## 608/610/612 ALUMINIUM LEAN TO



## GLAZNG SAHETY

Slandard hortcularal glass is the mosi cost-efiedive thoice for your greenhouse, but has shate efges and is dangerots if broten Most gecthouses ate axallable with sallety glazing in polycotbouate or toughened glass and we strotaly recomend you to choose one of these options, especialy if the greenhouse is to be siled 如 a public location, of where young chitidera may be present.

## Introduction

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## Foreword

Read through this manual carefully before beginning work. It is essential that the correct building procedure is followed to ensure that the greenhouse structure is safely and properly built.

NB: If you wish to achieve a watertight seal between greenhouse and wall (and possibly hardstanding) you will need to seal the joint with mastic (which is included in this kit).

## Safety tips

1. Extreme care should be taken when handling glass.
2. When glazing it is advisable to wear some head protection, gloves and strong shoes - safety glasses are strongly recommended.
3. Do not, under any circumstances, climb stepladders whilst carrying glass - get an assistant to hand you each piece in turn.
4. When fixing glass into the aluminium sections with spring wire glazing clips, hold the clips in position with one hand and spring the legs of the clips into the retaining groove with the other.

PLEASE NOTE that the Spring Wire Glazing Clips are in a tensioned state during and after fitting. Great care should therefore be taken in seating them securely into the aluminium retaining groove.
5. Attention! Do not walk over the glazed roof as the glass panes and the frame are unable to withstand the weight.

## User notes

1. Close and secure all windows and doors when strong winds are experienced or forecast.
2. Always replace immediately broken or damaged panes of glass.
3. Periodically lubricate the door rollers.
4. Always take great care when using a rotary mower in close proximity to the greenhouse as small stones can easily be thrown in the air and may break the glass.

## Assembly tips

All the following diagrams and illustrations are viewed from the inside of the greenhouse, unless otherwise stated. It is easier to construct the greenhouse by working from the inside.

## Hygiene

The greenhouse glass should be kept clean, to ensure the maximum amount of light can pass through to assist plant growth.

The framework should be sterilised each year to remove spores and diseases (Jeyes Fluid or similar is ideal for this purpose). All plant containers should be washed before use.

## Exploded view

VENT


ROOF


DOOR



END GABLE


SIDE


DOOR GABLE


## Lean To 610 Greenhouse

Pos. Oty. Description
Na.

| 01 | 04 | Side glazing bar |
| :---: | :---: | :---: |
| 02 | 01 | Gutter |
| 03 | 01 | Base sill - side |
| 04 | 02 | Diagonal bracing - side |
| 05 | 01 | Comer post - night |
| 06 | 01 | Base sill - rear |
| 07 | 01 | intermediate glazing bar $\sim$ right |
| 08 | 04 | Diagonal bracing - front \& rear |
| 09 | 02 | Eaves gusset plate |
| 10 | 01 | Horizontal brace - rear |
| 11 | 01 | Corner post - left |
| 12 | 01 | Inter glazing bar |
| 13 | 01 | Gable bar - right |
| 14 | 01 | Gable bar - left |
| 16 | 01 | Door post - right |
| 17 | 01 | Door post - left |
| 18 | 01 | Base sill - front |
| 19 | 02 | Horizontal brace - front |
| 20 | 01 | Door lintel \& track |
| 22 | 01 | Aidge bar |
| 23 | 04 | Roof glazing bar |
| 24 | 02 | Vent head |
| 25 | 04 | Vent side |
| 26 | 02 | Vent sill |
| 27 | 02 | Vent trimmer/stay keeper |
| 28 | 02 | Door stile |
| 29 | 01 | Door rail - top |
| 30 | 01 | Door rail - centre |
| 31 | 01 | Door rail m bottom |
| 32 | 01 | Door rail - intermediate |
| 33 | OT | Lintel support bracket |
| 34 | 01 | Lintel end bracket |
| 35 | 01 | Wall post - left |
| 36 | 01 | Wall post - right |
| 37 | 02 | Roof purlin |
| 42 | 02 | Glazing Strip |
| 43 | 90 | 'Z' clips |
| 44 | 250 | Spring wire glazing clip |
| 45 | 01 | Door seal |
| 46 | 02 | Door roller with bolt \& nut |
| 47 | 01 | Door track closure cap - left |
| 47 | 01 | Door track closure cap - right |
| 48 | 01 | Door handle (pair) |
| 50 | 129 | Square head bolt M6×12 |
| 51 | 129 | Hexagonal nut M6 |
| 52 | 02 | Door stop |
| 53 | 01 | Aainwater outlet - left |
| 54 | 01 | Rainwater outlet - right |
| 55 | 01 | 10 mmm spanner |
| 56 | 01 | Assembly instructions |
| 58 | 01 | Mastic wall sea |
| 62 | 01 | Front glazing bar |
| 72 | 02 | Casement stay |
| 73 | 04 | Casement stay screws |
|  | 02 | Flat horizontal brace |

## Lean To 612 Greenhouse

| Pos. Oty No. |  | Description | Ref. No. | Length mm |
| :---: | :---: | :---: | :---: | :---: |
| 01 | 05 | Side glazing bar | SRO53 | 1494 |
| 02 | 01 | Gutter | RG028 | 3728 |
| 03 | 01 | Base sill - side | SIL023 | 3728 |
| 04 | 02 | Dagonal bracing - side | 1032 | 1605 |
| 05 | 01 | Corner post - right | T020 | 1494 |
| 06 | 01 | Base sill - rear | S12006 | 1848 |
| 07 | 01 | Intermediate glazing bar - right | SR035 | 1985 |
| 08 | 04 | Diagonal bracing - front \& rear | L.009 | 1320 |
| 09 | 02 | Eaves gusset plate | F909 | - |
| 10 | 01 | Horizontal brace - rear | 1041 | 1832 |
| 11 | 01 | Corner post - left | T020 | 1494 |
| 12 | 01 | Inter glazing bar | SR033 | 1752 |
| 13 | 01 | Gable bar - right | T009 | 2005 |
| 14 | 01 | Gable bar - left | T009 | 2005 |
| 16 | 01 | Door post - right | PC014 | 1752 |
| 17 | 01 | Door post - lett | PC014 | 1752 |
| 18 | 01 | Base sill - front | Sl014 | 1848 |
| 19 | 02 | Horizontal brace - front | L002 | 612 |
| 20 | 01 | Docr lintel \& track | PB010 | 1230 |
| 22 | 01 | Ridge bar | RB028 | 3728 |
| 23 | 05 | Roof glazing bar | sp036 | 1995 |
| 24 | 02 | Vent head | TV001 | 635 |
| 25 | 04 | Vent side | TV030 | 606 |
| 26 | 02 | Vent sill | TV027 | 610 |
| 27 | 02 | Vent trimmer/stay keeper | TV016 | 638 |
| 28 | 02 | Door stile | PC007 | 1700 |
| 29 | 01 | Door rall - top | PA004 | 610 |
| 30 | 01 | Door rail - centre | PA006 | 610 |
| 31 | 01 | Door rail - bottom | PA009 | 610 |
| 32 | 01 | Door rail - intermediate | PA006 | 610 |
| 33 | 01 | Lintel support bracket | F833 | - |
| 34 | 01 | Lintel end bracket | F834 | - |
| 35 | 01 | Wail post - left | T016 | 2235 |
| 36 | 01 | Wall post - right | T016 | 2235 |
| 37 | 02 | Roof purlin | L046 | 3728 |
| 42 | 02 | Glazing Strip | FGLO10 | - |
| 43 | 100 | 'Z' cips | F214 | - |
| 44 | 278 | Spring wire glazing clip | F114 | - |
| 45 | 01 | Door seal | F905 | - |
| 46 | 02 | Door roller with bolt \& nut | F646 | * |
| 47 | 01 | Door track closure cap - leit | F647 | - |
| 47 | 01 | Door track closure cap - right | F847 | - |
| 48 | 01 | Door handle (pair) | F555 | - |
| 50 | 136 | Square head bolt M6 $\times 12$ | F018 | - |
| 51 | 136 | Hexagonal nut M6 | F018 | - |
| 52 | 02 | Door stop | F652 | - |
| 53 | 01 | Rainwater outlet-left | F853 | - |
| 54 | 01 | Rainwater outlet - right | F854 | - |
| 55 | 01 | 10 mm spanner | F655 | - |
| 56 | 01 | Assembly instructions | FM045 | - |
| 58 | 01 | Mastic wall seal | F908 | + |
| 62 | 01 | Front glazing bar | SR021 | 235 |
| 72 | 02 | Casement stay | F657 | - |
| 73 | 04 | Casement stay screws | F657 | - |
| 76 | 02 | Flat horizontal brace | M007 | 612 |

## Lean To 612 Greenhouse Royale

| Pos, Oty No. |  | Description | Ref. No. | Length mm |
| :---: | :---: | :---: | :---: | :---: |
| 01 | 05 | Side glazing bar | SR053 | 1494 |
| 02 | 01 | Gutter | RG028 | 3728 |
| 03 | 01 | Integral base - side | TB005 | 3728 |
| 04 | 02 | Dlagonal bracing - side | L032 | 1605 |
| 05 | 01 | Corner post - right | T020 | 1494 |
| 06 | 01 | Integral base - rear | TB010 | 1848 |
| 07 | 01 | Intermediate glazing bar - right | SR035 | 1985 |
| 08 | 04 | Diagonal bracing - Sront \& rear | L009 | 1320 |
| 09 | 02 | Eaves gusset plate | F909 | - |
| 10 | 01 | Horizontal brace - fear | 1.041 | 1832 |
| 11 | 01 | Corner post - ieft | T020 | 1494 |
| 12 | 01 | Inter glazing bar | Sp033 | 1752 |
| 13 | 01 | Gable bar \% right | T009 | 2005 |
| 14 | 01 | Gabie bar - left | 1009 | 2005 |
| 16 | 0 | Door post - right | PC014 | 1752 |
| 17 | 01 | Door post - left | PC014 | 1752 |
| 18 | 01 | Integral base - front | TB02) | 1848 |
| 19 | 01 | Horizontal brace - front | L002 | 612 |
| 20 | 01 | Door linter \& track | P8010 | 1230 |
| 22 | 01 | Midge bar | RB028 | 3728 |
| 23 | 05 | Poof glazing bar | SR036 | 1995 |
| 24 | 02 | Vent head | TV001 | 635 |
| 25 | 04 | Vent side | TV030 | 606 |
| 26 | 02 | Vent sill | TV027 | 610 |
|  | 02 | Vent trimmer/stay keeper | TV016 | 638 |


| PCO15 | 1715 |
| :--- | :--- |
| PA004 | 610 |

PA006 610

PA007 610
$\begin{array}{ll}\text { PA006 } & 610 \\ \text { F833 } & -\end{array}$
F834 -

| 1016 | 2235 |
| :--- | :--- |
| 7016 | 2235 |

10463728
FGL010
F214 -
F114 -
F905
F646 -
F647 -

F847 -
F555 -

F018 -
F655 -
F853 -

F854 -
F655
5601 Assembly instructions FMO45
5801 Mastic wall seal
5902 Black puc block
$60 \quad 04$ Starlock washers
6201 Front glazing bar
6402 Ground anchors
7202 Casement stay
7304 Casement stay screws
$76 \quad 02$ Flat horizontal brace
Fgos
F859 -
SRO21 235
F952
F657 -
F657
M007 612
F560

Profiles and fittings - Component identification

[ir


## Method of assembly

1. Before starting assembly, check against the components list shown to ensure that everything is there.
2. At this early stage it's useful to fit the glazing cord onto the roof glazing bars and gables before starting assembly.


## Assembly of front

This will run parallel with the wall of your house.

1. Set out components for side as shown in diagram below.
2. Slide two bolts into the channel at the back of the side glazing bars (1) and connect to base side (3) and eaves bar (2) (gutter). Ensure that a bolt is provided in each outside glazing bar to fasten bracing where it crosses glazing bar.
3. Bolt side diagonal braces (4) to base side (3) and eaves bar gutter (2). These should cross the glazing bars and be secured by the centrally positioned bolts.


Assembly of Rear gable end



## Assembly of Door gable end

The assembly procedure for this is similar to that for the rear gable end. You will note from the layout that the door gable end features a lintel and door track (20). Slide door seal (45) into retaining channel in door posts (16) and (17).

1. Locate two bolts through holes in wall post (36) to locate with lintel and door track (20).
2. Slide two bolts into channel of door posts (16) and (17) to locate with horizontal braces (19) and (76).
3. Position 6 bolts into holes of corner post (11), using lowermost bolt to connect corner post to base sill (18) (finger tight).
4. Bolt wall post (36) to base sill (18) (finger tight).
5. Bolt door post (16) and diagonal brace (8) to base sill (finger tight).
6. Loosely attach gusset plate (9) to top of corner post.
7. Fit free end of diagonal brace (8) onto fixing bolts and secure with nuts.
8. Also connect horizontal brace (19) \& (76) to door posts (16) and (17) and corner post (11) and wallpost (36).
9. Secure gable bar (14) to gusset plate (9) with two bolts and nuts and to outside flange of wall post. Connect to door post
10. Loosely attach lintel end bracket (34) to wall post (36).
11. Offer door lintel (20) into position and secure through prepunched hole to gable bar (14). Align lintel end bracket (34) with pre-punched hole in lintel and fasten with bolt and nut.
12. Connect lintel support bracket (33) to lintel using three bolts as shown in diagram (finger tight).
13. Connect front glazing bar (62) to gable bar (14) and lintel support bracket (33). Finally connect top of door post (17) to lintel support bracket.
14. Check that the whole assembly is true and then fully tighten all nuts and bolts.




## Fixing of gabble ends to front section

1. Slide four bolts into each gable bar (13) and (14) channel (one at each end \& two near the middie) and secure with nuts (finger tight).
2. Slide two bolts into each corner post (5) and (11) channel (top \& bottom) and secure with nuts (finger tight).
3. Connect rear gable end to side section and bolt together at sill and eaves. Connect door gable end to side section in the same manner.
4. Locate ridge bar (22) so that siots at either end are opposite the channels in each gable bar. Secure with nuts and bolts.


## Ridge bar, roof glazing bars and vent trimmer

1. Take roof glazing bars (23) and slide two bolt/s into each channel and secure with nut. This will carry the purlins (37) when in position. Decide on where you want to feature your vent/s.
For each vent you must position a bolt with nut in the appropriate roof glazing bar channel to carry the vent trimmer (27).
2. Secure roof glazing bars (23) to ridge (22) and eaves (2) using square headed bolts and nuts through pre-punched holes provided.
3. Bolt the purlins (37) across roof glazing bars to gable ends. The longer flange of the purlin should be pointing downward. (See page 14-37*)


2


## Wall fixing

1. Ensure that a sound fixing can be made to the wall and drill holes in the ridge bar (22) (centrally between roof bars) and wall posts (35) and (36) (4 per post) to take a No. 10 screw.
2. Mark the position of the holes against the wall and drili the wall to take No. 10 rawplugs.
3. Apply mastic to rear face of ridge and wall posts.
4. The lean-to should then be secured to the wall with $11 / 2$ " $\times$ No. 10 round head screws.
5. Seal top of ridge and edge of wall posts before glazing.

Check that you avoid any sag in the centre of the ridge bar when fixing and avoid over tightening the screws as this may distort the bars.
Where the lean-to is being secured to an uneven wall surface it is best to place a timber support plate between the frame and wall.


## Vent Assembly

Stage 8
The vent assembly is made up of a vent hinge (24), two sides (25), a sill (26) and is glazed with a sheet of glass $610 \mathrm{~mm} \times 610 \mathrm{~mm}$.
Assemble casement stay (72) to vent sill (26) using screws (73).

1. Check that glazing cord is fitted to vent side pieces.
2. Place two bolts through the pre-punched holes in the hinge (24), slide both vent sides (25) over the bolt heads and secure with nuts.
3. Place two further bolts in the vent sides (25) and locate holes in vent sill (26) onto threads and secure with hexagonal nut.
4. Check that the vent is square and tighten the nuts all round.
5. Glaze the vent by using four steel spring wire glazing clips (44).
6. The vent hinge (24) fits into a receiving loop on the ridge. Apply lubricant to these sections and slide vent/s gently into place.
7. Secure vent trimmer (27) (loosely at this stage) to roof glazing bars using bolts previously positioned. Note that final position of trimmer (27) will be determined when roof glazing is complete.



## Glazing

Wait until you can glaze the entire lean-to in one session. Do not under any circumstances leave greenhouse partly glazed.

1. Check that you have fitted all glazing cord before you begin to glaze.

## Roof glazing

1. Begin by glazing the roof. Start from the gutter (2) and proceed to clip each pane of glass with four steel spring wire glazing clips.
2. Fit two glass support clips (43) to each upper edge of panel and seat next pane within support clips. Clip in similar manner as before.

Always complete one bay before starting next.

## Sides

1. Proceed to glaze sides and gable ends starting at base using 4 clips per pane of glass.


## Anchoring of lean to

Where the greenhouse is sited on a concrete, paved or other solid surface, the sill should be secured to the solid surface with screws and plugs. The same will apply to the Royale models if on a hard standing, you will in this instance not be able to use the ground anchors as supplied, but you will need to cut off the top of the ground anchors to use as corner brackets.

## Plastic end stops



## Glazing plans







## GLASS PACK QUANTITIES



## Door Assembly

Stage 10

1. Lay out the door components - two stiles (28), top rail (29) and bottom rail (31) and central rails $30 \& 32$.
2. Fit two door rollers to top ral (29) as shown in the diagram. Apply a little light oil to each roller (46).
3. Loosely bolt top (29) and bottom rails (31), and central ralls (30) and (32), to stiles (28) as shown. The top rall (29) should int closely to the top of the sides (28).
4. Check that you have fitted glazing strip.
5. Glaze with three panes of glass using spring glazing clips.
6. Tighten all nuts and bolts.
7. Hang the door by inserting the rollers into the door track (20) and locating door guides (Royale oniy) on the lower flange of the front sill (18). Adjust door rolers to ensure smooth running and correct alignment of door with door posts (16).
8. Bolt the door handes (48) to centre door rail (30) through hole provided.

We strongly recommend that you fit a protective guard - e.g. stout mesh on supporting frame - at the eaves of your house to prevent snow or tiles faling onto your lean-to from your roof.



## 12 YEAR WARRANTY

Eden Halls Greenhouses Ltd. hereby agrees (subject to satisfaction of the Conditions referred to below) to make good free of charge by replacement or repair (at our election) any defects which we shall discover upon examination to be due to be faulty materials, components or workmanship which may appear in our greenhouse kits within 12 years of the date of despatch from our factory.

## CONDITIONS OF WARRANTY CLAIM

(Each of which must be fulfilled before any warranty claim shall arise.)

1. That the claim is not attributable to any fault or damage arising from impact, modification, inappropriate use or treatment, incorrect handling or exposure to corrosive conditions, or the greenhouse being kept or installed other than under normal conditions, or to war, or act of God.
2. That the greenhouse must not have been repaired or serviced by any other than a qualified person employed by us.
3. That our instructions as to the assembly and the use of the greenhouse and its base have been strictly complied with.
4. That the claim is made by you as the original customer for your benefit.
5. That the detailed claim is notified to us in writing within 30 days of the date of discovery thereof.

## GENERAL CONDITIONS OF WARRANTY

1. This warranty does not cover the cost of labour for the removal and replacement of any parts or parts replaced free of charge; such costs being the liability of the customer.
2. This warranty is only applicable to the greenhouse aluminium framework and ancillary parts forming the kit despatched and specifically excludes glass breakage.
3. This warranty is personal to you and is incapable of transfer and/or assignment.
4. This warranty does not extend beyond the cost of any faulty component referred to above.
5. This warranty applies in the United Kingdom only.

## CUSTOMER SERVICES

We have taken every care in the manufacture of this product to ensure that it gives complete satisfaction. In the unlikely event that damage has occurred in transit, or a shortage of components is evident, please complete the details below and return to:
Eden Greenhouses Ltd.
Customer Services Dept.
The Distribution Centre
Stoke Orchard
Cheltenham, Glos. GL52 7RS
For free of charge replacement, notification of shortages or damage must be made to us using this form within ten days.

| Name: | Initials: |
| :--- | :--- |
| Address: |  |
| Telephone: |  |
| Date: | Product purchased: |
| Proof of purchase attached: | Date of purchase: |
| Supplier: |  |
| Description of complaint/shortage: |  |

PACKING LIST FOR LEAN TOS
608608 Royale 610610 Royale 612612 Royale

| FRONT BASE | 1 | 1 | 1 | 1 | 1 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| REAR BASE | 1 | 1 | 1 | 1 | 1 | 1 |
| SIDE BASE | 1 | 1 | 1 | 1 | 1 | 1 |
| PURLIN | 2 | 2 | 2 | 2 | 2 | 2 |
| RIDGE BAR | 1 | 1 | 1 | 1 | 1 | 1 |
| FRONT SECTION | 1 | 1 | 1 | 1 | 1 | 1 |
| REAR SECTION | 1 | 1 | 1 | 1 | 1 | 1 |
| SIDE SECTION | 1 | 1 | 1 | 1 | 1 | 1 |
| DOOR RAILS | 4 | 4 | 4 | 4 | 4 | 4 |
| DOOR STILES (2) SIZE EN MM | 1700 | 1715 | 1700 | 1715 | 1700 | 1715 |
| ROOF GLAZING BARS | 3 | 3 | 4 | 4 | 5 | 5 |
| VENT ASSEMBLY | 1 | 1 | 2 | 2 | 2 | 2 |
| DOORKIT \& Z' CLIPS | 80 | 80 | 90 | 90 | 100 | 100 |
| NUTS \& BOLTS | 118 | 118 | 129 | 129 | 136 | 136 |
| SPRING WIRE GLAZING CLIPS | 222 | 222 | 250 | 250 | 278 | 278 |
| GLAZING CHANNEL | 64 m | 64 m | 84 m | 64 m | 81m | 81 m |
| SEALANT | 1 | 1 | 1 | 1 | 1 | 1 |
| GROUND ANCHORS |  | 2 |  | 2 |  | 2 |
| INSTRUCTION MANUAL | 1 | 1 | 1 | 1 | 1 | 1 |
| EMM/106/06/97 |  |  |  |  |  |  |

