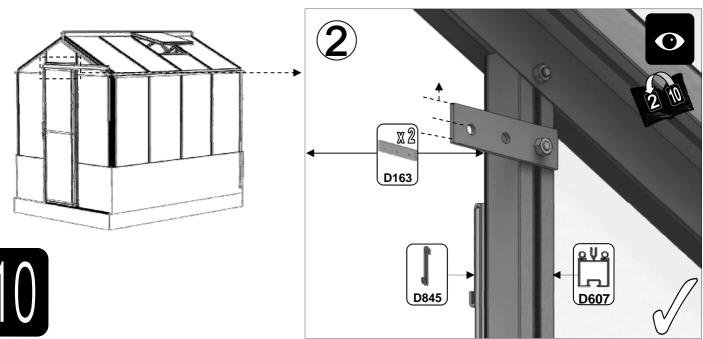


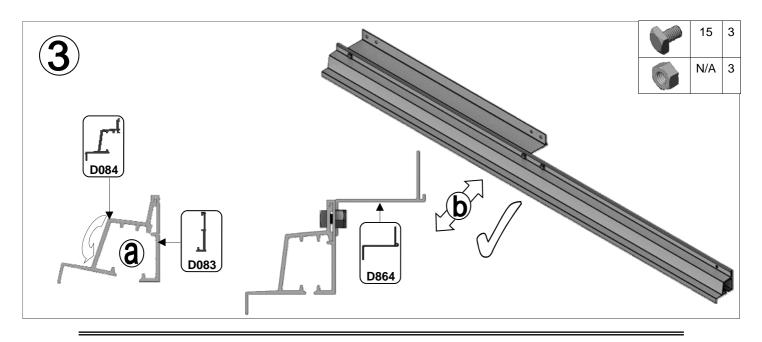
Part No		mm	Q
D864		590	1
D084	۲	1270	1
D083		1270	1

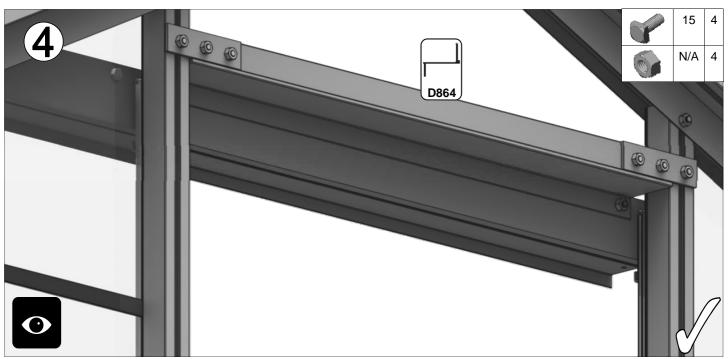
Part No		mm	Q
D627	[0 0]	114	1
D163		90	2
D154	-		1
D845	<del></del>		2
SY- BOLM6X15			10
SYNUTM6			10

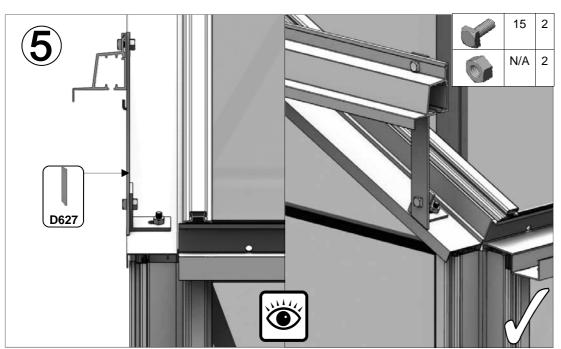


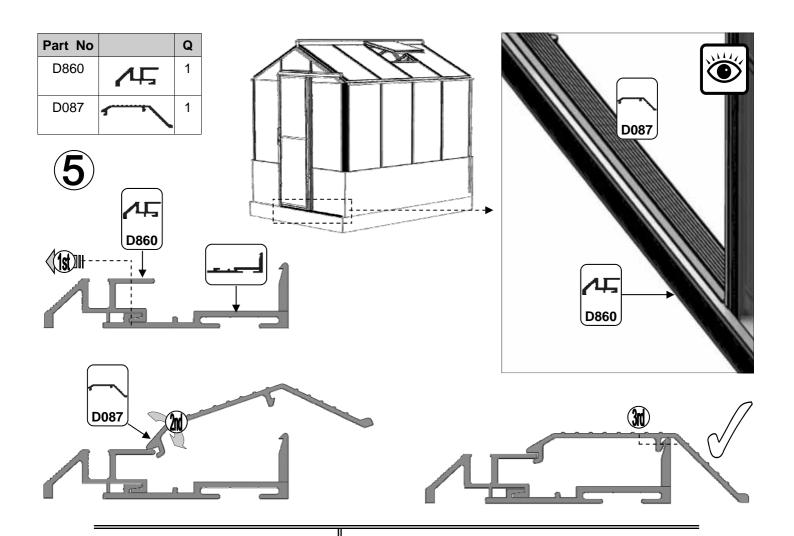


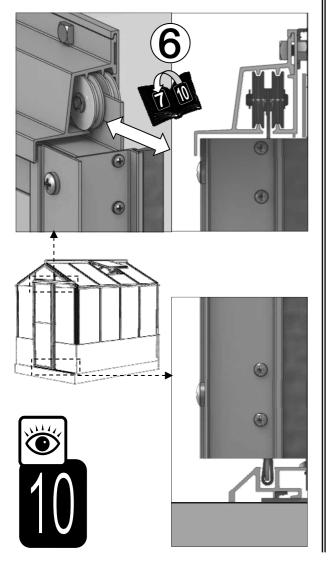


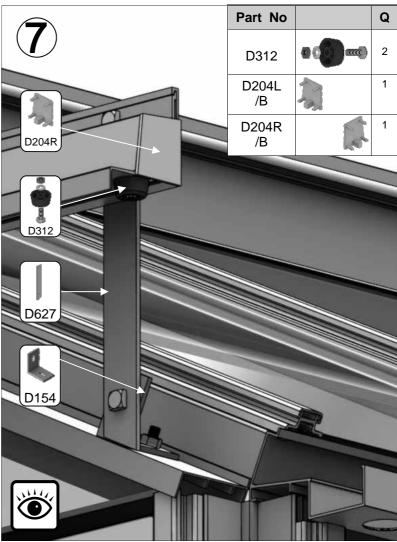


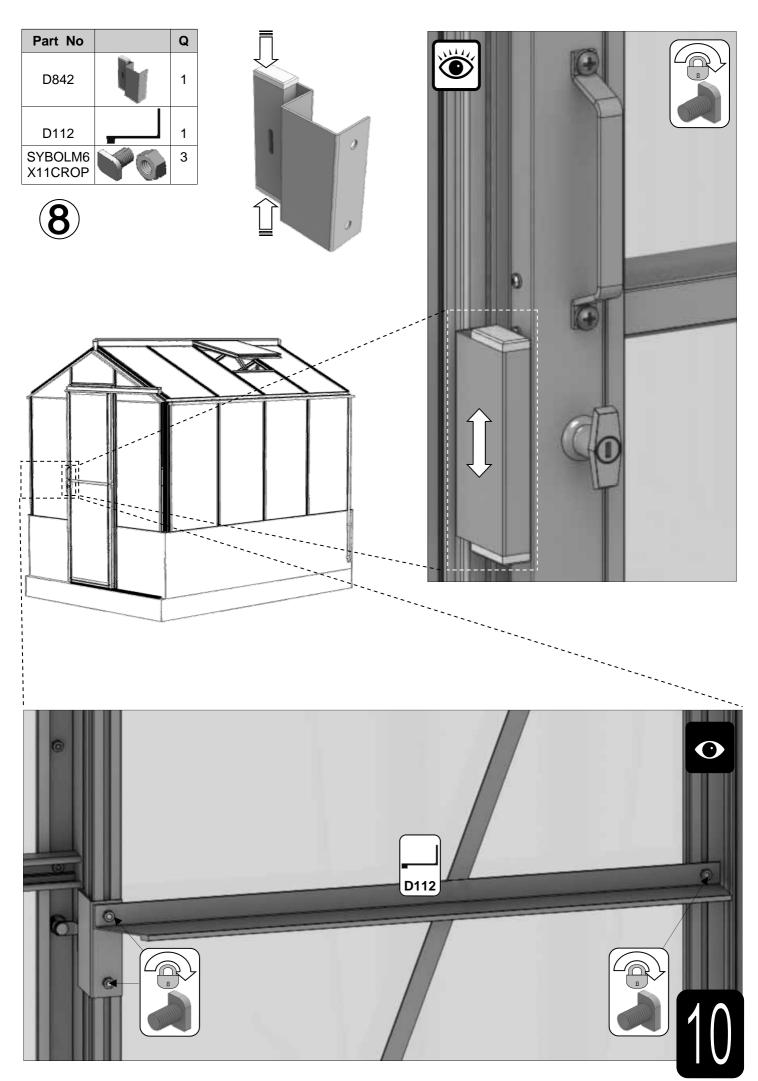




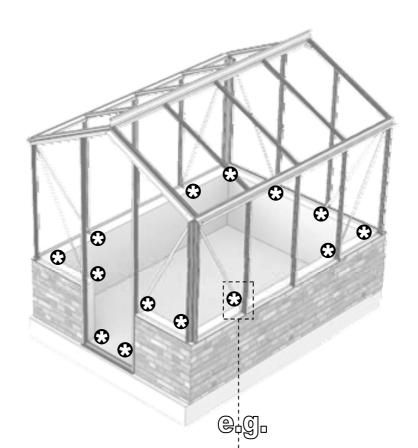


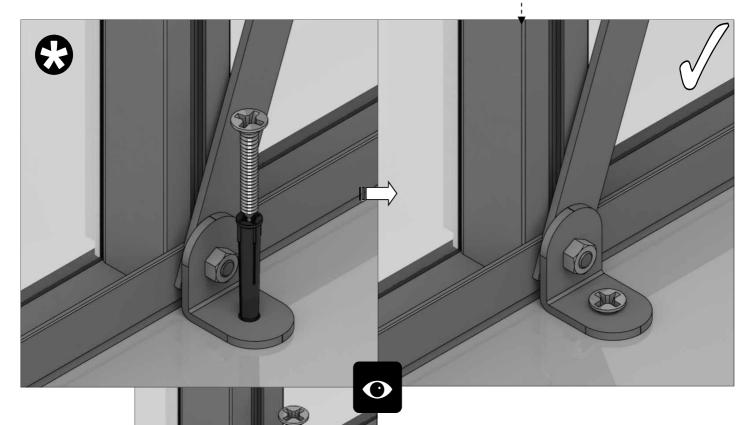






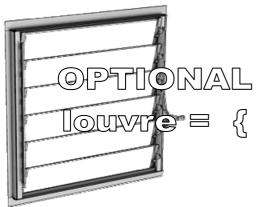






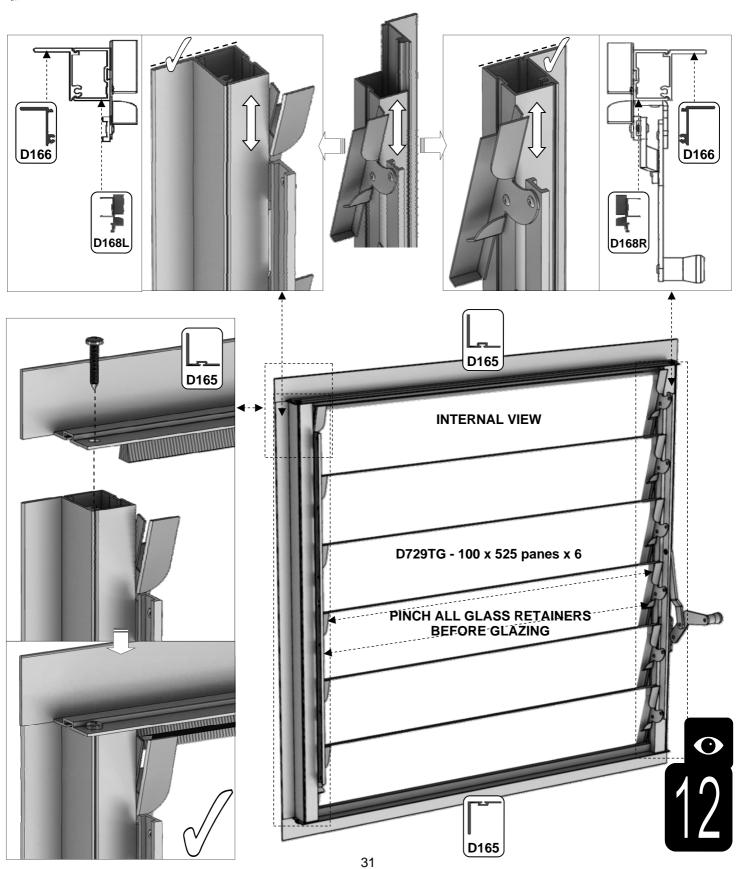


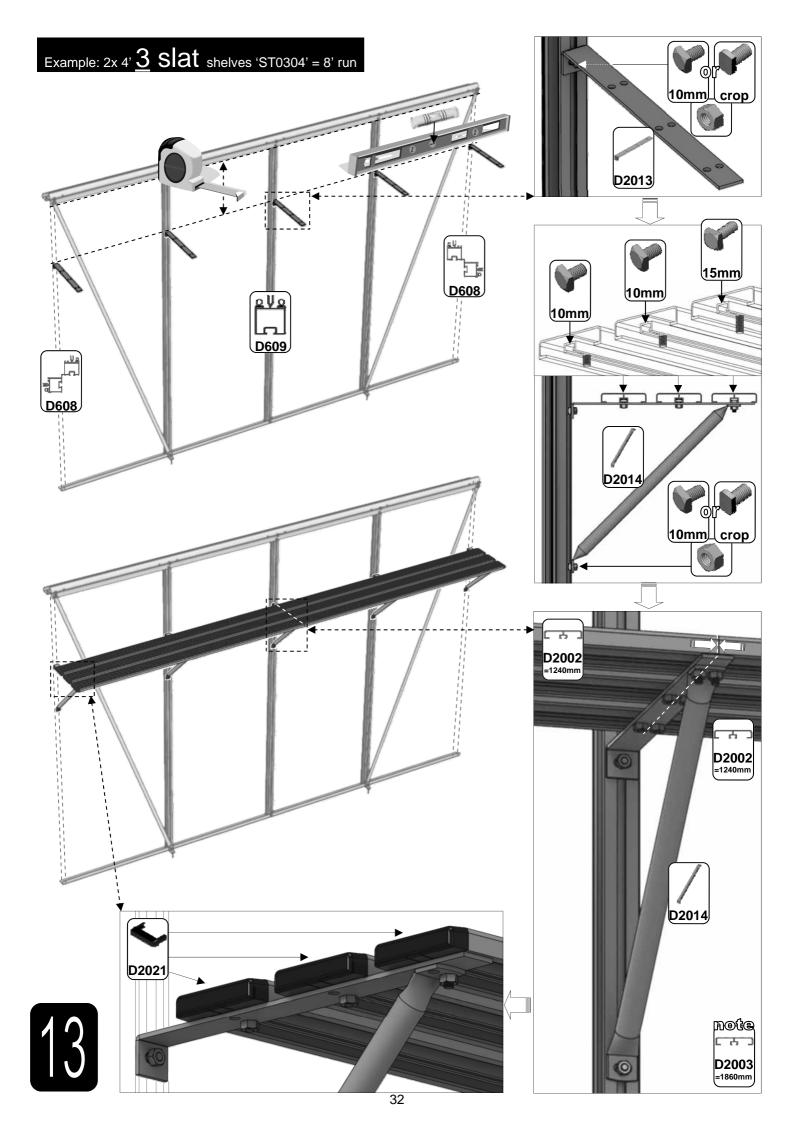


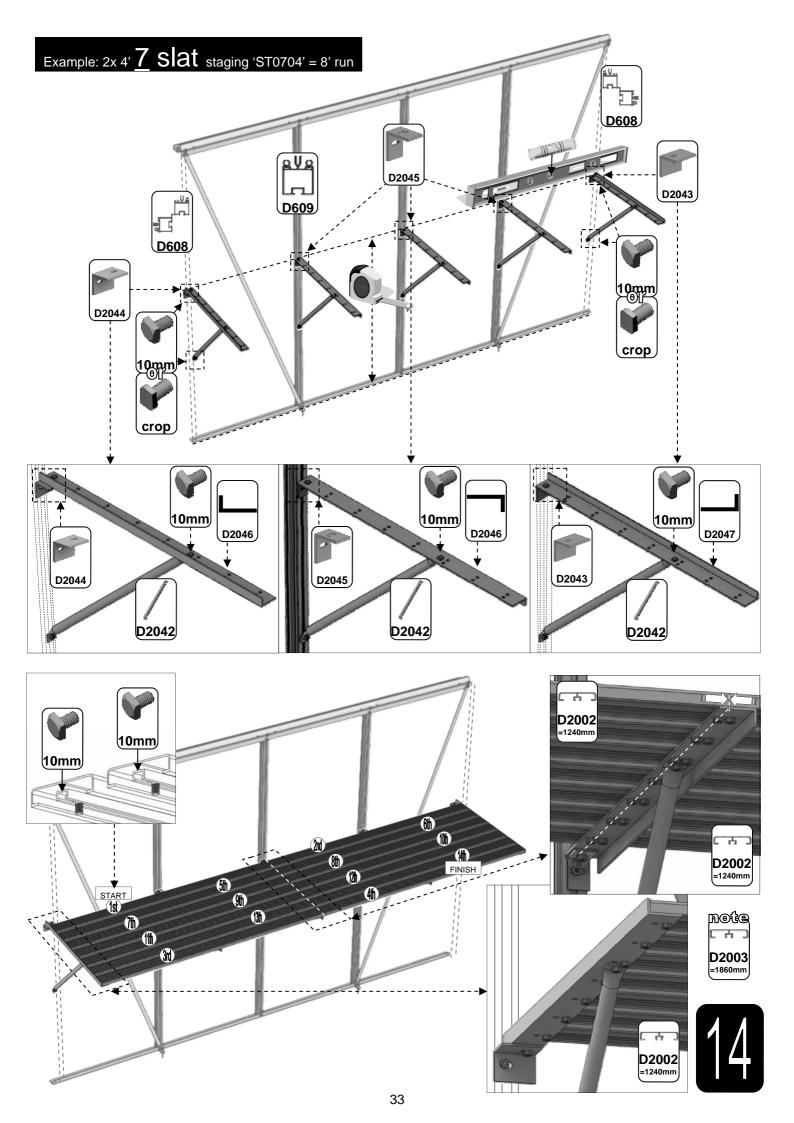


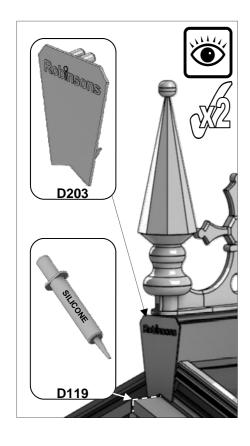
Part No		mm	Quantity
D168L		552	1
D168R (handle)	<b>予</b> <del>*</del>	552	1
D165		612	2
D166	<b>_</b> "	552	2
FS6013	6	12	4

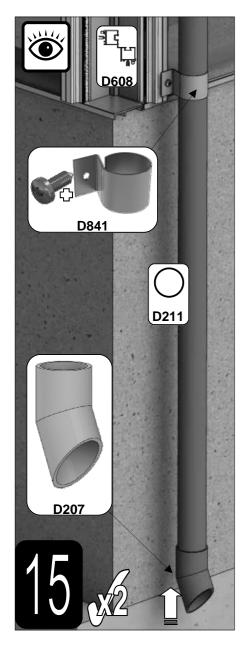


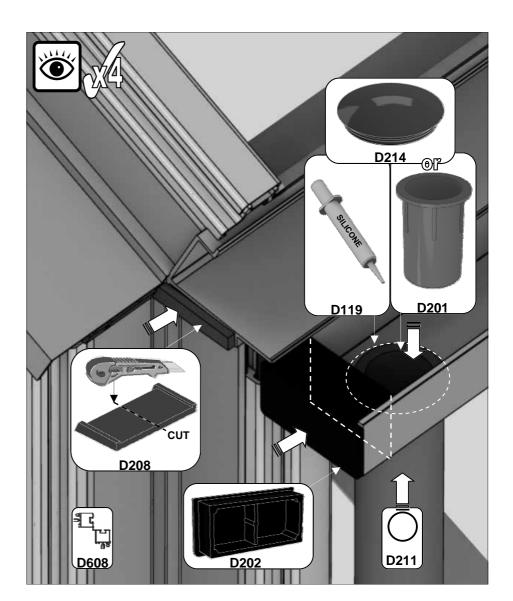


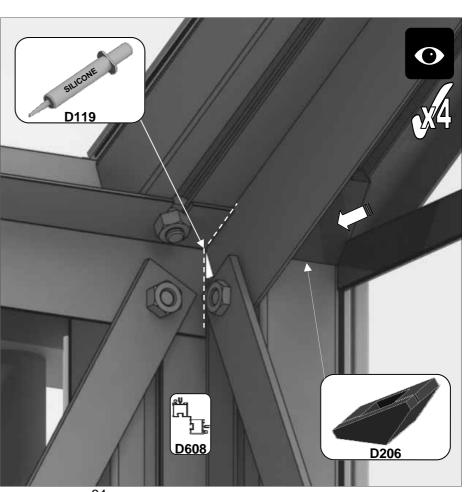






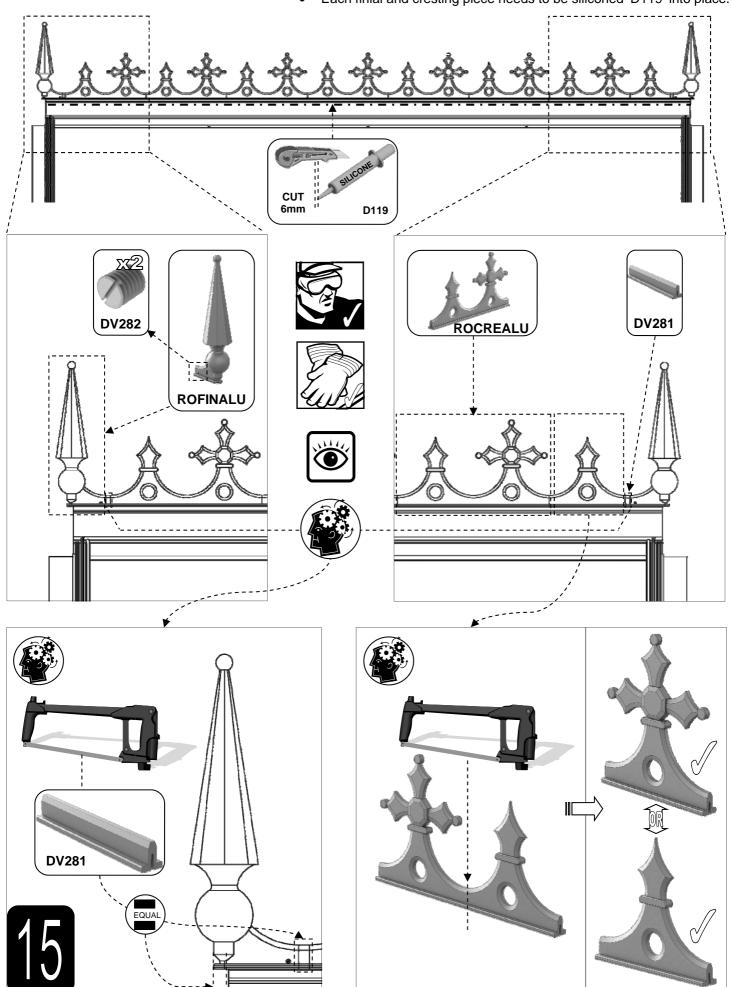






# OPTIONAL cresting = {

- End finials need to be pinched onto ridge using 'DV282' grub screws. Depending on your ridge length a half cresting may need to be cut or/ and some spacer bar 'DV281' cut into two equal sections.
- Each finial and cresting piece needs to be siliconed 'D119' into place.



Please be aware that this is a 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. Whilst the information contained in this booklet is accurate at the time of publication, changes in the course of Robinsons policy of improvement through development and design might not be indicated. We point out this fact to avoid any infringements of the Trade Descriptions Act and also to advise that Robinsons Greenhouses reserve the right to change specifications and materials without prior notice.

In addition any photographs of completed buildings would be most appreciated to add to our portfolio.

THIS GREENHOUSE BOX WAS PACKED BY:	DATE:	